

GENERAL

SERVICING A NEW MOTORCYCLE

WARNING

Always follow the listed service and maintenance recommendations, since they affect the safe operation of the motorcycle and the personal welfare of the rider. Failure to follow recommendations may cause personal injury.

Service operations to be performed before customer delivery are specified in the applicable model year PREDELIVERY AND SETUP MANUAL.

The performance of new motorcycle initial service is required to keep warranty in force and to ensure proper emissions systems operation.

After a new motorcycle has been driven its first 500 miles, and again at 2500 mile intervals, a Buell dealer should perform the service operations listed in the [REGULAR MAINTENANCE INTERVALS](#) chart on [page 1-9](#).

SAFE OPERATING MAINTENANCE

A careful check of certain equipment is necessary after periods of storage, and frequently between regular service intervals, to determine if additional maintenance is required.

CAUTION

- Do not attempt to retighten engine head bolts. Retightening can cause engine damage.
- During the initial 500 mile (800 km) break-in period, use only 20W50 engine oil. Failure to use the recommended oil will result in improper break-in of the engine cylinders and piston rings.
- Do not lubricate the enrichment cable on C.V. carburetors. The cable requires friction to operate properly.

Check:

1. Tires for abrasions, cuts and correct pressure.
2. Secondary drive belt for proper tension and condition.
3. Brakes, steering and throttle for responsiveness.
4. Brake fluid level and condition. Hydraulic lines and fittings for leaks. Also, check brake pads and rotors for wear.
5. Cables for fraying, crimping and free operation.
6. Engine oil and transmission fluid levels.
7. Headlamp, passing lamp, tail lamp, brake lamp and turn signal operation.

SHOP PRACTICES

Repair Notes

NOTE

- General maintenance practices are given in this section.
- Repair = Disassembly/Assembly.
- Replace = Removal/Installation.

All special tools and torque values are noted at the point of use.

All required parts or materials can be found in the appropriate PARTS CATALOG.

Safety

Safety is always the most important consideration when performing any job. Be sure you have a complete understanding of the task to be performed. Use common sense. Use the proper tools. Protect yourself and bystanders with approved eye protection. Don't just do the job – do the job safely.

Removing Parts

Always consider the weight of a part when lifting. Use a hoist whenever necessary. Do not lift heavy parts by hand. A hoist and adjustable lifting beam or sling are needed to remove some parts. The lengths of chains or cables from the hoist to the part should be equal and parallel and should be positioned directly over the center of the part. Be sure that no obstructions will interfere with the lifting operation. Never leave a part suspended in mid-air.

Always use blocking or proper stands to support the part that has been hoisted. If a part cannot be removed, verify that all bolts and attaching hardware have been removed. Check to see if any parts are in the way of the part being removed.

When removing hoses, wiring or tubes, always tag each part to ensure proper installation.

Cleaning

If you intend to reuse parts, follow good shop practice and thoroughly clean the parts before assembly. Keep all dirt out of parts; the unit will perform better and last longer. Seals, filters and covers are used in this vehicle to keep out environmental dirt and dust. These items must be kept in good condition to ensure satisfactory operation.

Clean and inspect all parts as they are removed. Be sure all holes and passages are clean and open. After cleaning, cover all parts with clean lint-free cloth, paper or other material. Be sure the part is clean when it is installed.

Always clean around lines or covers before they are removed. Plug, tape or cap holes and openings to keep out dirt, dust and debris.

Disassembly and Assembly

Always assemble or disassemble one part at a time. Do not work on two assemblies simultaneously. Be sure to make all necessary adjustments. Recheck your work when finished. Be sure that everything is done.

Operate the vehicle to perform any final check or adjustments. If all is correct, the vehicle is ready to go back to the customer.

REPAIR AND REPLACEMENT PROCEDURES

Hardware and Threaded Parts

Install helical thread inserts when inside threads in castings are stripped, damaged or not capable of withstanding specified torque.

Replace bolts, nuts, studs, washers, spacers and small common hardware if missing or in any way damaged. Clean up or repair minor thread damage with a suitable tap or die.

Replace all damaged or missing lubrication fittings.

Use Teflon pipe sealant on pipe fitting threads.

Wiring, Hoses and Lines

Replace hoses, clamps, electrical wiring, electrical switches or fuel lines if they do not meet specifications.

Instruments and Gauges

Replace broken or defective instruments and gauges. Replace dials and glass that are so scratched or discolored that reading is difficult.

Bearings

Anti-friction bearings must be handled in a special way. To keep out dirt and abrasives, cover the bearings as soon as they are removed from the package.

Wash bearings in a non-flammable cleaning solution. Knock out packed lubricant inside by tapping the bearing against a wooden block. Wash bearings again. Cover bearings with clean material after setting them down to dry. Never use compressed air to dry bearings.

Coat bearings with clean oil. Wrap bearings in clean paper.

Be sure that the chamfered side of the bearing always faces the shoulder (when bearings installed against shoulders). Lubricate bearings and all metal contact surfaces before pressing into place. Only apply pressure on the part of the bearing that makes direct contact with the mating part.

Always use the proper tools and fixtures for removing and installing bearings.

Bearings do not usually need to be removed. Only remove bearings if necessary.

Bushings

Do not remove a bushing unless damaged, excessively worn or loose in its bore. Press out bushings that must be replaced.

When pressing or driving bushings, be sure to apply pressure in line with the bushing bore. Use a bearing/bushing driver or a bar with a smooth, flat end. Never use a hammer to drive bushings.

Inspect the bushing and the mated part for oil holes. Be sure all oil holes are properly aligned.

Gaskets

Always discard gaskets after removal. Replace with **new** gaskets. Never use the same gasket twice. Be sure that gasket holes match up with holes in the mating part.

Lip Type Seals

Lip seals are used to seal oil or grease and are usually installed with the sealing lip facing the contained lubricant. Seal orientation, however, may vary under different applications.

Seals should not be removed unless necessary. Only remove seals if required to gain access to other parts or if seal damage or wear dictates replacement.

Leaking oil or grease usually means that a seal is damaged. Replace leaking seals to prevent overheated bearings.

Always discard seals after removal. Do not use the same seal twice.

O-Rings (Preformed Packings)

Always discard O-rings after removal. Replace with **new** O-rings. To prevent leaks, lubricate the O-rings before installation. Apply the same type of lubricant as that being sealed. Be sure that all gasket, O-ring and seal mating surfaces are thoroughly clean before installation.

Gears

Always check gears for damaged or worn teeth.

Lubricate mating surfaces before pressing gears on shafts.

Shafts

If a shaft does not come out easily, check that all nuts, bolts or retaining rings have been removed. Check to see if other parts are in the way before using force.

Shafts fitted to tapered splines should be very tight. If shafts are not tight, disassemble and inspect tapered splines. Discard parts that are worn. Be sure tapered splines are clean, dry and free of burrs before putting them in place. Press mating parts together tightly.

Clean all rust from the machined surfaces of new parts.

Part Replacement

Always replace worn or damaged parts with **new** parts.

CLEANING

Part Protection

Before cleaning, protect rubber parts (such as hoses, boots and electrical insulation) from cleaning solutions. Use a grease-proof barrier material. Remove the rubber part if it cannot be properly protected.

Cleaning Process

Any cleaning method may be used as long as it does not result in parts damage. Thorough cleaning is necessary for proper parts inspection. Strip rusted paint areas to bare metal before repainting.

Rust or Corrosion Removal

Remove rust and corrosion with a wire brush, abrasive cloth, sand blasting, vapor blasting or rust remover. Use buffing crocus cloth on highly polished parts that are rusted.

Bearings

Remove shields and seals from bearings before cleaning. Clean bearings with permanent shields and seals in solution.

Clean open bearings by soaking them in a petroleum cleaning solution. Never use a solution that contains chlorine.

Let bearings stand and dry. Do not dry using compressed air. Do not spin bearings while they are drying.

TOOL SAFETY

Air Tools

- Always use approved eye protection equipment when performing any task using air-operated tools.
- On all power tools, use only recommended accessories with proper capacity ratings.
- Do not exceed air pressure ratings of any power tools.
- Bits should be placed against work surface before air hammers are operated.

- Disconnect the air supply line to an air hammer before attaching a bit.
- Never point an air tool at yourself or another person.
- Protect bystanders with approved eye protection.

Wrenches

- Never use an extension on a wrench handle.
- If possible, always pull on a wrench handle and adjust your stance to prevent a fall if something lets go.
- Never cock a wrench.
- Never use a hammer on any wrench other than a STRIKING FACE wrench.
- Discard any wrench with broken or battered points.
- Never use a pipe wrench to bend, raise or lift a pipe.

Pliers/cutters/prybars

- Plastic- or vinyl-covered pliers handles are not intended to act as insulation; don't use on live electrical circuits.
- Don't use pliers or cutters for cutting hardened wire unless they were designed for that purpose.
- Always cut at right angles.
- Don't use any prybar as a chisel, punch or hammer.

Hammers

- Never strike one hammer against a hardened object, such as another hammer.
- Always grasp a hammer handle firmly, close to the end.
- Strike the object with the full face of the hammer.
- Never work with a hammer which has a loose head.
- Discard hammer if face is chipped or mushroomed.
- Wear approved eye protection when using striking tools.
- Protect bystanders with approved eye protection.



Punches/chisels

- Never use a punch or chisel with a chipped or mushroomed end; dress mushroomed chisels and punches with a file.
- Hold a chisel or a punch with a tool holder if possible.
- When using a chisel on a small piece, clamp the piece firmly in a vise and chip toward the stationary jaw.
- Wear approved eye protection when using these tools.
- Protect bystanders with approved eye protection.

Screwdrivers

- Don't use a screwdriver for prying, punching, chiseling, scoring or scraping.
- Use the right type of screwdriver for the job; match the tip to the fastener.
- Don't interchange POZIDRIV®, PHILLIPS® or REED AND PRINCE screwdrivers.
- Screwdriver handles are not intended to act as insulation; don't use on live electrical circuits.
- Don't use a screwdriver with rounded edges because it will slip – redress with a file.

Ratchets and Handles

- Periodically clean and lubricate ratchet mechanisms with a light grade oil. Do not replace parts individually; ratchets should be rebuilt with the entire contents of service kit.
- Never hammer or put a pipe extension on a ratchet or handle for added leverage.

- Always support the ratchet head when using socket extensions, but do not put your hand on the head or you may interfere with the action of its reversing mechanism.
- When breaking loose a fastener, apply a small amount of pressure as a test to be sure the ratchet's gear wheel is engaged with the pawl.

Sockets

- Never use hand sockets on power or impact wrenches.
- Select the right size socket for the job.
- Never cock any wrench or socket.
- Select only impact sockets for use with air or electric impact wrenches.
- Replace sockets showing cracks or wear.
- Keep sockets clean.
- Always use approved eye protection when using power or impact sockets.

Storage Units

- Don't open more than one loaded drawer at a time. Close each drawer before opening up another.
- Close lids and lock drawers and doors before moving storage units.
- Don't pull on a tool cabinet; push it in front of you.
- Set the brakes on the locking casters after the cabinet has been rolled to your work.

1996 S1 LIGHTNING SPECIFICATIONS

DIMENSIONS	IN.	MM
Wheel base	55	1397
Overall length	79.5	2019
Overall width	30	762
Road clearance	5.2	132
Seat height	29.5	749

CAPACITIES	U.S.	LITERS
Fuel tank (including reserve)	4.0 gallons	15.14
Reserve	0.6 gallons	2.27
Oil tank	2.0 quarts	1.89
Transmission	1.0 quart	0.95

WEIGHT	LBS.	KG
S1 shipping weight	446	202
GVWR	820	372
GAWR - Front	340	154
GAWR - Rear	480	218

NOTE

Gross Vehicle Weight Rating (GVWR) (maximum allowable loaded vehicle weight) and corresponding Gross Axle Weight Ratings (GAWR) are given on an information decal located on the front frame steering head.

ENGINE		
Number of cylinders	2	
Type	4-Cycle, 45 Degree V-Type	
Bore	3.498 in.	88.849 mm
Stroke	3.8125 in.	96.838 mm
Piston displacement	73.4 cu. in.	1203 cc
Compression ratio	10.0 to 1	
Horsepower @ RPM	91 @ 5800	
Torque ft-lb @ RPM	87 @ 5200	

IGNITION SYSTEM		
Spark plugs	No. 6R12	
Size	12 mm	
Gap	0.038-0.045 in.	0.97-1.14 mm

TRANSMISSION	
Type	Constant Mesh, Foot Shift
Speeds	5 Forward

NUMBER OF SPROCKET TEETH	
Engine	35
Clutch	56
Transmission	27
Rear wheel	61
Belt	128

TRANSMISSION GEAR RATIOS	FINAL*	OVERALL**
First (low) gear	2.69	9.717
Second gear	1.97	7.118
Third gear	1.43	5.180
Fourth gear	1.18	4.269
Fifth (high) gear	1.00	3.615

*Final gear ratios indicate number of mainshaft revolutions required to drive output sprocket one revolution.

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

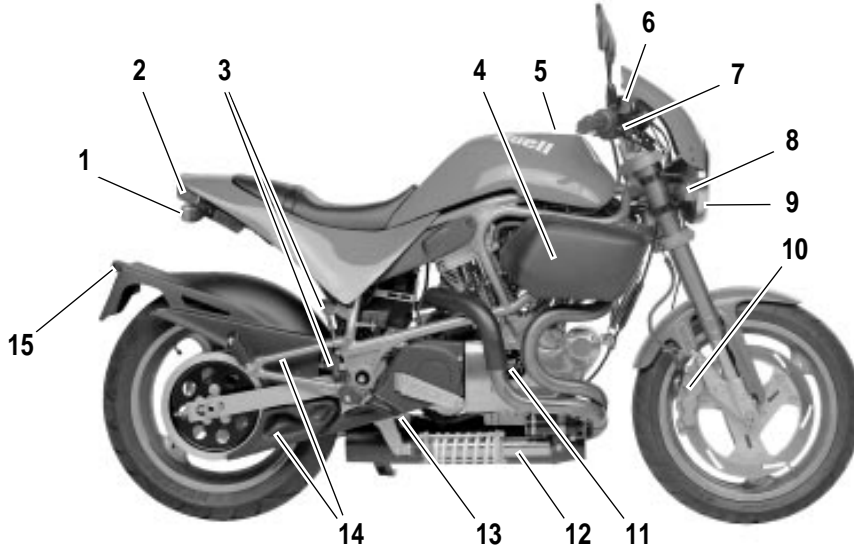
TIRE AND POSITION	PRESSURE FOR SOLO RIDING	PRESSURE AT GVWR
Front-Dunlop Sportmax Radial II 120/70 ZR 17	32 PSI (2.2 bar)	36 PSI (2.5 bar)
Rear-Dunlop Sportmax Radial II 170/60 ZR 17	36 PSI (2.5 bar)	38 PSI (2.8 bar)

WARNING

Do not inflate any tire beyond its maximum inflation pressure as specified on tire sidewall. Overinflation may cause tire to suddenly deflate leading to personal injury.

SIDE VIEWS

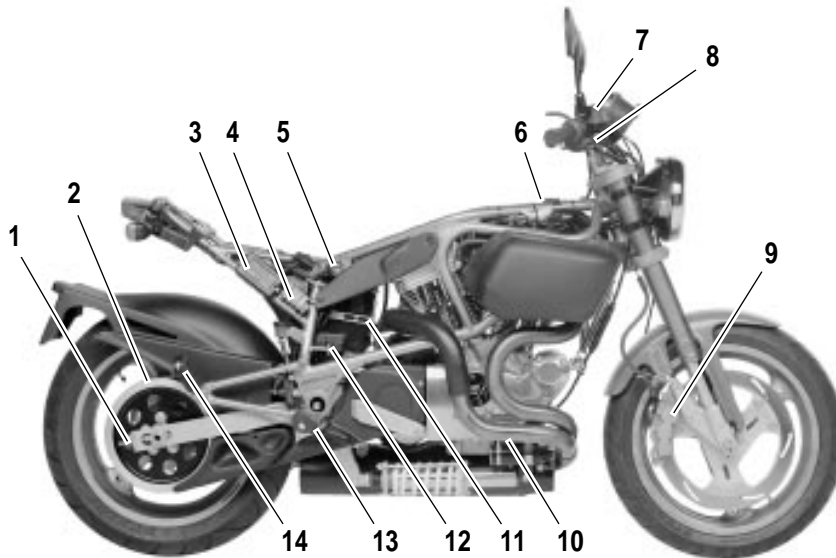
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|---|--------------------------------|-------------------------|
| 1. Right rear turn signal | 6. Front brake master cylinder | 12. Rear shock absorber |
| 2. Tail/brake lamp | 7. Front brake hand lever | 13. Rear brake pedal |
| 3. Rear brake master cylinder and reservoir | 8. Right front turn signal | 14. Belt guard(s) |
| 4. Air cleaner cover | 9. Headlamp | 15. License plate light |
| 5. Fuel filler cap | 10. Front brake caliper | |
| | 11. Timer cover | |

Figure 1-1. 1996 S1 Lightning, Right Side View

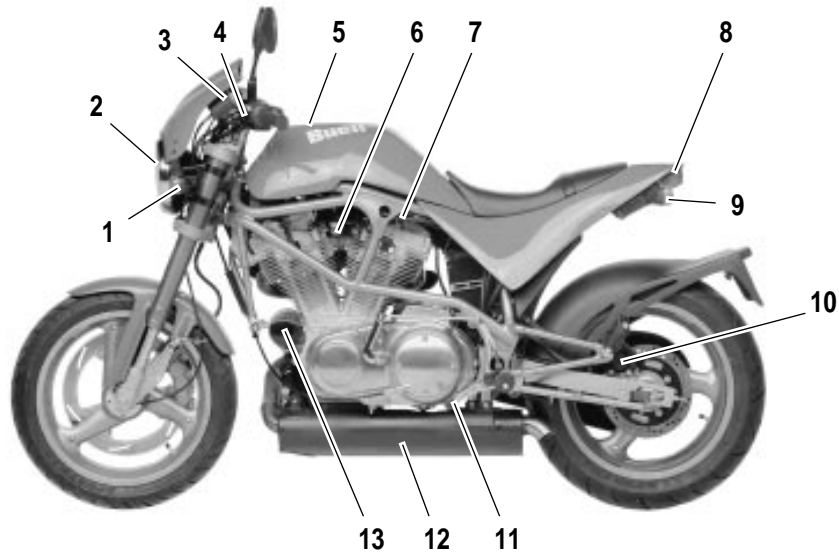
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|---|--------------------------------|------------------------|
| 1. Rear axle adjuster nut | 5. Turn signal flasher | 10. Oil pump |
| 2. Rear sprocket and secondary drive belt | 6. Horn | 11. Battery |
| 3. Ignition module | 7. Front brake master cylinder | 12. Voltage regulator |
| 4. Fuse block and spare fuse | 8. Front brake hand lever | 13. Rider footrest |
| | 9. Front brake caliper | 14. Passenger footrest |

Figure 1-2. 1996 S1 Lightning, Right Side View (Body Removed)

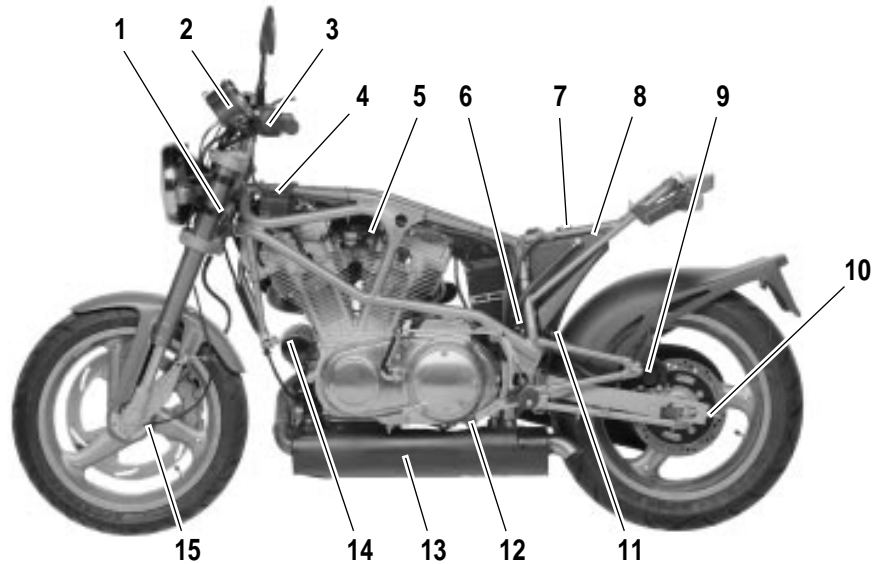
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|---------------------------|---------------------------------|----------------------|
| 1. Left front turn signal | 6. Ignition/headlamp key switch | 11. Gear shift lever |
| 2. Headlamp | 7. Fuel supply valve | 12. Exhaust muffler |
| 3. Instruments | 8. Tail/brake lamp | 13. Oil filter |
| 4. Clutch hand lever | 9. Left rear turn signal | |
| 5. Fuel filler cap | 10. Rear brake caliper | |

Figure 1-3. 1996 S1 Lightning, Left Side View

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|-----------------------|-----------------------------|-------------------------|
| 1. Steering head lock | 6. Starter relay | 11. Oil tank drain hose |
| 2. Instruments | 7. Oil filler plug/dipstick | 12. Gear shift lever |
| 3. Clutch hand lever | 8. Oil tank | 13. Exhaust muffler |
| 4. Ignition coil | 9. Rear brake caliper | 14. Oil filter |
| 5. Enrichener knob | 10. Rear axle adjuster nut | 15. Speedometer drive |

Figure 1-4. 1996 S1 Lightning, Left Side View (Body Removed)

FLUID REQUIREMENTS

GENERAL

United States System

Unless otherwise specified, **all fluid volume measurements in this Service Manual are expressed in United States (U.S.) units-of-measure.** See below:

- 1 pint (U.S.) = 16 fluid ounces (U.S.)
- 1 quart (U.S.) = 2 pints (U.S.) = 32 fl. oz. (U.S.)
- 1 gallon (U.S.) = 4 quarts (U.S.) = 128 fl. oz. (U.S.)

Metric System

Fluid volume measurements in this Service Manual include the metric system equivalents. In the metric system, 1 liter (L) = 1,000 milliliters (mL). Should you need to convert from U.S. units-of-measure to metric units-of-measure (or vice versa), refer to the following:

- fluid ounces (U.S.) x 29.574 = milliliters
- pints (U.S.) x 0.473 = liters
- quarts (U.S.) x 0.946 = liters
- gallons (U.S.) x 3.785 = liters
- milliliters x 0.0338 = fluid ounces (U.S.)
- liters x 2.114 = pints (U.S.)
- liters x 1.057 = quarts (U.S.)
- liters x 0.264 = gallons (U.S.)

STEERING HEAD BEARING GREASE

Use WHEEL BEARING GREASE (Part No. 99855-89).

BRAKE FLUID

WARNING

D.O.T. 5 SILICONE HYDRAULIC BRAKE FLUID can cause eye irritation. In case of contact with eyes, flush with plenty of water and get medical attention. KEEP BRAKE FLUID OUT OF THE REACH OF CHILDREN!

Use only D.O.T. 5 SILICONE HYDRAULIC BRAKE FLUID (Part No. 99902-77).

FRONT FORK OIL

Use only WP FORK OIL, 5 WEIGHT.

FUEL

Use a good quality leaded or unleaded gasoline (91 pump octane or higher). Pump octane is the octane number usually shown on the gas pump. See **ENGINE** in Section 3 for a detailed explanation of alternative fuels.

ENGINE OIL

Use the proper grade of oil for the lowest temperature expected before the next oil change.

Table 1-1. Recommended Oil Grades

HARLEY-DAVIDSON TYPE	VISCOSITY	HARLEY-DAVIDSON RATING	LOWEST AMBIENT TEMP.	COLD WEATHER STARTS BELOW 50° F
H.D. Multi-Grade	SAE 10W40	HD 240	Below 40°F (4°C)	Excellent
H.D. Multi-Grade	SAE 20W50	HD 240	Above 40° (4°C)	Good
H.D. Regular Heavy	SAE 50	HD 240	Above 60° (16°C)	Poor
H.D. Extra Heavy	SAE 60	HD 240	Above 80° (27°C)	Poor

PRIMARY DRIVE/TRANSMISSION LUBRICANT

Use only SPORT-TRANS FLUID (Part No. 98854-96 quart size or Part No. 98855-96 gallon size).

Table 1-2. Regular Maintenance Intervals

SERVICE OPERATIONS AND SPECIAL TOOLS	P	5 0 0 mi					2 5 0 0 mi					7 0 0 0 mi					1 0 2 5 7 0 0 0 mi					1 1 5 7 0 0 0 0 mi					2 2 2 5 7 0 0 0 mi					3 0 0 0 mi					A n n u a l	SERVICE DATA
		R	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I											
Battery connections (page 1-13)		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	Torque 30-40 in-lbs (3.4-4.5 Nm)-hold cables when tightening											
Engine oil (page 1-15) OIL FILTER WRENCH (Part No. HD-41215)	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	I	R	R	See Recommended Oil Grades on page 1-15 . Checking oil level Check with vehicle at operating temperature, engine off, motorcycle upright (not on side stand) on a level surface. Oil level Between upper and lower marks on dipstick (1/2 quart [0.47 liter] difference). Oil capacity 2.0 quarts (1.9 liters)												
Oil filter (page 1-16)		R		R		R		R		R		R		R		R		R		R		R		R	R	Hand tighten filter 1/2-3/4 turn after gasket contacts surface.												
Brake fluid level and condition (page 1-17)		I		I		I		I		I		I		I		I		I		I		I		I	I	Fluid type D.O.T. 5 SILICONE HYDRAULIC BRAKE FLUID Front master cylinder level Above LOW mark on sight glass or within 1/8 in. (3.2 mm) of molded boss when cover is removed. Rear master cylinder level Between upper and lower marks on reservoir.												
Rear brake pedal height adjustment and freeplay (page 1-17)	I	I		I		I		I		I		I		I		I		I		I		I		I	I	Maximum freeplay 1/8 in. (3.2 mm) Pedal action should be smooth and not binding.												
Brake pads and rotors for wear (page 1-17)		I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	I	Minimum brake pad thickness 1/16 in. (1.6 mm) Minimum front rotor thickness 0.17 in. (4.4 mm) Minimum rear rotor thickness 0.19 in. (4.8 mm)												
Condition of rear brake caliper mounting pins and boots				IL		IL		IL		IL		IL		IL		IL		IL		IL		IL		IL														

Table Code:

A - Adjust.
I - Inspect, and if necessary, correct, adjust, clean or replace.
L - Lubricate with specified lubricant.

R - Replace or change.
T - Tighten to proper torque.
X - Perform.





HOME



SERVICE OPERATIONS AND SPECIAL TOOLS	P r e r i d e	Mileage										A n n u a l	SERVICE DATA		
		5 0 0 0 mi	2 5 0 0 mi	5 0 0 0 mi	7 5 0 0 mi	1 0 0 0 mi	1 2 5 0 mi	1 5 0 0 mi	1 7 5 0 mi	2 0 0 0 mi	2 2 5 0 mi			2 5 0 0 mi	2 7 5 0 mi
Tire pressure and inspect tire for wear/damage	I	I	I	I	I	I	I	I	I	I	I	I	I	I	See Tire Pressures on page 1-18 .
Wheel bearings (page 1-18)					I				I				I	I	Check for wear and corrosion. Replace in sets only.
Primary chaincase/transmission lubricant (page 1-19) REAR WHEEL SUPPORT STAND (Part No. B-41174)		R	I	R	I	R	I	R	I	R	I	R	I	R	Fluid type and amount 1.0 quart (0.95 liter) of SPORT-TRANS FLUID (Part No. 98854-96) Fluid level Lubricant should reach bottom of clutch spring with motorcycle upright (not on side stand). Drain plug torque 14-21 ft-lbs (19-28 Nm)
Clutch adjustment (page 1-20)		A		A		A		A		A		A		A	Hand lever freeplay 1/16-1/8 in. (1.6-3.2 mm) Clutch inspection cover screw torque 7-9 ft-lbs (9-12 Nm)
Rear belt deflection (page 1-21) BELT TENSION GAUGE (Part No. HD-35381)	I	A		I		I		I		I		I		I	Belt deflection with 10 lbs (4.5 kg) of upward force 7/8-1 in. (22.2-25.4 mm) Rear axle nut torque 68-73 ft-lbs (89.5-98.9 Nm)
Primary chain (page 1-22)		I		I		I		I		I		I		I	Chain freeplay with hot engine 1/4-3/8 in. (6.4-9.5 mm) Chain freeplay with cold engine 3/8-1/2 in. (9.5-12.7 mm) Inspection screws torque 40-60 in-lbs (4.5-6.8 Nm)
Rear shock absorber (page 1-24)		I		I		I		I		I		I		I	Check for bushing wear and loose mounting hardware.
Steering head bearing adjustment (page 1-25) FRONT WHEEL SUPPORT STAND (Part No. B-41395) & S1 ADAPTER (B-41686)		I		I		IL		I		IL		I		IL	Force to pull front wheel to center 3.5-5.5 ft-lbs (1.6-2.5 kg) Lubricant WHEEL BEARING GREASE (Part No. HD99855-89)

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SERVICE OPERATIONS AND SPECIAL TOOLS	P	5	2	5	7	1	1	1	1	2	2	2	2	3	A	n	u	a	I	SERVICE DATA
	ri	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi	mi						
	de	km	km	km	km	km	km	km	km	km	km	km	km	km						
Front fork oil (page 1-26) FRONT WHEEL SUPPORT STAND (Part No. B-41395) & S1 ADAPTER (B-41686) PRO-LEVEL OIL GAUGE (Part No. B-59000A)						R				R				R						Fluid type WP FORK OIL, 5 weight Fluid level 4.33 in. (110 mm) from top with fork fully compressed
Spark plugs (page 1-27)				I		R		I		R		I		R						Spark plug type No. 6R12 Spark plug gap 0.038-0.045 in. (0.96-1.14 mm) Lubricant LOCTITE ANTI-SEIZE LUBRICANT Torque 11-18 ft-lbs (15-24 Nm)
Air cleaner filter (page 1-28)			I		R		R		R		R		R							Check more often in dusty conditions.
Throttle control grip sleeve, cables and speedometer cable (Section 2)	I				L		L		L		L		L							Check for damage and freeplay.
Front brake hand lever, throttle control cables, clutch control cable and hand lever (Section 2)			L		L		L		L		L		L							Check for damage and freeplay.
Operation of throttle and enricher controls (page 1-29)	I	I	I	I	I	I	I	I	I	I	I	I	I	I						Controls must be smooth and not binding. DO NOT lubricate the enricher cable.
Engine idle speed (page 1-30) CARBURETOR IDLE ADJUSTMENT TOOL (Part No. HD-33413) TIP (Snap-on Part No. TMP23A)	I	I	I	I	I	I	I	I	I	I	I	I	I	I						Fast idle-all models 2000 RPM Regular idle-49 state models 950-1050 RPM Regular idle-California models 1150-1250 RPM
Ignition timing (page 1-30) TIMING MARK VIEW PLUG (Part No. HD-96295-65D) INDUCTIVE TIMING LIGHT (Part No. HD-33813)					I		I		I		I		I							Ignition timing set at regular engine idle speed (listed above).
Vacuum-operated electric switch (V.O.E.S.) (page 1-32)					I		I		I		I		I							

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HOME



SERVICE OPERATIONS AND SPECIAL TOOLS	P r e r i d e														A n n u a l	SERVICE DATA
	5 0 0 mi	2 5 0 0 mi	5 0 0 0 mi	7 5 0 0 mi	1 0 0 0 mi	1 2 5 0 0 mi	1 5 0 0 0 mi	1 7 5 0 0 0 mi	2 0 0 0 0 mi	2 2 5 0 0 0 mi	2 5 0 0 0 mi	2 7 5 0 0 0 mi	3 0 0 0 0 mi	8 0 0 0 0 km		
Fuel supply valve, hoses and fittings for leaks (Section 4)	I	I	I	I	I	I	I	I	I	I	I	I	I	I		
Fuel tank filter screen (Section 4)			I		I		I		I		I		I			
Swingarm pivot bolt (Section 2)			I		I		I		I		I		I		Lubricant LOCTITE ANTI-SEIZE LUBRICANT	
Swingarm bearings (Section 2)			I		IL		I		IL		I		IL		Lubricant WHEEL BEARING GREASE (Part No. HD99855-89)	
Oil and brake lines (Section 2 and 3)	I	I	I	I	I	I	I	I	I	I	I	I	I	I	Check for leaks and loose connections.	
Side stand (Section 2)		I		L		L		L		L		L		L		
Engine mounts (Section 3)		I		I		I		I		I		I		I		
Operation of all electrical equipment and switches (Section 7)	I	I	I	I	I	I	I	I	I	I	I	I	I	I		
All fasteners except engine head bolts		T		T		T		T		T		T		T		
Road test	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

Table Code:

- A - Adjust.
- I - Inspect, and if necessary, correct, adjust, clean or replace.
- L - Lubricate with specified lubricant.

- R - Replace or change.
- T - Tighten to proper torque.
- X - Perform.