

TECHNICAL
TRAINING
CORRESPONDENCE
COURSE



MARCH
2004



Dealership Name	
Dealer Code	
Technicians Name (Block Capitals)	
Technicians Signature	
Date	

These notes have been compiled solely as a Technical Correspondence Training Course and are not a substitute for the Triumph Service Manual, which contains further specific detail and will be updated on a regular basis.

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The '05 Model Year Tiger 955i



The new Tiger boasts revised geometry for quicker steering and increased agility, revised front and rear suspension for a more composed and controlled ride, cast wheels and tubeless tyres to give riders a wider choice of rubber and a new silver frame finish with subtly revised graphics.

"These changes have come about through talking to our customers. They improve the ride quality and, although relatively small in terms of appearance, together they make the bike look significantly lighter and more contemporary," said Ross Clifford, Product Manager for Triumph Motorcycles. "These modifications plus the new engine in 2001, all now combine to make the new Tiger a great all-round motorcycle."

Although styled like an enduro, the Tiger is a road bike. It's a versatile machine built for touring, commuting – where the tall riding position is an advantage – or simply blasting around for fun. The fuel-injected 3-cylinder engine delivers plenty of usable power, with the torque providing instant drive in almost any situation.

The new chassis gives a plush ride, with the long-travel suspension soaking up any back road bumps, while the nose fairing and hand guards protect the rider from the elements.

Dual disc front brakes provide effective stopping power while the new, stiffer, front suspension adds extra composure. The Tiger also comes with factory-fit accessories – panniers, heated grips and a centre stand – all within the OTR price of £6,999.

The new 2005 Tiger is available in Aluminium Silver, British Racing Green or Lucifer Orange. A full range of Triumph accessories, together with an extensive choice of male and female riding wear and casual clothing, completes the look making the new Tiger a versatile package.

'05 Model Year Tiger 955i Specifications

Specification:		
ENGINE		
Type		Liquid-cooled, DOHC, in-line 3-cylinder
Capacity		955cc
Bore/Stroke		79 x 65mm
Compression Ratio		11.65:1
Fuel System		Multipoint sequential electronic fuel injection
Ignition		Digital - inductive type - via electronic engine management system
TRANSMISSION		
Primary Drive		Gear
Final Drive		X ring chain
Clutch		Wet, multi-plate
Gearbox		6-speed
CYCLE PARTS		
Frame		Tubular steel perimeter
Swingarm		Twin-sided, aluminium alloy with linear chain adjuster
Wheels	Front	Cast Alloy, 14 -spoke, 19 x 2.5in
	Rear	Cast Alloy, 14 -spoke, 17 x 4.25in
Tyres	Front	110/80 V 19
	Rear	150/70 V 17
Suspension	Front	43mm forks with single rate springs
	Rear	Monoshock with remotely adjustable preload and rebound damping
Brakes	Front	Twin 310mm discs, 2 piston calipers
	Rear	Single 285mm disc, 2 piston caliper
DIMENSIONS		
Length		2250mm (88.6in)
Width (Handlebars)		860mm (33.8in)
Height		1370mm (53.9in)
Seat Height		840-860mm (33.1-33.8in)
Wheelbase		1537mm (60.5in)
Rake/Trail		25.8°/87.9mm
Weight (Dry)		215kg (474lb)
Fuel Tank Capacity		24 litres (6.3 gal US)
PERFORMANCE		
(MEASURED AT CRANKSHAFT TO DIN 70020)		
Maximum Power		105PS (104bhp) at 9,500 rpm
Maximum Torque		92Nm (67ft.lbf) at 4,400 rpm

Items above highlighted in **RED** indicate changed from previous Tiger model

Whilst the Tiger engine & chassis is based upon the current Tiger, there are a number of new components and modifications used in its manufacture.

Engine

There are no engine, or EFI changes, between the '04 model year Tiger, and the '05

Chassis

Chassis changes for 2005:

- Upgraded front suspension: Fork legs are 40mm shorter with travel reduced 30mm to 170mm. Spring is a stiffer single rate spring. Rebound damping increased 20%.
- Upgraded RSU. Spring rate increased 10%. Compression damping increased 40%. Rebound damping increased 20%.
- Unit length increased to suit new swingarm.
- Revised steering geometry (rake: 25.8 degrees (was 28 degrees) and trail 87.9mm (was 92mm), achieved through shorter fork legs and swingarm
Wheelbase reduced from 1550mm to 1537mm. New stiffer and slightly shorter aluminium swingarm. Revised rear caliper carrier, rear brake hose, chain rubbing strip and chainguard to suit.
- New multi-spoke cast wheels, front and rear, using new tubeless Michelin Anakee tyres as original equipment.
Sizes remain 19x2.5 (wheel) and 110/80R19 (tyre) at the front, 17x4.25 (wheel) and 150/70R17 (tyre) at the rear.
- New lighter brake discs, front & rear, to suit the cast wheels. Brake configuration remains as previously (2 x dia.310, fixed discs/floating calipers at front, 1 x dia.285, fixed disc/floating caliper at rear).
- New forged aluminium gear change and brake pedals.

The suspension changes are predominantly designed to make the handling more road biased which includes reducing fork dive under braking

Cosmetic

Cosmetic changes:

- Seat cover fabric changed
- New silver frame finish (from black)
- Top yoke and handle bars: Black to silver
- Swing arm: black to silver
- Subtly revised graphics – “eyebrows” removed from fairing above lights, Tiger stripes and logo changed to a dot-fade from solid graphic

★ = Revised Areas



SCHEDULED MAINTENANCE CHECK SHEET

Tiger 955cc (2001 model year onwards)

= Complete

Customer Name	Mileage:	Model:	Technician Name:
Job No:	V.I.N.:	Date of registration:	Work completed (sig) _____
Registration No:	Under Warranty: Yes/No	Today's date:	Handbook stamped:

Carry out all the operations specified below at the required intervals. Additional operations must be carried at the specified time/mileage interval whichever comes first. **IMPORTANT: Under severe operating conditions, certain items require more frequent servicing, refer to the owner's handbook for further information.**

First 500 Miles/800 Kms/1 Month*

Every 6000 miles/10000 Kms/1 Year*

Every 12000 miles/20000 Kms/2 Years*

Every 18000 miles/30000 Kms/3 Years*

Every 24000 miles/40000 Kms/4 Years*

Every 30000 miles/50000 Kms/5 Years*

* Whichever comes first

Lubrication

1. Engine oil - renew.

2. Engine oil filter - renew.

3. Engine/oil cooler - check for leaks.

Fuel system/engine management

1. Throttle cable - check/adjust.

2. Fuel system - check for leaks.

3. Engine ECM - check for stored DTCs.

4. Air cleaner - renew.

5. Fuel filter - renew.

6. Throttle bodies - balance.

7. Pressure control valve in the evaporative loss control system (California only) - renew.

Ignition System

1. Spark plugs - check.

2. Spark plugs - renew.

Cooling System

1. Coolant level - check/adjust.

2. Cooling system - check for leaks.

Wheels/tyres

1. Wheels - inspect for damage.

2. Tyre wear/tyre damage - check.

3. Tyre pressures - check/adjust.

Steering and Suspension

1. Steering - check for free operation.

2. Forks - check for leaks/smooth operation.

3. Headstock bearing - check/adjust.

4. Headstock bearing - lubricate.

5. Fork oil - renew.

6. Rear suspension - lubricate.

Brakes

1. Brake fluid levels - check.

2. Brake pads - check wear levels. ◇

Electrical

1. Lights, instruments & electrical systems - check.

First 500 Miles/800 Kms/1 Month*

Every 6000 miles/10000 Kms/1 Year*

Every 12000 miles/20000 Kms/2 Years*

Every 18000 miles/30000 Kms/3 Years*

Every 24000 miles/40000 Kms/4 Years*

Every 30000 miles/50000 Kms/5 Years*

* Whichever comes first

Drive Chain

1. Drive chain rubbing strip - check. ◇

2. Drive chain slack - check/adjust.

3. Drive chain - wear check. ◇

4. Drive chain - lubricate.

Engine

1. Clutch cable - check/adjust.

2. Valve clearances - check/adjust. †

3. Cam chain wear - check. ◇

General

1. Fasteners - inspect visually for security.

2. Carry out all outstanding service bulletin and warranty work.

3. Carry out road test.

4. Complete service record book.

ADDITIONAL OPERATIONS

The following additional operations must be carried out at the specified time intervals measured from the date of delivery as a new motorcycle.

- Every 2 years**
1. Coolant - renew.
2. Brake fluid - renew.

- Every 4 years**
1. Brake hoses - renew.
2. Brake master cylinder - renew seals.
3. Brake calipers - renew seals.
4. Evaporative hoses - renew (California only).
5. Fuel hoses - renew.

NOTES

The following notes must be referred to as necessary during scheduled servicing. See also, the guidance notes appended on the rear of this pad.

◇ Renew checked items if worn beyond the service limit.

† Adjustment of valve clearances subject to additional labour charge above cost and time allowance for the basic service which includes time to check only.

Daily checks must be carried out as specified in the owners handbook.

TIGER 955cc (2001 model year onwards)

Engine							
Bore/Stroke	79 mm x 65 mm			Displacement	955cc		
Valve Clearance	Inlet 0.15 mm - 0.10 mm Exhaust 0.20 mm - 0.15 mm						
Fuel System							
Fuel Pump Type	Submerged			Fuel Type	Unleaded, 95 RON		
Fuel Pressure (nominal)	3.0 Bar			Fuel Injection Type	Electronic, Sequential		
Throttle Cable Free Play	2-3 mm*						
Clutch							
Clutch Actuation Method	Cable			Cable Free Play (at lever)	0.4 to 0.8 mm*		
Battery							
Battery rating	12V - 12 Ah						
Charge rate must not exceed 1.2A (except for a boost charge of 6A for no longer than 1 hour)*							
Brakes							
Brake Fluid	DOT 4			Friction Material Min Thickness	1.5 mm (front & rear)		
Brake Disc Max Run Out (front & rear)	0.3 mm			Front Brake Disc Min Thickness	4.5 mm		
Rear Brake Disc Min Thickness	5.5 mm						
Final Drive							
Drive Chain 20 Link Length	(less than) 321 mm			Chain Lubrication	Mobil Chain Spray		
Drive Chain Free Play	35 - 40 mm (with the rear suspension on full drop)						
Ignition System							
Spark Plug Type	NGK DPR8EA-9			Spark Plug Gap	0.9 mm		
Lubrication							
Grease	Mobil HP 222						
Oil Grade	10W/40 or 15W/50 oil conforming to API SH (or higher) AND JASO MA specification						
Fill Quantity**	3.4 litres (oil and filter change). Always refer to dipstick/filler plug markings for correct oil level*						
Suspension							
Front Fork Travel	170mm			Recommended Fork Oil grade	SAE 10W		
Oil Volume (dry fill)	655cc			Rear Wheel Travel	200 mm		
Oil Level (fork fully compressed)	146mm						
Tyre Pressures (cold)							
Front Tyre	2.5 Bar (36 lb/in ²)			Rear Tyre	2.9 Bar (42 lb/in ²)		
Torque Wrench Settings							
Spark Plug	20 Nm			Sump Plug	25 Nm		
Oil Filter	12 Nm			Airbox Mounting Bolts	5 Nm		
Front Brake Caliper Bolts	28 Nm			Rear Brake Caliper Bolts	28 Nm		
Brake Hose Banjo Bolts	25 Nm			Rear Brake Master Cylinder Bolts	27 Nm		
Camshaft Cover Bolts	10 Nm			Front Wheel Spindle Nut	60 Nm		
Brake Caliper Bleed Nipples	5 Nm			Steering Head Bearing Nut	40 Nm		
Fuel Tank mounting Bolts	9 Nm			Brake Pad Retaining Pins	18 Nm		
Rear Wheel Spindle Nut	85 Nm			Rear axle pinch bolts	35 Nm		
Service Parts Information							
Part Number	Description	Odometer Reading in Miles (Kms), Time Period					
		500 (800) 1 Month	6000 (10000) 1 Year	12000 (20000) 2 Years	18000 (30000) 3 Years	24000 (40000) 4 Years	30000 (50000) 5 Years
T3550092	Sump Plug Washer	•	•	•	•	•	•
T1210200	Oil Filter	•	•	•	•	•	•
T2201273	Air Cleaner			•		•	
1290024-T0901	Spark Plug				•		
T1240850	Fuel Filter			•		•	
T2020077	Rear Brake Pad Set	As Necessary					
T2020077	Front Brake Pad Set	As Necessary					
Standard Service Time Allowance		1.15	1.15	4.85	1.15	4.85	1.15

* See service manual for further details.

** Dipstick screwed fully in.

Tiger Set-up instructions

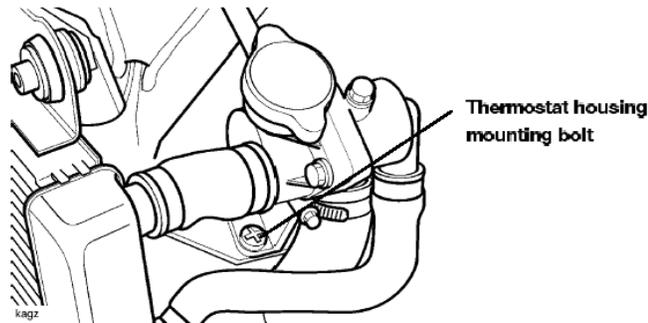
Important Note:

A separate *Motorcycle Preparation & Set-up Guide* has been issued containing detailed instructions for carrying out all aspects of the Pre-delivery Inspection for all Triumph models– please read this guide carefully and refer to as necessary.

Recent 'Technical News' Reprints

Issue 65 December 2002

Item 2. Change of Torque Figure - Thermostat Housing Mounting Bolt - Tiger 885cc & 955cc Fuel Injected Models

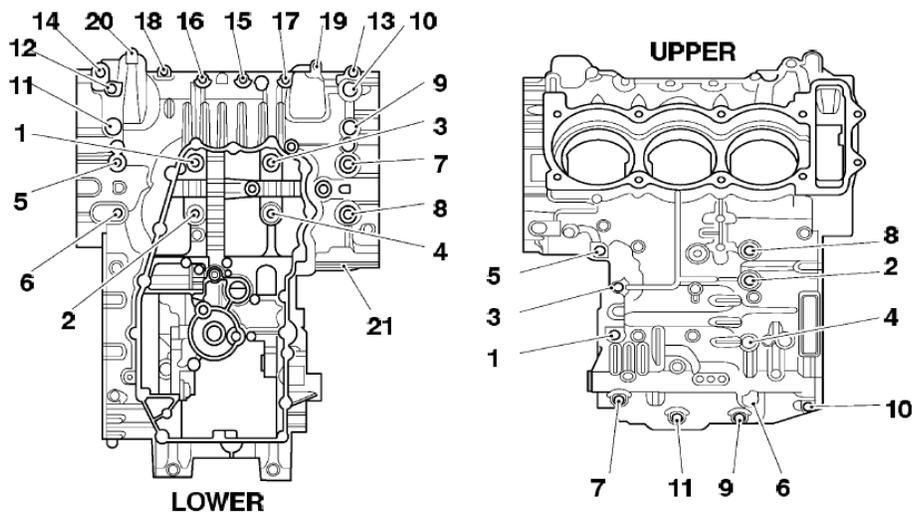


The torque figure for the thermostat housing mounting bolt on the above models has changed. The new torque figure is 5 Nm. Please amend the relevant service manual with this information.

Issue 65 Strictly Confidential December 2002

Item 21. Change Of Torque sequence - Crankcase Bolts, 2002 year models onwards - Daytona 955i , Speed Triple , Sprint RS , Sprint ST and Tiger 955cc

The torque sequence for upper and lower crankcase bolts for the above models has changed. The new torque sequence, together with correct torque figures are found below:



Note:

The crankcase screws are tightened in stages.

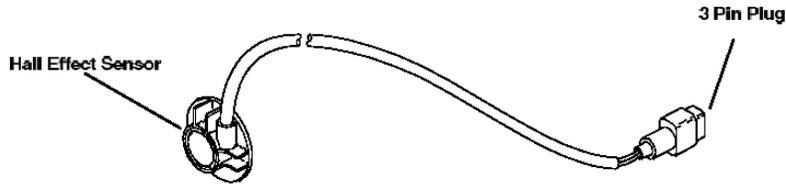
Two different sizes of crankcase screw are used. All screws are tightened through the first stage of the tightening procedure but only the M8 size screws are tightened at the second stage.

1. In the sequence shown, tighten all lower crankcase screws to 12 Nm.
2. In the sequence shown, tighten all the upper crankcase screws to 12 Nm.
3. In the sequence shown, tighten only the M8 size lower crankcase screws to 28 Nm.
4. In the sequence shown, tighten only the M8 size upper crankcase screws to 28 Nm.
5. Rotate the crankshaft clockwise. Ensure crankshaft moves freely.

Please amend the relevant service manual with this information.

Issue 69 Strictly Confidential July 2003

- Item 4. Test procedure - front wheel mounted road speed sensor - Daytona 955i (2001 model year on), Speed Triple (2001 model year on), Sprint RS (2001 model year on), Sprint ST (2001 model year on), Tiger 955cc, Speed Four & TT600.**



Typical front wheel mounted road speed sensor

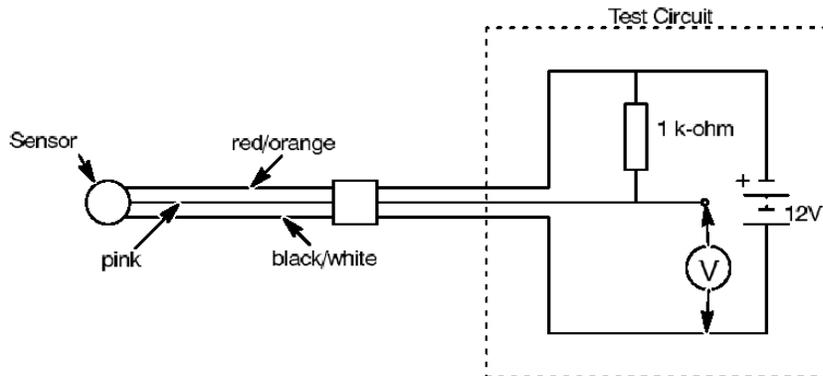
The test procedure listed below is suitable for the above models fitted with a front wheel mounted road speed sensor.

Road speed sensor

On the sensor side, the wiring colours are:

- Red / Orange - sensor supply
- Black / White - sensor ground
- Pink - signal

The following circuit should be used to test the sensor:



With the test circuit connected, rotate the front wheel slowly. The voltage should change from 0v to 12v four times per revolution.

Harness

Where the harness connects to the 3 pin plug, the wiring colours are:

- Black / Yellow - sensor supply
- Black - sensor ground
- White / Blue - signal

Test the harness as follows:

1. Check the fuse to the instruments (fuse ratings and fuse-box locations can be found in the relevant model's handbook).
2. Check that the sensor to harness connection is secure.
3. With the ignition in the ON position and the sensor connected to the harness, use a voltmeter to check that there is approx 12V between the black wire and the black/yellow wire.

NOTE:

- This supply is controlled by the instruments and it is likely that the voltage will read slightly less than the battery voltage.
4. Use an ohmmeter to check the continuity of the white/blue wire to the instruments or the engine management ECU, depending on the model.

05' Model Year Tiger 955i **Accessories Available:**

Aftermarket Silencer *	A9608018	£219.99
Top Box	A9508018	£329.99
Dust Cover	A9930060	£54.99
Top Box Rest	A9508030	£22.99
Pannier Inner Bags	A9510019	£59.99
Tank Bag	A9510012	£99.99
Gel Seat Front	A9701159	£109.99
Gel Seat Rear	A9701160	£79.99
Higher Screen	A9701119	£99.99
Sports Screen	A9708029	£99.99
Chain & Sprocket Kit	A9618012	£139.99
Alarm	A9808052	£269.99
Front M/Guard Extension	A9708019	£21.99
Rear M/Guard Extension	A9701030	£17.99



* Note this product does not conform to EPA noise standards. Use on motorcycles subject to EPA regulation constitutes tampering and is a violation of federal law. This product is designed for close circuit competition use only

Note: All prices correct at time of publication