

**TITLE:** New features of 'Performance Pack' and 'Lightweight' options.

**REASON:** To accommodate market requirements.

Certain markets have requested factory fitted features to suit the requirements of their customers. The newly introduced 'Lightweight' option available in certain territories comprises: no air conditioning; T45 steel seat belt mounting frame/roll hoop and struts (motorsport requirement in some markets); track use chassis rear brace kit. The chassis brace kit is also now included in the 'Performance Pack' available on Exige models.

## **ACTION:** Track Use Chassis Rear Brace Kit

The purpose of the kit is to provide a 'double shear' mounting for the inboard ends of the rear toe-links and spread the load distribution into the chassis over a wider base. New spherical joints are used on the inboard ends of the toe-links, with a tubular steel crossbrace interconnecting the two pivot bolts and anchoring to the rear engine steady mounting on the subframe. For cars used on closed circuits, this arrangement provides an increased tolerance to abuse. It may be retrofitted on any Elise 111R/'04 Exige/USA Elise (i.e. Toyota powertrain cars) and will shortly be offered as an aftersales kit.

## Assembly procedure

The rear toe-links comprise the existing outboard taper shank ball joint and toe-link tube, but the inboard joint is replaced by a new spherical joint with no integral stud. A bespoke spacer locates in the orientation groove in the (unchanged) subframe and provides a flat surface against which to clamp the pivot ball of the new joint. A flange head bolt passes through the ball joint and inboard pivot bush of the lower wishbone in a similar manner to previously, but also locates a brace against the rear 'overhung' end of the ball joint. The tubular crossbrace links the two inboard joints via machined adaptor lugs and turnbuckle adjusters, and is braced directly to the subframe by a welded bracket secured by the engine rear steady mounting fixings.

On assembly, the bracing bar should first be loosely assembled to the underside of the subframe by the two bolts fixing the engine rear steady mounting. The length of the brace is then adjusted at each end by the turnbuckle until the toe-link inboard pivot bolt may be slid through the adaptor lug, inboard ball joint, spacer, subframe and lower wishbone pivot. Fit the flange nut and torque tighten **only at mid-laden ride height**, to 50 Nm. Tighten the turnbuckle locknuts to 45 Nm whilst holding the adjacent adaptor lug, and then tighten the engine steady mountings to 45 Nm.

Illustrations	overleaf	

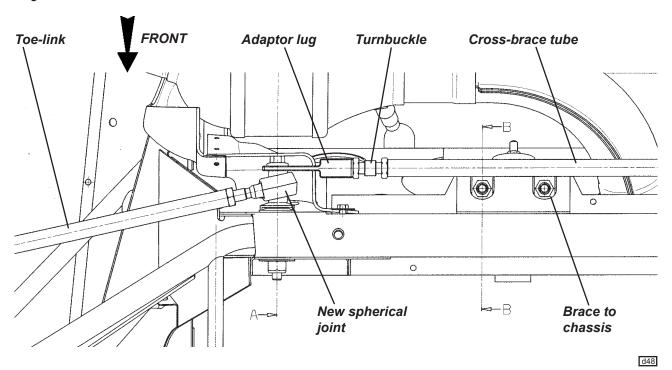
sb 2005 04 lightweight

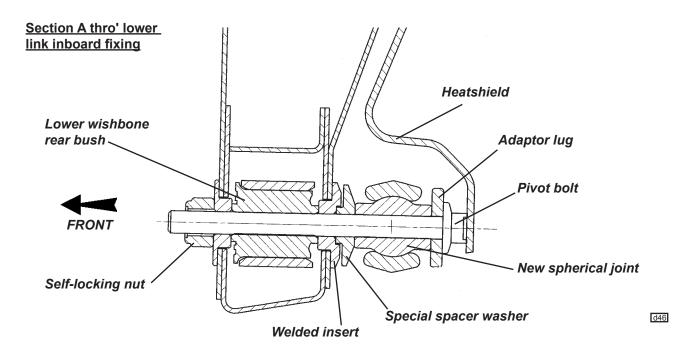
Lotus Cars Limited, Norwich, Norfolk, NR14 8EZ. England. Telephone 01953 608000. Telefax 01953 608514

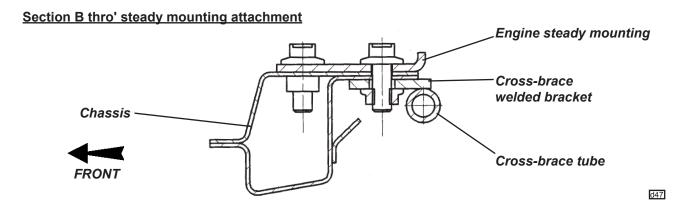




Page 2 of S/B 2005/04











## Page 3 of S/B 2005/04

## **General view**

