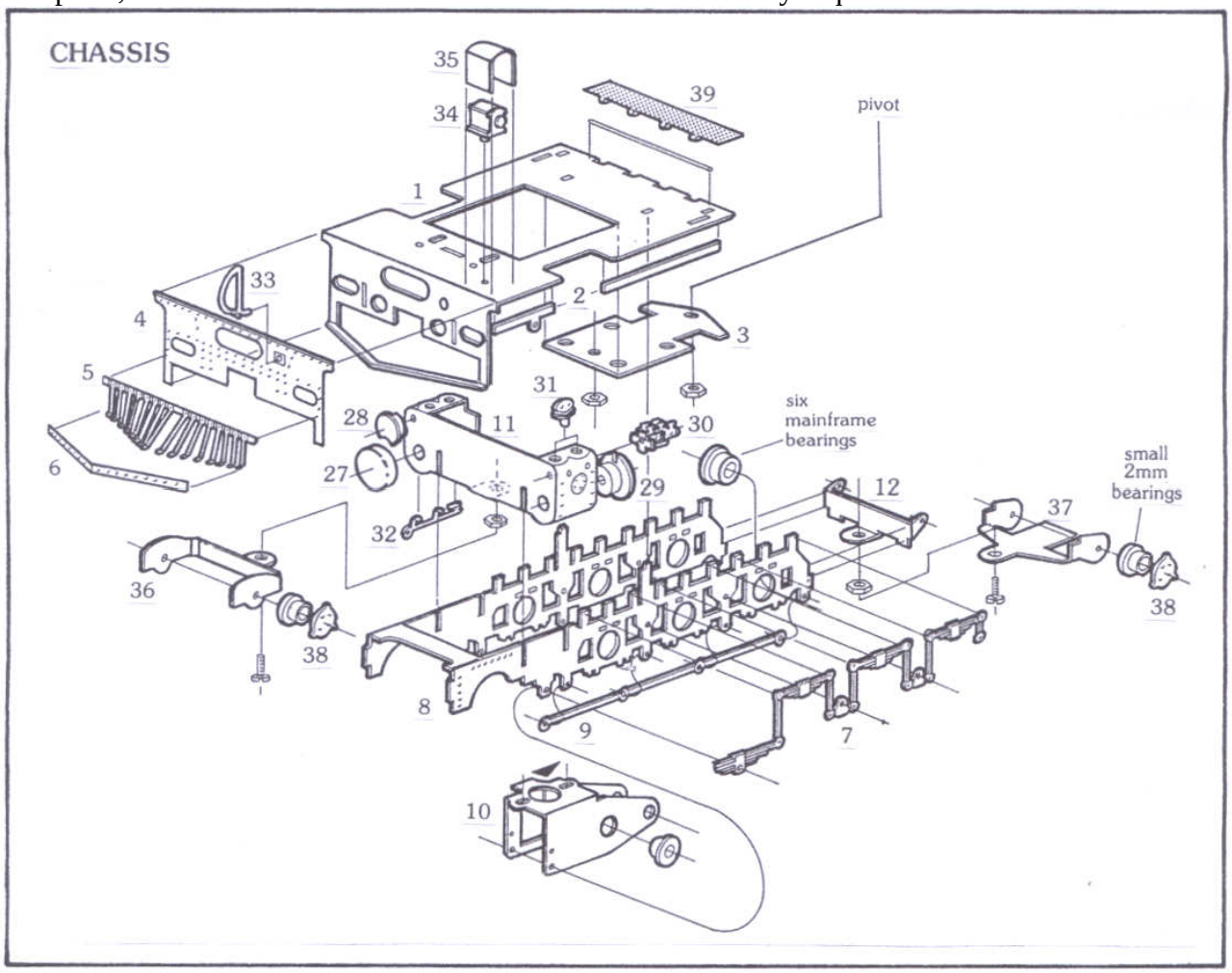
1 BASIC CHASSIS ASSEMBLY

THE front and rear power units of the NGG16 are identical up to running plate level. In fact, the only difference between both running plates is the four small cut-outs on the inboard edge of the front running plate which provide clearance for the hinge flaps of the fall plate which spans the gap twixt front power unit and the main loco running plate.

Once you have identified the front (1) and rear running plates, construction of the power units can commence.

I shall describe construction of only the front unit, remembering that with the above noted exception, both units are identical and follow the same assembly sequence.



1. Taking the front running plate (1), fold the bufferbeam to 90°. At this stage, do not fold the cow-catcher frame or coupler mounting plate.
2. Add the valances (2) to the half etched grooves on the underside of the running plate, noting the position of the small lugs which later accept the drain cock operating rods.
3. Locate the pivot plate (3) to the underside of the running plate, using a 12BA nut and screw to temporarily secure the plate while soldering it in place.
4. Fix the 12BA captive nuts below the two holes in the pivot plate. This is best achieved by tightening the nuts and screws up fully then flowing a small amount of flux around the nuts where they contact the plate, ensuring no flux contacts the protruding screw threads. Using a clean, hot soldering iron, apply a tiny amount of solder to the joint. This will flow neatly around the nuts, and once cooled, the screws can easily be removed leaving the captive nuts secured to the pivot plate.
5. Attach the bufferbeam overlay (4),
6. then fit the cow-catcher (5) to the bufferbeam. Carefully fold the individual bars to their approximate angle before bending up the lower V-frame to 90° where it should mate with the bars.
7. To complete the cow-catcher, form the rivetted bar (6) to shape and fix it to the leading edge of the V-frame.
8. Fix the left and right spring/equalising beam overlays (7) to the chassis mainframes (8), pinning them in place with tiny lengths of 0.7mm brass wire. The wire pins can then be filed flush on the inside of the mainframes and left to protrude 0.2mm on the outside of the equalising beam overlays.
9. Similarly add the brake pull rods (9) to the inside of the dummy brake hangers. Again pinning them in place with 0.7mm wire. File the pins flush on the inside of the frames, leaving them protruding 0.2mm from the hangers on the outside. Strictly speaking these pull rods are inboard of the driving wheels on the real thing, but as the gearboxes take up all the room between the wheel backs on this model, there is no room to install them prototypically. If you prefer, omit them completely. It's your choice.
10. Fit the six mainframe bearings, installing them so their flanges are fully home against the inside of the frames. File any excess bearing material so that only 0.5mm is left protruding outside the frames. A sanding or cut-off disc in a minidrill makes short work of this task, a file only being used for the final few tidying strokes. Once completed, remove any swarf and check that an axle passes freely through all bearing holes.
11. Fold the chassis to 90°, and again check the axles pass unhindered through their bearings.