→ Retainer Ring: 4 ea., low alloy steel, to finish 12 in O.D. x 10" I.D. x 1.75 thick, hardness Rc 28-32

H. T. Hall
Oct 30, 1964
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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 7/8 in. thick; Alternate material: Hepenstahl Hardtem B.
2. ~~Main nut~~: 12 ea., 4340 steel, aircraft quality, hardness Rc 28-32, magnafluxed, pierced ~~forging~~ to finish 5-1/2 in. O. D. x 3-1/4 in I. D. x 3-1/2 in. long, 12 T. P. I.
3. ~~Spacer nut~~: 12 ea., low alloy steel, hardness Rc 28-32, bar stock to finish 4-1/4 in O. D. x 3-1/4 in I. D. x 2 in. long, 12 T. P. I.
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 ~~28-40.~~ 45 ± 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 ~~1-1/2~~ 2 in. thick. Hardness Rc 28-32
6. Piston: 4 ea., 4340 steel, ~~aircraft quality, magnafluxed forging,~~ hardness Rc ~~40-45~~ 55-59 to finish 8 in. O. D. x 2 in. I. D. x ~~5-1/2~~ 6 in. long.
7. Piston rod: 4 ea., 4340 steel, ~~aircraft quality, magnafluxed bar stock or~~ forging, hardness Rc ~~28-32~~ 45 ± 3, to finish 9-3/4 in. O. D. x 1 in. diam. head, upset head 4 in. diam. stem x 13-1/2 in. long.
8. Positioning ~~ring~~: 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 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

→ Split ring: 4 ea, low alloy steel, Rc 28-32, to finish 10.38 O.D. x 9.621 I.D. x .743 thick.