



MGM Brakes

MASTER CATALOG

Spring Brakes & Service Chambers



*A Leader in
Truck Safety—Worldwide*

Visit the MGM Brakes website at your convenience:



Your comprehensive source for MGM Brakes company and product information.

Order Online FREE

- Brochures
- Technical Bulletins
- Catalogs
- Training Manuals

View or download publications (.pdf)

- English
- Spanish
- French-Canadian

www.MGMBreaks.com

www.MGMBreaks.com

MGM Brakes - PDC

Send purchase orders to the following address:

MGM Brakes - Parts Distribution Center
3055 E. Division
Springfield, Missouri 65802
Toll Free Phone: (877) 294-5906 Phone: (417) 862-0092 Local
Toll Free Fax: (877) 294-6316 Fax: (417) 862-7850 Local
e-mail: pdc@mgmbrakes.com

Corporate Office

For technical assistance, pricing information or special requests, contact MGM Brakes Corporate Office:

MGM Brakes
8530 Cliff Cameron Drive
Charlotte, North Carolina 28269-9786
Phone: (800) 527-1534
Phone: (704) 547-7411
Fax: (704) 547-9367
e-mail: mail@mgmbrakes.com
website: www.MGMBrakes.com

Manufacturing Plants

MGM Brakes
Murphy - Manufacturing Plant
P.O. Box 70
229 Park Avenue
Murphy, North Carolina 28906
Phone: (828) 837-2117
Fax: (828) 837-7521
Fax: (800) 258-8117

MGM Brakes
Cloverdale - Manufacturing Plant
P.O. Box 249
1184 South Cloverdale Blvd.
Cloverdale, California 95425
Phone: (707) 894-3333
Fax: (707) 894-5704
Fax: (800) 266-5750

Worldwide Office(s)

MGM Brakes - Europe
Henleaze House
13 Harbury Road
Henleaze, Bristol BS9 4PN
England
Phone: 44-117-9628889
Fax: 44-117-9405660

Section 1: Double Diaphragm Spring Brakes..... 9-33

Standard Stroke Models



TR	(Tamper Resistant).....	10-11
TR-T	(Tamper Resistant, Tube).....	12-13
TR-HD	(Tamper Resistant, Heavy-Duty).....	14-15
TR-THD	(Tamper Resistant, Tube, Heavy-Duty).....	16-17
TR-TS	(Tamper Resistant, Tube, Severe Service).....	18-19
TR-TSHD	(Tamper Resistant, Tube, Severe Service, Heavy-Duty).....	20-21

3.00 Inch Long Stroke Models



TR-LP3	(Tamper Resistant, Long Stroke).....	22-23
TR-LP3T	(Tamper Resistant, Long Stroke, Tube).....	24-25
TR-LP3HD	(Tamper Resistant, Long Stroke, Heavy-Duty).....	26-27
TR-LP3THD	(Tamper Resistant, Long Stroke, Tube, Heavy-Duty).....	28-29
TR-LP3TS	(Tamper Resistant, Long Stroke, Tube, Severe Service).....	30-31
TR-LP3TSHD	(Tamper Resistant, Long Stroke, Tube, Severe Service, Heavy-Duty).....	32-33

Section 2: Long Life - Double Diaphragm Spring Brakes..... 35-39

Standard Stroke Model



LTR-T	(Integral Release Bolt, Tamper Resistant, Tube).....	36-37
-------	--	-------

3.00 Inch Long Stroke Model



LTR-L3	(Integral Release Bolt, Tamper Resistant, Long Stroke).....	38-39
--------	---	-------

Section 3: Piston Spring Brakes..... 41-49

Standard Stroke Model



MG-T	(Magnum, G-Series, Tube).....	42-45
------	-------------------------------	-------

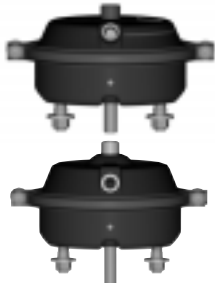
1.75 Inch Standard and 3.00 Inch Long Stroke Model



MAGNUM PERFORMANCE PLUS	(Magnum, J-Series, Long Stroke, Tube).....	46-49
-------------------------	--	-------

Page(s)

Section 4: Service Chambers..... 51-57



Standard Stroke Models

C	(“Steelhead”, S Cam).....	52-53
CW	(Wedge).....	54-55

2.50 Inch and 3.00 Inch Long Stroke Models

CL	(S Cam, Long Stroke).....	56-57
CS	(S Cam, Long Stroke, Sealed).....	56-57

Section 5 : Wedge Spring Brakes..... 59-63



Standard Stroke Models

WM	(Wedge, Magnum).....	60-61
----	----------------------	-------

MJW	(Magnum, J-Series, Wedge).....	62-63
-----	--------------------------------	-------

Section 6 : Remote Cylinders..... 65-67



Standard Stroke Models

R4A	(Remote Cylinder).....	66-67
R5A	(Remote Cylinder).....	66-67
R5AHD	(Remote Cylinder, Heavy-Duty).....	66-67

Section 7 : Replacement Parts..... 69-73

<i>Diaphragms, Kits - Push-Rod Assembly & Nut</i>	70
<i>Yoke Assemblies, Clamp Bands</i>	70
<i>Kits - Breather Cap, End Cap & Weatherseal™ Plug</i>	70
<i>Kits - S-Cam Protective Boot & Center Hole Shield, Kits - Breather Tube & Elbow</i>	71
<i>Non-Pressure Chamber (With and Without Breather Elbow)</i>	71
<i>Kit - Wedge Chamber Boot, Kit - Nuts and Washers, Vent Hole-Plug</i>	71
<i>Kit- Release Bolt, Welded Yoke Assemblies, Yoke Pins (Stainless Steel)</i>	72

Section 8 : Transit / Special Applications..... 75-77

<i>TR, TR-T, TR-TS and WM-LGT Transit Bus Brakes and other special applications</i>	76-77
---	-------

Section 9 : Technical Information..... 79-94

<i>Product Identification Plate</i>	80
<i>Long Stroke Identification</i>	81
<i>Double Diaphragm To Piston Conversion</i>	82
<i>How to Cut a Push-Rod</i>	83
<i>Proper Brake Adjustment</i>	84
<i>Fastener Torque Valve Chart</i>	85
<i>Performance Chart - Spring Brake Chambers</i>	86-87
<i>Performance Chart - Service Brake Chambers</i>	88-92
<i>Standard Warranty Policy</i>	93
<i>LTR-T and LTR-L3 “Long Life” Warranty Policy</i>	94



PART NUMBER / MODEL DESIGNATION

PART NUMBER / MODEL DESIGNATION

P/N Series	Model	Stroke	Part Description	Page Number(s)	Obsolete	Replaced By
1009	CW9	1.75	Wedge Service	54-55		
1012	CW12	1.75	Wedge Service	54-55		
1016	CW16	1.75	Wedge Service	54-55		
1412	C12	1.75	CAM Service	52-53		
1416	C16	2.25	CAM Service	52-53		
1417	C16L	2.50	CAM Service	•	X	1617
1418	C16L2.5	2.50	CAM Service	56-57		
1420	C20	2.25	CAM Service	52-53		
1421	C20L	2.50	CAM Service	56-57		
1427	C24L	2.50	CAM Service	52-53		
1428	C24L3	3.00	CAM Service	56-57		
1430	C30	2.50	CAM Service	52-53		
1431	C30L3	3.00	CAM Service	56-57		
1436	C36	3.00	CAM Service	52-53		
1617	CS16LH	2.50	CAM Service	56-57		
1621	CS20L	2.50	CAM Service	56-57		
1622	CS20L3	3.00	Disc/Service	56-57		
2017	WM1624LG-T	1.75	Wedge Spring/Service	60-61		
2212	WL1216	1.75	Wedge Spring/Service	•	X	MJW1218AT *
MJW1218AT *	MJW1218AT	1.75	Wedge Spring/Service	62-63		
3220	TR2030LP3	3.00	CAM Spring/Service	22-23		
3221	TR2030LP3T	3.00	CAM Spring/Service	24-25		
3224	TR2430LP3	3.00	CAM Spring/Service	22-23		
3225	TR2430LP3T	3.00	CAM Spring/Service	24-25		
3226	TR2430LP3HD	3.00	CAM Spring/Service	26-27		
3227	TR2430LP3THD	3.00	CAM Spring/Service	28-29		
3230	TR3030LP3	3.00	CAM Spring/Service	22-23		
3231	TR3030LP3T	3.00	CAM Spring/Service	24-25		
3232	TR3030LP3HD	3.00	CAM Spring/Service	26-27		
3233	TR3030LP3THD	3.00	CAM Spring/Service	28-29		
3420	TR2024	2.25	CAM Spring/Service	10-11		
3421	TR2024T	2.25	CAM Spring/Service	12-13		
3426	TR2424LT	2.50	CAM Spring/Service	12-13		
3427	TR2424L	2.50	CAM Spring/Service	10-11		
3428	TR2430LT	2.50	CAM Spring/Service	12-13		
3429	TR2430L	2.50	CAM Spring/Service	10-11		
3430	TR3030	2.50	CAM Spring/Service	10-11		
3431	TR3030T	2.50	CAM Spring/Service	12-13		
3432	TR3036T	2.50	CAM Spring/Service	12-13		
3433	TR3036	2.50	CAM Spring/Service	10-11		
3434	TR3024	2.50	CAM Spring/Service	10-11		
3435	TR3024T	2.50	CAM Spring/Service	12-13		

Note: For Transit / Special Applications (i.e. rod length, etc..) refer to Section 8.

Note: (*) MJW1218AT Model available Jan. 2001

PART NUMBER / MODEL DESIGNATION



PART NUMBER / MODEL DESIGNATION

P/N Series	Model	Stroke	Parts Description	Page Number(s)	Obsolete	Replaced By
3436	TR3636T	3.00	CAM Spring/Service	12-13		
3331	TR3030L3-T	3.00	CAM Spring/Service	•	X	3231
3437	TR3636	3.00	CAM Spring/Service	10-11		
3438	TR3030HO	2.50	CAM Spring/Service	•	X	3630
3439	TR3030THO	2.50	CAM Spring/Service	•	X	3631
3440	TR2430HO	2.50	CAM Spring/Service	•	X	3624
3441	TR2430LTHO	2.50	CAM Spring/Service	•	X	3625
3523	TR2430LP3TS	3.00	CAM Spring/Service	30-31		
3526	TR2430LTSHD	2.50	CAM Spring/Service	20-21		
3527	TR2430LP3TSHD	3.00	CAM Spring/Service	32-33		
3528	TR2430LTS	2.50	CAM Spring/Service	18-19		
3531	TR3030TS	2.50	CAM Spring/Service	18-19		
3532	TR3036TS	2.50	CAM Spring/Service	18-19		
3533	TR3030TSHD	2.50	CAM Spring/Service	20-21		
3534	TR3030LP3TSHD	3.00	CAM Spring/Service	32-33		
3535	TR3030LP3TS	3.00	CAM Spring/Service	30-31		
3536	TR3636TS	2.50	CAM Spring/Service	18-19		
3538	TR2424LTS	2.50	CAM Spring/Service	18-19		
3624	TR2430LHD	2.50	CAM Spring/Service	14-15		
3625	TR2430LTHD	2.50	CAM Spring/Service	16-17		
3630	TR3030HD	2.50	CAM Spring/Service	14-15		
3631	TR3030THD	2.50	CAM Spring/Service	16-17		
3827	LTR2430LT	2.50	CAM Spring/Service	36-37		
3828	LTR2430L3	3.00	CAM Spring/Service	38-39		
3831	LTR3030T	2.50	CAM Piston/Spring/Service	36-37		
3832	LTR3030L3	3.00	CAM Piston/Spring/Service	38-39		
4036	M3636B-T	3.00	CAM Piston/Spring/Service	•	X	MJS3628ET
4112	M1216G-T	1.75	CAM Piston/Spring/Service	•	X	MJS1220AT
4115	M1620LGT	2.50	CAM Piston/Spring/Service	42-43		
4117	M1624LGT	2.50	CAM Piston/Spring/Service	42-43		
4119	M2020LGT	2.50	CAM Piston/Spring/Service	42-43		
4120	M2024LGT	2.50	CAM Piston/Spring/Service	42-43		
4122	M2420LGT	2.50	CAM Piston/Spring/Service	42-43		
4124	M2424LGT	2.50	CAM Piston/Spring/Service	44-45		
4128	M2430LGT	2.50	CAM Piston/Spring/Service	44-45		
4131	M3027GT	2.50	CAM Piston/Spring/Service	44-45		
4133	M3024GT	2.50	CAM Piston/Spring/Service	44-45		
4420	M2030LGT	2.50	CAM Piston/Spring/Service	42-43		
4430	M3030GT	2.50	CAM Piston/Spring/Service	•	X	4431
4431	M3031GT	2.50	CAM Piston/Spring/Service	44-45		
5004	R4A	4.50	Remote Mount Cylinder	66-67		
5005	R5A	4.40	Remote Mount Cylinder	66-67		

Note: For Transit / Special Applications (i.e. rod length, etc.) refer to Section 8.



PART NUMBER / MODEL DESIGNATION

PART NUMBER / MODEL DESIGNATION

P/N Series	Model	Stroke	Description	Page Number(s)	Replaced By
5005	R5AHD	4.41	Remote Mount Cylinder	66-67	
MJS1220AT	MJS1220AT	1.75	CAM Piston/Spring/Service	46-47	
MJS2424ET	MJS2424ET	3.00	CAM Piston/Spring/Service	46-47	
MJS3022ET	MJS3022ET	3.00	CAM Piston/Spring/Service	46-47	
MJS3024ET	MJS3024ET	3.00	CAM Piston/Spring/Service	46-47	
MJS3028ET	MJS3028ET	3.00	CAM Piston/Spring/Service	48-49	
MJS3030ET	MJS3030ET	3.00	CAM Piston/Spring/Service	48-49	
MJS3628ET	MJS3628ET	3.00	CAM Piston/Spring/Service	48-49	
MJS3630ET	MJS3630ET	3.00	CAM Piston/Spring/Service	48-49	

Note: For Transit / Special Applications (i.e. rod length, etc..) refer to the Transit / Special Applications Section 8.

KEY TO MODEL "PREFIXES"	KEY TO MODEL "SUFFIXES"
C = SERVICE CHAMBER CS = SERVICE CHAMBER / SEALED CW = SERVICE CHAMBER / WEDGE LTR = INTEGRAL RELEASE BOLT / TAMPER RESISTANT M = MAGNUM MJS = MAGNUM PERFORMANCE PLUS / S-CAM TYPE MJW = MAGNUM PERFORMANCE PLUS / WEDGE TR = TAMPER RESISTANT W = WEDGE	A = 1.75 INCH STROKE (MAGNUM PERFORMANCE PLUS) E = 3 INCH LONG STROKE (MAGNUM PERFORMANCE PLUS) G = G-SERIES H = HYBRID HD = HEAVY DUTY L = LONG STROKE L3 = 3 INCH LONG STROKE CHAMBER LP3 = 3 INCH LONG STROKE / LOW PROFILE S = SEVERE SERVICE T = TUBE

UNDERSTANDING MGM BRAKES PART NUMBERS



MGM Brakes assigns a 7-digit part number to every assembly and part we manufacture. This number code reveals information about the part.

EXPLANATION OF 7-DIGIT PART NUMBER

- 1st Two Digits - Major models, groups, detail parts, kits, etc.
- 2nd Two Digits – (a) Model size on major groups
(b) Detail parts identification all others
- 3rd Three Digits – Numerical sequence 001-999
 - (a) Spring brake singles – 001 through 050
 - Spring brake tandems – 051 through 999
 - (b) All others 001 through 999

EXAMPLE OF SYSTEM

10000000 – 19999999 Service Chamber
 20000000 – 29999999 Wedge Spring Brake
 30000000 – 39999999 Double Diaphragm Brake
 40000000 – 49999999 Piston Type Brake
 50000000 – 59999999 Remote Mount Cylinder
 80000000 – 89999999 Parts/Assemblies/Valves
 99999999 – 99999999 Kits

DETAILS OF SYSTEM SERVICE CHAMBERS – SPRING BRAKES (1000000-5999999)

1st TWO DIGITS

- 10 – Wedge Service Chambers
- 14 – Cam Service Chambers (Std.)
- 16 – Cam Service (Sealed)
- 20 – Wedge-Piston Spring Brake (Std.)
- 22 – Wedge Double-Diaphragm Spring Brake (Std.)
- 23 – Double-Diaphragm Spring Brake Type 12 - Integral Release Bolt
- 30 – Obsolete (Discontinued)
- 31 – Obsolete (Discontinued)
- 32 – Double-Diaphragm Low Profile 3.00" Long Stroke
- 33 – Double-Diaphragm 3.00" Long Stroke (High Output)
- 34 – Double-Diaphragm Spring Brake (Std. TR)
- 35 – Double-Diaphragm Spring Brake With External Breather Tube (Std. Severe Service)
- 36 – Double-Diaphragm (Heavy Duty)
- 38 – Double-Diaphragm (LTR-T) Integral Release Bolt & Breather Tube (6 Year Warranty)
- 40 – Piston Type Brake
- 41 – Piston Type Brake
- 44 – Piston Type Brake (Heavy Duty)
- 50 – Remote Mount Cylinders

2nd TWO DIGITS

- 00 – Miscellaneous
- 04 – Remote R4
- 05 – Remote R5
- 09 – Type 9 (Std.)
- 12 – Type 12 (Std.)
- 14 – Type 12 - XHD
- 16 – Type 16
- 17 – Type 16 – 2.50" Stroke
- 18 – Type 16
- 20 – Type 20 (2.25" Stroke – Double Diaphragm) (2.50" Stroke – Piston)
- 21 – Type 20 – 2.50" and 3.00" Stroke
- 24 – Type 24 – 2.50" and 3.00" Stroke
- 25 – Type 24 and 30 – 2.50" and 3.00" Stroke – Tube Type
- 26 – Type 24 and 30 – 2.50" and 3.00" Stroke
- 27 – Type 24 – 2.50" and 3.00" Stroke
- 28 – Type 24
- 29 – Type 30 – 2.50" Stroke
- 30 – Type 30 – 2.50" and 3.00" Stroke
- 31 – Type 30 – 2.50" & 3.00" Stroke – Tube Type
- 32 – Type 36 – 2.50" and 3.00" - Tube Type
- 33 – Type 36
- 34 – Type 24 – 2.50" Stroke
- 35 – Type 24 – 2.50" Stroke – Tube Type
- 36 – Type 36 – Tube Type
- 37 – Type 36

3rd THREE DIGITS

001-999 – Numerical Sequence

EXAMPLE: Part number 3831001 would be an integral release bolt, tamper resistant (TR) Type 30 piggyback unit with an external breather-tube.

DETAIL OF SYSTEM PARTS-GROUPS-KITS, ETC. (7000000-9099999)

1st TWO DIGITS

- 70 – Electrical
- 80 – Detail Parts
- 81 – Bolts-Nuts-Washers
- 82 – Sub-Assemblies & Groups
- 83 – Valves
- 90 - Kits

2nd TWO DIGITS

- 00-99 Various Groups of Products
- Example: 17 – Diaphragms
- 67 - Springs

3rd THREE DIGITS

001-999 Numerical Sequence

MAGNUM PERFORMANCE PLUS NUMBERING SYSTEM

Example: MJS3030ET051

The Magnum "Performance" Plus numbering system is uniquely different from how MGM Brakes identified products in the past. The Magnum Plus part number contains all the information pertaining to the brake, allowing anyone to identify not only the model, but application, stroke, features and serial number as well.

Model Series	Style	Service Side	Spring Side	Max. Stroke	Feature	Serial Number
MJ	S	30	30	E	T	051
Magnum J-Series	S-Cam	Type 30	Type 30	3.00	Breather Tube	Aftermarket Complete Assembly

TR SERIES

SPRING BRAKES



Safe, Reliable,
Tamper-Resistant



MGM Brakes

Section 1: Double Diaphragm Spring Brakes..... 9-33

Standard Stroke Models



TR	(Tamper Resistant).....	10-11
TR-T	(Tamper Resistant, Tube).....	12-13
TR-HD	(Tamper Resistant, Heavy-Duty).....	14-15
TR-THD	(Tamper Resistant, Tube, Heavy-Duty).....	16-17
TR-TS	(Tamper Resistant, Tube, Severe Service).....	18-19
TR-TSHD	(Tamper Resistant, Tube, Severe Service, Heavy-Duty).....	20-21

3.00 Inch Long Stroke Models



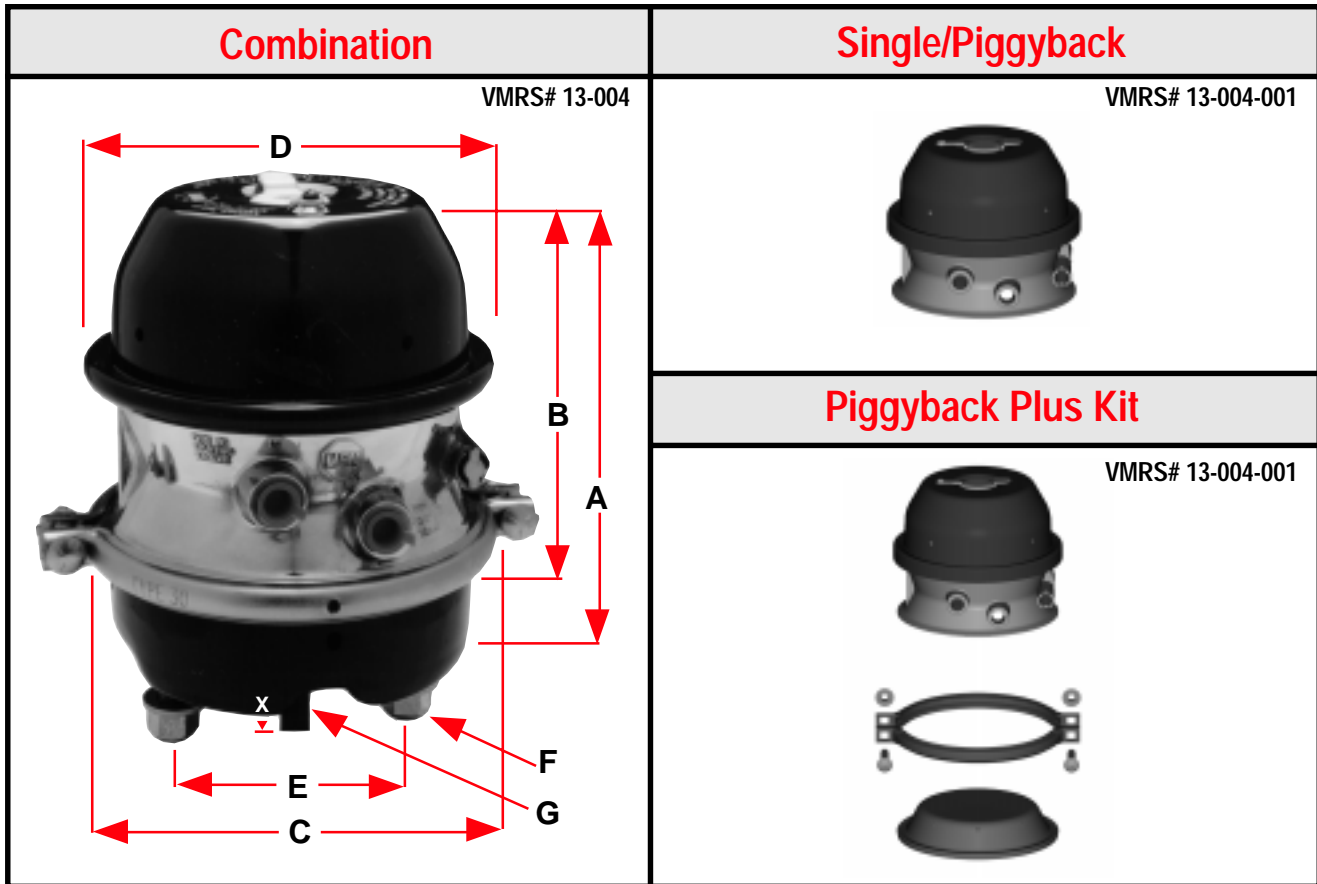
TR-LP3	(Tamper Resistant, Long Stroke).....	22-23
TR-LP3T	(Tamper Resistant, Long Stroke, Tube).....	24-25
TR-LP3HD	(Tamper Resistant, Long Stroke, Heavy-Duty).....	26-27
TR-LP3THD	(Tamper Resistant, Long Stroke, Tube, Heavy-Duty).....	28-29
TR-LP3TS	(Tamper Resistant, Long Stroke, Tube, Severe Service).....	30-31
TR-LP3TSHD	(Tamper Resistant, Long Stroke, Tube, Severe Service, Heavy-Duty).....	32-33

FEATURES	TR	TR-T	TR-TS	TR-HD	TR-THD	TR-TSHD	TR-LP3	TR-LP3T	TR-LP3TS	TR-LP3HD	TR-LP3THD	TR-LP3TSHD
Epoxy-Coated Piston & Guide, Return Spring, Center Case - Inside & Out												
Tamper-Resistant Mechanically Locked Spring Housing												
Molded Nitrile Rubber Push-Rod Air Seal												
Center Hole Shield												
Steel Head/Epoxy Coated												
External Breather Tube												
Externally Stored Release Bolt												
Stroke Alert												
Long Life Power Spring												
Heavy-Duty Power Spring												
Polymer Push-Rod Guides												
Heavy-Duty 8 Gauge Steel Non-Pressure Chamber												
3 Inch Long Stroke												
Weatherseal™ Plug												
360 Aluminum Center Case												
Heavy-Duty Nylon Reinforced Diaphragms												

■ Indicates Feature

Standard Stroke Model

DOUBLE DIAPHRAGM



P/N Series	3420	3427	3429	3434	3430	3433	3437
Model	TR2024	TR2424L	TR2430L	TR3024	TR3030	TR3036	TR3636
Size	2024	2424	2430	3024	3030	3036	3636
Stroke	2.25"	2.50"	2.50"	2.50"	2.50"	2.50"	3.00"
P/N Combination	3420051	3427051	3429051	3434051	3430051	3433051	3437051
P/N Single/Piggyback	3420001	3427001	3429001	3434001	3430001	3433001 (a)	3437001
P/N Piggyback Plus Kit	N/A	3427008	3429008	N/A	3430008	N/A	N/A
Wt. Combination (Lbs.)	15.9	16.6	18.5	18.3	20.0	26.5	30.8
Wt. Single (Lbs.)	9.6	9.5	11.6	9.7	11.6	18.3	20.2
A	8.31	8.52	9.04	8.47	9.04	9.86	11.13
B	6.16	6.36	6.91	6.12	6.66	7.52	8.38
C	6.9	7.38	7.38	8.31	8.31	8.31	9.25
D	7.34	7.34	8.21	7.34	8.21	9.18	9.18
E	4.75"						
F	5/8" - 11UNC						
G	5/8" - 18UNF						
Inlets	3/8" - NPTF						
X - Min. (in the caged position)	8.00" (b)						

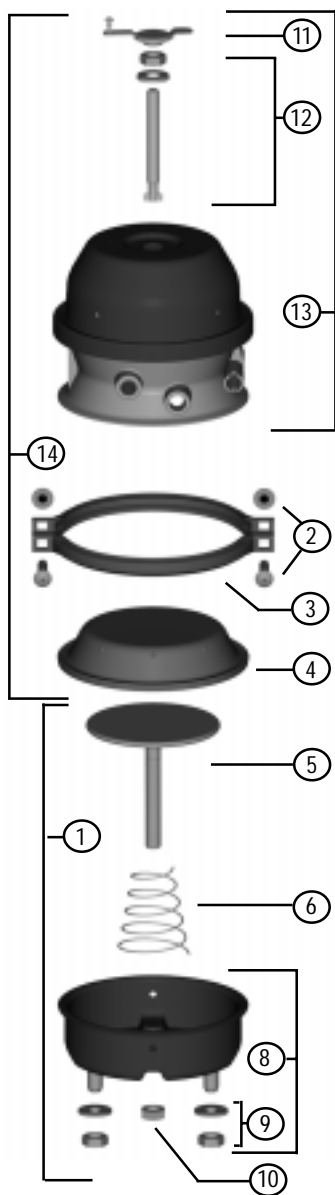
Note: (a) This model must be used only in combination with MGM Brakes heavy-duty weld reinforced mounting base or 8 gauge non-pressure housing.
 (b) For Transit and Hendrickson Intraax / Vantraax Suspension applications refer to page 76.
 Product information and specifications subject to change without notice.

Standard Stroke Model

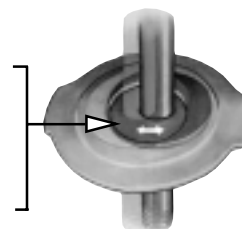
TR Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case
- Long Life Power Spring

- Weatherseal™ Plug
- Heavy-Duty Steel Non-Pressure Chamber (8-Gauge Standard on Type 3030 & 3036 Aftermarket Models) (6-Gauge Standard on Type 36 Models)
- Stroke Alert
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)



7 Center Hole Shield
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

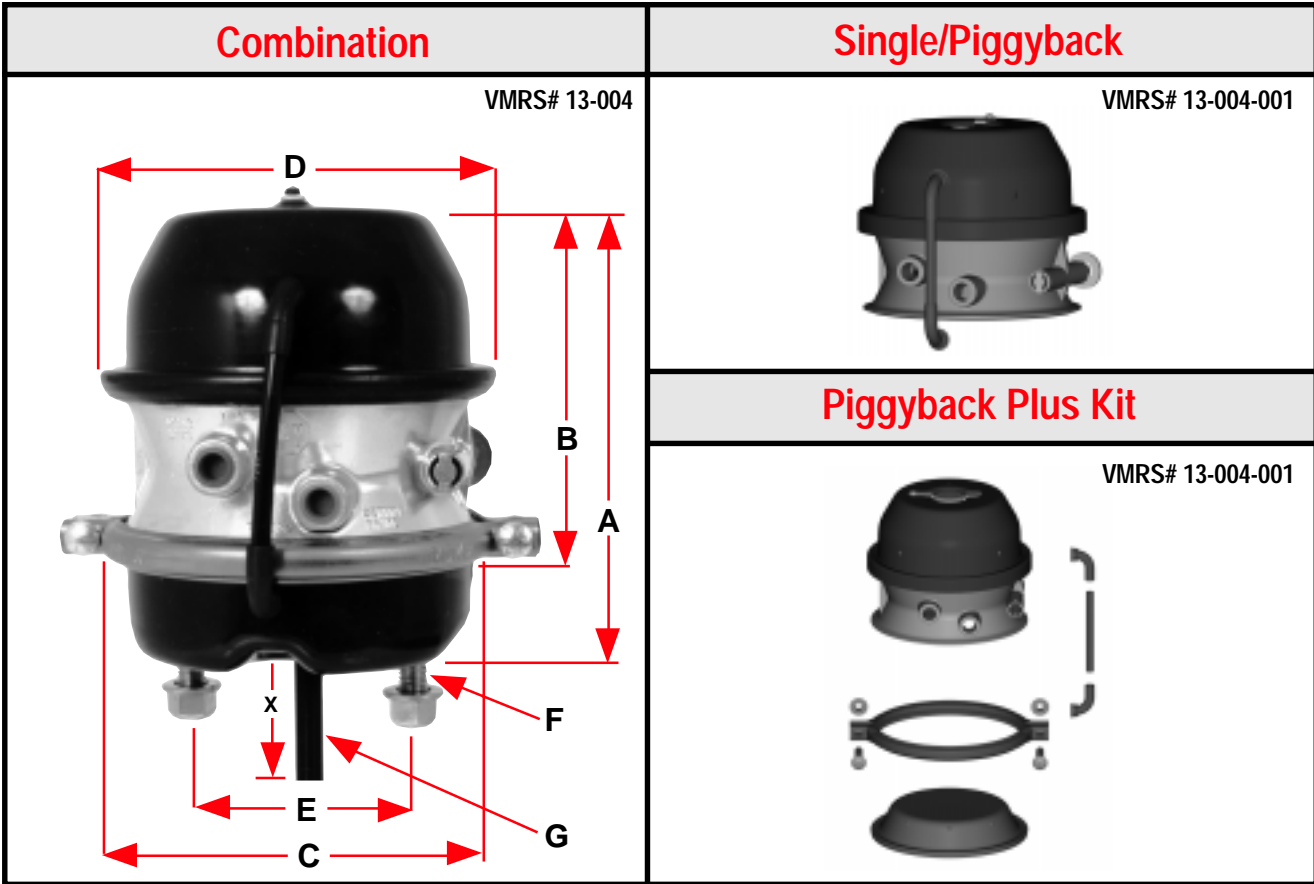
P/N Series	3420	3427	3429	3434	3430	3433	3437
Model	TR2024	TR2424L	TR2430L	TR3024	TR3030	TR3036	TR3636
1 Kit - NP Chamber (b)	9015160	9015161	9015161	9015050	9015050	9015050	9015049
2 Kit - Nuts & Bolts	9003001	9003001	9003001	9003001	9003001	9003001	9003001
3 Clamp Band Assembly	8216020	8216025	8216025	8216045	8216045	8216045	8216036
4 Diaphragm	8017120	8017141	8017141	8017730	8017730	8017730	8017836
5 Kit - Push-Rod Assembly (b)	9064001	9064002	9064002	9064003	9064003	9064003	9064004
6 Return Spring	8068002	8068002	8068002	8068002	8068002	8068002	8068003
7 Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002	9065002	9065002
8 NP Chamber Assembly	8215169	8215105	8215105	8215501	8215501	8215501	8215036
9 Kit - Nuts & Washers	9002001	9002001	9002001	9002001	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004	8130004	8130004	8130004	8130004
11 Kit - Weatherseal™ Plug	9019005	9019005	9019005	9019005	9019005	9019006	9019006
12 Kit - Release Bolt	9007003	9007003	9007003	9007003	9007003	9007009	9007009
13 Piggyback	3420001	3427001	3429001	3434001	3430001	3433001(a)	3437001
14 Kit - Piggyback Plus	N/A	3427008	3429008	N/A	3430008	N/A	N/A
OPTIONAL ITEMS							
Yoke Assembly	Refer to Replacement Parts Section 7						
Boot & Retainer	Refer to Replacement Parts Section 7						

Note: (a) This model must be used only in combination with MGM Brakes heavy-duty weld reinforced mounting base or 8 gauge non-pressure housing.
(b) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

Standard Stroke Model

DOUBLE DIAPHRAGM



P/N Series	3421	3426	3428	3435	3431	3432	3436
Model	TR2024T	TR2424LT	TR2430LT	TR3024T	TR3030T	TR3036T	TR3636T
Size	2024	2424	2430	3024	3030	3036	3636
Stroke	2.25"	2.50"	2.50"	2.50"	2.50"	2.50"	3.00"
P/N Combination	3421051	3426051	3428051	3435051	3431051	3432051	3436051
P/N Single/Piggyback	3421001	3426001	3428001	3435001	3431001	3432001 (a)	3436001
P/N Piggyback Plus Kit	N/A	N/A	N/A	N/A	3431008	N/A	N/A
Wt. Combination (Lbs.)	15.9	16.6	18.5	18.3	20.0	26.5	30.8
Wt. Single (Lbs.)	9.6	9.5	11.6	9.7	11.6	18.3	20.2
A	8.31	8.52	9.04	8.47	9.04	9.86	11.13
B	6.16	6.36	6.91	6.12	6.66	7.52	8.38
C	6.9	7.38	7.38	8.31	8.31	8.31	9.25
D	7.34	7.34	8.21	7.34	8.21	9.18	9.18
E	4.75"						
F	5/8" - 11UNC						
G	5/8" - 18UNF						
Inlets	3/8" - NPTF						
X - Min. (in the caged position)	8.00" (b)						

Note: (a) This model must be used only in combination with MGM Brakes heavy-duty weld reinforced mounting base or 8 gauge non-pressure housing.

(b) For Transit applications refer to page 76.

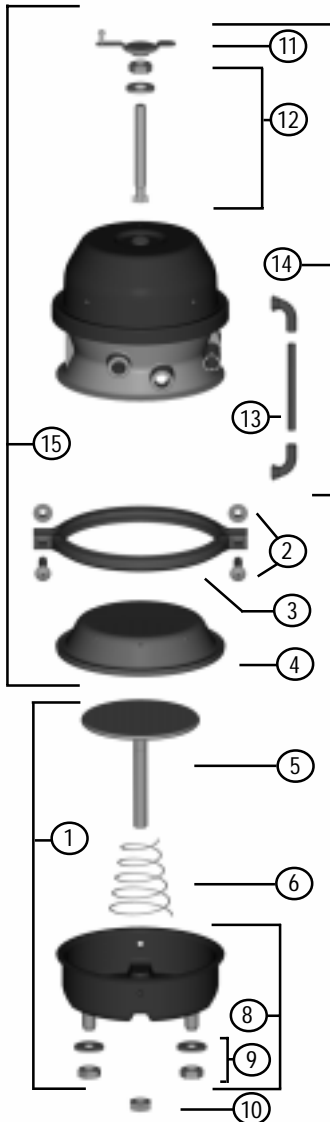
Product information and specifications subject to change without notice.

Standard Stroke Model

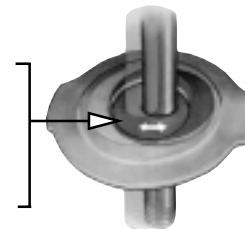
TR-T Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case
- Long Life Power Spring

- Weatherseal™ Plug
- Heavy-Duty Steel Non-Pressure Chamber (8-Gauge Standard on Type 3030 & 3036 Aftermarket Models) (6-Gauge Standard on Type 36 Models)
- Stroke Alert
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- **External Breather Tube**



⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

P/N Series	3421	3426	3428	3435	3431	3432	3436
Model	TR2024T	TR2424LT	TR2430LT	TR3024T	TR3030T	TR3036T	TR3636T
1 Kit - NP Chamber (b)	9015111	9015152	9015152	9015157	9015157	9015149	9015150
2 Kit - Nuts & Bolts	9003001	9003001	9003001	9003001	9003001	9003001	9003001
3 Clamp Band Assembly	8216020	8216025	8216025	8216045	8216045	8216045	8216036
4 Diaphragm	8017120	8017141	8017141	8017730	8017730	8017730	8017836
5 Kit - Push-Rod Assembly (b)	9064001	9064002	9064002	9064003	9064003	9064003	9064004
6 Return Spring	8068002	8068002	8068002	8068002	8068002	8068002	8068003
7 Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002	9065002	9065002
8 NP Chamber Assembly	9015110	9015151	9015151	9015122	9015122	9015122	9015108
9 Kit - Nuts & Washers	9002001	9002001	9002001	9002001	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004	8130004	8130004	8130004	8130004
11 Kit - Weatherseal™ Plug	9019005	9019005	9019005	9019005	9019005	9019006	9019006
12 Kit - Release Bolt	9007003	9007003	9007003	9007003	9007003	9007009	9007009
13 Kit - Breather Tube	9081001	9081001	9081001	9081001	9081001	9081001	9081001
14 Piggyback	3421001	3426001	3428001	3435001	3431001	3432001(a)	3436001
15 Kit - Piggyback Plus	N/A	N/A	N/A	N/A	3431008	N/A	N/A
OPTIONAL ITEMS							
Yoke Assembly	Refer to Replacement Parts Section 7						
Boot & Retainer	Refer to Replacement Parts Section 7						

- Note:** (a) This model must be used only in combination with MGM Brakes heavy-duty weld reinforced mounting base or 8 gauge non-pressure housing.
(b) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7

Standard Stroke Model

DOUBLE DIAPHRAGM

Combination	Single/Piggyback
<p>VMRS# 13-004</p>	<p>VMRS# 13-004-001</p>
	Piggyback Plus Kit
	N/A

P/N Series	3624	3630
Model	TR2430LHD	TR3030HD
Size	2430	3030
Stroke	2.50"	2.50"
P/N Combination	3624051	3630051
P/N Single/Piggyback	3624001	3630001
P/N Piggyback Plus Kit	N/A	N/A
Wt. Combination (Lbs.)	18.6	19.9
Wt. Single (Lbs.)	11.7	11.5
A	9.04	9.04
B	6.91	6.66
C	7.38	8.31
D	8.21	7.34
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00"	

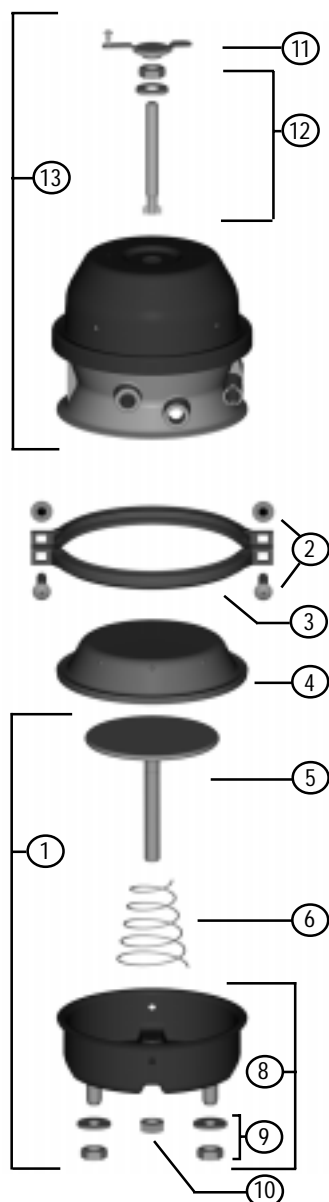
Note: Product information and specifications subject to change without notice.

Standard Stroke Model

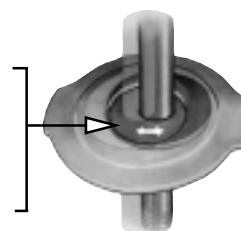
TR-HD Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case

- Weatherseal™ Plug
- Heavy-Duty Steel Non-Pressure Chamber (8-Gauge Standard on Type 3030 & 3036 Aftermarket Models)
- Stroke Alert
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- **Heavy-Duty Power Spring (160 Lbs. additional parking brake force @ 1.25 inches of stroke)**



- 7 **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

P/N Series	3624	3630
Model	TR2430LHD	TR3030HD
1 Kit - NP Chamber (a)	9015219	9015050
2 Kit - Nuts & Bolts	9003001	9003001
3 Clamp Band Assembly	8216025	8216045
4 Diaphragm	8017141	8017730
5 Kit - Push-Rod Assembly (a)	9064002	9064003
6 Return Spring	8068002	8068002
7 Kit - Center Hole Shield	9065002	9065002
8 NP Chamber Assembly	8215294	8215501
9 Kit - Nuts & Washers	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004
11 Kit - Weatherseal™ Plug	9019005	9019005
12 Kit - Release Bolt	9007003	9007003
13 Piggyback	3624001	3630001
OPTIONAL ITEMS		
Yoke Assembly	Refer to Replacement Parts Section 7	
Boot & Retainer	Refer to Replacement Parts Section 7	

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7

Standard Stroke Model

DOUBLE DIAPHRAGM

Combination	Single/Piggyback
<p>VMRS# 13-004</p>	<p>VMRS# 13-004-001</p>
	<p>Piggyback Plus Kit</p>
	<p>N/A</p>

P/N Series	3625	3631
Model	TR2430LTHD	TR3030THD
Size	2430	3030
Stroke	2.50"	2.50"
P/N Combination	3625051	3631051
P/N Single/Piggyback	3625001	3631001
P/N Piggyback Plus Kit	N/A	N/A
Wt. Combination (Lbs.)	18.6	19.9
Wt. Single (Lbs.)	11.7	11.5
A	9.04	9.04
B	6.91	6.66
C	7.38	8.31
D	8.21	8.21
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00"	

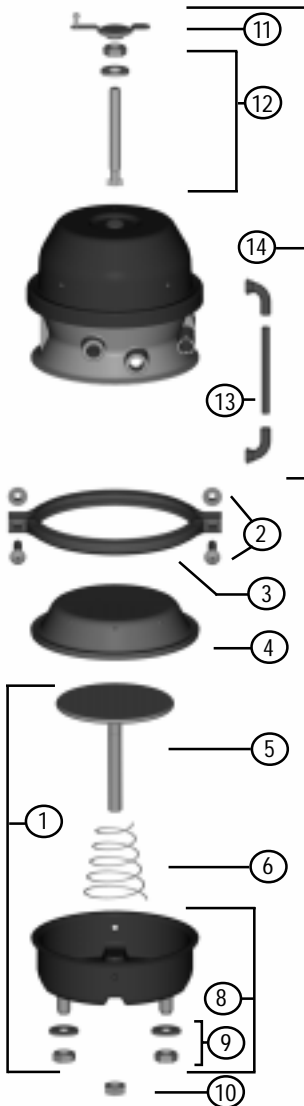
Note: Product information and specifications subject to change without notice.

Standard Stroke Model

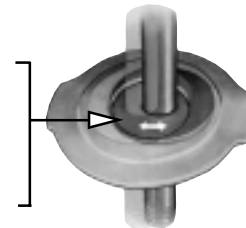
TR-THD Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case

- Weatherseal™ Plug
- Heavy-Duty Steel Non-Pressure Chamber (8-Gauge Standard on Type 3030 & 3036 Aftermarket Models)
- Stroke Alert
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- **External Breather Tube**
- **Heavy-Duty Power Spring (160 Lbs. additional parking brake force @ 1.25 inches of stroke)**



- ⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

	P/N Series	3625	3631
	Model	TR2430LTHD	TR3030THD
1	Kit - NP Chamber (a)	9015152	9015149
2	Kit - Nuts & Bolts	9003001	9003001
3	Clamp Band Assembly	8216025	8216045
4	Diaphragm	8017141	8017730
5	Kit - Push-Rod Assembly (a)	9064002	9064003
6	Return Spring	8068002	8068002
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly	9015151	9015122
9	Kit - Nuts & Washers	9002001	9002001
10	Hex Nut - Yoke	8130004	8130004
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Breather Tube	9081001	9081001
14	Piggyback	3625001	3631001
OPTIONAL ITEMS			
	Yoke Assembly	Refer to Replacement Parts Section 7	
	Boot & Retainer	Refer to Replacement Parts Section 7	

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

Standard Stroke Model

DOUBLE DIAPHRAGM

Combination	Single/Piggyback
<p>VMRS# 13-004</p>	<p>VMRS# 13-004-001</p>
	<p style="color: red;">Piggyback Plus Kit</p>
	<p>N/A</p>

P/N Series	3538	3528	3531	3532	3536
Model	TR2424LTS	TR2430LTS	TR3030TS	TR3036TS	TR3636TS
Size	2424	2430	3030	3036	3636
Stroke	2.50"	2.50"	2.50"	2.50"	3.00"
P/N Combination	3538051	3528051	3531051	3532051	3536051
P/N Single/Piggyback	3538001	3528001	3531001	3532001 (a)	3536001
P/N Piggyback Plus Kit	N/A	N/A	N/A	N/A	N/A
Wt. Combination (Lbs.)	16.6	18.5	20.0	26.5	30.8
Wt. Single (Lbs.)	9.5	11.6	11.6	18.3	20.2
A	8.52	9.04	9.04	9.86	11.13
B	6.36	6.91	6.66	7.52	8.38
C	7.38	7.38	8.31	8.31	9.25
D	7.34	8.21	8.21	9.18	9.18
E	4.75"				
F	5/8" - 11UNC				
G	5/8" - 18UNF				
Inlets	3/8" - NPTF				
X - Min. (in the caged position)	8.00" (b)				

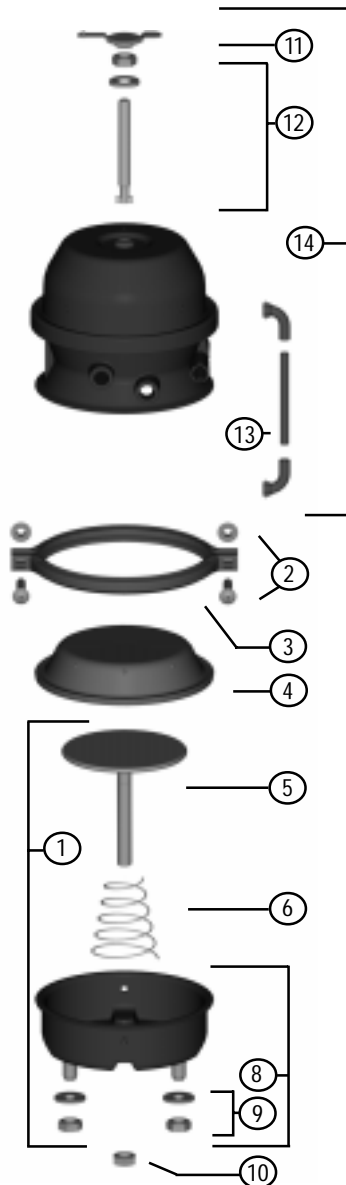
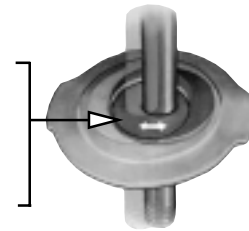
Note: (a) This model must be used only in combination with MGM Brakes heavy-duty weld reinforced mounting base or 8 gauge non-pressure housing.
 (b) For Transit applications refer to page 76.
 Product information and specifications subject to change without notice.

Standard Stroke Model

TR-TS Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case
- Long Life Power Spring
- Weatherseal™ Plug
- Heavy-Duty Steel Non-Pressure Chamber (8-Gauge Standard on Type 3030 & 3036 Aftermarket Models) (6 Gauge Standard on Type 36 Models)
- Stroke Alert
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- **External Breather Tube**
- **Epoxy-Coated Piston & Guide, Return Spring, Center Case - Inside & Out**

⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

P/N Series	3538	3528	3531	3532	3536
Model	TR2424LTS	TR2430LTS	TR3030TS	TR3036TS	TR3636TS
1 Kit - NP Chamber (b)	9015152	9015152	9015149	9015149	9015150
2 Kit - Nuts & Bolts	9003001	9003001	9003001	9003001	9003001
3 Clamp Band Assembly	8216025	8216025	8216045	8216045	8216036
4 Diaphragm	8017141	8017141	8017730	8017730	8017836
5 Kit - Push-Rod Assembly (b)	9064002	9064002	9064003	9064003	9064004
6 Return Spring	8068012	8068012	8068012	8068012	8068012
7 Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002
8 NP Chamber Assembly	9015151	9015151	9015122	9015122	9015108
9 Kit - Nuts & Washers	9002001	9002001	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004	8130004	8130004
11 Kit - Weatherseal™ Plug	9019005	9019005	9019005	9019006	9019006
12 Kit - Release Bolt	9007003	9007003	9007003	9007009	9007009
13 Kit - Breather Tube	9081001	9081001	9081001	9081001	9081001
14 Piggyback	3538001	3528001	3531001	3532001 (a)	3536001
OPTIONAL ITEMS					
Yoke Assembly	Refer to Replacement Parts Section 7				
Boot & Retainer	Refer to Replacement Parts Section 7				

- Note:** (a) This model must be used only in combination with MGM Brakes heavy-duty weld reinforced mounting base or 8 gauge non-pressure housing.
(b) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

Standard Stroke Model

DOUBLE DIAPHRAGM

Combination	Single/Piggyback
VMRS# 13-004	VMRS# 13-004-001
	Piggyback Plus Kit
	N/A

P/N Series	3526	3533
Model	TR2430LTSHD	TR3030TSHD
Size	2430	3030
Stroke	2.50"	2.50"
P/N Combination	3526051	3533051
P/N Single/Piggyback	3526001	3533001
P/N Piggyback Plus Kit	N/A	N/A
Wt. Combination (Lbs.)	18.6	19.9
Wt. Single (Lbs.)	11.7	11.5
A	9.04	9.04
B	6.91	6.66
C	7.38	8.31
D	8.21	8.21
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00"	

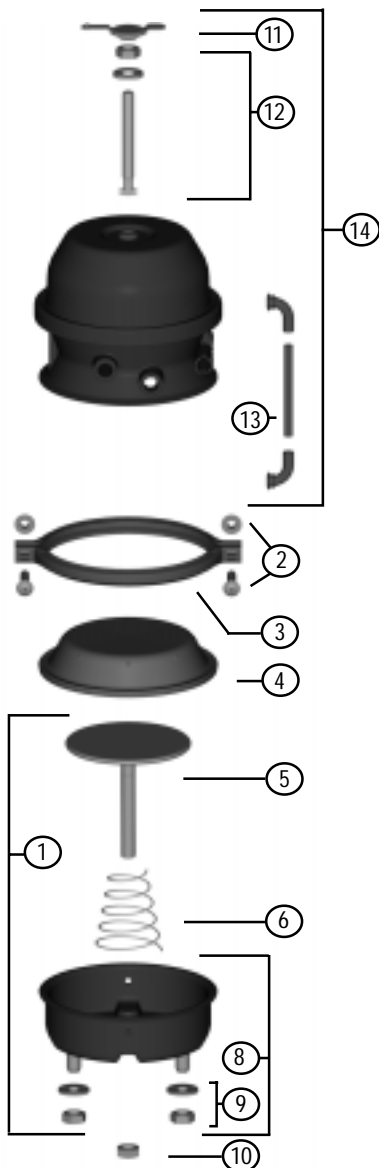
Note: Product information and specifications subject to change without notice.

Standard Stroke Model

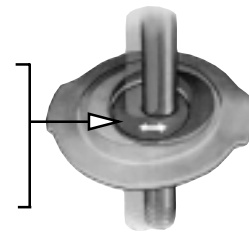
TR-TSHD Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case

- Weatherseal™ Plug
- Heavy-Duty Steel Non-Pressure Chamber (8-Gauge Standard on Type 3030 & 3036 Aftermarket Models)
- Stroke Alert
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- **External Breather Tube**
- **Epoxy-Coated Piston & Guide, Return Spring, Center Case - Inside & Out**
- **Heavy-Duty Power Spring (160 Lbs. additional parking brake force @1.25 inches of stroke)**



- ⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

	P/N Series	3526	3533
	Model	TR2430LTSHD	TR3030TSHD
1	Kit - NP Chamber (a)	9015152	9015149
2	Kit - Nuts & Bolts	9003001	9003001
3	Clamp Band Assembly	8216025	8216045
4	Diaphragm	8017141	8017730
5	Kit - Push-Rod Assembly (a)	9064002	9064003
6	Return Spring	8068012	8068012
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly	9015151	9015122
9	Kit - Nuts & Washers	9002001	9002001
10	Hex Nut - Yoke	8130004	8130004
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Breather Tube	9081001	9081001
14	Piggyback	3526001	3533001
OPTIONAL ITEMS			
Yoke Assembly		Refer to Replacement Parts Section 7	
Boot & Retainer		Refer to Replacement Parts Section 7	

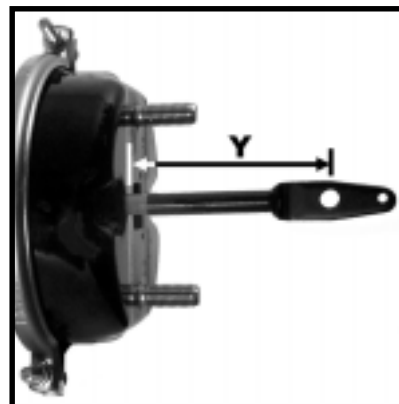
Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

3.00" Long Stroke Model

Combination	Single/Piggyback
<p style="text-align: right;">VMRS# 13-004</p>	N/A
	Piggyback Plus Kit
	<p style="text-align: right;">VMRS# 13-004-001</p>

P/N Series	3220	3224	3230
Model	TR2030LP3	TR2430LP3	TR3030LP3
Size	2030	2430	3030
Stroke	3.00"	3.00"	3.00"
P/N Combination	3220051	3224051	3230051
P/N Single/Piggyback	N/A	N/A	N/A
P/N Piggyback Plus Kit	3220008	3224008	3230008
Wt. Combination (Lbs.)	19.1	19.3	20.1
Wt. Single (Lbs.)	11.5	11.5	11.5
A	10.19	10.19	9.99
B	7.81	7.81	7.61
C	7.38	7.38	8.32
D	8.21	8.21	8.21
E	4.75"		
F	5/8" - 11UNC		
G	5/8" - 18UNF		
Inlets	3/8" - NPTF		
X - Min. (in the caged position)	8.00" (a)		



Note: Type 2430 and 3030 units equipped with welded-yoke and 2.25" Y- dimension are replaced by Part Number:

3224951 (TR2430LP3)
3230951 (TR3030LP3)

Refer to Section 7 for replacement parts.

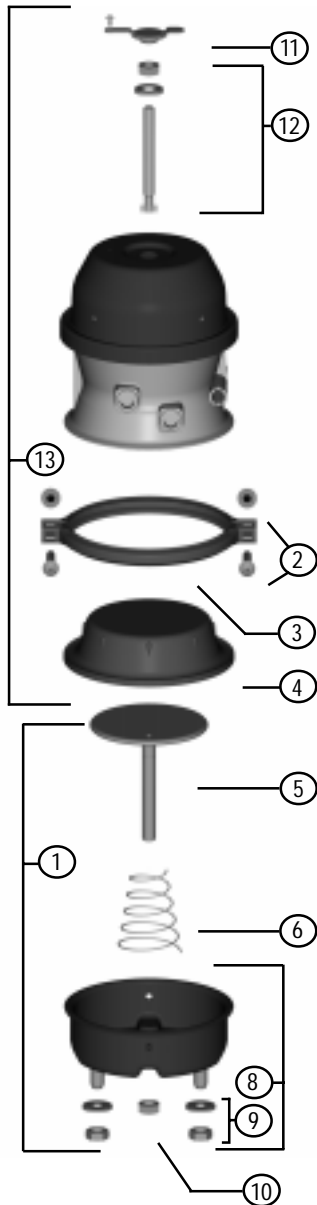
Note: (a) For Hendrickson Intraax/Vantraax Suspension applications refer to page 76. Product information and specifications subject to change without notice.

3.00" Long Stroke Model

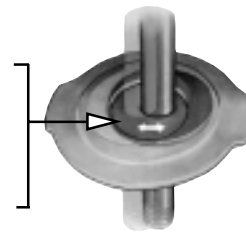
TR-LP3 Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Long Life Power Spring
- Positive Alignment System (PAS) (U.S. Patent No. 5,507,217)
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- Center Hole Shield
- Square Port Bosses (Long Stroke Identification)

- Weatherseal™ Plug
- Heavy-Duty 8-Gauge Steel Non-Pressure Chamber (Type 3030 Models) - (9 gauge on all other sizes)
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- Stroke Alert
- Externally Stored Release Bolt
- 3 Inch Long Stroke
- Molded Nitrile Rubber Air Seal



- ⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

P/N Series	3220	3224	3230
Model	TR2030LP3	TR2430LP3	TR3030LP3
1 Kit - NP Chamber (a)	9015231	9015210	9015212
2 Kit - Nuts & Bolts	9003001	9003001	9003001
3 Clamp Band Assembly	8216027	8216025	8216045
4 Diaphragm	8017226	8017424	8017830
5 Kit - Push-Rod Assembly (a)	9064026	9064006	9064008
6 Return Spring	8068022	8068022	8068022
7 Kit - Center Hole Shield	9065002	9065002	9065002
8 NP Chamber Assembly	8215200	8215200	8215501
9 Kit - Nuts & Washers	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004
11 Kit - Weatherseal™ Plug	9019005	9019005	9019005
12 Kit - Release Bolt	9007003	9007003	9007003
13 Kit - Piggyback Plus	3220008	3224008	3230008
OPTIONAL ITEMS			
Yoke & Welded Yoke Assemblies	Refer to Replacement Parts Section 7		
Boot & Retainer	Refer to Replacement Parts Section 7		

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.



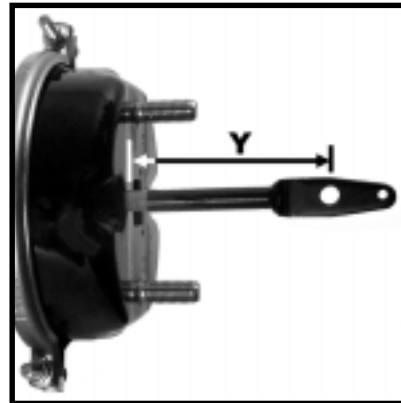
TR-LP3T

3.00" Long Stroke Model

DOUBLE DIAPHRAGM

Combination	Single/Piggyback
<p style="text-align: center;">VMRS# 13-004</p>	N/A
	Piggyback Plus Kit
	<p style="text-align: center;">VMRS# 13-004-001</p>

P/N Series	3221	3225	3231
Model	TR2030LP3T	TR2430LP3T	TR3030LP3T
Size	2030	2430	3030
Stroke	3.00"	3.00"	3.00"
P/N Combination	3221051	3225051	3231051
P/N Single/Piggyback	N/A	N/A	N/A
P/N Piggyback Plus Kit	3221008	3225008	3231008
Wt. Combination (Lbs.)	19.1	19.3	20.1
Wt. Single (Lbs.)	11.5	11.5	11.5
A	10.19	10.19	9.99
B	7.81	7.81	7.61
C	7.38	7.38	8.32
D	8.21	8.21	8.21
E	4.75"		
F	5/8" - 11UNC		
G	5/8" - 18UNF		
Inlets	3/8" - NPTF		
X - Min. (in the caged position)	8.00"		



Note: Type 2430 and 3030 units equipped with welded-yoke and 2.25" Y-dimension are replaced by Part Number:

- 3225951 (TR2430LP3T)
- 3231951 (TR3030LP3T)

Refer to Section 7 for replacement parts.

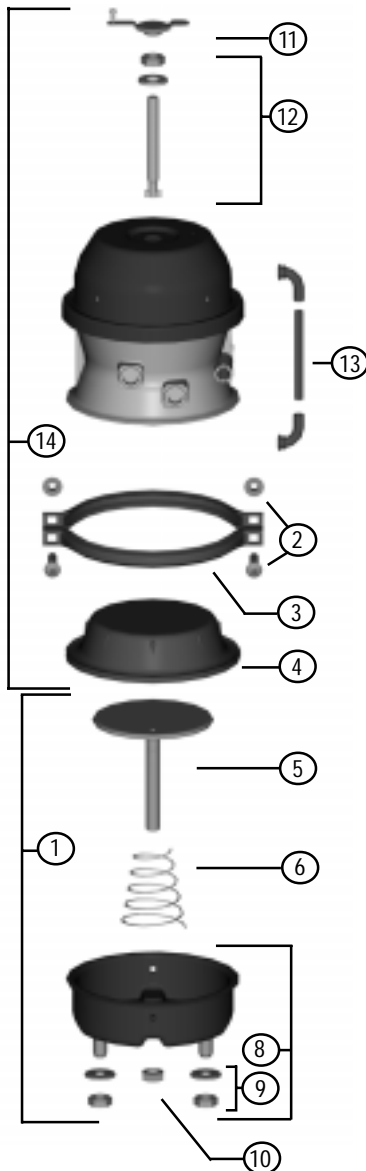
Note: Product information and specifications subject to change without notice.

3.00" Long Stroke Model

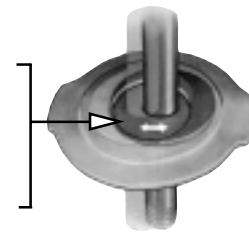
TR-LP3T Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Long Life Power Spring
- Positive Alignment System (PAS) (U.S. Patent No. 5,507,217)
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- Center Hole Shield
- Square Port Bosses (Long Stroke Identification)

- Weatherseal™ Plug
- Heavy-Duty 8-Gauge Steel Non-Pressure Chamber (Type 3030 Models) - (9 gauge on all other sizes)
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- Stroke Alert
- Externally Stored Release Bolt
- 3 Inch Long Stroke
- Molded Nitrile Rubber Air Seal
- **External Breather Tube**



⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

P/N Series	3221	3225	3231
Model	TR2030LP3T	TR2430LP3T	TR3030LP3T
1 Kit - NP Chamber (a)	9015232	9015215	9015218
2 Kit - Nuts & Bolts	9003001	9003001	9003001
3 Clamp Band Assembly	8216027	8216025	8216045
4 Diaphragm	8017226	8017424	8017830
5 Kit - Push-Rod Assembly (a)	9064026	9064006	9064008
6 Return Spring	8068022	8068022	8068022
7 Kit - Center Hole Shield	9065002	9065002	9065002
8 NP Chamber Assembly	9015213	9015213	9015216
9 Kit - Nuts & Washers	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004
11 Kit - Weatherseal™ Plug	9019005	9019005	9019005
12 Kit - Release Bolt	9007003	9007003	9007003
13 Kit - Breather Tube	9081001	9081001	9081001
14 Kit - Piggyback Plus	3221008	3225008	3231008
OPTIONAL ITEMS			
Yoke & Welded Yoke Assemblies	Refer to Replacement Parts Section 7		
Boot & Retainer	Refer to Replacement Parts Section 7		

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

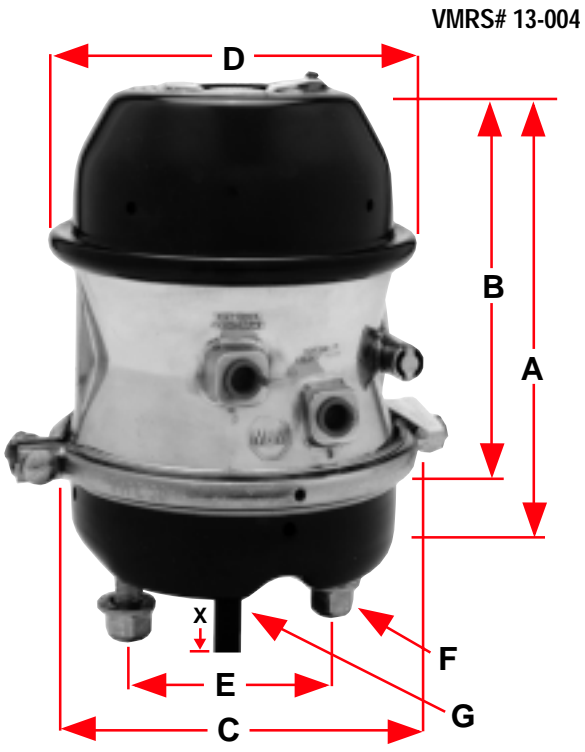

For additional replacement parts, refer to Replacement Parts Section 7.



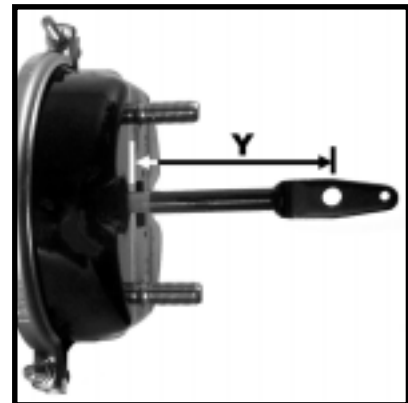
TR-LP3HD

3.00" Long Stroke Model

DOUBLE DIAPHRAGM

Combination	Single/Piggyback
 <p>VMRS# 13-004</p>	N/A
	Piggyback Plus Kit
	 <p>VMRS# 13-004-001</p>

P/N Series	3226	3232
Model	TR2430LP3HD	TR3030LP3HD
Size	2430	3030
Stroke	3.00"	3.00"
P/N Combination	3226051	3232051
P/N Single/Piggyback	N/A	N/A
P/N Piggyback Plus Kit	3226008	3232008
Wt. Combination (Lbs.)	19.5	20.4
Wt. Single (Lbs.)	11.7	11.7
A	10.19	9.99
B	7.81	7.61
C	7.38	8.32
D	8.21	8.21
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00"	



Note: Type 2430 and 3030 units equipped with welded-yoke and 2.25" Y- dimension are replaced by Part Number:

3226951 (TR2430LP3HD)
3232951 (TR3030LP3HD)

Refer to Section 7 for replacement parts.

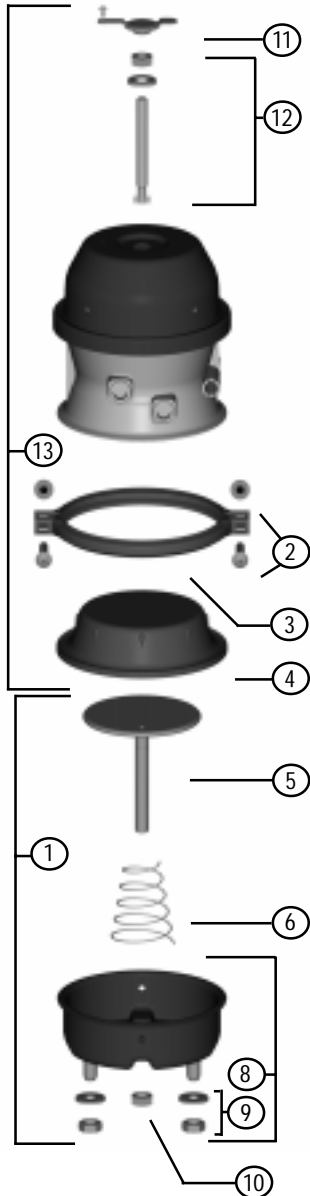
Note: Product information and specifications subject to change without notice.

3.00" Long Stroke Model

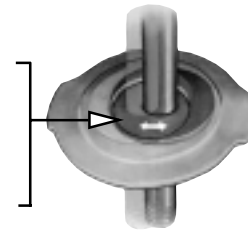
TR-LP3HD Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Positive Alignment System (PAS) (U.S. Patent No. 5,507,217)
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- Center Hole Shield
- Square Port Bosses (Long Stroke Identification)

- Weatherseal™ Plug
- Heavy-Duty 8-Gauge Steel Non-Pressure Chamber (Type 3030 Models) - (9 gauge on all other sizes)
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- Stroke Alert
- Externally Stored Release Bolt
- 3 Inch Long Stroke
- Molded Nitrile Rubber Air Seal
- **Heavy-Duty Power Spring (145 Lbs. additional parking brake force @ 1.25 inches of stroke)**



- ⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

P/N Series	3226	3232	
Model	TR2430LP3HD	TR3030LP3HD	
1	Kit - NP Chamber (a)	9015210	9015212
2	Kit - Nuts & Bolts	9003001	9003001
3	Clamp Band Assembly	8216025	8216045
4	Diaphragm	8017424	8017830
5	Kit - Push-Rod Assembly (a)	9064006	9064008
6	Return Spring	8068022	8068022
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly	8215200	8215501
9	Kit - Nuts & Washers	9002001	9002001
10	Hex Nut - Yoke	8130004	8130004
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Piggyback Plus	3226008	3232008
OPTIONAL ITEMS			
Yoke Assembly	Refer to Replacement Parts Section 7		
Boot & Retainer	Refer to Replacement Parts Section 7		

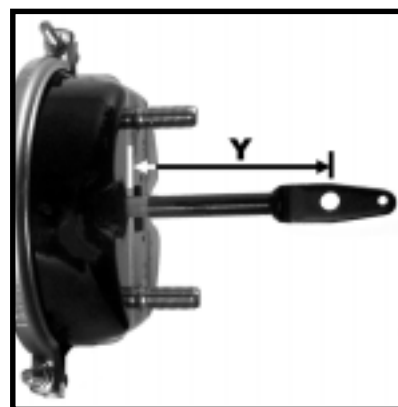
Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

3.00" Long Stroke Model

Combination	Single/Piggyback
<p style="text-align: right;">VMRS# 13-004</p>	N/A
	Piggyback Plus Kit
	<p style="text-align: right;">VMRS# 13-004-001</p>

P/N Series	3227	3233
Model	TR2430LP3THD	TR3030LP3THD
Size	2430	3030
Stroke	3.00"	3.00"
P/N Combination	3227051	3233051
P/N Single/Piggyback	N/A	N/A
P/N Piggyback Plus Kit	3227008	3233008
Wt. Combination (Lbs.)	19.5	20.4
Wt. Single (Lbs.)	11.7	11.7
A	10.19	9.99
B	7.81	7.61
C	7.38	8.32
D	8.21	8.21
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00"	



Note: Type 2430 and 3030 units equipped with welded-yoke and 2.25" Y- dimension are replaced by Part Number:

3227951 (TR2430LP3THD)
3233951 (TR3030LP3THD)

Refer to Section 7 for replacement parts.

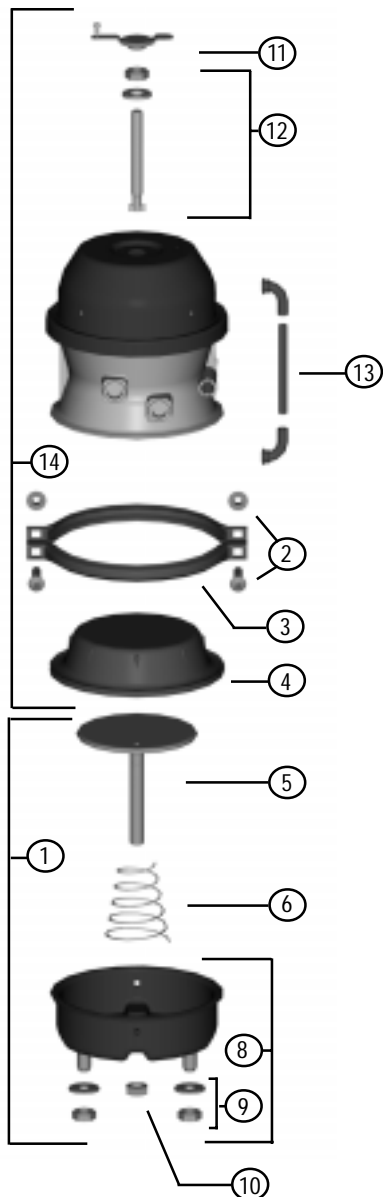
Note: Product information and specifications subject to change without notice.

3.00" Long Stroke Model

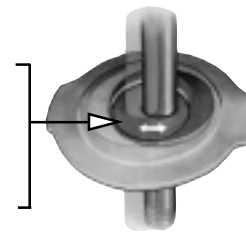
TR-LP3THD Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Positive Alignment System (PAS) (U.S. Patent No. 5,507,217)
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- Center Hole Shield
- Square Port Bosses (Long Stroke Identification)

- Weatherseal™ Plug
- Heavy-Duty 8-Gauge Steel Non-Pressure Chamber (Type 3030 Models) - (9 gauge on all other sizes)
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- Stroke Alert
- Externally Stored Release Bolt
- 3 Inch Long Stroke
- Molded Nitrile Rubber Air Seal
- **External Breather Tube**
- **Heavy-Duty Power Spring (145 Lbs. parking brake force @ 1.25 inches of stroke)**



- ⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

	P/N Series	3227	3233
	Model	TR2430LP3THD	TR3030LP3THD
1	Kit - NP Chamber (a)	9015215	9015218
2	Kit - Bolts & Nuts	9003001	9003001
3	Clamp Band Assembly	8216025	8216045
4	Diaphragm	8017424	8017830
5	Kit - Push-Rod Assembly (a)	9064006	9064008
6	Return Spring	8068022	8068022
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly	9015213	9015216
9	Kit - Nuts & Washers	9002001	9002001
10	Hex Nut - Yoke	8130004	8130004
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Breather Tube	9081001	9081001
14	Kit - Piggyback Plus	3227008	3233008
OPTIONAL ITEMS			
Yoke Assembly		Refer to Replacement Parts Section 7	
Boot & Retainer		Refer to Replacement Parts Section 7	

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.



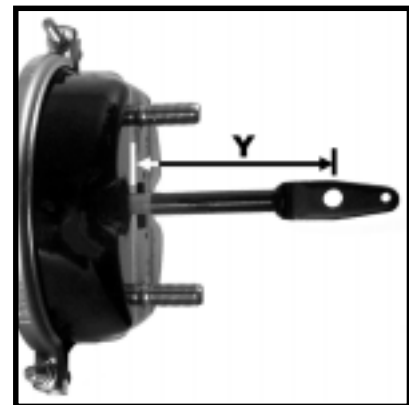
TR-LP3TS

3.00" Long Stroke Model

DOUBLE DIAPHRAGM

Combination	Single/Piggyback
VMRS# 13-004 	N/A
	Piggyback Plus Kit
	VMRS# 13-004-001

P/N Series	3523	3535
Model	TR2430LP3TS	TR3030LP3TS
Size	2430	3030
Stroke	3.00"	3.00"
P/N Combination	3523051	3535051
P/N Single/Piggyback	N/A	N/A
P/N Piggyback Plus Kit	3523008	3535008
Wt. Combination (Lbs.)	19.3	20.1
Wt. Single (Lbs.)	11.7	11.5
A	10.19	9.99
B	7.81	7.61
C	7.38	8.32
D	8.21	8.21
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00"	



Note: Type 2430 and 3030 units equipped with welded-yoke and 2.25" Y- dimension are replaced by Part Number:

3523951 (TR2430LP3HD)
 3535951 (TR3030LP3HD)

Refer to Section 7 for replacement parts.

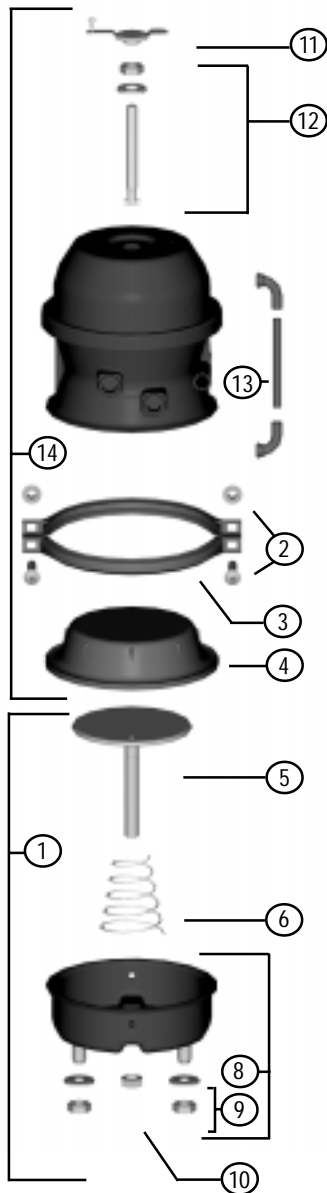
Note: Product information and specifications subject to change without notice.

3.00" Long Stroke Model

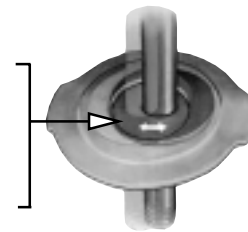
TR-LP3TS Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Long Life Power Spring
- Positive Alignment System (PAS) (U.S. Patent No. 5,507,217)
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- Center Hole Shield
- Square Port Bosses (Long Stroke Identification)

- Weatherseal™ Plug
- Heavy-Duty 8-Gauge Steel Non-Pressure Chamber (Type 3030 Models) - (9 gauge on all other sizes)
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- Stroke Alert
- Externally Stored Release Bolt
- 3 Inch Long Stroke
- Molded Nitrile Rubber Air Seal
- **External Breather Tube**
- **Epoxy-Coated Piston & Guide, Return Spring, Center Case - Inside & Out**



⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

	P/N Series	3523	3535
	Model	TR2430LP3TS	TR3030LP3TS
1	Kit - NP Chamber (a)	9015215	9015218
2	Kit - Nuts & Bolts	9003001	9003001
3	Clamp Band Assembly	8216025	8216045
4	Diaphragm	8017424	8017830
5	Kit - Push-Rod Assembly (a)	9064006	9064008
6	Return Spring	8068022	8068012
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly	9015213	9015216
9	Kit - Nuts & Washers	9002001	9002001
10	Hex Nut - Yoke	8130004	8130004
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Breather Tube	9081001	9081001
14	Kit - Piggyback Plus	3523008	3535008
OPTIONAL ITEMS			
Yoke Assembly		Refer to Replacement Parts Section 7	
Boot & Retainer		Refer to Replacement Parts Section 7	

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

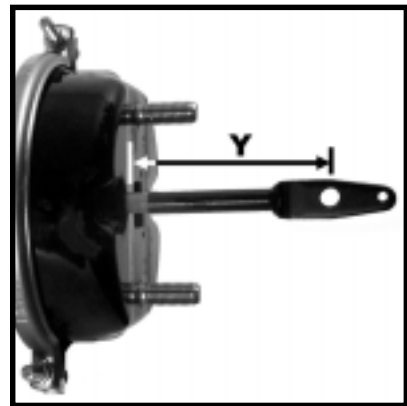
For additional replacement parts, refer to Replacement Parts Section 7.

3.00" Long Stroke Model

DOUBLE DIAPHRAGM

Combination	Single/Piggyback
<p style="text-align: right;">VMRS# 13-004</p>	N/A
	Piggyback Plus Kit
	<p style="text-align: right;">VMRS# 13-004-001</p>

P/N Series	3527	3534
Model	TR2430LP3TSHD	TR3030LP3TSHD
Size	2430	3030
Stroke	3.00"	3.00"
P/N Combination	3527051	3534051
P/N Single/Piggyback	N/A	N/A
P/N Piggyback Plus Kit	3527008	3534008
Wt. Combination (Lbs.)	19.5	20.4
Wt. Single (Lbs.)	11.5	11.7
A	10.19	9.99
B	7.81	7.61
C	7.38	8.32
D	8.21	8.21
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00"	



Note: Type 2430 and 3030 units equipped with welded-yoke and 2.25" Y- dimension are replaced by Part Number:

3527951 (TR2430LP3TSHD)
3534951 (TR3030LP3TSHD)

Refer to Section 7 for replacement parts.

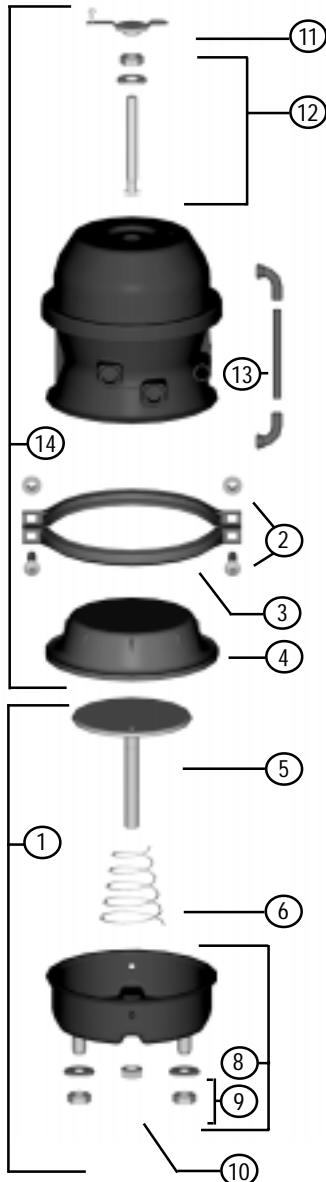
Note: Product information and specifications subject to change without notice.

3.00" Long Stroke Model

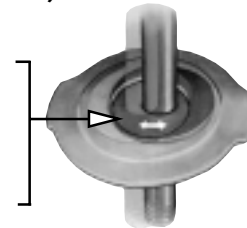
TR-LP3TSHD Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Positive Alignment System (PAS) (U.S. Patent No. 5,507,217)
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- Center Hole Shield
- Square Port Bosses (Long Stroke Identification)

- Weatherseal™ Plug
- Heavy-Duty 8-Gauge Steel Non-Pressure Chamber (Type 3030 Models) - (9 gauge on all other sizes)
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- Stroke Alert
- Externally Stored Release Bolt
- 3 Inch Longstroke
- Molded Nitrile Rubber Air Seal
- **External Breather Tube**
- **Epoxy-Coated Piston & Guide, Return Spring, Center Case - Inside & Out**
- **Heavy-Duty Power Spring (145 Lbs. additional parking brake force @ 1.25 inches of stroke)**



- ⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

	P/N Series	3527	3534
	Model	TR2430LP3TSHD	TR3030LP3TSHD
1	Kit - NP Chamber (a)	9015215	9015218
2	Kit - Nuts & Bolts	9003001	9003001
3	Clamp Band Assembly	8216025	8216045
4	Diaphragm	8017424	8017830
5	Kit - Push-Rod Assembly (a)	9064006	9064008
6	Return Spring	8068022	8068022
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly	9015213	9015216
9	Kit - Nuts & Washers	9002001	9002001
10	Hex Nut - Yoke	8130004	8130004
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Breather Tube	9081001	9081001
14	Kit - Piggyback Plus	3527008	3534008
OPTIONAL ITEMS			
Yoke Assembly		Refer to Replacement Parts Section 7	
Boot & Retainer		Refer to Replacement Parts Section 7	

Note: (a) The ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

LTR SERIES SPRING BRAKES



Innovative Design,
Quality Craftsmanship—
The Long-Life Benchmark



MGM Brakes

Section 2: Long Life Double Diaphragm Spring Brakes..... 35-39

Standard Stroke Models



LTR-T (Integral Release Bolt, Tamper Resistant, Tube)..... 36-37

3.00 Inch Long Stroke Models



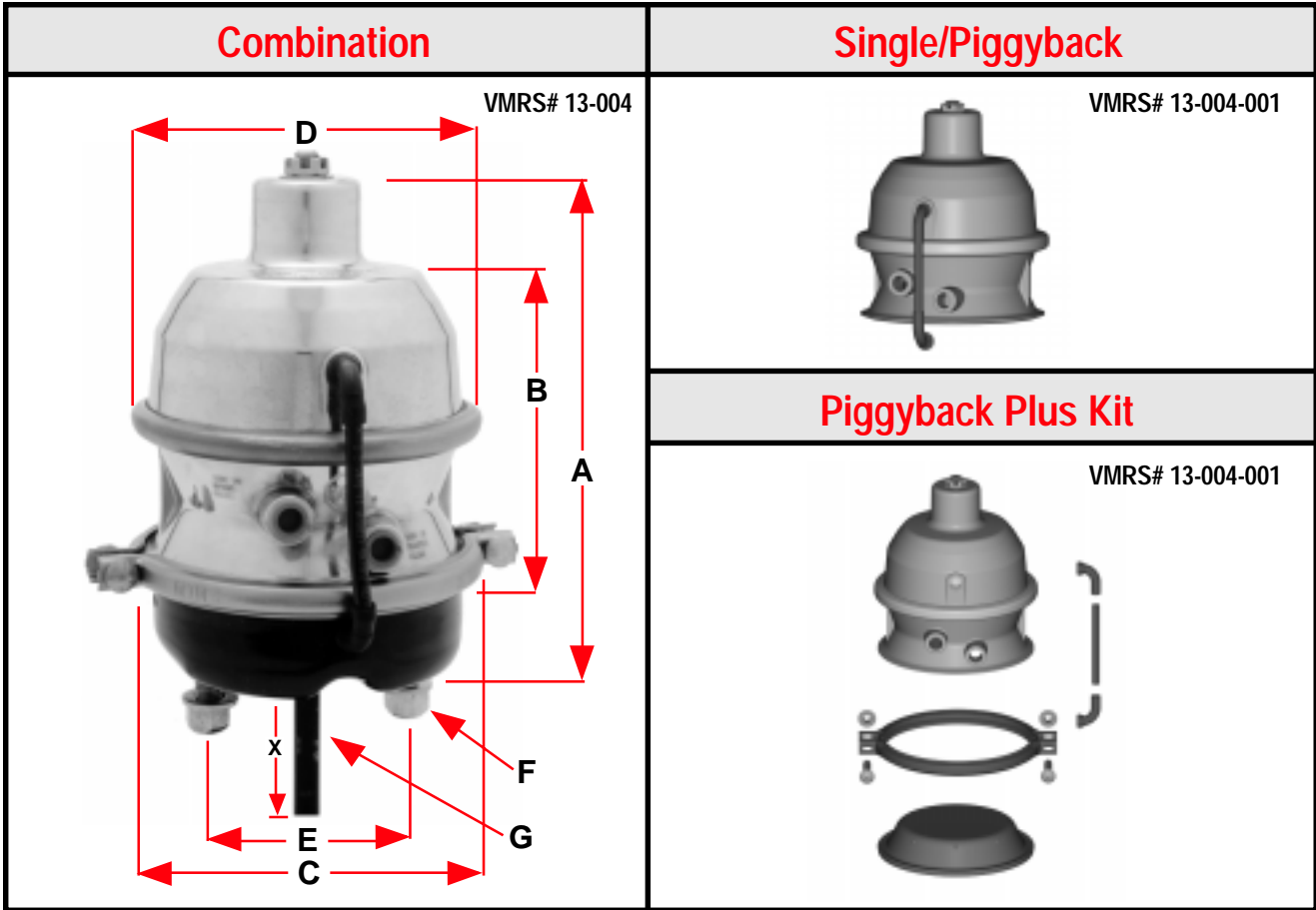
LTR-L3 (Integral Release Bolt, Tamper Resistant, Long Stroke)..... 38-39

FEATURES	LTR-T	LTR-L3
Tamper-Resistant Mechanically Locked Spring Housing	■	■
Molded Nitrile Rubber Push-Rod Air Seal	■	■
Center Hole Shield	■	■
360 Aluminum Alloy	■	■
External Breather Tube	■	□
Integral Release Bolt	■	■
Stroke Alert	■	■
Heavy-Duty "Long Life" Power Spring	■	■
Polymer Push-Rod Guides	■	■
3 Inch Long Stroke	□	■
6 Year Limited Warranty	■	■
Low Friction Piston & Guide	■	■
Heavy-Duty Steel Non-Pressure Chamber	■	■
Heavy-Duty Nylon Reinforced Diaphragms	■	■

■ Indicates Feature

Standard Stroke Model

LONG LIFE DOUBLE DIAPHRAGM



P/N Series	3827	3831
Model	LTR2430LT	LTR3030T
Size	2430	3030
Stroke	2.50"	2.50"
P/N Combination	3827051	3831051
P/N Single/Piggyback	3827001	3831001
P/N Piggyback Plus Kit	3827008	3831008
Wt. Combination (Lbs.)	18.5	19.9
Wt. Single (Lbs.)	11.4	11.7
A	11.8	11.86
B	9.68	9.46
C	7.38	8.27
D	8.18	8.18
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00"	

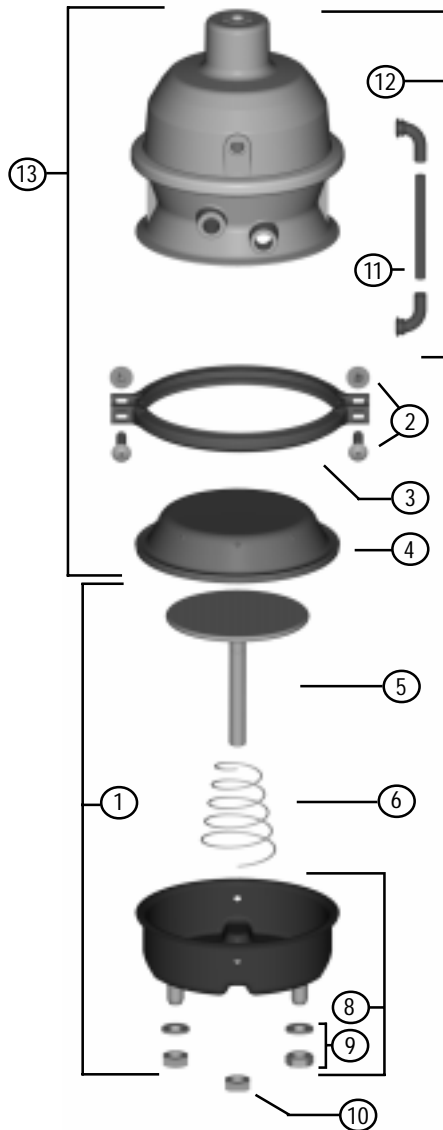
Note: Product information and specifications subject to change without notice.

LTR-T Model Features

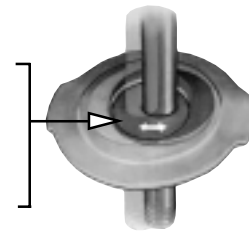
- Tamper Resistant Design (U.S Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Six (6) Year Limited Warranty
- Integral Release Bolt
- 360 Aluminum Alloy
- Low Friction Piston & Guide

Standard Stroke Model

- Heavy-Duty "Long Life" Power Spring (100 Lbs. additional parking brake force @ 1.25 inches of stroke)
- Heavy-Duty Steel Non-Pressure Chamber (8 Gauge Standard on Type 3030 Aftermarket Models)
- Stroke Alert
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)
- **External Breather Tube**



- 7 **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



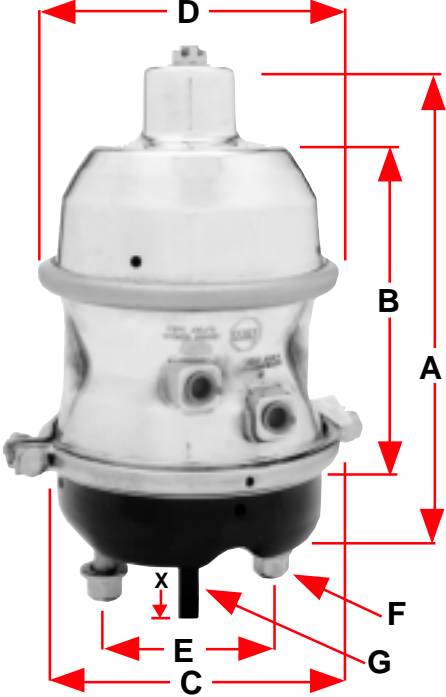

Replacement Parts

P/N Series	3827	3831
Model	LTR2430LT	LTR3030T
1 Kit - NP Chamber (a)	9015152	9015157
2 Kit - Nuts & Bolts	9003001	9003001
3 Clamp Band Assembly	8216025	8216045
4 Diaphragm	8017141	8017730
5 Kit - Push-Rod Assembly (a)	9064002	9064003
6 Return Spring	8068002	8068002
7 Kit - Center Hole Shield	9065002	9065002
8 NP Chamber Assembly	9015151	9015122
9 Kit - Nuts & Washers	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004
11 Kit - Breather Tube	9081001	9081001
12 Piggyback	3827001	3831001
13 Piggyback Plus Kit	3827008	3831008
OPTIONAL ITEMS		
Yoke Assembly	Refer to Replacement Parts Section 7	
Boot & Retainer	Refer to Replacement Parts Section 7	

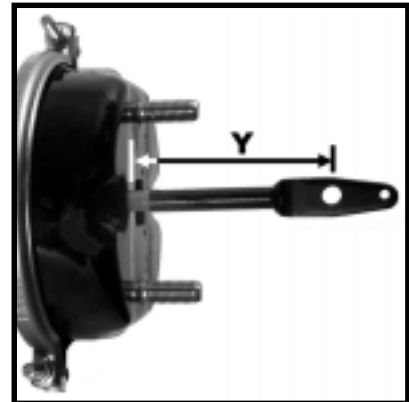
Note: (a) To ensure correct stroke alert indicator positioning, these kits must be used only in the designated MGM Brakes units. For additional replacement parts, refer to Replacement Part Section 7.

3.00" Long Stroke Model

LONG LIFE DOUBLE DIAPHRAGM

Combination	Single/Piggyback
<p>VMRS# 13-004</p> 	N/A
	Piggyback Plus Kit
	<p>VMRS# 13-004-001</p> 

P/N Series	3828	3832
Model	LTR2430L3	LTR3030L3
Size	2430	3030
Stroke	3.00"	3.00"
P/N Combination	3828051	3832051
P/N Single/Piggyback	N/A	N/A
P/N Piggyback Plus Kit	3828008	3832008
Wt. Combination (Lbs.)	19.3	21.1
Wt. Single (Lbs.)	12.3	12.6
A	13.0	13.0
B	10.63	10.63
C	7.38	8.27
D	8.18	8.18
E	4.75"	
F	5/8" - 11UNC	
G	5/8" - 18UNF	
Inlets	3/8" - NPTF	
X - Min. (in the caged position)	8.00" (a)	



Note: Type 2430 and 3030 units equipped with welded-yoke and 2.25" Y-dimension are replaced by Part Number:

3828951 (LTR2430L3)
3832951 (LTR3030L3)

Refer to Section 7 for replacement parts.

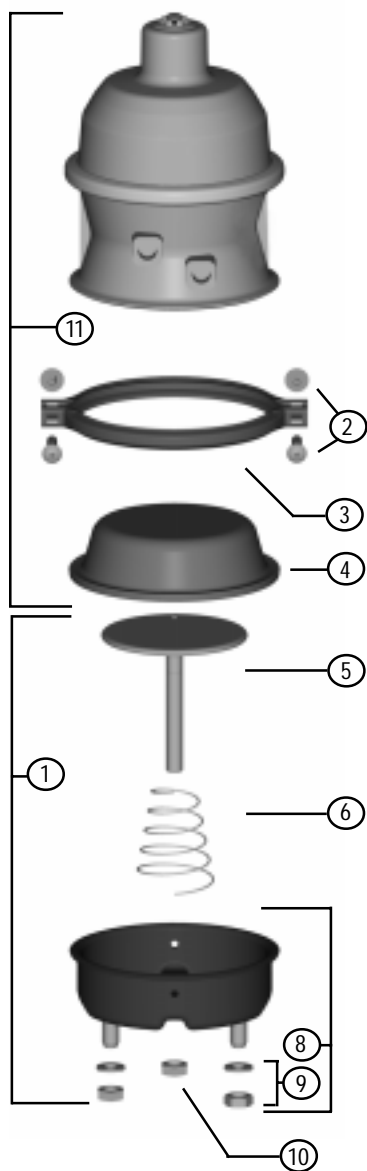
Note: (a) For Hendrickson Intraax/Vantraax Suspension applications refer to page 76. Product information and specifications subject to change without notice.

3.00" Long Stroke Model

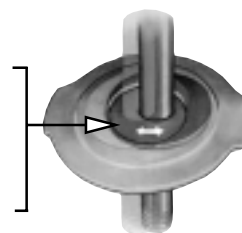
LTR-L3 Model Features

- Tamper Resistant Design (U.S Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Six (6) Year Limited Warranty
- Integral Release Bolt
- 360 Aluminum Alloy
- Low Friction Piston & Guide
- Square Port Bosses (Long Stroke Identification)

- Heavy-Duty "Long Life" Power Spring (100 Lbs. additional parking brake force @ 1.25 inches of stroke)
- Heavy-Duty Steel Non-Pressure Chamber (8-Gauge Standard on Type 3030 Aftermarket Models)
- Stroke Alert
- Polymer Push-Rod Guides
- Heavy-Duty Nylon Reinforced Diaphragms
- Heavy-Duty Nylon Reinforced Neoprene Diaphragms (Optional)



⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.

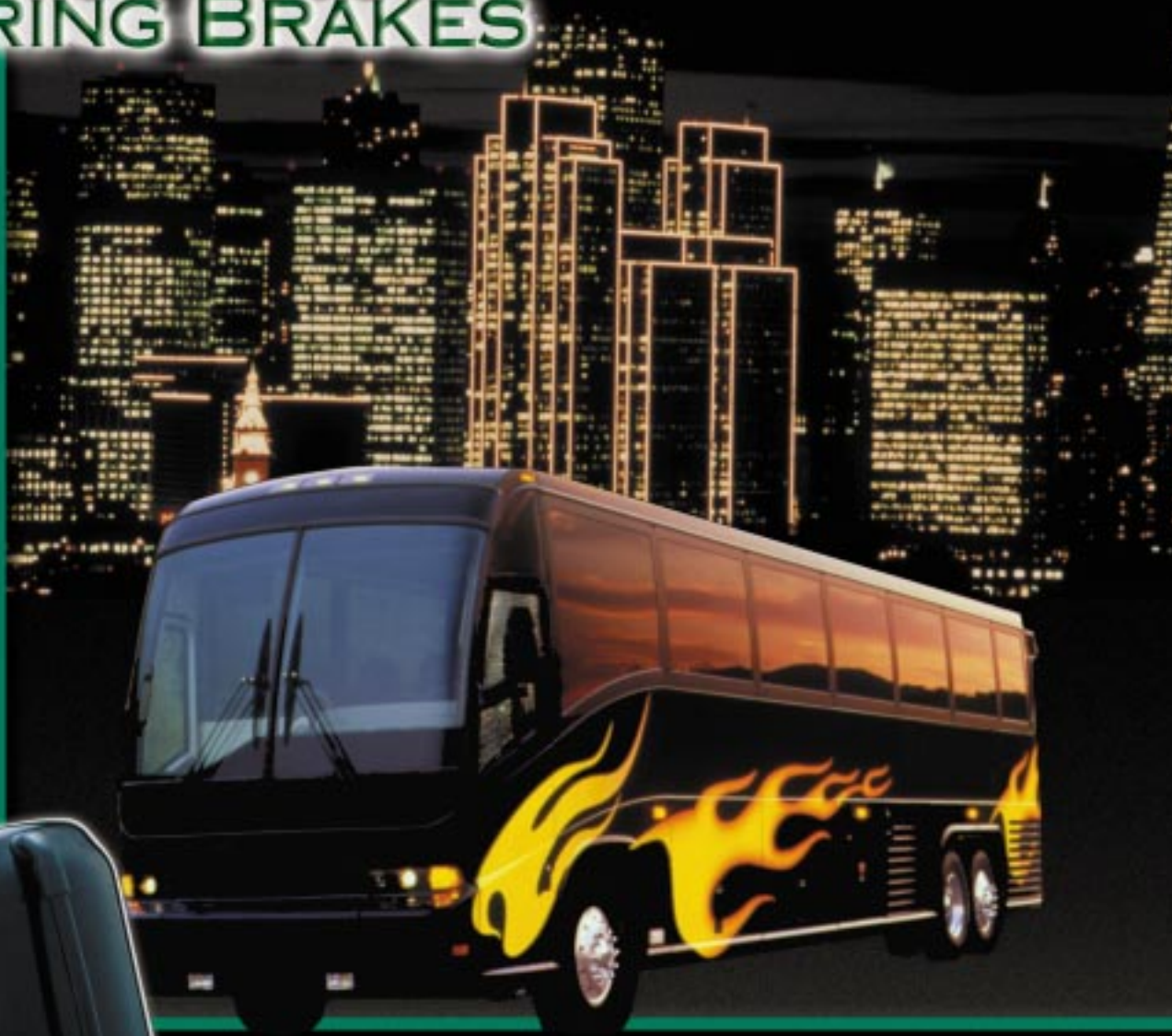


Replacement Parts

	P/N Series	3828	3832
	Model	LTR2430L3	LTR3030L3
1	Kit - NP Chamber (a)	9015210	9015212
2	Kit - Nuts & Bolts	9003001	9003001
3	Clamp Band Assembly	8216025	8216045
4	Diaphragm	8017424	8017730
5	Kit - Push-Rod Assembly (a)	9064006	9064003
6	Return Spring	8068022	8068022
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly	8215200	8215501
9	Kit - Nuts & Washers	9002001	9002001
10	Hex Nut - Yoke	8130004	8130004
11	Kit - Piggyback Plus	3828008	3832008
OPTIONAL ITEMS			
Yoke Assembly		Refer to Replacement Parts Section 7	
Boot & Retainer		Refer to Replacement Parts Section 7	

Note: (a) To ensure correct stroke alert indicator positioning, these kits must be used only in the designated MGM Brakes units. For additional replacement parts, refer to Replacement Part Section 7.

MAGNUM SERIES SPRING BRAKES



Piston Performance For
Demanding Applications—
When Only The Best Will Do



MGM Brakes

Section 3: Piston Spring Brakes..... 41-49

Standard Stroke Models



MG-T (Magnum, Tube)..... 42-45

Long Stroke Models



MAGNUM PERFORMANCE PLUS (Magnum, Long Stroke, Tube)..... 46-49

FEATURES	MG-T	Magnum Performance Plus
Tamper-Resistant Mechanically Locked Spring Housing	■	■
Molded Nitrile Rubber Push-Rod Air Seal	■	■
Center Hole Shield	■	■
Steel Head/Black Zinc Iron Chromate & Epoxy Coated	□	■
External Breather Tube	■	■
Integral Release Bolt	■	■
Stroke Alert	■	■
Heavy-Duty Steel Non-Pressure Chamber	■	■
Polymer Push-Rod Guides	■	■
3 Inch Long Stroke	□	■
Piston Brake Highest Force & Lowest Hold-Off Pressure	■	■
Compact / Lighter Weight	□	■

■ Indicates Feature

Standard Stroke Model

PISTON

Combination	Single/Piggyback
<p style="text-align: right;">VMRS# 13-004</p>	<p style="text-align: right;">VMRS# 13-004-001</p>
	Piggyback Plus Kit
	N/A

Additional sizes on page 44.

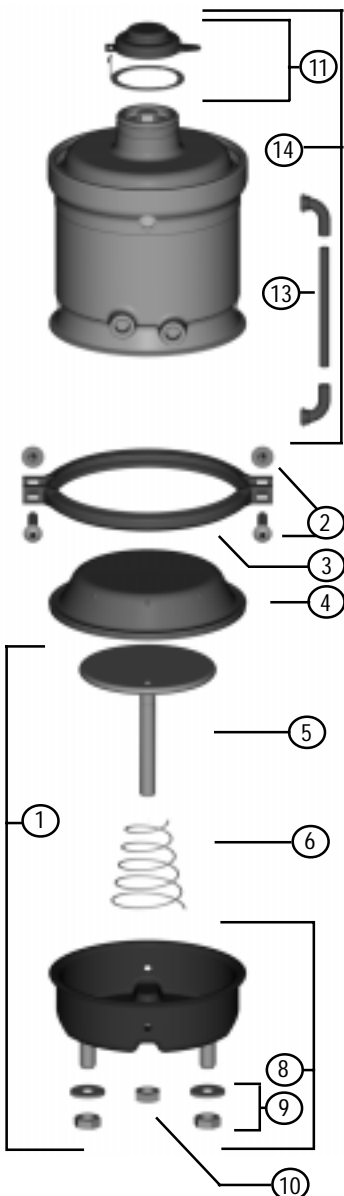
P/N Series	4115	4117	4119	4120	4420	4122
Model	M1620LGT	M1624LGT	M2020LGT	M2024LGT	M2030LGT	M2420LGT
Size	1620	1624	2020	2024	2030	2420
Stroke	2.50"	2.50"	2.50"	2.50"	2.50"	2.50"
P/N Combination	4115151	4117151	4119151	4120151	4420151	4122151
P/N Single/Piggyback	4115101	4117101	4119101	4120101	4420101	4122101
P/N Piggyback Plus Kit	N/A	N/A	N/A	N/A	N/A	N/A
Wt. Combination (Lbs.)	18.2	18.2	19.1	19.1	23.1	20.0
Wt. Single (Lbs.)	13.0	13.0	13.0	13.0	14.5	14.0
A	11.86	11.86	11.87	11.87	11.87	11.87
B	9.72	9.72	9.72	9.72	9.74	9.74
C	6.90	6.90	6.90	6.90	6.90	7.58
D	7.69	7.69	7.69	7.69	7.69	7.79
E	4.75"					
F	5/8" - 11UNC					
G	5/8" - 18UNF					
Inlets	3/8" - NPTF					
X - Min. (in the caged position)	8.00"					

Note: Product information and specifications subject to change without notice.

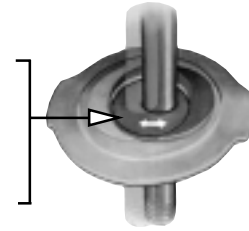
Standard Stroke Model

MG-T Model Features

- Integral Release Bolt
- Low Hold-Off Pressure
- Extra Powerful "Long Life" Power Spring
- Lightweight 360 Aluminum Alloy Case
- Low Friction Piston & Guide
- External Breather Tube
- Center Hole Shield



⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

P/N Series	4115	4117	4119	4120	4420	4122
Model	M1620LGT	M1624LGT	M2020LGT	M2024LGT	M2030LGT	M2420LGT
1 Kit - NP Chamber (a)	9015227	9015227	9015208	9015208	9015208	9015152
2 Kit - Clamp Nuts & Bolts	9003001	9003001	9003001	9003001	9003001	9003001
3 Clamp Band Assembly	8216020	8216020	8216020	8216020	8216020	8216025
4 Diaphragm	8017215	8017215	8017220	8017220	8017220	8017141
5 Kit - Push-Rod Assembly (a)	9064024	9064024	9064023	9064023	9064023	9064002
6 Return Spring	8068002	8068002	8068002	8068002	8068002	8068002
7 Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002	9065002
8 NP Chamber Assembly	9015228	9015228	9015110	9015110	9015110	9015151
9 Kit - Nuts & Washers	9002001	9002001	9002001	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004	8130004	8130004	8130004
11 End Cap & Retainer	8206008	8206008	8206008	8206008	8206008	8206008
12 Kit - Release Bolt (not shown)	9007007	9007007	9007007	9007007	9007007	9007007
13 Kit - Breather Tube	9081001	9081001	9081001	9081001	9081001	9081001
14 Piggyback	4115101	4117101	4119101	4120101	4420101	4122101
OPTIONAL ITEMS						
Yoke Assembly	Refer to Replacement Parts Section 7					
Boot & Retainer	Refer to Replacement Parts Section 7					

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

Standard Stroke Model

PISTON

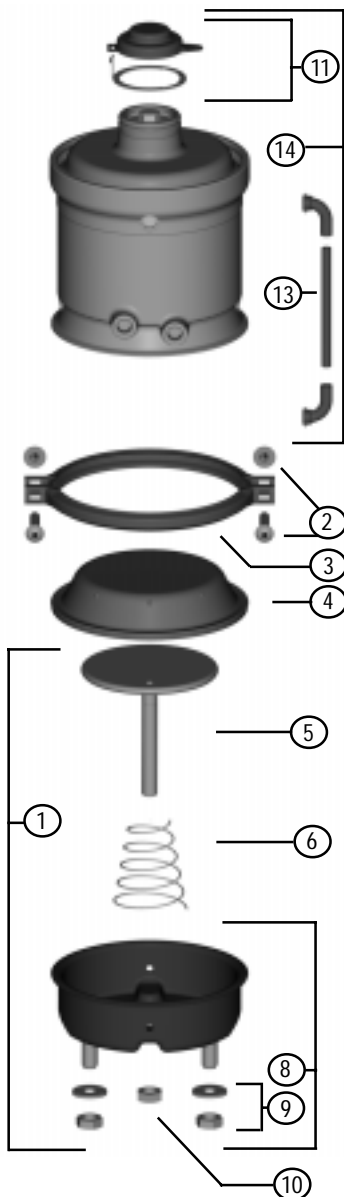
Combination	Single/Piggyback
<p style="text-align: right;">VMRS# 13-004</p>	<p style="text-align: right;">VMRS# 13-004-001</p>
	Piggyback Plus Kit
	N/A

P/N Series	4124	4128	4133	4131	4431
Model	M2424LGT	M2430LGT	M3024GT	M3027GT	M3031GT
Size	2424	2430	3024	3027	3031
Stroke	2.50"	2.50"	2.50"	2.50"	2.50"
P/N Combination	4124151	4128151	4133151	4131151	4431151
P/N Single/Piggyback	4124101	4128101	4133101	4131101	4431101
P/N Piggyback Plus Kit	N/A	N/A	N/A	N/A	N/A
Wt. Combination (Lbs.)	20.6	23.5	24.2	24.5	25.2
Wt. Single (Lbs.)	13.9	16.7	15.6	15.9	16.7
A	11.87	11.87	11.91	11.91	11.98
B	9.74	9.74	9.54	9.54	9.59
C	7.58	7.31	8.32	8.32	8.32
D	7.79	7.79	7.79	7.79	7.97
E	4.75"				
F	5/8" - 11UNC				
G	5/8" - 18UNF				
Inlets	3/8" - NPTF				
X - Min. (in the caged position)	8.00"				

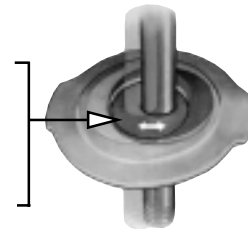
Note: Product information and specifications subject to change without notice.

MG-T Model Features

- Integral Release Bolt
- Low Hold-Off Pressure
- Extra Powerful "Long Life" Power Spring
- Lightweight 360 Aluminum Alloy Case
- Low Friction Piston & Guide
- External Breather Tube
- Center Hole Shield



⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

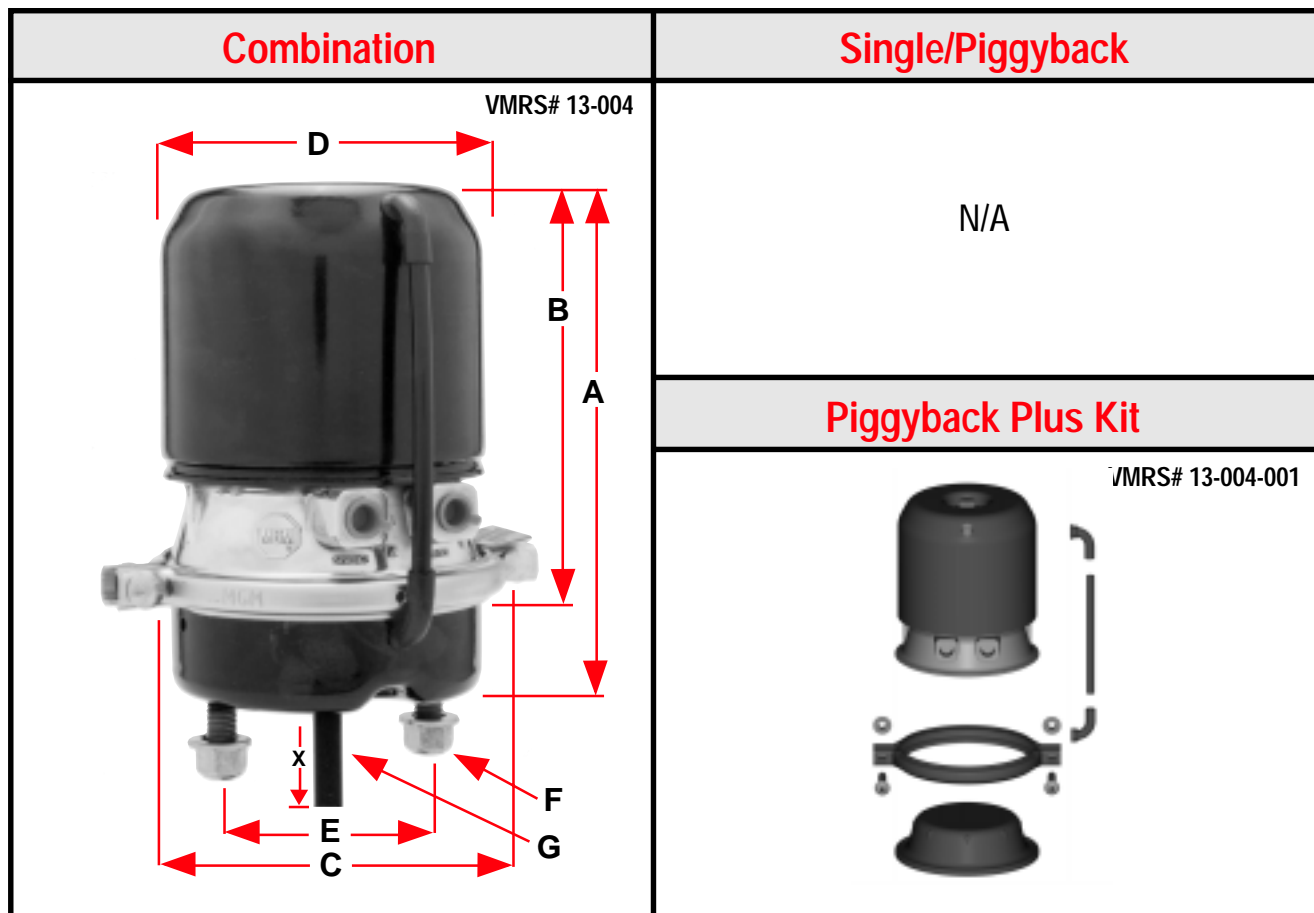
P/N Series	4124	4128	4133	4131	4431	
Model	M2424LGT	M2430LGT	M3024GT	M3027GT	M3031GT	
1	Kit - NP Chamber (a)	9015152	9015152	9015206	9015206	9015206
2	Kit - Clamp Nuts & Bolts	9003001	9003001	9003001	9003001	9003001
3	Clamp Band Assembly	8216025	8216025	8216045	8216045	8216045
4	Diaphragm	8017141	8017141	8017730	8017730	8017730
5	Kit - Push-Rod Assembly (a)	9064002	9064002	9064012	9064012	9064012
6	Return Spring	8068002	8068002	8068002	8068002	8068002
7	Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002
8	NP Chamber Assembly	9015151	9015151	9015122	9015122	9015122
9	Kit - Nuts & Washers	9002001	9002001	9002001	9002001	9002001
10	Hex Nut - Yoke	8130004	8130004	8130004	8130004	8130004
11	End Cap & Retainer	8206008	8206008	8206008	8206008	8206008
12	Kit - Release Bolt (not shown)	9007007	9007007	9007007	9007007	9007007
13	Kit - Breather Tube	9081001	9081001	9081001	9081001	9081001
14	Piggyback	4124101	4128101	4133101	4131101	4431001
OPTIONAL ITEMS						
Yoke Assembly		Refer to Replacement Parts Section 7				
Boot & Retainer		Refer to Replacement Parts Section 7				

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

1.75" Standard and 3.00" Long Stroke Model

PISTON



Additional sizes on page 48.

P/N Series	MJS1220AT	MJS2424ET	MJS3022ET	MJS3024ET
Model	MJS1220AT	MJS2424ET	MJS3022ET	MJS3024ET
Size	1220	2424	3022	3024
Stroke	1.75"	3.00"	3.00"	3.00"
P/N Combination	MJS1220AT051	MJS2424ET051	MJS3022ET051	MJS3024ET051
P/N Single/Piggyback	N/A	N/A	N/A	N/A
P/N Piggyback Plus Kit	MJS1220AT008	MJS2424ET008	MJS3022ET008	MJS3024ET008
Wt. Combination (Lbs.)	12.18	20.4	22.8	22.4
Wt. Single (Lbs.)	8.70	13.5	14.6	14.6
A	8.62	10.31	10.33	10.33
B	5.84	7.94	7.94	7.94
C	5.7	7.38	8.32	8.32
D	6.44	6.76	6.76	6.76
E	3.00"	4.75"		
F	7/16" - 14 UNC	5/8" - 11 UNC		
G	1/2" - 20 UNF	5/8" - 18 UNF		
Inlets	3/8" - NPTF	3/8" - NPTF		
X - Min. (in the caged position)	8.00"	8.00"		

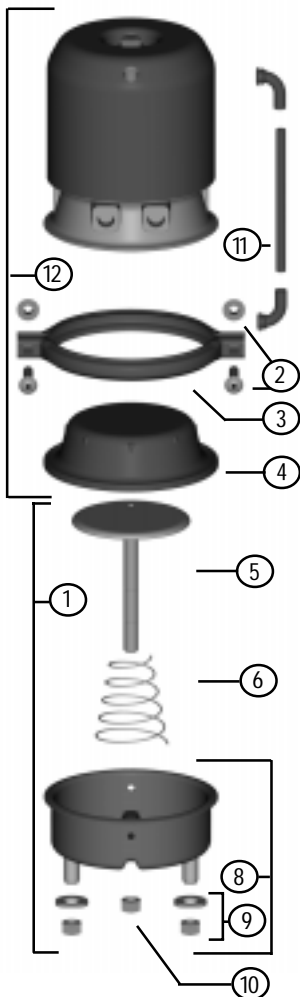
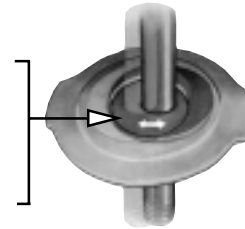
Note: Product information and specifications subject to change without notice.

1.75" Standard and 3.00" Long Stroke Model

Magnum Performance Plus Model Features

- Tamper-Resistant Design
- Lighter Weight
- 3-Inch Longstroke
- Compact Size
- New Patented Integral Release Bolt Mechanism - Minimal Bolt Protrusion (Approx. 1.25 inch protrusion on "Longstroke" models when manually released)
- Lower Hold-Off Pressure (Less Air Consumption)
- Non-Coil Clash Power Spring
- Increased Corrosion Resistance - Steel Head Double-Coated with Black Zinc Iron Chromate and Epoxy
- Available with 1,550-2,600 Lbs. of Push-Rod Braking Force @ 1.25 inch Stroke / Service Brake Sizes 12, 20-36

⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

	P/N Series	MJS1220AT	MJS2424ET	MJS3022ET	MJS3024ET
	Model	MJS1220AT	MJS2424ET	MJS3022ET	MJS3024ET
1	Kit - NP Chamber (a)	9015242	9015215	9015218	9015218
2	Kit - Nuts & Bolts	9003002	9003001	9003001	9003001
3	Clamp Band Assembly	8216007	8216025	8216045	8216045
4	Diaphragm	8017112	8017424	8017830	8017830
5	Kit - Push-Rod Assembly (a)	9064010	9064006	9064008	9064008
6	Return Spring	8068007	8068022	8068022	8068022
7	Kit - Center Hole Shield	N/A	9065002	9065002	9065002
8	NP Chamber Assembly	8215198	9015213	9015216	9015216
9	Kit - Nuts & Washers	9002003	9002001	9002001	9002001
10	Hex Nut - Yoke	8130011	8130004	8130004	8130004
11	Kit - Breather Tube	9006003	9081001	9081001	9081001
12	Kit - Piggyback Plus	MJS1220AT008	MJS2424ET008	MJS3022ET008	MJS3024ET008
OPTIONAL ITEMS					
Yoke Assembly		Refer to Replacement Parts Section 7			
Boot & Retainer		Refer to Replacement Parts Section 7			

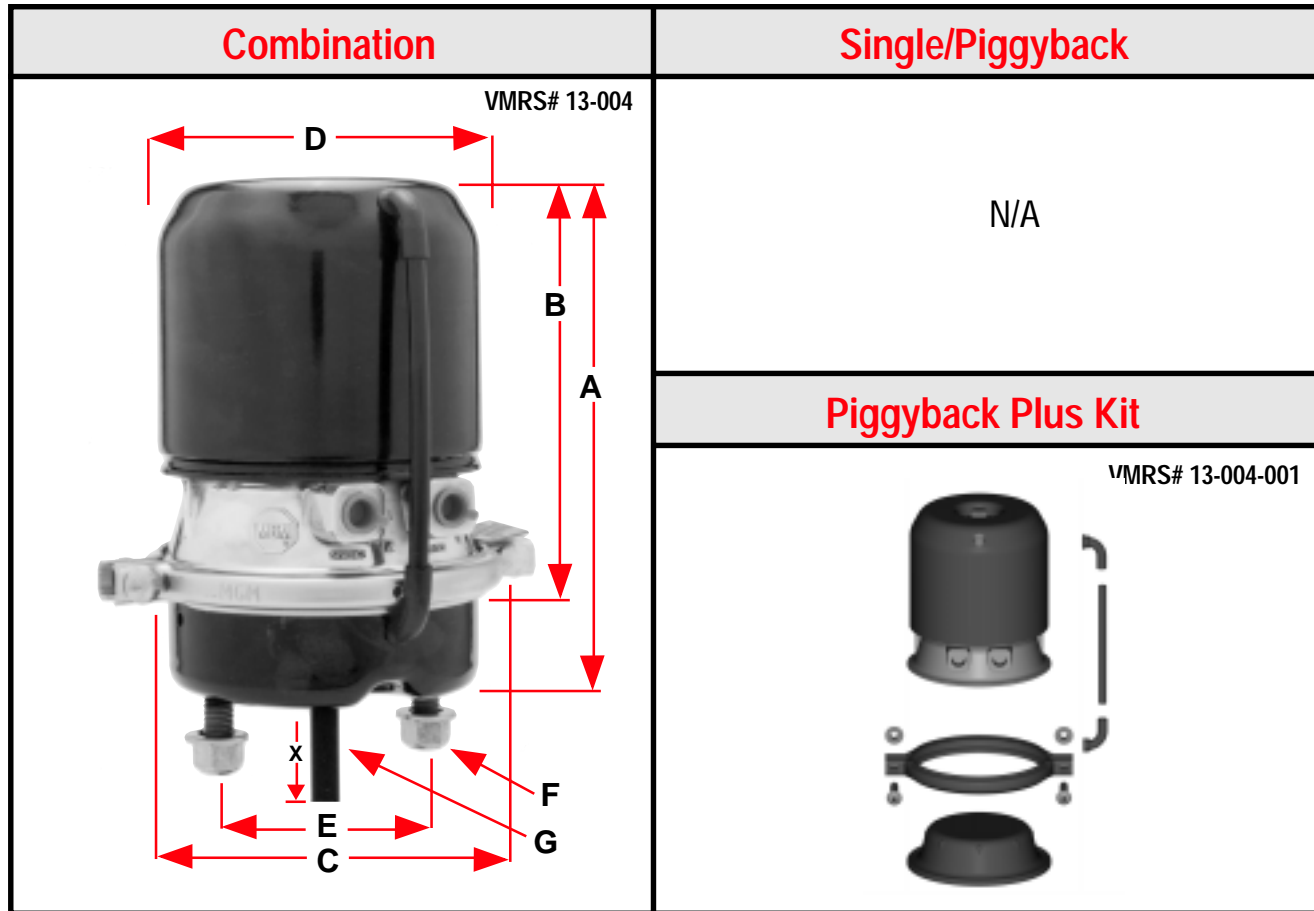
Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

MAGNUM "PERFORMANCE" PLUS

MGM

3.00" Long Stroke Model



P/N Series	MJS3028ET	MJS3030ET	MJS3628ET	MJS3630ET
Model	MJS3028ET	MJS3030ET	MJS3628ET	MJS3630ET
Size	3028	3030	3628	3630
Stroke	3.00"	3.00"	3.00"	3.00"
P/N Combination	MJS3028ET051	MJS3030ET051	MJS3628ET051	MJS3630ET051
P/N Single/Piggyback	N/A	N/A	N/A	N/A
P/N Piggyback Plus Kit	MJS3028ET008	MJS3030ET008	MJS3628ET008	MJS3630ET008
Wt. Combination (Lbs.)	23.1	23.1	24.9	25.2
Wt. Single (Lbs.)	14.92	14.9	14.5	14.5
A	10.93	10.93	11.28	11.28
B	8.56	8.56	8.56	8.56
C	8.32	8.32	9.4	9.4
D	7.5	7.5	7.5	7.5
E	4.75"			
F	5/8" - 11UNC			
G	5/8" - 18UNF			
Inlets	3/8" - NPTF			
X - Min. (in the caged position)	8.00"			

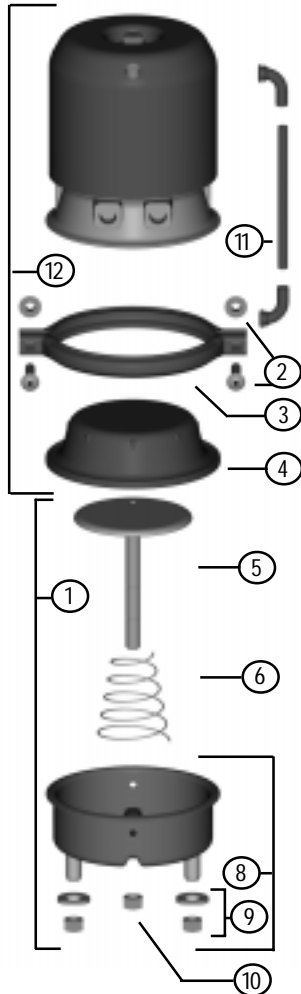
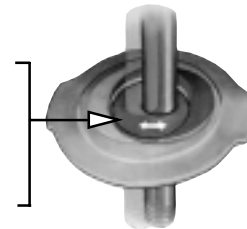
Note: Product information and specifications subject to change without notice.

3.00" Long Stroke Model

Magnum Performance Plus Model Features

- Tamper-Resistant Design
- Lighter Weight
- 3-Inch Longstroke
- Compact Size
- New Patented Integral Release Bolt Mechanism - Minimal Bolt Protrusion (Approx. 1.25 inch protrusion on "Longstroke" models when manually released)
- Lower Hold-Off Pressure (Less Air Consumption)
- Non-Coil Clash Power Spring
- Increased Corrosion Resistance - Steel Head Double-Coated with Black Zinc Iron Chromate and Epoxy
- Available with 1,550-2,600 Lbs. of Push-Rod Braking Force @ 1.25 inch Stroke / Service Brake Sizes 12, 20-36

⑦ **Center Hole Shield**
Permits visual inspection of stroke alert but prevents entry of contaminants.



Replacement Parts

P/N Series	MJS3028ET	MJS3030ET	MJS3628ET	MJS3630ET
Model	MJS3028ET	MJS3030ET	MJS3628ET	MJS3630ET
1 Kit - NP Chamber (a)	9015218	9015218	9015109	9015109
2 Kit - Nuts & Bolts	9003001	9003001	9003001	9003001
3 Clamp Band Assembly	8216045	8216045	8216036	8216036
4 Diaphragm	8017830	8017830	8017836	8017836
5 Kit - Push-Rod Assembly (a)	9064008	9064008	9064008	9064008
6 Return Spring	8068022	8068022	8068022	8068022
7 Kit - Center Hole Shield	9065002	9065002	9065002	9065002
8 NP Chamber Assembly	9015216	9015216	9015108	9015108
9 Kit - Nuts & Washers	9002001	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004	8130004
11 Kit - Breather Tube	9081001	9081001	9081001	9081001
12 Kit - Piggyback Plus	MJS3028ET008	MJS3030ET008	MJS3628ET008	MJS3630ET008
OPTIONAL ITEMS				
Yoke Assembly	Refer to Replacement Parts Section 7			
Boot & Retainer	Refer to Replacement Parts Section 7			

Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

"C" SERIES SERVICE CHAMBERS



Tough, Cost-Effective:
A Stopping Force
Within The Industry



MGM Brakes

Section 4: Service Chambers..... 51-57

Standard Stroke Models



C (Service Chambers)..... 52-53



CW (Service Chambers, Wedge)..... 54-55

2.50 Inch and 3.00 Inch Long Stroke Models



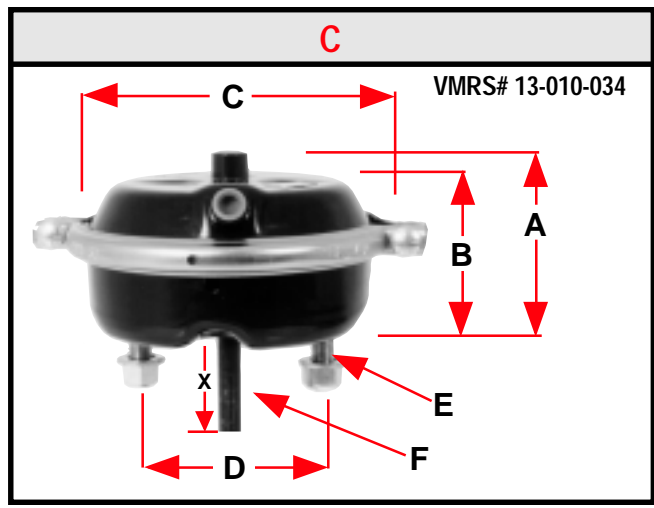
CL (Service Chambers, Long Stroke)..... 56-57

CS (Service Chambers, Long Stroke, Sealed)..... 56-57

FEATURES			
	C	CW	CL
Formed Steel Pressure Cap/ Epoxy Coated	■		■
Heavy-Duty Nylon-Reinforced Diaphragms	■	■	■
Heavy-Duty Steel Non-Pressure Chamber	■	■	■
Stroke Alert	■	■	■
Suited for S-Cam and Disc-Brake Applications	■		■
Top / Side Air Ports	■	■	■

■ Indicates Feature

Standard Stroke Model



SERVICE CHAMBERS

P/N Series	1412	1416	1420	1427	1430	1436
Model	C12	C16	C20	C24L	C30	C36
Size	12	16	20	24	30	36
Stroke	1.75"	2.25"	2.25"	2.50"	2.50"	3.00"
Part Number	1412001	1416001	1420001	1427001	1430001	1436001
Wt.(Lbs.)	3.8	5.9	7.55	8.4	10.12	15.88
A	3.84	4.43	4.16	4.42	4.43	5.12
B	3.13	3.64	3.41	3.67	3.69	4.52
C	5.69	6.59	6.92	7.34	8.19	9.25
D	3.00	3.00	4.75	4.75	4.75	4.75
E	7/16" - 14UNC	7/16" - 14UNC	5/8" - 11UNC	5/8" - 11UNC	5/8" - 11UNC	5/8" - 11UNC
F	1/2" - 20UNF	1/2" - 20UNF	5/8" - 18UNF	5/8" - 18UNF	5/8" - 18UNF	5/8" - 18UNF
Inlets	3/8" - NPTF	3/8" - NPTF	3/8" - NPTF	3/8" - NPTF	3/8" - NPTF	3/8" - NPTF
X - Min. (in the caged position)	4.00"	4.00"	8.00"	8.00"	8.00"	8.00"

Note: Product information and specifications subject to change without notice.

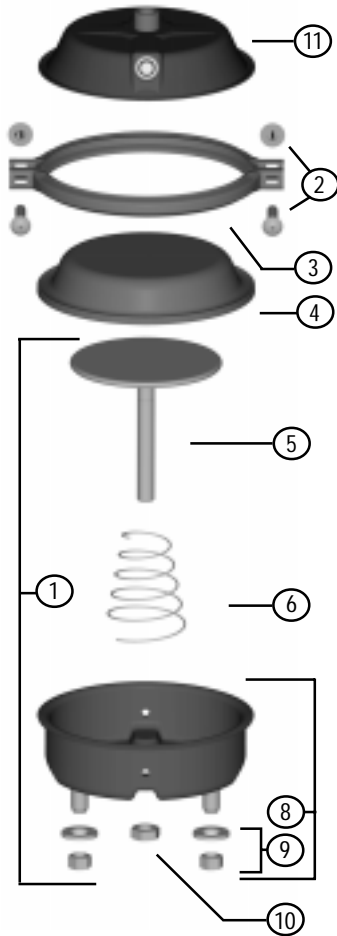
C Model Features

- Low Profile Design
- Formed Steel Pressure Cap - Epoxy-Coated
- Formed Steel Non-Pressure Chamber - Epoxy-Coated

Standard Stroke Model

- Heavy-Duty Nylon Reinforced Diaphragms
- Top and Side Air Ports - 3/8" NPTF
- Center Hole Shield

Replacement Parts



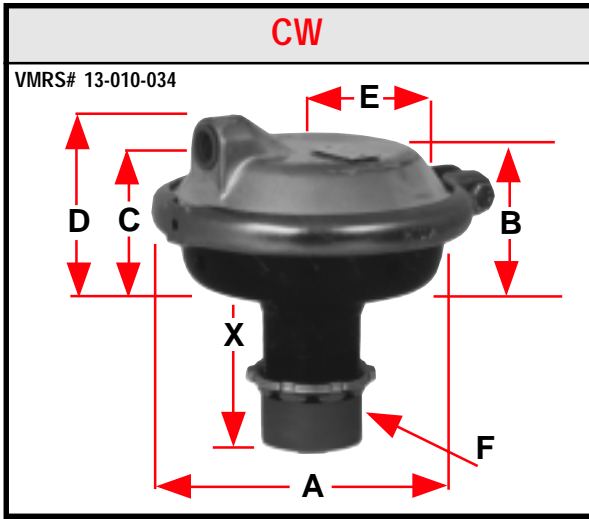
P/N Series	1412	1416	1420
Model	C12	C16	C20
1 Kit - NP Chamber (b)	9015207	9015136	9015046
2 Kit - Nuts & Bolts	9003002	9003001	9003001
3 Clamp Band Assembly	8216012	8216018	8216020
4 Diaphragm	8017112	8017116	8017120
5 Kit - Push-Rod Assembly (b)	9064018	9064019	9064001
6 Return Spring	8068007	8068008	8068002
7 Kit - Center Hole Shield	N/A	N/A	N/A
8 NP Chamber Assembly	8215142	8215023	8215169
9 Kit - Nuts & Washers	9002003	9002003	9002001
10 Hex Nut - Yoke	8130011	8130011	8130004
11 Pressure Cap (2-inlets/steel) (a)	8010040	8210013	8210010
OPTIONAL ITEMS			
Yoke Assembly	Refer to Replacement Parts Section 7		
Boot & Retainer	Refer to Replacement Parts Section 7		

P/N Series	1427	1430	1436
Model	C24L	C30	C36
1 Kit - NP Chamber (b)	9015117	9015050	9015049
2 Kit - Nuts & Bolts	9003001	9003001	9003001
3 Clamp Band Assembly	8216025	8216045	8216036
4 Diaphragm	8017141	8017730	8017836
5 Kit - Push-Rod Assembly (b)	9064002	9064003	9064004
6 Return Spring	8068002	8068002	8068003
7 Kit - Center Hole Shield	N/A	9065002	N/A
8 NP Chamber Assembly	8215105	8215501	8215036
9 Kit - Nuts & Washers	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004
11 Pressure Cap (2-inlets/steel) (a)	8210002	8210003	8010009
OPTIONAL ITEMS			
Yoke Assembly	Refer to Replacement Parts Section 7		
Boot & Retainer	Refer to Replacement Parts Section 7		

- Note:** (a) Type 12 pressure cap is 1 side-inlet/cast aluminum.
 (b) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.

For additional replacement parts, refer to Replacement Parts Section 7.

Standard Stroke Model



Note: X - Dimension of mounting tube is measured from bottom flat on non-pressure chamber to tube end.

P/N Series	1009	1012	1016
Model	CW9	CW12	CW16
Size	9	12	16
Stroke	1.75"	1.75"	1.75"
Wt.(Lbs.)	3.53	3.81	5.80
A	6.23	6.67	7.42
B	2.42	2.392	2.48
C	2.42	2.602	2.284
D	2.970	3.102	2.790
E	3.6	3.8	7.410
F	1 3/4" 12UNC	1 3/4" 12 UNC	1 3/4" 12 UNC
Inlets	3/8" NPTF	3/8" NPTF	3/8" NPTF

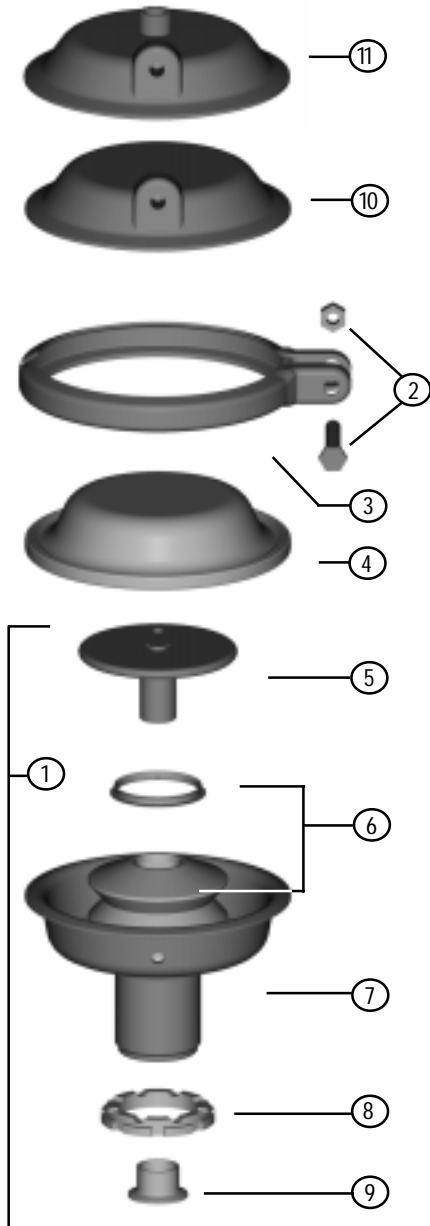
Note: Product information and specifications subject to change without notice

SERVICE CHAMBERS

Wedge Chamber Service Kits						
Size	Type 9		Type 12		Type 16	
Stroke	1.75		1.75		1.75	
"X" DIM	ArvinMeritor	Bendix	ArvinMeritor	Bendix	ArvinMeritor	Bendix
2.25	9015040	9015001	9015003	9015002	9015042	9015041
2.85	9015005	9015004	9015007	9015006	9015044	9015043
3.75	*	*	*	9015134	*	9015095
4.10	9015009	9015008	9015011	9015010	9015059	*
6.10	9015067	9015017	9015019	9015018	9015096	*
7.56	*	*	9015045	*	*	*
8.75	9015063	*	9015022	*	*	*
10.19	*	*	9015026	9015025	9015140	*
12.00	*	*	9015102	*	9015094	*
14.00	*	*	9015031	9015030	*	*

CW Service Brake Chamber						
Size	Type 9		Type 12		Type 16	
Stroke	1.75		1.75		1.75	
"X" DIM	Meritor	Bendix	Meritor	Bendix	Meritor	Bendix
2.25	1009018	1009012	1012008	1012009	1016004	1016001
2.85	1009023	1009020	1012001	1012004	1016003	1016005
3.75	*	*	*	1012097	*	1016019
4.10	1009032	1009021	1012002	1012048	1016006	*
6.10	1009053	1009022	1012057	1012049	1016017	*
7.56	*	*	1012058	*	*	*
8.75	1009049	*	1012007	*	*	*
10.19	*	*	1012003	1012006	1016020	*
12.00	*	*	1012096	*	1016011	*
14.00	*	*	1012056	1012052	*	*

Note: (*) This chamber version is not available

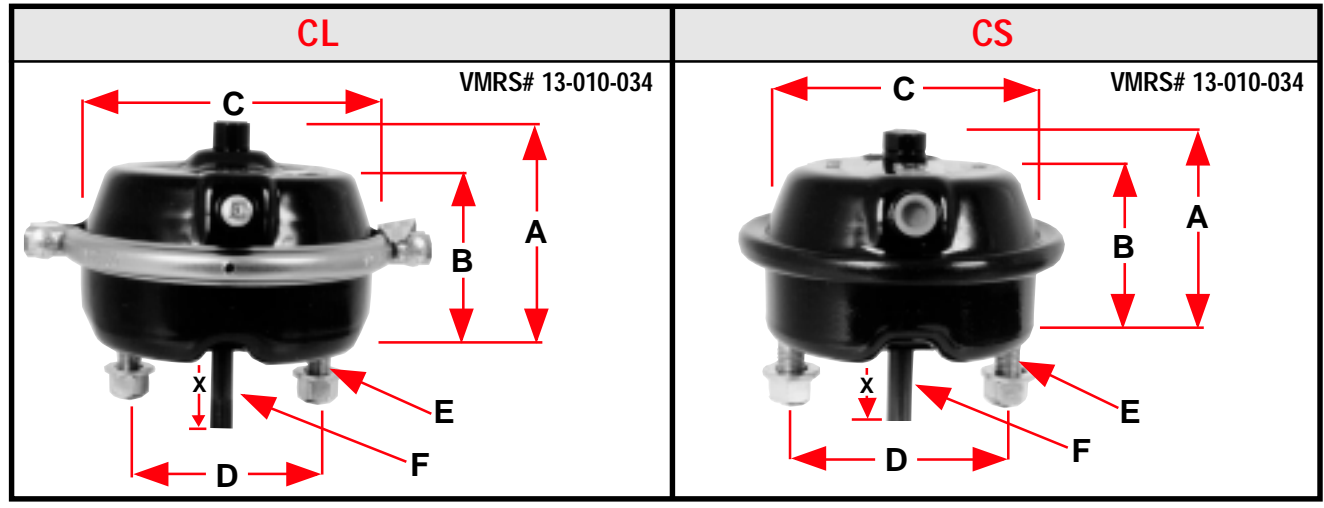


Replacement Parts

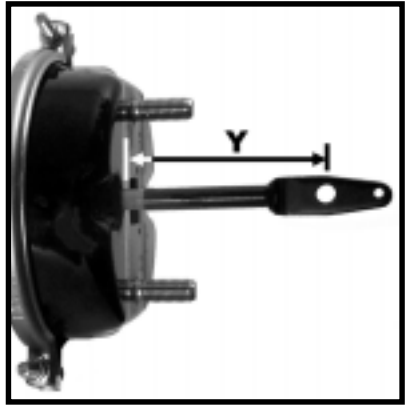
P/N Series	1009	1012	1016
Model	CW9	CW12	CW16
Part Description	MGM P/N	MGM P/N	MGM P/N
1 Kit - NP Chamber	Refer to wedge chamber service kits on previous page		
2 Kit - Nuts & Bolts	9003002	9003002	9003002
3 Clamp Band Assembly	8216009	8216012	8216018
4 Diaphragm	8017109	8017112	8017116
5 Kit - Push-Rod Assembly	(a)	(a)	(a)
6 Kit - Wedge Boot	9004005	9004005	9004005
7 NP Chamber Assembly	(a)	(a)	(a)
8 Spanner Nut	8034001	8034001	8034001
9 Wedge Guide - ArvinMeritor	8024006	8024006	8024006
10 Pressure Cap (1 Inlet)		8010040	
11 Pressure Cap (2 Inlets)	8010028	8012066	8210001

Note: (a) Available only as part of item 1 kit.

2.50" and 3.00" Long Stroke Models



P/N Series	1622	1428	1431
Model	CS20L3	C24L3	C30L3
Size	20	24	30
Stroke	3.00"	3.00"	3.00"
Part Number	1622001	1428001	1431001
Wt.(Lbs.)	8.1	9.28	10.55
A	5.1	5.30	5.31
B	4.5	4.28	4.30
C	7.02	7.37	8.19
D	4.75"	4.75"	4.75"
E	5/8" - 11UNC	5/8" - 11UNC	5/8" - 11UNC
F	.787 Ball	5/8" - 18UNF	5/8" - 18UNF
Inlets	3/8" - NPTF	3/8" - NPTF	3/8" - NPTF
X - Min. (in the caged position)	.787 Ball	8.00"	8.00"



Note: Type 16, 24 and 30 units equipped with welded-yoke and 2.25" Y dimension are replaced by Part Number:

- 1428901 (C24L3)
- 1431901 (C30L3)
- 1617901 (CS16LH)*
- 1621901 (CS20L)*

Refer to Section 7 for replacement parts. * All CS models are sealed assemblies, non-serviceable, therefore replacement kits are not available.

P/N Series	1418	1617	1421	1621
Model	C16L	CS16LH	C20L	CS20L
Size	16	16	20	20
Stroke	2.50"	2.50"	2.50"	2.50"
Part Number	1418001	1617001	1421001	1621001
Wt.(Lbs.)	5.9	6.62	7.65	6.80
A	4.53	4.37	4.40	4.37
B	3.78	3.74	3.67	3.74
C	6.59	7.00	6.85	7.00
D	3.00"	4.75"	4.75"	4.75"
E	7/16" - 14UNC	5/8" - 11UNC	5/8" - 11UNC	5/8" - 11UNC
F	1/2" - 20UNF	5/8" - 18UNF	5/8" - 18UNF	5/8" - 18UNF
Inlets	3/8" - NPTF	3/8" - NPTF	3/8" - NPTF	3/8" - NPTF
X - Min. (in the caged position)	4.00"	8.00"	8.00"	8.00"

Note: Product information and specifications subject to change without notice.

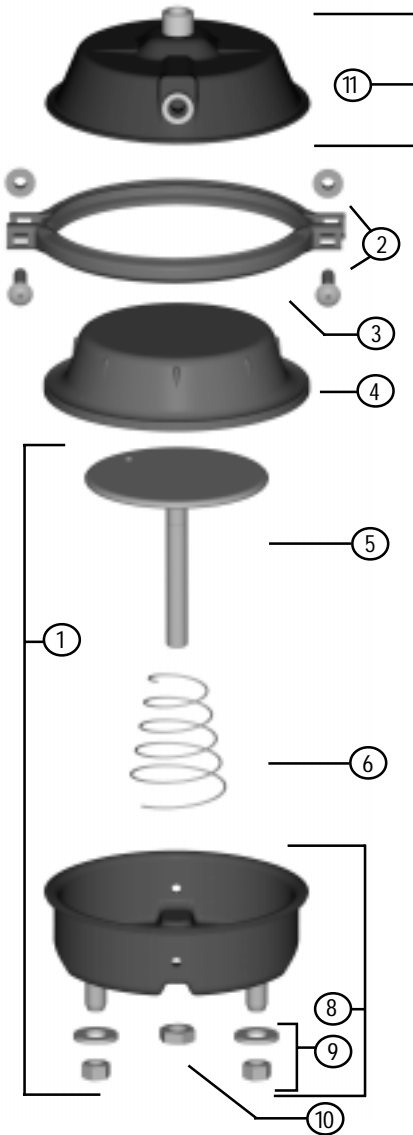
2.50" and 3.00" Long Stroke Models

CL Model Features

- Low Profile Design
- Formed Steel Pressure Cap - Epoxy-Coated
(CS20 Models have Zinc Iron Chromate Coating)
- Formed Steel Non-Pressure Chamber - Epoxy-Coated

- Heavy-Duty Nylon Reinforced Diaphragms
- Top and Side Air Ports - 3/8" NPTF
- Center Hole Shield

Replacement Parts



P/N Series	1622	1428	1431
Model	CS20L3	C24L3	C30L3
1 Kit - NP Chamber (b)	N/A	9015200	9015201
2 Kit - Nuts & Bolts	N/A	9003001	9003001
3 Clamp Band Assembly	N/A	8216025	8216045
4 Diaphragm	N/A	8017424	8017830
5 Kit - Push-Rod Assembly (b)	N/A	9064006	9064008
6 Return Spring	N/A	8068022	8068022
7 Kit - Center Hole Shield	N/A	N/A	9065002
8 NP Chamber Assembly	N/A	8215200	8215501
9 Kit - Nuts & Washers	9002001	9002001	9002001
10 Hex Nut - Yoke	8130004	8130004	8130004
11 Pressure Cap (2-inlet/steel) (a)	N/A	8210026	8210024
OPTIONAL ITEMS			
Yoke Assembly	Refer to Replacement Parts Section 7		
Boot & Retainer	Refer to Replacement Parts Section 7		

P/N Series	1418	1617	1421	1621
Model	C16L	CS16LH	C20L	CS20L
1 Kit - NP Chamber (b)	9015205	N/A	9015233	N/A
2 Kit - Nuts & Bolts	9003001	N/A	9003001	N/A
3 Clamp Band Assembly	8216018	N/A	8216020	N/A
4 Diaphragm	8017216	N/A	8017220	N/A
5 Kit - Push-Rod Assembly (b)	9064022	N/A	9064020	N/A
6 Return Spring	8068008	N/A	8068002	N/A
7 Kit - Center Hole Shield	N/A	N/A	N/A	N/A
8 NP Chamber Assembly	8215251	N/A	8215169	N/A
9 Kit - Nuts & Washers	9002003	9002001	9002001	9002001
10 Hex Nut - Yoke	8130011	8130004	8130004	8130004
11 Pressure Cap (2-inlets/steel) (a)	8210020	N/A	8210022	N/A
OPTIONAL ITEMS				
Yoke Assembly	Refer to Replacement Parts Section 7			
Boot & Retainer	Refer to Replacement Parts Section 7			

Note: (a) Type 12 pressure cap is 1 side-inlet/cast aluminum.
 (b) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.
 All CS models are sealed assemblies, non-serviceable, therefore kits are not available.
 For additional replacement parts, refer to Replacement Parts Section 7

WEDGE BRAKES



Proven
Performance
& Reliability



MGM Brakes

Section 5: Wedge Spring Brakes..... 59-63

Standard Stroke Models



WM (Wedge, Magnum)..... 60-61



MJW (Magnum Performance Plus, Wedge)..... 62-63



CW (Service Wedge) Refer to Service Chamber Section..... 54-55

FEATURES		
	WM	MJW
High Efficiency Breather Cap	■	
Wide Choice of Tube Lengths	■	■
Light Weight, Rugged Aluminum Housing	■	■
Epoxy-Coated Power Spring	■	■
External Breather Tube	■	■
Integral Release Bolt	■	■
Polymer Push-Rod Guides	■	■
Molded Nitrile Rubber Push-Rod Air Seal	■	■
Low Friction Piston and Guide	■	■
Heavy-Duty Nylon Reinforced Diaphragms	■	■

■ Indicates Feature

Standard Stroke Model

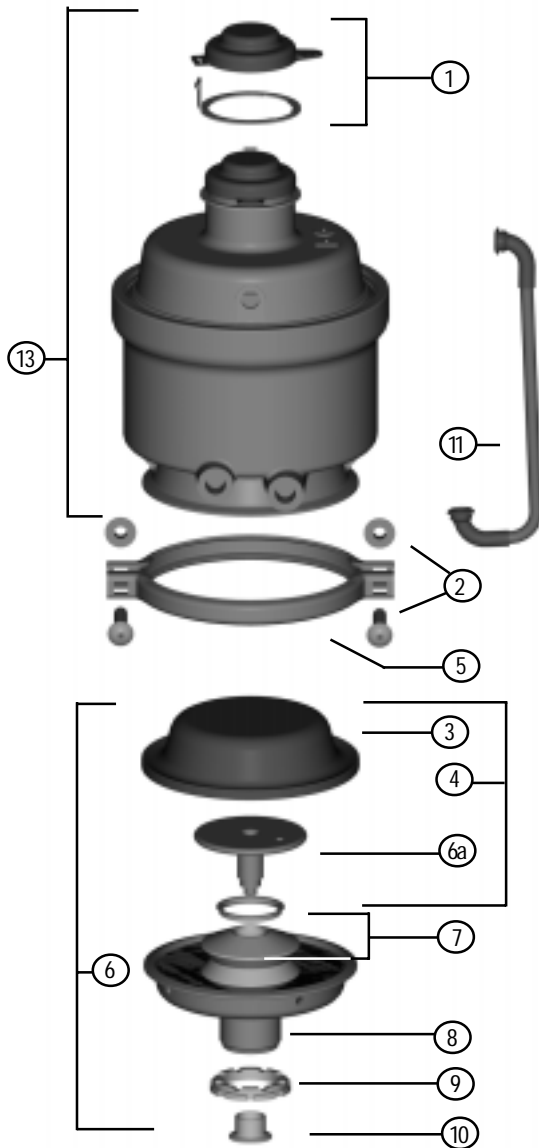
Combination	Single/Piggyback
<p>VMRS# 13-004</p>	<p>VMRS# 13-004</p>
	<p>Piggyback Plus Kit</p>
	<p>N/A</p>

P/N Series	2017
Model	WM1624LG-T
Size	1624
Stroke	2.00
P/N Combination	2017156
P/N Single/Piggyback	2017201
P/N Piggyback Plus Kit	N/A
Wt. Combination (Lbs.)	18.5
Wt. Single (Lbs.)	13.8
A	10.8
B	9.71
C	6.53
D	7.69
E	1 3/4" - UNC
F Inlets	3/8" - NPTF
X - Min. (in the caged position)	4.5"

Note: Product information and specifications subject to change without notice

WM Model Features

- High Efficiency Breather Cap
- Wide Choice Tube Lengths
- Lightweight, Rugged Aluminum Housing
- Epoxy-Coated Power Spring
- External Breather Tube
- Integral Release Bolt
- Polymer Push-Rod Guides
- Molded Nitrile Rubber Push-Rod Air Seal
- Low Friction Piston and Guide
- Heavy-Duty Nylon Reinforced Diaphragms



Wedge Piston Assembly ArvinMeritor Bendix



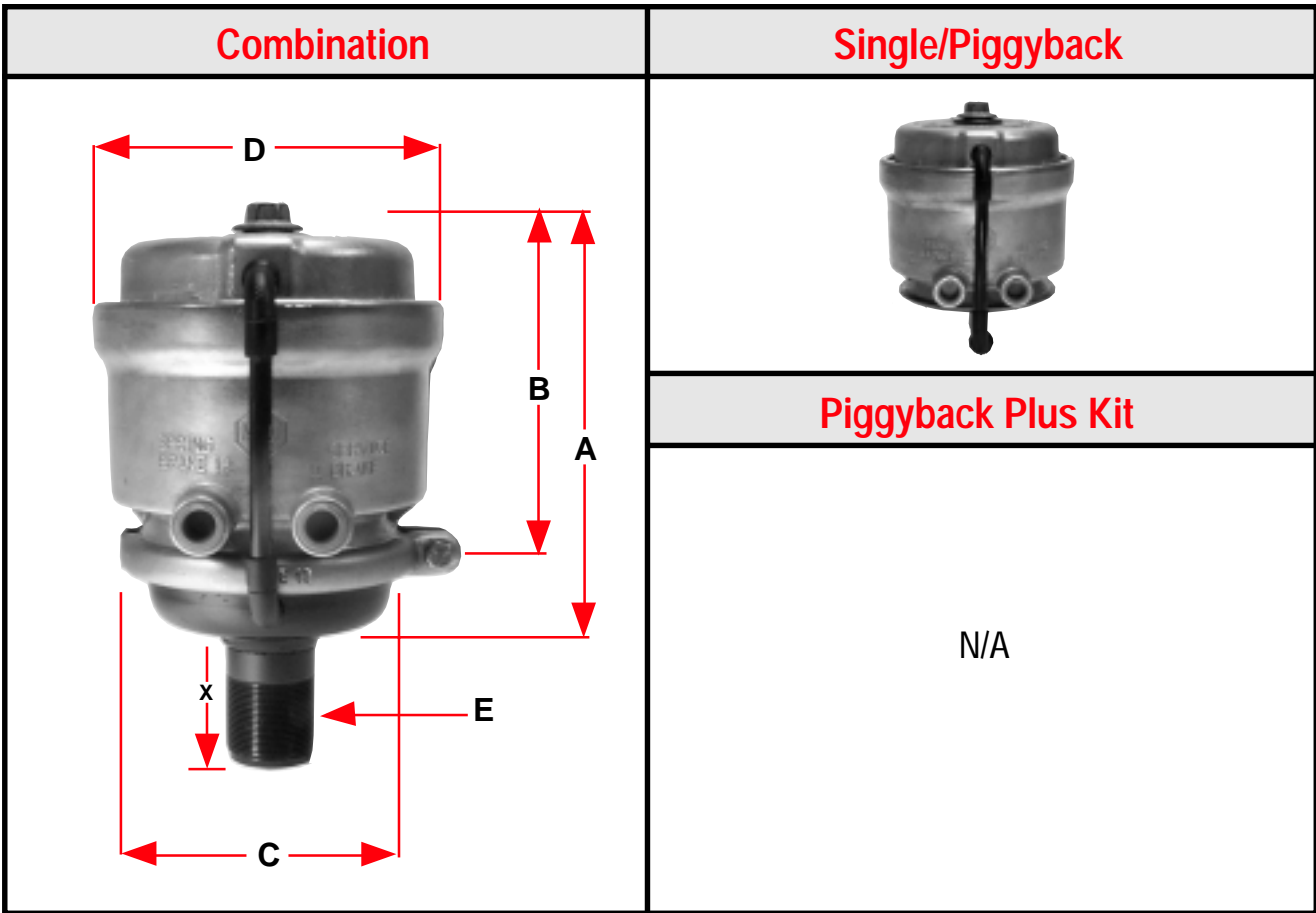
Ordering: Determine if foundation brake is ArvinMeritor or Bendix type by comparison to piston assembly photos above.

Replacement Parts

P/N Series	2017
Model	WM1624LG-T
1	End Cap & Retainer 8206008
2	Kit - Nuts & Bolts 9003002
3	Diaphragm (a)
4	Kit - Diaphragm / Push-Rod 9054653
5	Clamp Band Assembly 8216018
6	Kit - NP Chamber 9015156
6a	Push-Rod (a)
7	Kit - Wedge Boot 9004005
8	NP Chamber (b)
9	Spanner Nut 8034001
10	Wedge Guide - ArvinMeritor 8024006
11	Kit - Breather Tube 9081003
12	Kit - Release Bolt (Not Shown) 9007005
13	Piggyback 2017201

Note: (a) Available only as part of item 4 kit.

(b) Available only as part of item 6 kit.



P/N Series	MJW1218AT
Model	MJW1218AT
Size	1218
Stroke	1.75"
Push-Rod	ArvinMeritor / Bendix
P/N Combination	(a)
P/N Single/Piggyback	MJW1218AT001
P/N Piggyback Plus Kit	N/A
Wt. Combination (Lbs.)	13.18
Wt. Single (Lbs.)	8.70
A	7.90
B	6.54
C	5.70
D	6.44
E	1 3/4" - 12 UNC
F Inlets	3/8" - NPTF
X	5.00"

Standard Assembly Part Numbers

Model	MJW1218AT	
Size	MJW1218AT	
X Dimension	ArvinMeritor	Bendix
2.25	MJW1218AT052	MJW1218AT058
2.85	MJW1218AT053	MJW1218AT059
4.10	MJW1218AT054	MJW1218AT060
6.10	MJW1218AT055	MJW1218AT061
8.75	MJW1218AT056	*
10.19	MJW1218AT057	*

Note: (a) Refer to "Standard Assembly Part Numbers Chart" for mounting tube length variations.

Product information and specifications subject to change without notice.

MJW1218AT Model available January 2001.

Standard Stroke Model

MJW Model Features

- Wide Choice Tube Lengths
- Lightweight, Rugged Aluminum Housing
- Epoxy-Coated Power Spring
- External Breather Tube
- Integral Release Bolt
- Polymer Push-Rod Guides
- Molded Nitrile Rubber Push-Rod Air Seal
- Low Friction Piston and Guide
- Heavy-Duty Nylon Reinforced Diaphragms

Wedge Piston Assembly ArvinMeritor Bendix



Ordering: Determine if foundation brake is ArvinMeritor or Bendix type by comparison to piston assembly photos above.

Standard Service Kits

Type 12		
Stroke 1.75"		
X Dimension	ArvinMeritor	Bendix
2.25	9015003	9015002
2.85	9015007	9015006
3.75	*	9015134
4.10	9015011	9015010
6.10	9015019	9015018
7.56	9015045	*
8.75	9015022	*
10.19	9015026	9015025
12.00	9015102	*
14.00	9015031	9015030

Replacement Parts

Exploded View Not Shown

P/N Series	MJW1218AT
Model	MJW1218AT
Part Description	MGM P/N
1 Kit - NP Chamber	Refer to Wedge Chamber Service Kits above
2 Kit - Nuts & Bolts	9003002
3 Clamp Band Assembly	8216012
4 Diaphragm	8017112
5 Kit- Wedge Boot	9004005
6 Spanner Nut	8034001
7 Wedge Guide - ArvinMeritor	8024006

Note: For additional replacement parts, refer to Replacement Parts Section 7.

REMOTE MOUNT CYLINDERS






Perfect For
Remote Operation
Of Trailer Tailgates



MGM Brakes

Section 6: Remote Cylinders..... 65-67



Standard Stroke Models

	R4	(Remote Cylinder).....	66-67
	R5	(Remote Cylinder).....	66-67
	R5AHD	(Remote Cylinder, Heavy-Duty).....	66-67

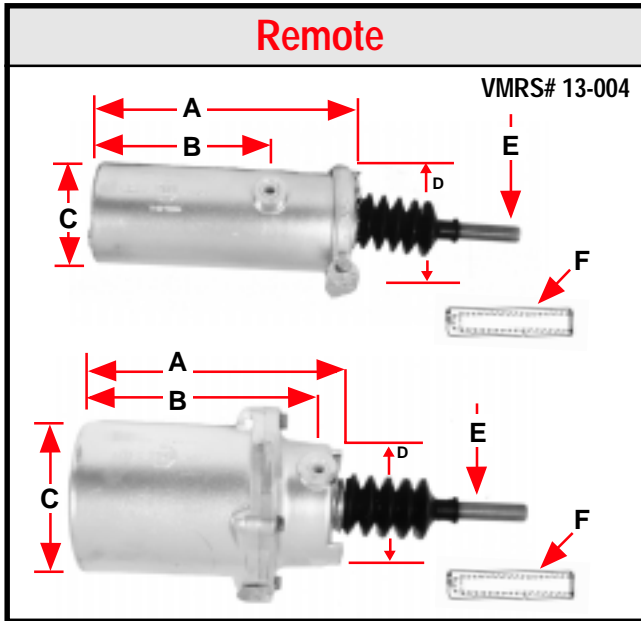
MGM BRAKES REMOTE-MOUNT CYLINDERS . . . are the original spring brake invented in the rugged logging country of northern California. These cylinders were introduced by MGM Brakes in 1956 as the world's first spring-actuated parking and emergency brake actuators for commercial vehicles. These "pull-to-actuate" cylinders were designed for axle-mount or frame-mount using various weld-on and bolt-on mounting brackets and linkage arms.

Today, these high-quality air-actuated cylinders have been adapted to such diverse non-automotive usage as dump truck end-gate actuators, emergency brake actuators on massive logging and commercial fishing winches, and numerous other special applications.

MGM Brakes Remote-Mount Cylinders are the safest, most reliable end-gate cylinders available. The principle is basic—spring pressure prevents the end-gate from opening until the operator applies air pressure to the cylinder. This provides the operator with a reliable system to keep the load off the road.

How It Operates	
<div style="text-align: center; margin-bottom: 10px;">  </div> <p>When the end-gate is <i>closed</i>, spring pressure within the cylinder holds the end-gate latches tightly in place, preventing the end-gate from inadvertently swinging open, prematurely dumping the load.</p>	<div style="text-align: center; margin-bottom: 10px;">  </div> <p>To <i>open</i> the end-gate the operator applies air to the cylinder through a valve located in the cab of the vehicle. As the air pressure builds within the cylinder it forces the piston to move, compressing the spring(s) and extending the push-rod. As the push-rod extends, it rotates the arm on the end-gate latching mechanism allowing the end-gate to swing free.</p>

Standard Stroke Model



P/N Series	5004	5005	5005
Model	R4A	R5A	R5AHD
Size	4	5	5
Stroke	4.60"	4.40"	4.37"
P/N Ext. 20" Rod	5004010	N/A	N/A
P/N Ext. 15" Rod	5004013	5005011	5005012
P/N Ext. 7" Rod	5004014	5005013	5005014
Wt. Combination (Lbs.)	13.5	17.8	19.6
A	11.12	10.5	10.5
B	7.50	9.38	9.38
C	4.38	6.12	6.12
D	5.69	5.12	5.12
E	3/4" - 16UNF x 10.75" LONG		
F	1/2" - 20UNF x 3.00" DEEP		
Inlets	3/8" - NPTF		

Note: Product information and specifications subject to change without notice.

Standard Assembly Part Numbers & Service Parts

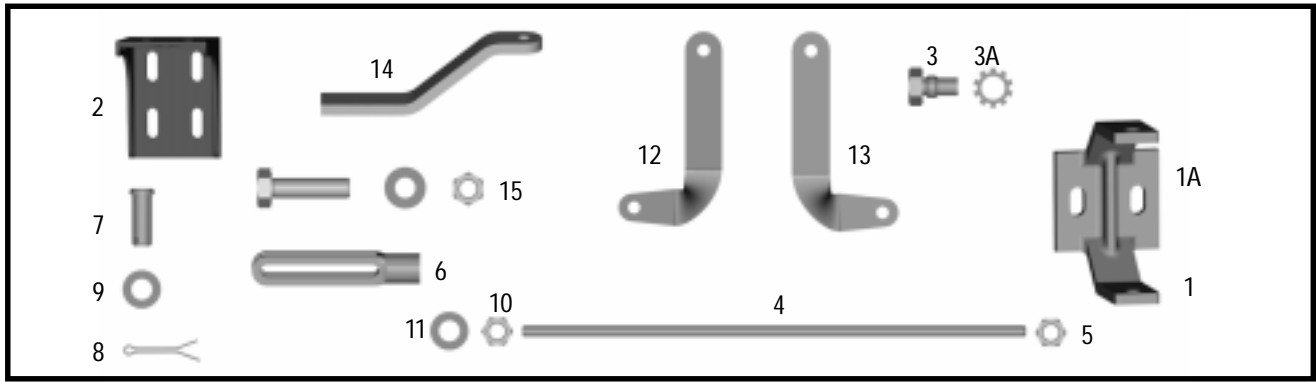
Model R4A P/N	Model R5A P/N	Model R5AHD P/N	Description Of Parts
5004010			Remote Mount Cylinder - R4A (External Thread on 20.00" X - Dimension Rod)
5004013			Remote Mount Cylinder - R4A (a) (External Thread on 15.00" X - Dimension Rod)
5004014			Remote Mount Cylinder - R4A (a) (Internal Thread on 7.00" X - Dimension Rod)
	5005011		Remote Mount Cylinder - R5A (External Thread on 15.00" X - Dimension Rod)
	5005013		Remote Mount Cylinder - R5A (a) (Internal Thread on 7.00" X - Dimension Rod)
		5005012	Remote Mount Cylinder - R5AHD (a) (External Thread on 15.00" X - Dimension Rod)
		5005014	Remote Mount Cylinder - R5AHD (a) (Internal Thread on 7.00" X - Dimension Rod)
9004003			Kit - Boot & Clamp - Remote
9008001			Kit - Side Bushings R4A/R5A

Note: (a) X-dimension (7.00" 15.00" etc.) is measured from lockpin hole in piston rod outward to rod end. Note that the lockpin hole appears from within the cylinder only after the cylinder is charged with minimum 85 psi air or hydraulic pressure.

R4A, R5A & R5AHD



Standard Stroke Models



		Assemblies	Kit P/N and Quantities				
Model	P/N	Rod Specifications	9050019	9050027	9050028	9050033	9050035
R4	5004010	External Thread 20.00"	2				
R4	5004013	External Thread 15.00"		1			
R4	5004014	Internal Thread 7.00"					1
R5	5005011	External Thread 15.00"					
R5 HD	5005012	External Thread 15.00"			1		
R5	5005013	Internal Thread 7.00"					
R5 HD	5005014	Internal Thread 7.00"				2	
Key	P/N	Part Description					
1	8005001	Gimbal Bracket - R4A	2	1			
1	8005003	Gimbal Bracket - R5A / R5AHD			1	2	1
1A	8062001	Shock Pad - R4A	2	1			
1A	8062002	Shock Pad - R5A / R5AHD	2	1		2	1
2	8005002	Frame Bracket				2	
3	8003003	Trunnion Bolt	4	2	2	4	
3A	8141002	Star Lock Washer	4	2	2	4	2
4	8055017	Extension Rod 1/2" UNF x 24				2	2
5	8130011	Hex Nut 1/2" 20 UNF				4	
6	8092006	Sliding Clevis 1/2" UNF				2	
7	8038001	Yoke Pin 1/2"				2	
8	8151001	Cotter Pin				2	
9	8140007	Flat Washer 1/2" (inside diameter)				4	
10	8130002	Hex Nut 3/4" 16 UNC	4				
11	8140002	Lockpin Washer 3/4" (inside diameter)	2				
12	8009002	Remote Arm-L.H., Offset				1	
13	8009003	Remote Arm-R.H., Offset				1	
14	8009004	Remote Arm, Offset					
15	8203001	Bolt Assembly (Frame Bracket)					

REMOTE CYLINDERS

REPLACEMENT PARTS



Original Equipment Quality—
Satisfaction Guaranteed



MGM Brakes

	Page(s)
Section 7: Replacement Parts.....	69-73
<i>Diaphragms.....</i>	70
<i>Kits - Push-Rod Assembly & Nut.....</i>	70
<i>Yoke Assemblies.....</i>	70
<i>Clamp Bands.....</i>	70
<i>Kits - Breather Cap, End Cap & Weatherseal™ Plug.....</i>	70
<i>Kits - S-Cam Protective Boot & Center Hole Shield.....</i>	71
<i>Kits - Breather Tube & Elbow.....</i>	71
<i>Non-Pressure Chamber (Without Breather Elbow).....</i>	71
<i>Non-Pressure Chamber (With Breather Elbow).....</i>	71
<i>Kit - Wedge Chamber Boot.....</i>	71
<i>Kit - Nuts and Washers, Vent Hole-Plug.....</i>	71
<i>Kit- Release Bolt.....</i>	72
<i>Welded Yoke Assemblies.....</i>	72
<i>Yoke Pins (Stainless Steel).....</i>	72

Diaphragms



Type	Stroke	P/N	Material	Outside Diameter
9	1.75	8017109	R	5.00" (130 mm)
12	1.75	8017112	R	5.50" (140 mm)
16	2.25	8017116	R	6.00" (150 mm)
16LH	2.50	8017215	R	6.50" (165mm)
16L	2.50	8017216	R	6.00" (150 mm)
20	2.25	8017120	R	6.50" (165 mm)
20	2.25	8017145	N	6.50" (165 mm)
20L	2.50	8017220	R	6.50" (165 mm)
20L	2.50	8017225	N	6.50" (165 mm)
24	2.25	8017241	R	7.00" (180 mm)
24L	2.50	8017141	R	7.00" (180 mm)
24L	2.50	8017224	N	7.00" (180 mm)
24L3	3.00	8017424	R	7.00" (180 mm)
24L3	3.00	8017425	N	7.00" (180 mm)
30	2.50	8017730	R	8.00" (200 mm)
30	2.50	8017042	N	8.00" (200 mm)
30L3	3.00	8017830	R	8.00" (200 mm)
30L3	3.00	8017831	N	8.00" (200 mm)
36	3.00	8017836	R	9.00" (230 mm)
36	3.00	8017036	N	9.00" (230 mm)

Note: (1) Material "R" is natural rubber blend with nylon fabric reinforcement. Use only "R" type diaphragms in extreme cold weather climates. Good to -65° F.
 (2) Material "N" is neoprene blend with nylon fabric reinforcement.

Clamp Bands



Type	P/N (1 Piece)	P/N (2 Piece)
9	8216009	
12	8216012	
16	8216016	8216018
20	8216022	8216020
24	9016024	8216025
30	9016030	8216045
36		8216036

Note: All clamps furnished with nuts and bolts.

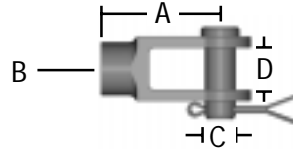
Push-Rod Assembly & Nut Kits



Type	P/N	
12	9054009	9064018*
16	9054008	9064019*
20	9054005	9064001*
24L	9054003	9064002*
30	9054002	9064003*
36	9054004	9064004*

Note: Type 12 and 16 push-rods will provide an approx. 4.00" X- dimension when installed with 4.00" of 1/2" - 20 UNF threads.
Note: Type 20 through 36 push-rods will provide an approx. 8.00" X- dimension when installed with 8.00" of 5/8" - 18 UNF threads.
Note: (*) These assemblies have MGM Brakes "Stroke Alert" markings and to ensure correct stroke alert positioning, must be used only on the designated MGM Brake units.

Yoke Assemblies



P/N	A	B	C	D
8292001	2.00"	5/8" - 18 UNF	1/2"	9/16"
8292002	2.00"	5/8" - 18 UNF	5/8"	9/16"
8292003	2.00"	1/2" - 20 UNF	1/2"	9/16"
8292007	2.31"	3/4" - 16 UNF	1/2"	11/16"
8292008	2.31"	3/4" - 16 UNF	5/8"	11/16"
8292009*	2.00"	5/8" - 18 UNF	1/2"	9/16"
8292010	1.88"	1/2" - 20 UNF	5/8"	9/16"
8292011*	2.00"	5/8" - 18 UNF	5/8"	9/16"
8292012	1.88"	M16 x 1.5-6H	14 mm	14 mm
8292016	1.88"	M16 x 1.5-6H	1/2"	9/16"

Note: (*) Stainless steel pin: 1/2" dim. 8038007, 5/8" dim. 8038008, see other stainless steel pins, page 72.

Breather Cap, End Caps & Weatherseal™ Plug Kits



Key	P/N	Description	Used on MGM Models/Sizes
1	9006001	Breather Cap Assembly	All WM, WL and MB
2	9019005	Kit - Weatherseal™ Plug	TR, TR-T, sizes 2024, 2424L, 2430L, 3024, 3030 TR-TS, sizes 2424L, 2430L, 3030
2	9019006	Kit - Weatherseal™ Plug	TR, TR-T, TR-TS sizes, 3036, 3636
3	8206008	End Cap & Retainer	All L-T, MB-T and MG-T

Note: All product information and specifications subject to change without notice.

REPLACEMENT PARTS

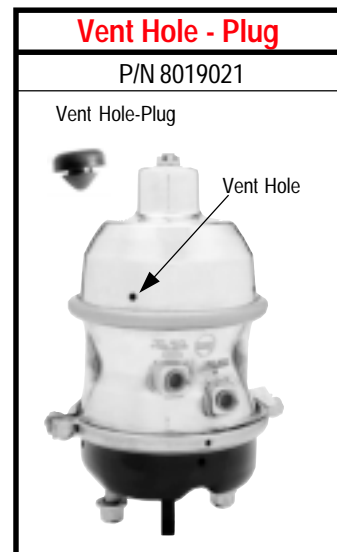


S-Cam Protective Boot & Center Hole Shield Kits			
Key	P/N	Description	
1	9004001	Boot & Retainer S-Cam	
2	9004002	Boot & Retainer S-Cam	
3	9065002	Kit - Center Hole Shield	

Note: (1) MGM P/N 9004001 Kit can only be used with non-pressure chambers (mounting housings) having an embossed bottom essentially shaped like the retaining plate for the boot.

(2) MGM P/N 9004002 Kit can only be used with MGM Brakes Type 20, 24 & 30 non-pressure chambers (mounting housings) with flat bottoms having 3 equally spaced installation holes for the plastic boot retainer.

(3) MGM P/N 9065002 Kit is suitable only for MGM Brakes Type 20, 24, 30 & 36 non-pressure chambers. Field installation requires complete disassembly of the service brake chamber.



Breather Tube & Elbow Kits			
Key	P/N	Service MGM Brakes Model	
1	9081001	All MGM Brakes model sizes fitted with breather tube except those listed below	
2	9081002	M3030B-T	M3036B-T
2	9081003	M3636B-T	

Non-Pressure Chamber (With Breather Elbow)	
Type	P/N
16	9015163
20	9015110
24*	9015151
30	9015122
36*	9015108

Note:
(*) These chamber sizes are heavy-duty weld-reinforced.

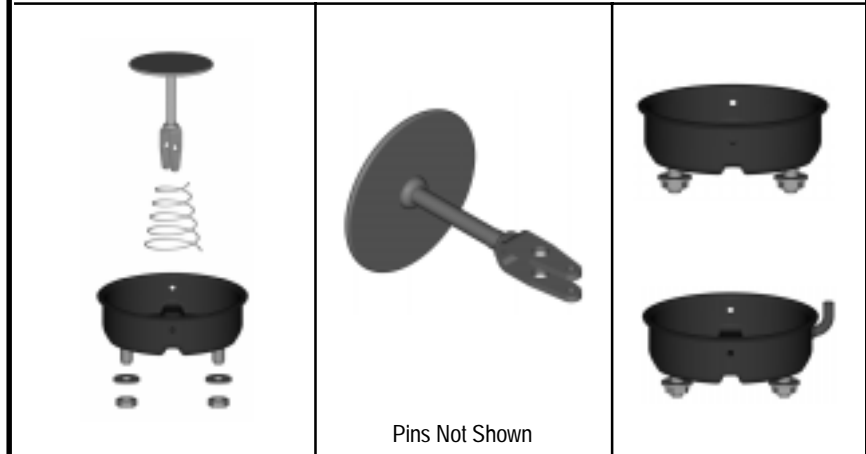
Non-Pressure Chamber (Without Breather Elbow)	
Type	P/N
12	8215142
16	8215023
20*	8215169
24*	8215105
30	8215501
36	8215036

Kit - Wedge Chamber Boot	
P/N 9004005	

Kit - Nuts & Washers	
P/N 9002001	Type 20, 24, 30 & 36
P/N 9002003	Type 12 and 16

Note: All product information and specifications subject to change without notice.

Welded Yoke Assemblies



Pins Not Shown

Type 2430 - 3.00" Long Stroke - "Y" Dim. = 2.25"

P/N	Kit - NP Chamber	Kit - Push-Rod / Welded Yoke	Kit - Chamber Assembly
3224951	9015903	9075002	8215250
3226951	9015903	9075002	8215250
3225951	9015901	9075002	9015213
3527951	9015901	9075002	9015213
3227951	9015901	9075002	9015213
3523951	9015901	9075002	9015213
3828951	9015903	9075002	8215250
1428901	9015903	9075002	8215501

Type 3030 - 3.00" Long Stroke - "Y" Dim. = 2.25"

P/N	Kit - NP Chamber	Kit - Push-Rod / Welded Yoke	Kit - Chamber Assembly
3230951	9015904	9075001	8215501
3232951	9015904	9075001	8215501
3231951	9015902	9075001	9015216
3233951	9015902	9075001	9015216
3535951	9015902	9075001	9015216
3534951	9015902	9075001	9015216
3832951	9015904	9075001	8215501
1431901	9015904	9075001	8215501

Kit - Release Bolt

Key	P/N	Services MGM Brakes Model Sizes
① & ④	1	9007003 TR2024, TR2424L, TR2430L TR3024 and TR3030
② & ③	2	9007005 M20B-T, M24B-T, M30B-T and M1216G-T
	3	9007007 M36B-T and all MG-T models except M1216G-T
	4	9007009 TR3036, TR3636

Yoke Pins (Stainless Steel)

Diameter	P/N
1/2"	8038007 (Forged Yoke)
5/8"	8038008 (Forged Yoke)
1/2"	8038012 (Welded Yoke)
1/4"	8038016 (Welded Yoke)

Note: All product information and specifications subject to change without notice.

TRANSIT / SPECIAL APPLICATIONS BRAKES



Satisfying The Needs
Of Special Applications

 **MGM Brakes**

	Page(s)
Section 8 : Transit / Special Applications.....	75-77
TR, TR-T, TR-TS and WM-LGT Transit Bus Brakes and other special applications.....	76-77



TRANSIT / SPECIAL APPLICATIONS

Special Transit Length Push-Rods

VMRS # 13-004

Available aftermarket options & part numbers for assemblies requiring "X" dimensions longer than standard 8.00" fully threaded push-rod.

All Models	Type 24		Type 30		Type 36	
"X" Dimension Minimum	12.00"	18.00"	12.00"	18.00"	10.00"	18.00"
Push-Rod Diameter	5/8"	3/4"	5/8"	3/4"	5/8"	3/4"
Threaded Length	5.00"	7.00"	5.00"	7.00"	3.00"	9.00"
Part Number Designator	xxxx551	xxxx651	xxxx551	xxxx651	xxxx551	xxxx651
Kit - Push-Rod Assembly	9064553	9064653	9064551	9064651	9064552	9064652

Note: For models TR, TR-T, and TR-TS standard dimension and replacement parts data, refer to the Double Diaphragm Section.

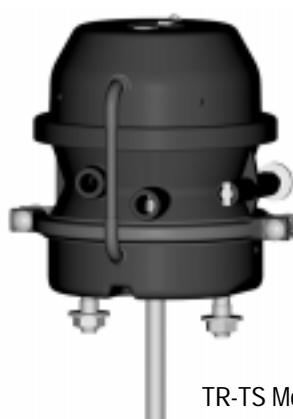
Note: For model WM standard dimension and replacement parts data, refer to the Wedge Section.



TR Model



TR-T Model



TR-TS Model



WM Model

Transit Coach All Makes TR, TR-T, TR-TS			Combination
Model	Size	Stroke	P/N
TR	2430L	2.50	3429551
		2.50	3429651
	3030	2.50	3430551
		2.50	3430651
	3036	2.50	3433551
		2.50	3433651
3636	3.00	3437551	
	3.00	3437651	
TR-T	2430L	2.50	3428551
		2.50	3428651
	3030	2.50	3431551
		2.50	3431651
	3036	2.50	3432551
		2.50	3432651
3636	3.00	3436551	
	3.00	3436651	
TR-TS	2430L	2.50	3528551
		2.50	3528651
	3030	2.50	3531551
		2.50	3531651
	3036	2.50	3532551
		2.50	3532651
3636	3.00	3536551	
	3.00	3536651	

Hendrickson (Intraax / Vantraax)		
Hendrickson P/N	Model	X-Dim.
3230119	TR3030LP3	9.75"
3430355	TR3030	9.75"
3832055	LTR3030L3	9.75"

Product information and specifications subject to change without notice.

TRANSIT / SPECIAL APPLICATIONS



PRODUCTION NUMBER	MODEL	X DIMENSION	Y DIMENSION	WELDED YOKE	MOUNTING HARDWARE	YOKE PINS	REFER TO PAGE FOR MODEL DIMENSIONS
MJS3030ET054	MJS3030ET	1.50"	-	-	No	-	48-49
MJS2424ET054	MJS2424ET	-	3.62"	-	Yes	Yes	46-47
MJS2424ET055	MJS2424ET	-	3.62"	-	Yes	Yes	46-47
MJS3024ET062	MJS3024ET	-	2.25"	Yes	Yes	No	46-47
1416078	C16	1.50"	-	-	No	-	52-53
1416079	C16	1.50"	-	-	No	-	52-53
1427160	C24L	1.625"	-	-	No	-	52-53
1427218	C24L	1.50"	-	-	No	-	52-53
1427292	C24L	-	2.50"	-	Yes	Yes	52-53
1427293	C24L	-	2.50"	-	Yes	Yes	52-53
1427350	C24L	-	2.63"	-	Yes	-	52-53
2017152	WM1624LGT	4.50"	-	-	-	-	60-61
2017156	WM1624LGT	4.50"	-	-	-	-	60-61
3230120	TR3030LP3	-	12.62"	-	Yes	Yes	22-23
3230121	TR3030LP3	-	12.62"	-	Yes	Yes	22-23
3231062	TR3030LP3T	-	9.44"	-	-	Yes	24-25
3429089	TR2430L	1.50"	-	-	Yes	-	10-11
3430166	TR3030	-	2.50"	-	Yes	Yes	10-11
3430263	TR3030	-	12.62"	-	Yes	Yes	10-11
3430264	TR3030	-	12.62"	-	Yes	Yes	10-11
3431178	TR3030T	9.38"	-	-	Yes	-	12-13
3436110	TR3636T	-	12.75", 3/4" Rod	-	Yes	Yes	12-13
3436111	TR3636T	-	12.75", 3/4" Rod	-	Yes	Yes	12-13
3531055	TR3030TS	-	18.18", 3/4" Rod	-	Yes	Yes	18-19
3531056	TR3030TS	16.88", 3/4" Rod	-	-	Yes	-	18-19
3531057	TR3030TS	-	18.18", 3/4" Rod	-	Yes	Yes	18-19
3531058	TR3030TS	-	18.18", 3/4" Rod	-	Yes	Yes	18-19
3531077	TR3030TS	-	4.37"	-	Yes	Yes	18-19
3531078	TR3030TS	-	4.37"	-	Yes	Yes	18-19
3531079	TR3030TS	-	2.38"	-	Yes	Yes	18-19
3531080	TR3030TS	-	2.38"	-	Yes	Yes	18-19
3531105	TR3030TS	-	5.87"	-	Yes	Yes	18-19
3531106	TR3030TS	-	5.87"	-	Yes	Yes	18-19
3832061	LTR3030L3	-	2.25"	Yes	Yes	No	38-39
3832062	LTR3030L3	-	2.25"	Yes	Yes	No	38-39

Note: For yoke pins and mounting hardware replacement parts refer to Replacement Parts Section 7. For custom replacement parts, contact MGM Brakes Sales.

Note: Product information and specifications subject to change without notice.

TECHNICAL INFORMATION



Important Procedures
& Detailed Tech Information



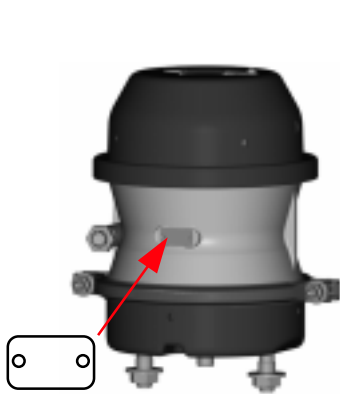
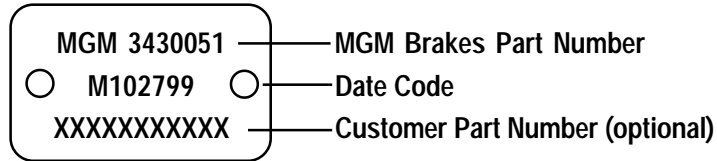
MGM Brakes

	Page(s)
Section 9: Technical Information.....	79-94
<i>Product Identification Plate.....</i>	80
<i>Long Stroke Identification.....</i>	81
<i>Double Diaphragm To Piston Conversion Chart.....</i>	82
<i>How to Cut a Rod.....</i>	83
<i>Proper Brake Adjustment.....</i>	84
<i>Fastener Torque Valve Chart.....</i>	85
<i>Performance Chart - Spring Brake Chambers.....</i>	86-87
<i>Performance Chart - Service Brake Chambers.....</i>	88-92
<i>Standard Warranty Policy.....</i>	93
<i>LTR-T and LTR-L3 "Long Life" Warranty Policy.....</i>	94

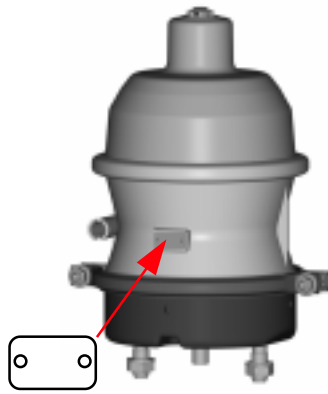
PRODUCT IDENTIFICATION PLATE

All MGM brake actuators made after October - 1987 have an aluminum identification plate attached to the actuator which contains the MGM Brakes part number, date code, and often a customer part number.

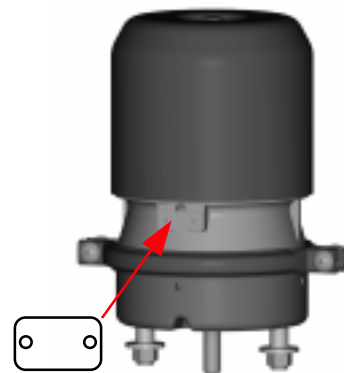
On all TR , LTR and MJ (Magnum Performance Plus) models the I.D. plate is attached to the center section aluminum casting. On all MG, WM models and remote cylinders the I.D. plate is attached to the aluminum head casting. On all C and CW models the I.D. plate is attached to the pressure cap or to the clamp band. See the illustrations below for I.D. plate locations.



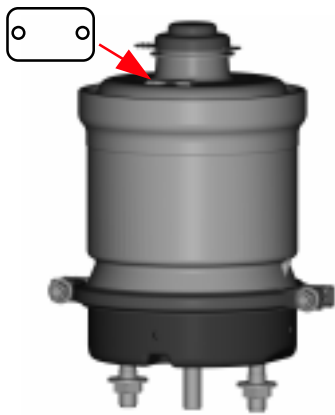
Double Diaphragm
TR-LP3 Model



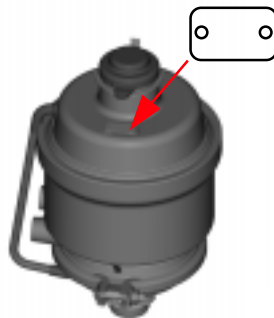
Long Life
Double Diaphragm
LTR-L3 Model



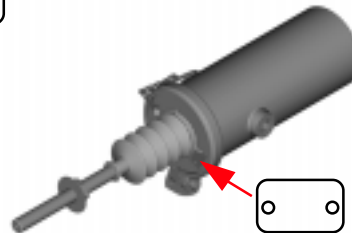
Piston
Magnum Performance Plus Model



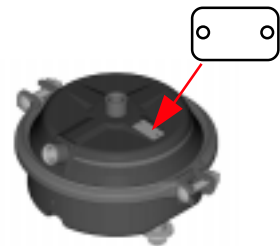
Piston
MG-T Model



Wedge
WM Model



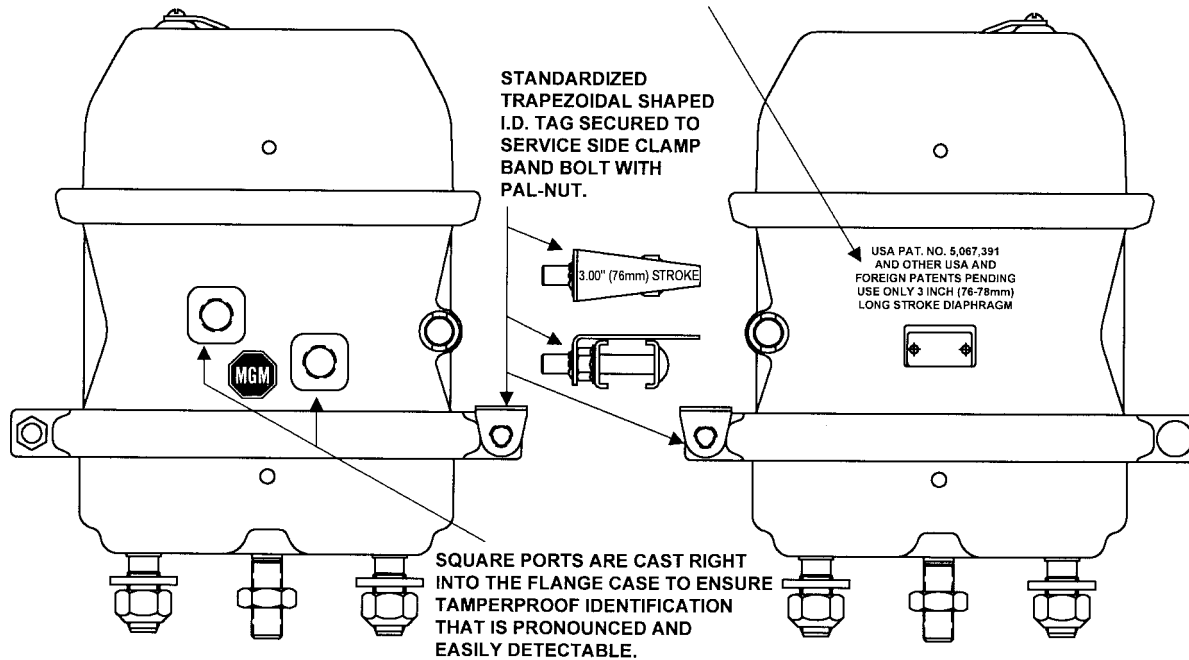
Remote Cylinder



S-Cam Service

“LONG STROKE” SPRING BRAKE IDENTIFICATION

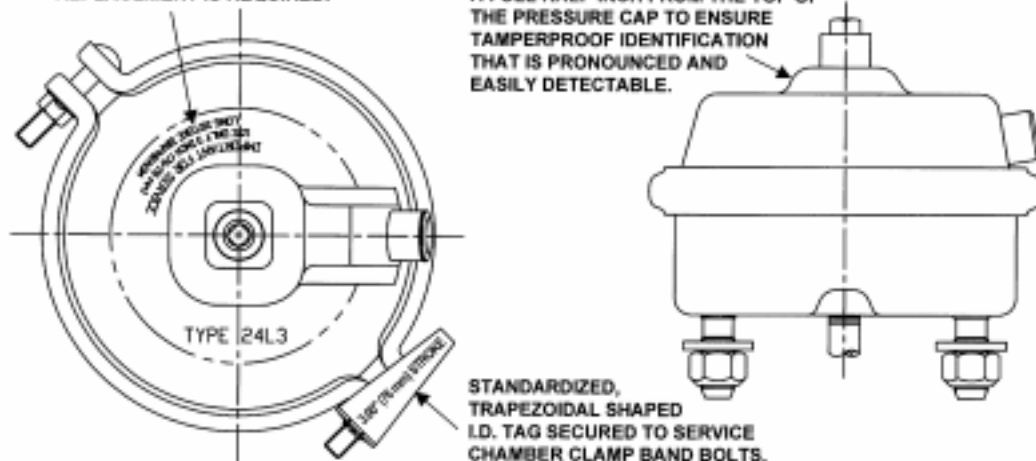
SERVICING INSTRUCTIONS ARE EMBOSSED INTO THE FLANGE CASE FOR WHEN DIAPHRAGM REPLACEMENT IS REQUIRED.



“LONG STROKE” SERVICE CHAMBER IDENTIFICATION

SERVICING INSTRUCTIONS ARE STAMPED INTO THE PRESSURE CAP FOR WHEN DIAPHRAGM REPLACEMENT IS REQUIRED.

SQUARE EMBOSSEMENT IS RAISED A FULL HALF-INCH FROM THE TOP OF THE PRESSURE CAP TO ENSURE TAMPERPROOF IDENTIFICATION THAT IS PRONOUNCED AND EASILY DETECTABLE.



DOUBLE DIAPHRAGM TO PISTON CONVERSION CHART

1.0 PURPOSE: The purpose of this technical bulletin is to recommend a MJ-ET piston type air brake actuator replacement for various MG-T's and double diaphragm models.

CAUTION: The recommended MJ-ET replacement may have more parking force than the model it is replacing. An anti compounding valve may be required to prevent excess braking torque. Note: The J-Series (Magnum Performance Plus) models listed on the chart below are 3.00 inch stroke actuators. Ensure that installations have proper clearance for 3.00 inches of stroke.

2.0 CROSS REFERENCE CHART: The following chart provides an easy cross reference for selecting a MJ-ET piston type air brake actuator to replace a MG-T or double diaphragm air brake actuator.

3.0 MODEL NUMBER DEFINITIONS: Model numbers for double diaphragm air brake actuators describe the diaphragm size. A model TR2430 describes a type 24 service chamber diaphragm and a type 30 spring chamber diaphragm. Model numbers for piston type air brake actuators describe the service chamber diaphragm size and a level of parking chamber force. A model M2420LG-T describes a type 24 service chamber diaphragm and a parking chamber having 1410 lbs. ± 8% force output at 1.25 inch stroke (see chart below).

(A) Hold-Off Pressure (psig) is measured as decreasing air pressure at .200 inch of full "OFF" stroke position (zero stroke).

(B) Parking Force (lbs. ± 8%) is measured at 1.25 inches of stroke.

Model Size	Stroke (Inches)	Parking Force (B)	→ Hold-Off Pressure (A)	MJS2022	MJS2422	MJS3022	MJS2024	MJS2424	MJS3024	MJS2028	MJS2428	MJS3028	MJS3628	MJS2030	MJS2430	MJS3030	MJS3630
				1725 lbs.	1922 lbs.	2320 lbs.		2600lbs.									
				68 psig	71 psig	73 psig		75 psig									
TR2024	2.25	1210 lbs.	78 psig	■			■										
TR2424	2.50	1210 lbs.	78 psig		■			■									
TR3024	3.00	1210 lbs.	78 psig			■			■								
TR2430	2.50	1420 lbs.	70 psig		■			■									
TR2430HD	2.50	1580 lbs.	68 psig		■			■									
TR3030	2.50	1420 lbs.	70 psig			■			■								
TR3030HD	2.50	1580 lbs.	68 psig			■			■								
TR2430	3.00	1435 lbs.	63 psig		■			■									
TR2430HD	3.00	1580 lbs.	68 psig		■			■									
TR3030	3.00	1435 lbs.	63 psig			■			■								
TR3030HD	3.00	1580 lbs.	68 psig			■			■								
TR3036	2.50	1960 lbs.	66 psig					■				■				■	
TR3636	3.00	1960 lbs.	68 psig										■				■
LTR2430	2.50	1420 lbs.	70 psig		■			■									
LTR3030	2.50	1420 lbs.	70 psig			■			■								
LTR2430	3.00	1525 lbs.	71 psig		■			■									
LTR3030	3.00	1525 lbs.	71 psig			■			■								
M2020LG-T	2.50	1410 lbs.	50 psig	■			■										
M2420LG-T	2.50	1410 lbs.	50 psig		■			■									
M3024GT	2.50	1625 lbs.	60 psig			■			■								
M3027GT	2.50	2040 lbs.	67 psig									■					■
M3031GT	2.50	2325 lbs.	69 psig									■					■
M3636BT	3.00	1950 lbs.	69 psig										■				■

Note: Application box shaded gray are a high parking force option.

PROCEDURE: TO CUT THE SERVICE PUSH-ROD TO PROPER LENGTH



Warning: Do not attempt to service or disassemble the spring chamber or any spring brake actuator. A large spring in the spring chamber having extreme force could cause serious bodily injury if it were suddenly released due to inadvertent removal of this clamp or tamper-resistant head.

IMPORTANT: Place blocks under wheels to prevent vehicle runaway before removing air brake actuators.

- (a) REMOVE WORN OR NON-FUNCTIONAL UNIT FROM VEHICLE. Determine manufacturer and model of unit to be replaced. Refer to that manufacturer's service manual for caging and removal instructions.
- (b) Make sure the spring chamber of the removed actuator is fully released (power spring caged) and the service brake push-rod is fully retracted to zero stroke position (i.e. brake fully released).
- (c) Measure and record the "X" and "Y" dimensions (Figure 1).

"X" Dimension - The dimension from bottom of actuator to end of push-rod.

"Y" Dimension - The dimension from bottom of actuator to centerline of yoke pin.

Figure 1

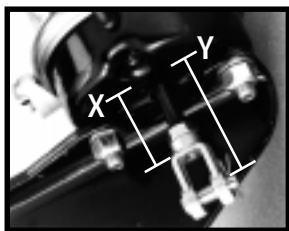


Figure 2



NOTE: If for some reason the spring chamber power spring cannot be caged and fully released, then the "X" and "Y" dimensions will need to be measured from another actuator of the exact type from the same vehicle provided it is retracted to its zero stroke position (brake fully released) and was operating correctly.

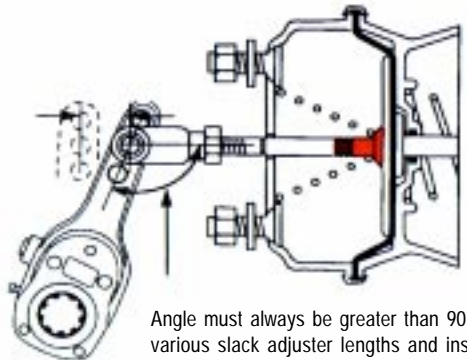
- (d) Before marking push-rod to be cut on a new unit, be sure the spring chamber and push-rod are fully retracted to the zero position. (This may be done with the manual caging bolt or by applying 90-100 psi air pressure to the spring chamber air inlet port.)
- (e) Take measured "X" dimension from the removed unit and mark push-rod of new unit from the bottom of the actuator.
- (f) Thread yoke jam nut past mark on push-rod. Align bottom edge of nut with mark.
- (g) Use a sharp hack-saw and cut push-rod on the mark (Figure 2).
- (h) After cutting rod, thread jam nut off to clean up the thread.
- (i) Thread yoke onto the push-rod. Yoke from removed unit may be reused provided yoke pin hole is not worn. Adjust yoke to the same "Y" dimension as measured from the removed unit.
- (j) Hold yoke to prevent it from turning and tighten jam nut against yoke 25-35 Lbs.-Ft. torque.

TO INSTALL NEW UNIT ON VEHICLE: Refer to MGM Brakes Service Manual for the model that is being installed.

PROPER BRAKE ADJUSTMENT

NOTE: The last half of an air chamber stroke is less efficient than the first half. Therefore, the following adjustments are recommended for maximum efficiency when using manually adjusted slack adjusters.

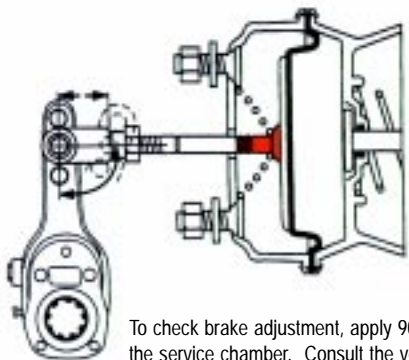
BRAKES "OFF" - NOT APPLIED



Angle must always be greater than 90° due to various slack adjuster lengths and installation setups. (Refer to axle or OEM manufacturer's manual for recommended angle).

Stroke should be as short as possible with no lining to drum contact.

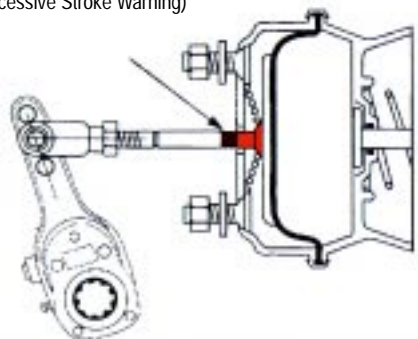
PROPERLY - ADJUSTED BRAKES "ON" - APPLIED



To check brake adjustment, apply 90 to 100 psi air pressure to the service chamber. Consult the vehicle manufacturer for the correct angle between the slack adjuster arm and push-rod and/or the push-rod length. This is necessary since different dimensions are required for automatic or manual slacks, various slack lengths and different slack adjuster manufacturers.

IMPROPERLY ADJUSTED BRAKES "ON" - APPLIED
(Maximum recommended readjustment stroke has been exceeded)

MGM Brake "Stroke Alert"
(Excessive Stroke Warning)



See chart for recommended readjustment stroke

Type	Effective Area (SQ. IN.)	Approx. Diaphragm O.D.		Rated Stroke of Chamber		Maximum Stroke with Brakes Adjusted	"B" MV/MA Recommended Readjustment Stroke	
		Inches	MM	Inches	MM		Inches	MM
9	9	5.00	125	1.75	45	SHOULD BE AS SHORT AS POSSIBLE WITHOUT LINING TO DRUM CONTACT	1.35	35
12	12	5.50	140	1.75	45		1.35	35
16	16	6.00	150	2.25	57		1.75	45
16L	16	6.00	150	2.50	64		2.00	51
20	20	6.50	165	2.25	57		1.75	45
20L	20	6.50	165	2.50	64		2.00	51
24	24	7.00	175	2.25	57		1.75	45
24L	24	7.00	175	2.50	64		2.00	51
24P3	24	7.00	175	3.00	76		2.50	64
30	30	8.00	200	2.50	64		2.00	51
30LP3	30	8.00	200	3.00	76		2.50	64
36	36	9.00	230	3.00	76		2.25	57

SOURCE: MVMA (Motor Vehicle Manufacturers Association)

Note: The push-rod must remain perpendicular to the bottom surface of the non-pressure chamber (NPC) within ±3° zero to full stroke.

• IMPORTANT •

RECOMMENDED SPRING BRAKE ACTUATOR DISARMING PROCEDURE



Warning: This procedure must be strictly adhered to. Never attempt to remove the spring chamber clamp ring from a double diaphragm actuator or the spring chamber retaining ring from a piston actuator. Both actuators employ a high energy power spring that could cause serious bodily injury if the spring were suddenly released due to improper disassembly.

All retired spring brake actuators must be safely disarmed before they are disposed of to prevent serious personal injury from accidental sudden release of the high energy spring (as much as 2700 Lbs. of force) in the parking chamber. To disarm the unit, remove it from the vehicle following the instructions in the MGM Brakes Service Manual. Be sure to release the brake per Section (2) of the MGM Brakes Service Manual. Never attempt to remove the head which contains the power spring. Observe all safety precautions. Place the unit in a steel *container and use an acetylene torch to cut a hole through the head housing the power spring. Cut completely through at least two spring coils. The steel container must have openings to expose the head where it is to be cut with the acetylene torch and it must be strong enough to prevent parts from hurtling out should the unit suddenly separate before it is safely disarmed. It is the users responsibility to ensure the steel container is safe.

*Information concerning a suitable container is available through your MGM Brakes Representative.

FASTENER TORQUE VALVE CHART



BOLT TORQUES			
Component	Bolt Size	Foot/Pounds of Torque	Newtons/Meters of Torque
Release Bolts			
Caging			
TR Models	1/2 - 13 UNC	40-50	54-68
TR Models	5/8 - 11 UNC	40-50	54-68
L Models	5/8 - 11 UNC	40-50	54-68
J Models	5/8 18 UNF / 1/2 - 13 UNC	74 Max.	100 Max.
M Models	3/8 - 24 UNF	15-32	20-44
M Models	1/2 - 20 UNF	15-32	20-44
Storage			
TR Models	1/2 - 13 UNC	10	14
TR Mmodels	5/8 - 11 UNC	10	14
L Models		50-60	68-81
J Models		50-60	68-81
M Models (MG-T)		34-45	46-61
Clamp Band Nuts & Bolts	5/16 - 24 UNF	18-23	24-31
	3/8 - 16 UNC	30-35	41-47
Yoke Nuts	1/2 - 20 UNF	20 - 30	27 - 41
	5/8 - UNF	25 - 50	34 - 68
	3/4 - 16 UNF	75 - 100	102 - 136
	M16 X 1.5 - 6G	25 - 50	34 - 68
Mounting Nuts & Bolts	7/16 - 14 UNC	35-40	47-94
	5/8 - 11 UNC	133-155	180-210
	5/8 18 UNF	133-155	180-210
	M16 X 1.5 - 6G	133-155	180-210
Air Inlet Fittings	3/8 NPTF	25 - 30	34 - 40
	3/8 - 24 UNF	17 - 19	23 - 26
	M16 X 1.5 - 6H	13 - 15	18 - 20



Warning: Do not use impact wrench.

TECHNICAL

PERFORMANCE CHART - SPRING BRAKE CHAMBERS

MGM

Model	Service Chamber Size	Spring Chamber Size	Rated Service Stroke (in)	Stroke & Air Volume		Hold-Off Pressure Required (psi) (b)	Spring Brake Force-Output (Pounds-Force) at Inches of Stroke (c) (d)								In Pounds of Torque Applied at 1.25" Stroke by S-Cam Camshaft w/Slack Adjuster Length of (in) (**)					
				Max. Service Stroke (in)	Vol. Displ. @100 psi Max. Service Stroke (in) (a)		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	5.00	5.50	6.00	6.50	
							Spring	Service												
TR2024	20 S-Cam	24	2.25	2.33	76.2	53.4	78.0	1280	1210	1150	1080	1000	840	-	-	-	6050	6655	7260	7865
TR2030LP3	"	30	3.00	3.08	115.4	83.2	63.0	1519	1435	1352	1270	1187	1098	1009	919	837	7175	7893	8610	9328
TR2424L	24 S-Cam	24	2.50	2.53	76.2	69.8	78.0	1280	1210	1150	1080	1000	840	620	-	-	6050	6655	7260	7865
TR2430L	"	30	2.50	2.53	104.8	69.8	70.0	1510	1420	1350	1280	1190	1060	895	-	-	7100	7810	8520	9230
TR2430LHD	24 S-Cam		2.50	2.53	103.2	69.8	68	1681	1580	1488	1396	1303	1211	1119	-	-	7900	8690	9480	10270
TR2430LP3	"	30	3.00	3.08	115.4	83.2	63	1519	1435	1352	1270	1187	1098	1009	919	837	7175	7893	8610	9328
TR2430LP3HD	"		3.00	3.08	115.4	83.2	68	1681	1580	1488	1396	1303	1211	1119	1026	934	7900	8690	9480	10270
TR3024	30 S-Cam	24	2.50	2.58	76.2	88.3	78.0	1280	1210	1150	1080	1000	840	620	-	-	6050	6655	7260	7865
TR3030	"	30	2.50	2.58	104.8	88.3	70.0	1510	1420	1350	1280	1190	1060	895	-	-	7100	7810	8520	9230
TR3030HD	"		2.50	2.58	103.2	88.3	68	1681	1580	1488	1396	1303	1211	1119	-	-	7900	8690	9480	10270
TR3030LP3	"	30	3.00	3.08	114.7	108.1	63	1519	1435	1352	1270	1187	1098	1009	919	837	7175	7893	8610	9328
TR3030LP3HD	"		3.00	3.08	114.7	108.1	68	1681	1580	1488	1396	1303	1211	1119	1026	934	7900	8690	9480	10270
TR3036	"	36	2.50	2.58	121.9	88.3	66.0	2050	1960	1867	1774	1679	1584	1487	-	-	9800	10780	11760	12740
TR3636	36 S-Cam	36	3.00	3.02	138.7	122.4	68.0	2050	1960	1867	1774	1679	1584	1487	1390	1280	9800	10780	11760	12740
LTR2430T	24 S-Cam	30	2.50	2.54	104.8	70	70	1560	1420	1350	1280	1210	1145	1070	-	-	7100	7810	8520	9230
LTR2430L3	"	30	3.00	3.10	108	83.3	71	1615	1525	1435	1350	1260	1160	1050	935	-	7625	8388	9150	9913
LTR3030T	30 S-Cam	30	2.50	2.54	104.8	87	70	1560	1420	1350	1280	1210	1145	1070	-	-	7100	7810	8520	9230
LTR3030L3	"	30	3.00	3.10	108	107.5	71	1615	1525	1435	1350	1260	1160	1050	935	-	7625	8388	9150	9913

- Note:** (*) Indicates "piston-type" design in the spring chamber.
 (**) Brake chambers with 2.00" or less rated stroke calculated at 1.00" stroke.
 (a) Spring chamber measured at full "OFF" (zero) stroke and service chamber measured at maximum "ON" stroke. Reference SAE J1469.
 (b) Measured as decreasing air pressure required to activate spring chamber to within 0.20 inch (5 mm) of full "OFF" (deactivated) stroke.
 (c) Measured at end of service chamber push-rod using power springs which have been held compressed to assembly shut height for 24 hours to remove initial false load. Forces shown are nominal performance (+/- 10%) for all spring chamber model sizes.
 (d) Refer to the following pages for performance characteristics of all MGM service brake chamber sizes (pgs. 86-90)

Performance levels shown hold true for all design versions of the same model size. For example...read the same performance for Models TR3030T and TR 3030TS as shown above for Model TR 3030.

Product information and specifications subject to change without notice.

TECHNICAL

PERFORMANCE CHART - SPRING BRAKE CHAMBERS



Model	Service Chamber Size	Spring Chamber Size	Rated Service Stroke (in)	Max. Stroke & Air Volume			Hold-Off Pressure Required (psi) (b)	Spring Brake Force-Output (Pounds-Force) at Inches of Stroke (c) (d)										In Pounds of Torque Applied at 1.25" Stroke by S-Cam Camshaft w/Slack Adjuster Length of (in) (**)			
				Max. Service Stroke (in)	Vol. Displ. @100 psi Max. Service Stroke (in)			1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	5.00	5.50	6.00	6.50	
					Spring	Service															
M1620LG-T*	16 S-Cam	-	2.50	2.76	107.4	59.0	50.0	1510	1410	1310	1210	1110	1010	910	-	-	7050	7755	8460	9165	
M1624LG-T*	"	-	2.50	2.76	107.4	59.0	56.8	1725	1625	1525	1425	1325	1225	1125	-	-	8125	8938	9750	10563	
M2020LG-T*	20 S-Cam	-	2.50	2.55	107.2	58.2	50.3	1510	1410	1310	1210	1110	1010	910	-	-	7050	7755	8460	9165	
M2024LG-T*	"	-	2.50	2.55	107.6	58.2	59.6	1725	1625	1525	1425	1325	1225	1125	-	-	8125	8938	9750	10563	
M2030LG-T*	"	-	2.50	2.55	107.3	58.2	68.2	2420	2360	2290	2225	2165	2080	2010	-	-	11800	12980	14160	15340	
M2420LG-T*	24 S-Cam	-	2.50	2.58	106.2	69.3	50.5	1510	1410	1310	1210	1110	1010	910	-	-	7050	7755	8460	9165	
M2424LG-T*	"	24	2.50	2.58	103.7	69.3	59.3	1725	1625	1525	1425	1325	1225	1125	-	-	8125	8938	9750	10563	
M2430LG-T*	"	-	2.50	2.58	106.3	69.3	68.2	2420	2360	2290	2225	2165	2080	2010	-	-	11800	12980	14160	15340	
M3024G-T*	30 S-Cam	-	2.50	2.58	115.5	92.2	55.9	1725	1625	1525	1425	1325	1225	1125	-	-	8125	8938	9750	10563	
M3027G-T*	"	-	2.50	2.58	115.2	92.2	67.2	2140	2040	1960	1860	1790	1690	1620	-	-	10200	11220	12240	13260	
M3031G-T*	"	-	2.50	2.58	115.6	92.2	70.3	2420	2360	2290	2225	2165	2080	2010	-	-	11800	12980	14160	15340	
MJS1220AT*	12 S-Cam	20	1.75	1.84	44.4	26.6	82	1560	1470	1379	1291	-	-	-	-	-	7800	8580	9360	10140	
MJS2024ET*	20 S-Cam	24	3.00	3.02	98.5	68.3	71	2000	1922	1842	1771	1696	1607	1528	1449	1370	9610	10571	11532	12493	
MJS2424ET*	24 S-Cam	24	3.00	3.02	98.5	82	71	2000	1922	1842	1771	1696	1607	1528	1449	1370	9610	10571	11532	12493	
MJS3022ET*	30 S-Cam	22	3.00	3.02	98.5	106.4	68	1780	1725	1624	1546	1468	1389	1310	1230	1151	8625	9488	10350	11213	
MJS3024ET*	"	24	3.00	3.02	98.5	106.4	71	2000	1922	1842	1771	1696	1607	1528	1449	1370	9610	10571	11532	12493	
MJS3028ET*	"	28	3.00	3.02	128.4	106.4	73	2423	2320	2207	2070	1982	1870	1756	1670	1521	11600	12760	13920	15080	
MJS3030ET*	"	30	3.00	3.02	128.4	106.4	75	2696	2600	2512	2420	2328	2236	2144	2052	1962	13000	14300	15600	16900	
MJS3628ET*	36 S-Cam	28	3.00	3.02	128.4	129.6	73	2423	2320	2207	2070	1982	1870	1756	1670	1521	11600	12760	13920	15080	
MJS3630ET*	"	30	3.00	3.02	128.4	129.6	75	2696	2600	2512	2420	2328	2236	2144	2052	1962	13000	14300	15600	16900	
WM1624LG-T	Wedge	16	2.00	2.06	104.7	42.5	60.0	1850	1750	1650	1550	1450	-	-	-	-	-	-	-	-	
MJW1218AT	"	20	1.75	1.84	44.4	26.6	78	1440	1350	1259	1171	-	-	-	-	-	7200	7920	8640	9360	

Model	-	-	Stroke	-	-	-	Hold-Off Pressure	Spring Brake Force-Output (Pounds-Force) at Inches of Stroke												
								1.00	1.50	2.00	2.50	3.00	3.50	4.00						
R4A	-	-	4.50	-	-	-	80	800	745	690	640	585	535	480	-	-	-	-	-	-
R5A	-	-	4.40	-	-	-	56	1150	1065	980	895	810	725	640	-	-	-	-	-	-
R5AHD	-	-	4.37	-	-	-	80	1720	1580	1440	1300	1160	1020	875	-	-	-	-	-	-

TECHNICAL



PERFORMANCE CHART - SERVICE BRAKE CHAMBERS

TECHNICAL

Model	Type	Rated Stroke & Air Volume		Application Pressure Of (PSI)	Service Brake Force-Output (Pounds-Force) at Inches of Stroke									In Pounds of Torque Applied At Mid-Stroke by S-Cam Camshaft w/Slack Adjuster Length of (in)			
		Rated Service Stroke (in)	Vol. Displ. @100 psi Rated Service Stroke (cubic in)		1.00	1.25	1.50	1.75	2.00	2.25	2.50	275	3.00	5.00	5.50	6.00	6.50
TR2024	S-Cam	2.25	53.40	20	325	325	320	310	250	160	-	-	-	1625	1788	1950	2113
				40	710	710	690	630	540	390	-	-	-	3550	3905	4260	4615
				60	1080	1085	1080	1040	900	620	-	-	-	5400	5940	6480	7020
				80	1410	1480	1470	1375	1200	840	-	-	-	7050	7755	8460	9165
				100	1800	1855	1845	1790	1500	1125	-	-	-	9000	9900	10800	11700
TR24xxL	S-Cam	2.50	69.80	20	362	372	379	377	365	336	278	-	-	1860	2046	2232	2418
				40	808	824	840	842	820	773	676	-	-	4120	4532	4944	5356
				60	1245	1270	1296	1302	1279	1223	1106	-	-	6350	6985	7620	8255
				80	1682	1717	1757	1764	1739	1674	1534	-	-	8585	9444	10302	11161
				100	2115	2158	2211	2224	2201	2133	1980	-	-	10790	11869	12948	14027
TR24xxLP3	S-Cam	3.00	83.20	20	355	358	368	376	378	369	351	326	246	1840	2024	2208	2392
				40	783	790	814	835	839	827	795	750	616	4070	4477	4884	5291
				60	1204	1218	1255	1288	1296	1282	1247	1184	1008	6275	6903	7530	8158
				80	1623	1642	1694	1738	1752	1734	1696	1620	1399	8470	9317	10164	11011
				100	2034	2061	2129	2185	2204	2188	2147	2067	1800	10645	11710	12774	13839
TR30xx	S-Cam	2.50	87.00	20	526	528	528	515	489	427	290	-	-	2640	2904	3168	3432
				40	1120	1130	1135	1115	1064	950	718	-	-	5650	6215	6780	7345
				60	1717	1737	1748	1724	1658	1510	1208	-	-	8685	9554	10422	11291
				80	2307	2337	2358	2331	2254	2083	1731	-	-	11685	12854	14022	15191
				100	2894	2937	2967	2940	2856	2667	2277	-	-	14685	16154	17622	19091
TR30xxLP3	S-Cam	3.00	107.50	20	493	508	524	524	512	498	479	446	363	2620	2882	3144	3406
				40	1062	1091	1109	1113	1103	1090	1063	1009	892	5545	6100	6654	7209
				60	1628	1658	1695	1698	1694	1683	1649	1576	1442	8475	9323	10170	11018
				80	2183	2229	2277	2283	2283	2274	2241	2149	1997	11385	12524	13662	14801
				100	2735	2788	2855	2867	2870	2868	2835	2745	2581	14275	15703	17130	18558
TR36xx	S-Cam	3.00	122.12	20	624	624	626	619	607	584	539	446	284	3130	3443	3756	4069
				40	1338	1334	1328	1324	1311	1298	1218	1087	846	6640	7304	7968	8632
				60	2042	2030	2029	2028	2014	1976	1898	1731	1436	10145	11160	12174	13189
				80	2733	2720	2727	2733	2718	2681	2591	2405	2071	13635	14999	16362	17726
				100	3412	3402	3423	3444	3439	3411	3336	3169	2858	17115	18827	20538	22250
LTR24xxT	S-Cam	2.50	69.80	20	362	372	379	377	365	336	278	-	-	1860	2046	2232	2418
				40	808	824	840	842	820	773	676	-	-	4120	4532	4944	5356
				60	1245	1270	1296	1302	1279	1223	1106	-	-	6350	6985	7620	8255
				80	1682	1717	1757	1764	1739	1674	1534	-	-	8585	9444	10302	11161
				100	2115	2158	2211	2224	2201	2133	1980	-	-	10790	11869	12948	14027
LTR24xxL3	S-Cam	3.00	83.20	20	355	358	368	376	378	369	351	326	246	1840	2024	2208	2392
				40	783	790	814	835	839	827	795	750	616	4070	4477	4884	5291
				60	1204	1218	1255	1288	1296	1282	1247	1184	1008	6275	6903	7530	8158
				80	1623	1642	1694	1738	1752	1734	1696	1620	1399	8470	9317	10164	11011
				100	2034	2061	2129	2185	2204	2188	2147	2067	1800	10645	11710	12774	13839

PERFORMANCE CHART - SERVICE BRAKE CHAMBERS



Model	Type	Rated Stroke & Air Volume		Application Pressure Of (PSI)	Service Brake Force-Output (Pounds-Force) at Inches of Stroke										In Pounds of Torque Applied At Mid-Stroke by S-Cam Camshaft			
		Rated Service Stroke	Vol. Displ. @100 psi Rated Service Stroke (cubic in.)		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	5.00	5.50	6.00	6.50	
LTR30xxT	S-Cam	2.50	87.00	20	526	528	528	515	489	427	290	-	-	2640	2904	3168	3432	
				40	1120	1130	1135	1115	1064	950	718	-	-	5650	6215	6780	7345	
				60	1717	1737	1748	1724	1658	1510	1208	-	-	8685	9554	10422	11291	
				80	2307	2337	2358	2331	2254	2083	1731	-	-	11685	12854	14022	15191	
				100	2894	2937	2967	2940	2856	2667	2277	-	-	14685	16154	17622	19091	
LTR30xxL3	S-Cam	3.00	107.50	20	493	508	524	524	512	498	479	446	363	2620	2882	3144	3406	
				40	1062	1091	1109	1113	1103	1090	1063	1009	892	5545	6100	6654	7209	
				60	1628	1658	1695	1698	1694	1683	1649	1576	1442	8475	9323	10170	11018	
				80	2183	2229	2277	2283	2283	2274	2241	2149	1997	11385	12524	13662	14801	
				100	2735	2788	2855	2867	2870	2868	2835	2745	2581	14275	15703	17130	18558	
M1216G-T	S-Cam	1.75	28.50	20	190	190	150	90	-	-	-	-	-	950	1045	1140	1235	
				40	410	400	350	200	-	-	-	-	-	2000	2200	2400	2600	
				60	650	620	545	360	-	-	-	-	-	3100	3410	3720	4030	
				80	900	875	760	490	-	-	-	-	-	4375	4813	5250	5688	
				100	1120	1080	930	650	-	-	-	-	-	5400	5940	6480	7020	
M16xxLG-T	S-Cam	2.50	58.96	20	260	260	260	250	250	240	200	-	-	1300	1430	1560	1690	
				40	605	605	605	600	595	550	475	-	-	3025	3328	3630	3933	
				60	930	930	930	930	910	860	750	-	-	4650	5115	5580	6045	
				80	1260	1260	1270	1280	1260	1200	1090	-	-	6300	6930	7560	8190	
				100	1590	1595	1610	1640	1600	1550	1400	-	-	7975	8773	9570	10368	
M20xxLG-T	S-Cam	2.50	58.19	20	295	298	300	300	300	280	245	-	-	1490	1639	1788	1937	
				40	655	665	680	690	680	645	570	-	-	3325	3658	3990	4323	
				60	1010	1030	1060	1075	1060	1015	900	-	-	5150	5665	6180	6695	
				80	1380	1400	1450	1465	1450	1390	1250	-	-	7000	7700	8400	9100	
				100	1750	1780	1840	1850	1840	1760	1610	-	-	8900	9790	10680	11570	
M24xxLG-T	S-Cam	2.50	69.31	20	362	372	379	377	365	336	278	-	-	1860	2046	2232	2418	
				40	808	824	840	842	820	773	676	-	-	4120	4532	4944	5356	
				60	1245	1270	1296	1302	1279	1223	1106	-	-	6350	6985	7620	8255	
				80	1682	1717	1757	1764	1739	1674	1534	-	-	8585	9444	10302	11161	
				100	2115	2158	2211	2224	2201	2133	1980	-	-	10790	11869	12948	14027	
M30xxG-T	S-Cam	2.50	92.20	20	526	528	528	515	489	427	290	-	-	2640	2904	3168	3432	
				40	1120	1130	1135	1115	1064	950	718	-	-	5650	6215	6780	7345	
				60	1717	1737	1748	1724	1658	1510	1208	-	-	8685	9554	10422	11291	
				80	2307	2337	2358	2331	2254	2083	1731	-	-	11685	12854	14022	15191	
				100	2894	2937	2967	2940	2856	2667	2277	-	-	14685	16154	17622	19091	
MJS12xxAT	S-Cam	1.75	28.00	20	190	190	150	90	-	-	-	-	-	950	1045	1140	1235	
				40	410	400	350	200	-	-	-	-	-	2000	2200	2400	2600	
				60	650	620	545	360	-	-	-	-	-	3100	3410	3720	4030	
				80	900	875	760	490	-	-	-	-	-	4375	4813	5250	5688	
				100	1120	1080	930	650	-	-	-	-	-	5400	5940	6480	7020	

TECHNICAL



PERFORMANCE CHART - SERVICE BRAKE CHAMBERS

TECHNICAL

Model	Type	Rated Stroke & Air Volume		Application Pressure Of (PSI)	Service Brake Force-Output (Pounds-Force) at Inches of Stroke										In Pounds of Torque Applied at Mid-Stroke by S-Cam Camshaft			
		Rated Service Stroke	Vol. Displ. @100 psi Rated Service Stroke (cubic in.)		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	5.00	5.50	6.00	6.50	
MJS20xxET	S-Cam	3.00	68.29	20	293	298	308	312	312	305	295	277	230	1540	1694	1848	2002	
				40	654	662	679	695	699	693	679	647	568	3395	3735	4074	4414	
				60	1006	1018	1048	1074	1084	1081	1067	1026	925	5240	5764	6288	6812	
				80	1353	1371	1415	1451	1468	1470	1457	1409	1294	7075	7783	8490	9198	
				100	1693	1718	1777	1826	1850	1858	1848	1796	1675	8885	9774	10662	11551	
MJS24xxET	S-Cam	3.00	83.20	20	355	358	368	376	378	369	351	326	246	1840	2024	2208	2392	
				40	783	790	814	835	839	827	795	750	616	4070	4477	4884	5291	
				60	1204	1218	1255	1288	1296	1282	1247	1184	1008	6275	6903	7530	8158	
				80	1623	1642	1694	1738	1752	1734	1696	1620	1399	8470	9317	10164	11011	
				100	2034	2061	2129	2185	2204	2188	2147	2067	1800	10645	11710	12774	13839	
MJS30xxET	S-Cam	3.00	107.50	20	493	508	524	524	512	498	479	446	363	2620	2882	3144	3406	
				40	1062	1091	1109	1113	1103	1090	1063	1009	892	5545	6100	6654	7209	
				60	1628	1658	1695	1698	1694	1683	1649	1576	1442	8475	9323	10170	11018	
				80	2183	2229	2277	2283	2283	2274	2241	2149	1997	11385	12524	13662	14801	
				100	2735	2788	2855	2867	2870	2868	2835	2745	2581	14275	15703	17130	18558	
MJS36xxET	S-Cam	3.00	122.77	20	622	623	623	620	612	598	574	534	438	3115	3427	3738	4050	
				40	1313	1310	1319	1322	1313	1295	1259	1188	1027	6595	7255	7914	8574	
				60	1989	1989	2008	2017	2011	1992	1950	1860	1659	10040	11044	12048	13052	
				80	2658	2667	2698	2714	2712	2694	2647	2543	2318	13490	14839	16188	17537	
				100	3324	3342	3385	3410	3414	3398	3348	3235	2994	16925	18618	20310	22003	
C12	S-Cam	1.75	26.00	20	190	190	150	90	-	-	-	-	-	950	1045	1140	1235	
				40	410	400	350	200	-	-	-	-	-	2000	2200	2400	2600	
				60	650	620	545	360	-	-	-	-	-	3100	3410	3720	4030	
				80	900	875	760	490	-	-	-	-	-	4375	4813	5250	5688	
				100	1120	1080	930	650	-	-	-	-	-	5400	5940	6480	7020	
C16	S-Cam	2.25	45.10	20	250	250	250	250	215	135	-	-	-	1250	1375	1500	1625	
				40	580	600	600	580	490	335	-	-	-	3000	3300	3600	3900	
				60	900	915	920	890	780	510	-	-	-	4575	5033	5490	5948	
				80	1220	1250	1250	1200	1050	755	-	-	-	6250	6875	7500	8125	
				100	1525	1585	1585	1510	1360	1035	-	-	-	7925	8718	9510	10303	
C20	S-Cam	2.25	50.80	20	325	325	320	310	250	160	-	-	-	1625	1788	1950	2113	
				40	710	710	690	630	540	390	-	-	-	3550	3905	4260	4615	
				60	1080	1085	1080	1040	900	620	-	-	-	5400	5940	6480	7020	
				80	1410	1480	1470	1375	1200	840	-	-	-	7050	7755	8460	9165	
				100	1800	1855	1845	1790	1500	1125	-	-	-	9000	9900	10800	11700	
C30	S-Cam	2.50	90.10	20	526	528	528	515	489	427	290	-	-	2640	2904	3168	3432	
				40	1120	1130	1135	1115	1064	950	718	-	-	5650	6215	6780	7345	
				60	1717	1737	1748	1724	1658	1510	1208	-	-	8685	9554	10422	11291	
				80	2307	2337	2358	2331	2254	2083	1731	-	-	11685	12854	14022	15191	
				100	2894	2937	2967	2940	2856	2667	2277	-	-	14685	16154	17622	19091	

PERFORMANCE CHART - SERVICE BRAKE CHAMBERS



Model	Type	Rated Stroke & Air Volume		Application Pressure Of (PSI)	Service Brake Force-Output (Pounds-Force) at Inches of Stroke										In Pounds of Torque Applied At Mid-Stroke by S-Cam Camshaft			
		Rated Service Stroke	Vol. Displ. @100 psi Rated Service Stroke (cubic in.)		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	5.00	5.50	6.00	6.50	
C36	S-Cam	3.00	124.29	20	624	624	626	619	607	584	539	446	284	3130	3443	3756	4069	
				40	1338	1334	1328	1324	1311	1298	1218	1087	846	6640	7304	7968	8632	
				60	2042	2030	2029	2028	2014	1976	1898	1731	1436	10145	11160	12174	13189	
				80	2733	2720	2727	2733	2718	2681	2591	2405	2071	13635	14999	16362	17726	
				100	3412	3402	3423	3444	3439	3411	3336	3169	2858	17115	18227	20538	22250	
C16L	S-Cam	2.50	53.71	20	260	260	260	250	250	240	-	-	-	1300	1430	1560	1690	
				40	605	605	605	600	595	550	475	-	-	3025	3328	3630	3933	
				60	930	930	930	930	910	860	750	-	-	4650	5115	5580	6045	
				80	1260	1260	1270	1280	1260	1200	1090	-	-	6300	6930	7560	8190	
				100	1590	1595	1610	1640	1600	1550	1400	-	-	7975	8773	9570	10368	
C16LH	S-Cam	2.50	59.72	20	265	260	250	240	225	200	165	-	-	1300	1430	1560	1690	
				40	598	575	565	550	530	500	435	-	-	2875	3163	3450	3738	
				60	920	900	890	875	850	800	730	-	-	4500	4950	5400	5850	
				80	1240	1220	1210	1200	1170	1110	1020	-	-	6100	6710	7320	7930	
				100	1560	1550	1540	1525	1495	1440	1315	-	-	7750	8525	9300	10075	
C20L	S-Cam	2.50	59.90	20	295	298	300	300	300	280	245	-	-	1490	1639	1788	1937	
				40	655	665	680	690	680	645	570	-	-	3325	3658	3990	4323	
				60	1010	1030	1060	1075	1060	1015	900	-	-	5150	5665	6180	6695	
				80	1380	1400	1450	1465	1450	1390	1250	-	-	7000	7700	8400	9100	
				100	1750	1780	1840	1850	1840	1760	1610	-	-	8900	9790	10680	11570	
CS20L	S-Cam	2.50	58.71	20	295	298	300	300	300	280	245	-	-	1490	1639	1788	1937	
				40	655	665	680	690	680	645	570	-	-	3325	3658	3990	4323	
				60	1010	1030	1060	1075	1060	1015	900	-	-	5150	5665	6180	6695	
				80	1380	1400	1450	1465	1450	1390	1250	-	-	7000	7700	8400	9100	
				100	1750	1780	1840	1850	1840	1760	1610	-	-	8900	9790	10680	11570	
CS20L3	S-Cam	3.00	68.29	20	293	298	308	312	312	305	295	277	230	1540	1694	1848	2002	
				40	654	662	679	695	699	693	679	647	568	3395	3735	4074	4414	
				60	1006	1018	1048	1074	1084	1081	1067	1026	925	5240	5764	6288	6812	
				80	1353	1371	1415	1451	1468	1470	1457	1409	1294	7075	7783	8490	9198	
				100	1693	1718	1777	1826	1850	1858	1848	1796	1675	8885	9774	10662	11551	
C24L	S-Cam	2.50	69.60	20	362	372	379	377	365	336	278	-	-	1860	2046	2232	2418	
				40	808	824	840	842	820	773	676	-	-	4120	4532	4944	5356	
				60	1245	1270	1296	1302	1279	1223	1106	-	-	6350	6985	7620	8255	
				80	1682	1717	1757	1764	1739	1674	1534	-	-	8585	9444	10302	11161	
				100	2115	2158	2211	2224	2201	2133	1980	-	-	10790	11869	12948	1402	
C24L3	S-Cam	3.00	83.20	20	355	358	368	376	378	369	351	326	246	1840	2024	2208	2392	
				40	783	790	814	835	839	827	795	750	616	4070	4477	4884	5291	
				60	1204	1218	1255	1288	1296	1282	1247	1184	1008	6275	6903	7530	8158	
				80	1623	1642	1694	1738	1752	1734	1696	1620	1399	8470	9317	10164	11011	
				100	2034	2061	2129	2185	2204	2188	2147	2067	1800	10645	11710	12774	13839	

TECHNICAL



PERFORMANCE CHART - SERVICE BRAKE CHAMBERS

Model	Type	Rated Stroke & Air Volume		Application Pressure Of (PSI)	Service Brake Force-Output (Pounds-Force) at Inches of Stroke									In Pounds of Torque Applied at Mid-Stroke by S-Cam Camshaft			
		Rated Service Stroke	Vol. Displ. @100 psi Rated Service Stroke (cubic in.)		1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	5.00	5.50	6.00	6.50
C30L3	S-Cam	3.00	111.76	20	493	508	524	524	512	498	479	446	363	2620	2882	3144	3406
				40	1062	1091	1109	1113	1103	1090	1063	1009	892	5545	6100	6654	7209
				60	1628	1658	1695	1698	1694	1683	1649	1576	1442	8475	9323	10170	11018
				80	2183	2229	2277	2283	2283	2274	2241	2149	1997	11385	12524	13662	14801
				100	2735	2788	2855	2867	2870	2868	2835	2745	2581	14275	15703	17130	18558
CW9	Wedge	1.75	21.25	20	175	170	150	55	-	-	-	-	-	-	-	-	-
				40	355	340	300	174	-	-	-	-	-	-	-	-	-
				60	530	510	415	260	-	-	-	-	-	-	-	-	-
				80	720	690	615	375	-	-	-	-	-	-	-	-	-
				100	895	860	775	515	-	-	-	-	-	-	-	-	-
CW12	Wedge	1.75	28.80	20	225	225	180	70	-	-	-	-	-	-	-	-	-
				40	455	455	385	200	-	-	-	-	-	-	-	-	
				60	685	680	570	350	-	-	-	-	-	-	-	-	
				80	915	910	820	560	-	-	-	-	-	-	-	-	
				100	1145	1130	1080	800	-	-	-	-	-	-	-	-	
CW16	Wedge	1.75	38.90	20	312	310	300	145	-	-	-	-	-	-	-	-	-
				40	630	660	610	385	-	-	-	-	-	-	-	-	
				60	960	950	920	630	-	-	-	-	-	-	-	-	
				80	1290	1275	1235	780	-	-	-	-	-	-	-	-	
				100	1605	1595	1590	980	-	-	-	-	-	-	-	-	
WL1216	Wedge	1.75	27.04	20	210	210	200	160	-	-	-	-	-	-	-	-	-
				40	450	420	390	325	-	-	-	-	-	-	-	-	
				60	675	660	610	515	-	-	-	-	-	-	-	-	
				80	900	890	830	700	-	-	-	-	-	-	-	-	
				100	1100	1100	1060	910	-	-	-	-	-	-	-	-	
WM1216	Wedge	1.75	28.80	20	225	225	180	70	-	-	-	-	-	-	-	-	-
				40	455	455	385	200	-	-	-	-	-	-	-	-	
				60	685	680	570	350	-	-	-	-	-	-	-	-	
				80	915	910	820	560	-	-	-	-	-	-	-	-	
				100	1145	1130	1080	800	-	-	-	-	-	-	-	-	
WM1624LG-T	Wedge	2.00	42.50	20	320	330	330	305	120	-	-	-	-	-	-	-	-
				40	630	650	640	620	300	-	-	-	-	-	-	-	
				60	960	980	980	930	550	-	-	-	-	-	-	-	
				80	1280	1290	1290	1250	800	-	-	-	-	-	-	-	
				100	1590	1625	1625	1600	930	-	-	-	-	-	-	-	

TECHNICAL

MGM Brakes • Warranty Policy

MGM Brakes, Charlotte, NC, U.S.A. warrants that all spring brake and service chamber models manufactured by MGM Brakes in the U.S.A., when properly installed and placed under normal service and use, are free from defects in material and workmanship for a varied period of time computed from the date of manufacture stamped on the product. The warranty period is determined by specific model and applies irrespective of mileage. All spring brake models are warranted for a three year period except models "WL" and "WM" which are warranted for two years, and LTR models which are warranted for six years (Form #VII.6a.2).

LIMITATIONS OF WARRANTY

1. This warranty applies exclusively to MGM Brakes' spring brake models sold for use on the North American continent.
2. This warranty does not apply to parts and assemblies which have been subjected to misuse, improper installation, abnormal service, accident, fire, improper repair, tampering or abuse. Without limiting the foregoing, this warranty does not apply to a spring brake which has been used while its end cap or breather cap has been removed or while the external breather tube with connecting fittings has not been kept in place and in good repair when so equipped upon purchase. Deviation from this provision requires written permission from MGM Brakes.

LIMITATION OF REMEDY

1. THE RESPONSIBILITY OF MGM BRAKES UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT (AT MGM BRAKES' OPTION) OF THE DEFECTIVE PART OR ASSEMBLY.
2. IN NO EVENT AND UNDER NO CIRCUMSTANCES SHALL MGM BRAKES BE RESPONSIBLE UNDER THIS LIMITED WARRANTY FOR ANY OTHER CHARGE WHATSOEVER, INCLUDING BUT NOT LIMITED TO CHARGES OR CLAIMS FOR LABOR, LOST BUSINESS, LOST TIME, LOST PROFITS, LOSS OF USE, OR ANY KIND OF CONSEQUENTIAL DAMAGES, HOWEVER DENOMINATED OR DESCRIBED. THE REMEDY UNDER THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT.

DISCLAIMER OF OTHER WARRANTIES

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED. ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

PROCEDURE FOR WARRANTY CLAIMS

1. OEM Dealers - Without superseding OE coverage and direction, contact your MGM Brakes Regional Sales Manager.
Distributors - Contact your MGM Brakes Regional Sales Manager.
Fleets - Contact your distributor/dealer or your MGM Brakes Regional Sales Manager.
For a listing of MGM Brakes Regional Sales Managers, call the MGM Brakes Corporate Sales Department: 1-800-527-1534.
2. In the event that MGM Brakes wants to examine product prior to disposition, MGM Brakes shall specify a destination to which the claimed defective part or assembly should be shipped freight prepaid.
3. Upon receipt, freight prepaid, of the claimed defective part or assembly, MGM Brakes shall examine the part and assembly and, if MGM Brakes concurs that said part or assembly was defective in material or workmanship within the warranty period, will repair or replace same and return said repaired or replaced item freight prepaid.
4. If the part or assembly received by MGM Brakes does not meet the requirements of the Warranty Program set forth above, the part or assembly will either be returned or repaired at the customer's cost and returned freight collect.

Form # VII.6a

MGM BRAKES • WARRANTY POLICY

LTR-L3 and LTR-T “LONG LIFE” SERIES SPRING BRAKES

MGM Brakes, Charlotte, NC, USA warrants all LTR-L3 and LTR-T “Long Life” single/piggyback spring brake models manufactured by MGM Brakes in the U.S.A. to be free from defects in material and workmanship for a period of **Six (6) Years** from date of manufacture stamped on the product.

LIMITATIONS OF WARRANTY

1. This warranty applies exclusively to MGM Brakes LTR-L3 and LTR-T “Long Life” single piggyback spring brake models manufactured after April 1, 1996, when properly installed and placed in normal use upon **on-highway, over-the-road** trucks and trailers, irrespective of mileage, and sold for use on the North American continent.
2. LTR-L3 and LTR-T Complete Spring Brakes installed in **Severe Service Applications** such as dry bulk hauling, refuse collection, ready-mix concrete hauling, transit coach, etc., will be warranted for a period of **Three (3) Years** from date of manufacture stamped on the product, irrespective of mileage.
3. This warranty does not apply to parts and assemblies which have been subjected to misuse, improper installation, abnormal service, accident, fire, improper repair, tampering or abuse. Without limiting the foregoing, this warranty does not apply to a spring brake which has been used while the external breather tube with connecting fittings has not been kept in place and in good repair when so equipped upon purchase. Deviation from this provision requires written permission from MGM Brakes.

LIMITATION OF REMEDY

1. THE RESPONSIBILITY OF MGM BRAKES UNDER THIS WARRANTY IS LIMITED TO THE REPAIR OR REPLACEMENT (AT MGM BRAKES' OPTION) OF THE DEFECTIVE PART OR ASSEMBLY.
2. IN NO EVENT AND UNDER NO CIRCUMSTANCES SHALL MGM BRAKES BE RESPONSIBLE UNDER THIS LIMITED WARRANTY FOR ANY OTHER CHARGE WHATSOEVER, INCLUDING BUT NOT LIMITED TO CHARGES OR CLAIMS FOR LABOR, LOST BUSINESS, LOST TIME, LOST PROFITS, LOSS OF USE, OR ANY KIND OF CONSEQUENTIAL DAMAGES, HOWEVER DENOMINATED OR DESCRIBED. THE REMEDY UNDER THIS WARRANTY IS LIMITED TO REPAIR OR REPLACEMENT.

DISCLAIMER OF OTHER WARRANTIES

THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED. ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXCLUDED.

PROCEDURE FOR WARRANTY CLAIMS

1. OEM Dealers - Without superseding OE coverage and direction, contact your MGM Brakes Regional Sales Manager.
Distributors - Contact your MGM Brakes Regional Sales Manager.
Fleets - Contact your distributor/dealer or your MGM Brakes Regional Sales Manager.
For a listing of MGM Brakes Regional Sales Managers, call the MGM Brakes Corporate Sales Department: 1-800-527-1534.
2. In the event that MGM Brakes wants to examine product prior to disposition, MGM Brakes shall specify a destination to which the claimed defective part or assembly should be shipped freight prepaid.
3. Upon receipt, freight prepaid, of the claimed defective part or assembly, MGM Brakes shall examine the part and assembly and, if MGM Brakes concurs that said part or assembly was defective in material or workmanship within the warranty period, will repair or replace same and return said repaired or replace item freight prepaid.
4. If the part or assembly received by MGM Brakes does not meet the requirements of the Warranty Program set forth above, the part or assembly will either be returned or repaired at the customer's cost and returned freight collect.

Form # VII.6a.2



MGM Brakes

**8530 Cliff Cameron Drive
Charlotte, NC 28269
(800) 527-1534 • (704) 547-7411
fax: (704) 547-9367
e-mail: mail@mgmbrakes.com**

Form No. 6000SS - Revised 5/01
(product information and specifications subject to change without notice)