



# HYDRAULIC CYLINDERS CATALOG

INNOVATIVE MOBILE SOLUTIONS

# ABOUT US

## “INNOVATIVE MOBILE SOLUTIONS”

Eagle Hydraulic Inc. is a Canadian based manufacturer of engineered and standard hydraulic cylinders. In addition, we also manufacture Eagle branded Hydraulic Power Units in Canada and engineer, manufacture and distribute other hydraulic components like hydraulic motors, pumps, valves and many other products.

Serving the mobile equipment industry, our products are designed and supported from our Head Office located in Mirabel Quebec Canada. We have a fully equipped testing, service and repair facility integrated within our 55,000 square foot Corporate Head Office located in Mirabel, near Montreal, Quebec. We independently own and operate two hydraulic cylinder manufacturing facilities located near Wuxi Area in China. Our manufacturing operations are certified to the ISO TS16949 standard. We are also a certified OEM production supplier to many large North American based corporations.

Our services include custom component or system design, on site visits & support, flexible delivery and stocking programs, inventory updates, flexible warranty and responsive service. We strive to provide the best product for your application and deliver to you on time every time.

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

# 5

SYSTEM INTEGRATION

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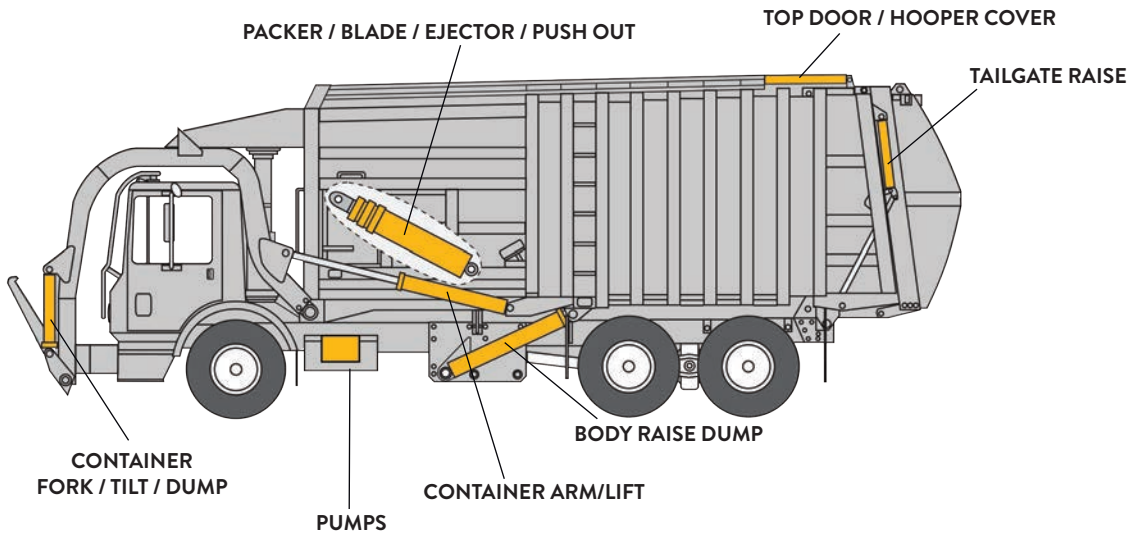
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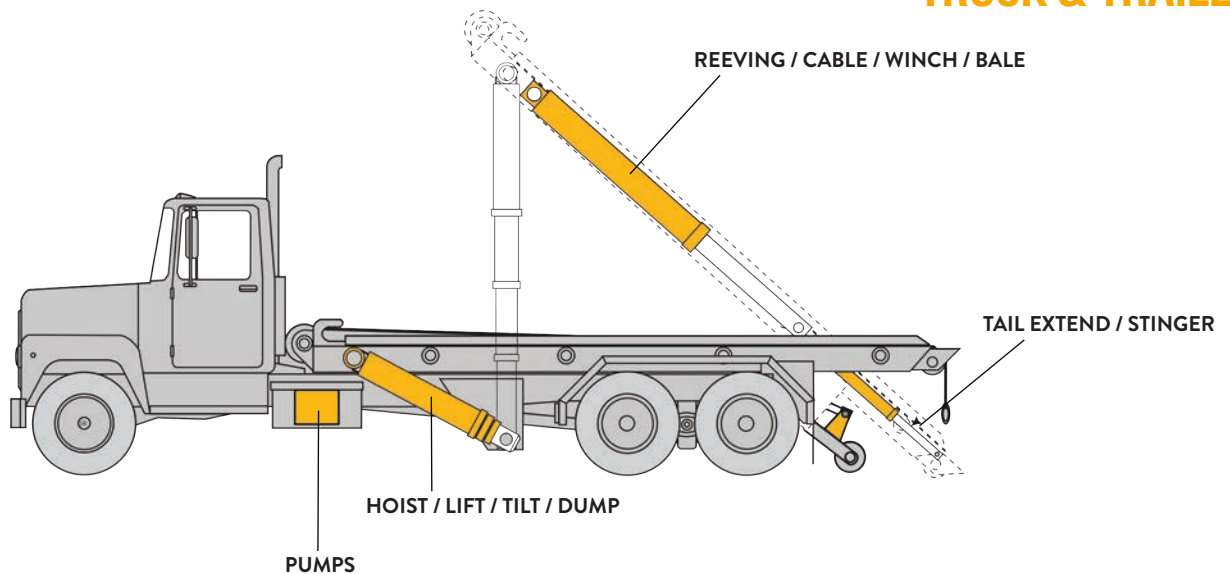
**NATDA**

# APPLICATIONS

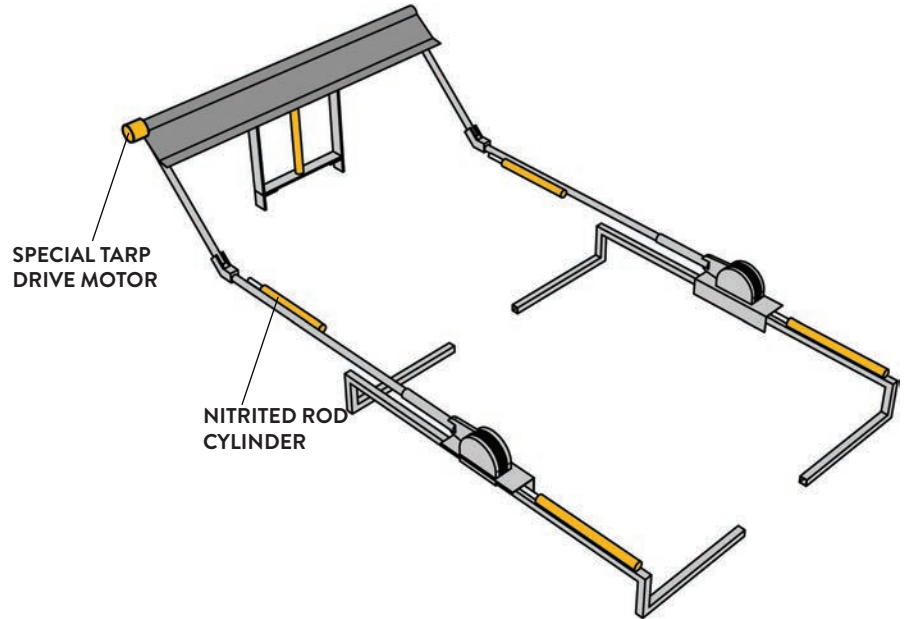
## WASTE & REFUSE



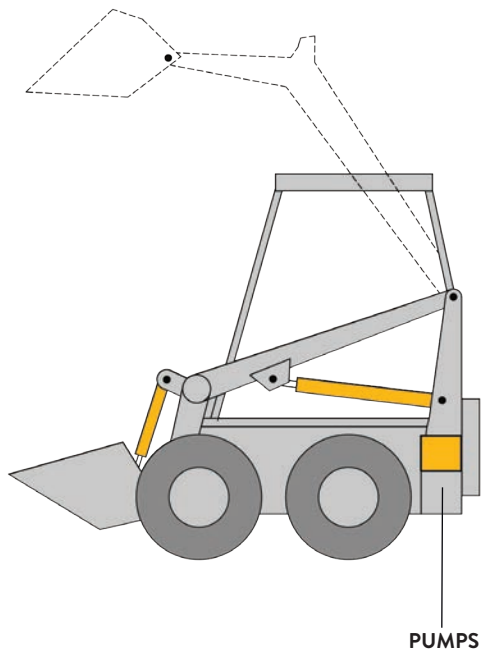
## TRUCK & TRAILER



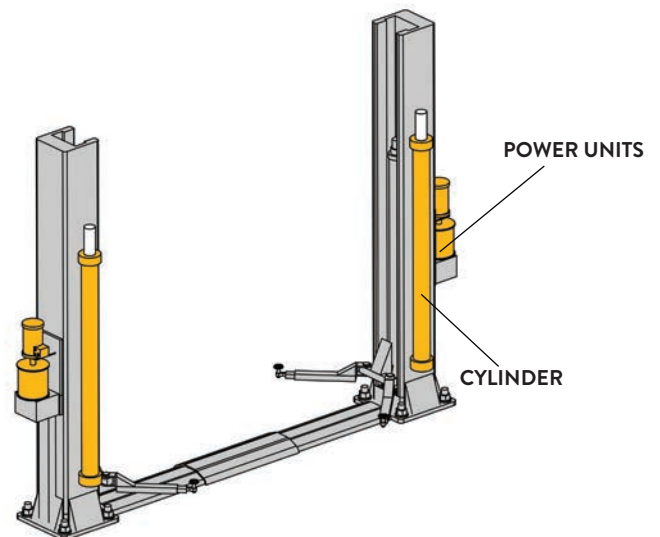
## TARP SYSTEM



## SKID STEER LOADER



## AUTO LIFT

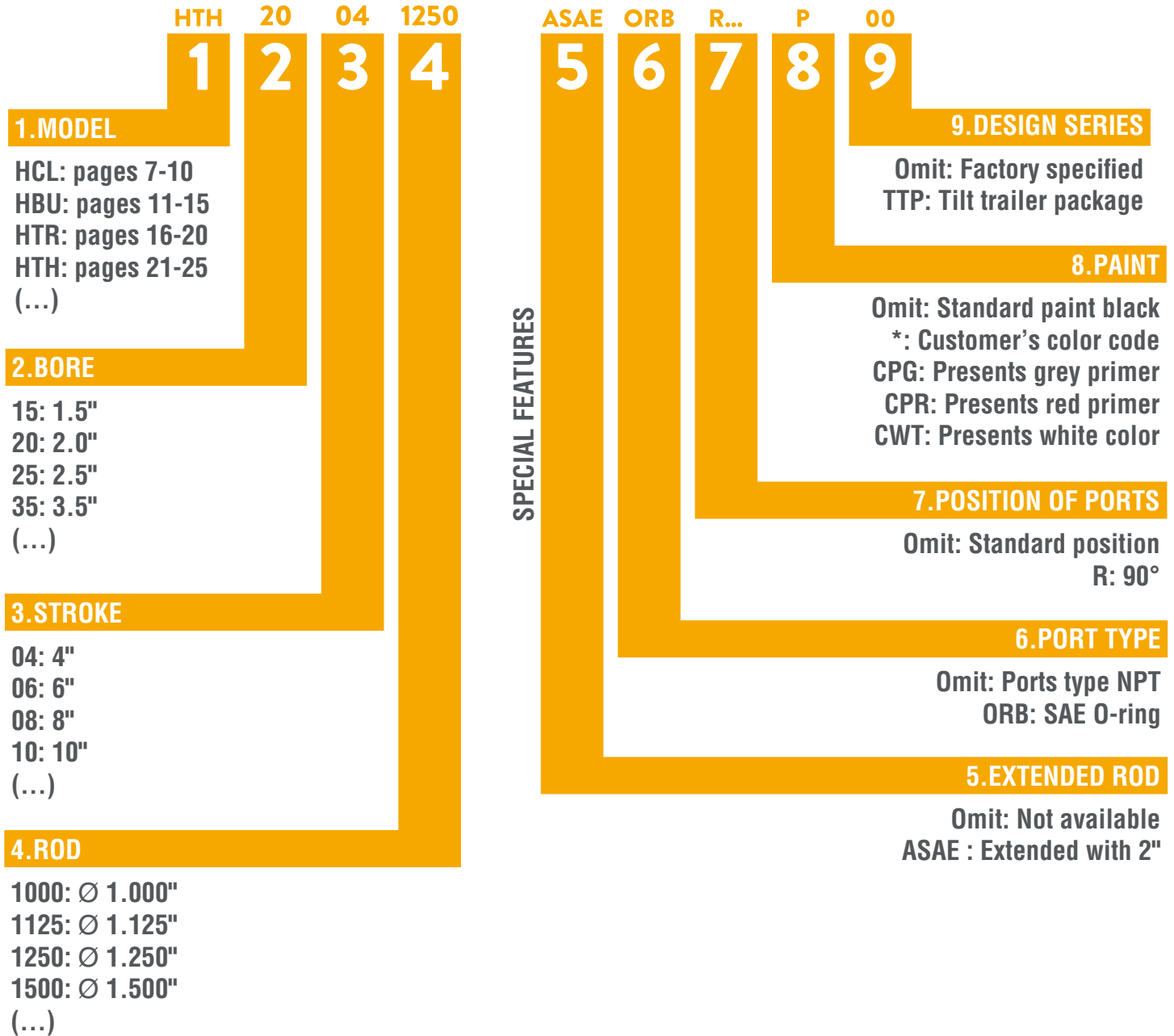


# OTHER APPLICATIONS

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

# ORDER INFORMATION

(IF DIFFERENT THAN OUR STANDARD)



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

# HCL 3000 PSI WP

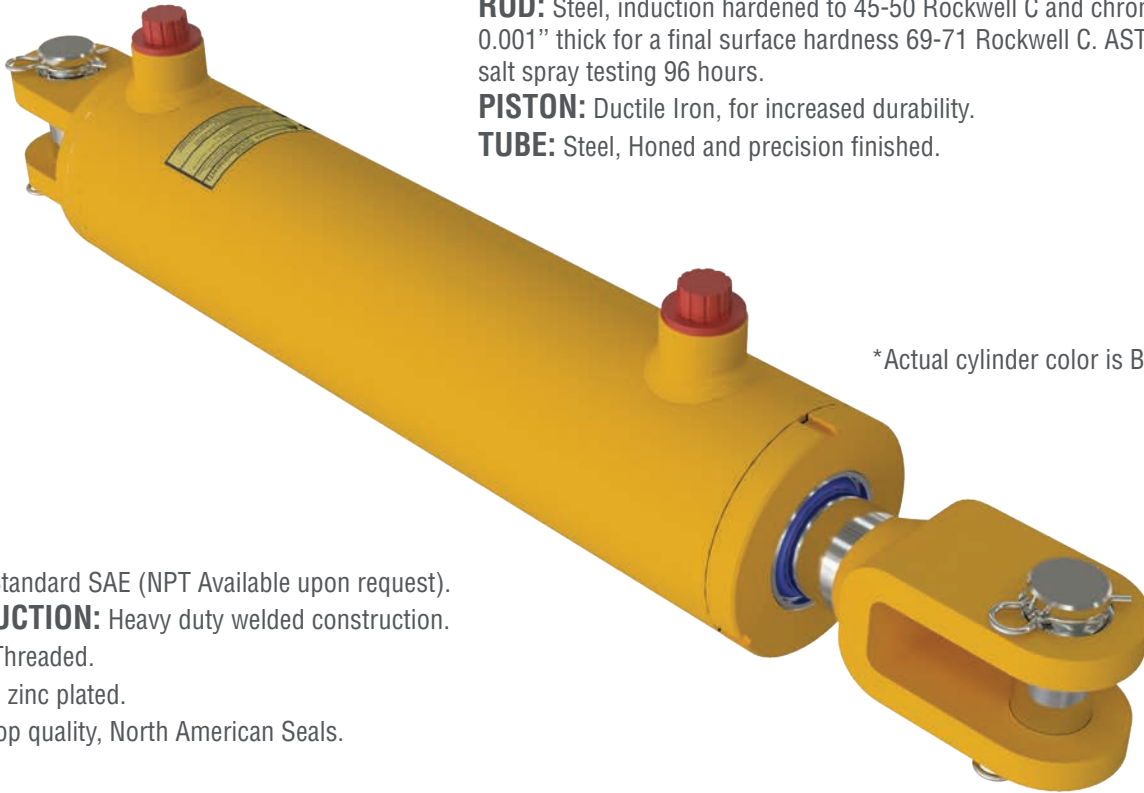


## HCL CYLINDER IS DOUBLE ACTING CYLINDER WITH:

**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

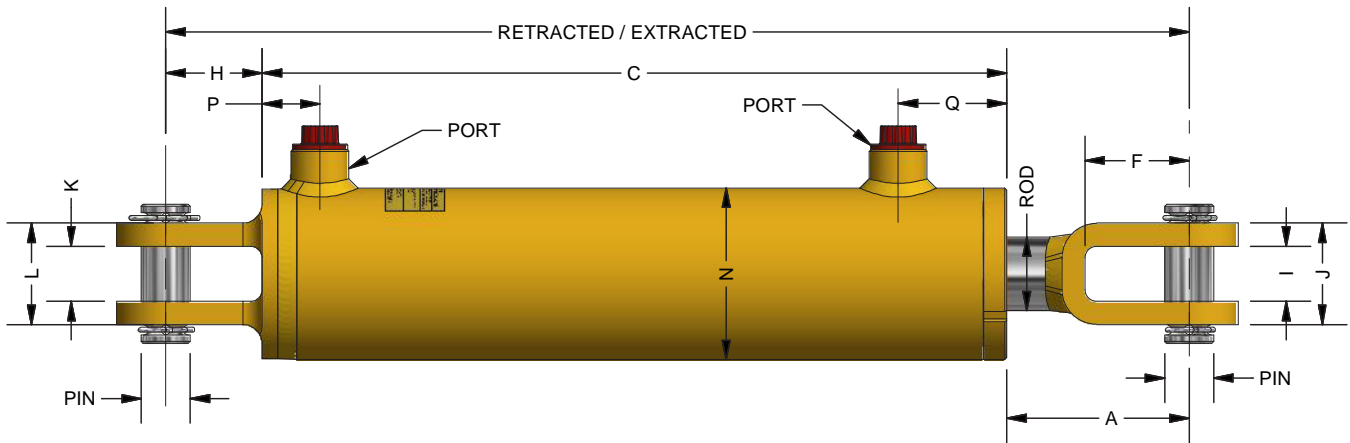
**PORTS:** Standard SAE (NPT Available upon request).

**CONSTRUCTION:** Heavy duty welded construction.

**GLAND:** Threaded.

**PIN:** Steel, zinc plated.

**SEALS:** Top quality, North American Seals.



\*All dimensions are in inches

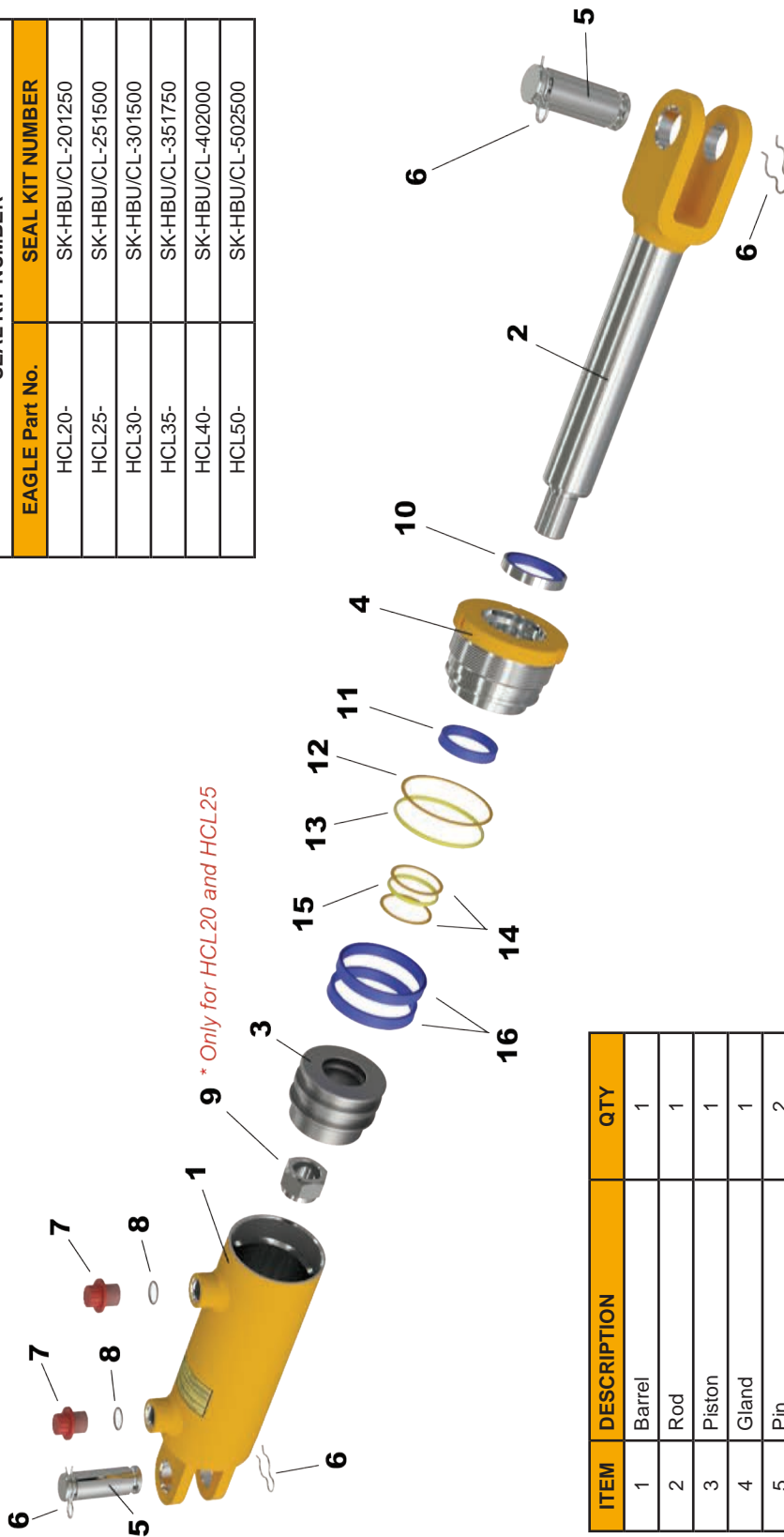
EAGLE Part No	BORE	A	F	H	I,K	J	L	N	P	Q
HCL20-	2.00	3.20 / 5.20 for HCL2008	2.125	2.125	1.125	2.125	2.125	2.375	0.875	2.000
HCL25-	2.50	3.0 / 5.0 for HCL2508	2.125	2.125	1.125	2.125	2.125	2.875	0.875	1.750
HCL30-	3.00	3.10 / 5.10 for HCL3008	2.125	1.972	1.125	2.125	2.125	3.500	1.000	2.200
HCL35-	3.50	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 product specifications are subject to change without prior notice.

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UTILITY WELDED HYDRAULIC CYLINDERS

EAGLE Part No.	SEAL KIT NUMBER
HCL20-	SK-HBU/CL-201250
HCL25-	SK-HBU/CL-251500
HCL30-	SK-HBU/CL-301500
HCL35-	SK-HBU/CL-351750
HCL40-	SK-HBU/CL-402000
HCL50-	SK-HBU/CL-502500



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



PART No.	STROKE	ROD DIAMETER	DIMENSIONS		C	MAX FORCE LBS	PORT	PIN	WEIGHT (LBS)	
			RETRACTED	EXTRACTED						
<b>HCL 2" BORE 3000 PSI WP</b>	HCL2004-ORB	4"	1 1/4"	14 1/4"	18 1/4"	8.5"	9425	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"	14726	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					
<b>HCL 3" BORE 3000PSI WP</b>	HCL3004-ORB	4"	1 1/2"	14 1/4"	18 1/4"	9.04"	21205	SAE#8 (1/2" NPT Available)	1"	23
	HCL3006-ORB	6"		16 1/4"	22 1/4"	11.04"				26
	HCL3008-ORB	8"		20 1/4"	28 1/4"	13.04"				28
	HCL3010-ORB	10"		20 1/4"	30 1/4"	15.04"				29
	HCL3012-ORB	12"		22 1/4"	34 1/4"	17.04"				30
	HCL3014-ORB	14"		24 1/4"	38 1/4"	19.04"				32
	HCL3016-ORB	16"		26 1/4"	42 1/4"	21.04"				36
	HCL3018-ORB	18"		28 1/4"	46 1/4"	23.04"				39
	HCL3020-ORB	20"		30 1/4"	50 1/4"	25.04"				42
	HCL3024-ORB	24"		34 1/4"	58 1/4"	29.04"				46
	HCL3028-ORB	28"		38 1/4"	66 1/4"	33.04"				51
	HCL3030-ORB	30"		40 1/4"	70 1/4"	35.04"				54
	HCL3032-ORB	32"		42 1/4"	74 1/4"	37.04"				56
HCL3034-ORB	34"	44 1/4"	78 1/4"	39.04"	59					
HCL3036-ORB	36"	46 1/4"	82 1/4"	41.04"	61					

All product specifications are subject to change without prior notice.

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**UTILITY WELDED HYDRAULIC CYLINDERS**

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		C	MAX FORCE LBS	PORT	PIN	WEIGHT (LBS)	
			RETRACTED	EXTRACTED						
<b>HCL 3.5" BORE 3000 PSI WP</b>	HCL3504-ORB	4"	1 3/4"	14 1/4"	18 1/4"	8.92"	28863	SAE#8 (1/2" NPT Available)	1" 1 1/4" 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					
<b>HCL 4" BORE 3000 PSI WP</b>	HCL4004-ORB	4"	2"	14 1/4"	18 1/4"	9.27"	37700	SAE#8 (1/2" NPT Available)	1" 1 1/2" 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"	58905	SAE#8 SAE#12 Available (1/2" NPT Available)	1" 1 1/2" 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					

# HBU 3000 PSI WP

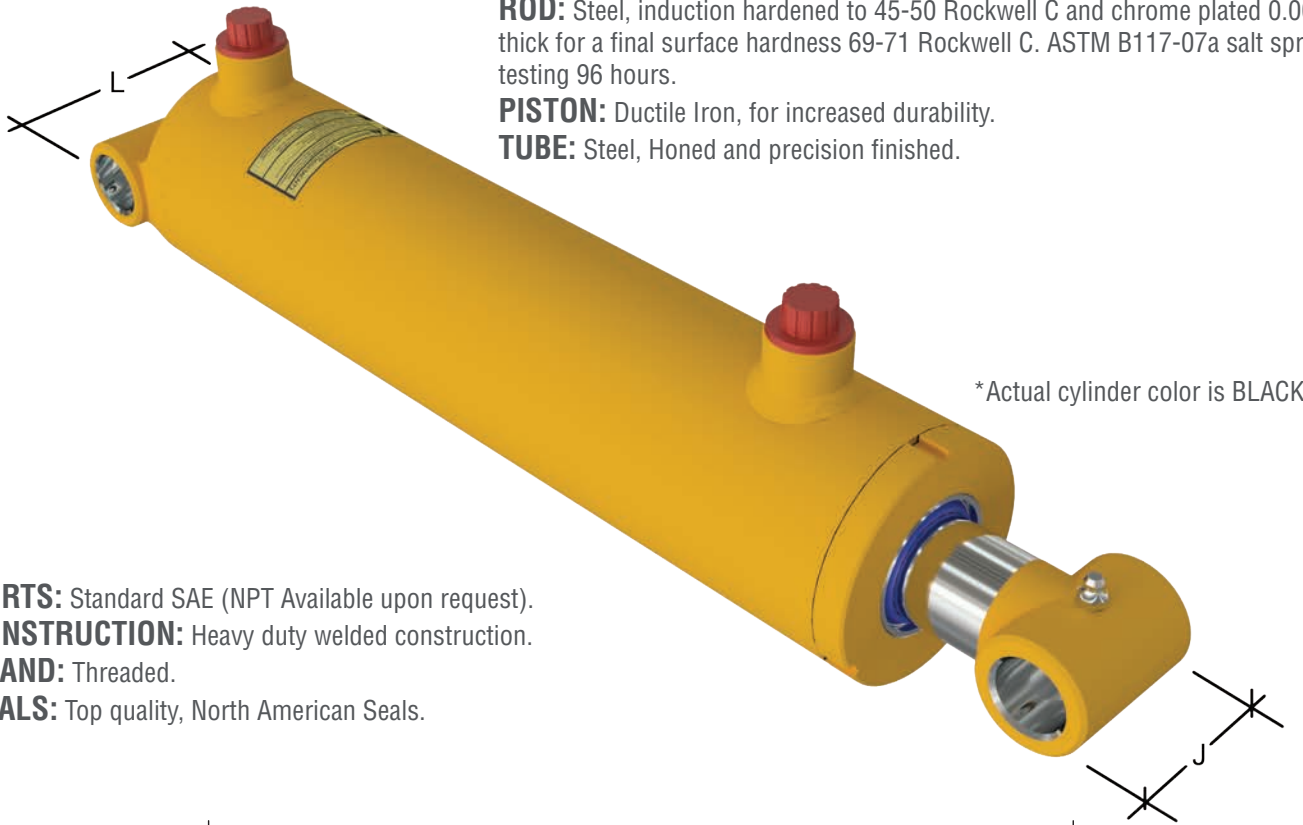


## HBU CYLINDER IS DOUBLE ACTING CYLINDER WITH:

**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.

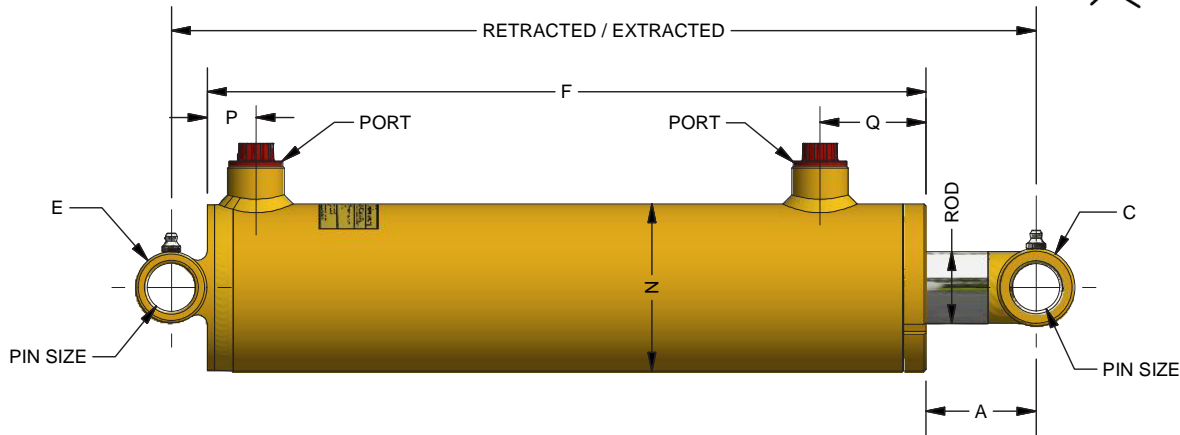


**PORTS:** Standard SAE (NPT Available upon request).

**CONSTRUCTION:** Heavy duty welded construction.

**GLAND:** Threaded.

**SEALS:** Top quality, North American Seals.



\*All dimensions are in inches

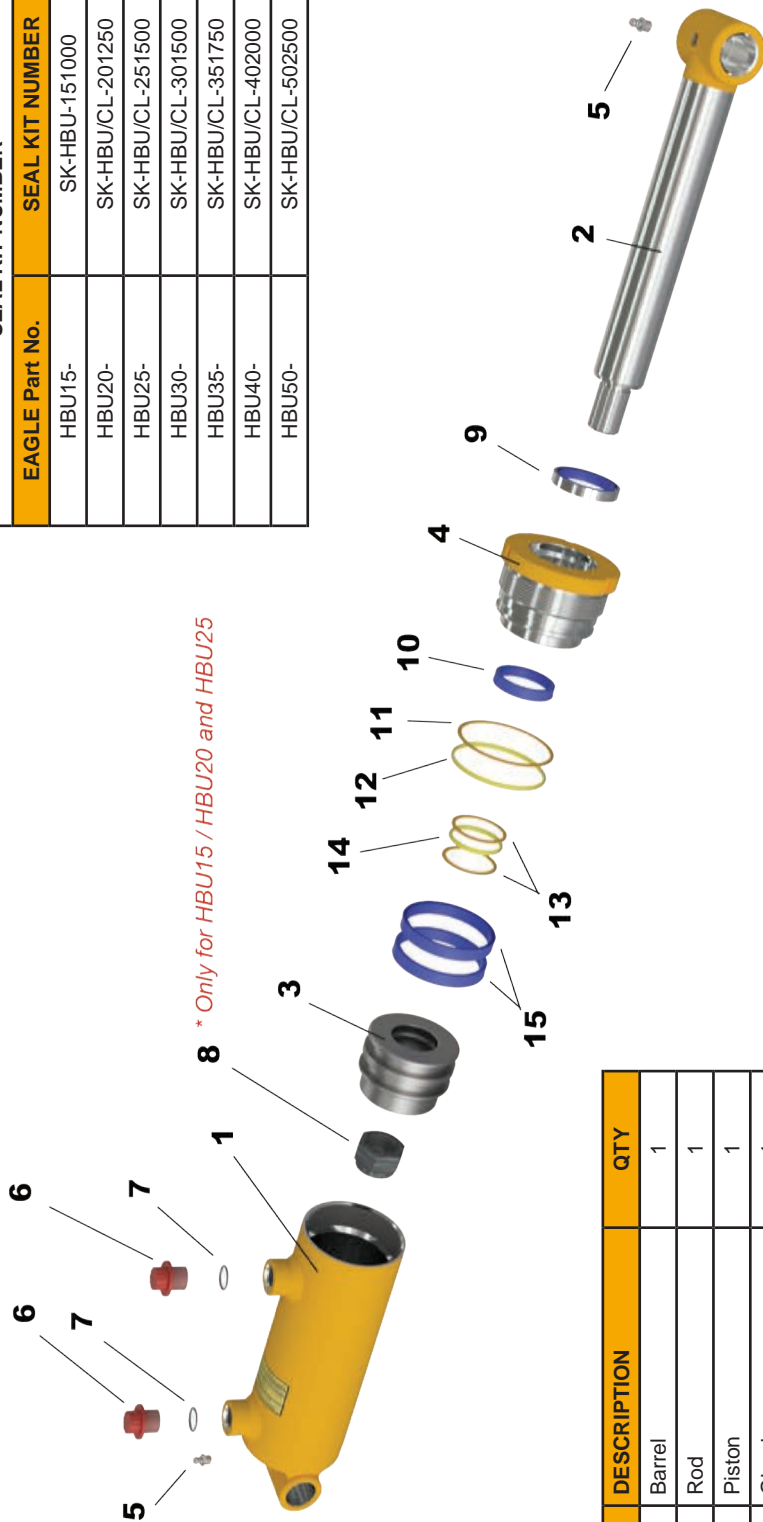
EAGLE Part No	BORE	ROD	A	C, E	PIN SIZE	J	L	N	P	Q
HBU15-	1.50	1.00	2.70	1.250	0.750	2.00	2.25	1,875	0.875	2.200
HBU20-	2.00	1.25	2.80	1.500	1.00	2.25	2.75	2.375	0.875	2.000
HBU25-	2.50	1.50	2.65	1.500	1.000	2.25	3.25	2.875	0.875	2.000
HBU30-	3.00	1.50	2.20	1.500	1.000	2.25	3.75	3.50	1.000	2.200
HBU35-	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

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UTILITY WELDED HYDRAULIC CYLINDERS

EAGLE Part No.	SEAL KIT NUMBER
HBU15-	SK-HBU-151000
HBU20-	SK-HBU/CL-201250
HBU25-	SK-HBU/CL-251500
HBU30-	SK-HBU/CL-301500
HBU35-	SK-HBU/CL-351750
HBU40-	SK-HBU/CL-402000
HBU50-	SK-HBU/CL-502500



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 1.5" BORE 3000 PSI WP	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		F	MAX FORCE LBS	PORT	PIN	WEIGHT (LBS)
				RETRACTED	EXTRACTED					
	HBU1504-ORB	4"	1"	12"	16"	8.5"	5300	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"	9425	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"	14726	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					

**UTILITY WELDED HYDRAULIC CYLINDERS**

	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		F	MAX FORCE LBS	PORT	PIN	WEIGHT (LBS)
				RETRACTED	EXTRACTED					
<b>HBU 3" BORE 3000PSI WP</b>	HBU3004-ORB	4"	1 1/2"	12"	16"	9.04"	21205	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"	28863	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					

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		F	MAX FORCE LBS	PORT	PIN	WEIGHT (LBS)	
			RETRACTED	EXTRACTED						
<b>HBU 4" BORE 3000PSI WP</b>	HBU4004-ORB	4"	2"	14"	18"	9.27"	37700	SAE#8 (1/2" NPT Available)	1 1/2"	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"	58905	SAE#8 SAE#12 Available (1/2" NPT Available)	1 3/4"	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					

UTILITY WELDED HYDRAULIC CYLINDERS

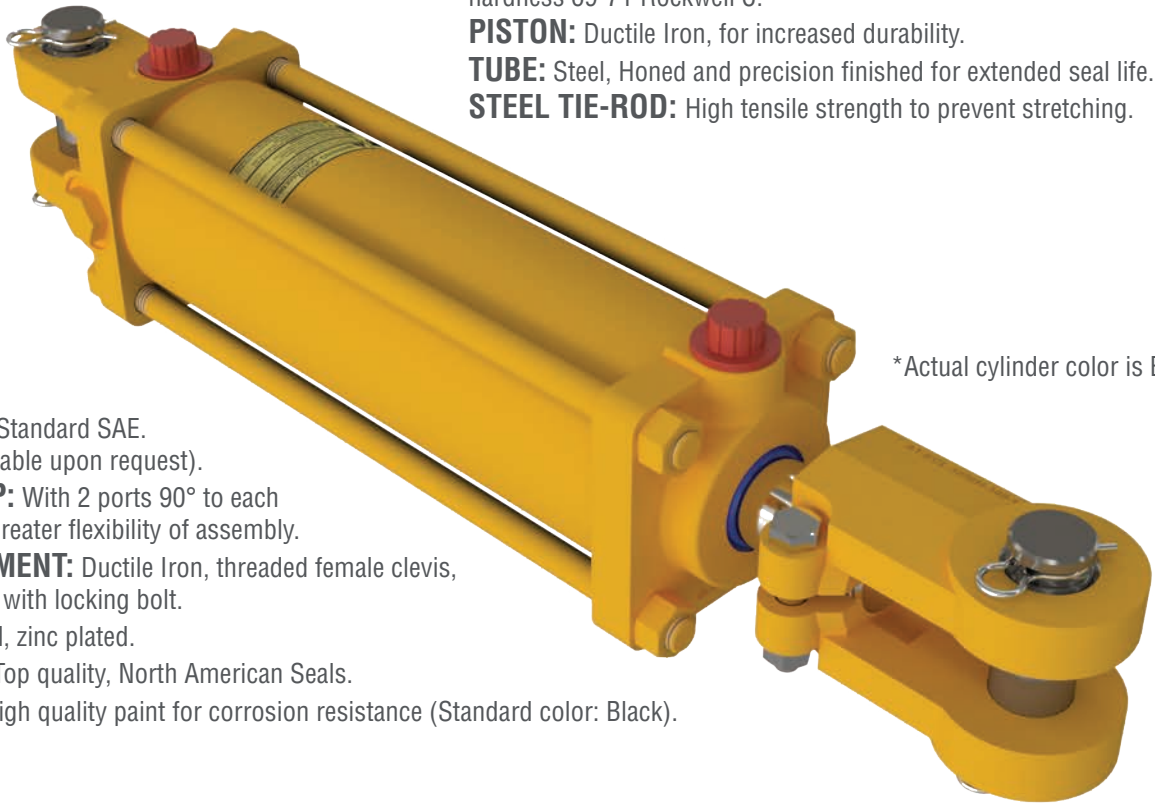
**HTR TIE-ROD CYLINDER IS DOUBLE ACTING CYLINDER WITH:**

**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).

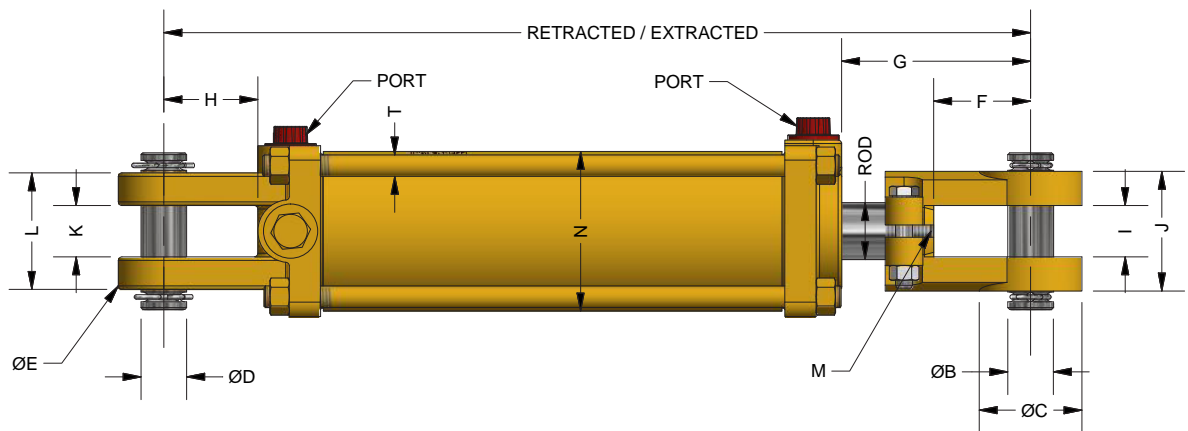
**END CAP:** With 2 ports 90° to each other for greater flexibility of assembly.

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

**PIN:** Steel, zinc plated.

**SEALS:** Top quality, North American 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

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

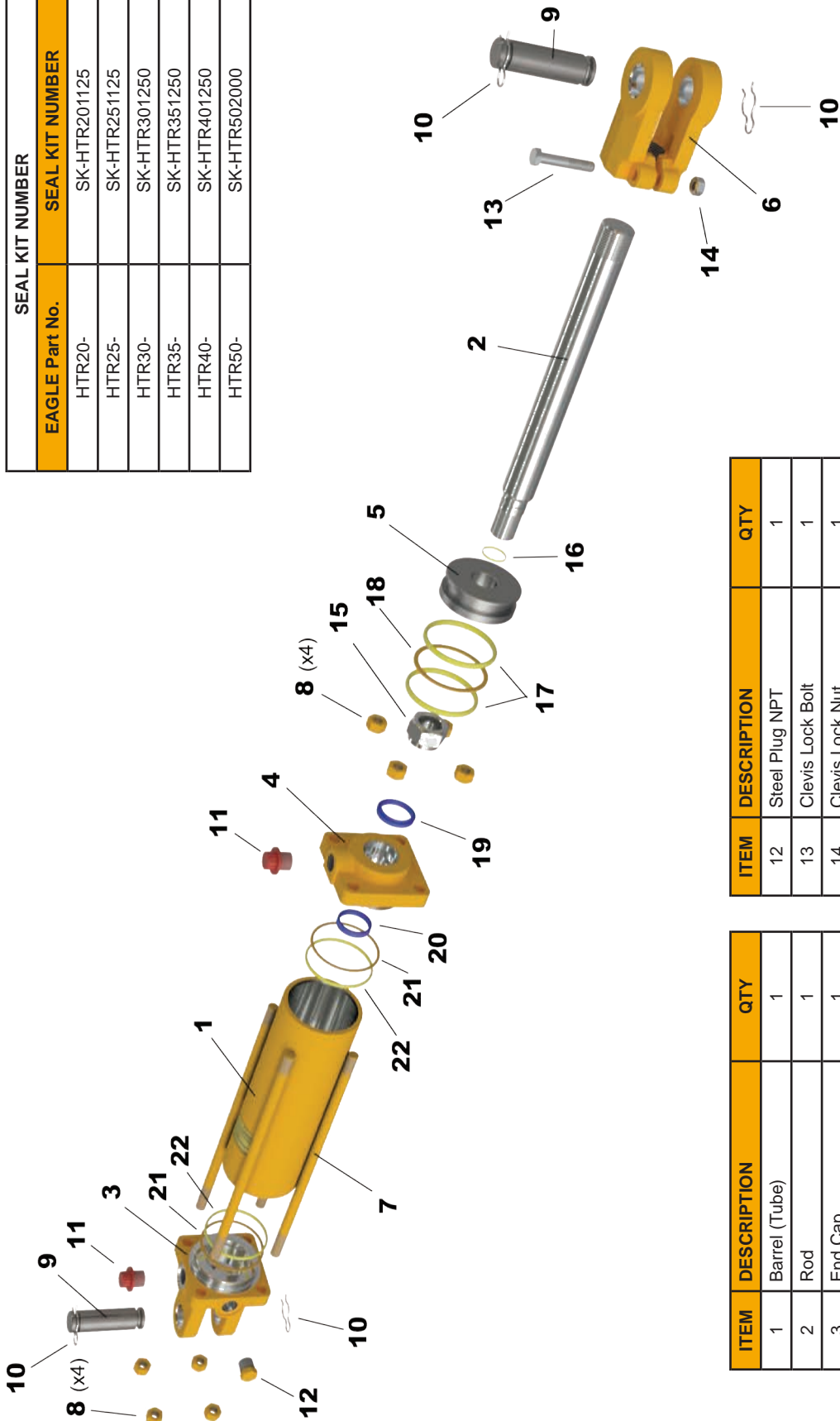
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# HTR 2500 PSI WP



EAGLE Part No.	SEAL KIT NUMBER
HTR20-	SK-HTR201125
HTR25-	SK-HTR251125
HTR30-	SK-HTR301250
HTR35-	SK-HTR351250
HTR40-	SK-HTR401250
HTR50-	SK-HTR502000



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 product specifications are subject to change without prior notice.

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# 17 TIE-ROD HYDRAULIC CYLINDERS

# TIE-ROD HYDRAULIC CYLINDERS

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		MAX FORCE LBS	G	PORT	PIN D, B	WEIGHT (LBS)
			RETRACTED	EXTRACTED					
HTR2004-ORB-P	4"	1 1/8"	14 1/4"	18 1/4"	7854	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"		18			
HTR2010-ORB-P	10"		20 1/4"	30 1/4"		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"						

HTR2504-ORB-P	4"	1 1/8"	14 1/4"	18 1/4"	12272	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"		20			
HTR2510-ORB-P	10"		20 1/4"	30 1/4"		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"		3.375"			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"					

	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		MAX FORCE LBS	G	PORT	PIN D, B	WEIGHT (LBS)
				RETRACTED	EXTRACTED					
<b>HTR 3" BORE 2500 PSI WP</b>	HTR3004-ORB-P	4"	1 1/4"	14 1/4"	18 1/4"	17672	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"					27
	HTR3010-ORB-P	10"		20 1/4"	30 1/4"		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"		38			
	HTR3018-ORB-P	18"		28 1/4"	46 1/4"		37			
	HTR3020-ORB-P	20"	30 1/4"	50 1/4"	39					
	HTR3024-ORB-P	24"	1 1/2"	34 1/4"	58 1/4"	3.375"	1"	43		
	HTR3030-ORB-P	30"		40 1/4"	70 1/4"			59		
	HTR3036-ORB-P	36"		46 1/4"	82 1/4"			68		
	HTR3040-ORB-P	40"		50 1/4"	90 1/4"					
	HTR3048-ORB-P	48"	58 1/4"	106 1/4"						

<b>HTR 3.5" BORE 2500 PSI WP</b>	HTR3504-ORB-P	4"	1 1/4"	14 1/4"	18 1/4"	24053	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"					29
	HTR3510-ORB-P	10"		20 1/4"	30 1/4"		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"		31 1/2"	47 1/2"		39			
	HTR3518-ORB-P	18"		28 1/4"	46 1/4"		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"	3.50"	1"	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"						

# TIE-ROD HYDRAULIC CYLINDERS

	PART No.	STROKE	ROD DIAMETER	DIMENSIONS		MAX FORCE LBS	G	PORT	PIN D, B	WEIGHT (LBS)	
				RETRACTED	EXTRACTED						
<b>HTR 4" BORE 2500 PSI WP</b>	HTR4004-ORB-P	4"	1 1/4"	14 1/4"	18 1/4"	31416	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"		36				
	HTR4010-ORB-P	10"		20 1/4"	30 1/4"		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"	2"	34 1/4"	58 1/4"		3.375"		1"	59	
	HTR4024-175-ORB-P	24"		1 3/4"	34 1/4"					58 1/4"	64
	HTR4024-200-ORB-P	24"		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"						

<b>HTR 5" BORE 1500 PSI WP</b>	HTR5004-ORB-P	4"	1 1/2"	16 1/4"	20 1/4"	29452	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"		66			
	HTR5010-ORB-P	10"	2"	22 1/4"	32 1/4"		3.75"		1 1/4"	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"					87
	HTR5016-ASAE-ORB-P	16"		31 1/2"	47 1/2"		7.00"			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					

# HTH 3000 PSI WP



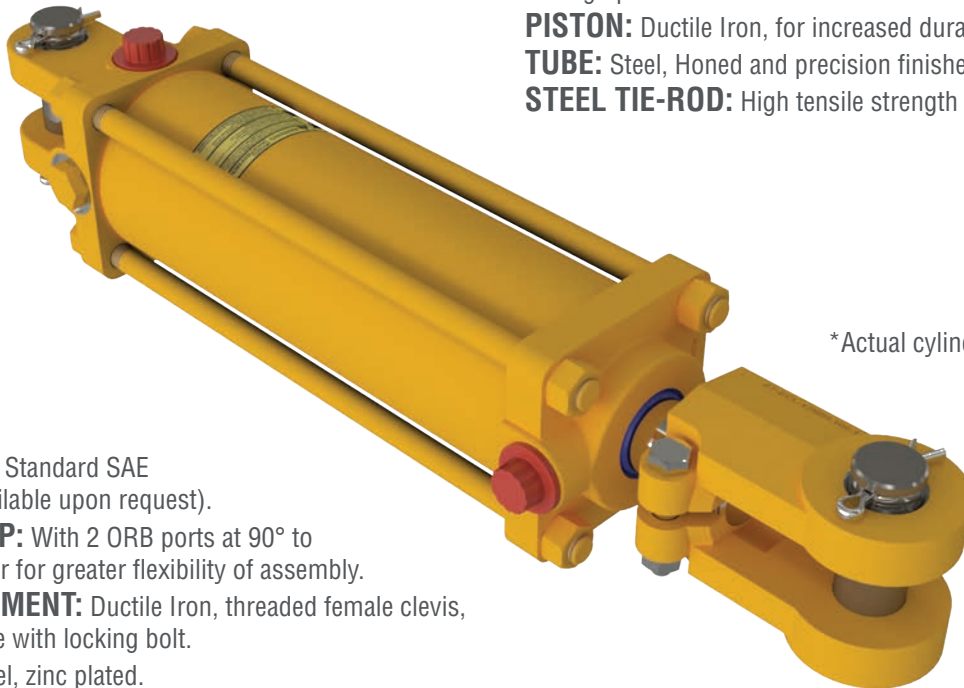
## HTH TIE-ROD CYLINDER IS DOUBLE ACTING CYLINDER WITH:

**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).

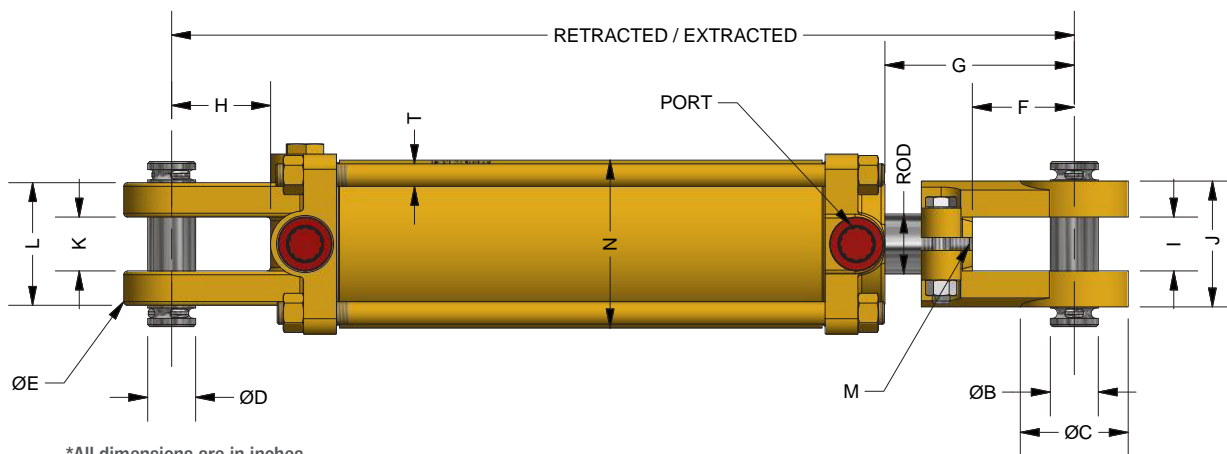
**END CAP:** With 2 ORB ports at 90° to each other for greater flexibility of assembly.

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

**PIN:** Steel, zinc plated.

**SEALS:** Top quality, North American 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

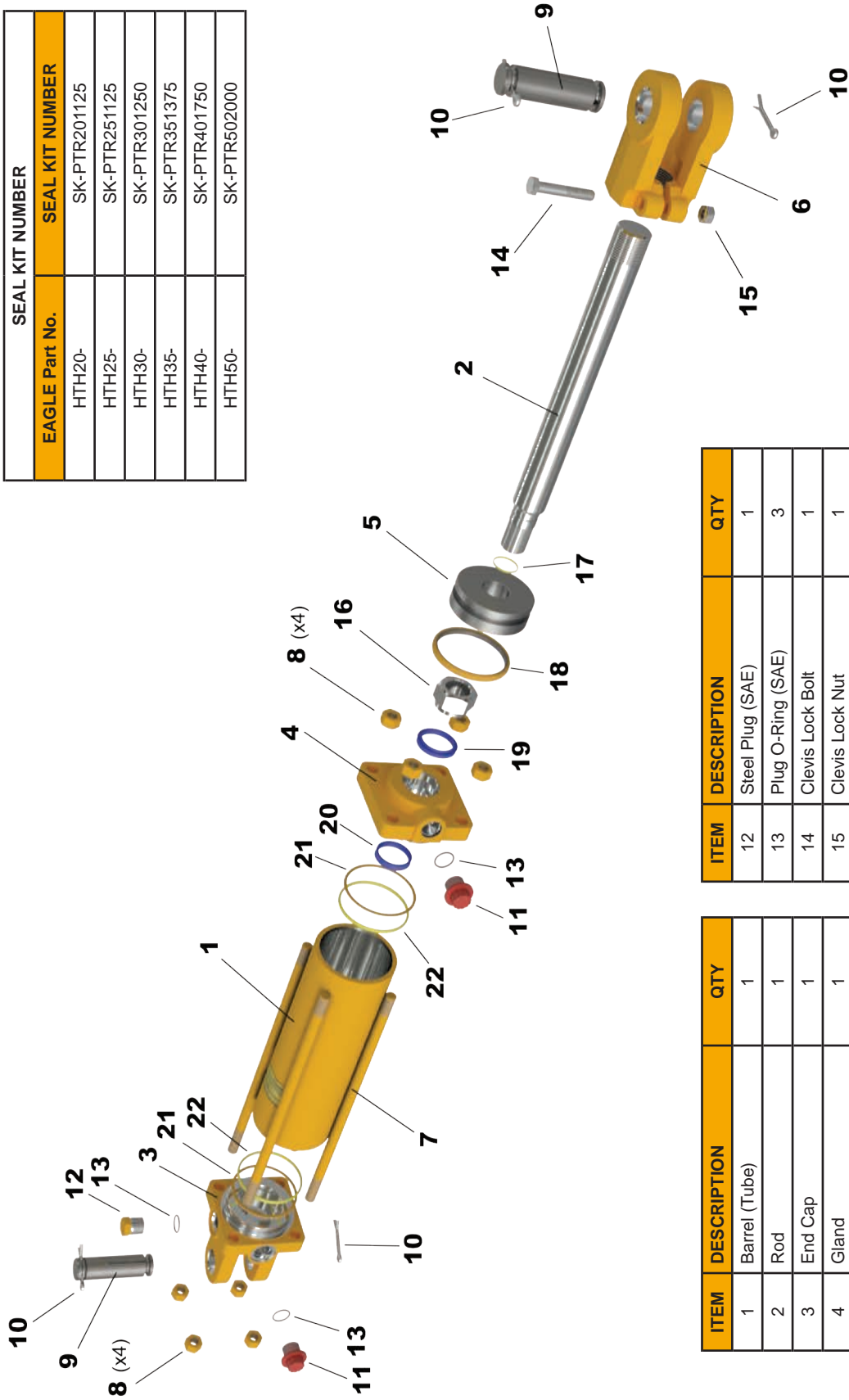
All product specifications are subject to change without prior notice.

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TIE-ROD HYDRAULIC CYLINDERS

# TIE-ROD HYDRAULIC CYLINDERS

SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HTH20-	SK-PTR201125
HTH25-	SK-PTR251125
HTH30-	SK-PTR301250
HTH35-	SK-PTR351375
HTH40-	SK-PTR401750
HTH50-	SK-PTR502000



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

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		MAX FORCE LBS	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"	9425	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"		21			
	HTH2010-10-ORB	10"		20 1/4"	30 1/4"		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"		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"	14726	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"		24			
	HTH2510-10-ORB	10"		20 1/4"	30 1/4"		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"		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			

TIE-ROD HYDRAULIC CYLINDERS

**TIE-ROD HYDRAULIC CYLINDERS**

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		MAX FORCE LBS	G	PORT	PIN (B,D)	WEIGHT (LBS)	
			RETRACTED	EXTRACTED						
HTH3004-10-ORB	4"	1 1/4"	14 1/4"	18 1/4"	21205	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"		24 1/4"	38 1/4"		35				
HTH3016-10-ORB	16"	1 1/2"	26 1/4"	42 1/4"		8.625"		3.375"	1 1/4"	38
HTH3016-ASAE-10-ORB	16"		31 1/2"	47 1/2"						40
HTH3018-10-ORB	18"		28 1/4"	46 1/4"		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						

HTH3504-10-ORB	4"	1 1/4"	14 1/4"	18 1/4"	28863	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"		24 1/4"	38 1/4"		41				
HTH3516-10-ORB	16"	1 1/2"	26 1/4"	42 1/4"		8.80"		3.50"	1 1/4"	44
HTH3516-ASAE-10-ORB	16"		31 1/2"	47 1/2"						46
HTH3518-10-ORB	18"		28 1/4"	46 1/4"		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				
HTH3036-10-ORB	36"		46 1/4"	82 1/4"		72				
HTH3040-10-ORB	40"	50 1/4"	90 1/4"	77						
HTH3048-10-ORB	48"	58 1/4"	106 1/4"	88						



PART No.	STROKE	ROD DIAMETER	DIMENSIONS		MAX FORCE LBS	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"	37700	3.375"	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"	1 1/4"	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"
	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"	58905	3.75"	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"				92
	HTH5020-10-ORB	20"		32 1/4"	52 1/4"		3.75"		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					

TIE-ROD HYDRAULIC CYLINDERS

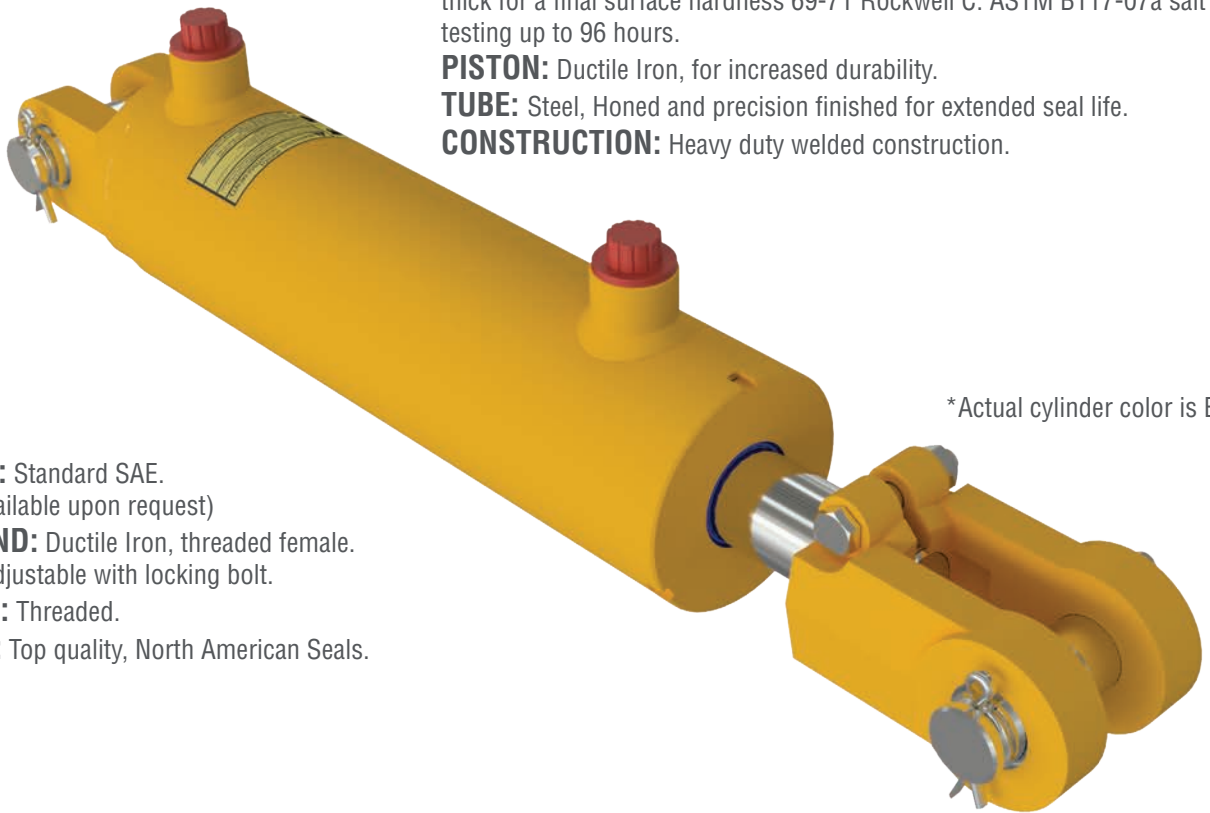
**HTG CYLINDER IS DOUBLE ACTING CYLINDER WITH:**

**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

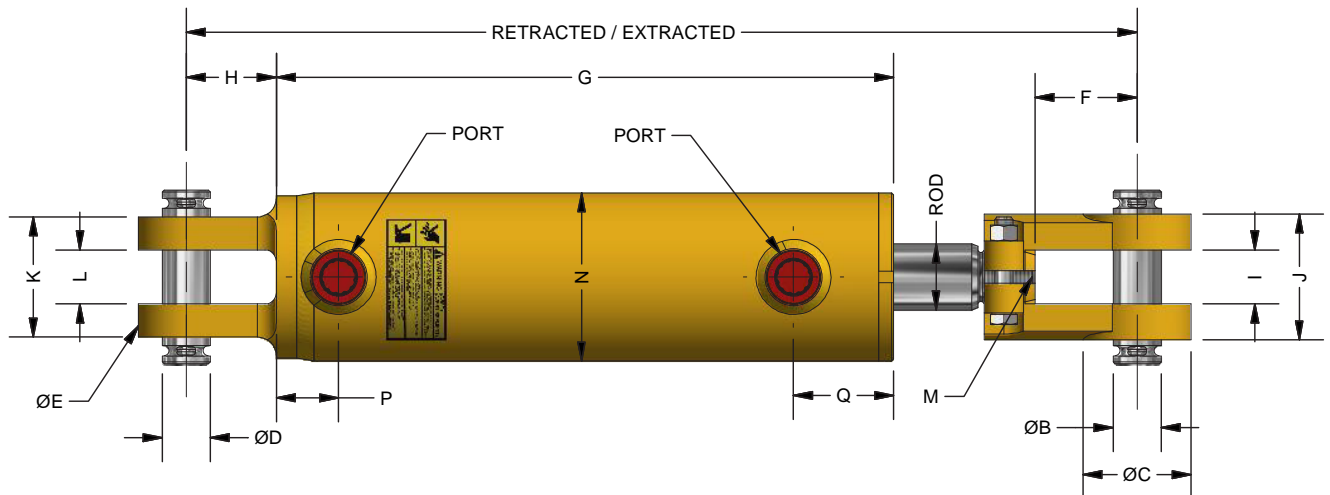
**PORTS:** Standard SAE.

(NPT Available upon request)

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

**GLAND:** Threaded.

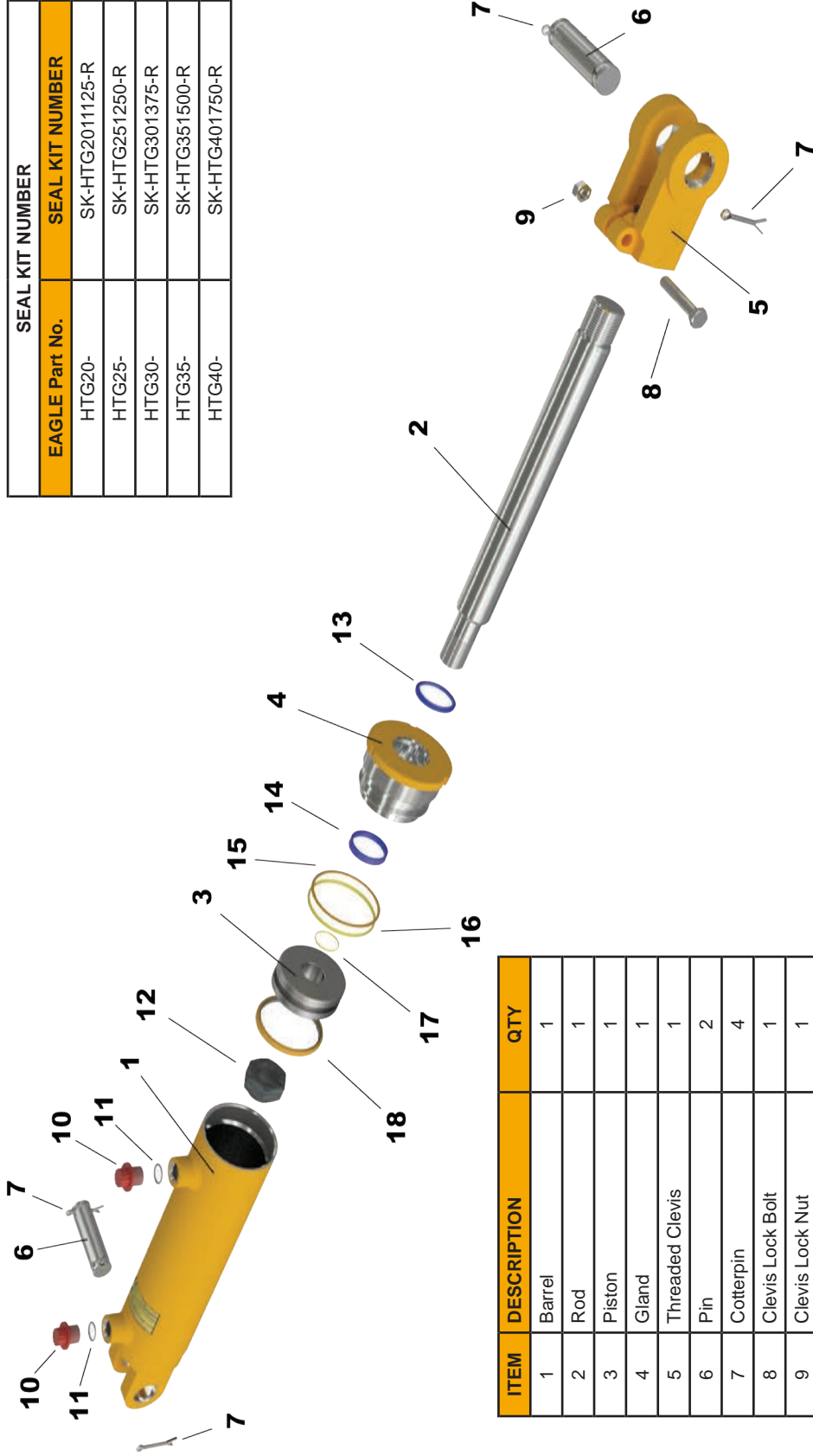
**SEALS:** Top quality, North American Seals.



\*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
HTG20-	SK-HTG2011125-R
HTG25-	SK-HTG251250-R
HTG30-	SK-HTG301375-R
HTG35-	SK-HTG351500-R
HTG40-	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

# WELDED HYDRAULIC CYLINDERS

**WELDED HYDRAULIC CYLINDERS**

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		G	MAX FORCE LBS	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"	9425	SAE #6 (1/2" NPT Available)	1"	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"	14726	SAE #8 (1/2" NPT Available)	1"	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	MAX FORCE LBS	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"	21205	SAE #8 (1/2" NPT Available)	1"	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"	28863	SAE #8 (1/2" NPT Available)	1"	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					

WELDED HYDRAULIC CYLINDERS

**WELDED HYDRAULIC CYLINDERS**

PART No.	STROKE	ROD DIAMETER	DIMENSIONS		G	MAX FORCE LBS	PORT	PIN (B,D)	WEIGHT (LBS)
			RETRACTED	EXTRACTED					
HTG4004-ORB	4"	1 3/4"	14 1/4"	18 1/4"	8.95"	37700	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				

# HSP 2500 PSI WP



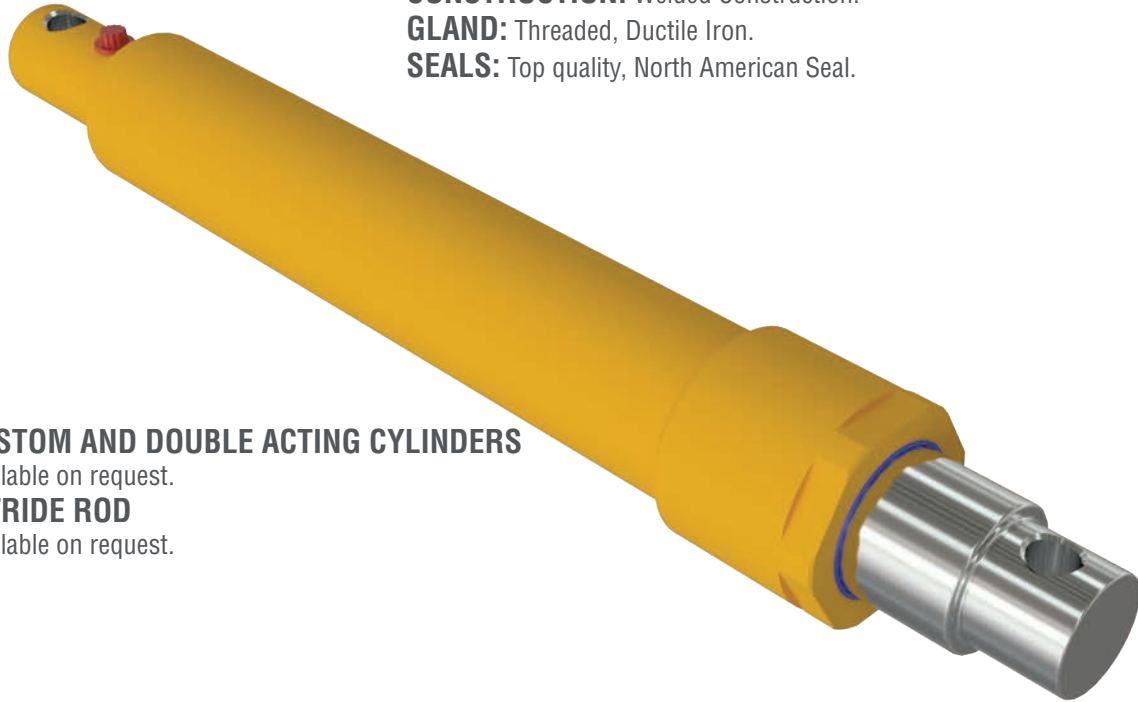
## HSP CYLINDER IS SINGLE ACTING CYLINDER WITH:

**APPLICATION:** High Shock Applications.

**CONSTRUCTION:** Welded Construction.

**GLAND:** Threaded, Ductile Iron.

**SEALS:** Top quality, North American Seal.



## CUSTOM AND DOUBLE ACTING CYLINDERS

Available on request.

### NITRIDE ROD

Available on request.

\*Actual cylinder color is BLACK

## MODEL NUMBER

**A SP - 175 - 12 - 0750 - 00**

Replacement

- A - Artic
- F - Fisher
- M - Meyer
- W - Western

Suffix for Model Type

Design code

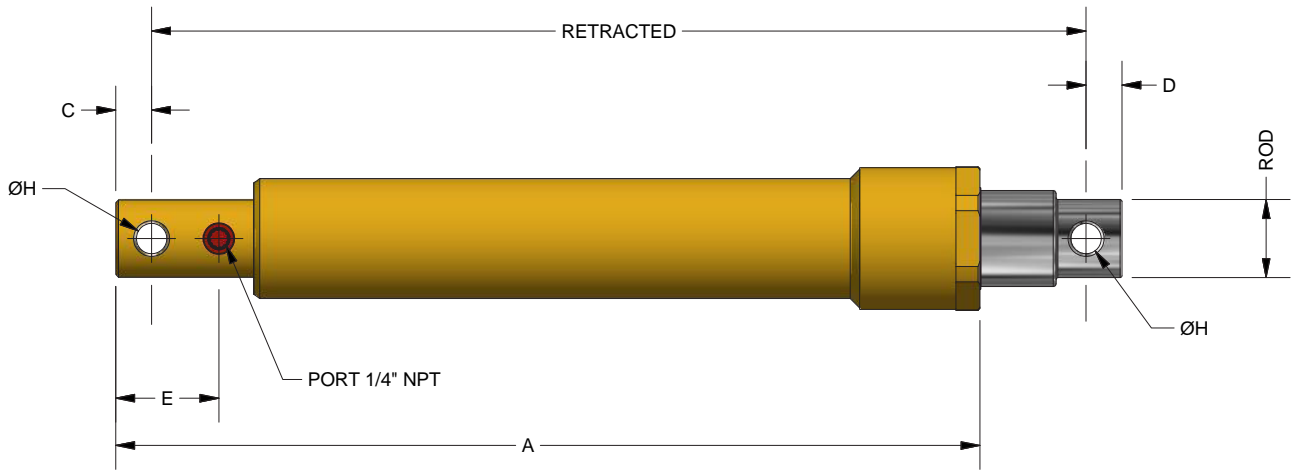
Pin Diameter (ex: 0625=0.625")

Cylinder Stroke (ex: 12=12")

Cylinder Bore (ex: 175=1.75")

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

SNOW PLOW HYDRAULIC CYLINDERS



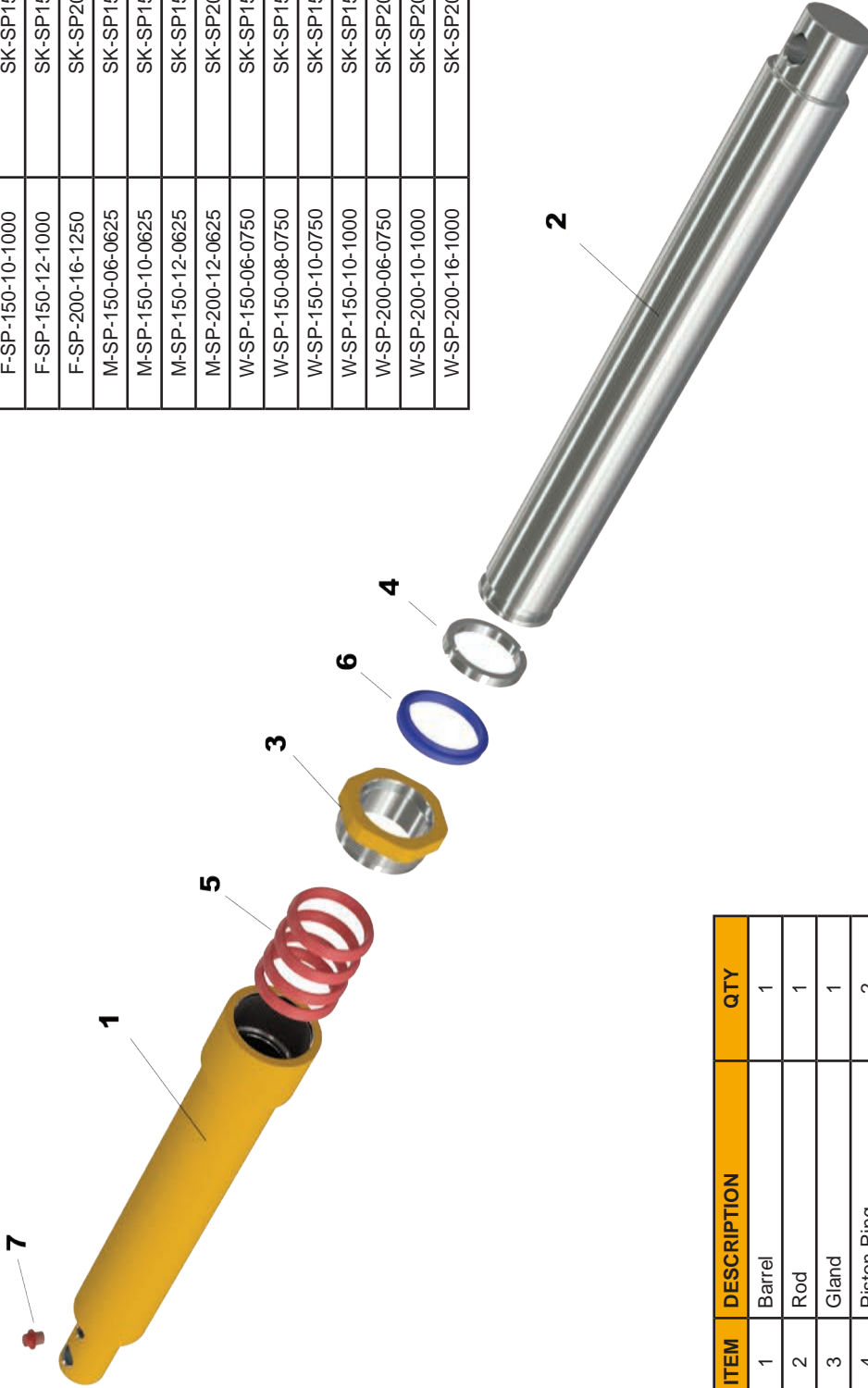
PART No.	BORE	STROKE	PIN DIA (H)	ROD	A	B	C(D)	E	MAX RATED PSI
<b>A-SP-150-10-0750</b>	1 3/4"	10"	3/4"	1 1/2"	16 5/8"	17"	3/4"	2 3/4"	6013
<b>A-SP-150-12-0750</b>	1 3/4"	12"	3/4"	1 1/2"	16 5/8"	19"	3/4"	2 3/4"	6013
<b>F-SP-150-10-1000</b>	1 3/4"	10"	1"	1 1/2"	16 3/8"	17 1/4"	3/4"	2 5/8"	6013
<b>F-SP-150-12-1000</b>	1 3/4"	12"	1"	1 1/2"	18 7/16"	19 1/4"	3/4"	2 5/8"	6013
<b>F-SP-200-16-1250</b>	2 1/4"	16"	1 1/4"	2"	22 1/2"	23 1/4"	7/8"	2 3/4"	9940
<b>M-SP-150-06-0625</b>	1 3/4"	6"	5/8"	1 1/8"	11 7/8"	12 3/8"	3/4"	2 1/8"	6013
<b>M-SP-150-10-0625</b>	1 3/4"	10"	5/8"	1 1/2"	15 7/8"	16 3/16"	3/4"	2 1/8"	6013
<b>M-SP-150-12-0625</b>	1 3/4"	12"	5/8"	1 1/2"	17 7/8"	18"	3/4"	2 1/8"	6013
<b>M-SP-200-12-0625</b>	2 1/4"	12"	5/8"	1 5/8"	17 1/4"	18"	3/4"	2 1/8"	9940
<b>W-SP-150-06-0750</b>	1 3/4"	6"	3/4"	1 1/2"	12 5/8"	13"	11/16"	2 3/4"	6013
<b>W-SP-150-08-0750</b>	1 3/4"	8"	3/4"	1 1/2"	14 5/8"	15 1/4"	11/16"	2 3/4"	6013
<b>W-SP-150-10-0750</b>	1 3/4"	10"	3/4"	1 1/2"	16 5/8"	17 1/4"	11/16"	2 3/4"	6013
<b>W-SP-150-10-1000</b>	1 3/4"	10"	1"	1 1/2"	16 5/8"	17"	11/16"	2 3/4"	6013
<b>W-SP-200-06-0750</b>	2 1/4"	6"	3/4"	2"	12 5/8"	13 3/16"	3/4"	2 3/4"	9940
<b>W-SP-200-10-1000</b>	2 1/4"	10"	1"	2"	16 5/8"	17 1/4"	11/16"	2 3/4"	9940
<b>W-SP-200-16-1000</b>	2 1/4"	16"	1"	2"	22 5/8"	23 5/16"	3/4"	2 9/16"	9940



# HSP 2500 PSI WP



SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
A-SP-150-10-0750	SK-SP150
A-SP-150-12-0750	SK-SP150
F-SP-150-10-1000	SK-SP150
F-SP-150-12-1000	SK-SP150
F-SP-200-16-1250	SK-SP200
M-SP-150-06-0625	SK-SP150
M-SP-150-10-0625	SK-SP150
M-SP-150-12-0625	SK-SP150
M-SP-200-12-0625	SK-SP200
W-SP-150-06-0750	SK-SP150
W-SP-150-08-0750	SK-SP150
W-SP-150-10-0750	SK-SP150
W-SP-150-10-1000	SK-SP150
W-SP-200-06-0750	SK-SP200
W-SP-200-10-1000	SK-SP200
W-SP-200-16-1000	SK-SP200



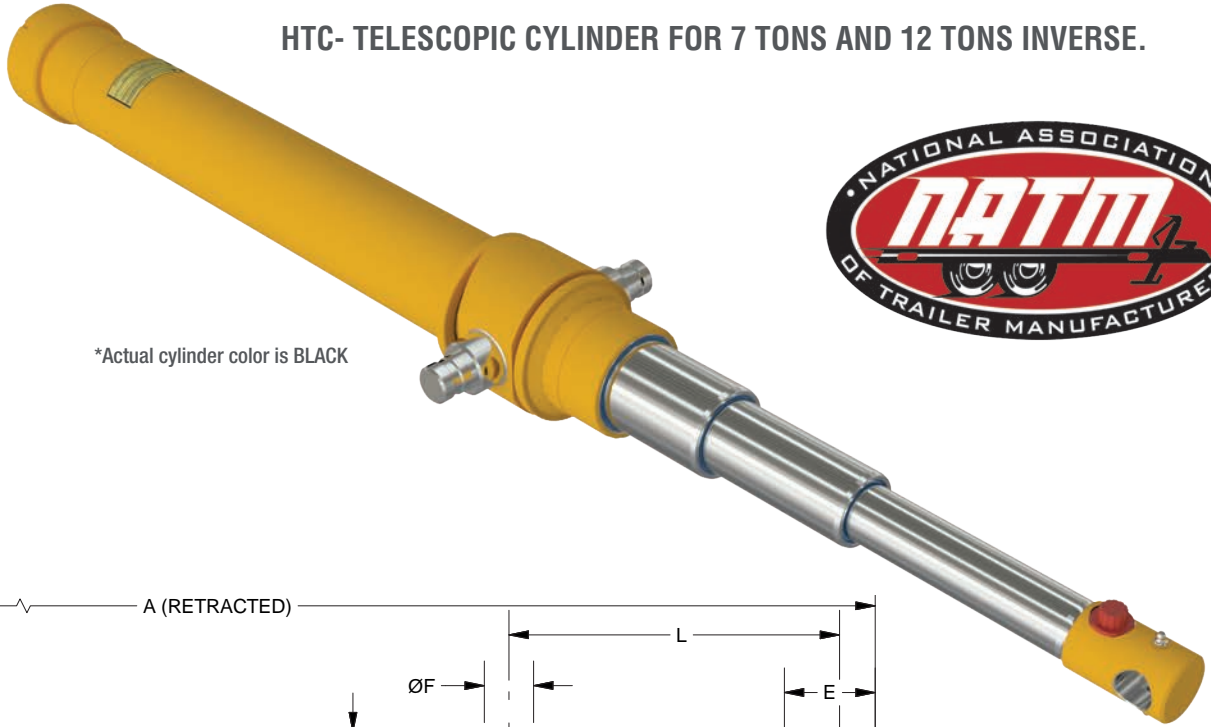
ITEM	DESCRIPTION	QTY
1	Barrel	1
2	Rod	1
3	Gland	1
4	Piston Ring	2
5	Gland Seals	4
6	Wiper	1
7	Plastic Plug NPT	1

## SNOW PLOW HYDRAULIC CYLINDERS

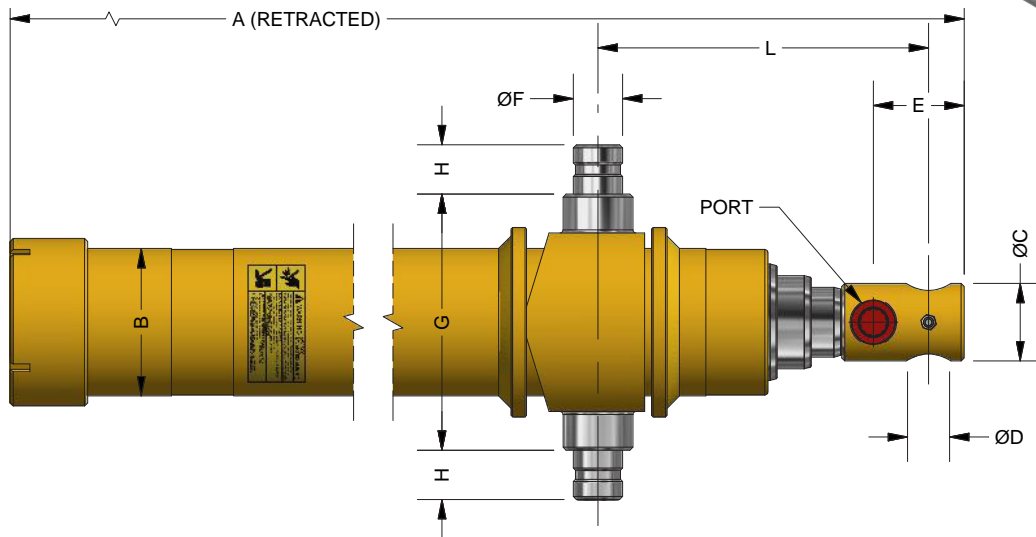
All product specifications are subject to change without prior notice.

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**HTC- 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-07833-ORB	78"	35.5"	3.75"	2"	1.063"	3.0"	1.25"	6.5"	1.25"	7"	SAE #8 (3/4-16UNF)	68	1.6
HTC-09033-ORB	90"	39.5"	3.75"	2"	1.063"	3.0"	1.25"	6.5"	1.25"	7"		75	1.8
HTC-10833-ORB	108"	45"	3.75"	2"	1.063"	3.0"	1.25"	6.5"	1.25"	7"		101	2.2

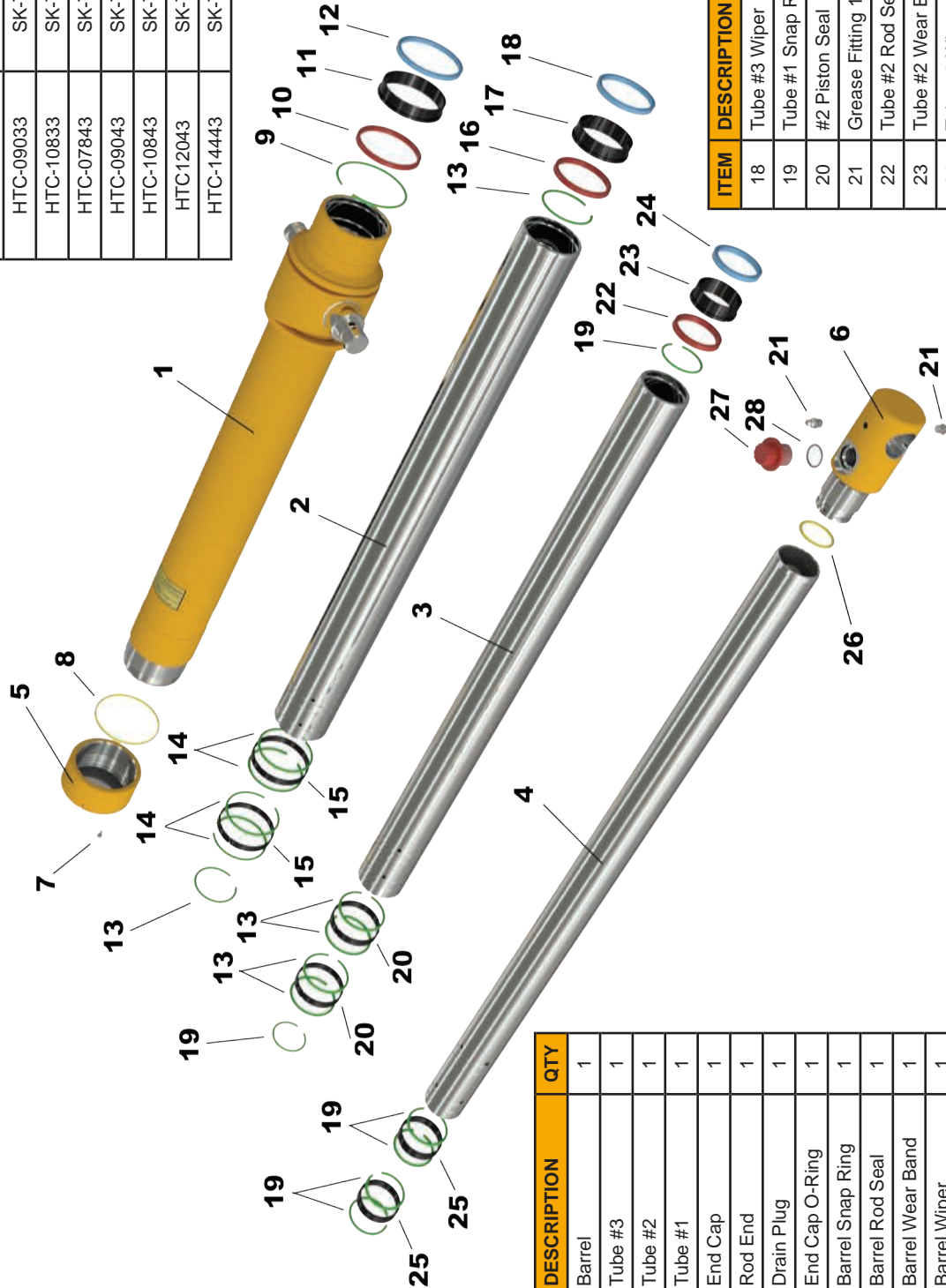
**12 TONS INVERSE**

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	2.5
HTC-09043-ORB	90"	38.75"	4.4"	2"	1.063"	3.0"	1.5"	7.5"	1.5"	7"		107	2.8
HTC-10843-ORB	108"	44.75"	4.4"	2"	1.063"	3.0"	1.5"	7.5"	1.5"	7"		132	3.4
HTC-12043-ORB	120"	48.75"	4.4"	2"	1.063"	3.0"	1.5"	7.5"	1.5"	7"		143	3.8
HTC-14443-ORB	144"	56.78"	4.4"	2"	1.063"	2.25"	1.5"	7.5"	1.5"	7"		166	4.6

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

TELESCOPIC HYDRAULIC CYLINDERS

SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HTC-07833	SK-TEL-45-60-75
HTC-09033	SK-TEL-45-60-75
HTC-10833	SK-TEL-45-60-75
HTC-07843	SK-TEL-60-75-92
HTC-09043	SK-TEL-60-75-92
HTC-10843	SK-TEL-60-75-92
HTC12043	SK-TEL-60-75-92
HTC-14443	SK-TEL-60-75-92



ITEM	DESCRIPTION	QTY
18	Tube #3 Wiper	1
19	Tube #1 Snap Ring	6
20	#2 Piston Seal	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 Piston Seal	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 Piston Seal	2
16	Tube #3 Rod Seal	1
17	Tube #3 Wear Band	1

All product specifications are subject to change without prior notice.

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35 TELESCOPIC HYDRAULIC CYLINDERS

# ORDER INFORMATION

TELESCOPIC HYDRAULIC CYLINDERS

**HTC - 078 33 - ORB - 00**

**MODEL** \_\_\_\_\_ Design code  
**STROKE** \_\_\_\_\_ Factory Specification  
**CAPACITY** \_\_\_\_\_ **PORT** \_\_\_\_\_

33 - for 7 tons  
 43 - for 12 tons

omit - 1/2 NPT  
 ORB - SAE#8-3/4-16UNF

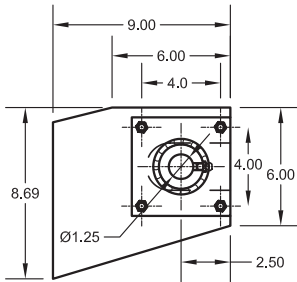
**ACCESSORIES FOR TELESCOPIC CYLINDERS**



**MOUNTING BRACKETS**

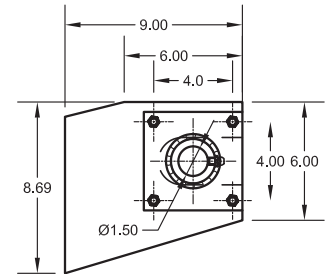
**HTCS07-A**

for 7 tons



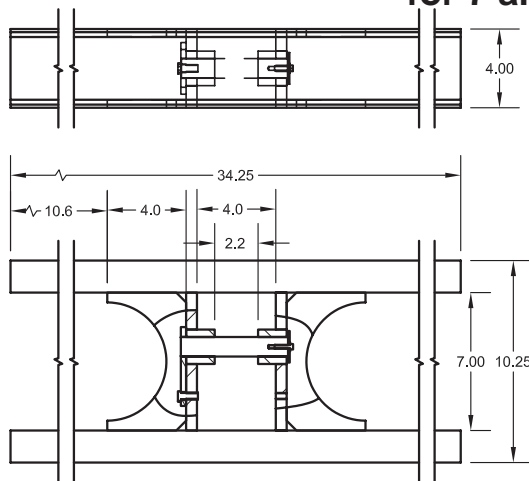
**HTCS12-A**

for 12 tons



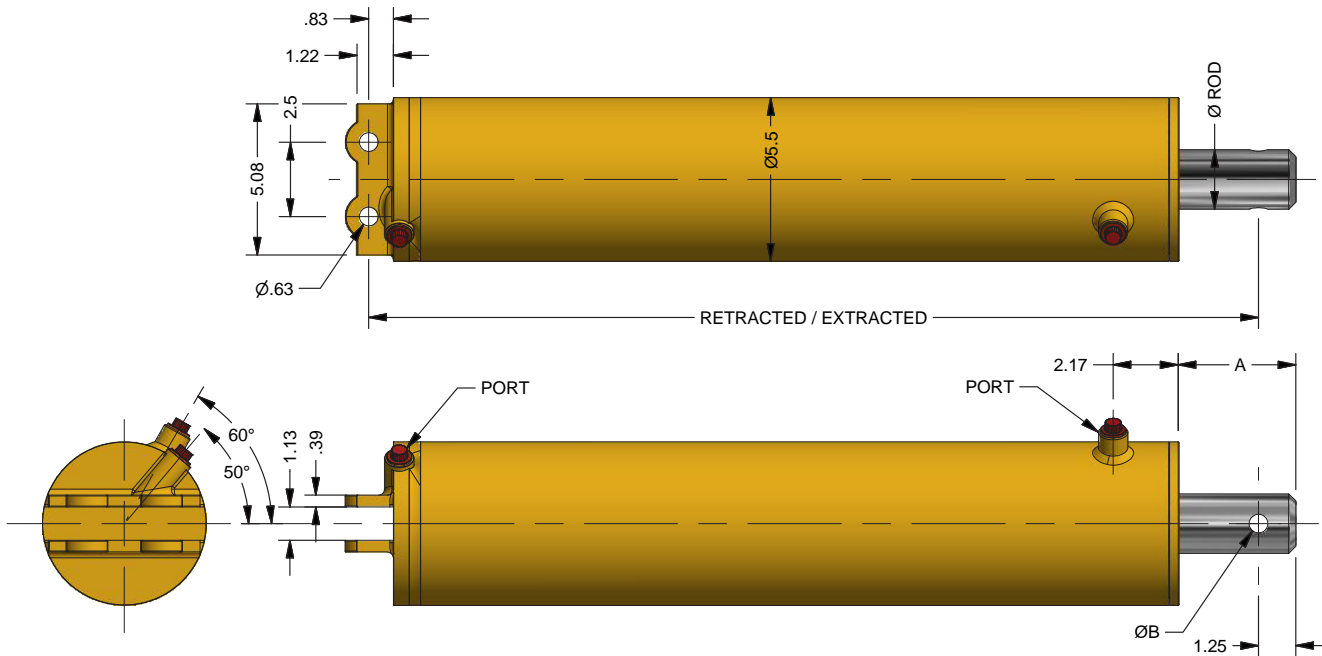
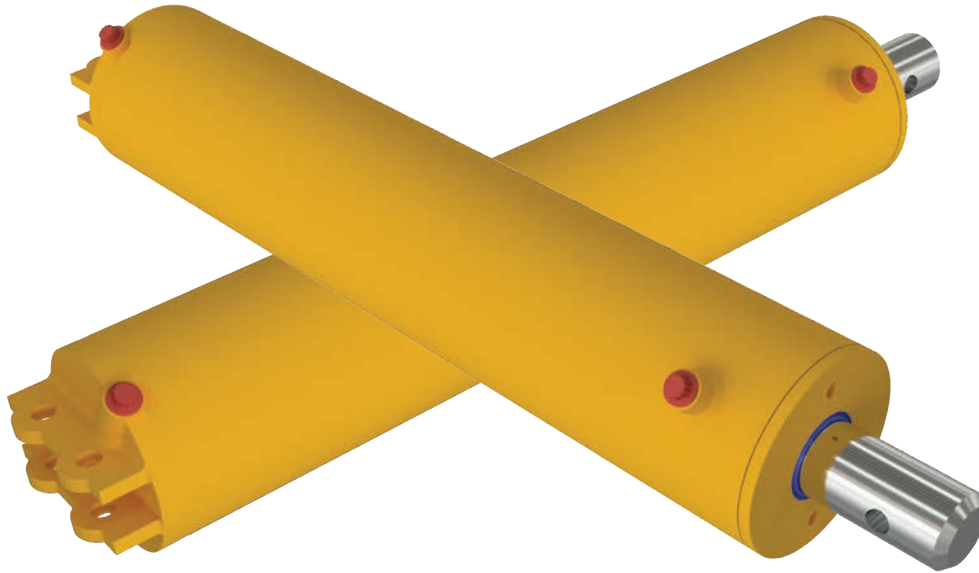
**SUPPORT FRAME**

for 7 and 12 tons



**HTC SB07-A**



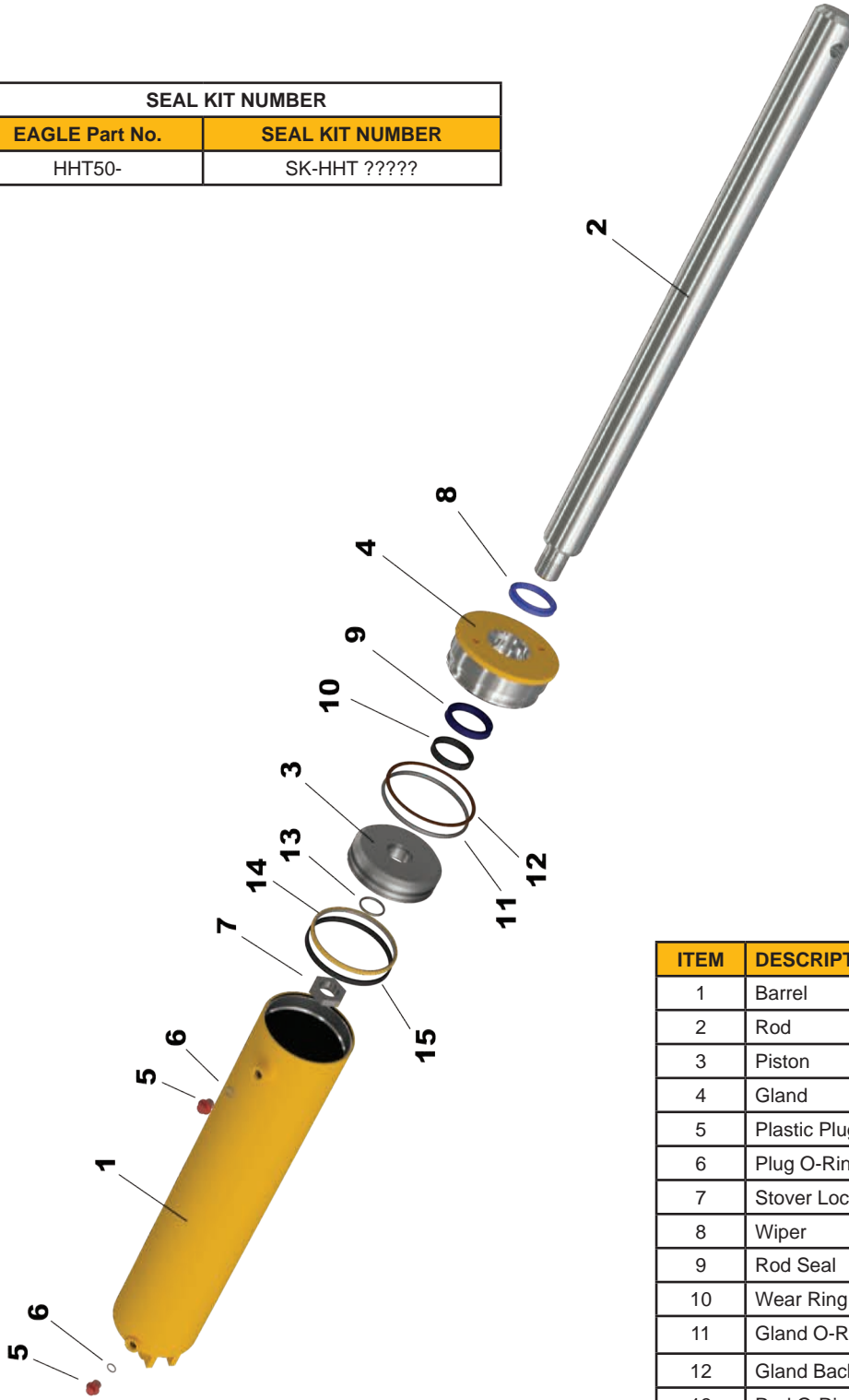


\*All dimensions are in inches

Part No.	BORE	A	B	STROKE	ROD DIAMETER	RETRACTED	EXTRACTED	MAX FORCE LBS	PORT	WEIGHT (LBS)
HHT501575	5.00	3.5	Ø0.69	15.75"	Ø2"	23.5"	39.25"	58905	SAE#6	66.1
HHT502000	5.00	3.15	Ø0.63	20"	Ø2"	27.5"	47.5"	58905	SAE#6	81.4
HHT502150	5.00	3.5	Ø0.63	21.50"	Ø2"	29.375"	50.875"	58905	SAE#6	86.8

HOIST HYDRAULIC CYLINDERS

SEAL KIT NUMBER	
EAGLE Part No.	SEAL KIT NUMBER
HHT50-	SK-HHT ?????

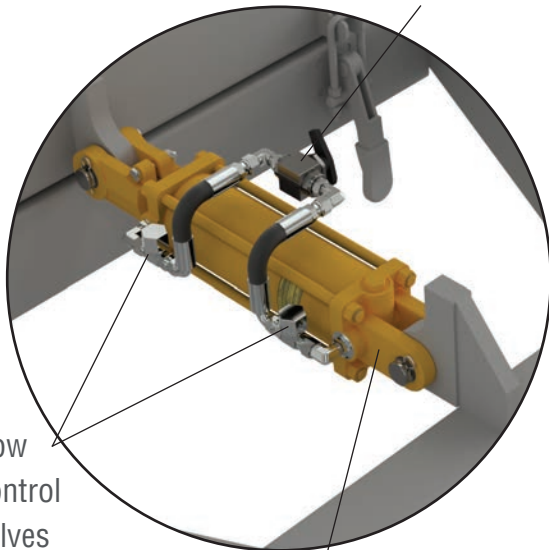
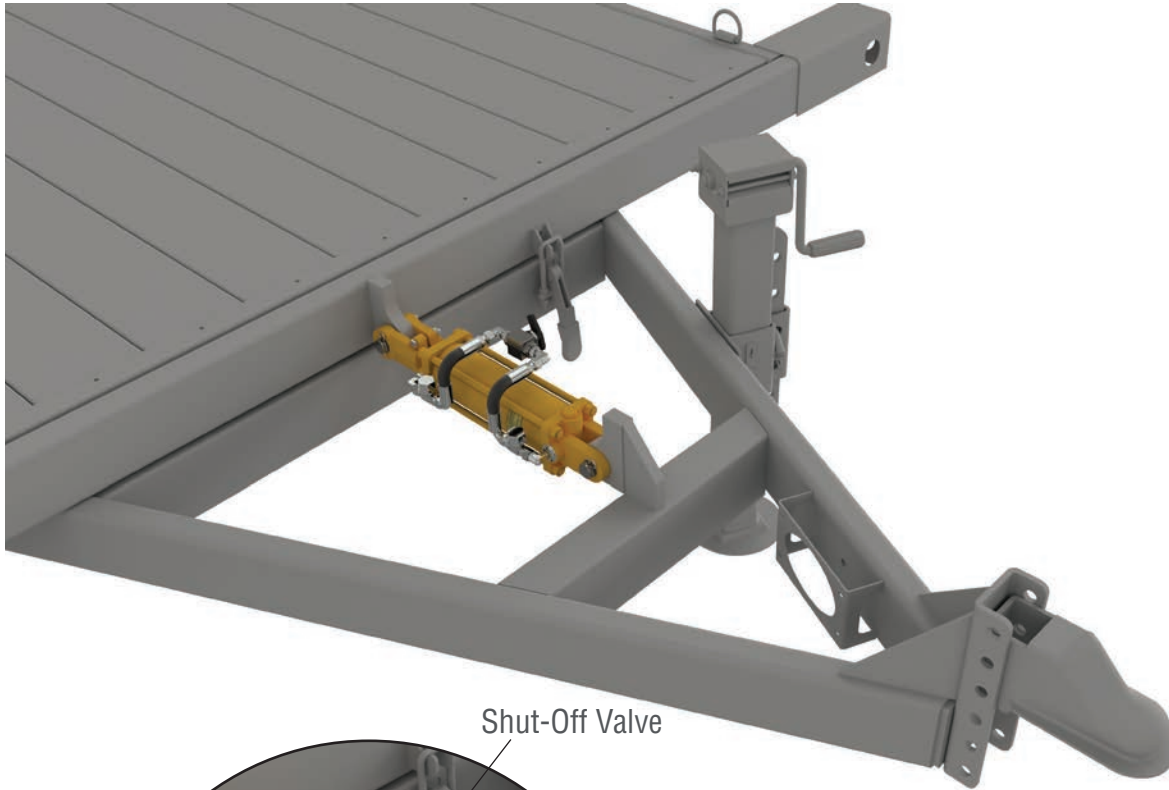


ITEM	DESCRIPTION	QTY
1	Barrel	1
2	Rod	1
3	Piston	1
4	Gland	1
5	Plastic Plug	2
6	Plug O-Ring (SAE)	2
7	Stover Locknut	1
8	Wiper	1
9	Rod Seal	1
10	Wear Ring	1
11	Gland O-Ring	1
12	Gland Back-Up Ring	1
13	Rod O-Ring	1
14	Piston Seal	1
15	Piston Wear Ring	1

# TTP 3000 PSI



## TTP - TILT TRAILER PACKAGE



Shut-Off Valve

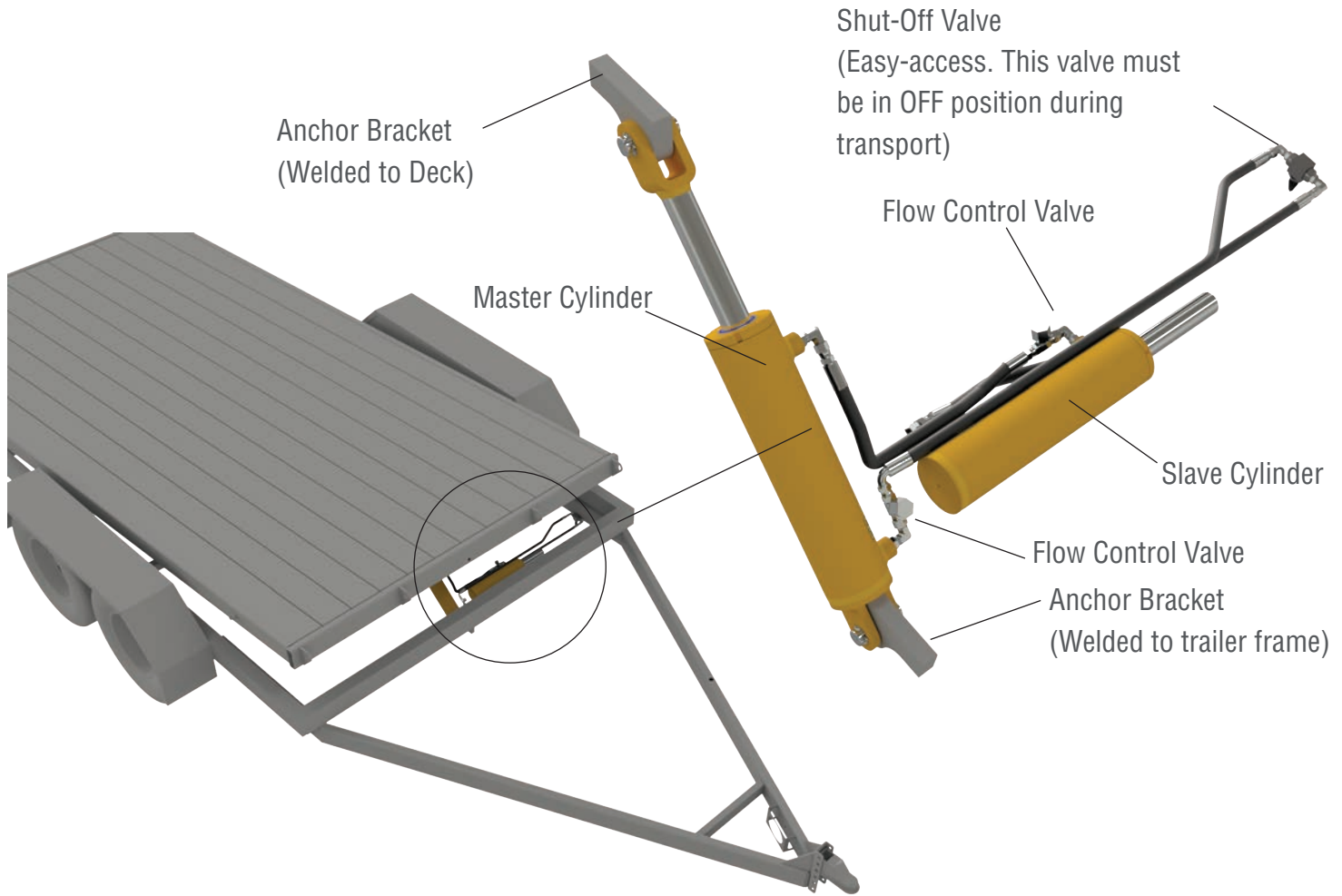
Flow  
Control  
Valves

Hydraulic Cylinder  
(Any of our standards hydraulic cylinders model)

TILT TRAILER PACKAGE

**TILT TRAILER OPTION**

**TILT TRAILER PACKAGE**



**TILT DECK TRAILER OPTION**

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

**BRING US YOUR PROJECT!!!**



# CUSTOM ENGINEERED HYDRAULIC CYLINDERS

## OEM APPLICATIONS

Contact us for all your special cylinder requirements.  
Bore size between 1" to 12" - Stroke lengths 1" to 150".  
Use our form on page 37 or directly from our internet site.



## INDUSTRY BEST STANDARDS

- ISO TS16949 Certified
- Digital Pulse Arc Automated Welding
- CNC Machining
- North American Seals
- High Quality Chrome / Nitride
- Powder Coat Paint
- Cylinders 100% Pressure Tested



### FORGED HYDRAULIC CYLINDER COMPONENT

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.

## HIGH QUALITY FABRICATION PROCESS

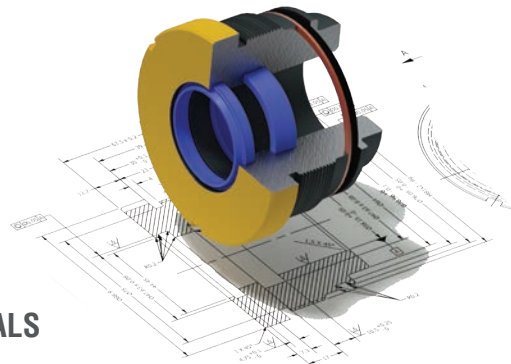


### NITRIDED HYDRAULIC CYLINDER RODS

Liquid Nitriding is a surface treatment process that produces a black in color finish that is very hard and corrosion resistant. It combines a high surface hardness with increased corrosion resistance. The process begins with the cleaning and 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.



### TOP QUALITY NORTH AMERICAN SEALS





## NON-TRANSFERABLE LIMITED WARRANTY

This document outlines the warranty associated with Eagle Hydraulic Components' 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 Components, 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.

### **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.

All product specifications are subject to change without prior notice.

## Defect Description Form – Hydraulic Cylinder

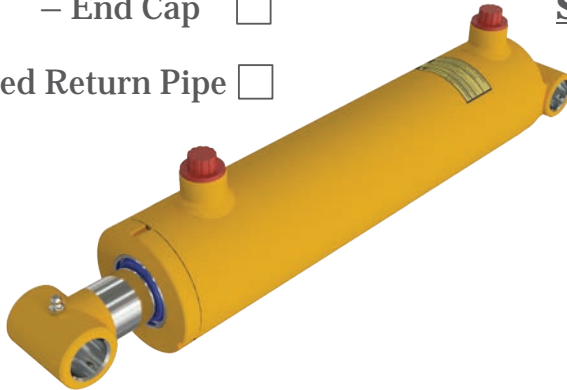
In order to assist us in validating your warranty claim, please provide as much detail possible to best describe the defect. This information is critical to help us understand the problem and take corrective measures in future initiatives.

Cylinder Part Number: \_\_\_\_\_ Company Name: \_\_\_\_\_  
 Serial Number: \_\_\_\_\_ Contact: \_\_\_\_\_  
 Date Code: \_\_\_\_\_ Email: \_\_\_\_\_

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

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

- |  |   |
|--|---|
| <p><b>Weld Leak</b> – Front Port <input type="checkbox"/></p> <p style="padding-left: 40px;">– Rear Port <input type="checkbox"/></p> <p style="padding-left: 40px;">– End Cap <input type="checkbox"/></p> <p style="padding-left: 40px;">– Feed Return Pipe <input type="checkbox"/></p> | <p><b>Welded Zone</b> – Rod End <input type="checkbox"/></p> <p style="padding-left: 40px;">– Base End <input type="checkbox"/></p> <p><b>Seals</b> – Leaking from Head <input type="checkbox"/></p> <p style="padding-left: 40px;">– Leaking from Rod <input type="checkbox"/></p> <p style="padding-left: 40px;">– Internal Bypass <input type="checkbox"/></p> |
|--|---|



THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANT 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: \_\_\_\_\_

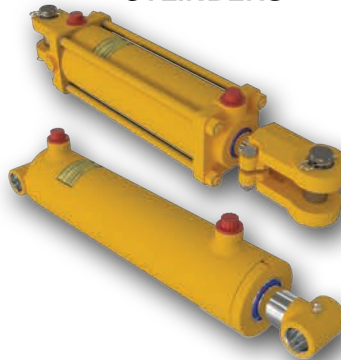
COMMENTS: \_\_\_\_\_

# HYDRAULIC PRODUCT SAFETY

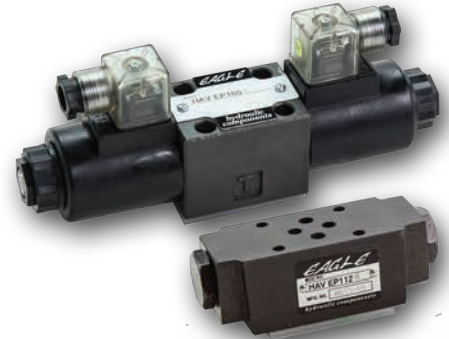
## POWER UNITS



## 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 LESION O LA MUERTE:  
 \* MANTENGANSE A DISTANCIA LAS MANOS, LOS PIES Y LA ROPA DE LAS PARTES MOVIENTES DE LA MAQUINA.  
 \* CIERRAN 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.

## 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) when 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 preservative agent such as grease.
- Smear the internal surfaces of eye/clevis bushes or bearings with grease.
- We recommend that single-acting cylinders be protected against corrosion by directly adding anti-corrosive oil to the unpressurized chamber.
- Hydraulic cylinders must be filled with the same fluid the hydraulic system will operate with. Assurances must be taken to assure complete filling of the cylinders with oil.
- A relief valve shall be installed in the cylinder ports to allow FOR fluid expansion as the result of increases in ambient temperatures.
- 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.

## POWER UNITS, MOTORS AND PUMPS STORAGE

- Pump and motor drive shafts should be protected with a preservative agent such as grease. All ports should be capped if disconnected from the system.
- Steel Power Unit reservoir should be filled to prevent corrosion since ambient temperature change can results in moisture forming on the inside of the tank causing spot rusting and pitting of the tank surface.
- All Power Unit electrical connections (terminations) must be coated with corrosion inhibitors.
- Power Supply should be disconnected from the power unit.
- Single acting power unit should have the manual override valve open.

# CHROME ROD PROTECTION EXPLAINED

Chrome plated rod and bar products normally contain from 0.0005” minimum 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 corrode 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 shaft is assembled into a cylinder and put into service, the hydraulic fluid on the surface provides additional corrosion resistance which is normally sufficient to protect the shaft during its entire life. However, there are occasions when the shaft is not being worked and when the surface is exposed to a corrosive environment. 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 before it is sold. In these instances it is best to provide some additional corrosion protection. An inexpensive application of a rust preventative mixture 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 shafting on new equipment:

1. Position the equipment as it will be stored, and identify all the exposed portions of the chrome plated shafts.
2. Clean dirt and dust from the exposed portions of the shafting 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 preventative 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 shafts 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 shaft surfaces would be necessary. Also, there may be damage on some of the shaft 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



**EAGLE**

HYDRAULIC

12055 Arthur Sicard, Mirabel, Québec, Canada, J7J 0E9

Tel: 450 433-2800 / 1-877 382-2850

Fax: 450 433-3004 / 1-877 382-2853

[www.eagle-hydraulic.com](http://www.eagle-hydraulic.com)



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## OTHER CATALOGS

