

TR SERIES

Safe, Reliable,
Tamper-Resistant



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



INDUSTRY SAFETY REMINDER:

Before 1989 double diaphragm spring brake actuators were manufactured using two clamp bands; one to seal the service side and one to seal the spring parking side. At one time both sides of these units were considered "serviceable", meaning that if either side failed the clamp band could be removed, the diaphragm or other components could be replaced, and the unit continued in service as repaired.

While removing the clamp band on the service side of a double diaphragm spring brake actuator carries little or no risk, experience showed that all too often technicians did not follow the required safety procedures when removing the clamp band on the spring parking side, resulting in a potential for severe personal injury. If the powerful spring in the spring parking side is not properly "caged" before the clamp band is removed the spring can propel components of the assembly with great force, potentially causing severe personal injury.

In response to this safety problem MGM Brakes pioneered the development in 1987 of the "Tamper Resistant" double diaphragm spring brake actuator with the first "non-serviceable" spring parking side. By the early 1990's the entire domestic industry recognized the enhancement to safety offered by the "Tamper Resistant" design. Today every responsible spring brake manufacturer based in the United States offers only spring brakes utilizing a "Tamper Resistant" technology. As a result of the universal adoption of a "Tamper Resistant" design for the spring parking side of double diaphragm spring brake actuators, instances of injury to workers from improper repair procedures or accidents have steadily declined until today they are virtually nonexistent.

Unfortunately, a disturbing trend is emerging within the aftermarket portion of the heavy duty truck industry - the use of double clamp banded spring brake actuators as replacements for damaged or failed "Tamper Resistant" units. This "reintroduction" of double clamp banded spring brakes into the North American market seriously threatens worker safety in the heavy duty truck industry. Especially at risk are those workers least experienced in the industry. Well over a decade has passed since MGM Brakes' introduction of "Tamper Resistant" spring parking brakes and many in the service and maintenance end of the industry have not seen, let alone serviced, a double clamp banded spring brake. Younger workers are not likely to have been trained in the special safety procedures required to cage the spring before servicing the spring parking side of double clamp banded units.

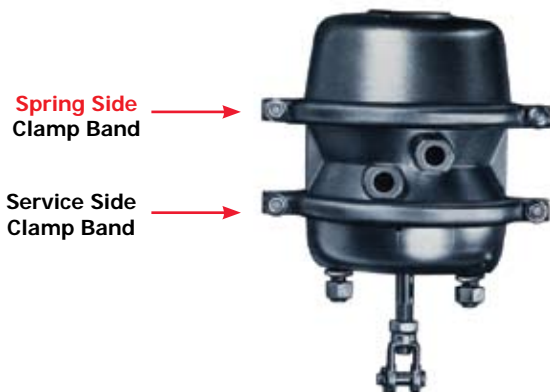
Therefore, MGM Brakes believes the industry needs to be reminded of the dangers associated with servicing double clamp banded spring brakes.

BE SURE TO PROPERLY "CAGE" THE SPRING IN THE SPRING PARKING SIDE ON ALL DOUBLE DIAPHRAGM SPRING BRAKE ACTUATORS - EVEN "TAMPER RESISTANT" MODELS - BEFORE ATTEMPTING ANY SERVICE ON THEM.

DO NOT ATTEMPT TO REMOVE OR LOOSEN THE SPRING PARKING SIDE CLAMP BAND ON A DOUBLE CLAMP BANDED SPRING BRAKE ACTUATOR UNDER ANY CIRCUMSTANCE.

IMPROPER SERVICING OF A DOUBLE CLAMP BANDED SPRING BRAKE ACTUATOR MAY RESULT IN SEVERE PERSONAL INJURY DUE TO AN UNINTENTIONAL SEPARATION OF THE HEAD FROM THE BASE OF THE UNIT.

Double Clamp Band Spring Brake



MGM "TR" Spring Brake



Information taken from technical bulletin EB 06-003

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

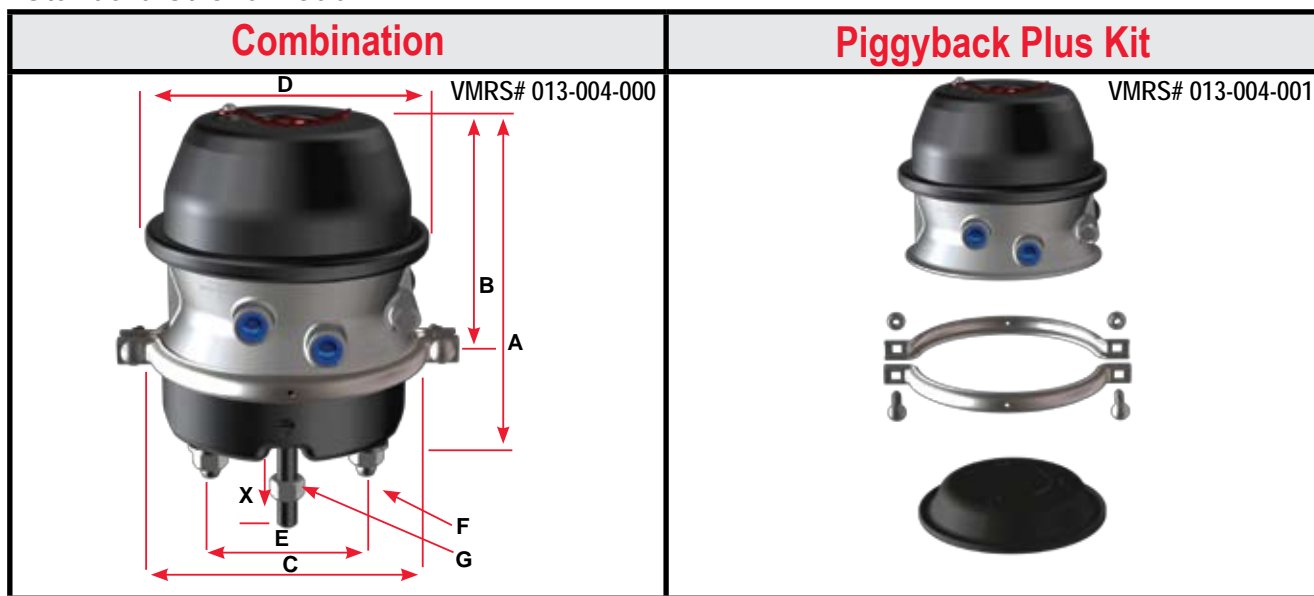
DOUBLE DIAPHRAGM - STANDARD STROKE

FEATURES	TR	TR-HD	TR-T	TR-THD	TR-THDW	TR-TS	TR-TSHD	TR-TSHDW	TR-LP3	TR-LP3HD	TR-LP3T	TR-LP3THD	TR-LP3THDW	TR-LP3TS	TR-LP3TSHD	TR-LP3TSHDW
Epoxy-Coated Piston & Guide, Center Case - Inside & Out , plus composite guide (*) See note below																
Center Hole Diaphragm																
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 "Long Life" Power Spring																
Polymer Push-Rod Guides																
Heavy-Duty 8 Gauge Steel Non-Pressure Chamber - (type 30 only)																
3.00" (76.2 mm) Long Stroke																
Weatherseal™ Plug																
360 Aluminum Center Case																
Heavy-Duty Nylon Reinforced Diaphragms																
Weld Reinforced NPC																

(*) **Note: All TR Model brakes have composite guide.**

Indicates Feature

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

Standard Stroke Model
DOUBLE DIAPHRAGM - STANDARD STROKE

TR Model Features

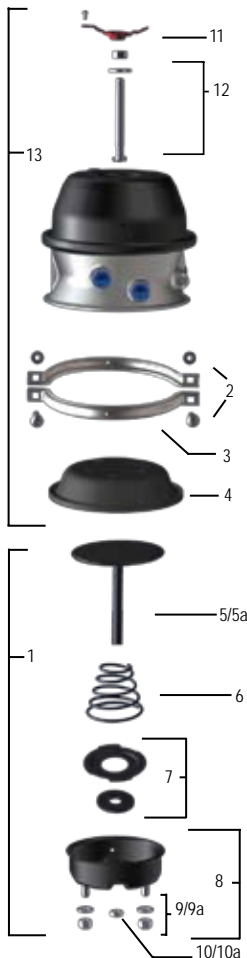
- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case
- “Long Life” Power Spring
- Weatherseal™ Plug
- Heavy-Duty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

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" (57.2 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	3.00" (76.2 mm)
P/N Combination SAE	3420051	3427051	3429051	3434051	3430051	3433051	3437051
P/N Piggyback Plus Kit SAE	3420008	3427008	3429008	3434008	3430008	3433008(a)	3437008
P/N Combination METRIC	3420049	3427049	3429049	3434049	3430049	3433049	3437049
Wt. Combination	15.9 lb (7.2 kg)	16.6 lb (7.5 kg)	18.5 lb (8.4 kg)	18.3 lb (8.3 kg)	20.0 lb (9.1 kg)	26.5 lb (12.0 kg)	30.8 lb (14.0 kg)
Wt. Single	9.6 lb (4.4 kg)	9.5 lb (4.3 kg)	11.6 lb (5.3 kg)	9.7 lb (4.4 kg)	11.6 lb (5.3 kg)	18.3 lb (8.3 kg)	20.2 lb (9.2 kg)
A	8.31" (211.1 mm)	8.52" (216.4 mm)	9.04" (229.6 mm)	8.47" (215.1 mm)	9.04" (229.6 mm)	9.86" (250.4 mm)	11.13" (282.7 mm)
B	6.16" (156.5 mm)	6.36" (161.5 mm)	6.91" (175.5 mm)	6.12" (155.4 mm)	6.66" (169.2 mm)	7.52" (191.0 mm)	8.38" (212.9 mm)
C	6.90" (175.3 mm)	7.38" (187.5 mm)	7.38" (187.5 mm)	8.31" (211.1 mm)	8.31" (211.1 mm)	8.31" (211.1 mm)	9.25" (235.0 mm)
D	7.34" (186.4 mm)	7.34" (186.4 mm)	8.21" (208.5 mm)	7.34" (186.4 mm)	8.21" (208.5 mm)	9.18" (233.2 mm)	9.18" (233.2 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 Transit, Hendrickson Intraax / Vantraax Suspension applications and for units with mixed (SAE-METRIC) specifications and for actuators manufactured with neoprene diaphragms, refer to section 9.
 (a) This model must be used with MGM Brakes heavy-duty weld reinforced mounting base or 8 - gauge non-pressure housing.

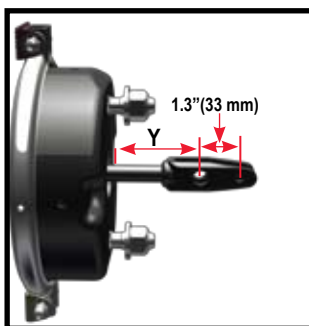
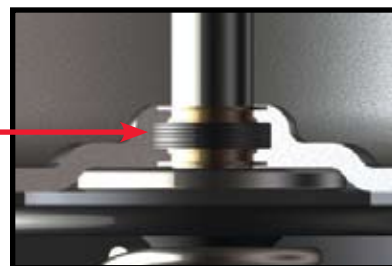
NOTE: Product information and specifications subject to change without notice.

Replacement Parts								
P/N Series		3420	3427	3429	3434	3430	3433	3437
Model		TR2024	TR2424L	TR2430L	TR3024	TR3030	TR3036	TR3636
1	Kit - NP Chamber (a)	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 (a) SAE	9064001	9064002	9064002	9064003	9064003	9064003	9064004
5a	Kit - Push-Rod Assembly (a) METRIC	9064015	9064016	9064016	9064035	9064035	9064035	9064009
6	Return Spring	8068002	8068002	8068002	8068002	8068002	8068002	8068012
7	Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002	9065002	9065002
8	NP Chamber Assembly (a)	8215169	8215105	8215105	8215501	8215501	9015260	8215036
9	Kit - Nuts & Washers SAE	9002001	9002001	9002001	9002001	9002001	9002001	9002001
9a	Kit - Nuts & Washers METRIC	9002002	9002002	9002002	9002002	9002002	9002002	9002002
10	Hex Nut - Yoke SAE	8130004	8130004	8130004	8130004	8130004	8130004	8130004
10a	Hex Nut - Yoke METRIC	8130016	8130016	8130016	8130016	8130016	8130016	8130016
11	Kit - Weatherseal™ Plug	9019005	9019005	9019005	9019005	9019005	9019006	9019006
12	Kit - Release Bolt	9007003	9007003	9007003	9007003	9007003	9007009	9007009
13	Kit - Piggyback Plus SAE	3420008	3427008	3429008	3434008	3430008	3433008(b)	3437008
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.
 (b) This model must be used with MGM Brakes heavy-duty weld reinforced mounting base or 8 - gauge non-pressure housing.

Center Seal (Push-Rod Air Seal)
 Multi-lipped, pressure activated seal – an MGM exclusive - molded from specially formulated low-temperature-resistant Nitrile Rubber, providing long-term protection against air leaks. Nylon guides eliminate metal to metal contact and premature failure in this critical area.



NOTE: Type 3030, 3036 and 3636 units equipped with welded-yoke and 2.25" (57.2 mm) Y- dimension are replaced by part number:

- 3430951 (TR3030)
- 3433951 (TR3036)
- 3437951 (TR3636)

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

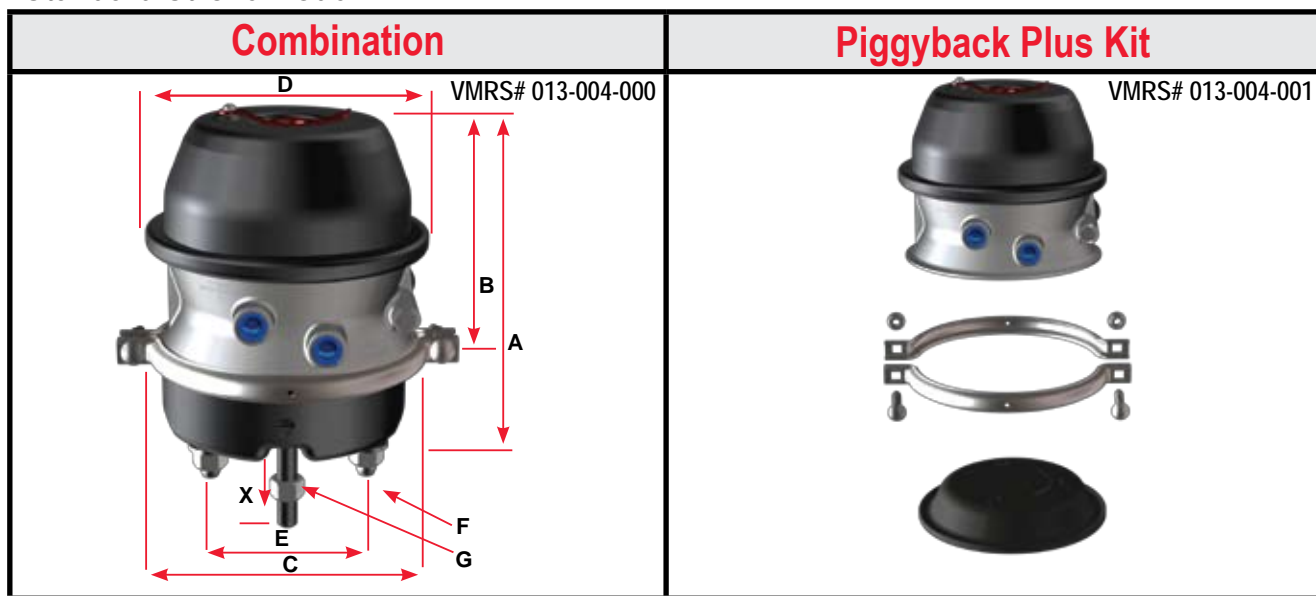
Refer to Section 11 for replacement parts.

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



Standard Stroke Model

DOUBLE DIAPHRAGM - STANDARD STROKE



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 lb (72.6 kg) additional parking brake force @ 1.25 inches (31.8 mm) of stroke**
- **Center Hole Diaphragm (U.S. Patent #5,507,217)**

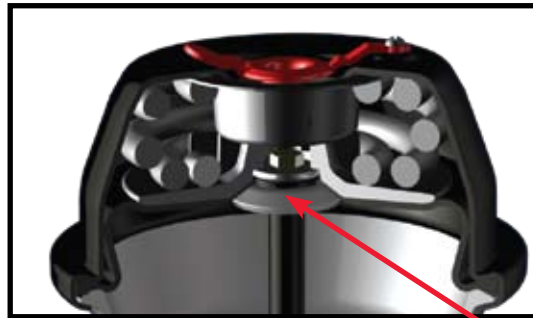
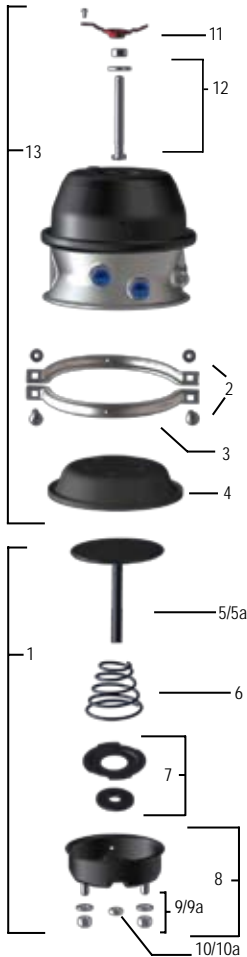
P/N Series	3624	3630
Model	TR2430LHD	TR3030HD
Size	2430	3030
Stroke	2.50" (63.5 mm)	2.50" (63.5 mm)
P/N Combination SAE	3624051	3630051
P/N Piggyback Plus Kit SAE	3624008	3630008
P/N Combination METRIC	3624049	3630049
Wt. Combination	18.6 lb (8.4 kg)	19.9 lb (9.0 kg)
Wt. Single	11.7 lb (5.3 kg)	11.5 lb (5.2 kg)
A	9.04" (229.6 mm)	9.04" (229.6 mm)
B	6.91" (175.5 mm)	6.66" (169.2 mm)
C	7.38" (187.5 mm)	8.31" (211.1 mm)
D	8.21" (208.5 mm)	8.21" (208.5 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.

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

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) SAE	9064002	9064003
5a	Kit - Push-Rod Assembly (a) METRIC	9064016	9064035
6	Return Spring	8068002	8068002
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly (a)	8215294	8215501
9	Kit - Nuts & Washers SAE	9002001	9002001
9a	Kit - Nuts & Washers METRIC	9002002	9002002
10	Hex Nut - Yoke SAE	8130004	8130004
10a	Hex Nut - Yoke METRIC	8130016	8130016
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Piggyback Plus SAE	3624008	3630008
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.



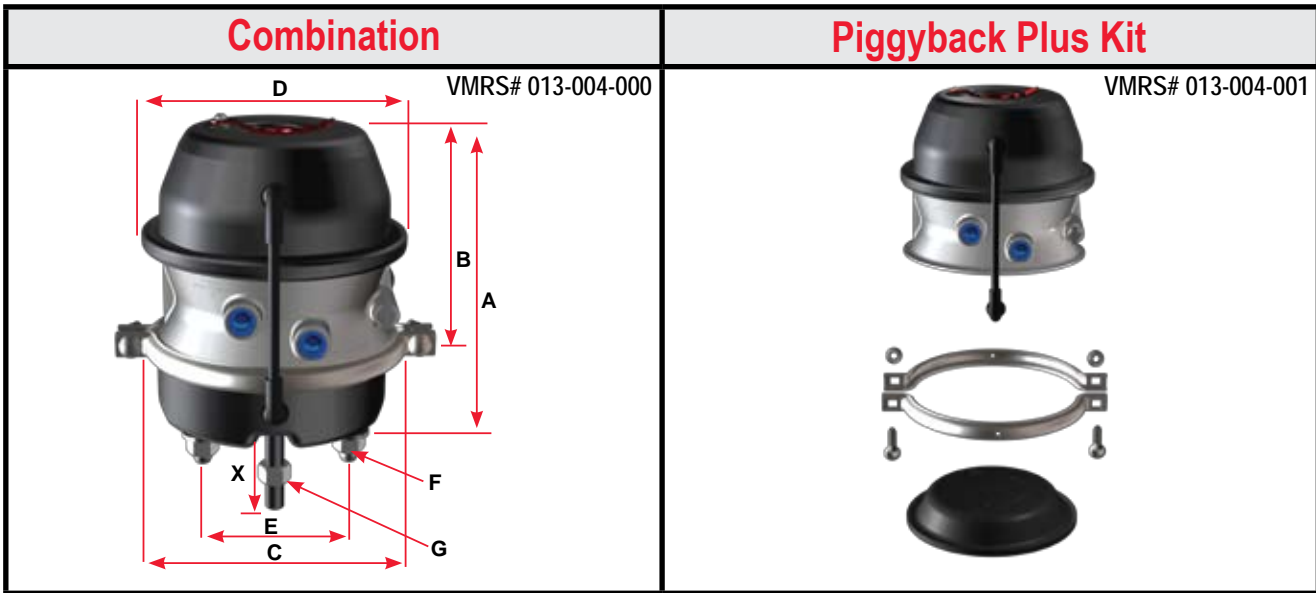
Center Hole Diaphragm (U.S. Patent #5,507,217)

Patented feature that aligns the piston, diaphragm, power spring and internal push-rod providing the following advantages: Maintains component alignment; reduces power spring stress; reduces coil clash; increases center-seal life and eliminates the effects of severe vibration.

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

Standard Stroke Model

DOUBLE DIAPHRAGM - STANDARD STROKE



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**

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" (57.2 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	3.00" (76.2mm)
P/N Combination SAE	3421051	3426051	3428051	3435051	3431051	3432051	3436051
P/N Piggyback Plus Kit SAE	N/A	N/A	3428008	3435008	3431008	3432008 (b)	3436008
P/N Combination METRIC	3421049	3426049	3428049	3435049	3431049	3432049	3436049
Wt. Combination	15.9 lb (7.2 kg)	16.6 lb (7.5 kg)	18.5 lb (8.4 kg)	18.3 lb (8.3 kg)	20.0 lb (9.1 kg)	26.5 lb (12.0 kg)	30.8 lb (14.0 kg)
Wt. Single	N/A	N/A	11.60 lb (5.3 kg)	9.70 lb (4.4 kg)	11.60 lb (5.3 kg)	18.30 lb (8.3 kg)	20.20 lb (9.2 kg)
A	8.31" (211.1 mm)	8.52" (216.4 mm)	9.04" (229.6 mm)	8.47" (215.1 mm)	9.04" (229.6 mm)	9.86" (250.4 mm)	11.13" (282.7 mm)
B	6.16" (156.5 mm)	6.36" (161.5 mm)	6.91" (175.5 mm)	6.12" (155.4 mm)	6.66" (169.2 mm)	7.52" (191.0 mm)	8.38" (212.9 mm)
C	6.90" (175.3 mm)	7.38" (187.5 mm)	7.38" (187.5 mm)	8.31" (211.1 mm)	8.31" (211.1 mm)	8.31" (211.1 mm)	9.25" (235.0 mm)
D	7.34" (186.4 mm)	7.34" (186.4 mm)	8.21" (208.5 mm)	7.34" (186.4 mm)	8.21" (208.5 mm)	9.18" (233.2 mm)	9.18" (233.2 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)						

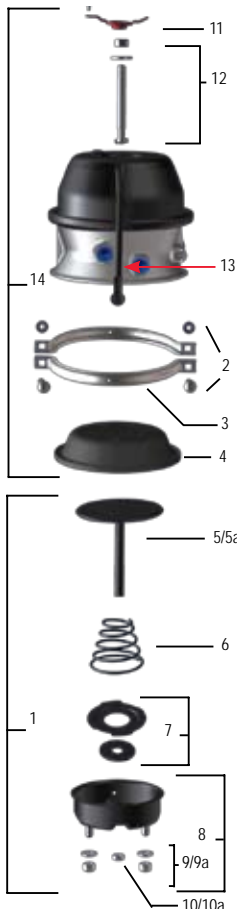
For Transit, Hendrickson Intraax / Vantraax Suspension applications and for units with mixed (SAE-METRIC) specifications and for actuators manufactured with neoprene diaphragms, refer to section 9.

(b) This model must be used with MGM Brakes heavy-duty weld reinforced mounting base or 8 - gauge non-pressure housing.

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

Replacement Parts								
P/N Series		3421	3426	3428	3435	3431	3432	3436
Model		TR2024T	TR2424LT	TR2430LT	TR3024T	TR3030T	TR3036T	TR3636T
1	Kit - NP Chamber (a)	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 (a) SAE	9064001	9064002	9064002	9064003	9064003	9064003	9064004
5a	Kit - Push-Rod Assembly (a) METRIC	9064015	9064016	9064016	9064035	9064035	9064035	9064009
6	Return Spring	8068002	8068002	8068002	8068002	8068002	8068002	8068012
7	Kit - Center Hole Shield	9065002	9065002	9065002	9065002	9065002	9065002	9065002
8	NP Chamber Assembly (a)	9015110	9015151	9015151	9015122	9015122	9015122	9015108
9	Kit - Nuts & Washers SAE	9002001	9002001	9002001	9002001	9002001	9002001	9002001
9a	Kit - Nuts & Washers METRIC	9002002	9002002	9002002	9002002	9002002	9002002	9002002
10	Hex Nut - Yoke SAE	8130004	8130004	8130004	8130004	8130004	8130004	8130004
10a	Hex Nut - Yoke METRIC	8130016	8130016	8130016	8130016	8130016	8130016	8130016
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	Kit - Piggyback Plus SAE	N/A	N/A	3428008	3435008	3431008	3432008 (b)	3436008
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.
 (b) This model must be used with MGM Brakes heavy-duty weld reinforced mounting base or 8 - gauge non-pressure housing.

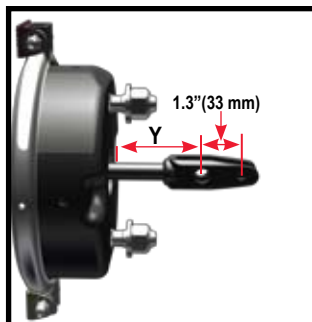


External Breather-Tube
 Vents air from inside the protected area of the non-pressure chamber to effectively prevent entry of liquid and solid corrosive contaminants that can cause premature failure of the spring brake chamber.

NOTE: Type 3030, 3036 and 3636 units equipped with welded-yoke and 2.25" (57.2 mm) Y- dimension are replaced by part number:

- 3431951 (TR3030T)
- 3432951 (TR3036T)
- 3436951 (TR3636T)

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

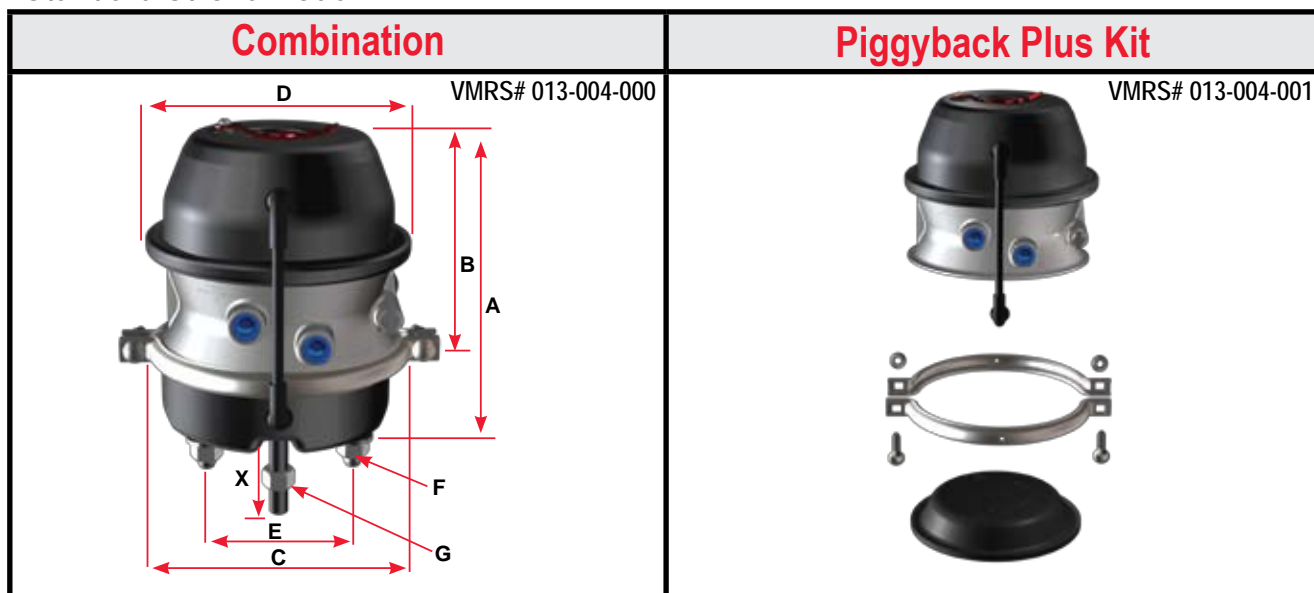


Refer to Section 11 for replacement parts.

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

Standard Stroke Model

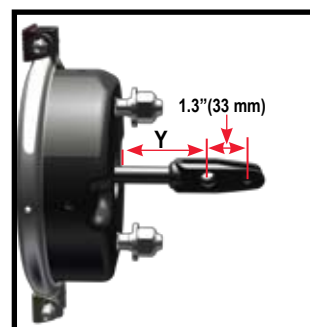
DOUBLE DIAPHRAGM - STANDARD STROKE



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 lb (72.6 kg) additional parking brake force @ 1.25 inches (31.8 mm) of stroke**
- **Center Hole Diaphragm (U.S. Patent No. 5,507,217)**

P/N Series	3625	3631
Model	TR2430LTHD	TR3030THD
Size	2430	3030
Stroke	2.50" (63.5 mm)	2.50" (63.5 mm)
P/N Combination SAE	3625051	3631051
P/N Piggyback Plus Kit SAE	3625008	3631008
P/N Combination METRIC	3625049	3631049
Wt. Combination	18.6 lb (8.4 kg)	19.9 lb (9.0 kg)
Wt. Single	11.7 lb (5.3 kg)	11.5 lb (5.2 kg)
A	9.04" (229.6 mm)	9.04" (229.6 mm)
B	6.91" (175.5 mm)	6.66" (169.2 mm)
C	7.38" (187.5 mm)	8.31" (211.1 mm)
D	8.21" (208.5 mm)	8.21" (208.5 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)	



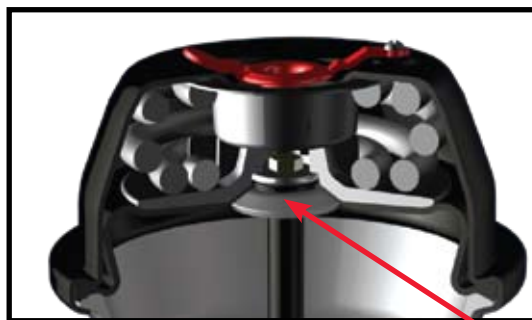
NOTE: Type 2430 units equipped with welded-yoke and 2.25" (57.2 mm) Y- dimension are replaced by Part Number:

3625951 (TR2430LTHD)

Refer to Section 11 for replacement parts.

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) SAE	9064002	9064003
5a	Kit - Push-Rod Assembly (a) METRIC	9064016	9064035
6	Return Spring	8068002	8068002
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly (a)	9015151	9015122
9	Kit - Nuts & Washers SAE	9002001	9002001
9a	Kit - Nuts & Washers METRIC	9002002	9002002
10	Hex Nut - Yoke SAE	8130004	8130004
10a	Hex Nut - Yoke METRIC	8130016	8130016
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Breather Tube	9081001	9081001
14	Piggyback Plus Kit SAE	3625008	3631008
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.



Center Hole Diaphragm (U.S. Patent #5,507,217)

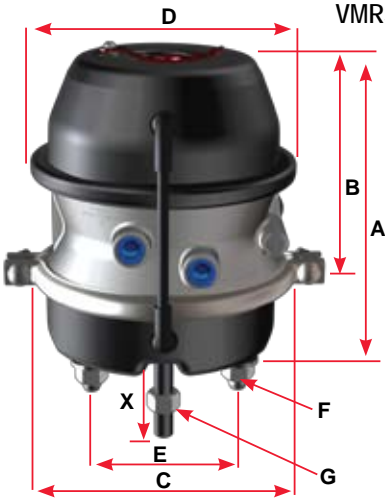
Patented feature that aligns the piston, diaphragm, power spring and internal push-rod providing the following advantages: Maintains component alignment; reduces power spring stress; reduces coil clash; increases center-seal life and eliminates the effects of severe vibration.

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



Standard Stroke Model

DOUBLE DIAPHRAGM - STANDARD STROKE

Combination	Piggyback Plus Kit
 <p>VMRS# 013-004-000</p>	<p>VMRS# 013-004-001</p> <p>N/A</p>

TR-THDW Model Features

- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Center Hole Diaphragm (U.S. Patent No. 5,507,217)
- 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
- 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 lb (72.6 kg) additional parking brake force @ 1.25 inches (31.8 mm) of stroke
- **Weld Reinforced Non-Pressure Housing with Welded Bolts**

P/N Series	3444
Model	TR3030THDW
Size	3030
Stroke	2.50" (63.5 mm)
P/N Combination SAE	3444051
P/N Piggyback Plus Kit SAE	N/A
P/N Combination METRIC	3444049
Wt. Combination	19.9 lb (9.0 kg)
Wt. Single	11.5 lb (5.2 kg)
A	9.04" (229.6 mm)
B	6.66" (169.2 mm)
C	8.31" (211.1 mm)
D	8.21" (208.5 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)

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

Replacement Parts		
P/N Series		3444
Model		TR3030THDW
1	Kit - NP Chamber (a)	9015905
2	Kit - Nuts & Bolts	9003001
3	Clamp Band Assembly	8216045
4	Diaphragm	8017730
5	Kit - Push-Rod Assembly (a) SAE	9064003
5a	Kit - Push-Rod Assembly (a) METRIC	9064035
6	Return Spring	8068002
7	Kit - Center Hole Shield	9065002
8	NP Chamber Assembly (a)	9015259
9	Kit - Nuts & Washers SAE	9002001
9a	Kit - Nuts & Washers METRIC	9002002
10	Hex Nut - Yoke SAE	8130004
10a	Hex Nut - Yoke METRIC	8130016
11	Kit - Weatherseal™ Plug	9019005
12	Kit - Release Bolt	9007003
13	Kit - Breather Tube	9081001
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.



Weld Reinforced Non-Pressure Housing

Heavy-gauge formed steel flat-bottom design, epoxy-coated for total corrosion protection and "weld-reinforced" mounting studs for added support in extreme vibration applications. (bolt actually epoxy coated - depicted here lighter for visual purposes)

- 8-Gauge Standard on Type 3030 & 3036 Aftermarket Models
- 6 Gauge Standard on Type 36 Models

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

Standard Stroke Model

DOUBLE DIAPHRAGM - STANDARD STROKE

Combination	Piggyback Plus Kit
<p>VMRS# 013-004-000</p>	N/A

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 & Center Case - Inside & Out**

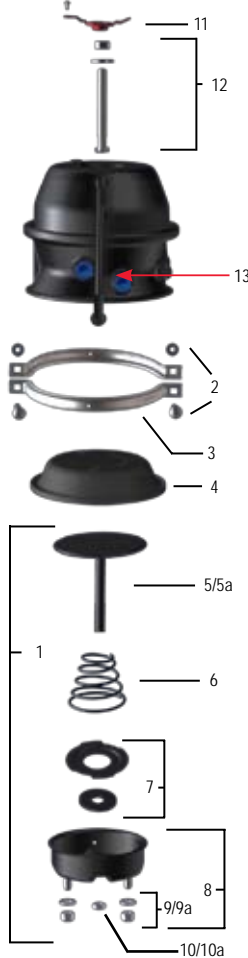
P/N Series	3538	3528	3531	3532	3536
Model	TR2424LTS	TR2430LTS	TR3030TS	TR3036TS	TR3636TS
Size	2424	2430	3030	3036	3636
Stroke	2.50" (63.5 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	2.50" (63.5 mm)	3.00" (76.2 mm)
P/N Combination SAE	3538051	3528051	3531051	3532051	3536051
P/N Piggyback Plus Kit SAE	N/A	N/A	N/A	N/A	N/A
P/N Combination METRIC	3538049	3528049	3531049	3532049	3536049
Wt. Combination	16.6 lb (7.5 kg)	18.5 lb (8.4 kg)	20.0 lb (9.1 kg)	26.5 lb (12.0 kg)	30.8 lb (14.0 kg)
Wt. Single	N/A	N/A	N/A	N/A	N/A
A	8.52" (216.4 mm)	9.04" (229.6 mm)	9.04" (229.6 mm)	9.86" (250.4 mm)	11.13" (282.7 mm)
B	6.36" (161.5 mm)	6.91" (175.5 mm)	6.66" (169.2 mm)	7.52" (191.0 mm)	8.38" (212.9 mm)
C	7.38" (187.5 mm)	7.38" (187.5 mm)	8.31" (211.1 mm)	8.31" (211.1 mm)	9.25" (235.0 mm)
D	7.34" (186.4 mm)	8.21" (208.5 mm)	8.21" (208.5 mm)	9.18" (233.2 mm)	9.18" (233.2 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 Transit, Hendrickson Intraax / Vantraax Suspension applications and for units with mixed (SAE-METRIC) specifications and for actuators manufactured with neoprene diaphragms, refer to section 9.

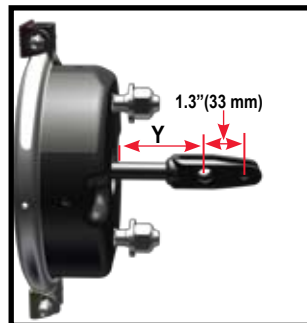
NOTE: Product information and specifications subject to change without notice.

Replacement Parts					
P/N Series	3538	3528	3531	3532	3536
Model	TR2424LTS	TR2430LTS	TR3030TS	TR3036TS	TR3636TS
1	Kit - NP Chamber (a)	9015152	9015152	9015149	9015150
2	Kit - Nuts & Bolts	9003001	9003001	9003001	9003001
3	Clamp Band Assembly	8216025	8216025	8216045	8216036
4	Diaphragm	8017141	8017141	8017730	8017836
5	Kit - Push-Rod Assembly (a) SAE	9064002	9064002	9064003	9064004
5a	Kit - Push-Rod Assembly (a) METRIC	9064016	9064016	9064035	9064009
6	Return Spring	8068012	8068012	8068012	8068012
7	Kit - Center Hole Shield	9065002	9065002	9065002	9065002
8	NP Chamber Assembly (a)	9015151	9015151	9015122	9015108
9	Kit - Nuts & Washers SAE	9002001	9002001	9002001	9002001
9a	Kit - Nuts & Washers METRIC	9002002	9002002	9002002	9002002
10	Hex Nut - Yoke SAE	8130004	8130004	8130004	8130004
10a	Hex Nut - Yoke METRIC	8130016	8130016	8130016	8130016
11	Kit - Weatherseal™ Plug	9019005	9019005	9019005	9019006
12	Kit - Release Bolt	9007003	9007003	9007003	9007009
13	Kit - Breather Tube	9081001	9081001	9081001	9081001
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.



Epoxy Coated Components → Upper piston, piston guide and flange case are epoxy coated for extra added protection in severe operating environments: such as acids, salt and concrete.



NOTE: Type 3030 and 3036 units equipped with welded-yoke and 2.25" (57.2 mm) Y- dimension are replaced by part number:

3531951 (TR3030TS)
3532951 (TR3036TS)

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.

Standard Stroke Model

DOUBLE DIAPHRAGM - STANDARD STROKE

Combination	Piggyback Plus Kit
<p>VMRS# 013-004-000</p>	N/A

TR-TSHD Model Features

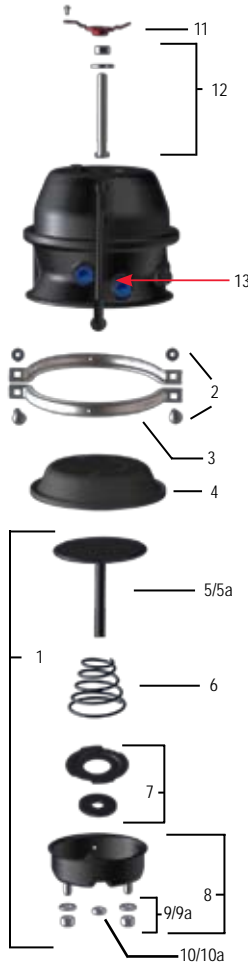
- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case
- Weatherseal™ Plug
- Heavy-Duty Steel Non-Pressure Chamber (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 & Center Case - Inside & Out
- **Heavy-Duty Power Spring 160 lb (72.6 kg) additional parking brake force @1.25 inches (31.8 mm) of stroke**
- **Center Hole Diaphragm (U.S. Patent No. 5,507,217)**

P/N Series	3526	3533
Model	TR2430LTSHD	TR3030TSHD
Size	2430	3030
Stroke	2.50" (63.5 mm)	2.50" (63.5 mm)
P/N Combination SAE	3526051	3533051
P/N Piggyback Plus Kit SAE	N/A	N/A
P/N Combination METRIC	3526049	3533049
Wt. Combination	18.6 lb (8.4 kg)	19.9 lb (9.0 kg)
Wt. Single	N/A	N/A
A	9.04" (229.6 mm)	9.04" (229.6 mm)
B	6.91" (175.5 mm)	6.66" (169.2 mm)
C	7.38" (187.5 mm)	8.31" (211.1 mm)
D	8.21" (208.5 mm)	8.21" (208.5 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)	

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

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) SAE	9064002	9064003
5a	Kit - Push-Rod Assembly (a) METRIC	9064016	9064035
6	Return Spring	8068012	8068012
7	Kit - Center Hole Shield	9065002	9065002
8	NP Chamber Assembly (a)	9015151	9015122
9	Kit - Nuts & Washers SAE	9002001	9002001
9a	Kit - Nuts & Washers METRIC	9002002	9002002
10	Hex Nut - Yoke SAE	8130004	8130004
10a	Hex Nut - Yoke METRIC	8130016	8130016
11	Kit - Weatherseal™ Plug	9019005	9019005
12	Kit - Release Bolt	9007003	9007003
13	Kit - Breather Tube	9081001	9081001
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.



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

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

Standard Stroke Model

DOUBLE DIAPHRAGM - STANDARD STROKE

Combination	Piggyback Plus Kit
<p>VMRS# 013-004-000</p>	N/A

TR-TSHDW Model Features

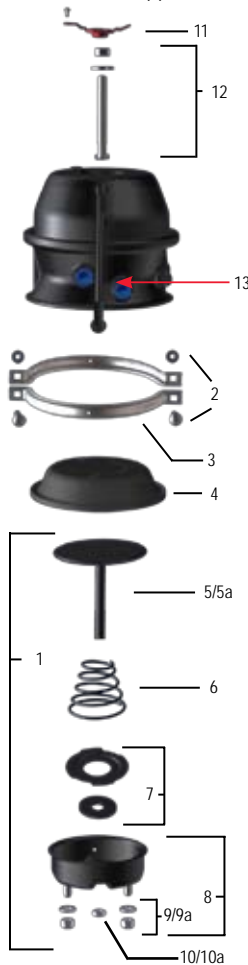
- Tamper Resistant Design (U.S. Patent No. 5,067,391)
- Center Hole Diaphragm (U.S. Patent No. 5,507,217)
- Molded Nitrile Rubber Push-Rod Air Seal
- Center Hole Shield
- Externally Stored Release Bolt
- Epoxy-Coated Head, Non-Pressure Chamber and Lower Push-Rod Assembly
- 360 Aluminum Center Case
- Weatherseal™ Plug
- Heavy-Duty Steel Non-Pressure Chamber
- 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 & Center Case - Inside & Out
- Heavy-Duty Power Spring 160 lb (72.6 kg) additional parking brake force @1.25 inches (31.8 mm) of stroke
- **Weld Reinforced Non-Pressure Housing with Welded Bolts**

P/N Series	3544
Model	TR3030TSHDW
Size	3030
Stroke	2.50" (63.5 mm)
P/N Combination SAE	3544051
P/N Piggyback Plus Kit SAE	N/A
P/N Combination METRIC	3544049
Wt. Combination	19.9 lb (9.0 kg)
Wt. Single	N/A
A	9.04" (229.6 mm)
B	6.66" (169.2 mm)
C	8.31" (211.1 mm)
D	8.21" (208.5 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)

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

Replacement Parts		
P/N Series		3544
Model		TR3030TSHDW
1	Kit - NP Chamber (a)	9015149
2	Kit - Nuts & Bolts	9003001
3	Clamp Band Assembly	8216045
4	Diaphragm	8017730
5	Kit - Push-Rod Assembly (a) SAE	9064003
5a	Kit - Push-Rod Assembly (a) METRIC	9064035
6	Return Spring	8068012
7	Kit - Center Hole Shield	9065002
8	NP Chamber Assembly (a)	9015259
9	Kit - Nuts & Washers SAE	9002001
9a	Kit - Nuts & Washers METRIC	9002002
10	Hex Nut - Yoke SAE	8130004
10a	Hex Nut - Yoke METRIC	8130016
11	Kit - Weatherseal™ Plug	9019005
12	Kit - Release Bolt	9007003
13	Kit - Breather Tube	9081001
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.



Weld Reinforced Non-Pressure Housing

Heavy-gauge formed steel flat-bottom design, epoxy-coated for total corrosion protection and "weld-reinforced" mounting studs for added support in extreme vibration applications. (bolt actually epoxy coated - depicted here lighter for visual purposes)

- 8-Gauge Standard on Type 3030 & 3036 Aftermarket Models
- 6 Gauge Standard on Type 36 Models

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