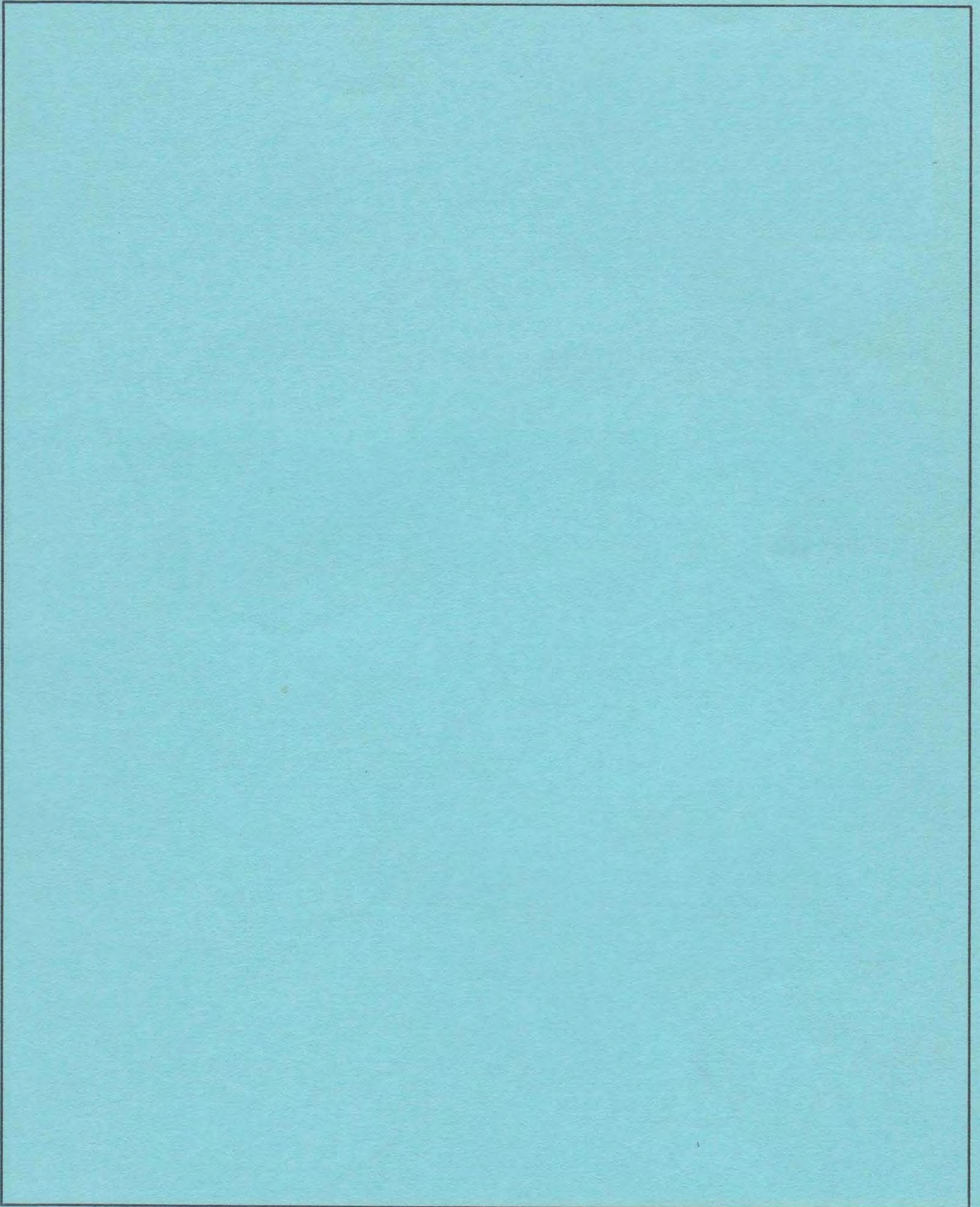


# ASSEMBLY AND PREPARATION MANUAL

# H1

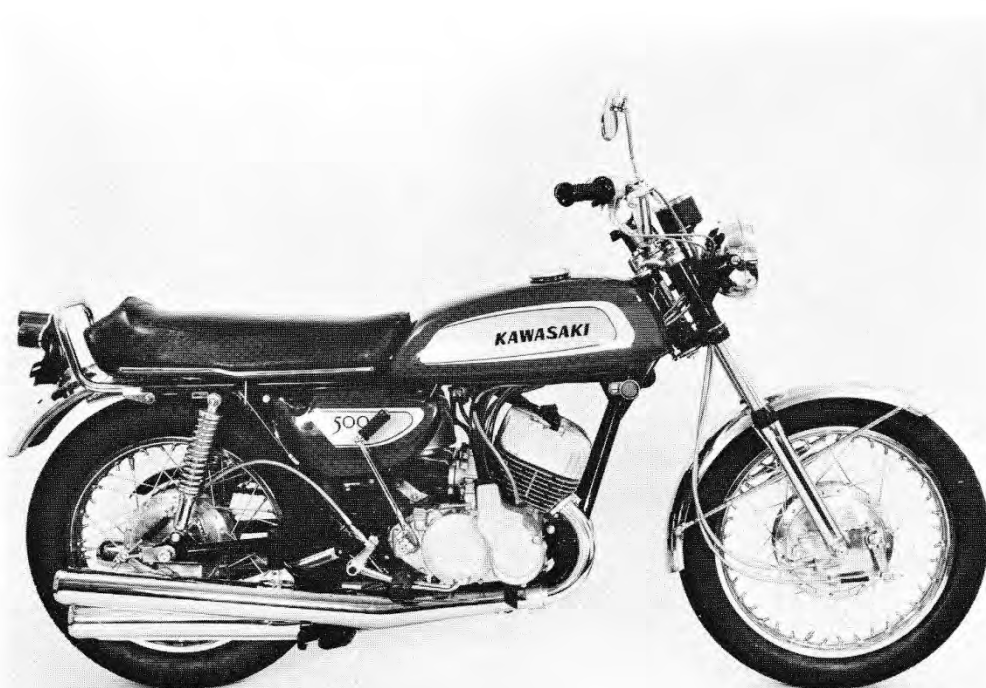




# KAWASAKI MODEL H1 ASSEMBLY AND PREPARATION MANUAL

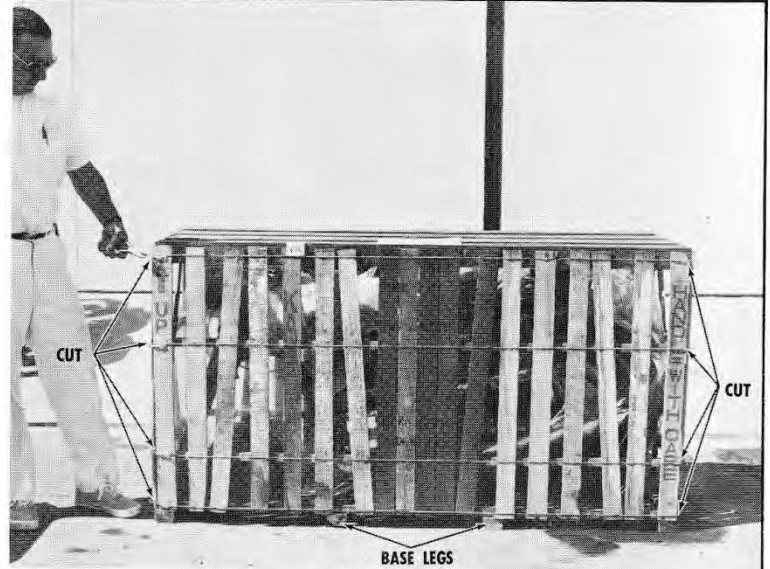
There are three major sections in this manual:

- ASSEMBLY INSTRUCTIONS** —Work performed during uncrating and assembly.  
**PREPARATION SERVICING** —Detailing and inspection performed before delivery.  
**SERVICE SPECIFICATION** —Handy specs for possible trouble-shooting.

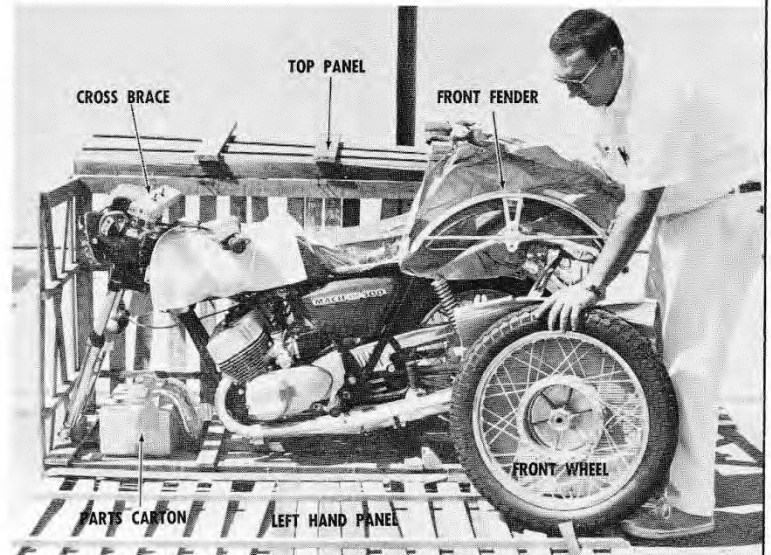


## ASSEMBLY INSTRUCTIONS

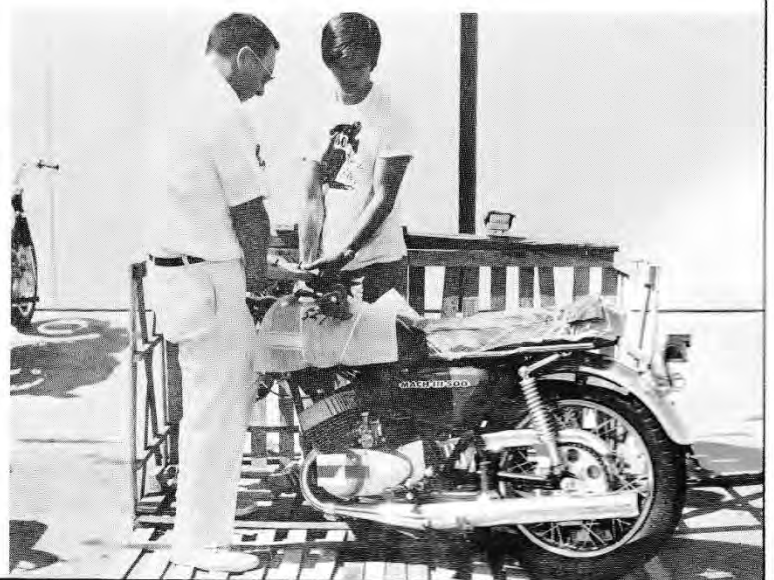
Clear a 20' x 20' area, and then position the crate upright on its base. Pry off the top panel, and then cut the banding wires at the left-hand corners of the crate.



Fold back the top panel, and then pull down the left-hand panel. Remove the plastic covering, and then lift the front wheel and fender from the right-hand side of the crate. Take out the parts packing carton. Knock the cross brace loose from the right-hand panel.



With a helper, lift the rear of the motorcycle out of the crate base, and then lift the front by using the cross brace. Roll the unit out of the crate. CAUTION: Peen over any nails to prevent puncturing the tires. Park the motorcycle on the center stand.





**STEERING DAMPER INCLUDING  
2 FRICTION DISCS, SHAFT, NUT,  
SPRING, TONGUE PLATE AND NUT  
PLATE**

**2 BOLTS, 2 LARGE WASHERS,  
2 LOCKWASHERS, 3 SMALL  
WASHERS, 2 ACORN NUTS**

**GRAB BAR**

**2 COTTER PINS**

**MIRROR W/CLAMP**

**KNOB SPRING**

**DUST CAP**

**RIDERS HANDBOOK**

**KAWASAKI  
500  
MACH III**

**FRONT WHEEL**

**FRONT BRAKE PANEL  
W/SPEEDO CABLE**

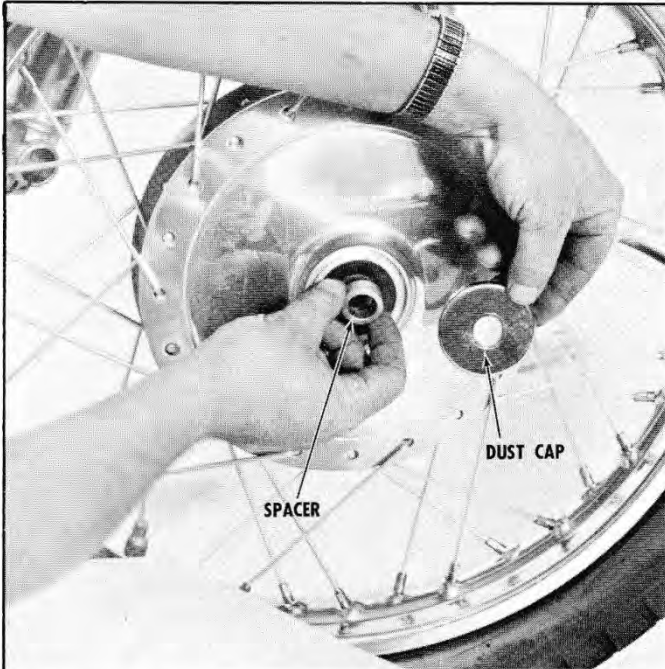
**FRONT FENDER**

**AXLE SPACER**

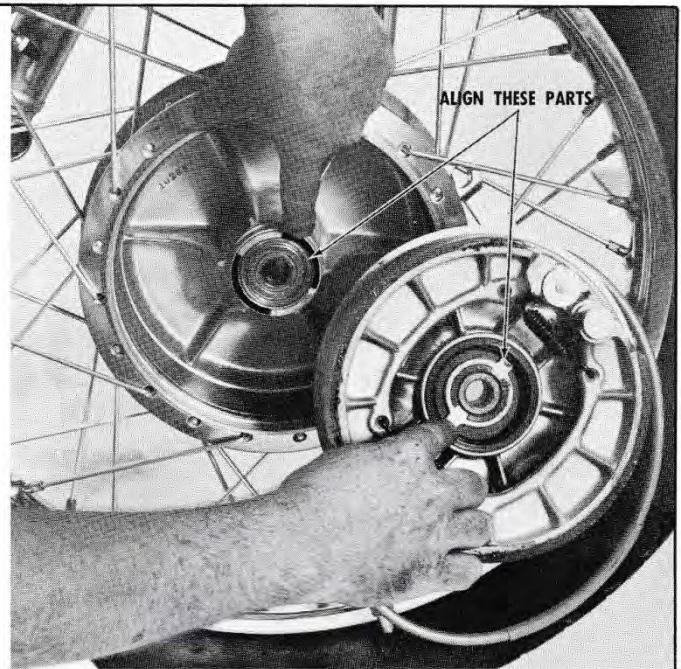
**SHIFT LEVER W/CLEVIS  
WASHER, & CIRCLIP**

Open the parts carton and check the contents against this photo.

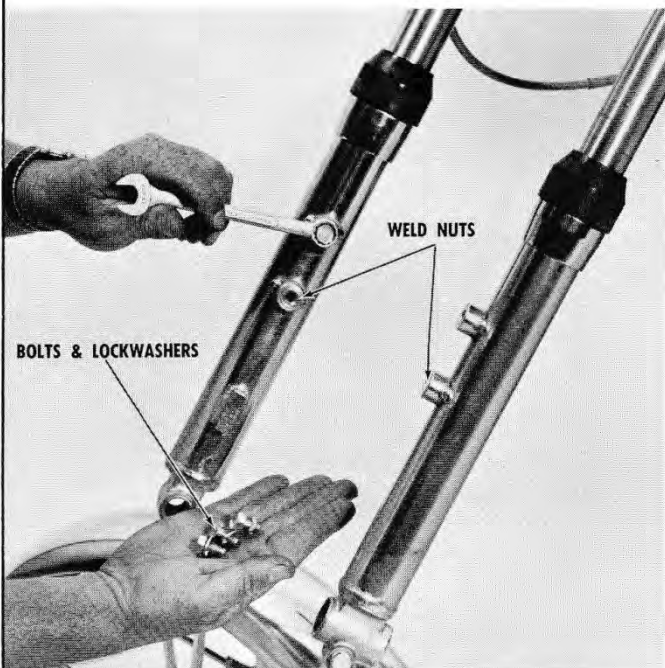




Grease the front axle spacer, and then insert it into the front wheel oil seal. Smear thick grease in the dust cap to ease assembly and then position dust cap in the hub.



Check for any loose parts inside the brake panel and brake drum, and then install the brake panel in the front wheel. Take special care to line up the speedo drive tangs (in the panel) with the notched wheel hub. CAUTION: Misalignment of these parts can damage the front wheel hub and panel, and strain the speedo drive gears.



Remove the four bolts, with lockwashers, from the front fork sliders. Rotate the sliders so the weld nuts face inward.

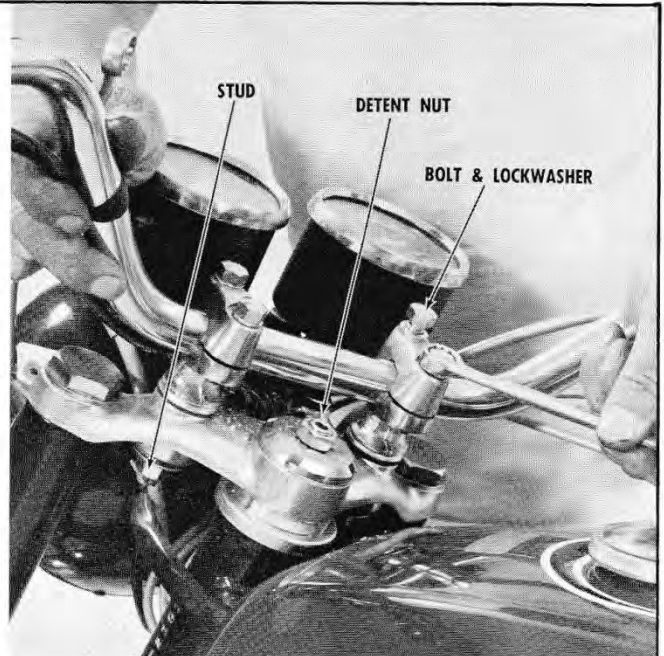


Position the front fender, with the cable loop on the right-hand side, between the fork sliders. Install the four 18mm long bolts, with lockwashers.

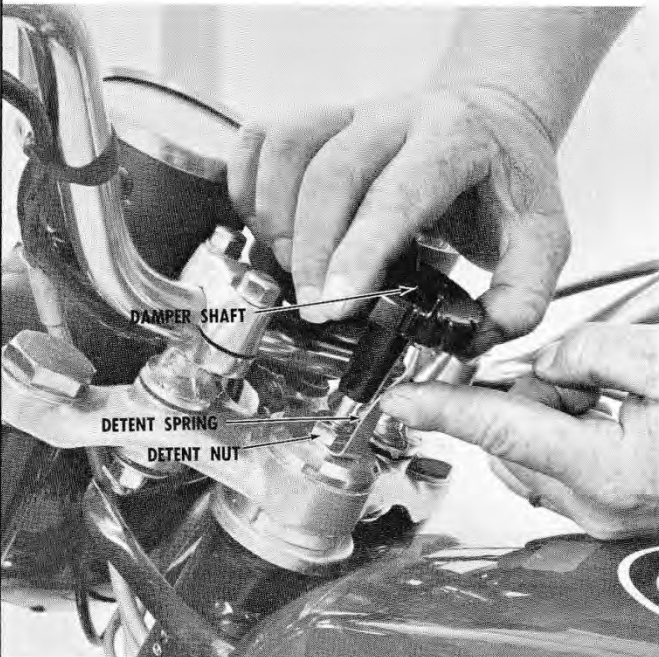




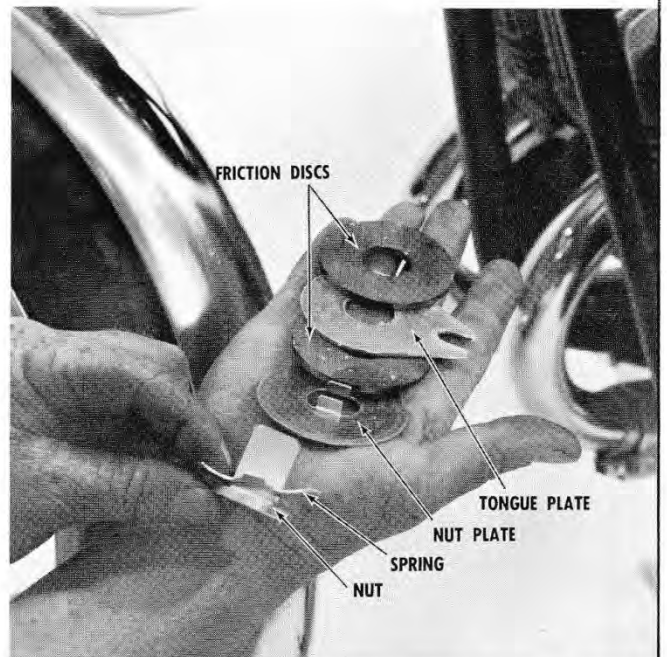
Position the front wheel assembly between the fork sliders, while matching the torque tongue (on the right slider) to the grooved brake panel. Insert the axle from the left side and thread it into the right slider. First, tighten the axle firmly, and then tighten the axle clamp bolt.



Remove the U-bolt nuts, and then take off and discard the wooden cross brace. Take off the handlebar clamps and discard the U-bolts. Check the handlebar holders for bent studs, and then position the handlebar in the holders as shown. Install the two clamps with four bolts and lockwashers.

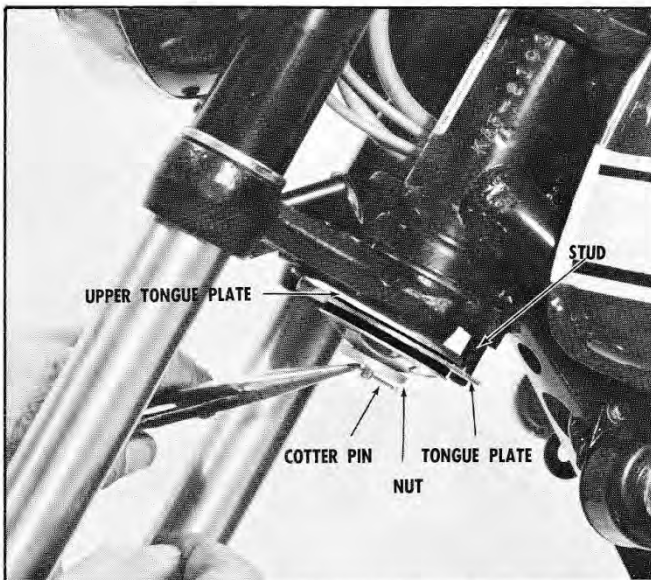


Loosen the detent nut, and then position the knob detent spring with the tongue to the rear. Install and tighten the detent nut. Insert the damper shaft into the steering stem.

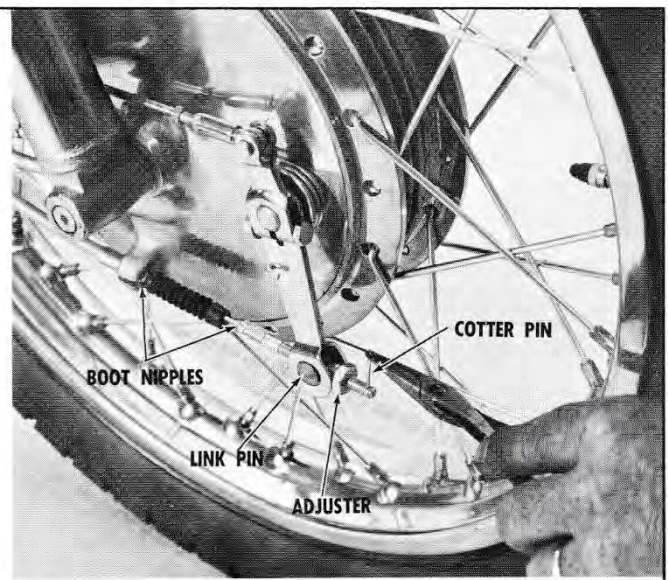


Stack the steering damper parts, as shown here, before installation in the steering stem. **CAUTION:** Clean off any oil or grease with an oilless solvent, such as trichloroethylene, to insure smooth damper action. Follow these assembly instructions exactly to prevent steering difficulties.





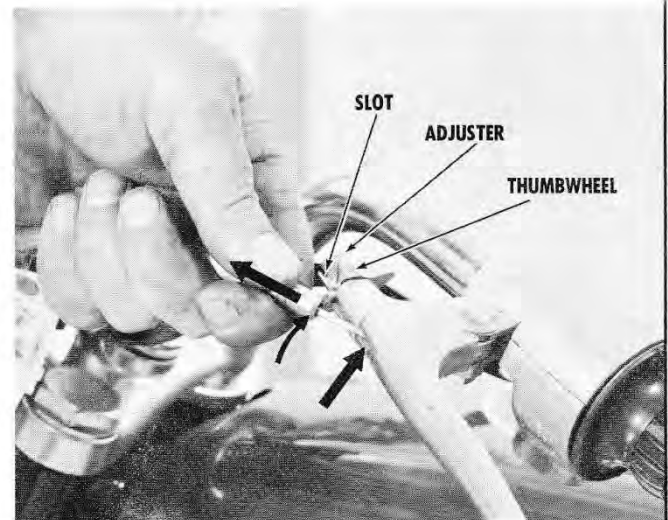
The upper tongue plate is bolted to the fork lower bridge at the factory. Install the parts shown in the previous step, taking care to engage the tongue plate with the frame stud. Screw the nut, with spring, onto the damper shaft. Finally, insert the safety cotter pin and split the ends.



Route the brake cable down through the right-hand cable loop at the tach, down between the fork tubes, and through the fender cable loop. Remove the parts from the front brake cable, and then insert the cable into the brake panel ear. Push the boot, with spring, onto the cable. Hold the link pin in the actuating lever, and then insert the cable through the pin. Thread on the cable adjuster, with the ramps facing the link pin. Insert the safety cotter pin, and then split and spread the ends. Stretch the rubber boot and engage its ends with the nipples on the cable and cable housing.



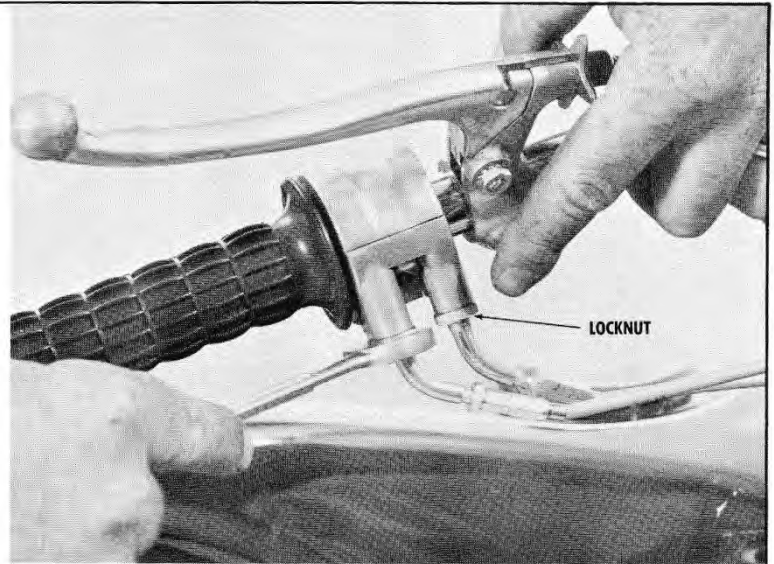
Route the speedo cable through the fender cable loop, between the fork tube, and behind the headlight housing. Insert the speedo drive cable into the speedometer socket. NOTE: Spin the front wheel to align the square cable end with the socket in the speedometer. Thread on the ring nut and tighten it with pliers. Tighten the tachometer cable ring nut.



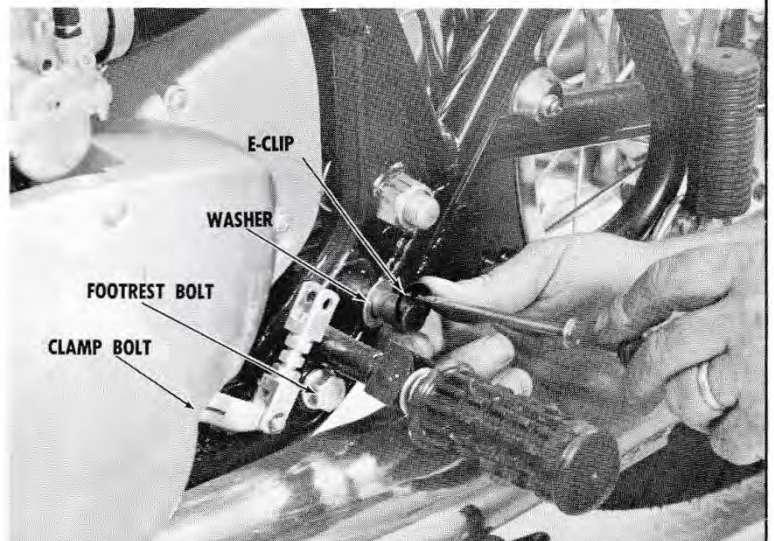
Turn the adjuster and thumbwheel into the lower bracket as far as possible and then back them out until the slots line up. Make sure the clutch cable is routed through the speedometer cable loop. Push the cable nipple up into the lever socket. Pull on the cable sheath, and then swing the cable into the adjuster and release it.



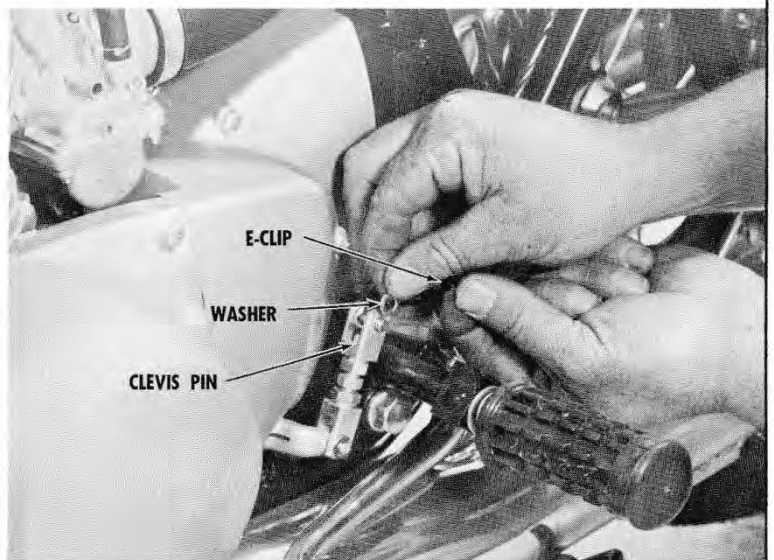
Point the throttle and choke cables at the headlamp, and then tighten the elbow locknuts.



Pry off the E-clip and then remove the thrust washer from the pivot shaft. Grease the shaft. Tighten the shift shaft clamp bolt and the footrest bolt.

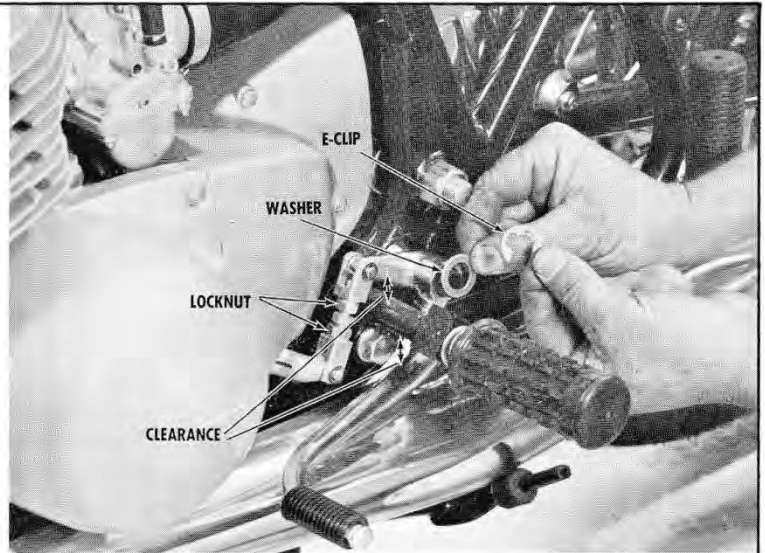


Remove the clevis pin, washer and E-clip from the shift lever, and then slide it onto the pivot shaft. Line up the hole in the shift lever and the turnbuckle, and then insert the clevis pin from behind. Install the washer and E-clip.

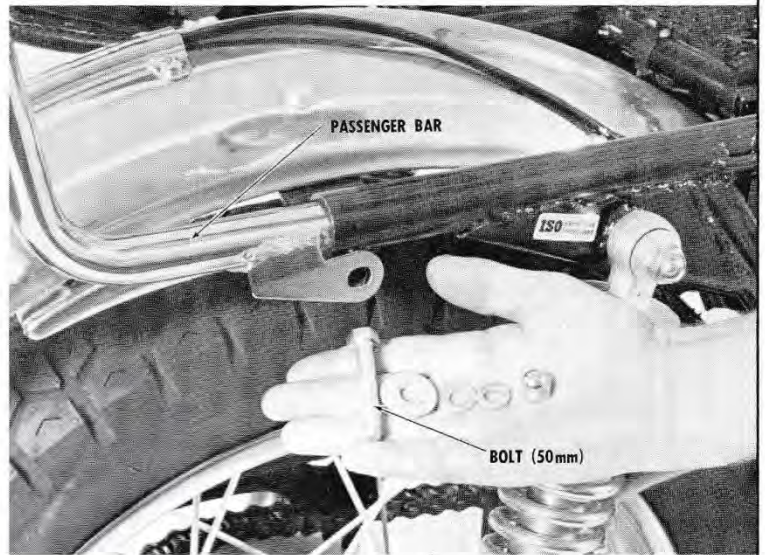




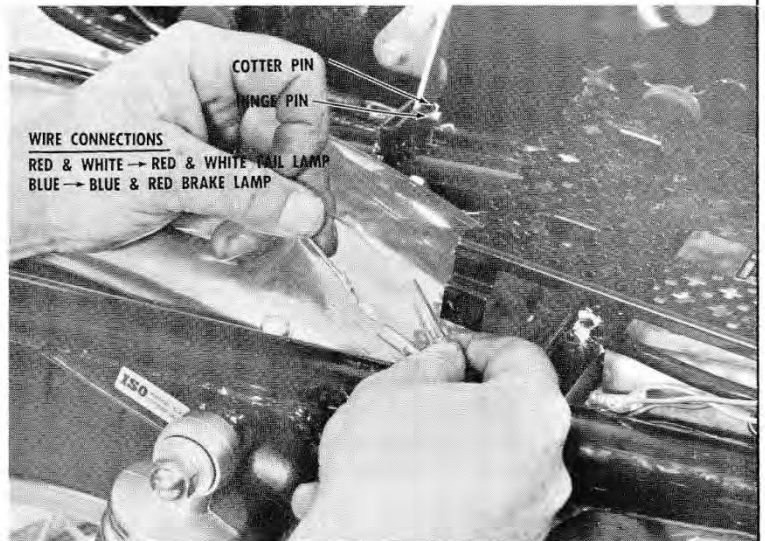
Install the thrust washer and E-clip on the pivot shaft. Adjust the turnbuckle so that the shift lever has equal clearance with the footrest bar on both full upshift/downshift strokes. Tighten the locknuts after adjustment.



Lift the rear fender and insert the passenger bar into the frame tubes. Line up the holes in the fender grommets, passenger bar brackets, and lift handle with the frame mounts. From inside the fender, install the 55mm long bolt, (with large washer) through the fender, frame and handle brackets on the left-hand side. Secure the left-hand bolt with two washers, a lockwasher and the acorn nut. On the right-hand side, use the 50mm long bolt (with large washer). Install one washer, a lockwasher and the acorn nut. CAUTION: If you use the 55mm bolt on the right-hand side, the acorn nut will be punched out when tightened.



Unlatch and lift the seat. Check to make sure the seat hinge pins are cotterpinned. Connect the tail/brake lamp wires as shown.

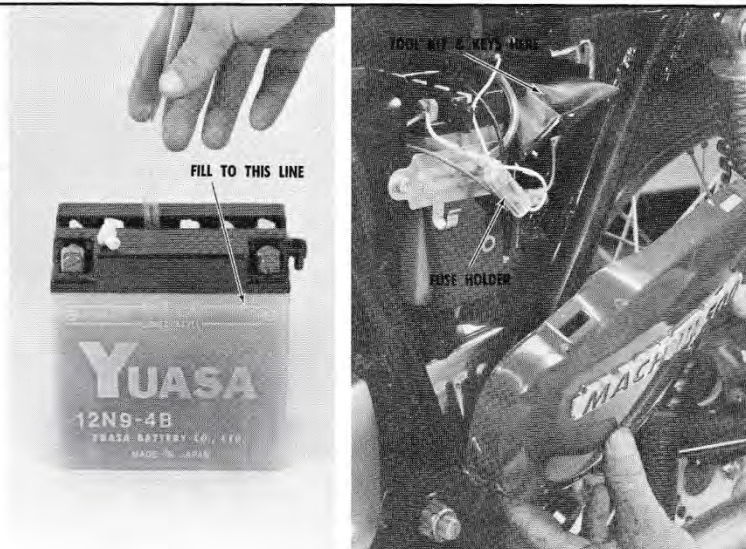




## PREPARATION SERVICING

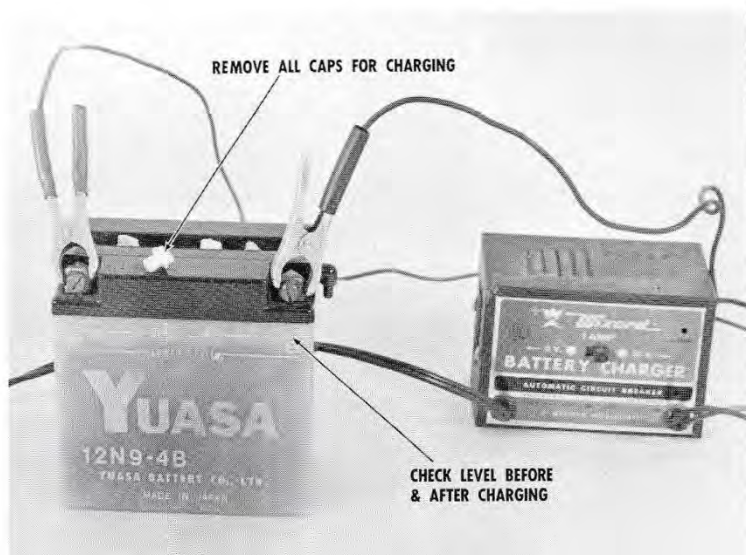
### FILLING

Remove the battery cover, and take the battery from the motorcycle. Be sure that battery vent hose has been cut or rubber band has been removed. Fill the battery to the top level with fresh electrolyte fluid, at a temperature of 85°F or less. Let the battery stand for 2 hours. If the fluid level drops below the upper line, top off with more electrolyte before charging.



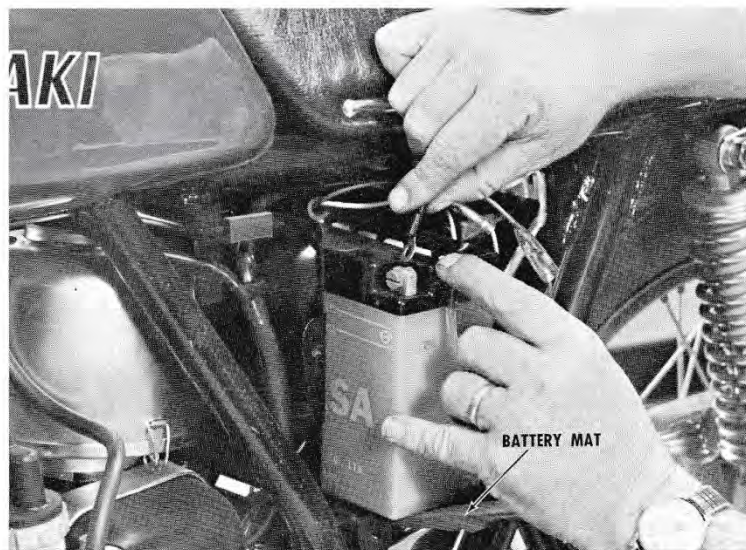
### CHARGING

To avoid battery damage, remove all of the caps. Connect the battery charger leads (red to +, black to -) to the battery posts. CAUTION: Do not charge at a rate greater than 1 amp. An initial charging is recommended before placing in service. Charge for 15 to 20 hours. Discontinue charging if temperature rises to 115°F. If the electrolyte level drops, refill with **distilled water only**.



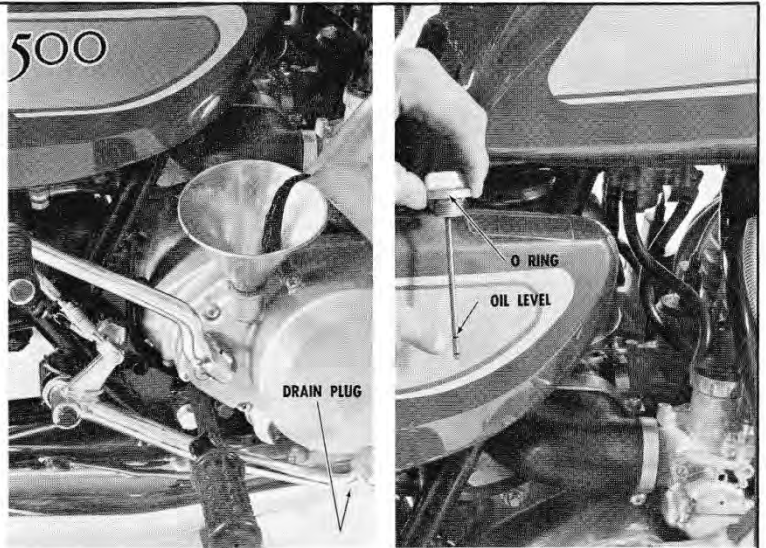
### INSTALLATION

Wash off any spilled acid with fresh water. Be sure that the battery mat is in position to accept and protect the battery. Connect the white lead from the fuse to the (+) battery post. Place insulation boot in position. Slide battery into position halfway and then connect black lead to (-) post. Slide the battery into final position. Make sure that there is no opportunity for battery post or leads to make contact with battery box. Place battery mat around end of battery and secure with clamp and screw. **Take care not to pinch vent tube.** Route vent tube forward, over the side panel screw bracket, behind frame cross tube, inboard of chain guard between engine cases and swing arm tube.





Remove the drain plug and drain the preservative oil from the transmission. Replace the drain plug, remove oil filler cap and fill with automatic transmission fluid (type F) until the level is between the two lines marked on the level gauge when the cap is threaded into the case. Make sure the O-ring is in place. Quantity: 1.7 qt. or 1.6L or 54 fl. oz.



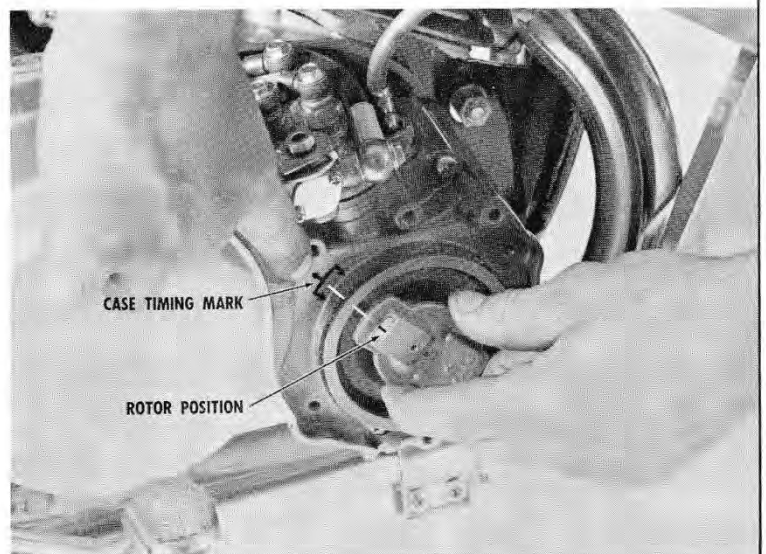
Remove the oil tank cap and fill the tank with a quality brand of 2-stroke oil. **Check tightness of the oil tank banjo bolt.** Make sure the oil tank cap has a clear vent and that the O-ring is in place before installing.



Remove 3 phillips screws from the oil pump cover, pull oil pump cover away from right-hand engine cover so as not to interfere with work area. Remove all three spark plugs and clean off any preservative with a suitable cleaner. With plugs removed, all timing functions may be accomplished with ease. With the right-hand piston at top dead center, check location of rotor with timing mark bracket on right-hand engine case. If rotor mark points to an area within the timing bracket, no further adjustment is required.

#### **ROTOR TIMING (if required)**

If the rotor does not line up properly, then the following must be done. Remove 9 phillips screws from the right-hand engine cover—loosen engine cover from engine case and pull it away until the distributor will rotate freely. Push the engine cover back in, checking to insure that proper timing is achieved.





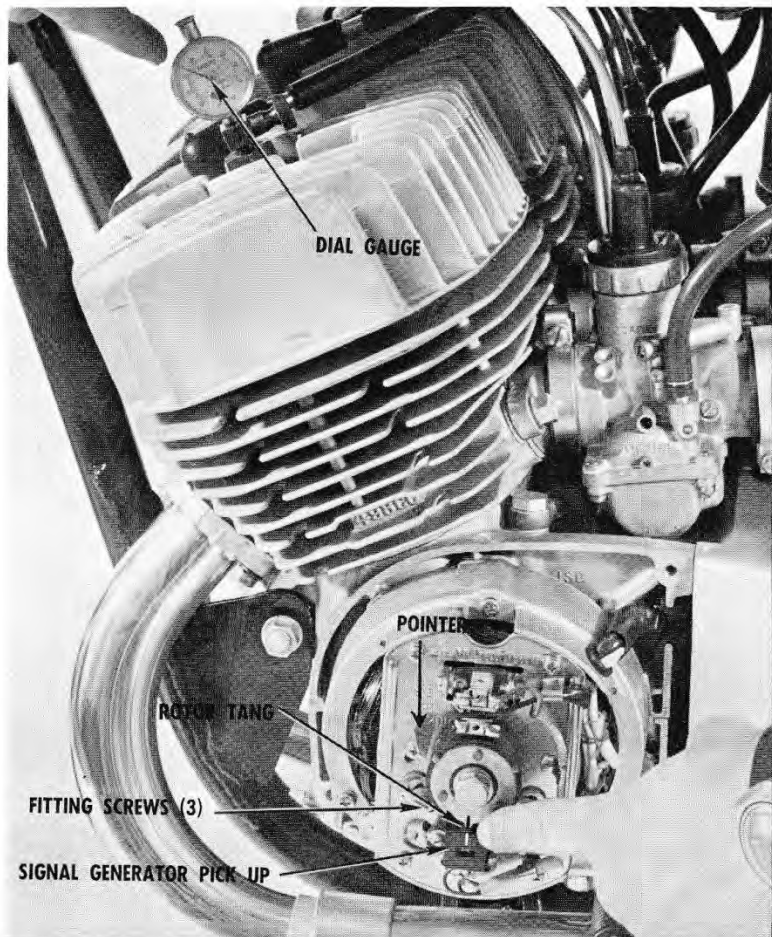
### AIR GAP

Remove the generator cover. Use a feeler gauge to measure the air gap between the signal rotor tangs and signal pickup. The gap should be 0.016-0.024 inch. Turn the crankshaft and check all three rotor tangs. To adjust the air gap, loosen the two pickup mounting screws and shift the pickup toward or away from the rotor as required. After adjustment, tighten the two screws and apply Loc-Tite to the screw heads.



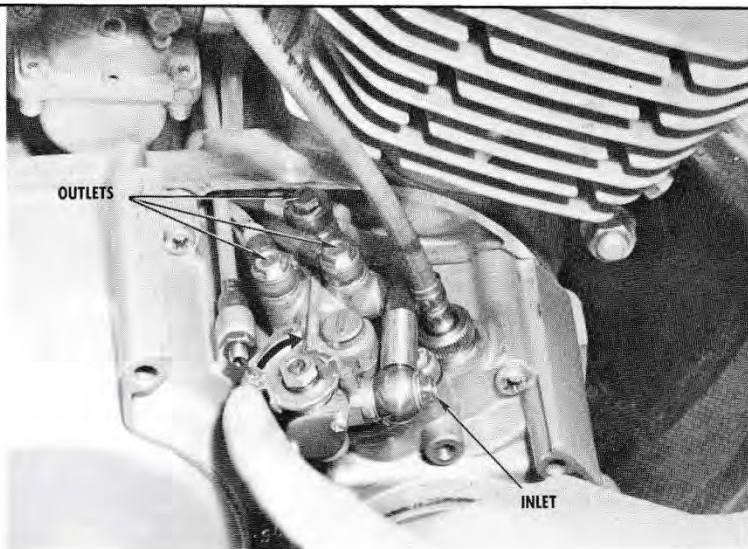
### IGNITION TIMING

Insert the dial indicator (with proper length rod) in the spark plug hole of left-hand cylinder. Rotate the engine to place the left piston at 3.45 mm before top dead center. With piston in this position, the signal rotor tang must align with the line molded into the pickup body. To adjust the ignition timing, loosen the three timing plate mounting screws and shift the timing plate until the marks align. Tighten the three screws. CAUTION: An error of 1mm in aligning the marks results in a 3° error in timing; be precise in setting the pickup timing. At this time, check the timing pointer on the stator to see that it lines up with the rotor tang mark at the 10 o'clock position. Bend it to correct any misalignment. During subsequent services, it is only necessary to check the timing with a strobe light on the pointer at 4000 rpm. Replace the generator cover and install spark plugs.





Replace the distributor cap, with grommet. Bleed the oil tank hose of any air by loosening the inlet banjo bolt. After two minutes of oil flow, tighten the bolt. CAUTION: If the oil flow is slow or stops altogether, check the oil tank banjo bolt for clogging and the oil hose for pinching. Also check the tightness of the outlet banjo bolts. Start the engine and maintain engine speed at 1500-2000 rpm. Hold the control lever in the wide-open position to bleed air out of the oil pump body and oil pressure lines. When the exhaust starts smoking heavily, release the lever and stop the engine. CAUTION: If the exhaust does not smoke, or if bubbles are present in the oil pressure lines, check for blockage or loose connections.



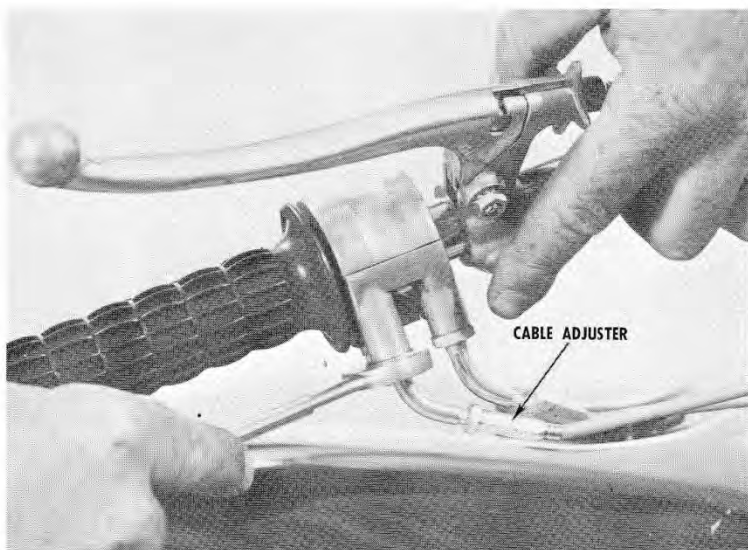
### STARTER CABLE ADJUSTMENT

Remove the air cleaner housing with inlet pipes. Tug on the starter cables to check for free play, which should be  $\frac{1}{8}$ " on each cable. NOTE: If there is no slack, the starter plunger will be held open slightly, causing rich mixtures from that carburetor. To adjust cable slack, pull up the rubber cap, loosen the locknut, and turn the adjuster. Tighten the locknut after adjusting. NOTE: The carburetor is removed here for clarity; it is not necessary to remove the carburetor for adjustment.



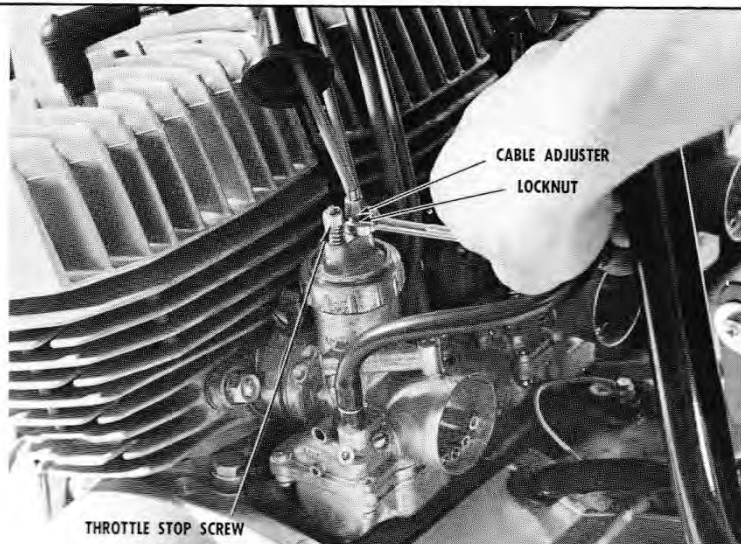
### CARBURETOR SYNCHRONIZATION

For smooth, reliable performance, the three carburetors must all have the same slide position at any throttle opening. To check synchronization, loosen the cable adjuster on the twistgrip to obtain sufficient slack in the control cable.



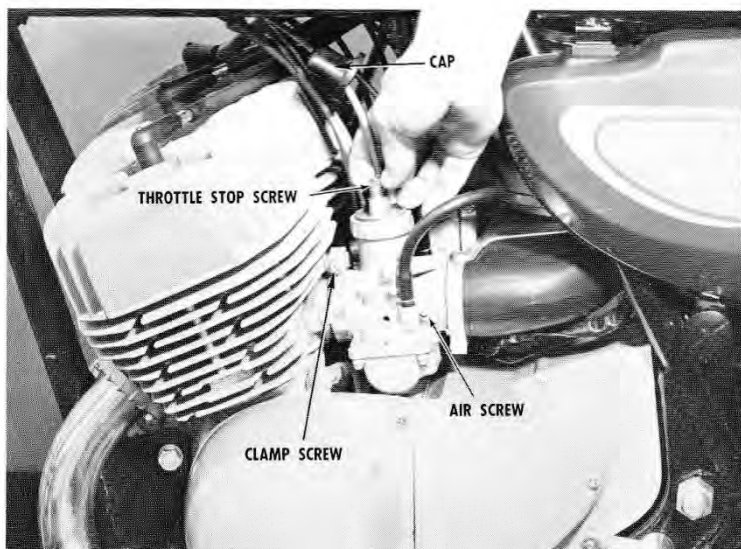


Turn in all 3 throttle stop screws completely so that the throttle valves rest on the bottom of the carburetor venturis; lift each throttle rod to make sure it has some play and is not holding the slide open. The slides are now in the same position: fully closed. Tug on the throttle cables to make sure each cable has the same amount of slack: 1/16". Correct any tight or loose cable by loosening the locknut and turning the cable adjuster. When all three cables have 1/16" slack, tighten the locknuts. After this operation, the three slides will be parallel at any throttle position from fully closed to wide open.



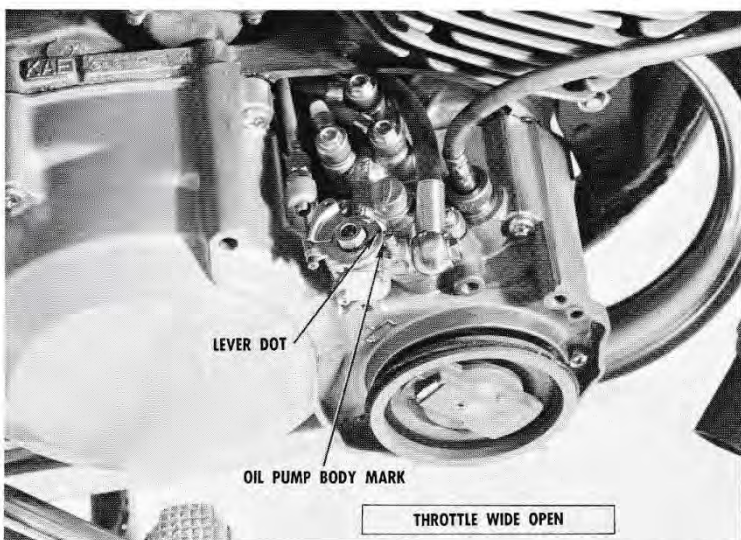
### IDLE ADJUSTMENTS

Turn in each air screw until it bottoms lightly, and then back it out 3/4 turn for the initial break-in. Start the engine and warm it up for a minute or two; then back out the throttle stop screws evenly until a stable idle of 1300-1500 rpm is obtained. Hold your hands over the mufflers to see if the exhaust pressure is balanced among the three cylinders. To balance the exhaust, turn the throttle stop screws — back out the screw on a "weak" cylinder; turn in the screw on a "strong" cylinder. When the idle is balanced, wrap electrical tape around the throttle stop screw and cable adjuster to prevent loosening. Finally, lengthen the cable adjuster on the twistgrip so that there is approximately 1/16-1/8" play in the throttle. Install the carburetor rubber caps, and check the tightness of the carburetor mounting clamps.



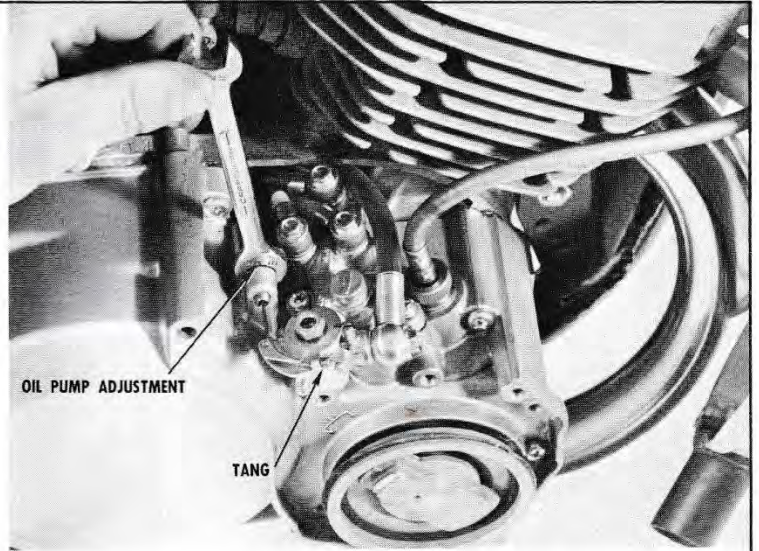
### OIL PUMP ADJUSTMENT

Only after adjusting the carburetors, inspect the oil pump adjustment. Turn the twistgrip to the wide-open position, and see if the dot (\*) on the oil pump lever is aligned with the mark (-) on the oil pump body. NOTE: The closed-throttle inspection method in the Service Manual results in excessive lubrication and smoking.



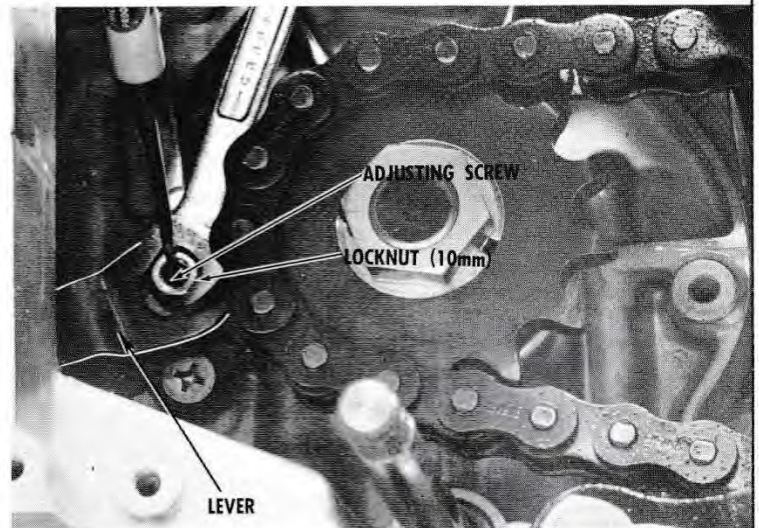


To correct the pump lever position, loosen the locknut and turn the cable adjuster. Tighten the locknut. At the same time, make sure the lever tang is bent over to retain the cable nipple.

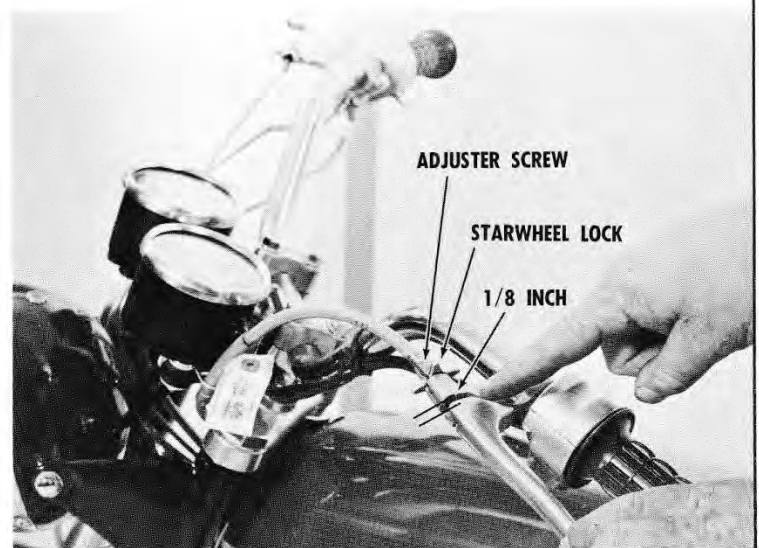


### CLUTCH ADJUSTMENT

Remove the sprocket cover, and check the position of the clutch release lever, which should be at approximately 8 o'clock, as shown. Correct lever position by turning the clutch cable adjuster under the gas tank. Loosen the locknut on the release screw and then turn the screw clockwise until you just start to feel clutch spring tension. Hold the screw in this position while tightening the locknut. Check the tightness of the sprocket nut, making sure the washer is bent, and then replace the sprocket cover.

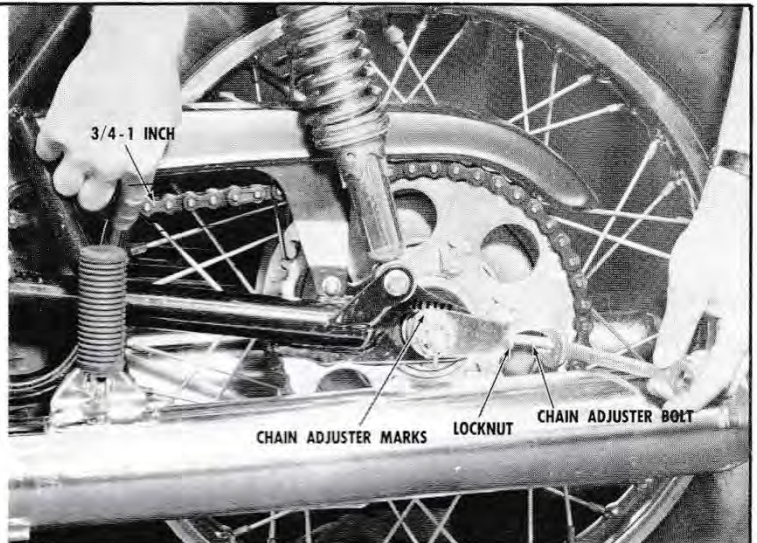


Turn the clutch cable adjuster on the handlebar to obtain a  $\frac{1}{8}$ " gap when you just start to feel clutch spring tension, and then tighten the starwheel lock.





Remove the cotter pin and loosen the rear axle nut. Loosen the chain adjuster locknuts on either side of the swing arm. Turn the adjuster bolts until the drive chain has just less than one inch of slack on the lower run of chain, midway between the sprockets. Tighten the locknuts and axle nuts after adjustment. **CAUTION:** Make sure cotter pin is replaced. **NOTE:** To insure proper wheel and sprocket alignment, make sure the marks on the chain adjuster are positioned at equal division on the swing arm tabs.

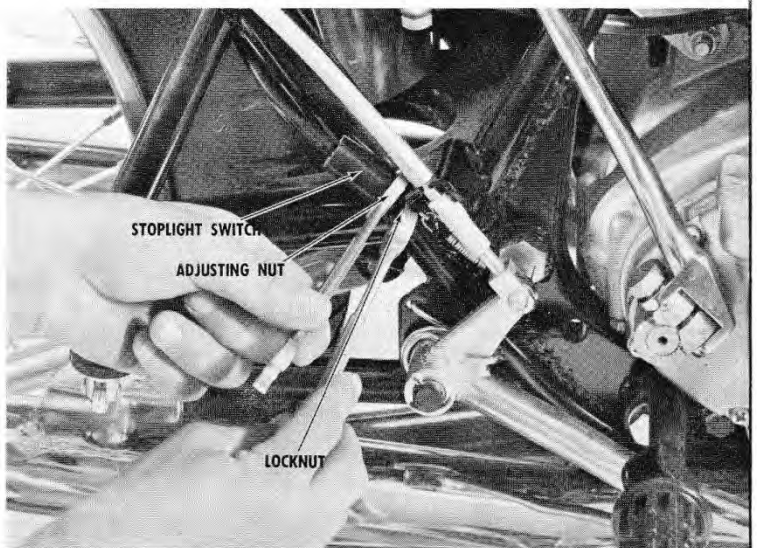


Adjust the rear brake. The rear brake pedal should move one inch from its static position before the rear brake lever begins to activate. Adjust both rear shocks to their bottom-most position.

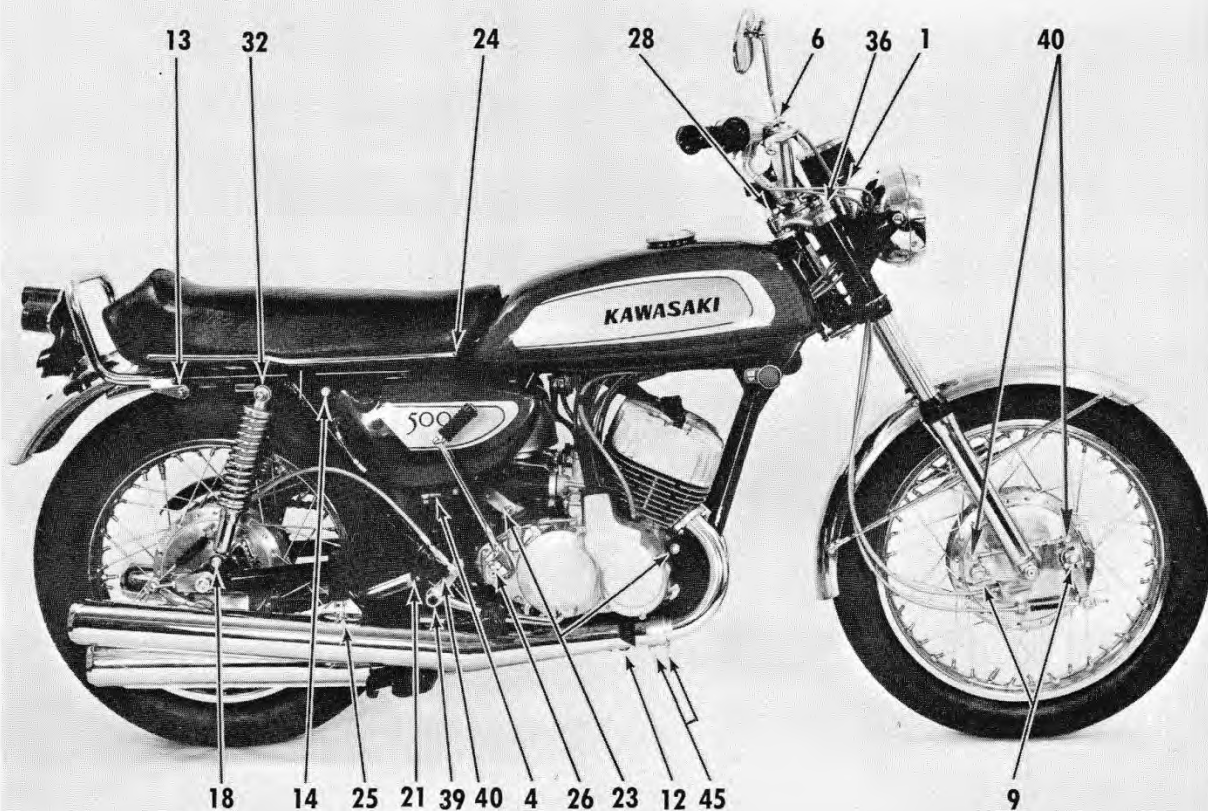
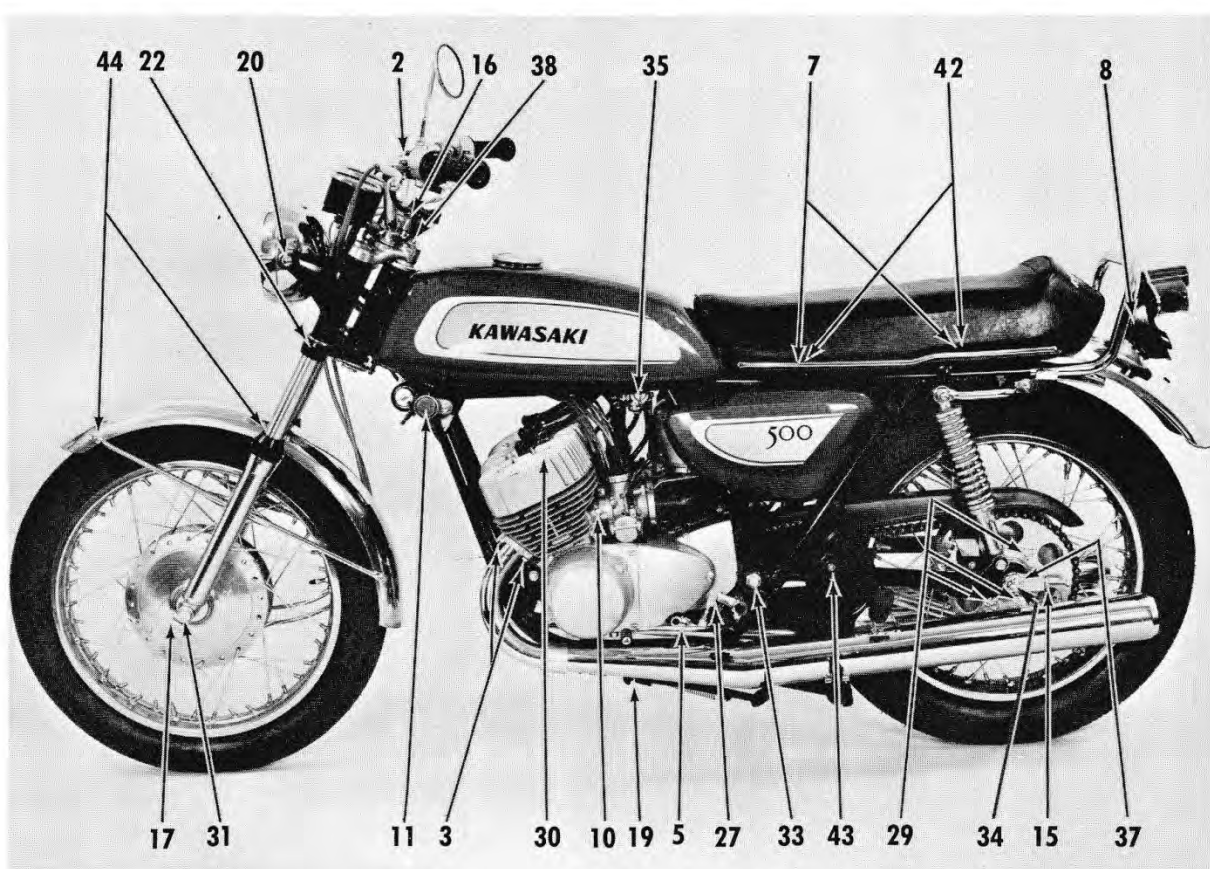


Turn the main switch on, and then operate the front and rear brakes individually. (See photo above.) The front brake light switch does not require adjustment.

The brake light should turn on when the rear brake pedal travels  $\frac{1}{2}$  to  $\frac{3}{4}$  inch. Adjust the brake lamp switch by loosening the locknut and turning the adjusting nut. Tighten the locknut after adjustment.









**KAWASAKI MODEL H1  
PRE-SALE SERVICE  
CHECK THESE ITEMS BEFORE DELIVERY**

ITEM	DESCRIPTION	TOOL SIZE	REMARKS
1	Instrument nuts (4)	8mm	w/lockwasher
2	Lever pivot nuts (2)	10mm	w/star washer
3	Exhaust flange nuts (6)	10mm	6 lb.-ft.
4	Bottom oil tank bolt	10mm	
5	Shift lever bolt	10mm	
6	Lever bracket clamp bolt (2)	10mm	
7	Seat hinge bolts (4)	10mm	
8	Tail lamp bracket nuts (3)	10mm	w/jam nuts
9	Brake actuating lever bolt (3)	10mm	
10	Carburetor manifold nuts (6)	12mm	w/lockwasher
11	Forward gas tank and reflector bolts (2)	12mm	
12	Front muffler bolts (2)	13mm	w/lockwasher
13	Rear fender bolts (2)	13mm	
14	Rear oil tank bolt	13mm	
15	Chain adjuster lock nuts (2)	13mm	
16	Handlebar clamp bolts (4)	13mm	
17	Front axle clamp bolt	13mm	
18	Bottom shock mount bolts (2)	14mm	
19	Sidestand pivot bolt	14mm	
20	Headlamp housing bolts (2)	14mm	Check aim
21	Rear brake torque link bolts (2)	14mm	w/cotter pin
22	Fork tube pinch bolts (2)	14mm	
23	Engine mount nuts (6)	14mm	
24	Rear gas tank bolt	14mm	
25	Passenger peg nuts (2)	14mm	w/lockwasher
26	Kickstarter lever bolt	17mm	w/circlip
27	Footpeg nuts (2)	17mm	
28	Steering stem bolt	17mm	
29	Rear sprocket bolts (6)	17mm	w/lockplates
30	Cylinder head nuts (12)	17mm	15 lb.-ft.
31	Front axle nut	19mm	
32	Top shock mount nuts (2)	19mm	acorn
33	Swing arm pivot nut	22mm	40 lb.-ft.
34	Rear axle nut	25mm	w/cotter pin
35	Fuel valve nut	30mm	
36	Fork tube top bolts (2)	32mm	
37	Rear axle sleeve nut	32mm	
38	Steering bearing ring nut	47mm	Spanner type. Do not bind. No excessive play.
39	Rear brake pedal pivot	washer & cotter pin	
40	Brake linkage joint (3)	washer & cotter pin	
41	Center stand pivot joints (2)	washer & cotter pin	
42	Seat hinge pins	Cotter pin	
43	Chain guard screws (2)	#2 Phillips	
44	Front fender bracket screws (10)	#2 Phillips	
45	Exhaust pipe clamp screws (9)	#2 Phillips	
46	Tire pressure front	26 PSI	
47	Tire pressure rear	32 PSI	
48	Spoke nipples (F & R)		Check and tighten



# KAWASAKI MODEL H1 SERVICE SPECIFICATIONS

## CARBURETOR

Manufacture and Type	Mikuni VM28SC
Float Level	23.5mm
Main Jet Size & Type	#100R
Needle Jet	#0-2
Jet Needle & Clip Position	5GL3-3rd
Pilot Jet	#30
Throttle Valve Cutaway	#3.0
Air Screw (Turns Out)	¾*

\* 1¼ turns for best gas mileage

## IGNITION

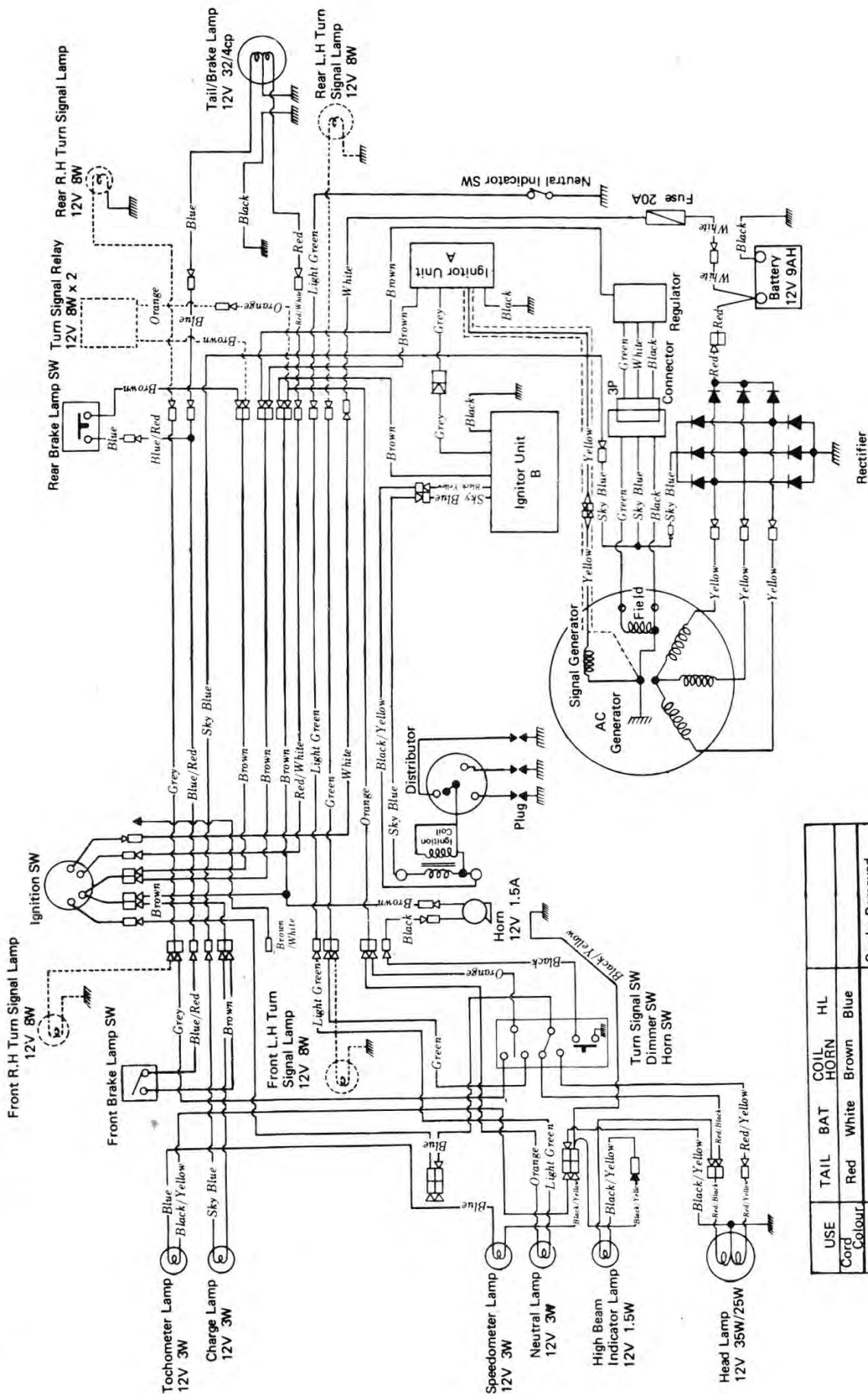
Signal Generator Air Gap	0.016-0.024 inch
Ignition Timing	25° BTDC 3.45mm
Spark Plug Type	NGK-BUHX**

## LUBRICANTS

Front Fork Oil Type (over 50°F)	20W Non-Detergent
Front Fork Oil Type (Below 50°F)	30W Non-Detergent
Front Fork Oil Quantity (Each Fork)	230cc
Transmission Oil Type	ATF (TypeF)
Transmission Oil Quantity	1600cc 1.7 Qt. 54 Fl. Ozs.



# Wiring Diagram



NOTE : Turn Signal Lamps and Turn Signal Lamp Relay are Optional Parts which are shown with dotted lines

USE	TAIL	BAT	COIL	HORN	HL
Cord Colour	Red	White	Brown	Blue	Blue
Stopped	Can be Removed				
Day	Can not be Removed				
Night	Can not be Removed				
Parking	Can be Removed				







