

# GPE COMPETITION STARTERS

**PLEASE READ INSTRUCTIONS  
BEFORE INSTALLING**

## GPE Starter Installation Instructions and Performance Tips

Thank you for purchasing a GPE high performance starter. Please review the following installation instructions and tips before attempting to install your starter. Following these instructions will enhance starter performance as well as increase starter life and decrease strain on the battery.

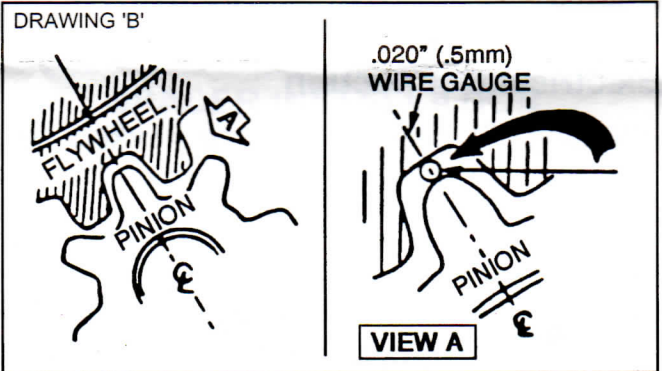
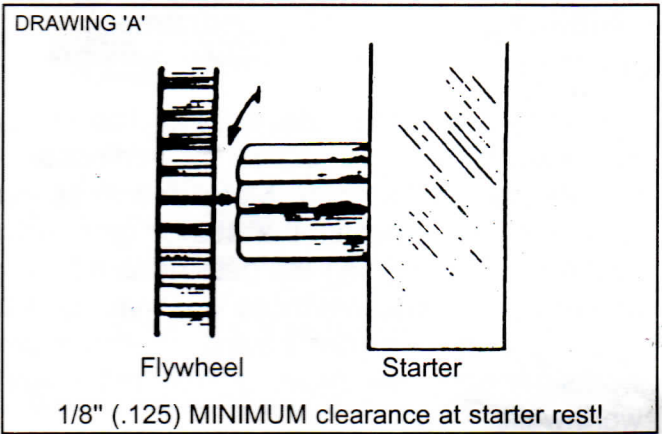
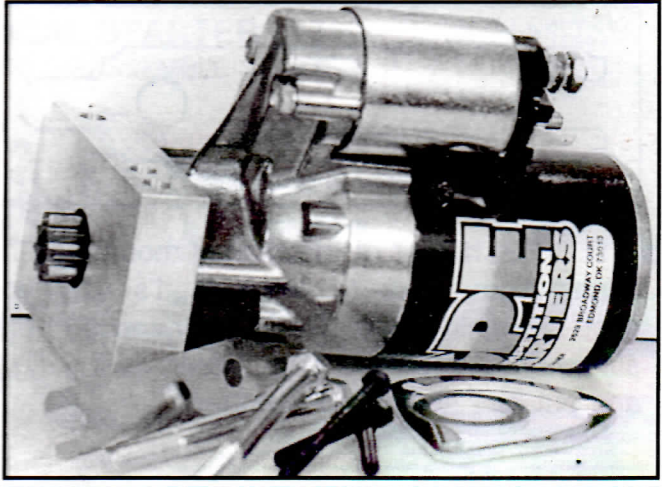
Remove any paint from the engine block mounting surface to insure proper grounding. A grounding strap/wire to the block is recommended, as this may also improve engine performance. If you have any questions, please contact us for assistance.

Check starter pinion to ring gear clearances in at least 4 different locations. Some applications may require shims, spacers or minor fabrication, to attain the desired specification. Extreme variations indicate a bent or warped flywheel/starter ring. NOTE: starter and ring gear damage will occur if these instructions are not followed.

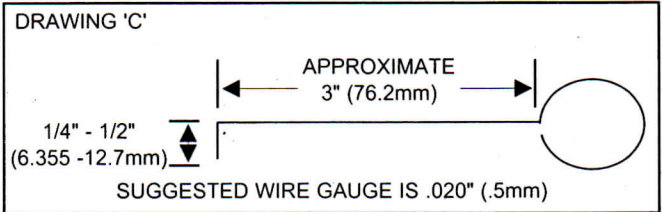
### Pinion to Ring Gear Clearance

Check pinion to ring gear as in drawing 'A', there should be .125 or 1/8" clearance between the end of the pinion gear and the edge of the ring gear when the pinion is in the disengaged position. If the pinion is too close to the ring gear you will need to install two (2) spacers (.125 thickness) which are supplied with the starter.

**NOTE:** If the specified clearances are not maintained, serious damage could occur. If these spacers are needed, please refer to "Spacer Installation Instructions" on page 3.



Drawing 'B' shows how to measure the clearance between two ring gear teeth and one pinion tooth. This clearance should be between .010 and .030, drawing 'C' shows a gauge you can make for checking this clearance. If additional clearance is needed starter shims can be used between the starter mounting surfaces of the starter and the block (drawing 'D').



**NOTE:** Due to the construction of the starter drive it is not uncommon for the drive to hang in the flywheel \*when the motor is cranked but not started.