

国家职业教育改革发展示范院校规划教材

Workshop English

车间英语

主 编 杨 漫 朱清新

副主编 李爱灵



中国水利水电出版社

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内 容 提 要

本书主要介绍生产制造行业一线岗位的英语实例材料、通用的基本技术业务用语及常见英语表述,内容涉及了工作描述、工作中的交流、工具的分类和使用、电工和电子、度量、描述物体、工作图、生产安全和求职等9个方面。选材针对中等职业学校学生的知识结构和学习认知规律,以真实的技术应用环境为场景,以英语为手段,循序渐进地介绍生产制造行业需要掌握的基础英语知识,体现了中等职业教育的理念和特色。

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前 言

本书是根据《中等职业学校英语教学大纲》与河南省教育厅实施的中德合作职业教育教学模式规定的课程目标和要求编写的中等职业学校专业英语教材。

Workshop 意为“车间”，在本书中主要指“工作场所”。近年来，世界经济全球化的趋势愈演愈烈，为适应日益国际化的经济环境，越来越多的企业对技术和生产人员的职业外语水平相应提出了较高的要求；能在工作中使用英语进行沟通和解决问题已成为学生们参与就业竞争以及今后职业发展的重要能力之一。本书立足于现代制造业的发展现状，紧密结合生产制造类职业岗位实际，突出生产制造类各专业通用性和实用性。通过学习本书，学生不仅可以掌握基本专业知识，也能提高英语的应用能力，体现日常英语与专业知识的完美结合。

本书在内容和结构上有以下主要特点：

(1) 应用性。在内容设计上，每一单元的内容都发生在具体的工作场景中，所涉及行业知识均以实景对话和实际操作为主体，涵盖车间工作的各个环节，突显了英语口语的应用性。

(2) 针对性。按照中等职业教育英语教学的性质和目标要求，以车间岗位为背景，围绕车间工作任务设计教学内容，具有鲜明的针对性。

(3) 有效性。本书遵循功能语言学的教学原理，采用任务型教学模式，注重语言技能与职业知识技能的整合，加大了语言的输出量，体现了“在做中学”的教学理念，增加了教学的有效性。

(4) 趣味性。在呈现内容时，图文真实，文字表达生动活泼，线条、图像设计趣味、生动，整体结构清晰美观。

(5) 实践性。情景设置与车间工作人员的实际工作密切相关，涵盖了实际工作的各个环节，突出了实际操作的特点。

(6) 前瞻性。引进与创新并重，积极引进新内容和新方法，同时具有一定的创新和改进，突出教材前瞻性特点。

结构安排：

本书由9个项目单元和3个附录组成，分别涉及了工作描述、工作中的交流、工具的分类和使用、电工和电子、度量、描述物体、工作图、生产安全和求职等跟生产制造行业紧密联系的内容。每个单元的标题页设置了本单元的学习目标，并根据实际工作要求分解为2个任务，每个任务由 Warming up, Dialogue, Text, Notes to the Text, Comprehensive and Extended Exercises 5个板块组成，此外还包括 New Words and Expressions, Learning More 2个板块。附录包括机电英语常用缩略语、机械制图标准缩略语和零件常见结构的专用术语和缩略语。

本书主要由杨漫、朱清新、李爱灵编写完成，第3、6、7单元由杨漫编写，第1、9单元由朱清新编写，第4、5单元由李爱灵编写，第2、8单元由杨漫和朱清新共同编写，吴文利编写了附录并参与了相关资料的收集与整理工作。本书在编写过程中得到了安阳市中等职业技术学校各位领导的大力支持，学校机电交通部的数控组、汽修组的专业教师和办公室各位同事也提供了帮助，同时北京启迪时代科技有限公司李季、李东春在本书编写过程中对本书进行了认真的审校及提出建议。在此表示感谢！

编者

2015年5月

目 录

前言

Unit 1 Knowing My Job	1
Task A Being a Fitter	2
Task B Being a Responsible CNC Operator	5
Learning More	10
Unit 2 Communicating at Work	11
Task A Making a Phone Call	12
Task B Writing a Business Letter	16
Learning More	23
Unit 3 Making Use of Tools	25
Task A Using Hand Tools	26
Task B Using Power Tools	31
Learning More	38
Unit 4 Reading the Circuit Diagram	40
Task A Knowing the Basic Circuit	41
Task B Using Soldering Iron	46
Learning More	52
Unit 5 Knowing Measuring Tools	55
Task A Knowing Measuring Tools	56
Task B Learning to Use a Vernier Caliper	61
Learning More	65
Unit 6 Describing Objects	68
Task A Knowing Colors, Shapes and Location	69
Task B Describing Objects	75
Learning More	80
Unit 7 Technical Drawing	82
Task A Reading Working Drawings	83
Task B Technical Drawing	88
Learning More	95
Unit 8 Working Safely	98
Task A Recognizing Safety Signs	99

Task B Being Careful with the Hazard	105
Learning More	113
Unit 9 Hunting for a Job	116
Task A Writing a Cover Letter and Resume	117
Task B Attending an Interview	122
Learning More	128
Appendices	129
Appendices I 机电英语常用缩略语	129
Appendices II 机械制图常用缩略语	134
Appendices III 零件常见结构的专用术语和缩略语	135
参考文献	137

Unit 1 Knowing My Job



Goals:

Knowing the contents of a job

Having the sense of responsibility for a job

Task A Being a Fitter

Warming up

Activity 1: Read and match. Look up the words in a dictionary if necessary.

Do you know the basic operations of benchwork?

A. filing

B. scribing

C. carving

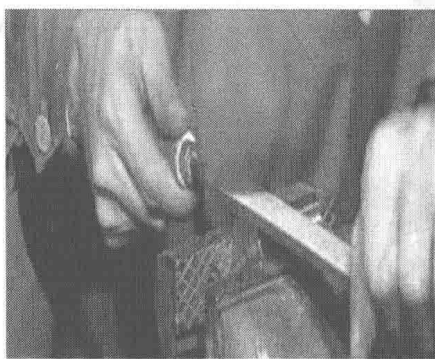
D. sawing

E. boring

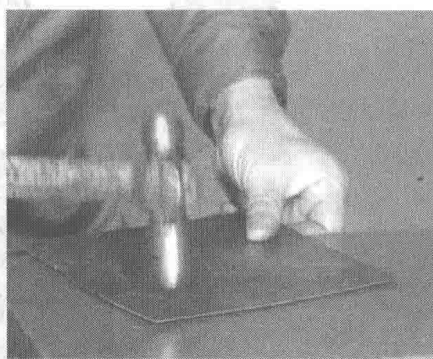
F. tapping

G. straightening

H. bending



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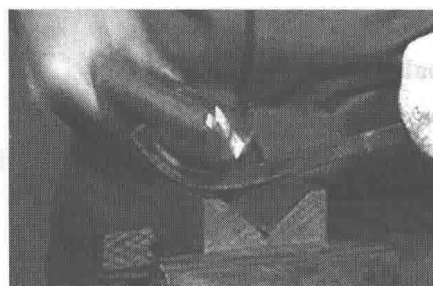
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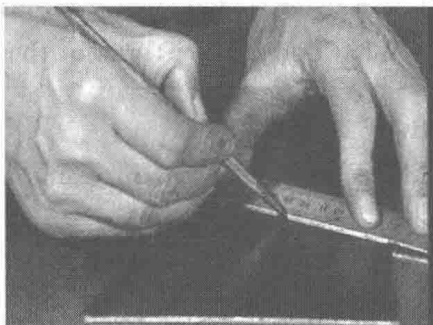
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Activity 2: Discuss with your partner.

- (1) What are the basic operations of benchwork?
- (2) What tools are used in the above operations?

Dialogue A

(Li Lei is a vocational school student. After two years of mechatronics course learning, he is working as a trainee fitter in a factory. Now he is calling to his classmate Han Hong. They are talking about their jobs.)

Li Lei: Hi, Han Hong. Long time no see. How is everything going?

Han Hong: Not bad. What about you? Where do you work?

Li Lei: I work in Dongfang Machinery Factory.

Han Hong: What do you do in the factory?

Li Lei: I am a trainee fitter.

Han Hong: A fitter? Can you tell me more about it?

Li Lei: OK. A fitter may be an installer, an assembler or a mounter, etc.

Han Hong: What type of work do you do?

Li Lei: I am a machine fitter.

Han Hong: Is this workload heavy?

Li Lei: Just a little, but I can deal with it.

Han Hong: And a fitter's operating efficiency is low. Do you like it?

Li Lei: Yes. I can learn more from my master. What's more, along with the development of mechanical industry, I think, the degree of mechanization of a fitter's work will be improved constantly.

Han Hong: I totally agree with you.

Activity 1: Discuss the following questions according to the dialogue.

- (1) Where does Li Lei work?
- (2) What type of work does Li Lei do?
- (3) Is Li Lei's work heavy?

- (4) Is a fitter's productivity ratio high?
 (5) What does Li Lei think of the future of a fitter?

Activity 2: Role play.

Students work together in teams and act the dialogue. Note the expressions used in the dialogue and the progression of the conversation.

Text A

Benchwork and the Fitter

Benchwork is a category of jobs. It is also a traditional process. It is concerned with the use of hand tools and bench machines. So it has advantages in mobility and flexibility. Generally speaking, it works with relatively small objects and materials.

The main tools of benchwork are vices, files and hammers. The basic operations of benchwork are to grind, mold, paint, assemble and repair something. These occupations are usually performed at a set position in a miller, plant or shop, and on a bench, worktable or conveyor.

Fitter is one job aggregate of benchwork. According to their operators, fitters can be classified into ordinary fitters, tool fitters and machine fitters, etc.

Notes to the Text

1. It is concerned with the use of hand tools and bench machines.

它要用到手工工具和台式机器。

be concerned with 对……关心/关注, 参与……, 和……有牵连

2. Generally speaking, it works with relatively small objects and materials.

一般来讲, 它的工作对象和材料相对较小。

generally speaking 一般来讲

3. The main tools of benchwork are vices, files and hammers.

钳工的主要工具是老虎钳、锉刀和锤子。

4. The main manipulation of benchwork is to grind, mold, paint, assemble, and repair something.

钳工的主要操作是打磨、铸模、油漆、组装和修理一些东西。

Comprehensive and Extended Exercises

1. Decide whether the following statements are true (T) or false (F) according to the text.

- (1) Benchwork has advantages in mobility and flexibility. ()
 (2) Benchwork works with small objects and big materials. ()
 (3) The main tools of benchwork are vices, files and hammers. ()
 (4) Fitters can't be classified. ()

2. Fill in the blanks with the right form of the phrases from the box to complete the following sentences.

generally speaking
be classified into

be concerned with
a category of

for example

- (1) Many countries, _____, Mexico and Japan, have a lot of earthquakes.
- (2) The strings are _____ musical instruments.
- (3) _____, the coldest weather comes in January.
- (4) We _____ their safety.
- (5) Memory can _____ short-term and long-term memory.

3. Match the phrases with their Chinese meaning.

assembly line
mechanical parts
thread machining
standard component
finish machining
rough machining

精加工
粗加工
组装机
标准件
螺纹加工
机械零件

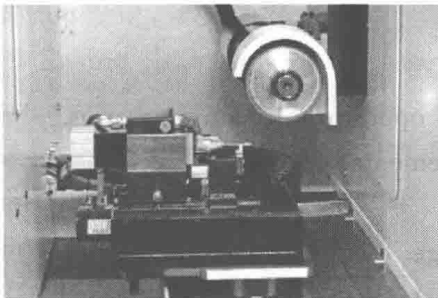
Task B Being a Responsible CNC Operator

Warming up

Activity 1: Read and match. Look up the words in a dictionary if necessary.

- A. CNC lathe
C. CNC punching machine
E. CNC grinding machine

- B. CNC milling machine
D. CNC boring machine
F. CNC drilling machine



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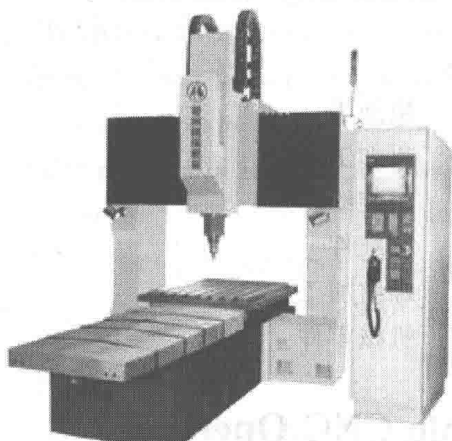
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Activity 2: Discuss with your partner.

There are many other CNC machines. Can you list some of them?

Dialogue B

(Li Lei is talking about the job with his cousin Chen Dong.)

Li Lei: Hi, Chen Dong. How's your new job?

Chen Dong: Not bad.

Li Lei: What do you do there?

Chen Dong: I'm a CNC operator.

Li Lei: Great! There is a great demand for CNC operators in many factories.

Chen Dong: Exactly. But they have strict requirements.

Li Lei: Really? What are they?

Chen Dong: You must have solid major knowledge.

Li Lei: That's the most important thing. What about the work experience?

Chen Dong: At least three-year experience in CNC operations.

Li Lei: That's really a strict demand. What else?

Chen Dong: You have to be used to working in three shifts.

Li Lei: That's a challenge for your life. I hope to visit your factory some day.

Chen Dong: Welcome.

Activity 1: Fill in the blanks according to the dialogue.

(1) Chen Dong is a _____ in his factory?

(2) Chen Dong has at least _____ experience in CNC operation.

(3) Chen Dong has to be used to working _____.

Activity 2: Role play.

Students can work together in teams and act the dialogue. Note the expressions used in the dialogue and the progression of the conversation.

Text B

Responsibilities as a CNC Operator

- Run CNC machine properly.
- Set up CNC machines tools and parameter efficiently for changeover.
- Ensure cleanliness of the assembly area, and make sure that the production tools and machines are in good condition.
- Take machines and complete job according to work order strictly.
- Finish work order with required quantity and quality.
- Comply with company policy, labor discipline and safety regulation.
- Improve know-how to enhance professional skill.
- To be responsible for training new operator.

Notes to the Text

1. Set up CNC machine tools and parameter efficiently for changeover.

在工件更换时设定参数和调试刀具。

set up 设定, 设置, 建立

2. Ensure cleanliness of the assembly area, and make sure that the production tools and machines are in good condition.

确保生产区域整洁, 保证生产工具和机器状态良好。

make sure 确保

be in good condition 状态良好

3. Comply with company policy, labor discipline and safety regulation.

遵守公司的政策, 劳动纪律和安全规则。

comply with 遵守

Comprehensive and Extended Exercises

1. Decide whether the following sentences are true (T) or false (F) according to the text.

- (1) A CNC operator should run CNC machine properly. ()
- (2) It is not a CNC operator's responsibility to keep assembly area clean. ()
- (3) A CNC operator needn't learn. ()
- (4) It is not a CNC operator's responsibility to train new operators. ()
- (5) A CNC operator need finish work order with required quantity only. ()

2. Fill in the blanks with the right form of the phrases from the box to complete the following sentences.

make sure	in good condition	according to	be responsible for
comply with	set up		

- (1) The machine works _____.
- (2) The city police _____ roadblocks to check passing vehicles.
- (3) _____ you take some notes in class and you can learn some knowledge.
- (4) Everyone should _____ the law.
- (5) Do you want to _____ your own life decisions?
- (6) _____ the weather report, it will be raining today.

3. Choose the Chinese meaning of the job requirements as a CNC operator.

- (1) Major in machine, high school degree above ()
- (2) Operate CNC machine or other equipment independently ()
- (3) Understand drawing ()
- (4) Inspect products' size by normal inspection tools ()
- (5) Own safety and team work ()

- | |
|---|
| A. 能看懂图纸
B. 安全意识和团队合作意识强
C. 机械专业高中以上学历
D. 使用常规的测量仪器进行工件尺寸的测量
E. 能够独立操作数控及其他相关设备 |
|---|

New Words and Expressions

fitter ['fɪtə] *n.* 装配工; 钳工

installer [ɪn'stɔ:lə] *n.* 安装工

assembler [ə'semblə] *n.* 汇编程序; 汇编机; 装配工

productivity ratio 生产率

with the development of... 随着……的发展
the mechanized degree 机械化程度
benchwork ['bentʃwɜ:k] *n.* 在工作台上完成工作; 钳工
category ['kætɪg(ə)rɪ] *n.* 种类, 分类
traditional [trə'dɪʃ(ə)n(ə)l] *adj.* 传统的; 惯例的
process ['prəʊses] *n.* 过程, 程序
advantage [əd'vɑ:ntɪdʒ] *n.* 优势; 利益
mobility [məʊ'bɪlətɪ] *n.* 移动性; 机动性
flexibility [ˌfleksɪ'bɪlətɪ] *n.* 灵活性; 弹性; 适应性
generally speaking 一般来讲
relatively [relətɪvli] *adv.* 相当地; 相对地, 比较地
object ['ɒbdʒɪkt; -dʒekt] *n.* 目标; 物体; 客体; 宾语
material [mə'tɪəriəl] *n.* 材料, 原料; 物资
vice [vaɪs] *n.* [机] 老虎钳; 恶习
file [faɪl] *n.* 锉刀; 文件; 档案; 文件夹
hammer ['hæmə] *n.* 铁锤; 链球
manipulation [mə,nɪpjʊ'leɪʃ(ə)n] *n.* 操纵; 操作; 处理
occupation [ˌɒkjʊ'peɪʃ(ə)n] *n.* 职业; 占有
perform [pə'fɔ:m] *v.* 执行; 完成
conveyor [kən'veɪə] *n.* 输送机, [机] 传送机
aggregate [ægrɪgət] *v.* 集合; 聚集; *n.* 集合体
according to 根据
operate [ˈɒpəreɪt] *v.* 操作; 经营
workpiece ['wɜ:k,pɪs] *n.* 工件; 轧件
programme ['prəʊgræm] *n.* 计划, 规划; 节目; 程序; *v.* 编程序; 制作节目
exactly [ɪg'zæktli] *adv.* 恰好地; 正是; 精确地; 正确地
requirement [rɪ'kwɪəmənt] *n.* 要求; 必要条件; 必需品
knowledge ['nɒlɪdʒ] *n.* 知识, 学问
experience [ɪk'spiəriəns] *n.* 经验; 经历; 体验
challenge ['tʃælɪndʒ] *n.* 挑战; 怀疑; *v.* 向……挑战
properly ['prɒpəli] *adv.* 适当地; 正确地
parameter [pə'ræmɪtə] *n.* 参数; 系数; 参量
efficiently [ɪ'fɪʃəntli] *adv.* 有效地; 效率高地
changeover ['tʃeɪndʒəʊvə] *n.* 转换; 逆转
assembly [ə'sembli] *n.* 装配; 集会, 集合
material [mə'tɪəriəl] *n.* 材料, 原料
complete [kəm'pli:t] *adj.* 完全的; 彻底的; *v.* 完成
quantity ['kwɒntəti] *n.* 量, 数量

quality ['kwɒlɪti] *n.* 质量, 品质

discipline ['dɪsɪplɪn] *n.* 纪律

regulation [regjʊ'leɪʃən] *n.* 管理; 规则

improve [ɪm'pru:v] *v.* 改善, 增进

enhance [ɪn'hɑ:ns] *v.* 提高; 加强; 增加

professional [prə'feʃənəl] *adj.* 专业的; 职业的

responsible [rɪ'spɒnsɪbəl] *adj.* 负责的, 可靠的; 有责任的

Learning More

The Classification of Machine Tools

A machine tool is a powered mechanical device, typically used to produce metal parts by removing material. Today, machine tools used in the workshops of home and industry are often classed in seven types: turning machines, shapers and planers, drill presses, milling machines, grinding machines, power saws, and punch presses. The name of a machine tool usually shows its main function. For example, a drill press is used for drilling and a milling machine is used for milling.

Machine tools can be classified by many other concepts:

By power: Manual machine tools and power machine tools.

By control mode: Manually operated machine tools and automatically operated machine tools.

By complexity: Simple machine tools and precise machine tools.

By cutting method: Cutting tools, laser cutting tools, and water jet cutting tools.

Besides, machine tools are built in many sizes, from machines making piece smaller than a millimeter to big machines to produce pieces of tens of meters.

