

**2004 - 2006**



**SERVICE MANUAL**  
**SPORTSTER**  
**2004 - 2006**

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# QUICK REFERENCE DATA

MODEL: \_\_\_\_\_ YEAR: \_\_\_\_\_

VIN NUMBER: \_\_\_\_\_

ENGINE SERIAL NUMBER: \_\_\_\_\_

CARBURETOR SERIAL NUMBER: \_\_\_\_\_

## TIRE INFLATION PRESSURE (COLD)\*

	PSI	kPa
Front wheel		
Rider only	30	207
Rider and passenger	30	207
Rear wheel		
Rider only	36	248
Rider and passenger	40	276

\*Tire pressure for original equipment tires. Aftermarket tires may require different inflation pressure.

## ENGINE OIL SPECIFICATIONS

Type	HD rating	Viscosity	Ambient operating temperature
HD Multi-grade	HD360	SAE 10W/40	Below 40° F
HD Multi-grade	HD360	SAE 20W/50	Above 40° F
HD Regular heavy	HD360	SAE 50	Above 60° F
HD Extra heavy	HD360	SAE 60	Above 80° F

## RECOMMENDED LUBRICANTS AND FLUIDS

Brake fluid	DOT 5
Front fork oil	HD Type E or equivalent
Fuel	
Type*	Unleaded
Octane	
XL883 models	Pump research octane of 87 or higher
XL1200 models	Pump research octane of 91 or higher
Transmission	
2004-2005	HD Sport Trans Fluid or equivalent
2006-on	HD Formulac Lubricant or equivalent

\*Refer to *Fuel Type* in Chapter Three.

### ENGINE AND PRIMARY DRIVE/TRANSMISSION OIL CAPACITIES

Engine oil with filter replacement	3.6 qt. (3.4 L)
Transmission oil (includes primary chaincase)	32 oz (946 ml)

### FRONT FORK OIL CAPACITY

Model	Capacity*
XL883L, XL1200L	12.3 oz. (364 ml)
All other models	11.6 oz. (342 ml)

\*Each fork leg.

### FUEL TANK CAPACITY

Model	Capacity*
XL883, XL883L, XL883R, XL1200R	3.3 gal. (12.5 L)
XL883C, XL1200C, XL1200L	4.5 gal. (17.0 L)

\*Including reserve.

### MAINTENANCE AND TUNE-UP SPECIFICATIONS

Item	Specification
Brake pad minimum thickness	0.04 in. (1.02 mm)
Clutch cable free play	1/16-1/8 in. (1.6-3.2 mm)
Drive belt deflection	
XL883, XL883R, XL1200R	3/8-7/16 in. (9.5-11.1 mm)
XL883C, XL883L, XL1200C, XL1200L	1/4-5/16 in. (6.4-7.9 mm)
Engine compression	
XL883 models	125-140 psi (862-966 kPa)
XL1200 models	200-225 psi (1380-1552 kPa)
Idle speed	950-1050 rpm
Ignition timing	Non-adjustable
Spark plug	HD-6R12*
Gap	0.038-0.043 in. (0.97-1.09 mm)

\*The manufacturer does not recommend another spark plug type.

### MAINTENANCE AND TUNE-UP TORQUE SPECIFICATIONS

Item	ft.-lb.	in.-lb.	N•m
Air filter cover screws	—	36-60	4.1-6.8
Air filter element retaining screws	—	40-60	4.5-6.8
Clutch inspection cover screws	—	84-108	9.5-12.0
Front fork cap	22-58	—	30-78
Front fork drain screw	—	13-17	1.5-2.0
Primary chain adjuster locknut	20-25	—	28-34
Primary chain inspection cover bolts	—	40-60	4.5-6.8
Rear axle nut*			
2004	60-65	—	81-88
2005-on	72-78	—	98-106
Spark plug	12-18	—	17-24
Transmission drain plug	14-30	—	19-40

\*Refer to procedure.

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