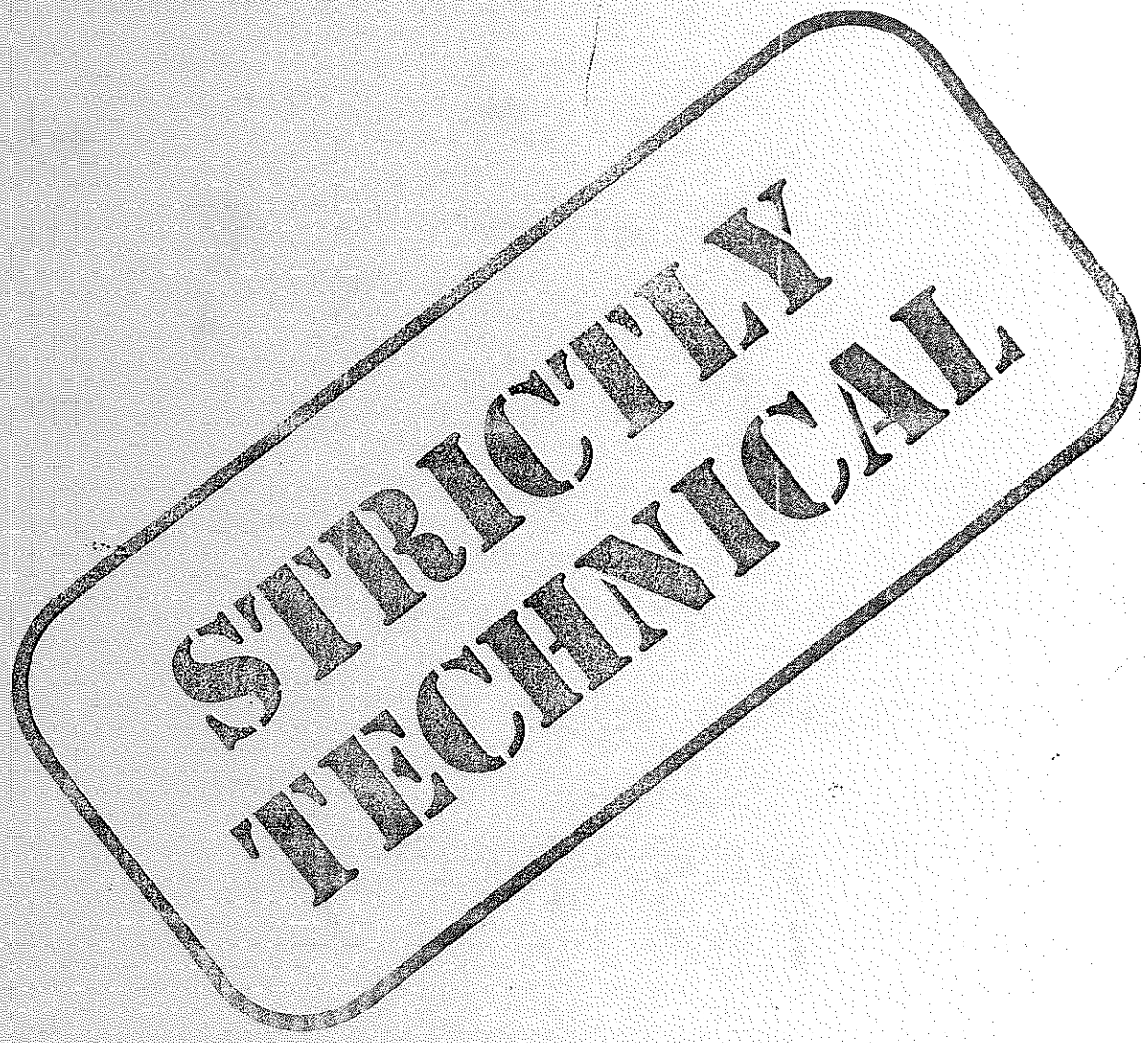
ANYTHING BUT AVERAGE



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MEMBERS PLEASE NOTE.

These bulletins are for the information of members only. No responsibility is taken for the accuracy of the material within each bulletin and members are advised that work on their vehicles, should always be carried out by properly authorised and trained personel.

Australian P76 Owners Club

ASSEMBLY OF INLET MANIFOLD

When investigating manifold gasket failure or poor idling on V8 engines it is imperative that the manifold retaining bolts be checked for length. There should be ten 1 1/2" x 3/8" and two 2" x 3/8" bolts at points 9 and 10 in Fig. 1. Instances of 1 3/4" bolts being used instead of 1 1/2" bolts have been reported. These can bottom on the threads and not fully clamp the gasket.

When replacing a manifold gasket it is recommended that an even application of adhesive be applied to both sides of the joint washers. One of the following adhesives should be readily available in the field - 3M-EC 776, 3M - 1099 or Pliobond. After application a half hour minimum dry off period must be allowed.

To minimise manifold distortion and maintain alignment between manifold and heads the following tightening procedure is required:

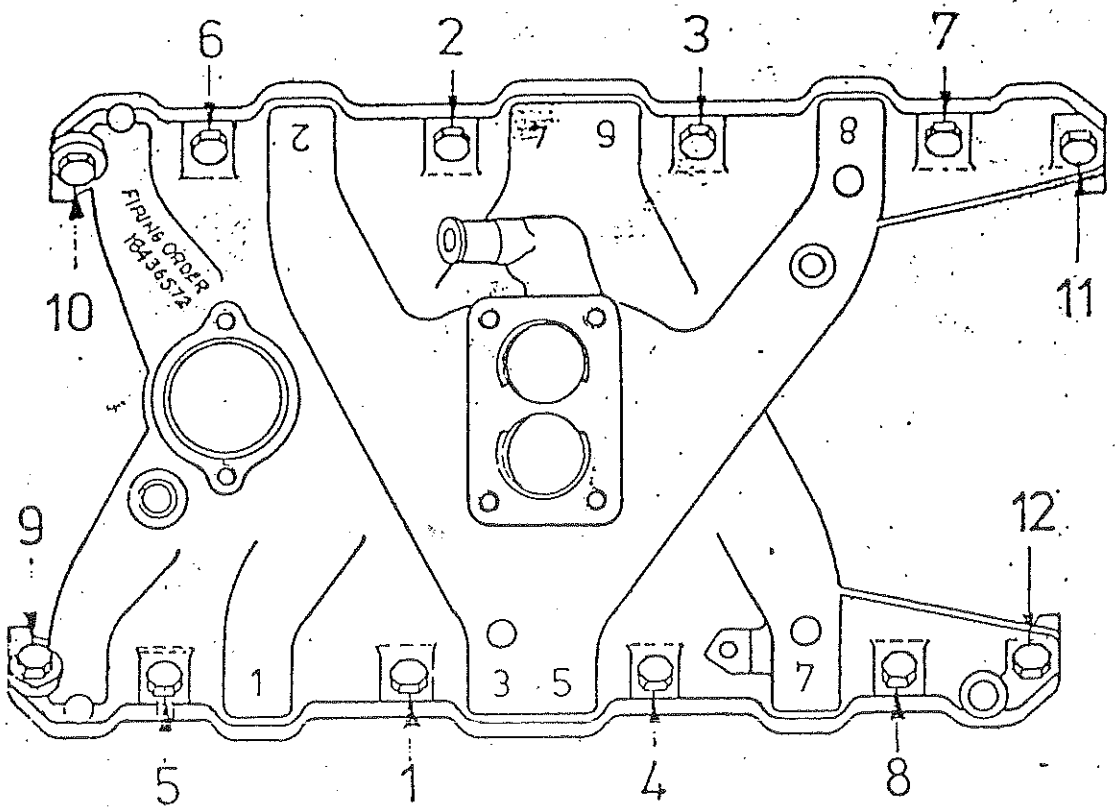
1. Fit valley cover gasket, align with ports then fit and tighten rubber end seals to pull valley cover gasket fully home.

2. Start all fixing screws by hand.

3. Run all screws down in sequence until contact with manifold casing is made, i.e. finger tight. If this is not done the first screw torqued will tilt the manifold in the valley and tightening the screw on the opposite bank does not correct the misalignment.

4. Tighten in sequence to 13.5 - 20 Nm (10-15 lbs. f. ft. Torque)

5. Tighten in sequence to 34 - 41 Nm (25-30 lbs. f. ft. Torque)



NOTE: If this is a repeat failure remove the left hand cylinder head and refit with a new gasket. Do not tighten the cylinder head until the manifold has been aligned correctly then tighten the head bolts to the correct torque.

CRANKSHAFT REGRIND

E6 - V8 ENGINES

In future, crankshafts will, when necessary, be ground in production to 0.010" under the normal size.

Engines fitted with these shafts will be identified by the Engine Number prefix 'M' for main undersized bearing or 'P' crank pin undersized bearing or 'MP' if both main and con rod bearings are undersized.

ENGINE VIBRATION

P76 '442' - V8 AIR CONDITION

Investigation into complaints of vibration from engines fitted with air conditioning equipment have been traced to "whip" of the "raw edged" type drive belt.

Should this problem be encountered, replace the belt with one of conventional "wrap" type construction.

Present parts stocks of AYD 0193 are of the "raw edge " type. On deletion of stock, wrapped belts will be introduced under the same part number.

In the interim, Goodyear V1190 belts should be used for this application.

Belt Tension : Final 445 N (100 lb.f) Maximum.

SUMP PLUG LEAK - V8

The nylon sealing washer can be replaced by a copper washer, AYG.0096.

ENGINE OIL CAPACITIES

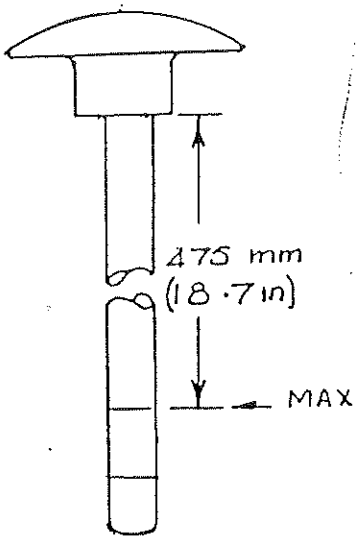
P76 '442' - V8
and '262' - E6

Field reports have been received indicating discrepancies in Engine oil capacities, refill quantities and dipstick graduations.

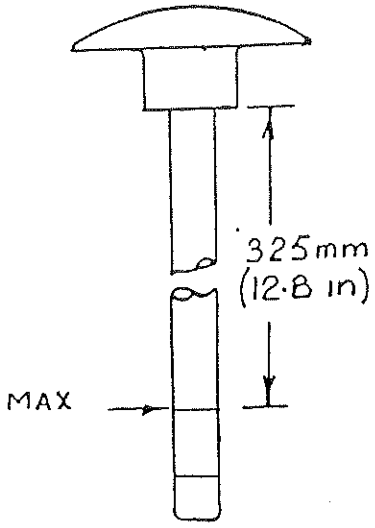
The following dipstick graduation dimensions and capacity figures are correct.

Dipsticks should not be remarked unless they vary from the dimensions shown.

'442' - V8
Underside of knob to 'Max' mark.
475 mm (18.7 in)



'262' - E6
Underside of knob to 'Max' mark.
325 mm (12.8 in)



Capacities - '442'			
Drain and Refill	-	3.0 litres	(5.25 pints)
Oil Filter	-	0.74 litres	(1.30 pints)
Remaining in Reservoir	-	0.57 litres	(1.00 pint)
Remaining in Galleries	-	0.57 litres	(1.00 pint)

Capacities - '262'			
Drain and Refill	-	3.4 litres	(6 pints)
Oil Filter	-	0.67 litres	(1.36 pints)
Remaining in Reservoir	-	0.57 litres	(1.00 pint)

OIL CONSUMPTION - P76 -V8

During an investigation into the causes of excessive oil consumption, it was discovered that in some instances engine oil was passing into the fuel system due to flexing fatigue of the laminated diaphragm in the fuel pump.

A new material has been developed to make a single sheet diaphragm which in addition to rectifying the oil problem will have a longer service life.

Fuel pumps incorporating the new type diaphragm Part No. HYL.4850M were introduced at the following engine numbers.

Prefix		Engine No.	Prefix		Engine No.
4400	-	6793	4409	-	1022
4401	-	2409	4410	-	1033
4402	-	2397	4412	-	1661
4404	-	3068	4413	-	1006
4406	-	1013	4414	-	1001
4408	-	1170			

The new type diaphragm Part No. HYL.4850M ONLY should be used to service fuel pumps where it has been established that a defect has developed in the original diaphragm resulting in excessive oil consumption.

OIL STARVATION - V8

Instances have been reported of oil starvation during heavy braking. The oil pick up baffle at the base of the pick up complete, AYD.0211, has been redesigned and the pick up complete has been given a new number, AYD.0103.

Method of Rectification

1. Remove the oil pick up complete.
2. Grind the turned up lip of the existing baffle plate and remove it from the assembly.
3. Clean up the ground face of the pick up and offer up the new baffle plate to it, ensuring that the large hole faces forward.
4. Secure the baffle with silver solder to provide an airtight joint.
5. Refit the modified oil pick assembly with a new flange gasket.

4. INLET VALVE SEALS

In a few instances, the addition of inlet valve seals has been beneficial. This area should not be overlooked if items 1, 2 and 3 appear in order. Inlet valve seals (part No. AEG327) were fitted in production at the same time as annular grooves were machined in the guides to locate the seal commencing at engine numbers 4400/2625, 4401/1139, 4402/1392.

Seals to fit over the initial production inlet valve guides which were not recessed are available from the State Service Officer or State Distributor - Part No. DYE0028.

Cylinder heads are not to be disturbed for the purpose of fitting these seals. Do not use bent rods, etc., to hold the valve in position. It is a simple matter to make up an adaptor for an air line using a spark plug boss. If the cylinder is pressurised at T.D.C., the valve spring can be removed and the seal fitted over the guide without the need for cylinder head removal. In addition to the adaptor, a simple lever is required to compress the valve spring. This fits on the rocker study and can be made up from a 9" length of 1 1/4" x 1/4" flat mild steel. Drill a 3/4" hole at one end of a 3/8" hole at 1 3/8" centres from the first hole. Set the lever to a convenient angle in the middle. Elongation of the 3/8" hold with a round file will be necessary to allow sufficient angled movement.

5. RUNNING IN

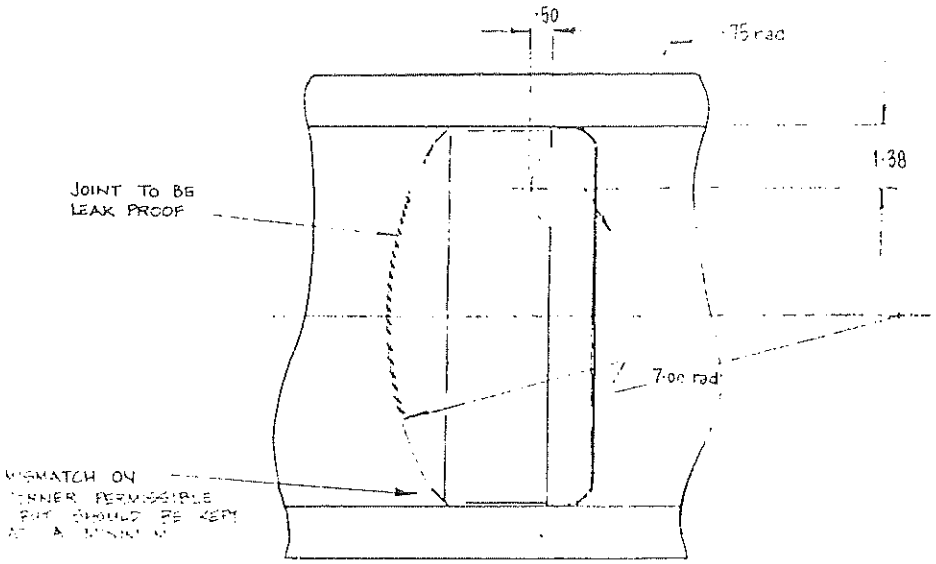
Vehicles which have been run quietly during the initial 1,000 miles will be more prone to suffer from oil consumption than those which have been run more vigorously. A special driving procedure has been developed to hasten the running in process by applying consistently high gas pressures behind the rings. Many vehicles which have been driven quietly may respond to this treatment. The procedure involves acceleration on full throttle from 30 mph to 50 mph and then deceleration back to 30 mph. This process should be repeated continuously for a distance of 5 miles. Any hill climing during the process would be beneficial.

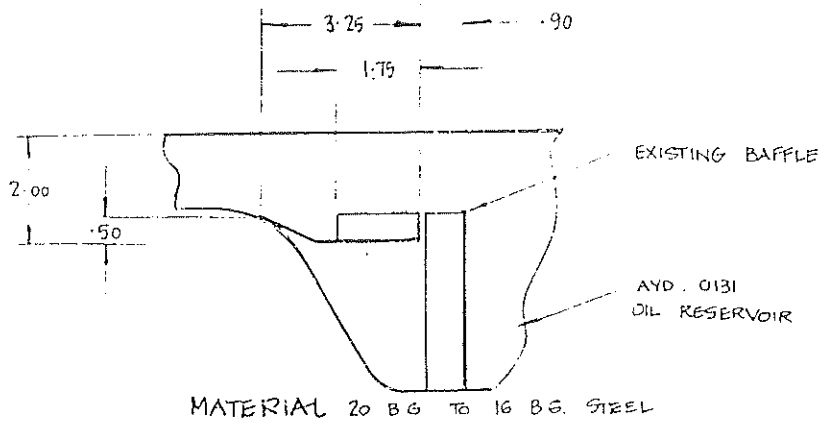
OIL STARVATION — P76-V8

Oil starvation under heavy braking has been encountered in a small number of vehicles.

This problem can be rectified by manufacture and fitting of a reservoir baffle as shown in the attached drawing. In addition, vehicles having engines prior to the numbers listed below, should be fitted with oil pickup assembly Part No. AYD 0253.

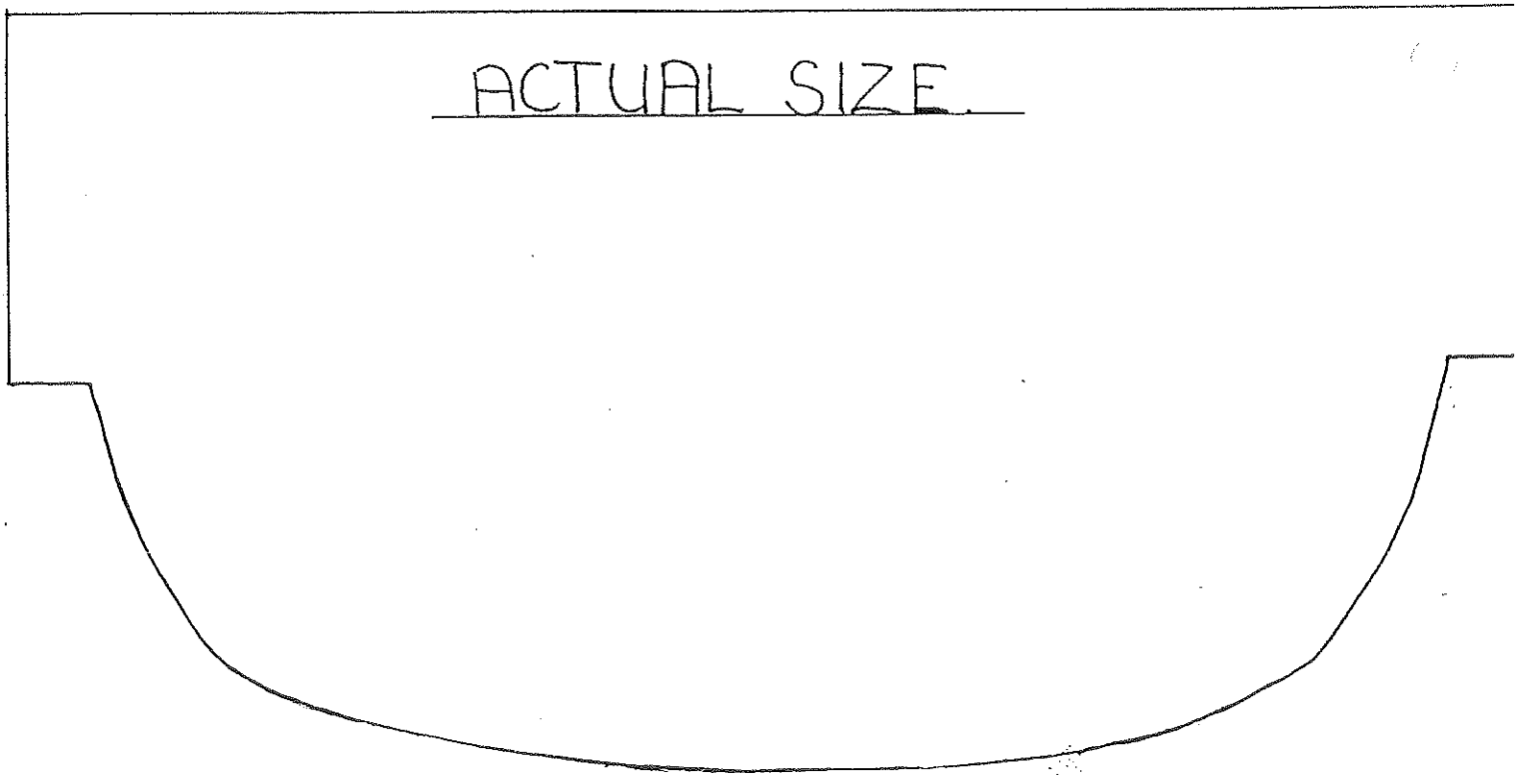
4400-2905	4406-1003
4401-1178	4408-1023
4402-1440	4412-1049
4404-1592	Others 1001 ON





MATERIAL 20 B G TO 16 B G. STEEL

ACTUAL SIZE.

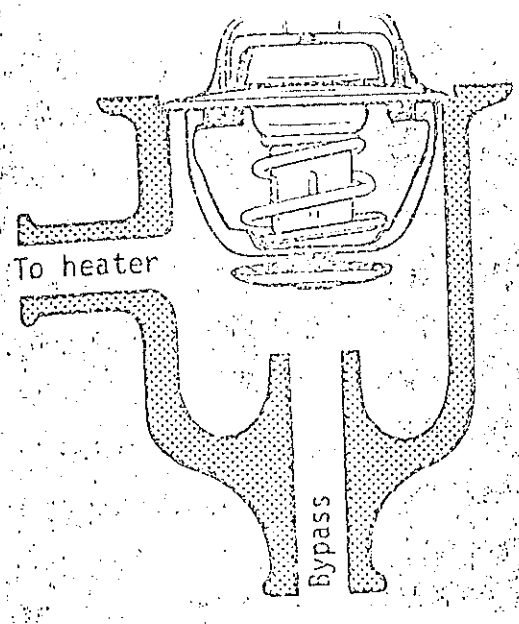


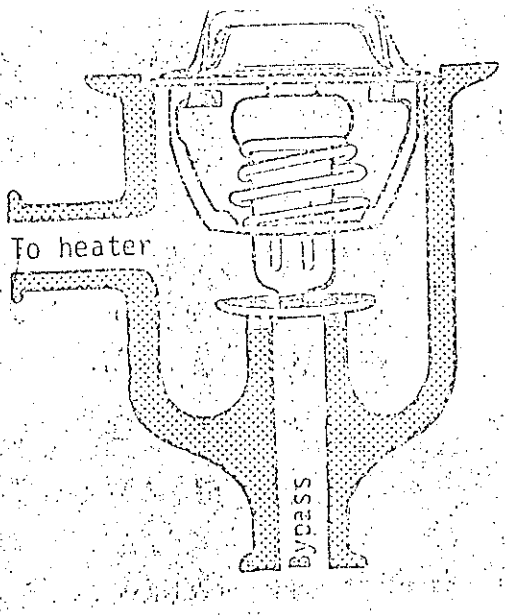
THERMOSTAT - 6 CYLINDER P76 ENGINES

Investigations of overheating, loss of heater effectiveness and possible cylinder head gasket failure have been caused by a replacement thermostat of incorrect type being fitted. This allows the coolant to circulate through the bypass when the thermostat is open.

The correct thermostat has a spring loaded flap valve on the lower end of the wax cylinder. This valve closes the bypass when the thermostat is open ensuring correct circulation - see sketch.

Part No. 13H7508 is the only thermostat to be used on all 6 cylinder engines.





OVERHEATING

In the event of the V8 engine overheating during the summer months, an alternate cooling fan can be fitted to overcome the problem.

1. Factory Air Conditioned Vehicles:

   Replace fan Part No. R 610421 with fan Part No. HYL 5078.

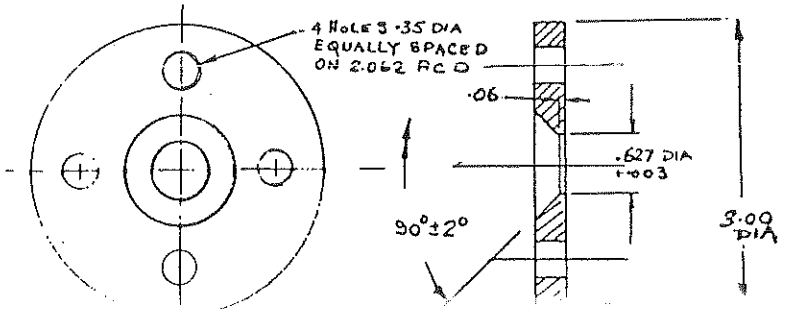
2. Non Air Conditioned Vehicles:

   Replace fan Part No. AYD 0052 with fan Part No. HYL 5079.

   Refer Item 2 Alternatives C 43/73.

   NOTE: It is essential that the new fan sit flat on the mounting face of the adaptor.

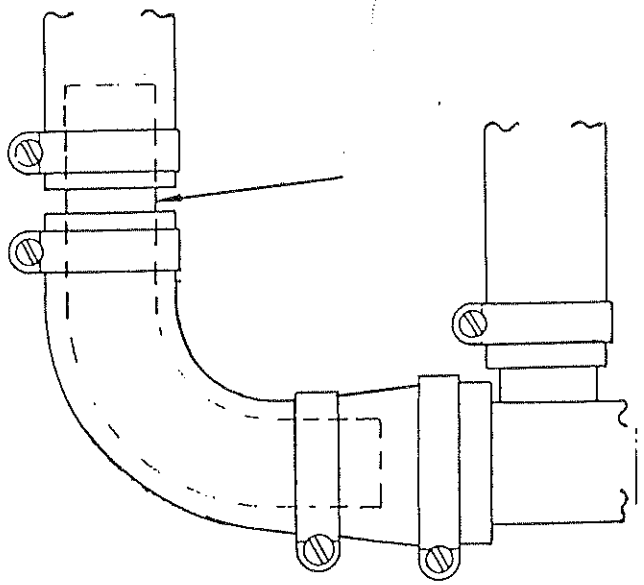
   Where the machining of the adaptor is not practical, the fan mounting hole may be chamfered on the inside to clear the adaptor spigot radius, or alternatively a separate adaptor plate manufactured as shown in the attached drawing.



Instances of heater hoses failing adjacent to the water pump hose clip have been reported.

To minimise the possibility of failure in service, an inspection of this hose should be carried out as part of any routine maintenance service or at any other opportunity when a vehicle is in for repair.

Should fatigue be evident, then a new hose should be fitted. In addition, further failures of this type can be prevented by the insertion of a 108 mm (4¼ in) length of 12.7 mm (½ in) OD copper pipe in the hose and secured with hose clips as illustrated.



AUTOMATIC TRANSMISSION DIPSTICKS

Isolated cases have been reported of incorrect total length of dipsticks being fitted to early production vehicles. All early vehicles must be checked and remarked if necessary.

The total length is measured from the underside of the location flange at the top of the dipstick to the MAXIMUM mark. Refer to Fig. 3. It is not necessary to restamp the letters MAX. and MIN. The original markings should be removed with emery cloth and the top of the dipstick marked white for identification.

AUTOMATIC TRANSMISSION FLARE AND/OR SLIP

If transmission flair or slip is detected, the dipstick length as outlined above should be checked as well as the normal diagnosis procedure. If, after carrying out the above checks the condition still exists, the State Service Office should be contacted.

DIPSTICK AND OIL FILLER TUBE MODIFICATION

AUTOMATIC TRANSMISSION

Isolated cases have been reported where transmission fluid temperatures have risen to the degree that has resulted in fluid discharge from the filler tube. The rise in fluid temperature does not adversely affect the operation of the transmission, but an under bonnet fire hazard could result from the fluid being discharged on to the exhaust manifold.

To eliminate this risk, the dipstick and the tube have been modified by sealing off the vent holes in the dipstick handle and providing a vent tube which will direct any fluid discharge to ground. This was introduced into production at vehicle Serial No. 14182.

It has also been decided to similarly modify all vehicles produced prior to Serial No. 14182. The necessary material plus a listing of vehicles sold by you requiring this modification has been dispatched to you.

Method of Modification

To remove the old tube

1. Remove the dipstick.
2. Loosen the manifold bolt clamping the support bracket.
3. IMPORTANT: Raise the car and clean the area at the base of the tube to prevent ingress of dirt on removal.
4. Remove the tube by pulling upwards and gently rocking the tube.

To replace with modified tube and dipstick

A - Dipstick tube with vent.

1. Ensure that the 'O' ring has come away with the old tube and that the register in the hole in the transmission is clean and free from oil.
2. Fit a new 'O' ring to the modified tube below the register.
3. Apply Pliobond (or other Nitrile sealer) to the tube in the area of the 'O' ring.

   NOTE - Pliobond is normally available from Hardware Stores in small tubes. It is a Goodyear product.

4. Offer up the tube to the gearbox and the bracket to the manifold bolt. Tighten the bolt whilst exerting pressure downwards on the tube.

B - Dipstick

1. Take the opportunity to check the dipstick for length. This is referred to in Bulletin C 25/73 and again is emphasised.

   It is of the UTMOST IMPORTANCE that the transmission be topped up to the correct level before being returned to owner. For this purpose the dipstick can be re-marked but only as a temporary measure pending replacement.

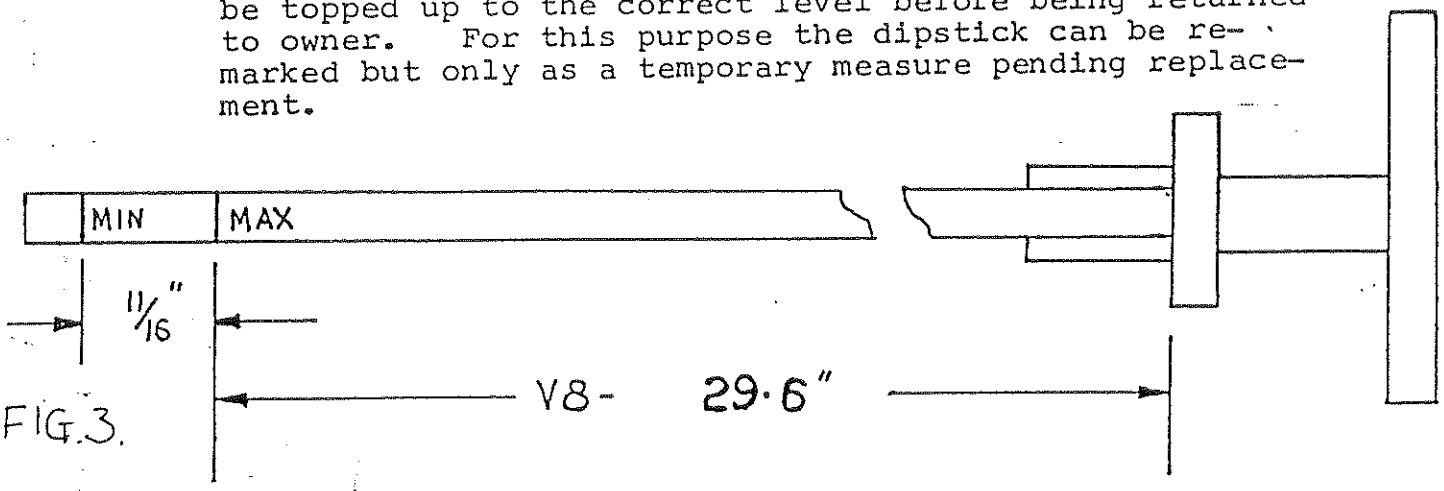


FIG.3.

2. To block off the vents in the dipstick handle, thoroughly clean the dipstick including the vented area of the handle.

   Apply Pliobond sparingly to each side of the blade at the vented area.

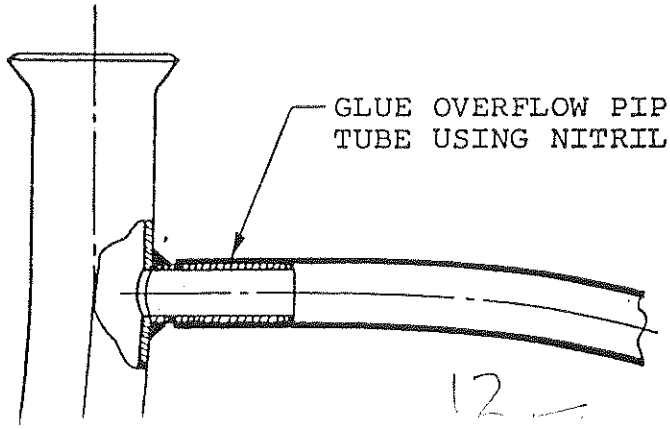
3. Slide the felt pad up the blade and press home into the upper portion of the handle to effectively block the vents in the handle.

4. Replace the dipstick.

C - Plastic Vent Tube

1. Feed the black plastic tubing behind the handbrake cable and brake pipes, passing it between the brake pressure limiting valve and the valance and between the two brackets normally used for mounting the clutch cross-shaft bearing. Push it beyond this point along the top of the longitudinal member until it is held between the member and the floor pan. Allow sufficient length to comfortably connect to the vent pipe on the dipstick tube.

2. Apply Pliobond to the vent pipe and offer up the plastic tube ensuring that the vent pipe is fully inserted in the plastic tube. Refer to sketch.



HAND BRAKE LEVER

If the hand brake cables are not correctly adjusted and the hand brake lever is pulled hard on, there is a possibility of the hand brake pawl tipping over when it overtravels on the ratchet, making it impossible to release. To overcome this, the hand brake cables should be adjusted so that the hand brake requires 2 to 3 clicks on the ratchet to move into the 'on' position with normal effort. On later production vehicles, the handbrake lever has been modified by the addition of a steel strip brazed to the top of the hand brake warning light trip plate.

Early production vehicles can be modified by brazing a steel strip positioned as described in the above paragraph. The dimensions of the strip are 3/8" wide, 1 3/8" long and .060" thick.

BRAKE PEDAL FREE TRAVEL

On early production vehicles, there may be instances of brake drag brought about by hydraulic pressure build up. This is caused by the lack of free play in the master cylinder push rod when it returns to the off position. It has been discovered that the rubber pedal buffer, AYD.5063, will arrest the brake pedal before the free state is obtained. This condition can be corrected simply by removing rubber from the buffer. When the correct pedal return has been arrived at, the stop light switch adjustment should be checked and adjusted if necessary.

REAR AXLE SNUBBER RUBBER - PINION

When cases of the propeller shaft touching the floor on full bump are experienced, the snubber rubber should be packed down by a 3/8" mild steel plate.

FRONT SUSPENSION SPRINGS

Front suspension coil springs are tolerance coded by dabs of blue or red paint on centre coils.

The higher tolerance spring (red dab) is to be fitted to Executive model only, to maintain trim height of front suspension and to alleviate the reduction of front trim height.

FRONT SUSPENSION CROSSMEMBER MOUNTING

This bulletin annouces the recent introduction of a reinforcement in the longitudinal member at the front suspension crossmember mounting bolt holes. This was introduced at body number:

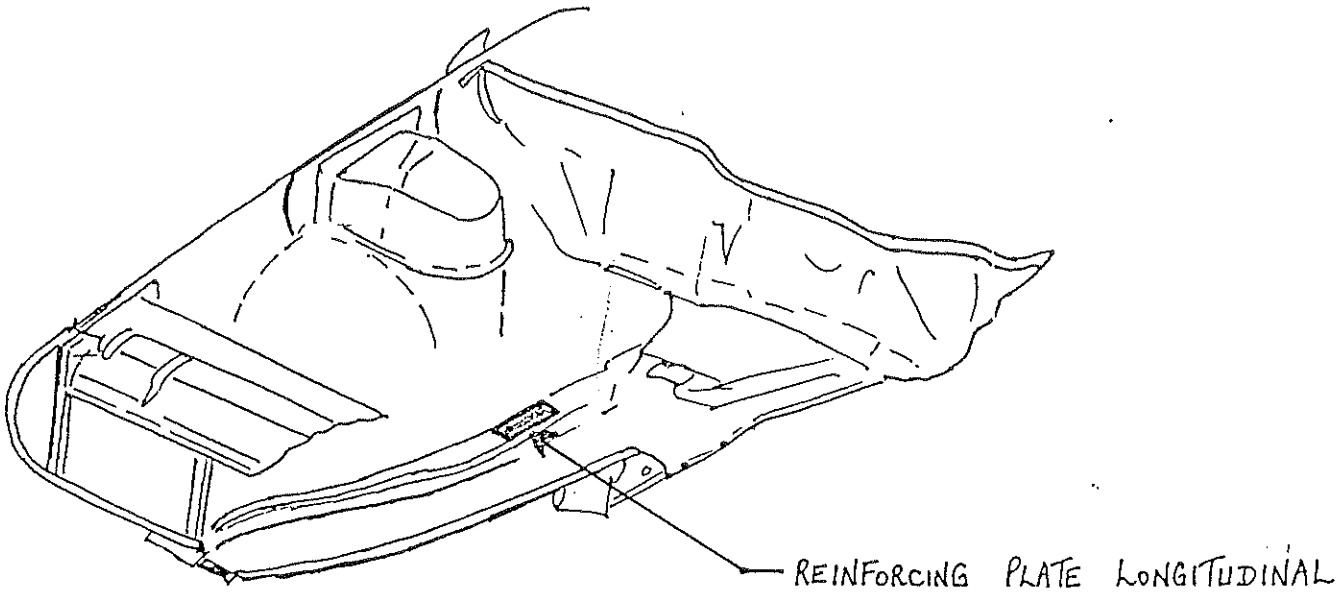
3267 - level 2
2932 - level 3
734 - level 4

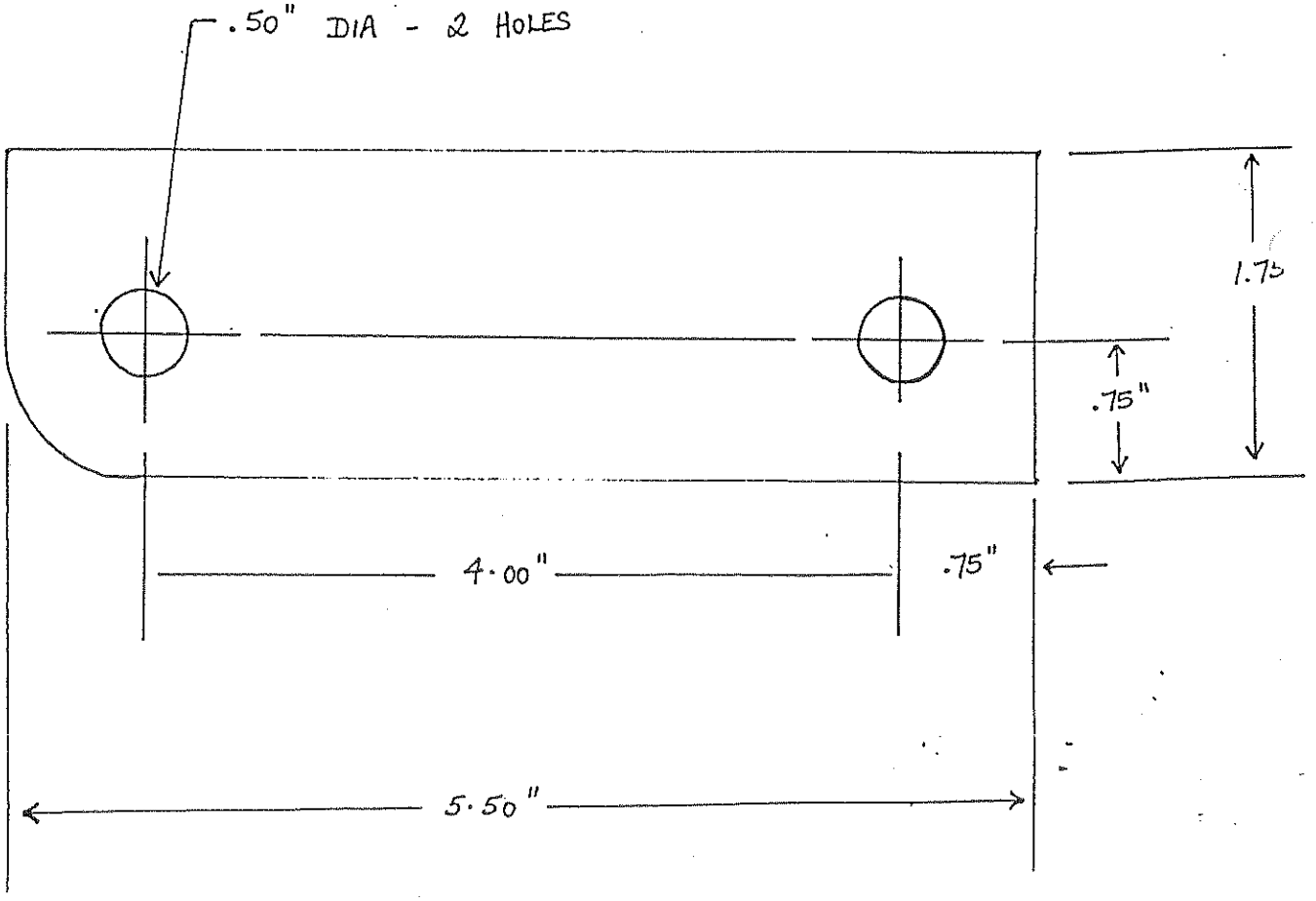
Venicles prior to the introduction of this modification may suffer from a rattle in this area due to movement of the crossmember. It is recommended that a I/8" thick reinforcement plate is substituted for the flat washers used under the mounting bolt lock nuts.

To add the reinforcing plate remove the rear 7/16" UNF cone type locknut (MYH0790) and the plain washer (PWZ0107). Make sure that the bolt (HBZ0732) does not fall through. Place the reinforcing plate (HYC7834) with the rounded corner over the bolt and replace the locknut. Finger tighten the locknut. Do not replace the washer.

Undo the front locknut and remove the plain washer. Slide the reinforcing plate over the bolt and replace the locknut. Retighten the rear locknut.

Repeat the above procedure for the opposite side of the car.





TIE BAR RUBBERS

Where vehicles are operating continuously under adverse conditions, the tie bar rubbers may not achieve their anticipated life expectancy.

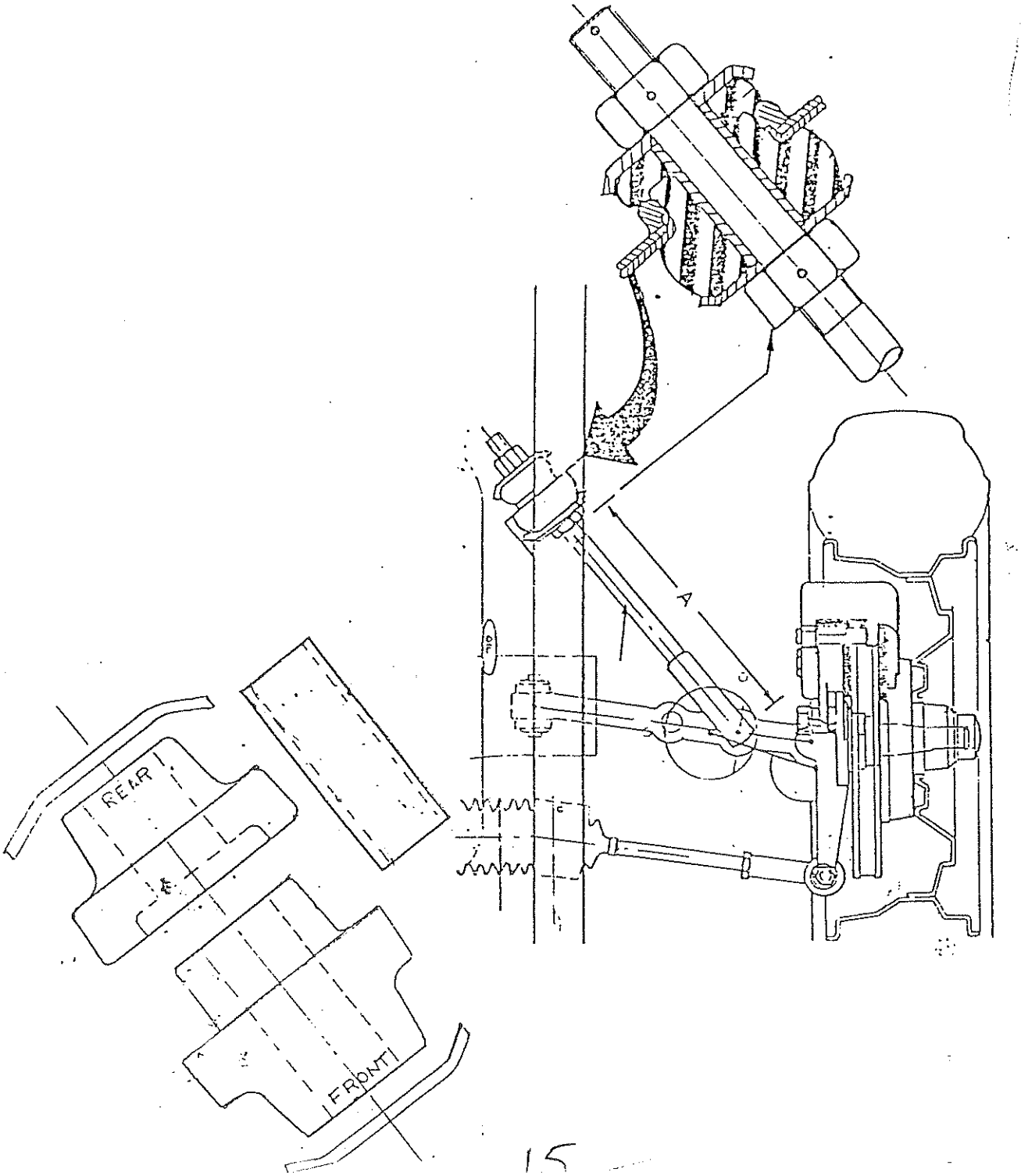
In this event, a heavy duty replacement package is available under Part No. HYL 5080.

These rubbers require an additional 6.3 mm (0.25 in) sleeve to be fitted to the rear bush on assembly. This sleeve can be cut from a standard MYH 1131 sleeve.

Assemble the components as shown in the sketch.

DO NOT use a lubricant on the bushes.

NOTE: The effective length of the tie bar is reduced to 276.2 mm (10-7/8 in) when using this package, and the twin-lock nut torque remains unchanged at 68-95 Nm (50-70 lb.f.ft).



It is essential that the IMPORTANCE of adequate inhibiting of the V8 engine cooling system is clearly understood.

1. COOLANT INHIBITOR

A mixture of water and anti-corrosion inhibitor *SQ36 should be used. This inhibitor should be mixed at the rate of 20 mls. to one litre of water (3 fl. oz. to one gallon of water) or 20z mls. (7 fl. ozs.) of inhibitor for each cooling system.

* SQ36 Inhibitor is available through the Parts Division

Part No. XXX1002 500 millilitres (approx. 1 pint)

Part No. XXX1003 5 litres (approx. 1 gallon)

WARNING - Soluble oil types of additives such as "Bars Leaks" are not compatible with SQ36 and MUST NOT be used.

Topping up the cooling system with plain water will seriously dilute the inhibitor and reduce its effectiveness. Therefore, cooling systems should ONLY be topped up with the correct solution of water and inhibitor. A container of pre-mixed solution such as a five gallon drum should be kept in the workshop for this purpose. There is no simple way of accurately checking the concentration of inhibitor in the system and if there is any doubt it should be drained and refilled.

The consequences of inadequate inhibiting is corrosion of the aluminium which will eventually block the radiator resulting in overheating.

2. ANTI-FREEZE

In areas where an anti-freeze mixture is required during the winter months an anti-freeze complying with specification **BS3150 type A must be used with the water. In addition to protecting the engine against frost the specified anti-freeze contains adequate inhibitors to protect the engine against corrosion. A 25% mixture 250 mls. per litre (2 pints per gallon) will provide protection against freezing for coolant temperatures to -12°C (10°F).

** Anti-freeze to specification BS3150 for alloy engines is available through the Parts Division.

Part No. XXX1004 1.137 litres (1Qt.)

If anti-freeze is being used for a prolonged period (in excess of six months) it should be supplemented with half the normal quantity of SQ36 inhibitor to ensure proper protection against corrosion.

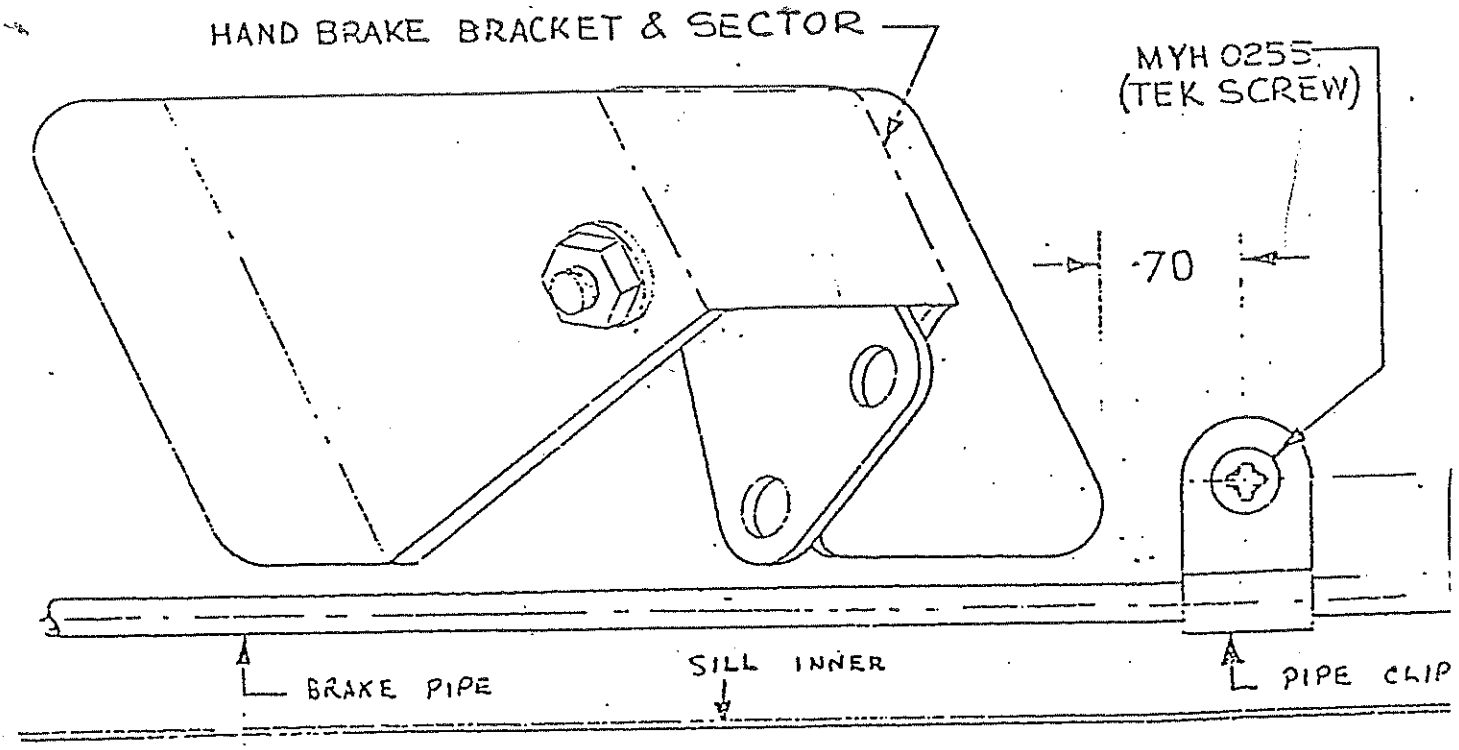
3. Whichever type of inhibitor is used the cooling system must be drained, thoroughly flushed and refilled annually.

Dealers are reminded of the importance of using the specified inhibitor in all P76 alloy engines and to emphasise the point the following warning sticker is now affixed.

BRAKE PIPE FIXING

A number of early production vehicles have been built with a weld tag approximately 3" behind the right hand side body sill mounting bracket for the hand brake sector. This weld tag was intended to hold the brake pipe into the sill so that the pipe would clear the sector travel path.

The pipe should run below the tag and have the tag bent down over it. Some vehicles have had the pipe placed above the tag which could result in a chafe condition between the pipe and the sector. Later production vehicles have a 'P' clip fitted. See Fig. 1. All vehicles should be checked and, if this problem exists, should be corrected.



BRAKE CALIPER BANJO BOLTS

Following the discovery that over-tightening of this bolt in service could cause a fracture and resultant safety hazard, it has been decided to apply a safety related Recall Campaign to all vehicles fitted with bolts of the original specification.

A bolt of revised specification, Part No. AYD5097, was introduced into production on 1/10/73 and only vehicles with compliance plates dated earlier than 10th month 1973 require the bolt to be changed.

CLUTCH AND BRAKE PEDAL SQUEAK

This can be overcome by fitting a bush inside the coils of the respective pedal return spring.

Bush - clutch pedal - Part No. DYC0042

Bush - brake pedal - Part No. DYC0041

METHOD - BRAKE

1. Remove R.H.S. air vent hose.
2. Remove pedal pivot shaft and push rod clevis pin.
3. Unhook return spring from pedal and pedal bracket and lower pedal assembly.
4. Through vent hose hole, insert nylon sleeve onto pedal tube between tube and spring.
5. Rebuild, being careful to ensure threaded end of pivot bolt enters the pedal bracket correctly.

CLUTCH

1. Remove nut, and push pivot shaft 1" out board.
2. Remove pedal and steel bush, fit sleeve between pedal tube and spring.
3. Rebuild.

AUTO DISENGAGEMENT - 3RD GEAR

FOUR SPEED MANUAL TRANSMISSION

Isolated cases have been reported of automatic disengagement of 3rd gear on the over-run.

A new synchronised assembly (mated hub and sleeve assembly less blocking rings) is available through normal channels to overcome the problem. The Borg Warner Part No. reference is 0503-575001 which supersedes synchronizer assembly WO 88035. In addition to being a mated pair, the new sleeve is back-raked at the engagement end of the splines.

REAR ENGINE MOUNT

The rear mounting has a 4^{o} taper on the top face to conform with the slope of the engine in position. The highest side should face the front of the car.

The mounting is not marked and it is necessary to "sight" the taper to determine which is the leading face. Excess engine vibration could result from incorrect fitting.

THROTTLE SHAFT END-FLOAT

P76 - E6

It is essential that throttle shaft end-float is maintained on all E6 engines. This should be within the range 0.127 - 0.762mm (0.005 - 0.030 in) and can be achieved by adjustment of the mounting bracket AYB.2559.

This adjustment is governed by the limited movement of the bracket on the fixing bolts and should insufficient movement prevent the necessary end-float being obtained, slight bending of the bracket is permissible to achieve the required specification.

CAUTION: On no account should the maximum dimension, 0.762mm (0.030 in) be exceeded as this could allow disengagement of the shaft from the hollow headed nut on the throttle spindle.

CARBURETTER

P76 - V8

To prevent fouling of the choke rod, the throttle return spring must be fitted with the long straight end of the spring connected to the front hole of the throttle lever. The opposite end of the spring must be attached to the rear hole of the throttle return spring bracket.

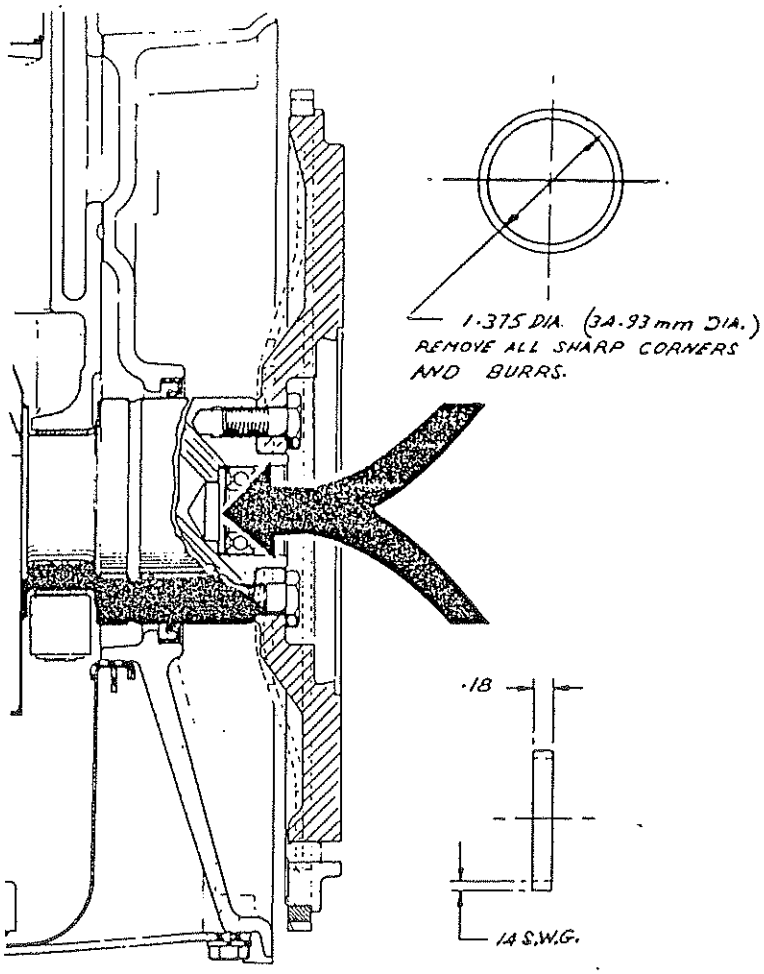
FUEL STARVATION SYMPTOMS

P76 - V8

The vapour separator on V8 engines incorporates a fuel filter. When investigating fuel starvation symptoms, it is advisable to check this for blockage. This can be readily checked visually, as the inlet and outlet pipes align, thus, it should be possible to look through the separator, the fine filter only being visible. If this is not the case, a new separator will have to be fitted.

Investigation into the cause of clutch shudder in a small number of vehicles has revealed that the input shaft spigot bearing has been pressed too far into the crankshaft. The result being lack of support due to only partial engagement of the input shaft in the bearing. Later crankshafts have been designed to provide positive location of the bearing to its designed depth of 12.7 mm (0.5 in) down the bore.

Vehicles in service can be modified by the manufacture and fitment of a spacer as detailed in the following drawing.



LEYLAND SERVICE BULLETIN No 30

BODY SEALING

The following information outlines the possible points of water entry and the procedure to be followed for rectification. All of these points are currently covered in production now, but vehicles produced prior to this may need additional sealing in some areas. Care must be taken to ensure that the joints and seams to which sealing material is applied are clean and dry. If the existing sealer is badly cracked or loose, it should be removed before additional sealer is applied. All visible areas of additional sealing should be touched up with the proper body colour after completion.

WATER ENTRY - FRONT FLOOR

Water may enter the front compartment in the following areas:
Steering column cover plate; clutch cable blanking plate (automatic models only); toe board to scuttle seams and side panel seams on the upper ogitudinal member of the 'A' post. All of these points should be sealed with Selleys' "ADSEAL" which is obtainable from normal parts channels under part no. HYL 4980.
Additionally the sill finisher plates should be removed and a 5/16" diameter hole punched in the channel in the sill outer panel. This will allow any water which finds its way into the channel to drain into the sill panel assembly and out of the drain slots which are provided at the lower edge.

WATER ENTRY AT THE FOOT LEVEL VENTS

When investigating complaints about water entry in or around the foot level vents it is essential that the front guard outer panel be sealed to the front guard inner panel. Additional critical areas are the spot welded seams where the inner guard meets the upper bulkhead panel; the drip gutter seams particularly around the windscreen pillars; various mounting points on the bulkhead upper panel such as airconditioning unit and hoses; heater unit and/or hoses, windscreen wiper washer motor, wiper wheel box, bonnet and choke cables if applicable and speedometer cable rubber grommet. These should all be sealed with Selleys' "ADSEAL".
It is also extremely important to ensure that the 'A' post lower drain hole is free from any masking tape or body sealer. Additionally a service deflector shield can be made from 1/16" thick "Sizilation" material and the tags on this shield glued to the 'A' post inner closing panel and the flap tucked into the 'A' post itself. This then acts as a water shield.

WATER ENTRY - REAR FLOOR

Water can enter the rear floor from various areas but reference should be made to the door sealing section of this bulletin as obviously any water leak at the rear doors will find its way into the rear floor. Additional areas are the rear seatbelt anchor points (under the rear guard).

WATER ENTRY - DOORS

When investigating water entry at door areas it is extremely important to firstly ensure that he door rubber nylon retaining pegs are pushed fully onto the door panel. Originally the door rubber lower corners were not of a moulded section and this created a kinking condition which can result in water entry into the vehicle. If this condition is experienced, a door rubber having moulded corners should be fitted. Additional areas which should not be

overlooked are as follows: door lock to door frame sealing; upper door frame to door at waistline area; door seal retaining clips and door inner panel seams (lower corners); when retaping the door inner panel access apertures, it is important to start from the top of the aperture so that the overlap of tapes is correct, otherwise water can find its way inside the vehicle.

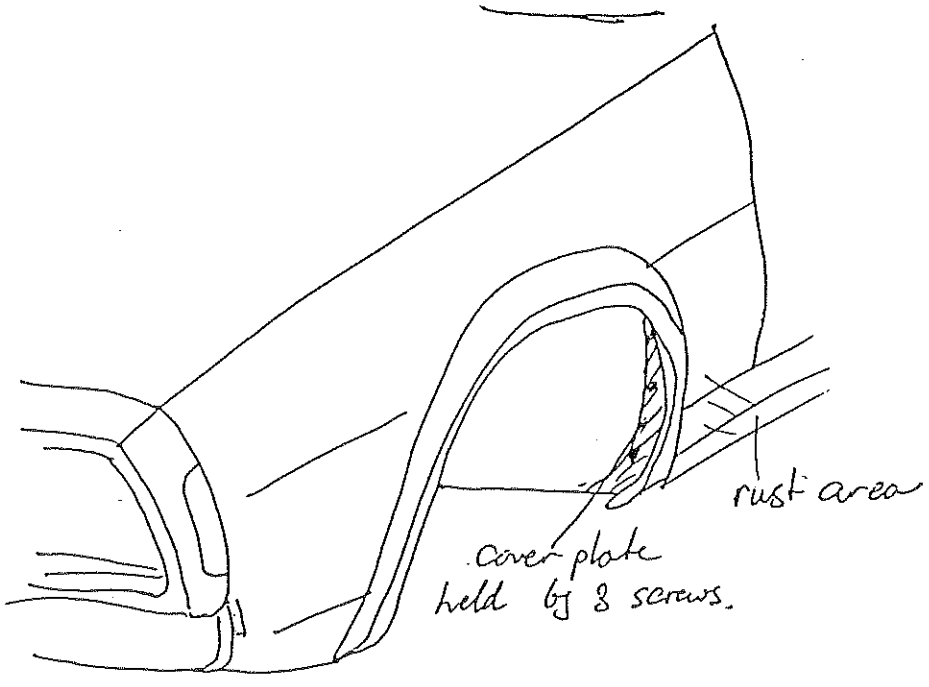
WATER ENTRY - BOOT

When investigating water entry into the boot, it is essential that the nylon pegs which retain the boot lid seal are pushed fully in. The lower corners of the boot seal should also be inspected to see that a piece of 3/8" solid round rubber packing approximately 4" long (Part No. HiK 1179) is under the seal lip. The other points which should be checked are as follows: All name badges and lock assembly; gutter seams; rear wheel arch inner panels in the areas adjacent to the guard finishing strips; floor seams; tail lights, and around the number plate.

P-TIPS & QUERIES

Front Guards.

Rusting is very prevalent in the rear section of each front guard. Although there is a drain slot, mud and gravel tend to build up between the inner and outer panels. This is difficult to clear and eventually the outer panel (and no doubt the inner one as well) rust through. This area can easily be hosed clean if a small cover plate attached by three self tapping screws is removed. See diagram below.



WATER AND DUST ENTRY

This problem has been the subject of extensive investigation and as a result of both field experience or our own test programmes, corrective actions have been taken in the design and the application of sealing techniques in production.

To assist Dealers in correcting water and dust sealing problems in service we have produced a special brochure "GUIDE TO WATER AND DUST SEALING - P76" (Copy enclosed on the basis of one per Dealer Point).

This brochure is very detailed and includes a diagnosis chart, specific sealing procedures and methods, details of design changes and a complete Repair Time Schedule for all the operations. The diagnosis chart will serve to identify the areas likely to require attention in relation to a particular water or dust entry pattern and is intended to minimise the corrective action necessary to overcome a particular problem.

The important point to remember when carrying out water sealing operations is to restrict attention to the areas indicated on the diagnosis chart. This will ensure that unnecessary and unrewarding work is not carried out.

The major design changes that have taken place are the introduction of the new bulb-type door seals and the 'ridged' door sill plates. The introduction of these changes should not be taken to imply that the early designs were completely unsatisfactory; rather that inconsistencies in the vehicle build caused non-achievement of the design intent.

Extensive tests have now proved that the new sill plates alone are highly effective in most instances in preventing water entry at the doors, irrespective of the type of door seal fitted. Therefore, when the diagnosis chart indicates water entry at the doors, attention should be restricted to the fitting of the new type sill plates and other areas of sealing as indicated on the diagnosis chart. The new type door seals should not normally be required.

It should be further remembered that the new type door seal cannot readily be fitted to cars built prior to the introduction of the seal into production as at that time the doors were also repositioned at the hinge points in order to accommodate the different form of the new seal.

If, for any reason, it is found necessary to fit the later type seals to an earlier car, it may then be necessary to carry out considerable adjustment at the hinges to achieve a satisfactory close condition. It therefore follows that the fitting of the new seal to earlier cars should be restricted to cases which prove absolutely necessary due to seal damage etc.

WATER ENTRY - DOORS

Further to Bulletin C16/73 under the heading "Water Drainer Door Sill Channel", it has been found that the suggested ¼" hole should be enlarged to 5/16" by punching to induce a better water flow. In addition, it is recommended that three (3) additional holes should be drilled in the channel, one at each side of the 'B' Post and another at the rear of the channel, finalising the size of each hole by punching to 5/16". Paint the raw edge of the holes to prevent rust bleed.

WATER DRAIN - INNER DOOR SILL CHANNEL

The full length inner door sill channel may collect an excessive build up of water from either door which will spill over into the floor pan area, particularly on braking.

Method of rectification

1. Remove the front door sill kick plate.
2. Drill ¼" hole in the centre of the channel at a point 5" to the rear of the "A" post.
3. Protect the raw edge of the hole with paint.
4. Replace the kick plate.

DUST AND WATER ENTRY

Further to Bulletin C30/73, we advise that action has been taken in production with regard to the following dust and water entry points.

1. REAR WHEEL ARCH TO OUTER SILL PANEL JOINT :

Where dust entry can be attributed to insufficient sealer at this joint, the stone shield must be removed and ADSEAL applied to the joint. When replacing the stone shield, apply 1/8 in. diameter strip of Butyl sealer to the stiffening rib recess at the top of the shield to improve the appearance. This procedure has been introduced in production.

2. FRONT DOOR :

Gaps between the spot welds at the lower corner where the inner door panel is attached to the leading section of the door frame result in water entry over the door sill into the car. Rectify by applying ADSEAL along with spot welded joint.

3. CONTROL CABLES:

Bonnet - V8 and E6

Water entering the plenum chamber will penetrate the wound metal casing of the bonnet control cable and drip off at the release knob end. This has been corrected in production by fitting a length of plastic tubing (15" x ¼" I.D.) over the exposed length of the casing in the plenum chamber and 2" through the grommet in the base of the chamber. In the near future, a plastic covered control cable will be fitted.

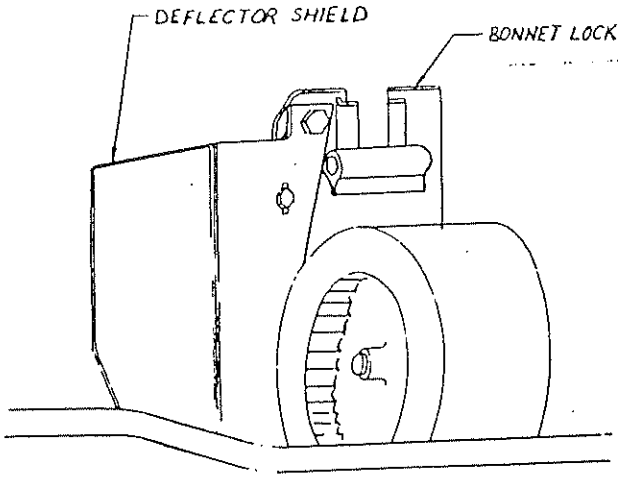
Choke - E6

Early vehicles had a wound wire choke control cable casing which passed through a grommet placed immediately below a plenum chamber drain hole. A short length of plastic tubing (9" x ¼" I.D.) placed over the outer casing and extending 2" through the grommet will prevent water entry at this point. The choke cable on later vehicles is located ¾" to one side of the drain hole and it is plastic covered.

WATER ENTRY VIA HEATER FAN

Under certain operating conditions, water from the right hand windscreen wiper blade could be deflected toward the heater fan intake, resulting in entry to the car interior.

This problem can be rectified by the manufacture and fitting of a deflector shield to the bonnet lock as shown in the following drawings.



SWING ARM EXTERIOR MIRROR

When fitting the 'Swing Arm' exterior mirror during new car preparation, Dealers must warn their staff against straining the spring.

These mirrors while designed to partially fold back on being bumped, cannot have a spring large enough to allow being pulled right flat along the base without sustaining some permanent loss in spring tension.

To avoid this, a groove is provided in the base of the arm to facilitate access to the retaining screw for a suitable screwdriver. This groove only lines up with the screw head when the adjustable arm is set perpendicular to the base surface. In this position, the screw may be tightened with a screwdriver having a blade no wider than 1/8" and a rather long shank - say about 7". On no account must the arm be pulled down to gain access to the screw, or damage to the spring will result. If the installation demands an arm set in a position other than perpendicular to the base, it should first be returned to the perpendicular if it is necessary to gain access to the screw during service.

SPEEDOMETER DRIVE CABLE

Two additional weld clips have recently been added to prevent the speedometer cable making contact with the exhaust line and to retain the cable at an improved approach angle to the gearbox. They are located on the rear engine mounting cross-member and at the forward end of the toe board.

It is emphasised that a 6" minimum radius of the cable is required at any direction change in the routing. The cable should pass to the outside of each front engine mount and above the steering rack housing.

Although the cable length is adequate to allow the extra clips to be used, care must be taken in the routing of the cable to ensure that slackness is evenly distributed between all cable attachment points. Longer cables will be introduced later as a running change.

Cables fitted to cars prior to the addition of these two clips will require special attention to achieve a good standard of routing, particularly if cable failure is being experienced. A single clip fitted at the uppermost portion of the cross-member flange, immediately above the exhaust line, will assist in this respect.

IMPORTANT

1. To avoid serious damage to the speedometer cable, it MUST be disconnected from the speedometer head prior to any attempt being made to remove the instrument panel.

2. Instances have been found where the inner cable is too long, resulting in noisy operation or damage to the speedometer cable and/or drive pinion. To check the length of the inner cable :-

   a) Remove the cable and pinion assembly from the transmission.

   b) Remove the retaining clip from the nylon pinion and remove the pinion.

   c) Ensure the cable casing is securely clipped to the speedometer head.

   d) Offer up the pinion to the cable and fit the pinion retaining clip. If pressure is necessary to move the pinion into position, the drive cable is too long.

      The effective length of the cable can usually be adjusted by up to approximately 3/16" by relocating the collar on the cable at the speedometer head end.

   e) Reassemble.

P-76 AIR CONDITIONING INSTALLATION

To meet the additional demands on both the cooling and electrical systems, cars fitted with factory air conditioning have these systems up-rated to the following specification:-

1. Radiator having 15 gills per inch. Part No. AYD2002
2. Viscous Coupling Part No. R603930 Plus Adaptor Part No. AYD223
3. 13 blade Nylon Fan. Part No. R610421
4. 55 amp Alternator. Part No. AYD9011
5. 61 a.h. Battery.

When fitting non-factory air conditioning it is necessary to take steps to protect these systems from over-loading.

ALTERNATIVES:-
Cooling System:
1. Up-rate to the Factory specification by fitting 15 gill radiator, viscous coupling and 13 blade nylon fan.

2. Fit 15 gill radiator and six bladed 35 degree pitch 'Smiths' fan Part No. 0-5159HD. This fan, which is supplied with most air conditioning kits, fits in place of the original four bladed fan but it is first necessary to remove the spigot radius from the spacer to permit the fan to fit flush against the mounting face. Without the benefit of a viscous coupling this fan tends to be noisy at higher speeds but would not be objectionable with a majority of owners. The most economical way to procure a 15 gill radiator is to have the original one re-cored by a National Radiator Agent at an approximate cost of $42.00.

Electrical:-
When the air conditioner is only used moderately, it is possible that the standard battery and alternator may be adequate. However, owners should be advised that it could be necessary to up-rate the electrical system at a later date by fitting a 55 amp alternator should electrical capacity problems be experienced.
If an electric fan is fitted to increase cooling capacity as part of the air conditioning kit then at least the higher capacity alternator is essential as this fan operates continuously when the air conditioning is switched on.

AIR CONDITIONER EFFICIENCY:
To achieve maximum benefit from any air conditioner it is most important that the foot vents be blocked off, the rear extractors taped closed and the bain isolated from the boot by placing foam pads under the air vent inside the boot to prevent cool air being lost into the boot space.

FACTORY AIR CONDITIONING:
Should cooling problems be experienced on a car equipped with Factory air conditioning, first, check to ensure that the correct radiator is fitted.

AIR CONDITIONER DRAIN - DRIP TRAY SEAL AYD.9148 :

A few cases have been noted where the air conditioner drip tray drain seal has been omitted causing the condensate that collects at the evaporator to drain onto the floor. Rectify by fitting a drip tray drain seal AYD.9148.

AIR CONDITIONER BLOWER MOTOR NEOPRENE CASING :

A damaged neoprene casing on the air conditioner will allow water to penetrate the internals of the unit which may short cut the motor as well as entering the car via the heater ducts. Rectification can be effected by neatly resealing the area with Selleys Neoprene Protective Coating or 3M Anti Fall Coating 6915.

STARTER SOLENOID RELAY

On earlier models where the starter solenoid relay is mounted vertically on either the L.H. or R.H. Valance, it has been found that dust and moisture can enter the relay box and cause a short circuit thus energising the starter.

MODIFICATION

Remove the solenoid relay and remount it horizontally.

STARTER MOTOR

P76-V8-E6

FIRST PRODUCTION

To overcome problems of starter pinion meshing with ring gears fitted to all versions of automatic and manual transmission models, it has been necessary to fit special pinion drive end brackets which were machined to provide an offset of .025" at the register. This offset has been termed "eccentric", enabling the pinion to be moved closer to the ring gear.

LATE PRODUCTION

A larger ring gear and concentric starter motor pinion drive end bracket has been fitted to all automatic transmission models and the manual transmission models of the E6. The V8 manual transmission models have not yet been changed. Dealers will be notified in the near future when the change is introduced.

IDENTIFICATION

A large triangle has been etched on the outer surface of the pinion drive end bracket adjacent to the solenoid mounting. The concentric type is unidentified.

The charts following show the commencing engine numbers applicable to the changes and the associated part numbers. The I.D. of the oversize ring gear used with the concentric pinion drive end starter bracket is unchanged and can be fitted to any flywheel.

MANUAL TRANSMISSION

Model	STARTER MOTOR ASSY.		PINION DRIVE END BRACKET		Introduced at Engine No.	Flywheel Part No.	Ring Gear Part No.
	Leyland Part No.	Lucas Part No.	Type	Part No. Leyland & Lucas			
V8	AYD.9007	62925074	Eccentric	62251444	First Production	AYD.3072	AYD.3074
V8			*Concentric			AYD.3209	AYD.3192
P76-E6	AYD.9007	62925074	Eccentric	62251444	First Production	AYB.438	AYD.3074
P76-E6	AYB.9382	62925079	Concentric	62251458	3 Speed-2601-3012 4 Speed-2603-1977	AYB.517	AYD.3192

AUTOMATIC TRANSMISSION

Model	STARTER MOTOR ASSY.		PINION DRIVE END BRACKET		Introduced at Engine No.	Converter Drive Plate No.
	Leyland Part No.	Lucas Part No.	Type	Part No. Leyland & Lucas		
P76 V8 & E6	AYD.9007	62925074	Eccentric	62251444	First Production	1" 1⅛" dia AYL.3068
V8 Only	AYD.9332	62925078	Concentric	62251412	4400 - 5627 4404 - 2509 4408 - 1152 4412 - 1354	AYL.3208 1" 1⅛" dia
P76 E6 Only	AYB.9382	62925079	Concentric	62251458	2600 - 3975	AYL.3436

STARTER SOLENOID SEALING

Cases have been reported where the solenoid bakelite cover has overheated due to internal arcing. In some instances the heat has been conducted along the 3m.m. solenoid coil wires, melting the insulation.

Investigation into the problem has revealed that water is entering the solenoid when the vehicle is operating in extremely wet or flooded conditions via the bakelite cover joint and at the terminals.

A sealing operation was commenced in production at the following engine numbers :-

P76 - SIX

2600 - 4028

2601 - 2964

2603 - 1927

P76 - V8

4400 - 5811
4401 - 2199
4402 - 2138
4404 - 2574
4406 - 1010
4407 - 1001
4408 - 1152
4409 - 1014
4410 - 1001
4412 - 1364
4413 - 1004
4414 - 1001

SEALING OPERATION

A satisfactory sealing operation can be carried out in the field by adopting the following procedure :-

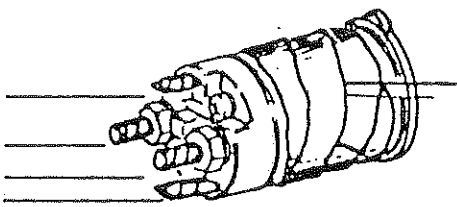
1. Protect the top end of the Lucar blades and the threaded terminals with plastic tubing or tape.

2. Apply masking tape around the body of the solenoid approximately 1-2 m.m. below the joint with the cover.

3. Brush apply 3M "Duct Sealer" to seal the bakelite cover and adjacent portion of the body, ensuring a heavy application of sealer at the cover to body joint and at the base of the Lucar and threaded terminals, particularly behind the hexagon nuts and securing screws.

4. Remove the masking tape and plastic tubing.

5. Allow to dry 1 hour before assembly.

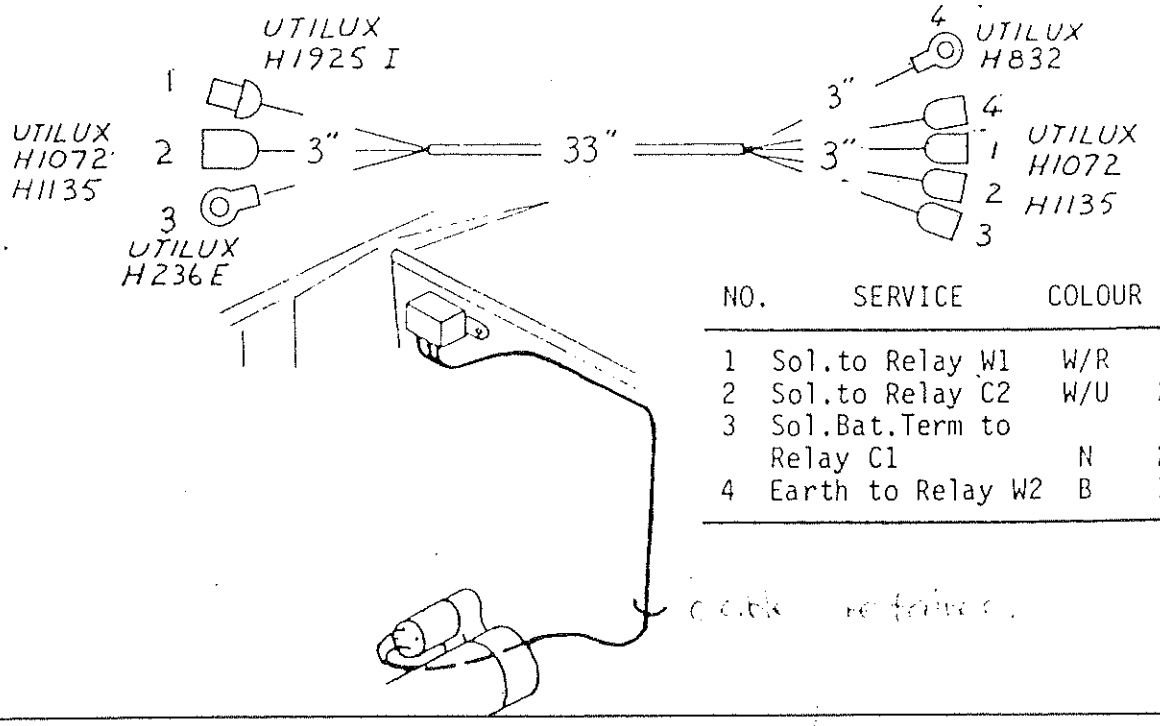


IMPORTANT: If it is suspected that a solenoid has already suffered water ingress, the solenoid should be dismantled and the switch-gear cleaned prior to carrying out the above sealing operation. Alternatively, the solenoid should be replaced with a new one if any severe burning is evident. The new solenoid should be sealed before fitting to the vehicle.

INTERMITTENT STARTER SOLENOID OPERATION

Should test indicate considerable voltage drop in the ignition switch to solenoid circuit, the following method offers an alternative solution.

1. Fit Lucas relay Part No. 33213 to the plenum chamber wall on the RH side.
2. Manufacture wiring harness as shown in drawing.
3. Route cable over brake servo and follow main harness to starter solenoid.
4. Remove white/red cable from the starter solenoid and connect to male terminal on harness.
5. Connect white/blue cable to starter solenoid terminal.
6. Connect brown cable to battery terminal on starter solenoid.
7. Connect harness to relay as shown.
8. Fit earth cable under relay fixing screw.



NO.	SERVICE	COLOUR	SIZE
1	Sol.to Relay W1	W/R	14/.012
2	Sol.to Relay C2	W/U	28/.012
3	Sol.Bat.Term to Relay C1	N	28/.012
4	Earth to Relay W2	B	14/.012

WIRING - STARTER RELAY - AUTOMATIC TRANSMISSION

The starter relay wiring may be suspect if the following conditions are evident on automatic transmission vehicles.

1. Starter failing to engage.
2. Starter sluggish
3. Relay operating in all gear positions.

Method of rectification

1. Disconnect the three (3) white with red trace wires where these are connected to the inhibitor harness and main loom near the steering column shaft or L.H. valance.
2. Connect the male terminal on the inhibitor harness to the female from the relay.
3. Connect the male terminal from the relay to the female on the main loom.
4. Connect the remaining two (2) terminals together.

IGNITION WARNING LIGHT GLOWING.

When driving at night with headlights on, the ignition warning light may glow faintly. This is due to a voltage drop between the alternator and battery. To rectify this, fit an additional cable as shown in figures one, two and three.

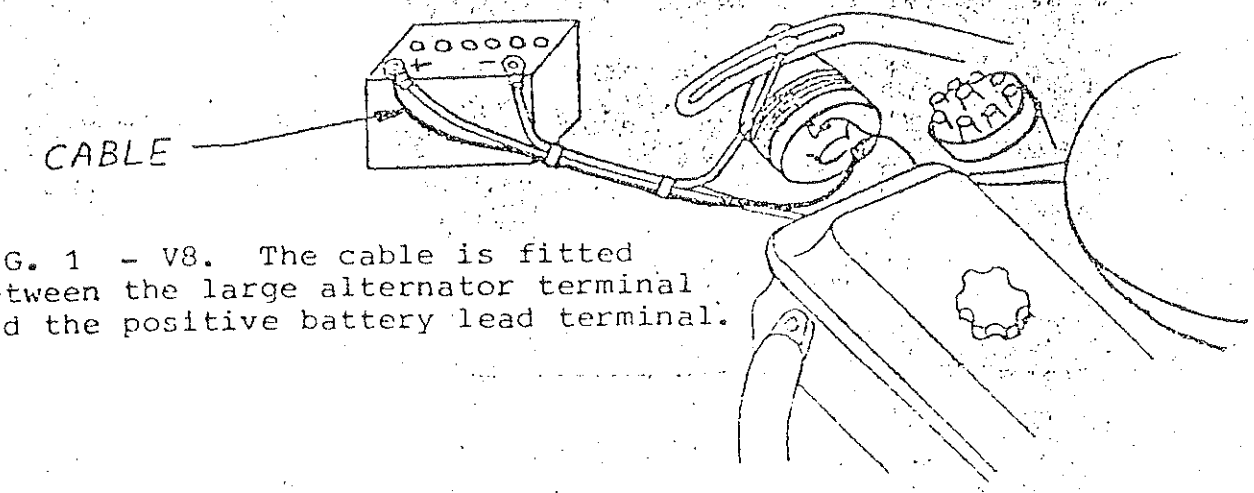


FIG. 1 - V8. The cable is fitted between the large alternator terminal and the positive battery lead terminal.

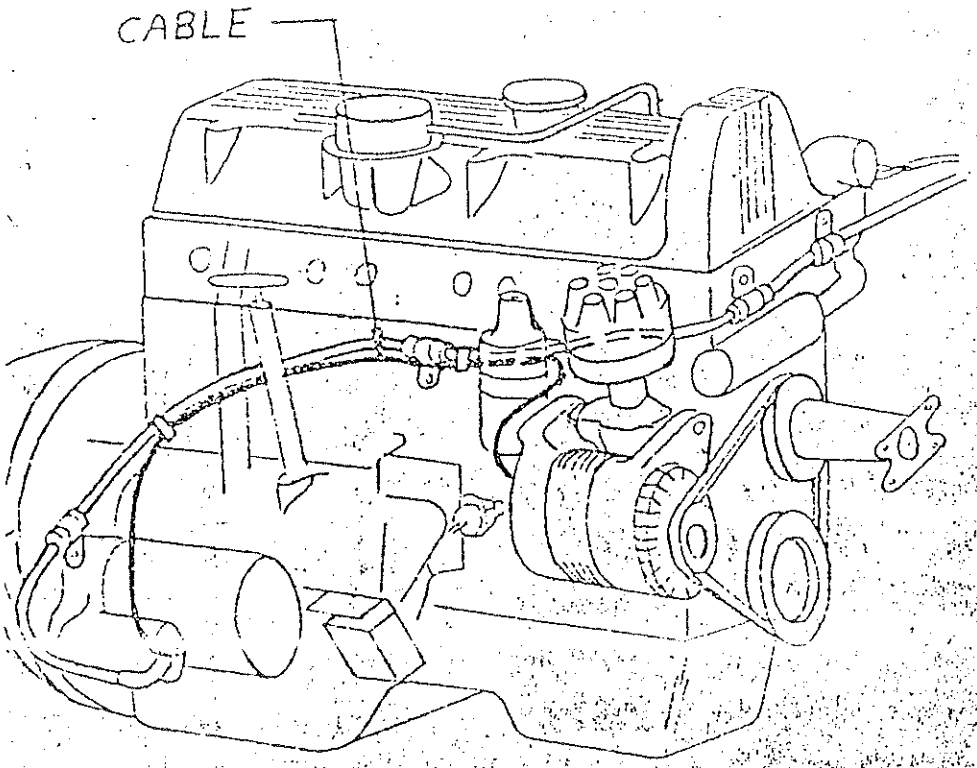
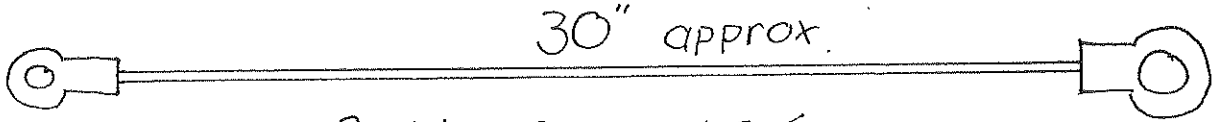


FIG. 2 - E6.

The cable is fitted between the large alternator terminal and the battery lead terminal of the starter solenoid.



UTILUX H414B

Cable Size 65/012.

UTILUX H1857

WINDSCREEN WIPER MOTOR WIRING.

It is essential to connect the black earth wire to the top terminal and the white with blue trace to the lower terminal. If reversed, the wiper motor will burn out after brief operation.

WINDSCREEN WIPER ARM & BLADE FITTING.

1) To minimise blade judder, noise level and motor loading due to initial blade acceleration, the long link has been reduced from 28.34" to 28.20" between centres.

2) Blade judder can often be reduced by fitting different brand rubbers into P76 blade.

3) Excessive end float in wiper post spindles (minimum end float 0.005") not only contributes to the general noise level, but also blade judder. It is a simple matter to peen the end of the shaft to reduce end float.

Incorrect fitting of the wiper arms and blades could lead to :-

1) Jamming of the linkage which, in time, will cause motor burn out.

2) Incorrect parking of the system and damage to the wiper blades.

Correct assembly procedure is necessary and involves the testing with only the driver's side arm and blade fitted to load the motor for correct reverse parking.

METHOD.

1) Ensure that the finisher on the metal stop is fitted.

2) Turn on wiper switch.

3) Turn on ignition.

4) To ensure the system is in the correct run arc, hold the drivers side pivot and apply a load to the system.

5) Turn off the ignition switch when the pivot rotation is at the extent of its travel toward the 'A' Pillar (see FIG. 1)

6) Position the drivers side arm and blade leaving clearance on the 'A' Pillar similar to that shown in FIG 1.

7) Turn on ignition and check the run arc against the wiped area shown. If the blade hits the 'A' Pilar, readjust the arm. Do not turn off the wiper switch during this operation.

8) When the run arc is correct, turn off the wiper switch to allow the blade to 'Park'. If parking is unsatisfactory, refer to 'Parking Operation' below. If satisfactory, proceed with items 9 & 10.

9) Locate the passenger side arm against the stop.

10) Switch on and recheck the system.

PARKING OPERATION.

Operate the system and move the wiper swich to OFF as the blades commence the down stroke. A reverse action of wipe should take place. If the arc of wipe increases on this reverse stroke causing the drivers side blade to hit the 'A' Pilar or move past the Pilar, it may be assumed that the cam locking plate (FIG 2) is 'out of square' not operating correctly. The following proceedure should be followed:

1) Park the arms and turn off the system.

2) Move the arms manually from the Parked Position at the stops to a position approximately 45 degrees up the screen shown in FIG 1. The cam follower locking Plate should now engage with the opening in the motor crank and lock the arms. If this does not occur, it is Probable that the cam follower Pin is 'out of square' (refer FIG 2) and is unable to engage the spring- FIG 3.

To rectify this condition Proceed as follows-

1) Partially remove the rubber boot at the base of the wiper motor and observe the cam follower Plate below the conical spring.

2)Refer to FIG 3 and correct the 'out of square' condition with a screw driver Placed between the cam locking Plate and the motor crank. Lever upwards untill the Plate drops freely into the locked Position with the motor crank.

3) Refitt rubber boot and test operation of system.

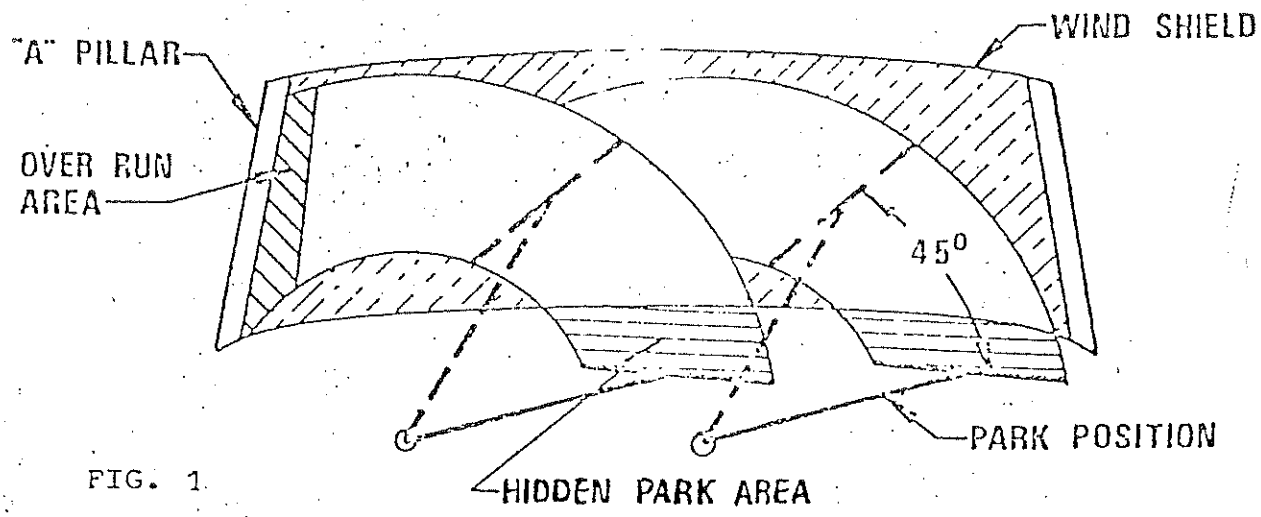


FIG. 1

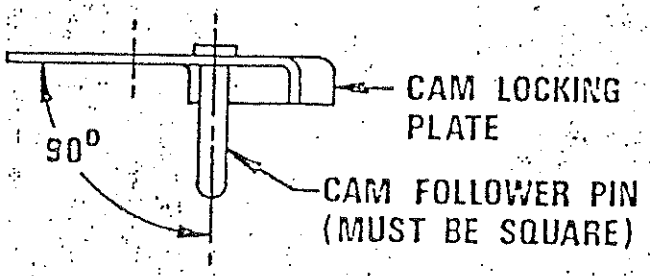


FIG. 2

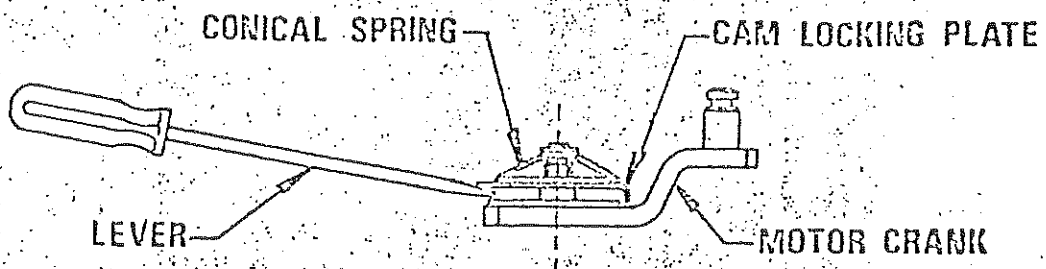
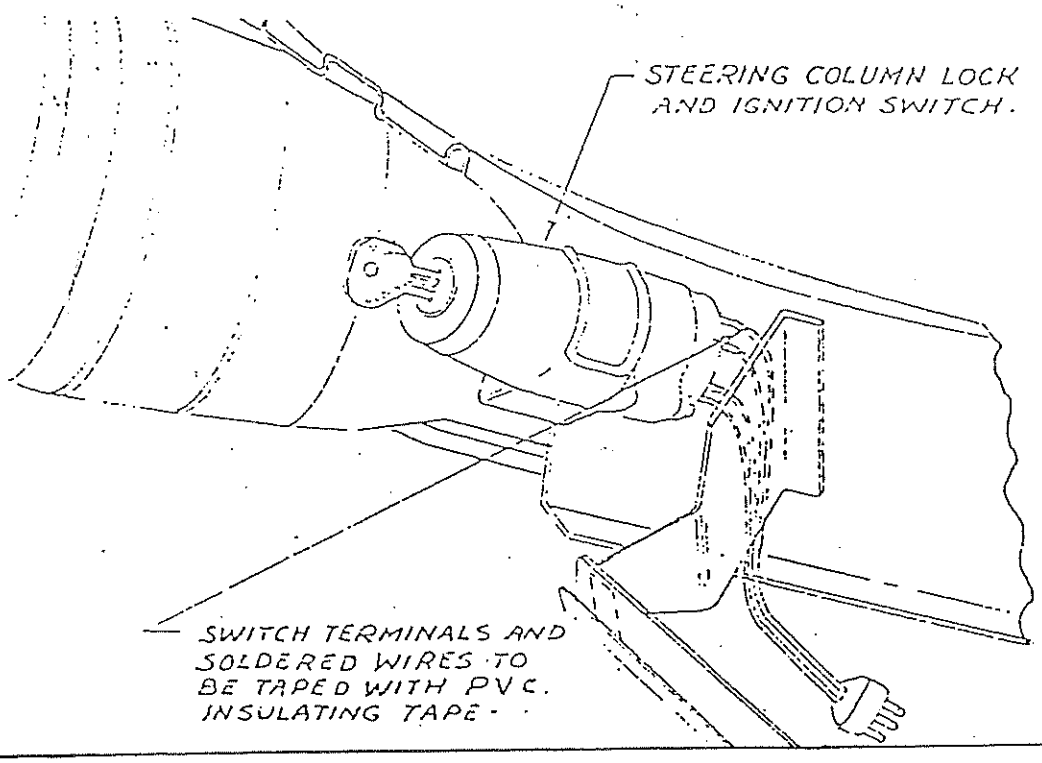


FIG. 3

STEERING COLUMN LOCK WIRING

A condition can exist on early production vehicles where there is inadequate clearance between the facia bracket and the wiring at the base of the lock. See Fig.2. All early production vehicles should be inspected to see that adequate clearance exists in this area. If the clearance is inadequate, the facia bracket should be bent, or, alternatively, the wiring loom and switch terminals should be taped to prevent chafing and consequent short circuit or fire hazard.



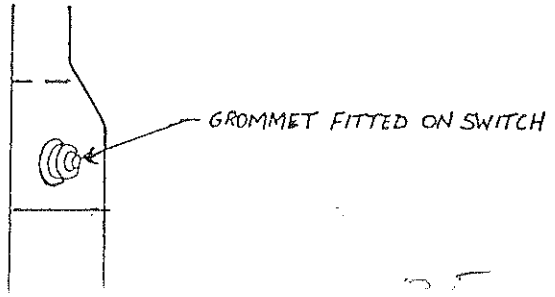
REVERSE LIGHT SWITCH

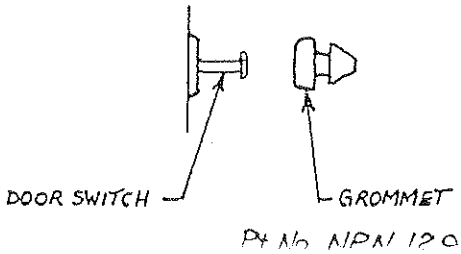
In production a fibre washer is fitted between the switch and the transmission case. Due to a build up of tolerances the switch operating mechanism may not depress the switch plunger sufficiently to complete the electrical circuit for the reverse lamp.

Should this problem occur, remove the fibre washer and refit the switch sealing with Permatex Aviation Jointing Compound No. 3.

DOOR SWITCHES

A similar problem to the above can occur with the courtesy lamp switches in the doors. Insufficient travel of the plunger allowing interior lamps to flicker or stay on. This can be rectified by the addition of a medium sized body grommet fitted to the switch as illustrated.

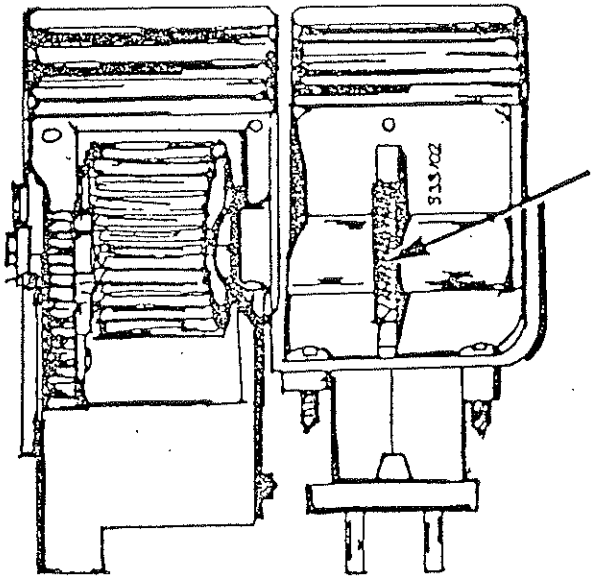




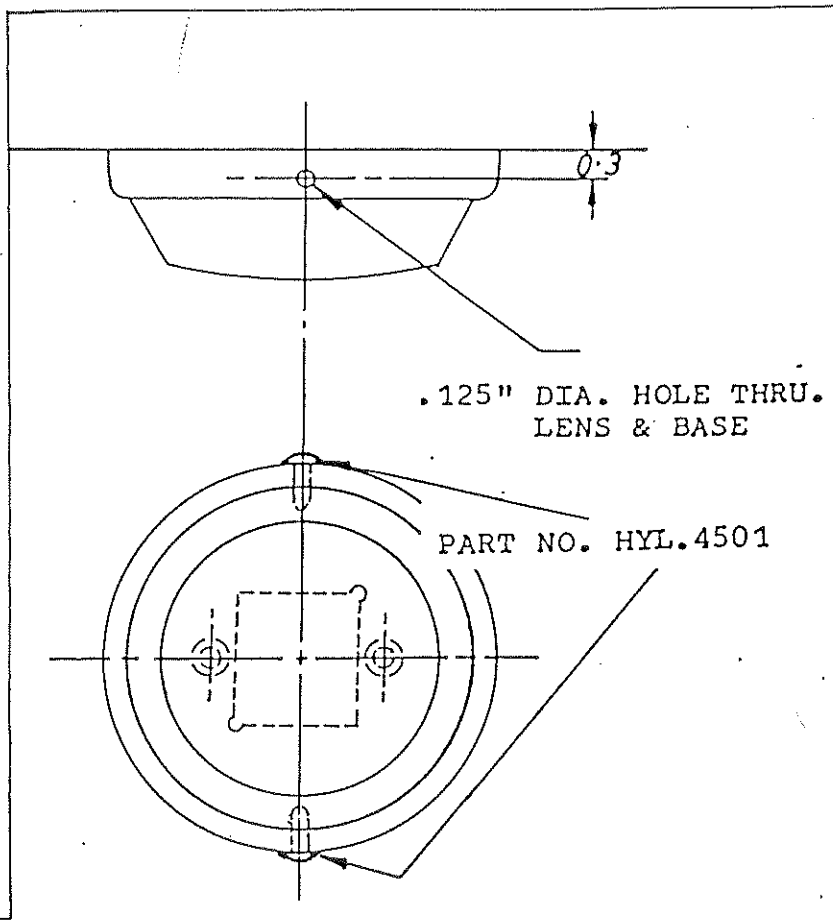
HEADLIGHT SWITCH

It has been found that over-travel of the switch when in the headlight position is a major cause of the headlights flickering or going out.

This can be rectified by interposing sufficient cork gasket material between the switch stop and bracket to eliminate the free play. Refer sketch. The gasket material should be secured with 3M .1099 or pliabond. Additionally it is important to ensure that the moulded plug is secure on the pins at the rear of the switch and that the main and dip beam fuses are tight in the holder.



UNDER SIDE OF SWITCH,
VIEW FROM REAR.



INTERIOR LAMP

Instances have occurred where, due to heat expansion the interior lamp lens has vibrated loose and become detached from its location.

To overcome this condition, two plastic clips (Part No. HYL 4501) have been fitted in production and it is recommended that this rectification be carried out, in accordance with the above diagram, to vehicles encountered with this problem.

SEAT CUSHION SAG AND WEBBING STRAP ADJUSTMENT

Loss of Pirelli strap tension may occur after considerable use. Satisfactory restoration can be achieved by the following method

Method:

1. Remove seat from vehicle.
2. Invert seat so that cushion support webbings are accessible.
3. Unhook and remove straps that appear to have lost tension.
4. Prise open and remove staple from one end of strap and remove staple plate and wire hook.
5. Increase fold over length of strap in order to reduce overall length of strap as required. Usually 15 to 20mm is sufficient to compensate for stretch condition on Bucket Seats and 25mm. to 38mm. for full width straps on Bench Seats.
6. Pierce new staple holes through folded end of strap 15mm from new crease line using old staple holes as guide for distance between holes to accept staple.
7. Replace wire hook, staple and staple plate. Bend ends of staple to secure.
8. Position, stretch and secure strap to cushion frame, making sure that the hook is properly seated in the holes.
9. Reassemble the seat and replace in the vehicle.

ADHESIVES

Wood Grain

Lifting fecia wood grain can be secured by using CYANA - Bond R.P. available from Technical Rubber and Plastics, Clayton, Victoria, Phone 723-0286. An alternative adhesive is Loctite I.S.O.4 available in all states from Bearing Service or their agents.

Under Bonnet

The recommended adhesive for insulation pads and clips is a 3M product - ADY.2A. It is available in quart tins.

SEAT RUNNER ATTACHMENT POINTS :

Water entry can be prevented at these attachment points by removing the nut and washer and coating the thread of the bolt with ADSEAL before reinstalling the spring washer and nut. In the case of front bench seat models, the unused holes (normally used when bucket seats are fitted) should be plugged and sealed.

FRONT DOOR OVERTRAVEL - 'B' POST PAINT DAMAGE

Drill a ¼" hole in the 'B' Post level with door edge (or at the point of impact), and in the centre of the 'B' Post and fit an MYH.0859 buffer each side. Paint raw edge of hole to prevent rust bleed.

BONNET LOCK RATTLE

The bonnet lock striker sleeve has been increased in diameter by .020" to eliminate bonnet lock rattle.

V-block support rubbers have also been introduced for the same reason and these are found to be effective on earlier cars in eliminating bonnet lock rattle.

RATTLE - LOWER BALL JOINT - FRONT SUSPENSION

Instances have been reported of the washer (MYH 557) fouling on the ball pin before the taper is fully engaged with the hole in the strut, resulting in knocking, although the nut may be tight.

Method of rectification:

Enlarge the inside diameter of the washer to allow full taper engagement of the pin in the strut.

STEERING COUPLING

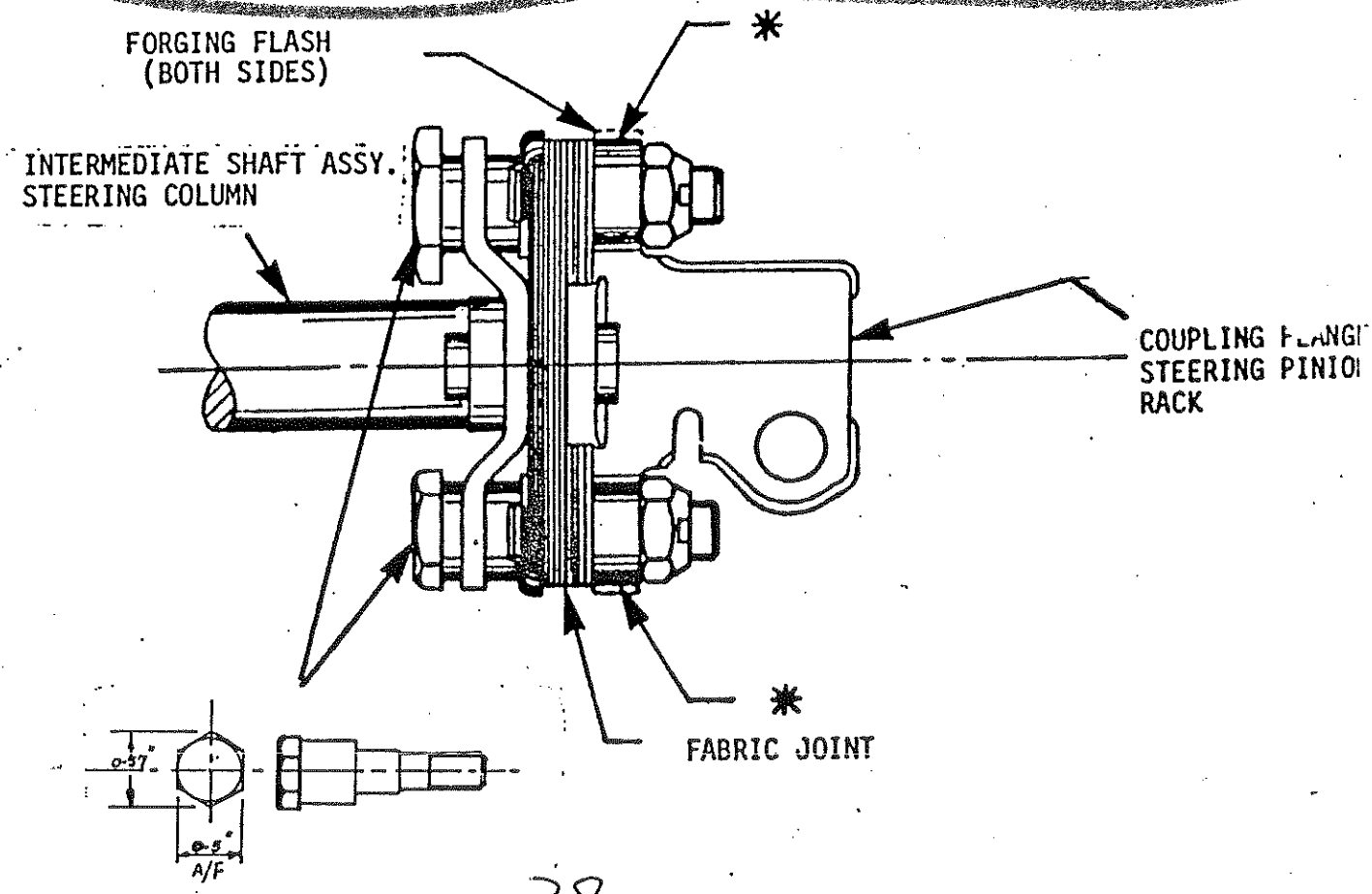
P76

An occasional rubbing condition can occur between the steering coupling flange and the stone deflector, when fitted.

This is evidenced by slight tight spots or rubbing noise when steering is turned.

The situation can be remedied by filing the forging flash off the coupling to bring it level with the fabric joint.

On models fitted with power steering, the head of the stepped bolts AYD.6005, may come in light contact with the right hand exhaust pipe. This problem can be rectified by reworking the hexagonal heads from 3/4 to ½ in A.F.



TAKING THE CLUNK & ROLL OUT OF YOUR P76

Terry Johnson

This is the first in a three part series dealing with improving the handling and ride of your P76, and covers the sagging front end problem.

In the case of those owners who just wish to restore their struts to the orriginal specifications you have two options open to you.

1. You can replace those worn struts with bright shining new units at a cost of $203.48 plus 20% sales tax each as shown in figure one.
2. A repair kit part No. HYL-4755 is available from Sydney parts priced at $36.98 plus 20% sales tax each, and anyone with a small ammount of mechanical skill following the instructions as laid down in the service manual should be able to repair the shock absorber section (Fig. 2) without a great deal of trouble.

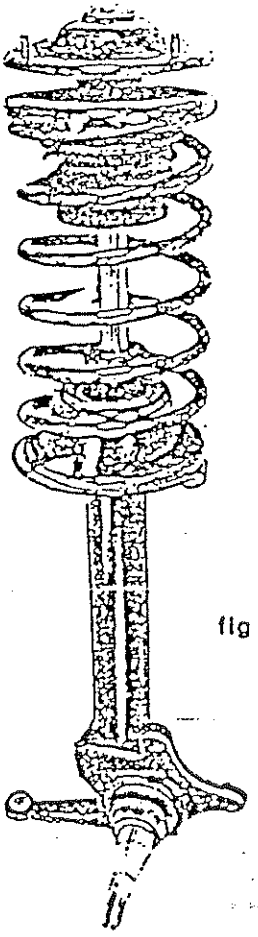


fig 1

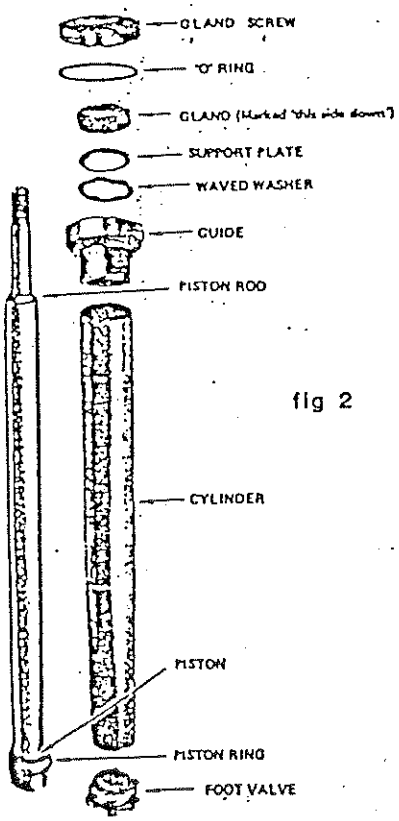


fig 2

Exploded View of Shock Absorber Components

NOW,

If you are really dinkum about stiffening up the old front end, make the P go round corners as if its on rails, and maybe do a bit of the boy racer thing, turn the page and read on.

To obtain the nearest thing to radial tuned suspension on a P76 the installation of the Monroe Wylie GTC 600 heavy duty trail blazer gas strut replacement cartridge, will go a long way in helping you to reach this goal.

These units are available from Coventry Motors and Girlock and priced at $100.49 per pair including sales tax, are definately a much better, simpler and quicker method of repair for only $6.00 per side more.

All those parts shown in figure 2 on the previous page are replaced by one simple replacement cartrige by following the procedure set out below.

Raise the front end and place safety stands under the chassis members. Check the rear wheels first. Remove the road wheels, disc brake caliper and the discs. Place a jack under the strut and compress the coil spring, when compressed install at least three clamps over the coils to keep them in a compressed position for later removal. Disconnect the stailizer from the control arms, disconnect the ball joint stud from the suspension strut. Now remove the three securing nuts that hold the unit in the tower. The strut can now be removed from the vehicle and taken to a bench or similar place to be worked on. Making sure that the spring is safely compressed, undo the nyloc nut and remove those parts as shown in figure 3.

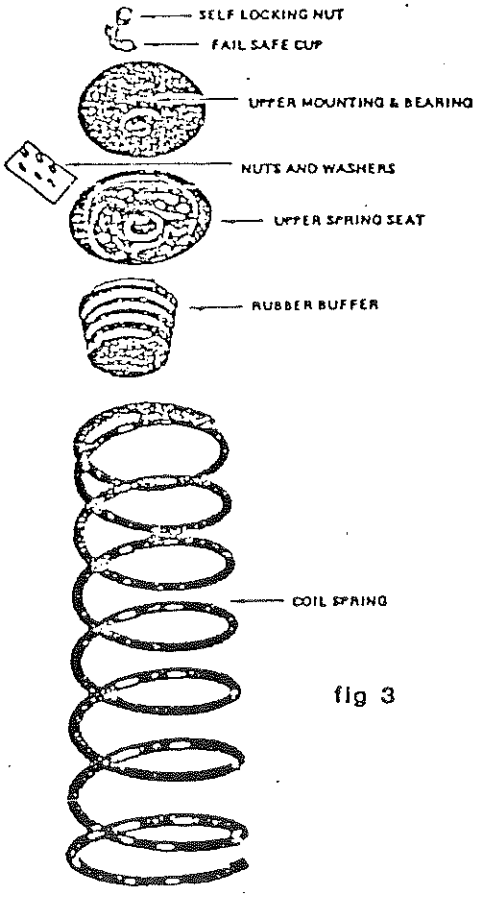


fig 3

Now remove all those items shown in figure 2 drip in the GTC 600 cartridge and tighten the lock nut securely. Reassemble and install back on the car in the reverse order of disassemble and removal. Consult your work manual for the basic removal and refit procedure if you are in any doubt.
This is a simple job but without care can be very dangerous, so remember you are the only person responsible for own safety, check the rear wheels, use safety stands and clamp that coil spring down if it flys off when you undo the nyloc nut it could take your head with it, so take care.

Leyland P 76 Models inclu g Accessory Circuits.

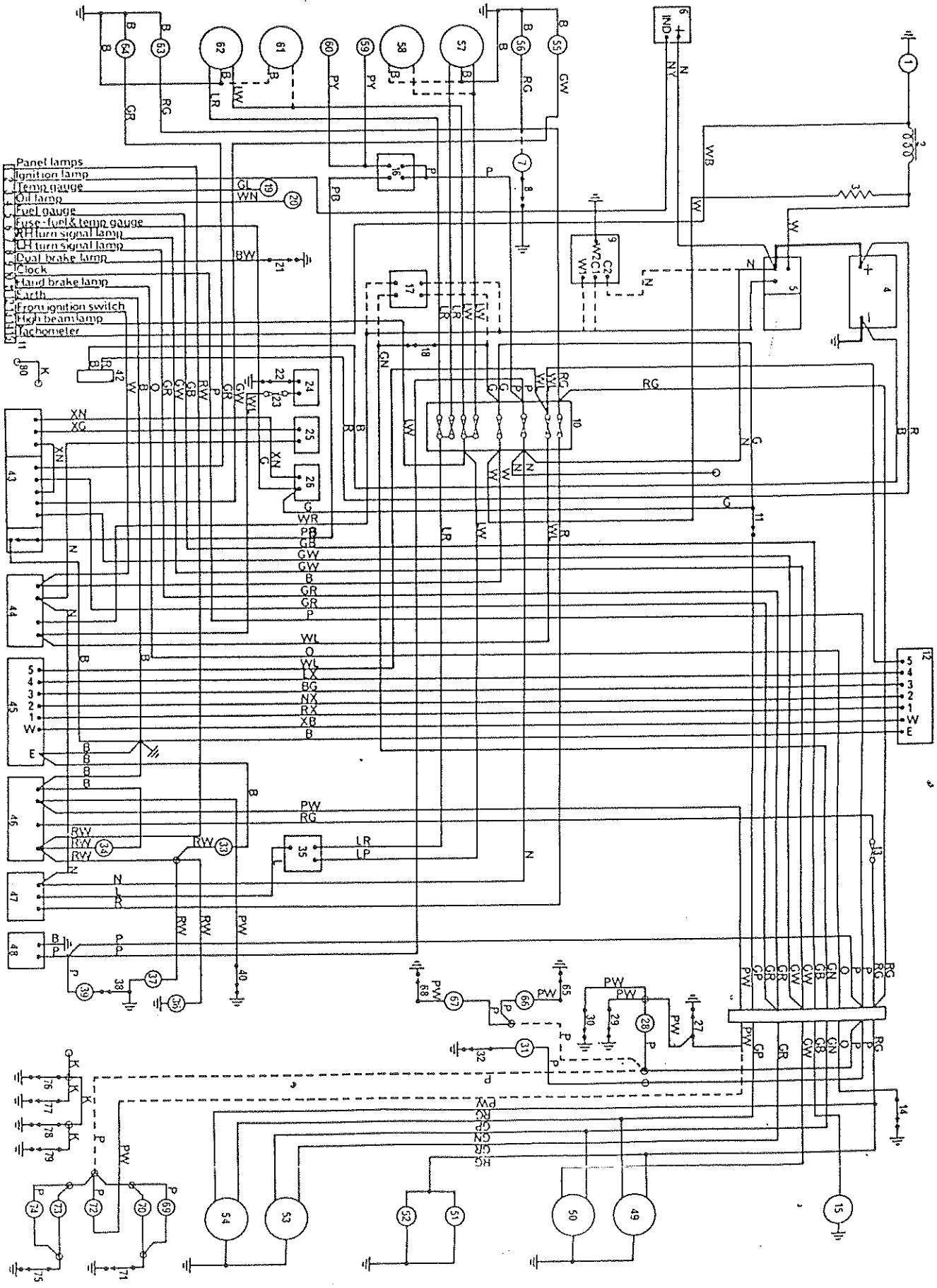
KEY 1.

1. Distributor.
2. Ignition coil.
3. Series resistor.
4. Battery.
5. Starter motor.
6. Alternator.
7. Engine bay illumination lamp.
8. Engine bay illumination lamp switch.
9. Starter relay automatic transmission models.
10. Fuse panel.
11. Stop lamp switch.
12. Windscreen wiper and washer motor.
13. Fuse.
14. Hand brake warning lamp switch.
15. Fuel gauge sender unit.
16. Headlamp relay.
17. Inhibitor or neutral safety switch, Automatic transmission models.
18. Reverse lamp switch manual transmission models.
19. Engine temperature gauge sender unit.
20. Oil pressure sender unit.
21. Dual brake warning lamp switch.
22. Heater fan switch.
23. Fuse.
24. Heater fan motor.
25. Hazard warning lamp relay.
26. Turn signal relay.
27. R.H. front door switch.
28. Interior lamp.
29. R.H. rear door switch.
30. L.H. rear door switch.
31. Luggage compartment lamp.
32. Luggage compartment lamp switch.
33. Dash panel illumination lamp.
34. Dash panel illumination lamp.
35. Headlamp dipper switch.
36. Quadrant illumination lamp, automatic transmission models.
37. Ash tray illumination lamp.
38. Glove box lamp switch.
39. Glove box illumination lamp.
40. L.H. front door switch.
41. Instrument panel wiring plug.
42. Battery condition indicator.
43. Combination switch, turn signal switch, hazard switch and horn press.
44. Ignition switch.
45. Wiper and washer switch.
46. Panel and interior lamp switch.
47. Lighting switch.
48. Cigar lighter.
49. R.H. stop and tail lamp.
50. R.H. reverse and turn signal lamp.
51, 52. Licence plate lamp.
53. L.H. reverse and turn signal lamp.
54. L.H. stop and tail lamp.
55. R.H. front turn signal lamp.
56. R.H. front parking lamp.
57. R.H. dual filament headlamp.
58. R.H. single filament headlamp, when fitted.
59, 60. Horns.
61. L.H. single filament headlamp, when fitted.
62. L.H. dual filament headlamp.
63. L.H. front parking lamp.
64. L.H. front turn signal lamp.
65. Door switch.
66. Arm rest lamp when fitted.
67. Arm rest lamp when fitted.
68. Door switch.
69. Quarter lamp.
70. Arm rest lamp when fitted.
71. Door switch.
72. Interior lamp.
73. Arm rest lamp when fitted.
74. Quarter lamp.
75. Door switch.
76, 77, 78, 79. Door switches for door adjar warning lamp.
80. Door adjar warning lamp.

COLOR CODE

The first letter of the code represents the main wire color, additional letters in the code represents the trace color or colors, of the wire.

B—Black.
L—Blue.
G—Green.
R—Red.
Y—Yellow.
W—White.
N—Brown.
O—Orange.
K—Pink.
S—Grey.
V—Violet.
P—Purple.
X—Light Green.
Z—Light Blue.
M—Dark Green.
T—Dark Blue.
A—Light Brown.


Panel lamps
Ignition lamp
Temp gauge
Oil lamp
Fuel gauge
Fuse - fuel & temp gauge
RH turn signal lamp
LH turn signal lamp
Dual brake lamp
Clock
Hand brake lamp
Earth
From ignition switch
High beam lamp
Tachometer

TP 858

LEYLAND MOTOR CORPORATION
OF AUSTRALIA LIMITED

Servicing Data

P-76

CAPACITIES AND SPECIFIED LUBRICANTS

		E6	V8
Engine Oil including filter	SAE 20 W - 50	8.38 pints	8.5 pints
Filter (Not Inter-changeable)	E6 Tecalemite AYB 222: V8 GUD AYD 190	1.36 pints	1.36 pints
Cooling System	Use Coolant inhibitor XXX 1002 (1 pt) 3 oz. to One Gallon of Water Antifreeze - Blucol AA - AKF1484 (1 qt)	14.40 pints	18.30 pints
Carburetter Piston Damper	SAE 20	Top Up	Not Applic.
Gearbox Man. 3 speed	SAE 30 - 40	2.97 pints	
Man. 4 speed	SAE 30 - 40	2.90 pints	
Automatic	Dexron such as Esso EC5192, Shell S7268 A, Caltex Texmatic TL 492, Castrol EC 4999	Initial Fill 12.25 pts Refill 5.75 pts	
Rear Axle	EP 90	2.50 pints*	
Hydraulic Brake, master cyl.	Leyland Australia HBF 6		
Hydraulic Shock Absorber	Armstrong Grade 788 Part No. HYL 4757	.598 pints	
Steering Rack Manual	EP 90	1/3 pint	
Power Steering Rack	SAE 40	1/3 pint	
Power Steering Pump	Automatic Transmission Fluid as above	1.50 pints	
Door Strikers	Use Dry Lube in Stick form		
Petrol tank	Super Grade only - non vented cap	16.44 galls.	

WARNING:

UNDER NO CIRCUMSTANCES START ENGINE WITH POWER STEERING PUMP DRY.

TYRE SIZE PRESSURES (P.S.I.)

TYRE TYPE	SIZE	NORMAL LOAD		FULL LOAD	
		Front	Rear	Front	Rear
Cross Ply	6.95 x 14	20	24	22	26
Radial Ply	185-SR-14	22	22	22	26

ELECTRICAL — 12 VOLT SYSTEM

14 ACR 4D Alternator output standard		37.5 amp @ 14.2 volts
14 ACR 6D Alternator output with air conditioner		55 amps @ 14.2 volts
Fan belt deflection must be ½" to ¾" midway on longest length		
Battery standard	7 plate 48 amp/hour	Negative Earth
with air conditioner	9 plate 61 amp/hour	Negative Earth
Starter Motor — Lock torque 15 lbs./ft. min.	Lock current draw 430 amp.	

Lamps	H/Lights single	75/60		
	twins	37½/50+50		
	Side	4 candle power	Panel Illumination	2 CP
	Stop/Tail	32/4 CP	Boot Illumination	6W
	No. Plate	6W	Roof Illumination	10W
	Reverse/Flasher	32/32 CP	Courtesy Rear Quarter	6W
	Ignition warning	2.2 W	Flasher — Font	32 CP
	Direction Ind. warning	2.2 W	Glove Box Illumination	3W
	Oil Pressure warning	2.2 W	Under bonnet Illumination	5W
	Main beam warning	2 C.P.	Ash Tray Illumination	2 CP
	Brake failure warning	2.2 W	Arm Rest Illumination	5W
Fuses	8 — 4 x 8 amp.	— 4 x 16 amp.		

TORQUE SETTINGS (LBS. FT.)

	E6	V8
Cylinder Head	60	65 - 70
Cam Carrier to Cylinder Head	20	—
Cam Sprocket or Gear	35	40 - 45
Cam or Rocker Cover	6	8 - 10
Rocker Pivot Retaining Nut	—	9 - 11
Connecting Rod Nuts	31 - 35	30 - 35
Main Bearing Bolts (Rear)	55 - 60	65 - 70
Main Bearing Bolts (Others)	55 - 60	50 - 55
Oil Filter Adaptor Bolt	35	—
Water Pump Pulley	18	—
Crankshaft Pulley	60 - 70	—
Vibration Damper Hub Bolt	—	140 - 160
Vibration Damper Retaining Bolt	—	18 - 22
Flywheel Bolt to Crankshaft	60 - 65	60 - 65
Steering Wheel Screws	8	8
Steering Column Nut	30	30
Water Outlet Flange	8 - 10	9 - 11
McPherson Strut Gland Nut	23 - 31	
Wheel Nuts	60	
Auto Drive Plate to Crankshaft	50 - 55	
Converter to Drive Plate Bolts	35	
Front Servo Bolts	8 - 13	
Rear Servo Bolts	13 - 27	
Pump Adaptor to Housing Screw	2 - 3	
Pump Adaptor to Housing Bolts	17 - 32	
Pump Adaptor to Trans Bolts	8 - 18	
Oil Pan Cover Bolts	9 - 12	
Manual Shift Locknut	7 - 9	
Valve Body to Trans Case	4.5 - 9	
Downshift Cable Adaptor	8. - 9	
Diff Pinion Nut	240 - 280	

NOTE: For additional torque wrench settings refer to Workshop Manual TP 854.

ENGINE SPECIFICATION

Model	B.H.P. @ R.P.M. SAE Gross	Torque lb/ft - RPM SAE Gross	Bore x Stroke	R.A.C. Rating	Comp. Ratio	Compression Press lbs/in.
2623cc	121 @ 4500	165 @ 2000	3.0" x 3.77"	21.6 H.P.	9.0:1	170-187
4416cc	192 @ 4250	285 @ 2500	3.50" x 3.50"	39.2 H.P.	9.0:1	187-195

VALVE CLEARANCE	E6 — Inlet 0.018" — Exhaust 0.022"	Adjust only if less than .012" Refer example below
	V8 — Nil adjustment-Hydraulic tappets-Refer Workshop Manuals TP854	

Example of selecting the required shim for valve clearance requiring adjust on E6

Inlet Valve	
Standard Clearance	.018"
Valve clearance as measured	.010"
Difference between standard and measured clearance:	.008"
Shim removed from the tappet	.100"
TO SELECT SHIM REQUIRED TO OBTAIN THE STANDARD VALVE CLEARANCE	
Shim removed from tappet	.100"
LESS difference	.008"
Shim required is AYH 591	.092"

Shims are available from .080" to .138" in increments of .002"

Part No. AYH 585 (.080") through to AYH 614 (.138")

Example of how to obtain shim part number

Shim required .092"
Sixth increment of .002" is AYH 591
viz. AYH 585 = .002" plus 6 consecutive part numbers = .092"

Valve Timing

E6	No. 1 piston to TDC with dist. rotor at No. 1 segment - Align camshaft "timing dot" with "groove" on camshaft carrier, then align chain.
V8	No. 1 piston to TDC with dist. rotor at No. 1 segment - Align. Indent on crankshaft gear and raised tip on camshaft gear

Valve Sequence

	E6	V8
Inlet Opens	9° 4' B.T.D.C.	30° B.T.D.C.
Inlet Closes	52° 56' A.B.D.C.	75° A.B.D.C.
Exhaust Opens	48° 56' B.B.D.C.	68° B.B.D.C.
Exhaust Closes	13° 4' A.T.D.C.	37° A.T.D.C.
Valve Lift	.360"	.250"
FIRING ORDER	153624	18436572

Valve Specifications

	E6	V8
Head diameter — Inlet	1.500"	1.500"
Exhaust	1.217"	1.312"
Stem diameter — Inlet	.3115" - .312"	.341"
Exhaust	.3115" - .312"	.340"
Stem to guide clearance:		
— Inlet	.001" - .002"	.001" - .003"
— Exhaust	.001" - .002"	.0025" - .0035"
Guide I.D. — Inlet and Exhaust	.3130" - .3135"	.342"
Valve seat angle — Inlet & Exhaust	45½° (Cyl head 45°)	45° (Cyl head 44°)

V8 Only
NOTE: Valve stem height above cylinder head — 1.766' - 1.811"
Top of collet to top of stem minimum clearance — Inlet - .100"
Exhaust - .075"

PISTONS

	E6	V8
Piston available sizes	+ .010" + .020"	+ .90" + .020" + .030" + .040"
Clearance at bottom of skirt	.0008" - .0013"	.0008" - .0012"

CRANKSHAFT

	E6	V8
Main bearing journal diam. std.	2.3761" - 2.3768"	2.5500 - 2.5505"
Main bearing undersizes available	+0.010" + 0.020"	+ 0.010 + 0.020"
	+0.030" + 0.040"	+ 0.030" + 0.040"
Main bearing thrust washer thickness	0.091" - 0.093"	0.092"
Crankshaft end float	0.006"	0.002" - 0.010"
Main Bearing diametral clearance	0.0009" - 0.0027"	0.0009" - 0.0025"
Crankpin journal diam std.	1.8757" - 1.8764"	2.000" - 2.0005"
Journal undersizes available	+0.010" + 0.020"	+ 0.010" + 0.020"
Diametral clearance	0.0010" - 0.0025"	0.0006" - 0.0022"
Connecting rod side float	0.006"	0.002" - 0.010"
Flywheel run out in situ at 4.75" radius on clutch face surface	0.010" max	0.010" max

	E6	V8
Oil Pressure — Running Normal	60 P.S.I. @ 4000 R.P.M.	44 P.S.I. @ 2000 R.P.M.
— Idling Minimum	20 P.S.I. @ 500 R.P.M.	24 P.S.I. @ 600 R.P.M.

FUEL SYSTEM

Fuel Pump Pressure	E6 — 5 p.s.i. Delivery Rate 120 Pts/hr @ 6000 r.p.m. V8 — 6 p.s.i. Delivery Rate 140 Pts/hr @ 5000 r.p.m.	
E6 Carburettor Spec.	Type: SU—HS6 — Jet Size 0.100" - Needle : XN67 Spring: Red — Float level 0.1875"	
V8 Carburettor Spec.	Type : Stromberg WW Float level : 0.170" Float needle/seat : 0.101" Pump discharge: No. 71	Jets: Main discharge : 36 - 36 Jets: High speed bleeder: No. 70 Jets: Main metering: 0.052" Jets: Power by pass: 0.032"
Engine emission control of carbon monoxide Refer Workshop Manual TP 854	Reading to be less than 4.5% C.O. @ engine idle speed	

IGNITION SYSTEM

	E6	V8
Spark plug type	Champion N9Y	Champion L10
Spark plug gap	0.023" - 0.026"	0.023" - 0.028"
Distributor point gap	0.014" - 0.026"	0.015"
Timing marks on T/Vibration Damper ignition	Pointer on front cover	Pointer on Water pump
Stroboscopic setting with vacuum advance disconnected	10° BTDC @ 550 R.P.M.	0° TDC @ 650 R.P.M.
Cam Dwell Angle	34° - 38°	26° - 29°

COOLING SYSTEM

Pressure cap - blow off	13 P.S.I.	13 P.S.I.
Thermostat crack open	82°C	79° - 83°C
fully open	94°C	93° - 96°C

CLUTCH

	E6	V8
Clutch release lever free travel	0.05"	0.05"
Clutch type Girling diaphragm spring	9½"	9½" heavy duty
Clutch facing material	Veelock 1133C	H.K. Porter 219-120
Mark clutch pressure plate in relation to Flywheel before removal		

MANUAL TRANSMISSION

	3-SPEED	4 SPEED
Clearance: First Gear end float	0.006" - 0.019"	0.002" - 0.027"
Second Gear end float	0.006" - 0.019"	0.006" - 0.017"
Third Gear end float	N.A.	0.005" - 0.020"
Main shaft bearing end float	0.000" - 0.004"	0.000" - 0.004"
1st Motion Shaft bearing end float	0.000" - 0.004"	0.000" - 0.004"
Lay gear end float	0.006" - 0.018"	0.006" - 0.018"

MANUAL TRANSMISSION contd.

	3-SPEED	4-SPEED
Snap Rings: Main shaft and 1st Motion Shaft bearing Selective	0.086" - 0.088" 0.089" - 0.091" 0.092" - 0.094" 0.095" - 0.097"	0.086" - 0.088" 0.089" - 0.091" 0.092" - 0.094" 0.095" - 0.097"
1st & 2nd Synchroniser Hub Selective	N.A.	0.085" - 0.087" 0.088" - 0.090" 0.091" - 0.093"
No. of rollers in reverse idler bearing - V8	22	N.A. (Bush)
- E6	N.A. (Bush)	N.A. (Bush)
No. of rollers in lay gear bore	3 sets of 22	4 sets of 27
No. of rollers in input shaft bore	15	15
Lay gear needle roller thurst washers	5	6
Lay gear thrust washers	1 front 2 rear	1 front 2 rear

Refer to Workshop Manual TP.854 for Method of Selecting Snap Rings

REAR AXLE ADJUSTMENTS AND TOLERANCES

Ratio	E6 – 3.89:1 – V8 – 2.92:1	
Crown Wheel & Pin Backlash	0.005" – 0.007"	
Adjustment by:		
Crown Wheel bearing-shims	0.2545" to 0.2845" in increments of .002"	
Pinion head-shims	0.0805" to 0.1005" in increments of .002"	
Pinion bearing-shims	0.073" to 0.106" in increments of .001"	
Bearing preload	New Bearing	Used Bearing
Differential - without axle or pinion	10-25 lbs. in	5-12.5 lbs. in
- without oil seal	15-25 lbs. in.	7.5 - 12.5 lbs. in.
Hypoid pinion - with oil seal	15-30 lbs. in.	7.5 - 15 lbs. in

Refer Workshop Manual for Repair Operations TP 854.

FRONT SUSPENSION

Front wheel alignment	0 to 1/8" toe in	Kingpin inclination	11°
Camber angle	-¼° to +¾°	Angle of outer wheel	40°
Castor angle	+½° to 1½°	Angle of inner wheel	36°

Refer Workshop Manual TP 854 for correction procedure

WARNING: Engine must not be started with Power Steering Pump dry.

Front Hub end float	Zero - 0.002" (no pre-load)	Turning circle	37 ft.
		Wheel base	111.24 inches

Wheel Track			
Standard and Deluxe Models	Front 58.5"	Rear 58.7"	Wheels 14 x 5 JJ
Super Deluxe & Executive Models	Front 59.5"	Rear 59.7"	Wheels 14 x 6 JJ

WARNING: When removing steering wheel, it is imperative that steering wheel puller 18GA067 be used, otherwise damage to the collapsible cannister cannot be avoided

BRAKES

Type	P.B.R. self-adjusting	Drum dia. and width	9" x 2.10"
Disc dia. and width	10.75" x 1"	Lining: Leading shoe	BMRD
Disc run out in situ	0.006" @ 5.25" radius	Trailing shoe	BRME
Disc max. regrind	0.050" ea. face	Rear wheel cyl. bore dia.	0.812
Pad Lining	BM 7133	Master cyl. bore dia.	0.80"
Pad min. thickness	1/16"	Master cyl. Bore dia. (boosted)	1.00"
Caliper Bore Dia	2.50"		

NOTE: Booster push rod must be adjusted to .025" proud of housing
Refer Workshop Manual TP 854.

AUTOMATIC TRANSMISSION

Road Test Procedure

			SHIFT PATTERN				
	Throttle Position	Selector Position	1 - 2 Shift mph	2 - 3 Shift mph	3 - 2 Shift mph	3 - 1 Shift mph	2 - 1 Shift mph
E6	Minimum	D	6-12	8 - 14	–	5 - 9	–
	Kickdown	D	36 - 45	60 - 69	51 - 60	26 - 34	26 - 34
	Zero	1	–	–	–	–	11 - 21
	Minimum	2	6 - 12	–	–	–	11 - 21
	Kickdown	2	36 - 45	–	–	–	11 - 21
V8	Minimum	D	9 - 12	12 - 15	–	5 - 9	–
	Kickdown	D	38 - 45	65 - 74	53 - 62	24 - 33	24 - 33
	Zero	1	–	–	–	–	12 - 21
	Minimum	2	9 - 12	–	–	–	12 - 21
	Kickdown	2	38 - 45	–	–	–	12 - 21

TRANSMISSION LINE PRESSURES

	Selector Position	Engine Idle	Max. Pressure at Stall	Max. Pressure after cutback
E6	All positions	50 - 60 p.s.i.	190 - 240 p.s.i.	80 - 105 p.s.i.
V8	All positions except R	58 - 74 p.s.i.	190 - 230 p.s.i.	110 - 130 p.s.i.
	Reverse	90 - 130 p.s.i.	–	–

Pressures taken with transmission at normal operating temperature of 104°C.

Stall Speed of E6 and V8 is 2000 - 2200 R.P.M. in Drive

DO NOT STALL FOR MORE THAN 10 SECONDS

SERVICE TOOLS

Engine Tools

18GA	031	Rear Crankshaft Oil Seal Remover	...	V8 & E6
18GA	044	Rear Crnakshaft Oil Seal Replacer	...	V8 & E6
18G	1087	Timing Case Oil Seal Remover	...	V8 & E6
18GA	069	Spigot Bearing Remover	...	V8 & E6
18GA	053	Spigot Bearing Replacer	...	V8 & E6
18GA	054	Gudgeon Pin Remover	...	V8
18GA	06	Gudgeon Pin Remover	...	E6
18GA	051	Manifold Tube Remover/Replacer	...	V8
18GA	052	Clutch Tool Aligner	...	V8 & E6
18GA	050	Valve Guide Remover/Replacer	...	V8
18GA	055	Valve Stem Height Gauge	...	V8
18GA	056	Valve Stem Grinding Gauge	...	V8
18GA	057	Hyd. Tappet Bleed Down Tool	...	V8
18GA	059	Engine Lifting Hooks	...	V8
18GA	041	Engine Lifting Brackets	...	E6
18GA	98A	Crankshaft Nut Spanner	...	E6
311006		Timing Chain Remover	...	E6
18GA	017	Timing Chain Replacer	...	E6

SUSPENSION TOOLS

18GA	060	Front Lower Arm Bush Remover/Replacer
18GA	061	Rear Lower Arm Bush Remover/Replacer
18GA	062	Top Link Axle Housing Bush Remover/Replacer
18GA	063	Front Spring Retain Clips
18GA	064	Rear Spring Retain Clips
18GA	066	Front Strut Gland Nut Spanner

STEERING TOOLS

18GA	1030/2	"C" Spanner
18G	1030/1	"C" Spanner
18GA	067	Steering Wheel Hub Puller
18GA	071	Pressure Testing Gauge

Stromberg W. W. Carburettor

1650 'Coxhead' Carburettor Kit

GEARBOX TOOLS

18GA	047	Rear Extension Housing Oil Seal/Replacer with handle 3 & 4 Speed
18GA	048	Input Shaft Remover 3 & 4 speed
18GA	049	Gear Shift Rail Pin Remover/ Replacer - 4 speed
18GA	068	Exten. Housing Bush Remover/ Replacer 3 & 4 Speed use handle 18GA 047/3
18GA	071	Gear Selector Setting Gauge
18GA	072	Dummy Layshaft (3 speed)
18GA	073	Dummy Layshaft (4 speed)

DIFFERENTIAL TOOLS

18GA 045	Axle Shaft Remover
18GA 046	Diff. Pin Flange Holder
18GA 389C	Diff Pin Oil Seal Remover
18GA 065	Diff Setting Gauge Set
W & B 982399	Rear Axle Housing Spreader

AUTOMATIC GEARBOX TOOLS

18GA 6778	Adaptor – Pressure Test	B.W. 42	Front Clutch Piston Replacer
B.W. 38B	Pressure Hose	B.W.A. 7196	Rear Servo Adjuster
B.W. 1	Hydraulic Pressure Gauge	B.W. 548/1	Adaptor - Screwdriver Bit
B.W. 37	Clutch Spring Compressor	T.W. 1A	Torque Wrench
B.W.A. 35	Gearbox Cradle	B.W. 548/2A	Adaptor Band Adjuster
18G 674	Gear Train End Float Check Tool	B.W.A. 34	Front Servo Spanner & Gauge
B.W. 41A	Rear Clutch Piston Replacer		

GENERAL USE TOOLS:

18GA 284	Impulse Extractor	* 18GA 574	Spring Compressor

* In conjunction with special adaptors which can be made within own Workshop

In accordance with the Leyland Policy of constant Product improvement, the right is reserved to alter any details of specification and equipment without notice.

Additional Copies of TP 858 may be purchased in quantities of ten (10) from:

Service Division,
Leyland Motor Corporation of Australia Limited,
893 - 931 South Dowling Street
WATERLOO. N.S.W. 2017

TECHNICAL SECTION

Compliance Plate

MODEL
TYPE, CODE & DEFINITION

	Code	Definition
	076	P76
	X	A.D.R. Compliance Indication
NUMBER OF DOORS	4	4 DOOR
BODY TYPE	S	SALOON
TRIM LEVEL	1	LEYLAND
	2	DELUXE
	3	SUPER
	4	EXECUTIVE
TRANSMISSION	A	FLOOR SHIFT AUTOMATIC
	C	COLUMN SHIFT AUTOMATIC
	M	FLOOR SHIFT MANUAL - 4 SPEED
	N	COLUMN SHIFT MANUAL - 3 SPEED
ENGINE	26	6 CYLINDER 2.623 LITRES
	44	8 CYLINDER 4.416 LITRES

Explanation of the above code is as follows.
We will take Alan Moloney's plate as an example. The number of which is 076A4S3M441099 6-73

From this we see his car is a P76 with "A" Compliance or the first P76 Type Car to be presented for Compliance. It has 4 doors and is a Sedan (Saloon) is level 3 or a Super with 4 Speed floor shift coupled to a 4.4 litre V8 and was the 99th Leyland made of this type as the chassis numbers start at 1001. 6-73 shows us the month and year the car was assembled.

SPEEDO HEAD TO MODEL IDENTIFICATION

During the first production there could be cases of incorrect speedo head assemblies being fitted to both 6 and 8 cylinder cars. The correct head assemblies are as follows:

Level 1 - 2 (no trip meter)

6 cylinder part no AYD9250
8 cylinder part no AYD9085

Level 3 - 4 (trip meter)

6 cylinder part no AYD9251
8 cylinder part no AYD9088

The part numbers are stamped into the speedo casing at the back of the instrument. There is only one speedo pinion at this stage; it is orange and has 17 teeth and is fitted to all cars.

The rear axle assemblies are able to be identified by paint colour dabs on the rear axle assemblies where the axle tubes are welded into the diff centre. These colours are:

Yellow - 8 cylinder
Red - 6 cylinder

The axle assembly part no. tabs are similarly coloured.

Attention Service Manager

LEYLAND AUSTRALIA

SERVICE BULLETIN

C 40/73
EXP. 32
P.S. -
F.O. 37

TECHNICAL

11.12.1973.

Sighted by

DOOR GLASS GUIDE REFITTING AND USE OF APPROVED ADHESIVES

P76
SALOON

METHOD :

1. Remove the residual adhesive from the glass and stainless steel guide (if refitting original) by scraping with a chisel and then swabbing finally with a cloth moistened with (non-oily) acetone or methylated spirits.

2. Abrade surface (which is to be bonded) of stainless steel guide with 320 grit silicon carbide paper to produce a flat surface with a "keyed" finish and minimum gap between guide and glass.

3. Thoroughly degrease the glass and guide with methylated spirits or (non-oily) acetone.

4. Accurately mark the position of the guide on the glass with crayon. See sketch.

5. Apply the approved adhesive (refer "APPROVED ADHESIVES" below) in accordance with the manufacturer's instructions to the guide and place the guide on the glass in the correct position. Lightly clamp to hold the parts together while adhesive cures for minimum 24 hours for epoxy type adhesives and 2 hours for polyester Anaerobic adhesives.

NOTE: Although maximum strength is not developed until several days after bonding, drop glasses may be carefully reassembled to the vehicle after minimum curing time.

APPROVED ADHESIVES

A) Polyester Anaerobic Type

Loctite 317 or 312 is available in 250 cc containers from Bearing Service Co. or their agents.

A primer is necessary and parts must be controlled to achieve a minimum clearance between guide and glass.

Max. gap for Loctite 312 is 0.003"

Max. gap for Loctite 317 is 0.015"

N.B. Follow manufacturer's instructions.

B) Epoxy Two Part Adhesives

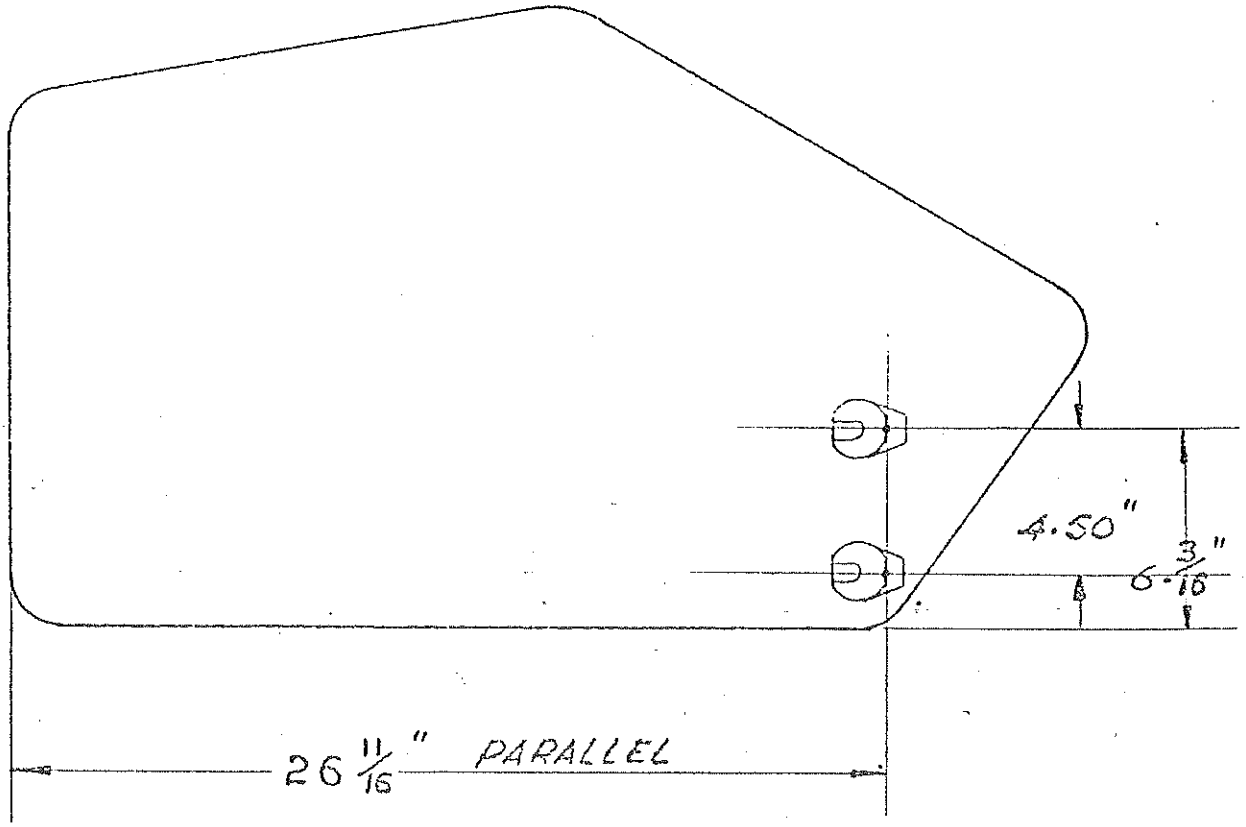
Araldite in fluid ounce packs at Selleys Handyman Bars.

Note that the faster curing epoxy adhesives are not approved.

Max. gap for required bond strength is 0.020".

N.B. Follow manufacturer's instructions.

GUIDE LOCATION-
REAR DOOR GLASS.



GUIDE LOCATION – FRONT DOOR GLASS.