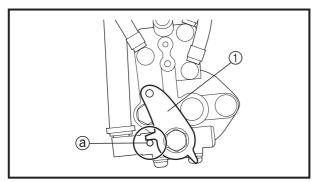
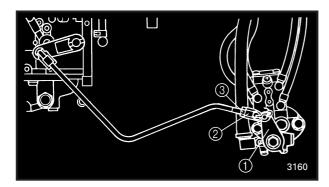


# **OIL INJECTION SYSTEM**







# OIL INJECTION SYSTEM SYNCHRONIZING THE OIL PUMP

- 1. Inspect:
  - Oil pump lever position Incorrect → Adjust.

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Make sure the oil pump lever ① touches the stopper ⓐ (fully closed position) when the throttle valves are closed.

- 2. Adjust:
  - Oil pump lever position

## **Adjustment steps**

- (1) Disconnect the oil pump link rod joint ②.
- (2) Fully close the throttle valves.
- (3) Turn the oil pump lever ① so it contacts the stopper ② (fully closed position).
- (4) Adjust the position of the oil pump link rod joint until its hole aligns with the set pin on the oil pump lever ①.
- (5) Tighten the locknut 3.
- (6) Install the washer and clip.

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After adjustment, make sure the oil pump lever operates properly.

# AIR BLEEDING THE OIL INJECTION SYSTEM

#### Bleed:

• Air bubbles (from the oil injection system)





## **Bleeding steps**

(1) Fill the fuel tank with the fuel/oil mixture (50:1).



Recommended fuel
Fuel type
Unleaded regular gasoline
Fuel rating
PON: 86
RON: 91
Recommended engine oil
Engine oil type

Engine oil type
2-stroke outboard motor oil
Engine oil grade
TC-W3

## **CAUTION:**

Only use the fuel/oil mixture (50:1) or engine malfunctions or seizure may result.

- (2) Disconnect the oil pump link rod joint from the oil pump lever.
- (3) Start the engine.
- (4) Turn the oil pump lever ① and keep it in the fully-opened position until the oil flows out of the oil pump feed hoses.

# MEASURING THE OIL PUMP DISCHARGE

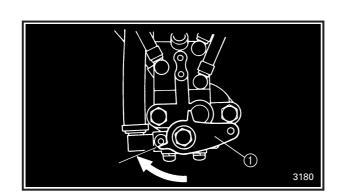
**Engine oil discharge** 

Measure:

Oil pump discharge
 Out of specification → Check all of the
 oil pump components and replace any
 defective parts.

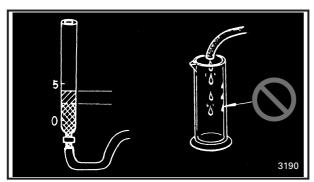


 $\begin{array}{l} \text{(3 minutes/1 cylinder)} \\ \text{150F, L150F, S150F, LS150F,} \\ \text{150G, 175F, D150H, 175D,} \\ \text{S175D/150TR, S150TR, L150TR,} \\ \text{V150TR, P175TR, D150TR,} \\ \text{S175TR} \\ \text{3.40} \pm 0.70 \text{ cm}^3 \\ \text{(0.115} \pm 0.024 \text{ US oz,} \\ \text{0.120} \pm 0.025 \text{ Imp oz)} \\ \text{200F, L200F, S200F, LS200F,} \\ \text{200G, 225D/200TR, S200TR,} \\ \text{L200TR, P200TR} \\ \text{4.80} \pm 1.10 \text{ cm}^3 \\ \text{(0.162} \pm 0.037 \text{ US oz,} \\ \text{0.169} \pm 0.039 \text{ Imp oz)} \\ \end{array}$ 





# OIL INJECTION SYSTEM



#### NOTE

When measuring the oil pump discharge, observe the following.

- The engine oil temperature should be 10 -30 °C (50 - 86 °F).
- Before measuring the oil pump discharge, completely bleed any air from the oil injection system and make sure that no air bubbles are present in the engine oil which is flowing out of the oil feed hose.
- When using the graduated cylinder, make sure no engine oil clings to its walls; otherwise, the measurement will be incorrect.
- Use only the specified engine oil of the proper viscosity. If the viscosity is too high or too low, the discharge measurement will be incorrect.
- Calculate the rate of discharge per minute.
   The longer the measurement time, the higher the accuracy of the measurement.

## Measuring steps

(1) Fill the fuel tank with the fuel/oil mixture (50:1) and fill the oil tank with engine oil.

Recommended fuel

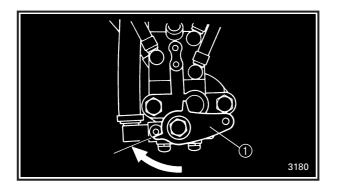


Fuel type
Unleaded regular gasoline
Fuel rating
PON: 86
RON: 91
Recommended engine oil
Engine oil type
2-stroke outboard motor oil
Engine oil grade
TC-W3

## **CAUTION:**

Only use the fuel/oil mixture (50:1) or engine malfunctions or seizure may result.

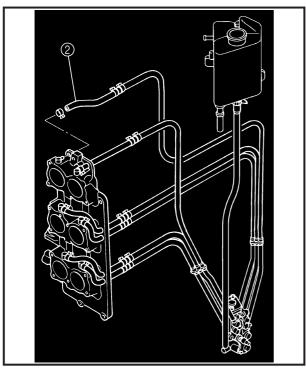
- (2) Disconnect the oil pump link rod joint from the oil pump lever.
- (3) Move the oil pump lever ① to the fully-opened position.





# OIL INJECTION SYSTEM/ POWER TRIM AND TILT SYSTEM





- (4) Remove the oil inlet hose ② from the vapor separator.
- (5) Install the oil inlet hose onto the graduated cylinder.

#### NOTE: \_

The measuring range on the graduated cylinder should be divided into 0.1-cc increments.

- (6) Start the engine.
- (7) Set the engine idling speed at 1,500 r/min.
  - Refer to "ADJUSTING THE ENGINE IDLING SPEED" on page 3-7.
- (8) Measure the engine oil discharge for 3 minutes.

# POWER TRIM AND TILT SYSTEM INSPECTING THE POWER TRIM AND TILT FLUID LEVEL

Inspect:

 Power trim and tilt fluid level Level is low → Add power trim and tilt fluid to the proper level.



Recommended power trim and tilt fluid

ATF Dexron II

# **▲ WARNING**

When removing the power trim and tilt reservoir cap, the power trim and tilt fluid may spurt out due to internal pressure. Therefore, fully tilt up the outboard (the tilt ram assembly fully extended) and then slowly remove the power trim and tilt reservoir cap.

