FRAME

The term SW indicates the size in mm across the flats of the spanner required.

Special tools required:
See illustrated sheet of special tools. Also C-spanner 078.791.004, which forms part of the tool kit provided with the vehicle, or a suitable commercially-available C-spanner.

Removing and Fitting Front Wheel
(F 01)

1. Loosen the lock nut, and screw the adjuster for the brake cable, which is situated on the brake lever, right in. Disconnect the nipple from the front brake cam lever. Unscrew both nuts on the front axle (20 mm SW) and take out the wheel.

2. Replace in the reverse order. Note that the thin washer is fitted on the left-hand side of the wheel inside the pivoted fork link.

Removing and Fitting Rear Wheel
(F 02)

1. Take off left-hand side panel. Unscrew cap nuts (14 mm SW) and lock washers, and take out wheel.

2. Replace in the reverse order.
Ball Bearing and Seal Rings in Front Hub. Removal and Fitting  
(F 03)

1. Remove front wheel from frame (see F 01). Remove brake back plate (see F 04).

2. Knock out the axle from the brake drum side, using a rubber hammer. Take off the spacer bushes. Knock out the sealing rings, and remove the circlips. Pull out the ball bearing with a suitable commercial extractor, or knock out with a suitable punch, pushing the spacer tube to one side.

3. Fitting: Press in the left-hand ball bearing. Fit the circlip and fill with grease. Insert the spacer tube, and press in the right-hand ball bearing. Insert the spacer bushes in the sealing rings so that on the left-hand side of the hub the lip on the sealing ring faces **outwards** towards the collar on the spacer bush; on the brake-drum side, on the other hand, the lip must point **inwards**. Push spacer bushes complete with oil seals into hub with the collar on the bush pointing outwards. Knock the axle in carefully from the brake-drum side, so that the left-hand spacer bush is not pushed out of the sealing ring. Fit the brake back plate. Screw on and tighten up both nuts (19 mm SW). Make sure that the axle projects by the same amount on either side.
Brake Back Plate on Front Wheel. Removal and Fitting
(F 04)

1. Remove front wheel from frame (see F 01).
2. Unscrew nut (19 mm SW) on brake back plate, and take off back plate together with brake shoes.
3. Replace in the reverse order.

Rear Hub. Removal and Fitting
(F 05)

1. Remove rear wheel from frame (see F 02).
2. Unscrew central nut (32 mm SW) and remove lock washer. Pull off hub with extractor (018 099 743).
3. Fitting: The cones must be free from oil and grease when they are assembled. Fit the Woodruff key, attach the hub, and secure with central nut and lock washer.
Renew Brake Linings (each hub)

(F 08)

Front or rear brake

1. Remove front wheel (see F 01).
   Remove front-wheel brake back plate
   (see F 04).

   or

   Remove rear wheel (see F 02)
   Remove rear hub (see F 05)

2. Remove circlip from pivot pin. Lift off brake
   shoes and return spring. Clamp brake shoe in
   vice, holding it by the eye (use protective jaw
   clamps). Knock off rivets with a chisel.

3. When riveting on the new linings, insert and
   clench over the central rivets first. Oil the bra-
   ke cam. Attach the return spring to both brake
   shoes, and fit shoes. Fit the circlip.

Speedometer Drive. Removal and Fitting

(F 09)

1. Remove rear wheel (see F 02).
   Remove rear hub (see F 05).

2. Take off cover for swinging arm
   (see M 02, Section 30).
   Remove spiral gears
   (see M 02, Section 31 and 32).

3. Replace in the reverse order.
Front Forks. Removal and Fitting

(F 20)

1. Remove front wheel (see F 01).

2. Remove the cover plate with the insignia and the rubber base plate. Unscrew the bolt (17 mm SW) which is under the cover plate and remove together with lock washer. Use bolt (11 91 00 934) to pull off the handlebars. Take off the handlebars, and rest them on a clean piece of rag (take care not to damage the paintwork or the control cables). Hold the bearing ring with spanner (11 91 00 128), and unscrew the adjusting nut by means of the C-spanner (128 052 134). Unscrew the bearing ring and remove the front forks. Take care not to lose the balls out of the ball bearings.

3. Fitting: Grease the bearing cups and insert the balls (25 1/8” balls in the upper bearing, and 23 1/4” balls in the lower bearing). Fit the front forks with the hand-brake cable, and turn to the left or to the right. Screw in the bearing ring and lock with the adjusting ring. The special spanner (048 422 003) can be used for this. Make sure that, while there is no play in the forks, they can turn easily to either side. Fit the handlebars - the cones must be free from oil and grease - and tightly screw up the bolt (17 mm SW), under the head of which there should be a lock washer. The handlebars must be fitted exactly at right angles to the front wheel. Connect up the control cables. Fit the front wheel.
Steering-Head Cones, Cups, and Balls. Removal and Fitting
(F 21)

1. Remove the front wheel (see F 01).
   Remove the front forks (see F 20).
   Remove the fork cowling (see F 30).

2. Knock the upper and lower steering-head races out of the steering head by means of a suitable tube inserted inside the steering head.
   Knock the lower cone off the fork stem by means of a punch passed up from underneath through the two holes.

3. Fitting: Knock the races into position in the steering head. Press the lower cone onto the fork stem by means of a suitable tube pushed over the stem. Fit the front forks and the front wheel.
Front Fork Springs. Removal and Fitting

(F 22)

1. Remove the front wheel (F 01).
2. Unscrew the bolts (10 mm SW) on the underside of the forks, together with their washers and lock washers. Push the pivoted link slightly upwards, and remove the buffer. Unscrew the hexagon nut (19 mm SW) on the inside of the forks and remove together with its lock washer. Knock out the pivot bolt with the aid of a brass punch. Take off the pivoted link complete with caps, bush, spring guide rod, spring, cap, and bearing bush.
3. Replace in the reverse order. Grease the springs and their guide rods.

Fig. F 22/2

Fig. F 22/2a

Pivoted Links, Left-hand and Right-hand Removal and Fitting

(F 24)

1. Remove the front wheel (see F 01). Remove the pivoted links (see F 22).
2. Replace in the reverse order.

Replacing Bushes in Pivoted Links

(F 25)

1. Remove front wheel (see F 01). Remove pivoted links (see F 24).
2. Use a suitable punch to knock out the bearing bushes. Press in new bushes, and open them up with an adjustable reamer so that the spacer bush moves easily inside them.
3. Replace in the reverse order.
Front Mudguard. Removal and Fitting  
(F 26)

1. Remove the front wheel (see F 01). Remove the front forks (see F 20).
2. Unscrew three bolts (10 mm SW) on the inside of the mudguard, and remove together with the lock washers. Loosen the bolt (9 mm SW) on the clip, and take off the mudguard.
3. Replace in the reverse order. The open end of the mounting clip must be at the front.

Front Bumper. Removal and Fitting  
(F 27)

1. Unscrew the three bolts (10 mm SW) on the inside of the mudguard and remove together with the lock washers. Take off the bumper.
2. Replace in the reverse order.

Fork Cowling. Removal and Fitting  
(F 30)

1. Remove the headlamp (see E 13).
2. Unscrew the two countersunk screws inside the headlamp cavity and the four countersunk screws on the rear of the leg shield. Place a rag between the fork cowling and the mudguard, and carefully lift off the fork cowling together with the rubber mouldings on either side.
3. Replace in the reverse order. Position the control cables so that the throttle cable lies on the left-hand side of the horn, and the clutch, gear-change, and front-brake cables on the right-hand side of the horn. Make sure the rubber mouldings fit properly.

Handlebars and Fittings. Removal and Fitting  
(F 40)

1. Disconnect brake cable (see F 51). Disconnect throttle cable (see F 53). Disconnect clutch cable (see F 50). Disconnect gear-change cable (see F 54). Remove headlamp (see E 13). Remove dip-switch lead (see E 05).
2. Take off the cover plate with the insignia and the rubber base plate. Unscrew the bolt (17 mm SW), and pull off the handlebars with the aid of bolt (11 91 00 934).
3. Replace in the reverse order. Follow the wiring diagram when connecting up the electric leads.
Handlebar Bend. Stripping and Assembly
(F 41)

1. See F 40.
   Remove dip-switch (see E 10).
   Remove gearchange twistgrip (see F 46).

2. Replace in the reverse order. When tightening up the tapered bolt under the dip-switch, make certain that the gearchange twistgrip can be turned easily.

Speedometer. Removal and Fitting
(F 42)

1. Open the battery box, and disconnect the earth lead (10 mm SW).

2. Open the lid on the instrument panel, and unscrew the knurled nut on the speedometer driving shaft. Pull out three bulbs (charging indicator lamp, speedometer illumination lamp, fuel gauge lamp) complete with bulb holders and leads. Push the speedometer downwards slightly to free the round nuts. Unscrew the round nuts and remove together with the clips. Pull the speedometer out from the top.

3. Replace in the reverse order. Finally connect earth lead.

Speedometer Drive Shaft. Removal and Fitting
(F 43)

1. Remove the fork cowling (see F 30).
   Remove the battery box (see E 16).
   Remove the instrument panel (see E 19).
   Remove edge strips, left-hand and right-hand (see F 83).

2. Unscrew six nuts (7 mm SW) on the bottom of the leg shield at the front. Take off the right-hand side panel. Loosen the hexagon-head bolt (10 mm SW) on the swinging arm and pull out the speedometer drive shaft. Remove the rubber cap. Unscrew the knurled nut on the speedometer. Open the three cable clips on the frame. Push the leg shield slightly to the rear and at the same time pull the speedometer drive shaft out from the top.

3. Replace in the reverse order.
Brake and Clutch Lever. Removal and Fitting  
(F 44)

1. Disconnect the nipple on the brake cable from the brake cam lever on the brake back plate. Unscrew the pivot bolt (9 mm SW) and remove with washer and cup washer. Push the hand lever towards the handlebars and pull the lever out of its mounting. Disconnect the brake cable.

2. Disconnect the nipple on the clutch cable from the clutch-operating lever on the engine. Disconnect the nipple from the hand lever on the handlebars. Unscrew the nut (10 mm SW) and remove with the star washer, and then unscrew the pivot bolt. Take off the hand lever.

3. Replace in the reverse order.  
On the hand brake lever the cup spring must be fitted with its raised centre bearing against the head of the bolt.

Throttle Twistgrip. Removal and Fitting  
(F 45)

1. Push the rubber sleeve back slightly. Unscrew the countersunk screw. Take off the end cap. Turn the twistgrip away from you, at the same time pulling it off the handlebars.

2. Replace in the reverse order.
Gearchange Twistgrip, Removal and Fitting
(F 46)

1. Engage second gear, and unscrew the countersunk screw in the twistgrip. Engage third gear. Disconnect the clutch cable from the engine and from the handlebar lever. Take off the end cap and the washer. Unscrew the countersunk screw on the underside of the twistgrip body and remove together with the star washer. Take off the cap. Remove the segment with the gearchange cable, and pull off the twistgrip.

2. Replace in the reverse order, with third gear engaged. The mark on the segment must be in line with the mark on the twistgrip body.

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Sleeve on Twistgrip or Dummy Grip. Removal and Fitting
(F 47)

1. Lift the interior of the sleeve with a small screwdriver. Squirt a few drops of petrol between the sleeve and the grip, and pull the sleeve off with a twisting motion.

2. Assembly: Moisten the sleeve with petrol, and push it on quickly with a twisting motion.
Twistgrip Slider. Removal and Fitting
(F 48)

1. Take off the throttle twistgrip (see F 45).
2. Unscrew the top cap of the carburettor, and carefully lift out the throttle slide. Disconnect the throttle cable from the throttle slide and the twistgrip slider. Remove the twistgrip slider.

3. Replace in the reverse order.

Clutch Cable. Removal and Fitting
(F 50)

1. Remove the headlamp (see E 13). Remove the fork cowling (see F 30).
2. Disconnect the clutch cable from the clutch-operating lever on the engine. Unscrew the adjuster, and disconnect the nipple from the hand lever.

3. Fitting: Connect the ends of the old and new cables together by twisting a piece of wire round them. Loosen the clips on the frame slightly, and draw in the new cable by pulling out the old one. Screw in the adjuster and connect the nipples. Remove any excessive play by means of the adjuster and lock nut.

Front Brake Cable. Removal and Fitting
(F 51)

1. Remove the headlamp (see E 13). Remove the fork cowling (see F 30).
2. Disconnect the nipples from the brake cam lever and the hand lever.

3. Fitting: Connect the ends of the old and new cables together by twisting a piece of wire round them. Draw in the new cable by pulling out the old one. Connect the nipples. Remove any excessive play by means of the adjuster on the hand lever. Tighten up the lock nut on the adjuster.
Cable for Gearchange Locking Mechanism. Removal and Fitting  
(F 52)

1. Lift the rubber mat on the right-hand footrest, and unscrew the countersunk screw on the silencer. Unscrew four nuts (9 mm SW), together with lockwashers, and take off footrest. Unscrew the countersunk screws on the gear change casing, and take off the cover complete with gasket. Loosen the lock nut (10 mm SW) on the adjusting screw and unscrew the adjusting screw completely (9 mm SW). Disconnect the cable from the clutch lever.

Unscrew the bolt (10 mm SW) on the ratchet plate with its lock washer and washer, and prise off the ratchet plate with a screwdriver.

Unscrew the plug (14 mm SW). If this is not done the spring will be damaged.

Disconnect the locking pin from the nipple of the cable. Remove spring, plug, and cable.

2. Fitting: Assemble cable, plug, spring, and locking pin, and screw into gearchange casing. When fitting the ratchet plate, pull back the locking pin by means of the cable. Insert the outer casing of the cable in the eye formed in the clutch cover. Screw the adjuster into the clutch operating lever, and lock it. The adjuster of the gearchange locking cable should be set so that there is a play of about 2—3 mm (0.08—0.12") when the clutch lever is released. If the play is less than this there is the danger either that the clutch will not disengage properly or that the nipples will be pulled off the gearchange locking cable.

Throttle Cable. Removal and Fitting  
(F 53)

1. Remove the throttle twistgrip (see F 45).
   Remove the slider from the twistgrip (see F 48).
   Remove the fork cowling (see F 30).

2. Loosen the cable clips on the frame.

3. Fitting: Connect the ends of the old and new cables together by twisting a piece of wire round them, and draw in the new cable by pulling out the old one. Finally attach the nipple to the throttle slide.
Gearchange Cable. Removal and Fitting
(F 54)

1. Remove the fork cowling (see F 30).
   Remove the gearchange twistgrip (see F 46).

2. Take the cover off the gearchange casing (see F 52). Remove the split pins from the pivot pin.
   Screw the cable adjusters right in and disconnect the nipples. Uncrew the adjusters, loosen the cable clips on the frame, and pull the cable out in an upward direction.

3. Fitting: Insert the cable from the front, and attach it to the gearchange twistgrip first (see F 46). Engage bottom gear, and screw the adjuster of the shorter cable into the front hole of the gearchange casing and that of the longer cable into the rear hole. Attach both nipples and fit the split pins.

   Engage second gear (both with the gearchange twistgrip and with the gearchange mechanism) and screw in both adjusters until there is no play in the cable. Tighten up the lock nuts on the adjusters. Grease the ratchet plate. Adjust the gearchange mechanism (see M 02, section 29).

Cable for Strangler and Tickler Operation. Removal and Fitting
(F 55)

1. Remove the headlamp (see E 13).
   Remove the fork cowling (see F 30).

2. Unscrew the bolt (9 mm SW) and take off the inlet air silencer. Remove the split pin from the tickler. Pull out the lever. Unscrew the cable adjuster. Pull up the knob on the guide rod. Hold the guide rod with a pair of pliers and unscrew the knob. Open the glove locker. Loosen the nut (17 mm SW) and unscrew the knurled nut. Pull out the sleeve and the cable. Take off the hexagon nut and the bracket. Loosen the clips on the frame, and pull the cable out downwards.

3. Fitting: Insert the cable from the engine side between the frame and the legshield, and pass it through the upper hole in the legshield. Screw the hexagon nut, the bracket, and the knurled nut onto the sleeve of the cable. Fit the knob onto the guide rod. Screw in the adjuster. Connect the lever to the tickler by means of a split pin. Adjust the cable by means of the adjuster, and tighten up the lock nut.
Frame. Removal and Fitting

(F 60)

1. Remove engine
   (see M 01)
   Remove front wheel
   (see F 01)
   Remove front forks
   (see F 20)
   Remove steering-head cones, cups,
   and balls
   (see F 21)
   Remove headlamp
   (see E 13)
   Remove fork cowling
   (see F 30)
   Remove gearchange twistgrip
   (see F 46)
   Remove clutch cable
   (see F 50)
   Remove front brake cable
   (see F 51)
   Remove cable for gearchange
   locking mechanism
   (see F 52)
   Remove gearchange cable
   (see F 54)
   Remove cable for strangler
   and tickler operation
   (see F 55)
   Remove pillion saddle
   (see F 71)
   Remove saddle
   (see F 72)
   Remove rear light
   (see E 09)
   Remove front central panelling section
   (see F 61)
   Remove fuel tank
   (see F 80)
   Remove rear central panelling section
   (see F 63)
   Remove instrument panel
   (see E 19)
   Remove battery
   (see E 15)
   Remove battery box
   (see E 16)
   Remove legshield
   (see F 90)

Front Central Section of Panelling. Removal and Fitting

(F 61)

1. Remove pillion saddle (see F 71).
   Remove saddle (see F 72).

2. Unscrew two bolts (14 mm SW) on front of
   luggage carrier and remove with lock washers
   and spacer tubes. Hinge the luggage carrier up
   to the rear and remove the spare wheel. Take
   off both side panels. Remove the split pin on
   the universal joint for the fuel tap and filter,
   and pull the control rod out to the front. Unscrew
   four countersunk screws with washers
   and two nuts (10 mm SW). Take out rubber
   grommets. Lift the central section of the panelling
   off carefully.

3. Replace in the reverse order.

Fig. F 61
Rear Mudguard. Removal and Fitting
(F 62)

1. Remove the rear wheel (see F 02).
2. Unscrew the front and rear mounting bolts. 
   Bend up the clip for the leads on the mudguard. 
   Take off the mudguard.
3. Replace in the reverse order.

Rear Central Section of Panelling. Removal and Fitting 
(F 63)

1. Remove front central section of panelling (see 
   F 61).
   Remove rear and stop lights (see E 09).
   Remove saddle (see F 72).
   Remove pillion saddle (see F 71).
2. Unscrew six bolts (10 mm SW) with lock washers and nuts, one bolt (11 mm SW) with lock washer and nut, and one countersunk screw with washer, lock washer, and nut from rear central portion of panelling. The luggage carrier, the spare wheel holder, and the ignition coil can then be removed and the rear central section of the panelling can be lifted off.
3. Replace in the reverse order.

Rear Shock Absorber. Removal and Fitting
(F 65)

1. Unscrew mounting bolt (14 mm SW) on swinging arm. Take off locking wire on mounting bracket.
   Remove shock absorber.
2. Replace in the reverse order.
Rear Springing. Removal and Fitting  
(F 67)

1. Remove rear wheel (see F 02).  
Remove rear hub (see F 05).  

2. Remove circlip on left-hand end of bearing pin.  
Knock out bearing pin with a punch; the rear  
spring unit will then drop down. Take the split  
pin off the brake cam lever and pull out the  
pin. For remaining work see M 02, section  
22–25.  

3. Replace in the reverse order.

Bush for Rear Spring Unit and Bearing Pin. Removal and Fitting  
(F 68)

1. Remove rear wheel (see F 02).  
Remove rear hub (see F 05).  
Remove rear spring unit (see F 67).  

2. Force the defective bearing bush out of the  
connection lug and the pull rod. Press in a new  
bush, and ream out to size. Use an adjustable  
reamer. If the mounting holes in the transmis-

Exhaust System. Removal and Fitting  
(F 70)

1. See M 01, sections 4 and 22.
Pillion Saddle. Removal and Fitting

(F 71)

1. Unscrew bolts (10 mm SW) and lock washers on hand grip, and remove hand grip. After unscrewing two nuts (14 mm SW) with star washers, washers, and spacer bushes, lift off the saddle cover. Unscrew nut (14 mm SW) on left-hand side of saddle base. Fit assembly tool 11 91 00 935, and press it down. This compresses the spring, and the bolt (14 mm SW) can be screwed out. Take off saddle base with rubber cap, spring casing, and spring.

2. Replace in the reverse order. Grease both ends of the spring. Again compress the spring with the tool 11 91 00 935 to enable the bolt (14 mm SW) to be inserted.

Fig. F 71/1

Fig. F 71/1a

Fig. F 71/1b

Saddle. Removal and Fitting

(F 72)

1. As for F 71, excepting that the hand grip is not fitted.

Prop Stand. Removal and Fitting

(F 73)

1. Remove the split pin and washer from the bearing pin. Drive out the pin with a punch, and remove the prop stand and spring.

2. When fitting, attach the spring to both lugs simultaneously. (The long end of the spring should be fitted at the top).

Central Stand and Return Spring. Removal and Fitting

(F 74)

1. See M 01, section 18.
Tool Box. Removal and Fitting
(F 76)

1. Take off left-hand side panel. Unscrew mounting bolt (10 mm SW) with lock washer. Take off tool box.

2. Replace in the reverse order.

Fuel Tank. Removal and Fitting
(F 80)

1. Remove tool box (see F 76).

2. Pull the fuel pipe off the tap. Take the split pin out of the universal joint on the tap, and pull the control rod slightly forwards. Loosen the union nut (19 mm SW), and turn the tap so that it points across the vehicle. Take out the sparking plug. Loosen the pinch bolt (9 mm SW), and pull the inlet air silencer off the carburettor. Disconnect the lead from the fuel gauge tank unit.

Unscrew the front bolt (10 mm SW) and the rear bolt (9 mm SW). Lift the fuel tank and rubber out to the right.

3. Replace in the reverse order. Make sure the rubber pad is fitted correctly.

Fuel Tap and Filter. Removal and Fitting
(F 82)

1. Take the split pin out of the universal joint on the tap, and push the control rod forwards slightly. Full off the fuel pipe and unscrew the tap (19 mm SW).

2. Replace in the reverse order.

Edge Strip, Left-hand and Right-Hand, for Legshield. Removal and Fitting
(F 83)

1. Unscrew three grub screws in each edge strip with the aid of a suitable screwdriver. Take off the edge strips.

2. Fitting: Fit the top of the strips first, and screw in the top screw. Then screw in the centre screw and finally the lower one. Make sure that the edge strips fit properly.
Legshield. Removal and Fitting
(F 90)

1. Remove fork cowling (see F 30).
Remove battery (see E 15).
Remove battery box (see E 16).
Remove instrument panel (see E 19).
Remove edge strips on legshield (see F 83).

2. Unscrew two slotted screws with lock washers from the front of the legshield. Unscrew all the nuts (7 mm SW) from the footrests, and also the nut (10 mm SW) and the rubber mounting (24 mm SW) for the silencer. Remove the footrests. Remove the circlip from the brake pedal. Disconnect the return springs. Unscrew two slotted screws and take off the stop-light switch. Jerk the top end of the legshield to the rear, taking the brake pedal out from underneath at the same time, and remove the legshield completely.

3. Replace in the reverse order. The top end of the legshield should be forced slightly to the rear. Fit the brake pedal before securing the legshield.

Footrest, Left-Hand and Right-Hand. Removal and Fitting
(F 91)

See M 01, section 3.
ELECTRICAL INSTALLATION

Cable Harness. Removal and Fitting
(E 01 — E 04)

To avoid damage, make a point of first disconnecting the earth lead from the battery.
1. Remove fork cowling (see F 30).
   Remove starting, lighting, and ignition switch (see E 18).
   Remove cowl (see M 01, section 11)
2. Disconnect the battery leads from the dynamo, the two leads on the cutout, and the red lead (+ve) on the battery. Disconnect the lead for the rear and stop lights. (see E 09). Disconnect the lead from the stop light switch (see E 14). Loosen the cable clips on the frame and pull the cable harness out to the rear.
3. Fitting. Insert the cable harness from the rear. Connect the leads up in accordance with the wiring diagram. The earth lead should be attached to the battery last of all.

Wiring Diagram
(12 Volt Equipment)

Dip-Switch Lead. Removal and Fitting
(E 05)

1. Remove headlamp (see E 13).
   Remove dip-switch (see E 10).
2. Disconnect two leads from the headlamp and two leads from the terminal strip and mark them. Pull the dip-switch lead out of the fork cowling.
3. Replace in the reverse order. Connect up in accordance with the wiring diagram.
Horn. Removal and Fitting
(E 06)

1. Remove headlamp (see E 13).
2. Unscrew bolt (14 mm SW) and lock washer. Disconnect lead, and take off horn.
3. Replace in the reverse order.

Fuel Gauge Tank Unit. Removal and Fitting
(E 07)

1. Push the rubber sleeve back along the lead slightly, and disconnect the lead from the terminal (7 mm SW). Screw the fuel gauge tank unit out of the tank (19 mm SW).
2. Replace in the reverse order.

Reflector and Rear Light. Removal and Fitting
(E 09)

1. Unscrew the mounting bolt (7 mm SW) on the cap, and remove the cap. Disconnect the leads. Unscrew two nuts (9 mm SW) and lock washers on the inside of the rear central section of the panelling and remove the base.
2. Replace in the reverse order.
Dip-Switch. Removal and Fitting
(E 10)

1. Unscrew the countersunk screw on the dip-switch and remove the switch. Carefully push the switch out of its casing.
   Disconnect the lead and mark it.
2. Replace in the reverse order.

Headlamp Glass and Reflector. Removal and Fitting
(E 13)

1. Remove the headlamp (see E 13).
2. Bend up the clips on the glass mounting ring, and take out the glass, reflector, seal ring, and glass mounting ring as a unit.
3. Fitting: Insert the headlamp glass (with inscription "oben" at top) and fit the reflector so that the parking lamp is on top. Bend over all the clips, and replace the headlamp.

Headlamp. Removal and Fitting
(E 13)

1. Unscrew two countersunk screws and caps, and take out the headlamp. Disconnect the spring, and take out the bulb holder and bulb.
2. Replace in the reverse order.
Stop Light Switch. Removal and Fitting
(E 14)

1. Remove two cheesehead bolts and lock washers. Take the protective cap off the switch, and disconnect the leads.
2. Replace in the reverse order. Make sure the switch is in the correct position.

Fig. E 14

Battery. Removal and Fitting
(E 15)

1. Unscrew the knurled bolt and take off the lid of the battery box. Unscrew the earthing bolt on the frame. Push up the clips on the battery holders with a screwdriver. Push the battery holder and battery to the right or left, and take out. Remove the metal straps. Disconnect the positive lead and dynamo lead (red).
2. Replace in the reverse order.

The leads should be connected to the terminals of the batteries before these are fitted in the battery box. The earth lead must not be bolted to the frame (with the spade terminal pointing upwards) until after the battery has been fitted in the battery box, and must be passed over the top of the battery (see wiring diagram and Fig. E 15/2).

Make sure that there is good contact at all the electrical connections. Place the battery in the holder and fit the straps. Insert the assembled battery and holder in the battery box, and secure the clips. Secure the lid with the knurled bolt.

Fig. E 15/1

Fig. E 15/2
Battery Box. Removal and Fitting  
(E 16)

1. Remove the battery (see E 15).
2. Unscrew four bolts and washers on the front of the legshield, and two bolts and washers on the rear. Remove the battery box.
3. Replace in the reverse order.

Starting, Lighting, and Ignition Switch. Removal and Fitting  
(E 18)

1. Disconnect earth lead.
   Unscrew two countersunk screws and lock washers on the switch. Open the glove locker. Push the switch downwards and remove it. Disconnect all leads and mark them.
2. Replace in the reverse order. Connect up the earth lead last. Follow the wiring diagram.
Instrument Panel. Removal and Fitting

(E 19)

1. Remove the fork cowling (see F 30).
   Remove the battery (see E 15).
   Remove the battery box (see E 16).
   Remove the starting, lighting and ignition switch
   (see E 18).

2. Unscrew four countersunk screws with star
   washers on the front of the legshield and take
   off the instrument panel. It is easiest to remove
   the speedometer after the instrument panel
   has been taken off.

3. Replace in the reverse order.