

SERVICE MANUAL

opening (O) should be 6.0-6.4 mm (0.24-0.25 in.).

SPEED CONTROL LINKAGE.

Place twist grip in the full closed position. Stator plate stopper (P—Fig. SZ11-8) should be in contact with cylinder block boss (D). Adjust rod (A—Fig. SZ11-6) length until mark (M) on throttle cam (C) is centered with roller (R). Rotate twist grip to the full throttle position. Stator plate stopper should be in contact with cylinder block boss. Adjust rod (B) length until throttle limiter (L) contacts stopper (S) on bottom engine cover.

IGNITION

A breakerless, capacitor discharge ignition system is used. Refer to Fig. SZ11-7 for wiring diagram.

Full throttle and full ignition advance should occur simultaneously. Ignition timing is mechanically advanced and must be synchronized with throttle opening.

To check ignition timing, first immerse lower unit of outboard motor in water. Connect a suitable tachometer to engine. Connect a power timing light to upper spark plug. Start engine and allow it to run until it reaches normal operating temperature. Shift into forward gear and note ignition timing. Timing pointer (T—Fig. SZ11-8) should be aligned with 2 degree ATDC mark (A) on flywheel. Loosen locknut and rotate screw (S) until idle speed timing is as recommended. Maximum advance timing should be 25 degrees BTDC (M) at 5000 rpm. Stop engine and loosen cap screws (C) and slide stator plate stopper (P) in slots to adjust maximum advance timing. Retighten cap screws (C) after recommended maximum advance tim-

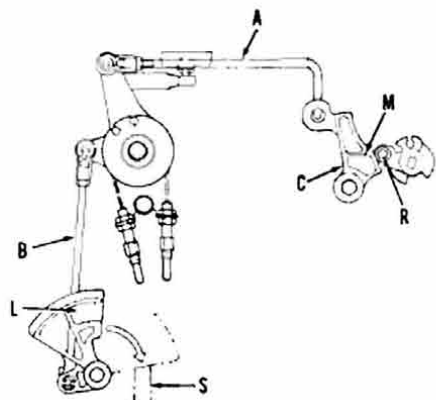


Fig. SZ11-8—View of speed control linkage. Adjust components as outlined in text.

A. Rod
B. Rod
C. Throttle cam
L. Throttle limiter
M. Mark
R. Roller
S. Stopper

ing is obtained. Reset idle speed timing as previously recommended.

If ignition malfunction occurs, check condition of spark plugs, and all wires and connections before troubleshooting ignition circuit. Using Suzuki pocket tester 09900-25002 or a suitable ohmmeter, refer to the following test specifications and procedures to aid trouble-shooting.

To check secondary coil resistance of CDI unit, detach spark plug wires at spark plugs. Connect a tester lead to terminal end of each spark plug wire. Secondary coil resistance should be 2136-3204 ohms at 20°C (68°F).

Remove top cover of electrical parts holder for access to wire connectors. Remove top three-wire coupler and separate. To check charge coil (Fig. SZ11-7), connect a tester lead to black wire with red tracer and black wire of three-wire connector leading to stator plate. Charge coil can be considered satisfactory if resistance reading is within the limits of 102-154 ohms at 20°C (68°F).

To check pulser coil, connect a tester lead to red wire with white tracer and black wire of three-wire connector leading to stator plate. Pulser coil can be considered satisfactory if resistance reading is within the limits of 27.9-41.9 ohms at 20°C (68°F).

Check condition of battery lighting coil by separating connectors of yellow wire and red wire. Connect a tester lead to terminal end of wires leading to stator plate. Lighting coil can be considered satisfactory if resistance reading is within the limits of 0.24-0.36 ohms at 20°C (68°F).

Check condition of battery lighting coil by separating connectors of yellow wire and red wire. Connect a tester lead to terminal end of wires leading to stator plate. Lighting coil can be considered satisfactory if resistance reading is within the limits of 0.24-0.36 ohms at 20°C (68°F).

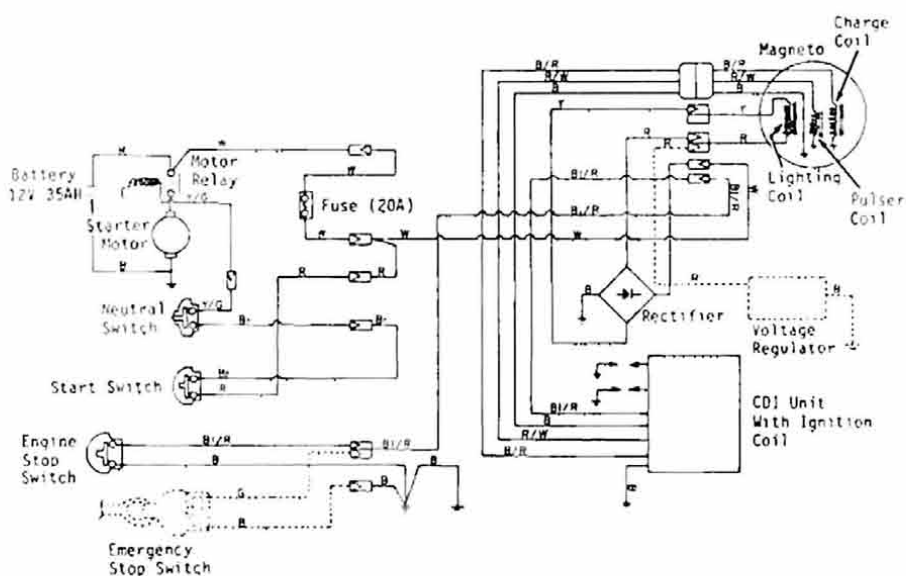


Fig. SZ11-7—Wiring diagram of electrical system on models with electric starter.

B. Black
G. Green
R. Red
W. White
Y. Yellow
Bl. Blue
Br. Brown
B/R. Black with red tracer
Bl/R. Blue with red tracer
R/W. Red with white tracer
Y/G. Yellow with green tracer

Suzuki DT30 (Prior to 1988)

If no component is found faulty in the previous tests, then the CDI unit must be renewed.

COOLING SYSTEM

WATER PUMP. A rubber impeller type water pump is mounted between the drive shaft housing and gearcase. A key in the drive shaft is used to turn the pump impeller. If cooling system problems are encountered, check water intakes for plugging or partial stoppage. If water intakes are clear, remove gearcase as outlined under LOWER UNIT and check condition of the water pump, water passages and sealing surfaces.

When water pump is disassembled, check condition of impeller (8—Fig. SZ11-19) and plate (9) for excessive wear. Turn drive shaft clockwise (viewed from top) while placing pump housing over impeller. Avoid turning drive shaft in opposite direction when water pump is assembled.

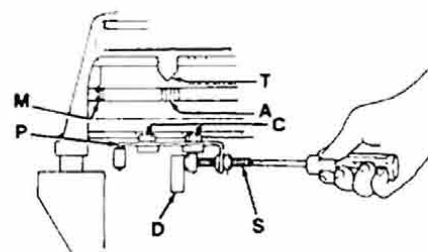


Fig. SZ11-8—Adjust idle speed timing and maximum advance timing as outlined in text.

A. 2° ATDC mark
C. Cap screws
D. Cylinder block boss
M. 25° BTDC mark
P. Stator plate stopper
S. Idle speed timing adjustment screw
T. Timing pointer