

## RV8 – caution: do not tow without very great care

### INFORMATION



#### WHEEL – FREE LIFT

If crossbeams are available, locate the pads under the longitudinals (2) and torque control arm front attachment points (6).

**CAUTION:** Do not allow pads to contact torque control arms.

If only longitudinal beams are available, locate the beams under the longitudinals and rear axle tubes with the lifting pads at position (2), and (4). Raise the lift a few inches and ensure the vehicle is firmly supported. Raise the lift to full height and inspect the lifting points for security.

#### RECOVERY

It is recommended that a recovery trailer be used.

**CAUTION:** On no account must the vehicle be towed with the rear wheels on the ground and the propeller shaft connected, or if the rear axle is faulty.

If in an emergency the vehicle must be towed on its own wheels, disconnect the propeller shaft from the rear axle and use the front lashing eye (7). Before towing commences release the

handbrake, place the gear lever in neutral and the ignition switch at 'I'. Do not tow at a greater speed than 30 m.p.h., 50 km/h.

**WARNING:** To ensure that the steering does not lock when the vehicle is being towed, it is essential that the ignition key is turned to position 'I', and remains there while the vehicle is moving.

Ensure the following precautions are observed:

Do not tow with the propeller shaft connected, or if the rear axle is faulty.

Do not tow if a wheel is touching the body or suspension.

Ensure the handbrake is released.

Remember that greater effort than normal will be necessary to apply the brakes if the vehicle is being towed without the engine running.

#### TOWING

This vehicle should not be used to tow another vehicle or trailer.

Lubrication is by an oil pump located in the extension housing which directs oil via internal drillings in the output shaft to lubricate the components. A geared fibre oil pump feeds the main bearing on the first motion shaft and the key point is the pump is on the input side (engine shaft) of the gearbox and is not on the output shaft. When the engine is not running there is no oil circulating in the gearbox. Towing an RV8 with the rear wheels on the road will mean the gearbox will be in action with no forced lubrication and damage to the gearbox may result.

Note: the caution above applies to both gearboxes fitted to the RV8 during its production run - the LT77S gearbox and the later R380 gearbox fitted from VIN 0644.

Extracts from the LT77S and R380 gearbox overhaul manuals are provided below but they do not repeat the towing caution.

## MANUAL GEARBOX

### OPERATION


The 77mm 5 speed gearbox comprises an input shaft, output shaft, layshaft and reverse idler shaft having synchromesh on all forward gears.

Gearbox casings consist of a front cover, gearcase, centre plate and extension housing, all casings are located by dowels and sealed with gaskets.

Selector forks for 1st/2nd and 3rd/4th gears are located on a selector shaft, whilst the selector fork for 5th gear is located in a bracket secured to the centre plate and is operated via a spool secured to the selector shaft. Reverse gear selection is by means of a reverse selector lever attached to a pivot post.

The input shaft, output shaft and layshaft are supported by taper roller bearings with all gears running on caged needle roller bearings. End float of 1st and 3rd gears is controlled by means of selective bushes whilst input shaft and layshaft bearing end float is controlled by selective thrust washers.

Lubrication is by an oil pump located in the extension housing which directs oil via internal drillings in the output shaft to lubricate the components.

MANUAL GEARBOX 	
<b>DESCRIPTION</b>	
<p>The R380 5 speed all synchromesh gearbox comprises an input shaft, output shaft, layshaft and reverse idler shaft .</p> <p>Gearbox casings consist of a front cover, gearcase, centre plate and extension housing, all casings are located by dowels and sealed.</p> <p>Selector forks for 1st/2nd and 3rd/4th gears are located on a single selector shaft inside the main gearcase whilst the selector fork for fifth and reverse gear is located on the same selector shaft inside the extension housing.</p> <p>The input shaft, output shaft and layshaft are supported by taper roller bearings with all gears running on caged needle roller bearings. Output shaft and layshaft bearings end float is controlled by selective thrust washers located in the centre plate.</p> <p>Lubrication is by an oil pump located in the extension housing which directs oil via internal drillings in the output shaft to lubricate the components.</p>	
<b>DESCRIPTION AND OPERATION</b>	

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