



Modern Automotive Technology Chapter 4

Power Tools And Equipment



*North Montco
Technical Career Center*



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





Chapter 4

1. An AIR HAMMERMER is u useful during various driving and cutting operations.
2. An ARC WELDER is used to weld metal parts together.



Air Hammer



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!

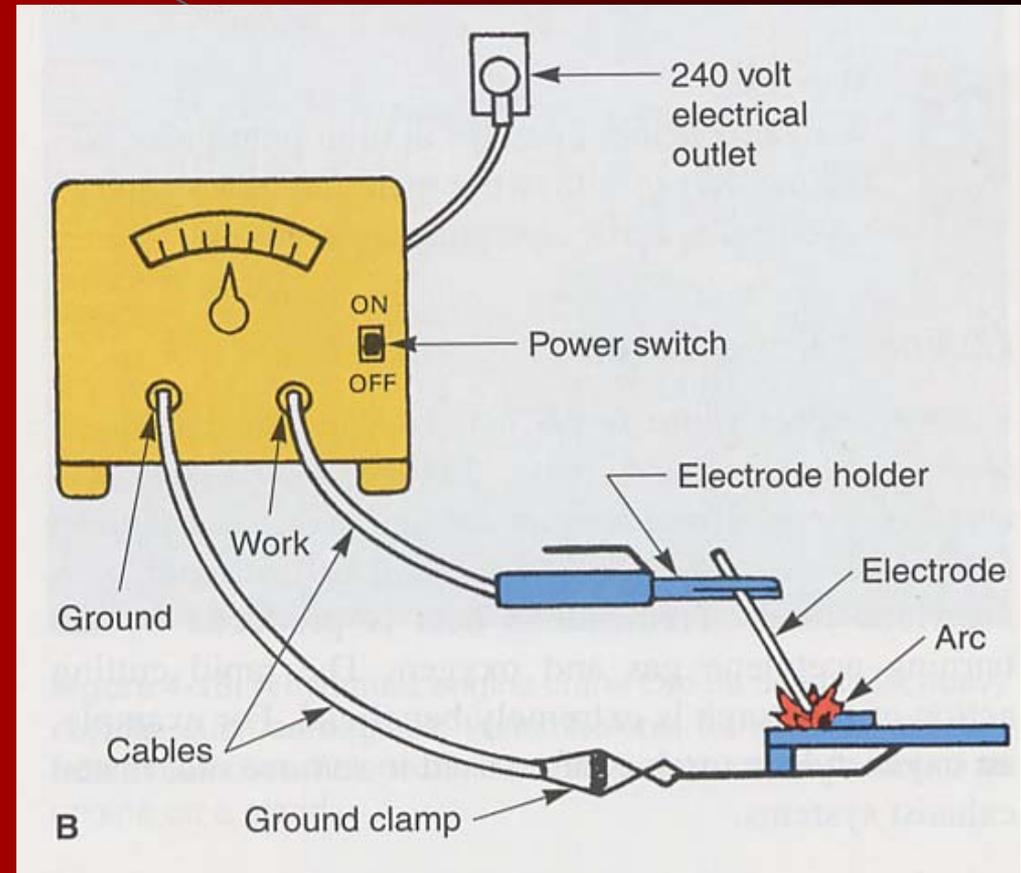




Arc Welder

An Arc Welder uses electricity to weld metal together.

ALWAYS wear the proper clothing and safety glasses when using an arc welder





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3. A COLD SOLVENT TANK is used to removes grease and oil from parts.
4. An OXYACETYLENE TORCH is used to cut, bend, and weld or braze metal parts.



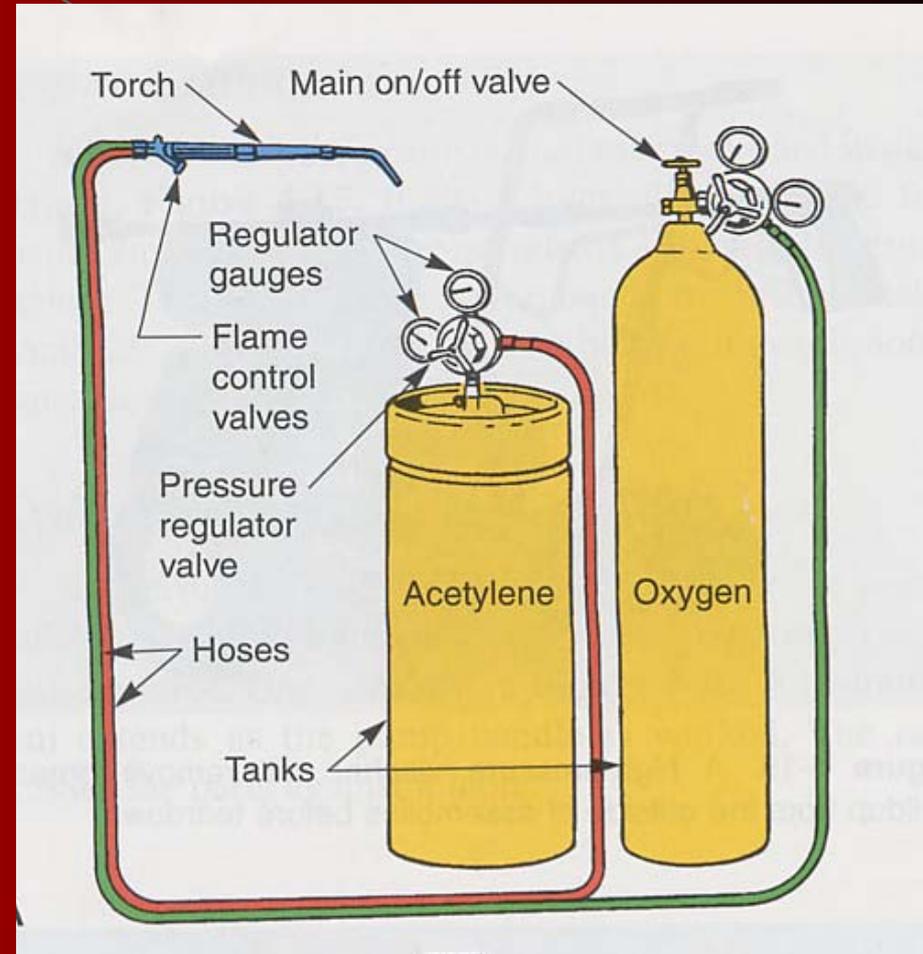
Cold Solvent Tank



Contains a pump, reservoir, and solvent—used to remove grease and oil from parts

OXYACETYLENE TORCH

An
OXYACETYLENE TORCH
torch uses gases
(acetylene and
oxygen) to
produce
tremendous
heat for metal
fabrication





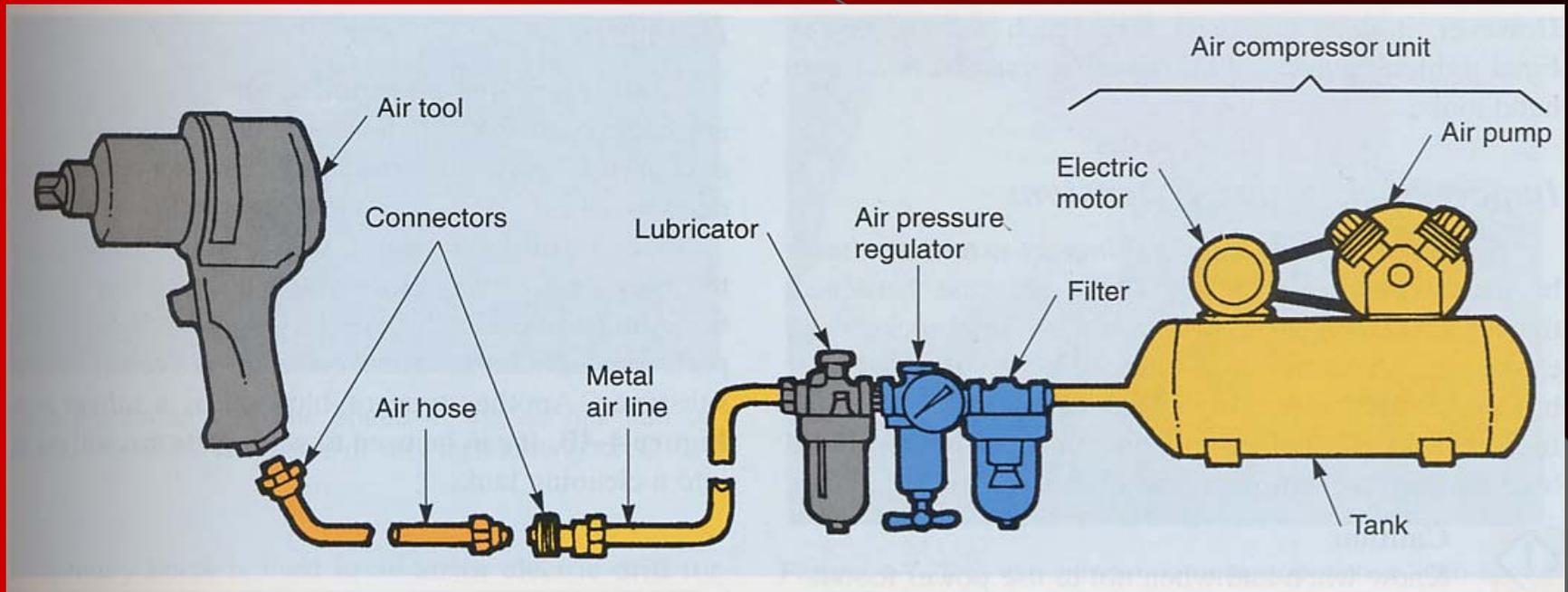
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5. An AIR COMPRESSOR is the source of pressurized air for the auto shop.
6. An AIR RATCHET is an impact type wrench designed for working in tight comers.
7. An air IMPACT WRENCH is a very quick method for installing or removing threaded fasteners.





Air Pressure System

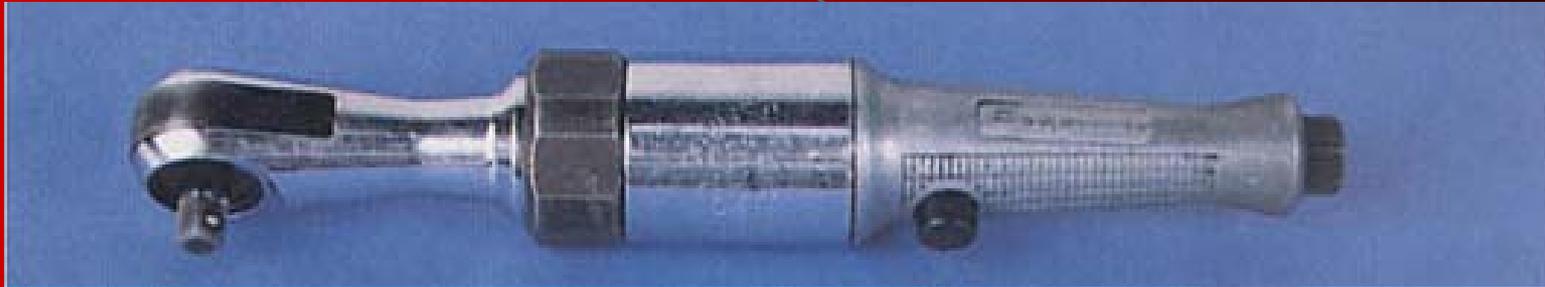


The basic parts of a typical automotive repair shop air pressure system





Air Ratchet



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!





Air Impact Wrench

An Air Impact Wrench provides a quick way to remove fasteners. **ALWAYS** wear safety glasses when using any air powered impact tool!





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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



Blow Gun

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 blood stream, causing death!





Creepers



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

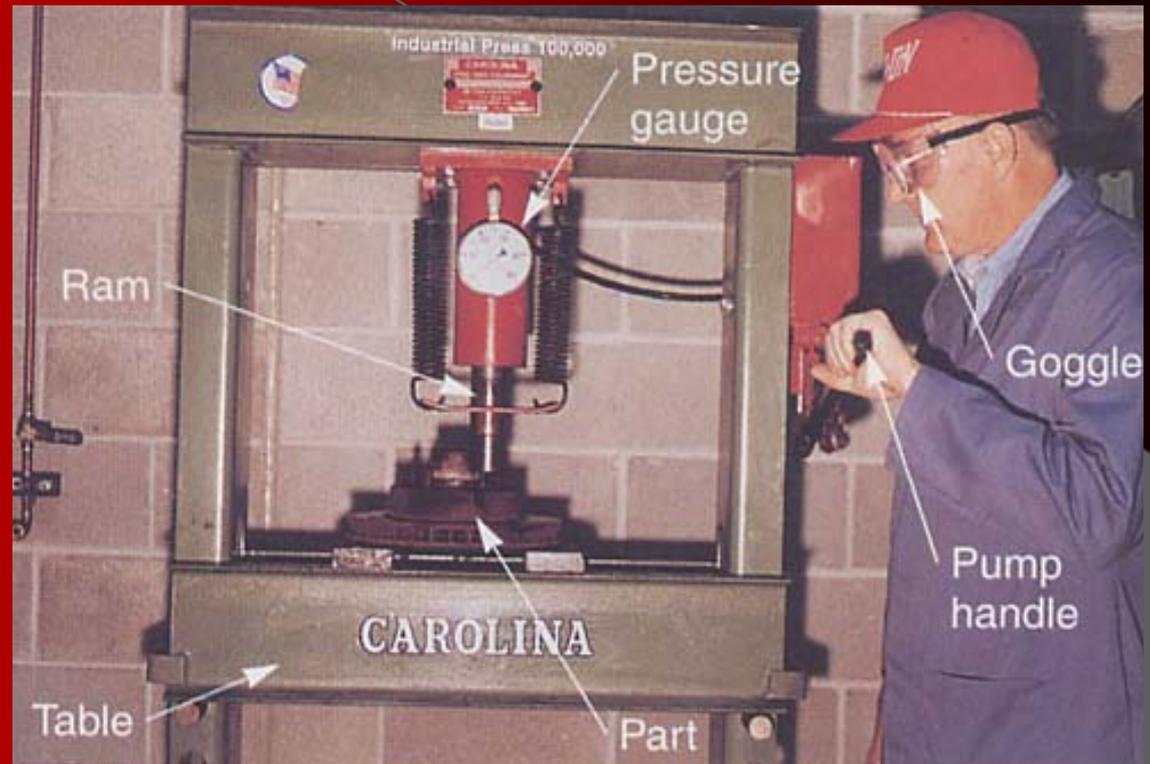
Fender Covers help protect the cars finish while you're working under the hood





Hydraulic Press

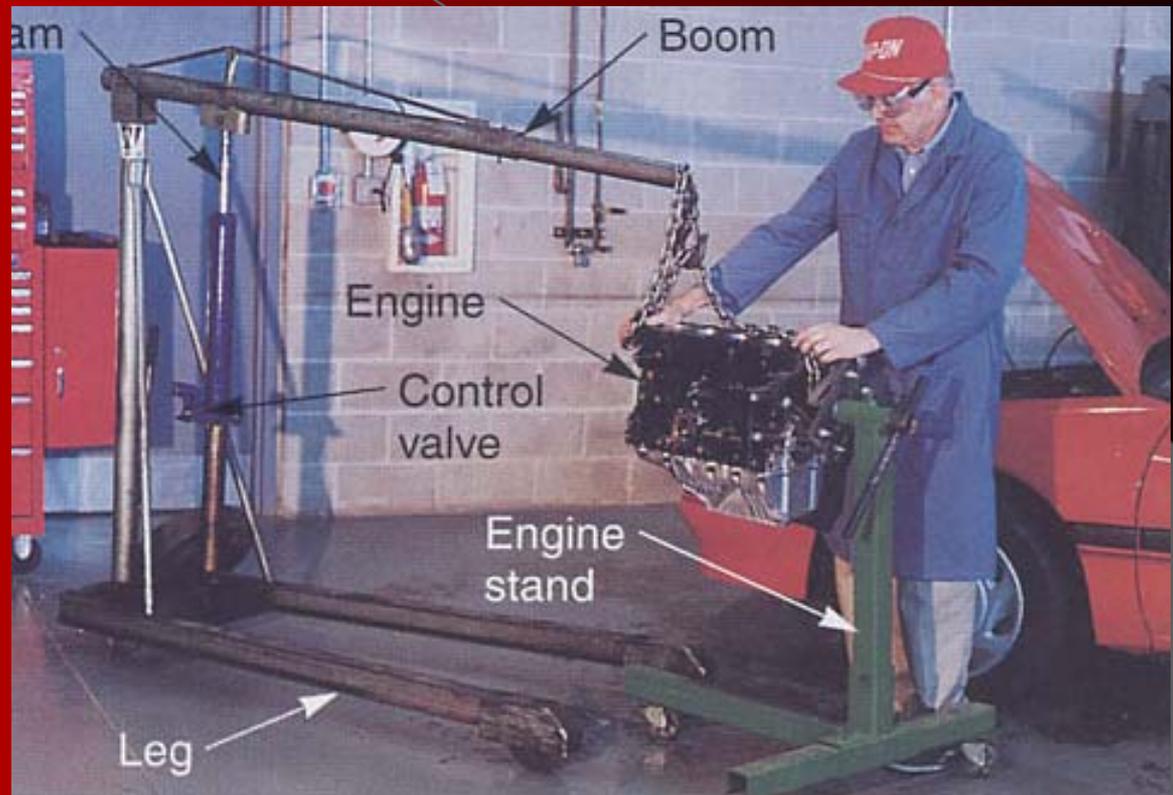
A Hydraulic Press is used to press of bearings, bushings and seals. **ALWAYS** wear safety glasses must always be worn when using a press.





Engine Hoist

An Engine Hoist is the safest way to remove an engine or drivetrain from a vehicle.
NEVER over-extend the boom
boom





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- 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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