



IMPORTANT SAFETY NOTICE-

WWARNING Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.

CAUTION: Indicates a possibility of personal injury or equipment damage if instructions are not followed.

NOTE: Gives helpful information.

Detailed descriptions of standard workshop procedures, safety principles and service operations are not included. It is important to note that this manual contains *some* warnings and cautions against some specific service methods which could cause **PERSONAL INJURY** to service personnel or could damage a vehicle or render it unsafe. Please understand that those warnings could not cover all conceivable ways in which service, whether or not recommended by Honda might be done or of the possible hazardous consequences of each conceivable way, nor could Honda investigate all such ways. Anyone using service procedures or tools, whether or not recommended by Honda *must satisfy himself thoroughly* that neither personal safety nor vehicle safety will be jeopardized by the service methods or tools selected.

HOW TO USE THIS MANUAL

Sections 1 through 3 apply to the whole motorcycle, while sections 4 through 17 describe parts of the motorcycle, grouped according to location.

Find the section you want on this page, then turn to the table of contents on page 1 of that section.

Most sections start with an assembly or system illustration and all the required specifications, torque values, general instructions, tools and troubleshooting for the section. The subsequent pages give detailed procedures.

If you don't know the source of the trouble, see section 18, Troubleshooting.

All information, illustrations, directions and specifications included in this publication are based on the latest product information available at the time of approval for printing. Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation whatever.

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HONDA MOTOR CO., LTD. SERVICE PUBLICATIONS OFFICE

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GENERAL SAFETY

WARNING

- If the engine must be running to do some work, make sure the area is well-ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.
- The battery generates hydrogen gas which can be highly explosive. Do not smoke or allow flames or sparks near the battery, especially while charging it.

WARNING

- Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in your work area.
- The battery electrolyte contains sulfuric acid. Protect your eyes, skin and clothing. In case of contact, flush thoroughly with water and call a doctor if electrolyte gets in your eyes.

SERVICE RULES

- 1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalent. Parts that don't meet HONDA's design specifications may damage the ATC.
- 2. Use the special tools designed for this product to avoid damage and incorrect assembly.
- 3. Use only metric tools when servicing this ATC. Metric bolts, nuts, and screws are not interchangeable with English fasteners.
- 4. Install new gaskets, O-rings, cotter pins, and lock plates when reassembling.
- 5. When tightening bolts or nuts, begin with the larger-diameter or inner bolt first. Then tighten to the specified torque diagonally in 1-4 steps, unless a particular sequence is specified.
- 6. Clean parts in non-flammable or high flash point solvent upon disassembly.
- 7. Lubricate any sliding surfaces before reassembly.
- 8. After reassembly, check all parts for proper installation and operation.

SPECIFICATIONS

DIMENCIONS			
DIMENSIONS	Overall length		1,855 mm (73.0 in)
	Overall width		1,080 mm (42.5 in)
	Overall height		1,005 mm (39.6 in)
	Wheelbase		1,205 mm (39.6 in)
	Rear tread		800 mm (31.5 jn)
	Seat height		685 mm (27.0 in)
	Foot peg height		260 mm (10.2 in)
	Ground clearance		110 mm(4.3 in)
	Dry weight		149 kg (328 lb)
FRAME	Туре		Semi-double cradle
	Rim size	Front	9.2 × 9.0
		Rear	9.2 × 9.0
	Front tire size, pressure		25 x 12–9, 0.15 kg/cm ² (2.2 psi)
	Rear tire size, pressure		25 x 12–9, 0.15 kg/cm ² (2.2 psi)
	Front brake		Cable operated leading shoe
	Rear brake		Cable operated leading shoe
	Fuel capacity '	84:	11.5 liters (3.04 US gal, 2.53 lmp gal)
	After	84:	10.5 liters (2.77 US gal, 2.31 Imp gal)
	Fuel reserve capacity		1.0 liters (0.26 US gal, 0.22 Imp gal)
	Caster		69°
	Trail		10 mm (0.39 in)
ENGINE	Туре		Gasoline, air-cooled 4-stroke
	Cylinder arrangement		Single cylinder inclined 15°
	Bore x stroke		65.0 x 57.8 mm (2.56 x 2.28 in)
	Displacement		192 cc (11.7 cu in)
	Compression ratio		7.8 : 1
	Valve train		Overhead camshaft chain driven
	Maximum horsepower		13.0 BHP/7,000 rpm
	Maximum torque		1.46 kg-m/5,500 rpm
	Maximum torque		(10.6 ft-lb/5,500 rpm)
	Oil capacity		
			1.5 lit (1.59 US qt, 1.32 Imp qt) 1.3 lit (1.37 US qt, 1.14 Imp qt)
	t ubrightight austor		after draining Forced pressure and wet sump
	Lubrication system		
	Cylinder compression		11.0 ± 1.0 kg/cm ² (156 ± 14 psi) 5° BTDC
		OPENS	
		CLOSES	35° ABDC – at 1 mm lift
	Exhaust valve	OPENS	35° BBDC
		CLOSES	5° ATDC
	Valve clearance	Intake	0.05 mm (0.002 in)
	(Cold)	Exhaust	0.05 mm (0.002 in)
CARBURETOR	Туре		Piston valve
	Venturi dia.		22 mm (0.9 in)
	Main jet		#95
	Pilot screw opening		2-1/8 turns out
	Jet needle		3rd
	Float level		14 mm (0.55 in)
	Idle speed		1,400 ± 100 rpm

GENERAL INFORMATION

DRIVE TRAIN	Clutch		Wet multi-plate, semi-automatic
	Transmission		5-speed constant mesh
	Primary reduction		3.333 : 1
	Gear ratio	I	2,769 : 1
	(Posi-torque gear ratio)	Н	1.722 : 1
		HI	1.273 : 1
		IV	1.000 : 1
		V	0.815 : 1
	Final reduction		4.273 : 1
	Gearshift pattern		Left foot operated return system, N-1-2-3-4-5
	Drive chain		520, 92 Links
ELECTRICAL	Ignition		CDI
	Ignition timing	Initial	10 [°] ± 2 [°] BTDC at idle
		Full advance	$30^{\circ} \pm 2^{\circ}$ BTDC at 3,350 rpm
	Alternator	Capacity	70 W/5,000 rpm
	Battery		12V-14 AH
	Spark plug		DR8ES-L (NGK)
			X24ESR-U (ND)
	Spark plug gap		0.6–0.7 mm (0.024–0.028 in)
	Headlight		12 V 45 W/45 W
	Taillight		12 V 5 W

TORQUE VALUES

ENGINE

		Thread Size	Torque		
Item	Q'ty	(mm)	N∙m	kg-m	ft-lb
Cylinder head cap nut	4	8 x 1.25	28-30	2.8-3.0	20-22
Clutch lock nut	1	16 x 1.0	50-60	5.0-6.0	36-43
Centrifugal clutch lock nut	1	22 x 1.25	105-115	10.5-11.5	76-83
Clutch adjuster lock nut	1	8 x 1.25	19–25	1.9-2.5	14-18
Alternator flywheel bolt	1	8 x 1.25	4050	4.0-5.0	29-36
Valve adjuster cover	2	36 x 1.5	10-14	1.0-1.4	7-10
Oil filter screen cap	1	36 x 1.5	915	0.9-1.5	7–11
Spark plug	1	12 x 1.25	12-19	1.2-1.9	9–14
Cam sprocket bolt	2	6 x 1.0	8–12	0.8-1.2	6–9
Oil filter rotor cover bolt	3	6 x 1.0	10-14	1.0-1.4	7–10
Clutch lifter stopper bolt	1	8 x 1.25	18–25	1.8-2.5	13–18
Gearshift drum stopper arm bolt	1	6 x 1.0	10-14	1.0-1.4	7—10
Pulse generator screw	2	5 x 0.8	4-7	0.4-0.7	2.9-5
Pulse cover screw	2	5 × 0.8	4-7	0.4-0.7	2.9–5
Valve adjuster lock nut	2	6 x 0.75	15–18	1.5-1.8	11–13
Gearshift stopper plate bolt	1	6 x 1.0	8-12	0.8-1.2	6-9
Cam chain tensioner adjuster bolt	1	16 x 1.0	15-22	1.5-2.2	11-16
Cam chain tensioner check bolt	1	6 x 1.0	8-10	0.81.0	6-7
Decompressor lever guide bolt	1	6 x 1.0	5–7	0.5-0.7	3.6–5
Right crankcase protector screw	3	Self tapping screw	3–7	0.3-0.7	2.2-5

FRAME

	0/10	Thread Size	Torque		
ltem	Q'ty	(mm)	N⋅m	kg-m	ft-lb
Handlebar upper holder bolt	4	8 x 1.25	18-30	1.8-3.0	13-22
Handlebar lower holder nut	2	10 x 1.25	40-48	4.0-4.8	29-35
Fork top bridge bolt	2	12 x 1.25	50-70	5.0-7.0	36–51
Steering stem nut	1	22 x 1.0	5070	5.0-7.0	3651
Front axle	1	14 x 1.5	70–110	7.0-11.0	5180
Front hub nut	4	8 x 1.25	20-25	2.0-2.5	14–18
Rear brake drum nut (INNER)			35-45	3.5-4.5	25–33
(OUTER)	1	32 x 1.0	120-140	12.0-14.0	87-101
Rear hub nut	8	8 x 1.25	20-25	2.0-2.5	14-18
Rear axle nut	2	14 x 1.5	6080	6.0-8.0	43–58
Bearing holder bolt	4	12 x 1.25	50-70	5.0-7.0	36-51
Front fork mounting bolt	4	10 x 1.25	4050	4.0-5.0	29-36

GENERAL INFORMATION

Item	Q'ty	Thread Size		Torque		
Ttem		(mm)	N⋅m	_ kg-m	ft-lb	
Front engine hanger nut	2	10 x 1.25	40-48	4.0-4.8	29–35	
Front engine hanger nut	2	8 x 1.25	23–27	2.3–2.7	17–20	
Rear engine hanger nut upper	1	10 x 1.25	40-48	4.0-4.8	29-35	
Rear engine hanger nut lower	1	10 x 1.25	6080	6.0-8.0	44—57	ß
Upper engine hanger nut	1	8 x 1.25	20–25	2.0-2.5	14–18	
Carburetor nut	2	6 x 1.0	6–9	0.6-0.9	4.5-7	
Gearshift pedal	1	6 x 1.0	10-14	1.0-1.4	7-10	
Foot peg bolt	8	8 x 1.25	20–25	2.0-2.5	14–18	
Drive chain slider nut	2	6 x 1.0	6–9	0.6-0.9	4.5-7	
Front axle holder nut	4	6 x 1.0	10-14	1.0-1.4	7–10	
Air cleaner cover wing bolt	4	6 x 1.0	1.5–3	0.15-0.3	1.1-2.2	
Driven sprocket damper nut	4	8 x 1.25	25-30	2.5-3.0	18-22	

Torque specifications listed above are for the most important tightening points. It a torque specification is not listed, follow the standards given below.

STANDARD TORQUE VALUES

ltem	Torque N⋅m (kg⋅m, ft-lb)	Item	Torque N⋅m (kg-m, ft-lb)
5 mm bolt, nut	4.5-6 (0.45-0.6, 3.3-4.3)	5 mm screw	3.5-5 (0.35-0.5, 2.5-3.6)
6 mm bolt, nut	8-12 (0.8-1.2, 6-9)	6 mm screw	10-14 (1.0-1.4, 7-10)
8 mm bolt, nut	18–25 (1.8–2.5, 13–18)	6 mm flange bolt, nut	10-14 (1.0-1.4, 7.2-10)
10 mm bolt, nut	30-40 (3.0-4.0, 22-29)	8 mm flange bolt, nut	24-30 (2.4-3.0, 17-22)
12 mm bolt, nut	50-60 (5.0-6.0, 36-43)	10 mm flange bolt, nut	30-40 (3.0-4.0, 22-29)

TOOLS

SPECIAL

Description	Tool No.	Alternative	Ref. page
Valve guide reamer, 5.48 mm	07984-0980000		6-10
Clutch center holder	07923-9580000		8-12, 8-15
Lock nut wrench, 30 mm	07907-PD10000	Equivalent commercially available in U.S.A.	8-6, 8-10
Ball race remover	07944-1150001	M936027791774 (U.S.A.)	11-28
Universal bead breaker	GN-AH-958-BB1	Available in U.S.A. only	11-10
Lock nut spanner, 41 mm	07916-9580200	Not available in U.S.A.	12-10
Lock nut wrench, 41 mm	07916-9580300	07916–9580400	12-10
Bearing remover, 17 mm	07936-3710300		8-5
Bearing remover handle	07936-3710100		8-5
Sliding weight	07741-0010201	079363710200	8-5
Bearing remover, 15 mm	07936-KC10000		10-8
Hollow set wrench, 6 mm	07917-3230000	Equivalent commercially available in U.S.A.	11-20
Digital Multi-tester	KS-AHM-32003	U.S.A. only	14-3

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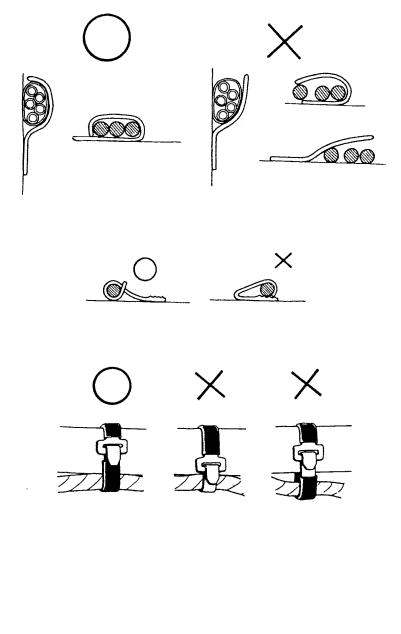
COMMON

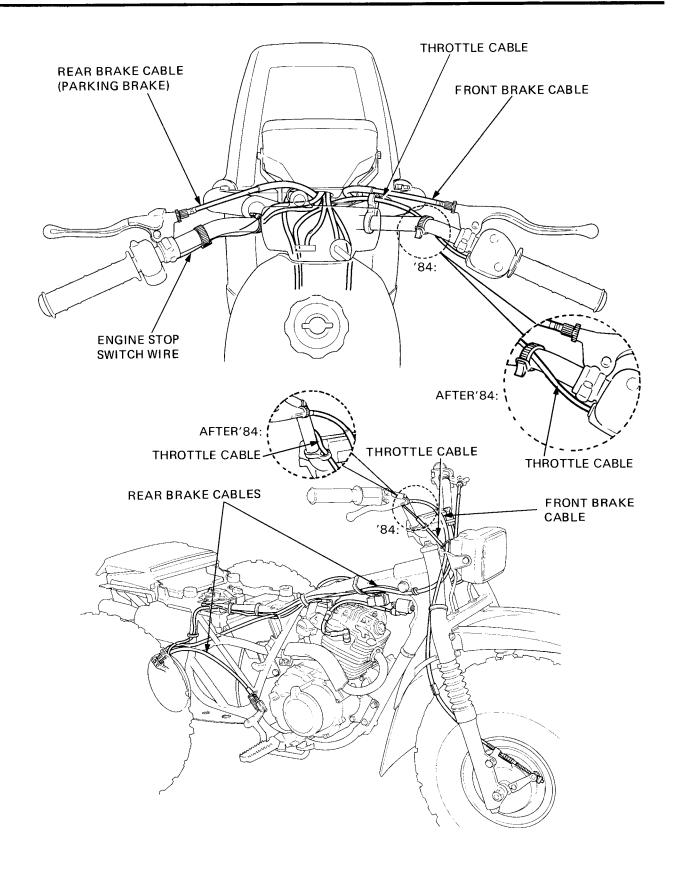
Description	Tool No.	Alternative	Ref. page
Float level gauge	07401-0010000		4-9
Pin spanner	07702-0020000	07902-0010000, 07702-0010000 or	11-28, 11-30
		M9361–412–099788 (Available in U.S.A.)	
Valve adjusting wrench, 10 x 12 mm	07708-0030200	707908-3230000	3-6
Valve adjuster A	07708-0030300	-07908-3230000	3-6
Lock nut wrench, 20 x 24 mm	07716-0020100	07916-3710000	8-12, 8-15
Lock nut wrench, 30 x 32 mm	07716-0020400	Commercially available in U.S.A.	11-27, 11-30
Extension bar	07716-0020500	Commercially available in U.S.A.	8-6, 8-10
Flywheel puller	07733-0010000	07933–2000000	9-8
Valve guide remover 5.5 mm	07742-0010100	07942-3290100	6-10
Valve guide driver B	07742-0020200	07942-3290200	6-10
Attachment, 37 x 40 mm	07746-0010200		11-29
Driver	07749-0010000	07949–6110000	8-5, 10-8
Pilot, 15 mm	07746-0040300		11-14
Attachment, 42 x 47 mm	07746-0010300		10-8, 11-14
Pilot, 35 mm	07746-0040800		12-17
Attachment, 62 x 68 mm	07746-0010500		12-17
Valve spring compressor	07757-0010000	07957-3290001	6-8, 6-14
Driver	07746-0030100		10-4
Pilot, 30 mm	07746-0040700		10-8
Attachment, 32 x 35 mm	07746-0010100		10-8
Pilot, 20 mm	07746-0040500		10-8
Attachment, 52 x 55 mm	077460010400		10-8
Attachment, 30 mm I.D.	07746-0030300		10-4
Fork seal driver	07747-0010100	07947-3550000	11-25
Fork seal driver attachment C	07747-0010400		11-25
Pilot, 17 mm	07746-0040300		8-5

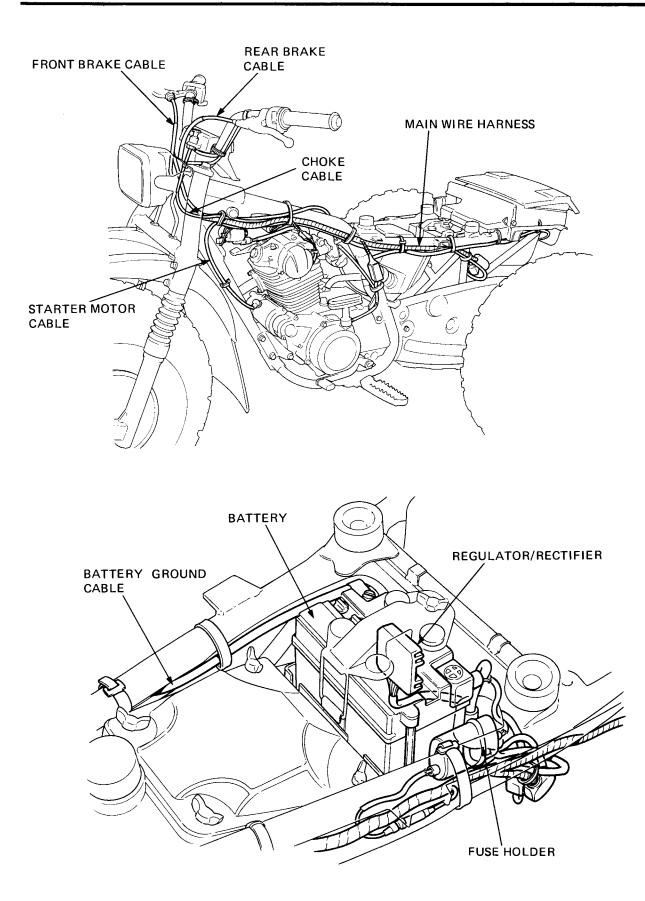
CABLE & HARNESS ROUTING

Note the following when routing cables and wire harnesses:

- A loose wire, harness or cable can be a safety hazard. After clamping, check each wire to be sure it is secure.
- Do not squeeze wires against the weld or end of its clamp when a weld-on clamp is used.
- Secure wires and wire harnesses to the frame with their respective wire bands at the designated locations. Tighten the bands so that only the insulated surfaces contact the wires or wire harnesses.
- Route harnesses so they are not pulled taut or have excessive slack.
- Protect wires and harnesses with electrical tape or tubes if they contact a sharp edge or corner. Clean the attaching surface thoroughly before applying tape.
- Do not use a wire or harness with a broken insulator. Repair by wrapping them with protective tape or replace them.
- Route wire harnesses to avoid sharp edges or corners.
- Also avoid the projected ends of bolts and screws.
- Keep wire harnesses away from the exhaust pipes and other parts that get hot.
- Be sure grommets are seated in their grooves properly.
- After clamping, check each harness to be certain that it is not interferring with any moving or sliding parts.
- Wire harnesses routed along the handlebars should not be pulled taut, have excessive slack, be pinched, or interfere with adjacent or surrounding parts in all steering positions.
- After routing, check that the wire harnesses are not twisted or kinked.









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