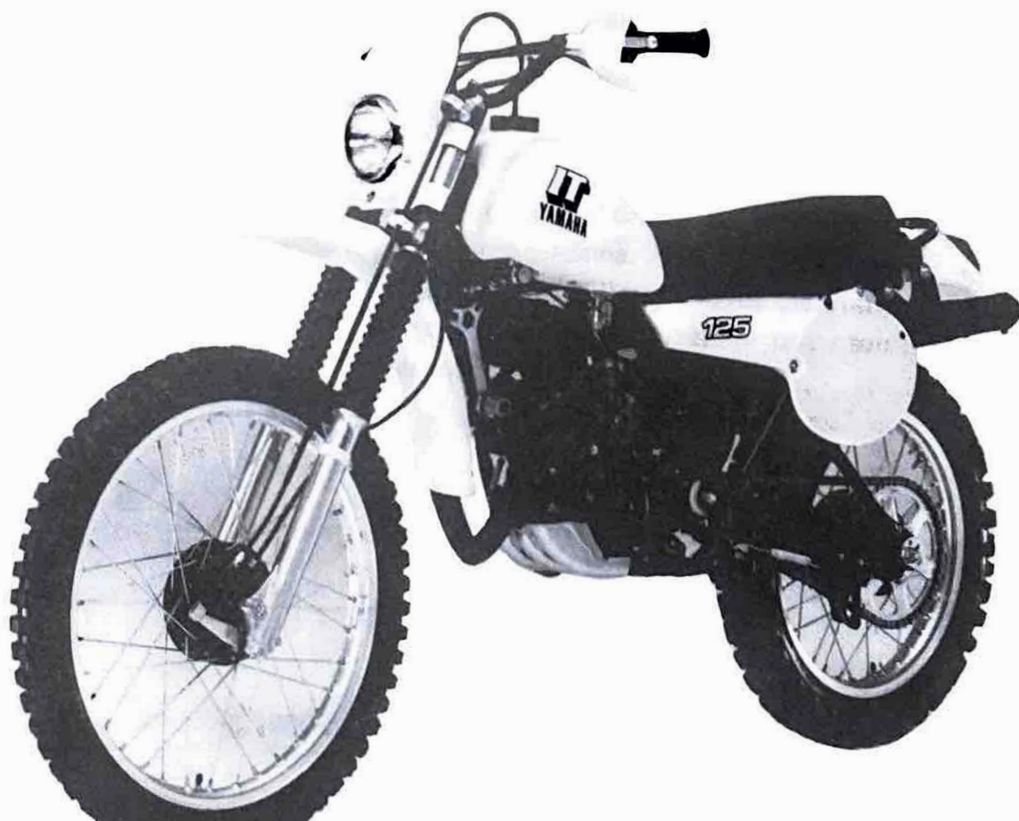




# YAMAHA

# IT125H

# ASSEMBLY MANUAL



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# FOREWORD

This Assembly manual contains the information required for the unpacking and assembly of Yamaha motorcycles so that the Yamaha serviceman can assemble the machines in the correct manner. To perform machine assembly, a basic knowledge of service and Yamaha machines is required. Therefore all Yamaha dealers are urged to study the service of Yamaha motorcycles using the relevant service manuals. This Assembly Manual should be used in conjunction with the Owner's service manual and Parts list for this model.

## NOTICE

This service specifications given in the 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 procedure 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.

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IT125H

Assembly Manual

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P/N LIT-11666-02-53

## PREPARATION

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

### Supplies

Oils, greases, shop rags.

### Work shop

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.

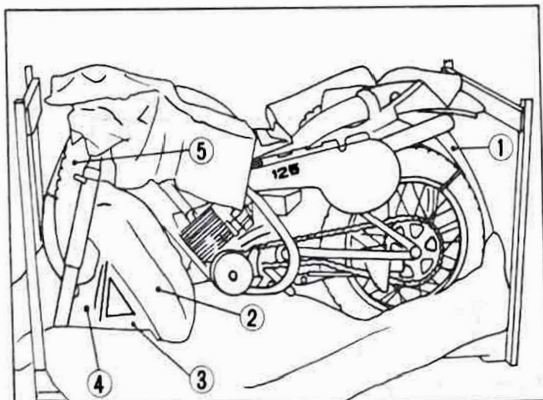
### Procedure for unpacking

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.

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

Remove the front fender held between the rear tire and the rear fender.

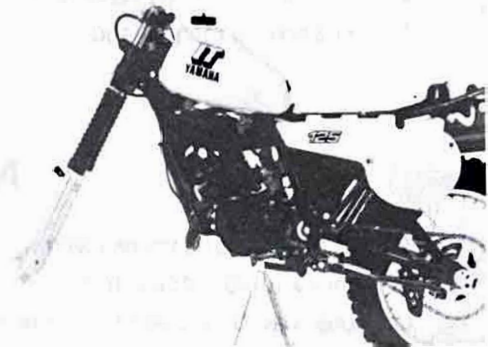
Remove the headlight body assembly, cardboard crate, and semi double seat.



1. Front fender
2. Semi double seat
3. Card board crate
4. Headlight body assembly
5. Front wheel

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

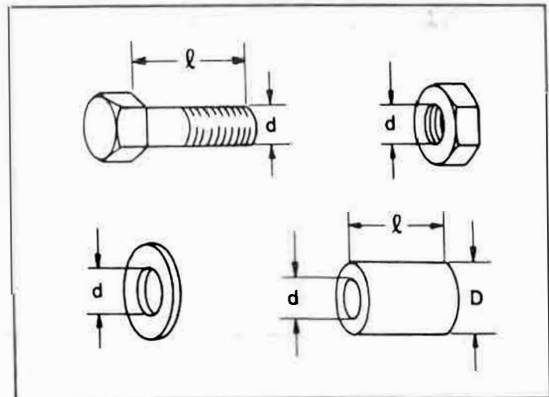
Place a proper-size wooden box or a machine stand under the engine to keep the front of the machine raised off the floor. Take care so that the machine does not fall over.



## PARTS CHECK LIST

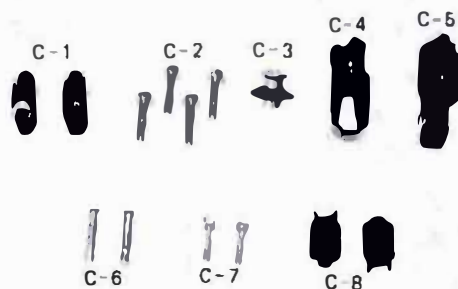
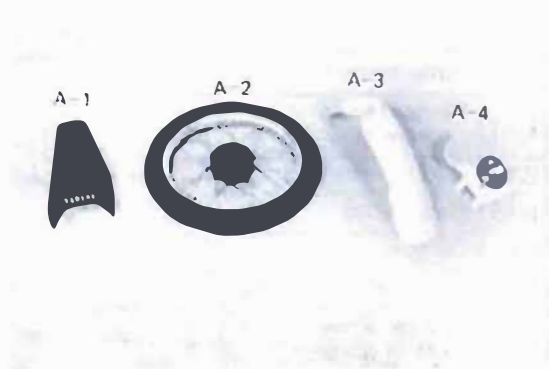
Before starting the assembly, check for damaged or missing parts (listed below). Also check the machine for damage, scratches and other defects.

The following parts are contained in the cardboard box and the vinyl bag in the box. Check the quantity of parts. Also check for damage.



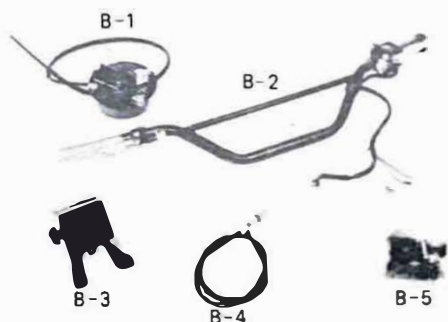
### Part list A: Carton box

No.	Part name	Q'ty
A-1	Semi double seat	1
A-2	Front wheel	1
A-3	Front fender	1
A-4	Headlight assembly	1



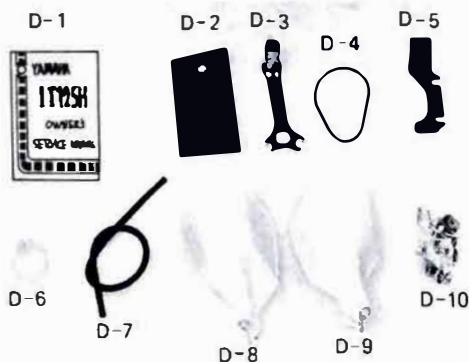
**Part list B: Foam tray**

No.	Part name	Q'ty
B-1	Brake shoe plate (with brake wire)	1
B-2	Handlebar assembly	1
B-3	Speedometer assembly	1
B-4	Speedometer cable	1
B-5	Vinyl bag "A"	1



**Part list D: Carton box**

No.	Part name	Q'ty
D-1	Owner's service manual	1
D-2	Tool kit	1
D-3	Special spanner	1
D-4	O-Ring	1
D-5	Headlight under bracket	1
D-6	Wire holder	1
D-7	Fuel tank breather pipe	1
D-8	Brush guard (L)	1
D-9	Brush guard (R)	1
D-10	Vinyl bag "B"	1



**Part list C: Vinyl bag "A"**

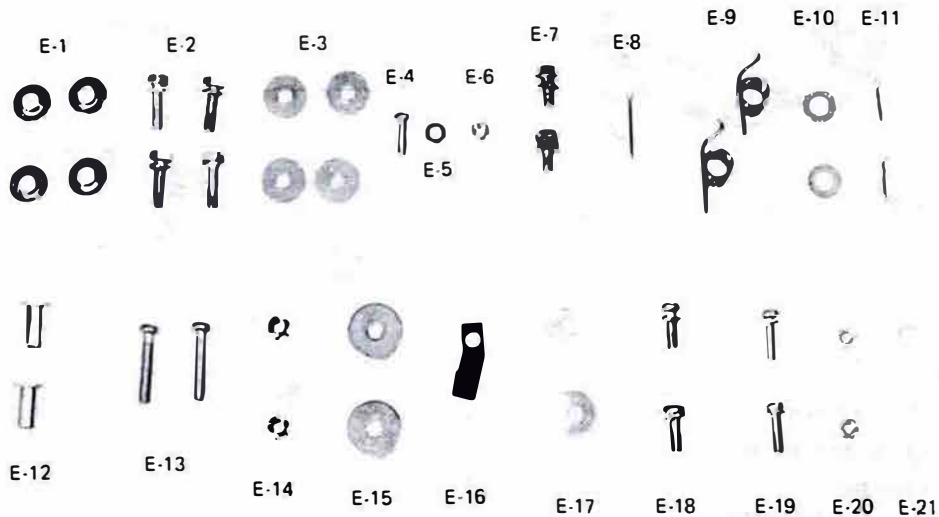
No.	Part name	Q'ty	Remarks
C-1	Handle upper holder	2	Handlebar
C-2	Flange bolt (d=8mm, l=35mm)	4	
C-3	Collar	1	Front axle
C-4	Foot rest (right)	1	Foot rest
C-5	Foot rest (left)	1	
C-6	Clevis pin	2	
C-7	Hexagon head bolt with washer (d=6mm, l=30mm)	2	Speedometer
C-8	Boot	2	Clutch wire Brake wire



Part list E: Vinyl bag "B"

No.	Part name	Q'ty	Remarks
E-1	Washer (d=6mm)	4	Front fender
E-2	Hexagon head bolt with washer (d=6mm, ℓ=20mm)	4	
E-3	Plate washer (d=6mm)	4	
E-4	Panhead screw (d=5mm)	1	
E-5	Plate washer (d=5mm)	1	Wire holder
E-6	Nut (d=5mm)	1	
E-7	Hexagon head bolt with washer (d=6mm, ℓ=12mm)	2	Semi double seat
E-8	Cotter pin (Large)	1	Front axle
E-9	Torsion spring	2	Foot rest
E-10	Plate washer (d=8mm)	2	
E-11	Cotter pin (Small)	2	

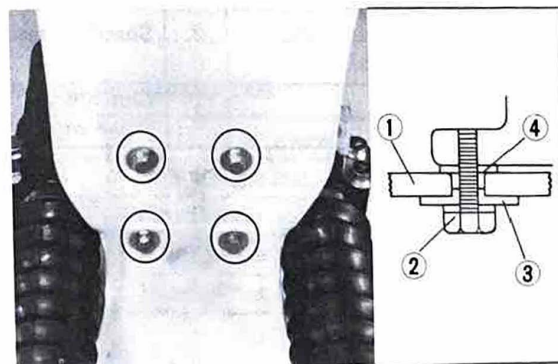
E-12	Collar screw	2	Headlight body (upper)
E-13	Panhead screw (d=6mm)	2	
E-14	U-nut (d=6mm)	2	
E-15	Plate washer	2	
E-16	Clamp	1	Headlight body (lower)
E-17	Plate washer (d=6mm)	2	
E-18	Panhead screw with washer (d=6mm)	2	Bush guard
E-19	Panhead screw with washer (d=6mm)	2	
E-20	Nut (d=6mm)	2	
E-21	Washer (d=6mm)	2	



## SET-UP PROCEDURES

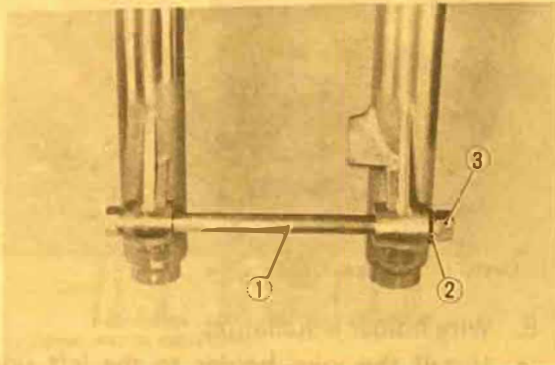
1. Insert the front fender between the front forks, and secure the front fender using bolts with spring washers, plain washers, and washers. (See illustration)

Tightening torque: 0.45 m·kg (3.25 ft·lb)



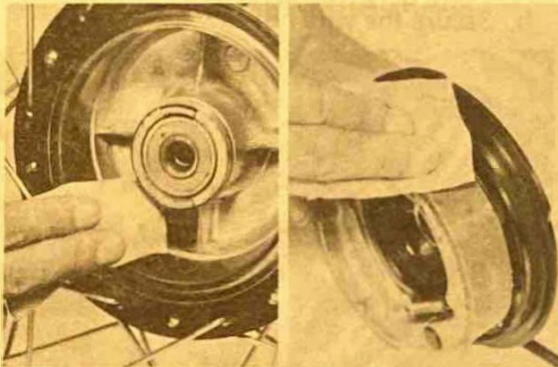
1. Front fender (A-3)
2. Bolt with washer (E-2)
3. Plate washer (E-3)
4. Washer (E-1)

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.



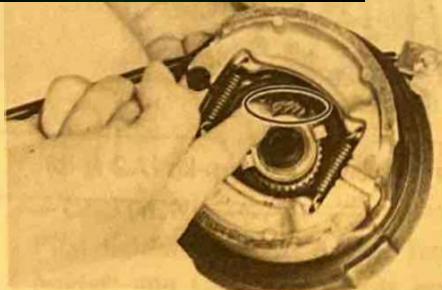
4. Install the brake shoe plate assembly in the front wheel hub.

- a. Apply a light coat of grease to the speedometer drive gear and oil seal.

**CAUTION:**

Take care not to put grease on the brake linings or inner surface of the brake drum. If you do so, clean using a rag dampened with a solvent. Foreign material on braking surface can cause impaired braking action.

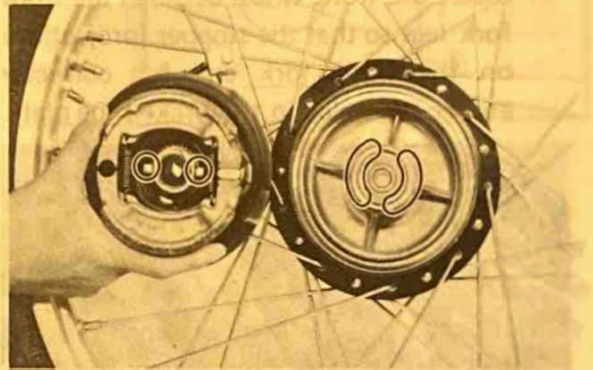
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- b. Make sure the brake shoes and springs are correctly installed in the shoe plate assembly. If any one of them is out of position, correct per the figure.
- c. Install the brake shoe plate assembly in the wheel hub.

**NOTE:**

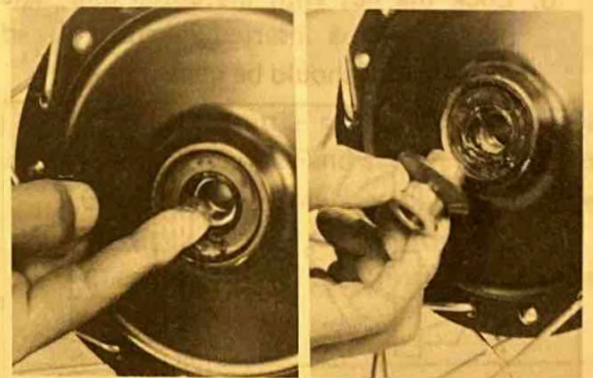
Make sure the two legs in the wheel hub align with the two slots in the speedometer clutch assembly.



5. Install the wheel 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 has dirt, clean with a rag.



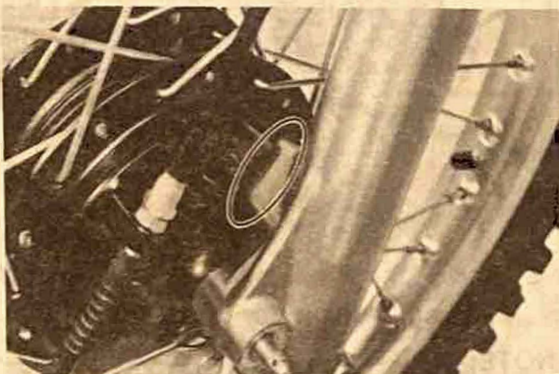
6. Install the front wheel on the front forks.

- a. Apply grease to the axle and install the axle nut and plain washer.





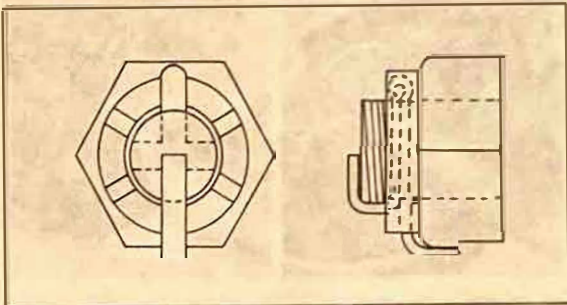
b. Insert the front wheel between the front fork legs so that the stopper (projection) on the front fork end has correctly engaged the slot in the brake shoe plate.



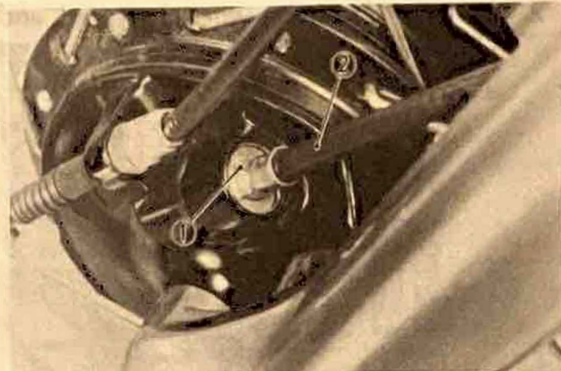
c. Torque the axle nut to specification.

Tightening torque: 4.8 m·kg (35 ft·lb)

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



7. Connect the speedometer cable to the front wheel hub gear unit. Insert the cable end into the gear unit, fit the circlip in the groove on the wheel hub side, and lock the cable. (The circlip is already attached to the cable.)

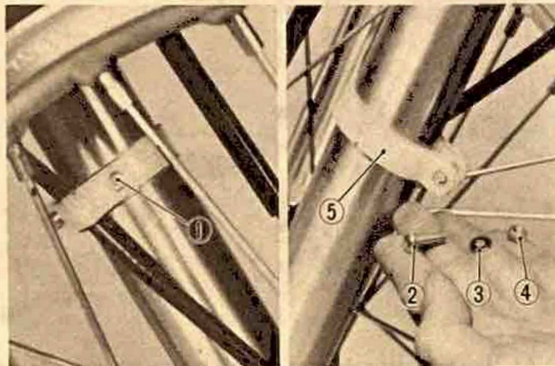


1. Circlip 2. Speedometer cable

8. Wire holder installation

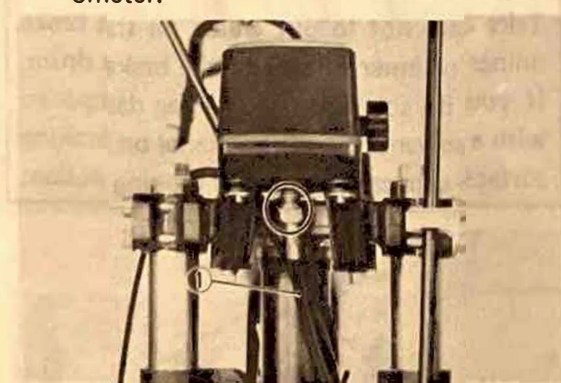
a. Install the wire holder to the left side fork leg so that the stopper (projection) on the leg is correctly engaged the hole in the wire holder as shown.

b. Secure the wire holder.



1. Stopper 2. Panhead screw (E-4) 3. Washer (E-5) 4. Nut (E-6) 5. Wire holder (D-6)

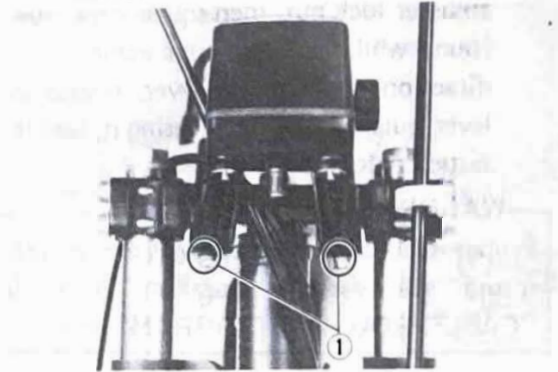
9. Install the speedometer assembly under the handle crown and secure the speedometer.



1. Hexagon head bolt with washer (C-7)

Tightening torque: 1.0 m·kg (7.2 ft·lb)

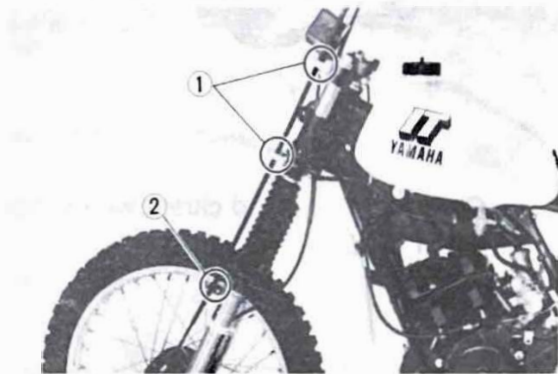
10. Connect the speedometer cable to the speedometer.



1. Speedometer cable (B-4)

11. Pass the front brake wire through three wire holders. Tighten the screw.

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



1. Wire holder 2. Clamp

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

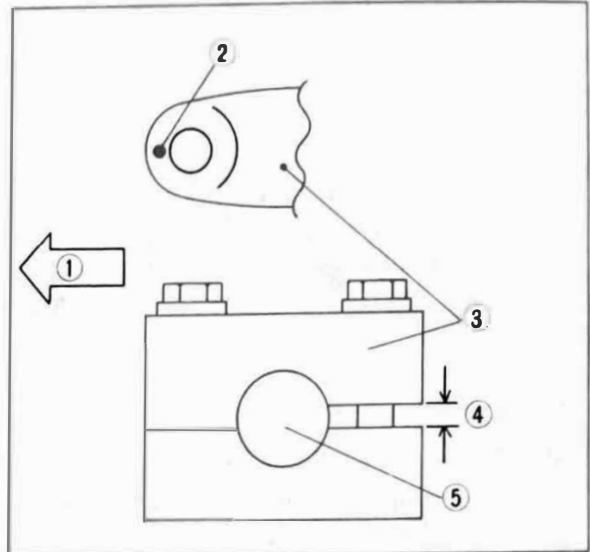
Tightening torque: 1.5 m·kg (11 ft·lb)



1. Flange bolt (C-2) 2. Upper holder (C-1)

**CAUTION:**

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



1. FWD 3. Upper holder  
2. Punch mark 4. Gap  
5. Handlebar

13. 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.

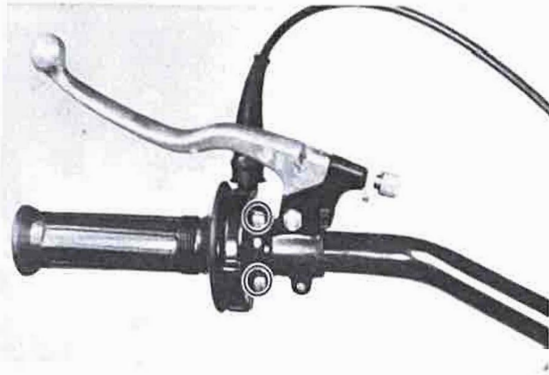


14. Slip the throttle grip over the handle lever to the limit and slide it back about 5 mm (0.5 in), and assembly the throttle housing using the screws provided. Check to see that the throttle grip moves smoothly.

**CAUTION:**

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



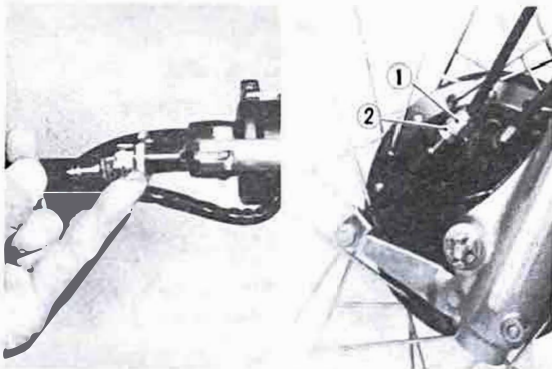


15. Brake wire and clutch wire installation.

**NOTE:**

Before assembly, lubricate cables with suitable cable lubricant.

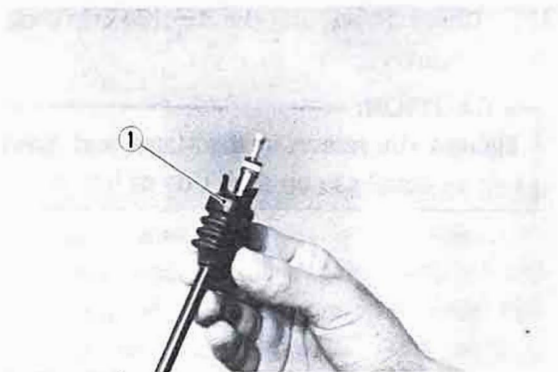
- a. Screw in the cable length adjusters on the brake shoe plate (brake wire) and cable length adjuster (clutch wire).



1. Lock nut  
2. Adjuster

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

- c. Insert the wire end into the boots.



1. Boot (C-8)

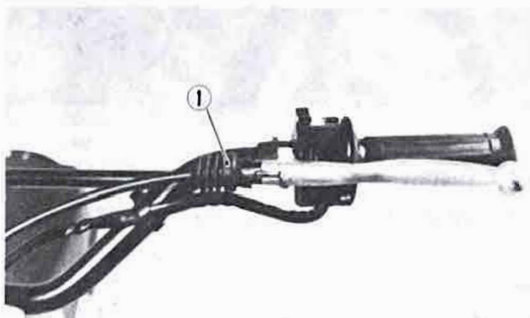
- d. Insert the wire end into the lever hole, and hook the outer cable end onto the adjuster lock nut, then squeeze the lever. Next, while pulling outer cable in the direction opposite the lever, release the lever quickly. While releasing it, seat the outer cable into the adjuster.

**WARNING:**

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



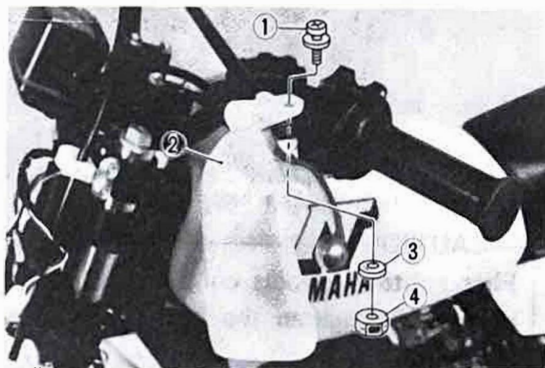
- e. Cover the brake and clutch wire holders with boots.



1. Boot

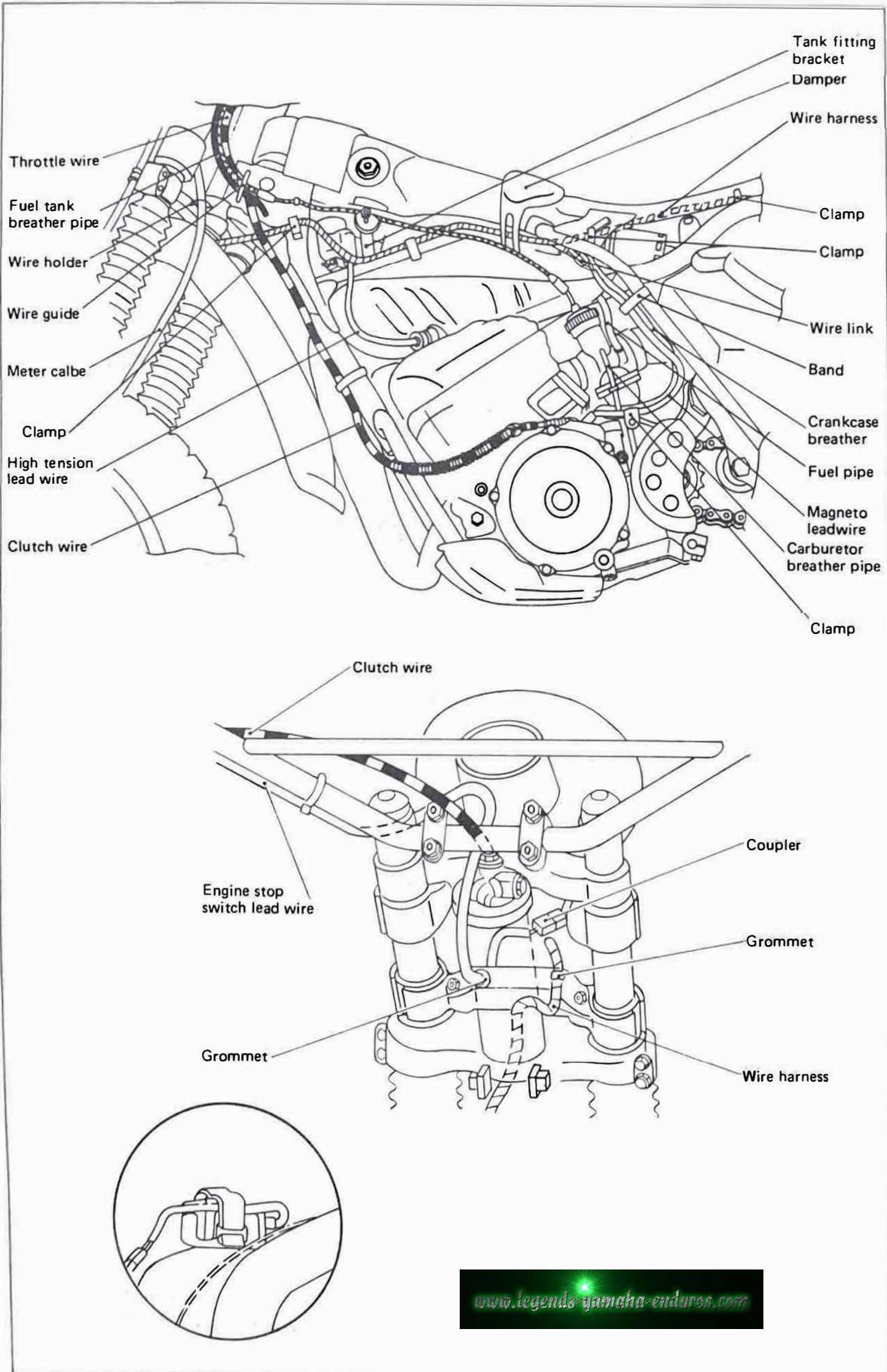
16. Bush guard installation

Install the bush guard on the lever using the panhead screw with washer, nut and washer.



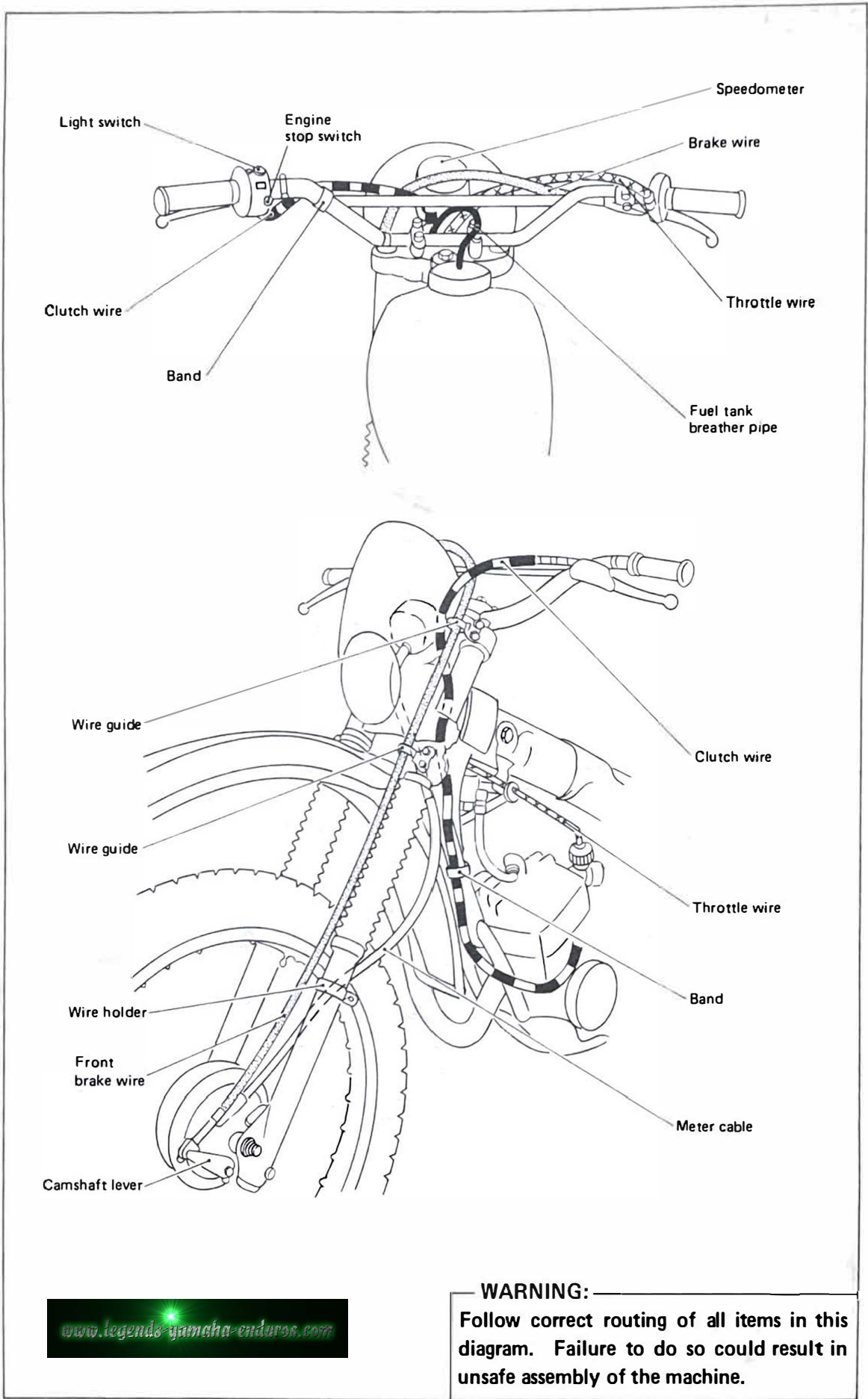
1. Panhead screw with washer (E-19) 3. Washer (E-21)  
2. Bush guard (D-8, 9) 4. Nut (E-20)

# CABLE ROUTING DIAGRAM



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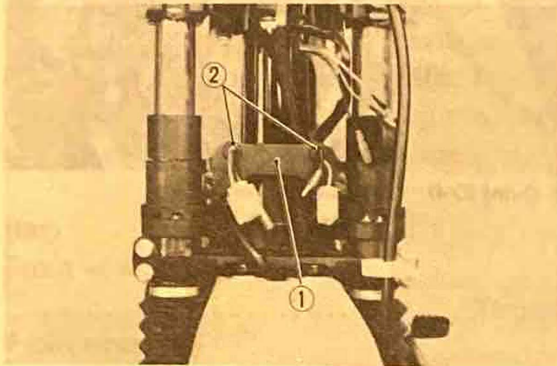


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**WARNING:** Follow correct routing of all items in this diagram. Failure to do so could result in unsafe assembly of the machine.

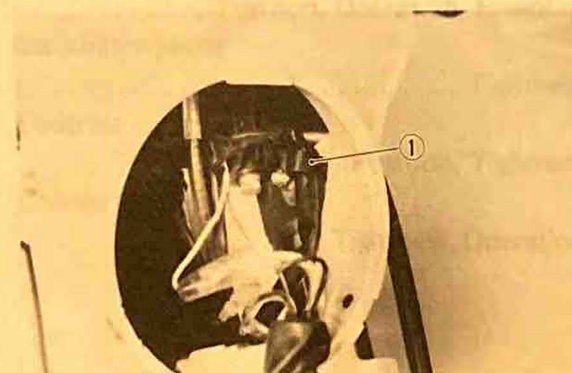
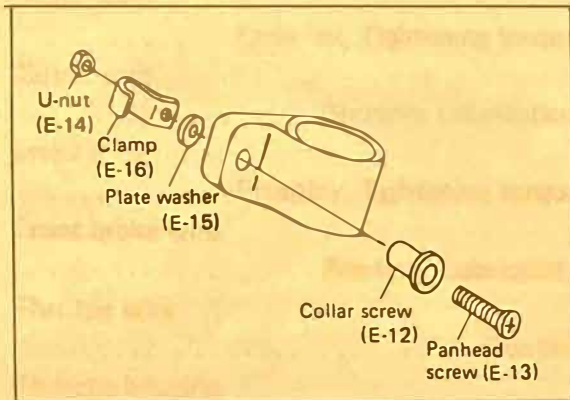
### 17. Headlight installation

- a. Place the headlight under-bracket between the front forks and install the grommet, which is attached to the wire harness, on the bracket.



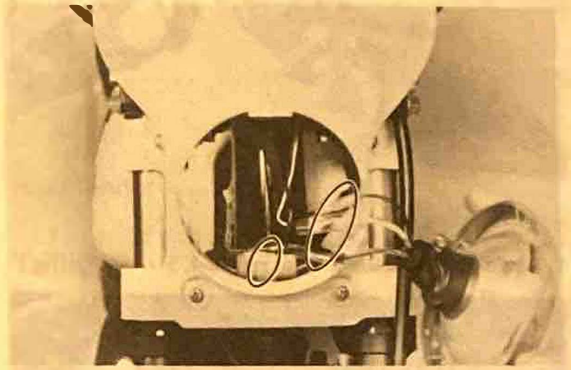
1. Under bracket (D-5) 2. Grommet

- b. When securing the upper part of the headlight assembly, the headlight unit must be removed from the headlight body.
- c. Install the headlight assembly on the front fork.  
When tightening the left side bolt, secure the clamp at the same time.

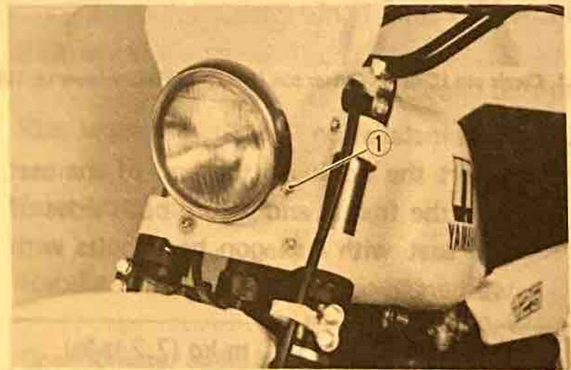


1. Clamp (E-16)

- d. Connect the wire harness, headlight switch wire and headlight lead wires through couplers.



- e. Install the headlight unit assembly on the headlight body.
- f. When installing the headlight lens assembly, care should be used so that wires are not pinched.



1. Screw with washer

### 18. Fuel tank breather pipe installation

Pass through between the handle crown and meter bracket and let it hang down.

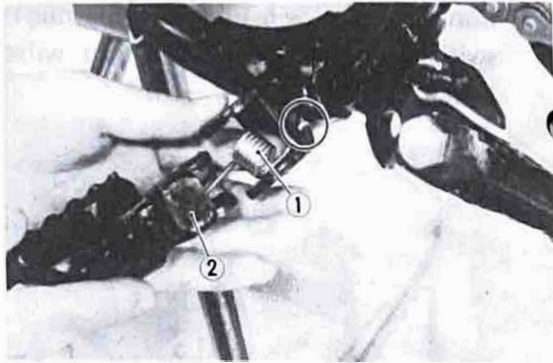


1. Fuel tank breather pipe (D-7)

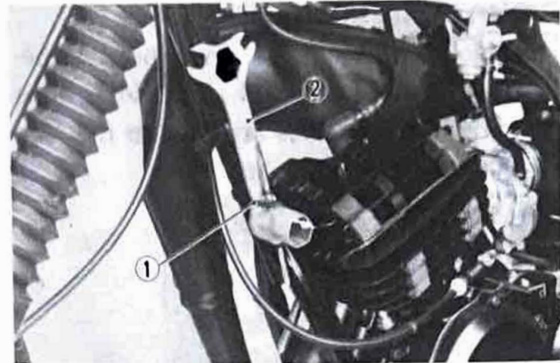
### 19. Footrest installation

Install the footrest to both right and left sides of the lower part of the frame.

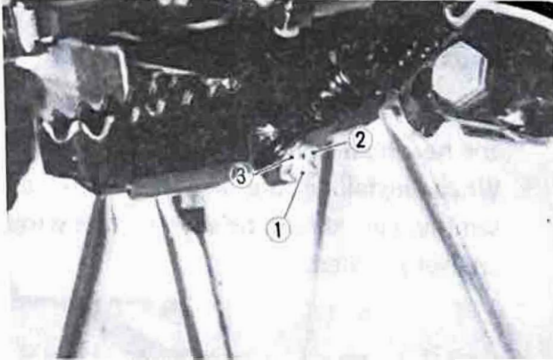




1. Torsion spring (E-9) 2. Foot rest (C-4, 5)



1. O-ring (D-4) 2. Special spanner (D-3)

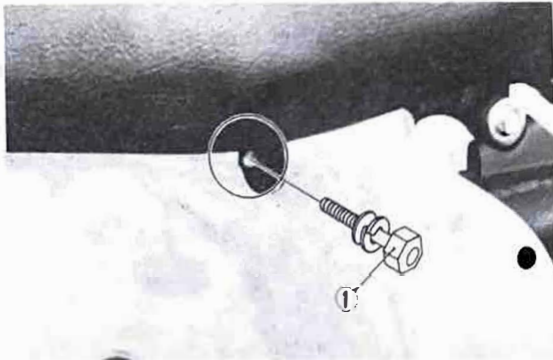


1. Clevis pin (C-6) 2. Cotter pin (E-11) 3. Plate washer (E-10)

## 20. Seat installation

Insert the hook on the end of the seat into the frame, and secure both sides of the seat with hexagon head bolts with washers.

Tightening torque: 1.0 m·kg (7.2 ft·lb)



1. Hexagon head bolt with washer (E-7)

## 21. Special spanner installation

Install the special spanner on the frame using the O-ring.

# INSPECTIONS AND ADJUSTMENTS

## Inspections

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, or tightened 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 tank	Mounting
Fuel pipe	Routing, Connection
Rear fender	Mounting
Taillight	Mounting, Routing
Fuel breather pipe	Routing, Connection
Rear shock absorber	Cotter pin, Mounting
Swing arm pivot shaft	Tightening torque
Rear wheel axle nut	Cotter pin, Tightening torque
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

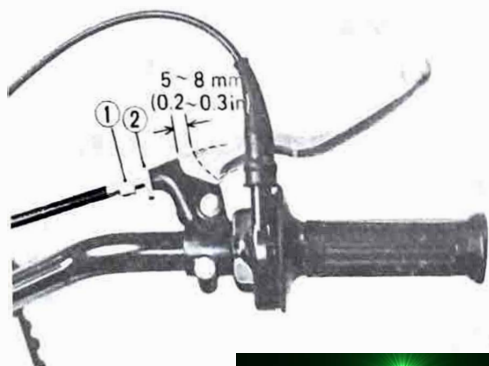
### NOTE:

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

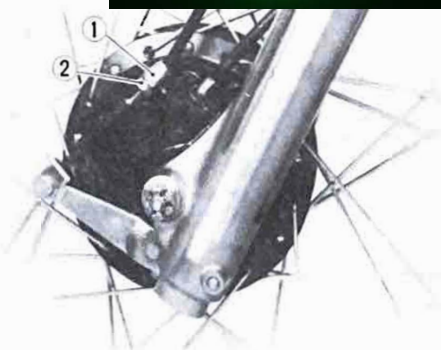
### Front brake adjustment

Front brake should be adjusted to suit rider preference with a minimum cable slack of 5 ~ 8 mm (0.2 ~ 0.3 in) play at the brake lever pivot point.

1. Loosen the adjuster lock nut.
2. Turn the cable length adjuster in or out until adjustment is suitable.
3. Tighten the adjuster lock nut.



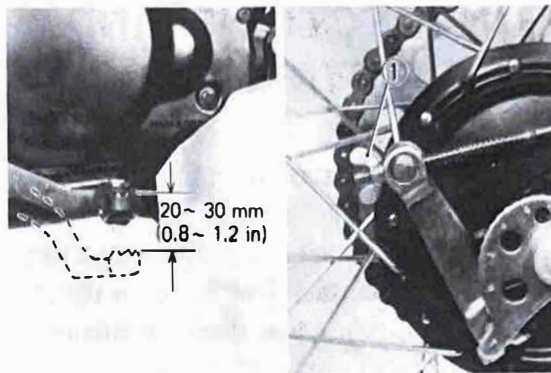
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1. Adjuster 2. Lock nut

### Rear brake adjustment

The rear brake should be adjusted so the end of the brake pedal moves 20 ~ 30 mm (0.8 ~ 1.2 in). To adjust, turn the adjuster on the brake rod clockwise to reduce play; turn the adjuster counterclockwise to increase play.

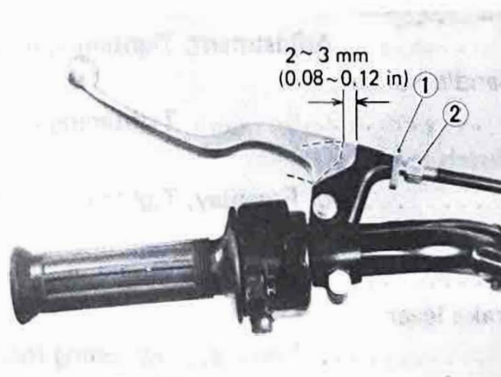


1. Adjuster

### Clutch wire adjustment

Loosen the clutch wire adjuster lock nut at the clutch lever, and adjust the clutch wire by turning the wire adjuster.

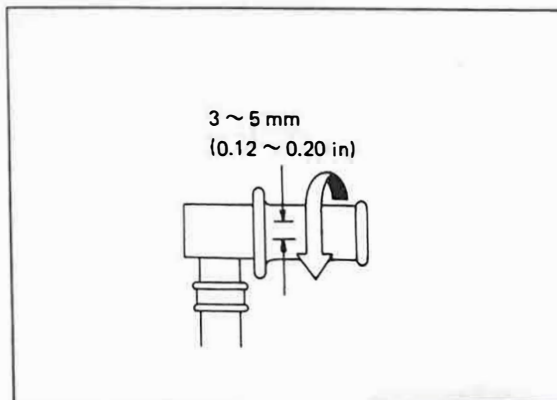
Turning the adjuster clockwise (the adjuster is tightened) increases clutch wire play, while turning counterclockwise decreases the play. The play should be 2 ~ 3 mm (0.08 ~ 0.12 in) at the position shown in the figure.

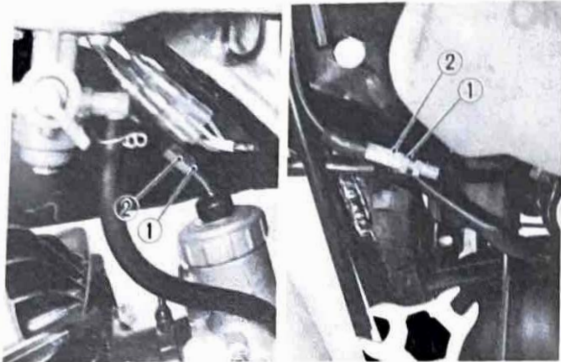


1. Lock nut 2. Adjuster

### Throttle cable freeplay adjustment

Check play in turning direction of throttle grip. The freeplay should be 3 ~ 5 mm (0.12 ~ 0.20 in) at grip flange, loosen the lock nut and turn the adjuster to make the necessary adjustment. After adjusting, be sure to tighten the lock nut properly.





1. Lock nut 2. Adjuster

### 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.):

24° at 2,000 r/min  
 (-2.6 mm ± 0.15 mm/  
 0.102 in ± 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 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 SPECIFICATIONS

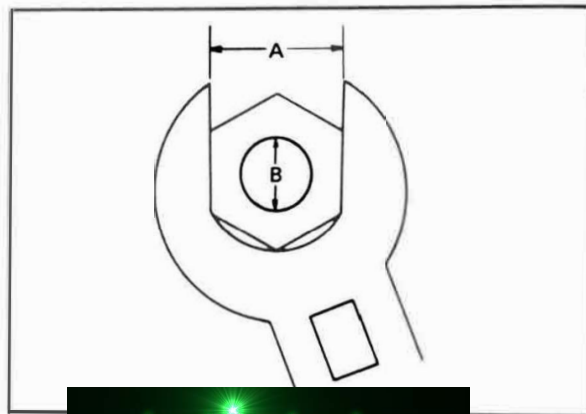
The following torque specifications must be adhered to on every machine. Components with several studs should be tightened in gradual stages and in a pattern that will avoid warpage to the item being secured.

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)	Standard tightening torque	
		m-kg	ft-lb
10 mm	6 mm	0.6	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



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