

BTC DRIVER QR Stabiliser – for caravans and trailers

Introduction

The DRIVER QR Stabiliser for caravans and trailers is one of the most effective anti – snake devices on the market. Motorway suction and side wind effects are minimised with its installation (this is particularly with the maximum towing speed increased to 60mph).

The DRIVER QR Stabiliser is **The Original Quick Release Stabiliser** incorporating a mechanism which does two things:

- a) The damper can be fully set and that setting will be maintained for several thousand miles before requiring to be reset.
- b) It removes the resistance of the Anti - snake friction damper when attaching to the car/caravan making it really easy to connect.

These products are effective and efficient because they are produced to a high standard of engineering. We first introduced the 'Quick Release Stabiliser' in 1985. This was the most fundamental development in leaf spring type stabilisers in the last 20 years. The name 'Quick Release Stabiliser' has become the generic name.

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The DRIVER QR Stabiliser as boxed, comes with the anti – snake damper PRESET at 60-70lb

Fitting Instructions

1) Stabiliser Car Plate to Tow Ball

- a) Unbolt the tow ball.
- b) Bolt the stabiliser car plate between the tow ball and the towing bracket. Use either pairs of holes in the car plate. Use the bottom pair for reference to give maximum ground clearance. Use longer High Tensile Bolts if necessary.

2) Stabiliser 'L' Bracket to the Caravan/Trailer Chassis. If required (for a caravan), your dealer can also supply the BTC Clamp on 'L' Bracket assembly Part No. 406KS or 406K/403.

- a) Hitchup the caravan in line with the towing vehicle on a level surface.
- b) Ensure that the hitch shaft is fully extended.
- c) Mark the neutral axis on the on the side of the caravan 'A' frame. This is a line midway between the top and bottom flanges (see drawing).
- d) Place the free end of the spring in the shoe of the 'L' bracket. Position the 'L' bracket approximately 5" from the free end of the leaf spring to the centre of the slipper shoe, as shown in the diagram.
- e) Drill 2 x 8mm holes in the chassis on the neutral axis to correspond. In the main, use the middle pair of holes in the 'L' bracket.
- f) Bolt the 'L' bracket to the chassis with the bolts, washers and nuts provided.

3) Setting the tension on the Quick Release *Anti-Snake Friction Damper. (As and when required)

The objective is to set a **Horizontal Load** at the **end of the leaf spring** of a nominal 60/70lb as follows.

- a) Release the 12mm Lock Nut 'LLN' and the Nyloc Nut 'SLN'. This is required so that the damper assembly is free from the constraints of being bolted to the leaf spring.
- b) Release the tommy bar in the QR cam and clamp down. For ease, hold the tommy bar and unbolt the locking (Stiff) nut.
- c) Release the QR cam and tighten up the 'Half Nut' finger tight. Back off about one turn and clamp the QR cam. Now test the **Horizontal** load at the end of the leaf spring with some bathroom scales. To achieve a setting of 60/70lb release the cam and progressively rotate the 'Half Nut' and re-test. Note that one full turn of the 'Half Nut' at this stage puts about 30lb at the end of the leaf spring. When you have established a setting of 60/70lb, tighten up the locking nut to the half nut.
- d) **With the RQ Camp clamped** reset 'LLN' and 'SLN' as follows, spin the half nut LLN, finger tight down on the top side of the bottom plate, then a fraction more to take up the 'slack in the thread'. Tighten up the Nyloc Nut SLN. What is being achieved here is clamping the damper unit to the leaf spring without either nipping or spreading the top and bottom plates. Doing either will result in an uneven pressure on the friction discs causing the characteristic noise.
- e) The Stabiliser damper is now set. It is clearly good practice to check the load setting once a year. If ever the stabiliser starts to 'groan', the **first thing** to do is to readjust the LLN and SLN fixing as per the above and test for a **smooth** horizontal pull of the leaf spring after making the readjustment. This test will thoroughly prove how well and 'groan free' the stabiliser is **before** you set off.

No need to drive off to test.

Do maintain a little grease on the face of the QR Cam (Only). It makes it so much easier to operate.