

Harley-Davidson

SERVICE MANUAL

1976

SS/SX-175/250

1974 to

1974-76

SS/SX-175/250

**SERVICE
MANUAL**

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The SS and SX models are similar in most respects and the information in this manual applies to both unless otherwise specified. The specific year and model designations are as follows:

1974
SX-175

1975
SX-175/250
SS-250

1976 & Later
SS/SX-175
SS/SX-250

FOREWORD

This service manual has been prepared with two purposes in mind. First, it will acquaint the reader with the construction of Harley-Davidson products and assist him in performing basic maintenance and repair. Second, it will introduce the latest field-tested and factory-approved major repair methods to the professional Harley-Davidson mechanic. We sincerely believe that this manual will make your association with Harley-Davidson products more pleasant and profitable.

HOW TO USE YOUR SERVICE MANUAL

Your service manual is arranged for quick, easy reference. It is divided into numbered sections such as "Chassis," "Engine" and "Transmission." Sections are then divided into sub-sections. The engine section, for example, is made up of sub-sections such as "Cylinder," "Crankcase," etc.

Use this manual as follows:

1. Check the Table of Contents located in front of each section to find subject desired.
2. Page number is listed across from subject.
3. Each section is printed with section number for quick general location of subject. Page number consists of section number and page number.
4. Information is presented in a definite order as follows:

Minor adjustments
Minor maintenance or repair
Complete disassembly
Cleaning
Major maintenance or repair
Assembly

In figure legends, a number following a name of a part indicates the quantity necessary for one complete assembly.

All information for servicing a part should be read before repair work is started to avoid needless disassembly.

SERVICE BULLETINS

In addition to the information given in this service manual, service bulletins are issued to Harley-Davidson Dealers from time to time, which cover interim engineering changes and supplementary information. Service bulletins should be consulted for complete information on the models covered by this manual.

USE GENUINE REPLACEMENT PARTS

To insure a satisfactory and lasting repair job, follow the manual instructions carefully and use only genuine Harley-Davidson replacement parts. Behind the emblem bearing the words "Genuine Harley-Davidson" is more than half a century of designing, research, manufacturing, testing and inspecting experience.

This is your insurance that the parts you are using will fit right, operate properly and last longer. When you use genuine Harley-Davidson parts you use the best.



Gasoline is extremely flammable and highly explosive under certain conditions. Always stop engine and do not smoke or allow open flame or sparks when refueling or servicing the fuel system or when using gasoline as a cleaning solvent where specified in this manual.

Harley-Davidson products are manufactured under one or more of the following patents: U.S. Patents - D-199,479, 251,022, 257,473, 277,086, 278,392, 278,867, 287,266, 298,616, 298,793, 299,880, 311,608, 314,463, 314,486, 322,699, 322,972, 343,488, 355,977. Canadian Patents - 487,981, 490,652.

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GENERAL

Note: Model SX specifications also apply to SS models unless otherwise specified.

SPECIFICATIONS

DIMENSIONS

	SX-175/250	SS-250
Wheel Base	54.2 in. (1375 mm)	56.0 in. (1420 mm)
Overall Length	82.1 in. (2085 mm)	86.0 in. (2180 mm)
Overall Width	34.6 in. (880 mm)	31.5 in. (800 mm)
Overall Height	45.3 in. (1150 mm)	44.5 in. (1130 mm)
Saddle Height	31.5 in. (800 mm)	31.5 in. (800 mm)
Road Clearance	6.9 in. (175 mm)	6.7 in. (170 mm)

WEIGHT

Total Weight 252 Lbs (114 kg)

CAPACITIES

Main Fuel Tank	2.22 gal. (8.4 l)
Reserve Fuel Tank	1.2 qt (1.1 l)
Transmission	2.54 pt max, 1.9 pt min (0.9 l to 1.2 l)
Oil Tank	3.2 pt (1.5 l)

ENGINE

Model Designation	SS-175, SX-175, SS-250, SX-250
Type of Engine	Two Cycle, Air Cooled, Loop Scavenged
Number of Cylinders	One
Placement of Cylinder	Inclined Forward 15°
Cylinder	Cast Aluminum, Chrome Plated Bore
Piston	Aluminum Alloy, Flat Top
Connecting Rod	Steel Forging, I-Beam Section

	SX-175		SS-175	SX-250		SS-250
	1975 & Earlier	1976 & Later	1976 & Later	1975 & Earlier	1976 & Later	All Models
Horsepower (approx.) at Rear Wheel, with Muffler	15.4 B.H.P. @ 7500 R.P.M.	16.0 B.H.P. @ 6800 R.P.M.	15.5 B.H.P. @ 6750 R.P.M.	21.4 B.H.P. @ 7750 R.P.M.	19.2 B.H.P. @ 7000 R.P.M.	19.0 B.H.P. @ 7000 R.P.M.
Taxable Horsepower (NACC Rating)	2.30			3.22		
Bore	2.40 in. (61 mm)			2.84 in. (72 mm)		
Stroke	2.35 in. (59.6 mm)			2.35 in. (59.6 mm)		
Piston Displacement	10.63 cu. in. (174.15 cc)			14.80 cu. in. (242.6 cc)		
Compression Ratio (Uncorrected)	10.7:1			10.3:1		

IGNITION SYSTEM

Spark Plug

Type	SS/SX-175 Harley-Davidson No. 7-8 SS/SX-250 Harley-Davidson No. 7
Size	14 mm
Gap025 in.
Tightening Torque15 ft. lbs.
Ignition Timing	21° (.100 in.) B.T.C.
Ignition Timing Pickup Gap012 to .016 in.

TRANSMISSION

Type	Constant Mesh
Speeds	5 forward
Drive Pinion Gear Teeth	20
Clutch Ring Gear Teeth	56
Transmission Internal Ratios	
1st	2.53
2nd	1.79
3rd	1.30
4th	1.0
5th	0.80

	1975 & Earlier			1976 & Later			
	SX-175	SX-250	SS-250	SX-175	SS-175	SX-250	SS-250
Sprocket Teeth							
Transmission	14	16	16	13	14	15	15
Rear Wheel	50	49	50	49	50	50	49
Overall Gear Ratios							
1st	25.3	21.7	22.1	26.8	25.4	23.7	23.2
2nd	17.9	15.4	15.7	18.6	17.6	16.5	16.1
3rd	13.0	11.1	11.4	13.6	12.8	12.0	11.7
4th	10.0	8.6	8.8	10.6	10.0	9.3	9.1
5th	8.0	6.8	7.0	8.5	8.0	7.5	7.4

Tire Data

Model	Front	Rear
1975 & Earlier		
SX-175	3.00 x 19 in. 22 psi	3.50 x 18 in. 25 psi
SX-250		
SS-250	3.25 x 19 in. 22 psi	4.00 x 18 in. 25 psi
1976 & Later		
SX-175	3.00 x 19 in. 20 psi	4.00 x 18 in. 24 psi
SS-175	3.25 x 19 in. 20 psi	
SX-250	3.00 x 21 in. 22 psi	4.00 x 18 in. 26 psi
SS-250	3.25 x 19 in. 22 psi	

VEHICLE IDENTIFICATION NUMBER (V.I.N.)

The Vehicle Identification Number (V.I.N.) is stamped on the engine crankcase and on the frame steering head. It consists of a model code, a serial number, a manufacturer's identification and model year as shown in the table. Always give this number when ordering parts or making an inquiry:

Letters	Model No.	Serial No.	Mfg.	Year
SX-175	5D	10,000 and up (5 digits)	H Harley-Davidson	6 (1976)
SS-175	4F			
SX-250	6D			
SS-250	9E			

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