

QuickChange™ Splined Hub kit - Instructions

Part Number 2080909

Cars applicable: 944/968/924

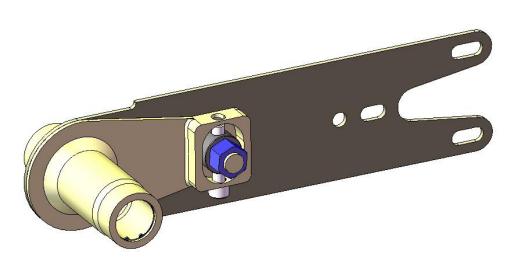


Figure 1 – Driver side QuickChange Spring Plate assembly

Contents:

Two QuickChange Splined Hub assemblies, one driver side, one passenger side.

Required and not included:

Spring plate blades from existing adjustable spring plate set.

Spring plate bushings. PolyBronze[™] spring plate bearings are highly recommended, however any bushing designed for factory spring plates may be used.

Toe and Camber adjusting hardware, use the factory parts.

Torsion bars that fit 65-86 911 rear.

Tools Required:

8mm hex key (allen head wrench) 17mm socket 19mm socket 24mm socket Snap ring pliers (for QuickChange Torsion Bar removal only) 3/8" 16tpi x 6 bolt (for QuickChange Torsion Bar removal only)

Introduction:

Congratulations on your purchase of the QuickChange Splined Hubs from Elephant Racing! Use to convert your factory adjustable spring plates to full QuickChange Spring Plate[™] functionality.

QuickChange splined hubs are designed to work with readily available 65-86 911 rear torsion bars. To take advantage of the extraction feature, you need Elephant Racing QuickChange torsion bars. Regular 944 torsion bars cannot be used.

QuickChange Splined Hub benefits:

- Easy height and corner balance adjustment using a screw-type height adjuster
- Quick torsion bar indexing when used with QuickChange™ Torsion Bars

Following installation of the QuickChange Splined Hubs, a corner balance and alignment must be performed.



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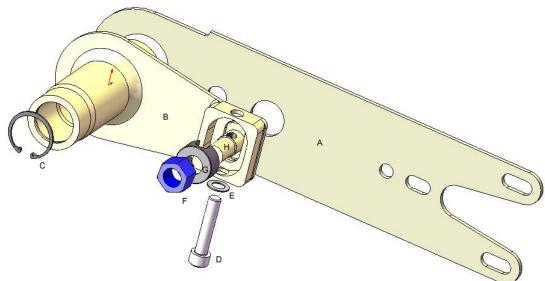


Figure 2 - Driver side QuickChange Splined Hub exploded view

Item #	Description	Torque
А	76-88 Factory adjustable spring plate blade - or Elephant Racing ASP - not included	
В	Splined Hub	
С	Retaining Ring	
D	Height adjuster screw - M10 x 50 socket head cap screw	35 ft/lbs
Е	Height adjuster lock washer - M10 belleville lock washer	
F	Clamping nut - M16 lock nut	115 ft/lbs
G	Clamping Spacer	
Н	Clamping bolt	

Installation:

Installation requires the same procedure used for factory spring plates. Refer to your shop manual for details.

Refer to Figure 2. Note that driver and passenger side assemblies have opposing orientation of Height adjuster screw [D]. Install the assemblies such that the Height adjuster screw [D] is oriented as shown (head pointed down).

Height adjustment / corner balance:

Refer to Figure 2. The Height adjuster screw [D] affords about 2 inches of adjustment range and is used for fine adjustment. Coarse height is established with the spline position on the torsion bar. In the event that you reach the end of Height adjuster screw [D] range, you will need to re-index the torsion bars. Refer to the sections below on torsion bar replacement / re-indexing.

Use a 24mm socket to loosen the Clamping nut [F]. Use an 8mm hex key to rotate Height adjuster screw [D], tighten to raise ride height, loosen to lower ride height. Once you are satisfied with the height, torque the Clamping nut [F] to 125 ft/lbs. Finally, torque the Height adjusting screw [D] to 35 ft/lbs.

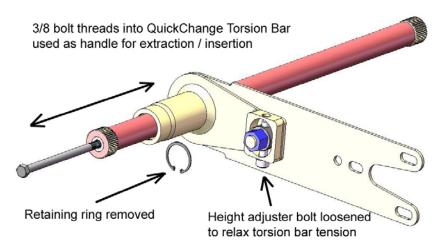
Corner weights should be checked and adjusted using appropriate scales anytime the ride height is altered.

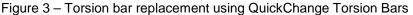


Torsion Bar re-indexing with QuickChange Torsion Bars:

QuickChange Splined Hubs facilitate rapid torsion bar replacement when used with Elephant Racing QuickChange Torsion Bars. QuickChange Torsion Bars have a threaded end that allows a regular 3/8" 16tpi bolt to be used as a handle for easy extraction / insertion.

Note: The ability to re-index torsion bars only works when paired with PolyBronze suspension bearings.





Refer to Figures 2 and 3. Jack up the corner of the car until the tire comes off the ground. Use a 24mm socket to loosen the Clamping nut [F]. Use snap ring pliers to remove Retaining ring [C]. Use an 8mm hex key to loosen the Height adjuster screw [D] and back it out about 6mm. Thread a long 3/8" 16tpi bolt into the QuickChange Torsion Bar to act as a handle. Pull the bolt to extract the torsion bar.

If the torsion bar resists: As the suspension compresses through its range of motion, the camber angle is changing – this twists the spring plate and creates tension on the splines that resists torsion bar extraction. With the clamping nut [F] loosened, slowly raise the suspension while continuing to pull on the torsion bar. You are seeking the point in the suspension travel (camber curve) that relaxes the twist on the spring plate. The torsion bar should then extract easily.

If the torsion bar remains stuck, fashion a puller tool using a length of pipe, a large washer, and the 3/8" bolt. Slide the pipe around the spring plate, cover the end with the washer, thread the bolt through the washer. Tighten the bolt to draw the torsion bar out.

If you are re-indexing the bar, rotate the bar and reposition Splined hub [B] to the desired angle.

Re-insert bar using the 3/8" bolt as a handle. Do not use force. When properly aligned the splines will slip together with minor effort. The outer splines will engage first followed by the inner splines. Typically you will need to oscillate the Splined hub [B] slightly to get the splines to engage. Finesse, not force, will get the job done.

Use snap ring pliers to replace the Retaining ring [C].

Re-adjust ride height as above. If you restore the original ride height your alignment settings will not change. However your corner weights will change and should be checked / adjusted after torsion bar replacement.

Torsion Bar re-indexing with conventional 911 torsion bars:

Conventional torsion bars from a 65-86 911 can be used, however have no provision to grip the bar for extraction. When using conventional 911 torsion bars, follow factory procedures for replacement or re-indexing. Refer to a shop manual.

After replacement, re-adjust ride height as above. If you restore ride height to the same level, your alignment settings will not change. However your corner weights will change and should be checked / adjusted after torsion bar replacement.

Camber and Toe adjustment:

Re-use the factory camber and toe adjustment hardware. Refer to your shop manual for adjustment details.



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