

# Ducati 1098/1198 Torque Settings

All settings in Newton Meters (Nm) (Nm to Ft. Lbs conversion chart at bottom)

Accessories and equipment

**\*Critical Element** – Torque value must be within 5% of specified value!

Reflector to bracket fastener 4x0.7mm 2.5 Nm

## **Ducati Grease application description**

**Grease A** - SHELL Alvania R3 – Multipurpose, medium fibre, lithium grease.

**Grease B** - SHELL Retinax HDX2 - Molybdenum disulphide grease. high mechanical stress and high temperature resistant

**Grease C** - SHELL Retinax LX2 - Bearing/joint grease for parts subject to prolonged mechanical stress. Temperature range: -10 to 110 °C

**Grease D** - SHELL Retinax HD2 - Protective grease, with anti-corrosive and waterproofing properties

**Grease E** - PANKL - PLB 05 - Grease

**Grease F** - OPTIMOL - PASTE WHITE T - Grease

**Grease G** - PANKL - PLB07 - Grease

**Grease H** - KLÜBER STABURAGS NBU 30 PTM - Grease

**Grease I** - CUPRUM 320 - Copper Grease

## **Kickstand**

Nut securing kickstand pivot bolt 8x1.25 24.0 LOCKTITE 10 (GREASE B on bolt)

Bolt securing kickstand to crankcase 10x1.5 43.0 LOCKTITE 5

Kickstand sensor bolt 6x1 10.0

Kickstand sensor cable clamp bolt 6x1 10.0

## **Front Sprocket**

Front sprocket retaining nut 25x1.5 186\* GREASE B

Front sprocket cover bolt 6x1 6.0

## **Lights and Reflectors**

Headlight support bolt 8x1.25 25.0 LOCKTITE 2

Lower bolt securing headlight to support 6x1 10.0

Turn indicator retaining nut 10x1.25 5.0

Tail light retaining bolt 5x0.8 3.0

Number plate cover bolt 5x0.8 5.0

Number plate holder bolt 6x1 5.0

Number plate light bolt 4x0.7 2.5

Number plate holder plate bolt 6x1 10.0

## **Instruments**

Silent-b Lock retaining nut 5x0.8 3.0

## **Front fork**

Front axle clamp bolt 8x1.25 19\* GREASE B: Sequence 1-2-1

Stock Upper yoke bolt 8x1.25 22\* GREASE B

Stock Lower yoke bolt 8x1.25 22\* GREASE B: Sequence 1-2-1

Ohlins FGRT 211 Forks w/ CNC Upper Triple (1) 8x1.25 20\*) GREASE B:

Ohlins FGRT 211 Forks w/ CNC Lower Triple (3-1-2, repeat) 8x1.25 10\*) GREASE B:

Steering stem nut 35x1 30.0 GREASE B  
Steering stem to bottom yoke 37x1 Fully seated LOCKTITE 8  
Steering stop bolt lock nut 6x1 10.0 LOCKTITE 2 (on nut thread only)  
Steering damper eye bolt 6x1 8.0  
Steering damper clamp bolt 6x1 8.0 LOCKTITE 2  
Bolt securing steering damper to top yoke 6x1 8.0 LOCKTITE 1  
Adjust Triple Clamp Tension Nut so that when front wheel is lifted off the ground there is no vertical or horizontal play, grab forks with both hands on the lower portion near the brake calipers, gently push and pull a few times. There should be no clicking or movement but fork should pivot around steering axis freely back and forth.

### **Electrical System**

Bolt securing ECU to battery support 6x1 10.0  
Lights relay plate retaining bolt 5 2.5  
Bolt securing fuse box to frame 6x1 10.0  
Contactor cable retaining nut 6x1 5.0  
Bolt securing horn to frame 8x1.25 22.0  
Voltage regulator retaining bolt 6x1 10.0  
Lambda sensor 18x1.5 45.0  
Battery support bolt 6x1 10.0  
Battery cover retaining bolt 6x1 8.0  
Speed sensor retaining bolt 6x1 10.0  
Rear brake switch on master cylinder mounting bracket 8x1 5.0

### **Front Brake**

Front brake caliper retaining bolt 10x1.5 43\* GREASE B  
Brake bleed valve 6x1 10.0  
Front/rear brake hose fitting 10x1 20.0  
Bolt securing brake master cylinder to handlebar 6x1 10.0 Sequence: 1-2-1  
Front brake hose clamp retaining bolt 5x0.8 0.8

### **Swingarm**

Swingarm pivot bolt nut 15x1.25 72\*  
Rear brake caliper plate centering pin 12x1.25 33\* LOCKTITE 8  
Bolt securing chain sliders to swingarm 6x1 8.0  
Mozzo (Rear wheel Hub) retaining bolt 12x1.25 33\* GREASE B:  
sequence 1-2-1

### **Rear Brake**

Rear brake master cylinder plate bolt 10x1.5 43.0 LOCKTITE 5  
Rear brake caliper bolt 8x1.25 25\* GREASE B  
Rear brake master cylinder bolt 6x1 10.0  
Rear brake reservoir retaining bolt 6x1 2.0  
Rear brake linkage Locknut 6x1 7.5

### **Handlebars - Clutch Control**

Handlebar hose clamp retaining bolt 6x1 8.0  
Clamp bolt securing handlebar to fork leg 8x1.25 25\*  
Throttle twistgrip housing bolt 6x1 10.0  
Bolt securing clutch master cylinder clamp to handlebar 6x1 10.0  
Clutch hose connector 10x1 20.0  
Clutch piston retaining bolt 6x1 10.0

### **Rear Shock**

Nut securing rear suspension rocker arm pivot bolt 10x1.25 42\* GREASE B  
Bolt securing shock absorber to rocker arm 10x1.25 42\* GREASE B  
Bolt securing tie-rod to rocker arm 10x1.25 42\* GREASE B  
Bolt securing shock absorber and tie-rod to swingarm 10x1.25 42\* GREASE B

## **Front Mudguard**

Front mudguard fastener 6x1 10.0 LOCKTITE 1

## **Liquid Cooling**

Radiator pack retaining bolt 6x1 10.0

Radiator orientation bolt 6x1 10.0

Coolant hose guide fastener 2.5

Coolant hose guide fastener 2.5

Coolant (bleed) hose guide clamp on horizontal cylinder 1.0

Radiator hose to expansion tank fastener 1.0

Coolant drain plug on pump cover 10x1 18.0

Expansion tank to bracket fastener 6x1 3.0

Bolt securing expansion tank bracket to cylinder head 6x1 10.0

Radiator-expansion tank and drainage hose guide clamp ... 1.0

## **Footrests and Control Levers**

Bolt securing footrest to frame 8x1.25 24.0 LOCKTITE 2

Bolt securing heel plate to footrest bracket 5x0.8 5.0 LOCKTITE 2

Gear change lever tie-rod Lock nut 6x1 10.0

Gear change lever clamp retaining bolt 6x1 10.0 LOCKTITE 1

Gear change rod to lever retaining nut 6x1 10.0

Brake/gear change lever pivot bolt 8x1.25 23.0 LOCKTITE 2

Lock nut for rear brake pedal adjuster screw 6x1 2.5

Rear brake linkage to brake lever pivot bolt 6x1 5.0

## **Front Wheel**

Front wheel axle nut 25x1.25 63\* Shell Retinax HDX2 (apply to bolt thread)

## **Rear Wheel**

Rear wheel cush drive retaining nut 10x1 48.0 LOCKTITE 2

Rear wheel pack retaining nut (both sides) 48x1.5 230\* GREASE B

Rear wheel drive pin retaining bolt 8x1 25\*

## **Fuel Tank**

Fuel tank centering plates retaining bolt 6x1 6.0 LOCKTITE 2

Bolt securing flange to fuel tank 5x0.8 6.0 LOCKTITE 2

Bolt securing deformation bracket to subframe 6x1 10.0

Unions for fuel tank breather and drain hoses 7x1 2.0

Bolt securing fuel tank to deformation bracket 8x1.25 22.0

Bolt securing side panel brackets to fuel tank 5x0.8 2.5

Fuel hose containment plate fastener 5x0.8 2.5

Bolt securing fuel cap to fuel tank flange 5x0.8 5.0

## **Exhaust**

Nut securing manifold to cylinder head 6x1 10.0

Vertical manifold heat shield retaining nut 6x1 10.0

CO plug 10x1.25 25.0

Nut securing exhaust to frame 6x1 10.0

Nut securing silencer support/number plate holder to frame 6x1 8.0

Bolt securing silencers to support 8x1.25 20.0

Silencer rear retaining nut 5x0.8 4.0

Nut securing Bowden cables to exhaust valve 5x0.8 6.0

Exhaust valve actuator retaining bolt 6x1 10.0

Rider heat shield retaining bolt 5x0.8 5.0

## **Seat**

Bolt securing rider's seat to frame 5x0.8 5.0

Nut securing hooks to pillion seat 6x1 10.0

### **Frame**

Nut securing frame pack/engine 12x1.25 60\* GREASE B

Nut securing subframe to frame 8x1.25 25\*

Ignition switch retaining bolt 6x1 10.0 Solid threadlocker on bolt

Ignition switch cover retaining nut 6x1 10.0

Nut securing Lock cable end fitting to seat cowling 22x1.5 1.0 LOCKTITE 3

Bolt securing seat Lock latch to frame 6x1 5.0

### **Oil Cooler**

Oil cooler nipple on crankcase 14x1.5 25.0 LOCKTITE 1

Cooler oil hose union on crankcase 16x1.5 25\* Lubricate with engine oil

Oil hose union on oil cooler 16x1.5 18\* Lubricate with engine oil

Oil hose containment plate retaining bolt 6x1 10.0

Bolt securing oil cooler bracket to cylinder head 6x1 10.0

Bolt securing oil cooler pack to bracket 6x1 10.0

### **Air intake - Oil breather**

Bolt securing intake funnels to base of airbox 5x0.8 5.0

Bolt securing throttle cable guide to airbox 4x0.7 4.0 LOCKTITE 1

Bolt securing air ducts to airbox 6x1 5.0

Bolt securing air ducts to headlight 6x1 4.0

Clamp securing blow-by hose to crankcase 2.5

### **Fuel system - EVAP canister**

Clamp securing throttle body to intake manifold ... 2.5

Bolt securing intake funnels to throttle body 5x0.8 2.5 LOCKTITE 2

Bolt securing fuel hose guide to airbox 4x0.7 2.5 LOCKTITE 2

Bolt securing fuel hose guide to base of airbox 5x0.8 4.0

### **Fairings**

Bolt securing windshield to headlight shell 4x0.7 1.0

Upper bolt securing headlight shell to support 6x1 5.0

Lower bolt securing headlight shell to support 6x1 5.0

Bolt securing upper fairing panels to headlight shell 5x0.8 1.0

Bolt securing right-hand fairing panel 5x0.8 1.0

Bolt securing left-hand fairing panel 5x0.8 1.0

Bolt securing left-hand fairing panel to frame 5x0.8 2.5

Bolt securing right-hand fairing panel to frame 5x0.8 2.5

Lower bolt securing RH and LH fairing panels 5x0.8 2.5

Bolt securing shield to radiator 5x0.8 2.5

Bolt securing splashguard to headlight support 5x0.8 1.0

Bolt securing side panels to fairing panels 5x0.8 1.0

Bolt securing air duct cover to air duct 5x0.8 1.0

Bolt securing air duct cover to frame/headlight shell 5x0.8 2.5

Front lower bolt securing fairing panels to frame 5x0.8 2.5

Rear lower bolt securing fairing panels to frame 5x0.8 2.5

Bolt securing side panels to fuel tank/frame 5x0.8 2.5

Bolt securing side panels to seat cowling 5x0.8 1.0

Bolt securing side panels to heat shield 5x0.8 1.0

Front bolt securing seat cowling/side panels to frame 5x0.8 2.5

Intermediate bolt securing seat cowling to frame 5x0.8 2.5

Front bolt securing seat cowling heat shield to frame 5x0.8 2.5

Bolt securing fairing bracket to engine 6x1 10.0

Bolt securing fairing bracket to engine 10x1.5 20.0

**\*Dynamic safety-critical point; tightening torque must be within 5% of specified value!**

**Ducati 1098/1198 TORQUE CONVERSIONm to Ft. Lbs**  
(Nm x .73756 = Ft. Lbs.)

Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.	Nm	Ft. Lbs.
1	1	24	18	47	35	70	52	93	69	116	86
2	1	25	18	48	35	71	52	94	69	117	86
3	2	26	19	49	36	72	53	95	70	118	87
4	3	27	20	50	37	73	54	96	71	119	88
5	4	28	21	51	38	74	55	97	72	120	89
6	4	29	21	52	38	75	55	98	72	121	89
7	5	30	22	53	39	76	56	99	73	122	90
8	6	31	23	54	40	77	57	100	74	123	91
9	7	32	24	55	41	78	58	101	74	124	91
10	7	33	24	56	41	79	58	102	75	125	92
11	8	34	25	57	42	80	59	103	76	126	93
12	9	35	26	58	43	81	60	104	77	127	94
13	10	36	27	59	44	82	60	105	77	128	94
14	10	37	27	60	44	83	61	106	78	129	95
15	11	38	28	61	45	84	62	107	79	130	96
16	12	39	29	62	46	85	63	108	80	131	97
17	13	40	30	63	46	86	63	109	80	132	97
18	13	41	30	64	47	87	64	110	81	133	98
19	14	42	31	65	48	88	65	111	82	134	99
20	15	43	32	66	49	89	66	112	83	135	100
21	15	44	32	67	49	90	66	113	83	136	100
22	16	45	33	68	50	91	67	114	84	137	101
23	17	46	34	69	51	92	68	115	85	138	102
Fr Sprocket		186	137	Rear Wheel (Both Sides)						230	170