



# HEAVY DUTY SHOCK ABSORBERS

for Truck, Trailer &  
Severe Duty Applications



**Marathon**  
SUSPENSION SYSTEMS



# Heavy Duty Shock Absorbers



For more than 30 years America's heavy duty truck, bus and severe service fleets have trusted Marathon Brake Systems to provide Best-in-Class friction materials that deliver stopping power and the longest service life. Now Marathon is introducing a complete line of heavy duty shock absorbers for these same fleet applications. Marathon shock absorbers are designed and built to provide a comfortable, smooth ride and reduce vibrations from suspension systems. These hydraulic shocks feature rugged construction with reinforced welds, tough end mounts and durable piston seals to provide consistent performance over the life of the shock.

## Marathon Shocks Deliver

- Heavy duty design for long service life
- Models for wide range of over-the-road and severe duty applications
- Tough, high tensile strength end mounts
- Reinforced welded perimeter and end mounts for greater durability
- Chrome finished tempered steel piston rods protect from corrosion
- High viscosity hydraulic oil for consistent performance over life of shock
- Durable piston seals for optimum performance and life
- Design offers increased hydraulic oil capacity to protect internal components
- Greater driver comfort and safer driving
- Prevent premature tire wear
- Protect vibration sensitive components



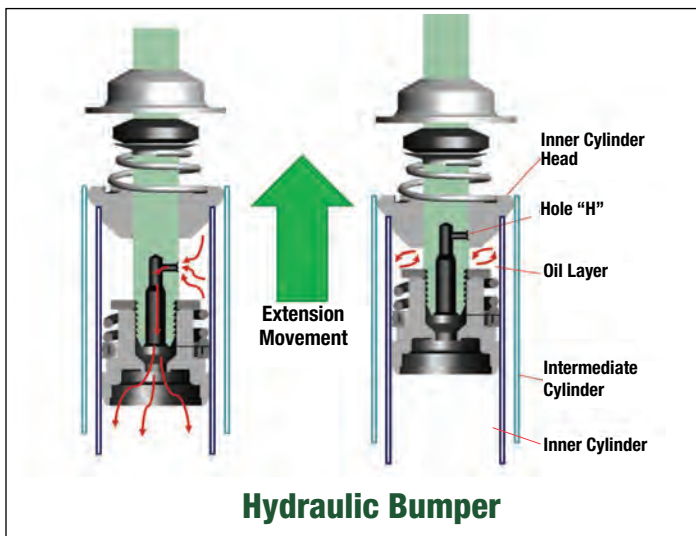
# Marathon Hydraulic Heavy Duty Shock Absorbers

## Top-Performing Hydraulic Shock Design

- Hydraulic stop design outperforms market leader
- Seals and valves facilitate piston dampening in both up and down movements
- Smoothness of vibration absorption improves comfort and durability
- Consistent performance over life of shock improves tire wear and lessens component wear

## Hydraulic Bumper Detail

During the extension movement, the shock's hydraulic stop design has the top hole covered by the inner cylinder head (shown on right) creating a layer of oil that protects the shock from topping out and damaging components.



## High Performance Hydraulic Oil

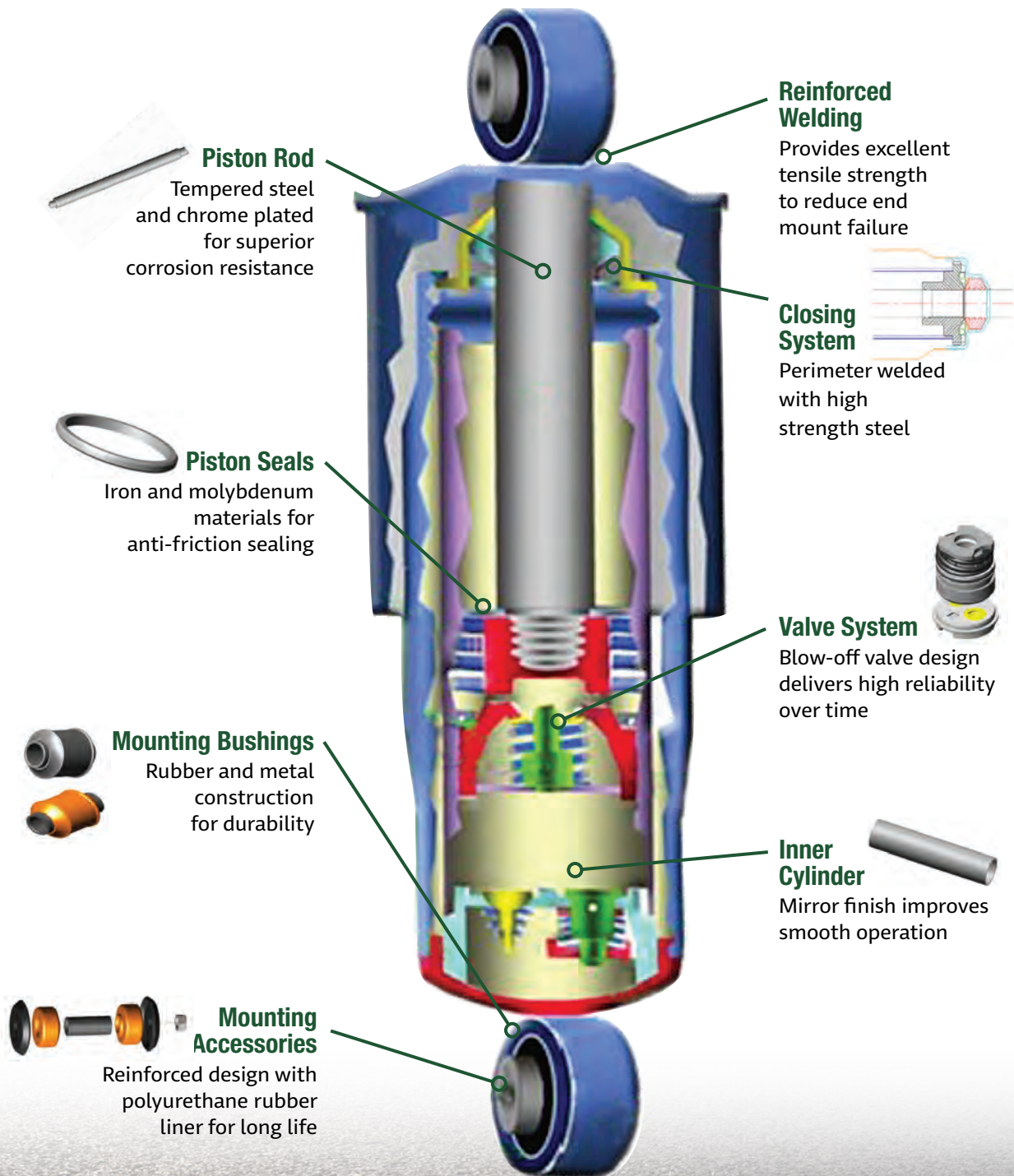
High viscosity oil provides excellent characteristics through all types of weather and extreme heat generated in severe service applications.





# Marathon Shocks

## Designed & Built for the Long Haul



# Marathon Shock Advantages



## Welded Perimeter for Closing System



## Reinforced Projection Welded Zones

**8,000 lbs.** maximum tensile strength of mounting



## End Cap - Outer Tube Welding

**12,000 lbs.** maximum tensile strength  
(Assembly tested under 10-15 psi air pressure submerged in water without leaks)



## Super Chrome Piston Rods

- Temper hardness of 30-55 Rc
- Chrome plated surface hardness 67 Rc min., 0.0004" min. thickness
- Dehydrogenized at 218° C for 70 minutes
- Surface finish of Ra:6μ" and Rz:45μ"
- Salt spray test for 24 hours minimum



# Part Number Cross Reference

MARATHON	GRC	MONROE	DESCRIPTION	POSITION
<b>53039-MB</b>	85006	65482	Freightliner FL50, 60, 70, 80 - Business Class	Rear
<b>53101-MB</b>	83038	66122	Freightliner Cascadia, Century Class	Cabin
<b>53106-MB</b>	83127	66636	Saf Holland air suspension for trailer RLSA228 (RLSA-228-4214, -4215, -4216, -4814, -4815, -4816) Freightliner 16-14668-000"	Rear
<b>53108-MB</b>	85029	65451	International Navistar Series 9300, 9300i, 9400 y 9400i, Series 9900, 9900i, 9900ix - Conventional Truck and Tractor with Long Chest. Hendrickson A-2212, B-25174, S-2212, S-23315	Front Rear
<b>53109-MB</b>	83125	66884	Hendrickson series HAS MACK series CX (Vision)	Rear
<b>58049-MB</b>	85000	65419	Hendrickson Vantraax ( HKARL 46K, HKAT 46K)	Rear
<b>58064-MB</b>	85070	65159	Kenworth T2000, T440, T470, T600, T600A, T600B, T602, T660	Front
<b>58085-MB</b>	85072	65504	Hendrickson Series Firemaax (Air suspensions Firemaax 240, 480, EX 242, EX 482, Air suspension models 230)	Rear
<b>58092-MB</b>	85954	65157	International series Prostar y 8000	Front
<b>58093-MB</b>	85033	65400	Peterbilt series 378,379,385	Rear
<b>58094-MB</b>	85064	65512	Great Dane Trailer HENS-23649 Hendrickson 665693, 665758, B-21936, S-21936, S-23649, HT250US (Standard Mount Models)	Rear
<b>58095-MB</b>	85066	65486	Mack series CX (Vision), CHN	Rear
<b>58096-MB</b>	85067	65495	Kenworth C500, C500B, C500K, C540 y C550, ICON 900	Rear
<b>58097-MB</b>	85069	65468	Kenworth T300, T270, T370, T400	Rear
<b>58098-MB</b>	85045	65511	Hendrickson Intraax ( AAL AAL 23K, 25K y 30K, AANL 23K, AAZL 23K / 46K Models)	Rear
<b>58099-MB</b>	85062	65101	Peterbilt series 320, 357, 365	Front
<b>58100-MB</b>	85933	65497	Hendrickson Airtex Series MACK 14QK-422M, 20469001,20469002, 20485632, 20485633	Front
<b>58101-MB</b>	85938	65512	Hendrickson HT250US (Remote and Standard Mount Models) Reyco Suspension Models 25 ARTUL-18A-FS, -19A-FS, -20A-FS, -21A-FS, -22A-FS, -23A-FS, -24A-FS, -18-FS, -19-FS, -20-FS, -21-FS, -22-FS, -23-FS, -24-FS	Rear
<b>58102-MB</b>	85012	65113	International Binder, Cargostar	Front
<b>58103-MB</b>	85900	65436	Kenworth C500, C500B, C500K, C540 y C550, K100, K100E, K125, K300, T2000,T300	Front
<b>58105-MB</b>	85088	65486	Mack series CXN	Rear
<b>58106-MB</b>	85098	65494	Mack series CXN	Front
<b>58107-MB</b>	85958	65148	Freightliner Cascadia, Columbia, Coronado	Front
<b>58113-MB</b>	85052	66607	Volvo 3919569, 83176222, RC SA5052	Rear
<b>58114-MB</b>	85934	65493	Ridewell Corporation Air-Rides RAR-240, RAR-240W, RAR-243	Rear

MARATHON	GRC	MONROE	DESCRIPTION	POSITION
58115-MB	85937	65523	Kenworth Icon 900 , T2000, T440, T470, T600, T600A, T600B, T602, T600	Rear
58116-MB	85001	65102	Kenworth C500, C500B, C500K, C540 y C550, ICON 900	Front
58117-MB	85931	65492	International Series 9200, 9200i	Front
58118-MB	85003	65409	International series 1000 y 2000	Rear
58119-MB	85061	65494	Mack series CX (Vision), CHN	Front Rear
58120-MB	85918	65148	Freightliner Century Class - C112, C120, CST112 y CST120	Front
58121-MB	85013	65420	Ford LL, LLA, LTA, LTL, LTLA, LA, LS y LST - Conventional Cabin, Series AeroMax (A, AT, AAT, 8500, 9500) International series 4000 y 9800"	Rear
58122-MB	85030	65421	Ford Series AeroMax (A, AT, AAT, 8500, 9500) International Navistar Series 5000, 5000i - Heavy Duty Conventional Truck and Tractor	Front Rear
58123-MB	85924	65147	Navistar Series 9200, 9200i - Tractor & Truck, Series 9300, 9300i, 9400 y 9400i - Series 9900, 9900i, 9900ix Conventional Truck and Tractor with Long Chest	Front
72014-MB	83128	66608	Hendrickson Vantraax	Rear
72051-MB	83008	66145	Peterbilt series 367,377,379	Cabin
78013-MB	85323	65416	Hendrickson Intraax/ VOLVO	Rear
78015-MB	85724	65490	Freightliner Cascadia	Rear
78031-MB	85311	65402	International Series 400, 500, 600, 700, y 900	Rear
78076-MB	85738	65500	Hendrickson Models AAEDL, Models AANT 23K, Modelss AAT 23K, 25K, 30K, Models AAZL 23K / 46K, Models AAZNT 23K / 46K / 69K, HT230T, HT300T y N-HT300T, HT250U y N-HT250U, HKA250, HKAT 50K,	Rear
78077-MB	85310	65404	Kenworth C500, C500B, C500K, C540 y C550, K100, K100E, K125, K300, T2000,T300	Rear
78078-MB	85320	65103	Freightliner Classic/ClassicXL	Front



# Issues with Worn Shock Absorbers

- Loss of stability and driver control
- Tires laterally gliding when cornering
- Increased tire wear
- Increased braking distance
- Wheels not on road as tight, increase hydro-planing risk
- Fatigue of vibration sensitive components



## 10 Signs of Worn Shocks

1. Over 50,000 miles
2. Nose dives when braking
3. Excessive bouncing on rough roads
4. Greater veering in cross winds (especially with heavy loads)
5. Excessive lean or sway in turns
6. Steering wheel vibration
7. Uneven or premature tire wear
8. Fluid leakage from shock
9. Dented or damaged shock housing
10. Service tech concerns