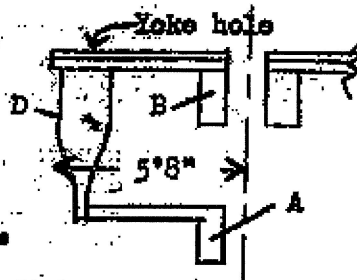


Read both #32.1, Triangular Baker and #32.2, Long Baker. Install Yoke on Valve Frame. Measure from side to side to get the center line, and with jeweler's saw or cut-off disc, saw in half thru center of the mounting brackets that goes onto the engine frame. Be sure yoke and Valve Gear cross members are soldered where they are cut. File square hole in Yoke 1/16" lower. Grind outside of mounting brackets edge 'B' narrower, so it will fit against leaf springs and allowing outside of Valve Gear Frame from 'D' to be 5/8" from side to center of engine frame, and Yoke 4" back from Steam Chest body, making center hole of Yoke in line with the outside fork of the Valve Guide. These forks will later be bent outward. Rear cross rod ground into just a little to clear 2nd Driver. Yoke should now clear Counterbalances. Yoke could be ground off on inside to give more Counterbalance clearance. Grind down front Crank Pin heads and grind slot deeper with cut-off disc or saw, to clear Crosshead Guides. You may have to remove Hanger (vertical rod) of Leaf Spring on inside. It will be helpful when each side of the Yoke-Valve Gear Frame has been properly fitted and located, to scribe on engine frame around Gear mounting brackets 'B' to easier locate later.



The rod from side to side of Valve Gear comes right at spot in back, 'A', where screw is located on engine frame to screw 2 Valve Gear Frames together, so grind rod flat there, down to bracket. Now make bracket 'D'-'D' (in Walcherts instructions) fit in and screw down to hold Valve Gear Frame in proper location. "Solder In Paste" can be put between these assemblies to solder down later. Now bend down each side of Valve Gear Frame so hole in Yoke almost aligns with 2 holes in Valve Guide horizontally. You may have to bend upward a bit the bottom of Yoke at the step, with long nosed pliers, so shaft of Yoke is equidistant from side of engine frame. The internal parts of Valve Gear can be put in now, except Valve Rod, and drill out all holes of parts .026-.028". Be sure Bell Crank and Gear Rod are not Soldered at 'M'. Bend each fork of Valve Guide outward to align with hole of Yoke horizontally and redrill these holes .029" for re-alignment.

#36.4 CROSSHEAD GUIDES, ALLIGATOR-- } Install in Steam Chest but do not epoxy in yet,
 #37.8 Crossheads, Alligator----- } until final adjustments. Cut shaft of Crosshead 4" long and file shiny. Sometimes there is a burr or sphere inside, to be cleaned out with narrow file or chisel made from about 1/16" wide old small file or drill (this is handy for scraping solder from around various soldered parts). The 2-56 screws in the Crossheads will have to be ground flush on the inside--helps looks for the heads to be ground down as above Crank Pins. File all 4 sides of Guides shiny. Some Steam Chests may have air pockets in them, so grind ends of Crosshead shafts round. Align Crosshead Guides in Yoke. You may have to grind a bit out of the Yoke to do this, or Guides may have to be bent outward slightly at Yoke so Guides are actually outside the Yoke slightly, depending how all alignment comes out for you, to clear Crank Pins. The shaft of Crossheads may similarly have to be bent very slightly up, down, inward or outward so they will slide between Crosshead Guides and in Steam Chest holes freely. You may have to use Blue Dycum from frame to determine this. When Yoke, Crosshead Guides and Crossheads fit properly you can remove the Crosshead Guides from Steam Chest and Epoxy them in, after cleaning any oil from hanks from Guide and Chest hole. Then readjust all, and let epoxy set. (Guides could be soldered in the Yoke instead and float in the Steam Chest holes, in which case the holes in the Steam Chest should be enlarged for easy removal of Guides. We prefer the former, as in the later solder may come loose from Yoke and Guides, and hard to solder them. You do not want to solder in both places, as Steam Chest and Valve Gear would have to be removed as one unit for repairs or changes.) Breaking engine will loosen fitting.

#40.4 Main Rods--Oilers up. File shiny.

#41.1 Eccentric Cranks-- File shiny and back of small hole to take solder.

#42.2 Eccentric Rods-- Fluted side showing, Oilers removed, filed shiny and drill all holes .026-.028". File back of hubs to take solder.

#30.1 Union Links & Combination Levers-- These can be installed while waiting for epoxy