

RACK INSTALLATION

On power racks fit hydraulic hoses.

NB: top port is LOW PRESSURE inlet and lower port is HIGH PRESSURE outlet.

Banjo fittings are pre-set and torqued to specifications.

DO NOT remove unless necessary.

7 Raise complete rack assembly taking care, guiding hoses and intermediate shaft into place

8 Line up lower steering box holes and fit supplied bolts, washers and nylocks. NB: 7/16 unc x 4 inch.

9 Fit tube bracket to left hand outer side of chassis and install supplied bolts, washers and nylocks through idler arm holes. NB: 5/16 unc x 5 inch.

Check for clearances for sway bar bolts.

Torque all bolts to specifications.

10 Rack is centred and tie rod ends are set at approximate lengths to connect to steering arms.

Connect tie rod ends to steering arms and torque nylocks to specifications.

Torque tie rod adjusting nuts to specifications.

Fit sway bar to links and fit bushes and nuts.

Lubricate D-bushes and saddles with supplied grease and then bolt into place. Torque nuts and bolts to specifications.

NB. Shorter steering arms of HQ-WB's fitted with power steering should be used. This will give a smaller turning circle than longer arms.

To ensure correct arms are being used, measure from centre of front mounting hole to centre of tie rod end stud taper hole. This should be approximately 3.5 inches, as per illustration.

STEERING INTERMEDIATE SHAFT INSTALLATION

11 If fitted, remove bolt that's supporting brake proportioning valve.

Being careful not to damage brake lines, fit support bearing bracket over control arm support bracket bolts (i.e. next to alignment shims) and tighten with supplied nuts.

Remove pinch bolts from all universal joints to allow steering shafts to slide freely in uni-joints while assembling.

12 Fit 1 inch 48 spline uni-joint to steering column lining up grub screw with slot on steering column shaft.

13 Fit small intermediate shaft to uni-joint on rack and to DD uni-joint.

Slide longer intermediate shaft through support bearing and connect to steering column uni-joint and lower $\frac{3}{4}$ DD uni-joint. NB: Uni-joints bolts fit into slots on steering shaft.

Make sure steering shaft is not protruding through end of uni-joints.

Install uni-joint bolts and torque to specifications.

Tighten grub screw and lock nut on steering column uni-joint.

NB: if steering shaft is too long or too short, adjustment can be made on steering column under dash. Adjust accordingly.

Align support bearing and tighten lock nut.

14 **This concludes the installation of the rack**

PLEASE ENSURE all mounting bolts and uni-joint bolts are torqued to specifications and steering wheel rotates freely without any uni-joint binding.

All that is required now is the connection of hydraulic lines, adding hydraulic fluid and bleeding the system.

Standard Original Power Steering Pump can be used. New hoses will need to be made to suit. Blacks Racks can supply new power steering pumps to suit Chev and Holden V8's.

NB: recommended Castrol power steering fluid.(approximately 800ml).

Have vehicle aligned to **supplied recommended specifications.**

It is a requirement that an LS4 checklist be completed and signed by an appropriately qualified person (Qualified Mechanic). The vehicle will require to be presented for inspection to a vehicle examiner approved by the jurisdiction under which the vehicle is licensed and a modification approval will be issued.

The LS4 checklist can be obtained from www.dpi.wa.gov.au/licensing/1421.asp