

General Information

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1-2 GENERAL INFORMATION

Before Servicing

Before starting to service a motorcycle, careful reading of the applicable section is recommended to eliminate unnecessary work. Photographs, diagrams, notes, cautions, warnings, and detailed descriptions have been included wherever necessary. Nevertheless, even a detailed account has limitations, and a certain amount of basic knowledge is also required for successful work.

Especially note the following:

(1) Dirt

Before removal and disassembly, clean the motorcycle. Any dirt entering the engine or other parts will work as an abrasive and shorten the life of the motorcycle. For the same reason, before installing a new part, clean off any dust or metal filings.

(2) Battery Ground

Remove the ground (—) lead from the battery before performing any disassembly operations.

This prevents:

- (a) the possibility of accidentally turning the engine over while partially disassembled.
- (b) sparks at electrical connections which will occur when they are disconnected.
- (c) damage to electrical parts.

(3) Tightening Sequence

Generally, when installing a part with several bolts, nuts, or screws, start them all in their holes and tighten them to snug fit. Then tighten them evenly in a cross pattern. This is to avoid distortion of the part and/or causing gas or oil leakage. Conversely when loosening the bolts, nuts, or screws, first loosen all of them by about a quarter of turn and then remove them.

Where there is a tightening sequence indication in this Service Manual, the bolts, nuts, or screws must be tightened in the order and method indicated.

(4) Torque

When torque values are given in this Service Manual, use them. Either too little or too much torque may lead to serious damage. Use a good quality, reliable torque wrench.

(5) Force

Common sense should dictate how much force is necessary in assembly and disassembly. If a part seems especially difficult to remove or install, stop and examine what may be causing the problem. Whenever tapping is necessary, tap lightly using a wooden or plastic-faced mallet. Use an impact driver for screws (particularly for the removal of screws held by a locking agent) in order to avoid damaging the screw heads.

(6) Edges

Watch for sharp edges, especially during major engine disassembly and assembly. Protect your hands with gloves or a piece of thick cloth when lifting the engine or turning it over.

(7) High Flash-point Solvent

A high flash-point solvent is recommended to reduce fire danger. A commercial solvent commonly available in North America is Stoddard solvent (generic name). Always follow manufacturer and container directions regarding the use of any solvent.

(8) Gasket, O-Ring

Do not reuse a gasket or O-ring once it has been in service. The mating surfaces around the gasket should be free of foreign matter and perfectly smooth to avoid oil or compression leaks.

(9) Liquid Gasket, Non-permanent Locking Agent

Follow manufacturer's directions for cleaning and preparing surfaces where these compounds will be used. Apply sparingly. Excessive amounts may block engine oil passages and cause serious damage. An example of a non-permanent locking agent commonly available in North America is Loctite Lock'n Seal (Blue).

(10) Press

A part installed using a press or driver, such as a wheel bearing, should first be coated with oil on its outer or inner circumference so that it will go into place smoothly.

(11) Ball Bearing

When installing a ball bearing, the bearing race which is affected by friction should be pushed by a suitable driver. This prevents severe stress on the balls and races, and prevents races and balls from being dented. Press a ball bearing until it stops at the stop in the hole or on the shaft.

(12) Oil Seal and Grease Seal

Replace any oil or grease seals that were removed with new ones, as removal generally damages seals.

When pressing in a seal which has manufacturer's marks, press it in with the marks facing out.

Seals should be pressed into place using a suitable driver, which evenly contacts the side of seal, until the face of the seal is even with the end of the hole.

(13) Seal Guide

A seal guide is required for certain oil or grease seals during installation to avoid damage to the seal lips. Before a shaft passes through a seal, apply a little high temperature grease to the seal lips to reduce rubber to metal friction.

(14) Circlip, Retaining Ring

Replace any circlips and retaining rings that are removed with new ones, as removal weakens and deforms them. When installing circlips and retaining rings, take care to compress or expand them only enough to install them and no more.

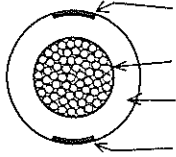
(15) Lubrication

Engine wear is generally at its maximum while the engine is warming up and before all the rubbing surfaces have an adequate lubricative film. During assembly, oil or grease (whichever is more suitable) should be applied to any rubbing surface which has lost its lubricative film. Old grease and dirty oil should be cleaned off. Deteriorated grease has lost its lubricative quality and may contain abrasive foreign particles.

Don't use just any oil or grease. Some oils and greases in particular should be used only in certain applications and may be harmful if used in an application for which they are not intended. This manual makes reference to molybdenum disulfide grease (MoS₂) in the assembly of certain engine and chassis parts. Always check manufacturer recommendations before using such special lubricants.

(16) Electrical Wires

All the electrical wires are either single-color or two-color and, with only a few exceptions, must be connected to wires of the same color. On any of the two-color wires there is a greater amount of one color and a lesser amount of a second color, so a two-color wire is identified by first the primary color and then the secondary color. For example, a yellow wire with thin red stripes is referred to as a "yellow/red" wire; it would be a "red/yellow" wire if the colors were reversed to make red the main color.

Wire (cross-section)	Name of Wire Color
 <p data-bbox="678 1310 734 1339">Red</p> <p data-bbox="678 1355 837 1384">Wire strands</p> <p data-bbox="678 1400 774 1429">Yellow</p> <p data-bbox="678 1444 734 1473">Red</p>	<p data-bbox="1013 1366 1157 1395">Yellow/red</p>

(17) Replacement Parts

When there is a replacement instruction, replace these parts with new ones every time they are removed. These replacement parts will be damaged or lose their original function once removed.

(18) Inspection

When parts have been disassembled, visually inspect these parts for following conditions or other damage. If there is any doubt as to the condition of them, replace them with new ones.

Abrasion	Denting	Hardening	Warping
Bending	Deterioration	Scratching	Wear
Cracking	Discoloration	Seizure	

(19) Service Data

Numbers of service data in this text have following meanings:

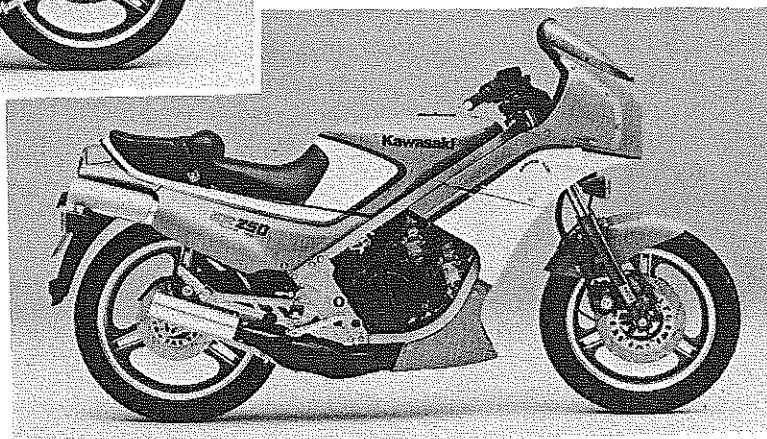
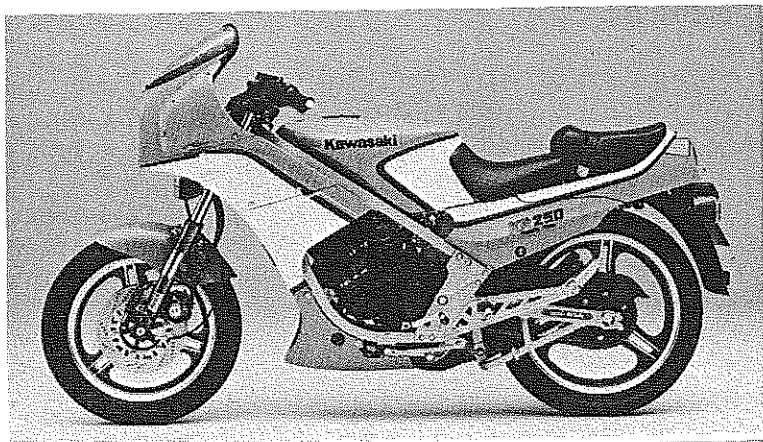
"Standards": Show dimensions or performances which brand-new parts or systems have.

"Service Limits": Indicate the usable limits. If the measurement shows excessive wear or deteriorated performance, replace the damaged parts.

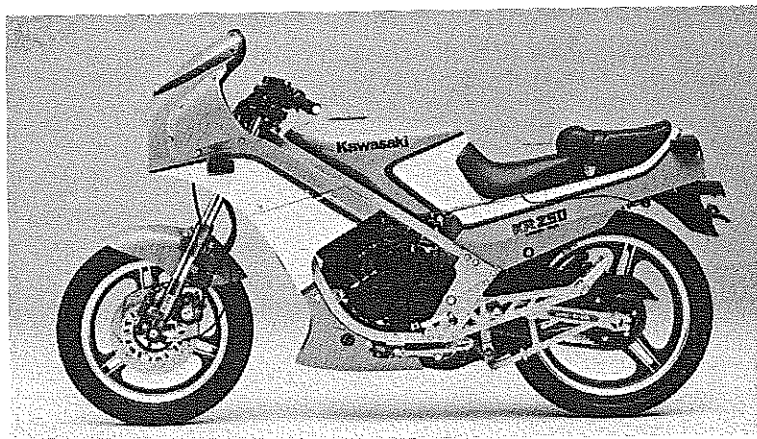
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Model Identification
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KR250-A1 Australian Model



KR250-A1 South African Model



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General Specifications

Items	KR250-A1
Dimensions: Overall length Overall width Overall height Wheelbase Road clearance Seat height Dry weight Curb weight: Front Rear Fuel tank capacity	2,095 mm, (S) 2,035 mm 685 mm 1,185 mm 1,360 mm 130 mm 790 mm 1,315 N (134 kg), (S) 1,305 N (133 kg) 726 N (74 kg) 824 N (84 kg), (S) 815 N (83 kg) 18.0L
Performance: Climbing ability Braking distance Minimum turning radius	32° 12.5 m from 50 km/h 2.6 m
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 plug	2-stroke, 2-cylinder, rotary & reed valve (RRIS) Liquid-cooled 56.0 x 50.6 mm 249 mL 7.0 Max. 35.3 kW (48 PS) @10,000 r/min (rpm) 36.3 N-m (3.7 kg-m, 26.8 ft-lb) @8,000 r/min (rpm) Carburetors, Mikuni VM28SS x 2 Primary kick starter CDI Electronically advanced 13.5° BTDC @1,300 r/min (rpm) NGK B9ES (option B8ES)

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Items	KR250-A1
Cylinder numbering method	Front to rear, 1-2
Firing order	1-2
Valve timing:	
Inlet	Open Close Duration
	120° BTDC 55° ATDC 175°
Exhaust	Open Close Duration
	96° BBDC 96° ABDC 192°
Scavenging	Open Close Duration
	62.5° BBDC 62.5° ABDC 125°
Lubrication system	Superlube (oil injection)
Engine oil:	
Type	2-stroke oil for air-cooled engine
Capacity	1.5 L
Drive Train:	
Primary reduction system:	
Type	Gear
Reduction ratio	2.791 (67/24)
Clutch type	Wet multi disc
Transmission:	
Type	6-speed, constant mesh, return shift
Gear ratios: 1st	2.642 (37/14)
2nd	1.777 (32/18)
3rd	1.318 (29/22)
4th	1.083 (26/24)
5th	0.961 (25/26)
6th	0.888 (24/27)
Final drive system:	
Type	Chain drive
Reduction ratio	2.714 (38/14)
Overall drive ratio	6.735 @Top gear
Transmission oil	
Grade	SE class
Viscosity	SAE10W30 or 10W40
Capacity	1.1 L

Items	KR250-A1
Frame:	
Type	Tubular, double cradle (aluminum)
Caster (rake angle)	27°
Trail	84 mm
Front tire:	
Type	Tubeless
Size	100/90-16 54 H
Rear tire:	
Type	Tubeless
Size	110/80-18 58 H
Front suspension:	
Type	Telescopic fork (pneumatic)
Wheel travel	140 mm
Rear suspension:	
Type	Swing arm (uni-trak)
Wheel travel	100 mm
Brake type:	
Front	Dual disc
Rear	Single disc
Electrical Equipment:	
Battery	12 V 4.5 Ah
Headlight:	
Type	Semisealed beam
Bulb	12 V 60/55 W (quartz-halogen)
Tail/brake light	12 V 5/21 W, (S) 12 V 8/27 W
Alternator:	
Type	Three-phase AC
Rated output	11.5 A @8,000 r/min (rpm), 14 V
Voltage regulator:	
Type	Short-circuit

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

(S) : South African Model

1-8 GENERAL INFORMATION

Periodic Maintenance Chart

The maintenance must be done in accordance with this chart to keep the motorcycle in good running condition. The initial maintenance is vitally important and must not be neglected.

OPERATION	FREQUENCY	*ODOMETER READING							See Page
		Whichever comes first ↓	800 km	4,000 km	8,000 km	12,000 km	16,000 km	20,000 km	
	Every								
Spark plug – clean		•	•	•	•	•	•	•	15-17
Spark plug – check †		•	•	•	•	•	•	•	15-17
Air cleaner element – clean			•		•		•		2-17
Air cleaner element – replace	5 cleanings			•		•		•	2-16
Throttle grip play – check †		•	•	•	•	•	•	•	2-5
Oil pump and carburetor synchronization – check †		•	•	•	•	•	•	•	6-5
Idle speed – check †		•	•	•	•	•	•	•	2-10
Fuel system – check †				•		•		•	2-11
Cylinder head bolt tightness – check †		•		•		•		•	4-6
Transmission oil – change	year	•		•		•		•	6-4
Fuel hose – replace	4 year								
Clutch – adjust		•	•	•	•	•	•		5-4
Drive chain wear – check †			•	•	•	•	•	•	10-5
Drive chain – lubricate	300 km								10-6
Drive chain slack – check †	800 km								10-4
Brake lining wear – check †			•	•	•	•	•	•	11-12
Brake fluid level – check †	month	•	•	•	•	•	•	•	11-13
Brake fluid – change	year			•		•		•	11-13
Brake hose and pipe – replace	4 years								11-16
Anti-dive brake plunger rubber cap, O-ring, and seal ring – replace	2 years								12-12
Brake master cylinder cup and dust seal – replace	2 years								11-11
Caliper piston seal and dust seal – replace	2 years								11-7
Steering – check †		•	•	•	•	•	•	•	13-4
Steering stem bearing – lubricate	2 years					•			13-7
Front fork oil – change				•		•		•	12-6
Tire wear – check †			•	•	•	•	•	•	9-9
Wheel bearing – lubricate	2 years					•			9-12
Speedometer gear – lubricate	2 years					•			9-14
Swing arm pivot, uni-trak linkage – lubricate				•		•		•	12-17
Coolant – change	2 years							•	3-4
Radiator hoses, connections – check †	year	•		•		•		•	3-8
Battery electrolyte level – check †	month	•	•	•	•	•	•	•	15-9
General Lubrication – perform			•	•	•	•	•	•	16-8
Nut, bolt, and fastener tightness – check †		•		•		•		•	16-8

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

† : Replace, add, adjust, clean, or torque if necessary.