

ORIG R. Ward DATE 12-01-98

CHKD _____ DATE _____

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ENGINEERING SPECIFICATIONS
OR INSTRUCTIONS

ESN ESN - 0027

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EO. NO. ERO-981915

FUNCTIONAL / TEST SPECIFICATIONS, HYDRAULIC CYLINDERS

NOTES:

1.0 FUNCTIONAL REQUIREMENTS

- 1.1 PISTON MATERIAL: DUCTILE IRON
- 1.2 GLAND MATERIAL: DUCTILE IRON
- 1.3 BARREL TUBING TO BE D.O.M. OR D.O.M.E.W
- 1.4 GLAND AND GLAND RETAINER ARE TO BE SEPARATE
- 1.5 RETAINER SHALL BE INTERNALLY OR EXTERNALLY THREADED
- 1.6 ROD SHALL BE INDUCTION HARDENED TO RC 50-60 FOR A DEPTH OF 0.060-0.090 IN.
- 1.7 ROD SHALL BE HARD CHROME-PLATED FOR 0.0005-0.0007 IN. THICKNESS
- 1.8 TOTAL ROD AND PISTON BEARING LENGTH SHALL NOT BE LESS THAN 25% STROKE LENGTH
- 1.9 THE PISTON SHALL BE RETAINED BY A NYLOK® OR EQUAL LOCKNUT
- 1.10 BARREL BORE TO PISTON O.D. CLEARANCE SHALL NOT EXCEED 0.010IN., NOR LESS THAN 0.003 IN. DIAMETRICALLY
- 1.11 ROD TO GLAND CLEARANCE SHALL NOT BE MORE THAN 0.006 IN., NOR LESS THAN 0.002 IN. DIAMETRICALLY
- 1.12 ALL DYNAMIC SEAL SURFACES SHALL HAVE A ROUGHNESS OF 8 TO 20 MICRO IN./IN

2.0 TESTING, IDENTIFICATION, SHIPPING

- 2.1 CYLINDER SHALL BE TESTED AT 1.5 X OPERATING PRESSURE MINIMUM (PROOF PRESSURE) PER THE MANUFACTURERS TEST PROCEDURE WHICH MUST BE APPROVED BY OTTAWA TRUCK
- 2.2 CYLINDERS ARE TO BE PAINTED WITH BLACK PRIMER COMPATIBLE WITH IMROM 5000
- 2.3 INSERT PLASTIC OR ALUMINUM PLUGS IN PORTS FOR SHIPPING