

# MAGNUM

*"Performance Plus"*

# SERIES



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



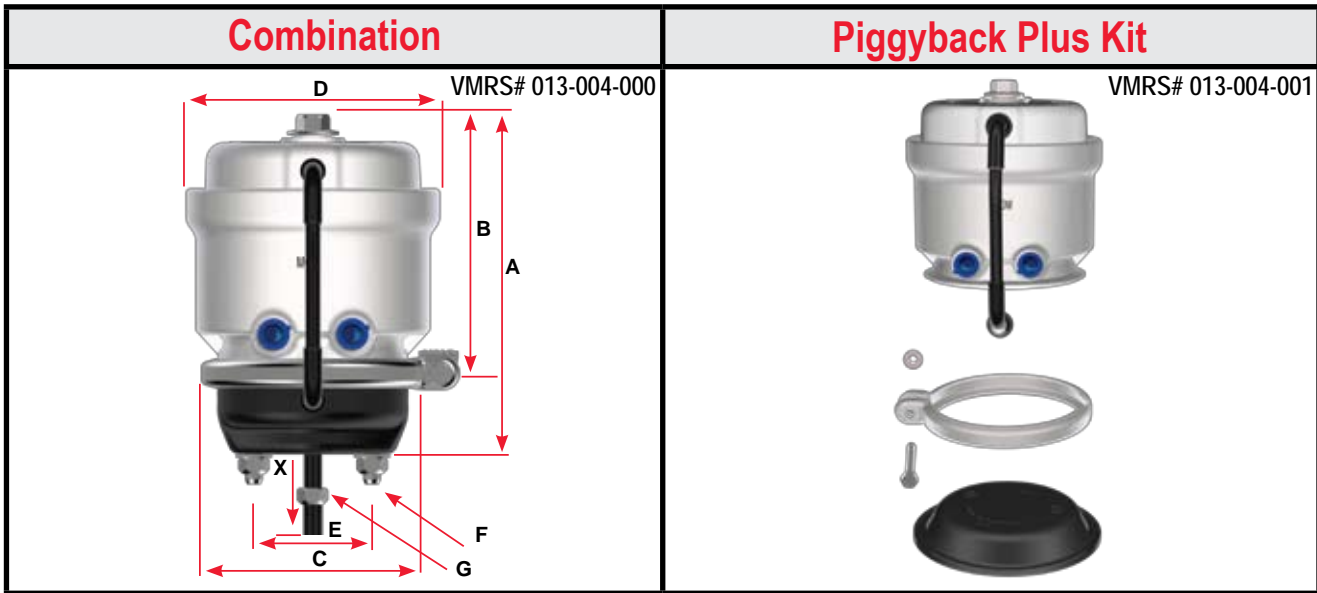
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<b>Standard Stroke Model</b>		
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FEATURES	MJS - 1.75" (44.5 mm)	MJS - 3.00" (76.2 mm)
Tamper-Resistant Mechanically Locked Spring Housing		
Molded Nitrile Rubber Push-Rod Air Seal		
Center Hole Shield		
Steel Head / Epoxy Coated		
External Breather Tube		
Integral Release Bolt		
Stroke Alert		
Heavy-Duty Steel Non-Pressure Chamber		
Polymer Push-Rod Guides		
3 Inch (76.2 mm) Long Stroke		
Piston Brake Highest Force & Lowest Hold-Off Pressure		
Compact / Lighter Weight		
Light Weight, Rugged Aluminum Housing		

■ Indicates Feature

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



### MJS 1.75" (44.5 mm) Model Features

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

P/N Series	MJS1216AT
Model	MJS1216AT
Size	1216
Stroke	1.75" (44.5 mm)
P/N Combination SAE	MJS1216AT051
P/N Piggyback Plus Kit SAE	MJS1216AT008
P/N Combination METRIC	MJS1216AT049
Wt. Combination	12.5 lb (5.7 kg)
Wt. Single	8.70 lb (3.9 kg)
A	8.62" (218.9 mm)
B	5.84" (148.3 mm)
C	5.70" (144.8 mm)
D	6.44" (163.6 mm)
E	3.00" (76.2 mm)
F	7/16" - 14 UNC
G	1/2" - 20 UNF (M16 x 1.5 - 6g)
Inlets	3/8" - 18 NPTF (M16 x 1.5 - 6H)
X - Min (in the caged position)	8.00" (203.2 mm)

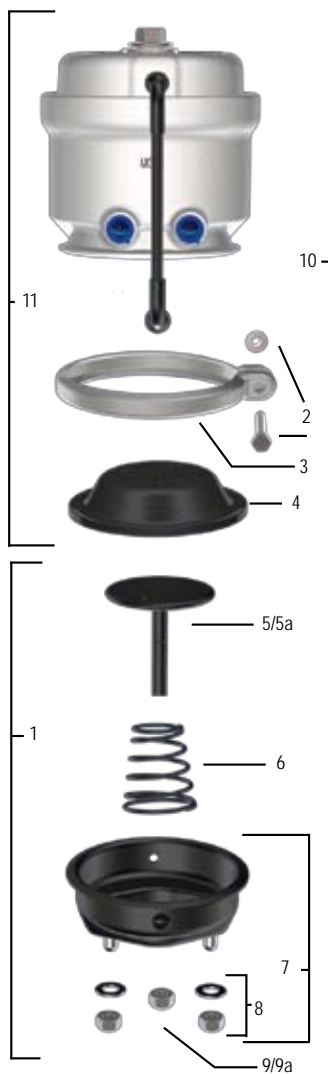
• For actuators manufactured with neoprene diaphragms, refer to section 9.

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Replacement Parts		
P/N Series		MJS1216AT
Model		MJS1216AT
1	Kit - NP Chamber (a)	9015242
2	Kit - Nuts & Bolts	9003002
3	Clamp Band Assembly	8216012
4	Diaphragm	8017312
5	Kit - Push-Rod Assembly (a) SAE	9064010
5a	Kit - Push-Rod Assembly (a) METRIC	9064034
6	Return Spring	8068007
7	NP Chamber Assembly (a)	8215198
8	Kit - Nuts & Washers SAE	9002003
9	Hex Nut - Yoke SAE	8130011
9a	Hex Nut - Yoke METRIC	8130016
10	Kit - Breather Tube	9081001
11	Kit - Piggyback Plus SAE	MJS1216AT008
<b>OPTIONAL ITEMS - For additional replacement parts, refer to Section 11.</b>		
Yoke Assembly		Refer to Replacement Parts Section 11

NOTE: (a) To ensure correct stroke alert indicator positioning, these kits must be used only in the designated MGM Brakes units.

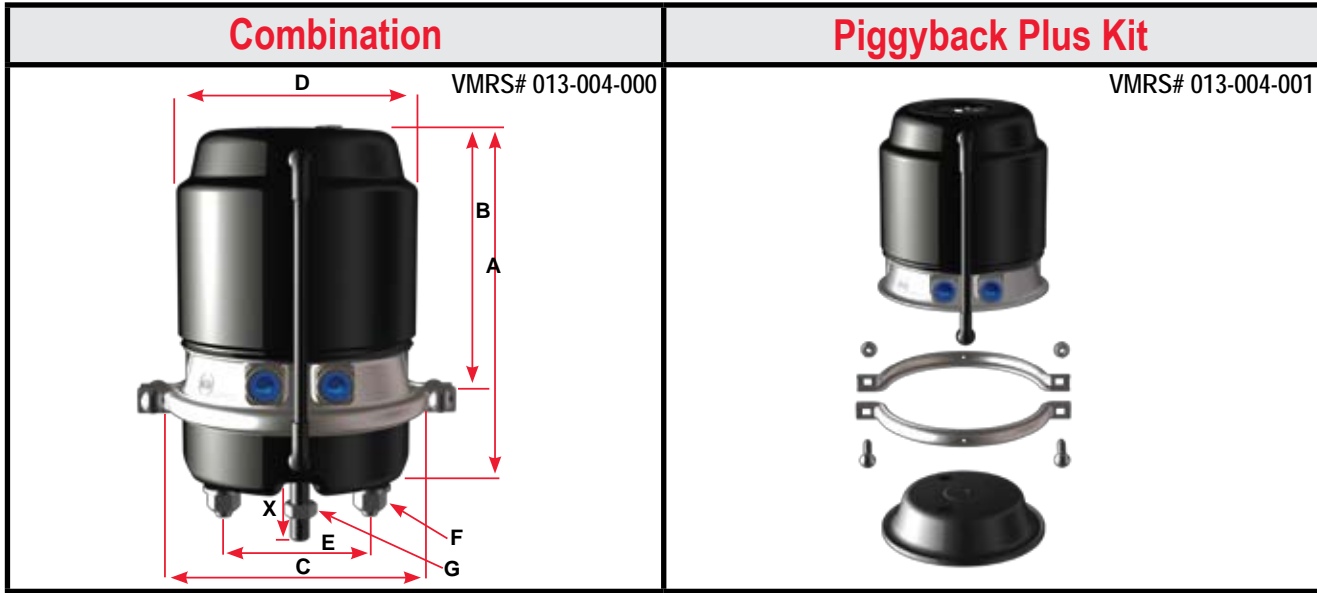


**Release Bolt**

Patented "Dual Thread Release Bolt" design, an MGM Brakes exclusive, provides minimal bolt protrusion at maximum release. (Approx. 1.00 inch (25.4 mm) protrusion when manually released)



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**Magnum Performance Plus 3.00" (76.2 mm) Model Features**

- Tamper Resistant Design
- Lighter Weight
- 3 Inch (76.2mm) Long Stroke
- Compact Size
- Patented Integral Release Bolt Mechanism - Minimal Bolt Protrusion - Approx. 1.25 inch (31.8 mm) protrusion on "Long Stroke" models when manually released
- Lower Hold-Off Pressure (Less Air Consumption)
- Non-Coil Clash Power Spring
- Increased Corrosion Resistance - Steel Head, Epoxy Coated
- Available with 1,922 lb (871.8 kg) - 2,600 lb (1179.3 kg) of Push-Rod Braking Force @ 1.25 inch (31.8 mm) Stroke/Service Brake Sizes 17-36

P/N Series	MJS1724ET	MJS2024ET	MJS2030ET	MJS2424ET	MJS2430ET
Model	MJS1724ET	MJS2024ET	MJS2030ET	MJS2424ET	MJS2430ET
Size	1724	2024	2030	2424	2430
Stroke	3.00" (76.2 mm)	3.00" (76.2 mm)	3.00" (76.2 mm)	3.00" (76.2 mm)	3.00" (76.2 mm)
P/N Combination SAE	MJS1724ET051	MJS2024ET051	MJS2030ET051	MJS2424ET051	MJS2430ET051
P/N Piggyback Plus Kit SAE	MJS1724ET008	MJS2024ET008	MJS2030ET008	MJS2424ET008	MJS2430ET008
P/N Combination METRIC	MJS1724ET049	MJS2024ET049	MJS2030ET049	MJS2424ET049	MJS2430ET049
Wt. Combination	20.32 lb (9.2 kg)	20.32 lb (9.2 kg)	22.70 lb (10.3 kg)	20.40 lb (9.3 kg)	23.70 lb (10.8 kg)
Wt. Single	13.50 lb (6.1 kg)	13.50 lb (6.1 kg)	14.90 lb (6.8 kg)	13.50 lb (6.1 kg)	16.26 lb (7.4 kg)
A	10.61" (269.5 mm)	10.61" (269.5 mm)	10.99" (279.1 mm)	10.31" (261.9 mm)	10.70" (271.8 mm)
B	7.94" (201.7 mm)	7.94" (201.7 mm)	8.43" (214.1 mm)	7.94" (201.7 mm)	8.43" (214.1 mm)
C	6.85" (174.0 mm)	6.85" (174.0 mm)	6.85" (174.0 mm)	7.50" (190.5 mm)	7.50" (190.5 mm)
D	6.76" (171.7 mm)	6.76" (171.7 mm)	7.50" (190.5 mm)	6.76" (171.7 mm)	7.50" (190.5 mm)
E	4.75" (120.7 mm)		4.75" (120.7 mm)		
F	M16 x 1.5 - 6g		5/8" - 11 UNC (M16 x 1.5 - 6g)		
G	5/8" - 18 UNF (M16 x 1.5 - 6g)		5/8" - 18 UNF (M16 x 1.5 - 6g)		
Inlets	3/8" - 18 NPTF (M16 x 1.5 - 6H)		3/8" - 18 NPTF (M16 x 1.5 - 6H)		
X - Min. (in the caged position)	8.00" (203.2 mm)		8.00" (203.2 mm)		

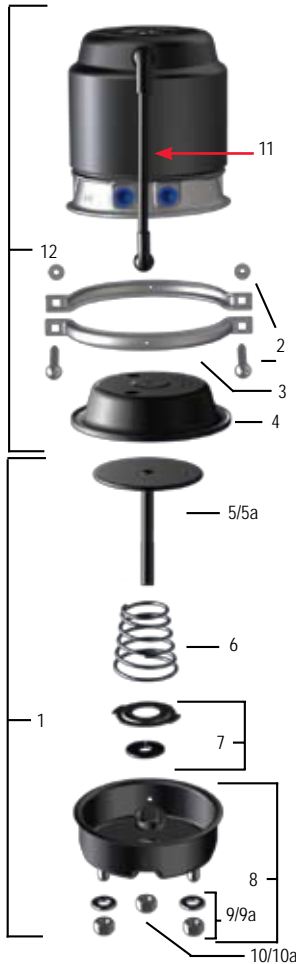
• For actuators manufactured with neoprene diaphragms, refer to section 9.

Additional sizes on page 64-65.

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

Replacement Parts						
P/N Series	MJS1724ET	MJS2024ET	MJS2030ET	MJS2424ET	MJS2430ET	
Model	MJS1724ET	MJS2024ET	MJS2030ET	MJS2424ET	MJS2430ET	
1	Kit - NP Chamber (a)	9015240	9015239	9015239	9015215	9015215
2	Kit - Nuts & Bolts	9003001	9003001	9003001	9003001	9003001
3	Clamp Band Assembly	8216020	8216020	8216020	8216025	8216025
4	Diaphragm	8017215	8017820	8017820	8017424	8017424
5	Kit - Push-Rod Assembly (a) SAE	8264532	8264039	8264039	9064006	9064006
5a	Kit - Push-Rod Assembly (a) METRIC	9064031	9064030	9064030	9064027	9064027
6	Return Spring	8068021	8068021	8068021	8068022	8068022
7	Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002
8	NP Chamber Assembly (a)	9015238	9015238	8215238	9015213	9015213
9	Kit - Nuts & Washers SAE	9002002	9002002	9002002	9002001	9002001
9a	Kit - Nuts & Washers METRIC	9002002	9002002	9002002	9002002	9002002
10	Hex Nut - Yoke SAE	8130004	8130004	8130004	8130004	8130004
10a	Hex Nut - Yoke METRIC	8130016	8130016	8130016	8130016	8130016
11	Kit - Breather Tube	9081001	9081001	9081001	9081001	9081001
12	Kit - Piggyback Plus SAE	MJS1724ET008	MJS2024ET008	MJS2030ET008	MJS2424ET008	MJS2430ET008
<b>OPTIONAL ITEMS - For additional replacement parts, refer to Section 11.</b>						
Yoke Assembly		Refer to Replacement Parts Section 11				
Boot & Retainer		Refer to Replacement Parts Section 11				

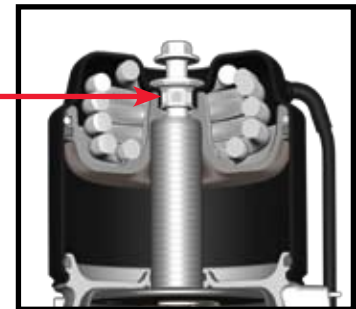
Note: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.



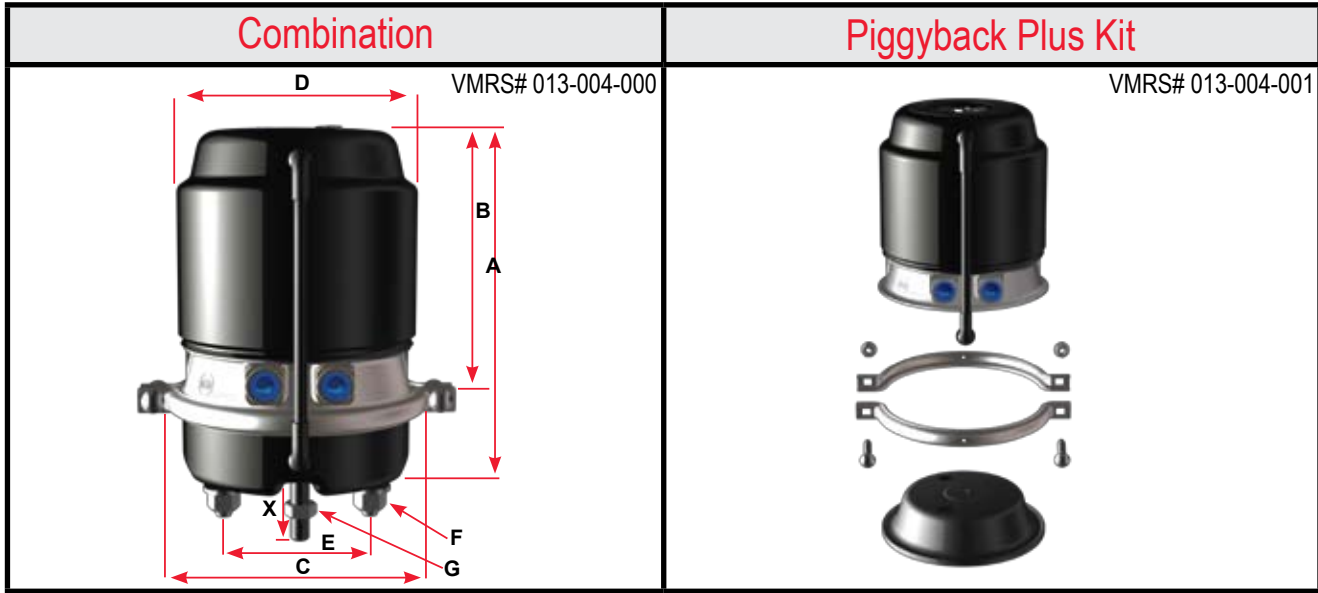
Additional sizes on page 64-65.

**Release Bolt**

Patented "Dual Thread Release Bolt" design, an MGM Brakes exclusive, provides minimal bolt protrusion at maximum release. (Approx. 1.00 inch (25.4 mm) protrusion when manually released)



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



### Magnum Performance Plus 3.00" (76.2 mm) Model Features

- Tamper Resistant Design
- Lighter Weight
- 3 Inch (76.2 mm) Long Stroke
- Compact Size
- Patented Integral Release Bolt Mechanism - Minimal Bolt Protrusion - Approx. 1.25 inch (31.8 mm) protrusion on "Long Stroke" models when manually released
- Lower Hold-Off Pressure (Less Air Consumption)
- Non-Coil Clash Power Spring
- Increased Corrosion Resistance - Steel Head, Epoxy Coated
- Available with 1,922 lb (871.8 kg) - 2,600 lb (1179.8 kg) of Push-Rod Braking Force @ 1.25 inch (31.8 mm) Stroke/Service Brake Sizes 17-36

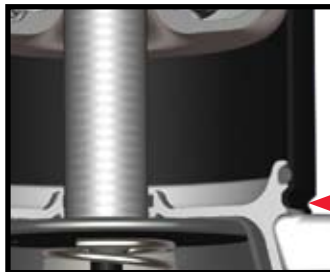
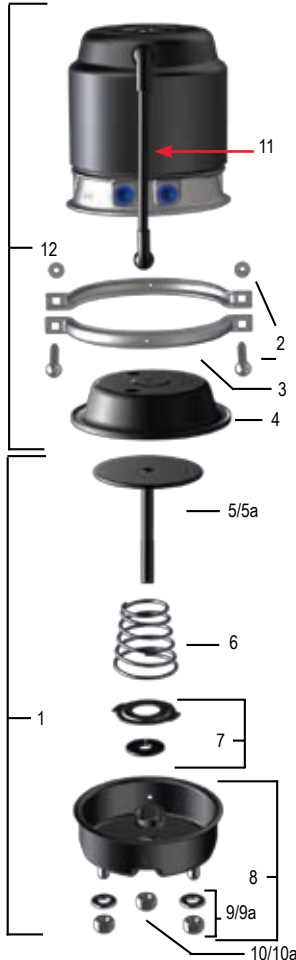
P/N Series	MJS3024ET	MJS3028ET	MJS3030ET	MJS3628ET	MJS3630ET**
Model	MJS3024ET	MJS3028ET	MJS3030ET	MJS3628ET	MJS3630ET**
Size	3024	3028	3030	3628	3630
Stroke (in/mm)	3.00" (76.2 mm)	3.00" (76.2 mm)	3.00" (76.2 mm)	3.00" (76.2 mm)	3.00" (76.2 mm)
P/N Combination SAE	MJS3024ET051	MJS3028ET051	MJS3030ET051	MJS3628ET051	MJS3630ET051
P/N Piggyback Plus Kit SAE	MJS3024ET008	MJS3028ET008	MJS3030ET008	MJS3628ET008	MJS3630ET008
P/N Combination METRIC	MJS3024ET049	MJS3028ET049	MJS3030ET049	MJS3628ET049	MJS3630ET049
Wt. Combination	22.40 lb (10.2 kg)	23.10 lb (10.5 kg)	23.10 lb (10.5 kg)	25.20 lb (11.4 kg)	25.20 lb (11.4 kg)
Wt. Single	14.60 lb (6.6 kg)	14.92 lb (6.8 kg)	14.92 lb (6.8 kg)	14.50 lb (6.6 kg)	14.50 lb (6.6 kg)
A	10.33" (262.4 mm)	10.73" (272.5 mm)	10.73" (272.5 mm)	11.06" (280.9 mm)	11.06" (280.9 mm)
B	7.94" (201.7 mm)	8.43" (214.1 mm)	8.43" (214.1 mm)	8.43" (214.1 mm)	8.43" (214.1 mm)
C	8.32" (211.3 mm)	8.32" (211.3 mm)	8.32" (211.3 mm)	9.40" (238.8 mm)	9.40" (238.8 mm)
D	6.76" (171.7 mm)	7.50" (190.5 mm)	7.50" (190.5 mm)	7.50" (190.5 mm)	7.50" (190.5 mm)
E	4.75" (120.7 mm)				
F	5/8" - 11 UNC (M16 x 1.5 - 6g)				
G	5/8" - 18 UNF (M16 x 1.5 - 6g)				
Inlets	3/8" - 18 NPTF (M16 x 1.5 - 6H)				
X - Min. (in the caged position)	8.00" (203.2 mm)				

\* For actuators manufactured with neoprene diaphragms, refer to section 9.  
 \*\* MJS3630ET not "3-inch long stroke" unit, readjustment limit 2.25".

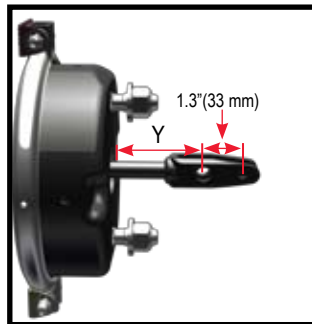
NOTE: Product information and specifications subject to change without notice.

Replacement Parts						
P/N Series	MJS3024ET	MJS3028ET	MJS3030ET	MJS3628ET	MJS3630ET**	
Model	MJS3024ET	MJS3028ET	MJS3030ET	MJS3628ET	MJS3630ET**	
1	Kit - NP Chamber (a)	9015218	9015218	9015218	9015109	9015109
2	Kit - Nuts & Bolts	9003001	9003001	9003001	9003001	9003001
3	Clamp Band Assembly	8216045	8216045	8216045	8216036	8216036
4	Diaphragm	8017830	8017838	8017838	8017840	8017840
5	Kit - Push-Rod Assembly (a) SAE	9064008	9064008	9064008	9064004	9064004
5a	Kit - Push-Rod Assembly (a) METRIC	9064028	9064028	9064028	9064009	9064009
6	Return Spring	8068022	8068022	8068022	8068022	8068022
7	Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002
8	NP Chamber Assembly (a)	9015122	9015122	9015238	9015108	9015108
9	Kit - Nuts & Washers SAE	9002001	9002001	9002001	9002001	9002001
9a	Kit - Nuts & Washers METRIC	9002002	9002002	9002002	9002002	9002002
10	Hex Nut - Yoke SAE	8130004	8130004	8130004	8130004	8130004
10a	Hex Nut - Yoke METRIC	8130016	8130016	8130016	8130016	8130016
11	Kit - Breather Tube	9081001	9081001	9081001	9081001	9081001
12	Kit - Piggyback Plus SAE	MJS3024ET008	MJS3028ET008	MJS3030ET008	MJS3628ET008	MJS3630ET008
OPTIONAL ITEMS - For additional replacement parts, refer to Section 11.						
Yoke Assembly		Refer to Replacement Parts Section 11				
Boot & Retainer		Refer to Replacement Parts Section 11				

NOTE: (a) To ensure correct stroke alert positioning, these kits must be used only on the designated MGM Brake units.  
 \*\* MJS3630ET not "3-inch long stroke" unit, readjustment limit 2.25".



"Roll-In" Tamper Resistant Design  
 Patented design permanently locks heavy-gauge steel head to the rugged, non-corrosive alloy 360 aluminum center case preventing inadvertent disassembly of the power spring housing.



NOTE: Type 3024 and 3630 units equipped with welded-yoke and 2.25" (57.2 mm) Y-dimension are replaced by part number:

MJS3024ET951  
 MJS3630ET951\*\* (SEE NOTE ABOVE)

NOTE: 3.0625" (77.8 mm) and 4.2" (106.7 mm) Y-dimensions also available. Contact customer service for more information.

Refer to Section 11 for replacement parts.

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