

Quick Reference Guide

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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.

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)		

COUNTRY AND AREA CODES

AT	Austria	FR	France
AU	Australia	GB	United Kingdom
CA	Canada	MY	Malaysia
CAL	California	US	United States
CH	Switzerland	WVTA	Whole Vehicle Type Approval
DE	Germany		

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED

Federal law prohibits the following acts or the causing thereof. (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

Among those acts presumed to constitute tampering are the acts listed below.

- Replacement of the original exhaust system or muffler with a component not in compliance with Federal regulations.
- Removal of the muffler(s) or any internal portion of the muffler(s).
- Removal of the air box or air box cover.
- Modifications to the muffler(s) or air inlet system by cutting, drilling, or other means if such modifications result in increased noise levels.

General Information

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1-2 GENERAL INFORMATION

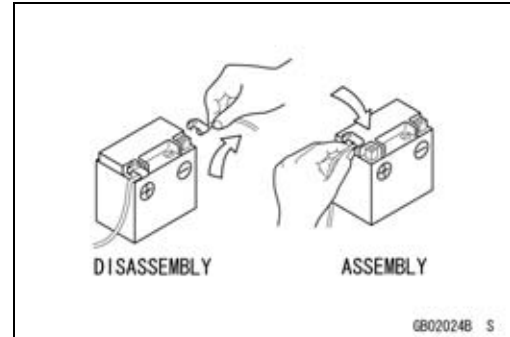
Before Servicing

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.

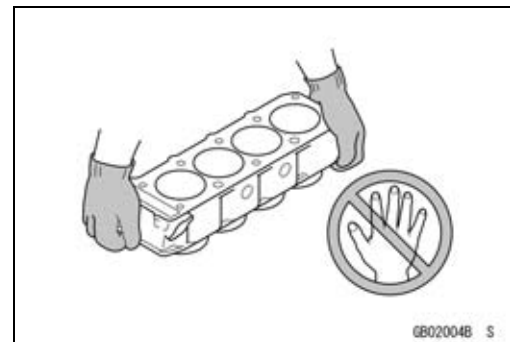
Battery Ground

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



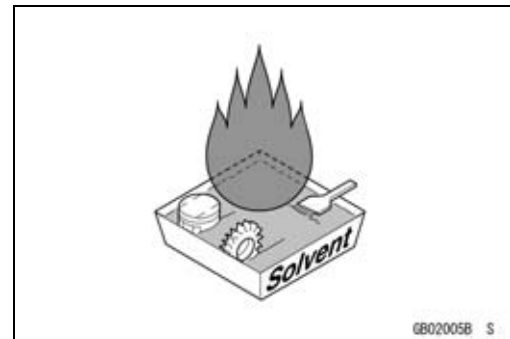
Edges of Parts

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



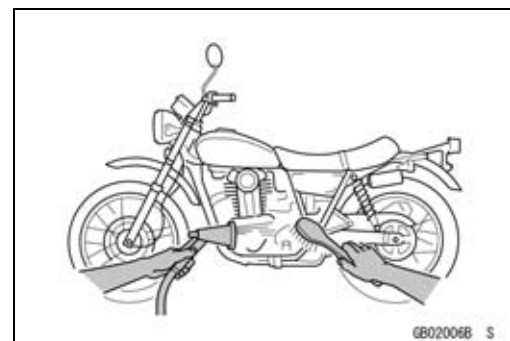
Solvent

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

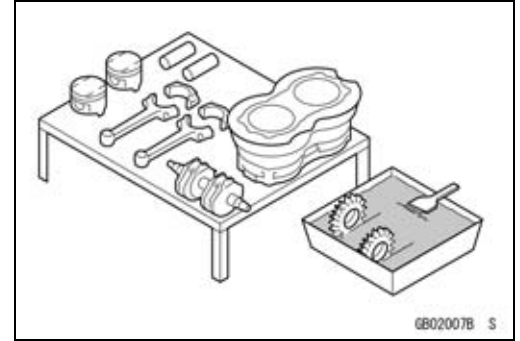
Clean the vehicle thoroughly before disassembly. Dirt or other foreign materials entering into sealed areas during vehicle disassembly can cause excessive wear and decrease performance of the vehicle.



Before Servicing

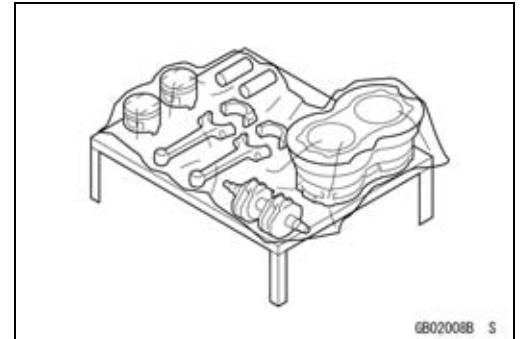
Arrangement and Cleaning of Removed Parts

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.



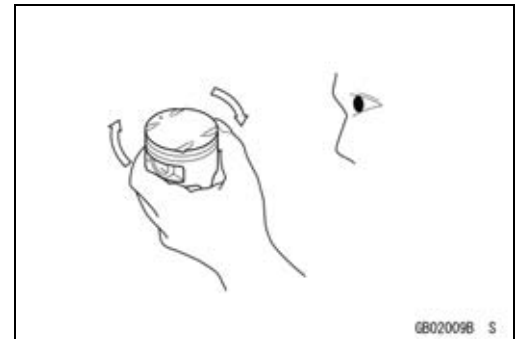
Storage of Removed Parts

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.



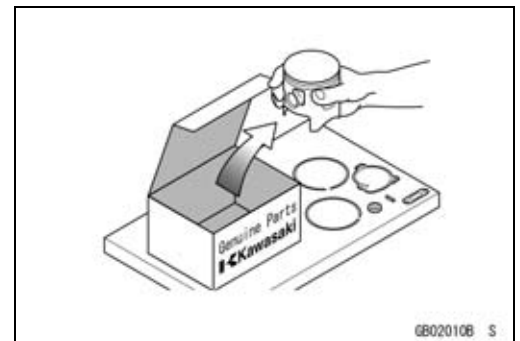
Inspection

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.



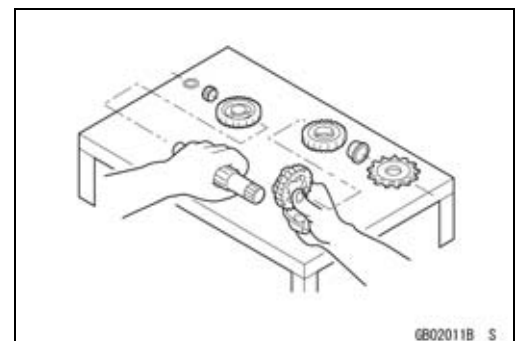
Replacement Parts

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.

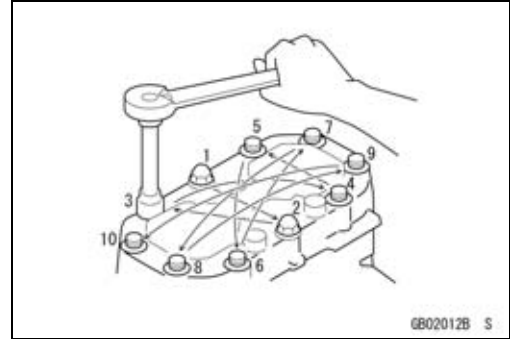


1-4 GENERAL INFORMATION

Before Servicing

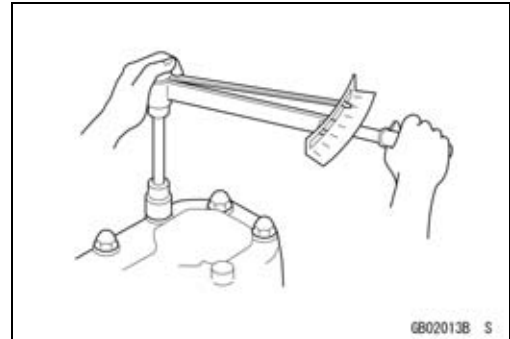
Tightening Sequence

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.



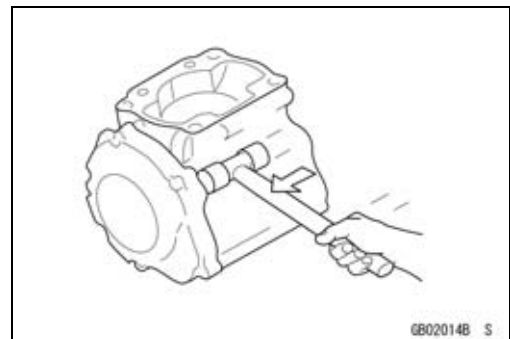
Tightening Torque

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.



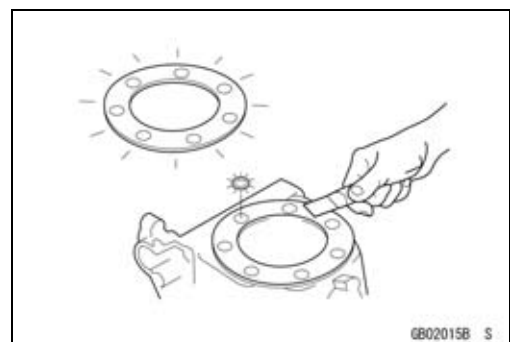
Force

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 the old gaskets and clean the sealing surfaces thoroughly so that no gasket material or other material remains. Install the new gaskets and replace the used O-rings when re-assembling.



Liquid Gasket, Non-permanent Locking Agent

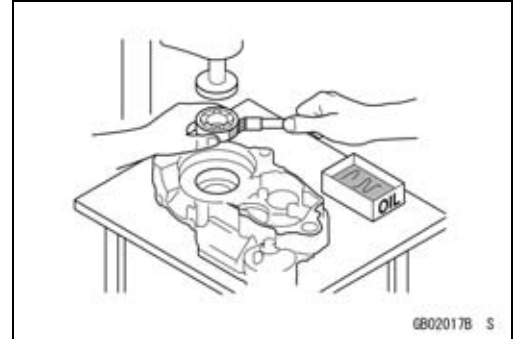
For applications that require Liquid Gasket or a Non-permanent Locking Agent, clean the surfaces so that no oil residue remains before applying liquid gasket or non-permanent locking agent. Do not apply them excessively. Excessive application can clog oil passages and cause serious damage.



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.

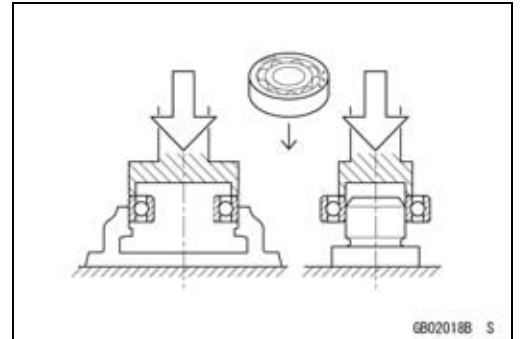


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Ball Bearing and Needle Bearing

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.

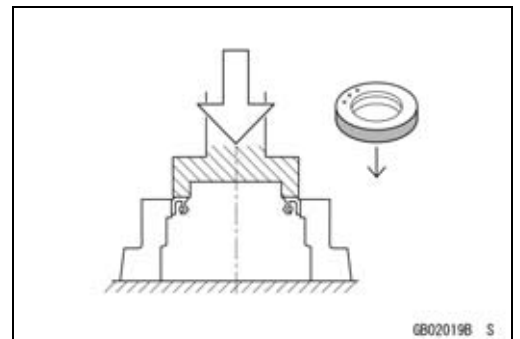
Pressing the incorrect race can cause pressure between the inner and outer race and result in bearing damage.



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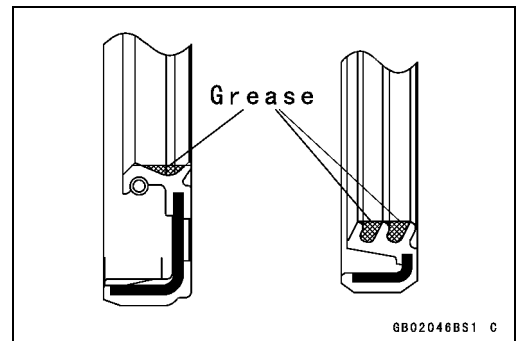
Oil Seal, Grease Seal

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.



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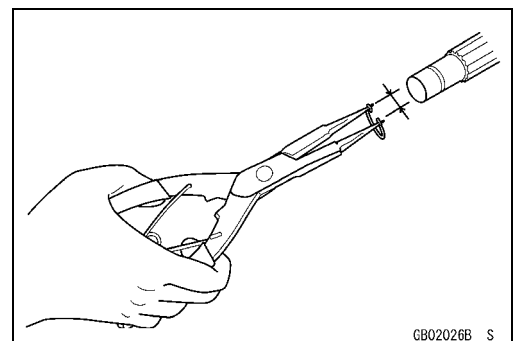
Apply specified grease to the lip of seal before installing the seal.



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Circlips, Cotter Pins

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



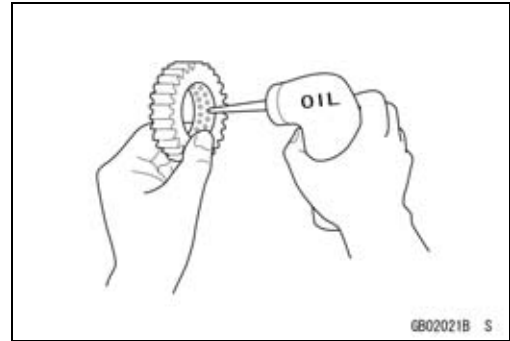
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1-6 GENERAL INFORMATION

Before Servicing

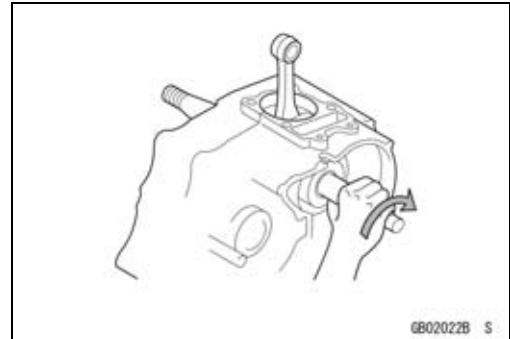
Lubrication

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.



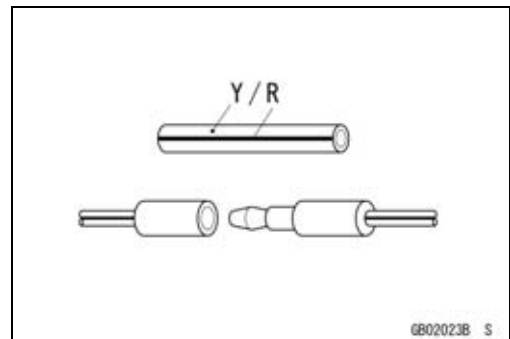
Direction of Engine Rotation

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).



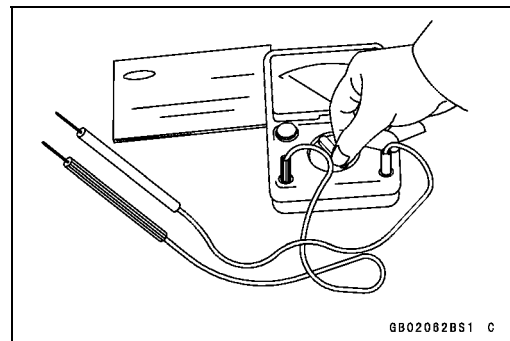
Electrical Wires

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.



Instrument

Use a meter that has enough accuracy for an accurate measurement. Read the manufacturer's instructions thoroughly before using the meter. Incorrect values may lead to improper adjustments.



Model Identification

ZX1000D6F (Europe) Left Side View



ZX1000D6F (Europe) Right Side View



1-8 GENERAL INFORMATION

Model Identification

ZX1000D6F (United States and Canada) Left Side View



6B03B221 P

ZX1000D6F (United States and Canada) Right Side View



6B03B222 P

Frame Number



6B03B221 P

Engine Number



6B03B224 P

General Specifications

Items	ZX1000D6F (Ninja ZX-10R)
Dimensions	
Overall Length	2 065 mm (81.3 in.)
Overall Width	(CA), (CAL), (US) 730 mm (28.7 in.) 705 mm (27.8 in.)
Overall Height	1 130 mm (44.5 in.)
Wheelbase	1 390 mm (54.7 in.)
Road Clearance	120 mm (4.7 in.)
Seat Height	825 mm (32.5 in.)
Dry Mass	175 kg (386 lb)
Curb Mass:	
Front	102 kg (225 lb)
Rear	100 kg (221 lb)
Fuel Tank Capacity	17 L (4.5 US gal)
Performance	
Minimum Turning Radius	3.3 m (10.8 ft)
Engine	
Type	4-stroke, DOHC, 4-cylinder
Cooling System	Liquid-cooled
Bore and Stroke	76.0 × 55.0 mm (3.0 × 2.2 in.)
Displacement	998 mL (60.9 cu in.)
Compression Ratio	12.7 : 1
Maximum Horsepower	128.7 kW (175 PS) @11 700 r/min (rpm), (FR) 78.2 kW (106 PS) @10 500 r/min (rpm), (AU) 128.7 kW (175 PS) @11 500 r/min (rpm), (MY) 120.5 kW (164 PS) @10 000 r/min (rpm), (CA), (CAL), (US) — — —
Maximum Torque	115 N·m (11.7 kgf·m, 85 ft·lb) @9 500 r/min (rpm), (FR) 86 N·m (8.8 kgf·m, 63 ft·lb) @5 200 r/min (rpm), (CA), (CAL), (US) — — —
Carburetion System	FI (Fuel injection), MIKUNI 43EIDW × 4
Starting System	Electric starter
Ignition System	Battery and coil (transistorized)
Timing Advance	Electronically advanced (digital igniter in ECU)
Ignition Timing	From 10° BTDC @1 100 r/min (rpm)
Spark Plug	NGK CR9EIA-9
Cylinder Numbering Method	Left to right, 1-2-3-4
Firing Order	1-2-4-3
Valve Timing:	
Inlet:	
Open	46° BTDC
Close	74° ABDC
Duration	300°
Exhaust:	
Open	66° BBDC
Close	46° ATDC

1-10 GENERAL INFORMATION

General Specifications

Items	ZX1000D6F (Ninja ZX-10R)
Duration Lubrication System Engine Oil: Type Viscosity Capacity	292° Forced lubrication (wet sump with cooler) API SE, SF or SG API SH, SJ or SL with JASO MA SAE10W-40 4.0 L (4.2 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	Gear 1.611 (87/54) Wet multi disc 6-speed, constant mesh, return shift 2.533 (38/15) 2.053 (39/19) 1.737 (33/19) 1.524 (32/21) 1.381 (29/21) 1.304 (30/23) Chain drive 2.353 (40/17) 4.945 @Top gear
Frame Type Caster (Rake Angle) Trail Front Tire: Type Size Rear Tire: Type Size Rim Size: Front Rear Front Suspension: Type Wheel Travel Rear Suspension: Type Wheel Travel	Tubular, diamond 24.5° 102 mm (4.0 in.) Tubeless 120/70 ZR17 M/C (58 W) Tubeless 190/55 ZR17 M/C (75 W) 17 × 3.50 17 × 6.00 Telescopic fork (upside-down) 120 mm (4.7 in.) Swingarm (uni-trak) 125 mm (4.9 in.)

General Specifications

Items	ZX1000D6F (Ninja ZX-10R)
Brake Type: Front Rear	Dual discs Single disc
Electrical Equipment Battery Headlight: Type Bulb: High Low Tail/Brake Light Alternator: Type Rated Output	12 V 10 Ah Semi-sealed beam 12 V 55 W + 65 W (quartz-halogen) 12 V 55 W (quartz-halogen) 12 V 0.5/4.1 W (LED) Three-phase AC 31 A/14 V @5 000 r/min (rpm)

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