MT-1

MINI-TRAIL

Kawasaki Motors Corp. 1062 McGAW AVENUE, SANTA ANA, CALIFORNIA 92705 - PHONE: (714) 540-9980

FORWORD

We wish to thank you for your choosing this fine **Kawasaki Motorcycle**. With the proper care and maintenance you will find your "**dynamic partner**" **will go any time** and anywhere. Please read this handbook carefully to obtain instructions **for proper use of your** "dynamic partner", so that you can always enjoy its best performance.

1. SPECIFICATIONS

Dimensions:

Overall Length	53 in (1350 mm)
Overall Width	24 in (600 mm)
Overall Height	34 in (875 mm)
Wheelbase	38 in (965 mm)
Ground Clearance	6 in (155 mm)
Dry Weight	121 lb (55 kg)
Fuel Tank Capacity	0.8 US gal (3 liters)
Oil Tank Capacity	37 OZ (1.0 liters)

Performance:

Max. Horsepower	5 Hp/6300 rpm
Max. Torque	4.7 ft-lb (0.65 kg-m)/5000 rpm
Max. Speed	40 mph (65 kph)
Minimum Turning Radius	59 in (1500 mm)
Climbing Ability	30°
Fuel Consumption	154 mil/gal @ 16 mph (165 km/ℓ @ 25 kph)

Engine:

Type	2-Stroke, Single Cylinder, Piston Valve
Displacement	4.45 cu-in (73 cc)
Bore x Stroke	1.81 x 1.73 in (46 x 44 mm)
Compression Ratio	6.7
Fuel	Gasoline
Ignition System	Magneto
Ignition Timing	21° Before TDC
Starting	Kick
Lubrication	Superlube (Oil Injection)
Engine Oil	2-Stroke Oil
Carburetor	Mikuni VM 15 SC
Spark Plug	NGK B-7H

Transmission:

Type	3-Speed, Constant Mesh Return Shift
Clutch	Automatic Centrifugal
Primary Reduction Ratio	3.353 (57/17)
Final Reduction Ratio	2.538 (33/13)
Overall Drive Ratio	8.917
Gear Ratios	1st 2.909 (32/11)
	2nd 1.529 (26/17)
	3rd 1.048 (22/21)
Transmission Oil	ATF 34 OZ (1.0 liters)

Frame:

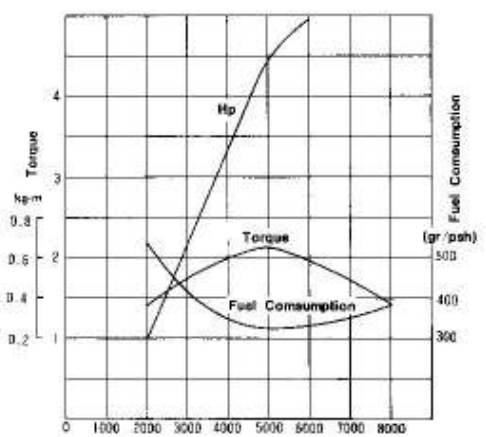
Type	Tubular
Suspension, Front	Telescopic Fork (Front Fork Stroke 82 m/m)
Rear	Swing Arm (Shock Absorber Spring Stroke 60 m/m)
Tire Size, Front	3.50-8
Tire Size, Rear	3.50-8
Castor	63°
Trail	2.5 in (60 mm)

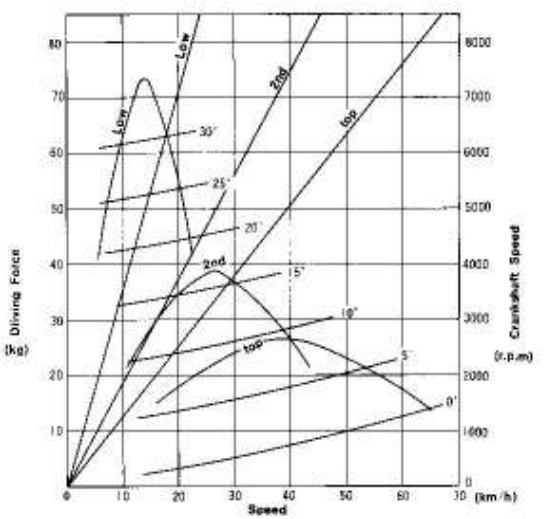
Brakes:

Front Brake (dia x width)	4.15 x 0.59 in (105 x 15 mm)
Rear Brakes (dia x width)	4.15 x 0.59 in (105 x 15 mm)

Electrical Equipment:

Head Lamp	6V 25/25W
Tail Lamp	6V 3W





3. FOR CAREFUL USE

This "Kawasaki" is designed for "off-the-road" riding. This is for your trailing and scrambling enjoyment. This is not for the riding on ordinary express-ways or roads. Easy transportation in any automobile is one of the features. Handles can be folded easily by loosening the fitting nuts. The folded vehicle can be housed in the rear compartment of an automobile. When housing the bike in an automobile, be sure to turn off the knobs on the fuel tank cap and the oil tank cap to prevent oil leak. Also the fuel tap lever must be turned to close position before housing the bike. Remaining gasoline in the carburetor can be drained by tapping the drain value. This means that your automobile's rear compartment will not be spoiled by transportation of the vehicle. Fix the handles in the orginal position before you start to drive.

Note: Reset the knobs and the lever to normal position before riding.

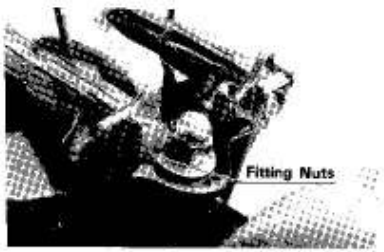


Fig. 1

Fig. 2

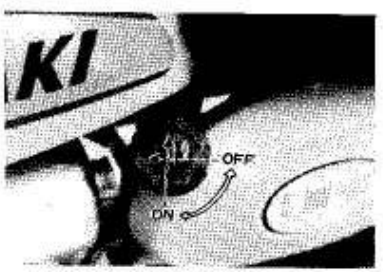


Fig. 3

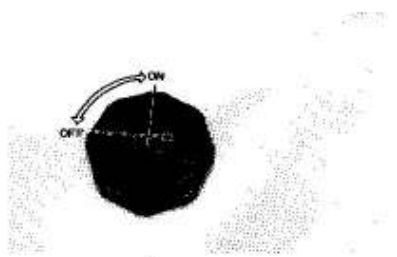


Fig. 4

Oil Injection System

Your Kawasaki is equipped with Superlube oil injection which eliminates the need to mix oil with the gas. Check the oil level in the oil tank regularly. Oil tank capacity is 0.9 quart. 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. 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.

Adding and Changing Oil in Transmission

Before operation of the engine the checking up should never be forgotten. At 10 hours drain oil and refill with fresh oil. Repeat above at every 100 hours. Drain oil when engine is warm.

Refill with good quality SAE 10W 30 motor oil or ATF. Continue pouring until oil comes out of the opening of oil level screw. This indicates the most adequate oil capacity for transmission.

Fig. 5

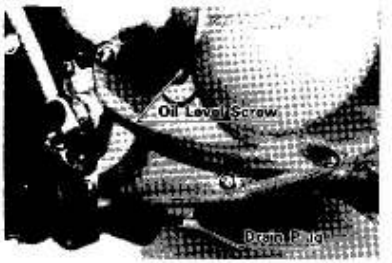


Fig. 6

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 Overspeed

Ride the motorcycle at about 35 mph (55 kph) or slower for the first 20 hours. Even after that, do not strain the engine by running it at high speeds. In particular, be careful not to run the engine at high speeds with gears in neutral, as this overloads turning parts and can cause defective engine operation. Do not brake the motorcycle suddenly and do not strain the engine.

Note: Allow engine to warm up thoroughly at idling speed for 2 ~ 3 minutes before riding.

4. CONTROLS

Fuel Tap

The position of fuel tap lever is shown in the photograph. Be sure to open the fuel tap when the vehicle is in use and close it when the vehicle is not used.

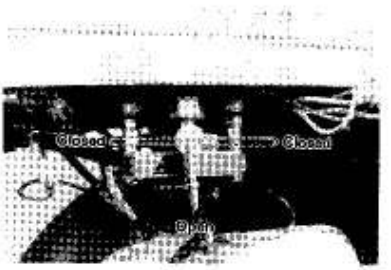


Fig. 7

Starter Lever

Use the starter lever when the engine is cold. Push the lever all the way to the below to supply an extra rich fuel air mixture, keep the throttle closed and kick the starter pedal through smartly. Be sure to pull the starter lever back to its normal position after engine warms up.

Fig. 8

Gear Change Pedal

Automatic centrifugal clutch is employed in this vehicle. This enables the rider to change the gear without clutching operations.

Transmission gears are shifted pressing down the gear change pedal. The 3-speed transmission is a stopper type return change.

The neutral is located at highest position, so gears can be shifted into a higher gear by pressing on the pedal with toe and shifted down into a lower gear by pulling up the pedal. When the gears are in neutral, engine power can not be transmitted to the rear wheel. Gear sequence is as follows.

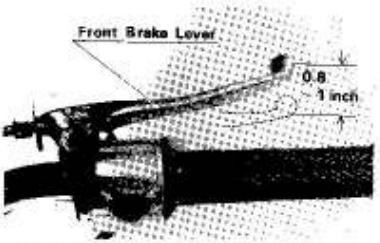
Neutral, Low, Second, Top.

Fig. 9

Front and Rear Brake

The Vehicle will stop smoothly and safely when both front and rear brakes are applied at the same time. The rear brake operates when the brake lever on the handlebar is pulled in by the left hand and the front brake operates when the brake lever on the handlebar is pulled in by the right hand. Adjust both brake lever play to about 1 inch (20 ~ 30 mm). Adjust with adjusting nut on the brake wire. Each part of the front and rear brakes has to be replaced strictly in accordance with the instructions given below. This is most important to prevent from any accident.

	Standard	Repair
Inside diameter of brake drum	4.13 in (105 mm)	4.16 in (105.7 mm)
Brake shoe Lining thickness	0.16 in (4 mm)	0.08 in (2 mm)
Brake shoe Lining width	0.59 in (15 mm)	——
Free length of spring	1.18 in (30 mm)	1.30 in (33 mm)



Throttle Grip Fig. 10

Fig. 11

The throttle grip controls the engine power, so the motorcycle can be controlled by twisting the throttle grip. Turning the grip inward toward the rider opens the throttle valve and supplies more fuel mixture to the engine, increasing engine output and motorcycle speed.

5. HOW TO START

This Kawasaki has carburetor starter system for easy starting even when cold.

1. Set the fuel tap lever on "open".
2. Push carburetor starter lever all the way below.
3. Close throttle completely, if the throttle is open even a little, the carburetor starter system will not work effectively and the engine is hard to start.
4. Be sure to shift the gear position into neutral.
5. No main switch is attached. Therefore, simply push down the kick starter, after finishing the above processes.
6. After the engine starts, twist the throttle grip open just a little. When engine speed increases, raise the starter lever to its normal position.
   If the starter lever is not returned to its normal position, too rich fuel is supplied to the engine, causing fouled spark plug and defective engine operation.
7. Do not use starter lever when the engine is warm, or the engine might be flooded or the spark plug is fouled, Crack the throttle open a little about 0 - 1/4 turn and kick starter pedal down smartly and the engine will start.

6. HOW TO STOP

1. Turn throttle grip to idle position and shift the gear in to neutral.
2. Push the stop button on the left grip.
3. Close the fuel cock
4. Place the motorcycle on the side stand.

7. MAINTENANCE AND ADJUSTMENTS

Adjusting Ignition Timing

(1) Turn the flywheel "A" until the mark "B" on the outside of the flywheel aligns with the mark "C" on the crankcase.

Fig. 12

(2) Loosen fitting screws "D" by inserting a screw driver through the hole "H". Move the contact breaker assembly to the right or left by prying the "F" on the flywheel base and the "G" on the contact breaker base until the contact points are just about to open.

(3) The point gap can be automatically adjusted to 0.014 in (0.35 mm) when above timing is correctly adjusted.

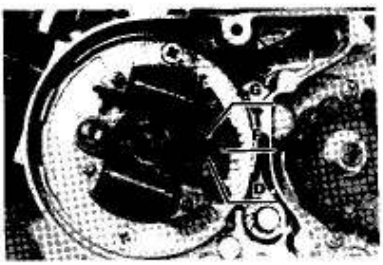


Fig. 13

(4) Be sure to tighten the screws "D" after adjusting. The contact points should just begin to open when the mark "B" on the outside of the flywheel aligns with the mark "C" on the crankcase (21° before top dead center).

Spark Plug

Use only a NGK B-7H spark plug or a plug of equivalent heat range and reach, as the spark plug and its condition directly affects engine performance. It is important that the spark plug should be kept in good condition. Standard spark plug gap is 0.024 in (0.6 mm). Check frequently to be sure the spark plug has the correct gap. The electrodes are subjected to extremely high temperatures and wear gradually, necessitating periodical adjustment.

A spark plug with a gap too large or too samll will cause defective engine operation such as hard starting, misfiring, etc. Clean the spark plug with a wire or brush and wash with gasoline if carbon accumulates on the spark plug electrodes after long use. Dry completely before installing in engine. Insert the spark plug and screw it down by hand first, then tighten with a plug wrench. Be sure to insert a spark plug gasket.

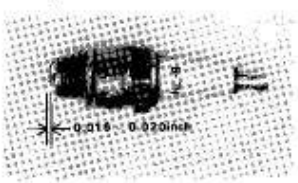


Fig. 14

Head and Tail Lamp

The 6V 25/25W head lamp and the 6V 3W tail lamp is turned on when the switch is turned to position "3" for night riding. When the switch is turned to position "2" and "1" for daytime riding the both lamps are off. The head lamp is dimmed by moving the knob of the dimmer switch mounted on the left handlebar. Head lamp focus can be adjusted by loosening two head lamp fitting bolts and moving the head lamp up and down.

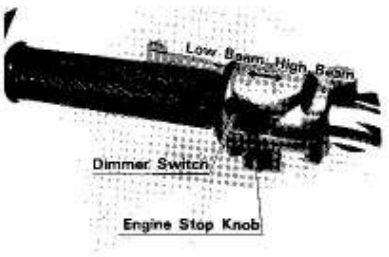


Fig. 15

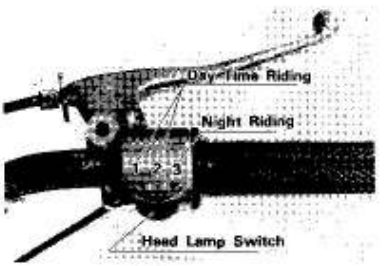


Fig. 16

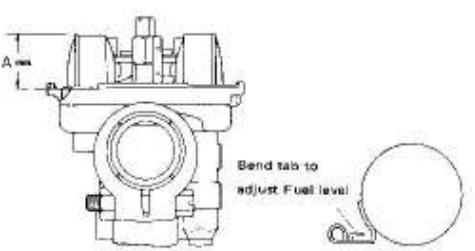
Carburetor

The carburetor atomizes the gasoline mixes it with the proper amount of air and supplies a proper amount to the engine.

Before adjusting the idling speed, completely warm up engine to normal operating temperature. At the same time, adjust the air screw on the carburetor as specified.

The standard idling speed should be about 1400 ∿ 1600 rpm by the throttle stop screw. After adjusting the idling speed, set the play of the control cable to give proper adjustment to the control grip. The fuel level in the carburetor should be adjusted as specified in the illustration. Too high or too low fuel level causes poor engine performance.

Note: Do not touch the play of the throttle cable without adjusting the oil pump.



Float level

Fig. 17

Carburetor Setting

Type	Mikuni VM 15 SS
Main jet (MJ)	# 70
Needle jet (NJ)	E-0
Jet needle (JN)	3G-3
Pilot jet (PJ)	15
Throttle valve (CA)	2.0
Air screw (AS)	1½
The level of oil surface (F.C)	23 mm

There are many adjustable parts on the carburetor. 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 adjustments.

Control Cable

Throttle cable must be adjusted to be exactly synchronized with oil pump cable, so that the throttle valve of the carburetor opens in accordance with oil pump lever opening. Do not touch throttle cable adjuster only on mixing chamber top because throttle cables are adjusted to be synchronized exactly with oil pump cable, and if the throttle cable only is adjusted without adjusting oil pump cable, oil pump can not be synchronized with throttle valve openings and an injection quantity goes to inconnect against throttle valve opening.

1. Adjust engine idling speed (1400 ∿ 1600 rpm)
2. Take up sufficient play on control cable until the throttle grip turns loose by turning adjusting bolt (b) on the cable.
3. Eliminate oil pump cable play by turning the oil pump cable adjuster (5) while aligning the mark on the oil pump lever to that on the stopper.
4. Eliminate throttle cable play by turning the cable adjuster (d) on the carburetor. Be sure not to change the idling speed when adjusting the cable.
5. (a), (c) and (e) are lock nuts of the adjuster. After the step 3 and the step 4, Check the control cable for whether both the throttle and the oil pump cable are pulled up together.
6. Finally, adjust the play on the control cable by turning adjusting bolt in order to give proper play on throttle grip.

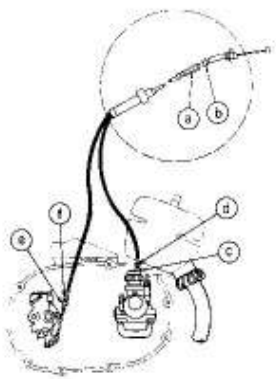


Fig. 18

Adjustment of Drive Chain

1. If the drive chain is not properly lubricated, the links become stiff resulting in rapid wear of sprockets and drive chain and power loss as well as straining the engine. Inspect and lubricate the chain periodically.
2. There should be a play of about 20 mm (just less than 1 inch) midway between the sprockets (See Fig. 17).

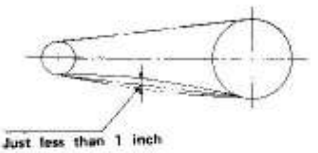


Fig. 19

3. To adjust chain tension, loosen axle nut and then turn chain adjusters (See Fig. 18).
   Be sure the chain adjusters on each side are moved exactly the same amount. Adjust the rear brake after adjusting the chain.

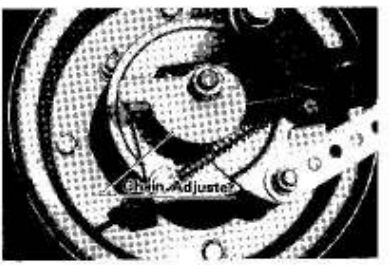


Fig. 20

Air Cleaner

Remove the air cleaner as illustrated. Take off the element and air cleaner body and wash them with gasoline or fuel mixture. If the element and air cleaner body was washed with gasoline, soak it in 20 : 1 fuel mixture before installing.

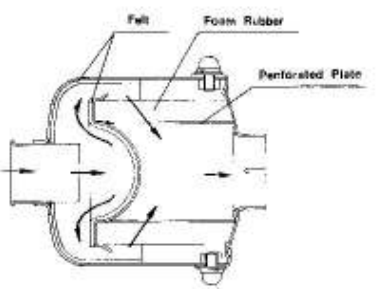


Fig. 21

Muffler

Remove small bolt and pull out the muffler. Strike the muffler gently to shake off carbon deposits and wash with gasoline.

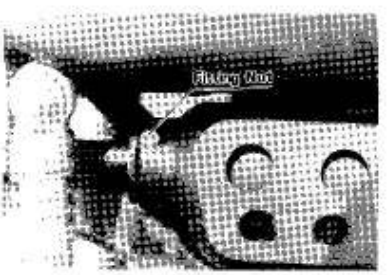


Fig. 22

Tires

In view of riding safety as well as riding comfort on 'off-the-road', semi knobby tires are used.
Tire air pressure has a large effect on riding comfort and safe handling, the life of the motorcycle and the tires. Check tire pressure before riding. Standard air pressure for the front tire is 15 lb/in² (1.1 kg/cm²) and 17 lb/in² (1.2 kg/cm²) for the rear tire.
Insufficient tire pressure gives a soft ride but wears the sidewalls of the tires rapidly. Sometimes the tire slips on the rim and tears out the inner tube valve. Excessive tire pressure makes riding uncomfortable, increases vibrations and wears the center of the tread rapidly. An over-inflated tire also tends to skid easily.
Replace the tires when they are worn-out extremely. This is important for better riding efficiency and stable riding on 'off-the-road'.

Front Fork and Shock Absorber

The springs both on front fork and shock absorbers can be removed by turning them anti-clockwise. Then lubricate the inner tube with grease. If this lubrication is not done, burning will occur between the inner tube and outer tube.
When assembling the front fork and rear shock absorbers, be sure to screw the springs in the hooks or the threads to fix them securely as illustrated here.

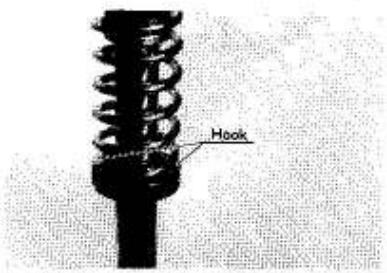


Fig.23


Fig. 24

Automatic Centrifugal Clutch

Automatic centrifugal clutch enables the rider to make speed change, starting and stopping without any clutch lever operation.
With the increase of revolution of engine, the centrifugal force of weight of 16 ball bearings increases in square. This force is converted into the force pressing the friction plate made of sintered alloy and steel plate. The revolution of the engine is conveyed to transmission, but under 1,800 r.p.m., the force is not conveyed to rear wheel, wherever the transmission gear is located. In this vehicle, the clutch is located on the side of crankshaft. Therefore, non-return bearings are used so that revolution of kick shaft can be conveyed even without engaging the clutch.

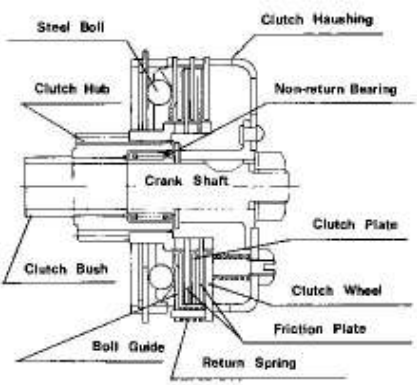
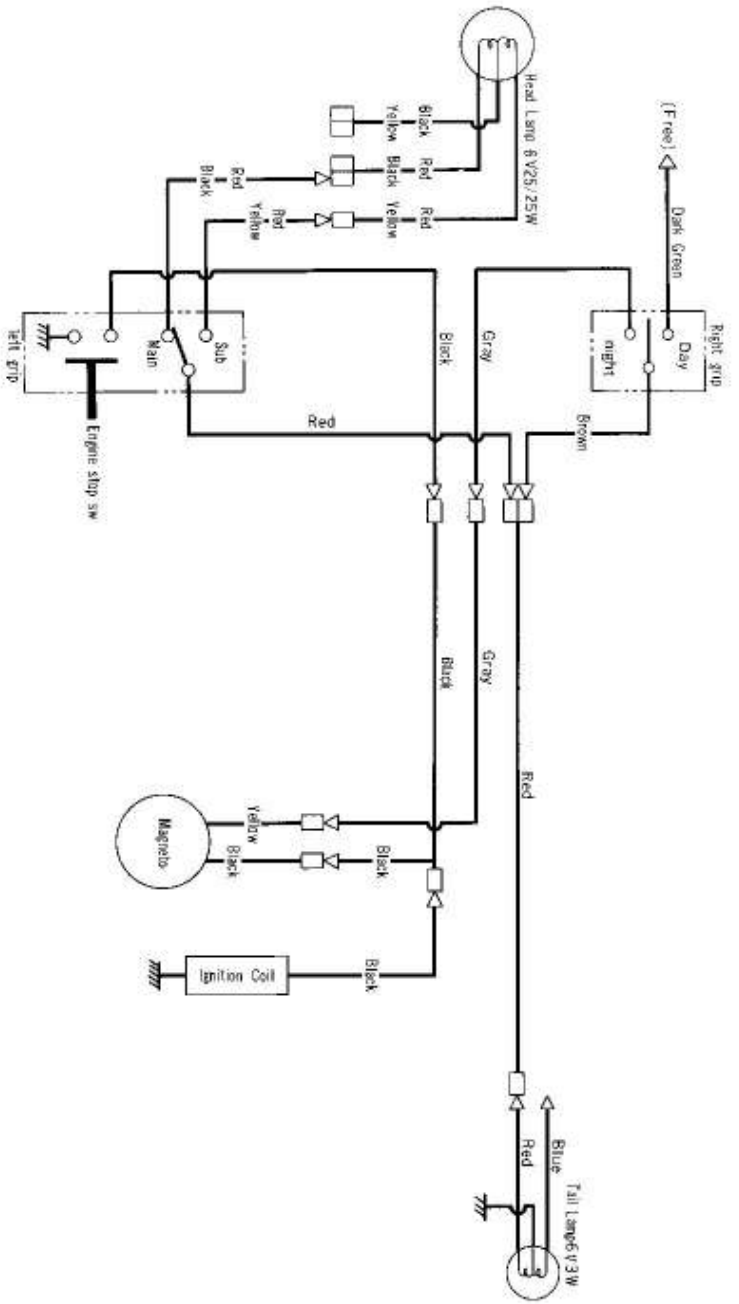


Fig. 25

MT-I Wiring Diagram



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