



全国交通高级技工学校通用教材

# 汽车专业英语

(汽车维修、汽车电工、汽车检测专业用)

◎ 王 蕾 主编

◎ 谢仁物 主审



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Qiche Zhuanye Yingyu

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## 内 容 提 要

本书课文内容以汽车构造为主,并选编了大量汽车维修方面的文章。在课文编排上尽量做到汽车专业知识学习的系统性,基本上按汽车发动机和底盘系统进行编排。本书包括课文、词汇、注释和翻译材料,还附有总词汇表和国外汽车译名对照。

本书是全国交通高级技工学校通用教材,适合高级技工学校汽车维修、汽车电工、汽车检测专业及相关专业学生使用。

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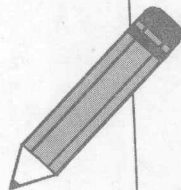
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# 前言

随着汽车工业的飞速发展,汽车的新技术、新工艺不断更新,汽车的使用维修人员从技术和数量上都跟不上发展的需要。为此,教育部等六部委于2003年12月联合发出通知,将汽车运用与维修等四个专业领域确定为技能型人才紧缺的领域,并决定实施“职业院校制造业和现代服务业技能型紧缺人才培养培训工程”。

为了适应社会经济发展和汽车运用与维修专业技能型紧缺人才培养的需求,交通技工学校汽车专业教材编审委员会于2004年初组织编写了汽车维修、汽车电工、汽车检测三个专业高级工教材。本套教材的特点是:

1. 教材选用的车型以轿车为主,内容反映目前汽车的新技术、新工艺,使学生能学到更多的知识。
2. 教材内容与高级工等级考核相吻合,便于学生毕业后适应岗位技能需求。
3. 教材体现了通俗易懂,以图代文,图文并茂的形式,使教材更为生动,以提高学生的学习兴趣。
4. 教材适于理论和实践一体化模块式的教学模式,在必需的理论基础上突出技能教学,使学生通过一段时间的实习,很快适应高级工的运用和操作。

《汽车专业英语》是全国交通高级技工学校通用教材之一,是为高级技工学校汽车及相关专业学生编写的专业英语教材。通过一定学时的专业英语阅读,巩固已经掌握的基本词汇和语法知识,扩大专业词汇,掌握科技文章的语法结构,提高英语应用能力,使学生能达到以英语为工具,获得专业所需要的信息。

本教材课文内容以汽车构造为主,并选编了少量汽车维修方面的文章。在课文的编排上尽量做到汽车专业知识学习的系统性,基本上按汽车发动机和底盘系统进行编排。在文章的内容上尽量做到通俗易懂。本书共19单元,包括课文、词汇、注释和翻译材料,还附有总词汇表和国外汽车译名对照。

参加本书编写工作的有:山东省交通技术学院王蕾(编写单元一、二、三、四、五、八、九、十、十一、十二)、陕西交通技术学院高冠军(编写单元六、七、十三、十四、十五、十六、十七、十八、十九)。全书由王蕾担任主编,人民交通出版社谢仁物担任主审。

限于编者经历和水平,教材内容难以覆盖全国各地的实际情况,希望各教学单位在积极选用和推广本系列教材的同时,注重总结经验,及时提出修改意见和建议,以便再版修订时改正。

交通技工学校汽车专业教材编审委员会

2005年7月



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## UNIT ONE

# FUTURE OF AUTOMOBILE

Although the automobile was invented more than 100 years ago, technical advances have again been achieved during the last 10 years. What are the future of automobile?

For the majority of customers the automobile is the fastest, the most convenient, and often the least expensive means of the transportation from one place to another. Customers would welcome further improvements in performance, fuel economy, safety and comfort. Many car owners have strong emotional ties with their automobiles. They want designs that reflect the spirit of the time and vehicle concepts that express their individuality. Others would wish that more progress be made with respect to reliability and quality combined with the lowest possible purchase price.

With the increase of automobile, traffic accidents are increasing day by day, and large cities are faced with traffic jam. Worst of all, perhaps, is the air pollution.

In order to solve the problem of these questions, many automobile manufacturers are trying to cope with designs, materials for the cars.

### New Words and Expressions

automobile/'ɔ:təməubi:l/	n. 汽车 (= <英> motor car, car)
technical/'teknɪkl/	adj. 技术的, 技术上的, 技巧方面的
advance/əd'vɑ:ns/	n. 前进, 提升
achieve/ə'tʃi:v/	vt. 完成, 达到
majority/mə'dʒɔ:ri:ti/	n. 大多数, 大部分
customer/'kʌstəmə/	n. 顾客, 主顾
convenient/kən'vi:njənt/	adj. 合理的, 便利的
expensive/ɪks'pensɪv/	adj. 昂贵的, 高价的
transportation/,træns'pɔ:t'eɪʃən/	n. 运输, 输送
performance/pə'fɔ:məns/	n. 履行, 执行, 成绩, 性能, 表演, 演奏
reflect/ri'flekt/	v. 反射, 反映, 表现, 反省, 细想
individuality/,ɪndɪ'vɪdʒu'æli:ti/	n. 个性, (通常用复数) 个人的嗜好
reliability/ri,laiə'bɪli:ti/	n. 可靠性
quality/'kwɒli:ti/	n. 质量, 品质, 性质
purchase/'pɜ:tʃəs/	n. 买, 购买
traffic/'træfɪk/	n. 交通



jam/dʒæm/

n. 拥挤, 堵塞

manufacturer/,mænju'fæktʃərə/

n. 制造业者, 厂商

## Notes

1. Others would wish that more progress be made with respect to reliability and quality combined with the lowest possible purchase price.

with respect to 关于, 至于

combine with 与……结合

combined with the lowest possible purchase price 过去分词短语作定语。

2. be faced with 面临

3. traffic jam 堵车, 交通拥堵

4. worst of all 最, 特别(最糟糕的是)

5. cope with 与……竞争, 应付



## UNIT TWO

### MAIN MANUFACTURER

The automobile industry is a fast developing industry. From the later 18th century when the first automobile was put on road, this industry has developed tremendously. In 1885, a new kind of engine was made in Germany. The early cars were slow, clumsy and dangerous. Many countries helped to develop the automobile. The internal-combustion engine was invented in Austria, and France was an early leader in automobile manufacturing. But it was in the United States after 1900 that the automobile was improved most rapidly. Now there are thousands of factories all over the world manufacturing numerous types of automobiles. Some of them are famous in the world and we must know about them. Here is a brief introduction of some main manufacturer:

There are some main manufacturers of the domestic automobile; the First Automobile Factory of China, Shanghai Automobile Manufacturer, Beijing Automobile Manufacturer.

Main manufacturers of foreign automobile: General Motors Corporation, Ford Motor Company, Chrysler Corporation, Benz, Nissan, Mitsubishi, Toyota Motor Corporation, etc.

### New Words and Expressions

develop/di'veləp/	vt. 发展, 开发
tremendously/tri'mendəsli/	adv. 惊人地, 极, 非常
petrol/'petrəl/	n. <英> 汽油 (= <美> gasoline)
steam/sti:m/	n. 蒸汽, 水气
carriage/'kæridʒ/	n. 马车
clumsy/'klʌmzi/	adj. 笨拙的
dangerous/'deɪndʒrəs/	adj. 危险的
internal/in'tɜ:nl/	adj. 内在的, 国内的
combustion/kəm'bʌstʃən/	n. 燃烧
invent/in'vent/	vt. 发明, 创造
improve/im'pru:v/	v. 改善, 改进
rapidly/'ræpidli/	adv. 迅速地
type/taip/	n. 类型
famous/'feiməs/	adj. 有名的
brief/bri:f/	adj. 简短的, 简洁的
main/mein/	adj. 最重要的, 主要的



foreign/'fɔ:rin/

adj. 外国的

corporation/| kɔ:pə'reiʃən/

n. 贸易公司

## Notes

1. developing industry

developing 为现在分词作定语修饰名词 industry

2. the later 18th century 18 世纪末

3. Now there are thousands of factories all over the world manufacturing numerous types of automobiles.

thousands of 成千的

hundreds of 成百的

thousands of and hundreds of 成百上千的

all over the world 全世界

manufacturing numerous types of automobiles 现在分词短语作定语修饰名词 factories。

## UNIT THREE

### TYPES OF AUTO

The automobile has been invented more than 100 years. Today it can be said that wheels run the world. There are numerous types of automobiles found in different parts of the world. The various types of automobiles are classified in different countries. Here is just a example of types of automobile.

According to their application, automobiles are classified as trucks, passenger, and special-purpose vehicles. The trucks may be provided with beds to transport different goods or with special-purpose bodies such as dump bodies to transport loose and viscous cargo, tank bodies for liquids, refrigerator vans for perishables, etc. Aside from a body type, trucks are classified according to their load-carrying capacity and cross-country capability.

The passenger vehicles are divided into cars seating from one to six men, and buses. The buses are subdivided into city and intercity ones. Tourist buses make a separate group. According to their length buses are classified as minibuses, small, medium, large, and articulated buses.

The special-purpose automobiles are equipped for performing particular tasks. Among them are fire and garbage trucks, ambulances, towers, water tanks, etc.

### New Words and Expressions

numerous/'nju:mərəs/	adj. 许多的,大批的
according/'əkɔ:diŋ/	prep. 根据,按照
application/,æpl'keifən/	n. 应用,运用
truck/trʌk/	n. 卡车
passenger/'pæsɪndʒə/	n. 客车
vehicle/'vi:ɪkl/	n. 陆上交通工具,车辆
dump/dʌmp/	n. 堆存处
loose/lu:s/	adj. 宽松的,不牢固的
viscous/'vɪskəs/	adj. 粘性的
refrigerator/'rɪfrɪdʒəreɪtə/	n. 电冰箱,冷藏库
perishable/'perɪʃəbl/	adj. 容易腐烂的
capacity/kə'pæsɪti/	n. 容量,能力
divide/di'vaɪd/	v. 划分,分割,分开
subdivide/'sʌbdɪ'vaɪd/	v. 再分,细分



intercity/ ,intə'siti/	adj. 城市间的, 市际的
tourist/'tuərist/	n. 旅游者, 游客
separate/'sepəreit/	vt. 分, 分开, 区别
length/leŋθ/	n. 长, 长度
purpose/'pə:pəs/	n. 目的, 计划, 意图, 意向
articulated/ɑ:'tikjuleitid/	n. 有铰链连接的拖车
garbage/'gɑ:bidʒ/	n. 垃圾
ambulance/'æmbjuləns/	n. 救护车
tower/'tauə/	n. 拖车
tank/tæŋk/	n. 水槽车

## Notes

1. The automobile has been invented more than 100 years.  
此句采用现在完成时被动语态。  
more than 比……多
2. Today it can be said that wheels run the world.  
it 作形式主语, 真正的主语是 that 后的 wheels run the world.
3. There are numerous types of automobiles found in different parts of the world. found in different parts of the world 为过去分词短语作定语修饰 automobiles。
4. aside from = apart from 除……以外
5. according to 根据, 按照
6. The passenger vehicles are divided into cars seating from one to six men, and buses. seating from one to six men, and buses 为现在分词短语作定语修饰名词 cars。
7. be subdivided into 被再细分为
8. special-purpose 专用

## UNIT FOUR

# FUNDAMENTALS OF AUTOMOBILE

An automobile probably has about 7,000 different parts. Some of them make it more comfortable or better looking, but most of them are to make it run. These parts can be divided into four major categories: engine, body, chassis and electrical equipment (Fig. 4-1).

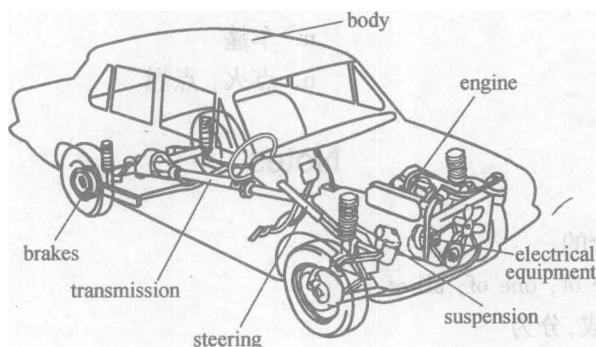


Fig. 4-1 Layout of a modern automobile

### The engine

The engine is the heart of the automobile, because it converts the fuel energy into mechanical power.

### Chassis

The chassis is an important part of automobile. The chassis includes the transmission, suspension, steering, and brake systems.

### Body

An automobile body is a sheet metal with windows, doors and a hood. It provides a protective covering for the engine, passengers and cargo.

### The electrical system

The electrical system supplies electricity for the ignition, horn, lights, heater and starter.

## New Words and Expressions

major/'meɪdʒə/

category/'kætɪgəri/

engine/'endʒɪn/

adj. 重要的, 大的

n. 种类, 别

n. 发动机, 机车, 火车头



chassis/'fæsi/	n. (车辆的)底盘
electrical/i'lektrikəl/	adj. 电的, 有关电的
equipment/i'kwipmənt/	n. 装备, 设备
convert/kən'veɪt/	v. 改变, 转变
mechanical/mi'kænikəl/	adj. 机械的
include/in'klud/	v. 包括, 包含
transmission/trænz'mɪʃən/	n. (机动车的)传动装置, 变速器
suspension/sə'spensən/	n. (车辆的)悬挂装置
steering/'stiəriŋ/	n. (汽车、船等的)转向装置
brake/breɪk/	n. 制动器, 闸, 刹车
system/'sɪstəm/	n. 系统
hood/hud/	n. 车篷
ignition/ɪg'nɪʃən/	n. 点火, 点燃

## Notes

1. most of 大部分的

相似的词组: some of, one of, all of...

2. divide into 分成, 分为

eg:

1) The builder will divide the land into home sites.

建筑者将把这片土地划分成房子场所。

2) Let's divide ourselves into groups.

让我们划分成组吧。

3. electrical equipment 电气设备

## UNIT FIVE

### ENGINE

The gasoline and diesel engine are the ones used in the automobile today. The gasoline engine is still the most popular form. The gasoline engine is a four-stroke, spark-ignition engine. It can be either liquid-cooled or air-cooled.

There must be the right air and fuel mixture for engine combustion. The air-fuel mixture must be ignited at the correct time.

The automobile engine is usually a four-stroke engine. That is, there are intake, compression, expansion (also called power) and exhaust strokes (Fig. 5-1). For a gasoline engine, the intake stroke brings the fresh air and fuel. The compression stroke compresses the air-fuel mixture. When the mixture is ignited by spark plugs, the expansion takes place. The expanding gases push down on the top of the piston, the power stroke occurs. As the piston comes up again, exhaust gases are pushed out of the engine, the exhaust stroke happens.

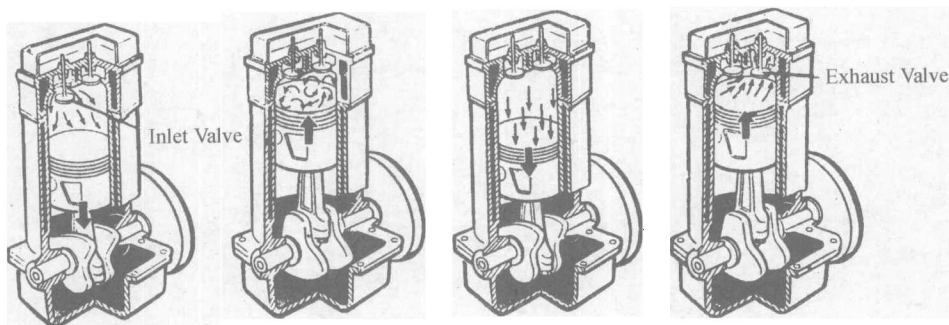


Fig. 5-1 Operating cycle of four-stroke engine

### New Words and Expressions

✓ gasoline/ˈgæsəliːn/  
 ✓ diesel/ˈdiːzəl/  
 spark/spɑːk/  
 liquid/ˈlikwɪd/  
 mixture/ˈmɪkstʃə/  
 intake/ˈɪnteɪk/

n. 汽油  
 n. 柴油机  
 n. 火花, 火星  
 n. 液体  
 n. 混合, 混合物, 混合剂  
 n. (水管、煤气管等的) 入口, 进口, 通风口



compression/kəm'preʃən/

n. 压缩

expansion/iks'pænfən/

n. 扩充, 开展

exhaust/ig'zɔ:st/

n. 排气, 排气装置

plug/plʌg/

n. 塞子, 插头, 插销

piston/'pɪstən/

n. 活塞

occur/ə'kɜ:/

vi. 发生, 出现

## Notes

The gasoline and diesel engine are the ones used in the automobile today.  
used in the automobile 为过去分词短语作定语修饰 the ones。



## UNIT SIX

# ENGINE LUBRICATION SYSTEM

### Part One Function and Components of Engine Lubrication System

There are a great many moving metal parts in the engine. These parts must be protected by lubricating oil so that there will be no actual metal-to-metal contact. The moving parts, in nature, float on films of oil. The lubricating oil circulating through the engine to all moving parts requiring lubrication performs other jobs:

- (1) Lubricate moving parts to minimize wear.
- (2) Lubricate moving parts to minimize power loss from friction.
- (3) Remove heat from engine parts by acting as a cooling agent.
- (4) Absorb shocks between bearings and other engine parts, thus reducing engine noise and extending engine life.
- (5) Form a good seal between piston rings and cylinder walls.
- (6) Act as a cleaning agent, washing the working surfaces free of chemical deposits, dust and dirt to protect them from corrosion.

The main parts of a lubrication system are: pump, main oil gallery, relief valve and filters (Fig. 6-1).

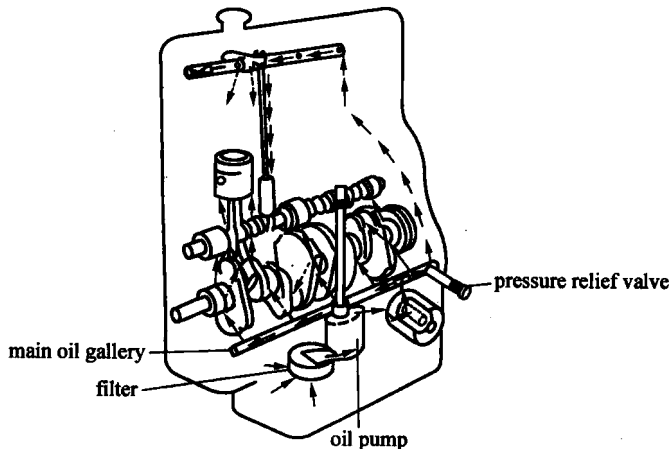


Fig. 6-1 Engine lubrication system