

May 25, 1965

## TETRAHEDRAL X-RAY PRESS, 300 TON

### Bill of Materials, etc.

1. Ram base: 4 ea., 4340 steel, aircraft quality, magnafluxed forging, hardness Rc 28-32 throughout, to finish 19 in. diam. x 8 in. thick; Alternate material: Hepenstahl Hardtem B.
2. Retainer ring: 4 ea., low alloy steel, to finish 12 in. O. D. x 10 in. I. D. x 1.75 thick, hardness Rc 28-32.
3. Split ring: 4 ea., low alloy steel, Rc 28-32, to finish 10.38 O. D. x 9.62 I. D. x .743 thick.
4. Cylinder: 4 ea., seamless, hydraulic cylinder tubing, honed and polished I. D., to finish 10 in. O. D. x 8 in. I. D. x 9-1/2 in. long, hardness Rc  $45 \pm 3$ .
5. Cylinder top plate: 4 ea., low alloy steel plate or bar stock, to finish 10 in. O. D. x 4 in. I. D. x 2 in. thick. Hardness Rc 28-32.
6. Piston: 4 ea., 4340 steel, hardness Rc 55-59 to finish 8 in. O. D. x 2 in. I. D. x 6 in. long.
7. Piston rod: 4 ea., 4340 steel, upset head forging, hardness Rc  $45 \pm 3$ , to finish 9-3/4 O. D. head x 4 in. diam. stem x 13-1/2 in. long.
8. Positioner: <sup>ing ring</sup> 4 ea., low alloy steel, hardness Rc 28-32, to finish 5 in. O. D. x 3 in. I. D. x 1 in. thick, bar stock or plate.
9. Binding ring: 12 ea., (includes 8 spares), 4340 steel, aircraft quality, magnafluxed, forging, hardness Rc 51-55, to finish 4 in. O. D. x 1-1/2 in. I. D. x 2-3/4 in. long. Same as McCartney Mfg. dwg. no. C-545 Aug. 7, 1963.
10. Anvil: 12 ea., (includes 8 spares), cobalt cemented (6-8%) virgin tungsten carbide, 1/2 in. size (see H. T. Hall drawing "Tetrahedral Anvils," Sept. 19, 1962. *Standard anvils without holes.*
11. Ditto, 3/4 in. size.
12. Ditto, 1 in. size.
13. Piston-rod nut: 4 ea., low alloy steel, 3 in. O. D. x 2 in. I. D. x 1.5 in. long.
14. O-ring (seal B): 4 ea., Series no. 9021-443, Buna N Compound, 90 shore durometer hardness, 8 in. O. D. 1/4 in. wide.