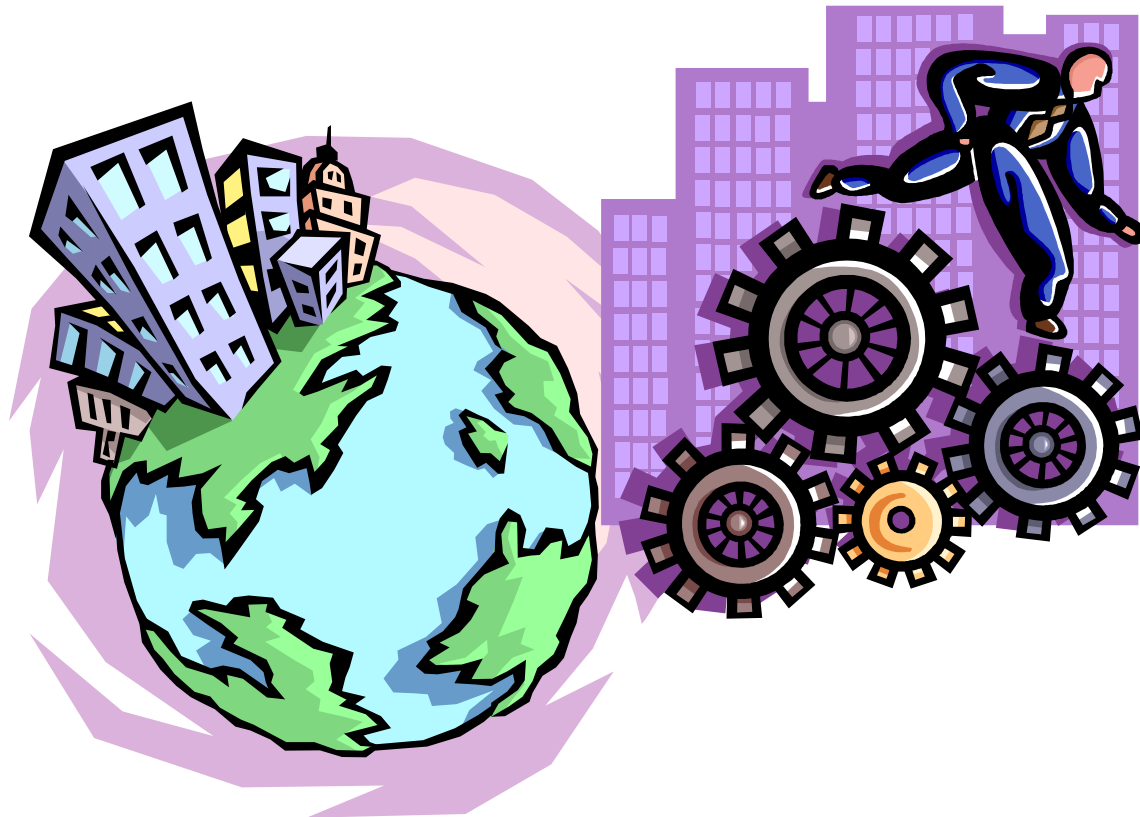


Hand Tools

Common Mechanics Hand Tools

Think about it...

Tools Have Built Our World!

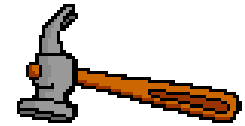
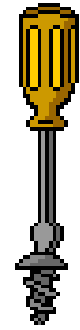


Common Mechanics Hand Tools

And this makes tools...



Way Cool



Common Mechanics Hand Tools



Surgeons Use Tools

Common Mechanics Hand Tools



As do, mechanics! (obviously)

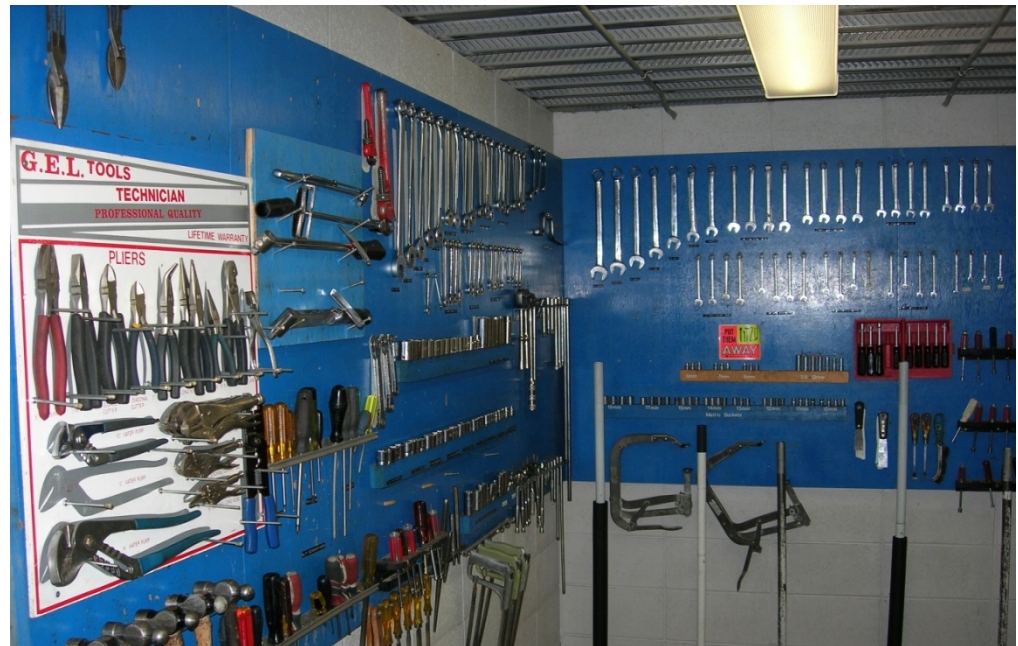
Common Mechanics Hand Tools



Countless numbers of mechanics tools are available to meet almost any need.

Thankfully, you won't have to know them all!

What you will have to be able to do is identify the modest selection we have on our tool board.



Common Mechanics Hand Tools

Tools that you will be expected to know...

Socket Sets

Common Mechanics Hand Tools



Name: Ratchet

Common Sizes: $\frac{1}{4}$ " $\frac{3}{8}$ " $\frac{1}{2}$ "
on tool board

Noted Features: reversible

Common Mechanics Hand Tools

Name: Sockets

Styles



Shallow Sockets



Deep Sockets

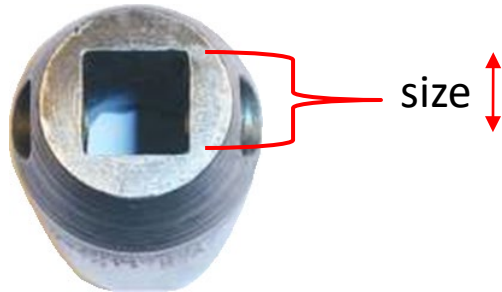


Specialty Sockets
(Spark Plug Socket shown)

Common Mechanics Hand Tools

If you know 4 pieces of information you will be sure to get the correct socket:

1. Drive size



2. Socket size



Printed/engraved
On the side

3. Deep / Shallow



4. 6 point / 12 point



Common Mechanics Hand Tools



Name: Breaker Bar

Other Names: Flex Bar

Strong Bar

Use: Stronger than ratchet

Common Mechanics Hand Tools



Name: Extensions

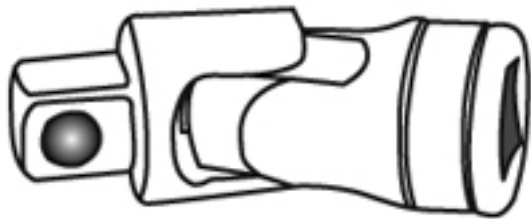
Use: Get out of tight spaces

Common Mechanics Hand Tools

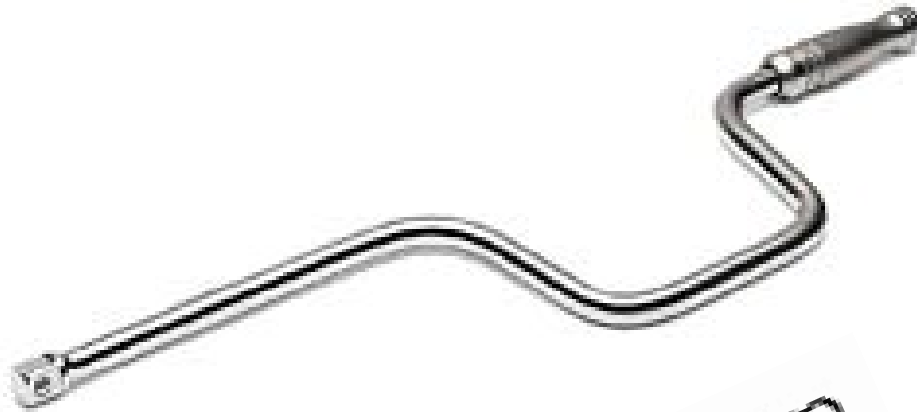


Name: Universal

Use: Bend around corners



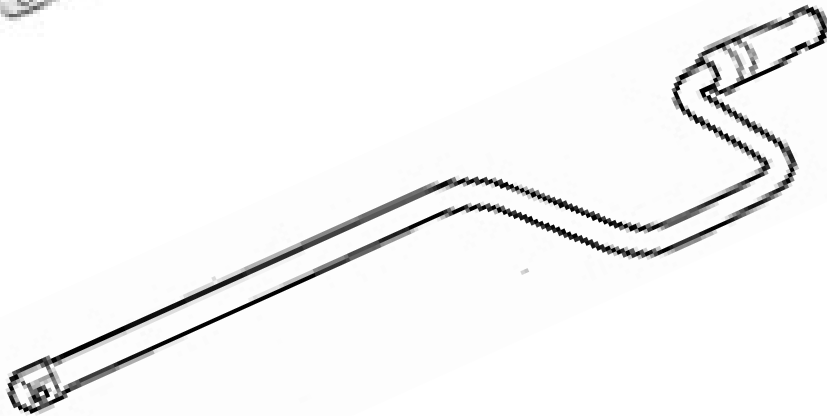
Common Mechanics Hand Tools



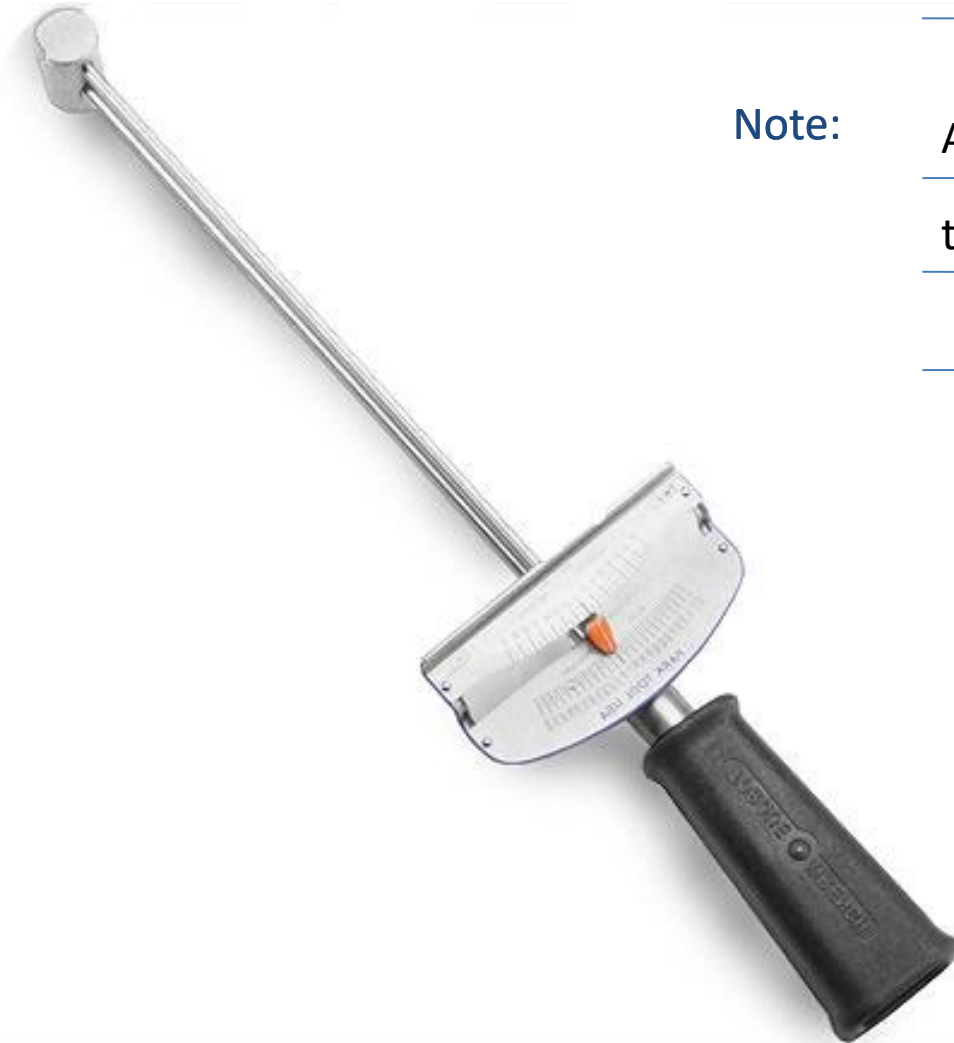
Name: Speeder Bar

Other: Speed Handle / Speed Wrench

Use: Like the name says , speed things up. NOT for final tightening.



Common Mechanics Hand Tools



Name: Torque Wrench

Note: Accurate measurement of
twisting force applied to fastener

Wrenches

Common Mechanics Hand Tools



Name: Open end wrench

Note: Ends different sizes

Common Mechanics Hand Tools



Name: Box end wrench

Note: Ends different sizes

Common Mechanics Hand Tools



Name: Combination wrench

Note: Ends same size

Ends different uses:

Use 'box' to loosen tight screws

then switch to 'open' b/c faster

Common Mechanics Hand Tools



Name: Box End Ratchet Wrench

Note: flip over to reverse
some use lever

Common Mechanics Hand Tools

Name: Adjustable Wrench

Other: Crescent Wrench;
'Wrong Wrench'

Note: Correct way to turn



Common Mechanics Hand Tools



Name: Pipe Wrench

Other: Not 'monkey' wrench

Note: Not to be used on surfaces
of importance

Pliers

Common Mechanics Hand Tools

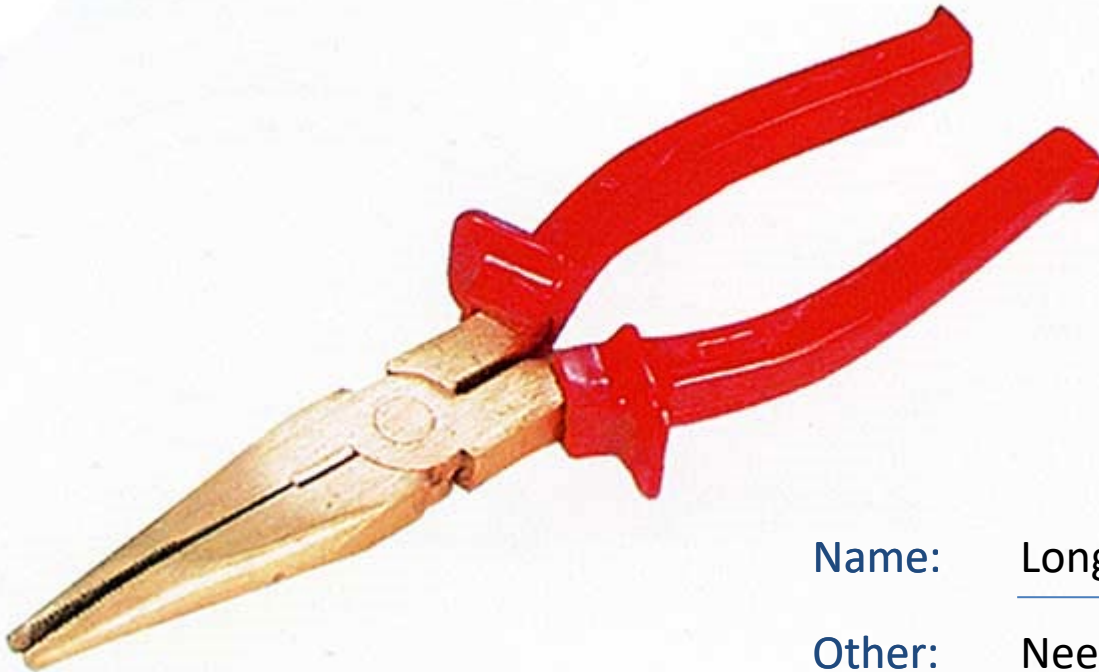


Name: Slip-joint Pliers

Other: combination

Note: 'least useful' (my opinion)

Common Mechanics Hand Tools



Name: Long-nose Pliers

Other: Needle Nose

Note: Likely most well known

Common Mechanics Hand Tools



Name: Linesman Plier

Other: Square/Blunt/Flat nose

Note: Popular with electricians

Common Mechanics Hand Tools



Name: Diagonal Side Cutting Pliers

Other: Side Cutters / Diagonal Cutters

Note: Cut 'round stock' (ie, wire)

Common Mechanics Hand Tools



Name: Ribbed Joint Pliers

Other: Channel Lock; Water Pump

Note: able to be gripped regardless
of big or small

Common Mechanics Hand Tools



Name: Locking Jaw Pliers

Other: Vise Grips

Note: Grip rounded fasteners

Portable clamp



Screwdrivers

Common Mechanics Hand Tools



Name: Slot Screwdriver

Other: Flat head; Blade; Common;
Standard

Note: Ramps out!

Does not self-centre!

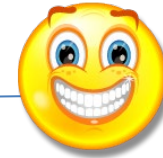


Common Mechanics Hand Tools



Name: Phillips Screwdriver

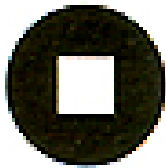
Note: Self-centres



Ramps out worse!!



Common Mechanics Hand Tools



Name: Robertson Screwdriver

Note: Self-centres



Doesn't ramp out



Canadian!



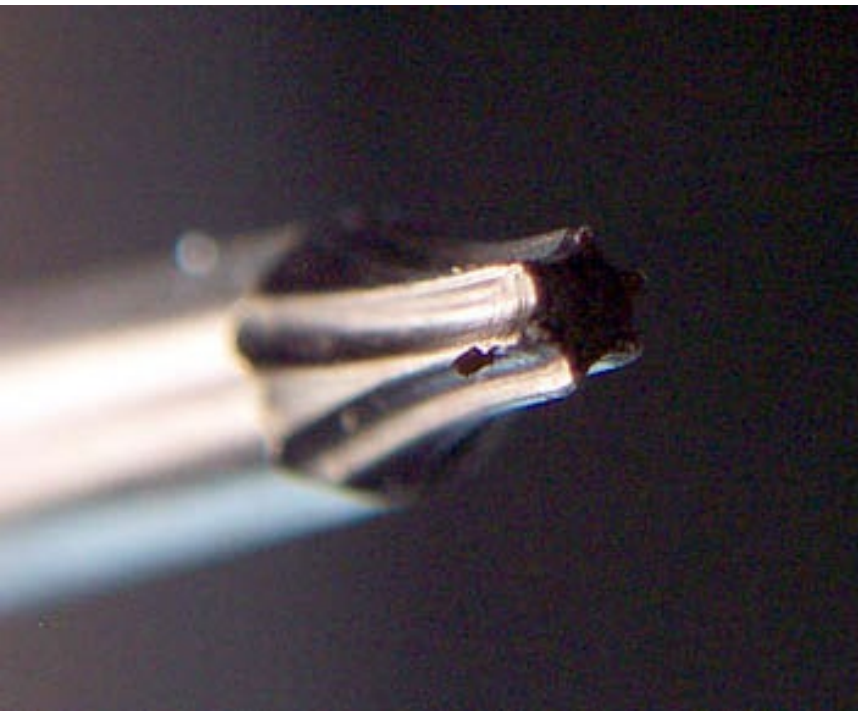
Common Mechanics Hand Tools

Name: Torx Screwdriver

Note: Self-centres



Doesn't ramp out



Common Mechanics Hand Tools

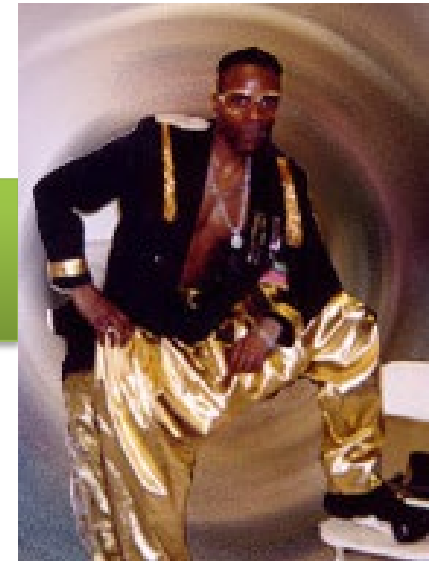


Name: Stubby Screwdriver

Note: Named after its
diminutive size

Available in all tip styles

Hammer Time



Common Mechanics Hand Tools



Name: Ball Peen Hammer

Note: Described by head weight
eg, 16 oz. Ball Peen (1 lb.)

Common Mechanics Hand Tools

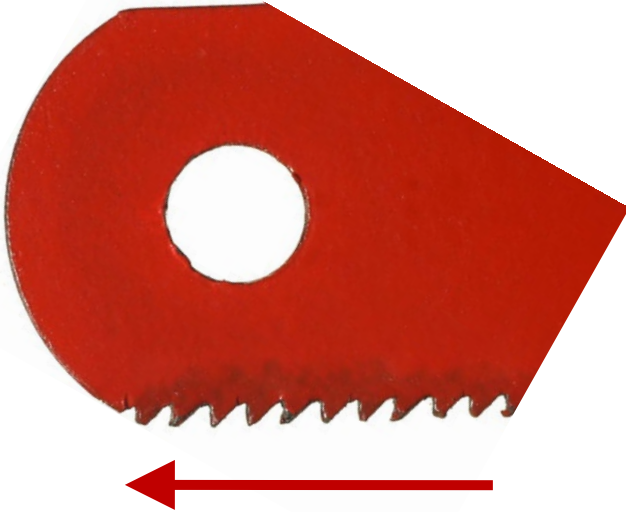


Name: Rubber Mallet

Note: Caution, rubber is 'resilient'
No big swings! Gentle taps.

Cutting Tools

Common Mechanics Hand Tools



Name: Hacksaw

Note: Teeth point away from handle
Cuts on forward stroke



Common Mechanics Hand Tools

Single Cut



Double Cut



Name: Files

Note: Although many shapes,

Just two families:

'Single Cut' & 'Double Cut'



Common Mechanics Hand Tools



Name: Cold Chisel

Note: Match hammer choice to
Chisel size

Common Mechanics Hand Tools



Aviation Shears

Name: Aviation Shears & Tin Snips

Note: NEVER used to cut anything
but 'flat stock'



Tin Snips

Common Mechanics Hand Tools



Name: Gasket Scraper

Note: Not like 'Putty Knife'

sharp & stiff

Common Mechanics Hand Tools

Name: Taper Punch

Other: Aligning

Note: Used to focus and or extend

Hammer blow



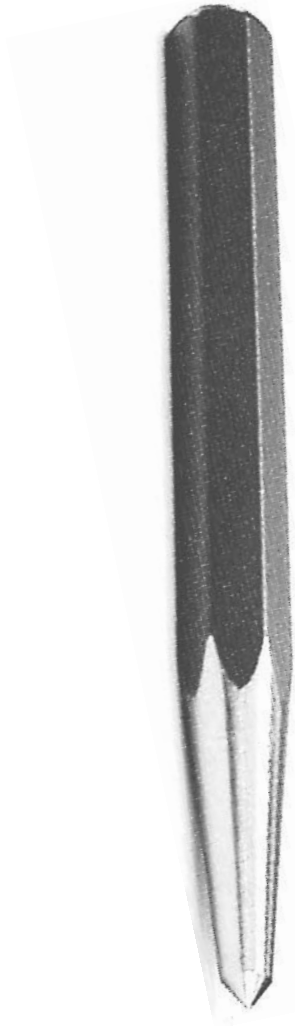
Common Mechanics Hand Tools

Name: Straight Punch

Note: Used to focus and or extend
Hammer blow



Common Mechanics Hand Tools



Name: Centre Punch

Note: Create divot in metal
to allow for accurate drilling

