

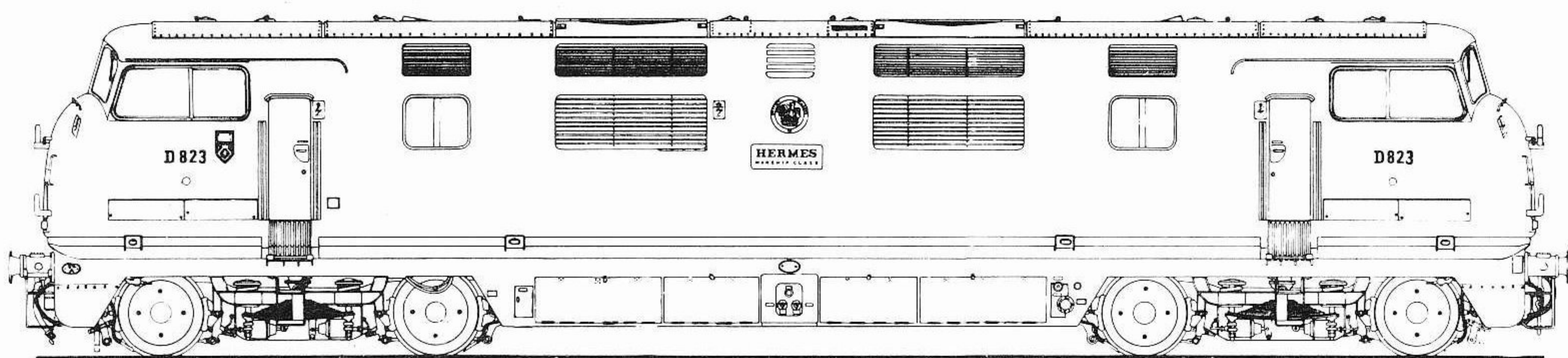


# 'WARSHIP' Class B-B Diesel Hydraulic Locomotive.

## Brief History of the Class.

Nearly all of the D800 class of locomotives, or 'Warships' as they were more familiarly called, were named after famous ships of the Royal Navy. They saw use mainly on the Western Region mainline but in addition saw service on Waterloo — Exeter trains of the Southern Region. The Warships were a milestone in the development of diesel-hydraulics undertaken solely by B.R. (W.R.), primarily at its Swindon headquarters. The standardisation policy, announced by British Rail in 1967, for its future diesel-electric traction programme, saw the end of the hydraulic era, which has now passed into the history of Britain's railways. The D800 class origins lay in the efficient V200 class locomotives of the Deutsche Bundesbahn, The B.R. equivalent being a much scaled-down version to conform to the British Standard loading gauge. In the 70's the D800 class was re-grouped into Classes 42 and 43 under the BR classification scheme, this choice of numbering was applied to differentiate between B.R. Swindon and North British built locomotives, respectively. The Warships were fitted with a variety of diesel engines (M.A.N., Maybach and

Daimler-Benz), linked to hydraulic transmissions made by Voith or Mekydro. The Mainline model is based on the variant equipped with the Maybach diesel engines and Stones train-heating boiler. Despite their relatively low all-up weight, less than 80 tons, the 'Warship' locomotive was intended to replace the 'Castle' class 4-6-0's in W.R. service, and were in their heyday, capable of handling heavy, fast expresses such as the 'Cornish Riviera Express' and 'The Mayflower'. They were frequently used on parcels and freight trains, their last regular work, prior to withdrawal, was on stone trains from Somerset quarries. There are three surviving members of the class still in existence, two of which are stored on site at B.R. Engineering Ltd., Swindon. These are D821 'Greyhound', in maroon livery, and 818 'Glory' in the final livery of blue. These locos may be seen by the public on Open Days. The other remaining Warship was housed at the B.R. Technical Centre, Derby — this is 832 'Onslaught' and has been sold into private ownership, with the intention to return it to its early full green livery.



Please read these instructions carefully. Regular cleaning and maintenance as described in this leaflet will help ensure a trouble-free life of your Warship locomotive.

### Removal of Locomotive Bodyshell.

The shell can be easily removed by undoing the two recessed screws located at either end of the underframe well, when viewing the locomotive held in an upside-down position.

### Motor Cleaning & Brush Replacement.

After a considerable period of use (approximately 100 hrs), the two motor brushes will need to be examined, and may need replacement. This can be done with greater ease of access if the motor bogie is first released from the underframe.

NOTE — your Mainline Warship class locomotive is fitted with illuminated headcodes that change with the direction of travel. The diodes that control this feature, and their bulbs, are connected to each motor contact strip. Care must be taken not

to damage these connections during brush replacement. The contact strips (two), with their diodes, remain attached to the pick-up wires ends. To release the motor unit position the underframe with the motor bogie to the right, and undo the small crosshead screw (arrowed). Prise the retaining strip off the side of the motor casing, thus enabling the bogie, complete with its wires still attached, to be withdrawn downwards through the underframe. This can be done with greater ease if (1) the bogie is first rotated to its maximum amount of swivel movement and (2) the nearer of the two light bulbs is first pushed out of its clip.

### Removal/replacement of brushes.

Once removed from the under frame, the bogie can now have its brushes removed for inspection, or replacement if

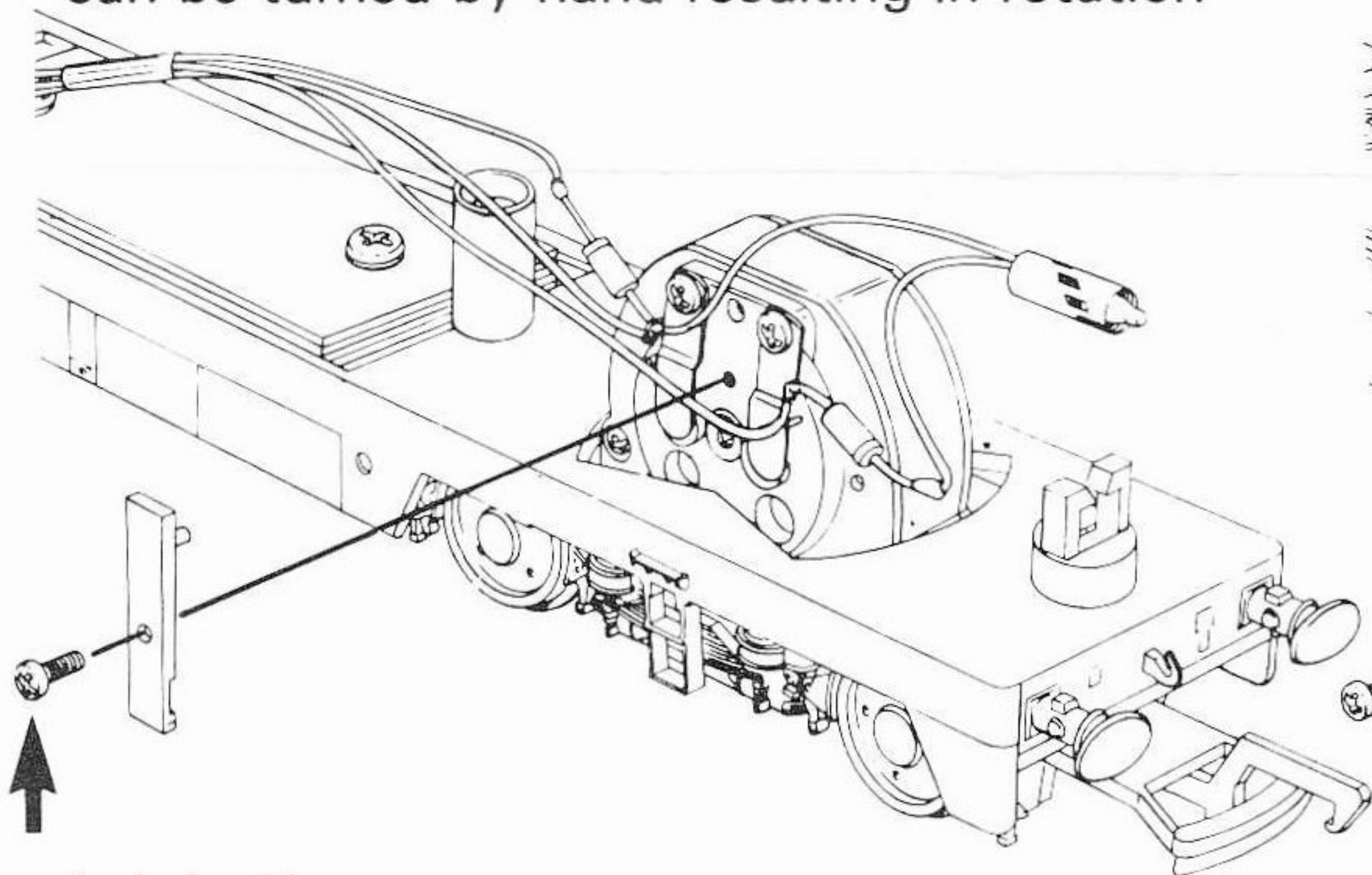


necessary. Undo the two crosshead screws located at the top of the motor housing, upon removal the contact strips, fastened to the wires, may be lifted away from the brush holders. Take care not to lose the springs held compressed under the stepped ends of each strip. Turn the motor on its side and tap out the brushes. Blow out any build-up of carbon dust that may be in the brush-holders. If the brushes are excessively worn they must be replaced, renewal of the brush springs is also recommended.

### Cleaning

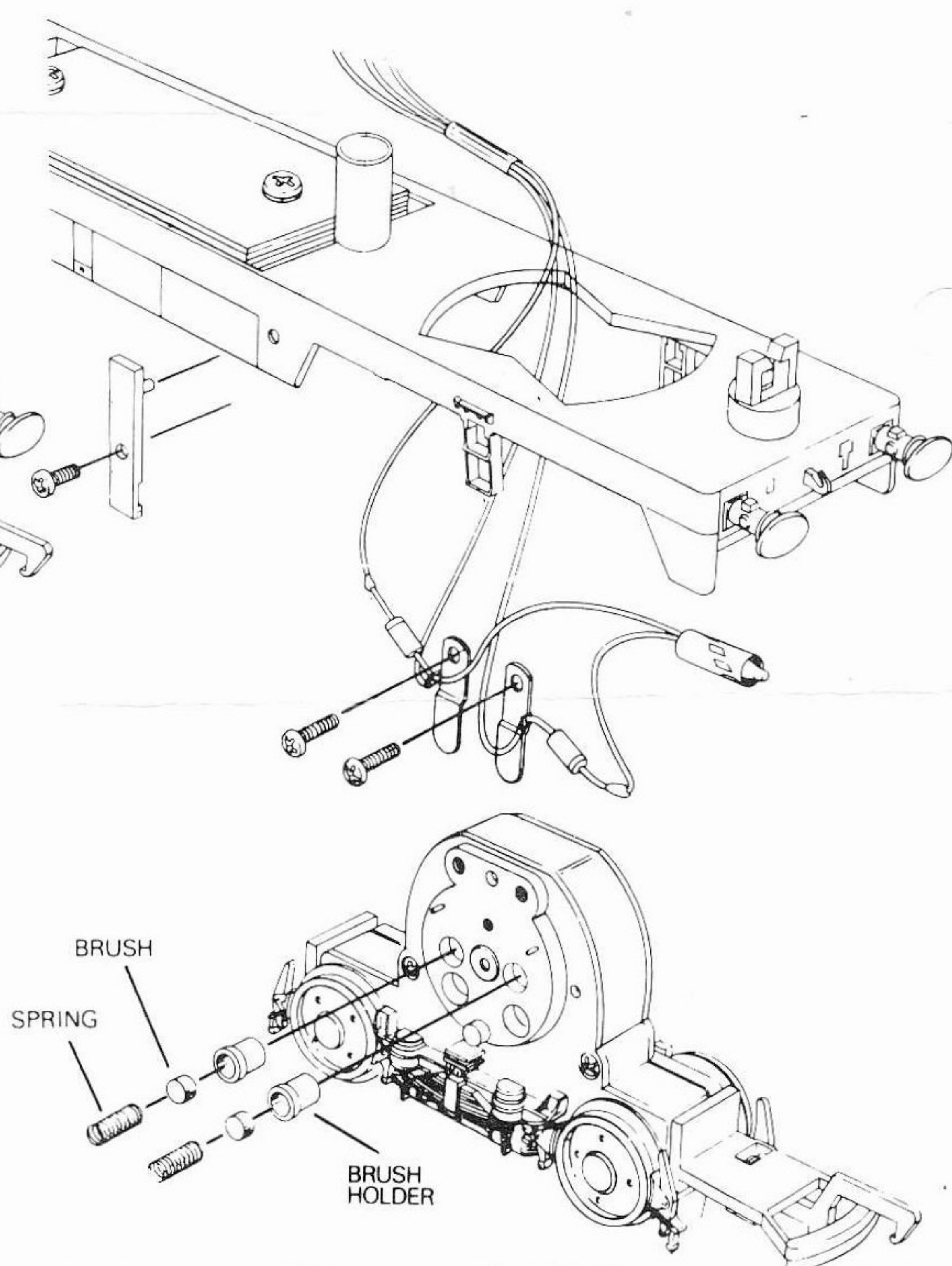
The commutator disc may be cleaned using a small paint brush dipped in methylated spirits. This is inserted through the holes in the motor casing. The wheels can be turned by hand resulting in rotation

of the motor to aid the cleaning operation. Should it be necessary to clean the gear wheels again using methylated spirits, the baseplate may be easily unclipped from the bogie. This is a clip fit and is held by vertical strips at its front and rear ends, which may be prised off their locating 'barbs'. If complete dismantling of the motor bogie assembly is required for major overhaul, check that the gear train wheels are located on their correct spindles during re-assembly. After cleaning, insert the brushes and replace the brush springs. Position the motor bogie at the end of the wires and secure the contact strips ensuring that the screws are fully tightened for good electrical contact.



### Lubrication

Proper lubrication is most important but should never be overdone. Peco 'Electrolube' is a suitable lubricant as this can be applied in controlled small amounts, in its purpose-made tube. An alternative suitable lubricant suitable for use in your locomotive, is Walker's Model Railway Oil, available from most model shops. On no account should a mineral-based oil be brought into contact with plastic parts. Apply one small drop of lubricant to each end of the motor spindle, visible at the centre of the motor housing. Ensure no oil gets onto the carbon brushes and commutator, or onto the traction tyres.



### Guarantee

This product is guaranteed against faulty materials or workmanship for 3 months from the date of purchase, in the event of such a fault Palitoy will repair or replace the product free of charge. This guarantee is in addition to all legal rights under the Sale of Goods Act, etc.

### Spare Parts

Carbon brushes, springs, motor parts, etc., may be purchased from your local Mainline stockist if he is an appointed service agent. In case of difficulty, spare parts may be purchased direct from Palitoy, by writing to the address quoted below, (see Repair Service).

### Repair Service

In the event of your Warship Class locomotive being badly damaged we recommend that you take it to your nearest Mainline dealer. If this is not convenient it

may be returned to Palitoy at the address below. Take care to see that it is securely packed, preferable in its original protective tray if purchased as an individual locomotive.

NOTE — make sure you enclose YOUR NAME AND ADDRESS, clearly printed in block capitals plus a note detailing the fault, to: —

CONSUMER SERVICES (MAINLINE),  
PALIToy,  
COALVILLE,  
LEICESTER LE6 2DE

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