

## IDLE SPEED

**Inspect initially after 20 hours (1 month) and every 200 hours (12 months).**

### NOTE:

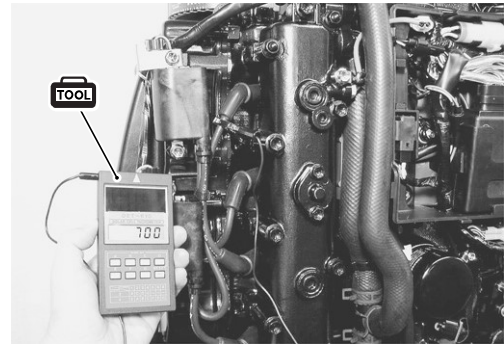
- Before checking the idle speed, the engine should be allowed to warm up.
- Check and/or adjust the idle speed after the engine speed has stabilized.
- Before checking the idle speed, check the throttle link mechanism and the throttle valve for smooth operation.

1. Start the engine and allow to warm up.
2. Attach the engine tachometer to the ignition high-tension cord.

 **09900-26006: Engine tachometer**

3. Check the engine speed.

**Idle speed (in neutral gear): 650 – 750 r/min**



### ADJUSTMENT:

If the idle speed is out of the specification, perform the following adjustment procedure.

4. Check that the CTP switch is in the ON position.
5. To set the IAC valve duty to constant 22.5%, raise the engine speed to 1 000 r/min or higher by turning the by-pass air screw and hold that speed for 10 seconds. At this time, the buzzer will sound to notify that the IAC duty is in the fixed mode.

**Turning air screw counterclockwise:**

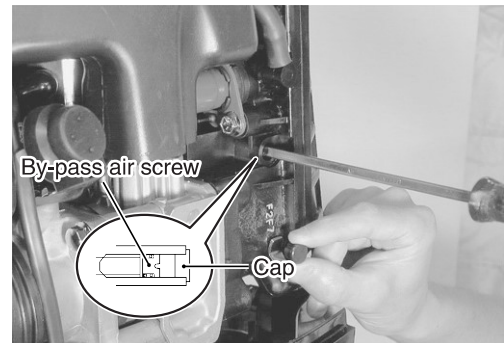
**Engine speed will increase.**

**Turning air screw clockwise:**

**Engine speed will decrease.**

### NOTE:

- While the IAC valve duty is at fixed 22.5%, the buzzer will sound for repeated 0.5 second with an interval of 3 seconds.
  - The 22.5% fixed mode of the IAC valve duty will continue for 5 minutes and then it will be automatically cancelled.
6. During the fixed mode of the IAC valve duty, adjust the engine speed to  $700 \pm 50$  r/min by turning the by-pass air screw.



- Open the throttle valve to turn the CTP switch off.

**NOTE:**

*The fixed mode of the IAC valve duty can be manually cancelled by turning the CTP switch off.*

- Close the throttle valve and then recheck the engine speed.  
It should now be stable at 650 – 750 r/min.

**NOTE:**

*The idling/trolling speed of 650 – 750 r/min is controlled by the IAC (idle air control) system.*

*If the engine speed does not return to the specification, the IAC passage (including the IAC hose) may be clogged or the IAC system may not be operating correctly.*

*See the "IDLE AIR CONTROL SYSTEM" section on the page 3-21.*

**NOTE:**

*The trolling speed (in-gear idle speed) is the same as the idle speed.*

## IGNITION TIMING

**Inspect every 200 hours (12 months).**

**NOTE:**

*Before checking the ignition timing, make sure that the idle speed is adjusted within the specification.*

- Start and warm up the engine.
- Attach the timing light to the No.1 spark plug high-tension cord.

**TOOL** 09930-76420: Timing light  
09900-26006: Engine tachometer

- Check the ignition timing while operating the engine at 1 000 r/min.

**Ignition timing: Approx. BTDC 10° at 1 000 r/min**

