Technical Bulletin 168
05.2016

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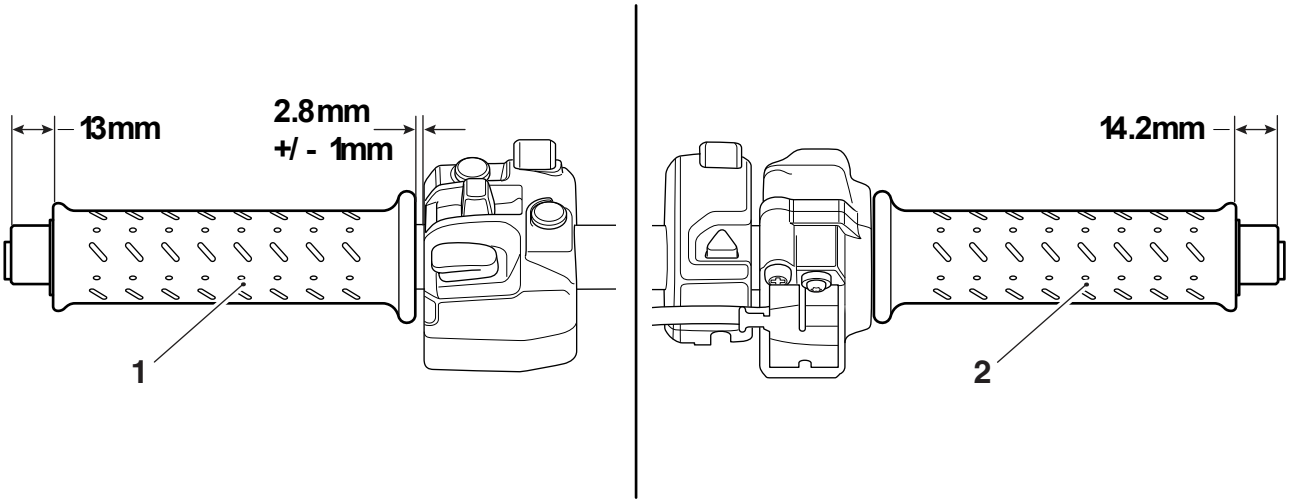
Item: 168.1

Description: Handlebar Grip

Model Affected: Speed Triple S, Speed Triple R from VIN 735337

The left hand handlebar grip is aligned equally between the switch housing and the bar end mirror during manufacture. If for any reason the handlebar grip is removed or replaced, refit the grip until a 13 mm clearance is visible between the grip end face and the bar end.The measured clearance allows for the bar end mirror to locate in its correct position.

The right hand handlebar grip alignment is given for reference only. The position is controlled by the throttle position sensor locating feature.



cjti

1. **Left hand handlebar grip**
2. **Right hand handlebar grip**

Item: 168.2

Description: Adaptive Fuel System

Model Affected: All Models

Introduction

Adaptions make an important difference to the way the engine performs. The engine may exhibit symptoms such as poor starting, poor idling, and poor engine performance when riding, until it has adapted correctly. All of these symptoms may create a negative experience for the customer therefore the motorcycle should be adapted when new, prior to customer hand over.

Note:

- **It is not necessary to reset the adaptions during scheduled maintenance or when downloading a new engine calibration. However always ensure the motorcycle is correctly adapted after carrying out a scheduled service.**

Items or conditions which may require the motorcycle to be adapted include (but are not limited to) throttle bodies, throttle position sensor, idle speed control stepper motor, high engine friction (new engine), incorrect valve clearances, SAI system, air leaks, incorrect fuel pressure, changes in fuel quality, air or fuel filter blockages etc.

When to Reset Adaptions

Resetting the adaptions is only required If one or more of the electronic or fuel system components has been adjusted or replaced.

What is an Adaptive Fuel System?

An adaptive system is one where the engine control unit automatically adjusts the parameters to allow for the differences in the motorcycle tolerances. The base fuel map (or engine calibration) is developed by Triumph around a 'nominal' motorcycle (in terms of camshaft timing, valve clearances, compression ratio and fuel system tolerances). Therefore the motorcycle's calibration may need to adapt to suit an individual motorcycles build.

There are three areas of the fuel system that are adaptive:

- Closed Throttle Position,
- Idle Adaption,
- Off Idle Adaption.

Adaption of these areas will not be possible if an engine diagnostic trouble code is present, there is an engine misfire or the engine is not at operating temperature. Once the base fuel map has been adapted to suit the individual motorcycles requirements, the latest calibration value is recorded in the ECM's memory, ensuring that a full adaption is not necessary every time the engine is started. The adaption data is stored to the ECM's memory every 10 minutes, and on each controlled power down of the ECM. The motorcycle can be checked to see if it has adapted or not using the Triumph diagnostic tool.

How to Reset the Adaptions

There are two methods of adapting the motorcycle - 'Standard' and 'Fast' adaption.

⚠ Warning

Never start the engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate the motorcycle in the open-air or in an area with adequate ventilation.

Note:

- **Attempting to adapt a motorcycle connected to an exhaust extraction system may cause incorrect values to be set, causing poor engine running. Always reset the adaptions with the engine disconnected from any exhaust extraction system whilst ensuring the motorcycle is positioned in a well ventilated area.**
- **Riding style or riding the motorcycle at high or low altitude, does not affect the adaptions.**

Fast Adaption (Using The Triumph Diagnostic Tool)

1. **Connect the diagnostic tool.**

2. **Ensure the transmission is in neutral.**
3. **Switch on the ignition.**
4. **Ensure the ECM has no stored faults (DTCs).**
5. **Start the engine.**
6. **WITHOUT TOUCHING THE THROTTLE, allow the engine to warm up (closed loop is activated) to 90°C (water cooled models) or (60°C air cooled models).**
7. **Select ADJUST TUNE (see the Triumph Diagnostic Tool User Guide).**
8. **Select RESET ADAPTIONS. (A forced fast adaption routine will take place in approximately 5 seconds).**

Standard Adaption (Using The Triumph Diagnostic Tool)

1. **Connect the diagnostic tool.**
2. **Ensure the transmission is in neutral.**
3. **Switch on the ignition.**
4. **Ensure the ECM has no stored faults (DTCs).**
5. **Select ADJUST TUNE (see the Triumph Diagnostic Tool User Guide).**
6. **Select RESET ADAPTIONS.**
7. **Start the engine.**
8. **WITHOUT TOUCHING THE THROTTLE, allow the engine to reach an operating temperature of 90°C (water cooled models) or 60°C (air cooled models) and continue to idle for a further 12 minutes.**

Note:

- Both the Fast Adaption and Standard Adaption methods only adapt the idle area.
- The off idle area can only be adapted when the motorcycle is ridden under load, i.e. on the road.

⚠ Warning

DO NOT operate the motorcycle above the legal road speed limit except in closed-course conditions.

Off Idle Adaption

The off idle adaption area covers cruise sites from 40 to 60 mph (60 to 100 kmh), therefore the motorcycle must be at operating temperature and ridden at a constant speed for a minimum of 12 minutes in order to adapt. As it is not always possible for dealers to adapt motorcycles in this way, Dealers are therefore recommended to inform the customer that the motorcycle will continue adapting during normal use.If during an adaption cycle the conditions are no longer met, for example if the motorcycle is ridden aggressively, the motorcycle will take longer to adapt.

Item: **168.3**

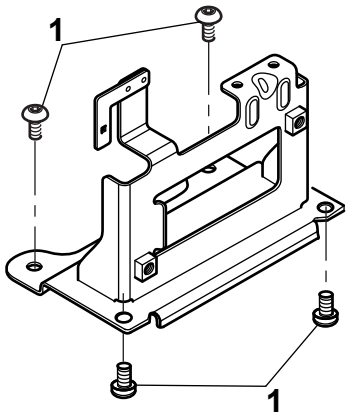
Description: **Immobiliser Cradle Fixings**

Model Affected: **Thunderbird Commander and Thunderbird LT**

The torque figure has changed. If loosened or removed for any reason the encapsulated fixing(s) must be replaced .

Tighten the fixings to **7 Nm**.

When ordering replacement parts, refer to the EPC.



1. Fixings

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

Item: **168.4**

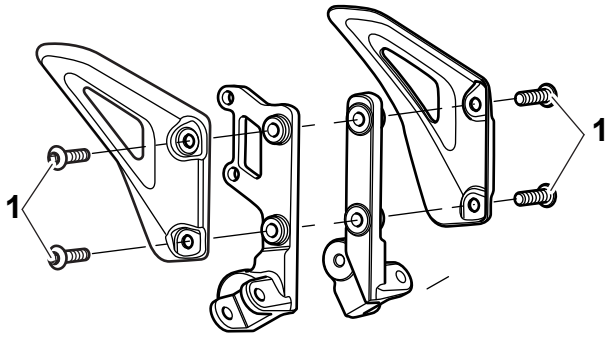
Description: **Heel Guard Fixings**

Model Affected: **Speed Triple S, Speed Triple R from VIN 735337**

The torque figure has changed. If loosened or removed for any reason the fixing(s) must be torqued as required.

Tighten the fixings to **19 Nm**.

When ordering replacement parts, refer to the EPC.



1. Fixings

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

Item:	**168.5**
Description:	**Radial Front Brake Caliper Bolts**
Model Affected:	**Thruxton 1200, Thruxton 1200 R, Daytona 675 ABS from VIN 564948, Daytona 675R ABS from VIN 564948, Street Triple ABS from VIN 560477, Street Triple R ABS from VIN 560477, Street Triple ABS 70 KW, Tiger Sport from VIN 570059, Speed Triple S, Speed Triple R from VIN735337**

If for any reason a radial front brake caliper is removed the brake pads may become incorrectly aligned to the brake disc causing uneven wear to the brake pads. Therefore when replacing the brake pads or refitting the brake caliper(s) for any reason it is necessary to follow the procedure listed below.

⚠ Warning

Never use mineral-based grease (such as lithium or copper-based grease) in any area where contact with the braking system hydraulic seals and dust seals is possible. Mineral based grease will damage the hydraulic seals and dust seals in the calipers and master cylinders. Damage caused by contact with mineral-based grease may reduce braking efficiency resulting in an accident.

⚠ Warning

Do not apply more than a minimum coating of grease to the front brake caliper bolts. Excess grease may contaminate the brake pads, hydraulic seals and discs causing reduced braking efficiency loss of motorcycle control and an accident.

Install the front brake caliper(s) noting the following:

1. Thoroughly clean the threaded bolt holes for the front fork brake caliper fixings.
2. Position the caliper over the disc.
3. Thoroughly clean the threaded part of the bolt and smear the first four threads with a proprietary copper based grease.
4. Secure the brake caliper, do not fully tighten the bolts at this stage.

Note:

- **If the front brake caliper has been disconnected from the front brake hose for any reason, bleed the front brake, as described in the Service Manual.**

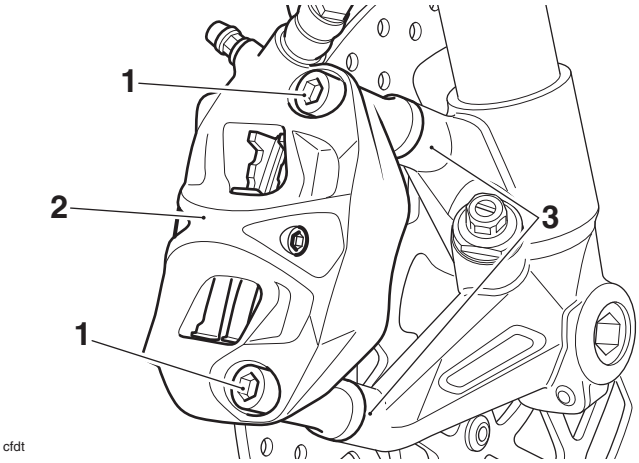
⚠ Caution

Prior to final tightening of the brake caliper bolts it is necessary to bleed the front brakes.

Holding the brake lever in the on position without bleeding the brakes may lead to internal damage to the hydraulic seals.

Damaged hydraulic seals will allow air to escape into the brake system causing reduced braking efficiency loss of motorcycle control and an accident.

5. Hold the front brake lever in the on position to align the brake pads to the disc(s) and tighten the bolts to **55 Nm** .



cfdt

1. **Caliper mounting bolts**
2. **Caliper**
3. **Fork mounting**

6. Check for correct brake operation. Rectify as necessary.

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

Item:	**168.6**
Description:	**Gear Selector Drum Kit**
Model Affected:	**Trophy, Trophy SE, Tiger Explorer XC, Tiger Explorer XR, Tiger Explorer XRX, Tiger Explorer XCX, Tiger Explorer XRT, Tiger Explorer XCA, Tiger Explorer XRX LRH, Tiger Explorer XCX LRH**

A new selector drum, input selector fork, output selector forks and detent spring has been introduced on the above model from engine number 752515. The new selector drum, input selector fork, output selector forks and detent spring are retrofittable to all earlier engine numbers, but only when fitted as part of a kit. To facilitate this, parts kit T1195566 has been released for use with the above models up to engine number 752514.

Parts will no longer support the old condition selector drum, input selector fork and output selector forks.

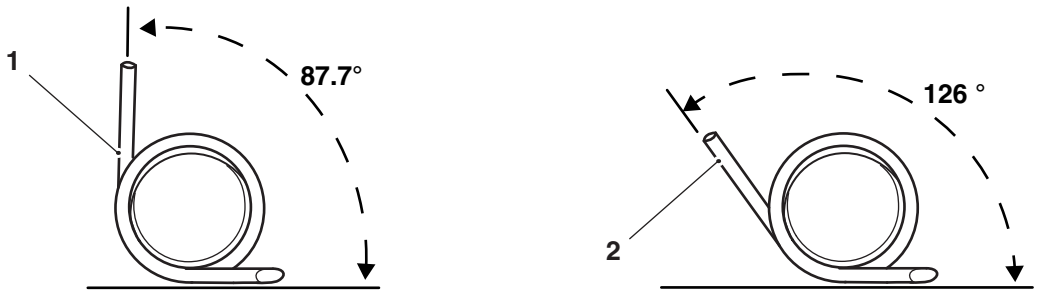
When ordering replacement parts, refer to the EPC.

Parts Kit T1195566 - Selector Drum up to Engine Number 752514

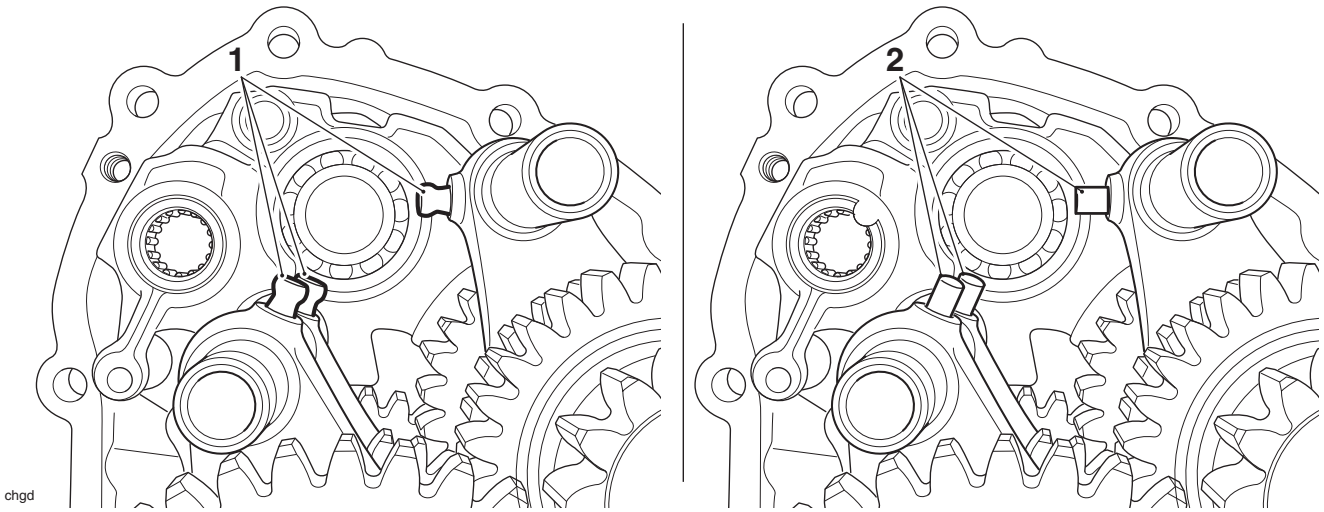
Kit Contents	Quantity
T1191195 - Selector Drum	1
T1195670 - Input Selector Fork	1
T1195675 - Output Selector Fork	2
T1195432 - Detent Spring	1

Note:

- **The Detent Spring T1192123 is available as a separate part for motorcycles up to engine number 752514.**
- **The Detent Spring T1195432 is available as a separate part for motorcycles from engine number 752515.**



1. **Spring up to engine number 752514**
2. **Spring from engine number 752515**



1. Selector Fork (old condition)

2. Selector Fork (new condition)

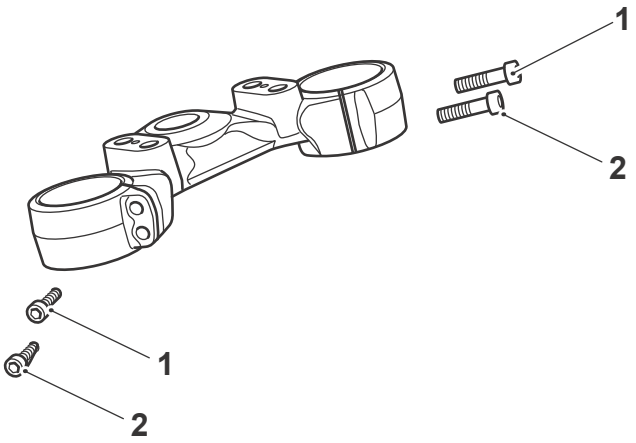
For removal, inspection and installation of the transmission assembly, refer to the Service Manual.

Item:	**168.7**
Description:	**Yoke Pinch Bolts Tightening Sequence**
Model Affected:	**Tiger XR, Tiger XRX, Tiger XRX LRH, Tiger XC, Tiger XCX, Tiger XCX LRH, Tiger XR, Tiger XRT, Tiger XCA,**

A new tightening sequence has been released for the upper and lower yoke pinch bolts.

Upper Yoke

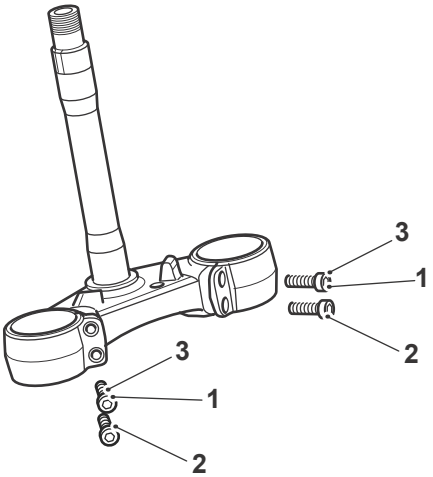
1. Tighten the upper pinch bolt to the torque specified in the service manual.
2. Tighten the lower pinch bolt to the torque specified in the service manual.



1. **Stage 1 (Upper pinch bolt)**
2. **Stage 2 (Lower pinch bolt)**

Lower Yoke

1. Tighten the upper pinch bolt to the torque specified in the service manual.
2. Tighten the lower pinch bolt to the torque specified in the service manual.
3. Retighten the upper pinch bolt to the torque specified in the service manual.



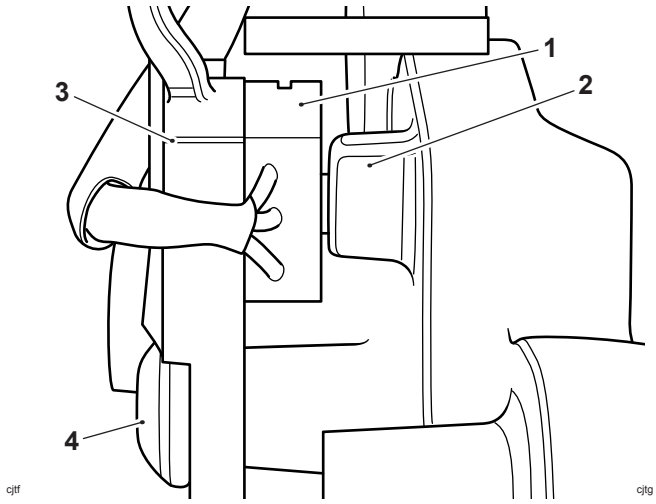
1. **Stage 1 (Upper pinch bolt)**
2. **Stage 2 (Lower pinch bolt)**
3. **Step 3 (Upper pinch bolt)**

Item: **168.8**

Description: **Rear Brake Switch**

Model Affected: **Speed Triple S, Speed Triple R from VIN 735337 to 755846**

A self adhesive foam pad part number T3660288 has been added to the rear brake light switch. The self adhesive foam pad is fastened to the switch to reduce the tolerance between the master cylinder carrier bracket and the switch body. If for any reason the rear brake light flickers a foam pad should be fitted as shown below.



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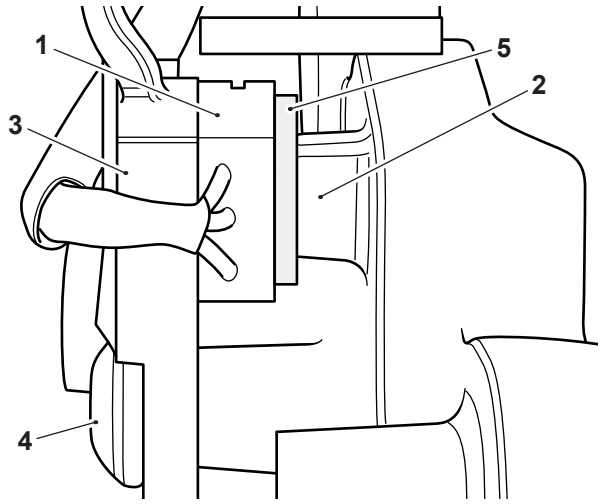


cjtg

1. **Brake light switch (Speed Triple R shown)**
2. **Master cylinder carrier bracket, master cylinder removed for clarity**
3. **Adjuster plate**
4. **Fixing**
5. **Self adhesive foam pad (T3660288)**

For adjustment of the rear brake light switch, refer to the Service Manual.

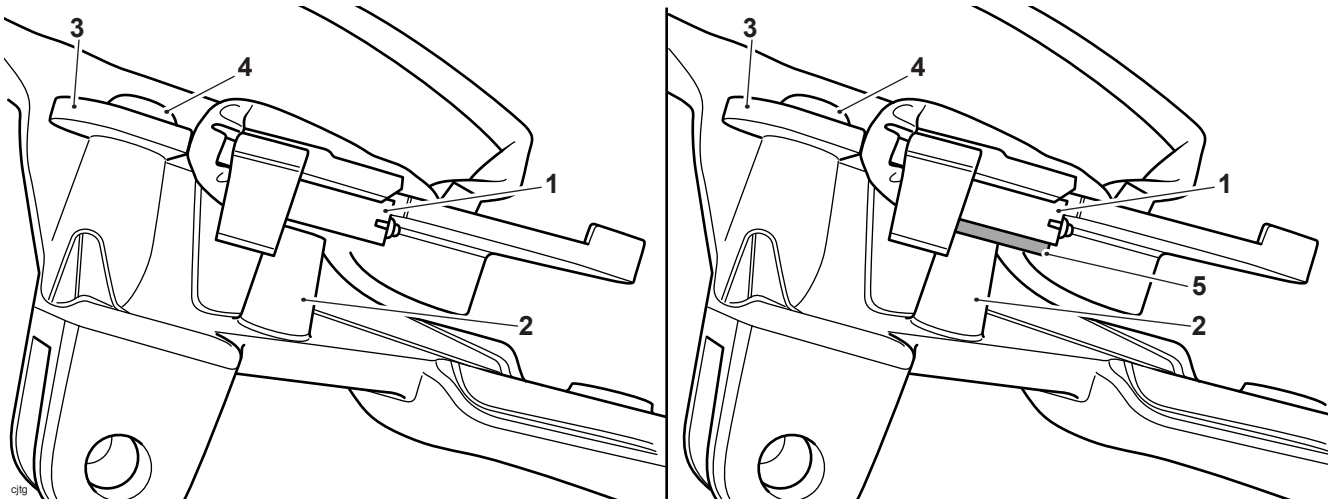
When ordering replacement parts, refer to the EPC.

Item: **168.9**

Description: **Rear Brake Switch**

Model Affected: **Thruxton 1200, Thruxton 1200 R**

A self adhesive foam pad part number T3660288 has been added to the rear brake light switch. The self adhesive foam pad is fastened to the switch to reduce the tolerance between the master cylinder carrier bracket and the switch body. If for any reason the rear brake light flickers a foam pad should be fitted as shown below.



1. **Brake light switch**
2. **Master cylinder carrier bracket, master cylinder removed for clarity**
3. **Adjuster plate**
4. **Fixing**
5. **Self adhesive foam pad (T3660288)**

For adjustment of the rear brake light switch, refer to the Service Manual.

When ordering replacement parts, refer to the EPC.

Item: **168.10**

Description: **Rear Suspension Drag Link and Drop Link Fixings**

Model Affected: **Street Triple, Street Triple 660, Street Triple RX, Daytona 675, Daytona 675R**

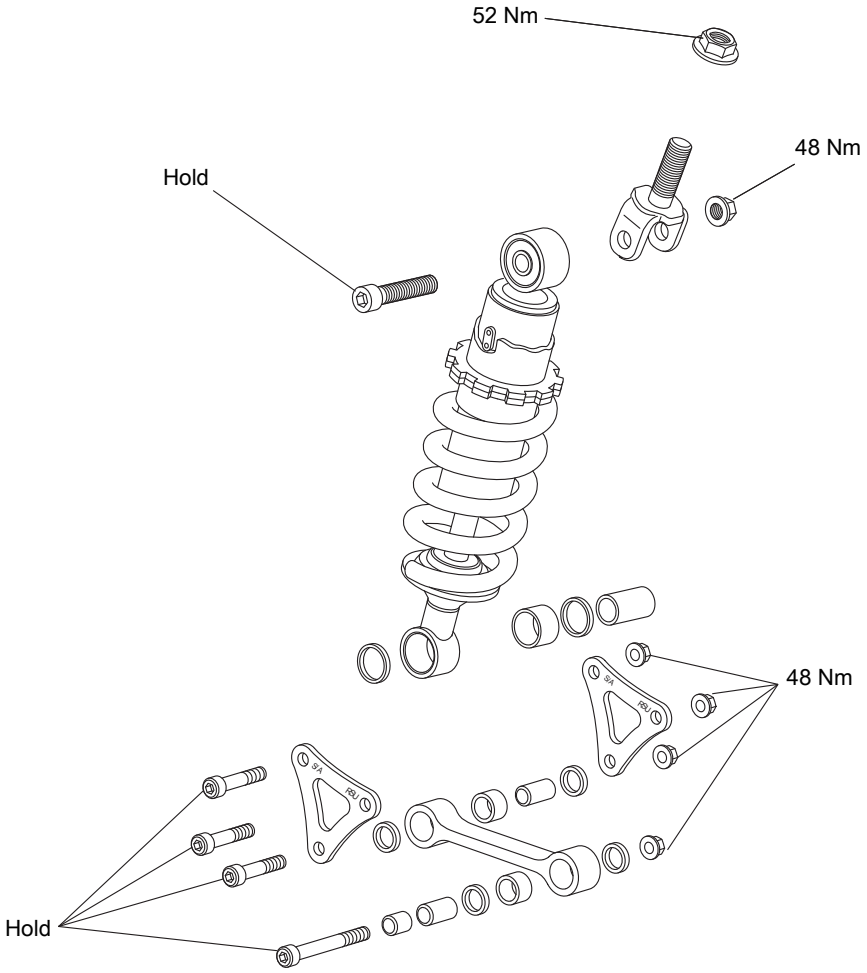
When installing the rear suspension drag link and drop links, follow the procedure described in the Service Manual noting the following tightening sequence:

- When tightening the drag link and drop link fixings, hold the bolts to prevent rotation, while tightening the nuts to **48 Nm**.

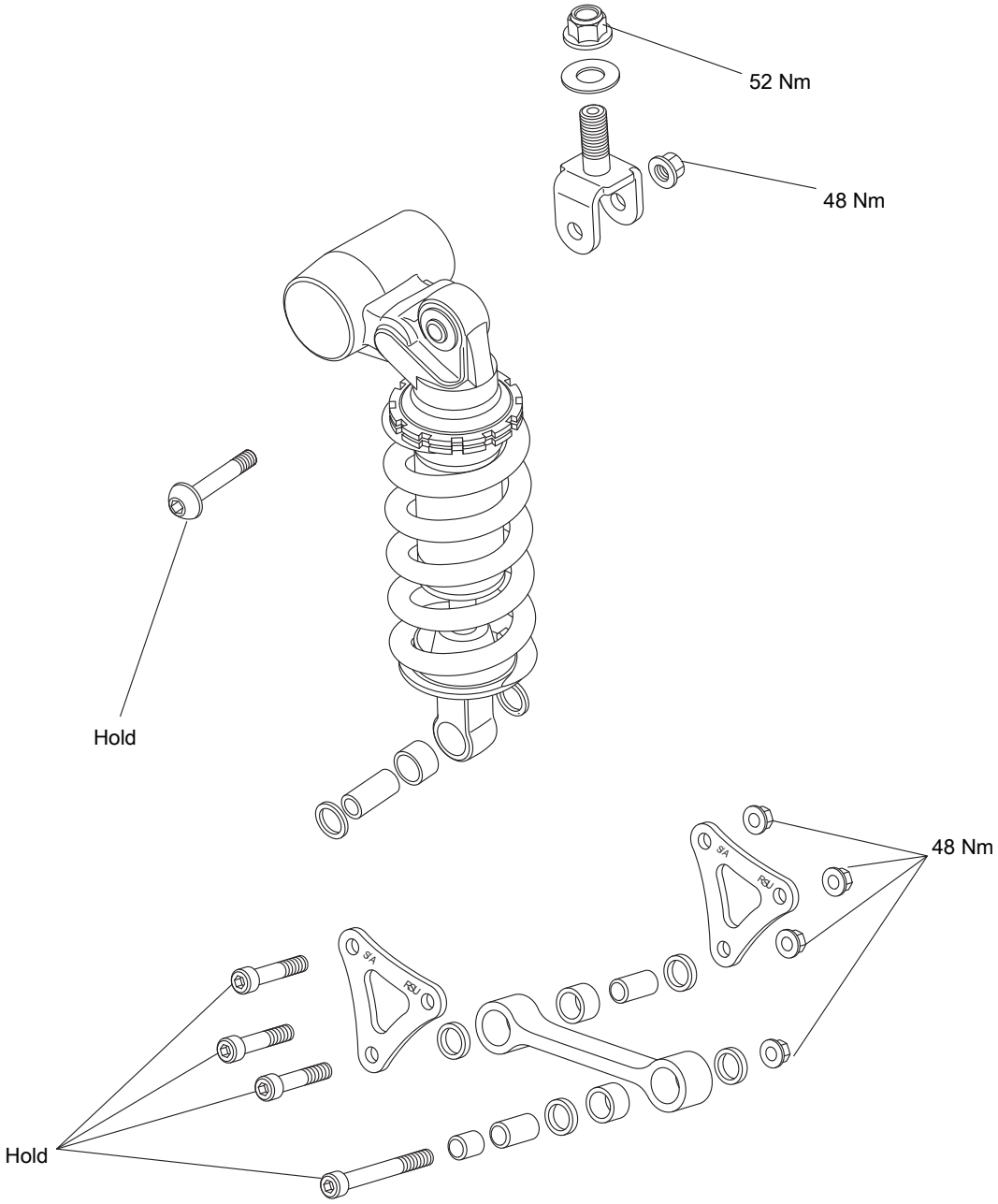
⚠ Warning

Tightening the rear suspension linkage fixings by any method other than the one described above may lead to an incorrect torque value being set. Always ensure during rear suspension linkage assembly that the linkage bolts are held while the nuts are tightened to **48 Nm**. Incorrectly tightened rear suspension linkage fixings may cause an unsafe riding condition, leading to loss of motorcycle control and an accident.

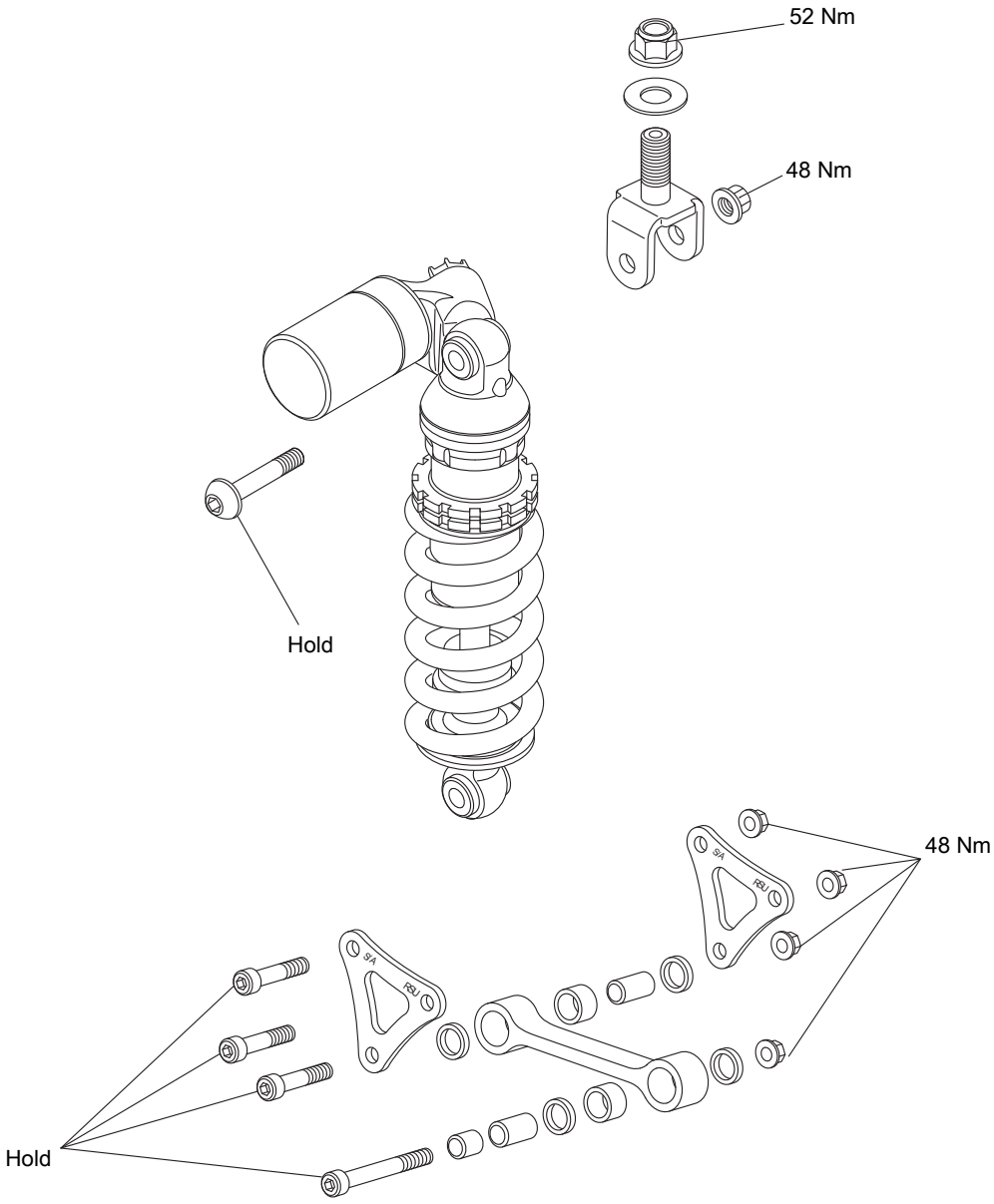
Street Triple and Street Triple 660



Daytona, Street Triple R, Street Triple Rx



Daytona 675R



Item: **168.11**

Description: **Rear Suspension Drag Link and Drop Link Fixings**

Model Affected: **Sprint ST 1050, Sprint GT 1050**

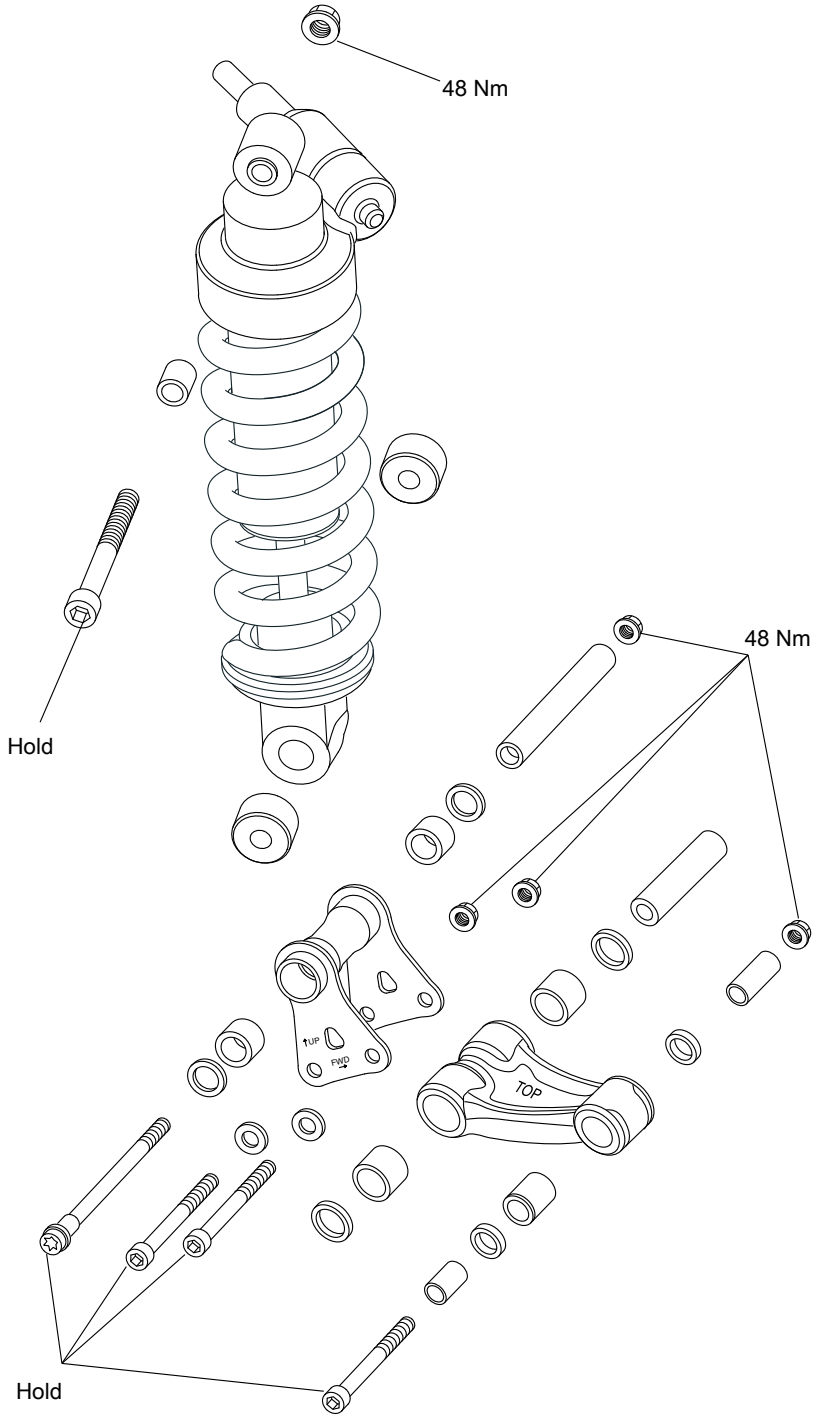
When installing the rear suspension drag link and drop links, follow the procedure described in the Service Manual noting the following tightening sequence:

- When tightening the drag link and drop link fixings, hold the bolts to prevent rotation, while tightening the nuts to **48 Nm**.

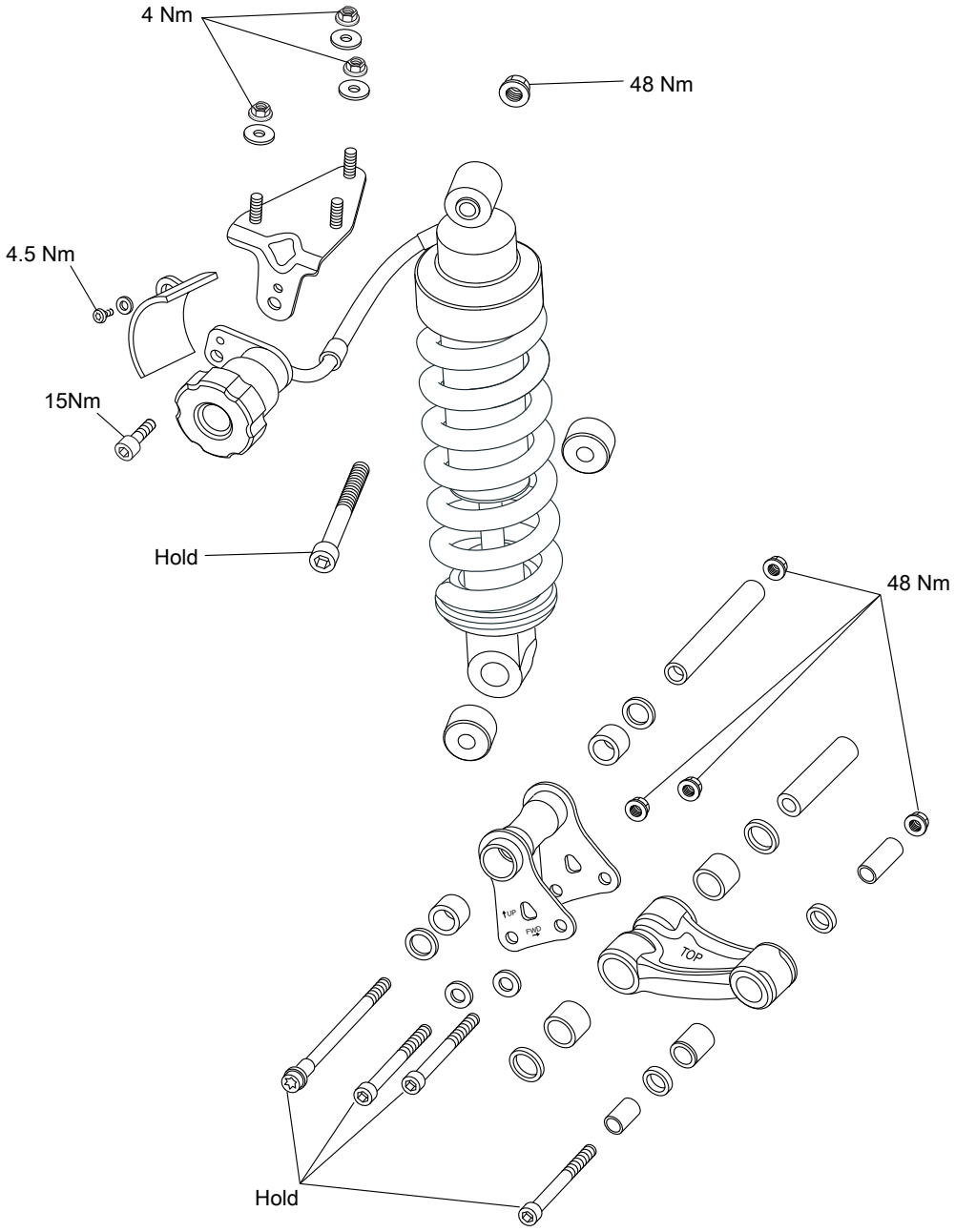
⚠ Warning

Tightening the rear suspension linkage fixings by any method other than the one described above may lead to an incorrect torque value being set. Always ensure during rear suspension linkage assembly that the linkage bolts are held while the nuts are tightened to **48 Nm**. Incorrectly tightened rear suspension linkage fixings may cause an unsafe riding condition, leading to loss of motorcycle control and an accident.

Sprint ST



Sprint GT



Item: 168.12

Description: Rear Suspension Drag Link and Drop Link Fixings

Model Affected: Tiger Sport

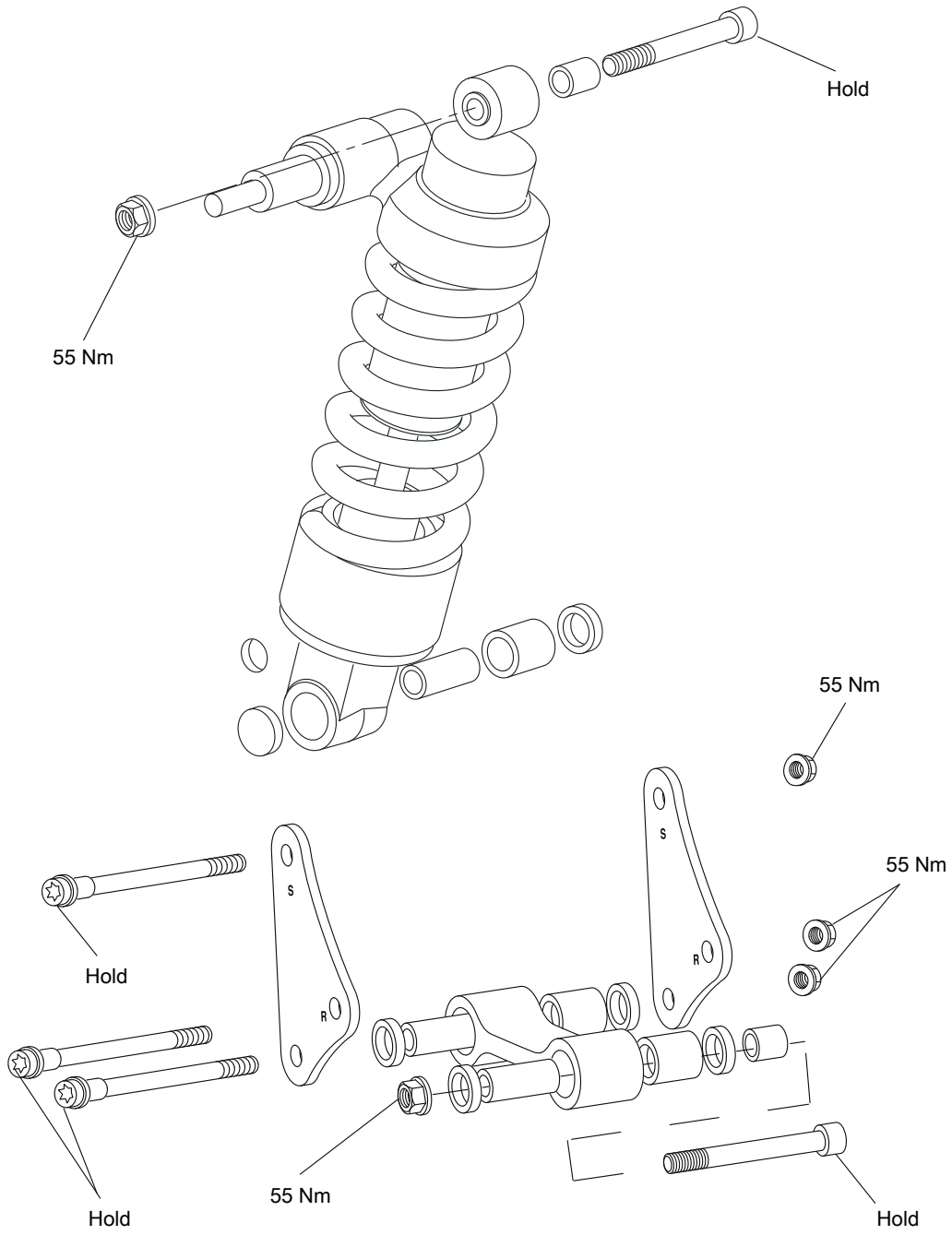
When installing the rear suspension drag link and drop links, follow the procedure described in the Service Manual noting the following tightening sequence:

- When tightening the drag link and drop link fixings, hold the bolts to prevent rotation, while tightening the nuts to **55 Nm**.

⚠ Warning

Tightening the rear suspension linkage fixings by any method other than the one described above may lead to an incorrect torque value being set. Always ensure during rear suspension linkage assembly that the linkage bolts are held while the nuts are tightened to **55 Nm**. Incorrectly tightened rear suspension linkage fixings may cause an unsafe riding condition, leading to loss of motorcycle control and an accident.

Tiger Sport



Item: **168.13**

Description: **Rear Suspension Drag Link and Drop Link Fixings**

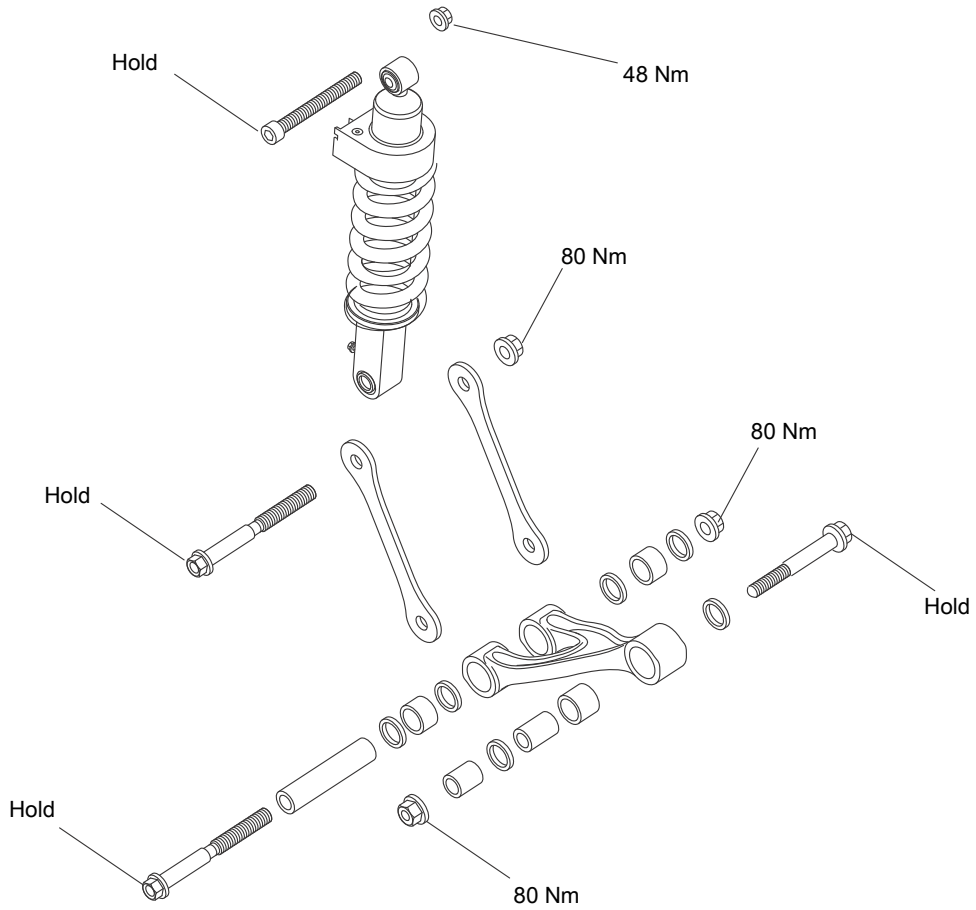
Model Affected: **Trophy,Trophy SE,**

When installing the rear suspension drag link and drop links, follow the procedure described in the Service Manual noting the following tightening sequence:

- When tightening the drag link and drop link fixings, hold the bolts to prevent rotation, while tightening the nuts to **80 Nm**.

⚠ Warning

Tightening the rear suspension linkage fixings by any method other than the one described above may lead to an incorrect torque value being set. Always ensure during rear suspension linkage assembly that the linkage bolts are held while the nuts are tightened to **80 Nm**. Incorrectly tightened rear suspension linkage fixings may cause an unsafe riding condition, leading to loss of motorcycle control and an accident.


Hold
48 Nm
80 Nm
80 Nm
Hold
Hold
Hold
80 Nm

Item:	**168.14**
Description:	**Rear Suspension Drag Link and Drop Link Fixings**
Model Affected:	**Speed Triple 1050 , Speed Triple 1050 ABS, Speed Triple 1050R, Speed Triple 1050R ABS,**

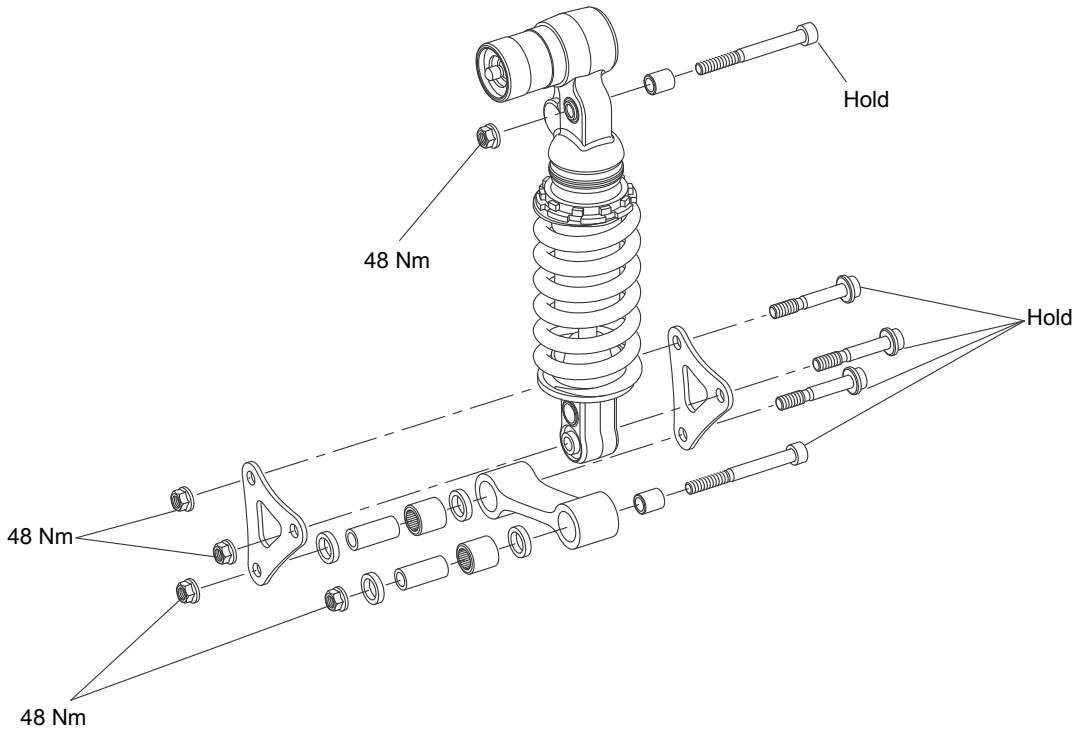
When installing the rear suspension drag link and drop links, follow the procedure described in the Service Manual noting the following tightening sequence:

- When tightening the drag link and drop link fixings, hold the bolts to prevent rotation, while tightening the nuts to **48 Nm**.

⚠ Warning

Tightening the rear suspension linkage fixings by any method other than the one described above may lead to an incorrect torque value being set. Always ensure during rear suspension linkage assembly that the linkage bolts are held while the nuts are tightened to **48 Nm**. Incorrectly tightened rear suspension linkage fixings may cause an unsafe riding condition, leading to loss of motorcycle control and an accident.

Speed Triple and Speed Triple R



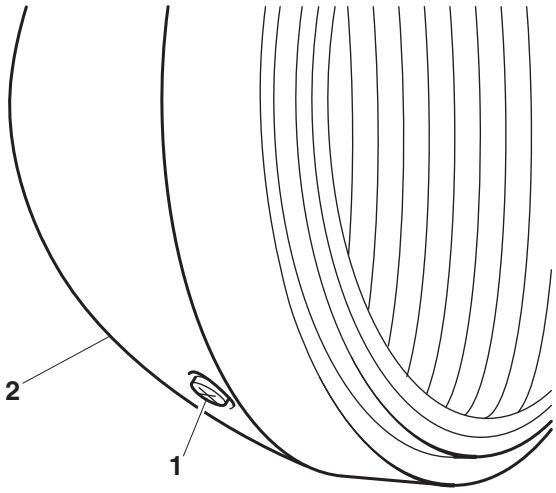
Item: 168.15

Description: Headlight Rim Fixings

Model Affected: America, Speedmaster

The torque figure for both of the headlight rim fixings has changed to **2 Nm** on the above models.

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



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

Item: **168.16**

Description: **Cooling Fan Fuse Kit**

Model Affected: **Street Twin, Bonneville 1200 T120, Bonneville 1200 T120 Black**

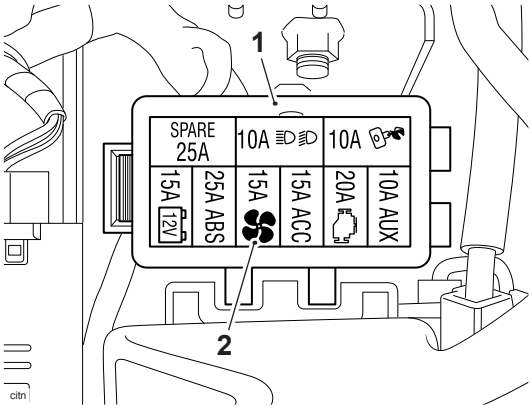
The fuse protecting the cooling circuit has been increased to 15 amps. If for any reason the original 10 amp cooling fan fuse fails, it must be replaced with a 15 amp fuse and the label on the fuse box changed to reflect the new fuse rating.

To facilitate this a parts kit has been released consisting of the following:

Parts Kit T2501738 - Fuse and Sticker

Kit Contents	Quantity
T2501315 Fuse 15 amp	1
T3904177 - Fuse box label	1

All other fuses must be replaced like for like if they have blown.



1. **Fuse box**
2. **Cooling fan fuse**

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

Item: **168.17**

Description: **Clutch Pack Height**

Model Affected: **Bonneville, Scrambler, Thruxton, America, Speedmaster**

Technical News issue 125 Item 9 Clutch Pack Height, indicates that the six steel plates are 1.4 mm thick.

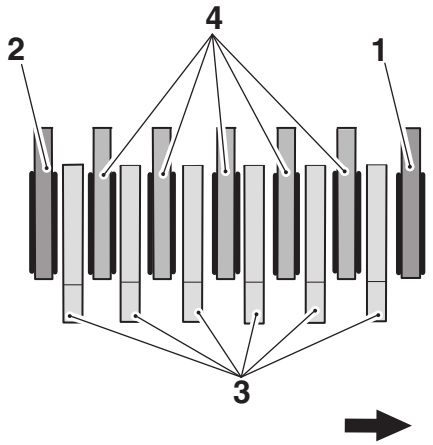
The correct thickness for the steel plates is 2.0 mm, therefore Technical News 125 and the clutch section of the service manual must be amended to reflect this. The clutch pack height should only be measured if any of the friction plates or steel plates have been replaced. If building a new clutch pack its height must be correct. To achieve this, build the new clutch pack with the following:

- 1 x new outer friction plate:
- 5 x new friction plates;
- 1 x new inner friction plate;
- 6 x steel plates, 2.0 mm thick.

Note:

- **The clutch pack is not adjustable.**

1. Using a clean, lint-free cloth, wipe any excess oil from the clutch friction and steel plates.
2. Arrange the new friction and new steel plates in a stack as shown.



1. **Outer friction plate**
2. **Inner friction plates**
3. **Steel plates**
4. **Friction plates**

3. Place the assembled clutch pack on a flat surface and measure its height as described above.
4. The correct clutch pack height for the clutch assembly is shown in the table.

Standard height in mm	Tolerance in mm
35.10	+0.31 / -0.62

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

Item: **168.18**

Description: **Vehicle Identification Number Description**

Model Affected: **All Models**

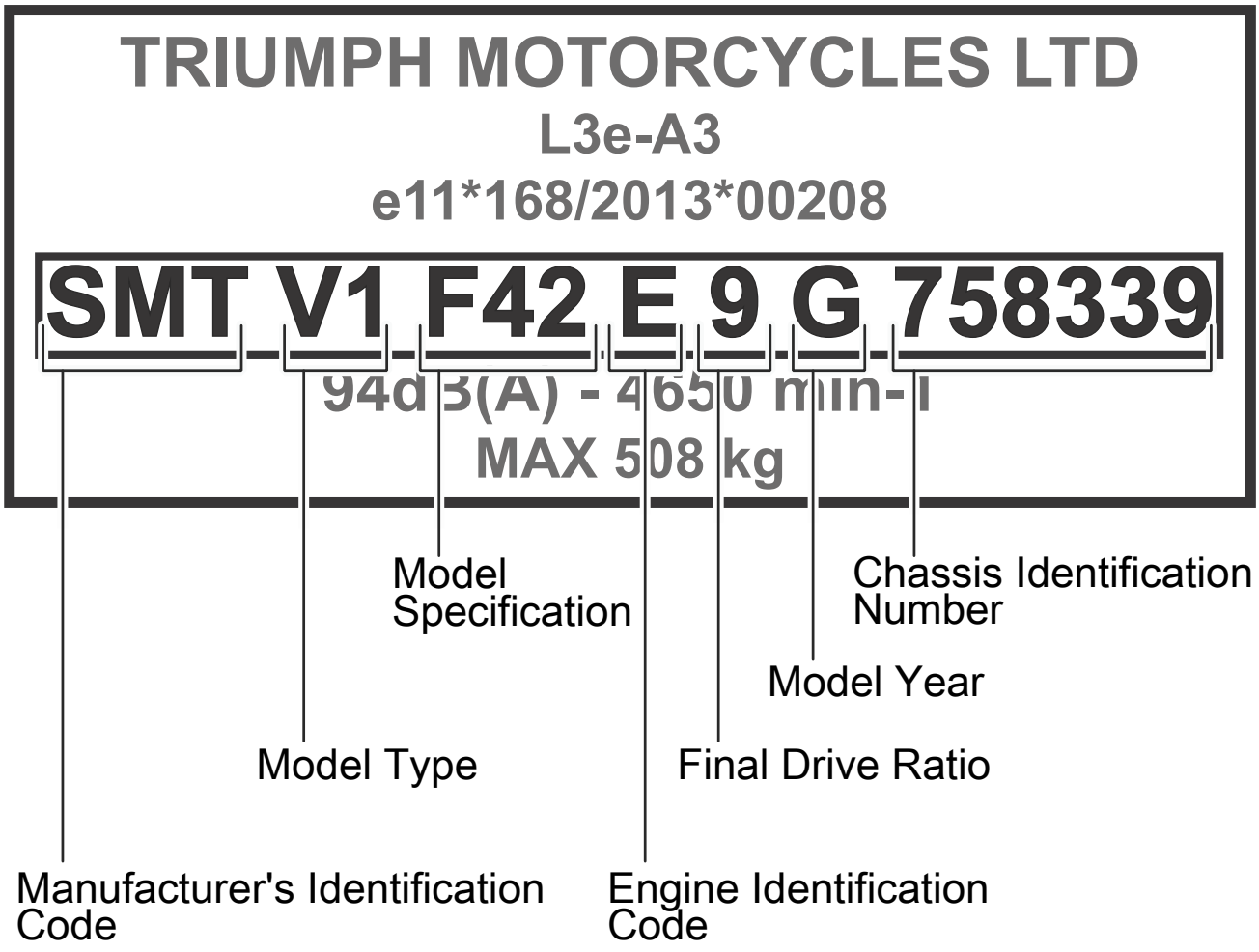
A standard 17 character vehicle identification number (VIN) is required to display the motorcycles individual build characteristics.

- A VIN consists of 17 characters (digits and capital letters) that act as a unique form of identification.
- No two motorcycles have the same VIN.
- A VIN displays the Motorcycles unique features, specifications and manufacturer.
- A VIN can be used for information regarding service bulletins, warranty claims and general search functions related to the individual motorcycle

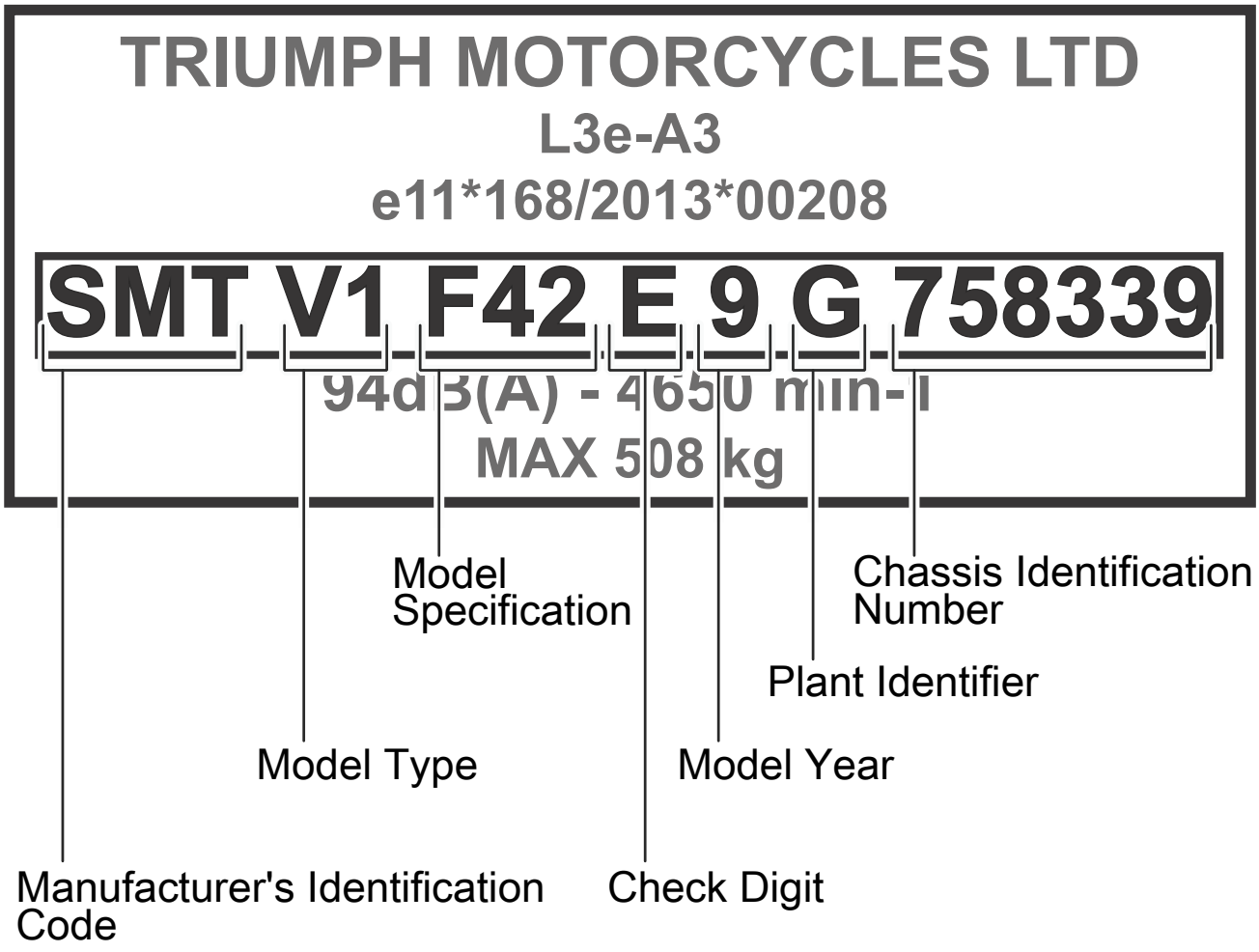
The illustration displays the logic related to the 17 digits.

Model Years 2000 to 2026 are displayed in the following table

All Markets Except USA, Canada and Brazil



USA, Canada and Brazil Markets Only



Model Years 2000 and 2010-2017		Model years 2001-2009		Model Years 2018-2026	
Model Year	Alphabetical Suffix	Model Year	Numerical Suffix	Model Year	Alphabetical Suffix
2000	Y	2001	1	2018	J
2010	A	2002	2	2019	K
2011	B	2003	3	2020	L
2012	C	2004	4	2021	M
2013	D	2005	5	2022	N
2014	E	2006	6	2023	P
2015	F	2007	7	2024	R
2016	G	2008	8	2025	S
2017	H	2009	9	2026	T

Item: **168.19**

Description: **Thermostat**

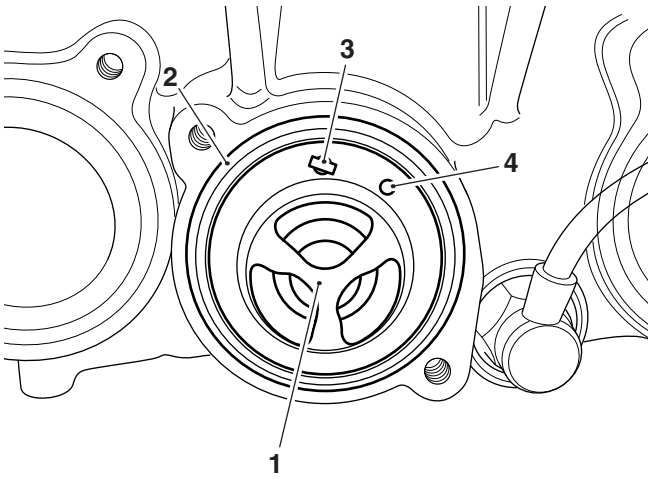
Model Affected: **Thunderbird, Thunderbird ABS, Thunderbird Storm, Thunderbird Storm ABS**

A revised thermostat is now in use and is retrofittable from engine number 422367.

The revised thermostat utilises a jiggle pin and an air bleed hole. The jiggle pin allows trapped air in the cooling system to pass through the thermostat into the radiator and is then dispersed via the coolant expansion tank.

If the thermostat is removed or replaced for any reason it must be refitted with the jiggle pin positioned towards the top of the cylinder head as shown.

When ordering replacement parts, refer to the EPC.



cjts

1. **Thermostat**
2. **Thermostat seal**
3. **Jiggle pin**
4. **Air bleed hole**

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

Item: 168.20

Description: Drive Belt Noise

Model Affected: Thunderbird

Concerns have been raised over a potential squeaking noise from the final drive belt on some Thunderbird models.

Squeaking drive belts are not defective, therefore do not automatically replace the drive belt. Clean, re-tension and lubricate the drive belt with CRC Heavy Duty Silicone Lubricant, as recommended by our drive belt suppliers, or a direct equivalent.

⚠ Warning

Silicone lubricant can be hazardous to health.

When using silicone lubricant, always refer to the relevant material safety data sheet and wear appropriate personal protective equipment.

⚠ Warning

When using silicone spray, care must be taken not to spray any part of the tyres or braking components.

Silicone spray on the tyres or braking components can seriously affect the handling and braking efficiency resulting in loss of control of the motorcycle or an accident.

⚠ Caution

To prevent paint damage, do not spray silicone lubricant onto any area of the bodywork. Silicone lubricant will damage paintwork.

Rear wheel alignment must be checked and, if necessary, adjusted every time the rear wheel has been removed or the final drive belt adjusted. For further information on drive belt tension and rear wheel alignment, refer to the Service Manual and Technical News 163.

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

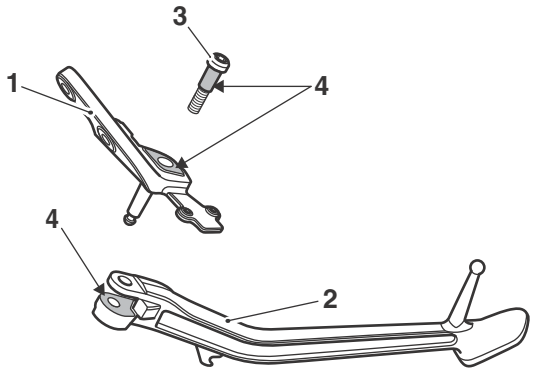
Item:	**168.21**
Description:	**Side Stand Lubrication**
Model Affected:	**Street Twin, Bonneville T120, Bonneville T120 Black, Thruxton 1200 Thruxton 1200R, Tiger Explorer XC, Tiger Explorer XR, Tiger Explorer XRX, Tiger Explorer XCX, Tiger Explorer XRT, Tiger Explorer XCA, Tiger Explorer XRX LRH, Tiger Explorer XCX LRH**

⚠ Warning

Before starting work, ensure the motorcycle is stabilised and adequately supported. This will help prevent it from falling and causing injury to the operator or damage to the motorcycle.

Triumph motorcycles recommends that the side stand and its bracket contact surface and pivot are lubricated using Castrol High Temperature grease at every annual service.

1. Remove the return spring, side stand pivot and the E-clip. Discard the E-clip.
2. Smear the shank of the side stand pivot and the upper and lower contact surfaces of the side stand and side stand carrier bracket with Castrol High Temperature Grease.



1. **Pivot**
2. **Side stand (Tiger Explorer shown)**
3. **Side stand carrier (Tiger Explorer shown)**
4. **Lubrication area**

3. Refit the side stand pivot and secure with a new E clip.
4. Refit the return spring.

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

Item:	**168.22**
Description:	**Triumph Diagnostic Tool - Rear Preload Motor Up/Down Function Tests**
Model Affected:	**Tiger Explorer XRX, Tiger Explorer XRX-LRH, Tiger Explorer XRT, Tiger Explorer XCX, Tiger Explorer XCX-LRH, Tiger Explorer XCA**

Detailed below are procedures for using the Rear Preload Motor Up/Down function tests provided in the Triumph Diagnostic Tool for the above models.

Test Rear Preload Motor Operation

⚠ Warning

Before starting work, ensure the motorcycle is stabilised and adequately supported. This will help prevent it from falling and causing injury to the operator or damage to the motorcycle.

1. Connect the Triumph diagnostic tool as described in the Service Manual and switch the ignition on.
2. Navigate to CHASSIS DIAGNOSTICS - CHASSIS ECM DIAGNOSTICS and select FUNCTION TESTS.

⚠ Caution

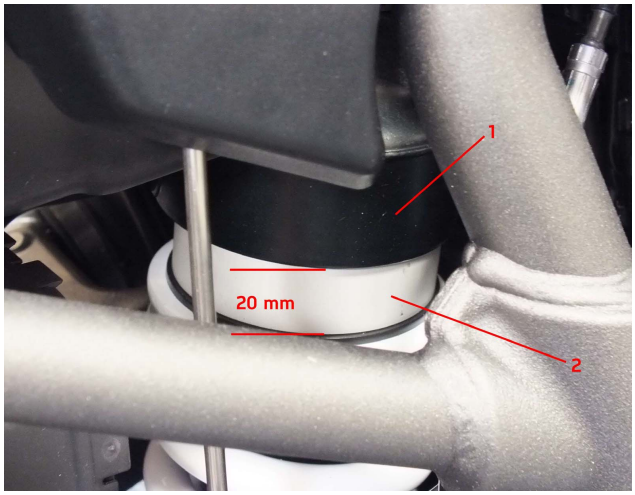
If the rear preload motor adjustment position reaches its maximum or minimum adjustment end stop, do not continue to drive the motor towards the end stop.

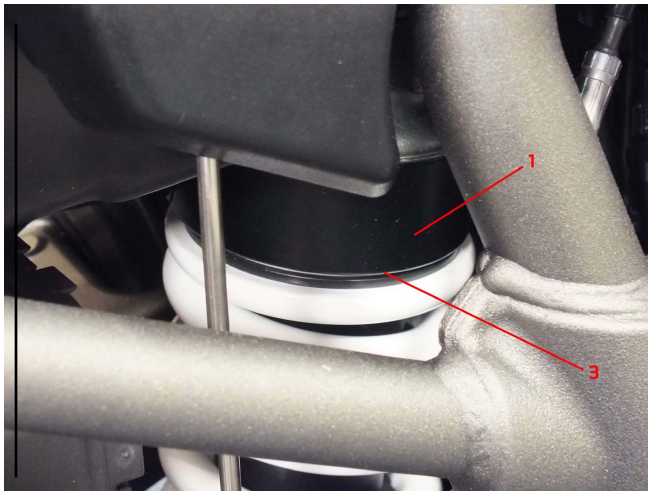
Select the test direction that will drive motor away from the end stop as described later in this procedure.

Repeatedly driving the rear preload motor against an end stop may cause the motor to overheat, which can result in permanent damage.

Note:

- **The position of the rear preload motor adjustment can be checked visually as follows:**
- **At the maximum preload end stop, the preload adjustment collar is fully extended from the base of the motor housing. Approximately 20 mm of the adjustment collar is visible as shown below.**
- **At intermediate preload adjustment positions, less of the adjustment collar will be visible as the adjustment position moves closer to the minimum preload end stop.**
- **At the minimum preload end stop, the preload adjustment collar is fully retracted into the motor housing.**





1. **Rear preload motor housing**
2. **Adjustment collar (maximum preload position - fully extended)**
3. **Adjustment collar (minimum preload position - fully retracted)**

3. Visually Check the position of the rear preload motor.

Note:

- **If the rear preload motor is positioned at or near the minimum or maximum adjustment end stop, the motor must first be driven away from the end stop, before testing the motor in the opposite direction.**
- **Motor at or near maximum preload - select the rear preload motor down test first.**
- **Motor at or near minimum preload - select the rear preload motor up test first.**
- **Motor at intermediate position - select either test direction.**

4. Select the appropriate rear preload motor test direction.

⚠ Warning

Never start the engine or run the engine in a confined area. Exhaust fumes are poisonous and can cause loss of consciousness and death within a short period of time. Always operate your motorcycle in the open-air or in an area with adequate ventilation.

5. Start the engine.

Note:

- **Upon clicking start, the rear preload motor adjustment collar will move approximately 0.5 mm in the selected direction.**
- **It will take approximately 38 repeated tests to operate the preload motor through its full adjustment range from end stop to end stop, however It is not necessary to do this to verify correct motor operation. Three to five repeated tests are sufficient to verify motor operation.**
- **If the preload motor is operated through its full adjustment range (38 repeated tests), allow the motor to cool for five minutes before running further tests.**

6. Click start and observe the rear preload motor adjustment collar movement. Repeat the test as necessary to verify correct motor operation.
7. Repeat the test in the opposite direction to verify correct motor operation in both directions.

Note:

- **If no adjustment collar movement can be observed, check for any stored DTCs, rectify as necessary and repeat the rear preload motor test. If the rear preload motor still doesn't function correctly, contact Triumph service.**

8. Turn the ignition off and disconnect the Triumph diagnostic tool. Allow 15 seconds for the chassis ECM to power down.

Note:

- **With the ignition switch turned off, the Triumph diagnostic tool will prevent the chassis ECM from powering down if it is left connected to the motorcycle.**
- **To enable the chassis ECM to power down, disconnect the diagnostic tool from the motorcycle.**
- **After running the rear preload motor up/down tests, the rear preload motor will automatically recalibrate the next time the ignition switch is turned on, provided the chassis ECM is first allowed to power down.**

9. Turn the ignition switch on and allow the rear preload motor to calibrate as described in the Service Manual.

Free the Rear Preload Motor

If the rear preload motor appears to be stuck at the maximum or minimum adjustment end stop, the rear preload motor up/down function tests can be used to attempt to free the motor as follows.

⚠ Warning

Before starting work, ensure the motorcycle is stabilised and adequately supported. This will help prevent it from falling and causing injury to the operator or damage to the motorcycle.

1. Connect the Triumph diagnostic tool as described in the Service Manual and switch the ignition on.

2. Navigate to CHASSIS DIAGNOSTICS - CHASSIS ECM DIAGNOSTICS and select FUNCTION TESTS.

⚠ Caution

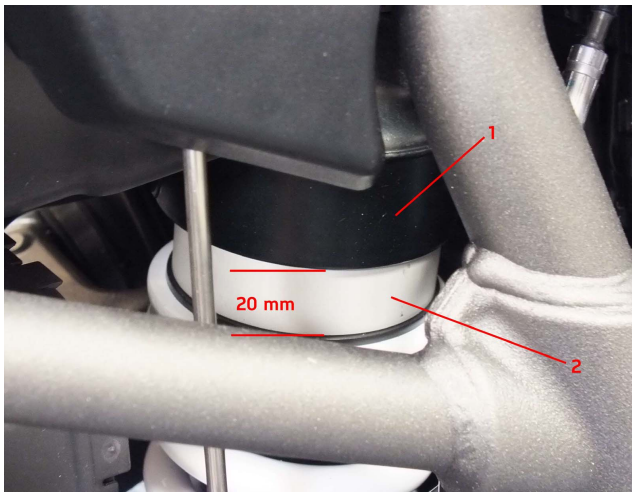
If the rear preload motor adjustment position reaches its maximum or minimum adjustment end stop, do not continue to drive the motor towards the end stop.

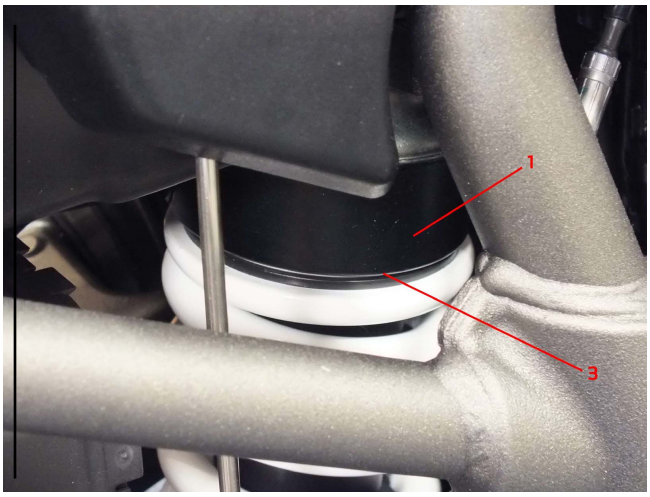
Select the test direction that will drive motor away from the end stop as described later in this procedure.

Repeatedly driving the rear preload motor against an end stop may cause the motor to overheat, which can result in permanent damage.

Note:

- **The position of the rear preload motor adjustment can be checked visually as follows:**
- **At the maximum preload end stop, the preload adjustment collar is fully extended from the base of the motor housing. Approximately 20 mm of the adjustment collar is visible as shown below.**
- **At the minimum preload end stop, the preload adjustment collar is fully retracted into the motor housing.**





1. **Rear preload motor housing**
2. **Adjustment collar (maximum preload position - fully extended)**
3. **Adjustment collar (minimum preload position - fully retracted)**

3. Visually Check the position of the rear preload motor.

Note:

- **If the rear preload motor appears to be stuck at the minimum or maximum adjustment end stop, drive the motor away from the end stop using the appropriate test direction as follows.**
- **Motor stuck at maximum preload - select the rear preload motor down test.**
- **Motor stuck at minimum preload - select the rear preload motor up test.**

4. Select the appropriate rear preload motor test direction.

⚠ Warning

Never start the engine or run the engine in a confined area. Exhaust fumes are poisonous and can cause loss of consciousness and death within a short period of time. Always operate your motorcycle in the open-air or in an area with adequate ventilation.

5. Start the engine.

⚠ Caution

Do not make more than three attempts to free the rear preload motor.

Making more than three attempts to free the rear preload motor may cause the motor to overheat, which can result in permanent damage.

Note:

- **Upon clicking start, the rear preload motor adjustment collar will move approximately 0.5 mm in the selected direction.**

6. Click start and check for rear preload motor adjustment collar movement. A maximum of three attempts may be made to free the motor from an end stop. The attempt to free the motor is successful if adjustment collar movement is observed.

Note:

- **If after three attempts to free the motor no adjustment collar movement can be observed, check for any stored DTCs, rectify as necessary and repeat the rear preload motor test. If the rear preload motor still doesn't function correctly, contact Triumph service.**

7. Turn the ignition off and disconnect the Triumph diagnostic tool. Allow 15 seconds for the chassis ECM to power down.

Note:

- **With the ignition switch turned off, the Triumph diagnostic tool will prevent the chassis ECM from powering down if it is left connected to the motorcycle.**
- **To enable the chassis ECM to power down, disconnect the diagnostic tool from the motorcycle.**
- **After running the rear preload motor up/down tests, the rear preload motor will automatically recalibrate the next time the ignition switch is turned on, provided the chassis ECM is first allowed to power down.**

8. Turn the ignition switch on and allow the rear preload motor to calibrate as described in the Service Manual. During calibration, observe the rear preload motor adjustment collar moving through its full adjustment range to verify correct motor operation.

Circulation

Initial and date when read and return to central file holder

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