YAMAHA

OWNER'S MANUAL

RD200B

397-28199-12

RD200B OWNER'S MANUAL

1st Printing

April 1974

Yamaha International Corporation
P.O.Box 6600, Buena Park, Calif.

P/N LIT-11623-97-02

NOTICE

Yamaha Motor Company and its U.S. subsidiary, Yamaha International Corporation, are confident you will enjoy your new Yamaha to the utmost, we have made every effort to provide you with a safe, well engineered and constructed product.

This Owner's Service Manual will acquaint you with several features and maintenance procedures concerning your Yamaha. However, if you are unfamiliar with the product, features or procedures outlined in this booklet we strongly urge you to consult Authorized Yamaha Dealer for additional information.

Please review your owner's warranty guide book thoroughly regarding your warranty obligations.

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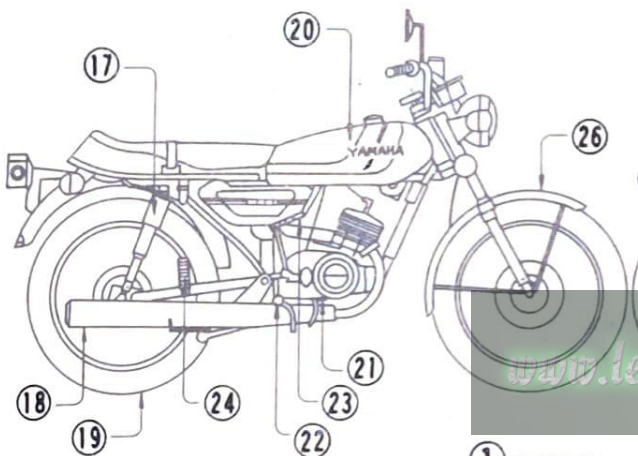

Fig. 1

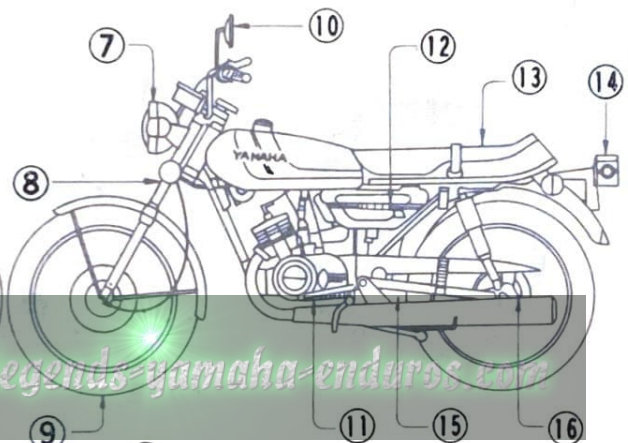

Fig. 2

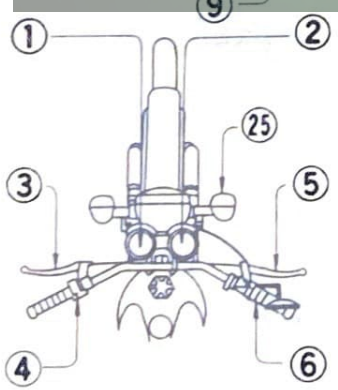

Fig. 3

1. Speedometer
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Fig. 4

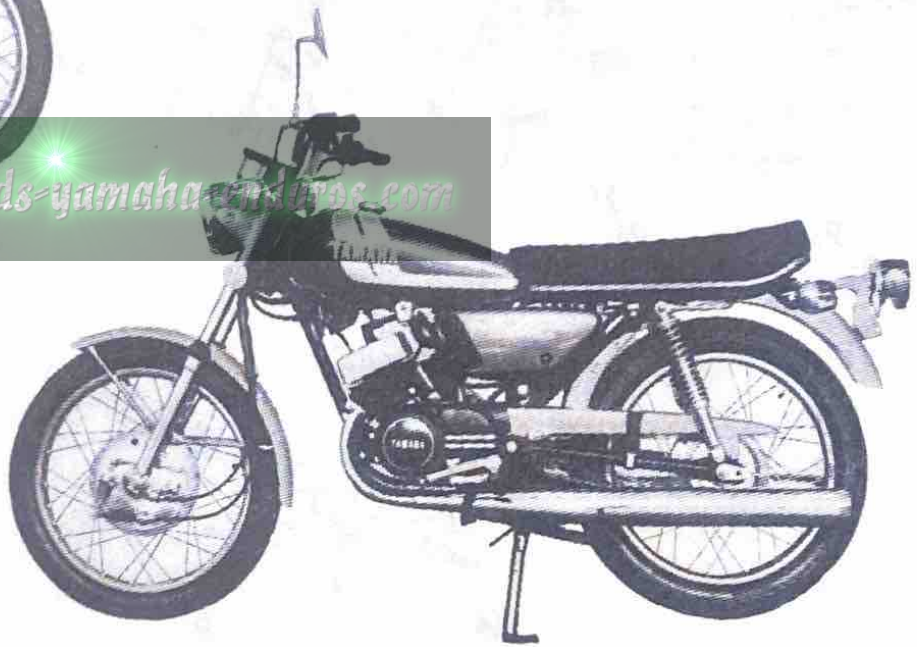


Fig. 5

FEATURES

TORQUE INDUCTION. Another new Yamaha engine debut! The reed valve has been adopted as an induction system for the RD200B. This system, utilizing its unique 7-port construction, ensures excellent engine performance from low to high speed.

YAMAHA AUTOLUBE. Yamaha Autolube provides superior engine lubrication which extends service life.

EASIER STARTING. With the primary coupled starting system, the engine can be started in any gear simply by disengaging the clutch.

ADJUSTABLE REAR CUSHIONS. The rear cushions are adjustable to five positions. This enables the rider to adjust spring tension to compensate for varying weights, speeds, and road conditions.

FRONT FORKS. The Yamaha RD200B employs a front fork design well known for its strength and superior handling characteristics. They assure the rider of ultimate response under all conditions.

SPEEDOMETER AND TACHOMETER. A speedometer and tachometer are standard equipment. The individual units are separately mounted for maximum visibility.

STARTER JET EQUIPPED CARBURETORS. Equipped with these uniques starter jets, the Yamaha RD200B is quick starting under all conditions.

EMERGENCY STOP SWITCH. The engine can be stopped during any emergency by a quick flip of the switch.

MACHINE IDENTIFICATION

The frame serial number is stamped on the right of the steering head pipe, and the engine serial number is located on top of the crankcase (L).
These numbers are required when registering the motorcycle and also for processing warranty claims. Further, when ordering spare parts, engine serial number and frame serial number should be stated.

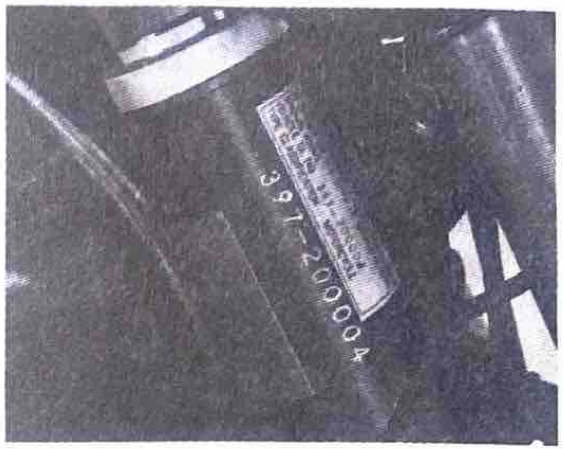


Fig. 6

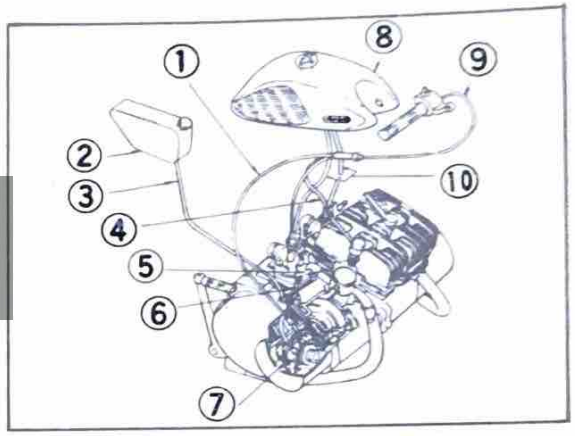
Fig. 7

WHAT IS YAMAHA AUTOLUBE?

Autolube is an automatic lubricating system for injecting 2-stroke oil directly into the engine. The oil is metered by a compact, high-precision oil pump. The pump plunger, driven by a reduction gear, has its output controlled by both throttle opening and engine speed. Because of the wide range of control Autolube offers, precisely the right amount of oil is available at all times. Autolube eliminates a number of major problems unavoidable with premix lubrication. This means both improved performance and reliability.

■ **Yamaha Autolube features:**

1. Oil consumption is greatly reduced, up to 1/3 less than pre-mix systems.
2. More effective lubrication results because the oil enters the engine in larger size droplets.
3. There is much less unwanted carbon deposites on the spark plug, cylinder head, piston and exhaust system!
4. There is much less exhaust smoke.
5. Refueling is simplified, gas and oil are kept in separate tanks.
6. Because poor quality oils can easily be avoided, and because the possibility of mismeasuring or inadequately mixing fuel is eliminated, Autolube offers completely consistent lubrication.
7. Longer engine life. The Autolube injection system provides lubricating and cooling oil to the internal moving parts of the engine at all times. Even when the throttle is shut off the engine is receiving lubricating oil.



1. Pump wire
2. Oil tank
3. Oil pipe
4. Throttle wire B
5. Banjo bolt
6. Delivery pipe
7. Oil pump
8. Gasoline tank
9. Throttle wire A
10. Gasoline pipe

Fig. 8

CONTROL FUNCTIONS

A. Main switch

The following chart shows the key position at which the lamps, horn and ignition circuit are switched on or off. (The circle (○) denotes "Switch on")

Part name	Key position				Instructions
	OFF	I	II	III	
Ignition circuit		○	○		I....Kick or electric starting II...Push starting
Headlight		○		○	When lighting switch is turned on.
Taillight		○		○	When lighting switch is turned on. Use III when parking at night.
Stoplight		○			The brake is applied.
Neutral lamp		○			When shift to neutral.
Meter lamps		○		○	When lighting switch is turned on.
Charge lamp		○			Goes off when engine starts.
Horn		○			Push the horn button.
Flasher lamps		○			Turn on left handlebar switch.

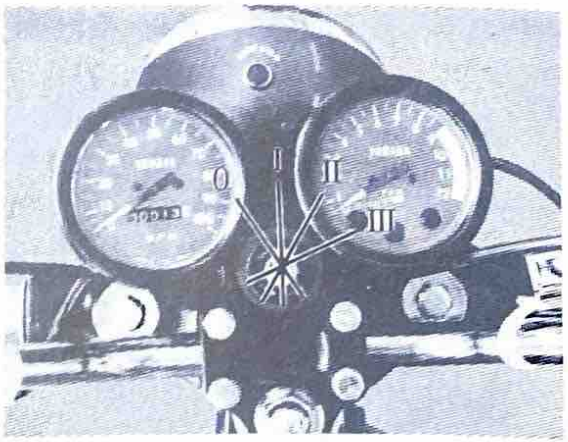
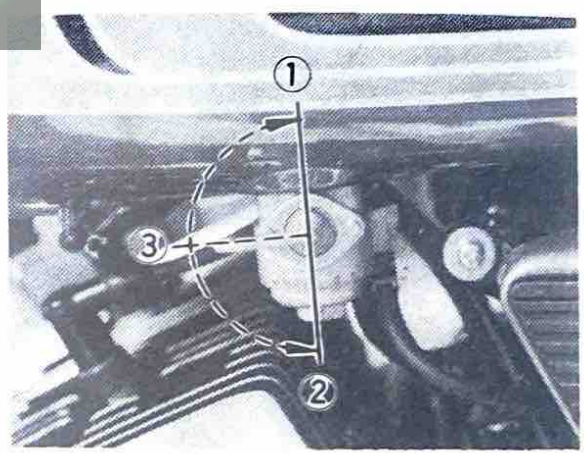


Fig. 9



1. Reserve 2. On 3. Stop

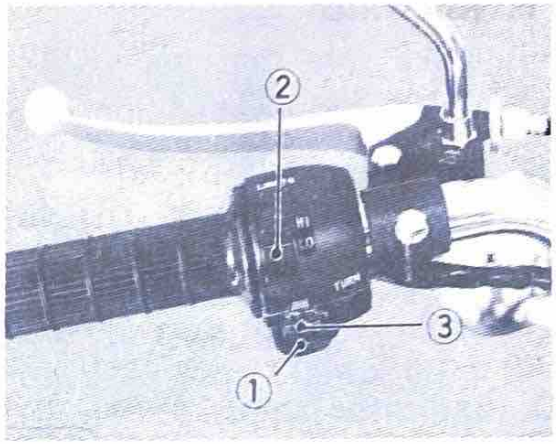
Fig. 10

B. Fuel petcock

To fill the carburetor float bowls, set the fuel petcock lever to the OPEN position. If you should run low of fuel on the road, turn the lever to RESERVE position. With just over a quart of fuel remaining you can drive nearly 15 mi. (25 kms.); enough to get you to the nearest service station for refueling. When parking or storing your machine, be sure that the lever is in the STOP position. (fig. 10)

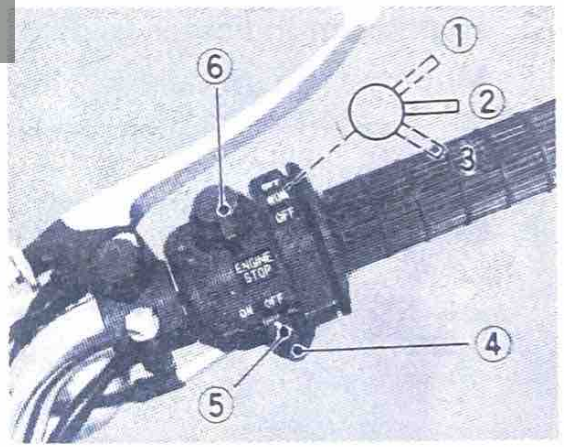
C. Handlebar switches

1. Horn button
   To sound the horn, depress the horn button. (fig. 11)
2. Dimmer switch
   To raise the headlight beam, pull the switch toward you. To lower the beam, push the switch forward. (fig. 11)
3. Flasher switch
   To signal a right turn, push the switch to the right. For left turns, pull switch left. (fig. 11)
4. Lighting switch
   To light the headlight, taillight and meter lamps push the headlight switch forward. (fig. 12)
5. Starter button
   To start the engine, push the starter button. (fig. 12)



1. Horn button 2. Dimmer switch
3. Flasher switch

Fig. 11



1. OFF
2. RUN
3. OFF
4. Starter button
5. Lighting switch
6. Kill switch

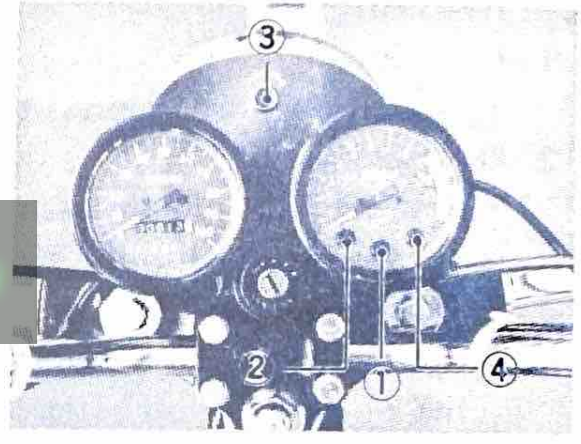
Fig. 12

6. Kill switch
   Make sure that the "Kill" switch is on "RUN". The "Kill" switch has been equipped to ensure safety in an emergency such as when the motorcycle is upset or when trouble takes place on the throttle system. (fig. 12)

Note:
The engine will not start when the "Kill" switch is turned to "OFF".

D. Indicator lamps

1. Flasher pilot lamp (orange)
   When flasher switch is on, the pilot lamp flashes.
2. Neutral lamp(green)
   Mounted within the tachometer shell, the neutral indicator glows whenever the transmission is in neutral.
3. High beam indicator (red)
   Mounted on middle of headlight shell, the high beam glows whenever the headlight high beam is in use.
4. Charge lamp (red)
   Charge lamp goes out when charging starts.



1. Flasher pilot lamp
2. Neutral lamp
3. High beam indicator lamp
4. Charge lamp

Fig. 13

E. Front brake (Right handlebar lever)

The right handle lever controls the operation of the front brake. The front brake is drum type and is adjustable at two points. Adjustment will be explained later.

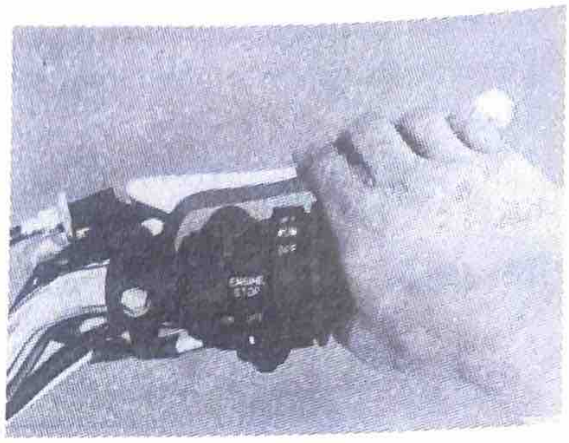


Fig. 14

F. Steering lock

Turn the handlebar to the left, insert the steering lock key and turn it 45° clockwise, then push the key on and turn it 45° counter-clockwise. Remove the key after checking to see that the front forks are securely locked. Be sure to lock your forks whenever you park.

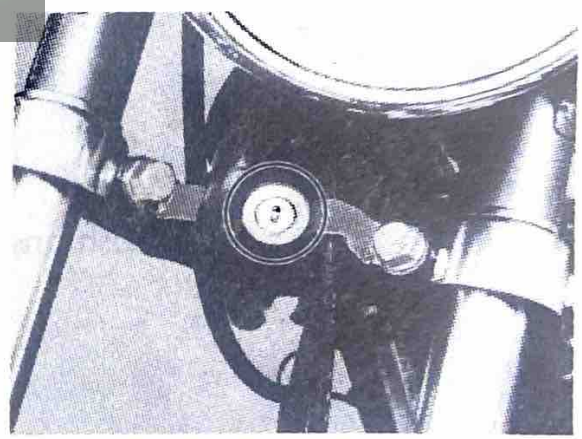


Fig. 15

G. Rear cushion adjustment

Place machine on mainstand, insert screwdriver as shown, turn it to change the spring rate.

The rear suspension should be adjusted to fit the load, speed and road conditions.

Soft (Standard) . . . . . A

↓ (5 positions)

Stiff . . . . . E

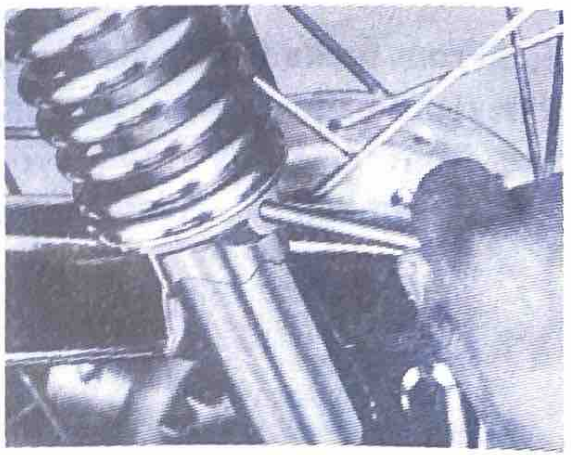


Fig. 16

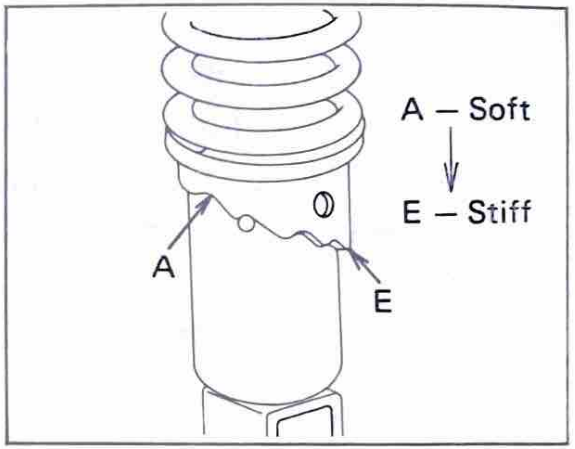


Fig. 17

Note:

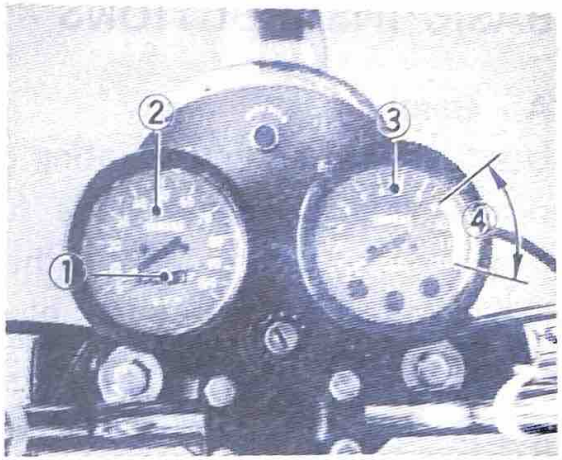
Adjust both right & left cushions to the same position.

H. How to read the tachometer

A tachometer is provided so that the rider can easily maintain engine r.p.m. sufficient to keep the engine within the power curve. For maximum performance accelerate in each gear to 7,500 r.p.m. or at most to 8,000 r.p.m. before shifting. The best range for city driving is 3,500 to 4,000 r.p.m. in lower gears. In this range the engine has ample power and yet is quite docile. Never lug your engine! (i.e. operate below 3,500 r.p.m.) It is recommended not to use red-zone 9,000 ~ 12,000 r.p.m.

Note:

See "Breake-in" section for additional information.



1. Odometer
2. Speedometer
3. Tachometer
4. Red zone

Fig. 18

BASIC INSTRUCTIONS

A. Gasoline

Use fuel with an octane rating of 90+. Some regular fuels have 90+ octane ratings. Ethyl grade fuels usually have octane ratings in excess of 100. In addition, they have considerable tetra-ethyl lead added which can cause spark plug problems. (Tank cap.: 11.5 lits.)
Whenever possible, use fresh, name brand, gasoline.

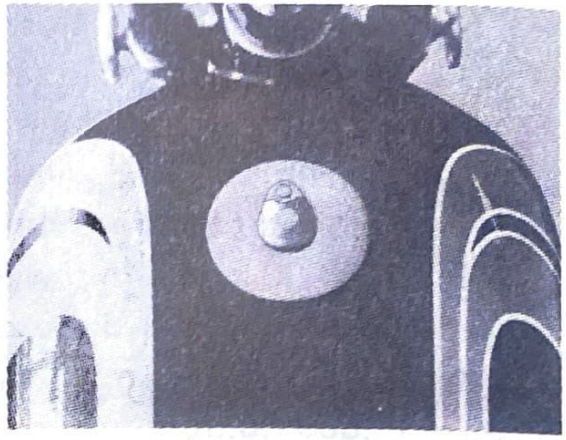


Fig. 19

B. Engine Oil

We recommend that your first choice be YAMALUBE 2-cycle which can be purchased from any Yamaha dealer. If for any reason you use another type of oil, choose from the following list, which is in decending order of preference. (Capacity: 2.0 lits.)

1. Another brand of 30 wt. two-stroke oil labeled "BIA certified for service TC-W".
2. A 30 wt. two-stroke oil designed for air cooled engines.
3. A 30 wt., quality, detergent type automotive oil.

Note:

Use item 3. only in emergencies when two-stroke oils are not available.
Under extremely cold conditions (+32°F and below), some oils become exceedingly thick and do not flow readily.
Consult your dealer regarding the oil you are using and the conditions under which you are riding.

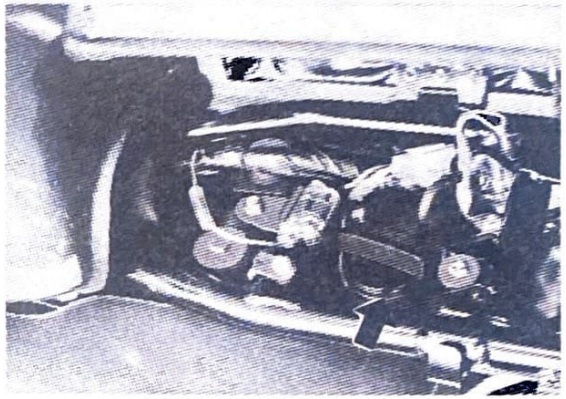


Fig. 20

C. Pre-operation check

Page	Item	Remarks
29	Brakes	Check operation/Adjustment
27	Clutch	Check operation/Lever adjustment
14 ~ 16	Autolube	Check oil lever/ Top-off as required
47	Engine oil	Check top-off as required
37	Drive chain	Check alignment/Adjustment/Lubrication
39	Battery	Check electrolyte level weekly/Top off monthly
46	Spark plug	After break-in — Check color and condition weekly
42	Autolube pump	Check for proper cable operation
44	Air filter	Foam type — Must be clean and damp with oil always
30 ~ 34, 36	Wheels & tires	Check pressure/Runout/Spoke tightness/Axle nuts
56	Fittings/Fasteners	Check all — Tighten as necessary
8	Lights/Signals	Check headlight/Tail- stoplights/Turn signals, etc.

Pre-operation checks should be made each time the machine is used. Such an inspection can be thoroughly accomplished in a very short time; and the added safety it assures is more than worth the time involved.

OPERATION

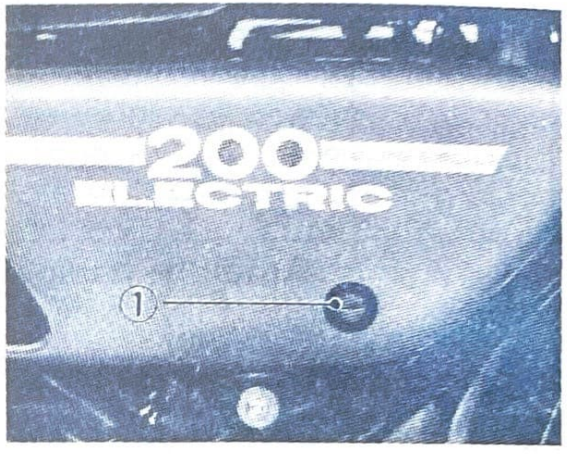
A. Before starting

Before you start for a ride you should check several points for safety. In particular:

- ☐ Do you have enough fuel?
- ☐ Do you have enough oil?
- ☐ If the oil lever shows in the glass port, add oil. Make sure that the oil is sufficient for your driving plan. (Refer to "Basic Instructions" for type of oil)

	Front tire	Rear tire
Normal riding	23 lbs/in.^{2} (1.6 kgs/cm.^{2})	28 lbs/in.^{2} (2.0 kgs/cm.^{2})
Continuous high speed riding	28 lbs/in.^{2} (2.0 kgs/cm.^{2})	34 lbs/in.^{2} (2.4 kgs/cm.^{2})

- ☐ Are your tire pressures correct?
  Incorrect tire pressures can cause an uncomfortable ride, excessive tire wear and poor handlihg. Tire pressure must be checked each time the machine is used.
- ☐ Do both brakes and the stoplight work?
- ☐ Are the lights and horn working?
  Check the headlight, taillight, meterlamps, and indicating lamps. The few minutes you save by not checking are not worth being stranded without lights!



1. Refill if level shows

Fig. 21

B. Starting

- ☐ Turn the fuel pet cock lever to the "OPEN" position.
- ☐ Insert the ignition key and turn it to the No. 1 position.

The use of a primary kick starting system enables you to start the engine either in gear or in neutral. (If in gear, pull in the clutch lever)

1. Starting in cold weather

   Most engine are difficult to start in cold or freezing weather. Yamaha Motorcycles, however, use a carburetor with a built-in starter jet that gives a richer mixture for easier cold weather starting.

   a) Pull the starter knob.

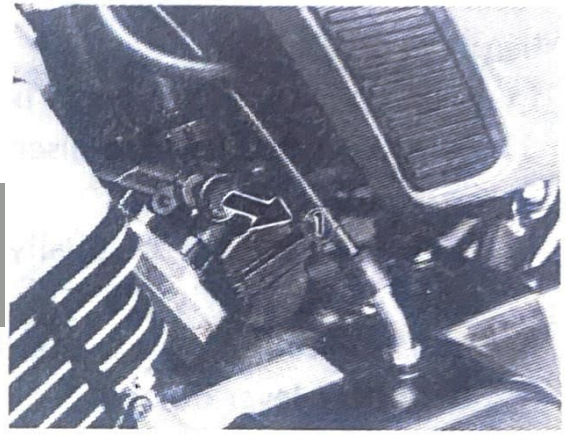
   b) Start the engine with the kick starter or electric starter, keeping the throttle closed.

2. Starting when your engine is warm

   When your engine is warm after riding or in warm weather, don't use the starter lever. Open the throttle slightly (1/4 turn or less) and kick the starter or use the electric starter.

3. Warming up

   To get maximum engine life, always "warm up" the engine for a few minutes before starting off. Never accelerate hard with a cold engine! To see whether or not the engine is warm, see if it responds to throttle normally. Don't forget to push the starter lever in after the engine is warm.



1. Pull

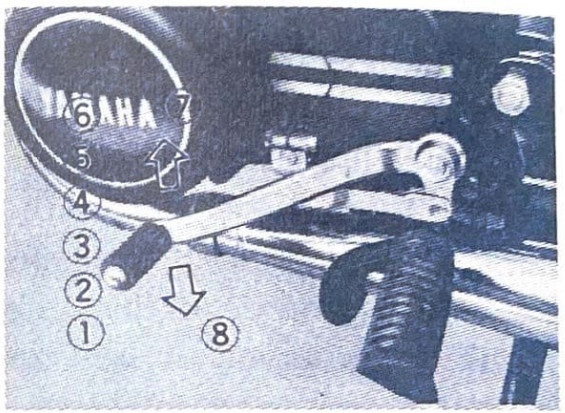
Fig. 22

C. Shifting and acceleration

Your RD200B has a 5-speed transmission. The transmission allows you to control the amount of power you have available at a given speed or starting, accelerating, climbing hills, etc.
The use of the change pedal is illustrated at the right.

To shift into NEUTRAL, depress the change pedal to the end of its travel (you will feel a stop when you are in low gear), then raise it slightly.
If you are in neutral, the green light in the tachometer will be on.

1. Pull the clutch lever to disengage the clutch.
2. Shift into FIRST gear.
3. Open the throttle gradually, and, at the same time, release the clutch lever slowly.
4. At 10 to 15 mph, close the throttle, and at the same time pull in the clutch lever quickly.
5. Shift into SECOND. Be careful not to shift into neutral.
6. Open the throttle part way and gradually release the clutch lever.
7. To accelerate or decelerate, use the same procedure to shift into THIRD, FOURTH, and FIFTH gears.
8. Except for competition or high speed driving, shift so that the engine speed remains between 4,000 ~ 5,000 r.p.m. This is the optimum operating range for the engine.



1. FIRST
2. NEUTRAL
3. SECOND
4. THIRD
5. FOURTH
6. FIFTH
7. Upshifting
8. Downshifting

Fig. 23

■ **Going uphill**

When starting to climb a gentle grade, open the throttle little by little to avoid losing engine speed and power. When climbing a steep grade, shift down (for example) for THIRD to SECOND or from SECOND to FIRST as required.

■ **Going downhill**

On a long down grade or sharp descent, don't rely on the brakes alone, but use the engine compression as a brake: shift into THIRD or SECOND as required by the grade and close the throttle.

Note:

Never attempt to turn off the ignition switch on a long hill. This may only cause the spark plug to foul, in addition to being unsafe.

D. Stopping

There are several ways to stop.

Pulling in the clutch lever and twisting the throttle grip in the closed direction will permit you to gradually glide to a stop. Downshifting through the gears, using the drag of the engine to slow down is another. However, the best method, and the one most universally used, is to use both engine compression (downshifting through the gears as the machine slows) and the front and rear brakes.

When stopping, gradually apply the rear brake while twisting the throttle grip in the closed direction. After the rear brake starts to take hold, gradually apply the front brake.

As the machine continues to slow shift down through the gears using engine compression to aid the slowing effect. When shifting down, watch the tachometer to see that the engine does not over-rev.

Note:

During periods of inclement weather, snow, rain, sleet, or ice, or on poor road surfaces where traction is minimal, or in a sharp corner, it is not advisable to firmly apply the front brake. While it is true that the front brake supplies the greater portion of braking power, it is also true that stability can be upset very easily if it is used incautiously under the above conditions.

E. Cruising

A frequently asked question is "What r.p.m. shoule I cruise at?"

The break-in section provides limitations when the motorcycle is new, but once the engine has been broken in, then we suggest that you follow these guide lines. For sustained load and throttle conditions, such as those encountered on open highways, cruise at 3/4 throttle or at 3/4 of the r.p.m. "red line", whichever comes first. Always bear in mind though, the maximum allowable speed limit for the area through which you are riding. This is a recommendation, not a "hard and fast" rule. Any modification or personalization of the running gear could possibly change the operating range most comfortable and most efficient for the engine.

F. Break-in

There is never a more important period, in the life of your Yamaha than the period between zero and five hundred miles.

For this reason we ask that you carefully read the following material.

Because the engine is brand new, you must not put an excessive load on it during the first several hours of running. You could look at it in this manner: During the first 500 mi. the various parts in the engine wear and polish themselves to the correct operating clearances. During this period prolonged full throttle operation, or any condition which might result in excessive heat must be avoided However, momentary full throttle operation, under load, (2 ~ 3 seconds maximum) does not harm the engine. Each full throttle acceleration sequence should be followed with a substantial rest period for the engine by cruising at lower r.p.m.'s so the engine can rid itself of the temporary build up of heat.

The method for breaking in your Yamaha is quite simple. (See following page.)

Note:

Please read your Owner's Warranty Guidebook thoroughly. It explains your obligation during the break-in period.

1. 0 to 100 mi.
   Avoid operation above 4,000 r.p.m.
   Allow a cooling off period of 5 to 10 minutes after every hour of operation.
   Vary the speed of the motorcycle from time to time. Do not operate it at one, set, throttle position.
2. 100 to 250 mi.
   Avoid prolonged operation above 5,000 r.p.m.
   Allow the motorcycle to rev freely through the gears but do not use full throttle at any time.
3. 250 to 500 mi.
   Avoid prolonged full throttle operation.
   Avoid cruising speeds in excess of 6,000 r.p.m.
4. 500 mi. and beyond
   Avoid prolonged full throttle operation.
   Avoid engine speeds in excess of 7,000 r.p.m. Vary speeds occasionally.

Note:
Please refer to your Owner's Warranty Guidebook and the maintenance and lubrication charts for information regarding Initial Service Checks.

SERVICE TOOLS

The servicing information included in this manual is intended to provide you, the owner, with the necessary information to provide a means of doing your own preventive maintenance and minor repairs. The tools provided in the owner's tool kit are sufficient for this purpose, except that a torque wrench is also necessary to properly tighten nuts and bolts. (See torque chart, P.56)

Should you desire additional service information on your RD200B a copy of Service Manual can be purchased from any Authorized Yamaha Dealer or direct from the Literature Department, Yamaha International Corp., P.O. Box 6600, Buena Park, Calif. (90620).

(Canadian Distributor: Yamaha Motor Canada Ltd., 1350 Verdun Place Richmond, B.C., Canada)

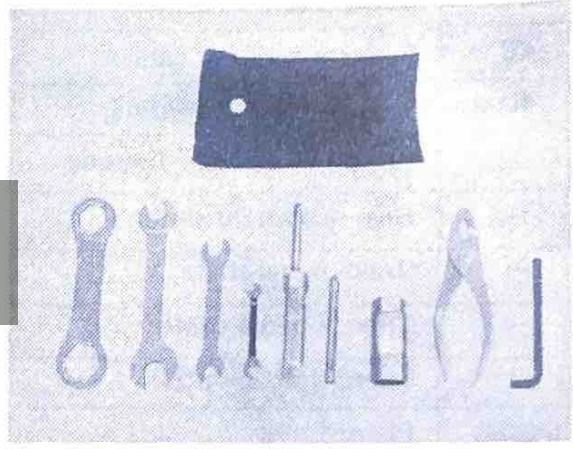


Fig. 24

LUBRICATION AND MAINTENANCE INTERVALS

These charts should be considered strictly as a guide to general lubrication and maintenance periods. You must take into consideration that weather, terrain, georgraphical locations, and a variety of individual uses all tend to demand that each owner alter this time schedule to match his environment. For example, if the motorcycle is continually operated in an area of high humidity, then all parts must be lubricated much more frequently than shown on the chart to avoid the ravages of water on metal parts. If you are in doubt as to how closely you can follow these time recommendations, check with the Yamaha Dealer in your area.

A. Lubrication intervals

Page	Item	Remarks	Type	Period						
				Initial (mi.)				Thereafter every (mi.)		
				250	500	1000	2000	1000	2000	4000
47	Transmission oil change	Warm engine before draining	# 1	CHK	○	○		CHK	○	
37	Drive chain	Lube/adjust as required	# 2			See notes				
37	Drive chain	Remove/clean/lube/adjust	# 2				○		○	
40	Control & meter cables	All-apply thoroughly	# 3			○	○		○	
40	Throttle grip & housing	Light application	# 4				○		○	
Dealer	Speedometer gear housing	Light application	# 4				○			○
—	Rear arm pivot shaft	Apply until shows	# 5			○			○	
—	Brake pedal shaft	Light application	# 4			○			○	
—	Change pedal shaft	Light application	# 4			○			○	
—	Stand shaft pivot(s)	Light application	# 4			○			○	
Dealer	Front forks	Drain com./chk. spec.	# 8		CHK		○			○
Dealer	Steering ball races	Inspect thoroughly/med. pack	# 6				○		CHK	○
Dealer	Point cam lubrication wick	Very light application	# 7			○				○
Dealer	Wheel bearings	Do not over-pack	# 6				○			○

See service notes on following page:

Be sure to check the above points before long-distance touring.

Service Notes – LUBRICATION

#1. Use YAMALUBE 4-cycle oil, or SAE 10W-30 type "SE" motor oil.

#2. Use SAE 10W-30 type "SE" motor oil. (If desired, specialty type lubricants of quality manufacture may be used.)

Note:

Drive chain must be lubricated every 200 ~ 250 mi. If unit is subjected to extremely hard usage, chain must be inspected constantly and serviced as required.

#3. Use SAE 10W-30 type "SE" motor oil (If desired, or at ambient temperatures below 30°F., a graphite base "dry" lubricant of quality manufacture may be used.)

#4 Light duty: Lithium soap base (white) grease. Heavy duty: Standard 90 wt. lube grease (Do not use 90 wt. lube grease on throttle/throttle housing.)

#5. Use standard 90 wt. lube grease – smooth, not coarse.

#6. Medium-weight wheel bearing grease of quality manufacture – preferably waterproof.

#7. Light-weight machine oil.

#8. Use YAMALUBE fork oil.

B. Maintenance intervals

Page	Item	Remarks	Period					
			Initial (mi.)				Thereafter every (mi.)	
			250	500	1000	2000	1000	2000
29,34,35	Brake system (complete)	Check/adj. as required-repair as required		○	○		○	
27, 28	Clutch	Check/adjust as required		○	○		○	
39	Battery	Top-off/chk. spec. gravity monthly, or	○		○		○	
46	Spark plug(s)	Inspect/clean or replace as required	○	○	○		○	
30~34,36	Wheels & tires	Pressure/spoke-tension/runout	○	○	○		○	
56	Fittings & fasteners	Tighten before each trip and/or	○	○	○		○	
37	Drive chain	Tension/alignment #1	○	○	○		○	
47	Engine oil level check	Unit level/engine warm	○	○	○		○	
44	Air filter	Dry type - clean/replace as required #2			○	○		○
43	Fuel petcock	Clean/flush tank as required	○		○		○	
45	Ignition timing	Adjust/clean or replace pts. as required		○	○	○		○
40, 41	Carburetor adjustment	Check operation/synchronization/fittings		○	○	○		○
40	Carburetor overhaul	Clean/repair as required/refit/adjust						4000
Dealer	Cylinder compression	Preventive maintenance check		○	○	○		○
Dealer	Decarbonize engine	Includes exhaust system			○	○		○

Service Notes:

#1. DRIVE CHAIN: In addition to tension and alignment, chain must be lubricated every 200 ~ 250 miles. If unit is subjected to extremely hard usage, such as racing or dirt riding, chain must be checked constantly. See "Lubrication Intervals" for additional details.

#2. AIR FILTER: Must be clean at all times to function properly. Remove and clean filter at least once per month or every 2,000 miles; more often if possible.

Note: If unit is subjected to extremely hard usage, such as dirt riding, etc., clean filter daily.

SERVICING

A. Clutch cable

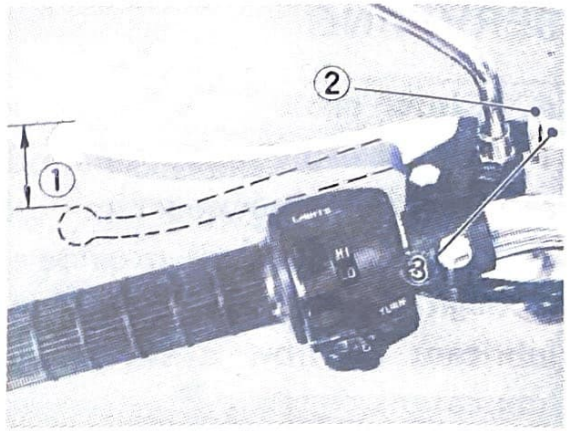
The clutch cable requires periodic lubrication to prevent the cable strands from rusting or hanging up in the casing. First, disconnect the cable from the clutch lever by screwing the adjuster all the way back to the cable casing. This will provide enough free play in the cable for you to slip the cable out of the lever holder through the slot in the lock nut, adjuster and holder. Hold the cable upright and allow several drops of lubricant to flow down the cable. Hold the cable upright for several minutes to permit complete lubrication.

If the cable needs to be replaced, then perform the steps above and disconnect the cable at the lever. Next, disconnect the cable at the engine. Begin by taking off the cover that houses the clutch activating mechanism (left side of the engine). Looking at the inside of this cover, you will see the clutch actuating arm. Push the arm up and lift the cable end off. Removing the old cable and hooking up the new one will take but a few moments.

B. Clutch adjustment

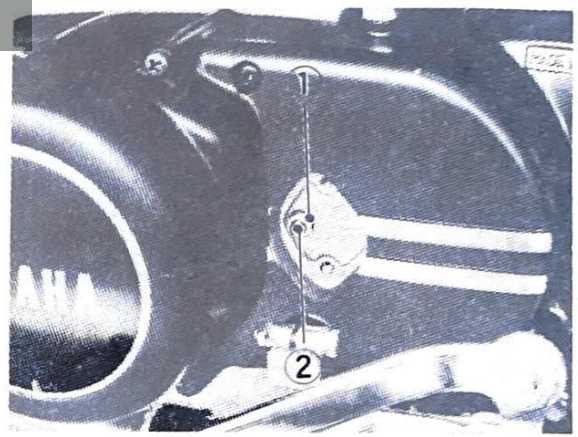
The RD200B has two clutch adjustments. The first adjustment, located at the handlebar lever, is used to take up slack from cable stretch and to provide sufficient free play so that the clutch enages and disengages completely. The picture, right, illustrates the parts involved in making the adjustment.

1. First, loosen the lock nut. Then turn the adjuster either in or out depending on which direction is necessary to arrive at 0.8 in. ~ 1.1 in. (20 ~ 30 mm.) free play.
2. The second adjustment is located behind the adjusting cover, on left crankcase cover. Removing the cover will expose the adjusting set screw and lock nut.
   Loosen the lock nut, rotate the set screw in until it lightly seats against a clutch push rod that works with the set screw to operate the clutch. Back the set screw out 1/4 turn and tighten the lock nut. This adjustment must be checked because heat and clutch wear will affect free play, possibly enough to cause incomplete clutch operation.



1. 0.8 ~ 1.1 ins. (20 ~ 30 mm.)
2. Lock nut
3. Adjusting bolt

Fig. 25



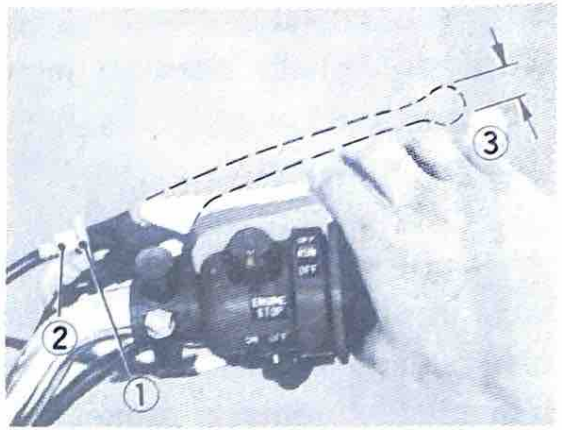
1. Lock nut
2. Adjusting screw

Fig. 26

C. Front brake adjustment

As with the clutch, there are also two adjustments to check. These two adjustments are located at the brake lever and the front hub. In this situation though, only one brake adjustment is necessary, using either of these two places to make the adjustment.

Preferably, it is much easier to make it at the brake lever. This is done by loosening the lock nut, and screwing the adjuster in or out until you have 0.8 ~ 1.1 ins. (20 ~ 30 mm.) free play.



1. Lock nut 2. Adjusting bolt
3. 0.8 ~ 1.1 ins. (20 ~ 30 mm.)

Fig. 27

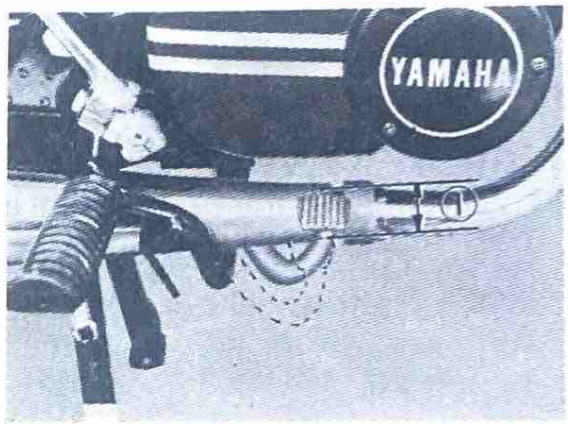
D. Rear brake adjustment

The correct free play of the rear brake pedal is about 1.0 in. (25 mm.). Adjust by turning the adjusting nut at the end of the rear brake rod a half-turn at a time. After adjusting the brake, make sure the stoplight is working. If not, readjust the stoplight switch.

Note:

Inspect the brake linings for wear and clean the brake shoes and drums every 2,000 mi. (3,000 kms.). Always keep the shoes and drums free of oil.

Rear brake adjustment should be performed any time the wheel is moved or removed.



1. 1 in. (25 mm.)

Fig. 28

E. Front wheel

Work that might need to be done on the front wheel assembly includes tire or tube exchange, brake shoe replacement, hub/spokes/rim assembly replacement, and brake assembly maintenance and inspection. The following are the steps necessary to dismantle the front wheel, step by step, and you should proceed with the steps until you have removed the part to be replaced. You, as the owner, can replace everything but the hub, the spokes, or the rim. To individually replace spokes or rim requires that the spokes be "relaced". This should be done by a competent dealer as the spokes must be positioned and torqued correctly. If not done properly, wheel alignment will not be correct and steering will be negatively affected.

F. Front wheel removal

To carry out front wheel repair:

1. Disconnect the brake cable at the front brake lever.
2. Disconnect both the brake cable and speedometer cable from the front wheel hub plate.

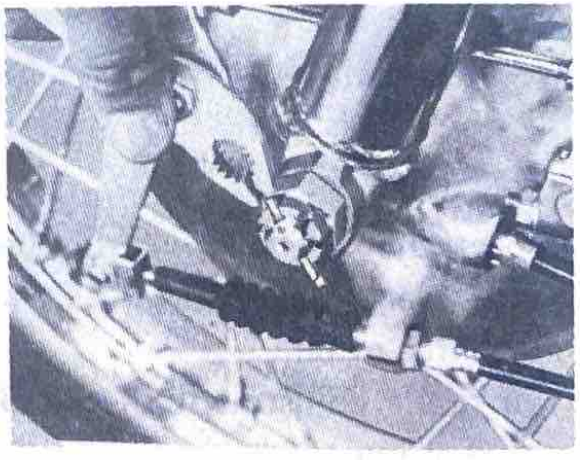


Fig. 29

3. Remove the cotter pin and front wheel nut.

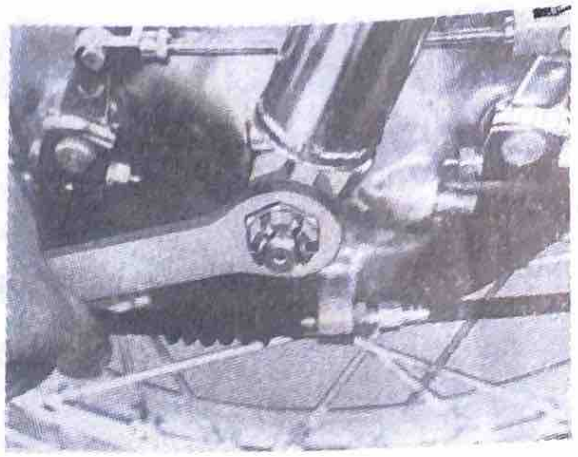


Fig. 30

4. Loosen the front wheel axle pinch nut.
5. Remove the front axle by simultaneously twisting and pulling out on the axle.
6. Brace the front of the machine off the ground and remove the wheel assembly.
7. During reassembly, make sure the speedometer torque tab is correctly positioned, the axle nut is torqued, the pinch bolts are torqued, and a new safety cotter pin is installed-in that order.

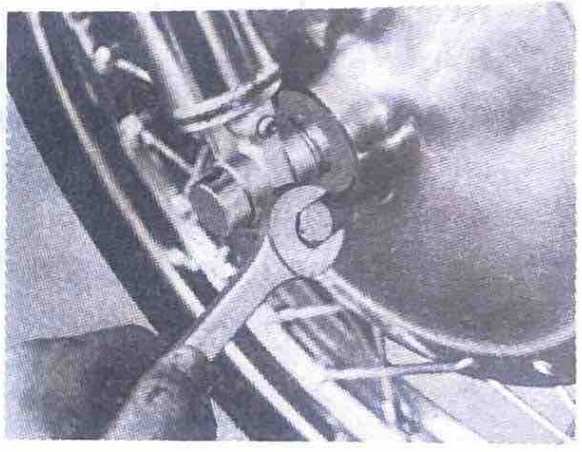


Fig. 31

G. Rear wheel

A complete list of rear wheel parts that you can remove, certain precautions and limitations that must be adhered to, checking for wheel run-out, and checking for spoke tightness can all be found in the FRONT WHEEL section. In order for you to carry out those steps that are possible, a list of procedures is given below.

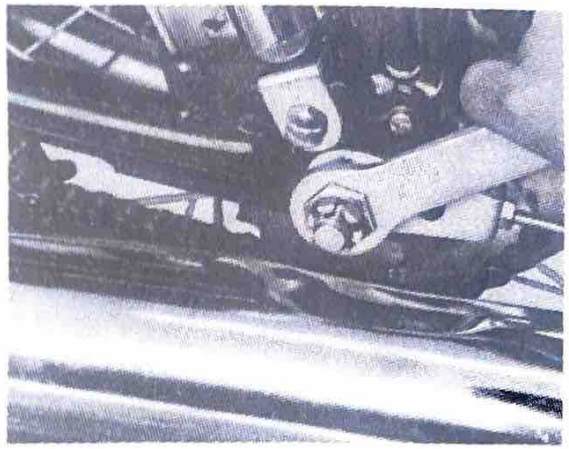


Fig. 32

H. Rear wheel removal

1. Remove the tension bar and the brake rod from the rear shoe plate. Note the presence and location of the lock washer and cotter pin. These are safety parts and must be included during reassembly.
2. Loosen the lock nuts and the chain tension adjusting bolts on both right and left sides.

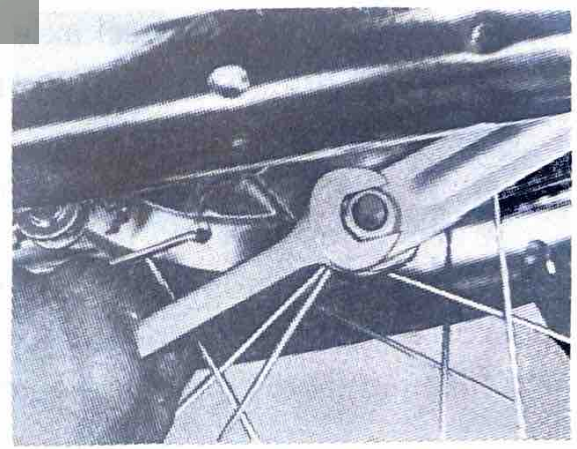


Fig. 33

3. Remove the cotter pin and rear wheel shaft nut.
4. Remove the right hand chain adjuster and distance collar.
5. Remove the chain adjusters and distance collar and pull back the wheel assembly.
6. The brake plate can now be easily slipped out of the rear wheel hub. The brake plate carries both brake shoes. They can be left in place on the brake plate for measurement, as shown below, or they can be lifted off for replacement or maintenance. The two brake shoes are held in place by two springs.
   These springs hold the two shoes to the brake actuating cams. Removal of these springs, or spreading them, will allow the shoes to be lifted off. Whenever you have the brake plate off wheel assembly, it is very good policy to apply a small amount of grease to the brake actuating cams.
   Shown in the following page are two steps that must be perfromed periodicaly to, maintain maximum stopping efficiency. The brake linings and brake drum must be in correct wrong condition, and these steps so much guarantee perfect working order.

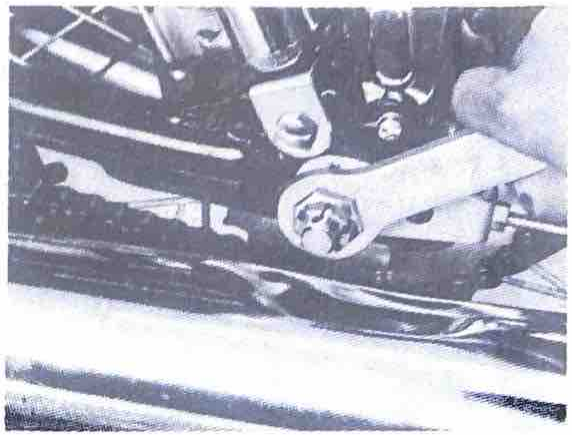


Fig. 34

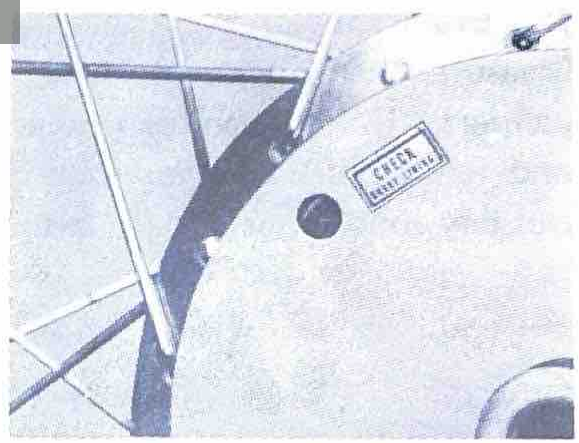


Fig. 35

This machine have a brake lining wear checking hole on the rear brake plate. You can measure with your eyes the thickness of brake lining with the checking hole at the shoe plate for both brakes. If it is less than 0.08 in. (2 mm.), have your dealer check for you.

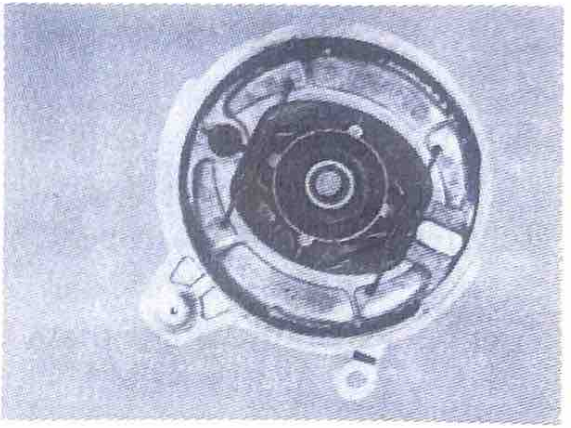


Fig. 36

I. Brake shoe

Measure the outside diameter of the brake shoe set with slide calipers. If front brake shoe measures less than 6.9 ins. (175 mm.) and rear brake shoe less than 5.7 ins. (145 mm.), replace. Smooth out any rough shoe surface with sandpaper.

J. Brake drum, rims, spokes (front and rear wheels)

Oil or scratches on the inner surface of the brake drum will impair braking performance or result in abnormal noises. Remove oil by wiping with a rag soaked in lacquer thinner or solvent. Remove scratches by lightly and evenly rubbing with emery cloth.

There are also checks that you can perform to determine if wheel work is necessary for your dealer to do. First, check for any loose spokes. This can be checked by bracing the wheel off the ground so that the wheel can spin free. Slowly revolve the wheel and at the same time let the metal shaft of a fairly heavy screwdriver bounce off each spoke. If all the spokes are tightened approximately the same, then the sound given off by the screwdriver hitting the spokes should sound the same. If one spoke makes a dull flat sound, then check it for looseness.

While you have the wheel up in the air, you should check that it does not have too much run-out. "Run-out" is the amount the wheel deviates from a straight line as it spins.

Spin the wheel and solidly anchor some sort of pointer about 1/8 in. away from the side of the rim.

As the wheel spins, the distance between the pointer and the rim should not change more than 1/16 in. total.

Any greater fluctuation means that you should have your dealer remove this rim warpage by properly adjusting the spokes.

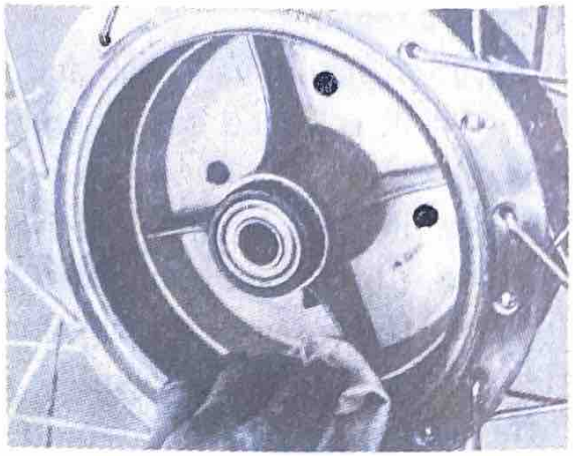


Fig. 37

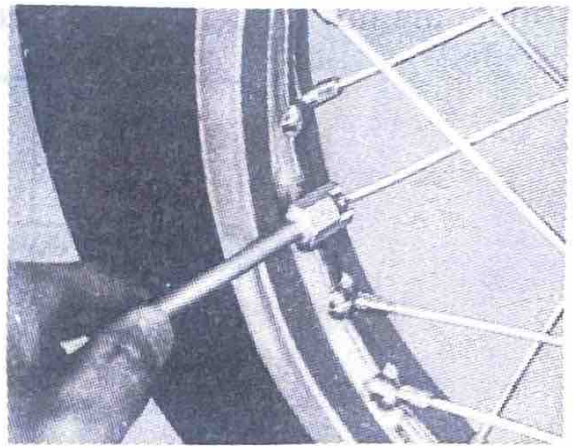


Fig. 38

K. Tire repair

First, remove the valve cap and valve stem lock nut. Empty all the air out of the tire. Use two tire removal irons (with rounded edges) and begin to work the tire bead over the edge of the rim, starting 180° opposite the tube stem. Take care to avoid pinching the tube as you do this. After you have worked one side of the tire completely off the rim, then you can slip the tube out. Be very careful not to damage the stem while pushing it back out to the rim hole. If you are changing the tire itself, then finish the removal by working the tire off the same rim edge just previously mentioned.

Reinstalling the tire assembly can be accomplished by reversing the disassembly procedure. The only difference in procedure would be right after the tube has been installed, but before the tire has been completely slipped onto the rim, inflate the tube. This removes any creases that might exist. Release the air and continue with reassembly. Also, right after the tire has been completely slipped onto the rim, check to make sure that the stem is squarely in the center of the hole in the rim.

Inflate the tire to specified pressure.

Front Rear	23 lbs/in.^{2} (1.6 kgs/cm.^{2}) 28 lbs/in.^{2} (2.0 kgs/cm.^{2})	Normal riding
Front Rear	28 lbs/in.^{2} (2.0 kgs/cm.^{2}) 34 lbs/in.^{2} (2.4 kgs/cm.^{2})	High speed riding

L. Drive chain

Because the chain consists of an extraordinary amount of parts that rub against one another, it is prone to wear if it is not maintained constantly and correctly. Without any lubrication, a chain can wear out within 100 mi. You should develop a habit of servicing the chain on a regular schedule. This habit is especially important if you spend the major portion of your time riding in the dirt where dust and dirt can readily work into the chain links.

1. Lubrication
   There are several excellent pressure can lubricants available. Use a brush and a rag to wipe off any accumulation of dirt, then spray a liberal amount of lubricant on the chain at least every 200 mi.
2. Cleaning
   Completely saturate the chain with solvent to remove as much dirt as possible. Drain and dry the chain thoroughly. Immediately after the chain has dried completely, lubricate to prevent any rust from forming.
3. Adjustment
   Proper drive chain up and down free play, with the rider in position, should equal 3/4 in. (20 mm.) when measured at the center of the lower section of chain.
   Follow these steps to obtain the correct free play:

Note:

During machine cleaning, do not remove chain lubricant. See "Cleaning" section for additional details.

Drive chain adjustment

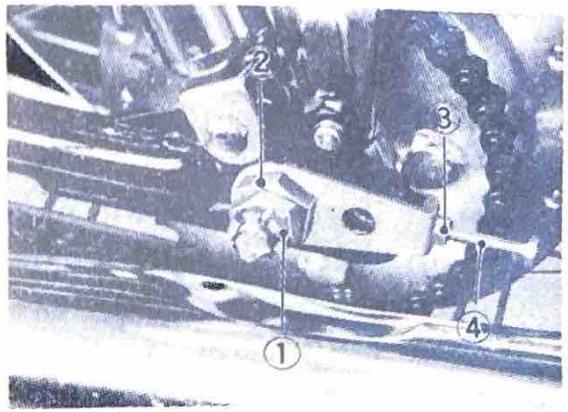
a) Remove the cotter pin and loosen the wheel nut (1) and sprocket wheel nut (2).

b) Loosen the chain adjusting bolt lock nuts (3).

c) Rotate the adjusting bolts in or out, whichever is needed to obtain the correct free play, and at the same time make sure that both ends of the axle are positioned evenly. This can be checked by utilizing the marks on the very end of the swing arms, just above and to the rear of the rear wheel shaft nuts.

d) After completing the adjustment, retighten all the lock nuts.

e) Finally, be sure to install a new cotter pin and check for correct brake pedal operation as it could have changed due to the chain adjustment. Also, check stoplight operation.



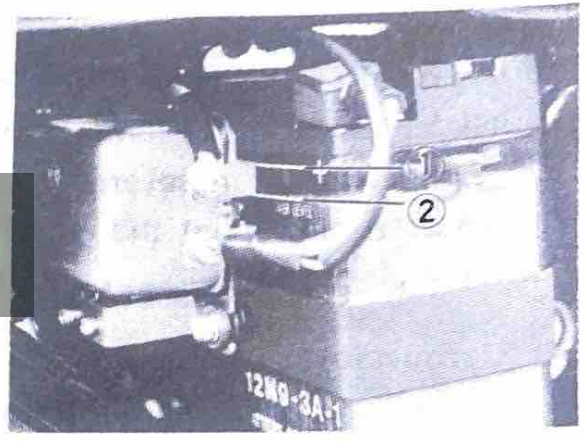
1. Wheel shaft nut
2. Sprocket wheel nut
3. Lock nut
4. Adjusting bolt

Fig. 39

M. Battery

The life of your battery depends greatly on how well you keep it serviced. In order to service it completely and correctly, there are certain facts that you must know.

1. Always keep the battery fluid level between the "Maximum" and the "Minimum" level. It should be checked at least once a month, and more often during hot weather. If the battery needs filling, use distilled water. Do not use tap water as it usually contains minerals that can be harmful to the life of the battery.
2. If for any reason the battery has become discharged, and you are going to charge it yourself, use a "trickle charger" that has no more than a one amp maximum. Also, make sure that all the battery caps have been taken off and that the rubber battery breather tube is not clogged or pinched shut.
   A charging battery creates gas, and pressure could build up in the battery if all the outlets were plugged up. Charge battery in a well ventilated area away from open flame.
3. If the motorcycle is to be stored for more than a month, then remove the battery, have it fully charged, and store it in a cool dry storage area. If storage time is going to be lengthy, it is best to leave the battery with your dealer with specific instructions to recharge the battery every month or so.



1. Maximum level
2. Minimum level

Fig. 40

This procedure is necessary to insure maximum battery life. When reinstalling the battery, be sure to hook up the red lead to the positive terminal and the black lead to the negative terminal (the polarity of each is stamped just below each terminal).

N. Throttle cable and grip lubrication

The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. Two screws clamp the throttle grip to the handlebar. Once these two are removed, the end of the cable can be held high to pour in several drops of lubricant. With the throttle grip disassembled, coat the metal surfaces of the grip assembly with a suitable all-purpose grease to cut down friction.

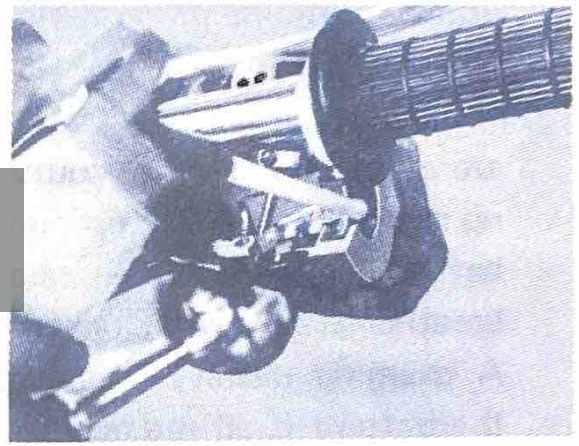


Fig. 41

O. Carburetor

There are only three adjustments on the carburetor that do not require the services of a mechanic: the idle mixture, engine idle speed, and throttle cable slack. Because the carburetor is such a critical part of the engine, any carburetor disassembly should be done by an experienced mechanic.

1. Idle mixture

   To set the idle mixture you must turn the idle pilot screw (#1) in until it is lightly seated, then back it out 1-1/4 turns – no more or no less. This is a factory setting that can be set with the engine stopped.

2. Idle speed

   Start the engine and let it warm up. Next, screw the throttle stop screw (#2) in or out, whichever direction is necessary for the engine to idle between 1,150 and 1,250 r.p.m. (check tachometer).

3. Throttle cable slack

   After engine idle speed has been set, then loosen the cable adjustor lock nut and turn the adjustor on top of the carburetor until there is 0.04 in. (1 mm.) of slack in throttle cable "B". Retighten the lock nut.

   Make the second throttle cable slack adjustment right at the throttle grip. There is a lock nut and adjustor where cable "A" meets cable guide "A".

   Loosen the lock nut and turn the adjustor until there is 0.02 ~ 0.04 in. (0.5 ~ 1.0 mm.) slack in throttle cable "A". Retighten the lock nut.

Note:

· To measure the amount of cable slack, slide the cable back and forth over the throttle wire and see how much end gap exists between the cable end and top of the carburetor (or cable guide "A", if checking throttle cable "A" slack).

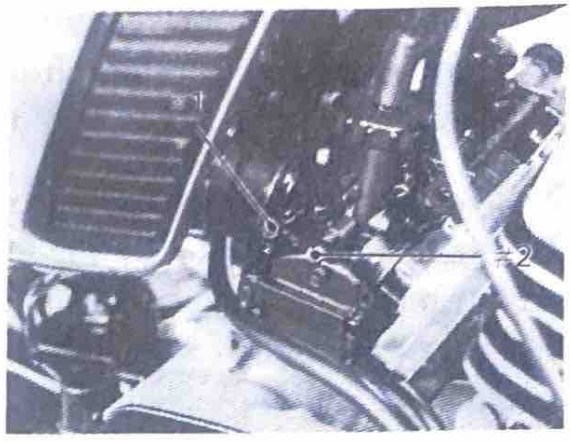


Fig. 42

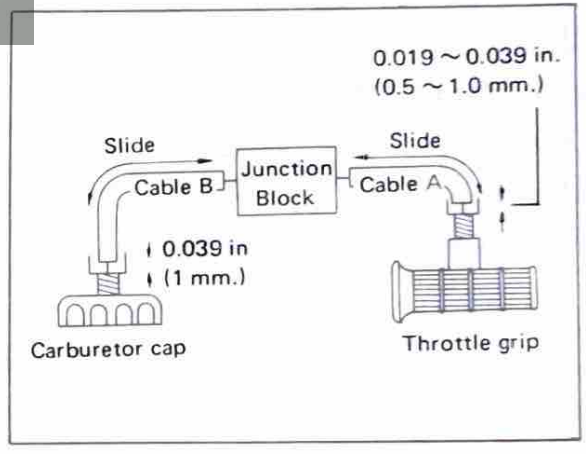


Fig. 43

P. Throttle cable replacement

Replacement of this cable should be left to your dealer as it is complicated, and carburetor and Autolube adjustments are affected.

Q. Autolube pump cable adjustment

Close the throttle grip completely, then twist it open until all cable slack is removed, but stop before the carburetor slides start to lift.
Turn the pump cable adjuster so the mark on the pump pulley lines up with the adjust pulley guide pin.
The Autolube cable adjustor is located at the bottom end of the cable, screwed into the top of the right case cover.

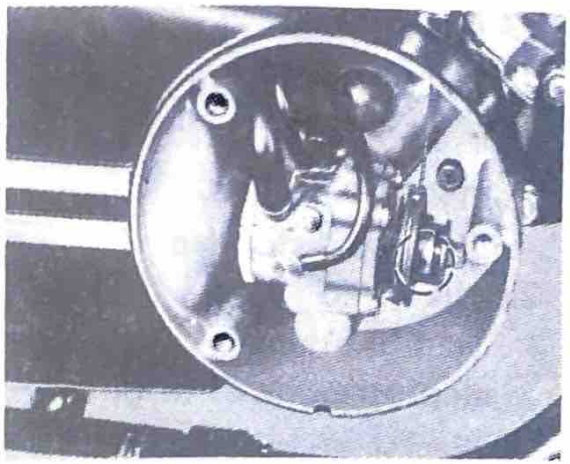
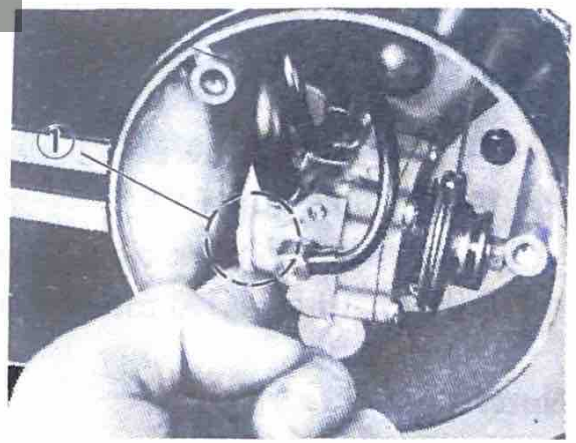


Fig. 44

Important Note:

If the pump runs out of oil, the pump must be bled to release air trapped in the pump. Remove the Phillips head bleed screw, twist the throttle to full open position (turns the Autolube pump to maximum stroke), and rotate the plastic manual starter pump plate until only oil comes out the bleed hole (air stops coming out with the oil).
Reinstall and tighten the bleed screw.



1. Starter plate

Fig. 45

R. Fuel petcock

The petcock serves another purpose other than acting as a fuel on and off valve. A wire mesh filter is incorporated into the assembly. This filter must be removed occasionally and cleaned. Screw off the threaded cup at the bottom of the petcock and remove the filter.
The filter might momentarily hang up in the petcock itself, if it does not drop down with the unscrewed cup.
When reinstalling the cup, do not overtighten as the rubber sealing washer inside could buckle and jam up into the fuel passage of the petcock.

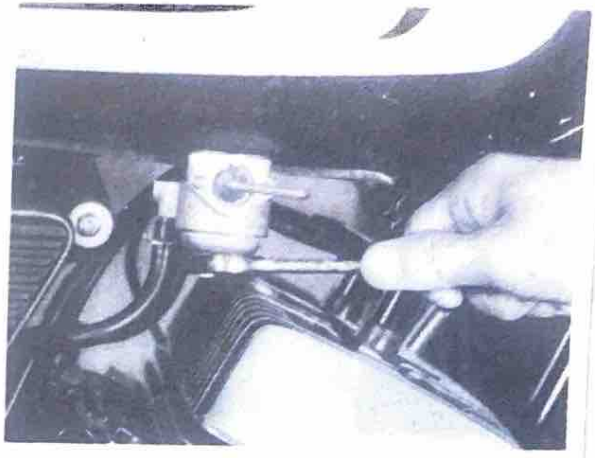


Fig. 46

S. Air filter

An air cleaner excludes dust and dirt from the engine. It must be clean at all times. If you drive often on dirt roads, be sure to clean it at least once a month, more often if possible.

1. Remove the side cover (R) and oil tank, then remove the cleaner case cover.

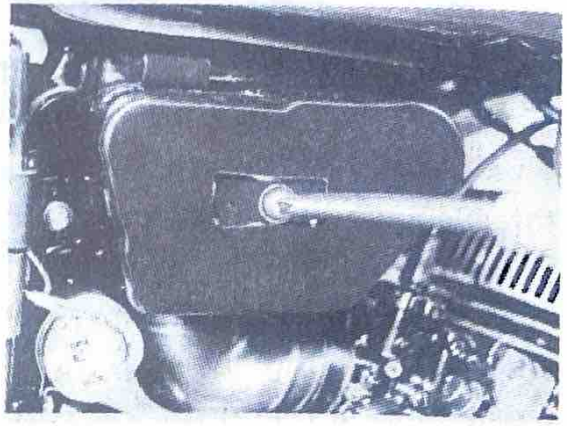


Fig. 47

2. Take out the cleaner element.

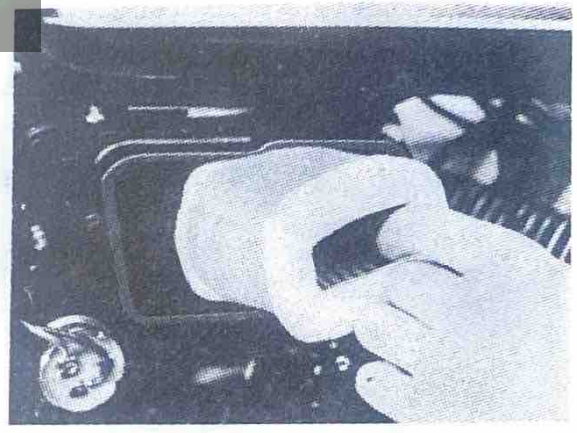


Fig. 48

- **Cleaning**

  Wash the foam filter thoroughly in solvent until all dirt has been removed. Squeeze all the solvent out. Pour oil onto the filter any grade of 20 or 30 wt., work it completely in, and then squeeze out the surplus oil. The filter should be completely impregnated with oil, but not "dripping" with it.

  Under no circumstances should you run the motorcycle without the air filter. First, dirt and dust will be able to pass through into the cylinder.

  Premature engine failure will result. Second, more air will flow to the engine and there will not be enough gasoline for all the air. The lean mixture will result in higher engine temperatures and possibly servere engine damage.

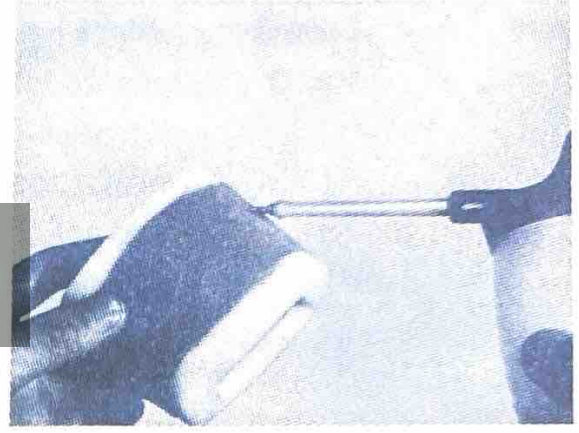


Fig. 49

T. Ignition timing

Timing is of critical importance. If, after your initial service checks have been completed, you wish to check the timing, have your dealer check for you.

U. Breaker point

Unless you are sufficiently experienced, it would be advisable for a mechanic to replace the points, as ignition timing will change when the points are replaced. As it is, points (and condenser) normally last several thousand miles.

Note:

In addition to the above, changes in point gap through wear and/or filing for cleaning purposes will also change timing, have your Authorized Yamaha Dealer service the ignition for you.

V. Spark plug

The spark plug in your machine can tell you a great deal as to how the engine is operating when you know how to "read" the plug. If the engine is operating correctly, and if it is being ridden correctly, then the tip of the white insulator in the spark plug will be a light tan color. If, when you remove the spark plug, it is very dark brown or black, then a hotter type plug might be needed. This situation is quite common during the engine break-in period. If the insulator tip shows a very light tan color, or is actually white, or if the electrodes begin to melt, then a colder spark plug is required. Again, if the spark plug insulator tip does not have a light tan color, have your dealer install a spark plug with a different heat range to correct the situation. Do not attempt to experiment with different heat range spark plugs yourself, as it takes an experienced eye to gauge which spark plug to use, and to gauge if the spark plug is actually at fault. It is all right though for you to replace the standard plug. Engine conditions can cause any spark plug to slowly break down. If deposits begin to build up, or if the electrodes finally become too worn, or if for any reason you believe the spark plug to not be functioning correctly, replace it. Be sure, when replacing the plug, that you always clean the gasket surface, that you use a new gasket, and that the spark plug is torqued to 19 ~ 21 ft./lbs.

Also wipe off any grime that might be present on the surface of the spark plug. The plug can be taken out to be cleaned and gapped. As long as deposit build-up on the insulator is not extreme, you can use a glass bead type spark plug cleaner to quickly remove the deposits.

Use a wire type feeler gauge to set the electrode gap at 0.020 ~ 0.024 in. (0.5 ~ 0.6 mm.)

Standard plug: NGK B8HS

W. Transmission oil

The only servicing you could do is to check and fill the transmission lubricating oil. The transmission dip stick is located right above the kickstarter. To check the level, warm the engine up for several minutes, screw the dip stick completely out and then just rest the stick in the hole.

Note:

When checking transmission oil level with the dip stick, let the unscrewed dip stick just rest on the case threads. Also be sure the machine is positioned straight up and on both wheels.

Recommended oil:
YAMALUBE 4-cycle or SAE "SE" 10W/30 Motor oil
Amount: 850 c.c. (0.85 qts.)

The dip stick has a minimum and a maximum level mark, and the oil level should be between the two. If the level is lower, then add sufficient oil to raise it to the proper level.
During the break-in period, you should replace the gear oil 30 days after the date of purchase or after 500 mi.
The transmission should be drained and refilled approximately every 2,000 mi. On the bottom of the engine there is a drain plug. Remove it and drain all the transmission oil out.
Reinstall the drain plug (make sure it is tight). Add oil through the dip stick hole.

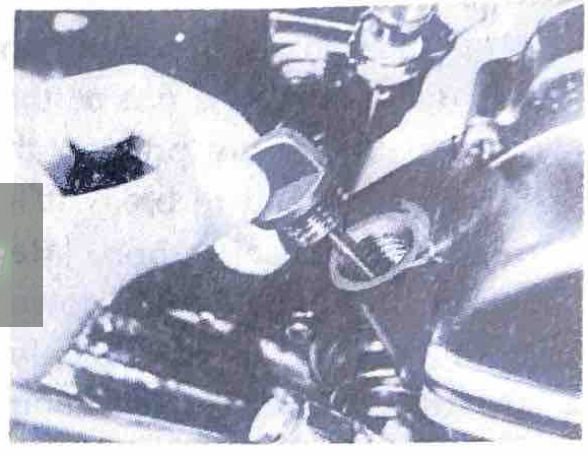
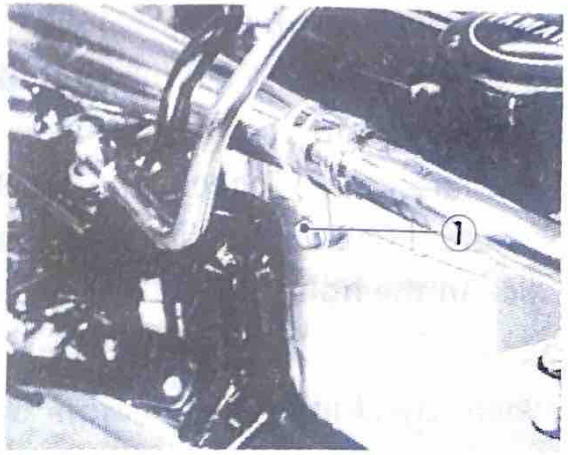


Fig. 50

Note:
Do not add any chemical additives. Transmission oil also lubricates the clutch and additives could cause the clutch to slip.



1. Drain plug

Fig. 51

X. Decarbonization

Remove the inner cylinder from the back end of the muffler. This is done by removing the set screw and pulling out the assembly. Remove all the carbon deposits with a wire brush. While the assembly is out of the muffler, look inside for additional deposits. If any are present, the muffler should be removed and a stout scraper used to break it loose. Tip the muffler up and shake out all the loose carbon. Reinstall the muffler, slip the inner cylinder back, and tighten down the set screw. This decarbonization procedure, even though it only takes a short time to complete, is absolutely necessary to prolong the performance life of the engine. Whether you perform this maintenance yourself, or have your dealer do it, be sure to faithfully follow the maintenance time recommendations listed in the maintenance intervals chart.

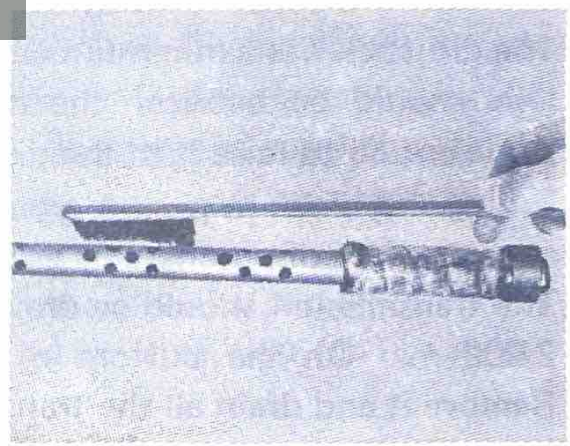


Fig. 52

Y. Steering

Periodically you should check for any looseness in the steering assembly. Do this by blocking the front end off the ground, grasping the bottom of the forks, and gently rocking the fork assembly backward and forward. You will feel any looseness in the steering assembly bearings. If any exists, do not attempt to correct it yourself but let you dealer make the adjustment with the correct tools.

Also, these same front fork bearings must also be lubricated periodically. This the dealer should also do.

Z. Front fork

Periodically, the front fork oil should be completely drained and refilled. Remove phillips head screws in the every bottom of the forks. Next, remove the fork cap found on top of each fork tube and most of the fork oil will drain out.

Compress the forks several times to pump all the remaining oil out. Slowly pour the recommended amount of oil in each fork leg. (See Lubrication Recommendations section for type oil).

At least every other time you should have your mechanic dismantle the fork assembly and thoroughly clean out each fork. Water and dirt eventually coat much of the inner fork surfaces and cannot be readily removed just by draining.

Oil quantity, each leg: 163 c.c. (5.5 qts.)

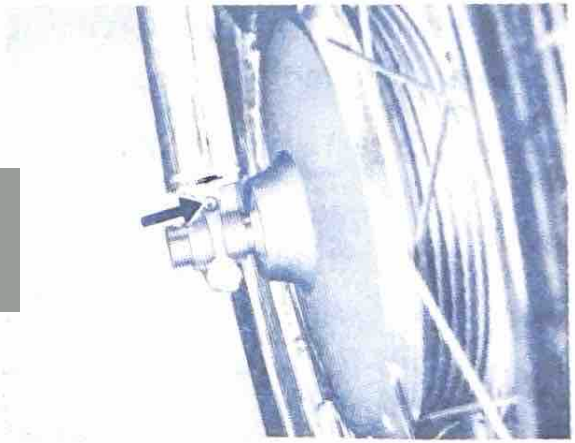


Fig. 53

WARRANTY INFORMATION

Study your Owner's Warranty Guidebook thoroughly. It contains your Warranty Policy, an explanation of the policy, break-in procedures and the warranty-required service schedules. Becoming familiar with these items will be to your advantage in making the best use of Yamaha's warranty program.

The acceptance of any warranty claim that your dealer might submit in the future depends greatly on just what has been done to the motorcycle. If any particular failure can be traced directly to a repair or maintenance performed incorrectly, the warranty claim may not be accepted. For this reason, we recommended that all services beyond those detailed in this manual be performed by a qualified mechanic at an authorized Yamaha dealer.

There are certain requirements that must be met to qualify for warranty coverage.

1. Your machine must be registered for warranty. This is accomplished when the Warranty Registration card is filled out by you and mailed by the dealer to Yamaha at the time of purchase.
2. Your Owner's Warranty Guidebook outlines the required service schedules and provides a maintenance record for your protection and convenience. Proper maintenance will insure a trouble-free life for your new Yamaha.
3. If any problems occur which you feel should be covered under warranty, notify your dealer immediately. Do not delay, as little problems left unrepaired can become large problems which may not be covered under warranty.

REQUIREMENTS FOR A GOOD MOTORCYCLIST

1. Safety is more important than speed. Always observe traffic regulations & signs.
2. Always use quality gasoline and oil, and avoid the inconvenience of running out of gas or oil.
3. Check tire pressures before every ride.
4. Warm up the engine for about one minute before riding.
5. Shift gears gently, while momentarily closing the throttle, avoid power shifting.
6. During the break-in period, ride at the suggested speed in each gear.
7. Apply the front and the rear brake at the same time.
8. Down a long hill, use engine compression as a brake.
9. When parking, be sure to turn off and remove the ignition key, turn off the fuel pet cock, and lock the steering.
10. Check parts at regular intervals as described in this manual.

TROUBLESHOOTING

1. **Factory authorized Service**
   Your Yamaha Dealer is a factory trained mechanic who guarantees thorough and correct maintenance for your motorcycle. We recommend that you let your dealer make all repairs and adjustments on your motorcycle. You will be assured prompt and good service.

2. **Genuine Yamaha parts**
   Always use genuine Yamaha parts and not "substitute" brands. Yamaha parts are manufactured to meet the factory's exacting standards of precision and quality.

3. **If something should go wrong . . .**
   Your Yamaha undergoes rigid factory tests to assure you long and satisfactory performance. However, if something should go wrong with your machine immediately ask your Yamaha Dealer for advice. He is always glad to answer your questions.

IMPORTANT:
Some components are sealed or cannot be disassembled. If repairs to such components are necessary go to your Yamaha Dealer. Yamaha cannot be responsible for repairs and adjustments to such components performed by unauthorized personnel.

Note:
The inspection and maintenance of Autolube should be instructed to your dealer.

SPECIFICATIONS

Model	YAMAHA RD200B
Dimension:	
Overall length	76.6 ins. (1,945 mm.)
Overall width	29.1 ins. (740 mm.)
Overall height	39.6 ins. (1,005 mm.)
Wheelbase	49.0 ins. (1,245 mm.)
Minimum road clearance	6.1 ins. (155 mm.)
Weight:	
Net	256 lbs. (116 kgs.)
Performance:	
Maximum speed	85 mph (+) (135 km/h. (+)
Minimum turning radius	82.7 ins. (2,100 mm.)
Climbing capacity	24 degrees
400 meter acceleration	16.0 sec.
Engine:	
Type	Air-cooled, 2-stroke, gasoline, Torque Induction
Engine model	397
Cylinder	2 in parallel, forward inclined
Displacement	11.89 cu.ins. (195 c.c.)
Bore & Stroke	2.047 ins. x 1.811 ins. (52 mm. x 46 mm.)
Compression ratio	7.1 : 1

Model	YAMAHA RD200B
Starting system	Primary kick, electric dynamo-start
Ignition system	Battery
Gasoline tank capacity	3.0 US gal. (11.5 ℓ)
Oil tank capacity	2.1 US qt. (2 ℓ)
Transmission oil capacity	850 c.c.
Lubricating system	Separate lubrication (Yamaha Autolube)
Battery capacity	12 V, 9AH
Battery type	12N9-3A-1
Generator system	Starter Generator
Generator type	GS214-02
Generator manufacturer	HITACHI
Spark plug	NGK (B8HS) x 2
Carburetor	V20P x 2
Air cleaner	Wet foam rubber
Transmission:	
Primary reduction system	Gear, helical type
Primary reduction ratio	53/16 (3.312)
Secondary reduction system	Chain
Secondary reduction ratio	36/15 (2.400)
Clutch	Wet, multi-disc
Gear box type	Constant mesh, 5-speed
Operating system	Left foot-operated, ratcheting system

Model		YAMAHA RD200B
Gear ratio:	First	34/12 (2.833)
	Second	29/17 (1.705)
	Third	25/20 (1.250)
	Fourth	23/22 (1.045)
	Fifth	22/24 (0.916)
Steering:	Caster	62° 30′
	Trail	3.7 ins. (95 mm.)
Tire size:	Front	2.75-18-4PR
	Rear	3.25-18-4PR
Suspension:	Front	Telescopic fork
	Rear	Swing arm
Cushion:	Front	Coil spring, oil damper
	Rear	Coil spring, oil damper
Frame:		Steel tubing, diamond structure

CONVERSION TABLES

Metric to Inch System

	Known	Multiplier (Rounded Off)	Result
Torque	m-kg.	7.235	ft-lbs.
	m-kg.	86.82	in-lbs.
	cm-kg.	0.0724	ft-lbs.
	cm-kg.	0.8682	in-lbs.
Weight	kg.	2.205	lb.
	g.	0.03527	oz.
Flow/ Distance	km/lit.	2.352	mpg.
	km/hr.	0.6214	mph.
	km.	0.6214	mi.
	m.	3.281	ft.
	m.	1.094	yd.
	cm.	0.3937	in.
	mm.	0.03937	in.
Volume/ Capacity	c.c. (cm.^{3})	0.03381	oz. (U.S. liq.)
	c.c. (cm.^{3})	0.06102	cu. in.
	lit.	2.1134	pt. (U.S. liq.)
	lit.	1.057	qt. (U.S. liq.)
	lit.	0.2642	gal. (U.S. liq.)
Misc.	kg/mm.	56.007	lb/in.
	kg/cm.^{2}	14.2234	psi. (lb/in.^{2})
	Centigrade (°C)	9/5 (°C) + 32	Fahrenheit (°F)

Inch to Metric System

	Known	Multiplier (Rounded Off)	Result
Torque	ft-lbs.	0.13826	m-kg.
	in-lbs.	0.01152	m-kg.
	ft-lbs.	13.825	m-kg.
	in-lbs.	1.1518	m-kg.
Weight	lb.	0.4536	kg.
	oz.	28.35	g.
Flow/ Distance	mpg.	0.4252	km/Lit.
	mph.	1.609	km/hr.
	mi.	1.609	km.
	ft.	0.3048	m
	yd.	0.9144	m.
	in.	2.54	cm.
	in.	25.4	mm.
Volume/ Capacity	oz. (U.S. liq.)	29.57	c.c. (cm.^{3})
	cu. in.	16.387	c.c. (cm.^{3})
	pt. (U.S. liq.)	0.4732	lit.
	qt. (U.S. liq.)	0.9463	lit.
	gal. (U.S. liq.)	3.7853	lit.
Misc.	lb/in.	0.017855	kg/mm.
	psi. (lb/in.^{2})	0.07031	kg/cm.^{2}
	Fahrenheit (°F)	5/9 (°F − 32)	Centrigrade (°C)

Definition of Terms:

m-kg. = Meter Kilograms: Usually Torque

g. = Gram(s).

kg. = Kilogram(s): 1,000 Grams.

km. = Kilometer(s).

km./lit. = Kilometer(s) per Liter: Mileage.

c.c. = Cubic Centimeter(s) (cm.^{3}): Volume or Capacity

kg./mm. = Kilogram(s) per Millimeter: Usually Spring Compression Rate.

kg./cm.^{2} = Kilogram(s) per Square Centimeter: Pressure.

Torque

All fittings require a minimal amount of torque during tightening to keep them from vibrating loose.

Excessive tightening will only lead to stripped threads and broken studs.

As a rule of thumb, use the following tightening chart:

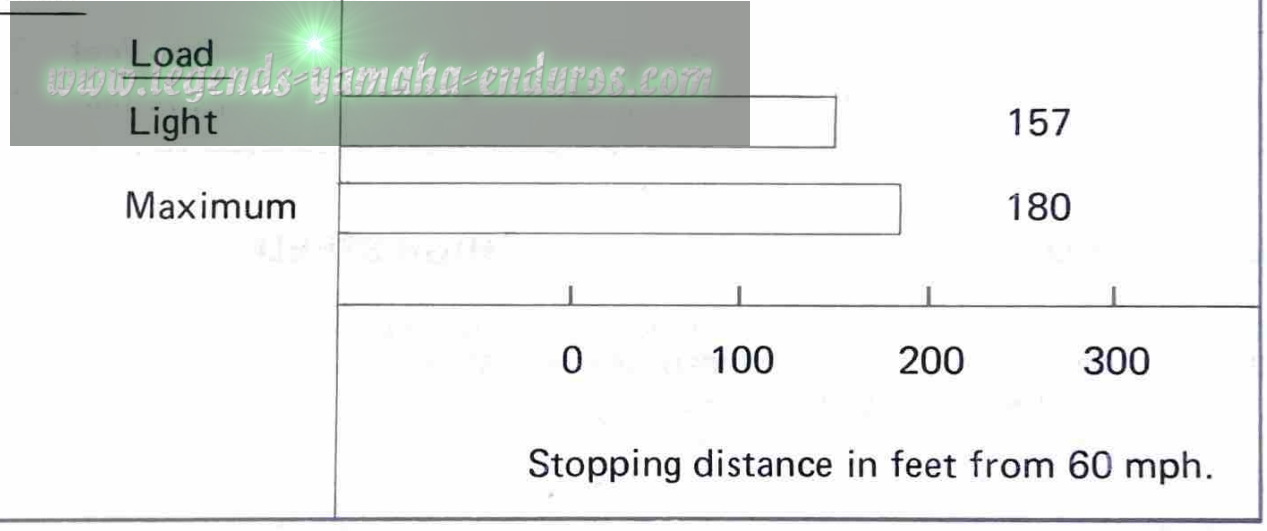
Stud size	Torque
6 mm.	90 in-lbs.
7 mm.	135 in-lbs.
8 mm.	180 in-lbs.
10 mm.	300 ~ 350 in-lbs.
12 mm.	350 ~ 400 in-lbs.
14 mm.	400 ~ 450 in-lbs.
17 mm.	500 ~ 600 in-lbs.
Spark plugs	230 ~ 250 in-lbs.

STOPPING DISTANCE

This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, without locking the wheels, under different conditions of loading and with partial failures of the braking system. .The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions and the information may not be correct under other conditions.

Description of vehicles to which this table applies: Yamaha motorcycle RD200B

A. Fully Operational Service Brake



ACCELERATION AND PASSING ABILITY

This figure indicates passing times and distances that can be met or exceeded by the vehicles to which it applies, in the situations diagrammed below.

The low-speed pass assumes an initial speed of 20 mph and a limiting speed of 35 mph. The high-speed pass assumes an initial speed of 50 mph and a limiting speed of 80 mph.

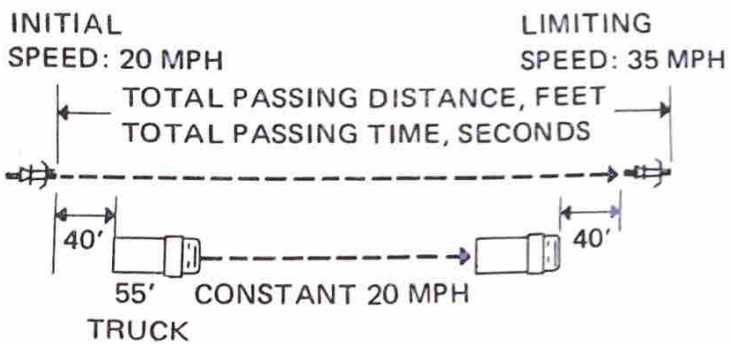
NOTICE: The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

Description of vehicles to which this table applies: Yamaha motorcycle RD200B

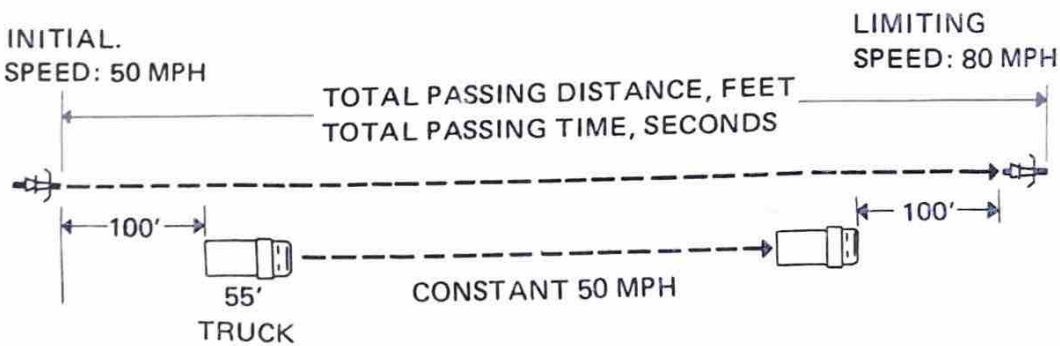
Summary table:

Low-speed pass	365 feet:	7.6 seconds
High-speed pass	1330 feet:	15.0 seconds

LOW-SPEED



HIGH-SPEED



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RD200B CIRCUIT DIAGRAM

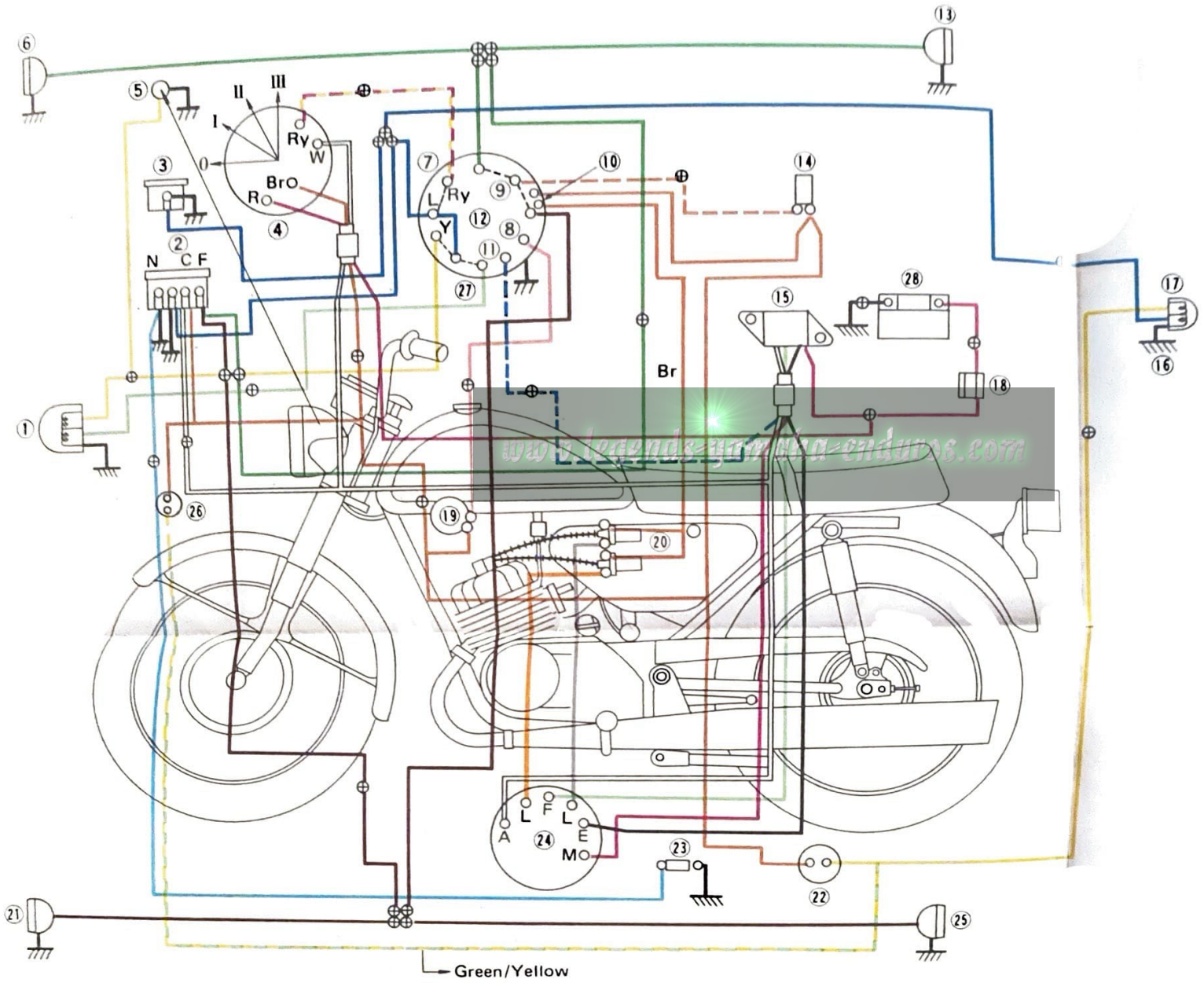

Chart of wire colors

Armature circuit	White
Field circuit	Green
Common circuit	Brown
Battery (+) circuit	Red
Headlight main circuit	Yellow
Headlight sub circuit	Green
Horn circuit	Pink
Neutral light circuit	Sky blue
Taillight circuit	Blue
Rear brake stop light circuit	Yellow
Ignition coil (R) circuit	Gray
Ignition coil (L) circuit	Orange
Flasher (R) circuit	Dark green
Flasher (L) circuit	Dark brown
Flasher relay circuit	Brown/White
Starter switch circuit	Blue/White
Starter circuit	Light green
Light switch circuit	Red/Yellow

1. 12V 35/25W Headlight
2. Tachometer
3. Speedometer
4. Main switch
5. High beam indicator light
6. Flasher light (Right) 12V 8W
7. Light switch
8. Horn Button
9. Flasher switch
10. Kill switch
11. Starter button
12. Handle switch
13. Flasher light (Right) 12V. 8W.
14. Flasher relay
15. Regulator
16. Taillight 12V. 8W.
17. Stoplight 12V. 23W
18. Fuse 20A.
19. Horn
20. Ignition coil
21. Flasher light (Left) 12V. 8W.
22. Stop switch
23. Neutral switch
24. Starter dynamo
25. Flasher light (Left) 12V. 8W.
26. Front stop switch
27. Dimmer switch
28. Battery