

KAWASAKI

750-H2

RIDER'S HANDBOOK

FOREWORD

We wish to thank you for choosing this fine Kawasaki Motorcycle. It is the end product of Kawasaki's advanced engineering, exhaustive testing, and continuous striving for superior reliability, safety, and performance. With the proper care and maintenance, your Kawasaki Motorcycle will go anytime and anywhere, so please follow the instructions in this handbook to keep it in top condition.

In addition to this handbook, for those owners who would like more detailed information on Kawasaki Motorcycles, or for those with the necessary technical knowledge and equipment for major adjustment and repair, a Service Manual is now available for purchase from your Kawasaki Dealer. However, please note that during the warranty period, repair or adjustment by other than an authorized Kawasaki Dealer may invalidate your warranty.

KAWASAKI HEAVY INDUSTRIES, LTD.

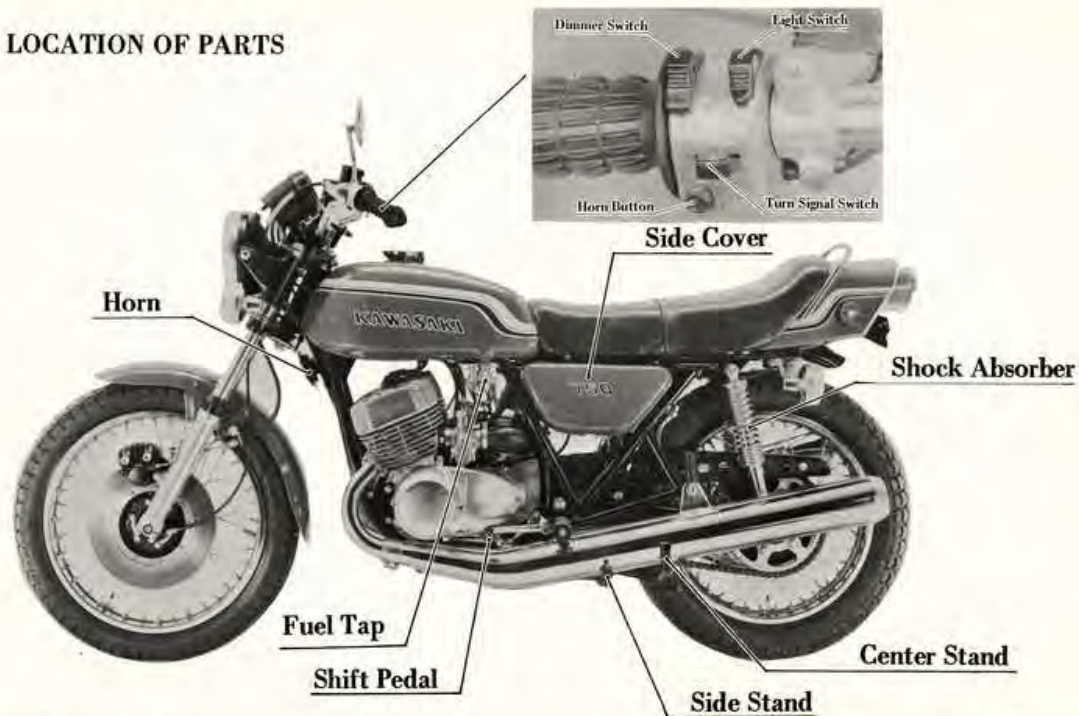
Motorcycle Division

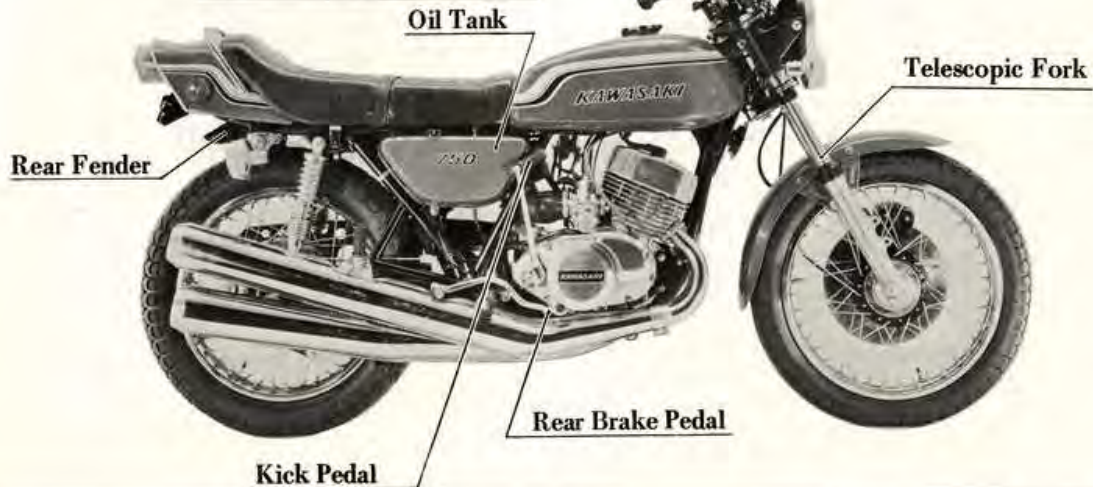
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LOCATION OF PARTS





SPECIFICATIONS

Performance

Acceleration	SS ¼ mile: 12.0 sec.
Maximum horsepower	74 hp @ 6,800 r.p.m.
Maximum torque	57.1 ft-lb (7.9 kg-M) @ 6,500 r.p.m.
Climing ability	40°
Fuel consumption	†45 mi./gal. @ 50 mph *85 mi./gal. @ 30 mph
Minimum turning radius	94.5 in. (2.4 M)
Braking distance	40 ft @ 31 mph (12 M @ 50 kph)
Maximum speed	126 mph (203 kph)

Dimensions

Overall length	82 in. (2,080 mm)
Overall width	33.5 in. (850 mm)
Overall height	45 in. (1,145 mm)
Wheelbase	55.5 in. (1,410 mm)
Ground clearance	7 in. (175 mm)
Dry weight	422 lbs. (192 kg)

Transmission

Type	5 speed, constant mesh, return shift
Clutch	Wet, multi-disc
Primary reduction ratio	1.88

†U.S. model

*European model

Final reduction ratio	3.13 (15/47)
Overall reduction ratio	4.76
Gear ratios: 1 st	2.17
2 nd	1.47
3 rd	1.11
4 th	0.92
5 th	0.81
Transmission oil	SAE 10W30 or ATF
Capacity	1.5 U.S. qt. (1.4 liter)

Engine

Type	2 cycle, 3 cylinder, piston valve
Displacement	45.63 cu. in. (748 cc)
Bore x Stroke	2.80 x 2.48 in. (71 x 63 mm)
Compression ratio	7.0 : 1
Ignition timing	23° before TDC
Starting	Kick
Lubrication	Injectolube (Oil injection)
Engine oil	2 stroke oil
Spark plugs	NGK B-9HS-10
Carburetor	Mikuni VM 30 SC
Ignition system	Magneto CDI

STOPPING DISTANCE AND PASSING TIME

Vehicle Minimum Stopping Distance on Dry Pavement

These figures indicate braking performance that can be met or exceeded by the vehicle to which they apply, without locking the wheels, under different conditions of loading. 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 vehicle to which this table applies: Model H2

Fully Operational Service Brakes

Load: Light

150

Maximum

156

0 50 100 150 200 250

Stopping distance in feet from 60 mph.

Manufacturer: **Kawasaki Heavy Industries, Ltd.**

Acceleration and Passing Ability

These figures indicate passing times and distances that can be met or exceeded by the vehicle to which they apply 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.

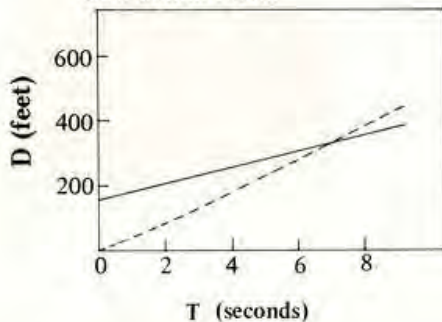
Description of vehicle to which this table applies: **Model H2**

SUMMARY TABLE:

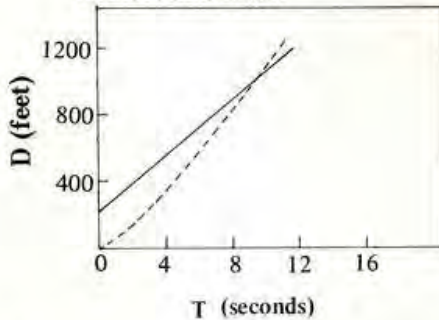
LOW-SPEED PASS : 360 feet, 7.4 seconds

HIGH-SPEED PASS : 912 feet, 8.9 seconds

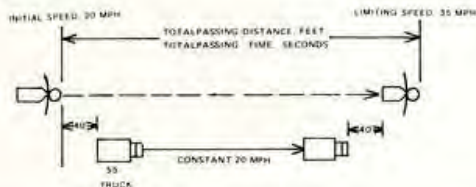
LOW-SPEED PASS:



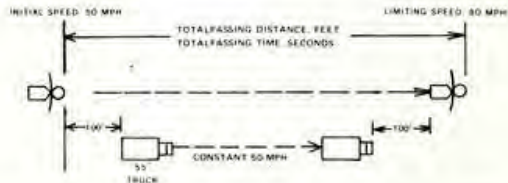
HIGH SPEED PASS:



LOW-SPEED



HIGH-SPEED



Frame

Type	Tubular, double cradle
Suspension: Front	Telescopic fork
Rear	Swing arm
Tire size: Front	3.25-19 4PR
Rear	4.00-18 4PR
Brakes: Front	Disc brake
Rear	Internal expansion
Front brake disc diameter	11.65 in. (296 mm)
Rear brake drum diameter	7.9 × 1.4 in. (200 × 35 mm)
Fuel tank capacity	4.5 U.S. gal. (17 liters)
Oil tank capacity	2.1 U.S. qt. (2 liters)
Castor	62°
Trail	4.5 in. (114 mm)

Electrical Equipment

Battery	12V 6AH	
Headlight	12V 35/25W	
Tail light	12V 8/27W	
Turn signal lamps (4)	12V 23W	
Meter lamps (6)	12V 3W	
Horn	12V 2.5A	
*City lamp	12V 4W	*European model
Neutral indicator lamp	12V 3W	Specifications subject to
High beam indicator lamp	12V 1.5W	change without notice.

4. CONTROLS

1. Ignition Switch

This is a three-position, key-operated switch for U.S. models, and a four-position switch on the European models.

Key position	
Off	Engine off. All electrical circuits off. Key can be removed.
On	Engine on. All electrical equipment (except city lights) can be used. Key cannot be removed.
City Lights	Engine on. Tail light and front city light on. All electrical equipment (except headlight) can be used. Key cannot be removed.
Park	Engine off. Tail light on. All other electrical circuits cut off. Key can be removed.

U.S. Model



European Model



2. Headlight

With the ignition switch turned on, the headlight switch will turn on the headlight.

High or low beam is selected by the dimmer switch. When the headlight is on high beam, the red indicator on the top of the headlight lights.

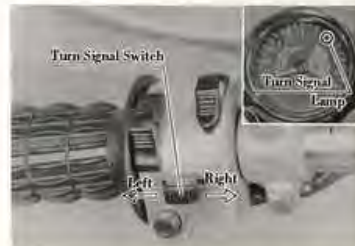
On the European models, a 4 watt lamp is mounted inside the semi-sealed headlight housing, in addition to the standard head lamp. This “city” lamp can be used for driving at dusk, or where the law requires a dim headlight for city driving after dark.

The front city light is turned on together with the tail light, by advancing the ignition key one position in the switch.



3. Turn Signals

The turn signals are controlled by a switch located on the left side of the handlebars. An orange lamp in the tachometer face flashes on and off with the turn signals to confirm that they are working properly.



4. Parking Lock

To help discourage theft, the steering can be locked in either the full right or full left position when the motorcycle is parked.

To lock the steering, turn the handlebars to one side and insert the ignition key in the parking lock, turn it to the right, push it in, turn it to the left and remove it.



5. Steering Damper

The steering damper can be used to make the steering and handlebars less sensitive to vibration and road surface irregularities during high speed conditions. Tighten the steering damper about a quarter of a turn at a time until the desired effect is produced. During travel on bad roads or at low speeds, the steering damper should be loosened for better and more effortless handling.



6. Gas Tank Cap

The gas tank cap is held on by a hinge and closed with a catch. To swing it open, press down on the top while raising the catch. Push the cap down to close it.



7. Fuel Tap

The fuel tap is an automatic type which shuts off the fuel supply when the engine is stopped. A diaphragm valve inside the tap closes off fuel passage until the engine starts turning, and suction from the engine intake pulls the diaphragm valve open.

In the ON position, the tap allows gasoline flow until a .9 U.S. gallon (3.5 liter) reserve remains. By turning the tap to RES (reserve) the remaining gasoline can be used until the tank is empty.

The PRI (prime) position bypasses the automatic control and feeds fuel directly through. This tap position is useful for priming the engine after running out of gas, or for completely draining the tank.



8. Trip Meter

The trip meter indicates distance traveled since it was last reset to zero. To reset it, turn the knob on the bottom of the speedometer until the trip meter reads zero.



9. Rear Shock Absorbers

The rear shock absorbers are adjustable in three steps, to road and loading conditions.

Generally, shock absorbers should be a bit hard to allow for bad roads or high speed travel. But having shock absorbers harder than necessary for road conditions adversely affects riding comfort and stability. So while riding, if you feel that the shock absorbers are too hard or soft, adjustment can be made with the spanner in the tool kit.



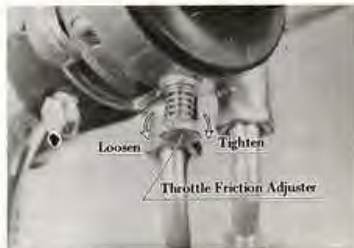
Position	Shock Tension	Conditions
A	Standard	Single rider.
B	Slightly hard.	Heavy rider. Luggage strapped on. High speed travel.
C	Hard	Two riders.

Note: Always adjust both shock absorbers to the same position.

10. Throttle Friction Adjuster

The throttle friction adjuster in front of the throttle grip makes long-distance riding even more effortless.

With the adjuster turned out, throttle action is normal. By turning it in, throttle grip friction can be increased to where the grip will remain in any position to which it is turned.




11. Chain Oiler

A convenient oiler is provided for easy chain lubrication. The oiler reservoir tank is located under the front seat behind the battery.

Pulling the knob on the left side of the motorcycle next to the left cover, drips oil onto the chain. For detailed chain oiling information see page 39.



FUEL AND OIL

Location	Gas Tank	Oil Tank	Transmission
			
Fuel or oil	Regular Gasoline (85 octane minimum)	2 Cycle Engine Oil	Engine Oil Summer—SAE 30 Winter—SAE 20 All seasons—10W 30
Capacity	17 liters (4.5 U.S. gallons)	2 liters (2.1 U.S. quarts)	1.4 liters (1.5 U.S. quarts)

1. Fuel

The Kawasaki Superlube system is used in this motorcycle, so it is not necessary to mix oil with the gasoline. Use only regular gasoline in the gas tank.

- Caution:**
- Never fill the tank completely to the top. As the gasoline expands while the motorcycle is running, it may overflow from the vent in the tank cap.
 - Always put in gasoline with the engine off, and the motorcycle away from any source of sparks.

2. Engine Oil

Type of oil

Use any good quality 2 cycle engine oil. One absolute requirement for the 2 cycle oil used in the Superlube system is that it must flow readily at low temperatures. Do not use ordinary motor oil, transmission oil, or the like as a replacement for the proper oil; this is the cause of many engine troubles.

Adding oil

On the rear side of the oil tank there is a gauge for checking the oil level, and one quart (one liter) of 2 cycle oil should be added when the level nears the mark at the bottom of this window. Never let the oil tank run completely dry.

If the tank does run dry, air will enter the oil pipe, and putting oil in at this point will still not prevent the engine from running a few minutes without oil while the air is pumped out. At high speed, this could lead to serious engine damage. So always be sure to check the oil level before starting out.



3. Transmission Oil

The transmission oil performs the dual function of lubricating the wearing surfaces, and keeping the transmission cool. A good quality SAE 20 or 30 oil, multi-viscosity 10W30 oil, or ATF should be used.

As using dirty oil will shorten the life of the transmission parts, the oil should be changed after the first 500 miles (800 km), after 2,000 miles (3,000 km), and at 2,000 mile (3,000 km) intervals after that.

Refilling the transmission

The transmission should be refilled by pouring in the oil a little at a time and taking measurements along the way. The dipstick used for measuring the oil level is read after first screwing it into the filler hole.

Do not pour oil in up to the top mark on the dip stick immediately, because as the oil drains down off the transmission parts, the level will gradually rise. A correct reading can be taken two or three minutes after the last of the oil has been poured.

If the oil level is too high, not only will the clutch become hard to operate, but some of the oil may leak back out from excessive pressure. On the other hand, if there is not enough oil in the case, the rotating parts could be damaged, so take care to put in the specified amount.



Draining the oil

The oil should be changed when it is hot so all the particles that have collected on the bottom of the case can be drained out with it. When draining the transmission oil, the motorcycle must be on its center stand. If the kick stand is used, the cycle will be sitting on a slant and it will not be possible to drain the oil completely.

Initial oil change

The first oil change is designated to be performed after 500 miles (800 km), which may seem to be an exceptionally short distance. However, an oil change at this point is necessary because as the various gears seat with each other, and as the clutch parts wear in, these filings collect in the oil. If this break-in oil is not drained out, it will hasten the wearing out of the various parts.

After the initial few hundred miles, wear is comparatively negligible, and the fresh oil can be left in until the 2,000 mile (3,000 km) oil change with no ill effects.



BREAKING IN

Kawasaki Motorcycles are precision manufactured and made to last. The type of driving done during the first 1,000 miles (1,600 km), however, is of vital importance to the life of the vehicle, and unreasonably hard riding during this period can only serve to shorten its life.

1. Break-in Speeds

The break-in period is not only for the longevity of the engine, but for the sake of the chain, sprocket, brakes, and the entire vehicle. Therefore, engine speed should be limited to 4,000 r.p.m. during the first 500 miles (800 km), and should not be raised above 6,000 r.p.m. up to the 1,000 mile (1,600 km) mark.

Caution: •Especially for first to third gears, the gear ratio and engine response make it very easy to raise engine r.p.m. above the specified limit, so please watch the tachometer indication closely.

•Do not start moving or race the engine directly after starting up. Warm the engine up slowly and give the oil a chance to work into the engine.

•While the gears are in neutral, do not race the engine since this will shorten transmission life.

2. Spark Plugs

Spark plugs may become fouled during the break-in period due to the slow driving required. Please refer to pages 30 to 31.

4,000 r.p.m. maximum 0 to 500 miles (0 to 800 km)		
Gear	mph	kph
1 st	23	38
2 nd	34	56
3 rd	46	75
4 th	56	90
5 th	64	103

6,000 r.p.m. maximum 500 to 1,000 miles (800 to 3,000 km)		
Gear	mph	kph
1 st	35	57
2 nd	52	84
3 rd	70	113
4 th	85	137
5 th	97	156

OPERATION

I. Starting the Engine

To make starting easy, the carburetor is equipped with a Starter Lever. Starting a cold engine is somewhat different from starting an engine when it is already warm, so please proceed according to the following directions:

When the engine is cold

- ☆ Make certain the gears are in neutral by seeing that the green light in the face of the tachometer is lit. (Neutral is the lowest position, one step below first gear.) When the engine is stopped, rolling the motorcycle slightly when operating the shift pedal makes gear shifting easier.
- ☆ Turn on the fuel tap, and turn the ignition switch on.
- ☆ Push the starter lever as far as it will go, leaving the twist-grip throttle completely closed.
- ☆ Bend up the right footrest, kick the starter pedal down smartly, and the engine will start.
- ☆ If the engine does not start after two or three attempts, release the starter lever and open the throttle $\frac{1}{2}$ turn to let additional air into the engine, then kick the pedal again.
- ☆ When the engine starts, keep the starter lever down and twist the throttle a few times until you are sure the engine will not stall. (Don't race the engine over 3,000 r.p.m.) Then close the throttle and warm the engine at idle speed.
- ☆ As soon as the engine is warm enough to idle smoothly without use of the starter lever, release the lever and see if the engine will respond immediately to the throttle. If the response is sluggish, push the starter lever



back down and twist the throttle several times until the engine is completely warmed up. If you attempt to move the motorcycle without a sufficient warm-up period, the clutch may not disengage properly and the motorcycle will jump when it is put into gear; or as you release the clutch, engine r.p.m. will suddenly drop and the engine may stall; and acceleration will be erratic.

When the engine is warm, or on hot days

- ☆ Turn on the fuel tap and the ignition switch, and make sure the gears are in neutral.
- ☆ Without use of the starter lever, open the throttle about $\frac{1}{4}$ turn and kick the pedal down sharply. When the engine starts, twist the throttle a few times, keeping the engine speed below 3,000 r.p.m.
- ☆ Let the engine idle for about two minutes before starting out, even though it may already be warm enough. This is to give the oil pump a chance to put oil back into vital parts, and failure to do this will greatly shorten the life of the engine.

2. Starting Out, Shifting Gears

The transmission installed in this motorcycle is a 5-speed, return shift type. "Return shift" indicates that to return to neutral or first gear after shifting up, you must shift down one gear at a time.

Starting out

When you have determined that the engine has been thoroughly warmed up, return the throttle grip to the fully closed position. Pull in the clutch lever and push up on the pedal to shift into first gear. Twist open the throttle slightly to raise the engine speed, and at the same time let out slowly on the clutch lever.



Acceleration

After gaining enough speed in first gear (at about 4,000 r.p.m.), squeeze in the clutch lever and at the same instant close the throttle completely. Pull up on the shift pedal to change into second gear, then open the throttle and release the clutch lever simultaneously. Shifting up to third, fourth and fifth gears is done in this same manner.

Deceleration

Close the throttle and apply the front and rear brakes together. Disengage the clutch, push down on the pedal to shift into the next lower gear, and then open the throttle and release the clutch lever together.

Caution: Sudden down shifting at high speed causes an abrupt increase in engine speed and could damage the engine.

Avoid traveling at engine speeds below 3,000 r.p.m. Not only is this speed insufficient to charge the battery properly, but engine power and throttle response are considerably reduced, and constant driving at low engine speed will foul the spark plugs. During both acceleration and deceleration, the vehicle speed and engine r.p.m. should be kept within the limits for each gear, as set forth in the tables.

Gear	Speed Range	
	mph	kph
1st	0-46	0-75
2nd	7-68	10-110
3rd	10-90	15-145
4th	13-108	20-175
5th	over 31	over 50

Gear Shift	Downshift below:	
	mph	kph
5th to 4th	102	165
4th to 3rd	84	135
3rd to 2nd	65	105
2nd to 1st	43	70

3. Braking

Close the throttle completely, and apply the front and rear brakes simultaneously. During sudden braking, never apply the front or rear brake alone. Using only one brake is extremely dangerous as it could cause the motorcycle to skid.

4. Parking

When parking for a short time on the road at night, there is a convenient "Parking" position of the ignition switch which can be used for safety. In this position the tail lamp lights, and the key can be removed from the switch. When parking during the day, or for a long period at night (more than two hours), however, the switch should be turned to the "Off" position, since the parking light will run down the battery if left on too long.

☆When parking the motorcycle, make it a habit to use the parking lock.

Safe Riding Technique

Cornering: Reduce speed to a safe level before starting to turn, and maintain the same speed or increase it slightly during the turn. A sudden change of speed – either higher or lower – during a turn is unsafe. If it is necessary to apply the brakes while cornering, favor the rear brake to avoid skidding. Be wary of oil, water or gravel which could cause skidding during the turn.

Wet pavement: Drop your speed, increase following distance, and ride in the most-used part of the traffic lanes where the pavement may be drier. Avoid the center of the traffic lane where the oil deposits are heaviest. Sudden braking will cause skidding so allow ample time for stopping.

Clothing: As much as possible, cover all parts of your body with some kind of protection. Wear a good helmet, eye protection, sturdy shoes or boots, gloves, a long-sleeved shirt and jacket, and full-length trousers.

MAINTENANCE AND ADJUSTMENT

Regular inspection and adjustment is the key to maintaining your Kawasaki motorcycle in dependable condition, ready to answer your riding demands at a moment's notice. Some of these operations, such as front and rear brake adjustment, tire pressure check, and chain slack adjustment, are so important that you should make a habit of checking them frequently.



1. Ignition System

The H2 incorporates a new type of electronic ignition called the Magneto CDI Ignition. This is a highly improved system operating on the capacitor discharge principle. Automatic spark advance is electronically controlled, and complete ignition or starting failure is virtually eliminated by using three independent sealed ignition units.

Since there are no moving parts and no contact breakers to wear down, any adjustment is usually unnecessary. However, in case the engine is disassembled, or if the ignition signal generator coils are accidentally broken or knocked out of place, adjustment may be required.



Gap adjustment

Before the timing itself can be accurately checked or adjusted, each of the three signal generator pickup coils must be set to .020 to .031 inch (0.5–0.8 mm) from the magnet projection on the rotor. Measure this gap with a feeler gauge and if it is incorrect, thoroughly loosen the two coil mounting screws and move the coil by hand.

Caution: Do not pry the pickup coil with a screwdriver or any other tool since this may break the coil housing.



Partial timing adjustment

There are three sets of marks on the outside of the rotor: an L (Left) and an S mark for the left cylinder timing, R and S marks for the right cylinder, and C and S marks for the center. Check timing by aligning the S mark, with the pointer and seeing if the trailing edge of the rotor magnet projection coincides with the timing mark on the top of the coil housing. If one of the coils is out of line, loosen the two coil base plate mounting screws and move that coil and base to the right or left, again taking care not to pry on the coil itself.



Complete timing readjustment

It is recommended that this be performed by a Kawasaki Dealer, especially during the warranty period. If the essential tools are available adjust timing as follows: (a) set coil gaps; (b) remove left cylinder spark plug and insert dial gauge; (c) set piston to .1232 inch (3.13 mm) BTDC; (d) bend pointer to coincide with rotor L mark; (e) set timing as in "Partial timing adjustment" (f) use strobe to see if L, R and C marks coincide with pointer at 4,000 r.p.m. (g) readjust timing if necessary.



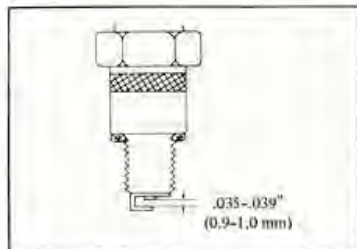
2. Spark Plugs

Neglecting the spark plugs eventually leads to difficult starting and poor performance.

After the spark plugs are used for a long period, the electrodes gradually burn away and carbon builds up along the inside part. After about 2,000 miles (3,000 km), the plugs should be removed for inspection, cleaning and to reset the gap. If the center electrode is fairly worn down, the plug should be replaced. The spark plug gap setting is .035-.039 inch (.9-1.0 mm) for NGK B-8HS, NGK B-9HS-10 (standard plug), or NGK B-10HS.

Whether or not the right temperature plugs are being used can be ascertained by noting the condition of the ceramic insulator around the electrode. A light brown color indicates the correct plug is being used. If the ceramic is black, it indicates that the plug is firing at too low a temperature, so the next hotter type (NGK B-8HS) should be used instead. If the ceramic is white, the plug is operating at too high a temperature and it should be replaced with the next colder type (NGK B-10HS).

The heat range of the spark plug functions like a thermostat for the engine. Using the wrong type of spark plug can make the engine run too hot (resulting in engine damage) or too cold (with poor performance, misfiring, and stalling). The standard plug (NGK



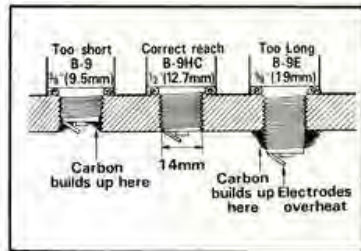
B-9HS-10) has been selected to match the normal usage of this motorcycle in combined street and highway riding. For extended high speed riding, such as production road racing, install the NGK B-10H plugs (colder). For constant low speed riding (city traffic), it may be necessary to use NGK B-8HS plugs (hotter) to avoid fouling. This is especially true during the break-in period, where engine speed must be limited to insure long engine life.

Caution: In the event the spark plugs are replaced with a type other than those previously mentioned, make certain the replacement plugs have the same thread pitch and reach (length of thread portion) as the standard plugs.

If the plug reach is too short, carbon will build up on the plug threads in the cylinder head, causing overheating and making it very difficult to insert the correct plug.

If the reach is long, carbon will build up on the plug threads causing overheating, preignition and possibly burning a hole in the piston top. In addition it will be impossible to remove the plug without possibly damaging the cylinder head.

The correct plug has a $\frac{9}{16}$ inch (14 mm) diameter, and a $\frac{1}{2}$ inch (12.7 mm) reach.



3. Carburetors

Before you attempt to adjust the carburetors, the engine must be warmed up. When the engine is cold, the gasoline and air do not mix normally, and a correct adjustment cannot be made.

Idle adjustment

This adjustment should be made if the engine tends to stop while idling, or if the idle speed is too high.

✧ Air screw adjustment:

The air screw controls the mixture strength at low r.p.m. It is adjusted by first turning it in all the way (But don't screw it in tightly!) and then backing it out $1\frac{1}{4}$ turns. Do this on all three carburetors.

Note: Once the air screw is set as above do not change the setting, as idle speed, acceleration and gas mileage may be adversely affected.

✧ Throttle stop screw adjustment:

Turn the throttle stop (idle adjust) screw of each carburetor until a stable idling speed of 1,400 to 1,600 r.p.m. is obtained. Hold your hand in back of each muffler and feel the exhaust pressure; if it is approximately the same for all three mufflers, the adjustment is correct.



Control cable

Turn the adjuster to give the outer sleeve of the control cable 1/16 to 1/8 inch (2-3 mm) play, and tighten the lock nut.



Starter lever

With the adjuster, adjust the starter lever for about 3/16 to 1/4 inch (4-6 mm) play, and tighten the lock nut.



Throttle cable

Adjust the outer sleeve of the throttle cable for about 1/16 inch (1-2 mm) play, using the adjusting nut on the sleeve.

If the oil pump cable is to be adjusted, too, then instead of above adjustment: (a) turn throttle stop screw in until the throttle valve is completely closed; (b) adjust cable sleeve for zero play; (c) reset idle.



Oil pump adjustment

Due to stretching of the control wire and other factors, the oil pump lever sometimes gets out of adjustment and will not respond immediately to the opening of the throttle. When readjusting the carburetor, it is a good idea to check the oil pump adjustment, too.

Remove the right engine cover and see if the mark on the oil pump lever is aligned with the corresponding mark on the lever stopper with the throttle closed. If it is not, turn the cable adjuster to line up the two marks, and tighten the lock nut. Twist the throttle and check that the oil pump lever opens at the same time as the carburetor slides from the fully closed position. Check the tightness of all oil line fittings, and then replace the right engine cover.

Careful adjustment of the oil pump is critical to engine performance and reliability. If the oil pump is improperly adjusted so that it lags behind the carburetors, the engine will not receive sufficient lubrication and this could lead to severe engine damage. If the oil pump is adjusted so that it opens before the carburetors, over-lubrication will cause spark plug fouling, piston ring sticking, and rapid carbon buildup in the combustion chambers.



4. Clutch

The clutch friction plates wear and the clutch cable stretches over a long period of riding, so it is necessary to adjust the clutch release mechanism and clutch cable every 2,000 miles (3,000 km).

Caution: Improper adjustment can cause erratic gear shifting, clutch slippage, or incomplete clutch disengagement.

To adjust the clutch:

1. Loosen the clutch release lever lock nut and back out the adjusting screw one or two turns to where the lever turns freely.
2. Set the lever angle at approximately 100° by turning the clutch cable adjuster.
3. Screw the clutch release lever adjusting screw back in until you feel pressure, and lock it in that position.



4. Adjust the clutch (hand) lever with the cable adjuster, for 1/16 to 1/8 inch (2-3 mm) play before you start to feel clutch spring tension. Use the small hand adjuster for minor corrections while riding.
5. Tighten all lock nuts.



5. Air Cleaner

If the air cleaner filter element becomes clogged, the engine will not receive enough air. This will make the gasoline mixture too rich and cause poor performance.

To remove the filter for inspection and cleaning:

- ☆Take off the left side cover and remove the forward cover mounting clip.
- ☆Remove the air ducts.
- ☆Pull the air cleaner assembly out to the left.

Take out the paper element, clean it with gasoline and blow it dry with compressed air. If the filter element has any breaks or is otherwise damaged, it should be replaced to avoid engine damage from dust in the air.



6. Brake Adjustment

Make these adjustments carefully as correct brake adjustment is vital to your riding safety.

Front Brake

Since a disc brake is used on the front wheel, adjustment is unnecessary except for hand lever play. Play measured at the tip of the lever should be adjusted to less than 3/16 inch (5 mm), by turning the adjuster bolt. Be sure to fix the bolt in place with the lock nut.

If the brake line or any fitting shows damage, it should be replaced immediately. If dirt or corrosion appears in the oil, have the brake checked by a Kawasaki Dealer.

Always keep the brake fluid up to the line inside the reservoir, with the reservoir held as close as possible to the horizontal. Brake fluid should be changed after one year or 6,000 miles (10,000 km), whichever comes sooner. For replenishment or change, one of the recommended types of oil should be used.

When adding brake fluid, always use the same type as is already in the reservoir. If any oil spills on a painted surface, it must be wiped off immediately to prevent damage to the paint. If water becomes mixed with the brake fluid, the fluid must be completely changed.



Recommended Disc Brake Oil

Atlas Extra Heavy Duty
Shell Super Heavy Duty
Texaco Super Heavy Duty
Wagner Lockhead Heavy Duty
Lockheed
Girling Amber

Rear brake

First loosen the lock nut and turn the pedal position adjuster bolt to set the pedal at the highest position possible without it touching either the kick pedal or the right engine cover.

Then turn the brake adjusting nut so that the rear brake pedal has about 1/8 to 5/8 inch (12–15 mm) of travel from the rest position to the fully applied position.

Brake lamp switches

Check the operation of the rear brake lamp switch by turning on the ignition switch and depressing the brake pedal. The brake lamp should light after about 3/8 inch (10 mm) of brake pedal movement.

Adjust the switch by loosening the mounting nuts and moving the switch body up or down. Do not turn the switch body as the wires will be damaged. Don't adjust the switch so that it turns on as soon as the pedal is moved. Otherwise, in normal driving, you might rest your foot on the pedal enough to light the brake lamp continuously.

The brake lamp will also light when the front brake is applied, but as the front brake incorporates a pressure switch, adjustment is not necessary. Check the switch by pulling the hand brake lever with the ignition switch turned on.



7. Drive Chain

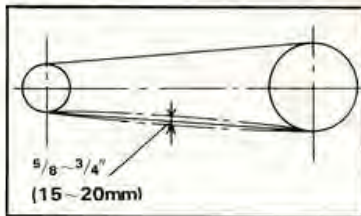
The drive chain requires periodic inspection and lubrication. If it is allowed to dry out or become maladjusted, it fails to move freely, wearing down the chain itself, the front and rear sprockets, and putting a strain on the engine. Always oil the chain after riding in the rain after cleaning it, or any other time it appears to be dry.

For easy chain lubrication, use the chain oil tank located under the seat. Raise the motorcycle on the center stand and pull the chain oiler knob while spinning the rear wheel backwards. Oil is conveyed by a hose and dripped onto the chain.

Apply only enough oil to ensure smooth movement. Too little will allow excessive wear; too much oil will only be thrown off the chain and splatter over the motorcycle collecting dirt.

When refilling the chain oiler tank or for oiling the chain manually, use SAE 30 weight motor oil as thinner oil will not cling to the chain well. Reservoir tank capacity is about 5 (U.S.) ounces or 150 cc.

Drive chain adjustment is checked with the motorcycle off the stand in its normal upright position. Moving the chain up and down, see that vertical movement at its greatest point is $5/8$ to $3/4$ inch (15–20 mm).



If adjustment is required: (a) loosen torque link nut; (b) remove cotter pin, loosen axle nut; (c) loosen lock nuts and turn adjuster nuts, watching alignment marks to keep both sides even; (d) tighten nuts and replace pin; (e) check brake and brake lamp switch adjustments, which change when rear wheel is moved during chain adjustment.

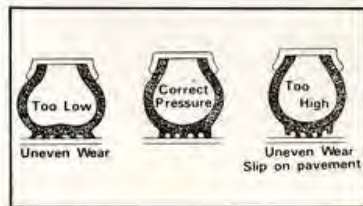


8. Tires

Abnormally high or low tire pressure has an adverse effect on maneuverability, and shortens tire life.

Tire pressure is specified in the table below. Note that for continuous high speed riding, such as production road racing, tire pressure should be increased by about 3 psi to minimize the effects of heat build-up in the tires.

		Front	Rear
Tire Size		3.25-19 4PR	4.00-18 4PR
Air Pressure	Standard	26 psi (1.8 kg/cm ²)	31 psi (2.2 kg/cm ²)
	High Speed	29 psi (2.0 kg/cm ²)	34 psi (2.4 kg/cm ²)



9. Wheels

Balance

The wheels must be balanced properly to prevent rider fatigue from annoying vibration at high speed.

With the drive chain removed from the rear wheel, check the balance by raising each wheel off the ground in turn, and spinning it lightly. The wheel is correctly balanced if it will come to a stop at any position. If you determine that the wheel requires balancing, proceed as follows.

- ☆ Attach a balance weight temporarily to the lightest side of the wheel and spin it again. Attach more weights as necessary and repeat the process until the difference between the heaviest and lightest sides of the wheel is within 1/3 ounce (10 grams). Less than this will not affect running stability.
- ☆ When any imbalance has been satisfactorily compensated for, attach the weights firmly with pliers.

Note: 10, 20 and 30 gram (1/3, 2/3 and 1 ounce) balance weights are available for purchase from Kawasaki Dealers.

Spokes

The spokes must be checked and tightened at regular intervals, especially during the break-in period.



10. Headlight

Left or right adjustment is performed by turning the adjuster screw in the front of the headlight.

Adjust the beam lower or higher by first loosening the mounting bolts on the sides of the headlight, and moving the light by hand. After adjustment is complete, be sure to retighten the bolts.



11. Mufflers

The mufflers have baffle tubes which can fill up with carbon and other exhaust by-products over an extended period of operation, resulting in a slight drop in performance.

To remove the baffle tube for cleaning, take out the small bolt, grasp the baffle tube pin with pliers, and withdraw the tube. Clean it with a wire brush, and by striking it gently.



12. Battery

Ignition, lights and all other electrical equipment depend on the battery, so battery inspection and maintenance should never be neglected.

Always keep the battery water level up above the low mark. When it gets low, add only distilled water, filling it to the upper level. Do not add sulphuric acid; the solution will become too strong and damage the battery.

Do not let the plastic pipe on the side of the battery get folded or pinched, and route it away from the exhaust system, where it could be melted shut. This pipe lets out the gas that is produced inside the battery as it charges, and if the gas cannot escape through the pipe, it will break open the battery case.

Make certain that the battery connections are tight and that the correct polarity is observed. After the battery terminal clamps are tightened, a light coat of grease should be applied to the terminals to prevent corrosion.



13. Cleaning

When the motorcycle becomes dirty, not only do the painted and plated surfaces deteriorate, but rust sets in on the nuts and bolts, and inspection and adjustment become difficult.

For these reasons, and for the beauty of the machine, cleaning should be made a part of your regular maintenance.

Preparation for washing

Before washing, precautions must be taken to keep water off the following parts:

- ☆Rear opening of the mufflers Cover with plastic bags, secured with rubber bands.
- ☆Clutch and brake levers, hand grips Cover with plastic bags.
- ☆Clutch and brake levers, hand grips Cover with plastic bags.
- ☆Ignition switch Cover the keyhole with tape.
- ☆Air cleaner intake Close up the opening with tape, or stuff in rags.
(Be sure to remove these after washing.)



Where to be careful

Avoid spraying water with any great force near these places:

✧ Brake drums

If water gets inside the brake drums, the brakes will not function until they are dried out. After washing, always test the brakes before taking the motorcycle out into traffic.

✧ Under the gas tank

If too much water gets into the ignition coil or into the spark plug cap, the spark will jump through the water and be grounded out. When this happens the motorcycle will not start and the affected parts must be wiped dry.

Washing

Using a brush and water, wash the tires, underside of the fenders, engine, etc. Wash the painted and chrome surfaces with water and a sponge or soft cloth.

Immediately after washing, remove the covers and start the engine to dry out any water which may have entered.

The motorcycle should always be lubricated after washing it, with special attention given to the chain and sprockets.

Waxing

A clean, well-polished Kawasaki Motorcycle is a handsome machine. But besides adding to its looks, a good coat of wax protects the paint and chrome, and makes it easy to wipe off collected road dust and dirt. Apply the wax with a clean, soft cloth and polish it with a separate cloth.

14. Storage

When the motorcycle is to be stored for any length of time, such as during the winter season, it should be prepared for storage according to the following guide.

- ☆Clean the entire vehicle thoroughly.
- ☆Warm the engine for five minutes and drain the transmission oil.
- ☆Empty the gasoline from the gas tank and from the carburetors. Sitting for a long period of time sours the gasoline, which then clogs the fuel tap and carburetor jets.
- ☆Remove the spark plugs and put several drops of SAE 30 oil into each cylinder. Kick the engine over two or three times to coat the sides of the cylinders with oil, and reinsert the spark plugs to prevent dirt from entering the cylinders.
- ☆Reduce tire pressure by about 20% and set the motorcycle up on its center stand. Put a board under the front wheel to keep dampness from the tire.
- ☆Spray oil on all unpainted metal surfaces to prevent rusting. Avoid getting oil on rubber parts, or in the brakes.
- ☆Remove the battery and store it where it will not be exposed to direct sunlight, moisture, or freezing temperatures. During storage give it a slow charge (one ampere or less) about once a month.
- ☆Cover the motorcycle to keep dust and dirt from collecting on it.



15. Lubrication

Appropriate lubrication not only lengthens the life of the vehicle, but by keeping it running smoothly and quietly, adds to riding enjoyment. Using SAE 20 or 30 oil, lubricate the points shown in the photographs after washing the motorcycle, driving through rain, or whenever necessary.



Check that mounting bolt is tight and that all C clips are in place.



Set motorcycle up on center stand and lubricate chain while spinning rear wheel backwards.



Check that kick starter pedal mounting bolt is tight. If this bolt loosens, the pedal will slip on the kick shaft, damaging the serrations and making engine disassembly necessary.



Lubricate all cables in this manner. Replace any frayed cables.



DAILY CHECKS

Front Brake	Brake lever play less than 3/16 in. (5 mm); fluid up to level line; no damage to brake line or fittings.
Rear Brake	Brake pedal play 3/4 to 1 1/4 inch (20-30 mm)
Clutch	Clutch lever play about 1/16 to 1/8 inch (2-3 mm)
Oil Tank.....	Oil level well above bottom of inspection window
Transmission Oil	Above low level on dip stick
Front Tire	Air pressure 26 psi (1.8 kg/cm ²)
Rear Tire	Air pressure 31 psi (2.2 kg/cm ²)
Spokes	Tighten any loose spokes.
Chain	Oil as necessary
Battery	Battery water above low level mark
Electrical Equipment	Check that the headlight, tail light, brake light, turn signals and horn work.
Chrome-plated Parts	First clean off, and then wipe with an oily cloth to prevent rusting.

TROUBLESHOOTING GUIDE

Engine doesn't start

- ★No gasoline in tank
- ★Gasoline not reaching carburetors
 - ☆Fuel tap lever position incorrect
 - ☆Fuel tap obstructed or defective
- ★Flooded
 - ☆If the engine is flooded, kick it over with the throttle fully open to let more air in.
- ★Starter not working normally
 - ☆Starter cable play maladjusted
 - ☆Lever not returning
- ★Generator defective, or wire disconnected
- ★Ignition rectifier unit defective

Engine stops

- ★No gasoline
- ★Fuel tap clogged or lever position wrong
- ★Gas tank cap air vent obstructed
- ★Generator defective or wire disconnected
- ★Ignition rectifier unit defective
- ★Overheated
 - ☆No engine oil

- ☆Transmission oil low
- ☆Incorrect spark plugs
- ☆Carburetors adjusted too lean
- ☆Timing maladjusted
- ☆Carbon built up in combustion chamber

No power

- ★Compression leakage
 - ☆Spark plug loose
 - ☆Head not sufficiently tight
- ★Clutch slipping
 - ☆Clutch maladjusted
 - ☆Transmission oil needs changing
- ★Timing maladjusted
- ★One plug not firing
 - ☆Carburetor or fuel pipe clogged
 - ☆Spark plug defective
 - ☆Signal generator coil defective
 - ☆Ignition unit defective
 - ☆Wire broken or disconnected
 - ☆Ignition rectifier unit defective
- ★Carbon built up in cylinder exhaust ports or mufflers

PERIODIC MAINTENANCE CHART

	Initial 500 miles (800 km)	Initial 2,000 miles (3,000 km)	Every 2,000 miles (3,000 km)	Every 4,000 miles (6,000 km)
Change transmission oil	×	×	×	
Clean, set spark plugs	×	×	×	
Clean points, check ignition timing	×	×	×	
Check, adjust carburetor and oil pump	×	×	×	
Check, adjust clutch release	×	×	×	
Decarbon heads and exhaust system			×	
Adjust drive chain	×	×	×	
Clean, lubricate drive chain	×	×	×	
Check, tighten spokes	×	×	×	
Clean air cleaner			×	
Add battery water	×	×	×	
Check, adjust brakes	×	×	×	
Remove wheels clean brakes				×
Check fork oil level			×	
Change front fork oil				×
Tighten bolts and nuts	×	×	×	
Clean fuel tap screen			×	
Lubricate cables				×

MEMO

Date	Time	Place	Weather	Remarks



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