

Adjustable Aluminum Shock Tower Brace System



Shock Tower Brace System

Our multi-stage shock tower bracing system improves overall vehicle handling performance by greatly reducing chassis flex forward of the firewall. The system is made up of three separate component groups; the export brace, fender Monte Carlo brace, and truss braces. Installed individually each makes a marked improvement to the stability of the firewall-inner-fender structure. Used collectively, a triangulated bracing structure is created securing key chassis dimensions.

A desirable strength-to-weight ratio was achieved using aluminum wherever possible. Mounting brackets are machined from 1/4" thick 6061-T6 aluminum, then clear anodized to resist oxidization. All bracing rods are also 6061-T6 tubular aluminum. Tubing ends are swedged to increase wall thickness and strength at the threaded ends. Lightweight mild-steel rod ends provide an adjustable attachment method and ensure a perfect fit for every installation.

A simple analogy of how the complete system works is a common cardboard shoebox to simulate the engine bay. Without the top the box is flimsy and opposite corners can be pushed toward each other. With the top on the box, the diagonals are secured and the entire structure is significantly more stable.

ModelYearPart NumberMustang, Cougar1964-1970TCP TWRB-51Mustang, Cougar1971-1973TCP TWRB-52Falcon, Comet, Ranchero1960-1965TCP TWRB-54

Features

- Reduces chassis deflection throughout firewal-inner-fender area
- Lightweight, tubular aluminum construction
- Primarily uses existing factory mounting locations
- Easily removable bracing rods allow engine compartment access
- Adjustable length rods for individualized fit



Tower Export Brace

The tower export brace is the main component group of the system and is generally installed first if done in stages. Triangular bracing from the firewall to the top of the shock towers is created and eliminates distortion of the inner-fenderto-firewall attachment points. The adjustable length radius rods greatly simplify installation compared to single piece stamped or welded designs which may require additional work to achieve a proper fit. Access for engine maintenance simply requires removal of the button head fasteners securing the rod ends at each bracket.

The firewall bracket utilizes four existing mounting holes along the firewall/cowl seam and requires three additional holes to be drilled through the firewall. An aluminum backup support plate is installed on the interior side of the firewall helping to distribute loads away from the mounting hardware.

Shock tower plates use existing mounting locations and can be used with factory style suspension as well as our front coilover suspension system. Each plate features a shock absorber clearance hole allowing the shock crossbar and shaft to pass through. The factory shock mount then mounts on top of the aluminum plate.

Radius rods are 6061-T6 aluminum tubing with left and righthand threads. Left-hand threads are indicated by a knurl near the end of the tube. The overall length of the assembly can be varied by rotating the tube enabling a custom fit for every application.

Model	Year	Part Number	
Mustang, Cougar	1964-1970	TCP TWRB-01	
Mustang, Cougar	1971-1973	TCP TWRB-07	
Falcon, Comet, Ranchero	1960-1965	TCP TWRB-04	

Features

- Uses existing mounting locations
- Triagulation from firewall to shock towers
- Easily removable for engine access
- 6061-T6 tubular aluminum rods (.84" diameter, .109" wall thickness)
- 2-piece mild steel rod ends, zinc plated (3/8" thread, 3/8" bore)
- High-carbon chromium alloy steel spherical bearings



Firewall back-up support plate



Vertical mount clevis is used on highmisalignment applications such as Falcon/ Comet



Monte Carlo Brace

The fender Monte Carlo brace is usually installed second but, can be installed independently of the export and truss braces. Its purpose is to fix the distance between the shock towers. The brace resists the tendency of the shock towers to move toward each other during braking and cornering. Overall length is adjustable, as well as bracket placement, providing mounting flexibility during installation. Removal of the two button head fasteners securing the rod ends enables access to the engine compartment.

Mounting of the fender brackets require drilling four holes into the inner fender. Zinc plated, steel back-up support brackets are installed on the backside of the inner fender securing the brace at the strongest point of the factory sheet metal. The mounting brackets are positioned forward of the shock towers and provide adequate clearance for use with large diameter distributors. Some installations may have clearance issues with A/C compressors or centrifugal superchargers. Suggested modifications to the brace enabling use are illustrated in our installation instructions.

The radius rod is 6061-T6 aluminum tubing with left and right-hand threads. Left-hand threads are indicated by a knurl near the end of the tube. The assemblies overall length was originally designed for specific applications but its simple mounting method and adjustable length make it possible to use in additional applications.

Model	Year	Part Number	
Mustang, Cougar	1964-1970	TCP TWRB-02	
Mustang, Cougar	1971-1973	TCP TWRB-08	
Falcon, Comet, Ranchero	1960-1965	TCP TWRB-05	

Features

- Lateral brace between inner fenders
- Easily removable for engine access
- 6061-T6 tubular aluminum rods (1.00" diameter, .125" wall thickness)
- 2-piece mild steel rod ends, zinc plated (1/2" thread, 1/2" bore)
- High-carbon chromium alloy steel spherical bearings

Part Number	Min. Span	Max. Span
TCP TWRB-02	39-1/2″	40-7/8″
TCP TWRB-08	42″	43-3/8″
TCP TWRB-05	42″	43-3/8″



Fender back-up support bracket



Fender bracket with steel back-up support bracket



Truss Braces

The truss braces complete the system, extending from the shock tower plates to the central span of the fender Monte Carlo brace. Billet aluminum split-collar clamps secure the braces along the Monte Carlo brace creating a single structure. This structure, comprised of the firewall, inner fenders, and Monte Carlo brace, is triangulated at each corner by the export and truss braces.

Radius rods are 6061-T6 aluminum tubing with left and righthand threads. Left-hand threads are indicated by a knurl near the end of the tube.

Model	Year	Part Number	
Mustang, Cougar	1964-1970	TCP TWRB-03	
Mustang, Cougar	1971-1973	TCP TWRB-03	
Falcon, Comet, Ranchero	1960-1965	TCP TWRB-03	

Features

- Creates triangulation forward of the shock towers
- 6061-T6 tubular aluminum rods (0.84" diameter, .109" wall thickness)
- 2-piece mild steel rod ends, zinc plated (3/8" thread, 3/8" bore)



Installation of the split-collar clamps requires temporarily removing one of the Monte Carlo brace rod ends

Applications

Model	Year	Complete System	Export Brace	Monte Carlo Brace	Truss Brace
Comet	1960-1965	TCP TWRB-54	TCP TWRB-04	TCP TWRB-05	TCP TWRB-03
Cougar	1967-1970	TCP TWRB-51	TCP TWRB-01	TCP TWRB-02	TCP TWRB-03
Cougar	1971-1973	TCP TWRB-52	TCP TWRB-07	TCP TWRB-08	TCP TWRB-03
Cyclone	1960-1965	TCP TWRB-54	TCP TWRB-04	TCP TWRB-05	TCP TWRB-03
Falcon	1960-1965	TCP TWRB-54	TCP TWRB-04	TCP TWRB-05	TCP TWRB-03
Mustang	1964-1970	TCP TWRB-51	TCP TWRB-01	TCP TWRB-02	TCP TWRB-03
Mustang	1971-1973	TCP TWRB-52	TCP TWRB-07	TCP TWRB-08	TCP TWRB-03
Ranchero	1960-1965	TCP TWRB-54	TCP TWRB-04	TCP TWRB-05	TCP TWRB-03

Note: Some applications may require holes to be drilled for installation.

All prices subject to change. Current pricing available at www.cachassisworks.com.



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