SERVICE BULLETIN

MERCURY OUTBOARDS

NUMBER: 76-11
DATE : 5/14/76

CIRCULATE TO:	SERVICE MGR.	PARTS MGR.	MECHANICS	Place in Your "Service Bulletin" Binder

1976 MERC 850 SPARK ADVANCE ARM SWIVEL REPLACEMENT

OFFICIAL NOTIFICATION
Under the U.S. Federal Boat Safety Act

Mercury Marine has determined that, under certain conditions, the trigger linkage on 1976 Merc **850** Outboards (Serial Nos. in chart, following) can travel over-center and possibly lock in the full spark advance position. Should this occur, the operator would be unable to retard the throttle control below approximately 2200 RPM.

To prevent this situation from occurring, you must immediately contact each customer and arrange to replace the Spark Advance Arm Swivel on each 1976 Merc **850** that you have sold or have in stock.

1976 MERC 850 SERIAL NOS. MODIFICATION	
U.S. - 4539290 and Below	Canada - 7071923 and Below

A letter is being sent by Certified Mail to all registered owners of this model outboard advising them of the above. You also must contact your customers who have purchased these models. To ensure safety of operation, have the outboards delivered to you so that this modification can be made.

Order one swivel (Part No. A-76700A1) from your Branch or Distributor for each 1976 Merc **850** that you have received from them. Extra swivels are available, should you need more for transient owners.

Install the new spark advance **arm** swivel **(A-76700A1)** as follows:

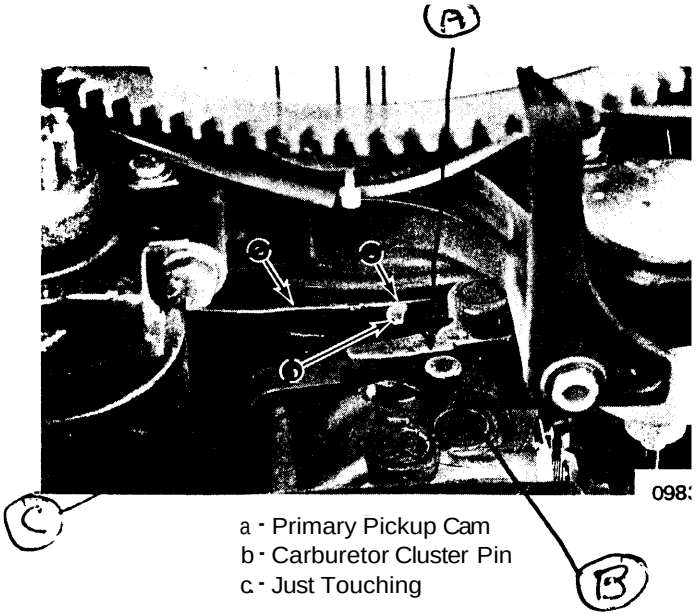
1. Remove front shield, wrap-a-round and top cowl.
2. Remove nut and wave washer and washer from swivel.
3. Remove swivel from link and replace with new swivel. Thread swivel fully onto link and back off one full turn.
4. Reinstall swivel to vertical arm and reinstall wave washer, washer and new nut.
5. Retime outboard as follows -

Spark Plug	AC-V40FFM or Champion L76V
Spark Plug Gap	Not Adjustable
Timing Maximum	27° BTDC
Throttle Primary Pickup	2°-4° BTDC (Below Serial No. 4423112)
	2° BTDC to 2° ATDC (Serial No. 4423112 and Above)
Throttle Secondary Pickup	Not Adjustable
Full Throttle RPM	4800-5500 RPM
Idle RPM	550-650 RPM (5°-8° ATDC)

a. Install Timing Light **(C-91-35507)** by connecting red lead to **No. 1** (top) spark plug and connecting black leads to 12-volt battery positive (+) and negative (-) posts.
b. With engine running in forward gear, move throttle lever until throttle primary pickup cam just touches primary pickup pin on carburetor cluster. (Figure 1) Without moving throttle lever, adjust primary pickup adjustment screw (Figure **2)** to align throttle primary pickup specification with timing pointer. Tighten locknut.
c. Advance throttle lever to align maximum spark advance specification (on flywheel timing decal) with timing pointer and adjust maximum spark stop screw to just touch spark lever. (Figure **3)** Tighten locknut and recheck maximum spark advance.
d. Return engine to idle and stop engine. Remove Timing Light.
e. With engine stopped, advance throttle lever to wide-open-throttle **(WOT)** position. Adjust throttle stop screw (Figure 4) to allow .010" to .015" (.254mm to .381mm) clearance between throttle cam and pin on carburetor cluster. (Figure 5)

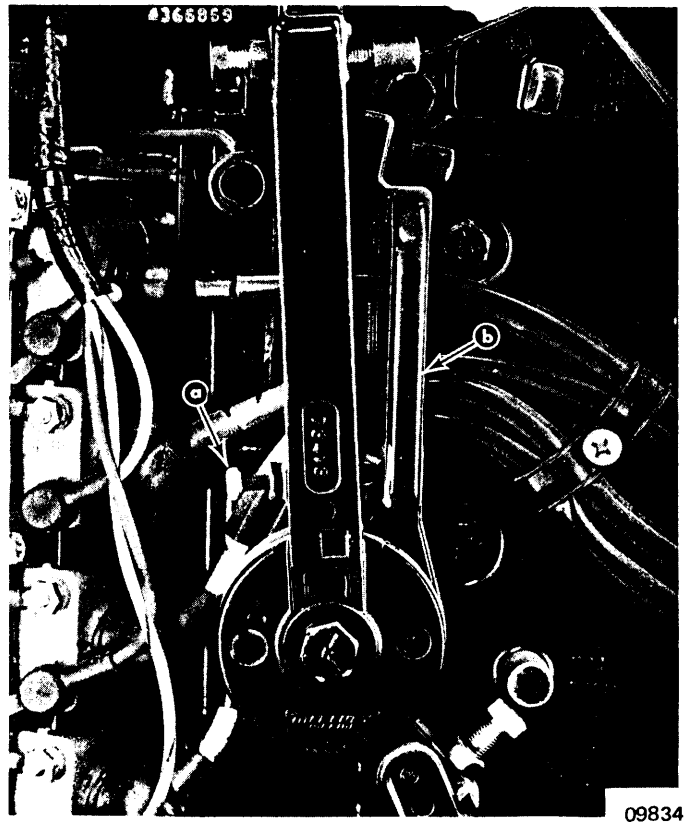
6. Reinstall cowls.

File a warranty claim for 0.3 hrs. for each outboard by Serial No. on which you have replaced the swivel. More than one outboard can be placed on a claim, if the Serial Nos. are listed.



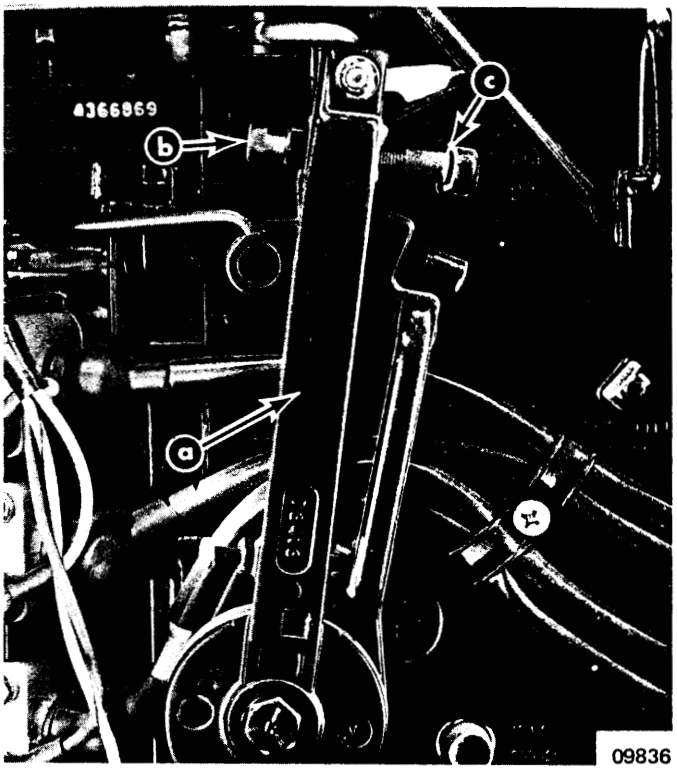
a - Primary Pickup Cam
b - Carburetor Cluster Pin
c - Just Touching

Figure 1. Adjusting Throttle Primary Pickup



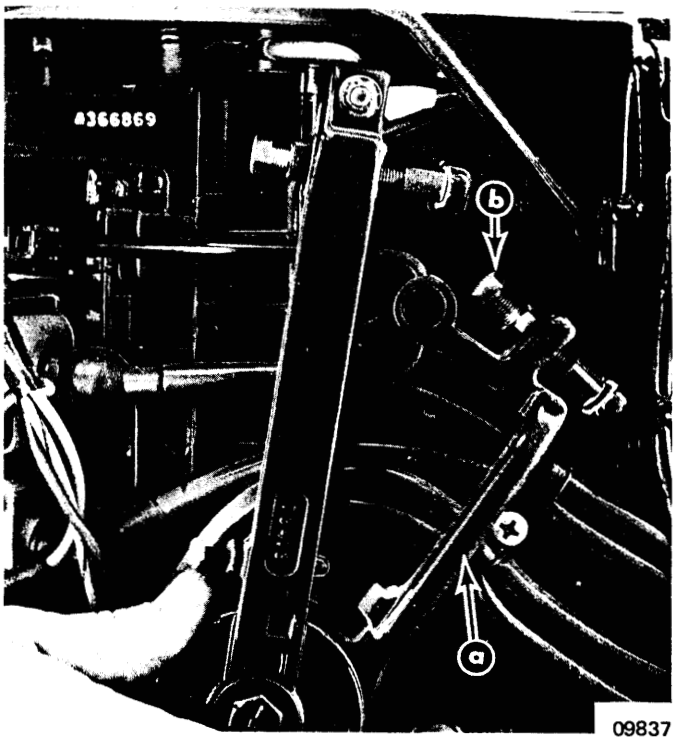
a - Primary Pickup Adjustment Screw
b - Throttle Lever

Figure 2. Throttle/Spark Lever Adjustment Screws



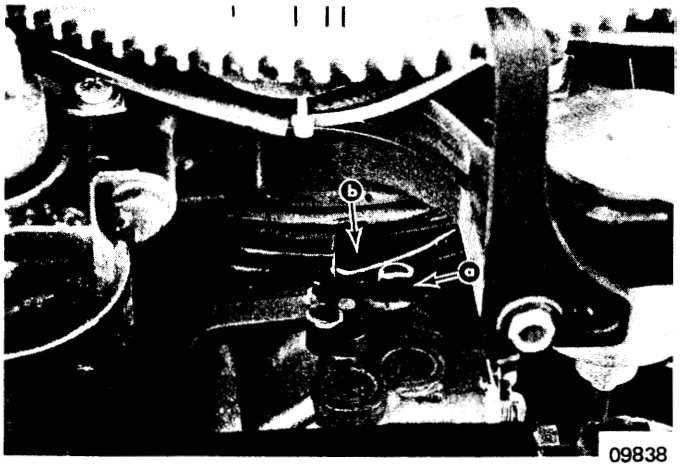
a - Spark Lever
b - Spark Stop Screw
c - Just Touching

Figure 3. Maximum Spark Advance Adjustment



a - Throttle Lever b - Throttle Stop Screw

Figure 4. Throttle Stop Screw Adjustment



a - Carburetor Cluster Pin (W/O THROTTLE)
b - Throttle Cam

Figure 5. Throttle Cam/Carburetor Cluster Pin Clearance