

**SINGLE ACTING TELESCOPIC CYLINDERS**

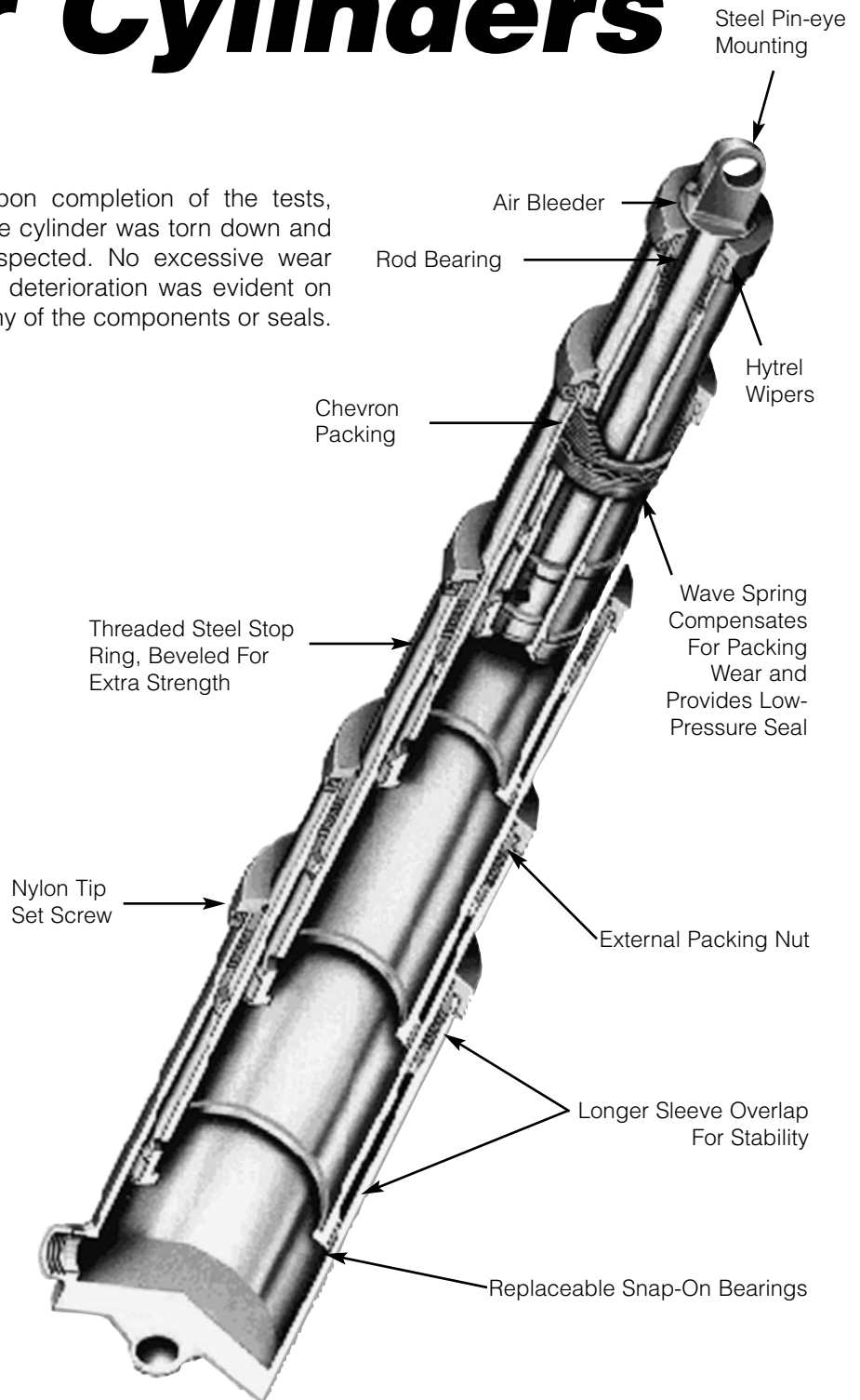
***Dump Body & Trailer Cylinders***

Whatever type of dump body or dump trailer you build, Commercial has the hydraulic components to meet your duty cycle, pressure and stroke requirements. Our standard single-acting telescopic cylinders can be used with almost any mounting setup; doghouse, bail, side frame, underbody or inverted mounts are typical.

Cylinders with bore sizes from 3" to 9", strokes to 300", pressures to 3000 psi, and load capacities to over 138,000 lbs. are available off-the-shelf or in production quantities. And, to complete the hydraulic system, our C101/102, SC101/102 and G101/102 pump/valve combinations give you a mount it and forget it system that can't be beat.

In passing endurance qualification tests for a leading manufacturer of dump bodies and trailers, our model S85 DC-40-235 cylinder exceeded 10,000 cycles raising a 30' dump trailer with 76,000 lbs. of sand. During the tests, the cylinder was shock loaded 140 times with pressures 1-1/2 times rated working pressure to simulate roading conditions. The cylinder also was subjected to 18,000 no-load cycles at 2000 psi on our test stand.

Upon completion of the tests, the cylinder was torn down and inspected. No excessive wear or deterioration was evident on any of the components or seals.



## COMMERCIAL FEATURES

- Longer sleeve overlap for improved stability and higher column loading.
- Heavy walled tubing in the first stage offers up to 27% more cross-sectional area providing up to 76% greater tube burst strength than our competition.
- Beveled mating surfaces of the overlap collar and stop ring for greater impact resistance during dumping operations.
- Snap-on, glass-filled bearings that absorb contaminants without damaging the cylinder walls.
- Threaded stop rings for easier servicing and more reliable stopping action.
- External packing nuts to give added support to the tube and make servicing easier.
- Wave springs and chevron packing for positive, self-compensating seals.
- Hytrel rod wipers resist high temperatures without extruding.
- Cast steel pin-eye and rod-end mountings give dependable strength.

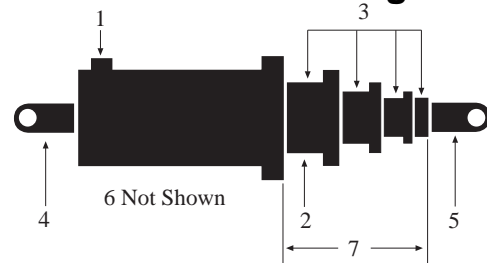
## SINGLE ACTING CYLINDERS:

- Operating pressure up to 2000 psi.
- Main cylinder outside diameter from 3-3/4" to 11-1/8".
- All cylinders have NPT ports, unless otherwise specified.
- Lifting capacity to 138,060 lbs.
- Chrome-plated sleeves and plungers are available on special order.
- Pin-eye and trunion mountings are standard. If other types are required, dimensions must be specified.

### S.A. Cylinder Information

Sleeve O.D. in inches	Effective Area in sq. inches	Load Capacity lbs. at 2000 p.s.i.	Displacement per in. of stroke in gallons
2.75	5.94	11,880	.026
3.75	11.04	22,080	.048
4.75	17.72	35,440	.077
5.75	25.96	51,920	.112
6.75	35.78	71,560	.155
7.905	48.70	97,400	.210
9.375	69.03	138,060	.299

### Model Number Coding



### Model Number S84DC-40-161

- Operating pressure up to 2000 psi.
- Main cylinder outside diameter from 3-3/4" to 10-13/16".
- Lifting capacity to 153,180 lbs.
- Chrome-plated sleeves are available on special order.
- Pin-eye and trunion mountings are standard. If other types are required, dimensions must be specified.

1. S = Single-acting Type Cylinder
- SD = Double-acting telescopic type
2. 8 = 7-7/8" nominal diameter of largest sleeve
3. 4 = 4 stages or sleeves
4. D = Type of mounting on base end
5. C = Type of mounting on rod end
6. -40 = Modification or design variation
7. 161 = Length of stroke (161")

## DOUBLE ACTING CYLINDERS:

### D.A. Cylinder Information

Sleeve or plunger O.D. (inches)	Bore of Main or Sleeve (inches)	Effective Area extended (sq. inches)	Effective Area retracted (sq. inches)	Load Capacity at 2000 p.s.i. extended (pounds)	Load Capacity at 2000 p.s.i. retracted (pounds)	Displacement per in. of stroke extended (gallons)	Displacement per in. of stroke retracted (gallons)
2.75	3.25	8.295	2.355	16,590	4,710	.036	.010
3.75	4.25	14.186	3.142	28,372	6,284	.061	.014
4.75	5.25	21.648	3.927	43,296	7,854	.094	.017
5.75	6.25	30.680	4.713	61,360	9,426	.133	.020
6.75	7.25	41.282	5.497	82,564	10,994	.179	.024
7.905	8.437	55.680	6.973	111,360	13,946	.242	.030
9.375	9.143	76.590	7.560	153,180	15,120	.331	.038