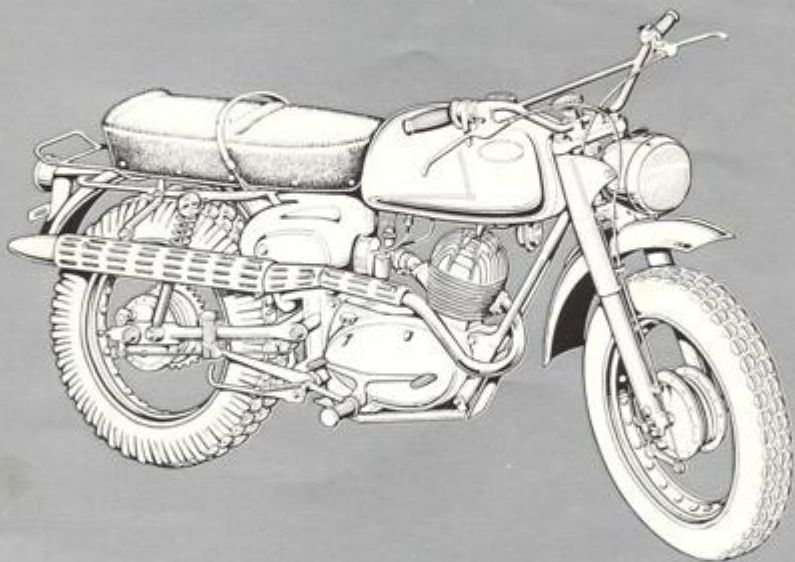


WARDS
Riverside

OWNER'S GUIDE
175 cc. SCRAMBLER



Riverside - SOLD EXCLUSIVELY BY MONTGOMERY WARD

Warranty

For a period of ninety days from date of purchase or 3000 miles, whichever occurs sooner, Montgomery Ward will replace for the original purchaser, free of charge, any part, or parts, found upon examination by any Wards Repair Service Representative to be defective in material and/or workmanship.

All transportation charges on parts submitted for replacement under this warranty or pick-up and delivery charges for a complete machine being returned for repair under this warranty must be borne by the purchaser.

There is no other warranty expressed or implied. Wards shall in no event be liable for consequential damage.

This warranty becomes null and void if:

1. Breakage of parts or damage to parts is due to abuse or failure to follow operating and maintenance instructions outlined in this Owner's Guide.
2. Any modifications are made to the frame or engine.
3. The machine is used in sporting competition.
4. The machine is used for rental.

Claims can be made through any Wards Retail Store or Catalog House and must include evidence of purchase date, model number and serial number of frame and engine.

RIVERSIDE 175 c.c. SCRAMBLER

MODEL NUMBER FFA - 14022

MONTGOMERY WARD welcomes you to the rapidly growing number of discerning owners who have selected the precision-crafted Riverside.

The Riverside is a superb quality machine that was assembled to exacting standards by "Old World" craftsmen.

Regular attention to simple maintenance procedures will keep your Riverside in prime condition to perform as the "thoroughbred" it is.

Careful carrying out of the assembly, adjustment, lubrication and maintenance instructions in this Owner's Guide will also assure that you will not intentionally abuse or neglect your machine and void the warranty.

IMPORTANT

To derive maximum satisfaction from your Riverside Lightweight Cycle, read and carry out the instructions under the following headings:

- A.** Assembly and Adjustment
- B.** Lubrication
- C.** Operation
- D.** Break-In
- E.** Maintenance

A. ASSEMBLY AND ADJUSTMENT

Your Riverside has been carefully and compactly crated to bring it to you in excellent condition. Careful assembly of your Riverside will give you an excellent opportunity to become familiar with the workings and minor adjustments of the controls. **The tools necessary for assembly and adjustment are packed with your machine.** Follow the steps below for quick and easy assembly.

NOTE: Tool kit is placed inside the metal container under the seat (right side) — Photos 1 & 2.



fig. 1



fig. 2

1. UNPACKING:

- a. After removing the lid of the crate you will observe that packing braces are located at the handle-bars and seat post. Remove the bolts fastening the packing braces to the side of the crate and remove rear brace. (Fig. 3).
- b. Remove nuts fastening the packing braces to the crate.
- c. Remove box containing front wheel and fender and remove front end of packing case. (Fig. 4).
- d. Remove cycle from crate (Fig. 5). Place cycle on kickstand and put an additional support under front fork. (Fig. 6).
- e. Remove front wheel and fender from carton. (Fig. 7).
- f. Remove seat and front brake shoe with speedometer drive from carton. (Fig. 8).

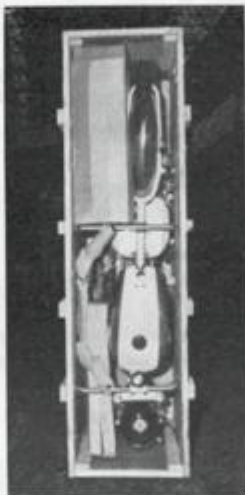


fig. 3

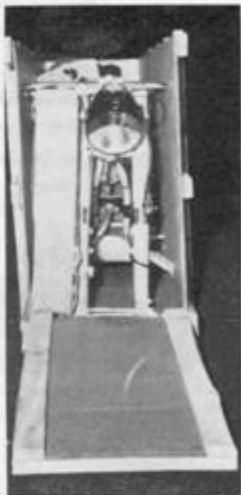


fig. 4



fig. 5



fig. 6



fig. 7



fig. 8

2. INSTALLATION OF FRONT WHEEL AND FENDER:

- a. Loosen nut and remove the bolt on the right tube of fork, then remove the axle by striking it lightly with a soft-faced hammer (Fig. 10).
- b. Slip the fender into the fork and tighten bolts. (Fig. 9-11).
- c. Make sure that front fender bolts are tightened **after** having tightened the bolts for the front wheel (Fig. 12).
- d. Mount the front wheel in correct position. Insert arm on brake drum casting into retaining slot on right fork arm. Slip axle into the hole at the end of the fork (Fig. 13), by striking it with a soft-faced hammer (Fig. 14), then tighten nut. Make sure that all elements are mounted in the sequence indicated in (Fig. 9) and (Fig. 11 through 14).
- e. Firmly tighten axle nut and then the outer bolt on right arm of fork. (Fig. 15).
- f. Tighten the bolts on front fender.
- g. Slip in the speedometer drive as indicated in Fig. 9.

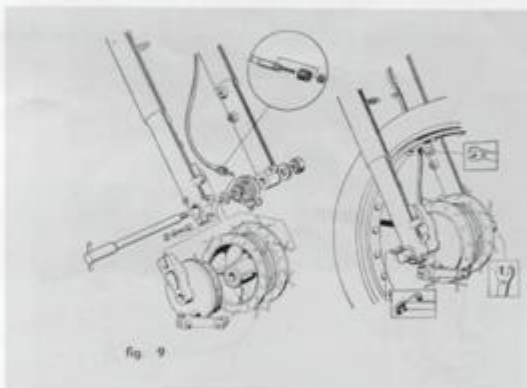


fig. 9



fig. 10



fig. 11



fig. 12



fig. 13



fig. 14



fig. 15

3. INSTALLATION OF HANDLE BARS AND CONTROLS:

- a. Remove the cap from the steering mechanism dampener. (Fig. 17).

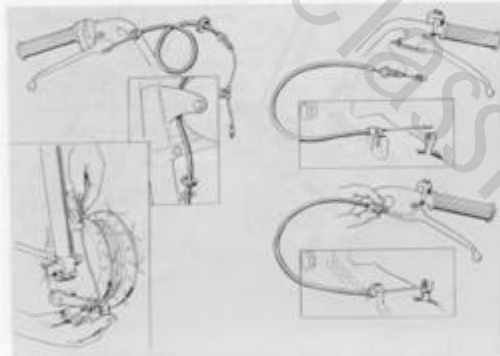


fig. 16



fig. 17

- b. Remove the handle-bar clamp by unscrewing the four (4) socket-head bolts with an Allen wrench. (Fig. 18).

- c. Place the handle-bar in position. Before tightening Allen bolts, make sure that handle-bars are centered and at the correct elevation. (Fig. 19).



fig. 18



fig. 19

- d. Slip the front brake cable through the ring after having placed the rubber washer as indicated in Fig. 16.
- e. To hook the cable to brake disc, loosen the brake cable lever regulator as much as possible.
- f. Slip the throttle cable into the slot inside the grip. (Fig. 20).



Fig. 20



Fig. 21

- g. Slip the clutch cable into the handle-bar lever after removing the tape containing the end of cable and loosening the lever regulator as much as possible.
- h. Connect the clutch cable to the engine. (Fig. 16).
- i. Mount the light switch on handle-bar by opening the clamp as indicated in Fig. 21.
- j. Adjust headlight to the correct position. (Fig. 22).



Fig. 22



fig. 23



fig. 24



fig. 25

4. PUTTING THE BATTERY IN OPERATION (DRY BATTERY):

- a. Disassemble the left part of metal container cover and pull out. (Fig. 23).
- b. Disconnect battery, remove the lid and disconnect wires. (Fig. 24 and 25).
- c. Note position of battery and cables before removing. Remove battery from the machine. Make sure that cables (wires) are not reversed when replacing the battery.
- d. Unscrew caps.
- e. Fill with pure sulphuric acid used for storage battery, having a specific gravity of 1.275 at 60 degrees F. This operation is very important and, therefore, it is recommended that the specific weight be checked very carefully. Fill battery to approximately 3/4" above plates.
- f. Let the battery rest for about two hours, then bring back to the required level by adding as much sulphuric acid as necessary. Then charge at 3/4 AMP rate for eight to ten hours.
- g. Once all the above operations have been completed, the battery is ready to be placed in position (we suggest, however, that steps e, f & g be performed by a Wards Automotive Specialist). Every month, check the battery level which should always be about 3/4 of an inch above plate.
- h. **IMPORTANT:** Only add chemically pure distilled water and NOT sulphuric acid to bring level back to the required position.
- i. Mount battery and lock container. (Fig. 27).

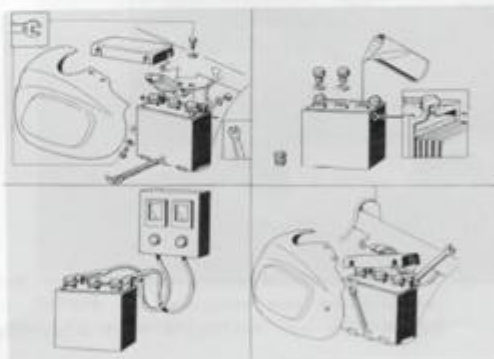


fig. 26



fig. 27



fig. 28



fig. 29

5. MOUNTING SEAT:

- a. (1) Luggage rack should be installed before the seat (Fig. 33).
- * b. Pull out strap from under the double seat and place it over the seat snapping hooks to rings provided.
- c. Put the rear support brackets in vertical position (Fig. 28), and slip the seat into the slots provided. (Fig. 29 and 32).
- d. Slip the bolt in the front position and tighten nut (Fig. 30 - 31).
- e. It may be necessary to use two wrenches to tighten the rear bolts. (Fig. 29).



fig. 30



fig. 31

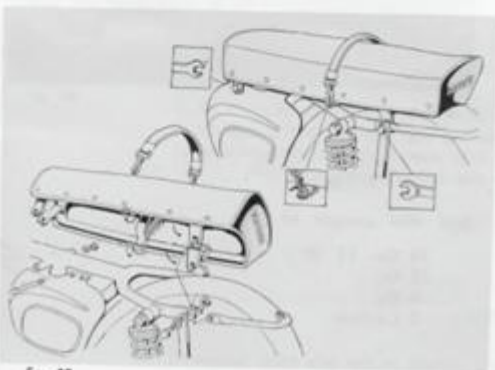


fig. 32



fig. 33

6. TIRES

Tire pressures are important to the safe handling of your Riverside. Check your tires at regular intervals and be sure to keep them at the following pressures (cold after standing):

Front Tire: 18 lbs.

Rear Tires: 22 lbs.

7. MAINTENANCE CHECK LIST:

BEFORE OPERATING YOUR CYCLE CHECK TO SEE THAT:

- All controls function properly
- All nuts and bolts are tight
- Both wheels turn freely
- The steering turns easily
- The tires are inflated properly
- There is oil in the transmission
- There is gasoline in the tank mixed with oil of the correct weight in the proper proportions.

B. LUBRICATION

Your Riverside Scrambler 2-cycle engine never needs an "oil-change"; a fresh supply of oil is continuously carried with the fuel to the vital inner parts of the engine. There is never any waiting for a warm-up of the oil for proper lubrication.

1. BREAK-IN PERIOD:

Important - During the break-in period (1,000 miles), the amount of oil mixed with the gasoline is increased from 5% to 7%. Use the following chart in preparing the proper mixture:

Gallons of Regular Gasoline	Add this amount of Oil
5	42 Oz.
2	17 Oz.
1	9 Oz.
1/2 (2 Qts.)	3 Capfuls

Use Wards Riverside 2-Cycle engine oil # 81-8311 winter and summer. Be sure gasoline and oil are thoroughly mixed in the gas tank before starting engine.

2. AFTER BREAK-IN PERIOD:

After 1,000 miles and for the life of your Riverside, use a 5% mixture of oil and regular gasoline. There is a measuring cap built into the cap on your gas tank. For each QUART of gas put into your tank add one capful of oil. For mixing in larger quantities follow the following chart:

Gallons of Regular Gasoline	Add this amount of Oil
5	32 Oz. (1 Qt.)
2	12 Oz.
1	6 Oz.
1/2 (2 Qts.)	2 Capfuls

Be sure that gasoline and oil are properly mixed in the gas tank before starting engine.

3. TRANSMISSION - LUBRICATION

The transmission dip stick is located on the right side of the engine, on top at the rear. It is the large black knob. (Fig. 40).

Fill with 40 ozs. of Riverside HD motor oil, SAE 30, or equivalent. Check oil level on transmission oil level dip stick at regular intervals. (Fig. 39).

Transmission drain is located on bottom of transmission housing. (Fig. 41).

fig. 39



fig. 40

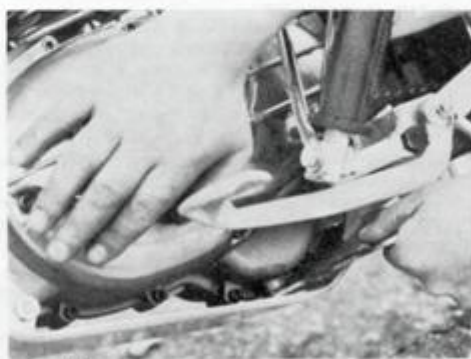


fig. 41

C. OPERATION

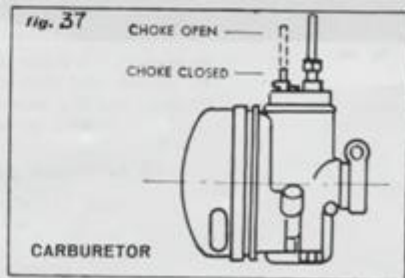
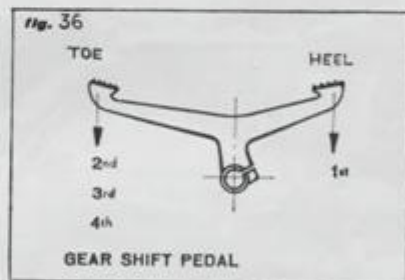
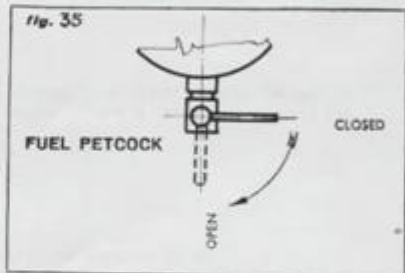
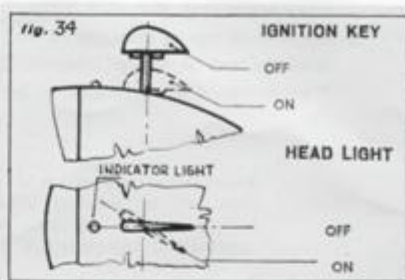
1. STARTING THE ENGINE:

- Put the ignition key into the headlight and depress. (Fig. 34).
- Open the fuel pet-cock. (Fig. 35).
- Put the pedal shift on the right side of the machine in neutral position (See Fig. 36). Neutral position is between first and second gear. To find neutral, depress the foot shift lever with your heel three or four times (until it stops clicking). This will put you in first gear. Now with the toe, depress the lever very lightly until there is one click. You should **feel** the click rather than hear it. You can be sure the machine is in neutral by gently rocking it back and forth. If the rear wheel turns freely, the engine is not turning over and the cycle is in neutral.
- When the engine is cold, push down the choke pin on top of the carburetor (Fig. 37) and opening the throttle **only slightly**, kick the starter pedal briskly.
- After the engine has been running for a few seconds, advance the throttle grip at least a half turn... this will force the choke pin to snap back to its normal position. (Open Choke).
- To clear a flooded engine, remove spark plug, shut off gas line and turn engine over several times. Then replace spare spark plug or thoroughly dry old plug.

2. CHANGING GEARS:

TO SHIFT GEARS YOU MUST COORDINATE THE THROTTLE AND THE CLUTCH.

- You will note that the foot operated gear shift mechanism is on the right side of the machine and is so constructed that you operate it with both the heel and the toe. (Fig. 36).
- Depress the clutch lever on the left side of the handlebar.
- To put the cycle into first gear, depress the gear shift lever with the heel all the way down until you can feel a slight click. Hold the lever in this position with your heel while you gradually release the clutch lever with your left hand. At the same time you release the clutch lever, open the throttle gradually.
- You must learn to coordinate the release of the clutch and the advancement of the throttle to effect a smooth start. This may take a little practice...
- To change into second, third and fourth gears follow the same procedure, each time depressing the gear shift lever with your toe one click... Each time you change a gear remove your toe from the gear shift lever to allow it to return to its original position.
- In developing your driving technique, you will find that if you rely on your foot brake, especially at low speeds, it allows you freedom of our right hand to operate the throttle. Learn to down shift into the next lower gear when you reduce your speed, especially if the engine begins to miss or sounds like it is laboring. This practice will give you better control of your machine and minimize the possibility of skidding and sliding when stopping. This procedure will also give you better control of your machine when you accelerate.



(CAUTION - NEVER DEPRESS THE CLUTCH LEVER WITH THE THROTTLE ADVANCED).

IMPORTANT — You may use your engine as a brake but only for brief periods. Remember your two-cycle engine receives its lubrication with the fuel. If you cut off the fuel while using the engine as a brake, the internal parts of the engine may be damaged. If it is necessary to use your engine as a brake for an extended period, such as going down hill, open the throttle now and then for lubrication.

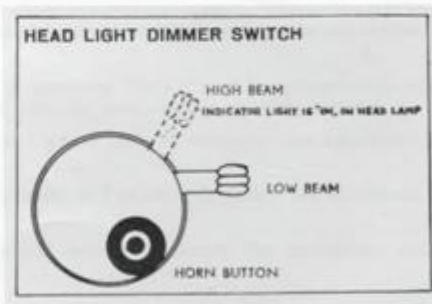
3. BRAKING:

As you apply the brakes, disengage the clutch and shift to neutral. Complete your stop with the brakes only. The front wheel brake is applied by squeezing the lever at the right handle bar grip. The rear wheel brake is applied with the foot pedal. For skilled stops, apply the rear wheel brake momentarily before the front brake. Never brake in a turn.

4. STOPPING THE ENGINE:

Retard the throttle, depress the clutch lever and put the footshift in neutral position. To stop the engine, pull (disconnect) the ignition key on the headlamp (Fig. 34). When engine is not running, always remember to close the fuel pet-cock. (Fig. 35).

fig 38



5. ELECTRICAL:

Your ignition key also serves as a headlight switch. By turning it to right, you turn on your running lights. (Fig. 34).

The combination dimmer switch and horn button is located on the left handle-bar. (Fig. 38).

6. DAMPENER (Fig. 17):

Stiffens the steering mechanism so that it will be more stable, especially at high speed. Tighten by turning clockwise.

D. BREAK-IN PERIOD

Your cycle is manufactured to very exacting tolerances. Because of this precision fitting of parts, a longer break-in period is recommended.

If you follow the procedure outlined, you substantially increase the life of your machine.

For the first 100 miles DO NOT EXCEED 30 MILES PER HOUR.

For the first 1,000 miles DO NOT OPERATE AT HIGH ENGINE SPEEDS FOR MORE THAN ONE MINUTE AT A TIME.

During the break-in period, it is important that you run your engine on a 7% fuel mixture. Reduce mixture to 5% by using the measure incorporated on the fill cap after the first 1,000 miles.

You should not exceed these speeds in each gear during the break-in period.

Gear	Speed
1st	18
2nd	23
3rd	33
4th	43

It is permissible to exceed the fourth gear speed limit to full throttle after a few hundred miles but only for short periods.

Drain and refill transmission after break-in period.

E. MAINTENANCE

1. **IMPORTANT** — Your Riverside Two-Cycle engine delivers exceptional power for its size and weight because it provides twice as many power strokes per minute as a four cycle engine at a given R.P.M. You have only one spark plug to replace; but since a spark plug's life is determined by how many times it fires, you **MUST** replace your plug at a maximum of every 3,000 miles.

Keep in mind that new spark plugs actually pay for themselves three ways: 1. better mileage, 2. longer engine life, 3. more power. **SPARK PLUG GAP** — .022.

2. **BREAKER POINT GAP** — 0.016 inches.
3. **TIRE PRESSURE**: Front: 18 lbs. Back: 22 lbs.
4. **DECARBONIZATION** — Every 4,000 to 5,000 miles it is necessary to decarbonize the engine, muffler and exhaust pipe. It is necessary to remove the cylinder head, exhaust pipe and muffler to clean the exhaust port. Muffler must be opened up and cleaned with boiling hot soapy water.
5. **LUBRICATION** — Oil all moving parts, clean first with gasoline.
6. **FRAME** — Go over entire machine and tighten all nuts and bolts. Remember your machine is built with metric sized nuts and bolts, which cannot be replaced with standard nuts and bolts. See your wards service department for replacement parts.
7. **BRAKES** — Visually check brake drums and brake shoes. Worn brake shoes can ruin a brake drum and cause unnecessary expensive replacement.
8. **ADJUSTMENT OF CABLES** — In general, all cables on your cycle can be adjusted at one end by loosening the clamp on the inner cable and sliding the cable either way in the clamp. Final adjustment is made by taking up or loosening the outer cable cover. Loosen the lock nut and turn the adjusting nut on the screw to proper position. Tighten the lock nut while holding the adjusting nut with a second wrench.

EVERY 300 MILES:

- Check brake cable adjustment and adjust, if necessary. See adjustment of cables.
- Lubricate chain and adjust if necessary. There should be approximately 1/2" slack in the chain with no rider. Be sure wheel is properly centered.
- Check clutch adjustment and adjust cable if necessary. See adjustment of cables.
- Check gear shift cable adjustment and adjust if necessary. See adjustment of cables.
- First 300 miles only, drain and refill transmission. See instructions under Transmission Lubrication.

EVERY 1,000 MILES:

- Remove and clean spark plug. Set gap at .022.
- Ignition breaker point gap should be .016 inches.
- Adjust chain if necessary, as per 300 miles instructions.
- Check cables and adjust if necessary. See adjustment of cables.
- Clean engine cooling fins.
- Clean gas cap air vent.
- Drain and refill oil in hydraulic front shock. The drain plug is a slotted screw fitting located just above the axle nut on the end of the fork. Remove and allow all fluid to drain. The fill fitting is the bolt located just below the bolt on the fender. Fill until fluid comes out of top hole. Check oil level on fork every 5,000 miles — especially if front becomes mushy.

EVERY 3,000 MILES:

- Drain and refill transmission. See instructions under transmission Lubrication.

- Lubricate cables and controls. Use light machine oil.

- Replace Spark Plug. Set gap carefully at .022 inches on the new plug.

EVERY 4,000 MILES:

- Remove head and exhaust system.

- Clean carbon deposits from top of piston, cylinder head and exhaust system. Failure to perform this maintenance will result in sluggish performance, pre-ignition, overheating, and serious damage to the internal engine parts.

- Remove, clean and lubricate chain. To clean, shake in kerosene. Lubricate with \approx 30 oil thinned.

EVERY 10,000 MILES:

- Lubricate wheel bearings with grease.

- Inspect brake drums and linings to see if they are worn or scored.

TROUBLE CHART

DIFFICULTY	CAUSE AND CORRECTION
Irregular flow of gas to carburetor	Remove gas line from carburetor and clean out. Check to see that vent hole in gas cap is not plugged.
Irregular Spark	Replace spark plug. Check spark plug gap. Check magneto flywheel output.
Preignition	Use cooler plug. Clean spark plug. Decarbonize the cylinder head.
Overheating	Check timing. Check gasoline and oil mixture. Clean spark plug.
Engine missing	Check plug gap. Replace spark plug. Check point gap. Replace if burned. Check to see that gasoline is flowing through the plastic tube.
Loss of engine efficiency	Check ignition and timing. Adjust gas and oil and carburetor mixture. Replace carburetor jet. Decarbonize the exhaust system from port through muffler. Check to see if piston rings are broken. Tighten cylinder head. Replace head gasket.

SPECIFICATIONS - MODEL NO. FFA 14022

SPECIFICATIONS

The Riverside Model No. FFA 14022 has a 175 cc. engine with a 60 mm bore and a 60 mm stroke. It has a two-cycle engine. The engine has an 8 to 1 compression ratio and develops 9 HP at 5700 RPM — Fuel mixture: 5% Riverside Article \neq 8311, 2-cycle engine oil, or equivalent.

POWER TRAIN

Drive is through helical gears in the transmission. Final drive to the rear wheel is by chain. The transmission has 4 speeds forward and is operated by the right foot pedal. Gear box capacity: 40 oz. Riverside HD Motor Oil SAE \neq 30 or equivalent.

CLUTCH

Multiple disc in an oil bath controlled by the lever on the left handle-bar.

FRAME

Husky all-steel tubular frame electrically welded for maximum strength and safety, yet light weight. Open cradle for engine mounting.

SUSPENSION

Front Suspension: Spring telescopic fork - single acting hydraulic shock absorbers. Rear Suspension: Springs with telescoping single acting hydraulic shock absorbers.

WHEELS

Chrome-plated steel rims provide strength and add beauty. Wheel size: 18". Tires: Front - 18 x 2.75" Rib; Rear - 18 x 3.00" universal. Tire Pressure: Front 18 lbs. Rear - 22 lbs.

BRAKES

Internal expanding brakes on front and rear wheels. Two shoes on each wheel give added safety and smoother stops.

WEIGHT

Dry - (Less fuel and lubrication) - 205 lbs.

ELECTRICAL

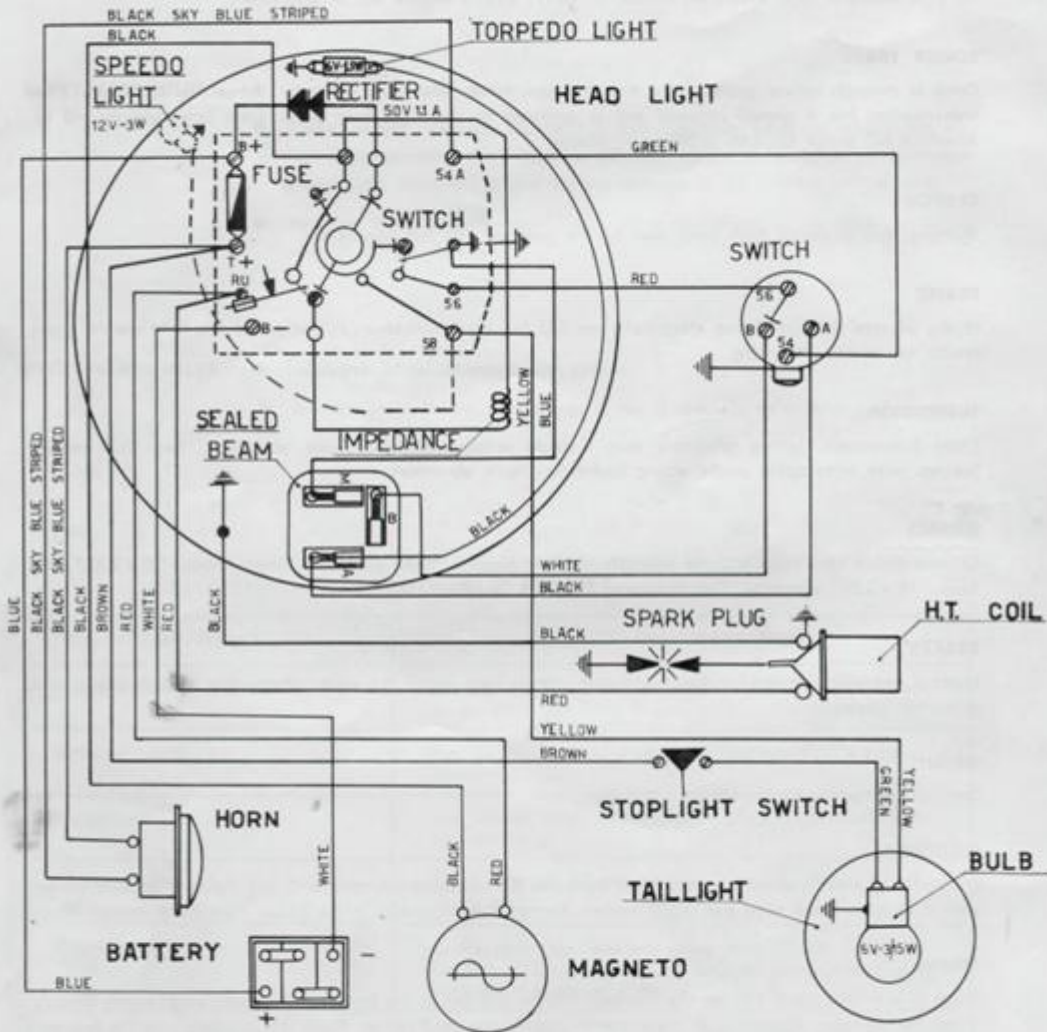
6 Volt 25+5 watt flywheel magneto. Head light and the combination stop and tail lights. Platinum points with 0.16 gap. Spark plug gap 0.022 inches. Battery specifications: SAFA 31-L-4 capacity 8 ampere hour.

TIMING

There is a timing mark (0) on the flywheel and on the top of the inside of the crank case casting directly under the cylinder. Alignment of these marks locates top dead center. From this position turn the flywheel clockwise. The points should begin to open at 1 1/16" inches on the circumference of the flywheel or 26 degrees.

GAS TANK CAPACITY: 3.5 Gallons.

175 cc. SCRAMBLER WIRING DIAGRAM



HOW TO OBTAIN SERVICE

The merchandise you have purchased has been carefully engineered and manufactured under Wards rigid quality standards and should give you satisfactory and dependable operation.

However, like all mechanical merchandise, it may occasionally require adjustment or maintenance.

Should you ever need technical assistance, please contact or write your nearest Wards Retail Store, Catalog Store or Catalog House.

provide the following:

1. Model, serial number and all of the other data shown on the model number plate.
2. The date and the Wards branch from which you purchased your Riverside.
3. State briefly the trouble you are having.

HOW TO OBTAIN REPLACEMENT PARTS

Replacement Parts may be obtained from your Wards Retail Store, Catalog Store or Catalog House and will be made available at current prices. If requested, prices will be quoted in advance. When requesting replacement parts, be sure to give the model and serial number which is shown on the model number plate.

Also give the part number and the name of the part as shown in the parts list.

If you order by mail, you will pay the transportation charges from the shipping point.