汽车英语

QICHE YINGYU

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前　言

中国汽车产业正在逐步实现由弱到强的巨大跨越，自主品牌将完成从“中国制造”到“中国创造”的发展过程，中国汽车产业正面临前所未有的机遇。目前，中国汽车市场不仅发展快，而且汽车消费需求变化也快。据专家预计，到2020年中国汽车市场的销量有望占据全球汽车总销量的一半以上。在信息时代，大量汽车技术信息采用英语表达，倘若缺乏相关的英语知识，将会对从事汽车相关岗位的学生产生非常不利的影响。

本书由英语教师和汽车系教师共同组建的一线教学团队，在行业专家的指导下，根据教育部颁布的新的“大学英语教学基本要求”，特为汽车专业学生学习英语而设计和编写，是高等教育系列规划教材之一。本书编写遵循英语教学原则，根据高等教育教学实际、行业和社会对人才的要求编写而成，形式上力求创新，条理清晰，通俗易懂，理论性和实用性兼备，内容全面，力求能真正反映当代汽车领域发展的前沿技术和最新动态，帮助学生较系统地学习汽车专业知识，熟练掌握汽车专业英语词汇，能够阅读和翻译一般的汽车英语使用说明书和有关技术资料。

全书共分两部分——基础篇和职业能力篇。每一单元分为三部分：第一部分为专业英语阅读，让学生在阅读过程中学习、熟悉、掌握汽车专业知识和专业术语，文章反映了汽车常用技术、高新技术、前沿技术及汽车发展动态；第二部分为练习，主要包括词汇、习惯用语、专业术语及缩略语、补充阅读、国内外车标认识等；第三部分为口语练习，主要设计有汽车行业工作场景下的、实用的、简单易懂的英语口语对话及模拟练习。书后附有词汇表、词组和习惯用语表、汽车缩略词语表、进口汽车和国产汽车中英文名称与标志对照表。

本书由阎晓玲、万东任主编，由林发佳、刘粒宇、孙蕾、何华权、吴传银任副主编，贺晓瑾、甘念等参加编写。本书在编写过程中，参考和应用了大量的参考文献，在此对文献的原作者表示诚挚的谢意！

由于编者水平所限，书中若有不足之处敬请使用本书的师生与读者批评指正，以便修订时改进。若读者在使用本书的过程中有其他意见或建议，恳请向编者提出宝贵意见。

编　者

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Part 1 Basic Knowledge of Automobile

Module1 World History of the Automobile

The history of the automobile begins as early as 1769, with the creation of steam engined automobiles capable of human transport. In 1806, the first cars powered by internal combustion engines running on fuel gas appeared, which led to the introduction in 1885 of the ubiquitous modern gasoline or petrol-fueled internal combustion engines. Cars powered by electric power briefly appeared at the turn of the 20th century, but largely disappeared from use until the turn of the 21st century. The early history of the automobile can be divided into a number of eras, based on the prevalent means of propulsion during that time. Later periods were defined by trends in exterior styling, and size and utility preferences.

In the 17th century, Ferdinand Verbiest, a member of a Jesuit mission in China, built the first steam-powered vehicle around 1672. Though designed as a toy for the Chinese Emperor and was of small scale and unable to carry a driver or passenger, it was, quite possibly, the first working steam-powered vehicle ('auto-mobile').

In the late 18th century, steam-powered self-propelled vehicles large enough to transport people and cargo were first devised. See Fig. 1-1.

Fig. 1-1 Cugnot' s steam wagon

In the early 19th,an oil-fired steam car and a four-seat steam were built.

Karl Benz built his first automobile in 1885 in Mannheim. See Fig. 1-2. Benz was granted a patent for his automobile on 29 January 1886, and began the first production of automobiles in 1888. The "car" Benz designed with the engine was a light three-wheeler with belt drive, which first ran on the streets of Mannheim in June 1886.

In 1885, Gottlieb Daimler (together with his design partner Wilhelm Maybach) took Nicolaus

Otto's internal combustion engine a step further, running boards and patented what is generally recognized as the prototype of the modern gas engine.

On March 8, 1886, Daimler took a stagecoach (made by Wilhelm Wimpff & Sohn) and adapted it to hold his engine, thereby designing the world's first four-wheeled automobile.

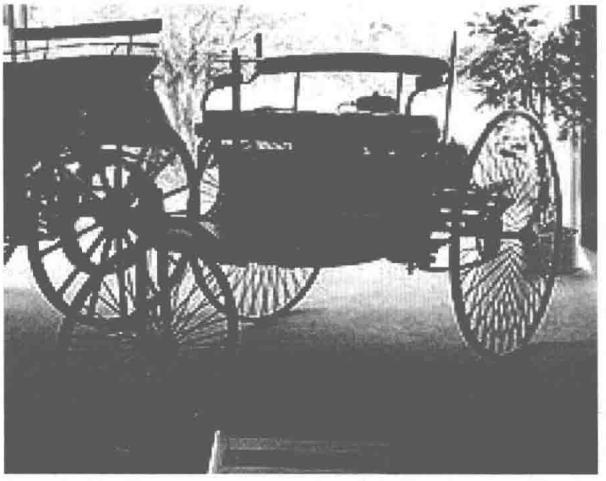

Fig. 1-2 1885-built Benz Patent Motorwagen, the first car to go into production with an internal combustion engine

Veteran era

The first production of automobiles was made by Karl Benz in 1888 in Germany and, under license from Benz, in France by Emile Roger. There were numerous others. By 1900, mass production of automobiles had begun in France and the United States. By the start of the 20th century, the automobile industry was beginning to take off in Western Europe, especially in France, where 30,204 were produced in 1903, representing 48.8% of world automobile production that year.

Within a few years, a dizzying assortment of technologies was being produced by hundreds of producers all over the western world. Steam, electricity, and petrol/gasoline-powered automobiles competed for decades, with petrol/gasoline internal combustion engines achieving dominance in the 1910s.

Throughout the veteran car era, however, automobiles were seen as more of a novelty than a genuinely useful device.

Brass or Edwardian era

Named for the widespread use of brass in the United States, the brass (or edwardian) era lasted from roughly 1905 through to the beginning of World War I in 1914. Within the 15 years, the various experimental designs and alternate power systems would be marginalized.

Throughout this era, development of automotive technology was rapid, due in part to hundreds of small manufacturers competing to gain the world's attention. Key developments included the electric ignition system, independent suspension, and four-wheelbrakes. And Ford Model T was proclaimed as the most influential car of the 20th century.See Fig. 1-3.

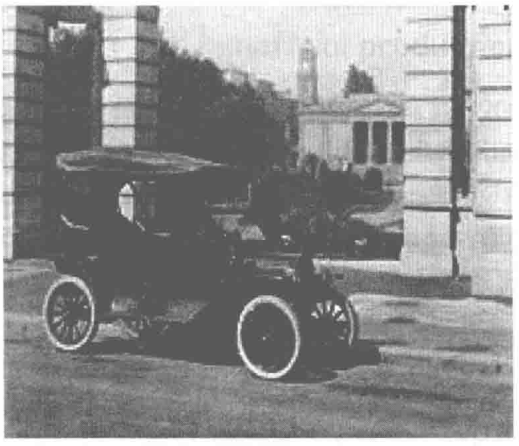

Fig.1-3 Model-T Ford car

Vintage era

The vintage era lasted from the end of World War I (1919), through the Wall Street Crash at the end of 1929. During this period, the front-engined car came to dominate, with closed bodies and standardised controls becoming the norm. Just at the end of the vintage era, tempered glass (now standard equipment inside windows) was invented in France in this era, the revolutionary ponton design of cars without fully articulated fendersand other non-compact ledge elements was introduced in small series, but a mass production of such cars was started much later (after WWII).

Pre-WWII era

The pre-war part of the classic era began with the Great Depression in 1930, and ended with the recovery after World War II, commonly placed at 1948. It was in this period that integrated fenders and fully closed bodies began to dominate sales, with the new saloon/sedan body style even incorporating a trunk or boot at the rear for storage. The old open-top runabouts, phaetons, and touring cars were phased out by the end of the classic era as wings, running boards, and headlights were gradually integrated with the body of the car.

By the 1930s, most of the mechanical technology used in today's automobiles had been invented, the independent suspension was originally conceived by Amédée Bollée in 1873, but not put in production until appearing on the low-volume Mercedes-Benz 380 in 1933, which prodded American makers to use it more widely.

Post-war era

Since World War II automobile design experienced the total revolution changes to pontonstyle (without non-compact ledge elements). Automobile design and production finally emerged from the military orientation and other shadow of war in 1949.

Throughout the 1950s, enginepower and vehicle speeds rose, designs became more integrated and artful, and cars spread across the world.

The market changed somewhat in the 1960s, as Detroit began to worry about foreign competition, the European makers adopted ever-higher technology, and Japan appeared as a serious

car-producing nation.

Modern era

The modern era is normally defined as the 25 years proceeding the current year. However, there are some technical and design aspects that differentiate modern cars from antiques. Without considering the future of the car, the modern era has been one of increasing standardisation, platform sharing, and computer-aided design.

Future car technologies

Potential future car technologies include varied energy sources and materials, which are being developed in order to make automobiles more energy efficient with reduced regulated emissions. Cars are being developed in many different ways.

With rising gas prices, now the future of cars is leaning towards fuel efficiency, energy-savers, hybrid vehicles, battery electric vehicles, and fuel-cell vehicles.

Three Revolutions in the Automobile History

The 1st Revolution, Ford Revolutionizes Manufacturing

In 1914 Henry Ford (See Fig. 1-4) revolutionized the whole manufacturing process by creating the continuous, moving assembly line. This took the 1st innovation of the automobile industry in the history.

Fig.1-4 Photo of Henry Ford is in the public domain

The 2nd Revolution-Diversified Automobile Products

Immediately following World War II, most American automakers were producing the same old thing they had been selling before the war. In 1947 Studebaker came out with the first new car design. The rest of theautomotive world would soon follow, creating some of the most distinctive car designs in history. It was indeed a "golden age" for the automotive industry.

The 3rd Revolution -Excellent and beneficial production methods

The most popular economy car segment in the sixties was the 700-800 cc class, embodied by the Toyota Publica, Mitsubishi Colt 800, and the original Mazda Familia. By the end of the sixties, however, these (often two-stroke) cars were being replaced by full one-liter cars with four-stroke engines, a move which was spearheaded by Nissan's 1966 Sunny. All other manufacturers quickly followed suit, except for Toyota who equipped their Corolla with a 1.1&bsp; litre engine — the extra 100 cc were heavily touted in period advertising. These small family cars took a bigger and bigger share of an already expanding market.

Rapidly increasing domestic demand and the expansion of Japanese car companies stepped into foreign markets in the 1970s further accelerated growth. Passenger car exports rose from 100,000 in 1965 to 1,827,000 in 1975. Automobile production in Japan continued to increase rapidly after the 1970s, as Mitsubishi (as Dodgevehicles) and Honda began selling their vehicles in the US. Even more brands came to America and abroad during the 1970s, and by the 1980s, the Japanese manufacturers were gaining a major foothold in the US and world markets.

With Japanese manufacturers producing very affordable, reliable, and popular cars throughout the 1990s, Japan became the largest car producing nation in the world in 2000. But since 2009, Chinahas become the largest car producing and consuming nation in the world.

New Words

automobile	['ɔtəmo,bil] *n.*	（美）汽车
capable	['kepəbəl] *adj.*	能干的，能胜任的
transport	[træns'pɔt] *n.*	运输，运送，运输系统
power	['paʊə] *n.*	功率，动力，力量
internal	[in'tənəl] *adj.*	（机构）内部的，内部的
combustion	[kəm'bʌstʃən] *n.*	燃烧，氧化
fuel	['fjuəl] *n.*	燃料
gas	[gæs] *n.*	汽油
ubiquitous	[ju'bikwitəs] *adj.*	无所不在的，普遍存在的
gasoline	['gæsə,lin, ,gæsə'lin] *n.*	汽油
petrol	['petrəl]	汽油
prevalent	['prevələnt] *adj.*	流行的，普遍存在的
propulsion	[prə'pʌlʃən] *n.*	推进，推进力
exterior	[ik'stiriə] *adj.*	外部的，外面的
utility	[ju'tiliti] *n.* *adj.*	功用，功效； 有多种用途的
steam-powered	['sti:m'pauəd] *adj.*	蒸汽驱动的
self-propelled	[self-prəpɛld]*adj.*	自力推动的，机动式的
devise	[di'vaiz] *vt.*	设计，想出
oil-fired	['rivit] *adj.*	以石油为燃料的

grant	[ɡrænt] *n.*	承认；同意；准许；授予
	vt.	授给物（如财产、授地、专有权、补助、拨款等）
patent	['pætnt] *n.*	专利；专利品；专利权；专利证
	vt.	获得……专利，给予……专利权；取得专利权
prototype	['prəʊtətaip] *n.*	原型，雏形，蓝本
stagecoach	['steidʒkəʊtʃ] *n.*	驿马车
numerous	['numərəs] *adj.*	很多的，许多的；数量庞大的数量庞大的；数不清的
dizzying	['diziŋ] *adj.*	令人昏乱的，灿烂的
assortment	[ə'sɔrtmənt] *n.*	分类；搭配；花色品种；混合物
dominance	['dɔmənəns] *n.*	优势；支配；统治
veteran	['vetərən] *adj.*	老练的，资深的，经验丰富的
novelty	['nɔvəlti] *n.*	新奇的事物；新颖小巧而价廉的物品
genuinely	['d ʒɛnjʊinli] *adv.*	真地；真正地；真诚地；诚实地
device	[di'vais] *n.*	装置，设备；设计；策略；图案
widespread	['waid'spred] *adj.*	分布广的；普遍的；广泛应用；普及的
roughly	['rʌfli] *adv.*	粗略地；大体上；大致上；粗暴地
alternate	[ɔl'tərneit] *adj.*	轮流的；交替的；间隔的；代替的
	vt.	使交替；使轮流
marginalise	['mɑrdʒənə,laiz] *vt.*	使脱离社会发展进程；忽视；排斥
suspension	[sə'spenʃən] *n.*	悬浮；暂停；悬架；悬浮液
brake	[brek] *n. vt.& vi.*	制动器，闸；刹车；阻碍
		刹（车）
vintage	['vintidʒ] *adj.*	老式的，过时的；最好的，最有特色的；古老而享有声誉的
front-engined	['frʌnt 'endʒind]	前置发动机的
dominate	['dɔmineit] *vt.& vi.*	控制；在……中占首要地位；
norm	[nɔ:m] *n.*	标准；规范；准则；行为模式
revolutionary	[revə'luʃənəri] *adj.*	革命的，革命性的，创新的
	n.	革命者，革新者
articulate	[ɑ:'tikjʊleit] *vt.*	清晰地发（音）；（用关节）连接
	adj.	发音清晰的；善于表达的；有关节的
non-compact	[nɔn'kɔmbæt] *adj.*	非战斗的
integrate	['intigreit] *vt.*	使一体化；使完整；使结合成为整体
	adj.	整体的；完整的；完全的；综合的
mechanical	[mi'kænikəl] *adj.*	机械的，机械学的；体力的；手工操作的
revolution	[ˌrevə 'luʃən] *n.*	革命；彻底改变；旋转
emerge	[i'mə:dʒ] *vi.*	出现，浮现；暴露；摆脱

orientation	[ˌɔ:riən'teiʃn] *n.*	方向，定位，取向，排列方向
preceding	[pri'sidiŋ] *adj.*	（时间或地点上）在先的，前面的；
standardisation	['stændədai'zeiʃən] *n.*	标准化
computer-aided	[kəm'pju:tə'eidid]	计算机辅助
emissions	[i'miʃən] *n.*	排放，辐射；排放物，散发物（尤指气体）；
innovation	['inə've∫ən] *n.*	改革，创新；新观念；新发明；新设施
segment	['segmənt] *vt.&vi.*	分割，划分
accelerate	[æk'selə,ret] *vt.*	（使）加快，（使）增速；加速
	vi.	加快，加速

Phrases and Expressions

steam engine	蒸汽机
internal combustion engine	内燃机
fuel gas	可燃气体，燃料气体
electric power	电力，电功率
four-wheeled automobile	四轮汽车
mass production	大规模生产
take off	(使)离开；(飞机)起飞；发起；起跳
due to	由于
in part	部分的，在某种程度上
tempered glass	淬火玻璃，钢化玻璃
hybrid vehicles	混合驱动汽车
moving assembly line	移动流水线
a number of	许多

EXERCISE 1

According to the text, decide where the following statements are true (T) or false (F).

(　　) 1. Karl Benz and Gottlieb Daimlertook Nicolaus Otto's internal combustion engine a step further and designed the world's first four-wheeled automobile.

(　　) 2. The vintage era lasted from the end of World War I (1919), through the Wall Street Crash at the end of 1929.

(　　) 3. Since World War I automobile design experienced the total revolution changes to ponton style.

(　　) 4. Potential **future car technologies** include varied energy sources and materials, which are being developed in order to make automobiles more energy efficient with reduced regulated emissions.

(　　) 5. The most popular economy car segment in the sixties was the 700-800 cc class, embodied by the Toyota Publica, Mitsubishi Colt 800, the original Mazda Familia and Benz.