



Service Bulletin 604

Issue 1 - 02.2023

Subject: Hydraulic Clutch System Bleed			
Bulletin Number	Models Affected	VIN Range	Markets Affected
604	Tiger 1200 GT	Up to BJ1925	All Markets
	Tiger 1200 GT Pro		
	Tiger 1200 Rally Pro		
	Tiger 1200 GT Explorer		
	Tiger 1200 Rally Explorer		

Background Information

Dealers are requested to bleed the hydraulic clutch system as described in the procedure below.

Customer Contact Instructions

Motorcycles in the affected VIN range must be modified prior to delivery to the customer, or at the next visit to the dealership.

Identification of Affected Motorcycles

Tiger 1200 GT, Tiger 1200 GT Pro, Tiger 1200 Rally Pro, Tiger 1200 GT Explorer and Tiger 1200 Rally Explorer motorcycles in the above VIN range.

Note:

- Some affected motorcycles listed in the VIN range will have been modified and repaired by Triumph prior to their release from the factory.
- Unmodified motorcycles can be identified by checking the 'VIN Enquiry' on www.triumphonline.net.

Warranty Claim Instructions

Bulletin Number	Model	Fault Code	Repair Code	Description	Repair Allowance	Time
604	Tiger 1200 GT, Tiger 1200 GT Pro, Tiger 1200 Rally Pro	011731904	99604	Bleed Clutch	0.35 Hrs	
604	Tiger 1200 GT Explorer, Tiger 1200 Rally Explorer	011731904	99604	Bleed Clutch	0.40 Hrs	

Genuine Parts Information

Bulletin Number	Model	Part Number	Description	Quantity
604	Tiger 1200 GT, Tiger 1200 GT Pro, Tiger 1200 Rally Pro	T1174222	Spares Kit, Clutch Bleed Consisting of: Screw, Csk, M6x1.0x50,Slv, Enc - Qty 1 Screw, Cap/HD, M6x1x20, Slv, Enc - Qty 1	1
604	Tiger 1200 GT Explorer, Tiger 1200 Rally Explorer	T1174333	Spares Kit, Clutch Bleed Consisting of: Screw, Csk, M6x1.0x50,Slv, Enc - Qty 1 Screw, Cap/HD, M6x1x20, Slv, Enc - Qty 1 Screw, Btn/HD, M10x50, Enc - Qty 1	1

Parts Ordering Instructions

For Triumph Subsidiary and Overseas Distributor dealers using Triumph Warranty On-Line with Parts Auto Ordering Flag switched on: Order all repair parts by submitting a New Prior through the Warranty On-Line system. Entering the above repair code in a New Prior will automatically add the parts required and labour times for this Service Bulletin.

For Overseas Distributor dealers NOT using Triumph Warranty On-Line or for Overseas Distributor dealers using Triumph Warranty On-Line with Parts Auto Ordering Flag switched off: Orders should be placed using the normal parts ordering procedure.

Genuine Parts Return

Dealer to retain parts for 90 days. All parts must be stored in a secure, non-public accessed area and correctly identified with a completed warranty label. Thereafter the parts must be rendered unusable prior to scrapping.

Other Instructions

Once completed, please mark the Service Record Book that the requirements of this bulletin have been complied with.

Before returning the motorcycle to the customer, download the latest calibration using the current version of the Triumph diagnostic software to the following:

- Engine electronic control module
- Chassis electronic control module (if fitted)
- Keyless electronic control module (if fitted)
- Suspension electronic control module (if fitted)
- Connectivity module (if fitted)
- Instruments (if applicable).

Bleed the Hydraulic Clutch System

WARNING

Make sure the motorcycle is stabilised and adequately supported.

Do not support the motorcycle on any ancillary component, the exhaust system or any other non structural parts of the motorcycle frame.

A correctly supported motorcycle will help prevent it from falling.

An unstable motorcycle may fall resulting in motorcycle damage, serious injury or death.

NOTICE

Renew locking devices where specified, refer to Fixings.

Before tightening a fixing using a crow foot spanner adapter, refer to Use of Crow Foot Spanner Adapters with Torque Wrenches.

Observe all torque wrench tightening procedures, refer to Tightening procedure.

WARNING

Make sure absolute cleanliness when adding clutch fluid to the clutch fluid reservoir.

Do not allow moisture or debris to enter the cylinder as this will adversely affect the fluid properties.

Always use fluid from a sealed container and do not use fluid from a container which has been opened for any period of time.

Always check for fluid leakage around hydraulic fittings and for damage to hoses.

A dangerous riding condition leading to loss of motorcycle control and an accident could result if this warning is ignored.

WARNING

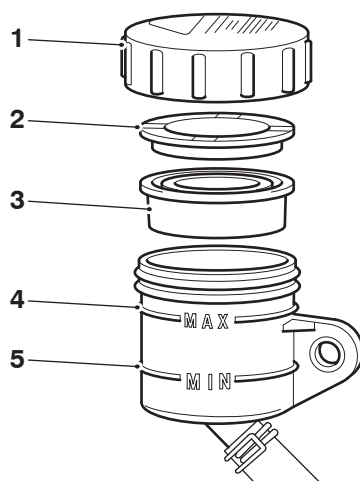
Use only DOT 4 specification brake and clutch fluid as listed in the General Information section of this manual. The use of brake and clutch fluids other than those DOT 4 fluids listed in the General Information section may reduce the efficiency of the clutch system leading to an accident.

CAUTION

To prevent body damage, do not spill brake and clutch fluid onto any area of the bodywork or the brake and clutch reservoirs.

Perform the following operations:

- If the motorcycle is fitted with blind spot radar, remove the rider's seat and remove the battery as described in the Service Manual.
 - Remove the left hand side mirror as described in the Service Manual.
 - Remove the left hand side handguard as described in the Service Manual.
1. Note the original setting of the clutch lever adjuster in order that it can be returned to the same position when the bleeding operation is complete. Set the clutch lever adjuster to give maximum lever travel.
 2. Turn the handlebars to bring the fluid reservoir to a level position.
 3. Clean the reservoir cap before removing.
 4. Remove the reservoir cap, plastic plate and the diaphragm seal. Check the condition of the diaphragm seal fitted, replace the diaphragm if necessary.

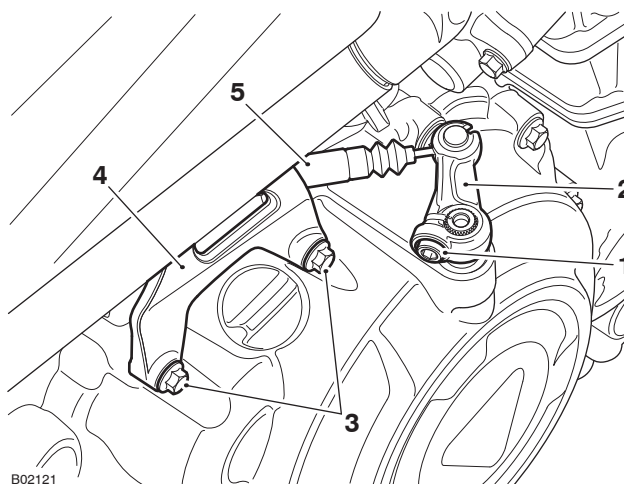


B02119

1. **Reservoir cap**
2. **Plastic plate**
3. **Diaphragm seal**
4. **MAX mark**
5. **MIN mark**

5. Release the fixings and detach the clutch slave cylinder bracket from the clutch cover. Do not remove the hydraulic hose from the clutch slave cylinder.

6. Remove and discard the fixing on the clutch lifter arm and slide the clutch lifter arm from the splined clutch lifter shaft.



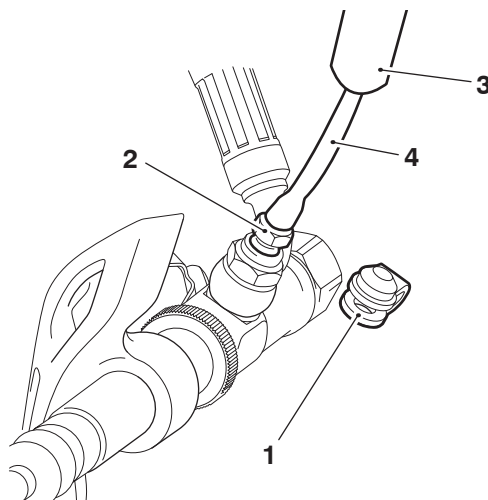
1. Fixing
2. Lifter arm
3. Fixings
4. Bracket
5. Clutch slave cylinder

7. Remove the dust cap from the bleed screw on the slave cylinder.

NOTICE

Due to the small size of the bleed screw nipples, we recommend a syringe type bleed kit suitable for bicycles is used.

8. Place a suitable clean transparent plastic tube on to a proprietary brake bleed syringe.
9. Draw new clutch fluid into the syringe until the syringe is half full.
10. Attach the other end of the transparent plastic tube to the clutch slave cylinder bleed screw.



1. Dust cover
2. Clutch slave cylinder bleed screw
3. Syringe
4. Transparent tube

11. Loosen the clutch slave cylinder bleed screw by $\frac{3}{4}$ of a turn.

NOTICE

Clutch fluid must still be present in the syringe during the bleed process. Failure to keep clutch fluid in the syringe may introduce air into the clutch system.

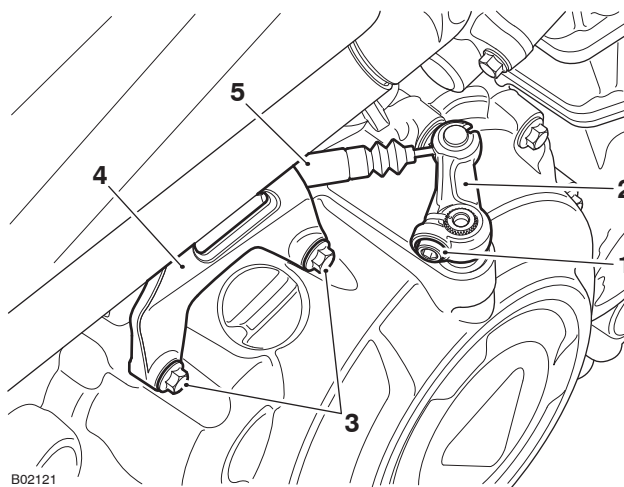
12. Using the syringe, slowly push the clutch fluid through the clutch system into the clutch fluid reservoir until the fluid reaches the maximum fluid level line.

NOTICE

Clutch fluid must still be present in the clutch fluid reservoir during the bleed process. Failure to keep clutch fluid in the clutch fluid reservoir may introduce air into the clutch system.

Whilst drawing clutch fluid from the clutch fluid reservoir, the syringe must be held vertically to allow air to travel up through the syringe.

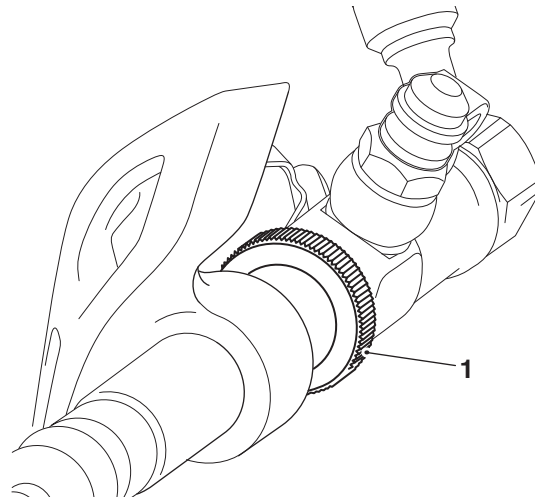
13. Slowly pull back the syringe piston until the fluid level in the clutch fluid reservoir almost reaches the bottom.
14. Using the syringe, pump the clutch fluid into the system again until the fluid reaches the maximum fluid level line of the clutch fluid reservoir.
15. Repeat steps 12 to 14 at least three times until no more air appears in the syringe or clutch fluid reservoir.
16. Close the clutch slave cylinder bleed screw and tighten to **4 Nm**.
17. Reinstall the slave cylinder bleed screw dust cap.
18. Check tighten the slave cylinder hydraulic hose union to **5 Nm**.
19. Fit the clutch lifter arm to the clutch lifter shaft, lining up the split line of the lifter arm with the alignment mark on the lifter shaft. Fit a new fixing and tighten to **10 Nm**.



1. **Fixing**
2. **Lifter arm**
3. **Fixings**
4. **Bracket**
5. **Clutch slave cylinder**

20. Refit the clutch slave cylinder bracket to the clutch cover and tighten the fixings to **10 Nm**.

21. Check and, if necessary adjust the free play at the lifter arm. The difference between the clutch lifter arm in its resting position and the clutch lifter arm rotated fully clockwise should be 2 - 5 mm. This can be adjusted using the adjuster on the slave cylinder.

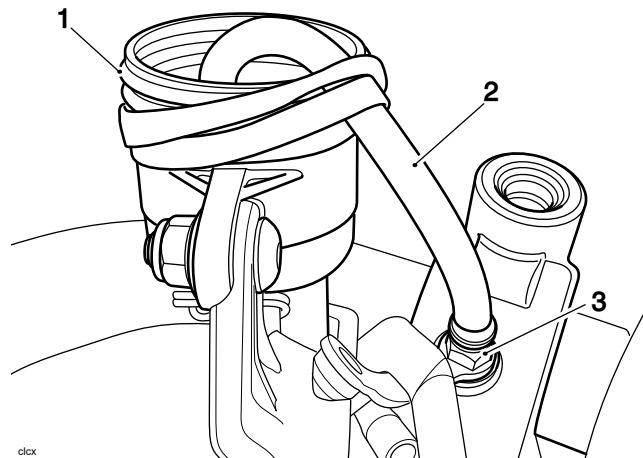


1. Slave cylinder adjuster

! CAUTION

Make sure the end of the transparent tube is secured to the master cylinder reservoir. Failure to secure the transparent tube may cause clutch fluid to be spilt, causing damage to the motorcycle.

22. Remove the hose from the syringe and attach one end to the clutch lever master cylinder bleed screw. Place the loose end of the hose into the master cylinder reservoir.



- 1. Clutch master cylinder reservoir**
2. Transparent tube
3. Clutch master cylinder bleed screw

NOTICE

Pressure applied to the clutch lever during the clutch fluid renew process must be applied and removed smoothly and slowly. It must take a minimum of five seconds between lever positions (from fully released to stop).

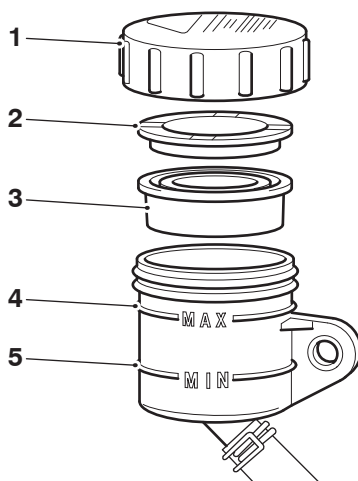
Failure to do this slowly can allow air to be drawn in to the system through the bleed screw threads.

23. Actuate the clutch lever slowly up to when the clutch lever touches the handlebar and release fully four times. On the fifth time, apply a small amount of pressure to the lever until resistance is felt, hold the clutch lever in this position and open the bleed screw at the master cylinder by $\frac{3}{4}$ turn.

NOTICE

If the clutch lever is released whilst the bleed screw is open, this can allow air to be drawn in to the system through the bleed screw threads.

24. Keeping pressure on the clutch lever so resistance is still felt, close the bleed screw. Release the clutch lever fully.
25. Repeat process at the master cylinder until no air exits at the master cylinder bleed screw.
26. Tighten the clutch master cylinder bleed screw to **4 Nm**.
27. Reinstall the master cylinder bleed screw dust cap.
28. Check the clutch lever to make sure there is minimal free play, rectify as necessary.
29. Reinstall the clutch reservoir cap, plastic plate and the diaphragm seal.



1. **Reservoir cap**
2. **Plastic plate**
3. **Diaphragm seal**
4. **MAX mark**
5. **MIN mark**

30. Check the clutch for correct operation and fluid leaks. Rectify as necessary.
31. Refit the left hand side handguard as described in the Service Manual.
32. Refit the left hand side mirror as described in the Service Manual.
33. If blind spot radar is fitted to the motorcycle, refit the battery as described in the Service Manual.
34. Connect the Triumph diagnostic tool as described in the Service Manual.
35. Refit the rider's seat as described in the Service Manual, with the Triumph diagnostic tool still connected. Make sure the diagnostic cable is not trapped by the seat.

! WARNING

Exhaust fumes are poisonous, always operate a motorcycle in the open-air or in an area with adequate ventilation.

Do not operate a motorcycle in an enclosed area without adequate ventilation.

Operating a motorcycle in an enclosed area without adequate ventilation can cause loss of consciousness and death within a short period of time.

! WARNING

The following check requires the motorcycle to be started and in gear. Make sure the motorcycle remains adequately supported and the brakes are applied.

Failure to follow the advice above could lead to loss of motorcycle control which could result in serious injury or death.

-
36. Start the motorcycle and select first gear. Apply the brakes to keep the motorcycle stationary.
37. With the aid of an assistant and using the engine ECM sensor data on the Triumph diagnostic tool software:
- Check the clutch switch status changes from Grip to Release before the clutch reaches its biting point. Set the clutch lever adjuster to give minimum lever travel and repeat the check.
 - If rectification is necessary, the dealer should re-bleed the clutch system and retest using the Triumph diagnostic tool.
 - If the re-bleed process is satisfactory, check the microswitch on the clutch lever assembly for damage.
38. Stop the engine and remove the Triumph diagnostic tool.
39. Refit the rider's seat as described in the Service Manual.

 WARNING

Always return the lever adjuster to the original setting as noted in step 1. Operating the motorcycle with lever settings which are unfamiliar may lead to loss of control or an accident.

40. Reset the adjuster on the clutch lever to the original setting.