ELECTRICAL AND MECHANICAL
ENGINEERING REGULATIONS
(By Command of the Defence Council)

WHEELED VEHICLES
Q 055 Wpf Instr No 6

TRUCK, UTILITY, 1 TONNE, 4 X 4, ROVER
TECHNICAL HANDBOOK – WATERPROOFING INSTRUCTION

Issue 1, May 80

Distribution – Special

TRUCK, UTILITY, 1 TONNE, 4 x 4 ROVER
TECHNICAL HANDBOOK - SEMI-PERMANENT WATERPROOFING INSTRUCTION

CONTENTS

MANHOUR CONTENT

Detail	Approximate time in manhours		Maximum No of men who can be usefully employed	Minimum time required
	Crew	Veh Mech		
Perusal of Introduction to the EMER and checking of Wpf Kit against Kit List	2	-	2	1
Servicing of the equipment	2	-	2	1
Waterproofing Stage A	10.1/2	10.3/4	2 + 1	19
Waterproofing Stage B	1.1/2	-	2	1
De-Waterproofing Stage C	11 mins.		2	6 mins.
Wet Shod Re-Embarkation	2		2	1.1/2
De-Waterproofing Stage D	3		2	2

SUMMARY

1. This instruction details the method of waterproofing to enable the vehicle to ford through an effective depth of 5 feet including ramp angle, wheel sinkage and wave height. The waterproofing kit when applied will enable the vehicle to ford with the minimum of preparation over a period of twelve months. To enable the vehicle to function either in its normal role or ford in water the waterproofing kit is fitted in various stages.

Stage A — Majority of the kit is fitted at this stage after which there are no limitations on vehicle usage. The date of fitting is to be recorded in the vehicle record book, Section 4.

Stage B — This stage can be completed within one hour which will permit the vehicle to disembark or embark wet shod dependent on operational requirement. On completion of this stage vehicle pre-wade mileage is restricted. Post wade mileage must conform to Stages C and D.

Stage C — The tasks in this stage can be completed in a few minutes and must be carried out within 15 minutes after fording.

Stage D — Tasks in this stage are dependent on operational conditions but vehicle servicing must be carried out with the minimum of delay.

Note: The kit has a twelve month life after which it must be carefully examined by REME. Any suspect waterproofing aids must be replaced or in extreme cases a complete new kit must be fitted.

2. Where variations from standard occur on the vehicle or equipment due to modifications or contract changes, advice and direction of a REME Waterproofing Adviser should be sought regarding additional or amended tasks.

Note: REME ASSISTANCE WILL BE REQUIRED FOR TASKS 3, 4, 5, 7, 10, 11, 12, 15, 19, 20, 23, 25, 50.

STORES REQUIRED

3. a. Waterproofing kits are MOD controlled stores. Operationally they are issued without demand. Should issue be authorized for training purposes:-

(1) In the UK they are to be demanded from Ministry of Defence E Man 2(c) through District Headquarters.

(2) Overseas, they are to be demanded through formation or district HQ.

b. When a complete kit is required, the full Army designation of the vehicle or equipment, including code number and contract number is to be stated on the demand. Authority for issue must be quoted.

c. Normally, individual items and sub-kits are not issued separately but may be demanded to make good kit deficiencies. Such demands are to quote full part numbers and designations as shown in this waterproofing instruction, Pages 3 and 4. A brief explanation of circumstances necessitating the demand is to be attached.

4. a. Stores to be demanded:-

COSA Section	Part No	Nomenclature	Qty per veh
LV6/WPG	2540998355774	Kit, waterproofing, truck, utility, 1 tonne 4 x 4 Rover, semi-permanent (WPG 9349)	1
		comprising:-	
EMER Wh Veh Q 055 Wpf Instr No 6 Issue 1		Waterproofing instruction	1
LV6/WPG	2540998159287	Cover, battery vent (WPG 9028)	7 *
LV6/WPG	2540998159680	Container, polythene fitted 3/16 in dia tubing (WPG 9085)	1 Ø
LV6/WPG	2540998161192	Stay, tailboard (WPG 7745)	2 Ø
LV6/WPG	2540998161196	Sleeve, rubber (WPG 7784)	2 *
LV6/WPG	2540998161896	Lead, l.t. extension (WPG 7788)	1 Ø
LV6/WPG	2540998162492	Connector, pipe, T piece (WPG 9111)	1 Ø
LV6/WPG	2540998162428	Band rubber (WPG 7779).	8 *
LV6/WPG	2540998162506	Valve, non-return 3/8 in i.d. (WPG 9123)	2 *
LV6/WPG	2540998162670	Bag, envelope, PVC 36 in. x 24 in. (WPG 8220)	4
LV6/WPG	2540998179523	Valve, non-return, 1/4 in. i.d. (WPG 9138)	3 *
LV6/WPG	2540998223030	Cover, general purpose No 1 (WPG 9183)	3 *
LV6/WPG	2540998227639	Cover, windscreen wiper motor, No 2 (WPG 9238)	2 *
LV6/WPG	2540998227640	Cover, hydraulic fluid reservoir No 2 (WPG 9239)	3 *
LV6/WPG	2540998227641	Cover, servo unit (WPG 9240)	2 *
LV6/WPG	2540998227644	Adapter, trafficator switch (WPG 9243)	1 Ø
LV6/WPG	2540998222578	Cover, trafficator switch (WPG 9181)	4 Ø
LV6/WPG	2540998223034	Bung, rubber No 12 (WPG 9194)	2
LV6/WPG	2540998246501	Bracket, turnlight switch (WPG 9286)	1 Ø
LV6/WPG	2540998246504	Adapter, air intake (WPG 9287)	1 Ø
LV6/WPG	2540998247121	Bracket, instrument panel (WPG 9291)	2 Ø
LV6/WPG	2540998247125	Cover, distributor (WPG 9295)	2 *
LV6/WPG	2540998247126	Adapter, steering wheel (WPG 9296)	1 Ø
LV6/WPG	2590998247120	Lead extension l.t., coil (WPG 9290)	1 Ø
LV6/WPG	2590998247124	Lead extension horn (WPG 9294)	1 Ø
LV6/WPG	2540998254056	Cover, general purpose No 4 (WPG 9311)	2 *
LV6/WPG	2910998222571	Cap, waterproofing, fuel tank (WPG 9215)	1 Ø
LV6/WPG	2920998247127	Ignition harness assembly (WPG 9297)	1 Ø
LV6/WPG	2540998304401	Valve, non-return exhaust (WPG 9345)	1 Ø
LV6/WPG	2540998304402	Nut (WPG 9333)	2
LV6/WPG	5325998304403	Bung, rubber No 15 (WPG 9334)	1
LV6/WPG	5325998304404	Bung, rubber No 16 (WPG 9335)	1
LV6/WPG	2540998304405	Bracket, windscreen washer pump (WPG 9336)	1
LV6/WPG	2540998304406	Bracket, relay and turnlight unit (WPG 9337)	3
LV6/WPG	5325998304409	Bung, rubber, No 17 (WPG 9340)	1
LV6/WPG	5325998304410	Bung, rubber, No 18 (WPG 9341)	1
LV6/WPG	2540998304411	Cover, differential lock switch (WPG 9342)	2 *
LV6/WPG	5365998222564	Clamp, bung (WPG 9207)	7 Ø
LV6/WPG	5325998243617	Bung, rubber, No 4 (WPG 9273)	1
LV6/WPG	5330998254175	Washer, rubber (WPG 9316)	2 *
LV6/WPG	5340998246506	Bracket, air cleaner (WPG 9289)	1 Ø
LV6/WPG	5340998246505	Clamp, air cleaner (WPG 9288)	2 Ø
LV6/WPG	2540998246499	Collar, distributor (WPG 9283)	2 *
LV6/MT1	4730995332970	Clamp, hose (worm drive type) 2.3/4 in - 3.1/2 in	2
LV6/MT1	4730995332957	Clamp, hose (worm drive type) 1/2 in - 5/8 in	2
LV6/MT1	4730995332959	Clamp, hose, (worm drive type) 5/8 in - 7/8 in	6
LV6/MT1	5330998016631	Ring	2 *
LV6/MT3	6220998034064	Gasket, sealing lens	1

COSA Section	Part No	Nomenclature	Qty per veh
LV6/WPG	2540998162664	Prestikon 24 in. x 1.1/2 in. x 1/8 in.(per foot) (WPG 8120)	4 ft.
LV6/MT4	2920998257742	Plug, screen	8 Ø
LV6/MT4	5930998084873	Switch	1
LV6/MT4	6140998057988	6TN vent breather	8 *
LV6/MT6	4720998057764	Tubing, rubber 5/32 in i.d. x 5/16 o.d.	15 ft.
LV6/MT6	4720998057839	Tubing, rubber 3/16 in. i.d. x 13/32 in. o.d.	4 ft.
LV6/MT6	4720999427739	Hose rubber, 2.3/4 in i.d.	3 in.
LV7RU	2510998449527	Bumper (grommet)	3 *
F1	8020999430417	Brush, artists, flat fitch No 2	3
G1	5320994332289	Rivet, aluminium, flat head 3/16 in. dia x 1 in. lg.	2 *
G1	5305991210302	Screw, m/c BSW steel, rd.hd. slot drive z/p 3/16 in. dia x 3/4 in. lg.	2
G1	5305999418907	Screw m/c, BA cadmium plated No 2 BA x 1/2 in lg.	4
G1	5310999416866	Washer, flat, steel, No 2BA	4
G1	5310999417070	Nut plain hex hd., BA steel No 2	4
G1	5310999418637	Washer flat rd, steel z/p 0.520 in. i.d. x 1.0 in. o.d. x 0.092 in thk.	1
G1	5305999141835	Screw m/c B.A. flat fill.hd. slot drive No. 2 x 1 in.	2
G2	4710999438887	Piping, steel, 1/4 in. o.d.	1.1/2 in.
G2	4710999649973	Piping copper, rd. seamless, 5 mm x 0.8 mm wall thickness	1.1/4 in.
H1	5970992244975	Compound, silicone, 12 oz aerosol container (WPG 8198)	1 tin
H1	8030992205433	Sealant, industrial 3MS EC-750-C (4 oz tubes) (WPG 9136)	4 tubes
H1	8040999430380	Adhesive, natural rubber/resin liquid form Bostik 1261 (1/2 pint tin)	2 tins
H1	8040999437791	Adhesive, synthetic resin Araldite (2 tube pack)	1 pack
H2	4020991208693	Rope, sisal, 3 strand rotproofed 5/8 in. circular	3 fathoms
H2	4020991384831	Twine hemp, baling, rotproofed	30 ft.
H4	8105991356188	Bag, plastic, polyvinyl, 10 in lg x 8 in wide x 0.004 in thk	4 *
H4	8105991356190	Bag, plastic, polyvinyl, 450 mm x 255 mm (EMER)	2 *
H6	4720992205646	Tubing, plastic 6 mm i.d. x 8 mm o.d.	6 in.
POL	5970999424829	Compound, silicone (8 oz tube) (WPG 8213)	1 tube
POL	6850992245311	Water displacing fluid, PX24 (ARDROX 3961) (WPG 9147)	1 qt.
Y3	5970999403237	Tape, adhesive, 3/4 in. wide, Scotch, No 33 (WPG 8218)	2 rolls

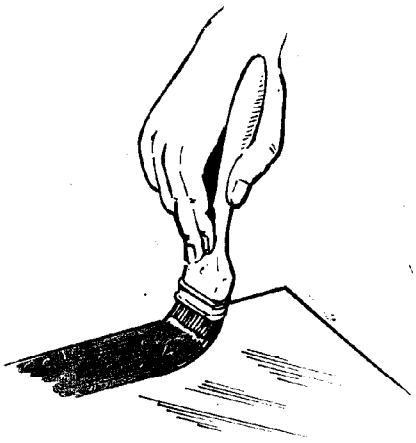
*A spare is provided to cater for defective or damaged items. Items of the waterproofing kit marked thus Ø on the kit list are reclaimable and must be returned irrespective of condition to RSSD, COD, Chilwell when the kit is removed.

b. Stores to be obtained locally:-

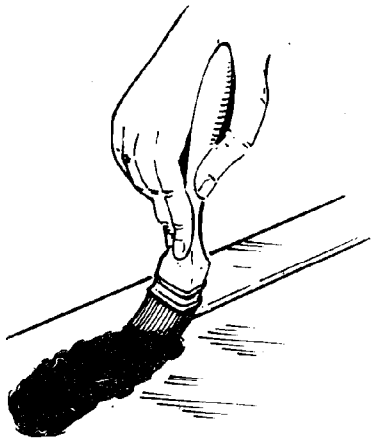
-	-	Grease XG-279 or approved equivalent (according to theatre)	3.1/2 lb.
-	-	Grease PX-7	1/2 lb.
-	-	Gasoline (for cleansing purposes)	1 qt.

APPLICATION OF BOSTIK 1261

A. As an adhesive on metal or wood, apply with a straight brushing motion like this:-



B. As an adhesive on wading fabric and for filling seams, apply with a circular motion like this:-

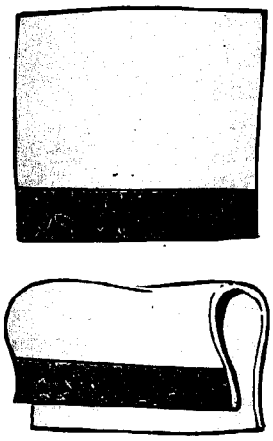


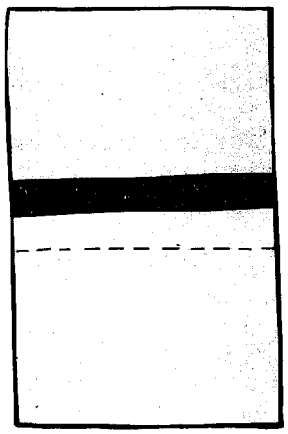
C. As an adhesive for joining fabric to fabric:-

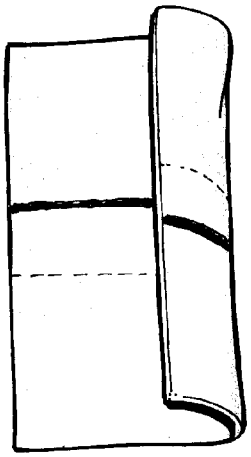
Apply Bostik as in B. to both surfaces to be joined. Allow first coat to become dry before applying second coat.

Allow second coat to become nearly dry then press mating surfaces together. Rub smooth with a clean rag.

Apply one coat of Bostik over both edges of the seam.







GENERAL INSTRUCTIONS

5. a. The instructions in this regulation describe the action to be taken before and after fording, to protect the equipment against damage resulting from immersion in sea water.

b. Waterproofing is carried out in stages and each stage must be completed in the sequence given in this instruction. The tasks within each stage are shown in the most suitable sequence, but this may be varied according to circumstances. Where a complete task coverage requires more than one page the task should be read in its entirety before commencing a page by page progression.

c. CLEANLINESS IS THE FIRST ESSENTIAL OF SUCCESSFUL SEALING. When applying compounds, ensure that the hands are clean and free from grease and that all surfaces to which sealing compounds are to be applied are scrupulously clean. Mud, oil, grease or water will spoil adhesion.

d. REMEMBER THAT ALL WATERPROOFING MUST BE 100 PER CENT SUCCESSFUL. One carelessly treated component may cause failure at a critical moment, so take great care with every detail. Whenever waterproofing is being carried out during wet weather, suitable shelter should be arranged over the vehicle.

e. The vehicle load must be made secure to prevent any movement whilst the vehicle is ascending or descending the ramp on the ship.

f. If difficulties are encountered, the senior REME officer should be consulted.

MATERIALS, USES AND APPLICATION

6. a. Gasoline:-

Is used for the final cleaning of surfaces before applying any of the various waterproofing materials.

b. Bostik 1261:-

Used as:-

(1) A seal for tight fitting seams and for bolt heads.
(2) An adhesive for securing fabric to fabric.
(3) An adhesive for securing fabric to metal.
(4) An adhesive for sealing prestikon to fabric.

To use Bostik 1261 as an adhesive for wading fabric, apply as shown in Fig 1(B). When using this compound as an adhesive for wading fabric, it is essential to apply two coats to both mating surfaces and allow to become nearly dry between coats and before sealing. For seam or bolt head sealing first thoroughly clean and dry the surface, then brush Bostik on firmly using the brush in a circular movement, as shown in Fig 1(B), crossing the joint and packing Bostik into it. Make sure that the seams are well covered and that Bostik is worked well into the joints. Brushes for the application

of Bostik are supplied in waterproofing kits.

Note: To test Bostik 1261 for dryness, press a finger firmly on to the surface. When ready for sealing, the surface should feel 'tacky' but Bostik should not stick to the finger.

c. Prestikon:-

(1) Is a plastic sealing compound which, when moulded to joints and apertures prevents water entry. It is also used in some cases to cover electrical components and connections to prevent failure of the electrical system.

(2) It is supplied in a box (minor pack) containing six double strips 24 in. x 1.1/2 in. wide, in protective wrapping. Four boxes packed in a larger container are known as a major pack.

(3) The application of Prestikon is shown in Fig 2(B) and (C). It must not be removed from its wrapping until actually required for application. When handling, the hands must be clean and free from grease. Remove the backing strip as shown in Fig 2(A). Where a considerable length is called for in a particular task, it is better to apply a series of short lengths, overlapping the strips as shown in Fig 2(C), and moulding the top layer to the under layer. This allows ease of handling and avoids excessive stretch. It is important that strips of the correct length are used for each task as detailed in this instruction.

Note: Always keep Prestikon clean and dry. The biggest hindrances to successful waterproofing are OIL, DIRT and WATER, therefore all surfaces to be waterproofed must be perfectly clean and dry. The fingers may, however, be slightly moistened to prevent the Prestikon sticking to them.

d. Covers, elastic, waterproofing:-

Manufactured from rubber and used to enclose various components. Before use, examine carefully and repair tears, splits or pin holes with adhesive tape. A spare cover of each type required to waterproof the equipment is provided in the kit.

e. Cover, battery vent:-

Sheaths used to cover battery vents. When in position they prevent water entry to the battery cells but allow gases to escape through small vents in the end of the sheath.

f. Rubber non-return valves:-

Are simple pressure activated valves made from thin rubber tube - they can be made from cycle or motor-cycle inner tubes in an emergency. Their main use is to close up engine breathers when immersed, and to avoid excessive build-up of crankcase pressures.

g. Grease:-

Is used for protection against salt water corrosion on certain parts. The surface should be thoroughly covered with an even, unbroken film of grease. A lumpy coating is wasteful and provides no better protection.

h. Compound, silicone:-

Supplied in 50 gramme or 225 gramme tubes and 12 oz aerosol containers for junction boxes, fuse holders and other electrical components which must remain operative at all times. The components should be covered with a generous, unbroken, even film of silicone compound.

j. Sealant, industrial, 3M EC-750-C:-

Supplied in tubes or litre tins. Industrial sealant EC-750-C is a joint sealant which dries to form a tough flexible seal, designed primarily to accommodate movement in ducting, other sheet metal fabrication and electrical cladding.

k. Tape, adhesive, Scotch, No 33:-

A waterproof adhesive tape, suitable for repairing and sealing PVC bags, breathers, apertures, joints and components. The width of the tape can be increased by overlapping to the required width.

l. Fluid, water displacing, PX-24 (Ardrox 3961):-

Supplied in 1 quart containers in kits. It is used as an inhibitor for dynamos, starter motors, and other electrical components during fording operations.

m. Solution, temporary protective, PX-10:-

Obtainable in 5 gallon drums through RAOC channels. It is used as a flushing oil to decontaminate any assemblies which have been flooded by sea or fresh water.

n. Bung, rubber, cut:-

Used in conjunction with a rubber cover or PVC tube, where a number of leads pass through a common entry point. The bung incorporates radial cuts for the insertion of leads which cannot be disconnected and passed through the bung holes. The method of fitting and sealing leads into cuts and a bung to bung clamp is shown at Fig 4.

o. Bag, envelope, PVC:-

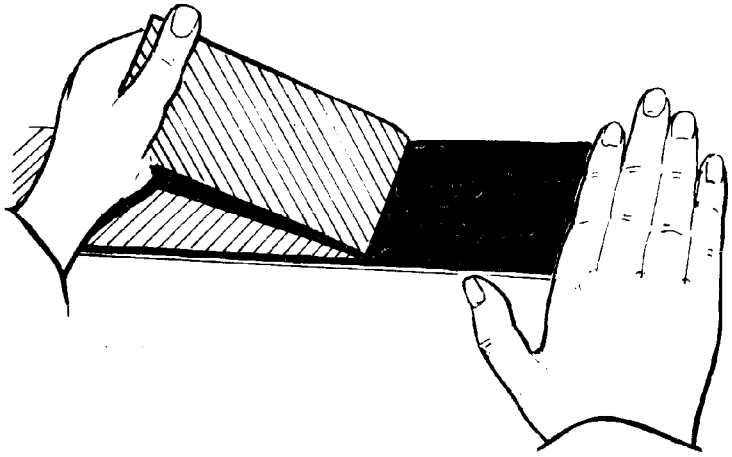
These are manufactured bags of varying sizes from a waterproof material, which are used to enclose parts of the vehicle as detailed in this instruction and other items as may be desired.

Note: BEFORE USE, THE BAG MUST BE INSPECTED FOR PIN HOLES, TEARS OR SPLIT SEAMS, WHICH CAN BE REPAIRED WITH SUITABLE LENGTHS OF ADHESIVE TAPE, BOSTIK OR PRESTIKON.

APPLICATION OF PRESTIKON

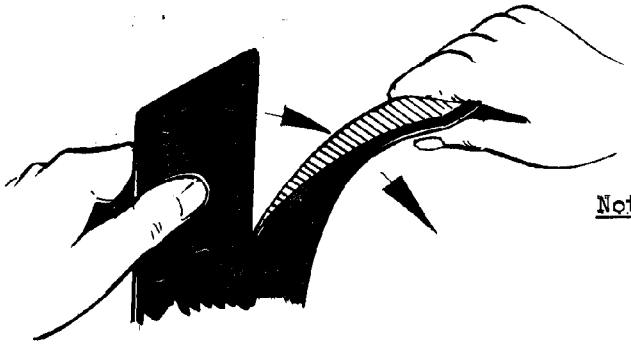
A. 1. Lay the strip on a clean surface, tear open the outer polythene envelope wrapping at one end, and slide out the Prestikon strip.

2. Remove the unperforated backing paper. INSPECT PRESTIKON. Sections showing signs of dryness or cracks must be removed by cutting out suspected section of the strip.



3. Strip the Prestikon down the middle along the perforated paper wrapper.

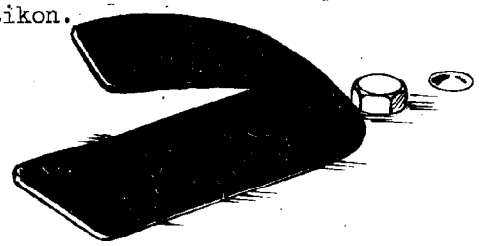
4. Cut off the required length.



Note: Remove backing paper on the job.

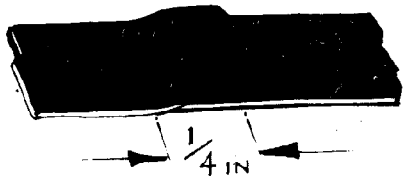
B. APPLYING PRESTIKON TO AN UNEVEN SURFACE

Using fingers, mould well down around uneven surfaces making sure no air pockets remain beneath the Prestikon.



C. JOINING STRIPS OF PRESIKON

Always overlap like this and, using fingers, lightly mould joint together.

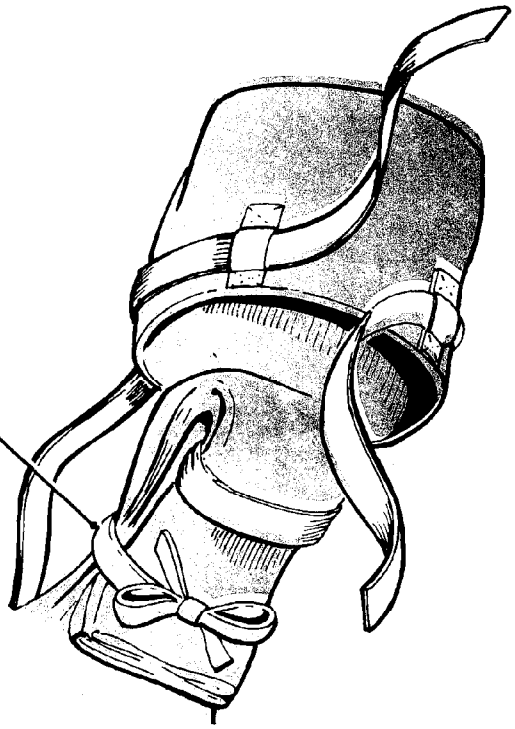


STANDARD METHOD OF TYING WATERPROOFING BAGS

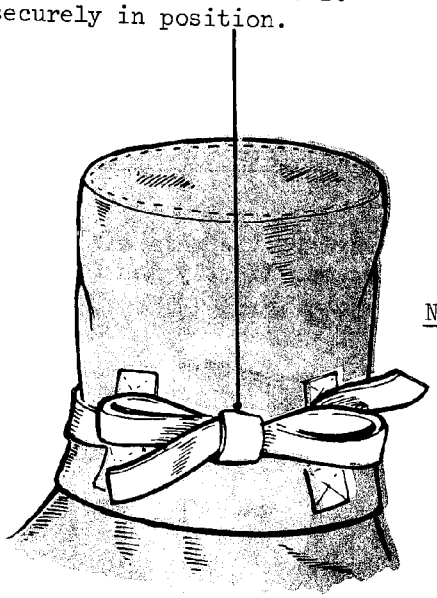
Note: Before tying, ensure that all surplus air is excluded from the bag.

1. Gather the mouth of the bag into pleats starting at the side opposite the attached tapes, then securely tie with the top set of tapes.

2. Bend the snout of the bag over and securely tie with the bottom set of tapes.



3. Place the sealing cap over the snout and tie it securely in position.



Note: Open ended PVC bags should be sealed as shown in 1. and 2. by using adhesive tape instead of ties.

WATERPROOFING ARRANGEMENTS

7. The operations are to be carried out by Unit personnel unless otherwise stated. THE WORK IS TO BE PLANNED AND SUPERVISED BY AN OFFICER WHO MUST ARRANGE FOR SUPERVISORS, WHO HAVE BEEN TRAINED IN WATERPROOFING, TO INSPECT ALL TASKS PROGRESSIVELY TO ENSURE THAT THEY ARE COMPLETED SUCCESSFULLY. A check list to assist supervisors will be found at the end of this instruction. This list must be initialled by the supervisor as each task is passed as satisfactory.

CHECKING THE WATERPROOFING KIT

8. Before commencing waterproofing the equipment, the waterproofing kit must be checked against the kit list provided.

WATERPROOFING OF CARGO

9. Should it be desired to waterproof items of stores and equipment carried as cargo for which a waterproofing kit or specified suitable container is not available, use may be made of the range of BAGS, WATERPROOFING detailed below and available from RAOC sources:-

COSA Section	Part No	No	Size	
LV6/WPG	2540998161881	12	6 ft 8 in. x 3 ft 2 in. x 6 ft	
LV6/WPG	2540998162661	13	5.1/2 in. x 5.1/2 in. x 15.1/2 in.	
LV6/WPG	2540998162332	14	48 in. x 30 in. x 29 in.	Has a wooden slat re-inforced base with six carrying handles.
LV6/WPG	2540998162662	15	15 in. x 15 in. x 15 in.	
LV6/WPG	2540998162333	16	33 in. x 18 in. x 30 in.	
LV6/WPG	2540998162663	17	24 in. x 20 in. x 15 in.	Special purpose bags having a zip closure on three sides.
LV6/WPG	2540998162334	18	24 in. x 10 in. x 8 in.	

The method of tying the above bags is shown at Fig 3.

The following two PVC bags are re-usable types, fitted with zip closures, and primarily for use in 1/2-ton, 3/4-ton and 1-ton cargo trailers. The smaller one can also be used for waterproofing cargo in Rover cargo vehicles.

LV6/WPG	2540998159470	72 in. x 36 in. x 18 in.
LV6/WPG	2540998159471	36 in. x 36 in. x 18 in.

PREPARATORY SERVICING

10. a. Carry out 5000 mile servicing (excluding oil changes unless due within the next 1000 miles) as detailed in the Servicing Schedule to ensure full serviceability for fording, including winch if fitted.

b. Waterproofing demands maximum efficiency of vehicle performance. Ensure that your vehicle is 100 per cent fit for the task.

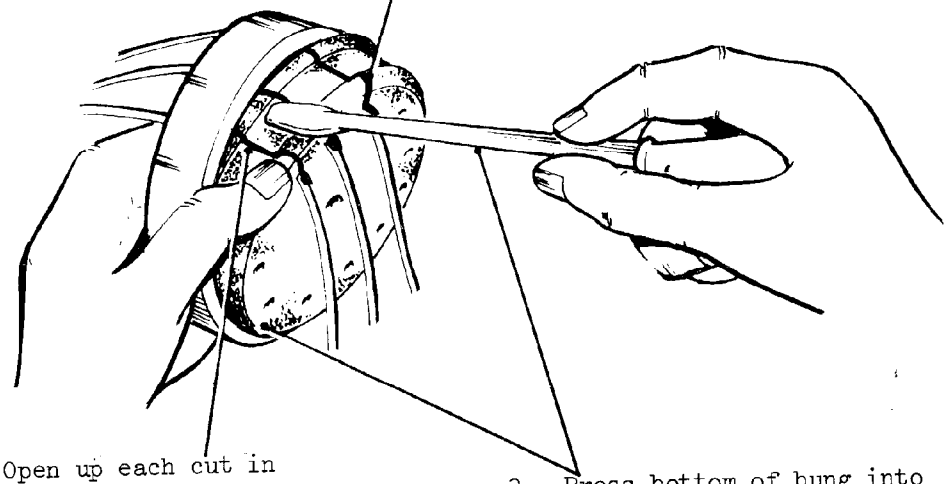
c. Headlamps, side and tail lamps, flashers, trailer socket, horn (FV pattern) and convoy lamps are waterproofed in manufacture. Ensure that rubber seals are in place and undamaged. Where seals are suspect and spares are not available, seal as advised by the Supervisor/Adviser, using the material provided. Before replacing the screwed lenses of flasher, side and tail lamps when removed for the inspection of the seals, smear threads with grease.

d. All accessible electric plugs, sockets and connectors when not specifically in a waterproofing task:-

Disconnect, apply a coat of silicone compound over pins/sockets/ terminals and reconnect connectors.

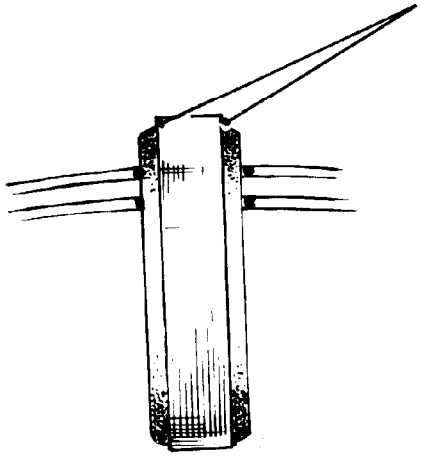
Cut Rubber Bungs

1. Ease leads individually into cuts in bung. Press leads down until they seat in hole in bung.



2. Open up each cut in turn and apply an even coat of Bostik to both faces of cut using a Brush, Artists, Flat, fitch No. 1.

3. Press bottom of bung into bottom of clamp. Holding bung and clamp in one hand ease bung into clamp with electrician's screwdriver until circumferential lips on bung lie evenly on either side of clamp.



Note: Speed is essential when Bostik is applied to cuts in bung to ensure that adhesive is still 'tacky' when bung is inserted into clamp.

[redacted] Bostik

WATERPROOFING STAGE A

TASK 1. BATTERY

Disconnect battery. This is done to prevent accidental short circuiting during proofing. Certain tasks entail starting the engine, in such cases battery is to be connected and disconnected after each test.

Note: Do not run engine with battery disconnected as this will damage the generator.

TASK 2. REMOVAL OF ITEMS

Remove the following items from vehicle; they are to be refitted in a later task.

1. Radiator front grille.
2. L.h. and r.h. front wing valance access panels.
3. Engine compartment cover.
4. Battery compartment cover (if not already removed).
5. Rear body floor assembly over gear box.
6. Rear body heater outlet panel.

TASK 3. STEERING WHEEL

Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

Remove steering wheel. Remove spacer and stow in a safe place in vehicle. Remove turnlight switch assembly from steering column.

Note: Steering wheel is to be refitted in a later task.

TASK 4. HEATER

Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

1. Disconnect heater motor leads and air control cable; remove control cable complete.

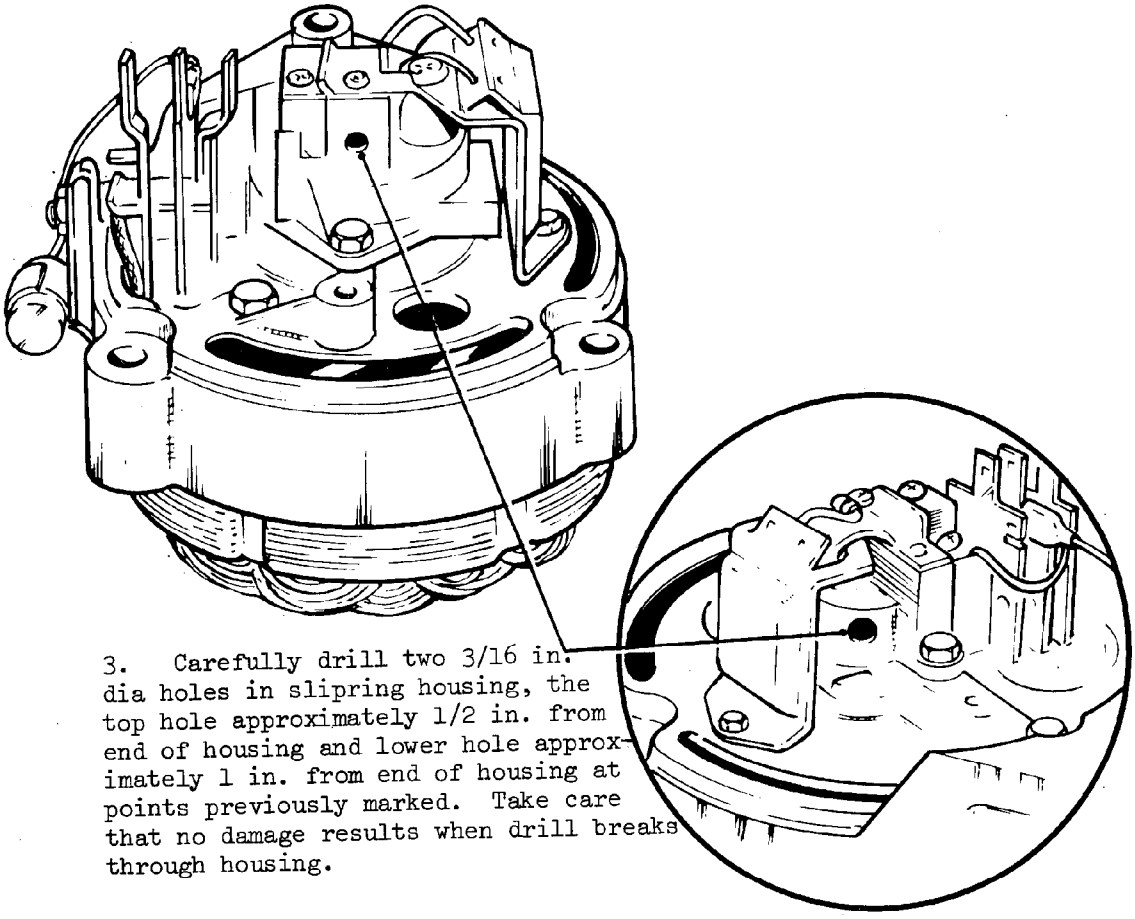
2. Remove motor and fan assembly from mounting flange; refit screws to mounting flange. Place air control cable, and fan assembly in a bag PVC, 36 in. x 24 in. taking precautions against damage occurring to assembly when stowing in vehicle.

TASK 5. GENERATOR

Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

1. Remove generator from vehicle. Remove end cowl and stow in a safe place in vehicle.

2. Mark slipring housing at highest and lowest points relative to its position when fitted to vehicle. Remove rotor, end plate and pulley assembly from stator section.

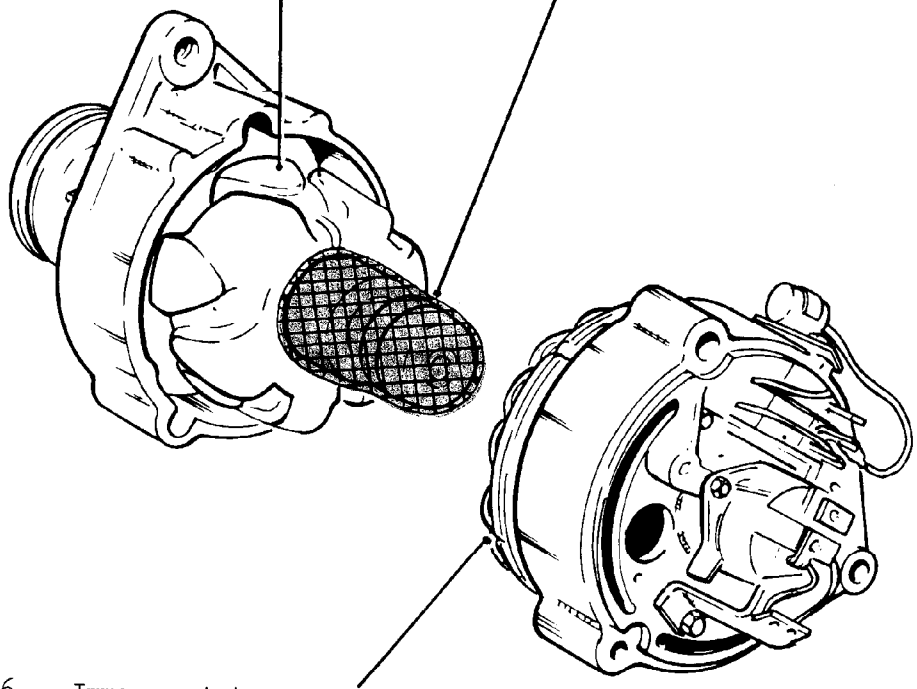


3. Carefully drill two 3/16 in. dia holes in slipring housing, the top hole approximately 1/2 in. from end of housing and lower hole approximately 1 in. from end of housing at points previously marked. Take care that no damage results when drill breaks through housing.

TASK 5 cont. GENERATOR

4. Bind adhesive tape around sliprings, over end of shaft, over bearing and onto rotor. This is to prevent PX-24 affecting bearing lubricant.

5. Immerse rotor assembly in PX-24 ensuring that drive end bearing does not contact PX-24. Allow rotor assembly to drain.



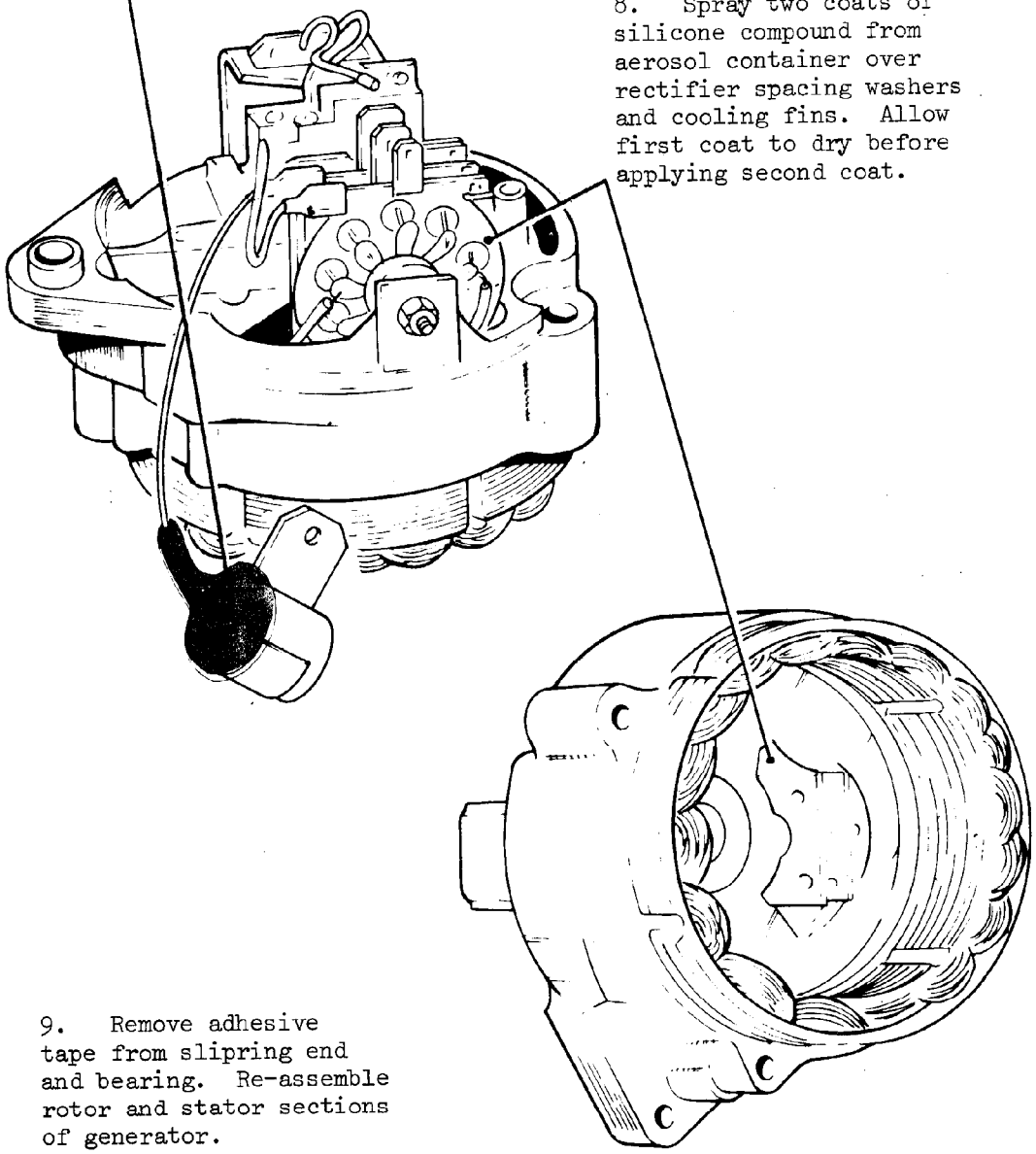
6. Immerse stator assembly, open end first, to cover stator windings in PX-24. Allow stator assembly to drain.

Tape, adhesive

TASK 5 cont. GENERATOR

7. Brush a liberal coat of EC-750-C sealant over end of condenser and for 1 in. along lead.

8. Spray two coats of silicone compound from aerosol container over rectifier spacing washers and cooling fins. Allow first coat to dry before applying second coat.



9. Remove adhesive tape from slipring end and bearing. Re-assemble rotor and stator sections of generator.

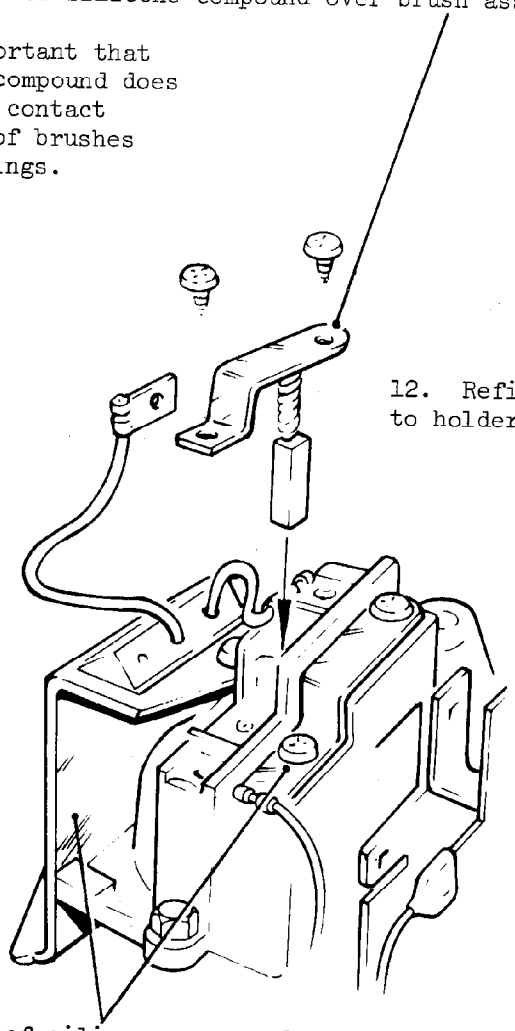
[redacted] EC-750-C Compound, silicone

TASK 5 cont. GENERATOR

10. Remove brush assembly from holder.

11. Apply a film of silicone compound over brush assemblies.

Note: It is important that silicone compound does not cover contact surfaces of brushes and sliprings.



12. Refit brush assembly to holder.

13. Apply a film of silicone compound over regulator, terminals and screwheads.

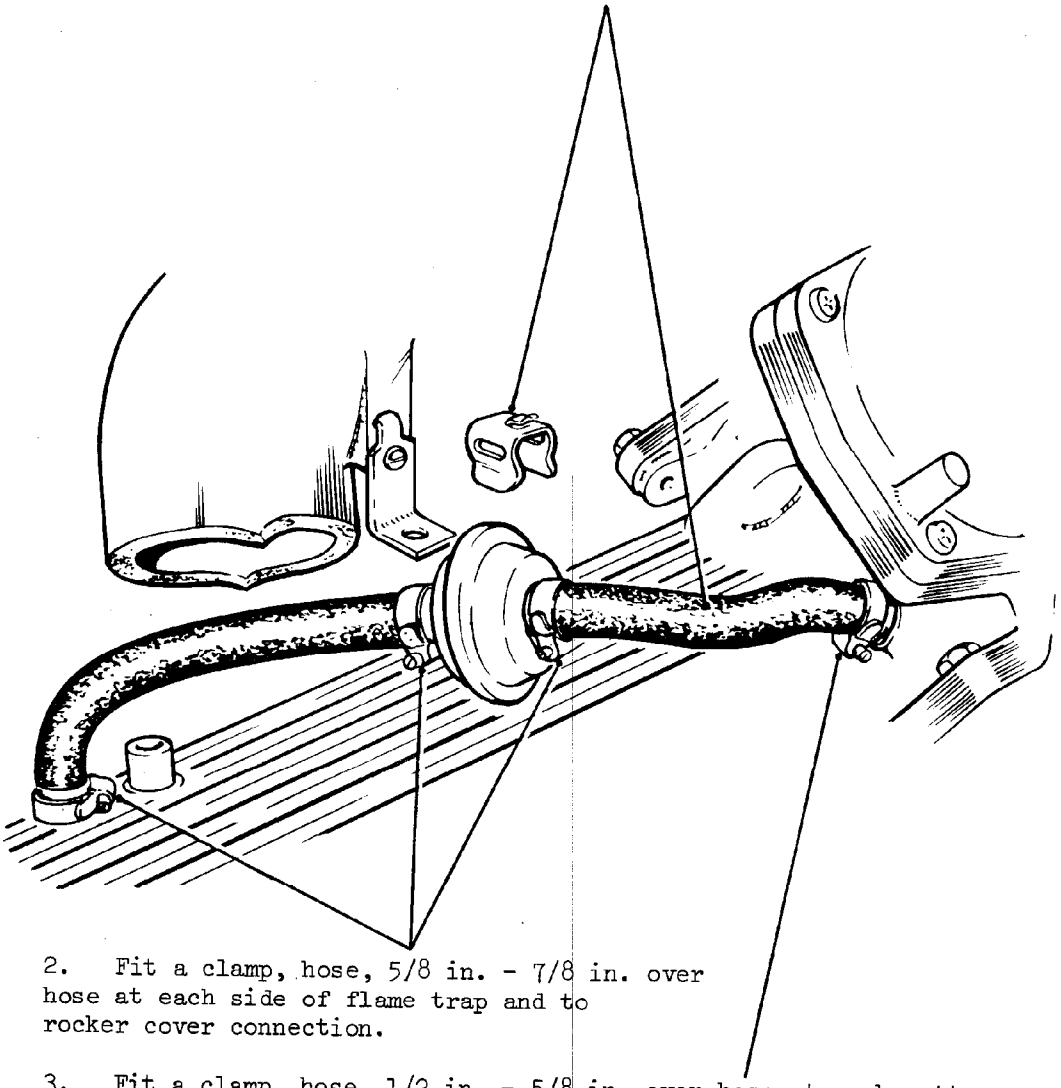
14. Refit generator, without end cowl, to vehicle and reconnect leads.

15. Fill container, polythene with PX-24. Seal container and stow in a safe place in vehicle. It will be required for use in Stage C.

Compound, Silicone

TASK 6. ENGINE FLAME TRAPS (2)

1. Pull hoses clear of retaining clip on air intake elbow. Stow loose part of clip in a safe place in vehicle. Remove hoses from carburetter and rocker cover.



2. Fit a clamp, hose, 5/8 in. - 7/8 in. over hose at each side of flame trap and to rocker cover connection.

3. Fit a clamp, hose, 1/2 in. - 5/8 in. over hose at carburetter connection.

4. Tighten all clamps ensuring that hoses are pushed fully onto the connecting spigot tubes.

5. Carry out same procedure for r.h. side flame trap.

Note: Do not over-tighten hose clamps.

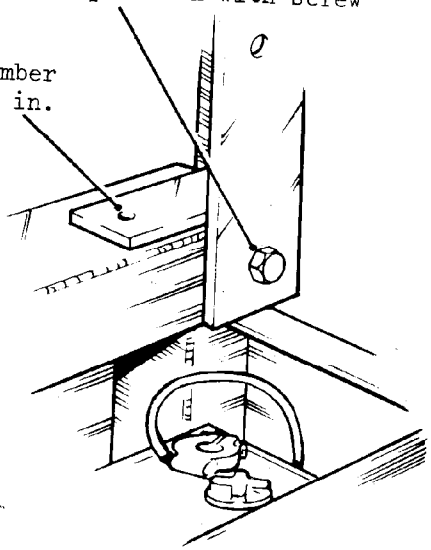
6. Refit rear body heater outlet panel.

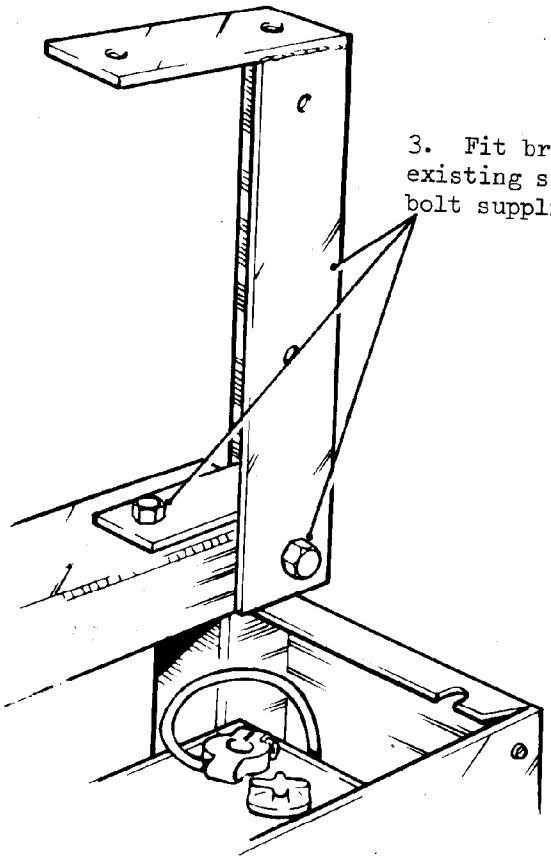
TASK 7. CARBURETTER AIR INTAKE

Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

1. Remove screw at inner end of rail above battery compartment. Fit bracket, air cleaner (WPG 9289) and secure in position with screw previously removed.

2. Mark position of hole in bracket member on rail, remove bracket and drill a 5/16 in. dia hole where marked.





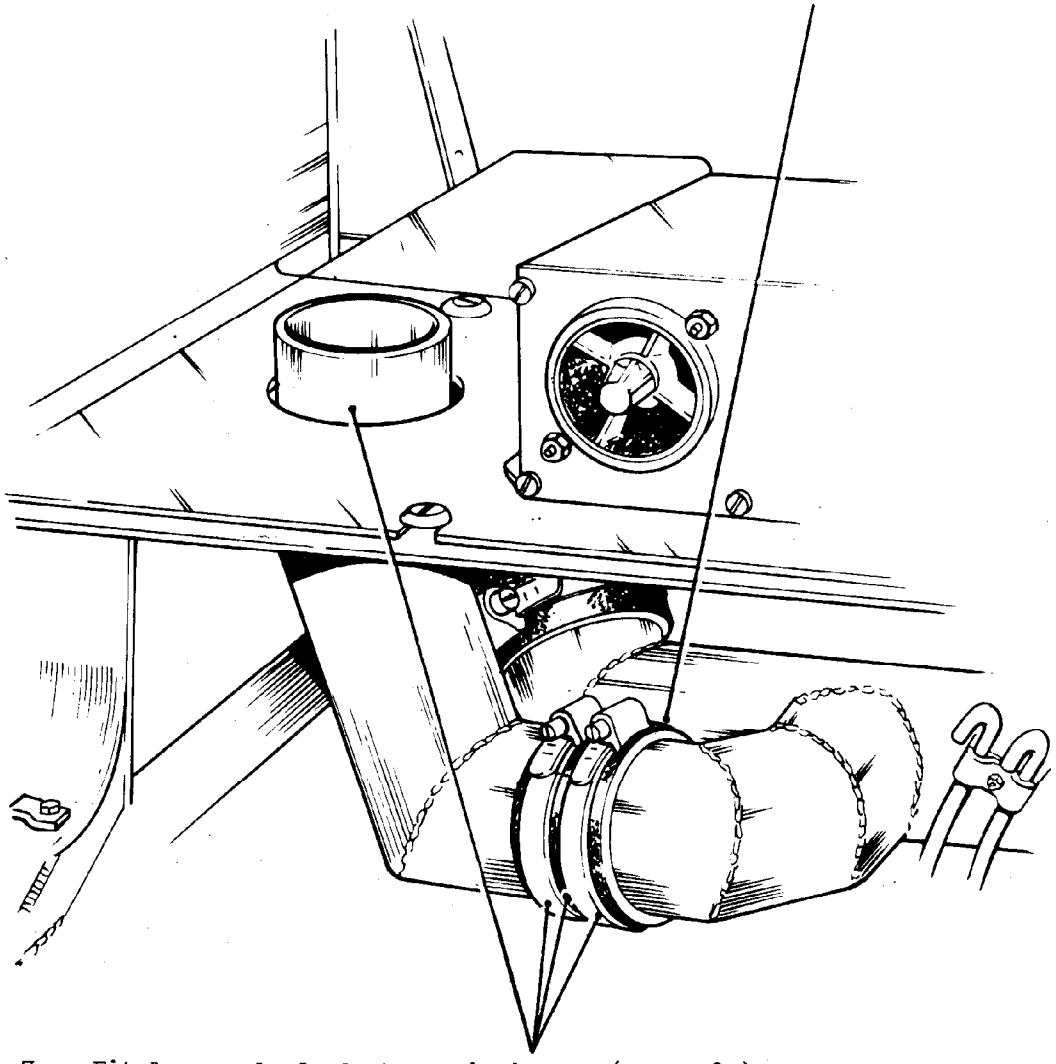
3. Fit bracket, air cleaner using existing screw and using nut and bolt supplied with bracket.

4. Remove air cleaner and connecting hose from vehicle. Refit air cleaner securing clip and screw and access panel.

TASK 7 cont. CARBURETTER AIR INTAKE

5. Remove cover plate from access hole adjacent to rear heater outlets. Stow cover and screws in a safe place in vehicle.

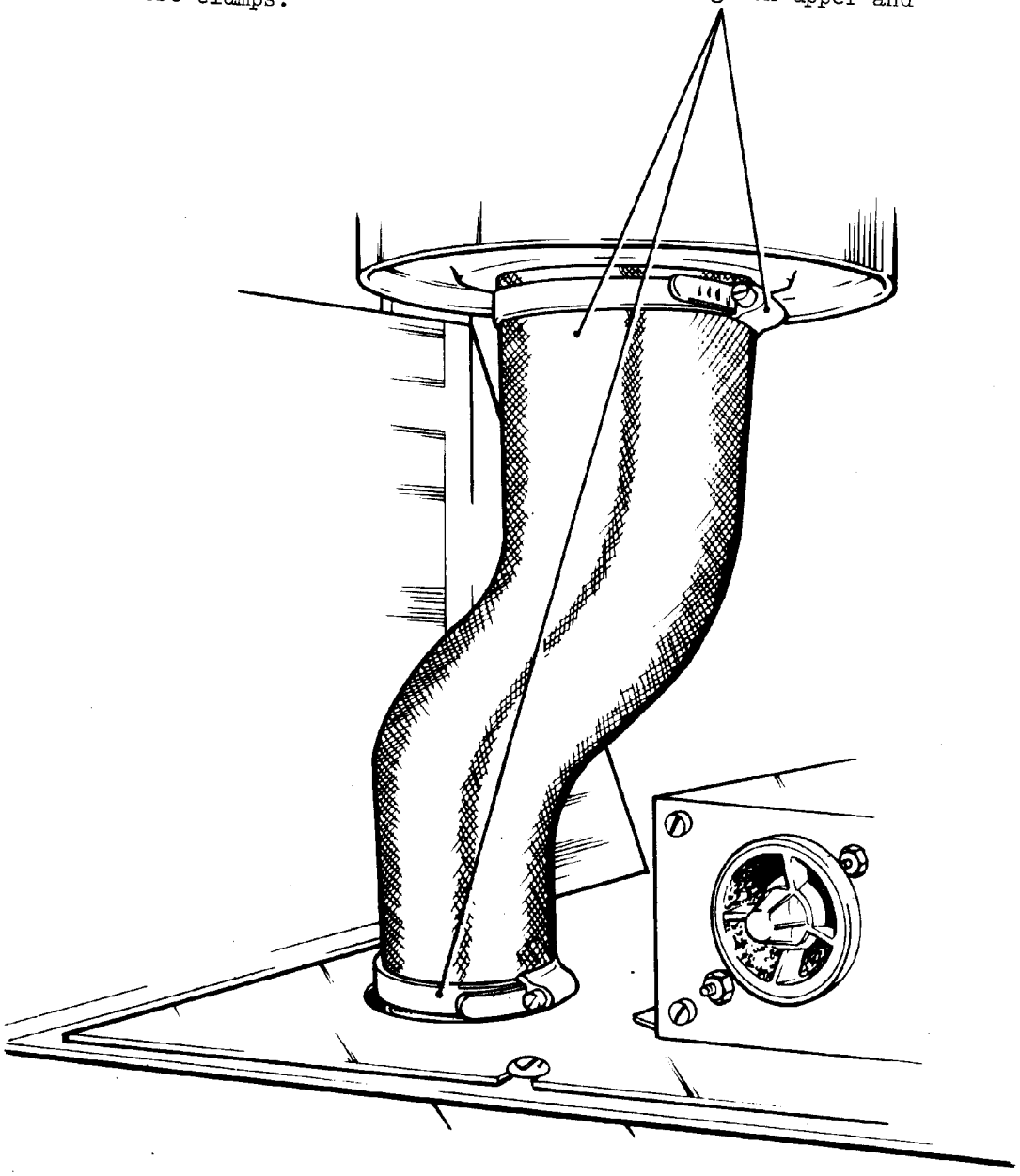
6. Fit 3 in. length of hose, rubber, 2.3/4 in. i.d. onto air manifold pipe, slide two clamps, hose, 2.3/4 in. - 3.1/2 in. over rubber hose.



7. Fit long end of adapter, air intake (WPG 9287) through access hole and other end into rubber hose. Centralise adapter in access hole and position rubber hose centrally over adapter and air manifold connection. Secure hose to adapter and air manifold with the hose clamps.

TASK 7 cont. CARBURETTER AIR INTAKE

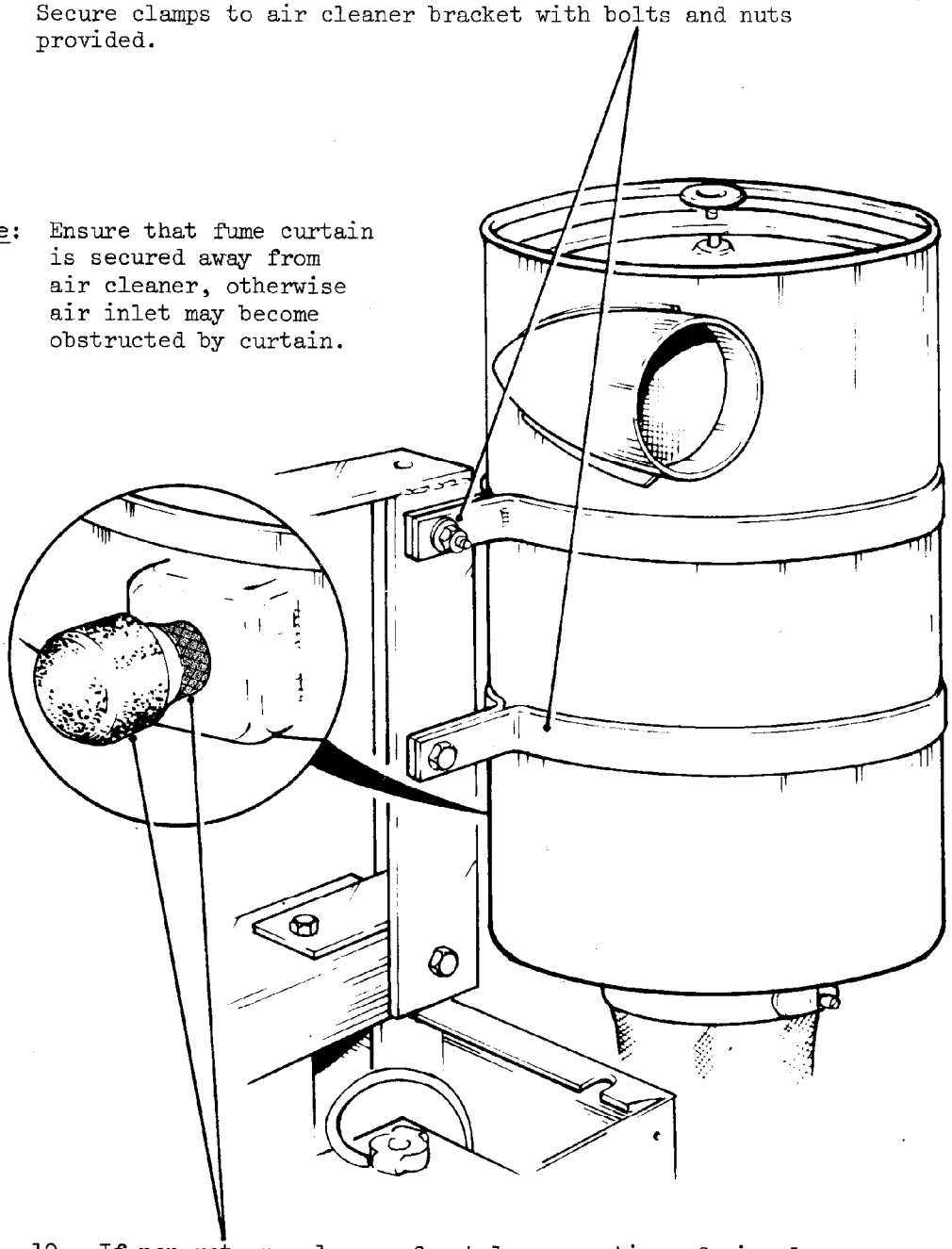
8. Fit connecting hose to air cleaner and air intake adapter leaving hose clamps untightened. Adjust position of connecting hose so that air cleaner is close to bracket, air cleaner, and air inlet aperture is facing rear of vehicle. Tighten upper and lower hose clamps.



TASK 7. cont. CARBURETTER AIR INTAKE

9. Fit clamp, air cleaner (2) (WPG 9288) on to air cleaner body. Secure clamps to air cleaner bracket with bolts and nuts provided.

Note: Ensure that fume curtain is secured away from air cleaner, otherwise air inlet may become obstructed by curtain.



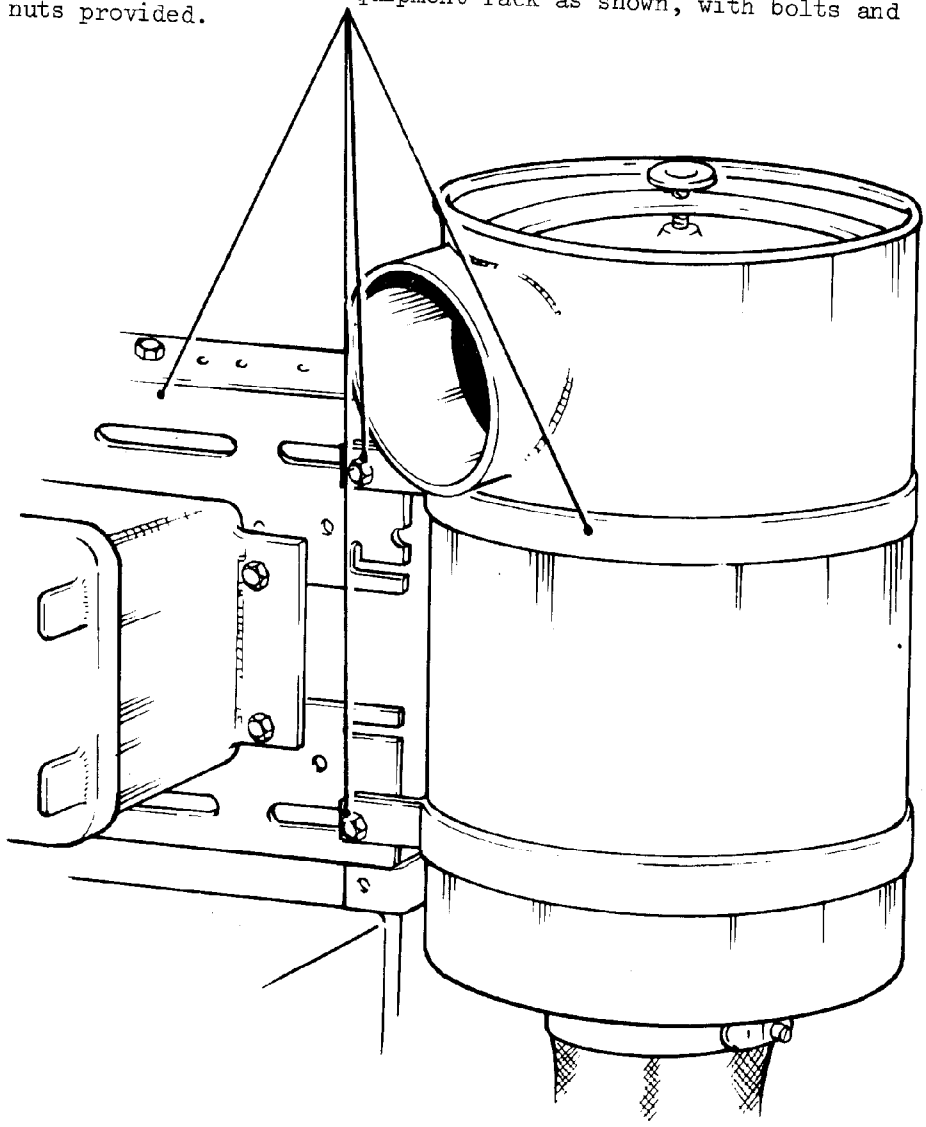
10. If non-return valve on front lower portion of air cleaner is faulty or deficient, remove valve. Stretch mouth of cover hydraulic fluid reservoir No 2 (WPG 9239) over snout for a distance of 1 in. and bind with two turns of adhesive tape.

Tape, adhesive

TASK 8. AIR CLEANER (ALTERNATIVE SECURING)

1. Carry out instructions in paragraphs 4, 5, 6, 7 and 8 in TASK 7.

2. Fit clamp air cleaner (2) (WPG 9288) on to air cleaner body. Secure clamps to radio equipment rack as shown, with bolts and nuts provided.



Note: Ensure that fume curtain is secured away from air cleaner, otherwise air inlet may become obstructed by curtain.

3. Carry out instructions in paragraph 10 in TASK 7.

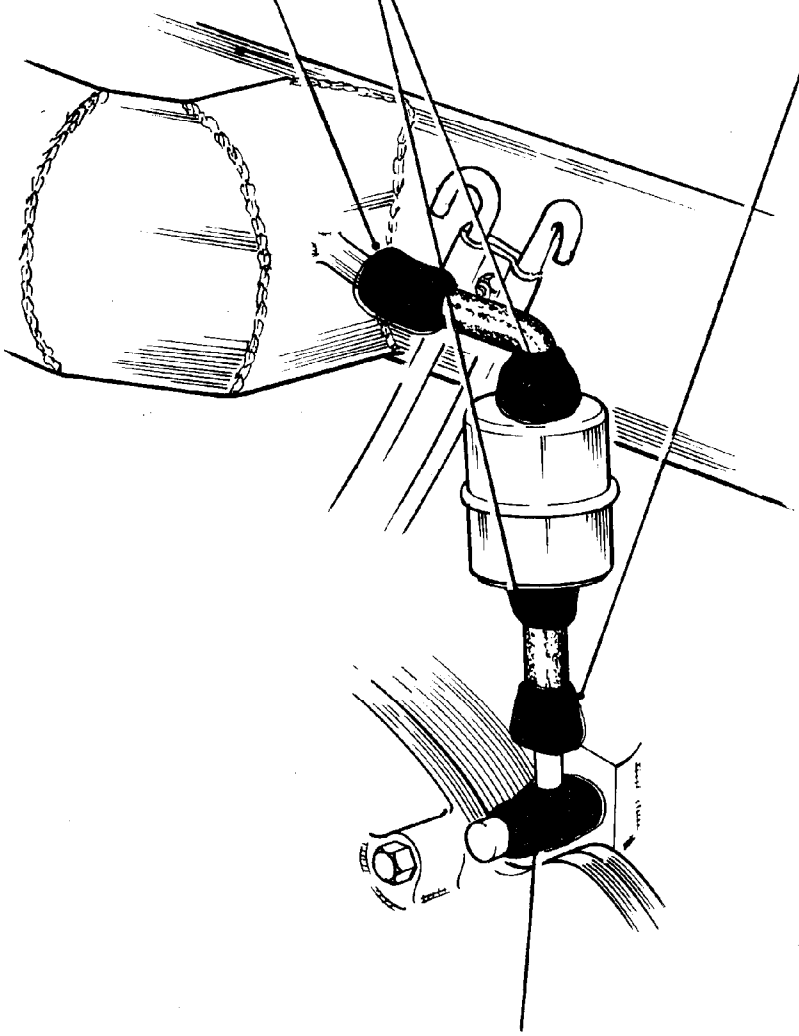
TASK 9. ENGINE BREATHER FILTER

1. Brush a liberal coat of EC-750-C sealant over each of the following hose connections:-

a. Top hose to air intake.

b. Top and bottom hoses to filter.

c. Bottom hose to engine adapter.



2. Brush a liberal coat of EC-750-C around adapter and joint of adapter to engine.

3. When coatings of sealant are dry, brush a further coating of EC-750-C as in paras 1 and 2 above.

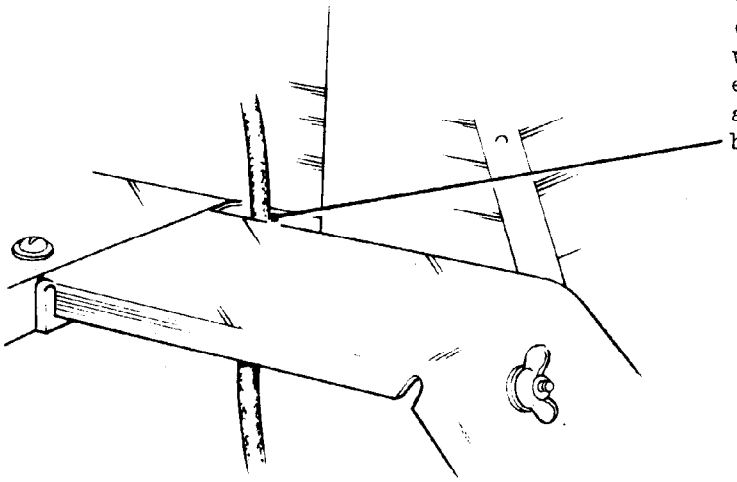
EC-750-C

TASK 10. COIL

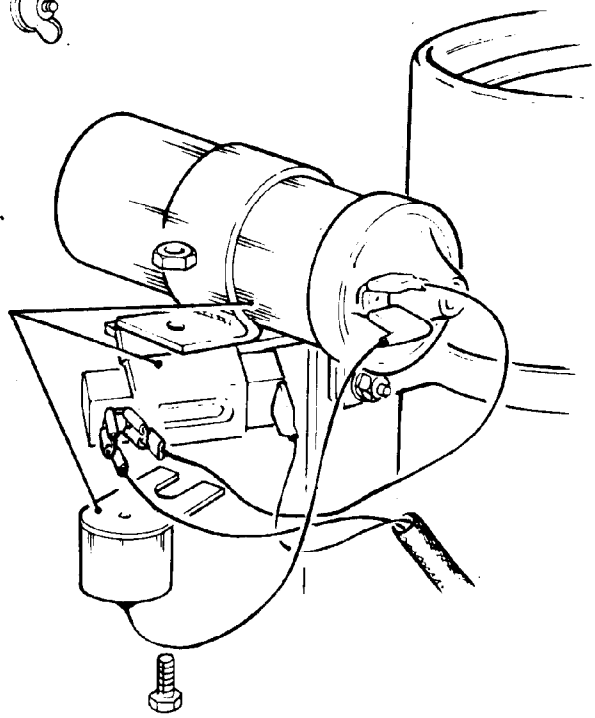
Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

1. Disconnect feed lead from ballast resistor, and two l.t. leads and h.t. lead from coil. Remove coil complete with ballast resistor and condenser. Refit wiring loom clip to top mounting hole, refit nut and bolt to lower hole.

2. Connect lead,extension, l.t., coil (WPG 9290) to wiring loom connector; cover terminal connections with adhesive tape. Route extension lead up through aperture between panels below battery box.



3. Fit coil, ballast resistor and condenser to arm on air cleaner bracket so that terminal end of coil is towards rear of vehicle.



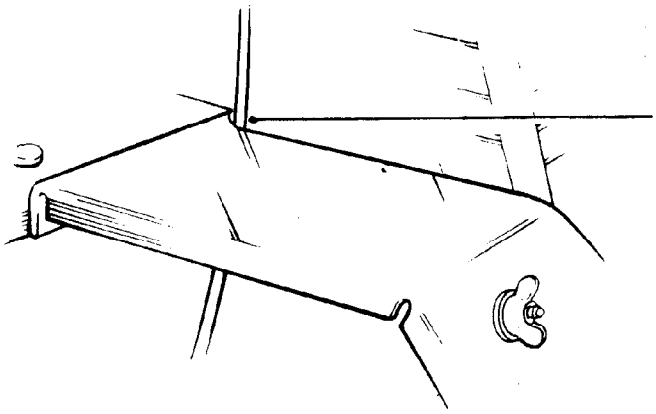
4. Connect extension lead to ballast resistor; ensure that all terminals are connected correctly.

TASK 11. COIL (ALTERNATIVE SECURING)

Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

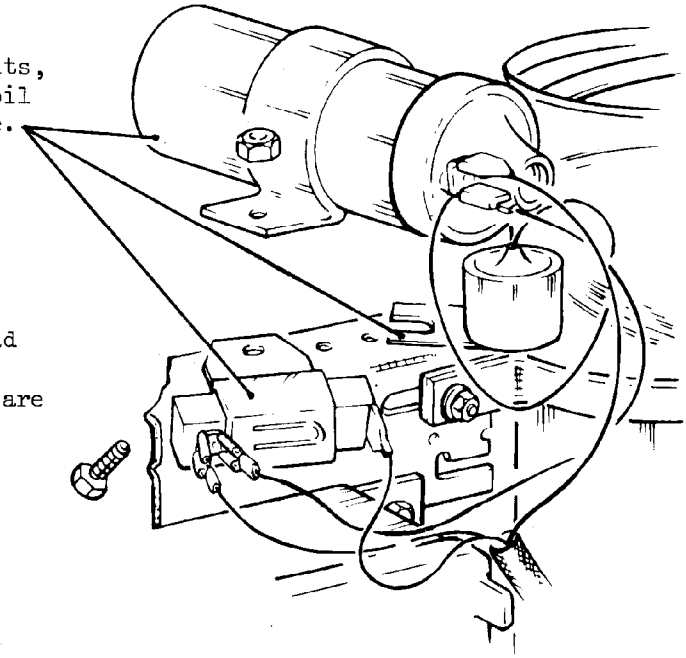
1. Disconnect feed lead from ballast resistor, and two l.t. leads and h.t. lead from coil. Remove coil complete with ballast resistor and condenser. Refit wiring loom clip to top mounting hole, refit nut and bolt to lower hole.

2. Connect lead extension l.t. coil (WPG 9290) to wiring loom connector. Cover terminal connections with adhesive tape. Route extension lead up through aperture between panels below battery box.



3. Fit coil, ballast resistor and condenser to radio equipment rack as shown with existing nuts and bolts, so that terminal end of coil is towards rear of vehicle.

4. Connect extension lead to ballast resistor. Ensure that all terminals are connected correctly.



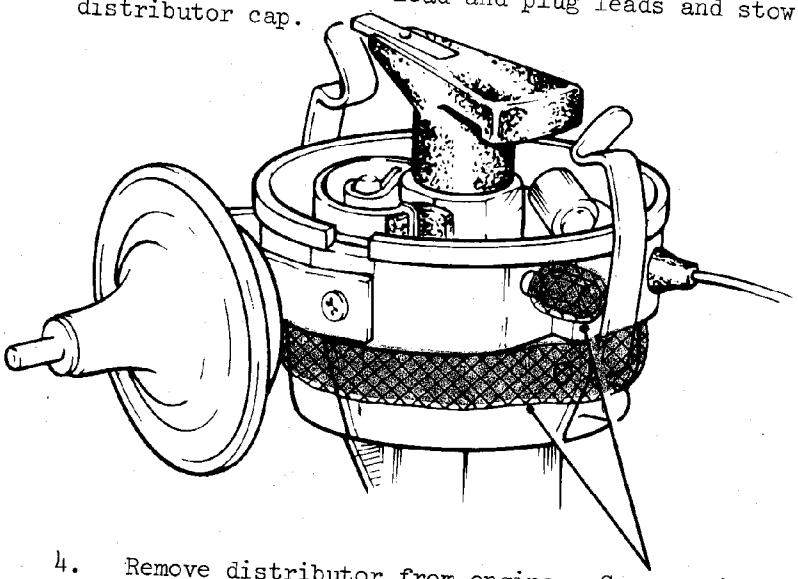
TASK 12. DISTRIBUTOR

Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME

1. Mark position of No 1 plug lead on distributor cap.

2. Set ignition timing statically with distributor rotor opposite No 1 lead segment in cap; do not turn engine before remainder of this task has been completed.

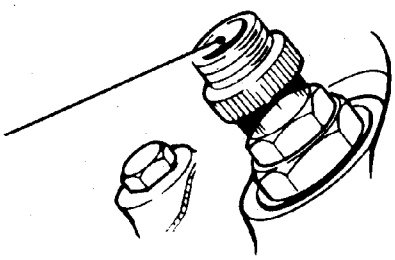
3. Remove coil h.t. lead and plug leads and stow in PVC bag. Remove distributor cap.



4. Remove distributor from engine. Cover adjusting nut with adhesive tape. Bind adhesive tape around distributor body and over lower end of clips to secure clips in an upright position as shown.

5. Remove sparking plugs and stow in PVC bag.

6. Check the electrode gaps, 0.025 in., and fit plugs screen (8) provided. Fill insulator barrel of plugs with silicone compound.



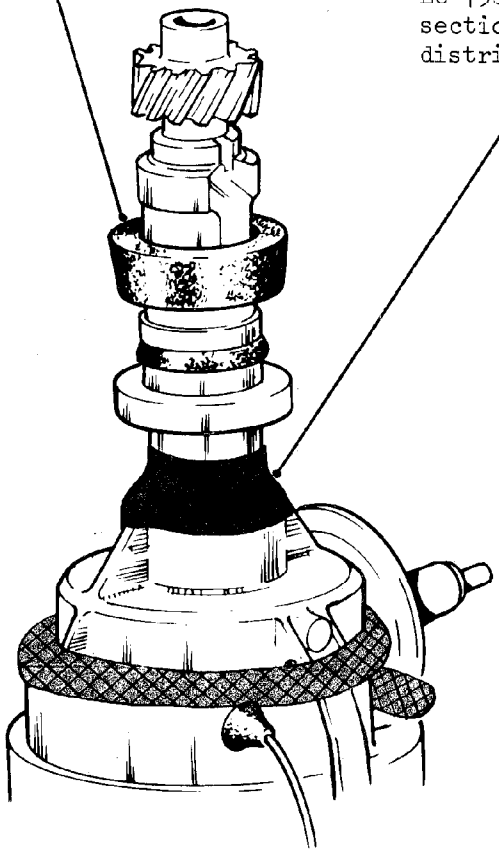
Tape, adhesive

Compound, silicone

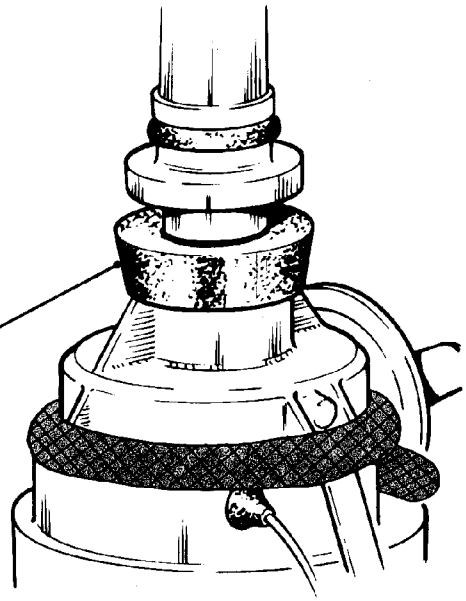
TASK 12 cont. DISTRIBUTOR

7. Carefully stretch a collar, distributor (WPG 9283) over shaft gear onto distributor body stem.

8. Using brush, fitch, No 2 apply an even liberal coat of EC-750-C sealant around tapered section of lower part of distributor body.



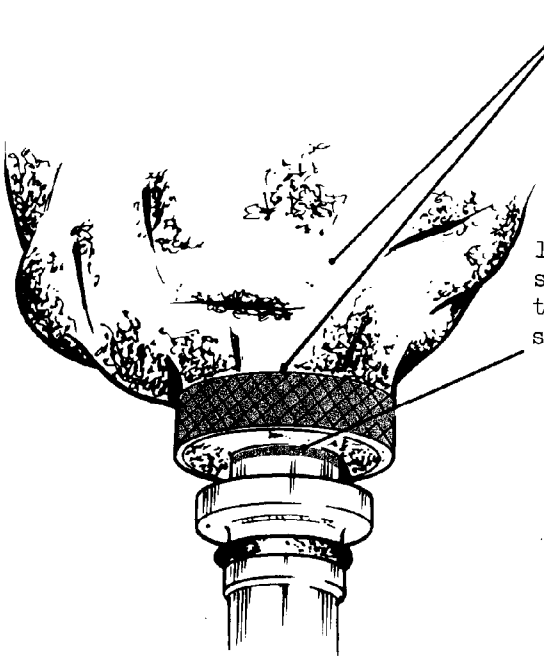
9. Carefully stretch collar over mounting flange on body and onto sealant previously applied so that tapered section of body and inner section of collar are mated together. Ensure that collar is pushed fully into position.



EC-750-C Tape, adhesive

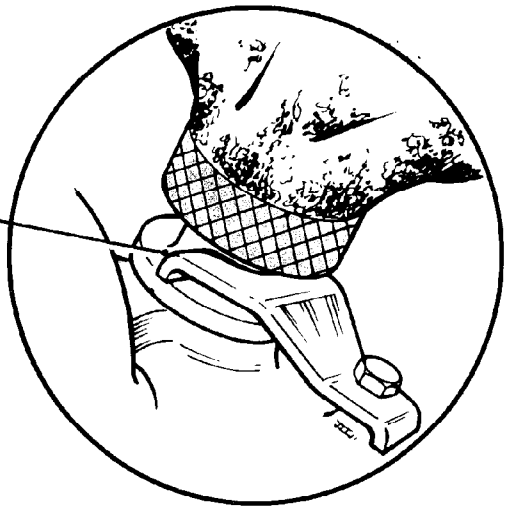
TASK 12 cont. DISTRIBUTOR

10. Stretch a cover, distributor (WPG 9295), larger end first, over distributor gear and stem and up over body. Stretch small end of cover onto collar so that lower edges of cover and collar are level. Secure cover to collar with two turns of adhesive tape.



11. Apply a coat of EC-750-C sealant over joint of collar to distributor body. Allow sealant to dry.

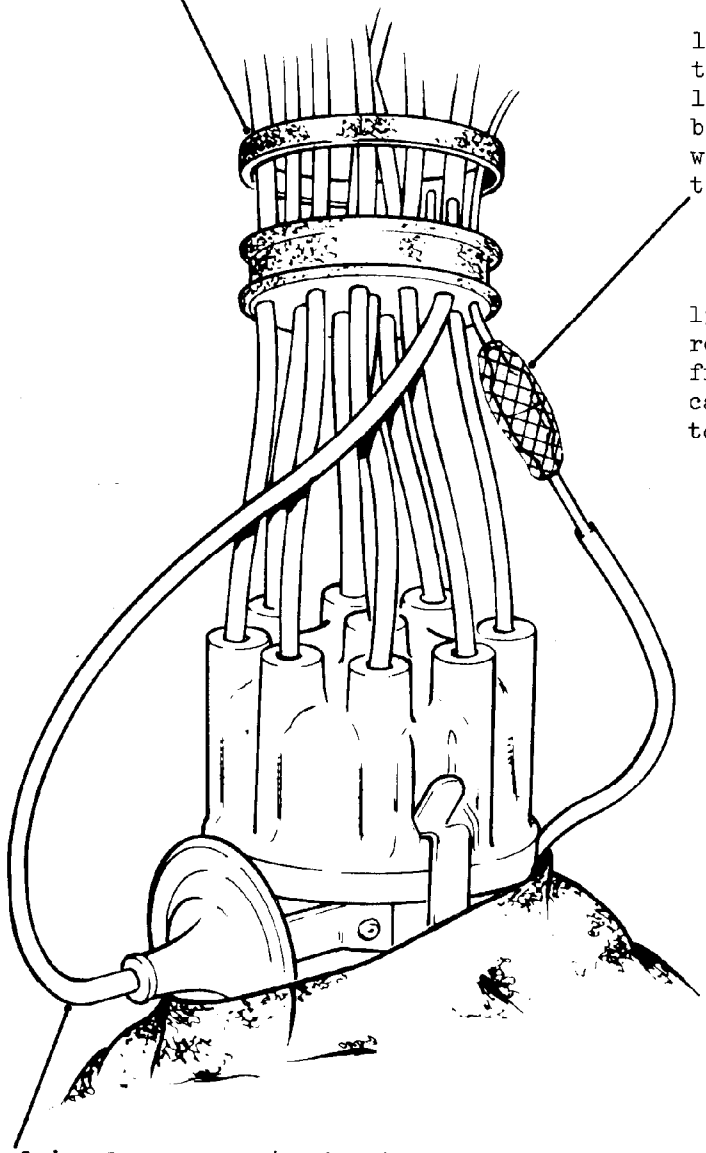
12. Refit distributor to engine ensuring that timing is correct. When refitting clamp, ease clamp into position taking care not to damage the waterproofing materials.



EC-750-C Tape, adhesive

TASK 12 cont. DISTRIBUTOR

13. Commencing with No 1 plug lead connect ignition harness assembly to distributor cap ensuring that h.t. leads are fitted in the correct order. Ensure that rubber band is in position around leads.



14. Connect distributor l.t. lead to harness; bind connection with adhesive tape.

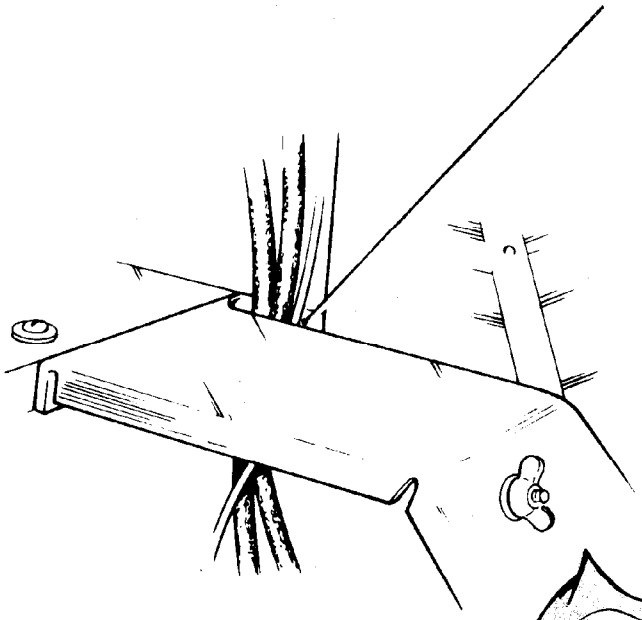
15. Check that rotor arm is fitted and fit cap and harness to distributor.

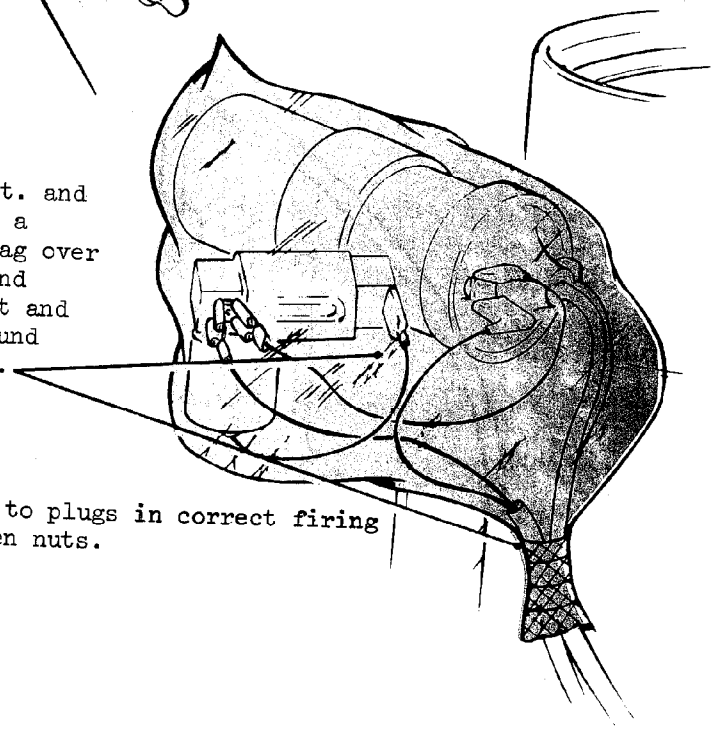
16. Cut a 9 in. length of 5/32 in. i.d. rubber tubing, connect one end to vacuum advance tube and other end to copper tube on underside of harness bung.

Tape, adhesive

TASK 12 cont. DISTRIBUTOR

17. Pass coil h.t. and l.t. leads from harness up through apperture between panels alongside lead, extension l.t. previously fitted.





18. Connect harness h.t. and l.t. leads to coil. Fit a 10 in. x 8 in. plastic bag over coil, ballast resistor and terminals, around bracket and leads and secure bag around leads with adhesive tape.

19. Connect plug leads to plugs in correct firing order. Do not overtighten nuts.

PVC Bag

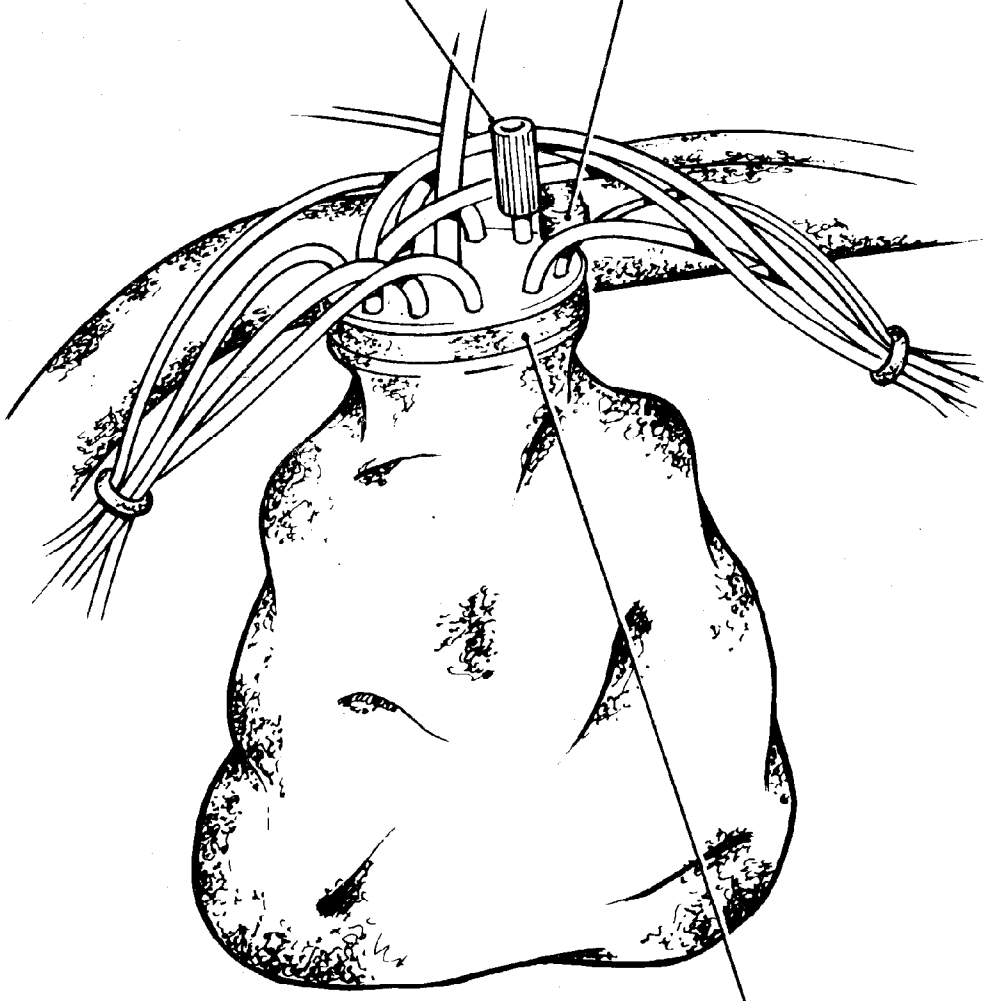
Tape, adhesive

TASK 12 cont. DISTRIBUTOR

20. Cut a 1.1/2 in. length of 5/32 in. i.d. rubber tubing and fit over copper breather pipe in harness bung.

Note: Breather pipe is shortest pipe in bung. It is to be sealed in a later task.

21. Connect vacuum advance pipe elbow to copper tube on top of harness bung.

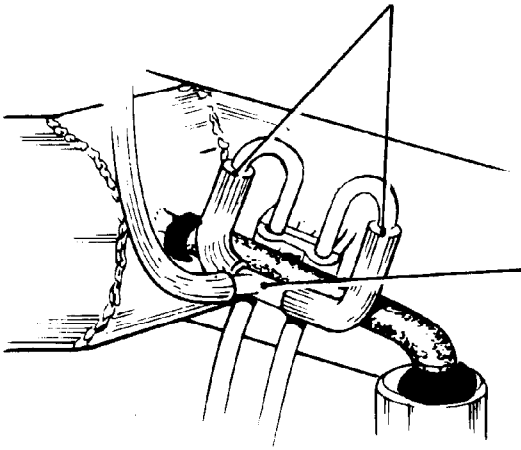


22. Start engine and ensure that it is running correctly. Switch off.

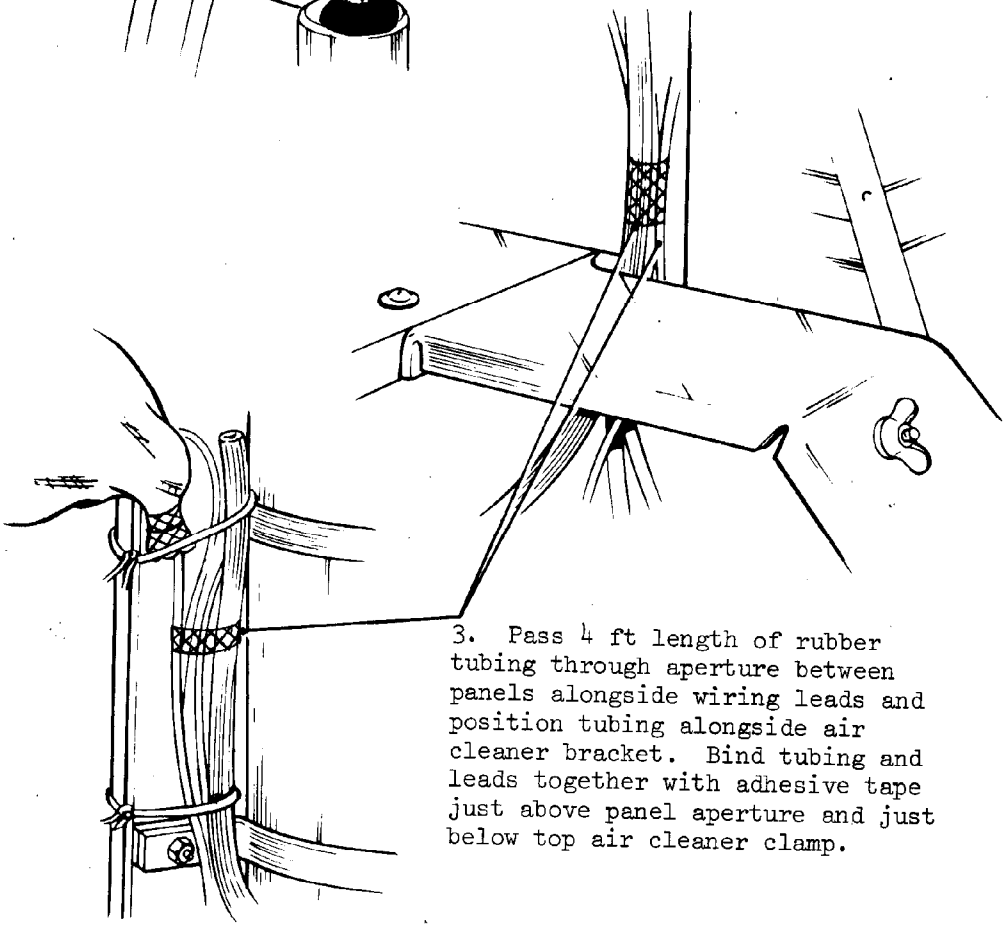
23. Carefully pull cover up over distributor and onto harness bung. Fit rubber band to secure cover to bung.

TASK 13. GEARBOX BREATHERS

1. Cut two 3 in. lengths of 5/32 in. i.d. rubber tubing; push one end of each piece over the ends of existing breather tubes for a distance of 1/2 in. Cut a 4 ft length of 5/32 in i.d. rubber tubing.



2. Connect two 3 in. lengths and one end of 4 ft length of rubber tubing to connector, pipe, T piece (WPG 9111).



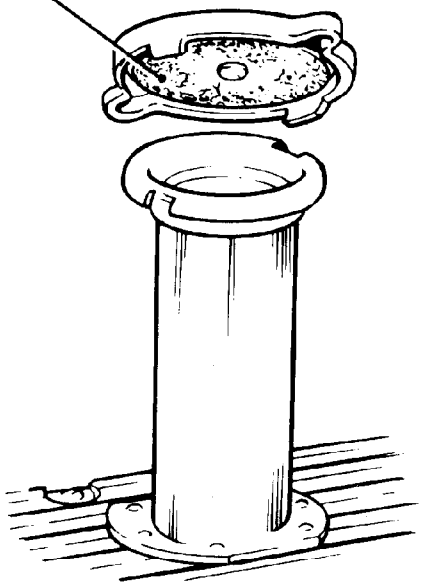
3. Pass 4 ft length of rubber tubing through aperture between panels alongside wiring leads and position tubing alongside air cleaner bracket. Bind tubing and leads together with adhesive tape just above panel aperture and just below top air cleaner clamp.

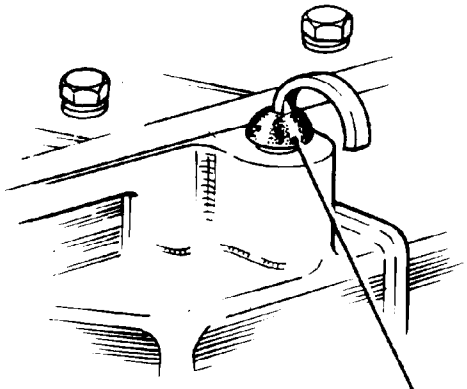
4. Secure rubber tubing and leads to air cleaner bracket with twine ensuring that tubing is extended to maximum height.

[redacted] EC-750-C PVC Bag Tape, adhesive

TASK 14. OIL FILLER CAP AND GEARBOX DIPSTICK IF FITTED

1. Ensure that cap gasket is serviceable and cap is a tight fit on filler tube.



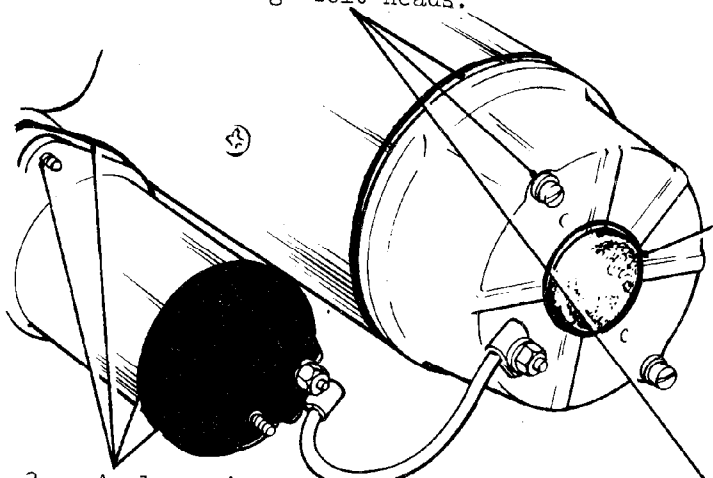


2. Ensure rubber grommet is serviceable, is secure on dipstick and is a good fit in dipstick hole.

TASK 15. STARTER MOTOR

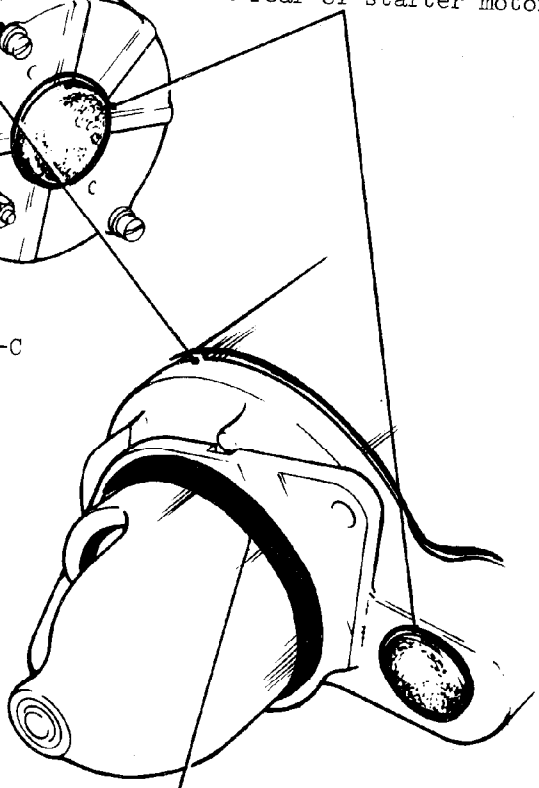
Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

1. Remove starter motor. Ensure that rubber seals are in place and undamaged. Apply an even coat of EC-750-C sealant over and around body joints and through-bolt heads.

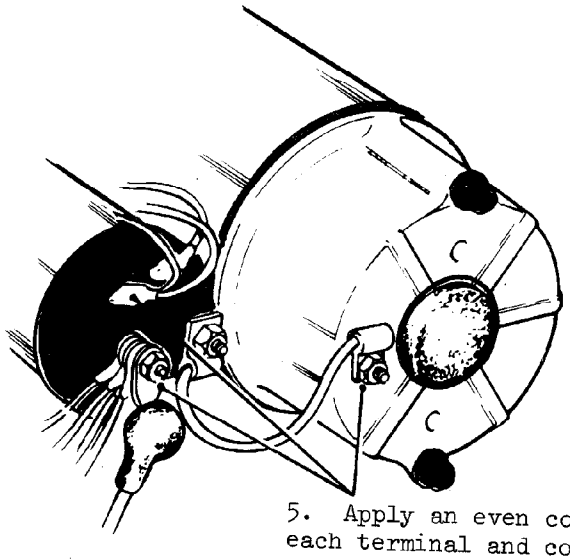


2. Apply an even coat of EC-750-C sealant around rubber grommets at front and rear of starter motor.

3. Apply a liberal coat of EC-750-C sealant over joint of solenoid housing to starter motor body and over fixing screws, and over connector base and rim and on to solenoid body.



4. Apply an even coat of EC-750-C sealant around starter motor mounting flange. Whilst sealant is still tacky refit starter motor.

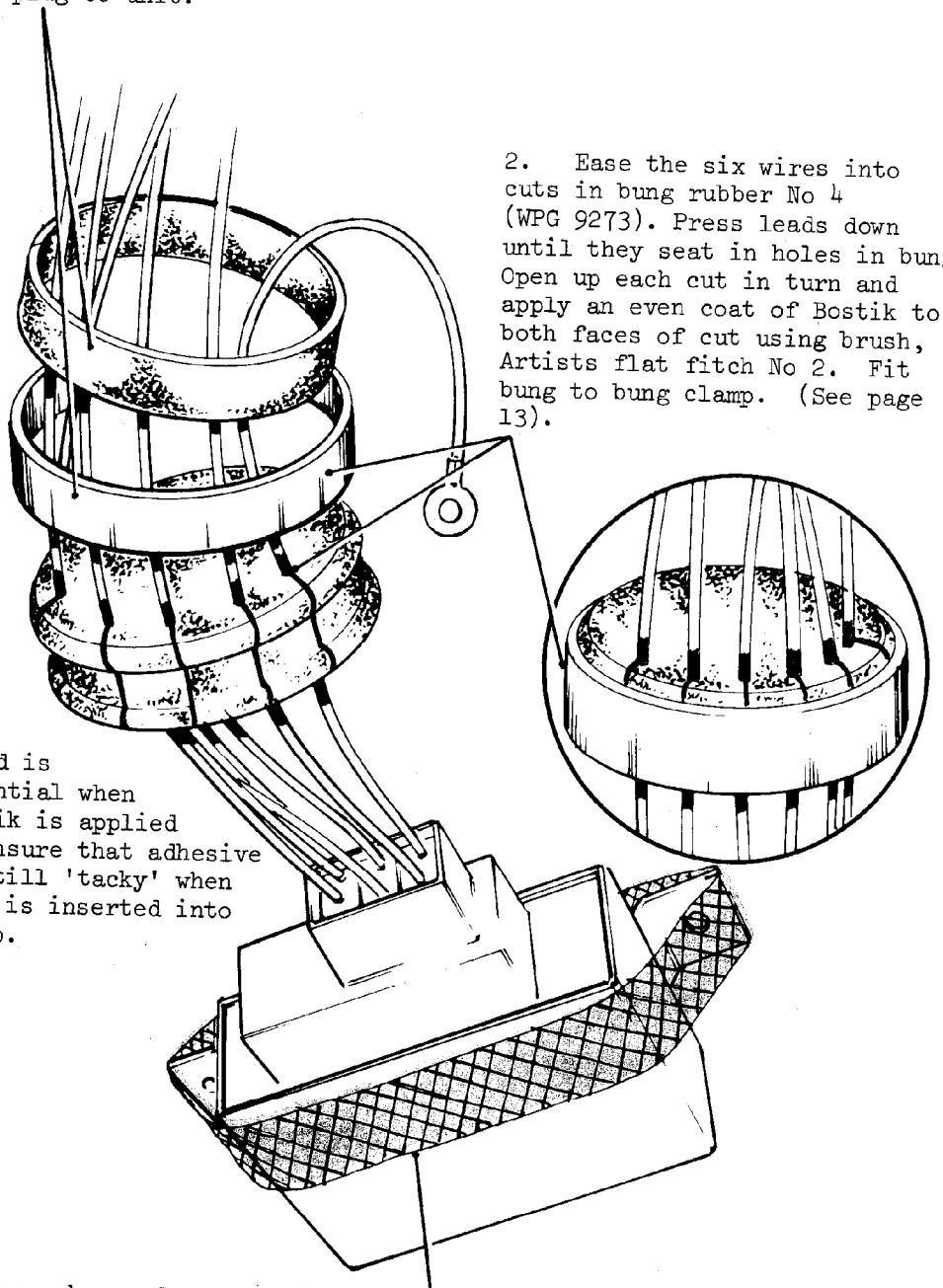


5. Apply an even coat of silicone compound over each terminal and connector on starter motor and solenoid.

Compound, silicone [redacted] EC-750-C

TASK 16. TURNLIGHT UNIT

1. Remove two relay units from under dash; do not disconnect leads. Remove turnlight unit from under dash; remove lead plug from unit. Pass plug through rubber band (WPG 7779), and bung clamp (WPG 9207). Refit plug to unit.



2. Ease the six wires into cuts in bung rubber No 4 (WPG 9273). Press leads down until they seat in holes in bung. Open up each cut in turn and apply an even coat of Bostik to both faces of cut using brush, Artists flat fitch No 2. Fit bung to bung clamp. (See page 13).

Note: Speed is essential when Bostik is applied to ensure that adhesive is still 'tacky' when bung is inserted into clamp.

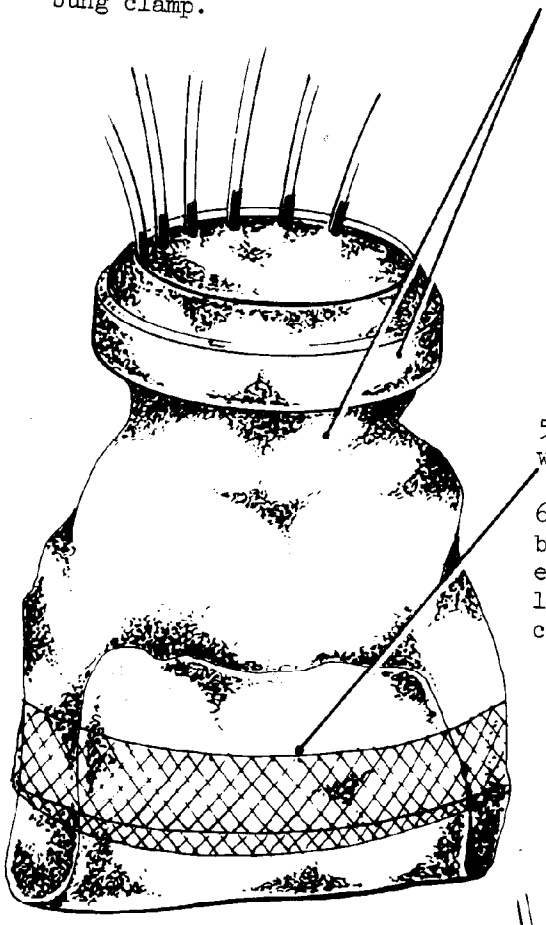
3. Cover sharp edges of unit and brackets with adhesive tape.

Bostik

Tape, adhesive

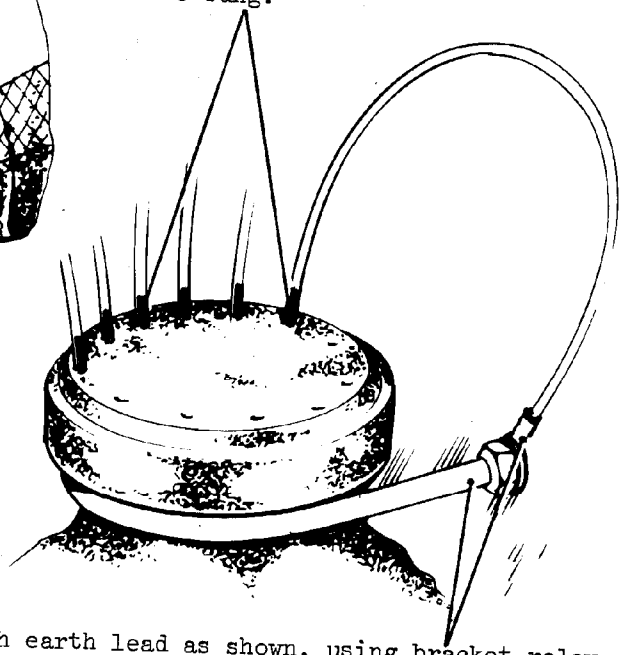
TASK 16. cont. TURNLIGHT UNIT

4. Stretch open end of cover general purpose No 1 (WPG 9183) over turnlight unit and up and over bung clamp so that edge seats on bung. Extract all air from cover and fit rubber band over edge of cover and bung clamp.



5. Fold bag as shown and secure with two turns of adhesive tape.

6. Turn back end of cover to rubber band. Brush a coat of Bostik around each lead entry and for 1/4 in. along leads. Allow to dry. Return end of cover to bung.



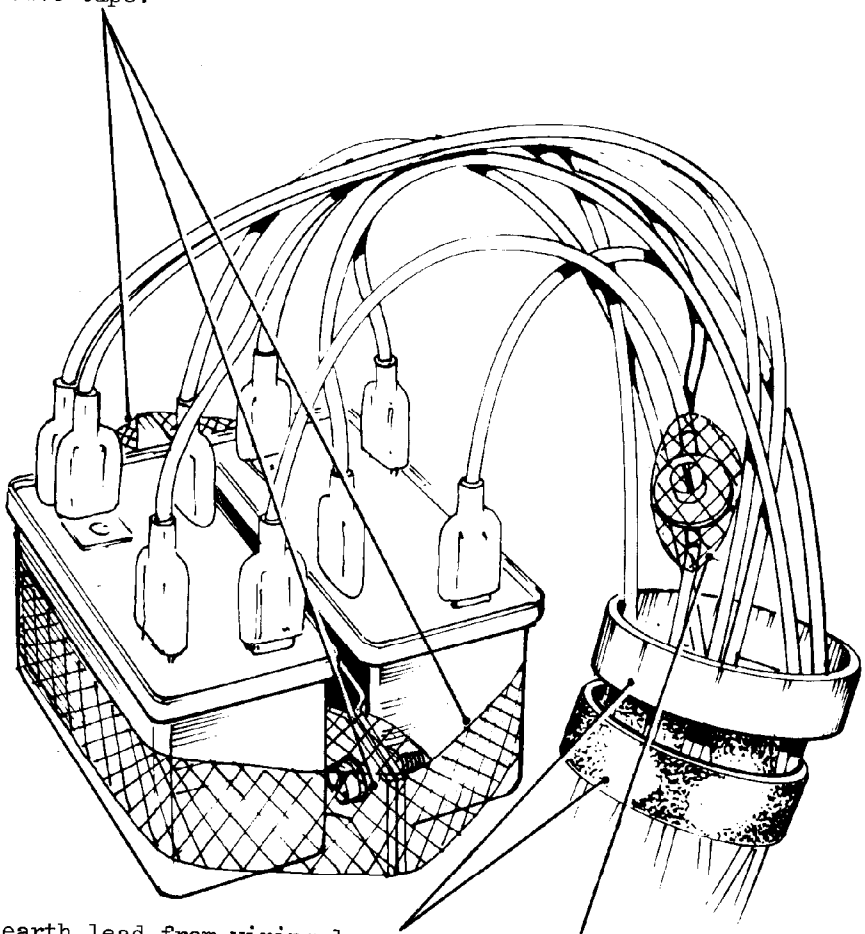
7. Secure turnlight unit with earth lead as shown, using bracket relay and turnlight unit (WPG 9337) and existing drilling for securing unit. Tighten nut.

Bostik

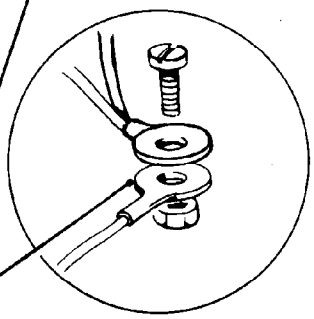
Tape, adhesive

TASK 17. ELECTRICAL RELAYS (2)

1. Remove both relay units from under dash. Do not disconnect lead connectors. Using two of the existing screws and nuts secure both relays together as shown. Cover sharp edges of relay and brackets with adhesive tape.



2. Pass earth lead from wiring loom through rubber band (WPG 7779) and bung clamp (WPG 9207). Remove one lead at a time, except relay earth leads and pass it through rubber band and bung clamp. Reconnect each lead to relay before another is removed. All nine leads must pass through band and clamp.

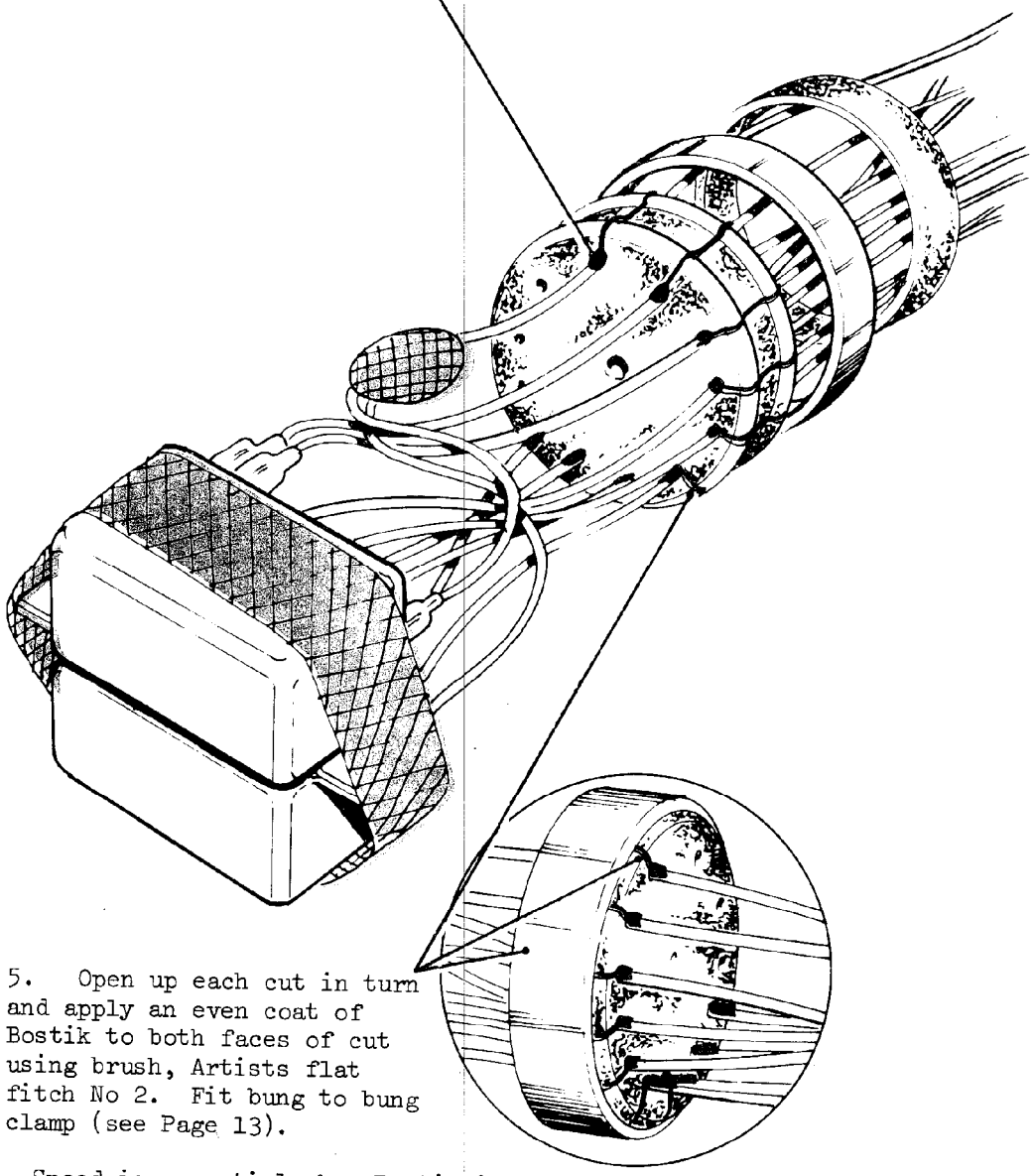


3. Connect both relay earth leads to main earth lead from wiring loom with the third screw and nut removed from securing relays. Cover lead connection with adhesive tape.

Tape, adhesive

TASK 17. cont. ELECTRICAL RELAYS (2)

4. Ease the nine wires into cuts in bung rubber No 12 (WPG 9194). Press leads down until they seat in holes in bung.



5. Open up each cut in turn and apply an even coat of Bostik to both faces of cut using brush, Artists flat fitch No 2. Fit bung to bung clamp (see Page 13).

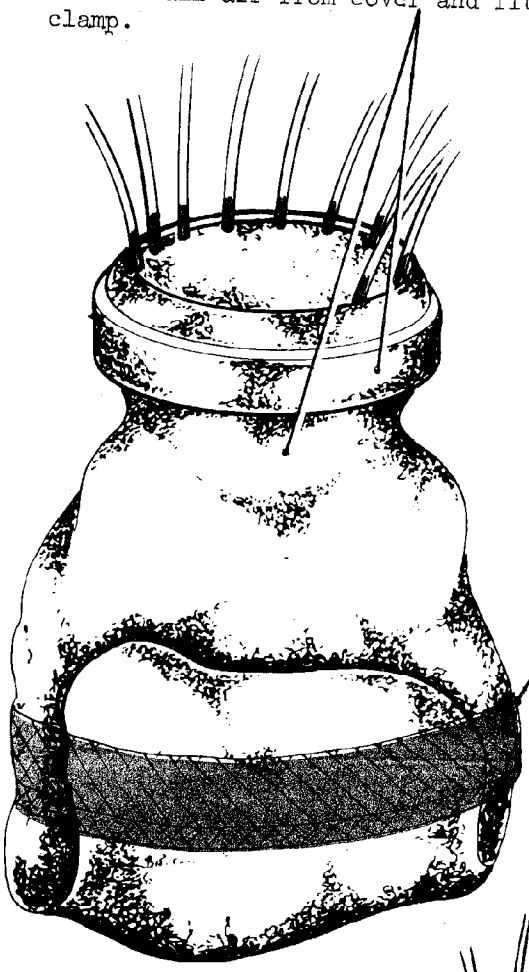
Note: Speed is essential when Bostik is applied to cuts in bung to ensure that adhesive is still 'tacky' when bung is inserted into clamp.

Bostik

Tape, adhesive

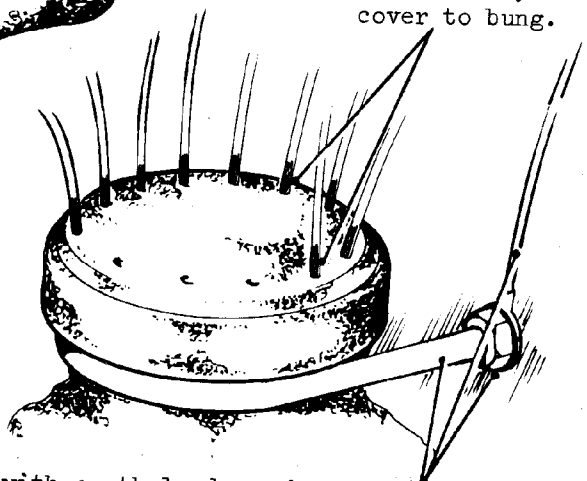
TASK 17 cont. ELECTRICAL RELAYS (2)

6. Stretch open end of cover, general, purpose, No 1 (WPG 9183) over relay units and up and over bung clamp so that edge seats on bung. Extract all air from cover and fit rubber band over end of cover and bung clamp.



7. Fold bag as shown and secure with two turns of adhesive tape.

8. Turn back end of cover to rubber band. Brush a coat of Bostik around each lead entry and for 1/4 in. along leads. Allow to dry. Return end of cover to bung.

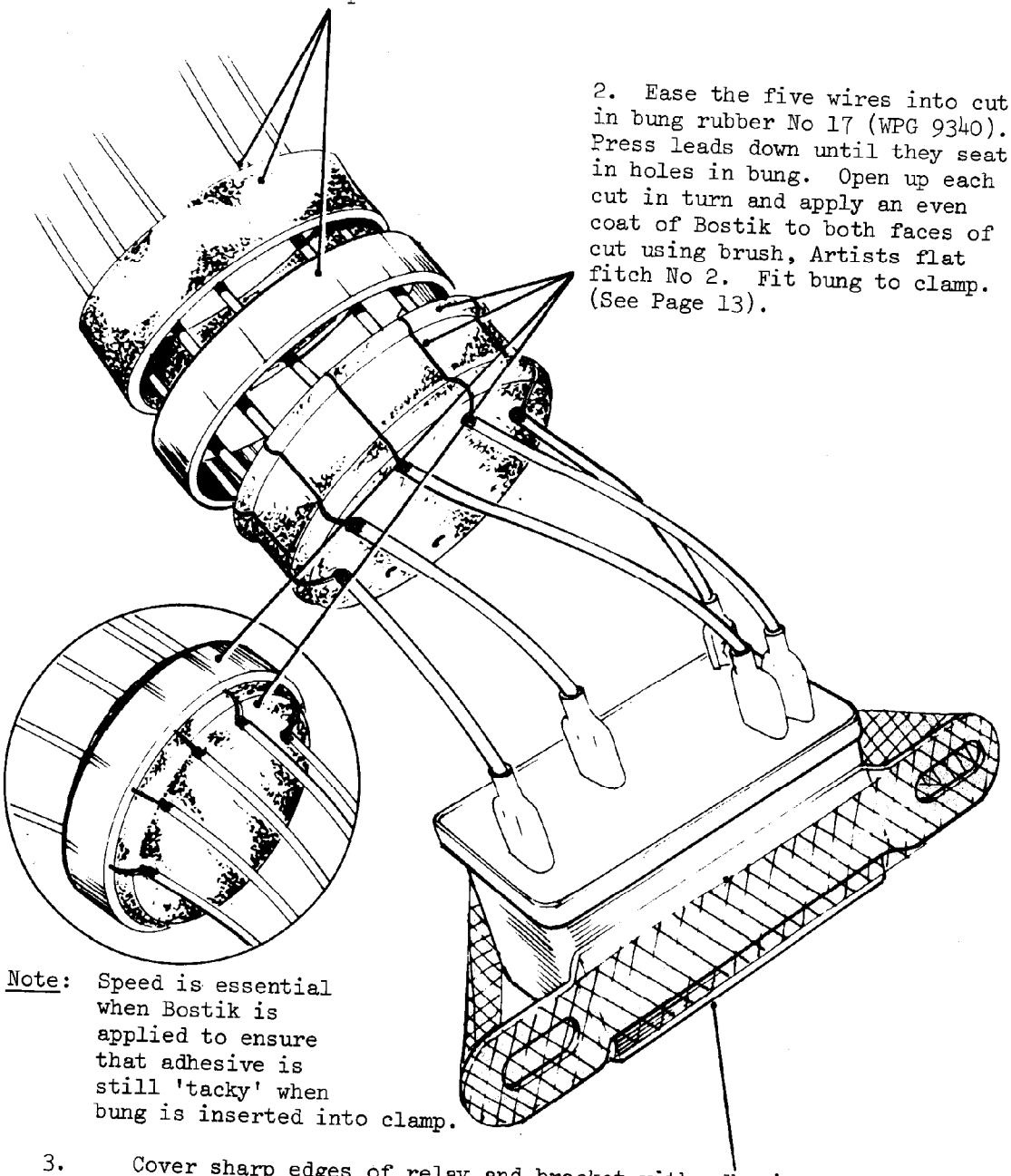


9.. Secure relay units with earth lead as shown, using bracket relay and turnlight unit (WPG 9337) and existing drilling for securing relays. Tighten nut.

Bostik Tape, adhesive

TASK 18. STARTER MOTOR RELAY

1. Remove relay unit. Remove one lead at a time from unit and pass it through rubber band (WPG 7779) and bung clamp (WPG 9207). Reconnect each lead to relay before another is removed. All five leads must pass through band and clamp.



2. Ease the five wires into cuts in bung rubber No 17 (WPG 9340). Press leads down until they seat in holes in bung. Open up each cut in turn and apply an even coat of Bostik to both faces of cut using brush, Artists flat fitch No 2. Fit bung to clamp. (See Page 13).

Note: Speed is essential when Bostik is applied to ensure that adhesive is still 'tacky' when bung is inserted into clamp.

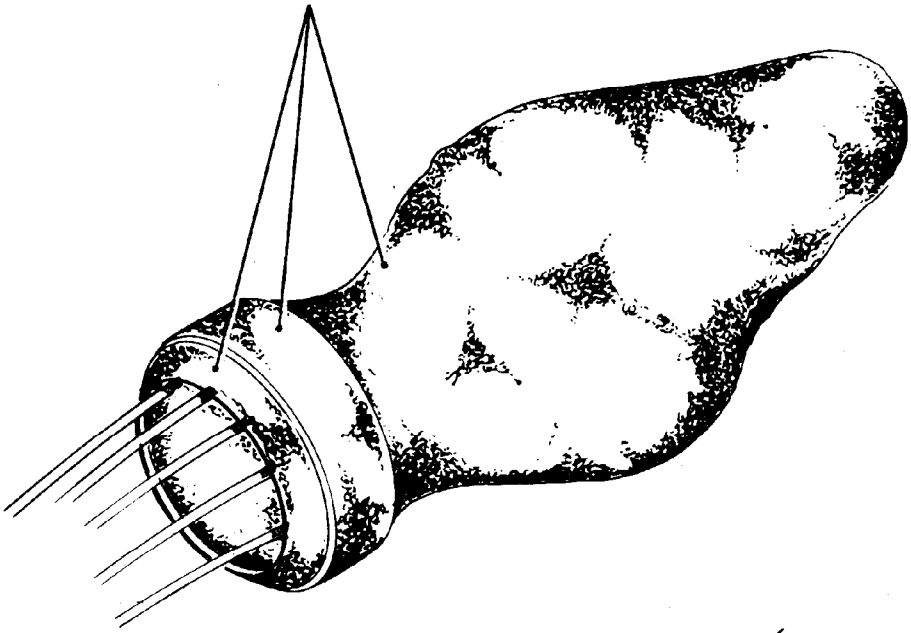
3. Cover sharp edges of relay and bracket with adhesive tape.

Bostik

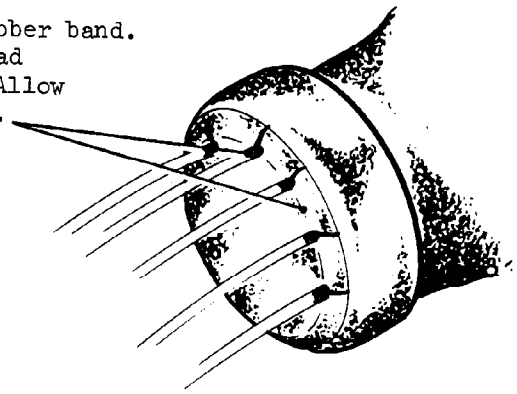
Tape, adhesive

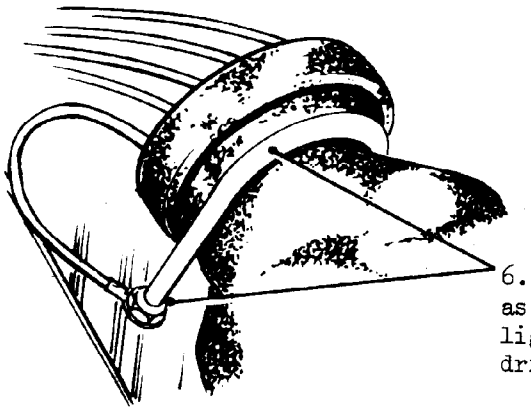
TASK 18. cont. STARTER MOTOR RELAY

4. Stretch open end of cover trafficator switch (WPG 9181) over relay unit and up and over bung clamp so that edge seats on bung. Fit rubber band over edge of cover and bung clamp.



5. Turn back edge of cover to rubber band. Brush a coat ofBostik around each lead entry and for 1/4 in. along leads. Allow to dry. Return end of cover to bung.





6. Refit relay unit with earth lead as shown using bracket relay and turn-light unit (WPG 9337) and existing drilling for securing relay. Tighten nut.

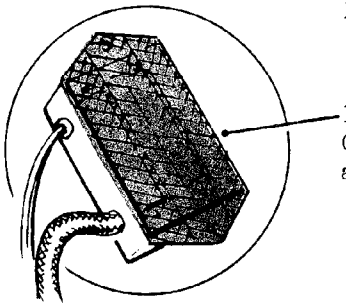
[redacted] Bostik

TASK 19. WINDSCREEN WIPER MOTOR

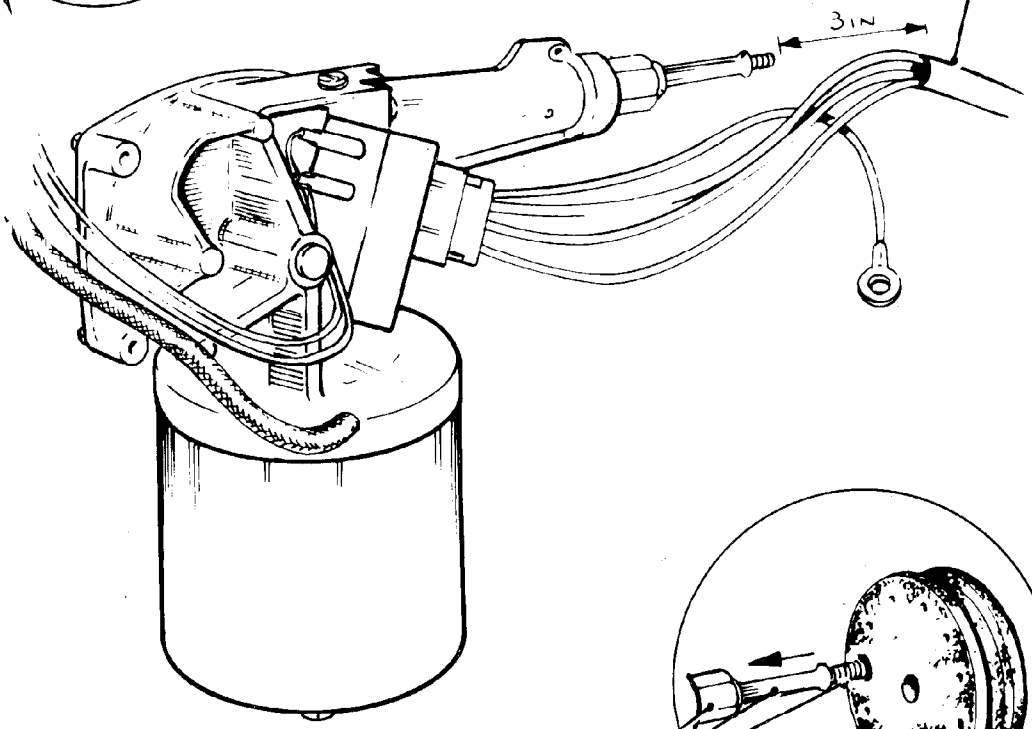
Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

1. Remove both windscreen wiper arms and l.h. wheel box cover.

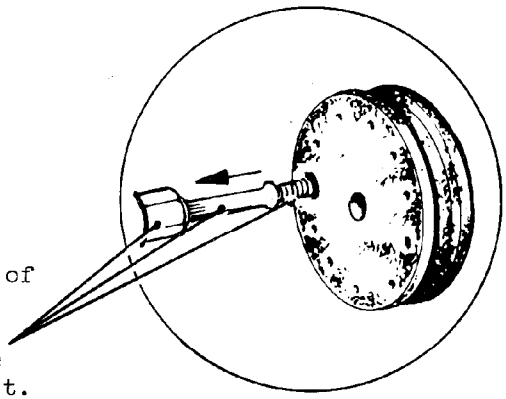
2. Remove wiper motor mounting bracket. Remove wiring loom clip from inside corner of dash and pull wiper motor clear. Carefully cut back lead sleeving for approximately 3 in.



3. Remove suppressor unit from mounting bracket. Cover open base of suppressor unit with strips of adhesive tape.



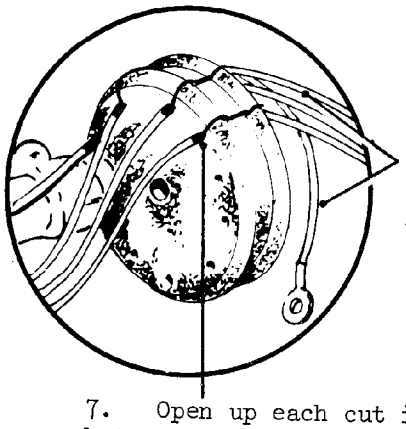
4. Apply a coat of grease over end of drive casing. Pass large hole in bung rubber No 15 (WPG 9334) over drive and position it on drive casing against the nut. The cuts in bung must be uppermost.



Grease Tape, adhesive

TASK 19 cont. WINDSCREEN WIPER MOTOR

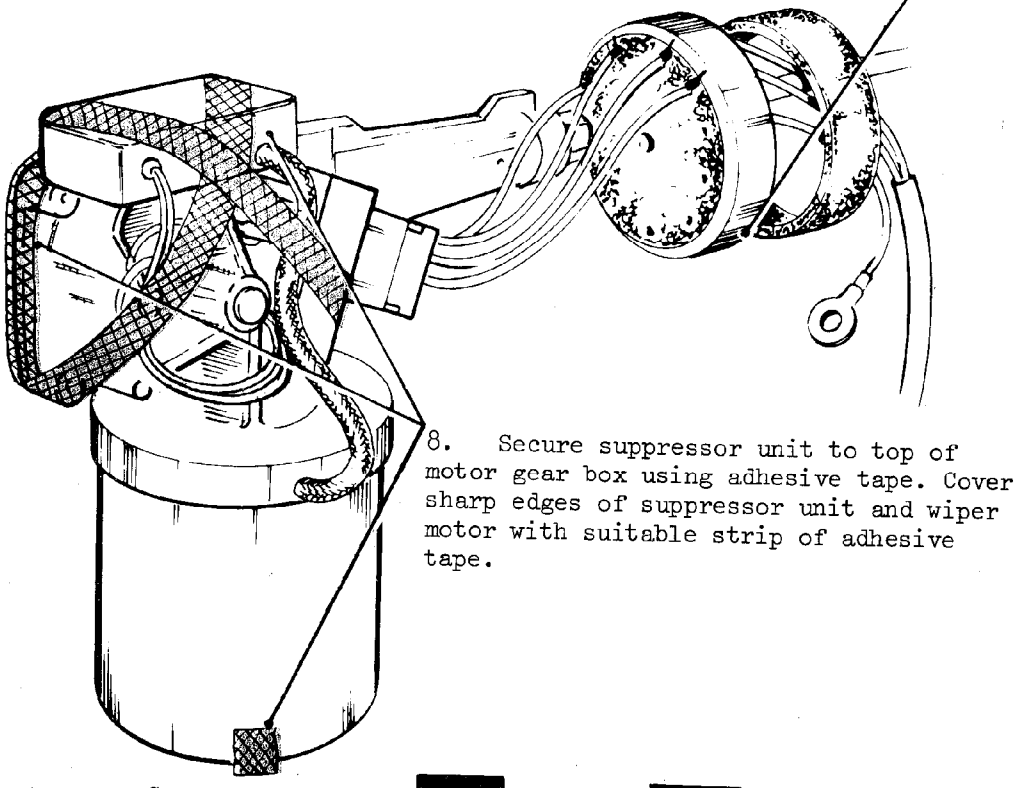
5. Pass bung clamp (WPG 9207) and rubber band (WPG 7779) over motor drive. Disconnect motor feed plug from motor. Pass plug with feed leads and earth through bung clamp and rubber band. Reconnect plug to motor.



6. Ease the three feed wires and earth wire into cuts in bung. Press leads down until they seat in holes in bung.

7. Open up each cut in turn and apply an even coat of Bostik to both faces of cut using a brush, Artists, flat fitch No 2. Fit bung to bung clamp. (See Page 13).

Note: SPEED IS ESSENTIAL WHEN BOSTIK IS APPLIED TO CUTS IN BUNG, TO ENSURE THAT ADHESIVE IS STILL 'TACKY' WHEN BUNG IS INSERTED INTO CLAMP.

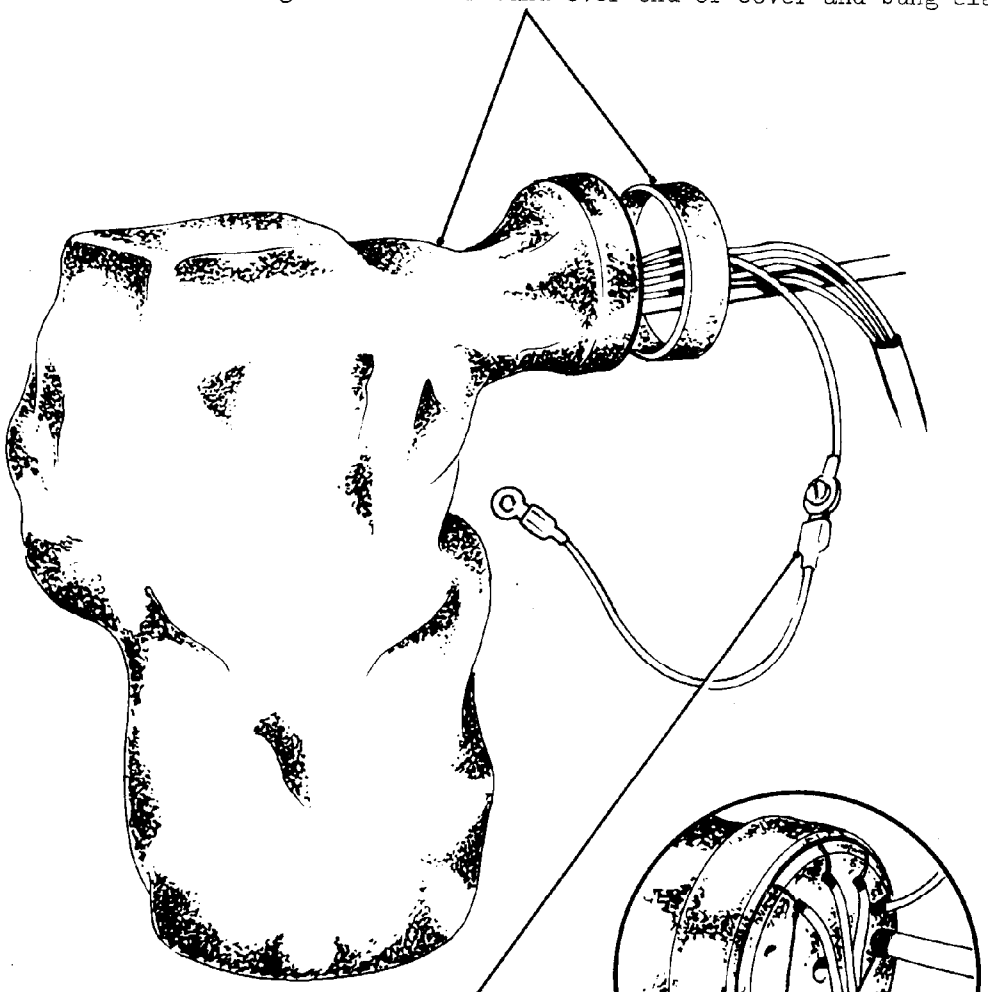


8. Secure suppressor unit to top of motor gear box using adhesive tape. Cover sharp edges of suppressor unit and wiper motor with suitable strip of adhesive tape.

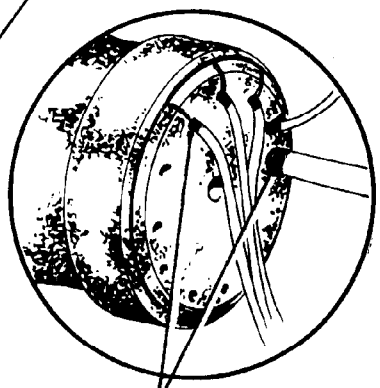
Grease Bostik Tape, adhesive

TASK 19. cont. WINDSCREEN WIPER MOTOR

9. Stretch open end of cover windscreen wiper motor No 2 (WPG 9238) over wiper motor, suppressor unit and up and over bung clamp so that edge seats on bung. Fit rubber band over end of cover and bung clamp.



10. Fit lead extension (WPG 7788) to existing earth lead. Tighten nut.



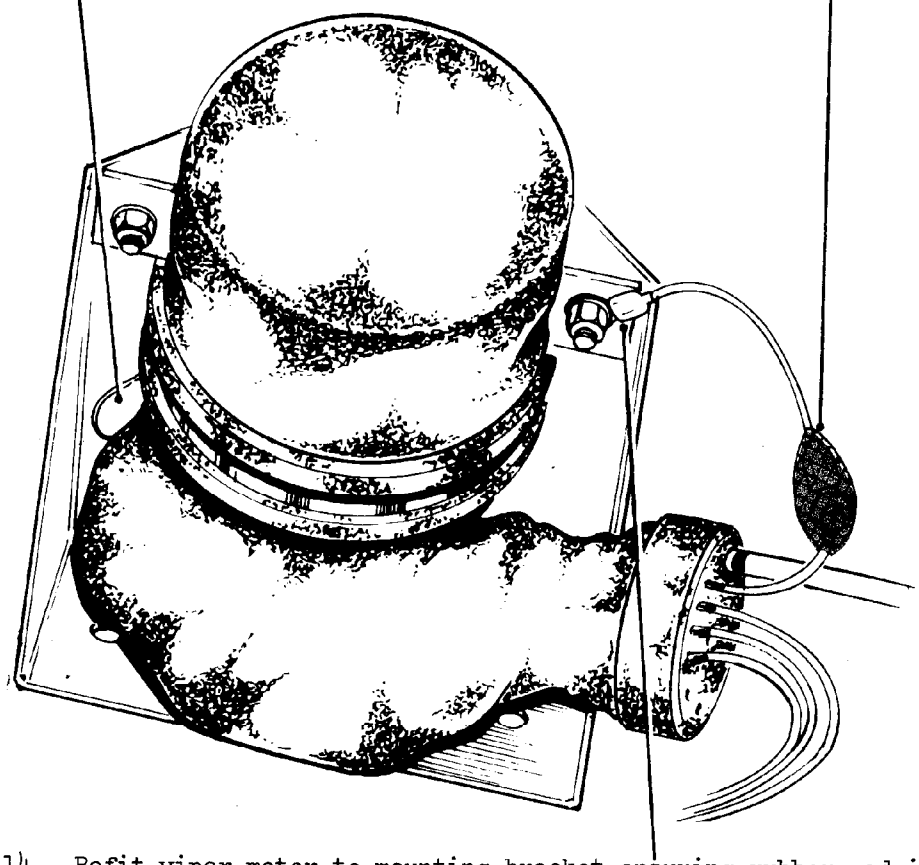
11. Turn back end of cover to rubber band. Apply a coat of Bostik around each lead entry and drive casing entry into bung and for 1/4 in. along leads and drive casing. Allow to dry. Return end of cover on to bung.

[redacted] Bostik

TASK 19. cont. WINDSCREEN WIPER MOTOR

12. Bend top part of suppressor unit bracket to clear wiper motor waterproofing cover.

13. Cover lead connection with adhesive tape.

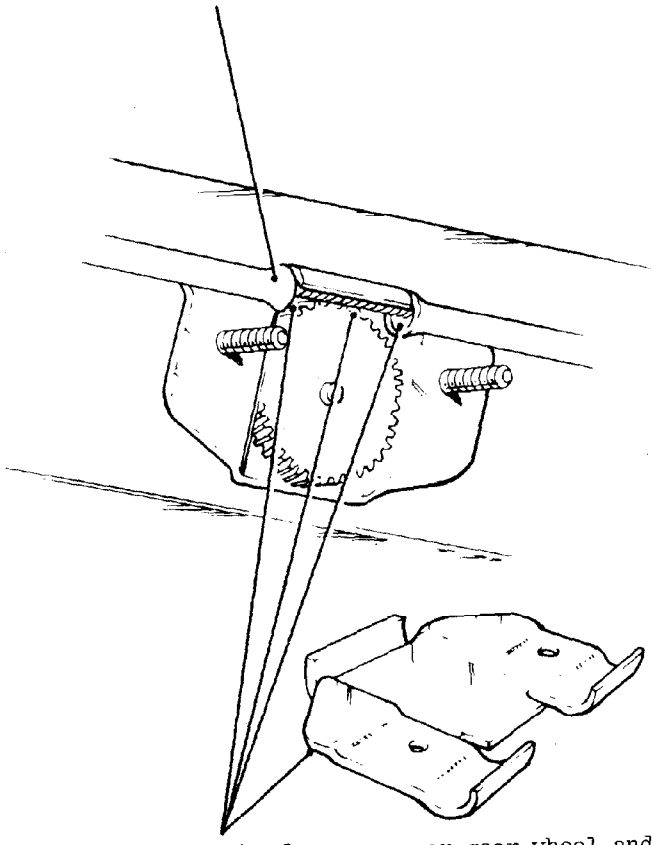


14. Refit wiper motor to mounting bracket ensuring rubber pad is in position and that no damage occurs to waterproofing cover. Refit earth lead using 2BA x ½ in. screw provided. Re-clip wiring loom.

Bostik Tape, adhesive

TASK 19. cont. WINDSCREEN WIPER MOTOR

15. Refit motor and mounting bracket complete ensuring flexible drive tube is located correctly in wheelbox.



16. Apply a liberal coat of grease over gear wheel and drive cable. Pack ends of drive cable tube with grease to form a seal. Refit wheelbox cover.

Note: The r.h. wheelbox will be greased in a later task.

17. Operate wiper motor and then switch off to obtain 'parking' position. Refit wiper arms and blades.

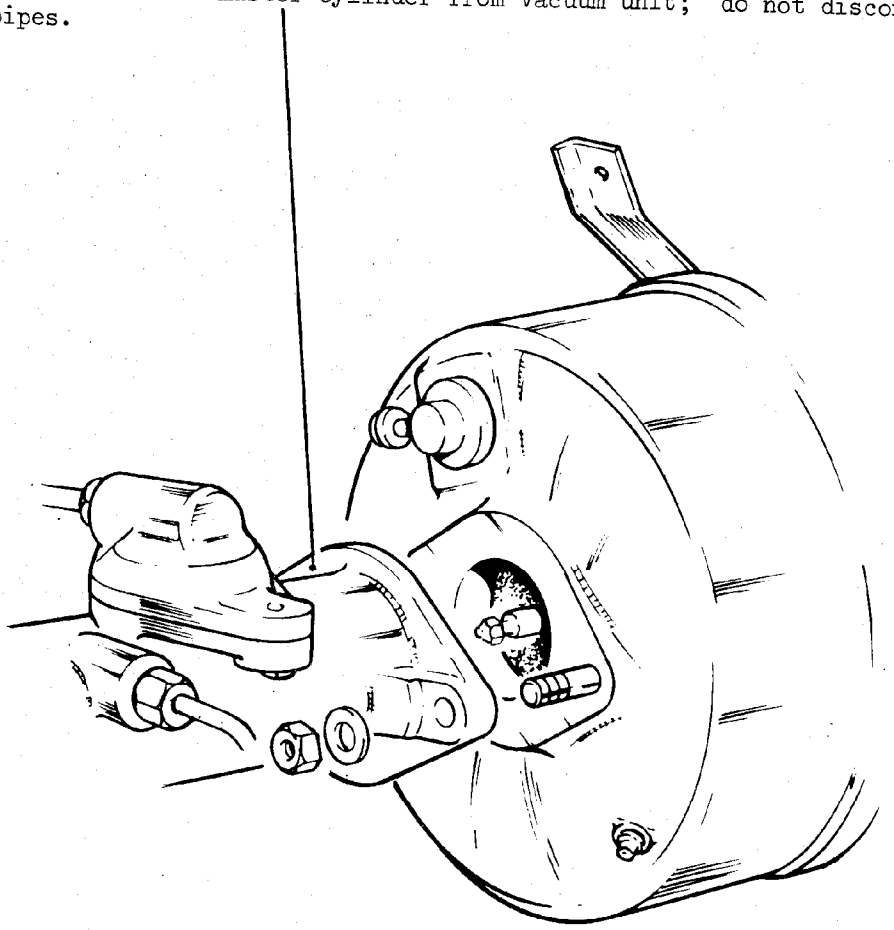
Grease

TASK 20. BRAKE VACUUM SERVO UNIT AND STOPLAMP SWITCH

Note: 1. THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

2. Do not alter push rod adjustment.

1. Disconnect master cylinder from vacuum unit; do not disconnect pipes.

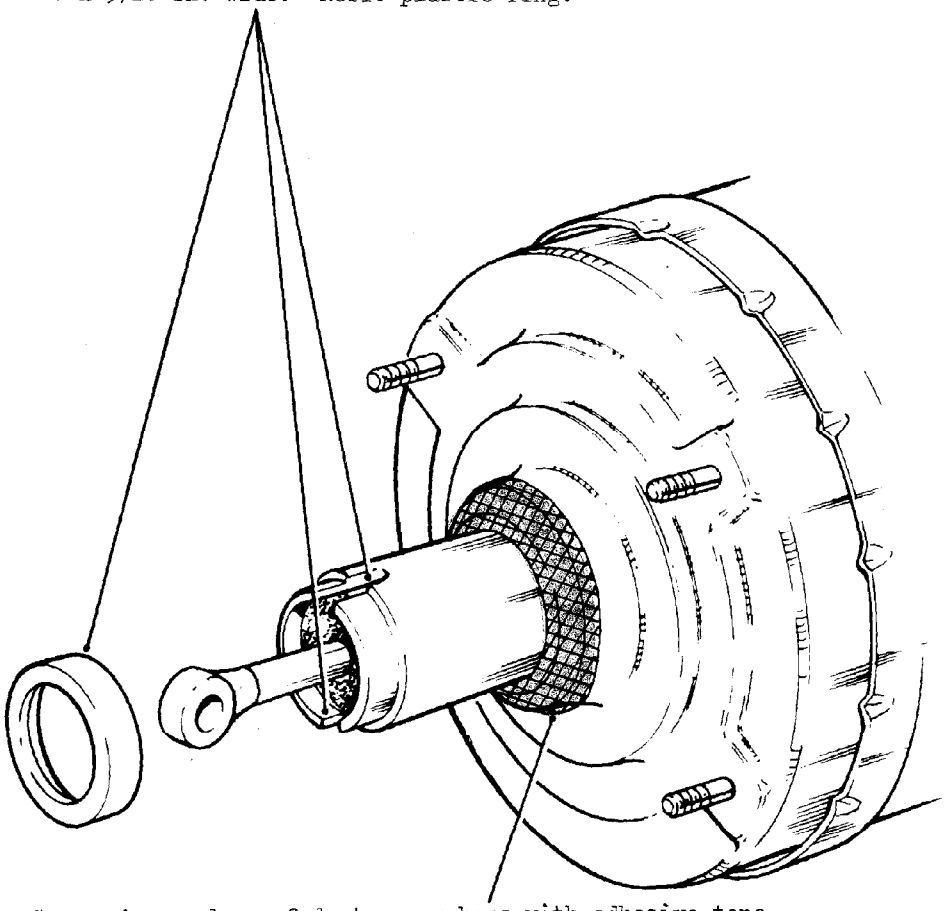


2. Remove vacuum unit and bracket assembly complete from vehicle. Remove vacuum unit from bracket.

TASK 20. cont. BRAKE VACUUM SERVO UNIT AND STOPLAMP SWITCH

3. Remove rubber dust cover and plastic ring from diaphragm extension tube. Stow dust cover in a safe place in vehicle.

4. Cut two slots in end of extension tube at highest and lowest points relative to its position on the vehicle to a depth of 5/16 in. x 5/16 in. wide. Refit plastic ring.



5. Cover sharp edges of dust cover boss with adhesive tape.

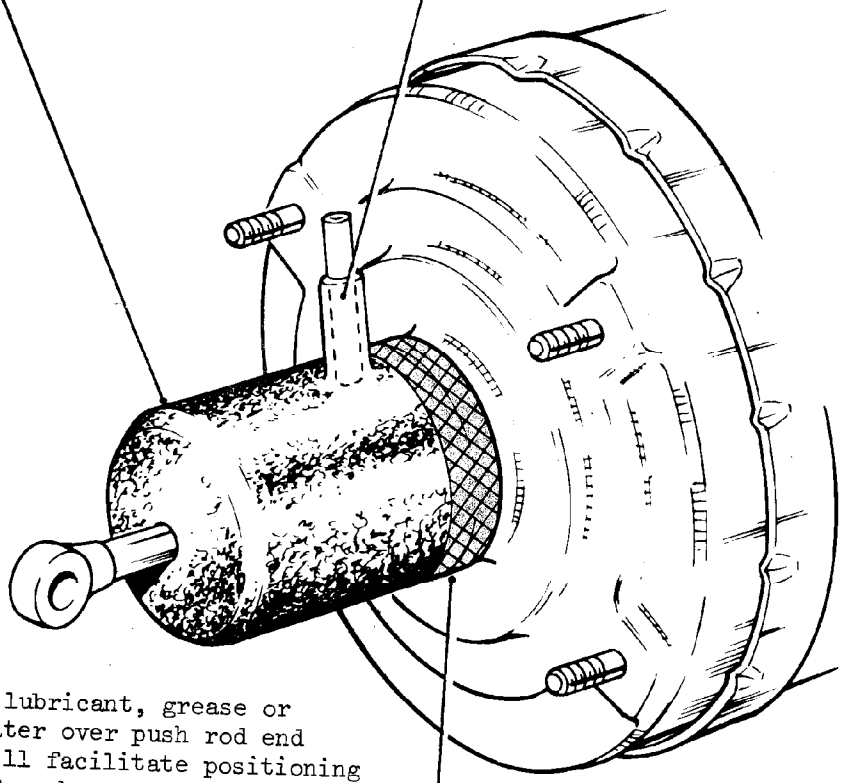
Tape, adhesive

TASK 20. cont. BRAKE VACUUM SERVO UNIT AND STOPLAMP SWITCH

6. Fit a 1.1/2 in. length of 1/4 in. o.d. steel tubing into the breather tube of cover, servo unit (WPG 9240) until end of piping is flush with inner end of tubing.

Note: A lubricant grease or water will facilitate the entry and positioning of steel piping in tubing.

7. Fit cover, servo unit over push rod and down on to taped boss. Ensure that breather tube of cover is at its highest point relative to position of unit on vehicle.



Note: A lubricant, grease or water over push rod end will facilitate positioning of neck of cover.

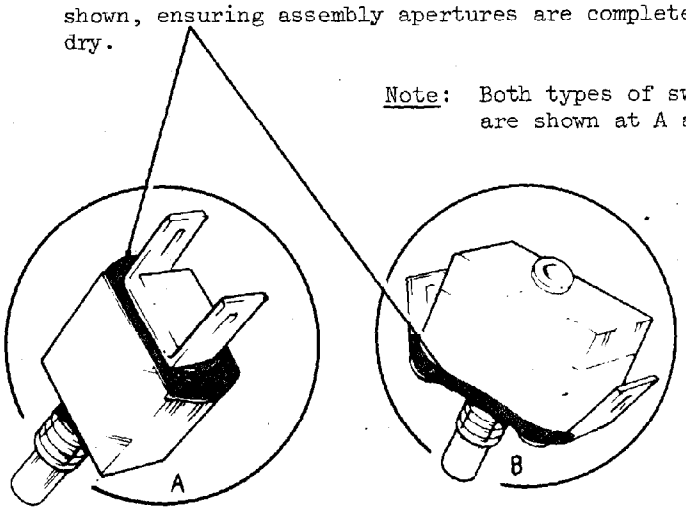
8. Secure cover to boss with two layers of adhesive tape.

Tape, adhesive

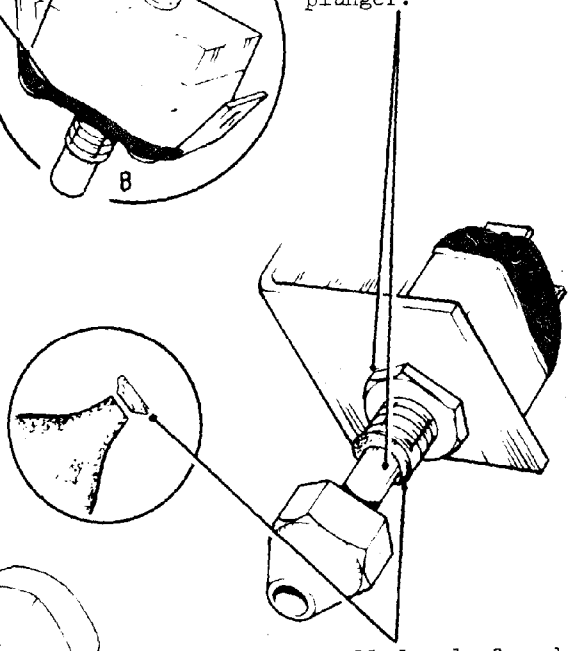
TASK 20. cont. BRAKE VACUUM SERVO UNIT AND STOPLAMP SWITCH

9. Remove stop lamp switch from bracket. Remove lead. Brush an even coat of EC-750-C over terminal face and sides of switch as shown, ensuring assembly apertures are completely covered. Allow to dry.

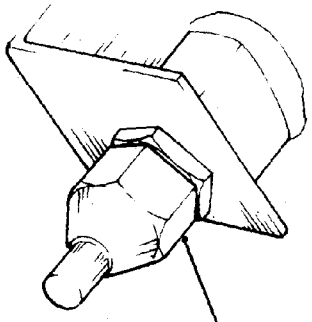
Note: Both types of switch that may be fitted are shown at A and B.



10. Refit switch to bracket and tighten nut. Apply a coat of silicone compound to switch plunger.



11. Cut off rolled end of neck of 6 TN vent breather provided. Fit rolled end of breather vent over plunger and seat against plunger barrel.



12. Fit nut (WPG 9333) and tighten FINGER TIGHT so that switch plunger moves freely in and out of barrel.

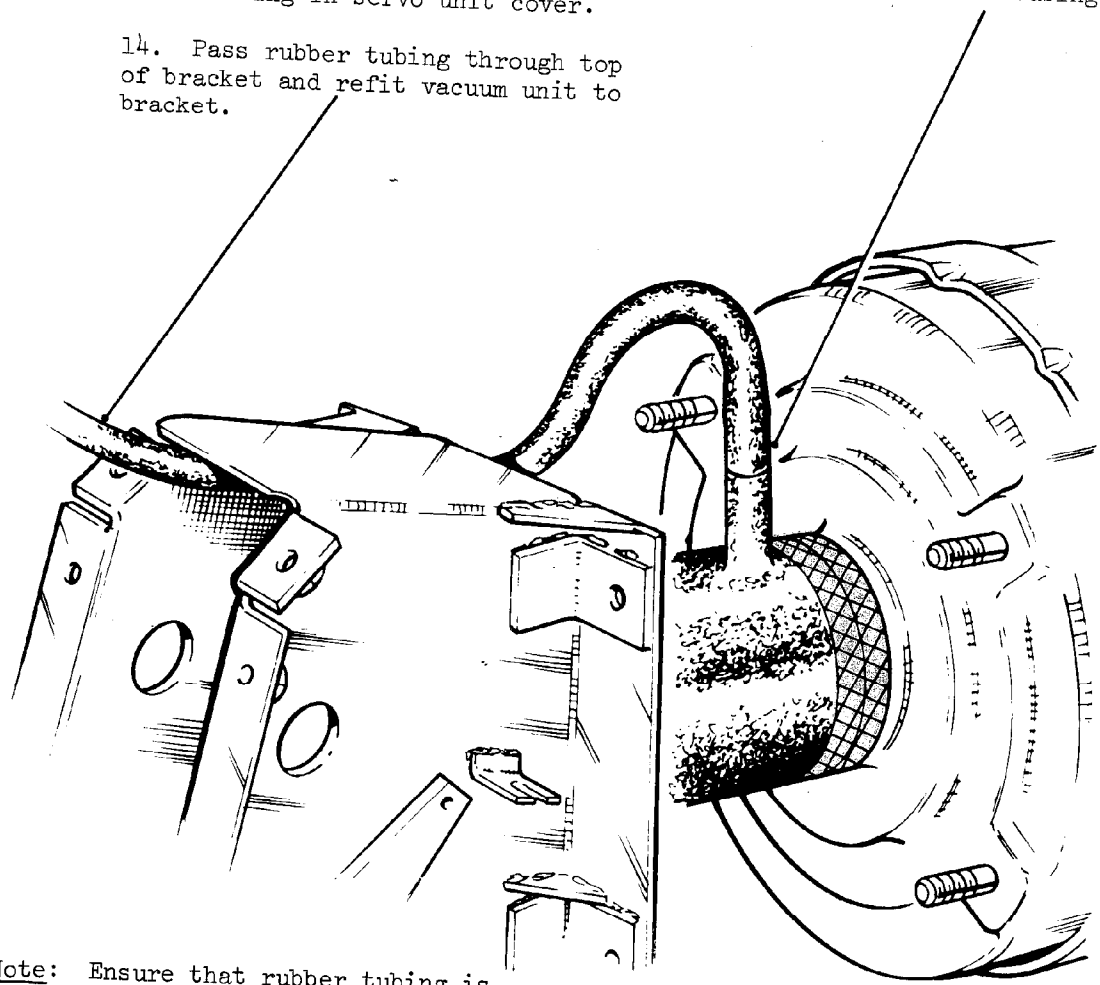
Note: Rolled end of breather vent forms a waterproofing 'O' ring.

[redacted] EC-750-C Compound, silicone

TASK 20. cont. BRAKE VACUUM SERVO UNIT AND STOPLAMP SWITCH

13. Connect one end of a 4 ft length of 3/16 in. i.d. rubber tubing to steel tubing in servo unit cover.

14. Pass rubber tubing through top of bracket and refit vacuum unit to bracket.



Note: Ensure that rubber tubing is free and does not become kinked.

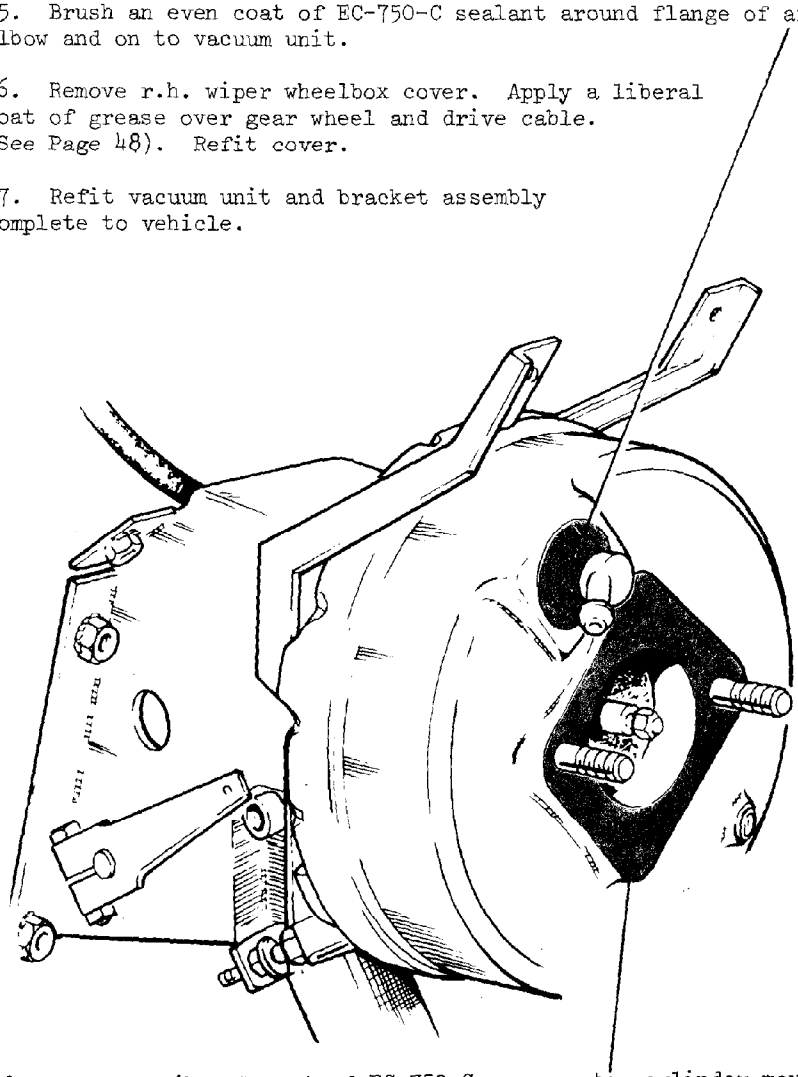
Tape, adhesive

TASK 20. cont. BRAKE VACUUM SERVO UNIT AND STOPLAMP SWITCH

15. Brush an even coat of EC-750-C sealant around flange of air hose elbow and on to vacuum unit.

16. Remove r.h. wiper wheelbox cover. Apply a liberal coat of grease over gear wheel and drive cable. (See Page 48). Refit cover.

17. Refit vacuum unit and bracket assembly complete to vehicle.

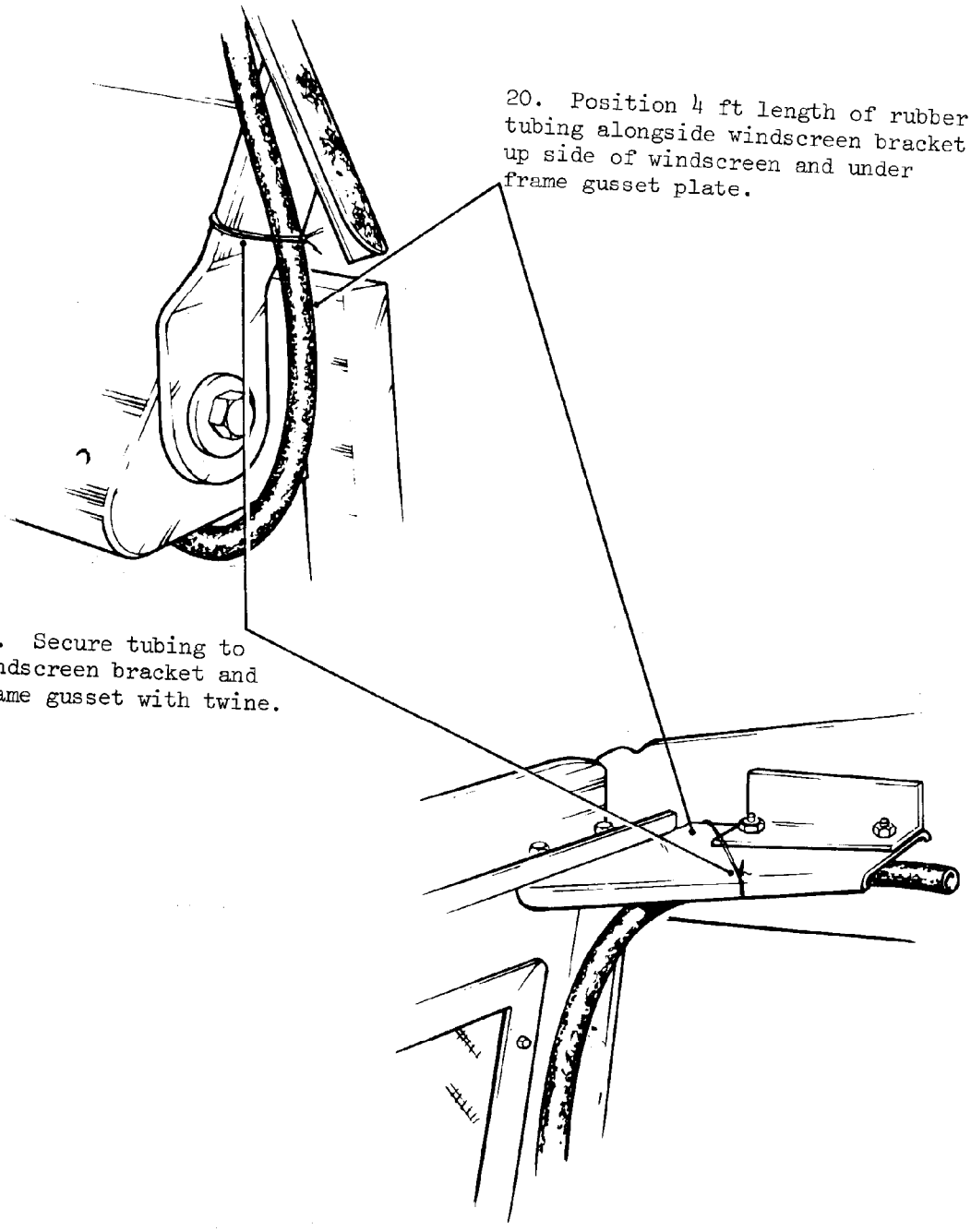


18. Brush a liberal coat of EC-750-C over master cylinder mounting flange and over vacuum unit mating surface, ensuring that groove in mating surface is filled. While sealant is still 'tacky' refit master cylinder to vacuum unit. Tighten nuts evenly. Refit hose from manifold to air hose elbow.

19. Reconnect stoplamp switch leads and apply an even coat of silicone compound over lead connectors.

[redacted] EC-750-C — Compound, silicone

TASK 20. Cont. BRAKE VACUUM SERVO UNIT AND STOPLAMP SWITCH

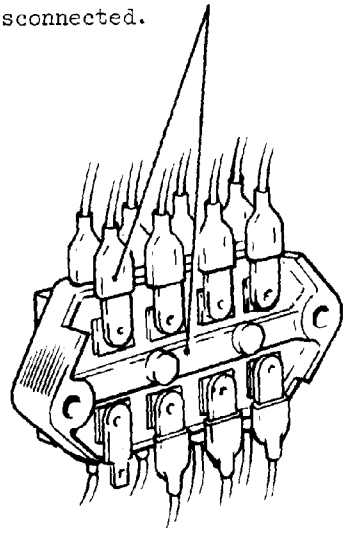


20. Position 4 ft length of rubber tubing alongside windscreen bracket, up side of windscreen and under frame gusset plate.

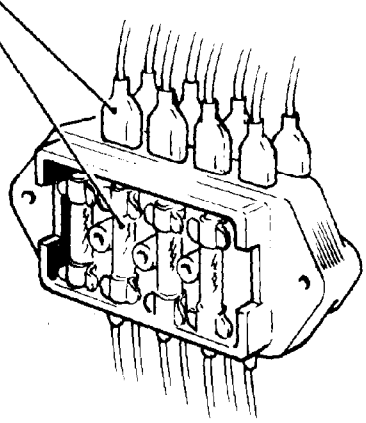
21. Secure tubing to windscreen bracket and frame gusset with twine.

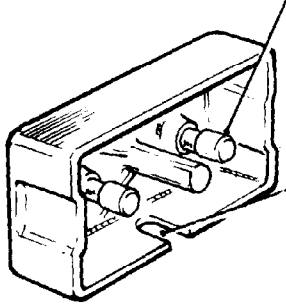
TASK 21. FUSE BOX AND FUSES

1. Remove fuse box. Apply an even coat of silicone compound over back of box and terminals. Refit box. Ensure that leads do not become disconnected.



2. Apply an even coat of silicone compound over fuses and clips and over terminals.

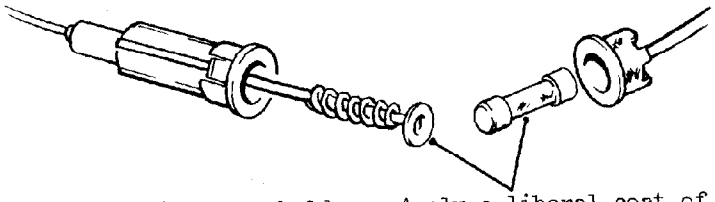




3. Cut or file a slot in bottom edge of cover.

4. Refit cover with slot at bottom position.

Note: Slot is cut to allow water to drain off.



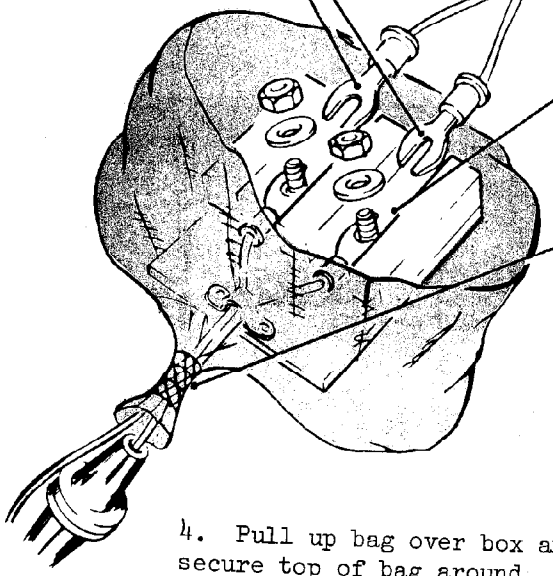
5. Disconnect in-line fuse holder. Apply a liberal coat of silicone compound over spring and connector and over fuse. Reconnect fuse so that silicone compound also enters fuse holder.

Compound, silicone

TASK 22. JUNCTION BOX AND IN-LINE FUSE (IF FITTED)

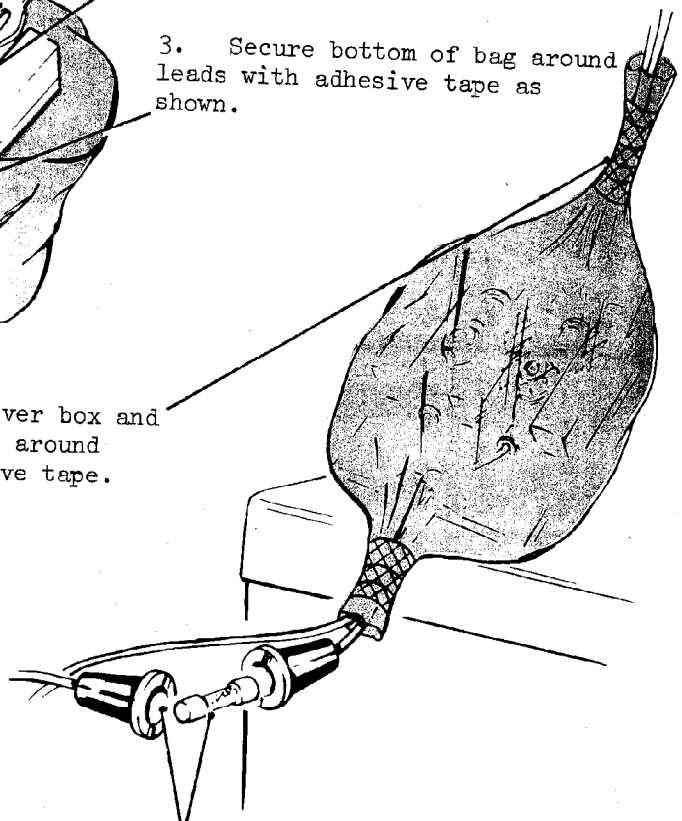
1. Remove junction box behind passenger's seat. Refit both insulating plates and nuts. Ease leads upwards to their fullest extent so that box is higher than rail above battery box and secure top wires to top of radio equipment rack. Disconnect top connectors.

2. Cut off the closed end of a bag plastic 10 in x 8 in provided. Open and fit bag over box and on to wiring adjacent to in-line fuse. Reconnect connectors with nuts and washers. Apply a liberal coat of silicone compound over connectors and nuts.



3. Secure bottom of bag around leads with adhesive tape as shown.

4. Pull up bag over box and secure top of bag around leads with adhesive tape.



5. Disconnect in-line fuse holder. Apply a liberal coat of silicone compound over fuse and faces of fuse holder. Reconnect fuse so that silicone compound also enters fuse holder.

PVC bag Tape, adhesive Compound silicone

TASK 23. INSTRUMENT PANEL

Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME

1. Remove instrument panel from dash. Do not disconnect leads. Ease the main looms through the grommets in dash panel to gain as much length as possible between the instrument panel and dash panel. Remove r.h. instrument panel end plate. Detach l.h. end plate from instrument panel.

2. Cut a 5 in. length of 5/32 in. i.d. rubber tubing. Make a cut longitudinally along its entire length. Feed cut portion over edge of hole in dash panel to form a grommet for speedometer cable.

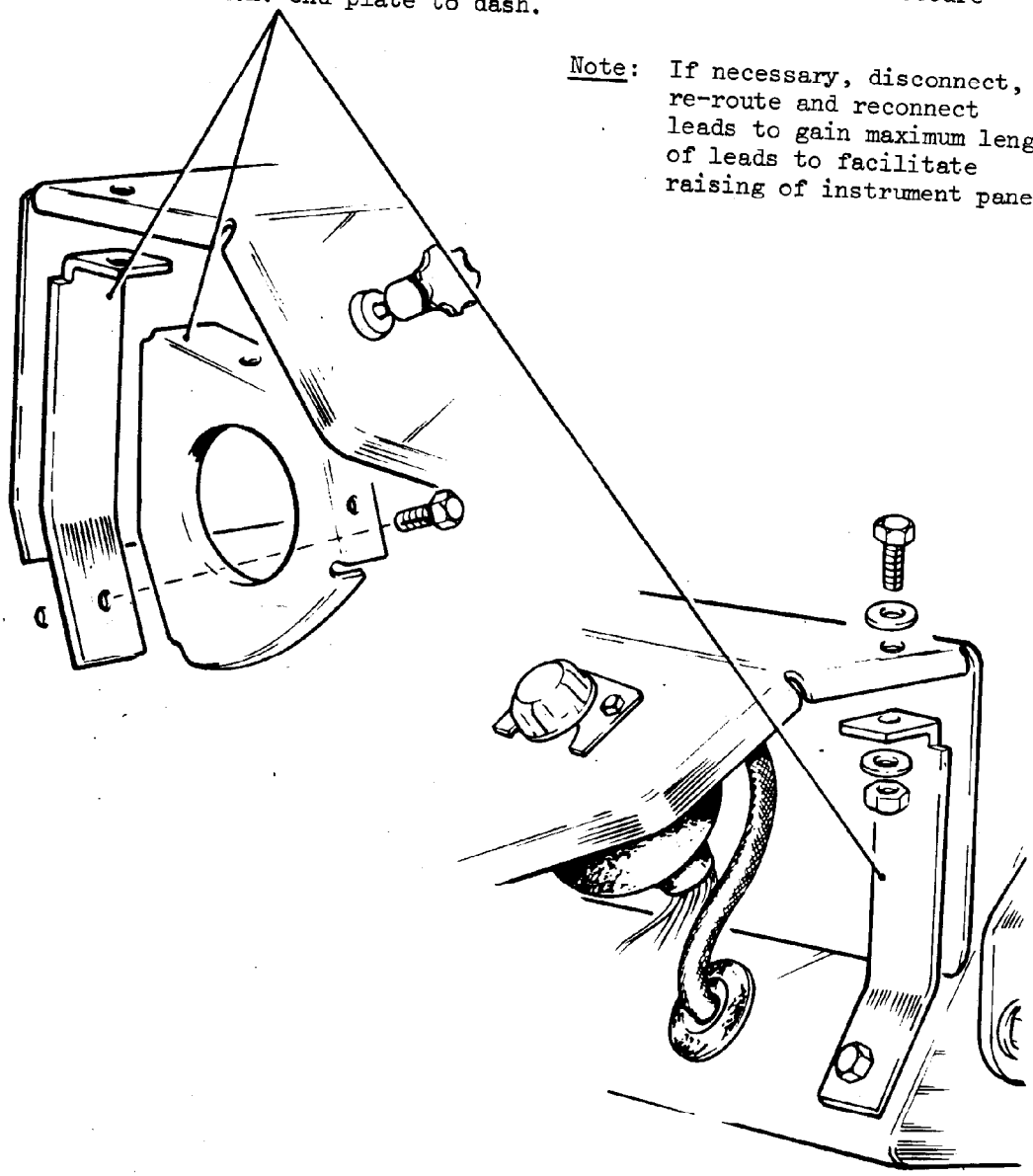
3. Apply two coats of Silicone compound from the aerosol container over and around the back of all instruments, switches, lead connections, and over the face of all instruments and switches. Allow first coat to dry before applying second coat. Complete coverage is essential, especially when coating the ignition switch.

Compound, silicone

TASK 23. cont. INSTRUMENT PANEL

4. Position instrument panel above dash and fit the two brackets instrument panel (WPG 9291) using existing bolts and nuts to secure brackets and l.h. end plate to dash.

Note: If necessary, disconnect, re-route and reconnect leads to gain maximum length of leads to facilitate raising of instrument panel.

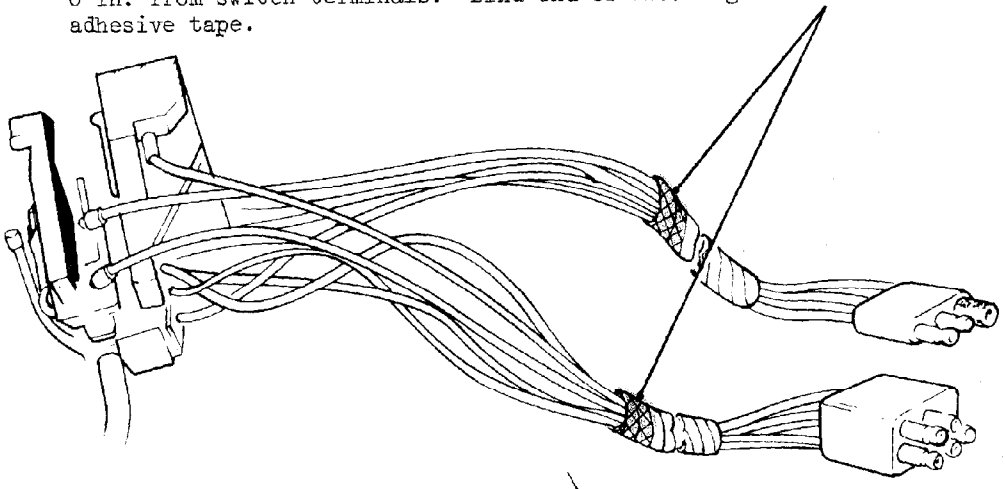


Compound, silicone

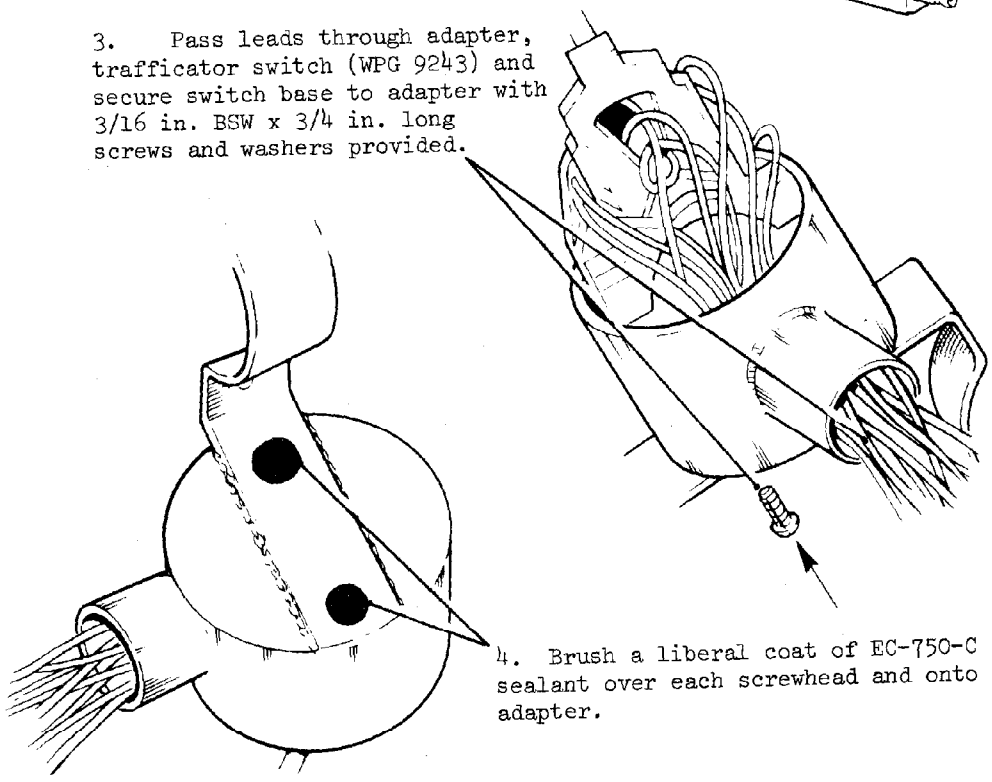
TASK 24. TURNLIGHT SWITCH

1. Disconnect leads at multi-pin plugs and sockets.

2. Carefully cut back the braiding around leads for a distance of 6 in. from switch terminals. Bind end of braiding with two turns of adhesive tape.



3. Pass leads through adapter, trafficator switch (WPG 9243) and secure switch base to adapter with 3/16 in. BSW x 3/4 in. long screws and washers provided.



4. Brush a liberal coat of EC-750-C sealant over each screwhead and onto adapter.

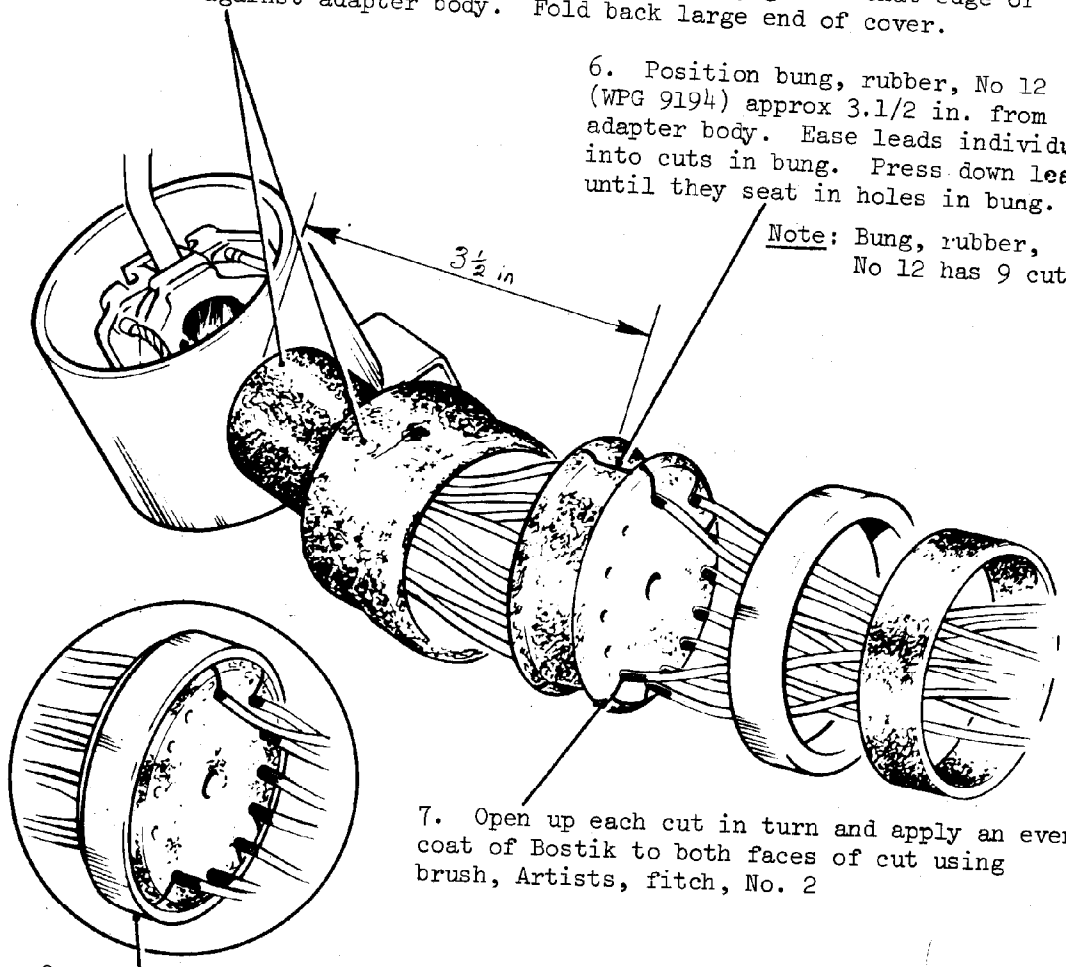
EC-750-C Tape, adhesive

TASK 24 cont. TURNLIGHT SWITCH

5. Pass small end of cover, general purpose, No 4 (WPG 9311) over plugs and leads. Stretch cover onto adapter spigot so that edge of cover is against adapter body. Fold back large end of cover.

6. Position bung, rubber, No 12 (WPG 9194) approx 3.1/2 in. from adapter body. Ease leads individually into cuts in bung. Press down leads until they seat in holes in bung.

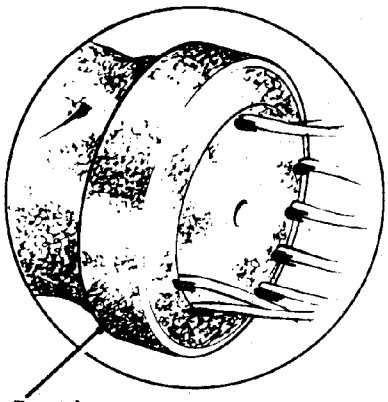
Note: Bung, rubber, No 12 has 9 cuts.



7. Open up each cut in turn and apply an even coat of Bostik to both faces of cut using brush, Artists, fitch, No. 2

8. Pass a clamp, bung (WPG 9207) over leads and fit bung to clamp. (See Page 13).

Note: Speed is essential when Bostik is applied to cuts in bung to ensure that adhesive is still tacky when bung is inserted into clamp.



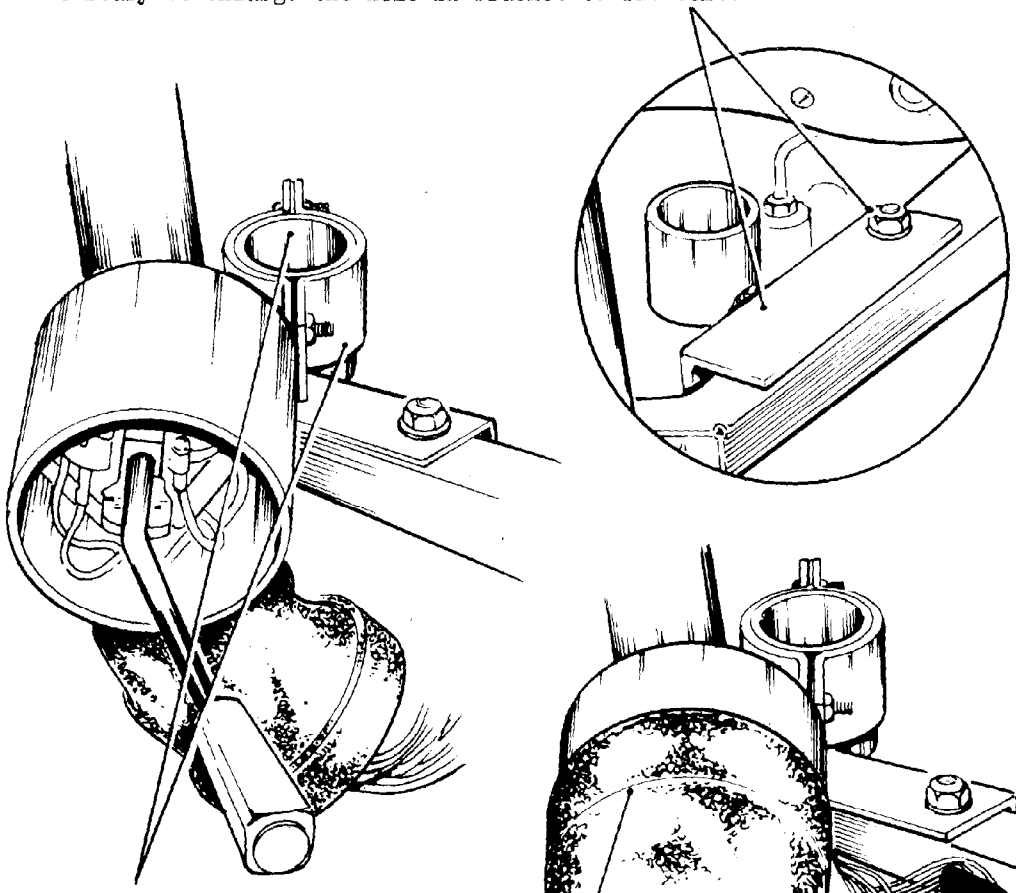
9. Stretch large end of cover over clamp onto bung and position a band, rubber (WPG 7779) over cover and clamp.

10. Turn back edge of cover; apply a coat of Bostik around each lead entry into bung and for 1/4 in. along leads; allow to dry. Return end of cover onto bung.

[redacted] Bostik

TASK 24. cont. TURNLIGHT SWITCH

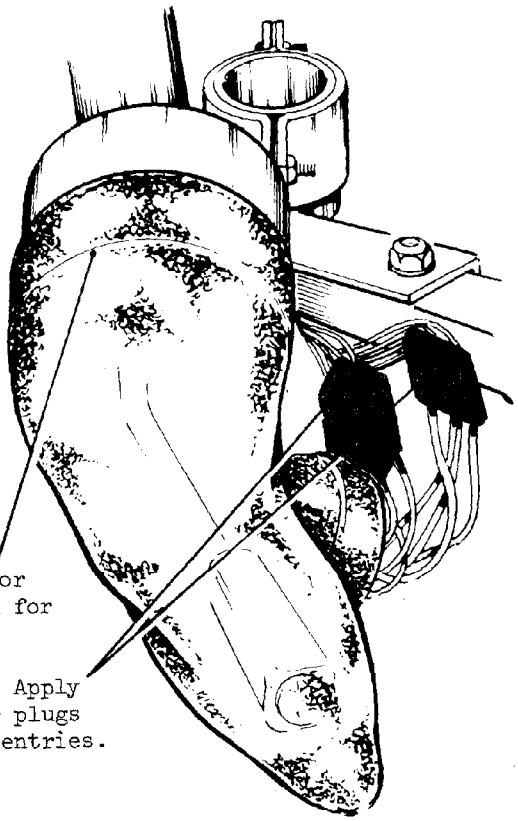
11. Fit bracket, turnlight switch (WPG 9286) to r.h. steering column bracket in position shown using an existing bolt and nut. It will be necessary to enlarge the hole in bracket to fit bolt.



12. Discard 2 x 1/2 in. screws from adapter, trafficator switch. Using 2 x 1 in. x 2BA screws supplied, fit adapter, trafficator switch over boss on turnlight switch bracket. Adjust angle to clear instrument panel and tighten clamp.

13. Stretch neck of cover, trafficator switch (WPG 9181) over switch arm and for 1.1/2 in. on to adapter body.

14. Connect both plugs and sockets. Apply an even coat of EC-750-C sealant over plugs and sockets and over and around lead entries.

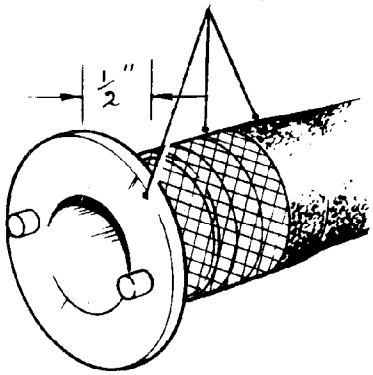


EC-750-C

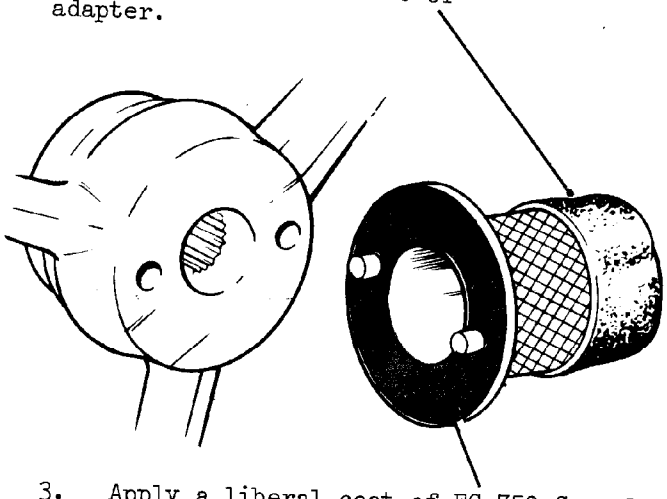
TASK 25. STEERING COLUMN

Note: THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME.

1. Stretch a sleeve rubber (WPG 7784) over adapter steering wheel (WPG 9296) to within 1/2 in. of flange. Secure rubber sleeve to adapter with four turns of adhesive tape.



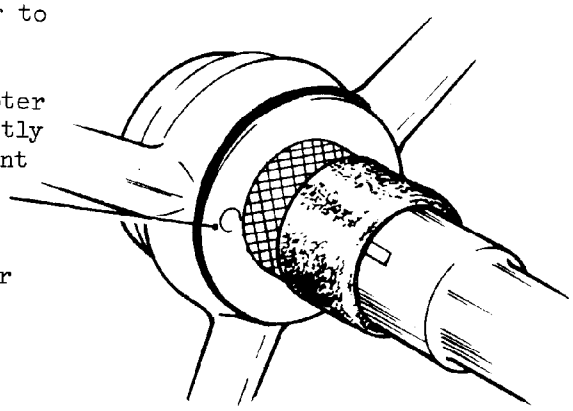
2. Roll open end of rubber sleeve up and over so that folded end of sleeve is flush with tube of adapter.



3. Apply a liberal coat of EC-750-C sealant over face of steering wheel adapter flange. Whilst sealant is still 'tacky' locate dowels in holes in steering wheel boss and fit adapter to steering wheel.

4. Refit steering wheel with adapter ensuring that spring locates correctly in adapter tube and that flange joint is not disturbed. Tighten steering wheel nut.

Note: Fitting of rubber sleeve over steering column will be completed in a later task.

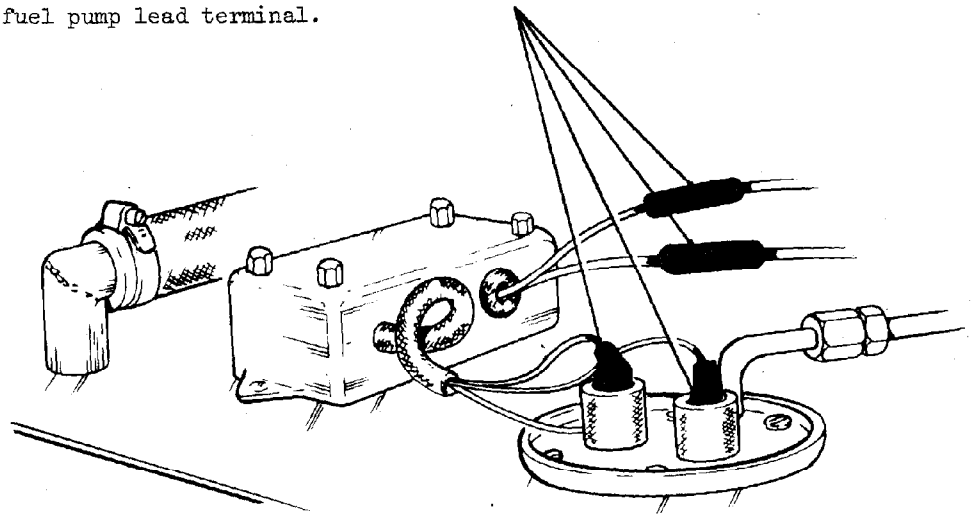


EC-750-C Tape, adhesive

TASK 26. FUEL PUMP AND SUPPRESSOR UNIT AND FUEL TANK GAUGE UNIT

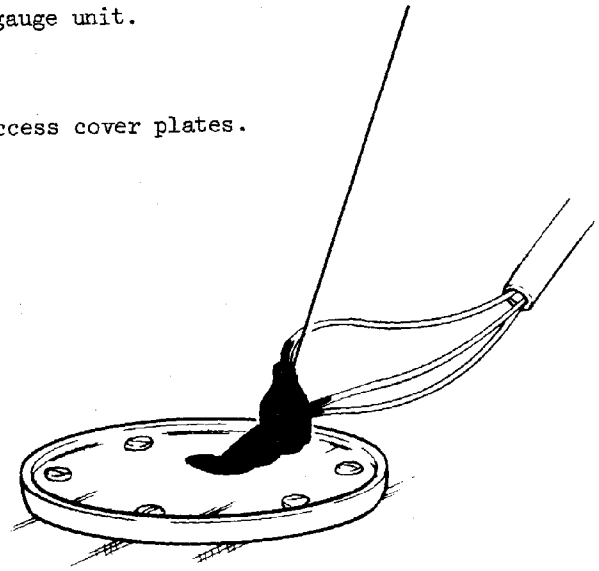
1. Remove access cover plates from floor above fuel pump and fuel tank gauge unit.

2. Brush an even coat of EC-750-C sealant over each snap connector and fuel pump lead terminal.



3. Brush an even coat of EC-750-C over each lead connector and terminal on tank gauge unit.

4. Refit both access cover plates.

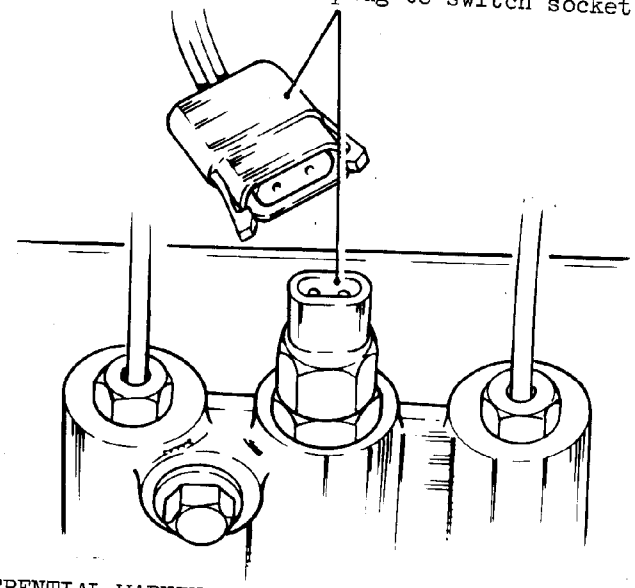


EC-750-C

TASK 27. BRAKE FAILURE SWITCH

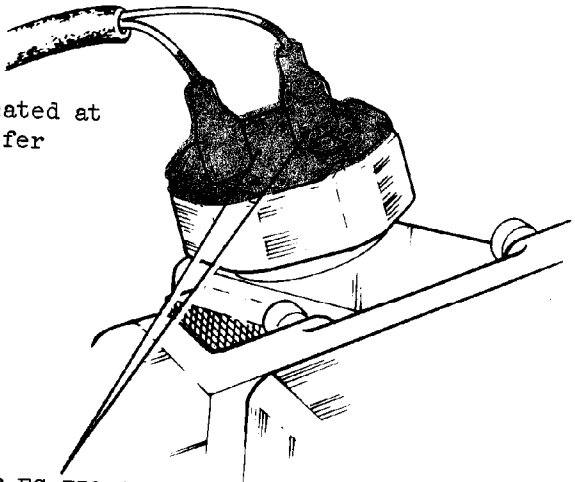
Note: Switch is mounted on r.h. chassis side member adjacent to engine oil filter.

Remove plug from switch. Apply a liberal coat of silicone compound over plug and socket. Refit plug to switch socket.



TASK 28. DIFFERENTIAL WARNING LIGHT SWITCH

Note: Switch is located at side of transfer gear box.

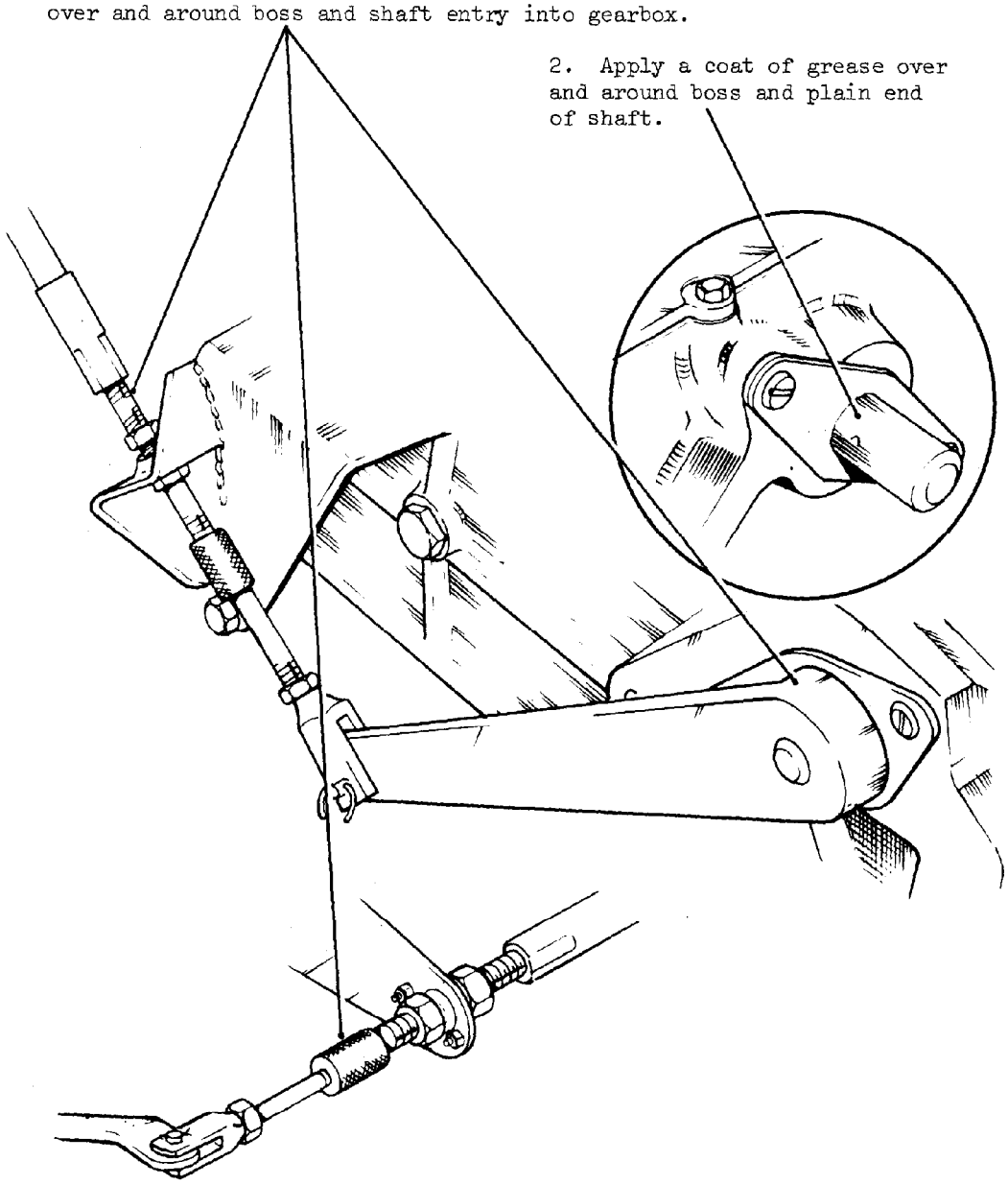


Brush an even coat of EC-750-C sealant over top of switch and over lead terminals and connections.

[redacted] EC-750-C Compound, silicone

TASK 29. TRANSFER GEAR SELECTOR SHAFT

1. Apply a coat of grease over end of operating cable and clevis, over and around boss and shaft entry into gearbox.

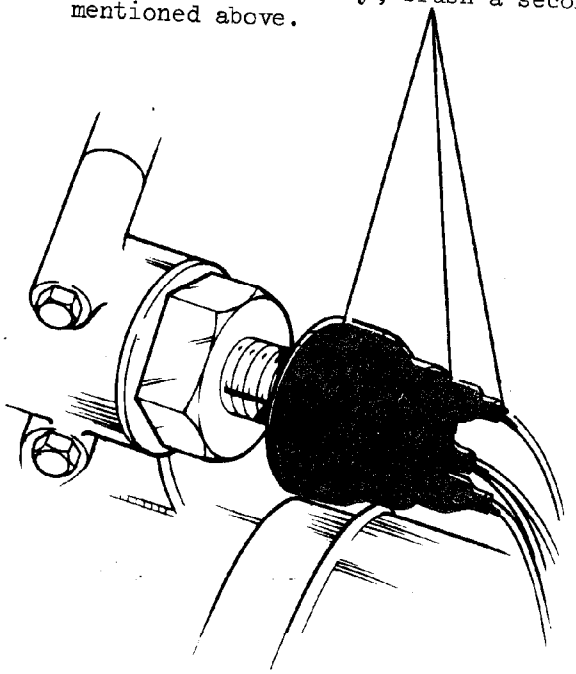


3. If winch is fitted, apply a coat of grease over winch drive engagement cable, clevis, and around shaft entry into gearbox under rubber dust excluder gaiter.

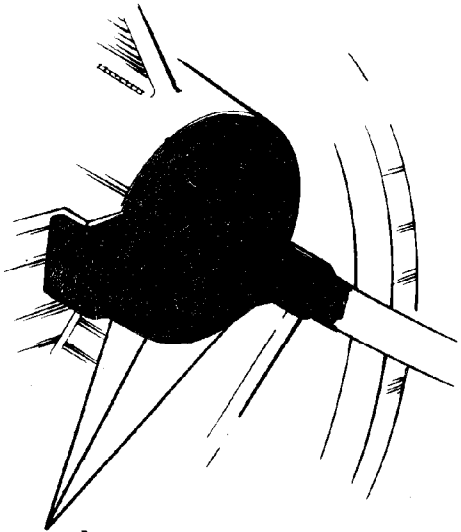
Grease

TASK 30. OIL PRESSURE SWITCH AND SPEEDOMETER DRIVE

1. Thoroughly clean and dry oil pressure switch body, lead terminals and leads. Brush a liberal coat of EC-750-C sealant over nut, switch body, between terminals, over terminals and for 1/2 in. along leads. When first coat isdry, brush a second coat of EC-750-C over items mentioned above.



Note: The correct sealing of the switch is most important. There should be no break in the sealant when it is applied.

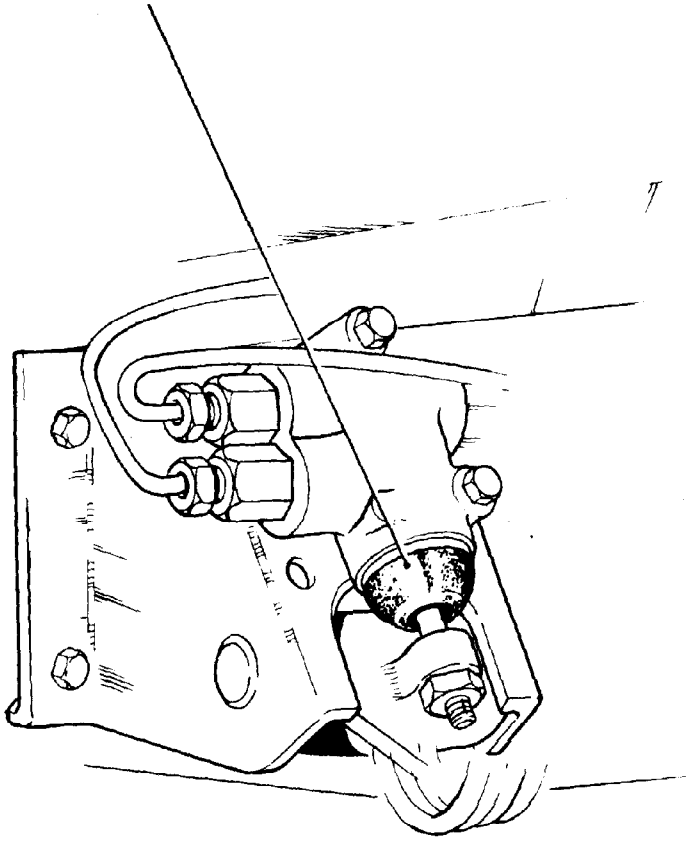


2. Brush an even coat of EC-750-C over speedometer drive entry, over boss, clip and cable.

EC-750-C

TASK 31. BRAKE APPORTIONING VALVE

1. Apply an even coat of grease over apportioning valve plunger and on to valve body.

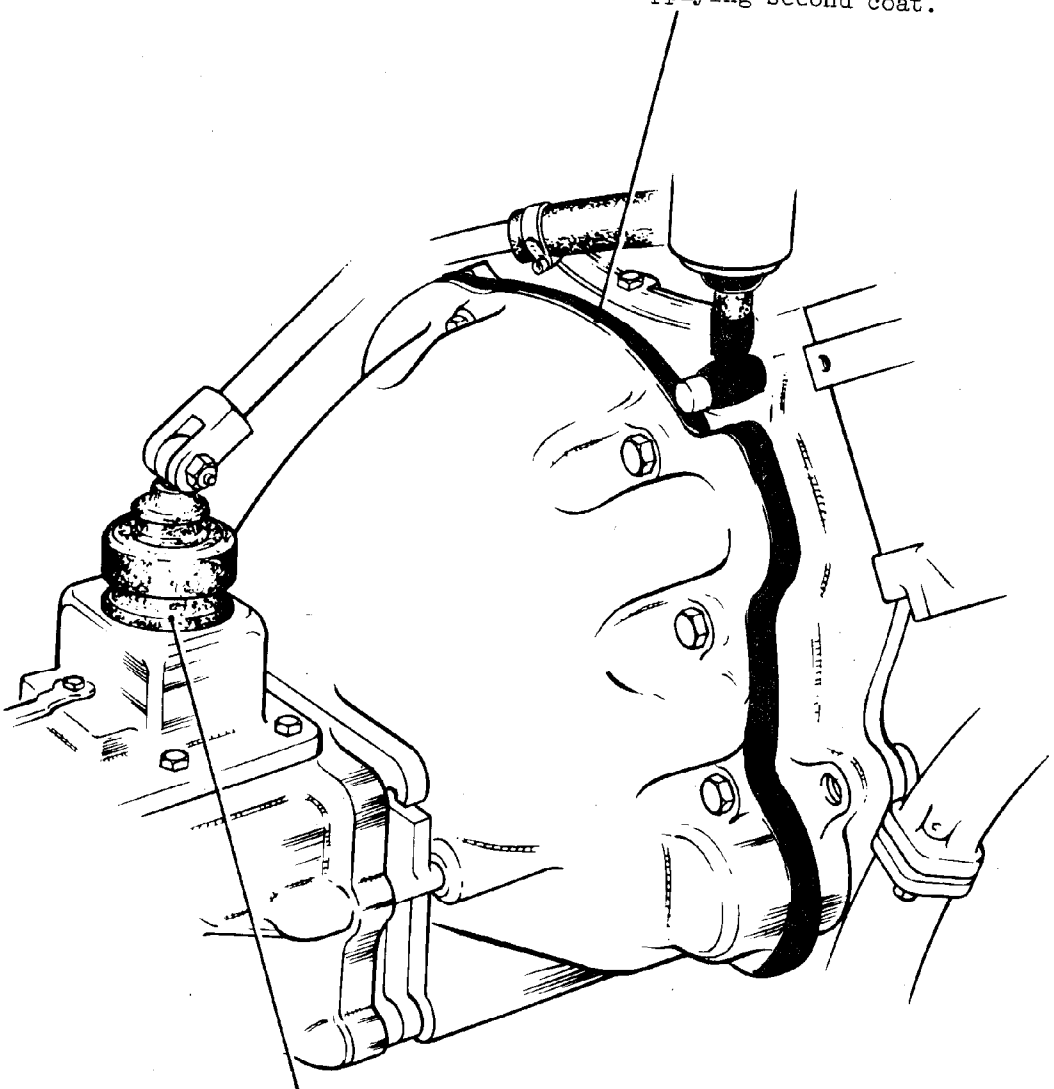


2. Apply an even coat of grease over the adjustment strut and threaded ends.

Grease

TASK 32. CLUTCH HOUSING AND GEAR LEVER GAITER

1. Apply two coats of EC-750-C sealant over clutch housing flange joint. Allow first coat to dry before applying second coat.



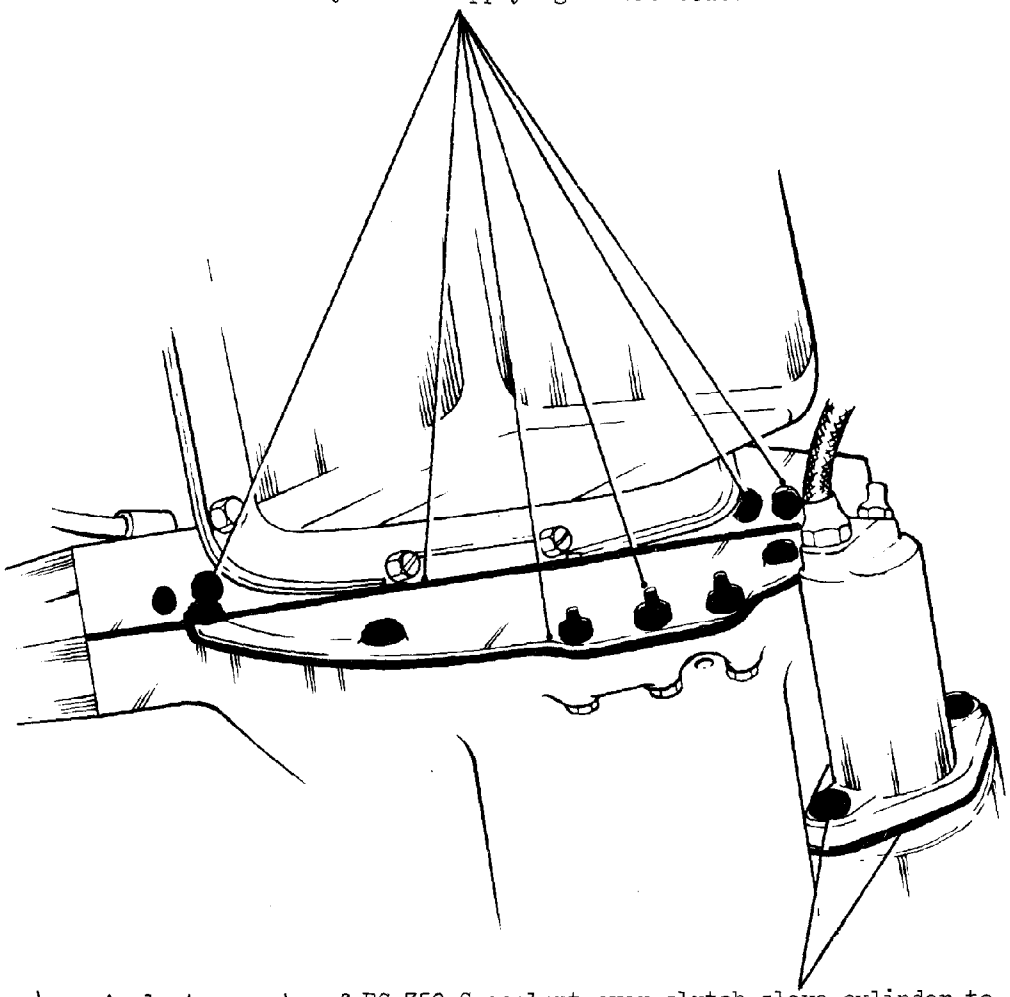
2. Ensure that gear lever gaiter is serviceable and is a tight fit.

Note: If necessary, secure gaiter by binding with adhesive tape.

[redacted] EC-750-C

TASK 32. cont. CLUTCH HOUSING AND GEAR LEVER GAITER

3. Apply two even coats of EC-750-C sealant over top edge joint of cover plate, over edge of plate to clutch housing, over the nuts and bolt heads, and over the two core plugs at each side of crankcase. Allow first coat to dry before applying second coat.

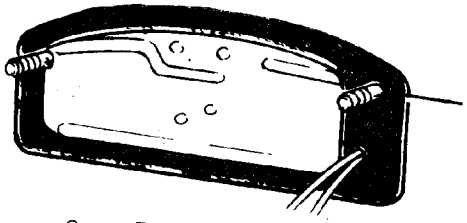


4. Apply two coats of EC-750-C sealant over clutch slave cylinder to clutch housing joint and over bolts. Allow first coat to dry before applying second coat.

[redacted] EC-750-C

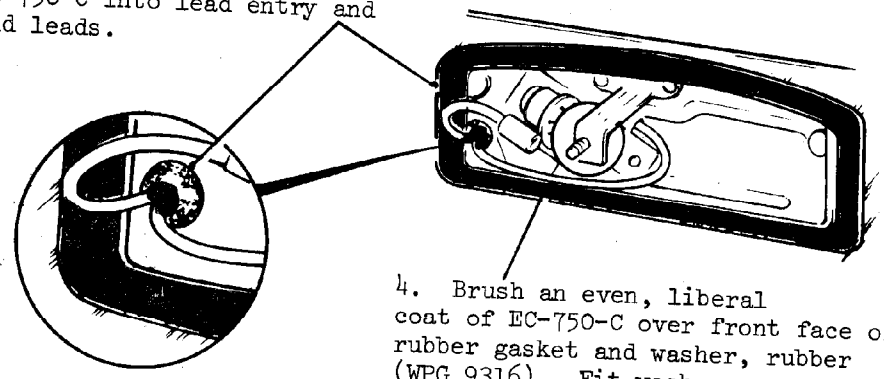
TASK 33. REAR NUMBER PLATE LAMP

1. Disconnect earth lead from tailboard panel. Remove hinge pins and detach number plate carrier. Remove lamp from carrier plate and lens and cover from lamp. Ensure that rubber gasket is serviceable. If necessary, replace with new gasket provided.



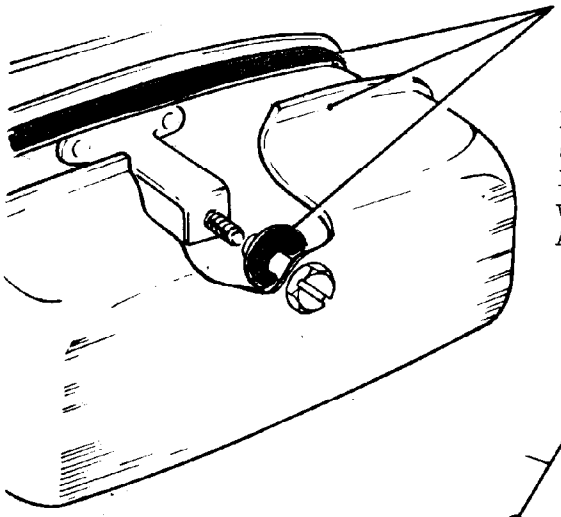
2. Brush an even, liberal coat of EC-750-C sealant over rear face of gasket. While sealant is still tacky, refit lamp base to carrier plate.

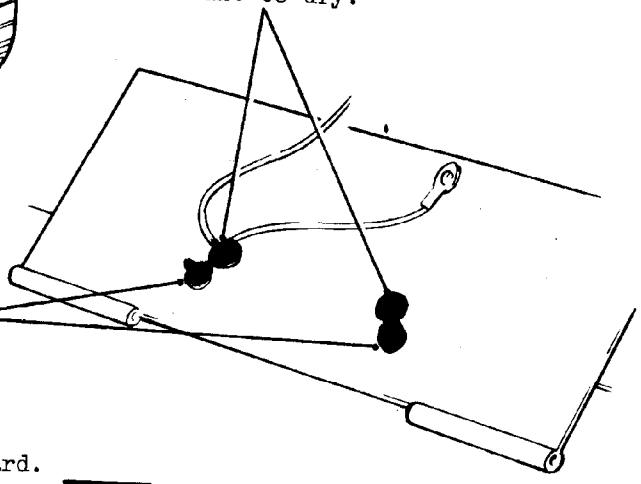
3. Brush a liberal quantity of EC-750-C into lead entry and around leads.



4. Brush an even, liberal coat of EC-750-C over front face of rubber gasket and washer, rubber (WPG 9316). Fit washer over shank of screw inside cover. Refit cover and lens. Tighten screws.

5. Brush a liberal quantity of EC-750-C sealant into lead entry and around leads and for 3/4 in. along leads. Fill hole in carrier plate with EC-750-C to form a plug. Allow sealant to dry.





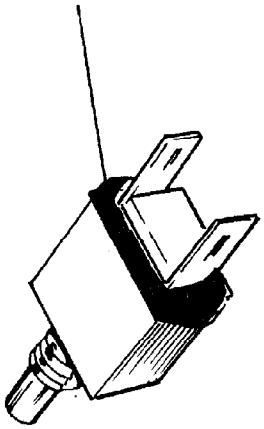
6. Brush an even coat of EC-750-C over nuts and onto carrier.

7. Connect earth lead and refit carrier plate to tailboard.

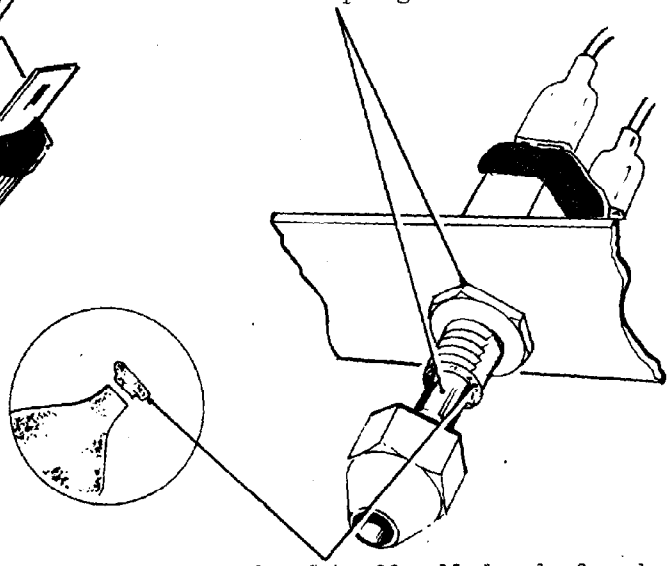
■ EC-750-C

TASK 34. WINCH WARNING LIGHT (IF FITTED) AND HEATER FAN SWITCH

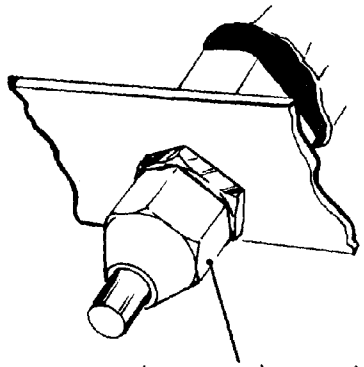
1. If winch is fitted, remove warning light switch. Disconnect leads. Stow switch in PVC bag in vehicle. Using new switch provided (LV6MT4 5930998084873), brush an even coat of EC-750-C sealant over terminal face and sides of switch ensuring assembly apertures are completely covered.



2. Fit switch to bracket placing a 1/2 in. i.d. flat washer provided behind securing nut. Refit leads. Apply a coat of silicone compound to switch plunger.



3. Cut off rolled end of neck of 6TN vent breather provided. Fit rolled end of breather vent over plunger and seat against plunger barrel.



4. Fit nut (WPG 9333) and tighten FINGER TIGHT so that switch plunger moves freely in and out of barrel.

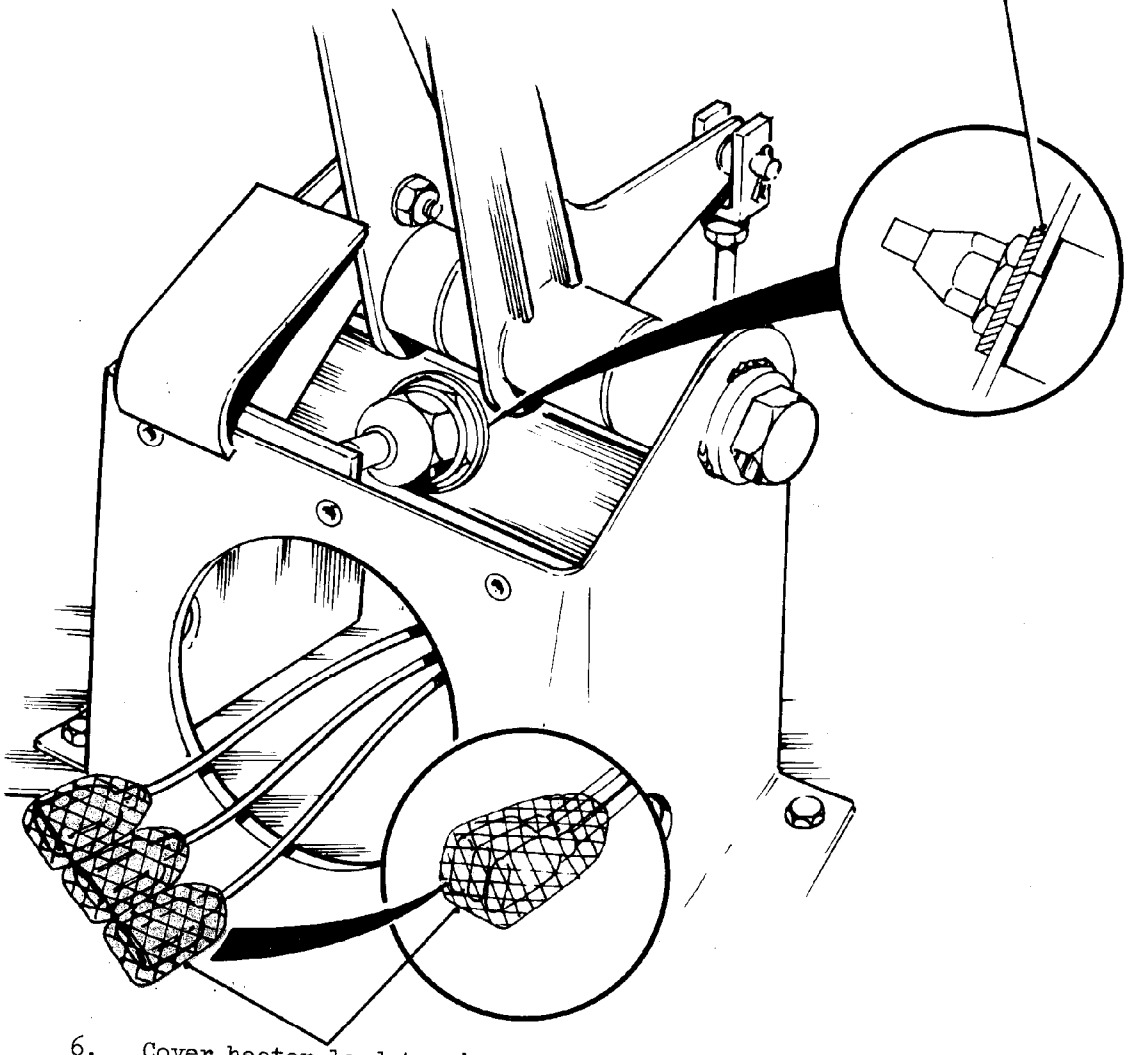
[redacted] EC-750-C Compound, silicone

TASK 34. cont. WINCH WARNING LIGHT SWITCH (IF FITTED) AND HEATER FAN SWITCH

Note: 1. Rolled end of breather vent forms a waterproofing 'O' ring.

2. 1/2 in. i.d. flat washer forms a distance piece behind securing nut.

5. Disconnect leads and remove heater fan switch from gear lever bracket. Note lead connections for subsequent refitting. Stow switch in PVC bag in vehicle.



6. Cover heater lead terminals with adhesive tape. Bind leads together with adhesive tape.

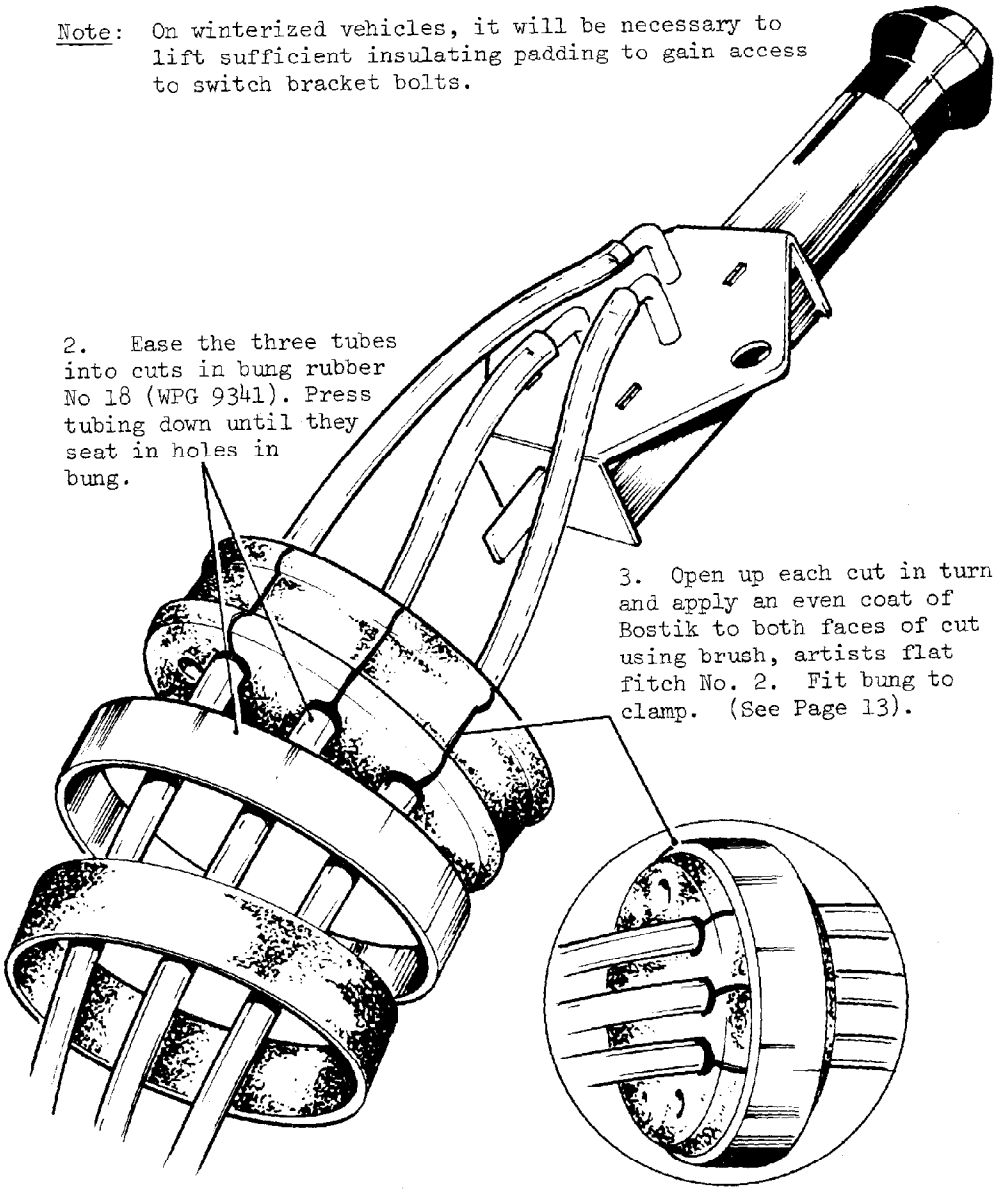
Compound, silicone

Tape, adhesive

TASK 35. DIFFERENTIAL LOCK SWITCH AND PRESERVATION OF CONTROLS

1. Remove differential lock switch complete with brackets from panel. Remove grommet from panel. Remove mounting brackets from switch. Do not disconnect tubing. Pass rubber band (WPG 7779) and bung clamp (WPG 9207) over switch and tubing.

Note: On winterized vehicles, it will be necessary to lift sufficient insulating padding to gain access to switch bracket bolts.



2. Ease the three tubes into cuts in bung rubber No 18 (WPG 9341). Press tubing down until they seat in holes in bung.

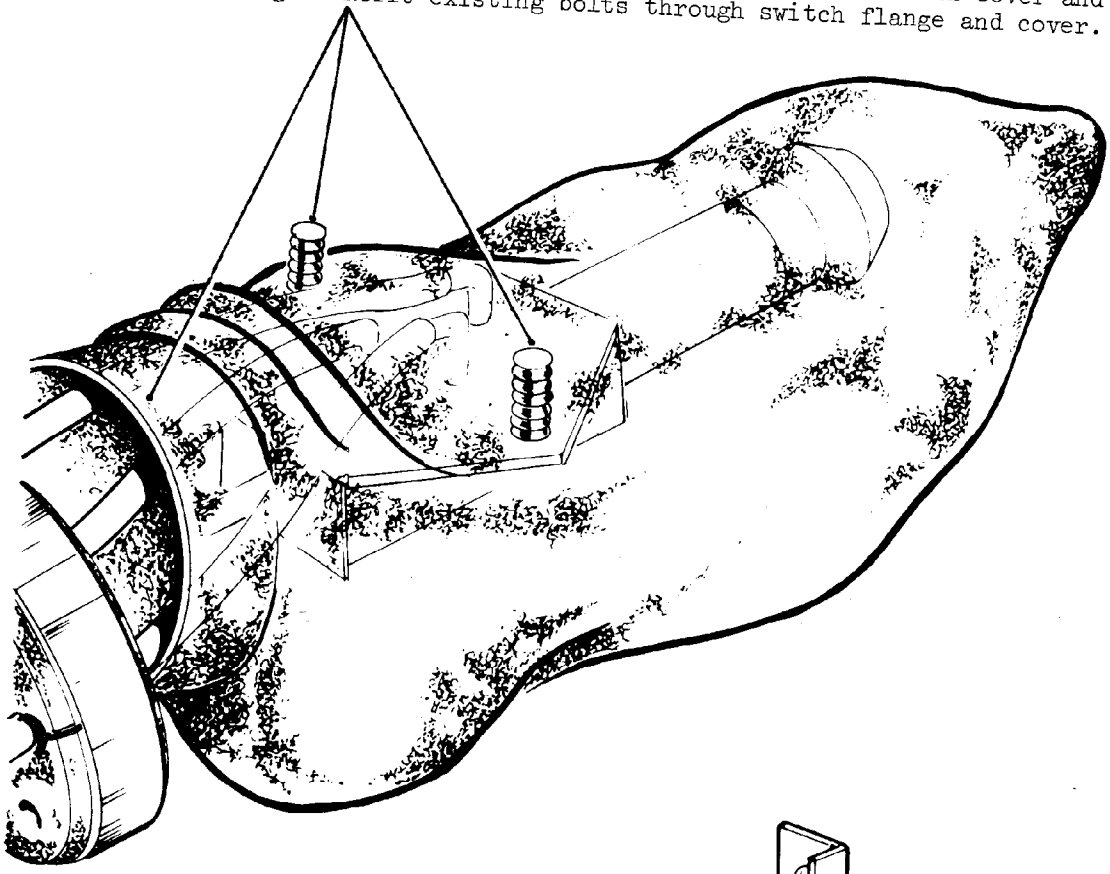
3. Open up each cut in turn and apply an even coat of Bostik to both faces of cut using brush, artists flat fitch No. 2. Fit bung to clamp. (See Page 13).

Note: Speed is essential, when Bostik is applied to cuts in bung, to ensure that adhesive is still 'tacky' when bung is inserted into clamp.

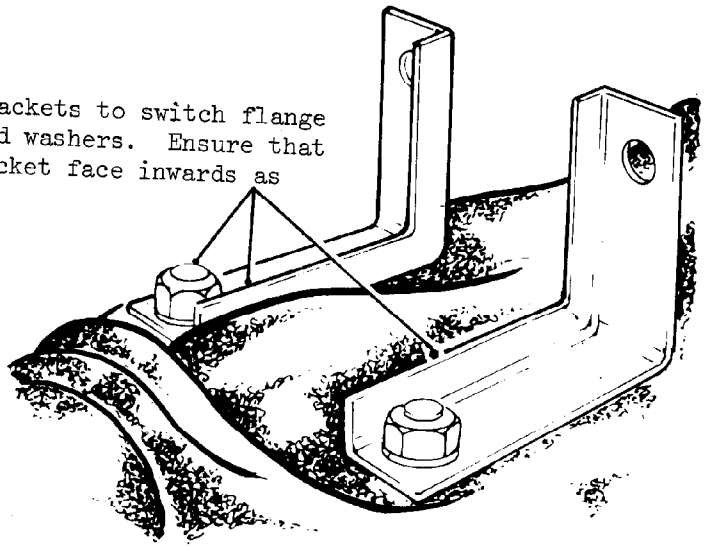
■ Bostik

TASK 35. cont. DIFFERENTIAL LOCK SWITCH AND PRESERVATION OF CONTROLS

4. Stretch open end of cover differential lock switch (WPG 9342) over switch, and up and over towards bung. Line up holes in cover and switch flange. Refit existing bolts through switch flange and cover.



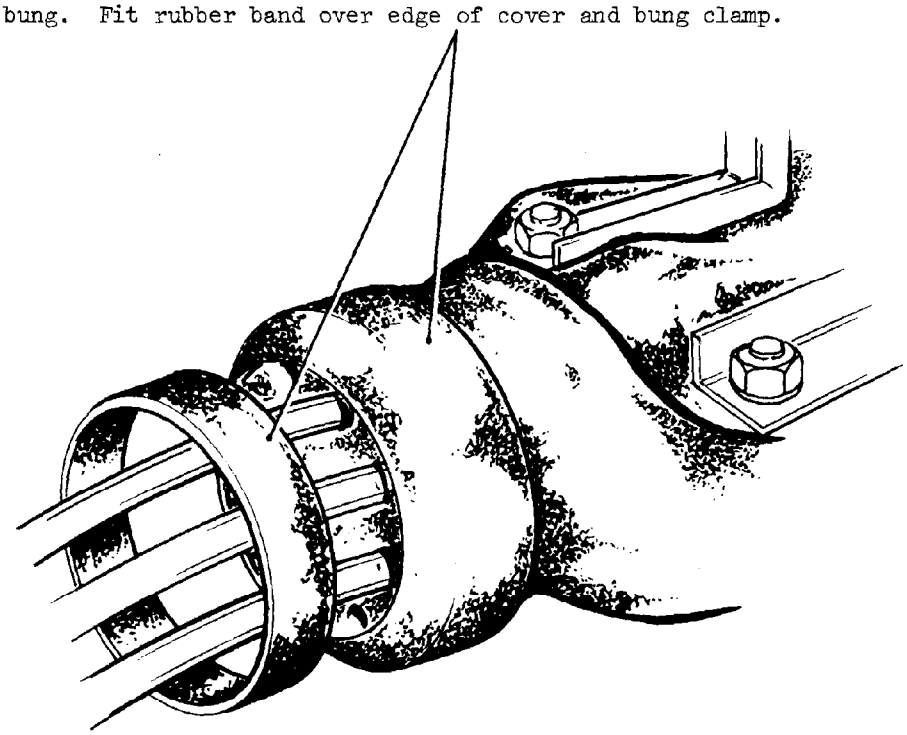
5. Refit mounting brackets to switch flange using existing nuts and washers. Ensure that the angles of each bracket face inwards as shown. Tighten nuts.

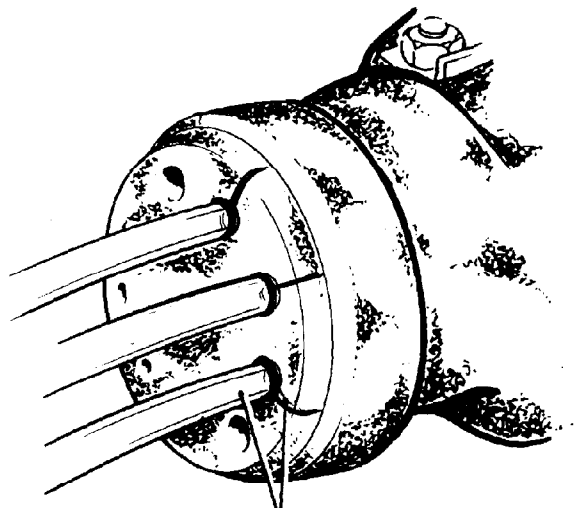


[redacted] Bostik

TASK 35. cont. DIFFERENTIAL LOCK SWITCH AND PRESERVATION OF CONTROLS

6. Stretch open end of cover over bung clamp so that edge seats on bung. Fit rubber band over edge of cover and bung clamp.





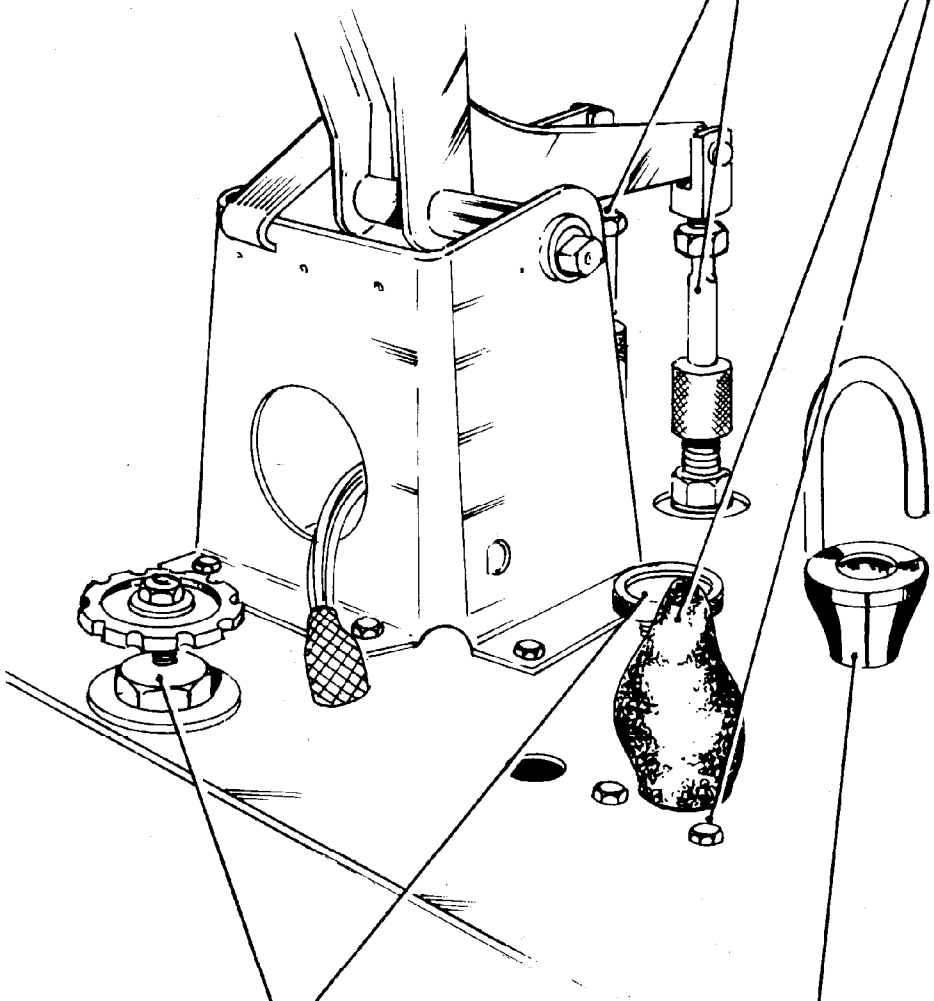
7. Turn back edge of cover to rubber band. Brush a coat of Bostik around each tube entry to bung and for 1/4 in. along tubes. Allow to dry. Return end of cover to bung.

Bostik

TASK 35. cont. DIFFERENTIAL LOCK SWITCH AND PRESERVATION OF CONTROLS

8. Push snout of cover through switch aperture and refit brackets to panel using existing bolts nuts and washers. Tighten nuts.

9. Apply an even coat of grease over transfer gear lever control cable and clevis, and over winch lever control cable and clevis if fitted.



10. Apply an even coat of grease over heater unit water valve control and over hand throttle adjusting screw.

11. Pull out cold start control and grease stem. Push control in.

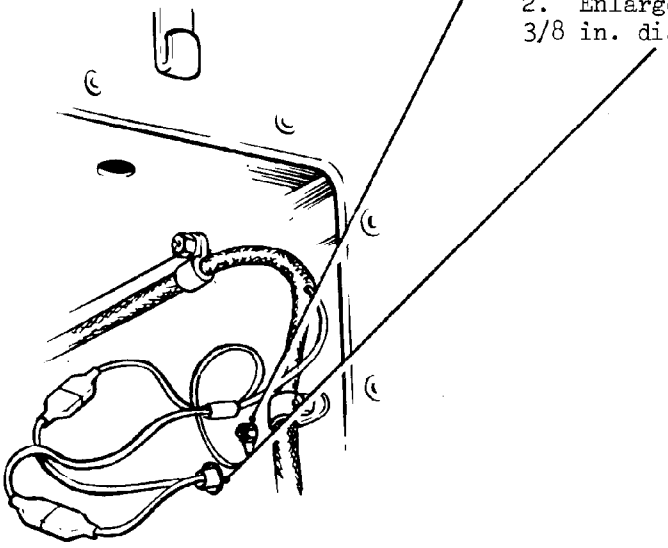
Grease

Tape, adhesive

TASK 36. HORN

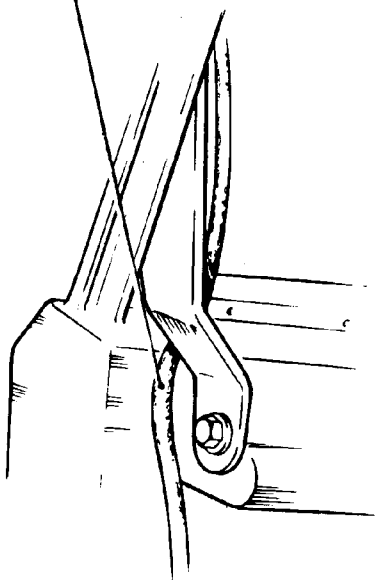
Note: On winterized vehicles, it will be necessary to lift sufficient insulating padding to gain access to horn mounting bolt.

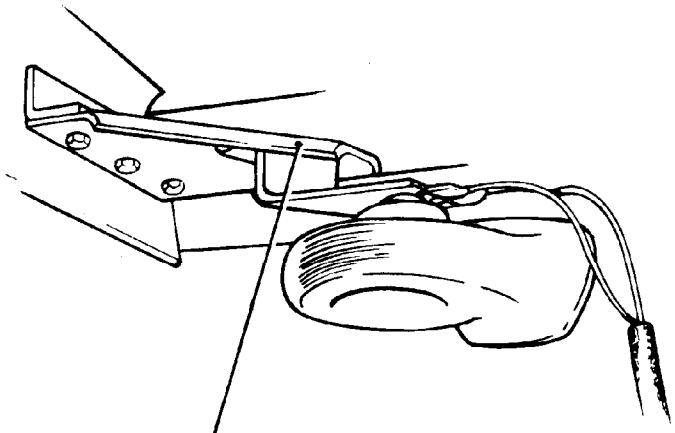
1. Disconnect leads and remove horn. Refit earth lead to panel.



2. Enlarge lower mounting hole to 3/8 in. dia.

3. Connect lead, extension horn (WPG 9294) to horn wiring terminal connectors. Push extension lead through enlarged mounting hole into cab. Position lead across cab front panel, through windscreen bracket and up side of windscreen.





4. Fit horn to windscreen frame gusset plate using gusset nut and bolt. Connect extension lead to horn.

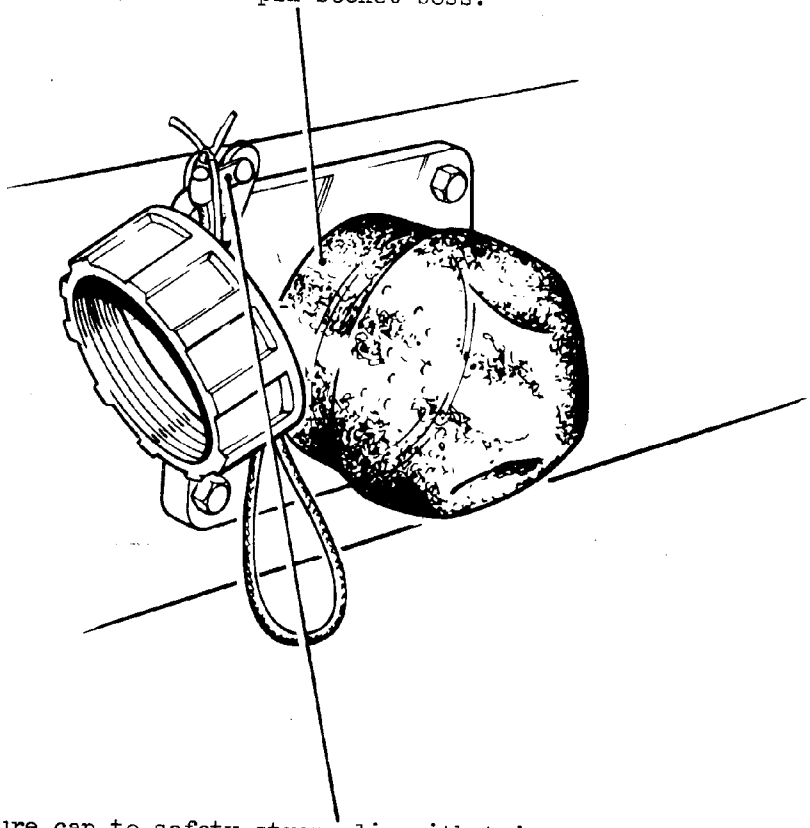
5. Stow horn mounting bolt and nut in a PVC bag in a safe place in vehicle.

TASK 37. 12-PIN TRAILER SOCKET

Note: This task only applies to vehicles on which this socket will not be in use.

1. Remove cap.

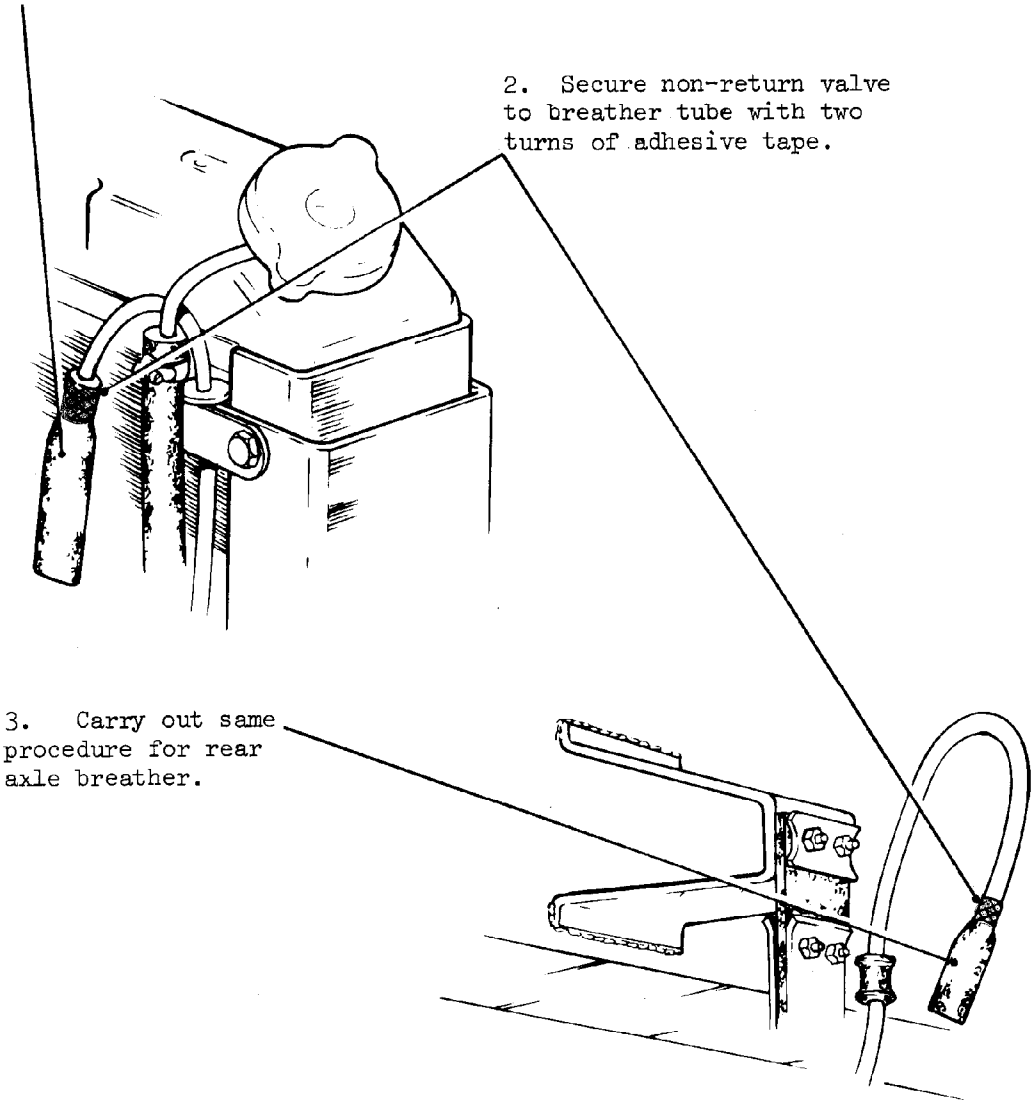
2. Stretch mouth of cover hydraulic fluid reservoir, No. 2 (WPG 9239) over 12-pin socket boss.



3. Secure cap to safety strap clip with twine.

TASK 38. AXLE BREATHERS (2)

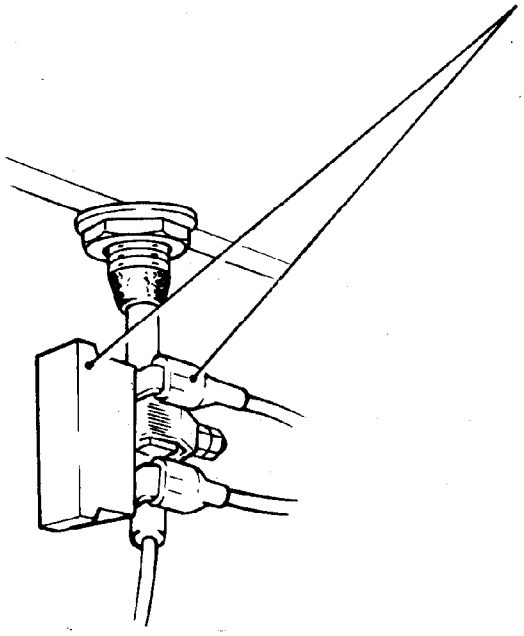
1. Fit a 1/4 in. dia non-return valve (WPG 9138) over front axle breather tube for a distance of 1 in. along tube.



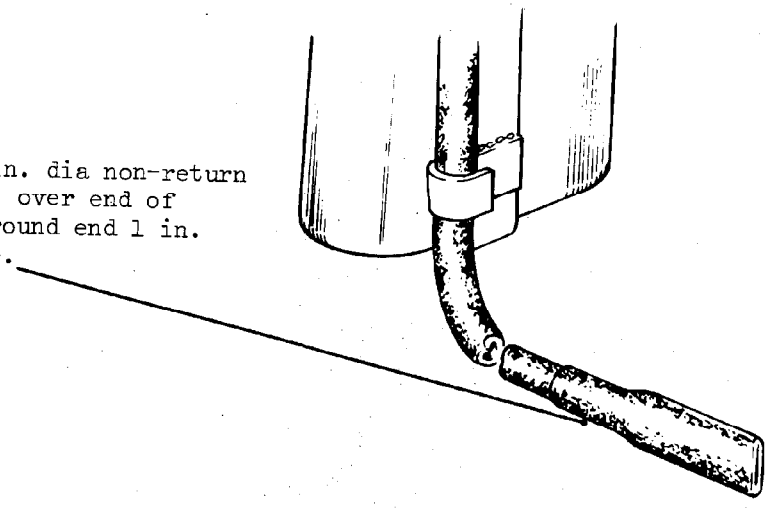
Tape, adhesive

TASK 39. COLD START CONTROL SWITCH AND RADIATOR OVERFLOW BOTTLE

1. Apply a liberal coat of silicone compound over cold start control switch body and lead terminals and control cable.



2. Fit a 3/8 in. dia non-return valve (WPG 9123) over end of pipe, locating round end 1 in. from end of pipe.

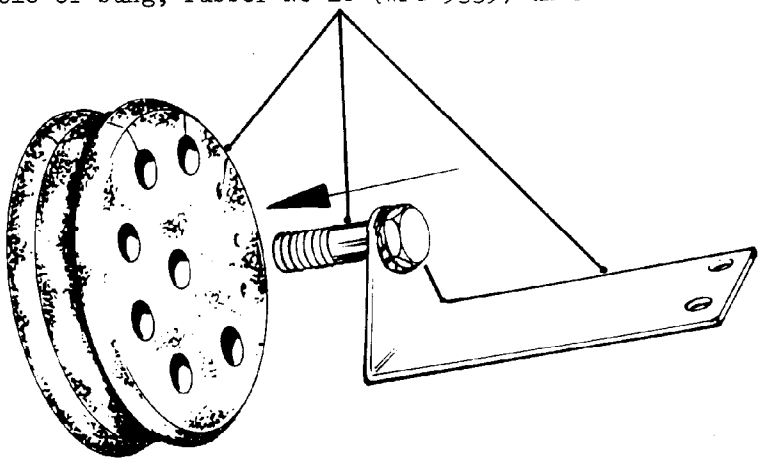


Compound, silicone

TASK 40. WINDSCREEN WASHER PUMP AND RESERVOIR

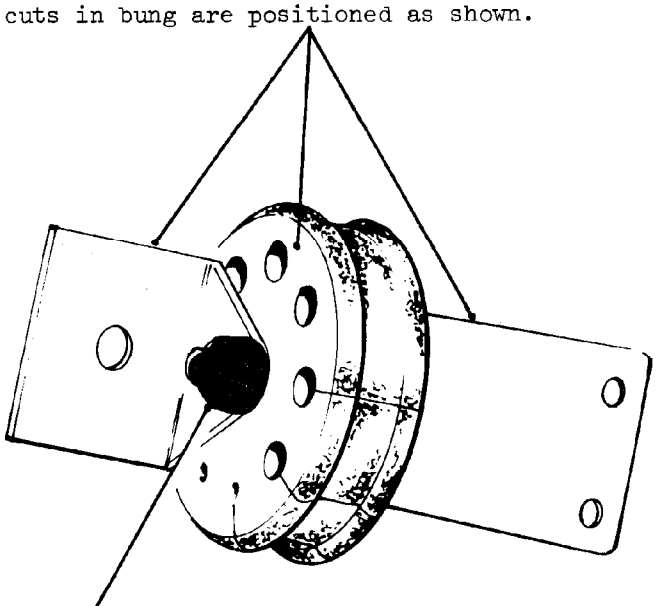
1. Remove windscreen washer pump from interior of cab. Remove clip securing wiring and tubing from under dash. Do not disconnect wiring or tubing from pump.

2. Push bolt of bracket windscreen washer pump (WPG 9336) through centre hole of bung, rubber No 16 (WPG 9335) until bracket is against bung.



3. Fit other end of bracket to bolt. Fit washer and tighten nut.

Note: Ensure that both parts of bracket are in the same plane, and cuts in bung are positioned as shown.



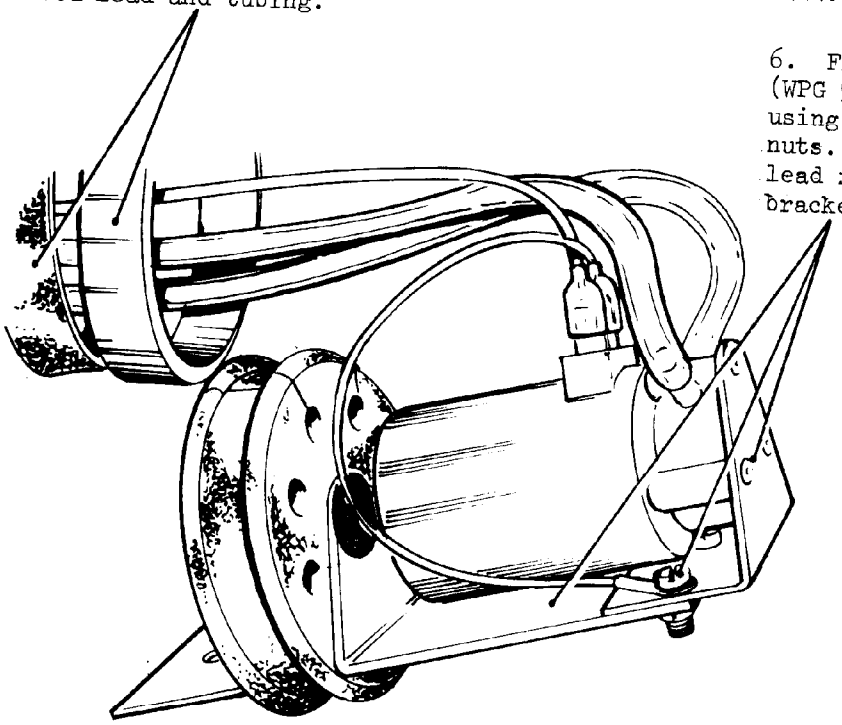
4. Brush an even coat of Bostik around bolt head, over nut, washer and bracket and on to bung.

Bostik

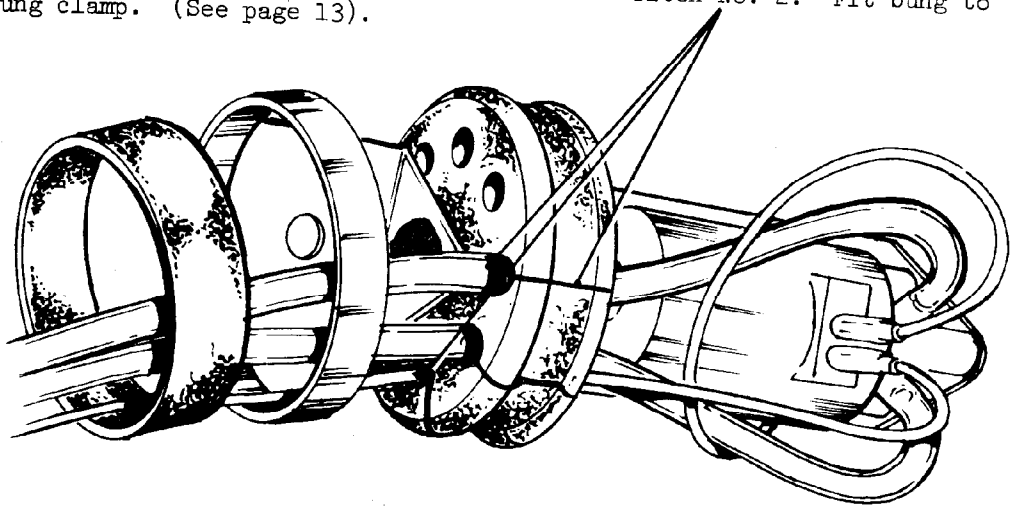
TASK 40. cont. WINDSCREEN WASHER PUMP AND RESERVOIR

5. Pass bung clamp (WPG 9207) and rubber band (WPG 7779) over motor, feed lead and tubing.

6. Fit motor to bracket (WPG 9336) as shown using existing screws and nuts. Ensure that earth lead is connected to bracket.



7. Disconnect tubing from reservoir elbow. Press both tubes and feed lead into slots and seat them correctly in bung. Open up each cut in turn and apply an even coat of Bostik to both faces of cut with brush, Artist flat fitch No. 2. Fit bung to bung clamp. (See page 13).

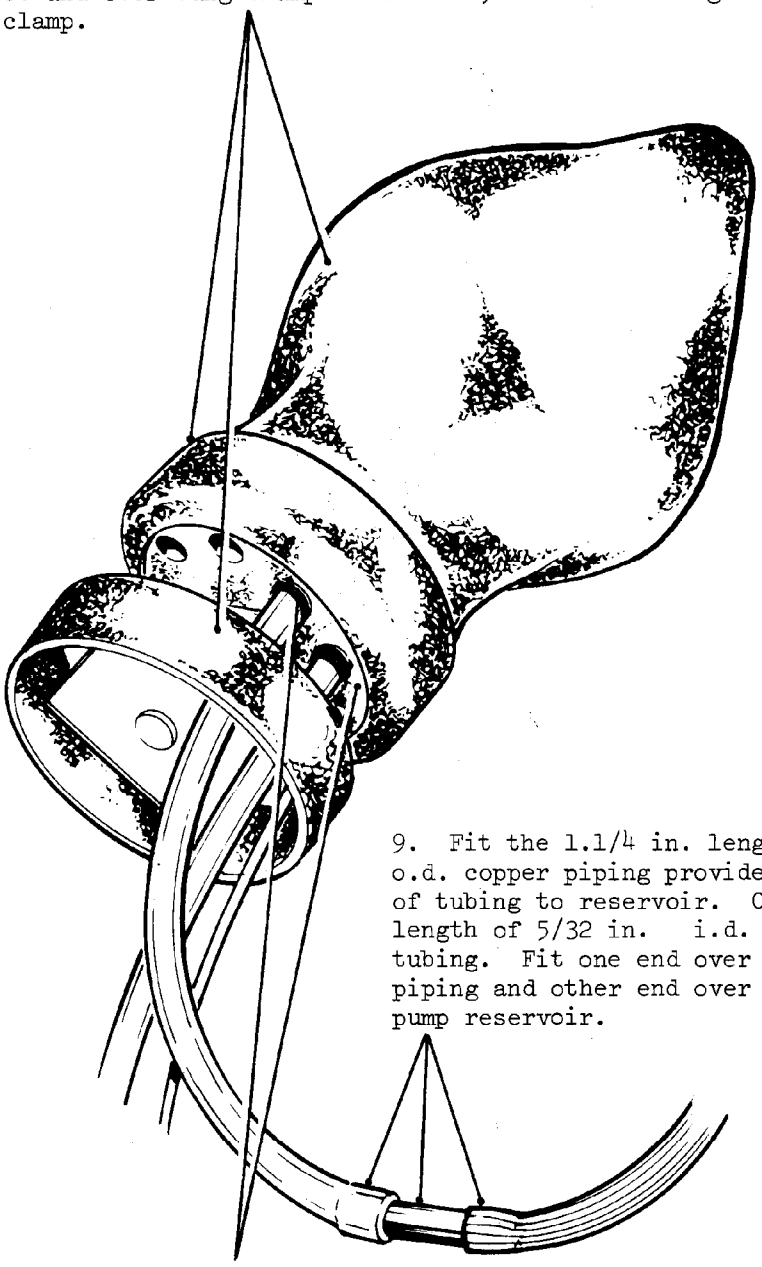


Note: Speed is essential when Bostik is applied to cuts in bung to ensure that adhesive is still 'tacky' when bung is inserted into clamp.

[redacted] Bostik

TASK 40 cont. WINDSCREEN WASHER PUMP AND RESERVOIR

8. Stretch neck of cover trafficator switch (WPG 9181) over pump and bracket and over bung clamp. Fit band, rubber over edge of cover and bung clamp.



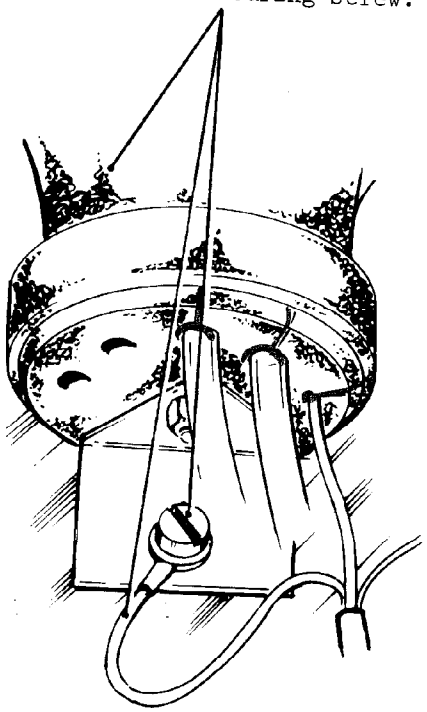
9. Fit the 1.1/4 in. length of 5 mm o.d. copper piping provided into end of tubing to reservoir. Cut a 9 in. length of 5/32 in. i.d. rubber tubing. Fit one end over copper piping and other end over elbow on pump reservoir.

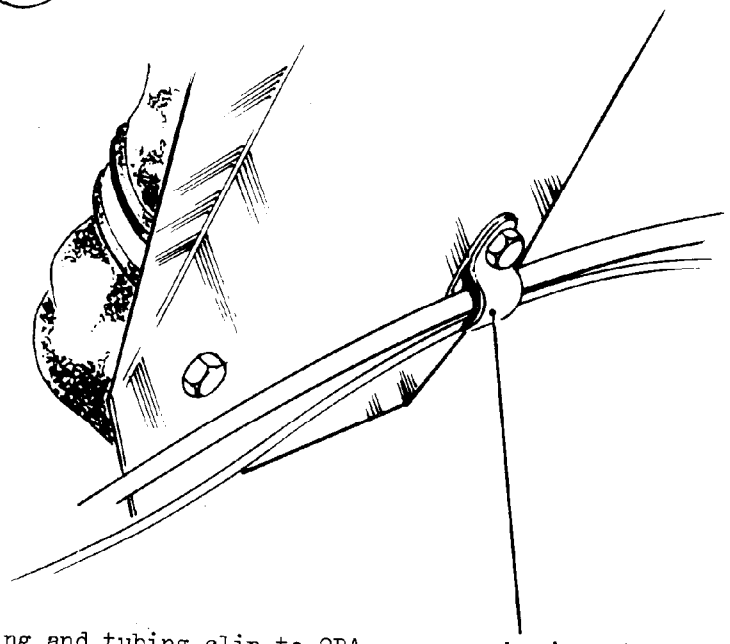
10. Turn back end of cover to rubber band. Apply a coat of Bostik around lead and tubing entry into bung. Allow to dry. Return end of cover on to bung.

Bostik

TASK 40. cont. WINDSCREEN WASHER PUMP AND RESERVOIR

11. Refit washer pump to inside of cab, motor cover uppermost with 1/2 in. x 2 BA screw and nut provided, ensure that earth lead connection is under head of securing screw. Tighten screw.





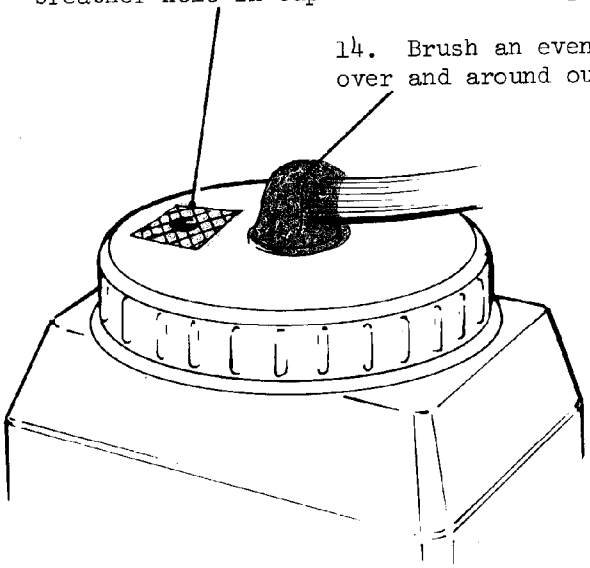
12. Refit wiring and tubing clip to 2BA screw anchoring wiper motor earth lead to wiper motor bracket.

[redacted] Bostik

TASK 40 cont. WINDSCREEN WASHER PUMP AND RESERVOIR

13. Ensure that reservoir is 'topped up' and cap is tight. Cover breather hole in cap with a 1 in. length of adhesive tape.

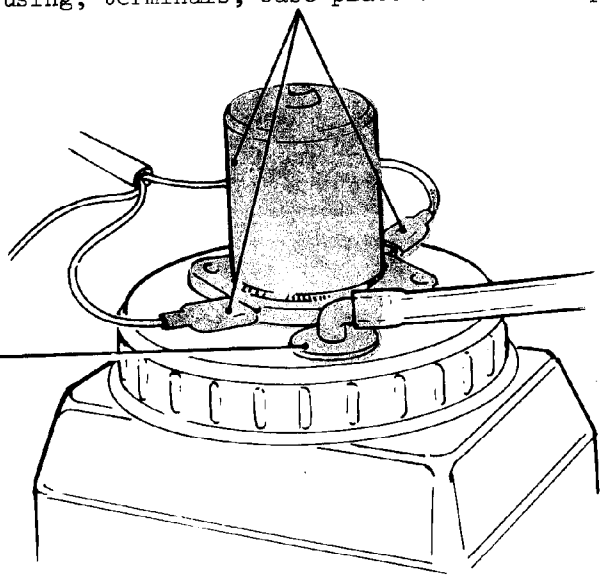
14. Brush an even coat of EC-750-C sealant over and around outlet elbow and on to cap.



Note: Where earlier type pump is fitted, proceed as follows:-

15. Ensure reservoir is 'topped up' and cap is tight. Brush two coats of EC-750-C over pump motor housing, terminals, base plate and on to cap.

16. Brush two coats of EC-750-C around pipe union elbow and on to cap.



Note: The first coat of EC-750-C must be completely dry before application of second coat.

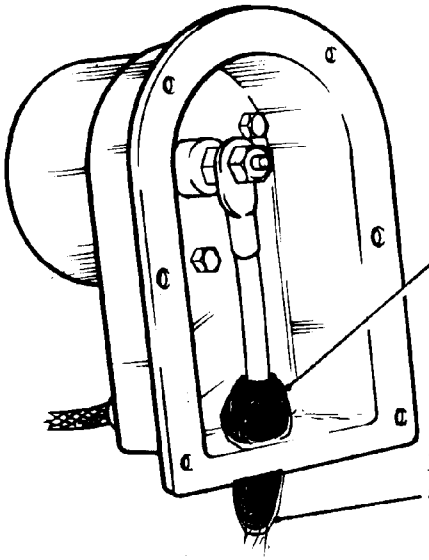
EC-750-C

Tape, adhesive

TASK 41. INTER-VEHICLE STARTING SOCKET (IF FITTED)

1. Remove socket assembly and mounting plate. Do not disconnect leads. Remove mounting plate from socket.

2. Where fitted, remove sleeving from lead for 2 in each side of entry hole into socket housing.

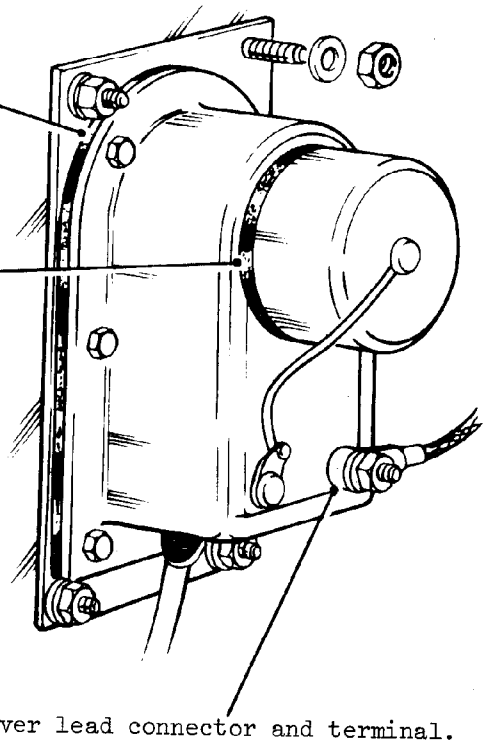


3. Mould 6 in of Prestikon on to body around lead and for 1 in along lead on inside of socket.

4. Mould 6 in of Prestikon on to body around lead and for 1 in along lead on outside of socket.

5. Refit socket assembly to mounting plate ensuring that rubber gasket is correctly positioned.

6. Ensure cap is firmly screwed on to rubber sealing ring.



7. Apply a coat of silicone compound over lead connector and terminal.

Prestikon

Compound silicone

TASK 42. REFITTING OF ITEMS

1. Refit the following items to vehicle:-

   a. Radiator front grille.

   b. Front wing access panels.

   c. Engine compartment cover.

   d. Connect vehicle batteries.

   e. Battery compartment cover.

   f. Rear body floor assembly cover.

   g. Ensure clutch drain plug is in position and plug is tight.

TASK 43. WATERPROOFING MATERIALS FOR STAGE B

Collect remaining waterproofing materials and this EMER and stow in a safe place in vehicle. These materials will be required for tasks in Stage B. Ensure that a towrope is stowed on vehicle. Place all items of equipment previously removed from vehicle into a PVC bag and stow in a safe place on vehicle.

WATERPROOFING STAGE B

Note: The tasks listed in Stage B will normally be carried out in the final staging area where fuel and lubricants are available prior to embarking. There are many tasks which can be carried out in Stage A with subsequent reduction in Stage B preparation time. Such tasks are marked with an asterisk.

TASK 44. CHECK OF WATERPROOFING COMPLETED IN STAGE A

Carry out a thorough check of all waterproofing tasks completed in Stage A to ensure that nothing has been damaged or displaced. Particular attention should be paid to the following:-

1. Distributor and ignition coil.
2. Starter motor and windscreen wiper motor.
3. All rubber covers and non-return valves.

TASK 45. TYRES

Deflate all tyres to cross country pressures.

TASK 46. FUEL TANK

Fill tank to capacity.

TASK 47. PRESERVATION

As a protection against the effects of immersion in sea water, apply a coat of grease to the following:-

1. Wheel nuts.
2. Steering box rocker shaft and arm, steering relay shaft and levers.
3. Locker hinges and locks.
4. Handbrake cable and linkage at both ends.
5. Main gear lever ball assembly.
6. Driving mirror rims

TASK 48. TOWROPE*

Note: If winch is fitted, ensure winch rope is in rearward pull position. Shackle tow rope to l.h. towing eye on front bumper. Disconnect front section of canopy over cab, roll back and secure. Take free end of towrope up over windscreen on to co-driver's side. Tie one end of sisal rope to free end of towrope and tie a suitable weight to other end so that it can be used as a throwing line.

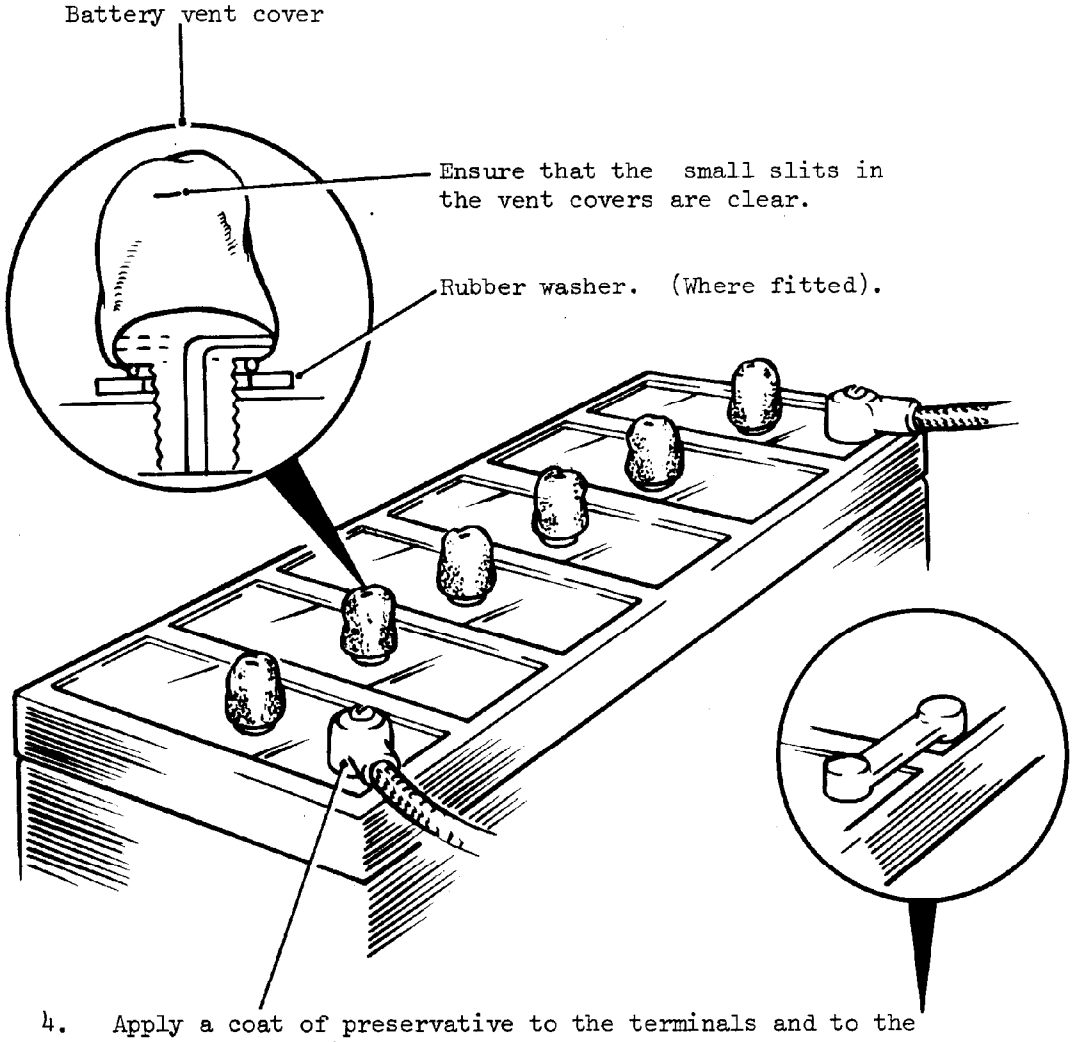
TASK 49. BATTERY AND BATTERY VENTS*

1. Ensure that the battery is fully charged and that the electrolyte level is correct.

2. Thoroughly clean the filler caps.

3. Stretch a battery vent cover provided, over each filler cap. Refit the caps.

Note: Filler cap tops may vary in shape and size. It is important that the caps are not over-tightened with subsequent displacement of beaded end of battery vent cover.



4. Apply a coat of preservative to the terminals and to the connecting bars if fitted.

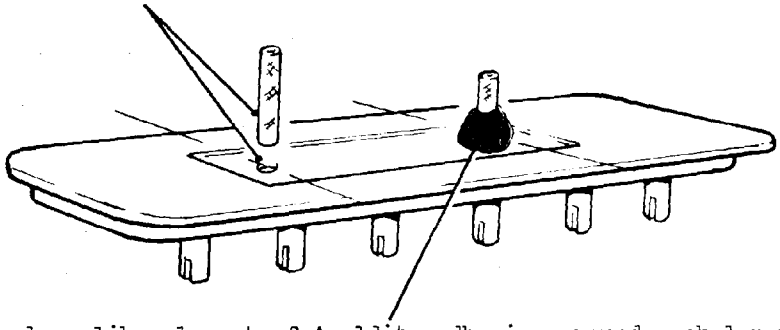
PX-7

TASK 50. BATTERY VENTS (ALTERNATIVE TYPE)

Note: 1. THIS TASK TO BE CARRIED OUT WITH THE ASSISTANCE OF A VEHICLE MECHANIC REME

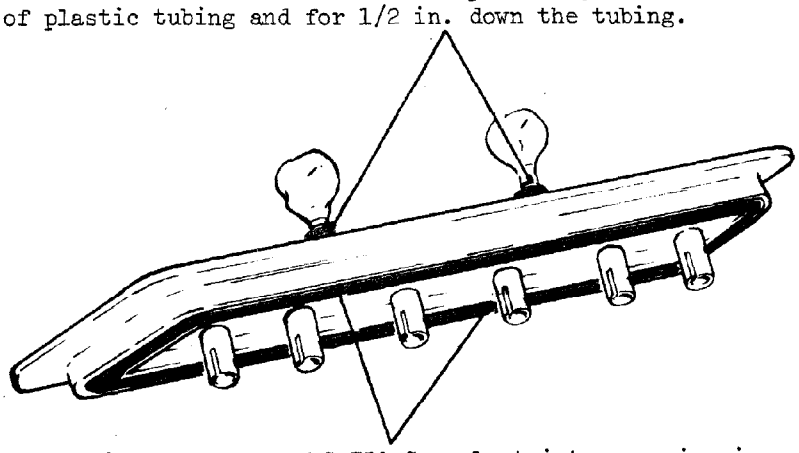
2. Paragraphs 1 and 4 must be carried out as in TASK 49.

1. Remove and thoroughly clean battery filler cover. Mark out and drill centrally two 5/16 in. dia. holes in cover equidistant between second and third and between fourth and fifth filler holes. Cut two 1.1/2 in. lengths of tubing plastic (6 mm i.d. x 8 mm o.d.). Insert each length into the drilled holes until they protrude for 1/4 in. below the underside of cover face.



2. Apply a liberal coat of Araldite adhesive around each length of tubing above and below cover faces, and on to cover faces. Allow to dry until adhesive is HARD.

3. Fit the neck of a 6TN vent breather provided, over each length of plastic tubing and for 1/2 in. down the tubing.



4. Brush a liberal coat of EC-750-C sealant into grooving in underside of cover face. While sealant is still 'tacky', press cover on to battery to form a seal.

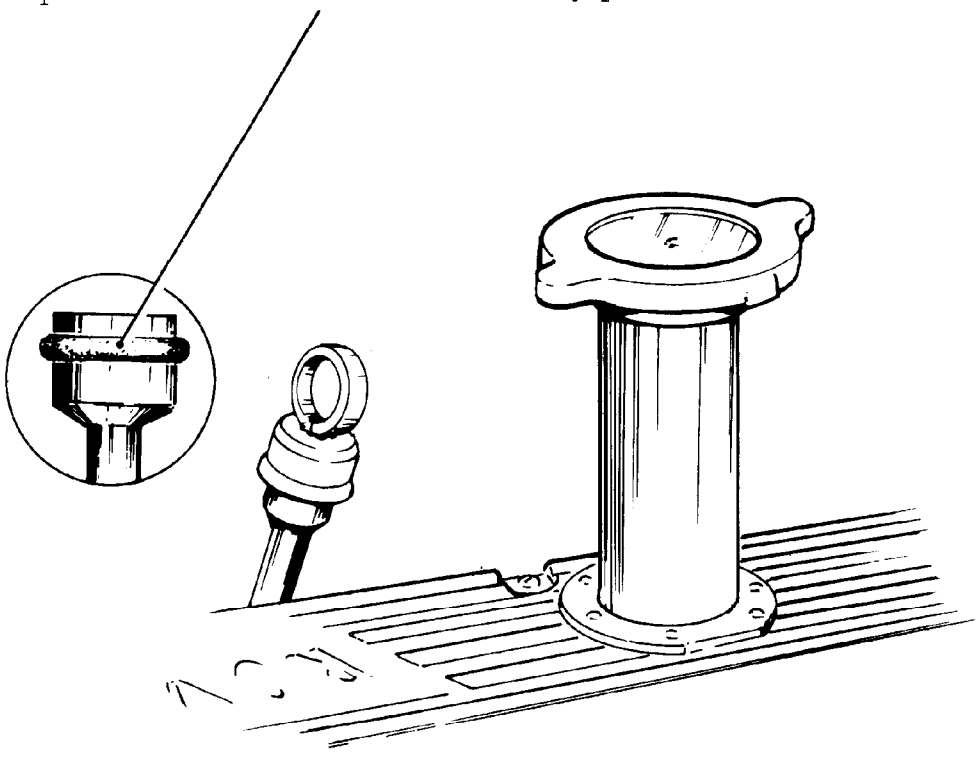
Note: When filler cover is to be completely deproofed, remove lengths of plastic tubing, adhesive and sealant. Plug each hole with a bumper (grommet) provided in kit to form a seal.

[redacted] Araldite, adhesive [redacted] EC-750-C

TASK 51. ENGINE OIL DIPSTICK*

1. Check engine oil and top up if necessary.

2. Remove 'O' ring from top of dipstick tube.
Fit 'O' ring provided in kit LV6 MT1 5330998016631
to dipstick tube and ensure it is correctly positioned.

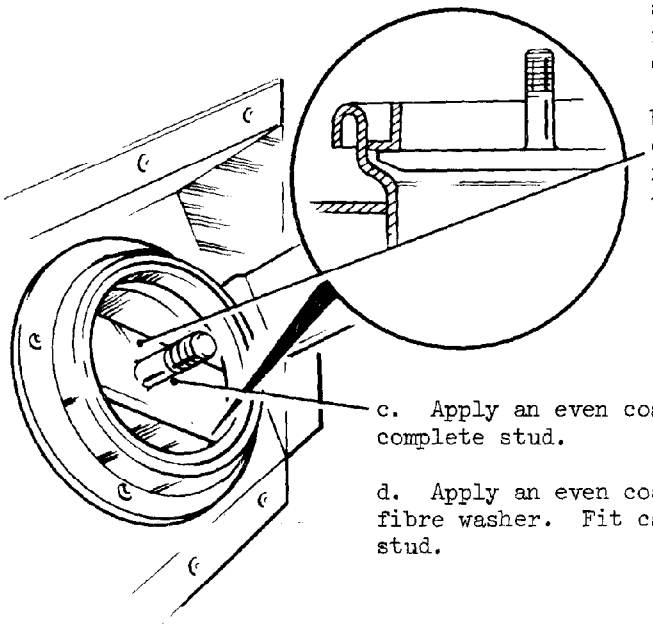


3. Refit dipstick to tube and push it 'hard home' to form a good seal.

TASK 52. FUEL TANK FILLER CAP

1. Remove existing fuel tank filler cap complete with securing chain and stow in PVC bag in vehicle.

2. Fit cap, waterproofing, fuel tank (WPG 9215) as follows:-

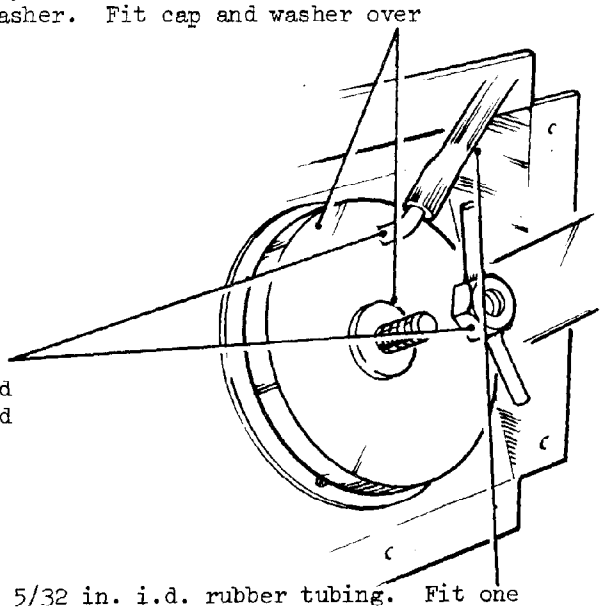


a. Remove wing nut and fibre washer and cap from clamping bracket.

b. Enter both ends of clamping bracket into groove in filler neck with stud uppermost.

c. Apply an even coat of grease over complete stud.

d. Apply an even coat of grease over fibre washer. Fit cap and washer over stud.

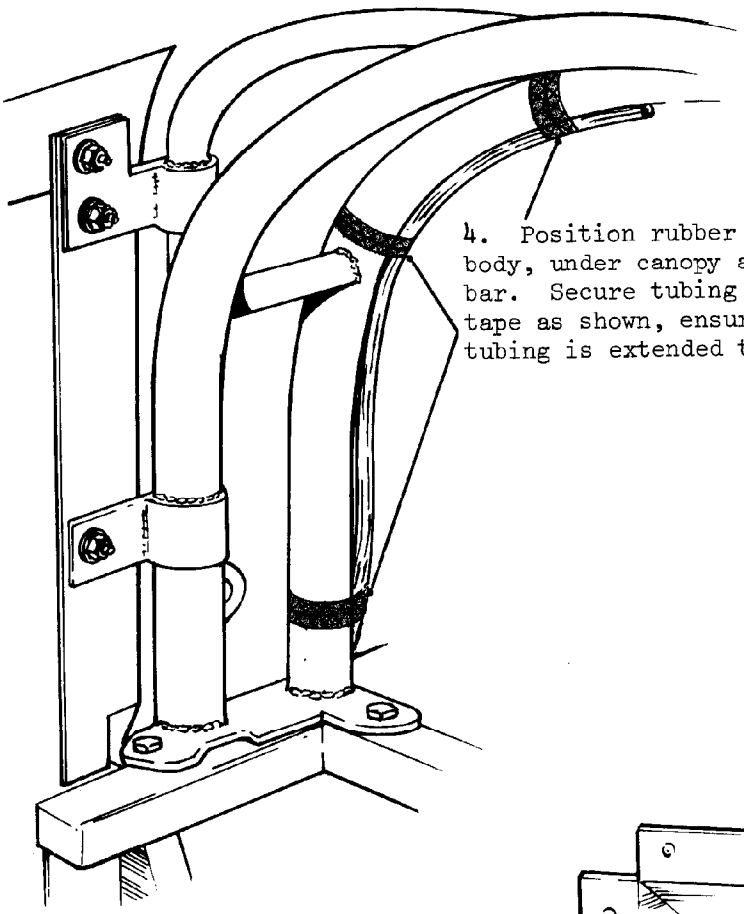


e. Fit and tighten wing nut ensuring that cap is positioned centrally on filler neck rim and that breather tube is positioned as shown in illustration.

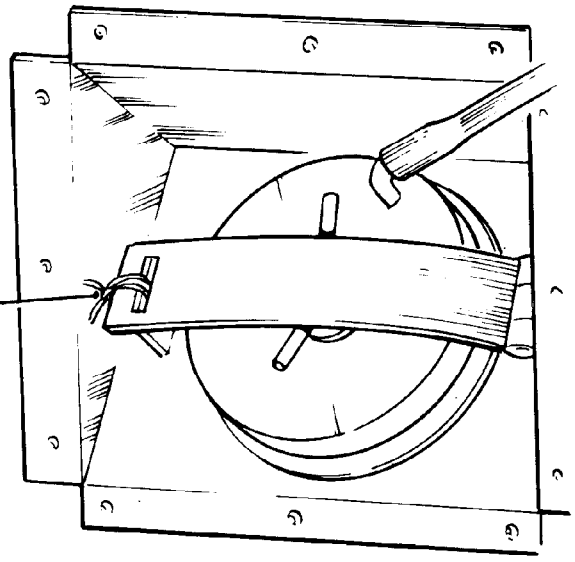
3. Cut a 4 ft 6 in. length of 5/32 in. i.d. rubber tubing. Fit one end of tubing over copper breather tube.

Grease

TASK 52. cont. FUEL TANK FILLER CAP



4. Position rubber tubing up side of body, under canopy and along rear roll bar. Secure tubing to bar with adhesive tape as shown, ensuring that free end of tubing is extended to maximum height.



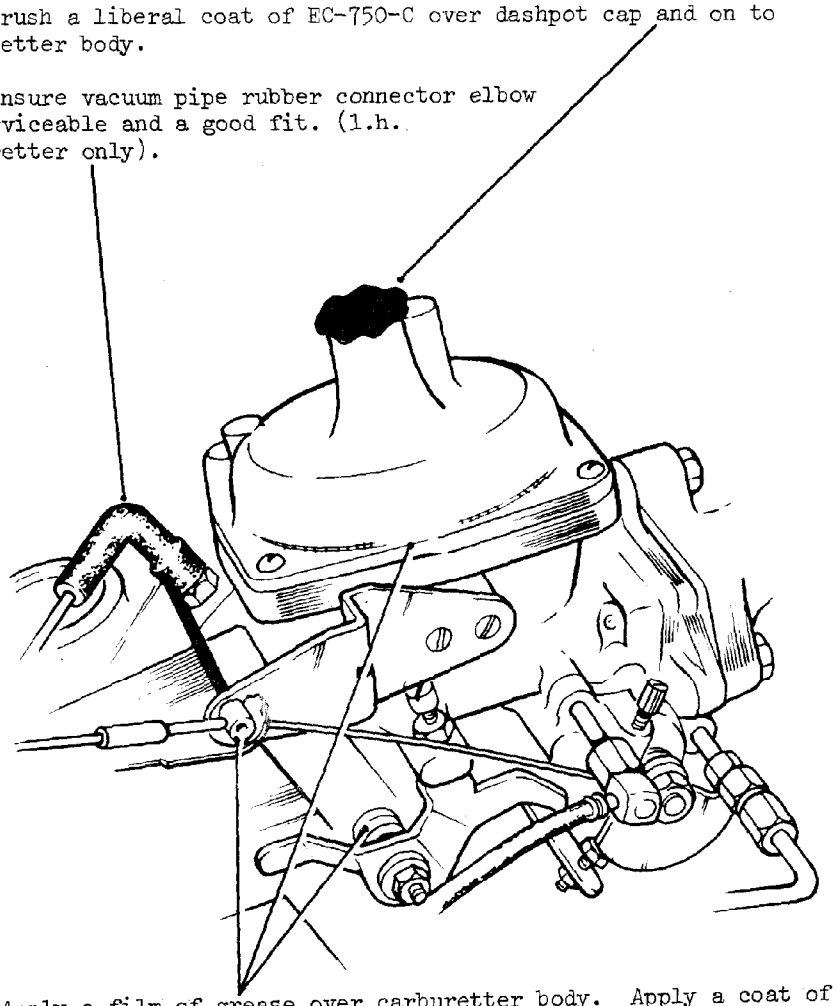
5. Secure cap lock hasp with twine.

Tape, adhesive

TASK 53. CARBURETTERS (2)

1. Brush a liberal coat of EC-750-C over dashpot cap and on to carburetter body.

2. Ensure vacuum pipe rubber connector elbow is serviceable and a good fit. (l.h. carburetter only).



3. Apply a film of grease over carburetter body. Apply a coat of grease over and around accelerator and throttle control shaft, choke control and cable. (l.h. carburetter only).

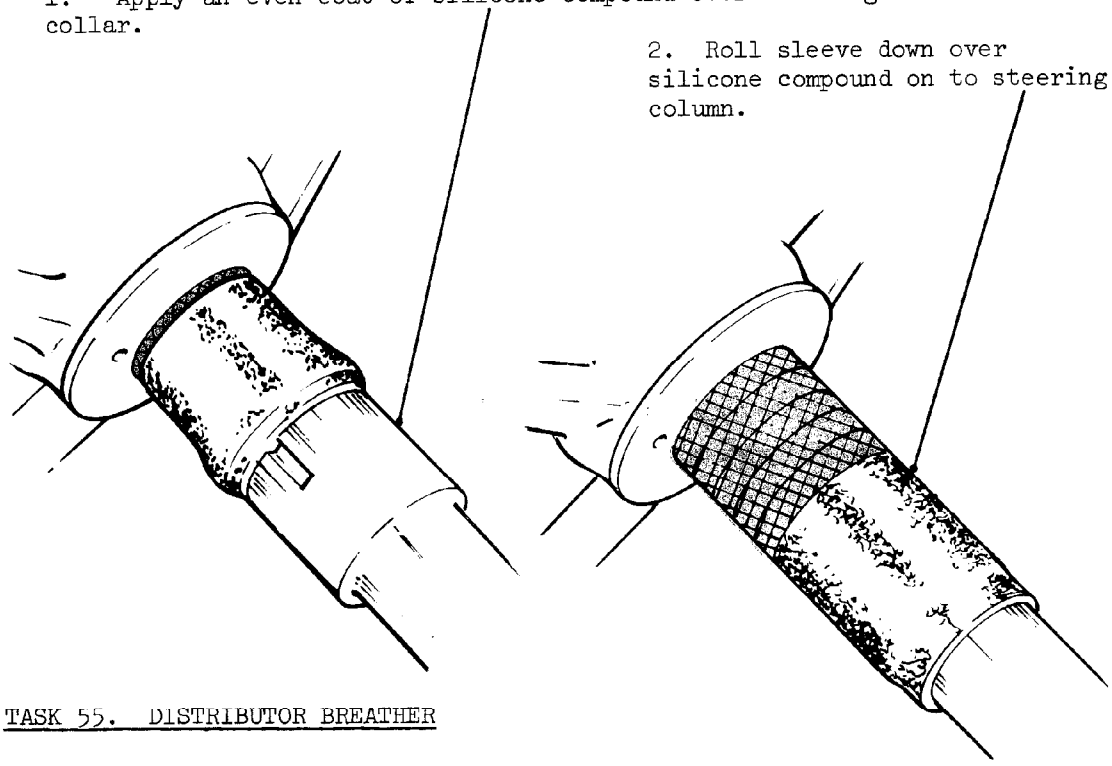
4. Carry out same procedure on r.h. carburetter.

[redacted] EC-750-C Grease

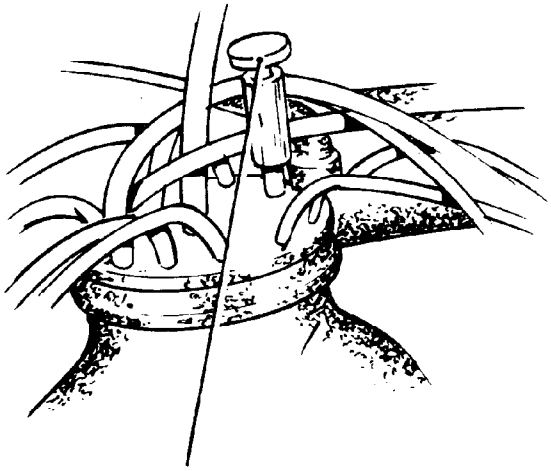
TASK 54. STEERING COLUMN SLEEVE

1. Apply an even coat of silicone compound over steering column collar.

2. Roll sleeve down over silicone compound on to steering column.



TASK 55. DISTRIBUTOR BREATHER



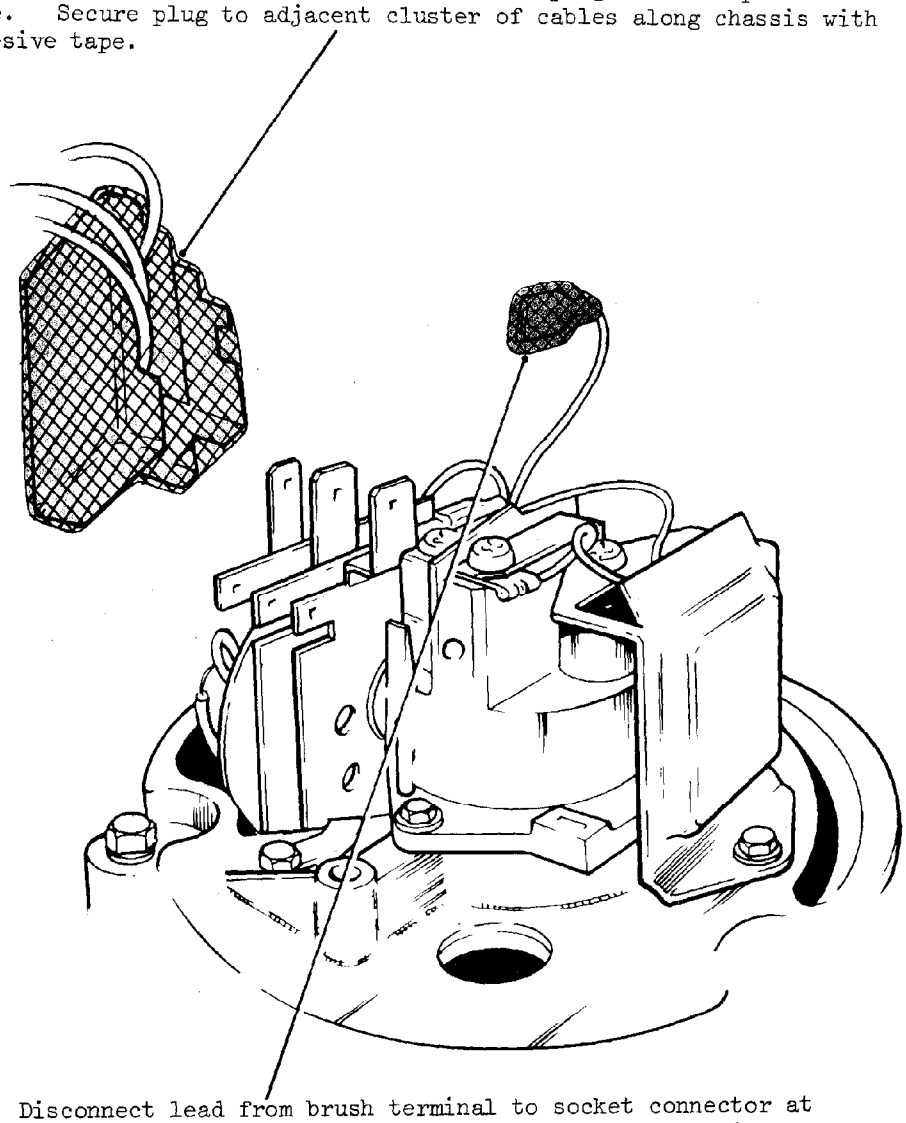
Fit a 3/16 in. dia x 1 in. rivet in tubing to seal breather.

Tape, adhesive

Compound, silicone

TASK 56. GENERATOR CONNECTIONS

1. Disconnect plug from generator. Cover plug with strips of adhesive tape. Secure plug to adjacent cluster of cables along chassis with adhesive tape.



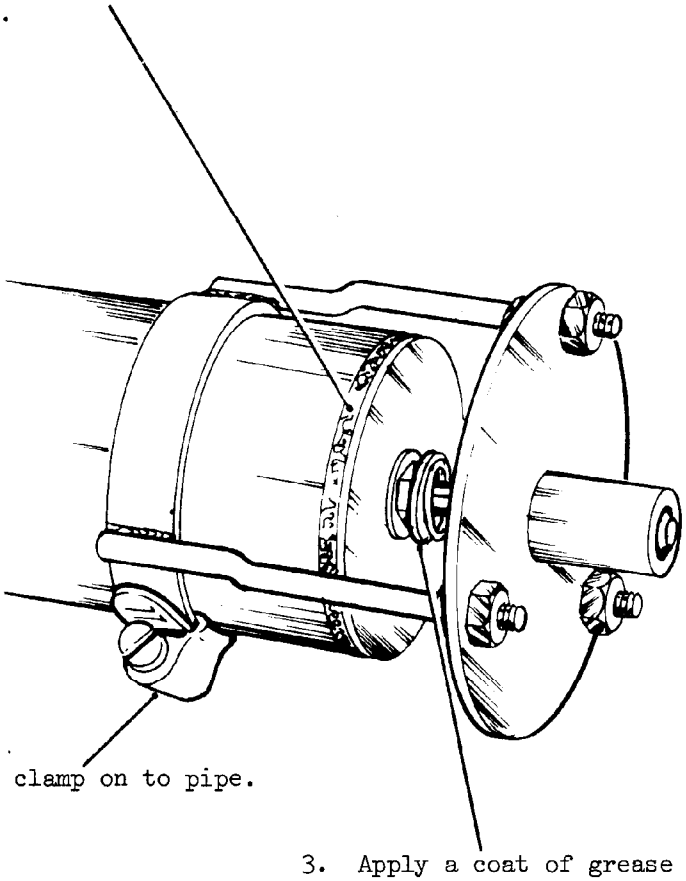
2. Disconnect lead from brush terminal to socket connector at connector end. Cover terminal with adhesive tape. Memorise from which terminal connector the lead is removed, it is to be re-connected in Stage C.

Tape, adhesive

Compound, silicone

TASK 57. VALVE NON-RETURN EXHAUST

1. Fit non-return valve exhaust (WPG 9345) over tailpipe. Position flap of valve squarely against edge of tailpipe with slight tension on valve spring.



2. Tighten clamp on to pipe.

3. Apply a coat of grease over spring on non-return valve.

Grease

TASK 58. TAILBOARD STAYS*

Fit two tailboard stays (WPG 7745). These are necessary to ensure quick flooding of body to prevent flotation.

TASK 59. KIT, EQUIPMENT AND COMPONENTS

Stow items of personal kit and equipment in PVC bags and seal with adhesive tape. PVC bag containing vehicle items previously removed should be sealed with adhesive tape.

TASK 60. TOOLS AND EQUIPMENT

Collect tools and other loose items likely to suffer damage due to immersion. Place in a PVC bag and seal with adhesive tape. Stow and secure in a convenient place on vehicle.

TASK 61. WATERPROOFING THE EMER

Memorise the tasks in Stage C which must be done as soon as possible after landing. Place this instruction in PVC bag provided and seal with adhesive tape. Keep instruction in a safe place on your person, it will be required for Stage D.

DRIVING INSTRUCTIONS FOR LEAVING THE CRAFT

Engage differential lock by pulling up switch in bag. Adjust throttle to fast idling speed to minimise risk of stalling. Engage low gear. Approach ramp squarely and drive vehicle as slowly as possible down ramp. Upon entering water depress accelerator and drive to beach.

Note: It is essential to keep the vehicle moving through water as 'loss of way' could cause failure. Do not change gear whilst in water.

After leaving the water brakes will be wet and may be full of sand, mud, or other foreign matter. In dry sunny conditions they may quickly dry out even when vehicle is standing still. To be certain that brakes are clean and dry and so 100% effective the vehicle should be run at speeds close to those used on the road and the brakes applied repeatedly to dry them out. In cold damp weather this may take several miles and in addition there may be re-occurrence of poor brake performance even after 100% effectiveness has apparently been achieved. Under these conditions braking performance should be treated with caution for up to 5 miles and greater allowance should be made for stopping distance.

DE-WATERPROOFING STAGE C

Note: The following tasks must be carried out within 30 minutes of reaching beach.

TASK 62. GENERATOR

1. Allow engine to idle.
2. Fit flexible tubing attachment to polythene container.
3. Inject PX-24 from container into slipring housing through top hole and into generator through openings in end plate.

Note: Do not under any circumstances reconnect generator until this task is completed or whilst engine is running.

TASK 63. GENERATOR CONNECTIONS

1. Switch off and stop engine.
2. Remove tape from generator plug. Reconnect plug to generator.
3. Remove tape from brush/socket flange lead terminal. Reconnect lead to flange terminal.
4. Start and run engine; check that generator is charging.

TASK 64. CLUTCH HOUSING

Remove clutch housing drain plug and refit in parking position.

TASK 65. DISTRIBUTOR BREATHER

Remove rivet from distributor breather tubing. Keep rivet in a safe place.

TASK 66. VALVE NON-RETURN EXHAUST

Remove valve non-return exhaust. Keep valve in a safe place as it will be required for wet shod re-embarkation.

WET SHOD RE-EMBARKATION

Summary

a. This instruction details action to be taken when the vehicle will wet shod re-embark on the landing craft after disembarked operations have been completed.

b. Check all oils for water contamination as detailed in Stage D.

Re-Embarkation

a. Carry out a check of all waterproofing completed in Stages A and B and rectify any damage.

b. Refit rivet to distributor breather tubing.

c. Top up fuel tanks if necessary and secure watertight fuel filler cap.

d. Refit valve non-return exhaust as detailed in TASK 56.

e. Refit clutch housing drain plug.

f. Carry out generator connections as detailed in TASK 55.

DE-WATERPROOFING STAGE D

Note: The semi-permanent waterproofing kit is effective up to twelve months after application. The following tasks, numbers 67 to 73, need to be carried out within 25 miles from point of disembarkation if operationally possible.

TASK 67. STEERING COLUMN

Carefully turn back lower section of rubber sleeve so that it is clear of top of steering column.

TASK 68. FUEL TANK FILLER CAP

At earliest opportunity remove waterproofing filler cap and refit standard cap.

TASK 69. OIL CHANGE

Check all oils. If water is present in any assembly:-

1. Drain off.
2. Refill with correct lubricant.

TASK 70. TYRES

Inflate tyres to normal road pressures as and when necessary.

TASK 71. CLUTCH AND BRAKES

To prevent seizure of clutch and brakes when parked every opportunity should be taken to:-

1. Prop out clutch pedal with a suitable prop.
2. Chock road wheels and leave handbrake off.

TASK 72. WASH DOWN

If conditions permit wash down vehicle thoroughly with fresh water. Remove all traces of sand and salt deposits.

TASK 73. LUBRICATION

Carry out complete lubrication of vehicle as detailed in Servicing Schedule.

SUPERVISORS CHECK LIST

Vehicle No .....

TRUCK, UTILITY, 1 TONNE, 4 x 4 ROVER

Page No	Task No	Item	Initialled completed
		WATERPROOFING STAGE A	
14	1	Battery	
14	2	Removal of items	
14	3	Steering wheel	
14	4	Heater	
15	5	Generator	
19	6	Engine flame traps (2)	
20	7	Carburetter air intake	
24	8	Air cleaner (alternative securing)	
25	9	Engine breather filter	
26	10	Coil	
27	11	Coil (alternative securing)	
28	12	Distributor	
34	13	Gearbox breathers	
35	14	Oil filler cap and gearbox dipstick	
36	15	Starter motor	
37	16	Turnlight unit	
39	17	Electrical Relays (2)	
42	18	Starter motor relay	
44	19	Windscreen wiper motor	
49	20	Brake vacuum servo unit and stoplamp switch	
56	21	Fuse box and fuses	
57	22	Junction box and in-line fuse (if fitted)	
58	23	Instrument panel	
60	24	Turnlight switch	

Page No	Task No	Item	Initialled completed
63	25	Steering column	
64	26	Fuel pump and suppressor unit and fuel tank gauge unit.	
65	27	Brake failure switch	
65	28	Differential warning light switch	
66	29	Transfer gear selector shaft	
67	30	Oil pressure switch and speedometer drive	
68	31	Brake apportioning valve	
69	32	Clutch housing and gear lever gaiter	
71	33	Rear number plate lamp	
72	34	Winch warning light (if fitted) and heater fan switch	
74	35	Differential lock switch and preservation of controls	
78	36	Horn	
79	37	12-pin trailer socket	
80	38	Axle breathers (2)	
81	39	Cold start control switch and radiator overflow bottle	
82	40	Windscreen washer pump and reservoir	
87	41	Inter-vehicle starting socket (if fitted)	
88	42	Refitting of items	
88	43	Waterproofing materials for Stage B	
		WATERPROOFING STAGE B	
89	44	Check of waterproofing completed in Stage A	
89	45	Tyres	
89	46	Fuel tanks	
89	47	Preservation	

Page No	Task No	Item	Initialled completed
89	48	Tow rope	
90	49	Battery and battery vents	
91	50	Battery vents (alternative type)	
92	51	Engine oil dipstick	
93	52	Fuel tank filler cap	
95	53	Carburetters (2)	
96	54	Steering column sleeve	
96	55	Distributor breather	
97	56	Generator connections	
98	57	Valve non-return exhaust	
99	58	Tailboard stays	
99	59	Kit, equipment and components	
99	60	Tools and equipment	
99	61	Waterproofing the EMER	
		DE-WATERPROOFING STAGE C	
100	62	Generator	
100	63	Generator connections	
100	64	Clutch housing	
100	65	Distributor breather	
100	66	Valve non-return exhaust	
101	-	Wet shod re-embarkation	

Page No	Task No	Item	Initialled completed
		DE-WATERPROOFING STAGE D	
102	67	Steering column	
102	68	Fuel tank filler cap	
102	69	Oil change	
102	70	Tyres	
102	71	Clutch and brakes	
102	72	Wash down	
102	73	Lubrication	

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END