



# service bulletin

No. 89-16A

#### NOTICE

This is a revision of Outboard Service Bulletin 89-16. Destroy Bulletin 89-16 and insert Bulletin 89-16A. Revisions are underlined.

- A. Excessive Throttle Force Mariner/Mercury 135 thru 200
- B. Carburetor ANti-Icing Kit Mariner/Mercury 70/75/80/90 and 100/115
- C. Control Handle Remote Control P/N 88150A7, A8, A9, A11, A15, A17
- D. Lean Idle Mixture Mercury 275
- E. Cracked Flywheel Hub Mariner/Mercury 250 and Mercury 275
- F. Oil Tank Vent Mariner 40 Magnum and Mercury 40 Electric Start

#### A. EXCESSIVE THROTTLE FORCE – MARINER/MERCURY 135–200

When encountering excessive force to operate the throttle disconnect control cable(s) from outboard. Operate remote control to determine if outboard linkage or remote control is faulty.

#### **Remote Control**

Check control cable operation – lubricate or replace. Check throttle friction device and adjustment.

Check internal parts – repair and lubricate rollers, pivots and bushings or replace.

#### Outboard

Check throttle operation. adjust, repair, lubricate or replace components.

On 1989 and previous Mariner and Mercury 135–200 models replace existing throttle spark lever spring with spring with less tension and remove throttle return spring (Figure 1).

#### Models:

Mariner 135–200	S/N 0C221499 and below
Mercury 135–200	S/N 0C221499 and below

#### Parts Required:

PREVIOUS P/N NEW P/N DESCRIPTION

24–68784 <u>24–551 62</u> Throttle 'Spark Lever Spring 24–41050 Remove Throttle Return Spring

1990 Mariner/Mercury 135–200 Models S/N 0C221500 and above have this improvement.



#### Figure 1.

- a Throttle/Spark Lever Spring
- **b** Throttle Return Spring

#### Warranty:

Normal warranty coverage on remote control. control cable and outboard linkage. Installation of new throttle: spark lever spring and removal of throttle return spring is not covered by warranty.

#### B. CARBURETOR ANTI-ICING KIT-MARINER/MERCURY 70-90 and 100-115

A kit to increase cylinder block temperatures and help prevent carburetor icing is available. Kit should not be installed on outboards that operate in water above  $50^{\circ}$  F (12.2°C) or overheating will occur.

#### Models:

Mariner	75/90 (3 Cyl.) 100/115 (4 Cyl.)	All All
Mercury	70/75/80/90 (3 Cyl.) 100/115 (4 Cyl.)	All All

#### Parts Required:

P/N 75692A12

Carburetor Anti–Icing Kit



### Figure 2.

#### Warranty:

No coverage by warranty.

#### C. CONTROL HANDLE – REMOTE CONTROL P/N 88150A7, A8, A8, A11, A15, A17

It has been brought to our attention that the set screw which secures the handle to the center shaft of the control is pushing the handle back away from the control bezel. This may allow the handle, after a period of time, to miss the lock slot in a neutral position at the cam on the control module. When the set screw hole is drilled at the wrong angle the screw will push the handle back away from the lock ring and the handle may not lock out in the neutral gear position. If so, replace handle with a new one.





**Control Handle** 

GOOD

BAD

#### Figure 3. Warranty:

Qty 1 P/N 88314T One half (0.5) hour labor D. LEAN IDLE MIXTURE – MERCURY 275

Replace existing .058 idle jets with larger .060 idle jets to correct rough idle due to lean fuel mixture. Models listed require idle jet change.

#### Models: US Production Only

Mercury 275 S/N 0C249143 and below

#### Parts Required:

Qty 6 P/N 1395-6487 .060 jet 10-32 thread

NOTE: Idle jets in this carburetor are fuel jets.

#### **Repair Procedure:**

Idle jets are easily replaced on port carburetors (Figure 4) by removing access plugs. Sound attenuator plate and cover must be removed to replace idle jets on starboard carburetors.



#### Figure 4.

a - Idle Jet Access Plugs

#### **Repair Identification:**

Mark each idle jet access plug with a black mark. Idle jets have been changed in production after serial number listed and access plugs will be marked.

#### Warranty:

Qty 6 P/N 1395–6487 .060 jet One (1) hour labor

#### E. CRACKED FLYWHEEL HUB – MARINER/MERCURY 250 AND MERCURY 275

Check flywheel nut torque to determine if flywheel hub is cracked on models listed. When flywheel hub is cracked, it will be impossible to obtain 100 lb. ft. (135.6 Nm) torque on flywheel nut. Flywheel hub cracking is caused by oil on flywheel/crankshaft taper.

#### Models: US Production Only

Mariner 250 S/N 0C249143 and below

Mercury 250 S/N 0C249143 and below

Mercury 275 S/N 0C249143 and below

#### **Repair Procedure:**

Retorque flywheel nut to 100 lb. ft. (135.6 Nm) or inspect flywheel hub to determine if it is cracked. Clean flywheel hub and crankshaft taper (no oil) before reinstalling or replacing flywheel. Apply light oil to flywheel nut threads and under nut and torque to 100 lb. ft. (135.6 Nm).

#### **Repair Identification:**

Mark flywheel nut with black mark.

#### Warranty:

Qty 1 P/N 257–7555A27

Flywheel (replacement)

One half (0.5) hour labor

or

One half (0.5) hour labor (retorque only)

#### F. OIL TANK VENT – MARINER 40 MAGNUM AND MERCURY 40 ELECTRIC START

Oil tank collapse during operation may be caused by vent hole that was not drilled properly on models listed.

## Models: US Production Only – Does Not Affect Belgium and Canada Produced Models

Mariner 40 Magnum	S/N 0C232859 - 0C233463
Mercury 40 Electric Start	S/N 0C232869 - 0C233463

#### Inspection:

Remove oil tank vent cap and duck bill check valve. Oil tank vent hole must have opening of 5/32 in. (4mm) diameter (Figure 5) into oil tank. A smaller opening in the oil tank vent hole may cause the duck bill check valve to not function properly. Replace oil tank if vent hole is smaller than specified.

