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# 1987 Sportster

## Model Production Numbers

- XLH 883 4,990
- XLH 883 Deluxe 2,260
- XLH 883 Hugger 2,106
- XLH 1100 4,018
- XLH 1100 Anniversary 600

## Colors

# Vehicle Identification Number (VIN)

## Frame VIN Numbers

The only numbers used for the purpose of identification are on the right neck and frame downtube.

- The frame is stamped with a Vehicle Identification Number (VIN) identification.
- There are still other stampings on the different parts of the frame combined with certain features that can be used to date the frame.  
But the only numbers used to identify the entire bike for ownership purposes is the VIN number stamped in the right side neck.
- In addition to the neck VIN, an identification label is located on the frame giving the VIN and date of manufacture.  
This label was required by law for identification.<sup>1)</sup>

In 1981, the full VIN was expanded to include country of origin, maker, bike weight, engine displacement, introduction date, a check digit and which factory made it <sup>2)</sup>.

- This nationwide system is designed to provide improved theft protection and more specific vehicle information to HD and government agencies.
- In addition to the neck VIN, an identification label is located on the frame giving the VIN and date of manufacture.  
This label was required by law for identification.<sup>3)</sup>

[Click Here](#) to view the Evo Sportster frame page in the Sportsterpedia for more information.

[Click Here](#) for more information on serial numbers and VINs in the Sportsterpedia.

**17 Digit VIN for 1987 Sportsters**

Origin	Make	Weight Class	Model	Engine Size	Intro Date/ Special Models	VIN Check Digit	Model Year	Assembly Plant	Serial Number
1 = Made in USA	HD = Harley Davidson	1 = 1100cc 4 = 883cc	CA = XLH 883 XLH 883 Deluxe XLH 1100 CE = XLH 883 Hugger	M = 883cc N = 1100cc	1 = Regular 4 = Special	Can be 0 - 9 or X	H = 1987	Y = York, PA	6 Digits (varies)

**Example:** (1HD4CAM16HY112016) designates a 1987 XLH 883, stamped on the steering head with a sticker VIN on the steering head also. The abbreviated VIN appears on engine right case (CAMH 112016)

Example VIN on Frame Reads

1	HD	4	CA	M	1	6	H	Y	112016
---	----	---	----	---	---	---	---	---	--------

Example Abbreviated VIN on Case Reads

			CA	M			H		112016
--	--	--	----	---	--	--	---	--	--------

## Engine Serial Numbers

The serial number is stamped on the case, right side, between the cylinders but is not used for identification purpose of ownership.

- An abbreviated version of the 17 digit VIN is stamped into the engine case. It's the exact same as the frame numbers but certain designations were left out.  
(including country of origin, maker, bike weight, intro date, check digit and plant of origin)
- In the example above, the serial number on that engine would read (CAMH 112016).

## Related Manuals and Documentation

Below are some suggestions for manuals for your ride.

You should have, at minimum, a [Factory Service Manual \(FSM\)](#) and a [Factory Parts Catalog](#) for your year model.

**Note:** Updated manuals sometimes correct mistakes from the original manuals and some are updated simply to add mid year intro models.

### Factory Service Manuals (FSM);

The FSM will have the most accurate information, procedures and specs.

Clymer and Haynes make service manuals also for Sportsters but some of the information is in error to the factory FSMs.

And some of the information in the aftermarket manuals is vague in information or procedures but they

may have more pictures.

So it is generally said you can get use from both an aftermarket manual and the factory service manuals but get the factory manual first.

[Click Here](#) to view the Factory Service Manual page in the Sportsterpedia.

### **Parts Catalogs;**

The Parts Catalog has part numbers of course but it also has exploded parts views.

However, IT IS NOT INTENDED TO BE AN ASSEMBLY MANUAL.

And some of the exploded views are confusing or not related to each other on the same pages.

But, all in all, the exploded views do help finding what goes where.

Most of the fasteners listed in the relevant parts catalog individual pages have thread sizes and lengths also in case you need those.

Below is a simple list of original and "latest edition parts catalogs. The in-between year books may show different part numbers for the same year model bike.

[Click Here](#) to see the Factory Parts Catalog page in the Sportsterpedia for parts catalog uses and a full list of parts catalog numbers from 1957 to present.

(complete list of other parts catalogs and supplement catalogs that pertain to each year model on the bottom of that page)

Some often acquire several year model parts catalogs and that page will help decide which ones are right for them.

### **Suggested Manuals:**

- **Factory Service Manual (FSM):**

- **Original:** 1986-1987 XLH883/1100cc 4 Speed Service Manual (99484-87)
- Latest Edition: 1986-1990 XLH Service Manual (99484-90)

- **Factory Parts Catalogs:**

- **Original:** 1986-1987 XLH Models Parts Catalog (99451-87)
  - Written in 1986 and should have the closest list of original parts for 1987 models.
- **Latest Edition:** 1986-1990 Sportster Evolution 883/1100/1200 Parts Catalog (99451-90)
  - Written in 1989 and lists parts available in 1990 for 1986-1990 models.

- **Factory Owners Manual:**

- Nineteen Eighty Seven Owners Manual (99466-87)  
[Click Here](#) to download the 1986-1990 manual PDF (English) from the H-D Service Information Portal.

### **Pics of Manual Covers.**

Below are pics of used manual covers (original and latest editions) related to 1987 model Sportsters.

See the full list of pertinent catalogs in the links above.

Click on any pic below to enlarge:

1987 (all models) Owners Manual

			
1986-1987 FSM (99484-87) Original Manual	1986-1990 FSM (99484-90) Latest Version	1986-1987 Original Parts Catalog (99451-87)	1986-1990 Updated Parts Catalog (99451-90)
			

## Specifications

### Model Designations

- Model Designations: XLH-883, XLH-883 Deluxe, XLH-883 Hugger, XLH-1100, XLH-1100 Anniversary

### Dimensions

- Wheelbase: <sup>4)</sup>
  - XLH-883 / XLH-883 Deluxe, 60 in / 152.40 cm
  - XLH-883 Hugger, 60.5 in / 153.67 cm
  - XLH-1100 / XLH-1100 Anniversary, 60 in / 152.40 cm
- Overall Length:
  - XLH-883 / XLH-883 Deluxe, 87.5 in / 222.25 cm
  - XLH-883 Hugger, 87.5 in / 222.25 cm
  - XLH-1100 / XLH-1100 Anniversary, 87.5 in / 222.25 cm
- Overall Width:
  - XLH-883 / XLH-883 Deluxe, 32 in / 81.28 cm
  - XLH-883 Hugger, 33 in / 83.82 cm
  - XLH-1100 / XLH-1100 Anniversary, 33 in / 83.82 cm
- Overall Height:
  - XLH-883 / XLH-883 Deluxe, 47.5 in / 120.65 cm
  - XLH-883 Hugger, 49.75 in / 126.365 cm

- XLH-1100 / XLH-1100 Anniversary, 49.75 in / 126.36 cm
- Road Clearance:
  - XLH-883 / XLH-883 Deluxe, 6.75 in / 17.145 cm
  - XLH-883 Hugger, 5.9 in / 14.986 cm
  - XLH-1100 / XLH-1100 Anniversary, 6.75 in / 17.145 cm

## Engine

- Engine type: 4 cycle Overhead Valves, 45 degree V2
- Displacement:
  - 883cc: 53.9 ci
  - 1100cc: 67.2 ci
- Compression Ratio: 9:1
- Bore:
  - 883: 3 in / 76.2 mm
  - 1100: 3.350 in / 85.09 mm
- Stroke: 3.812 in / 96.8248 mm
- 4 Cams
- [Gerotor type oil pump](#).  
Oil pump pressure (gauge mounted at the plug between the tappets):
  - Minimum: 1-7 psi (idle)
  - Normal riding conditions: 5-30 psi (2500 rpm)
- [Ignition](#): Electronic Ignition System.
- Spark Plugs
  - 12mm 6R12, Gap (.038"-.043"), Torque 11-18 ft-lb / 3-5 Nm
- [VOES](#) (vacuum-operated electric switch) for timing advance
- [Fuel System](#): Keihin (non-cv) Butterfly carburetor

## Capacities

- Fuel Capacity:
  - 2.25 gal / 8.517 l <sup>5)</sup>  
Reserve: .25 gal / .946 l
- Oil Capacity: 3 qts. / 1.419 l (quoted from -85 FSM)
- Transmission Capacity: 1.5 pints / .71 l

## Clutch

- Multi-Disc wet clutch-pack with alternate steel and fiber friction plates. <sup>6)</sup>

## Drivetrain

- Constant Mesh <sup>7)</sup>
- Left Side Shifter

- Speeds - 4 Forward
- Number of Sprocket Teeth (all)
  - Engine: 34
  - Clutch: 59
    - Clutch Sprocket to Engine Sprocket Ratio: 1.74:1
  - Transmission: 21
  - Rear Wheel: 48
- Gear Ratios (XLH / XLS / XLX)
  - Internal Gear Ratios:

Internal gear ratios indicate number of clutch gear revolutions required to drive mainshaft sprocket one revolution.

    - 1st: 2.29:1
    - 2nd: 1.66:1
    - 3rd: 1.25:1
    - 4th: 1.00:1
  - Overall Gear Ratios:

Overall gear ratios indicate number of engine revolutions required to drive rear wheel one revolution.

    - 1st: 9.12:1
    - 2nd: 6.59:1
    - 3rd: 4.98:1
    - 4th: 3.97:1

## Tires

Rim size and contour are cast or stamped into the exterior surface of the rim.

- All 883 and 1100 Models
  - Front:
    - For tube type laced (contour T19x2.50 MTA) or tubeless cast (contour T19x2.15 MT) 19" wheels: Dunlop K181 or Dunlop K291 (MJ90-19).
  - Rear:
    - For tube type laced or tubeless cast (contour T16x3.00D) 16" wheels: Dunlop K181 or Dunlop K291 (MT90-16).
- Tire pressure based on overall weight.
  - Up to 300 lb load including rider, passenger and cargo:
    - Front 26 psi / 1.79 bar
    - Rear 30 psi / 2.06 bar
  - Up to GVWR maximum load:
    - Front 26 psi / 1.79 bar
    - Rear 32 psi / 2.20 bar



# Models

## XLH 883

What is the Current KBB Value? <sup>8)</sup>

- Colors: Solid, Candy and Black

## XLH 883 Deluxe

What is the Current KBB Value? <sup>9)</sup>

- Colors: Solid and Candy

## XLH 883 Hugger

What is the Current KBB Value? <sup>10)</sup>

- Colors: Solid, Candy and Black

## XLH 1100

What is the Current KBB Value? <sup>11)</sup>

- Colors: Solid, Candy and Two Tone

## XLH 1100 Anniversary

What is the current N.A.D.A. Value? <sup>12)</sup>

- Color: Two Tone: Black and Orange <sup>13)</sup>
- Only 650 produced <sup>14)</sup>

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Back to [Sportster History Index](#)

<sup>1)</sup> , <sup>3)</sup>

HD Service School service bulletin #596 dated September 16, 1969

<sup>2)</sup>

HD Service Bulletin #M-800

<sup>4)</sup>

Harley-Davidson 1979-1985 Service Manual

5)

Harley-Davidson 1986-1990 Service Manual

6)

1986-1990 HD FSM

7)

1986-1990 HD FSM pg 6-1

8)

<http://www.kbb.com/motorcycles/harley-davidson/xlh-sportster-883/1987-harley-davidson-xlh-sportster-883/trade-in/>

9)

<http://www.kbb.com/motorcycles/harley-davidson/xlh-sportster-883-deluxe/1987-harley-davidson-xlh-sportster-883-deluxe/trade-in/>

10)

<http://www.kbb.com/motorcycles/harley-davidson/xlh-sportster-883-hugger/1987-harley-davidson-xlh-sportster-883-hugger/trade-in/>

11)

<http://www.kbb.com/motorcycles/harley-davidson/xlh-sportster-1100/1987-harley-davidson-xlh-sportster-1100/trade-in/>

12)

<http://www.nadaguides.com/Motorcycles/1987/Harley-Davidson/XLH-1100-ANNIVERSARY/Values>

13) 14)

<http://www.hdforums.com/forum/motorcycles-for-sale/968587-1987-harley-davidson-sportster-1100-30th-anniversary.html>

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