MERCURY Racing service bulletin

PERFORMANCE OUTBOARDS No. 2001-02

☐ WARRANTY INFORMATION ☑ SERVICE INFORMATION

New Procedures for Installing Power Heads on Drive Shaft Housings for Mercury Racing Products

Models

All V-6 Mercury Racing Outboard Engines

Situation

Mercury Racing has found cylinder distortion on the bottom cylinders in V-6 engines when the proper sequence and torque specifications are not followed. Distortion can be severe enough to cause cylinder damage and power head failure.

Correction

The following procedures need to be performed when installing any Mercury Racing power head onto its drive shaft housing.

- Use the correct power head to drive shaft housing gasket
- Tighten the fasteners in the proper sequence using the correct torque values
- Fasteners that cannot be torqued with common sockets should be torqued with Mercury Racing tools 91-840911 or 91-840912

Proper Torquing Sequence and Torque Specification

2.0 & 2.5 LITRE ENGINES

Special Information On Torque Specifications

MODELS	200 XS Optimax, 2.5 EFI/OS/SS, Pro Max/Super Magnum 150/200/225	2.5 ROS & Drag	SST 120/2.5 F1/S3000
NOTES Refer to Following Illustrations	Models with a heavy duty transom assembly use a half nut in Position 7 & 8. Tighten Snug	Uses half nut in Positions 7 & 8. Tighten Snug	Uses Socket Head Screws in Positions 7 & 8. Torque to specification.

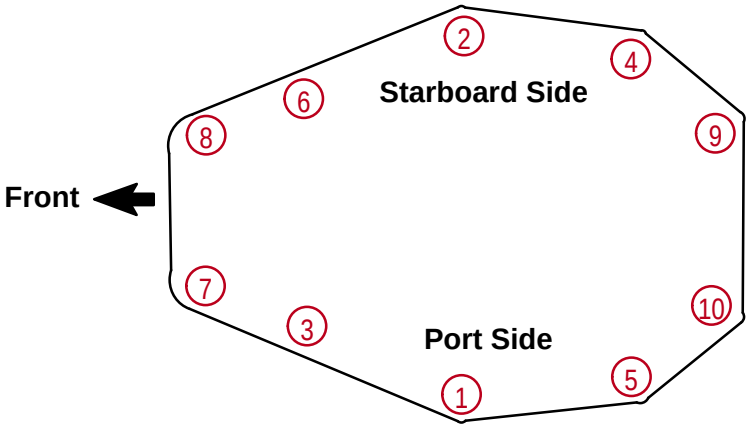
2.0 & 2.5 LITRE ENGINES (CONT.)

Use Special Torque Adapter Tool 91-840911. The Torque Value Changes With Use of This Tool.

Torque locknuts numerically in 2 progressive steps:

- **Step 1** - Snug tight all (10) locknuts in sequence.
- **Step 2** - Torque all (10) locknuts to 29 lb-ft (39 Nm) in sequence or 25 lb-ft (34 Nm) using tool 91-840911.

NOTE: *Refer to previous table for models that use a half nut in positions 7 & 8. Tighten these nuts to snug. Do not Torque.*



PRO MAX 300 & 300X

Use Special Torque Adapter Tool 91-840912. The Torque Value Changes With Use of This Tool.

Torque locknuts numerically in 3 progressive steps:

Step 1 - Snug tight all (10) locknuts in sequence.

Step 2 - Torque all (10) locknuts to 29 lb-ft (39 Nm) in sequence or 25 lb-ft (34 Nm) using tool 91-840912.

⚠ CAUTION

Cylinder distortion and possible engine damage could occur if the incorrect tightening procedure is not followed for the powerhead gasket being used.

Step 3 - There are two powerhead gaskets available for the 300/300X Pro Max engines that require different tightening procedures. The recommended gasket to use on all engines is 27-832933-4.

If using gasket 27-832933-4:

a. Torque locknuts 1 thru 8 to 47 lb-ft (64 Nm) in sequence or 40 lb-ft (54 Nm) using tool 91-840912.

b. Leave locknuts 9 and 10 at **step 2** torque value

If using gasket 27-832933-2: Torque all 10 locknuts in sequence to 47 lb-ft (64 Nm) or 40 lb-ft (54 Nm) using tool 91-840912.