

(Series "TD")

AND

(Series "TF")

WORKSHOP MANUAL

NOTE

Instructions given in this manual for servicing the M.G. Midget Series "TD" are also applicable in the main to the Series "TF." In cases where components are not common to both Series, the necessary descriptions and instructions for the Series "TF" will be found at the end of the appropriate section.

The following are the main items affected: Instruments and Switches, Carburetters and Air Cleaners, Radiator, Body, Lights.

References in the text to "later models" should be understood to read "later Series 'TD' models and all Series 'TF' models" unless otherwise stated.

Amendments to the manual are only made by the issue of revised sheets, or additional sheets for insertion at the end of each section. It is therefore of the utmost importance to refer to the end of each section before carrying out any work on the vehicle.

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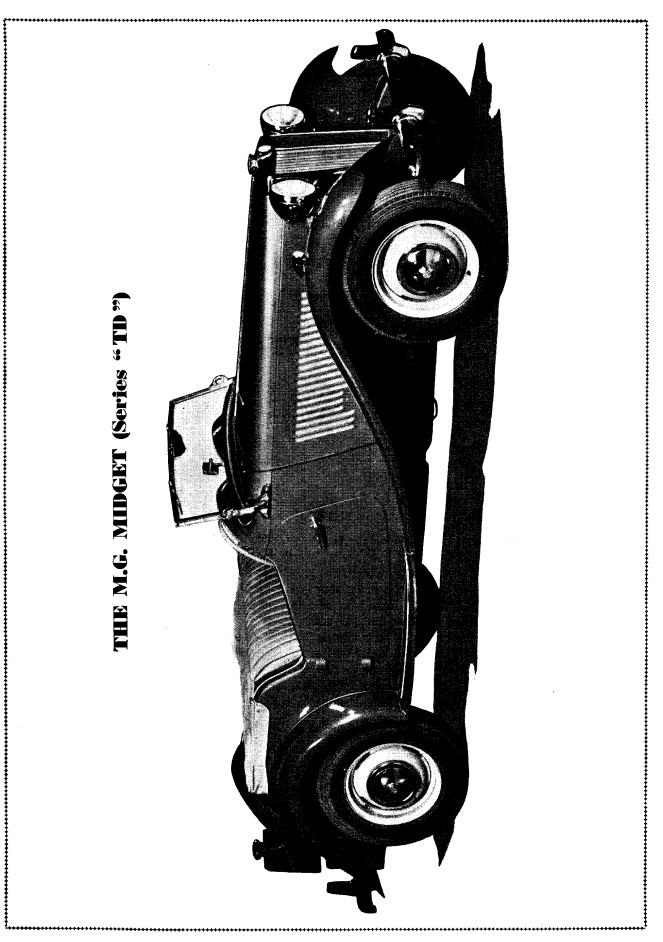
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THE BODY

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DESCRIPTION

The open body is of normal coachbuilt construction with metal panels on a wood framework and is equipped with detachable sidescreens and a folding hood for complete weather protection when required.

The body is attached to the chassis frame by a series of bolts, and it is removed without difficulty by following out the directions given.

Section R.1

THE SIDESCREENS

The sidescreens are fitted to the doors by socket fittings and slotted brackets which engage locking screws. Their fitting and removal from the doors is straightforward and presents no difficulty.

When not in use they are stored in the special compartment in the back of the body, behind the seat. As this compartment has been kept to minimum dimensions it is most important that the sidescreens are inserted correctly to obviate damage. The side-

screens must be packed together in the manner indicated on pages 10 and 11 of this Manual for early models or page 17 for later models **before** attempting to insert them in their storage compartment. Otherwise it will be found impossible to insert them successfully in the space provided. For this reason the instructions on this point have been given in the early pages of this Manual.

Section R.2

THE HOOD: MAINTENANCE AND CLEANING

Much unnecessary damage is done to the hood by incorrect and careless folding when stowing.

The hood should never be folded when wet. Always wait for the hood to be thoroughly dry before folding it.

The correct method of folding the hood is given in the early portion of this Manual (page 11) in view of its importance.

THE BODY

The hood may be cleaned when required with water and a brush—such as a clothes-brush.

No soaps of any sort should be used.

The hood must subsequently be well washed with clean water and left erected until quite dry.

Section R.3

CLEANING UPHOLSTERY

The upholstery of the M.G. Midget "TD" may be cleaned by wiping it with a damp cloth and polishing it with a clean soft cloth when it is dry.

In cases of badly soiled upholstery it may be cleaned by the additional use of a little pure soap, but caustic soaps must on no account be used.

Section R.4

LUBRICATION

An oilcan filled with oil to Ref. F (page P.2) should be used sparingly on the door hinges, door stop hinge, bonnet hinge, bonnet locks and door locks every 1,000 miles (1600 km.).

Coat the door lock slam plates lightly with grease to Ref. D (page P.2) at the same time.

Section R.5

THE FRONT WINGS (REMOVAL AND REPLACEMENT)

Disconnect the battery. Remove the headlamp and sidelamp fronts and disconnect and withdraw the cables through the wing clips and valance.

Remove the nuts, bolts and spring washers attaching the headlamp tie-rod bracket to the radiator case, and the nuts, locknuts and flat washers securing the headlamp tie-rod bracket to the wing.

Remove the two bolts and spring washers securing the sidelamp and sidelamp cable clip to the wing.

Withdraw the two Phillips screws and flat washers securing each side of the front valance to the wings and the bolt securing the leading edge of the valance below each bumper attachment bolt.

Remove the two nuts, bolts, and spring and flat washers forward of the suspension unit and the four bolts with spring and flat washers to the rear of it, which secure the wing to the chassis frame.

Extract the two Phillips screws securing the wing to the body and the three nuts, bolts, and spring and flat

washers securing the wing to the running-board and lift the wing clear of the car.

Replacement is carried out in the reverse order to that detailed for removal.

Section R.6

THE REAR WINGS (REMOVAL AND REPLACEMENT)

Remove the nuts, screws and flat washers on early models and Phillips screws and flat and spring washers on later models, securing the tail- and stop-lamp to the wing, and disconnect the cables, noting the respective location of each to ensure correct operation of the stop-lamp on reassembly.

Remove the nut, bolt and two washers securing the wing to the chassis frame and the five bolts with flat washers securing the wing to the body.

Remove the nut, bolt, flat washers and rubber packing securing the wing to the running-board and lift off the wing.

Replacement is carried out in the reverse order to that detailed for removal.

Section R.7

THE RUNNING-BOARDS (REMOVAL AND REPLACEMENT)

Remove the three nuts, bolts, and spring and flat washers securing the running-board to the front wing.

Remove the nut, bolt, flat washers and rubber packing securing the running-board to the rear wing.

Remove the three bolts and flat washers securing the running-board to the body and lift the runningboard clear of the car.

Replacement is carried out in the reverse order to that detailed for removal.

Section R.8

THE BODY (REMOVAL AND REPLACEMENT)

Extract the two round-headed screws securing the rear bonnet support to the dash and lift the bonnet clear of the car.

Disconnect the positive and negative leads from the battery.

Release the battery clamps and lift the battery from the battery box.

Remove the front wings as detailed in Section R.5. Remove the running-boards as detailed in Section R.7.

The rear wings may be left in position but it is advisable to remove them as detailed in Section R.6 to prevent damage.

Remove the bolts and spring and plain washers securing the rear bumper to the chassis frame and withdraw the bumper bar assembly and distance tubes.

Remove the spare wheel and extract the bolts and two Phillips screws with spring and flat washers to release the rear valance.

Drain the fuel tank, disconnect the delivery pipe and fuel gauge tank attachment cable.

Slacken the nut and locknut on the lower end of each fuel tank strap and the bolts clamping the spare wheel carrier to the chassis frame rear cross-tube.

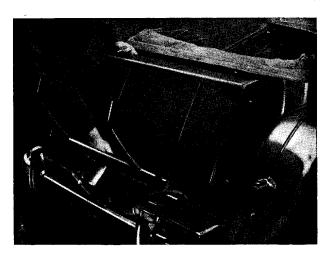


Fig. R.I.

Removing the fuel tank from the car after releasing the retaining straps which form the spare wheel carrier.

Remove the four dome nuts and flat washers securing the spare wheel carrier and fuel tank straps to the rear of the body.

Swing the spare wheel carrier to the rear and lift the fuel tank clear. To remove the wheel carrier completely, remove the number-plate lamp cover, disconnect the cables, withdraw the rubber sleeve and thread the cables through the carrier tube. By removing the clamp bolts the carrier is rendered free for lifting clear.

Withdraw the sidescreens from their stowage. Undo the wing nut locating each side of the seat backrest and lift it clear of the car. Slide the seat cushions from their runners.

Remove the carpets and underfelt.

Remove the steering wheel adjustment clamp bolt and slide back the clamp to expose the locking key. Lift the key out of the keyway by inserting a strip of thin metal down the keyway, underneath it, and withdraw the steering wheel and splined shaft from the column. Release the steering column from the support bracket.

Extract the screws from the brackets and rubber stop securing the instrument panel undershield to the lower edge of the facia panel and remove the shield.

Disconnect the starter pull cable from the switch and the mixture control cable from the carburetter.

Disconnect the throttle pedal control and return spring from the carburetter and detach the revolution counter drive cable clip from the dash.

Disconnect the oil gauge pipe, engine revolution counter and speedometer drive cables from the instruments.

Withdraw the innermost screw from each glove box lid hinge and the eight screws with cup washers securing the facia panel, and draw the panel forward.

Disconnect the main wiring loom from the rear of the instrument panel and remove the facia board complete with instruments and starter and mixture control cables.

Remove the gearbox cover, foot pedal draught excluder retaining plate and floorboards.

Extract the panel pins and screws and remove the trim panel from beneath the scuttle.

Slacken the draught excluder clip at the foot of the steering column and extract the three bolts securing the retainer plate to the toe-plate.

Remove the bolts, nuts, and spring and flat washers securing the toe-plate to the body, noting the position of the long bolt below the ignition coil.

Disconnect the horn leads and all cables from the starter motor switch and petrol pump. Detach the control box and coil from the dash. Draw all instrument panel wiring through the dash and coil it over the engine, together with the control box and ignition coil.

Disconnect the flexible oil pipe from the engine and the engine revolution counter drive from the dynamo.

Withdraw the speedometer drive cable from the dash and coil it over the engine.

Disconnect the flexible pipe and feed pipe from the petrol pump. Slacken off and remove the hand brake cable adjusting nuts and springs. Release the outer cables from the abutment bracket and thread them through the propeller shaft tunnel flange.

Extract the five bolts securing the propeller shaft tunnel to the body and chassis frame.

Extract the two nuts and bolts from the attachment plates securing each side of the body to the stiffener tube below the dash.

The body is secured to the chassis frame by eight bolts. The two rear are located in the rear corners of the sidescreen stowage compartment and the two front are inserted through the dash panel flanges into the "A" brackets on the chassis frame. The remaining four are inserted through the body floor.

Place a suitable sling around the body and hoist it clear of the chassis.

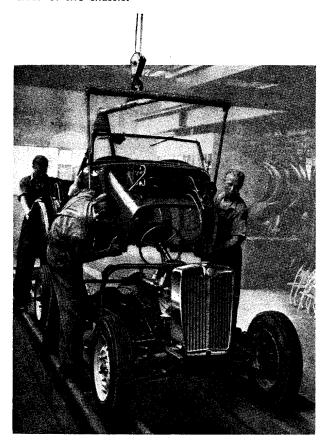


Fig. R.2.
Removal and replacement of the body requires a hoist and a suitable sling. A rope sling is quite satisfactory.

Section R.9

FACIA BOARD AND INSTRUMENT PANEL (REMOVAL AND REPLACEMENT)

Disconnect the battery.

Extract the screws from the brackets and the rubber stop securing the instrument panel undershield to the lower edge of the facia panel.

Insert a hand through the aperture provided in the undershield and disconnect the drive to the revolution counter and speedometer.

Withdraw the innermost screw from each glove box lid hinge and the eight Phillips screws with cup washers securing the facia panel.

Draw the panel forward and disconnect the oil gauge pipe and instrument panel wiring.

Replacement is carried out in the reverse order to that detailed for removal.

Section R.10

BODY FINISH

The body finish of the M.G. Midget is in cellulose enamel and its repair presents no difficulty provided the usual methods are employed.

To facilitate the matching of colours for retouching and respraying minor body repairs, small tins of the correct shade of cellulose enamel are available from the Service Parts Department in $\frac{1}{2}$ -pint, pint and gallon sizes.

The Part No. for each colour is indicated below to facilitate ordering.

Co	Part No.			
Black				S4/145
Autumn Red		•••		S4/146
lvory	•••			S4/147
Almond Green	•••			S4/148
Sun Bronze				S4/149
M.G. Red		•••		S4/150
Clipper Blue		•••		S4/151
Silver Streak Gre	у			S4/163
Woodland Green				S4/164

When ordering do not forget to state the quantity of enamel required in addition to quoting the Part No.

Section R.11

REMOVING FRONT WINGS (Series "TF")

Remove the bolt securing each front bumper bracket.

Disconnect the side- and head-lamp wires at the snap connectors on the engine side of the valances; pull the wires through the clips on the valances.

Unscrew the line of bolts under the wing securing it to the valance, and the bolts at the end flange securing the running-board.

Unscrew the nuts below the running-board and release the tread strips.

The wing can now be removed.

Section R.12

REMOVING REAR WINGS (Series "TF")

Disconnect the tail-lamp wires.

Unscrew the bolts securing the wing to the running-

board and the line of bolts and screws securing the wing to the body.

The wing can now be removed.

Section R.13

REMOVING RUNNING-BOARDS (Series "**TF**")

Unscrew the nuts securing the tread strips to running-board and front wing.

Unscrew the bolts securing the running-board to the wings and to the body.

The running-board can now be removed.

Section R.14

REMOVING AND REPLACING THE BODY (Series "TF")

Remove the following components as detailed in their respective sections:—

Bonnet; battery; wings and valances; rear bumper; spare wheel and carrier; fuel tank; seats, steering wheel and column support bracket; windscreen wiper motor and drive cable.

Disconnect :--

The starter cable from the switch; mixture control cable at the carburetter; oil pressure gauge pipe, revolution counter and speedometer cables from the instruments; throttle pedal return spring and control, and the revolution counter drive from the dash, and the main wiring loom from the instrument panel.

Unscrew the bolt at each end of the facia panel and remove it complete with instruments and starter mixture control cables.

Remove:

Carpets, gearbox cover; pedal draught excluder retaining plate and floorboards; scuttle trim panels; toe-plates.

Disconnect the horn leads and all cables from the starter switch and fuel pump.

Remove the control box, flasher units and coil from the dash. Draw all instrument wiring through the dash and coil it over the engine, together with the control box, ignition coil and flasher unit.

Disconnect the flexible oil pipe from the engine and the engine revolution counter drive from the dynamo.

Withdraw the speedometer drive cable from the dash and coil it over the engine.

Disconnect the flexible pipe and feed pipe from the fuel pump. Slacken off and remove the hand brake cable adjusting nuts and springs. Release the outer cables from the abutment bracket and thread them through the propeller shaft tunnel flange.

Extract the five bolts securing the propeller shaft tunnel to the body and chassis frame.

Extract the two nuts and bolts from the attachment plates securing each side of the body to the stiffener tube below the dash.

The body is secured to the chassis frame by eight bolts. The two rear are located in the rear corners of the sidescreen stowage compartment and the two front are inserted through the dash panel flanges into the "A" brackets on the chassis frame. The remaining four are inserted through the body floor.

Place a suitable sling around the body and hoist it clear of the chassis.

Replacement is a reversal of the above sequence of operations.

Section R.15

REMOVING AND REPLACING THE FACIA BOARD AND INSTRUMENT PANEL (Series "TF")

Disconnect the battery.

Remove the eight Phillips screws securing the panel undershield; withdraw the shield.

Disconnect the speedometer and revolution counter drives and all controls and wiring.

Unscrew six nuts securing the instrument panel to the facia, and remove.

Unscrew the securing bolt at each end underneath the facia and remove.

Replacement is carried out in the reverse order to that detailed for removal.

SECTION S

CHASSIS FRAME REPAIRS

General Description.

Section No. S.I Checking chassis frame alignment.

Section No. S.2 Straightening with heat.

Section No. S.3 Checking the front cross-member.

Section No. S.4 Straightening a damaged front end.

Section No. S.5 Correcting a twisted frame.

GENERAL DESCRIPTION

This section deals with the repair of the M.G. type box-sectioned chassis frame, damaged in accident, where the facilities used by the frame manufacturers are not available. The manufacturers, naturally, have the benefit of their production equipment, but the methods adopted by them, particularly where the use of assembly jigs and welding equipment is concerned, are outside the scope of the average repair organization.

These instructions will therefore deal mainly with methods of repairing damage to chassis frames without dismantling the component parts, i.e. breaking down welds, more than is absolutely necessary to eliminate torn or badly buckled metal or deformed crossmembers which are damaged beyond economic repair.

Repairs carried out in this manner fall into two categories:—

- (a) Repair of the frame in position in the vehicle, which may be regarded as an emergency repair, and
- (b) Repair of the frame out of the vehicle, in which complete rectification of the chassis frame is undertaken.

In general, chassis frames with considerable damage may be restored into serviceable units, but the skill and experience of the repairer and the extent of the equipment available will naturally determine whether any particular frame is repairable, bearing in mind that certain fundamental accuracies must be restored, also that the cost of labour and material involved in effecting a complete repair is not economically justified if

it exceeds the cost to the user of replacing the entire frame assembly.

Section S.1

CHECKING CHASSIS FRAME ALIGNMENT

Although in most cases of accident the resulting primary damage to the frame is readily apparent, there are cases where the damage may only be slight and is masked by the wings and body structure. In such cases it may be necessary to carry out a complete check of the chassis alignment, including the front suspension and the rear axle, to determine the full extent of the damage.

When checking cars damaged in accident, it is most essential to do the checking on a flat surface large enough to receive the complete car. It is preferable to use a large iron slab, but a concrete slab carefully prepared and hand-surfaced will be suitable. The car may then be checked directly by comparative measurements or the chassis may be suitably blocked up as shown in Fig. K.2, and a centre line dropped down from the front and rear centre of the frame and parallel track lines laid out as in Fig. S.1. From these lines the squareness of the car may easily be checked.

In a further check for distortion, diagonal measurements as shown in Fig. S.2 may be taken without removing the body from the chassis by using a plumb-bob as follows:—

Place the car on a level surface and block up the car equally at each wheel approx. 12 in. (30 cm.) high with all tyres properly inflated.

CHASSIS FRAME REPAIRS

Perform the measuring with accuracy and care. Suspend the plumb-bob from various corresponding points on the frame, such as indicated by the diagonal lines in Fig. S.2. The plumb-bob should be suspended slightly above the floor. When the plumb-bob comes to rest, mark the floor directly underneath it. The marks made on the floor will represent the various points of the frame to be checked diagonally.

Measure the diagonal distance between the points; this distance should agree within $\frac{1}{4}$ in. or $\frac{3}{8}$ in. (6.5 mm. or 10 mm.), as shown in Fig. S.2.

cross-checked at the centre line on which the diagonals should also cross, as detailed in the chassis dimensional drawing, Fig. S.2. The angle of the front cross-member should be 2° but may be given an allowance of $\pm \frac{1}{2}$ °. Diagonal measurements quickly determine which section of the frame is bent.

The accuracy of side-members is usually checked with suitable straight-edges, and squareness of side rails is checked with straight-edge and square. Twist is checked visually against straight-edges laid transversely across the frame at suitable points.

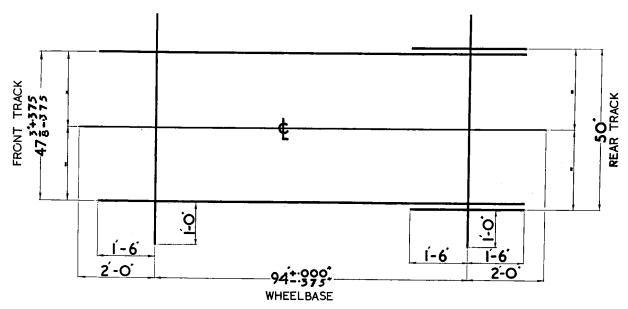


Fig. S.I. Layout for track and wheelbase lines.

Care must be taken to see that any two diagonals compared represent exactly corresponding points on each side of the frame.

Upon the result of this preliminary investigation a decision can be taken whether the frame can be repaired in position or whether the frame must be stripped out completely. When repairs are undertaken with the frame in position, the damage should be confined to forward of the front engine bulkhead plate.

Damage rearwards of the engine bulkhead plate involves the stripping out of the frame. This also applies to any damage to the rear end of the frame.

Alignment

Checking the alignment of the bare frame is a relatively simple matter, especially if the frame can be set up on a large flat surface or face plate. It involves establishing a datum or centre line, from which all measurements can be taken. Diagonals are checked from suitable fixed locating points, which can be

Section S.2

STRAIGHTENING WITH HEAT

When the frame is heated for straightening, the area affected should be maintained at a cherry-red throughout the entire straightening operation.

When an acetylene torch is used for heating, a "neutral" flame should be employed and played over the entire area to be heated until the metal has reached a uniform cherry-red. Never heat the metal beyond a cherry-red as it will seriously weaken the steel. It is good practice to check the temperature of the heated metal frequently with a dry pine-stick, while it is being worked, to maintain it at the proper state of ductility and avoid burning. Touching a dry pine-stick to metal that has been heated to a cherry-red will cause the stick to glow and char, but not to ignite. The heated area of the frame should be protected from draughts to prevent sudden cooling of the metal.

Section S.3

CHECKING THE FRONT CROSS-MEMBER

When a car has sustained damage to the front suspension, necessitating the dismantling of the assemblies, it is essential that the chassis frame should be checked for correct alignment, especially at the front cross-member. This will avoid excessive tyre wear and steering wander, etc.

A method of making an approximate check is shown in Fig. S.3.

Place the car on a flat surface.

The bars should be parallel to each other at the points "E" and "F" within a tolerance of $\frac{3}{16}$ in. (4.76 mm.).

Between the points "G" and "H," or "J" and "K," the bars should also be parallel with a tolerance of $\frac{3}{16}$ in. (4.76 mm.).

If a fore and aft plumb-bob centre line is dropped down from the front and rear centre of the frame and points also dropped down from the bars at each end, the points "L," "M," "N," "P" may be checked to the centre line to ensure the alignment of the bars fore and aft.

If misalignment is found in the top bars only, it may be that this can be corrected by removing the top bar

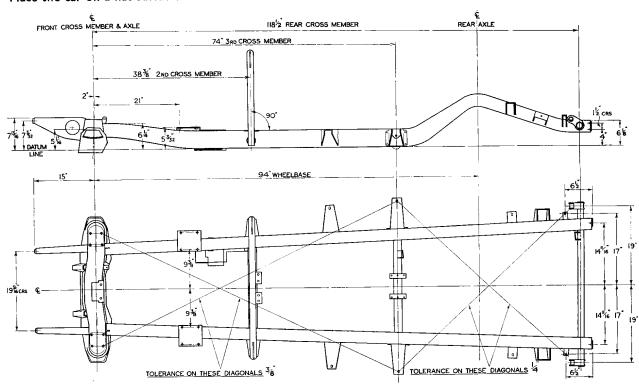


Fig. S.2. Chassis dimensional diagram.

Remove the front suspension and the rear wheels. Lower the frame on the three blocks having the dimensions shown in Fig. S.3. These locate the frame in such a position that the front cross-member should run-parallel to the ground if not distorted.

Bolt on to the front cross-member the four bars, Tool No. T.125. (See Section Q.)

Parallelism and alignment of these bars can then be checked by measurement and by sighting one rod to the other.

When measured at the points "A," "B," "C," "D" from the flat surface on which the car or frame is placed, all the bars should run parallel to it within a tolerance of $\frac{3}{16}$ in. (4.76 mm.).

and bolting a similar but stiffer bar to the crossmember, which can be used as a lever to twist slightly the outer end of the cross-member into its correct alignment with the lower bars.

Section S.4

STRAIGHTENING A DAMAGED FRONT END

Correct alignment of the front suspension is of such vital importance that if there is appreciable distortion of this member, it should be renewed, due to the fact

CHASSIS FRAME REPAIRS

that it is a very difficult operation to re-form it exactly to its original shape.

Note.—We do not recommend that this operation be carried out by the Distributor or Dealer unless adequate assembly fixtures are available.

The majority of frames are damaged as a result of oblique frontal impacts, and straightening of the front end section of the frame is carried out as follows. (See Fig. S.4):—

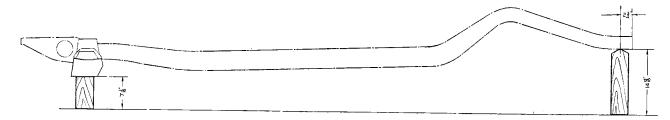
The first step is to recover the original dimension "AB," by applying a diagonal force between "A" and "B," using a screw or hydraulic jack, at the same time applying heat to the frame side-members at "X" and "Y." Apply the heat evenly over a reasonable

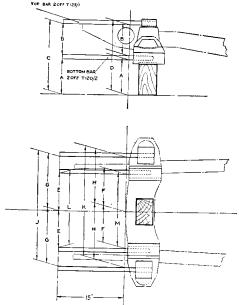
areas. Use a large wood block between the hammer and the frame to avoid local damage.

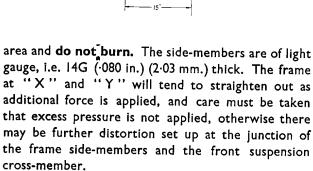
Further straightening at "Z" will probably be required by using a screw jack, abutting on suitable wood packing blocks, at right angles to the frame. (See Fig. S.5.) Similar methods of recovery can be used at any point along the frame.

It is necessary, when using the jacks, to apply sufficient force slightly to over-straighten the side-members, for the frame will spring back when the jack is released.

It is better to make a recovery in stages rather than to apply too great a force at one effort, and consequently have to rectify the results of over-straightening. It







Recovery at "X" and "Y" will be assisted by hammering the metal, which is already heated, in these

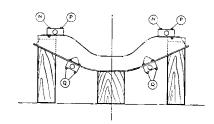


Fig. S.3.

The special bars for checking alignment of the front suspension cross-member are shown in position on the left.

will be found, however, that a more natural recovery is achieved by introducing a considerable proportion of the load required before applying the heat. It is important also, when applying heat, to do so along a diagonal line up the walls of the side-member and not vertically, as this will control the release of the jacking strains more gradually and prevent the correction from being too localised.

If the frame has lifted or dropped at the front end, it will be necessary to correct this by trussing with the aid of a straining member and screw jack. (See Fig. S.6.)

The chassis frame front extensions are easily renewed by sawing through the weld securing the front extension to the front suspension cross-member, and welding replacement components in position. Ensure that the front extensions are correctly located before re-welding. See chassis dimensional diagram, Fig. S.2. When the front end is rectified, final checking is then directed to ensure that the side-members are in the correct plane and that the front suspension cross-member is set to the correct angle from the datum line. Reference to Fig. S.2 and Fig. S.3 will give all the required information.

points "A," "B" or "C" (Fig. S.7) to a fixed trestle, and by using a suitable lever, or a stout beam of timber, the frame can then be sprung back with sufficient effort applied at the end of the lever.

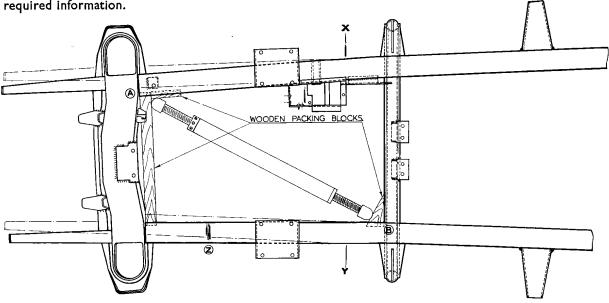


Fig. S.4.

A screw-type jack in position to correct front end misalignment.

Section S.5

CORRECTING A TWISTED FRAME

In the event of the frame being twisted, this condition can be corrected by anchoring the frame at

If necessary apply well-spread heat at the twisted section.

As the frame is completely dismantled, it is possible to remove all signs of damage by cutting out holes for access, with the welding torch, in the inner liner plates,

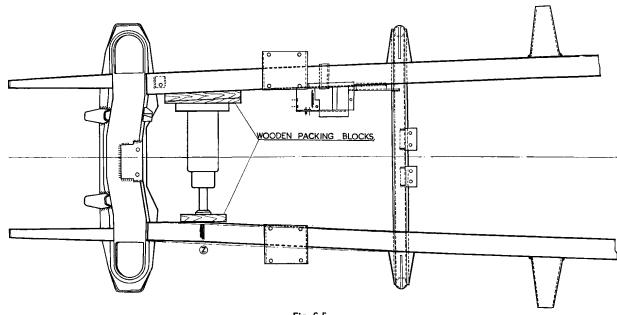


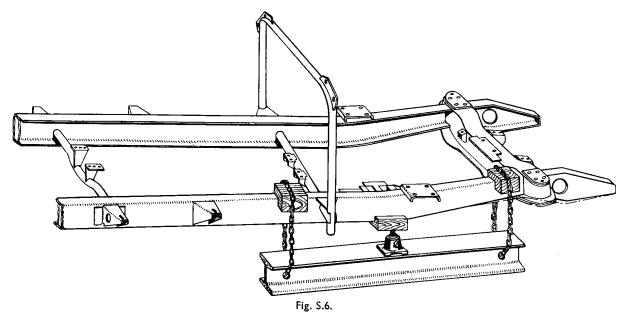
Fig. S.5.
A jack in use to straighten a damaged frame side-member.

CHASSIS FRAME REPAIRS

hammering out bulges, dents or buckled areas, and closing the holes by welding in the pieces previously removed. The holes should be cut on the centre line of the inner liner plate and be kept as small as possible.

Final checking of the frame should be carried out as indicated in Figs. S.2 and S.3.

Comparative vertical measurements should reveal any frame twist.

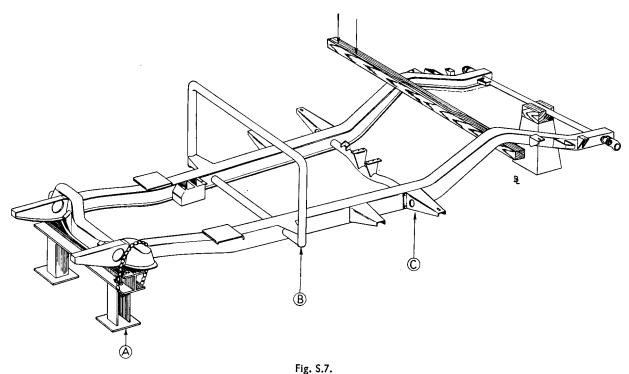


A beam and jack may be used for the correction of lift or fall in a frame side-member.

The welds can be cleaned up and the repair is then invisible.

When any adjustment to the frame is carried out do not forget the light gauge of the material and treat it accordingly.

Check the wheel camber, castor angle, king-pin angle and front wheel alignment as detailed on pages K.2 and K.3.

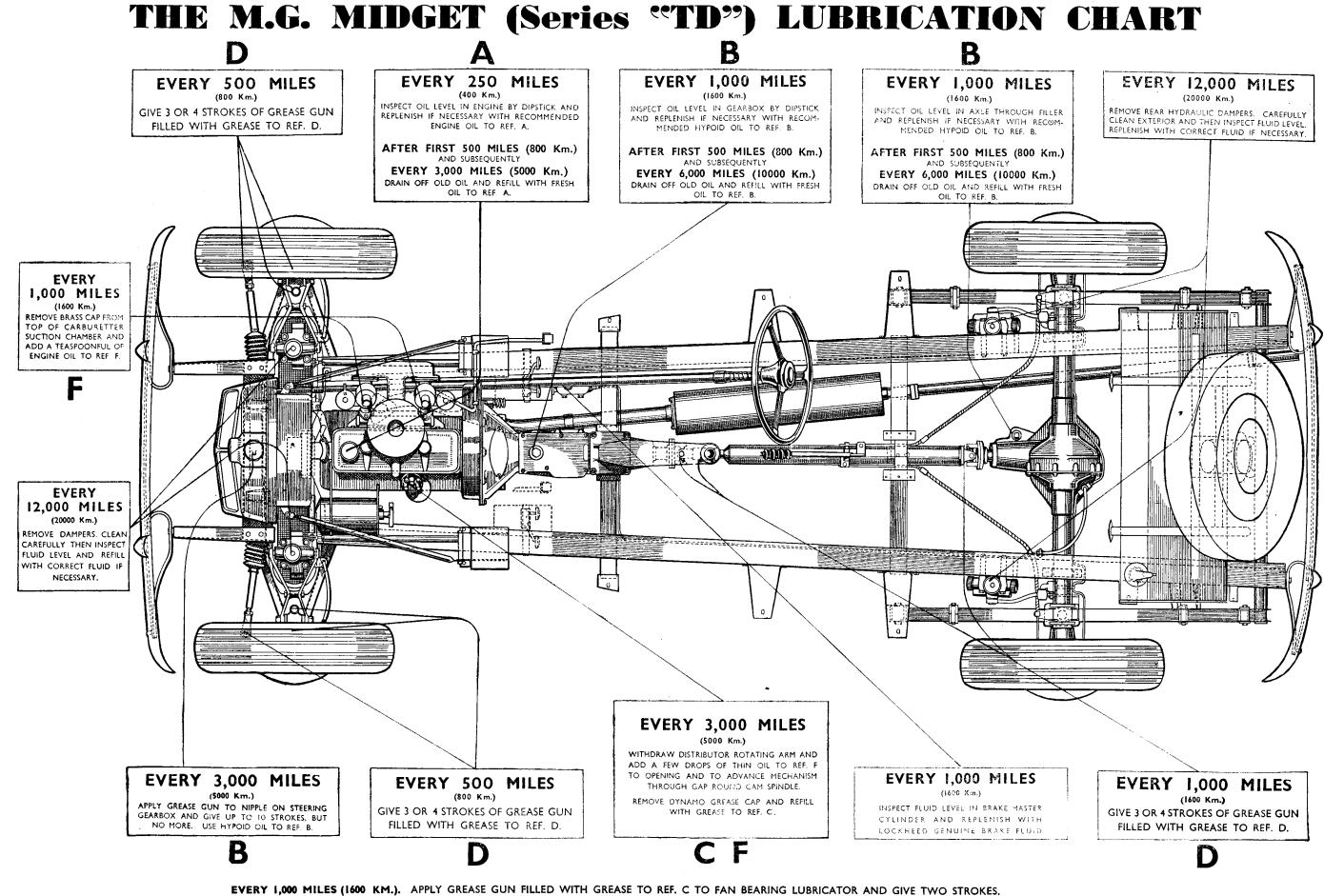


The method of employing a stout beam to spring a twisted frame while it is held on a suitable stand.

KEY TO RECOMMENDED LUBRICANTS

A	ENGINE AND AIR CLEANER											
	Climatic Conditions	B.P. Energol	Filtrate	Sternol	Duckham's	Castrol	Esso	Mobiloil	Shell			
	Tropical and Temperate down to 32° F. (0° C.)	"Energol" Motor Oil S.A.E. 30	Medium '' Filtrate ''	"Sternol" W.W. 30	Duckham's N.O.L. "Thirty"	" Castrol " X.L.	"Essolube" 30	Mobiloil "A"	" Shell " X—100 S.A.E. 30			
	Cold and extreme cold down to 0° F. (-18° C.)	"Energol" Motor Oil S.A.E. 20	Zero "Filtrate"	"Sternol" W.W. 20	Duckham's N.O.L. "Twenty"	" Castrolite "	"Essolube" 20	Mobiloil " Arctic "	" Shell " X-100 S.A.E. 20			
	Arctic below 0° F. (-18° C.)	"Energol" Motor Oil S.A.E. 10	Sub-Zero "Filtrate"	"Sternol" W.W. 10	Duckham's N.O.L. "Ten"	" Castrol " Z	"Essolube" 10	Mobiloil 10W	" Shell " X—100 S.A.E, 10			
В	GEARBOX, STEERING GEARBOX AND REAR AXLE (HYPOID GEARS)											
	Tropical and Temperate down to 10° F. (-12° C.)	"Energol" Transmission Oil E.P. S.A.E. 90	Hypoid "Filtrate" 90	"Sternol" Ambroleum E.P. 90	Duckham's Hypoid 90	" Castrol " Hypoy	"Esso" Expee Compound 90	Mobilube "G.X." 90	" Shell " Spirax 90 E.P.			
	Extreme cold below 10° F. (-12° C.)	"Energol" Transmission Oil E.P. S.A.E. 80	Hypoid "Filtrate" 80	"Sternol" Ambroleum E.P. 80	Duckham's Hypoid 80	" Castrol " Hypoy 80	" Esso " Expee Compound 80	Mobilube "G.X." 80	"Shell" Spirax 80 E.P.			
C	WHEEL HUBS AND FAN BEARINGS											
	All conditions	"Energrease" C.3	"Filtrate '' Super Lithium Grease	"Ambroline" R.B. Grease	Duckham's H.B.B. Grease or L.B. 10 Grease	"Castrolease " Heavy	Home "Esso" Grease Export "Esso" Bearing Grease	Home Mobil Hub Grease Export Mobilgrease No. 5	"Shell" Retinax A			
D	STEERING C	ONNECTIONS	, KING-PINS	, PROPELLER S	SHAFT, CLEVIS	S PINS AND LE	EVER FULCRI	JMS				
	All conditions	"Energrease" C.1	"Filtrate" Super Lithium Grease	"Ambroline" M.M. Grease	Duckham's H.P.G. Grease or L.B. 10 Grease	"Castrolease " Medium	Home "Esso" Pressure Gun Grease Export "Esso" Chassis Lubricant	Mobilgrease No. 2 or 4	"Shell" Retinax A			
E	CABLES AND	CABLES AND VITAL CONTROL JOINTS										
	All conditions	"Energrease" C.1	"Filtrate" Super Lithium Grease	"Ambroline" A.F. Grease	Duckham's "Keenol" K.G. 16 Grease or L.B. 10 Grease	"Castrolease "Brake Cable Grease	Home "Esso" Pressure Gun Grease Export "Esso" Chassis Lubricant	Mobilgrease No. 2 or 4	"Shell" Retinax A			
F	UTILITY LUB	UTILITY LUBRICANT, S.U. CARBURETTER DASHPOT, OILCAN POINTS, ETC.										
	All conditions	"Energol" Motor Oil S.A.E. 20	Zero "Filtrate"	"Sternol " W.W. 20	Duckham's N.O.L. "Twenty"	" Castrolite "	"Essolube" 20	Mobiloil "Arctic"	"Shell" X—100 S.A.E. 20			

EVERY 1,000 MILES (1600 Km.). Use oilcan on all control joints, door locks, hinges. SPECIAL NOTE. Only Hypoid oils must be used in the rear axle.



USE OILCAN ON ALL CONTROL JOINTS, DOOR LOCKS, HINGES TO REF. F.

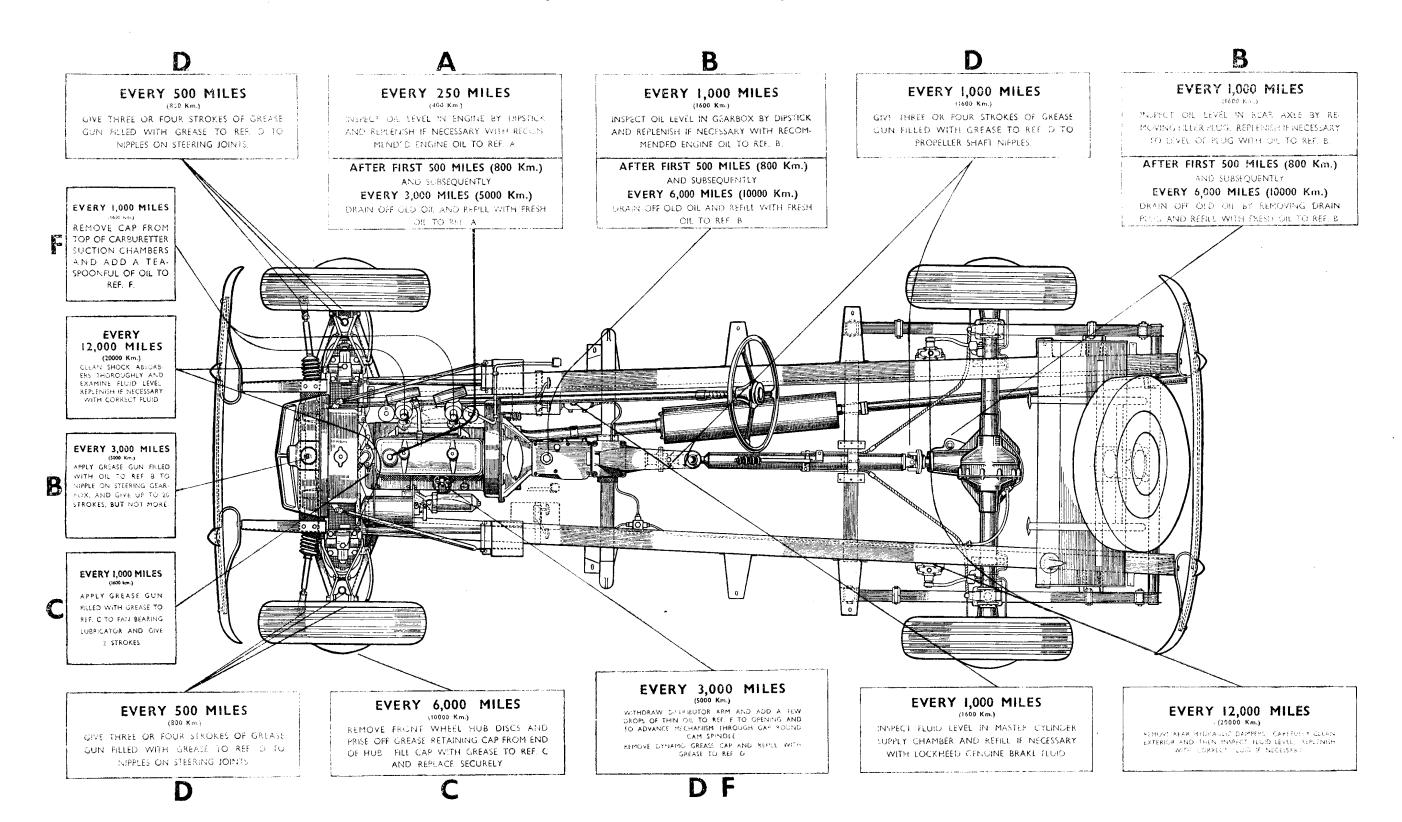
FIT NEW EXTERNAL OIL FILTER (THROW-AWAY TYPE), OR NEW ELEMENT (RENEWABLE ELEMENT TYPE).

CLEAN AND RE-OIL AIR CLEANER (HOME).

EVERY 3,000 MILES (5000 KM.). CLEAN AND RE-OIL AIR INTAKE CLEANER (EXPORT).

EVERY 6,000 MILES (10000 KM.). REMOVE FRONT WHEEL HUB DISC FROM HUB. APPLY GREASE GUN FILLED WITH GREASE TO REF. C AND GIVE ONE STROKE ON EARLY MODELS. ON LATER MODELS REMOVE GREASE CAP, REPLENISH WITH GREASE TO REF. C AND REPLACE. APPLY GREASE GUN FILLED WITH GREASE TO REF. D TO REVOLUTION INDICATOR GEARBOX AND GIVE TWO STROKES.

THE M.G. MIDGET (Series "TF") LUBRICATION CHART



EVERY 1,000 MILES (1600 KM.). USE OILCAN FILLED WITH OIL TO REF. F ON ALL CONTROL JOINTS, DOOR LOCKS, HINGES, ETC.

EVERY 6,000 MILES (10000 KM.). APPLY GREASE GUN FILLED WITH GREASE TO REF. D TO REVOLUTION INDICATOR GEARBOX AND GIVE TWO STROKES. FIT NEW EXTERNAL OIL FILTER ELEMENT.