

1997-2004



HONDA

SERVICE MANUAL

TRX250TE/TM

FOURTRAX®

RECON™

HOW TO USE THIS MANUAL

This service manual describes the service procedures for the TRX250 TM/TE (Recon).

Follow the Maintenance Schedule (Section 3) recommendations to ensure that the vehicle is in peak operating condition and the emission levels are within the standards set by the California Air Resources Board.

Performing the first scheduled maintenance is very important. It compensates for the initial wear that occurs during the break-in period.

Sections 1 and 3 apply to the whole vehicle. Section 2 illustrates procedures for removal/installation of components that may be required to perform service described in the following sections.

Sections 4 through 21 describe parts of the vehicle, grouped according to location.

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

Most sections start with an assembly or system illustration, service information and troubleshooting for the section. The subsequent pages give detailed procedure.












If you do not know the source of the trouble, go to section 22, Troubleshooting.

CONTENTS

	GENERAL INFORMATION	1
	FRAME/BODY PANELS/EXHAUST SYSTEM	2
	MAINTENANCE	3
ENGINE AND DRIVE TRAIN	LUBRICATION SYSTEM	4
	FUEL SYSTEM	5
	ENGINE REMOVAL/INSTALLATION	6
	CYLINDER HEAD/CYLINDER/PISTON	7
	CLUTCH	8
	GEARSHIFT LINKAGE	9
	ALTERNATOR/STARTER CLUTCH	10
	CRANKSHAFT/TRANSMISSION	11
CHASSIS	FRONT WHEEL/SUSPENSION/STEERING	12
	REAR WHEEL/SUSPENSION	13
	BRAKE SYSTEM	14
	REAR DRIVING MECHANISM	15
ELECTRICAL	BATTERY/CHARGING SYSTEM	16
	IGNITION SYSTEM	17
	ELECTRIC STARTER	18
	LIGHTS/SWITCHES	19
	ELECTRIC SHIFT PROGRAM (After 2001: TE model)	20
	WIRING DIAGRAMS	21
	TROUBLESHOOTING	22
	INDEX	23

SYMBOLS

The symbols used throughout this manual show specific service procedures. If supplementary information is required pertaining to these symbols, it would be explained specifically in the text without the use of the symbols.

	Replace the part(s) with new one(s) before assembly.
	Use recommended engine oil, unless otherwise specified.
	Use molybdenum oil solution (mixture of the engine oil and molybdenum grease in a ratio of 1 : 1).
	Use multi-purpose grease (Lithium based multi-purpose grease NLGI # 2 or equivalent).
	Use molybdenum disulfide grease (containing more than 3% molybdenum disulfide, NLGI # 2 or equivalent). Example: Molykote® BR-2 plus manufactured by Dow Corning, U.S.A. Multi-purpose M-2 manufactured by Mitsubishi Oil, Japan
	Use molybdenum disulfide paste (containing more than 40% molybdenum disulfide, NLGI # 2 or equivalent). Example: Molykote® BR-2 plus, manufactured by Dow Corning, U.S.A. Honda Moly 60 (U.S.A. only) Rocol ASP manufactured by Rocol Limited, U.K. Rocol Paste manufactured by Sumico Lubricant, Japan
	Use silicone grease.
	Apply a locking agent. Use a middle strength locking agent unless otherwise specified.
	Apply sealant.
	Use DOT 3 or DOT 4 brake fluid. Use the recommended brake fluid unless otherwise specified.
	Use Fork or Suspension Fluid.

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>

1. GENERAL INFORMATION

1

GENERAL SAFETY	1-1	LUBRICATION & SEAL POINTS	1-18
SERVICE RULES	1-2	CABLE & HARNESS ROUTING	1-21
MODEL IDENTIFICATION	1-3	EMISSION CONTROL SYSTEMS	1-32
SPECIFICATIONS	1-4	EMISSION CONTROL INFORMATION LABEL (CALIFORNIA TYPE ONLY)	1-33
TORQUE VALUES	1-13		
TOOLS	1-16		

GENERAL SAFETY

CARBON MONOXIDE

If the engine must be running to do some work, make sure the area is well ventilated. Never run the engine in an enclosed area.

▲WARNING

The exhaust contains poisonous carbon monoxide gas that can cause loss of consciousness and may lead to death.

Run the engine in an open area or with an exhaust evacuation system in an enclosed area.

GASOLINE

Work in a well ventilated area. Keep cigarettes, flames or sparks away from the work area or where gasoline is stored.

▲WARNING

Gasoline is extremely flammable and is explosive under certain conditions. KEEP OUT OF REACH OF CHILDREN.

HOT COMPONENTS

▲WARNING

Engine and exhaust system parts become very hot and remain hot for some time after the engine is run. Wear insulated gloves or wait until the engine and exhaust system have cooled before handling these parts.

USED ENGINE OIL

▲WARNING

Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil. KEEP OUT OF REACH OF CHILDREN.

BRAKE FLUID

CAUTION:

Spilling fluid on painted, plastic or rubber parts will damage them. Place a clean shop towel over these parts whenever the system is serviced. KEEP OUT OF REACH OF CHILDREN.

BRAKE DUST

Never use an air hose or dry brush to clean the brake assemblies. Use an OSHA-approved vacuum cleaner or alternate method approved by OSHA, designed to minimize the hazard caused by airborne asbestos fibers.

▲WARNING

Inhaled asbestos fibers have been found to cause respiratory disease and cancer.

GENERAL INFORMATION

BATTERY HYDROGEN GAS & ELECTROLYTE

▲WARNING

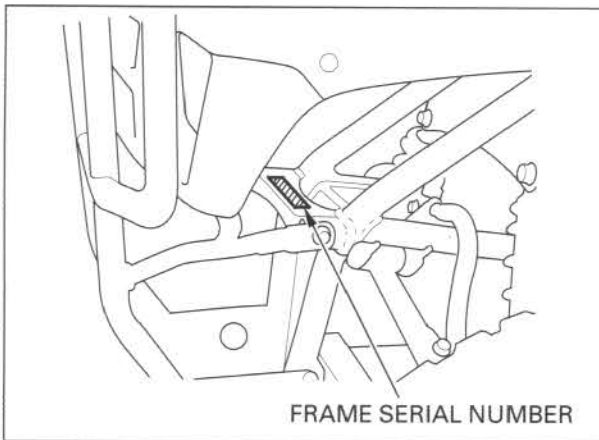
- *The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging.*
- *The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing and a face shield.*
 - *If electrolyte gets on your skin, flush with water.*
 - *If electrolyte gets in your eyes, flush with water for at least 15 minutes and call a physician immediately.*
- *Electrolyte is poisonous.*
 - *If swallowed, drink large quantities of water or milk and follow with milk of magnesia or vegetable oil and call a physician. KEEP OUT OF REACH OF CHILDREN.*

SERVICE RULES

1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that do not meet HONDA's design specifications may cause damage to the vehicle.
2. Use the special tools designed for this product to avoid damage and incorrect assembly.
3. Use only metric tools when servicing the vehicle. 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 incremental steps unless a particular sequence is specified.
6. Clean parts in cleaning solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
7. After reassembly, check all parts for proper installation and operation.
8. Route all cable and harness routing as shown on pages 1-21 through 1-31 Cable and Harness Routing.

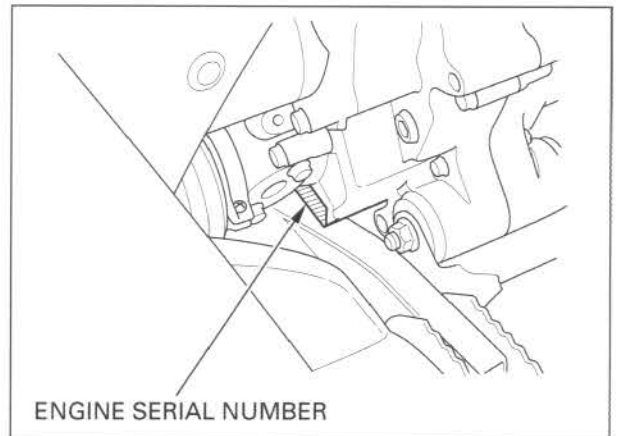
MODEL IDENTIFICATION

'97 SHOWN; AFTER '97 SIMILAR



FRAME SERIAL NUMBER

The frame serial number is stamped on the front of the frame.



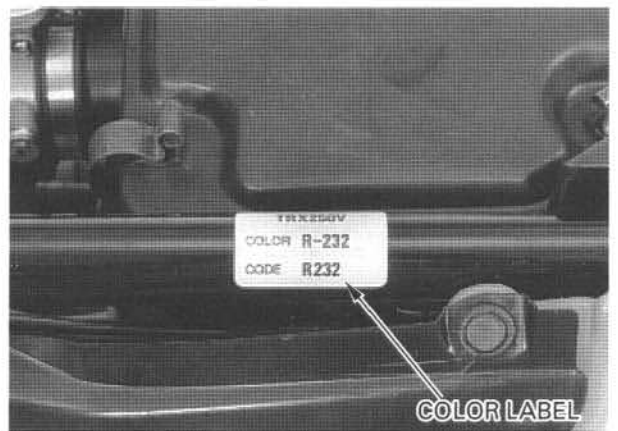
ENGINE SERIAL NUMBER

The engine serial number is stamped on the rear half of the lower crankcase, viewed from the right side.



CARBURETOR NUMBER

The carburetor identification numbers are stamped on the right side of the carburetor body as shown.



COLOR LABEL

The color label is attached to the frame under the seat as shown. When ordering color-coded parts, always specify the designated color code.

GENERAL INFORMATION

SPECIFICATIONS

GENERAL		SPECIFICATIONS
	ITEM	
DIMENSIONS	Overall length	1,794 mm (70.6 in)
	Overall width	1,034 mm (40.7 in)
	Overall height	1,054 mm (41.5 in)
	Wheelbase	1,131 mm (44.5 in)
	Front tread	783 mm (30.8 in)
	Rear tread	780 mm (30.7 in)
	Seat height	777 mm (30.6 in)
	Footpeg height	'97 - 2001: 298 mm (11.7 in) After 2001: TM: 298 mm (11.7 in) /TE: 306 mm (12.0 in)
	Ground clearance	152 mm (6.0 in)
	Dry weight	'97 - 2001: 180 kg (397 lbs) After 2001: TM: 184 kg (406 lbs)/TE: 188 kg (414 lbs)
	Curb weight	'97 - 2001: 188 kg (414 lbs) After 2001: TM: 191 kg (421 lbs)/TE: 195 kg (430 lbs)
	Maximum weight capacity	175 kg (386 lbs)
	FRAME	Frame type
Front suspension		Double wish-bone
Front wheel travel		130 mm (5.1 in)
Front damper		Double tube
Rear suspension		Swingarm
Rear wheel travel		125 mm (4.9 in)
Rear damper		Double tube
Front tire size		AT22 × 7-11 ★
Rear tire size		AT22 × 10-9 ★
Front rim size		11 × 5.5 AT
Rear rim size		9 × 8.0 AT
Tire brand (Goodyear) FR/RR		TRACKER HP
Front brake		Hydraulic drum brake
Rear brake		Mechanical drum brake
Toe		Toe-in: 8 mm (5/16 in)
Caster angle		8°
Camber angle		0.1°
Trail length	42 mm (1-5/8 in)	
Fuel tank capacity	9.1 ℓ (2.40 US gal , 2.00 Imp gal)	
Fuel tank reserve capacity	2.4 ℓ (0.63 US gal , 0.53 Imp gal)	
ENGINE	Bore and stroke	68.5 × 62.2 mm (2.70 × 2.45 in)
	Displacement	229 cm ³ (14.0 cu-in)
	Compression ratio	9.0 : 1
	Valve train	Overhead valve
	Intake valve opens	8° BTDC
	Intake valve closes	37° ABDC
	Exhaust valve opens	38° BBDC
	Exhaust valve closes	7° ATDC
	Lubrication system	Forced pressure and wet sump
	Oil pump type	Trochoid
	Cooling system	Air cooled
	Air filtration	Oiled double urethane
	Crankshaft type	Unit type, two main journals
	Engine dry weight	'97 - 2001: 34.6 kg (76.3 lbs) After 2001: TM: 35.9 kg (79.1 lbs) /TE: 37.4 kg (82.5 lbs)
Cylinder arrangement	Single cylinder, longitudinally installed	

GENERAL (Cont'd)		
	ITEM	SPECIFICATIONS
CARBURETOR	Carburetor type Throttle bore	Piston valve 20 mm (0.8 in)
DRIVE TRAIN	Clutch system Clutch operation system Transmission Primary reduction Final reduction Gear ratio '97 – 2001: 1st 2nd 3rd 4th 5th Reverse After 2001: 1st 2nd 3rd 4th 5th Reverse Gearshift pattern	Centrifugal & multi-plate, wet Automatic Constant mesh, 5-speed with reverse 3.086 (71/23) 3.692 (48/13) 3.545 (39/11) 2.267 (34/15) 1.631 (31/19) 1.273 (28/22) 1.042 (25/24) 5.850 (39/20 × 33/11) 3.231 (42/13) 2.167 (39/18) 1.667 (35/21) 1.280 (32/25) 1.042 (25/24) 5.550 (39/20 × 37/13) Left foot operated return system ('97 – 2001/After 2001: TM) Electric shift (left hand operated) return system (After 2001: TE) R – N – 1 – 2 – 3 – 4 – 5
ELECTRICAL	Ignition system Starting system Charging system Regulator/rectifier Lighting system	AC-CDI Starter motor and emergency recoil starter Single phase output alternator SCR shorted/single phase full wave rectification Battery

GENERAL INFORMATION

Unit: mm (in)

LUBRICATION SYSTEM		ITEM		SPECIFICATIONS	SERVICE LIMIT
Engine oil capacity	At draining	'97 – 2001	1.6 ℓ (1.7 US qt , 1.4 Imp qt)	————	
		After 2001	1.5 ℓ (1.6 US qt , 1.3 Imp qt)	————	
	At disassembly	'97 – 2001	1.8 ℓ (1.9 US qt , 1.6 Imp qt)	————	
		After 2001	1.9 ℓ (2.0 US qt , 1.7 Imp qt)	————	
Recommended engine oil			HONDA GN4 4-stroke oil or equivalent motor oil API service classification SF or SG	————	
Oil pump rotor	Tip clearance	0.15 (0.006)		0.20 (0.008)	
	Body clearance	0.15 – 0.21 (0.006 – 0.008)		0.25 (0.010)	
	Side clearance	0.05 – 0.13 (0.002 – 0.005)		0.15 (0.006)	

FUEL SYSTEM		ITEM		SPECIFICATIONS
Carburetor identification number	'97 (except California type)		PDC1B	
	'97 California type/'98 – 2001 All types		PDC1C	
	After 2001		PDC1E	
Main jet		# 95		
Slow jet		# 38		
Jet needle clip position	'97		3rd groove from top	
	After '97		2nd groove from top	
Pilot screw	Initial opening	'97 (except California type)	2-7/8 turns out	
		'97 California type	2-3/4 turns out	
		'98 – 2001	2-5/8 turns out	
		After 2001	2 turns out	
	High altitude setting		1/8 turns in from initial opening	
Float level		14 mm (0.6 in)		
Idle speed		1,400 ± 100 rpm		
Throttle lever free play		3 – 8 mm (1/8 – 5/16 in)		



Suggest:

For more complete manuals. Please go to the home page.

<https://www.ebooklibonline.com>

If the above button click is invalid. Please download this document first, and then click the above link to download the complete manual.

Thank you so much for reading

Unit: mm (in)

CYLINDER HEAD/CYLINDER/PISTON ITEM			SPECIFICATIONS	SERVICE LIMIT	
Cylinder compression			1,275 kPa (13.0 kgf/cm ² , 185 psi) at 800 rpm	—————	
Cylinder head warpage			—————	0.10 (0.004)	
Valve and valve guide	Valve clearance	IN/EX	0.13 (0.005)	—————	
	Valve stem O. D.	IN	5.475 – 5.490 (0.2156 – 0.2161)	5.45 (0.215)	
		EX	5.455 – 5.470 (0.2148 – 0.2154)	5.43 (0.214)	
	Valve guide I. D.	IN	5.500 – 5.512 (0.2165 – 0.2170)	5.525 (0.2175)	
		EX	5.500 – 5.512 (0.2165 – 0.2170)	5.525 (0.2175)	
	Stem-to-guide clearance	IN	0.010 – 0.037 (0.0004 – 0.0015)	0.12 (0.005)	
		EX	0.030 – 0.057 (0.0012 – 0.0022)	0.14 (0.006)	
Valve seat width	IN/EX	1.2 (0.05)	1.5 (0.06)		
Valve spring free length	Inner	IN/EX	36.95 (1.455)	35.7 (1.41)	
	Outer	IN/EX	41.01 (1.615)	39.8 (1.57)	
Rocker arm	Rocker arm I. D.	IN/EX	12.000 – 12.018 (0.4724 – 0.4731)	12.05 (0.474)	
	Rocker arm shaft O. D.	IN/EX	11.964 – 11.984 (0.4710 – 0.4718)	11.92 (0.469)	
	Rocker arm-to-shaft clearance		0.016 – 0.054 (0.0006 – 0.0021)	0.08 (0.003)	
Camshaft and cam follower	Cam lobe height	IN	35.393 – 35.552 (1.3934 – 1.3997)	35.2 (1.39)	
		EX	35.190 – 35.350 (1.3854 – 1.3917)	35.0 (1.38)	
	Cam follower O. D.	IN/EX	22.467 – 22.482 (0.8845 – 0.8851)	22.46 (0.884)	
	Cam follower bore I. D.	IN/EX	22.510 – 22.526 (0.8862 – 0.8868)	22.54 (0.887)	
	Cam follower-to-bore clearance		0.028 – 0.059 (0.0011 – 0.0023)	0.07 (0.003)	
Cylinder	I. D.		68.500 – 68.510 (2.6968 – 2.6972)	68.6 (2.70)	
	Out-of-round		—————	0.10 (0.004)	
	Taper		—————	0.10 (0.004)	
	Warpage		—————	0.10 (0.004)	
Piston, piston ring	Piston mark direction		“IN” mark toward the intake side	—————	
	Piston O. D.		68.462 – 68.482 (2.6953 – 2.6961)	68.4 (2.69)	
	Piston O. D. measurement point		6 – 18 (0.2 – 0.7) from bottom of the skirt	—————	
	Piston pin bore I. D.		15.002 – 15.008 (0.5906 – 0.5909)	15.04 (0.592)	
	Piston pin O. D.		14.994 – 15.000 (0.5903 – 0.5906)	14.96 (0.589)	
	Piston-to-piston pin clearance		0.002 – 0.014 (0.0001 – 0.0006)	0.020 (0.0008)	
	Piston ring-to-ring groove clearance	Top		0.015 – 0.045 (0.0006 – 0.0018)	0.09 (0.004)
		Second		0.015 – 0.045 (0.0006 – 0.0018)	0.09 (0.004)
	Piston ring end gap	Top		0.20 – 0.35 (0.008 – 0.014)	0.5 (0.02)
		Second		0.40 – 0.55 (0.016 – 0.022)	0.7 (0.03)
Oil (side rail)			0.20 – 0.70 (0.008 – 0.028)	—————	
Cylinder-to-piston clearance		0.018 – 0.048 (0.0007 – 0.0019)	0.10 (0.004)		
Connecting rod small end I.D.		15.010 – 15.028 (0.5909 – 0.5917)	15.06 (0.593)		
Connecting rod-to-piston pin clearance		0.010 – 0.034 (0.0004 – 0.0013)	0.10 (0.004)		

GENERAL INFORMATION

Unit: mm (in)

CLUTCH			
	ITEM	SPECIFICATIONS	SERVICE LIMIT
Change clutch	Spring free length	35.2 (1.39)	34.5 (1.36)
	Disc thickness	2.9 – 3.0 (0.11 – 0.12)	2.6 (0.10)
	Plate warpage		0.20 (0.008)
	Clutch outer guide O. D.	27.959 – 27.980 (1.1007 – 1.1016)	27.92 (1.099)
	Clutch outer boss I. D.	28.000 – 28.021 (1.1024 – 1.1032)	28.05 (1.104)
Centrifugal clutch	Drum I. D.	116.00 – 116.20 (4.567 – 4.575)	116.5 (4.59)
	Weight lining thickness	2.0 (0.08)	1.2 (0.05)
	Clutch spring height	3.0 (0.12)	2.85 (0.112)
	Clutch weight spring free length	30.75 (1.211)	31.6 (1.24)
	Drum bushing I. D.	24.000 – 24.021 (0.9449 – 0.9457)	24.05 (0.947)
	Crankshaft O. D. at drive gear	23.959 – 23.980 (0.9433 – 0.9441)	23.93 (0.942)

<https://www.ebooklibonline.com>

Hello dear friend!

Thank you very much for reading.

Enter the link into your browser.

The full manual is available for immediate download.

<https://www.ebooklibonline.com>