



# service bulletin

No. 90-10

## High Elevation Gear Ratio Exchange Program – Mariner/Mercury 100-200 Models

Outboards operated above 2500 feet may experience a decrease in performance due to less oxygen in the air at higher elevations. Propeller changes, carburetor/jet changes and gear ratio changes or a combination of these changes may be necessary to restore satisfactory performance.

A High Elevation Gear Ratio Exchange Program is in effect to help offset some of the costs incurred to set up engines for operation at higher elevations. This program applies to new, unused outboards and should be considered only for outboards used primarily at higher elevations. Use of outboards, with gears changed to a lower ratio, at elevations below 2500 feet could result in powerhead damage or gear damage from overspeed rpm.

Order the following parts and make the exchange per these instructions.

### MODELS:

100/115 (4 cyl) use 75/90 (3 cyl) 2.3:1 ratio gears

#### Qty.

1	43-44484	Pinion Gear
1	43-12634A-2	Forward Gear
1	43-12635	Reverse Gear
1	26-43035A-1	Seal Kit
2	37-815820	Caution Decal

175/200 with 1.87:1 ratio – use 135/150 2:1 ratio gears

#### Qty.

1	43-44102A-2	Gear Set
1	26-89238A-2	Seal Kit
2	37-815820	Caution Decal

135/150/175 SKI with 2:1 ratio – use 2.3:1 ratio gears

#### Qty.

1	43-16294A-2	Gear Set
1	45-16292	Drive Shaft (Long)
1	45-815237	Drive Shaft (X-Long)
2	37-815820	Caution Decal

### EXCHANGE PROGRAM:

1. Order parts.
2. Install gear set in outboard per the Service Manual.
3. Apply Caution Decal on boat dashboard and on outboard driveshaft housing.
4. Complete warranty claim:
  - Enter outboard serial number
  - List part numbers of unused gears (and drive-shaft) returned for credit
  - Note "High Elevation Gear Ratio Exchange Program" on the form
  - Enter Flat Rate Code OG-19 for 2 hours of labor credit
  - Enter return shipping charges

5. Carefully pack and return the unused gears (and driveshaft) with the warranty claim enclosed to:

MERCURY MARINE  
WARRANTY RECEIVING  
W6250 W. PIONEER ROAD  
FOND DU LAC, WI 54936-1939  
Mark box "GEAR EXCHANGE"

**COSTS AND CREDITS:**

- Dealer orders and pays for new parts and incoming freight
- Dealer is credited for unused, undamaged gears (and driveshaft) returned, at Dealer Price, and is credited for return freight
- Dealer receives 15% handling allowance for gears (and driveshafts) taken from dealer stock
- Dealer labor is credited at dealer warranty labor rate

**RETURN TO LOWER ELEVATION:**

The dealer is responsible for advising the customer of the potential for powerhead or gear damage if an outboard modified for high elevation operations is used at low elevation.

Gear ratio and propeller changes must be reversed to avoid overspeed rpm. Carburetor jet changes must be reversed to avoid a lean fuel condition.