

# 4. LUBRICATION SYSTEM

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## LUBRICATION SYSTEM

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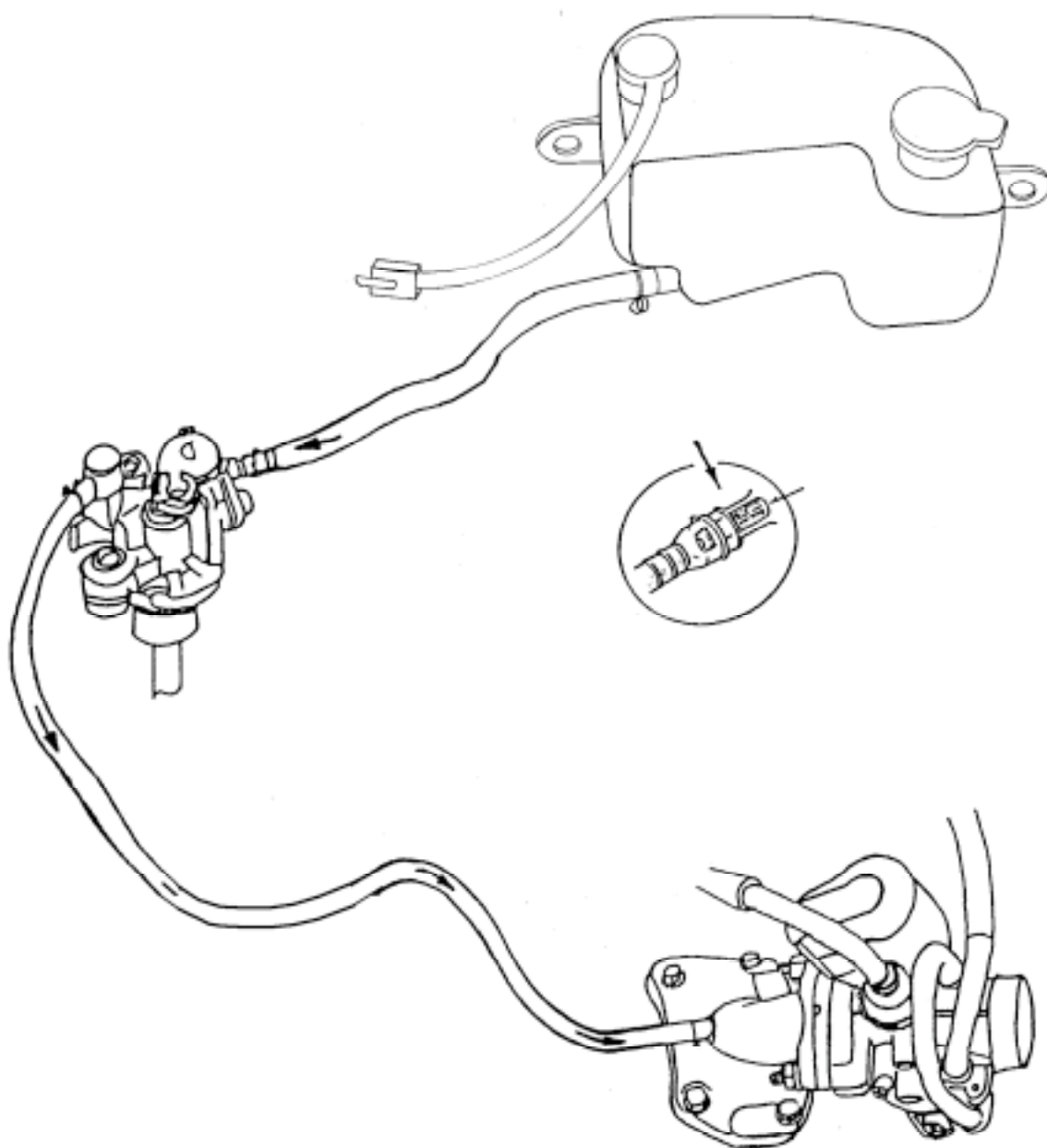
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### SERVICE INFORMATION

#### GENERAL INSTRUCTIONS

- Use care when removing and installing the oil pump not to allow dust and dirt to enter the engine and oil line.
- Do not attempt to disassemble the oil pump.
- Bleed air from the oil pump if there is air between the oil pump and oil line.
- If the oil is disconnected, refill the oil line with motor oil before connecting it.

#### SPECIFICATIONS

- Recommended Motor Oil: SAE20W20# 2-stroke Motor Oil
- Oil Capacity : 1.5 liter  
Light comes on : 0.5 liter

### TROUBLESHOOTING

#### Excessive white smoke or carbon deposits on spark plug

- Oil pump not properly synchronized (excessive oil)
- Poor quality oil

#### Engine overheating

- Oil pump not properly adjusted (insufficient oiling)
- Poor quality oil

#### Seized piston

- No oil in tank or clogged oil line
- Oil pump not properly adjusted (insufficient oiling)
- Air in oil line
- Faulty oil pump

#### Oil not flowing out of tank to engine

- Clogged oil tank cap breather hole
- Clogged oil filter

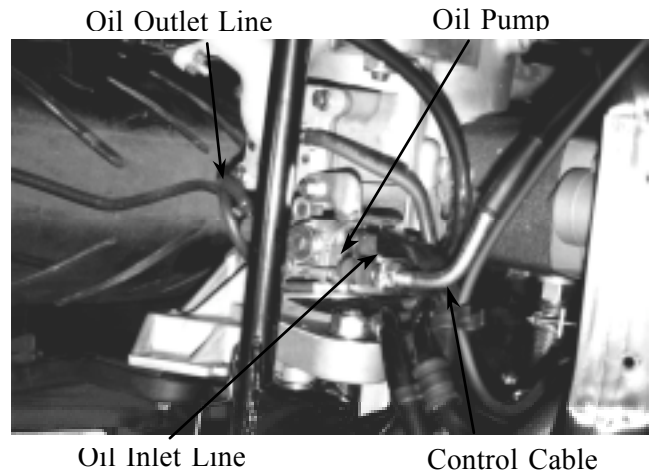
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### OIL PUMP REMOVAL

- \* Do not allow foreign matters to enter the crankcase. Before removing the oil pump, clean the oil pump and crankcase surfaces.

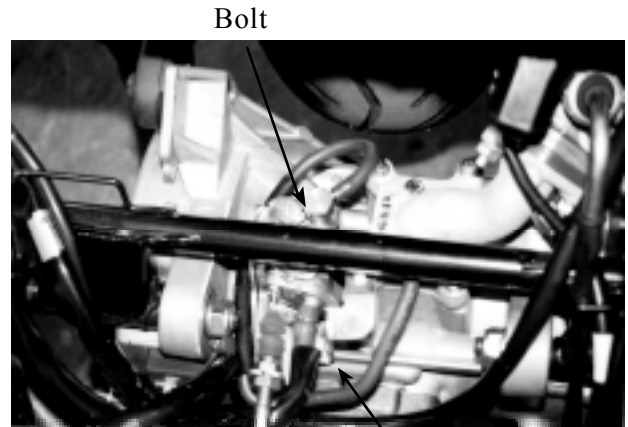
Remove the met-in box. (⇒2-4)



Disconnect the oil pump control cable from the pump body.  
Disconnect the oil inlet line from the oil pump.  
Then, disconnect the oil outlet line.

- \* Before disconnecting the oil line, clip the oil line to avoid oil flowing out and then plug the oil line after it is disconnected.

Remove the oil pump control cable plate bolt and copper washer.  
Remove the oil pump from the crankcase.

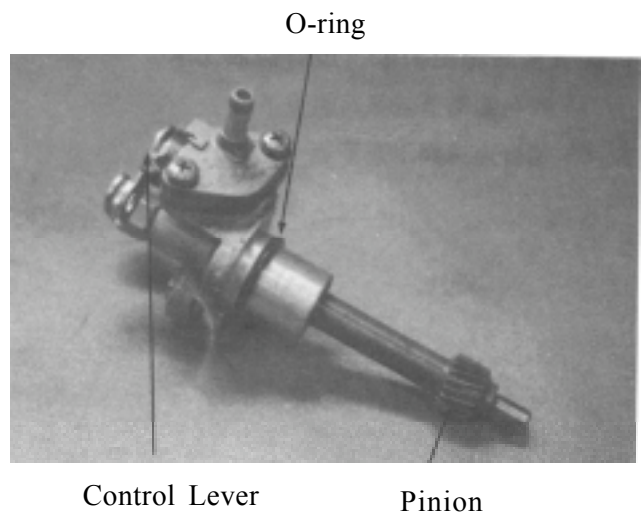


### OIL PUMP INSPECTION

Remove the oil pump and inspect the following items:

- Weakened O-ring
- Damage to crankcase mating surface
- Damage to pump body
- Control lever operation
- Oil leaks through oil seals
- Worn or damaged pump pinion

- \* Do not disassemble the oil pump which cannot be used after disassembly.



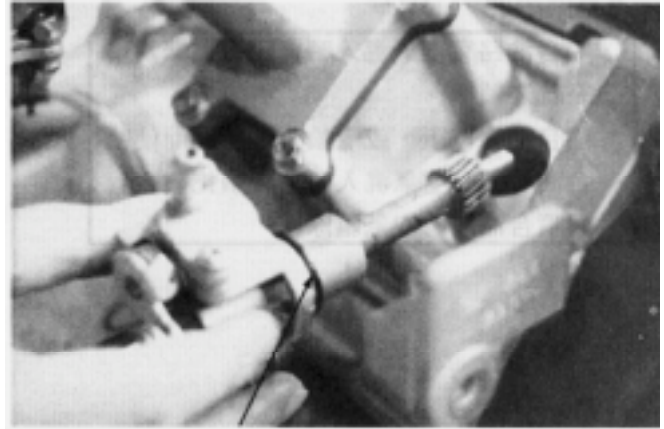
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### OIL PUMP INSTALLATION

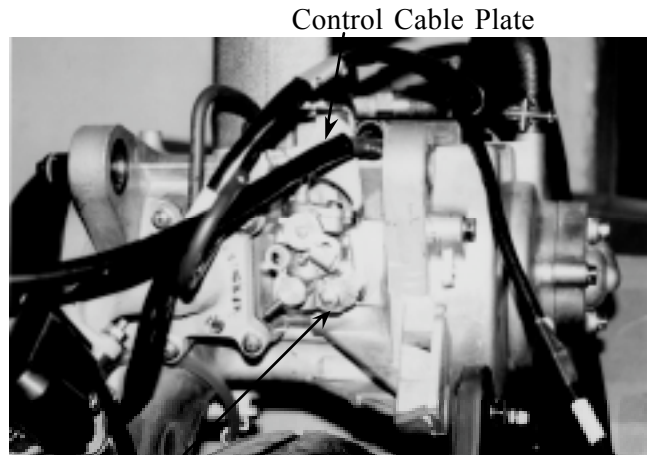
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- Lubricate the O-ring with grease or engine oil before installation.
- Make sure that the oil pump is inserted into the crankcase.
- Apply molybdenum disulfide or grease to the pump pinion.



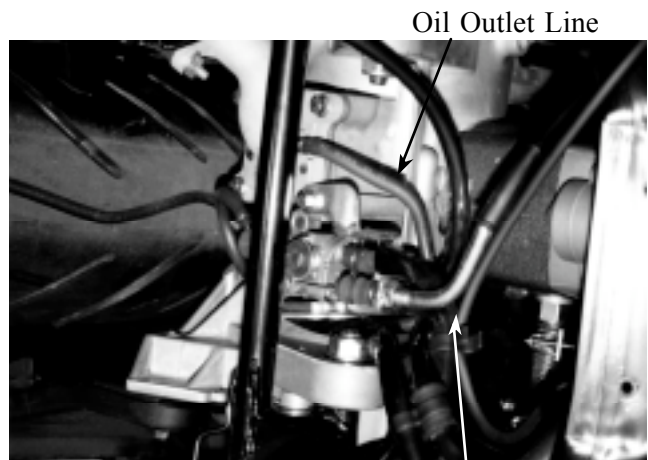
Grease or Engine Oil

Install the oil pump onto the crankcase.



Bolt

Install the oil pump control cable plate.  
Connect the oil inlet line and oil outlet line properly.  
Connect the oil pump control cable.  
Bleed air from the oil pump.



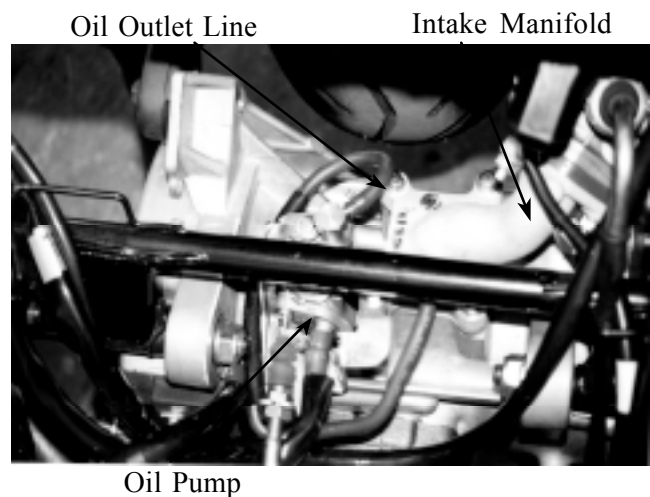
Control Cable

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### OIL PUMP BLEEDING

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- Air in the oil lines will block oil flow and result in severe engine damage.
- Bleed air from the oil lines and oil pump whenever the oil lines or pump have been removed or there is air in the oil lines.



### OIL INLET LINE/OIL PUMP BLEEDING

Fill the oil tank with recommended oil.  
Place a shop towel around the oil pump.  
Disconnect the oil inlet line from the oil pump and clip it.  
Fill the oil pump with oil by squirting clean oil through the joint. (About 3cc)  
Fill the oil line with oil and connect it to the oil pump.

\*

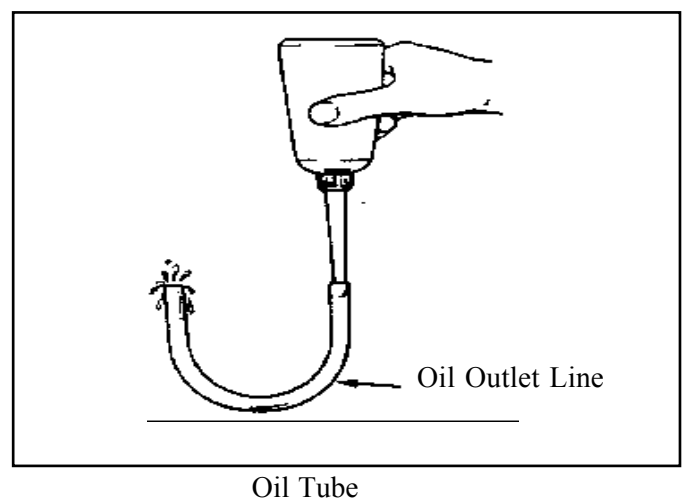
Bleed air from the oil inlet line first, then bleed air from the oil outlet line.

### OIL OUTLET LINE BLEEDING

1. Disconnect the oil outlet line and bend it into U shape. Force air out of the tube by filling it with oil.
2. Start the engine and allow it to idle with the oil control lever in the fully open position. Visually check the oil flow.
3. If there is no oil flowing out within 1 minute, bleed air from the oil inlet line and oil pump.

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- Never run the engine in a closed area.
- Do not increase the engine speed at will.



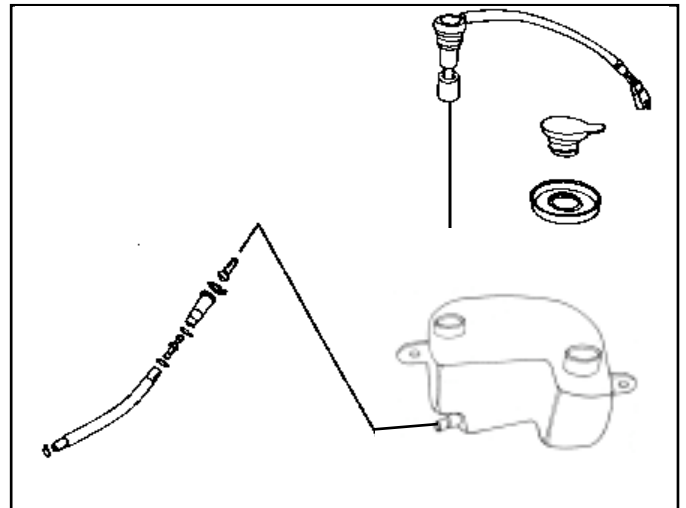
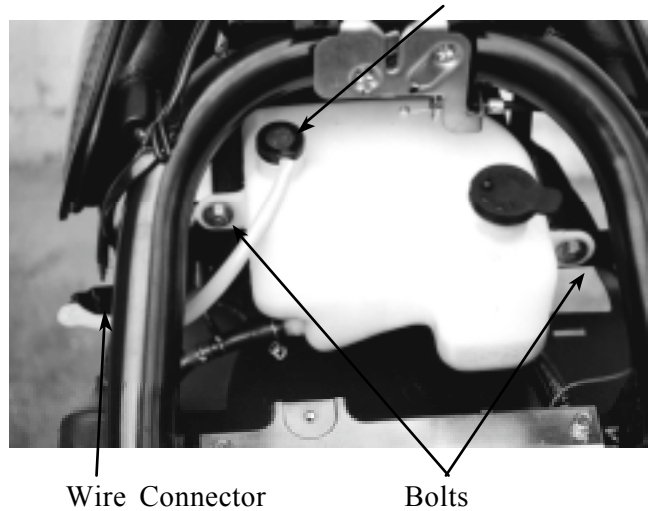
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### OIL TANK

#### OIL TANK REMOVAL

Remove the seat and met-in box. (⇒2-3)  
Remove the battery.  
Remove the battery cover screw and the battery cover.  
Remove the oil meter connector.  
Remove the two bolts attaching the oil tank.  
Disconnect the oil inlet line.  
Drain the oil inside the oil tank into a clean container.  
Remove the oil tank.  
The installation sequence is the reverse of removal.



\*

- Connect the oil line properly.
- Bleed air from the oil pump after installation.
- The oil tube clip (at the oil tank side) must be locked from inside of the oil tube joint.