
2003 Model Information

MARKETING CODE: **VN1600-A**

MODEL NAME: **VN1600 Classic (EUR)**
Vulcan 1600 Classic (USA/CAN/AUS)



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MODEL CONCEPT

If cruiser coolness can be measured in height and length, the new low-and-long VN1600 is as cool as it gets. A new frame with a longer wheelbase and lower seat height are combined with a stroked version of the VN1500 engine to deliver the kind of low-down ride and low-rpm grunt that cruiser riders can't get enough of. The new bike is not only much cooler than its predecessor, it is much more comfortable as well, thanks to a comprehensive package of thoughtful modifications.



While the basic VN1500 engine remains unchanged, a 5 mm increase in stroke boosts displacement from 1,470 cm³ to 1,552 cm³, for more power and torque in the medium speed ranges where big-bore cruisers spend most of their time. The appearance of the engine was also changed to match its new, cooler image. The finning on the head and crankcase was changed and the base engine colour was changed from black to silver, all of which contribute to a cleaner, better looking engine package. Other improvements include upgrades to the fuel injection system for gutsier power and lower emissions, new cam timing, and a stronger transmission.

Improving the ride comfort was a major design aim. Chassis modifications centered on stretching and lowering the chassis. A new single-backbone frame runs a longer swingarm, while larger stanchions for the front fork and an improved rear shock location improve suspension action and ride quality.

Classic design elements include a set of stylish cast alloy wheels, a stretched flangeless fuel tank, new fenders and host of tasteful modifications that put this low rider in the top ranks of big-bore cruisers.

KEY POINTS

- More power via an increase in displacement to 1,552 cm³
- Longer, lower chassis
- All-new bodywork
- Dual front disc brakes
- Cast wheels
- Shaft drive
- 170 mm rear tyre
- New flangeless fuel tank and raised tank emblem
- Tank-mounted ignition switch with on-position key removal.

MAIN FEATURES

Engine



- * New engine based on that of the VN1500N gets a 5 mm longer stroke, boosting displacement to 1,552 cm³. The powerful, liquid-cooled V-twin engine is tuned for low and mid-range power to deliver gutsy acceleration in the typical cruising range of 100-130 km/h.
- * Oversquare 102 x 95 mm bore and stroke ensures punchy response and a broad spread of satisfying power.
- * Fuel injection system gives easy starting, smooth running, high performance and reduced exhaust emissions.
- * Sensors include intake vacuum, water temp and intake air temp.
- * Free-breathing SOHC 4-valve heads deliver impressive performance throughout the rev range.

- * Use of dished piston heads allows the 9:1 compression ratio to remain unchanged from the VN1500N. Other modified parts include the rods and crankshaft.



- * Camshaft profiles modified for increased performance.
- * The engine receives a number of changes that enhance its appearance: fin shape and number fins on the heads and crankcase; new engine and air cleaner covers; base colour of the engine changed from black to silver; stain-coat bolts and fasteners used; oil lines re-routed for a less cluttered appearance.
- * North American models feature newly designed chamberless dual slash-cut mufflers. Revised electronic fuel injection settings give increased power feel. Catalysers built into each of the mufflers ensure that emissions regulations are met. European and Australian models feature modified versions of the VN1500N tapered mufflers in order to meet noise regulations. A single catalyser located in the chamber ensures clean emissions.
- * ECU controls the electromagnetic solenoid valve of the secondary air system to further reduce emissions.
- * Five-speed transmission with smooth shift action is geared for a comfortably low rpm at highway cruising speeds. Stronger teeth with a harder surface finish capably handle the increased torque of the new engine.
- * Use of cork-based friction plates with increased number of grooves in friction material improves clutch feel and reduces stiction of the plates when the engine is cold.
- * Reliable shaft drive is clean, quiet and requires minimal maintenance.
- * Balancer reduces engine vibration for smooth running.
- * High-capacity oil pump delivers high oil volume to ensure reliable lubrication during extended periods of high-speed, high-temperature operation.
- * Vertical, returnless-type pump inside the fuel tank prevents fuel starvation during hard braking or acceleration.



- * Large-capacity radiator with from the VN1500P (20 mm taller, 10 mm narrower) provides efficient cooling capacity. New ring-type cooling fan is quieter and more efficient.
- * Low-maintenance features like automatic valve lash adjusters, automatic cam chain tensioners and an electronic ignition keep the VN1600 out of the shop and on the road.

Frame

- * New frame uses twin 40 x 40 mm square cross section tubes to create a single backbone. Detachable right-side downtube allows engine to be removed more easily. Use of the single backbone accommodates the larger capacity fuel tank.



- * Overall the VN1600 is longer and lower than its predecessor. The longer wheelbase (lengthened by approximately 20 mm) and longer swingarm (30 mm longer) provide even more stability when cruising and contribute to the Classic image.
- * Seat height has been lowered, giving the new Classic more of a “low rider” bias than the VN1500N.
- * Unitised head pipe gussets mean less welding, which improves the bike’s appearance.
- * Large ball bearings are used in the steering head for high stability and high chassis rigidity.

Suspension

- * New 43 mm telescopic front fork provides increased rigidity, superb steering feedback and excellent ride quality. Increasing the fork pitch from 240 mm to 270 mm and reducing the fork offset by 10 mm to 15 mm enhances cruising stability.
- * Dual rear oil shocks deliver superb comfort and high stability. The shocks are mounted at a more upright angle for improved ride quality.



Brakes/Wheels/Tyres

- * Dual 300 mm x 5 mm front discs (VN1500N had a single front disc) and larger 300 mm rear disc deliver impressive stopping power and look great.
- * Dished cast wheels replace the spoked wheels of the VN1500N. In addition to their great appearance, the cast wheels allow the use of tubeless tyres. The new wheels are MT3.00-16M/C for the front, and MT4.50-16M/C for the rear.
- * New tubeless tyres offer increased reassurance against the fear of a blow-out. Front tyre size remains unchanged however the wider rear tyre (width increased from 150 mm to 170 mm) gives the VN1600 a tougher look. Front tyre size is 130/90-16M/C; rear is 170/70B16M/C.

Bodywork/Styling

- * Along with the modifications to the frame, the VN1600 receives numerous bodywork improvements to complement the new low and long style.
- * Flangeless fuel tank from the VN1500N features a new stretched shape and an increased fuel capacity for a longer cruising range. The raised emblem on the tank adds a touch of class.



- * Wider front and rear fenders have a new design to enhance the new style. The front fender is wide enough to allow customers to fit a wider front tyre.
- * Great-looking new side covers fill the space between the tank and the engine and proudly display the Kawasaki logo.
- * The reshaped seat offers superb rider comfort and looks great.
- * The mirrors have been redesigned for improved appearance and feature chrome backing (instead of aluminium) for improved corrosion resistance.
- * Handle grips feature a new design.
- * Fold-up footboards contribute to rider comfort and have been restyled for improved appearance.
- * New horn looks great.

Electrical Equipment

- * The new integrated instrument cluster has a lower profile for improved appearance and features a revised LCD screen and tank-mounted ignition switch (like that of the VN1500P). The new design looks great and enhances convenience.
- * Ignition switch allows on-position key removal, preventing key bunches from damaging the tank's lustrous paintwork whilst the bike is in operation. Turning the ignition switch collar to the "off" or the "park" position (illuminating the tail lamp) turns the engine off and necessitates re-insertion of the key to restart.
- * Electric step-motor speedometer is lightweight and very accurate and incorporates fuel injection warning lamp.
- * Other instrumentation includes LCD window displaying fuel gauge, odometer, tripmeter and clock. The meter also has warning lamps for fuel, oil pressure and water temperature.
- * Larger multi-reflector headlamp complements the new body and throws a broad beam for confident night-time cruising.



- * Front turn signals feature an integrated lamp/stay design for easy mounting.
- * Taillight from the VN1500R looks great and suits the new design. European model taillights also feature a position lamp; Australian models do not have running lamps.



- * Auto-cancelling turn signals.

Other Practical Features

- * New side-stand safety feature does not allow the engine to be started with the side stand down unless in neutral gear. Shifting into gear with the side stand down will cut the engine.
- * Steering lock is located at the bottom of the steering head for easy access.
- * Locking left side-cover holds a tool kit, while providing space for small items.
- * Available accessories include: windshield, saddlebags, backrest, front light bar, and engine guard. Accessories may not be available in all markets.

COLOUR(S)

- * Metallic Ruby Red



- * Metallic Dark Bronze



- * Metallic Canyon Silver (USA/CAN only)



SPECIFICATIONS

ENGINE	VN1600-A1
Type	4-stroke V-Twin
Displacement	1,552 cm ³
Bore and Stroke	102 x 95 mm
Compression ratio	9.0:1
Valve system	SOHC, 8 valves
Fuel injection	Ø 36 mm x 2
Ignition	Digital
Starting	Electric
Cooling	Liquid
Lubrication	Forced lubrication, wet sump
Engine oil: Rating	API SE, SF, SG, SH (with JASO MA) or SJ (with JASO MA)
Viscosity	SAE 10W-40
Capacity	3.5 litres
Spark plug	DPR6EA-9 or X20EPR-U9
Valve timing: Inlet	Open: 22° BTDC; Close: 66° ABDC; Duration: 268°
Exhaust	Open: 66° BBDC; Close: 26° ATDC; Duration: 272°
Piston clearance	0.043 ~ 0.070 mm
Cylinder pressure	500 kPa {5.0 kgf/cm ² } @ 300 rpm
Charging current & voltage (night-time @ 4,000 rpm)	26 A, 14.5 V
DRIVETRAIN	
Transmission	5-speed, return
Primary drive	Gear
Final drive	Shaft
Primary reduction ratio	1.517 (85/56)
Gear ratios: 1st	2.500 (40/16)
2nd	1.590 (35/22)
3rd	1.192 (31/26)
4th	0.965 (28/29)
5th	0.781 (25/32)
Final reduction ratio	2.619 (15/21 x 33/9)
Overall drive ratio	3.105 @ top gear
Clutch	Wet, multi-disc

FRAME	VN1600-A1
Type	Double-cradle, high-tensile steel
Suspension: front rear	43 mm telescopic fork Swingarm with twin shocks with 4-way rebound damping
Wheel travel: front rear	150 mm 95 mm
Tyre: front rear	130/90-16M/C (67H) 170/70B16M/C (75H)
Inflation: front rear	200 kPa {2.0 kgf/cm ² } 250 kPa {2.5 kgf/cm ² }
Caster (rake)	32°
Trail	168 mm
Steering angle (left/right)	35° / 35°
BRAKES	
Front	Dual 300 mm discs
Front calipers	Dual twin-piston calipers
Rear	Single 300 mm disc
Rear caliper	Twin-piston caliper
ELECTRICAL EQUIPMENT	
Battery	12 V, 18 Ah
Headlight (high/low)	12 V, 60/55 W
Tail/brake light	12 V, 5/21 W
DIMENSIONS	
Overall length	2,505 mm
Overall width	1,040 mm (40A, 40B, 201, 202, 205) 990 mm (303)
Overall height	1,130 mm
Wheelbase	1,680 mm
Ground clearance	130 mm
Seat height	680 mm
Dry weight	307 kg (40A, 40B, 303) 306 kg (201, 202, 205)
Fuel capacity	20 litres

PERFORMANCE	VN1600-A1
Maximum power	49 kW {67 PS}/ 4,700 rpm (40A, 40B, 303) 50 kW {68 PS}/ 5,000 rpm (201, 202, 205)
Maximum torque	127 N·m {13.0 kgf·m}/ 2,700 rpm (40A, 40B, 303) 129 N·m {13.2 kgf·m}/ 2,500 rpm (201, 202, 205)

The specifications mentioned here apply to and have been achieved by production models under standard operating conditions. We intend only to give a fair description of the vehicle and its performance capabilities but these specifications may not apply to every machine supplied for sale. Kawasaki Heavy Industries, Ltd. reserves the right to alter specifications without prior notice. Equipment illustrated and specifications may vary to meet individual markets. Available colours may vary by market.