

Workplace Requirements

- Sharpen single point machine cutting tools.
- Centre Lathe Work: external and internal parallel work pieces, internal and external threads, external and internal taper, external and internal radius, work piece between centre, Turn work pieces using fixed and travelling steadies
- Milling Machine Work: spur gear, external keyway, hexagon, cube using a machine vice. drill equal spaced holes on PCD's, bore a hole, split a bush using a slit-saw, cut an internal keyway.
- Compile material / component list from engineering drawings and existing installations
- Marking off and manufacturing flanges and couplings including filing, sawing, drilling, tapping, reaming
- Remove and install locking devices - lock-nuts, dowels, lock-plates, split pins, taper pins and wire method.
- Remove and fit bearings on a shaft

Workshop Equipment

- Shielded metal arc welding AC / DC machine
- Gas cutting, Heating and Welding Equipment
- Fixed and portable drilling machines
- Fixed and portable grinding machines
- Grinding wheel dresser
- Mechanical / Hydraulic Press
- Drill bits
- Lifting equipment and tackle
- Arm / Band power saw
- Bench vice
- Work bench
- G-clamps
- Vernier height gauge
- Machine level
- Telescopic Gauge
- Double dial set indicator
- Thread cutter (Inside an outside)
- Bearing puller
- Oil bath and or induction heater
- Use a gear tooth vernier
- Universal milling machine (boring mill)
- Centre lathe (turret and capstan lathe)
- Numerically controlled shaping and slotting machine
- Machine vice.
- Dividing head
- Universal head
- Four-jaw chuck
- High speed and tungsten cutting tools:
 - * Slot drills
 - * Side and face cutters
 - * End-mills
 - * Slit-saws
 - * Gear cutters
 - * Ripping cutters
 - * Face mills
 - * Fly cutter
- Throw away bits (inserts tungsten carbide)



Hand Tools

- Tool Box
- Chisels
- Punches
- Tommy bar
- Thread gauge
- Feeler gauge
- Steel tape
- Steel ruler
- Hammer
- Clips
- Callipers (Inside / Outside)
- Hacksaw
- Shifting Spanner
- Scriber
- Screw drivers
- Bevel Gauge
- Combination square
- Dividers
- Pliers
- Vice Grip
- Flange square
- Vernier: depth, inside and outside
- Micrometer: outside, Pliers
- Socket set
- Wrenches (Flat / Rings)
- Hand Files
- Engineering square