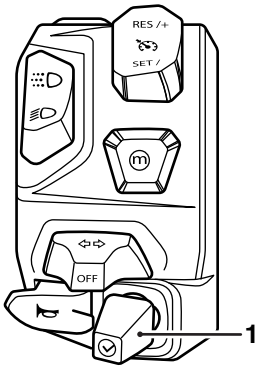
Technical Bulletin 222
12.2021

Contents

Item:	**222.1**
Description:	**Home Button Operation for Models with TFT Instruments**
Model Affected:	**Tiger 800 XR, Tiger 900, Tiger 800 XRX, Tiger 900 GT, Tiger 800 XCX, Tiger 900 Rally, Tiger 800 XRT, Tiger 900 GT Pro, Tiger 800 XCA, Tiger 900 Rally Pro, Tiger 800 XRX - LRH, Tiger 900 GT - LRH, Tiger 850 Sport, Scrambler 1200 Bond Edition, Scrambler 1200 Steve McQueen Edition, Scrambler 1200 XC, Scrambler 1200 XE, Daytona Moto2™ 765, Daytona Moto2™ 765, Street Triple R, Street Triple R - LRH, Street Triple RS, Speed Triple S, Speed Triple RS, Speed Triple 1200 RS, Speed Triple 1200 RR, Tiger 1200 XRX, Tiger 1200 XCX, Tiger 1200 XRT, Tiger 1200 XCA, Tiger 1200 XRX - LRH, Tiger 1200 Alpine, Tiger 1200 Desert, Rocket 3 GT Triple Black, Rocket 3 R Black, Rocket 3 GT, Rocket 3 R, Rocket 3 TFC**

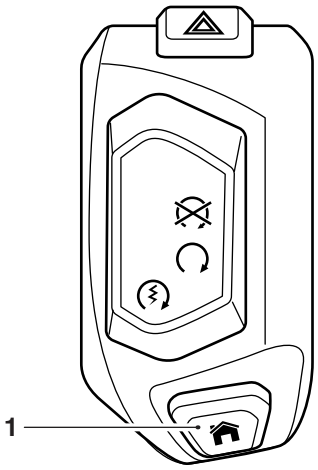
On the above models, the HOME button will not operate if any messages in the information tray have not been acknowledged.

To acknowledge a message in the information tray, users must press the joystick button centre. If more than one message is displayed, push the joystick left/right to show and acknowledge the other messages.



1. Joystick button

When all messages have been acknowledged, the HOME button will now function as intended.



1. HOME button

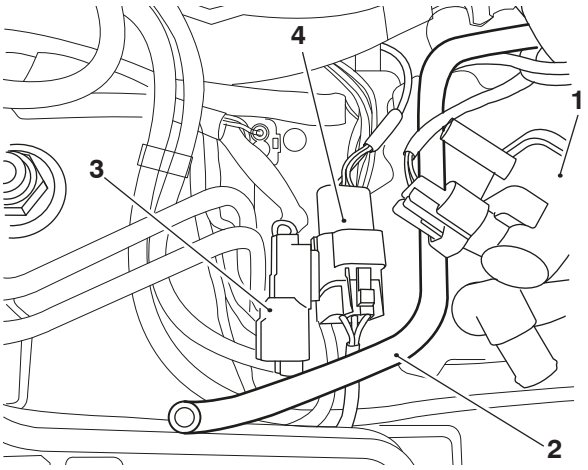
Item: 222.2

Description: Fuel Tank Drain Hose Routing

Model Affected: Daytona Moto2™ 765

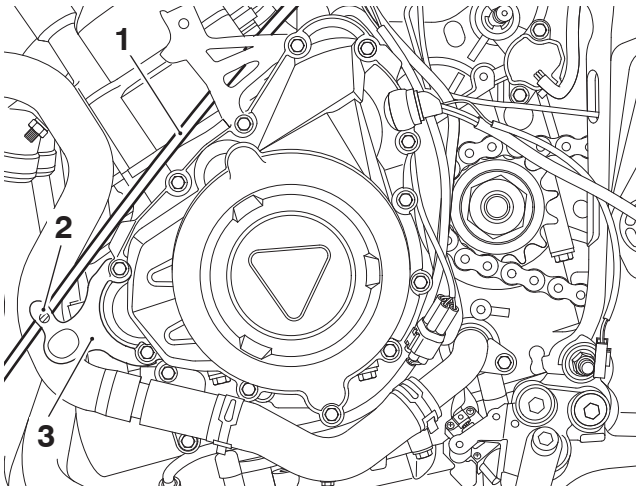
The routing for the fuel tank drain hose and evaporative vent hose has changed.

When installing the fuel tank drain hose, make sure it is routed above the Triumph Shift Assist and rear wheel speed sensor connectors, and below the purge valve as shown below.



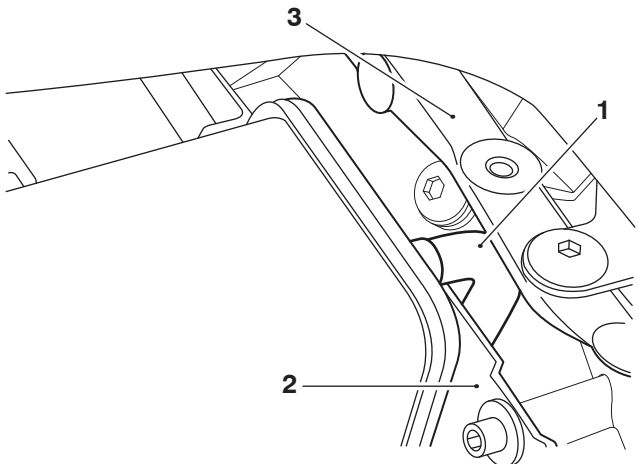
1. **Purge valve**
2. **Fuel tank drain hose**
3. **Rear wheel speed sensor connector**
4. **Triumph shift assist connector**

The fuel tank drain hose is then routed under the frame and on top of the left hand side engine cover, and secured by the clip at the rear of the lower left hand fairing bracket.



1. **Fuel tank drain hose**
2. **Clip**
3. **Fairing bracket**

The evaporative canister vent hose is to be routed between the battery tray and the rear subframe as shown below.



1. **Evaporative canister vent hose**
2. **Battery tray**
3. **Rear subframe**

Item: **222.3**

Description: **Misdetection of Diagnostic Trouble Codes (DTCs)**

Model Affected: **Street Scrambler Sandstorm, Street Twin Goldline, Scrambler 1200 Steve McQueen Edition, Bonneville T100, Street Scrambler, Speed Twin, Thruxton RS, Street Twin, Scrambler 1200 XC, Scrambler 1200 XE, Bonneville T120 Black, Bonneville T120, Bonneville Bobber, Speed Triple 1200 RS**

On the above models, it has been found that the Engine ECM can misdetect a malfunction, causing the MIL to illuminate and DTCs to be stored with no actual malfunction present.

An updated calibration has been released for these motorcycles and is included from the 2021-12 release onwards of the Triumph diagnostic tool software.

If any of the following DTCs are present, make sure the motorcycle has been updated to the latest calibration. Test ride the motorcycle to confirm the DTCs have been cleared.

Fault Code	**Description**
P0053	Oxygen sensor heater resistance - bank 1 sensor 1
P050C	Engine coolant temperature sensor signal high - too warm for cold start conditions
P011B	Engine coolant temperature sensor correlation error with intake air temperature sensor

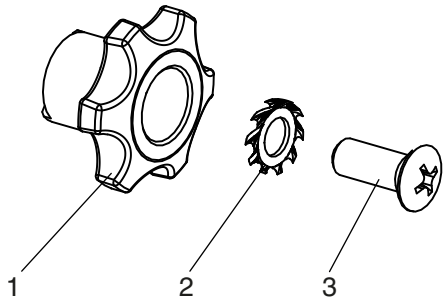
If, after the test ride the DTCs return, refer to the Service Manual to investigate further.

Item:	**222.4**
Description:	**Rebound Adjuster Parts Kit**
Model Affected:	**Scrambler 1200 Bond Edition, Scrambler 1200 Steve McQueen Edition, Scrambler 1200 XC, Scrambler 1200 XE**

A rebound adjuster parts kit has been introduced for the above models.

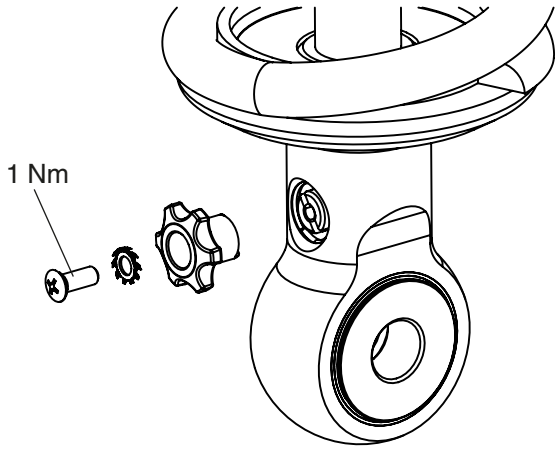
Parts Kit T2051090 - Damping Adjuster Kit, RSU

Kit Contents	Quantity
Damping adjuster	1
Screw	1
Lock washer	1



1. **Damping adjuster**
2. **Lock washer**
3. **Screw**

When installing the new damping adjuster, make sure the lock washer is fitted and tighten the screw to **1 Nm**.



Damping Adjuster Installation

When ordering replacement parts, refer to the EPC.

Please mark your copy of the Service Manual with this information. For electronic service manuals, store this information in a readily accessible place and refer to it when working on the relevant Triumph motorcycle. This information will be included in the next service manual update.

Item: 222.5

Description: Introduction of New Instrument Hardware

Model Affected: Trident 660

A new version of instrument hardware has been introduced for the above model.

The new instrument hardware version has dedicated calibrations that are not compatible with previous versions of the instrument hardware.

The Triumph diagnostic tool has been updated to detect the instrument hardware version when performing instrument downloads on the above models. These changes take effect from diagnostic tool version 2021-14.1 onwards. Dealers are requested to make sure that they are always using the latest version of the Triumph diagnostic tool when performing downloads on motorcycles.

From version 2021-14.1, the diagnostic tool will only allow calibrations to be downloaded that are correct for the instrument hardware version detected. This works as follows for the Automatic and Manual download areas.

Automatic Model Detection Downloads

The diagnostic tool will automatically detect the instrument hardware version by reading the "Triumph Base Part Number" from the instruments upon motorcycle connection. When the tool progresses to the calibration selection menu, only calibrations that are appropriate for the model and instrument hardware version will be made available for download.

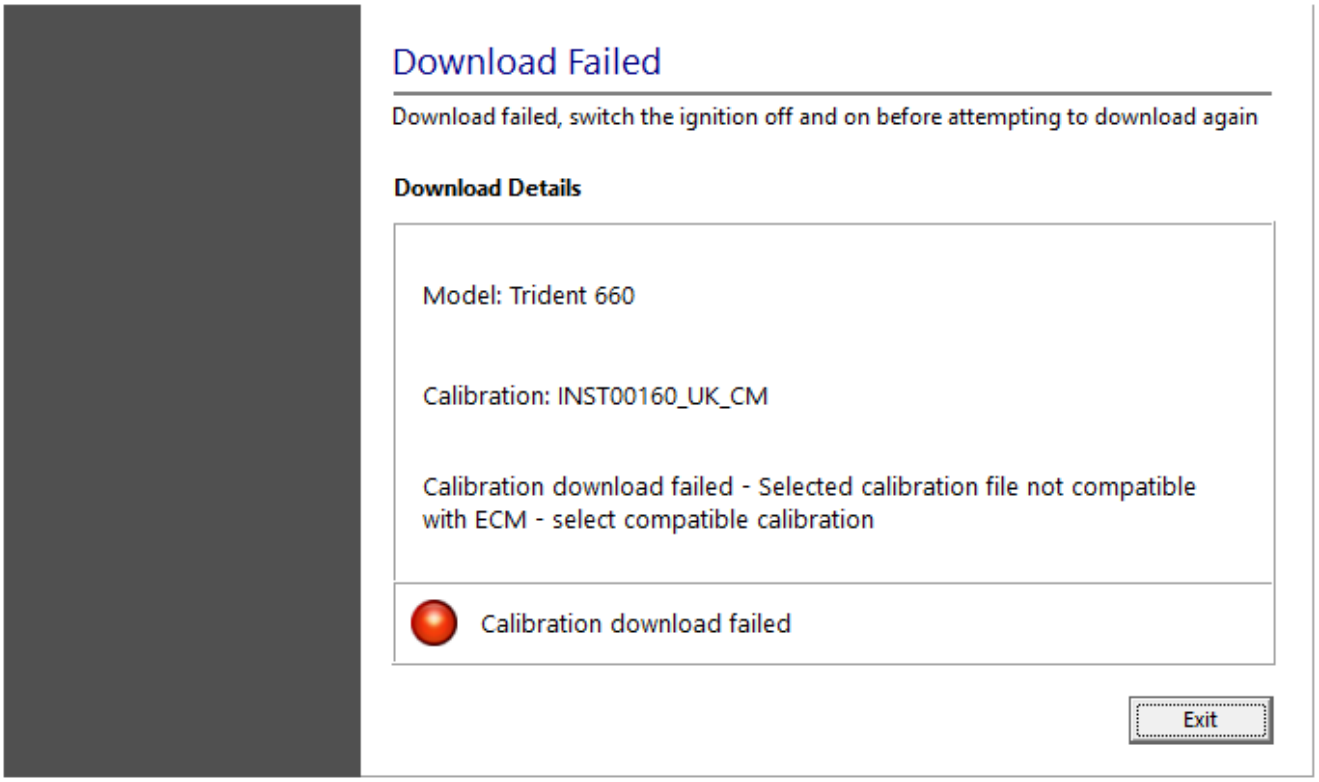
Automatic Model Detection should be used wherever possible to perform instrument updates in service.

Manual Model Selection Downloads

The diagnostic tool will display all available calibrations for the above models in the calibration selection menu.

Upon selecting a calibration for download from this area, the tool will attempt to detect the instrument hardware version before allowing the download to start. If the hardware version can be detected, the tool will check that the calibration selected is compatible. If the calibration is not compatible the download will not start, and the following message will be displayed:

"Calibration download failed – Selected calibration file not compatible with ECM – select compatible calibration"



Manual/Visual Identification of the Instrument Hardware Version

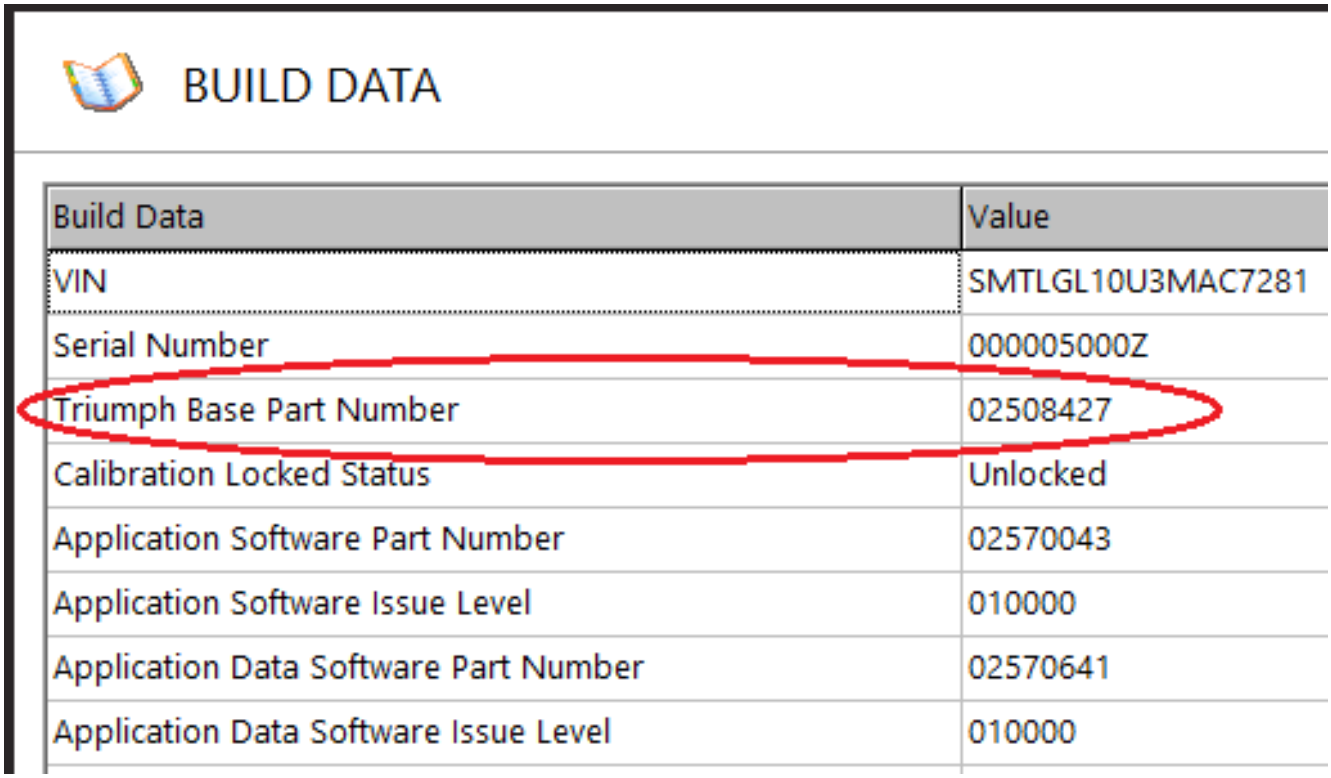
In addition to the controls mentioned above, the instrument hardware version can be manually identified if required by using the instrument Triumph Base Part Number.

Trident 660 Instruments - Triumph Base Part Numbers

Hardware	Base Part Number
Old Hardware Type	2580410
	2580418
New Hardware Type	2580427

The instrument Triumph Base Part Number can be read from the instruments as follows:

1. From the Instrument Build Data screen provided in the Instrument Diagnostics area of the diagnostic tool.



2. On a bar code label located on the back of the instrument unit. The instruments must be removed from the motorcycle to access this. The Triumph Base Part Number is provided in the first 7 numerical digits provided below the bar code.

To support calibration selection based on manual/visual identification, the instrument calibration descriptions for the above model have been updated to detail the instrument Triumph Base Part Numbers that they are suitable for.

Trident 660 Models

Triumph Base Part Number	Calibration	Calibration Description
2508410 2508418	INST00160_UK_CM	Use with instrument base part numbers 2508410 and 2508418. United Kingdom market only. Connectivity Module ready.
	INST00161_US_CM	Use with instrument base part numbers 2508410 and 2508418. United States of America market only. Connectivity Module ready.
	INST00162_ROW_CM	Use with instrument base part numbers 2508410 and 2508418. All markets unless a market specific calibration exists. Connectivity Module ready.
	INST00163_JP_CM	Use with instrument base part numbers 2508410 and 2508418. Japanese market only. Connectivity Module ready.
	INST00164_CA_CM	Use with instrument base part numbers 2508410 and 2508418. Canadian market only. Connectivity Module ready.
	INST00165_AU-NZ_CM	Use with instrument base part numbers 2508410 and 2508418. Australia and New Zealand markets. Connectivity Module ready.
2508427	INST00190_ROW_CM	Use with instrument base part number 2508427. All markets unless a market specific calibration exists. Connectivity Module ready.
	INST00191_US-CA_CM	Use with instrument base part number 2508427. North America and Canada markets only. Connectivity Module ready.
	INST00192_AU-NZ_CM	Use with instrument base part number 2508427. Australia and New Zealand markets. Connectivity Module ready.

Item: **222.6**

Description: **Handbook Changes**

Model Affected: **All models from 2022**

Starting with Tiger Sport 660, new models supplied to Europe and the United Kingdom will not be supplied with a printed Owner's Handbook. Instead, these models will be supplied with a multi-lingual Quick Start Guide and multi-lingual Service Record Book.

Handbooks will now be delivered by the Triumph website (https://www.triumphmotorcycles.co.uk/handbooks).

A new label, which includes a QR code and link to the handbook website, will be installed to all models.

The label will normally be located under the seat. Do not remove the label. If the label is damaged or missing, it should be replaced.

Customers will also receive an email link to their handbook at the time of motorcycle order.

Models in current production will change to the new format in 2022.

During 2022 all handbooks will be moved from the main Triumph website to Triumph Technical Information, and the link will redirect to the new location. This will provide users with the sophisticated search functionality of the new website.

Item: **222.7**

Description: **Triumph Diagnostic Tool - New Diagnostic functionality**

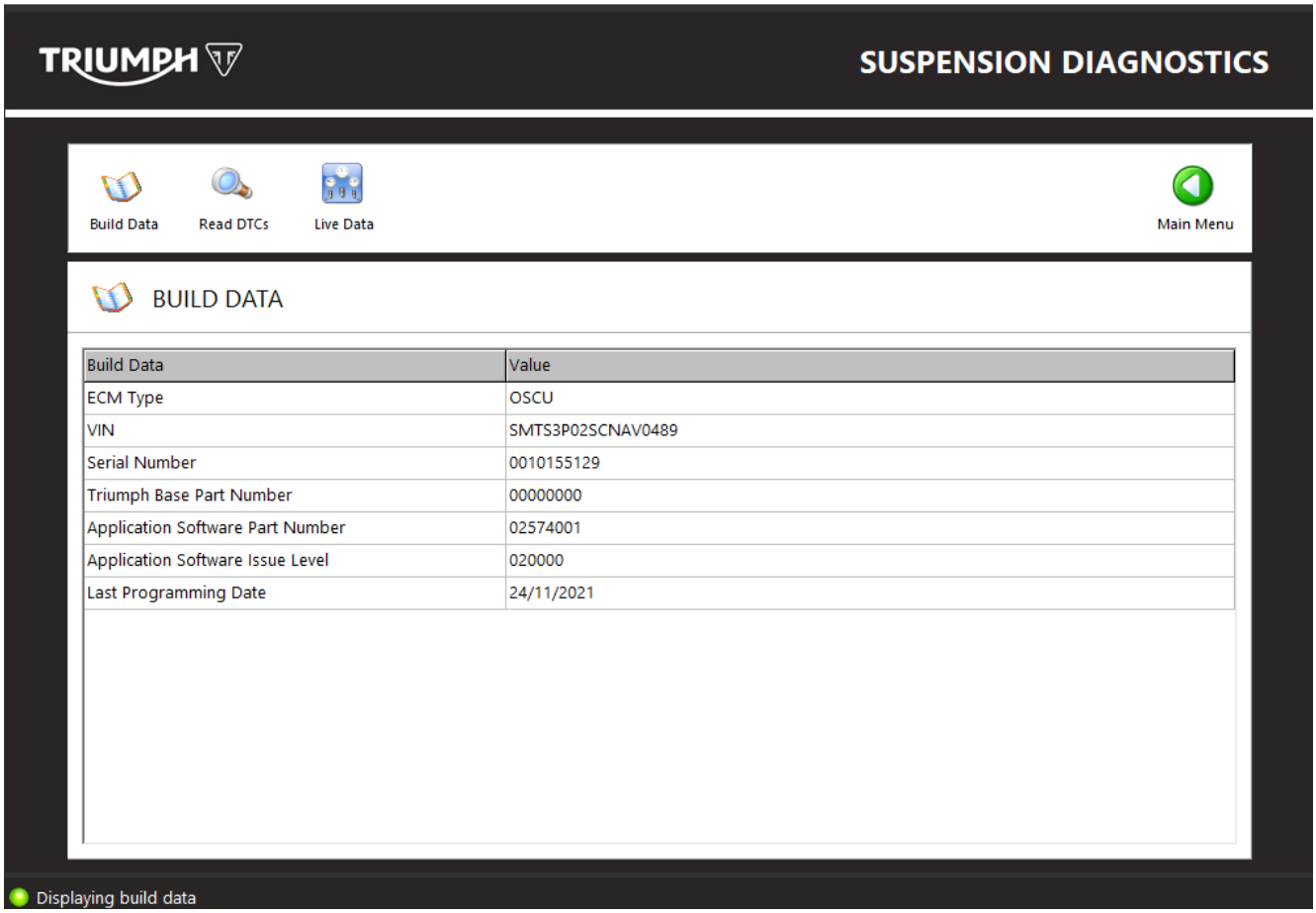
Model Affected: **Speed Triple 1200 RR**

The Triumph Diagnostic Tool (TDT) 2021-15 update includes new Suspension diagnostic support for the above model(s).

The Suspension system fitted to the above model(s) features a new diagnostic protocol. When connecting to Suspension Diagnostics on the above model(s), a new layout will be displayed as follows:

Build Data

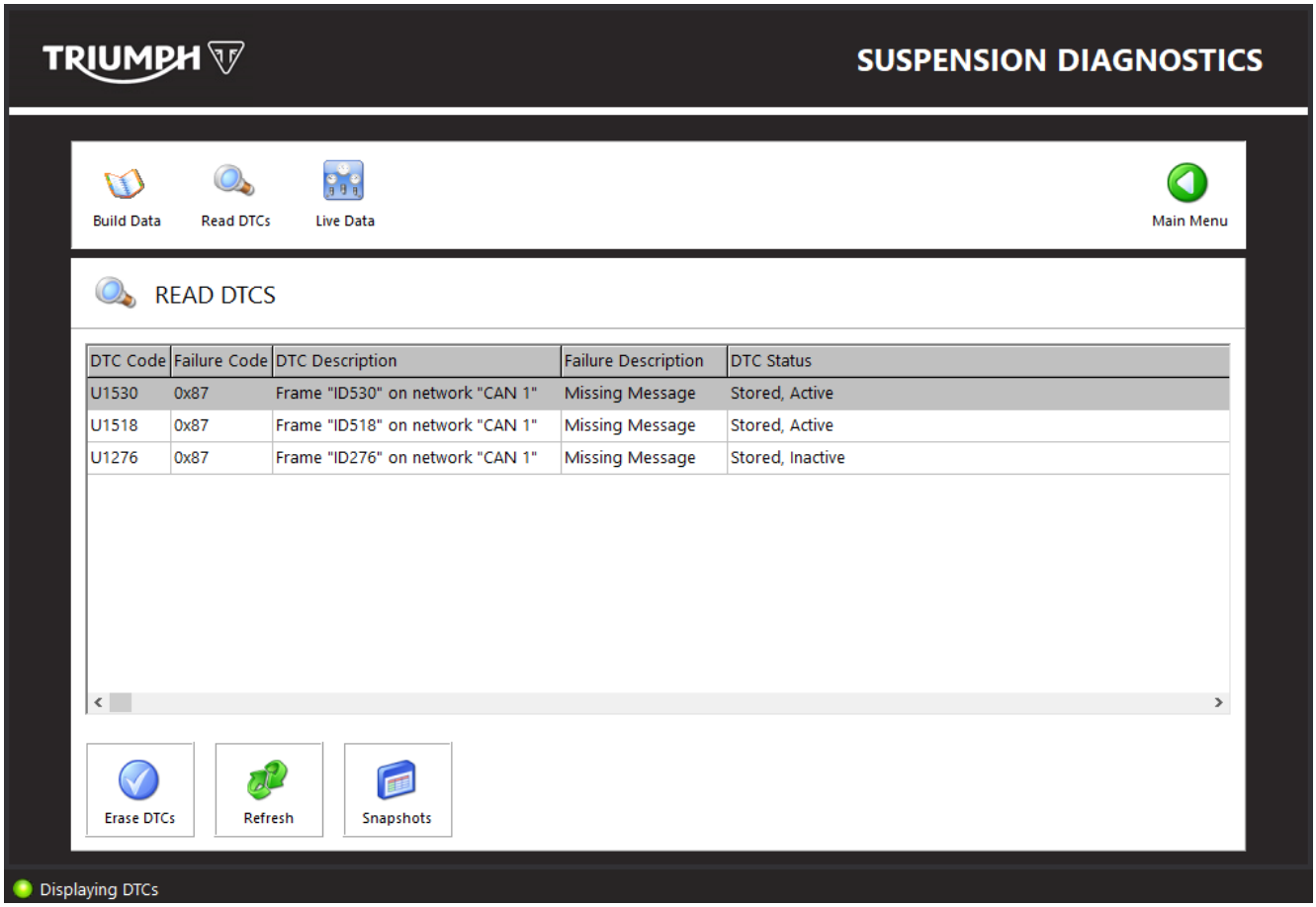
1. Once the diagnostic tool has connected to the motorcycle, and the suspension diagnostics button in the Chassis Diagnostics menu has been selected, the Build Data screen will be displayed.



2. The Build Data screen may display the following information where applicable:
   - ECM Type
   - VIN
   - Serial Number
   - Triumph Base Part Number
   - Application Software Part Number
   - Application Software Issue Level
   - Last Programming Date
3. Clicking on a cell in the build data table will highlight the cell. Once a table cell is highlighted, the key board cursor keys can be used to move the highlight to different cells.
4. From this screen it is possible to access the following additional screens by clicking the icons located along the top:
   - Read DTCs
   - Live Data

Read DTCs

1. Clicking on the **Read DTCs** icon at the top of the screen will display the Read DTCs screen.



2. This screen will display a list of all stored Diagnostic Trouble Codes (DTCs). Also displayed for each stored DTC listed is:
   - **Failure Code** - A two digit code that indicates the type of failure that has occurred.
   - **DTC Description** - A brief description of the component, system or network feature that the DTC relates to.
   - **Failure Description** - A brief description of the type of failure that has occurred (as indicated by the Failure Code above)
3. The **DTC Status** column will display one of two statuses:
   - Stored, Active
   - Stored, Inactive.
4. The DTC status "Stored, Active" indicates that a fault has occurred enough times for the DTC to be stored in long term memory, and that the fault was detected on the most recent on board diagnostics monitoring cycle.
5. The DTC status "Stored, Inactive" indicates that a fault has occurred enough times for the DTC to be stored in long term memory, but that the fault was **not** detected on the most recent on board diagnostics monitoring cycle.

Note:

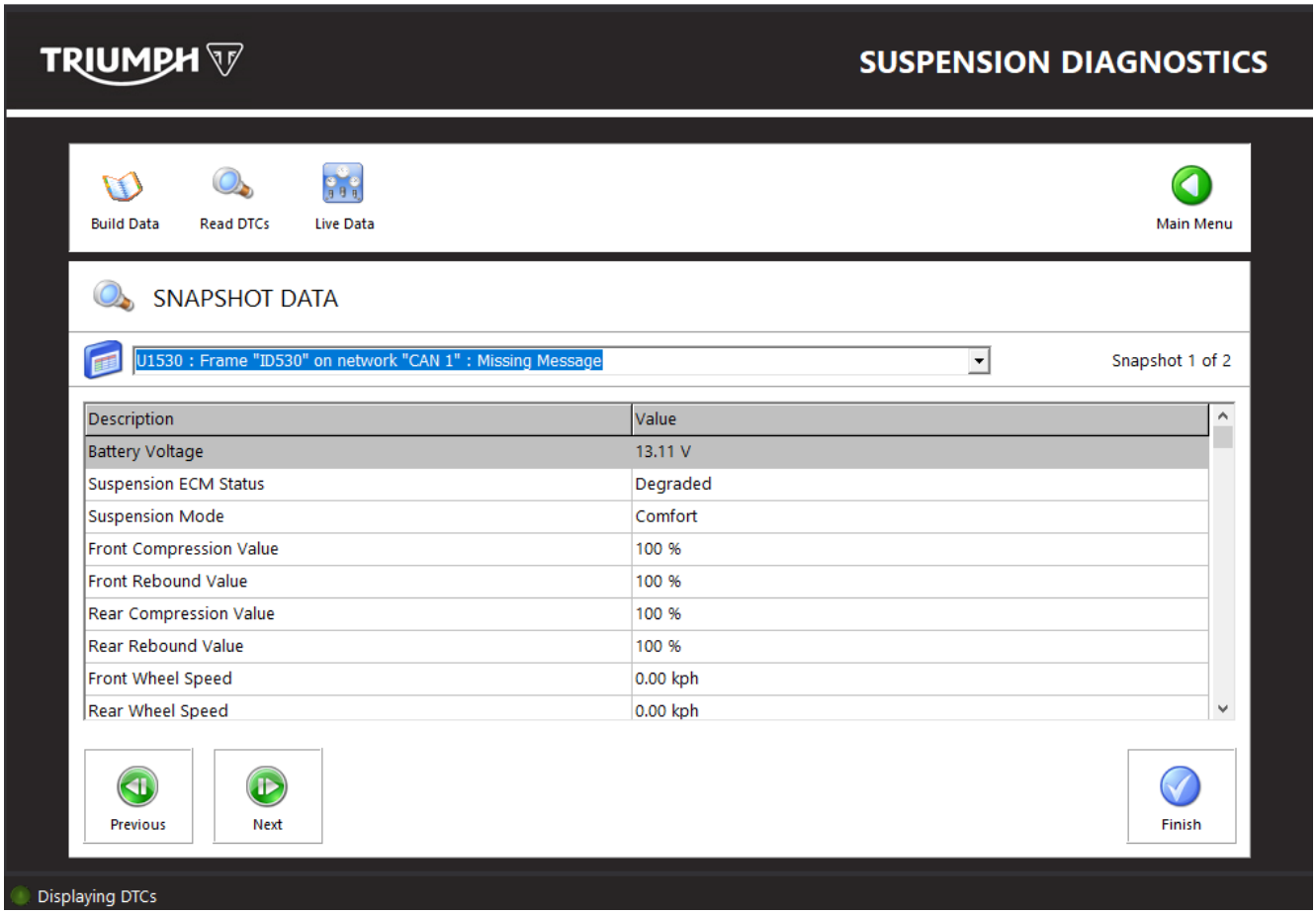
- **Refer to the relevant Triumph service manual for additional information on individual DTCs and for pinpoint tests to fully diagnose and repair the fault.**

6. Click the **Erase DTCs** button at the bottom of the screen to delete **ALL** stored DTCs from instrument memory. Once all of the DTCs are erased the diagnostic tool will automatically check again for faults which might still be present on the motorcycle. Recurring DTCs will be displayed after a few seconds, and will not be erased until the fault has been repaired.

Note:

- **It must be remembered that certain faults require the motorcycle to be ridden for a DTC to be stored; these faults may still be present on the motorcycle but the DTC will not be displayed until the motorcycle has been ridden. Always recheck for stored DTCs after a road test has been completed.**

7. Clicking on the **Snapshots** button will display the Snapshot Data screen.



8. The screen will display a Snapshot of the Live Data values taken at the point that a DTC is stored.
9. A pull down menu is provided to allow you to select which DTC snapshot data you would like to view. The snapshot data displayed is relevant to the DTC selected in the pull down menu window.
10. For details of the snapshot data available, refer to live data below.
11. A scroll bar is provided on the right hand side to allow all Snapshot data items to be viewed.

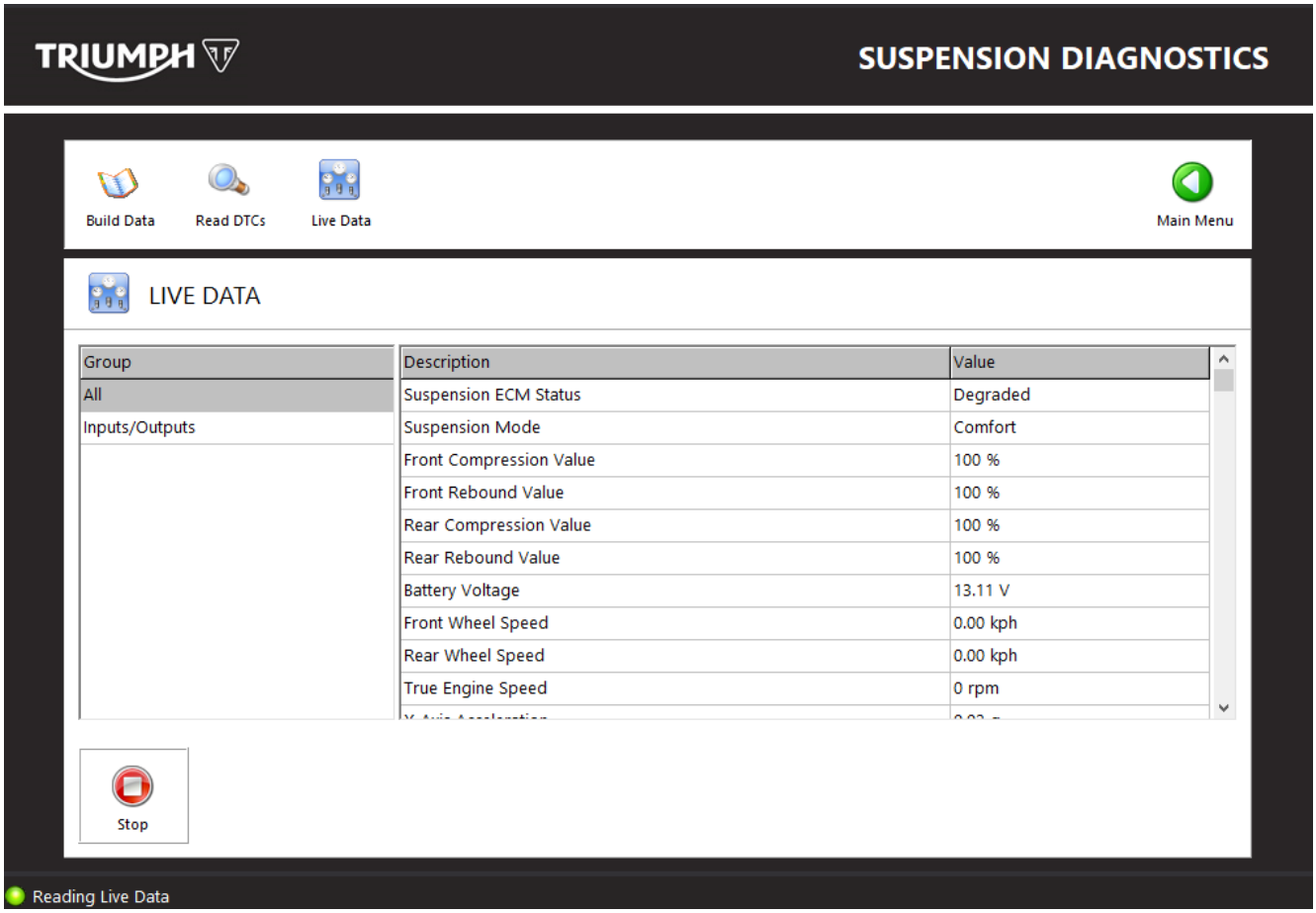
Note:

- **The suspension ECM is capable of storing multiple snapshots for each DTC.**

12. the **Next**and **Previous** buttons allow each available snapshot to be viewed for a selected DTC.
13. The number of the snapshot currently being viewed is indicated at the top right hand side of the display.

Live Data

Clicking on the **Live Data** icon at the top of the screen will display the Live Data screen.



When using this function it is possible to check the status of various data items controlled by the Suspension Control Unit. The data displayed is dependant on model.

The data sets are divided into four groups:

- All
- Suspension Data
- Dynamic Data
- General Data

The data contained in each group is as follows:

All

Selecting **All** allows you to view all available live data.

Suspension Data

The data available under **Suspension Data** is:

Description	Value
Suspension ECM Status	Current Suspension ECM Status
Suspension Mode	Current Suspension Mode
Front Compression Value	%
Front Rebound Value	%
Rear Compression Value	%
Rear Rebound Value	%

Dynamic Data

The data available under **Dynamic Data** is:

Description	Value
Front Wheel Speed	kph
Rear Wheel Speed	kph
True Engine Speed	rpm
X-Axis Acceleration	g
Y-Axis Acceleration	g
Z-Axis Acceleration	g
Yaw Rate	deg/s
Roll Rate	deg/s
Pitch Rate	deg/s
Lean Angle	°
Front Brake Master Cylinder Pressure	bar

General Data

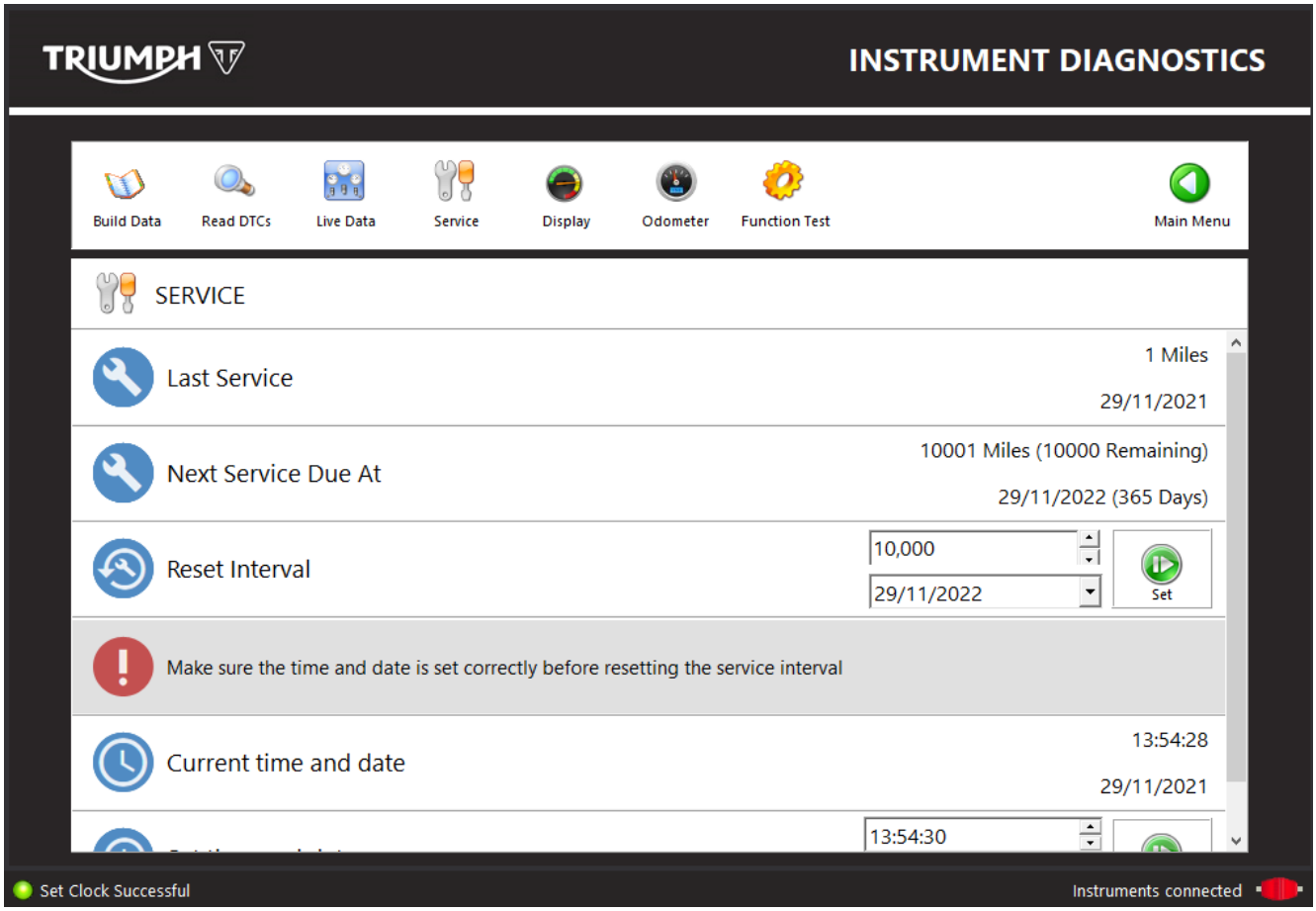
The data available under **General Data** is:

Description	Value
Battery Voltage	V
Running Time	s

Instrument Diagnostics - Service Interval Reset

The Triumph Diagnostic Tool (TDT) 2021-15 update also includes new instrument diagnostic functionality for the above model(s).

When connecting to Instrument Diagnostics, clicking on the **Service** icon at the top of the screen will display the updated service interval screen on the above model(s). The new layout will be displayed as follows:



From this screen it is possible to:

- View the 'Last Service' details stored on the instruments.
- View the 'Next Service Due At' details stored on the instruments.
- Reset the service interval.
- View the current instrument time and date settings.
- Adjust the instrument time and date settings.

The newly added 'Last service' section displays the odometer value at the last service and date of the last service.

When the 'Next Service Due At' mileage and date is reset by clicking the **Set** button, the motorcycle's current odometer value and the current date is programmed into the 'Last Service' section.

All other functions in the **Service** area are unchanged.

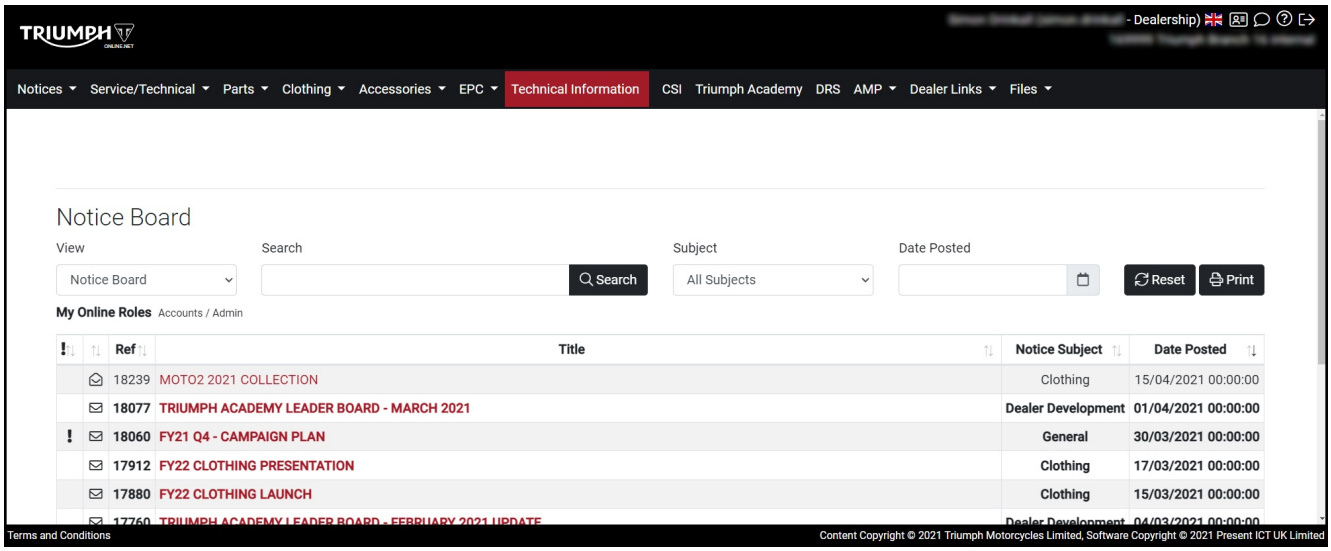
Item: **222.8**

Description: **Triumph Technical Information - Site Overview**

Model Affected: **All Models**

On 27th October 2021, Triumph's information portal TriTun was replaced by an all new system, called Triumph Technical Information.

The new system is accessed from a link within the main menu of www.triumphonline.net (TOL) as shown below.



The existing TOL 'Service Manuals' link to TriTun has been removed.

TriTun has now been switched off.

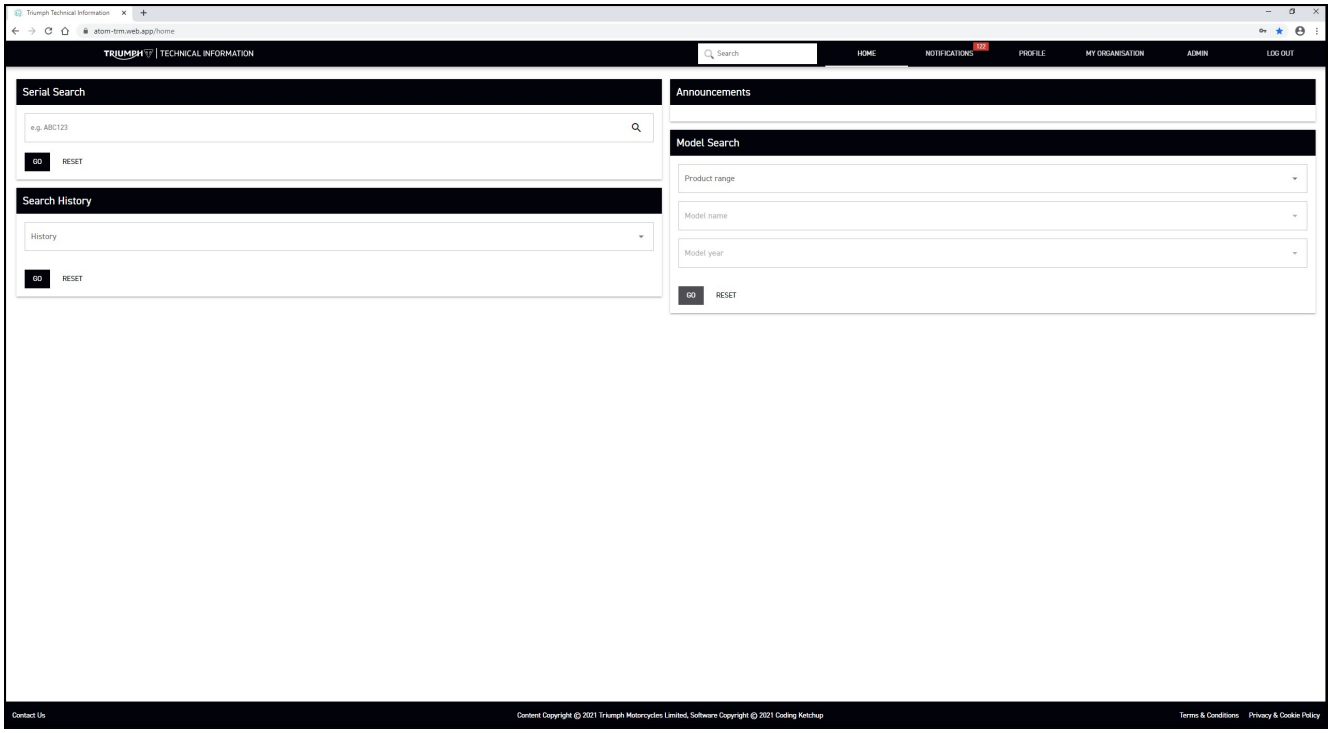
Below is a simple guide to the new Triumph Technical Information site.

Home Screen

Once logged in, the home screen will be displayed. Here you can access the various searches, notifications, account and profile settings.

The recommended method of search is using the **VIN Search** function. Here you can search for individual VIN numbers (only the last six digits is required) which will take you to the main page for the model.

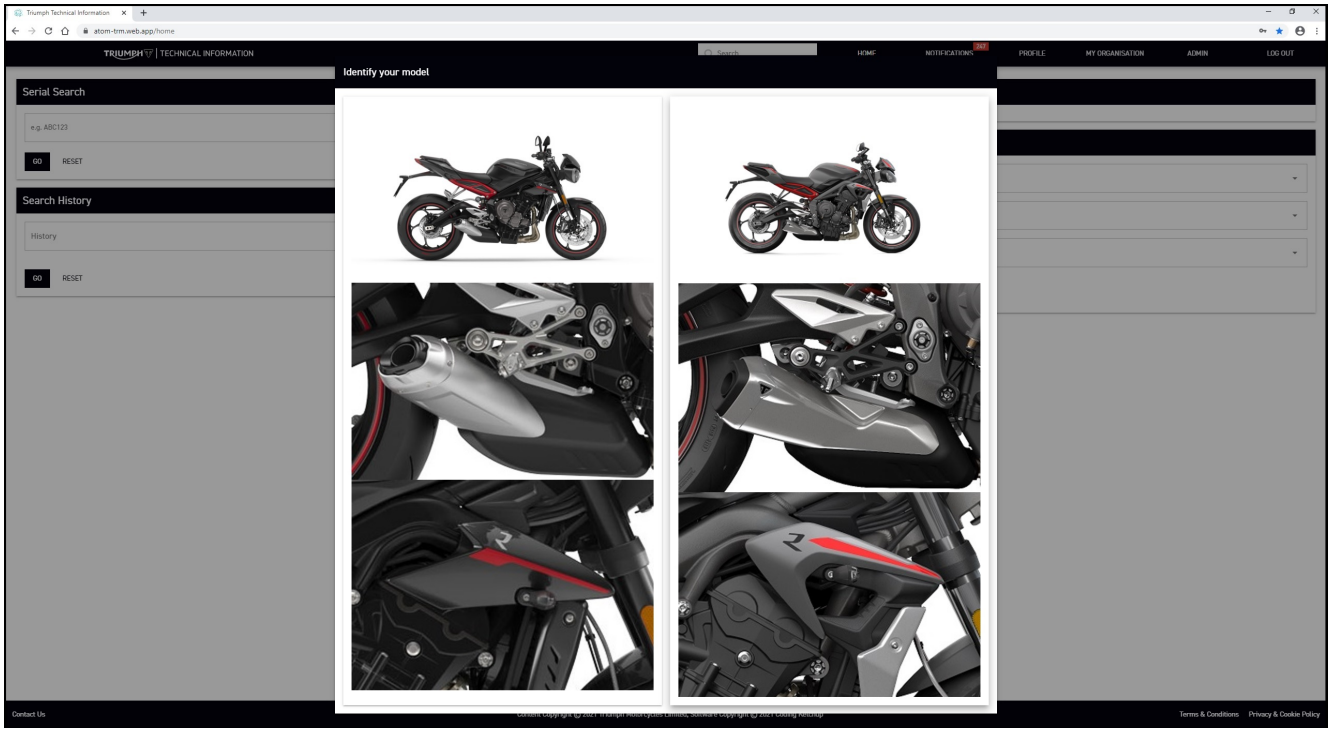
The **Search History** area will store your most recent searches.



Using the **Model Search** function, you can search for motorcycles through their categories and model year.

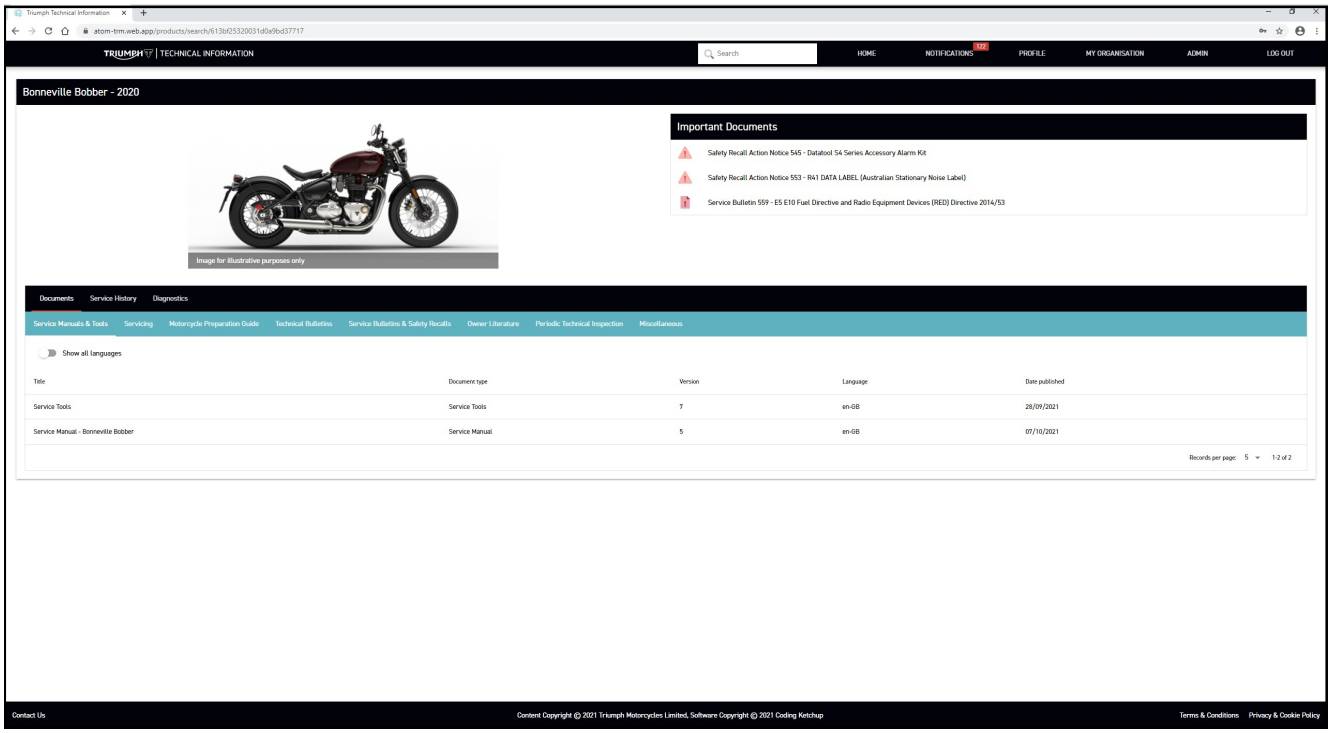
If more than one motorcycle exists for the model type and year selected, a text description or visual representation will appear to distinguish the different features of these models. Select the text or picture that is relevant to the motorcycle you are searching for.

Do not select a model based on the motorcycle colours shown in the images - the differences shown are all physical differences.

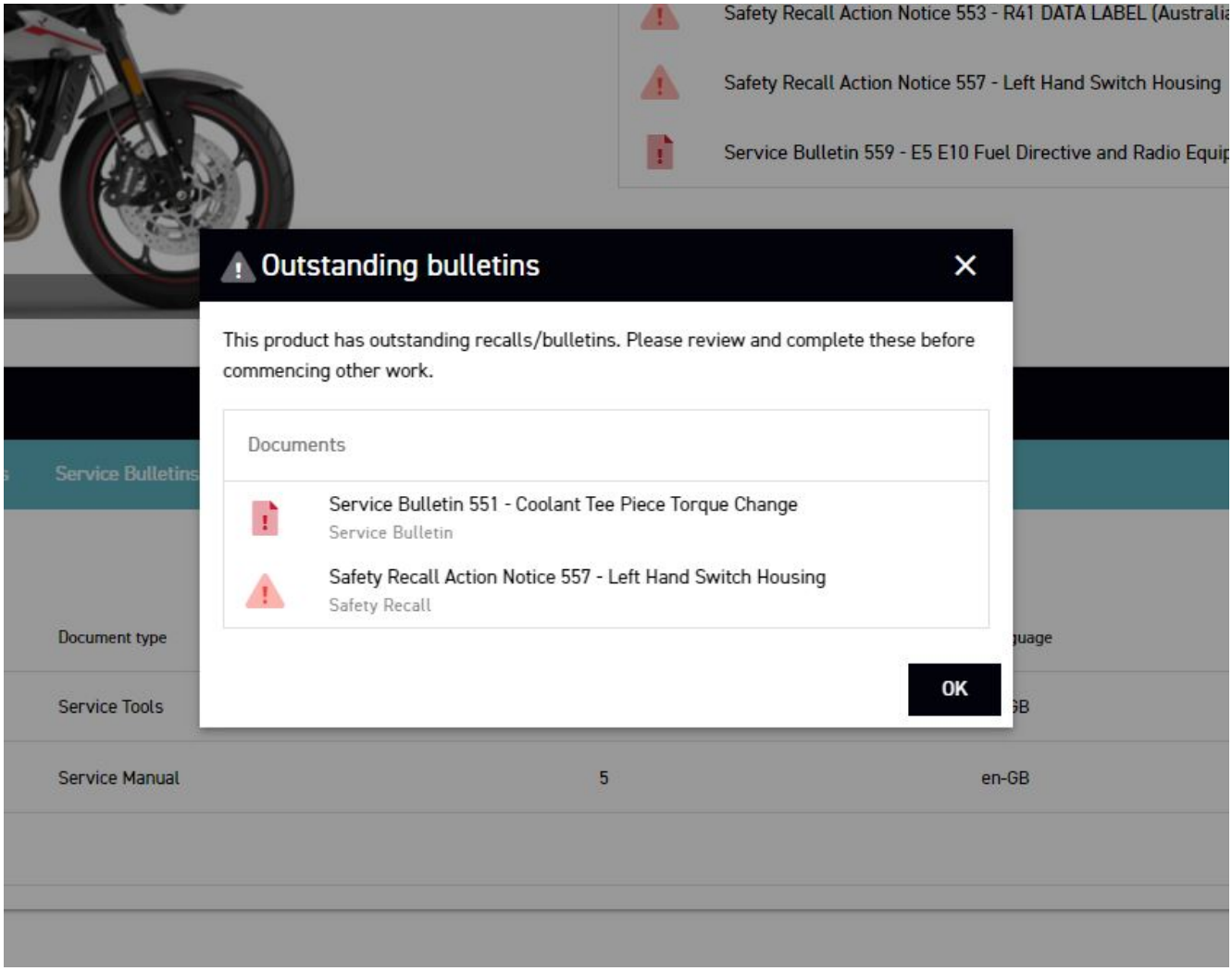


Main Model Page

Once through to the page for the motorcycle model, you can access all of the relevant literature for that model including Service Manuals, Service Check Sheets, Technical Bulletins and Motorcycle Preparation Guides. A list of important documents is displayed on the right hand side which includes Safety Recall Action Notices and Service Bulletins.

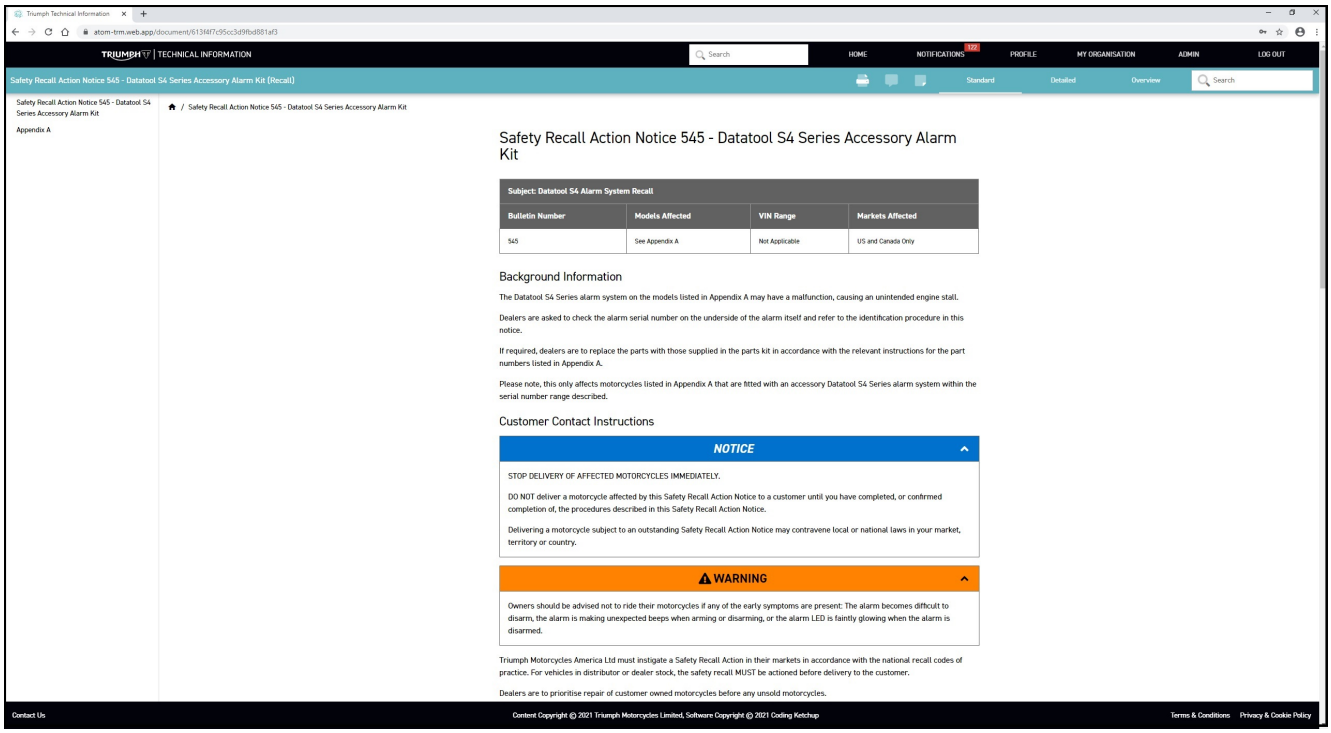


If you enter a VIN and that motorcycle has a Safety Recall Action Notice or Service Bulletin outstanding, these will be displayed in a pop-up window.



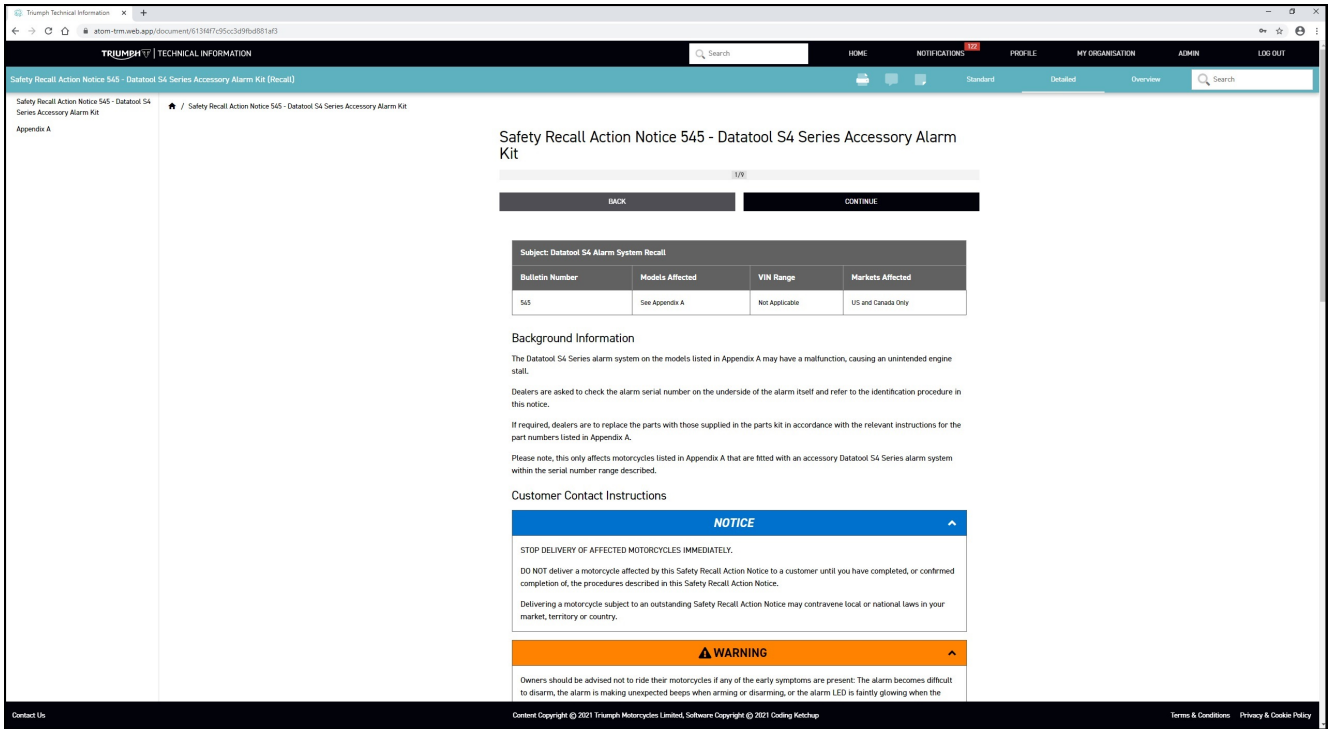
Document Viewing

When you open a document, the default view is 'Standard'. This will display the complete topic in the format you are familiar with.

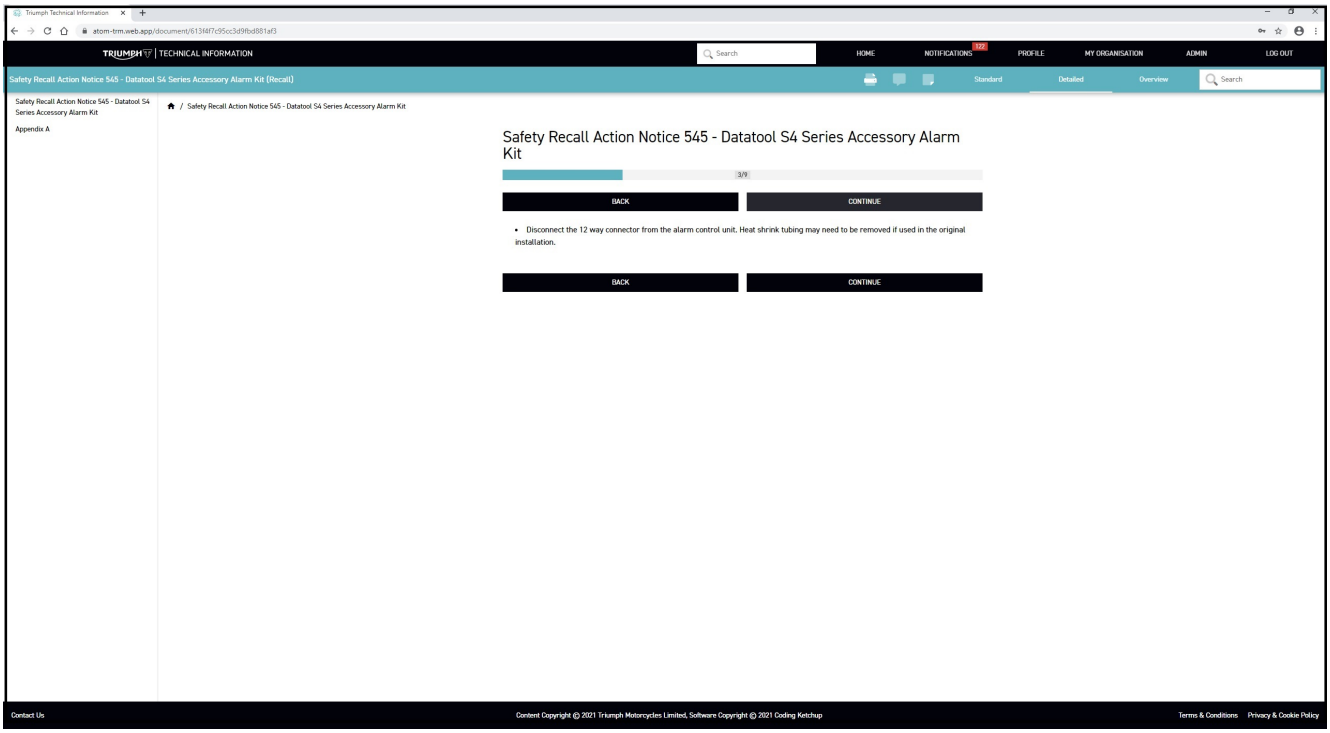


You can also switch to a 'Step by Step' view using the toggle on the document menu.

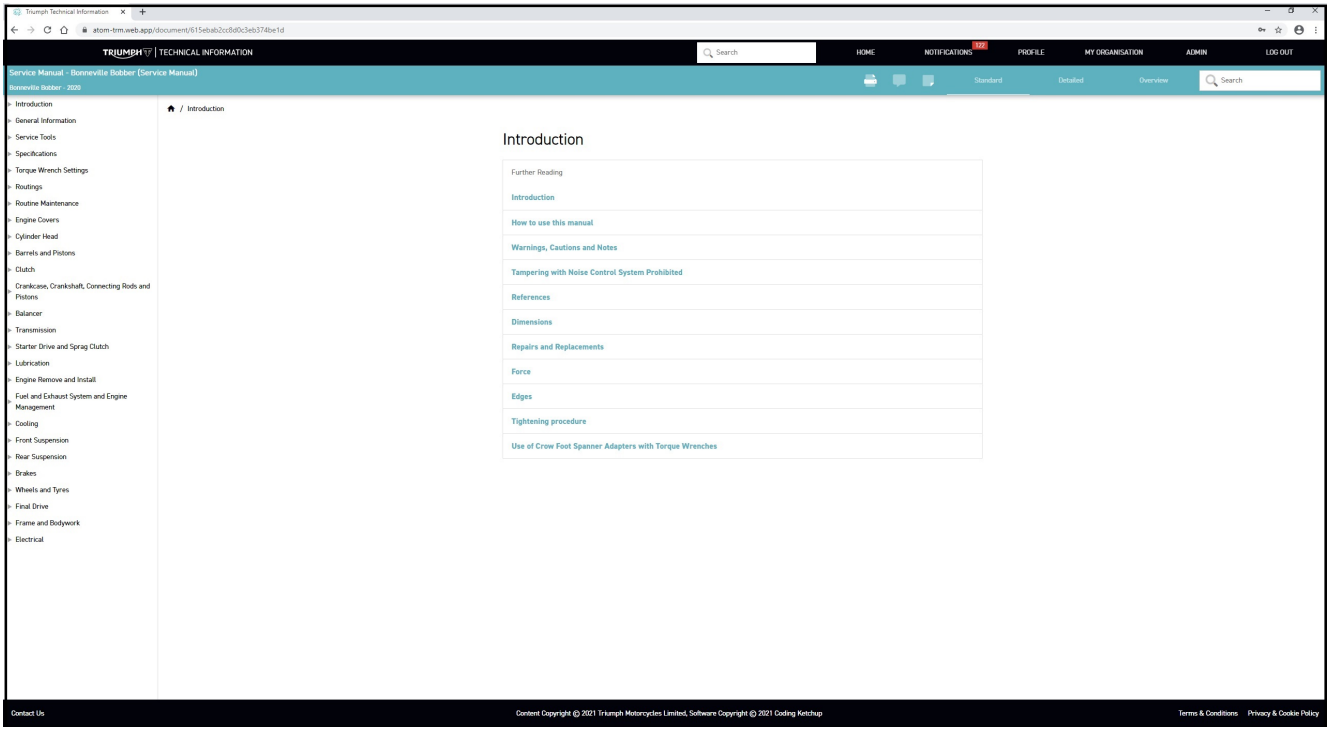
Using the 'Step by Step' view, you can toggle through steps one by one. This can improve navigation on complex topics, and allow you to easily find your last step when viewing links.



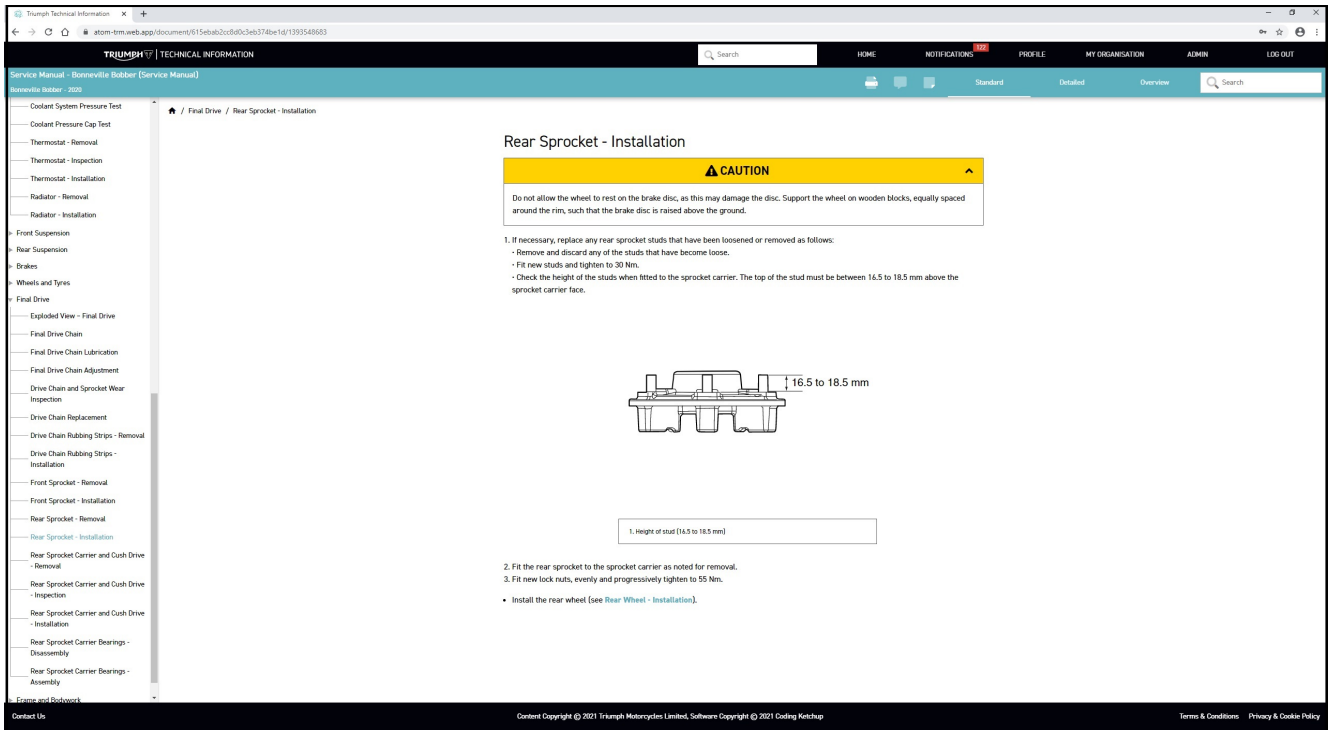
Toggle through the individual steps using the 'Continue' or 'Back' button.



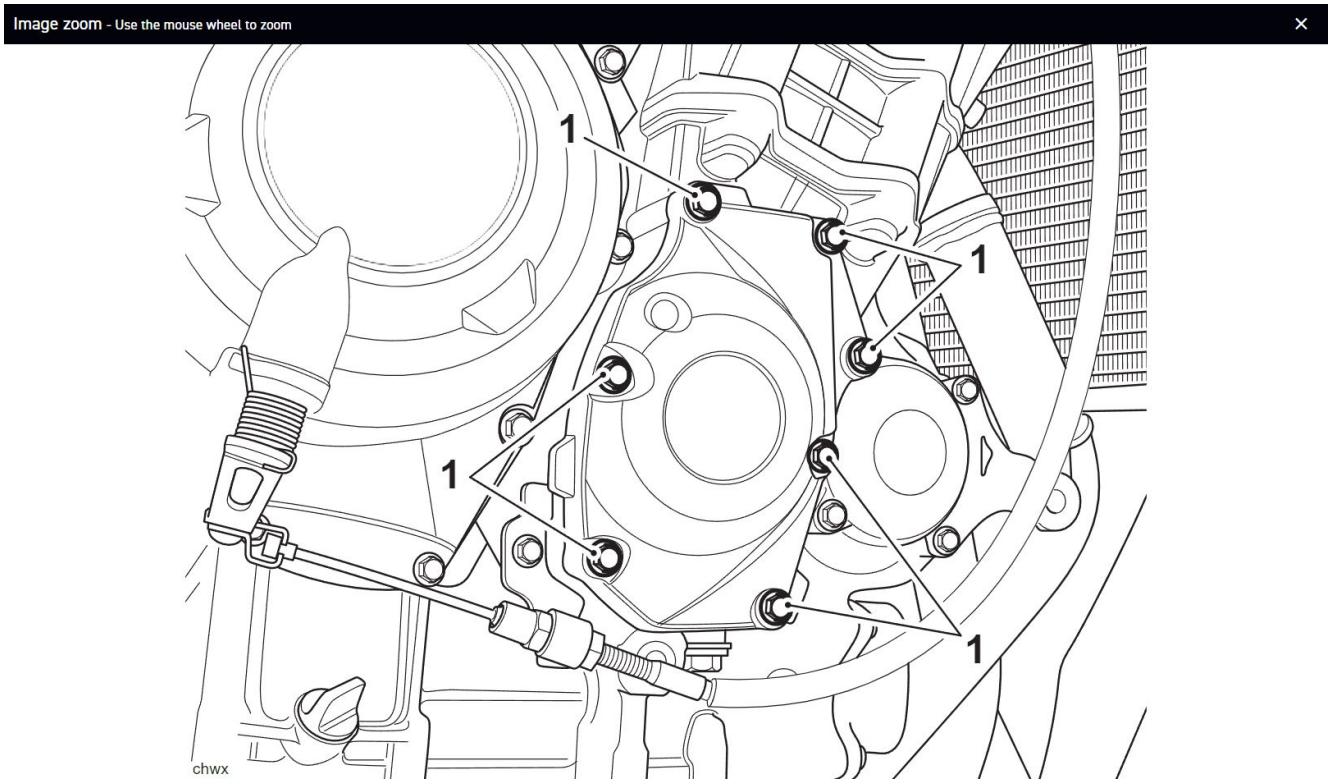
In the Service Manual (and any other document with a table of contents), all of the sections are displayed on the left hand side and are expandable. Click on a section or individual page.



Once through to a topic, as before you can toggle between Standard and Detailed views. Links on a page will take you to the correct topic in the Service Manual. Using the back arrow on the browser will return you to the previous page.

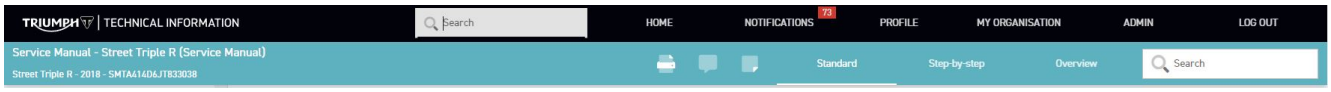


Images can now be zoomed in and out by clicking on the image and using the mouse wheel. Exit the zoom mode by pressing the 'Esc' key, or click the cross in the top right corner.

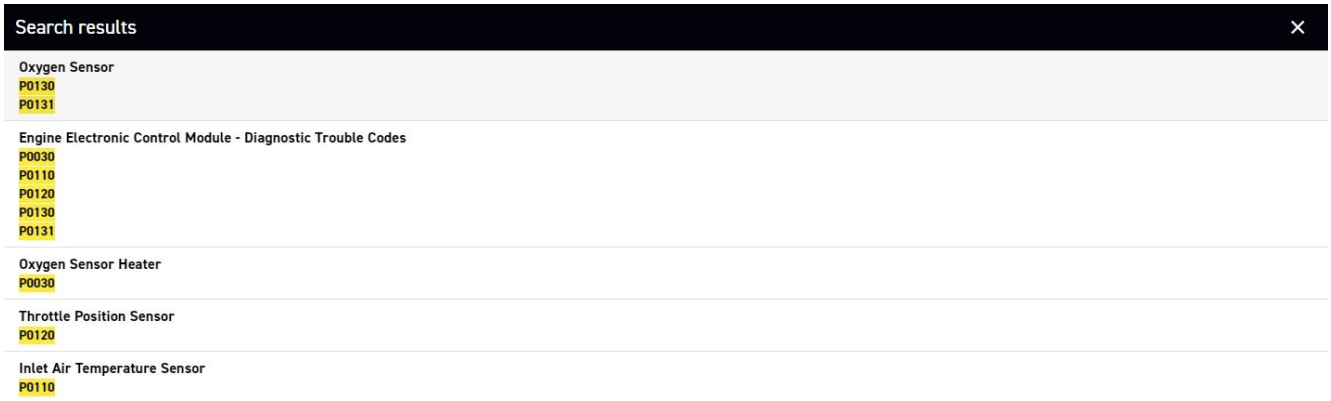


Searching for Content

There are two search boxes, one located on the main menu and a second which is visible only when a document is selected.



- The main menu search will search the entire site, and return a list of all documents that contain your search term.
- The document search will only search within your selected document.



Searches are intelligent, and will return both exact and close matches to the term searched. In the example above we searched for P0130.

Selecting the result you want will take you to the content in that document.

Feedback and Notes

When in a document, there are two new functions accessible on the document menu, **Feedback** and **Notes**.

Feedback allows you to provide us with feedback about individual documents/topics, whether it be that you like a document/topic or that something could be improved. Feedback is sent to the Triumph Technical Publications team by email and is permanently stored in the system.

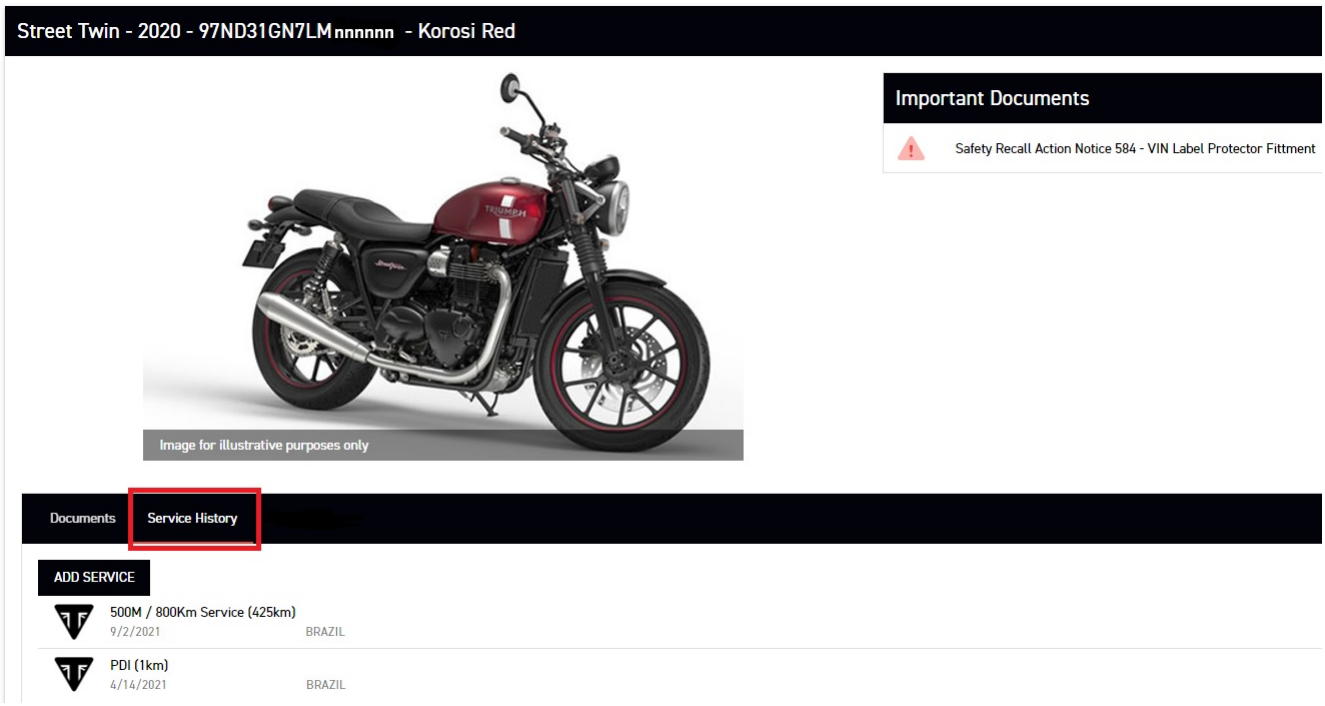
Please take the time to provide us with feedback; we do use it to improve documents. All feedback is investigated, and relevant changes are implemented.

Notes allows you to store your own comments against a particular topic. Notes you create are only veiwable by you, they cannot be seen by others.

Service History and recording

Service history can be accessed from the main model page, when a VIN has been used to select the model.

Services can also be recorded here, and will be written back to the service history page within TOL. Select the 'Add Service' button to enter the service details.



Circulation

Initial and date when read and return to central file holder

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