

Greasable Shackle

- 1) Screw grease nipples into shackle pins and tension to 4-5ft/lb.
- 2) Screw shackle pins into head plate by hand until firm.

Press bushes into leaf spring eyes.
Grease inside of bushes and the head flange only if polyurethane bushes are being used. (Do not apply grease to outside of bush).

Also apply an even coverage of grease to shackle pin surface.

Insert shackle assembly through bushes, ensure mounting direction allows future access to grease nipples.

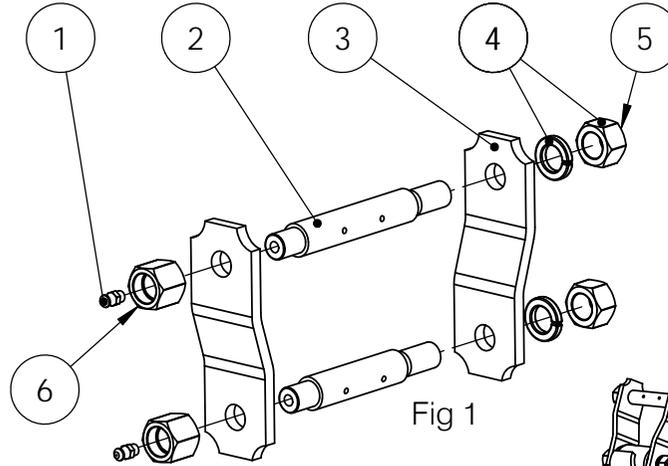
- 3) Place remaining shackle plate over pin ends.
- 4) Place spring washers and nuts over pin ends.

(Do not tighten at this stage, firm finger tight will be sufficient).
Lower vehicle to ground and bounce to neutralise. Ensure shackles are operating freely and have settled into correct position. (See fig 2)

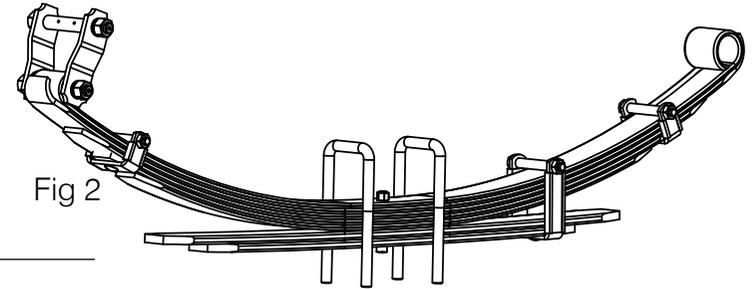
- 5) After vehicle is lowered to ground, now you can tighten the short nuts to 90ft/lb.

- 6) Fit and tighten head plate deep nuts to 85ft/lb

Check all fasteners after 500km, re-grease periodically if polyurethane bushes have been fitted.



Assembly Instructions



Anti-Inversion Greasable Shackle

- 1) Screw grease nipples into shackle pins and tension to 4-5ft/lb.
- 2) Screw shackle pins into head plate by hand until firm.

Press bushes into leaf spring eyes.
Grease inside of bushes and the head flange only if polyurethane bushes are being used. (Do not apply grease to outside of bush).

Also apply an even coverage of grease to shackle pin surface.

Small pin must position toward axle, and to the top of the assembly (See Fig 4)

Insert shackle assembly through bushes, ensure mounting direction allows future access to grease nipples.

L/H & R/H shackle orientation can be reversed if necessary, by simply screwing pins from other direction.

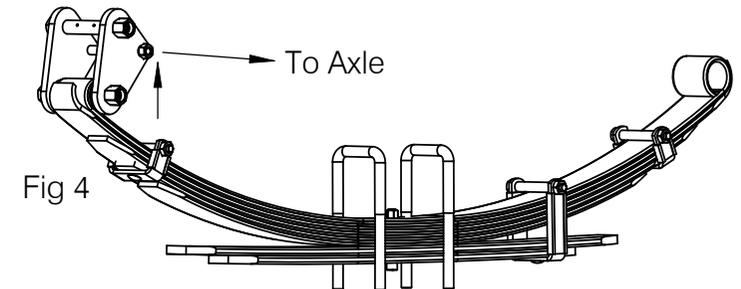
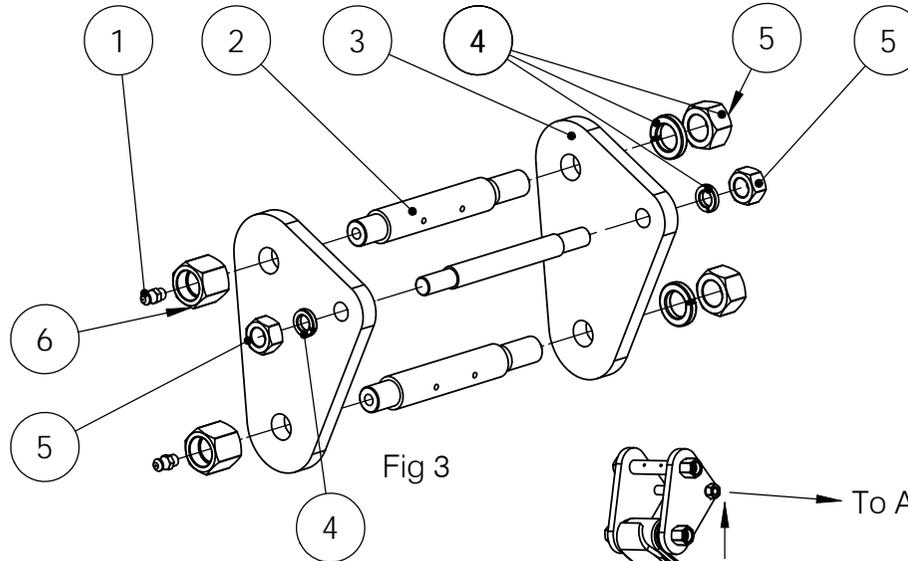
- 3) Position small pin then place remaining shackle plate over pin ends.
- 4) Place spring washers and nuts over pin ends.

(Do not tighten at this stage, firm finger tight will be sufficient).
Lower vehicle to ground and bounce to neutralise. Ensure shackles are operating freely and have settled into correct position. (See Fig 4)

- 5) After vehicle is lowered to ground, now you can tighten the large M14 nuts to 90ft/lb and the smaller M10 nuts to 40ft/lb.

- 6) Fit and tighten head plate deep nuts to 85ft/lb

Check all fasteners after 500km, re-grease periodically if polyurethane bushes have been fitted.



Actual components may vary depending on model.
Some image detail omitted for clarity.

Anti-Inversion shackles are available for selected vehicles.

The 3 pin design protects the spring against unwanted inversion (flipping inwards).

The 3rd pin will contact the chassis rail before damage can occur.

A small amount of thread locking compound is acceptable, however not essential.

Ironman 4x4 recommends Molybdenum Disulfide based grease for use with polyurethane bushes.