



## Series EX Hydraulic Cylinder EXtra heavy duty



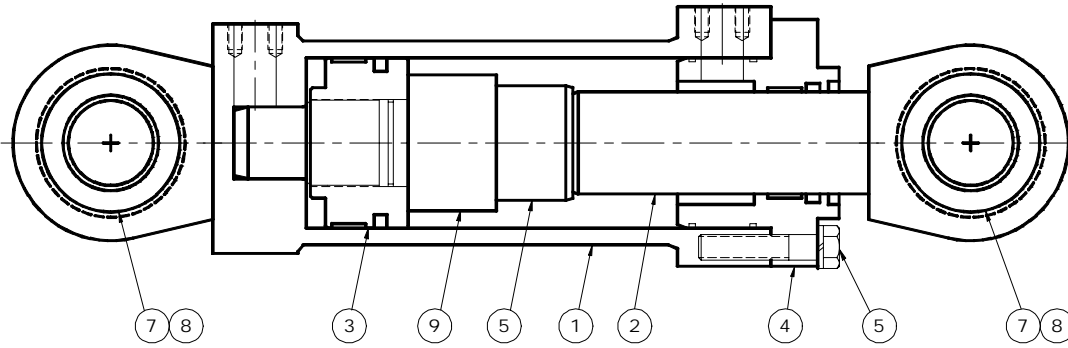
**Pressure:** 5,000 psi Working  
**Bore Sizes:** 2.50" to 8.00"  
**Rod Sizes:** 1.75" to 5.50"  
**Ports:** ORB, Code #61, Code #62  
**Attachments:** Spherical Bearings

## Series EX Cylinder

Our Series EX are high strength cylinders designed for high pressures, high flows and rugged environments. They are particularly suited to demanding industrial and mobile equipment applications.

### FEATURES:

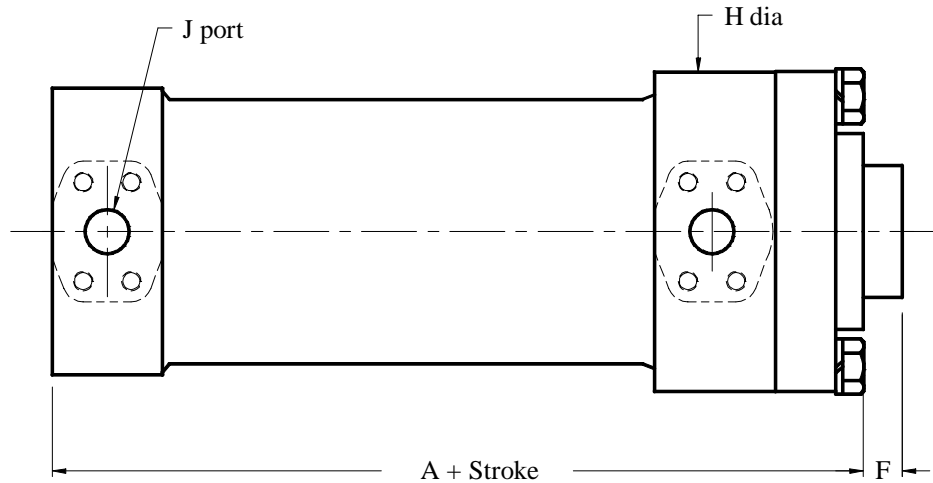
- Induction Hardened Chrome Plated Rod is standard.
- Heavy-duty piston is threaded and adhesive bonded to the rod.
- Large fixed cushions both ends are standard.
- Spherical bearings both ends are standard. For other mountings see accessories section.
- Ports are available in Code 61 4-Bolt Flange, Code 62 4-Bolt Flange and ORB.
- Stop tubes (when required) help to withstand rod bending forces.
- Rated working pressure is 5000 psi.
- When retracting the rod end is the stop, not the piston, thereby reducing stress on the piston.
- Rugged construction with oversize pins, head bolts and thick wall barrels.



PART NUMBERS		ITEM 1	ITEM 2	ITEM 3	ITEM 4	ITEM 5	ITEM 6	ITEM 7	ITEM 8	ITEM 9	SHIPPING WEIGHTS (Approximate)		
Bore	Rod	Barrel	Rod	Piston	Head	Cushion	Bolt Kit	Spherical Bearing	Snap Ring	Stop Tube	Seal Kit	Base Weight	lb/inch stroke
2 1/2	1 3/4	Part Number is model number and stroke followed by: B for barrel R for rod		B3869	B1680	B3203-28	12207	11687	10792	B3480-28	12083	30	1.29
3	1 3/4			B2098	B2774	B3203-28	12208	11581	11582	B3480-28	12337	40	1.43
3 1/4	2			B3000	B3387	B3203-32	12643	10803	10826	B3480-32	12126	55	1.88
3 1/2	2			B2988	B3150	B3203-32	12209	10204	10203	B3480-32	12338	65	2.18
4	2 1/2			B1802	B2149	B3203-40	12210	10804	11584	B3480-40	12223	90	3.39
4 1/2	2 1/2			B3189	B3191	B3203-40	12211	10806	10327	B3480-40	12224	120	3.62
5	3			B3165	B3151	B3203-48	12212	10806	10327	B3480-48	11809	140	4.48
5 1/2	3 1/2			B3186	B3232	B3203-56	12213	10228	11732	B3480-56	12335	195	6.14
6	3 1/2			B2095	B3166	B3203-56	12214	10228	11732	B3480-56	12336	230	6.41
6 1/2	4			B3260	B3345	B3203-64	12215	11551	12082	B3480-64	12392	310	7.53
7	5			B1762	B1763	B3203-80	12216	11551	12082	B3480-80	11778	365	9.68
7 1/2	5			B3327	B3326	B3203-80	12750	12218	12219	B3480-80	12751	415	10.58
8	5 1/2			B2128	B3882	B3203-80	12217	12218	12219	B3480-80	12752	490	11.41

## Series EX Cylinder

### Basic Cylinder



Bore	Rod std	Rod option	A	F	H	J Port
2 1/2	1 3/4	-	5.75	0.75	4.00	#12 ORB
3	1 3/4	2	6.75	0.75	4.50	#12 ORB
3 1/4	2	2 1/4	7.06	0.75	5.13	#12 ORB
3 1/2	2	2 1/2	7.31	0.75	5.50	3/4" Code 61
4	2 1/2	3	8.50	1.00	6.00	3/4" Code 61
4 1/2	2 1/2	3	8.50	1.00	6.63	1" Code 61
5	3	3 1/2	9.19	1.13	7.25	1" Code 61
5 1/2	3 1/2	-	9.56	1.13	8.00	1 1/4" Code 62
6	3 1/2	4	11.06	1.13	8.50	1 1/4" Code 62
6 1/2	4	4 1/2	13.13	1.13	9.50	1 1/4" Code 62
7	5	5 1/2	14.13	1.13	10.25	1 1/4" Code 62
7 1/2	5	5 1/2	14.50	1.13	10.63	1 1/2" Code 62
8	5 1/2	6	15.25	1.13	11.25	1 1/2" Code 62

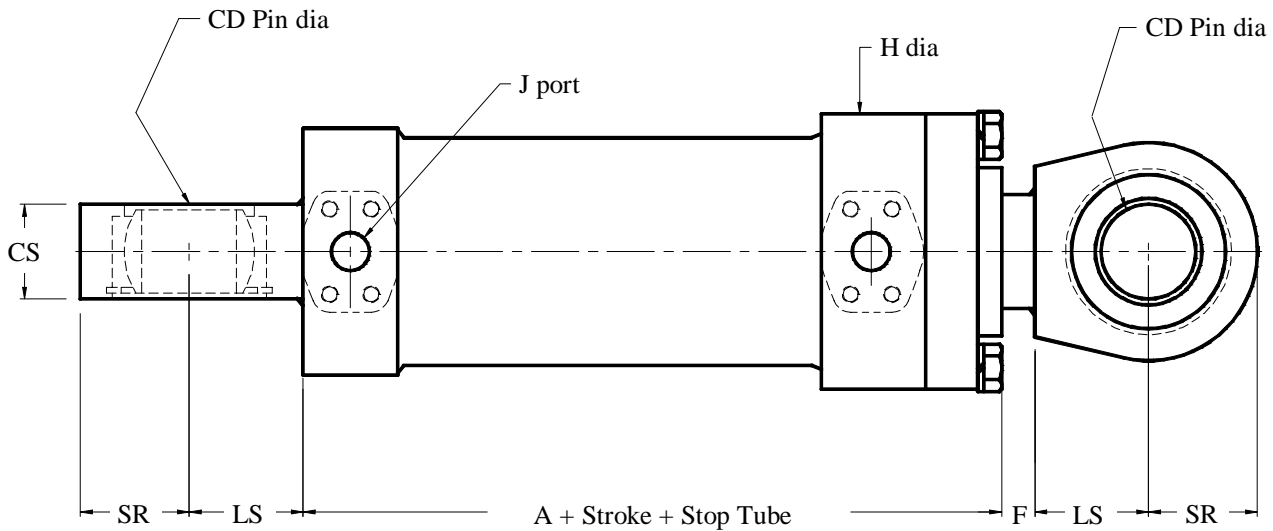
### MATERIAL SPECIFICATIONS

<i>Barrel:</i> DOM Tubing ASTM 513/519 Gr. 1020/1026	<i>Piston Seal:</i> Filled Teflon with Nitrile Loader
<i>Head:</i> Ductile Iron ASTM A536 (65-45-12)	<i>Rod seal:</i> Polyurethane
<i>Piston:</i> Ductile Iron ASTM A536 (65-45-12)	<i>Wear Ring:</i> Reinforced Nylon
<i>Rod:</i> C1045 Induction Hardened Chrome Plated	<i>Wiper:</i> Polyurethane on Phosphated Steel
<i>Accessories:</i> Steel CSA G40-21 Gr. 44W	<i>O-Ring:</i> Nitrile
<i>Bolts:</i> SAE Grade 8	<i>Back-Up:</i> Nitrile

Seal Temperature Range: -65F to +225F (-54C to +107C)

## Series EX Cylinder

### Spherical bearings



Bore	Rod std	Rod option	A	F	H	J Port	CD pin dia	LS	CS	SR
2 1/2	1 3/4	-	5.75	0.75	4.00	#12 ORB	1.25	1.88	1.25	1.63
3	1 3/4	2	6.75	0.75	4.50	#12 ORB	1.38	2.13	1.50	1.88
3 1/4	2	2 1/4	7.06	0.75	5.13	#12 ORB	1.50	2.25	1.75	2.00
3 1/2	2	2 1/2	7.31	0.75	5.50	3/4" Code 61	1.75	2.38	2.00	2.13
4	2 1/2	3	8.50	1.00	6.00	3/4" Code 61	2.00	2.63	2.25	2.43
4 1/2	2 1/2	3	8.50	1.00	6.63	1" Code 61	2.50	3.00	2.50	2.88
5	3	3 1/2	9.19	1.13	7.25	1" Code 61	2.50	3.00	2.50	2.88
5 1/2	3 1/2	-	9.56	1.13	8.00	1 1/4" Code 62	3.00	3.75	2.75	3.63
6	3 1/2	4	11.06	1.13	8.50	1 1/4" Code 62	3.00	3.75	2.75	3.63
6 1/2	4	4 1/2	13.13	1.13	9.50	1 1/4" Code 62	3.50	4.50	3.50	4.18
7	5	5 1/2	14.13	1.13	10.25	1 1/4" Code 62	3.50	4.50	3.50	4.18
7 1/2	5	5 1/2	14.50	1.13	10.63	1 1/2" Code 62	4.00	5.25	4.00	4.50
8	5 1/2	6	15.25	1.13	11.25	1 1/2" Code 62	4.00	5.25	4.00	4.50