

Trouble	Probable Causes	Remedies
Difficult gear shifting	1. Improper clutch disengagement 2. Damaged gear or foreign object lodged in the gear 3. Gear shift fork inoperative 4. Incorrect operation of the gear shift drum stopper and change pedal 5. Mainshaft and countershaft out of alignment 6. High oil viscosity	Adjust the clutch Replace the defective parts Repair or replace Repair or replace Repair or replace Change the oil
Excessive high gear noise	1. Excessive gear backlash 2. Worn main and countershaft bearing	Repair or replace Repair or replace
Gear slip out	1. Worn fingers on gear shift fork 2. Worn gear dog hole 3. Worn spline	Replace Replace Replace
Clutch slippage	1. No clutch lever play 2. Weak or no uniform clutch pressure plate spring 3. Worn or glazed friction disc	Adjust the clutch lever Replace the weak spring Replace
Poor clutch engagement	1. Excessive clutch lever play 2. Warped friction disc 3. Warped pressure plate 4. Bent main shaft	Adjust clutch lever play Replace Replace Replace
Pedal does not return	1. Faulty return spring 2. Broken return spring	Replace Fix broken spring
Kick starter gear does not rotate	1. Excessive kick starter pawl wear	Replace
Engine does not start	Carburetor 1. Choke fully open 2. Carburetor air screw improperly set 3. Air leaking into the cylinder head 4. Clogged carburetor slow jet 5. Clogged fuel valve or piping 6. Clogged vent hole in the fuel tank cap 7. No fuel in the tank	Close choke Adjust air screw Retighten carburetor connecting tube Check, clean and retighten Disassemble and clean Disassemble and clean Fill tank with gasoline
Poor engine idling	Carburetor 1. Clogged or loose carburetor slow jet 2. Improper float level 3. Incorrect air screw adjustment 4. Carburetor linkage malfunctions 5. Air leak	Check, clean and retighten Adjust Adjust Adjust Tighten all air passage connections
Improper running of engine	Carburetor 1. Jet size too small 2. Improper float level 3. Clogged carburetor main jet 4. Carburetor linkage malfunctions 5. Air leak	Replace with larger size jet Adjust Clean and retighten Adjust Tighten all air passage connections



CHASSIS

Trouble	Probable Causes	Remedies
Heavy steering	1. Steering stem excessively tightened 2. Damaged steering stem steel balls 3. Bent steering 4. Low front tire pressure	Loosen the steering stem nut Replace Replace Add air to the specified pressure of 1.8kg/cm ² (25.6 psi)
Front and rear wheel wobble	1. Loose steering stem mounting bolt 2. Worn front and rear wheel bearings 3. Front or rear wheel rimset or distorted 4. Loose spoke 5. Defective tire	Retorque Replace bearing Repair or replace Retorque Replace
Soft suspension	1. Loss of spring tension 2. Excessive load	Replace
Hard suspension	1. Ineffective front fork damper 2. Ineffective rear damper	Repair Replace
Suspension noise	1. Front case or rear damper rubbing 2. Interference between cushion case and spring 3. Faulty fork stopper rubber 4. Insufficient front fork oil	Inspect cushion spring and case Repair or replace Replace Add damper oil
Defective brake	1. Front brake fluid - Insufficient brake fluid - Air in the brake system - Worn brake pad - Worn piston - Worn or distorted front brake disc - Brake lever out of adjustment 2. Rear brake - Worn brake lining - Worn brake shoe or poor contacts - Worn brake cam - Wet brakes from water or oil - Worn brake shaft - Brake pedal out of adjustment	Add brake fluid Bleed brake system Replace pad Replace piston Replace disc Readjust Replace Replace Replace Clean Replace Readjust

ELECTRICAL

Trouble	Probable causes	Remedies
Engine does not start	1. Battery - Discharged - Poor battery terminals contact 2. Main switch - Open or shorted circuit, disconnected connectors - Poor contact between main switch wire and wire harness 3. Ignition coil - Improperly insulated high tension coil - Open or shorted circuit in ignition coil 4. Contact breaker - Open circuit in the primary coil - Dirty ground point with oil or dust - Point gap out of adjustment - Improperly charged condenser	Recharge or replace Repair Repair Replace Replace Repair Clean Readjust Replace
Starting motor does not operate	1. Defective battery 2. Poor magnetic switch contact 3. Poor starting motor carbon brush contact	Charge or replace Repair or replace Repair or replace
Horn inoperative, poor sound or too weak sound	1. Horn - Cracked diaphragm 2. Horn button - Poor grounding 3. Wiring - Poor contact 4. Adjusting screw - Out of adjustment	Replace Repair Repair Readjust
Tail light and head light inoperative	1. Fuse - Blown fuse or broken bulb filament 2. Bulb - Burnt bulb filament 3. Switch - Poor lighting switch contact 4. Wiring	Replace Readjust Readjust
Stop light inoperative	1. Bulb - Burnt or broken bulb filament 2. Front and tail stop light switch - Malfunction of switch 3. Wiring - Poor contact of leads	Replace Readjust Readjust
Winker lamp blinks too fast or too slow	1. Bulb - Blinks unusually fast; improperly connected relay 2. Wiring - Blinks too fast; bulb with unsuitable wattage - Blinks too slow; burnt or broken bulb 3. Defective relay	Replace Replace Replace Replace

Trouble	Probable causes	Remedies
Winker lamp inoperative	1. Winker lamp switch - Poor winker relay contact - Open circuit in winker relay coil 2. Bulb - Bulb wattage is smaller than rated wattage 3. Relay - Poor winker relay contact - Improperly connected leads	Replace Replace Replace Replace Replace
No charging	1. Broken wire or shorted, loose connection 2. Faulty coil due to short or grounding 3. Faulty or shorted silicon diode 4. Broken or shorted lead wire at regulator 5. Regulator voltage at no load is too low	Repair or replace Replace Replace Repair or replace Readjust
Insufficient charging	1. Wiring - Broken wire, intermittent shorting or loose connection 2. Generator - Shorting across layer in the field coil (resistance indicated in continuity test) - Shorting across layer in stator coil - Open circuit in one of the stator coil - Faulty or shorted silicon diode 3. Regulator - Voltage below specified value at no load - Dirty or pitted points - Coil or resistor internally shorted 4. Battery - Low electrolyte level - Defective battery plates	Repair, retighten Replace Replace Replace Replace Replace Replace Replace Replace Replace Add distilled water Replace
Excessive charging	1. Wiring - P terminal circuit and F terminal circuit shorted resulting in split wound generator 2. Battery - Internal short 3. Regulator - Excessive voltage at no load voltage - Improper grounding - Broken coil lead wires	Repair Replace Repair Provide proper ground Repair, replace
Unstable charging voltage	1. Wiring - Bare wire shorting intermittently under vibration or broken wire making partial contact 2. Generator - Layer short (intermittent shorting) 3. Generator - Intermittent open circuit in the coil - Improperly adjusted voltage - Defective key switch - Dirty points	Repair or replace Repair or replace Repair or replace Readjust Replace Clean

Trouble	Probable cause	Remedies
Self discharge Battery discharges in addition to that caused by the connected load.	1. Dirty contact areas and case. 2. Contaminated electrolyte or electrolyte excessively concentrated.	1. Always keep the exterior clean. 2. Handle the replenishing electrolyte with care.
Q. Large discharge rate Specific gravity gradually lowers and around 1.100 (S.G.), the winker and horn no longer function.	1. The fuse and the wiring are satisfactory, but loads such as winker and horn do not function. In this condition the motorcycle will operate but with long use, both \oplus and \ominus plates will react with sulfuric acid and form lead sulfate deposits (sulfation) making it impossible to recharge.	1. When the specific gravity falls below 1.200 (20°C: 68°F), the battery should be recharged immediately. 2. When the battery frequently becomes discharged while operating at normal speed, check the generator for proper output. 3. If the battery discharges under normal charge output, it is an indication of overloading. Remove some of the excess load.
High charging rate The electrolyte level drops rapidly but the charge is always maintained at 100%, and the condition appears satisfactory. (Specific gravity over 1.260)	1. The deposit will heavily accumulate at the bottom and will cause internal shorting and battery damage.	1. Check to ensure proper charging rate.
Specific gravity drop Electrolyte evaporates	1. Shorted. 2. Inefficient charging. 3. Distilled water overfilled. 4. Contaminated electrolyte.	1. Check specific gravity measurement. 2. If the addition of distilled water causes a drop in specific gravity, add sulfuric acid and adjust to proper value.
Sulfation The electrode plates are covered with a white layer or spots.	1. Charging rate is too small or too large. 2. The specific gravity of the mixture of the electrolyte is improper. 3. Battery left in a discharge condition for a long period. (Left with the switch turned on) 4. Exposed to excessive vibration due to improper insulation. 5. Motorcycle stored during the cold season with the battery connected.	1. When motorcycle is in storage, the battery should be recharged once a month even though the motorcycle is not used. 2. Check the electrolyte periodically and always maintain the proper level. 3. In a lightly discharged condition, perform recharging and discharging several times by starting the engine.
Spark plug electrode coated with carbon deposit	1. Too rich a fuel mixture. 2. Excessive idle speed. 3. Poor quality gasoline. 4. Clogged air cleaner. 5. Use of cold spark plug.	Adjust carburetor. Adjust idle speed. Use good quality gasoline. Service the air cleaner. Use proper heat range plug.
Spark plug electrode fouled with oil	1. Worn piston ring. 2. Worn piston or cylinder. 3. Excessive clearances between valve guide and valve stem.	Replace piston ring. Replace piston or cylinder. Replace valve guide or valve.
Spark plug electrode overheated or burst	1. Use of hot spark plug. 2. Engine overheating. 3. Improper ignition timing. 4. Loose spark plug or damaged spark plug hole thread. 5. Too lean a fuel mixture.	Use proper heat range plug. Readjust ignition timing. Retighten plug or replace cylinder head. Adjust carburetor.
Damage	Spark plug overtightened.	Replace with a new spark plug.



12. MAINTENANCE SCHEDULE

	INITIAL SERVICE PERIOD 200 miles 300 km	REGULAR SERVICE PERIOD			
		1 month 300 miles 480 km	8 months 4,000 miles 6,400 km	6 months 3,000 miles 4,800 km	12 months 6,000 miles 9,600 km
This maintenance schedule is based upon average riding conditions. Machines subjected to severe use, or ridden in unusually dusty areas, require more frequent servicing.			Perform at every indicated interval or mileage interval, whichever occurs first.		
ENGINE OIL—Change	●	○			
OIL FILTER ELEMENT—Replace	●		○		
OIL FILTER SCREEN—Clean				○	
SPARK PLUGS —Clean and adjust gap or replace if necessary.				○	
*CONTACT POINTS AND IGNITION TIMING —Clean, check, and adjust or replace if necessary.	●			○	
*VALVE TAPPET CLEARANCE —Check, and adjust if necessary.	●			○	
*CAM CHAIN TENSION—Adjust	●			○	
PAPER AIR FILTER ELEMENT AND POLYURETHANE FOAM ELEMENT—Clean		(Service more frequently if operated in dusty areas)		○	
PAPER AIR FILTER ELEMENT—Replace				○	
*CARBURETORS—Check, and adjust if necessary.	●			○	
THROTTLE OPERATION —Inspect cables. Check, and adjust free play.	●			○	
FUEL FILTER SCREEN—Clean				○	
FUEL LINES—Check				○	
*CLUTCH—Check operation, and adjust if necessary.	●			○	
DRIVE CHAIN —Check, lubricate, and adjust if necessary.	●	○			
BRAKE FLUID LEVEL —Check, and add fluid if necessary.	●			○	
*BRAKE SHOES/PADS —Inspect, and replace if worn.				○	
BRAKE CONTROL LINKAGE —Check linkage, and adjust free play if necessary.	●			○	
*WHEEL RIMS AND SPOKES—Check. Tighten spokes and true wheels, if necessary.	●			○	
TIRES—Inspect and check air pressure.	●	○			
FRONT FORK OIL—Drain and refill	***●			○	
FRONT AND REAR SUSPENSION —Check operation.	●			○	
REAR FORK BUSHING —Grease, check for excessive looseness.				○	
*STEERING HEAD BEARING—Adjust				○	
BATTERY—Check electrolyte level, and add water if necessary.	●		○		
LIGHTING EQUIPMENT —Check and adjust if necessary.	●	○			
ALL NUTS, BOLTS, AND OTHER FASTENERS —Check security and tighten if necessary.	●	○			

Items marked * should be serviced by an authorized Honda dealer, unless the owner has proper tools and is mechanically proficient. Other maintenance items are simple to perform and may be serviced by the owner.

** INITIAL SERVICE PERIOD 200 MILES

*** INITIAL SERVICE PERIOD 3,000 MILES

13. TECHNICAL DATA

A. Specifications of CB 500

(CB 500 K1, K2)

	Metric	English
DIMENSION	Overall Length	2,105 mm (82.5 in.)
	Overall Width	825 mm
	Overall Height	1,115 mm
	Wheel Base	1,405 mm
	Seat Height	805 mm
	Foot Peg Height	315 mm
	Ground Clearance	155 mm
FRAME	Dry Weight	188 kg
	Type	Double cradle tubular steel
	F. Suspension, Travel	Telescopic fork, travel 121 mm, 4.8 in.
	R. Suspension, Travel	Swing arm, travel 78.5 mm, 3.1 in.
	F. Tire Size, Type	9.15-19 (4 PR) Rib tire, tire air pressure 1.8 kg/cm² 25.6 psi
	R. Tire Size, Type	(9.25-18) (4 PR) Rib tire, tire air pressure 2.0 kg/cm² 28.5 psi
	F. Brake, Lining Area	Disc brakes, lining area 258.8 cm²×2 32.38 in²×2
ENGINE	R. Brake, Lining Area	Internal expanding shoes, lining area 162.6 cm²×2 26.28 in²×2
	Fuel Capacity	14.0 lit.
	Fuel Reserve Capacity	4.0 lit.
	Cam Angle	60°
	Trail Length	145 mm
	Front Fork Oil Capacity	100 cc
	Types	Air-cooled, 4-stroke, O.H.C. engine
	Cylinder Arrangement	4-cylinder in-line
	Bore and Stroke	92.0×100.5 mm
	Displacement	498 cc
	Compression Ratio	9.0
	Carburetor, Venturi Dia.	Pour, piston valve, 22 mm dia.
	Valve Train	Chain drive overhead camshaft
	Maximum Horsepower	50 BHP (SAE)/9,000 rpm (44 BHP (GAE)/9,000 rpm)
	Maximum Torque	4.2 kg-m/7,500 rpm
	Oil Capacity	8.0 lit.
	Lubrication System	Forced pressure and wet sump

		Metric	English
ENGINE		Paper element	
Air Filter			
Valve Tipper Clearance	IN: 0.06, EX: 0.08 mm	IN: 0.002, EX: 0.005 in.	
Engine weight:	66 kg	142 lb.	
Air Screw Opening		1±1/8 turns	
Idle Speed		1,000 rpm	
Clutch		Wet, multi-plate	
Transmission		5-speed, constant mesh	
Primary Reduction		2.300	
Gear Ratio 1		2.555	
" II		1.685	
" III		1.260	
" IV		1.085	
" V		0.800	
Final Reduction	2.000, drive sprocket 17, driven sprocket 30 T		
Gear Shift Pattern		Left foot return type	
DRIVE TRAIN		Battery and ignition coil	
Ignition			
Starting System		Electrical motor and kick pedal	
Alternator		Three phase A.C. 12 V-0.2 KW/5,000 rpm	
Battery Capacity		12 V-15 AH	
Spark Plug		NCR D-7ES, DENSO X-22 RS	
Headlight	Low/high,	12 V-40 W/50 W	
Tail/stoplight	Tail/Stop,	12 V-52 W/6 CP (12 V-4 CP/52 CP)	
Turn Signal Light	Front/Rear	12 V-25 W/26 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)	
ELECTRICAL			

A. Specifications of CB 550

		Metric	English
DIMENSION	Overall Length	2,120 mm	83.5 in.
	Overall Width	826 mm	32.5 in.
	Overall Height	1,610 mm	48.9 in.
	Wheel Base	1,400 mm	55.2 in.
	Seat Height	805 mm	31.7 in.
	Foot Peg Height	315 mm	12.4 in.
	Ground Clearance	160 mm	6.3 in.
FRAME	Dry Weight	182 kg	403 lb.
	Type	Double cradle frame	
	R. Suspension, Travel	Telescopic fork, travel 121 mm	4.8 in.
	R. Suspension, Travel	Swing arm, travel 77.3 mm	3.0 in.
	R. Tire Size, Type	3.25-19 (4 PR) Rib tire, tire air pressure 2.0 kg/cm ²	29 psi
	R. Tire Size, Type	3.75-18 (4 PR) Block tire, tire air pressure 2.4 kg/cm ²	34 psi
	R. Brake, Lining Area	Disk brake, lining area 235.8 cm ² ×2	32.33 in ² ×2
	R. Brake, Lining Area	Internal expanding shoe, lining area 168.6 cm ² ×2	26.28 in ² ×2
	Fuel Capacity	14.0 lit.	3.7 U.S. gal. 3.1 Imp. gal.
	Fuel Reserve Capacity	4.0 lit.	1.1 U.S. gal. 0.9 Imp. gal.
ENGINE	Center Angle	64°	
	Trail Length	105 mm	4.1 in.
	Front Fork Oil Capacity	125-181 cc	9.3-9.5 oz.
	Type	Air-cooled, 4-stroke, O.H.C. engine	
	Cylinder Arrangement	4-cylinder in-line	
	Bore and Stroke	58.5×50.5 mm	2.289×1.972 in.
ENGINE	Displacement	544 cc	32.9 cu. in.
	Compression Ratio	8.0	
	Carburetor, Venturi Ds.	Four, piston valve, 22 mm dia.	
	Valve Train	Chain drive overhead camshaft	
	Maximum Horsepower	50 BHP (SAE)/8,500 rpm	
	Maximum Torque	4.2 kg-m/7,500 rpm	30.4 lb-ft/7,500 rpm
	Oil Capacity	3.0 lit.	8.2 U.S. qt. 8.6 Imp. qt
	Lubrication System	Forced pressure and wet sump	



	Item	Metric	English
ENGINE	Air Filter	Paper element	
	Valve Tappet Clearance	IN: 0.05, EX: 0.08 mm	IN: 0.002, EX: 0.008 in.
	Engine weight	72 kg	156 lb.
	Air Screw Opening	1 1/2 ± 1/8 turns	
	Idle Speed	1,000 rpm	
DRIVE TRAIN	Clutch	Wet, multi-plate	
	Transmission	5-speed, constant mesh	
	Preliminary Reduction	3.063	
	Gear Ratio I	2.353	
	" II	1.686	
	" III	1.286	
	" IV	1.126	
	" V	0.900	
	Final Reduction	2.176, drive sprocket 17, driven sprocket 87 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	NCR 11-YER, DENSO E-22 ES	
	Headlight	Low/high, 12 V-40 W/50 W	
	Taillight/stoplight	Tail/Stop 12 V-32 W/32 CP	
	Turn Signal Light	Front/Rear 12 V-22 W/22 W	
	Speedometer Light	12 V-3 W	
	Tachometer Light	12 V-3 W	
Neutral Indicator Light	12 V-3 W		
Turn Signal Indicator Light	12 V-3 W		
High Beam Indicator Light	12 V-9 W		

B. Service Data (CB 500)

ENGINE

mm (in.)

Item	Standard value	Serviceable limit
Intake cam height	34.98~34.97 (1.3742~1.3758)	34.95 (1.3738)
Exhaust cam height	34.63~34.57 (1.3505~13.610)	34.45 (1.3582)
Ramrod	—	0.1 (0.004)

Item	Standard value	Serviceable limit
Cylinder bore	58~59.00 (2.204~2.205)	60.1 (2.208)

Item	Standard value	Serviceable limit
Piston dia.	55.98~55.97 (2.194~2.198)	55.95 (2.198)
Piston pinhole	—	15.98 (0.593)

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

Item	Standard value	Serviceable limit
Piston ring side clearance	Standard value	Serviceable limit
Top ring	0.040~0.076 (0.0015~0.0026)	0.18 (0.007)
Second ring	0.025~0.056 (0.0008~0.0022)	0.18 (0.006)
Oil ring	0.000~0.066 (0.0007~0.0021)	0.15 (0.006)

Item	Standard value	Serviceable limit
Ring groove clearance	15.002~15.008 (0.59052~0.59087)	Replace if over 15.003 (0.5907)

Item	Standard value	Serviceable limit
Valve stem clearance	Intake 0.013~0.035 (0.00038~0.00137)	0.080 (0.0031)
	Exhaust 0.030~0.050 (0.0011~0.0019)	0.10 (0.0038)
Valve stem diameter	Intake 5.455~5.465 (0.2145~0.2150)	—
	Exhaust 5.450~5.445 (0.2135~0.2140)	—
Valve face runout	—	0.05 (0.006)

Item	Standard value	Serviceable limit
Cylinder head flatness	—	0.5 (0.011)

Item	Standard value	Serviceable limit
Valve spring free length	Outer 40.4 (1.59)	39 (1.55)
	Inner 35.7 (1.40)	34.5 (1.35)
Loading (reference)	Outer 27.8 mm/45.5~50.6 kg (1.0 in) 100.54~110.57 lb-ft	
	Inner 29.2 mm/18.1~21.1 kg (1.2 in) 431.15~461.35 lb-ft	
Clutch piston wiper	—	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
Clutch disc thickness	3.8 (0.18)	3.6 (0.17)

Item	Standard value	Serviceable limit
Clutch spring free length	31.9 (1.25)	30.5 (1.20)
Spring strength	31.4~32 kg at 23 mm (227.94~230.5) at 0.80 in	—

Item	Standard value	Serviceable limit
Gear shift drum O.D.	38.275~38.95 (1.5758~1.5738)	39.9 (1.5739)
Gear shift L.D.	40.00~40.026 (1.5748~1.5757)	40.076 (1.5767)

Gear shift fork	Standard value	Serviceable limit
Center	5.93~6.00 (0.232~0.236)	5.60 (0.220)
Right & left	4.93~5.9 (0.194~0.197)	4.60 (0.181)

Item	Standard value	Serviceable limit
Crankshaft journal clearance	0.020~0.048 (0.00078~0.00191)	0.060 (0.0021)
Runout	—	0.05 (0.0019)
Journal end taper	—	0.05 (0.0019)