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**2013 Daytona 675 and  
Daytona 675 R  
(From VIN 564948)**

**Motorcycle Race Kit Manual**



**FOR CLOSED-CIRCUIT USE ONLY**

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# General Information

## Please note:

- The Race Kit parts detailed in this publication are made in accordance with FIM technical regulations and are NOT road legal.
- The Race Kit parts covered in this publication are intended for racing purposes only and any Triumph motorcycle fitted with such kits MUST NOT be used on public roads.
- The Race Kit parts detailed in this publication may only be used on a closed-circuit in the hands of experienced riders.
- Before fitting any Race Kit parts, customers should check the technical regulations of their race class to ensure conformity.
- The information provided in this publication should always be used together with the official Triumph Daytona 675 service manual.
- Completely read all the instructions before commencing the installation and set up of the Race Kit in order to become thoroughly familiar with the kit's features and the installation process.
- When removing components which incorporate a gasket ALWAYS ensure a new gasket is fitted on re-assembly.
- The Race Kit parts detailed in this publication are not covered by any warranty.
- Specifications are subject to change without notice.
- The information contained in this publication is accurate at the time of final approval, however, Triumph Motorcycles LTD reserves the right to amend the information at any time without notice.
- Whilst every effort is made to include the latest information in the service manual, this is not always possible. The latest information and technical changes are provided to authorised Triumph dealers via Technical News. It is recommended you contact an authorised Triumph dealer to request this information.

## Warnings, Cautions and Notes

Throughout this publication particularly important information is presented in the following form:

 <b>Warning</b>
This warning symbol identifies special instructions or procedures, which if not correctly followed could result in personal injury, or loss of life.

 <b>Caution</b>
This caution symbol identifies special instructions or procedures, which if not strictly observed, could result in damage to, or destruction of, equipment.

## Note:

- **This note symbol indicates points of particular interest for more efficient and convenient operation.**



### **Warning**

These accessory kits are for racing only. They are for use solely during closed-course racing. A motorcycle fitted with these kits must not be used on public roads. It is illegal to use a motorcycle fitted with these kits on public roads. A motorcycle fitted with these kits does not comply with local laws and regulations. If you use a motorcycle fitted with these kits on public roads, you may be prosecuted.



### **Warning**

These accessory kits are designed for use on Triumph Daytona 675 and Daytona 675R motorcycles (from VIN 564948) only and should not be fitted to any other Triumph model or to any other manufacturer's motorcycle. Fitting these accessory kits to any other Triumph model, or to any other manufacturer's motorcycle, will affect the performance, stability and handling of the motorcycle. This may affect the riders ability to control the motorcycle and could cause an accident.



### **Warning**

Always have Triumph approved parts, accessories and conversions fitted by a trained technician of an authorised Triumph dealer. The fitment of parts, accessories and conversions by a technician who is not of an authorised Triumph dealer may affect the handling, stability or other aspects of the motorcycles operation which may result in loss of motorcycle control and an accident.



### **Warning**

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



### **Warning**

A torque wrench of known accurate calibration must be used when fitting this accessory kit. Failure to tighten any of the fasteners to the correct torque specification may affect motorcycle performance, handling and stability. This may result in loss of motorcycle control and an accident.



### **Warning**

If the engine has recently been running, the exhaust system will be hot. Before working on or near the exhaust system, allow sufficient time for the system to cool, as touching any part of a hot exhaust could cause burn injuries.



### **Caution**

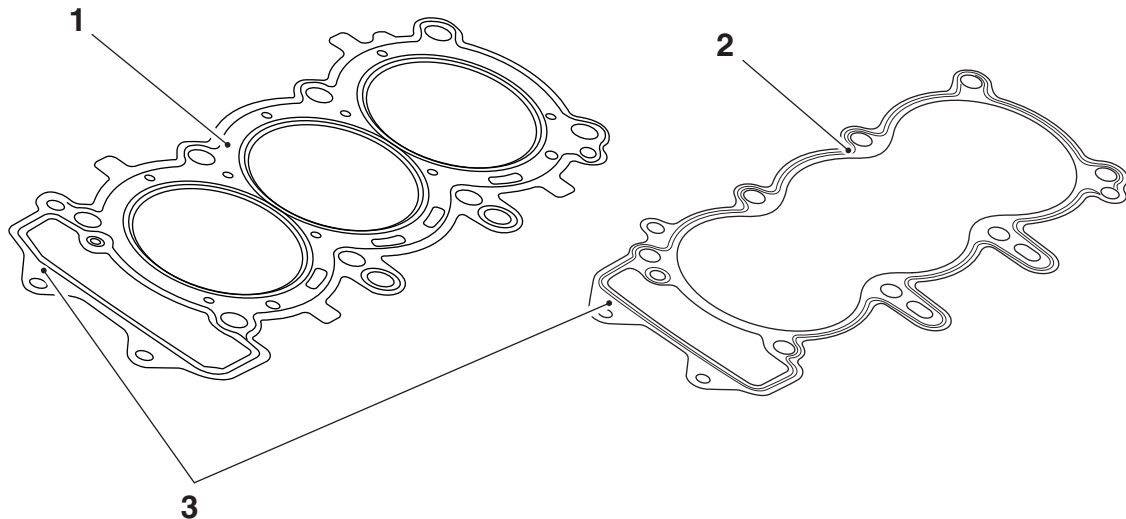
The use of some of these kits will require changes to the fuelling and ignition settings. Failure to correct the fuelling and ignition settings will result in poor engine performance and could result in engine damage.

# Engine Parts

## Cylinder Head and Cylinder Base Gaskets

### **Caution**

The use of the following Race Kit cylinder head and cylinder base gaskets will require changes to the fuelling and ignition settings. Failure to correct the fuelling and ignition settings will result in poor engine performance and could result in engine damage.



1. Cylinder head gasket
2. Cylinder base gasket
3. Thickness 't' marking location

### Parts Supplied

- A9618136 - Cylinder Head Gasket - 0.45 mm
- A9618137 - Cylinder Head Gasket - 0.40 mm
- A9618138 - Cylinder Base Gasket - 0.20 mm
- A9618139 - Cylinder Base Gasket - 0.15 mm

Item	Description	Qty
1	Cylinder head gasket (t = 0.45 mm)	1
1	Cylinder head gasket (t = 0.40 mm)	1
2	Cylinder base gasket (t = 0.20 mm)	1
2	Cylinder base gasket (t = 0.15 mm)	1

### Note:

- The thickness of the standard cylinder head gasket is 0.5 mm. The Race Kit gaskets are available in 0.40 mm and 0.45 mm thicknesses. The thickness (t) of the gasket is clearly marked on the gasket in the location shown above.
- The thickness of the standard cylinder base gasket is 0.25 mm. The Race Kit gaskets are available in 0.20 mm and 0.15 mm thicknesses. The thickness (t) of the gasket is clearly marked on the gasket in the location shown above.

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**Note:**

- **Due to variation in production tolerances, the Race Kit cylinder head and cylinder base gaskets may not be suitable for all engines. Use the appropriate gaskets to adjust the squish height (the squish height is the gap between the flat portion of the piston and the cylinder head).**
- **In some cases, it may be necessary to use the standard gaskets to achieve the correct squish clearance. Always ensure that the chosen gaskets provide a minimum squish clearance of 0.75 mm.**



**Warning**

Running the engine at less than the minimum recommended squish height can lead to the pistons contacting the cylinder head and valves, causing major engine damage. This could cause loss of motorcycle control and an accident.

1. Remove the cylinder head in line with the procedures detailed in the Daytona 675 service manual.
2. Position a piece of solder (with a diameter of approximately 1.3 mm) on the four squish surfaces of each piston and hold in place with a small amount of grease. Ensure the solder is positioned in line with the corresponding squish surfaces on the cylinder head.

3. Refit the cylinder head with the original cylinder head and base gaskets.
4. Slowly turn the engine over, by hand, to compress the solder to the same height as the squish clearance.
5. Remove the cylinder head and measure the compressed thickness of the solder. The recommended minimum squish clearance is **0.75 mm**.
6. Select the appropriate gasket thicknesses to achieve the correct squish clearance. For example:
  - If the minimum squish clearance is measured at 0.90 mm with the standard 0.50 mm head gasket and 0.25 mm base gasket fitted.
  - Fit the 0.40 mm head gasket and the 0.20 mm base gasket to achieve a squish clearance of 0.75 mm.

**Note:**

- **In some cases, it may be necessary to use the standard gaskets to achieve the correct squish clearance.**
7. Fit the chosen cylinder head and base gaskets following the procedures detailed in the Daytona 675 service manual.

## Camshaft and Valve Spring Kits



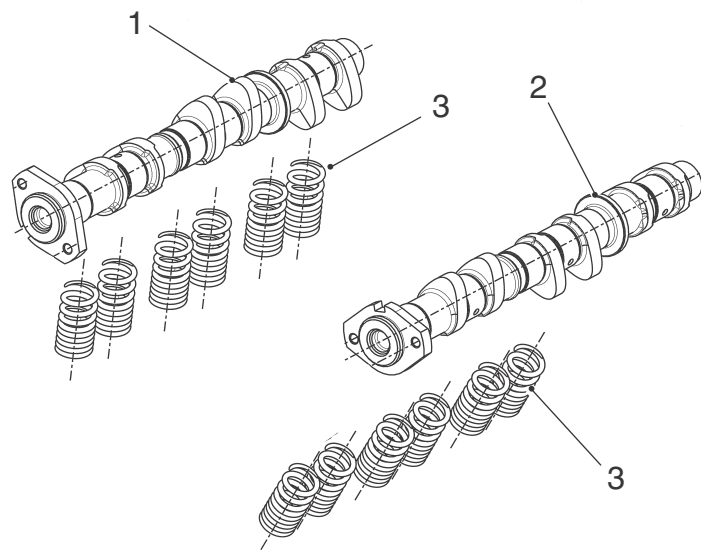
### Warning

The Race Kit camshaft and valve springs must be fitted as a complete set. If they are not fitted as a complete set a failure may result which could cause loss of motorcycle control and an accident.



### Caution

The use of The Race Kit camshaft and valve springs detailed below will require changes to the fuelling and ignition settings. Failure to correct the fuelling and ignition settings will result in poor engine performance and could result in engine damage.



### Parts Supplied

#### Camshaft, Inlet - A9618160

Item	Description	Qty
1	Camshaft, inlet, race	1

#### Camshaft, Exhaust - A9618161

Item	Description	Qty
2	Camshaft, exhaust, race	1

#### Valve Spring Kit - A9618086

Item	Description	Qty
3	Valve spring, 14.4 id, race	12

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**Note:**

- **The standard inlet cam is 9.40 mm max lift and 258.98° duration. The Race Kit inlet cam is 9.40 mm max lift and 265° duration.**
  - **The standard exhaust cam is 8.70 mm max lift and 247.08° duration. The Race Kit exhaust cam is 8.70 mm max lift and 260° duration.**
  - **The Race Kit valve spring must be used in conjunction with the standard spring platforms and retainers. The fitted length of the race springs is the same as the standard spring.**
1. The Race Kit valve springs should be assembled in the same manner as the standard valve springs. Follow the procedure detailed in section 3 of the Daytona 675 service manual. Ensure the springs are installed with the close wound, colour coded end of the springs facing downwards, towards the piston.
  2. The Race Kit camshafts should be assembled in the same manner as the standard camshafts. Follow the procedure detailed in section 3 of the Daytona 675 service manual.
  3. Assemble the original camshaft sprockets to the Race Kit camshafts following the procedure detailed in section 3 of the Daytona 675 service manual.
  4. The camshafts should be timed using cam degreering equipment which typically consists of a degree wheel, pointer, dial indicator and piston stop. Optimum cam timing will depend on the exact specification of the engine, but a recommended starting point is as follows:
    - Inlet Maximum Opening Point (IMOP) 108° After Top Dead Centre (ATDC).
    - Exhaust Maximum Opening Point (EMOP) 108° Before Top Dead Centre (BTDC).
  5. Always check the inlet and exhaust piston to valve clearance for the timing selected to use, before running the engine. You must ensure both clearances are adequate. As a guide, the standard nominal piston to valve clearance is 1.0 mm inlet & 1.4 mm exhaust.
  6. When the desired timing has been set, the sprocket retaining fixings should be tightened to **22 Nm**.

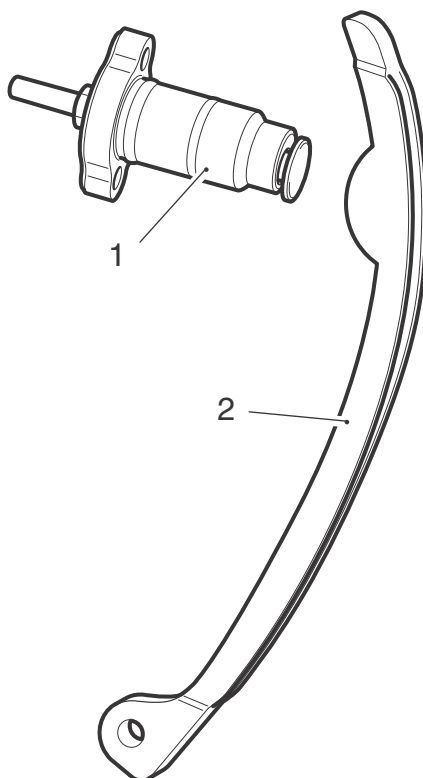
**Note:**

- **If the sprocket retaining fixings are released for any reason they must be discarded and replaced with new fixings. Apply ThreeBond 1305 to the threads before tightening.**



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## Manually Adjustable Camshaft Drive Chain Tensioner



### Parts Supplied - A9618108

Item	Description	Qty
1	Manual camshaft drive chain tensioner assembly	1
2	Camshaft drive chain tensioner blade	1

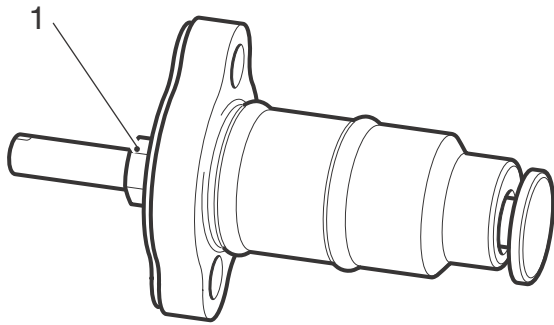
1. Remove the standard tensioner following the procedure detailed in the Daytona 675 service manual. Discard the gasket and retain the fixings for re-use.
2. Remove the camshafts following the procedure detailed in the Daytona 675 service manual.
3. Remove the pin locating the tensioner blade to the crankcase, retain the pin for re-use. Remove the tensioner blade from the top of the camshaft drive chain chest.
4. Lower the new tensioner blade provided into the camshaft drive chain chest, from the top. Locate in position with the original pin.
5. Refit the camshafts following the procedure detailed in the Daytona 675 service manual.
6. Thoroughly clean the tensioner mounting surface on the cylinder head.



### Caution

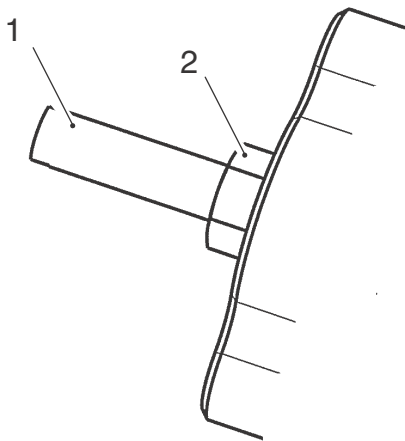
Do not start the motorcycle engine with the tensioner removed. If the motorcycle engine is started with the tensioner removed it could result in engine damage.

7. Back off the plunger locknut on the new tensioner assembly before installation.



**1. Plunger locknut**

8. Lightly coat the two large O-rings with oil, and fit a new gasket.
9. Install the new tensioner assembly and secure with the original fixings.
10. Tighten the tensioner fixings to a torque value of **9 Nm**.
11. Finger tighten the plunger on the new tensioner while turning the crankshaft by hand. At certain points during engine rotation you will feel the plunger tighten as it takes up the slack in the camshaft drive chain. **DO NOT** force the plunger, continue steady finger tightening only to take up the slack in the chain as you rotate the crankshaft.

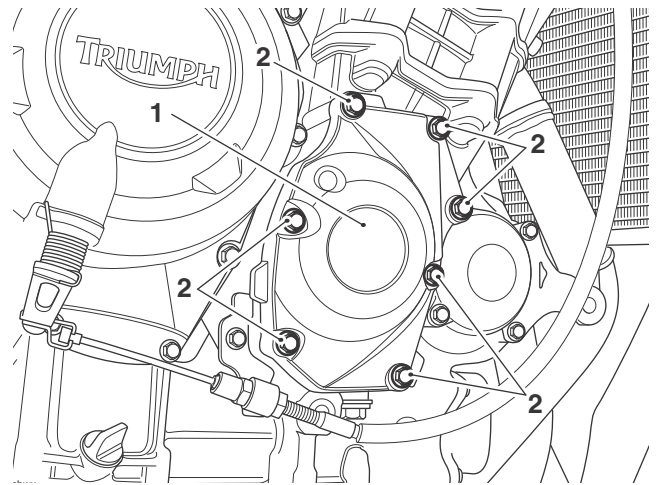


**1. Plunger**

**2. Plunger locknut**

12. When the slack in the camshaft drive chain has been completely taken up, back off the plunger by 1/4 turn.
13. While holding the plunger in position, tighten the plunger locknut to a torque value of **9 Nm**. Ensure the plunger is not allowed to turn while tightening the locknut.

14. Re-check the chain tension.
15. Fit a new gasket to the right hand crank cover.
16. Refit the crank cover, tightening the fixings to **10 Nm**.



**1. Crank cover**

**2. Fixings**

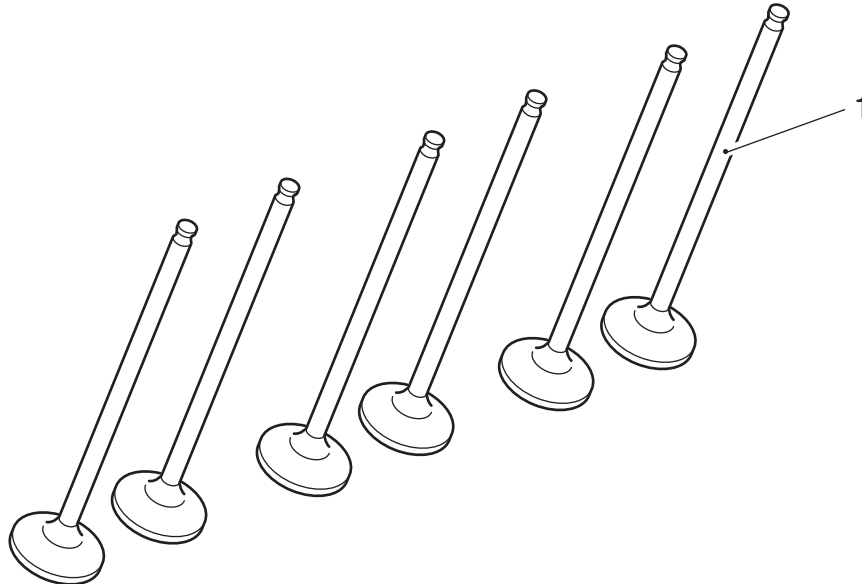
17. Following the procedure detailed in the Daytona 675 service manual, check the valve clearances and adjust as necessary.
18. Refit the camshaft cover, as described in the Daytona 675 service manual.

## Exhaust Valve Kit



### Caution

The use of the following Race Kit exhaust valves will require changes to the fuelling and ignition settings. Failure to correct the fuelling and ignition settings will result in poor engine performance and could result in engine damage.



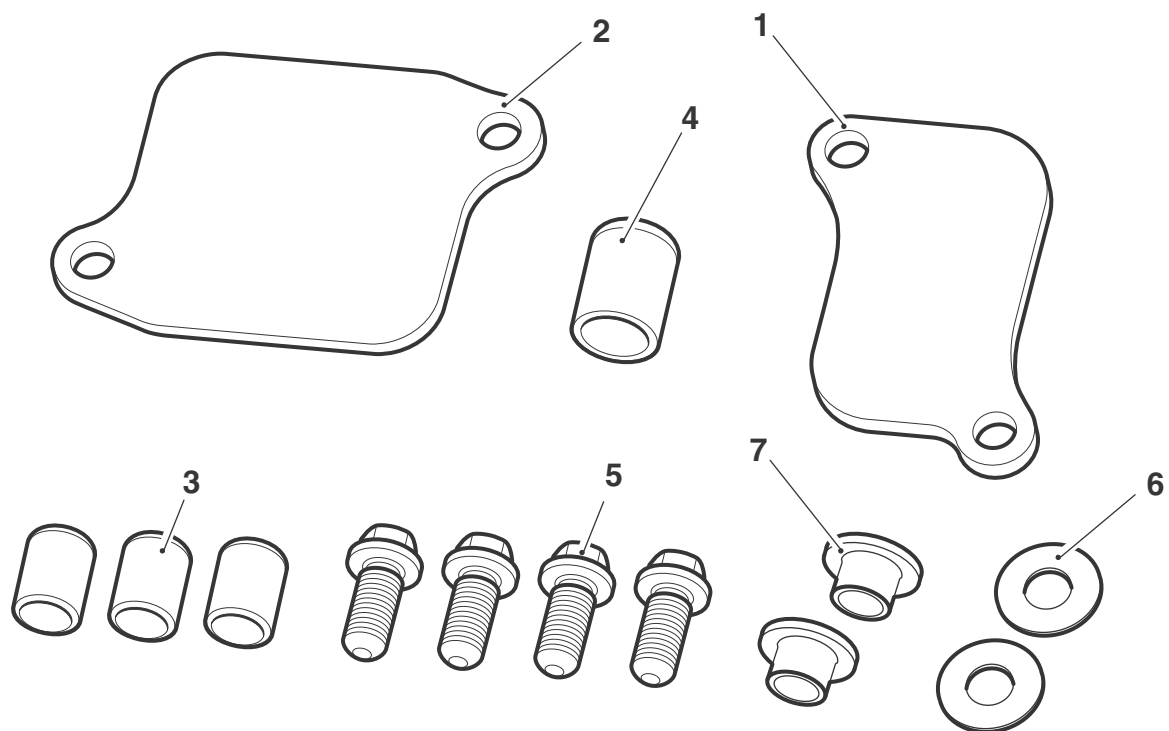
### Parts Supplied - A9618162

Item	Description	Qty
1	Exhaust valve, 24.2 dia	6

#### Note:

- **The valves supplied in the Race Kit are used to increase compression ratio, by having a flat face on the combustion chamber side.**
1. Remove the existing inlet and exhaust valves following the procedure detailed in section 3 of the Daytona 675 service manual.
  2. Assemble the original inlet valves and Race exhaust valves, following the procedure detailed in section 3 of the Daytona 675 service manual.

## Secondary Air Injection (SAI) Blanking Kit



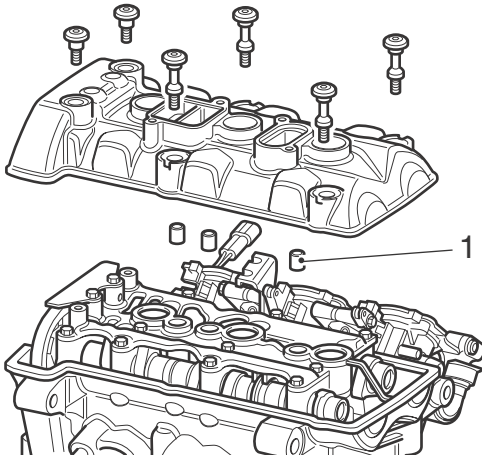
### Parts Supplied - A9618094

Item	Description	Qty
1	Reed valve cover, single	1
2	Reed valve cover, double	1
3	Dowel, solid	3
4	Sealing cap, air box	1
5	Bolt, M6 x 16 mm	4
6	Washer	2
7	Flanged sleeve	2

### Note:

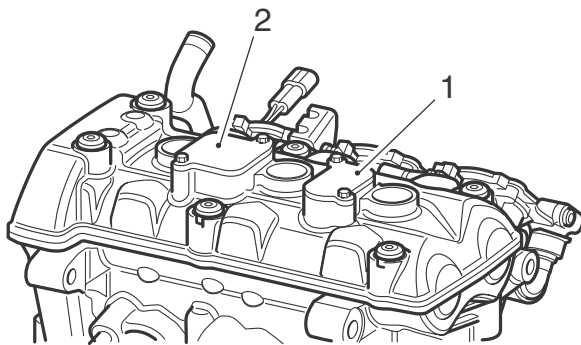
- This kit includes the necessary components to blank-off the secondary air injection channels in the cylinder head when the system is removed from the motorcycle.
- Refer to the appropriate sections in the Daytona 675 service manual to carry out the procedures outlined in steps 1 to 11 overleaf.

1. Remove the fuel tank and air box.
2. Remove the SAI solenoid valve.
3. Remove the SAI reed valves. Retain the fixings from the single valve for re-use.
4. Remove the camshaft cover. Retain the fixings for re-use.
5. Replace the standard hollow dowels with the solid dowels provided (3).



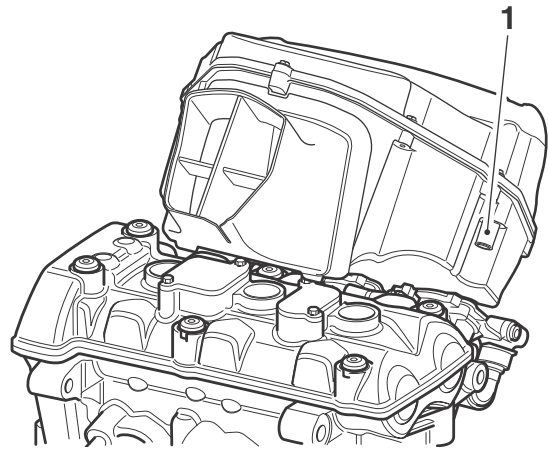
**1. Dowels**

6. Fit a new seal to the camshaft cover. Refit the camshaft cover and secure with the original fixings.
7. Fit the double reed valve cover using the M6 x 16 bolts provided. Tighten to **9 Nm**.
8. Fit the single reed valve cover using the original single reed valve fixings. Use the washers and flanged sleeves provided (6 and 7), to space the cover to the correct height. Tighten to **9 Nm**.



1. Reed valve cover, single
2. Reed valve cover, double

9. Refit the air box.
10. Fit the sealing cap provided over the air box hose connection, as shown below.



**1. Sealing cap**

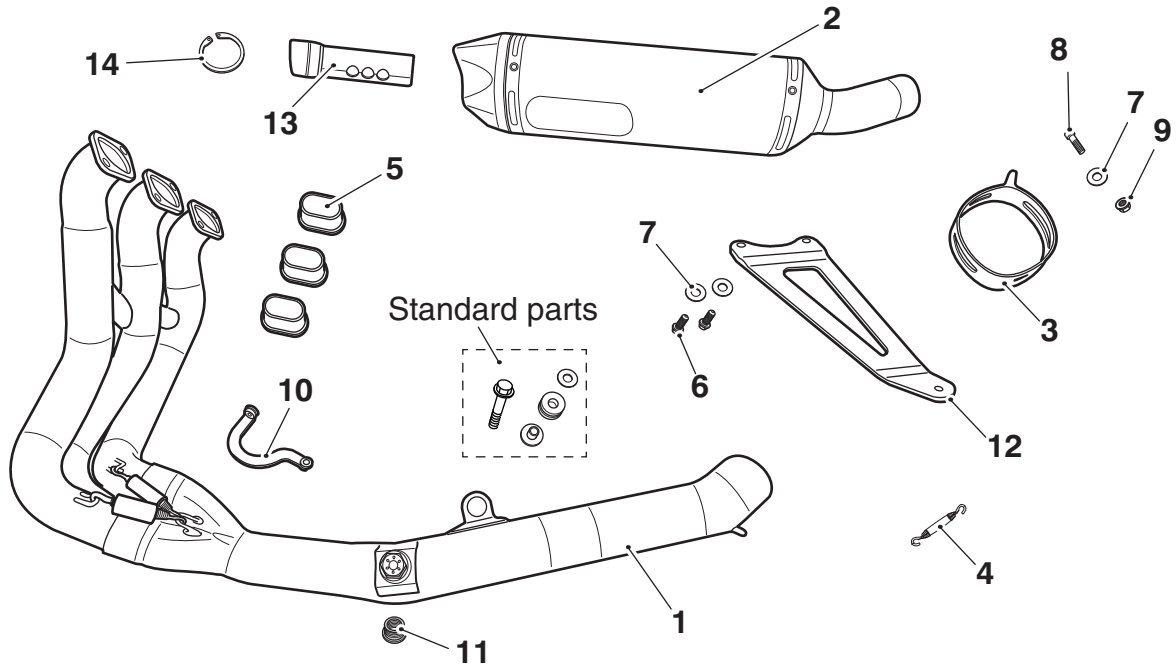
11. Refit the fuel tank.

## Exhaust System, Race (Arrow)



### Caution

The use of the Arrow Race Exhaust System will require changes to the fuelling and ignition settings. Failure to correct the fuelling and ignition settings will result in poor engine performance and could result in engine damage.



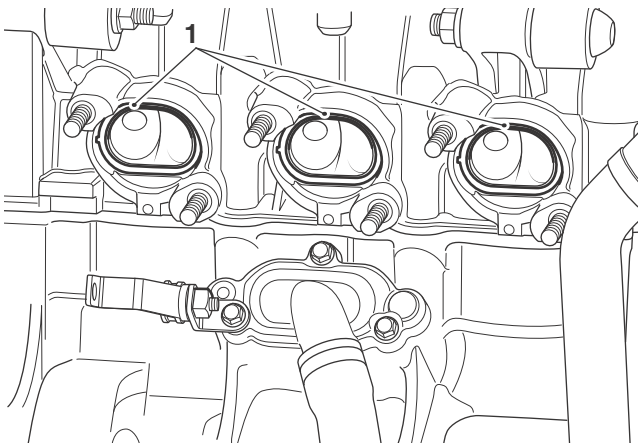
### Parts Supplied - A9600440

Item	Description	Qty
1	Downpipe collector assembly	1
2	Silencer	1
3	Carbon collar	1
4	Spring	1
5	Primary header bushing	3
6	Bolt, M8 x 20	2
7	Washer, M8	3
8	Screw, M8 x 25	1
9	Locknut, M8	1
10	Aluminium lower radiator bracket	1
11	Oxygen sensor adaptor	1
12	Silencer bracket	1
13	Baffle	1
14	Circlip	1

#### Note:

- A Baffle and retaining clip are provided in the kit for use as required.

1. Remove the seat and battery following the procedures detailed in the Daytona 675 service manual.
2. Remove the lower fairings, cockpit infill panels, radiator infill panels, radiator, pillion foot rest hangers, right hand control plate, transmission linkage, sprocket cover, left hand frame finisher, purge valve, exhaust system and the exhaust butterfly valve actuator and actuator cables following the procedures detailed in the Daytona 675 service manual.
3. Retain the exhaust header nuts for re-use. Replace if required.
4. Remove and discard the exhaust header seals. Renew exhaust header seals if required.

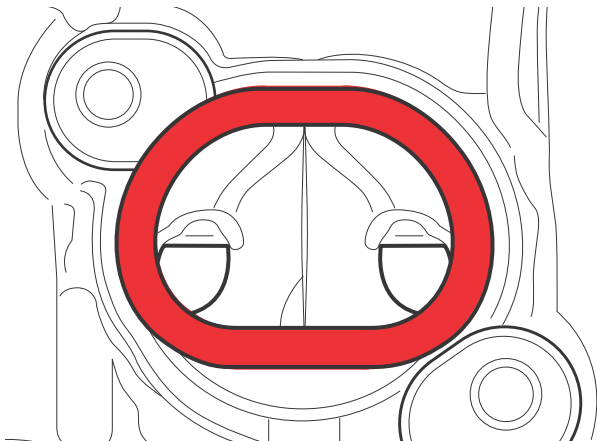


**1. Seals**

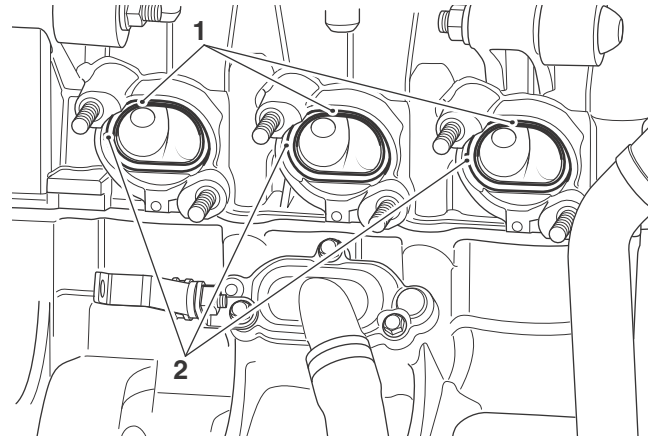
5. Retain the washer, grommet and flanged sleeve from the left hand side mount and the M8 x 50 fixing from the left hand side mount for re-use.
6. Remove the lower radiator mounting bracket, retain the fixing and compression limiter for re-use.

**Note:**

- **To obtain maximum performance the exhaust port should be machined, removing material from the area shown in red. The exhaust port shape should match the inside surface of the primary header bush.**



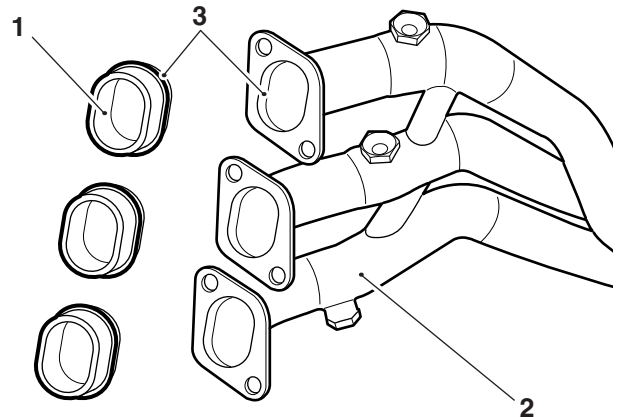
7. Fit new exhaust header seals (if required) ensuring that the face of the seal with the tab is facing the cylinder head.



**1. Seals**

**2. Seal tab**

8. Thoroughly clean the mating surfaces of the primary header bushings (5) and downpipe collector assembly (1).
9. Apply silicone sealant to the mating surface of the three primary header bushings. The recommended sealant is Dow Corning Firestop 700 white silicone.
10. Insert the primary header bushings into the downpipe collector assembly.



**1. Header bushings**

**2. Downpipe collector assembly**

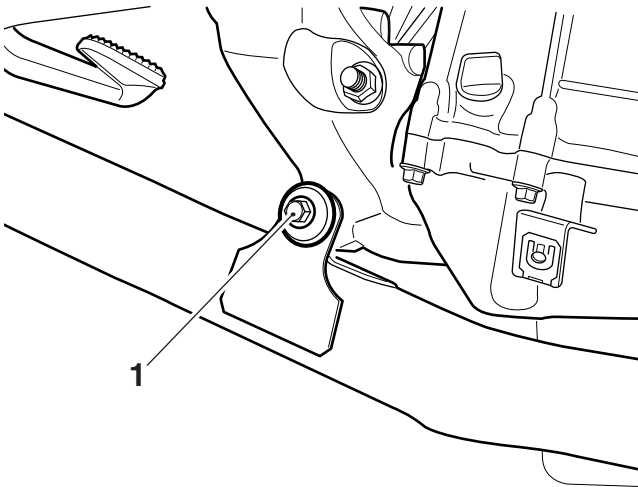
**3. Mating surfaces**

**Note:**

- **The primary header bushings should be orientated such that none of the exhaust port opening is obscured.**

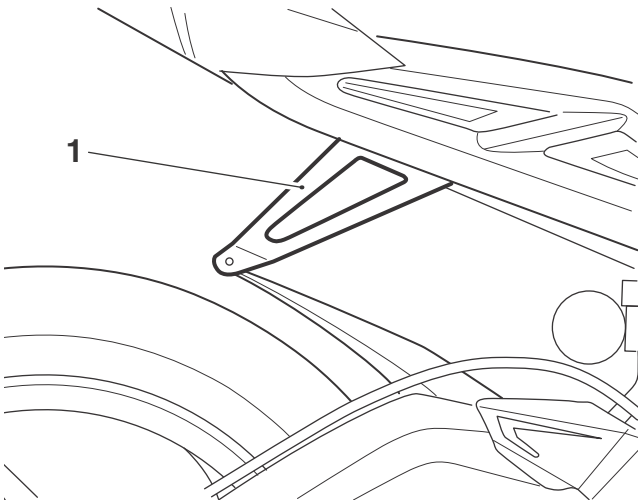
11. Position the downpipe collector assembly to the cylinder head and align the header pipe flanges to the fixing points. Fit the exhaust header nuts retained from disassembly, do not fully tighten at this stage.

- Loosely secure the downpipe collector assembly lower mounting point to the frame using the original fixings retained from the left and right hand side mounts.



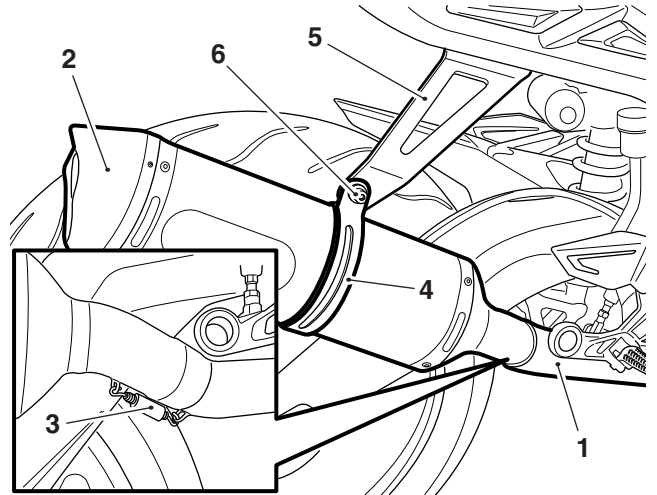
**1. Fixing**

- Secure the silencer bracket (12) to the right hand rear footrest hanger mounting points using the two M8 x 20 Bolts (6) and washers (7) provided. Tighten to **22 Nm**.



**1. Silencer bracket**

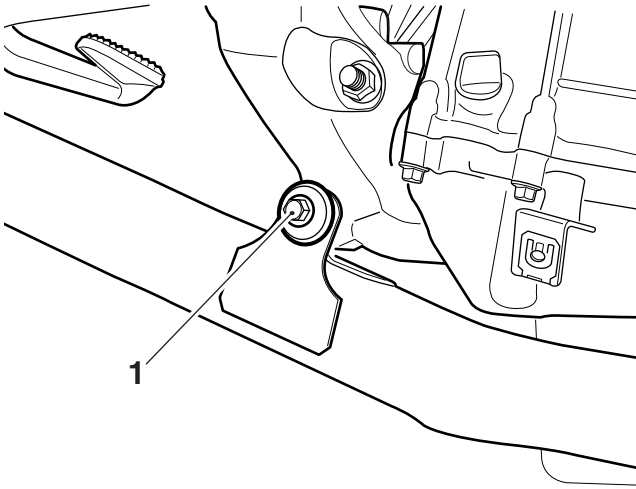
- Place the carbon collar (3) onto the silencer (2).
- Push the silencer onto the downpipe collector assembly and secure using the spring provided (4).
- Align the carbon collar with the outside of the silencer bracket and secure using the M8 x 25 screw (8), M8 washer (7) and M8 locknut (9) provided. Tighten to **9 Nm**.



- Downpipe collector assembly**
- Silencer**
- Spring**
- Carbon collar**
- Silencer bracket**
- Capscrew, washer and nut**

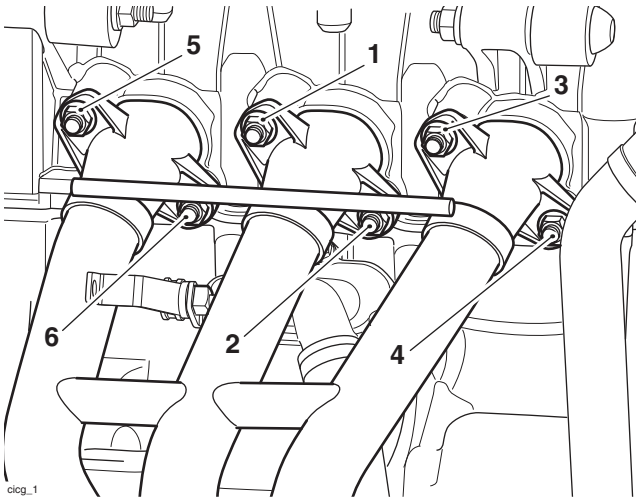


17. Tighten the downpipe collector assembly lower mounting point fixing to **19 Nm**.



#### 1. Fixing

18. Tighten the exhaust header nuts following the sequence shown below:
- **Stage 1:** Tighten the header nuts in sequence to **2 Nm**.
  - **Stage 2:** Tighten the header nuts in sequence to **15 Nm**.



19. If fitting the oxygen sensor, remove the threaded blanking plug from the race exhaust.
20. Fit the oxygen sensor adaptor (11) to the downpipe collector assembly. Tighten to **25 Nm**.
21. Remove the oxygen sensor from the original exhaust system.
22. Fit the oxygen sensor to the Race Kit exhaust system following the procedure detailed in the Daytona 675 service manual.

23. Secure the aluminium lower radiator bracket provided (10) to the crankcase using the original lower radiator bracket fixing and compression limiter.

#### Note:

- **The fixing and compression limiter should be inserted upwards through the bottom of the crankcase mounting point into the lower radiator bracket.**
24. Tighten the lower radiator bracket fixing to **6 Nm**.
25. Refit the radiator using the original fixings, following the procedures detailed in the Daytona 675 service manual.
26. Refill the cooling system following the procedures detailed in the Daytona 675 service manual.
27. Refit the left hand frame finisher, purge valve, sprocket cover, transmission linkage and control plate as described in the Daytona 675 service manual.
28. Fit the correct specification spark plugs as recommended below, following the procedure detailed in the Daytona 675 service manual.

#### Note:

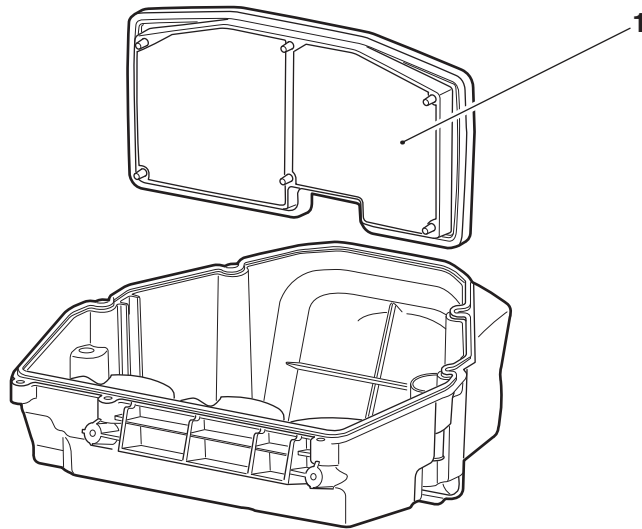
- **Triumph recommends two options of spark plug. Choose the correct option depending on the engine compression ratio. For a standard compression ratio use NGK CR10EIX. For high compression ratio engines use NGK R0373A-10. Always ensure there is sufficient clearance between spark plug and piston before attempting to start the engine.**
29. Refit the lower fairings, cockpit infill panels, radiator infill panels and seat as described in the Daytona 675 service manual.

#### Note:

- **The pillion footrest hangers are not refitted.**

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## Air Filter Kit



### Parts Supplied - A9618163

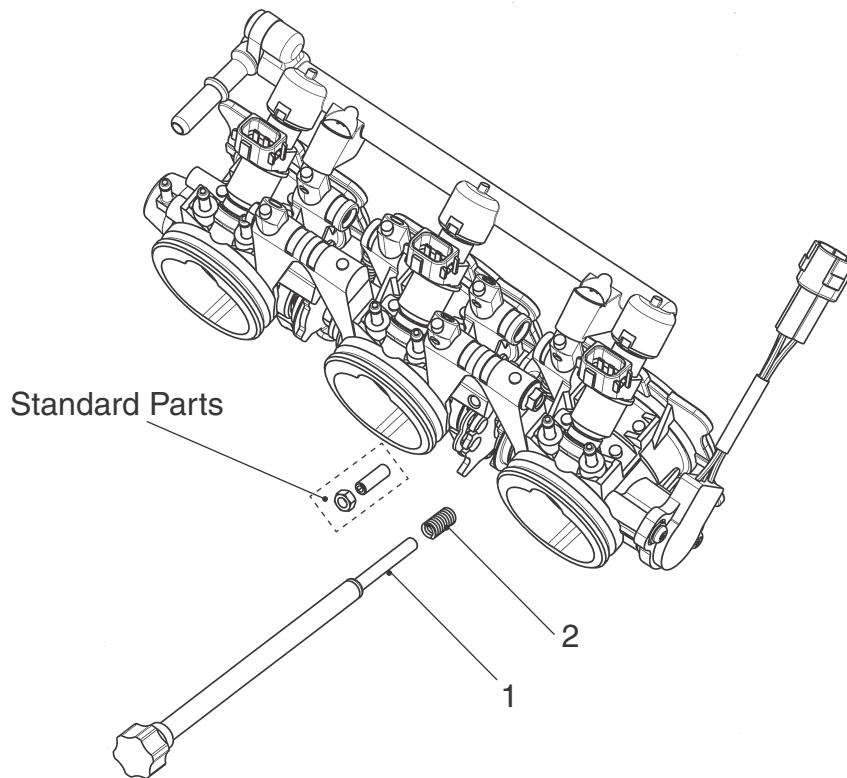
Item	Description	Qty
1	Air filter	1

#### Note:

- This kit is supplied by BMC Air Filters. For fitment details refer to the instruction contained in the kit.
- If you have any queries with regard to the air filter kit, in the first instance contact BMC. For contact details see; [www.bmcairfilters.com](http://www.bmcairfilters.com).

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## Manual Idle Speed Adjuster Kit



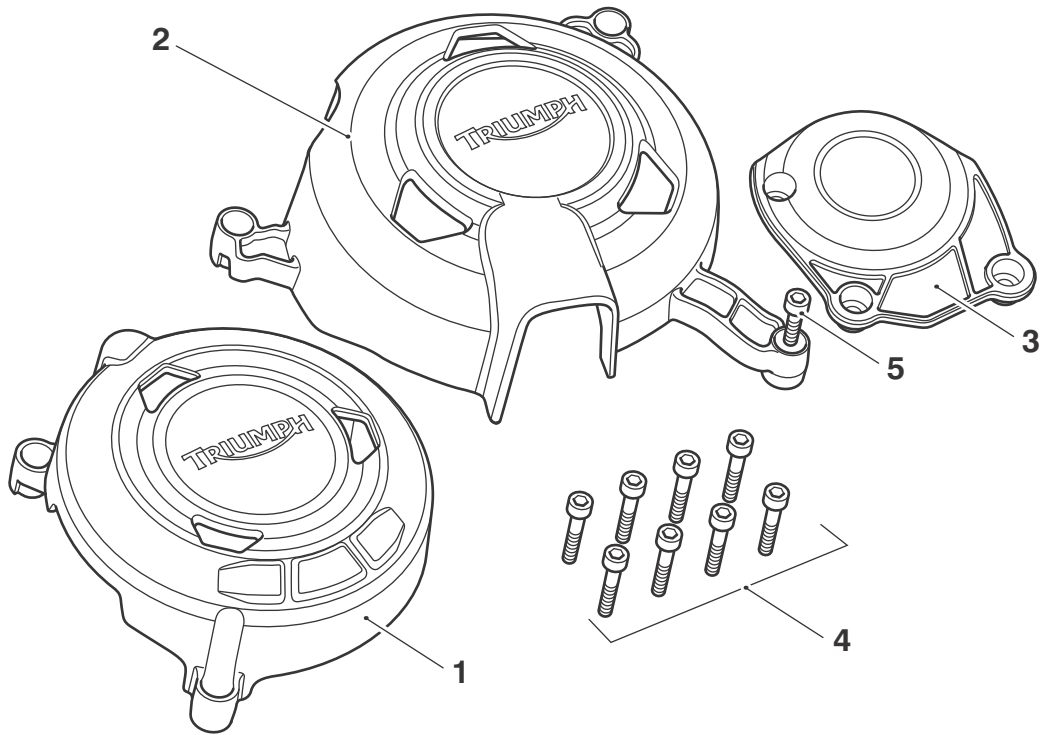
### Parts Supplied - A9618076

Item	Description	Qty
1	Screw, manual adjuster	1
2	Spring, compression coil	1

1. Remove the throttle body assembly following the procedure detailed in the Daytona 675 service manual.
2. Remove the throttle stop screw and nut from the throttle body assembly.
3. Fit the manual adjuster screw and compression spring supplied (items 1 & 2).
4. Refit the throttle body assembly following the procedure detailed in the Daytona 675 service manual.
5. Adjust the idle speed using the manual adjuster screw (item 1) as required.

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## Cover Protectors Kit (Superstock)



cfa

### Parts Supplied - A9618132

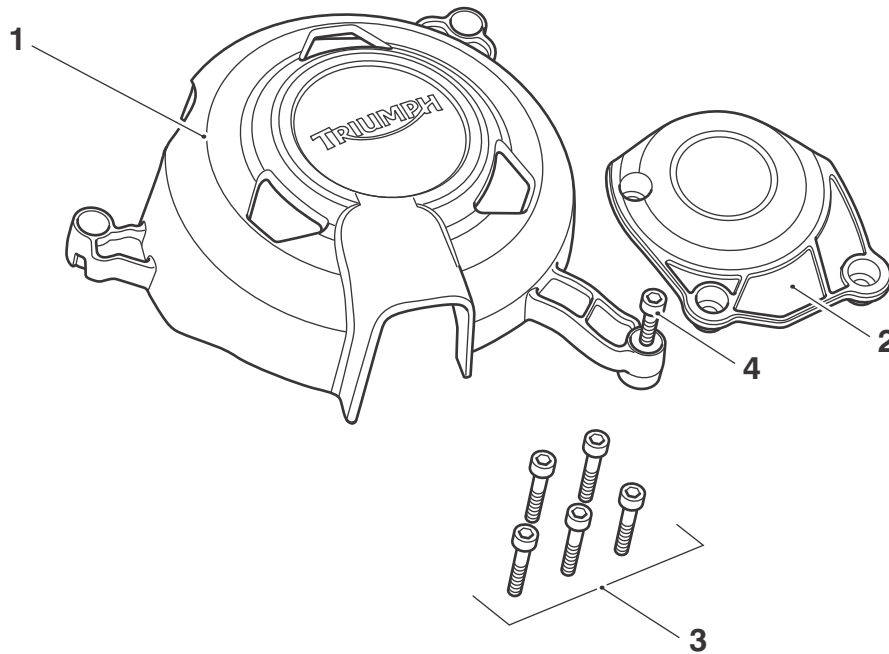
Item	Description	Qty
1	Alternator cover protector	1
2	Clutch cover protector	1
3	Crank cover protector	1
4	Bolt, M6 x 1 x 30	8
5	Bolt, M6 x 1 x 20	1

#### Note:

- For fitment, refer to the comprehensive fitting instructions supplied with the Cover Protectors Kit.

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## Cover Protectors Kit (Supersport)



### Parts Supplied - A9618172

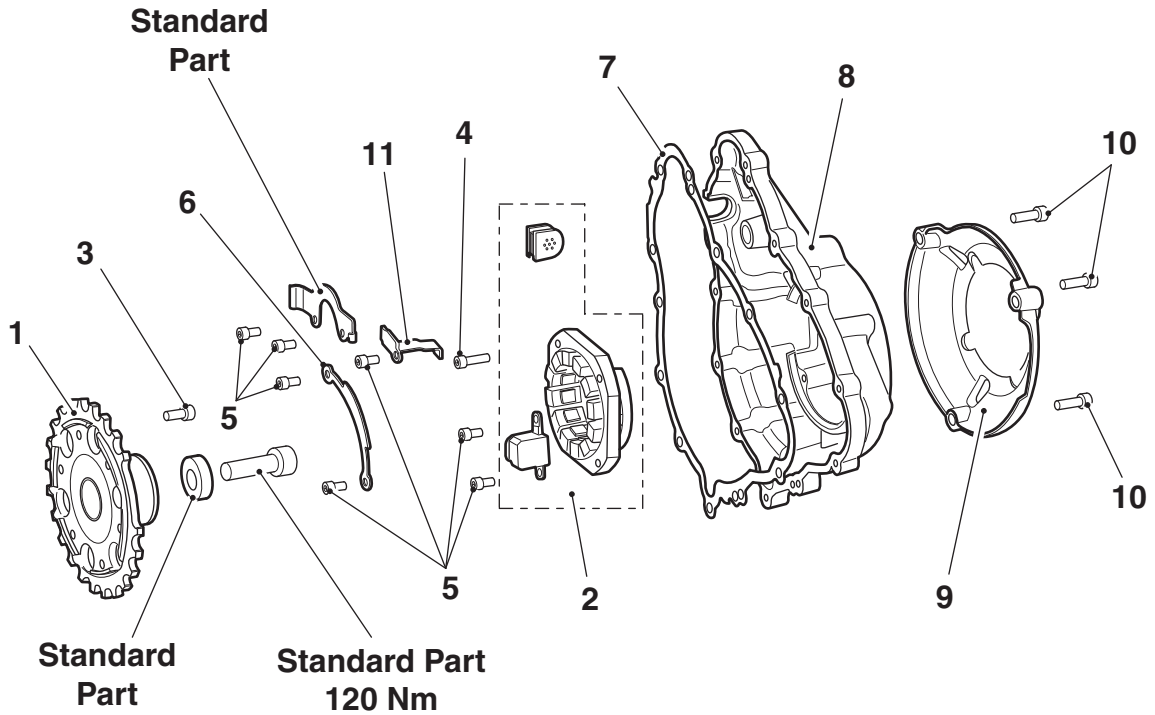
Item	Description	Qty
1	Clutch cover protector	1
2	Crank cover protector	1
3	Bolt, M6 x 1 x 30	5
4	Bolt, M6 x 1 x 20	1

#### Note:

- For fitment, go to [www.triumphinstructions.com](http://www.triumphinstructions.com) and enter the kit number A9618132. Follow Steps 1 to 6 of the comprehensive fitting instructions.

# Electrical Parts

## Race Alternator Kit



### Parts Supplied - A9618154

Item	Description	Qty
1	Rotor, race AC Generator	1
2	Stator, race AC Generator (includes crank sensor)	1
3	Screw, caphead, M6 x 1 x 12, ENC (to retain sprag clutch housing)	6
4	Screw, skt hd cap, M5 x 0.8 x 20	4
5	Screw, skt hd cap, M5 x 0.8 x 10, ENC	7
6	Plate, wire retainer	1
7	Gasket, alternator cover (standard part)	1
8	Cover, alternator (unpainted sand casting)	1
9	Protector	1
10	Screw, cap/hd, M6 x 1 x 20	3
11	Bracket, cable guide, ACG stator	1

### Alternator Puller Tool - A3880206

Item	Description	Qty
1	Puller tool, alternator	1

1. Remove the alternator as described in section 17 of the service manual.
2. Remove the starter drive gear and sprag clutch from the alternator rotor as described in section 7 of the service manual. Discard the original fixings.
3. Using the M6 x 12 mm screws provided (3), fit the sprag clutch and starter drive gear to the race rotor (1) following the procedure detailed in section 7 of the service manual.
4. Remove all grease and oil from the taper surfaces on both the crankshaft and rotor before assembly.
5. Assemble the race rotor and sprag clutch assembly to the crankshaft following the procedure detailed in section 17 of the service manual.
6. Using the M5 x 20 mm screws provided (4), assemble the race stator (2) to the alternator cover provided (8). Tighten to **12 Nm**.
7. Apply silicone sealant to the cable grommet (ThreeBond 1215 is recommended), and align the cable to the exit slot.
8. Using two of the M5 x 10 mm screws provided (5), assemble the crankshaft sensor to the alternator cover. Tighten to **6 Nm**.
9. Fit the original wire retaining plate and the wire retaining plates supplied in the race kit (6 & 11) to the alternator cover and secure with the remaining M5 x 10 mm screws provided (5). Tighten to **6 Nm**.
10. Position the new gasket provided (7) to the crankshaft dowels, then fit the race alternator cover and stator assembly to the crankcase following the procedure detailed in the service manual.
11. Using the M6 x 20 screws provided (11), assemble the alternator cover protector (10) to the alternator cover. Tighten to **9 Nm**.

## Rotor Removal - Race AC Generator



### Caution

Do not use tools of any kind to tighten the service tool T3880375. Tighten the tool by hand only. Over-tightening of the service tool will lead to damage of the alternator rotor.

1. Clean the alternator rotor removing all traces of oil.
2. Fit the service tool T3880375 to the outside diameter of the rotor. Retain the tool to prevent the crankshaft from rotating and remove the centre bolt from the crankshaft.
3. With the crankshaft bolt removed, locate the spigot of the thrust pad supplied with service tool A3880206 into the end of the crankshaft.
4. Assemble the threaded portion of service tool A3880206 into the threaded portion of the rotor. Ensure the thrust pad does not fall out during assembly of the service tool.
5. Hold the service tool T3880375 to prevent rotation of the rotor, then tighten service tool A3880206 to release the taper seating of the rotor from the crankshaft.
6. Withdraw the rotor and service tools as an assembly and then separate the tools from the rotor. Collect the woodruff key and the service tool thrust pad from the crankshaft.

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## Race Engine Control Module (ECM)



### Caution

The Race ECM MUST be used with the following Race Kits; A9618160 Camshaft - Inlet, A9618161 Camshaft - Exhaust, A9618162 Exhaust Valves, A9618086 Valve Spring Kit, A9600440 Arrow Race Exhaust System, A9618163 Air Filter Kit and A9828020 (non ABS) or A9828021 (ABS) Race Harness Kit. Failure to use the Race ECM with the Race kits listed above will result in incorrect fuelling and ignition settings.

### Part supplied - A9828019

Item	Description	Qty
1	Race ECM	1

#### Note:

- The Race ECM will only work with the Race Harnesses A9828020 (non ABS) and A9828021 (ABS).
- The Race ECM is pre-programmed for use with the following set of Race Kits: Inlet & Exhaust Camshafts, Exhaust Valves, Air Filter Kit and Arrow Race Exhaust System. The tune has been developed to suit a compression ratio of 14:1 with enlarged and polished inlet ports and the exhaust ports modified as recommended on page 15.
- The rev limit on the race ECM has been increased from 14400 RPM to 15500 RPM.
- The indicated speed shown on the instruments is calibrated for the standard gearbox. If the final drive ratio is changed, the indicated speed will be incorrect.
- Idle speed should be set to between 1,500 and 1,800 RPM.

#### ECM Malfunction Indicator Light:

- This will flash a sequence of error codes if any faults are present.
- Flash codes have a long flash for the first digit and a short flash for the second digit. For example; fault code "32" would be: long, long, long, short, short.
- When a fault has been identified and rectified, the ECM can be cleared by the following sequence: full throttle, ignition ON; flick the engine stop switch off/on/off/on/off.





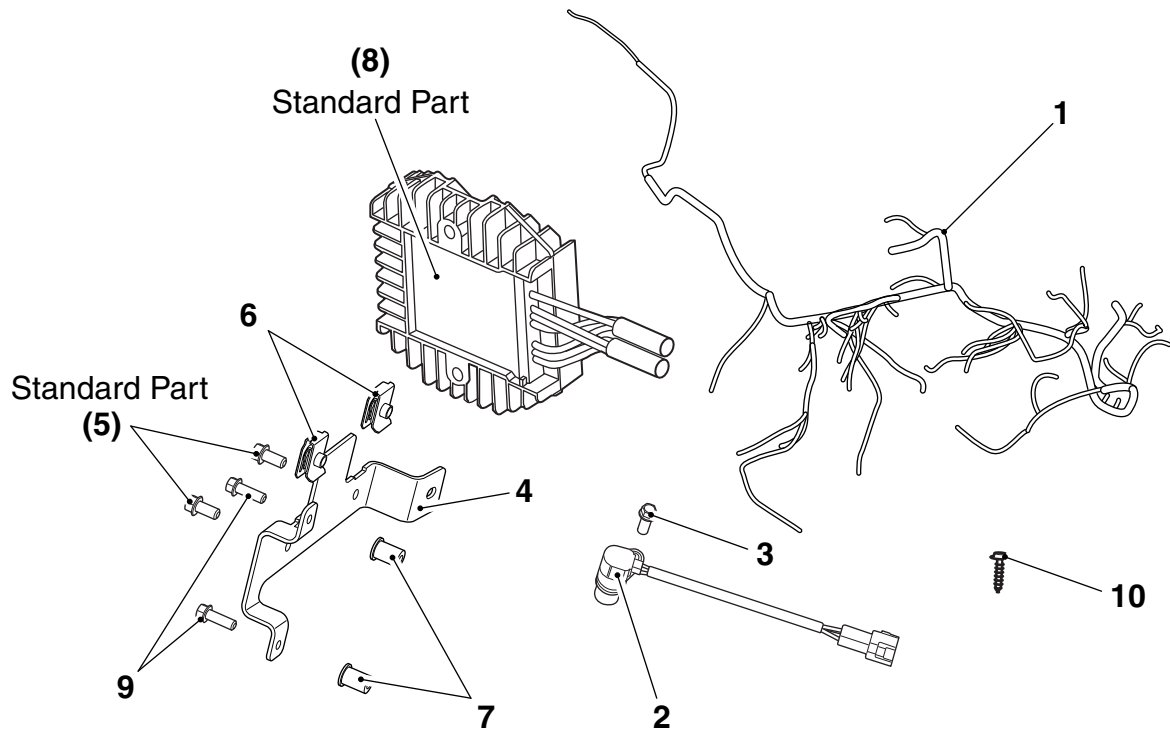
## Caution

No ECM faults should be present during motorcycle operation. If the motorcycle is used with ECM faults present it will be operating in default 'limp home' mode only which will produce inconsistent operation.

### Fault Code Table

Flash Code	Problem
02	Crank position sensor
06	Throttle position sensor
09	Map sensor
12	Coolant temperature sensor
13	Intake air temperature sensor
14	Atmospheric air pressure sensor
15	Roll-over sensor
22	Gear position sensor
24	Ignition switch circuit
25	Battery voltage supply
26	5V sensor supply
27	5V sensor supply
33	Lower injector # 1
34	Lower injector # 2
35	Lower injector # 3
37	Ignition coil # 1
38	Ignition coil # 2
39	Ignition coil # 3
41	Fuel pump
43	Cooling fan relay
65	EEPROM error
66	Instrument communication error
68	MAP sensor pipe disconnected
70	Vehicle speed sensor
76	Instrument communication error
96	Upper injector # 1
97	Upper injector # 2
98	Upper injector # 3
Continuous Short Flash	Harness or instruments incompatible

## Race Harness Kit



### Parts Supplied:

Race Harness Kit (Where donor motorcycle is Non ABS) - A9828020

Race Harness Kit (Where donor motorcycle is ABS) - A9828021

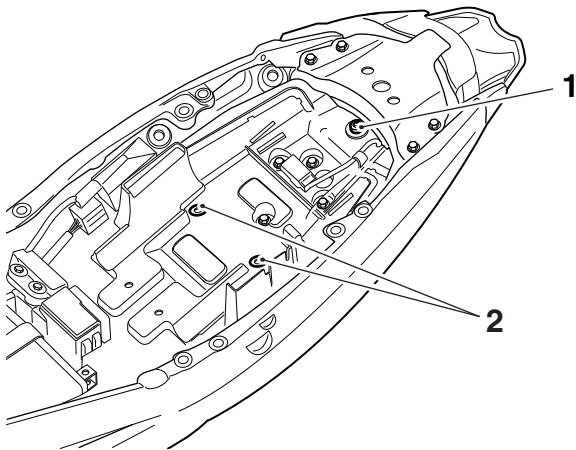
Item	Description	Qty
1	Main harness, race	1
2	Sensor, road speed (ABS kit only)	1
3	Bolt, M6 x 16 (ABS kit only)	1
4	Regulator bracket	1
5	Bolt, M6 x 12	2
6	Nut, captive, M6	2
7	Well nut, M5 x 13 shank	2
8	Rectifier/regulator	1
9	Bolt, M5 x 15	2
10	Screw, S/Tap, HHF, 5 x 20.5	1

### Note:

- The Race Harness will not work without the Race ECM A9828019.
- The regulator unit (item 8) must be relocated from its original position, within the fairing, to a new position under the seat where the alarm unit would be located. This is to allow fitment of race bodywork. The original fixing bolts (item 5) should be retained for re-use.
- The above Race Harness Kits do not support ABS. The ABS function will not operate on ABS donor motorcycles once the Race Harness Kit has been fitted.

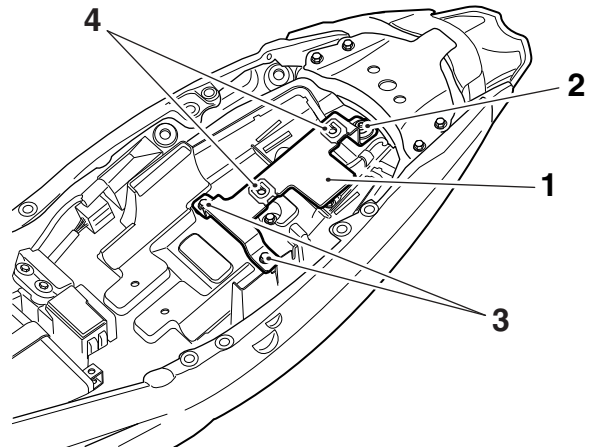
**All Models:**

1. Disconnect the battery and remove fairings following the procedures detailed in the Daytona 675 service manual.
2. Remove the regulator from the original bracket, retain the bolts for re-use. Retain the bracket and lock nuts if the motorcycle is to be returned to its original condition.
3. Remove the seat support. Retain the seat support if the motorcycle is to be returned to its original condition.
4. Remove the bolt connecting the battery tray to the bridge pressing and retain for re-use.
5. Insert the Well nuts provided (7) into the corresponding holes on the battery tray.



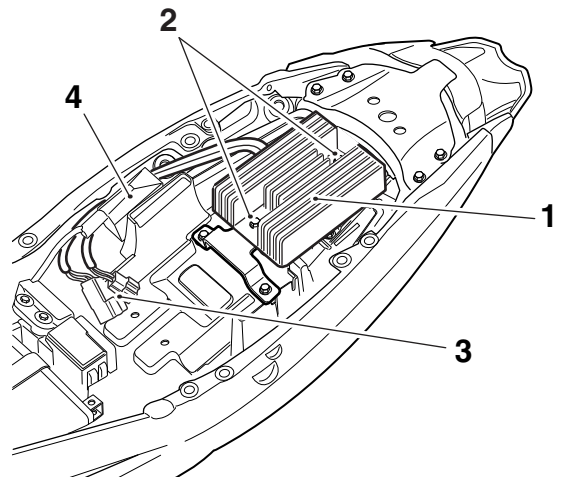
1. Bolt
2. Well nuts

6. Fit the regulator bracket (4) to the motorcycle using the original bolt removed from the bridge pressing and the two M5 x 15 bolts provided (9). Tighten the original bolt and the two M5 x 15 bolts (9) to **4 Nm**.
7. Fit the M6 captive nuts provided (6) to the regulator bracket (4).



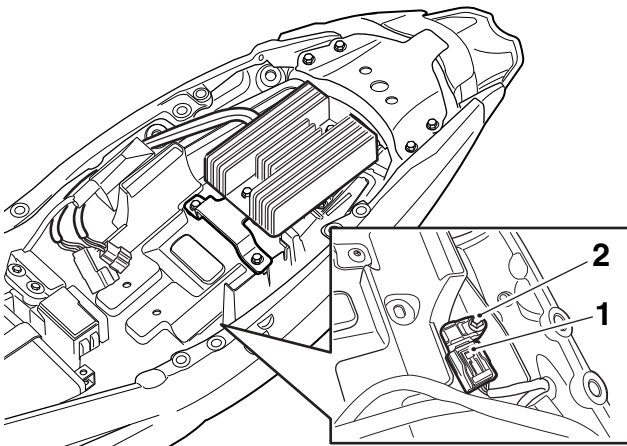
1. Regulator bracket
2. Original bolt
3. M5 x 15 bolts
4. M6 captive nuts

8. Fit the regulator to the bracket using the original M6 x 12 bolts (5) and tighten to **4 Nm**.
9. Route the alternator connector underneath the diagnostic connector.



1. Regulator
2. M6 x 12 bolts
3. Alternator connector
4. Diagnostic connector

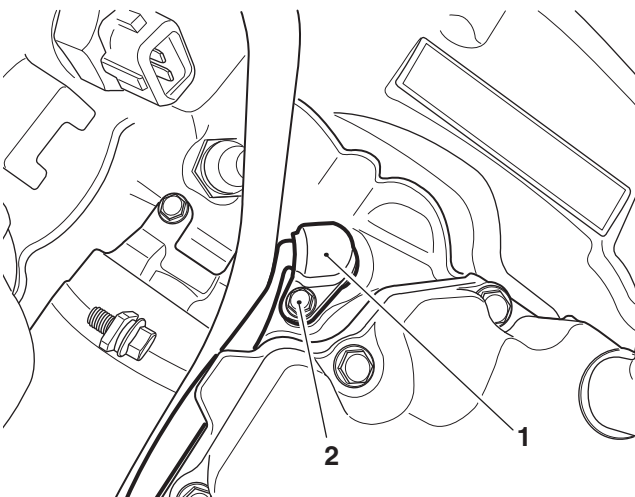
- Relocate the ambient pressure sensor from the cockpit area to the left hand side of the battery tray and secure using the self tapping screw provided (10). Washers may be used to space the sensor from the battery tray. Tighten the screw to **1.5 Nm**.



- Ambient pressure sensor
- Screw

#### ABS Donor Motorcycles Only:

- Remove the fuel tank, air box and throttle bodies following the procedures detailed in the Daytona 675 service manual.
- Remove the road speed sensor blanking plug and discard the fixing. Retain the blanking plug if the motorcycle is to be returned to its original condition.
- Fit the road speed sensor (2) using the M6 x 16 bolt provided (3) and tighten to **4 Nm**.



- Road speed sensor
- M6 x 16 bolt

- Connect the road speed sensor to the corresponding plug on the Race Harness.

#### All Models:

- Reconnect the Battery following the procedure detailed in the Daytona 675 service manual.

#### Note:

- The alternator will now plug directly into the regulator.
- The relay and fuse box position has remained unchanged on the race harness for ease of access and maintenance, however the fuse box will not locate onto the original fuse box mounting tab so will hang freely.
- The Race Harness does not support all of the original equipment, therefore, the following components can be removed from the motorcycle; oxygen sensor, exhaust valve, idle speed control, secondary air injection (SAI), purge control valve and evaporative canister (California only), and lights. The SAI ports must be blocked off with SAI Blanking Kit A9618094 if the system is removed. The throttle body purge ports must also be blocked off before use (California only).
- The Race Harness still supports the cooling fan and incorporates a relay for the fan. You may remove the cooling fan but must leave the relay in place.



#### Caution

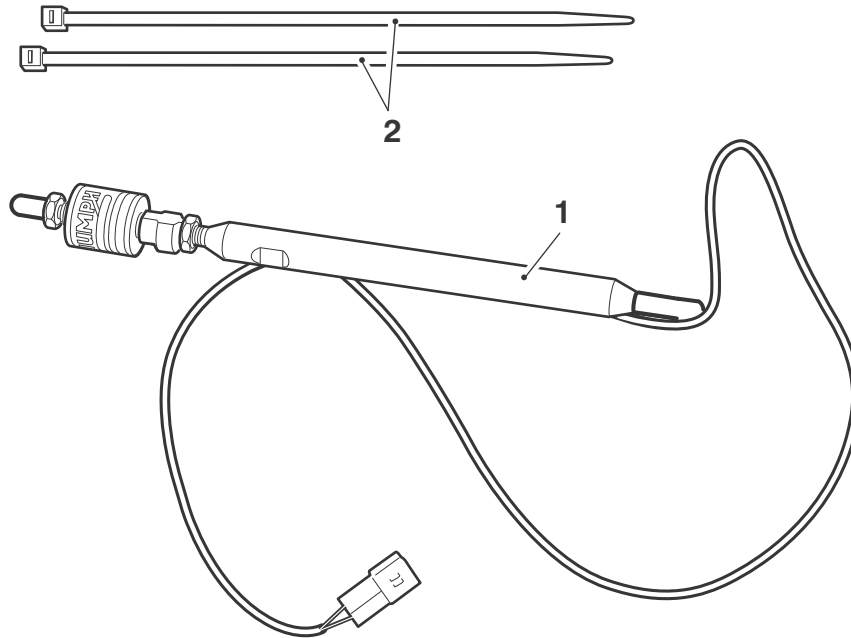
If the cooling is removed, the motorcycle will require constant airflow over the radiator in order to maintain a correct operating temperature. Extended periods of idling or prolonged rides at very slow speeds may overheat the engine resulting in severe damage.

- The Race Harness does not support the idle speed control motor and therefore, this may be removed from the throttle body. It is recommended to use the Manual Idle Speed Adjuster A9618076 to replace the throttle stop screw when using the Race Harness. Throttle body balance should be checked if the ISC cam is removed from the throttle body assembly.
- The Race Harness is suitable for use with both the standard and Race Kit alternator. It is recommended to always run an alternator, without it the battery will discharge in a very short period of time.

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# Chassis Parts

## Quickshifter, Race



### Parts Supplied - Standard Shift - A9930222

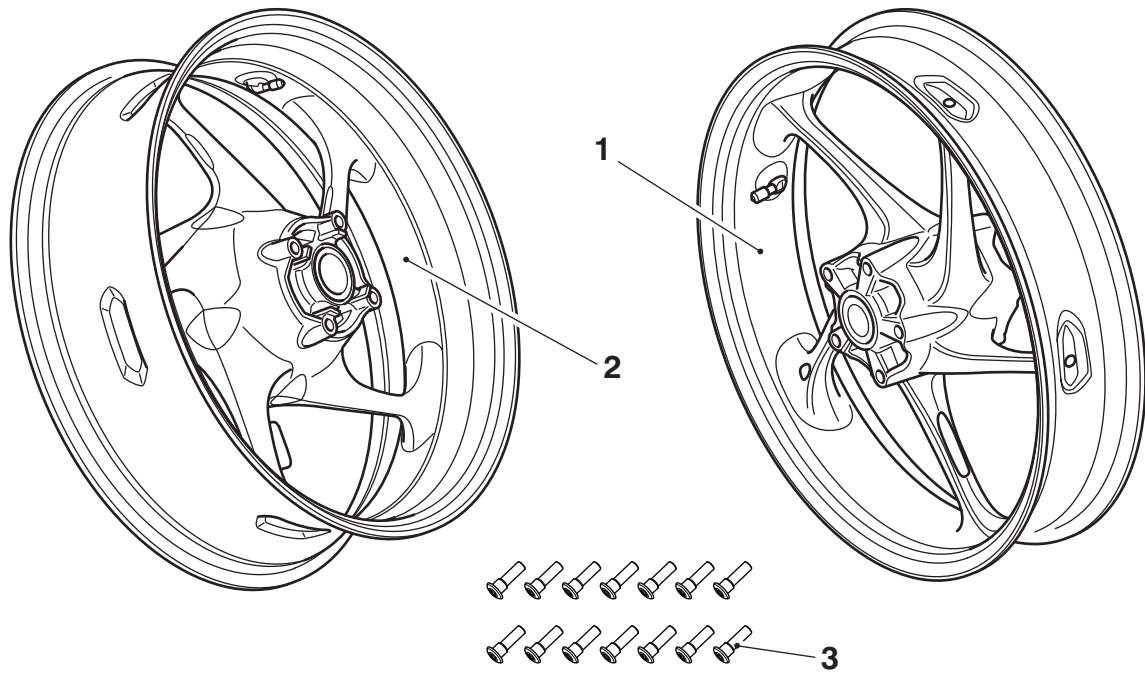
Item	Description	Qty
1	Quickshifter assembly	1
2	Cable tie	2

**Note:**

- **This part is suitable for fitment with standard control plates or accessory rearsets A9770044.**
- **For fitment, refer to the comprehensive fitting instructions supplied with the quickshifter.**

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## Race Wheel Kit



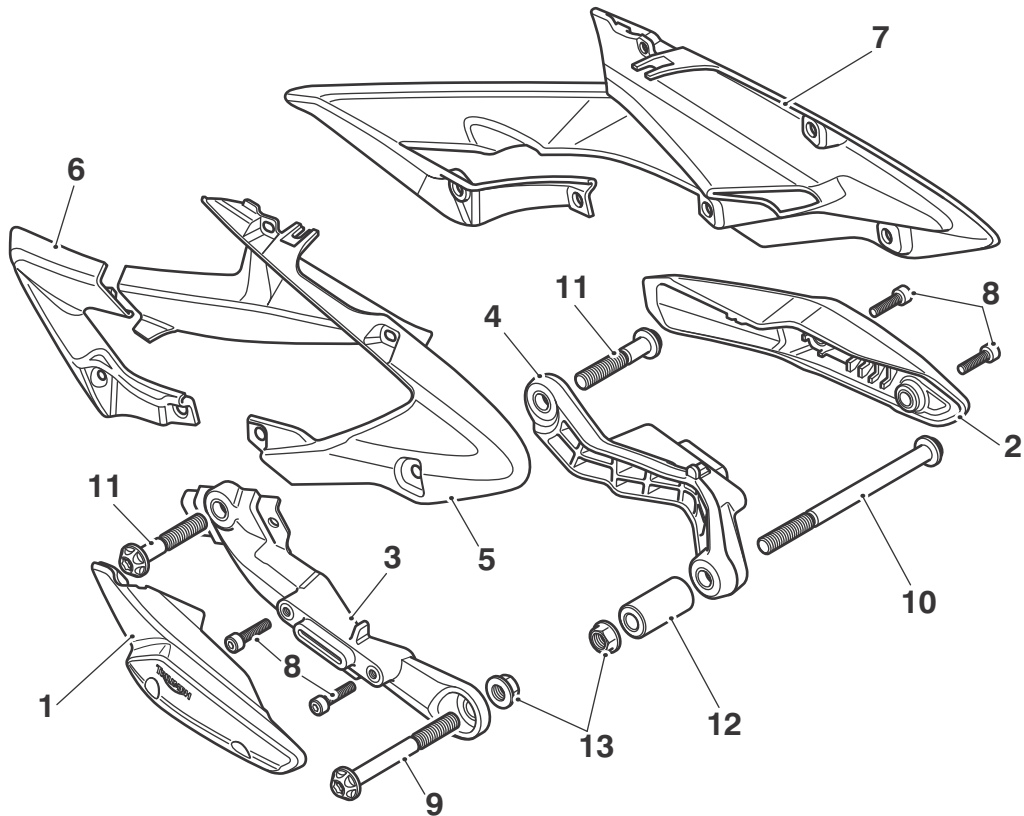
### Parts Supplied - Wheel Kit, Pair, Race - A9648032

Item	Description	Qty
1	Wheel assembly, Front, 17 x MT3.5	1
2	Wheel assembly, Rear, 17 x MT5.5	1
3	Bolt, Disc, M8 x 1.25 x 30, Slv	14

#### Note:

- For fitment refer to the procedures detailed in section 15 of the Daytona 675 service manual.

## Race Frame Protector Kit



T1825\_1

### Parts Supplied - Frame Protector Kit - A9788014

Item	Description	Qty
1	Frame protector, cover, RH, Assembly	1
2	Frame protector, cover, LH, Assembly	1
3	Frame protector, support, RH	1
4	Frame Protector, support, LH	1
5	Infill, fairing, RH, front, trim	1
6	Infill, fairing, RH, rear, trim	1
7	Infill, fairing, LH, trim	1
8	Screw, cap/hd, M6 x 1.0 x 25, SLV	4
9	Bolt, TX, M10 x 1.25 x 100	1
10	Bolt, TX, M10 x 1.25 x 150	1
11	Bolt, TX, M10 x 1.25 x 60	2
12	Spacer, L 45.5	1
13	Locknut, FLGD, M10 x 1.25	2

#### Note:

- For fitment, refer to the comprehensive fitting instructions supplied with the frame protector kit.

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