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Kawasaki

KLE500



Motorcycle Service Manual

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This quick reference guide will assist you in locating a desired topic or procedure.

- Bend the pages back to match the black tab of the desired chapter number with the black tab on the edge at each table of contents page.
- Refer to the sectional table of contents for the exact pages to locate the specific topic required.



KLE500

Motorcycle Service Manual

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No liability can be accepted for any inaccuracies or omissions in this publication, although every possible care has been taken to make it as complete and accurate as possible.

The right is reserved to make changes at any time without prior notice and without incurring an obligation to make such changes to products manufactured previously. See your Motorcycle dealer for the latest information on product improvements incorporated after this publication.

All information contained in this publication is based on the latest product information available at the time of publication. Illustrations and photographs in this publication are intended for reference use only and may not depict actual model component parts.

LIST OF ABBREVIATIONS

A	ampere(s)	lb	pound(s)
ABDC	after bottom dead center	m	meter(s)
AC	alternating current	min	minute(s)
ATDC	after top dead center	N	newton(s)
BBDC	before bottom dead center	Pa	pascal(s)
BDC	bottom dead center	PS	horsepower
BTDC	before top dead center	psi	pound(s) per square inch
°C	degree(s) Celsius	r	revolution
DC	direct current	rpm	revolution(s) per minute
F	farad(s)	TDC	top dead center
°F	degree(s) Fahrenheit	TIR	total indicator reading
ft	foot, feet	V	volt(s)
g	gram(s)	W	watt(s)
h	hour(s)	Ω	ohm(s)
L	liter(s)		

Read OWNER'S MANUAL before operating.

Foreword

This manual is designed primarily for use by trained mechanics in a properly equipped shop. However, it contains enough detail and basic information to make it useful to the owner who desires to perform his own basic maintenance and repair work. A basic knowledge of mechanics, the proper use of tools, and workshop procedures must be understood in order to carry out maintenance and repair satisfactorily. Whenever the owner has insufficient experience or doubts his ability to do the work, all adjustments, maintenance, and repair should be carried out only by qualified mechanics.

In order to perform the work efficiently and to avoid costly mistakes, read the text, thoroughly familiarize yourself with the procedures before starting work, and then do the work carefully in a clean area. Whenever special tools or equipment are specified, do not use makeshift tools or equipment. Precision measurements can only be made if the proper instruments are used, and the use of substitute tools may adversely affect safe operation.

For the duration of the warranty period, we recommend that all repairs and scheduled maintenance be performed in accordance with this service manual. Any owner maintenance or repair procedure not performed in accordance with this manual may void the warranty.

To get the longest life out of your vehicle:

- Follow the Periodic Maintenance Chart in the Service Manual.
- Be alert for problems and non-scheduled maintenance.
- Use proper tools and genuine Kawasaki Motorcycle parts. Special tools, gauges, and testers that are necessary when servicing Kawasaki motorcycles are introduced by the Special Tool Catalog or Manual. Genuine parts provided as spare parts are listed in the Parts Catalog.
- Follow the procedures in this manual carefully. Don't take shortcuts.
- Remember to keep complete records of maintenance and repair with dates and any new parts installed.

How to Use This Manual

In this manual, the product is divided into its major systems and these systems make up the manual's chapters.

The Quick Reference Guide shows you all of the product's system and assists in locating their chapters. Each chapter in turn has its own comprehensive Table of Contents.

For example, if you want ignition coil information, use the Quick Reference Guide to locate the Electrical System chapter. Then, use the Table of Contents on the first page of the chapter to find the ignition coil section.

Whenever you see these WARNING and CAUTION symbols, heed their instructions! Always follow safe operating and maintenance practices.

WARNING

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

CAUTION

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

This manual contains four more symbols (in addition to WARNING and CAUTION) which will help you distinguish different types of information.

NOTE

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

- Indicates a procedural step or work to be done.
- Indicates a procedural sub-step or how to do the work of the procedural step it follows. It also precedes the text of a NOTE.
- ★ Indicates a conditional step or what action to take based on the results of the test or inspection in the procedural step or sub-step it follows.

In most chapters an exploded view illustration of the system components follows the Table of Contents. In these illustrations you will find the instructions indicating which parts require specified tightening torque, oil, grease or a locking agent during assembly.

General Information



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1-2 GENERAL INFORMATION

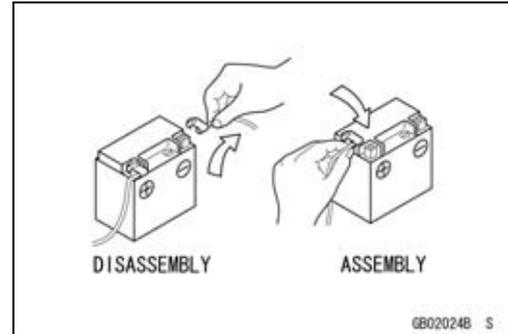
Before Servicing

Before starting to perform an inspection service or carry out a disassembly and reassembly operation on a motorcycle, read the precautions given below. To facilitate actual operations, notes, illustrations, photographs, cautions, and detailed descriptions have been included in each chapter wherever necessary. This section explains the items that require particular attention during the removal and reinstallation or disassembly and reassembly of general parts.

Especially note the following:

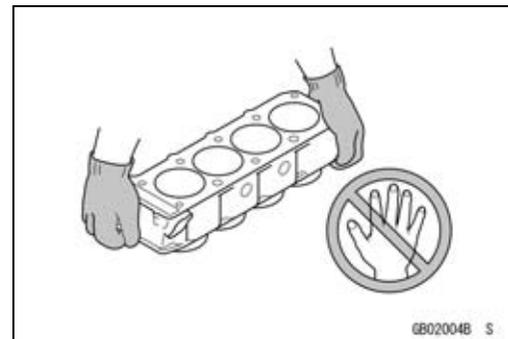
Battery Ground

Before completing any service on the motorcycle, disconnect the battery wires from the battery to prevent the engine from accidentally turning over. Disconnect the negative (-) first and then the positive (+). When completed with the service, first connect the positive (+) wire to the positive (+) terminal of the battery then the negative (-) wire to the negative terminal.



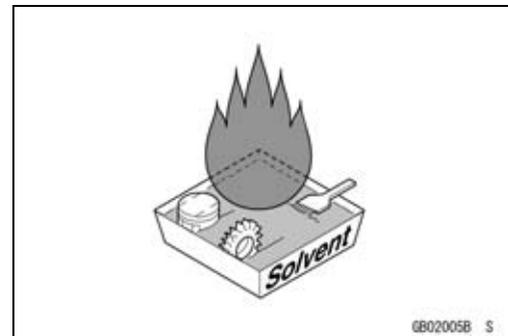
Edges of Parts

Lift large or heavy parts wearing gloves to prevent injury from possible sharp edges on the parts.



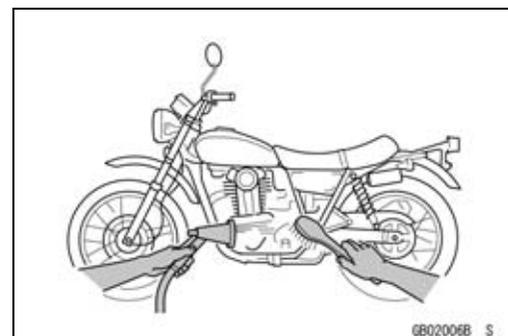
Solvent

Use a high flash point solvent when cleaning parts. High flash point solvent should be used according to directions of the solvent manufacturer.



Cleaning vehicle before disassembly

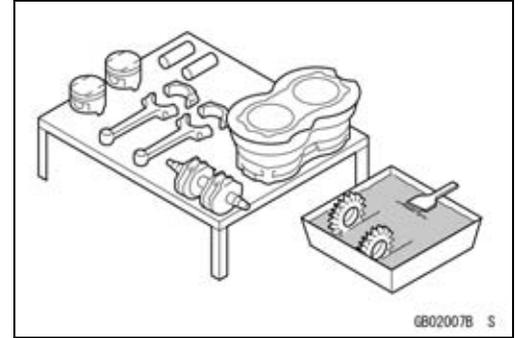
Clean the vehicle thoroughly before disassembly. Dirt or other foreign materials entering into sealed areas during vehicle disassembly can cause excessive wear and decrease performance of the vehicle.



Before Servicing

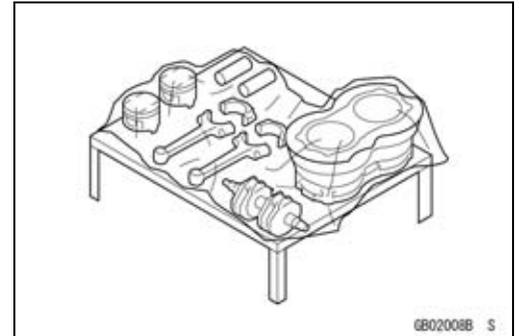
Arrangement and Cleaning of Removed Parts

Disassembled parts are easy to confuse. Arrange the parts according to the order the parts were disassembled and clean the parts in order prior to assembly.



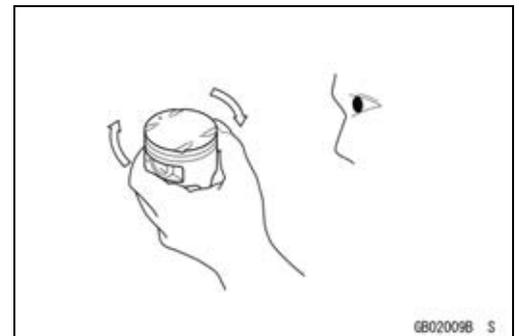
Storage of Removed Parts

After all the parts including subassembly parts have been cleaned, store the parts in a clean area. Put a clean cloth or plastic sheet over the parts to protect from any foreign materials that may collect before re-assembly.



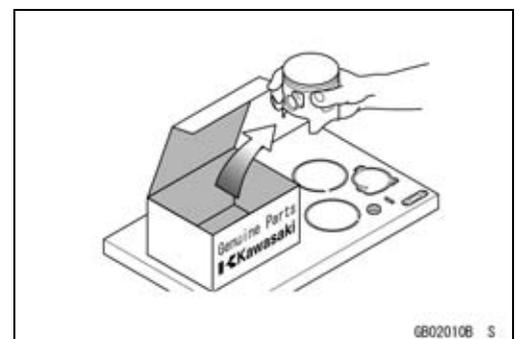
Inspection

Reuse of worn or damaged parts may lead to serious accident. Visually inspect removed parts for corrosion, discoloration, or other damage. Refer to the appropriate sections of this manual for service limits on individual parts. Replace the parts if any damage has been found or if the part is beyond its service limit.



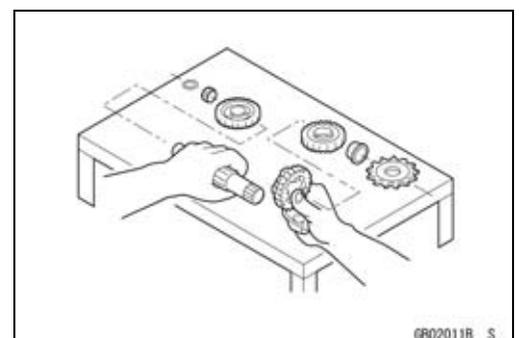
Replacement Parts

Replacement Parts must be KAWASAKI genuine or recommended by KAWASAKI. Gaskets, O-rings, Oil seals, Grease seals, circlips or cotter pins must be replaced with new ones whenever disassembled.



Assembly Order

In most cases assembly order is the reverse of disassembly, however, if assembly order is provided in this Service Manual, follow the procedures given.

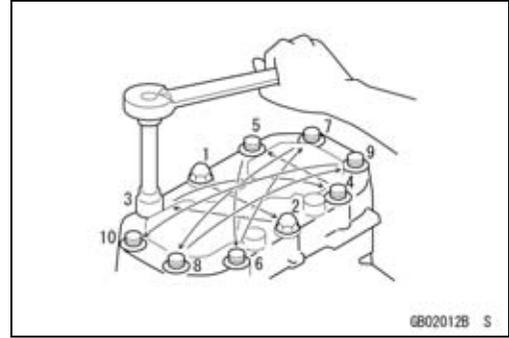


1-4 GENERAL INFORMATION

Before Servicing

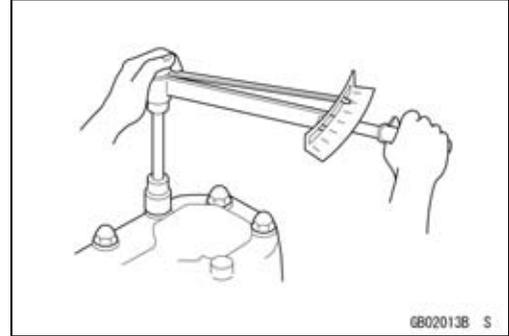
Tightening Sequence

Generally, when installing a part with several bolts, nuts, or screws, start them all in their holes and tighten them to a snug fit. Then tighten them according to the specified sequence to prevent case warpage or deformation which can lead to malfunction. Conversely when loosening the bolts, nuts, or screws, first loosen all of them by about a quarter turn and then remove them. If the specified tightening sequence is not indicated, tighten the fasteners alternating diagonally.



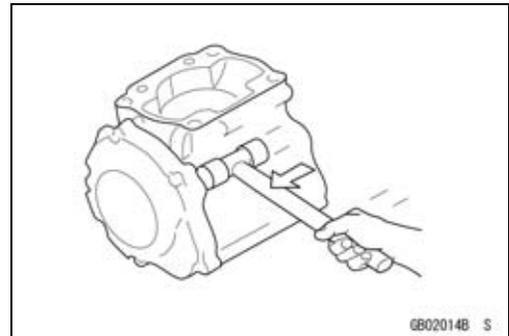
Tightening Torque

Incorrect torque applied to a bolt, nut, or screw may lead to serious damage. Tighten fasteners to the specified torque using a good quality torque wrench.



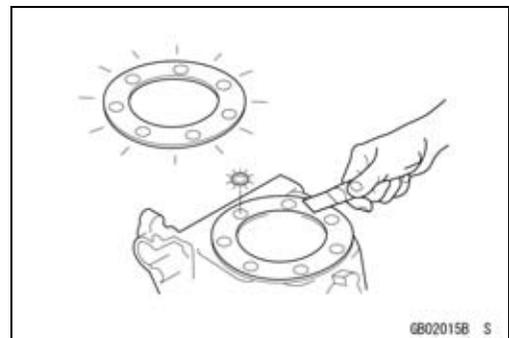
Force

Use common sense during disassembly and assembly, excessive force can cause expensive or hard to repair damage. When necessary, remove screws that have a non-permanent locking agent applied using an impact driver. Use a plastic-faced mallet whenever tapping is necessary.



Gasket, O-ring

Hardening, shrinkage, or damage of both gaskets and O-rings after disassembly can reduce sealing performance. Remove old gaskets and clean the sealing surfaces thoroughly so that no gasket material or other material remains. Install new gaskets and replace used O-rings when re-assembling.



Liquid Gasket, Locking Agent

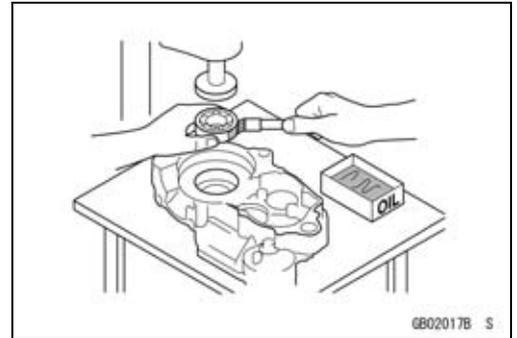
For applications that require Liquid Gasket or a Locking agent, clean the surfaces so that no oil residue remains before applying liquid gasket or locking agent. Do not apply them excessively. Excessive application can clog oil passages and cause serious damage.



Before Servicing

Press

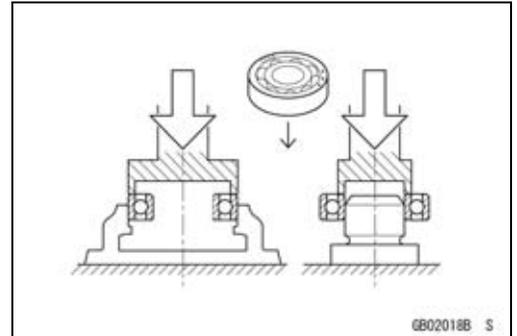
For items such as bearings or oil seals that must be pressed into place, apply small amount of oil to the contact area. Be sure to maintain proper alignment and use smooth movements when installing.



Ball Bearing and Needle Bearing

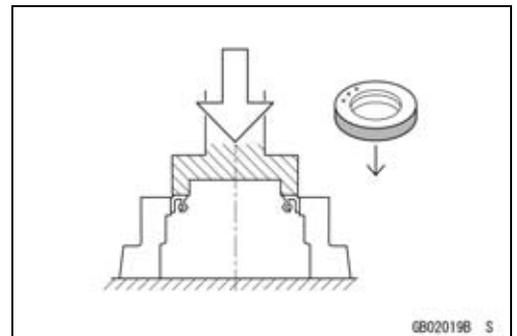
Do not remove pressed ball or needle unless removal is absolutely necessary. Replace with new ones whenever removed. Press bearings with the manufacturer and size marks facing out. Press the bearing into place by putting pressure on the correct bearing race as shown.

Pressing the incorrect race can cause pressure between the inner and outer race and result in bearing damage.

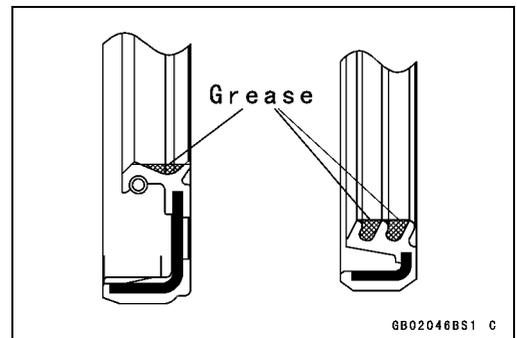


Oil Seal, Grease Seal

Do not remove pressed oil or grease seals unless removal is necessary. Replace with new ones whenever removed. Press new oil seals with manufacture and size marks facing out. Make sure the seal is aligned properly when installing.

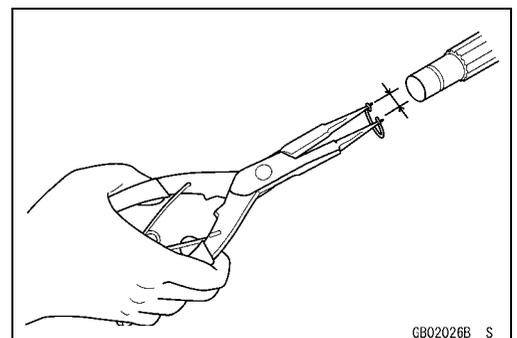


Apply specified grease to lip of seal before installing the seal.



Circlips, Cotter Pins

Replace circlips or cotter pins that were removed with new ones. Take care not to open the clip excessively when installing to prevent deformation.

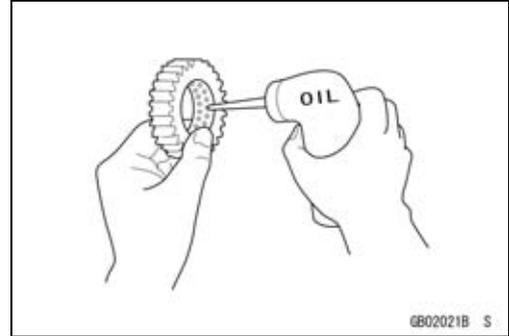


1-6 GENERAL INFORMATION

Before Servicing

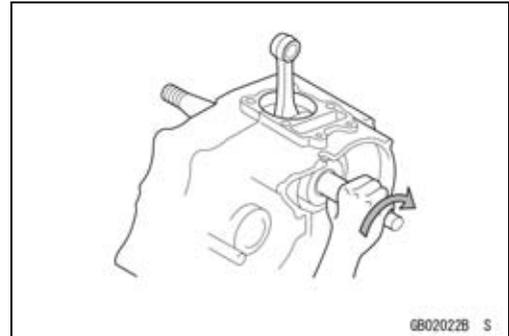
Lubrication

It is important to lubricate rotating or sliding parts during assembly to minimize wear during initial operation. Lubrication points are called out throughout this manual, apply the specific oil or grease as specified.



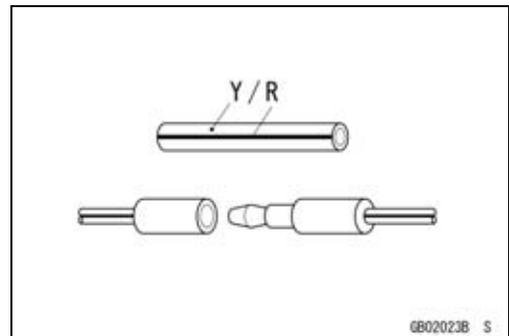
Direction of Engine Rotation

When rotating the crankshaft by hand, the free play amount of rotating direction will affect the adjustment. Rotate the crankshaft to positive direction (clockwise viewed from output side).



Electrical Wires

A two-color wire is identified first by the primary color and then the stripe color. Unless instructed otherwise, electrical wires must be connected to those of the same color.



Model Identification

KLE500-B1 Left Side View



KLE500-B1 Right Side View



1-8 GENERAL INFORMATION

General Specifications

Items	KLE500-B1
Dimensions Overall Length Overall Width Overall Height Wheelbase Road Clearance Seat Height Dry Weight Curb Weight: Front Rear Fuel tank Capacity	2 215 mm (87.2 in.) 880 mm (34.6 in.) 1 270 mm (50.0 in.) 1 500 mm (59.0 in.) 180 mm (7.09 in.) 850 mm (33.5 in.) 181 kg (399 lb.) 95 kg (209 lb.) 105 kg (232 lb.) 15 L (4.0 US gal.)
Performance Minimum Turning Radius	2.4 m (7.9 ft.)
Engine Type Cooling System Bore and Stroke Displacement Compression Ratio Maximum Horsepower Maximum Torque Carburetion System Starting System Ignition System Timing Advance Ignition Timing Spark Plugs Cylinder Numbering Method Firing Order Valve Timing: Inlet Open Close Duration Exhaust Open Close Duration Lubrication System	4-stroke, DOHC, 2-cylinder Liquid-cooled 74.0 × 58.0 mm (2.91 × 2.28 in.) 498 mL (30.39 cu in.) 9.8:1 33 kW (44.9 PS) @8 300 r/min (rpm) 41 N·m (4.2 kgf·m, 30 ft·lb) @7 500 r/min (rpm) Carburetors, Keihin CVK34 × 2 Electric starter Battery and coil (transistorized) Electronically Advanced (digital) From 10° BTDC @1 300 r/min (rpm) to 35° BTDC @5 000 r/min (rpm) NGK DR9EA or ND X27ESR-U Left to right, 1-2 1-2 27° BTDC 47° ABDC 254° 52° BBDC 22° ATDC 254° Forced lubrication

General Specifications

Items	KLE500-B1
Engine Oil: Grade Viscosity Capacity	API SE, SF, SG or API SH or SJ with JASO MA SAE10W-40 3.4 L (3.6 US qt)
Drive Train Primary Reduction System: Type Reduction Ratio Clutch Type Transmission: Type Gear Ratios: 1st 2nd 3rd 4th 5th 6th Final Drive System: Type Reduction Ratio Overall Drive Ratio	Chain 2.652 (61/23) Wet multi disc 6-speed constant mesh, return shift Chain drive 2.588 (44/17) 5.847 @Top gear
Frame Type Caster (rake angle) Trail Front Tire: Type Size Rear Tire: Type Size Front Suspension: Type Wheel Travel Rear Suspension: Type Wheel Travel Brake Type: Front Rear	Tubular, double cradle 27° 105 mm (4.13 in.) Tubeless 90/90-21 M/C 54S Tubeless 130/80-17 M/C 65S Telescopic fork 220 mm (8.66 in.) Swingarm 200 mm (7.87 in.) Single disc Single disc

1-10 GENERAL INFORMATION

General Specifications

Items	KLE500-B1
Electrical Equipment	
Battery	12 V 10 Ah
Headlight:	
Type	Semi-sealed beam
Bulb	12 V 55/55 W (quartz-halogen)
Tail/brake Light	12 V 5/21 W
Alternator:	
Type	Three-phase AC
Rated output	17 A × 14 V @6 000 r/min (rpm)

Specifications subject to change without notice, and may not apply to every country.

Unit Conversion Table

Prefixes for Units:

Prefix	Symbol	Power
mega	M	× 1 000 000
kilo	k	× 1 000
centi	c	× 0.01
milli	m	× 0.001
micro	μ	× 0.000001

Units of Mass:

kg	×	2.205	=	lb
g	×	0.03527	=	oz

Units of Volume:

L	×	0.2642	=	gal (US)
L	×	0.2200	=	gal (imp)
L	×	1.057	=	qt (US)
L	×	0.8799	=	qt (imp)
L	×	2.113	=	pint (US)
L	×	1.816	=	pint (imp)
mL	×	0.03381	=	oz (US)
mL	×	0.02816	=	oz (imp)
mL	×	0.06102	=	cu in

Units of Force:

N	×	0.1020	=	kg
N	×	0.2248	=	lb

kg	×	9.807	=	N
kg	×	2.205	=	lb

Units of Length:

km	×	0.6214	=	mile
m	×	3.281	=	ft
mm	×	0.03937	=	in

Units of Torque:

N·m	×	0.1020	=	kgf·m
N·m	×	0.7376	=	ft·lb
N·m	×	8.851	=	in·lb

kgf·m	×	9.807	=	N·m
kgf·m	×	7.233	=	ft·lb
kgf·m	×	86.80	=	in·lb

Units of Pressure:

kPa	×	0.01020	=	kgf/cm ²
kPa	×	0.1450	=	psi
kPa	×	0.7501	=	cm Hg

kgf/cm ²	×	98.07	=	kPa
kgf/cm ²	×	14.22	=	psi
cm Hg	×	1.333	=	kPa

Units of Speed:

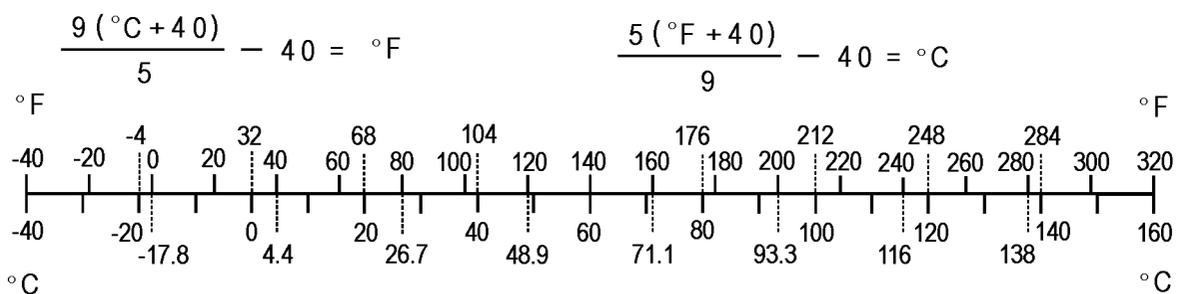
km/h	×	0.6214	=	mph
------	---	--------	---	-----

Units of Power:

kW	×	1.360	=	PS
kW	×	1.341	=	HP

PS	×	0.7355	=	kW
PS	×	0.9863	=	HP

Units of Temperature:



Periodic Maintenance

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2-4 PERIODIC MAINTENANCE

Periodic Maintenance Chart

FREQUENCY	* ODOMETER READING							See Page	
	× 1000 km (× 1000 mile)								
	Whichever comes first ↓	1 (0.6)	6 (4)	12 (7.5)	18 (12)	24 (15)	30 (20)	36 (24)	
OPERATION									
Suspensions									
Front forks/rear shock absorber operation (damping and smooth stroke)-inspect				●		●		●	2-30
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#: Service more frequently when operating in severe conditions; dusty, wet, muddy, high speed or frequent starting/stopping.

*: For higher odometer readings, repeat at the frequency interval established here.

Periodic Maintenance Chart

Periodic Replacement Parts

CHANGE/REPLACEMENT	FREQUENCY	Whichever come first ↓	* ODOMETER READING × 1000 km (× 1000 mile)						See Page
			1 (0.6)	12 (7.5)	18 (12)	24 (15)	36 (24)	48 (30)	
Fuel hose	4 years	↓						●	2-40
Air cleaner element	2 years	↓							2-40
Coolant	3 years	↓					●		2-40
Radiator hose and O-ring	3 years	↓					●		2-43
Engine oil #	year	↓	●	●		●	●	●	2-43
Oil filter	year	↓	●	●		●	●	●	2-44
Brake hose	4 years	↓						●	2-44
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Master Cylinder/Caliper Rubber Parts	4 years	↓						●	2-47

#: Service more frequently when operating in severe conditions; dusty, wet, muddy, high speed or frequent starting/stopping.

*: For higher odometer readings, repeat at the frequency interval established here.

2-6 PERIODIC MAINTENANCE

Torque and Locking Agent

Tighten all bolts and nuts to the proper torque using an accurate torque wrench. An insufficiently tightened bolt or nut may become damaged or fall off, possibly resulting in damage to the motorcycle and injury to the rider. A bolt or nut which is overtightened may become damaged, strip an internal thread, or break and then fall out. The following table lists the tightening torque for the major bolts and nuts, and the parts requiring use of a non-permanent locking agent or liquid gasket.

When checking the tightening torque of the bolts and nuts, first loosen the bolt or nut by half a turn and then tighten it to the specified torque.

Letters used in the "Remarks" column mean:

EO: Apply engine oil to the threads and seating surface.

L: Apply a non-permanent locking agent to the threads.

LG: Apply liquid gasket to the threads.

Lh: Left-hand threads.

M: Apply molybdenum disulfide grease.

MO: Apply molybdenum disulfide oil (mixture of the engine oil and molybdenum disulfide grease in a weight ratio 10 : 1)

R: Replacement parts.

S: Tighten the fasteners following the specified sequence.

SS: Apply silicone sealant to the threads.

St: Stake the fasteners to prevent loosening.

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Fuel System				
Fuel Tap Cover Screws	0.8	0.08	7 in·lb	
Fuel Tap Mounting Bolts	5.0	0.51	44 in·lb	
Air Cut Valve Cover Screws	1.0	0.10	9 in·lb	
Cooling System				
Radiator Hose Clamp Screws	2.5	0.25	22 in·lb	
Radiator Fan Switch	18	1.8	13	
Thermostat Housing Bolts	11	1.1	95 in·lb	
Water Temperature Sensor	7.8	0.8	69 in·lb	SS
Water Pump Cover Bolts	11	1.1	95 in·lb	
Water Pump Shaft	25	2.5	18	Lh
Water Pump Impeller	9.8	1.0	87 in·lb	Lh
Water Pipe Bolts	9.8	1.0	87 in·lb	L
Cylinder Head Jacket Plug	9.8	1.0	87 in·lb	L
Radiator Cap Holder Mounting Bolts	11	1.1	95 in·lb	
Coolant Drain Plug	11	1.1	95 in·lb	
Engine Top End				
Air Suction Valve Cover Bolts	11	1.1	95 in·lb	
Cylinder Head Cover Bolts	9.8	1.0	87 in·lb	S
Camshaft Cap Bolts	12	1.2	104 in·lb	S
Rocker Shafts	39	4.0	29	EO
Valve Adjuster Locknuts	25	2.5	18	
Camshaft Sprocket Bolts	15	1.5	11	L
Cylinder Head Bolts (10 mm)	51	5.2	38	S
Cylinder Head Bolts (6 mm)	9.8	1.0	87 in·lb	S
Camshaft Chain Tensioner Mounting Bolts	11	1.1	95 in·lb	
Camshaft Chain Tensioner Cap Bolt	13	1.3	9.5	

PERIODIC MAINTENANCE 2-7

Torque and Locking Agent

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Main Oil Pipe Upper Banjo Bolts M8	12	1.2	104 in·lb	L
Main Oil Pipe Lower Banjo Bolt M10	20	2.0	14.5	
Water Jacket Plug	9.8	1.0	87 in·lb	
Oil Pipe Bolts (in the cylinder head)	11	1.1	95 in·lb	
Main Oil Pipe Mounting Bolt	11	1.1	95 in·lb	
Clutch				
Oil Filler Plug	1.5	0.15	13 in·lb	
Clutch Hub Nut	132	13.5	98	
Clutch Spring Bolts	9.3	0.95	82 in·lb	
Clutch Cable Holder Bolt	11	1.1	95 in·lb	
Clutch Cover Bolts	11	1.1	95 in·lb	
Engine Lubrication System				
Oil Filler Plug	1.5	0.15	13 in·lb	L (Planted side)
Oil Passage Plug	18	1.8	13	
Oil Filter Mounting Stud	25	2.5	18	
Oil Filter (Cartridge Type)	17	1.7	12.5	
Oil Pipe for Balancer Shaft Banjo Bolt	20	2.0	14.5	
Oil Pipe for Drive Shaft Upper Banjo Bolt M6	7.8	0.8	69 in·lb	
Oil Pipe for Drive Shaft Lower Banjo Bolt M8	12	1.2	104 in·lb	
Oil Pipe for Output Shaft Upper Banjo Bolt M6	7.8	0.8	69 in·lb	
Oil Pipe for Output Shaft Lower Banjo Bolt M8	12	1.2	104 in·lb	
Oil Pipe for Output Shaft Mounting Bolt	11	1.1	95 in·lb	
Oil Pump Outer Oil Pipe Bolts	11	1.1	95 in·lb	L
Relief Valve	15	1.5	11	L
Oil Pressure Switch Terminal Bolt	1.5	0.15	13 in·lb	SS
Oil Pressure Switch	15	1.5	11	
Main Oil Pipe Mounting Bolt	11	1.1	95 in·lb	
Main Oil Pipe Upper Banjo Bolts	12	1.2	104 in·lb	
Main Oil Pipe Lower Banjo Bolt	20	2.0	14.5	
Rocker Shafts	39	4.0	29	
Engine Oil Drain Plug	29	3.0	22	
Oil Pan Mounting Bolts	11	1.1	95 in·lb	
Oil Pump Mounting Bolts	11	1.1	95 in·lb	
Engine Removal/Installation				
Downtube Bolts	44	4.5	33	
Engine Mounting Bolts and Nuts	44	4.5	33	
Engine Mounting Bracket Bolts	25	2.5	18	
Crankshaft/Transmission				
Breather Body Bolt	5.9	0.6	52 in·lb	S
Crankcase Bolts (8 mm)	27	2.8	20	
Crankcase Bolts (6 mm)	12	1.2	104 in·lb	

2-8 PERIODIC MAINTENANCE

Torque and Locking Agent

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Upper Primary Chain Guide Mounting Bolt	11	1.1	95 in·lb	L
Lower Primary Chain Guide Mounting Bolt	11	1.1	95 in·lb	L
Connecting Rod Big End Nuts	36	3.7	27	
Return Spring Pin	20	2.0	14.5	L
Gear Positioning Lever Pivot Stud	–	–	–	L (planted side)
Gear Positioning Lever Nut	11	1.1	95 in·lb	
Shift Pedal Link Lever Mounting Bolt	12	1.2	104 in·lb	
Shift Drum Bearing Holder Bolts	11	1.1	95 in·lb	L
Shift Drum Cam Pin Plate Screw	–	–	–	L
Engine Sprocket Nut	127	13	94	EO
External Shift Mechanism Cover Bolts	11	1.1	95 in·lb	
Neutral Switch	15	1.5	11	
Wheels/Tires				
Spoke Nipple	2.0 ~ 3.9	0.2 ~ 0.4	17 ~ 35 in·lb	
Front Axle Nut	88	9.0	65	
Rear Sprocket Nut	33	3.4	24	
Rear Axle Nut	108	11	80	
Final Drive				
Engine Sprocket Nut	127	13	94	EO
Rear Sprocket Nuts	33	3.4	24	
Rear Coupling Studs	–	–	–	L (planted side)
Rear Axle Nut	108	11	80	
Drive Chain Guide Bolts	11	1.1	95 in·lb	
Brakes				
Brake Hose Banjo Bolts	34	3.5	25	
Front Reservoir Cap Screws	1.5	0.15	13 in·lb	
Brake Lever Pivot Bolt	1.0	0.10	9 in·lb	
Brake Lever Pivot Locknut	5.9	0.60	52 in·lb	
Front Master Cylinder Clamp Bolts	11	1.1	95 in·lb	S
Front Brake Light Switch Mounting Screw	1.2	0.12	10 in·lb	
Front Caliper Mounting Bolts	34	3.5	25	
Rear Caliper Mounting Bolts	25	2.5	18	
Caliper Bleed Valves	7.8	0.8	69 in·lb	
Brake Disc Mounting Bolts	23	2.3	16.5	L
Brake Pedal Bolt	25	2.5	18	
Rear Reservoir Mounting Bolt	5.9	0.60	52 in·lb	
Rear Master Cylinder Mounting Bolts	25	2.5	18	
Suspension				
Front Fork Upper Clamp Allen Bolts	25	2.5	18	S
Front Fork Lower Clamp Bolts	23	2.3	16.5	S

PERIODIC MAINTENANCE 2-9

Torque and Locking Agent

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Front Fork Top Bolts	30	3.1	22	
Front Fork Bottom Allen Bolt	30	3.1	22	L
Rear Shock Absorber Upper Mounting Nut	59	6.0	43	
Rear Shock Absorber Lower Mounting Nut	98	10	72	
Swingarm Pivot Nut	118	12	87	
Rocker Arm Pivot Nut	98	10	72	
Tie-Rod Mounting Nuts	98	10	72	
Steering				
Handlebar Clamp Bolts	25	2.5	18	S
Handlebar Weight Allen Bolts	–	–	–	L
Front Fork Upper Clamp Allen Bolts	25	2.5	18	S
Front Fork Lower Clamp Bolts	23	2.3	16.5	S
Steering Stem Head Nut	39	4.0	29	
Steering Stem Locknut	Hand -Tighten (about 4.9)	Hand -Tighten (about 0.5)	Hand -Tighten (about 43 in·lb)	
Frame				
Tail Grip Bolts	25	2.5	18	
Front Footpeg Bracket Bolts	34	3.5	25	
Sidestand Bolt and Nut	44	4.5	33	
Rear Footpeg Bracket Bolts	25	2.5	18	
Carrier Stay Mounting Bolts	25	2.5	18	
Electrical System				
Crankshaft Sensor Mounting Screws	8.3	0.85	74 in·lb	L
Timing Inspection Plug	2.5	0.25	22 in·lb	
Alternator Rotor Bolt Plug	1.5	0.15	13 in·lb	
Alternator Cover Bolts	11	1.1	95 in·lb	
Alternator Lead Clamp Screws	2.9	0.30	26 in·lb	
Spark Plug	14	1.4	10	
Alternator Stator Allen Bolts	12	1.2	104 in·lb	
Alternator Rotor Bolt	69	7.0	51	Lh
Starter Motor Mounting Bolts	11	1.1	95 in·lb	
Starter Chain Guide Bolts	4.9	0.5	43 in·lb	L
Starter Motor Through Bolts	6.9	0.7	65 in·lb	
Starter Motor Terminal Nut	4.9	0.5	43 in·lb	
Starter Motor Lead Clamp Nut	4.9	0.5	43 in·lb	
Starter Clutch Allen Bolts	34	3.5	25	L
Sidestand Switch Mounting Screw	3.9	0.4	35 in·lb	L
Sidestand Bolt and Nut	44	4.5	33	
Radiator Fan Switch	18	1.8	13	
Water Temperature Switch	7.8	0.80	69 in·lb	SS
Oil Pressure Switch Terminal Bolt	1.5	0.15	13 in·lb	

Fastener	Torque			Remarks
	N·m	kgf·m	ft·lb	
Oil Pressure Switch	15	1.5	11	SS
Neutral Switch	15	1.5	11	
Tail Light Mounting Nut	5.9	0.6	52 in·lb	

The table relating tightening torque to thread diameter, lists the basic torque for the bolts and nuts. Use this table for only the bolts and nuts which do not require a specific torque value. All of the values are for use with dry solvent-cleaned threads.

Basic Torque for General Fasteners

Threads dia. (mm)	Torque		
	N·m	kgf·m	ft·lb
5	3.4 ~ 4.9	0.35 ~ 0.50	30 ~ 43 in·lb
6	5.9 ~ 7.8	0.60 ~ 0.80	52 ~ 69 in·lb
8	14 ~ 19	1.4 ~ 1.9	10.0 ~ 13.5
10	25 ~ 34	2.6 ~ 3.5	19.0 ~ 25
12	44 ~ 61	4.5 ~ 6.2	33 ~ 45
14	73 ~ 98	7.4 ~ 10.0	54 ~ 72
16	115 ~ 155	11.5 ~ 16.0	83 ~ 115
18	165 ~ 225	17.0 ~ 23.0	125 ~ 165
20	225 ~ 325	23 ~ 33	165 ~ 240