

TRIUMPH

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Subject: Abnormal
Vibration
Models: T150
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SERVICE BULLETIN

TRIUMPH MOTORCYCLE CORPORATION

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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. 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.
9. Engine Tune: It is very important that the engine is properly tuned. An out-of-tune engine can cause vibration. Be certain that the ignition timing is set per the instructions in the manual; also check carburetor throttle cables to ensure even throttle slide opening.

Due to the nature of motorcycles, especially British ones, we have had to adopt the following policy on vibration failures of products, especially exhaust pipes, mufflers, and brackets, which are the most vulnerable:

Due to the impossibility of our accounting for the installation and use of parts we sell, unless failure is caused by an obvious manufacturing defect, vibration failed parts reported within a reasonable amount of time since sale will be replaced at a discounted price, not outright. Failure in itself is not considered to indicate a manufacturing defect.

BCS NOTE: Parts can and will fail if they are subjected to abnormal vibration. Failure of a part in itself is not considered to indicate a manufacturing defect, but can be caused by abnormal vibration.

