

# The TRIUMPH Corporation

## SERVICE BULLETIN

January 10, 1966

1966 "B" RANGE 650cc TWIN MODELS

### BULLETIN No. 12

SUBJECT: Replacement Parts Catalog #4 for 1966 "B" Range Twins.

We list below important corrections that should be made in your book IMMEDIATELY.

<u>Page No.</u>	<u>Ref. No.</u>	<u>Corrections</u>
16		CP199 piston not stocked. Order CP163 - 8 to 1. For 6T model.
17		We do not stock carton pack CP173 valves, CP188 valve springs, or CP197 valve guides. Order these items as separate parts.
17	Add	"Complete" gasket set. Part No. GS/B/63-66.
21	23	Change rotor number to 54213901.
25	35	Exh. tappet E6329 is a standard grind with hole. Exh. tappet E6490 is "R" grind with hole.
31	16	Complete auto-advance and C/B cam assembly is 54415750 for coil ignition.
31	17	Complete base plate with points and condenser number is 425379.
31	33	Complete auto-advance and C/B cam assembly is 54415746 for A.C. ignition.
31	Add	Part number for contact breaker lead 54933228.
35	16	Correct number should be E489.
41	10, 11 & 13	These new wider chain tensioner parts can be fitted to early machines.
43	Add	Fork stop screws number H1877 (at frame head lug).
43	11	Change prop stand number to F5786. ...
45	15	The damper unit number for suspension unit 64054164 fitted to TR6 and T120 is 64054465.
45	43	Change 31437 stop lamp switch number to 54033234.
47	44	F6655 pivot bolt can use T1273 pivot bolt.
55	14	Change light unit number to 576798.

Continued.....

<u>Page No.</u>	<u>Ref. No.</u>	<u>Corrections</u>
55	19	Change bulb number to 446 (U.S.A.).
55	20	Adaptor unit complete with wires can be ordered under part number 54520540.
55	36 & 37	They have number backwards in Fig. 18 - page 54. 36 is the bracket HL430 and 37 is the horn 70164.
57	1 & 2	Fork assembly number should be H2077 and middle lug as stem HL999 for U. S. models.
59	1	Fork assembly number should be H2071. Eastern TR6/C and T120/TT.
63	26	Use carton pack brake lining CP205.
67		Cross complete page off. Not fitted to any U.S.A. models.
69	1 & 7	Delete F7004 gas tank and F5395 centre styling stay. Used on ENGLAND HOME MARKET ONLY.
71	32	Can use in place of El459 or E3082 by using extra length of rubber hose (CD33 cut 17" long).
73	11, 14,	Delete, Used on ENGLAND HOME MARKET ONLY.
73	15	Change F5764. Should be F6866.
73	16 & 25	Delete as we are now fitting single type air cleaner to Eastern U.S.A. T120/R and T120/TT for 1966.
75	16	Part number should be F4239.
77		Cross complete page off. Fender and stays for English models only.
81	3	Can use 16/417 throttle assembly and 366/012 twist grip.
83	1	Use D466T clutch cable. All "B" Range Twins.
83	5	Use D330T brake cable <u>ALL</u> U.S.A. Models.
83	12 & 19	Delete these items.
83	22	Can use 313/6 throttle assembly and 366/012.
93	16	E5756 is the tachometer gearbox complete. E5758 is the gearbox shell only.
93		Write in number for brass end cap 31-315-135. This is fitted at cable connector on all speedo and tachs. Add for TR6/C VDO Kit - number CD430 speedo, CD433 mounting kit and CD444 cable 65" long.

Continued.....

<u>Page No.</u>	<u>Ref.No.</u>	<u>Corrections</u>
95	9	Clips for 45149 coil is part number 54441104. Lamination part number is 54441946.
95	13	Part number should be 31107 black kill button A.C. ignition.
95	18	Part number of shell only for head lamp 58395 is 54520354.
97	1	Coil bracket number is 423947.
97	30	35601kill button is brown for battery ignition.
99	8	Adaptor assembly complete with wires is part number 54520540.
	Add	Part number CD447 20 amp. fuse.
	Add	Part number CD392 30 amp. fuse.
	Add	Part number 54938986 fuse assembly.
99	18	Lucas part number for lock and key is 345070. Key numbers run from 876 thru 955.
99	32 & 42	Delete these items. The tail light is not fitted to U.S.A. models.

# The TRIUMPH Corporation

## SERVICE BULLETIN

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January 24, 1966

66/1

TO ALL EASTERN TRIUMPH DEALERS

SUBJECT: Oil Bleed Holes in Connecting Rods

Certain late production 1965 and early 1966 "B" & "C" Range Twin models have a 1/32" oil bleed hole drilled in the big ends of both connecting rods to provide additional lubrication to the cylinders. Some trouble may be experienced with the 650cc "B" Range Twins. The symptoms could be over oiling in the combustion chamber and possible premature wear of camshaft or the spindle of the idler timing gear. We have had no reports of service problems with "C" Range 500cc models that have the oil bleed holes.

Whenever you have occasion to remove the cylinder from an engine that falls in the series shown below, we suggest that you close the oil bleed hole in each rod. A special punch for this purpose (part #CD442) will be sent free-of-charge with your next parts order.

Connecting rods and insert bearings with oil holes have never been supplied by us as replacement parts.

The following motorcycles have the subject oil holes:

"B" Range 650cc Models from Engine No. DU19895 thru Engine No. DU25377.

"C" Range 500cc Twin Models from Engine No. H38904 thru Engine No. H41369.

Very truly yours,

THE TRIUMPH CORPORATION



Service Manager

Rod Coates:bjh

# The TRIUMPH Corporation

## SERVICE BULLETIN

January 29, 1966

1966 "B" RANGE 650cc TWIN MODELS

### BULLETIN No. 13

SUBJECT: Service Notes on 1966 Model "B" Range Twins

#### New Handlebar Ignition Cut-Out Button

All 1966 battery ignition models (also the "C" Range T100/R) have a new cut-out button, part #35601. The brown color of the plastic button identifies this "kill-button" as being the correct type for battery ignition. For A.C. Ignition (T120/C, TT Spec., TR6/C and T100/C) a kill-button of similar appearance, but with a black plastic button is used for A.C. Ignition. These kill-buttons are not interchangeable and it is important to know the difference. Check by using your Burnworth Tester. The brown button for battery ignition will show continuity between both terminals and also to ground when you push the button. The black button (A.C. Ignition) will NOT show continuity to ground. It will only connect the two terminals together when you push the button. If the A.C. kill-button (black color) is fitted to battery ignition motorcycle it will not stop the engine satisfactorily, but will allow it to run on one cylinder because the ignition wires will not be grounded. The battery ignition kill-button (brown color) can be fitted to ALL twin models, however, as it will also work satisfactorily with A.C. Ign.

#### Exhaust Tappets With Positive Lubrication

All 1966 "B" Range models have oil pressure lubrication to the exhaust tappets. These tappets are easily identified by an oil hole in the hard-face. The standard tappet is part #E6329 and the large radius racing type is #E6490. When installing these tappets it is very important to always fit them so that the "flat" and the oil hole in the stem is facing toward the outside diameter of the tappet guide block. In other words, the oil feed hole in each tappet stem should be facing away from the center of the tappet guide block. If you should assemble either of these tappets the other way around, the oil feed to the tappet and the cam lobe will be cut off.

SPECIAL NOTE: Dunlop 4.00-18 K70 Tire For Harley Sportster Model

CAUTION We have seen some failures of this popular tire due to interference between the tire and the web located at the swinging arm pivot bearing. Whenever you sell one of these tires to a Sportster Rider ALWAYS make certain there is at least 1/2" clearance between the tread of the tire and the surface of the swinging arm pivot bearing lug that comes closest to the tire. At speeds of 100 mph or more a tire can "fling" as much as 3/8" on the radius. We cannot honor any claims on K70 tires where the blocks have been "torn off" in the center of the tread due to interference between the tire and the frame or fender bolts, etc.

Continued.....

January 29, 1966

SPECIAL NOTE: Registration Card - - - Guarantee.

When a new motorcycle is serviced and put into use, ALWAYS send us the Registration Card covering the motorcycle even though it is a Demonstrator Model. If we do not receive a Registration Card for your Demo, the guarantee is void. If you sell a Demo Model while it is still in the guarantee period, send us another Registration Card with name of the owner and explain that you have given the owner a limited guarantee. (based on the mileage covered as a Demo Model) We can supply extra Registration Cards if you need them. When you service your Demo Model at 500 and 1500 Miles, be sure to send us the Free Service Certificate that we sent you after the Registration Card was received by us.

A Registration Card is also required for a TT Special Model, even though the machine may never be licensed by the owner or dealer. Our guarantee covers all models except those used in Professional Competition.

New 12 Volt Battery For All 1966 Twin Models

We can now supply from stock a top quality WISCO clear plastic 12 volt battery that makes an ideal replacement for the two Lucas 6 volt batteries fitted to 1966 Twin cylinder models. (also 1964 and 1965 6T Thunderbird models) This battery has a vent tube fitted and can be conveniently fitted to the original equipment carrier. Only requires a piece of sponge rubber padding at the front and back to take up the extra space. Add one of these batteries to your next parts order.

Part No. MG2-12 Single 12 Volt Battery. List Price \$13.80A - \$ 6.90 Net

NEW TOOLSCD443 Exhaust Pipe Sizing Tool

List Price \$4.89B - \$ 3.26 Net

This handy tool is used for sizing the end of new and replacement exhaust pipes so that they can be quickly fitted to the cylinder heads. Especially useful for 1966 models with aluminum exhaust pipe adaptors. Tool fits both 650cc and 500cc models. Grip tool in vice and use rubber mallet to drive exhaust pipe over taper end of tool. We are sending every dealer one of these tools with his next parts order.

CD441 Exhaust Pipe Adaptor Wrench

List Price \$6.30B - \$ 4.20 Net

Always use this tool for tightening exhaust pipe adaptors in cylinder heads. Fits both "B" & "C" Range models. One of these tools were sent to every dealer in December and mentioned in Blue Bulletin #11. If you did not receive one, order now.

Dunlop Tires

GOOD NEWS

Dunlop Tires

We can NOW ship from stock ALL SIZES and ALL TYPES of Dunlop Tires!

Be prepared for the Spring Rush Season! ORDER NOW!

THE TRIUMPH CORPORATION

# The TRIUMPH Corporation

## SERVICE BULLETIN

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February 25, 1966 66/2

TO ALL EASTERN TRIUMPH DEALERS

SUBJECT: Tachometer Drive Gearbox

All Triumph twin models for 1966 (except 6T, T100/C and TR6/C) are fitted with a new 4 to 1 tachometer. 1963 thru 1965 models had a 2 to 1 tachometer with cable driven at half engine speed. The 1966 angle drive gearbox gives a reduction of 2 to 1 to drive the cable at one-quarter engine speed. The gearbox assembly is E5756 for "B" Range and E5755 for "C" Range.

NOTE: There is no part number given in either Parts Book for the aluminum housing itself which is shown as reference #16 in both books. We suggest that you enter the following two numbers in your books as soon as possible.

Part No. E5758 - Tach Gearbox Housing only for "B" Range 650cc twins.

Part No. E5757 - Tach Gearbox Housing only for "C" Range 500cc twins.

All other parts in the assembly except the above housing are interchangeable.

### IMPORTANT SERVICE NOTE

We have had some reports of the Tach Gearbox Assembly loosening where it is attached to the crankcase with the Sleeve Nut E5153. Correct this as follows:

1. Remove End Cap E5759 with a screw driver and using a pointed scriber in the center hole of Driving Gear E5157 withdraw this gear.
2. Use a thin wall 7/16" American deep socket to remove the gearbox from the crankcase.
3. Throw away the black fiber washer, replace it with aluminum Stat-O-Seal washer Tri-Cor Part No. CD454 and thoroughly tighten the Sleeve Nut.

### Tachometer Drive Thimble Part No. E4700

All Unit Construction Triumph twin engines since 1963 have this small cup shaped piece pressed in the left hand end of the exhaust camshaft.

### IMPORTANT SERVICE NOTE

Your cost of the above part is only 14¢. The cost of labor, however, to install this important part could be \$50.00 or more. Because of this, we urge every dealer to keep a few of these parts in stock and whenever a 1963 or later twin engine is dismantled for overhaul ALWAYS examine this part and if it is loose in the camshaft or the slot is worn it should be replaced. When in doubt, ALWAYS install a new thimble in the exhaust camshaft and make certain that it is pressed in properly.

# *The* **TRIUMPH** *Corporation*

## SERVICE BULLETIN

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March 30, 1966

1966 "B" RANGE TWIN MODELS

### BULLETIN NO. 14

SUBJECT: Important Service Notes on Latest Production Triumph Twins.

#### New 12 Volt Battery - - - Lucas Part No. PUZ5A

Beginning with T120/R - Engine No. DU34174 all subsequent Triumph Twin Models will have this new 12 volt Lucas battery. Check the following important instructions.

1. Service battery according to white instruction card packed with battery.
2. Make sure one vent hole is plugged and fit the black plastic tube to other vent pipe.
3. The rubber lining (F6969) is IMPORTANT to prevent damage to plastic battery case.
4. Fit battery with filler cap to rear and vent tube on left side. Fit top hold-down bracket which also holds the white filler cap panel in place.
5. Grease battery terminals or coat with Wonderlube to prevent corrosion.
6. With fully charged battery, the current input should be about 2.0 Amps. max. with the zener diode connected. To make a quick check of diode performance, unplug the white wire at the diode terminal and if the input increases to approx. 7.0 Amps. you will know that the diode is operating OK. Use Tri-Cor Test Set, or other good quality ammeter for this test.

#### L679 Stop Tail Lamp Assembly

To avoid rotation of the tail lamp bulb holder and breakage of the ground strap the tail lamp should be assembled as follows:

1. Remove plastic lens from tail lamp bracket.
2. Before fastening the tail lamp bracket and rubber backing to the black steel tail lamp plate (F6849) make certain that the bulb holder is inserted into the rubber backing properly (some dealers prefer to cement the holder into the rubber using Tri-Cor Flex Seal or equivalent).

Continued.....



L679 Stop Tail Lamp Assembly Continued

3. Locate the small metal tab fastened to the bulb holder between the two small rubber projecting lugs (at two o'clock position). Then lay the flexible ground strap on top of this tab and THEN fasten the H shaped bracket in place using the two hex head screws, but making certain that the ground strap AND the metal tab are both underneath the bracket. When drawing up the two hex head screws and pulling the bracket and the rubber backing against the black steel mounting plate you will note that the bracket holds the ground strap and the metal tab tightly against the rubber and positions it between the two small projecting rubber lugs. Rotation of the bulb holder will be prevented if the parts are assembled this way. Now fasten the tail lamp and backing plate to the cast aluminum tail lamp adaptor and then fasten the complete assembly to the rear fender.

Tachometer Drive Gearbox

When setting up a new machine check the tach drive gearbox to make sure that it is tightly fitted to the crankcase (see Service Bulletin 66/2 of February 25th). If there is a black fiber washer fitted between the tach drive gearbox and the crankcase it is a good idea to replace this with Tri-Cor "Stat-O-Seal", part #CD454. We are pleased to report that a similar sealing washer (to replace the fiber washer) will soon be fitted at the factory.

Exhaust Pipe Adaptors

Use your special "Ring Wrench", part #CD441 to tighten these adaptors in the cylinder head before fitting the exhaust pipes. Use exhaust pipe "Sizing Tool", CD443 for correcting pipes that are difficult to fit.

Oil Lines

When setting-up a new machine always tighten the nut that holds the "Oil Pipes and Junction Block" (E4590) to the crankcase. If this joint is loose it can cause serious lubrication troubles.

SPECIAL NOTE: If a TR6/C is used "in the woods" reposition both front clamps that hold the rubber oil lines to the metal pipes. Rotate the clamps so the ends point upwards to help prevent them from catching on an obstruction that could pull the flexible pipe loose and cut off the oil supply to the engine.

T120/R Carburetors

Latest production T120/R models after DU34174 have 3½ throttle slides fitted in place of #4 slides. These richer slides give better cold weather starting.

Rear Wheel Sprocket

Check the eight 1/4" bolts (W1500) that hold the steel sprocket to the rear brake drum. Make sure these are tight. Let us know if you have trouble with these bolts loosening; also if using Loctite cures the problem.

# The TRIUMPH Corporation

## SERVICE BULLETIN

April 22, 1966

1966 "B" RANGE TWIN MODELS

### BULLETIN No. 15

SUBJECT: Latest Production Triumph T120/R Bonneville Models

During the past five weeks our factory has produced a large quantity of T120/R models. You will be pleased to learn that these machines have certain new specifications such as the Lucas 12 volt battery PUZ5A. Other desirable features were introduced in recent months. We list some of these below for your reference.

<u>Specification Change</u>	<u>Approx. Engine No. When New Specification Was Introduced</u>
Improved rectifier mounting bracket	DU27007
Increased steering "lock" (HL999 Middle Lug fitted to T120/R, T120/TT & TR6/C only)	DU27672
Copper washer, E2441, replaces shake-proof type E1612 (At exhaust tappet block Bolt)	DU29248
1-3/16" carburetors replace 1-1/8" size (T120/R models only)	DU29738
New Heat Sink for zener diode (Larger Bright Aluminum type, F7237)	DU30800
Improved fork Damping Sleeve (Same part number, HL896, but material changed from aluminum to high density plastic)	DU31119
Sports exhaust camshaft, E4855, replaced by racing camshaft, E5047 (T120/R and T120/TT models only)	DU31119
Larger adjusting screw, T2159, fitted to clutch pressure plate, T2156. Lock nut is 9/16" American Hex size. (Clutch rod can now be removed without taking the primary cover off)	DU31168
High beam indicator light fitted. (Same as ignition warning light except green color)	DU31565
Lucas 12 volt Battery PUZ5A, also new battery carrier F6891 fitted	DU34086
#4 Type Throttle Slides replaced by #3 1/2 Type (T120/R and T120/TT models only)	DU34086

# The TRIUMPH Corporation

## SERVICE BULLETIN

May 13, 1966

1966 "B" RANGE TWIN MODELS

### BULLETIN No. 16

SUBJECT: Lucas #446 Head Light Bulb and #49345 Diode Failures

We have had some reports of 12 volt Lucas #446 head light bulb failures. Only a few dealers have sent us sample failed bulbs. Those we have received show no indication of failure caused by an electrical problem. They have broken filaments due to vibration. Some filaments are detached at the weld, or broken between the coil and the support.

### "Shorted" Diodes

We have received about 30 failed diodes and we have been replacing these under guarantee. A large shipment of diodes has just been received and we are now filling all back-orders.

### IMPORTANT NOTE

Please send us any of the #446 bulbs that have failed. It is not necessary to send engine numbers. Send a claim tag with the failed bulbs. Also advise us if you have found a substitute bulb of another make as a replacement for the Lucas #446 12 volt head light bulb.

If you have experienced a diode failure send it to us IMMEDIATELY along with a claim tag giving engine number, mileage and symptom of failure. This is very important.

### Cause of Diode Failure

Over-heating can cause a "shorted" diode. Some early '66 models had the terminal of the red "ground" wire incorrectly located between the hex shaped body of the diode and the front side of the heat sink plate. This could cause a diode failure. We suggest that you move this terminal to the back side of the heat sink between the plate and the lock washer under the 1/4" nut. Do NOT over-tighten this nut!

### New Heat Sink Fitted to all Triumph 650cc Twin Models After Engine No. DU30800

We can now supply this new heat sink, part #F7237 F.O.C. and suggest fitting it if you replace a failed diode. It is identified by the bright aluminum color and the "angle" shape. It is designed to give more efficient cooling of the diode and is especially helpful if a machine has a bad battery or if the motor-cycle is run with the battery out of the circuit. Such conditions put a heavier load on the diode and we believe the improved heat sink would be beneficial.

# The TRIUMPH Corporation

## SERVICE BULLETIN

This Bulletin Supersedes Bulletin No. 65/16 Dated November 10, 1965

May 16, 1966 66/3

TO ALL EASTERN TRIUMPH DEALERS:

SUBJECT: Jomo Valve Springs, Part No. CD71 - - - List Price \$10.62B \*

Important Instructions - For Fitting to all 650cc Models Prior to 1966.

1. When fitting the outer spring, the close wound coil must be at the bottom (toward the cylinder head).
2. Add spacer washer under the bottom valve spring cup, E1544, so that actual length of outer spring is 1-5/16" long when assembled to the cylinder head with the valve on its seat. When measuring, allow for the distance that the outer spring extends into bottom cup.
3. Use Spacer washers part No. CD255/30 or CD255/60 to obtain correct "assembled--length" of outer spring. CD255/30 is .030" thick and CD255/60 is .060" thick.

### IMPORTANT NOTE

4. The new "thick" bottom valve spring cups fitted to all 1966 - 650cc Twin Models cannot be used with Jomo valve springs. Because of this, you must replace them with the earlier type E1544 bottom cup in order to obtain the correct outer valve spring length of 1-5/16" (use spacers as mentioned above).

Very truly yours,

THE TRIUMPH CORPORATION



Service Manager

Rod Coates:bjh

\* New Suggested List Price as of May 16, 1966

# The TRIUMPH Corporation

## SERVICE BULLETIN

July 1, 1966

66/4

TO ALL EASTERN TRIUMPH DEALERS:

SUBJECT: Electrical Problems - 1966 Models With Lucas Ignition Switch #31899 and Diode #49345.

PROBLEM: Faulty ignition - 1966 battery ignition twin models (except 6T Thunderbird).

SYMPTOM: Engine mis-fires.

CAUSE: Loose connections at ignition switch where the "Lucar" terminals are riveted to the switch.

To check this, unplug wires at ignition switch, remove switch from panel and make sure that both the "L" shape terminal and the "U" shape terminal are tightly riveted to the switch. If a loose connection exists, the switch must be replaced.

CURE: Remove Lock Assembly #F6981 from the switch and fit a new switch. Return defective switch with a claim tag if motorcycle is within the 90 day guarantee period.

To remove lock, turn the key to the "ON" position. Then insert a nail or a pin punch thru the small hole in the die cast body and by pressing inward against the spring loaded pin inside the switch, and at the same time pulling on the key, the lock unit can then be withdrawn from the switch.

NOTE: If the key is lost the lock unit can still be removed by drilling another 3/16" dia. hole in the die cast body directly in line with the top of the key hole. Spring loaded pin can now be depressed to release lock unit.

If you order a replacement key always specify the lock number that is stamped on the lock tumbler.

PROBLEM: Failure of diode #49345 fitted to all 1966 battery ignition models and 1964 and '65 - 6T Thunderbird.

SYMPTOM: 1. Heavy discharge (short circuit) when ignition switch is turned on.  
2. Blown fuse.  
3. Engine mis-fires.

CAUSE: A "shorted" diode will cause a direct connection between the "hot" (negative) side of the battery and ground when ignition switch is turned on. (refer to enclosed 1966 wiring diagram). The ammeter will show full discharge and the fuse will probably blow. With a shorted diode and battery out of the circuit (blown fuse) the engine will mis-fire. By disconnecting the white wire at the diode terminal the mis-fire will be corrected and the engine may sound OK at low speed. Don't be misled by this, however, because serious trouble can result if the motorcycle is run with both the diode and the battery disconnected. The reason for this is that the voltage rises as the engine speed increases. This excessive voltage can cause the ignition coils to fail, the engine to overheat and give the symptom of "bogging down". This could lead to piston seizure.

Cont'd...

July 1, 1966

-2-

66/4

CURE: If you suspect a shorted diode remove it from the heat sink and make this simple test with a low voltage (less than 12 volts) test light. (Burnworth Tester #33 will do) Connect one lead of the test light to the diode terminal and the other to the 1/4" threaded stud. If the light is on, reverse the leads, and the light should not come on. If the light comes on you know the diode is faulty (shorted). A good diode will only show low voltage continuity in one direction. For further information consult your Workshop Manual CD411 Section "H".

If you experience a faulty diode that is fitted to the early black heat sink we suggest replacing the heat sink with the latest type F7237 (this is the bright aluminum with angle shape).

When fitting a new diode always make sure the hex body is mounted against the heat sink and the red ground wire terminal is located on the back of the heat sink under the 1/4" nut.

CAUTION! Diode #49345 can be easily broken if over-tightened. Only 1-1/2 ft/lb. is recommended (17 inch/lb.).

IMPORTANT NOTES: If a diode fails and a replacement is not available unplug the white wire at the diode and tape it so that the terminal will not "short" against the frame or heat sink plate. Make sure that the fuse is not blown and that the battery is properly connected. As long as the battery is properly connected it is OK to operate the motorcycle with the diode disconnected but the battery is likely to be over-charged because the regulating effect of the diode is lost.

To reduce the charging rate of the alternator (to run the motorcycle without the diode) you can unplug the green/yellow wire from the alternator side of the junction block located under the engine. By referring to the enclosed diagram you will note that this operation disconnects two of the alternator coils, thus reducing the out-put by about three amps. If this reduced out-put won't maintain the battery charge you can reconnect the green/yellow wire at any time to increase the charge rate.

In case of a battery failure it can be disconnected and the motorcycle operated satisfactorily without the battery providing the diode is operating OK and the heat sink is adequate to keep the diode from over-heating. (We recommend F7237 heat sink) Refer to Blue Bulletin #16 for further details.

When testing the diode for performance, make sure the battery is in good condition and check D.C. current input to battery by connecting your test set ammeter between the positive terminal of the battery and ground. Maximum current input should be two to three amps at a fast idle. Then disconnect the white wire from the diode terminal and you will note that the current input will increase to six to seven amps. This test indicates that the diode is functioning properly.

# The TRIUMPH Corporation

## SERVICE BULLETIN

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July 19, 1966

1966 "B" RANGE TWIN MODELS

BULLETIN No. 17

SUBJECT: Service Problems

Seat Cover Failure -- Acid Damage

SYMPTOM: Stitching at the side of the seat fails. Acid from battery damages chrome.

CAUSE: Acid fumes from battery are drawn up through the holes in the steel seat pan and attack the threads causing the seat cover to "fall apart." Acid drips down the battery and corrodes the mufflers.

CURE: With the early bikes that have two small white batteries you must put a piece of rubber inner tube over the batteries to prevent this trouble.

The latest Lucas PUZ5E large 12 volt battery often leaks badly at the blue plastic strip "cemented" into the top of the battery. This is the strip that has a vent pipe at each end. Make sure that one end is plugged and that the other end is connected to the black plastic vent tube that is supplied with the new motorcycle. To cure leakage at the edges of the blue plastic strip roughen the surface with emery cloth and paint it with Flex-seal. This will seal the top of the battery and prevent acid damage to seat, etc. The fumes and acid MUST be carried away by the vent tube to prevent damage to seat and mufflers.

Defective E5914 Exhaust Pipe Adaptors

SYMPTOM: Loose exhaust pipes where they clamp to adaptors at the cylinder head.

CAUSE: The aluminum adaptors fitted prior to Engine No. DU41563 will collapse due to exhaust heat. This causes them to loosen in the threads of the cylinder head. The temperature then increases and causes further collapsing of the adaptors.

CURE: Replace the aluminum adaptors with the earlier steel type. If you send us the engine numbers we will supply replacement steel adaptors (E3583) free of charge.

WARNING: Watch for loose exhaust pipes and replace the defective aluminum adaptors as soon as possible! A loose adaptor will cause damage to the threads in the cylinder head. If you have a cylinder head with bad threads send it to us for repair under guarantee. If the damage is severe the head must be replaced. We will soon send every Dealer a handy tool for repairing damaged threads.

Continued.....

July 19, 1966

Wet-Sumping -- Excess oil in crankcase and not returning to oil tank.

SYMPTOM: Oil blowing out of crankcase breather tube. Smoking exhaust. High oil consumption.

CAUSE: This problem can be caused by:

1. Dirt or chips in ball check valve of oil pump (scavenge side of pump).
2. Damaged check valve seat, weak spring or scored piston or cylinder of pump.
3. Restriction in passage of oil return.
  - (a) Gasket (E3763) mislocated (see important note below).
  - (b) Blockage in steel return pipe welded to bottom of oil tank.
  - (c) Blockage of oil tank vent tube (Causing back-pressure).
4. Air leak in oil pickup passage. Make sure hex head threaded plug (E4539) shown on page 22 of #4 parts book (ref. No. 14) is tight. Also tighten E1310 nut where oil feed and return pipe junction block is fastened to crankcase.

NOTE: The attached sample gasket (E3763T) is the improved TRICOR type that we now supply. It is a close fit on the stud and has larger holes to prevent oil flow restriction. Order a good supply of these new TRICOR gaskets NOW! Scrap any old ones you have in stock and do NOT use the type supplied in the gasket sets.

"Black Book" -- TRIUMPH Service Bulletins (We sent one free to every Dealer two weeks ago)

Have you received this important loose leaf black binder? This set of Bulletins is for your mechanic's use! We are now sending you two copies of each new Service Bulletin. Make sure that one is put in the "Black Book" that belongs in your SHOP.

1966 Supplementary Pages for CD411 Looseleaf Factory Workshop Manual

We are sending every dealer one set of this 50 page illustrated supplement. This is IMPORTANT information. Be sure to put these in your master copy of the CD411 "white" Workshop Manual. The new pages replace old ones to bring the Manual up to date for 1966.

Additional sets will be available for 50¢ net per set.

Yours truly,

THE TRIUMPH CORPORATION

  
Service Manager

Rod Coates:ib



# The TRIUMPH Corporation

## SERVICE BULLETIN

August 5, 1966

66/5

TO ALL EASTERN TRIUMPH DEALERS

SUBJECT: Head Light Bulb Failures

PROBLEMS: Bulb filament failures caused by vibration of the head light unit.

SYMPTOM: Repeated bulb failures. On examining the bulb you find that the filament has broken in the coil or where it is welded to the bracket, or the bracket itself is broken with no indication of "fusing" due to an electrical over-load.

CAUSE: A peculiar vibration of the head light that may vary according to running conditions. This cause is difficult to determine since it may be inconsistent from one motorcycle to another.

CURE: We have developed a simple kit of parts for rubber mounting the head light unit. It is hoped that a change in vibration frequency could help eliminate chronic bulb failure. We want to learn if rubber mounting the head light will extend the life of bulbs and ammeters.

IMPORTANT NOTES - - - Rubber Mounted Head Lamp

We are including a kit of the subject parts in your next parts order. Check your invoice for part number and price. Please install this kit on a bike that has suffered from repeat head lamp bulb failures. If it helps correct the trouble, let us know. Remove original head light bolt, mounting washer and steel spacer and fit parts from rubber mounting kit as follows:

1. Thin rubber spacer (F967) fits between cup washer and head lamp mounting bracket.
2. Thick rubber spacer (F5228) fits between mounting bracket and head lamp shell in place of the steel spacer (HL932) that you have removed.
3. After tightening the chrome plated bolt, install the lock nut (SL-51) on the end of the bolt inside the head lamp shell and lock it tightly against the head lamp to prevent rotation of the bolt.

You must develop sufficient pressure on the two rubber spacers to prevent the head lamp from rotating downward under normal running conditions.

Very truly yours,

THE TRIUMPH CORPORATION

  
Service Manager

Rod Coates:bjh

# The TRIUMPH Corporation

## SERVICE BULLETIN

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August 8, 1966

1966 "B" RANGE TWIN MODELS

BULLETIN No. 18

SUBJECT: Tri-Cor CD462 Cylinder Head Repair Tool - - - \$2.20 Dealer Net

We have developed the subject tool to assist dealers in repairing the threads at the exhaust ports of the "B" Range cylinder heads. These threads can be damaged as a result of the "collapse" of the early 1966 aluminum exhaust adaptors. All aluminum adaptors should be replaced by the steel type (E3583). Refer to Blue Bulletin No. 17 for important details.

Be careful how you remove a damaged aluminum adaptor from the cylinder head. In some cases the threads will be "seized" and you cannot un-thread the defective aluminum adaptor successfully. Use LRP-100 penetrating oil (aerosol can) or Castrol R20 to help loosen the threads and work the adaptor out of the head. If necessary, use a diamond shape chisel to cut and collapse the threaded adaptor; using care to avoid damage to the female threads in the head.

Once you have removed the aluminum exhaust adaptor from the cylinder head, use the subject repair tool (CD462) to "clean out" and repair the female threads. Carefully thread the tool in by turning it forward and backward short distances and at the same time using Castrol "R" oil to prevent seizure of the tool.

If you cannot successfully repair a cylinder head that has been damaged by the defective aluminum exhaust adaptors, send it to us for repair or replacement under guarantee.

We are supplying one of the subject tools free-of-charge to each of our dealers and including it in his next current parts order. Additional tools can be obtained by ordering the subject part number and will be sold at the price shown.

Very truly yours,

THE TRIUMPH CORPORATION



Service Manager

Rod Coates:bjh

# The TRIUMPH Corporation

## SERVICE BULLETIN

1966 "B" RANGE TWIN MODELS

October 3, 1966

BULLETIN No. 19

SUBJECT: Head Light Bulbs and Gearbox Problem

We have just received a large shipment of 12 volt head light bulbs, part #446 that have been on order with our suppliers for many weeks and we are now shipping against dealer's back-orders. If you need bulbs and do not have any on back-order we suggest that you place an order now.

### HEAD LIGHT BULB FAILURES

Refer to Yellow Index Bulletin 66/5 of August 5th on this subject. Some dalers report that our head light rubber mounting kit CD463 (List Price \$2.00A) has helped to reduce the number of bulb failures. Unfortunately, we do not have enough reports as yet to know whether the rubber mounted head light is a definite cure. This can only be proved by more testing.

With every box of head light bulbs we are sending you against your back-orders, we will supply one head light mounting kit. Please let us know as soon as possible if this kit will effectively reduce the number of bulb failures.

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GEARBOX PROBLEM: 1966 - 650cc "B" Range Models "Jumping out of high gear"

SYMPTOM: Gearbox shifts in the normal fashion with no problem except when cruising in high gear, the gear will suddenly dis-engage.

CAUSE: Improper machining of the "V" notch in the edge of the camplate can cause the camplate to rotate a few degrees to produce this symptom.

CURE: Fit a replacement camplate.  
As of September 30th we have inspected our complete stock of replacement T500 camplates and ALL camplates shipped after that date are correct.

If you have a doubtful camplate, examine the fourth gear notch to see if the point of the plunger T44 correctly fits the bottom of the "V" shape of the notch. If the notch is too wide, it allows the camplate to rotate slightly out of position and causes high gear dis-engagement. If the index plunger does not fit correctly the camplate should be returned for replacement under guarantee.

If it is necessary to replace a camplate under guarantee, we will make a special labor allowance of \$9.00 if we receive a written request. Always send this request with the claim tag and defective camplate being returned for FOC replacement.

# The TRIUMPH Corporation

## SERVICE BULLETIN

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December 14, 1966

66/6

TO ALL EASTERN TRIUMPH DEALERS

SUBJECT: Instructions for Mounting CD472 Seat Rail for 1967 "B" & "C" Range Models

Remove top suspension unit bolts. Assemble the flat adjustable rear support to the lower tube with round head screw and acorn nut to the rear. Fit seat rail using original right hand top suspension unit bolt. Use new bolt with spacer supplied for left side. Spacer fits between left end of seat rail and motor-cycle frame.

Remove top rear fender bolt and attach adjustable rear support at this point.

Adjust rear support for best position of seat rail tube and square up seat rail as required for good appearance.

Tighten the four mounting bolts.

### List of Spare Parts of CD472 Seat Rail

- 1 - Tubular seat rail
- 1 - Adjustable rear support
- 1 - 1/4" - 20 x 3/4" round head screw
- 1 - 1/4" Lockwasher
- 1 - 1/4" 20 acorn nut
- 1 - 3/8" - 2 1/4 x 2 1/4" L.H. mounting bolt
- 1 - Spacer 3/8" I.D. - 3/4" O.D. 1/4" length
- 1 - 3/8" Lockwasher
- 1 - 3/8" - 2 1/4 hex nut

Very truly yours,

THE TRIUMPH CORPORATION



Service Manager

Rod Coates:bjh