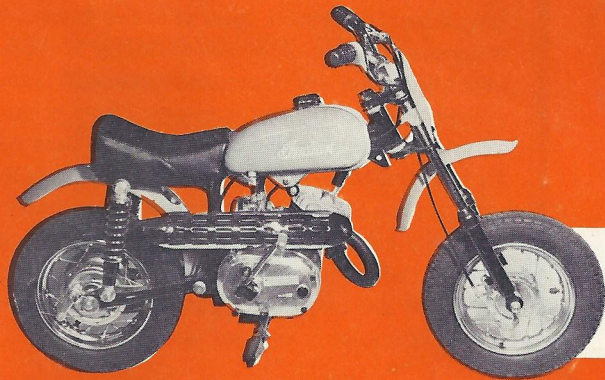


# OWNERS MANUAL



MINI-MINI  
MODEL MM-5A





## FOREWORD

The Indian Motorcycle covered in this Owners Manual is the easy-to-operate Mini-Mini (Model MM-5A). The Mini-Mini is the world's smallest and most complete motorcycle designed for youngsters from three to eight years old. This Owners Manual is the Riders Handbook for the Mini-Mini. The procedures contained in this manual have been carefully prepared to acquaint you with all the proper handling and servicing procedures that you will require to keep it in top operating condition and to acquaint your youngster with its proper operation.

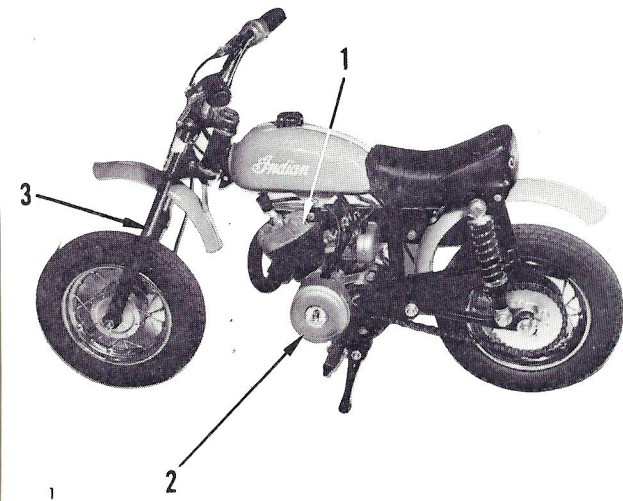
If you have any question about your motorcycle at any time, your local Indian Dealer will be happy to assist you.

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## FEATURES OF THE MINI-MINI



(1) **48 cc Two-Stroke Engine** Dependable 1.3 hp single cylinder 48 cc engine with compression ratio of 6.5:1 and 12 mm Dell'orto carburetor. Detuned for safety to go 10 miles per hour.

(2) **Automatic Transmission** Centrifugal force automatic transmission for ease of operation. Single-speed action that blends smoothly with the 48 cc engine.

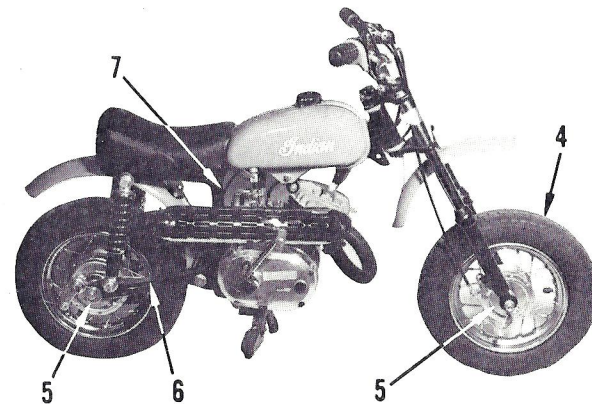
(3) **Telescopic Front Suspension** Front telescopic spring dampened forks to reduce road shocks and for improved control and handling.

(4) **Knobby 2-1/2 x 8 Inch Wheels** Small quality-designed wheels for maximum rider safety and control of your Mini-Mini.

(5) **Internal Expanding Front and Rear Brakes** Hand controlled front and rear internal expanding brakes to make sure and fast stops. Rarely found on motorcycles of this size.

(6) **Rear Swing Arm Suspension With Shock Absorber** Rear swing arm suspension with shock absorber. Nothing less than Big Bike Quality for the beginner.

(7) **Light Weight Frame** Strong light weight frame design making the Mini-Mini easy to store and transport.



# SPECIFICATIONS

## ENGINE — Model S5K

Type . . . . .	Single cylinder, two stroke
Bore & Stroke . . . . .	38 mm x 42 mm
Displacement . . . . .	47.6 cc
Compression Ratio . . . . .	6.5:1
Brake Horse Power @ rpm . . . . .	1.3 hp @ 5000 rpm
Carburetion . . . . .	Dell'Orto — 12 mm
Ignition . . . . .	Flywheel magneto, 18W-6V
Starting System . . . . .	Kick starting
Recommended Fuel . . . . .	Premix 20:1, regular gas and SAE30, 2-stroke oil
Fuel Tank Capacity . . . . .	¾ gallon
Transmission . . . . .	Single speed
Clutch . . . . .	Automatic centrifugal force in oilbath (1/2" x 3/16")
Transmission Oil Capacity . . . . .	8 ounces
Gear Ratios . . . . .	1:3.467
Countershaft Sprocket . . . . .	11 tooth
Rear Wheel Sprocket . . . . .	32 tooth

Engine Weight . . . . . 18 pounds

## DIMENSIONS

Wheelbase . . . . .	30½"
Seat Height . . . . .	18"
Seat Width . . . . .	6½"
Handlebar Width . . . . .	22"
Footpeg Height . . . . .	6½"
Ground Clearance . . . . .	5½"
Dry Weight . . . . .	57 pounds
Overall Length . . . . .	43½"

## SUSPENSION

Front . . . . .	Telescopic, spring dampened
Rear . . . . .	Swing arm with shock absorber

## WHEELS AND BRAKES

Front Tire . . . . .	Knobby 2½ x 8"
Rear Tire . . . . .	Knobby 2½ x 8"
Front Brake . . . . .	Hand operated internal expanding
Rear Brake . . . . .	Hand operated internal expanding
Wheels . . . . .	Spoke

## AVAILABLE COLORS

Green, orange, yellow



## OPERATING TIPS

Mini-Mini Owners should make both daily and periodic inspections to prolong the life of their motorcycles and to help prevent riding accidents.

On a regular basis, check for the tightness of all important parts. This will also help prevent accidents and mishaps during riding.

**Engine Warm-Up** Always warm up the engine at a low speed for two minutes before riding. This will allow oil to begin proper circulation and the carburetor time to function properly when the engine is cold.

**Racing the Engine.** Do not race the engine at high speed without a load. The engine if raced under these conditions will be sometimes seriously harmed.

**Starting the Motorcycle** Start the motorcycle gently in accordance with instructions in this manual. Excessive high light load speed upon starting is also harmful to your engine. No gear shifting is necessary for the easy-to-operate Mini-Mini.

**Operation of Mini-Mini with Air Cleaner Removed** Do not operate your Mini-Mini with the air cleaner removed from the carburetor. If you do, dirt and dust will be inhaled into the engine causing more rapid wear.

**Break-In Tips** Do not ride at full speed, carry heavier than normal loads, or operate your Mini-Mini for long periods of time for the first 500 miles. Half throttle operation is recom-

mended for the break-in period. This will allow the rings in your engine to properly seat.

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### Gasoline Recommendations

Use premium gasoline. Do not use low lead.

Use only 2-stroke motorcycle oil.

Premix a gas-to-oil mixture of 20:1. This mixture can be used in your Mini-Mini from time of break-in through normal operation.

Assure that dirt, dust or water does not become mixed with the fuel.

Fill gas tank only to 3/4 capacity to prevent running over in parked position.

### Transmission Oil Recommendations

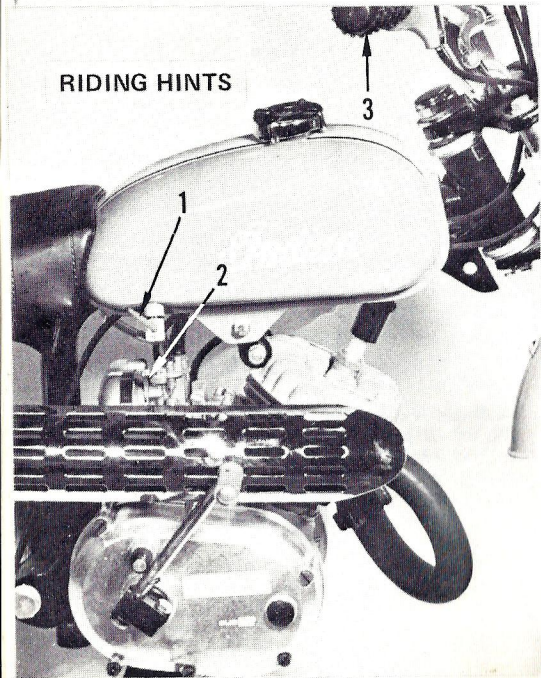
Use only SAE 30 weight non-detergent oil in your Mini-Mini.

Always drain used oil before refilling.

After filling, double check the oil filler plug and drain plug for tightness.

**Washing Your Mini-Mini** A clean machine is a matter of pride and it is also wise to keep your motorcycle in tip-top condition. Wipe dirt off the surface with a wet cloth or a cloth soaked in warm soapy water. If oil spots have to be removed wipe with cloth soaked in gasoline.

## RIDING HINTS



## STARTING

1. Assure that throttle is fully closed.
2. Turn fuel cock lever to the "ON" position (Figure 1).
3. Push down automatic choke lever on carburetor to engage choke (Figure 2).
4. Kick engine over with kick starter. (Forward for latest model Mini-Minis, back for earlier model Mini-Minis).
5. Hold the left brake lever in and idle the engine.
6. After about 60 seconds and while still holding the front brake, turn throttle (see Figure 3) slowly until click is heard (automatic choke disengaging).

## OPERATION

Your Mini-Mini Motorcycle has an automatic centrifugal clutch, which engages when the throttle grip is turned clockwise.

## Hill Climbing

Your Mini-Mini Automatic is capable of climbing hills with only a 10<sup>0</sup> grade.

When climbing hills with your automatic, do not throttle down at any time. This will prevent the motorcycle from losing its momentum.

## Riding Down Hill

Always close the throttle and apply front and rear brakes at the same time to reduce speed while descending. Also:

Close the throttle for using the engine as a brake.

Always apply the front and rear brakes at the same time with the same pressure.

## STOPPING AND PARKING

### Stopping Your Mini-Mini

1. Apply front and rear brake at the same time or the motorcycle may skid or slide. Both front and rear brakes are hand-operated.
2. The automatic Mini-Mini has a single speed transmission. To stop, fully close the throttle.

### Parking

1. Depress the "Kill" button with your left thumb
2. Close the fuel cock lever
3. Push the footstand down with your left foot and lean motorcycle to left until it rests on stand.

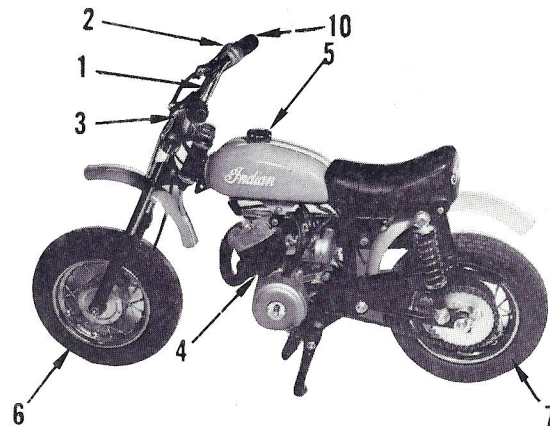
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## DAILY INSPECTION

### INSPECT THE MOTORCYCLE DAILY BEFORE RIDING

1. Does steering feel light?
2. Is front brake lever play correct?
3. Is there too much rear brake travel?
4. Is engine oil at proper level?
5. Do you have enough fuel to get you there?
6. Is front tire O.K.?
7. Is rear tire O.K.?
8. Do you notice any loose hardware?
9. Is the drive chain properly adjusted and lubricated?
10. Does throttle operate correctly?



## PERIODIC INSPECTION

Ref Letter	Item	Mileage 200 New Machine	Mileage 500 New Machine	Regular Maintenance Intervals After Break-In
A	Change gear box oil	x	x	Every 500 miles
B	Check and Adjust Throttle	x	x	Every 1000 miles
C	Check and Adjust Hand Brake Levers	x	x	Every 1000 miles
D	Check and Adjust Foot Brake Travel	x	x	Every 1000 miles
E	Check and Adjust Carburetor	x	x	Every 2500 miles
F	Check and Clean Air Cleaner		x	Every 1000 miles or sooner if used in dirt conditions
G	Clean Carbon from Muffler and Inner Pipe			Every 2500 miles
H	Clean, Adjust, and Oil Chain		x	Every 1000 miles
I	Inspect and Tighten Spokes			Every 1000 miles
J	Check for and Tighten Loose Hardware	x	x	Daily and Every 1000 miles
K	Clean Spark Plug			Every 1000 miles
L, M	Inspect Tires	x	x	Daily and Every 300 miles



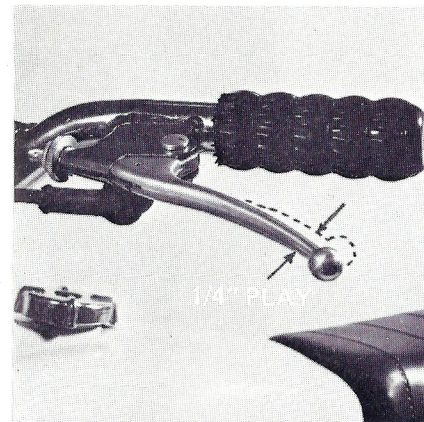
## CHANGING OIL

- Locate oil level filler plug and remove to check for the presence of oil.
- Locate and remove drain plug. Drain oil from motorcycle.
- Replace drain plug and tighten.
- Lean motorcycle to left from riding position to prepare for oil filling procedure.
- Assuring that oil level filler plug has been removed, perform oil filling procedure as follows:
  - Insert small funnel into oil fill hole located on right side of engine.
  - Using SAE 30 weight carefully fill clutch box with 8 ounces of oil.
- After completing oil filling procedure, replace and tighten oil level filler plug.
- As a preventive measure, recheck drain plug and tighten as necessary.

### Helpful Hints

- Drain oil when oil in engine is warm.
- Do not operate with dirty oil. Check periodically and change as required. Frequent oil changes result in excellent operation.





## INSPECTING AND ADJUSTING BRAKES

The front and rear brake levers of the Mini-Mini should have only 1/4" of play between tip of lever and tip of handlebar. Check the amount of play as follows:

- Sit on motorcycle in riding position.
- Check lever play of each brake lever by squeezing levers and measuring play.
- To assure that levers engage brakes properly, squeeze levers tightly and using feet try to push motorcycle forward.
- If brake lever play is more than 1/2" or brakes do not engage properly, simply adjust the handlebar lever screw or the adjuster on the wheel.

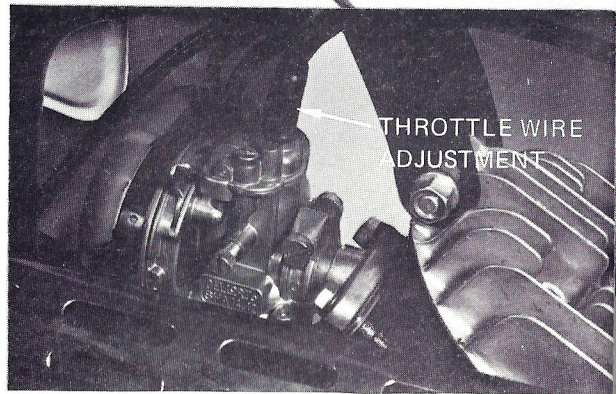
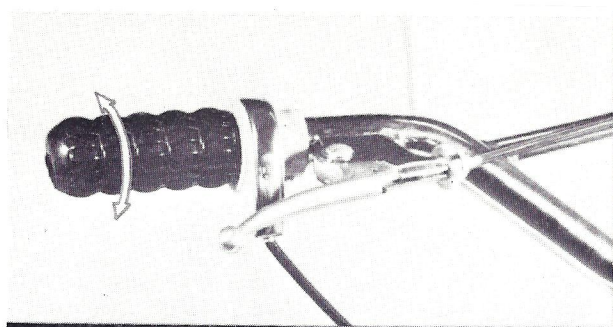
### CAUTION:

The brakes are your "Life Line". Be sure to check them every time you ride your motorcycle.



## ADJUSTING THROTTLE

- a. Visually inspect twist grip assembly to assure that rubber grip has  $\frac{1}{8}$ " clearance at handlebar tip to prevent drag.
- b. Sitting in riding position, slowly twist grip assembly and assure that engagement of throttle is felt after  $\frac{1}{8}$ " movement of grip.
- c. Adjust throttle wire adjustment screw on engine.



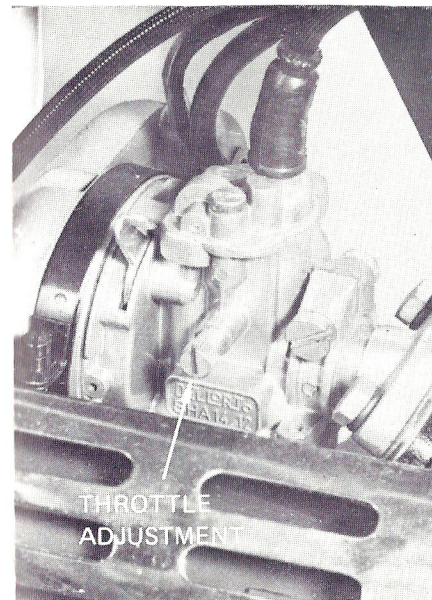
## ADJUSTING CARBURETOR

Start engine. If engine does not run smoothly, adjust engine idle for 2,000 rpm operation with throttle stop screw.

- (1) Turn throttle stop screw in to increase RPM.
- (2) Turn throttle stop screw out to decrease RPM.

### Helpful Hints:

1. Adjust carburetor when the engine is warm.
2. Defective operation of the engine during acceleration or at high speeds is sometimes a sign of a defective ignition system. Determine the cause before adjusting the carburetor.



## CLEANING AND ADJUSTING SPARK PLUGS

### 1. To clean spark plug:

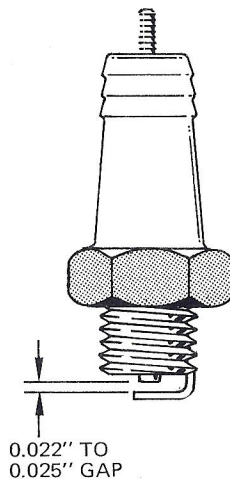
- Remove spark plug from engine.
- Clean with approved cleaning solvent or gasoline using a wire brush.
- Wipe dry with a clean shop rag.

### 2. To adjust the spark plug:

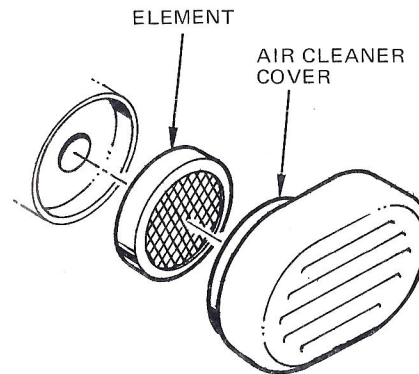
- Check spark plug gap.
- If gap is not within 0.022" to 0.025", set as required.

#### Helpful Hints:

- When installing spark plug, first screw plug in by hand and then tighten securely with spark plug wrench.
- Do not attempt to clean plugs by burning the electrode.



## CLEANING AIR CLEANER



- Remove the air cleaner from the carburetor.
- Remove the air cleaner cover and then remove the cleaning element.
- Clean in solvent.
- Lightly oil element with 30 weight oil.
- Replace the air cleaner in the reverse order of removal.

#### Helpful Hints:

If the air cleaner is soiled with dirt or water, clean air will not be supplied to your engine. Assure that air cleaner is free of dirt or water at all times.

## ADJUSTING DRIVE CHAIN

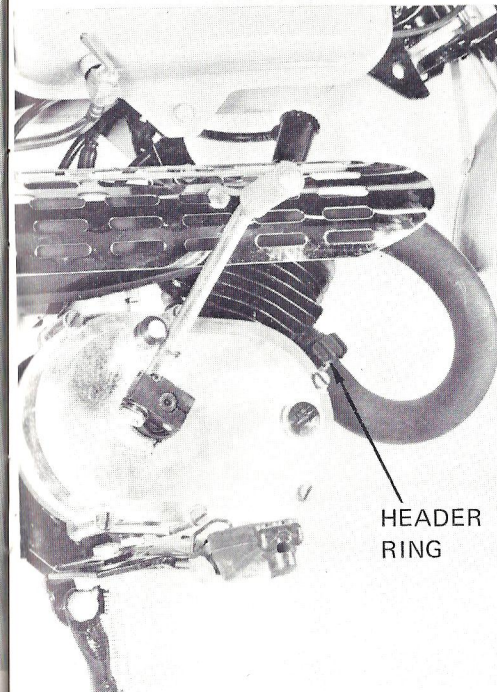
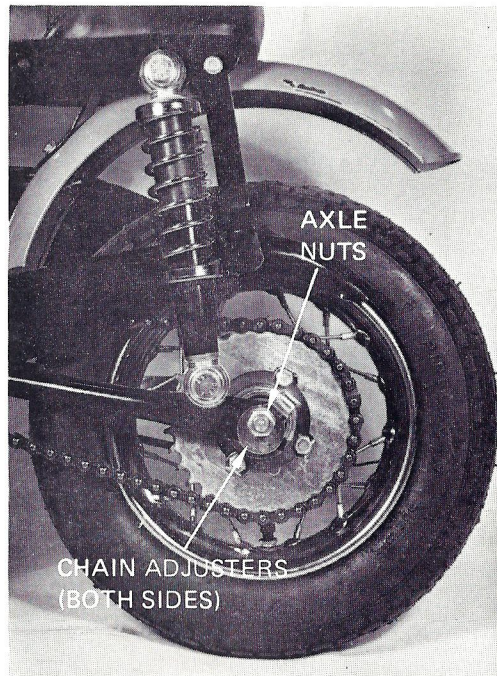
### To adjust drive chain:

- Loosen rear axle nuts and inspect the drive chain.
- There should be 0.4" to 0.8" of slack in the drive chain midway between the sprockets.
- Adjuster tabs downward to tighten chain or upward to loosen chain.

### NOTE

Tabs must be adjusted evenly for proper adjustment.

- Tighten the rear axle nuts.
- Wash the chain with gasoline and lubricate it with oil or chain grease periodically. Lack of proper lubrication can cause stiff chain links and will result in unusual sprocket wear.



## CLEANING THE MUFFLER

Periodically the muffler assembly should be removed and cleaned as follows:

- Unscrew the header ring or bolt and remove muffler from the motorcycle.
- Lightly tap the muffler pipe assembly with a rubber hammer to loosen carbon deposits within the muffler.
- Soak the muffler assembly in gasoline.
- Allow the muffler assembly time to dry thoroughly and then blow compressed air through the assembly.
- Replace the muffler assembly on the motorcycle in the reverse order of removal and tighten.



## IGNITION POINT INSPECTION AND ADJUSTMENT

### a. Ignition point inspection — cleaning.

- (1) Remove left engine cover to expose the flywheel.
- (2) Locate the points looking through the flywheel slot.
- (3) Manually rotate the flywheel counterclockwise until the points are fully open.
- (4) Obtain a clean white piece of bond paper (or a thin business card) and carefully insert between the points.
- (5) Manually rotate the flywheel counterclockwise until the points close and carefully draw the paper out.
- (6) Inspect the paper for signs of dirt or oils.
- (7) If paper is clean proceed to step (b). If paper is dirty, repeat steps (3) through (6) until all dirt and oil is removed from points.

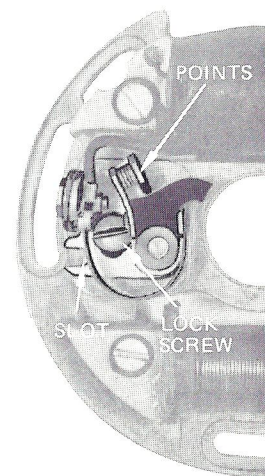
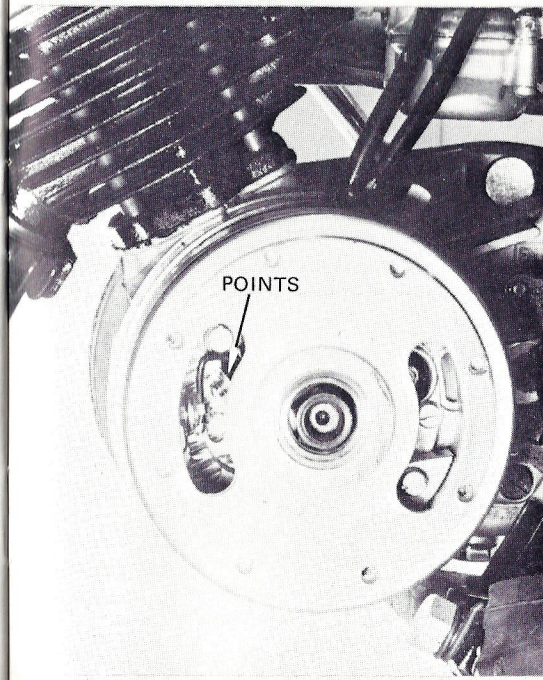
### b. Ignition point gap inspection

- (1) Manually rotate flywheel until the piston is at T.D.C.
- (2) Using feeler gauge check that the point gap is between 0.012 and 0.015.

### c. Ignition point gap adjustment (if necessary)

- (1) Manually rotate flywheel until the piston is at T.D.C.
- (2) Insert feeler gauge between points and loosen the back plate lock screw of points.
- (3) Carefully insert screwdriver head into convenience slot and move back plate in the direction necessary to obtain correct feel gauge reading between 0.012" and 0.015".
- (4) Holding the back plate in the proper position, carefully tighten the back plate lock screw.

### d. Replace the left engine cover.



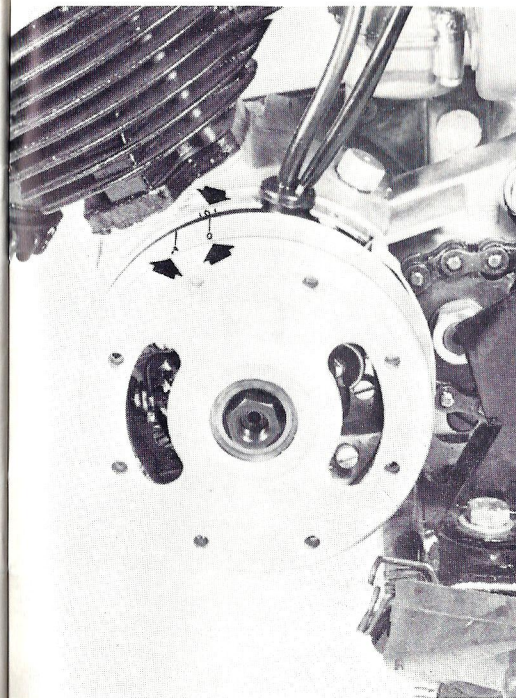
## TIMING INSPECTION AND ADJUSTMENT

Ignition timing is very critical and should be performed by a qualified mechanic. The step-by-step ignition timing procedure should be performed as follows:

- a. Remove the left engine cover to expose the flywheel.
- b. Contact breaker point gap adjustment.
  - (1) Locate the contacts through the flywheel slot.
  - (2) Using a dial indicator or very thin strip of cellophane paper between the contacts and stretched slightly, manually rotate the flywheel slowly in the counterclockwise direction.
  - (3) Continue rotating the flywheel slowly until the dial indicator reads 2.8 mm before top dead center (BTDC) or until the cellophane is seen coming out of the contacts. Stop rotation of flywheel at this point.
  - (4) Locate one mark on top of flywheel and one mark on the case. The mark "O" on the case represents top Dead Center (TDC) and the mark "A" on the flywheel represents BTDC.
  - (5) While observing the marks on the flywheel and the mark on the case, continue to slowly rotate the flywheel counterclockwise observing that the contacts open just as the mark "A" on the flywheel crosses the mark "O" on the case.
  - (6) Repeat steps (1) through (5) until satisfied that the contacts begin to open before the piston reaches 2.8 mm before TDC.
  - (7) If contact breaker gap is not within limits, adjust gap for 0.012 to 0.015 and repeat steps (1) through (6).
- c. Replace the left engine cover.

### Helpful Hints:

Dirty contact points will cause defective ignition — Keep them clean at all times.



## INSPECTION TIGHTNESS OF NUTS AND BOLTS

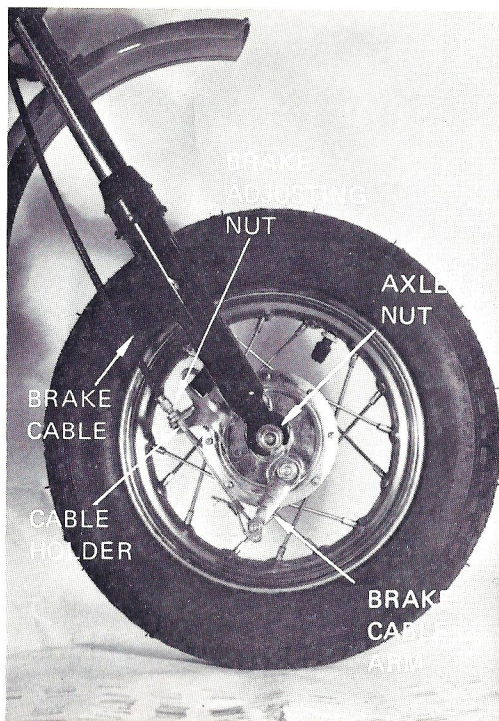
Checking these nuts and bolts should be part of your daily and weekly inspections.

1. Front and rear axle nuts.
2. Upper and lower suspension nuts (front and rear).
3. Front and rear wheel spokes.
4. All engine cover bolts.
5. Drain plug.
6. Oil filler plug.
7. Fork crown bolts.
8. Foot peg assembly bolts.
9. Rear swing arm suspension bolts (top and bottom).
10. Foot stand bolt and nut.



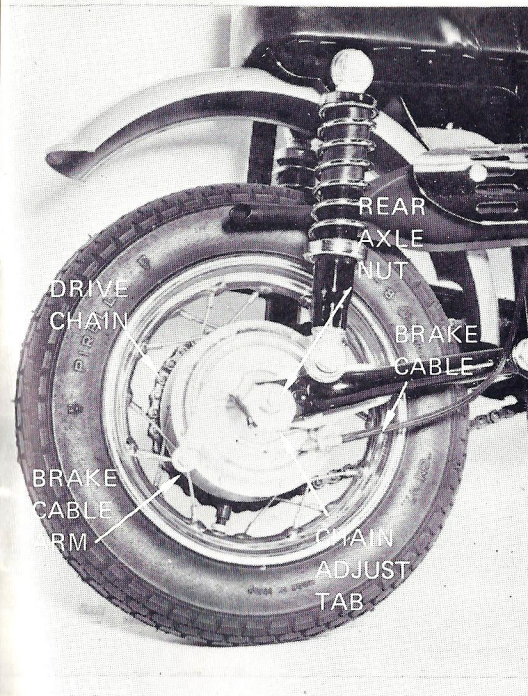
## REMOVING THE FRONT WHEEL

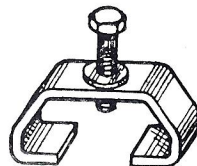
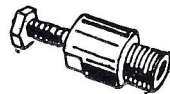
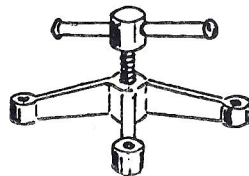
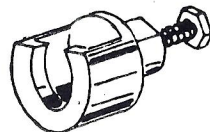
- Elevate the motorcycle front wheel by placing a block under engine.
- Remove the brake adjusting nut and remove brake cable from brake arm and holder.
- Remove the axle nut and pull out the axle.
- Remove the front wheel.



## REMOVING THE REAR WHEEL

- Remove the rear axle nuts and washers.
- Remove the chain adjustment tabs.
- Remove the brake cable from brake cable arm.
- Slide wheel as far forward as possible.
- Remove the drive chain.
- Remove the rear wheel.





## SPECIAL TOOLS

The special service tools required to maintain your Mini-Mini are as follows:

Part No.	Used On	Application
--	Engine	Extractor for the crank shaft
--	Transmission	Extractor for the gear box sprocket
--	Engine	Extractor for the flywheel magneto
--	Engine	Extractor for the engine sprocket
--	Engine	Holding wrench for the flywheel magneto



THE

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