



NUMBER: [Single] 1/71
SUBJECT: Oil Return Tube
MODELS: B25T/B25SS
DATE: 3/12/71

SERVICE BULLETIN

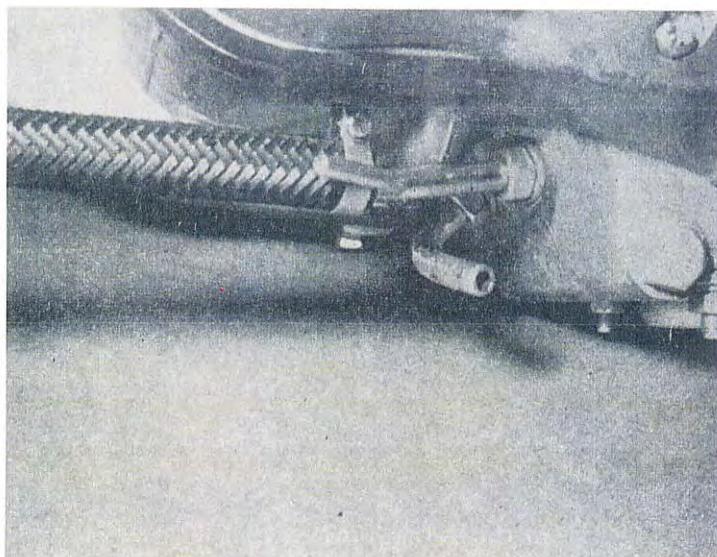
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Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

O I L R E T U R N T U B E

It is necessary to reposition the oil return hose (see below) on all 1971 B25T/B25SS motorcycles prior to delivery.

1. Loosen the hose clamp and move the oil return hose forward until it butts against the rocker feed pipe.
2. Position the hose clamp with the screw at top and tighten the clamp.

All future-production units will contain the oil return pipe with an increased length of one inch.





NUMBER: [General] 1/71
SUBJECT: Brake Return Spring
MODELS: All Fitted With New-
Type 8" Front Brake
DATE: 2/16/71

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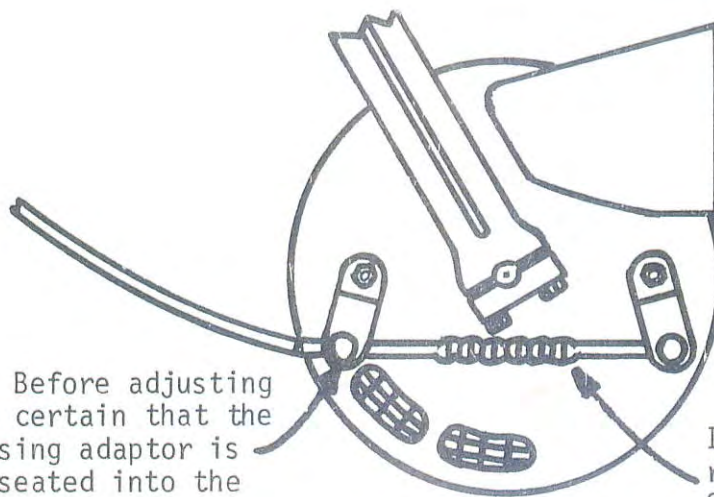
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B R A K E R E T U R N S P R I N G

An engineering change has been made to improve the front brake return mechanism on all 1971 models fitted with the new-type double leading shoe front brake. A rubber gaiter was originally fitted on the cable between the two brake arms; this gaiter is to be removed and a spring [Part #37-4014] fitted in its place.

-- DEALER ACTION REQUIRED --

PLEASE REMOVE THE RUBBER GAITER AND INSTALL THE SPRING ON ALL 1971 MODELS SOLD BY YOUR DEALERSHIP - THE SPRING WILL BE FURNISHED FREE FOR REPLACEMENT PURPOSES.



CAUTION: Before adjusting brake, be certain that the cable housing adaptor is properly seated into the brake arm trunnion.

INSTALLATION: Remove rubber gaiter--install Spring #37-4014



NUMBER: [Single] 2/71

- REVISED -

SUBJECT: Battery Installation

MODELS: B25T/B25SS

DATE: June 14, 1971

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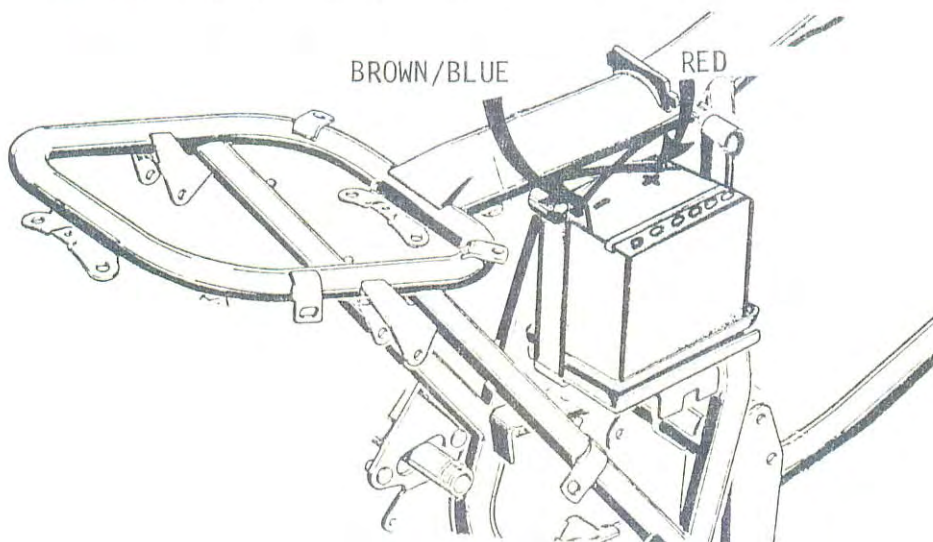
BATTERY INSTALLATION

There have been isolated cases of electrical failures on B25's due to improperly installed batteries. The battery should be installed as explained below or the terminals may contact the righthand side cover and short out the electrical system:

1. Position the battery in the carrier as shown below, with the terminals located adjacent to the inside of the motorcycle.

NOTE

MAKE SURE THE BATTERY FILL PORTS ARE POSITIONED TO THE OUTSIDE OF THE UNIT, NEAR THE RIGHTHAND SIDE COVER, FOR EASY SERVICING.



2. Run both positive (+) and negative (-) terminal wires as near parallel to the inside of the battery case as possible.



Number: (Single) 3/71
Subject: Rotor Timing
Marks
Models: B25/B50
Date: May 20, 1971

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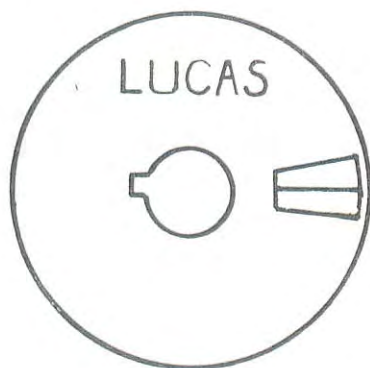
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ROTOR TIMING MARKS

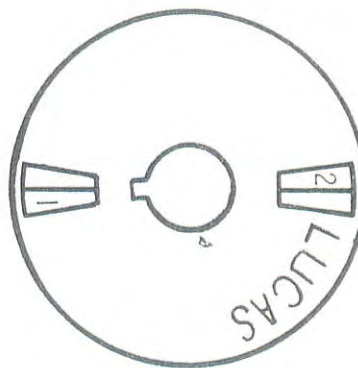
LUCAS alternator rotors are now being supplied with two numbered timing marks cast in the surface (as shown below). The No. 1 timing mark is always nearest the keyway, and the No. 2 timing mark is 180° opposite.

BOTH THE NO. 1 AND NO. 2 TIMING MARKS ARE USED WHEN TIMING THE DOUBLE OVERHEAD CAM, TWIN-CYLINDER, 350CC ENGINE -- ALL OTHER ENGINES EXCEPT THE THREE-CYLINDER 750CC ARE TIMED TO THE NO. 2 TIMING MARK.

A few motorcycles were delivered incorporating rotors containing two timing marks -- but without the number identification. The No. 2 timing mark is still located opposite the keyway, or adjacent to the embossed "LUCAS" (see "NEW" below). This timing mark is used as one of the timing marks for the 350cc engine and for all other engines except the 750cc.



OLD



NEW



NUMBER: [Single] 4/71
SUBJECT: Front Brake
Adjustment
MODEL: B50
DATE: June 1, 1971

SERVICE BULLETIN

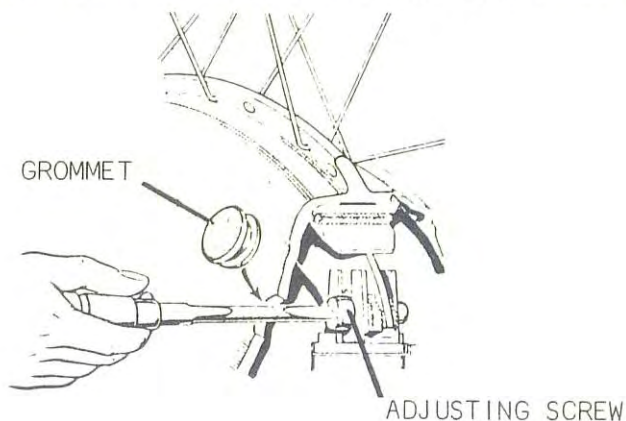
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FRONT BRAKE ADJUSTMENT 1971 UNITS

CABLE REMOVAL: Remove front brake cable from handlebar lever before adjusting brakes to ensure that all tension has been removed from the brake shoes.

BRAKE SHOE ADJUSTMENT

1. Rotate cable adjuster until it stops and tension is removed from brake cable.
2. Remove brake lever pivot bolt and separate lever from bracket.
3. Remove brake cable from brake lever.
4. Remove grommet from front wheel hub (SEE ILLUSTRATION).



NOTE

There is one brake shoe adjusting screw for each of the two front brake shoes.

(over)

5. Revolve front wheel until adjusting screw is visible through aperture.
6. Rotate adjusting screw in a clockwise direction until brake shoe is expanded against brake drum.
7. Reverse adjusting screw rotation (rotate counter clockwise) until brake shoe just separates from drum and wheel rotates without drag.
8. Revolve wheel half a revolution and adjust other brake shoe in same manner as described in Steps #4 - #7.
9. Install brake cable in lever. Install lever on switch half and adjust cable for proper operation of brake.

Number: (Single) 5/71
Subject: Oil Change
Models: B25T/B25SS
Date: May 25, 1971

SERVICE BULLETIN

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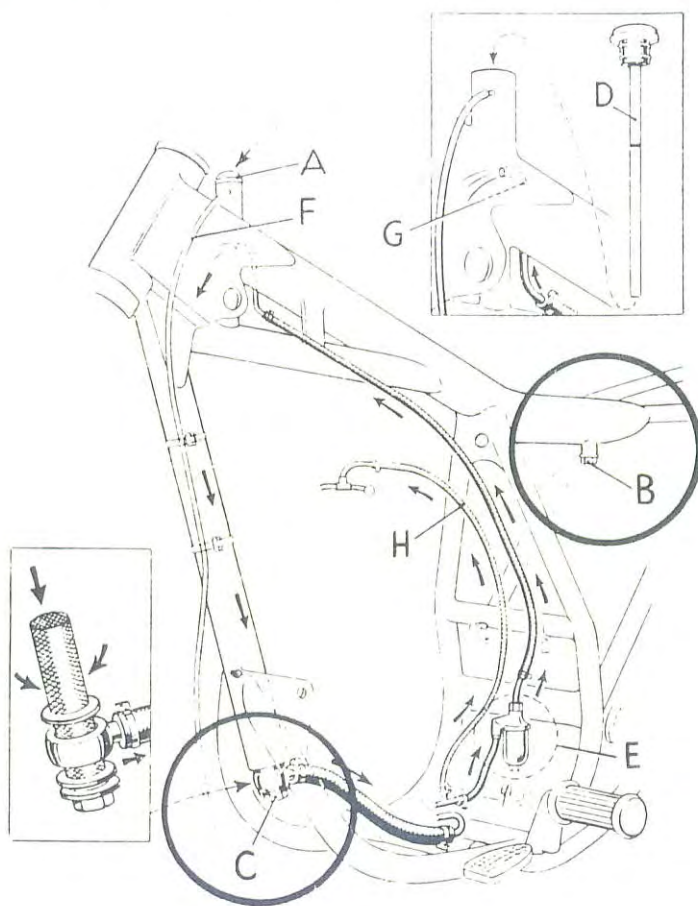
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OIL CHANGE

When changing the oil on the 1971 B25T/B25SS, it is necessary to remove both the filter screen (C) and drain plug (B) -- to insure that all of the used oil is removed from the frame.

Also, remove and clean all filters per Owner's Manual.





Number: (Single) 6/71
Subject: Warranty
Model: B50MX
Date: June 8, 1971

SERVICE BULLETIN

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WARRANTY - B50MX

500cc Motocross Model

THE B50MX is fully protected by the standard BSA warranty policy. We certainly intend to give full consideration to any warranty situation involving this model when there is evidence of a manufacturing defect.

HOWEVER, your attention is directed to that paragraph in our warranty which explains conditions that could void the warranty, i. e.:

" . . . if this motorcycle is used in any type of competition or speed contests; or if, in the Dealer's opinion, damage occurs after unusual stress or strain, misuse, abuse, neglect, accident, or installation of unsuitable parts or accessories . . . "

Since the B50MX will undoubtedly be subjected to riding conditions beyond the normal, discretion of the dealer is vital in each case.

BEFORE SUBMITTING ANY WARRANTY CLAIMS ON A B50MX MODEL, please call your Regional Sales/Service Office and discuss the facts . . .

. . . It could save an unnecessary warranty rejection!

ADVISE YOUR CUSTOMER AT TIME OF SALE as to the terms of the warranty in order to avoid later misunderstandings.



Number: (Single) 7/71
Subject: Exhaust System/
Gas Tank
Models: B50
Date: 6/9/71

SERVICE BULLETIN

BSA MOTORCYCLE CORPORATION

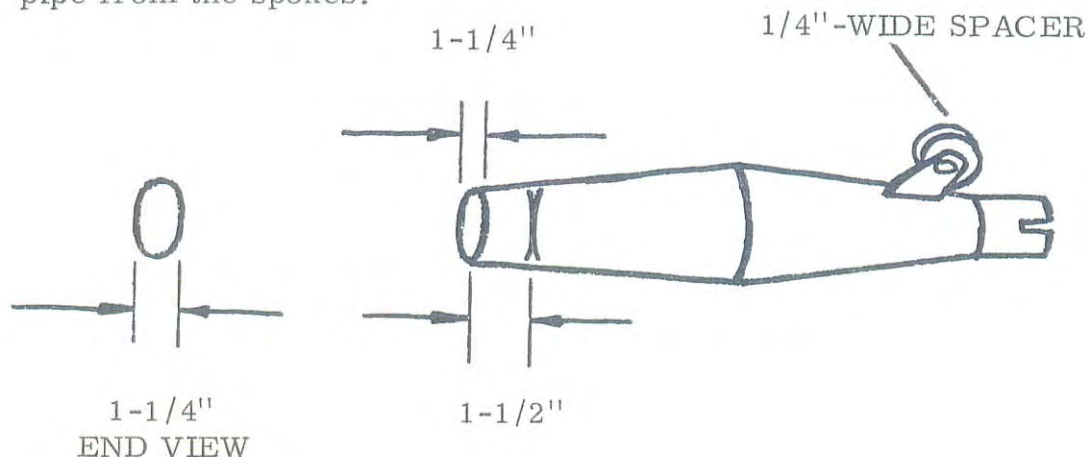
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B50 MX EXHAUST SYSTEM

CAUTION: When the rear suspension is compressed, the end of of the exhaust pipe will contact the rear wheel spokes. Correct this interference problem by reshaping the end of the exhaust pipe to the dimension shown below and by installing a 1/4-inch-thick spacer on the mounting bracket to separate the exhaust pipe from the spokes.



B50T/SS GASOLINE TANK

Inspect for adequate clearance and definite separation between the bottom of the gasoline tank and the rockerbox studs. Add a rubber strip on top of each horseshoe-shaped tank rubber -- if necessary -- to raise the tank for proper clearance.



Number: (Single) 8/71
Subject: Brake Burnishing
Models: B25T/B25SS
Date: June 14, 1971

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The following information is in accordance with the
requirements of the U.S. Federal Highway Administration,
Department of Transportation.

BRAKE BURNISHING PROCEDURE

Brakes should be bedded in progressively during the first 300 miles. This is done by gradually increasing brake lever pressure during the period, and braking from progressively increasing speeds.

For guidance refer to the table below. The deceleration in ft. /sec.² is converted to the equivalent braking time/distance.

Stage	1	2	3
Speed of commencement of stage (m. p. h.)	30	50	70
Speed at end of stage (m. p. h.) . . .	0	30	30
Deceleration (ft. /s. ²)	12.5	12.5	12.5
Distance travelled (ft.)	77	135	344
Time taken (sec.)	3.5	2.3	4.7

Stage 1

A minimum of 20 stops using the front and rear brakes together. Decelerate from 30 m. p. h. to rest using the distance travelled or time taken to obtain the required deceleration.

Stage 2

A minimum of 50 decelerations from 50 to 30 m. p. h. using front and rear brakes together.

(Over)

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Page 2

Stage 3

A minimum of 30 decelerations from 70 to 30 m. p. h. using front and rear brakes together.

The distance between brake applications should not be less than 1/4 mile in each case. Disengage the clutch when carrying out the procedure to ensure that the brakes receive the full braking load.

The use of the above procedure, subject to traffic conditions will ensure that any high spots on the brake linings are not hardened, resulting in reduced brake efficiency. Correct burnishing will give an approximate minimum lining contact area of 50% which qualifies the published brake performance figures.

PLEASE ADVISE YOUR CUSTOMERS THAT
THIS PROCEDURE MUST BE FOLLOWED
IN ORDER TO OBTAIN MAXIMUM BRAKING
EFFICIENCY.

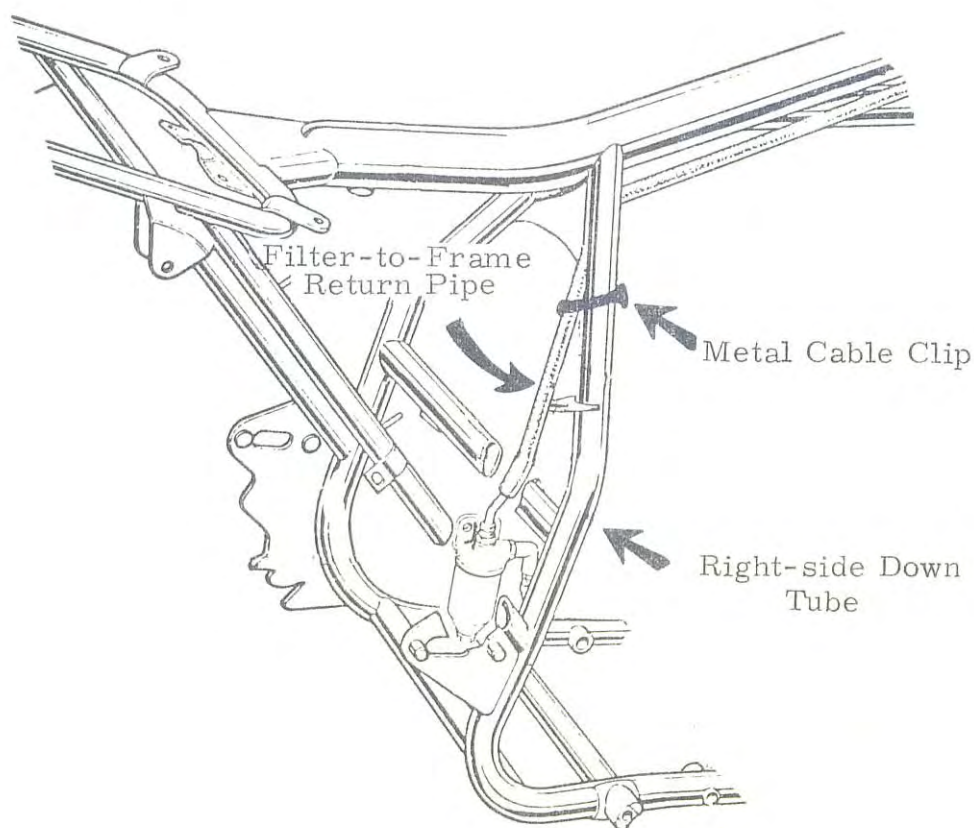


Number: (Single) 9/71
Subject: Oil Pipe Chafing
Models: B25T/B25SS
Date: June 17, 1971

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OIL PIPE CHAFING



The filter-to-frame return pipe is chafing on the battery carrier (especially on the sharp corner.) There have not been any reported cases of this pipe severing, but abrasion is visible after only a few hundred miles of operation. Correct this problem by securing the return pipe to the right-side frame down tube with a soft metal cable clip, Part Number 75-9045.



BULLETIN: (Single) 10/71
SUBJECT: Primary Chain
Lubrication
MODEL: B50
DATE: 7/2/71

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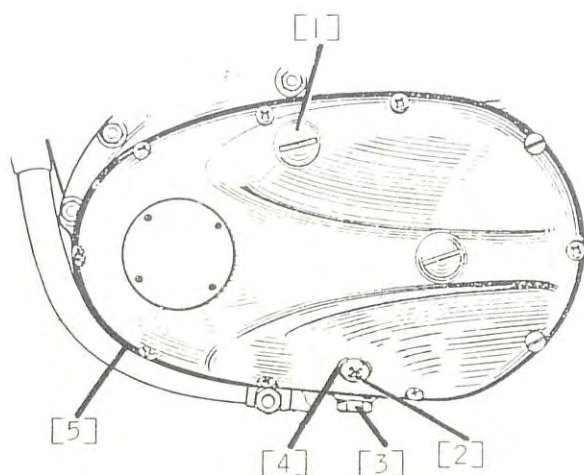
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PRIMARY CHAIN LUBRICATION

On B50 models, the primary chaincase oil level is maintained by oil mist entering the compartment past the drive-side main bearings. The oil finds its level and returns to the sump through a drilled, screened hole in the crankcase casting.

Check the oil level in the primary chaincase every 1,000 miles; if necessary, replenish the oil to the level prescribed below. When the oil is drained from the chaincase at oil change intervals, it must be replaced before the unit is operated, to prevent damage to the primary transmission assembly. Charge the primary chaincase as instructed:

Charging the Primary Chaincase



- 1 - Filler Cap
- 2 - Oil Level Screw
- 3 - Drain Plug
- 4 - Oil Level Screw Washer
- 5 - Primary Chaincase

1. Position motorcycle upright and level. Remove drain plug [3] and drain all lubricant from the primary chaincase [5].
2. Install drain plug [3].
3. Remove oil level screw [2], washer [4], and oil filler cap [1].

(over)

N O T E

The primary chaincase and crankcase lubricants must be identical. Fill the primary chaincase with 140cc (5 oz.) of the type lubricant specified in the Owner's Handbook.

Another filling method is described below:

4. Fill the primary chaincase [5] through the filler cap opening until oil begins to drain from the oil level screw hole. Allow unit to stand until any surplus oil has drained away.
5. Install washer [4], oil filler screw [2], and filler cap [1].

-- C A U T I O N --

DO NOT USE OIL CONTAINING MOLYBDENUM DISULPHIDE OR GRAPHITE IN THE PRIMARY CHAINCASE. DO NOT USE VEGETABLE-BASE OIL AS A CHAIN LUBRICANT.



NUMBER: [Single] 11/71
SUBJECT: Crankshaft
Balance Factor
MODEL: B25
DATE: July 14, 1971

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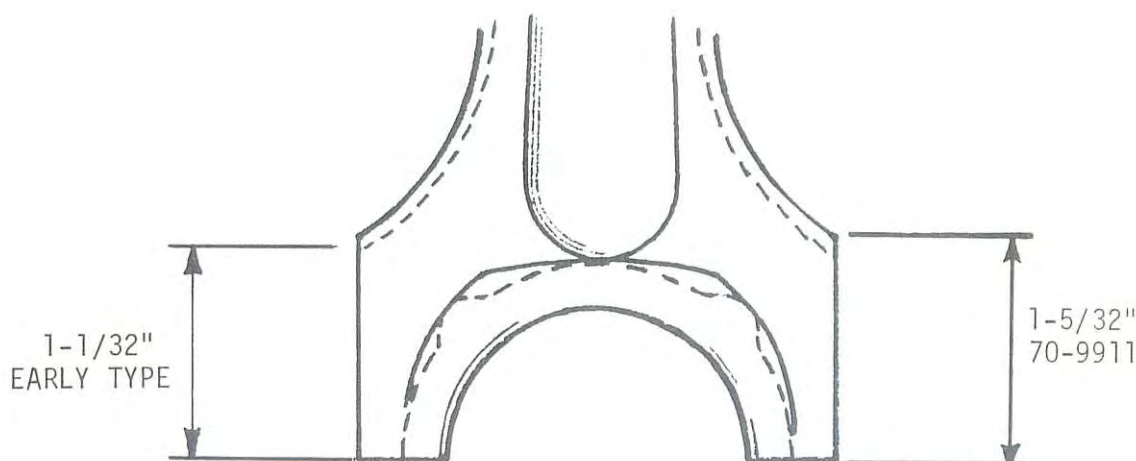
CRANKSHAFT BALANCE FACTOR

BEFORE 1971: The crankshaft balance factor on all B25's produced prior to, and including, 1970 is 58%; the balance weight value is 15 oz. plus 7.97 grams. The part number of the balance weight is 61-3809.

1971 & SUBSEQUENT UNITS: The balance factor for 1971 units is 54%; the weight for balancing the crankshaft is 18 oz. plus 5.3 grams. The part number of the balance weight is 61-6124.

IDENTIFYING 1971 COMPONENTS: The 54% balance factor applies only to the crankshaft that accepts Connecting Rod #70-9911. Connecting Rod #70-9911 may be identified by the big-end cap bolts, which are 2-1/2" UNF measured from beneath the bolt head. Another identifying characteristic is the longer big-end boss, which is 1/8" larger than the older part, as shown below. (The profile of the early connecting rod is represented by a broken line.)

CONNECTING ROD #70-9911 WILL NOT FIT PRE-1971 CRANKSHAFTS





NUMBER: [Single] 12/71
SUBJECT: G/Change Quadrant Adjustment
MODEL: B25/B50
DATE: July 14, 1971

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GEAR CHANGE QUADRANT ADJUSTMENT

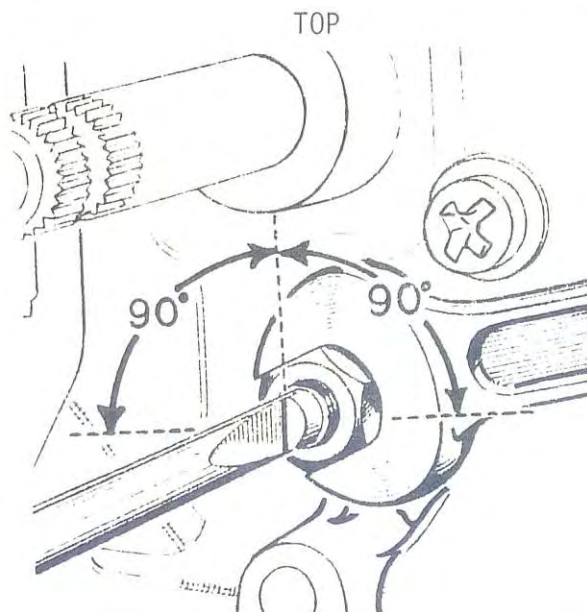
(AFTER ENGINE #DE9340)

The gearchange return spring anchor bolt has an eccentric diameter and may be rotated to adjust the tension on the gearchange return spring. Loosen the locknut shown below, and rotate the anchor bolt with a screwdriver until a positive selection of each gear is obtained -- then tighten the locknut.

Always install the gearchange return spring anchor bolt with the eccentric surface located toward the gearchange quadrant. The adjustment is obtained by rotating the anchor bolt within a 180° range of the vertical, as shown in the illustration.

-- N O T E --

The gearchange return spring anchor bolt has been adjusted at the Factory for optimum gear selection and may not require further adjustment until the gearchange mechanism has been disassembled.





NUMBER: [Single] 13/71
SUBJECT: Compression Release
Cable Adjustment
MODEL: B50
DATE: July 15, 1971

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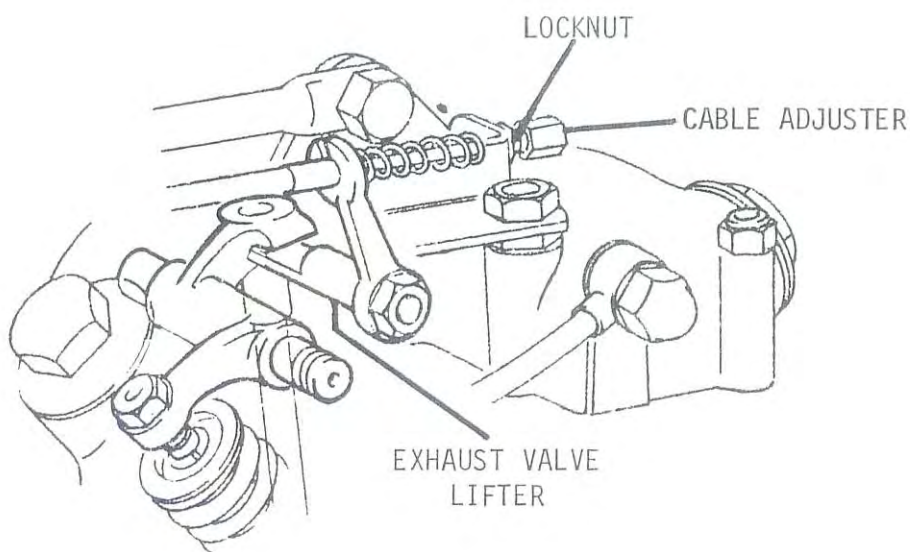
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COMPRESSION RELEASE CABLE ADJUSTMENT

The compression release must be adjusted properly -- without preload -- or there will be excessive wear between the exhaust valve lifter and the rocker arm.

Adjust the compression release cable by loosening the locknut (see below) and rotating the cable adjuster. Adjust the cable tension so the handlebar lever compresses, nearly contacting the handlebar, before the exhaust valve lifter engages the rocker arm and lifts the exhaust valve. Secure the cable in its adjusted position by tightening the locknut.

The spring installed between the cable abutment and the exhaust valve lifter lever keeps the cable tensioned -- making fine adjustment possible.





NUMBER: [Single] 14/71
SUBJECT: F/Brake Cable
Stoplight Switch
MODEL: B25/B50
DATE: July 16, 1971

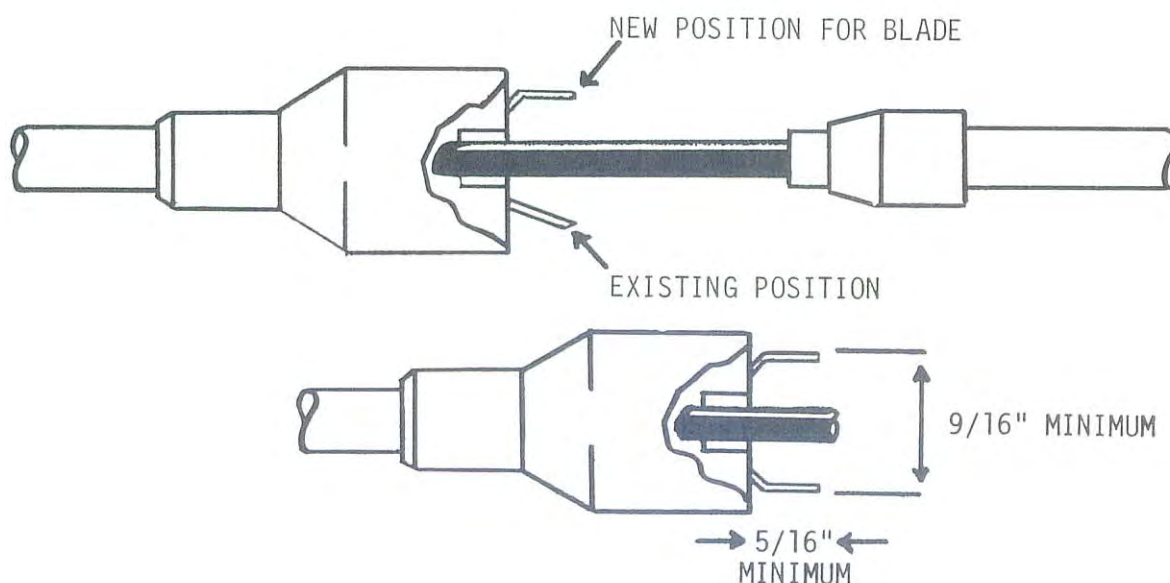
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FRONT BRAKE CABLE STOPLIGHT SWITCH MODIFICATION

The Lucar blades on the front brake cable stoplight switch occasionally wear through the plastic sleeving covering the blades. With insulation destroyed, the blades contact the brake cable ferrule and short out the electrical system. Modify the switch blades (see below) to prevent this potential malfunction:

1. Remove front brake cable from handlebar lever.
2. Remove front brake stop switch cover.
3. Disconnect electrical leads.
4. Using needle-nose pliers, shape blades to configuration illustrated, making sure that blades are separated by, at least, $9/16$ " after final forming.
5. Reconnect electrical leads -- install plastic sleeves over blades, brake stop switch cover, and brake cable on handlebar lever.





Number: (Single) 15/71
Subject: Fork Top
Stanchion Nut
Models: B25T/B25SS
Date: July 20, 1971

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FORK TOP STANCHION NUT

A sealing compound is now being applied to threads of top stanchion nuts during Factory assembly procedure. This sealing compound has prevented oil leaks from developing at cap nut thread junction.

There are two sealing compounds recommended for use with 1971 units delivered without cap nut sealing compound. One product is manufactured by Permatex Company Inc., Kansas City 15, Missouri, and the other by the Loctite Corporation, Newington, Connecticut.

PERMATEX SUPER 300
FORM-A-GASKET
PART NO. 83D

LOCTITE HYDRAULIC SEALANT
CAT. NO. 69-31

Clean cap nut threads thoroughly and apply sealants as recommended by the Manufacturers.



Number: (Single) 16/71
Subject: Lean Carburetor
Settings
Models: B50T/SS
Date: August 20, 1971

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CAUTION

LEAN CARBURETOR SETTINGS

The B50T/SS models are fitted with 220 main jets, and the needle is positioned in the first notch. Tests indicate these settings are too lean and can cause piston seizures.

DEALER ACTION REQUIRED

Install 240 main jet, and raise needle to the middle position on all B50T/SS models sold by your dealership.

NOTE

IN HIGH ALTITUDES, THE SUGGESTED 240 MAIN JET MAY BE TOO LARGE. IN SUCH CASES -- RAISE THE NEEDLE TO THE MIDDLE NOTCH, AND USE THE 220 MAIN JET.



Number: (Single) 17/71
Subject: Electrical Box
Wiring
Models: B25/B50
Date: August 23, 1971

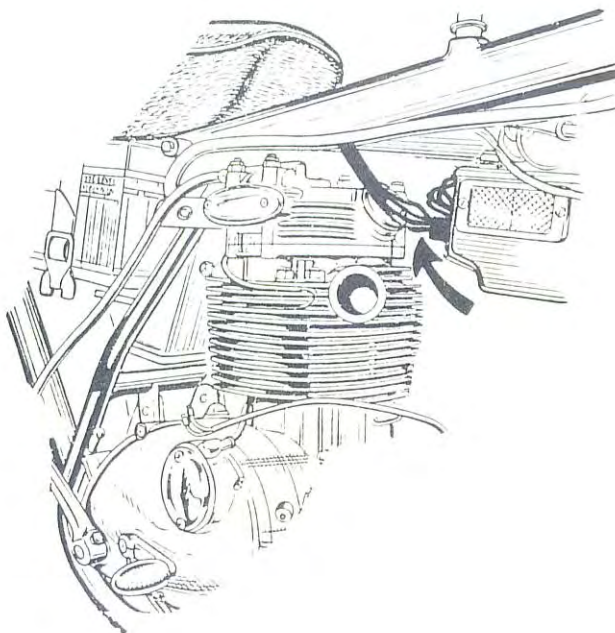
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ELECTRICAL BOX WIRING

CAUTION

Do not allow electrical box wiring to contact rocker box or insulation may be damaged and cause a short circuit in the electrical system. During pre-delivery service, make sure wiring harness is properly routed and all wiring is stowed neatly within the confines of the electrical box. Also inspect wiring for proper location after each machine has been serviced.





Number: (Single) 18/71
Subject: Zener Diode
Installation
Models: B25/B50
Date: August 20, 1971

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ZENER DIODE INSTALLATION (Heat Transfer Compounds)

Use one of the following compounds when installing Zener diode:

1. G.C. Electronic Silicone Compound Transistor Z-5,
No. 8101.
2. General Electric Silicone Compound G-640 or G-641.

Clean all corrosion, rust, scale, and hydrocarbons from Zener diode mounting area. Apply a thin coating of silicone compound to mounting surface (stud side) of diode before mounting on air cleaner assembly or, on pre-1971 models, before mounting on finned heat sink assembly.

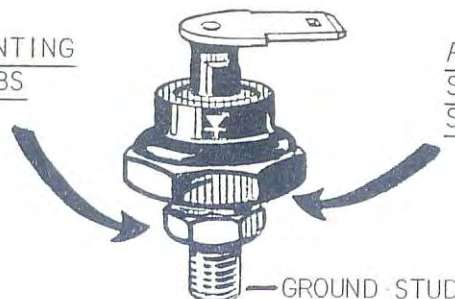
The function of the silicone compound is to provide good heat transfer between diode and mounting surface. This will allow the diode to operate more efficiently and prolong the life of the component.

The silicone compound also provides a good shock-resistant mounting for the diode in addition to providing excellent thermal conductivity and a high dissipation factor.

The silicone compound is non-toxic, may be preserved for long periods of time, is easily dissolved with common shop solvents, and may be easily applied.

These compounds may be purchased from most TV repair shops.

TIGHTEN DIODE MOUNTING
NUT TO 22-28 IN/LBS
TORQUE.



APPLY COMPOUND THIS
SURFACE AND MATING
SURFACE.

SERVICE BULLETIN

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Number: (Single) 19/71
Subject: Improved Fork Seal
Models: B25/B50
Date: 11/10/71

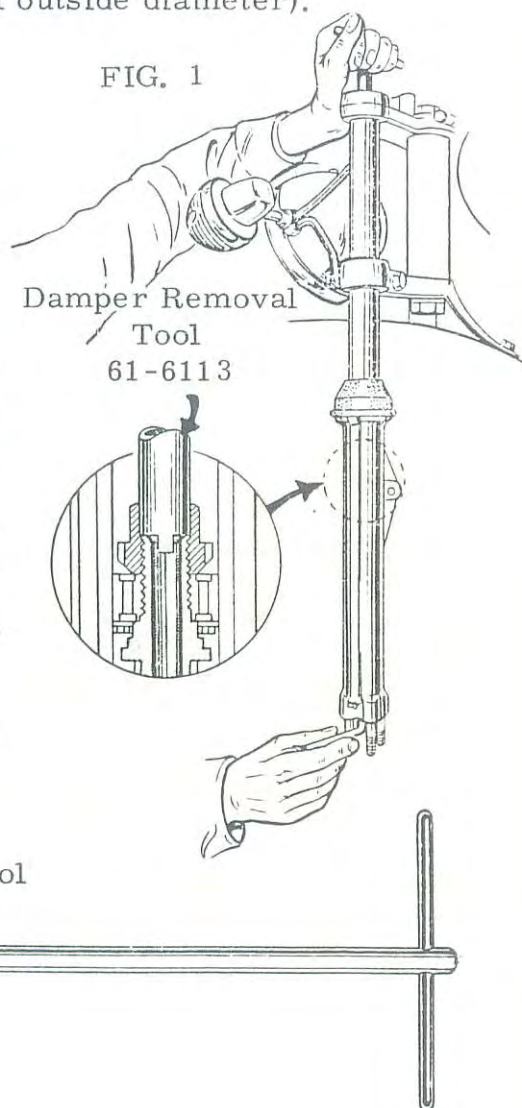
IMPROVED FORK SEALS

A new, improved fork seal (97-4001), which has eliminated fork oil leak problems, is now being fitted to 1972 models. The new seal is of different design, produced by a different manufacturer than the previous seal. For quick identification, the new seal is covered with black neoprene (the old seal had no neoprene covering the metal outside diameter).

DISMANTLING FORK LEGS

1. Remove handlebar and fork cap nuts.
2. Remove front axle clamps and wheel assembly.
3. FIG. 1 - Remove Allen screw from the bottom of the fork outer member. This is accomplished by inserting Special Damper Removal Tool 61-6113 through the top of the fork stanchion and into the slot at the top of the damper assembly. If Special Tool 61-6113 is unavailable, a 13/16-inch socket and a long extension can be used for holding the damper unit.
4. After the Allen screw is removed, slide the outer member off the fork stanchion.

FIG. 1



Damper Removal Tool
61-6113

(over)

SEAL REMOVAL

1. Hold the outer member by the wheel spindle lug in a soft-jawed vise. Remove the scraper seal.
2. FIG. 2 - Using a small chisel and hammer, collapse the metal body of the seal inwards. Caution -- make certain the chisel is applied to the rim of the seal only -- otherwise the fork outer members may be damaged, causing an oil leak. Once the seal is partly collapsed, it can be easily removed with the aid of a screwdriver.

FIG. 2

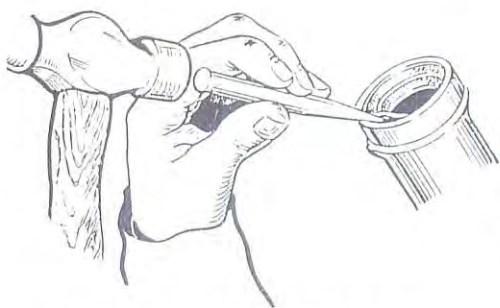
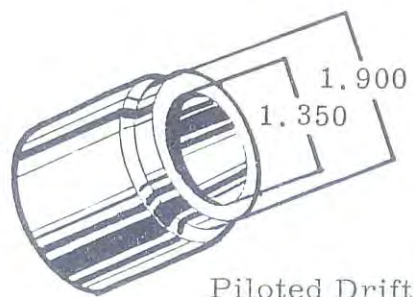


FIG. 3



Piloted Drift

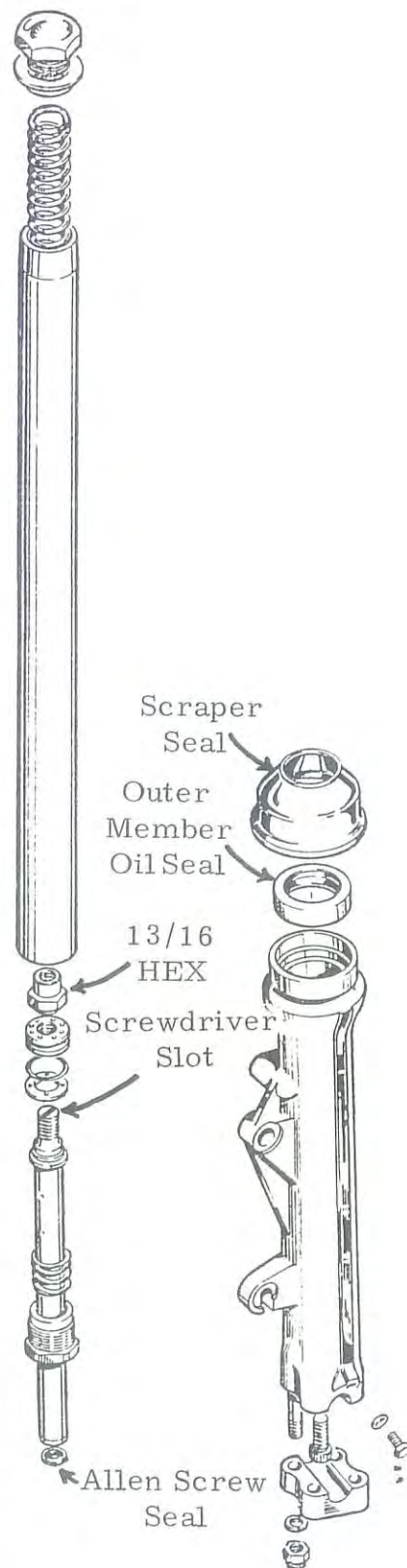
SEAL INSTALLATION

1. FIG. 3 - The use of a piloted drift is preferred for installing seals. This tool can be fabricated from a short length of tubing or a bar slightly smaller in diameter than the seal. Note -- to insure proper seal installation, be sure that the lips of the seal are pointing up, toward the crown.
2. When pressing the seal in, be certain it is entering the outer member squarely.

REASSEMBLING FORKS

1. Apply a small amount of oil to the lower end of the stanchions.
2. Make certain that the Allen screw seal is properly positioned in the recess at the bottom of the outer members.
3. Slide outer members onto the stanchions -- being careful not to damage the new seals.
4. Hold damper in position with Special Tool 61-6113, or 13/16-inch socket, and tighten the Allen screw.
5. Install front wheel assembly.
6. Fill each fork with 190cc of ATF Fluid 'F'.
7. Install top cap nuts and handlebars.

FORK LEG (EXPLODED VIEW)





Number: (Single) 20/71
Subject: Abnormal
Vibration
Models: B25/B50
Date: 11/10/71

SERVICE BULLETIN

BSA MOTORCYCLE CORPORATION A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey
Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

ABNORMAL VIBRATION

Vibration is often (and incorrectly) associated with an out-of-balance crankshaft or other large rotating mass. In most cases, after careful examination of the machine, excess vibration can be rectified in a few minutes.

Any part on the machine which is not tight or rubber mounted may vibrate at a given engine speed, and the following components should be carefully checked:

1. Cylinder Head Torque Stay: Check torque of bolts at both ends.
2. Engine Bolts: Make sure all engine bolts are tight and that the unit is firmly clamped between the frame lugs. (It has been noted that frame lugs are sometimes forced apart when the engine is removed, and, upon reassembly, an air gap remains between the engine and the frame lugs, even after tightening the bolts.) Also note the position of the distance pieces when dismantling, and ensure their correct location when rebuilding.
3. Exhaust Pipes and Silencers: Establish a secure exhaust pipe mount at the cylinder head. (It may be necessary to slightly "bell" the pipe to ensure a good fit in the head.) Exhaust pipes and silencer mounts must be tight -- but at other than the mounting points, no part of the exhaust system should make contact anywhere on the machine (a common cause of vibration at footrests).
4. Rear Fender Support Rail: The need for a firm rear-fender and license-plate mount cannot be overstressed. Everything to the rear of the suspension units must be tight, in particular, the fender support rail mounts.
5. Alternator Rotor: The rotor will cause heavy engine vibration and noise if the center nut is not fully tightened. This will be particularly noticeable at slow engine speed. When the rotor nut is loose, the engine sprocket may also loosen on the splines and chatter.

(over)

6. Clutch Center Nut: If loose, the clutch assembly will cause vibration, finally resulting in shearing the Woodruff key.
7. Gearbox Sprocket: The nut must be tight and secured with the lock washer. Should the nut loosen, excessive backlash will develop, and chain alignment will ultimately be affected.
8. Accessories: It is generally acknowledged that the installation of windscreens, fairings, rear carrier racks, and saddlebars tends to increase vibration levels. However, provided that not too many accessories are mounted, they they are properly installed, and not of flimsy construction, it is possible to keep vibration to an acceptable level.



Number: (Single) 21/71
Subject: Starting
Instructions
Models: B50
Date: 11/10/71

SERVICE BULLETIN

BSA MOTORCYCLE CORPORATION A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey
Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

STARTING INSTRUCTIONS

Before starting, grip the clutch lever and operate the starter pedal two or three times to ensure separation of the clutch plates.

Make sure that the gears are in the neutral position between first and second gears. Should the machine be in gear, it will move forward as the starter pedal is depressed.

Turn on the gas; at normal temperatures it is not necessary to operate the carburetor "tickler". However, under conditions of extreme cold, it may be necessary to press the "tickler" plunger down for a few seconds before starting.

Switch on the ignition -- do not open the twist-grip throttle control. Press the starter pedal down slowly until resistance is felt. With the foot retained in this position, depress and immediately release the exhaust valve lifter lever; allow the pedal to return to the top of its stroke, and give a firm downward swing to start the motor.

If starting is not successful after three or four attempts, excess mixture in the combustion chamber should be cleared by depressing the exhaust valve lifter lever, opening the throttle fully, and operating the starter pedal several times.

The initial starting procedure may then be repeated, but avoid rapid kicking at the pedal, which would serve no purpose and might damage the operating mechanism. The ignition control is automatically set in the retarded position for starting and advances as the motor speed increases.

SERVICE BULLETIN

Number: (Single) 22/71
 Subject: Ignition Timing
 Models: B50T/SS
 Date: 11/23/71

BSA MOTORCYCLE CORPORATION A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey
 Duarte, Calif. 91010, P. O. Box 275
 Towson, Baltimore, Md., P. O. Box 6790 21204

IGNITION TIMING

Ignition timing must be advanced to 34° for easier starting and optimum performance. (The present rotor timing mark is at approximately 30°.)

REMARKING ROTOR TO 34° (Using Top Center Tool GT706 and Ignition Timer Kit 00-5174)

1. Remove sparkplug.
2. Remove point cover and timing inspection cover (primary chaincase).
3. FIG. 1 - Remove auto-advance bolt -- install ignition timer adaptor and tighten securely. Install timer disc, leaving it loose on the shaft. Using a length of suitable wire, fabricate a pointer, and attach it to a timing cover screw.

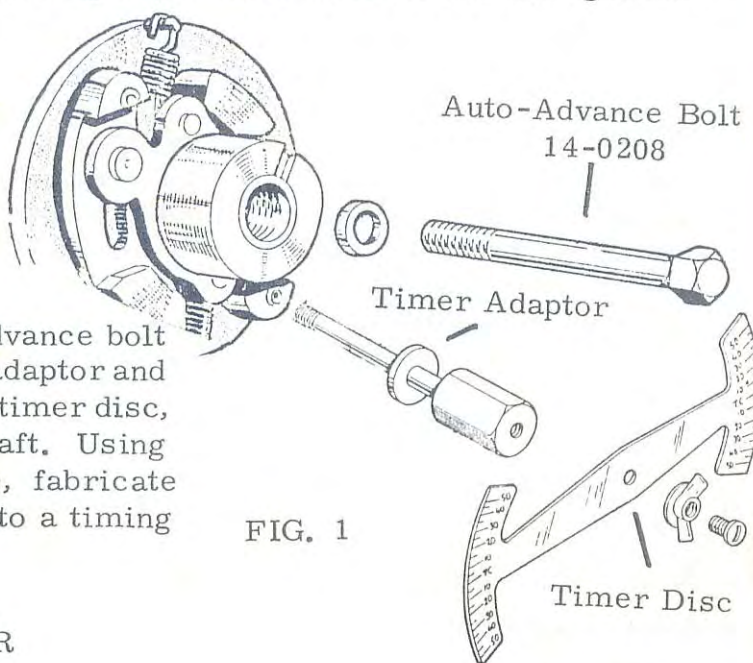


FIG. 1

FINDING TOP DEAD CENTER

1. Engage gearbox in Top Gear and rotate engine, using rear wheel, until piston is approximately at the top of the compression stroke.

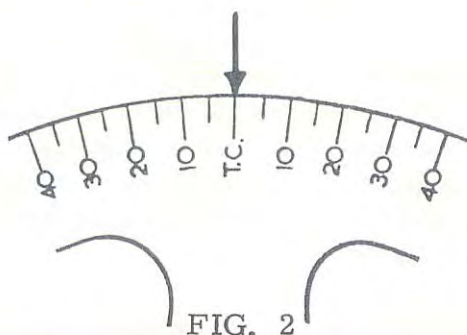
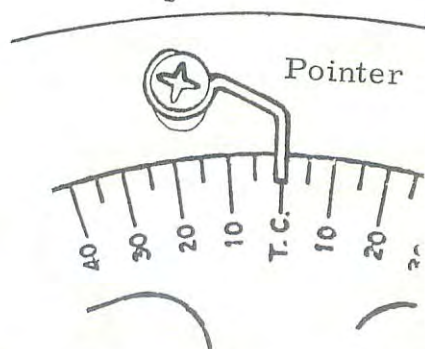


FIG. 2

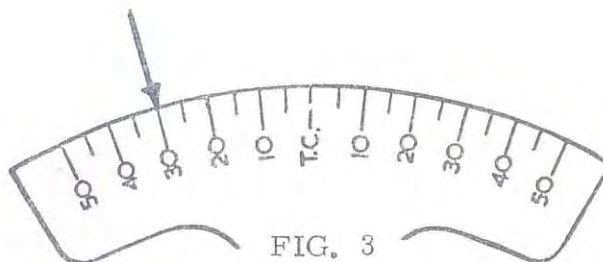
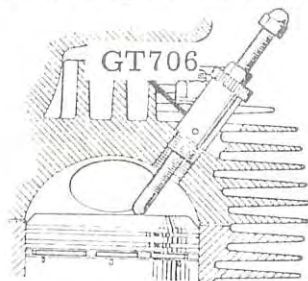


2. FIG. 2 - Set the timing disc so the TDC mark is lined up with the pointer, and tighten the thumb screw.

(over)

3. FIG. 3 - Turn engine back to 30°.

FIG. 4

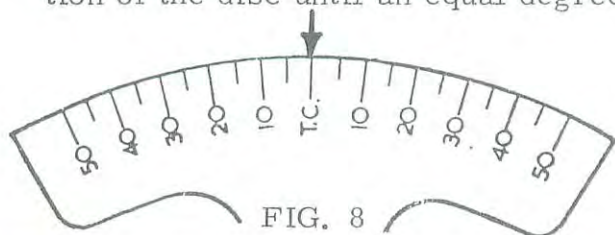
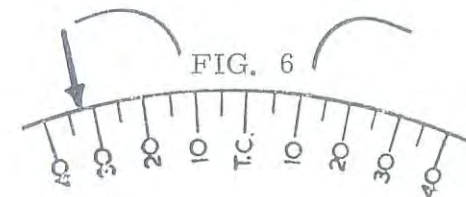
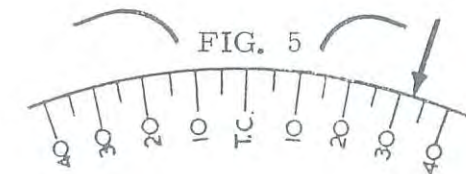
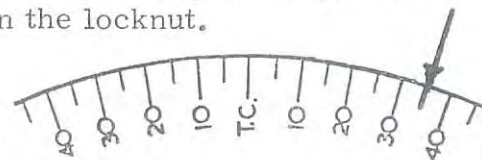


4. FIG. 4 - Install Top Center Tool into sparkplug hole. Screw center bolt in until it touches the top of the piston and tighten the locknut.

5. FIG. 5 - Gently rotate engine backwards until the piston again touches the Top Center Tool, and note the reading on the timing disc. Add this reading to the previous reading (30°) and divide by two.

$$\begin{aligned} \text{EXAMPLE: } 30 + 35 &= 65^\circ \\ 65 \div 2 &= 32.5^\circ \end{aligned}$$

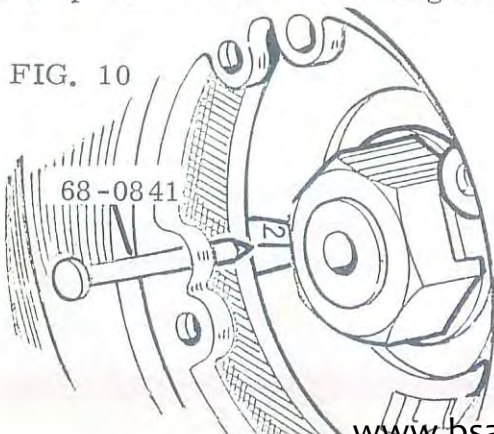
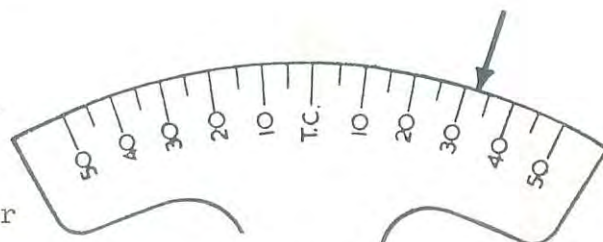
6. FIG. 6 - Reset the timing disc to the number of degrees resulting from the previous calculation.
7. FIG. 7 - Rotate the engine forward until the piston touches the Top Center Tool -- and check that the timing disc now reads an equal number of degrees each side of Top Dead Center. If the reading is not the same on both sides, repeat the adjustment by loosening the thumb screw and moving the position of the disc until an equal degree is achieved.



8. FIG. 8 - Remove the Top Center Tool and rotate the engine forward until the timing disc is set at TDC in relation to the pointer.

MARKING THE ROTOR

1. Paint over the No. 2 Timing Mark using lacquer or other suitable paint (Dykem Blue is good).
2. FIG. 9 - Rotate engine backwards until the pointer is lined up with 34° on the timing disc.



3. FIG. 10 - Remove the ignition timing pointer from the primary cover, and insert A65 Pointer 68-0841 (longer than standard B50). Now tap the end of the pointer so as to make a mark on the rotor. Remove the long pointer and install the original.

Continued . . .

4. Rotate engine to position rotor so it can be easily remarked. Using a small chisel, line the chisel with the punch mark, parallel to the old timing mark, and tap gently to make a new mark.
5. Now that a new 34° timing mark is established, the timing can be set using a strobelight (refer to the Workshop Manual).

SPARK PLUGS

The Champion N-3 will work very well for all types of riding, except racing. If a machine is to be used for competition, the Champion N-60 should be used.

CARBURETOR SETTINGS

For normal riding, the needle should be set in the middle position, and a "240" main jet should be installed. (Refer to Service Bulletin Single 16/71.)



Number: (Single) 23/71
Subject: Broken Tappets
Models: B25
Date: 12/6/71

SERVICE BULLETIN

BSA MOTORCYCLE CORPORATION A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey
Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

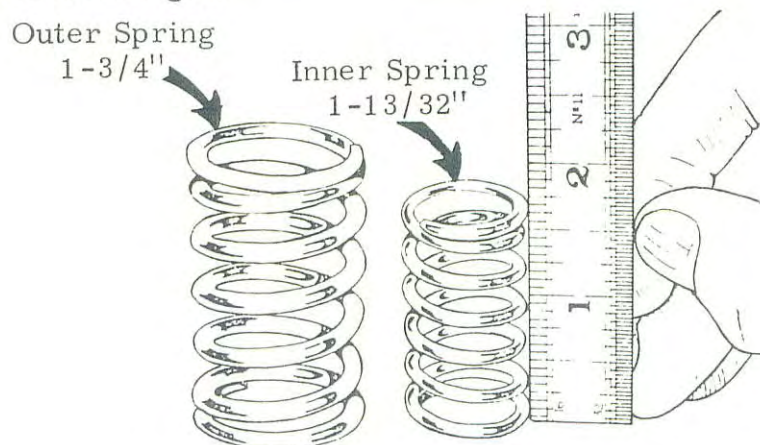
BROKEN TAPPETS

In many cases, broken tappets are caused by improper valve adjustment, weak valve springs, or constant running at extremely high RPM.

Valve Adjustment: If the valves are not properly adjusted, one of the following problems can occur: (1) If the valves are set too tightly, valve seats can burn; (2) If the valves are set too loosely, excess stress is placed on the entire valve mechanism -- resulting in broken tappets, damaged pushrods, etc. (Refer to the Workshop Manual for valve adjustment procedure.)

Valve Springs: Weak or improperly installed valve springs can cause damage to the entire valve mechanism. The following methods are suggested for checking and installing valve springs.

Spring Inspection: Set springs on a flat surface and measure the overall length.



NOTE: If the springs have settled more than 1/16 inch or show any signs of cracking, they must be replaced.

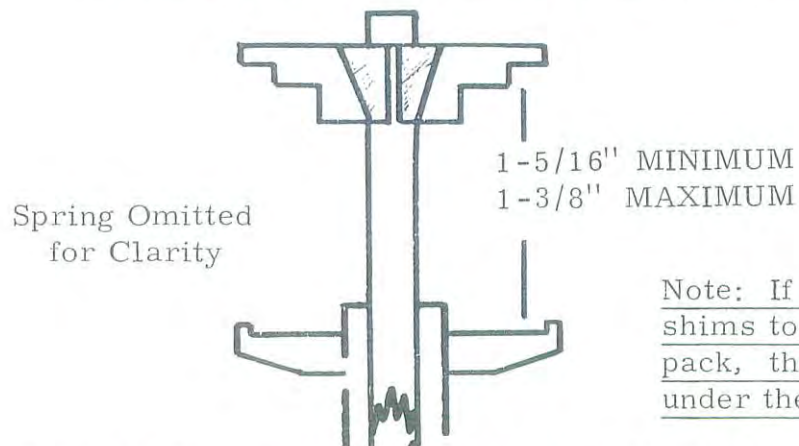
(over)

Valve Spring Installation: When installing valve springs, it is important that the outer (or larger) springs be installed with the close-wound coils downward in the spring cup, adjacent to the cylinder head.



CLOSE COILS OF OUTER SPRING
INSTALLED NEXT TO CYLINDER
HEAD.

Check spring pack. (This can be done by assembling the valve into the head with the inner spring only.) Then measure the distance from the bottom cup to the underside of the top collar.



Note: If it is necessary to add
shims to attain proper spring
pack, they should be placed
under the spring cup.

Extended Running at Very High RPM: Customers should be advised that damage can occur if the machine is run at extreme RPM for long periods.

SERVICE BULLETIN

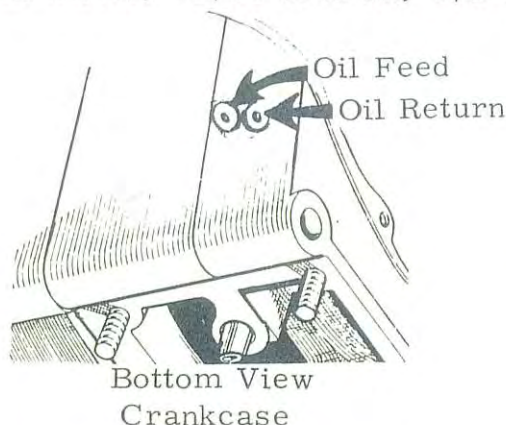
Number: (Single) 24/71
Subject: Improved Oil Pipes
Models: B25/B50
Date: 12/6/71

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Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

IMPROVED OIL PIPES

In mid-1971 the oil feed and return pipes were changed from 5/16 O.D. to 3/8 O.D. These new pipes are manufactured from thicker-walled tubing for added strength. The 3/16 I.D. remains the same for both pipes, therefore, the oil flow is unchanged. It is not recommended that all units be converted to the large pipes due to the fact that the engine must be removed from the frame for installation. However, if an engine is removed from the frame for maintenance or overhaul, the installation of a new large tube is a simple operation.

Installing Large 3/8-Diameter Pipes: The existing threaded oil holes in the crankcase are 5/16-24 x 5/8 deep. These holes must be drilled and tapped to 3/8-24 x 5/8 deep. This operation can be done with a hand drill motor, 21/64 drill bit, 3/8-24 tap and tap handle.



Drill and Tap
3/8-24 x 5/8 deep

CAUTION: To minimize the amount of chips which might enter the oil passages, it is good practice to pack the lands of the drill bit and tap with heavy grease. This will trap most of the chips; however, it will also be necessary to remove the oil pump, and blow the oil passages with an air gun to insure that no chips remain.

Part Number (Early-Type)
5/16 Pipe

71-2240 Return
71-2243 Feed

Part Number (Late-Type)
3/8 Pipe

71-2656 Return
71-2658 Feed



Number: (Single) 25/71
Subject: Oil Filter
Models: B25
Date: 12/20/71

SERVICE BULLETIN

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Towson, Baltimore, Md., P. O. Box 6790 21204

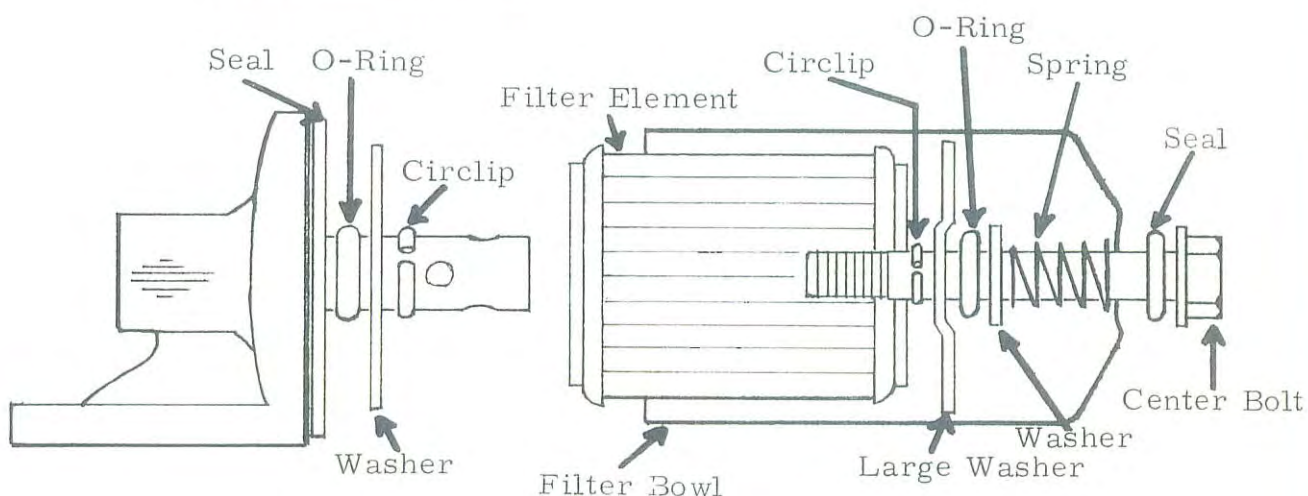
OIL FILTER

The external oil filter, which is connected into the oil return pipe, must be fitted with a new element every 4,000 miles. This element change (along with oil changes at 1500-mile intervals) will insure that the engine is operating with clean oil.

CHANGING THE OIL FILTER

The filter is located between the rear engine mounting plates. Unscrew the center bolt and withdraw the filter bowl. Extract the filter element, clean the filter bowl, and install a new element, making sure that the sealing rings are in position.

Oil Filter Assembly



Replacement filter elements (Part No. 19-4590) are available from the Parts Department. Note: Filter elements are supplied with new sealing rings.

BSA USA
SERVICE BULLETIN

Number: (Single) 1/72
Subject: Battery Vent Pipe
Models: B25/B50T/SS
Date: 1/25/72

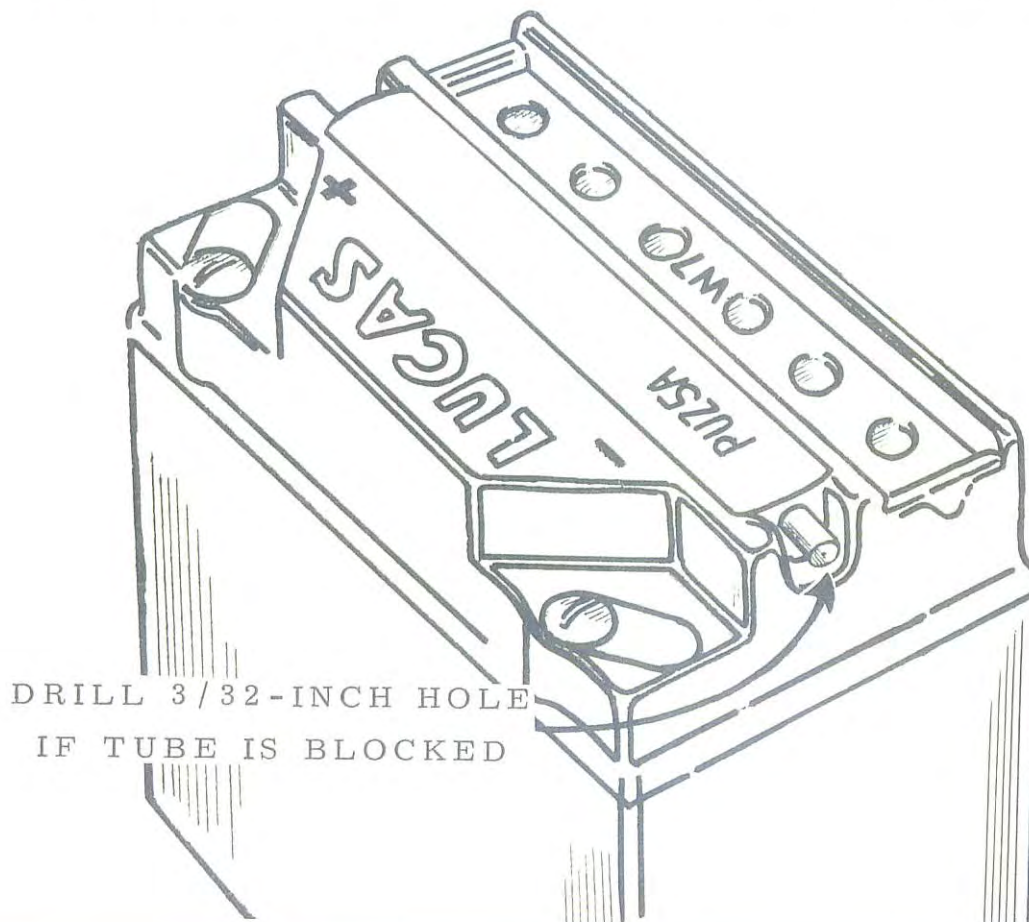
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Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

LUCAS DRY-CHARGE BATTERY VENT PIPE

Recently a few batteries which do not have the vent tube drilled have been shipped with new motorcycles. If the battery is serviced without a proper vent, it will most certainly result in a broken case due to pressure buildup.

INSPECT THE VENT PIPE BEFORE SERVICING ANY NEW BATTERY -- check the vent pipe to be certain that it is not blocked.

REPAIR -- If a vent pipe is found to be blocked, it is a simple operation to repair by drilling a 3/32-inch hole through the vent. (See Illustration)





Number: (Single) 2/72
Subject: Replacement Rim
37-3795
Models: B25T/B50T/MX
Date: March 9, 1972

SERVICE BULLETIN

BSA MOTORCYCLE CORPORATION A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey
Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

REPLACEMENT 20-INCH RIMS (PART NO. 37-3795)

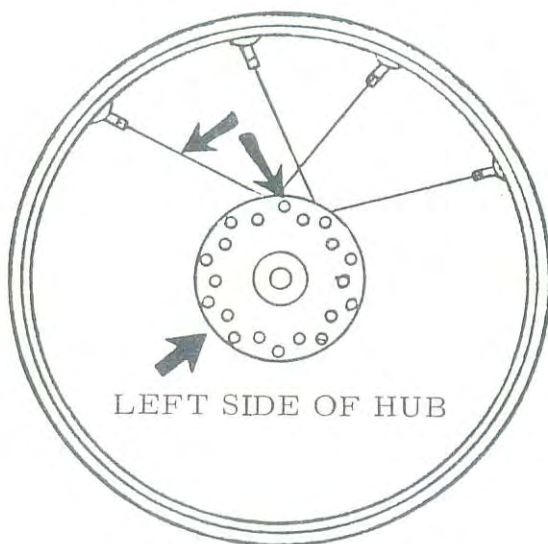
There are two different spoke lace patterns used on the 20-inch front wheel -- the reason for the two lace patterns is a shortage of one type of rim.

Interchangeable: The two types of rims have different hole patterns, but are completely interchangeable. The only difference will be the lace pattern on the left side of the hub.

Lacing New Rims: Refer to View "A" and "B" below for the different lace patterns. In View "A", you will note that the spoke from the outer hole pattern is toward the left. In View "B", note that the spoke from the outer hole pattern is toward the right.

View "A"

Spoke From Outer Hole
Pattern Toward the Left



View "B"

Spoke From Outer Hole
Pattern Toward the Right



NOTE

The lace pattern for the brake side of the hub
is the same for both rims.



Number: (Single) 3/72
Subject: Footrest Bolt
Models: B50MX
Date: May 26, 1972

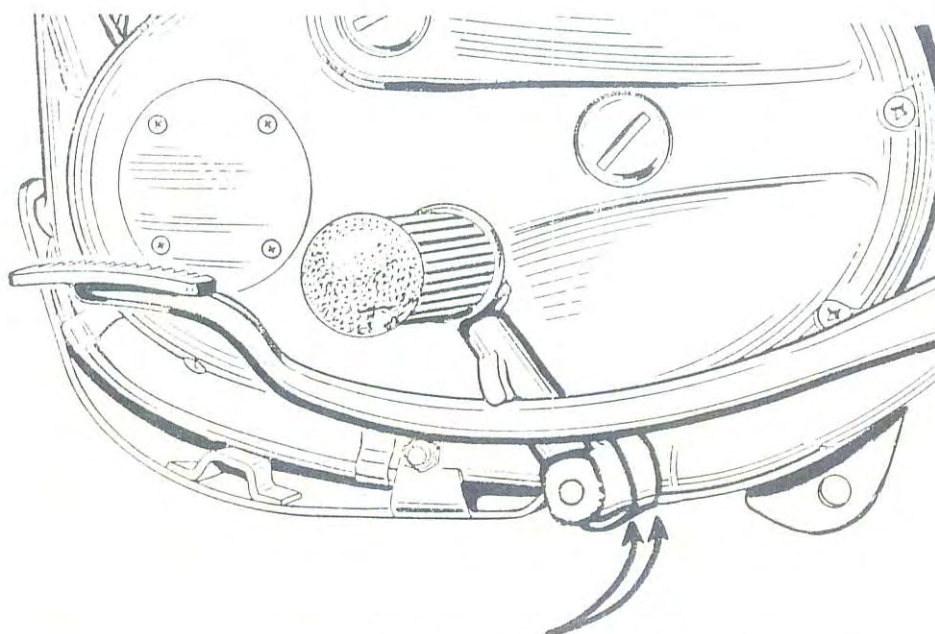
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STRENGTHENED FOOTREST BOLT

The footrest bolt has been increased from a 5/16 to 7/16-inch diameter for motocross models. This new larger bolt can be ordered from the Parts Department under Part No. 21-2180.

Installation on Early Models: The new bolt can be fitted to early models by simply drilling the frame lugs and the footrest hangers to 29/64 inch. This modification can be carried out with a 1/2-inch drill motor and the proper drill bit. (See Below)



Drill Frame Lug and Footrest
Using 29/64" Drill Bit



SERVICE BULLETIN

Number: (Single) 4/72
Subject: Oversize Valve Guides
Models: B25
Date: May 26, 1972

BSA MOTORCYCLE CORPORATION A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey
Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

OVERSIZE VALVE GUIDES

Oversize valve guides are now available for B25 cylinder heads. The new oversize guides can be ordered from the Parts Department and are available in two sizes.

New part numbers are listed below:

STANDARD	1ST OVERSIZE (+ .002")	2ND OVERSIZE (+ .015")
71-2226 (EX)	71-3321 (EX)	71-3322 (EX)
71-2231 (IN)	71-3319 (IN)	71-3320 (IN)

Number: (Single) 5/72
Subject: Auto Advance/
Contact Breaker
Corrosion
Models: B25/B50
Date: 6/15/72

BSA USA SERVICE BULLETIN

BSA MOTORCYCLE CORPORATION

Duarte, Calif. 91010, P. O. Box 275

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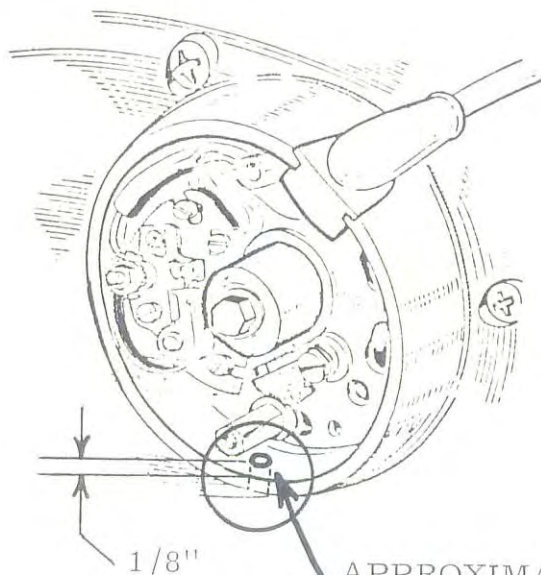
AUTO ADVANCE FAILURES

Lack of attention to the contact breaker and auto-advance mechanism can lead to the corrosion of these items due to the accumulation of condensation.

In this event, the timing mechanism may be the cause of erratic running and, in extreme cases, may become completely ineffective.

DRILL VENT HOLE

To prevent this accumulation, drill a 1/16-inch diameter hole in the base of the contact breaker housing (SEE ILLUSTRATION BELOW), thus providing a means of drainage for the condensation.



APPROXIMATELY 1/8 INCH FROM EDGE
--DRILL 1/16-INCH DIAMETER HOLE AT
BOTTOM OF CONTACT BREAKER CAVITY.



Number: (Single) 6/72
Subject: Ignition Misfire
Models: B50MX
Date: 9/28/72

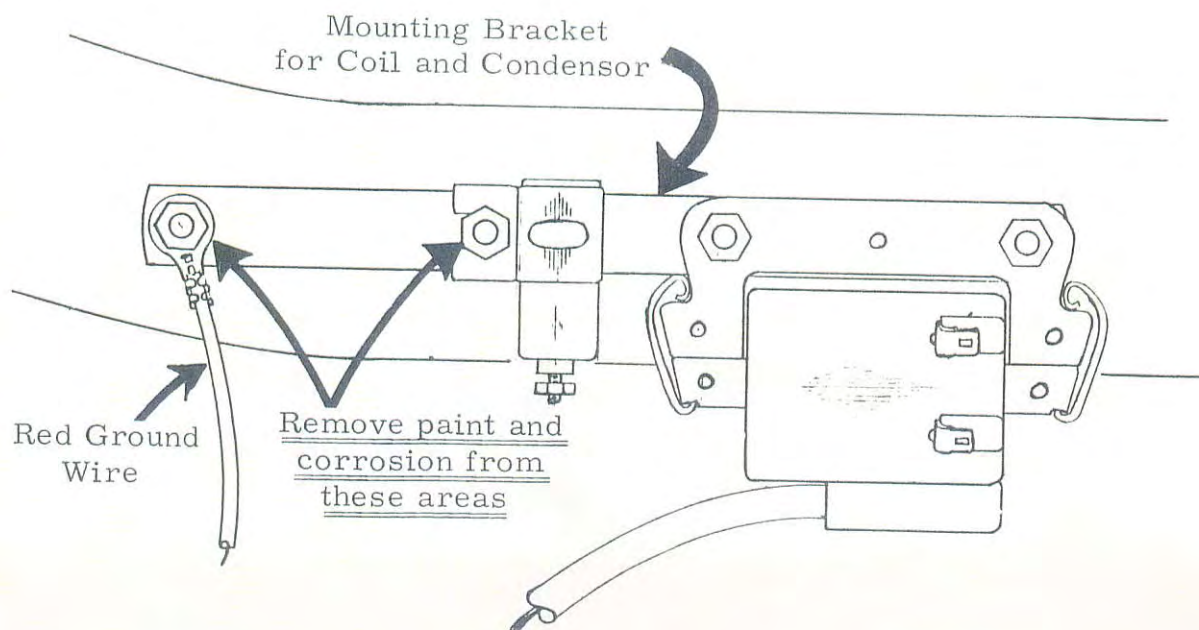
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Towson, Baltimore, Md., P. O. Box 6790 21204

IGNITION MISFIRE

There have been isolated cases of ignition misfire on B50MX models due to improperly grounded condensers. The problem is caused by paint (or corrosion) between the frame and the condensor mount.

CLEAN MOUNTING AREA: Should you encounter a unit with this problem -- it can be rectified by removing paint and corrosion from the condensor mounting area and the red ground wire terminal. This will ensure a proper metal-to-metal contact.





SERVICE BULLETIN

Number: (General) 7/72
 Subject: Proper Spark
 Plugs
 Models: All
 Date: 10/31/72

BSA MOTORCYCLE CORPORATION A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey
 Duarte, Calif. 91010, P. O. Box 275
 Towson, Baltimore, Md., P. O. Box 6790 21204

PROPER SPARK PLUGS

Recently an investigation of two 650 Twins which, for no apparent reason, had suffered seized and holed pistons revealed that the failures were caused by the use of the wrong spark plugs, which were too hot.

In talking with the mechanics involved, we found that, during the routine service and tune-up, the Champion N-3 spark plugs had been removed and another brand installed, using a conversion chart to determine the heat range needed. This conversion chart was the start of the trouble, as the information was wrong, as is often the case.

USE THE PROPER SPARK PLUG HEAT RANGE

We strongly recommend the use of CHAMPION spark plugs in our motorcycles due to their proven reliability; however, if you choose to use another brand, be certain to use the proper heat range (SEE CHART BELOW).

RECOMMENDED SPARK PLUGS

Model	CHAMPION		K. L. G.		N. G. K.	
	Normal Street	High-Speed Touring	Normal Street	High-Speed Touring	Normal Street	High-Speed Touring
B25	N-3	N-60	FE100	FE220	B9E	B10E
B50T	N-3	N-60	FE100	FE220	B9E	B10E
B50SS	N-3	N-60	FE100	FE220	B9E	B10E
A65L	N-3	N-60	FE100	FE220	B9E	B10E
A65T	N-3	N-60	FE100	FE220	B9E	B10E
A65FS	N-3	N-60	FE100	FE220	B9E	B10E
A75R	N-3	N-60	FE100	FE220	B9E	B10E
A75RV	N-3	N-60	FE100	FE220	B9E	B10E

B 5 0 M X

CHAMPION	N-3
K. L. G.	FE100
N. G. K.	B9E



SERVICE BULLETIN

Number: (Single) 1/73
Subject: Improving B50MX
Performance
Models: B50MX
Date: 2/23/73

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IMPROVING B50MX PERFORMANCE

The 1973 B50MX has many design changes, some of which are required to meet with federal, state, and local sound requirements. In achieving the lower sound levels, a certain amount of performance was forfeited. The intent of this bulletin is to give the necessary information and methods with which improved performance can be obtained on the 1973 B50MX.

Sound levels vary from state to state; however, it is impossible for our factory to produce special units for each state. We therefore produce a unit to meet the most stringent requirements. In the case of the B50MX, it has a maximum sound of 88 dbA, which is required in California for off-road use.

THE STATE OF CALIFORNIA has an "off-road" sound level of 88 dbA (machines sold for highway use must not exceed 86 dbA). Dealers selling motorcycles for either of the above purposes could be cited by the state if they sell motorcycles fitted with higher noise level exhaust systems.

THE A.M.A. AND F.I.M. REGULATIONS include a maximum noise level of 92 dbA for certain events and 88 dbA for others. M.I.C. members voluntarily agreed not to produce any models emitting noise above 92 dbA after December 31, 1971.

OTHER STATES, CITIES AND COUNTIES have established various noise levels for motorcycles. Dealers are advised to be knowledgeable of the laws in their area and make certain that each motorcycle is below the legal limit when sold.

TUNING INFORMATION FOR VARIOUS NOISE LEVELS is listed on the following pages. Our B50MX models are shipped to you with an 88 dbA exhaust system. If you desire to improve performance for various types of off-road riding in competitive events, we suggest that you select the proper noise limit -- then tune the MX accordingly.

(over)

1. TUNING FOR OFF-ROAD USE (88 DBA)

Exhaust System:	Standard except for the removal of the spark arrestors
Compression Ratio:	9.0:1 (plate installed)
Ignition Timing:	Advance to 36° BTDC
Carburetor Main Jet:	190
Air Filter:	Remove the standard filter assembly and install a Filtron sock-type (Part #BWFE-H) along with an air bell (Amal #928/066).
Spark Plug:	Champion N-3-MC

2. TUNING FOR RACING (92 DBA)

Exhaust System:	Remove the standard dual silencers and 'Y' adaptor. Install a BSA silencer (#41-2725). Note: <u>Remove the baffle from the outlet pipe prior to installation.</u> (This is done by drilling out the two rivets and pulling the baffle out with pliers.) Another choice is to install Spark Arrestor #KS500. This arrestor works well for silencing also.
Compression Ratio:	9.0:1 (plate installed)
Ignition Timing:	36° BTDC
Carburetor Main Jet:	230
Air Filter:	Remove the standard filter assembly and install a Filtron sock-type (Part #BWFE-H) along with an air bell (Amal #928/066).
Spark Plug:	Champion N-3-MC

3. TUNING FOR RACING (92 DBA)

Exhaust System:	Remove the standard dual silencers and 'Y' adaptor. Install a BSA silencer (#41-2725). Note: <u>Remove the baffle from the outlet pipe prior to installation.</u> (This is done by
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(con'd.)

3. (con'd.)

Exhaust System:	drilling out the two rivets and pulling the baffle out with pliers.) Another choice is to install Spark Arrestor #KS500. This arrestor works well for silencing also.
Compression Ratio:	10.0:1 (plate removed)
Ignition Timing:	Standard Mark (31° BTDC)
Carburetor Main Jet:	240
Air Filter:	Remove the standard filter assembly and install a Filtron sock-type (Part #BWFE-H) along with an air bell (Amal #928/066).
Spark Plug:	Champion N-60

4. TUNING FOR RACING WHERE THERE IS NO SOUND LIMIT (Note: the following instructions produce a sound level of 104 dbA.)

Exhaust System:	Remove the standard dual silencers and 'Y' adaptor. Install the 1972 B50MX racing exhaust system (Megaphone #71-2901 and Exhaust Pipe #71-2899).
Compression Ratio:	10.0:1 (plate removed)
Ignition Timing:	Standard Mark (31° BTDC)
Carburetor Main Jet:	260
Air Filter:	Remove the standard filter assembly and install a Filtron sock-type (Part #BWFE-H) along with an air bell (Amal #928/066).
Spark Plug:	Champion N-60

NOTE: THE CARBURETOR MAIN JETS LISTED MAY NOT BE PROPER FOR ALL AREAS DUE TO DIFFERENCES IN ALTITUDE. THE PROPER JET MUST BE DETERMINED AT THE RACE MEETING.



Number: (Single) 1/73
Subject: Improving
TR5MX
Performance
Models: TR5MX

SERVICE BULLETIN 7/30/73

TRIUMPH MOTORCYCLE CORPORATION

Duarte, Calif. 91010, P. O. Box 275

A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey

Towson, Baltimore, Md. 21204, P. O. Box 6790

IMPROVING TR5MX PERFORMANCE

The 1974 TR5MX was designed to meet with federal, state, and local sound requirements. In achieving the lower sound levels, a certain amount of performance was forfeited. The intent of this bulletin is to give the necessary information and methods with which improved performance can be obtained on the 1974 TR5MX.

Sound levels vary from state to state; however, it is impossible for our factory to produce special units for each state. We, therefore, produce a unit to meet the most stringent requirements. In the case of the TR5MX it has a maximum sound of 88 dbA, which is required in California for off-road use.

THE STATE OF CALIFORNIA has an "off-road" sound level of 88 dbA (machines sold for highway use must not exceed 86 dbA). Dealers selling motorcycles for either of the above purposes could be cited by the state if they sell motorcycles fitted with higher noise level exhaust systems.

THE A. M. A. AND F. I. M. REGULATIONS include a maximum noise level of 92 dbA for certain events and 88 dbA for others. M. I. C. members voluntarily agreed not to produce any models emitting noise above 92 dbA after December 31, 1971.

OTHER STATES, CITIES AND COUNTIES have established various noise levels for motorcycles. Dealers are advised to be knowledgeable of the laws in their area and make certain that each motorcycle is below the legal limit when sold.

TUNING INFORMATION FOR VARIOUS NOISE LEVELS is listed on the following pages. Our TR5MX models are shipped to you with an 88 dbA exhaust system. If you desire to improve the performance for various types of off-road riding in competitive events we suggest that you select the proper noise limit -- then tune the MX accordingly.

(over)

1. TUNING FOR OFF-ROAD USE (88DBA)

Exhaust System:	Standard except for the removal of the spark arrestors.
Compression Ratio:	9.0:1 (plate installed)
Ignition Timing:	Advance to 36° BTDC
Carburetor Main Jet:	190
Air Filter:	Remove the standard filter assembly and install a Filtron sock-type (Part No. BWFE-H) along with an air bell (Amal No. 928/066)
Spark Plug:	Champion N-3-MC

2. TUNING FOR RACING (92DBA)

Exhaust System:	Remove the standard dual silencers and 'Y' adaptor. Install a BSA silencer (No. 41-2725). Note: <u>Remove the baffle from the outlet pipe prior to installation.</u> (This is done by drilling out the two rivets and pulling the baffle out with pliers.) Another choice is to install Spark Arrestor No. KS500. This arrestor works well for silencing also.
Compression Ratio:	9.0:1 (plate installed)
Ignition Timing:	36° BTDC
Carburetor Main Jet:	230
Air Filter:	Remove the standard filter assembly and install a Filtron sock-type (Part No. BWFE-H) along with an air bell (Amal No. 928/066).
Spark Plug:	Champion N-3-MC

3. TUNING FOR RACING (92 DBA)

Exhaust System:	Remove the standard dual silencers and 'Y' adaptor. Install a BSA silencer (No. 41-2725). Note: <u>Remove the baffle from the outlet pipe prior to installation.</u> (This is done by drilling
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(cont'd)

3. (cont'd)

Exhaust System:	out the two rivets and pulling the baffle out with pliers.) Another choice is to install Spark Arrestor No. KS500. This arrestor works well for silencing also.
Compression Ratio:	10.0:1 (plate removed)
Ignition Timing:	Standard Mark (31° BTDC)
Carburetor Main Jet:	240
Air Filter:	Remove the standard filter assembly and install a Filtron sock-type (Part No. BWFE-H) along with an air bell (Amal No. 928/066).
Spark Plug:	Champion N-60

4. TUNING FOR RACING WHERE THERE IS NO SOUND LIMIT (Note: the following instructions produce a sound level of 104 dbA.)

Exhaust System:	Remove the standard dual silencers and 'Y' adaptor. Install the 1972 B50MX racing exhaust system (Megaphone No. 71-2901 and Exhaust Pipe No. 71-2899).
Compression Ratio:	10.0:1 (plate removed)
Ignition Timing:	Standard Mark (31° BTDC)
Carburetor Main Jet:	260
Air Filter:	Remove the standard filter assembly and install a Filtron sock-type (Part No. BWFE-H) along with an air bell (Amal No. 928/066).
Spark Plug:	Champion N-60

NOTE: THE CARBURETOR MAIN JETS LISTED MAY NOT BE PROPER FOR ALL AREAS DUE TO DIFFERENCES IN ALTITUDE. THE PROPER JET MUST BE DETERMINED AT THE RACE MEETING.

SERVICE BULLETIN

Number: (Single) 2/73
Subject: Spark Arrestor
Models: '73 B50MX
Date: 2/19/73

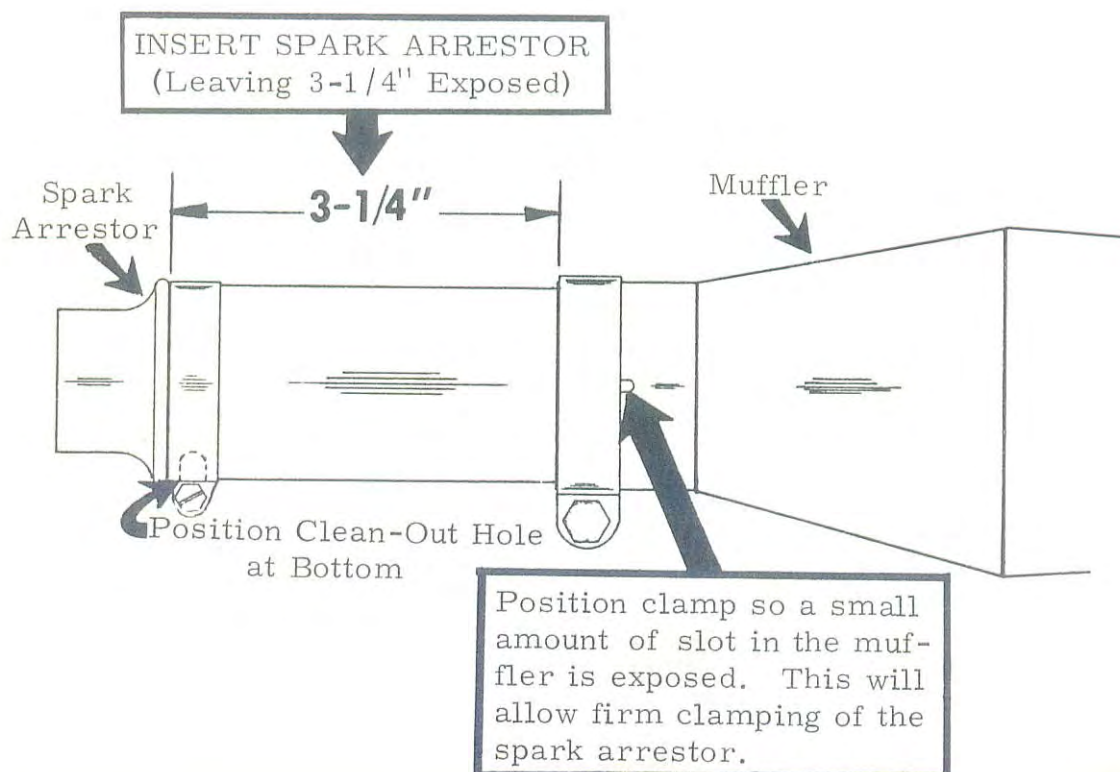
BSA MOTORCYCLE CORPORATION A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey
Duarte, Calif. 91010, P. O. Box 275
Towson, Baltimore, Md., P. O. Box 6790 21204

SPARK ARRESTOR INSTALLATION

The 1973 B50MX is supplied with two approved spark arrestors which are to be installed prior to the sale of each unit.

INSTALLATION: To achieve maximum performance, the inner end of the spark arrestor body tube must clear the baffle tubes in the silencer by at least 2 inches. This condition is reached when the distance between the end of the silencer and the raised ridge at the end of the spark arrestor is no less than 3-1/4 inches (as illustrated below).

B50MX MUFFLER WITH SPARK ARRESTOR





Number: (Single) 2/73
Subject: Big-Bore Kit
Models: TR5MX / B50MX
Date: July 31, 1973

SERVICE BULLETIN

TRIUMPH MOTORCYCLE CORPORATION

Duarte, Calif. 91010, P. O. Box 275

A subsidiary of The Birmingham Small Arms Company Incorporated, Verona, New Jersey

Towson, Baltimore, Md. 21204, P. O. Box 6790

BIG-BORE KIT FOR TR5MX and B50

A Big-Bore Kit has been developed and is now available for use on the new 1974 TR5MX and earlier B50 models. This new kit gives a substantial increase in both torque and horsepower, without sacrificing any of the long power band which this engine is noted for.

The kit consists of a cylinder liner, 89mm forged piston and ring set.

Note: It is not necessary to machine crankcase when installing this kit.

INSTALLING BIG-BORE KIT

REMOVE TOP END.

Remove cylinder head, cylinder and piston.

REMOVE CYLINDER LINER.

Heat the cylinder, and with a suitable press, push the old liner out.

BORE CYLINDER.

Set cylinder up in boring machine. Bore cylinder to give .005" interference with O. D. of new kit cylinder liner. (Cylinder block .005" smaller than outside diameter of liner).

COUNTERBORE CYLINDER.

The top of cylinder must be counterbored to fit the flange at the top of the liner. The depth of the counterbore must be minimum .001" maximum .002" less than the thickness of the flange. This will allow the head gasket to trap the liner in place. This operation can be accomplished with a lathe or mill.

INSTALLING LINER.

Heat the cylinder block to approximately 550°F.

At this temperature, the liner if started straight, should drop in.

If not, put the cylinder in a press and while applying pressure, continue to heat until the liner flange contacts bottom of counterbore.

Allow cylinder to cool slowly at room temperature.

BORE CYLINDER LINER.

After cylinder has cooled to room temperature, bore cylinder liner to allow for .005" to .0055" clearance at bottom of piston skirt.

ASSEMBLE TOP END.

Assemble top end using new gaskets.

FINAL TUNING.

The standard factory recommendations for ignition and carburetor should work fine. However, after a short run-in period, check the sparkplug for signs of excess heat and if needed, change main jet and sparkplug.

THIS NEW KIT CAN BE ORDERED FROM THE BALTIMORE OR
DUARTE PARTS DEPARTMENT.

<u>BIG-BORE KIT</u>		
PART NUMBER: CD4034		
SUGGESTED RETAIL PRICE \$62.57		
<u>INDIVIDUAL PART PRICES</u>		
<u>Item</u>	<u>Part No.</u>	<u>Suggested Retail Price</u>
Cylinder Liner	CD4035	\$15.68
Piston	CD4036	\$41.16
Rings	CD4037	\$ 5.71