

Detroit Speed Torque Box Kit 1964.5 - 1970 Mustang P/N: 010107DS and 010109DS



| ltem | Component   | Quantity |
|------|---|----------|
| 1    | 1" OD x 2-1/4" L Torque Box Crush Tube/Spacer                 | 2        |
| 2    | Torque Box OB Plate   | 2        |
| 3    | Torque Box IB Plate LH  | 1        |
| 4    | Torque Box IB Plate RH  | 1        |
| 5    | Torque Box Bottom Plate LH                                    | 1        |
| 6    | Torque Box Bottom Plate RH                                    | 1        |
| 7    | Torque Box Top Assembly LH                                    | 1        |
| 8    | Torque Box Top Assembly RH                                    | 1        |
| 9    | Torque Box Weld Spacer (with Groove)                          | 1        |
| 10   | 1/2"-20 Hex Nut with SAE Washer                               | 1        |
| 11   | 1" OD x 3" L Body Bracket Crush Tube (010109DS)               | 2        |
| 12   | 1/2"-13 x 10" L Grade 8 Hex Head Bolt & Nylock Nut (010109DS) | 2        |
| 13   | Instructions  | 1        |

NOTE: All work should be performed by a qualified welder and technician.

Please read the instructions carefully and completely before beginning the installation. If you are installing the Detroit Speed subframe connectors, the DSE torque box kit must be installed before the subframe connectors. Always make sure to wear the appropriate safety equipment for the job and properly support the vehicle. If you have any questions before, during, or after the installation, feel free to contact us by phone at (704) 662-3272 or by email at tech@detroitspeed.com.

<u>NOTE:</u> There is an installation video available through the DSE website under install video shown here: <a href="https://detroit.goog/post/detroit\_speed\_1964\_5-70\_mustang\_subframe\_connectors\_install">detroit\_speed\_1964\_5-70\_mustang\_subframe\_connectors\_install</a>.

The Torque Box installation is shown at the 03:55 mark of the 1964.5-70 Mustang Subframe Connector Installation Video.

## Torque Box Kit Installation

- 1. Begin by properly supporting the vehicle under the rear axle and front frame to avoid tension in the body when installing Torque Box Kit.
- 2. Drill out the spot welds that hold the e-brake cable bracket to the framerail and remove the bracket (Figure 1).



Figure 1 - Remove E-brake Bracket

3. (1964.5 – 66 years only) Locate the two spot welds in the bottom of the frame rail for the factory leaf spring bolt crush tube. Drill out one spot weld and use a screwdriver or pry bar to pry the factory crush tube out of the way (Can be accessed through the hole in the frame rail). Drill the inboard leaf spring bolt hole in the frame rail to 1-1/16" (Figure 2).





Figure 2 - Remove Factory Crush Tube

4. For P/N: 010107DS, install the provided 1/2"-20 x 7" L hex bolt and 2-1/4" L spacer from the torque box kit provided with the rear suspension through the inside frame rail (Figure 3). NOTE: This bolt will come with either the Detroit Speed QUADRAlink or Detroit Speed Mini-Tub Kit.

<u>For P/N: 010109DS</u>, install the provided 1/2"-13 x 10" L hex bolt and 2-1/4" L spacer from the torque box kit through the inside frame rail (Figure 3).



Figure 3 - Install Frame Rail Crush Tube

5. Install the weld spacer with the groove onto the bolt and pass the bolt though the factory front leaf spring mount. Install the provided 1/2"-20 hex nut and washer on the bolt and tighten (Figure 4). This will set the crush tube to proper alignment position.





Figure 4 - Install Weld Spacer

6. <u>For P/N: 010107DS</u>, Place the outboard torque box plate over the crush tube and against the inside framerail so it is level to the framerail. Tack and plug weld the plate to the framerail. Then finish weld around the perimeter of the plate (Figure 5 on the next page).



Figure 5 - Weld Outboard Torque Box Plate

For P/N: 010109DS, Install the provided 1/2"- $13 \times 10$ " L bolt with the weld spacer with the groove through the new crush tube and factory leaf spring mount and tighten. (This will set the crush tube to proper alignment position). Plug weld the doubler plate to the inboard frame rail surface and weld the 0.D. of the crush tube to the doubler plate. (Figure 6)



Figure 6 - Install Outboard Torque Box Plate with Stock Suspension

7. Remove the 1/2" hardware and spacers from the framerail. Modify the floor pan so that the torque box top assembly sits flush against the framerail and floorpan (Figure 7).



Figure 7 - Modify Floor Pan

8. Once the top assembly sits tight against the floor pan and framerail, tack weld it in place. Stitch weld the top assembly to the floor pan, then weld it to the outer torque box plate (Figure 8). Finish weld the top assembly to the floorpan.



Figure 8 - Weld Top Assembly

9. Install the inboard torque box plate onto the 1/2"-20 bolt used earlier along with the weld spacer with the groove. Install the bolt through the inside frame rail and tighten with the provided 1/2"-20 hex nut and washer. The inboard plate should sit square to the top assembly and parallel with the outboard plate (Figure 9). **NOTE:** It may be necessary to grind on the front edge of the plate to fit the profile of your specific floor pan.



Figure 9 - Install Inboard Torque Box Plate

10. Tack weld the inboard plate to the top assembly, then finish weld on the outside and inside of the inboard plate (Figure 10).



Figure 10 - Weld Inboard Plate

11. Fit the bottom torque box plate into position between the inboard and outboard plates. The bottom surface should be about 3/4" below the center of the factory leaf spring bolt hole. The vertical closeout may need to be trimmed to achieve the 3/4" dimension (Figure 11). Tack weld in place and then finish weld around the perimeter of the bottom plate.



Figure 11 - Fit Bottom Torque Box Plate

12.Leave the weld spacer in place and finish weld all areas at this time. Remove the weld spacer once everything has cooled to room temperature (Figure 12).



Figure 12 - Finish Weld Torque Box

13. Repeat the above process for the other side of the vehicle.

For P/N: 010109DS, use the provided 3" long body bracket crush tube and install it through the torque box when installing your leaf springs with the provided 1/2"- $13 \times 10$ " L hex bolts, Nylock nuts and washers.

If you have any questions before or during the installation of this product, please contact Detroit Speed at tech@detroitspeed.com or 704.662.3272

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