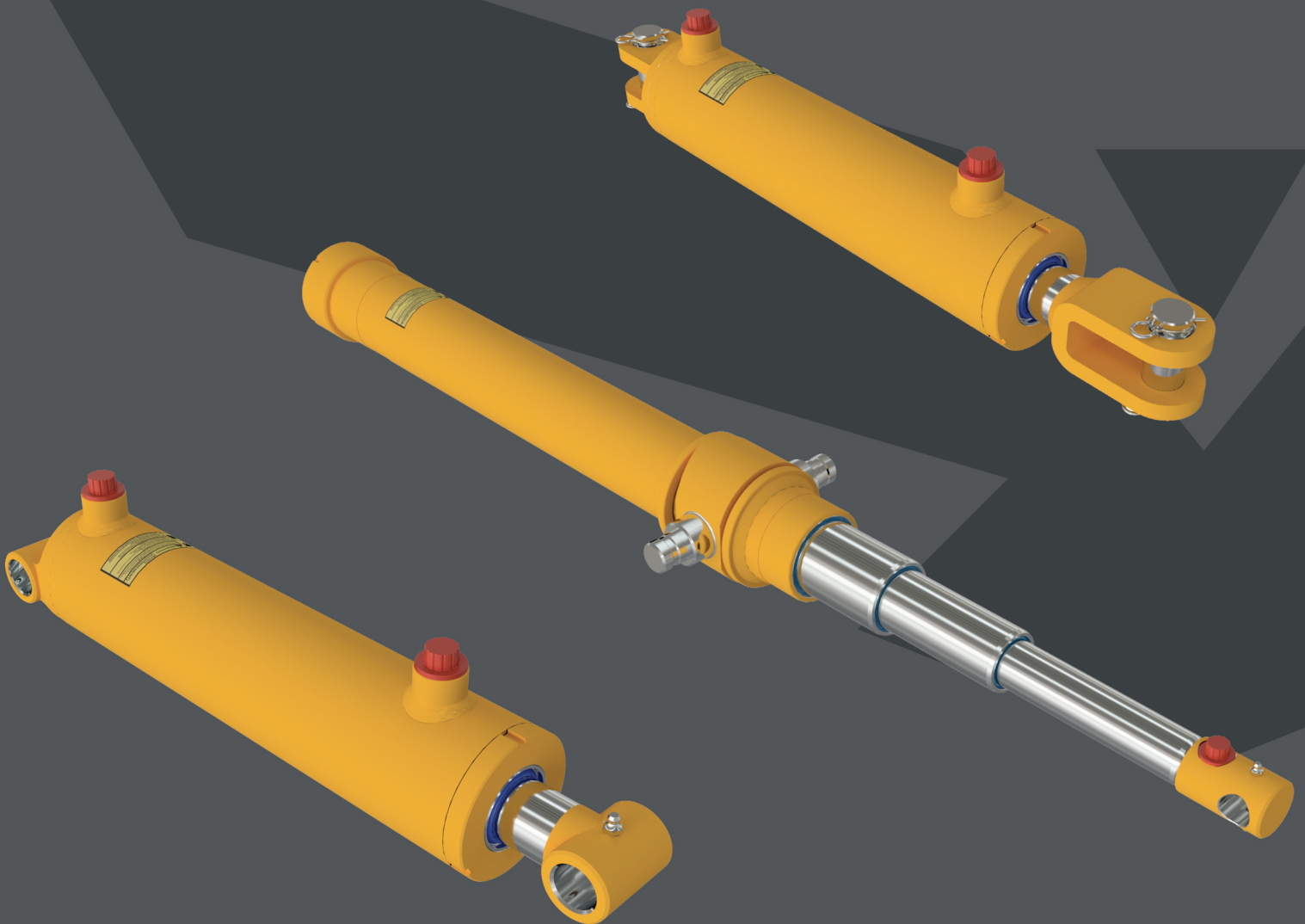




# HYDRAULIC CYLINDERS CATALOG



**INNOVATIVE MOBILE SOLUTIONS**  
**DESIGN ▼ MANUFACTURE ▼ INTEGRATE**

# INNOVATIVE MOBILE SOLUTIONS

Eagle Hydraulic Inc. is a Canadian based manufacturer of custom and standard hydraulic solutions.

We manufacture hydraulic cylinders, hydraulic power units and pumps as well as engineer and integrate more than 500,000 other hydraulic components such as motors, valves, manifolds, and many more options.

Serving the mobile equipment industry for decades, our products are designed and supported from our head office located in Mirabel, Quebec, Canada to exceed North American standards.

We own and operate two hydraulic cylinder manufacturing facilities located in China. Our manufacturing operations are certified ISO TS16949. We are also a certified OEM production supplier to many large North American based corporations.

Our services include custom components or system design, on-site visits, continuous support, flexible delivery and stocking programs, inventory updates, many warranty options, and responsive service.

We strive to provide you the best experience and deliver high-quality merchandise faster than expected.

Eagle Hydraulic adds value through innovation, quality, respect, commitment, loyalty, and teamwork.



## OUR CAPABILITIES

1

**OEM HYDRAULIC CYLINDERS**

2

**STANDARD HYDRAULIC CYLINDERS**

3

**HYDRAULIC POWER UNITS**

- AC
- DC

4

**HYDRAULIC COMPONENTS**

- Pumps
- Motors
- Valves
- Tanks
- Toolboxes
- Manifolds
- Filters
- Remotes
- Wireless controllers
- ...

5

**SYSTEM INTEGRATION**

6

**NEW: NOVAPEAK**

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# ORDER INFORMATION

(IF DIFFERENT THAN OUR STANDARD)

HTH	20	04	1250	ASAE	ORB	R...	P	00		
1	2	3	4	5	6	7	8	9		
<b>1.MODEL</b> HCL: pages 3-8 HBU: pages 9-14 HTR: pages 15-19 HTH: pages 20-24 (...)				<b>SPECIAL FEATURES</b>					<b>9.DESIGN SERIES</b> Omit: Factory specified TTP: Tilt trailer package	
<b>2.BORE</b> 15: 1.5" 20: 2.0" 25: 2.5" 35: 3.5" (...)									<b>8.PAINT</b> Omit: Standard paint black *: Customer's color code CPG: Grey primer CPR: Red primer CWT: White color	
<b>3.STROKE</b> 04: 4" 06: 6" 08: 8" 10: 10" (...)									<b>7.POSITION OF PORTS</b> Omit: Standard position R: 90°	
<b>4.ROD</b> 1000: Ø 1.000" 1125: Ø 1.125" 1250: Ø 1.250" 1500: Ø 1.500" (...)									<b>6.PORT TYPE</b> Omit: Ports type NPT ORB: SAE O-ring	
									<b>5.EXTENDED ROD</b> Omit: Not available ASAE : Extended with 2"	

\* All pictures may differ from the final products. Product specifications are subject to changes without notice.

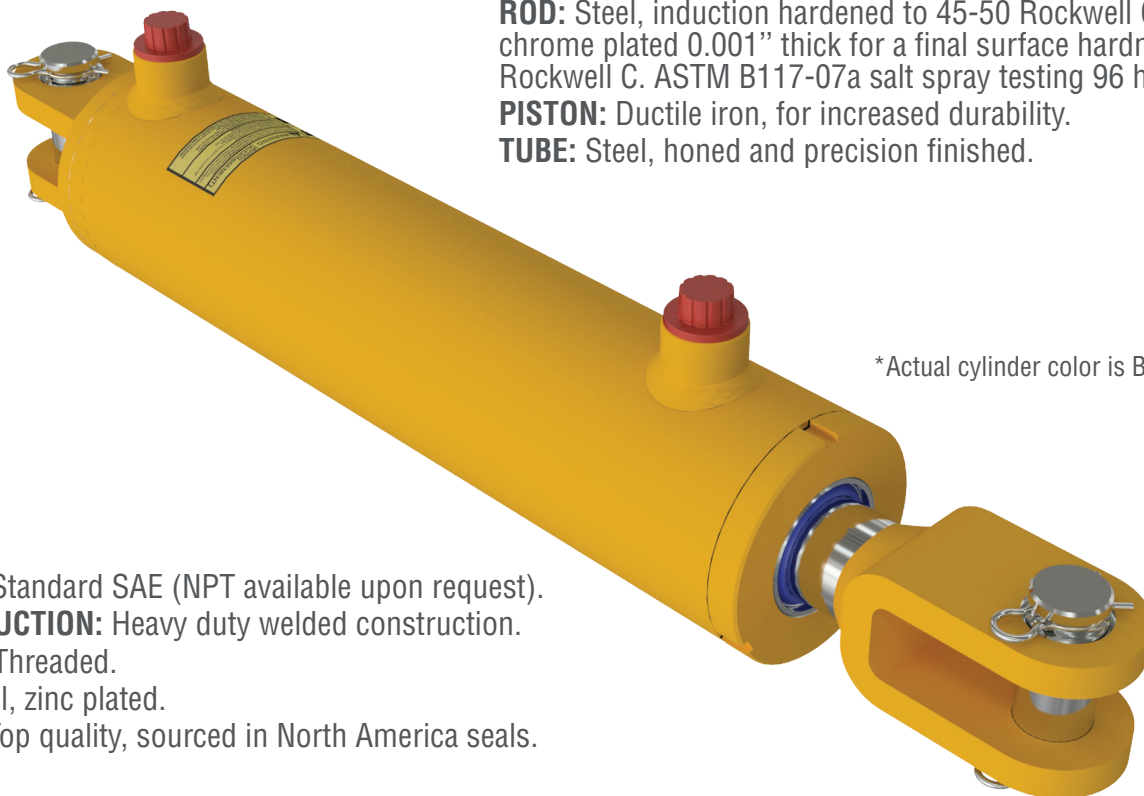


## DOUBLE ACTING CYLINDER

**ROD:** Steel, induction hardened to 45-50 Rockwell C and chrome plated 0.001" thick for a final surface hardness 69-71 Rockwell C. ASTM B117-07a salt spray testing 96 hours.

**PISTON:** Ductile iron, for increased durability.

**TUBE:** Steel, honed and precision finished.



\*Actual cylinder color is BLACK

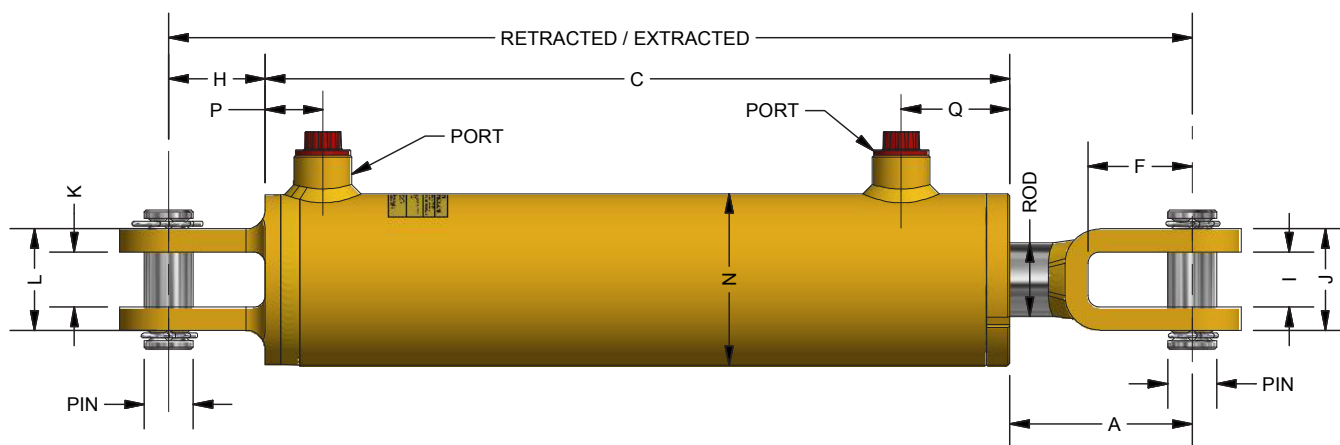
**PORTS:** Standard SAE (NPT available upon request).

**CONSTRUCTION:** Heavy duty welded construction.

**GLAND:** Threaded.

**PIN:** Steel, zinc plated.

**SEALS:** Top quality, sourced in North America seals.



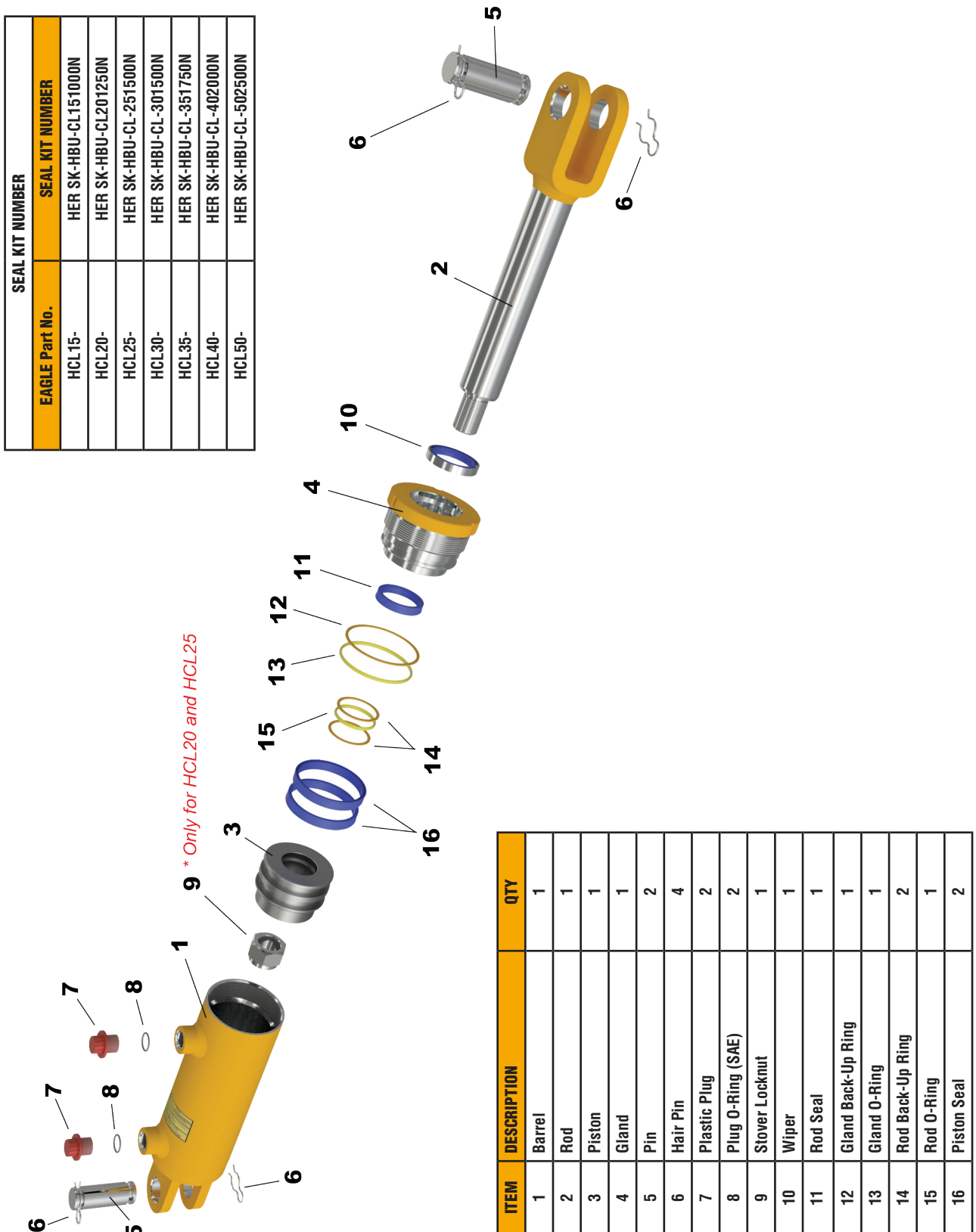
\*All dimensions are in inches

EAGLE Part No	BORE	A	F	H	I, K	J	L	N	P	Q
HCL15-	1.50	2.065	1.125	1.5	0.75	1.5	1.5	1.875	0.866	2.205
HCL20-	2.00	3.20 / 5.20 for HCL2008	2.125	2.600	1.125	2.125	2.125	2.375	0.875	2.000
HCL25-	2.50	3.0 / 5.0 for HCL2508	2.125	2.600	1.125	2.125	2.125	2.875	0.875	1.750
HCL30-	3.00	3.10 / 5.10 for HCL3008	2.125	1.972	1.125	2.125	2.125	3.500	1.000	2.200
HCL35-	3.50	3.25 / 5.25 for HCL3508	2.125	1.972[2.125]	1.125	2.385	2.385	4.000	0.875	2.000
HCL40-	4.00	3.0 / 5.0 for HCL4008	2.000	1.843[2.00]	1.125	2.385	2.385	4.500	0.875	2.250
HCL50-	5.00	3.8	2.000	1.913[2.00]	1.500	2.750	2.750	5.500	1.063	2.500

All numbers given are nominal values and should be used for reference only.

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# 4 HCL - WELDED HYDRAULIC CYLINDERS



SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HCL15-	HER SK-HBU-CL151000N
HCL20-	HER SK-HBU-CL201250N
HCL25-	HER SK-HBU-CL-251500N
HCL30-	HER SK-HBU-CL-301500N
HCL35-	HER SK-HBU-CL-351750N
HCL40-	HER SK-HBU-CL-402000N
HCL50-	HER SK-HBU-CL-502500N

All numbers given are nominal values and should be used for reference only.



PART No.	STROKE	ROD DIAMETER	DIMENSIONS		C	PORT	PIN	WEIGHT (LBS)
			RETRACTED	EXTRACTED				
<b>HCL 1.5" BORE 3000 PSI WP</b>	HCL1504-ORB 4"	1"	12 1/4"	16 1/4"	8.685"	SAE#4 (1/4" NPT Available)	0.75"	7
	HCL1506-ORB 6"		14 1/4"	20 1/4"	10.685"			8
	HCL1508-ORB 8"		16 1/4"	24 1/4"	12.685"			9
	HCL1510-ORB 10"		18 1/4"	28 1/4"	14.685"			10
	HCL1512-ORB 12"		20 1/4"	32 1/4"	16.685"			11
	HCL1514-ORB 14"		22 1/4"	36 1/4"	18.685"			12
	HCL1516-ORB 16"		24 1/4"	40 1/4"	20.685"			13
	HCL1518-ORB 18"		26 1/4"	44 1/4"	22.685"			14
	HCL1520-ORB 20"		28 1/4"	48 1/4"	24.685"			15
	HCL1524-ORB 24"		32 1/4"	56 1/4"	28.685"			17
	HCL1536-ORB 36"		44 1/4"	80 1/4"	40.685"			24
<b>HCL 2" BORE 3000 PSI WP</b>	HCL2004-ORB 4"	1 1/4"	14 1/4"	18 1/4"	8.5"	SAE#6 (3/8" NPT Available)	1"	14
	HCL2006-ORB 6"		16 1/4"	22 1/4"	10.5"			15
	HCL2008-ORB 8"		20 1/4"	28 1/4"	12.5"			17
	HCL2010-ORB 10"		20 1/4"	30 1/4"	14.5"			17
	HCL2012-ORB 12"		22 1/4"	34 1/4"	16.5"			19
	HCL2014-ORB 14"		24 1/4"	38 1/4"	18.5"			21
	HCL2016-ORB 16"		26 1/4"	42 1/4"	20.5"			23
	HCL2018-ORB 18"		28 1/4"	46 1/4"	22.5"			24
	HCL2020-ORB 20"		30 1/4"	50 1/4"	24.5"			26
	HCL2024-ORB 24"		34 1/4"	58 1/4"	28.5"			28
	HCL2028-ORB 28"		38 1/4"	66 1/4"	32.5"			34
	HCL2030-ORB 30"		40 1/4"	70 1/4"	34.5"			35
	HCL2032-ORB 32"		42 1/4"	74 1/4"	36.5"			36
	HCL2034-ORB 34"		44 1/4"	78 1/4"	38.5"			39
	HCL2036-ORB 36"		46 1/4"	82 1/4"	40.5"			40
<b>HCL 2.5" BORE 3000 PSI WP</b>	HCL2504-ORB 4"	1 1/2"	14 1/4"	18 1/4"	8.56"	SAE#8 (1/2" NPT Available)	1"	17
	HCL2506-ORB 6"		16 1/4"	22 1/4"	10.56"			20
	HCL2508-ORB 8"		20 1/4"	28 1/4"	12.56"			22
	HCL2510-ORB 10"		20 1/4"	30 1/4"	14.56"			23
	HCL2512-ORB 12"		22 1/4"	34 1/4"	16.56"			25
	HCL2514-ORB 14"		24 1/4"	38 1/4"	18.56"			28
	HCL2516-ORB 16"		26 1/4"	42 1/4"	20.56"			30
	HCL2518-ORB 18"		28 1/4"	46 1/4"	22.56"			31
	HCL2520-ORB 20"		30 1/4"	50 1/4"	24.56"			34
	HCL2524-ORB 24"		34 1/4"	58 1/4"	28.56"			38
	HCL2528-ORB 28"		38 1/4"	66 1/4"	32.56"			42
	HCL2530-ORB 30"		40 1/4"	70 1/4"	34.56"			45
	HCL2532-ORB 32"		42 1/4"	74 1/4"	36.56"			46
	HCL2534-ORB 34"		44 1/4"	78 1/4"	38.56"			50
	HCL2536-ORB 36"		46 1/4"	82 1/4"	40.56"			51



# HCL - WELDED HYDRAULIC CYLINDERS

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		C	PORT	PIN	WEIGHT (LBS)
			RETRACTED	EXTRACTED				
<b>HCL 3" BORE 3000PSI WP</b>	HCL3002-ORB	2"	1 1/2"	12 1/4"	16 1/4"	7.18"	SAE#8 (1/2" NPT Available)	21
	HCL3004-ORB	4"		14 1/4"	18 1/4"	9.18"		23
	HCL3006-ORB	6"		16 1/4"	22 1/4"	11.18"		26
	HCL3008-ORB	8"		20 1/4"	28 1/4"	13.18"		28
	HCL3010-ORB	10"		20 1/4"	30 1/4"	15.18"		29
	HCL3012-ORB	12"		22 1/4"	34 1/4"	17.18"		30
	HCL3014-ORB	14"		24 1/4"	38 1/4"	19.18"		32
	HCL3016-ORB	16"		26 1/4"	42 1/4"	21.18"		36
	HCL3018-ORB	18"		28 1/4"	46 1/4"	23.18"		39
	HCL3020-ORB	20"		30 1/4"	50 1/4"	25.18"		42
	HCL3024-ORB	24"		34 1/4"	58 1/4"	29.18"		46
	HCL3028-ORB	28"		38 1/4"	66 1/4"	33.18"		51
	HCL3030-ORB	30"		40 1/4"	70 1/4"	35.18"		54
	HCL3032-ORB	32"		42 1/4"	74 1/4"	37.18"		56
	HCL3034-ORB	34"		44 1/4"	78 1/4"	39.18"		59
	HCL3036-ORB	36"		46 1/4"	82 1/4"	41.18"		61
<b>HCL 3.5" BORE 3000 PSI WP</b>	HCL3504-ORB	4"	1 3/4"	14 1/4"	18 1/4"	8.92"	SAE#8 (1/2" NPT Available)	26
	HCL3506-ORB	6"		16 1/4"	22 1/4"	10.92"		29
	HCL3508-ORB	8"		20 1/4"	28 1/4"	12.92"		33
	HCL3510-ORB	10"		20 1/4"	30 1/4"	14.92"		36
	HCL3512-ORB	12"		22 1/4"	34 1/4"	16.92"		39
	HCL3514-ORB	14"		24 1/4"	38 1/4"	18.92"		41
	HCL3516-ORB	16"		26 1/4"	42 1/4"	20.92"		45
	HCL3518-ORB	18"		28 1/4"	46 1/4"	22.92"		48
	HCL3520-ORB	20"		30 1/4"	50 1/4"	24.92"		52
	HCL3524-ORB	24"		34 1/4"	58 1/4"	28.92"		55
	HCL3528-ORB	28"		38 1/4"	66 1/4"	32.92"		62
	HCL3530-ORB	30"		40 1/4"	70 1/4"	34.92"		66
	HCL3532-ORB	32"		42 1/4"	74 1/4"	36.92"		70
	HCL3534-ORB	34"		44 1/4"	78 1/4"	38.92"		73
	HCL3536-ORB	36"		46 1/4"	82 1/4"	40.92"		77



PART No.	STROKE	ROD DIAMETER	DIMENSIONS		C	PORT	PIN	WEIGHT (LBS)
			RETRACTED	EXTRACTED				
<b>HCL 4" BORE 3000 PSI WP</b>	HCL4004-ORB	4"	2"	14 1/4"	18 1/4"	9.27"	SAE#8 (1/2" NPT Available)	31
	HCL4006-ORB	6"		16 1/4"	22 1/4"	11.27"		36
	HCL4008-ORB	8"		20 1/4"	28 1/4"	13.27"		41
	HCL4010-ORB	10"		20 1/4"	30 1/4"	15.27"		46
	HCL4012-ORB	12"		22 1/4"	34 1/4"	17.27"		47
	HCL4014-ORB	14"		24 1/4"	38 1/4"	19.27"		50
	HCL4016-ORB	16"		26 1/4"	42 1/4"	21.27"		53
	HCL4018-ORB	18"		28 1/4"	46 1/4"	23.27"		56
	HCL4020-ORB	20"		30 1/4"	50 1/4"	25.27"		61
	HCL4024-ORB	24"		34 1/4"	58 1/4"	29.27"		66
	HCL4028-ORB	28"		38 1/4"	66 1/4"	33.27"		77
	HCL4030-ORB	30"		40 1/4"	70 1/4"	35.27"		81
	HCL4032-ORB	32"		42 1/4"	74 1/4"	37.27"		87
	HCL4034-ORB	34"		44 1/4"	78 1/4"	39.27"		90
	HCL4036-ORB	36"		46 1/4"	82 1/4"	41.27"		94
<b>HCL 5" BORE 3000 PSI WP</b>	HCL5004-ORB	4"	2 1/2"	16 1/4"	20 1/4"	10.5"	SAE#8 SAE#12 Available (1/2" NPT Available)	63
	HCL5006-ORB	6"		18 1/4"	24 1/4"	12.5"		67
	HCL5008-ORB	8"		20 1/4"	28 1/4"	14.5"		71
	HCL5010-ORB	10"		22 1/4"	32 1/4"	16.5"		76
	HCL5012-ORB	12"		24 1/4"	36 1/4"	18.5"		80
	HCL5014-ORB	14"		26 1/4"	40 1/4"	20.5"		84
	HCL5016-ORB	16"		28 1/4"	44 1/4"	22.5"		89
	HCL5018-ORB	18"		30 1/4"	48 1/4"	24.5"		93
	HCL5020-ORB	20"		32 1/4"	52 1/4"	26.5"		98
	HCL5024-ORB	24"		36 1/4"	60 1/4"	30.5"		106
	HCL5028-ORB	28"		40 1/4"	68 1/4"	34.5"		115
	HCL5030-ORB	30"		42 1/4"	72 1/4"	36.5"		120
	HCL5032-ORB	32"		44 1/4"	76 1/4"	38.5"		124
	HCL5034-ORB	34"		46 1/4"	80 1/4"	40.5"		129
	HCL5036-ORB	36"		48 1/4"	84 1/4"	42.5"		133

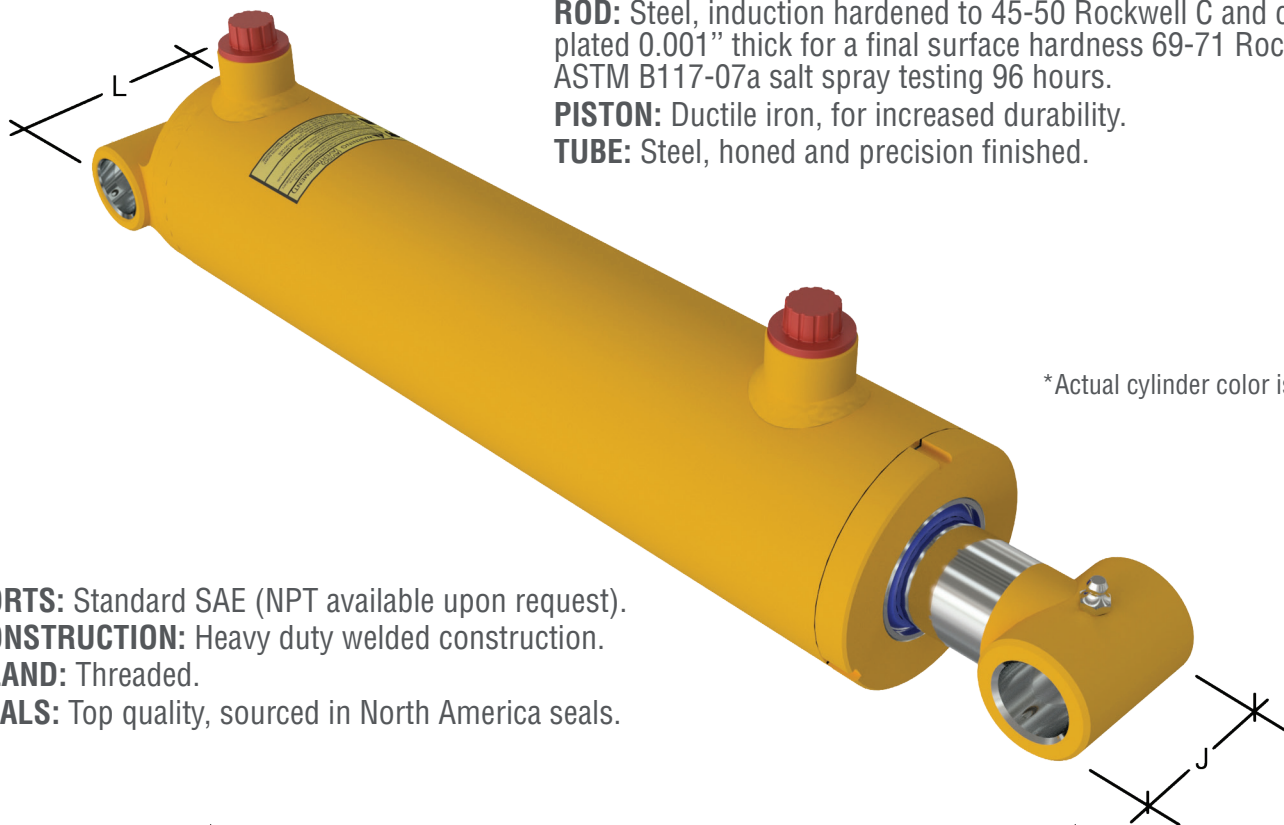


### DOUBLE ACTING CYLINDER

**ROD:** Steel, induction hardened to 45-50 Rockwell C and chrome plated 0.001" thick for a final surface hardness 69-71 Rockwell C. ASTM B117-07a salt spray testing 96 hours.

**PISTON:** Ductile iron, for increased durability.

**TUBE:** Steel, honed and precision finished.



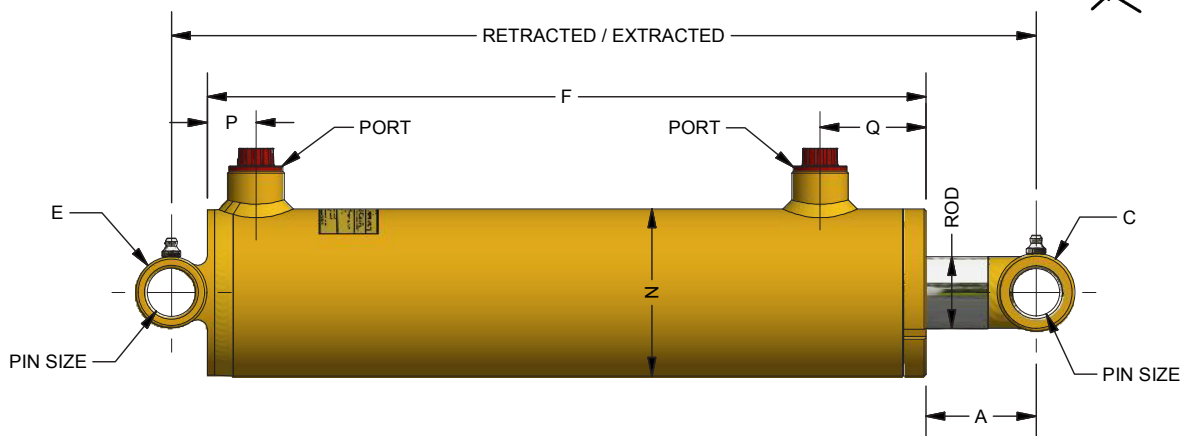
\*Actual cylinder color is BLACK

**PORTS:** Standard SAE (NPT available upon request).

**CONSTRUCTION:** Heavy duty welded construction.

**GLAND:** Threaded.

**SEALS:** Top quality, sourced in North America seals.



\*All dimensions are in inches

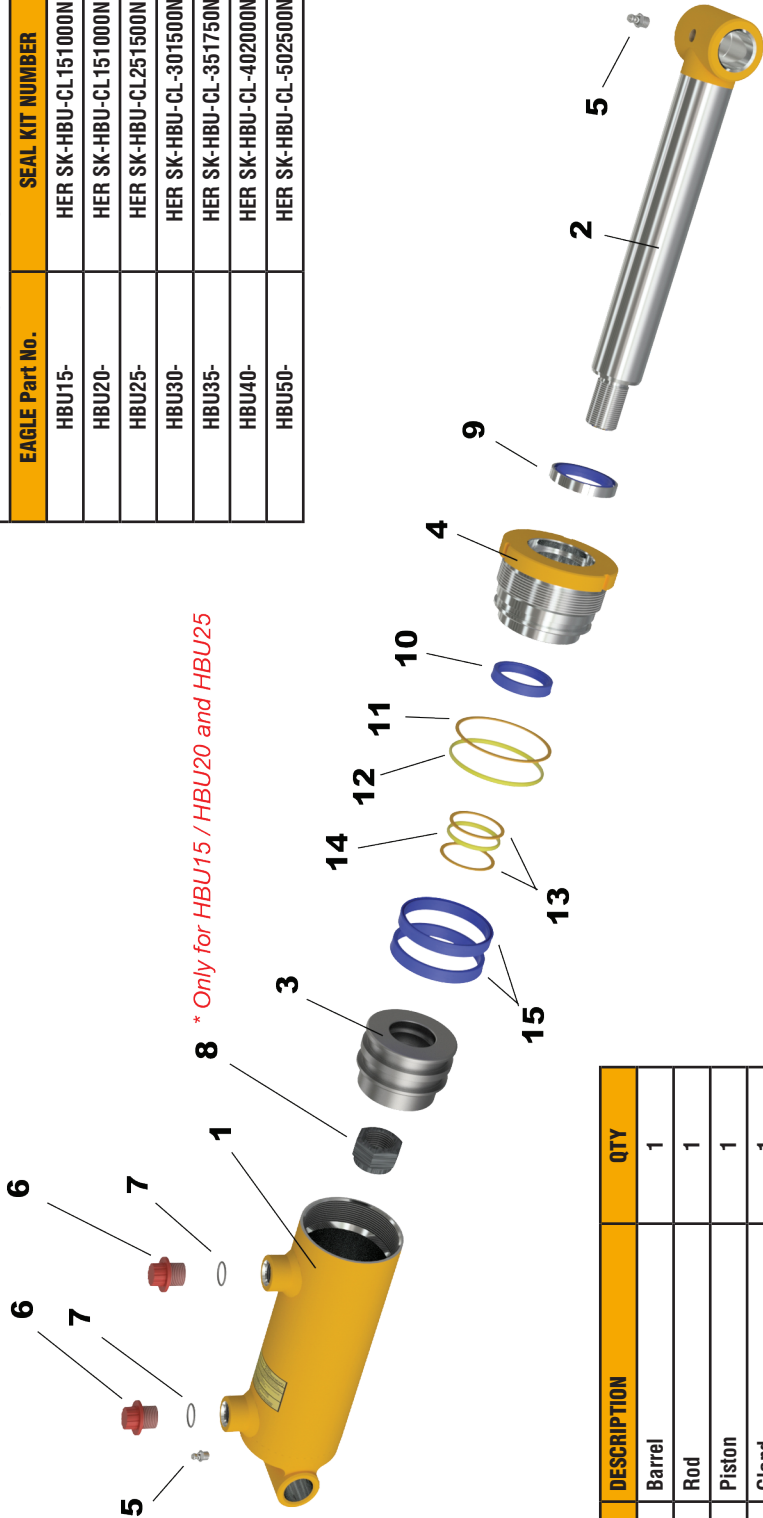
EAGLE Part No	BORE	ROD	A	C, E	PIN SIZE	J	L	N	P	Q
HBU15-	1.50	1.00	2.70	1.250	0.750	2.00	2.25	1,875	0.875	2.200
HBU20-	2.00	1.25	2.80	1.500	1.00	2.25	2.75	2.375	0.875	2.000
HBU25-	2.50	1.50	2.65	1.500	1.000	2.25	3.25	2.875	0.875	2.000
HBU30-	3.00	1.50	2.20	1.500	1.000	2.25	3.75	3.50	1.000	2.200
HBU35-	3.50	1.75	4.10	2.000	1.250	2.25	4.25	4.00	0.875	2.000
HBU40-	4.00	2.00	3.60	2.250	1.500	2.50	4.75	4.500	1.000	2.250
HBU50-	5.00	2.50	4.50	2.500	1.750	3.25	5.75	5.500	1.000	2.500

All numbers given are nominal values and should be used for reference only.

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SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HBU15-	HER SK-HBU-CL-151000N
HBU20-	HER SK-HBU-CL-151000N
HBU25-	HER SK-HBU-CL-251500N
HBU30-	HER SK-HBU-CL-301500N
HBU35-	HER SK-HBU-CL-351750N
HBU40-	HER SK-HBU-CL-402000N
HBU50-	HER SK-HBU-CL-502500N



ITEM	DESCRIPTION	QTY
1	Barrel	1
2	Rod	1
3	Piston	1
4	Gland	1
5	Grease Fitting 1/8-27 NPT	2
6	Plastic Plug	2
7	Plug O-Ring (SAE)	2
8	Stover Locknut	1
9	Wiper	1
10	Rod Seal	1
11	Gland Back-Up Ring	1
12	Gland O-Ring	1
13	Rod Back-Up Ring	2
14	Rod O-Ring	1
15	Piston Seal	2

# HBU - WELDED HYDRAULIC CYLINDERS

HBU 1.5" BORE 3000 PSI WP	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		F	PORT	PIN	WEIGHT (LBS)
				RETRACTED	EXTRACTED				
	HBU1504-ORB	4"	1"	12"	16"	8.5"	SAE#4 (1/4" NPT Available)	3/4"	9
	HBU1506-ORB	6"		14"	20"	10.5"			10
	HBU1508-ORB	8"		16"	24"	12.5"			11
	HBU1510-ORB	10"		18"	28"	14.5"			13
	HBU1512-ORB	12"		20"	32"	16.5"			14
	HBU1514-ORB	14"		22"	36"	18.5"			15
	HBU1516-ORB	16"		24"	40"	20.5"			17
HBU 2" BORE 3000PSI WP	HBU2004-ORB	4"	1 1/4"	12"	16"	8.5"	SAE#6 (3/8" NPT Available)	1"	13
	HBU2006-ORB	6"		14"	20"	10.5"			14
	HBU2008-ORB	8"		16"	24"	12.5"			15
	HBU2010-ORB	10"		18"	28"	14.5"			15
	HBU2012-ORB	12"		20"	32"	16.5"			16
	HBU2014-ORB	14"		22"	36"	18.5"			17
	HBU2016-ORB	16"		24"	40"	20.5"			22
	HBU2018-ORB	18"		26"	44"	22.5"			22
	HBU2020-ORB	20"		28"	48"	24.5"			23
	HBU2024-ORB	24"		32"	56"	28.5"			28
	HBU2028-ORB	28"		36"	64"	32.5"			31
	HBU2030-ORB	30"		38"	68"	34.5"			34
	HBU2032-ORB	32"		40"	72"	36.5"			36
	HBU2036-ORB	36"		44"	80"	40.5"			39
	HBU2040-ORB	40"		48"	88"	44.5"			40
	HBU2048-ORB	48"		56"	104"	52.5"			50
HBU 2.5" BORE 3000PSI WP	HBU2504-ORB	4"	1 1/2"	12"	16"	8.56"	SAE#8 (1/2" NPT Available)	1"	17
	HBU2506-ORB	6"		14"	20"	10.56"			18
	HBU2508-ORB	8"		16"	24"	12.56"			19
	HBU2510-ORB	10"		18"	28"	14.56"			22
	HBU2512-ORB	12"		20"	32"	16.56"			24
	HBU2514-ORB	14"		22"	36"	18.56"			26
	HBU2516-ORB	16"		24"	40"	20.56"			30
	HBU2518-ORB	18"		26"	44"	22.56"			31
	HBU2520-ORB	20"		28"	48"	24.56"			32
	HBU2524-ORB	24"		32"	56"	28.56"			37
	HBU2528-ORB	28"		36"	64"	32.56"			42
	HBU2530-ORB	30"		38"	68"	34.56"			44
	HBU2532-ORB	32"		40"	72"	36.56"			46
	HBU2536-ORB	36"		44"	80"	40.56"			50
	HBU2540-ORB	40"		48"	88"	44.56"			55
	HBU2548-ORB	48"		56"	104"	52.56"			62

All numbers given are nominal values and should be used for reference only.





	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		F	PORT	PIN	WEIGHT (LBS)
				RETRACTED	EXTRACTED				
<b>HBU 3" BORE 3000PSI WP</b>	HBU3004-ORB	4"	1 1/2"	12"	16"	9.04"	SAE#8 (1/2" NPT Available)	1"	24
	HBU3006-ORB	6"		14"	20"	11.04"			25
	HBU3008-ORB	8"		16"	24"	13.04"			26
	HBU3010-ORB	10"		18"	28"	15.04"			28
	HBU3012-ORB	12"		20"	32"	17.04"			29
	HBU3014-ORB	14"		22"	36"	19.04"			31
	HBU3016-ORB	16"		24"	40"	21.04"			32
	HBU3018-ORB	18"		26"	44"	23.04"			36
	HBU3020-ORB	20"		28"	48"	25.04"			39
	HBU3024-ORB	24"		32"	56"	29.04"			42
	HBU3028-ORB	28"		36"	64"	33.04"			48
	HBU3030-ORB	30"		38"	68"	35.04"			52
	HBU3032-ORB	32"		40"	72"	37.04"			56
	HBU3036-ORB	36"		44"	80"	41.04"			60
	HBU3040-ORB	40"		48"	88"	45.04"			65
	HBU3048-ORB	48"		56"	104"	53.04"			71
<b>HBU 3.5" BORE 3000PSI WP</b>	HBU3504-ORB	4"	1 3/4"	14"	18"	8.92"	SAE#8 (1/2" NPT Available)	1 1/4"	28
	HBU3506-ORB	6"		16"	22"	10.92"			31
	HBU3508-ORB	8"		18"	26"	12.92"			33
	HBU3510-ORB	10"		20"	30"	14.92"			36
	HBU3512-ORB	12"		22"	34"	16.92"			39
	HBU3514-ORB	14"		24"	38"	18.92"			41
	HBU3516-ORB	16"		26"	42"	20.92"			45
	HBU3518-ORB	18"		28"	46"	22.92"			48
	HBU3520-ORB	20"		30"	50"	24.92"			51
	HBU3524-ORB	24"		34"	58"	28.92"			56
	HBU3528-ORB	28"		38"	66"	32.92"			60
	HBU3530-ORB	30"		40"	70"	34.92"			64
	HBU3532-ORB	32"		42"	74"	36.92"			68
	HBU3536-ORB	36"		46"	82"	40.92"			77
	HBU3540-ORB	40"		50"	90"	44.92"			81
	HBU3548-ORB	48"		58"	106"	52.92"			85



# HBU - WELDED HYDRAULIC CYLINDERS

PART No.		STROKE	ROD DIAMETER	DIMENSIONS		F	PORT	PIN	WEIGHT (LBS)
				RETRACTED	EXTRACTED				
<b>HBU 4" BORE 3000PSI WP</b>		HBU4004-ORB	4"	2"	14"	18"	9.27"	SAE#8 (1/2" NPT Available)	35
		HBU4006-ORB	6"		16"	22"	11.27"		38
		HBU4008-ORB	8"		18"	26"	13.27"		41
		HBU4010-ORB	10"		20"	30"	15.27"		45
		HBU4012-ORB	12"		22"	34"	17.27"		48
		HBU4014-ORB	14"		24"	38"	19.27"		52
		HBU4016-ORB	16"		26"	42"	21.27"		55
		HBU4018-ORB	18"		28"	46"	23.27"		59
		HBU4020-ORB	20"		30"	50"	25.27"		63
		HBU4024-ORB	24"		34"	58"	29.27"		68
		HBU4028-ORB	28"		38"	66"	33.27"		77
		HBU4030-ORB	30"		40"	70"	35.27"		81
		HBU4032-ORB	32"		42"	74"	37.27"		84
		HBU4036-ORB	36"		46"	82"	41.27"		92
		HBU4040-ORB	40"		50"	90"	45.27"		99
		HBU4048-ORB	48"		58"	106"	53.27"		114
<b>HBU 5" BORE 3000PSI WP</b>		HBU5004-ORB	4"	2 1/2"	16"	20"	10.5"	SAE#8 SAE#12 Available (1/2" NPT Available)	63
		HBU5006-ORB	6"		18"	24"	12.5"		67
		HBU5008-ORB	8"		20"	28"	14.5"		71
		HBU5010-ORB	10"		22"	32"	16.5"		76
		HBU5012-ORB	12"		24"	36"	18.5"		80
		HBU5014-ORB	14"		26"	40"	20.5"		81
		HBU5016-ORB	16"		28"	44"	22.5"		89
		HBU5018-ORB	18"		30"	48"	24.5"		93
		HBU5020-ORB	20"		32"	52"	26.5"		98
		HBU5024-ORB	24"		36"	60"	30.5"		106
		HBU5028-ORB	28"		40"	68"	34.5"		115
		HBU5030-ORB	30"		42"	72"	36.5"		120
		HBU5032-ORB	32"		44"	76"	38.5"		124
		HBU5036-ORB	36"		48"	84"	42.5"		133
		HBU5040-ORB	40"		52"	92"	46.5"		142
		HBU5048-ORB	48"		60"	108"	54.5"		159

All numbers given are nominal values and should be used for reference only.



	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		F	PORT	PIN	WEIGHT (LBS)
				RETRACTED	EXTRACTED				
<b>HBU 6" BORE 3000 PSI WP</b>	HBU6004-ORB	4"	2 1/2"	17"	21"	15.25"	SAE #12 (3/4" NPT Available)	1 3/4"	93
	HBU6006-ORB	6"		19"	25"	19.25"			100
	HBU6008-ORB	8"		21"	29"	23.25"			107
	HBU6010-ORB	10"		23"	33"	27.25"			114
	HBU6012-ORB	12"		25"	37"	31.25"			121
	HBU6014-ORB	14"		27"	41"	35.25"			128
	HBU6016-ORB	16"		29"	45"	39.25"			135
	HBU6018-ORB	18"		31"	49"	43.25"			142
	HBU6020-ORB	20"		33"	53"	47.25"			149
	HBU6024-ORB	24"		37"	61"	55.25"			163
	HBU6028-ORB	28"		41"	69"	63.25"			177
	HBU6030-ORB	30"		43"	73"	67.25"			184
	HBU6032-ORB	32"		45"	77"	71.25"			191
	HBU6036-ORB	36"		49"	85"	79.25"			205
	HBU6040-ORB	40"		53"	93"	87.25"			219
	HBU6048-ORB	48"		61"	109"	103.25"			247



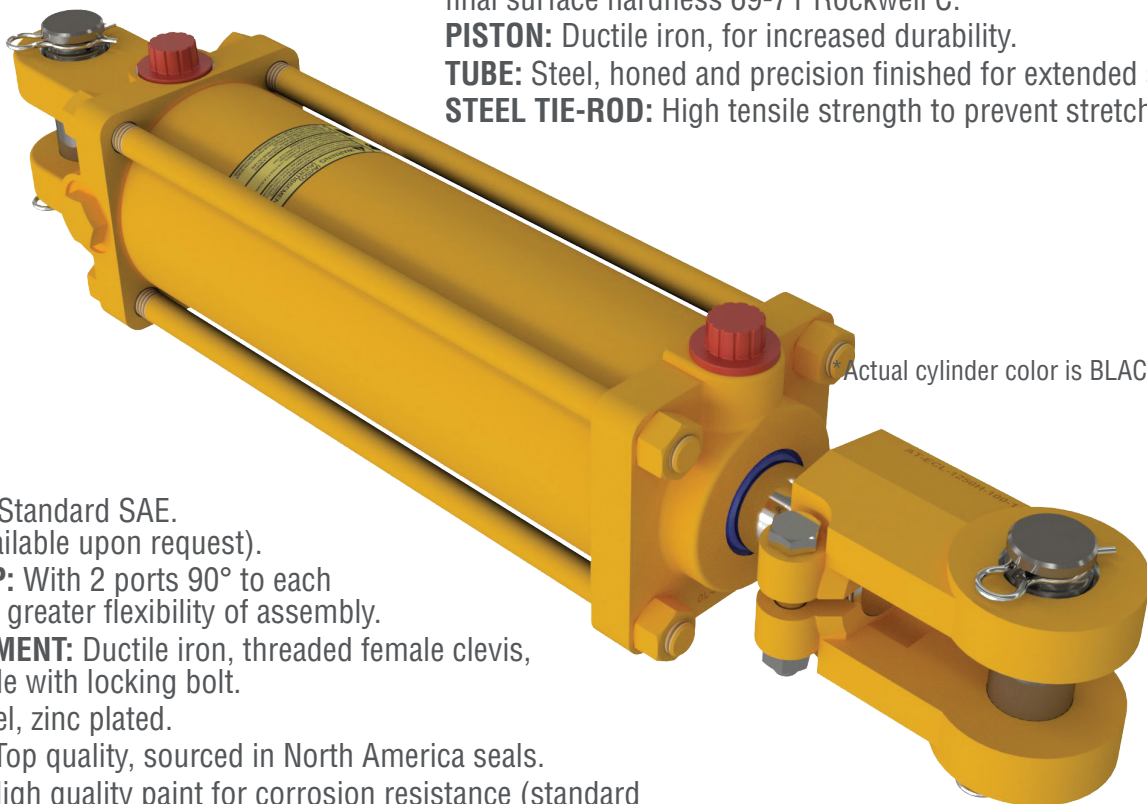
### DOUBLE ACTING CYLINDER

**ROD:** Steel, superior and hard, chrome plated 0.001" thick for a final surface hardness 69-71 Rockwell C.

**PISTON:** Ductile iron, for increased durability.

**TUBE:** Steel, honed and precision finished for extended seal life.

**STEEL TIE-ROD:** High tensile strength to prevent stretching.



\*Actual cylinder color is BLACK

**PORTS:** Standard SAE.

(NPT available upon request).

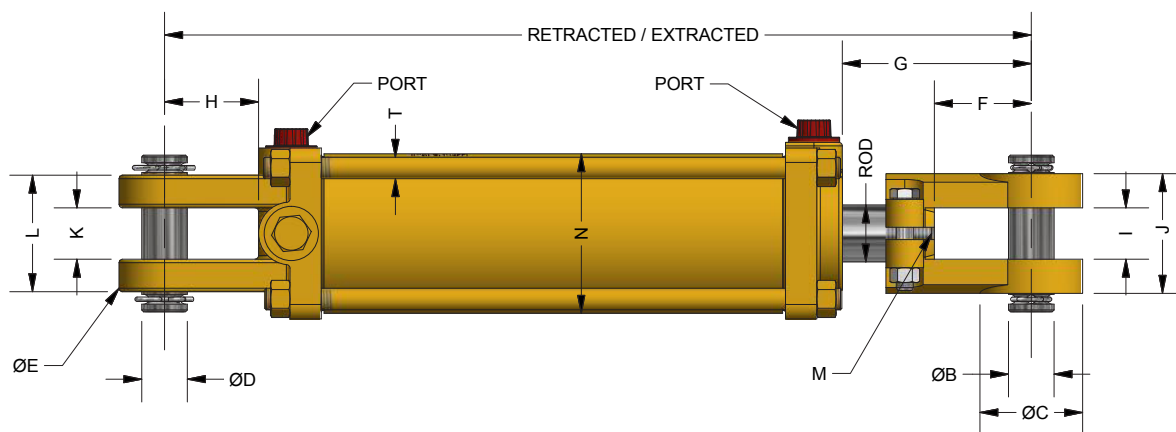
**END CAP:** With 2 ports 90° to each other for greater flexibility of assembly.

**ATTACHMENT:** Ductile iron, threaded female clevis, adjustable with locking bolt.

**PIN:** Steel, zinc plated.

**SEALS:** Top quality, sourced in North America seals.

**PAINT:** High quality paint for corrosion resistance (standard color: black).



\*All dimensions are in inches

EAGLE Part No	BORE	C	E	F	H	I,K	J	L	M	N	T
HTR20-	2.00	2.000	2.000	2.125	2.06	1.125	2.500	2.375	1-1/8-12-UNF	2.375	M10
HTR25-	2.50	2.000	2.000	2.125	2.06	1.125	2.500	2.500	1-1/8-12-UNF	2.875	M10
HTR30-	3.00	2.250	2.000	2.125	2.06	1.125	2.625	2.500	1-1/4-12-UNF	3.375	M12
HTR35-	3.50	2.250	2.250	2.125	2.06	1.125	2.625	2.500	1-1/4-12-UNF	3.875	M16
HTR40-	4.00	2.250	2.250	2.125	2.06	1.125	2.625	2.625	1-1/4-12-UNF	4.375	M16
HTR50-	5.00	2.500	3.000	2.125	2.250	1.250	2.875	3.500	1-1/2-12-UNF	5.500	M20

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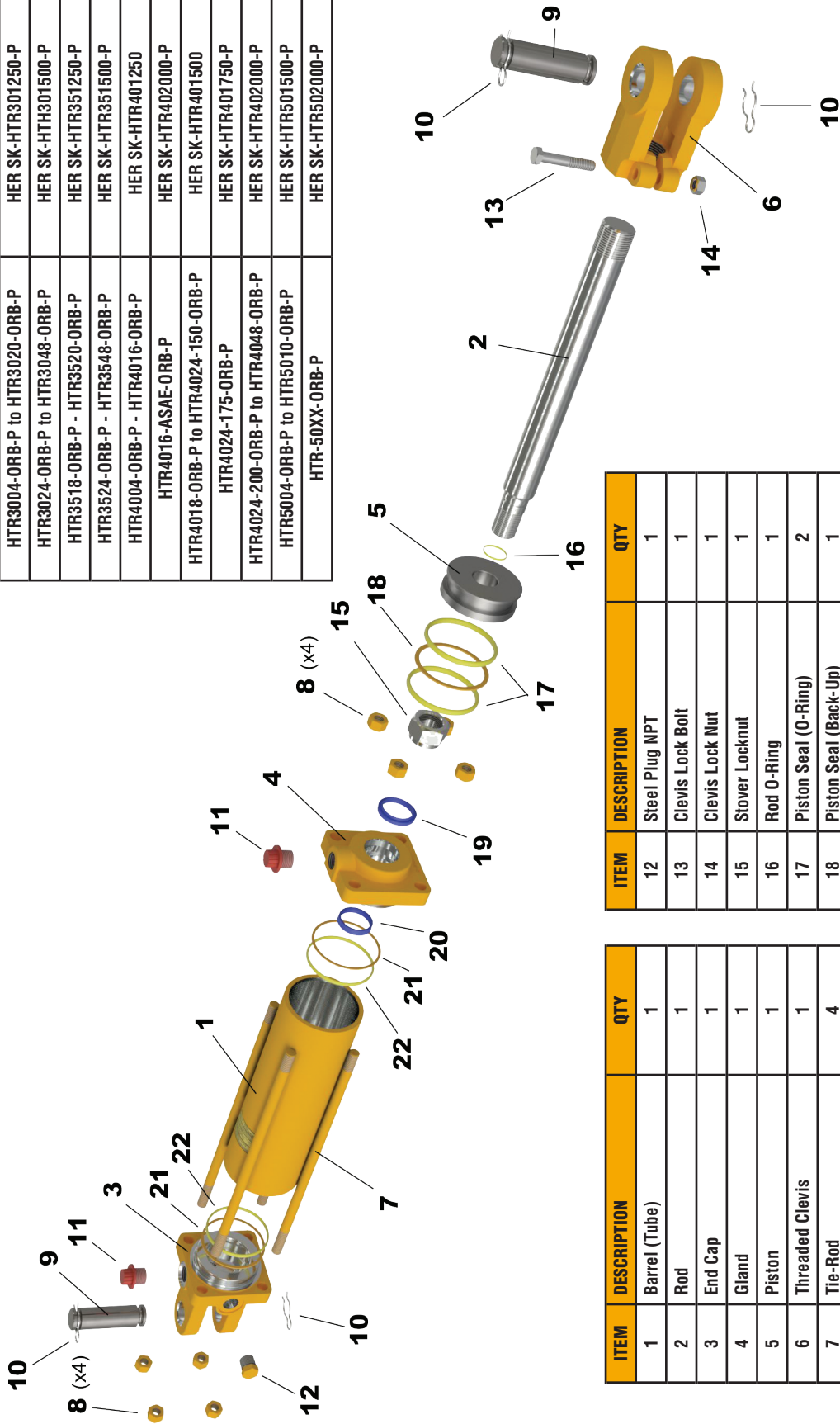


# HTR

## 2500 PSI WP



SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HTR20XX-ORB-P	HER SK-HTR201125
HTR2504-ORB-P to HTR2524-ORB-P	HER SK-HTH251125-P
HTR2530-ORB-P to HTR2548-ORB-P	HER SK-HTH2511250-P
HTR3004-ORB-P to HTR3020-ORB-P	HER SK-HTR301250-P
HTR3024-ORB-P to HTR3048-ORB-P	HER SK-HTH301500-P
HTR3518-ORB-P - HTR3520-ORB-P	HER SK-HTR351250-P
HTR3524-ORB-P - HTR3548-ORB-P	HER SK-HTR351500-P
HTR4004-ORB-P - HTR4016-ORB-P	HER SK-HTR401250
HTR4016-ASAE-ORB-P	HER SK-HTR402000-P
HTR4018-ORB-P to HTR4024-150-ORB-P	HER SK-HTR401500
HTR4024-175-ORB-P	HER SK-HTR401750-P
HTR4024-200-ORB-P to HTR4048-ORB-P	HER SK-HTR402000-P
HTR5004-ORB-P to HTR5010-ORB-P	HER SK-HTR501500-P
HTR-50XX-ORB-P	HER SK-HTR502000-P



ITEM	DESCRIPTION	QTY
12	Steel Plug NPT	1
13	Clevis Lock Bolt	1
14	Clevis Lock Nut	1
15	Stover Locknut	1
16	Rod O-Ring	1
17	Piston Seal (O-Ring)	2
18	Piston Seal (Back-Up)	1
19	Wiper	1
20	Rod Seal	1
21	Gland O-Ring	2
22	Gland Back-Up Ring	2

ITEM	DESCRIPTION	QTY
1	Barrel (Tube)	1
2	Rod	1
3	End Cap	1
4	Gland	1
5	Piston	1
6	Threaded Clevis	1
7	Tie-Rod	4
8	Tie-Rod Nut	8
9	Pin	2
10	Hair Pin	4
11	Plastic Plug NPT	2

All numbers given are nominal values and should be used for reference only.  
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# HTR - TIE-ROD HYDRAULIC CYLINDERS

PART No.		STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN	WEIGHT
				RETRACTED	EXTRACTED			D, B	(LBS)
HTR 2" BORE 2500 PSI WP	HTR2004-ORB-P	4"	1 1/8"	14 1/4"	18 1/4"	3.375"	SAE#6 (3/8" NPT Available)	1"	14
	HTR2006-ORB-P	6"		16 1/4"	22 1/4"				16
	HTR2008-ORB-P	8"		18 1/4"	26 1/4"				17
	HTR2008-ASAE-ORB-P	8"		20 1/4"	28 1/4"	5.375"			18
	HTR2010-ORB-P	10"		20 1/4"	30 1/4"	3.375"			19
	HTR2012-ORB-P	12"		22 1/4"	34 1/4"				20
	HTR2014-ORB-P	14"		24 1/4"	38 1/4"				22
	HTR2016-ORB-P	16"		26 1/4"	42 1/4"				24
	HTR2018-ORB-P	18"		28 1/4"	46 1/4"				26
	HTR2020-ORB-P	20"		30 1/4"	50 1/4"				27
	HTR2024-ORB-P	24"		34 1/4"	58 1/4"				30
	HTR2030-ORB-P	30"		40 1/4"	70 1/4"				35
	HTR2036-ORB-P	36"		46 1/4"	82 1/4"				40
	HTR2040-ORB-P	40"		50 1/4"	90 1/4"				
	HTR2048-ORB-P	48"		58 1/4"	106 1/4"				

HTR 2.5" BORE 2500 PSI WP	HTR2504-ORB-P	4"	1 1/8"	14 1/4"	18 1/4"	3.375"	SAE#6 (3/8" NPT Available)	1"	16
	HTR2506-ORB-P	6"		16 1/4"	22 1/4"				18
	HTR2508-ORB-P	8"		18 1/4"	26 1/4"				19
	HTR2508-ASAE-ORB-P	8"		20 1/4"	28 1/4"	5.375"			20
	HTR2510-ORB-P	10"		20 1/4"	30 1/4"	3.375"			21
	HTR2512-ORB-P	12"		22 1/4"	34 1/4"				23
	HTR2514-ORB-P	14"		24 1/4"	38 1/4"				25
	HTR2516-ORB-P	16"		26 1/4"	42 1/4"				27
	HTR2518-ORB-P	18"		28 1/4"	46 1/4"				28
	HTR2520-ORB-P	20"		30 1/4"	50 1/4"				30
	HTR2524-ORB-P	24"	34 1/4"	58 1/4"	34				
	HTR2530-ORB-P	30"	1 1/4"	40 1/4"	70 1/4"	45			
	HTR2536-ORB-P	36"		46 1/4"	82 1/4"	56			
	HTR2540-ORB-P	40"		50 1/4"	90 1/4"				
	HTR2548-ORB-P	48"		58 1/4"	106 1/4"				

All numbers given are nominal values and should be used for reference only.



HTR 3" BORE 2500 PSI WP	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN	WEIGHT	
				RETRACTED	EXTRACTED			D, B	(LBS)	
	HTR3004-ORB-P	4"	1 1/4"	14 1/4"	18 1/4"	3.375"	SAE#8 (1/2" NPT Available)	1"	22	
	HTR3006-ORB-P	6"		16 1/4"	22 1/4"				24	
	HTR3008-ORB-P	8"		18 1/4"	26 1/4"				26	
	HTR3008-ASAE-ORB-P	8"		20 1/4"	28 1/4"	5.375"			27	
	HTR3010-ORB-P	10"		20 1/4"	30 1/4"	3.375"			28	
	HTR3012-ORB-P	12"		22 1/4"	34 1/4"				30	
	HTR3014-ORB-P	14"		24 1/4"	38 1/4"				33	
	HTR3016-ORB-P	16"		26 1/4"	42 1/4"				35	
	HTR3016-ASAE-ORB-P	16"		31 1/2"	47 1/2"	8.625"			1 1/4"	38
	HTR3018-ORB-P	18"		28 1/4"	46 1/4"	3.375"			1"	37
	HTR3020-ORB-P	20"	30 1/4"	50 1/4"	39					
	HTR3024-ORB-P	24"	34 1/4"	58 1/4"	43					
	HTR3030-ORB-P	30"	40 1/4"	70 1/4"	59					
	HTR3036-ORB-P	36"	46 1/4"	82 1/4"	3.375"	68				
HTR3040-ORB-P	40"	50 1/4"	90 1/4"							
HTR3048-ORB-P	48"	58 1/4"	106 1/4"							

HTR 3.5" BORE 2500 PSI WP	HTR3504-ORB-P	4"	1 1/4"	14 1/4"	18 1/4"	3.50"	SAE#8 (1/2" NPT Available)	1"	22
	HTR3506-ORB-P	6"		16 1/4"	22 1/4"				26
	HTR3508-ORB-P	8"		18 1/4"	26 1/4"				28
	HTR3508-ASAE-ORB-P	8"		20 1/4"	28 1/4"	5.50"			29
	HTR3510-ORB-P	10"		20 1/4"	30 1/4"	3.50"			30
	HTR3512-ORB-P	12"		22 1/4"	34 1/4"				33
	HTR3514-ORB-P	14"		24 1/4"	38 1/4"				35
	HTR3516-ORB-P	16"		26 1/4"	42 1/4"				37
	HTR3516-ASAE-ORB-P	16"	1 1/2"	31 1/2"	47 1/2"	8.80"		1 1/4"	39
	HTR3518-ORB-P	18"	1 1/4"	28 1/4"	46 1/4"	3.50"		1"	40
	HTR3520-ORB-P	20"		30 1/4"	50 1/4"				42
	HTR3524-ORB-P	24"	1 1/2"	34 1/4"	58 1/4"				51
	HTR3530-ORB-P	30"		40 1/4"	70 1/4"				59
	HTR3536-ORB-P	36"		46 1/4"	82 1/4"				68
	HTR3540-ORB-P	40"		50 1/4"	90 1/4"				
	HTR3548-ORB-P	48"		58 1/4"	106 1/4"				



# HTR - TIE-ROD HYDRAULIC CYLINDERS

HTR 4" BORE 2500 PSI WP	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN	WEIGHT
				RETRACTED	EXTRACTED			D, B	(LBS)
	HTR4004-ORB-P	4"	1 1/4"	14 1/4"	18 1/4"	3.375"	SAE#8 (1/2" NPT Available)	1"	30
	HTR4006-ORB-P	6"		16 1/4"	22 1/4"				33
	HTR4008-ORB-P	8"		18 1/4"	26 1/4"				35
	HTR4008-ASAE-ORB-P	8"		20 1/4"	28 1/4"	5.375"			36
	HTR4010-ORB-P	10"		20 1/4"	30 1/4"	3.375"			37
	HTR4012-ORB-P	12"		22 1/4"	34 1/4"				40
	HTR4014-ORB-P	14"		24 1/4"	38 1/4"				42
	HTR4016-ORB-P	16"		26 1/4"	42 1/4"				48
	HTR4016-ASAE-ORB-P	16"	2"	31 1/2"	47 1/2"	8.625"		1 1/4"	64
	HTR4018-ORB-P	18"	1 1/2"	28 1/4"	46 1/4"	3.375"		1"	51
	HTR4020-ORB-P	20"		30 1/4"	50 1/4"				53
	HTR4024-150-ORB-P	24"		34 1/4"	58 1/4"				59
	HTR4024-175-ORB-P	24"	1 3/4"	34 1/4"	58 1/4"				64
	HTR4024-200-ORB-P	24"	2"	34 1/4"	58 1/4"				70
	HTR4030-ORB-P	30"		40 1/4"	70 1/4"				87
	HTR4036-ORB-P	36"		46 1/4"	82 1/4"				98
	HTR4040-ORB-P	40"		50 1/4"	90 1/4"				
	HTR4048-ORB-P	48"		58 1/4"	106 1/4"				

HTR 5" BORE 1500 PSI WP	HTR5004-ORB-P	4"	1 1/2"	16 1/4"	20 1/4"	3.75"	SAE#8 (1/2" NPT Available)	1"	53
	HTR5006-ORB-P	6"		18 1/4"	24 1/4"				55
	HTR5008-ORB-P	8"		20 1/4"	28 1/4"	64			
	HTR5008-ASAE-ORB-P	8"		22 1/4"	30 1/4"	5.75"			66
	HTR5010-ORB-P	10"	2"	22 1/4"	32 1/4"	3.75"		68	
	HTR5012-ORB-P	12"		24 1/4"	36 1/4"			77	
	HTR5014-ORB-P	14"		26 1/4"	40 1/4"			82	
	HTR5016-ORB-P	16"		28 1/4"	44 1/4"	7.00"		87	
	HTR5016-ASAE-ORB-P	16"		31 1/2"	47 1/2"			90	
	HTR5018-ORB-P	18"		30 1/4"	48 1/4"	3.75"		92	
	HTR5020-ORB-P	20"		32 1/4"	52 1/4"			93	
	HTR5024-ORB-P	24"		36 1/4"	60 1/4"			106	
	HTR5030-ORB-P	30"		42 1/4"	72 1/4"			121	
	HTR5036-ORB-P	36"		48 1/4"	84 1/4"			136	
	HTR5040-ORB-P	40"		52 1/4"	90 1/4"			145	
	HTR5048-ORB-P	48"		60 1/4"	106 1/4"			150	





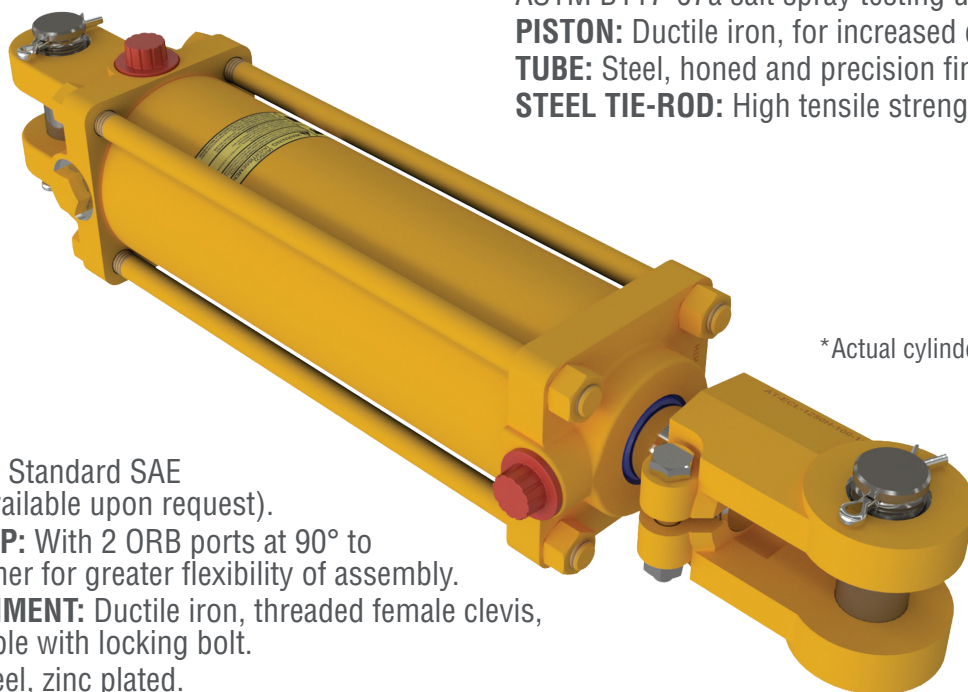
## DOUBLE ACTING CYLINDER

**ROD:** Steel, induction hardened to 45-50 Rockwell C and chrome plated 0.001" thick for a final surface hardness 69-71 Rockwell C. ASTM B117-07a salt spray testing up to 96 hours.

**PISTON:** Ductile iron, for increased durability.

**TUBE:** Steel, honed and precision finished for extended seal life.

**STEEL TIE-ROD:** High tensile strength to prevent stretching.



\*Actual cylinder color is BLACK

**PORTS:** Standard SAE (NPT available upon request).

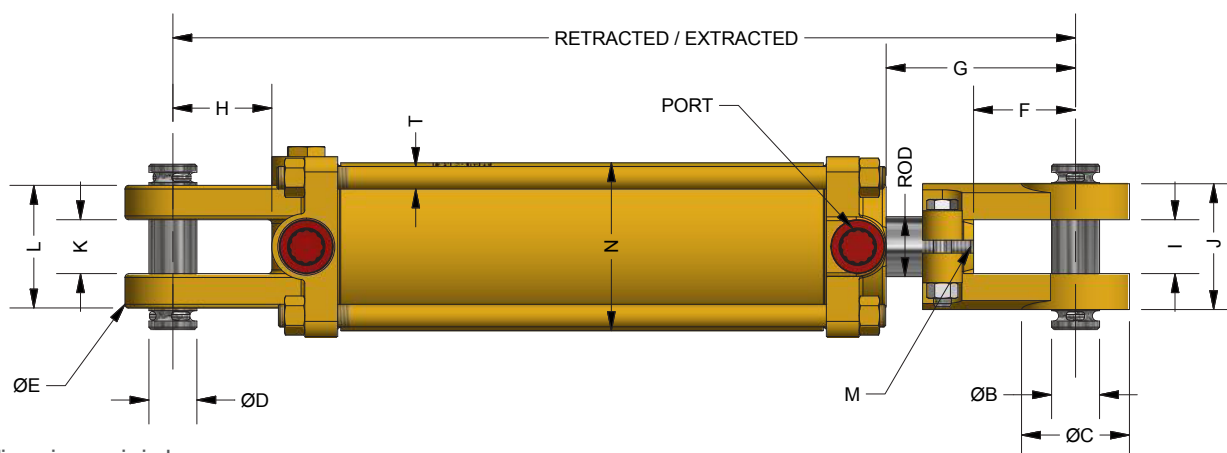
**END CAP:** With 2 ORB ports at 90° to each other for greater flexibility of assembly.

**ATTACHMENT:** Ductile iron, threaded female clevis, adjustable with locking bolt.

**PIN:** Steel, zinc plated.

**SEALS:** Top quality, sourced in North America seals.

**PAINT:** High quality paint for corrosion resistance up to 360 hours (standard color: black).



\*All dimensions are in inches

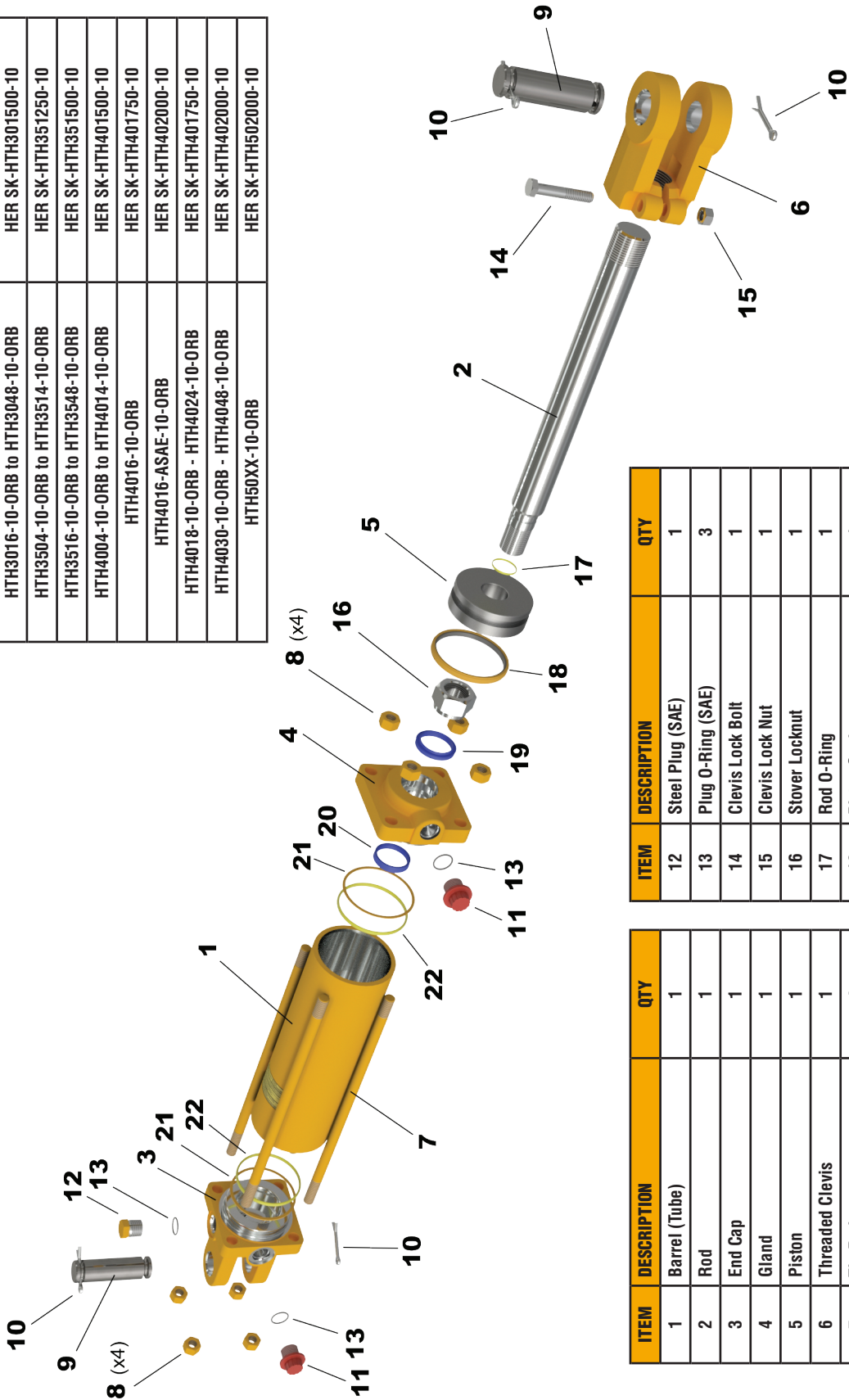
EAGLE Part No	BORE	C	E	F	H	I,K	J	L	M	N	T
HTH20-	2.00	2.000	2.000	2.125	2.06	1.125	2.500	2.375	1 1/8-12-UNF	2.375	M10
HTH25-	2.50	2.000	2.000	2.125	2.06	1.125	2.500	2.500	1 1/8-12-UNF	2.875	M10
HTH30-	3.00	2.250	2.000	2.125	2.06	1.125	2.625	2.560	1 1/4-12-UNF	3.375	M12
HTH35-	3.50	2.250	2.250	2.125	2.06	1.125	2.625	2.590	1 1/4-12-UNF	3.875	M16
HTH40-	4.00	2.250	2.250	2.125	2.06	1.125	2.625	2.625	1 1/4-12-UNF	4.375	M16
HTH50-	5.00	2.500	3.000	2.125	2.25	1.125	2.2.875	3.5	1 1/2-12-UNF	5.500	M20

All numbers given are nominal values and should be used for reference only.

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HTH - TIE-ROD HYDRAULIC CYLINDERS

SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HTH20XX-ORB-P	HER SK-HTH201125-10
HTH25XX-10-ORB	HER SK-HTH251250-10
HTH3004-10-ORB to HTH3014-10-ORB	HER SK-HTH301250-10
HTH3016-10-ORB to HTH3048-10-ORB	HER SK-HTH301500-10
HTH3504-10-ORB to HTH3514-10-ORB	HER SK-HTH351250-10
HTH3516-10-ORB to HTH3548-10-ORB	HER SK-HTH351500-10
HTH4004-10-ORB to HTH4014-10-ORB	HER SK-HTH401500-10
HTH4016-10-ORB	HER SK-HTH401750-10
HTH4016-ASAE-10-ORB	HER SK-HTH402000-10
HTH4018-10-ORB - HTH4024-10-ORB	HER SK-HTH401750-10
HTH4030-10-ORB - HTH4048-10-ORB	HER SK-HTH402000-10
HTH50XX-10-ORB	HER SK-HTH502000-10



ITEM	DESCRIPTION	QTY
12	Steel Plug (SAE)	1
13	Plug O-Ring (SAE)	3
14	Clevis Lock Bolt	1
15	Clevis Lock Nut	1
16	Stover Locknut	1
17	Rod O-Ring	1
18	Piston Seal	1
19	Wiper	1
20	Rod Seal	1
21	Gland Back-Up Ring	2
22	Gland O-Ring	2

ITEM	DESCRIPTION	QTY
1	Barrel (Tube)	1
2	Rod	1
3	End Cap	1
4	Gland	1
5	Piston	1
6	Threaded Clevis	1
7	Tie-Rod	4
8	Tie-Rod Nut	8
9	Pin	2
10	Cotterpin	4
11	Plastic Plug (SAE)	2

All numbers given are nominal values and should be used for reference only.



PART No.		STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN (B,D)	WEIGHT (LBS)
				RETRACTED	EXTRACTED				
HTH 2" BORE - 3000PSI WP	HTH2004-10-ORB	4"	1 1/8"	14 1/4"	18 1/4"	3.375"	SAE#8 (1/2" NPT Available)	1"	17
	HTH2006-10-ORB	6"		16 1/4"	22 1/4"				19
	HTH2008-10-ORB	8"		18 1/4"	26 1/4"				20
	HTH2008-ASAE-10-ORB	8"		20 1/4"	28 1/4"	5.375"			21
	HTH2010-10-ORB	10"		20 1/4"	30 1/4"	3.375"			22
	HTH2012-10-ORB	12"		22 1/4"	34 1/4"				23
	HTH2014-10-ORB	14"		24 1/4"	38 1/4"				25
	HTH2016-10-ORB	16"		26 1/4"	42 1/4"	3.375"			26
	HTH2018-10-ORB	18"		28 1/4"	46 1/4"				28
	HTH2020-10-ORB	20"		30 1/4"	50 1/4"				29
	HTH2024-10-ORB	24"		34 1/4"	58 1/4"				32
	HTH2030-10-ORB	30"		40 1/4"	70 1/4"				36
	HTH2036-10-ORB	36"		46 1/4"	82 1/4"				41
	HTH2040-10-ORB	40"		50 1/4"	90 1/4"				45
	HTH2048-10-ORB	48"		58 1/4"	106 1/4"				51

HTH 2.5" BORE - 3000PSI WP	HTH2504-10-ORB	4"	1 1/4"	14 1/4"	18 1/4"	3.375"	SAE#8 (1/2" NPT Available)	1"	18
	HTH2506-10-ORB	6"		16 1/4"	22 1/4"				21
	HTH2508-10-ORB	8"		18 1/4"	26 1/4"				23
	HTH2508-ASAE-10-ORB	8"		20 1/4"	28 1/4"	5.375"			24
	HTH2510-10-ORB	10"		20 1/4"	30 1/4"	3.375"			25
	HTH2512-10-ORB	12"		22 1/4"	34 1/4"				26
	HTH2514-10-ORB	14"		24 1/4"	38 1/4"				28
	HTH2516-10-ORB	16"		26 1/4"	42 1/4"	3.375"			30
	HTH2518-10-ORB	18"		28 1/4"	46 1/4"				33
	HTH2520-10-ORB	20"		30 1/4"	50 1/4"				34
	HTH2524-10-ORB	24"		34 1/4"	58 1/4"				40
	HTH2530-10-ORB	30"		40 1/4"	70 1/4"				43
	HTH2536-10-ORB	36"		46 1/4"	82 1/4"				49
	HTH2540-10-ORB	40"		50 1/4"	90 1/4"				54
HTH2548-10-ORB	48"	58 1/4"	106 1/4"	60					



All numbers given are nominal values and should be used for reference only.

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PART No.		STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN (B,D)	WEIGHT (LBS)
				RETRACTED	EXTRACTED				
HTH 3" BORE - 3000PSI WP	HTH3004-10-ORB	4"	1 1/4"	14 1/4"	18 1/4"	3.375"	SAE#8 (1/2" NPT Available)	1"	23
	HTH3006-10-ORB	6"		16 1/4"	22 1/4"				26
	HTH3008-10-ORB	8"		18 1/4"	26 1/4"	28			
	HTH3008-ASAE-10-ORB	8"		20 1/4"	28 1/4"	29			
	HTH3010-10-ORB	10"		20 1/4"	30 1/4"	30			
	HTH3012-10-ORB	12"		22 1/4"	34 1/4"	33			
	HTH3014-10-ORB	14"	1 1/2"	24 1/4"	38 1/4"	3.375"			35
	HTH3016-10-ORB	16"		26 1/4"	42 1/4"			38	
	HTH3016-ASAE-10-ORB	16"		31 1/2"	47 1/2"	8.625"		1 1/4"	40
	HTH3018-10-ORB	18"		28 1/4"	46 1/4"	3.375"		1"	40
	HTH3020-10-ORB	20"		30 1/4"	50 1/4"				42
	HTH3024-10-ORB	24"		34 1/4"	58 1/4"				47
	HTH3030-10-ORB	30"		40 1/4"	70 1/4"				54
	HTH3036-10-ORB	36"		46 1/4"	82 1/4"				61
	HTH3040-10-ORB	40"		50 1/4"	90 1/4"				66
	HTH3048-10-ORB	48"		58 1/4"	106 1/4"				75

HTH 3.5" BORE - 3000PSI WP	HTH3504-10-ORB	4"	1 1/4"	14 1/4"	18 1/4"	3.50"	SAE#8 (1/2" NPT Available)	1"	27
	HTH3506-10-ORB	6"		16 1/4"	22 1/4"				30
	HTH3508-10-ORB	8"		18 1/4"	26 1/4"	33			
	HTH3508-ASAE-10-ORB	8"		20 1/4"	28 1/4"	34			
	HTH3510-10-ORB	10"		20 1/4"	30 1/4"	36			
	HTH3512-10-ORB	12"		22 1/4"	34 1/4"	38			
	HTH3514-10-ORB	14"	1 1/2"	24 1/4"	38 1/4"	3.50"		41	
	HTH3516-10-ORB	16"		26 1/4"	42 1/4"			44	
	HTH3516-ASAE-10-ORB	16"		31 1/2"	47 1/2"	8.80"		1 1/4"	46
	HTH3518-10-ORB	18"		28 1/4"	46 1/4"	3.50"		1"	47
	HTH3520-10-ORB	20"		30 1/4"	50 1/4"				49
	HTH3524-10-ORB	24"		34 1/4"	58 1/4"				55
	HTH3530-10-ORB	30"		40 1/4"	70 1/4"				63
	HTH3536-10-ORB	36"		46 1/4"	82 1/4"				72
	HTH3540-10-ORB	40"		50 1/4"	90 1/4"				77
	HTH3548-10-ORB	48"		58 1/4"	106 1/4"	88			

PART No.		STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN (B,D)	WEIGHT (LBS)		
				RETRACTED	EXTRACTED						
HTH 4" BORE - 3000PSI WP	HTH4004-10-ORB	4"	1 1/2"	14 1/4"	18 1/4"	3.375"	SAE#8 (1/2" NPT Available)	1"	34		
	HTH4006-10-ORB	6"		16 1/4"	22 1/4"				38		
	HTH4008-10-ORB	8"		18 1/4"	26 1/4"				42		
	HTH4008-ASAE-10-ORB	8"		20 1/4"	28 1/4"	5.375"			43		
	HTH4010-10-ORB	10"		20 1/4"	30 1/4"	3.375"			45		
	HTH4012-10-ORB	12"		22 1/4"	34 1/4"				48		
	HTH4014-10-ORB	14"		24 1/4"	38 1/4"				52		
	HTH4016-10-ORB	16"	1 3/4"	26 1/4"	42 1/4"	8.625"		55			
	HTH4016-ASAE-10-ORB	16"	2"	31 1/2"	47 1/2"			59			
	HTH4018-10-ORB	18"	1 3/4"	28 1/4"	46 1/4"	3.875"		1"	59		
	HTH4020-10-ORB	20"		30 1/4"	50 1/4"				62		
	HTH4024-10-ORB	24"		34 1/4"	58 1/4"				69		
	HTH4030-10-ORB	30"	2"	40 1/4"	70 1/4"				3.875"	1"	79
	HTH4036-10-ORB	36"		46 1/4"	82 1/4"						90
	HTH4040-10-ORB	40"		50 1/4"	90 1/4"						97
	HTH4048-10-ORB	48"		58 1/4"	106 1/4"						110

HTH 5" BORE - 3000PSI WP	HTH5004-10-ORB	4"	2"	16 1/4"	20 1/4"	3.75"	SAE#8 (1/2" NPT Available)	1 1/4"	53
	HTH5006-10-ORB	6"		18 1/4"	24 1/4"				55
	HTH5008-10-ORB	8"		20 1/4"	28 1/4"				64
	HTH5008-ASAE-10-ORB	8"		22 1/4"	30 1/4"	5.75"			66
	HTH5010-10-ORB	10"		22 1/4"	32 1/4"	3.75"			68
	HTH5012-10-ORB	12"		24 1/4"	36 1/4"				77
	HTH5014-10-ORB	14"		26 1/4"	40 1/4"				82
	HTH5016-10-ORB	16"		28 1/4"	44 1/4"	7.00"			87
	HTH5016-ASAE-10-ORB	16"		31 1/2"	47 1/2"				90
	HTH5018-10-ORB	18"		30 1/4"	48 1/4"	3.75"			92
	HTH5020-10-ORB	20"		32 1/4"	52 1/4"				93
	HTH5024-10-ORB	24"		36 1/4"	60 1/4"				106
	HTH5030-10-ORB	30"		42 1/4"	72 1/4"				121
	HTH5036-10-ORB	36"		48 1/4"	84 1/4"				
	HTH5040-10-ORB	40"		52 1/4"	92 1/4"				
	HTH5048-10-ORB	48"		60 1/4"	108 1/4"				136



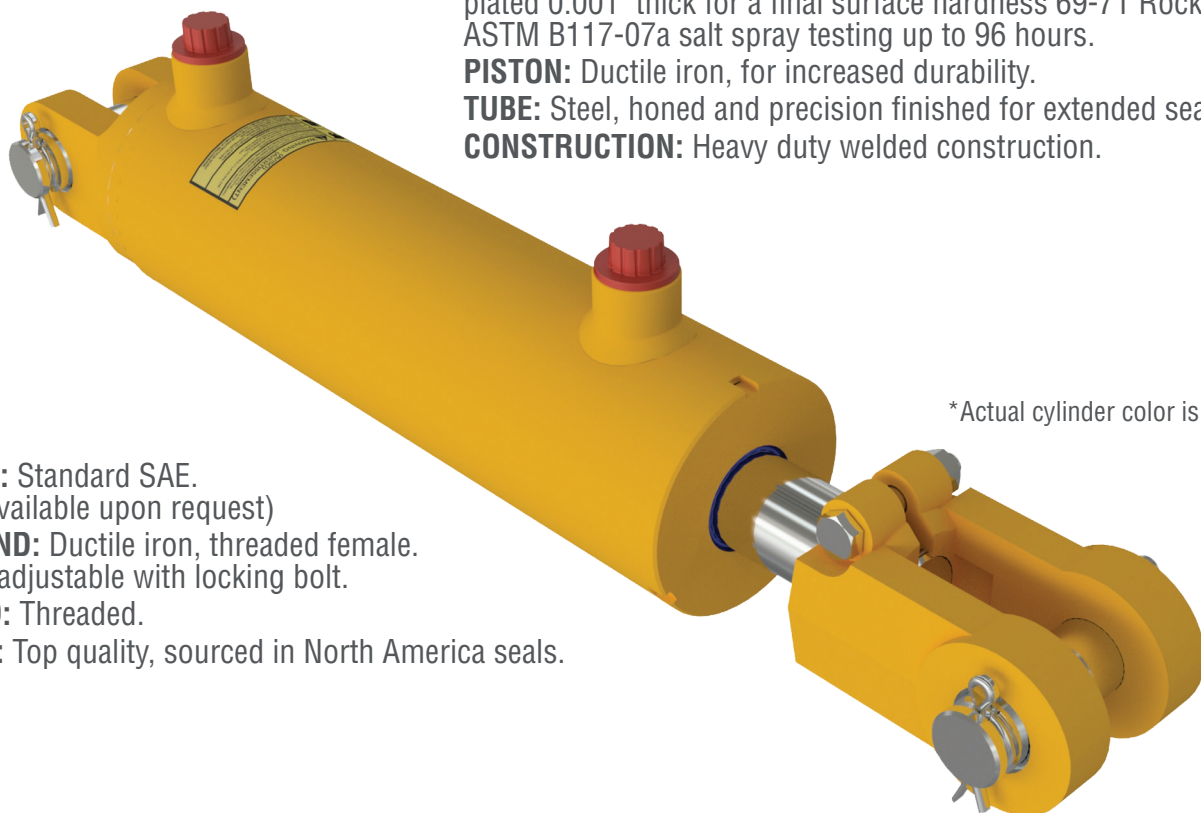
### DOUBLE ACTING CYLINDER

**ROD:** Steel, induction hardened to 45-50 Rockwell C and chrome plated 0.001" thick for a final surface hardness 69-71 Rockwell C. ASTM B117-07a salt spray testing up to 96 hours.

**PISTON:** Ductile iron, for increased durability.

**TUBE:** Steel, honed and precision finished for extended seal life.

**CONSTRUCTION:** Heavy duty welded construction.



\*Actual cylinder color is BLACK

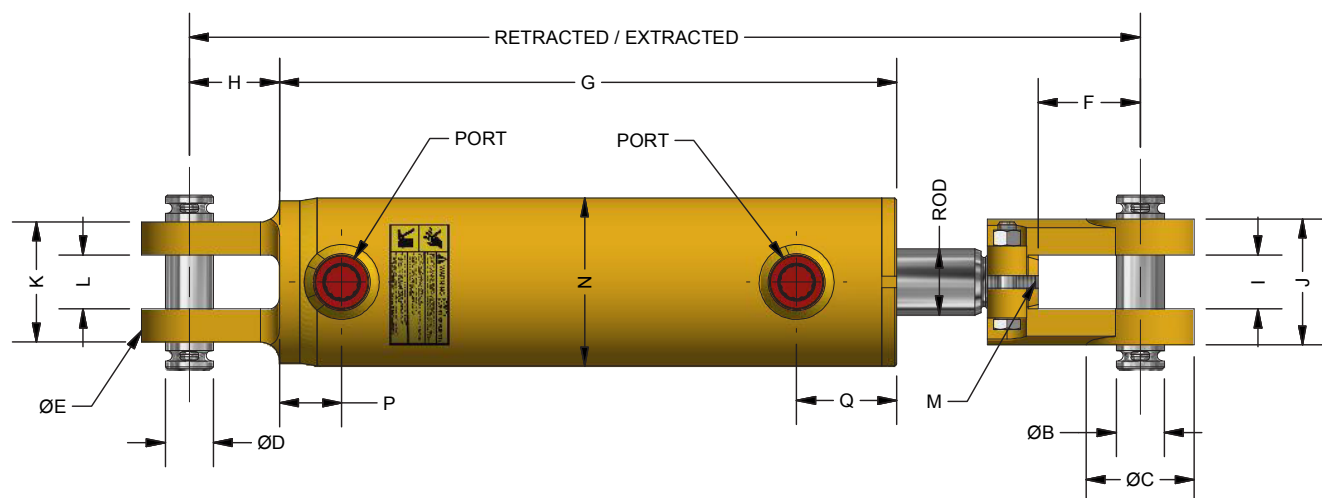
**PORTS:** Standard SAE.

(NPT available upon request)

**ROD END:** Ductile iron, threaded female. clevis, adjustable with locking bolt.

**GLAND:** Threaded.

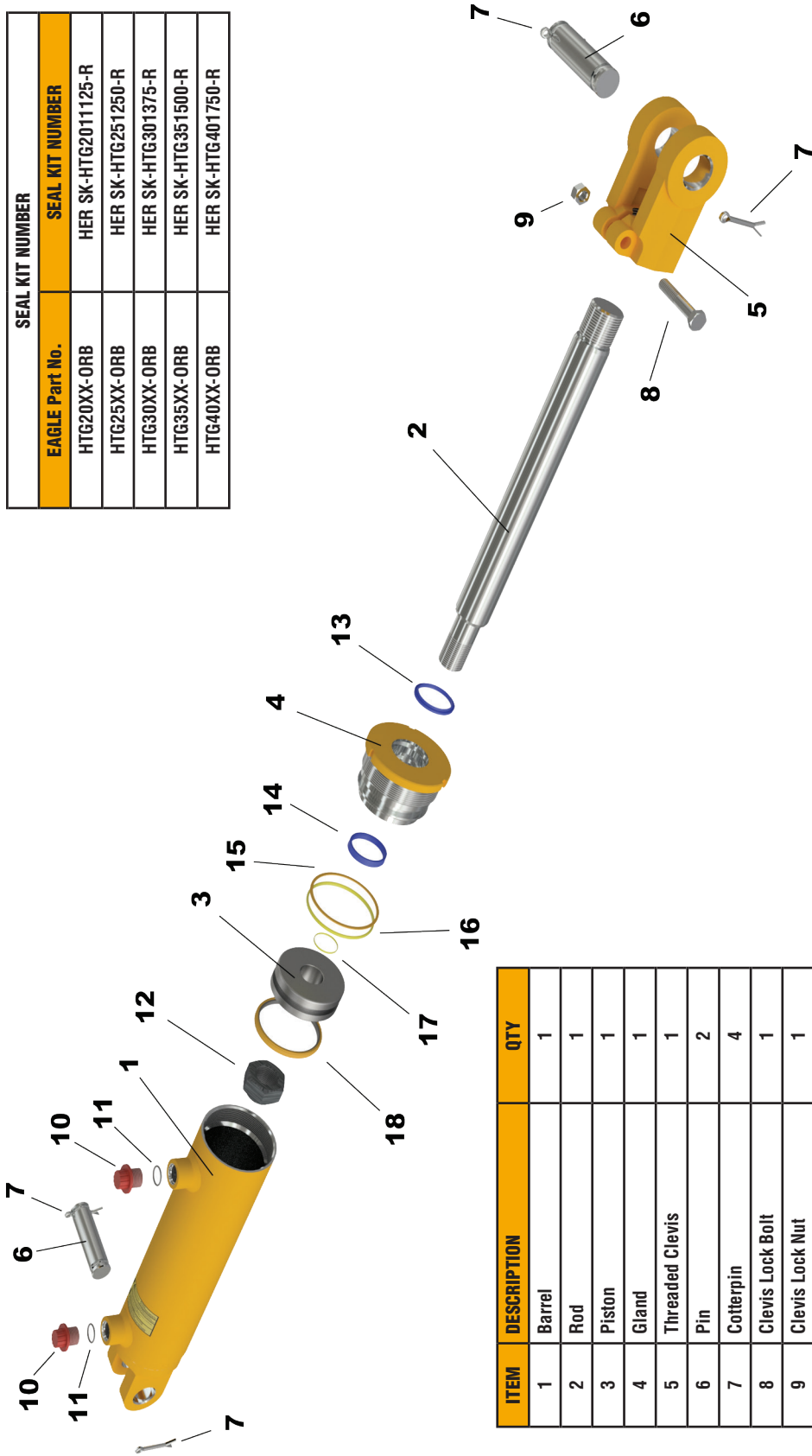
**SEALS:** Top quality, sourced in North America seals.



\*All dimensions are in inches

EAGLE Part No	BORE	ROD	C	E	B, D	F	H	I	K	J	L	M	N	P	Q
HTG20-	2.00	1.125	2.00[2.25]	2.087[2.0]	1.000	2.125[1.937]	1.750	1.125[1.063]	1.125	2.500	2.125	1 1/8-12UN	2.375	1.275	2.311
HTG25-	2.50	1.250	2.00[2.25]	2.000	1.000	2.125[1.937]	1.750	1.125[1.063]	1.125	2.500	2.500	1 1/8-12UN	2.875	1.300	2.326
HTG30-	3.00	1.375	2.250	2.250	1.000	2.125	1.750	1.125[1.063]	1.125	2.625	2.500	1 1/4-12UN	3.375	1.300	2.145
HTG35-	3.50	1.500	2.500	2.500	1.000	2.125[1.875]	1.750	1.125[1.063]	1.125	2.625	2.750	1 1/4-12UN	3.875	1.338	2.133
HTG40-	4.00	1.750	2.500	2.500	1.000	2.125[1.875]	1.750	1.125[1.063]	1.125	2.625	2.750	1 1/2-12UN	4.375	1.425	2.138

SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HTG20XX-ORB	HER SK-HTG2011125-R
HTG25XX-ORB	HER SK-HTG251250-R
HTG30XX-ORB	HER SK-HTG301375-R
HTG35XX-ORB	HER SK-HTG351500-R
HTG40XX-ORB	HER SK-HTG401750-R



ITEM	DESCRIPTION	QTY
1	Barrel	1
2	Rod	1
3	Piston	1
4	Gland	1
5	Threaded Clevis	1
6	Pin	2
7	Cotterpin	4
8	Clevis Lock Bolt	1
9	Clevis Lock Nut	1
10	Plastic Plug (SAE)	2
11	Plug O-Ring (SAE)	2
12	Stover Locknut	1
13	Wiper	1
14	Rod Seal	1
15	Gland Back-Up Ring	1
16	Gland O-Ring	1
17	Rod O-Ring	1
18	Piston Seal	1

# HTG - WELDED HYDRAULIC CYLINDERS

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN (B,D)	WEIGHT (LBS)
			RETRACTED	EXTRACTED				
<b>HTG 2" BORE 3000PSI WP</b>	HTG2004-ORB	4"	1 1/8"	14 1/4"	18 1/4"	8.92"	SAE #6 (1/2" NPT Available)	16
	HTG2006-ORB	6"		16 1/4"	22 1/4"	10.92"		17
	HTG2008-ORB	8"		18 1/4"	26 1/4"	12.92"		18
	HTG2008-ASAE-ORB	8"		20 1/4"	28 1/4"	12.92"		19
	HTG2010-ORB	10"		20 1/4"	30 1/4"	14.92"		20
	HTG2012-ORB	12"		22 1/4"	34 1/4"	16.92"		22
	HTG2014-ORB	14"		24 1/4"	38 1/4"	18.92"		23
	HTG2016-ORB	16"		26 1/4"	42 1/4"	20.92"		25
	HTG2018-ORB	18"		28 1/4"	46 1/4"	22.92"		26
	HTG2020-ORB	20"		30 1/4"	50 1/4"	24.92"		28
	HTG2024-ORB	24"		34 1/4"	58 1/4"	28.92"		31
	HTG2028-ORB	28"		38 1/4"	66 1/4"	32.92"		37
	HTG2030-ORB	30"		40 1/4"	70 1/4"	34.92"		39
	HTG2032-ORB	32"		42 1/4"	74 1/4"	36.92"		41
	HTG2034-ORB	34"		44 1/4"	78 1/4"	38.92"		43
	HTG2036-ORB	36"		46 1/4"	82 1/4"	40.92"		45
<b>HTG 2.5" BORE 3000PSI WP</b>	HTG2504-ORB	4"	1 1/4"	14 1/4"	18 1/4"	9"	SAE #8 (1/2" NPT Available)	17
	HTG2506-ORB	6"		16 1/4"	22 1/4"	11"		18
	HTG2508-ORB	8"		18 1/4"	26 1/4"	13"		20
	HTG2508-ASAE-ORB	8"		20 1/4"	28 1/4"	13"		21
	HTG2510-ORB	10"		20 1/4"	30 1/4"	15"		22
	HTG2512-ORB	12"		22 1/4"	34 1/4"	17"		23
	HTG2514-ORB	14"		24 1/4"	38 1/4"	19"		25
	HTG2516-ORB	16"		26 1/4"	42 1/4"	21"		27
	HTG2518-ORB	18"		28 1/4"	46 1/4"	23"		29
	HTG2520-ORB	20"		30 1/4"	50 1/4"	25"		31
	HTG2524-ORB	24"		34 1/4"	58 1/4"	29"		35
	HTG2528-ORB	28"		38 1/4"	66 1/4"	33"		37
	HTG2530-ORB	30"		40 1/4"	70 1/4"	35"		41
	HTG2532-ORB	32"		42 1/4"	74 1/4"	37"		43
	HTG2534-ORB	34"		44 1/4"	78 1/4"	39"		45
	HTG2536-ORB	36"		46 1/4"	82 1/4"	41"		47





PART No.	STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN (B,D)	WEIGHT (LBS)
			RETRACTED	EXTRACTED				
<b>HTG 3" BORE 3000PSI WP</b>	HTG3004-ORB	4"	1 3/8"	14 1/4"	18 1/4"	8.895"	SAE #8 (1/2" NPT Available)	18
	HTG3006-ORB	6"		16 1/4"	22 1/4"	10.895"		20
	HTG3008-ORB	8"		18 1/4"	26 1/4"	12.895"		22
	HTG3008-ASAE-ORB	8"		20 1/4"	28 1/4"	12.895"		23
	HTG3010-ORB	10"		20 1/4"	30 1/4"	14.895"		26
	HTG3012-ORB	12"		22 1/4"	34 1/4"	16.895"		28
	HTG3014-ORB	14"		24 1/4"	38 1/4"	18.895"		31
	HTG3016-ORB	16"		26 1/4"	42 1/4"	20.895"		33
	HTG3018-ORB	18"		28 1/4"	46 1/4"	22.895"		35
	HTG3020-ORB	20"		30 1/4"	50 1/4"	24.895"		39
	HTG3024-ORB	24"		34 1/4"	58 1/4"	28.895"		43
	HTG3028-ORB	28"		38 1/4"	66 1/4"	32.895"		46
	HTG3030-ORB	30"		40 1/4"	70 1/4"	34.895"		49
	HTG3032-ORB	32"		42 1/4"	74 1/4"	36.895"		50
	HTG3034-ORB	34"		44 1/4"	78 1/4"	38.895"		53
	HTG3036-ORB	36"		46 1/4"	82 1/4"	40.895"		54
<b>HTG 3.5" BORE 3000PSI WP</b>	HTG3504-ORB	4"	1 1/2"	14 1/4"	18 1/4"	8.92"	SAE #8 (1/2" NPT Available)	25
	HTG3506-ORB	6"		16 1/4"	22 1/4"	10.92"		27
	HTG3508-ORB	8"		18 1/4"	26 1/4"	12.92"		28
	HTG3508-ASAE-ORB	8"		20 1/4"	28 1/4"	12.92"		29
	HTG3510-ORB	10"		20 1/4"	30 1/4"	14.92"		31
	HTG3512-ORB	12"		22 1/4"	34 1/4"	16.92"		33
	HTG3514-ORB	14"		24 1/4"	38 1/4"	18.92"		35
	HTG3516-ORB	16"		26 1/4"	42 1/4"	20.92"		36
	HTG3518-ORB	18"		28 1/4"	46 1/4"	22.92"		38
	HTG3520-ORB	20"		30 1/4"	50 1/4"	24.92"		43
	HTG3524-ORB	24"		34 1/4"	58 1/4"	28.92"		48
	HTG3528-ORB	28"		38 1/4"	66 1/4"	32.92"		52
	HTG3530-ORB	30"		40 1/4"	70 1/4"	34.92"		54
	HTG3532-ORB	32"		42 1/4"	74 1/4"	36.92"		56
	HTG3534-ORB	34"		44 1/4"	78 1/4"	38.92"		58
	HTG3536-ORB	36"		46 1/4"	82 1/4"	40.92"		60

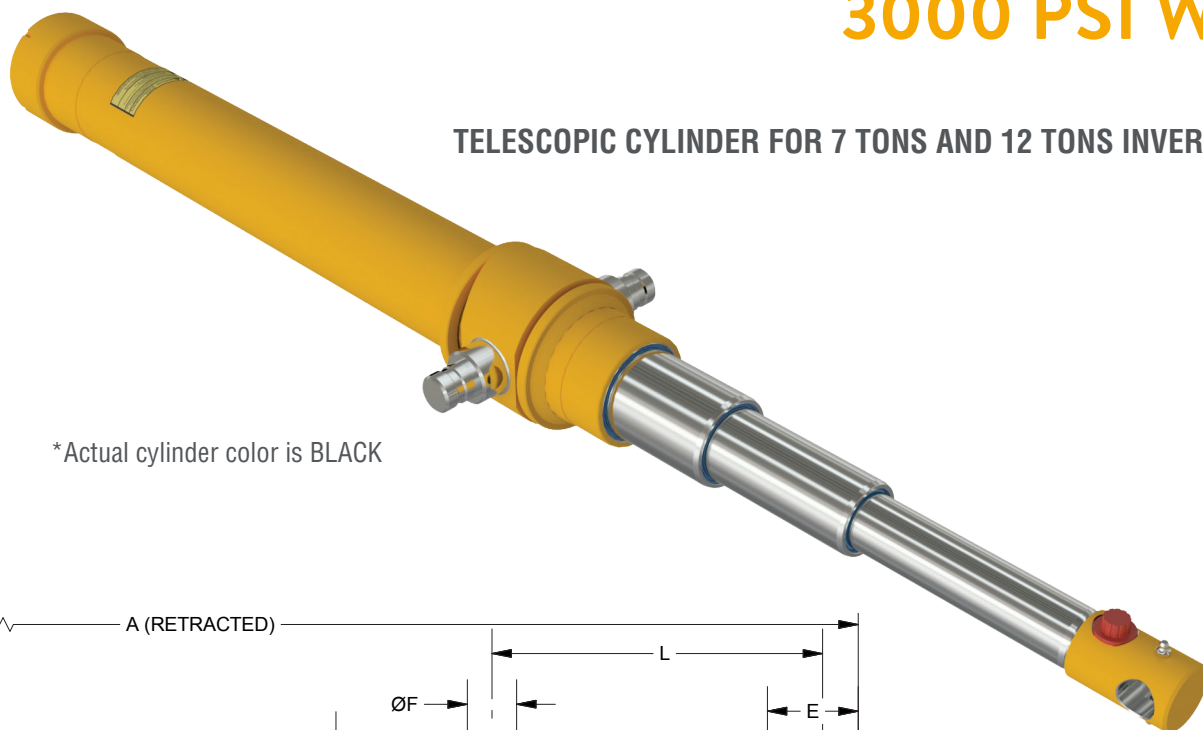


# HTG - WELDED HYDRAULIC CYLINDERS

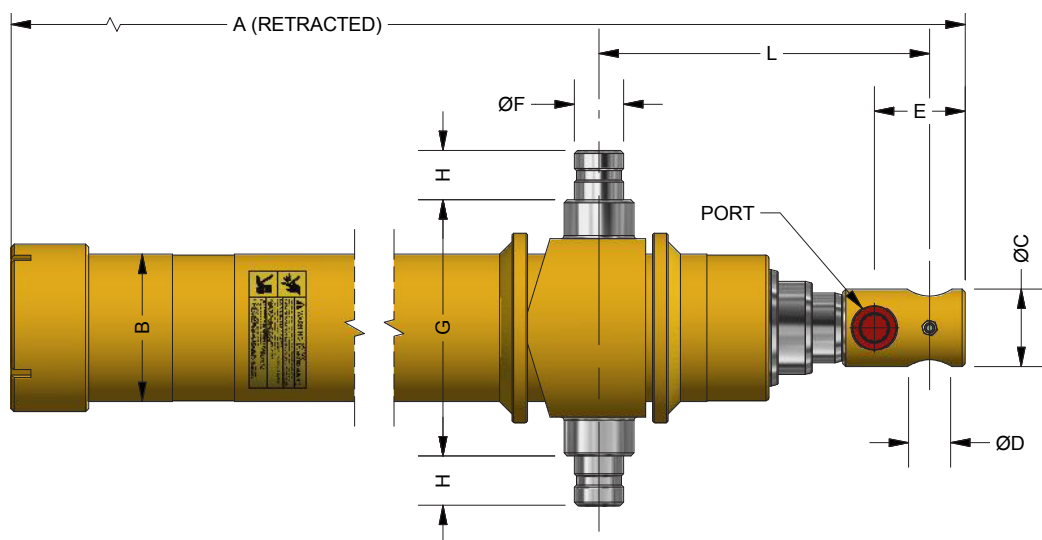
PART No.		STROKE	ROD DIAMETER	DIMENSIONS		G	PORT	PIN (B,D)	WEIGHT (LBS)
				RETRACTED	EXTRACTED				
HTG 4" BORE 3000PSI WP	HTG4004-ORB	4"	1 3/4"	14 1/4"	18 1/4"	8.95"	SAE #8 (1/2" NPT Available)	1"	35
	HTG4006-ORB	6"		16 1/4"	22 1/4"	10.95"			37
	HTG4008-ORB	8"		18 1/4"	26 1/4"	12.95"			38
	HTG4008-ASAE-ORB	8"		20 1/4"	28 1/4"	12.95"			40
	HTG4010-ORB	10"		20 1/4"	30 1/4"	14.95"			43
	HTG4012-ORB	12"		22 1/4"	34 1/4"	16.95"			45
	HTG4014-ORB	14"		24 1/4"	38 1/4"	18.95"			48
	HTG4016-ORB	16"		26 1/4"	42 1/4"	20.95"			54
	HTG4018-ORB	18"		28 1/4"	46 1/4"	22.95"			56
	HTG4020-ORB	20"		30 1/4"	50 1/4"	24.95"			58
	HTG4024-ORB	24"		34 1/4"	58 1/4"	28.95"			60
	HTG4028-ORB	28"		38 1/4"	66 1/4"	32.95"			63
	HTG4030-ORB	30"		40 1/4"	70 1/4"	34.95"			65
	HTG4032-ORB	32"		42 1/4"	74 1/4"	36.95"			68
	HTG4034-ORB	34"		44 1/4"	78 1/4"	38.95"			72
	HTG4036-ORB	36"		46 1/4"	82 1/4"	40.95"			74

Blank lined area for notes or calculations.

TELESCOPIC CYLINDER FOR 7 TONS AND 12 TONS INVERSE.



\*Actual cylinder color is BLACK



7 TONS INVERSE													
PART No.	STROKE	A	B	C	D	E	F	G	H	L	PORT	WEIGHT [Lbs]	VOLUME [Gal.]
HTC-06033-ORB	60"	35.5"	3.75"	2"	1.063"	3.0"	1.25"	6.5"	1.25"	7"	SAE #8 (3/4-16UNF)	68	1.5
HTC-07833-ORB	78"	35.5"	3.75"	2"	1.063"	3.0"	1.25"	6.5"	1.25"	7"		68	1.9
HTC-09033-ORB	90"	39.5"	3.75"	2"	1.063"	3.0"	1.25"	6.5"	1.25"	7"		75	2.3
HTC-10833-ORB	108"	45"	3.75"	2"	1.063"	3.0"	1.25"	6.5"	1.25"	7"		101	2.6
12 TONS INVERSE													
HTC-07843-ORB	78"	34.75"	4.4"	2"	1.063"	3.0"	1.5"	7.5"	1.5"	7"	SAE #8 (3/4-16UNF)	106	3.2
HTC-09043-ORB	90"	38.75"	4.4"	2"	1.063"	3.0"	1.5"	7.5"	1.5"	7"		107	3.6
HTC-10843-ORB	108"	44.75"	4.4"	2"	1.063"	3.0"	1.5"	7.5"	1.5"	7"		132	4.3
HTC-12043-ORB	120"	48.75"	4.4"	2"	1.063"	3.0"	1.5"	7.5"	1.5"	7"		143	4.8
HTC-14443-ORB	144"	56.78"	4.4"	2"	1.063"	2.25"	1.5"	7.5"	1.5"	7"		166	5.8

\* All pictures may differ from the final products. Product specifications are subject to changes without notice.

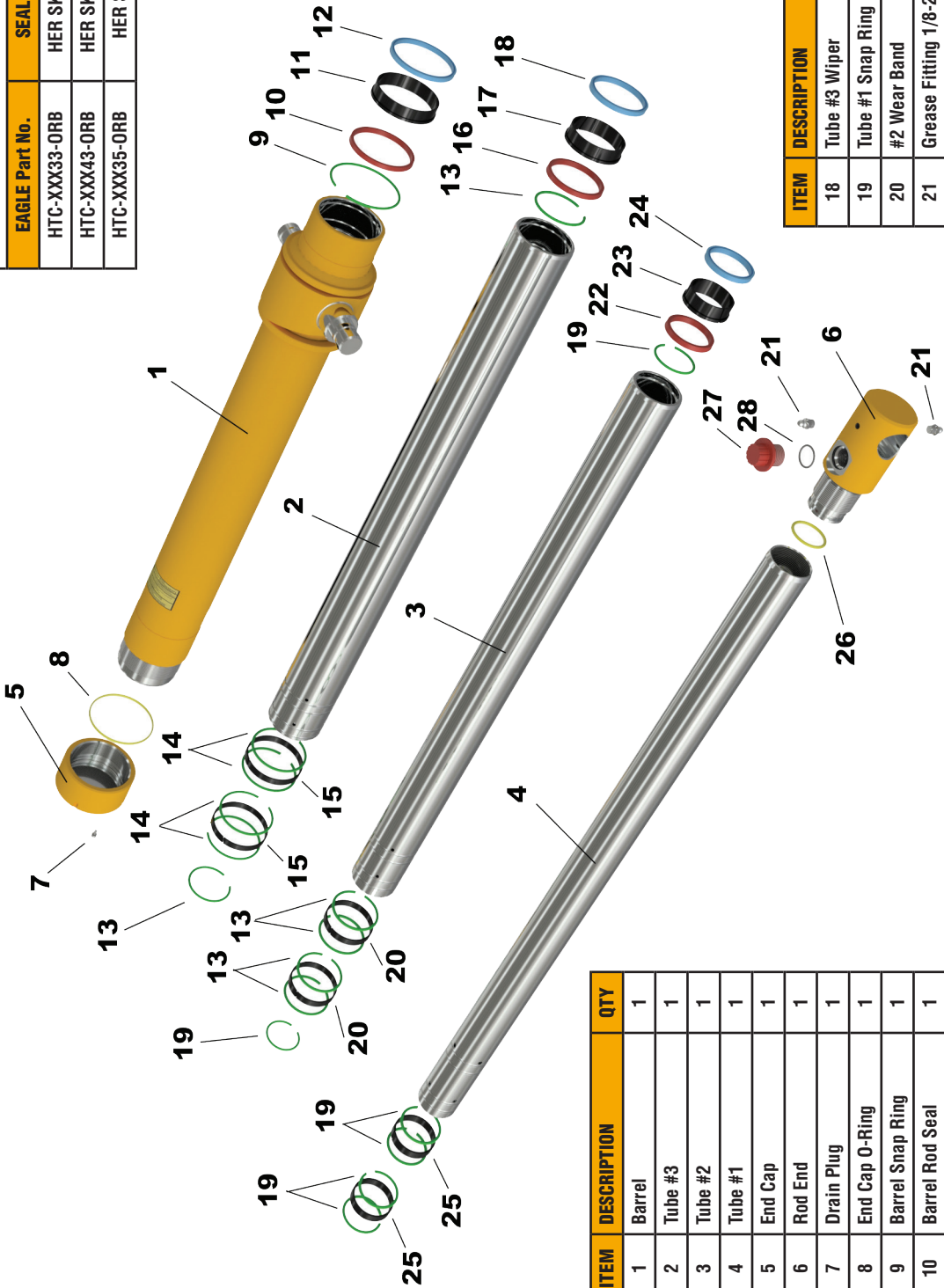
All numbers given are nominal values and should be used for reference only.

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SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HTC-XXX33-ORB	HER SK-TEL-45-60-75
HTC-XXX43-ORB	HER SK-TEL-60-75-92
HTC-XXX35-ORB	HER SK-HTC110-3

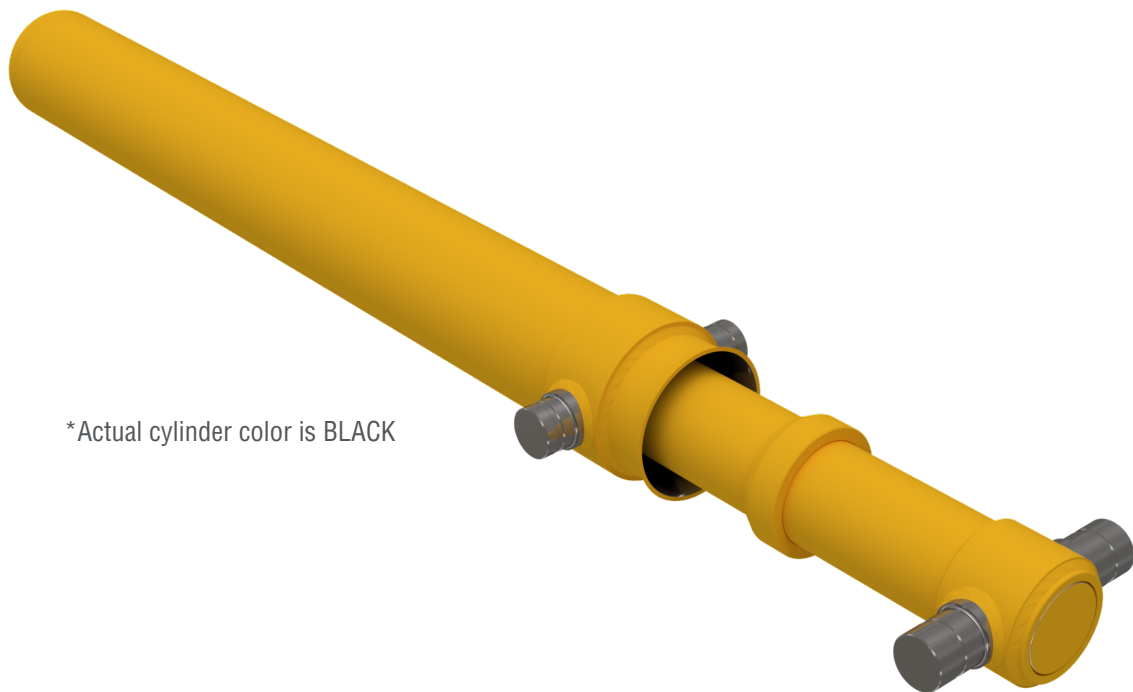
ITEM	DESCRIPTION	QTY
18	Tube #3 Wiper	1
19	Tube #1 Snap Ring	6
20	#2 Wear Band	2
21	Grease Fitting 1/8-27 NPT	2
22	Tube #2 Rod Seal	1
23	Tube #2 Wear Band	1
24	Tube #2 Wiper	1
25	#1 Wear Band	2
26	Rod O-Ring	1
27	Plastic Plug (SAE)	1
28	Plug O-Ring (SAE)	1



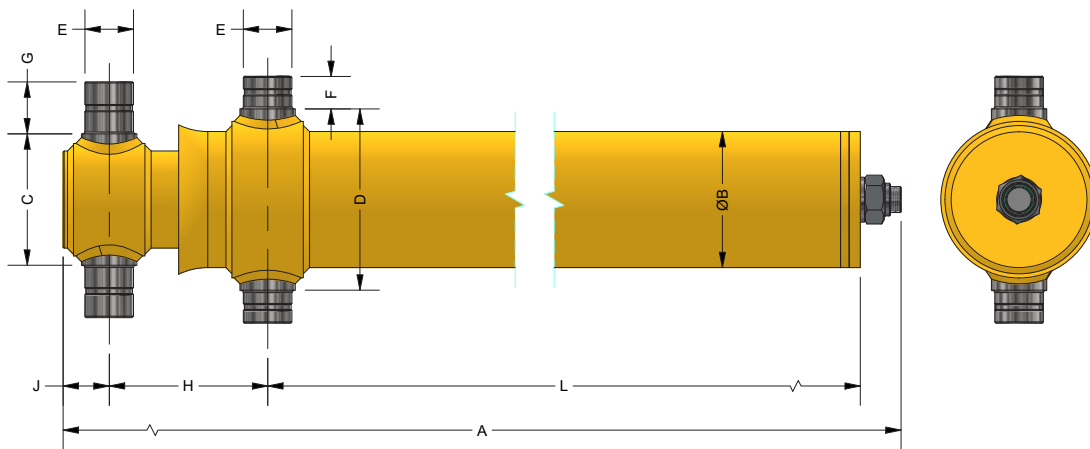
ITEM	DESCRIPTION	QTY
1	Barrel	1
2	Tube #3	1
3	Tube #2	1
4	Tube #1	1
5	End Cap	1
6	Rod End	1
7	Drain Plug	1
8	End Cap O-Ring	1
9	Barrel Snap Ring	1
10	Barrel Rod Seal	1
11	Barrel Wear Band	1
12	Barrel Wiper	1
13	Tube #2 Snap Ring	6
14	Tube #3 Snap Ring	4
15	#3 Wear Band	2
16	Tube #3Rod Seal	1
17	Tube #3 Wear Band	1

\* All pictures may differ from the final products. Product specifications are subject to changes without notice.

### SINGLE ACTING DOUBLE TRUNNION TELESCOPIC CYLINDER 2500 PSI, 7 TONS INVERSE



\*Actual cylinder color is BLACK



#### 2500 PSI, 7 TONS INVERSE

PART No.	STROKE	A	B	C	D	E	F	G	H	J	L	PORT	WEIGHT (LBS)	VOLUME (GAL.)
HTC-09035-ORB	90"	40.38"	5.236"	4.803"	6.748"	1.874"	1.252"	2"	5.512"	1,772	31.476"	SAE #12 (1 1/16-UN)	138	2.1
HTC-10835-ORB	108"	46.38"	5.236"	4.803"	6.748"	1.874"	1.252"	2"	5.512"	1,772	37.476"		157	2.5
HTC-12035-ORB	120"	50.38"	5.236"	4.803"	6.748"	1.874"	1.252"	2"	5.512"	1,772	41.476"		170	2.8

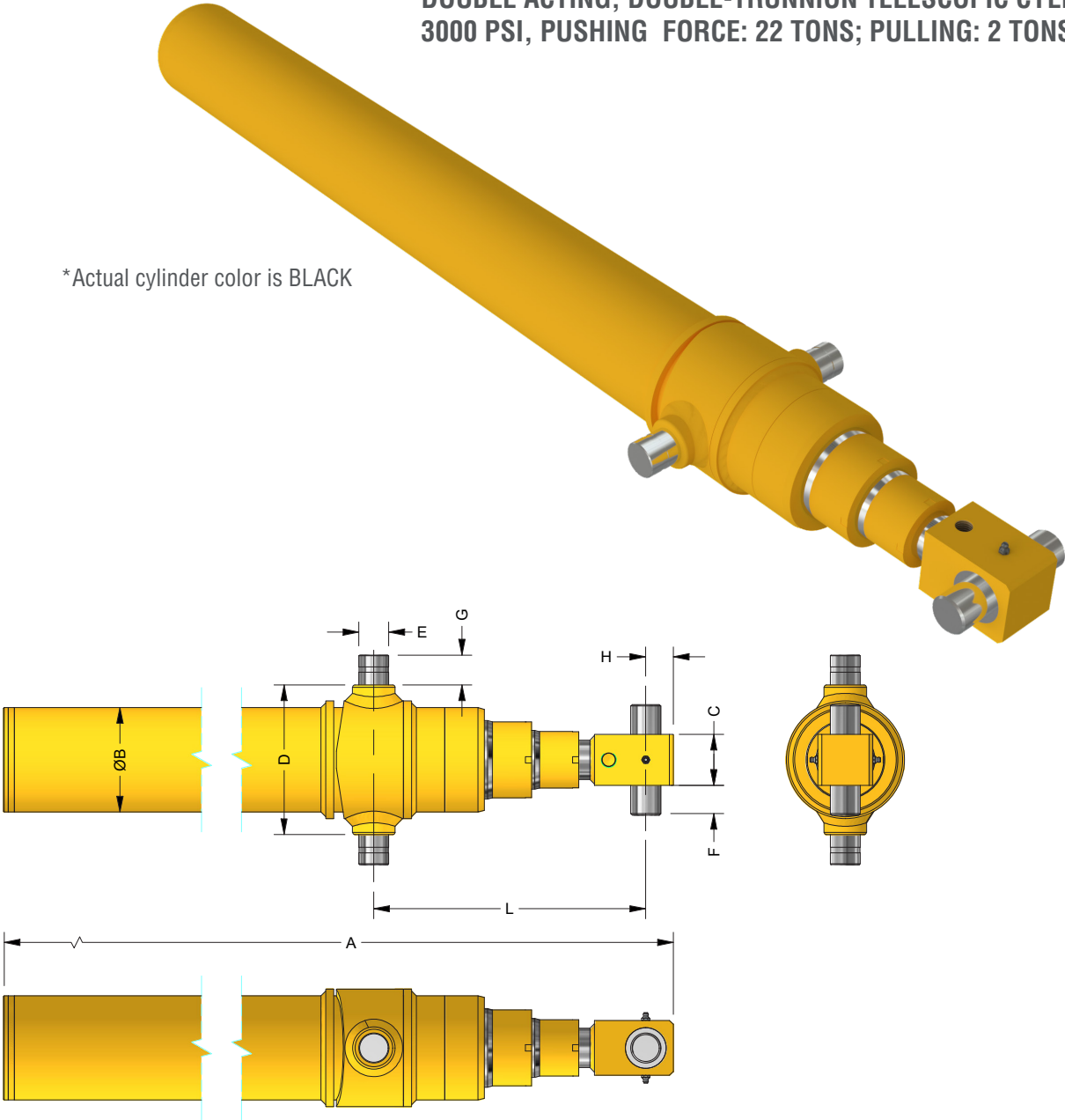
All numbers given are nominal values and should be used for reference only.

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DOUBLE ACTING, DOUBLE-TRUNNION TELESCOPIC CYLINDER  
3000 PSI, PUSHING FORCE: 22 TONS; PULLING: 2 TONS

\*Actual cylinder color is BLACK



PART No.	STROKE	A	B	C	D	E	F	G	H	L	PORT	WEIGHT [Lbs]	VOLUME [Gal.]
HTC-12055-ORB	120"	58.346"	5.236"	2.560"	7.52"	1.5"	1.496"	1.496"	1.378"	13.583"	SAE#8 (3/4-16UNF)	228.3	5.29

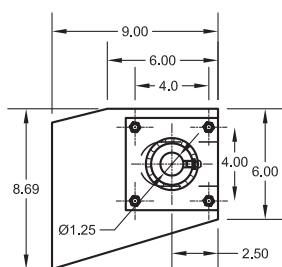
## ORDER INFORMATION

<b>MODEL</b>	<b>HTC - 078 33 - ORB - 00</b>	<b>Design code</b>
<b>STROKE</b>		<b>Factory Specification</b>
<b>CAPACITY</b>		<b>PORT</b>
33 - for 7 tons		Omit - 1/2 NPT
43 - for 12 tons		ORB - SAE#8-3/4-16UNF

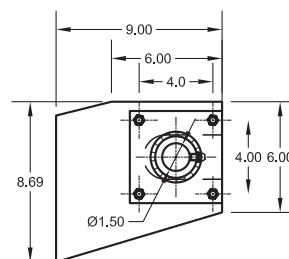
## ACCESSORIES FOR TELESCOPIC CYLINDERS

### MOUNTING BRACKETS

**HTCS07-A**  
for 7 tons

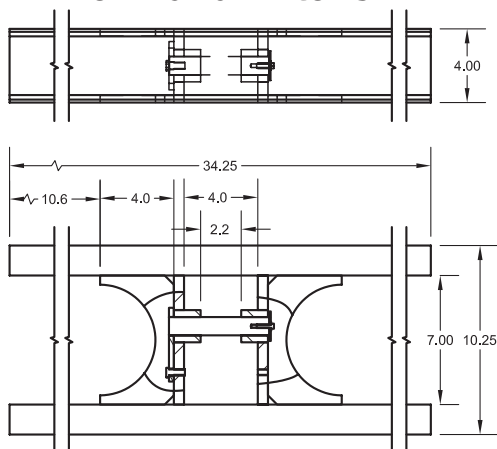


**HTCS12-A**  
for 12 tons

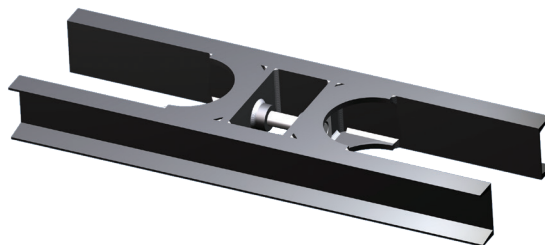


### SUPPORT FRAME

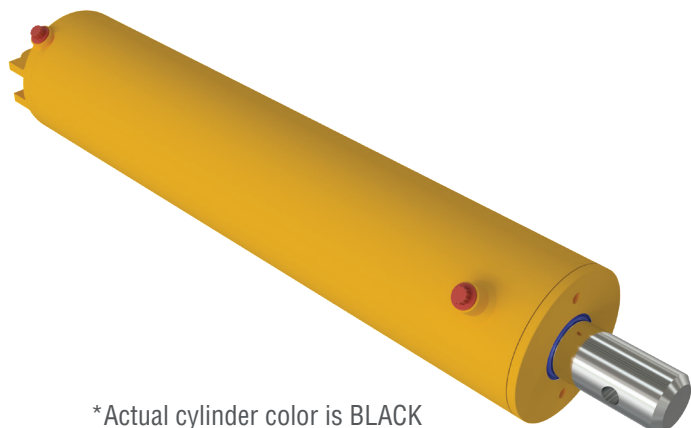
for 7 and 12 tons



**HTC SB07-A**

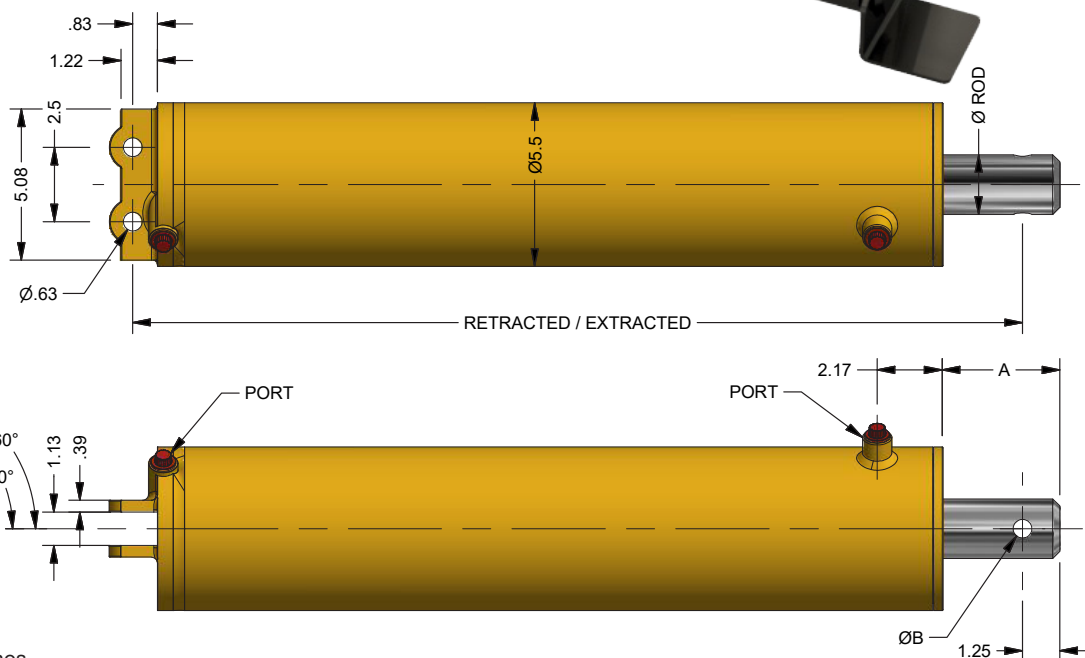






\*Actual cylinder color is BLACK

**MADE FOR SCISSOR HOISTS.**



\*All dimensions are in inches

Part No.	BORE	A	B	STROKE	ROD DIAMETER	RETRACTED	EXTENDED	PORT	WEIGHT (LBS)
HHT501575	5.00	3.5	Ø0.69	15.75"	Ø2"	23.5"	39.25"	SAE#6	66.1
HHT502000	5.00	3.15	Ø0.63	20"	Ø2"	27.5"	47.5"	SAE#6	81.4
HHT502150	5.00	3.5	Ø0.63	21.50"	Ø2"	29.375"	50.875"	SAE#6	86.8
HHT601575	6.00	3.5	Ø0.69	15.75"	Ø2"	23.5"	39.25"	SAE#6	88.0
HHT602150	6.00	3.5	Ø0.63	21.50"	Ø2"	29.375"	50.875"	SAE#6	101.2



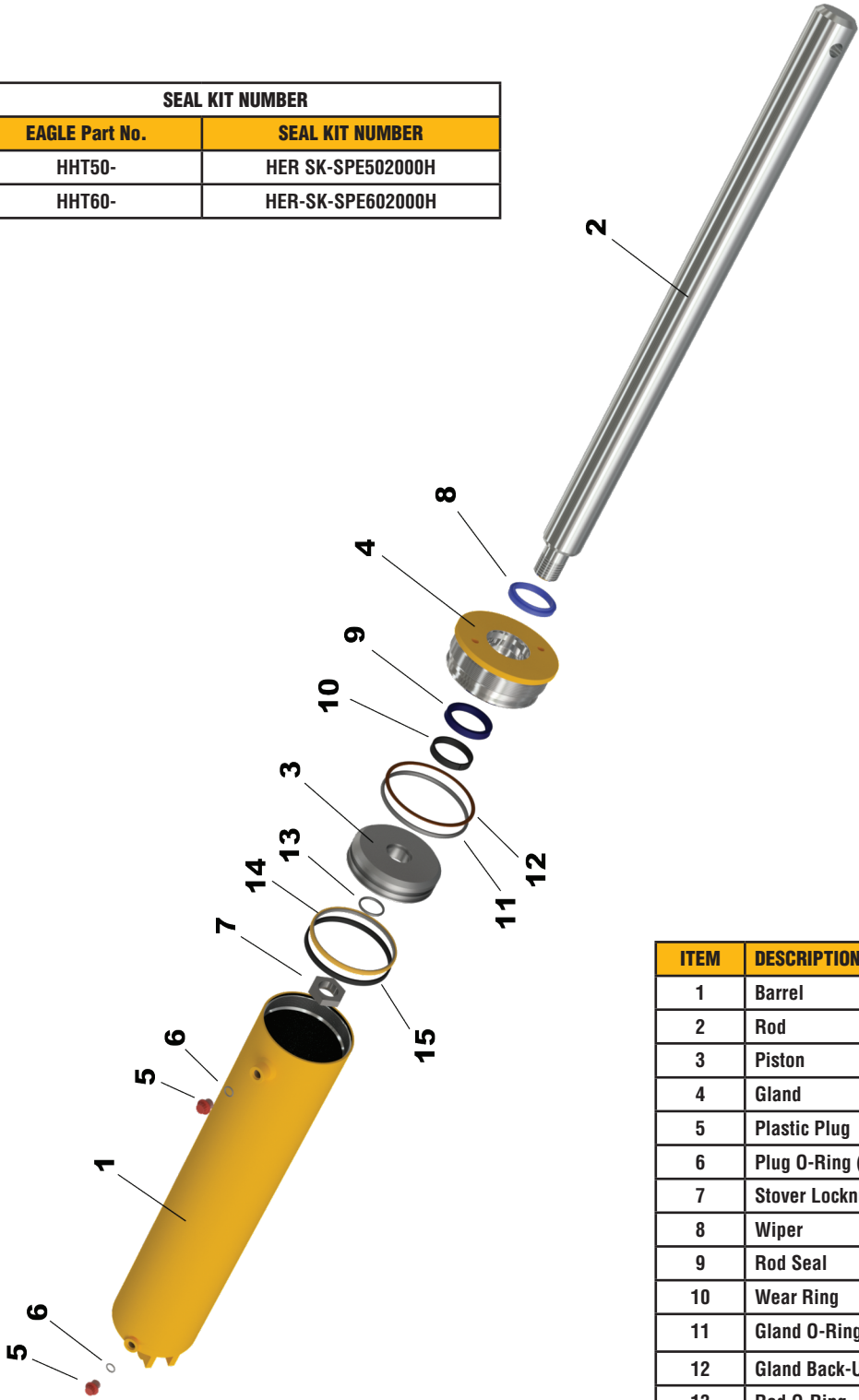
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HHT - HOIST HYDRAULIC CYLINDERS

HHT - HOIST HYDRAULIC CYLINDERS

SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HHT50-	HER SK-SPE502000H
HHT60-	HER-SK-SPE602000H



ITEM	DESCRIPTION	QTY
1	Barrel	1
2	Rod	1
3	Piston	1
4	Gland	1
5	Plastic Plug	2
6	Plug O-Ring (SAE)	2
7	Stover Locknut	1
8	Wiper	1
9	Rod Seal	1
10	Wear Ring	1
11	Gland O-Ring	1
12	Gland Back-Up Ring	1
13	Rod O-Ring	1
14	Piston Seal	1
15	Piston Wear Ring	1

# HSH - SCISSOR HOIST

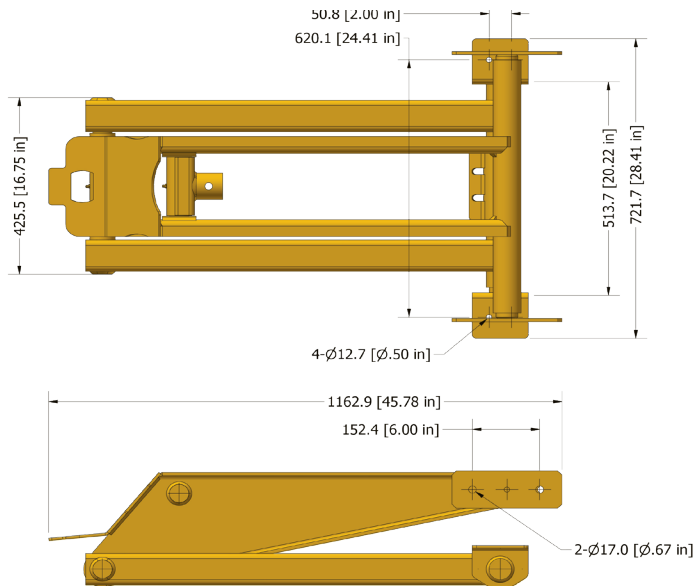


## EXTREMELY RELIABLE AND DURABLE SCISSOR HOISTS

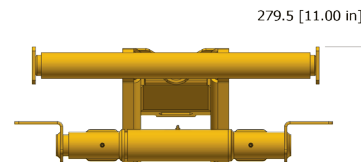
### AVANTAGE:

- ▼ Mounting brackets included in hoist assembly;
- ▼ Easy installation (bolt supports and plates to chassis and tilt frame);
- ▼ by selecting different stroke cylinder or (and) mounting position to have different damp angle;

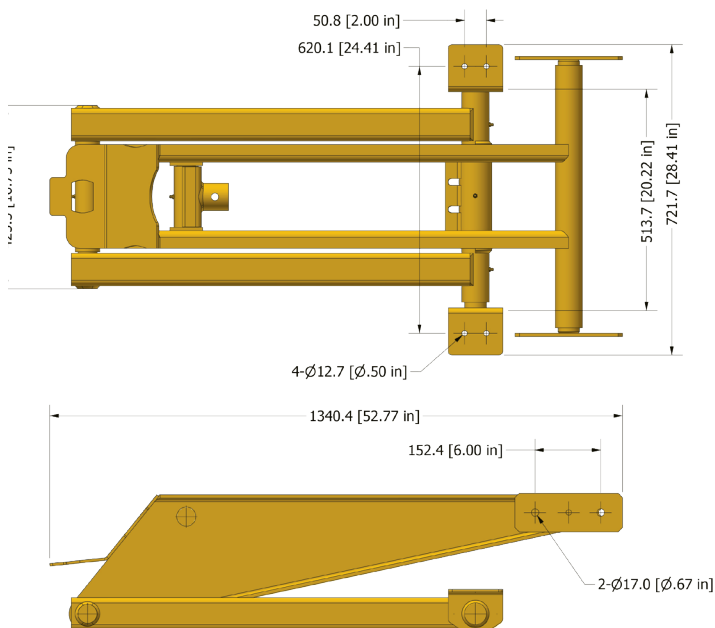
### HSH516 HOIST DIMENSIONS



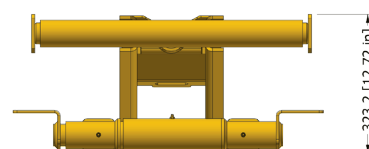
CAPACITY: 5 TONS



### HSH520 HOIST DIMENSIONS



CAPACITY: 7 TONS



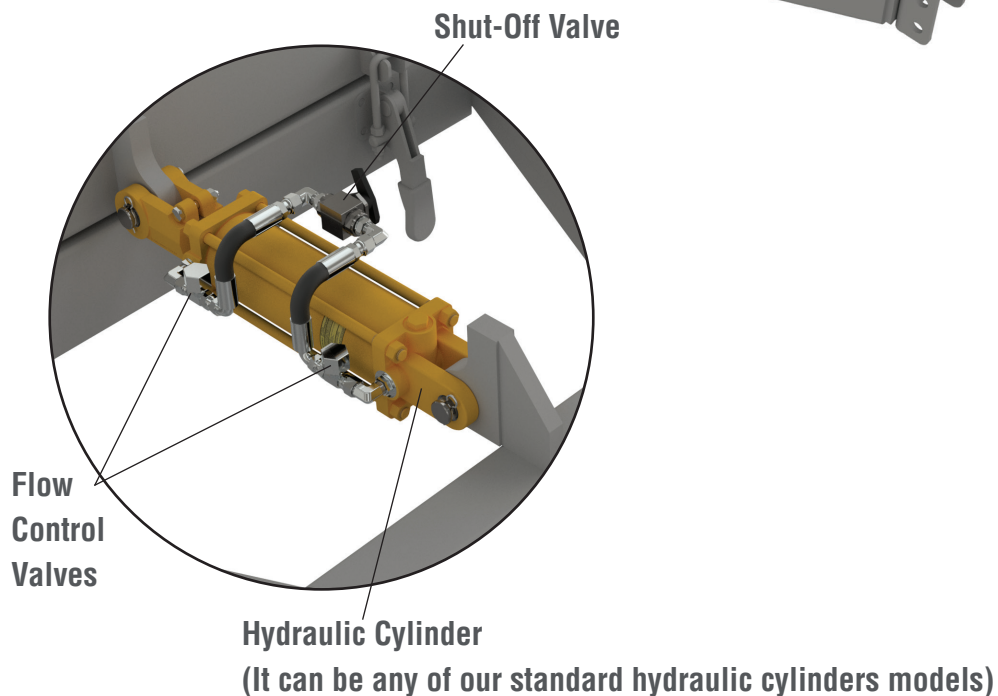
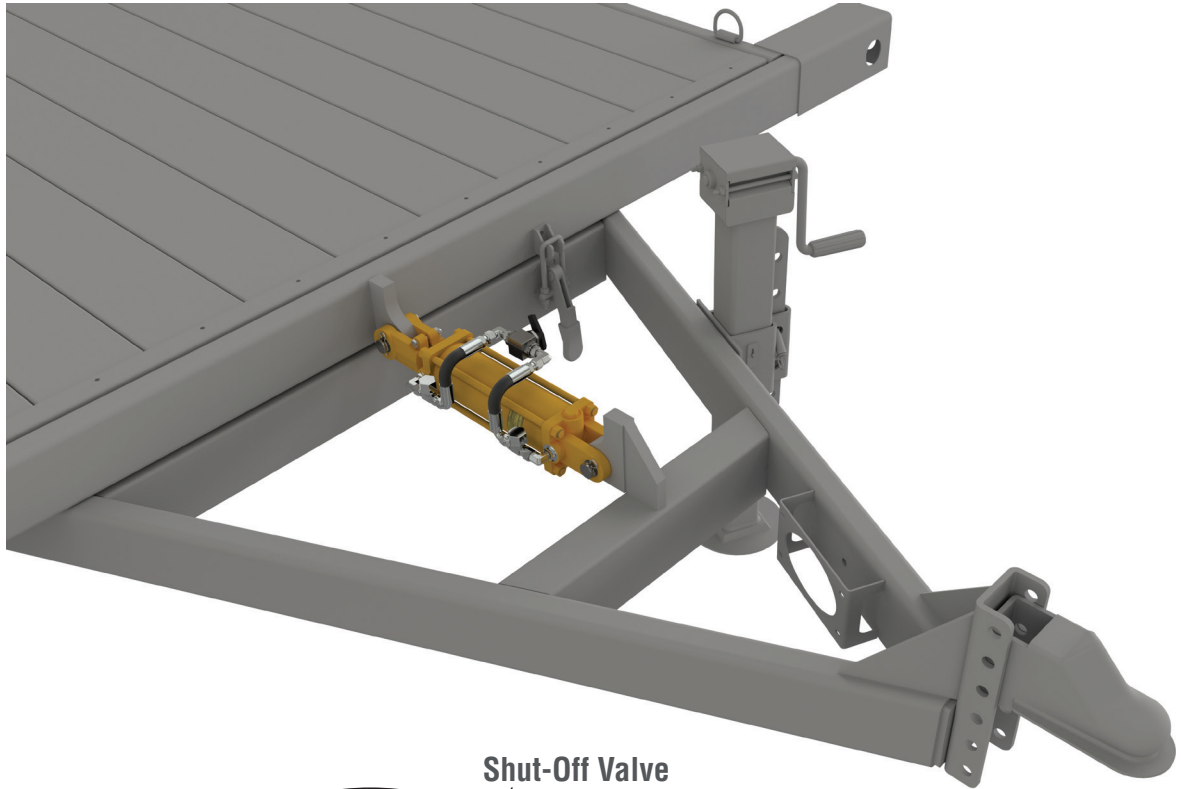
Notes: The variations in application, the capacities are based on the mounting position and the loading distribution on the chassis; the capacity is provided as a general guide.

All numbers given are nominal values and should be used for reference only.

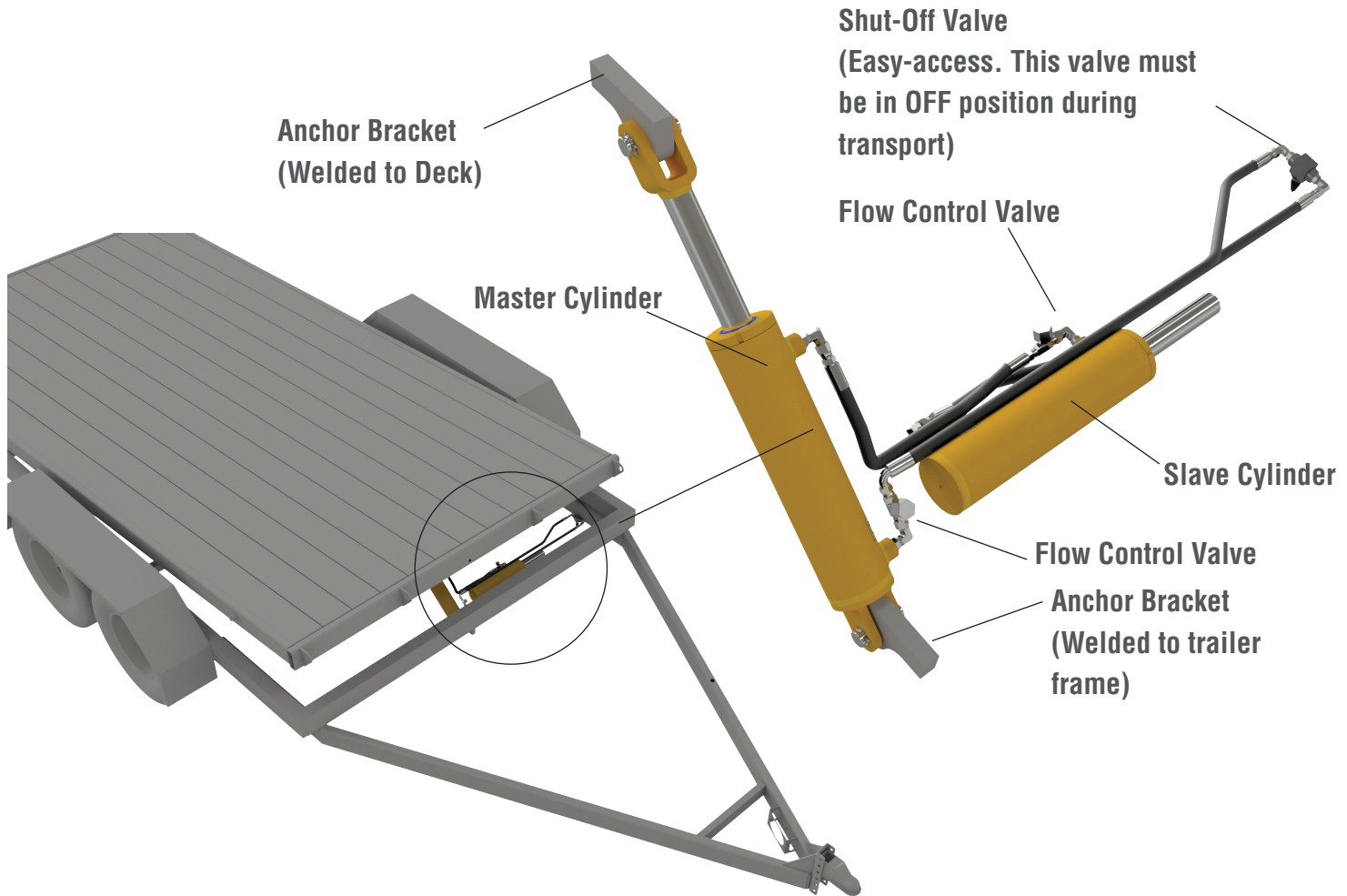
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HSH - SCISSOR HOIST

## TTP - TILT TRAILER PACKAGE



## TILT DECK TRAILER OPTION



TTP - TILT TRAILER PACKAGE

\* WE OFFER TTP OPTIONS FOR ALL OUR PRODUCT LINE IN PARTNERSHIP WITH CUSTOMER.



## OEM APPLICATIONS

Contact us for all your special cylinder requirements:

- Bore size between 1" to 10"
- Stroke lengths 1" to 150"

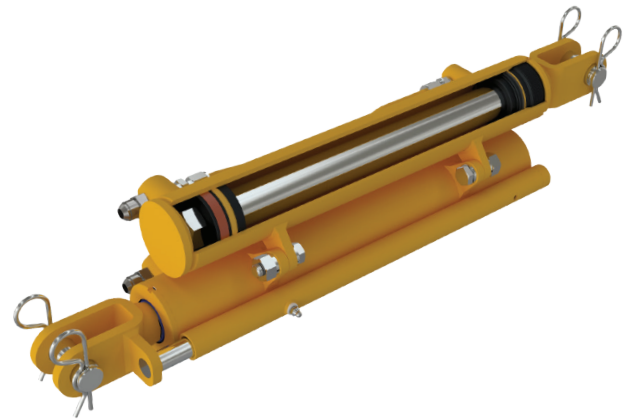
## INDUSTRY BEST STANDARDS

- IATF16949 certified
- Digital pulse arc automated welding
- CNC machining
- Sourced in North America seals
- High quality chrome / nitride
- Powder coated paint
- Cylinders are 100% pressure tested

## NITRIDED HYDRAULIC CYLINDER RODS



Liquid Nitriding is a surface treatment process that produces a very hard black finish that provides improved surface properties (e.g. resistance to wear, friction, corrosion, cost-effective, and environmentally friendly). The process begins with the cleaning and super-polishing of the material to a surface roughness of 16 Ra or better. The steel bars or components are then fixed vertically, and submerged into an electrically controlled liquid tank. Nitrogen is diffused into the surface of the components. The steel surface is then transformed into iron-nitride in a depth of 0.001 inch which improves material properties.



## FORGED HYDRAULIC CYLINDER COMPONENTS

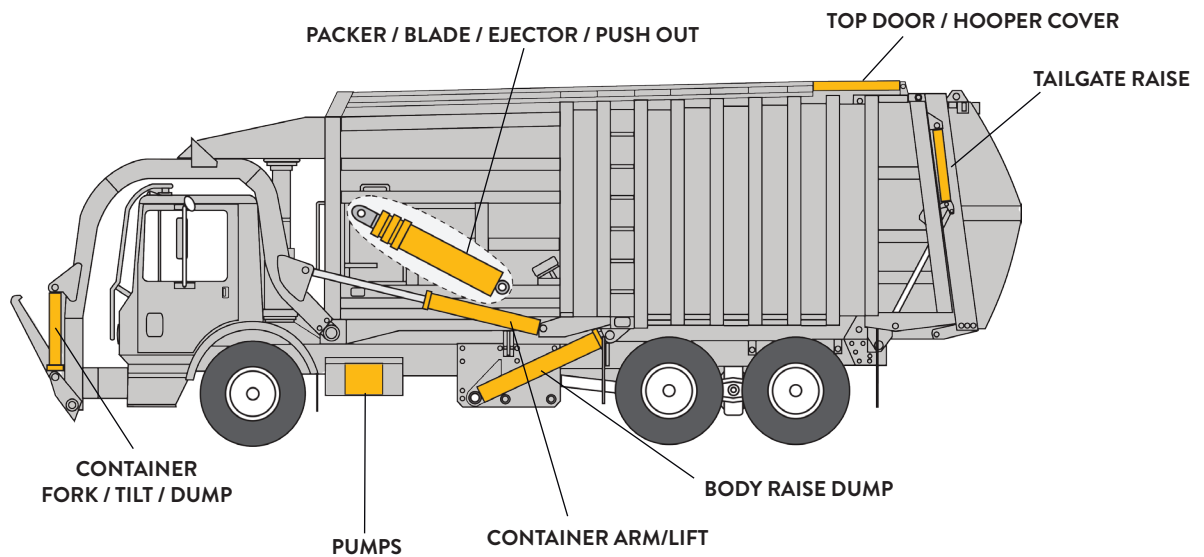
Forgings are superior over castings and fabrications as the structural integrity can withstand the higher forces that exist in a rigorous or high duty cycle application.

## TOP QUALITY SEALS SOURCED IN NORTH AMERICA

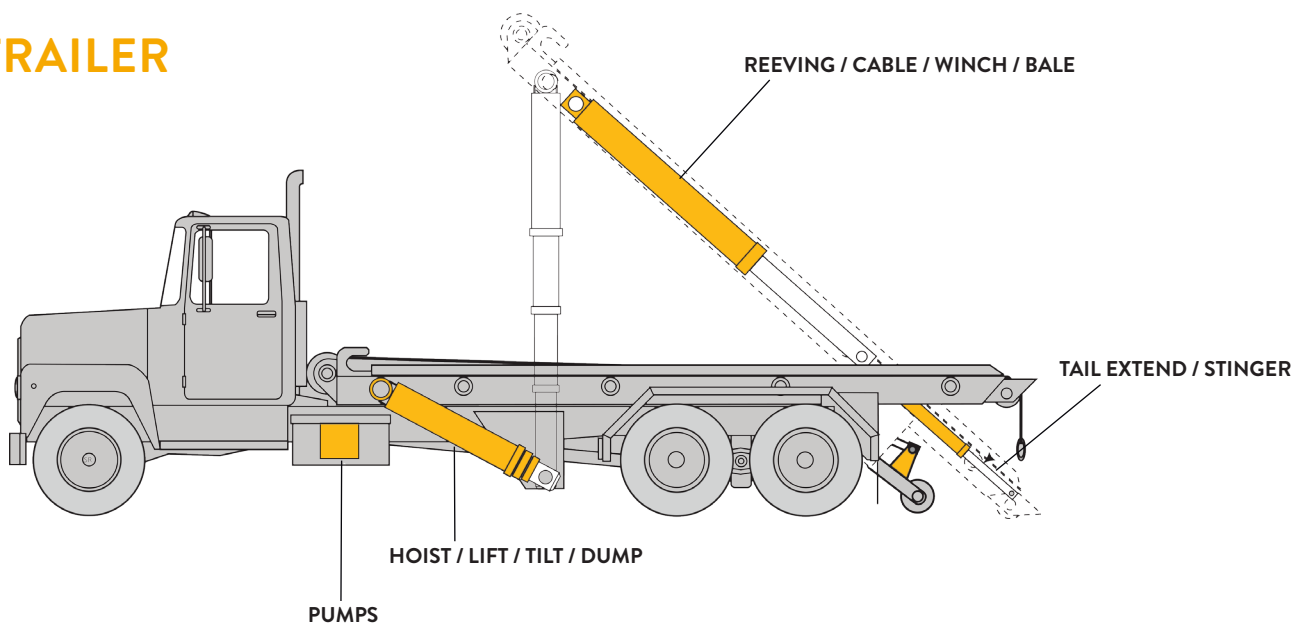


# APPLICATIONS

## WASTE & REFUSE



## TRUCK & TRAILER

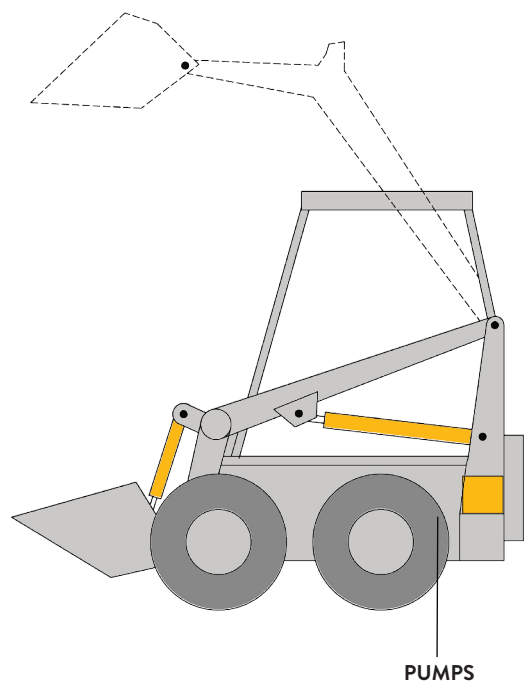


All numbers given are nominal values and should be used for reference only.

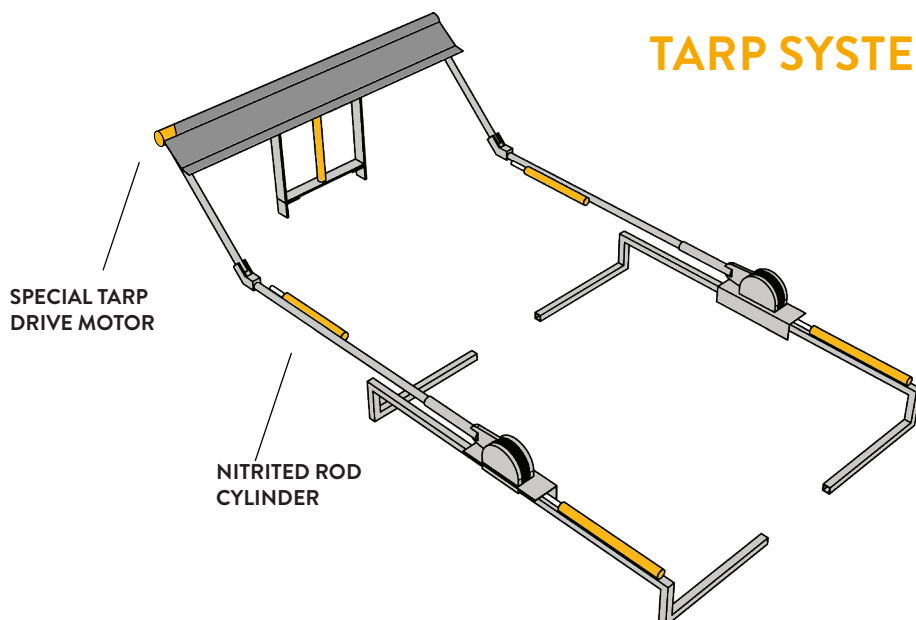
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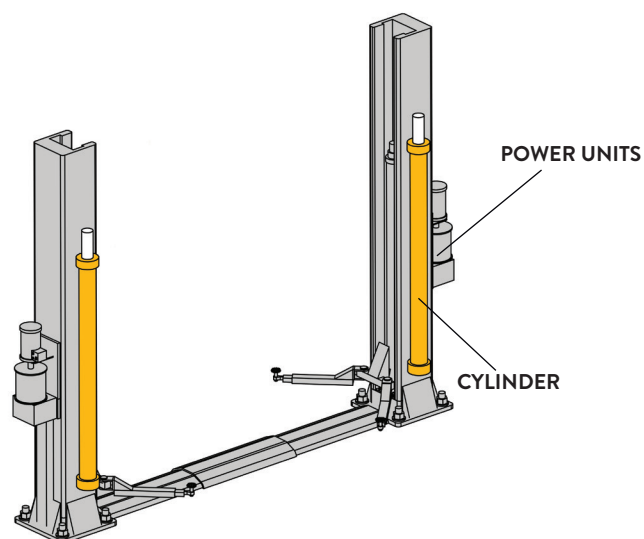
## SKID STEER LOADER



## TARP SYSTEM



## AUTO LIFT



## OTHER APPLICATIONS

**FORESTRY - AGRICULTURE - AERIAL TRUCK - SNOW EQUIPMENT**  
**MATERIAL HANDLING - CONSTRUCTION**



# ADDITIONAL INFORMATION

## CYLINDERS MAINTENANCE

- ▶ Installation and maintenance should be performed by qualified personnel.
- ▶ Ensure that the bearing surfaces are properly lubricated (e.g. joint bearing, swivel bearing) before being operated.
- ▶ Check leak-tightness and functional safety at frequent intervals.
- ▶ Maximum permissible level of contamination by particles in accordance with ISO 4406.

## CYLINDERS STORAGE

- ▶ Always store indoors fully retracted in a clean dry area.
- ▶ Chromeplated rod protruding from the cylinder must be protected against potential corrosive damage. Treat the entire surface with a rust inhibitor such as grease.
- ▶ Smear the internal surfaces of eye/clevis bushes or bearings with grease to avoid corrosion.
- ▶ We recommend that single-acting cylinders be protected against corrosion by directly adding a rust inhibitor oil to the unpressurized chamber.
- ▶ Hydraulic cylinders may be stored full of oil however a relief valve shall be installed on the cylinder port to allow for fluid expansion caused by variations in ambient temperature.
- ▶ Under these conditions, cylinders can be stored up to 12 months provided that they have not yet been extended and retracted.
- ▶ After 12 months, cylinders must be inspected and commercially available preservative agents reapplied.



## CHROME ROD PROTECTION EXPLAINED

Chrome-plated rod and bar products normally contain from 0.0005" maximum to 0.001" minimum hard chrome plate depending upon product specifications. This hard chrome coating is applied primarily for wear resistance though it does provide considerable corrosion resistance as well. Hard chrome plate deposits with a "micro-cracked" structure. Although hard chrome plate cannot corrode, the metal substrate it adheres to can if moisture and oxygen penetrate the chrome layer. The result is a blistering and flaking of the chrome plate deposit from the metal substrate. Once the rod is assembled into a cylinder and put into service, the fluid film on the surface of the rod provides additional corrosion resistance which is normally sufficient to protect it during its entire life. However, there are occasions when the rod is not being cycled and the surface is exposed to the elements which will allow corrosion to take place. For example, brand new equipment may be stored outside for a considerable period of time at a manufacturer's plant, or an equipment dealer may hold inventory on its lot. In these instances, it is best to provide some additional corrosion protection. An inexpensive application of a rust inhibitor can be applied to prevent corrosion and thereby preserve the quality of the hard chrome coating and the life of the cylinder.

## PROTECTION OF NEW EQUIPMENT

The steps summarized below should be followed when protecting chrome plated rods on new equipment:

1. Position the equipment as it will be stored, and identify all the exposed portions of the chrome plated rods.
2. Clean dirt and dust from the exposed portions of the rods using a dry cloth or a cloth which has been dampened with an appropriate solvent.
3. Prepare a mixture of 60% oil-based rust inhibitor and 40% Kerosene. Apply a thin coating of this mixture to the exposed surfaces of the chrome plated shafting. No.1 fuel oil may be substituted for Kerosene. A cloth dipped in the mixture can be used to apply the coating.
4. Inspect the shaft surfaces after six months and apply additional corrosion inhibitor mixture.
5. If the equipment is to be moved and then stored again for an extended period of time, the steps above should be repeated for all rods that were stroked during the move.

## PROTECTION OF OLDER EQUIPMENT

Occasionally it may be necessary to store equipment that has seen some service. The procedure described above can be used for older equipment, but more careful cleaning of the chrome surfaces would be necessary. Also, there may be damage on some of the chrome surfaces which will require additional protection. Under no circumstances should sandpaper or other abrasives be used to clean the surfaces. Plastic or copper wool in combination with an appropriate solvent will remove most of the dirt. After the surface is clean, it should be inspected for damage to the chrome plate. If damage is detected, more frequent application of the corrosion preventative will be necessary to prevent corrosion during storage.

	<h2>ATMOSPHERIC BREATHER FOR SINGLE ACTING CYLINDER</h2> <ul style="list-style-type: none"> <li>▶ 318070 - 1/8" NPT.</li> <li>▶ 318060 - 3/8" NPT.</li> <li>▶ 318050 - 1/2" NPT.</li> <li>▶ 318080 - 7/16-20 (SAE #4).</li> <li>▶ 318090 - 9/16-18 (SAE #6).</li> <li>▶ 318100 - 3/4-16 (SAE #8).</li> </ul>
	<h2>VELOCITY FUSE INSERT FOR 9/16-18 (SAE #6)</h2> <ul style="list-style-type: none"> <li>▶ 100040 - 3 GPM.</li> <li>▶ 100048 - 5GPM</li> <li>▶ 100050 - 7 GPM.</li> <li>▶ 100070 - Adjustable.</li> </ul>
	<h2>FLOW LIMITER INLINE</h2> <ul style="list-style-type: none"> <li>▶ 100041 - 3 GPM (SAE #6 JIC -6).</li> <li>▶ 100045 - 3 GPM (SAE #8 JIC -8).</li> </ul>
	<h2>VELOCITY FUSE INLINE</h2> <ul style="list-style-type: none"> <li>▶ 100046 - 3 GPM (SAE #6 JIC -6).</li> <li>▶ 100049 - 5 GPM (SAE #6 JIC -6).</li> </ul>

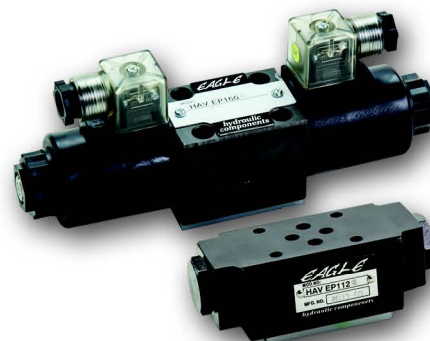
## POWER UNITS



## CYLINDERS



## ACCESSORIES



### WARNING

Hydraulic system parts and connections can contain high pressures which, if suddenly and unexpectedly released, can cause serious injury or death.



### WARNING (AVISO) (AVERTISSEMENT)

TO PREVENT SERIOUS INJURY OR DEATH FROM MOVING PARTS:  
 ★ KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING PARTS.  
 ★ CLOSE ALL GUARDS AND SHIELDS BEFORE OPERATING MACHINERY.  
 PARA EVITAR LA LESIÓN O LA MUERTE:  
 ★ MANTENGASE A DISTANCIA LAS MANOS, LOS PIES Y LA ROPA DE LAS PARTES MOVIENTES DE LA MAQUINA.  
 ★ CIERREN TODAS LAS PROTECTORAS QUE HAY ANTES QUE HEGAN FUNCIONAR.  
 AFIN D'ÉVITER TOUTE BLESSURE GRAVE OU LA MORT:  
 ★ NE PAS RAPPROCHER LES MAINS, LES PIEDS OU LES VÊTEMENTS DES PIÈCES MOBILES.  
 ★ S'ASSURE QUE TOUTES LES PIÈCES DE PROTECTION SONT EN PLACE AVANT DE METTRE EN MARCHÉ LA MACHINERIE.



### WARNING

**HIGH PRESSURE OIL** can cause severe injury.  
 Disconnect power and drain accumulator before servicing hydraulic system.

- ▶ Always wear eye protection and protective clothing when working on and around hydraulic systems.
- ▶ Never exhaust hydraulic fluid under pressure to atmosphere.
- ▶ Hydraulic fluid can reach high temperatures under normal operating conditions and can burn exposed skin.
- ▶ Fluid pressure can penetrate skin and cause death or serious injury, Wear proper protective clothing when working on hydraulics.
- ▶ Hydraulic devices should be properly "Locked-Out" or "Tagged-Out" before being worked on, including the release of any stored energy or pressure. Ensure a mechanical locking device is in place to prevent injury or death.
- ▶ Eagle Hydraulic Components is not responsible for misuse or misapplication of product.
- ▶ Do not use any heat-producing equipment such as oxyacetylene/gas torches and angle grinders on sealed hydraulic cylinders.
- ▶ Remove hydraulic oil from the cylinder before heating the cylinder.
- ▶ Never operate a cylinder(or power unit) above recommended pressures.
- ▶ Always use properly rated hoses and fittings.
- ▶ Do not weld, add welded items, drill holes or otherwise modify the cylinder from its original design.
- ▶ The hydraulic power unit may heat up during operation. The solenoids in the hydraulic power unit become so hot during operation that you may sustain burns. You should wear heat-proof gloves or protective clothing.

# NON-TRANSFERABLE LIMITED WARRANTY



This document outlines the warranty associated with Eagle Hydraulic products. If you have any questions regarding this warranty, please contact our service department by phone at 1-877-382-2850 or by e-mail at [service@eagle-hydraulic.com](mailto:service@eagle-hydraulic.com).

**Eagle Hydraulic Inc., formerly HWF Hydraulique International Inc. ("EAGLE"), warrants to you, the original purchaser, that all of its products are free from defects in material or workmanship under normal use and service for the following periods:**

EAGLE's warranty is limited to the Original Equipment Manufacturer ("OEM") and/or distributor to whom EAGLE's products are originally sold. EAGLE's warranty is non-transferable to any subsequent purchaser and limited to original purchaser from EAGLE.

EAGLE's 2 year warranty period is calculated from the date of manufacture, which is engraved on the body of every cylinder.

## **MAINTENANCE:**

Inspections and maintenance should be performed on all EAGLE products at regular intervals. While necessary maintenance or repairs on your EAGLE product can be performed by any company, we recommend that you use only authorized EAGLE dealers.

**WARNING: IMPROPER OR INCORRECTLY PERFORMED MAINTENANCE OR REPAIR VOIDS THIS WARRANTY.**

## **How to Obtain Service From EAGLE Under This Limited Warranty:**

To obtain service under this warranty, contact our service department by phone at 1-877-382-2850 or by e-mail at [service@eagle-hydraulic.com](mailto:service@eagle-hydraulic.com).

Please note, EAGLE's obligation to repair or replace your EAGLE product is subject to confirmation by EAGLE's service technicians that the part contains a defect in material or workmanship.

EAGLE's obligations under this warranty are limited to the repair or replacement of the subject EAGLE part or product. The decision to repair or replace any defective EAGLE part or product is solely at the discretion of EAGLE. Please further note, EAGLE reserves the right to direct any and all repairs performed under this warranty to a local approved service location.

## **What This Warranty Does Not Cover:**

EAGLE shall have no responsibility for the following:

- Troubleshooting, diagnostic, removal, or reinstallation labor charges of any EAGLE part or product unless prior written approval is obtained from EAGLE;
- Freight charges for either defective parts, new parts, or repaired: \*\*\*
- Claims for loss of time, inconvenience, loss of use, profits or any other incidental or consequential damages arising from any product defect;
- Conditions arising from or caused by alteration of the product, product misuse or neglect, lack of proper maintenance, fire, theft, loss, or damage to the product (including, but not limited to, intentional damage, weather related damage, or any other type of physical damage);
- Corrosion, unless the material is found to be out of specification;
- Failure caused by foreign contamination introduced to the cylinder;
- Paint, unless out of specification;
- Normal wear of internal components.

\*\*\* Please note, in certain circumstances, EAGLE may decide to reimburse a customer for freight charges associated with a warranty claim. However, the decision to provide reimbursement for freight changes remains within the sole discretion of EAGLE.

Products which experience color change due to normal weathering are also excluded from this warranty (including non-uniform fading and color changes resulting from unequal exposure of panels to the sun and elements). For purposes this warranty, the term "normal weathering" means exposure to ultraviolet (sun) light, and extremes of temperature and atmosphere which will cause any colored or painted surface to fade, darken, chalk, crack, or acquire surface accumulation of dirt or stains. The severity of these conditions depends on air quality, the geographic location of the property at which the products are installed, and other local conditions over which EAGLE has no control.

EAGLE shall not be liable for and this warranty does not apply or extend to any failure, defects, or damages arising from or connected with, without limitation, misuse, abuse, neglect, faulty or improper installation.

## **Warranty Void – Use Authorized Representative for Inspections:**

***This warranty is null & void should the product be dismantled, opened, or serviced by anyone other than an approved representative of EAGLE.***

If you believe that your EAGLE product suffers from a defect covered by this warranty, contact our service department to report the problem and obtain information regarding where to bring your product for inspection.



All numbers given are nominal values and should be used for reference only.

**WWW.EAGLE-HYDRAULIC.COM**



# EAGLE

## **HYDRAULIC Warranty procedure:**

In order to validate each claim and administer our warranty, EAGLE requires each customer who is making a warranty claim to fill out a "Warranty Claim Form." This form includes basic information, such as the Part Number, the Date Code, and a simple description of how the product failed. If possible, please describe the defect. EAGLE also requests that you provide a photograph of the product and any potentially defective conditions, to assist us in confirming your warranty claim.

Below please find a checklist of items to provide EAGLE to assist us process your warranty claim:

1. Warranty Claim Form
2. Part Number & Date Code
3. Invoice Number and Date
4. Photo that best portrays the defect

**FAILURE TO SUBMIT A COMPLETED "WARRANTY CLAIM FORM" MAY RESULT IN THE DENIAL OF YOUR WARRANTY CLAIM.**

If requested for inspection by EAGLE, defective parts must be shipped to EAGLE's chosen shipping address. When returning a product, we recommend that you utilize an insured method of delivery, which includes a signature for acceptance of delivery.

### **Warranty Processing:**

*Through EAGLE's Authorized Dealer:* Upon arrival of your EAGLE product and Warranty Claim Form to EAGLE's authorized dealer, EAGLE and the dealer will assess and investigate your warranty claim within five (5) working days to provide a preliminary assessment of any claims. If, based on this preliminary assessment, EAGLE believes that the product may contain a defect which falls within this warranty, EAGLE's authorized dealer will make arrangements to return the product to EAGLE's service headquarters in Montreal, Canada for final assessment. At that time, EAGLE will assign an RGA number (return goods authorization) to track the product. Please allow 2-3 weeks for assessment by EAGLE's service headquarters.

*Through EAGLE's Headquarters:* You may ship your EAGLE product and Warranty Claim Form directly to EAGLE's service headquarters in Montreal, Canada to expedite processing of your claim.

### ***If your EAGLE product contains a condition which falls within EAGLE's warranty:***

1. EAGLE will process the claim within 15-days after the product arrives in Montreal, Canada.
2. EAGLE will either repair or replace the defective product, at our discretion..

### **NOTICE TO OEM DEALERS AND DISTRIBUTORS:**

With respect to warranty claims presented by EAGLE's product dealers and distributors, EAGLE will consolidate all valid warranty claims, review them, and take action on a quarterly basis.

### **WARRANTY LIMITATIONS**

#### **THIS WARRANTY IS NOT APPLICABLE OUTSIDE OF NORTH AMERICA.**

EAGLE reserves the right to discontinue or change any of its products, including colors, without providing notice to its dealers, distributors, or purchasers. Should a product covered by this warranty become unavailable for any reason, EAGLE reserves the right, at EAGLE's sole discretion, to substitute a product that is of equal quality or refund the purchase price.

If the product is not returned to EAGLE's headquarters for inspection, you the customer, must maintain and preserve the product as evidence. If EAGLE does not request the defective product to be returned, the customer may discard the product appropriately after 60 days.

THE WARRANTY PROVIDED ABOVE CONTAINS THE EXTENT OF ALL EXPRESS WARRANTIES. EAGLE MAKES NO WARRANTIES REGARDING ANY PRODUCT'S FITNESS FOR ANY PARTICULAR PURPOSE. EAGLE'S WARRANTY DOES NOT COVER ANY PROPERTY DAMAGE, PERSONAL INJURY, INCIDENTAL DAMAGE OR CONSEQUENTIAL DAMAGE ALLEGEDLY ASSOCIATED WITH ITS PRODUCTS. EAGLE shall not be liable for inconvenience, labor, loss of time, maintenance, removal or reinstallation of the products or other incidental, special or consequential damages arising in relation to the purchase or use of the product.

BY PURCHASE OF EAGLE'S PRODUCT(S), INCLUDING THIS WARRANTY, BUYER ACCEPTS THIS WARRANTY IN LIEU OF ALL OTHER WARRANTIES, LIABILITIES OR OBLIGATIONS OF EAGLE, EITHER EXPRESSED OR IMPLIED, EXCEPT THAT THE DURATION OF ANY IMPLIED WARRANTY OF MERCHANTABILITY IS LIMITED IN TIME TO THE DURATION OF THIS WARRANTY. EAGLE SHALL IN NO EVENT BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL OR SPECIAL DAMAGES OF ANY KIND FOR BREACH OF ANY EXPRESS WRITTEN OR ORAL OR IMPLIED WARRANTY ON PRODUCTS. YOUR EXCLUSIVE REMEDY SHALL BE ENFORCEMENT OF THIS WARRANTY UPON THE TERMS AND CONDITIONS STATED HEREIN. NO REPRESENTATIVE OF EAGLE OR ITS DISTRIBUTORS OR DEALERS IS AUTHORIZED TO MAKE ANY CHANGE OR MODIFICATION TO THIS WARRANTY.

Some jurisdictions do not allow various limitations on implied warranties. Some jurisdictions do not allow the exclusion or limitation on consequential or special damage. As such, the limitations contained herein are subject to the limits of the applicable law. This warranty gives you specific legal rights, and you may also have other rights, all of which vary from jurisdiction to jurisdiction. If any provision of this warranty is declared to be illegal, unenforceable, or void, the remainder of this warranty shall be enforced to the extent permitted by law and the illegal, unenforceable or void provision shall be replaced with a mutually acceptable provision which comes closest to the intention of the underlying original provision, to the extent possible.





## Defect Description Form – Hydraulic Cylinder

In order to assist us in validating your warranty claim, please provide as much detail possible to best describe the defect. This information is critical to help us understand the problem and take corrective measures in future initiatives.

Cylinder Part Number: \_\_\_\_\_ Company Name: \_\_\_\_\_

Serial Number: \_\_\_\_\_ Contact: \_\_\_\_\_

Date Code: \_\_\_\_\_ Email: \_\_\_\_\_

Description: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Location of Defect: *Check applicable box*

**Weld Leak** – Front Port ☐

– Rear Port ☐

– End Cap ☐

– Feed Return Pipe ☐

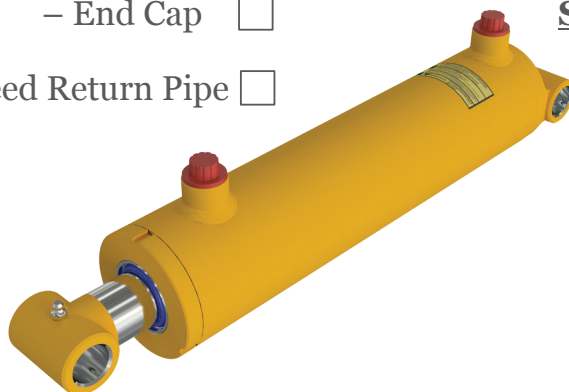
**Welded Zone** – Rod End ☐

– Base End ☐

**Seals** – Leaking from Head ☐

– Leaking from Rod ☐

– Internal Bypass ☐



THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND OF ANY NON-CONTRACTUAL LIABILITIES INCLUDING LIABILITIES FOR PERSONAL INJURY OR PROPERTY DAMAGE OR ANY OTHER PRODUCT LIABILITIES BASED UPON NEGLIGENCE OR STRICT LIABILITY. ANY ADDITIONAL OR DIFFERENT LIABILITIES ASSUMED BY EAGLE MUST BE CONTAINED IN WRITING AND SIGNED BY AN AUTHORIZED EMPLOYEE OF EAGLE. EAGLE HAS THE RIGHT TO REVIEW AND CANCEL, CHANGE OR MODIFY THIS AGREEMENT. IN THE CASE OF DISCREPANCY, THE EAGLE WARRANTY POLICY SHALL PREVAIL. FAILURE TO SUBMIT A COMPLETED "DEFECT DESCRIPTION FORM" AS PER THIS DOCUMENT WILL RENDER THE WARRANTY CLAIM AS DENIED. **SPECIAL NOTE:** BENT, BROKEN, DAMAGED RODS, SYSTEM CONTAMINATION, UNAUTHORIZED WELDING, DISASSEMBLY, REPAIR, MISUSE, ABUSE, ACCIDENTAL OR IMPROPER INSTALLATION OF THE INTENDED APPLICATION WILL VOID ALL WARRANTY.

RGA # \_\_\_\_\_

AUTH BY: \_\_\_\_\_

*This area is for internal use only*

DATE: \_\_\_\_\_

COMMENTS: \_\_\_\_\_



This image shows a full page of white paper with horizontal orange lines. The lines are evenly spaced and run across the entire width of the page, providing a template for writing or drawing. There are no margins, text, or other markings present.



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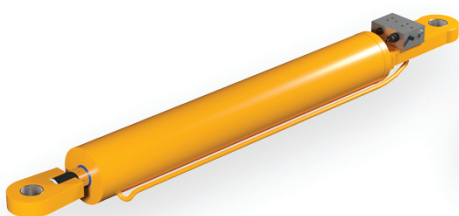
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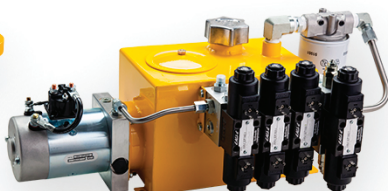


# EAGLE IS NOT ONLY A HYDRAULIC CYLINDER MANUFACTURER

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Tell us about your needs!



CUSTOM CYLINDERS



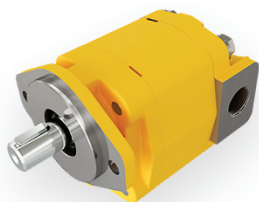
AC & DC POWER-UNITS



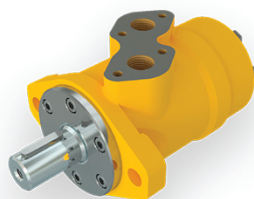
INTEGRATED TOOLBOX



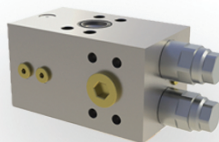
NOVAPEAK



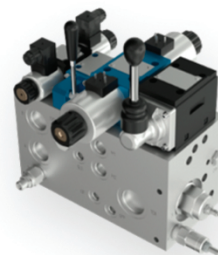
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