P.O. Box 686, Castlemaine, VIC. 3450 T 03 5472 1442 F 03 5472 4111 E info@caenterprises.com.au W www.hitorque.com.au



# Fitting Instructions for Chev LHS Starters

# LHS MOUNT CHEV STARTER MOTOR FITTING INSTRUCTIONS. CAN ONLY BE USED WITH 168 TOOTH FLYWHEEL RING GEAR

Remove oil filter and oil filter mounting bracket. Remove the starter from the Aluminium base plate Adaptor. Position aluminium adaptor with (2) 5/16" Cap Screws, lining up the edge of the adaptor with the edge of the engine block. Mount the adaptor using the O Ring and gasket supplied. Remount the starter motor to the Aluminium base plate adaptor and tighten the 3/8 mounting bolts. Pull out the drive gear with a screwdriver and check the meshing as below. Connect the oil lines to the supplied fittings.

**PLEASE NOTE:** -- If engine is fired and lack of oil pressure or poor flow to the filter is evident.

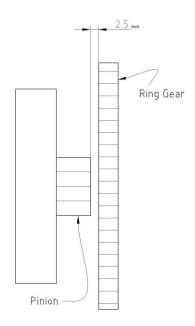
- Check that the Gasket between the filter base on the engine block and the filter base on the aluminium adaptor has crush on it as oil flow to the filter will be bypassed.
- Check oil lines fittings as they may not be connected correctly.
- Due to the variations in Engine Blocks it may be necessary to machine adaptor or engine block for correct fitment and sealing.

Proper pinion and ring clearance and backlash must be obtained before trying to start engine. Damage will occur if clearance is not set properly.

**NOTE:** This starter is designed for 12 VOLT ONLY!!! Use of 24 volts or long cranking periods will cause damage to starter and void warranty.

#### **Checking Ring Gear/Pinion Clearance**

With starter disengaged and mounted in proper clear location, pinion to gear clearance should be 2.55mm (±1mm).



P.O. Box 686, Castlemaine, VIC. 3450 T 03 5472 1442 F 03 5472 4111 E info@caenterprises.com.au W www.hitorque.com.au



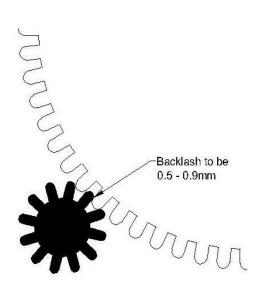
### **Checking Backlash:**

To check backlash, simply pull pinion of starter as if to engage. You should have between 0.5mm to 0.9mm Clearance between ring gear and pinion gear. See Figure 2.

If clearance is too tight, add appropriate amount of shims to obtain proper Backlash. If you have too much clearance, it may be necessary to machine mounting Block to obtain the required amount.

### **NOTE:**

Starter motor relay may have to be Fitted to activate solenoid due to voltage drop in wiring system.



P.O. Box 686, Castlemaine, VIC. 3450 T 03 5472 1442 F 03 5472 4111 E info@caenterprises.com.au W www.hitorque.com.au





P.O. Box 686, Castlemaine, VIC. 3450 T 03 5472 1442 F 03 5472 4111 E info@caenterprises.com.au W www.hitorque.com.au



# **Warranty**

The manufacturer's warranty on all Hi-Torque gear reduction starter motors is for a period of (1) Year, covering the Starter Motor ONLY. The Warranty is subject to the following conditions.

### Warranty Conditions

- All claims must be made in the warranty period of 12 Months.
- Any starter motor found to have faulty workmanship will be replaced free of charge.
- This warranty does not apply to items that have been subject to neglect, misuse, abuse, accidental or intentional damage, unauthorized repairs, modifications, incorrect application or installation. \*Please check description below.
- The warranty does not cover the cost of freight, installation or removal of items.
- The warranty of 12 months only applies to items being used for normal road use.
- C.A.E. Performance Products recommend that this product be fitted by qualified personnel.

It's up to the purchaser/ installer to ensure the starter motor is sealed or protected if used for Off Road or Marine applications.

### **ORDERING**

Orders can be placed by phone, fax or E-mail. We prefer official purchase orders From account customers. Please quote the Part number, quantity and any special Requirements when ordering.

#### **SHIPPING**

All orders are dispatched upon payment (Except account customers). We ship Australia-wide every day. If you wish To use your own courier, please advise us Of your courier name & account details & We can organize pick-up Transport Insurance can be arranged at the request Of the purchaser.

#### **RETURN OF GOODS**

All part returned will incur a 20% re-stocking fee. Returns must be made within 30 Days.

Freight is to be paid by customer unless the goods are being returned due to manufacturing defect or shipping error, in which case they are to be shipped using our Australia Post Reply Paid account. C.O.D. post will NOT be accepted under any circumstances. Goods specifically made to customer requests cannot be returned for credit. All goods remain the property C.A.E. Performance Products Pty Ltd until paid for in full.

#### DAMAGE

All goods are shipped in good condition & are packed accordingly. We can only handle damage claims for prepaid freight.

#### **PAYMENT**

Payment can be made by credit card, direct deposit, cheque/money order or cash over the counter. Please note that cheques & money orders must include the full amount of the order & freight costs. Personal cheques are subject to bank clearance (5 business days).

<sup>\*</sup>Starter motors that have been misused or abused include the following: Water damage, over heated, Pinion engaged while driving or hi revving and Extreme dust or corrosive conditions.