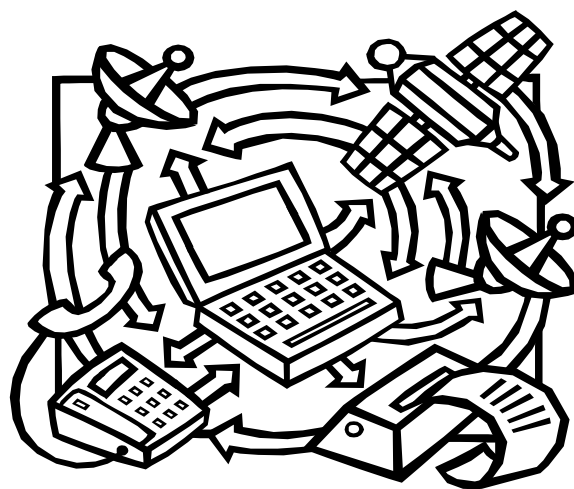


TECHNICAL TRANSLATION

IN EVERYDAY LIFE



◆ TSTU Publishing House ◆

Министерство образования и науки Российской Федерации
Тамбовский государственный технический университет

**ТЕХНИЧЕСКИЙ ПЕРЕВОД
В ПОВСЕДНЕВНОЙ ЖИЗНИ**

Учебное пособие

Тамбов
◆ Издательство ТГТУ ◆
2004

УДК 802.0
ББК Ш13(Ан)-923
М15

Р е ц е н з е н т

Кандидат педагогических наук, доцент

Т.Г. Бортникова

Доктор педагогических наук

О.А. Артемьева

М1 Технический перевод в повседневной жизни:
5 Учебное пособие для студентов инженерно-технических специальностей / Авт.-сост.: М.Н. Макеева, С.В. Начерная, О.В. Чуксина. Тамбов: Изд-во Тамб. гос. техн. ун-та, 2004. 160 с.

В пособии представлены не только оригинальные технические тексты, но также теоретический материал по основным аспектам переводческой практики и лексико-грамматическим трудностям перевода.

Рекомендовано студентам технических специальностей, изучающим английский язык, магистрантам и аспирантам.

УДК 802.0
ББК Ш13(Ан)-923

ISBN 5-8265-0337-8

© Макеева М.Н., Начерная С.В.,
Чуксина О.В., 2004

© Тамбовский государственный
технический университет (ТГТУ), 2004
УЧЕБНОЕ ИЗДАНИЕ

МАКЕЕВА Марина Николаевна,
НАЧЕРНАЯ Светлана Владимировна
ЧУКСИНА Оксана Владимировна

ТЕХНИЧЕСКИЙ ПЕРЕВОД В ПОВСЕДНЕВНОЙ ЖИЗНИ

Учебное пособие

Редактор И. А. Денисова

Технический редактор М. А. Евсейчева

Инженер по компьютерному макетированию М. Н. Рыжкова

Подписано к печати 23.11.2004
Формат 60 × 84 / 16. Бумага офсетная. Печать офсетная
Гарнитура Times New Roman. Объем: 9,3 усл. печ. л.; 9,0 уч.-изд. л.
Тираж 150 экз. С. 790^М

Издательско-полиграфический центр
Тамбовского государственного технического университета
392000, Тамбов, Советская, 106, к. 14

CONTENTS

Предисловие		4
.....		
Introduction to the theory of technical translation		5
.....		
Lesson	1	19
.....		
Lesson	2	26
.....		
Lesson	3	34
.....		
Lesson	4	41
.....		
Lesson	5	47
.....		
Lesson	6	56
.....		
Lesson	7	62
.....		
Lesson	8	73
.....		
Lesson	9	79
.....		
Lesson	10	90
.....		
Lesson	11	97
.....		
Lesson	12	104
.....		
Lesson	13	113
.....		
Lesson	14	118
.....		
Lesson	15	126
.....		
Lesson	16	134
.....		
Lesson	17	141
.....		
Lesson	18	149
.....		
Список	литературы	159

ПРЕДИСЛОВИЕ

Настоящее пособие предназначено для использования на занятиях по техническому переводу студентами 1-2 курсов инженерно-технических специальностей.

Цель учебного пособия – развитие у студентов навыков и умений письменного перевода с английского языка на русский оригинальных научно-технических текстов, расширение словарной базы. При подборе текстов авторы предусматривали прежде всего лексику, необходимую для дальнейшей самостоятельной работы студентов над специальной литературой. В пособии использованы как учебные тексты, так и оригинальные тексты научно-популярного и научно-технического характера. Материалы в некоторых случаях сокращены, но не адаптированы.

Во введении содержится основная теоретическая информация о научно-техническом переводе и его видах, лексических и грамматических особенностях научного стиля, перечисляются основные трансформации, используемые в процессе перевода.

Учебное пособие состоит из 18 уроков, имеющих общую структуру. В начале каждого урока для перевода приводится учебный текст общенаучной тематики. Для более прочного усвоения лексики предлагается перевести краткую аннотацию этого текста на английский язык. Для развития навыков редактирования машинного перевода дается небольшой текст научно-популярной тематики с версией машинного перевода. Это позволит выявить буквализмы и вольности машинного перевода. Предлагается задание на сопоставление параллельных текстов оригинала и перевода, критический анализ использованных переводческих приемов. Имеет место задание на восстановление целого текста перевода из отдельных сегментов. В конце каждого урока для перевода на русский язык предусматриваются технические спецификации и руководства по эксплуатации различных электрических бытовых приборов.

INTRODUCTION TO THE THEORY OF TECHNICAL TRANSLATION



Научно-технический перевод и его виды

Специфика научно-технического перевода заключается, прежде всего, в том, что он имеет дело с особой сферой человеческой деятельности – различными областями науки и техники, для выражения которых существуют определенные лексические, грамматические и стилистические средства языка.

Типы научно-технических переводов:

1. перевод научной литературы – перевод фундаментальной литературы по науке и технике – монографии, книги, учебники, диссертации;
2. перевод научно-технической литературы – перевод статей из научно-технических журналов и сборников, докладов на конференциях, патентных документов, отчетов;
3. перевод производственно-технической литературы – перевод документов производственного назначения (инструкций по эксплуатации, технических справочников, руководств, каталогов машин и приборов, документов);
4. перевод научно-популярной литературы – перевод научно-технической литературы в адаптированном виде и популярном изложении для массового читателя.

Научно-технический перевод требует хорошего знания языка перевода и оригинала. Поскольку научно-технический перевод связан с определенной областью науки и техники, он требует хорошего знания предмета, описываемого в оригинале, а также знания методики и техники перевода.

Основные требования, которым должен удовлетворять перевод:

1. точная передача текста оригинала;
2. строгая ясность изложения смысла при максимально сжатой и лаконичной форме, присущей стилю русской научно-технической литературы.



Лексические особенности научного стиля

Лексические особенности научного стиля – обилие терминов, служебных и вводных слов, частое употребление сокращений, лексических новообразований, реалий.

Значительную роль в научной и технической литературе играют служебные (функциональные) слова, создающие логические связи между отдельными элементами высказываний. Это предлоги и союзы (в основном составные) типа: on, upon, in, after, before, besides, instead of, in preference to, apart (aside) from, except (for), save, in addition (to), together with, owing to, due to, thanks to, according to, because of, by means of, in accordance with, in regard to, in this connection, for the purpose of, in order to, as a result, rather than, provided, providing, both... and, either... or, whether... or (not). Кроме того, в научной и технической литературе часто употребляются наречия типа: however, also, again, now, thus, alternatively, on the other hand, являющиеся неотъемлемыми элементами развития логического рассуждения.

Под реалиями научно-технической литературы принято называть названия фирм, предприятий, марок оборудования, местонахождения предприятий. Реалии, как правило, не переводятся, а даются в тексте перевода в их оригинальном написании или в транслитерации. Географические названия и общеизвестные имена собственные приводятся в русской транскрипции.



Особенности перевода терминов

Термины – это слова или словосочетания, которые имеют строго определенное значение в той или иной области науки и техники. Они точно выражают понятия, процессы и названия вещей, присущие какой-либо отрасли производства. Все термины делятся на простые, сложные и словосочетания. Выделяют общенаучные и общетехнические термины, отраслевые и узкоспециальные термины. Общенаучные термины – это термины, которые используются в нескольких областях науки и техники. Отраслевые термины – это термины, присущие только одной какой-либо отрасли знания. Узкоспециальные термины – это термины, имеющие значения, характерные для какой-либо специальности данной отрасли.

При работе с лексикой английской научно-технической литературы наибольшую трудность для понимания составляют многокомпонентные термины, созданные лексическим и синтаксическим способом, т.е. представляющие собой словосочетания, образованные по определенным моделям. Термины в виде цепочки слов очень распространены. При их переводе необходимо уяснить, в каком порядке следует раскрывать значение данного словосочетания. В беспредложном терминологическом словосочетании главным словом является последнее слово. Все слова, стоящие слева от него играют второстепенную роль – роль определения. Перевод беспредложных терминологических словосочетаний надо начинать с главного слова. Пример: life test – испытание на срок службы. Рассмотрим основные типовые формы образования терминов.

1. Терминологические словосочетания, состоящие из существительных.

Пр и м е р: *antenna gain* – коэффициент усиления антенны.

2. Терминологические словосочетания, состоящие из прилагательных и существительных.

Пр и м е р: *allowable power* – допустимая мощность.

3. Терминологические словосочетания, состоящие из причастий и существительных.

Пр и м е р: *alternating current* – переменный ток.

4. Терминологические словосочетания, состоящие из трех компонентов: наречие + причастие (или прилагательное) + существительное.

Пр и м е р: *directly fed antenna* – антенна с непосредственным питанием

5. Терминологические словосочетания, состоящие из трех компонентов: существительное + прилагательное + существительное.

Пр и м е р: *voltage-sensitive device* – прибор, реагирующий на напряжение.

6. Терминологические словосочетания, состоящие из трех компонентов: существительное + причастие + существительное.

Пр и м е р: *noise measuring channel* – контрольный канал для измерения шума.

7. Терминологические словосочетания, включающие инфинитив.

Пр и м е р: *ready-to-receive signal* – сигнал готовности к приему.

8. Предложные терминологические словосочетания характеризуются тем, что главное слово стоит до предлога, а слова, стоящие за предлогом, играют роль определения.

Пр и м е р: *noise in parts of radio links* – шум на участках радиолиний.



Грамматические особенности научного стиля

Грамматика научного стиля характеризуется частым употреблением причастных и деепричастных оборотов, простых, распространенных и сложноподчиненных предложений. Основной формой предложений в научной и технической литературе служат сложносочиненные и сложноподчиненные предложения. Это обуславливает широкое употребление составных предлогов и союзов, а также неличных форм глагола в функции дополнения и обстоятельства и соответствующих инфинитивных, причастных и герундиальных оборотов. Стилистические особенности – изложение материала от первого лица множественного числа, четкость формулировок, отсутствие экспрессивных, эмоциональных и образных оборотов.

Приведем примеры перевода некоторых грамматических конструкций на русский язык.

Основные способы перевода страдательного залога

Если сказуемое выражено глаголом в страдательном залоге, то подлежащее не выполняет действия, а подвергается действию, выраженному этим глаголом. При переводе на русский язык страдательную конструкцию можно передать следующими способами.

Русской формой страдательного залога данного глагола в соответствующем времени, лице и числе:

The paper was written last year. Статья была написана в прошлом году.

Возвратной формой глагола на «-ся», «-сь» в соответствующем времени, лице и числе:

The excavations were made on the left side of the hill. Раскопки производились на левой стороне холма.

Неопределенно-личной формой глагола действительного залога в соответствующем времени в 3-м л. мн. ч.:

The excavation was made with great care. Раскопку производили с большой осторожностью.

Личной формой глагола в действительном залоге (такой перевод возможен только в том случае, если указано лицо, производящее действие, т.е. если в предложении есть дополнение с предлогом by):

These papers were written by one and the same author. Эти работы писал один и тот же автор.

Особенности перевода безличных конструкций в страдательном залоге

Наиболее употребительны следующие модели безличной страдательной конструкции:

It is said that ... Говорят, что ...

It is expected that ... Ожидают (ожидается), что ...

It is known that ... Известно, что ...

It must be stressed that ... Следует (нужно) подчеркнуть, что ...

It cannot be denied that ... Нельзя отрицать (того), что ...

It should be remembered that ... Следует помнить, что ...

Let it be stressed that ... Следует подчеркнуть, что ...

Безличные конструкции, употребленные в качестве вводного члена предложения, возможны как с формальным *it*, так и без него:

As it is readily seen from the text ... Как можно легко заметить из текста ...

Основные способы перевода инфинитивных конструкций

В английском языке имеется четыре формы инфинитива, которые соответствуют четырем группам времен: *Infinitive Indefinite*, *Infinitive Continuous*, *Infinitive Perfect* и *Infinitive Perfect Continuous*. Инфинитивы *Indefinite* и *Perfect* имеют, кроме того, форму страдательного залога.

В научной литературе наиболее употребительны формы *Indefinite* и *Perfect* действительного и страдательного залога.

Перевод каждой формы инфинитива в отдельности затруднителен, а иногда и просто невозможен, так как полное соответствие в русском языке имеют только формы *to read* – *читать* и *to be read* – *быть прочитанным (читаемым)*. Однако и эти формы не всегда могут быть переведены инфинитивом. Точные видовременные значения сложных форм инфинитива полностью выявляются лишь в контексте.

Частица *to*, почти постоянно предшествующая инфинитиву, может служить удобным признаком для отыскания его в предложении, например, в тех случаях, когда инфинитив по форме совпадает с существительным или прилагательным, например; *experiment* – *to experiment* (эксперимент – экспериментировать); *fashion* – *to fashion* (вид, форма – придавать форму).

В ряде случаев, однако, инфинитив употребляется без *to*:

1) после модальных и вспомогательных глаголов *must*, *can*, *could*, *may*, *might*, *shall*, *should*, *will*, *would*, *need*, *dare*;

2) в обороте «объектный падеж с инфинитивом» после глаголов чувства и восприятия (например: *I heard him speak* – Я слышал как он говорит);

3) после сочетаний *had better* – *лучше бы*, *would rather (sooner)* – *предпочел бы* (например: *You had better begin now* – Начните лучше сейчас);

4) после глаголов *to let* – *разрешать, позволять, давать* и *to make* – *заставлять* (например: *Let me pass, please* – Позвольте мне пройти, пожалуйста; *It made him laugh* – Это заставило его рассмеяться).

Инфинитив в предложении может быть подлежащим, обстоятельством, определением, дополнением, а также входить как составная часть в сказуемое – именное и глагольное. Будучи частью сложного дополнения, инфинитив образует оборот «объектный падеж с инфинитивом», а с предлогом *for* – инфинитивный оборот «*for*-phrase». Инфинитив может входить в состав сложного сказуемого, образуя оборот «именительный падеж с инфинитивом», а также употребляться как вводный член предложения.

Инфинитив в функции подлежащего. Инфинитив является подлежащим, если стоит в начале предложения, отвечает на вопрос «что? что делать?», а непосредственно за подлежащим или за относящимися к нему словами следует сказуемое:

To understand this author is not easy. Понять этого автора нелегко.

Инфинитив в функции подлежащего переводится инфинитивом или соответствующим отглагольным существительным:

To accomplish this work requires great skill. Выполнение этой работы требует большого умения.

Инфинитив в функции обстоятельства цели отвечает на вопрос «для чего?, для какой цели?». Он расположен в начале или в конце предложения и иногда вводится союзами *in order (to)* – *чтобы, для того чтобы*; *so as (to)* – *с тем чтобы*:

He has gone to England (in order) to perfect his knowledge of English.

Инфинитив в функции обстоятельства следствия обычно стоит в конце предложения. Характерным признаком его служат наречия (*too* – *слишком*, *enough*, *sufficiently* – *достаточно*), расположенные перед прилагательным или наречием, за которыми следует инфинитив с частицей *to*.

Инфинитив следствия переводится союзом «чтобы» с последующим инфинитивом. Все предложение нередко приобретает модальное значение возможности (или невозможности), которое в русском языке выражается употреблением слов «можно», «может» и т.п.:

The finds are too few to be spoken about. Находок слишком мало, чтобы о них (можно было) гово-

речь.

Инфинитив следствия может также вводиться союзом *as* с предшествующими наречиями *so* или *such*:

The rule has been so formulated as to be easily observed by everybody. Правило было сформулировано таким образом, чтобы все могли легко его соблюдать.

Инфинитив в функции определения следует за определяемым словом (обычно это существительное), имеет форму действительного или страдательного залога и отвечает на вопрос «какой?». В русском языке инфинитиву в функции определения соответствует определительное придаточное предложение, начинающееся словами «который», «кто».

Инфинитив в функции определения чаще всего имеет модальный оттенок необходимости, возможности или приобретает значение будущего времени и переводится с добавлением слов «необходимо», «следует», «можно (нельзя)» или глаголом в будущем времени:

This is the main difficulty to be taken into consideration. Это – основная трудность, которую нужно учитывать.

This is a rule not to be forgotten. Это – правило, которое не следует (нельзя) забывать.

Here is the text to be read by us next time. Вот текст, который мы будем читать в следующий раз.

Оборот «объектный падеж с инфинитивом» переводится дополнительным придаточным предложением с союзами «что», «чтобы», «как». При переводе существительное или местоимение становится подлежащим, а инфинитив – сказуемым русского придаточного предложения.

При переводе следует обращать внимание на форму предшествующего глагола и на форму самого инфинитива.

Infinitive Indefinite переводится глаголом в настоящем или прошедшем времени, *Infinitive Perfect* – прошедшем временем глагола.

После глаголов *to expect*, *to hope* инфинитив в большинстве случаев переводится будущим временем:

We expect this book to appear on sale very soon. Мы ожидаем, что эта книга очень скоро появится в продаже.

Оборот «именительный падеж с инфинитивом» (инфинитив в составном глагольном сказуемом – *Complex Subject*). Оборот «именительный падеж с инфинитивом» образуется из подлежащего (существительного или местоимения) и сложного сказуемого, состоящего из глагола в личной форме и инфинитива.

Особенность оборота состоит в том, что действие, выражаемое инфинитивом, относится к подлежащему, а стоящий перед ним глагол указывает на отношение к этому действию со стороны говорящего или вообще неуказанного лица.

При переводе на русский язык английское подлежащее переводится подлежащим, инфинитив – сказуемым, а глагол в личной форме – неопределенно-личным предложением:

При переводе необходимо учитывать время глагола, стоящего перед инфинитивом; ср.:

He is considered to be ... Считают, что он ... He was considered to be ... Считали, что он ...

Основные способы перевода причастных оборотов

В английском языке существуют три основные формы причастия.

Причастие I (неопределенное), имеющее от переходных глаголов и глаголов, принимающих предложное дополнение, формы действительного и страдательного залога, а от непереходных глаголов – только форму действительного залога.

Причастие II (неопределенное), имеющее от переходных и принимающих предложное дополнение глаголов лишь форму страдательного залога, а от непереходных глаголов – неперебиваемую форму, употребляемую только в сложных временах.

Перфектное причастие, имеющее от переходных глаголов формы действительного и страдательного залога, а от непереходных глаголов – только форму действительного залога.

Обстоятельственные причастные обороты характеризуют сказуемое и отвечают на вопросы: когда?, как?, по какой причине?, при каком условии? и т.п. В функции обстоятельства употребляются все формы причастий.

Причастие I переводится деепричастием несовершенного вида или обстоятельственным придаточным предложением, время действия которого определяется по времени действия сказуемого:

Demonstrating his finds the archaeologist usually gives a detailed description of the excavation site. Демонстрируя (когда демонстрирует, при демонстрации) свои находки, археолог всегда дает подробное описание места раскопок.

Независимый причастный оборот может выполнять в предложении функции обстоятельства времени, причины и условия. Он всегда отделяется от главного предложения запятой.

В функции обстоятельства времени и причины оборот переводится придаточным предложением с союзами «так как», «когда», «после того как»; например:

The conference being over, the participants went on an excursion. Когда (после того как) конференция закончилась, участники поехали на экскурсию.

Their work completed, the secretaries left. Когда их работа была закончена, секретари ушли.

В функции обстоятельства сопутствующих условий такой оборот обычно ставится после главного предложения и переводится самостоятельным предложением с союзами «причем», «а», «и», «тогда как».

Подобно обороту «объектный падеж с инфинитивом» оборот «объектный падеж с причастием» представляет собой сложное дополнение, которое в данном случае состоит из существительного в общем падеже или местоимения в объектном падеже и причастия. В этой конструкции действие обозначается причастием, а субъектом его является существительное или местоимение. Такой оборот в функции дополнения следует после ряда определенных глаголов, употребленных в качестве сказуемого главного предложения, а именно: глаголов чувственного восприятия (например, *to see, feel, hear*), глаголов *to find, expect, show* и близких им по значению, а также глаголов принуждения (*to make, to cause*).

Оборот «объектный падеж с причастием» переводится на русский язык дополнительным придаточным предложением с союзами «как», «что».

В том случае, если оборот образован с причастием I, сказуемое дополнительного придаточного предложения следует переводить глаголом несовершенного вида:

I happened to look back and saw the men getting in and the car starting. Я случайно обернулся и увидел, как люди входили в машину и как машина отъезжала.

В случае оборота с причастием II время сказуемого в дополнительном придаточном предложении согласуется с временем сказуемого в главном предложении; ср.:

I often hear his book discussed. Я часто слышу, как обсуждают его книгу.

I heard my work discussed. Я слышал, как обсуждали мою работу.

Особенности перевода герундиальных оборотов

Герундий – неличная форма глагола, обозначающая действие и сочетающая в себе свойства глагола и существительного. По форме герундий совпадает с причастием I и перфектным причастием.

В отличие от причастия перед герундием в тексте стоит предлог, существительное в притяжательном или общем падеже или притяжательное местоимение:

The author has succeeded in basing his study on sound principles. Автору удалось основать свое исследование на здравых принципах.

In spite of his being tired we had to disturb him. Несмотря на то, что он устал, нам пришлось побеспокоить его.

I have been told of your friend's coming soon. Мне сказали, что ваш друг скоро приедет.

Наибольшую трудность для перевода может представить герундий с группой зависящих от него слов, образующих герундиальный оборот.

I insist on writing the letter immediately. Я настаиваю на том, чтобы написать письмо сразу.

Субъект действия герундия не указан и может совпадать с подлежащим.

This reference-book differs from the previous in including a greater number of names. Этот справочник отличается от предыдущего тем, что (он) включает большее количество имен.



Трансформации в процессе перевода

При переводе с русского языка происходит множество переводческих преобразований, причина которых чаще всего кроется в присущем английскому языку видению мира и связанном с этим явлением языковой избирательности. Описывая предметную ситуацию, английский язык может выбрать иную, чем русский, отправную точку в описании. Для него, в частности, характерно преимущественное ис-

пользование глагольных форм. Русскому языку, наоборот, свойственно более широкое использование опредмеченных действий и признаков, что проявляется в более частом, чем в английском, использовании существительных.

Главная цель перевода – достижение адекватности. Адекватный, или как его еще называют, эквивалентный перевод – это такой перевод, который осуществляется на уровне, необходимом и достаточном для передачи неизменного плана содержания при соблюдении соответствующего плана выражения, т.е. норм переводящего языка.

Структурные и лексико-семантические расхождения между двумя языками требуют при переводе с одного языка на другой перестройки синтаксической структуры предложения либо лексической замены английского слова, не имеющего эквивалента в русском языке. Для достижения адекватности перевода применяют различные трансформации, т.е. преобразования, превращения. Каждый случай неэквивалентности структур требует определенной трансформации, которая обычно рассматривается как трудность перевода. Основная задача переводчика при достижении адекватности – умело произвести различные переводческие трансформации, для того чтобы текст перевода как можно более точно передавал всю информацию, заключенную в тексте оригинала, при соблюдении соответствующих норм переводящего языка.

Типы трансформаций в процессе перевода:

- **Перестановки** – изменение порядка слов при несовпадении смыслового центра предложения.
- **Замены**, которым могут подвергаться как части речи, так и члены предложения. Часто замены сопровождаются перестройкой всего предложения при передаче английской пассивной конструкции действительным залогом в русском языке. К замене относится и **антонимический перевод**, при котором отрицательная структура заменяется утвердительной. Лексико-семантические замены – это способ перевода лексических единиц иностранного языка путем использования единиц языка перевода, которые не совпадают по значению с начальными, но могут быть выведены логически. **Прием смыслового развития** заключается в замене словарного соответствия при переводе контекстуальным, логически связанным с ним.

- **Опущения** – во всех случаях семантического дублирования – при переводе парных синонимов опускается повтор.

- **Добавления** – не добавление смысла, а добавление слов для сохранения смысла предложения.

Виды перевода:

- **Перевод путем использования русских эквивалентов**, т.е. постоянных и равнозначных соответствий в двух данных языках, в большинстве случаев не зависящих от контекста.

- **Перевод с помощью аналогов**, т.е. слов синонимичного ряда. В этом случае одному иностранному слову соответствует несколько русских слов. Необходимо выбрать вариант, наиболее подходящий по контексту.

- **Калькирование или дословный перевод** состоит в переводе английского слова или выражения путем точного воспроизведения их средствами русского языка, при этом сохраняется структура предложения, каждое слово переводится так, как оно дано в словаре. Калькирование – воспроизведение не звукового, а комбинаторного состава слова или словосочетания, когда составные части слова (морфемы) или фразы (лексемы) переводятся соответствующими элементами переводящего языка. Дословный перевод используется при совпадении в английском и русском языке структуры предложения и порядка слов. Перевод является дословным, если в нем сохранены те же члены предложения и тот же порядок их следования, как и в оригинале. От дословного перевода необходимо отличать недопустимый в переводческой практике буквальный перевод, т.е. простой механический перевод слов иноязычного текста в таком порядке в каком они следуют в нем, без учета их синтаксических и логических связей. В буквальном переводе встречается наиболее распространенное значение слова или грамматической конструкции без учета всего контекста. Синтаксическое уподобление или дословный перевод – такой перевод, при котором синтаксическая структура оригинала преобразуется в абсолютно аналогичную структуру переводного языка.

- **Описательный перевод** используется для перевода английских слов, не имеющих лексических соответствий в русском языке. Передача значения английского слова при помощи более или менее распространенных объяснений используется для объяснения неологизмов. Описательный перевод имеет место, когда полностью расходятся грамматические структуры английского и русского языков, вызван особенностями сочетаемости слов английского языка.

• **Транслитерация** – передача буквами русского письма букв английского письма, независимо от произношения английского слова. Иными словами, транслитерация – формальное побуквенное воссоздание исходной лексической единицы с помощью алфавита переводящего языка, буквенная имитация формы исходного слова. При этом исходное слово в переводном тексте представляется в форме, приспособленной к произносительным характеристикам переводящего языка. Прием транслитерации можно использовать в тех случаях, когда передаваемая реалия вызывает у читателя твердо укрепившиеся ассоциации, в противном случае транслитерация должна сопровождаться соответствующим примечанием, раскрывающим смысл данной реалии. Транслитерация целесообразна тогда, когда желательно воспроизвести лаконизм подлинника и сохранить специфическую характеристику данной реалии в иностранном языке.

• **Транскрибирование** – передача произношения английского слова русскими буквами. Это основной прием перевода при передаче имен и названий. Переводческая транскрипция – это формальное фонемное воссоздание исходной лексической единицы с помощью фонем переводящего языка, фонетическая имитация исходного слова.

• **Членение** и объединение предложений используется при переводе специфических конструкций, не имеющих соответствия в русском языке. Различают внутреннее членение (замена простого предложения сложным) или внешнее членение (превращение развернутого предложения в два или более предложения).

• **Конкретизация** – это способ перевода, при котором происходит замена слова или словосочетания иностранного языка с более широким предметно-логическим значением на слово в переводе с более узким значением. **Генерализация** (процесс, обратный конкретизации) исходного значения имеет место в тех случаях, когда мера информационной упорядоченности исходной единицы выше меры упорядоченности соответствующей ей по смыслу единицы в переводящем языке и заключается в замене частного общим, видового понятия родовым. При переводе с английского на русский этот прием применяется гораздо реже, чем конкретизация. Достаточно широко этот прием используется при переводе таких слов, как: *to be, to have, to get, to do, to take, to give, to make, to come, to go* и т.д.

• **Грамматические трансформации** заключаются в преобразовании структуры предложения в процессе перевода в соответствии с нормами переводного языка. Если рассматривать отдельные виды грамматических трансформаций, то, пожалуй, наиболее распространенным приемом следует считать замену английских существительных русскими глаголами. Это явление связано с богатством и гибкостью глагольной системы русского языка.

• Чисто **грамматическая замена** применяется когда единица иностранного языка преобразуется в единицу языка перевода с иным грамматическим значением, однако, имеющим тоже самое логическое. Например, замена глагола на существительное, множественного числа на единственное и т.д.



Фразы, используемые при составлении аннотации к тексту

1. The article (text) is head-lined ...
The head-line of the article (text) is ...
2. The author of the article (text) is ...
The article is written by ...
3. It was published (printed) in ...
4. The main idea of the article (text) is ...
The article is about ...
The article is devoted to ...
The article deals with ...
The article touches upon ...
5. The purpose of the article is to give the reader some information on ...
The aim of the article is to provide the reader with some material on ...
6. The author starts by telling the readers (about, that) ...
The author writes (states, stresses, thinks, points out) that ...
The article describes ...

According to the article (text) ...

Further the author goes on to say that ...

7. The article is (can be) divided into 4(5-7) parts.
The first part deals with (is about, touches upon) ...
8. In conclusion the article tells ...
The author comes to the conclusion that ...
9. I found the article interesting (important, dull, of no value, easy, too hard to understand).

LESSON 1

I. Translate the following text into Russian.



ENGINEERING AS A PROFESSION

Engineering is often compared to medicine and law in discussions of professional status. It would appear to qualify according to the dictionary meaning of the word. Engineering requires specialized knowledge and intensive preparation with continued study after leaving the university. The profession has a strong organizational structure, requires high standards, and operates in the public service. These attributes are commonly associated with the word professional as it is used here. This is a rather restricted interpretation and it differs from its use in describing, say, a professional actor or sportsman who is paid for his efforts, as opposed to an amateur who performs for enjoyment. It is also sometimes used in reference to level of experience so that one speaks of a professional job house painter or plumber. Another use refers to a continued effort over an extended period of time so that one hears reference to a “professional student” as one who spends many years at a university.

Most important is the fact that engineers see themselves as professionals. They have to be technically competent and operate with responsibility in conformity with accepted notions of professionalism.

The type of responsibility is rather different from a doctor. The doctor’s responsibility is clearly recognizable because of directness of a doctor’s relationship. For the engineer, the result of his labors – be it a bridge, air-conditioning unit, automobile or computer – is interposed between himself and the user. However, since people’s lives are often at stake if an error is made, a high level of competence is essential.

Engineering is somewhat tainted in the public eye. It is recognized that technology, or its misapplication, is responsible for the various pollution threats and also for devastating weapons of war, and the public assumes that it is the engineers who have brought us to this pass. It should be realized that technology, too, operates according to demands, and just as the demand for goods, and comfort has led to environmental damage, so technology can also correct this. In one sense engineers with their machines are the tools of society, and it is society that ultimately determines how they are to be used.

The usual structure of engineering curricula includes four main components. First come the basic sciences of physics, chemistry and mathematics. Then a block of humanities courses is required. The engineering courses fall in the general areas of mechanics of solids, properties of materials, mechanics of fluids, thermodynamics, electrical science, transfer and rate processes and systems. Finally come the design courses which put it all together. It is this design discipline which exemplifies engineering in action, for it illustrates how engineers

solve practical problems by applying their scientific knowledge and skills in the interactive decision-making process. This is how engineers adapt science to human needs.

II. Translate the summary of the text into English.

Текст называется «Инженерия как профессия». В статье говорится о том, что инженерно-строительное искусство как профессия основывается на специализированных знаниях. Согласно автору, данная профессия требует высокой квалифицированной подготовки специалистов и обладает точными техническими свойствами. Отмечается, что после окончания университета специалисту, чтобы стать настоящим профессионалом, необходим опыт на производстве. Не менее важным фактором является то, чтобы он сам мог ощутить себя профессионалом. Для инженера огромную роль играют результаты его деятельности: изготовление оборудования, компьютеров, автомобилей, что и является связующим звеном специалиста с потребителем. Но производство необходимых товаров современности ведет к загрязнению окружающей среды. Не нужно забывать, что производство военного оборудования и различного оружия – это тоже результат деятельности инженеров. Инженерная технология базируется на основных принципах, а именно: на точных науках, на гуманитарном цикле, на механической отрасли. В заключении подчеркивается, что самым важным принципом является тот, который соединяет все принципы вместе и позволяет направить все умения инженера в нужное русло.

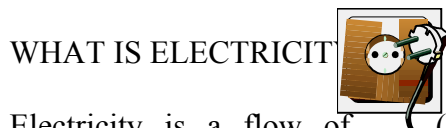
III. Compare the original and the translation. Which techniques have been used in the translation ?



We can see the relationship between two or more pieces of information by using graphs. They can, for example, be used to show the relationship between size and weight or between speed and distance. Using graphs, we can present numerical data as a picture. This often makes the data easier to understand and use. A simple graph has a vertical axis (known as the Y-axis) and a horizontal axis (known as the X-axis). The axes are placed at right angles to each other. The point where the axes meet is known as the origin, or zero point.

Используя графики, можно наблюдать зависимость между двумя или более видами информации. Их, например, можно использовать, чтобы показать зависимость между размером и весом или между скоростью и расстоянием. Используя графики, можно представить цифровые данные в виде изображения. Это часто облегчает понимание и пользование данными. У простейшего графика имеется вертикальная ось (известная как ось Y) и горизонтальная ось (известная как ось X). Эти оси располагаются под прямым углом друг к другу. Точка пересечения осей называется началом координат или точкой O.

IV. Rearrange the segments of the translation in the right order.



Electricity is a flow of negative charges called electrons. (Electrons are particles that form a part of all atoms.) These electric charges are measured in units called coulombs. Electricity is a very versatile form of energy that can be converted into many other forms of energy, including light and heat. There are two types of electricity: direct current (DC), which flows in one direction only, and alternating current (AC), which

(a) электричество; (b) эти электрические заряды измеряются единицами; (c) называемых электронами; (d) электроны – это частицы; (e) который изменяет направление потока 60 раз в секунду; (f) существует два вида электричества: постоянный ток (DC); (g) которые входят в состав всех атомов; (h) называемыми кулонами; (i) электричество представляет собой весьма разнообразную форму энергии;

changes direction 60 times per second. (j) это поток отрицательных зарядов;

(k) которую можно превратить во многие другие формы энергии, включая свет и тепло;

(l) который идет только в одном направлении; (m) и переменный ток (AC).

V. Edit the machine translation of the text.

THE MICROWAVE OVEN



Shortly after the end of World War II, Percy Spencer already known as an electronics genius and war hero, was touring one of his laboratories at the Raytheon Company. He stopped momentarily in front a magnetron, the power tube that drives a radar set. Feeling a sudden and strange sensation, Spencer noticed that the chocolate bar in his pocket had begun to melt.

Spencer, who obtained 120 patents in his lifetime, knew how to apply his curiosity. So he did what any good inventor would – he went for some popcorn. Spencer didn't feel like a snack, he asked for unpopped popcorn. Holding he bag oil corn next to the magnetron, Spencer watched as the kernels exploded into puffy white morsels.

From this simple experiment, Spencer and Raytheon developed the microwave oven. The first microwave oven was very big and heavy. At first, it was used exclusively in restaurants, railroad cars and ocean liners – places where large quantities of food had to be cooked quickly. In fact, it took decades after the invention of the microwave oven for it to be refined to a point where it would be useful to the average consumer.

Today, Percy Spencer's radar boxes melt chocolate and pop popcorn in millions of homes around the world.

Вскоре после того, как конец Второй Мировой Войны, Перси Спенсер, уже известный как гений электроники и военный герой, посещал одну из его лабораторий в Raytheon Компании. Он остановил на мгновение впереди магнетрон, труба власти (мощи), которая ведет (везет) радарный набор. Чувствуя внезапную и странную сенсацию, Спенсер заметил, что шоколадный брусок (бар) в его кармане начал таять.

Спенсер, который получил 120 патентов в его целой жизни, знал, как применить его любопытство. Так что он сделал то, что любой хороший изобретатель будет – он пошел для некоторой жареной кукурузы. Спенсер не чувствовал себя подобно закуске, он просил о несоставшей жареной кукурузе. Проводя (держа) он зерно нефти (масла) мешка рядом с магнетроном, Спенсер наблюдало как ядра, взорванные в опухшие белые кусочки.

От этого простого эксперимента, Спенсера и Raytheon developed микроволновая печь. Первая микроволновая печь была очень большая и тяжелая. Сначала, это использовалось исключительно в ресторанах, автомобили железной дороги и океанские лайнеры – места, где большие количества продовольствия должны были быть приготовлены быстро. Фактически, требуется десятилетия после изобретение микроволновой печи для этого, чтобы быть очищенным к пункту (точке), где это будет полезно для среднего потребителя.

Сегодня, радарные коробки Перси Спенсера тают шоколад и суют жареную кукурузу в миллионах домов во всем мире.

VI. Translate the operator's manual.

ELECTRIC OVEN



How to use the oven toaster

1. Insert the plug into the wall receptacle. Make sure that the timer dial is OFF.

2. Open the door and place the food to be cooked on the grill, then close the door.
3. Turn the timer clockwise and set the dial at the appropriate dial number according to the type of food to be cooked. The toaster is switched ON, and cooking start.
4. To set the dial knob at dial number 5 or below turn the dial knob beyond dial number 6 first, and then return it to the position desired.
5. When cooking is completed the bell rings and the oven toaster is switched OFF.
6. To stop the operation in the middle of a process, turn the dial counterclockwise and set it at OFF.
7. When you have finished using the oven toaster, be sure to turn the dial OFF and remove the plug from the wall receptacle. If the plug is pulled out while the dial is ON, sparks may appear, possibly damaging the wall receptacle.

Precautions

1. If unwrapped meat or fish is placed in the oven toaster will stain in insides of the appliance, leading to a change in the heating conditions. Wrap such food in aluminum foil before cooking it in the oven toaster.
2. To turn off the oven toaster in operation, turn the dial OFF.
3. When the food is done and the current has been cut, the dial will continue to make a noise for a while. This is not a sign of any malfunction.
4. When the oven toaster is dropped or fall from a table or counter, should not use it again until it has been inspected as safe by an authorized service facility.
5. Do not toast bread for more than six minutes. Avoid heating any food longer than the specified time or it will burn.
6. When used in the oven toaster, the plate is also heated. Do not touch the heated plate.

Important safeguards

When using electrical appliances, basic safety precautions should always be taken including the following.

1. Read all instructions before using.
2. To protect against electrical hazards, do not immerse plugs, power cord, or heaters in water or other liquid.
3. Do not touch heated surfaces in or after use, carry the toaster after cooled.
4. Close supervision is necessary when any appliance is used, by or near children.
5. Unplug cord from outlet when not in use, before putting on or taking off parts, and before cleaning.
6. Do not operate any appliance with a damaged cord or plug, or after the appliance malfunction or is dropped or damaged in any manner.
7. Do not place on or near a gas flame or electric heater, and not use near to flammable things (curtain, alcohol, etc.)
8. Do not let cord hang over edge of table or counter, or touch hot surfaces.
9. Avoid putting water on the body or washing the inside.
10. Do not splash water on door window then the oven toaster is being heated.
11. Do not put the oven toaster on a tablecloth, coated case, carpets or anything else that is not heat resistant.
12. Do not use appliance for other than intended use.
13. Do not turn on the oven toaster when the bottom lid is open.

VII. Translate the following specification into Russian.

STANDARD MICROWAVES

Inverter Technology

Delivers true multi-level power settings, preserving the full flavor and texture of your food. The consistent distribution of microwave energy also helps delicate foods to simmer without overcooking the edges and sur-

face, a common problem with microwaves. Inverter Turbo Defrost lets you defrost foods even faster than our powerful auto defrost feature. This advanced sequencing system distributes microwave energy in a new and efficient way, resulting in fast, thorough defrosting.

One-Touch Genius Sensor Reheat and Cook

Adjusts power levels and calculates cooking times automatically, making reheating and cooking a variety of foods easier than ever.

Browner

An auto-browning feature lightly cooks the top of your food, adding an authentic, oven-like touch. Each microwave has either 4 or 8 categories of browning, and some models come with an included browning dish to enhance the browning process.

Elegant Faceplate Design

An attractive, reflective door and front panel will look spectacular in practically any kitchen.

Keep Warm/Simmer

Delivers low microwave power to keep your food warm without overcooking or to simmer foods like soup, gravy, or desserts until they're ready to serve.

Multi-Lingual Menu Action Screen with Function Key

Find easy-to-follow instructions in English, Spanish or French just by pressing the function key on the menu action screen.

Auto Reheat

Even if your food has been refrigerated, the auto reheat feature helps restore the original look and taste.

Auto Defrost

Defrost meat, poultry, and seafood at the push of a button.

Quick Minute

Set cooking times in one-minute intervals, or add a minute to a current cooking session.

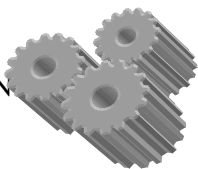
Popcorn Key

Pop a bag of prepackaged microwave popcorn at the push of a button.

LESSON 2

I. Translate the following text into Russian.

REALM OF ENGINEERING



Traditionally, engineering activities have been grouped into certain areas of specialization. These originated as civil and military engineering, catering to man's early needs. Scientific discoveries and their development gave birth to a variety of fields of application such as mechanical, chemical, and electrical engineering. Today the rapid rise of technology is bringing the adequacy of even these widely accepted designations into question in describing specialist areas within engineering. Several of the more commonly accepted categories are described below.

Aerospace Engineering combines two fields, aeronautical and astronautical engineering. The former is concerned with aerodynamics, structure and propulsion of vehicles designed for the flight in the Earth's atmosphere. The latter relates to flight above the Earth's atmosphere and involves the design of rockets and space vehicles incorporating sophisticated propulsion, guidance, and life support systems.

The day when one man drew his design in chalk on the floor and then proceeded to build it are long past. Today large teams of engineers are needed to cope with the complexity of modern flight vehicles. The design of an aircraft involves a multitude of specialty areas such as stress analysis, control surface theory, aircraft stability, vibration, production techniques and flight testing.

Agricultural Engineering is one of the earliest forms of engineering practiced by man. It uses agricultural machinery, irrigation, and surveying and deals with the many associated problems of crop raising and animal husbandry. Not only are the fundamental engineering subjects such as hydraulics, metallurgy, and structures of importance, but soil conservation, biology, and zoology are also necessary components. It is here that machines

interface with the animal and kingdoms. Challenging problems occur in areas such as land reclamation and efficient utilization, and improved methods of food production and harvesting.

Chemical Engineering encompasses the broad field of raw material and food processing and the operation of associated facilities. It is mainly involved with the manufacture and properties of materials such as fuels, plastics, rubber, explosives, paints, and cleaners. The chemical engineer is well grounded in both basic and engineering chemistry and apart the production of special materials, may be involved in such areas as combustion, recycling of waste products, and air and water pollution.

Civil Engineering is one of the oldest branches of the engineering profession. It covers a wide field, and many subsidiary branches have grown from it. The civil engineer is mainly employed in the creation of structures such as buildings, bridges, dams, highways, harbors, and tunnels. He is usually knowledgeable in hydraulics, structures, building materials, surveying, and soil mechanics. One important area comprises water supply, drainage, and sewage disposal. More than any other branch of engineering, the results of the civil engineer's efforts are the most visible in a permanent form.

Electrical Engineering, in general, deals with creation, storage, transmission and utilization of electrical energy and information. Most of its activities may be identified with power or communications. Electrical engineering is of recent origin, dating back only to the eighteenth century, when electrical phenomena were first subjected to scientific scrutiny. After this, useful applications were quickly identified. Today, the impact of a power failure graphically illustrates our dependence on electrical power. The field encompasses information systems, computer technology, energy conversion, automatic control, instrumentation, and many other specialties.

Industrial Engineering is mainly concerned with the manufacture of useful commodities from raw materials. Since most of the other engineering fields have a bearing on this activity, the industrial engineer requires a particularly broad view. The management of men, materials, machines, and money are all within his endeavor in achieving effective production. Plant layout, automation, work methods, and quality control are included, and, more than in most of the other traditional branches of engineering, the industrial engineer needs to have some grounding in psychology and dealing with personnel.

Mechanical Engineering develops machines for the generation and utilization of power. Mechanical engineers design turbines, engines, pumps, and their ancillary mechanisms and structures. Heating, ventilating, air-conditioning, transportation, manufacturing, and vibration are some areas falling within their domain. The art of mechanical engineering dates back to the labor-saving devices and military machines of ancient times, but it received its greatest boost in the eighteenth century with the invention of the steam engine and industrial machinery, which marked the onset of the industrial revolution.

Mining and Metallurgical Engineering. The production and use of metals, has two distinct branches. One deals with the location, extraction, and treatment of ores to obtain base metals, and the other with the transformation of these metals into useful forms and with the study of techniques for improving their performance in specific applications. The study of ceramics is often included in this field. Special topics range all the way from materials that may be used with living tissue to the development of composites for high-temperature applications such as in the heat shields used for satellite reentry.

In addition to the fields identified above, other categories of engineering are often encountered. These include architectural, ceramic, geological naval and marine, nuclear, petroleum, sanitary, and textile engineering.

II. Translate the summary of the text into English.

Текст называется «Сфера инженерии». Автор утверждает, что научные открытия привели к образованию несколько областей применения инженерно-строительного искусства, а именно: сельскохозяйственная, химическая, гражданская, электрическая, металлургическая и космическая. В статье рассматриваются инженерные области. Горная и металлургическая инженерия базируется на улучшении технологий добычи руд и других полезных ископаемых. Механическая инженерия разрабатывает оборудование, направленное на производство и использование энергии. Воздушно-космическая инженерия основана на изучении спутников и ракет, применяемых для полетов выше уровня атмосферы Земли. Сельскохозяйственная инженерия направлена на улучшение урожая и поднятия уровня животноводства. Химическая инженерия имеет огромное поле деятельности: от производства пищевых продуктов до производства топлива и красителей. Гражданская инженерия – это самая старая из инженерных отраслей. Она

включает строительство зданий, дамб и туннелей. Электрическая инженерия – одна из самых важных. Она обеспечивает работу информационных систем, компьютерные технологии, обеспечивает автоматический контроль. Промышленная инженерия базируется на выработке продуктов и товаров из сырья.

III. Compare the original and the translation. Which techniques have been used in the translation ?

COLOR

The three primary colors of light are red, green, and blue. When you mix one primary color equally with another, a secondary color is formed. When you mix all three primary colors, you get white light. The way different colors of light combine is known as the additive process.

Тремя основными цветами света являются красный, зеленый и синий. При смешении одного основного цвета с другим в равных пропорциях получается вторичный цвет. При смешении всех трех основных цветов получается белый свет. Способ комбинации разных цветов света называется аддитивным процессом.

IV. Rearrange the segments of the translation in the right order.

QUANTUM THEORY

Quantum Theory explains the behavior of light and other forms of energy in the electromagnetic spectrum. Quantum theory explains how light behaves in some ways like waves, and in other ways like streams of particles, which are in fact packets of energy called a quanta (one packet is called a quantum). There are three instances, shown here, when light can be explained only in terms of quanta.

(a) квантовая теория служит для объяснения поведения световой; (b) именуемых квантами (один пучок называется квантом); (c) квантовая теория объясняет; (d) когда поведение света можно объяснить только понятиями квантов; (e) и других форм энергии в электромагнитном спектре; (f) а в других случаях – как поток частиц; (g) почему свет ведет себя в некоторых случаях как волна; (h) которые, по существу, являются пучками энергии; (i) существует три случая, показанных здесь.

V. Edit the machine translation of the text.

MECHANICAL ENGINEERING



Engineers in this field design, test, build, and operate machinery of all types; they also work on a variety of manufactured goods and certain kinds of structures. The field is divide into (1) machinery, mechanisms, materi-

als, hydraulics and pneumatics; and (2) heat as applied to engines, work and energy, heating ventilating, and air conditioning. The mechanical engineer, therefore, must be trained in mechanics, hydraulics, and thermodynamics and must know such subjects as metallurgy and machine design. Some mechanical engineers specialize in particular types of machines such as pumps or steam turbines. A mechanical engineer designs not only the machines that make products but the products themselves, and must design for both economy and efficiency. A typical example of modern mechanical engineering is the design of a car or an agricultural machine.

Механическая разработка

Инженеры в этом полевом проекте, испытании, строят, и используют машины всех типов; они также воздействуют на разнообразие изготовленных товаров и некоторых видов структур. Область (поле) – делятся на (1) машины, механизмы, материалы, hydraulics и pneumatics; и (2) высокая температура в применении к двигателям, работайте и энергия, нагревая проветривание, и кондиционирование воздуха. Механический инженер, поэтому, должен быть обучен в механике, hydraulics, и термодинамике и должен знать такие предметы как проект машины (механизма) и металлургия. Некоторые механические инженеры специализируются в специфических типах машин (механизмов) типа насосов или паровых турбин. Механический инженер проектирует не только машины (механизмы), которые делают изделия, но и изделия непосредственно, и должны проектировать и для экономики (экономии) и для эффективности. Типичный пример современной механической разработки – проект автомобиля или сельскохозяйственной машины (механизма).

VI. Translate the operator's manual.



Safeguards

When using electrical appliances, basic safety precautions should always be followed including the following:

1. Read all instructions.
2. Do not touch hot surfaces. Use handles or knobs.
3. To protect against electrical shock, do not immerse cord, plug, or toaster in water or other liquid.
4. Close supervision is necessary when any appliance is used by or near children.
5. Unplug from outlet when not in use and before cleaning. Allow cooling before cleaning.
6. To disconnect, make sure bread lever is in the raised position, then remove plug from wall outlet.
7. Do not operate this appliance with a damaged cord or plug or after the appliance malfunctions, or has been damaged in any manner. Return appliance to the place of purchase for a replacement.
8. The use of accessory attachments not recommended by the appliance manufacturer may cause injuries.
9. Do not use outdoors.
10. Do not let cord hang over edge of table or counter, or touch hot surfaces.
11. Do not place on or near a hot gas or electric burner, or in a heated oven.
12. Oversized foods, metal foil packages, or utensils must not be inserted in a toaster as they may involve a risk of fire or electrical shock.
13. A fire may occur if this toaster is covered or touching flammable material, including curtains, draperies, walls, etc., when in operation.
14. Do not attempt to dislodge food when toaster is plugged in.
15. Failure to clean crumb tray may result in a fire hazard.
16. Do not clean with metal scouring pads. Pieces can break off the pad and touch electrical parts, involving a risk of electrical shock.
17. Do not use appliance for other than intended household use.
18. Do not leave unattended when on use.

Instructions

A short power – supply cord is provided to reduce the hazards resulting from entanglement or tripping over a longer cord. An extension cord may be used with care; however, the marked electrical rating should be at least as great as the electrical rating of the toaster. The extension cord should not be allowed to drape over the counter or tabletop where it can be pulled on by children or tripped over.

How to Use

- Remove all protective wrappings from food before placing in toasting wells.
- Avoid toasting foods with "runny" frostings, icings or open fillings.
- Avoid torn slices of bread and broken pastries which may get lodged in toasting wells.
- For best results, clean crumb tray frequently.
- To remove lodged food, unplug toaster and allow to cool completely. Turn upside down and shake.
- Different breads require color settings. Bread lever may be raised manually at any time to check toast color.

To Clean

Caution: Unplug. Never immerse toaster in water.

1. Allow unit to cool completely.
2. Wipe outside with soft, damp cloth. Never use abrasive cleanser or steel wool to clean.
3. Unscrew to pull open crumb tray at bottom of toaster and brush out crumbs. Wipe surface with damp cloth to remove stubborn spots.

Note: When first used, your toaster may smoke slightly. Any smoke or odor is normal and will not recur after a few uses.

Toast

1. Plug power cord into outlet, the volt of which conforms to the electrical rating of the toaster.
2. Adjust color selector control to desired lightness or darkness. Turn knob to the LEFT for light or the RIGHT for darker toast.
3. Insert bread into toasting wells and depress bread lever. Toast will automatically pop up when selected color is reached.
4. Unplug cord from wall outlet.

VII. Translate the following specification into Russian.



Consider the following questions before you purchase a refrigerator:

Why should I purchase a refrigerator?

Perhaps no other kitchen appliance is used as regularly and by as many members of the family as the refrigerator. Today's refrigerators provide more features and conveniences, styles and configurations, and energy efficiency than ever before.

Where will you place your refrigerator?

The size of the space that you have for your refrigerator affects the size and configuration of the model you'll purchase. Measure the dimensions of the area and have these in mind when you go shopping.

What type of refrigerator do you prefer?

You have many choices when purchasing a refrigerator: top-freezers with the freezer at the top, bottom-freezers – with the freezer at bottom, side-by-side, and built-ins. You should purchase a refrigerator that matches your needs.

Are there convenience features that I can choose from?

The following is a list of features you may consider:

- An ice-maker produces a continuous supply of ice and a frostless refrigerator (also referred to as frost-free) refers to models that automatically prevent ice build-up through a process of constant evaporation.
- A water filtration system provides a ready supply of ice water and ice cubes without opening the freezer door.
- Spill-proof glass shelves are easier to clean than wire shelves and the built-in lip of these glass shelves also helps contain spills.
- A temperature control meat drawer with its own temperature controls and cold air supply allows you to keep meat longer.
- Flexible space allows you to adjust door shelf bins and interior shelves to fit your size needs.
- A crisper drawer has a special built-in humidity control that extends the life of fruits and vegetables.
- A wine/beverage rack refrigerates cans and bottles on their side to conserve space and gallon door bins are the perfect place for bulky items such as milk and oversized soft drink bottles.
- An egg/deli door bin stores eggs or can be converted to drawer storage.

LESSON 3

I. Translate the following text into Russian.

A FEW WORDS ABOUT GENERAL
ENGINEERING SUBJECTS



Mathematics is the science of space and quantity, concerned with concrete bodies and collections; it is now recognized to be a vast aggregation of deductions from assumptions about pure abstractions.

Mathematics comprises several large branches. The first of these is arithmetic.

Arithmetic is concerned with numbers and numerical calculations. *Algebra* goes beyond arithmetic by greatly extending the symbolism. In particular, algebra utilizes letters for unknown, or specified, numbers. This makes it possible to deal with known and unknown numbers on an equal footing. A large body of algebra is the theory of equations.

Geometry is a vast field of mathematics with many subdivisions. The basic elements of geometry are points, lines, and planes. More complicated elements, such as triangles, circles, and cubes, are defined in terms of the undefined elements.

Descriptive geometry is as much a branch of mechanical drawing as of mathematics. It is concerned largely with representing three dimensions on a flat surface so that each part is accurately represented.

Whether *mathematical physics* belongs to physics or mathematics is determined by one's viewpoint. It is mathematics applied to physical problems. *Quantum theory* and the *theory of relativity* are examples.

Physics is the systematic study of natural phenomena to discover the basic laws governing them. Traditionally physics is divided into several major topics, namely, mechanics, heat, optics, electricity and magnetism, atomic physics and nuclear physics. Because of the remarkable unity of Nature this separation into topics is, to some extent, artificial and only exists for convenience. Newton's second law, relating force to acceleration, and his third law, relating action and reaction, form the basis of *mechanics*. Maxwell's equations, which combine in mathematical the laws discovered by Ampere, Coulomb and Faraday, form the basis of *electricity* and *magnetism* and *optics*.

Mechanics is the oldest branch of physics, dealing with the state of rest or motion of particles and rigid bodies and with forces acting on bodies. The subject has three main branches: *statics*, *dynamics* and *fluid mechanics*. In statics, the forces acting on the body, or system of bodies, are so arranged that the body is in equilibrium.

Dynamics deals with systems in motion and may be divided into *kinetics*, the study of the effect of forces in changing the motion of bodies, and *kinematics* in which the motion of particles or rigid bodies is considered without reference to the forces producing the motion.

Fluid mechanics includes the theory of gases, hydrodynamics (the motion of liquids), and aerodynamics. The mathematical development of results and theories arising from classical mechanics is called *analytical mechanics*.

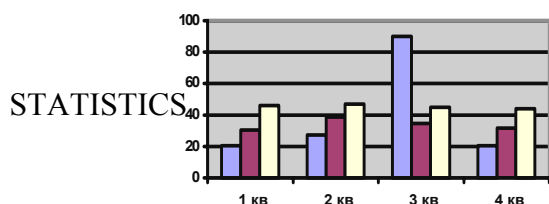
Machine elements are the components that make up a machine or mechanical device, including both structural members used to position or support and members used to transfer motion and energy. Design or operation of any machine or device can be analysed in terms of its elements, A machine's structural members are categorized according to the load carry. Thus a compressive member is one that carries compression loads (i.e. compressive stresses). Members used to transmit energy or motion are gears, cams, inclined planes, belts, levers and wheels. Each of these elements may also carry any of the types of load described.

Metallurgy is the science of the technology of metals including extraction of metal from ores, processing of metals into useful form, and the of their properties and behaviour. Metallurgy includes areas physics, chemistry, and applied mechanics, and also the development metal and alloy systems. The branch of metallurgy called *metallography*, or theoretical metallurgy, deals with the microscopic structure and constitution of metals and alloys. Another branch of metallurgical science deals with the internal changes that metals undergo during thermal and mechanical treatment.

II. Translate the summary of the text into English.

Данная статья посвящена обзору основных инженерных дисциплин. Математика включает арифметику, геометрию, описательную геометрию, физику, механику, динамику, элементы машин. Арифметика имеет дело с числами и вычислениями. Основой алгебры является теория управлений. Основные элементы геометрии – это точки, линии, треугольники, круги и кубы. Описательная геометрия рассматривает три измерения на плоской поверхности. Физика включает такие разделы, как механика, оптика, электричество и магнетизм, атомную и ядерную физику. Основная отрасль физики – механика имеет дело с движением частиц и с силами, действующими на тела. Статика, динамика – это основные отрасли механики. Элементы машин представляют собой компоненты, способные к перемещению и передаче энергии механизмов. Metallurgy занимается извлечение металла из руд, обработкой металлов и изучением их свойств. Теоретическая metallurgy или metallography имеет дело с микроскопической структурой и конституцией металлов и сплавов.

III. Compare the original and the translation. Which techniques have been used in the translation ?



The branch of mathematics concerned with collecting and interpreting data is called statistics. The data are often collected by interviewing a sample group of people who are meant to represent the whole population. If the sample group has been put together carefully, the findings should be fairly accurate for the entire population. The information gained from the sample group can be very useful to government agencies and businesses, helping them find out tastes, opinions, and

Отрасль математики, занимающаяся сбором и интерпретацией данных, называется статистикой. Часто сбор данных производится путем опроса выбранной группы людей, которая, по предположению, представляет все население. Если члены группы тщательно отобраны, результаты должны быть довольно точными для всего населения. Полученная от выбранной группы информация может оказаться весьма полезной для правительственных органов

the probable outcome of events. и деловых кругов, помогая им выявить вкусы, мнения и вероятный исход каких-либо событий.

IV. Rearrange the segments of the translation in the right order.

LANGUAGE OF MAT



Mathematics has a language of its own, which uses numbers and symbols instead of words and punctuation. The earliest recorded numbers were marks made on a stick. These marks were made in small groups of, for example, two or five. Eventually these groups were given symbols of their own (2, 5, etc.) and a system of arithmetic developed. Mathematicians introduced special symbols to replace words such as "plus" and "equals". They also introduced special words to express new ideas. Terms such as "triangle" and "square", for example, were applied to figures that are geometrically defined.

(a) они также ввели специальные слова для выражения новых идей; (b) у математики есть свой язык; (c) например, такими терминами как "треугольник" и "квадрат"; (d) сделанные на палке; (e) эти зарубки были сделаны небольшими группами; (f) например, по две или по пять; (g) в конце концов каждой из этих групп был присвоен свой символ (2, 5, и т.д.); (h) и это положило начало развитию арифметической системы; (i) математики ввели специальные символы вместо слов; (j) таких, как "плюс" и "равняется"; (k) были названы определяемые геометрически фигуры; (l) который использует цифры и символы вместо слов и знаков препинания; (m) самыми первыми известными в исто-

V. Edit the machine translation of the text.

FORMULAS

It is often important to know how to obtain a certain number from other numbers which are known. The value of the number which we want to find depends upon the values of the known numbers. Thus the area of a rectangle depends upon the values of two numbers, the length and the width. The relation between the area and two numbers is definitely stated by the formula $A = lw$.

There are many ways of expressing relationship between numbers. In arithmetic it is usually expressed by a rule stated in words; by using the language of algebra we abbreviate these rules into formulas. When we try to get a formula corresponding to a word statement, we write the words on a single line and then place directly beneath each word or phrase the algebraic notation that has the same meaning.

Часто важно знать, как получить некоторое число (номер) от других чисел (номеров), которые известны. Ценность числа (номера), которое мы хотим найти, зависит от ценностей известных чисел (но-

меров). Таким образом область прямоугольника зависит от ценностей двух чисел (номеров), и ширины. Отношение между областью два числа (номера) определено заявлено формулой $A = lw$.

Есть много способов выразить отношения между числами(номера). По арифметике это обычно выражается в соответствии с правилом (правлением), заявил в словах; используя язык алгебры мы сокращаем эти правила в формулы. Когда мы пробуем получить формулу, соответствующую утверждению (заявлению) слова, мы пишем слова на единственной (отдельной) линии и затем размещаем непосредственно ниже каждого слова или фразы алгебраический hoi , который имеет то же самое значение.

VI. Translate the operator's manual.

HAIR DRIER

General Safety Instructions

Please carefully read all the following information, it contains important instructions for the safety, the use and the maintenance of the appliance. Take good care of the operating instructions and pass them onto any future owner. Although this appliance was manufactured according to the recognised technical rules, it, like all other electrical appliances, becomes mortally dangerous when dropped into water. This danger exists even if the appliance is switched off. A fault current circuit breaker for personal protection (30 mA) reduces the danger from electrical appliances that are accidentally dropped into water. Please ask your electrician. Repairs on electrical appliances must be made by trained fitters only. Improper repairs can lead to considerable hazards for the user. The manufacturer shall not be liable for any damage which is caused by improper use or incorrect operation. The user of the appliance is urgently requested to observe the following instructions.

Take care!

- Do not use this appliance in the bathtub, shower or over a wash hand basin filled with water
- Do not place a faulty appliance into operation.
- To assure safe operation of the appliance, connect it and operate it as directed on the nameplate.
- Always switch the appliance off when it is laid on its side when interrupting the drying procedure.
- When overheated for instance by covering the air slots – the appliance switches off automatically and switches back on again after cooling off for a few minutes.
- After use, pull out the mains plug.
- In case of a fault, separate the appliance from the mains (pull out the mains plug).
- Do not pull on the connection cord, but rather on the plug, to separate the appliance from the mains.
- Do not pull the connection cord over sharp edges or use it for carrying.
- Do not pull the connection cord over heated hotplates or open flames.
- Have repairs and adjustments on the appliance performed by a trained engineer from our customer services department.
- Children must not use electrical appliances except under strict supervision,
- Clean appliance only with a dry or a moist cloth, making sure that you pull out the mains plug first without fail. Never immerse the appliance into water.
- Worn-out appliances must be made unusable immediately by pulling out the mains plug and cutting through the connection cord and removing the plug. Then dispose of the appliance properly.

Disposal instructions

Our products are protected as far as possible for transport by packing. This packing consists exclusively of environmentally compatible materials, which should be taken to the local waste disposal establishment as valuable secondary raw materials. You may obtain information on the possibilities for disposing of worn-out appliances from your local council.

Voltage and type

See nameplate on the appliance. Connect only to alternating current 220 – 240 V.

This appliance satisfies the EC Guideline No. 76-889-EEC for radio screening as amended by Guideline No. 82/499.

Use

After washing, rub down your hair thoroughly: First switch to stage 2 and predry your hair for continued drying, switch appliance to stage 1.

Curling jet

The curling jet concentrates the airflow for specific drying of certain hair sections. It is used when you want to give hair a specific shape; e.g. rolled on curlers or laid over a round brush. The curling jet is simply attached to the air discharge opening of the hair dryer. It can be turned in any desired direction.

Cable holder

(on appliances that are equipped with it)

Wind up cable over your hand, place into the cable holder and press holder together.

VII. Translate the following specification into Russian.



2001 Professional 1500-1800 watts
Lightweight 2000 hour,
double balanced motor
7 Ranges of speed and temperature
Removable lint filter
Tapered nozzle attachment.

LESSON 4

I. Translate the following text into Russian.

HORIZONS OF MODERN MECHANICS



In the development of mechanics, we can notice three main stages, three well-pronounced trends. In the 17th century, the great scientist Galilei and Newton laid the scientific foundations of classical mechanics and formulated the basic laws of particle mechanics and the mechanics of systems and bodies. The calculations of the movement and equilibrium of various machines are based on these laws: they are widely used in calculating the movement and designing the control systems of planes and rockets, Earth satellites and spacecraft.

In the 18th century, through the efforts of the members of the Russian Academy of Sciences, the laws of classical mechanics were applied to the motion of fluids and gaseous bodies and, later on, to the deformation of elastic media as well.

These gave birth to hydrodynamics – the science of motion of fluids in pipes, canals and oceans. Finally came the theory of elasticity and strength of materials, which makes it possible to calculate the strength of all structures and of aeronautical and space vehicles.

In the middle of the 19th century the laws of classical mechanics were substantially elaborated. They were united with the laws of the theory of probabilities -static. This accounts for the appearance of statical mechanics and the kinetic theory of matter, which made it possible to come close to a precise theory explaining the movement of plasma, a special form of matter.

The 20th century has placed new tasks before the science of mechanics, and led to the further expansion of its horizons.

The solution of important problems of mechanics speeds up the rates of technological progress in ship building, aviation, rockets and space technology, power engineering, the atomic industry and so on, its methods penetrate into related departments of science and technology, into physics, chemistry and biology, and into various branches of industrial production.

Nowadays, mechanics invades whole departments of knowledge as well as individual scientific and technological fields. For instance, the methods of modern aeromechanics find a broad application in the solutions of many biological problems. The laws governing blood circulation, the hydrodynamics of heart and blood vessels constitute the subject of a new branch of science biomechanics. The latest advances in mechanics will be of great help in improving many production processes in industry and agriculture.

II. Translate the summary of the text into English.

Название текста «Горизонты современной механики». В статье перечисляются этапы развития механики. Согласно автору, в механике наблюдаются три стадии развития. Вычисления движения и равновесия различных механизмов базируются на законах Галилея и Ньютона. Идеи, родившиеся в 17 столетии, широко используются в наши дни для вычисления движения и проектирования космических систем. Законы классической механики продолжали развиваться и в 18 веке. Эти законы были связаны с движением жидкостей и газообразных веществ. В 19 веке законы механики были объединены со статикой. Именно эта идея позволила объяснить движение планет. В 20 столетии механика тесно связана с химией, физикой, биологией и техникой. Текст заканчивается описанием современных отраслей механики. Механика современности имеет дело с проблемами аэромеханики. Благодаря современной механике, появилась новая отрасль науки – биомеханика.

III. Compare the original and the translation. Which techniques have been used in the translation ?

Electric Circuit



An electric circuit is an unbroken conducting path from, and back to, a power supply. It has three main parts: the power supply, the conductor, and the load. The power is provided by a generator or battery, the conductor carries the current, and the load is an electric device such as a lamp.

Электрическая цепь – это неразрывный проводник электричества, протянутый от источника тока и обратно к нему. Она содержит три основные составляющие: источник тока, проводник и нагрузку. Подача электрического тока осуществляется генератором или батареей. По проводнику идет ток, а нагрузкой служит такое электрическое устройство, как, например, электролампа.

IV. Rearrange the segments of the translation in the right order.

ELECTRICITY

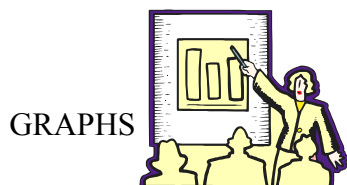
Separating the different

(a) который постепенно

parts of a compound using electricity is called electrolysis. For this to work, the compound must be either in molten form or dissolved in water, and it must contain ions. Two electricity-conducting plates (called electrodes) are placed in the compound to be split (called the electrolyte). When the plates are connected to a battery, an electric current passes through the compound, which is gradually split into two parts. This happens because the negative electrode (the cathode) has an excess of negatively charged particles, so it attracts the positive ions of the compound.

расщепляет смесь на две части; (b) отделение различных составляющих смеси при помощи электричества называется электролизом; (c) чтобы смесь была в расплавленном состоянии или была растворена в воде; (d) через смесь начинает проходить электрический ток; (e) и чтобы в ней содержались ионы; (f) две электропроводящие пластины (называемые электродами) погружаются в подлежащую расщеплению смесь; (g) (называемую электролитом); (h) когда пластины подключаются к батарее; (i) это происходит потому; (j) что на отрицательно заряженном электроде (катоде) возникает избыточное количество отрицательно заряженных частиц; (k) которые притягивают положительные ионы смеси; (l) чтобы добиться этого, необходимо.

V. Edit the machine translation of the text.



A graph represents numerical relationship in visual form. By use of a graph we can show the relation between certain of numbers in an interesting, pictorial manner so that they can actually be seen. The most commonly used graphs are: the pictograph, the bar graph, the line graph and the circle graph. In a pictograph, each picture or symbol represents a definite quantity. In a pictograph we use pictures of objects to represent numerical facts. The length of bars in a bar graph represents numeric facts. The bars are of varying length but of the same width. They are usually used to show size or amount of different items or size or amount of the same item at different time. The bars of a vertical bar graph are drawn straight up and down, that is at right angles with the horizontal base of the graph. The bars of a horizontal bar graph are drawn across the page. The line graph shows the changes in a quantity by rising or falling of a line. The position of the line with relation to the horizontal and vertical scales represents numerical facts. The line connects a number of points. An apportionment or distribution graph shows the relation ship of all parts of a particular whole. The whole graph represents 100 %. A chart which consists of a circle broken down into subdivision is called a circle graph. A circle graph used to show how all the parts are related to the whole. The entire circle, which equals 360° , represents the entire thing.

Граф представляет числовые отношения в визуальной форме. При помощи графа мы можем показать отношение между определенными числами (номерами) в интересной, иллюстрированной манере так, чтобы они могли фактически быть замечены. Наиболее обычно использовались графы: пиктограмма, гистограмма, граф линии и граф круга. В пиктограмме, каждая картина или символ представ-

ляют определенное количество. В пиктограмме мы используем картины объектов(целей) представить числовые факты. Длина брусков (баров) в гистограмме представляет числовые факты. Бруски (бары) имеют изменяющуюся длину, но той же самой ширины. Они обычно используются, чтобы показать размер или количество различных пунктов (изделий) или размера или количества того же самого пункта (изделия) в различное время, в котором бруски (бары) вертикальной гистограммы оттянуты прямо. вниз, это – под прямым углом с горизонтальной основой 111 из графа. Бруски (бары) горизонтальной гистограммы оттянуты поперек страницы. Граф линии показывает изменения (замены) в количестве, повышаясь или падая линии. Положение (позиция) линии с отношением к горизонтальным и вертикальным масштабам представляет числовые факты. Линия соединяет множество пунктов (точек). Пропорциональное распределение или граф распределения показывают судно отношения всех частей специфического целого. Целый граф представляет 100 %. Диаграмму, которая состоит из круга, разломанного вниз на подразделение, называют графом круга. Граф круга имел обыкновение показывать, как все части связаны с целым. Полный круг, который равняется 360°, представляет полную вещь.

VI. Translate the operator's manual.

JUICE EXTRACO



Important Safeguards

How to use

When using electrical appliances, basic safety precautions should always be followed including the following:

1. Read all instructions.
2. To protect against risk of electrical shock do not immerse unit in water or other liquid.
3. Close supervision is necessary when any appliance is used by or near children.
4. Unplug from outlet when not in use, before putting on or taking off parts, and before cleaning.
5. Avoid contacting moving parts.
 - a) Moving Parts. Keep fingers out of discharge opening.
 - b) Never feed food by hand. Always use food pusher.
 - c) Blade is sharp. Handle carefully.
6. Do not operate any appliance with a damaged cord or plug or after the appliance malfunctions, or is dropped or damaged in any manner. Return appliance to the nearest authorized service facility for examination, repair or electrical or mechanical adjustment.
7. The use of attachments not recommended or sold by the appliance manufacturer may cause fire, electrical shock or injury.
 8. Do not use outdoors.
 9. Do not let cord hang over edge of table or counter or touch hot surfaces.
 10. Do not let cord contact hot surface including the stove.
 11. Always make sure juicer cover is clamped securely in place before motor is turned on. Do not unfasten cover snap while juicer is in operation.
 12. Be sure to turn switch to off position after each use of your juice extractor. Make sure the motor stops completely before disassembling, and the power supply plug is removed from the outlet.
 13. Do not put your fingers or other foreign objects into the juice extractor opening while it is in operation. If food becomes lodged in opening, use food pusher or another piece of fruit or vegetable to push it down. When this method is not possible, turn the motor off and disassemble juicer to remove the remaining food.

How to use

1. Before attaching the power supply cord to a suitable 220VAC outlet, make sure the switch is in the OFF position, and the cover snap are safely locked in place.
 2. Cut fruits and vegetables into smaller pieces in order to fit into the feeding funnel of the cover.
- NOTE:
- a) Not recommended for bananas, peaches, apricots, etc, because there is little juice yielded.
 - b) Not recommended for processing coconuts or similar hard foodstuffs, since this may damage the motor and the filter.
 - c) The peel and pits should be removed from oranges , lemons, grapefruits, and melons, with the core from pineapples removed.
3. Turn the power switch to "ON".
 4. Drop the prepared fruits into the feeding funnel of the cover and gently push the fruit down into the filter using the pusher.
 5. When the pulp container or the juice container are full, turn the power switch to "OFF", and empty the full container(s) before continuing to use the juice extractor.
 6. After using the juice extractor, turn the switch to the "OFF" position and disconnect the plug.
 7. Avoid using the juice extractor continuously for more than 4 minutes. Turn the switch to the "OFF" position and let the unit cool for approximately 2 minutes.
 8. Always keeps motor housing dry.

How to clean

1. Make sure the switch is in the "OFF" position and the unit is unplugged from the outlet. Open the cover snap, remove the cover, pulp collector, and filter. Clean these parts under running water. NEVER wash the motor housing. Simply wipe it with a damp cloth.
2. To clean the filter easily, a small tooth brush (not included) is recommended.
3. Dry all parts.
4. Assemble all parts and store unplugged in a dry place until next time.

VI. Translate the following specification into Russian.

KENMORE JUICER

400 W power juicer for optimum juice extraction. Pulp automatically empties into detachable pulp collector during operation. Extra-wide 3 in. feed tube eliminates most precutting. 32 oz. cup included. Sears item #00867701000 Mfr. model #JEX328S

Sears exclusive. This item is only available at Sears. Optimum nutrition – an invaluable aid in maintaining a balanced diet

- Raw juice contains precious vitamins, minerals, bioflavonoids and enzymes.
- Juicing suggestions and educational information included.
- Easy clean up: large, detachable pulp collector.

Removable parts are dishwasher safe on top rack of dishwasher.

LESSON 5

I. Translate the following text into Russian.

FORCE

The term “force”, as used in mechanics, refers to what is known in everyday language as push or pull. We can exert a force on a body by muscular effort; a stretched spring exerts a force on the bodies to which its ends are attached; compressed air exerts a force on the walls of its container. In all these instances the body exerting the force is in contact with the body, on which the force is exerted, and the forces of this sort are known as contact forces. There are also forces which act through empty space without contact, and are called action-at-a distance forces. The force of gravitational attraction exerted on a body by the earth, and known as the weight of the body, is the most important of these for our present study.

External and internal forces. One should distinguish between forces as external or internal with reference to any particular body. Those forces acting on a given body which are exerted by other bodies are referred to as external forces. Forces exerted on one part of the body by other parts of the same body are called internal forces.

Graphical representation of forces. Vectors. Suppose we are to slide a box along the floor by pulling it with a string or pushing it with a stick. That is, we are to slide it by exerting a force on it. For concreteness let us assume the magnitude of the push or pull to be 10 lbs. It should be noted that simply to write "10 lbs" on the diagram would not completely describe the force, since it would not indicate the direction in which the force was acting. If we represent a force by an arrow called a vector, the length of the arrow, to some chosen scale, will indicate the size or magnitude of the force, and the direction in which the arrow points will indicate the direction of the force.

Quantities like force and velocity, which involve both magnitude and direction, are called vector quantities. Those like density, which involve magnitude only, are called scalars.

Composition of forces. When a number of forces are simultaneously applied at a point, it is found that the same effect can always be produced by a single force having the proper magnitude and direction. We wish to find this force, called the resultant, when the separate forces are known. The process is known as the composition of forces, and is evidently the converse problem to that of resolving a given force into components.

When two or more forces are to be combined, one may first find the resultant of any two, and then combine this resultant with a third, and so on.

Vector difference. The resultant of two vectors is also referred to as their vector sum, and the process of finding the resultant is called vector addition. In many instances, as when computing accelerations or relative velocities, it is necessary to subtract one vector from another or to find their vector difference.

II. Translate the summary of the text into English.

Название текста – «Сила». Цель статьи – дать читателю представление о данном понятии. Физический термин «сила», используемый в механике, обозначает толчок или напряжение. Обычно тело, которое проявляет силу, взаимодействует с телом, на которое данная сила направлена. Силы данного вида известны как взаимодействующие силы. Автор приводит примеры взаимодействующих сил: сила мускулов, сила пружины, а также сила сжатого воздуха на стенки сосуда. Силы бывают внутренние и внешние. Сила и скорость составляют векторные величины. На точку может воздействовать как одна сила, так и множество сил. Если объединить две и более сил, то можно сначала найти результат любых двух сил, затем объединить полученный результат с третьей и т.д. Статья заканчивается описанием векторной силы.

III. Compare the original and the translation. Which techniques have been used in the translation ?



WHAT IS FORCE ?

The push or pull that starts an object moving is a force. Forces not only make things move,

they can also speed up or slow down a moving object, make it change direction, or even distort its shape. Generally, the stronger the force, the greater the effect it has on an object.

Толчок или натяжение, которые приводят объект в движение, называются силой. Силы не только приводят объекты в движение, называются силой. Они также могут ускорить или замедлить движущийся объект заставить его изменить направление движения или даже исказить его форму. Вообще говоря, чем больше

сила, тем большее влияние она оказывает на объект.

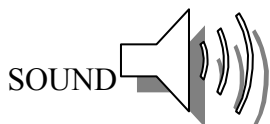
IV. Rearrange the segments of the translation in the right order.

DYNAMICS

The study of dynamics is part of a wide field of study called mechanics, which investigates physical forces. Dynamics is concerned with the nature of the forces that cause objects to move. There are many different kinds of such forces, for example, gravity and friction, which produce many different kinds of motion. The type of motion produced will depend on the size, direction and rate of the forces that cause it to happen.

(a) направления и скорости сил; (b) исследующей физические силы; (c) характер произведенного движения будет зависеть от величины;
(d) динамика занимается природой тех сил; (e) которые приводят в движение предметы;
(f) существует много разных видов таких сил; (g) например, силы притяжения и трения;
(h) являющихся причиной разных видов движения; (i) именуемых механикой; (j) вызвавших это движение;
(k) динамика является частью крупной отрасли знаний.

V. Edit the machine translation of the text.



Every source of sound is in a state of vibration. Sometimes the vibration is of short duration as in the crack of a whip or the bang of a gun, in many instances the vibration is clearly visible, as in the case of a taut wire. The vibratory origin of many common sounds is not so obvious, often because the vibrating system is gaseous and therefore invisible – the moaning of wind, the note of a whistle, the thunderous noise which succeeds a lightning flash, but experiments have been devised which prove the vibratory nature of all such sounds. Mere vibration, however, is not in itself sufficient to produce the sensation of sound; there must be some material medium to transmit the effects of the vibration to the ear of the listener – sound cannot travel through vacuum. This can be proved by hanging an electric bell in a glass jar from which air can be withdrawn by exhaust pump.

Каждый источник звука – в состоянии вибрации. Иногда вибрация имеет короткую продолжительность как в трещине кнута или удара оружия, во многих случаях, вибрация является ясно видимой, как в случае тугого провода. Вибрирующее происхождение многих общих(обычных) звуков не настолько очевидно, часто потому что вибрирующая система газообразна и поэтому невидима – стелание ветра, примечание свиста, грозовой шум, который следует за вспышкой молнии, но эксперименты были изобретены, которые доказывают вибрирующий характер (природу) всех таких звуков. Простая вибрация, однако, не сам по себе достаточна, чтобы произвести сенсацию звука; должна быть немного материальной среды, чтобы передать эффекты вибрации к уху слушателя – звук не может путешествовать через вакуум. Это может быть доказано, вешая электрический звонок в стеклянной фляге, от которой воздух может быть забран выхлопным насосом.

VI. Translate the operator's manual.



CORDED/CORDLESS TELEPHONE

Battery Installation

- Turn the cordless handset off before battery installation.
 1. Turn the antenna to the right and pull it out.
 2. Remove the screw cover on the rear bottom side and release the screw.
 3. Open the rear handset cover and change the battery.
 4. Assemble the rear handset cover.

To charge the battery

Place the cordless handset on the charger.

Charge the battery in the cordless handset for about 8 hours before initial use.

- When the battery gets exhausted, warning tones will sound. Then, place the cordless handset on the base unit to recharge the battery.

15 CHANNEL AUTOSCAN

Press the CH. button on the cordless handset until the clearest channel is selected.

Use this function to remove interference noise during a phone conversation.

TELESCOPIC ANTENNA

Extend the telescopic antenna of the base unit fully and vertically for the best performance.

• TONE / PULSE SELECTION

Set the TONE / PULSE switch on the base unit or on the corded handset to.

- T: for the telephone line with the touch tone service.
- P : for the telephone line with the rotary service.
- You can use the touch tone service in the rotary service area using the corded handset. Dial the phone number and press the TONE button on the corded handset to change the dialing mode from pulse to tone.

The TONE mode will continue until you end the call. You can access special services such as electronic banking, calling cards, telephone answering equipment, etc., which require tone signals for operation in the rotary service area using this function.

Making Calls

Using the cordless handset

Press the TALK button on the cordless handset.

The INUSE indicator light will be on and you will hear a dial tone.

1. Dial the phone number.
2. To hang up the phone, press the TALK button again or place the handset on the base unit.

Using the corded handset

Set the TALK switch on the corded handset to ON.

The TALK indicator light will be on and you will hear a dial tone.

Dial the phone number.

To hang up the phone, set the TALK switch to OFF.

Answering Calls

Using the Cordless Handset

1. When the telephone rings, lift the cordless handset to answer the call.
- If the cordless handset is left off the base unit, press the TALK button to answer the call.
2. To hang up the phone, press the TALK button again or place the handset on the base unit.

Using the Corded Handset

1. When the telephone rings, set the TALK switch on the corded handset to ON to answer the call.
2. To hang up the phone, set the TALK switch to OFF.

REDIALING

You can redial the last dialed number using this function.

Set the TALK switch on the corded handset to ON or press the TALK button on the cordless handset to get a dial tone, and then, press the REDIAL button to recall the last dialed number.

Memorizing Phone Numbers

This function works only with the cordless handset.

Press the MEMORY button on the cordless handset in the STANDBY mode you will hear a beep. Dial the desired phone number. Press the desired DIRECT DIAL button (1 – 4). After memorization, a confirmation beep will sound. Repeat the step 2 to 3 to complete programming.

Press the TALK button after finishing memorization.

To recall the memorized numbers

1. Press the TALK button on the cordless handset.
2. Press the desired DIRECT DIAL button on the cordless handset (1 – 4).

The memorized phone number will be dialed automatically.

- **FLASH**

Press the FLASH button on the handset to terminate the call and get a new dial tone.

- You can access special services such as CALL WAITING supplied by your telephone company or company switchboard using this button.

- **MUTE**

Hold the MUTE button on the cordless handset down to mute your voice. The caller will not be able to hear your voice.

- Release the MUTE button to resume the phone conversation.

- **PAUSE**

Press the PAUSE button on the cordless handset to generate a pause in the dialing sequence while memorizing numbers in memory mode or an alternative long distance access code. This function is used mainly with switchboard system.

- **CALL**

You can call the cordless handset using the base unit. Press the CALL button on the base unit.

Beeps will sound from the cordless handset.

Troubleshooting Guide

Refer to the following suggestions for the remedy.

Symptom	Check Point
The telephone does not work	<ul style="list-style-type: none"> • The battery of the cordless handset is weak. Charge the battery fully. • The corded or cordless handset is turned off. • The TONE / PULSE switch is inadequately

	set. <ul style="list-style-type: none"> • The cordless handset is too far from the base unit. • Check the telephone line or AC adaptor connection. • Set the Security Code of the cordless handset
Sound flutters or fades	<ul style="list-style-type: none"> • The cordless handset is too far from the base unit. • Keep the unit away from electric appliances (ex. TV, AUDIO). • Extend the antenna of the base unit fully

Окончание табл.

Symptom	Check Point
No dial tone	<ul style="list-style-type: none"> • Set the TALK switch on the corded handset to ON. • Press the TALK button on the cordless handset. • The TONE / PULSE switch is inadequately set. • Check the telephone line or AC adaptor connection. • The cordless handset is too far from the base unit
The cordless handset does not ring	<ul style="list-style-type: none"> • The cordless handset is too far from the base unit. • Check the telephone line and AC adaptor connection. • The battery of the cordless handset is weak. • Press the TALK button on the cordless handset
The possible calling distance is too short	<ul style="list-style-type: none"> • The battery is exhausted. Recharge it. • The antenna of the base unit is not fully extended

VII. Translate the following specification into Russian.



The Panasonic KX-FHD351 not only operates as a plain-paper fax machine, copier, and telephone, but also includes an all-digital answering system. This feature gives you 18-minutes of memory in one main mailbox and two separate personal mailboxes-perfect for storing messages separately among those in your home or small business. The unit uses standard paper and has a paper tray that holds 50 sheets. It also automatically

feeds documents of up to 10 sheets.

The KX-FHD351 also features a powerful digital duplex speakerphone, giving you the convenience of fielding your phone calls hands free. It's designed to provide crisp, natural sound without dropouts or clipping. It's especially useful for group or business situations, such as conference calls, when others in the room can easily join the conversation.

The machine can be programmed to send a message to your pager when you receive a voice message. In addition, caller ID data can be sent to your pager. If you answer an incoming fax call on a phone that operates on the same line as your fax unit, Extension Line Transfer lets you simply press *9 to take the call from your fax unit.

A feature called Quick Scan whisks your fax documents into memory, then sends them from memory to the recipient. This saves time otherwise spent waiting for pages to go through individually. Broadcasting stores documents in memory and faxes them in succession to multiple locations, avoiding the need for repeating the task manually.

Caller-ID Compatibility with two-line LCD lets you see the name and number of all of your incoming callers (of up to 16-characters) on the LCD readout. You can even print the list for your records. It's a great time-saving feature for both business and personal use (this feature requires a subscription to a fee-based phone-company service).

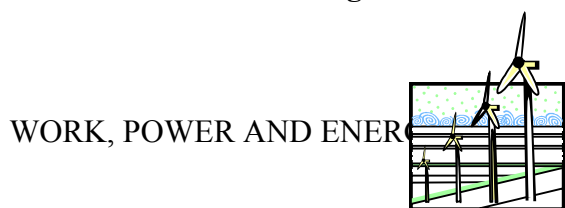
Distinctive ring detection gives you up to three telephone numbers on a single line, each with a different ring pattern. This way you can tell who the call is for, simply by the sound of the ring. If you subscribe to a Distinctive Ring service, you can assign phone numbers for personal use, business use, fax use, and so on. (This feature can only be used if you subscribe to a Distinctive Ring service from your telephone company.)

The telephone directory navigator makes searching through your phone directory easier than ever before. Just use the navigator key to look through your directory list, and when the name you want appears, lift the handset, and the number will dial automatically.

The unit's enhanced copier functions include: multiple copies (up to 50), enlarge (150 or 200 percent), reduce (to 92, 86, or 72 percent), and collate.

LESSON 6

I. Translate the following text into Russian.



Work. To lift a weight from the ground requires the expenditure of energy. In lifting the weight we have to do work against the force of gravity. The amount of work done depends on the weight lifted and the height through which it is raised, and so the unit by which work is measured is defined as the amount of work done when a weight of 1 pound is lifted a vertical height of 1 foot. This unit is called the foot-pound and is written ft-lb. In the metric system the unit of work may be chosen as the gram-centimeter or the kilogram-meter.

When a force acts to assist the motion of a body the force is said to do work on the body. When a force opposes the motion of a body the phrase "work is done against the force" is used.

We denote work by W . Since it is the product of two scalar quantities, work is a scalar quantity.

Power. The time rate at which work is done is called power. Power, like work is a scalar quantity. It can be expressed in any units of work and time, as foot-pound per minute, ergs per second, etc. The units commonly used in engineering, however, equal to 550 foot-pounds per second; the continental horsepower, equal to 75 kilogram-meters per second; the kilowatt, equal to 10 ergs per second. The symbol for power is P . From these

units of power are derived convenient units of work, namely: the horsepower-hour and kilowatt-hour; these are respectively the amounts of work done in 1 hour by an agent working at the rate of 1 horsepower and 1 kilowatt.

Energy. When the state or condition of a body is such that it can do work, the body is said to possess energy. Thus a body may have kinetic energy by virtue of its motion, potential energy by virtue of its temperature, chemical energy by virtue of its chemical composition. The amount of energy of any kind that a body possesses at a given moment is the amount of positive work the body can do in changing from the condition it is in at that instant to some other condition taken as standard. Thus we may consider the kinetic energy of a rotating flywheel to be the work the flywheel can do in coming to rest relative to the earth, the potential energy of a stretched spring to be the work the spring can do in contracting to its normal strength, and the thermal energy of a hot body to be the work the hot body can do in cooling the temperature of its surroundings.

Energy is measured in the same units as work and like work is a scalar quantity. We denote energy by E.

II. Translate the summary of the text into English.

Цель данной статьи – дать информацию читателю об энергии и мощности. Первая часть статьи имеет дело с энергией, вторая часть посвящена мощности. Энергия расходуется при поднятии чего-либо с земли. При подъеме приходится затрачивать усилия против силы тяжести. Сила воздействует на движение тела. Мощность – это отрезок времени, за который была выполнена работа. Известны несколько обозначений мощности, например, 1 лошадиная сила или 1 кВт. Если тело в состоянии выполнения действия, то считается, что тело обладает энергией. Тело может обладать кинетической энергией. Потенциальная энергия базируется на температуре, а химический состав влияет на химическую энергию. Энергия обозначается E.

III. Compare the original and the translation. Which techniques have been used in the translation ?

TYPES OF ENERGY

Scientists divide energy into seven main types. These include heat energy, which raises the temperature of matter, electrical energy, which converts into other energy forms, including heat and light, and chemical energy, contained in fuels. All energy that comes directly or indirectly from the sun is known as radiant energy and makes up the electromagnetic spectrum.

Ученые подразделяют энергию на семь основных видов. Сюда входит тепловая энергия, которая повышает температуру вещества, электрическая энергия, которая превращается в другие формы, включая тепло и свет и химическая энергия, содержащаяся в топливах. Вся энергия, поступающая прямо или косвенно от солнца, называется солнечной энергией и формирует электромагнитный спектр.

IV. Rearrange the segments of the translation in the right order.

WHAT IS ENERGY ?

Everything happens because of energy: without it, there would be no life on Earth. Scientists classify energy into several different

(a) когда двигатель начинает работать; (b) ученые классифицируют энергию на несколько разных типов; (c) включая химическую

types, including chemical energy, light energy, and nuclear energy. Most types of energy can switch from one form to another. It is when energy switches form that things happen, or work is done. In a car, for example, gasoline provides chemical energy, which turns into mechanical energy, heat energy, electrical energy, and sound energy when the engine is started.

энергию; (d) энергию света и ядерную энергию; (e) все вокруг происходит, благодаря энергии; (f) и без нее не было бы жизни на Земле; (g) когда энергия меняет форму или выполняется работа; (h) в автомашине, например; (i) бензин обеспечивает химическую энергию; (j) которая превращается в тепловую энергию; (k) электрическую энергию и в звуковую энергию; (l) это происходит тогда; (m) многие виды энергии могут переходить из одной формы в другую.

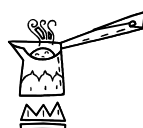
V. Edit the machine translation of the text.



The earliest method of refrigeration was the storage of food in caves and cool springs. Then people began keeping food in their cellars, in their outdoor window boxes, in the snow, or underwater in nearby lakes, streams, or wells. The invention of the icebox led to more efficient refrigeration. Ice was delivered to houses by delivery men, and was used in wooden iceboxes that were lined in tin or zinc and insulated with sawdust or seaweed. The use of ice for refrigeration continued until World War I, when mechanical refrigeration came on the market. The first electric refrigerators with freezer compartments came on the market in the 1920s and 1930s. However, the mass production of refrigerators began after World War II, when researchers had been able to successfully adapt large refrigeration systems for use in homes and shops. In the 1950s and 1960s, the invention of automatic defrost and automatic icemakers further improved the efficiency of refrigerators. Refrigerators also became available in a wide variety of size, color, and design.

Самым ранним методом охлаждения было хранение продовольствия в пещерах и прохладных веснах. Тогда люди начали держать продовольствие в их подвалах, в их наружных коробках окна, в снегу, или под водой в близлежащих озерах, потоках, или колодцах. Изобретение холодильника вело к более эффективному охлаждению. Лед поставляли зданиям мужчинами поставки, и использовался в деревянных холодильниках, которые были выровнены в олове или цинке и изолированы с опилками или морской водорослью. Использование льда для охлаждения продолжалось до Первой мировой войны, когда механическое охлаждение прибыло в рынок. Первые электрические рефрижераторы с купе морозильника прибыли в рынок в 1920-ых и 1930-ых. Однако, массовое производство рефрижераторов началось после Второй Мировой Войны, когда исследователи были способны успешно приспособить большие системы охлаждения к использованию в домах и магазинах. В 1950-ых и 1960-ых, изобретение автоматических размораживает, и автоматический icemakers далее улучшил эффективность рефрижераторов. Рефрижераторы также стали доступными в широком разнообразии размера, цвета и проекта.

VI. Translate the operator's manual.



COFFE MAKER

Filling the water reservoir

Lift up the lid and fill the water reservoir with fresh, cold water to the required number of cups
Do not fill above the maximum level.

Preparing the machine

If using paper filters (1 × 4 size), we recommend you fold it along the seams to avoid the filter breaking.
Insert the filter paper in the filter holder.

Measuring the coffee

Add the necessary measure of filter coffee, use about 1 level tablespoon (one measuring spoon) per cup.
Depending on the type of filter coffee used, you may need to adjust the amount of coffee for your personal taste. To avoid water overflowing, always leave a gap of about 2 cm between the coffee and the upper edge of the filter.

Plug in and press the on/off switch

If you do not wish to serve the coffee immediately, leave the jug on the hotplate which remains hot until the coffee-maker is switched off.

Descaling

It is important to descale your coffee-maker after each packet of filters or about once a month.

Pour 15 g of descaling powder and 5 cups of water. Place the jug and filter holder onto the hot plate.
Switch on and after 10 seconds, switch off. Let descaling product act during 20 minutes.

Switch on again. Operate 2 times with cold water only to rinse out before re-using.

MB White vinegar can be used. In this case, pour 1 cup of water and 1 cup of white vinegar.

Follow the same instructions as above. Let vinegar act during 30 minutes.

VII. Translate the following specification into Russian.

TWIN COOLING SYSTE



The Twin Cooling System controls the refrigerator and freezer independently with two separate evaporators and precise electronic control. Until now, conventional refrigerators have used a single evaporator to lower the temperature in both the refrigerator and freezer compartments. This presents the problem of cold air traveling through the same duct to cool both the refrigerator and freezer. The ideal temperature is $-18\text{ }^{\circ}\text{C}$ for the freezer and $3\text{ }^{\circ}\text{C}$ for the refrigerator, creating a difference of 21 degrees. Because of this, having a single evaporator is very inefficient. SAMSUNG refrigerators have two evaporators for each compartment and sense which compartment needs cooling and cools only that compartment. This results in a more efficient refrigerator with powerful performance! This is the secret of SAMSUNG's Twin Cooling System.

Benefits of the Twin Cooling System:

Maintaining Ideal Temperature and Speedy Cooling Performance

Since the freezer and refrigerator compartments have their own evaporators, the Twin Cooling System can maintain ideal temperature for each compartment.

Efficient Use of Energy

Adequate amount of cool air is provided in each compartment, independent of the other. This enables the refrigerator and the freezer to use power only when their respective compartments need cold air, resulting in reduced energy consumption.

Quiet Operation

SAMSUNG Side by Side refrigerators succeeded in reducing the noise level by using a compressor designed for low noise and variable motors.

Another Freezer in Refrigerator Compartment

The Twin Cooling System allows the CoolSelect Zone to maintain -5°C (Soft Freeze mode) in the refrigerator compartment. While food stored in the freezer is not easy to handle, the Soft Freeze mode sets the temperature low enough for easy slicing and allows medium-term storage. This is only possible by the Twin Cooling System.

No Mixing of Odors between Compartments

The Twin Cooling System automatically isolates odors. Since the compartments are cooled separately, the cool air does not travel through the same duct to reach the freezer and the refrigerator compartments. Therefore, there is no unpleasant mixing of odors.

Maintaining Optimum Humidity

With the Twin Cooling System, cool air in the refrigerator compartment does not travel to the freezer compartment preventing food from drying out due to loss of humidity. Food in the refrigerator is preserved for longer period of time.

Environmentally Friendly

All refrigerators from SAMSUNG's new factory are CFC Free and HCFC Free.

LESSON 7

I. Translate the following text into Russian.



Every body in the universe exerts a force of gravitational attraction on every other body. The earth attracts the book and pencil lying on your desk; each of these attracts the other, the earth attracts the moon; the sun attracts the earth and other planets of the solar system as well as the most distant stars; and each of these bodies pulls back on each of the others which attract it, with an equal or opposite force. Here we are concerned only with the force of gravitational attraction between the earth and other bodies on or near its surface. The force of gravitational attraction which the earth exerts on a body is called the weight of a body.

The mass of a body, although it is not the same thing as the body's weight, is directly proportional to the weight. All bodies whatever their mass, fall with the same acceleration at the same point on the earth's surface.

It follows the accelerating force or the weight of a body is directly proportional to its mass. Since weight and mass are proportional, and since the weight of each mass unit is known, the weight of any body of known mass can be found, and vice versa.

The term mass, as used in mechanics refers to that property of matter which in everyday language is described by the word inertia, a Latin word, meaning laziness.

We know from experience that an object at rest will never start to move of itself – push or pull must be exerted on it by some other body. In more technical language, an external force is required to accelerate the body, and we say the force is needed because the body has inertia. We may therefore say: inertia is that property of matter because of which a force must be exerted on a body in order to accelerate it.

On the other hand, it is well known that any object once started will keep moving straight ahead and at the same speed. It will not stop of itself and an opposing force should be applied if it is necessary to bring it to a standstill.

To assign a numerical value of inertia of any given body, we choose as a standard some one body whose inertia is arbitrarily taken as unity, and state the inertia of all other bodies in terms of this standard. The inertia of a body, when stated in this quantitative way, is called a mass. Mass is a quantitative measure of inertia.

The weight of a body is defined as the force of gravitational attraction exerted on the body by the earth. This gravitational pull, however, is not merely one force exerted on the body as a whole. Each small element of the body is attracted by the earth, and the force called the weight of the body is in reality the resultant of all these small parallel forces.

The direction of the gravitational force on each element of a body is vertically down, so the direction of the resultant is vertically down also, regardless of the orientation of the body. The line of action of the resultant will, however, occupy a different position relative to the body as the orientation of the body is altered.

It is found that however a body may be oriented there is always a common point through which all of these lines of action pass. This point is called the center of gravity of the body. The center of gravity of any two bodies must lie on the line joining their centers of gravity.

II. Translate the summary of the text into English.

Текст называется «Вес и масса». В статье речь идет о физических понятиях. Масса тела отличается от веса тела. Вес тела прямо пропорционален его массе. Если вес и масса тела пропорциональны и известен вес единицы массы, то легко можно найти вес тела. Земля притягивает различные предметы. Солнце притягивает Землю и другие планеты солнечной системы. Любое тело будет двигаться с той же скоростью, с которой оно начинает падение. Сила притяжения, действующая на тело, снижается независимо от его положения. Центр притяжения тела – это точка, через которую проходит линии действия тела. Тело не начнет движение, если на него не будет направлено воздействие. Для того, чтобы тело начало двигаться, необходим толчок.

III. Compare the original and the translation. Which techniques have been used in the translation ?

MASS AND WEIGHT

Your weight is the force that you exert on the Earth. It is a result of gravity acting on your body. On the moon, your weight would be much less than it is on Earth, because of the weaker pull of the moon's gravity. Weight differs from mass: your mass is constant

Ваш вес – это сила, которой вы воздействуете на Землю. Она является результатом воздействия гравитации на ваше тело. На Луне ваш вес будет значительно меньше, чем на Земле, из-за более слабого притяжения Луны. Вес отличается от массы: масса

whatever the force of gravity. Scientists measure mass in kilograms (kg). This indicates the amount of matter in your body. Scientists measure weight in newtons (N), and 1 kg equals a force of 9.81 N.

вашего тела постоянно и не зависит от силы притяжения. Ученые измеряют массу в килограммах (кг). В них определяется количество материи в вашем теле. Ученые измеряют вес в ньютонах (N), а 1 кг равен усилию в 9,81 N.

IV. Rearrange the segments of the translation in the right order.

TEMPERATURE

We determine how hot or cold something is by a measure called temperature. This tells us how much energy the atoms (tiny particles) inside a body contain. The more energy the atoms contain, the faster they move, and the higher the temperature. For each element (simple type of substance), there are specific temperatures at which changes of state occur. These are known as melting and freezing points. Scientists believe that absolute zero is the lowest possible temperature, below which atoms would have no energy.

(a) тем быстрее они движутся и тем выше температура; (b) мы определяем, насколько что-нибудь горячее или холодное, называемой температурой; (c) ниже которой атомы не будут обладать никакой энергией; (d) что абсолютный нуль – это самая низкая температура; (e) она говорит нам; (f) чем больше энергии содержат атомы; (g) сколько энергии содержат атомы (мельчайшие частицы) внутри вещества; (h) с помощью величины; (i) существуют свои специфические температуры; (j) при которых изменяется состояние вещества; (k) они известны как точка плавления и точка замерзания; (l) ученые полагают; (m) для каждого химического элемента (простейшего типа материи).

V. Edit the machine translation of the text.

A FEW WORDS ABOUT LENGTH,
MASS, TIME



The study of physics enables us to give the answer to some of the many fascinating questions which concern the behaviour of machines, of electricity and of magnetism; and of vibrations of light, heat and sound. Many simple observations in physics may be made by naked eye, by touch or by ear. A blacksmith judges the temperature of hot iron by the colour of the glowing metal, knowing there is a relation between brightness of glow and degree of hotness; a railway mechanic tests for flaws in the metal of carriage wheels by the sound of his hammer blows; the photographer often judges lighting intensities by eye. Our senses alone, however, are often not sufficiently trustworthy for our purposes. So we use measuring instruments in order to make our observations precise and less affected by errors of the senses. People may differ in their estimate of what is warm and what is tepid; a thermometer gives a more reliable value of the temperature. A great deal of attention has been to the designing of scales of measurement, e. g. scales of length and of volume, and scales of weight, of temperature and of time.

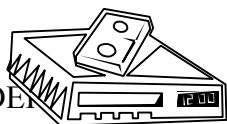
There is generally a scale of centimeters, subdivided into millimeters. This scale is obtained from another standard of length, the international standard metre, which is also defined as the distance between two marks on a standard metal bar at a definite temperature. The prefix *centi* means a *hundredth*, so a *centimeter* is a hun-

dredth of a metre; the prefix milly means a thousandth, so that a *millimetre* is a thousandth of a thousandth of a metre and is equal to a tenth of a centimetre. In similar fashion *kilo* means a *thousand*, so that a *kilometre* is a thousand metres.

Изучение физики позволяет нам дать в некоторым из многих очаровательных вопросов, которые касаются поведения машин (механизмов), электричества и магнита; и колебаний света, нагреться и звук. Много простых наблюдений в физике могут быть сделаны голым глазом, или ухом. Кузнец судит температуру горячего железа цветом пылающего металла, зная, что вот – отношение между яркостью жара и степени (градуса) горячих; железнодорожный механик проверяет на недостатки в металле колес вагона звуком его ударов шахтера; фотограф часто судит ионы освещения глазом. Наши чувства (смыслы), одни, однако, часто не достаточно заслуживающие доверия для наших целей. Так что мы используем измерительные приборы, чтобы делать наши наблюдения точными и менее затронутыми ошибками чувств (смыслов). Люди могут отличаться по их оценке (смете) того, что является теплым и что является прохладным; термометр дает более надежную ценность температуры. Большое внимание было к проектированию масштабов измерения, е. г. масштабы длины и объема (издания), и масштабов веса, температуры и времени.

Есть вообще масштаб сантиметров, подразделенных на миллиметры. Этот масштаб получен от другого стандарта длины, международного стандартного метра, который также определен как расстояние между двумя марками на стандартном металлическом бруске(баре) в определенной температуре. |prefix *centi* одна сотая средств, так *сантиметр* – одна сотая метра; приставка Милли означает одну тысячную, так, чтобы *миллиметр* был одна тысячная одной тысячной метра и равна одной десятой сантиметра. Подобным способом *килограмм* означает *тысячу*, так, чтобы *километр* был тысяча метров.

VI. Translate the operator's manual.



VIDEO CASSETTE RECORDER

Congratulations on purchasing your new VCR (Video Cassette Recorder). It is one of the most sophisticated yet simple-to-use home video recorders you can buy. It will give you many hours of enjoyment, whether you use it for playing back prerecorded cassettes of your favourite films, or for recording TV programmes which you would otherwise have missed. Alternatively, you may find it an invaluable business aid.

You can't wait to get it working, but before you do, spare a few moments to read this brief introduction to the world of video recording. It may repay you handsomely in terms of improved results, or avoidance of costly mistakes.

Positioning

Do not place the VCR directly on top of, or underneath, your TV set. Ensure that there is at least 20 cm between the VCR and the TV set, and that air can circulate freely through the ventilation openings of the VCR.

What is a video recorder ?

Simply, it is a machine which stores pictures and sound on magnetic tape. This VCR uses VHS cassettes, and since VHS is the most popular video system in the world, there are plenty to choose from. Suffice it to say that a cassette from another kind of VCR cannot be used on this VCR. Ensure that you only buy VHS cassettes of the best quality to get the best results from this VCR. The VCR is a television receiver in its own right. When you record a TV programme, it is being received by the video recorder, not by your TV set. This means that you can record one TV programme on the VCR while you watch another which is being received by the TV set.

Description of Controls

Front Panel

VCR Indicator Panel

1. Cassette Compartment
2. Wireless Remote Sensor
3. STOP/EJECT Button – Press to stop the tape. Press again after the tape has stopped to eject the cassette.
4. POWER Button – Press to turn the VCR (Video Cassette Recorder) on and off.
To set the VCR for unattended recordings after timer settings have been completed.
5. FF (Fast Forward)/SEARCH Button – Press to move the tape forward rapidly. Also, during playback, press this button for rapid forward visual search.
6. PLAY Button – Press to play back a tape.
7. REW(ind)/SEARCH Button -Press to rewind tapes. Also, during playback, press this button for rapid reverse visual search.
8. CHANNEL UP/DOWN Buttons – Press to scan up or down through the VCR's channels.
9. O(ne) T(ouch) R(ecording) Button – Select the channel and then press this button to start recording for 30 minutes periods.
10. REC(ord) Button – Press to start recording.
11. PLAY Indicator – Indicates the playback mode.
12. REC(ord) Indicator – Indicates the recording mode.
13. OTR Indicator – Indicates that the One Touch Recording (OTR) feature is in use.
14. Digital Indicator – Indicates the clock, tape counter, and start and stop time for timer recording.
15. Daily/Weekly Indicators – Indicates the Daily or Weekly timer recording is set.
16. TIMER Indicator – Indicates the VCR is set for unattended recording.
17. Memory Indicator – Indicates the counter memory function is set.
18. Cassette-In Indicator – Confirms there is a cassette in the unit.

Rear Panel

19. AC (Alternating Current) Power Connector – Connect the small end of the supplied AC power Cord to this terminal, and then connect the large end of the AC Power Cord to a household outlet.
20. RF Converter Frequency Adjustment Screw – Set to channel which is not used for regular TV broadcasting in your area.
21. RF OUT Jack – Connect to the aerial terminal of a TV receiver through the aerial cable.
22. AUDIO IN Jack – For audio input connection from the output connector of a portable video camera, another VCR, or another audio source.
23. VIDEO IN Jack – For video input connection from another VCR or a portable video camera.
24. VIDEO OUT Jack – For video output connection to a monitor TV or another VCR.
25. AUDIO OUT Jack – For connection to an audio input connector on a monitor TV, another VCR, or an audio tape recorder.
26. ANT(enna) IN Jack – Connect an aerial to this terminal.
27. TEST Signal Switch – Set to ON when turning your TV receiver for the video channel. A test signal in the form of two vertical white bars will be available.
28. System Select Switch – Set the System select switch to the appropriate position according to your TV system.

Remote Control Transmitter

29. Digit Buttons – Press to select a desired channel.
30. POWER Button – Press to turn VCR power ON or OFF.
31. CHANNEL/TRACKING UP/DOWN Buttons – Press "A" or "v" to scan up or down through the VCR's channels. Release at desired channel. In the Play and Slow modes, when playing a tape, press TRACKING "A" or "v" button to adjust the tracking.
32. Single/Double Entry Button – Press to select one digit or two digits for channel selection.
33. CH(annel)/PR(ogram) Button – Press to set the preselector in the Channel set mode.
34. GO-TO Button – Press to search for desired point on linear tape counter. Press this button and select desired counter number with the Digit buttons.

35. REW(ind)/SEARCH Button – Press to rewind the tape at high speed. You can also press this button in the Play mode for rapid reverse visual search.
36. PLAY Button – Press to play back a tape. – Press to release the slow, or search mode and return to playback.
37. FF (Fast Forward)/SEARCH Button – Press to move the tape forward at high speed. You can also press this button in the Play mode for rapid forward visual search.
38. SLOW Buttons – Press the SLOW button during playback to view a slow-motion picture.
39. STOP Button Press to stop the tape.
40. PAUSE/STILL Button – Press once to temporarily stop the tape during recording (Pause).
41. REC(ord) Button Press to start recording.
42. O(ne) T(ouch) R(ecording) Button – Select the channel and then press this button to start recording for 30 minutes periods.
43. TIMER Button – Press to engage the Timer set mode.
44. CLEAR Button – Press to cancel the programmed data in the Timer set mode.
45. COUNTER/CH(annel) MEMO(ry) Button – Press to engage the Counter Memory mode.
46. CH(annel) SEARCH Button Press to engage the Channel set mode.
47. CLOCK Button – Press to engage the Clock set mode.
48. DISPLAY Button – Press to switch the display among the counter, clock, date and channel mode.

Before Requesting Service

There may be times when you suspect that your VCR is not functioning correctly. Before calling for service, please check the following list. You may find that an apparent malfunction can be easily rectified.

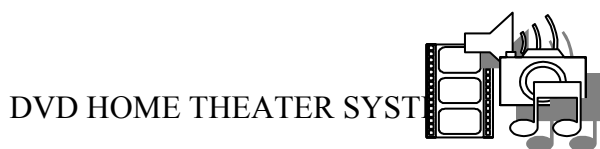
-Symptom-	- Correction -
No power...	Check that the Power plug is completely connected both to the VCR and to an AC (Alternating Current) outlet
TV program can't be recorded...	Please complete "Placing Local Channels in the VCR" and "Setting the Clock" before attempting to set up a "Timer Recording". Check the connections between the VCR, the external antenna, and your TV. Make sure that the record tab on the back of the cassette is still intact

Окончание табл.

-Symptom-	- Correction -
Timer recording can't be performed...	Set the recording start/stop time correctly. Make sure that the POWER button is set to "OFF". Timer recording may not be performed or continued if a power interruption of more than 3 minutes occurs before or during Timer Recording, even if power resumes thereafter
There is no playback picture, or the playback picture is	Select the same channel on your TV as that of the VCR Channel. Check that VCR channel of the TV is

noisy or contains streaks...	properly adjusted. Adjust the Tracking control in either direction
During special effects playback, the picture may contain some vertical jitter when using a TV which has an Automatic Vertical Hold Control....	Set the TV's Vertical Hold Control, if available, to "MANUAL" and adjust
If the top of your playback picture waves back and forth excessively...	Because the VCR playback signal is not as stable as an off-the-air TV signal, the top of your TV screen may be bent or unstable during playback. To solve this problem, slowly turn the HORIZONTAL HOLD control on your TV to correct the wavy picture. If your TV does not have the horizontal hold control or adjusting the control does not help, please contact your local TV service center
IVCR can't be remote controlled...	Insert the cassette with the window side up and the record tab facing you. Check that the power plug is completely connected to an AC outlet. Check the cassette to be sure that the record tab on the back of the cassette is still intact
Video cassette can't be inserted...	Insert the cassette with the window side up and the record tab facing you. VIDEO cassette can't be removed...

VII. Translate the following specification into Russi.



High Output Power

Accurate reproduction of Dolby Digital surround sound and DVD-Audio recordings requires a multi-channel amplifier with high output capability.

Built-In DVD-Audio/Video Player

Many of our home theater systems include a DVD player as part of the package. Compatible with both DVD movies and the advanced, high-resolution audio format DVD-Audio, our included DVD players simplify installation and make it easy for you to get a DVD player that blends perfectly with your audio system

Built-In VCR

Select models feature a combination receiver/DVD player/VCR, all in the same unit. Keep your VHS tapes while adding DVDs to your home video collection.

Progressive Scan DVD Playback

The key to the sharpest picture quality DVD-Video has to offer, progressive scanning creates a picture signal with double the scan lines of a conventional interlaced picture, 480i (the "i" stands for "interlaced"), to create a noticeably sharper image. The 480p ("progressive") image helps eliminate motion artifacts, so even on large screens, the progressive-scan lines are less noticeable and picture flickering is greatly reduced. Requires a TV capable of accepting 480p signals and with component video inputs. For a more in-depth explanation of the benefits of progressive scanning, please visit our Built-In DTS® and Dolby Digital® Decoders Achieve a remarkably natural sense of ambience and dynamic realism, a spacious surround effect, and realistic, accurate sound for your home theater. Select models feature the latest decoders for Dolby Digital EX, DTS-ES, and DTS 96/24 formats.

Magnetically Shielded Speakers

Speakers contain large magnets that can interfere with your TV's picture if placed too close to the screen. Magnetic shielding lets you put your speakers close to your TV without affecting the image – essential for home theater use.

HighMAT (High-Performance Media Access Technology)

Co-developed by Panasonic and Microsoft, HighMAT was designed to significantly improve interoperability for digital media content between PCs and popular electronics devices such as CD players, car stereos and DVD players. HighMAT is a digital-media standard that provides a dramatically improved method of storing, arranging and playing back personal digital photo, music and video collections on recordable discs such as CD-RW media. At this time, our HighMAT-compatible Panasonic products have HighMAT Level 2 functionality which includes compatibility only with audio files and JPEG still image files.

5 DVD/CD Changer

Load 5 DVDs or CDs at once for extended viewing or listening.

Component Video Output

Component video connections offer outstanding image quality – better than S-video or composite video connections. Use this method to connect our home theater systems to a compatible TV for a clear, vibrant image.

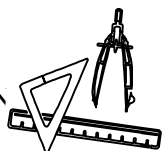
Double Re-Master Processing

When music and soundtracks are recorded digitally, the compression that occurs can impact the overall sound quality, especially with MP3 and WMA files. Re-master processing helps to compensate for any frequencies lost due to compression during recording, providing a rich sound field.

LESSON 8

I. Translate the following text into Russian.

UNITS OF MEASUREMENT



Unit is a quantity or dimension adopted as a standard measurement. Much of physics deals with measurements of physical quantities such as length, time, velocity, mass, density, temperature and energy. Many of these quantities are interrelated. For example, velocity is a length divided by time. Density is mass divided by volume/ Volume is a length times a second length, times a third length. Most of the physical quantities are related to length, time and mass, therefore all the systems of physical units are derived from these three fundamental units.

Practically there are three main systems of measurement in use today: the British system of units, the metric system of units and the quite recently adopted SI Units (System of International Units). With a few exceptions nearly all the nations of the world use the metric system. The value of the MKS (meter-kilogram-second) system is that its various units possess simple and logical relationships among themselves, while the British system (the fps – foot-pound-second) is a very complicated one. For example, in the British system 1 mile is equal to 1.760 yards; 1 yard is equal to 3 feet, and 1 foot is equal to 12 inches. In the English system converting one unit into another is hard and monotonous job, while in the MKS system conversions of one unit to another can be carried out by shifts of a decimal point (comma in Russian writing).

The standard meter of the world was originally defined in terms of the distance from the north pole of the equator. This distance is close to 10,000 kilometers or 10^{10} (ten to the tenth power) meters. By international agreement the standard meter of the world is the distance between two scratches made on a platinum-alloy bar. It is kept at the International Bureau of Weight and Measures in France.

The square meter is an MKS unit of area while the cubic meter is an MKS unit used to measure volume.

In fact, the SI Units is an internationally agreed coherent system of units derived from the MKS system. It is replacing all the other systems. The seven units in it are: the meter (m), kilogram (kg), Kelvin (K), mole (mol), and candle (cd).

II. Translate the summary of the text into English.

Статья называется «Единицы измерения». Согласно автору, метрическая система единиц, британская система единиц и Система международных единиц составляют главные системы измерения. В мире используется метрическая система. Как указывается в тексте, длина, время, скорость, масса, плотность, температура – это физические величины. Многие из данных величин взаимосвязаны. Длина, время и масса – это основные единицы измерения. В соответствии с международным соглашением стандартный метр – это расстояние между двумя насечками на бруске платинового сплава. Квадратный метр – это величина системы международных единиц. Что касается кубического метра, то он переименован для измерения объема. В заключение подчеркивается, что Система международных единиц считается общепринятой во всем мире. В данную систему входит семь единиц.

III. Compare the original and the translation. Which techniques have been used in the translation ?

WHAT IS RELATIVITY ?

When you travel on Earth, you have an idea of your speed because of the reference points around you, such as houses and trees. But suppose you were in spaceship traveling in deepest space. You would have nothing to relate your motion to and no way of knowing how fast you were traveling. "Speed" would be a meaningless term. The great physicist Albert Einstein (1879–1955) used mathematical calculations to prove that motion is always relative to something else.

При передвижении по земле у нас складывается понятие о скорости из-за наличия предметов, которые по сравнению с нами не двигаются, таких как дома или деревья. Но представьте себе, что вы находитесь в космическом корабле, летящем в бесконечном космосе. Тогда у вас нет ничего, с чем можно соотнести ваше движение, и нет никакого способа, чтобы определить, с какой скоростью вы летите. Термин "скорость" теряет всякий смысл. Великий физик Альберт Эйнштейн (1879–1955), пользуясь математическими расчетами, доказал, что движение всегда происходит относительно чего-нибудь другого.

IV. Rearrange the segments of the translation in the right order.

ELECTROMAGNETISM

Electricity and magnetism combine to form one of the fundamental forces of the universe – electromagnetism. The two constantly interact, and the relationship between them is one of the most important in physics. For example, an electric current passing through a wire creates a magnetic field; and if the lines of force around a magnet are cut by a passing object, an electric current will be produced. These, and other such phenomena, form the basis of much of today's technology.

(a) и эти взаимоотношения являются одними из важнейших в физике. (b) Электричество и магнетизм в сочетании (c) составляют основу современной технологии. (d) возникает электрический ток (e) Это и другие подобные ему явления (f) возбуждает вокруг него магнитное поле; (g) создают одну из фундаментальных сил Вселенной – электромагнетизм. (h) Они постоянно взаимодействуют друг с другом, (i) а если силовые линии магнитного поля пересекает какое-либо тело. (j) Например, проходящий по проводнику электрический ток.

V. Edit the machine translation of the text.



We can tell by our sense of touch when our body is warmer than another, but our senses are not always reliable. If you step out of a warm bath and place one foot on a cork mat and the other on a sheet of metal, you will be certain that the metal is much cooler than the cork, but of course you will be quite wrong. The cork and metal must be at the same temperature, since they have been in the same room for a long time. What then is the explanation?

Later we shall see that a metal, like the above sheet, a good conductor of heat and takes heat readily from your warm foot leaving it cold. On the other hand, cork a very bad conductor for heat and hardly any heat passes from the foot placed on the cork mat, leaving the foot warm. Again if you come into a room, after walking on a cold night, the room seems quite warm, but to a person who has been sitting in the room for a time it may seem cold.

Мы можем сказать нашим осязанием, когда наше тело (орган) более тепло, чем другой, но наши чувства (смыслы) не всегда надежны. Если Вы ступаете из теплой ванны и размещаете один фут в цинковку пробки и другой на листе металла, Вы убедитесь, что металл намного более прохладен чем пробка, но конечно Вы будете весьма неправы. Пробка и металл должны быть в той же самой температуре, так как (с тех пор как) они были в той же самой комнате (месте) в течение долгого времени. Что тогда является объяснением?

Позже мы будем видеть, что металл, подобно вышеупомянутому листу, хороший проводник высокой температуры и берет высокую температуру с готовностью от вашей теплой ноги, оставляющей это холод. С другой стороны, пробка очень плохой проводник для высокой температуры и едва любая высокая температура проходит от ноги, помещенной в цинковку пробки, оставляя теплую ногу. Снова, если Вы входите в комнату (место), после ходьбы холодной ночью, комната (место) кажется весьма теплой, но человеку, который сидел в комнате (месте), какое-то время это может казаться холодным.

VI. Translate the operator's manual.



The cordless sewing machine

Note: Always use rotary wheel to move the needle. Never press or pull directly on needle arm to avoid damages to internal mechanism.

DIRECTIONS FOR USE:

Note: Operate the machine for 10 seconds, and then pause for 5 seconds. It can then be used again regularly.

1. Make sure machine is in the locked position. Raise the needle arm to the highest position by turning the rotary wheel. Note: The rotary wheel can be turned in either direction.

2. Lift up the fastening plate making sure not to push down on the needle arm (the arm can still be moved manually even when the machine is in the locked position). Place cloth underneath the fastening plate.

3. Pull at least 2 inches of thread through the needle, from back to front, prior to starting to sew.

4. Hold the Handy Stitcher with right hand and operate power switch with thumb, other fingers supporting the bottom.

5. Unlock machine (see diagram on reverse side under "To Replace Batteries"). Press the power switch with your right thumb. The machine will feed cloth to the left in proper tension automatically use left hand to hold the cloth and control the direction (do not rush machine). When wider stitches are required, pull cloth to the left a little faster while you continue sewing. Follow the centerline on cloth fastening plate to ensure straight stitching

6. To Finish Seam – When finished sewing, raise the needle arm to the highest position by turning the rotary wheel. Then use the back of a seam ripper or scissors to pull the thread out about 3 inches then cut it.

7. Turn the rotary wheel, lowering the needle into the cloth & continue to turn the rotary wheel until the needle arm is again at its highest position.

8. Lift up the fastening plate and take off the cloth to the left making sure not to pull the thread or the seam will unravel.

9. Turn to back side of the cloth and guide the reserved 3 inches of thread according to the following figures to make the knot:

(1) First pass threader through the last stitch.

(2) Put the thread into threader.

(3) Pull out about 1 inch.

(4) Guide the thread through the loop and pull it tight to finish the knot.

How to Thread Handy Stitcher

Note: Thread should flow from the top right of bobbin or spool. Spring must be in place before installing bobbin.

1. Thread the handy stitcher.

2. Pass thread through the eyelet on needle arm .

3. Pass thread over top of tension control. Do not wrap completely around tension control.

4. Use threader to pass the thread through needle eye from back to front.

Adjusting Thread Tension

1. If stitching is too tight, turn tension control slightly to the left.

2. If stitching is too loose, turn tension control slightly to the right.

To Install a Normal Thread Spool

1. Loosen the bobbin nut and take off bobbin.

2. Slide thread spool onto extension spindle.

3. Connect the extension spindle on bobbin shaft.

To Replace Needle

Loosen the set screw with a screwdriver and take off the old needle.

Always use a #14 style DHx1 sewing needle.

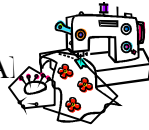
Needle must be installed with flat side of needle shank facing the front of handy stitcher.

Note: Make sure machine is in the locked position prior to battery replacement.

Caution: Needle is sharp. Use care when working with needle to avoid injury. Keep away from children. When not in use, machine should always be kept in the locked position.

VII. Translate the following specification into Russian.

EURO PRO DELUXE DENIM AND
SILK SEWING MACHINE



Stitch up a storm even on delicate fabrics with the Euro Pro Deluxe Denim and Silk Sewing Machine. This rugged, no-nonsense unit offers a huge amount of flexibility plus some handy, intuitive features. Its solid metal and plastic construction allows you to sew through heavy fabrics. It features 48 stitch functions, including decorative, utility, heirloom, stretch, double overlock and embroidery stitches. You can vary the stitch length and width to suit your fabric, or create wide variety of decorative stitch combinations. The independent, adjustable stitch width and stitch length control gives you unlimited creative possibilities. The convenient free arm provides easy sewing of tubular pieces, children's clothes, tight areas and easy access to all your attachments. Other details include:

- Automatic, 1-step buttonhole
 - Drop feed – for easy embroidery
 - Balance – for buttonhole adjustment
 - Numerous needle positions from center to left
 - Extra wide zigzag adjustment
 - 11 creative feet including zipper, button sewing, buttonhole, satin stitch, overlock, roll hemming, blind hemming, cording, darning, embroidery, quilting and gathering foot
 - Built-in buttonhole stitching
 - Thread cutter on the face plate
 - Built-in deluxe needle threader
 - Drop-in bobbin
 - On/off switch and adjustable foot pressure controller
 - Built-in folding carry handle
 - Built-in accessory compartment an all purpose foot, seam ripper/brush, snap-on zigzag foot, oiler, quilting guide, pack of needles, 3 bobbins, L-screwdriver, extra spool pin and twin needle
 - White plastic casing over metal machine construction
 - Hard shell white plastic case
 - Measures approximately 15"W × 12"H × 7"D
 - Manufacturer's model #6130A
 - Comes with a 25 year, limited manufacturer's warranty
- For warranty information, please call 1.800.933.2887.

About Euro-Pro Sewing...

Stitch up everything from buttonholes to ball gowns with the latest technology from Euro-Pro sewing. These high-quality machines include special features such as twin needles and a double over-lock stitch. Stitches stay straight no matter the fabric weight, from chiffon to denim. Solid metal gears provide years of performance compared to machines made from plastics and other materials that wear quickly. Standard features such as multi-stitch functions and drop-in bobbins make each machine a tremendous value and a trusted helper.

LESSON 9

I. Translate the following text into Russian.

MECHANICAL PROPERTIES OF MATERIALS



Materials science and Technology is the study of materials and how they can be fabricated to meet the needs of modern technology. Using the laboratory techniques and knowledge of physics, chemistry, and metallurgy, scientists are finding new ways of using metals, plastics and other materials.

Engineers must know how materials respond to external forces, such as tension, compression, torsion, bending, and shear. All materials respond to these forces by elastic deformation. That is, the materials return their original size and form when the external force disappears. The materials may also have permanent deformation or they may fracture. The results of external forces are creep and fatigue.

Compression is a pressure causing a decrease in volume. When a material is subjected to a bending, shearing, or torsion (twisting) force, both tensile and compressive forces are simultaneously at work. When a metal bar is bent, one side of it is stretched and subjected to a tensional force, and the other side is compressed.

Tension is a pulling force; for example, the force in a cable holding weight. Under tension, a material usually stretches, returning to its original length if the force does not exceed the material's elastic limit. Under larger tensions, the material does not return completely to its original condition, and under greater forces the material ruptures.

Density (specific weight) is the amount of mass in a unit volume. It is measured in kilograms per cubic metre. The density of water is 1000 kg/m^3 but most materials have a higher density and sink in water. Aluminum alloys, with typical densities around 2800 kg/m^3 are considered less dense than steels, which have typical densities around 7800 kg/m^3 . Density is important in any application where the material must not be heavy.

Strength is the force per unit area (stress) that a material can support without failing. The units are the same as those of stiffness. MN/m^2 , but in this case the deformation is irreversible. The yield strength is the stress at which a material first deforms plastically. For a metal the yield strength may be less than the fracture strength, which is the stress at which it breaks. Many materials have a higher strength in compression than a tension.

Toughness is the resistance of a material to breaking when there is a crack in it. For a material of given toughness, the stress at which it will fail is inversely proportional to the square root of the size of the largest defect present. Toughness is different from the strength: the toughness steels, for example, are different from ones with highest tensile strength. Brittle materials have low toughness: glass can be broken along a chosen line by first scratching it with a diamond. Composites can be designed to have considerably greater toughness than their constituent materials. The example of a very tough composite is fiberglass that is very flexible and strong.

II. Translate the summary of the text into English.

Текст называется «Механические свойства материалов». Автор утверждает, что материалы обладают такими механическими свойствами как сжатие, напряжение, плотность, сила и жесткость. Ученые пытаются найти новые способы использования металлов, пластмассы и других материалов. Специалисты используют различные лабораторные методы, а также знание металлургии, физики и химии. Необходимо учитывать поведение различных материалов при воздействии на них внешними силами. Одни материалы могут деформироваться, другие ломаться, третьи – остаются неизменными. Согласно автору, сжатие происходит в результате давления, после чего материал уменьшается в объеме. При небольшом натяжении материал обычно растягивается. Если увеличить силу натяжения, материал может разорваться. Сила и жесткость – два важных физических свойства материалов. Например, стекловолоконные материалы очень гибкие и обладают высокой степенью жесткости.

III. Compare the original and the translation. Which techniques have been used in the translation ?

TRANSFORMATION

A transformation is a change in the position, size, or shape of a geometric figure (such as a triangle). The main transformations are reflection, enlargement, translation, and rotation. Other forms of transformations include stretching and shearing. Reflection, translation, and rotation change the position of the figure. They do not alter the lengths of the sides or the area of the figure and so are called isometrics. Stretching increases the size of the figure along one axis. Shearing is similar to stretching but the area of the figure remains the same. Enlargement increases the size of the whole figure.

Преобразование – это изменение положения, размера или формы геометрической фигуры (такой как треугольник). Основными видами преобразований являются отражение, увеличение, перенос и вращение. Другими формами преобразований являются растяжение и перекося. Отражение, перенос и вращение изменяют положение фигуры. Они не меняют ни длин сторон, ни площади фигуры, и поэтому называются изометриями. Растяжение увеличивает размер фигуры вдоль одной оси. Перекося похож на растяжение, однако площадь фигуры остается той же. Увеличение приводит к росту размеров всей фигуры.

IV. Rearrange the segments of the translation in the right order.

CHANGE OF STATE

Many substances can exist in more than one state -as a solid, liquid, or gas. Which state they are in depends on their temperature and pressure. At certain temperatures, under normal atmospheric pressure, some substances change state. Liquids, for example, may become solids or gases, and gases may condense into liquids. Elements change state, under normal pressure, at specific temperatures, known as melting (or freezing) and boiling (or condensation) points.

(a) при определенной температуре и нормальном атмосферном давлении; (b) некоторые вещества меняют свое состояние; (c) химические элементы переходят в другое состояние при нормальном давлении при особых значениях температуры; (d) точка таяния (или замерзания) и точка кипения (или конденсации); (e) в твердом, жидком или газообразном; (f) то, в каком состоянии находится вещество; (g) зависит от его температуры и давления; (h) жидкости, например, могут превращаться в твердые вещества или газы; (i) а газы могут конденсироваться и превращаться в жидкости; (j) многие вещества могут пребывать более чем в одном состоянии.

V. Edit the machine translation of the text.

CLOTHES WASHER



In the good old days, clothes were washed in a stream, by I-Minding the garments with rocks, stones and heavy sticks.

Forget about soap – water was the sole cleansing agent. Fire added heat to the laundry mix, when clothes were washed in tubs with water heated over open fires and soap made at home from a combination of lye and ashes. Clothes scrubbed on a corrugated board, wrung by hand, rinsed, then wrung again, and draped on lines or bushes to dry. Women's hands were freed by 1927, when wringer washers became standard, eliminating the washboard, open tubs and

the boiler. A few "pumps" with the foot started the motor of the machine and kept it humming. The first automatic washer – one that washed, rinsed and extracted water from clothes

in one process – debuted at a country fair in Louisiana, in September, 1937. After World War II, the demand for washers was enormous. Today, washers offer a variety of features including a selection of cycles for washing different types of garments and water temperature and level options.

В хорошие старые дни, одежда была вымыта в потоке, I-возражением предметы одежды с камнями, камнями, и тяжело придерживается.

Забудьте о мыле – вода была единственным агентом чистки. Огонь (пожар) добавленная высокая температура к черновому соединению, когда одежда была вымыта в бадьях с водой, горячей по открытым огням(пожарам) и мылу, сделанному дома от комбинации щелка и пепла. Одежда, вычищаемая на рифленом правлении, скручиваемом вручную, ополоснутый, затем скручиваемый снова, и драпированный на линиях или кустарниках, чтобы сохнуть. Женские руки были освобождены к 1927, когда wringer мойщики стали стандартными, устраняя стиральную доску, открытые бадьи и

котел. Несколько "насосов" ногой начали двигатель машины (механизма) и держали это жужжанием. Первый автоматический мойщик – тот, который вымылся, ополоснутый и извлек воду из одежды в одном процессе – debuted на ярмарке страны в Штате Луизиана, в сентябре 1937. После Войны Слова II, требование (спрос) на мойщики было огромно. Сегодня, мойщики предлагают разнообразие особенностей, включая выбор циклов для того, чтобы мыть различные типы предметов одежды и водной температуры и вариантов уровня.

VI. Translate the operator's manual.

WASHING MACHINE

Energy saving hints

- Try to wash complete laundry loads: this saves unnecessary consumption of water and energy.
- Select the right programme for your laundry: this will obviously depend on the type of fabric and how soiled your laundry is; we recommend the use of programmes without prewash which will save you time, water and energy. The prewash cycle should in fact be used only for heavily soiled, cotton fabrics.
- Set the right temperature: use temperatures above 60 C only for very stubborn dirt but remember that modern detergents are very efficient even at low temperatures.
- Use the correct quantities of detergent: do not use too much detergent; remember that not only will this make rinsing more difficult but also pollutes the environment.
- Use the economy buttons: when washing small laundry loads use the Economy button if available on your washer and reduce the detergent quantity.
- Your washer features automatic consumption control, this means that you can wash laundry loads from 1 – 5 kg with considerable savings. Your washer will use just the right amount of water and electricity. All you need to do is dose the detergent.
- Fabric softeners: always use a softener; not only do these perfume and soften your laundry, they also make it easy to iron, saving you time.

General maintenance

After every wash

Leave the door open and wipe the door gasket dry after each wash so that damp or odours do not form. Remove the plug. Before cleaning or servicing always remove the plug from the socket. This is for safety reasons.

No solvents or abrasive substance

You do not need solvents or abrasive substances to clean the outside of the washer and the rubber parts. Just use a cloth, warm water and soap

Detergent dispenser drawer

This can be removed and cleaned. Just pull it towards you, and leave it under running water for a few minutes.

When moving house

When you move, all you need to do is secure the inside of the machine with the transit screws (supplied with the packaging of the machine) so that it will not be damaged.

Cleaning and special servicing

Hose

Check the hose once a year. It should be replaced if any signs of splitting or damage can be seen. The machine is under a lot of strain while operating and this may cause a cracked hose to split open suddenly.

Inspecting the drain pump

Your washer has a self-cleaning pump and therefore requires no cleaning or maintenance. Remember however that small items such as buttons or coins may accidentally fall into the pump. To remove these items, the pump comes equipped with an "prechamber" which is accessible from the front of the pump. To gain access to this prechamber simply remove the panel located on the bottom part of the washer, place it on the ground near the machine and remove the lid by turning it in the counter clockwise direction. Carefully inspect the inside of the pump.

Trouble shooting

If the machine does not seem to be working properly before calling the service engineer there are a number of things you can check. Perhaps you have forgotten to push in a button or you are not using the machine properly.

Sympton	Correction
Machine won't start	Make sure the appliance is plugged to the mains socket; you have electricity in your home, the door is firmly shut, the ON/OFF button D is on I, the programming cycle knob, in washer which have one, is on O, the programme is properly set and the mains water tap is open
Machine won't fill	Make sure the water tap is open and connected correctly to the hose, the water mains has not been cut off and that water pressure is sufficient; also check the hose for kinks

Окончание табл.

Sympton	Correction
Lots of vibration during the spin	Make sure the internal oscillating unit was released correctly at the time of in-

	stallation; the washer is leveled correctly or too tightly fitted between furniture units and the wall
Your washer is leaking	Make sure the ring nut of the supply pipe is firmly tightened; the detergent dispenser is not plugged and the drainage pipe is firmly fixed
Excessive formation of suds	Make sure the type of detergent you have used – is it suitable for an automatic washer – have you used too much detergent?
Water is pumping in and out all the time	Make sure there are no kinks in the drain pipe and that it is at least at a height of 60-100 cm; the pipe mouth is not below water level and that the wall drain has no air outlet If the problems continue even after you have checked these points, shut the water tap and turn off your washer
Problems with pumping out water or spinning	Make sure the programme selected has a draining cycle; the non creasing "hydrop-stop" button, on washer which have one, has not been pressed accidentally, the drainage pump is not jammed; the drain pipe is bent; the drainage piping is plugged any drainage pipe extensions are properly connected and do not prevent water flow

VII. Translate the following specification into Russian.

ABC'S OF WASHING MACHINES



A Little History

The next time you complain about washing and folding your clothes, be grateful for the simplicity that modern technology has afforded you. If you feel that doing laundry is an unpleasant, arduous task, imagine what it was like to wash clothing prior to the advent of the washing machine. To say that hand washing one's laundry took hours of heavy labor is quite an understatement.

Centuries ago, clothing had to be washed, boiled and rinsed by hand, with each load using approximately 50 gallons (or 400 pounds) of water. The water itself had to be transported from a well or pump to one's sink or stove in heavy, cumbersome wash boilers and buckets. Women had to lift, wring and rub water-laden linens and clothing, which, in turn, exposed them to hazardous substances and tired their wrist and arm muscles.

Drying the laundry – transporting baskets full of sopping wet dresses, pants and tablecloths to hang in the afternoon sunlight – and ironing clothes through the use of heat from a kitchen stove, were other unfavorable tasks, but for now, we will just address the actual act of washing clothing.

Given the tedious process described above, it comes as no surprise that inventors set out to create the first "washing machines," which were patented in America in 1846. The earliest manual machines used a lever to rub clothing between two surfaces, mimicking the motion of one's hand running up and down a washboard. Then in 1900 came the first electric washing machines, which relied upon motorized tub rotation.

Modern Day Miracle

Jump to the present, and you are certain to be impressed by the technological advances of this unassuming household appliance we have come to take for granted. Today, washing machines come in all shapes and sizes. They are available in several color schemes and offer a wide array of dynamic features that our ancestors couldn't even fathom. If you are in the market for a new washer, there are several factors you should consider before making your decision. Remember that today's better washing machines are an investment that can last 10+ years.

Frequent Washers

Almost all washers do a fairly good job cleaning your clothes. If you are washing 1 load per week, any machine will suffice. But if you do 3 or more loads per week, every week, year after year, investing in a good machine can make a significant difference in the effort expended as well as the energy required. Some very small washers use as much as 1200 kwh (kilowatt hours) per year, while the most efficient front-loading models use only 300 kwh per year. And those same machines use much less water, so you can feel good about not only your water bill, but also your environmental conservation efforts.

Categories

Today's modern washing machines can be divided into three categories, based upon varying levels of automation:

- **Fully Automatic** – These washers are in complete control. They rely upon sensors to automatically detect specific fabric types and configure water levels, wash time and the amount of detergent necessary to complete your wash.
- **Semi Automatic** – These energy-efficient washers use "load sensors" to decide upon the amount of water and detergent necessary to complete the wash based on your wash load.
- **Conventional or Manual** – These washers provide you with ultimate control. You must decide upon the wash cycle, water level and appropriate amount of detergent to complete the wash.

Loading System

The next criteria you must take into consideration is the machine's Loading System:

- **Top-Loading** – "Top-Loading" refers to washing machines that open from the top. These washing machines rely upon either a "pulsator" or an "agitator" wash, both of which spin your clothing back and forth throughout the detergent-filled water until it is clean. The basket then spins at a very high speed to remove excess water and detergent, and the process is repeated to ensure that any remaining detergent is removed. The machine then spin-dries the clothing until it is ready to line dry or enter a clothes dryer. Top-Loading machines are simple to load and very convenient as the wash cycle will resume if you interrupt it to add or remove clothing.
- **Front-Loading** – "Front-Loading" refers to washing machines with an opening in the front rather than the top. Clothes are "tumble" washed in Front-Loading Machines, meaning they are cleaned as they tumble in and out of the detergent-filled water and are then spun to remove excess water and detergent. Then they are rinsed and spun dry once more. Front-Loading washers use far less energy, water and detergent than their Top-Loading counterparts. Additionally, dryers can be stacked on top of them to conserve space.

High Efficiency

Purchasing a high efficiency front-loading washer will positively effect both the environment and your checkbook. The most energy efficient machines utilize as little as 300 kwh per year, whereas less efficient top-loading models can easily use over 900 kwh annually. Although front-loading washers cost more to purchase, they tend to pay for themselves after just a few years of use. Due to minimal power and water usage, a high efficiency model not only saves you money, but also is more sensitive to the environment because it uses less water and less detergent.

Front-loading machines spin clothes dry at a very high rpm, (revolutions per minute) thereby extracting more water from your clothes than top-loading machines. With less water imbedded in your clothing, your dryer doesn't have to work as hard, thus providing additional energy savings.

Space

When choosing your new washer, be sure to keep in mind any space constraints you may have. Almost all washers have the same dimensions – approximately 43" high by 27" wide by 26" deep. But if space is an issue, there are several models that are more compact, measuring only 24" wide to fit in small laundry rooms or even closets. Also, most front-loading machines can be stacked for further space conservation.

Load Capacity

Load Capacity is another important factor you will need to consider when purchasing a washing machine. Three basic tub sizes are available (small, medium and large) and different washing machines accommodate different sized loads of laundry. Considerations such as family size, clothing type, quantity of clothing and amount of space must be taken into account. Front-loading machines have the largest capacity due to the absence of bulky agitators.

Wash Tubs

Better machines feature wash tubs that are made of scratch-proof porcelain, while the best washers have rust-proof stainless steel tubs. A chipped or rusty wash tub can damage your clothing, so it is important to check your wash tub periodically for damage if you do not want to invest in a model with a corrosion-proof stainless steel tub.

Sound Dampening

If you are looking to replace an older machine, perhaps you have grown all too familiar with the fierce rumbling that echoes throughout your home when the wash cycle is running. Good news! Many newer model washing machines feature sound dampening features for a noiseless laundry experience. If quiet operation is of priority to you, be sure to double check that the machine of your choice comes equipped with some amount of sound dampening.

Cycles

Basic wash cycles tend to remain consistent through most makes and models of washing machines. They traditionally include Strong/ Heavy, Normal, Gentle/ Delicate, Speedy and Soak. Some of the more expensive models offer additional specialty cycles, which can even handle delicate fabrics that you may have previously taken to the dry cleaners.

LESSON 10

I. Translate the following text into Russian.



Do you know what the first engine was like? It was called the “water wheel”. This was an ordinary wheel with blades fixed to it, and the current of a river turned it. These first engines were used for irrigating fields.

Then a wind-powered engine was invented. This was a wheel, but a very small one. Long wide blades were attached to it. The new engine was driven by the wind. Some of these one can still see in the country.

Both of these, the water- and wind-operated engines are very economical. They do not need fuel in order to function. But they are dependant on the weather.

Many years passed and people invented a new engine, one operated by steam. In a steam engine, there is a furnace and a boiler. The furnace is filled with wood or coal and then lit. The fire heats the water in the boiler and then it boils, it turns into steam which does some useful work.

The more coal is put in the furnace, the stringer the fire is burning. The more steam there is the faster a train or a boat is moving.

The steam engine drove all sorts of machines, for example, steam ships and steam locomotives. Indeed, the very first aeroplane built by A.F. Mozhaisky also had a steam engine. However, the steam engine had its disadvantages, It was too large and heavy, and need too much fuel.

The imperfection of the steam engine led to the design of a new type. It was called the internal combustion engine, because its fuel ignites and burns inside the engine itself and not in a furnace. It is smaller and lighter than a steam engine because it does not have a boiler. It is also more powerful, as uses better-quality fuel: petrol or kerosene.

The internal combustion engine is now used in cars, diesel locomotives and motor ships. But to enable airplane to fly faster than the speed of sound another, more powerful engine was needed. Eventually, one was invented and it was given the name "Jet engine". The gases in it reach the temperature of over a thousand degrees.

It is made of a very resistant metal so that it will not melt.

II. Translate the summary of the text into English.

Название текста – «Двигатели». Автор начинает с описания первого двигателя, который был похож на обычное колесо с прикрепленными к нему лопастями и использовался для орошения полей. Течение реки приводило это так называемое «водное колесо» в движение. Позже был изобретен ветряной двигатель, который работал с помощью ветра. Далее автор описывает изобретение парового двигателя, работающего с помощью печи и котла. Вода, нагретая в котле, закипает и, превращаясь в пар, приводит в движение двигатель. Паровой двигатель достаточно просто использовать, но он потребляет слишком много топлива. Различные виды паровых машин, такие как суда и локомотивы работают с помощью этого двигателя. На смену паровому двигателю пришел двигатель внутреннего сгорания. Современный двигатель используется в автомобилях, дизельных локомотивах и теплоходах. Текст заканчивается информацией о реактивном двигателе.

III. Compare the original and the translation. Which techniques have been used in the translation ?

MAGNETS

Magnets are attracted to iron and to any material that contains iron. Magnets have two poles, a north pole and a south pole. Unmagnetized iron and steel have magnetic regions of atoms called domains that are jumbled up and point in lots of different directions. When iron or steel becomes magnetized, the domains become aligned and they all point in the same direction.

Магнит притягивается к железу и к любому другому материалу, содержащему железо.

У магнита есть два полюса, северный полюс и южный полюс. Ненамагниченное железо и сталь обладают магнитными группами атомов, называемыми доменами, которые реагируют и указывают во множество разных направлений. Когда железо или сталь намагничиваются, магнитные домены

One end of each domain points toward the magnetic north pole. выравниваются и все указывают в одно и то же направление. Один конец такого домена указывает на северный полюс магнита.

IV. Rearrange the segments of the translation in the right order.

PRESSURE

You put pressure on something when you apply a force to it. The amount of pressure depends on two things: the size of the force, and, more importantly, the size of the area on which it is applied. The smaller the area, the greater the pressure. This principle explains why thin stiletto heels sink into wooden floors and damage them. It also explain why a camel's large, flat feet prevent it from sinking into the sand in the desert.

(a) почему крупные плоские копыта верблюда не проваливаются в песок в пустыне; (b) когда к предмету прилагается сила; (c) этой закономерностью объясняется; (d) от величины силы и, что более важно; (e) от площади того места, к которому оно прилагается; (f) чем меньше площадь; (g) тем больше давление; (h) почему каблуки-шпильки впиваются в деревянный пол и портят его; (i) это значит, что на предмет осуществляется давление; (j) величина давления зависит от двух параметров; (k) этим также объясняется.

V. Edit the machine translation of the text.

THE PRESSURE OF THE ATMOSPHERE



By pressure we mean the force or weight acting on it area. From many years of observations and experiments scientists have formulated a theory about e structure of gases; the theory is known as the Kinetic Theory of Gases. The theory draws a picture of gas as being made up of a large number of very small particles, which arc called molecules. The actual volume of the molecules is very small compared with the volume of the gas. They are moving at high speeds in all directions in straight lines, and collide both with each other and with the walls of the containing vessel. Since the molecules are perfectly elastic no energy is lost in these collisions. The continual bombardment of the walls of the containing vessel creates the pressure which the gas exerts on these walls. The pressure will depend upon he number of impacts on unit area per second. If the volume of the vessel increases, the number of impacts on unit area per second increases and so the pressure decreases. Conversely the pressure will increase as the number of impacts increases if the volume of the vessel decreases.

Давлением мы подразумеваем силу или вес, действующий на это область. Со многих лет наблюдений и ученых экспериментов сформулировали теорию о структуре e газов; теория известна как Кинетическая Теория Газов. Теория тянет (рисует) картину газа, как составяемого большого количества очень маленьких частиц, которые образуют дугу вызванные (названные) молекулы. Фактический объем (издание) молекул является очень маленьким по сравнению с объемом (изданием) газа. Они двигаются в высокие скорости во всех руководствах (направлениях) на прямых линиях, и сталкиваются и друг с другом и со стенами содержащего судна. Так как молекулы являются совершенно упругими, никакая энергия не потеряна в этих столкновениях. Непрерывная бомбардировка стен содержащего судна создает давление, которое газ проявляет на этих стенах. Давление будет зависеть от него число (номер) воздействий на область единицы в секунду. Если объем (издание) увеличений судна, число (номер) воздейст-

вий на область единицы в секунду увеличивается и так уменьшения давления. Наоборот давление увеличится как число (номер) увеличений воздействий, если объем (издание) судна уменьшается.

VI. Translate the operator's manual.

STEAM IRON



For safety purpose you should read these instructions carefully before using the iron.

DO'S

1. Check the mains voltage gated on the back of iron.
2. Unwind and straighten the power cord before use.
3. Switch on the iron by turning the Temperature Dial in clockwise direction, pilot light glows.
4. Turn the Temperature Dial to the mid point of 1 dot, 2 dots, 3 dots or Max setting.
5. Switch off the iron by turning the Temperature Dial in anti-clockwise direction when it is not in use, even for a short period of time, turn the temperature Dial to "Min".
6. Disconnect the iron from mains supply outlet when filling water.
7. Remove the water remained in the water tank.
8. Use the self-cleaning function at least once a month.

DO NOT'S

1. Do not allow children touch the iron or the power cord when ironing.
2. Do not leave the iron unattended when it is connected to a mains supply outlet.
3. Do not use an extensive power cord set unless competent authority has approved it.
4. Do not immerse the iron in water or other chemical liquids into the water tank, they can damage the iron seriously.
5. Do not use the iron when it is damaged or it works improperly.
6. Do not roll the power cord around the iron for storage until it has cooled down completely.

Dry ironing

1. Connect the iron to a suitable mains supply outlet.
2. Turn the Temperature Dial in clockwise direction according to the recommendation of garment label.
3. Pilot light glows indicating the iron is switched on.
4. When the required temperature is reached pilot light goes off.
5. The iron is ready for use.
6. Turn Temperature Dial in anti-clockwise direction to 'Min', the iron is switched off.
7. Disconnect the iron from mains supply outlet.
8. When the iron gets cool completely, store it in a safe place.

Steam ironing

1. Fill the iron.
2. Connect the iron to a suitable mains supply outlet.
3. Turn the Temperature Dial in clockwise direction to (3 dots) setting (Don not use dot or 2 dots setting for steam ironing).
4. Pilot light glows indicating the iron is switched on.
5. Pilot light goes off when the required temperature is reached.
6. The iron is ready for use.
7. Turn the Steam Control knob in clockwise direction for more steam, in anti-clockwise for less steam.

8. Turn Temperature Dial in anti-clockwise direction to 'Min', the iron is switched off.
9. Disconnect the iron from mains supply outlet.
10. When the iron gets cool completely, store it in a safe place.

Burst of Steam

This function provides extra amount of steam to remove stubborn wrinkles.

1. Fill the iron
2. Turn the Temperature Dial to 'Max' setting
3. Pilot light glows indicating the iron is switched on.
4. Pilot light goes off when the required temperature is reached.
5. The iron is ready for use
6. Press the Burst of Steam button once
7. Steam will penetrate into the garment removing the wrinkles
8. Wait a few seconds before pressing the Burst of steam button again when there are stubborn wrinkles.

Usually all wrinkles can be removed with three presses

Burst of Steam in Vertical Position

This function provides extra amount of steam to remove wrinkles on delicate garments in hanging position, hanging curtains, or other hanging fabrics.

1. Fill the iron.
2. Turn the Temperature Dial to 'Max' setting.
3. Pilot light glows indicating the iron is switched on.
4. Pilot light goes off when the required temperature is reached.
5. The iron is now ready for use.
6. Hold the iron between 20 and 40 centimeters away from the garment.
7. Press the Burst of Steam button once.
8. Steam will penetrate into the garment removing the wrinkles.
9. Wait a few seconds before pressing the Burst of Steam button again.
10. Do not press the Burst of Steam button more than three times successively when pilot light glows.

VII. Translate the following specification into Russian.



- Professional Power.
 - Quickly remove wrinkles like an expert with this 1800-watt professional-grade tool designed for home use.
 - Twice as powerful as a conventional iron, the DG-980 Expert Steam Generator can be used vertically or horizontally, with variable steam levels that enhance everything from silk to denim.
 - The durable, oversized Laser soleplate applies more heat and steam to and through the fabric for unparalleled, professional-quality results. Extremely scratch resistant and specially coated for supreme glidability, the ultra smooth, non-stick soleplate ensures highly precise steam distribution P even in hard to reach ironing areas.
 - Whether tackling large jobs or a single item, the DG-980 heats up quickly and can be refilled at any time. Professional results are achieved in less than half the time of traditional ironing methods.
 - Vertical Steam : Lifts wrinkles from hanging garments and freshens garments between wearings.
 - Variable Steam : Lets you regulate the amount of steam, enabling effortless ironing of everything from silks to jeans.
 - Steam on Demand : Continuous power on demand, ensuring that heavy-duty fabrics look their best.
- Soft ergonomic handle for comfortable grip.
- Convenient steam trigger for steam on demand.
 - Easy-to-read thermostat with accurate temperature control.

- Extra-long cords with integrated cord storage.
- Ergonomic iron rest with heat resistant non-slip pads.
- Compact, easy-to-store base.
- Stainless steel boiler rinses clean.
- Dimensions = 13.5" High × 8" Wide × 8.5" Deep.

LESSON 11

I. Translate the following text into Russian.

AUTOMATIC MACHINE TOOLS

Automatic machine tools are not new, but they have increased in numbers and types at a great rate since the end of World War II. At the same time a new word, automation became a new technical term. Automation has many interpretations, but briefly it means taking most of the handwork and skill away from the machine operator and often eliminating him altogether by utilizing hopper feeds and automatic measuring devices.

All operations in machining a workpiece on a metal-cutting machine tool are classified as either processing or handling operations. Processing operations are those in which the actual cutting process or chip removal takes place. The rest are handling operations. They include loading and clamping the work, advancing withdrawing the cutting tools, releasing and unloading the work, checking the size of the workpiece, etc.

Machine tools designs with mechanisms that perform the majority of the required handling operations without the direct participation of the operator are called automatic machine tools.

Highly automatic machine tools are ordinarily classified as automatics and semi-automatics.

Automatics, as their name implies, are machine tools which machine workpieces automatically. They have a fully automatic working cycle repeated to produce duplicate parts without participation of the operator. All of the working and handling operations are performed in a definite sequence by the control system adopted in the automatic, which must be set up to suit the given job.

Semi-automatics are machine tools in which the actual machining operations are performed automatically in the same manner as on automatics. In this case, however, the operator loads the blank into the machine, starts the machine, checks the work size, and removes the completed piece by hand. The machining cycle is automatic, but direct participation of the operator is required to start each subsequent cycle, i. e. to machine each subsequent workpiece.

II. Translate the summary of the text into English.

Данный текст посвящен описанию автоматических инструментов. Термин «автоматизация» появился в техническом мире недавно. Данный термин имеет несколько значений. Самое распространенное значение данного понятия – это замена ручного труда на производстве машинным. Автор говорит о том, что станки снабжены механизмами, которые выполняют необходимые операции без участия оператора. Такие станки называются станками-автоматами. Станки могут быть полностью автоматизированы. Некоторые станки являются полуавтоматами. Станки – автоматы имеют полностью автоматический рабочий цикл. Вся работа выполняется в строгой последовательности и контролируется системой управления. Текст заканчивается информацией о полуавтоматах.

III. Compare the original and the translation. Which techniques have been used in the translation ?

RESONANCE

<p>All objects vibrate with a particular frequency, or regularity. The swinging of a pendulum is an obvious move-</p>	<p>Все объекты вибрируют со свойственной им частотой или регулярностью. Качание маятника – процесс</p>
---	--

ment, but the particles that make up any object vibrate too. Resonance results when the vibrations of an object are matched with similar vibrations. That is why soldiers never march in time over a bridge. The vibration of their marching could match and increase the bridge's vibrations, causing it to break up and collapse.

видимый, однако частицы, составляющие любой объект, тоже вибрируют. Резонанс является результатом совпадения вибрации одного объекта с подобными ей вибрациями. Вот почему солдаты никогда не идут в ногу по мосту. Вибрации от их движения в ногу могут совпасть с вибрацией моста и увеличить ее настолько, что она станет причиной его разрушения.

IV. Rearrange the segments of the translation in the right order.

GASES

Gases, like other forms of matter, are made up of atoms that form groups called molecules. Gas molecules move very freely, spinning around at high speeds and filling up large spaces. As they move, the energetic gas molecules collide with one another and with the walls of their containers. Vapour can also be classified as a gas, although it behaves slightly differently.

(a) описывая круги на высокой скорости и заполняя большие пространства; (b) молекулы газа весьма свободно перемещаются; (c) заряженные энергией молекулы газа сталкиваются друг с другом и со стенками сосудов; (d) состоят из атомов; (e) создают так называемые молекулы; (f) по мере своего движения; (g) которые, группируясь; (h) в которых они содержатся; (i) пар тоже можно причислить к газам; (j) газы, точно так же как и другие формы материи; (k) хотя он и ведет себя немного иначе.

V. Edit the machine translation of the text.

THE MAGNETIC LOUDSPEAKER

You have seen that the moving diaphragms of the earphones set the air next to them in motion and thus produce the sound you hear. If this sound were loud enough, you could lay the phones on the table and would not need to bother wearing them on your head.

If you were to make one of the diaphragms larger it would move a greater quantity of air and thus produce a louder sound. For practical reasons a diaphragm cannot be made very large, and so another scheme was developed. One end of a stiff wire is fastened to the centre of the diaphragm. This wire now moves in and out in step with the diaphragm. To the other end of the wire a large paper cone is fastened. The fluctuating diaphragm moves the wire; the wire in turn moves the paper cone. This in turn sets a large amount of air in motion, creating a loud sound. By this means we are able to do away with earphones. The device is called the magnetic loudspeaker.

Вы видели, что двигающиеся диафрагмы наушников устанавливают воздух рядом с ними в движении и таким образом производят звук, Вы слышите. Если бы этот звук был достаточно громок, Вы мог-

ли бы класть телефоны на столе (таблице) и не были бы должны беспокоить ношение их на вашей голове.

Если бы Вы должны были делать одну из диафрагм большей, это переместило бы большее количество воздуха и таким образом произвело бы более громкий звук. По практическим причинам диафрагма не может быть сделана очень большой, и так что другая схема была развита. Один конец жесткого провода закреплен к центру диафрагмы. Этот провод теперь перемещается в и в шаг с диафрагмой. К другому концу провода большой бумажный конус закреплен. Колеблющаяся диафрагма перемещает провод; провод в свою очередь перемещает бумажный конус. Это в свою очередь устанавливает большое количество воздуха в движении, создавая громкий звук. Этим означает, что мы способны покончить с наушниками. Устройство называют магнитным громкоговорителем.

VI. Translate the operator's manual.



- Before connecting the kettle, check if the voltage indicated on the appliance (underside of kettle and base unit) corresponds with the mains voltage in your home. If this is not the case, contact your dealer and do not use the kettle.

- Use the kettle only with the supplied base unit. Do not use the base unit for other purposes.
- If the mains cord of this appliance is damaged, it must be replaced by the special cord. Apply to your Philips dealer or the Philips organisation in your country.

- Connect the base unit to an earthed wall socket only.
- The kettle is protected against damage due to operation with insufficient water by means of a safety cut-out. This cuts off the power when the heating element gets too hot.

- If the kettle ever is operated with too little or no water, first remove the mains plug from the wall socket. Leave to cool down for 15 minutes before re-filling with cold water. The safety cut-out will automatically reset.

- Place the appliance on a stable flat surface. Ensure that the base unit and the kettle cannot fall into water and that no water can be splashed onto the base unit.

- Never immerse the kettle or the base unit in water. Do not allow water to penetrate the electrical parts inside the kettle or the base unit.

- Prevent children from pulling the mains cord or knocking the kettle over.
- The kettle may be cleaned with a damp cloth. First remove the kettle from the base unit. The base unit can be cleaned in the same manner. First remove the mains plug from the wall socket.

If the kettle is tipped too far backwards, water may be spilt through the rear cover. If this happens the kettle will still be electrically safe. Extra care must be taken if the kettle contains hot or boiling water.

- Do not place the kettle on a hot surface.
- Pour away the very first water boiled with this kettle. The appliance is then ready for use.

Cord storage

- The length of the free mains cord from the base can be adjusted.

For added safety, only the minimum length of cord should be visible between the base unit and the wall socket.

The mains cord length can be reduced by pushing the excess cord back into the base unit. Do not pull heavily on the cord to prevent damage.

- Underneath the base unit there are two alternative mains cord exit points. Select the point that will be closest to the wall socket. Press the cord firmly into the slot.

How to use the kettle

Filling

- remove the kettle from the base unit before filling
- you can fill the kettle via the spout or...
- after opening the lid do not forget to close the lid after filling, otherwise the kettle will not automatically switch off after use.

Do not fill with less than 35 litre of water (up to “MIN” INDICATION) TO PREVENT THE KETTLE running dry while operating. Do not fill with more than 1.7 litres of water (up to “ MAX” indication). Avoid overfilling to prevent boiling water being ejected from around the top of the kettle.

Switching on

- Place the kettle on the base unit, which is connected to a wall socket. (You can keep the base unit connected.)
- The appliance is switched on by setting the on/off switch into the "up" position. The pilot light will come on.

Switching off

- When the water has boiled the appliance switches off automatically.
- At any time you can switch the kettle off manually by setting the on/off switch into the "down" position.

Switching on again

- If switched off automatically, first allow the built-in thermal safety switch 15-20 seconds to cool down. Then you may switch on again.

During the cooling down time do not force the on/off switch into the "up" ("ON") position as this can damage the operating mechanism.

Cleaning

- Do not immerse in water.
- The kettle may be cleaned with a damp cloth. First remove the kettle from the base unit. The base unit can be cleaned in the same manner. First remove the mains plug from the wall socket.
- Soap or detergent can be used to remove troublesome stains. Do not use aggressive and abrasive cleaning agents.

Filterline scale fitter

To prevent loose particles of limescale being poured out into your beverage, your kettle is fitted with a scale filter. The filter is removable to enable cleaning and replacement.

Limescale deposits

Limescale is a harmless deposit which is naturally formed when (more or less) hard water is heated. It can be found mostly adhered to the heating element.

The amount of limescale deposited (and subsequently the need to clean or descale) largely depends on the water hardness in your area and the frequency with which the kettle is used. Limescale is not harmful to your health. But if poured into your beverage it can give a powdery taste to your drink.

The scale filter is designed to prevent these scale particles from being poured but by trapping them within the kettle.

Cleaning the scale filter

To avoid an excessive amount of limescale building up inside your kettle, it is important that both the kettle and filter are cleaned on a regular basis.

Scale can be removed from the filter by

- running it under a tap, whilst gently brushing with a soft nylon brush;
- or by soaking the filter in vinegar or a proprietary descaling agent.
- Before removing the filter (for replacement or cleaning):
 - Ensure that the kettle is unplugged from the mains.
 - Do not attempt to remove the filter when hot or when the kettle contains hot water.
- Never leave the filter loose inside the kettle. Ensure that the filter is always correctly placed between the two ribs.
 - Slide the filter downwards until it clicks into position.

In the course of time, a build-up of limescale may occur on the filter gauze, reducing the filling (via the spout) and pouring performance of the kettle. Limescale adhered to the heating element will reduce the heating capacity. Therefore, the kettle with the filter in place, should be descaled periodically as indicated in section "Descaling".

Replacement filters

Replacement filters can be obtained under type nr. HD 4961 from your Philips dealer. Scale filters can also be applied with kettles type HD 4390 if provided with locating ribs.

Descaling

Descale the kettle regularly. With normal use: at least twice a year.

- Boil 700 ml of water in the kettle.
- Switch off and unplug from the electrical supply.
- Add 300 ml of ordinary vinegar to the water in the kettle.
- Leave the solution to stand in the kettle overnight.
- Empty out the solution into e.g. a jug. Rinse the inside of the kettle with clean water.
- Fill the kettle with clean water up to the "MAX" level.

VII. Translate the following specification into Russian.

RICE COOKER 

Cool Touch Body and Carrying Handle

Makes the rice cooker easier to carry right after cooking, so you can serve your rice as soon as it's ready.

Clear Steaming Basket

Lets you cook rice and steam vegetables or other foods at the same time. Also, the basket is clear, so you can monitor the cooking process.

Non-Stick Coated Inner Pan

Wipes clean with minimal effort, allowing for quick and easy cleanup. The cord tucks away inside the body of the rice cooker to avoid messy tangles.

Different Rice Capacities

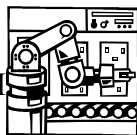
Different capacities let you find a rice cooker that suits your individual or family needs, from 3-cup to 10-cup models. Cup capacity is measured in dry, uncooked rice.

Keep Warm Function

Helps keep rice warm and moist after cooking.

LESSON 12

I. Translate the following text into Russian.



AUTOMATED PRODUCTION LINE

An automated production line consists of a series of workstations connected by a transfer system to move parts between the stations. This is an example of fixed automation, since these lines are set up for long production runs, making large number of product units and running for several years between changeovers. Each station is designed to perform a specific processing operation, so that the part or product is constructed stepwise as it progresses along the line. A raw work part enters at one end of the line, proceeds through each workstation and appears at the other end as a completed product. In the normal operation of the line, there is a work part being processed at each station, so that many parts are being processed simultaneously and a finished part is produced with each cycle of the line. The various operations, part transfers, and other activities taking place on an automated transfer line must all be sequenced and coordinated properly for the line to operate efficiently.

Modern automated lines are controlled by programmable logic controllers, which are special computers that can perform timing and sequencing functions required to operate such equipment. Automated production lines are utilized in many industries, mostly automobile, where they are used for processes such as machining and press working.

Machining is a manufacturing process in which metal is removed by a cutting or shaping tool, so that the remaining work part is the desired shape. Machinery and motor components are usually made by this process. In many cases, multiple operations are required to completely shape the part. If the part is mass-produced, an automated transfer line is often the most economical method of production. Many separate operations are divided among the workstations.

Press working operations involve the cutting and forming of parts from sheet metal. Examples of such parts include automobile body panels, outer shells of laundry machines and metal furniture. More than one processing step is often required to complete a complicated part. Several presses are connected together in sequence by handling mechanisms that transfer the partially completed parts from one press to the next, thus creating an automated press working line.

II. Translate the summary of the text into English.

Текст посвящен функционированию поточных линий. Согласно автору, автоматизированные поточные линии используются во многих отраслях промышленности. Автоматизированные поточные линии предназначены для производства большого количества изделий. Каждая линия выполняет определенную операцию. Для более эффективного производства предусмотрены скоординированные действия на линии. На линиях выполняется механическая обработка изделий. Следующий этап – придание необходимой формы. Массовое производство считается самым экономичным методом производства. Прессование изделий происходит на специализированных линиях. В работу вовлечены несколько прессов, которые работают поэтапно, передавая изделие от одного пресса к другому.

III. Compare the original and the translation. Which techniques have been used in the translation ?

WHAT IS SOUND 

Sound travels in waves, but it is not part of the electromagnetic spectrum like light waves and radio waves. Sound is produced when matter vibrates. The frequency of these vibrations is measured in units called hertz (Hz). The term frequency refers to the number τ of waves produced per second. It is variations in frequency that produce different pitches (high and low sounds). The limits of human hearing are 20 000 Hz.

Звук передается волнами, но он не является частью электромагнитного спектра подобно световым волнам или радиоволнам. Звук производится в том случае, когда материя вибрирует. Частота таких вибраций измеряется в единицах, называемых герцами (Hz). Термином "частота" называют количество производимых волн в секунду. Именно изменениями частоты достигаются разные тональности звуков (высокие и низкие звуки). Человеческий слух различает звуки с частотой в пределах от 20 Hz до 20 000 Hz.

IV. Rearrange the segments of the translation in the right order.

WAVES



(a) in order to pass energy
on; (b) by causing the matter
to vibrate; (c) transverse
(crosswise) waves cause the
tiny particles; (d) to the direc-
tions of the wave; (e) some
waves transport energy
through matter; (f) longitudi-
nal (lengthwise) waves cause
the particles to "ripple"; (g)
electromagnetic waves; (h)
that make up matter to vibrate
at right angles; (i) such as X-
rays; (j) do not need to vibrate
matter; (k) there are two types
of such waves;
(l) in the same direction as the
waves.

Некоторые волны, при-
нуждая материю вибриро-
вать, проводят через нее
энергию. Существует два
вида таких волн. Попереч-
ные (пересекающие) волны
приводят составляющие ма-
терию мельчайшие частицы
к вибрации под прямым уг-
лом к направлению движе-
ния волн. Продольные вол-
ны приводят частицы к "зы-
би" в направлении движения
волн. Электромагнитные
волны, такие как X-лучи,
проводят энергию сквозь
материю, не вызывая ее виб-
рации.

V. Edit the machine translation of the text.

ELECTRIC BULB



Electric current is a flow of free electrons through a wire. Electric wire is made of copper and electrons easily pass through it.

But if they come to a different metal whose conductivity is not so good as that of copper, they bump against the atoms of the metal. The friction arising from the bumping makes the metal very hot.

This happens in electric stoves and irons where the wire is made of nichrome. The nichrome becomes very hot when electricity flows through it. The metal covering protecting the nichrome from dirt becomes hot too and cooks the food or warms the room.

In an electric bulb, a very fine filament of wire made of tungsten is used. As the current flows, the electrons bump into the tungsten atoms, and become hot. The hotter they become, the quicker they move and bump, and become hotter still, until the wire begins to glow. The glow is the result of the electrons bumping about and causing little sparks, which we see as light. The electrons do not burn up or melt the wire, although it is very thin, because there is no oxygen in the bulb, so things cannot burn in it.

Электрический сосуд (луковица)

Электрический ток – поток свободных электронов через провод. Электрический провод сделан из меди, и электроны легко проходят через это.

Но если они прибывают в различный металл, проводимость которого не столь хороша как это меди, они наталкиваются против атомов металла. Трение, являющееся результатом столкновения делает металл очень горячим.

Это случается в электрических печах и утюгах, где провод сделан из nichrome. nichrome становится очень горячим, когда электричество течет через это. Покрытие металла, защищая nichrome от грязи становится горячим также и готовит продовольствие или warms комната (место).

В электрическом сосуде (луковице), очень прекрасная нить провода, сделанного из вольфрама используется. Как текущие потоки, электроны врезаются в вольфрамовые атомы, и становятся горячими. Чем более горячий они становятся, тем более быстрый они двигаются и наталкиваются, и становятся более горячими все еще, пока провод не начинает пылать. Жар – результат электронов, наталкивающихся об и причиняющих небольшие искры, которые мы видим как свет. Электроны не горят или тают провод, хотя это очень тонко, потому что нет никакого кислорода в сосуде (луковице), так что вещи не могут гореть в этом.

VI. Translate the operator's manual.

RANGE HOODS

These instructions are designed to tell you of the various technical details of your cooker hood and to make you familiar with its use. Since these instructions cover more than one type of hood within the same series, it may be that reference is made to components that do not form part of the hood that you are installing. Fittings can vary from country to country. We reserve the right to modify the product without any notice always with the aim of improvements and in compliance with the relevant norm.

General description

The appliance can be used as a canopy hood or can be mounted beneath a wall cupboard and is suitable for use as an exhaust hood or as a recirculating hood; if an exhaust facility (an exhaust duct or a ventilating shaft) is available, then we recommend the hood be installed as an exhaust hood for then, most of the smells and vapors that arise when cooking or frying can be almost completely removed from the kitchen. The grease filter that is fitted removes any grease particles from the vapors so that your kitchen, the kitchen furniture and the walls remain for the most part free of grease and other particles that could give rise to unpleasant odors.

Exhaust version

The hood must be connected by the flange (supplied as part of the hood) to a duct to vent all the exhausted air outside the kitchen. Over horizontal areas, if any, the duct must be slanted about 10 % upwards from upstream to downstream. Please make sure that the lever (fig. 6/2) is in the exhaust position. The efficiency of the exhaust hood decreases as the length of the ducts and number of elbows increase.

When using the exhaust version, follow these rules:

Do not connect the exhaust hood to chimneys, flues, and air ducts serving the room.

Before venting into exhaust flues and ducts no longer in use, ask for the approval of the person or agency responsible for the building.

The evacuated air must not be let into a warm air duct.

For the evacuation of the exhausted air please note official instructions.

Suggestions for using the hood in exhaust position

When an exhaust hood and a heat source requiring ambient air (e.g. gas, oil, coal stoves, etc.) are used at the same time, attention is required because the air necessary for combustion is exhausted from the room through the

hood and this creates depression. There is no such danger when the maximum depression in the room is 0,04 mbar. In this condition no exhaust gas from the heat source is piped. To assure this condition, make openings in the room which cannot be closed (doors, windows, etc. are not sufficient) and through which the air necessary for combustion can freely flow.

All the exhaust ductwork in the apartment or house should be studied. In case of doubts, get advice or authorization from the person or agency responsible for the building. When using gas burners, gas ovens, etc. as well as when using the hood in the filter version, these precautions are not necessary.

Filter version

This version is used when no exhaust duct to the outdoors is available. The air is purified by an active vegetable carbon filter and recycled into the room. Make sure the carbon odor filter is inserted.

Using the cooker hood

The cooker hood should be switched on either before or at the same as cooking or frying commences.

How the cooker hood works

The hood is fitted with a push buttons for speed regulation.

Lighting

The light works independency of whether the fan is switched on or off, being provided with a separate on/off switch.

Installation

The hood must be mounted over the center of the cooking area. The minimum distances between the cooking area and the underpart of the hood are 650 mm.

The distances, however, are subject to the safety rules in effect in the various countries.

Fastening the cooker hood to the wall

1. Using the attached template mark the position of the holes. Before drilling make sure that no wiring will be damaged.
2. Drill the two fastening holes, drive in the wall plugs and screw in the screws until their heads are about 6 mm from the wall.
3. Place the hood to the wall in order to check that it seats properly. Then mark the position of the two holes. Take it off from the wall now, drill the holes and fit the plugs.
4. Place the hood once again to the wall, tighten the screws and introduce the screws from the inside of the appliance.

Fastening the cooker hood beneath a wall cupboard

1. Turn the wall cupboard upside down.
2. Using the attached template mark on the wall the positions of the 4 screws holes and the exhaust opening.
3. Using a 4.5 mm bit, drill the four fastening holes in the bottom of the cupboard.
4. Only for hoods with an exhaust connection pointing upwards.
5. Cut the exhaust opening for a pipe of (130 mm diameter) and fasten the pipe flange to the hood.
6. Turn the cupboard back over and stand it on the top of the cooker hood and fasten the hood to the cupboard by means of four screws screwed through the holes that were drilled in the bottom of the cupboard.

Electric connection

Make sure the supply voltage ratings correspond with those stated on the appliance data plate. This appliances is double insulated, do not connect to earth.

Attention: If the appliance does not have a plug, when making a fixed installation, a cutoff device must be used to assure omni polar disconnection the mains. The cutoff distance of the contacts must be at least 3 mm.

Safety rules

Do not do any flambé cooking underneath the hood.

When frying, never leave the pan alone because the cooking oil could flare up. Clean all the surfaces frequently to avoid danger of fire.

It is also important to remove and clean or substitute frequently the filter installed in the hood.

VII. Translate the following specification into Russian.

AIR CONDITIONER

Touch Control Panel with LED Display

A simple tap of the touch control panel is all you need to set the temperature, timer, or cooling fan speeds, and the LED display will give you a quick, accurate indication of your temperature setting.

Compact Remote Controller

A slim-line remote lets you change your air conditioner's settings from across the room.

12-Hour On/Off Timer

Lets you to set your air conditioner to switch off automatically in one-hour increments, up to 12 hours from the present time. For example, you can set it when you go to bed so it shuts off while you sleep. Some models also feature timer switch-on capability, letting you set you set the timer so the air conditioner turns on before you get home from work.

Optional e+ Filter

The electrostatically charged e+ Filter helps to keep air cleaner by removing particles of dust, pollen, and smoke that may pass through ordinary filters.¹ (All 2003 models include a standard air filter. The e+ Filter is an optional accessory.)

Energy Star Qualified – High EER

Models that meet certain electricity usage requirements qualify for the government's Energy Star program. Energy Star qualified air conditioners use less electricity than conventional models. Some utility companies also offer rebates for owners of Energy Star products, potentially saving you even more money.

Wide Airflow

The air outlet opens wide left and right, sending air to every corner of the room. And cool air directed through the top discharge system—when the air outlet is located high on the unit—naturally spreads as it descends.

Left or Right Side Power Cord

Allows for simple installation in most rooms.

Through the Wall Installation

Mount the air conditioner through a thick wall (professional installation required).

Auto Air Swing

Cool air is spread evenly across the room via swinging air control vents. The air swing vents can also be shut off to direct airflow in one direction.

Easy to Lift Out Filter

You can open the grille and pop out the filter for quick and easy cleaning.

Removable, Washable Intake Grille

The intake grille can be removed in a one-step operation, allowing for easy cleaning with water.

Multiple Cooling and Fan Only Speeds

The air conditioner can be run with cooling turned on, or you can run the fan by itself to help circulate air around the room. Multiple settings provide comfort under varying conditions.

Economy Operation Mode

Saves energy by automatically shutting down the fan whenever the compressor stops.

4-Way Air Deflection System

Directs the airflow horizontally and vertically through adjustable front louvers, allowing you to either cool the whole room or concentrate on one area.

Ventilation Control

You can open the vent to discharge stale air, or close it to circulate air in the room.

Slide-Out Chassis

Makes installation simple via a two-piece process. Just install the lightweight cabinet first, and then slide in the main chassis.

LESSON 13

I. Translate the following text into Russian.

APPLICATION OF AUTOMATION
ROBOTICS IN INDUSTRY



Manufacturing is one of the most important applications for automation technology. There are several types of automation in manufacturing. The examples of automated systems used in manufacturing are described below.

1. **Fixed automation**, sometimes called “hard automation” refers to automated machines in which the equipment configuration allows fixed sequence of processing operation. These machines are programmed by their design to make only certain processing operations. They are not easily changed over from one product

style to another. This form of automation needs high initial investments and high production rates. That is why it is suitable for products that are made in large volumes. Examples of fixed automation are machining transfer lines found in the automobile industry, automatic assembly machines and certain chemical processes.

2. **Programmable automation** is a form of automation for products in large quantities, ranging from several dozen to several thousand units at a time. For each new product the production equipment must be reprogrammed and changed over. This preprogramming and changeover take a period of non-productive time. Production rates in programmable automation are generally lower than in fixed automation, because the equipment is designed to facilitate product changeover rather than for product specialization. A numerical control machine-tool is a good example of programmable automation. The program is coded in computer memory for each different product style and the machine-tool is controlled by the computer programme.

3. **Flexible automation** is a kind of programmable automation. Programmable automation requires time to reprogram and change over the production equipment for each series of new product. This is lost production time, which is expensive. In flexible automation the number of products is limited so that the changeover of the equipment can be done very quickly and automatically. The reprogramming of the equipment in flexible automation is done at a computer terminal without using the production equipment itself. Flexible automation allows a mixture of different products to be produced one right after another.

II. Translate the summary of the text into English.

Текст посвящен применению автоматизации в промышленности. Согласно автору, существует несколько типов автоматизации в производстве, такие как: фиксированная, программируемая и гибкая. Фиксированная автоматизация, как говорится в тексте, позволяет машинам выполнять запрограммированные операции по обработке изделий. Такие машины обычно используются для массового производства изделий. Автор указывает, что отличие программируемой автоматизации в необходимости повторного программирования после изготовления каждого нового вида изделия. В статье описывается применение такого оборудования для управления производством. В заключении характеризуется гибкая автоматизация и приводятся ее преимущества.

III. Compare the original and the translation. Which techniques have been used in the translation ?

ELECTRONICS

Electronics is a new branch of physics, and one that plays an increasingly important part in our lives. It is concerned with the use of electricity to produce signals that carry information and control devices such as computers. These devices contain electric circuits through which electric current flows. The controlling parts in a circuit are called components, and these include diodes and transistors. Components can amplify currents, switch them on and off, or change their direction.

Электроника – это новая отрасль физики, которая играет все более важную роль в нашей жизни. Она занимается вопросами применения электричества для производства сигналов, которые несут информацию и управляют такими устройствами, как компьютеры. В этих устройствах размещены электроцепи, по которым проходит электрический ток. Управляющие элементы электроцепи называются компонентами, к ним относятся диоды и транзисторы. Компоненты могут усиливать электротоки, включать

нять их направление.

IV. Rearrange the segments of the translation in the right order.



The word laser stands for "Light Amplification by Stimulated Emission of Radiation." A laser is a device for converting ordinary light into an intense narrow beam. The laser passes an electric current through a material, which can be a solid, liquid, or gas. Some atoms of the material take in energy and give off quanta (packets of radiation). This causes other atoms to give off quanta.

These bounce back and forth between mirrors and are fired out as light of a single wavelength.

(а) слово "лазер" является сокращением понятия; (b) которое может быть твердым, жидким или газообразным; (c) и выделяют энергию в виде света одной длины волны; (d) лазер – это устройство для превращения обычного света; (e) лазер проводит электрический ток через вещество; (f) некоторые атомы вещества вбирают энергию; (g) и выделяют кванты (пучки радиации); (h) этот процесс побуждает другие атомы выделять кванты; (i) они скачут взад-вперед между зеркалами; (j) "усиление световых лучей путем стимулированной эмиссии радиации"; (k) в интенсивный узкий пучок.

V. Edit the machine translation of the text.



Suppose we string a copper wire so that one end is up in the air and the other end is connected to the ground. Radio waves, sent out by a broadcasting station, striking this wire, will set up an electrical pressure or voltage across it. This pressure will cause a small electrical current to flow up and down the wire. We now have the beginning of our radio receiver, the aerial-ground system. With it we collect the radio waves. All receivers must have an aerial-ground system. It may be external and connected to the set by wires, or it may be contained in the set itself in the form of a number of loops of wire.

To prove that this aerial-ground system is necessary to the receiver connect up a regular broadcast receiver with an external aerial and ground. Tune in a station and then disconnect the aerial and ground. The station dies away.

Предположим, что мы натягиваем медный провод так, чтобы один конец находился в воздухе, и другой конец связан с основанием (землей). Радиоволны, отосланные радиостанцией, ударяя этот провод, настроят (установят) электрическое давление или напряжение поперек этого. Это давление заставит маленький электрический поток течь вверх и вниз по проводу. Мы теперь имеем начало нашего радио-приемника, системы воздушного основания (воздушной земли). С этим мы собираем (забираем) радиоволны. Все приемники должны иметь систему воздушного основания (воздушной земли). Это может быть внешним и связано с набором проводами, или это может содержаться в наборе непосредственно в форме множества петель провода.

Доказывать, что эта система воздушного основания (воздушной земли) является необходимой для приемника, соединяют правильный приемник радиопередачи с внешней антенной и основанием (землей). Настройте станция, и затем разъедините антенну и основание (землю). Станция замирает.

VI. Translate the operator's manual.



ANTI-THEFT PULL OUT CAR CASSETTE PLAYER WITH AM/FM TUNING RADIO

Function of Control

1. POWER BUTTON – Press the button to turn on or off the unit.
2. LOUDNESS CONTROL BUTTON.
3. LOCAL/DISTANCE BUTTON – Press this button for distance reception when you are located at weak signal location. Depress this button for stronger signal.
4. TREMBLE CONTROL KNOB – Rotate the knob to increase or decrease the bass response.
5. VOLUME KNOB – Rotate the knob to increase or decrease the volume level.
6. TUNING KNOB – Rotate this knob to get your desired broadcasting station.
7. EJECT BUTTON – Push the button half way in to fast forward the tape, and fully in to the tape.
8. LED INDICATOR(FOR LO/DX).
9. MUTE SWITCH – Press the button to reduce the sound volume immediately.
10. AM/FM BUTTON – Press the button for AM or FM reception.
11. PULL OUT HANDLE.

VII. Translate the following specification into Russian.



Recording to DVD-RAM & DVD-R Discs

Our DVD Recorders can record to both high-capacity DVD-RAM discs and DVD-R discs. DVD-RAM discs can be rewritten up to an incredible 100,000 times and come in the double-sided (9.4GB capacity) and single-sided (4.7GB) varieties in both cartridge (provides additional protection) and non-cartridge types, all of which can be used with our recorders. DVD-RAM discs can be played back on our DVD-RAM-compatible DVD home players and portable players. DVD-R discs are write-once and can be played on most consumer DVD players. In addition, the smaller, 8 cm DVD-RAM and DVD-R discs utilized for our VDR-M30 DVD camcorder can be used for recording and playback in our DVD recorders, too. Click here to purchase DVD-RAM and DVD-R discs direct from Panasonic.

Chasing Playback

Now you no longer have to wait for an entire program to be recorded before watching it from beginning to end. With chasing playback, an element of our Time Slip feature, you can skip back to watch a program currently being recorded from any point that's already been recorded – while continuing to record the live program in progress.

Simultaneous Recording and Playback

The second part of our Time Slip feature, Simultaneous Recording and Playback lets you record a program onto a disc while you're watching any other program that's previously been recorded on the same disc.

Built-in Hard Disk

Record and store up to 52 hours of programming (EP mode) on the built-in 40 GB hard disk. These recordings can also be transferred from the hard disk to DVD-RAM or DVD-R discs for safekeeping.

Auto Renewal Recording

Automatically records an episode of a specified TV show either every day or every week directly onto the hard disk, with the most recent episode being recorded right over the previous one.

Relief Recording

The DVD Recorder checks the remaining disc space before recording onto a DVD-RAM or DVD-R disc. And if there's not enough space, your entire program gets recorded onto the hard disk. This feature also works if you've chosen to record a program and forgot to insert a disc.

High-Speed Recording

Record from the hard disk to a DVD-RAM disc at up to 12x speed. A one-hour program can be transferred in EP mode from hard disk to DVD-RAM disc in five minutes.

Progressive Scanning

Progressive Scanning (480P) creates a picture signal with double the scan lines of a conventional DVD interlaced picture (480I), resulting in higher picture resolution.

LESSON 14

I. Translate the following text into Russian.



With increased competition from the global economy, manufacturers face the challenge of delivering new customized products more quickly than before to meet customer demands. A delayed development or delivery can mean business failure. Several technologies collectively known as Rapid Manufacturing (RM) have been developed to shorten the design and production cycle, and promise to revolutionize many traditional manufacturing procedures.

Before production of a product begins, a sample or prototype is often required as part of the design cycle, to allow demonstration, evaluation, or testing of the proposed product. The fast creation of a prototype is known as Rapid Prototyping (RP), and is generally carried out before specialized molds, tools, or jigs are designed. Prototyping traditionally required considerable skilled hand labor, time, and expense, typically applied to cutting, bending, shaping, and assembling a part from standard stock material. The procedure was often iterative, with a series of prototypes being built to test various options. For many applications, this process has been revolutionized by a relatively recent technology known as layer manufacturing or Solid Freeform Fabrication (SFF), in which a part of an arbitrary shape can be produced in a single process by adding successive layers of material.

RM also includes the fast fabrication of the tools required for mass production, such as specially-shaped molds, dies, and jigs. Many different layer manufacturing processes have now been developed, using an increasing range of materials. The parts produced have been of steadily increasing size and durability, and as the quality has improved layer manufacturing is being used more and more frequently to fabricate the parts both for production tools and functional prototypes. The application of layer manufacturing to make the components used in production is termed Rapid Tooling (RT). It has been applied to injection molding, investment casting, and mold casting processes.

For some products, it can be economical to use layer manufacturing to produce the final products themselves, sometimes in a matter of days instead of weeks or months. Although the layer fabrication process itself is typically not as fast as traditional mass production techniques, it eliminates tooling, setup, and assembly processes, can produce parts of superior quality and complexity, and can be ideal for making custom parts based on a customer's special requirements. More manufacturers are taking advantages of these techniques.

Layer manufacturing allows parts of completely arbitrary 3-dimensional (3D) geometry to be fabricated, offering designers a new freedom to shape parts optimally without the constraints imposed by forming, machining, or joining. Another important advantage is that the process

utilizes the computer description of the part shape directly, and allows integration of the Computer Aided Design (CAD) with the Computer Aided Manufacture (CAM) of the part. It therefore allows a manufacturing cycle with a seamless transition through the computer design, simulation, modeling, and fabrication procedures. In addition, the profiles used by the fabrication process are straightforward for the designers and customers to understand, thus facilitating technical communications.

The technologies now available include a variety of different processes, such as Stereolithography, Selective Laser Sintering, Shape Deposition Manufacturing, and Laminated Object Manufacturing.

The cost saving potential of RM techniques may be illustrated by a research program studying the application of several layer manufacturing technologies to the production of tools for sheet metal forming. Sheet forming involves plastic deformation of sheet metal blanks by one or more operations into required shapes, usually by pressing the metal against a mold or die by fluid or elastic pressure. The tooling required is relatively expensive to produce by traditional machining, but layer manufacturing offered great savings. Numerous commercial RM systems for various materials and sizes are now available on the market around the world. RM technologies have seen rapid development and improvement in capability, and have been in widespread use for well over ten years. They have gained tremendous success by practical verification, and will no doubt see further development and application in the future.

II. Translate the summary of the text into English.

Название текста – «Быстрое производство». Автор говорит о том, что, прежде чем начать производство изделия, необходимо выбрать его образец, установить цикл проекта и начать испытание этого изделия. В условиях быстрого развития экономики изготовители не должны сталкиваться с задержкой заказов на изделия. Автор утверждает, что создание образца изделия требует квалифицированной ручной рабочей силы, времени, материальных затрат и оборудования. Современные технологии для массового производства изделий основаны на применении компьютерных программ, лазерных установок и химических производств. Использование инструментов, знаний и технологий являются достаточно дорогостоящими в условиях развития экономики. Согласно данной статье, в наши дни созданы многочисленные коммерческие системы быстрого моделирования, которые имеют огромный успех.

III. Compare the original and the translation. Which techniques have been used in the translation ?

CIRCULAR MOTION

If you whirl a weight around on a piece of string, you have to pull on the string to keep the weight in circular motion. This pulling creates a central force, called a centripetal force. The circular motion results from the force acting inward along the string. There is always a central force responsible for the circular motion of a moving object. All moving objects will travel in a straight line unless a force prevents them.

При вращении какого-нибудь груза на кусочке веревки необходимо натягивать веревку, чтобы удержать груз в круговом движении. Это натяжение создается силой, называемой центростремительной силой. Вращательное движение происходит из-за усилия, направленного внутрь по веревке. При этом всегда существует и центробежная сила, возникающая в результате движения вращающегося предмета. Все движущиеся предметы перемещались бы по прямой линии, если бы не было силы, которая этому препятствует.

IV. Rearrange the segments of the translation in the right order.

SOLIDS

A solid is a compact substance, created by closely packed atoms that form a regular pattern called a lattice. There are

(a) разница состоит лишь в отличиях структурных решеток атомов; (b) позволяющими лишь крайне незначительные движения; (c) такой элемент,

strong forces holding the atoms together, which allow only slight movement. The hardness of a solid depends on the pattern and movement of its atoms. The element carbon, for example, can exist in a soft form called graphite, or in one of the hardest solid forms on Earth, the diamond. The difference is due to variations in the arrangements of atoms.

как углерод; (d) которые образуют правильную структуру; (e) называемого графитом; (f) твердое вещество – это компактное вещество; (g) атомы плотно удерживаются вместе мощными усилиями; (h) прочность твердого вещества зависит от структурной решетки и движения его атомов; (i) например, может находиться в форме мягкого вещества; (j) называемую решеткой; (k) состоящее из плотно прижатых друг к другу атомов; (l) или в форме одного из самых прочных твердых веществ на земле – алмаза.

V. Edit the machine translation of the text.

AUTOMATION AND MECHANIZATION

In so far as automation as automation replaces human muscle by mechanical power it continues a process of mechanization which began before the Industrial Revolution two centuries ago. The first machines were not automatic; they performed many physical tasks but they had to be operated and controlled by workers. But semi-automatic machines were invented early in the history of mechanization; they were, for instance, the textile machines and, later on, the lathes widely employed in engineering. These machines performed automatically, once they were set and loaded, and they confined human operator to two kinds of work, the unskilled work of loading and unloading, and the skilled work of setting and maintaining machines. Since then technical development has been gradual and continuous. They have greatly widened the range of operations that can be performed automatically and they have mechanized some loading and unloading of machines. Perhaps the best and most recent example is the transfer-machine in engineering, it combines automatic machining with automatic transfer between operations, so that all loading and unloading is done mechanically except at the beginning and end of the line. There have also been extensive developments with handling of materials and components between processes and in the mechanical assembly of simple components.

В том, насколько автоматизация, поскольку автоматизация заменяет человеческий мускул механической властью (мощью), это продолжает процесс механизации, которая началась перед Индустриальной Революцией два столетия назад. Первые машины (механизмы) не были автоматические; они выполнили много физических задач, но они должны были использоваться и управляться рабочими. Но полуавтоматические машины (механизмы) были изобретены рано в истории механизации; они были, например, текстильными машинами (механизмами) и, позже, токарные станки, широко используемые в разработке. Эти машины (механизмы) выполнили автоматически, как только они были установлены и загружены, и они ограничили (заклучили) человеческий оператор к двум видам работы, работа низкой квалификации загрузки и разгрузки, и квалифицированной работы урегулирования (установки) и поддержания машин (механизмов).

С тех пор техническое развитие было постепенно и непрерывно. Они очень расширили диапазон действий, которые могут быть выполнены автоматически, и они механизировали некоторую загрузку и разгрузку машин (механизмов). Возможно лучшее и самый недавний пример – передача (перемещение) – машина (механизм) в разработке, это комбинирует(объединяет) автоматическую механическую обработку с автоматической передачей (перемещением) между действиями, так, чтобы вся загрузка и разгрузка была сделана механически кроме вначале и конец линии. Также были обширные события в обработке материалов и компонентов между процессами и на механическом собрании простых компонентов.

VI. Translate the operator's manual.

THE EU REQUIREMENTS FOR EXPOSURE TO RADIO WAVES

Your mobile phone CL50 is a radio transmitter and receiver. It is designed and manufactured not to exceed the limits for exposure to radio frequency (RF) energy recommended by The Council of the European Union. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines were developed by independent scientific organisations through periodic and thorough evaluation of scientific studies. The limits include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit recommended by The Council of the European Union is 2.0 W/kg.* Tests for SAR have been conducted using standard operating positions with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a base station antenna, the lower the power output.

Before a phone model is available for sale to the public, compliance with the European R&TTE directive must be shown. This directive includes as one essential requirement the protection of the health and the safety for the user and any other person. The highest SAR value for this model phone CL50 when tested for compliance against the standard was 0.88 W/kg. While there may be differences between the SAR levels of various phones and at various positions, they all meet the EU requirements for RF exposure.

The SAR limit for mobile phones used by the public is 2.0 watts/kilogram (W/kg) averaged over ten grams of tissue. The limit incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. SAR values may vary depending on national reporting requirements and the network band. For SAR information in other regions please look under product information at www.my-siemens.com.

SAR (International).

REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your mobile phone CL50 is a radio transmitter and receiver. It is designed and manufactured not to exceed the limits for exposure to radio frequency (RF) recommended by international guidelines (ICNIPP).

"These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines were developed by independent scientific organisations through periodic and thorough evaluation of scientific studies. The guidelines include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit stated in the international guidelines is 2.0 W/kg*. Tests for SAR are conducted using standard operating positions with the phone transmitting 's highest certified power level in tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a base station the lower the power output of the phone.

The highest SAR value for this model phone CL50 when tested for use at the ear is 0.88 W/kg. While there may be differences between the SAR levels of various phone and at various positions, they all meet the relevant international guidelines for RF exposure.

The SAR limit for mobile phones used by the public is 2.0 watts/kg (W/kg) averaged over ten grams of tissue. The guideline incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. SAR values may vary depending on national reporting requirements and network bands. For SAR information in other regions please look under product information at www.my-siemens.com.

Cautions

Care of dry cell batteries

To prevent battery damage, electrolyte leakage, and short-circuiting, heed the following points.

- Do not peel off the covering on batteries and do not use if the covering has been peeled off.
- Align the poles © and © correctly when inserting the batteries.
- Do not mix different types or makes of batteries or old and new batteries.
- Remove the batteries if you do not intend to use the unit for a long time.
- Do not throw into fire, short-circuit, disassemble, or subject to excessive heat.
- Do not attempt to recharge cell batteries.
- Do not allow metal objects to touch the battery terminals as this may cause short-circuiting which is dangerous.
- When carrying batteries in a pocket or bag, ensure no metal objects such as necklaces are placed together with them. Contact with metal may cause short-circuiting which can cause a fire.

Precautions for Listening with the Headphones Earphones

- Do not play your headphones or earphones at volume. Hearing experts advise against prolonged extended play.
- If you experience a ringing in your ears, reduce volume or discontinue use.
- Do not use while operating a motorized vehicle. It may create a traffic hazard and is illegal in many areas.
- You should use extreme caution or temporarily discontinue use in potentially hazardous situations.
- Even if your headphones or earphones are the open-air type designed to let you hear outside sounds, don't turn up the volume so high that you can't hear what's around you.
- Discontinue use if you experience discomfort with the headphones or earphones or any other parts that contact your skin. Continued use may cause rashes or other allergic reactions.

VII. Translate the following specification into Russian.



Minimum Size – Maximum Style

Even though the G51 is small enough to comfortably hang from your neck, a 4,096-color display makes it easy to see all the functions the phone has to offer.

40 Polyphonic Ring Tones

With 40 polyphonic ring tones, you can enjoy rich, melodic rings that simultaneously recreate real instrument sounds for a more natural flow.

SMS/EMS Chat

Allows you to easily send and receive instant text messages, and the chat history stays on screen allowing you to read it as you reply. The phone also supports WAP browsing.

GPRS

This advanced technology enables you to utilize airtime during the actual transfer of data, giving you the benefit of faster connection and data speeds.

WAP 1.2.1 Browser

A WAP (Wireless Application Protocol) browser provides access to the Internet, allowing you to browse select websites and game playing. Requires subscription to data service.

Built-in Handsfree

This feature allows you to use the phone without holding it in your hands, and the powerful speaker makes it convenient for more than one person to join in on the conversation.

Vibration alert

Tells you when someone's calling without ringing and disturbing those around you.

Scheduler

Reminds you of important dates and events.

Calculator and Currency Converter

Does math for you when needed.

LESSON 15

I. Translate the following text into Russian.

METALS AND ALLOY



In the last thirty years or so, due to the fast development of industry, the need for new metallic materials has enormously increased. Metals practically unheard of before, such as germanium, plutonium, and than um have come to light, taking their place in the electronic and atomic industries. There have also been developed high-temperature alloys for power plants capable of withstanding oxidation and erosion, new ferro-magnetic materials, constructional steels, etc., intended for operating under severe stresses, or/and at extremely high or low temperatures.

Practically speaking, each metal possesses certain distinct combinations of properties that may be varied for specific engineering applications by alloying it with relatively small amounts of other metals.

Before starting to study the basic phenomena, which determine the performance of metallic materials, it is advisable to get an idea of what the terms "metal", "alloy" and "element" mean.

The term "alloy" is commonly used to describe a material containing more than one chemical element, the properties of the alloy being determined by the properties of the elements it consists of. The term "pure metal", on the other hand, is used for materials in which almost all chemical elements but one are eliminated.

The distinction between metals and alloys is immaterial for describing the effects of their chemical composition on forming, such as rolling, forging, pressing, etc. But even small amounts of chemical elements, or impurities, in pure metals used in electronics may affect their performance in the same way as the comparatively large quantities of alloying elements in pure metals used in other fields of engineering. The designation "metal" is sometimes applied in metallurgy to metallic materials without making distinction between pure metal and alloy, the first definition of the word "metal" having been formulated by M.V. Lomonosov in the following way: "A metal is a bright solid that can be forged." This definition is still true, metallic lustre and the ability for plastic deformation being, in fact, characteristic features of metals. The most important feature of metals, however, is their high electrical conductivity which decreases as the temperature is raised.

As to the term "element", it is frequently used not only for commercially pure metals but also for some alloys containing a considerable amount of other metals, the most common but rather misleading term of this nature being "iron", when used in English-speaking countries for designation of cast iron containing a large quantity of carbon.

Otherwise, an alloy possessing properties materially different from those of the pure metal which forms its basis, is designated as an alloy of this metal, such as a copper alloy, an aluminum alloy, etc., the basis of an alloy in this respect being the element which is present in a quantity over 50 per cent by weight. However, in exceptional cases, the basis of an alloy may comprise less than 50 %, as in the case of an iron alloy containing 40 % iron, 30 % cobalt, and 30 % chromium, with the addition of two, three or more other elements.

When added to a pure metal, a certain amount of second metal may cause the change of its grain structure in two distinctly different manners: either the structure of such a binary alloy has the same homogeneous structure as that of pure metal, the alloy possessing such a structure being called a solid solution, or the second element forms crystallites different from those of the pure metal, the structure thus formed being known as heterogeneous mixture of two phases. With one phase contain-less, and the other more, of the second element, the two phases are of different chemical composition.

A third element added to a binary alloy having a homogeneous structure may result again in either a homogeneous or a heterogeneous structure. If added to a binary alloy having a heterogeneous structure, the third element may either appear without any effect or add a third phase to the structure. The term "phase", when used in metallurgy, designates any homogeneous and physically distinct part of a system which is separated from other parts of the system by definite bounding surfaces.

II. Translate the summary of the text into English.

Текст называется «Металлы». В статье даются определения терминам «металл», «сплав», «элемент». Согласно автору, сплав – это материал, содержащий в своем составе более одного химического элемента. Свойства сплава определяются свойствами элементов, из которых он состоит. В состав сплава может входить два и более других элемента. Автор указывает, что содержание сплава может включать 40 % железа, 30 % кобальта и 30 % хрома. Вторая часть статьи посвящена металлам. Описывается электрическая проводимость как основная особенность металла. В заключение объясняется термин «стадия», используемый в металлургии.

III. Compare the original and the translation. Which techniques have been used in the translation ?



Metals are a group of elements that share certain properties. They conduct heat and electricity well, which is why cooking pans and electrical wires are made of metal. They are also strong and can be shaped easily; this is why they are used to make structures such as bridges. Although there are many similarities between metals, there are also differences that determine how suitable a metal is for a particular use. Of the 109 elements known today, 87 are metals. They are rarely used in their pure state – they are usually mixed with other metals or non-metals to form combinations known as alloys.

Металлы – это группа элементов, которые наделены определенными свойствами.

Они хорошо проводят тепло и электричество, поэтому сковородки и электропровода делаются из металла. Кроме того, они прочные и легко могут принимать любую форму, поэтому они используются в строительстве таких сооружений, как мосты. Хотя разные металлы имеют много общего, они также имеют и различия, которые определяют, насколько тот или иной металл пригоден для определенных целей. Из 109 известных на сегодняшний день элементов, 87 – металлы. Они редко используются в чистом виде, обычно они смешаны с другими металлами или неметаллами, создавая комбинации, известные как сплавы.

IV. Rearrange the segments of the translation in the right order.

SEPARATION

The Earth provides all the (a) этот процесс называ-

raw materials we need. The problem is to separate the substances we want from the mixtures in which they naturally exist. Chemists use a variety of different methods of separation, depending on the type of mixture and the properties of the substances it contains. We sometimes need to separate. Substances at home, too. In a coffee maker, for example, a filter separates the ground coffee beans from the liquid coffee. This is known as filtration.

ется фильтрованием; (b) в которых они находятся в естественном виде; (c) молотые зерна кофе от жидкого кофе; (d) задача состоит в том; (e) химики пользуются множеством разнообразных методов выделения; (f) которые она содержит; (g) иногда нам нужно отделять вещества также в домашних условиях; (h) чтобы выделить нужные нам вещества из смесей; (i) в кофеварке, например, фильтр отделяет; (j) в зависимости от вида смеси и от свойств тех веществ; (k) земля снабжает нас всем необходимым нам сырьем.

V. Edit the machine translation of the text.

TAPE RECORDER



Marvin Camras' inventions are used in modern magnetic tape and wire recorders, including improved recording heads wire and tape material, magnetic sound for motion pictures, multitrack tape machines, stereophonic sound reproduction, and video tape recording.

In the 1930s Camras developed a successful wire recorder. Before and during World War II his early wire recorders were used by the military to train pilots. Battle sounds were recorded and equipment was developed to amplify them by thousands of watts. The recordings were placed where the invasion of D-Day was not to take place, giving false information to the Germans. The public first heard of Camras' work after the war had ended.

Изобретения Марвина Камра используются в современной магнитной ленте (пленке) и проводных регистраторах, включая улучшенный провод голов регистрации и записывают на пленку материальный, магнитный звук для кинофильмов, многорожечных машин (механизмов) ленты (пленки), стереофонического звукового (нормального) воспроизводства, и регистрации видеоленты.

В 1930-ых Camras развивал успешный проводной регистратор. Прежде и в течение Войны Слова II его ранних проводных регистраторов использовались военными, чтобы обучить пилотов. Звуки сражения были зарегистрированы, и оборудование было развито, чтобы усилить их тысячами ватт. Регистрация была помещена, где вторжение в день "Д" не должно было иметь место, давая ложную информацию Немцам. Публика сначала слышала о работе Камраса после того, как война закончилась.

VI. Translate the operator's manual.

CASSETTE RECORDER



Copyright

Recording is permissible insofar as copyright or other rights of third parties are not infringed.

Fast winding and rewinding

Press fast forward wind F.FWD «« or REWIND button. To stop, press STOP

Safeguarding a cassette against erasure

Keep the cassette side to be safeguarded in front of you and break out the left tab. Now, recording on this side is no longer possible.

CASSETTE PLAYBACK

- Set the TAPE/RADIO selector to TAPE.
- Press EJECT and insert a cassette.
- For playback, any cassette type can be inserted.
- To start playback, press PLAY.
- Adjust the sound with the controls VOLUME and TONE.
- You may connect stereo headphones with 35 mm plug to socket. The loudspeaker is then muted.
- To stop, press STOP. The set is then switched off. On pressing again, the cassette holder will open (EJECT).

When the end of the tape is reached, the recorder buttons are released.

RECORDING

- Press EJECT to open the cassette holder.
- Insert the cassette
- For recording you must use a NORMAL cassette on which the tabs are not removed.
- At the very beginning of the tape, no recording will take place during the first 7 seconds when the leader tape passes the recorder heads.
 - When monitoring during recording, adjust the sound with the controls VOLUME and TONE. These controls do not affect the recording.

Recording from the radio

- Set the TAPE/RADIO selector to RADIO.

Microphone recording

- Set the TAPE/RADIO selector to TAPE.
- Set the VOLUME control to zero (during microphone recordings, monitoring is not possible).

Starting and stopping the recording

- To start recording, press RECORD; in doing so, PLAY is pressed too.
- For brief interruptions, press PAUSE. Press again to restart recording.
- To stop, press STOP. On pressing again, the cassette holder will open (EJECT).
- When the end of the tape is reached, the recorder buttons are released.
- The set is switched off if TAPE/RADIO selector is in position TAPE and the recorder buttons are released.

Radio/General

RADIO RECEPTION

- Set the TAPE/RADIO selector to RADIO.
- Adjust the sound with the controls VOLUME and TONE.
- You may connect stereo headphones with 35 mm plug to socket. The loudspeakers are then muted.
- Select the wave band using BAND selector.
- Tune to a radio station using TUNING knob (SW and LW not on all versions).

– For FM, pull out the telescopic aerial. To improve FM-reception, incline and turn the aerial. Reduce its length if the FM-signal is too strong (very close to a transmitter).

– For AM/MW and LW (Medium and Long Wave), the set is provided with a built-in aerial, so there is no need to use the telescopic aerial. The aerial can be directed by turning the whole set.

– For Short Wave (SW), the telescopic aerial must be pulled out and placed in the vertical position. To improve SW-reception, vary the length of the aerial.

- The set is switched off if the TAPE/RADIO selector is in position TAPE and the recorder buttons are released.

MAINTENANCE

Clean the parts indicated after every 50 hours of operation or, on average, once a month.

- Open the cassette holder by pressing EJECT.
- Use a cotton bud slightly moistened with alcohol or a special head cleaning fluid.
- Press PLAY and clean the rubber pressure roller.
- Then press PAUSE and clean the capstan, recording/playback head and erase head.
- After cleaning, press STOP.

Cleaning of the heads can also be done by playing a cleaning cassette through once. Do not expose the set, batteries and cassettes to rain, moisture, sand, or to excessive heat e.g. from heating equipment or in motor cars parked in the sun. If a fault occurs, first check the points listed below before taking the set for repair. If you are unable to remedy a problem by following these hints, consult your dealer or service center.

Warning: Under no circumstances should you try to repair the set yourself, as this would invalidate the guarantee.

PROBLEM	POSSIBLE CAUSE	REMEDY
No sound	VOLUME is not adjusted	Adjust the VOLUME
	Headphones are connected	Disconnect the headphones
	Batteries are exhausted	Insert fresh batteries
Broadcast cannot be received	Insufficient antenna input	Rotate telescopic antenna (FM) or set (AM) for best reception
Poor radio reception	Weak radio aerial signal	Aim the aerial for best reception: FM: incline and rotate telescopic aerial AM (MW/LW): rotate the entire set
Poor cassette sound quality	Dust and dirt on the heads, capstan or pressure roller	Clean the heads etc. See maintenance

I. Translate the following text into Russian.



TOOLS AND MATERIALS (1)

All the planning and preparation in the world isn't going to get you anywhere unless you have the, right tools and materials to turn to. Here's a handy checklist that should see you through any of the projects I'm suggesting here.

Tools. There are a fair few different tools mentioned in the course of this book. Some of them you're almost sure to have already, while some of them you may need to buy or hire in. The golden rule when buying any new tool is always go for the best one you can sensibly afford. There will always be cheaper alternatives available and there will always be very good reasons why those alternatives are cheaper in the first place. Unfortunately these are reasons that don't usually become apparent until you've got the tool home and started to use it.

I won't bore you here with a list of every tool you might ever need, but I will mention a few items that are worth investing in if you don't already have them.

A cordless drill/driver. Without doubt the single most pleasurable and important thing you will ever have with you in the garden, unless you've got children. Even then, it's often a close-run thing. After all, how many kids do you know that can drill holes through wood, masonry and metal then pop in another fitting and drive home all manner of fixings from screws to bolts? All without any moaning and all without any need to be wired to the mains by way of encouragement. A well-made, powerful drill/driver will help you fly through most of the projects in this book and ensure that whatever you want to drill or fix is dispatched quickly and efficiently.

There are many types of product on the market, but ideally the one you want has at least a 12v motor, though 14v is better and 18v is fantastic. Basically, the more powerful the motor the harder the material you can drill though. If you're planning to drill into masonry

On a regular basis then get a drill/driver that has that has something called 'hammer action'. This doesn't mean you can spin the thing around and use the handle to knock in nails – it's a little switch that will vibrate the drill as it spins and punch into the hardest of concrete and stone. Also, if you're going to use the thing as your main screwdriver (and even if you don't think you are, believe me you will) then consider a drill/driver that has a torque control. This nifty little collar around the chuck allows you to set the screwdriver bit so that it will spin freely as soon as the screw has been driven firmly home – but just before you rip out all the slots on the head so that you can never get the screw out again! Finally, twin speed is nice, slow for screwdriving and fast for drilling, but not really essential. Cordless is definitely nice, but if it's a choice between a very low-powered cordless or a mains-driven unit then I'd be tempted to go for the more powerful corded one and invest in an extension lead for good measure.

Drill bits. There are different drill bits for different materials, and using the wrong one will quickly ruin whichever one is fitted into the drill at the time. Some manufacturers now make drill bits that will tackle wood and metal, but masonry always requires a drill bit all of its own. Get yourself a small set of whichever type you need, so that you always have the right size (diameter) of drill bit to hand.

An expanding rule 'Measure twice, cut once' they say, but no one ever mentions that you need to measure with something accurate and robust. A good metal rule, ideally about 5 metres (16ft) long, will never shrink or stretch and always give you reliable measurements. It's best to get one with some kind of lock on the casing so that you don't lose any fingers when the rule snaps back in unexpectedly.

A spirit level Make sure that the spirit level you buy has got at least two bubble tubes – one to tell you when it's horizontal and another to tell you when it's vertical (or 'plumb' as we call it) You can buy spirit levels over a metre in length, but I'd recommend buying a shorter one. If it's not long enough for the job in hand you can always place it on to a long straight wooden batten, but make sure the batten really is straight, otherwise all the leveling in the world isn't going to save you.

A crosscut handsaw Yes, I know there are things called jigsaws and circular saws on sale nowadays, but they aren't always what you need. A decent 'crosscut' handsaw (one that's designed to cut across the grain of the wood, for shortening planks and the like) will always come in useful whenever there's timber to be cut. Look for one that has the handle fitted at exactly 90 degrees to the blade, so that you can use it to mark right-angle

cuts on your wood. Also, keep it clean when you're not using it so that it's always nice and sharp when you do. A quick wipe over with an oily cloth should do it, each time you put the saw away.

A tenon saw This little fellow is a short handsaw with a strong metal brace along its spine to keep the blade straight. It's meant for making small, accurate cuts in wood, such as for a mortise and tenon joint. It's happy to cut with the grain or across the grain of the timber, but if you let it get dirty and blunt then it won't be very happy no matter what you point it at.

II. Translate the summary of the text into English.

Название текста – «Инструменты и материалы». Согласно автору, чтобы начать ремонт или строительство, человеку необходимо иметь под рукой высококачественные материалы и инструменты. Подчеркивается, что самым универсальным и незаменимым инструментом является дрель. В тексте описываются виды дрелей, подчеркиваются их преимущества. Например, можно насадить сверло для работы с деревом, с металлом, а также с кирпичной кладкой. Далее автор описывает уровень, инструмент для точного измерения горизонтальных и вертикальных величин. В заключение, автор говорит об осторожности в использовании пилы, потому что ее лезвие – достаточно острое. Автор останавливается на разновидностях пилы.

III. Compare the original and the translation. Which techniques have been used in the translation ?



Gears are simple machines that transmit force and motion. Like other machines, most gears make work easier by increasing the effect of the force applied. Gears have toothed wheels, called cogs that interlock so that one cog turns another. The cogs are usually of different sizes and are sometimes linked together by a (as is the case with bicycle gears). A gear's effect depends on the size of the cogs and the number of teeth they have.

Приводы – это простые механизмы, которые передают усилие и движение. Как и другие механизмы, большинство приводов облегчают труд путем повышения эффективности прилагаемого усилия. У приводов есть зубчатые колеса, называемые шестернями, которые сцепляются так, что одна шестерня поворачивает другую. Шестерни бывают обычно разных размеров, а иногда соединяются друг с другом цепью (как в случае с велосипедными приводами). Эффективность работы привода зависит от размера шестерен и от количества зубьев на них.

IV. Rearrange the segments of the translation in the right order.

PULLEYS

A pulley is a simple machine. It decreases the amount of effort needed to lift a load. The main part of the pulley is made up of a wheel, plus a rope that runs along a groove in the wheel. The load is attached to one end of the rope, and the

(a) чем больше блоков задействовано в системе; (b) требуемого для поднятия груза; (c) поверх которого в канавке движется веревка; (d) основная часть блока представляет собой колесо, (e) тем меньше усилий затрачивается на передвижение груза; (f) на одном конце верев-

other end is pulled to move the load. The more pulleys that are used in a system, the less effort is required to move a load.

ки закрепляется груз; (g) он сокращает величину усилия; (h) блок – это простейший механизм; (i) а за другой конец этот груз подтягивают.

V. Edit the machine translation of the text.

MOTORS

Direct current motors operate on the same principle as the direct current generator. Voltage is supplied to the machine, which sets up a field and also sets up a current in the rotor winding through the commutator. Just as it required mechanical power to drive the generator winding through the field, so will the machine rotate when fields and currents bear this same relation. As the rotor tends to react a position where less torque is produced, the voltage supplying brush will have passed to the next commutator segment, the force will continue and the machine will rotate.

Направьте текущие двигатели, оперируют тот же самый принцип как прямой текущий генератор. Напряжение поставляется на машину (механизм), которая настраивает (устанавливает) область (поле) и также настраивает (устанавливает) поток в проветривании ротора через коммутатор. Также, как требуется механическая власть (мощь) вести (везти) проветривание генератора через область (поле), так будет машина (механизм) вращаться, когда области (поля) и потоки имеют это то же самое отношение. Поскольку ротор имеет тенденцию реагировать положение (позиция), где меньше вращающего момента (крученого браслета) произведено, напряжение, поставляющее (снабжающее) щетку пройдет к следующей доле коммутатора, сила продолжится, и машина (механизм) будет вращаться.

VI. Translate the operator's manual.

MOVIE CAMERA



Function Principle of the Focus Adjustment

If you look at an object through a magnifying glass: move it closer or further away from your eye, you reach a point where the object becomes clearly v Being focused or in focus means that the subject; seen with optimum clarity and sharpness. The distance between the lens and the point where the rays of come together is called "focal distance" or 'local 'e and it depends on the size and shape of the lens.

- **FOCUS Adjustment in Human Eyes**

Human eyes have lenses as well, and when we look at objects at different distances, the shape of these lenses changes automatically so that we can always see these objects clearly.

- **FOCUS Adjustment in the Movie Camera**

The image of the subject enters the Movie Garner through the lens and is converted into an electrical signal (video signal) for recording onto magnetic tape. In the Movie Camera, the "Auto Focus" system automatatically adjusts the focal distance by moving the focusing e forward or backward.

- **The Auto Focus Mechanism of this Me. Camera**

In video cameras, one of the following two methods is generally used:

1) Infrared Focusing: The shooting distance is calculated and adjusted based on the time it takes for an infrared signal emitted from the front of the camera to be bounced off the subject and received back by a sensor on the camera.

2) Camera-Internal Electronic Focusing: The focus is adjusted based exclusively on the image received by the camera and the resulting picture signal.

This Movie Camera employs the Internal Electronic Focusing Method.

For the following subjects and shooting s Manual Focus Mode should be used:

- **Subjects with Shiny Surfaces or Much Light Reflection**

As the Movie Camera adjusts the focus on the objects with shiny surfaces or much light reflection, the subject may go out of focus.

The subject may be out of focus when it is short at the seaside in the evening, under firework when special kinds of lights are used.

- **Fast-moving Subjects**

As the lens is moved mechanically, it cannot follow fast-moving subjects without delay. Subjects like quickly and abruptly moving children may temporarily go out of focus.

- **Subjects with Weak Contrast**

As the Movie Camera adjusts the focus based on vertical contours in the picture, subjects with little contrast may be out of focus. When shooting a flat white wall, for example, the Movie Camera has no information by which it can adjust the focus correctly.

- **Subjects with a Part of It Near the Movie Camera and Another Part Far from it**

As the focus is adjusted on the centre part of the image, it is difficult to bring the distant part of the subject in focus.

When you want to shoot a person with a distant mountain behind, it is not possible to focus on both.

- **Subjects Behind Moving Objects**

As the focus is adjusted on the person or object that passes between the Movie Camera and the subject may temporarily go out of focus.

When shooting a subject across a street on which cars are running, the subject may go in and out of focus.

- **Subjects with Dark Surfaces**

If the amount of light entering through the lens is greatly reduced, the Movie Camera has very little information by which to adjust the focus.

When shooting persons in dark surroundings, precise focusing may not be possible.

Precise focusing may also not be possible for subjects that have no vertical contours or are behind glass covered with dirt, dust or water drops.

VII. Translate the following specification into Russian.

3CCD CAMERA SYSTEM



Reproduces color in great fidelity, with a separate CCD for reds, greens and blues. It's the same technology used in Panasonic professional broadcast equipment, resulting in 540 lines of breathtaking resolution.

3.0 Megapixel Still Picture Technology

This feature combines three CCDs, each with 800,000 pixels with our Quad-Density Pixel Distribution Technology to deliver true, 3-megapixel still images.

Mega Optical Image Stabilizer

Virtually eliminates jitter from unintentional hand movement while taking vibration-sensitive still images. This technology has been dramatically improved since last year's model to further help prevent even the slightest shake. Built-in to control this feature, which automatically pops up when insufficient lighting is detected.

MagicWire Remote Control

This remote makes it incredibly easy for you to capture low-angle shots, high-angle shots – or even fixed-position tripod shots. And it's also perfect for left-handed users. The MagicWire contains all key features (Record, Zoom, PhotoShot, and it even lets you create live video commentary with a built-in Narration Mic).

Auto Pop-up Flash

You can choose from three different flash settings (Forced Flash, No Flash, Automatic).

SD Voice Recorder

Select camcorders not only let you shoot high-quality digital video and stills, but they also give you the ability to record conversations or personal messages. Just record with the high-performance, built-in microphone, and then save them to an SD Memory Card.

3-Way PC Link

Almost all Panasonic Digital Palmcorder® MultiCam™ Camcorders give you three simple ways to transfer images to a PC:

LESSON 17

I. Translate the following text into Russian.

TOOLS AND MATERIALS (



A chisel. The chisel did not become obsolete soon after they finished building the Ark. It is still an invaluable tool for timber craftsmen everywhere, and that includes you. If you're going to attempt anything like a mortise and tenon joint in your carpentry, then you'll need a nice sharp chisel to complete the task. And I do mean sharp: blunt chisels are worse than useless. It's probably best to buy them in a small set of three or four chisels to make sure you have the right size for the right job.

A bradawl. One tiny tool, a thousand different uses. A bradawl is not what you'd describe as being at the 'high-tech' end of the tool market – it's really just a little spike with a handle. However, you'll be amazed at how useful that can be. A bradawl is great for marking screw points in wood, and will even make a little pilot hole for you (see Fixings, opposite) if you're putting small screws into softwood. A bradawl will also come in handy to scratch marks across wood where you're going to saw, especially when you've lost your third pencil that day.

Cramps. Now there are some who believe that if God had meant us to indulge in DIY he would have given us more hands, but I think the creation of the clamp was his way of apologizing. Cramps are just hand-tightened devices for holding things firm on a temporary basis. They are dead useful for gripping wood while it

glues, or just holding a brace to a post while you get it upright. There are now some really nifty 'quick-grip' versions on the market that you can practically operate single-handed.

Mole grips. Not a method of pest control but more of a cross between large pliers and a small cramp. Mole grips can be adjusted to grasp any object from a tiny nailhead to a large nut, right up to a couple of wooden battens, and will then lock into place for as long as you need to hold on. Combined with an adjustable spanner, they make a pretty useful team around the garden.

Electric sanders. If you want to finish off woodwork properly, for painting, or varnishing, or just for walking over, then there's no substitute for some vigorous and protracted sanding. Now unless the wood you're working on is no bigger than a shoebox, you will quickly discover that sanding by hand is one of the most tedious and exhausting hobbies known to man. If there's a lot of surface to be smoothed then get yourself an electric sander and a selection of sandpaper grades to use with it. Sandpaper comes in all guises from very coarse to very fine.

The rough stuff is for getting through the wood quickly while the smoother grades are for fine finishing work.

If you're looking to take off a significant amount of wood from the timber in question then you might want to consider an electric planer instead. This uses a spinning blade rather than paper, but it can dig down surprisingly quickly so be careful how long you use it for -and don't even bother plugging it in unless you're pretty confident with power tools already.

Powersaws. Jigsaws are very popular and very useful in the garden – there are even some cordless versions starting to appear now. However, as with drills, you need to be sure you have selected the right fitting for the material you're working with. There are jigsaw blades for hardwood, softwood, metal and even ceramics. It's all written on the packet when you buy them, but once you've lost that packet and have nothing but a writhing mass of unmarked blades in the bottom of your toolbox the best tip to remember is: 'The bigger the teeth on the blade, the softer the material it is intended for.

If you're planning to do some major cutting work, building a large deck for instance, you might want to look at an electric circular saw. Unlike the jigsaw, a circular saw will only make straight cuts through wood, but it will do so like the proverbial knife through butter. Again, the blades are interchangeable, so make sure you have the right one fitted for the material you're cutting. For my money, though, you're probably still better off, and certainly a lot safer, with a good old handsaw instead.

Bricklayer's trowel. An invaluable tool, the bricklayer's trowel can scoop, level and even cut bricks in half. A proper bricklayer's trowel is an elongated diamond shape with one edge straight and the other slightly curved. The ones you'll find in the DIY shop are more likely to be straight on both sides, but are perfectly good enough for all the jobs in this book. The sharp end of the trowel is used for pointing between bricks, once they've been laid.

Fixings. There's a dizzying selection of nails and screws on the shelves of every DIY shed. Ignore them. All you need is a load of dry lining screws, in various sizes, and you're ready for anything this book has to throw at you. These screws are actually meant for putting up plasterboard inside the house, but they will cope with all manner of more exciting projects than that. They are cross-head, so make sure you have suitable screwdrivers to fit, and the right attachments for your cordless drill/driver.

The trick to putting screws into wood so that they go exactly where you want them, is to drill little pilot holes first. The pilot hole will give the screw an easy start into the wood and then ensure that it continues its journey in exactly the direction you want. As for nails, I'd avoid using them wherever you can – they can't touch screws for strength and durability. But if you're intent on hammering down your deck then get hold of 'ring nails', which have little ridges all the way down to stop them coming out once they're in.

Garden tools. You may well have all the forks and shovels you need around the garden, but if you're looking to get some new ones then remember this book is for people who want to do some proper building work, not a quiet afternoon's weeding. Get yourself some tools that are up to the task and make sure you have a nice broad shovel for loading sand and the like in and out of wheelbarrows.

II. Translate the summary of the text into English.

В тексте речь идет о разнообразных инструментах и даются советы об их применении. Согласно автору, достаточно распространенным является долото, который используется для работы по дереву. Ско-

бы незаменимы в процессе склеивания двух основ. Разновидностью зажимов являются тиски. Подчеркивается, что этот инструмент обладает свойствами, как клещей, так и зажимов. Чтобы закончить работу по дереву, необходимо отполировать предмет с помощью шлифовального станка. Далее автор сообщает о применении электрической пилы в садоводстве и приводит детали ее использования. Упоминается инструмент мастеров, имеющий необычную форму.

III. Compare the original and the translation. Which techniques have been used in the translation ?

LEVERS

Levers are simple machines that help us achieve tasks with less effort. They consist of a rod or a bar that turns around a point called a pivot. There are three classes of lever, with different arrangements of load, effort, and pivot. A crowbar that is used to lift something heavy is an example of a simple lever working on its own. But a lever may form part of a larger machine or system. If the effort is applied farther away from the pivot than from the load, it is magnified, or increased.

Рычаги – это простейшие механизмы, которые помогают выполнять задачи с меньшей затратой сил. Они состоят из стержня или рейки, которая движется вокруг одной точки, называемой точкой опоры. Существует три класса рычагов с разными местами приложения нагрузки, воздействия и точки опоры. Лом, которым пользуются для поднятия чего-нибудь тяжелого, является простейшим рычагом, работающим самостоятельно. Но рычаг может быть частью большого механизма или системы. Если воздействие прилагается на большем расстоянии от точки опоры, чем груз, оно увеличивается или возрастает.

IV. Rearrange the segments of the translation in the right order.

WHEEL AND AXLE



A Wheel and Axle form a simple machine. The wheel is fixed to the axle (central shaft) and together they transmit and increase force. A small turning force is applied to the wheel, producing an increased force on the axle. In this way, heavy loads can be moved with less effort. This principle is used in steering wheels.

(a) и они вместе передают и увеличивают усилие; (b) этот принцип использован в рулевых колесах; (c) колесо закрепляется на оси (центральный вал); (d) к колесу прилагается небольшое крутящее усилие; (e) колесо и ось представляют собой простой механизм; (f) а на оси возникает большее усилие; (g) таким образом; (h) затрачивая меньше усилий; (i) можно перевозить тяжелые грузы.

V. Edit the machine translation of the text.

MEN AND MACHINES



People make use of machines in all their activities. Most of these machines are of recent origin. Some of them, however date back to the very ancient times. Automobiles, tractors, trains, planes and rockets appeared not so long ago. To design these machines, engineers must not only know how to determine the stresses and deformations in machines and structures under a variety of possible loadings, conditions. They should also know how well the selected material is to resist loads.

It is very important to find suitable engineering material for every part of a machine or structure. That is why great attention is paid to the science of engineering materials. Our scientists have developed many alloys having greater resistance to various loading conditions. In recent years many non-metallic materials have been widely used in engineering.

Люди используют машины (механизмы) во всех их действиях. Большинство этих машин (механизмов) имеет недавнее происхождение. Некоторые из них, однако дата назад к измененным древним временам. Автомобили, тракторы, поезда, самолеты и ракеты появились не так давно. Чтобы проектировать эти машины (механизмы), инженеры не должны только знать, как определить напряжения и деформации в машинах (механизмах) и структурах под разнообразием возможных погрузок, условий (состояний). Они должны также знать, как хорошо отобранный материал должен сопротивляться грузам.

Очень важно найти подходящий технический материал для каждой части машины (механизма) или структуры. Именно поэтому большое внимание платится к науке технических материалов. Наши ученые развили много сплавов, имеющих большее сопротивление различным условиям (состояниям) погрузки.

В последние годы много неметаллических материалов широко использовались в разработке.

VI. Translate the operator's manual.

DVD PLAYER/VIDEO CASSETTE RECORDER

Troubleshooting

Check the following guide for the possible cause of a problem before contacting service.

Symptom	Cause	Correction
The power is on, but the DVD player does not work.	<ul style="list-style-type: none">• No disc is inserted.	<ul style="list-style-type: none">• Insert a disc. (Check that the DVD or, audio CD indicator in the display window is lit.)
No picture.	<ul style="list-style-type: none">• The TV is not set to receive DVD signal output.	<ul style="list-style-type: none">• Select the appropriate video input mode on the TV so the picture from the DVD player appears on the TV screen.

	• The video cable is not connected securely.	• Connect the video cable into the jacks securely.
--	--	--

Окончание табл.

Symptom	Cause	Correction
No sound.	• The equipment connected with the audio cable is not set to receive DVD signal output.	• Select the correct input mode of the audio receiver so you can listen to the sound from the DVD player.
	• The audio cables are not connected securely.	• Connect the audio cable into the jacks securely.
	• The power of the equipment connected with the audio cable is turned off.	• Turn on the equipment connected with the audio cable.
	• The Digital Audio Output is set to the wrong position.	• Set the Digital Audio Output to the correct position, then turn on the DVD player again by pressing POWER.
The picture is poor.	• The disc is dirty. • The TV channels are not tuned in properly.	• Clean the disc. • Check tuning, carry out tuning again.
The DVD player does not start playback.	• An unplayable disc is inserted.	• Insert a playable disc. (Check the disc type and Regional code.)
	• The disc is placed upside down.	• Place the disc with the playback side down.
	• The disc is not placed within the guide.	• Place the disc on the disc tray correct. inside the guide.
	• The disc is dirty. • The Rating level is set.	• Clean the disc. • Cancel the Rating function or change the rating level.
The remote control does not work properly.	• There is an obstacle in the path of the remote control and this unit.	• Remove the obstacle.
	• The batteries in the remote control are exhausted.	• Replace the batteries with new ones.
Video tape cannot be inserted.	• Is the cassette compartment empty?	• Eject the tape in.
No Hi-Fi sound	• Audio mode is not set properly.	• Select "STEREO" by repeatedly press "AUDIO" on the remote control.

VII. Translate the following specification into Russian.

CD PLAYER

The innovative iMP-50 comes stacked to the gills with features like broad format compatibility, pre-buffering anti-skip protection, firmware upgrade ability, a graphic LCD with multi-language display, and packet-write format readability so the player can double as a hard-drive extension (using data CD-RWs).

The player supports music CDs, home-made CD-R and CD-RW with MP3, WMA (Windows Media Audio), multi-session discs (discs burned at different points over time), and Microsoft's Advanced Systems Format (ASF). New formats such as AAC, MP3 Pro, and so on can be supported in the future through a simple firmware upgrade. The iMP-50 also supports Winamp playlists as long as they use the file extension m3u (maximum 20 lists).

The player gives you a healthy four minutes anti-skip protection for MP3 and WMA files. By applying iRiver's own special algorithm, the iMP-50 provides better performance against shock than standard anti-skip algorithms. At the same time, iRiver maximizes protection at the beginning of songs through pre-buffering.

The iMP-50's graphic LCD that supports multiple languages, including English, French, Spanish, German, Italian, other alphabet-oriented fonts, Korean, Japanese (Katakana, Hiragana, and Kanji), and others. It supports a total of 36 languages.

With MP3 and WMA files, the iMP-50 can play for 16 hours on two AA alkaline batteries (supplied) or seven hours with audio CD playback. Additional formats such as AAC, MP3 Pro, and so on may be supported in the future through a simple firmware upgrade.

Eight equalizer presets, a custom EQ mode, and separate electronic bass and treble controls are all at your disposal when it comes to tailoring the sound to your taste or compensating for speakers, headphones, or listening environment. A hold switch prevents unintended interruptions in playback and saves batteries by negating playback when the player is stopped. Other features include repeat and shuffle play, resume, bookmarking, sound fade in, intro scan, and track programming.

LESSON 18

I. Translate the following text into Russian.

POWER AND SAFETY



You don't have two arms, two legs and two eyes so that it doesn't matter so much when you lose one. Safety in the garden is pretty much common sense, but unfortunately none of the tools you're using will have any at all. Every tool that can do you any serious damage will have information on how to use it correctly and safely. Read these instructions before you use the tool, not after and definitely not during. If the manufacturer recommends wearing safety equipment of any kind, that is probably because someone has already done something stupid and brought the potential danger to everyone's attention.

If you're using any tool that is going to start sending material flying through the air, then get some goggles over your eyes. Only Superman moves faster than a speeding bullet, and even he never messes with circular saws, masonry drills and the like.

Tools that are sharp are made that way so that they will cut into anything and everything they come in contact with – make sure that isn't you. Ironically, sharp tools are probably more dangerous when you let them get blunt; it's then that they will tend to slip and seek out your unsuspecting fingers.

Corded power tools have a large whack of electricity running up the cable towards them. If you cut through that cable there is every chance you will become part of the ring main in your house. Whenever you use power tools outside, always make sure they are connected to the mains by what's called a residual current device (RCD): this little box will shut down the power as soon as it detects any disruption in the current, like you cutting through the cable with your jigsaw.

If you plan to have power out in the garden permanently, for exterior sockets perhaps or outdoor lighting, you must either get a qualified contractor to install a 240v system buried in proper protective conduits with

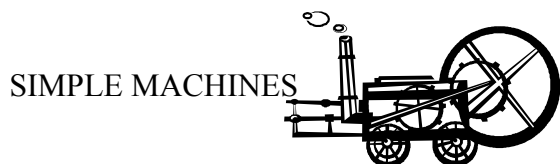
weatherproof socket and switches, or just use one of the low-voltage lighting kits that are now available in every garden centre and DIY shed.

Finally, by far the most dangerous item you will ever see loose in your garden is called a child. These small creatures are programmed from birth to seek out sharp objects and high places. What they can't put their fingers into they will try to put in their mouths and, when they can't do that, they will try to crawl under it or jump off it. Be warned, they have the agility and curiosity of small apes, combined with all the common sense of a particularly stupid lemming. On no account should you allow one of these creatures to wander unsupervised around your working environment, especially when 'clearing up your tools neatly' is not your strong suit. By all means get them involved in the process, but make sure it's with something that won't harm them.

II. Translate the summary of the text into English.

В статье затрагиваются проблемы безопасности при пользовании различными инструментами. Подчеркивается необходимость внимательного изучения инструкций перед использованием инструментов. Согласно статье, ни один инструмент не является безопасным. С острыми инструментами необходимо обращаться более осторожно, так как они наиболее опасны. Через провода проходит электричество. Обычно провод подключен к кабелю. Поэтому перед тем как начать работать с проводами, необходимо обесточить кабель. Автор предупреждает о том, что нельзя допускать детей к своим инструментам – это основное правило вашей безопасности.

III. Compare the original and the translation. Which techniques have been used in the translation ?



A simple machine is something that reduces the effort needed to do work. Machines come in all shapes and sizes and can be very basic; a bottle opener, a screw, and even your skeleton, work as machines. They magnify the effort that we apply to a task and enable us to do many things that our muscular strength alone could not manage. The amount of effort saved by using a machine is known as its mechanical advantage. The greater the mechanical advantage of a machine, the less effort is required relative to the load.

Простейший механизм – это нечто такое, что сокращает затраты усилия, необходимого для выполнения работы. Механизмы бывают любых форм и размеров, а могут быть и очень простые: открывалка для бутылок, винт и даже ваш скелет действуют как механизмы. Они увеличивают воздействие, которое мы применяем для выполнения какой-нибудь задачи.

IV. Rearrange the segments of the translation in the right order.

SCREWS

Objects are sometimes held together by screws. Very large screws can also be used as simple machines, such as flower or apple presses. A screw consists of a spiral groove called a screw thread that circles a simple shaft. The distance between each thread is called the screw's pitch. One complete turn of the screw	(a) и в качестве простых механизмов; (b) называемую резьбой; (c) винты можно ввинчивать в твердые материалы; (d) таких как прессы для выжимания цветочного или яблочного сока; (e) предметы иногда соединяются винтами; (f) винт имеет на себе спиральную канавку; (g) которая оборачи-
--	---

moves it the distance of one pitch, which is a smaller distance than it is turned. It moves forward, therefore, with a much greater force than the turning force. That is why screws can bore into hard materials.

вается вокруг простого стержня; (h) расстояние между витками резьбы; (i) очень крупные винты могут использоваться; (j) что меньше расстояния полного оборота винта; (k) поэтому винт продвигается вперед со значительно большей силой; (l) называется шагом винта; (m) чем сила, требуемая для прокручивания; (n) вот почему; (o) один полный оборот винта продвигает его на расстояние шага резьбы.

V. Edit the machine translation of the text.

THE CARE OF BATTERIES

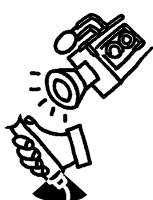


There are two other precautions, which should be observed in the care of batteries. First, the top of the battery must be kept clean and the terminals should be greased lightly. As the acid is extremely corrosive it will damage metal parts quickly and will cause burns on hands and clothing. Wool is not rapidly attacked by the acid so battery handlers often wear woolen clothing. The second precaution is to fill the battery up to the proper point with pure distilled water only. If tap water is used the battery will fail prematurely. In the aircraft non-spillable batteries the level in the cells should be up to the bottom of the filler neck and no higher. In all batteries the water level should cover the plates and will usually be about a quarter to a half inch over the plates.

Есть две других предосторожности, которые должны быть соблюдены на попечении батарей. Сначала, вершина батареи должна быть сохранена чистой, и терминалы должны быть смазаны жиром слегка. Поскольку кислота является чрезвычайно коррозионной, это повредит металлические части быстро и причинит ожоги на руках и одежде. Шерсть быстро не атакована кислотой, так что тренеры батареи часто носят шерстяную одежду. Вторая предосторожность должна заполнить батарею до надлежащего пункта (точки) с чистой дистиллированной водой только. Если вода из-под крана используется, батарея будет терпеть неудачу преждевременно. В самолете non-spillable батареи уровень в ячейках должен быть до основания шеи наполнителя и не выше. Во всех батареях водный уровень должен закрыть (охватить) пластины и обычно будет о четверти (квартале) к половине дюйма по пластинам.

VI. Translate the operator's manual.

THE CAMER



Lens cover/shutter lock

A sliding lens cover protects the lens and locks the shutter to prevent accidental exposure.

To open the lens cover, slide the lens cover latch located beneath the lens to the right (toward the electronic flash). Close the cover fully when you are not using the camera to protect the lens from dirt, scratches and fingerprints and to shut off camera power to avoid draining the batteries.

Installing the batteries

The Polaroid 35 mm AutoFocus camera uses two 1.5 volt AAA alkaline batteries that power the motorized functions and the electronic flash. When the recharge time is longer than 20 seconds or if the motor drive fails to advance the film, replace the batteries. Always remove the batteries when storing your camera for any length of time to prevent battery corrosion or leakage that can lead to camera damage.

To install the batteries

1. Pull open the notched area in the center of the battery compartment door on the left side of the camera.
2. Insert the batteries as shown on the inside of the compartment. Close the door until it locks into place.

Loading the film

Avoid direct sunlight or bright light when loading film.

1. Open the film compartment by pushing up on the film compartment door latch. The door will pop open.
2. Insert a roll of 35 mm film into the film compartment.
3. Pull the film strip to the white line in the well of the film take-up spool. Position the film between the two white guide marks. Make sure the film lies evenly between the guide rails and that the sprocket holes are engaged on the sprockets. Press down on the film canister to lock it in place. Close the film compartment door securely.
4. Press the shutter button a few times (usually 3) until the film advances to the first picture. (The lens cover must be open.) The picture counter (located on top of the camera next to the shutter button) will show the number 1 when the camera is ready to take pictures. If it does not, repeat step 3.

Note: The picture counter will indicate the number of pictures used. The picture counter will not work if the film is loaded incorrectly.

Using the flash

The Polaroid 35mm AutoFocus camera has a built-in automatic flash that will fire when the green flash-ready light is on and the shutter button is pressed. If the red flash-charging light is on, the shutter button can be pressed but there may not be enough light for a well-exposed picture. Wait for the green flash-ready light before taking pictures.

If you are outdoors in sunlight, you may wish to use the fill-flash feature that will fill in shadows on your subject taken outdoors in bright sun.

1. Lightly press and release the shutter button to charge the green flash-ready light.
2. Press and hold the fill-flash button (upper left on top of camera).
3. Press the shutter button to take the picture.

Note: The flash-ready light next to the viewfinder has been designed to shut off after about a minute if not used. To re-activate the flash, depress the shutter button lightly and release.

Flash tips

For proper flash exposure, position your subject at the following distances from the camera:

1,2–3 m (using 100 speed film) 1,2–3,6 m (using 200 speed film) 1,2–4,2 m (using 400 speed film) If taking vertical pictures, be sure the flash is at the top. Wait a few seconds after the flash-ready light comes on before taking a picture in poorly lit areas to insure maximum flash brightness.

Using the red-eye reduction feature

The camera's automatic redevye reduction feature helps to eliminate the red pupils in pictures of people or pets. To eliminate this effect, you can:

1. Have your subjects look toward a bright light just before you take their picture.
2. Turn on additional lights in the room.
3. Press the shutter button halfway to turn on the red-eye reduction light on the front of the camera. This will cause the subject's pupils to become smaller, thus reducing the red-eye effect. For best results, hold the button halfway down for about half a second and then continue to press down to take the picture

Taking the picture

Open the lens cover. The shutter button will be locked until the lens cover is completely open.

1. Hold the camera firmly and do not block the lens or flash with your fingers.
2. Look through the viewfinder and frame your subject. Make sure your subject is at least 1,2 m from the camera.
3. Depress the shutter button halfway (then release) to turn on the camera power. The red flash-charging light will illuminate. Wait until the green flash-ready light is on before taking a picture.

I Gently press the shutter button completely. The film will advance automatically when the shutter button is released.

Unloading the film

Avoid direct sunlight or bright light when unloading film.

When the last picture on the roll has been taken, the film will stop advancing. The film is at the end of the roll when the shutter does not click and the film does not advance in the picture counter. Rewind the film before opening the film compartment to remove the film. Film will be light-struck if removed before rewinding.

1. Slide the manual film rewind switch on the bottom of the camera in the direction of the arrows.

The motor noise will stop when the film is fully rewound (approx. 30 seconds).

2. Open the film compartment door and remove the film for processing.

Using the date display

The date display buttons on the control panel allow you the option to imprint a date and/or time in the lower right-hand corner of your photographs. The date display buttons are used to set the display to U.S., European or Japanese date mode, day/time mode or off mode.

Camera repair

If you think your camera needs repair, please call the nearest Polaroid office.

Troubleshooting

Important: If you have difficulty using your camera, review the instructions carefully. Never use force.

Symp-tom	Cause	Remedy
<i>Foggy, misty</i>	Camera lens dirty.	Breathe on the lens and wipe gently with a clean, soft facial

<i>pictures</i>		tissue.
<i>Subject partially cut off</i>	Improper framing of subject in viewfinder.	Look through the view-finder while holding the camera as close to your eye as possible. Frame your subject on all sides in the viewfinder.
<i>Blurry pictures</i>	Flash did not fire. Subject too close to camera. Camera or subject motion.	Change camera batteries, wait for flash-ready light. Subject must be at least 1,2 m away. Keep camera/subject still.
<i>Background too dark</i>	Background too far from subject. Outdoors at night.	Place subject near a brightly colored background. Stay within recommended flash range.
<i>Daylight pictures too dark</i>	Light level of scene too low.	Wait for flash-ready light. Check subject distance recommendations.

VII. Translate the following specification into Russian.

KODAK EASYSHARE 4MP DIGITAL CAM 

Vibrant, colorful, high resolution still pictures are yours with the Kodak 4MP Digital Camera. You can even shoot video with this lightweight, versatile camera. And Kodak's EasyShare system makes it easy to print or e-mail your photos for everyone with the included software!

Model #: CX7430

Product Features:

Resolution:

4 Mega Pixels.

Zoom:

3X optical and 4X digital zoom.

Display:

1.6" color TFT display.

Memory:

16MB internal memory with MMC/SD expansion slot.

Dimensions:

Measures approx. 4"L × 2-1/2"W × 1-1/2"H.

Additional features & specifications:

- 4MP resolution – get vibrant prints up to 20" × 30".
 - 3X optical/4X digital zoom – multi-zone auto focus and powerful zoom deliver remarkably crisp and brilliant pictures.
 - 1.6" color LCD display – preview and review your photos in an instant.
 - Kodak Color Science – consistently great pictures with true-to-life color.
 - Kodak Retinar Aspheric All-Glass lens – captures your subject in crisp detail.
 - On-camera share button – exclusive on-camera button, lets you tag favorite pictures to print or e-mail.
 - Kodak EasyShare system – works seamlessly with EasyShare camera dock (not included) for one-button transferring and sharing.
 - Multiple scene modes – choose from automatic, night, landscape, close-up, burst, portrait or sport.
 - Color modes – bring out your creativity with color, sepia or black and white.
 - Continuous video and audio capture – up to 80 minutes depending on the size of your memory card, at 13 frames-per-second.
 - Built-in flash – auto, red-eye, fill or off, for the right light every time.
 - Quick review – show multiple pictures at the same time on the display to compare shots. Fast scroll to edit, tag or delete pictures quickly.
 - 10-second self-timer – lets you get in the picture, too.
 - \$25 coupon from Ofoto.com for prints, calendars and more.
 - Comes with a manufacturer's 1 year limited warranty.
- For warranty information, please call 1.800.933.2887.

Accessories include:

- 2 AA batteries
- USB cable
- Wrist strap
- Kodak EasyShare software CD with interactive software tutorial.

СПИСОК ЛИТЕРАТУРЫ

- 1 Агабекян И.П. Английский для технических вузов: Основы научно-технического перевода. Вопросы теории. М.: ВЦП, 1989. 128 с.
- 2 Андрианова Л.Н. Английский язык: Учебник для заочных технических вузов. М.: Высшая школа, 1998.
- 3 Докштейн С.Я., Макарова Е.А., Радоминова С.С. Практический курс перевода научно-технической литературы. М.: Воениздат, 1973. 448 с.

- 4 Комиссаров В.Н. Теория перевода. М.: Высшая школа, 1990. 253 с.
- 5 Лилова А. Введение в общую теорию перевода. М.: Высшая школа, 1985. 256 с.
- 6 Научно-технический перевод / Под ред. Ю.Н. Марчука. М.: Наука, 1987. 142 с.
- 7 Научно-технический перевод с русского языка на английский / Сост. И.Д. Люткин. М.: ВЦП, 1991. 124 с.
- 8 Невзорова Г.Д., Никитушкина Г.И. Учебник по английскому языку для неязыковых вузов. СПб.: Изд-во «Союз», 2001. 704 с.
- 9 Основы научно-технического перевода: Вопросы теории. М.: ВЦП, 1989. 128 с.
- 10 Пумпянский А.Л. Введение в практику перевода научной и технической литературы на английском языке. М.: Наука, 1981. 344 с.
- 11 Чуксина О.В. Обучение профессионально-направленной переводческой деятельности в военном инженерном вузе (английский язык, курс по дополнительной специальности «переводчик в сфере профессиональной коммуникации») Дис. ... канд. пед. наук. Тамбов, 2000. 198 с.