

Source:	Prestolite Electric Ltd - Greenford, London, UK
Date:	July 11, 2013
Bulletin No:	TSB4050
Models:	MS4-400 & MS4-401 Starter motors
Subject:	Technical features and included kits.

1. PINION DIMENSIONS

The MS4-400 and MS4-401 replaces various older LNS / GR45 starters. (Contact Technical for details)

The older LNS / GR45 was fitted with 10 tooth pinion, outside diameter of 32mm.

The new MS4-400 / MS4-401 is fitted with 12 tooth pinion, outside diameter of 38mm, but has a 2.5mm off-set on the mounting to compensate for the variance.

This feature is intentional and is a 100% replacement for older 10 tooth LNS / GR45.

2. SHIM (SPACER) PLATE

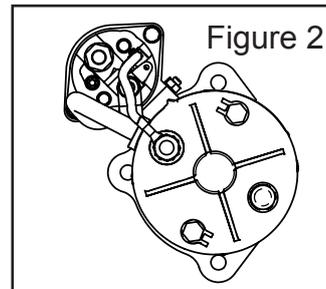
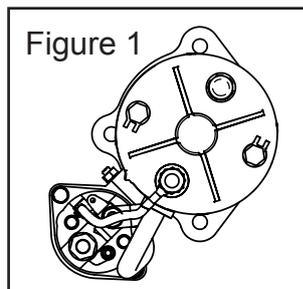
The 1.5mm shim plate (6519-67) is required for use when an Allison gearbox with a flex plate ring gear is fitted. Failure to fit the shim could cause interference between starter motor pinion and ring gear (a "pinging" noise). If in doubt always fit the shim plate.

3. TERMINAL ADAPTOR

A set of terminal adaptor to increase the battery terminals from M10 to M12 is included. Use as required.

4. APPLICATION : DENNIS DART

On the Dennis Dart application the MS4-400 is mounted in the inverted position, as shown in Figure 1. The MS4-401 is generally mounted in the upright position, as shown in Figure 2.



Occasionally, dependant on vehicle design and aftermarket maintenance, the Dennis Dart is mounted with a starter motor in the upright position, as shown in Figure 2. This is not typical.

The MS4-401 must not be fitted in the upright position to Dennis Dart applications. The vehicle must be converted to utilise a starter in the inverted position, as shown in Figure 1.

5. NOSE HOUSING ROTATION

The nose housing on the MS4-400 and MS4-401 can be rotated to obtain the desired position. (Tightne to 15Nm). This will not invalidate the warranty on the starter motor.

Important: The information contained in this bulletin is intended for use by trained, professional technicians who have the proper tools, equipment, and training to perform the required maintenance described above. This information is NOT intended for 'do-it-yourselfers', and you should not assume that this information applies to your equipment. If you have any questions regarding this information please visit our website at www.prestolite.com, or contact our technical service department at: