FREE SAMPLE

The opening pages of

1957 Harley-Davidson Sportster Buyer's Guide

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IRONHEAD

1957 Harley-Davidson Sportster

Factory-Correct Restoration Guide

IronHead single-year guide · Model year 1957 only

KEY FACTS AT A GLANCE

- **Model year covered:** 1957 only (XL). The first-year overhead-valve Sportster; this guide does not cover the 1958 XLH/XLCH or later years except where differences are explicitly noted.
- **Engine:** 883 cc (53.9 cu in) air-cooled 45-degree OHV V-twin; 3.000 x 3.8125 in bore x stroke; 7.5:1 compression; 42 bhp @ 5,500 rpm; 48 lb-ft @ 3,600 rpm. Cast-iron hemispherical heads, four gear-driven camshafts.
- **Fuel system:** Linkert DC carburetor (DC1 on the 1957, with a one-year-only air-cleaner choke plate).
- **Ignition:** 6-volt battery, breaker points and timer; point gap 0.020 in; spark-plug gap 0.025-0.030 in.
- **Starting:** Kick starter only.
- **Transmission:** 4-speed constant-mesh in unit with the engine; right-foot shift; chain final drive; dry clutch.
- **Chassis:** Telescopic front fork; dual rear shock absorbers of the automotive type; swingarm rear suspension; drum brakes front and rear.
- **Wheels/tires:** Wire-spoked 18-inch wheels front and rear; 3.50 x 18 tires.
- **Dimensions:** 56.5-inch wheelbase; 87 inches long overall.
- **1957 colors:** Skyline Blue with Birch White tank panels; Pepper Red with Black tank panels; Birch White with Black tank panels; Black with Pepper Red tank panels. Options: fenders to match, Birch White, or any standard color without panels; extra-charge Metallic Midnight Blue with Birch White panels and the Spring Special Nugget Gold.
- **Identification:** No frame VIN — the engine serial (left case, between the cylinders, e.g. 57XL1234) is the ownership number.
- **Production:** 1,983 XL machines built (Sportsterpedia).
- **Key 1957-only features:** the only year of the 7.5:1 / 42-bhp specification; one-year-only DC1 carburetor and air-cleaner choke plate; the only Sportster year with no XLH/XLCH split.

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1. Manufacturer history: Harley-Davidson

Harley-Davidson was founded in Milwaukee, Wisconsin, in 1903 by William S. Harley and Arthur Davidson, with Walter and William A. Davidson joining the effort. The first factory went up in 1906; the first V-twin appeared in 1909. Through the 1910s and 1920s Harley built its name on V-twins and racing success, and the 45-cubic-inch flathead models of the 1930s kept the company alive through the Depression.

The 1936 EL Knucklehead introduced overhead valves to the Big Twin line, and the 1948 Panhead refined the formula. For the sporting rider, the key ancestor is the 1952 K-series: a unit-construction 45-cubic-inch side-valve twin with foot shift and swingarm rear suspension, built to answer the British imports. The K was the direct basis for the 1957 XL Sportster — essentially the K bottom end with larger displacement, overhead valves, and higher compression.

The 1960s brought the Duo-Glide (1958) and Electra Glide (1965) to the touring line while the Sportster carried the sporting brief almost alone. In January 1969 the American Machine and Foundry Company (AMF) bought Harley-Davidson, bankrolling expansion — including Sportster assembly at York, Pennsylvania, from 1973 — through a decade of variable quality control. In June 1981 a group of Harley executives bought the company back from AMF. The Ironhead Sportster ran through the 1985 model year; for 1986 the Evolution engine replaced the cast-iron-top-end motor the "Ironhead" name describes.

For the restorer, the authority is the factory literature: the Harley-Davidson service manuals (1957-1969, 1970-1978, and 1979-1985 XL/XR) and the year parts catalogs. Sportsterpedia's marque research is the strongest secondary source for year-to-year differences; this guide cites it throughout.

2. Model history: the Ironhead Sportster

The 1957 XL was Harley-Davidson's answer to the British 650 twins that were eating its lunch: take the K-model's unit-construction bottom end, bore it to 883 cc, fit overhead valves with hemispherical cast-iron heads, and raise compression. The result made a claimed 42 bhp — nearly half as much again as the side-valve K it replaced — and the Sportster has been in the Harley range continuously ever since.

The designations work like this. **XL** was the 1957 base model (and the name reappears on a basic model in some later literature). **XLH** (1958 on) is the high-compression touring version — bigger tank, lower bars, the volume seller. **XLCH** (1958-1979, "Competition Hot") is the sportier, stripped version: high pipes, small peanut tank, and for most of its life kick-start only. **XLRTT** was a limited-production race model of the mid-1960s. **XLS** (1979 on) is the Roadster. **XLT** (1977-1978) was a short-lived touring variant with hard bags and a windshield. **XLCR** (1977-1979) is Willie G. Davidson's cafe racer. **XLX-61** (1983-1984) was the stripped budget Sportster. **XR1000** (1983-1984) was the street-going XR with race-type heads and twin Dell'Orto carburetors. The **XR-750** (1970 on) is the pure dirt-track racer — not a street model and not covered by this guide except as context.

Engineering constants across the whole Ironhead run: a 45-degree air-cooled V-twin with four gear-driven camshafts, cast-iron cylinder heads (the source of the "Ironhead" nickname), unit-construction four-speed gearbox, and chain final drive. Displacement was 883 cc (advertised as 900) through 1971 and 997.5 cc (advertised as 1000) from 1972 on.

Year	What changed
1957	**First XL: 883 cc OHV V-twin (3.000 x 3.8125 in, 7.5:1), 42 bhp, Linkert DC carburetor, 6-volt electrics, kick start, drum brakes.**

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Year	What changed
1958	XLH (high-compression touring) and XLCH (Competition Hot) replace the single XL; higher compression, domed pistons, larger ports and valves; XLCH gets high pipes, magneto ignition, peanut tank.
1959	High-lift camshafts; period reports of 115 mph and sub-14-second quarter-miles.
1960	Detail refinements on the established 1958 formula.
1961	Hi-Fi color combinations introduced.
1962	Staggered shorty exhausts; the even/odd serial-number rule begins.
1963	Alloy fork brackets and motor mounts offered.
1964	Alloy front hubs fitted.
1965	12-volt electrical system replaces 6-volt.
1966	Tillotson diaphragm carburetor; hotter camshafts.
1967	Electric starting on the XLH (kick starter retained for 1967); new stronger crankcases and a stretched frame and swingarm for the XLH; the XLCH stays short-frame and kick-only.
1968	XLH becomes electric-start only (kicker optional); new front forks with more travel; about 58 bhp.
1969	Larger intake valves and revised cast-iron heads; AMF buys Harley-Davidson in January.
1970	Ownership VIN moves to the steering head (9-character format); XLCH gains electric start and battery-and-coil ignition; fiberglass boat-tail tail section; XR-750 racer debuts; about 8,650 Sportsters outsell the Electra Glide.
1971	New crankcases: the ignition timer moves into the cam-cover nose cone with automatic spark advance; wet multi-disc clutch; last year for the boat-tail option.
1972	Engine enlarged to 997.5 cc (3.188 x 3.8125 in, 9:1), 61 bhp; Bendix/Zenith carburetor; revised timer cam (dwell 90 to 140 degrees).
1973	Front disc brake; 35 mm Kayaba-type fork; turn signals standard; speedometer drive moves to the front axle; York, PA assembly begins.
1974	Cast wheels available; sales top 20,000.
1975	Left-side shift with right-side rear brake (DOT mandate), worked through linkage behind the engine; sales slump below 6,000.
1976	Bicentennial special edition; otherwise a steady year.

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Year	What changed
1977	New crankcases with gerotor oil pump (frame tube notched for access); Keihin carburetor; XLCR cafe racer and XLT touring model introduced; limited Confederate Edition.
1978	Siamese 2-into-1-into-2 exhaust across the line; solid-state charging electronics; dual front discs; 75th-anniversary editions; electronic ignition phased in late in the year.
1979	New lighter, stiffer frame; rear disc brake; electronic ignition standard; XLS Roadster introduced; last year for the XLCH.
1980	Timing marks revised (advance = single dot, TDC = lazy eight); 9-character VIN with J0 suffix.
1981	17-digit federal VIN; AMF sells Harley-Davidson to the investor group in June.
1982	25th-anniversary XLH and XLS editions; Hitachi generator in the charging system.
1983	XLX-61 budget Sportster; XR1000 street model (twin 36 mm Dell'Ortos, XR750-type heads, about 70 bhp).
1984	XR1000 final year; late-year charging-system running change (the factory manual treats Late 1984-1985 as its own variant).
1985	Final year of the Ironhead Sportster; the Evolution engine follows for 1986.

The company context matters when judging a bike. The 1969 AMF takeover funded the York plant and the 1970s expansion, but the AMF years are also the era of the most variable factory quality control — which is why matching numbers, correct fasteners, and year-correct trim matter more, not less, on a 1970s Ironhead. The 1981 buyback steadied the company; the 1986 Evolution engine kept the Sportster alive by fixing the Ironhead's oil-leak and overheating reputation at its root.

3. What is unique about the 1957 Sportster

The 1957 XL is the genesis Ironhead: the first overhead-valve Sportster, and the only model year sold as a single XL without the XLH/XLCH split that began in 1958. A factory-correct 1957 restoration is a first-year restoration — nearly every specification on the bike changed within a year or two, so fitting later parts is the most common originality error.

1957-only details:

- **The only 7.5:1 / 42-bhp Sportster.** For 1958 Harley raised compression

(domed pistons, larger ports and valves) and split the line into the high-compression XLH and the XLCH. A 1957 with high-compression pistons or later heads is modified, not original.

- **Linkert DC1 carburetor with the one-year-only air-cleaner choke plate.**

The DC series continued, but the 1957 choke-plate arrangement is unique.

- **6-volt electrics.** The 12-volt system did not arrive until 1965; a 12-volt

conversion is the single most common (and most visible, if done sloppily) modification on these bikes.

- **No frame VIN.** Ownership identification is the engine serial on the left

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crankcase between the cylinders (e.g. 57XL1234). Any frame VIN stamping claimed as original on a 1957 is wrong for the year.

- **Automotive-type rear shocks** with generous travel — period advertising

stressed the bike's rough-road ability, a deliberate answer to the British twins.

What did NOT exist in 1957 (common mix-ups):

- There is no XLH or XLCH in 1957 — both were introduced for 1958. A "1957

XLCH" is always a mis-titled or re-stamped bike.

- No electric start (1967 on the XLH), no front disc (1973), no 12-volt

system (1965), no 1000 cc engine (1972).

1957 buyer cautions:

- **Engine weight and handling.** At 204 lb the engine is a substantial lump

in a 56.5-inch-wheelbase chassis; check steering-head and swingarm-pivot areas closely on ridden bikes.

- **Oil system.** The gear-driven pump is specified at 3-7 psi hot idle and

10-14 psi normal running — low by modern standards and normal for the year. Do not chase modern oil-pressure numbers with a 1957 pump.

- **Rarity.** At 1,983 built, the 1957 is the scarcest street Ironhead year.

One-year-only trim is genuinely hard to find; verify every claimed-correct part against survivor photos, not against later-year parts fiches.

4. Technical restoration data — 1957 Harley-Davidson Sportster

4.1 Frame and engine numbers (1957)

There was no frame identification for purpose of ownership on 1957-1969 Sportsters — the engine number is the ownership number. It is stamped on the left side of the crankcase between the two cylinders, in the form year-digits + model + sequential number, for example:

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57XL1234
57 = model year | XL = model | 1234 = sequential number
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The frame carries only manufacturing stampings and date-code features used to date it — there is no ownership VIN on the frame. A 1957 with a frame VIN is either mis-stamped or the frame is not a 1957. Crankcase casting numbers for 1957-1966: left case 24534-57, right case 24558-57. Cam-cover casting for 1957-1962: 25202-52A.

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4.2 Engine specifications (1957)

Item	Specification
Configuration	45-degree air-cooled OHV V-twin; four gear-driven camshafts; cast-iron hemispherical heads
Displacement	883 cc (53.9 cu in) — advertised as 900
Bore x stroke	3.000 x 3.8125 in
Compression ratio	7.5:1
Claimed output	42 bhp @ 5,500 rpm; 48 lb-ft @ 3,600 rpm
Carburetor	Linkert DC (DC1 on the 1957)
Ignition	6-volt battery, breaker points and timer; point gap 0.020 in
Starting	Kick starter only
Clutch	Dry multi-plate
Lubrication	Dry sump; gear-driven oil pump (3-7 psi hot idle, 10-14 psi normal running)

4.3 Carburetion and electrical

- Linkert DC carburetor (DC1 on the 1957) with the one-year-only air-cleaner choke plate
- 6-volt battery ignition: breaker points and timer; point gap 0.020 in; spark-plug gap 0.025-0.030 in
- 6-volt generator and mechanical regulation — verify charging voltage under load
- Kick starter only; no electric-start provision

4.4 Transmission and final drive

- Four-speed constant-mesh gearbox in unit with the engine, accessible through the side cover
- Right-foot shift, left-hand clutch
- Chain final drive; dry multi-plate clutch

4.5 Chassis, suspension, and brakes (1957)

- Telescopic front fork; dual automotive-type rear shock absorbers
- Swingarm rear suspension
- Drum brakes front and rear
- Wire-spoked 18-inch wheels front and rear; 3.50 x 18 tires
- 56.5-inch wheelbase; 87 inches long overall

4.6 Paint and finish (1957)

- **Skyline Blue** with Birch White tank panels
- **Pepper Red** with Black tank panels
- **Birch White** with Black tank panels
- **Black** with Pepper Red tank panels
- Options (no charge): fenders to match tank panel when the panel is a standard color; Birch White (solid or with black panels); any standard color without tank panels

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