

## Frame tightening torque values

Component	Q.ty	Threading	1504	1504S	1504 Pikes Peak	Notes
STAND						
Stand sensor fastener	1	M6X1	5			PRE-APPLIED THREADLOCKER
Side stand retain.	1	M8X1.25	18			(Loctite 243 on SHELL GADUS S2 V220 AD 2 thread on underhead and cylindrical section)
Side stand retain.	1	M8X1.25	18			LOCK 2
CHAIN - SPROCKET						
Sprocket retainer	1	M25X1.5	186			GREASE B
Front sprocket cover retainer	2	M6X1	6			LOCK 2
Sprocket cover cable ring fastener	2	M6X1	6			LOCK 2
LIGHTS						
Headlight to front subframe retainer	4	M5X0.8	5			
Tail light retain.	3	ST5	5			
LH rear-view mirror retain.	1	M10X1.25	40			
RH rear-view mirror retain.	1	M10X1.25-LH	40			
Front turn indicators on hand guards retain.	8	ST3.5	0.65			
Number plate light retain.	2	M4X0.7	2			
Rear turn indicator retain.	2	M5X0.8	3			LOCK 2
INSTRUMENTS						
Retainer on instrument panel	3	M5X0.8	Manual			
Instrument panel to mount fastener	3	M5X0.8	3			
FRONT FORK						
Steering head clamp retain.	4	M6X1	10*			GREASE B (Seq.: 1-2-1)
Steering head central fastener	1	M8X1.25	18*			GREASE B
Handlebar stud bolt to head fastener	2	M10X1.25	45*			LOCK 2 + GREASE UNDERHEAD
Bearing preload ring nut	1	M35X1	35*			GREASE D
Steering stop adjuster lock nut fastener	2	M8X1.25	18			LOCK 2 (on nut thread only)
Bottom yoke terminal fastener	4	M8X1.25	16*			GREASE B (Seq.: 1-2-1)
Handlebar U-bolt fastener	4	M8X1.25	25*			GREASE B (Seq.: 1-2-3-4-3)
Front brake hose guide to bottom yoke fastener	1	M6X1	10			PRE-APPLIED THREADLOCKER
Sachs fork bottom end clamp retainer	4	M6X1		10*		GREASE B (Seq.: 1-2-1)

Splash guard to bottom yoke fastener	3	M5X0.8	3			PRE-APPLIED THREADLOCKER
Bottom yoke to SUSP fastener	2	M5X0.8	5			
Retainer securing accelerometer to LH support bracket	2	M5X0.8		3		
ÖHLINS fork bottom end clamp retainer	4	M8X1.25			19*	GREASE B (Seq.: 1-2-1)
KAYABA fork bottom end clamp retainer	4	M8X1.25	19*			GREASE B (Seq.: 1-2-1)
LH accelerometer bracket to left fork bottom end fastener	2	M5X0.8	19*	5		
ELECTRICAL - ELECTRONIC SYSTEM						
Electric component support to rear subframe front retainer	2	M6X1	10			
Rear vibration dampers to compartment retaining nuts	2	M6X1	5			
Control unit bracket retainer	1	M5X0.8	5			
Starter contactor bracket to compartment retainer	1	ST5	2			
Regulator to compartment fastener	2	M6X1	5			
Bosch inertial platform on bracket retainer	2	M6x1	6			
Bosch inertial platform bracket on compartment retainer	2	ST4	1			
Cable ring to compartment retainer	6	ST4	1			
Fuse support bracket fastener	2	ST5	2			
Seat lock cover to compartment bracket retainer	2	ST4	1			
Seat lock to electrical components compartment retaining nut	1	M22x1.5	3			
Fastener securing starter motor batt. cables to remote control switch	2	M6x1	4			AREXONS TL 246
Central vert. coil to bracket retain.	2	M6X1	9			
Central vert. coil bracket to RH frame retain.	2	M5X0.8	5			
Horizontal coils to bracket fastener	2	M6X1	9			
Horiz. coil bracket to RH frame retain.	2	M5X0.8	5			
LH side vert. coil cover to ABS control unit support bracket retainer	2	M5X0.8	5			
Marelli temp. sensor to airbox cover retain.	2	ST3	0.5			
Marelli temp. sensor to central conveyor retain.	2	ST3	0.5			
Map sensor to lower airbox support retain.	2	ST5	2			
Retainer securing horn to support bracket	1	M8X1.25	22			PRE-APPLIED THREADLOCKER
Horn bracket to horizontal cylinder retainer	1	M6X1	10			
Power socket to glove compartment retainer	1	M18X1	3			
Rear brake STOP switch to support	1	M8X1	5			

Power socket to headlight fairing retainer	1	M18X1	3	
Cable to starter motor fastener	1	M6X1	5	GREASE D
Screw securing ground cable to crankcase	1	M6X1	10	
Knock sensor retaining screw	2	M8X1	25	
Screw retaining Hands free antenna cable tie support to headlight fairing	1	ST4	1	
Screw retaining VVT connector heat guard	2	ST5	1.75	
Hands-Free retainer	2	M8x1.25	Shear screw	PRE-APPLIED THREADLOCKER
Hands-Free antenna retainer	2	ST4	1	PRE-APPLIED THREADLOCKER
REAR SWINGING ARM				
Chain guard upper internal retainer and lower sliding shoe retainer	5	M5X0.8	5	PRE-APPLIED THREADLOCKER
Upper sliding shoe retainer and external side chain guard	2	M5x0.8	5	PRE-APPLIED THREADLOCKER
Eccentric hub tightening	2	M12X1.25	35*	GREASE B (Seq.: 1-2-1)
Swinging arm shaft fastener	2	M8X1.25	18*	GREASE B
Rear brake calliper holder plate locking pin	1	M12X1.25	33*	LOCK 5
Angular sensor support to RH fork retainer	1	M5X0.8	5	PRE-APPLIED THREADLOCKER
ABS SYSTEM				
ABS control unit bracket to frame fastener	1	M5X0.8	5	
Front calliper retainer	4	M10x1.25	45*	GREASE B
Pre-tightening of front brake calliper	4	M10x1.25	2	GREASE B
Rear calliper fastener	2	M8X1.25	25*	GREASE B
Brake master cylinder and stop sensor bracket to footpeg holder plate retainer	2	M6X1	10	
Rear fluid reservoir to bracket fastener	1	M5X0.8	2	LOCK 2
Rear brake fluid reservoir support to rear RH subframe fastener	2	M5X0.8	2	
Front brake master cylinder clamp	2	M6X1	10	(Seq.: 1-(UP)-2-1)
Retainer securing front brake fluid reservoir to hand guard	1	M5X0.8	2	
Rear brake hose guide to swinging arm fastener	1	M6X1	5	
Retainer securing ABS control unit to bracket	2	M6X1	8	
Front ABS sensor retainer	1	M6x1	10	
Rear ABS sensor retainer	1	M6x1	10	
Filler plug on ABS control unit retainer	2	M12X1	27*	

2 front calliper bleed screws 1 front brake master cylinder 1 rear calliper	4	M6X1	5.5	
Front break reservoir plug screw retainer	2	M4X0.7	0.7	
Fastener retaining union screws to control unit (pcs 2) /rear brake calliper fastener (1pc.)/rear brake master cylinder fastener (1pc.)	4	M10X1	27*	
Union on front brake master cylinder fastener	1	M10X1	27*	
RH front calliper bleeder fastener, only base version; not present on m50 version	1	M10X1	27*	
Union to LH front calliper fastener	1	M10X1	28*	
Filler plug on control unit retainer	2	M12X1	27*	
NUMBER PLATE HOLDER				
Number plate holder to cover retainer	4	M5X0.8	3	
Number plate holder to glove compartment retainer	4	M6X1	6	
Number plate holder fastener	3	M6X1	6	
Retainer of number plate holder cover to electric component compartment with silent block	2	M6X1	6	
Protection grille to cover retainer	2	M5X0.8	3	
Cat's eye fastener	2	M4x0.7	2	
HANDLEBAR - CLUTCH CONTROL				
Clutch master cylinder fastener	2	M6X1	10	(Seq.: 1-(UP)-2-1)
RH and LH hand guard to clutch and brake master cylinder fastener	2	M6X1	10	PRE-APPLIED THREADLOCKER
RH and LH hand guards to RH and LH clamp fastener	4	M5X0.8	10	
Clutch slave cylinder to casing fastener	3	M6X1	10	
Bitron throttle control fastener	2	M5X0.8	4.5	
Clutch fluid reservoir retainer	1	M5X0.8	2	(Seq.: 1-2-3-1)
Union to clutch slave cylinder fastener, union to clutch master cylinder fastener	2	M10X1	24.5	
Clutch bleed on master cylinder retainer	2	M6X1	5.5	
Asahi Denso throttle fastener	1	M5X0.8	3.5 ± 0.5	
REAR SUSPENSION				
Preload adjuster to support retainer	2	M6X1	10	
Angular sensor con-rod to swinging arm support sensor retainer	2	M6X1	5	
Angular sensor to sensor plate retainer	2	M5x0.8	3	
Angular sensor plate to exhaust valve motor support retainer	2	ST5	2	

Shock absorber lower retainer	1	M10x1.5	42*	GREASE B
Rear shock absorber upper retaining screw	1	M10x1.5	60*	LOCK 2
FRONT MUDGUARD				
Mudguard to fork retainer	4	M6x1	42*	PRE-APPLIED THREADLOCKER
Front brake hose guide to mudguard retainer	2	M5x0.8	60*	
WATER RADIATOR				
Radiator to RH and LH frame upper retainer	2	M6X1	10	
Expansion reservoir fastener	3	M6x1	8	
Water hose clamps fastener on horizontal and vertical cylinder	2		3	
Water hose clamps fastener on thermostatic valve	2		3	
Loosening/screwing of water hose clamp pre-installed to engine assy	1		3	
Expansion reservoir hose tie on radiator fastener	1		1	
Water hose clamp fastener on radiator and water pump	3		3	
Horizontal cylinder bleed tie	1		1	
Water bleeder cap on left casing	1		15	
Water hose clamps fastener on thermostatic valve	1		3	
FOOTPEGS AND LEVERS				
Brake and gearchange levers on footpeg holder plates fastener	2	M8X1.25	23	PRE-APPLIED THREADLOCKER
Gearchange linkage to shaft fastener	1	M6X1	10	LOCK 1
Rear brake lever lug pivot screw	1	M6X1	5	LOCK 2
Brake lever adjuster screw nut	1	M6X1	5	
Brake master cylinder control rod nut	1	M6X1	7.5	
Fastener retaining RH footpeg holder plate to RH rear subframe	2	M10x1.5	42*	LOCK 2
Fastener retaining LH footpeg holder plate to engine and to LH rear subframe	2	M10x1.5	60*	LOCK 2
Passenger footpeg holder fastener	4	M8X1.25	24	
Gearchange linkage joint fastener	2	M6x1	10	
REAR MUDGUARD				
Splash guard to swinging arm retainer	3	M6X1	10	PRE-APPLIED THREADLOCKER
LH mudguard to swinging arm retainer	1	M5X0.8	6.5	PRE-APPLIED THREADLOCKER
RH mudguard to swinging arm retainer	2	M5x0.8	6.5	PRE-APPLIED THREADLOCKER
Mudguard to brake hose guide on clip retainer	1	M5x0.8	4	

LH brake hose guide to swinging arm retainer	1	M5x0.8	6.5	PRE-APPLIED THREADLOCKER
FRONT WHEEL				
Brake discs and phonic wheel to wheel rim fastener	10	M8X1.25	30*	PRE-APPLIED THREADLOCKER
Wheel shaft fastener	1	M25X1.25	63*	GREASE B (on thread and underhead)
PLANT DMT valve tightening	1	M8X1.25	9	LOCK 2
PLANT DMH / DFR valve tightening	1	M8X1.25	9	PRE-APPLIED THREADLOCKER
REAR WHEEL				
Phonic wheel to disc retainer	4	M5X0.8	8*	PRE-APPLIED THREADLOCKER
Brake disc fastener	4	M8X1	35*	PRE-APPLIED THREADLOCKER
RH rear wheel and LH rear sprocket retainer	1+1	M48X1.5	230*	GREASE B
Silentblock fastener	6	M10X1	44*	LOCK 2
PLANT DMT straight valve tightening	1	M8X1.25	9	LOCK 2
FUEL TANK				
Fuel tank plug retainer	6	M5X0.8	4	
GAC retainer	5	M5X0.8	6	
Tank front buffer fastener	2	M6X1	10	
Tank support RH and LH plate retainer	4	M6X1	5	
Tank support to engine special screw/nut retainer	4	M6X1	5	
Fuel sensor ring nut retainer	1		8	
Bracket to canister support retainer with blind nuts	2	M6X1	8	
Canister support bracket to spacer stud bolt fastener	1	M5X0.8	5	PRE-APPLIED THREADLOCKER
Canister support bracket to engine fastener	1	M6X1	10	PRE-APPLIED THREADLOCKER
Dual lock fastener for retaining bluetooth control unit to tank	1	M4x0.7	2	LOCK 1
Tank support to engine special screw/nut retainer	3	M6X1	5	
Canister support to sump guard support fastener	1	ST5	3	
Tank to frame adjusting screw retainer	2	M8x1.25	18	
Tank front fastener	2	M6x1	10	
EXHAUST				
Fastener retaining RH mount to presilencer	1	M6X1	10	
LH silencer con-rod to footpeg holder plate fastener	1	M6X1	10	
CO plug	2	G 1/8	25	GREASE I
Pre-silencer to vertical pipe retainer	1		18	
Lambda sensor fastener	2	M18X1.5	24.5	

Motor support to subframe retainer	3	M5X0.8	5	
Retainer securing valve motor to support	2	ST4	2	
Bowden cable adjuster to exhaust retaining nut	1	M6X1	2.5	
Nut securing exhaust to vertical head	3	M6X1	10	
Nut securing exhaust to horizontal head	3	M6X1	10	
Tightening of heat guard sheet to plastic heat guard nuts + nuts	3	M5X0.8	5	
Plastic heat guard to electric component compartment retainer	2	M5X0.8	5	
Plastic heat guard to electric component compartment retainer	2	ST4	2	
1 silencer central cover to split tail pipe silencer retainer 1 retainer to pipe cover 1 retainer to pre-silencer	3	M5x0.8	5	
Upper and lower cover to silencer fastener	4	M5X0.8	5	
Split tail pipe clamp fastener	1	M8X1.25	22	GREASE I
Secondary air system actuator cover to airbox fastener	1	ST5	2	
RH silencer con-rod to subframe plate fastener	1	M6X1	10	
SEAT				
High seat RH and LH aesthetic support retaining screws	4	M5X0.8	4	
High seat support retaining screws	2	M5X0.8	4	
Rider seat adjustment eccentric retaining screw	1	M5X0.8	5	
Passenger rider seat spacer retaining screw	2	M5X0.8	2	
Seat latch special retaining screw	2	M6X1	8	
FRAME				
Fastener for special screw of frame-plate adjuster	2	M10x1.5	50	GREASE B
Frame to engine rear retaining screw with special nut	1	M12X1.25	60*	GREASE B
Frame to engine front retaining screw with special nut	1	M12X1.25	60*	GREASE B
Adjuster retainer	2	M20X1	80*	GREASE B
RH and LH lower fasteners for rear subframe plates to crankcase	1	M10X1.25	42*	LOCK 5
Rear subframe junction plate retainer	4	M6X1	10	LOCK 2
Side pannier plate to rear subframe retainer	4	M6X1	10	PRE-APPLIED THREADLOCKER
RH and LH side body panel to RH and LH rear subframe special retaining screws	4	M5X0.8	5	
Upper bracket plate linkage frame retainer	3	M8 X1.25	25*	LOCK 2
Rear sub-frame to glove compartment retainer	6	M8 X1.25	18	PRE-APPLIED THREADLOCKER

Right and left body panel centring to right and left rear frame retainer	2	M5X0.8	2	
Screw retaining front subframe to frame on steering tube	2	M8X1.25	25	PRE-APPLIED THREADLOCKER
Adjuster pre-tightening	2	M20X1	0.6	
Swinging arm pivot plug retainer	2	M22 X 1.5	50	SHELL GADUS S2 V220 AD 2
RH and LH heat guard to rear subframe plate retainer	6	ST4	1	
OIL COOLER				
Cooler to fitting retainer	2	M14X1.5	23	LOCK 2
Pipe to cooler union nipple retainer	2	M16X1.5	18*	LUBRICATE WITH ENGINE OIL
Cooler upper retainer	1	M5X0.8	5	
Fastener securing pipe plate on casing	1	M6X1	10	PRE-APPLIED THREADLOCKER
Pipe fastener	1	M14X1.5	19*	LUBRICATE WITH ENGINE OIL
Cylinder temperature sensor to oil cooler fastener	1	M8X1.25	9	
AIR INLET/OIL BREATHER				
Throttle body assembly to airbox fastener	8	M5X0.8	5	PRE-APPLIED THREADLOCKER
Blow-by to airbox retainer	2	ST5	3	
Wiring cover to airbox fastener	2	ST5	2.5	
Upper to lower airbox retainer	7	ST5	3	
Airbox filter cover retainer	4	ST5	3	
Blow-by pipe clamp on casing	1		2	
Connector bracket fastener	1	ST5	2	
SUPPLY				
Retainer securing funnels to throttle bodies	4	M5X0.8	5	PRE-APPLIED THREADLOCKER
Bosch injector cap retainer	2	M5X0.8	5	
Airbox to intake manifolds retaining clamps	2		2.5	
FAIRING				
Headlight fairing to headlight retainer	2	M5X0.8	3	
Central conveyor to upper conveyor cover fastener	4	ST5	1.5	
Fastener retaining conveyor lower panel to conveyor upper cover	3	M5X0.8	2	
Fastener retaining tank cover assembly to conveyor upper cover	4	M5X0.8	2	
Fastener retaining tank cover to conveyor on RH and LH side	4	M5X0.8	2	
Tank cover assembly to tank retainer	4	M5X0.8	4	
Fastener of tank cover assembly to tank on clip	6	M5X0.8	3	

RH and LH side body panel to rear subframe retainer	6	M5X0.8	5	
RH and LH cowling structure and cover retainer	10	M5X0.8	2	
RH and LH cowling to radiator bracket retain.	2	M5X0.8	5	
Right and left cowling bracket to radiator fastener	4	M6X1	6	
Screw securing thermoformed windscreen to support	3	M5X0.8	3	
LH and central RH sump guard retainer	7	M5X0.8	5	
Right and left sump guard to brackets fastener	2	M5X0.8	5	
RH and LH fastener retaining sump guard to footpeg holder plates	2	M8X1.25	20	
Sump guard on lower vibration damping pad fastener	1	M8X1.25	24	
Panel support to front subframe retainer	2	M6X1	3	
Front subframe to panel fixed support retainer	4	M6X1	3	
Rod to windscreen support fastener	1	M10X1	2	LOCK 1
Windscreen support release retainer	2	M5X0.8	3	LOCK 2
Horizontal head wiring protection cover fastener	2	M6X1	10	
Windscreen lower mounting plate screw	2	ST4	1	