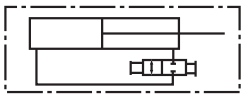
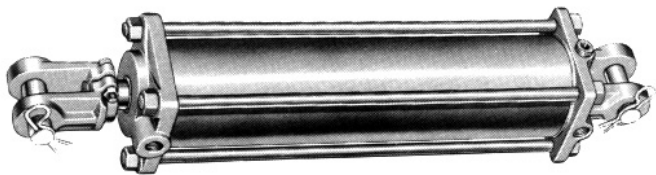


DR Series

Hydraulic Cylinders Rephasing



The CROSS tie rod type cylinders DR Series provide long life and reliable operation attributed to the use of high quality materials plus the many features included in this cylinder design. These cylinders incorporate an internal mechanism for automatic rephasing (synchronising) in a series circuit. DR Series cylinders may be used as master or slave units.

GENERAL SPECIFICATIONS

Rated working pressure (Max. relief valve setting at full flow).....	172 Bar (2500 psi)
Differential pressure.....	172 Bar (2500 psi)
Maximum shock & surge pressure.....	276 Bar (4000 psi)
Bore Diameters.....	

3.00	3.25	3.50	3.75	4.00	4.25	4.50	4.75	5.00	inches
76	83	89	95	102	108	114	121	127	mm

MATERIAL SPECIFICATIONS

Cylinder Barrels.....	C1025 Steel Alloy
Pistons.....	High Tensile Strength Grey Iron or Aluminium Alloy
Rods.....	Induction Hardened C1045 Steel Alloy*
Base Castings & Rod Clevises.....	Ductile Iron
Cylinder Heads.....	High Tensile Strength Grey Iron
Seals.....	70 Durometer Buna N O-ring with Polyurethane Back-up rings on tube and rod; wear ring and Teflon seal on piston.;
*Rods over 19mm (3/4") dia, Strokes up to 1650mm (65 inches).	

STANDARD FEATURES

- Rephasing at end of extend stroke.
- Heavy duty rod clevis with bushings.
- Cylinder barrels are precision honed 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.
- 3/4" UN O-ring porting.
- Double ported base allows connections to be made at 90° to pins.
- Supplied complete with hardened steel clevis pins and clips.

OPTIONAL FEATURES AVAILABLE

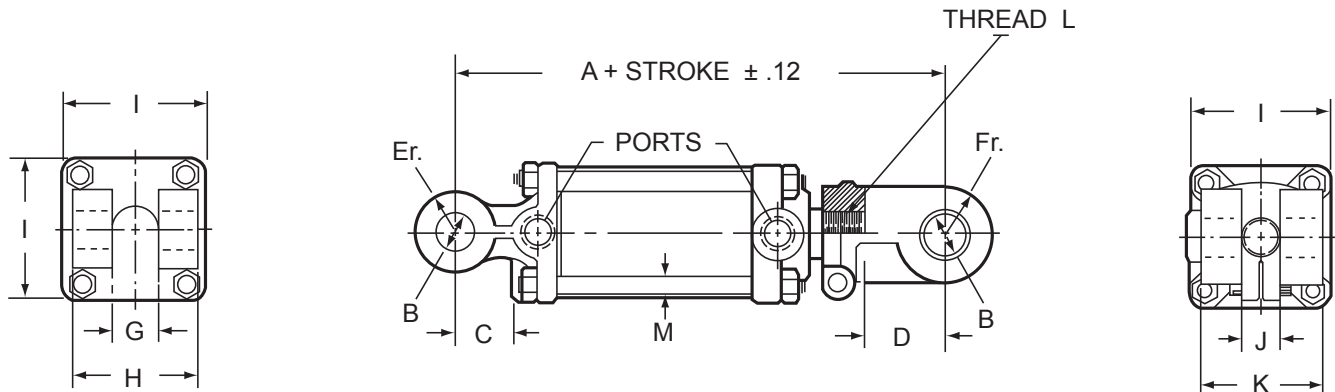
- Rephasing at the end of the retract stroke.
- 8" (203.2mm) or 12" (304.8mm) stroke.
- Adjustable mechanical rod depth stop for 3.00", 3.25", 3.50", 3.75", 4.00" and 4.25" bore cylinders (DER Series).

DR Series

Hydraulic Cylinders Rephasing



DIMENSIONAL DETAILS in inches and (millimetres)



DIMENSIONAL DETAILS - inches (mm)

Bore Dia.	A	B	C	D	Er	Fr	G	H	I	J	K	L	M
3.00 (76)	12.25 (311.1)	1.015 (25.8)	1.625 (41.3)	2.125 (53.9)	1.000 (25.4)	1.250 (31.8)	1.125 (28.6)	2.625 (66.7)	3.750 (95.3)	1.250 (31.8)	2.750 (69.8)	1-1/4 -12	0.500 (12.7)
3.25 (83)	12.25 (311.1)	1.015 (25.8)	1.625 (41.3)	2.125 (53.9)	1.000 (25.4)	1.250 (31.8)	1.250 (31.8)	2.750 (69.8)	4.250 (107.9)	1.250 (31.8)	2.750 (69.8)	1-1/4 -12	0.562 (14.3)
3.50 (89)	12.25 (311.1)	1.015 (25.8)	1.625 (41.3)	2.125 (53.9)	1.000 (25.4)	1.250 (31.8)	1.250 (31.8)	2.750 (69.8)	4.250 (107.9)	1.250 (31.8)	2.750 (69.8)	1-1/4 -12	0.562 (14.3)
3.75 (95)	12.25 (311.1)	1.015 (25.8)	2.000 (50.8)	2.125 (53.9)	1.125 (28.6)	1.250 (31.8)	1.250 (31.8)	2.875 (73.0)	5.000 (127)	1.250 (31.8)	2.750 (69.8)	1-1/4 -12	0.625 (15.9)
4.00 (102)	12.25 (311.1)	1.015 (25.8)	2.000 (50.8)	2.125 (53.9)	1.125 (28.6)	1.250 (31.8)	1.250 (31.8)	2.875 (73.0)	5.000 (127)	1.250 (31.8)	2.750 (69.8)	1-1/4 -12	0.625 (15.9)
4.25 (108)	12.25 (311.1)	1.265* (32.1)	2.000 (50.8)	2.125 (53.9)	1.375 (34.9)	1.250 (31.8)	1.250 (31.8)	3.125 (79.4)	5.500 (139.7)	1.250 (31.8)	2.750 (69.8)	1-1/4 -12	0.750 (19.0)
4.50 (114)	12.25 (311.1)	1.265* (32.1)	2.000 (50.8)	2.125 (53.9)	1.375 (34.9)	1.250 (31.8)	1.250 (31.8)	3.125 (79.4)	5.500 (139.7)	1.250 (31.8)	2.750 (69.8)	1-1/2 -12	0.750 (19.0)
4.75 (121)	12.25 (311.1)	1.265* (32.1)	2.312 (58.7)	2.125 (53.9)	1.500 (38.1)	1.250 (31.8)	1.375 (34.9)	3.500 (88.9)	6.000 (152.4)	1.250 (31.8)	2.750 (69.8)	1-1/2 -12	0.750 (19.0)
5.00 (127)	12.25 (311.1)	1.265* (32.1)	2.312 (58.7)	2.125 (53.9)	1.500 (38.1)	1.250 (31.8)	1.375 (34.9)	3.500 (88.9)	6.000 (152.4)	1.250 (31.8)	2.750 (69.8)	1-1/2 -12	0.750 (19.0)

PORTS: 3/4" - 16 ON O-ring, (SAE #8) - All cylinders

HOW TO ORDER

325

Bore (inches)

3 = 3.00"

325 = 3.250"

35 = 3.50"

375 = 3.75"

425 = 4.25"

45 = 4.50"

475 = 4.75"

5 = 5.00"

12

Stroke (inches)

06 = 6.00"

08 = 8.00"

DER

Cylinder Series

DR - Standard Rephasing

DER - Standard Rephasing with mechanical depth stop