



YAMAHA

IT175D

ASSEMBLY MANUAL



www.legends-yamaha-enduros.com

90894-07708

IMPORTANT NOTICE

This motorcycle may be equipped either for competition use or general off-road use. It may be illegal to operate this vehicle off-road when it is equipped for competition use. Check your state and local riding area regulations. This vehicle is not manufactured for use on public streets, roads or high ways. Such use is prohibited by law. An off-road riding kit is provided with each vehicle to comply with noise level and spark arrester laws and regulations for installation instructions see directions in this manual. Performance will be substantially decreased. Retuning is not required.

NOTICE

The service specifications given in this Assembly Manual are based on the model as manufactured. When this model may require improvements, the service specifications may be subject to change in the future. Modifications are inevitable and significant changes in specifications or procedures will be forwarded to Authorized Yamaha dealers. The assembly procedure is described in the order that the mechanic should follow, and the correct service tools should be used in the correct manner. Failure to do this may result in poor performance and harm to the rider.

Particularly important information is distinguished in this manual by the following notations:

- NOTE:** A NOTE provides key information to make procedures easier or clearer.
- CAUTION:** A CAUTION indicates special procedures that must be followed to avoid damage to the machine.
- WARNING:** A WARNING indicates special procedures that must be followed to avoid injury to a machine operator or person inspecting or repairing the machine.

YAMAHA IT175D
ASSEMBLY MANUAL
1st EDITION, FEBRUARY 1977
OVERSEAS SERVICE DEPARTMENT
YAMAHA MOTOR CO., LTD.
IWATA, JAPAN
LIT-11666-00-56

PREPARATION

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

Supplies

Oils, greases, shop rags.

Workshop

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

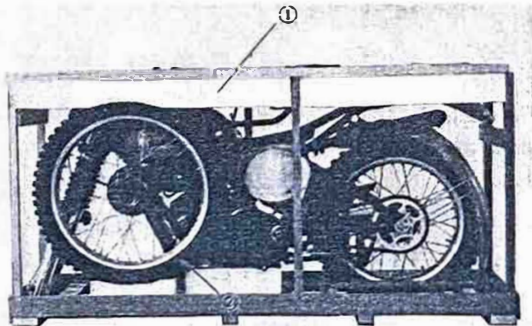
UNPACKING

Note on transportation

Use care not to butt the machine packed in the crate against a hard object or give it a heavy shock during transportation or in the service shop.

Procedure for unpacking

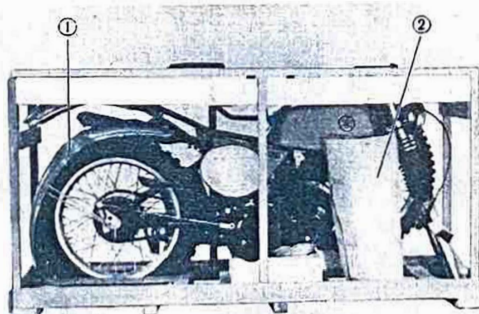
To remove the machine and parts packed in the cardboard crate, cut the vinyl bands around the box using scissors. Next, remove the exterior carton by lifting it straight up, and remove the foam tray and front wheel.



1. Foam tray 2. Front wheel

Remove the nails from each corner of the crate, and remove the struts.

Remove the front fender and the semi double seat.



1. Front fender 2. Semi double seat

Lift up the machine, and remove the rear wheel section from the lower wooden case. Then take out the machine.

Place a proper-size wooden box or a machine stand under the engine to keep the front of the machine raised off the floor. Take care so that the machine does not fall over.

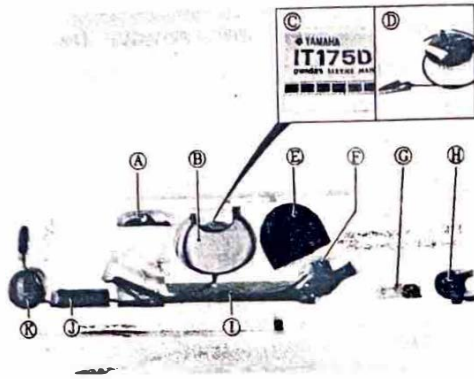


PARTS CHECK LIST

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

1. Details of parts on the foam tray

No.	Part name	Q'ty
A	Footrest assembly (right)	1
B	Number plate	1
C	Owner's service manual	1
D	Brake shoe plate with brake wire	1
E	Carrier box	1
F	Meter gear unit with speedometer cable	1
G	Vinyl bag	1
H	Speedometer assembly	1
I	Handlebar assembly	1
J	Tool kit	1
K	Taillight assembly	1



2. Details of parts in the carrier box

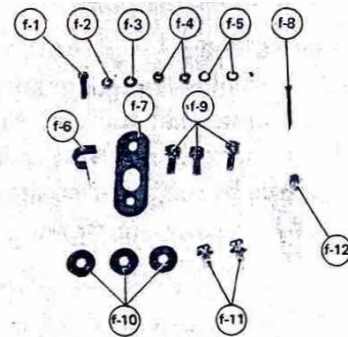
No.	Part name	Q'ty
a	*Cylinder head gasket	1
b	Switch cord band	2
c	*Silencer cap	1
d	*Ring nut	1
e	Wire holder	1
f	Vinyl bag	1
g	*Plate	1
h	Breather pipe	1

* OFF-ROAD riding kit



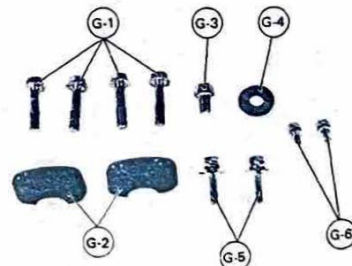
3. Details of parts in the vinyl bag "f"

No.	Part name	Q'ty	Remarks
f-1	Panhead screw	1	Wire holder
f-2	Nut	1	
f-3	Plain washer	1	
f-4	Nut	2	Taillight
f-5	Spring washer	2	
f-6	Clamp	1	
f-7	Special washer	1	Front wheel
f-8	Cotter pin	1	
f-9	Bolt with spring washer	3	Carrier box
f-10	Plain washer	3	
f-11	Panhead screw with spring washer	2	Plate
f-12	Main jet	1	OFF-ROAD riding kit



4. Details of parts in the vinyl bag "G"

No.	Part name	Q'ty	Remarks
G-1	Flange bolt	4	Handlebar
G-2	Handle upper holder	2	
G-3	Bolt	1	Footrest
G-4	Plate washer	1	
G-5	Bolt with spring and plain washers	2	Speedometer
G-6	Bolt with spring washer	2	Seat

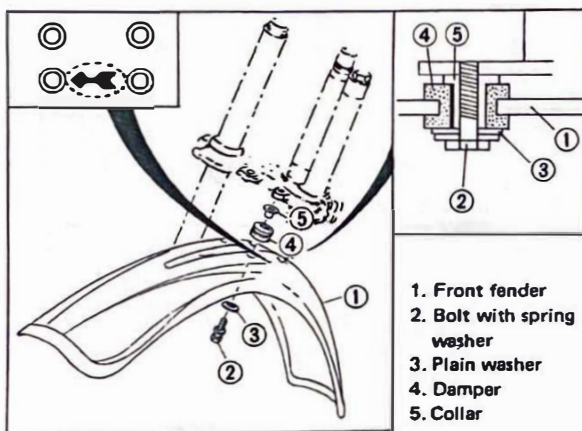


SET-UP PROCEDURES

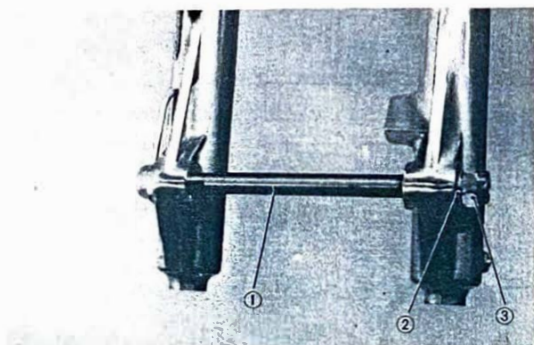
1. Insert the front fender between the front forks, and secure the front fender using bolts, spring washers, plain washers, dampers and collars. (See Illustration)

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

NOTE: _____
The front fender should be installed with the arrow mark in the center facing forward.

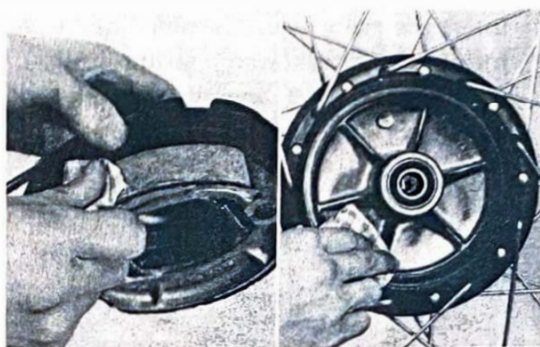


2. Remove the front wheel axle nut and plain washer. Then remove the wheel axle.

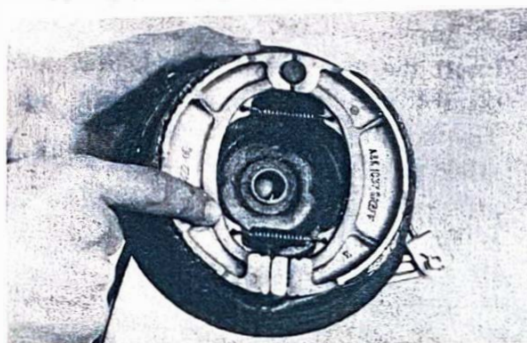


1. Wheel axle 2. Plain washer 3. Axle nut

3. Clean the brake shoe linings and wheel hub with a clean cloth.



4. Make sure the brake shoes and springs are correctly installed in the shoe plate assembly. If any one of them is out of place, correct per the figure.



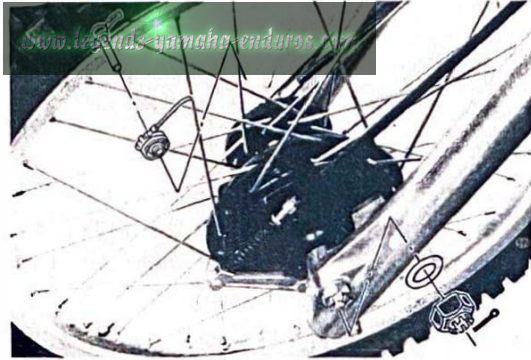
5. Install the brake shoe plate assembly in the wheel hub.
6. Install the meter gear unit assembly in the wheel hub on the right side of the front wheel.

NOTE: _____

1. To avoid damaging the oil seal lip, apply a light coat of lithium base grease to the oil seal lip and meter gear unit assembly.
2. Make sure that the three projections on the inside of the wheel hub are respectively placed between the projections on the meter clutch.

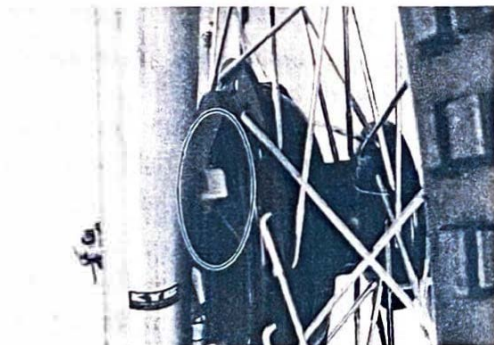


7. Insert the front wheel between the front fork legs so that the stopper (projection) on the front fork end is correctly engaged with the slot in the brake shoe plate.

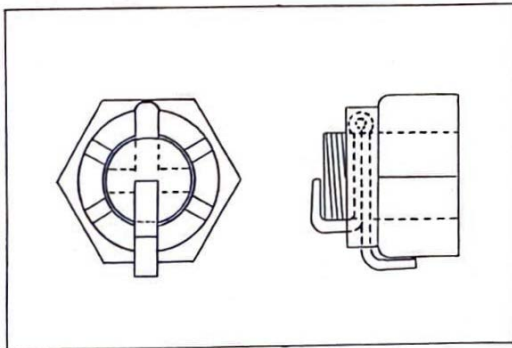


8. Insert the axle, mount the plain washer on the axle and install the axle nut. Tighten the wheel axle nut with specified torque.

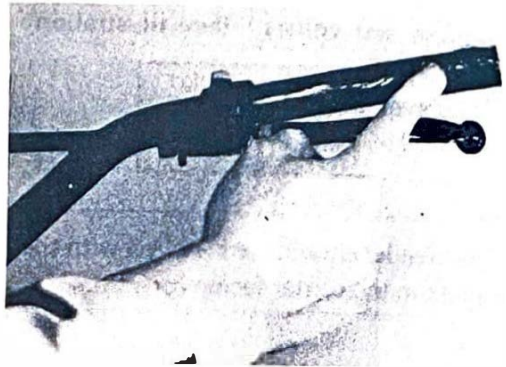
Tightening torque:
10.0 m·kg (72 ft·lb)



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

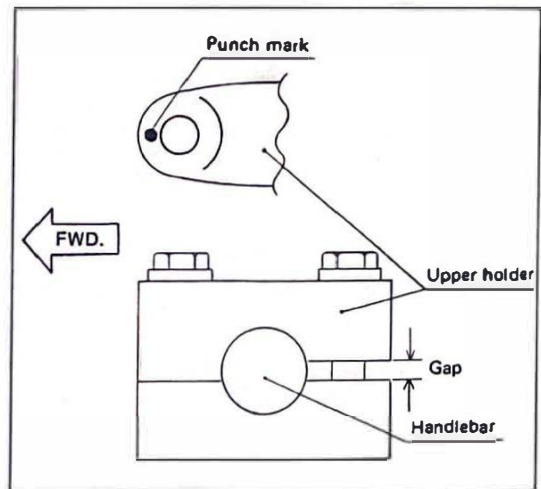


10. Wipe off any dust on right handlebar end, and apply a light coating of grease to handlebar end and throttle grip housing. Install the throttle grip.

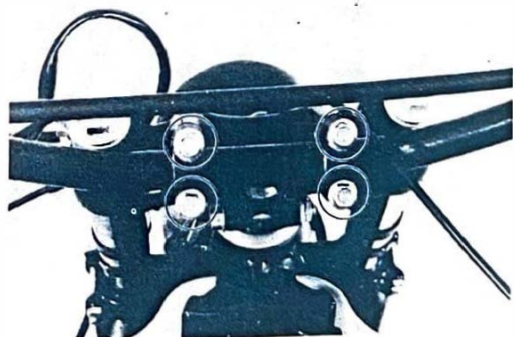


11. Install the handlebars using the two upper holders and four flange bolts as shown.

CAUTION: First tighten the bolt on the front end of holder, and tighten the bolt on the rear end.

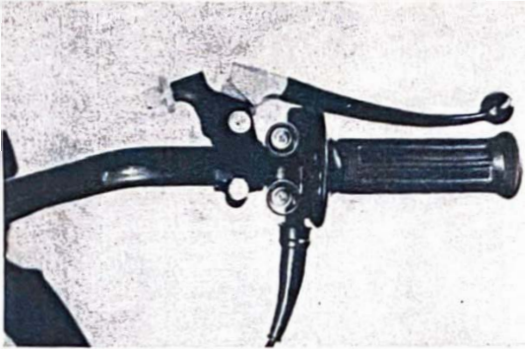


Tightening torque:
1.5 m·kg (11 ft·lb)



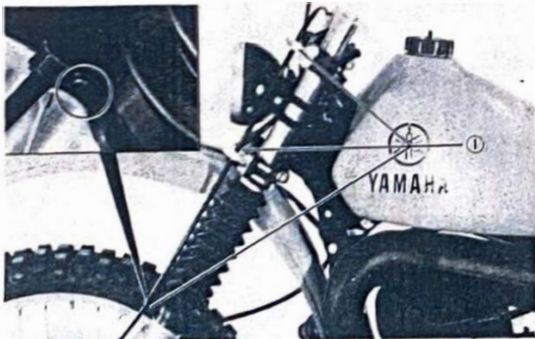
12. Slip the throttle grip over the handle lever to the limit and slide it back about 5 mm (0.2 in), and assemble the throttle housing using the screws provided. Check to see that the throttle grip moves smoothly.

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



13. Pass the front brake wire through three wire holders as shown. And tighten the wire holder screw.

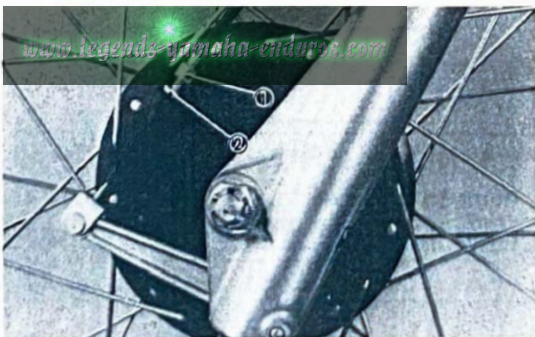
*For detailed cable routing, refer to "CABLE ROUTING DIAGRAM".



14. Brake wire and clutch wire installation. **NOTE:** _____

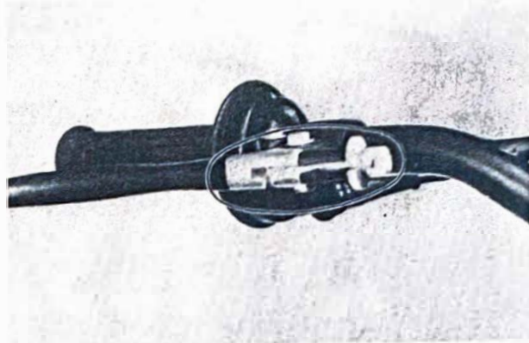
Before assembly, lubricate cables with suitable cable lubricant.

- a. Screw in the cable length adjusters on the brake shoe plate (brake wire).

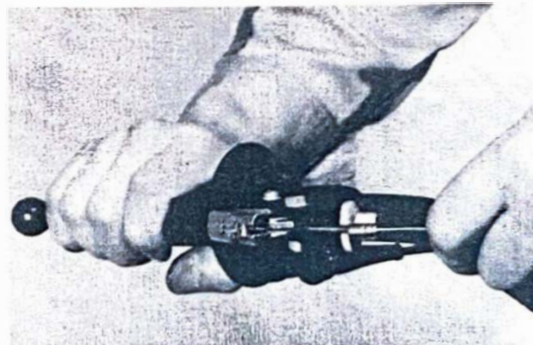


1. Adjustor 2. Locknut

- b. Fully loosen the lever adjuster locknut and screw in the adjuster until tight. Next, align the slits in the adjuster and adjuster locknut with the slit in the lever holder.

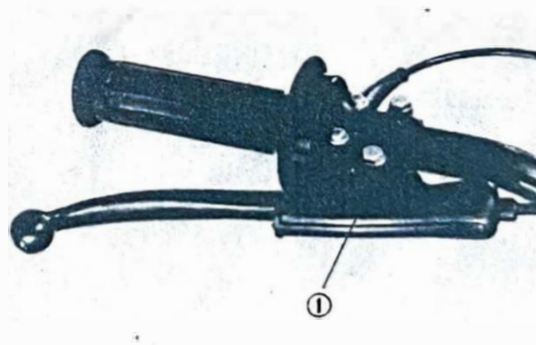


- c. Insert the wire end into the lever hole, and hook the outer cable end onto the adjuster locknut, then squeeze the lever. Next, while outer cable in the direction opposite the lever, release the lever quickly. While releasing it, seat the outer cable into the adjuster.



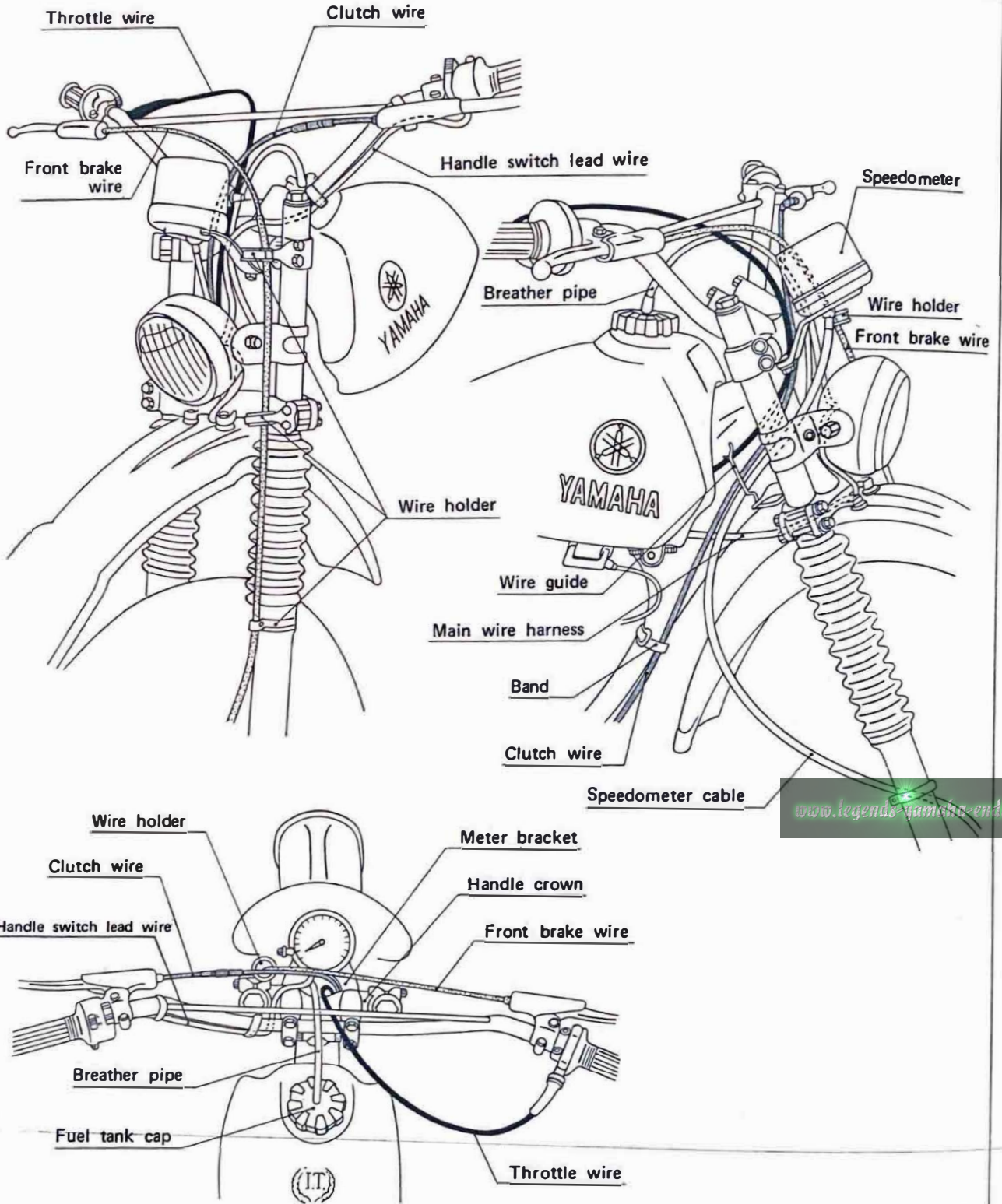
WARNING: Proper cable and wire routing is essential to insure safe vehicle operation, refer to "CABLE ROUTING DIAGRAM".

- d. Cover the brake and clutch lever holders with holder covers.



1. Holder cover

CABLE ROUTING DIAGRAM

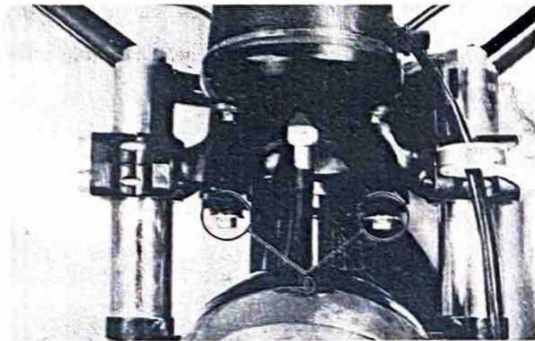


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WARNING: Follow correct routing of all items in this diagram. Failure to do so could result in unsafe assembly of the machine.

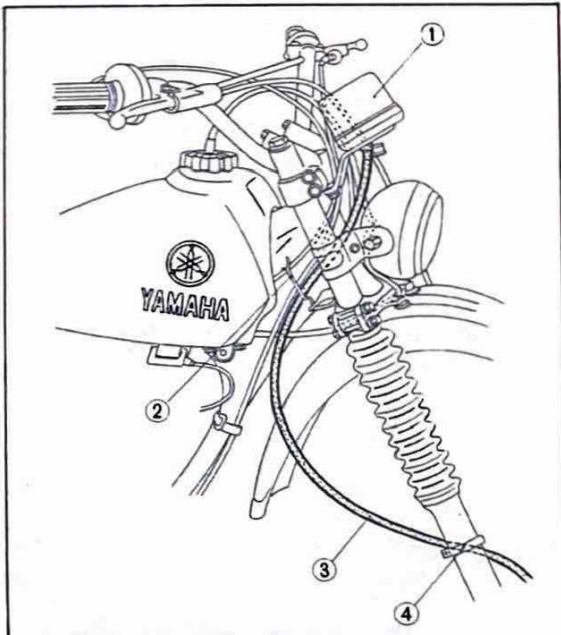
15. Install the speedometer assembly under the handle crown and secure the speedometer using bolts with spring and plain washers.

Tightening torque:
0.7 m·kg (5.0 ft·lb)



1. Bolt with spring and plain washers

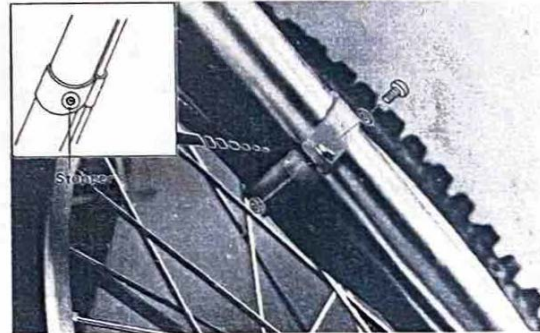
16. Connect the speedometer cable to the speedometer.



1. Speedometer 3. Speedometer cable
2. Wire guide 4. Wire holder

17. Wire holder installation

- a. Install the wire holder to the right side fork leg so that the stopper (projection) on the right side fork leg is correctly engaged the hole in the wire holder as shown.
- b. Secure the wire holder using the pan-head screw, plain washer and nut.

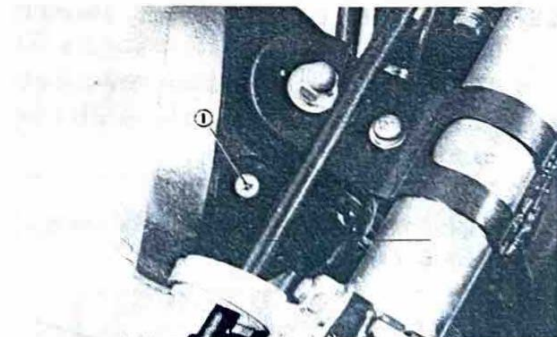


18. Install the number plate to the headlight holding bolts and secure the number plate using the crown nuts, spring washers and plain washers which are fitted to the headlight holding bolts.



1. Number plate

19. Remove the panhead screw from the headlight body. Then remove the headlight unit assembly.

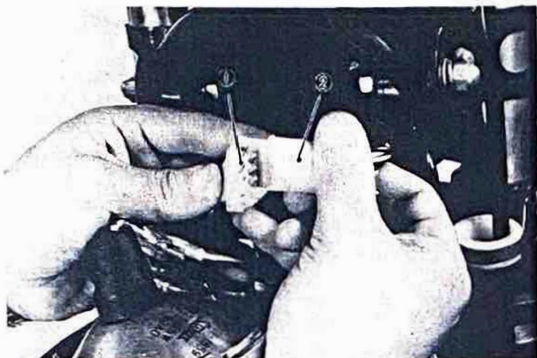


1. Panhead screw

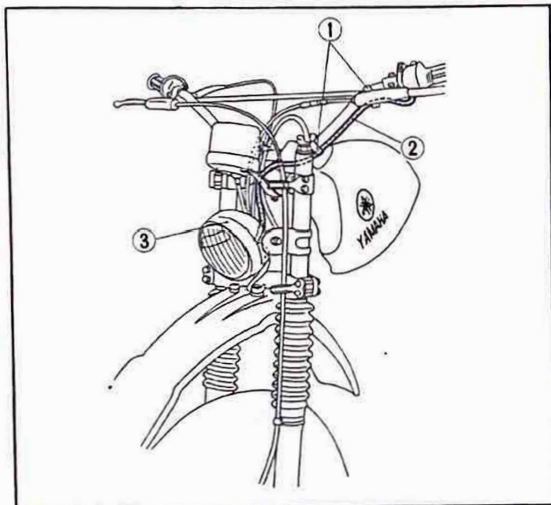
20. Insert the handle switch lead wire into the headlight body.

Connect the lead wire to the main wire harness inside the headlight body as shown.

*For detailed cable routing, refer to illustration.



1. Main wire harness 2. Handle switch lead wire



1. Switch cord band 2. Handle switch lead wire 3. Headlight

21. When installing the headlight unit assembly, care should be used so that wires are not pinched.

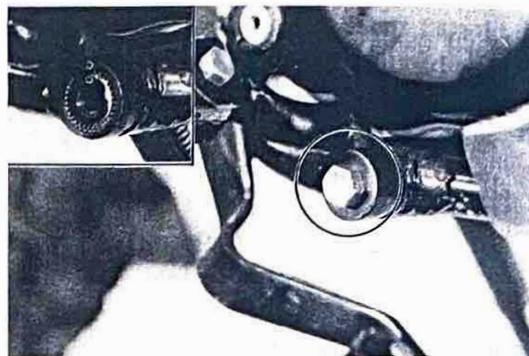
22. Install the right footrest assembly.

NOTE:

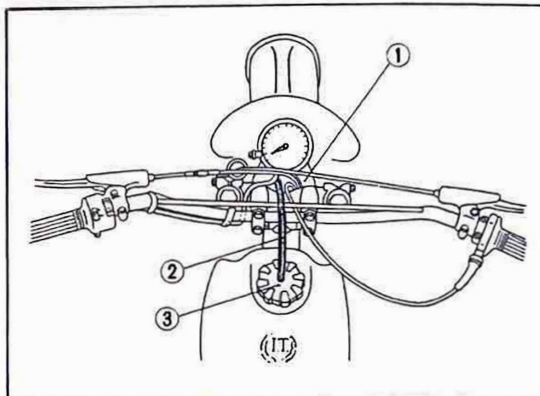
Match the punch mark on the footrest assembly to that the shaft punch mark as shown.

Tighten the footrest assembly using the bolt and plate washer.

Tightening torque:
6.0 m·kg (43.4 ft·lb)



23. Connect the air breather pipe to the fuel tank cap.



1. Meter bracket 2. Breather pipe 3. Fuel tank cap

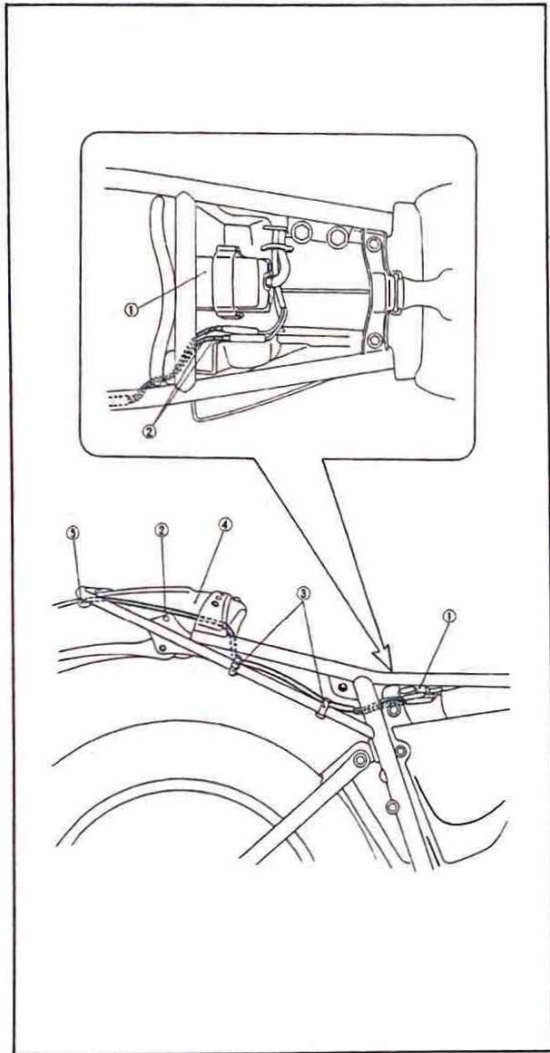
24. Install the taillight assembly using the special washer, clamp, spring washers and nuts. Then secure the lead wire with the clamp located behind the rear fender. Connect the lead wire to the main wire harness as shown. The wire of identical colors should be connected.

Hold the lead wire to the frame with switch cord bands.

*For detailed cable routing, refer to illustration.

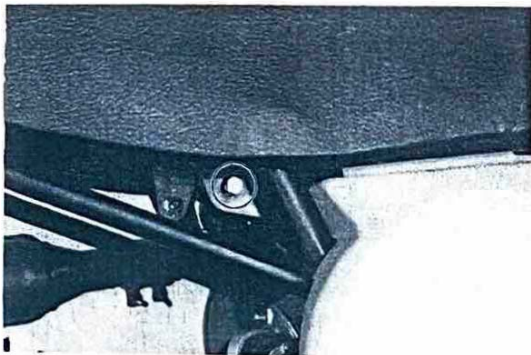


1. Special washer 2. Clamp 3. Grommet



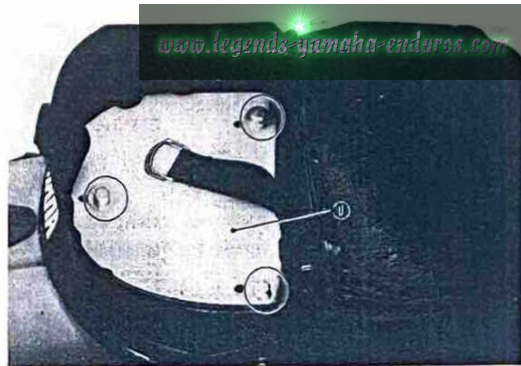
- 1. C.D.I. unit 3. Switch cord band 5. Grommet
- 2. Taillight lead wire 4. Rear fender

25. Install the seat using the bolts with spring washers.



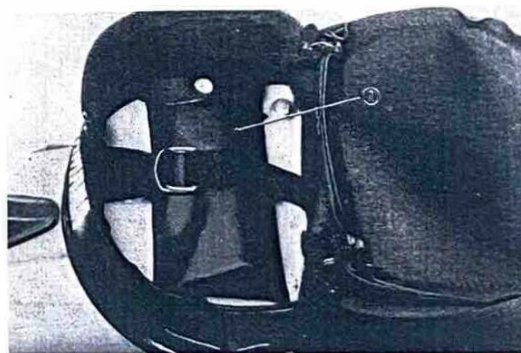
Tightening torque:
0.7 m·kg (5.0 ft·lb)

26. Install the carrier box and bracket 2 on the rear of the frame using the bolts with spring and plain washers.



1. Carrier bracket 2

27. Hold the tool kit with a band in the carrier box.



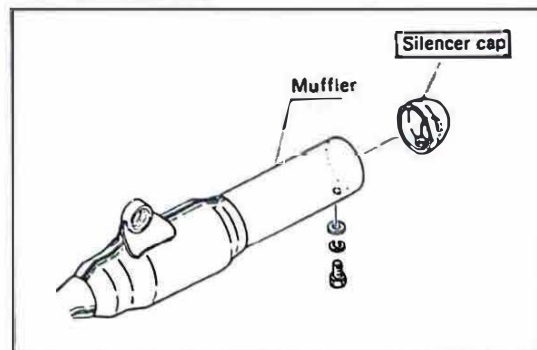
1. Tool kit

INSTALLATION OF THE OFF-ROAD RIDING KIT

An off-road riding kit is provided with each vehicle to comply with noise level and spark arrester laws and regulations. Performance will be substantially decreased. Retuning is not required.

Installing the kit parts

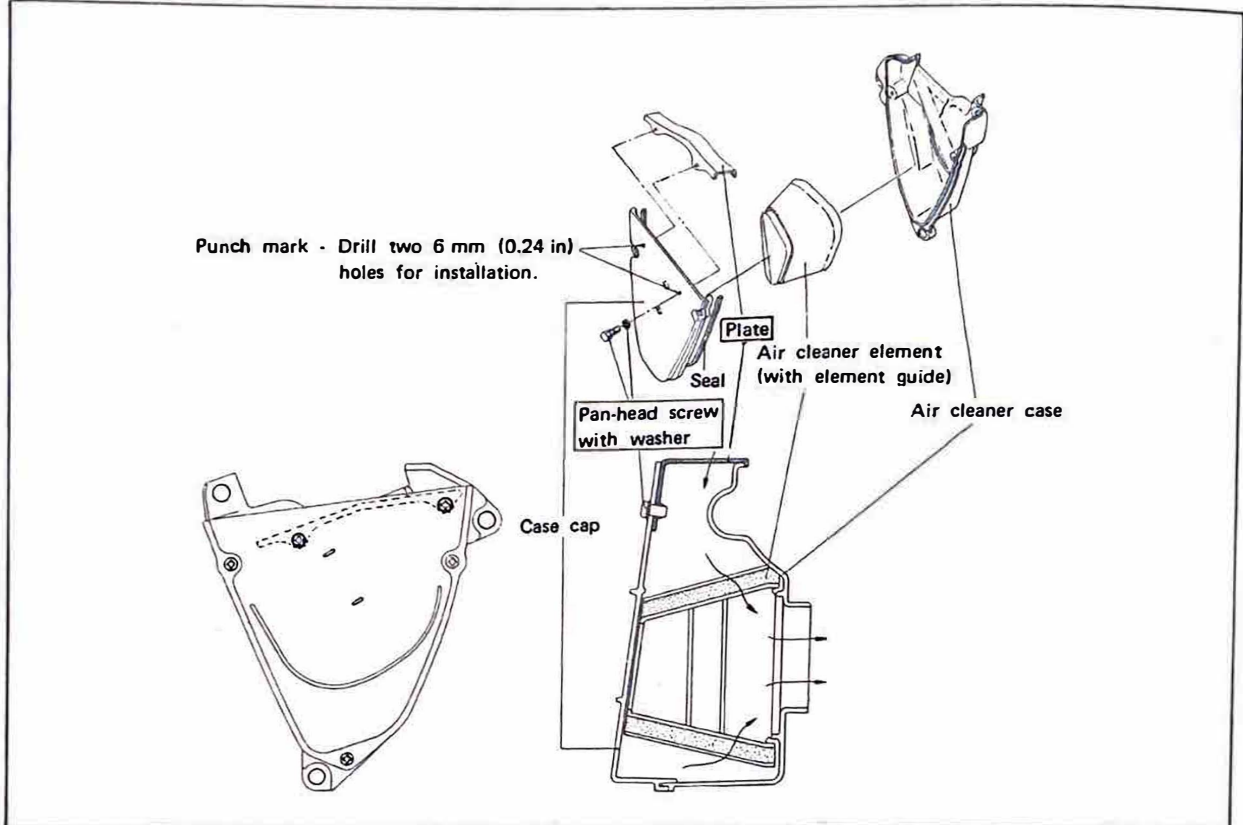
1. Silencer cap



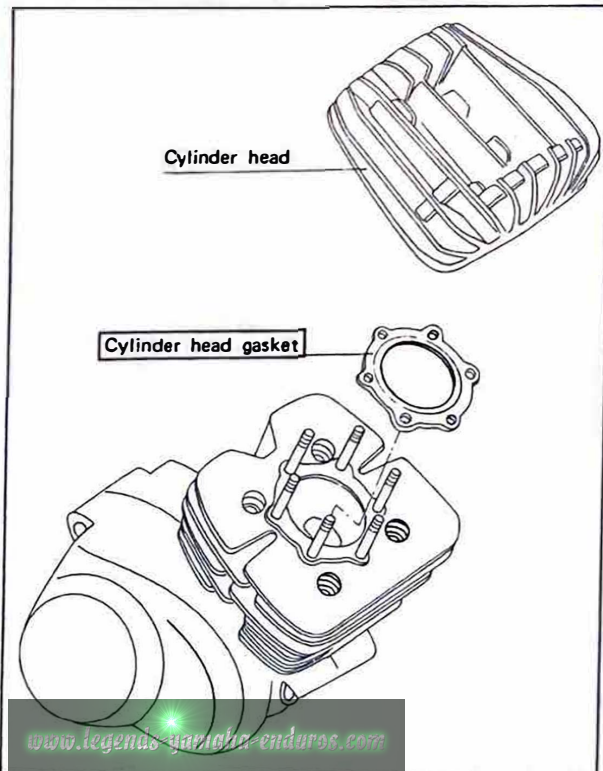
2. Main jet

For main jet installation, refer to the Owner's Service Manual (page 37) for this model.

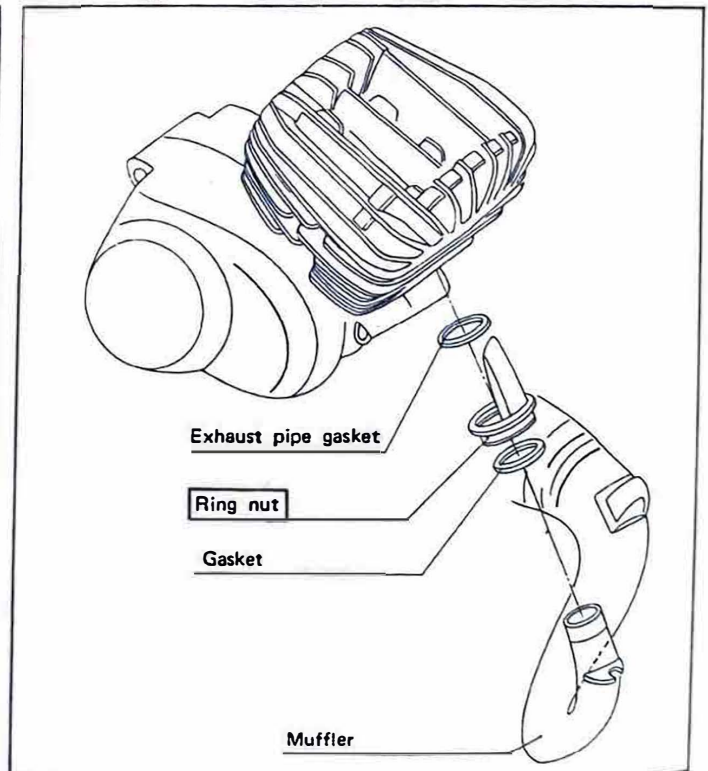
3. Plate



4. Cylinder head gasket



5. Ring nut



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 and tightened or adjusted to specification. This check-up should be started with the front of the machine.

Item

Front wheel spokes
 Tension

Front wheel rim
 Deflection

Front wheel tire
 Tire pressure

Front wheel axle nut
 Cotter pin, Tightening torque

Steering head
 Adjustment, Tightening torque

Handle holder
 Tightening torque

Clutch lever
 Freeplay, Tightening torque

Clutch wire
 Routing, Lubrication

Brake lever
 Freeplay, Tightening torque

Front brake wire
 Routing, Lubrication

Throttle wire
 Routing

Throttle housing
 Position, Operation, Freeplay

Carburetor joints
 Tightness

Footrest
 Position, Tightness

Change pedal
 Tightness, Operation

Brake pedal
 Position, Freeplay, Operation

Seat
 Mounting

Fuel pipe
 Clips, Connection

Fuel tank
 Mounting

Fuel breather pipe
 Routing, Connection

Rear fender
 Mounting

Taillight
 Mounting, Routing

Rear shock absorber
 Cotter pin, Mounting

Swing arm pivot shaft
 Tightening torque

Rear wheel axle nut
 Cotter pin, Tightening torque

Chain puller
 Deflection, Cam position

Rear wheel
 Spoke tension

Rear wheel rim
 Deflection

Rear wheel tire
 Tire pressure

Handle switch lead wire
 Routing, Clamp

Speedometer cable
 Routing

Transmission
 Oil level

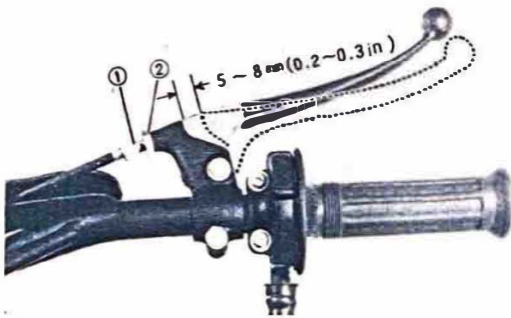
Adjustments

NOTE:

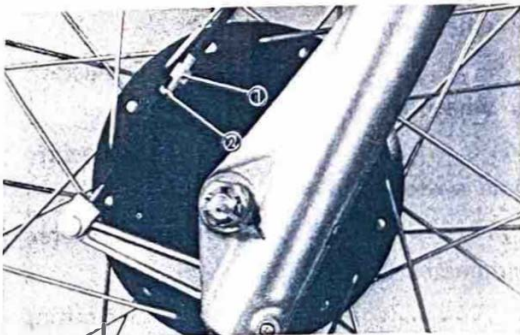
This section deals with the main points only. For details, refer to the owner's service manual for this model.

1. Front brake adjustment

The front brake can be adjusted in two ways; (1) using the adjuster at the front brake lever or (2) at the front brake shoe plate. Adjustment at the front brake lever is normally recommended. Loosen the locknut and turn the adjuster to adjust the brake lever. As shown in the illustration, the clearance between the brake lever and the brake lever holder should be 5 ~ 8 mm (0.2 ~ 0.3 in). After adjusting, be sure the locknut is tightened firmly.



1. Adjustor
2. Locknut

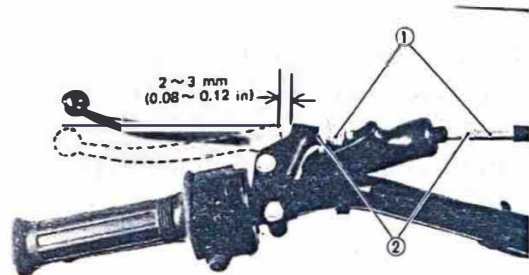


1. Adjustor
2. Locknut

2. Clutch wire adjustment

Loosen the clutch wire adjuster locknut at the clutch lever, and adjust the clutch wire by turning the wire adjuster. Turning the adjuster clockwise (the

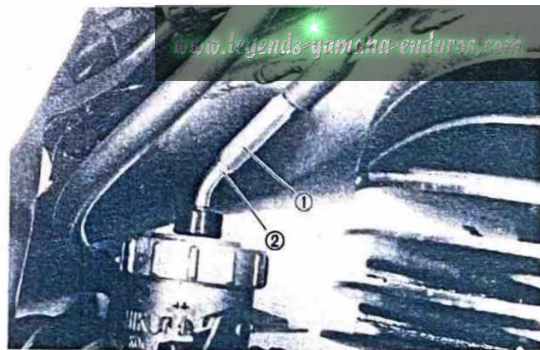
adjustor is tightened) increases clutch wire play, while turning counterclockwise decreases the play. The play should be 2 ~ 3 mm (0.08 ~ 0.12 in) at the position shown in the figure.



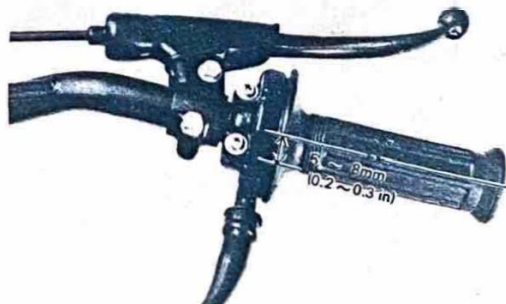
1. Adjustor
2. Locknut

3. Throttle cable freeplay adjustment

Check play in turning direction of throttle grip. The freeplay should be 5 ~ 8 mm (0.2 ~ 0.3 in) at grip flange, loosen the locknut and turn the adjuster to make the necessary adjustment. After adjusting, be sure to tighten the locknut properly.



1. Adjustor
2. Locknut



Troubleshooting

If the engine will not start or will not start easily after inspections and adjustment, check the following parts.

1. Ignition timing checking and adjustment

After starting the engine, check the ignition timing, and if necessary, adjust.

Ignition timing (B.T.D.C.):
 2.3 ± 0.15 mm (0.091 \pm 0.006 in)

2. Spark plug – Checking and adjustment when the machine is stored or not used for a long period of time, the spark plug may get wet with oil. If so, hard starting will result, remove the spark plug, and clean as required.

Spark plug:
 Type N-2G (CHAMPION)
 Gap 0.7 mm (0.028 in)

3. Carburetor – Cleaning

Remove the drain screw attached to the carburetor float bowl, and drain off the fuel. Add fresh fuel.

NOTE: _____

For details, refer to the owner's service manual for this model.

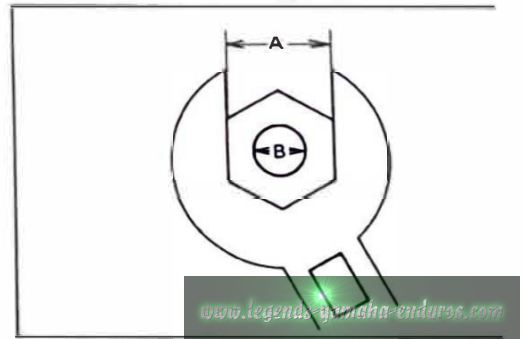
Torque specification

The following torque specifications adhered to on every machine. When torque to multi-secured fastener components the several studs should be tightened in gradual stages and in a pattern that will prevent warpage to the item being secured. Torque settings are for dry, clean threads. Torque should always be done to the nut, not the head.

NOTE: _____

Certain items with other than standard pitches may require differing torque. Refer to the model owner's service manual or contact your distributor if a question arises.

A (NUT)	B (BOLT)	TORQUE SPECIFICATION		
		m-kg	ft-lb	
10 mm	6 mm	1.0	7.2	
12 mm	8 mm	2.0	15	
14 mm	10 mm	3.5 ~ 4.0	25 ~ 29	30
17 mm	12 mm	4.0 ~ 4.5	29 ~ 33	35
19 mm	14 mm	4.5 ~ 5.0	33 ~ 36	40
22 mm	16 mm	5.6 ~ 6.5	41 ~ 49	48
24 mm	18 mm	5.8 ~ 7.0	42 ~ 50	50
27 mm	20 mm	7.0 ~ 8.3	50 ~ 60	60





SINCE 1887

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