

13. TECHNICAL DATA

A. Specifications of CB 500

[CB 500 K1, K2]

	Item	English	Metric
DIMENSION	Overall Length	83.0 in. (83.5i n.)	2,105 mm (2,120 mm)
	Overall Width	32.5 in.	825 mm
	Overall Height	44.0 in.	1,115 mm
	Wheel Base	55.5 in.	1,405 mm
	Seat Height	31.7 in.	805 mm
	Foot Peg Height	12.4 in.	315 mm
	Ground Clearance	6.5 in.	165 mm
	Dry Weight	403.5 lb.	183 kg
FRAME	Type	Double cradle tubular steel	
	F. Suspension, Travel	Telescopic fork, travel 4.8 in.,	121 mm
	R. Suspension, Travel	Swing arm, travel 3.1 in.,	78.5 mm
	F. Tire Size, Type	3.15-19 (4 PR) Rib tire, tire air pressure 25.6 psi (3.25-19) (4 PR)	1.8 kg/cm ² 2.0 kg/cm ²
	R. Tire Size, Type	3.50-18 (4 PR) Block tire, tire air pressure 28.5 psi	2.0 kg/cm ²
	F. Brake, Lining Area	Disc brake, lining area 32.36 in ² ×2	288.8 cm ² ×2
	R. Brake, Lining Area	Internal expanding shoe, lining area 26.28 in ² ×2	169.6 cm ² ×2
	Fuel Capacity	3.7 U.S. gal. 3.1 Imp. gal.	14.0 lit.
	Fuel Reserve Capacity	1.6 U.S. gal. 0.9 Imp. gal.	4.0 lit.
	Caster Angle	64°	
	Trail Length	4.1 in.	105 mm
	Front Fork Oil Capacity	5.4 ozs	160 cc
ENGINE	Type	Air-cooled, 4-stroke, O.H.C. engine	
	Cylinder Arrangement	4-cylinder in-line	
	Bore and Stroke	2.205×1.992 in.	56.0×50.6 mm
	Displacement	30.38 cu in.	498 cc
	Compression Ratio	9.0	
	Carburetor, Venturi Dia.	Four, piston valve, 22 mm dia.	
	Valve Train	Chain drive overhead camshaft	
	Maximum Horsepower	50 BHP (SAE)/9,000 rpm (44 BHP (SAE)/9,000 rpm)	
	Maximum Torque	30.4 lb-ft/7,500 rpm	4.2 kg-m/7,500 rpm
	Oil Capacity	3.2 U.S. qt., 2.6 Imp. qt	3.0 lit.
	Lubrication System	Forced pressure and wet sump	

	Item	English	Metric
ENGINE	Air Filtration	Paper element	
	Valve Tappet Clearance	IN : 0.002, EX : 0.003 in.	IN : 0.05, EX : 0.08 mm
	Engine weight	152 lb.	69 kg
	Air Screw Opening	1±1/8 turns	
	Idle Speed	1,000 rpm	
DRIVE TRAIN	Clutch	Wet, multi-plate	
	Transmission	5-speed, constant mesh	
	Primary Reduction	2.000	
	Gear Ratio I	2.353	
	" II	1.636	
	" III	1.269	
	" IV	1.036	
	" V	0.900	
	Final Reduction	2.000, drive sprocket 17, driven sprocket 34 T	
	Gear Shift Pattern	Left foot return type	
ELECTRICAL	Ignition	Battery and ignition coil	
	Starting System	Electrical motor and kick pedal	
	Alternator	Three phase A.C. 12 V-0.2 KW/5,000 rpm	
	Battery Capacity	12 V-12 AH	
	Spark Plug	NGK D-7 ES, DENSO X-22 ES	
	Headlight	Low/high, 12 V-40 W/50 W	
	Tail/stoplight	Tail/Stop, 12 V- 7 W/23 W (12 V-4 CP/32 CP)	
	Turn Signal light	Front/Rear 12 V-25 W/25 W (12 V-32 CP/32 CP)	
	Speedometer Light	12 V- 3 W	(12 V-2 CP)
	Tachometer Light	12 V- 3 W	(12 V-2 CP)
	Neutral Indicator Light	12 V- 3 W	(12 V-2 CP)
	Turn Signal Indicator Light	12 V- 3 W	(12 V-2 CP)
	High Beam Indicator Light	12 V- 3 W	(12 V-2 CP)

A. Specifications of CB 550

	Item	English	Metric
DIMENSION	Overall Length	83.5 in.	2,120 mm
	Overall Width	32.5 in.	825 mm
	Overall Height	43.9 in.	1,115 mm
	Wheel Base	55.3 in.	1,405 mm
	Seat Height	31.7 in.	805 mm
	Foot Peg Height	12.4 in.	315 mm
	Ground Clearance	6.3 in.	160 mm
	Dry Weight	423 lb.	192 kg
FRAME	Type	Double cradle frame	
	F. Suspension, Travel	Telescopic fork, travel 4.8 in.	121 mm
	R. Suspension, Travel	Swing arm, travel 3.0 in.	77.3 mm
	F. Tire Size, Type	3.25-19 (4 PR) Rib tire, tire air pressure 28 psi	2.0 kg/cm ²
	R. Tire Size, Type	3.75-18 (4 PR) Block tire, tire air pressure 34 psi	2.4 kg/cm ²
	F. Brake, Lining Area	Disk brake, lining area 32.36 in ² ×2	288.8 cm ² ×2
	R. Brake, Lining Area	Internal expanding shoe, lining area 26.28 in ² ×2	169.6 cm ² ×2
	Fuel Capacity	3.7 U.S. gal. 3.1 Imp. gal.	14.0 lit.
	Fuel Reserve Capacity	1.1 U.S. gal. 0.9 Imp. gal.	4.0 lit.
	Caster Angle	64°	
	Trail Length	4.1 in.	105 mm
	Front Fork Oil Capacity	6.3-6.5 ozs	185-191 cc
ENGINE	Type	Air-cooled, 4-stroke, O.H.C. engine	
	Cylinder Arrangement	4-cylinder in-line	
	Bore and Stroke	2.303×1.992 in.	58.5×50.6 mm
	Displacement	33.19. cu. in.	544 cc
	Compression Ratio	9.0	
	Carburetor, Venturi Dia.	Four, piston valve, 22 mm dia.	
	Valve Train	Chain drive overhead camshaft	
	Maximum Horsepower	50 BHP (SAE)/8,500 rpm	
	Maximum Torque	30.4 lb-ft/7,500 rpm	4.2 kg-m/7,500 rpm
	Oil Capacity	3.2 U.S. qt., 2.6 Imp. qt	3.0 lit.
	Lubrication System	Forced pressure and wet sump	

	Item	English	Metric
ENGINE	Air Filtration	Paper element	
	Valve Tappet Clearance	IN : 0.002, EX : 0.003 in.	IN : 0.05, EX : 0.08 mm
	Engine weight	159 lb.	72 kg
	Air Screw Opening	$1\frac{1}{2} \pm \frac{3}{8}$ turns	
	Idle Speed	1,000 rpm	
DRIVE TRAIN	Clutch	Wet, multi-plate	
	Transmission	5-speed, constant mesh	
	Primary Reduction	3.063	
	Gear Ratio I	2.353	
	" II	1.636	
	" III	1.269	
	" IV	1.036	
	" V	0.900	
	Final Reduction	2.176, drive sprocket 17, driven sprocket 37 T	
	Gear Shift Pattern	Left foot return type	
ELECTRICAL	Ignition	Battery and ignition coil	
	Starting System	Electrical motor and kick pedal	
	Alternator	Three phase A.C. 12 V-0.11 KW/2,000 rpm	
	Battery Capacity	12 V-12 AH	
	Spark Plug	NGK D-7 ES, DENSO X-22 ES	
	Headlight	Low/high,	12 V-40 W/50 W
	Tail/stoplight	Tail/Stop	12 V- 4 W/32 W
	Turn Signal light	Front/Rear	12 V-32 W/32 W
	Speedometer Light	12 V-2 W	
	Tachometer Light	12 V-2 W	
	Neutral Indicator Light	12 V-2 W	
	Turn Signal Indicator Light	12 V-2 W	
	High Beam Indicator Light	12 V-2 W	

B. Service Data (CB 500)

ENGINE

mm (in.)

Item	Standard value	Serviceable limit
Inlet cam height	34.93~34.97 (1.3742~1.3768)	35.85 (1.4075)
Exhaust cam height	34.53~34.57 (1.3595~13.610)	34.45 (1.3563)
Runout	—	0.1 (0.004)

Item	Standard value	Serviceable limit
Cylinder bore	56~56.01 (2.204~2.205)	56.1 (2.208)

Item	Standard value	Serviceable limit
Piston dia.	55.99~55.97 (2.204~2.203)	55.85 (2.198)
Piston pinhole	—	15.08 (0.593)

Item	Standard value	Serviceable limit
Piston ring end gap	0.15~0.35 (0.005~0.013)	0.7 (0.027)

Piston ring	Standard value	Serviceable limit
Side clearance		
Top ring	0.040~0.075 (0.0015~0.0029)	0.18 (0.007)
Second ring	0.025~0.06 (0.0009~0.0023)	0.15 (0.005)
Oil ring	0.020~0.055 (0.0007~0.0021)	0.15 (0.005)

Item	Standard value	Serviceable limit
Ring groove clearance	15.002~15.008 (0.59063~0.59087)	Replace if over 15.080 (0.5937)

	Standard value	Serviceable limit
Valve stem clearance	Inlet 0.010~0.035 (0.00039~0.00137)	0.080 (0.0031)
	Exhaust 0.030~0.050 (0.0011~0.0019)	0.10 (0.0039)
Valve stem diameter	Inlet 5.450~5.465 (0.2145~0.2150)	
	Exhaust 5.430~5.445 (0.2137~0.2142)	
Valve face runout	—	0.05 (0.009)

mm (in.)

Item	Standard value	Serviceable limit
Cylinder head flatness	—	0.3 (0.011)

Item	Standard value	Serviceable limit
Valve spring free length	Outer 40.4 (1.59)	39 (1.53)
	Inner 35.7 (1.40)	34.5 (1.35)
Loading (reference)	Outer 27.9 mm/45.6~50.6 kg (1.0 in/ 100.54~111.57 lbs-ft)	
	Inner 23.2 mm/19.1~21.1 kg (0.9 in/ 421.15~464.35 lbs-ft)	
Clutch plate warp	—	0.3 (0.011)

Oil pump	Standard value	Serviceable limit
Inner and outer rotor clearance	—	0.35 (0.013)
Outer rotor and body clearance	—	0.35 (0.013)

Item	Standard value	Serviceable limit
Friction disc thickness	3.3 (0.13)	3.0 (0.11)

	Standard value	Serviceable limit
Clutch spring free length	31.9 (1.25)	30.5 (1.20)
Spring strength	31.4~33 kg at 23 mm (227.84~238.6) at 0.90 in	

Item	Standard value	Serviceable limit
Gear shift drum O. D.	39.975~39.95 (1.5738~1.5728)	39.9 (1.5709)
Shift fork I. D.	40.00~40.025 (1.5748~1.5757)	40.075 (1.5797)

Gear shift fork	Standard value	Serviceable limit
Center	5.93~6.00 (0.233~0.236)	5.60 (0.220)
Right & left	4.93~5.0 (0.194~0.197)	4.60 (0.181)

Item	Standard value	Serviceable limit
Crankshaft journal clearance	0.020~0.046 (0.00079~0.00181)	0.080 (0.0031)
Runout	—	0.05 (0.0019)
Journal and taper	—	0.05 (0.0019)

Item	Standard value	Serviceable limit
Connecting rod large end clearance	0.02~0.046 (0.00079~0.00181)	0.08 (0.0031)

mm (in.)

Item	Standard value	Serviceable limit
Connecting rod side clearance	0.12~0.27 (0.0047~0.0106)	0.35 (0.0138)

Item	Standard value	Serviceable limit
Connecting rod small end clearance	15.016~15.034 (0.5911~0.5918)	15.07 (0.5930)

Item	Standard value	Serviceable limit
1st, 2nd, 3rd gears backlash	0.044~0.133 (0.0017~0.0051)	0.2 (0.0078)
4th and 5th gears backlash	0.046~0.140 (0.0018~0.0055)	0.2 (0.0078)

CHASSIS

Wheel	Standard value	Serviceable limit
Rim wobble	0.5 (0.020)	2.0 (0.08)
Wheel runout	0.5 (0.020)	2.0 (0.08)

Wheel bearing	Standard value	Serviceable limit
Front wheel bearing axial direction, TIR	0.07 (0.028)	0.1 (0.004)
Front wheel bearing radial direction, TIR	0.003 (0.00012)	0.05 (0.002)

Front brake	Standard value	Serviceable limit
Caliper cylinder inside dia.	38.18~38.20 (1.5031~1.5039)	38.215 (1.504)
Caliper piston outside dia.	38.115~38.48 (1.5006~1.5149)	38.105 (1.500)

Front brake	Standard value	Serviceable limit
Master cylinder	14.0~14.043 (0.5511~0.5528)	14.055 (0.533)
Piston	13.957~13.984 (0.5494~0.5505)	13.940 (0.549)

Wheel	Standard value	Serviceable limit
Rim runout, TIR (vertical and side)	0.5 (0.02)	2.0 (0.08)

Item	Standard value	Serviceable limit
Disc trueness	—	0.3 (0.011)
Caliper and piston clearance	—	0.11 (0.004)
Master cylinder and piston clearance	—	0.11 (0.004)

mm (in.)

Rear axle shaft	Standard value	Serviceable limit
Bent, TIR	0.01 (0.0004)	0.2 (0.009)

Brake lining	Standard value	Serviceable limit
Thickness	5.0 (0.200)	2.0 (0.080)

Brake Drum	Standard value	Serviceable limit
Inside dia.	179.8~180.0 (7.079~7.087)	181.0 (7.125)

Item	Standard value	Serviceable limit
Axial, TIR	0.07 (0.0028)	0.1 (0.004)
Radial, TIR	0.003 (0.00011)	0.05 (0.002)

	Standard value	Serviceable limit
Front suspension spring I.D.	42 (1.65)	
Free length	451.7 (17.78)	425 (16.73)
Tilt	5 (0.02)	8 (0.03)

Item	Standard value	Serviceable limit
Rear suspension free length	210.4 (8.283)	205 (8.070)

Item	Standard value	Serviceable limit
Clearance	0.1~0.3 (0.004~0.012)	0.5 (0.02)
Rear fork bushing inside dia.	21.448~21.5 (0.844~0.846)	21.8 (0.858)
Center collar outside dia.	21.427~21.46 (0.843~0.844)	21.4 (0.842)

ELECTRICAL

Item	Standard value	Serviceable limit
Carbon brush length	12~31 mm (0.47~0.51 in)	5.5 mm (0.22 in)
Brush spring tension	0.5~0.5 kg (1.1~1.3 lbs)	0.4 kg (0.8 lbs)

B. Service Date (CB 550)**ENGINE**

mm (in.)

Item	Standard value	Serviceable limit
Inlet cam height	34.93~34.97 (1.3742~1.3768)	35.85 (1.4075)
Exhaust cam height	34.53~34.57 (1.3595~13.610)	34.45 (1.3563)
Runout	—	0.1 (0.004)

Item	Standard value	Serviceable limit
Cylinder bore	58.50~58.51 (2.303~2.304)	58.6 (2.307)

Item	Standard value	Serviceable limit
Piston dia.	54.47~58.49 (2.301~2.30)	58.35 (2.302)
Piston pinhole	—	15.08 (0.593)

Item		Standard value	Serviceable limit
Piston ring end gap	Top	0.15~0.35	0.7 (0.027)
	2nd	(0.005~0.013)	
	oil	0.3~0.9 (0.01~0.035)	1.1 (0.043)

Item	Standard value	Serviceable limit
Piston ring side clearance		
Top ring	0.040~0.075 (0.0015~0.0029)	0.18 (0.007)
Second ring	0.025~0.06 (0.0009~0.0023)	0.15 (0.005)
Oil ring	—	—

Item	Standard value	Serviceable limit
Ring groove clearance	15.002~15.008 (0.59063~0.59087)	Replace if over 15.080 (0.6937)

	Standard value	Serviceable limit
Valve stem clearance	Inlet 0.020~0.045 (0.00079~0.00177)	0.080 (0.0031)
	Exhaust 0.030~0.050 (0.0011~0.0019)	0.10 (0.0039)
Valve stem diameter	Inlet 5.450~5.465 (0.2145~0.2150)	
	Exhaust 5.430~5.445 (0.2137~0.2142)	
Valve face runout	—	0.05 (0.009)

mm (in.)

Item	Standard value	Serviceable limit
Cylinder head flatness	—	0.3 (0.011)

Item	Standard value	Serviceable limit
Valve spring free length	Outer 40.4 (1.59)	39 (1.53)
	Inner 35.7 (1.40)	34.5 (1.35)
Loading (reference)	Outer 27.9 mm 45.6~50.6 kg/ (1.0 in/ 100.54~111.57 lbs-ft)	
	Inner 23.2 mm 19.1~21.1 kg (0.9 in/ 421.15~464.35 lbs-ft)	
Clutch plate warp	—	0.3 (0.011)

Item	Standard value	Serviceable limit
Oil pump		
Inner and outer rotor clearance	—	3.35 (0.013)
Outer rotor and body clearance	—	0.35 (0.013)

Item	Standard value	Serviceable limit
Friction disc thickness	2.6 (0.12)	2.3 (0.09)

	Standard value	Serviceable limit
Cut spring free length	36.8 (1.45)	35.4 (1.39)
Spring strength	22.1~33.2 at 23 mm (227.84~238.6 at 0.90 in)	

Item	Standard value	Serviceable limit
Gear shift drum O.D.	39.975~59.95 (1.5738~1.5728)	39.9 (1.5709)
Shift fork I.D.	40.00~40.025 (1.5748~1.5757)	40.075 (1.5797)

Item	Standard value	Serviceable limit
Gear shift fork		
Center	5.93~6.00 (0.233~0.236)	5.60 (0.220)
Right & left	4.93~5.0 (0.194~0.197)	4.60 (0.181)

Item	Standard value	Serviceable limit
Crankshaft journal clearance	0.020~0.046 (0.00079~0.00181)	0.080 (0.0031)
Runout	—	0.05 (0.0019)
Journal and taper	—	0.05 (0.0019)

Item	Standard value	Serviceable limit
Connecting rod large end clearance	0.02~0.046 (0.00079~0.00181)	0.08 (0.0031)

mm (in.)

Item	Standard value	Serviceable limit
Connecting rod side clearance	0.12~0.27 (0.0047~0.0106)	0.35 (0.0138)

Item	Standard value	Serviceable limit
Connecting rod small end clearance	15.016~15.034 (0.5911~0.5918)	15.07 (0.5930)

Item	Standard value	Serviceable limit
1st, 2nd, 3rd gears backlash	0.044~0.133 (0.0017~0.0051)	0.2 (0.0078)
4th and 5th gears backlash	0.046~0.140 (0.0018~0.0055)	0.2 (0.0078)

CHASSIS

Wheel	Standard value	Serviceable limit
Rim wobble	0.5 (0.020)	2.0 (0.08)
Wheel runout	0.5 (0.020)	2.0 (0.08)

Wheel bearing	Standard value	Serviceable limit
Front wheel bearing axial direction, TIR	0.07 (0.028)	0.1 (0.004)
Front wheel bearing radial direction, TIR	0.003 (0.00012)	0.05 (0.002)

Front brake	Standard value	Serviceable limit
Caliper cylinder inside dia.	38.18~38.20 (1.5031~1.5039)	38.215 (1.504)
Caliper piston outside dia.	38.115~38.48 (1.5006~1.5149)	38.105 (1.500)

Front brake	Standard value	Serviceable limit
Master cylinder	14.0~14.043 (0.5511~0.5528)	14.055 (0.533)
Piston	13.957~13.984 (0.5494~0.5505)	13.940 (0.549)

Wheel	Standard value	Serviceable limit
Rim runout, TIR (vertical and side)	0.5 (0.02)	2.0 (0.08)

Item	Standard value	Serviceable limit
Disc trueness	—	0.3 (0.011)
Caliper and piston clearance	—	0.11 (0.004)
Master cylinder and piston clearance	—	0.11 (0.004)

mm (in.)

Rear axle shaft	Standard value	Serviceable limit
Bent, TIR	0.01 (0.0004)	0.2 (0.009)

Brake lining	Standard value	Serviceable limit
Thickness	5.0 (0.200)	2.0 (0.080)

Brake Drum	Standard value	Serviceable limit
Inside dia.	179.8~180.0 (7.079~7.087)	181.0 (7.125)

Item	Standard value	Serviceable limit
Axial, TIR	0.07 (0.0028)	0.1 (0.004)
Radial, TIR	0.003 (0.00011)	0.05 (0.002)

	Standard value	Serviceable limit
Front suspension spring I.D.	42 (1.65)	
Free length	451.7 (17.78)	425 (16.73)
Tilt	5 (0.02)	8 (0.03)

Item	Standard value	Serviceable limit
Rear suspension free length	210.4 (8.283)	205 (8.070)

Item	Standard value	Serviceable limit
Clearance	0.1~0.3 (0.004~0.012)	0.5 (0.02)
Rear fork bushing inside dia.	21.448~21.5 (0.844~0.846)	21.8 (0.858)
Center collar outside dia.	21.427~21.46 (0.843~0.844)	21.4 (0.842)

ELECTRICAL

Item	Standard value	Serviceable limit
Carbon brush length	12~31 mm (0.47~0.51 in)	5.5 mm (0.22 in)
Brush spring tension	0.5~0.5 kg (1.1~1.3 lbs)	0.4 kg (0.8 lbs)