



YAMAHA

PW50H

ASSEMBLY MANUAL



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PREPARATION

To assemble the machine correctly, the following supplies and working space are required.

Supplies

Oils, greases, shop rags, electrical contact cleaner.

Workshop

The workshop where the machine is assembled should be clean and large. The floor should be level.

UNPACKING

Note on transportation

Use caution when transporting the crate to service shop. Do not subject crate to heavy shock.

Procedure for unpacking

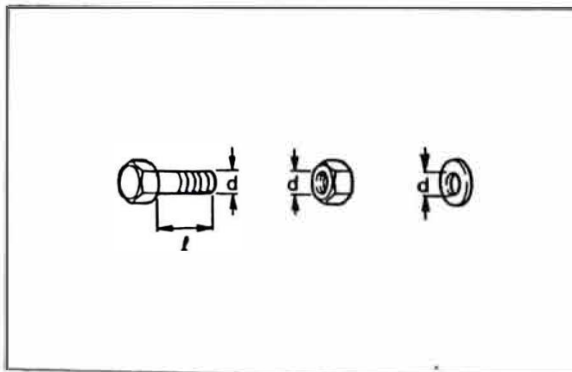
To remove the machine and parts packed in the card board crate, cut the vinyl bands around the box using a cutter or scissors. Next, remove the exterior carton by lifting it straight up.

PARTS CHECK LIST

Before starting the assembly, check for damaged or missing parts (listed below). Also check the machine for damage, scratches and other defects.

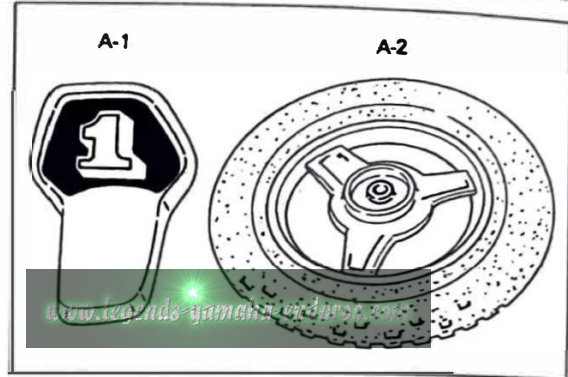
NOTE:

The sizes of bolts, nuts, washers and collars are shown below. The sizes of special parts are indicated in the respective tables.



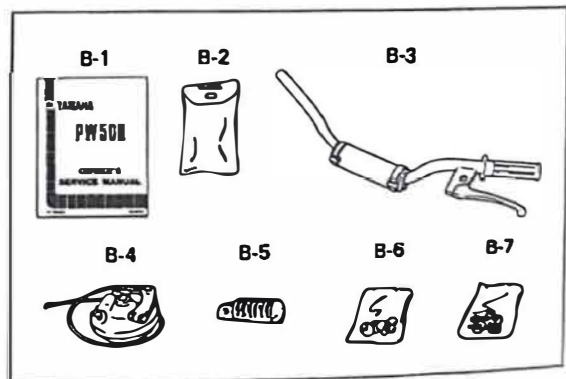
Part list A: Carton box

| No. | Part name | Q'ty |
|-----|--------------|------|
| A-1 | Front fender | 1 |
| A-2 | Front wheel | 1 |



Part list B: Foam tray

| No. | Part name | Q'ty |
|-----|---|------|
| B-1 | Owner's Service Manual | 1 |
| B-2 | Tool kit | 1 |
| B-3 | Handlebar assembly | 1 |
| B-4 | Brake shoe plate assembly (with brake wire) | 1 |
| B-5 | Footrest assembly (R, L) | 1 |
| B-6 | Vinyl bag "1" | 1 |
| B-7 | Vinyl bag "2" | 1 |

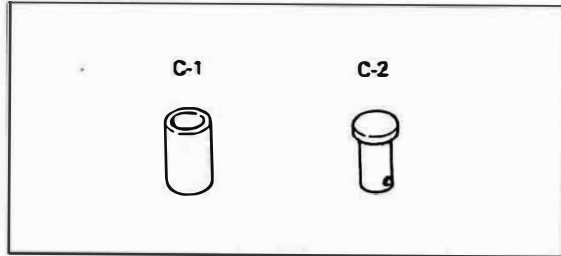


Part list: Owner's tool kit

| No. | Part name | Q'ty |
|-----|--------------------|------|
| 1 | Tool bag | 1 |
| 2 | Box wrench (21 mm) | 1 |
| 3 | Box handle | 1 |

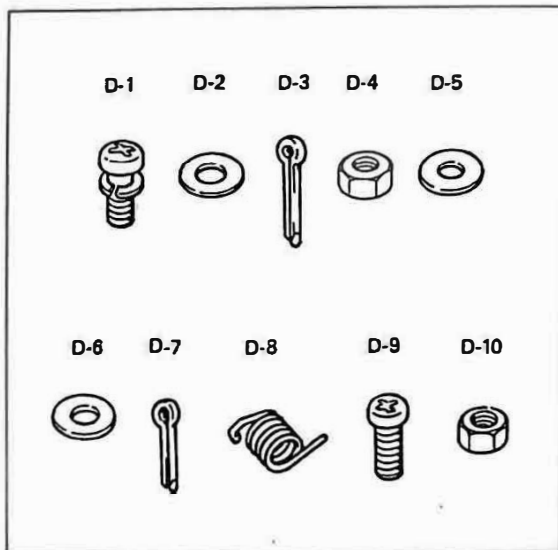
Part list C: Vinyl bag "1"

| No. | Part name | Q'ty | Remarks |
|-----|------------|------|-------------|
| C-1 | Collar | 1 | Front wheel |
| C-2 | Clevis pin | 2 | Footrest |



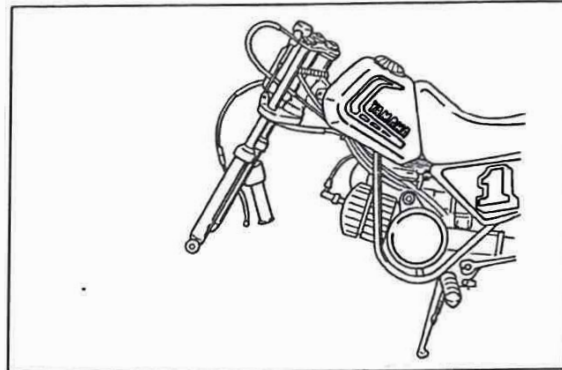
Part list D: Vinyl bag "2"

| No. | Part name | Q'ty | Remarks |
|------|---|------|------------------|
| D-1 | Panhead screw with washer (d = 6 mm, l = 12 mm) | 2 | Front fender |
| D-2 | Plate washer | 2 | |
| D-3 | Split pin (large) | 1 | Front wheel |
| D-4 | Nut (d = 8 mm) | 2 | Handle-bar |
| D-5 | Washer | 2 | |
| D-6 | Washer | 2 | Footrest |
| D-7 | Split pin (small) | 2 | |
| D-8 | Torsion spring | 2 | |
| D-9 | Panhead screw (d = 5 mm, l = 8 mm) | 1 | Throttle stopper |
| D-10 | Nut | 1 | |

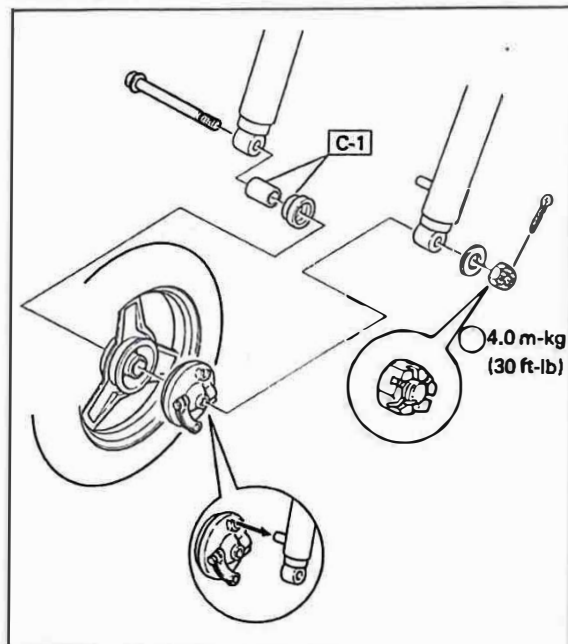


SET-UP PROCEDURES

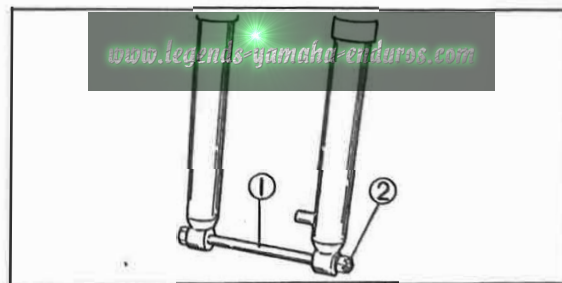
- To install the front wheel, place the machine on the center stand to keep the front of the machine raised off the floor. Take care so that the machine does not fall over.



Front wheel installation

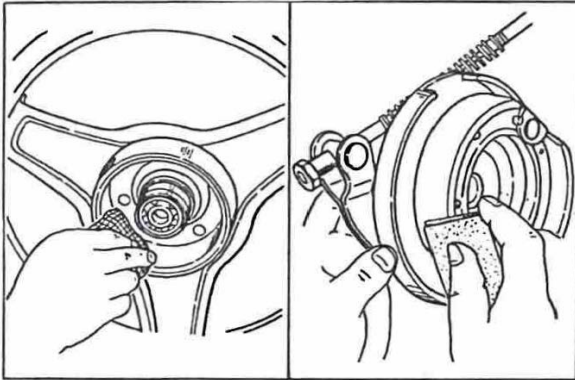


- Remove the front wheel axle nut and plain washer. Then remove the wheel axle.

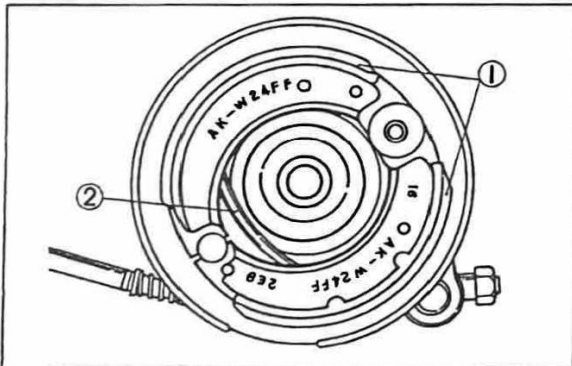


1. Wheel axle 2. Wheel axle nut

2. Install the brake shoe plate assembly in the front wheel hub.
 - a. Clean the inner surface of the front wheel hub with a clean cloth.



- b. Make sure the brake shoes and spring are correctly installed in the shoe plate assembly. If any one of them is out of position, correct per the figure.

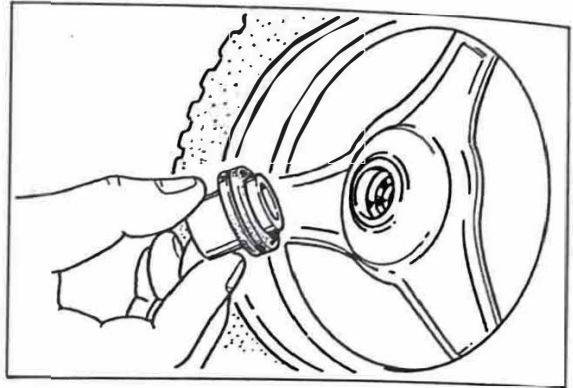


1. Brake shoe 2. Spring

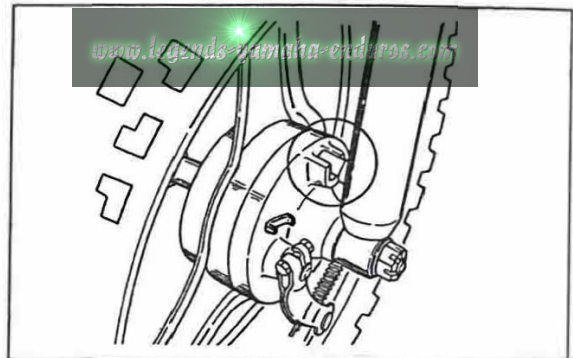
- c. Install the brake shoe plate assembly in the wheel hub.
3. Install the axle collar in the wheel hub on the right side of the front wheel.

NOTE:

To avoid damaging the oil seal lip, apply a light coat of lithium base grease to the oil seal lip and collar. If the collar is dirty, clean with a rag.



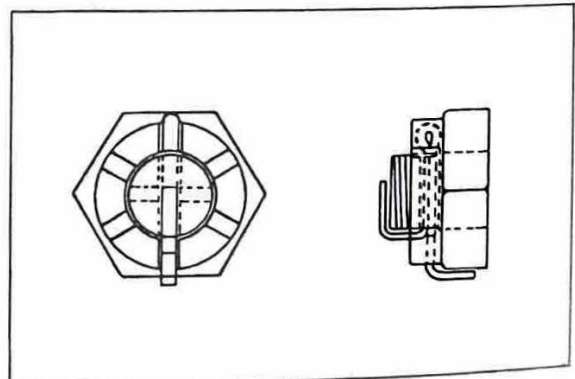
4. Insert the front wheel between the front fork legs so that the stopper (projection) on the front fork end is correctly engaged the slot in the brake shoe plate.

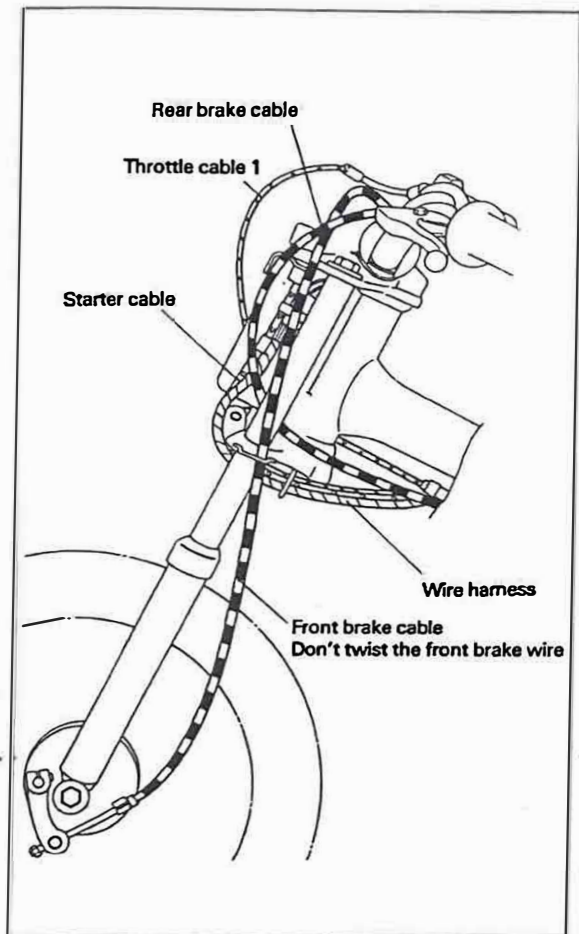


5. Insert axle, and install the axle nut.
6. Torque the axle nut to specification.

Tightening torque: 4.0 m·kg (30 ft·lb)

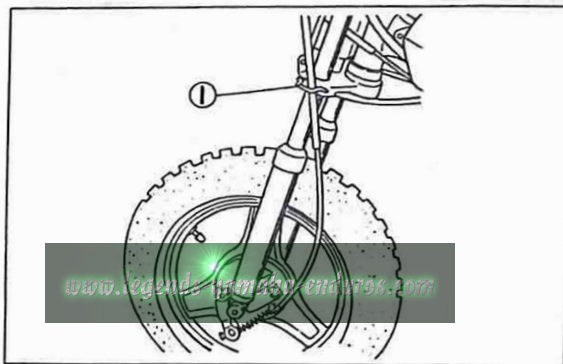
7. Lock the nut with the cotter pin. The pin should be inserted downward, and the pin ends should be bent.



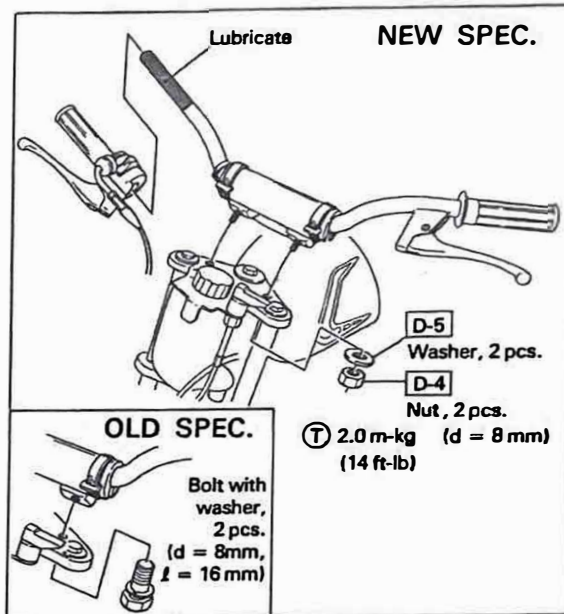


8. Pass the front brake wire through wire holder.

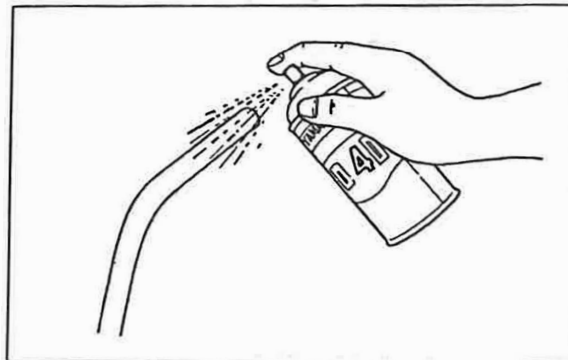
* For detailed cable routing, refer to "CABLE ROUTING DIAGRAM".



Throttle grip and handlebar installation

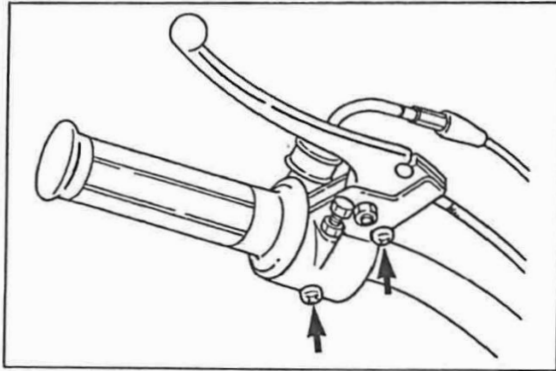


1. Wipe off any dust on the right handlebar end, and spray the lubricant to the handlebar end and throttle grip end.



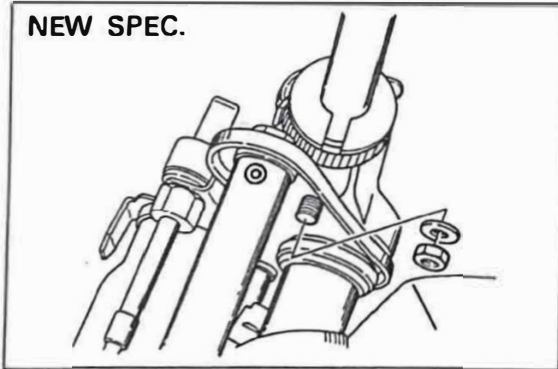
2. Slip the throttle grip over the handlebar, and push the grip onto the handlebar unit it bottoms. Slide it back about 2 mm (0.08 in), and assemble the throttle housing using the screws provided.
3. Check to see that the throttle grip moves smoothly.

CAUTION:
Tighten the screws in the stages and maintain an equal gap on each side of holder.

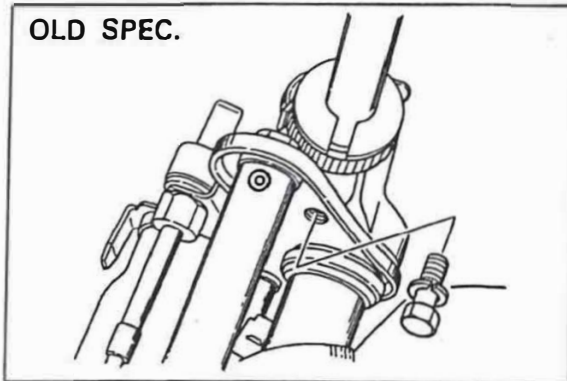


4. Install the handlebar assembly using the two nuts.

NEW SPEC.

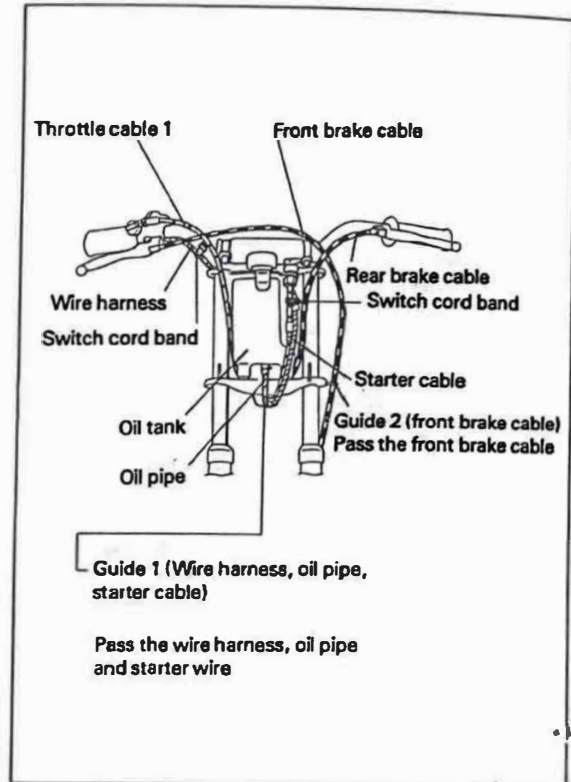


OLD SPEC.

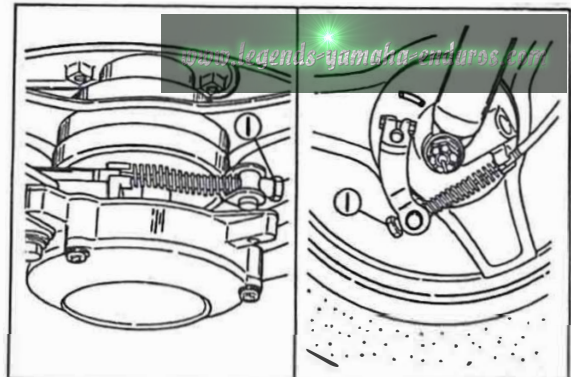


Tightening torque: 2.0 m·kg (14 ft·lb)

Brake wires installation

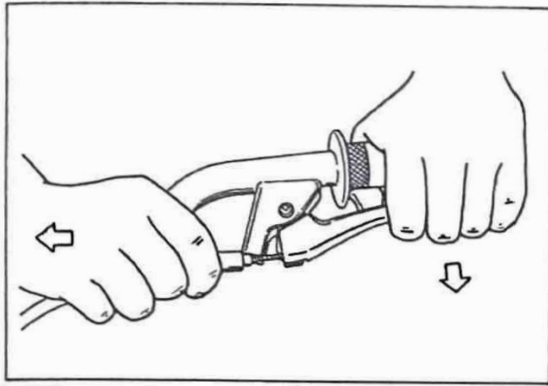


1. Fully loosen the brake adjuster.



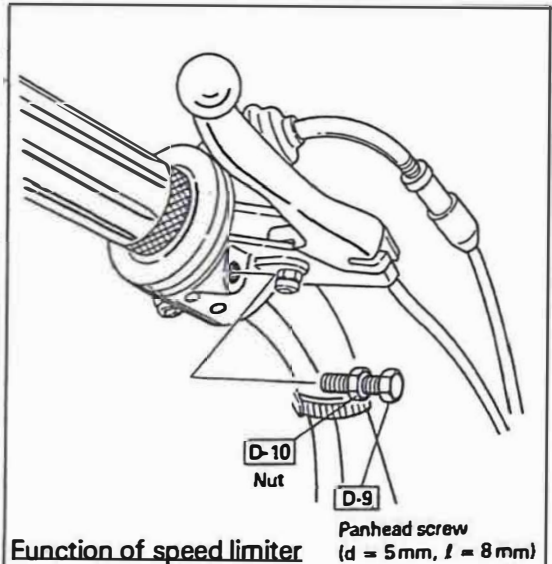
1. Adjuster

2. Insert the wire end into the lever hole, and hook the outer cable end onto the lever holder, then squeeze the lever. Next, while pulling the outer cable in the direction opposite to the lever, release the lever quickly. While releasing it, seat the outer cable into the lever holder.

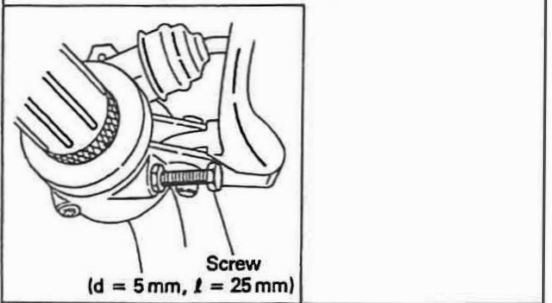


CAUTION:
 Proper cable and wire routing is essential to insure safe vehicle operation. For details of the cable routing, refer to "CABLE ROUTING DIAGRAM".

Nullification of speed limiter

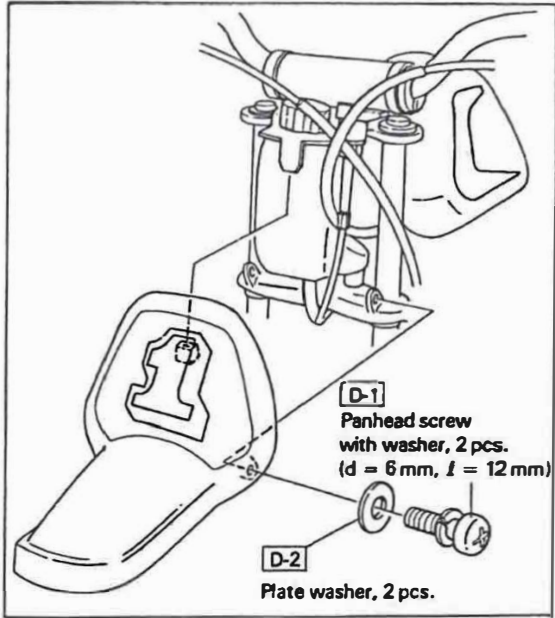


Function of speed limiter

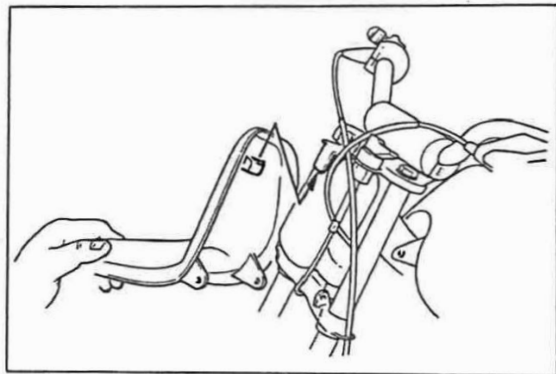


To nullify the speed limiter, remove the original screw and change it to a shorter one 8 mm in length (found in a vinyl bag).

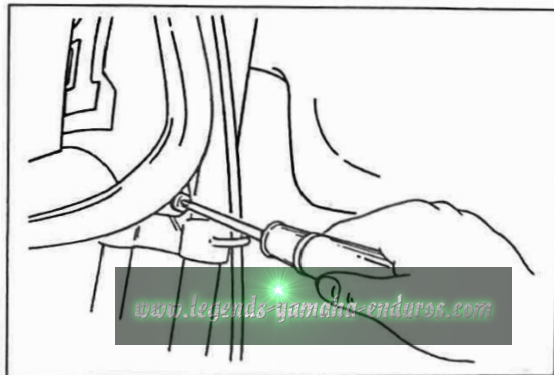
Front fender installation



1. Insert tank bracket hook into front fender hole.



2. Install front fender to bracket using panhead screw with washer and washer.

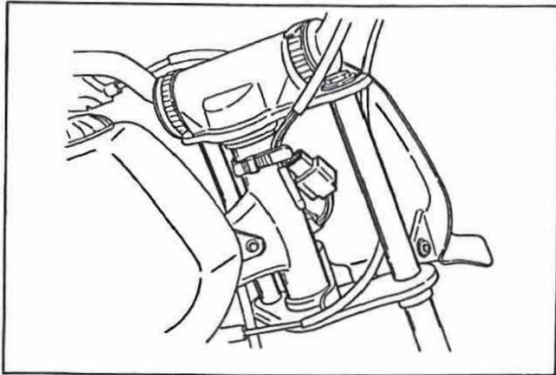


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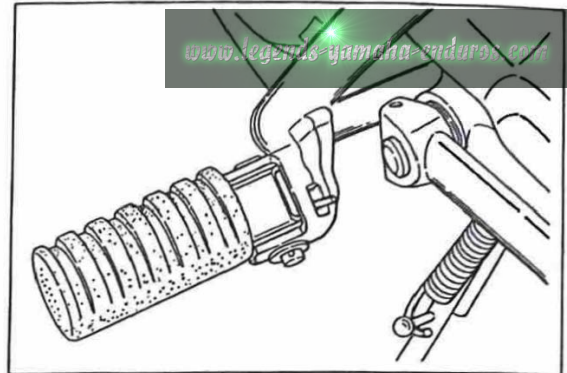
Tightening torque: 0.6 m·kg (4 ft·lb)

Safety switch installation

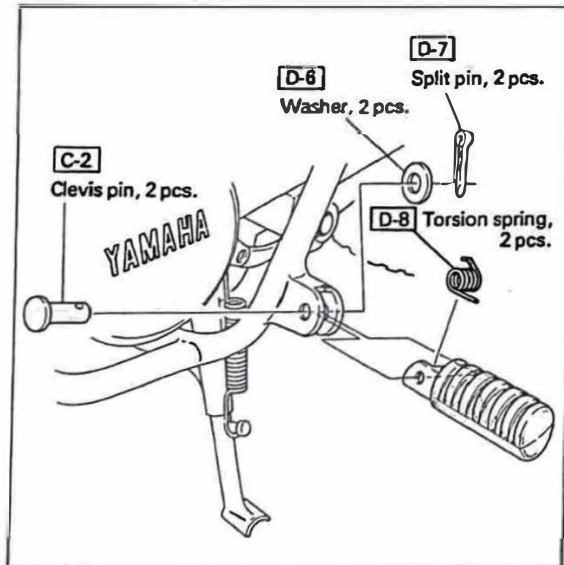
1. Connect the safety switch lead wires to the lead wires (connector) coming from the control unit.



2. Insert the clevis pin downward into the bracket.
3. Install the washer and cotter pin, and bend its ends.

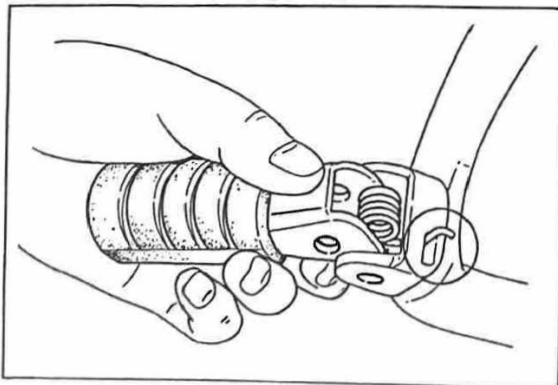


Footrest installation



NOTE: _____
After installing the footrest, check that it moves smoothly.

1. Hook one end of the return spring onto the hole in the bracket and insert the other end into the footrest.



INSPECTIONS AND ADJUSTMENTS

Inspection

After all packed parts are installed, check to see that all these parts and other parts (mounted or installed at the Yamaha factory) are correctly mounted or installed, tightened or adjusted to specification. This check-up should be started with the front of the machine.

Item

- Wheel rims
..... Deflection, alignment
- Wheel tires
..... Tire pressure
- Wheel axle nuts
..... Tightening torque
- Fenders
..... Mounting
- Steering head
..... Operation adjustment
- Handlebar
..... Tightening torque
- Brake levers
..... Operation, freeplay, mounting
- Throttle housing
.. Operation, position, freeplay, mounting
- Engine mounting bolt
..... Tightening torque
- Carburetor joints
..... Tightness
- Footrest
..... Position, mounting
- Seat
..... Mounting
- Fuel tank
..... Mounting
- Fuel pipe
..... Connection, mounting
- Rear shock absorber
..... Mounting, cotter pin
- Swing arm pivot shaft
..... Tightening torque
- Transmission
..... Oil level
- Control cables
..... Lubrication
- Electrical components
..... Operation adjustment

Adjustment

NOTE:

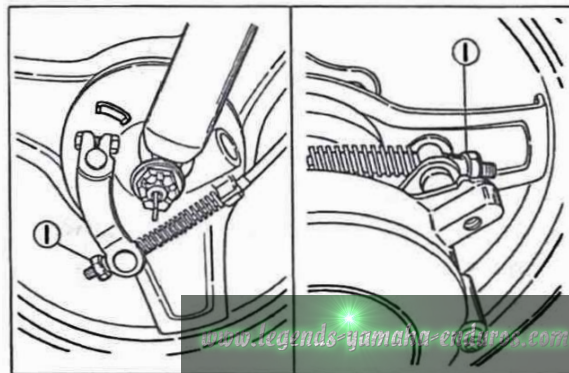
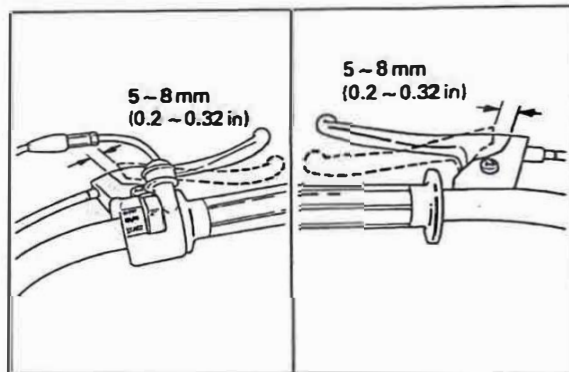
This section deals with the main points only. For details, refer to the PW50H Owner's Service Manual.

Brake adjustment

Brake cable free play can be adjusted to suit rider preference, but a minimum free play of 5 ~ 8 mm (0.2 ~ 0.3 in) should be maintained.

Free play can be adjusted at brake shoe plates.

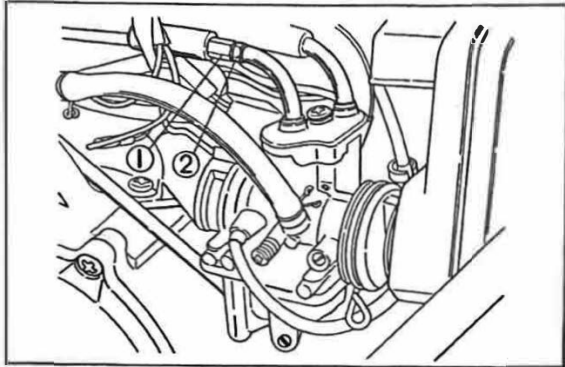
Turn the adjuster in or out until proper adjustment is achieved.



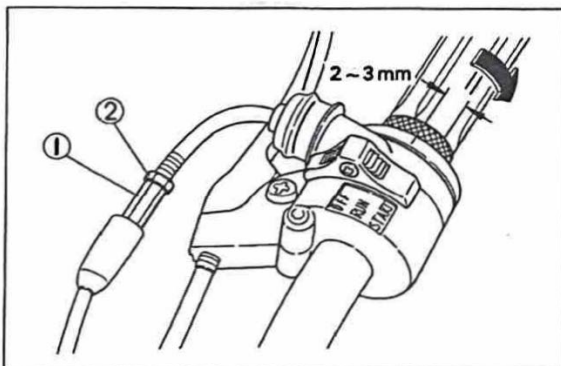
1. Adjuster

Throttle cable adjustment

Check play in tuning direction of throttle grip. The play should be 2 ~ 3 mm (0.08 ~ 0.12 in) at grip flange. Loosen the lock nut and turn the wire adjuster to make the necessary adjustment. After adjusting, be sure to tighten the lock nut properly.



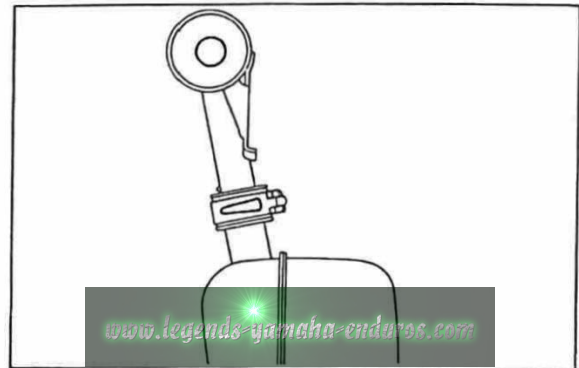
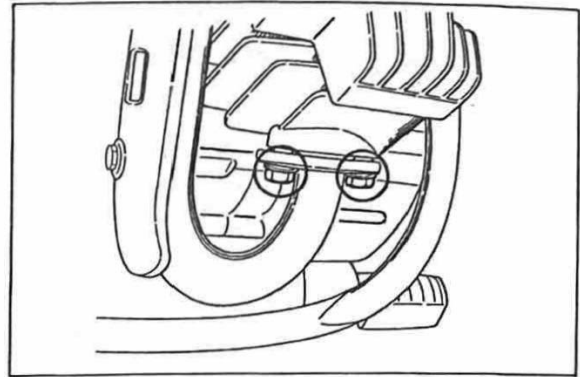
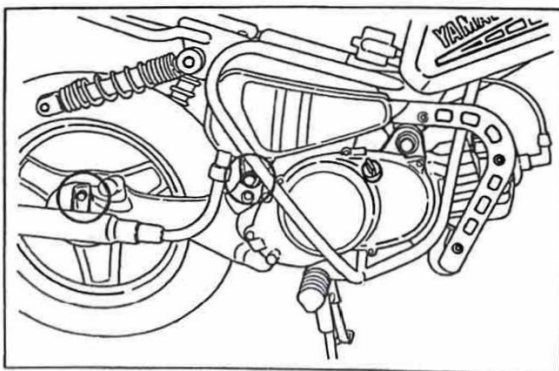
1. Adjuster 2. Lock nut



1. Adjuster 2. Lock nut

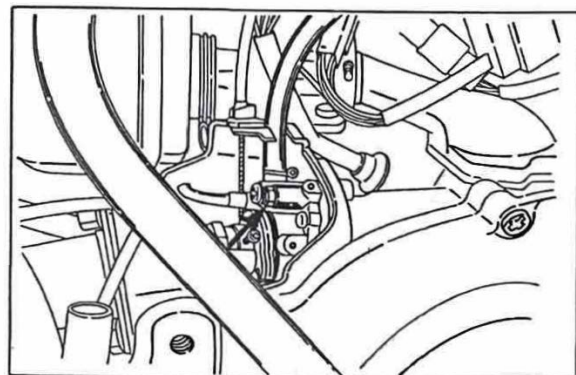
Autolube pump

Before servicing the oil pump, remove the muffler and seat assembly.

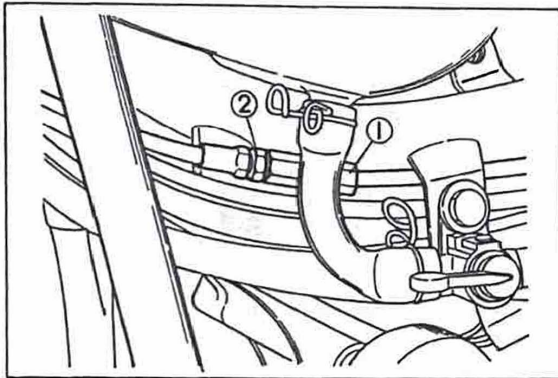


1. Air bleeding

To bleed the oil pump, first remove the bleed screw. Start engine and run at idling speed. Then pull the oil pump wire as much as possible, and continue to run the engine until all air bubbles disappear from the oil flowing out from the bleeder hole. Reinstall bleed screw.

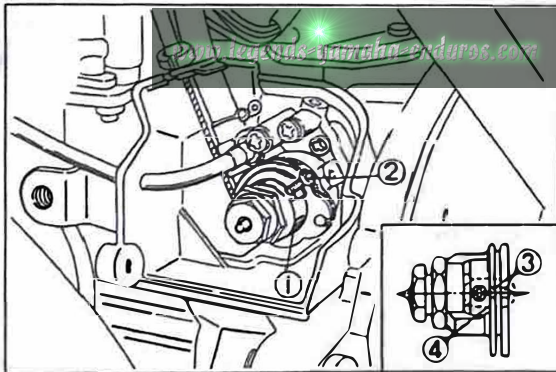


2. Oil pump wire adjustment
 - a. Remove the slack in throttle wire 2 by turning the adjusting screw attached to the carburetor.
 - b. Loosen the lock nut.
 - c. Turn the adjusting screw so that the mark on the adjusting pulley is aligned with the Phillips head screw attached to the adjusting plate.



1. Adjuster 2. Lock nut

- d. Screw in the lock nut until tight.



1. Adjusting pulley 2. Phillips head screw
3. Mark 4. Set position

FUEL AND OIL

Fuel

Recommended fuel: Regular gasoline
Fuel tank capacity: 4.5 lit (1.2 US gal)

Engine oil (oil tank)

Recommended oil:
Yamalube 2-cycle oil or
air cooled 2-cycle engine oil

Transmission oil

Recommended oil:
Yamalube 4-cycle oil or
SAE 10W/30 "SE" motor oil

Transmission oil capacity:
Periodic oil change:
300 cc (0.32 US qt)

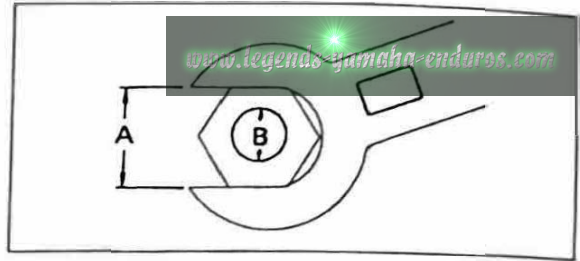
TORQUE SPECIFICATIONS

The following torque specifications must be adhered to on every machine. Components with several studs should be tightened in gradual stages and in a pattern that will avoid warpage to the item being secured.

Torque settings are for dry, clean threads. Torquing should always be done to the nut, never the bolt head.

NOTE:

Certain items with other than standard thread pitches may require differing torque. Consult the model Owner's service manual or distributor if a question arises.



| A (Nut) | B (Bolt) | General torque specifications | |
|------------|-------------|-------------------------------|-------|
| | | m-kg | ft-lb |
| 10 mm | 6 mm | 0.8 | 4.5 |
| 12 mm | 8 mm | 1.5 | 11 |
| 14 mm | 10 mm | 3.0 | 22 |
| 17 mm | 12 mm | 5.5 | 40 |
| 19 mm | 14 mm | 8.5 | 61 |
| 22 mm | 16 mm | 13.0 | 94 |

| | Tightening torque |
|-------------------------------|-------------------------|
| Engine: | |
| Cylinder head holding nut | M6 1.0 m-kg (7 ft-lb) |
| Spark plug | M14 2.0 m-kg (14 ft-lb) |
| Oil pump | M5 0.4 m-kg (3 ft-lb) |
| Exhaust pipe | M6 1.0 m-kg (7 ft-lb) |
| Kick crank | M6 1.0 m-kg (7 ft-lb) |
| Chassis: | |
| Front wheel axle | M10 4.0 m-kg (30 ft-lb) |
| Handle | M8 2.0 m-kg (14 ft-lb) |
| Handle crown — Steering shaft | M10 3.5 m-kg (24 ft-lb) |
| — Handle holder | M8 2.0 m-kg (14 ft-lb) |
| — Inner tube | M10 3.5 m-kg (24 ft-lb) |
| Steering shaft nut | — 3.0 m-kg (22 ft-lb) |
| Engine mounts | M10 5.0 m-kg (36 ft-lb) |
| Rear wheel axle | M12 6.0 m-kg (43 ft-lb) |

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