

SECTION R

THE BODY

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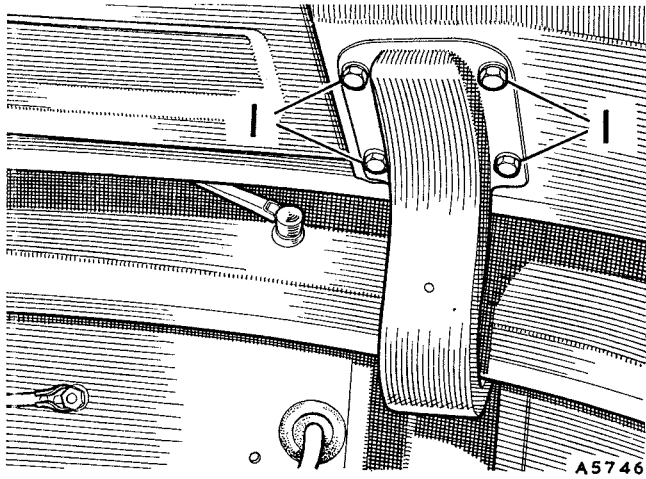


Fig. R.1

The bonnet to hinge securing set screws are shown at (1)

Section R.1

BODYWORK

Coachwork

Regular care of the body finish is necessary if the new appearance of the car exterior is to be maintained against the effects of air pollution, rain, and mud.

Wash the bodywork frequently, using a soft sponge and plenty of water containing a mild detergent. Large deposits of mud must be softened with water before using the sponge. Smears should be removed by a second wash in clean water, and with the sponge if necessary. When dry, clean the surface of the car with a damp chamois-leather. In addition to the regular maintenance, special attention is required if the car is driven in extreme conditions such as sea spray, or on salted roads. In these conditions and with other forms of severe contamination an additional washing operation is necessary, which should include underbody hosing. Any damaged areas should be immediately covered with paint and a complete repair effected as soon as possible. Before touching-in light scratches and abrasions with paint thoroughly clean the surface. Use petrol/white spirit (gasoline/hydrocarbon solvent) to remove spots of tar or grease.

The application of BMC Car Polish is all that is required to remove traffic film and to ensure the retention of the new appearance.

Bright trim

Never use an abrasive on stainless, chromium, aluminium, or plastic bright parts and on no account clean them with metal polish. Remove spots of grease or tar with petrol/white spirit (gasoline/hydrocarbon solvent) and wash frequently with water containing a mild detergent. When the dirt has been removed polish with a clean dry cloth or chamois-leather until bright. Any slight tarnish found on stainless or plated parts which have not received regular washing may be removed with BMC Chrome Cleaner. An occasional application of mineral light oil or grease will help to preserve the finish, particularly during winter, when salt may be used on the roads, but these protectives must not be applied to plastic finishes.

R.2

Windshield

If windshield smearing has occurred it can be removed with BMC Screen Cleaner.

Interior

Clean the carpets with a stiff brush or vacuum cleaner, preferably before washing the outside of the car. To thoroughly clean the carpets, apply BMC 2-way Cleaner with a semi-stiff brush, brush vigorously, and remove the surplus with a damp cloth or sponge. Carpets must not be cleaned by the 'dry-clean' process. The upholstery may be cleaned with BMC 2-way Cleaner applied with a damp cloth and a light rubbing action.

Coachwork repairs

The specially designed body jack 18G 308 B is an essential item when rectifying any misalignment of the body construction.

With the addition of a suitable oxy-acetylene outfit any type of mono-construction repair can be effected.

Preservative on Export cars

Certain cars leaving the factory are sprayed with a wax preservative to safeguard their body finish. The wax can be removed by the following procedure. Wash the waxed surfaces liberally with water to remove dirt. To soften the wax apply white spirit, either by using a spray and wiping off with mutton-cloth, or by using the cloth dipped in white spirit.

Polish the body with clean dry mutton cloth.

Cleaning the hood

To clean the hood it is only necessary to use soap and water, with a soft brush to remove any ingrained dirt. Frequent washing with soap and water considerably improves the appearance and wearing qualities of the hood, and it should be washed at least as often as the rest of the car.

Do not use caustic soaps, detergents, or spirit cleaners to clean the hood or the hood back-light.

Section R.2

BONNET

Removing

Remove the set screws securing each hinge to the under side of the bonnet and lift the bonnet complete with the bonnet prop clear of the vehicle.

To assist when refitting, as the fit of the bonnet will be disturbed during removal, it is advisable to mark the position of the hinges on their mounting brackets on the bonnet; this is best carried out by outlining the profile of the hinge levers where they contact the mounting brackets on the bonnet.

Refitting

Reverse the removal procedure.

Section R.3

RADIATOR GRILLE

Removing

The top bolts and nuts securing the radiator grille to the front body section are easily accessible when the bonnet is raised or removed. Working beneath the car, remove the lower grille securing bolts and lift the grille assembly away from the vehicle.

Refitting

Refitting is a reversal of the removal procedure.

Section R.4

BUMPERS

Front

Removing

The front bumper, when fitted, can be lifted away from the vehicle after the securing nuts and washers have been removed.

Refitting

Reverse the removal procedure.

Rear

Removing

Remove the rear bumper bracket securing set screws and remove the bumper, together with its brackets.

Refitting

Reverse the removal procedure.

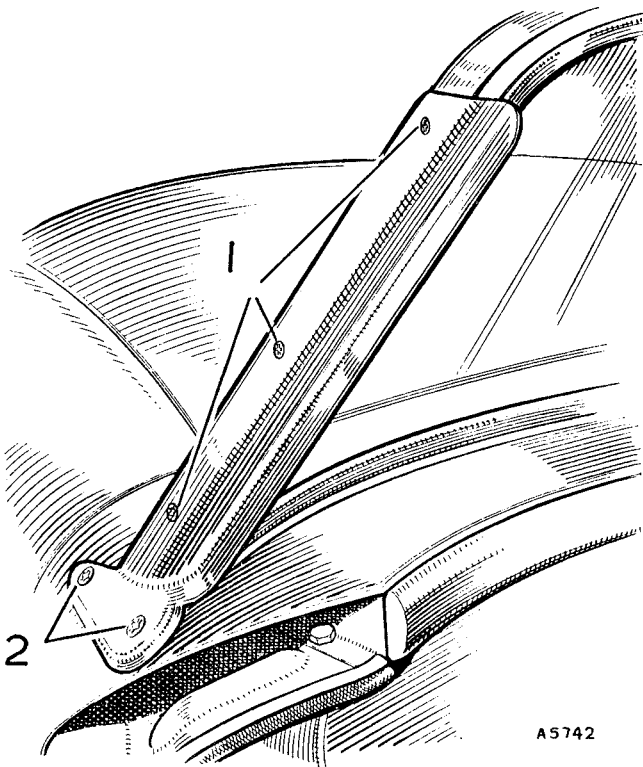


Fig. R.2

Windshield pillar

1. Pillar to body screws. 2. Windshield to pillar screws.

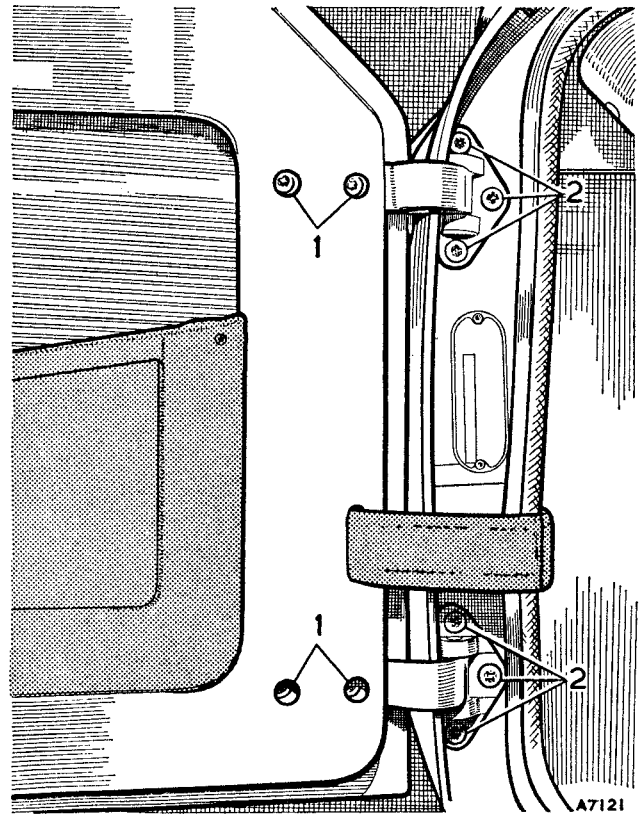


Fig. R.3

Hinge screws

1. Door to hinge screws. 2. Hinge to pillar screws.

Section R.5

WINDSHIELD AND SIDESCREENS

Windshield

Removing

Remove the Phillips screws securing the windshield to the side pillars and slide the windshield out of the pillars. The pillars themselves are attached to the scuttle by one Phillips screw and one bolt, the nut of which is accessible when the door is open.

Refitting

Reverse the removal procedure.

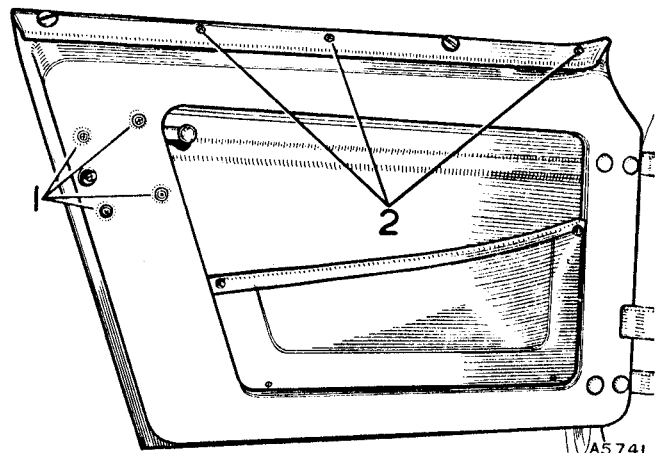


Fig. R.4

The door lock (1) and top moulding fixings (2)

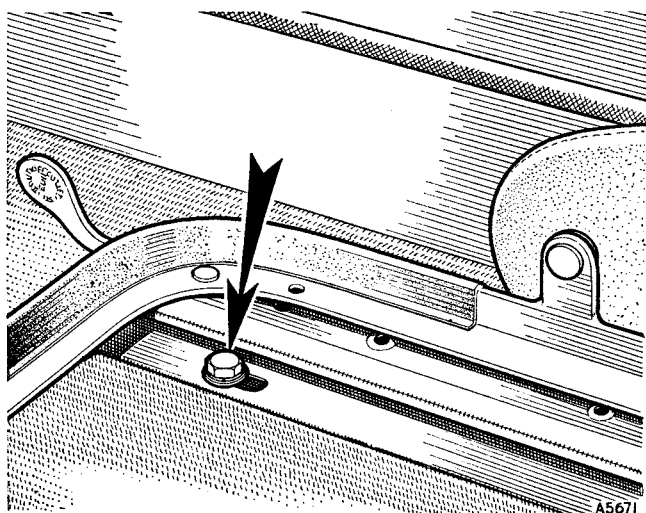


Fig. R.5
Seat frame securing points

Sidescreens

Each sidescreeen has two clamping brackets at its base which are held by two large-headed set screws at the door top moulding.

Section R.6

DOORS

Door and hinges

Removing

Both the upper and lower hinge of each door is secured to the door pillar by three Phillips screws. At the door frame each hinge is secured by two Phillips screws.

There is a check strap fitted to each door which must be released when removing a door from the body. This can be done by withdrawing the two set screws from the coupling bracket on the inside of the door pillar. With the door wide open, the hinges can readily be uncoupled from the door pillar and the door and hinges removed.

Refitting

When refitting, reverse the removal procedure.

Door catch and operating handle

Removing

The catch and operating handle complete may be withdrawn by removing the securing set screws positioned inside the door.

Refitting

Reverse the removal procedure.

Section R.7

FASCIA PANEL AND COCKPIT MOULDINGS

Fascia panel

Removing

Remove the steering-wheel as described in Section J. Remove the securing nuts and bolts along the top edge of the fascia.

Remove the Phillips screws securing the fascia at the bottom edge together with the set screws behind the steering-column surround.

R.4

Remove the speedometer and tachometer drives at their instrument unions and disconnect the oil pressure pipe from behind the combined oil pressure and water temperature gauge. It is advisable to withdraw the water thermal element from its connection with the radiator.

Release the starter and choke cables. The fascia can then be brought forward into the cockpit, giving access to the rear of each instrument.

Refitting

Reverse the removal procedure.

Cockpit moulding

Removing

The front and rear cockpit mouldings can readily be lifted away from the vehicle after removing the Phillips securing screws.

The door top mouldings are secured in a similar manner.

Refitting

Refitting in each case is a reversal of the removal procedure.

Section R.8

SEATS

Passenger's seat

Removing

Lift out the seat cushion and remove the seat frame securing nuts.

Seat adjustment can be made by releasing the seat frame bracket securing set screws.

Refitting

Refitting is a reversal of the removal procedure.

Driver's seat

Removing

Lift out the seat cushion and remove the frame to runner securing nuts. Remove the bolts and nuts securing the runners to the body floor and lift out the runners.

Refitting

Reverse the removal procedure, ensuring that the seat runner packing pieces are fitted correctly.

An adjustable seat is provided for the driver; it can be moved forwards or rearwards by pushing the lever beneath the seat towards the runner and then moving the seat to the required position and releasing the lever.

Section R.9

HEATER UNIT

Description

The heating and demisting system is designed to provide heated fresh air to the car interior at floor level and to the windshield for demisting and defrosting.

A valve controlling the flow of hot water through the heater unit is fitted at the rear of the cylinder head. The valve is opened by turning in an anti-clockwise direction when heating is required or shut off by turning clockwise when the system is to be used for cool air ventilation.

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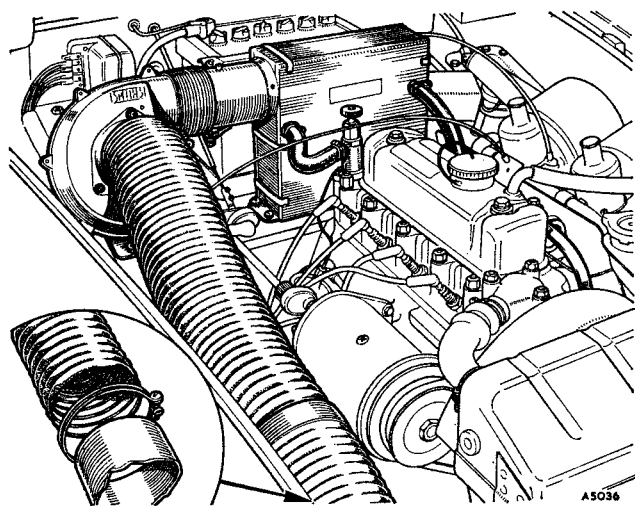


Fig. R.6

Showing the correct location of the heater and inset is the heater blower induction pipe connection at the radiator wing valance

Air is drawn into the system through a forward-facing intake, and the ram effect caused by the car's motion will provide a sufficient quantity of air for the heater's requirements at speeds above 25 m.p.h. (40 km.p.h.). A blower motor is provided for use at lower speeds or when a greater quantity of air is required. The blower is switched on by turning the control on the fascia (marked 'H') in a clockwise direction.

A shut-off valve is incorporated in the air intake to prevent fumes entering the car in traffic and is operated by pulling out the control marked 'H'. The blower motor must be switched off before the valve is closed and cannot be switched on again until the valve is returned to the open position.

Two doors located forward at either side of the engine scuttle control distribution of air between screen and car interior. For heating, open the doors. For defrosting (i.e. boosting flow of hot air to shield), close the doors.

Fitting

Drain the cooling system (see Section C) and disconnect the battery.

Remove the blanking plate from the battery shelf. Place the heater seal in position over the aperture and fit the heater unit. Secure the blower unit to the right-hand bulkhead and fit the earth tag below to any fixing screw. Connect the blower to the heater with the air hose and secure the intake plate and tube to the radiator wing valance support bracket. Connect the intake tube to the blower and fasten the hose to the inner wheel arch, using the air hose securing clip.

Remove the blanking grommets from either side of the engine scuttle and fit the elbow assemblies. Fit the demisting nozzles and connect the elbows to the demisting nozzles with two lengths of air hose.

When fitting the heater control connections a hole will be found in the fascia panel to the right-hand side of the direction indicator switch; cut a corresponding hole in

the rexine covering and assemble the push-and-turn switch through the hole.

Push the control cable and one lead through the blind grommet provided in the bulkhead on the right-hand side behind the battery. Connect the other lead to the green lead with the brown tracer issuing from the harness below the fascia. Fit the trunnion to the forked lever below the heater intake tube, pull the control knob out to its fullest extent, and rotate the forked lever towards the rear of the car. Press the lever firmly in position, pass the cable inner wire through the trunnion, and tighten the trunnion screw and the cable clamp on the outer casing. Connect the snap connector from the blower to the push-and-turn switch lead, using the connector tube provided. Before fitting the water connections remove the blanking plate from the rear of the cylinder head and fit the water control valve adaptor. Screw the water control valve into the adaptor and ensure that, when tight, it faces the right-hand side of the car. Connect the water control valve to the heater lower radiator pipe with the moulded hose and secure with hose clips. Bore a hole in the engine-to-radiator return hose with a hose cutter and fit the universal hose connector. Secure the copper heater return pipe to the manifold studs, using the existing fittings. Connect the upper heater radiator pipe to the copper tube with rubber hose, and connect the copper pipe to the universal hose connector with a short length of rubber hose. Secure all connections with hose clips and fasten a caution label in a prominent position to one of the water hoses.

Reconnect the battery and refill the cooling system, run the engine at a fast tick-over, and switch on the heater.

NOTE.—If the water return hose does not warm up in a few minutes an air lock may be present in the system, and to clear it the procedure is as follows.

Switch off the engine, remove the hose from the universal connector, and extend by temporary hose so that the water will flow back into the radiator via the filler cap; temporarily plug the lower union.

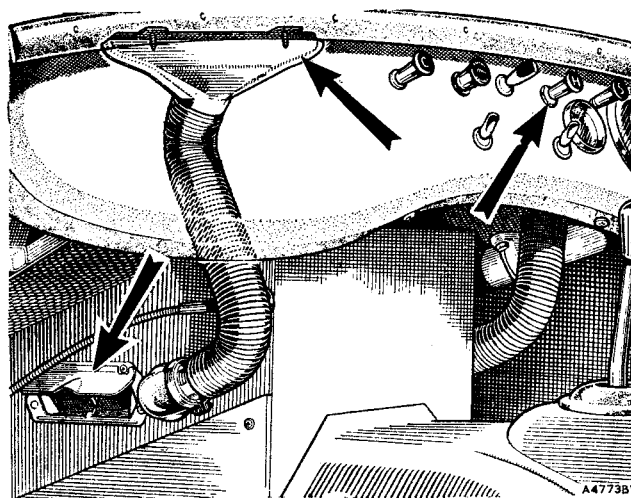


Fig. R.7

The heater blower control on the fascia, the interior heating control doors and the demisting duct

Start the engine and note the water flow into the radiator; when this is smooth and bubble-free, remake the hose-to-union connections and tighten as quickly as possible.

When draining the cooling system the heater may not be completely emptied: therefore, in cold weather only anti-freeze of the ethylene glycol type incorporating the correct type of corrosion inhibitor is suitable, and owners are recommended to use Bluecol Anti-freeze. We also approve the use of any anti-freeze which conforms to Specification B.S.3151 or B.S.3152.

Removing

Removing is a reversal of the fitting procedure.

Section R.10

BODY ALIGNMENT CHECKING JIG

Before checking the body alignment it is most important that the body is raised to a workable height on a level plane. This is done to facilitate body jig checking with the aid of a straight-edge, or with a stout cord stretched from one point to another to obtain measurements between jig components. These measurements

should then be checked against the correct dimensions provided in Fig. R.8.

This tool 18G 603 is intended to be used solely as a checking fixture and not as a welding jig. No welding whatsoever is to be undertaken with the body jig in position.

The left-hand inset in Fig. R.8 shows the front section of the jig mounted in position, while the right-hand inset shows the correct method of fitting the rear section to the rear spring mountings.

NOTE.—All jig sections are marked 'FORWARD' to enable easy and correct positioning.

Section R.11

BMC SEAT BELTS

Fitting

Rear wheel arch

Remove the domed nuts and plain washers. Fit the belt bracket, spring washers, and domed nuts in position on the wheel arch mounting studs.

Sill

It will be found necessary to cut the sill trim board covering to expose the 1 in. (25.4 mm.) dia. hole. Assemble the belt bracket, anti-rattle washer (concave face to

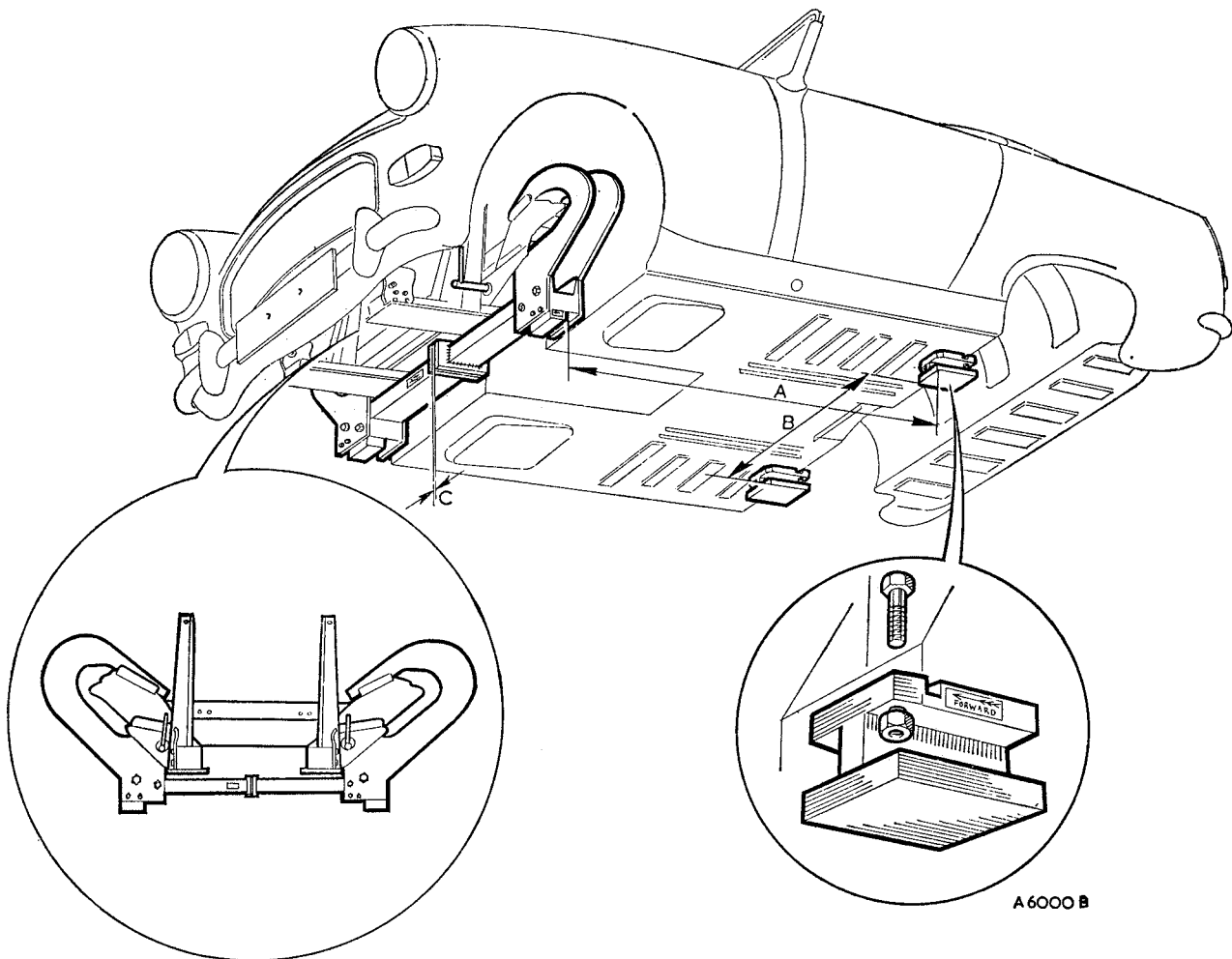


Fig. R.8

A. 63.250 in. (1606.55 mm.).

B. 31.75 in. (806.45 mm.).

C. $.250 \pm .0625$ in. (6.34 ± 1.59 mm.).

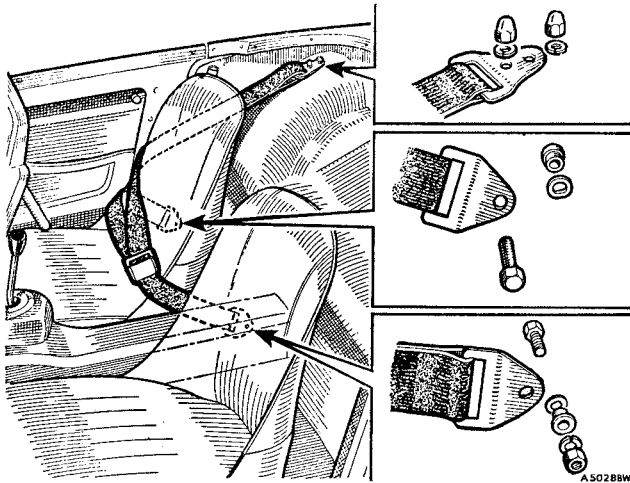


Fig. R.9

The seat belt attachment points and fittings

bracket), and distance piece (shouldered end towards the sill) on to the set screw. Assemble to the sill fixing, ensuring that the belt bracket faces forward along the centre-line of the car.

Propeller shaft tunnel

Remove the rubber plug and cut a 1 in. (25 mm.) dia. hole in the carpet to coincide with the hole in the tunnel. Assemble the belt bracket, anti-rattle washer (concave face to bracket), and distance piece (shouldered end towards the tunnel).

Assemble to the tunnel fixing, ensuring that the belt bracket faces rearwards along the centre-line of the car. Position the spring washer and nut on the inside of the tunnel.

Removing

When removing the seat belt reverse completely the fitting instructions.

Section R.12

STRIKERS

Removing

Mark the position of the striker on the door pillar to assist when refitting. Remove the set screws securing the striker to the door pillar and lift away the assembly.

Refitting

Reverse the removal procedure.

Section R.13

LUGGAGE COMPARTMENT LID

Removing

Remove the set screws securing the hinges to the lid and lift off the assembly.

Refitting

Reverse the removal procedure.

Section R.14

LUGGAGE COMPARTMENT LOCK

Removing

Remove the nuts securing the lid handle to the lid and the set screws and nuts securing the locking plate to the lid and lift away the assembly.

Refitting

Reverse the removal procedure.

(For 'PAINT REFINISHING INSTRUCTIONS' see page R.8)

Section R.15

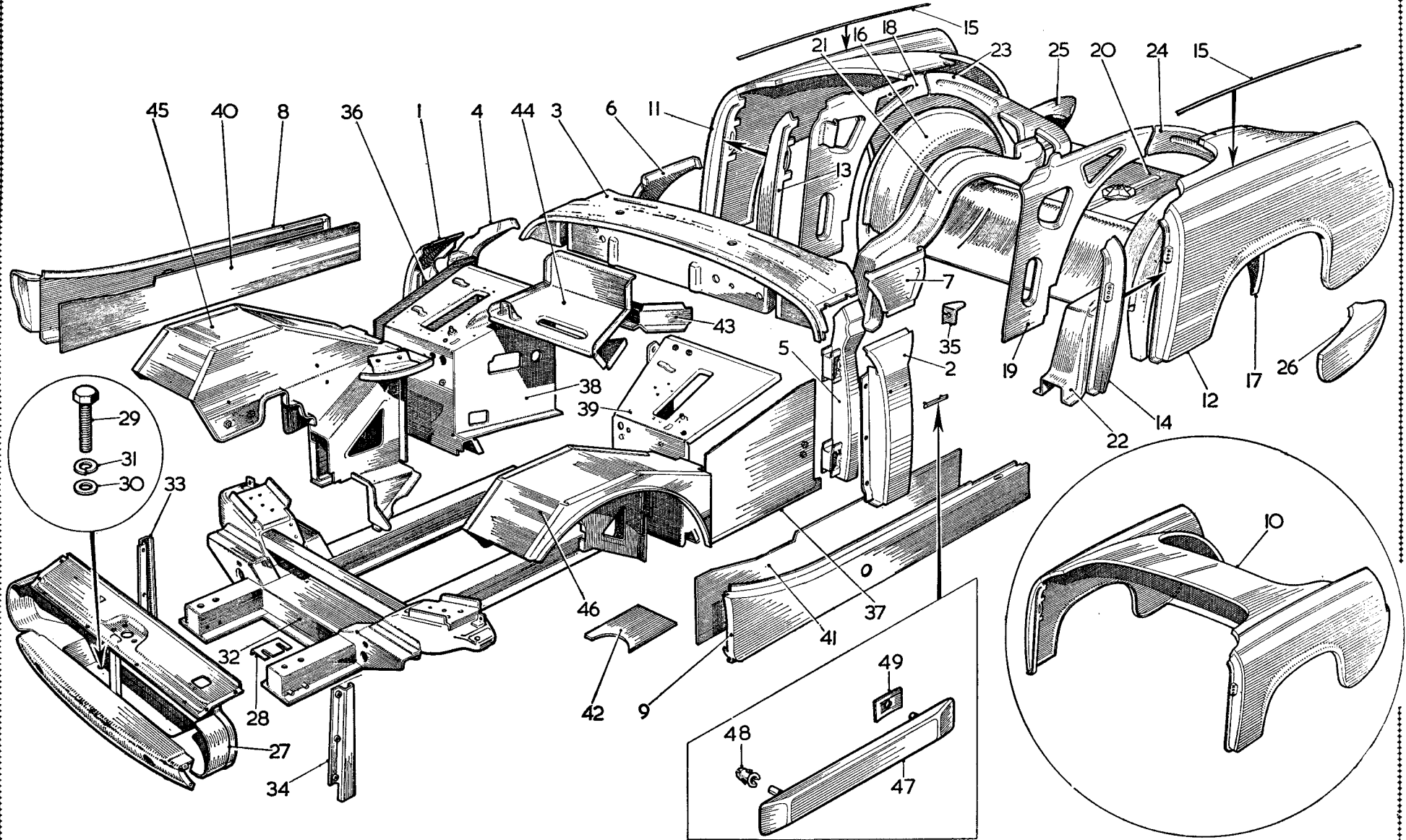
PAINT REFINISHING INSTRUCTIONS

<i>Operation</i>	<i>Material</i>	<i>Thinning</i>	<i>Drying times</i>	<i>Application</i>	<i>Instructions</i>
Stripping original paint	Water-soluble paint remover, e.g. Sunbeam Anti-corrosives 'Stripolene 799'	—	—	Brush	Remove the original finish with a scraper after allowing paint-strip 10 minutes to react (repeat if necessary). Wash off thoroughly with cold water, rubbing with wire wool. Dry. Blow out crevices with compressed air. Strip a small area at a time to enable correct neutralizing of the stripper
Metal abrading	Emery-cloth, e.g. Howarth Blue Twill, grade 1½ M	—	—	Hand or disc	Paper thoroughly to ensure satisfactory key. Wipe with cleaner solvent or white spirits
Acid etching	Apply Deoxidine 125 (I.C.I.)	1 part Deoxidine, 1 part water	—	Brush	Apply solution generously and rub in with wire wool. Do not allow Deoxidine solution to dry off before the wash-off operation. Allow approximately five minutes to complete reaction. Wash thoroughly with cold water to remove all traces of Deoxidine solution, followed by a hot rinse. Thoroughly dry surfaces with a clean cloth and blow out crevices with compressed air
Priming	Synthetic primer G.I.P. No. S3178	6 to 1 with Z1048	½-hour to 4 hours	Spray	Apply one thin coat of synthetic primer (recommended for superior adhesion) or one thin coat of cellulose primer (recommended for good adhesion). The use of a primer coat enhances adhesion and gives the system a much greater safety factor
	or Grey cellulose primer G.I.P. C3971 MOD	50/50 with 2045M	¼-hour	Spray	
Applying stopper	Stopper Grey G.I.P. 824D or Stopper Brown G.I.P. 1543	—	6–8 hours, or overnight if possible	Glazing knife	Apply stopper in thin layers, allowing 15–20 minutes' drying between applications. Heavy layers result in insufficient drying, with subsequent risk of cracking
Filling	Primer Filler Grey G.I.P. C3663M	50/50 with 2045M	3–4 hours	Spray	Apply two or three full coats, allowing 15–25 minutes' drying time between coats

Wet-sanding	Abrasive paper 280 grade	—	—	—	Rub down wet until smooth; a guide coat (a weak contrasting colour) may be used to ensure that the whole surface is rubbed level. Wash off thoroughly with water, sponge all sludge, wash off, dry with clean sponge. Dry off. Minimum of paint should be removed consistent with a satisfactory surface. Film thickness after rubbing should be .0025 in. (.06 mm.) min.
Applying sealer or undercoat	Sealer Grey or Sealer White or Red undercoat (see BMC Paint Scheme schedule)	50/50 with 2045M	15-20 minutes	Spray	Apply one coat, flash off
Dry-sanding or de-nibbing as required	320 grade paper	—	—	—	De-nib or dry-sand with 320 paper. Clean with white spirit. The grade of paper quoted is from the 3M Company (Minnesota Mining and Mfg. Co. Ltd.); the grade of paper may vary according to manufacture
Applying colour coats	BMC body finishes (see BMC Paint Scheme schedule)	50/50 with 2045M	5-10 minutes' flash between coats. Overnight dry	Spray	Apply two double coats with a 5-10-minute flash between coats. Overnight dry
Flatting colour coat	320 or 400 paper (dependent on conditions)	—	—	Hand	Flat with 320 or 400 paper, dependent on conditions
Applying final colour coat	BMC body finishes (see BMC Paint Scheme schedule)	50/50 with 2045M	Overnight dry	Spray	Spray final double colour coat
Polishing	Cut and polish (see BMC Paint Scheme schedule)	—	—	Hand or machine	The colour coat must be thoroughly dry before polishing. After cutting, burnish to a high gloss with a clean mop, and finally clean with a liquid polish, e.g. Apollo liquid polish

NOTE.—(1) For faster drying of undercoats or local repairs G.I.P. thinners 1523 may be used.
 (2) Under extreme circumstances of heat and/or humidity retarder G.I.P. Z1694 can be used added to the 2045M thinners.

THE BODY SHELL COMPONENTS

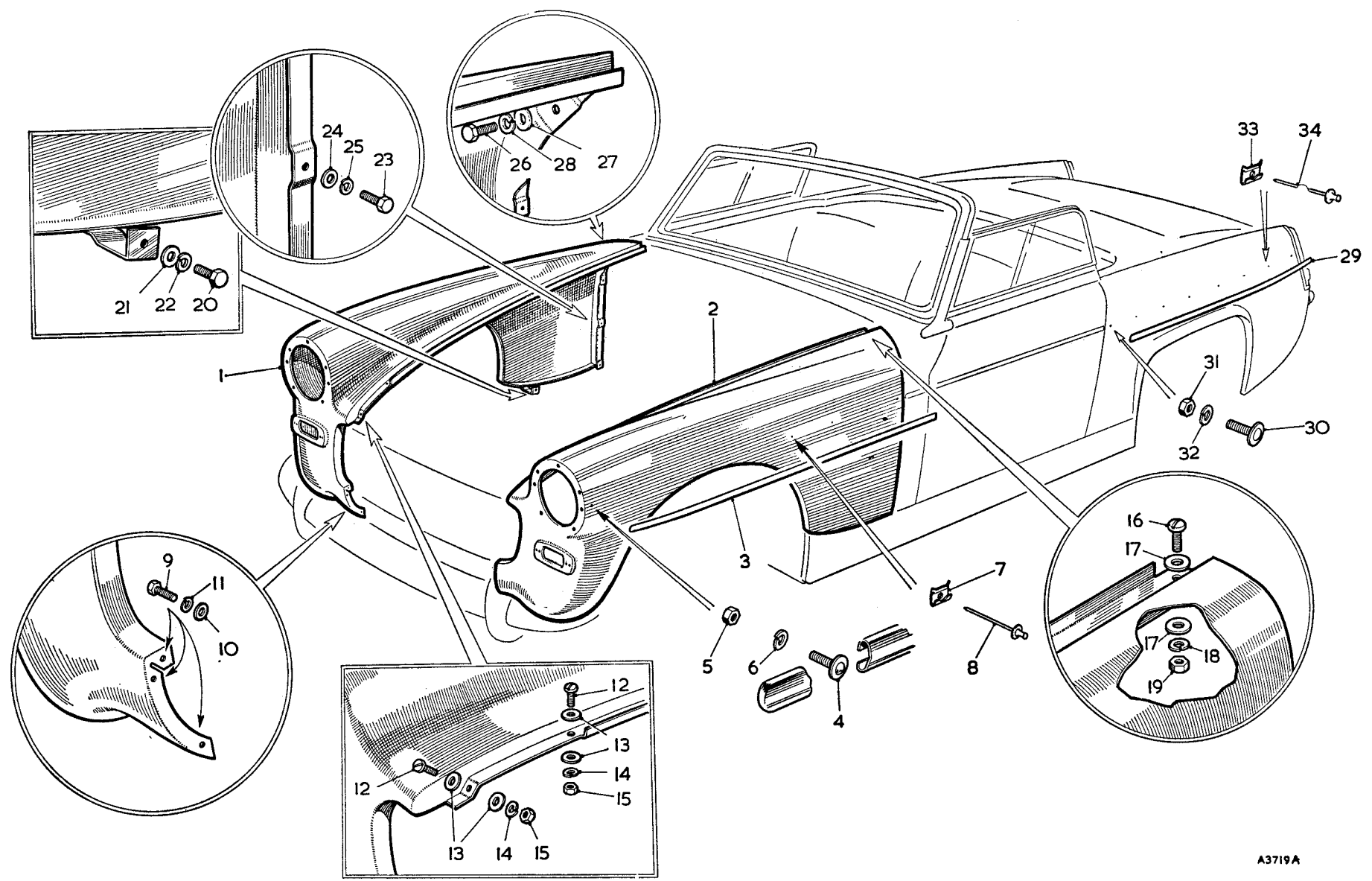


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KEY TO THE BODY SHELL COMPONENTS

<i>No.</i>	<i>Description</i>	<i>No.</i>	<i>Description</i>	<i>No.</i>	<i>Description</i>
1.	Shroud side panel assembly—R.H.	18.	Reinforcement assembly—R.H.	34.	Radiator mounting bracket assembly—L.H.
2.	Shroud side panel assembly—L.H.	19.	Reinforcement assembly—L.H.	35.	Hand brake abutment bracket.
3.	Shroud and dash top panel assembly.	20.	Luggage floor panel assembly.	36.	Foot-well outer panel assembly—R.H.
4.	'A' post assembly—R.H.	21.	Wheel arch to luggage floor reinforcement member—R.H.	37.	Foot-well outer panel assembly—L.H.
5.	'A' post assembly—L.H.	22.	Wheel arch to luggage floor reinforcement member—L.H.	38.	Foot-well front and inner side panel assembly—R.H.
6.	'A' post to scuttle extension—R.H.	23.	Wheel arch to luggage floor gusset—R.H.	39.	Foot-well front and inner side panel assembly—L.H.
7.	'A' post to scuttle extension—L.H.	24.	Wheel arch to luggage floor gusset—L.H.	40.	Sill side plate—R.H.
8.	Outer sill panel—R.H.	25.	Luggage floor rear extension—R.H.	41.	Sill side plate—L.H.
9.	Outer sill panel—L.H.	26.	Luggage floor rear extension—L.H.	42.	Splash plate—L.H.
10.	Rear panel assembly.	27.	Front end assembly.	43.	Heater support platform.
11.	Rear wing assembly—R.H.	28.	Front end to underframe shim.	44.	Heater platform assembly.
12.	Rear wing assembly—L.H.	29.	Front end to underframe screw.	45.	Front wheel arch assembly—R.H.
13.	'B' post assembly—R.H.	30.	Plain washer.	46.	Front wheel arch assembly—L.H.
14.	'B' post assembly—L.H.	31.	Spring washer.	47.	Shroud moulding.
15.	Rear wing to panel moulding.	32.	Front suspension and main beam assembly.	48.	Speed clip.
16.	Rear wheel arch panel assembly—R.H.	33.	Radiator mounting bracket assembly—R.H.	49.	Push-on fix.
17.	Rear wheel arch panel assembly—L.H.				

THE WING COMPONENTS

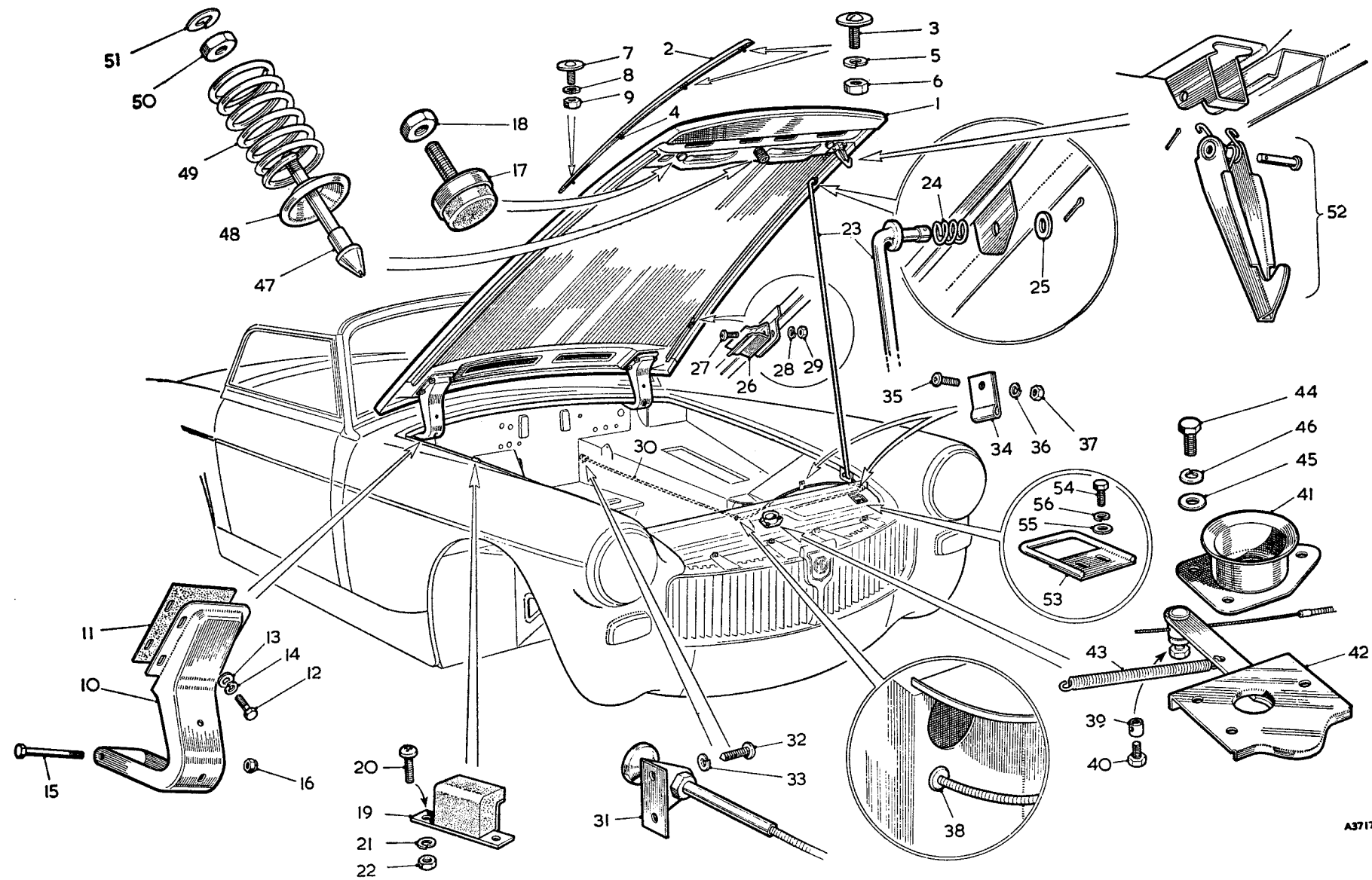


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KEY TO THE WING COMPONENTS

<i>No.</i>	<i>Description</i>	<i>No.</i>	<i>Description</i>	<i>No.</i>	<i>Description</i>
1.	Wing assembly—R.H.	13.	Washer.	24.	Washer.
2.	Wing assembly—L.H.	14.	Spring washer.	25.	Spring washer.
3.	Front wing moulding.	15.	Nut.	26.	Screw.
4.	Moulding stud plate.	16.	Screw.	27.	Washer.
5.	Nut.	17.	Washer.	28.	Spring washer.
6.	Spring washer.	18.	Spring washer.	29.	Rear wing moulding.
7.	Moulding clip.	19.	Nut.	30.	Moulding stud plate.
8.	Fixing clip rivet.	20.	Screw.	31.	Nut.
9.	Screw.	21.	Washer.	32.	Spring washer.
10.	Washer.	22.	Spring washer.	33.	Moulding clip.
11.	Spring washer.	23.	Screw.	34.	Fixing clip rivet.
12.	Screw.				

THE BONNET ASSEMBLY COMPONENTS

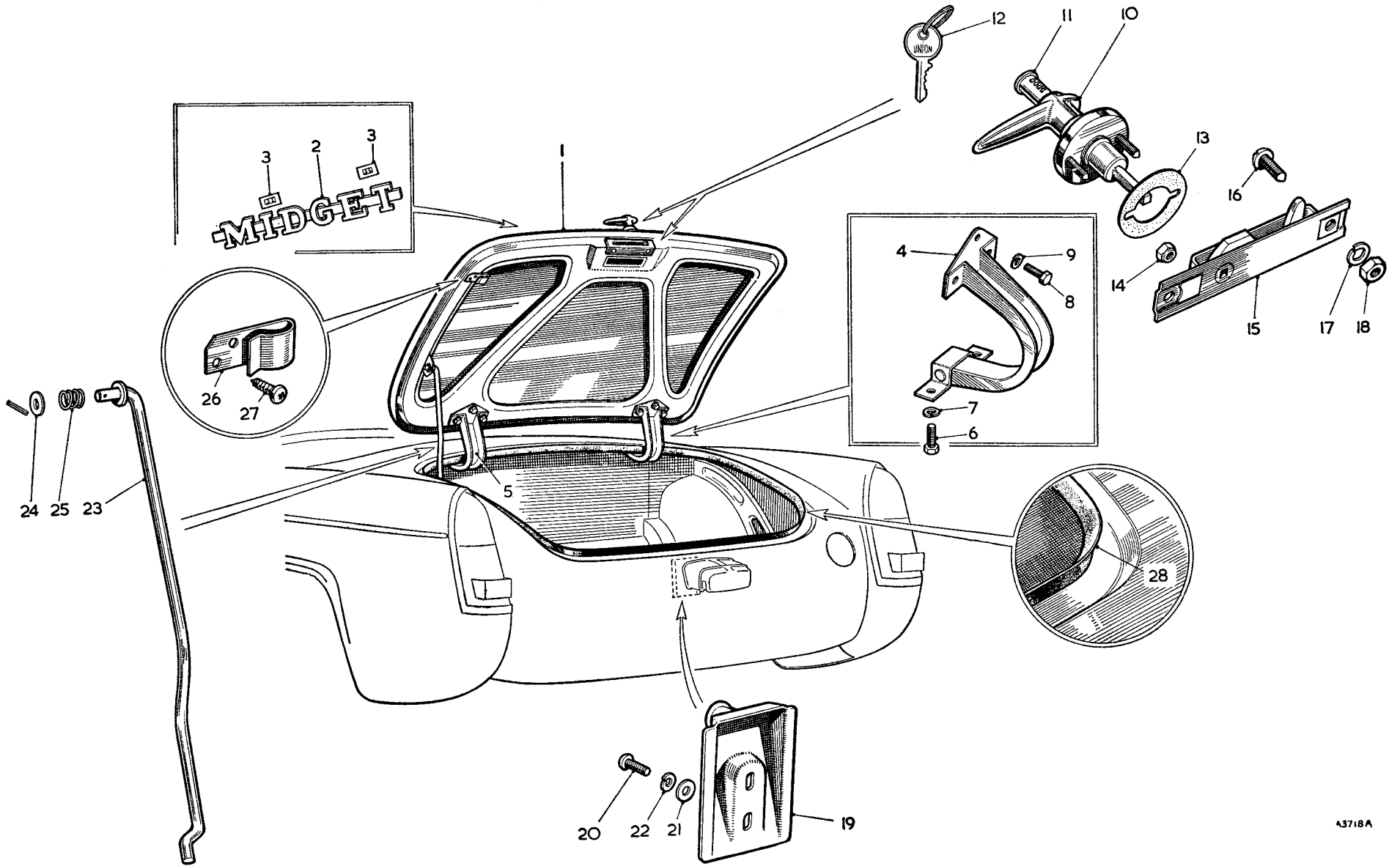


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KEY TO THE BONNET ASSEMBLY COMPONENTS

<i>No.</i>	<i>Description</i>	<i>No.</i>	<i>Description</i>	<i>No.</i>	<i>Description</i>
1.	Bonnet top assembly.	20.	Drain channel screw.	39.	Cable clamp.
2.	Centre moulding.	21.	Spring washer.	40.	Clamp screw.
3.	Front moulding plate stud.	22.	Nut.	41.	Lock locating cup.
4.	Centre moulding plate stud.	23.	Prop rod.	42.	Catch plate.
5.	Spring washer.	24.	Prop rod spring.	43.	Catch plate spring.
6.	Nut.	25.	Washer.	44.	Cup to locking platform screw.
7.	Rear moulding plate stud.	26.	Prop rod clip.	45.	Washer.
8.	Spring washer.	27.	Clip screw.	46.	Spring washer.
9.	Nut.	28.	Spring washer	47.	Bonnet lock pin.
10.	Hinge.	29.	Nut.	48.	Bonnet lock thimble.
11.	Hinge packing.	30.	Bonnet release cable.	49.	Bonnet lock spring.
12.	Bonnet to hinge screw.	31.	Bracket.	50.	Pin to bonnet locknut.
13.	Plain washer.	32.	Screw.	51.	Spring washer.
14.	Spring washer.	33.	Spring washer.	52.	Safety catch assembly.
15.	Bulkhead to hinge bolt.	34.	Cable clip.	53.	Safety catch bracket.
16.	Nut.	35.	Clip screw.	54.	Bracket fixing screw.
17.	Bonnet buffer.	36.	Spring washer.	55.	Washer.
18.	Buffer to bonnet locknut.	37.	Nut.	56.	Spring washer.
19.	Side buffer.	38.	Cable grommet.		

THE BOOT LID COMPONENTS

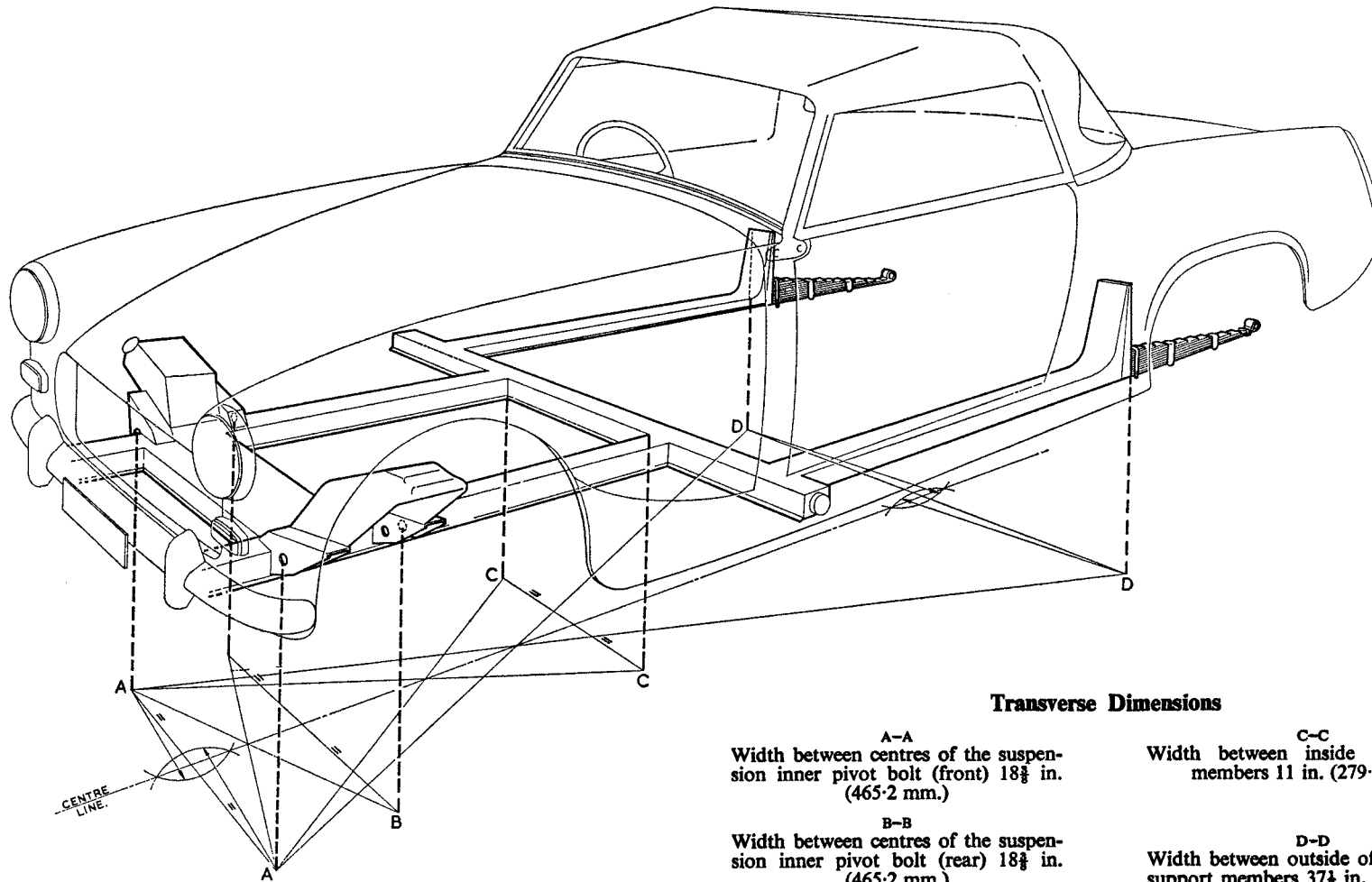


KEY TO THE BOOT LID COMPONENTS

<i>No.</i>	<i>Description</i>	<i>No.</i>	<i>Description</i>	<i>No.</i>	<i>Description</i>
1.	Boot lid assembly.	11.	Barrel lock.	20.	Screw.
2.	'Midget' or 'Sprite' motif.	12.	Key.	21.	Plain washer.
3.	Push-on fix.	13.	Handle seating washer.	22.	Spring washer.
4.	Boot lid hinge—R.H.	14.	Handle to boot lid nut.	23.	Prop rod.
5.	Boot lid hinge—L.H.	15.	Lock assembly.	24.	Plain washer.
6.	Hinge screw.	16.	Screw.	25.	Spring.
7.	Spring washer.	17.	Spring washer.	26.	Prop rod clip.
8.	Hinge to boot lid screw.	18.	Nut.	27.	Screw.
9.	Spring washer.	19.	Striker plate.	28.	Boot lid sealing rubber.
10.	Locking handle assembly.				

Section R.16

HORIZONTAL ALIGNMENT CHECK



Transverse Dimensions

A-A
Width between centres of the suspension inner pivot bolt (front) $18\frac{3}{8}$ in. (465.2 mm.)

B-B
Width between centres of the suspension inner pivot bolt (rear) $18\frac{3}{8}$ in. (465.2 mm.)

C-C
Width between inside frame side-members 11 in. (279.4 mm.)

D-D
Width between outside of rear spring support members $37\frac{1}{2}$ in. (952.1 mm.)

A preliminary check of the alignment can best be carried out by the system of diagonals and measurement checks from points projected onto a level floor by means of a plumb-bob.

A centre-line can then be established by means of a large pair of compasses and any deviation from correct alignment will be evident by failure of the diagonals to intersect on the centre-line or by considerable deviations in the measurements.

Section Ra

THE BODY

The information given in this Section refers specifically to the Sprite (Mk. III and IV) and Midget (Mk. II and III) and must be used in conjunction with Section R

	<i>Section</i>
Crash rail	Ra.2
Doors	
Glass	Ra.4
Glass regulators	Ra.7
Interior handles and window regulators	Ra.8
Lock and remote control	Ra.10
Outer handles	Ra.9
Striker	Ra.11
Trim pad	Ra.6
Fascia.. .. .	Ra.1
Heater	Ra.15
Radiator grille	Ra.14
Seat belts	Ra.12
Seats	Ra.13
Ventilator	Ra.5
Windshield	Ra.3

Section Ra.1

FASCIA

Removing

Remove the set screws at the far ends of the fascia panel. Remove the steady bracket securing set screws. Disconnect and lower the steering-column (Section J). Remove the fascia securing set screws beneath the crash rail and lower the panel to disconnect the instruments and switches. Remove the panel assembly.

Refitting

Reverse the removal procedure.

Section Ra.2

CRASH RAIL

Removing

Remove the fascia (Section Ra.1). Remove the crash rail securing nuts and drive screws and lift off the assembly.

Refitting

Reverse the removal procedure.

Section Ra.3

WINDSHIELD

Removing

Remove the fascia (Section Ra.1). Remove the windshield to 'A' post securing set screws and the centre stay securing set screws. Lift off the windshield assembly.

Refitting

Reverse the removal procedure, ensuring that the packing washers are replaced in their original positions.

Section Ra.4

DOOR WINDOW GLASS

Removing

Remove the door-pull, internal door handle, and window regulator handle (Section Ra.8). Remove the door trim pad (Section Ra.6) and the drive screws securing the backing panel to the door.

Remove the inner door cappings and the set screws securing the rear glass guide channel to the door.

Remove the set screws and nuts securing the top of the ventilator to the door. Remove the front channel set screws and the ventilator steady set screw. Remove the glass stop at the bottom of the front channel and the glass stop in the bottom of the door. Remove the regulator securing set screws and the regulator extension set screws. Lower the window and remove the ventilator assembly. Lift out the glass.

Refitting

Reverse the removal procedure.

Ra.2

Section Ra.5

VENTILATOR

Removing

Remove the trim pad, door handles, and window regulator handle (see Section Ra.8). Remove the set screws and nuts securing the ventilator top to the door. Remove the ventilator steady set screw and the set screws securing the front window channel to the bottom of the door. Remove the front door channel, and window stop and lift out the ventilator assembly.

Refitting

Reverse the removal procedure.

Section Ra.6

TRIM PAD

Removing

Remove the interior door handle, door-pull, and window regulator handle (Section Ra.8). Lever the door trim pad away from the door panel and withdraw the trim pad from the padded sill roll.

Refitting

Reverse the removal procedure.

Section Ra.7

WINDOW REGULATORS

Removing

Remove the interior door handle, door-pull, and window regulator handle (Section Ra.8). Remove the door trim pad assembly (Section Ra.6).

Remove the regulator securing screws and the regulator bracket securing screws. Release the window regulator arc from the bottom of the window glass. Lift the window glass up to clear the regulator and remove the regulator and bracket assembly.

Refitting

Reverse the removal procedure when refitting.

Section Ra.8

WINDOW REGULATOR AND INTERIOR DOOR HANDLES

Removing

Window regulator handle

- (1) Close the window.
- (2) Press the spring cup into the escutcheon plate.
- (3) Remove handle retaining pin and withdraw the handle.

Pull handle

- (4) Prise off the end caps covering the pull handle screws (Midget Mk. III from Car No. G-AN5-105501).
- (5) Remove the screws securing the pull handle to the door and lift off the handle.

Sprite and Midget. Issue 5. 82790

Door opening handle

- (6) Remove the screw securing the handle to the lock, and withdraw the handle.

Escutcheon plate

- (7) Remove the door opening handle (6)
- (8) Remove the two screws securing the escutcheon plate and withdraw the plate. The escutcheon plate is removed complete with the locking catch.

Refitting

Window regulator handle

- (9) Reverse the removing procedure in (1) to (3).

Pull handle

- (10) Reverse the removing procedure in (4) and (5) as applicable.

Escutcheon plate

- (11) Reverse the removing procedure in (7) to (8) noting that the locking catch on the escutcheon plate must be engaged in the square hole in the lock linkage.

Door opening handle

- (12) Reverse the removing procedure in (6.)

Section Ra.9

OUTER DOOR HANDLE

Removing

- (1) Close the window.
- (2) Remove the door trim pad (Section Ra.6).
- (3) Remove the nut and washers from the handle securing stud.
- (4) Remove the screw and washers retaining the push button end of the handle.
- (5) Withdraw the handle from the door.

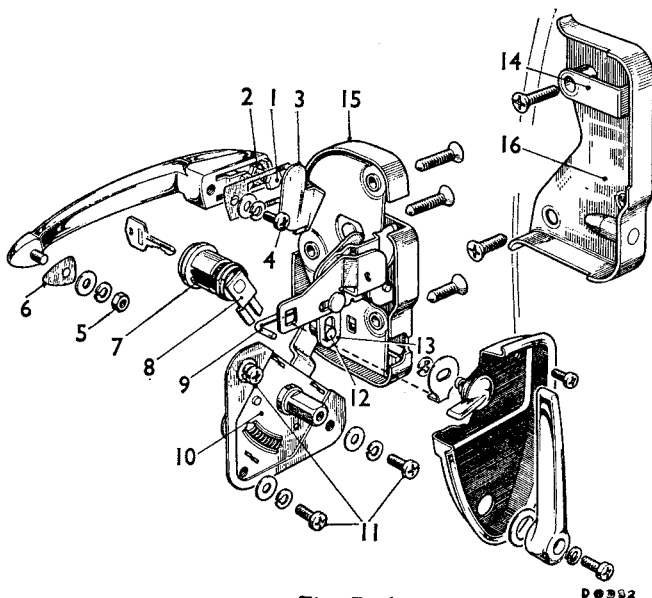


Fig. Ra.1

The lock assembly

- | | |
|----------------------------|-----------------------|
| 1. Plunger bolt. | 9. Locking lever. |
| 2. Locknut. | 10. Remote control. |
| 3. Lock contactor. | 11. Securing screws. |
| 4. Handle retaining screw. | 12. Stud. |
| 5. Stud nut. | 13. Operating lever. |
| 6. Seating washer. | 14. Anti-burst strap. |
| 7. Spring collar. | 15. Lock assembly. |
| 8. Lock fork. | 16. Striker. |

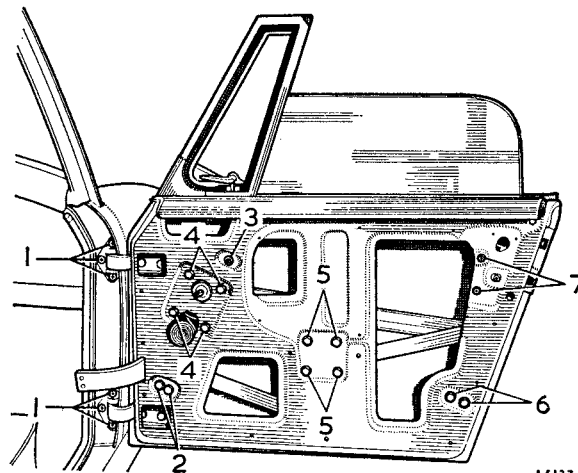


Fig. Ra.2

The door assembly

1. Door hinge securing set screws.
2. Ventilator securing set screws.
3. Regulator arm stop.
4. Regulator securing set screws.
5. Regulator extension securing set screws.
6. Rear door glass guide channel securing set screws.
7. Door lock remote control securing set screws.

Refitting

- (6) Position the handle on the door with its seating washers correctly located.
- (7) Check the clearance between the plunger bolt and the lock contactor from inside the door. The clearance must be a minimum of $\frac{1}{32}$ in. (.79 mm.), slacken the locknut and adjust the length of the plunger bolt to obtain the correct clearance.
- (8) Reverse the removal procedure in (1) to (5), and check for correct functioning.

Section Ra.10

DOOR LOCK AND REMOTE CONTROL

NOTE. Before attempting to remove any part of the door lock mechanism because of faulty operation, first check that the unserviceability is not caused by incorrect adjustment or installation.

Removing

Remote control

- (1) Remove the door trim pad (Section Ra.6).
- (2) Remove the remote control securing screws.
- (3) Move the remote control inwards, to disengage the stud from the slot in the lock operating lever, then withdraw the assembly.

Lock

- (4) Remove the lock securing screws and withdraw the assembly.

Refitting

Lock

- (5) Depress the lock contactor so that the latch is in the open position.
- (6) Position the assembly in the door ensuring that the locking lever engages in the private lock operating fork.

- (7) Screw in and tighten the lock securing screws, noting that the short screw is fitted in the lower hole.

Remote control

- (8) Position the assembly in the door so that the stud engages in the slot in the lock operating lever.
 (9) Fit, but do not tighten the securing screws.
 (10) Move the remote control towards the lock until the lock operating lever is up against its stop.
 (11) Refit the trim pad, and check the door lock for correct functioning.

Section Ra.11

STRIKER

Removing

- (1) Remove the securing screws and lift off the striker and any shims fitted behind it.

Refitting

- (2) Position the striker and shims.
 (3) Screw in, but do not fully tighten the securing screws.
 (4) Close the door and check the clearance between the face of the striker and the lock face. The clearance must be between $\frac{1}{32}$ in. (.79 mm.) and $\frac{1}{16}$ in. (1.59 mm.), adjust the clearance by increasing or decreasing the thickness of the shims fitted behind the striker.
 (5) When the correct clearance in (4) has been obtained, tighten the securing screws and check that the door closes easily without rattling, lifting, or dropping.

NOTE.—The striker must be retained in the horizontal plane relative to the door axis.

- (6) Check the door lock for correct functioning.

Section Ra.12

SEAT BELTS

The following instructions refer to fitting the approved 'Kangol Magnet' seat belt to the fixing points incorporated in the body structure.

Rear wheel arch

Sprite Mk. III and Midget Mk. II

- (1) Remove the two domed nuts and plain washers from the fixing studs.
 (2) Fit the bracket on the studs and secure it using plain washers, spring washers, and the domed nuts.

Sprite Mk. IV and Midget Mk. III

- (3) Remove the plastic cap from the fixing boss.

First type seat belt

- (4) Fit a spring washer to the short $\frac{7}{16}$ in. bolt, pass the bolt through the centre of the three holes in the belt bracket, and secure the bracket to the fixing boss.

Second type seat belt

- (5) Fit the belt bracket on the short $\frac{7}{16}$ in. bolt, followed by a waved washer and a distance piece, with the small diameter end of the distance piece towards the bolt head.

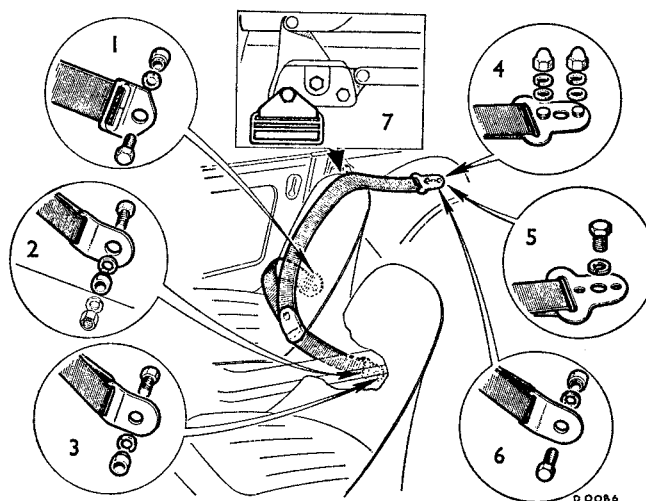


Fig. Ra.3

Seat belt fixings

1. Sill (all models).
2. Drive shaft tunnel (Sprite Mk. III; Midget Mk. II).
3. Drive shaft tunnel (Sprite Mk. IV; Midget Mk. III).
4. Wheel arch (Sprite Mk. III; Midget Mk. II).
5. Wheel arch, first type belt (Sprite Mk. IV; Midget Mk. III).
6. Wheel arch, second type belt (Sprite Mk. IV; Midget Mk. III).
7. Stowage clip, second type belt.

- (6) Secure the assembled bracket to the fixing boss.

Sill

- (7) Locate the fixing point (its position can be felt through the trim) and cut the trim to expose the fixing hole.
 (8) Fit the belt bracket to one of the $\frac{7}{16}$ in. bolts, followed by a waved washer and a distance piece (small diameter end towards the bolt head).
 (9) Screw the assembled bracket to the sill.

Drive shaft tunnel

Sprite Mk. III and Midget Mk. II

- (10) Remove the plug from the fixing point on the same side of the tunnel as the seat for which the belt is being fitted.
 (11) Cut a 1 in. (25.4 mm.) diameter hole in the covering over the fixing point.
 (12) Fit the bracket of the short belt to the remaining $\frac{7}{16}$ in. bolt followed by a waved washer and a distance piece (small diameter end towards the bolt head).
 (13) Secure the assembled bracket with the spring washer and nut fitted from inside the tunnel.

Sprite Mk. IV and Midget Mk. III

- (14) Fit the belt bracket of the short belt to the remaining $\frac{7}{16}$ in. bolt followed by a waved washer and a distance piece (smaller diameter end towards the head of the bolt).
 (15) Secure the assembled bracket to the exposed fixing boss on the same side of the tunnel as the seat to which the belt is being fitted.

Stowage clip second type belt

- (16) Fit the stowage clip under the head of the front hood bracket securing screw.

Section Ra.13**SEATS**
(Later cars)**Removing**

- (1) Move the seat forward and remove the screw, spring washer and plain washer securing the rear of the seat runner to the body.
- (2) Under the body of the car, remove the nut, spring and plain washers securing the front of the seat runner to the body.
- (3) Remove the seat.

Refitting

- (4) Reverse the removal procedure. Ensure the carpet is correctly positioned before finally tightening the runner securing nuts and bolts.

Section Ra.14**RADIATOR GRILLE****Removing**

- (1) Remove the four screws securing the grille to the bonnet lock platform.
- (2) From each side of the grille remove the three self-tapping screws.
- (3) From below the car, just behind the bumper, remove the two self-tapping screws and washers.
- (4) Remove the grille assembly.

Refitting

Reverse sequence (1) to (4).

Section Ra.15**HEATER**

**(Midget Mk. III from Body No. GBE-100651 and
Sprite Mk. IV from Body No. GUN-151301)**

NOTE.—To remove the blower motor only, carry out operations 1, 2, 10 and 11.

Removing

- (1) Disconnect and remove the battery and the battery tray.
- (2) Disconnect the blower motor cables from the wiring harness at the snap connectors.
- (3) Remove the bolt to release the heater control cable from the bracket on the heater air intake tube.
- (4) Slacken the set bolt and release the heater control inner cable from the lever on the heater air intake flap valve spindle.
- (5) Disconnect the air hose from the heater air intake tube.
- (6) Slacken the clips and detach the two water hoses from the heater unit.
- (7) Remove the six screws to release the heater unit from its platform on the dash bulkhead.

Dismantling

- (8) Detach the four spring clips to release the heater cover complete with blower motor from the heater body.
- (9) Withdraw the matrix from the heater body.
- (10) Remove the three screws and withdraw the blower motor complete with fan from the heater unit cover.
- (11) Drive the motor spindle out of the fan to release the fan from the motor.
- (12) Remove the three screws to release the air intake tube from the heater unit.
- (13) Remove the two screws and withdraw the spindle to release the air intake valve from the intake tube.

Reassembling

- (14) Reverse the procedure in (8) to (13) ensuring that the air intake valve lever is on the heater body side of the valve spindle.

Refitting

- (15) Reverse the procedure in (1) to (7), but before connecting the air hose to the heater air intake tube, check the operation of the air intake valve. If necessary, adjust the positions of the control inner and outer cables to give full opening and closing of the valve.

Section Rb

THE BODY

The information given in this Section refers specifically to service operations on, or affected by equipment fitted to the Sprite Mk. IV and Midget Mk. III in conformity with local and territorial requirements, and must be used in conjunction with Section R and Section Ra.

	<i>Section</i>
Anti-burst door units (Midget Mk. III from Car No. G-AN5-123731)	Rb.5
Console	Rb.1
Cubby box assembly (Midget Mk. III from Car No. G-AN5-105501)	Rb.3
Fascia	Rb.2
The front bumper and over-riders (Midget Mk. III from Car No. G-AN5-143355) ..	See page 379
The front bumper mounting bracket (Midget Mk. III from Car No. G-AN5-143355)	See page 379
The rear bumper and over-riders (Midget Mk. III from Car No. G-AN5-143355) ..	See page 381
Seat belts (Midget Mk. III from Car No. G-AN5-105501)	Rb.4

Section Rb.1

CONSOLE

Removing

- (1) Disconnect the battery.
- (2) Remove the screw securing the left-hand front end of the parcel shelf.
- (3) Remove the console retaining screws.
- (4) Withdraw the console rearwards, tilting the top forward slightly to clear the under edge of the fascia.
- (5) Disconnect the console electrical wiring from the snap connectors.
- (6) Remove the console complete with switches and fittings.

Refitting

- (7) Reverse the removing procedure in (1) to (6).

Section Rb.2

FASCIA

Removing

- (1) Disconnect the battery.
- (2) Drain the cooling system (Section Ca.1).
- (3) Remove the retaining gland nut and withdraw the temperature gauge sensing bulb from the cylinder head.
- (4) Remove the clips retaining the oil pressure and temperature gauge pipes.
- (5) Disconnect the oil pressure gauge pipe at the flexible pipe connection on the bulkhead.
- (6) Disconnect the choke control cable from the carburetters.
- (7) Remove the console (Section Rb.1).
- (8) Disconnect the speedometer cable from the back of the instrument, and remove the speedometer.
- (9) Withdraw the heater air control knob, and remove the control retaining nut.

- (10) Remove the four nuts securing the upper edge of the fascia and the four screws securing the fascia lower fixing brackets.
- (11) Pull the fascia away from the body, disconnect the electric wiring from the instruments and switches, and withdraw the warning and panel lamp holders.
- (12) Raise the left-hand end of the fascia sufficiently to clear the steering column switch cowl, tilt the top of the fascia forward slightly and withdraw it, at the same time ease the choke cable, temperature and oil pressure gauge pipes from their grommets in the bulkhead.

Refitting

- (13) Reverse the removing procedure in (1) to (12).

Section Rb.3

CUBBY BOX ASSEMBLY

(Midget Mk. III from Car No. G-AN5-105501)

Removing

Cubby box

- (1) Remove the two screws retaining the cubby box lid stay to the trim pad.
- (2) Remove the seven retaining screws.
- (3) Carefully withdraw the cubby box.

Cubby box lid lock

- (4) Unscrew the lock bezel.
- (5) Remove the two screws and the retainer.
- (6) Withdraw the lock.

Refitting

Cubby box

- (7) Reverse the removing procedure in (1) to (3).

Cubby box lid lock

- (8) Reverse the removing procedure in (4) to (6).