

Table of Contents

IH: General Technical Information	3
1957 - 1969	3
Chassis	3
<i>Wheels and Tires</i>	3
<i>Brakes</i>	3
<i>Fork</i>	4
<i>Hand Controls</i>	4
<i>Foot Controls</i>	4
<i>Handlebars</i>	4
<i>Exhaust</i>	4
<i>Fenders</i>	4
<i>Seat</i>	4
<i>Shocks</i>	4
<i>Jiffy Stand</i>	4
1957 - 1969 Sportster Service Intervals	4
<i>Regular Service Interval</i>	4
<i>Service Interval Engine and Transmission</i>	6
1957 - 1969 Sportster Engine Specifications	6
<i>Valves</i>	6
<i>Rocker Arm</i>	6
<i>Piston</i>	7
<i>Connecting Rod</i>	7
<i>Oil Pump Pressure</i>	7
<i>Tappets</i>	7
<i>Gearcase</i>	7
<i>Flywheel Assembly</i>	7
<i>Sprocket Shaft Bearing</i>	8
<i>Pinion Shaft Bearing</i>	8
<i>Ignition Timing</i>	8
1957 - 1969 Sportster Carburetor Information	8
<i>DC Model Idle Port Holes Drill Sizes</i>	8
<i>DC Model Nozzle Bleed Holes Cleaning Drills</i>	9
<i>Calibration and Setting Chart</i>	9

[Go To Technical Menu](#)

IH: General Technical Information

1957 - 1969

Chassis

Wheels and Tires

- Removal
- Assembly
- Bearings
- Installation
- Lacing
- Truing
- Runout
- Tires
 - Tube
 - Tubelsss
 - Alignment
 - Balancing
 - Weights
 - Runout

Brakes

- General Info and Troubleshooting
- Front Master Cylinder
- Front Caliper
- Rear Master Cylinder
- Rear Linkage
- Rear Caliper
- Brake Lines
- Brake Bleeding

Fork

Hand Controls

Foot Controls

Handlebars

Exhaust

Fenders

Seat

Shocks

Jiffy Stand

1957 - 1969 Sportster Service Intervals

Regular Service Interval

	Grease	Oil	Service
Every 1000 Miles		Rear Chain	• Air Cleaner • Battery Rear • Chain Adjustment

Every 2000 Miles	• Rear Brake Shaft • Front Brake Shaft • Rear Brake Cross-over Shaft • Clutch Release Worm • Foot Shift Lever • Seat Bar Roller and Bolt (Seat post saddle only) • Kick Starter Shaft • Rear Wheel Hub • Tachometer Drive Gear	• Rear Brake Rod Clevis • Front Brake Cable Clevis • Clutch Hand Lever • Brake Hand Lever • Clutch Control Cable • Front Brake Cable • Throttle Control Cable • Spark Control Cable (if used) • Seat Post (saddle only) • Generator Bearing (1960 & earlier)	• Tappet Adjustment • Clutch Adjustment • Brake Adjustment • Oil Filter • Front Chain Adjustment • Rear Chain Oiler • Circuit Breaker Points
Every 5000 Miles	• Throttle Control Spiral • Spark Control Spiral (if used) • Circuit Breaker Camshaft • Front Wheel Hub (1964 & earlier) • Speedometer and Tachometer Cables		• Check Front and Rear Fork Bearing Adjustment • Replace Spark Plugs and Oil Filter Element • Inspect and switch tires • Time Ignition • Clean Gas Tank Strainer • Check Generator Brushes • Check Shock Rubber Bushings

Every 10000 Miles	• Repack Rear Fork Pivot Bearings • Repack Generator Bearing (1961 and later)		
Every 50000 Miles	• Repack Steering Head Bearing		
Weekly			• Check Tires and Battery

1)

Service Interval Engine and Transmission

	300 Miles	1000 Miles	2000 Miles	5000 Miles or 1 Year	Spring and Fall
Engine Oil	Check	Check	Change		Change
Transmission Oil		Check		Change	Change

2)

POC for this page — [Bert Linson](#) 2016/01/20 20:03

1957 - 1969 Sportster Engine Specifications

Valves

- Fit in Guide (EX): .0025 - .0045 in
- Fit in Guide (IN): .0015 - .0035 in
- Spring (outer)
 - 52 - 62 lbs. @ 1-9/32 in. (valve closed)
 - 155 - 165 lbs. @ 15/16 in. (valve open)
- Spring (inner)
 - 30 - 35 lbs. @ 1-3/32 in. (valve open)
 - 75 - 85 lbs. @ 3/4 in. (valve closed)
- Spring free length:
 - 1-1/2 in. (outer)
 - 1-23/64 in. (inner)

Rocker Arm

- Fit in bushing: .0005 - .002 in. Loose

Piston

- Fit in cylinder: .0025 - .003 in. loose
- Ring Gap: .010 - .020 in.
- Compression Ring side clearance: .0025 - .004 in.
- Oil ring side clearance: .003 - .005 in.
- Piston pin fit: Light hand press fit at 70 degrees Fahrenheit.

Connecting Rod

- Piston pin fit: .0008 - .001 in. loose
- End play between flywheels: .006 - .010 in.
- Fit on crank pin: .0008 - .001 in. loose

Oil Pump Pressure

Minimum: 6 lbs. / sq. in. At 20 MPH

Tappets

- Guide fit: .0005 - .001 in. press
- Fit in guide: .0005 - .001 in. loose
- Roller fit: .0005 - .001 in.
- Roller end clearance: .008 - .010 in.
- Tappet clearance: Just free (no lash) - Engine cold

Gearcase

- Intermediate gear shaft
 - In bushing: .0005 - .001 in.
- Cam gear shaft in bushing: .0005 - .002 in.
- Cam gear shaft
 - In needle bearing: .0005 - .0025 in.
- Cam gear end play: .001- .006 in

Flywheel Assembly

- Gear shaft nut torque: 100 ft-lbs
- Sprocket shaft nut torque: 100 ft-lbs

- Crank pin nuts torque: 150 ft-lbs
- Runout (flywheels): .002 in. maximum at rim
- Runout (main shafts): .001 in. maximum

Sprocket Shaft Bearing

- Cup fit in crankshaft: .0005 - .0025 in. tight
- Cone fit on shaft: .0002 - .0012 in. tight
- End play: .001 - .010 in.

Pinion Shaft Bearing

- Shaft fit in roller bearing: .0008 - .001 in.
- Shaft fit in cover bushing: .0005 - .0012 in.

Ignition Timing

- Breaker point gap setting
 - Battery ignition: .020 in.
 - Magneto ignition: .015 in.
- Dwell: 90 degrees @ 1000 rpm
- Spark plug gap setting
 - Battery ignition: .025 - .030 in.
 - Magneto ignition: .020 in.
- Ignition timing
 - XLH - XLCH: 45 degrees (11/16 in. BTC)
- Ignition timing - Retarded
 - XLH: 15 degrees (5/64 in BTC)

1957 - 1969 Sportster Carburetor Information

DC Model Idle Port Holes Drill Sizes

Model	Drill Sizes
DC-1, 1L, 1M, 1O	70 (.028)
DC-2	56 (.0465)

DC Model Nozzle Bleed Holes Cleaning Drills

Model	Drill Size
DC-1, 1L, 1M, 10, 6, 7, 12	55 (.052)
DC-2	

Calibration and Setting Chart

DC Model	Idle Bleed	Idle Tube Feed	Fixed Jet	Turns High-Speed Setting	Turns Idle Speed Setting	Throttle Disc Mark
DC-1	#53 (.0595)	#69 (.0293)	#9 (.067)	3/4 to 1-1/4	3/4 to 1-1/4	9A
DC-1L	#53 (.0595)	#69 (.0293)	#4 (.0625)	3/4 to 1-1/4	1 to 1-1/4	9A
DC-1M	#53 (.0595)	#69 (.0293)	#1 (.052)	3/4 to 1-1/4	1	9A
DC-10, 6, 12	#53 (.0595)	#69 (.0293)	#4 (.0625)	3/4 to 1-1/4	1 to 1-1/4	9A
DC-2	#51 (.067)	#70 (.028)	#20 (.0452)	3/4 to 1-1/4	1 to 1-1/4	12
DC-7	#53 (.0595)	#69 (.0293)	- (.070)	3/4 to 1-1/4	1 to 1-1/4	9A

[Go To Technical Menu](#)

1) 2)

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