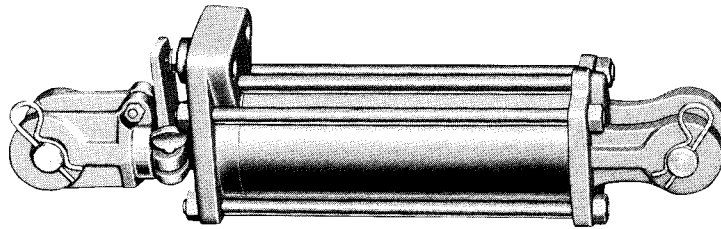
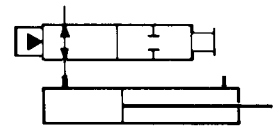




HYDRAULIC CYLINDERS

with Hydraulic Depth Control

TIE ROD CYLINDERS
DC SERIES
Specification Sheet



The CROSS series DC tie rod type hydraulic cylinders feature hydraulic depth control with an infinitely variable adjustment from zero to maximum stroke. Long life and reliable operation are provided by the many design features plus high quality workmanship and materials.

GENERAL SPECIFICATIONS

Rated working pressure (Max. relief valve setting at full flow) 2500 psi (172 bar)
Maximum shock and surge pressure 4000 psi (276 bar)

| | | | | | |
|--------------------------|------|------|------|------|-----|
| Bore diameters | 3.00 | 3.50 | 4.00 | 5.00 | in. |
| | 76 | 89 | 102 | 127 | mm |

MATERIAL SPECIFICATIONS

Cylinder barrels ST 52.3 steel alloy
Pistons High strength aluminum or gray iron
Rods Introduction hardened C1045 steel alloy
Base castings and rod clevises Ductile iron
Cylinder heads High tensile strength gray iron
Seals 70 durometer Buna N o-rings with polyurethane back-up rings
. Double lipped polyurethane u-cup rod seal

STANDARD FEATURES

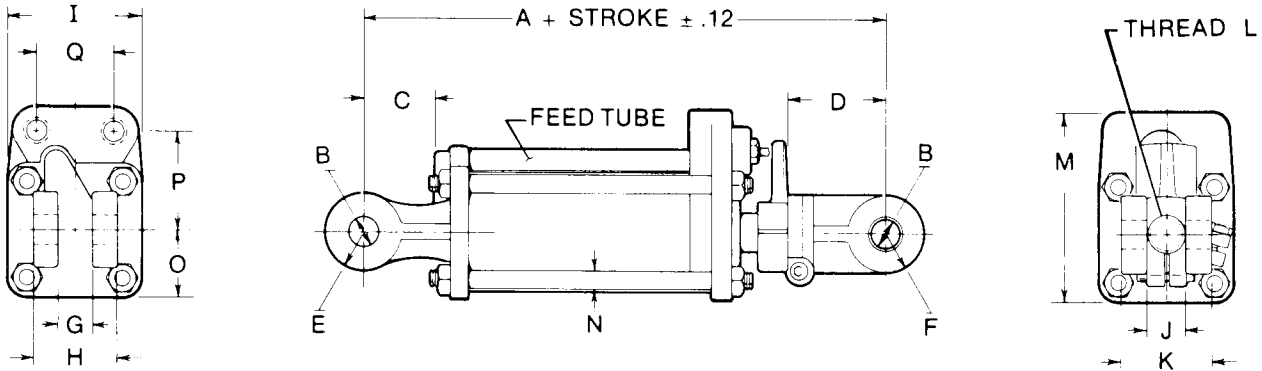
- Infinitely adjustable stroke from zero to maximum stroke
- Heavy duty rod clevis with hardened steel bushings
- Hardened steel pins
- Cylinder barrels are skived burnished precision finished to provide long seal life
- Rods are hardened, chrome plated and polished for long wear life and for protection from external damage and corrosion
- Rod wipers clean dirt and foreign matter from rod to insure long seal life
- High tensile strength tie rods with rolled threads for durability
- NPTF dryseal pipe thread ports
- Standard ASAE 8" and 16" strokes

OPTIONAL FEATURES AVAILABLE

- SAE straight thread o-ring ports (top ported)
- 1.25 diameter hardened pins (standard on 16" stroke ASAE and 5.00 bore diameter cylinders)



DIMENSIONAL DATA in inches and (millimeters)



ALL DIMENSIONS ARE NOMINAL

| BORE DIA | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q |
|---------------|----------------|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|-----------------|---------------|----------------|----------------|----------------|
| 3.0" (76) | 12.25 (305) | 1.015 (25.8) | 2.38 (60.4) | 3.25 (82.5) | 1.25 (31.8) | 1.25 (31.8) | 1.12 (28.4) | 2.75 (69.8) | 3.75 (95.2) | 1.25 (31.8) | 2.75 (69.8) | 1 1/4 -12 | 5.88 (149.4) | .50 (12.7) | 1.88 (47.8) | 3.25 (82.6) | 2.50 (63.5) |
| 3.5" (89) | 12.25 (305) | 1.015 (25.8) | 2.38 (60.4) | 3.25 (82.5) | 1.25 (31.8) | 1.25 (31.8) | 1.12 (28.4) | 2.75 (69.8) | 4.25 (108) | 1.25 (31.8) | 2.75 (69.8) | 1 1/4 -12 | 6.12 (155.4) | .56 (14.2) | 2.12 (53.8) | 3.25 (82.6) | 2.50 (63.5) |
| 4.0" (102) | 12.25 (305) | 1.015 (25.8) | 2.38 (60.4) | 3.25 (82.5) | 1.25 (31.8) | 1.25 (31.8) | 1.12 (28.4) | 2.75 (69.8) | 5.00 (127) | 1.25 (31.8) | 2.75 (69.8) | 1 1/4 -12 | 6.69 (169.9) | .62 (15.7) | 2.50 (63.5) | 3.44 (87.4) | 2.50 (63.5) |
| 5.0" (127) | 12.25 (305) | 1.265 (32.1) | 2.28 (57.9) | 3.25 (82.5) | 1.41 (35.8) | 1.25 (31.8) | 1.34 (34.0) | 3.50 (88.9) | 6.00 (152) | 1.25 (31.8) | 2.75 (69.8) | 1 1/2 -12 | 7.26 (184.4) | .75 (19.0) | 3.0 (76.2) | 3.54 (89.9) | 2.50 (63.5) |

CYLINDER PORTS and RODS

| BORE DIA. | PORT SIZE & TYPE | | 8 INCH STROKE (20.25" RETRACTED) | | | 16 INCH STROKE (31.5" RETRACTED) | |
|--------------|------------------|----------|-------------------------------------|----------------|----------------|-------------------------------------|----------------|
| | STANDARD | OPTIONAL | STD. ROD | OPT. ROD. | | STD. ROD | OPT. ROD. |
| 3.0" (76) | 1/2" NPTF | 3/4-16 | 1.25 (31.8) | 1.50 (38.1) | | 1.25 (31.8) | 1.50 (38.1) |
| 3.5" (89) | | | 1.25 (31.8) | 1.50 (38.1) | 1.75 (44.4) | 1.50 (38.1) | NONE |
| 4" (102) | 1/2" NPTF | 3/4-16 | 1.25 (31.8) | 1.50 (38.1) | 2.00 (50.8) | 1.75 * (44.4) | 2.00 (50.8) |
| 5" (127) | | | 2.00 (50.8) | 1.75 (44.4) | | 2.00 (50.8) | NONE |

* Limited to 2300 psi maximum working pressure.

ORDERING INFORMATION

| SERIES | BORE DIA. (in. x 100) | STROKES (in. x 100) | ROD DIA. (in. x 100) | PORT SIZE & TYPE |
|--------|--------------------------|------------------------|-------------------------|------------------|
| DC | 300 | 800 1600 | 125 | D |
| | 350 | | 150 | 3/4 - 16 SAE |
| | 400 | | 175 | R |
| | 500 | | 200 | 1/2 NPTF |

