Official

# HONDA

**SHOP MANUAL** 

ATC 185 ATC 185S ATC 200



ATC 185 '80 ATC 185S/200 '81-83

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## IMPORTANT SAFETY NOTICE -

WARNING

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 possibly 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 method or tools selected.



## HOW TO USE THIS MANUAL

Sections 1 through 3 apply to the whole motorcycle, while sections 4 through 15 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, TROUBLE-SHOOTING.

Read Technical Feature section 17 if you are unfamiliar with the ATC185/200 clutch operation.

Refer to the addendums at the back of the manual for 1981 and subsequent model year information.

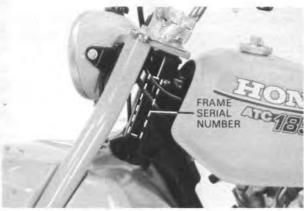
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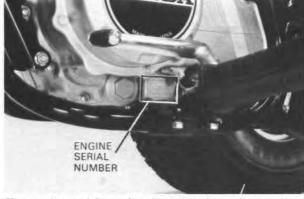


## MODEL IDENTIFICATION





The frame serial number is stamped on the steering head left side.



The engine serial number is stamped on the crankcase lower left side.



The carburetor identification number is on the carburetor body right side.



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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.

#### WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in your work area.

## 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 motorcycle.
- 2. Use the special tools designed for this product to avoid damage and incorrect assembly.
- 3. Use only metric tools when servicing this motorcycle. 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 2-3 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**

DIMENSIONS	Overal length	1,820 mm (71.7 in)	
	Overall width	1,110 mm (43.7 in)	
	Overall height	995 mm (39.2 in)	
	Wheel base	1,160 mm (45.7 in)	
	Rear tread	805 mm (31.5 h)	
	Seat height	680 mm (26.8 in)	
	Foot peg height	275 mm (10.8 in)	
	Ground clearance	130 mm (5.1 in)	
	Dry weight	137 kg (302 lb)	
FRAME	Туре	Semi-double cradle	
	Rim size Front	10.0 x 9.0	
	Rear	10.0 × 9.0	
	Front tire size, pressure	25 x 12-9, 0.15 kg/cm <sup>2</sup> (2.2 psi)	
	Rear tire size, pressure	25 x 12-9, 0.15kg/cm <sup>2</sup> (2.2 psi)	
	Front brake	Cable operated leading shoe	
	Rear brake	Cable operated leading shoe	
	Fuel capacity	8.8 liters (2.3 US gal, 1.9 Imp gal)	
	Fuel reserve capacity	1.6 liters (0.42 US gal, 0.35 Imp gal)	
	Caster	70°30′	
	Trail	30 mm (1.2 in)	
ENGINE	Туре	Gasoline, air-cooled 4-stroke	
	Cylinder arrangement	Single cylinder inclined 15°	
	Bore x stroke	63.0 x 57.8 mm (2.48 x 2.28 in)	
	Displacement	180.2 cc (11.01 cu in)	
	Compression ratio	8.0:1	
	Valve train	Overhead camshaft chain driven	
	Maximum hosepower	13 BHP/7,000 rpm	
	Maximum torque	1.38 kg-m/5,500 rpm	
		(9.26 ft-lb/5,500 rpm)	
	Oil capacity	1.35 lit (1.43 US qt, 1.19 Imp qt)	
		0.95 lit (1.00 US qt, 0.84 Imp qt)	
		after draining	
	Lubrication system	Forced pressure and wet sump	
	Cylinder compression	11 ± 1.0 kg/cm <sup>2</sup> (156 ± 14 psi)	
	Intake valve OPENS	5° BTDC	
	CLOSES	35° ABDC	
	Exhaust valve OPENS	35° BBDC at 1 mm lift	
	CLOSES	5° ATDC	
	Valve clearance Intake	0.05 mm (0.002 in)	
F	(Cold) Exhaust	0.05 mm (0.002 in)	
CARBURETOR	Туре	Piston valve	
	Main jet	# 95	
	Pilot screw opening	2 turns out	
	Float level	12.5 mm (0.49 in)	
	Idle speed	1,400 ± 100 rpm	
	Venturi dia.	22 mm (0.9 in)	



DRIVE TRAIN	Clutch		Wet multi-plate, semi-automatic
	Transmission		5-speed constant mesh
	Primary reduction		3.333
	Gear ratio	1	2.769
		Ü	1.722
		111	1.273
		IV	1.000
7		V	0.815
	Final reduction		4.273
	Gearshift pattern		Left foot operated return system, N-1-2-3-4-
	Drive chain		520, 90 L
ELECTRICAL	Ignition		CDI
	Ignition timing	Initial	10° ± 2° BTDC at idle
		Full advanve	30° ± 2° BTDC at 3,350 rpm
	Alternator	Capacity	A. C. generator, 12V 50W/5,000 rpm
	Spark plug	USA model	X24ES-U (ND)
			D8EA (NGK)
		Canada model	X24ESR-U (ND)
			DR8ES-L (NGK)
	Spark plug gap		0.6-0.7 mm (0.024-0.028 in)
	Headlight		12V 45W/45W
	Taillight		12V (5W)



# TORQUE VALUES

#### ENGINE

Item	Q'ty	Thread Size	Torque	
	u ty	(mm)	kg-m	ft-lb
Cylinder head bolt	4	8 x 1.25	1.8-2.0	13-14
Clutch lock nut	1	16 x 1.0	4.0-5.0	29-36
Centrifugal clutch lock nut	1	22 x 1.25	10.5-11.5	76-83
Clutch adjuster lock nut	1	8 x 1.25	1.9-2.5	14-18
A. C. generator rotor nut	1	12 x 1.25	6.5-7.5	47-54
Valve adjuster cover	2	36 x 1.5	1.0-1.4	7-14
Oil filler cap	1	36 x 1.5	1.0-2.0	7-10
Spark plug	1	12 x 1.25	1.2-1.9	9-14
Cam sprocket bolt	2	6 x 1.0	0.8-1.2	6-9
Oil filter rotor cover bolt	3	6 x 1.0	1.0-1.4	7-10
Clutch lifter stopper bolt	1	8 x 1.25	1.8-2.5	13-18
Gearshift drum stopper arm bolt	1	6 x 1.0	1.0-1.4	7-10
Pulser generator screw	2	5 x 0.5	0.4-0.7	2.9-4.3
Pulser cover screw	2	5 x 0.8	0.4-0.7	2.9-4.3
Valve adjuster lock nut	2	6 x 0.75	1.5-1.8	11-13
Gearshift stopper plate bolt	1	6 x 1.0	0.8-1.2	6-9
Clutch bolt	4	6 x 1.0	1.0-1.4	7-10
Recoil starter driven pulley	4	6 x 1.0	1.0-1.4	7-10
Cam chain tensioner adjust bolt	1	16 x 1.0	1.5-2.2	11-16
Cam chain tensioner check bolt	1	6 x 1.0	0.8-1.0	6-7
Decompressor lever pivot bolt	1	6 x 1.0	0.5-0.7	3.6-5.
Drive sprocket bolt	3	6 x 1.0	0.8-1.2	6-9
Right crankcase protector screw	3	Self tapping screw	0.3-0.7	2.2-5.

#### FRAME

Item	Q'ty	Thread Size (mm)	Torque	
			kg-m	ft-lb
Handlebar upper holder bolt	4	6 x 1.0	0.7-1.2	5-9
Handlebar lower holder nut	2	10 x 1.25	4.0-4.8	29-35
Fork top bridge bolt	2	10 x 1.25	4.0-4.8	29-35
Steering stem nut	1	22 x 1.0	5.0-7.0	36-51
Front axle nut	2	12 x 1.25	5.0-7.0	36-51
Front hub nut	4	8 x 1.25	1.9-2.5	14-18
Front brake drum bolt	3	8 x 1.25	1.9-2.5	14-18
Front brake panel bolt	1	8 x 1.25	2.1-2.7	15-20
Front/rear rim nut	12	8 x 1.25	1.9-2.5	14-18
Damper holder nut	5	8 x 1.25	2.1-2.7	15-20
Rear brake drum nut	2	32 x 1.0	6.0-8.0	43-58
Rear hub nut	8	8 x 1.25	1.9-2.5	14-18
Rear axle nut	2	14 x 1.5	6.0-8.0	43-58
Bearing holder bolt	4	12 x 1.25	5.0-7.0	36-51



in the second	0/4.	Thread Size (mm)	Tor	Torque	
Item	Q'ty		kg-m	ft-lb	
Front engine hanger nut	2	10 x 1.25	4.0-4.8	29-35	
Front engine hanger nut	2	8 x 1.25	2.3-2.7	17-20	
Rear engine hanger nut	2	10 x 1.25	4.0-4.8	29-35	
Upper engine hanger nut	1	8 x 1.25	1.9-2.5	14-18	
Carburetor nut	2	6 x 1.0	0.6-0.9	4.3-6.5	
Gearshift pedal	1	6 x 1.0	0.7-1.2	5-8.7	
Foot peg bolt	8	8 x 1.25	1.9-2.5	14-18	
Mud guard bolt	11	5 x 0.8	0.4-0.8	2.9-5.8	
Drive chain slider nut	2	6 x 1.0	0.6-0.9	4.3-6.5	

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

#### STANDARD TORQUE VALUES

Item	Torque kg-m (ft-lb)	Item	Torque kg-m (ft-lb)
5 mm bolt, nut	0.45-0.6 (3.3-4.3)	5 mm screw	0.35-0.5 (2.5-3.6)
6 mm bolt, nut	0.8-1.2 (5.8-8.7)	6 mm screw	0.7-1.1 ( 5-8 )
8 mm bolt, nut	1.8-2.5 (13-18)	6 mm flange bolt, nut	1.0-1.4 (7.2-10)
10 mm bolt, nut	3.0-4.0 (22-29)	8 mm flange bolt, nut	2.4-3.0 (17-22)
12 mm bolt, nut	5.0-6.0 (36-43)	10 mm flange bolt, nut	3.0-4.0 (22-29)



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