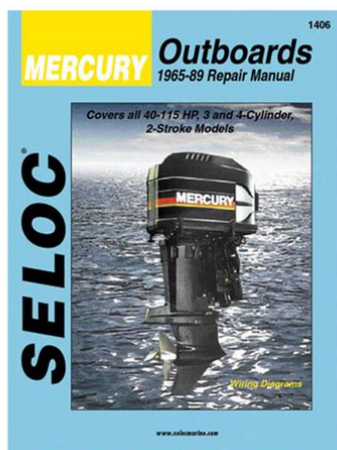


40 hp mariner outboard service manual



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Where the by the Service Department of Mercury Marine to aid fasteners are not satisfactory for reuse, care should our dealers' mechanics and company service per. Outboards should be Outboard Motor attached to work stands, or lowered to ground as soon as possible. A marine power product is a combination of many We reserve the right to make changes to this manual machined, honed, polished and lapped surfaces with without prior notification. Lubricate more frequently when used in salt water. Before Each Use 2. Inspect and clean spark plugs. 1. Check that lanyard stop switch stops the engine. 3. Run the engine for ten minutes to allow treated fuel to reach the carburetors. Corrosion Control Anode 1. Your outboard has two corrosion control anodes. One of the anodes is the trim tab installed on the gear case and the other is installed on the bottom of the transom bracket assembly. The fluid level should be even with the bottom of the fill hole. If water is present, it may have settled to the bottom and will drain out prior to the lubricant, or it may be mixed with the lubricant, giving it a milky colored appearance. Positioning Outboard for Storage 1. Store outboard in an upright vertical position to allow water to drain out of outboard. CAUTION If outboard is stored tilted up in freezing temperature, trapped cooling water or rain water that may have entered the propeller exhaust outlet in the gear case could freeze and cause damage to the. To correct instability Shifting weight to the rear stern ty at high speed, reduce the power GRADUALLY and trim the outboard "in". Operating in a higher elevation causes an RPM loss. Operating with a damaged propeller or a dirty boat bottom or gear housing will cause an RPM loss. Replace plastic cap after installation. 60 Hp 4050 Hp a Special Bolt 1090041 Torque to 20 lb. Refer to installation instructions supplied with the mounting kit before drilling any holes. <http://www.eagleeyebird.com.au/files/commax-dpv-4me-manual.xml>

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Tighten retainer screws into lower mounting holes when using mounting kit. Position outboard so the antiventilation plate is 6. Center outboard on the transom. Refer to installation instructions supplied with the mounting kit before drilling any holes. Make sure to rotate the propeller shaft while shifting into reverse. Shift and Throttle Cable Adjust the cable barrel to attain the measured 60 HP Models distance taken in Step 2. Install cables into the remote control following the 4. Place cable barrel into the bottom hole in the barrel holder. Make sure to rotate the propeller shaft while shifting into reverse. 2. Adjust trim tab as follows 1. If boat tends to pull to the right, move the rear edge of the trim tab to the right. 2. Major COILS wound in series. The FLYWHEEL is fitted with components of the ignition system are the flywheel, 6 permanent magnets inside the outer rim. These coils tronic switch SCR inside the capacitor discharge are mounted adjacent to the flywheel center hub. To complete the secondary voltage path, the released voltage enters the ground circuit of CDM module. NOTE The CDM contains a zener diode not shown for clarity. This diode prevents overcharging of the capacitor and possible failure if the SCR does not receive a trigger pulse. The rev limiter uses a trigger signal brown wire to determine engine speed or rpm. If the engine speed exceeds the specified rpm, the rev limiter will ground out the CDM capacitor charge. TRIGGER A

resistance test is not used on the trigger. Test trigger as outlined under "Testing Voltage Output to CDM" "Trigger Output Test". STATOR 1. Disconnect stator leads. NOTE Resistance varies greatly with temperature. Flywheel Removal and 7. Carefully inspect flywheel for cracks or damage. Installation 8. Inspect crankshaft and flywheel tapers for worn or damaged key ways. REMOVAL 9. Check for loose or damaged flywheel magnets 1. Remove flywheel cover from engine. outer rim and center hub. <http://maxflowfans.com/userfiles/commax-dpv-4pm2-manual.xml>

REMOVAL WARNING Always disconnect battery and disconnect spark plug leads from spark plugs before working on motor. 1. Disconnect CDM wire harness plug. 2. Remove screws securing CDM to ignition plate. 19459 INSTALLATION a Link Arm b Trigger 1. CAUTION If battery acid comes into contact with skin or eyes, wash skin immediately with a mild soap. Flush eyes with water immediately and see a doctor. Wash off immediately Battery with baking soda solution. Specific gravity of electrolyte varies not only with per centage of acid in liquid, but also with temperature. If polarity was incorrect, check for damaged rectifier. See "rectifier NOTE Stator can be tested without removing from test", later in this section. engine. Rectifier can be tested without removing from engine. Disconnect all wires from terminals on rectifier. Use an ohmmeter R x 1000 scale and perform the following test. TEST RESULTS 1ST READING 40,000 to 1 OHMS TEST RESULTS 2ND READING 1 OHMS No needle movement 2B10 ELECTRICAL 90852572R1 JANUARY 1998. TEST 1 Use an ohmmeter R x 1 scale and connect meter leads between NEGATIVE battery post and common powerhead ground. Should hear solenoid click; proceed to TEST 8. TEST 8 a. Deburr the commutator lightly with No. 00 sandpaper, then clean the commutator. Check the armature on a growler for shorts. See "Testing", following. Opencircuited armatures are repairable. The most likely place for an open circuit is at the commutator bars. Place one lead of Set ohmmeter to R x 1 scale. Place one lead of ohmmeter on armature core or shaft and other ohmmeter on the negative brush and the other lead lead on commutator, as shown. Use an ohmmeter, set to R x 1 scale and connect between solenoid terminals 3 and 4. Crank engine with starter motor and adjust maximum spark advance. Engine may be timed while cranking engine with vance screw to align the specified BTDC timing starter motor.

Adjustments Adjust full throttle stop screw to allow throttle shutters to open fully while providing approximately .015 in. .38 mm freeplay in throttle linkage to prevent carburetor throttle shutters from 1. Switch c Neutral Start Switch p 12V Battery d Tiller Handle Trim Switch q Start Solenoid e PushButton Stop Switch r Voltage Regulator f Lanyard Stop Switch. Crankcase pulsating pressure While antisiphon valves are helpful from a safety standpoint, they clog, they may be too small, or they crankcase to the fuel pump. Run engine, and inspect hoses for air Antisiphon valve. Refer to "Checking for bubbles. If air bubbles are found, see "Air Bubbles in Restricted Fuel Flow Fuel Line". Check Valve Assembly 1. Insert retainer thru plastic disc and rubber check valve. 23601 a Retainer Rod b Retainer Cap 4. Reinstall rod into retainer cap. Use a small hammer or hammer and punch to tap rod down into retainer until flush with top of retainer. Turn idle mixture screw in clockwise until it seats LIGHTLY then backoff each carburetor the correct 2. Between 2000 feet 609.6m and 5000 feet 1524m the reduction of the main fuel jets may result in improved performance and fuel economy. Above 5000 feet, however, it is recommended that main jet size be reduced as shown per 1000 feet 304.8m in the following chart. Items, that are shown below, could give the impression that there is a problem in the fuel system. 1. Review starting procedure as outlined in "Operation and Maintenance Manual". Fuel tank empty or too low. Improperly mixed fuel. Check fuel in tank and replace or add whichever is Contaminants water, dirt, etc. in fuel. Air leaks past mixing chamber Tighten bolts securely. Tighten cover or replace gas cover. Fuel level is too low. Reset float level. Clogged high speed jet. Inspect jet for varnish or debris and clean. Restricted fuel flow to carburetor. Replace if end is worn or grooved.

<http://www.drupalitalia.org/node/70190>

CAUTION Do not use steel wire for cleaning the jets as this may enlarge the jet diameters and seriously affect performance. Use a petroleum based solvent for cleaning and blow out all passages with compressed air. The system consists of an electrically operated enrichment valve which is connected by a hose to the intake manifold. Click No Click Squeeze primer bulb until bulb is firm. Fuel conditions. When the primer bulb is pressed in, fuel should be directed into suitable container and all is forced from the primer bulb into the intake manifold flammable materials extinguished and sources. TETHER PUSH NUT SEAL VENT VALVE GROMMET BOOT BOOT SWITCH SCREW .16418 X.375 Drive Tight WASHER OIL INJECTION PUMP ORING ORING SCREW DRIVEN GEAR BEARING ASSEMBLY. When the throttle position is The major components of the oil injection system are changed, the link rod rotates the oil pump valve, an oil tank, oil pump, and low oil warning system. Adjust length of link rod so stamped mark of oil pump body aligns with stamped mark of oil pump lever. Possible Cause Corrective Action Faulty Engine overheat sensor. If warning horn sounds a continuous "beep", the engine overheat sensor may be faulty. This forms carbon monoxide, CO. Carbon monoxide is the product of incomplete combustion Through the Environmental Protection Agency and is a dangerous, potentially lethal gas. EPA, the federal government has established exhaust emissions standards for all new marine engines sold in the U.S. Higher combustion temperatures raise the NOx content of the exhaust. All other models use a homogenized charge. Snap Ring Pliers 9124283 3. Flywheel Puller 9173687A2 4. Powerhead Stand 9125821A1 11. Piston Lock Ring Installer 9177109A3 12. Torque Wrench 0200 lb. ft. Obtain Locally 5. General Information 8. Remove BLACK ground lead between power Powerhead "Disassembly" and "Reassembly" in head and engine tray. WARNING DO NOT leave powerhead suspended from hoist.

<http://jochenschild.com/images/canon-mv901-manual-pdf.pdf>

Powerhead should be installed on a suitable stand or lowered to floor upon removal from drive shaft housing to avoid personal injury or damage to product. Crankshaft Disassembly 55323 1. Remove roller bearing assemblies from crank shaft. Always install new piston crankshaft; reattach caps to respective rod as rings. PE51086 a Piston Pin b Piston Pin Tool 9174607A3 9. Remove piston pin needle bearings 29 per piston pin and locating washers 2 per piston as shown. If light can be seen the nylon ball is bad prob below. Check for tapered, out of round "egg ably melted;. Chromed ring is installed on top. .50 in. 12.7 mm Enlarged View of Piston Ring Grooves PISTON PISTON SKIRT CYL. Following these directions, tighten rod cap attaching bolts to specifications. Recheck alignment. CAUTION Crocus cloth MUST BE USED to clean bearing surface at crankshaft end of connecting rod. DO NOT use any other type of abrasive cloth. CAUTION Any GREASE used for bearings INSIDE the powerhead MUST BE gasoline soluble. Use only Quicksilver Needle Bearing Assembly Lubricant. DO NOT use 24C Marine Lubricant, or other lubricants inside the powerhead, or damage may occur. CAUTION Do not reuse piston pin lockrings. Use only new lockrings and make sure they are properly seated in piston grooves. Spread rings just enough to slip over piston. Pistons MUST be installed in this key in gear to crankshaft assembly. CAUTION Insert locating pins. Any grease used for bearings INSIDE the power head MUST BE gasoline soluble. Use only Quick silver Needle Bearing Assembly Lubricant. DO NOT use 24C Marine Lubricant, or other lubricants inside powerhead, or damage to engine may occur. Lip of larger seal faces toward power head. PE51088. PE51084 a Crankcase Cover b End Cap 6. Insert clean bolts note 2 sizes and finger tight 7. Slide shift slide on rail while lowering powerhead on splines of drive shaft. 55320 a Bolts Torque to 80 lb.

<https://www.freizeitbauwagen.de/images/canon-mv900-manuale-d-uso.pdf>

The remote control or trim panel is equipped with a Make sure that water level is above gear housing switch that is used for trimming the outboard "up". Oil from the up cavity will enter this

passage and open the tilt pressure relief valve k. The tilt relief actuator's "pin" opens the tilt relief valve k. With the pump gears rotating backwards, the flow of oil is reversed. If the outboard strikes an underwater object while in forward gear the trim ram b will try to rapidly extend from the cylinder, the pressure increases inside the trim cylinder down cavity and connecting passages. With the valve backed out, the internal passages inside the manifold are connected together. These passages connect both the cylinder down and up cavities together, along with the reservoir t, allowing the engine to be raised or lowered. Support outboard with tilt lock pin when servicing power trim system. Preliminary Checks IMPORTANT After debris or failed components have been found during troubleshooting procedure IMPORTANT Operate Power Trim system after done it is recommended that unit be disassembled each check to see if problem has been corrected. Manual release valve and Manual release Inspect manual release valve. Orings appear to be O.K. valve and Oring Clean reinstall damaged. Replace suction seat Trim will not hold assembly. Manual release Inspect manual release valve. Manual release valve and O valve and Oring rings appear to be O.K. Clean damaged. and reinstall manual release valve. Replace memory piston Trim leaks down. Problem Possible Cause Remedy Trim Switch "UP" is inoperative 1. Open wire between Wire Connection 1 1. Check for an open connection or cut wire, but the Cowl Switch "UP". Remove lower pivot pin. Retain the pivot pin bushings from the clamp brackets and trim unit. Shock Rod Removal 7. Remove the trim unit. IMPORTANT Power trim system is pressurized. Outboard must be in the full "UP". Shock Rod Disassembly 5.

Unscrew end cap assembly from cylinder using NOTE The only serviceable items on the shock rod spanner wrench 9174951. If shock rod requires any other repair, replace shock rod assembly. When removing shock piston, spanner wrench 4. Remove oring from shock rod piston. Memory Piston Removal 15. Trim Motor Removal 1. Secure power trim assembly in soft jawed vise. 2. Remove screws securing trim motor to manifold. 3. Remove motor assembly. Or a removal tool can be The pump is not serviceable. NOTE Do not lose shim that may be lodged in the 2. Use a pin punch and knock the filter and suction plug. Slightest amount of debris in Power Trim the remaining seat. IMPORTANT Lubricate all Orings with Quicksilver Power Trim Fluid 9290100A12. Push memory piston all the 2. Fasten Power Trim System ground strap between anode and clamp bracket. Installation 1. Lubricate lower pivot pin, mounting holes and bushings with 24C Marine Lubricant. 2. Install lower pivot pin bushings into the clamp brackets and trim unit. Press trim 11. Secure wire harness with clamps as shown. If not available, use automotive ATF automatic transmission fluid. NOTE It is recommended that all orings be replaced when servicing tilt system. 5D2 MIDSECTION 90852572R1 JANUARY 1998. The remote control or trim panel is equipped with a Make sure that water level is above gear housing switch that is used for trimming the outboard "up". The oil pump gear j rotation forces oil into the passages for the up circuit. Oil from the up cavity will enter this passage and, if required, causes the tilt relief piston s to open the tilt pressure relief valve r. The tilt relief piston's "pin" opens the tilt relief valve r. With the pump gears rotating backwards, the flow of oil is reversed. Oil is drawn through the filter g, through the down circuit suction port k and into the oil pump j.

realwebguys.com/wp-content/plugins/formcraft/file-upload/server/content/files/1626c07d79ee8f---canine-massage-and-stretching-a-dog-owner-s-manual.pdf

If the outboard strikes an underwater object while in forward gear, the piston rod a will try to rapidly extend from the cylinder w, the pressure increases inside the trim cylinder down cavity and con. With the valve backed out, the internal passages inside the manifold are connected together. These passages connect both the cylinder down and up cavities together, along with the reservoir, allowing the engine to be raised or lowered. IMPORTANT After debris or failed components have been found during troubleshooting procedure, it is recommended that unit be disassembled completely and ALL Orings be replaced. Check ball valve components and castings must be cleaned

using engine cleaner and compressed air or replaced prior to reassembly. Manual release valve and Manual release Inspect manual release valve. Orings appear to be O.K. valve and Oring Clean and reinstall manual damaged. Replace suction seat Trim will not hold assembly. Manual release valve Inspect manual release valve. Manual release valve and O and Oring damaged. Problem Possible Cause Remedy Trim Switch "UP" is inoperable 1. Open wire between Wire Connection 1 1. Check for an open connection or cut wire, but the Cowl Switch "UP". Power Trim System Removal 4. Drive out the upper pivot pin. 1. Tilt outboard to the full up position and support with tilt lock pin. Retain dowel pin. IMPORTANT Power trim system is pressurized. Use special tool CG 4111 and special tool voir. Remove suction seat assembly. 51008 a Spring b Poppet c Spool Housing d Trim Limit Spool Shock Rod Removal a Screws 3 b Filter Seal. NOTE The only serviceable items on the shock rod 4. Remove oring from shock rod piston. If shock rod requires any other repair, replace shock rod assembly. Clean shock rod and components with parts cleaner and dry with compressed air. It is recommended that all Orings in trim system be replaced. Power Trim Reassembly 5. Position cylinder end cap onto rod as shown.

IMPORTANT Lubricate all orings with Quicksilver Power Trim Fluid 9290100A12. If not available, use automotive ATF automatic transmission fluid. Shock Rod Installation 10. Install ball, seat, and spring five sets to shock 1. Place trim cylinder in soft jawed vice. rod piston. 2. Install lubricated oring to memory piston and 11. Secure components with plate. Torque screws to place into cylinder. The heavy spring is used on 75 to 125 HP engines. The light spring is used on 40 to 60 HP engines. If debris is found on poppet, ground strap under screw shown Torque screws replace poppet. Reinstall plug. 24C Marine Lubricant. This hydraulic assist system's contents are under pressure. Do not puncture, disassemble or apply heat or flame. IMPORTANT If debris or leaking is found, unit must be replaced. Manual Trim System 5. Remove tilt lock pin. Remove nuts and washers Installation securing the lower pivot pin. Remove anode bolt to remove ground strap. Remove lower anchor 1. Apply 24C Marine Lubricant to surface of lower pin. Cam pivot pin, pivot hole and shock rod hole. Adjust cam link rod as necessary. 4. Position trim into position and drive pivot pin into swivel bracket and through shock rod until pivot pin is flush with swivel bracket. If not available, use automotive ATF automatic transmission fluid. NOTE It is recommended that all orings be replaced when servicing tilt system. 5F2 MIDSECTION 90852572R1 JANUARY 1998. To raise the engine, the camshaft lever f is rotated all the way down. The internal shaft connected to the lever will open the down slow transfer valve i allowing oil under pressure into the cavity around the shaft. Fluid will attempt to exit the cylinder through the interconnecting passage. The rapid fluid flow will increase the pressure below the surge valve k, causing the valve to move, closing the oil return passage back into the accumulator c.

Oil inside the up cavity is locked in a static position by the closed up fast transfer valve j, the closed down slow transfer valve i and closed down fast transfer valve h. Use suitable punch to remove DRIVE DOWN upper CAUTION dowel pin. Retain dowel pin. Remove cowling and remove all spark plug leads from spark plugs to prevent accidental starting while servicing outboard. Manual Tilt System Disassembly NOTE Accumulator contains a high pressure nitrogen charge and is NOT SERVICEABLE. Replace if necessary. WARNING This tilt system is pressurized. Remove accumulator 51144 lator only when shock rod is in full up position. Replace accumulator 1. Unscrew cylinder end cap assembly using spanner. NOTE The only serviceable items on the shock rod 4. Remove oring. assembly are the Orings and wiper ring. If shock rod requires any other repair, replace shock rod assembly. If not available, use automotive ATF automatic transmission fluid. NOTE It is recommended that all orings be replaced when servicing tilt system. 5F24 MIDSECTION 90852572R1 JANUARY 1998. Insert screws to shock rod cylinder and torque to 100 lb. Torque screws to NOTE There are two ways for the filling procedure. 35 lb.in. 3.9 N m. The first is the easiest and less time consuming. If a torquing type spanner tool is used to tighten end cap, then torque the end cap to 45 lb. Wait until IMPORTANT While bleeding tilt system, time all air bubbles

exit accumulator base. With cam lever remaining open facing down, cycle unit 23 more times using short strokes. No remove tilt assembly from oil and secure in soft air bubbles should appear from accumulator port jawed vise. Cam a Pivot Pin must open and close freely. Driver 91826872 11. Mandrel 91825197 17. Leakage Tester FT8950 12. Driver 91817007 51043 13. Mandrel 91825198 14. Pilot 91825199 15. Spring Hook 91825200A1 90852572R1 JANUARY 1998 LOWER UNIT 6A3. Insert driver 9113779 into puller through drive shaft cavity and drive out race. 52870 a Forward Gear 52844 11.

Upper Drive Shaft Bearing 2. If bearing is damaged, bearing and race must be 1. Inspect bearing for rust, roughness or discolor replaced as an assembly. Rounded jaws indicate the following a. Replace ness. cam if necessary. 7. If bearing is in serviceable condition, DO NOT re 2. Replace appropriate components as required. PRESS ONLY ON INNER RACE when installing 1. Inspect reverse gear teeth for rust, chipping ex bearing. Rounded jaws indicate the following a. Backlash cannot be adjusted. The mechanic must verify that all bearing races are firmly. Tighten securely. NOTE Gear housing lubricant capacity is approxi mately 14.9 fl. oz. 440 ml. WARNING If gear housing is installed on outboard, discon nect and isolate spark plug leads from spark plugs before working near the propeller. Propeller and propeller Disconnect and isolate spark plug leads when shaft may move foreandaft. However, the pro working near the propeller to prevent the out peller itself should not move foreandaft on the board from starting. Lower Driveshaft Bearing Driver Assembly 91817009. 91817058A1. 51043 16. Needle Bearing Installer 91817011. 51043 51043 17. Backlash Indicator Tool 91817057A1. 19. Driveshaft Holding Tool 91817070. 51043 51043 51270 Ref. Description Qty. Plate Stud Sleeve 91817057A1 Update Kit Converts 9114311A1 Bear. If reverse 1. Drain lubricant; refer to "Draining and Inspecting gear must be replaced, pinion and sliding clutch Gear Lubricant". Rounded jaws indicate the following 91817070; remove and discard pinion nut. a. Replace shift shaft if splines are twisted or 1. Remove shift shaft coupler and spacer. Remove and discard Oring if damaged. 51271 a Coupler 51264. Shift Shaft 1. Apply Perfect Seal on O.D. of new seal. Install with seal lip up, as shown. 2. Press seal into shift shaft bushing until seal bot toms. If shims were lost or damaged, or a new gearcase is being assembled, start with a.010 in. .254mm shim. 2. Drive bearing race into housing.

Use a lead ham mer to avoid damage to propshaft. Seal lip faces towards shoulder on installer tool. Press 1. Lubricate O.D. of needle bearing with Quicksilver in until Installer tool bottoms. Needle Bearing Assembly Lubricant. 2. Install needle bearing. Installation Note Push against numbered end of bearing. Lubri stall Oring. cate O.D. of bearing with Quicksilver Needle Bearing Assembly. Lubricate Lower Driveshaft Bearing Installation I.D. of bearing with Quicksilver Needle Bearing 1. Lubricate O.D. of bearing race with Quicksilver Assembly Lubricant before installation. Use In Needle Bearing Assembly Lubricant. This properly DETERMINING PINION GEAR LOCATION seats upper driveshaft tapered roller bearing. NOTE Read entire procedure before attempting any change in shim thickness. Use care not to displace cam follower. Install thicker flat washers and longer bolts. Installation 0.04 in. 1.02 mm 1. Place seal on longer shoulder side of tool. 2. Press into water pump base until tool bottoms. 55878 a Seal Install with spring visible when installed. b Seal Install with spring visible when installed. Install gasket with bead toward cover. 51290 Needle Bearing Assy. Lub. 92825265A1 a Gasket b Bead Toward Cover 11. Rotate driveshaft clockwise and push cover down. CAUTION Do not use automotive grease in the gear hous ing. Driver Shaft Holding Tool 9156775 13. Slide Hammer 9134569A1 20. Dial Indicator 9158222A1 14. Backlash Indicator Tool 9178473 3 cyl. 15. Universal Puller Plate 9137241 22. Puller Bolt 9185716 23. Design I "3 Jaw and isolate spark plug leads from spark plugs Reverse Clutch" a gear case identified with before removing gear housing. Remove water pump base. Impeller is glazed or melted caused by operation without sufficient water supply. Rubber portion of impeller is not bonded to impel ler hub. If reverse gear must be replaced, pinion gear and sliding clutch should be inspected for damage. Pinion Gear, Drive Shaft, and Forward Gear 14.

Replace sliding clutch if jaws are rounded or chipped. Rounded jaws indicate one or more of the following Model Drive Shaft Holding Tool a. Improper shift cable adjustment. 50 Bigfoot 4Stroke 9156775 b. Forward Gear Bearing Race 5. Replace shift cam if worn. **IMPORTANT** Retain shims for reassembly. If shims are damaged, replace with new shims of equal thickness. 1. Remove race and shims using Slide Hammer 9134569A1. Reassembly Forward Gear Bearing Race 1. Place shims retained from disassembly into housing. If shims were lost, or a new gear housing is being assembled, start with 0.010 in. 0.254mm shims. 53928 2. Assemble components as shown; drive race into a Shift Shaft housing by striking propeller shaft end with lead b "E". Lubricate from shoulder. Lubricate outside 5. Protect lip on front side of bearing carrier using diameter of bearing and bearing carrier bore with Bearing Installation Tool 9113945. Coat thrust bearing with Forward Gear Reassembly Quicksilver Gear Lubricant. 1. Press tapered bearing onto gear press only on inner race of bearing. Quicksilver Gear Lubricant 9219007A24 51869 19168 a Mandrel 9137350 Quicksilver Gear Lubricant 9219007A24 b Bearing;. Model Drive Shaft Holding Tool 3. This should properly seat upper drive shaft tapered roller **NOTE** Read entire procedure before attempting any bearing. **NOTE** Read entire procedure before attempting any 13. The correct clearance between gauging block change in shim thickness. Installation 4. Apply Loctite 271 on O.D. of seal; press seal into 1. Place seal on longer shoulder side of Oil Seal water pump base until tool bottoms. **NOTE** Gear housing lubricant capacity is 22.5 fl. oz. 665.2ml. **WARNING** If gear housing is installed on engine, to avoid accidental starting, disconnect and isolate spark plug leads from spark plugs before working near the propeller. If boat pulls to the right, adjust trailing edge of trim tab to the right. Tilting the outboard out beyond a vertical 1.

Hold bolt Checking for Cavitation Continued from turning, and tighten locknut on bolt. The bar rel must be free to pivot. **IMPORTANT** It is important that you do not use a generalallpurpose grease for this bearing. 2. Secure impeller 1. Grease the drive shaft, shear key, and impeller nut by bending tabs against the flats on the impeller bore. Place the plastic sleeve inside the impeller ler nut. **NOTE** Apply grease to the liner mounting bolt Use Quicksilver accessory hose coupling Part Num threads before assembly. If the impeller is tight, use a hammer and block of wood to rotate the impeller clockwise on the shaft until the key way is directly above the flat on the shaft. Removal **IMPORTANT** If impeller being installed has been 1. Install seals into bearing carrier as follows 1. Install Oring seals into the top seats of the three passage holes. 2. Install spiral retaining ring into the inner ring groove. Place the plastic sleeve inside the impeller Housing and install impeller, shear key, shims nut retainer, and impeller nut. Turn the nut tight on the shaft to 1. Secure impeller Quicksilver AntiCorrosion Grease around the entire nut by bending tabs against the flats on the impel mounting flange on the water intake housing and also to the threads on the six mounting bolts. Slide brass barrel over throttle cable tube. Se proximately 17 in. 43 cm extends from the tiller cure barrel to tube with allen screw approximate arm. ly 3.5 in. 89 mm from stainless conduit. **DO NOT OVERTIGHTEN** screw, as tubing may be crushed, binding throttle cable. Stastrap harness to throttle arm.Route stop switch harness **CAUTION** through twist grip, into throttle arm, and out through side of tiller handle. Allow enough slack in harness rotate throttle grip in both directions before securing harness to handle assembly with Jclip. Se cure in place with washers and bolt with nut. Tighten bolt, allowing tiller handle movement.Propeller turns freely in both directions. 3.

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