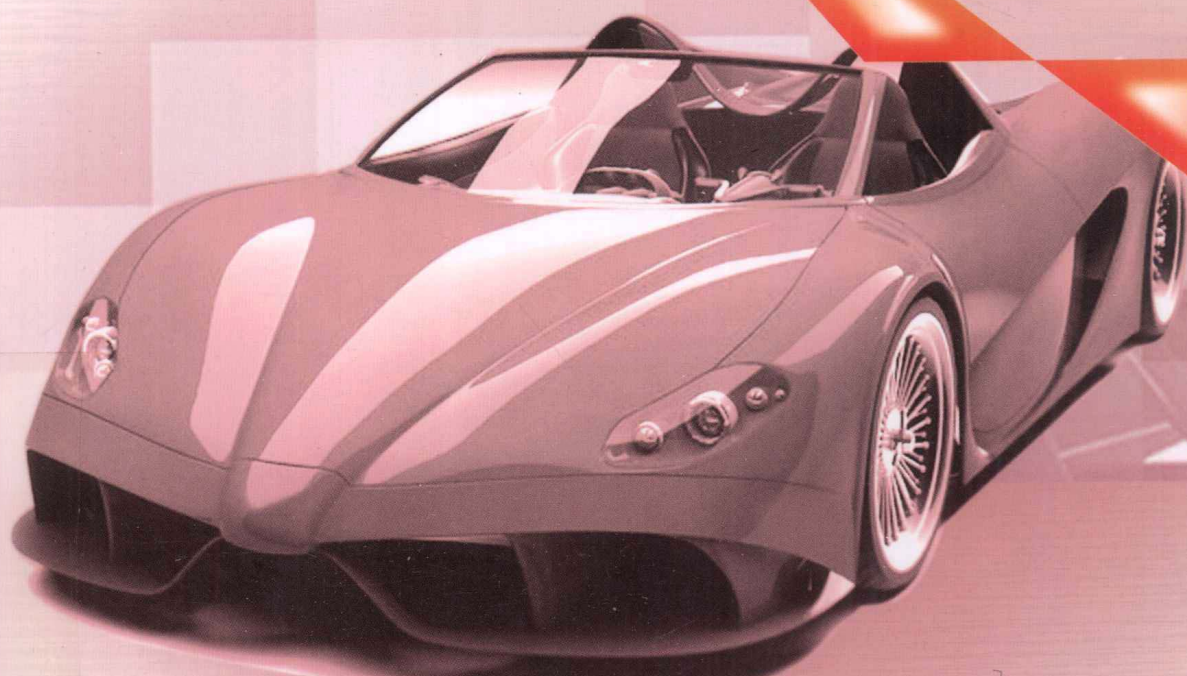


Automobile English

汽车英语

主 编 卢思源

副主编 宋 婕 廖慧祥



东南大学出版社
Southeast University Press



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Foreword 前言 II

2009年,我国汽车工业在全球金融危机下一枝独秀,创下产销量双双突破1360万辆的历史纪录,跃居世界首位。

从“自行车王国”到“汽车王国”,我们走过了30年的路程。上世纪80年代,汽车还是遥不可及的奢侈品,人们把桑塔纳轿车看作是点缀城市风光的“西洋景”,到90年代,很多年轻人已对世界各国汽车品牌耳熟能详,为“零距离接触”而感到欣喜。进入21世纪,数以百万计的中国百姓开始享受汽车生活的乐趣。据统计,北京每四个人中就有一人拥有一辆汽车。如今,难以想象,现代生活如果离开了汽车会是一种什么情景。

自从1985年我国第一次提出把汽车产业作为经济发展的支柱产业以来,国内汽车工业蓬勃发展。由上汽、一汽和东风为代表的汽车集团以每年递增20%的惊人速度稳步增长,产量连续翻番。德国大众、美国通用、日本丰田等各大外资企业竞相进入中国市场,合资企业赢得盆满钵溢。奇瑞、吉利、长城、比亚迪等本土车企也应运而生,并将产品出口,为国家创造税收、就业机会、提高金融系统流动性价值,直接推动了中国经济的腾飞。

目前,世界已进入新能源汽车基础技术研究的关键时期,我国已在研发燃料电池汽车、混合动力汽车和纯电动汽车三种全新节能的新能源汽车方面取得了可喜的进展。2008年12月,堪称电池行业翘楚的比亚迪公司正式推出了全球首款双模电动汽车F3DM。很有可能,它将取代油电混合系统,成为最主流的新能源汽车系统。随后,比亚迪又宣布自主研发的纯电动汽车e6将进军美国市场,它让世人看到中国汽车工业的未来和希望。

本书以实用和交际为目的,把汽车知识的传授和英语技能的培养有机地结合起来,专供从事汽车行业的广大职工、专业人士、管理和营销人士以及翻译人员阅读和学习,也可以供汽车专业的大中专院校学生在学习汽车英语时作为教材。

全书共分12个单元,每个单元由五个部分组成,它们是:(1)课文两篇(2)生词、短语、专有名词(3)注解(4)练习(5)译文。本书题材新颖,富有时代气息,重视内容的实用性、知识性和真实性。语言地道而规范,取材于西方国家最新的报刊杂志和专著,文章经过仔细挑选和适当修改,有关汽车专业最为常用的英语词语、



句式和文体可以从中窥见一斑。各个篇章的主题为:汽车的发展史,今日全球的汽车工业概况和中国的汽车市场现状,明日的电动汽车和发展、当前汽车的研发概况和2025年谁将是世界汽车生产之王,丰田汽车的生产方式和我国奇瑞汽车的昨天、今天和明天,我国汽车的保险和贷款业,使用汽车的五点常识,汽车的电子和电气设备,汽车与环保和节能,2007——世界电动汽车年,如何租用汽车,汽车车标逸事,福特汽车发展史等。

最后,应当在此一提的是,本书的顾问是上海邦德学院汽车学院院长陈永革教授,原同济大学汽车营销管理学院院长,现任中国汽车工程学会特聘专家。在本书成稿之际,他阅读了本书的全稿并提出了许多宝贵的修改意见,笔者特此向他致以衷心的感谢。

卢思源

2010年3月29日

于和平花苑



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Unit 1 The History and Development of Automobile

Warm-up Questions

1. Are you a car fan? What car brands do you know and which one is your favorite?
2. Do you know how long the automobile history is? And can you make a guess?
3. Can you imagine what the first car in the world was like?
4. How many predecessors in the automobile history can you count, and who are they?
5. Can you predict the outlook of future cars?

Text A

A Brief History of Automobile

The automobile was not invented in a single day by a single inventor. The history of the automobile reflects an evolution that took place worldwide.

It's estimated that over 100,000 patents created the modern automobile, and the first recorded date of the vehicles that can be considered automobiles were demonstrated as early as 1769 by a French engineer and mechanic *Nicolas-Joseph Cugnot*. However, this three-wheeler steam-driven artillery tractor was said to be much slower and harder to operate than a horse-drawn vehicle and hence was doubted to have ever run one mile.

After *Cugnot* there were several other inventors who designed steam-powered vehicles, and the first truly successful road locomotive of this type was built and demonstrated by *Richard Trevithick* in 1801. In America, *Oliver Evans*, the first national automobile patent grantee, demonstrated his first successful self-propelled vehicle in 1805, which was not only the first automobile in the USA, but also the first amphibious vehicle, as his steam-powered vehicle was able to travel on wheels on land and via a paddle wheel in the water.



Steam engines were not the only engines inventors tried to apply to early automobiles. *François Isaac de Rivaz*, a Swiss inventor, designed the first internal combustion engine in 1806, which was fuelled by a mixture of hydrogen and oxygen and used it to develop the world's first vehicle to run on such an engine. The design was not very successful, as its self-propelled system proved to be too clumsy and ineffective. Vehicles with electrical engines were also invented. In 1832, *Robert Anderson* of Scotland built the first crude electric carriage with rechargeable batteries powering a small electric motor, and this locomotive could progressively attain a speed of 4 mph (6 km/h). However, this kind of vehicle was heavy, expensive, and needed to stop for recharging frequently where a constant supply of electricity was impracticable. *Amedee Bollee Sr.* built advanced 12-passenger steam cars "*La Mancelle*" in France in 1878, which had a front-mounted engine, shaft drive to the differential, chain drive to the rear wheels, steering wheel on a vertical shaft and driver's seat behind the engine. Even though, the steam engine proved impractical for a machine that was intended to challenge the speed of a horse-and-buggy. The invention of the practical automobile had to await the invention of a workable internal combustion engine.

Although many engineers were working on the problem of the engine at about the same time, it's *Karl Benz*, the German mechanical engineer, who designed and in 1885 built the world's first practical gasoline-powered automobile that looked and worked like the cars we use today, and accordingly is acknowledged as the usherer of the modern automobile era. Another milestone vehicle was built in Germany in 1889 by *Gottlieb Daimler* and *Wilhelm Maybach*. Powered by a 1.5 hp two-cylinder gasoline engine, it had a four-speed transmission and traveled at 10 mph. Within a few years, a dizzying assortment of technologies was being produced by hundreds of producers. Dual- and even quad-engine cars were designed, and engine displacement ranged to more than a dozen liters. Many modern advances, including gas/electric hybrids, multi-valve engines, overhead camshafts, and four-wheel drive, were attempted and discarded at this time.

1905 was a signal year in the development of the automobile, marking the point when the majority of sales shifted from the collectors and enthusiast to the average user. This was facilitated by *Henry Ford* who did two important things. First he priced his car to be as affordable as possible and second, he paid his workers enough to be able to purchase the cars they were manufacturing. This helped push wages and auto sales upward. Besides, the technology development in this period was also



conspicuous, including electric ignition independent suspension, and four-wheel brakes. Transmissions and throttle controls were widely adopted, allowing a variety of cruising speeds.

Popularity of the automobile has consistently moved with the state of the economy, growing during the boom period after World War I and dropping abruptly during the Great Depression. Automobile finally emerged and survived from the shadow of two world wars in 1949, the year that in the United States saw the introduction of high-compression V8 engines and modern bodies from General Motors' Oldsmobile and Cadillac brands. On the technology front, the biggest developments of the era were the widespread use of independent suspensions, wider application of fuel injection, and an increasing focus on safety in the design of automobiles.

The modern car era has been one of increasing standardization, platform sharing, and computer-aided design. Some particularly notable advances in modern times are the wide spread of front-wheel drive and all-wheel drive, the adoption of the V6 engine configuration, and the ubiquity of fuel injection. Body styles have changed as well in the modern era. Three types, the hatchback, minivan, and sport utility vehicle, dominate today's market. This era has also seen rapidly rising fuel efficiency and engine output. Once the automobile emissions concerns of 1970s were conquered with computerized engine management systems, power began to rise rapidly. In the 1980s, a powerful sports car might have produced 200 hp (150 kW)—just 20 years later, average passenger cars have engines that powerful, and some performance models offer three times as much power.

I. New Words

- | | | |
|-------------------------|--------------------|--------------------------|
| 1. evolution | <i>n.</i> | 演变; 进化; 进展; 发展 |
| 2. estimate | <i>v. & n.</i> | 估计; 估价; 评估 |
| 3. patent | <i>n.</i> | 发明; 专利 |
| 4. demonstrate | <i>vt.</i> | 示范; 演示; 证明; 论证 |
| 5. artillery | <i>n.</i> | 大炮; 火炮 |
| 6. locomotive | <i>n.</i> | 机车; 车头 |
| 7. grantee | <i>n.</i> | 受让人; 被授予人; 被批准人 |
| 8. amphibious | <i>adj.</i> | 两栖的; 水陆两用的; ~tank 水陆两用坦克 |
| 9. via | <i>prep.</i> | 通过; 凭借; 经过 |
| 10. paddle | <i>n.</i> | 划桨; 短桨; 明轮翼 |
| 11. rechargeable | <i>adj.</i> | 可充电的 |



- | | | |
|---------------------|------|--------------------------|
| 12. progressively | adv. | 前进的;进步的 |
| 13. impracticable | adv. | 不可行的;行不通的 |
| 14. differential | n. | 差动;差异; ~ gear 差动齿轮 |
| 15. horse-and-buggy | n. | 四轮马车(美);两轮马车(英) |
| 16. usherer | n. | 先驱;领军人物 |
| 17. milestone | n. | 里程碑;里程标;重要事件 |
| 18. transmission | n. | 变速器 |
| 19. assortment | n. | 分类;多种多样 |
| 20. displacement | n. | 排(气)量 |
| 21. valve | n. | 气门;阀门 |
| 22. camshaft | n. | 凸轮轴 |
| 23. discard | vt. | 丢弃;扔掉 |
| 24. facilitate | vt. | 推动;帮助;促进 |
| 25. affordable | adj. | 买得起的;负担得起的 |
| 26. purchase | vt. | 购买;购置 |
| 27. conspicuous | adj. | 显著的;引人注目的 |
| 28. ignition | n. | 点火器;点火开关 |
| 29. throttle | n. | 油门 |
| 30. boom | n. | 激增;繁荣;经济突然好转 |
| 31. abruptly | adv. | 突然地;唐突地 |
| 32. standardization | n. | 标准化 |
| 33. configuration | n. | 配置;构造 |
| 34. ubiquity | n. | 无所不在 |
| 35. hatchback | n. | 掀背车;有舱门式后背的汽车 |
| 36. minivan | n. | 微型客车;小面包车 |
| 37. emission | n. | (光、热、声、味等的)发出,散发;散放物;排放物 |

II. Phrases

- | | |
|-------------------------|------------------|
| 1. apply to | 应用于;适用于 |
| 2. prove (to be) + adj. | 证明,证实 |
| 3. range from... to | (在一定幅度或范围内)变化;变动 |
| 4. make the point | 表明(看法);证实(论点) |
| 5. shift from... to | 从……转移到 |
| 6. emerge from | 浮现;出现;出来 |
| 7. focus on | 集中在……上;聚焦于 |

III. Proper Nouns

- | | |
|--------------------------|-----------------------------------|
| 1. Nicolas-Joseph Cugnot | 尼古拉·约瑟夫·科格纳特, 1725—1804, 法国军事工程师。 |
|--------------------------|-----------------------------------|



- | | |
|----------------------------|--|
| 2. Richard Trevithick | 理查德·特雷维西克, 1771—1833, 英国机械工程师和发明家。 |
| 3. Oliver Evans | 奥利弗·埃文斯, 1755—1819, 美国发明家。 |
| 4. François Isaac de Rivaz | 弗朗西丝·埃塞克·德瓦茨, 1752—1828, 法国发明家。 |
| 5. Robert Anderson | 罗伯特·安德森, 瑞士发明家。 |
| 6. Amedee Bollee Sr. | 阿梅代·博莱爵士, 1844—1916, 法国蒸汽工程师。 |
| 7. Karl Benz | 卡尔·本茨, 1844—1929, 德国汽车业先驱, 制造了第一辆内燃机车。 |
| 8. Gottlieb Daimler | 戈特利布·戴梅勒, 1834—1900, 德国机械工程师。 |
| 9. Wilhelm Maybach | 威廉·迈巴赫, 1846—1929, 德国机械工程师。 |
| 10. Henry Ford | 亨利·福特, 1863—1947, 美国著名汽车制造商, 福特汽车公司的创始人。 |
| 11. Cadillac | 凯迪拉克, 1658—1730, 法国探险家和殖民地长官。 |

IV. Notes

1. The automobile was not invented in a single day by a single inventor. The history of the automobile reflects an evolution that took place worldwide.

汽车不是某个发明家单枪匹马在一天内造出来的。它的历史反映了世界各国制造业的发展变化。

此句引用了谚语“Rome was not built in a single day.”罗马不是一天建成的。用以比喻漫长和艰辛的汽车发展历程。

2. However, this kind of vehicle was heavy, expensive, and needed to stop for recharging frequently where a constant supply of electricity was impracticable.

然而这种汽车体型笨重, 价格昂贵, 而且常常需要停下来充电, 却无法找到随时提供稳定电源的地方。

罗伯特·安德森发明的这种汽车配备了一种特定的充电器, 可以随时充电, 方便驾驶。但具有讽刺意味的是, 充电电源却不能随时随地找到, 使这种汽车的可行性大打折扣。

3. The invention of the practical automobile had to await the invention of a workable internal combustion engine.

制造实用的汽车只能期待发明一种实用可行的内燃机了。

言外之意是此前一系列的汽车发明都不成功, 真正的原因在于汽车的内燃机问题。

4. Although many engineers were working on the problem of the engine at about the same time, it's Karl Benz, the German mechanical engineer, who designed and in 1885 built the world's first practical gasoline-powered automobile that looked and worked like the cars we use today, and accordingly is acknowledged as the usherer of the modern automobile era.

尽管当时许多工程技术人员都在努力攻克发动机这个难题, 唯有德国机械工程师——卡尔·本茨设计并于1885年成功制造出世界上第一辆实用的汽油发动机汽车, 其外观和性能都很接近我们今天驾驶的汽车, 因此他被誉为摩登汽车时代的领军人。

卡尔·本茨是汽车发明史上的一位重要人物。他成立了世界上第一家汽车制造公司——奔



驰汽车公司,并成功地将生产线引入汽车生产,为汽车真正走向大众奠定了基础。

5. 1905 was a signal year in the development of the automobile, marking the point when the majority of sales shifted from the collectors and enthusiasts to the average user.

1905 年是汽车发展史上极为重要的一年,标志着汽车的主要消费群体开始从收藏家和爱好者转向普通民众。

20 世纪初,随着汽车生产线的发展和扩大,众多汽车制造公司彼此之间竞争激烈,汽车消费群体进一步扩大,消费市场更加民众化。

Exercises

I. Answer the following questions briefly according to text A.

1. Do you think the vehicle Cugnot built in 1769 can be regarded as the automobile?
2. Who is François Isaac de Rivaz? What contribution did he make to the auto industry?
3. Why does the author claim the invention of the practical automobile has to await the invention of a workable internal combustion engine?
4. For what reason do we consider Karl Benz as the usherer of the modern automobile era?
5. What's the main concern about automobiles nowadays, environmental protection or fuel shortage?

II. Decide whether the statements are true (T) or false (F).

- _____ 1. Vehicle demonstrated in 1769 by Nicolas-Joseph Cugnot was the first automobile in the world.
- _____ 2. Richard Trevithick successfully invented the first steam-powered amphibious vehicle.
- _____ 3. La Mancelle's complicated and advanced design made it a successful model in both speed and practicability.
- _____ 4. Karl Benz built first gasoline-powered vehicles and was considered as the forerunner in modern automobile era.
- _____ 5. In the 1980s, the main concern about automobile was its emissions.



III. Choose appropriate words from column A to match expressions in column B to form collocations.

- | A | B |
|----------------|-------------------------------------|
| 1. reflect | a. the greeting with a nod |
| 2. demonstrate | b. views |
| 3. develop | c. an interest in auto |
| 4. await | d. the cigarette habit |
| 5. acknowledge | e. a philosophical principle |
| 6. facilitate | f. the drought |
| 7. purchase | g. peaceful settlement of a dispute |
| 8. survive | h. freedom with blood |
| 9. adopt | i. one's attention |
| 10. conquer | j. a positive attitude |

IV. Fill in the blanks with the given words or expressions in the box, changing the form where necessary.

| | | | | |
|-------------|----------|-------|----------------|-----------|
| apply to | prove | range | make the point | shift |
| emerge from | focus on | boom | milestone | evolution |

1. The important evidence _____ him innocent.
2. There are many kinds of books in this bookstore, _____ from comic books to science fiction.
3. After two hours' heavy rain and wind, the sun _____ behind a cloud.
4. Scientific discoveries are often _____ industrial production methods.
5. The new premier _____ of getting as many contacts as possible with the people.
6. When at last he _____ the position he had been sitting in, he found his legs very still.
7. After several years' practice, it's widely acknowledged that our socialist development should and must _____ economic construction.
8. The two world wars greatly _____ the aircraft industry.
9. Joys and pains alternate in the _____ from childhood to manhood.
10. The War of Independence of 1864 made an important _____ in American history.



V. Complete the dialogue by translating the Chinese parts into English.

Bill has bought a new car. He enjoys driving very much. Now he is talking about his new car with his friend Tony.

Tony: Hi, Bill! _____ (1) _____ (你的车看上去真棒)!

Bill: Thank you. But I am wondering _____ (2) _____ (汽车怎么能设计得这么具有艺术性).

Tony: Maybe you haven't been an expert yet. In fact, the automobile is really a sophisticated guy. _____ (3) _____ (汽车由引擎、车身、底盘及许多电子器械组成). A typical car contains about 15,000 parts. They are connected to one another accurately.

Bill: Oh, that's so cool. You are really an expert.

Tony: Ha-ha... _____ (4) _____ (你能想象世界上第一辆汽车居然跟拖拉机的样子差不多,而且连马车都跑不过)?

Bill: That must be joking! How can it be like that? It's amazing!

Tony: _____ (5) _____ (虽然汽车只有一百多年的历史,但它的发展却相当的快). You should know something about the automobile development.

Bill: En, fine! I'll learn the knowledge about automobile from you. I'm a car fan, too.

VI. Error Correction.

Before the automobile, people both lived in the city and worked in the city, or lived in the country and worked on a farm. Because

1. _____
the automobile, the growth of suburbs have allowed people to live on

2. _____
the outskirts of the city and able to work in the city by commuting.

New jobs owe to the impact of the automobile such as fast food, city
3. _____

highway construction, state patrol/police, convenience stores, gas
stations, auto repair shops, auto shops, etc. allowing more 4. _____

employment for the world's growing population.

Yet, the effect on city life has been, if anything, more prominent than the effect on the farms. The auto has been radically changed

5. _____