

### **SLUGGISH STARTING 6 VOLT NEGATIVE EARTH MORRIS 8 CARS 1934-38.**

Badly fitted or incorrectly specified starter cable and connectors/clamps, inadequate earthing straps and connectors/clamps and the wrong type of battery are often to blame.

Other mechanical maladies, and faulty starter motors and switches can be culprits too.

**For the purposes of this article, I have assumed that the starter motor and switch is in good working order with fully serviceable brushes etc. I have used Autosparks reference numbers as a guide, but other suppliers stock similar items.**

#### Items to be checked.

- a) You need to have a fully charged 404 size 6 Volt battery of around 80 ampere/hours; **the type used for tandem installations in MGB etc. is not adequate.**
- b) The positive battery terminal to starter lead needs to be a 61/0.9 copper core of 40mm<sup>2</sup>, covered in black braid over the insulation (as Autosparks C162) with a soldered eyelet (C286) at the starter end and a soldered tinned clamp (C373) at the battery.
- c) The negative battery terminal to bulkhead panel earth braid needs to be tinned copper earth braid (as Autosparks C132) with a soldered eyelet (C293) at the bulkhead end and a soldered tinned clamp (C372) at the battery.
- d) For reliability do not use the screwed type clamps, soldered ones are better.
- e) Ensure that the bulkhead connection area is free of paint and corrosion, and that it has an adequate bolt, nut and washer.
- f) For good measure it is often worth fitting an additional earthing braid (similar to item c) above but with a soldered eyelet at each end) between bulkhead panel and body/chassis to overcome partial 'insulation' due to paint and the rubber gasket at body joint.
- g) Keep all battery/starter/bulkhead connection surfaces clean, assemble with a coating of vaseline and ensure that bolts and nuts are tight.
- h) **Make sure** that you have an earth braid (similar to item f) above) fitted between a gearbox tail-housing bolt and the chassis cross member. THIS WAS NOT FITTED TO EARLY CARS, WAS SUBJECT OF A MORRIS MOTORS DATA SHEET, AND SOMETIMES IS MISSED OFF DURING A REBUILD.
- i) When starting ensure that you are in neutral, and that the clutch pedal is NOT depressed.

Either 61/0.9 or 315/0.4 cable will provide 40mm<sup>2</sup> sectional area, either will be satisfactory but 61/0.9 will be stiffer and harder to bend. The references describe the number of strands in the cable and their individual diameters.

#### **Important Note.**

**Do not use the wrong type of battery, or the readily available 'thinner' battery cables that you can buy for modern 12 volt cars from your local store.**

**Neither are man enough for the job!**

#### **Please Note.**

**Apparently the C162 battery to starter lead is no longer available from Autosparks; a pity because to replicate the original equipment as far as possible a stiffer braided cable was needed and the C162 appeared to be ideal.**

**They suggest their C189 item, which meets the performance criteria but is pvc covered and is of the more flexible core specification.**

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(amended Dec 2010 and May 2012)

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