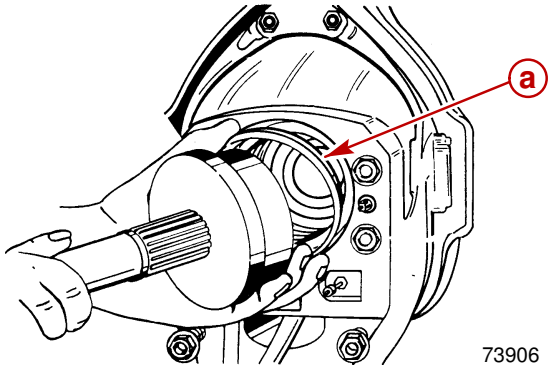
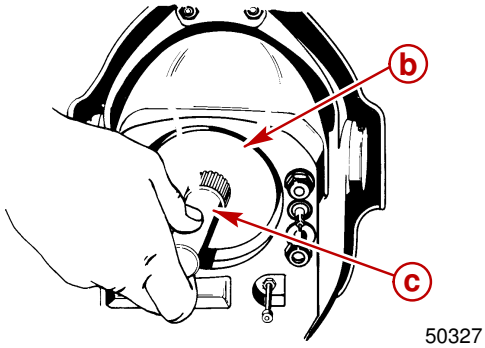
b. Lubricate sleeve O.D. with soapy water or engine cleaner and install sleeve with sleeve installation tool and a suitable driving rod.



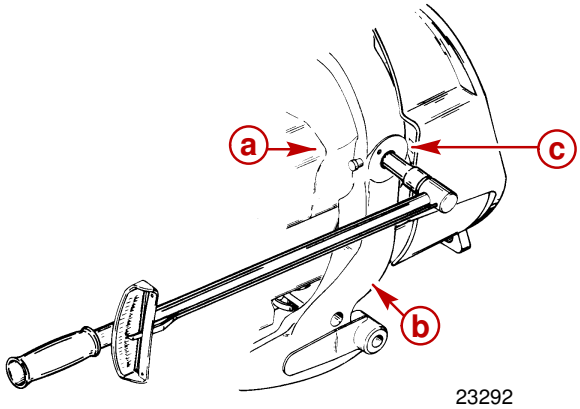
73906



50327

a - Sleeve
b - Sleeve Installation Tool (91-818162)
c - Suitable Driving Rod

4. Apply Locquic Primer “T” to internal bell housing threads and external hinge pin threads and allow to dry. Apply Loctite 27131 to bell housing threads and install hinge pins. Torque hinge pins to 140-150 lb. ft. (189-203 N·m).



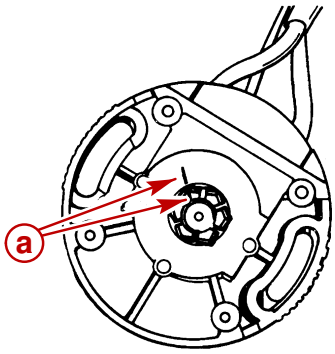
23292

a - Bell Housing
b - Gimbal Ring
c - Hinge Pin Tool (P/N 91-78310)

5. Install trim position sender as follows:

   a. Place sterndrive unit in the full DOWN/IN position.

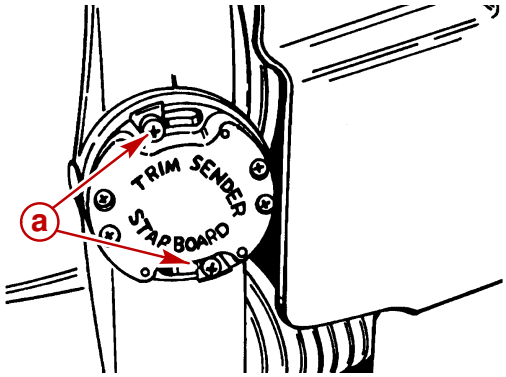
   b. Turn center rotor of trim position sender to align index mark with index mark on sender body.



71218

a - Index Marks

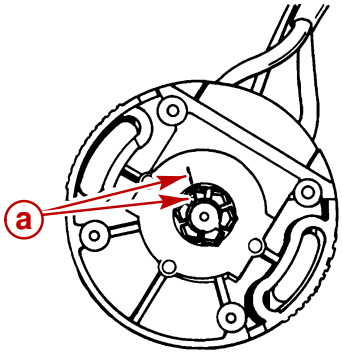
c. Install trim position sender and secure with attaching hardware.



71220

a - Screws, Washers, and Retainers

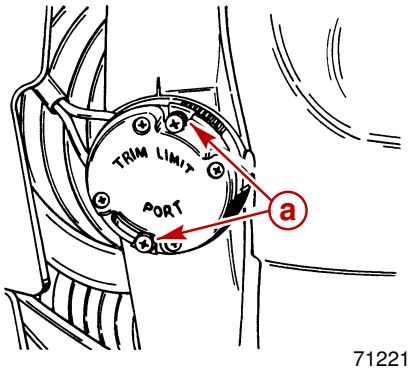
6. Tighten trim position sender retaining screws and recheck gauge reading.
7. Reinstall trim limit switch as follows:
   a. Place drive unit in full DOWN/IN position.
   b. Align index marks on switch.



71218

a - Index Marks

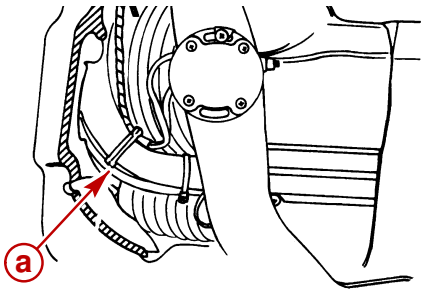
c. Install trim limit switch and secure with attaching hardware.



71221

a - Screws, Washers, and Retainers

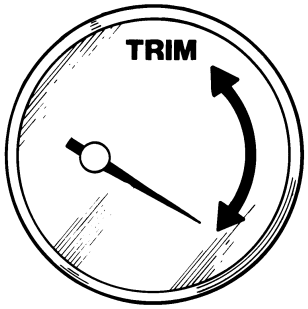
8. Secure the trim limit switch harness to the water hose with the plastic clip.



71184

a - Plastic Clip

9. Reconnect trim position sender wires to engine the harness and the trim leads to trim pump harness.
10. Reinstall battery cables.
11. Turn ignition key to the “RUN” position. DO NOT START ENGINE. Rotate sender until needle is at bottom of arc on gauge.



22175

Trim Limit Switch Adjustment

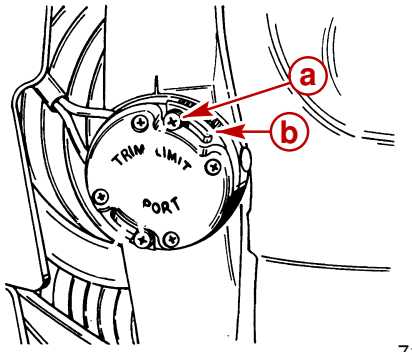
⚠ WARNING

When adjusting trim limit switch, use extreme care that engine is not started and keep clear of area near propeller. Use care to prevent placing hands in an area where injury could occur because of drive unit movement.

⚠ CAUTION

Trim limit switch MUST BE adjusted exactly as outlined. If switch is adjusted incorrectly, drive unit could move out beyond the gimbal ring support flanges and cause damage to sterndrive unit.

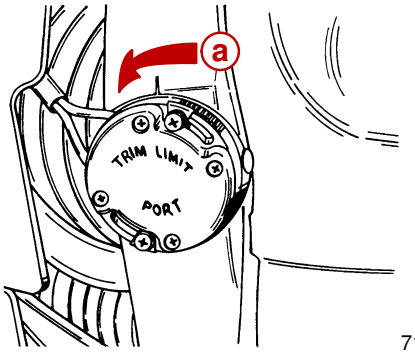
1. Adjust trim limit switch as follows:
   a. Loosen screws and turn trim limit switch clockwise to end of slots.



71221

a - Screws
b - Slots

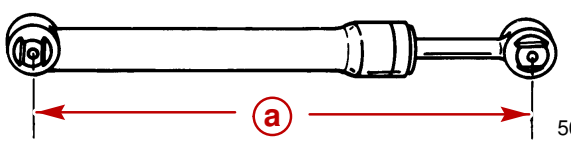
   b. Ensure drive unit is in the full DOWN/IN position.
   c. Trim drive unit UP/OUT. Do not use trailer switch.
   d. Slowly turn trim limit switch counterclockwise until trim cylinders extend to dimension shown (refer to appropriate illustration).



71221

a - Rotate Counterclockwise to Adjust

   e. Retighten screws when adjustment is correct.



50464

a - 21-3/4 in. (552mm) Maximum

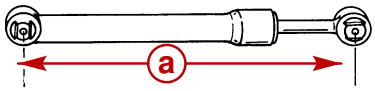
High Performance Transom Assembly - Without Electrical Trim Sender and Trim Limit Switch

IMPORTANT: The electrical Trim Limit Switch and Trim Position Sender are not present on this transom assembly. Without a Trim Limit Switch, the drive unit can be trimmed up/out beyond the position where the drive unit has side support from the gimbal ring at any throttle setting. It is highly recommended that a mechanical (cable actuated) Trim Position Indicator be installed to provide important drive unit trim angle information to the operator and that the Trim Indicator be marked to clearly indicate the maximum up/out position where side support is still provided. The drive unit should not be trimmed to a position beyond gimbal ring side support at engine speeds above 1200 RPM.

⚠ WARNING

Avoid personal injury or damage to sterndrive unit. Do not trim drive unit to an up/out position where the drive unit receives no side support from the gimbal ring at engine speeds above 1200 RPM. Refer to a properly marked mechanical Trim Position Indicator.

1. Install “WARNING DECAL” (Contained in the transom assembly box) at the operator station in a place where it will be clearly visible to the operator.
2. To mark the maximum “Trim Up/Out” position on the mechanical trim indicator, proceed as follows:
   a. Trim drive unit(s) to the “Full Down/In” position.
   b. Check to ensure that the mechanical trim indicator indicates “Full Down/In” position. Adjust the indicator following the manufacturers recommendations.
   c. Slowly raise the drive unit(s) until the trim limit point is reached. The trim limit point can be determined by measuring the amount of trim cylinder extension. The dimension for the Bravo and Blackhawk drive units is **21-3/4 in. (552 mm)**, which is measured from front anchor point to rear anchor point centerlines as shown following.



50464

a - Trim Limit Dimension 21-3/4 in. (552 mm)

   d. With the trim cylinders at this position, place a mark on the mechanical trim indicator.
   e. Raise and lower drive unit(s) several times to ensure that the trim limit point is properly marked.

Gimbal Bearing

IMPORTANT: Gimbal bearing and carrier are a matched set and must be replaced as an assembly. Tolerance ring must be replaced any time gimbal bearing is removed.

Inspection

1. Remove sterndrive unit.
2. Reach through bell housing. Rotate gimbal bearing and check for rough spots. Pull and push on inner race to check for side wear. Any excessive movement or roughness is cause for replacement.