



# HYDRAULIC CYLINDERS

- ▶ AVAILABLE FROM 85 MM TO 248 MM (3.35" À 9.75") DIAMETERS AND 2032 MM TO 8991 MM (80" TO 354") STROKE



**100%**  
**MANUFACTURER  
TESTED**

**DEMAND  
THE BEST,  
REQUEST A  
MASTER**

**CERTIFICATIONS:** ISO/TS16949, CCRI, CCS, DNV & ABS, AQA, API



**MASTER LINE** has proven itself in terms of the quality of telescopic cylinders, both in the replacement parts market and with the original manufacturers.

Whether for small or large tonnage, we have the cylinder for your needs.

We only use

**HIGH-PERFORMANCE SEALS**  
European-made, -40°F to +230°F

**SURFACE HARDNESS LEVELS**

**TEMPERED**  
HRC  
25 TO 30

**CHROME-PLATED**  
HV 800

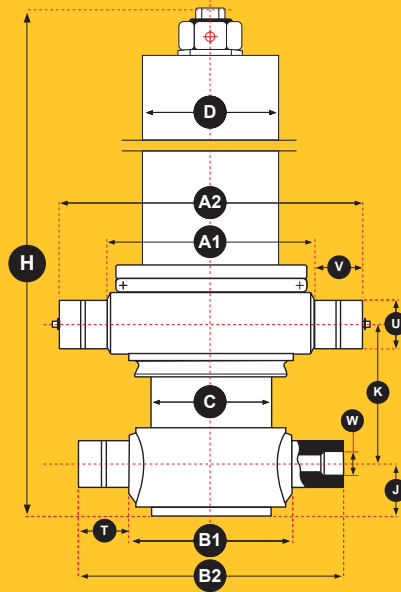


**Note:** All cylinder drawings in this catalog are for illustrative purposes only.

# TELESCOPIC CYLINDERS FOR SMALL TIPPING TRAILERS

**12 & 24 TONS**

**A ROBUST CYLINDER FOR YOUR TRAILERS with a wide base for better stability.**



**Operating Pressure: 2320 PSI  
Max Pressure: 2900 PSI**

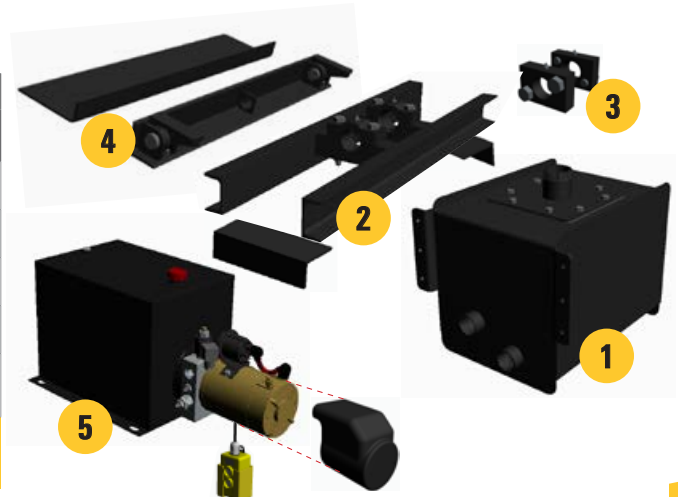
**Attention:** our competitors' interchange models are provided for information purposes only and should be reviewed. Contact us for assistance: 1 877 391-1133.

ITEM	NEW MODEL	OLD MODEL	MAILHOT G OR M	HYVA	WEIGHT (LBS)	STROKE	GAL.	A		B		C	D	H	J	K	T	U	V	W* SAE	LAST SECTION
								A1	A2	B1	B2										
1534	3TG085X2032	3TG90X2032	80-3.5-3	FC 3.5-3-80	148	80"	2.9	6.75"	9.25"	4.75"	8.75"	4.17"	5.12"	36.00"	1.54"	5.50"	2"	1.87"	1.25"	10	2.17"
1535	3TG085X2286	3TG90X2286	90-3.5-3	FC 3.5-3-90	159	90"	3.2	6.75"	9.25"	4.75"	8.75"	4.17"	5.12"	39.40"	1.54"	5.50"	2"	1.87"	1.25"	10	2.17"
1536	3TG085X2540	3TG90X2540	100-3.5-3	FC 3.5-3-100	170	100"	3.4	6.75"	9.25"	4.75"	8.75"	4.17"	5.12"	42.70"	1.54"	5.50"	2"	1.87"	1.25"	10	2.17"
1537	3TG085X2794	3TG90X2794	110-3.5-3	FC 3.5-3-110	181	110"	3.7	6.75"	9.25"	4.75"	8.75"	4.17"	5.12"	45.87"	1.54"	5.50"	2"	1.87"	1.25"	10	2.17"
1538	3TG085X3048	3TG90X3048	120-3.5-3	FC 3.5-3-120	192	120"	4.0	6.75"	9.25"	4.75"	8.75"	4.17"	5.12"	49.20"	1.54"	5.50"	2"	1.87"	1.25"	10	2.17"
1530	3TG110X2286	-	90-4.5-3	FC 4.5-3-90	254	90"	4.8	8"	10.50"	5.71"	9.71"	5.16"	6.18"	42.70"	1.50"	5.25"	2"	1.87"	1.25"	12	2.75"
1531	3TG110X2540	-	100-4.5-3	FC 4.5-3-98	269	100"	5.3	8"	10.50"	5.71"	9.71"	5.16"	6.18"	46.00"	1.50"	5.25"	2"	1.87"	1.25"	12	2.75"
1532	3TG110X2794	-	110-4.5-3	-	291	110"	5.8	8"	10.50"	5.71"	9.71"	5.16"	6.18"	49.40"	1.50"	5.25"	2"	1.87"	1.25"	12	2.75"
1533	3TG110X3048	-	120-4.5-3	-	304	120"	6.3	8"	10.50"	5.71"	9.71"	5.16"	6.18"	52.75"	1.50"	5.25"	2"	1.87"	1.25"	12	2.75"

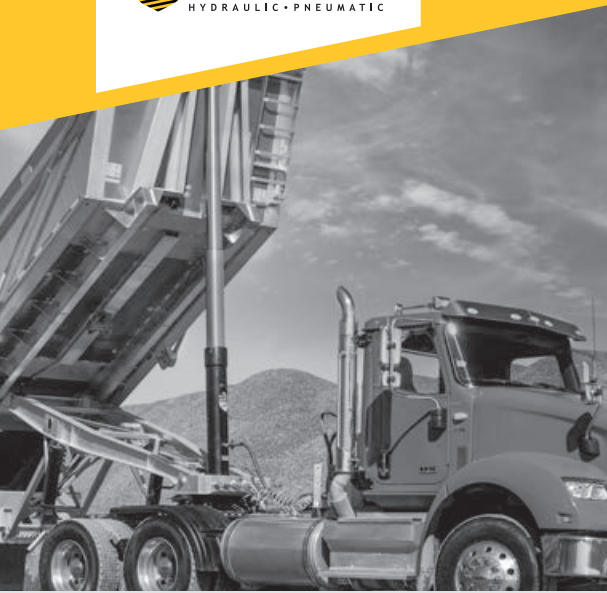
\*Fitting: see page 7

## ▼ FITTING SET

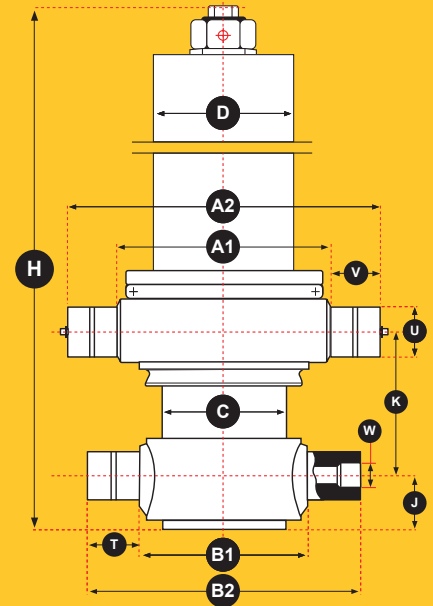
DESCRIPTION	ITEM #	
	085 (12 tons)	110 (24 tons)
1 Cylinder tank - 12 & 24 tons	1558	
2 Cylinder mounting frame	1557	1560
3 Mounting block - 12 & 24 tons	1556	
4 Hinge assembly	1559	1561
5 12V or 24V high-speed electric power unit, 6.6-gallon tank with bypass valve, remote control	1389	



We can **manufacture custom products** according to your needs.



# TELESCOPIC CYLINDERS FOR HEAVY-DUTY AND SUPER HEAVY-DUTY TRUCKS



**Operating Pressure: 2320 PSI**  
**Max Pressure: 2900 PSI**

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ITEM	NEW MODEL	OLD MODEL	MAILHOT G OR M	HYVA	WEIGHT (LBS)	STROKE	GAL.	A1	A2	B1	B2	C	D	H	J	K	T	U	V	W* SAE	LAST SECTION
1501	3TG129X3048	-	120-5.5-3	FC 129-3-2980	370	120	9.0	9	11.5	7	11	5.95	7.00	54.13	2.36	6.22	2	1.87	1.25	12	3.54
1502	3TG129X3302	3TG130X3302	130-5.5-3	FC 129-3-3205	386	130	9.8	9	11.5	7	11	5.95	7.00	57.48	2.36	6.22	2	1.87	1.25	12	3.54
1503	3TG129X3546	3TG130X3546	140-5.5-3	FC 129-3-3460	403	140	10.3	9	11.5	7	11	5.95	7.00	60.70	2.36	6.22	2	1.87	1.25	12	3.54
1526	4TG129X3810	4TG130X3810	150-5.5-4	FC 129-3-3810	392	150	9.8	9	11.5	7	11	5.95	7.00	51.77	2.36	5.43	2	1.87	1.25	12	2.76
1527	4TG129X4064	4TG130X4064	160-5.5-4	FC 129-4-4064	403	160	10.3	9	11.5	7	11	5.95	7.00	54.33	2.36	5.43	2	1.87	1.25	12	2.76
1528	4TG129X4242	4TG130X4242	170-5.5-4	FC 129-4-4318	417	167	10.8	9	11.5	7	11	5.95	7.00	56.70	2.36	5.43	2	1.87	1.25	12	2.76
1500	3TG150X3429	3TG152X3429	135-6.5-3	FC 149-3-3429	507	135	13.7	10.19	13.19	8	12	6.77	7.90	60.83	2.36	7.64	2	2.25	1.50	16	3.54
1504	4TG150X3810	4TG152X3810	150-6.5-4	FC 149-4-3810	514	150	13.5	10.19	13.19	8	12	6.77	7.90	53.00	2.36	7.64	2	2.25	1.50	16	3.54
1505	4TG150X4064	4TG152X4064	160-6.5-4	FC 149-4-4064	540	160	14.5	10.19	13.19	8	12	6.77	7.90	55.50	2.36	7.64	2	2.25	1.50	16	3.54
1506	4TG150X4318	4TG152X4318	170-6.5-4	FC 149-4-4280	556	170	15.6	10.19	13.19	8	12	6.77	7.90	58.00	2.36	7.64	2	2.25	1.50	16	3.54
1507	4TG150X4600	4TG152X4600	180-6.5-4	FC 149-4-4620	564	181	16.4	10.19	13.19	8	12	6.77	7.90	60.80	2.36	7.64	2	2.25	1.50	16	3.54
1508	4TG150X4953	4TG152X4953	195-6.5-4	FC 149-4-4953	595	195	17.2	10.19	13.19	8	12	6.77	7.90	64.17	2.36	7.64	2	2.25	1.50	16	3.54
1509	4TG169X4700-7.5	4TG172X4700	185-7.5-4	FC 169-4-4620	710	185	23.5	12	15	9	13	7.56	8.62	62.13	2.56	9.6	2	2.25	1.50	16	4.33
1510	4TG169X4940-7.5	4TG172X4940	195-7.5-4	FC 169-4-4940	648	195	22.7	12	15	9	13	7.56	8.62	64.50	2.56	9.6	2	2.25	1.50	16	4.33
1549	4TG169X4622-7	4TG169X4622	G3-182-6.7-4	-	628	182	21.7	11.19	14.19	9	13	7.56	8.62	61.42	2.56	9.6	2	2.25	1.50	16	4.33
1550	4TG169X4928-7	4TG169X4928	G3-194-6.7-4	-	646	194	21.9	11.19	14.19	9	13	7.56	8.62	64.57	2.56	9.6	2	2.25	1.50	16	4.33

\*Fitting: see page 7

## ▼ FITTING SET

	DESCRIPTION	ITEM #	
		129 (35 tons)	150 (45 tons)
1	Cylinder tank	1563	1566
2	Cylinder mounting frame	1562	1565
3	Mounting block	1556	1567
4	Hinge assembly	1561	1564



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# "PIN TO PIN" TELESCOPIC CYLINDERS FOR DUMP TRAILERS



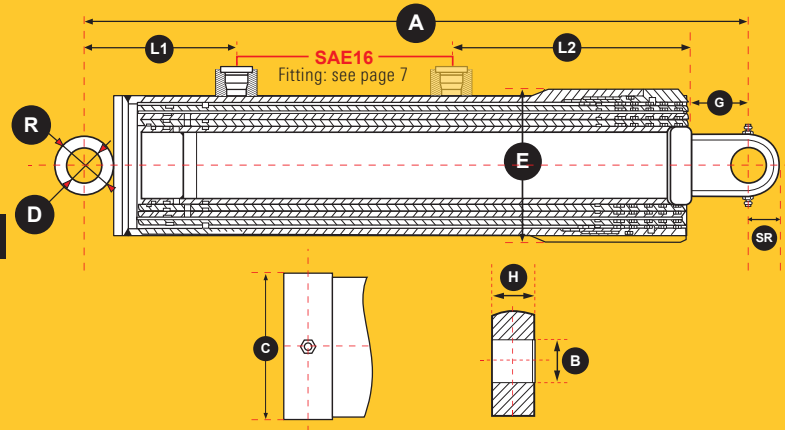
Operating Pressure: 2320 PSI  
Max Pressure: 2900 PSI

## 1928 5(6) SERIES / 3 SECTIONS

**TUBE DIAMETER**  
Base 6.61" (168 mm)  
Section 1 5.08" (129 mm)  
Section 2 4.33" (110 mm)  
Section 3 3.54" (90 mm)

## 1539 7(8) SERIES / 4 SECTIONS

**TUBE DIAMETER**  
Base 8.58" (218 mm)  
Section 1 6.77" (172 mm)  
Section 2 5.91" (150 mm)  
Section 3 5.08" (129 mm)  
Section 4 4.33" (110 mm)



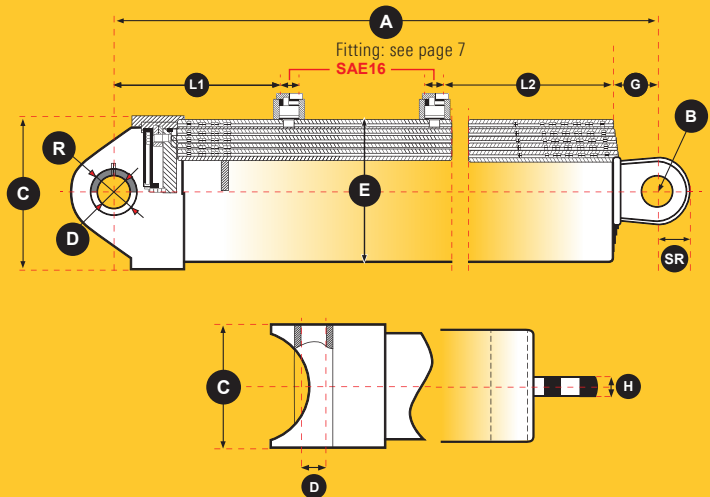
ITEM	NEW MODEL	OLD MODEL	MAILHOT G OR M	HYVA	WEIGHT (LBS)	GAL.	STROKE	A	B	C	D	E	G	H	R	SR	L1	L2	LAST SECTION
1928	3TG129X3302-PP	3TG129X3302EE	-	FEE BU6.3-126	295	9.8	130"	57.00"	2.05"	6.25"	2.05"	6.61"	3.54"	1.50"	3.26"	1.64"	23.00"	-	3.54"
1539	4TG172X4622-PP	4TG169X4622EE	C-178-7-4	FEE BU8-4-182	549	22.5	182"	60.40"	2.06"	7.87"	8.06"	8.58"	2.36"	1.65"	3.46"	1.73"	7.48"	20.23"	4.33"

## 1529 6(7) SERIES / 4 SECTIONS

**TUBE DIAMETER**  
Base 6.69" (170 mm)  
Section 1 5.87" (149 mm)  
Section 2 5.08" (129 mm)  
Section 3 4.33" (110 mm)  
Section 4 3.54" (90 mm)

## 1942/1943 7(8) SERIES / 4 SECTIONS

**TUBE DIAMETER**  
Base 7.56" (192 mm)  
Section 1 6.61" (168 mm)  
Section 2 5.87" (149 mm)  
Section 3 5.08" (129 mm)  
Section 4 4.33" (110 mm)



## 1540 to 1546 8 SERIES / 5 SECTIONS

**TUBE DIAMETER**  
Base 8.50" (215 mm)  
Section 1 7.52" (191 mm)  
Section 2 6.65" (169 mm)  
Section 3 5.86" (149 mm)  
Section 4 5.08" (129 mm)  
Section 5 4.33" (110 mm)

ITEM	NEW MODEL	OLD MODEL	MAILHOT G OR M	HYVA	WEIGHT (LBS)	GAL.	STROKE	A	B	C	D	E	G	H	R	SR	L1	L2	LAST SECTION
1529	4TG149X3683-P	4TG149X3683	-	FEE 6(7)-4-145	324	13.2	145"	51.34"	2.07"	8.66"	2.07"	6.69"	2.75"	1.65"	3.07"	1.73"	12.5"	-	3.58"
1942	4TG169X3988-P	4TG-169X3988EE	C-160-7-4	FEE 7(8)-4-157	441	18.8	157"	54.29"	2.07"	9.45"	2.07"	7.56"	3"	1.65"	3.07"	1.73"	7.09"	17.72"	4.33"
1943	4TG169X4622-P	4TG169X4622FEE	-	FEE 7(8)-4-182	492	22.4	182"	60.60"	2.07"	9.45"	2.07"	7.56"	3"	1.65"	3.07"	1.73"	7.09"	17.72"	4.33"
1540	5TG191X4775-P	5TG196X4775	G2-190-7.6-5	FEE 8-5-188	538	26	188"	53.54"	2.06"	9.50"	2.06"	8.5"	2.75"	1.65"	3.07"	1.73"	15"	17.71"	4.33"
1541	5TG191X5045-P	5TG196X5045	-	-	562	27	198"	55.75"	2.06"	9.50"	2.06"	8.5"	2.75"	1.65"	3.07"	1.73"	15"	17.71"	4.33"
1542	5TG191X5360-P	5TG196X5360	-	FEE 8-5-211	584	29	211"	57.56"	2.06"	9.50"	2.06"	8.5"	2.75"	1.65"	3.07"	1.73"	15"	17.71"	4.33"
1543	5TG191X5588-P	5TG196X5588	G2-220-7.6-5	FEE 8-5-228	597	30	220"	60.00"	2.06"	9.50"	2.06"	8.5"	2.75"	1.65"	3.07"	1.73"	15"	17.71"	4.33"
1544	5TG191X5969-P	5TG196X5969	G2-235-7.6-5	FEE 8-5-243	626	32	235"	62.40"	2.06"	9.50"	2.06"	8.5"	2.75"	1.65"	3.07"	1.73"	15"	17.71"	4.33"
1545	5TG191X6350-P	5TG196X6350	G2-250-7.6-5	FEE 8-5-255	668	34	250"	64.50"	2.06"	9.50"	2.06"	8.5"	2.36"	1.65"	3.07"	1.73"	15"	17.71"	4.33"
1546	5TG191X6731-P	5TG196X6731	G2-265-7.6-5	FEE 8-5-269	701	36	265"	69.00"	2.06"	9.50"	2.06"	8.5"	2.75"	1.65"	3.07"	1.73"	15"	17.71"	4.33"

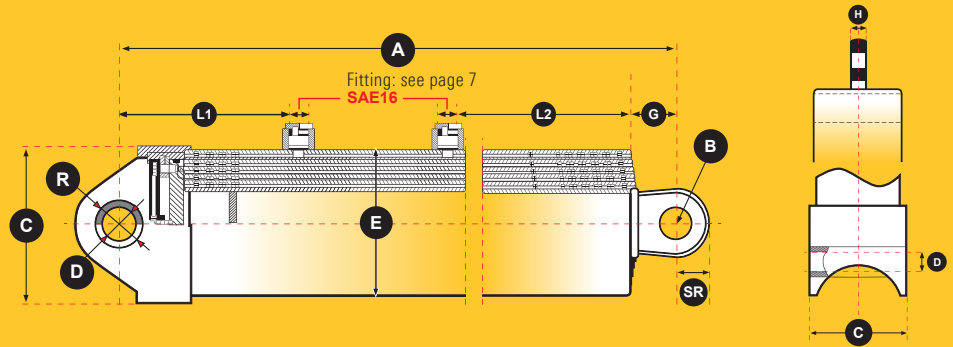
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# "PIN TO PIN" TELESCOPIC CYLINDERS FOR DUMP TRAILERS

## 9 SERIES / 5 SECTIONS

### TUBE DIAMETER

Base	9.5"	(242 mm)
Section 1	8.42"	(214 mm)
Section 2	7.52"	(191 mm)
Section 3	6.65"	(169 mm)
Section 4	5.86"	(149 mm)
Section 5	5.08"	(129 mm)



**Operating Pressure: 2320 PSI**  
**Max Pressure: 2900 PSI**

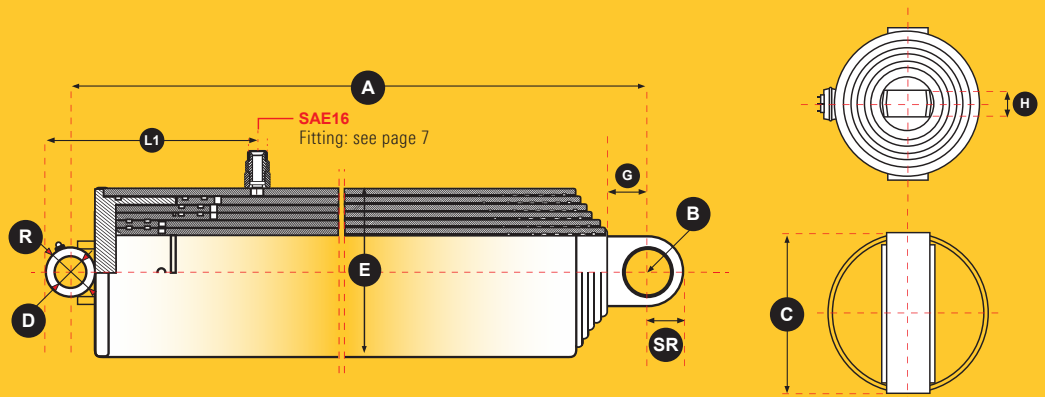
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ITEM	NEW MODEL	OLD MODEL	MAILHOT G OR M	HYVA	WEIGHT (LBS)	GAL.	STROKE	A	B	C	D	E	G	H	R	SR	L1	L2	LAST SECTION
1490	5TG214X5791-P	5TG221X5791	G2-220-8.7-5	FEE 9-5-228	763	40	228"	61.00"	2.06"	10.63"	2.06"	9.45"	2.75"	2.05"	3.07"	1.73"	15"	17.72"	5.08"
1491	5TG214X6172-P	5TG221X6172	G2-250-8.7-5	FEE 9-5-243	847	43	243"	64.00"	2.06"	10.63"	2.06"	9.45"	2.75"	2.05"	3.07"	1.73"	15"	17.72"	5.08"
1492	5TG214X6731-P	5TG221X6731	G2-265-8.7-5	FEE 9-5-269	845	46	265"	68.00"	2.06"	10.63"	2.06"	9.45"	2.75"	2.05"	3.07"	1.73"	15"	17.72"	5.08"
1493	5TG214X7138-P	5TG221X7138	G2-280-8.7-5	FEE 9-5-281	891	49	281"	72.32"	2.06"	10.63"	2.06"	9.45"	2.75"	2.05"	3.07"	1.73"	15"	17.72"	5.08"
1494	5TG214X7620-P	5TG221X7620	G2-300-8.7-5	FEE 9-5-300	957	52	300"	77.44"	2.06"	10.63"	2.06"	9.45"	2.75"	2.05"	3.07"	1.73"	15"	17.72"	5.08"
1495	5TG214X8130-P	5TG221X8130	G2-320-8.7-5	FEE 9-5-320	1001	56	320"	81.37"	2.06"	10.63"	2.06"	9.45"	2.75"	2.05"	3.07"	1.73"	15"	17.72"	5.08"
1496	5TG214X8534-P	5TG221X8534	G2-340-8.7-5	FEE 9-5-336	1058	58	336"	85.00"	2.06"	10.63"	2.06"	9.45"	2.75"	2.05"	3.07"	1.73"	15"	17.72"	5.08"

## 10 SERIES / 6 SECTIONS

### TUBE DIAMETER

Base	11.77"	(299 mm)
Section 1	9.76"	(248 mm)
Section 2	8.70"	(221 mm)
Section 3	7.72"	(196 mm)
Section 4	6.77"	(172 mm)
Section 5	5.90"	(150 mm)
Section 6	5.08"	(129 mm)



**Operating Pressure: 2320 PSI**  
**Max Pressure: 2900 PSI**

ITEM	NEW MODEL	OLD MODEL	WEIGHT (LBS)	GAL.	STROKE	A	B	C	D	E	G	H	R	SR	L1	LAST SECTION
1971	6TG248X8991-P	6TG248X8991	1467	67	354"	81.61"	2.05"	11.50"	2.12"	11.77"	4"	2.05"	3.50"	1.75"	20"	5.08"

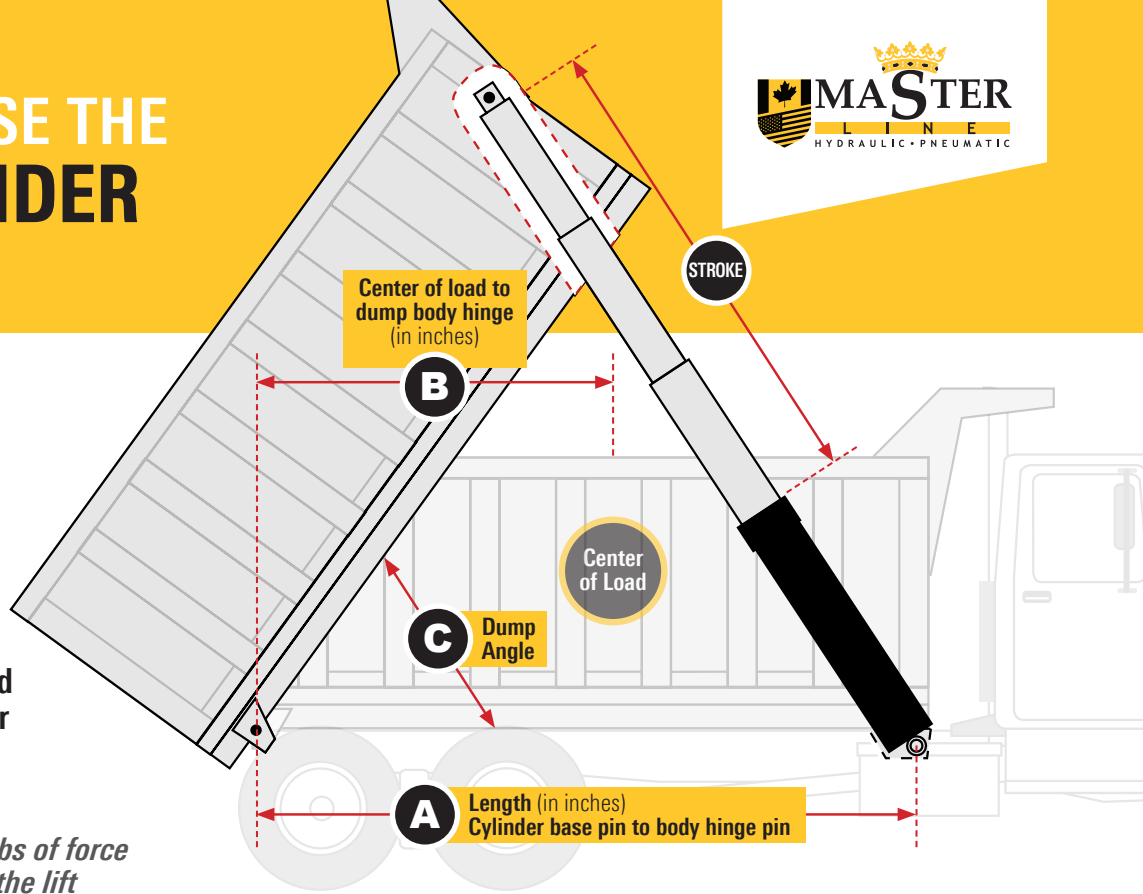
# HOW TO CHOOSE THE RIGHT CYLINDER



## FORMULA FOR CALCULATING: Initial Required Cylinder Force to Lift a Load

$$\frac{\text{LOAD (lbs)} \times \text{B}}{\text{A}} = \text{Initial required cylinder force}$$

EXAMPLE:  
 $\frac{42,000 \text{ lbs} \times 105''}{213''} = 20,704 \text{ lbs of force to start the lift}$



## Telescopic Lifting Capacities

1 <sup>ST</sup> STAGE BORE (")	SYSTEM OPERATING PRESSURE (PSI)				
	800	1000	1500	2000	2500
85	7,048	8,810	13,215	17,620	22,025
110	11,784	14,730	22,095	29,460	36,825
129	16,216	20,270	30,405	40,540	50,675
150	21,944	27,430	41,145	54,860	68,575
169	27,784	34,730	52,095	69,460	86,825
172	28,800	36,000	54,000	72,000	90,000
191	35,528	44,410	66,615	88,820	111,025
214	44,648	55,810	83,715	111,620	139,525
248	59,856	74,820	112,230	149,640	87,050

## FORMULA FOR CALCULATING: Required Cylinder Stroke for a Dump Angle

$$\text{A} \times \text{MULTIPLIER} = \text{Approximate Stroke}$$

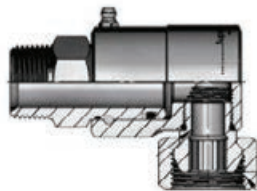
EXAMPLE:  
 $213'' \times .845 = 180'' (4572 \text{ mm})$

CYLINDER CHOICE BASED ON OUR EXAMPLE:  
**4TG150X4600**

\*Normal dump angle is approximately 48° to 52°.

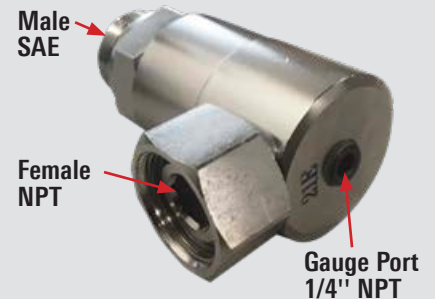
DUMP ANGLE*	MULTIPLIER
44°	.750
45°	.765
46°	.780
47°	.797
<b>48°</b>	<b>.813</b>
<b>49°</b>	<b>.830</b>
<b>50°</b>	<b>.845</b>
<b>51°</b>	<b>.861</b>
<b>52°</b>	<b>.877</b>
55°	.923
60°	1.005

## SWIVEL FITTINGS



- 1153**  
SAE12 / 3/4" NPT
- 1154**  
SAE16 / 1" NPT
- 1154J**  
SAE16 / 1" JIC

**90° Swivel Fitting Avoids Hydraulic Hose Distortions**





**FOR TRUCK &  
TRAILER  
DUMP BODIES**



**FOR ALL SNOW  
REMOVAL  
EQUIPMENT**

## LIMITED WARRANTIES

### TWO OR THREE YEARS LIMITED WARRANTY ON CYLINDERS ACCORDING TO THE APPLICATION

Master Sourcing Inc., warrants its cylinders against defects in design, material and workmanship for a period of three years, from date of invoice. With documented proof, the warranty can be extended to three years from the date of installation up to a maximum of 42 months from the date of invoice. Master Sourcing Inc. will repair or replace at no charge the product, which, after inspection is deemed a manufacturing defect

**ATTENTION:** This warranty does not apply to any cylinder that has been subject to unauthorized modification, repair or alteration; an accident, improper operation or maintenance; abnormal conditions; or the wear from normal use.

Master Sourcing Inc. shall not be liable for loss of time, manufacturing cost, labour, transport, material, loss of profits, consequential damages, direct or indirect, because of defective products.

**PROCEDURES:** A return merchandise authorization must be requested by contacting us at 1 877 391-1133. All product must be returned to Master Sourcing Inc. or its authorized representative using prepaid ground transportation. If Master Sourcing Inc. determines that the defect is covered by its warranty, the repair or replacement as well as the transport costs can be assumed by Master Sourcing Inc. The repair or replacement cylinder will receive the balance of the original warranty period.



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