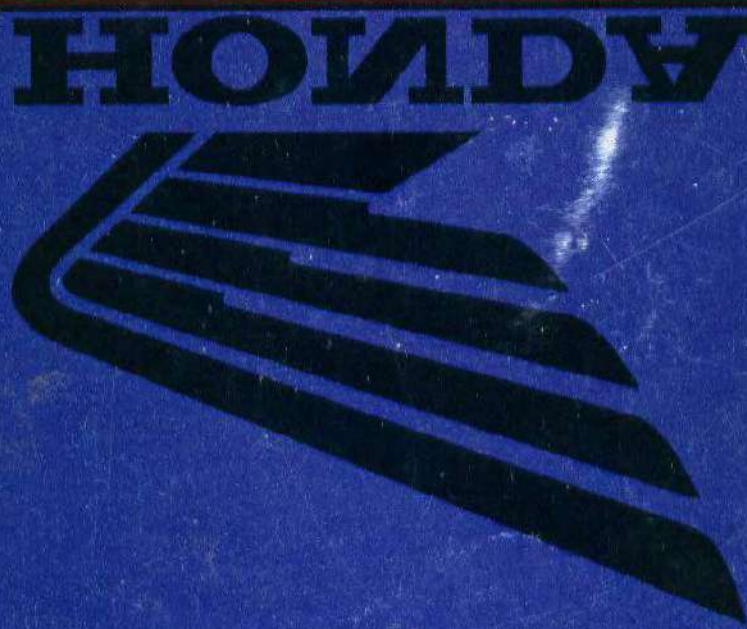
HONDA

# SHOP MANUAL

HONDA



# XL 125 V1

## IMPORTANT SAFETY NOTICE

⚠ WARNING ***Indicates a strong possibility of severe personal injury or death if instructions are not followed.***

**CAUTION:** ***Indicates a possibility of 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 methods or tools selected.

**TYPE CODE**

- Throughout this manual, the following addreviations are used to identify individual model.

| CODE | AREA TYPE |
|---|---|
| ED | EUROPEAN DIRECT SALES |
| E | U.K. |
| F | FRANCE |
| SW | SWITZERLAND |
| IIG | GERMANY (TYPE II) |

# HOW TO USE THIS MANUAL

This service manual describes the service procedures for the XL125V.

Follow the Maintenance Schedule (Section 3) recommendations to ensure that the vehicle is in peak operating condition.

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 motorcycle. Section 2 illustrates procedures for removal/ installation of components that may be required to perform service described in the following sections. Sections 4 through 20 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 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 don't know the source of the trouble, go to section 21 Troubleshooting.



HONDA MOTOR CO., LTD.
SERVICE PUBLICATION OFFICE

# CONTENTS

# 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).<br>Example: Molykote® BR-2 plus manufactured by Dow corning, U.S.A.<br>Multi-purpose M-2 manufactured by Mitsubishi Oil, Japan |
|  | Use molybdenum disulfide paste (containing more than 40% molybdenum disulfide, NLGI #2 or equivalent).<br>Example: Molykote® G-n Paste manufactured by Dow corning, U.S.A.<br>Honda Moly 60 (U.S.A. only)<br>Rocol ASP manufactured by Rocol Limited, U.K.<br>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 4 brake fluid. Use the recommended brake fluid unless otherwise specified. |
|  | Use Fork or Suspension Fluid. |

# 1. GENERAL INFORMATION





## 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 may 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.***

### BATTERY HYDROGEN & ELECTROLYTE

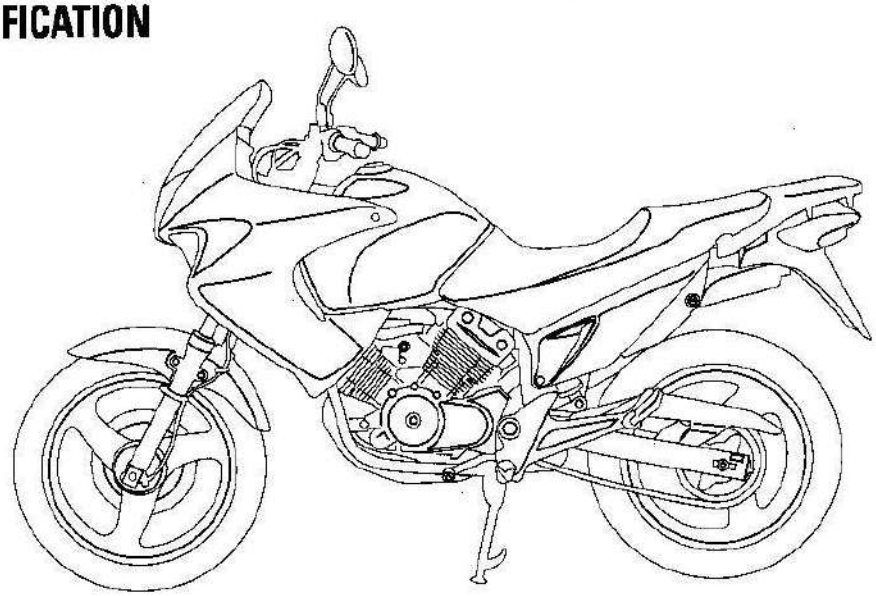
**⚠ WARNING**

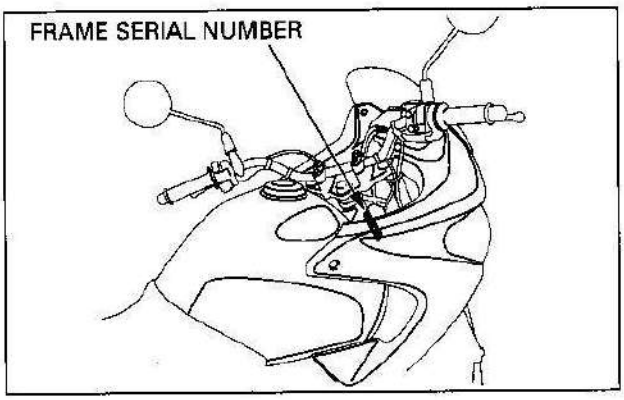
- ***The battery gives off explosive gases; keep sparks, flames and cigarettes away. Provide adequate ventilation when charging or using the battery in an enclosed space.***
- ***The battery contains sulfuric acid (electrolyte). Contact with skin or eyes may cause severe burns. Wear protective clothing 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

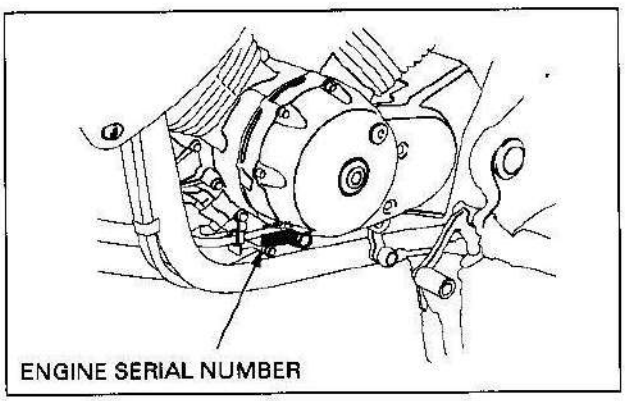
1. Use genuine HONDA or HONDA-recommended parts and lubricants or their equivalents. Parts that do not meet HONDA's design specifications may damage the motorcycle.
2. Use the special tools designed for this product.
3. Use only metric tools when servicing this motorcycle. Metric bolts, nuts and screws are not interchangeable with English fasteners. The use of incorrect tools and fasteners may damage the motorcycle.
4. Install new gaskets, O-rings, cotter pins, lock plates, etc. when reassembling.
5. When tightening a series of bolts or nuts, begin with the larger-diameter of inner bolts first, and 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 assembly, check all parts for proper installation and operation.
8. Route all electrical wires as show on pages 1- through 1- , Cable and Harness Routing.

# MODEL IDENTIFICATION

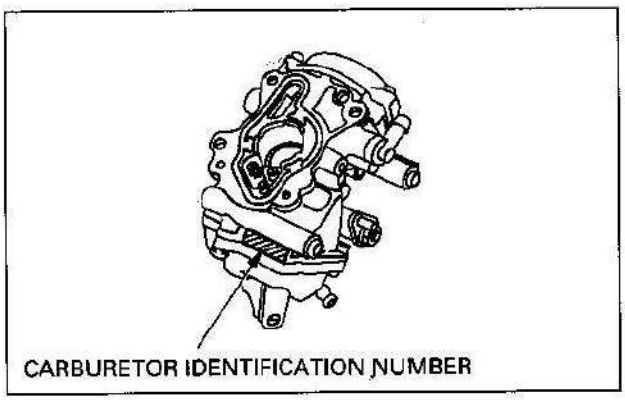





The frame serial number is stamped on the right side of the steering head.




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




The carburetor serial number is stamped on the left side of the carburetor body as shown.

# SPECIFICATIONS

## GENERAL

| ITEM | | | SPECIFICATIONS |
|---|---|---|---|
| DIMENSIONS | Overall length | | 2,150 mm (84.6 in) |
| | Overall width | | 850 mm (33.5 in) |
| | Overall height | | 1,250 mm (49.2 in) |
| | Wheelbase | | 1,450 mm (57.1 in) |
| | Seat height | | 802 mm (31.6 in) |
| | Ground clearance | | 190 mm (7.5 in) |
| | Dry weight | | 154 kg (339.5 lbs) |
| | Curb weight | | 167 kg (368.2 lbs) |
| | Maximum weight capacity | | 180 kg (396.8 lbs) |
| FRAME | Frame type | | Double cradle |
| | Front suspension | | Telescopic fork |
| | Front wheel travel | | 132 mm (5.2 in) |
| | Rear suspension | | Swingarm |
| | Rear wheel travel | | 150 mm (5.9 in) |
| | Front tire size | | 100/90-18 56P |
| | Rear tire size | | 130/80-17 65P |
| | Front tire brand | | BRIDGESTONE, PIRELLI |
| | Rear tire brand | | BRIDGESTONE, PIRELLI |
| | Front brake | | Hydraulic single disc |
| | Rear brake | | Hydraulic single disc |
| | Caster angle | | 28°00' |
| | Trail length | | 97 mm (3.8 in) |
| | Fuel tank capacity | | 17.5 liter (4.62 US gal, 3.85 Imp gal) |
| | Fuel tank reserve capacity | | 2.0 liter (0.53 US gal, 0.44 Imp gal) |
| ENGINE | Bore and stroke | | 42.0 x 45.0 mm (1.65 x 1.77 in) |
| | Displacement | | 125 cm³ (7.6 cu in) |
| | Compression ratio | | 11.8 : 1 |
| | Valve train | | Silent multi-link chain driven SOHC with rocker arms |
| | Intake valve | opens | 6° BTDC |
| | | closes | 24° ABDC |
| | Exhaust valve | opens | 31° BBDC |
| | | closes | 9° ATDC |
| | Lubrication system | | Forced pressure (dry sump) |
| | Oil pump type | | Trochoid |
| | Cooling system | | Liquid cooled |
| | Air filtration | | Viscous paper element |
| | Engine dry weight | | 40.5 kg (89.29 lbs) |

## GENERAL (Cont'd)

| ITEM | | | SPECIFICATIONS |
|---|---|---|---|
| CARBURETOR | Carburetor Type | | CV (Constant Velocity) dual carburetor |
| | Throttle bore | | 22 mm (0.9 in) |
| DRIVE TRAIN | Clutch system | | Multi-plate, wet |
| | Clutch operation system | | Mechanical type |
| | Transmission | | Constant mesh, 5-speed |
| | Primary reduction | | 3.722 (67/18) |
| | Final reduction | | 3.142 (44/14) |
| | Gear ratio | 1st | 3.083 (37/12) |
| | | 2nd | 1.933 (29/15) |
| | | 3rd | 1.428 (30/21) |
| | | 4th | 1.173 (27/23) |
| | | 5th | 1.000 (25/25) |
| | Gearshift pattern | | Left foot operated return system, 1-N-2-3-4-5 |
| ELECTRICAL | Ignition system | | Full transistor digital ignition |
| | Starting system | | Electric starter motor |
| | Charging system | | Triple phase output alterator |
| | Regulator/rectifier | | SCR shorted/triple phase, full wave rectification |
| | Lighting system | | Battery |