

KAWASAKI

350

AVENGER

AVENGER SS

RIDER'S HANDBOOK

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Foreward



Congratulations on your choice of a Kawasaki 350 Avenger Model. You are the owner of one of the highest performances stock motorcycles in the world regardless of size!

We are sure you will enjoy many thousands of miles of dependable and pleasurable riding on your new machine. The instructions in this book will help you to achieve this desired performance.

The Avenger model is equipped with the Kawasaki Injectolube oiling system which supplies fresh oil to the engine directly through the intake ports and also to the connecting rod big ends, enabling this high efficiency power plant to operate at maximum efficiency at all times. This system provides entirely separate tanks for oil and gasoline.

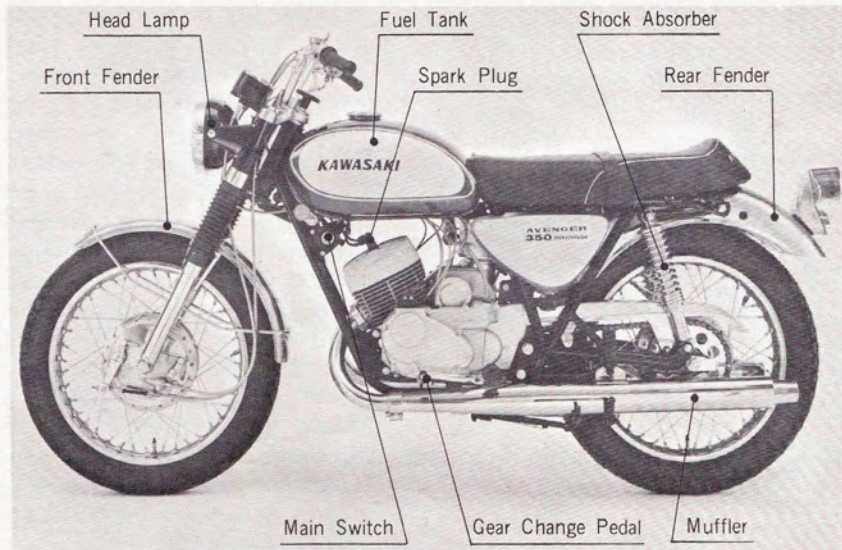
Your new motorcycle was manufactured by the Kawasaki Aircraft Co. to exacting standards and highest quality controls. The Kawasaki Industrial Group embraces companies producing jet aircraft and helicopters, railroad locomotives and rolling stock, ships, steel, and many other products. The motorcycle factory produces a full range of models from 50cc to 650cc.

Read this handbook carefully and follow the instructions closely to insure long service life and maximum enjoyment from your new motorcycle. Remember that proper break-in and continued good maintenance are important for troublefree operation of any precision

Again, welcome to the growing ranks of Kawasaki rider's round the world. Happy riding miles!

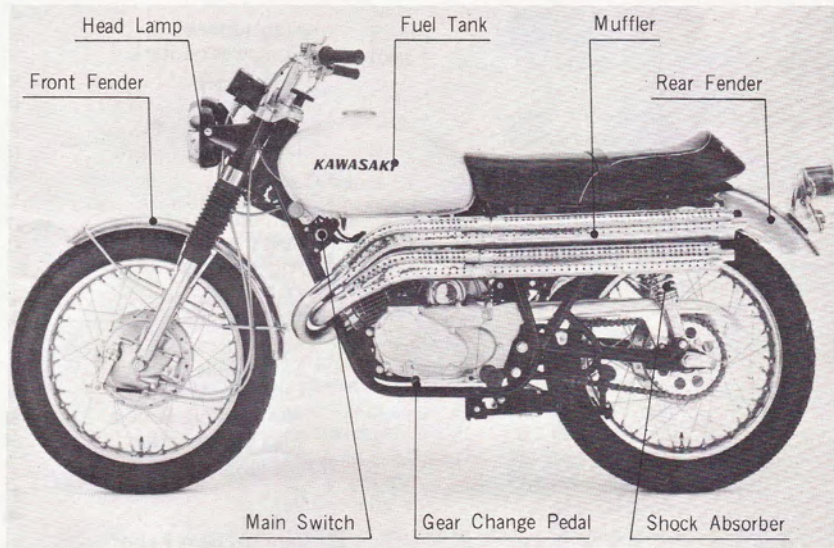
Kawasaki Aircraft Co.
Tokyo, Japan

1. Location of Parts



MODEL A7

Fig. 1



MODEL A7SS

Fig. 2

2. Specifications

(Note: A7 and A7SS are basically the same differing only in exhaust systems and certain other equipment items).

Engine

Type	Twin cylinder, two-stroke, rotary disc valve design. Air cooled.
Displacement	20.63 cu in (338 cc)
Compression Ratio	7.0-1
Fuel	Regular Gasoline
Ignition	Battery and Coil
Starting	Kickstarter
Lubrication	Injectolube oil injection system with separate oil tank
Engine Oil	2 stroke engine oil as recommended
Carburetors	(Two) Mikuni VM 26SC
Spark Plugs	Champion UL 19V

Performance

Max. Horsepower	42 @ 8,000 RPM
Max. Torque	28.9 ft-lb 7,000 RPM
Max. Speed	108 - 115 M.P.H.
SS 1/4 Mile	13.8 SEC
Climbing Ability	40 ⁰
Min. Turning Radius	86.6 inches
Fuel Consumption	80 Miles/Gallon @ 30 M.P.H.

Transmission

Type	5 speed, constant mesh
Clutch	Heavy Duty Multiple Disc, Wet Plate
Internal Gear Ratios	Low 2.50 2nd 1.53 3rd 1.13 4th 0.92 5th 0.78
Final Reduction Ration	2.40 (15.36)

Overall Drive Ratio 6.36
Transmission Oil SAE # 30 Motor Oil

Frame

Type Tubular steel, double cradle design
Suspension: Front Telescopic fork, hydraulically controlled
Rear Swinging Arm, hydraulically controlled
Tire Size: Front 3.25-18
Rear 3.50-18

Brakes

Front Internal expanding, right hand operated
Double Leading Shoe
Rear Internal expanding, right foot operated
Braking Distance 39 ft. at 31 mph (12 meters at 50 kph)

Electrical Equipment

Battery 12V 6 AH
Head Lamp 12V, 35/25W, sealed beam, fully approved.
Tail/Brake Lamp 12V, 4/32 CP (8/25W), fully approved.

Dimensions

Overall Length 78.7 in (2,000 mm)
Overall Width 32.7 in (830 mm)
Overall Height 42.0 in (1,070 mm)
Wheelbase 51.0 in (1,295 mm)
Ground Clearance 6.7 in (170 mm)
Dry Weight 331 lbs (151 kg)
Fuel Tank Capacity 3.5 gal (13.5 liters)
Oil Tank Capacity 2.4 qt (2.2 liters)

* Specifications subject to change without notice.

3. Breaking In



Fig. 3

This Kawasaki motorcycle is precision manufactured, but it must be broken in properly for the first 600 miles (1,000 kilometers) to ensure long and troublefree service life.

Injectolube Oil Injection System

Your Kawasaki is equipped with Injectolube oil injection which eliminates the need to mix oil with the gas. Check the level in the oil tank regularly. Add two (2) quarts oil when the level falls to the line on the tank gauge. Never let the tank run dry. Do not disconnect oil pipe to engine as this may cause an air lock which may lead to engine damage.

Use any good quality two (2) cycle oil designated for use in motorcycles or air cooled engines. Racing type oils are not required for normal riding conditions and will be an unnecessary expense. Your dealer can recommend oils most suitable and available in your area.

Avoid use of oils which do not flow readily in low temperatures as these will not flow to the oil pump in proper quantities in cold weather.

Do not attempt to adjust the oil pump yourself. When adjustment is required, consult your Kawasaki dealer.

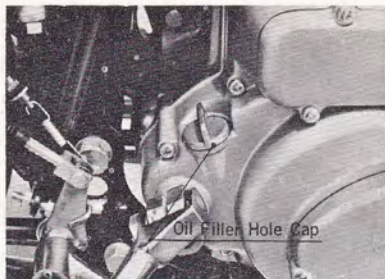


Fig. 4

Adding and Changing Oil in Transmission

Check the oil level daily and never let oil level drop below mark on oil level gauge. (Dip Stick).

At 500 miles drain oil and refill with fresh oil.

Repeat at 2,000 miles and change at intervals of 2,000 miles thereafter.

Drain oil when engine is warm.

Refill with good quality SAE #30 motor oil.

To fill transmission, remove oil filler cap and fill until oil level is between the two lines marked on the level gauge, when the gauge is screwed in. Replace filler cap.

Do Not "Race" Engine

Do not race engine or run at high revs immediately after starting. Over revving the engine in neutral can cause severe damage.

Do Not Over-Rev Engine

Do not run the engine exceeding 6,000 r.p.m. in any gear for the first 300 mi (500 km). Even after that, do not strain the engine by over-revving. In particular, be careful not to run the engine at high speeds with the gears in neutral, as this overloads turning parts and can cause defective engine operation. Do not brake the motorcycle suddenly. Do not strain the engine and do not slip the clutch excessively.

4. Controls

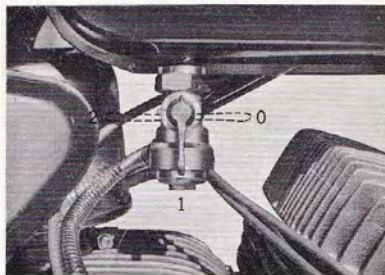


Fig. 5

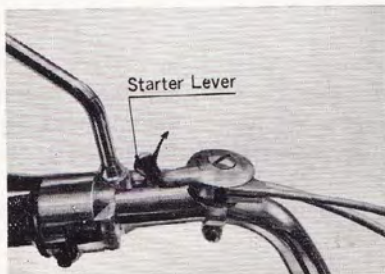


Fig. 6

Gasoline Shut-Off Valve: See Fig. 5.

Position "0" is closed, "1" is open, and "2" opens a 2 quart reserve supply. Shut valve when parking motorcycle.

Carburetor Starter Lever: See Fig. 6.

The starter lever is located on the left handlebar and provides a rich mixture for starting, similar in result to a choke. Use when starting cold engine. Push lever to full forward position, keep throttle closed, and kick starter lever through quickly. After engine warms up, return lever to normal (back) position. When starting warm engine, do not use carburetor starter lever, and give throttle approximately 1/8 turn.

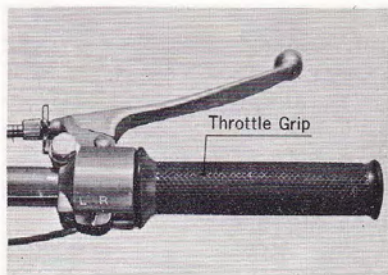


Fig. 7

Throttle (See Fig. 7)

The right-hand twist grip operates the throttle. Turning the grip inward (counterclockwise) opens the throttle, increasing speed.

5. Starting the Engine

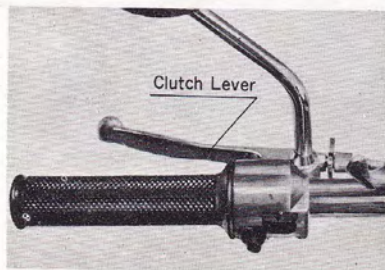


Fig. 8

Clutch Lever

The clutch lever operates the clutch. When the lever is pulled in, engine power is not transmitted to the rear wheel. When the lever is released, power is supplied to the rear wheel and the motorcycle moves. Pull in the lever quickly and release it slowly.

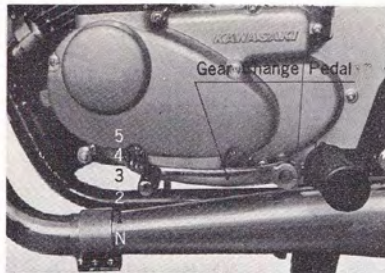


Fig. 9

Gear Shifting

Transmission gears are changed by pulling up the gear change pedal. The 5-speed transmission is a stopper type return change.

The neutral is located at lowest position, so gears can be shifted up into a higher gear by pulling up the pedal with toe and shifted down into a lower gear by pressing on the pedal. When the gears are in neutral, engine power cannot be transmitted to the rear wheel and green lamp in the speedometer turns on.

Gear sequence is as follows.

Neutral (green lamp on), low, second, third, fourth top.

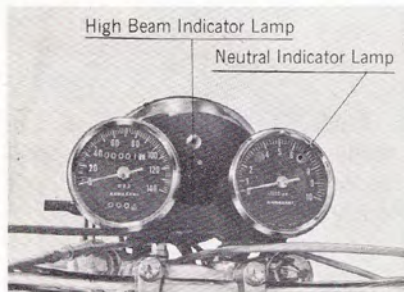


Fig. 10

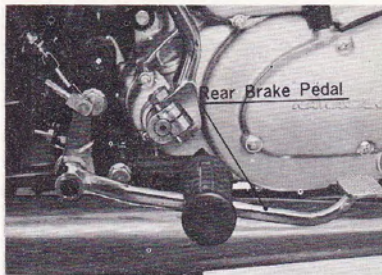


Fig. 11

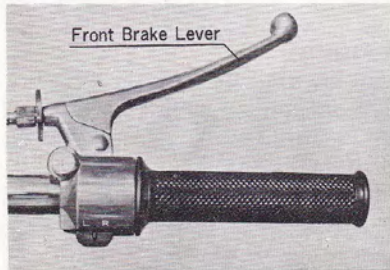


Fig. 12

Brakes

The motorcycle will stop smoothly and safely when both front and rear brakes are applied at the same time. The rear brake operates when the brake pedal is pushed by the right foot. The front brake operates when the brake lever on the handlebar is pulled in by the right hand.

Starting Cold Engine

This Kawasaki motorcycle has a special carburetor incorporating a system for easy starting when cold.

1. Open Gasoline Shut Off Valve (See Fig. 5). If fuel does not flow to carburetors, turn fuel cock lever to open reserve supply.
2. Push carburetor starter lever all the way forward (see Fig. 6)
3. Close throttle completely. If the throttle is open even a little, the carburetor starter system will not work effectively and make the engine hard to start.
4. Insert key in main switch and turn it on.
5. Check to be sure green neutral indicator lamp in the speedometer turns on. If the gears are not in neutral, the motorcycle will jump when the starter pedal is kicked and could cause an accident.
6. Kick the starter pedal down smartly.
7. After the engine starts, twist the throttle grip open slightly. When engine speed increases, indicating the engine has warmed up, return the starter lever to its normal (back) position, If the starter lever is not returned to its normal position, too rich a mixture is supplied to the engine, causing fouled spark plugs and defective engine operation.

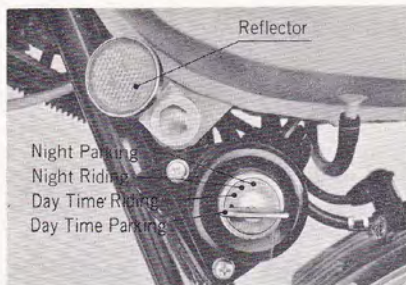


Fig. 13

6. Parking



Fig. 14

Starting Warm Engine

Do not use the starter lever when the engine is warm, or the engine may be flooded or spark plugs fouled.

1. Open gasoline shut off valve.
2. Insert key in main switch and turn it on.
3. Check to be sure green neutral indicator lamp in the speedometer turns on.
4. Crack the throttle open a little, about 1/8 - 1/4 Turn.
5. Kick the starter pedal down smartly, and the engine will start.

Note "At night, start engine before turning on lights.

Shift the gears into neutral and stop the engine. Place the motorcycle on either the side stand or the main stand on a firm surface. Close the fuel cock. Remove the key from the main switch. Lock the steering head lock. When parking the motorcycle at night, turn the main switch to position 3 to leave tail lamp turned on.

Key can be removed in this position.

7. Maintenance and Adjustments

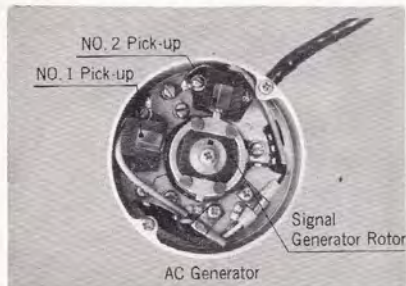


Fig. 15

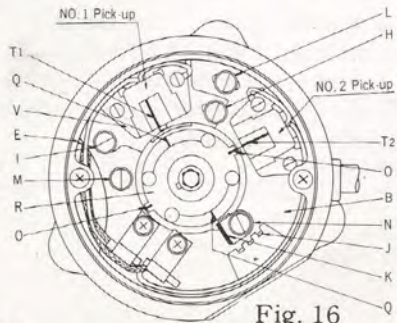


Fig. 16

1. AC Generator

The A7 and the A7SS are equipped with AC generator which consists of generating part, rectifying part and signal generator. The signal generator induces pulsing current at the proper timing which actuates the C-D ignition system.

Adjusting ignition timing.

First, adjust the ignition timing for the right cylinder. (See Fig. 16) Turn the signal generator rotor R until ignition timing pointer K aligns to the mark Q on the rotor end.

Loosen the fitting screws L, M and N, then adjust the timing mark O so as to align to the mark T₁ on the No.2 Pick-up by moving the base plate B to the left or right.

Note; The base plate B can be easily moved by prying the notch J with a screw driver.

Be sure to tighten the fitting screws L, M and N securely after adjusting No.2 Pick-up.

Next, adjust the ignition timing for the left cylinder aligning the mark Q to the pointer K as in the procedure of adjusting the left cylinder timing. Adjust the mark T₁ on the No.1 Pick-up to align the mark Q by moving the pick-up base V which is fixed with the fitting screws H and I.

Note; The pick-up base V can be easily moved by prying the notch E with a screw driver.

Be sure to tighten the fitting screws H and I after adjusting the No.1 Pick-up.

Check to be sure after adjusting that the mark T₂ on the No.2 Pick-

up aligns to the mark O and the mark T₁ on the No.1 Pick-up to the mark Q when the mark Q aligns to the pointer K.

If these points are exactly right, ignition timing will be correctly adjusted to 25° before top dead center.

Note; Brush off the signal generator rotor and the Pick-ups clean after adjusting.

2. Spark Plugs

Standard spark plugs for the A7 and the A7SS are Champion UL-19V which is generally called surface gap plug and specially used for the C-D ignition system. If Champion UL-19V is not available, use NGK-B9HC.

Note; In case of using NGK-B9HC, adjust the spark plug gap to 0.04 in.



Fig. 17

Battery

Battery should be completely charged, using a low charging rate before installing. (Follow instructions supplied with battery.)

Keep solution above lower line printed on battery. Add distilled water to bring level to line. Do not overfill.

Make sure air vent is open. Do not spill acid. Inspect battery frequently and keep it clean. If the motorcycle is not ridden for more than one month, charge the battery once a month. Improper battery service will result in the need for early battery replacement, an unnecessary expense to the owner.

Be sure battery is installed correctly with positive and negative terminals connected securely to correct wires. Tighten all connecting nuts and bolts firmly.

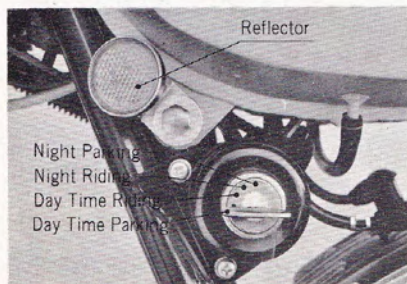


Fig. 18

Main Switch

Main Switch positions are:

- (0) Daytime Parking.
Key can be removed, Engine and all electrical equipment turned off.
- (1) Daytime riding.
Key cannot be removed. Engine, horn, and brake lamp turned on.
- (2) Night riding.
Key cannot be removed. Engine, horn, head lamp, tail lamp, and brake lamp turned on.
- (3) Night parking.
Key can be removed.
Engine cannot be started. Tail lamp only turned on.



Fig. 19

Head Lamp

The 12V, 35/25W head lamp is turned on when the main switch key is turned to position (2) for night riding. (See Fig.18).

The head lamp is dimmed by moving the knob of the dimmer switch mounted on the left handlebar (high beam indicator lamp turns off.)

Head lamp focus can be adjusted by loosening two head lamp fitting bolts and moving the head lamp up and down. To adjust focus right or left, screw the focus adjusting screw in or out. (Fig. 19)



Fig. 20

Tail/Brake Lamp

The tail lamp turns on when the main switch key is turned to position (2) for night riding.

The brake lamp turns on when the brake pedal is depressed with the main switch in position (1) or (2). A double filament bulb is used for the tail lamp (12V, 4cp) and brake lamp (12V, 32cp). USA Standard Bulb 1034 can be used for replacing a burned out bulb.

The brake lamp switch should be adjusted so that the brake lamp turns on when the brake pedal is depressed about 0.8 inch (15-20 mm).

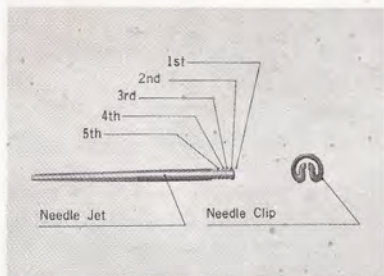


Fig. 21



Fig. 22

Carburetors (Fig. 23,24)

The carburetor atomizes the gasoline, mixes it with the proper amount of air and supplies the proper amount of mixture to the engine. To adjust engine idling speed, turn the throttle stop screws in or out. Turning in screws decreases idling speed and turning out screws increases idling speed. Check exhaust pressures of both cylinders after idling speed is adjusted.

Note; Difference between exhaust pressures of both cylinders can be easily found by holding hands near end of exhausts.

Although it may seem easy, carburetor adjusting is difficult to do properly and incorrect adjustment can cause serious problems. Always take your motorcycle to your Kawasaki dealer for carburetor adjustment.

The pilot air screw standard setting is backed out 1.0 turns from the bottom. Standard needle clip position is in the 2nd groove from the top of the jet needle.

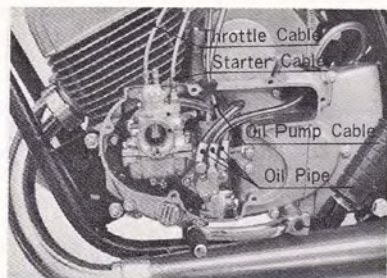


Fig. 23

Throttle Control Cable

This control cable consists of the oil pump cable and throttle cables which are connected with a junction device.

Adjust control cable play with control cable adjuster bolt, and lock it with lock nut.

Do not touch throttle cable adjusters on carburetor mixing chamber top because throttle cables are synchronized exactly with oil pump cables. If the throttle cables only are adjusted without adjusting oil pump cables, oil injection quantity may be incorrect.

If throttle cable adjusting is needed, take your motorcycle to your Kawasaki dealer for adjusting and synchronization.

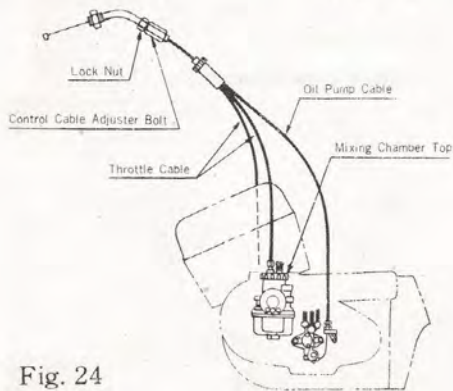


Fig. 24

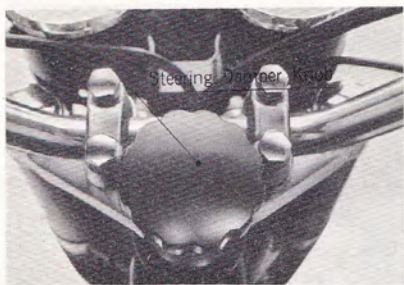


Fig. 25



Fig. 26

Steering Dampers

Friction Type

The Steering damper fitted on the steering stem can be adjusted according to road and loading conditions. Turning steering damper knob to the right stiffens steering and turning it to the left loosens steering.

Hydraulic Type

There is no adjustment on the hydraulic type damper also fitted.

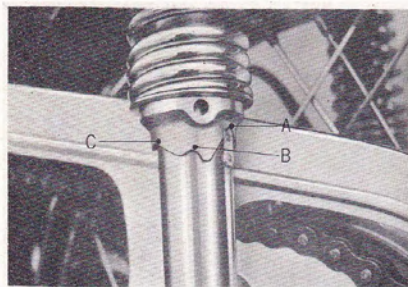


Fig. 27

Shock Absorber Springs

The shock absorber springs can be adjusted according to road conditions and loading conditions. Be sure both shock absorbers are in same position. (Fig. 27)

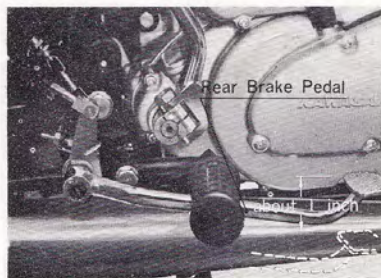


Fig. 28

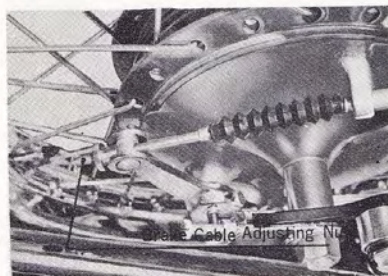


Fig. 29

Brakes

Good brakes are highly important for safe riding. Always be sure to check brakes before riding. Play in brakes increases gradually with wear, so adjust them regularly.

1. Rear Brake

Brake pedal position A (Fig. 28) is the normal position and position B is the point where the brake begins to be applied. Adjust brake pedal play to 1 inch or slightly more (25-35 mm). Adjust with brake wire adjusting nut. (Fig.29)

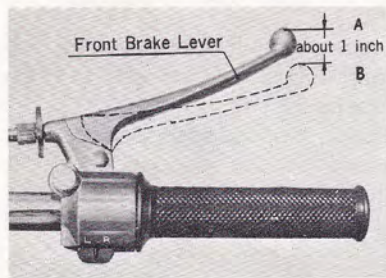


Fig. 30

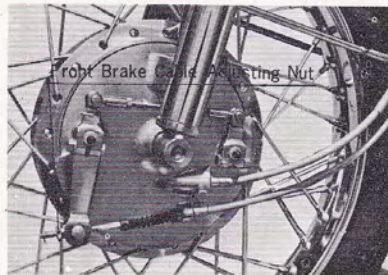


Fig. 31

2. Front Brake

Brake lever position A is the normal position and position B is the point where the brake begins to be applied. Adjust brake lever play to about 1 inch (20-30 mm). (Fig. 30)

Tires

Check tires frequently - at least once a week, and before any lengthy ride. Correct pressure means easy ride, good handling and long service life of tires.

Too low a pressure wears sidewalls rapidly, builds up heat and may lead to tire failure.

Too high a pressure gives a hard ride, increases vibration, wears tread rapidly, and tends to skid more easily.

Correct pressures are:

24 Pounds (Front)

31 Pounds (Rear)

When replacing a tube, check wheel for balance.

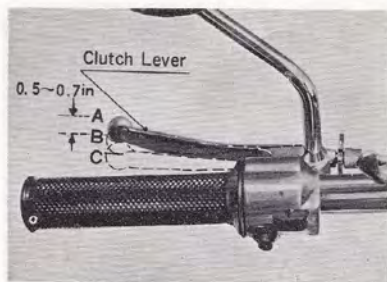


Fig. 32

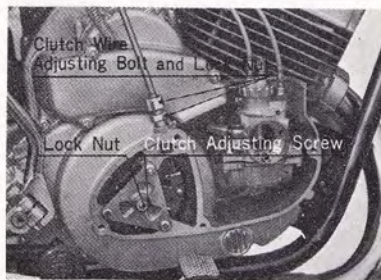


Fig. 33

Clutch (Fig. 32 & 33)

To adjust the clutch, first loosen clutch wire adjusting bolt (Fig. 33) and lock nut on clutch adjusting screw, then turn in clutch adjusting screw until it begins to turn hard.

After the screw begins to turn hard, turn out again about 1/4 turn to prevent drag. Be sure to tighten lock nut after adjusting.

Adjust clutch lever play with the clutch wire adjusting bolt. Tighten lock nut. Excessive play at the clutch lever causes the clutch to drag.

Clutch lever position A (Fig. 32) is the normal position, B is just as the clutch begins to work and C is the disengaged position. From A to B is the clutch lever play. Adjust play to 0.5-0.7 in at the ball end of the lever.

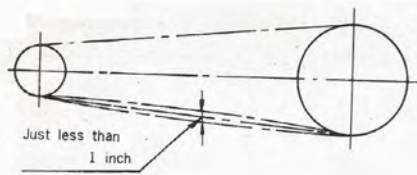


Fig. 34

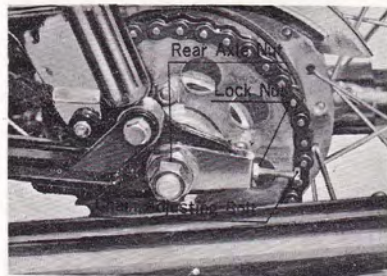


Fig. 35

Drive Chain

If drive chain is not properly lubricated, the links become stiff resulting in rapid wear of sprockets and chain. Power is lost by dry or badly worn chain.

Inspect and lubricate the chain periodically.

There should be a play of just less than 1 inch (about 20 mm) midway between the sprockets.

To adjust chain tension, first loosen nuts and then turn chain adjusting bolts (Fig. 35).

Check chain for tight spots by revolving rear wheel. Adjust for tightest spot.

Be sure chain adjusters on each side are moved the exact same amount. Readjust the rear brake after adjusting the chain.

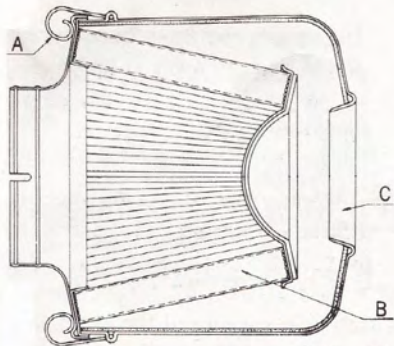


Fig. 36

Air Cleaner

1. Removing Air Cleaner - A7

The air cleaner can be easily took off toward the left side of the frame by loosening the pinch screw on air cleaner clamp.



Fig. 37

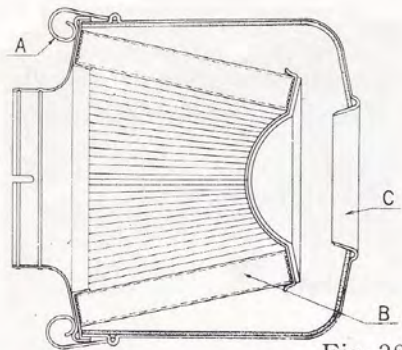


Fig. 38



Fig. 39

Removing Air Cleaner-A7ss

The air cleaner can be removed after removing the tool kit and battery (see Sec. 9). Loosen the pinch screw on air cleaner clamp and take off air cleaner body toward rear of dynamo cover.

2. Remove the clip "A" and take out element "B". Wash the element and air cleaner body, "C" with gasoline or fuel mixture. Lubricate the felt inside the air cleaner body with SAE#30 motor oil. If the element was washed with gasoline, soak it in 20: 1 fuel mixture before installing. (20 parts gas, 1 part oil).
3. Be careful not to get water into air cleaner when motorcycle is washed.

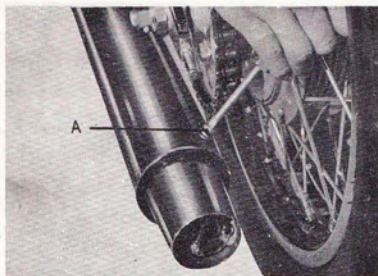


Fig. 40

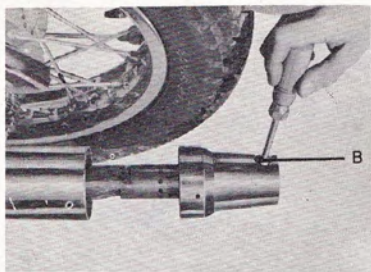


Fig. 41

Muffler - A7

Loosen screws (A) and pull out the tail piece with baffle tube. Baffle tube can be removed from the tail piece by loosening screw (B).

Strike the baffle tube gently to shake off carbon deposits and wash with gasoline.

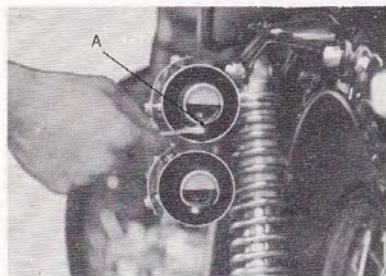


Fig. 42.

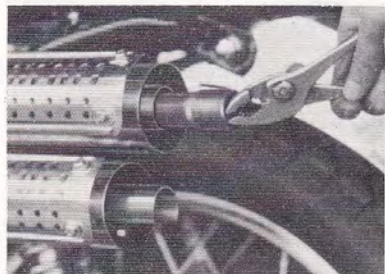


Fig. 43

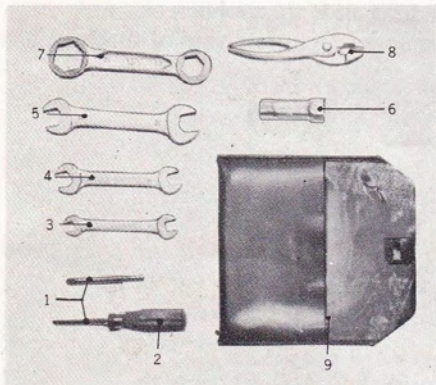
Muffler - A7SS

Loosen 6 x 10 tail piece retaining bolt and remove tail piece as turning it toward left. To remove spark arrester with baffle tube, retighten the above bolt after removing tail piece. Spark arrester with baffle tube can be pulled out by loosening 6 x 10 hex head bolt retaining spark arrester on the muffler. Spark arrester can be removed from the baffle tube by loosening 6 x 10 tail piece retaining bolt (See Fig. 43). Strike the baffle tube and spark arrester gently to shake off carbon deposits and wash with gasoline.

8. Daily Checks

- Front Brake Brake lever play about 1 inch (20-30 mm)
- Rear Brake Brake pedal play about 1.2 inch (25-35mm)
- Fuel Tank Capacity 3.5 gal (13.5 liters)
- Oil Tank Capacity 2.4 pt (2.2 liters)
- Transmission Oil . . Capacity 1.27 pt (1.2 liter) SAE 30
- Front Tire Air pressure 24 psi (1.70 kg/cm²)
- Rear Tire Air pressure 31 psi (2.20 kg/cm²)
- Electrical Check to see that head lamp, tail lamp,
Equipment brake lamp, and horn work.
- Chromium Plated . . Wash clean and wipe with oily cloth
Parts to prevent rusting.
- Clutch Lever Clutch lever play about 0.5 - 0.7 in (12-18 mm).

9. Tool Kit



1. Screw Drivers
2. Screw Driver Grip
3. 10 x 12 Open End Wrench
4. 14 x 17 Open End Wrench
5. 19 x 21 Open End Wrench
6. 17 x 21 Socket Wrench
7. 23 x 32 Box Wrench
8. 150 mm Pliers
9. Tool Bag

Fig. 44

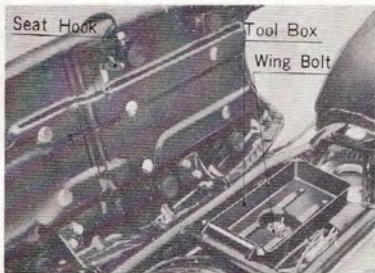


Fig. 45



Fig. 46

Removing tool kit and battery-A7ss

Tool kit and battery are installed under the seat. Remove the hook on the seat and swing it upright, then battery can be removed by removing the wing bolt and setting aside the tool box.

On A7 battery can be removed from left side of machine after removing cover panel.

10. Periodical Inspection Chart

Item \ Miles	500	1,000	2,000	EACH SUBSEQUENT 2,000
Change Transmission Oil	○		○	○
Clean Air Cleaner			○	○
Tighten Cylinder Head Bolts	○		○	○
Clean Spark Plug	○	○	○	○
Check Ignition Timing	○		○	○
Inspect Drive Chain	○	○	○	○
Check, Adjust Brakes	○	○	○	○
Tighten Nuts and Bolts	○	○	○	○
Grease Motorcycle		○	○	○
Clean Fuel Cock Strainer and Oil Filter	○	○	○	○
Check Battery Voltage	○	○	○	○
Replenish Battery Solution		○	○	○
Remove Wheels, Clean Brakes			○	○
Grease Cam Felt			○	○
Clean Exhaust Pipe and Muffler			○	○
Wash, Lubricate Drive Chain	○	○	○	○
Check, Adjust Contact Points				○
Check, Tighten Spokes	○		○	
Check, Adjust Carburetors and Oil Pump			○	○

11. Trouble Shooting

Engine Hard To Start

Situation	Cause	Action
Gasoline not flowing to carburetor.	Fuel passages in fuel cocks, fuel line, carburetor clogged.	Clean clogged passages with compressed air.
Gasoline flows to carburetor and spark jumps in spark plug.	<ol style="list-style-type: none">1. Wrongly connected ignition coils (L.H. ignition coil to R.H. spark plug)2. Improper ignition timing.	<ol style="list-style-type: none">1. Connect coils correctly.2. Adjust timing.
No spark or weak spark in spark plugs.	<ol style="list-style-type: none">1. Short-circuit or Disconnected Signal Generator coils.2. Discharged Battery.3. Inproper groundings.4. Loose terminal connections of the Unit "A" or Unit "B".5. Damaged Unit "B".	<ol style="list-style-type: none">1. Replace.2. Charge. Specific gravity is 1,280 at 68°F.3. Repair.4. Connect firmly.5. Replace.

Irregular Running at High RPM

Situation	Cause	Action
Defective ignition system.	<ol style="list-style-type: none">1. Defective ignition coils.2. Damaged Unit "A" or Unit "B"3. Insufficient Battery Voltage.	<ol style="list-style-type: none">1. Replace.2. Replace.3. Charge.

Improper Performance When Riding

Situation	Cause	Action
Defective fuel system.	Improperly adjusted carburetor.	Adjust.
Decreasing engine power.	<ol style="list-style-type: none">1. Improper ignition timing.2. Too rich or too lean gasoline/air mixture.3. Carbon deposits on cylinder head, pistons.4. Improper compression.5. Damaged gasket.6. Worn piston rings.7. Same causes as "irregular running at high rpm."	<ol style="list-style-type: none">1. Adjust.2. Check carburetor, adjust.3. Remove.4. Tighten cylinder head bolts, spark plugs.5. Replace.6. Replace. Rebore cylinder and replace pistons if needed.7. Cylinder head bolt tightening torque: 12~16ft-lb. (1.8~2.2 kg-m).

* Continued on the next page.

* Continued from the preceding page.

Transmission drags.	1. Too much oil. 2. Viscosity too high.	1. Drain and put in correct amount. 2. Drain and put in correct oil: SAE 30.
Clutch slips.	Improperly adjusted.	Adjust.
Power loss.	Chain tension too tight.	Adjust drive chains.

Engine Becomes Defective Abruptly or Stops While Riding

Situation	Cause	Action
Engine feels heavy abruptly and motorcycle stops.	1. Piston seized. 2. Crankshaft seized. 3. Transmission gears seized.	1. Replace, rebore if needed. 2. Overhaul engine. 3. Overhaul transmission.
Fuel supply stops.	1. Out of gasoline. 2. Clogged fuel supply system.	1. Replace. 2. Clean.

Defective Clutch

Situation	Cause	Action
Clutch slips.	1. No play in clutch lever. 2. Weak clutch springs. 3. Improperly adjusted clutch.	1. Adjust. 2. Replace. 3. Adjust.
Clutch drags.	1. Too much clutch lever play. 2. Improperly adjusted clutch.	1. Adjust. 2. Adjust.

Defective Gear Shifting

Situation	Cause	Action
Gear shifting heavy.	<ol style="list-style-type: none">1. Improperly adjusted clutch lever.2. Clutch seized because of worn or deformed clutch steel plate or friction plate.	<ol style="list-style-type: none">1. Adjust to disengage earlier.2. Replace plates, discs.
Gears disengage.	Worn or damaged dog teeth of gears.	Overhaul transmission and replace worn gears.

Defective Lighting

Situation	Cause	Action
Lamps too dim.	<ol style="list-style-type: none">1. Discharged battery.2. Loose terminal connections.3. Damaged or disconnected wires.4. Short circuit because of damaged wiring cover.5. Improper switch contact.6. Improper grounding.	<ol style="list-style-type: none">1. Charge. Specific gravity is 1,280 at 68°F (20°C).2. Tighten.3. Replace or reconnect.4. Repair or replace.5. Repair or replace.6. Repair.

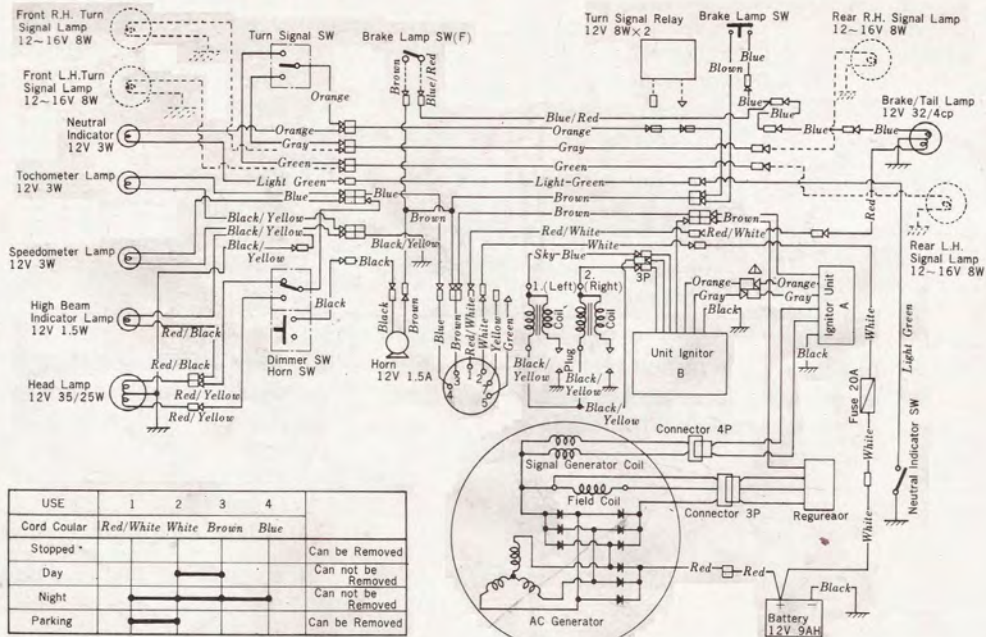
Defective Brakes

Situation	Cause	Action
Braking not sufficient.	<ol style="list-style-type: none">1. Improperly adjusted brakes.2. Oil or water in brake.3. Defective brake cam.4. Worn brake shoes.	<ol style="list-style-type: none">1. Adjust.2. Clean.3. Repair or replace.4. Replace.
Brake drags.	<ol style="list-style-type: none">1. Brake pedal or lever play too small.2. Rusted moving parts.3. Moving parts rubbing.4. Weak brake shoe springs.5. Defective brake pedal spring.	<ol style="list-style-type: none">1. Adjust.2. Clean and lubricate.3. Repair or replace.4. Replace.5. Replace.
Abnormal noise made by brakes.	<ol style="list-style-type: none">1. Improper brake shoe contact.2. Improper brake cam shape.3. Foreign matter on brake lining.4. Rough brake drum surface.	<ol style="list-style-type: none">1. Adjust or repair.2. Repair or replace.3. Clean.4. Smooth.

Bad Stabilization When Riding

Situation	Cause	Action
Steering Heavy.	<ol style="list-style-type: none">1. Excessively tightened steering head.2. Tire air pressure too low.3. Damaged steering head balls.4. Bent steering stem.	<ol style="list-style-type: none">1. Loosen.2. Correct.3. Replace.4. Replace.
Handlebar shakes.	<ol style="list-style-type: none">1. Front and rear wheels not aligned.2. Excessive play in front wheel.3. Damaged steering head balls.4. Damaged or worn steering head bearing races.	<ol style="list-style-type: none">1. Repair frame or align rear axle adjuster marks.2. Adjust or repair.3. Replace.4. Replace.
Motorcycle cannot be ridden straight easily.	<ol style="list-style-type: none">1. Tire air pressure too low.2. Front and rear wheels not align.3. Loose spokes or deformed rims.4. Loose wheels balance.	<ol style="list-style-type: none">1. Correct.2. Repair frame or align rear axle adjuster marks.3. Tighten spokes, repair or replace rims. Rim shake should be below 0.04 in (1 mm).4. Adjust with balance weight.
Defective suspension.	<ol style="list-style-type: none">1. Oil leaking from damper unit.2. Worn springs.3. Improperly mounted suspension units.	<ol style="list-style-type: none">1. Replace oil seal or damper unit.2. Replace.3. Mount properly.

12. Wiring Diagram



USE	1	2	3	4	
Cord Coular	Red/White	White	Brown	Blue	
Stopped *					Can be Removed
Day		—	—		Can not be Removed
Night	—	—	—	—	Can not be Removed
Parking	—	—			Can be Removed

NOTE: Turn Signal Lamps, Relay and front Brake Lamp SW are Optional Parts which are shown with dotted lines.



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