Technical News 157
May 2014
Strictly Confidential

Contents

Item 1.

Description: **Fork Oil Level**

Models affected: **Thunderbird Commander and Thunderbird LT**

The fork oil level has changed on the above models. When changing the fork oil on the above models, follow the procedure described in the Service Manual ensuring that the oil is refilled to the following levels:

Note:

- **The oil level is measured from the upper surface of the fork inner tube, with the spring removed and the fork fully compressed.**
- **Models in service need not be refilled unless required by routine service or repair.**

Fork Oil Level Chart

Thunderbird Commander and Thunderbird LT		
Oil Level	**Oil Volume**	**Oil Grade**
80 mm	735 cc	Showa AHSS8 SAE 10W

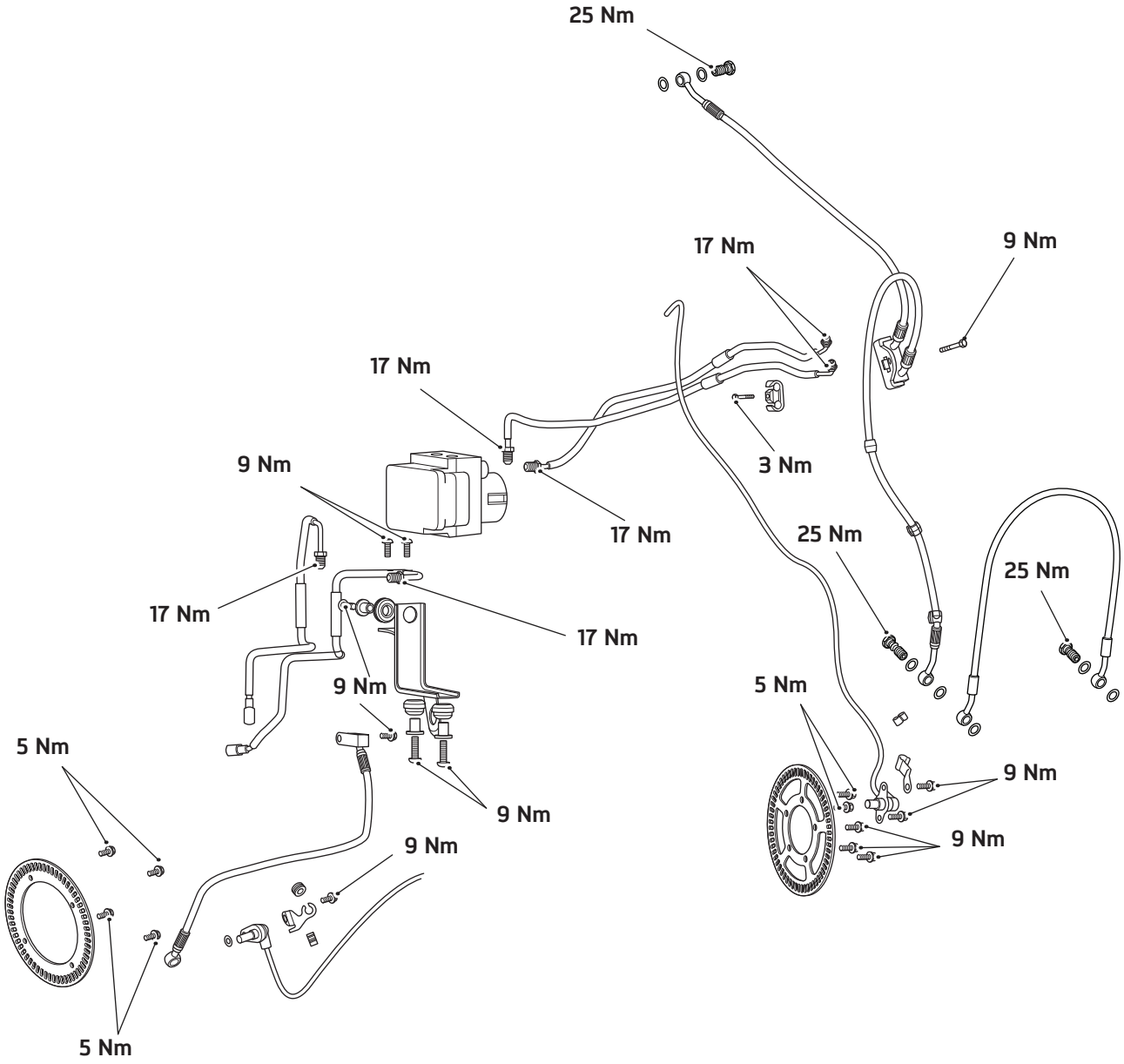
Please mark your copy of the Service Manual with this information.

Item 2.

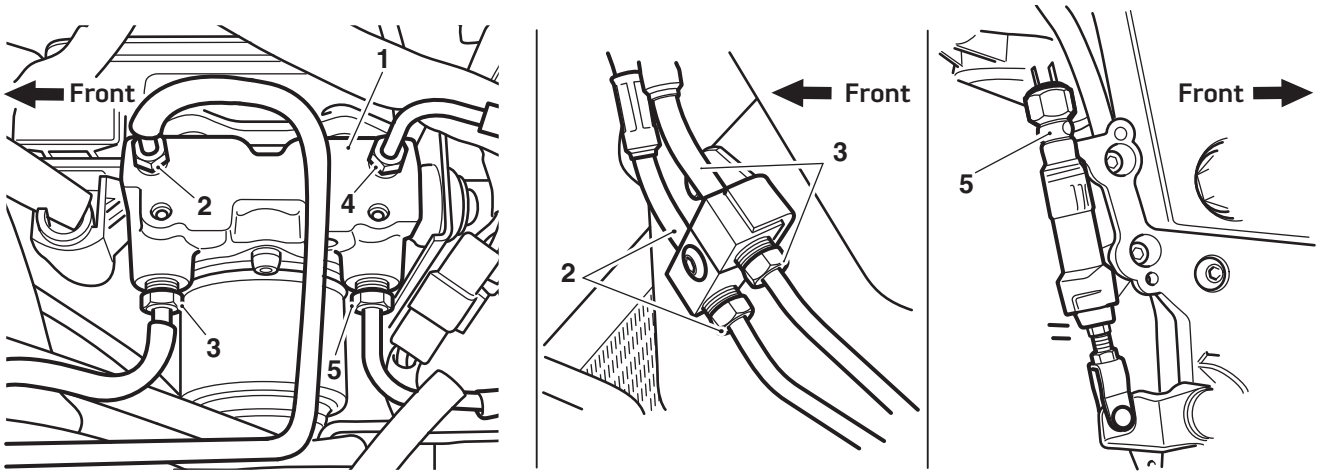
Description: **Service Manual Amendment - Exploded View ABS System**

Models affected: **Tiger Sport**

The exploded view of the Tiger Sport ABS system in the above Service Manual shows the incorrect routing of the ABS hard lines between the ABS modulator and the front brake lines. The following illustration must replace the current one as an amendment to the Service Manual.



If for any reason the brake lines are removed they must be connected as shown below.



1. ABS modulator
2. ABS modulator to front brake caliper
3. ABS modulator to front brake master cylinder
4. ABS modulator to rear brake caliper
5. ABS modulator to rear brake master cylinder

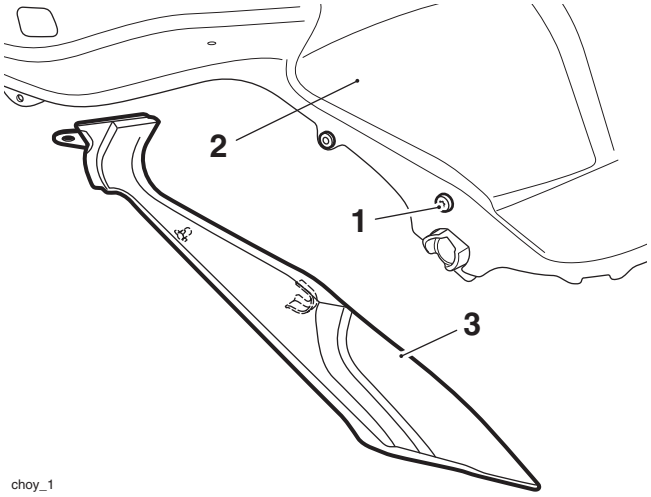
Please mark your copy of the Service Manual with this information.

Item 3.

Description: **Torque Change, Seat Infill Panel Locating Lug Fixings**

Models affected: **Tiger Explorer and Tiger Explorer XC**

The torque figure for the seat infill panel locating lug fixings has changed to **9 Nm** on the above models. The locating lug fixings are positioned on either side of the fuel tank as shown below.



1. Seat infill panel locating lug fixing (left hand shown, right hand similar)
2. Fuel tank
3. Seat infill panel

Note:

- **The torque figures for all other fixings securing the seat infill panels remain unchanged.**
- **Models already in service need not be retightened unless the fixings have been loosened or removed.**

Please mark your copy of the Service Manual with this information.

Item 4.

Description: **Harness, Gear Position Sensor and Harness/Gear Position Sensor Parts Kit**

Models affected: **Rocket III Roadster**

A new harness and gear position sensor have been released for Rocket III Roadster models from engine number 651833. The new gear position sensor is fitted with a long electrical lead which is now connected directly to the main harness without the use of a fly lead.

A harness and gear position sensor parts kit has also been released for use when replacing the harness on Rocket III Roadster models up to engine number 651832.

Note:

- **The new harness and gear position sensor are retrofittable to earlier models only when fitted together as part of a parts kit.**
- **The new harness and gear position sensor are not individually retrofittable to earlier models.**
- **Refer to the following table when replacing either the harness or gear position sensor on Rocket III Roadster models:**

When Replacing	On Rocket III Roadster Models	Use
Gear position sensor	Up to engine number 611306	Gear position sensor and fly lead parts kit T1296589
	From engine number 611307 up to engine number 651832	Gear position sensor T1290666 or T1290660*
	From engine number 651833	Gear position sensor T1293456 or T1292057*
Harness	Up to engine number 651832	Harness and gear position sensor parts kit T2501118
	From engine number 651833	Harness T2501097
* Gear position sensors T1290666 and T1293456 will be superseded by T1290660 and T1292057 respectively during 2014.		

T2501118 - Kit, Harness and Gear Sensor - Rocket III Roadster up to engine number 651832

Kit Part Number	Kit Contents	Part Numbers
T2501118	Harness, Main	T2501097
	Sensor, Gear Position	T1293456 or T1292057*
* Gear position sensors T1290666 and T1293456 will be superseded by T1290660 and T1292057 respectively during 2014.		

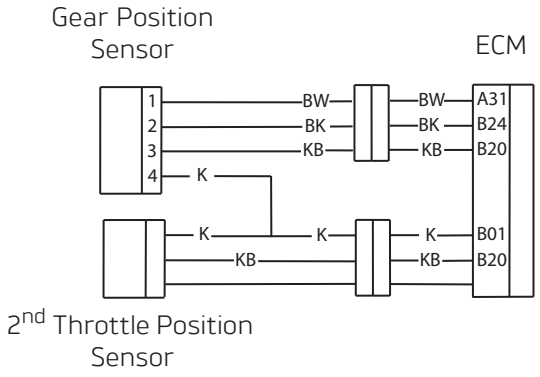
The gear position sensor pinpoint test procedure has also changed. The pinpoint test procedure for the new gear position sensor and old gear position sensors with a fly lead is as follows:

Pinpoint Tests

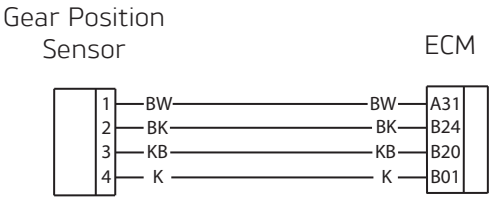
Test		Result	Action
1	Check cable and terminal integrity: - ECM pin A31 - ECM pin B20 - ECM pin B24 - ECM pin B01	OK	Disconnect sensor and proceed to test 2
		Faulty	Rectify fault, proceed to test 5
2	Check cable for short circuit: - ECM pin A31 to ground - ECM pin B01 to ground - ECM pin B24 to ground	OK	Proceed to test 3
		Short circuit	Locate and rectify wiring fault, proceed to test 5
3	Check cable continuity: - ECM pin A31 to sensor pin 1 - ECM pin B24 to sensor pin 2 - ECM pin B20 to sensor pin 3 - ECM pin B01 to sensor pin 4	OK	Proceed to test 4
		Open circuit	Locate and rectify wiring fault, proceed to test 5
4	Check cable for short circuit: - ECM pin B01 to ECM pin B24 - ECM pin B01 to ECM pin B20 - ECM pin B01 to ECM pin A31 - ECM pin B24 to ECM pin B20 - ECM pin B24 to ECM pin A31 - ECM pin A31 to ECM pin B20	OK	Renew gear position sensor and contact pin and proceed to test 5
		Short circuit	Locate and rectify wiring fault, proceed to test 5
5	Reconnect harness, clear fault code	OK	Action complete, quit test and run engine
		Fault still present	Contact Triumph service

Circuit Diagrams

Old Gear Position Sensor with Fly Lead



New Gear Position Sensor



When ordering replacement parts, always refer to the EPC.

Please mark your copy of the Service Manual with this information.

Item 5.

Description: **Torque Change, M10 ABS Hard Line Unions**

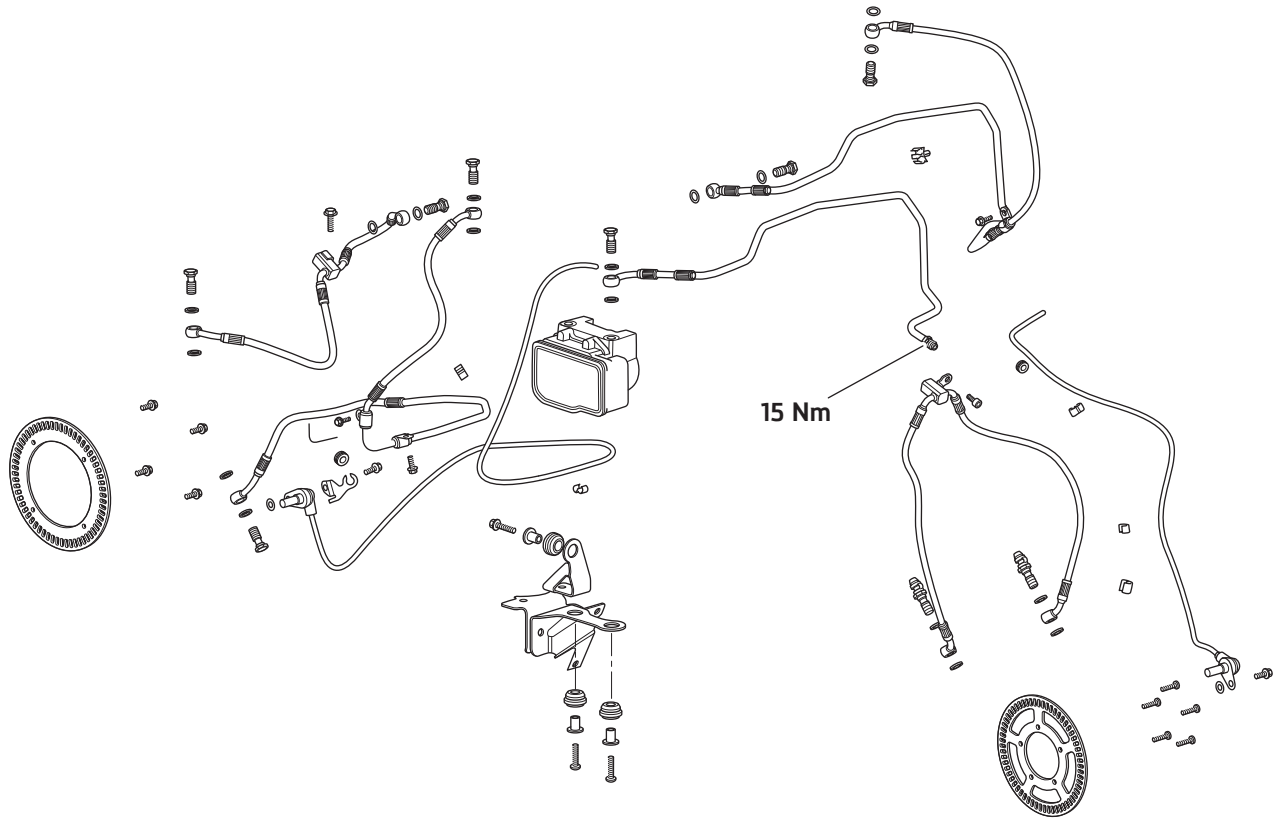
Models affected: **Speed Triple ABS, Speed Triple R ABS and Sprint GT**

The torque figure for the M10 ABS hard line unions has changed to **15 Nm** on the above models.

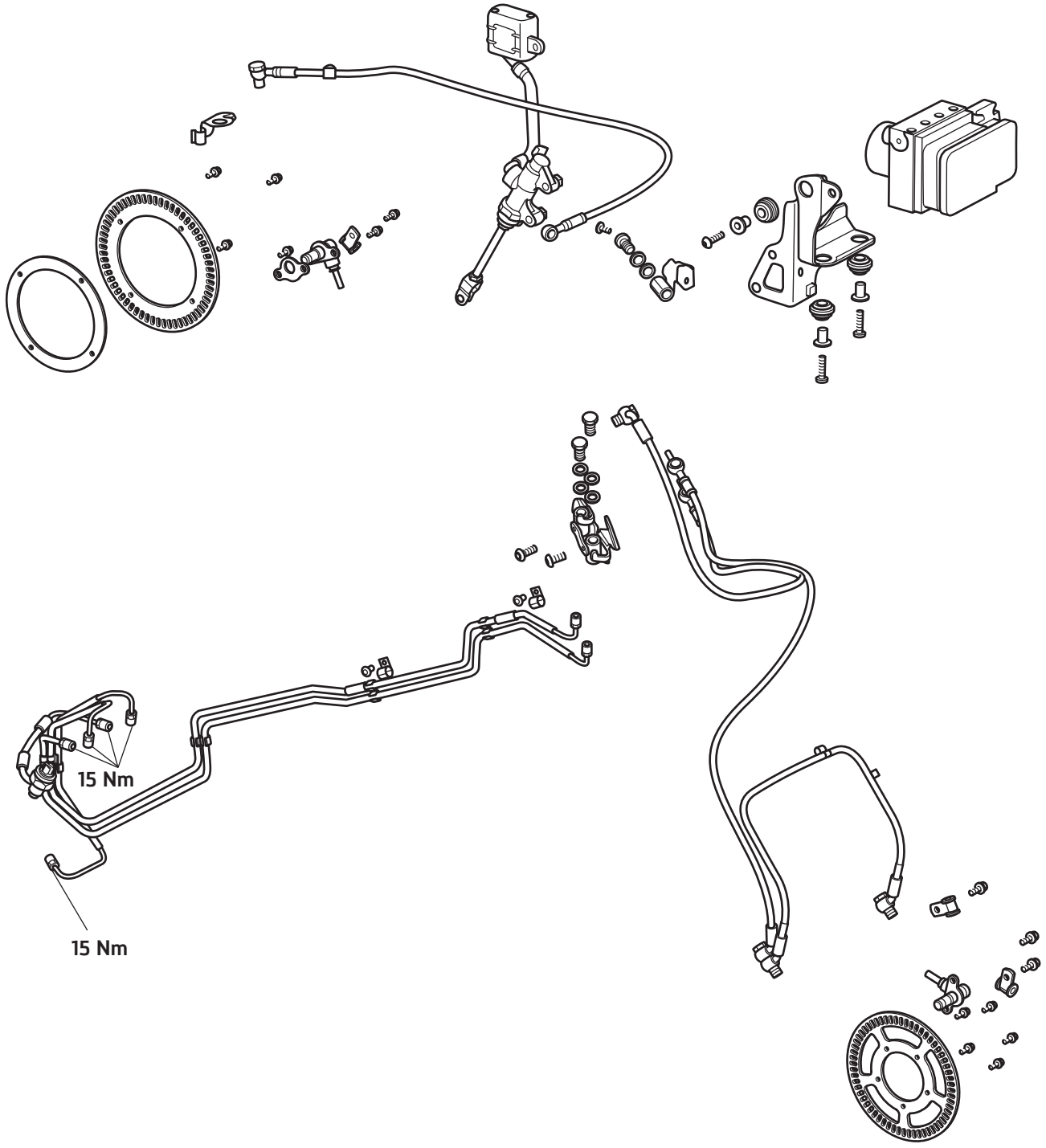
Note:

- **Models already in service need not be retightened unless the fixings have been loosened or removed.**
- **Only the torque figures for the M10 ABS hard line unions have changed. The torque values for all other fixings pictured in the following illustrations remain the same.**

ABS System - Speed Triple ABS and Speed Triple R ABS



ABS System - Sprint GT



Please mark your copy of the Service Manual with this information.

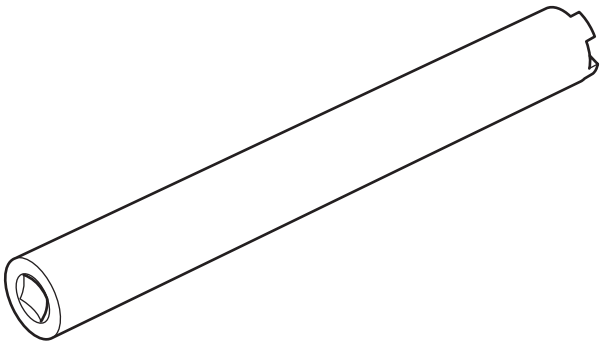
Item 6.

Description: **Front Fork Disassembly and Assembly**

Models affected: **Daytona 675 Models from VIN 564948 and Street Triple Models from VIN 560477**

The disassembly and assembly of the front forks fitted to the above models is as described in the Service Manual. This Technical News item is the additional information required for the removal and installation of the damper assembly.

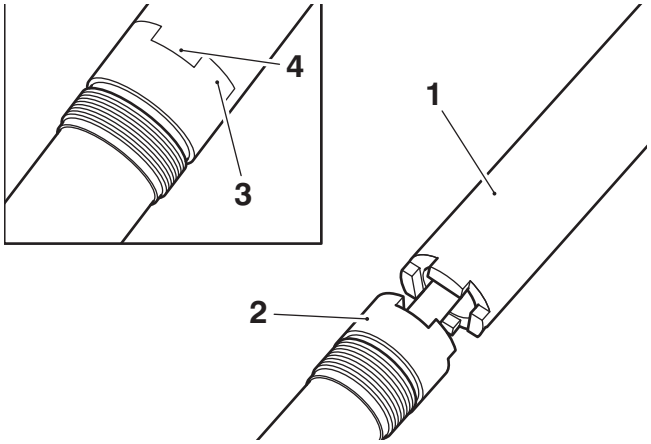
To facilitate the removal of the damper assembly, a new service tool, T3880807, Damper Assembly Tool, is now available.



T3880807, Damper Assembly Tool

Disassembly

1. Remove the front fork as described in the Service Manual.
2. Disassemble the front fork as described in the Service Manual.
3. Clamp the lower end of the front fork inner tube in a soft-jawed vice.
4. Engage the four lugs on Damper Assembly Tool T3880807 into the four slots of the damper assembly, ensuring the lugs on the service tool fully engage into the damper lugs, and remove the damper assembly.



1. **Damper Assembly Tool T3880807**
2. **Damper assembly (shown removed from front fork for clarity)**
3. **Lugs (on damper assembly)**
4. **Lugs (on T3880807)**

Assembly

Warning

The front forks comprise of many precision machined parts. Total cleanliness must be observed at all times and assembly must take place in a dirt/dust-free environment.

Dirt ingress may cause damage to the fork parts, leading to incorrect operation, instability, loss of motorcycle control and an accident.

1. Apply two drops of ThreeBond 1344 to the threads of the damper assembly.

Caution

Do not allow the ThreeBond to cure during the tightening sequence of the damper assembly described below.

The tightening sequence must take place immediately after applying ThreeBond to the threads of the damper assembly.

Note:

- **The tightening of the damper assembly must be carried out in the following sequence. This will ensure that the damper assembly is in the centre of the fork inner tube.**

2. Using Damper Assembly Tool T3880807 fit the damper assembly to the retaining ring and tighten it in the following sequence:

- Tighten to **60 Nm**.
- Loosen the damper assembly.
- Tighten to **60 Nm**.
- Loosen the damper assembly.
- Tighten to **60 Nm**.

3. Reassemble the front fork as described in the Service Manual.
4. Refit the front fork as described in the Service Manual.

Please mark your copy of the Service Manual with this information.

Item 7.

Description: **New Packing Crate and Footboard Reassembly**

Models affected: **America**

America models are to be packaged and delivered in a smaller, Disposable Box Section, Packing Crate from March 2014. For details on how to remove the motorcycle from the packing crate, refer to the Unpacking and Pre-Delivery Inspection Guide.

The footboard assemblies are removed from the motorcycle to allow use of the smaller packing crate and will be supplied in the parts box located within the crate. The pivot pins, springs and E-clips required for installing the footboards will be provided in the screw pack.

The footboards must be installed prior to Pre-Delivery Inspection (PDI) in addition to all other items detailed in the Motorcycle Assembly Guide.

When installing the footboard assemblies, follow the procedure detailed below.

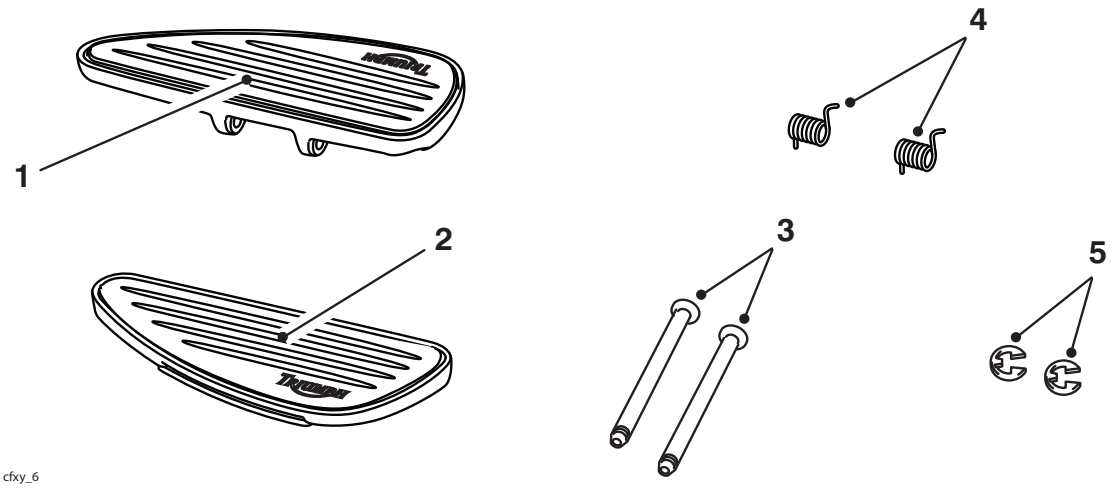
For assembly of all other items, refer to the America, America LT and Speedmaster from VIN 611105 section of the Motorcycle Assembly Guide.

Footboard Installation

Warning

Throughout this operation, ensure that the motorcycle is stabilised and adequately supported to prevent risk of injury from the motorcycle falling.

1. Retrieve the following items from the packing crate:



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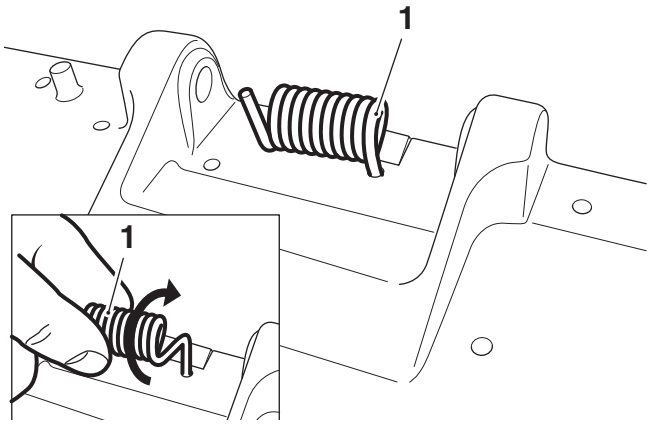
1. **Left hand footboard**
2. **Right hand footboard**
3. **Pivot pin x 2**
4. **Spring x 2**
5. **E-Clip x 2**

2. Fit a spring to the left hand footboard ensuring that the bent end of the spring is inserted as shown below.

Note:

- **The spring orientation shown below is the same when assembling to either left or right hand footboards.**



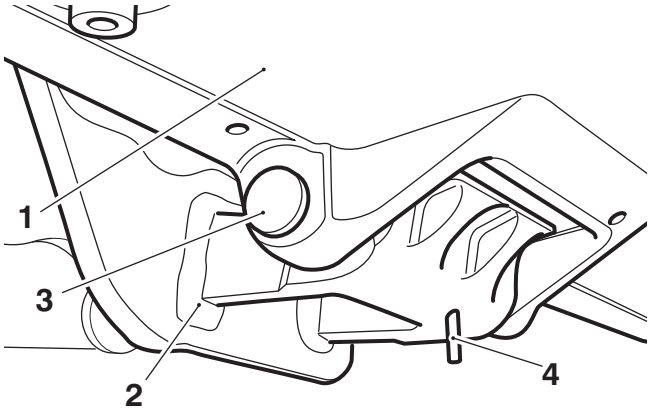
1. Spring

3. Align the left hand footboard and spring assembly to the left hand footboard bracket. Ensure that the straight end of the spring fits into its hole in the footboard bracket.

Note:

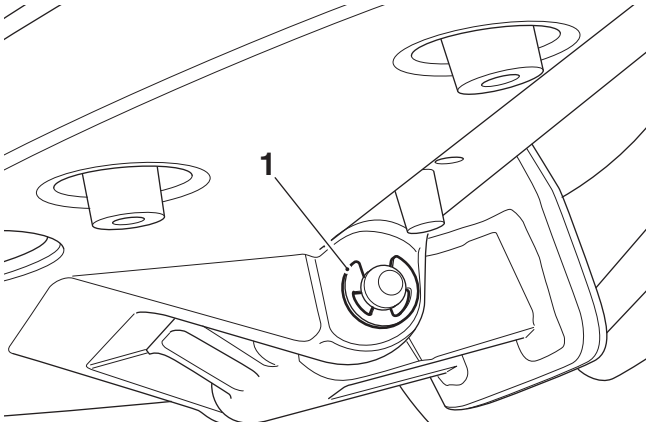
- **It may be necessary to use a suitable screwdriver to align the spring with the holes in the footboard bracket when fitting the pivot pin.**

4. Fit the pivot pin from the front end of the footboard.



1. Left hand footboard
2. Left hand footboard bracket
3. Pivot pin
4. Straight end of the spring

5. Secure the pivot pin with an E-clip.



1. E-clip

Repeat steps 2 to 5 for the right hand side.

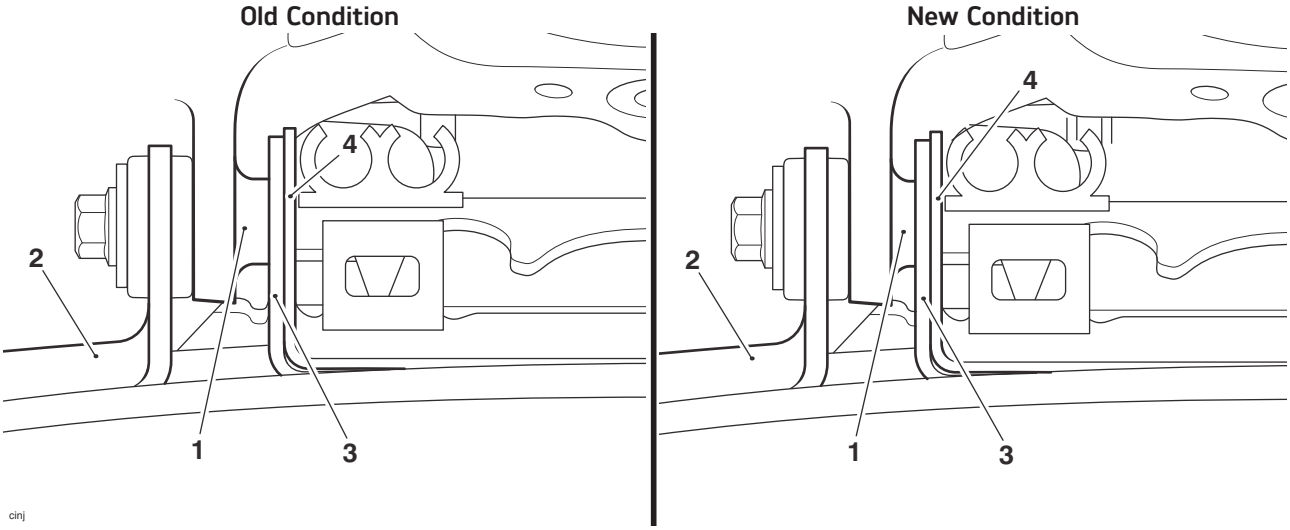
Please mark your copy of the Service Manual with this information.

Item 8.

Description: **Main Frame Parts Kit**

Models affected: **Daytona 675 Models from VIN 564948 and Street Triple Models from VIN 560477**

The radiator mounting bosses on the main frame have been modified on the above models from VIN 626498. The two mounting bosses are now thicker, which reduces the distance between the two bosses.



1. Radiator mounting boss, right hand side shown
2. Radiator
3. Rubber air deflector
4. Retaining plate

This change does not affect the mounting of the radiator but the rubber air deflector and its retaining plate have also been modified because of the distance between the two bosses.

Should a frame assembly need to be replaced the following parts kits are available.

Models built from VIN 626498

Market	Parts Kit Part Number
All markets except USA, Canada and Australia	T2070567
USA	T2070589
Canada	T2070596
Australia	T2070604

The above kits will consist of the following items:

- New condition frame
- Bearing x 2
- Rivet x 2
- Compliance plate for the relevant market.

Models built up to VIN 626497

Market	Parts Kit Part Number
All markets except USA, Canada and Australia	T2070893
USA	T2070587
Canada	T2070594
Australia	T2070597

The above kits will consist of the following items:

- New condition frame
- Bearing x 2
- Rivet x 2
- Compliance plate for the relevant market
- M6 stud
- M6 x 30 mm bolt
- Air deflector
- Retaining bracket, air deflector.

The fitting of the air deflector is as described in the Cooling section of the Service Manual.
Please mark your copy of the Service Manual with this information.

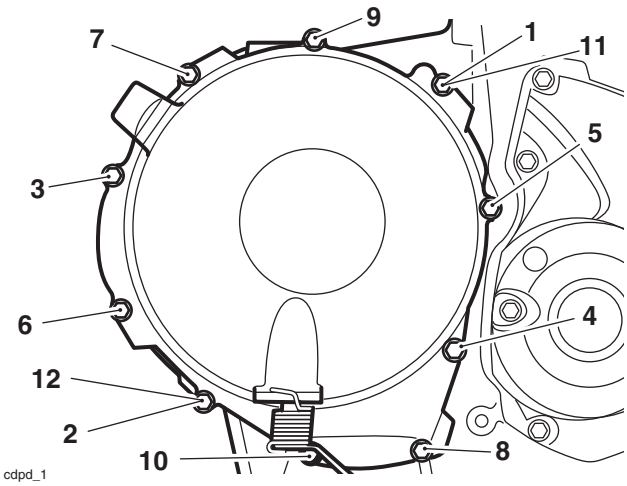
Item 9.

Description: **Torque Change, Clutch Cover Fixings**

Models affected: **Daytona 675 and Daytona 675R from VIN 564948**

The torque figure for the clutch cover fixings has changed to **11 Nm** on the above models. If for any reason the clutch cover fixings are loosened or removed:

- Discard the copper washer located on fixing number four.
- Fit a new copper washer.
- Retighten the fixings to **11 Nm** in the sequence shown below.



Clutch Cover Tightening Sequence

Note:

- **Models already in service need not be retightened unless the fixings have been loosened or removed.**

Please mark your copy of the Service Manual with this information.

Item 10.

Description: **ABS Front Brake Line**

Models affected: **Tiger Sport, Tiger 1050 ABS**

The following new ABS items have been introduced to the above models from VIN 650174:

- Front brake master cylinder hard line from front brake line connecting housing to ABS modulator
- Front brake line connector housing and front brake hose
- A bracket and cable clip to support the brake hose for the front brake master cylinder.

The torque figure for M10 unions on the ABS hard lines have also changed to **15 Nm**. Models already in service need not be retightened unless the unions have been loosened or removed.

New Condition Hard line

The new condition hard line has a M12 union for the front brake line connector housing; the union for the ABS modulator end remains the same at M10.

The torque figures for the unions are as follows:

- M12 union is **19 Nm**.
- M10 union remains at **15 Nm**.

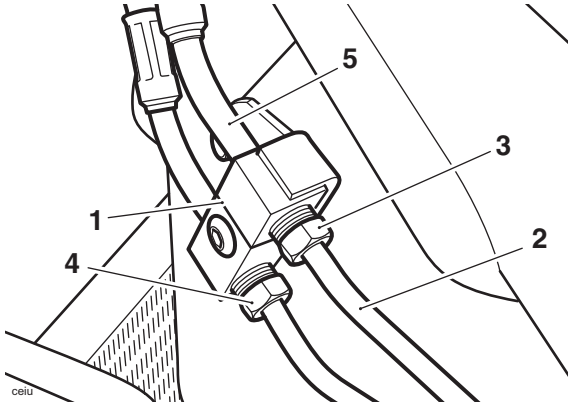
New Condition Front Brake Line Connector Housing

The new condition front brake line connector housing has a larger threaded hole for the hard line M12 union.

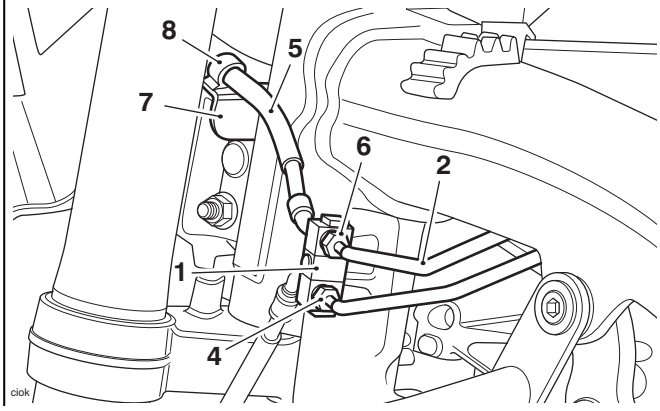
Bracket and Cable Clip

The bracket and cable clip support the brake hose for the front brake master cylinder.

Old Condition



New Condition



1. **Front brake line connector housing**
2. **Hard line to ABS modulator**
3. **M10 union**
4. **M10 union**
5. **Brake hose from the master cylinder**
6. **M12 union**
7. **Bracket**
8. **Cable clip**

Models built from VIN 650174

Replacement parts are like for like, refer to the EPC.

Models built up to VIN 650173

Triumph Genuine Parts will no longer support the old condition front line connector housing and the hard line to the ABS modulator. If either of these parts require replacement then both must be replaced at the same time with the addition of the bracket and cable clip. To facilitate this a parts kit (T2027221) is available. The parts kit consists of the following:

Part Number	Description	Quantity
T2027201	Hard line to ABS modulator	1
T2025156	Front brake line connector housing	1
T2025115	Bracket	1
T3700108	Cable clip	1

To install the parts kit, follow the procedure described below.

Removal

1. Remove the seat, as described in the Service Manual.
2. Disconnect the battery, negative (black) lead first.
3. Remove the fuel tank, as described in the Service Manual.
4. Remove the airbox, as described in the Service Manual.

Caution

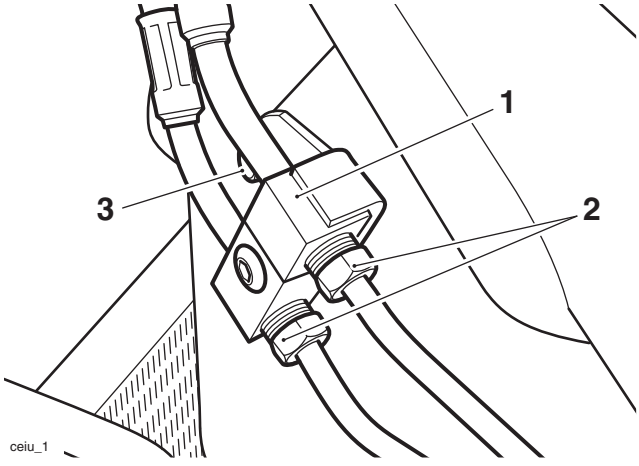
To prevent body damage, do not spill brake fluid onto any area of the bodywork or wheels.

5. Drain the brake fluid from the front brake master cylinder, as described in the Service Manual.

Note:

- **Note the routing of the brake lines to the front caliper, the front brake master cylinder and the position of any retaining clips for installation.**

6. Disconnect the brake hose from the front caliper.
7. Disconnect the brake hose from the front brake master cylinder.
8. Disconnect the two front brake hard lines from the front brake line connector housing.
9. Release the fixing and remove the front brake line connector housing from the motorcycle.

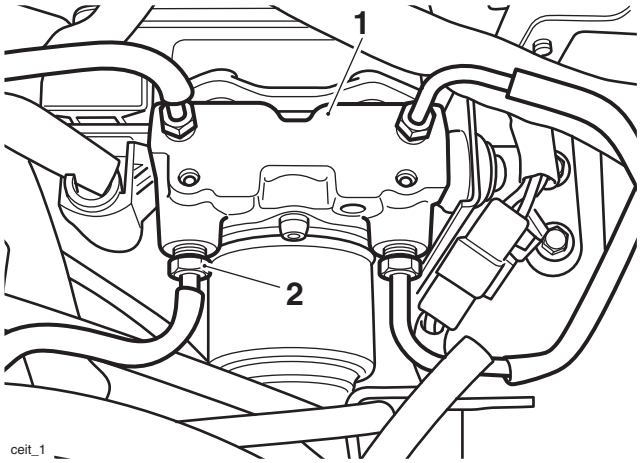


1. **Brake line connector housing**
2. **Front brake hard lines**
3. **Fixing**

Note:

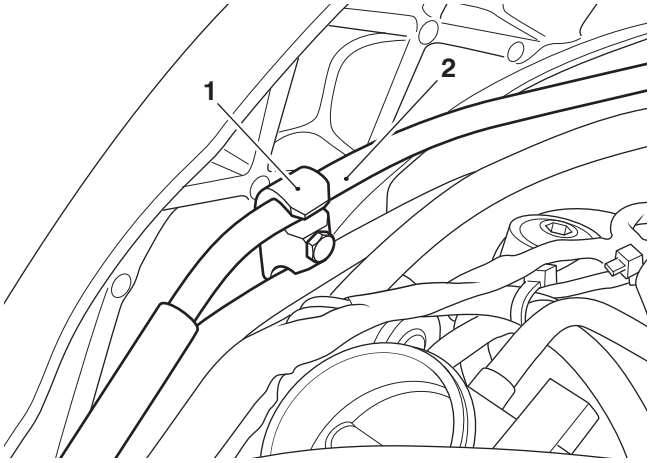
- **Note the routing of the front brake master cylinder hard line and the position of any retaining clips for installation.**

10. Disconnect the front brake master cylinder hard line from the ABS modulator.



1. ABS modulator
2. Front brake master cylinder hard line

11. Detach the brake hard line from its clip on the frame and remove it from the motorcycle.

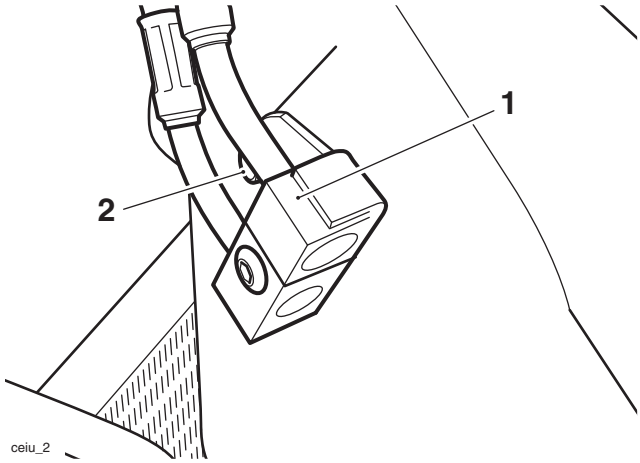


1. Clip
2. Front brake master cylinder hard line

Installation

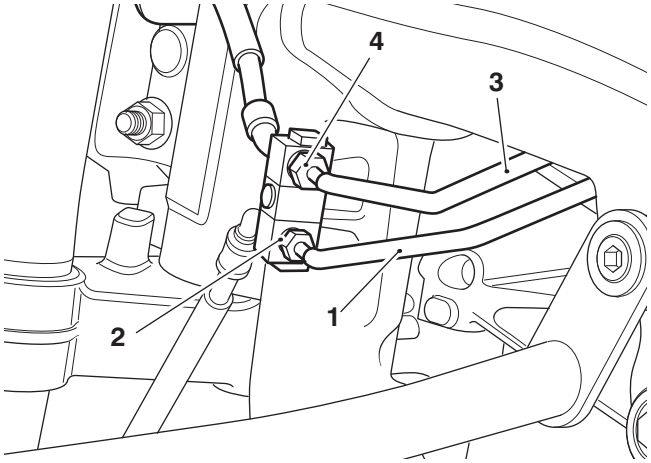
1. Align the new front brake master cylinder hard line to the motorcycle frame as noted for removal.
2. Taking care not to bend the brake line, fit it to the ABS modulator. Do not fully tighten the union at this stage.
3. Secure the front brake master cylinder hard line to its clip on the frame.
4. Tighten the front brake master cylinder hard line M10 union at the ABS modulator to **15 Nm**.

5. Fit the new front brake line connector housing to the frame routing the front caliper hose and front brake master cylinder hose as noted for removal. Tighten the fixing to **3 Nm**.



1. **Front brake line connector housing**
2. **Fixing**

6. Connect the brake hose to the front caliper, incorporating new sealing washers on each side of all hose connections.
7. Tighten the front brake hose union to **25 Nm**.
8. Connect the brake hose to the front brake master cylinder, incorporating new sealing washers either side of the hose connection. Tighten the brake hose union to **25 Nm**.
9. Ensure the front brake hoses are secured into their clips as noted for removal.
10. Connect the front brake caliper hard line to the connector housing and tighten its M10 union to **15 Nm**.
11. Connect the front brake master cylinder hard line to the connector block and tighten its M12 union to **19 Nm**.



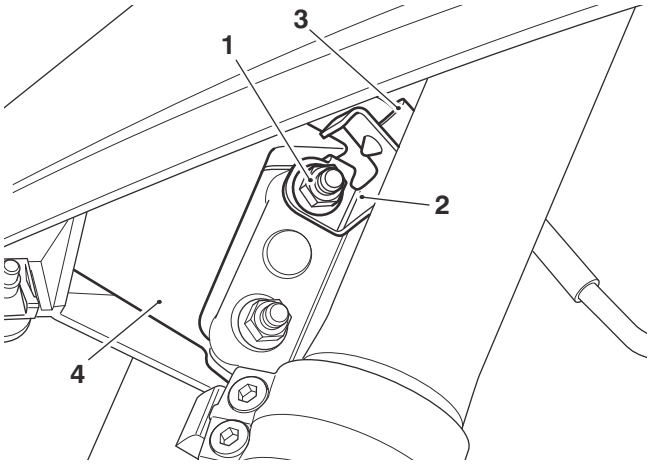
1. **Front brake caliper hard line**
2. **M10 union**
3. **Front brake master cylinder hard line**
4. **M12 union**

Note:

- **The bracket from the service kit is secured to the motorcycle by the upper fixing of the front subframe.**

12. To fit the bracket from the parts kit, remove the lock nut from the upper fixing for the front subframe.
13. Fit the bracket to the upper fixing of the front subframe in the orientation shown in the illustration below. Fit a new lock nut and tighten to **30 Nm**.

14. Fit the plastic clip to the front brake master cylinder hose and secure the clip on to the bracket.



1. **Lock nut**
2. **Bracket**
3. **Plastic clip**
4. **Front subframe**

15. Reconnect the battery, positive (red) lead first.

Warning

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

16. Top up the front brake fluid reservoir using new DOT 4 brake fluid and bleed the front brakes as described in the Service Manual.
17. Refit the airbox, as described in the Service Manual.
18. Refit the fuel tank, as described in the Service Manual.
19. Refit the seat, as described in the Service Manual.

Warning

It is dangerous to operate the motorcycle with defective brakes; you must have your authorised Triumph dealer take remedial action. Failure to take remedial action may reduce braking efficiency leading to loss of motorcycle control and an accident.

Check the brakes for correct operation.

Please mark your copy of the Service Manual with this information.

Circulation

Initial and date when read and return to central file holder

Service Manager	Parts Manager	Sales Manager	Workshop Supervisor	Technician 1	Technician 2