Modern Automotive Technology
Chapter 4
Power Tools
And Equipment
Chapter 4
Learning Objectives

- List the most commonly used power tools and equipment
- Describe the uses for power tools and equipment
- Explain the advantages of one type of tool over another
- Explain the safety rules that pertain to power tools
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1. An AIR HAMMER is useful during various driving and cutting operations.

2. An ARC WELDER is used to weld metal parts together.
An Air Hammer is useful for removing rusted exhaust systems and cutting other light metals. **ALWAYS** wear safety glasses when using any air powered impact tool!
An Arc Welder uses electricity to weld metal together. **ALWAYS** were the proper clothing and safety glasses when using an arc welder.
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3. A COLD SOLVENT TANK is used to remove grease and oil from parts.

4. An OXYACETYLENE TORCH is used to cut, bend, and weld or braze metal parts.
Cold Solvent Tank

Contains a pump, reservoir, and solvent—used to remove grease and oil from parts
An OXYACETYLENE TORCH torch uses gases (acetylene and oxygen) to produce tremendous heat for metal fabrication.
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5. An AIR COMPRESSOR is the source of pressurized air for the auto shop.

6. An AIR RATCHET is an impact type wrench designed for working in tight comers.

7. An air IMPACT WRENCH is a very quick method for installing or removing threaded fasteners.
The basic parts of a typical automotive repair shop air pressure system
An Air Ratchet is a special impact tool designed to work in areas with limited space or access. Always “break” the fastener by hand before using the air ratchet to remove the fastener. ALWAYS wear safety glasses when using any air powered impact tool!
An Air Impact Wrench provides a quick way to remove fasteners. **ALWAYS** wear safety glasses when using any air powered impact tool!
8. Always use JACK STANDS to support a vehicle during repair.

9. AIR HOSES connected to the metal lines from the air compressor.

10. BLOW GUNS are commonly used to dry and clean parts washed in solvent.
Jack Stands

Jacks Stands must always be used when working under a car.
A Blow Gun is used for drying solvent from a part after it has been washed. **NEVER** point a blow gun at your face or skin. Air bubbles can be forced into the bloodstream, causing death!
Creepers are very useful when working under a vehicle. **NEVER** leave a creeper lying on the floor: a person can easily trip or fall over it and get injured.
Fender Covers help protect the car's finish while you're working under the hood.
A Hydraulic Press is used to press of bearings, bushings and seals. **ALWAYS** wear safety glasses must always be worn when using a press.
An Engine Hoist is the safest way to remove an engine or drivetrain from a vehicle. **NEVER** over-extend the boom.
Power tools use compressed air, electricity, or hydraulic pressure.

Always use the proper sockets on air impact tools.

An air drill is excellent for many repairs because of its power and speed adjustments.

Always use fender covers when working under the hood.
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