

Estimating Guide Machine Operations

Machine Operations

Crankshaft

- Operation Times (Hours)
 - Grind
 - Complete (Per Journal) 0.3
 - Single Journal 1.2
 - Each Additional 0.4
 - Grind (In Chassis)
 - One Journal to .010" 2.5
 - Each Additional Journal to .010" (This represents the time to grind each additional crankshaft journal after the ONE FIRST JOURNAL to .010") 1.1
 - Each Additional .010" per Journal (This represents the time to grind each crankshaft journal and additional .010" above and beyond ... ei. .020" or .030" etc.) 0.6

Cylinder

- Operation Times (Hours)
 - Rebore
 - Single Cylinder Only 1.5
 - All Cylinders (Per Cylinder)
 - Up To 4" Diameter 0.5
 - 4" To 4 1/2" Diameter 0.6
 - To .125" Oversize (Per Cylinder) 0.8
 - Additional Time
 - Rebore in chassis add 20 percent.
 - When boring with angle plate (includes counter-bore cylinders) add 1.5 hrs.
 - When using Chip Sucker add (per cylinder) 0.1 hrs.
 - Sleeving (Includes Finishing)
 - One Add 3.0 hrs.
 - Two Add 4.5 hrs.
 - Each Additional Add 1.0 hrs.
 - Additional Time
 - When boring with angle plate (includes counter-bore cylinders) add 1.0 hrs.
 - Honing
 - Use necessary clock time.
 - Ridge Removing
 - Per Cylinder Add .1 hrs.
 - Burnish Or Deglaze
 - Per Cylinder Add .1 hrs.

Piston

- Operation Time (Hours)
 - Pin Fit & Alignment
 - Single exc 0.5
 - Press in Type Pins 0.6
 - Sets (Per Rod & Piston) exc 0.3
 - Press in Type Pins 0.4
 - Expanding
 - Per Piston 0.2
 - Grinding
 - Single 0.4
 - Sets (Per Piston) 0.2
 - Regrooving
 - One Groove (Per Piston) 0.2

Valve

- Operation Time (Hours)
 - Guide, Install (With Springs Removed)
 - Per Guide 0.1
 - Guide, Machine & Install (With Springs Removed) where guides are cast in head.
 - One Guide 0.5
 - Each Additional Guide 0.3
 - Guide, Ream (For Oversized Valves)
 - One 0.1
 - Eight 0.5
 - Sixteen 1.0
 - Reface (Includes Cleaning)
 - Per Two Valves 0.1
 - Seat Refinish
 - Per Seat 0.1
 - Seat, Install (Replaceable Type)
 - 1st 0.5
 - 2nd 0.3
 - Each Additional 0.2
 - Seat, Machine (Includes Install)
 - 1st 1.0
 - 2nd 0.6
 - Each Additional 0.4

Head

- Operation Time (Hours)
 - Surface
 - Per Cylinder 0.2
 - Milling
 - Per Cylinder to .030" 0.3
 - Per Cylinder to .125" 0.4

Freeze Plugs

- Operation Time (Hours)
 - Install (Block Out Of Chassis)
 - Per Plug 0.1

Rocker Arms

- Operation Time (Hours)
 - Reface
 - Eight 0.4
 - Twelve 0.6
 - Sixteen 0.8

Cam Bearing

- Operation Time (Hours)
 - Install (With Block Disassembled)
 - Per Bearing 0.3

Flywheel

- Operation Time (Hours)
 - Surface
 - Flat Type 0.8
 - Cup Type 1.0
 - Gear, Install
 - Per Gear 0.5

Helicoil

- Operation Time (Hours)
 - Install
 - One 0.8
 - Each Additional 0.3

Brakes

- Operation Time (Hours)
 - Drum, Refinish - Does not include grind hot spots.
 - One 0.4
 - Each Additional 0.2
 - Disc/Rotor Refinish - Does not include grind hot spots.
 - One 0.5
 - Each Additional 0.3
 - Shoe Grind
 - Per Two Shoes 0.1
 - Reline (Rivet Type)
 - Per Four Shoes 0.3