

2000 HARLEY-DAVIDSON MANUAL

# YOUR OWNER'S MANUAL

Welcome to the Harley-Davidson Motorcycling Family! Your new Harley-Davidson motorcycle is designed and manufactured to be the finest in its class. Your Harley-Davidson motorcycle conforms to all applicable U.S. Federal Motor Vehicle Safety Standards and U.S. Environmental Protection Agency regulations effective on the date of manufacture.

This manual has been prepared to acquaint you with the operation, care and maintenance of your motorcycle, and to provide you with important safety information. Follow these instructions carefully for maximum motorcycle performance and for your own personal motorcycling safety and pleasure.

Your Owner's Manual contains instructions for operation and minor maintenance. Major repairs are covered in the Harley-Davidson Service Manual and require the attention of a skilled technician using special tools and equipment. Your Harley-Davidson dealer has the facilities, experience. and the necessary genuine Harley-Davidson parts to provide the proper level of service. We recommend that any emission system maintenance also be performed by an authorized Harley-Davidson dealer.

#### **WE CARE ABOUT YOU**

When enjoying your Harley-Davidson motorcycle, be sure to ride safely, defensively, and within the limits of the law. Ride with your headlamp on and always wear a helmet, proper eyewear and protective clothing. Insist that your passenger does the same. Never ride while under the influence of alcohol or drugs. Know your Harley<sup>®</sup> and read your Owner's Manual cover to cover. Protect your privilege to ride by joining the American Motorcyclist Association.

**Harley-Davidson Motor Company** 

<sup>©</sup>COPYRIGHT 1999 HARLEY-DAVIDSON ALL RIGHTS RESERVED

CMI-2.5M-6/99 Printed in U.S.A.

PERSONAL INFORMATION	VEHICLE INFORMATION	
Name	Vehicle Identification No	
Address	_ Ignition Key No	
Telephone No.	_	

# IMPORTANT NOTICE! SAFETY DEFINITIONS

Statements in this manual preceded by the following words are of special significance:

## **A**WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

# **A**CAUTION

CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

#### CAUTION

CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

#### NOTE

Refers to important information, and is placed in italic type. It is recommended that you take special notice of these items.

# **TABLE OF CONTENTS**

Page N	lo.	Page No.
VEHICLE IDENTIFICATION	HANDLEBAR CONTROLS (LEFT SIDE)	
NUMBER (VIN)	Clutch Hand Lever	22
	Gear Snifter Lever	
FLHTP-I (Left Side View)		
FLHTP-I (Right Side View)	3 Headlamp Switch: Hi/Lo Beam	23
FLHP-I (Left Side View)	4 Left Turn Signal Switch	23
FLHP-I (Right Side View)	Horn/Siren Yelp Switch	23
SAFETY FIRST	HANDLEBAR CONTROLS (RIGHT SIDE)	
	Engine Stop/Start Switches	26
Safe Operating Rules	11110ttle 0011t101 011b	26
Rules of the Road	Priction Adjusting Screw	
Accessories and Cargo1	1 Brake Hand Lever/Foot Pedal	27
	Right Turn Signal Switch	27
INSTRUMENTATION	Turn Signal Switch Operation	28
	Hazard Warning 4-Way Flasher	28
Ignition/Light Key Switch and Fork Lock Mechanism 13	Pole/Pursuit Lamp Switch	
Indicator Lamps 17	7	
Fuel Gauge 19	9 MISCELLANEOUS	
Tachometer	9 Mirrors	29
Speedometer/Odometer	9 Jiffy Stand	
Trip-Odometer	only olaria	
Voltmeter		
Microphone Input Jack and Accessory Switch		

Page No.	Page	e No
Air Suspension Adjustments	Checking Oil Level	. 52
Seat	Engine Oil Filter	. 54
Saddlebags	Winter Lubrication	. 54
	Transmission Lubrication	. 55
OPERATION	Primary Chaincase Lubrication	. 57
	Changing Chaincase Lubricant	. 57
Operating Recommendations	Primary Chain	. 58
Break-in - The First 500 Miles	Rear Drive Belt	. 61
Pre-Riding Checklist	Chassis Lubrication	. 62
Starting the Engine	Greasing	. 62
Carbureted Models39	Oil Applications	. 62
Cool Engine40	Front Fork Oil	. 62
Warm Climate or Hot Engine41	Fuel Filter Strainer	. 63
Sequential Port Fuel Injected Models42	Carburetor	. 63
Stopping the Engine	Air Cleaner	. 63
Shifting Gears43	Hydraulic Lifters	. 66
	Clutch/Clutch Control Cable	
MAINTENANCE AND	Brakes	. 67
LUBRICATION	Tires	. 68
LUBRICATION	Flat Tire Repair	. 69
Safe Operating Maintenance45	Vehicle Alignment	
Break-in Maintenance45	Front Fork Bearings	
Check at First 1000 Miles46	Rear Swingarm Pivot Shaft	
Lubrication Summary	Spark Plugs	
Regular Service Intervals	Ignition Timing	
Engine Lubrication 52	Headlamp	

Page	No
------	----

# Page No.

Headlamp Adjustment	74
Battery	76
Battery Storage	76
Battery Removal/Installation	78
Battery Access (Without Removal)	80
Battery Charging Warnings	80
Charging Battery	81
Jump Starting Procedure	82
Fuses	85
General Maintenance	86
Cleaning Your Motorcycle	86
Accessories Maintenance	87
Windshields	87
Detachable Windshield	87
Hinges and Latches-Fuel Door and Saddlebags	89
Storage	89
Placing Motorcycle In Storage	89
Removal from Storage	٩n

# RIDER TROUBLESHOOTING

GENERAL	91
ENGINE	91
Starter Does Not Operate Or Does Not Turn	
Engine Over	
Engine Turns Over But Does Not Start	91
Starts Hard	91
Starts But Runs Irregularly or Misses	92
A Spark Plug Fouls Repeatedly	92
Pre-ignition or Detonation (Knocks or Pings)	92
Overheats	92
Excessive Vibration	92
LUBRICATION SYSTEM	93
Oil Does Not Return to Oil Pan	93
Engine Leaks Oil From Cases, Push Rods, Hoses .	93
ELECTRICAL SYSTEM	93
Alternator Does Not Charge	93
Alternator Charge Rate is Below Normal	93
CARBURETOR	93
Carburetor Floods	93
TRANSMISSION	93
Transmission Shifts Hard	93
Transmission Jumps Out of Gear	94
Clutch Slips	94

	Page No.	Page No.
Clutch Drags or Does Not Release	94	WARRANTY AND RESPONSIBILITIES
Brakes Do Not Hold Normally		Owner's Identification Card
SPECIFICATIONS		Important         102           EPA Noise Regulations         102
Dimensions	95	Warranty/Service Information 103
Weight	95	Reporting Safety Defects
Capacities	95	NHTSA Statement 103
Ignition System	95	Harley-Davidson Limited Warranty 104
Spark Plugs	95	Limited Warranty Transfer Form (Sample) 105
Twin Cam 88 <sup>TM</sup> Engine	96	Harley-Davidson Emission Control System Warranty . 106
Transmission	96	Harley-Davidson Noise Control System Warranty 107
Number of Sprocket Teeth	96	MAINTENANCE CHECK-OFF
Overall Gear Ratios	96	
Tire Data	96	COUPONS 109
Fuel	97	
Gasoline Blends	98	SERVICE LITERATURE151
Guards		
Bulb Chart	99	INDEX 153

# **LIST OF ILLUSTRATIONS**

	Page No.	Page No.
Figure 1.	· · · · · · · · · · · · · · · · · · ·	Figure 23. 5-Speed Shifting Sequence
Figure 2.	Ignition/Light Key Switch and	Figure 24. Lubrication Points
	Fork Lock - FLHTP-I 14	Figure 25. Engine Fill Plug and Dipstick 53
Figure 3.	Instruments - FLHP/FLHP-I 15	Figure 26. Removing the Oil Filter 55
Figure 4.	Ignition/Light Key Switch - FLHP/FLHP-I 16	Figure 27. Transmission Case (Right Side) 56
Figure 5.	Indicator Lamps - FLHP/FLHP-I 17	Figure 28. Transmission Lubricant Plug/Dipstick 56
Figure 6.	Indicator Lamps and Gauges	Figure 29. Primary Chaincase Cover 57
	- FLHP/FLHP-I	Figure 30. Fill Primary Chaincase With Lubricant 59
•	FLHP/FLHP-I Fork Lock	Figure 31. Primary Chaincase Cover 60
	Upper Frame Cross Member - FLHTP-I 21	Figure 32. Check Belt Deflection61
	Gear Shifter Lever	Figure 33. Air Cleaner Assembly 64
	Left Handlebar Controls	Figure 34. Measuring Brake Outer Pad67
	Right Handlebar Controls	Figure 35. Check Pivot Shaft Locknut Torque 70
	Rear Brake Pedal (Right Side)	Figure 36. Headlamp Lense/Bulb Assembly 73
	Set the Enrichener Knob	Figure 37. Check Headlamp Alignment
	Fuel Supply Valve	Figure 38. Adjust Headlamp Alignment
-		Figure 39. Maintenance-Free Battery 76
	Solo Seat	Figure 40. Read Battery Warning Label
•	Saddlebag Quick-Release Fasteners 36	Figure 41. Battery Self-Discharge Rate
•	Tachometer Gauge - FLHTP-I	Figure 42. Jump Starting Battery
•	Fuel Tank (Right Side) - FLHP/FLHP-I 39	Figure 43. Fuse Blocks (Under Left Side Cover) 85
	Set the Enrichener Knob	Figure 44. Detachable Windshield (Left Side View) 88
	Right Handlebar Controls	Figure 45. Owner's Warranty Identification Card101
94.0		g:

# **LIST OF TABLES/CHARTS**

	Page No.			Page No.
Γable 1.	Air Suspension Adjustments	Table 5.	Checking Oil Level	53
Γable 2.	Maximum Recommended RPM 37	Table 6.	Primary Chain Adjustment	60
Γable 3.	Gear Change Speeds 44	Table 7.	Spark Plug Data	71
Γable 4.	Recommended Engine Oils 52	Table 8.	Battery Charging Rates/Times	83
	•	Table 9.	Tire Pressures	97

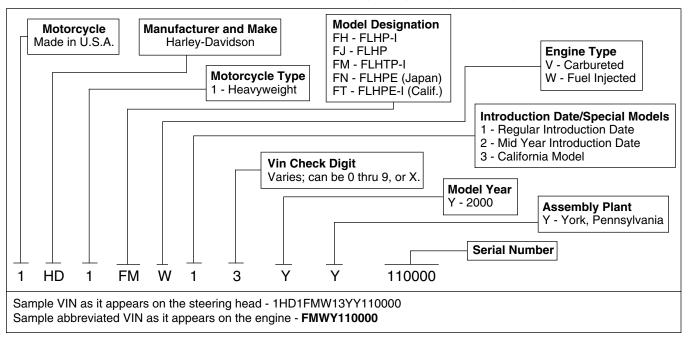
# VEHICLE IDENTIFICATION NUMBER (VIN)

A 17-digit serial number, or Vehicle Identification Number (VIN), is stamped on the right side of the frame backbone to the rear of the steering head. A label bearing the VIN code is

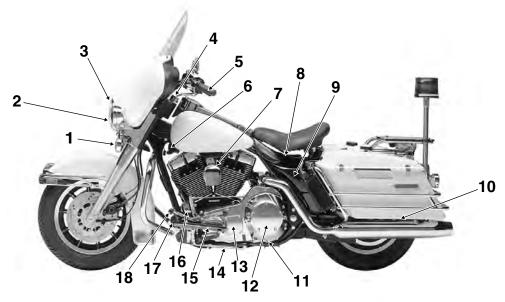
also affixed to the right front frame downtube. An abbreviated VIN is stamped between the front and rear cylinders on the left side of the crankcase.

#### NOTE

Always give the complete VIN when ordering parts or making any inquiry about your motorcycle.



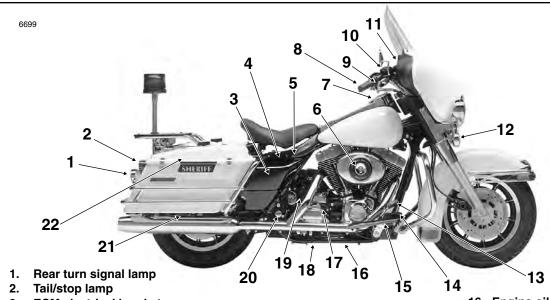
6698



- 1. Front turn signal/running lamp
- 2. Pursuit lamp
- 3. Headlamp
- 4. Ignition/light key switch/fork lock
- 5. Clutch hand lever
- 6. Ignition coil
- 7. Horn

- 8. Main 40 amp circuit breaker (under seat)
- 9. System fuses (under side cover)
- 10. Rear axle adjuster
- 11. Primary drain plug
- 12. Clutch inspection cover

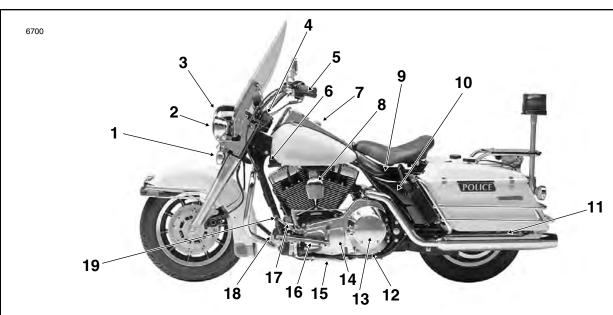
- 13. Primary chain inspection cover
- 14. Jiffy stand
- 15. Footrest
- 16. Engine oil filter
- 17. Voltage regulator
- 18. Gear shifter lever



- 3. ECM electrical bracket (under side cover)
- 4. Battery (under seat)
- 5. Accessory connector (under seat)
- 6. Air cleaner
- 7. Fuel filler cover
- 8. Throttle control grip

- 9. Front brake hand lever
- 10. Front brake master cylinder/reservoir
- 11. Speedometer/tachometer
- 12. Front turn signal/running lamp
- 13. Rear brake pedal
- 14. Rear brake master cylinder reservoir
- 15. Footrest

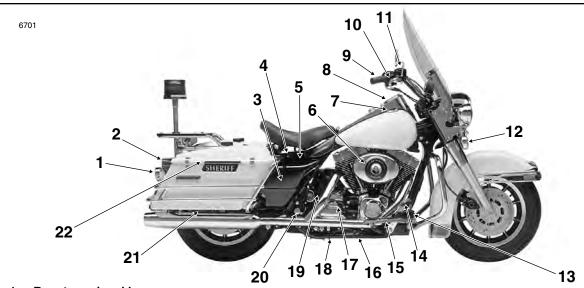
- 16. Engine oil pan drain
- 17. Transmission fill plug
- 18. Transmission drain plug
- 19. Electric starter motor
- 20. Engine oil fill plug/dipstick
- 21. Rear axle adjuster
- 22. Front/rear suspension air valves (behind saddlebag)



- 1. Front turn signal/running lamp
- 2. Pursuit lamp
- 3. Headlamp
- 4. Fork lock
- 5. Clutch hand lever
- 6. Ignition coil
- 7. Ignition/light key switch

- 8. Horn
- 9. Main 40 amp circuit breaker (under seat)
- 10. System fuses (under side cover)
- 11. Rear axle adjuster
- 12. Primary drain plug

- 13. Clutch inspection cover
- 14. Primary chain inspection cover
- 15. Jiffy stand
- 16. Footrest
- 17. Engine oil filter
- 18. Voltage regulator
- 19. Gear shifter lever



- 1. Rear turn signal lamp
- 2. Tail/stop lamp
- 3. ECM electrical bracket (under side cover)
- 4. Battery (under seat)
- 5. Accessory connector (under seat)
- 6. Air cleaner
- 7. Fuel filler cap

- 8. Speedometer
- 9. Throttle control grip
- 10. Front brake hand lever
- 11. Front brake master cylinder reservoir
- 12. Front turn signal/running lamp
- 13. Rear brake master cylinder/reservoir
- 14. Rear brake pedal
- 15. Footrest

- 16. Engine oil pan drain
- 17. Transmission fill plug
- 18. Transmission drain plug
- 19. Electric starter motor
- 20. Engine oil fill plug/dipstick
- 21. Rear axle adjuster
- 22. Front/rear suspension air valves (behind saddlebag)

# **NOTES**

## SAFE OPERATING RULES

Before operating your new motorcycle, carefully read the operating and maintenance instructions in this manual. Also, to ensure your personal safety, follow these basic rules:

- Know and respect the rules of the road (see RULES OF THE ROAD). Carefully read and follow the rules contained in the MOTORCYCLE SAFETY booklets accompanying this Owner's Manual. Read and familiarize yourself with the contents of the MOTORCYCLE HAND-BOOK published in your state.
- Use only genuine Harley-Davidson approved parts and accessories.
- Gasoline is extremely flammable and explosive. Always refuel in a well ventilated area with the engine turned off. Remove the fuel filler cap slowly. Do not smoke or allow open flames or sparks when refueling or servicing the fuel system. Always close the fuel supply valve when the engine is not running to prevent flooding of the carburetor and the surrounding area with gasoline. Do not fill the fuel tank above the bottom of the filler neck insert. Always leave air space to allow for fuel expansion.
- Motorcycle exhaust contains poisonous carbon monoxide gas. Do not inhale exhaust gases and never run the engine in a closed garage or confined area.

- Never exceed 80 mph (130 km/h) when carrying a passenger or when vehicle is fully loaded.
- Before starting the engine, check the brake, clutch, shifter and throttle controls for proper operation. Check for the correct fuel and oil supply.
- Be sure the jiffy stand is fully retracted before riding. If the jiffy stand is not fully retracted during vehicle operation, unexpected contact with the road surface can distract the rider. While the jiffy stand will retract upon contact, the momentary disturbance and/or rider distraction can lead to loss of vehicle control resulting in personal injury and/or vehicle damage.
- Always operate a new motorcycle in accordance with the special break-in procedure. (See BREAK-IN-THE FIRST 500 MILES.)
- Operate the motorcycle only at moderate speed and out of traffic until you have become thoroughly familiar with its operation and handling characteristics under all conditions. If you are an inexperienced rider we recommend that you obtain information and formal training in correct motorcycle riding technique.
- Do not exceed the legal speed limit or drive too fast for existing conditions. Always reduce speed when poor driving conditions exist. High speed increases the influence of those conditions that adversely affect stability and can lead to loss of vehicle control resulting in personal injury and vehicle damage.

- Pay strict attention to road surfaces and wind conditions. Any two wheeled vehicle may be subject to upsetting forces. Wind blasts from passing trucks, holes in the pavement, rough road surfaces, rider control error, etc., may influence the handling characteristics of your motorcycle. If this happens, reduce speed and guide the motorcycle with a relaxed grip to a controlled condition. Do not brake abruptly or force the handlebar since these actions tend to aggravate an unstable condition. New riders should gain experience under various conditions while driving at moderate speeds.
- Operate your motorcycle defensively. Remember, a motorcycle does not afford the same protection as an automobile in an accident. One of the most common accident situations occurs when the driver of the other vehicle fails to see or recognize a motorcycle and turns left into the on-coming motorcyclist. Operate only with the headlamp on.
- Wear an approved helmet, clothing and footgear suited to motorcycle riding. Bright or light colors are best for greater visibility in traffic, especially at night. Avoid loose, flowing garments and scarves.
- The exhaust pipes and mufflers get very hot when the engine is running and remain too hot to touch for some time after the engine is turned off. Wear clothing that will completely cover the legs when riding. Avoid contact with the exhaust system.

- Do not allow other individuals to operate your motorcycle unless you are convinced that they are experienced, licensed riders and are thoroughly familiar with the operation of your particular motorcycle.
- When leaving the motorcycle unattended, lock the steering head and remove the ignition key from the switch. Protect your motorcycle against theft.
- Safe motorcycle operation requires mental awareness and good judgment combined with a highly defensive driving attitude. Do not allow fatigue, alcohol or drugs to endanger your safety or the safety of others. Vehicles equipped with a sound system should have the volume adjusted to a nondistracting level before the vehicle is operated.
- Maintain your motorcycle in proper operating condition in accordance with the MAINTENANCE INTERVALS chart in this Owner's Manual. Particularly important to motorcycle stability is proper tire inflation pressure, tread condition, and proper adjustment of wheel bearings and steering head bearings. Do not operate the motorcycle with a loose, worn or damaged steering system or front and rear suspension system because handling will be adversely affected. Contact your dealer for repair of steering or suspension system wear or damage. Be sure all equipment required by federal, state and local law is installed and in good operating condition.

- Maintain proper tire pressure and wheel and tire balance. Improper tire and wheel balance and abnormal tread wear can cause poor handling. Inspect your tires periodically. Replace tires with approved tires only. (See your Harley-Davidson dealer.)
- Do not exceed the Gross Vehicle Weight Rating of your motorcycle. Maximum allowable vehicle weights with rider and passenger are specified on the Identification Label affixed to your vehicle. Overloading, particularly at the rear of a motorcycle, can cause instability. Carefully check any approved accessories for the maximum weight capacities.
- Do not tow a trailer. Trailers may contribute to motorcycle instability and/or tire overload.
- Regularly inspect shock absorbers and front forks.
   Check for leaks. Worn parts can affect stability. Refer any questions to your Harley-Davidson dealer.
- Keep hazardous substances such as brake and battery fluids and cleaning compounds away from eyes and skin and out of mouth. Keep all hazardous substances out of the reach of children.

- See your dealer for answers to any questions you may have about your motorcycle. If any abnormality occurs in the operation of your motorcycle, contact your Harley-Davidson dealer immediately. Continued operation of a misperforming motorcycle can aggravate an existing condition, resulting in more costly repairs and potential safety hazards.
- The front and/or rear guard(s) may provide limited leg protection and cosmetic vehicle protection under unique circumstances (i.e., fall to the side while stopped, very slow speed slide). They are not made nor intended to provide protection in a collision with another vehicle or an object.
- The quality fasteners used in Harley-Davidson motorcycles have specific strength, finish and type requirements to perform properly in the assembly and its environment. Use only genuine Harley-Davidson replacement fasteners, tightened to the proper torque. Substitution could cause fastener failure which may result in personal injury.
- Do not tow a disabled motorcycle with another vehicle. Both steering and handling will be impaired by the force on the tow line and may lead to loss of vehicle control and personal injury. Always use a truck or trailer to transport a disabled motorcycle.

# **RULES OF THE ROAD**

- Keep on the right side of the road centerline when meeting other vehicles coming in the opposite direction. Ride to left of center of your lane to avoid possible oily pavement.
- Always sound your horn, actuate your turn signals and exercise caution when passing other vehicles going in the same direction. Never try to pass another vehicle going in the same direction at street intersections, on curves, or when going up or down a hill.
- At street intersections give the right-of-way to the vehicle on your right. Do not presume too much when you have the right-of-way; the other driver may not know you have it.
- Always signal when preparing to stop, turn or pass.
- All traffic signs, including those used for the control of traffic at intersections, should be obeyed promptly and to the letter. SLOW DOWN signs near schools and CAUTION signs at railroad crossings should always be observed and your actions governed accordingly.
- When intending to turn to the left, signal at least 100 feet before reaching the turning point. Move over to the centerline of the street (unless local rules require otherwise), slow down, enter the intersection of the street and then turn carefully to the left.

- Never anticipate a traffic light. When a change is indicated from GO to STOP (or vice versa) in the traffic control systems at intersections, await the change.
- While turning either right or left, watch for pedestrians as well as vehicles.
- Do not leave the curb or parking area without signaling.
   Be sure that your way is clear before entering moving traffic. A moving line of traffic always has the right-ofway.
- Be sure that your license plate is installed in the position specified by law and that it is clearly visible under all conditions. Keep it clean.
- Ride at a safe speed a speed consistent with the type of highway you are on, and always note whether the road is dry, oily, icy or wet. Each varying condition on the highway means adjusting your speed and driving habits accordingly.

## **ACCESSORIES AND CARGO**

#### **A**WARNING

The addition of accessories and additional weight to this motorcycle can affect the motorcycle's stability, handling characteristics, and safe operating speed. Because Harley-Davidson cannot test and make specific recommendations regarding every accessory or combination of accessories sold, the rider must assume responsibility for safe operation of the motorcycle when installing accessories or carrying additional weight. Use the following guidelines when equipping a motorcycle or carrying passengers and cargo.

The Gross Vehicle Weight Rating (GVWR) is shown on the information plate located on the frame steering head. GVWR is the sum of the weight of the motorcycle and accessories and the maximum weight of the rider and cargo that may be carried safely. Do not tow a trailer with this motorcycle. Do not exceed the GVWR as indicated on the frame label. Overloading the motorcycle or towing a trailer will cause unstable handling and reduced braking efficiency which could result in an accident and personal injury.

- Never exceed 80 mph (130 km/h) when carrying a passenger or when vehicle is fully loaded.
- Keep cargo weight concentrated close to the motorcycle and as low as possible to minimize the change in the motorcycle's center of gravity. Distribute weight evenly on both sides of the vehicle and do not load bulky items too far behind the rider or add weight to the handlebars or front forks. Do not exceed 15 pounds maximum load in each saddlebag.
- Racks are designed for lightweight items do not overload racks.
- Be sure cargo is secure and will not shift while riding. Periodically recheck load.
- Accessories that change the operator's riding position may increase reaction time and affect handling.
- Additional electrical equipment may overload the motorcycle's electrical system and cause an unsafe operating condition.
- Large surfaces, such as fairings, windshields, backrests and luggage racks, can adversely affect handling. These items should be designed and approved by Harley-Davidson specifically for the motorcycle model and be properly installed.

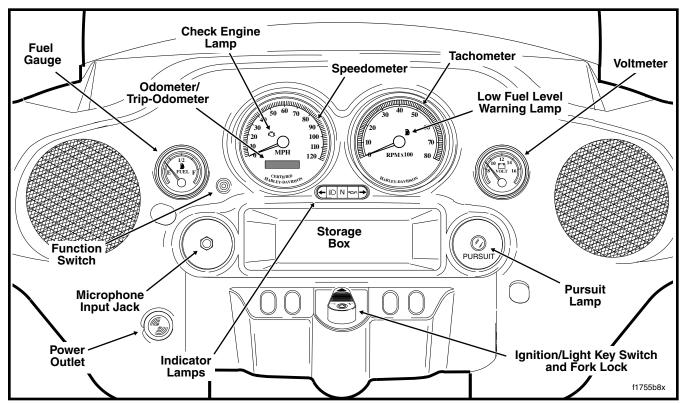


Figure 1. Instruments - FLHTP-I Inner Fairing

# INSTRUMENTATION

# IGNITION/LIGHT KEY SWITCH FORK LOCK MECHANISM

#### General

The Ignition/Light Key Switch controls the electrical functions of the motorcycle.

#### NOTE

Remember to record all key numbers in the space provided at the front of this book.

# **A**WARNING

DO NOT modify the ignition/light key switch wiring to circumvent the automatic-on headlamp feature. High visibility is an important safety consideration for motorcycle riders. To reduce the risk of vehicle damage and personal injury, ensure the headlamp is on at all times. Failure to do so could result in death or serious injury.

#### **CAUTION**

To prevent theft when leaving motorcycle unattended, always lock the ignition/fork lock and remove the key.

## ACAUTION

Any attempt to operate the fork lock mechanism while the motorcycle is in motion can result in personal injury and vehicle damage.

#### **CAUTION**

Always turn the Ignition/Light Key Switch knob to the FORK LOCK position (FLHTP-I) or LOCK position (FLHP/-I) before locking. The instrument lights will drain the battery if the switch is left in the ACCESS(ORY) position.

#### FLHTP-I MODELS

See Figure 2. The Ignition/Light Key Switch on FLHTP-I models is located at the bottom of the inner fairing. The fork lock mechanism is also incorporated into the design of the switch. The various switch positions function as follows:

**IGNITION/FORK LOCK (UNLOCK):** Insert the key in the Ignition/Light Key Switch. Pushing down on the key, turn counterclockwise to the UNLOCK position. Remove and pocket the key. Press the switch knob down and turn clockwise to the OFF position. To ready the vehicle for a start sequence, see IGNITION below.

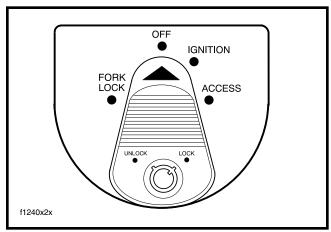


Figure 2. Ignition/Light Key Switch and Fork Lock - FLHTP-I

#### NOTE

Always remove the key after unlocking the ignition and fork lock or key may be lost during vehicle operation.

IGNITION/FORK LOCK (LOCK): Stop the engine using the ENGINE STOP SWITCH on the right handlebar. Turn the Ignition/Light Key Switch knob counterclockwise to the OFF position. Move the front fork to the left fork stop. Push down on the switch knob and turn counterclockwise to the FORK

LOCK position. Insert the key in the switch. Pushing down on the key, turn clockwise to the LOCK position. Remove and pocket the key.

**IGNITION:** Turn the Ignition/Light Key Switch knob clockwise to the IGNITION position. (The ignition, lights and accessories are now operational.) To start the engine, see ENGINE STOP/START SWITCHES on page 26.

ACCESS(ORY): From the IGNITION position, push down on the Ignition/Light Key Switch knob and turn clockwise to the ACCESS(ORY) position. Accessories and hazard warning flashers can now be activated. Instrument lights are on. The brake light and horn are operational. The key switch may be locked, if desired. To remove the switch from the ACCESS(ORY) position, push down on the knob and turn counterclockwise.

#### FLHP/FLHP-I MODELS

The Ignition/Light Key Switch on FLHP/FLHP-I models is located at the top of the fuel tank. See Figure 3. Unlike the FLHTP-I model, the fork lock is not incorporated into the design of the switch (although it does take the same key). The various switch positions function as follows:

FORK LOCK (UNLOCK): Insert the key in the fork lock mechanism at the top of the steering head (behind the headlamp nacelle and inset in the handlebar clamp shroud).

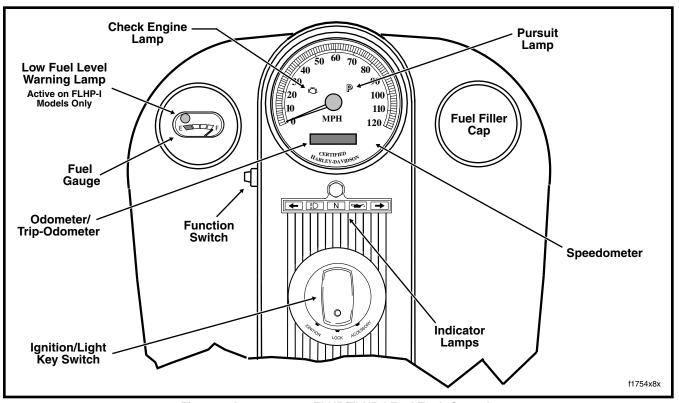


Figure 3. Instruments - FLHP/FLHP-I Fuel Tank Console (Tachometer, Fork Lock, Accessory Switch & Microphone Input Jack Not Shown)

See Figure 7. Pushing down on the key, turn clockwise to the UNLOCK position. Remove the key.

**IGNITION (UNLOCK):** Open the switch cover. See Figure 4. Insert the key in the Ignition/Light Key Switch. Pushing down on the key, turn clockwise to unlock. Remove and pocket the key. Close the switch cover.

#### NOTE

Always remove the key after unlocking the fork lock and ignition or key may be lost during vehicle operation.

**LOCK:** With the Ignition/Light Key Switch knob in the LOCK position, the ignition, lights and accessories are off. To ready the vehicle for a start sequence, see IGNITION below.

**IGNITION:** Turn the Ignition/Light Key Switch knob clockwise to the IGNITION position. (The ignition, lights and accessories are now operational.) To start the engine, see ENGINE STOP/START SWITCHES on page 26.

**ACCESS(ORY):** From the LOCK position, turn the Ignition/Light Key Switch knob counterclockwise to the ACCESSORY position. Accessories and hazard warning flashers can now be activated. Instrument lights are on. The brake light and horn are operational. The Ignition/Light Key Switch may be locked, if desired.

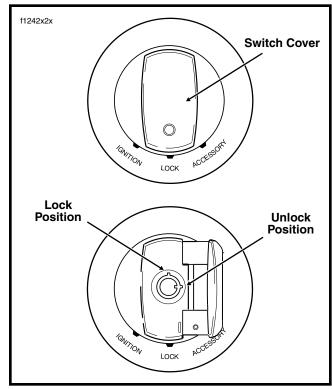


Figure 4. Ignition/Light Key Switch - FLHP/FLHP-I

**IGNITION (LOCK):** Stop the engine using the ENGINE STOP SWITCH on the right handlebar. Turn the Ignition/Light Key Switch knob counterclockwise to the LOCK position. Open the switch cover. Insert the key in the Ignition/Light Key Switch. Pushing down on the key, turn counterclockwise to lock. Remove the key and close the switch cover.

**FORK LOCK (LOCK):** Move the front fork to the left fork stop. Insert the key in the fork lock mechanism at the top of the steering head. Pushing down on the key, turn counterclockwise to the LOCK position. Remove and pocket the key.

#### INDICATOR LAMPS

See Figure 5 (FLHP/-I) or Figure 1 (FLHTP-I). Indicator lamps are provided as follows:

the *green* TURN indicator LED flashes to signal a right or left turn. When the 4-Way Hazard Flashers are activated, both turn indicator lamps flash at the same time.

the **blue** BEAM indicator LED illuminates to indicate that the high beam headlamp filament is energized.

the *green* NEUTRAL indicator LED illuminates to indicate that the transmission is in neutral.

the **red** OIL indicator LED illuminates to indicate that the engine oil is not circulating properly. The lamp illuminates

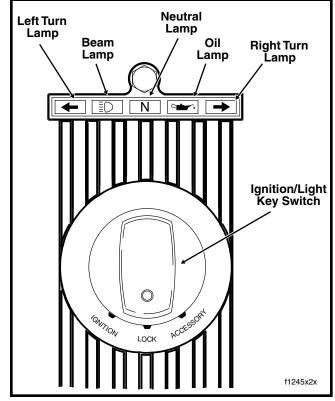


Figure 5. Indicator Lamps - FLHP/FLHP-I

when the ignition is first turned on (before the engine is started), but should be extinguished once the engine is running and the engine speed rises above idle.

#### **CAUTION**

Check the engine oil supply if the oil pressure indicator lamp remains illuminated. If the oil supply is normal, do not operate the engine until the problem is located and corrected. Operation may result in engine damage.

If the indicator lamp is not extinguished at speeds above idle, it may be the result of an empty oil tank or diluted oil. In freezing weather, the oil feed lines can clog with ice or sludge preventing proper circulation. A grounded oil signal switch wire, faulty signal switch, damaged or improperly installed check valve and/or trouble with the oil pump may also cause the lamp to remain on.

The **red** PURSUIT lamp in the speedometer face (FLHP/-I) or to the right of the storage box (FLHTP-I) indicates whether the pursuit circuit is on or off. See Figure 3 (FLHP/-I) or Figure 1 (FLHTP-I).

The *red* CHECK ENGINE lamp in the speedometer face indicates whether the engine or engine management system is operating correctly. See Figure 6 (FLHP/-I) or Figure 1 (FLHTP-I).

When the Ignition is turned ON after being off for 10 seconds or more, the Check Engine Lamp will illuminate for approximately four seconds and then turn off.

#### NOTE

Ignition ON means that the Ignition/Light Key Switch is turned to IGNITION and the handlebar Engine Stop Switch is in the RUN position (although the engine is NOT running).

#### NOTE

If the Check Engine Lamp is not illuminated or if it fails to go OFF after the initial four second ON period, then a problem exists in the lamp circuit. See your Harley-Davidson dealer for service.

When the lamp turns off after being illuminated for the first four second period, it will remain off if there are no fault conditions detected.

If the Check Engine Lamp stays off for only 4 seconds and then comes back on for an 8 second period, or remains on beyond the 8 second period, then a problem is detected. See your Harley-Davidson dealer for system diagnosis.

#### Low Fuel Level Warning Lamp (Fuel Injected Models)

The *amber* LOW FUEL LEVEL WARNING lamp illuminates to indicate that approximately 1/2 gallon of gasoline remains in the fuel tank. See Figure 6 (FLHP-I) or Figure 1 (FLHTP-I).

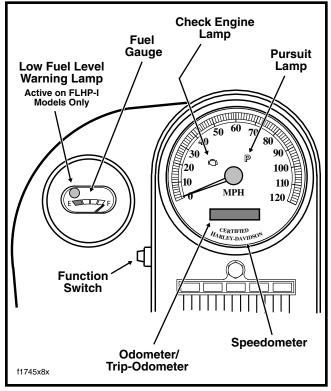


Figure 6. Indicator Lamps and Gauges - FLHP/FLHP-I

# **FUEL GAUGE**

The fuel gauge indicates the approximate amount of fuel in the fuel tank. See Figure 6 (FLHP/FLHP-I) or Figure 1 (FLHTP-I).

### **TACHOMETER**

The tachometer registers the engine speed in revolutions per minute (RPM). See Figure 7 (FLHP/FLHP-I) or Figure 1 (FLHTP-I).

#### **CAUTION**

Do not operate the engine above the maximum safe RPM shown in Table 2 on page 37. Operation in the red band of the tachometer may result in engine damage. Lower the RPM by upshifting to a higher gear or reduce the amount of throttle action.

## SPEEDOMETER/ODOMETER

The speedometer registers miles per hour of forward speed. The odometer, which is located in the face of the speedometer, registers the total number of miles the vehicle has traveled. See Figure 6 (FLHP/FLHP-I) or Figure 1 (FLHTP-I).

## **WARNING**

Never travel at a speed faster than the posted speed limit. Excessive speed can cause loss of vehicle control, which could result in death or serious injury.

#### **CAUTION**

Do not alter or tamper with the odometer. This is an illegal act that will result in speedometer damage.

#### TRIP-ODOMETER

Use the trip-odometer to register the number of miles traveled on a trip or between refueling stops. The odometer and trip-odometer use the same display located in the face of the speedometer gauge.

Locate the function switch on the left side of the inner fairing on FLHTP-I models, the left side of the instrument console on FLHP/-I. See Figures 1 and 6, respectively.

Momentarily press the function switch to toggle between the odometer and trip odometer displays. To zero the trip odometer, depress and hold the function switch while the odometer display is visible. The trip odometer mileage will then appear for approximately 2-3 seconds, after which time the recorded figure is zeroed.

# **VOLTMETER**

See Figure 1. The voltmeter (FLHTP-I models only) indicates electrical system voltage. With the engine running above 1500 RPM, the voltmeter should register 13.0-14.5 volts with the battery at full charge.

# MICROPHONE INPUT JACK AND ACCESSORY SWITCH

On FLHP/-I models, an input jack for a microphone is located at the back of the headlamp nacelle below the right side of the handlebar clamp shroud. See Figure 7.

An accessory switch can be found on the left side of the shroud and toggles between ON and OFF. The accessory connector (4-place Deutsch) is anchored to the upper frame cross member (under the seat at the front of the battery box). See your dealer for possible uses.

On FLHTP-I models, the input jack for the microphone is located on the left side of the storage box. In lieu of the accessory switch, the cigarette lighter on the left side of the fairing can be used as a 12 volt power supply source. See Figure 1.

Like FLHP/-I models, an accessory connector is also provided, but the FLHTP-I is without a vehicle mounted ON/ OFF switch. The accessory connector is located under the seat at the front of the battery box. See Figure 8.

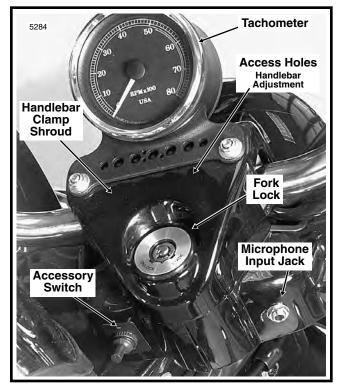


Figure 7. FLHP/FLHP-I Fork Lock

#### NOTE

Audio gain must be checked and adjusted to eliminate feedback prior to installation of the microphone. See Service Manual.

#### NOTE

The microphone will interrupt siren operation in any mode.

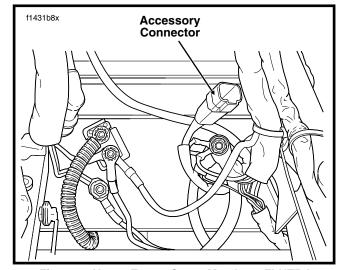


Figure 8. Upper Frame Cross Member - FLHTP-I

# HANDLEBAR CONTROLS LEFT SIDE

## **CLUTCH HAND LEVER**

#### **CAUTION**

Do not position fingers between clutch hand lever and handlebar grip when shifting gears or reduction in lever travel may leave clutch partially engaged. Shifting gears without the clutch fully disengaged can lead to clutch and/or transmission damage.

See Figure 10. The clutch hand lever is located on the left handlebar where it is operated with the fingers of the left hand. Pull the lever in against the handlebar grip to disengage the clutch. After shifting gears, engage the clutch by slowly releasing the lever to its outward position.

A Clutch Switch is incorporated into the left handlebar switch assembly and enables the rider to start the vehicle in any gear as long as the clutch hand lever is pulled in. If the clutch is not disengaged, the vehicle will not start (even in neutral).

#### **GEAR SHIFTER LEVER**

See Figure 9. The gear shifter lever is located on the left side of the vehicle and is operated with the toe of the left foot.

#### NOTE

All motorcycles have a "heel-toe" shifter lever, where upshifts can be made with the heel of the left foot, while downshifts can be made with the toe.

Push the lever all the way down (full stroke) to shift the transmission to the next lower gear or lift the lever all the way up (full stroke) to shift the transmission into the next higher gear.

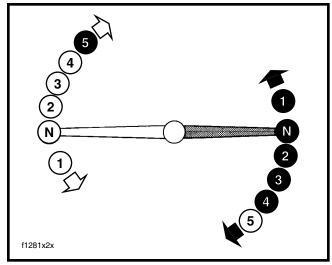


Figure 9. Gear Shifter Lever

After each gear change, be sure to completely release the shift lever. The lever must be allowed to return to its central position before the next gear change can be made.

The Neutral position can be found between the first and second gears. First gear is the last gear position that can be found by pushing the lever full strokes downward. To shift from first gear to neutral, lift the lever half its full stroke.

#### NOTE

Neutral can only be engaged from the first gear. The transmission cannot be shifted to neutral from second gear.

In order to shift gears with the motorcycle standing still and the engine not running, it is usually necessary to roll the motorcycle backward and forward with the clutch fully disengaged while also maintaining a slight pressure on the foot shifter lever.

With the motorcycle standing still, difficulty in shifting gears may sometimes be experienced even with the engine running. This difficulty arises when transmission gears are not turning and shifting parts are not lined up to permit engagement.

When this occurs, forcing the shift may result in damage to the shifter mechanism. Instead, either roll the motorcycle as just described, or if the engine is running, engage the clutch very slightly while applying light pressure to the shifter lever. Both of these procedures set the transmission gears in motion and then the shift can be made easily. See Shifting Gears in the OPERATION section.

# SIREN WAIL SWITCH: ON/OFF

Press the top or bottom of the switch to alternate between on and off. See Figure 10.

## **HEADLAMP SWITCH: HI/LO BEAM**

Press the top or bottom of the switch to alternate between the high and low beams. A blue BEAM indicator lamp illuminates to indicate when the high beam headlamp filament is energized.

# LEFT TURN SIGNAL SWITCH

See Figure 10. For signal switch operation, see RIGHT TURN SIGNAL SWITCH on page 27.

# HORN/SIREN YELP SWITCH

Momentarily press the left side of the switch to sound the horn or press the right side to activate the siren yelp feature. See Figure 10.

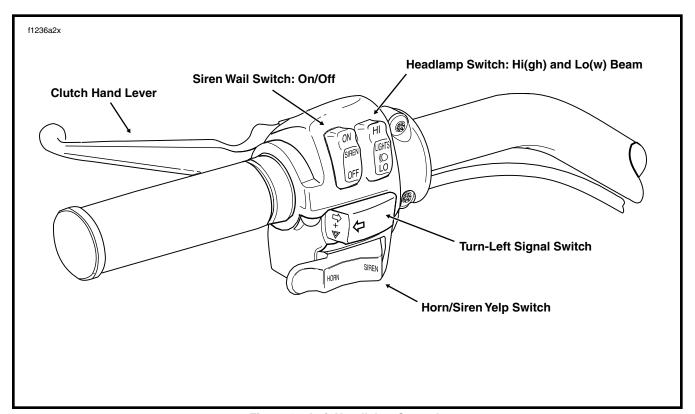


Figure 10. Left Handlebar Controls

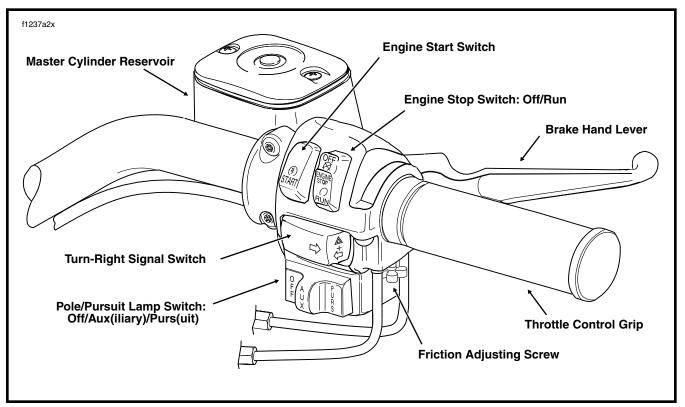


Figure 11. Right Handlebar Controls

# HANDLEBAR CONTROLS RIGHT SIDE

# **ENGINE STOP/START SWITCHES**

See Figure 11. Both the Engine Stop Switch and the Engine Start Switch are located on the right handlebar switch assembly.

The Engine Stop Switch, which turns the ignition on and off, must be used to stop the engine at all times, particularly in emergency situations. The Engine Start Switch operates the starter motor.

#### To **start** the engine:

- Turn the Ignition/Light Key Switch to IGNITION.
- Verify that the transmission is in Neutral.
- Put the Engine Stop Switch in the RUN position.
- Disengage the clutch using the clutch hand lever.
- Push the START switch to operate the starter motor.

#### To **stop** the engine:

- Push the Engine Stop Switch to the OFF position.
- Turn the Ignition/Light Key Switch to OFF (FLHTP-I) or LOCK (FLHP/FLHP-I).

# THROTTLE CONTROL GRIP

See Figure 11. The throttle control grip is located on the right handlebar. Turn the grip counterclockwise to open the throttle or clockwise to close the throttle.

#### FRICTION ADJUSTING SCREW

A spring-loaded friction adjusting screw is located at the bottom of the throttle grip clamp. See Figure 11.

Unscrew the knob so the throttle returns to the idle position when the hand is removed from the throttle grip. Screw the knob in to increase friction on the grip to provide a damping effect on throttle motion. This reduces rider fatigue on long trips where steady speeds are maintained. The throttle friction screw should not be used under normal stop and go operating conditions.

# **A**WARNING

Do not overtighten the friction adjusting screw. Operation with the screw overtightened will prevent the engine from automatically returning to idle. in an emergency situation, this could lead to loss of vehicle control, which could result in death or serious injury.

## BRAKE HAND LEVER/FOOT PEDAL

See Figure 12. Located on the right side of the vehicle and operated by the right foot, the brake pedal controls the rear wheel brake.

#### **A**WARNING

Do not position fingers between brake hand lever and throttle control grip during operation of front brake or reduction in lever travel may compromise braking efficiency, which could result in death or serious injury.

See Figure 11. Located on the right handlebar and operated by the fingers of the right hand, the brake lever controls the front wheel brake.

Apply brakes uniformly and evenly to prevent wheels from locking. A balance between front and rear braking produces the best results.

### **WARNING**

Do not apply either brake forcefully enough to lock the wheel. Locking wheel may cause the vehicle to skid with possible loss of control, which could result in death or serious injury.

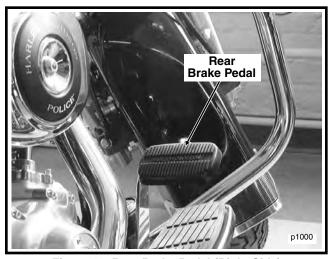


Figure 12. Rear Brake Pedal (Right Side)

# RIGHT TURN SIGNAL SWITCH

See Figure 11. The right handlebar turn signal switch operates the front and rear turn signal lamps on the right side of the vehicle. The left handlebar turn signal switch operates the front and rear lamps on the left side. The front turn signal lamps also function as running lamps.

## Turn Signal Switch Operation

The turn signal switches are controlled by a microprocessor that gets its information from both the speedometer and turn signal switches.

Momentarily depress the selected turn signal switch to activate the front and rear turn signal lamps. When the microprocessor senses a certain amount of forward movement from the speedometer (equivalent to a time period of approximately 6-10 seconds), it automatically cancels the turn signal lamps. If the vehicle is not moving forward (for example, stopped at a traffic light), then the turn signals flash indefinitely.

#### NOTE

If, while signaling a turn, a decision is made to go in the opposite direction, simply press the other turn signal switch-the first selection is automatically canceled and the front and rear signals on the opposite side begin to flash.

To manually stop the turn signal lamps from flashing, just momentarily depress the turn signal switch a second time.

## HAZARD WARNING 4-WAY FLASHER

The Hazard Warning 4-Way Flasher operates all four turn signal lamps simultaneously. It is controlled by the turn signal switch microprocessor. The Hazard Flasher will operate with the Ignition/Light Key Switch in either the Ignition or Access(ory) positions.

To activate the Hazard Flasher, momentarily depress (approximately 1-1/2 seconds) BOTH left and right turn signal switches simultaneously. Turn off the Hazard Flasher by momentarily depressing both switches a second time.

## POLE/PURSUIT LAMP SWITCH

See Figure 11. The switch for the pole and pursuit lamps is located on the right handlebar.

From the OFF position, move the switch one position to the right, labeled AUX(ILIARY), to operate the pole lamp, if provided.

From the OFF position, move the switch two positions to the right, labeled PURS(UIT), to operate both the Pole Lamp (if provided) and the alternate flashing pursuit lamps. An indicator lamp illuminates to indicate that the pursuit circuit is activated. See Figure 3 (FLHP/FLHP-I) or Figure 1 (FLHTP-I).

## **MISCELLANEOUS**

## **MIRRORS**

All Police vehicles are provided with flat mirrors. While the curved surface of convex mirrors causes cars and other objects to appear smaller and farther away, flat mirrors provide a "true image" which reduces the likelihood of misjudging the distance of objects.

Adjust the mirrors to clearly reflect the area behind the motorcycle.

#### NOTE

Perform the adjustment so that a small portion of your shoulders can be seen in each mirror. This method will help you to determine the relative distance of vehicles from the rear of the motorcycle.

## **JIFFY STAND**

The jiffy stand (or side stand) is located on the left side of the motorcycle and swings outward to support the vehicle for parking.

## **A**CAUTION

Without the weight of the motorcycle resting on the jiffy stand, any vehicle movement could cause the jiffy stand to retract slightly from the full forward position. If the jiffy stand is not in the full forward or lock position when the vehicle weight is rested on it, the vehicle could fall over, possibly resulting in minor or moderate injury.

## ACAUTION

Always park the vehicle on a firm, level surface. The weight of the vehicle can cause it to fall over, possibly resulting in minor or moderate injury.

## **A**WARNING

Be sure the jiffy stand is fully retracted before riding. If the jiffy stand is not fully retracted during vehicle operation, unexpected contact with the road surface can distract the rider. While the jiffy stand will retract upon contact, the momentary disturbance and/or rider distraction can lead to loss of vehicle control, which could result in death or serious injury.

## **ENRICHENER**

#### CARBURETED MODELS ONLY

The constant velocity carburetor has an "enrichener" for cold engine starting. Locate the enrichener knob under the fuel tank on the left side of the vehicle. The enrichener is similar to a "choke" with the following exceptions:

- When starting a cold engine, the throttle control MUST BE CLOSED for the enrichener to work properly.
- The enrichener does not have detents. The enrichener knob position can be adjusted from full-in to full-out.

Engine speed increases as the enrichener knob is pulled out. Moving the enrichener knob adjusts the air/fuel mixture for cold or warm engine starts. See Figure 13.

Pull the enrichener knob all the way out for cold engine starting. Change the enrichener knob position between full-out or full-in as the situation requires. See OPERATION section for detailed starting procedures using the enrichener knob.

#### **CAUTION**

Pay close attention to the warm-up time of vehicle's equipped with a C. V. carburetor. With the engine running at normal operating temperature and the enrichener knob in the full-out position, the fuel enrich-

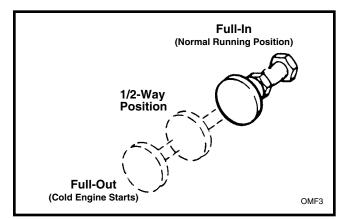


Figure 13. Set the Enrichener Knob

ment circuit will cause the engine to idle above the normal idle range (950-1050 RPM). Even with the enrichener knob in the partial-out position, engine idle speed will increase above normal idle speed once the engine is running at normal operating temperature. The increase in idle speed should alert the rider that the engine is warmed up and that the enrichener knob must be returned to the full-in position. Both excessive use and insufficient use of the enrichener may cause poor performance, erratic idle, poor fuel economy and spark plug fouling.

## **FUEL SUPPLY VALVE**

#### CARBURETED MODELS ONLY

The fuel supply valve is located under the fuel tank on the left side of the vehicle. The gasoline supply to the carburetor is dependent upon the position of the valve handle as well as the internal workings of the vacuum-operated valve. See Figure 14.

Turning the 3-position valve handle down to the fully vertical position turns the main fuel supply ON. Turning the handle up to the vertical position accesses the RES(ERVE) supply. Moving the handle to the horizontal position shuts the gasoline supply to the carburetor OFF.

## **WARNING**

To prevent accidental flooding of the engine or surrounding area with gasoline, always turn the fuel supply valve to OFF when the engine is not running. Gasoline is extremely flammable and highly explosive. Inadequate safety precautions could result in death or serious injury.

#### NOTE

To maintain a reserve supply, do not operate the motorcycle with the valve in the RES(ERVE) position after refueling.

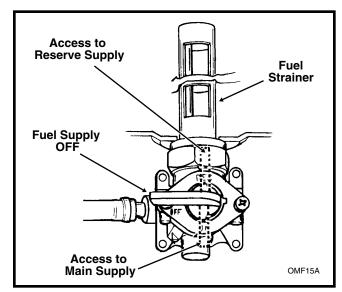


Figure 14. Fuel Supply Valve

## **FUEL FILLER CAP**

To open the fuel filler cap, turn counter-clockwise and lift. Each cap must be rotated about 3/4 of a turn before it begins to unscrew. To close, turn cap clockwise until it clicks. The ratchet action of the cap prevents overtightening.

#### NOTE

- The FLHP/FLHP-I fuel filler cap is located on the right side of the fuel tank. See Figure 3.
- FLHTP-I model filler caps are located beneath a door.
   Fully close the filler cap before closing the fuel door.

## **A**WARNING

Remove the fuel filler cap slowly. Fill fuel tank slowly to prevent fuel spillage. Do not fill above the bottom of the filler neck insert. See Figure 20. Leave enough air space to allow for fuel expansion. Expansion can cause an overfilled tank to overflow fuel through the filler cap vent onto surrounding areas. After refueling, be sure filler cap is securely tightened. Gasoline is extremely flammable and highly explosive. Inadequate safety precautions could result in death or serious injury.

#### CAUTION

A gasoline/alcohol blend spill can stain painted surfaces.

## AIR SUSPENSION ADJUSTMENTS

All models feature air-adjustable suspension. Air pressure may be varied to suit personal comfort. Lower pressures give

**Table 1. Air Suspension Adjustments** 

Loading	Recommended Pressures (PSI)						
	Front Forks	Rear Shocks					
Rider Weight - up to 150 lbs. add:	-	-					
For each extra 25 lbs. add:	1.0	1.0					
Luggage Weight - for each 10 lbs. add:	1.0	3.0					
Maximum Pressures	25	35					

a softer ride while higher pressures give a firmer ride. See Table 1 for the recommended air suspension pressures.

#### NOTE

Using pressures outside the recommended loading range will result in a reduction of available suspension travel and reduced rider comfort. Always adjust pressures with the vehicle on the jiffy stand.

#### CAUTION

All air components fill rapidly. Use low air line pressure

to avoid possible damage. A small hand or foot operated air pump is the best way to add air to suspension components.

#### CAUTION

Use a no-loss air gauge to check air pressure. Check pressure in both front forks and air shocks weekly if in daily use or before each trip if only used occasionally.

#### NOTE

An AIR SUSPENSION PUMP AND GAUGE (Part No. HD-34633) is available at your Harley-Davidson dealer.

## **A**WARNING

Exercise caution when bleeding air from the air valves. Moisture combined with lubricant (either from shock assembly or drip oiler in air compressor lines) may be ejected onto rear wheel, tire and/or brake components, adversely affecting traction and leading to loss of vehicle control, which could result in death or serious injury.

## Front Air Suspension

Adjust the front fork air suspension pressure by adding or removing air from the air valve located just below the frame cover on the right side of the vehicle. See Figure 15.

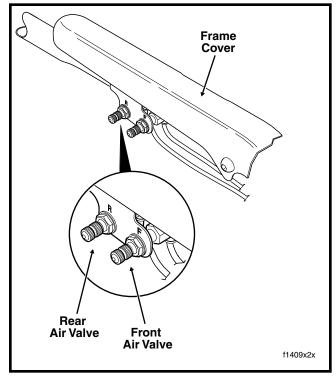


Figure 15. Front/Rear Air Suspension Air Valves (Under Protective Caps)

#### **CAUTION**

Front air suspension pressure over 25 psi is not recommended. Damage to air control components can result.

## **Rear Air Suspension**

Adjust the rear shock air suspension pressure by adding or removing air from the air valve located just below the frame cover on the right side of the vehicle. See Figure 15.

#### CAUTION

Maximum air pressure for rear suspension is 35 psi. Over inflation can damage shock absorbers.

## SEAT

## **Seat Release/Battery Access**

#### NOTE

To remove the battery for service or replacement, see BATTERY REMOVAL/INSTALLATION.

 Standing on left side of vehicle, press down on rear of seat and pull retaining pin from hole in support post. See Figure 16. Raise seat toward fuel tank console.

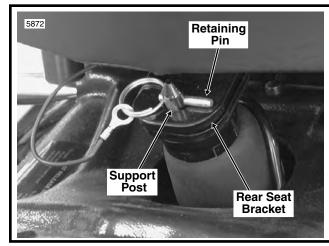


Figure 16. Solo Seat

- 2. Rotate latch on shroud to release battery cover. Remove battery cover from shroud.
- After servicing battery, install battery cover inserting tabs into holes in shroud. Rotate latch to lock cover in place.
- 4. Move seat down until support post engages hole in rear seat bracket. While pressing down on rear of seat, insert retaining pin in hole of support post.

## **Seat Adjustment**

#### **CAUTION**

Maximum air pressure is 100 psi (689 kPa). Normally air pressure will be 30-45 psi (207-310 kPa). Do not operate with air pressure so low that system bottoms out on bumpy roads.

Adjust air pressure to provide desired ride quality and prevent bottoming. The air valve is located under the luggage rack on the right side of the vehicle. See Figure 17.

## **SADDLEBAGS**

## **WARNING**

Keep cargo weight concentrated close to the motorcycle and as low as possible to minimize the change in the center of gravity. Distribute weight evenly on both sides of the vehicle. Do not load bulky items too far behind the rider or add weight to the handlebars or front forks. Do not exceed 15 pounds maximum load in each saddlebag. Loads that are too heavy or unstable can cause loss of vehicle control, which could result in death or serious injury.

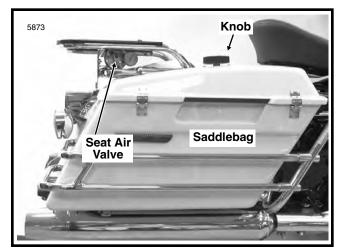


Figure 17. Seat Air Valve/Saddlebags

See Figure 17. To open the saddlebag, rotate the knob on top of the lid in a counter-clockwise direction and lift. Lid will open outwards. To close the saddlebag, close the lid and rotate the knob clockwise until it stops.

#### NOTE

All models feature quick-release fasteners to facilitate saddlebag removal and installation, as described below.

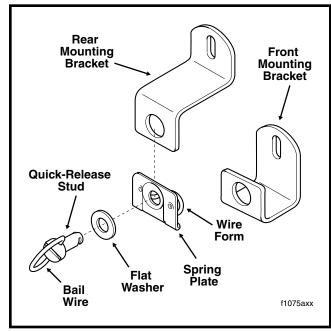


Figure 18. Saddlebag Quick-Release Fasteners

### Removal

Rotate knob and raise lid of saddlebag.

- To free saddlebag from mounting brackets on saddlebag support and frame, grasp bail wire inside saddlebag and rotate each stud a full 1/4 turn in a counter-clockwise direction. See Figure 18.
- Remove bail head studs with flat washers. Remove saddlebag.

## Installation

- Position saddlebag on vehicle. Verify that molded rubber insert at bottom of saddlebag fits snugly on lower saddlebag support rail. If saddlebag is not fully seated, loosen bolts securing mounting brackets to saddlebag support and frame. See Figure 18.
- 2. Place flat washers on bail head studs. With groove at end of stud held in a horizontal position, insert stud through holes in saddlebag and front mounting bracket. When groove engages wire form of spring plate on inboard side of bracket, turn stud clockwise a full 1/4 turn until it snaps in place. Install rear bail head stud in the same manner.
- If loosened under step 1, tighten bolts securing mounting brackets to saddlebag support and frame.
- 4. Close lid of saddlebag and rotate knob in a clockwise direction to engage latch.

## OPERATING RECOMMENDATIONS

#### CAUTION

Do not run the engine at extremely high RPM with clutch disengaged or transmission in neutral. Do not operate engine above the maximum safe RPM shown in Table 2. Operation in the red band of the tachometer may result in engine damage. See Figure 19. Lower the RPM by upshifting to a higher gear or reduce the amount of throttle action.

#### **CAUTION**

All Harley-Davidson V-Twin engines are air-cooled and consequently require air movement over the cylinders and heads to maintain proper operating temperature. Extended periods of idling or parade duty may overheat the engine, resulting in serious engine damage.

An engine run long distances at high speed must be given closer than ordinary attention to avoid overheating and possible damage. Have the engine checked regularly and keep it well tuned. This applies particularly to a motorcycle equipped with windshield, fairing and lowers.

**Table 2. Maximum Recommended RPM** 

MODEL	MAXIMUM RECOMMENDED ENGINE SPEED (RPM)
All Models	5600

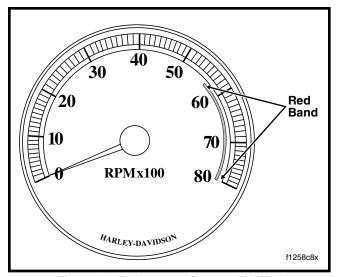


Figure 19. Tachometer Gauge - FLHTP-I

## **A**WARNING

Braking efficiency is greatly reduced when riding on wet roads or under rainy conditions. Use caution when braking, accelerating and turning. This is particularly true after a rain just begins and oil from the road surface combines with the rain water. Lack of caution can lead to loss of vehicle control, which could result in death or serious injury.

When descending a long steep grade, downshift and use engine compression along with intermittent application of both brakes to slow the motorcycle. Avoid continuous use of the brakes which may cause them to overheat resulting in reduced braking efficiency.

## **BREAK-IN - THE FIRST 500 MILES**

To ensure long term performance and durability, "wear-in" critical parts by observing the following riding rules.

- 1. During the first 50 miles, keep the engine speed below 2500 RPM in any gear, but do not lug the engine.
- 2. Up to 500 miles, vary the engine speed, avoiding any steady speed for long distances. Engine speed up to 3000 RPM is permissible in any gear.

- Avoid fast starts at wide open throttle. Drive slowly until engine warms up.
- 4. Avoid running the engine at extremely low RPM in higher gears.
- 5. DO NOT exceed 50 mph for the first 50 miles.
- DO NOT exceed 55 mph for the first 50 to 500 miles.

## PRE-RIDING CHECKLIST

## **WARNING**

Thoroughly familiarize yourself with the operation of the vehicle before riding. Uncertainty may lead to hesitation or error, possibly causing loss of vehicle control, which could result in death or serious injury.

Before riding (at any time), perform a general inspection to verify that your motorcycle is in safe riding condition.

1. Check the amount of gasoline in the fuel tank.

## **A**WARNING

Remove the fuel filler cap slowly. Fill fuel tank slowly to prevent fuel spillage. Do not fill above the bottom of the filler neck insert. See Figure 20. Leave enough air space to allow for fuel expansion. Expansion can cause an

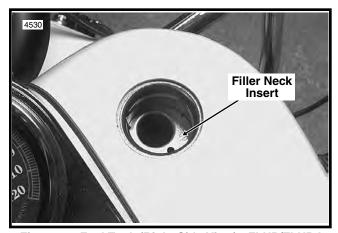


Figure 20. Fuel Tank (Right Side View) - FLHP/FLHP-I

overfilled tank to overflow fuel through the filler cap vent onto surrounding areas. After refueling, be sure filler cap is securely tightened. Gasoline is extremely flammable and highly explosive. Inadequate safety precautions could result in death or serious injury.

#### **CAUTION**

A gasoline/alcohol blend spill can stain painted surfaces.

- Check oil tank oil level. See MAINTENANCE AND LUBRICATION section.
- Work the front and rear brakes, throttle, clutch and shifter levers to verify that controls are operating properly.
- 4. Check steering for smoothness by turning the handlebars through the full operating range.
- Check tire condition and pressure. Incorrect pressure will result in poor riding characteristics and can affect handling and stability. See TIRE DATA for correct inflation pressures.
- Check all electrical equipment and switches for proper operation, including the stoplamp, turn signals and horn.
- 7. Check for any fuel, oil or hydraulic fluid leaks.
- 8. Check rear belt adjustment. Service as necessary.

# STARTING THE ENGINE CARBURETED MODELS GENERAL

## **A**WARNING

Before starting engine, always shift transmission to neutral to prevent accidental movement, which could result in death or serious injury.

### **CAUTION**

Never accelerate the engine above 2500 RPM immediately after a cold start. Allow the engine to run slowly for 15-30 seconds. This will allow the engine to warm up and let oil reach all surfaces needing lubrication. Extended idling with enrichener in the full out position for a period longer than 30 seconds is not recommended.

#### NOTE

Engine Stop Switch on the right handlebar must be in the RUN position to start engine.

Use the recommended oil based on an extended forecast of ambient temperatures. See Table 4 on page 52.

If you read this section and still have questions about the correct operation of your motorcycle, talk to your authorized Harley-Davidson dealer.

#### NOTE

- H-D CV carburetors have an enrichener circuit that will cause the engine to idle above the normal idle range (950-1050 rpm) with the engine at normal operating temperature and the enrichener knob pulled fully out.
- The increase in idle speed is intended to alert the rider that the engine is warmed up to normal operating tem-

- perature and the enrichener knob should be pushed all the way in.
- Continuing to use the enrichener when the engine is at full operating temperature WILL CAUSE FOULED SPARK PLUGS.

#### CAUTION

Pay close attention to the vehicle's warm-up time. Either excessive or insufficient use of the enrichener may cause poor performance, erratic idle, poor fuel economy and spark plug fouling.

#### NOTE

The following starting and operating instructions for all carbureted motorcycles should be viewed as recommendations only. They may be modified for individual vehicles.

#### **COOL ENGINE**

## Outside Temperature Cooler than 60° F

Turn the fuel valve to the ON position. BE SURE THAT THE THROTTLE IS CLOSED. Pull the enrichener knob to the "full out" position. Turn the Ignition/Light Key Switch knob to the IGNITION position. Turn the Engine Stop Switch to the RUN position. Press the Engine Start Switch to operate the electric starter.

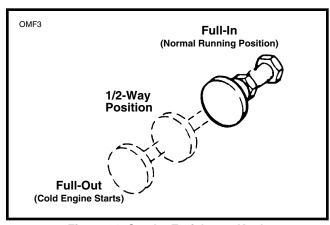


Figure 21. Set the Enrichener Knob

- See Figure 21. After initial 15-30 second warm-up, ride for 3 minutes or 2 miles with enrichener knob in full out position.
- 2. After 3 minutes or 2 miles, push the enrichener knob in to the 1/2 way position. Ride 2 minutes or 2 miles.
- 3. After 2 minutes or 2 miles, push the enrichener knob fully in.

#### NOTE

If outside temperature is cooler than 20° F it may be necessary to pump the throttle control grip 2 or 3 times.

#### **COOL ENGINE**

#### **Outside Temperature Warmer than 60° F**

Turn the fuel valve to the ON position. BE SURE THAT THE THROTTLE IS CLOSED. Pull the enrichener knob to the "full out" position. Turn the Ignition/Light Key Switch knob to the IGNITION position. Turn the Engine Stop Switch to the RUN position. Press the Engine Start Switch to operate the electric starter.

- See Figure 21. After initial 15-30 second warm-up, ride for 1 minute or 1/2 mile with enrichener knob in full out position.
- After 1 minute or 1/2 mile, push the enrichener knob in to the 1/2 way position. Ride 1 minute or 1/2 mile.
- After 1 minute or 1/2 mile, push the enrichener knob fully in.

#### WARM CLIMATE OR HOT ENGINE

Turn the fuel valve to the ON position. Turn the Ignition/Light Key Switch knob to the IGNITION position. Turn the Engine Stop Switch to the RUN position. Open throttle 1/8 - 1/4 turn. Press the Engine Start Switch to operate the electric starter. DO NOT USE ENRICHENER.

#### NOTE

If the engine does not start after a few turns or if one cylinder fires weakly but engine does not start, it is usually because of an over-rich (flooded) condition. This is especially true of a hot engine. If the engine is flooded, push enrichener knob in all the way, turn ignition on and operate starter with throttle wide open. DO NOT "pump" the throttle while turning over the engine.

## SEQUENTIAL PORT FUEL INJECTED MODELS

## **GENERAL**

With no enrichener cable or fuel valve, the starting procedure is simplified under the sequential port fuel injection system.

 Turn the Ignition/Light Key Switch knob to the IGNITION position. Do not "pump" or roll the throttle before starting.

#### NOTE

The Check Engine Lamp will illuminate for approximately 4 seconds and you may hear the fuel pump purr for about 2 seconds as it fills the fuel lines with gasoline.

2. Turn the Engine Stop Switch to the RUN position.

- 3. Press the Engine Start Switch.
- 4. When the engine starts, operate the vehicle as you normally would.

#### NOTE

If the fuel tank runs completely dry, it may take a few seconds longer to start the motorcycle once the tank is refilled. No other special steps are required.

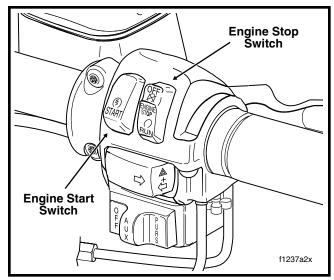


Figure 22. Right Handlebar Controls

## STOPPING THE ENGINE

See Figure 22. Turn the Engine Stop Switch on the right handlebar to the OFF position and then turn the Ignition/Light Key Switch knob to OFF (FLHTP-I) or LOCK (FLHP/FLHP-I). Avoid any delay in re-positioning the knob to prevent battery discharge. Turn the fuel valve to the OFF position (carbureted models only).

## SHIFTING GEARS

#### CAUTION

Fully disengage the clutch before shifting gears.

#### NOTE

Always start motion of motorcycle in first gear.

See Figure 10. With the motorcycle upright and engine idling, start vehicle moving as follows: Pull in the clutch hand lever to fully disengage the clutch. See Figure 23. To engage first gear from neutral, push the shifter lever down firmly (but gently) to the end of its travel. Slowly release the clutch lever while gradually opening the throttle.

After the motorcycle has run a few yards, engage second gear as follows: Close the throttle, disengage the clutch, lift the gear shifter pedal up to the end of its travel and release.

Engage the clutch and open the throttle gradually. Repeat the same operation to engage third, fourth and fifth gears.

To shift to lower gears, just reverse the movement of the gear shifter lever, disengage the clutch completely before each gear change and only partially close the throttle so that the engine will not drag when the clutch is engaged.

Remember, by lifting the gear shifter lever up, a higher gear is engaged. By pushing the gear shifter lever down a lower gear is engaged. When stopping, operate gear shift lever until you reach neutral. Neutral is 1/2 stroke up from first gear.

See Figure 23 and Table 3. Gear shift pattern is first gear down and then the next four gears up.

## **A**WARNING

When shifting to lower gears with the motorcycle in motion, do not downshift at speeds higher than those listed in Table 3. Doing so may severely damage the transmission or engine, or cause the rear wheel to lose traction and lead to loss of vehicle control, which could result in death or serious injury.

Shift to neutral before stopping the engine. The shifting mechanism can be damaged by shifting gears when the engine is not running. An indicator lamp illuminates to indicate when neutral is engaged.

When engine speed decreases, as in climbing a hill or running at a reduced speed, shift to the next lower gear while partially closing the throttle so that the engine accelerates as soon as the clutch lever is pulled.

See Gear Shifter Lever under CONTROLS AND INDICATORS. The recommended shift points are as follows:

#### NOTE

The gear shifter mechanism on 1450cc 5-speed motorcycles does not permit shifting the transmission to neutral from second gear. Neutral can only be engaged from the first gear.

**Table 3. Gear Change Speeds** 

	-
GEAR CHANGE	SPEED
Acceleration (Upshi	ft)
First to Second Second to Third Third to Fourth Fourth to Fifth	15 mph (25 km/h) 25 mph (40 km/h) 35 mph (55 km/h) 45 mph (70 km/h)
Deceleration (Down	shift)
Fifth to Fourth Fourth to Third Third to Second Second to First	40 mph (65 km/h) 30 mph (50 km/h) 20 mph (30 km/h) 10 mph (15 km/h)

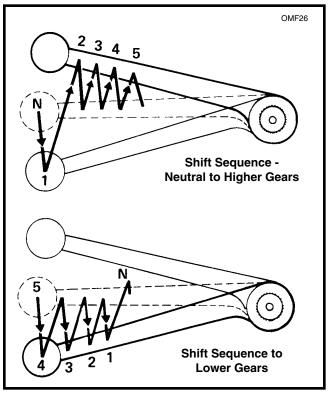


Figure 23. 5-Speed Shifting Sequence

## SAFE OPERATING MAINTENANCE

Good maintenance means a safe machine. A careful check of certain equipment must be made after periods of storage and frequently between the regular service intervals to determine if additional maintenance is necessary.

Routinely perform the following checks:

- Tires for correct pressure, abrasions or cuts.
- 2. Belt and primary chain for proper tension.
- 3. Brakes, steering and throttle for responsiveness.
- Brake fluid level and condition. Hydraulic lines and fittings for leaks. Brake pads and discs for wear.
- 5. Cables for fraying or crimping and free operation.
- Engine oil, primary chaincase and transmission fluid levels.
- Wheel spoke tightness, if applicable.
- Headlamp, taillamp, brake lamp and directional lamp operation.

## **A**WARNING

Be sure to follow all of the listed service and maintenance recommendations, since they can affect the safe operation of the motorcycle. Neglect can adversely affect motorcycle operation and handling, which could result in death or serious injury.

## **BREAK-IN MAINTENANCE**

NOTE

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

After a new motorcycle has been ridden its first 1000 miles the motorcycle should be taken to the dealer from whom it was purchased for initial service operations with which the dealer is familiar. If it is impossible to take the motorcycle to a dealer at the mileage intervals recommended, the owner should at least give the following outlined attention, or arrange to have it given, and take the motorcycle to the dealer for more complete servicing as soon as it is convenient.

We recommend the following maintenance procedures be performed by your Harley-Davidson dealer.

## **WARNING**

Stop the engine and support the motorcycle securely before performing any service procedure. Service should be performed using proper tools in an adequately lighted and ventilated work area. Inadequate safety precautions could result in death or serious injury.

## **A**WARNING

When supporting motorcycle, do not place supports under the rear brake pedal. Damage to the brake system can occur, which could result in death or serious injury.

## **A**WARNING

Be sure to follow all of the listed service and maintenance recommendations, since they can affect the safe operation of the motorcycle. Neglect can adversely affect motorcycle operation and handling, which could result in death or serious injury.

## **CHECK AT FIRST 1000 MILES**

### NOTE

The following is an overview. For a complete listing, see the 1000 mile checklist (coupon) at the rear of this manual.

- 1. Change engine oil and replace engine oil filter.
- 2. Change primary chaincase lubricant and clean magnetic drain plug. See Dealer.

- Inspect air cleaner filter element and service as required.
- Check/adjust primary chain. See Dealer.
- 5. Check clutch adjustment. See Dealer.
- 6. Inspect brake pad linings and discs for wear.
- Check master cylinder reservoir fluid levels and condition. See Dealer.
- 8. Inspect oil lines and brake system for leaks.

#### **CAUTION**

DO NOT lubricate the enrichener cable on C.V. carburetors. The cable must have sticking resistance to work properly.

- Lubricate the following: front brake hand lever, throttle control cables, clutch control cable and hand lever\* and jiffy stand.
- Check operation of throttle and enrichener controls on carbureted models.
- 11. Check engine idle speed adjustment.
- 12. Check battery condition and clean connections.
- 13. Check operation of all electrical equipment and switches.

\* If applicable

- Check tightness of all critical fasteners: hand controls, brake system, axle nuts, front fork components, riser and handle bar fasteners.
- 15. Inspect spark plugs.
- 16. Check tire pressure and inspect tread.
- 17. Lube the foot shift/brake lever bearings\*.
- 18. Check/adjust rear drive belt.
- 19. Change transmission lubricant and clean magnetic drain plug.

- Inspect fuel valve (on carbureted models), lines and fittings for leaks.
- 21. Check front fork bearing adjustment. See Dealer.
- 22. Check and adjust air suspension system.
- 23. Lubricate hinges, latches fuel door\*, saddlebags.
- 24. Road test.

<sup>\*</sup> If applicable

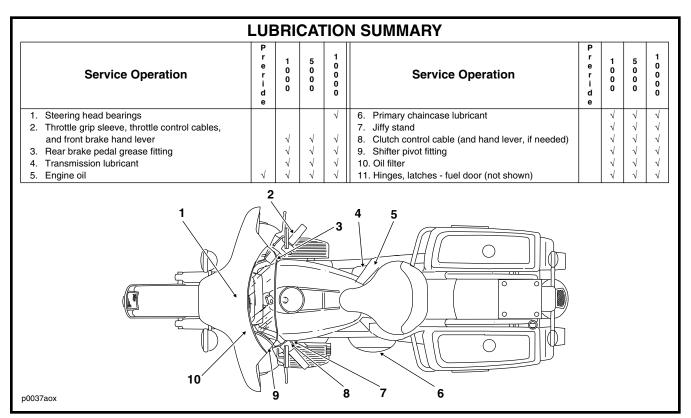


Figure 24. Lubrication Points

## REGULAR SERVICE INTERVALS

Regular lubrication and maintenance will help keep your new Harley-Davidson operating at peak performance. Your Harley-Davidson dealer knows how to service your motorcycle using factory approved methods and equipment assuring you of thorough and competent workmanship.

#### NOTE

Regular maintenance interval operations are required to keep your new motorcycle warranty in force. The use of other than Harley-Davidson approved parts and service procedures may void the warranty. Any alterations to the emission system components, such as the carburetor and exhaust system, may be in violation of Federal and State laws.

#### **CAUTION**

The regular maintenance intervals given in this manua are only intended as guidelines. If the motorcycle is operated under adverse conditions (such as severe cold, extreme heat, very dusty environment, bad roads, through standing water, etc.), the maintenance intervals should be shortened to ensure the safe operation of the motorcycle. Neglect can adversely affect motorcycle operation and handling, which could result in death or serious injury.

## **REGULAR MAINTENANCE INTERVALS**

ODOMETER READING SERVICE OPERATIONS (see chart code below)	P r e r i d e	1 0 0 0 mi	2 5 0 0 mi	5 0 0 0 mi	7 5 0 0 mi	1 0 0 0 0 mi	1 2 5 0 0 mi	1 5 0 0 0 mi	1 7 5 0 0 mi	2 0 0 0 0 mi	2 2 5 0 0 mi	2 5 0 0 0 mi	2 7 5 0 0 mi	3 0 0 0 0 mi	3 2 5 0 0 mi	3 5 0 0 0 mi	3 7 5 0 0 mi	4 0 0 0 0 mi	4 2 5 0 0 mi	4 5 0 0 mi	4 7 5 0 0 mi	5 0 0 0 mi
Change engine oil and oil filter**	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R
Inspect air cleaner and service as required		ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	I	ı	I	ı	ı	ı	1	ı	1
Check and adjust rear belt	1	ı	ı	1	ı	1	1	ı	1	ı	ı	1	1		1	ı	ı	ı	1		ı	
Change primary chaincase lubricant, clean magnetic drain plug and check/adjust primary chain		RX		RX		RX		RX		RX		RX		RX		RX		RX		RX		RX
Check clutch adjustment		I		Τ		T		ı		T		T		ı		ı		ı		Τ		Т
Change transmission lubricant and clean magnetic drain plug		R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R	ı	R
Check brake fluid reservoir levels and condition**		ı		Т		Т		ı		T		Т		ı		ı		ı		Τ		Т
Check brake pad linings and discs for wear		ı	ı	ı	T	T	ı	ı	ı	T	T	Т	ı	T	ı	ı	ı	ı	ı	Τ	ı	Т
Inspect oil lines and brake system for leaks		ı	ı	Т	T	Т	T	ı	T	T	T	Т	T	Τ	T	I	I	ı	ı	Т	ı	Т
Lube the foot shift/brake lever bearings		L		L		L		L		L		L		L		L		L		L		L
Lube front brake hand lever, throttle control cables, clutch control cable, clutch hand lever, and jiffy stand		L		L		L		L		L		L		L		L		L		L		L
Inspect fuel valve*, lines and fittings for leaks		ı	ı	Т	T	Т	T	ı	T	T	T	Т	T	Τ	T	I	I	ı	ı	Т	ı	Т
Clean fuel tank filter screen*										Х								Х				П
Check engine idle speed adjustment	ı	ı		ı		T		ı		T		Т		ı		ı		ı		Τ		Т
Check, adjust operation of throttle and enrichener* controls	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	ı	I	ı	ı
Check battery condition and clean connections		ı	ı	ı	ı	T	ı	ı	ı	ı	ı	T	T	ı	ı	I	ı	I	ı	Ι	ı	Т
Fuel filter (sequential port fuel injected models only)																						R
Change spark plugs		ı		Ι		R		I		R		T		R		ı		R		I		R
Check operation of all electrical equipment and switches	I	ı	ı	I	I		I	ı	I	I	I		I	ı	I	I	I	I		I	I	Т

ODOMETER READING SERVICE OPERATIONS (see chart code below)	P r e r i d e	1 0 0 0 mi	2 5 0 0 mi	5 0 0 0 mi	7 5 0 0 mi	1 0 0 0 0 mi	0	0	1 7 5 0 0 mi	2 0 0 0 0 mi	2 2 5 0 0 mi	2 5 0 0 mi	2 7 5 0 0 mi	3 0 0 0 0 mi	3 2 5 0 0 mi	3 5 0 0 mi	3 7 5 0 mi	4 0 0 0 0 mi	4 2 5 0 0 mi	4 5 0 0 mi	4 7 5 0 0 mi	5 0 0 0 mi
Check air suspension - pressure, operation and leakage		ı		ı		1		ı		ı		ı		ı		_		ı		_		ı
Change front fork oil										Х								Х				
Check front fork bearing adjustment				Т				ı				ı				ı				_		
Check tire pressure and inspect tread	Т	ı	Т	Т	Т	Т	ı	ı	ı	Т	ı	ı	ı	Т	ı	-	ı	ı	ı	-	ı	Τ
Lubricate and adjust steering head bearings						Х				Х				Х				Х				Х
Check stabilizer links and engine mounts						Х				Х				Х				Х				Х
Inspect FLHP, FLHP-I windshield bushings						Т				Т				Т				ı				Т
Check tightness of all critical fasteners: hand controls, brake system, axle nuts, front fork components, riser and handle bar fasteners.		т				т				т				т				Т				Т
Lubricate hinges, latches - fuel door, saddlebags		L		L		L		L		L		L		L		L		L		L		L
Road test		Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	Х

- \* Carbureted models only

  \*\* Also perform prior to storage, or annually.

- Chart Code:
  I- Inspect, & if necessary correct, clean or replace.
  A Adjust.
  R Replace or change.

- T Tighten to proper torque.
  L Lubricate with specified lubricant.
  X Perform.

## **ENGINE LUBRICATION**

Engine oil is a major factor in the performance and service life of the engine. Always use the proper grade of oil for the lowest temperature expected before the next scheduled oil change. See Table 4 below.

**Table 4. Recommended Engine Oils** 

Harley-Davidson Type	Viscosity	Harley- Davidson Rating	Lowest Ambient Temperature	Cold Weather Starts Below 50°F (10°C)
HD Multi-grade	SAE 10W40	HD 360	Below 40°F (4°C)	Excellent
HD Multi-grade	SAE 20W50	HD 360	Above 40°F (4°C)	Good
HD Regular Heavy	SAE 50	HD 360	Above 60°F (16°C)	Poor
HD Extra Heavy	HD Extra Heavy SAE 60		Above 80°F (27°C)	Poor

If it is necessary to add oil and Harley-Davidson oil is not available, use an oil certified for diesel engines. Acceptable diesel engine oil designations include CE, CF, CF-4 and CG-4. The preferred viscosities for the diesel engine oils, in descending order, are 20W-50, 15W-40 and 10W-40. At the first opportunity, see a Harley-Davidson dealer to change back to 100 percent H-D oil.

## CHECKING OIL LEVEL

#### NOTE

To remove the oil filler plug/dipstick, pull steadily on the plug while moving it back and forth.

With the vehicle on the jiffy stand on level ground, wipe off the dipstick and insert it back into the oil tank with the plug pushed completely into the filler neck. See Figure 25.

**Cold Check:** For preride inspection, with motorcycle leaning on jiffy stand on level ground, check oil level on dipstick. Oil should register on dipstick between arrows when engine is cold. If oil level is at or below bottom arrow, add only enough oil to bring the level between the two arrows on the dipstick. Do NOT add oil to FULL mark on a cold engine.

**Hot Check:** Ride the motorcycle until engine is warmed up to operating temperature. A longer warm up period will be required in colder weather. When normal operating temperature is reached, allow motorcycle to idle on the side stand for 1-2 minutes. Turn the engine off. Check oil level on dipstick. Add oil, if required, to FULL mark. Do not overfill.

### **CAUTION**

Do not allow the hot oil level to fall below the lower mark on the dipstick. Do not overfill the oil tank. Overfilling may cause oil carryover to the air cleaner.

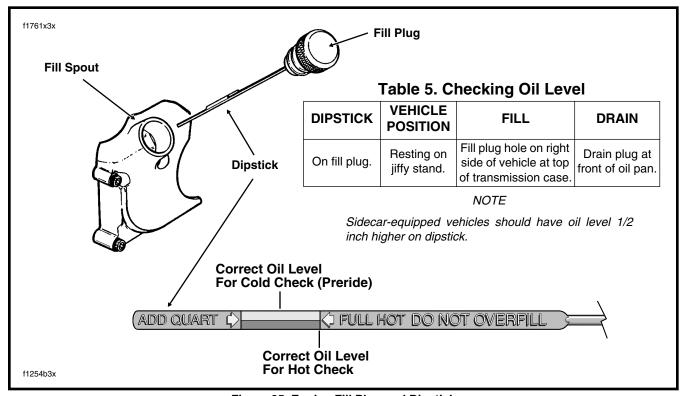


Figure 25. Engine Fill Plug and Dipstick

#### **CAUTION**

Do not switch engine oil brands indiscriminately since oils may interact chemically when mixed. Use of inferior oils or non-detergent oils may result in engine damage.

Check the engine oil supply whenever the fuel tank is filled. Change the engine oil after the first 1000 miles and every 5000 miles thereafter (that is, if the vehicle is used under normal operating conditions at warm or moderate temperatures). Shorten the oil change intervals in cold weather or after use in harsh or dusty conditions. See WINTER LUBRICATION.

Completely drain the oil tank of used oil and refill with fresh oil. Always drain the tank while the oil is hot. Draining the crankcase is unnecessary, since it does not accumulate used oil. Replace the oil filter whenever the engine oil is changed.

## **ENGINE OIL FILTER**

#### NOTE

All models are shipped from the factory with the premium 10 micron synthetic media oil filter, Part No. 63798-99 (Chrome) or 63731-99 (Black). Use of these filters is highly recommended.

Remove drain plug and O-ring and allow oil to drain into a suitable container before removing oil filter. Locate oil filter on the oil filter mount in front of the engine. Standing on left side of vehicle, remove filter using the OIL FILTER WRENCH (Part No. HD-42311). See Figure 26. Clean the filter gasket contact surface on the mounting plate. Surface should be smooth and free of dirt, debris or old gasket material.

Apply a thin film of clean engine oil to gasket contact surface on mounting plate and to gasket on **new** oil filter. Screw filter onto adapter until gasket contacts plate surface and then tighten another 1/2 to 3/4 turn by hand.

## **A**WARNING

Be sure oil does not get contact rear tire when changing the engine oil and filter. Oil adversely affects traction and can lead to loss of vehicle control, which could result in death or serious injury.

### Winter Lubrication

Combustion in any engine produces water vapor. When starting and warming up in cold weather, much of the vapor condenses to water on the relatively cool metal surfaces. If the engine is driven enough to get the crankcase thoroughly warmed up frequently, most of this water is again vaporized and will be blown out through the breather.

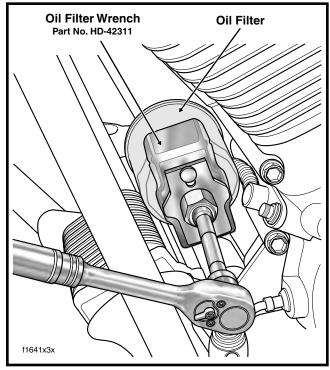


Figure 26. Removing the Oil Filter

A moderately driven engine, making only short runs and seldom getting thoroughly warmed up, is likely to accumulate an increasing amount of water in the oil tank. In freezing weather this water will become slush or ice and if allowed to accumulate too long, may block the oil lines and cause damage to the engine.

Water mixed with oil for some time forms sludge that is harmful to the engine and causes undue wear of various working parts. Therefore, in winter the oil change interval should be shorter than normal for all engines, and any engine used only for short runs must have oil drained frequently along with a thorough tank flush-out before new oil is put in tank.

The further below freezing the temperature drops, the shorter the oil change interval should be.

## TRANSMISSION LUBRICATION

Check the transmission lubricant level monthly. When filling the transmission, use only Harley-Davidson TRANS-MISSION LUBRICANT, Part No. 99853-96 (quart) or Part No. 99852-96 (gallon).

NOTE

Always check the transmission lubricant level with the motorcycle standing STRAIGHT UP (not leaning on the jiffy stand).

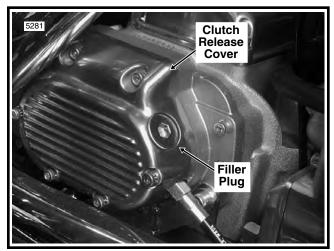


Figure 27. Transmission Case (Right Side)

#### NOTE

Keep motorcycle upright for a short period of time to equalize lubricant level in the transmission compartments.

When the engine reaches normal operating temperature, turn the engine off and position motorcycle STRAIGHT UP and LEVEL.

See Figure 27. Remove the filler plug from the clutch release cover on the right side of the transmission case. Wipe the

dipstick clean. Insert the filler plug/dipstick back into the hole, but do not screw it in. Remove the dipstick and take the reading. Verify that the lubricant level is between the A(dd) and F(ull) marks. See Figure 28. Add lubricant if necessary.

Do not overfill or leakage may occur. The transmission capacity is approximately 24 ounces. Replace the O-ring on the dipstick plug if nicked, torn or deteriorated. Reinstall the filler plug and tighten to 25-75 **in-lbs** (2.8-8.5 Nm).

Drain and refill the transmission with fresh lubricant after the first 1000 miles and every 5000 miles or seasonally thereafter, whichever comes first.

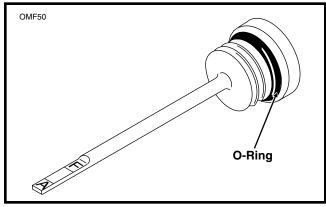


Figure 28. Transmission Lubricant Filler Plug/Dipstick

The transmission magnetic drain plug is located at the bottom of the transmission/oil pan on the right side of the vehicle. Remove any foreign material from the plug. Reinstall plug and tighten to 14-21 ft-lbs (19-28 Nm).

## **A**WARNING

When draining or adding lubricant, do not allow dirt, debris or other contaminants to enter the primary chaincase. Exercise caution so that lubricant does not contact rear wheel, tire and brake components. Such contact can adversely affect traction and may lead to loss of vehicle control, which could result in death or serious injury.

## PRIMARY CHAINCASE LUBRICATION

Lubrication is a major factor in the performance and service life of clutch components. Change the primary chaincase lubricant after the first 500 miles (800 km) and every 5000 miles (8000 km) thereafter.

## **Changing Chaincase Lubricant**

 Remove magnetic drain plug at bottom of primary chaincase cover and drain lubricant into a suitable container. See Figure 29.

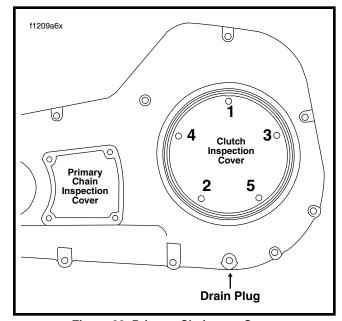


Figure 29. Primary Chaincase Cover

- 2. Clean drain plug. Install drain plug in primary chaincase.
- Remove five allen head socket screws (with captive washers) to free clutch inspection cover from primary chaincase cover.

## **A**WARNING

When draining or adding lubricant, do not allow dirt, debris or other contaminants to enter the primary chaincase. Exercise caution so that lubricant does not contact rear wheel, tire and brake components. Such contact can adversely affect traction and may lead to loss of vehicle control, which could result in death or serious injury.

- 4. Remove quad ring from groove in primary chaincase cover. Wipe all lubricant from the quad ring and inspect for cuts, tears or signs of deterioration. Replace as necessary. Swab all lubricant from the quad ring groove. Install quad ring in primary chaincase cover with the nubs contacting the ring groove walls.
- Pour the proper amount and type of primary chaincase lubricant in through the clutch inspection cover opening. Use only Harley-Davidson PRIMARY CHAINCASE LUBRICANT, Part No. 99887-84 (quart) or Part No. 99886-84 (gallon).

With vehicle standing upright, the level of the lubricant must be at the bottom edge of the diaphragm spring or 2-3/4 inches (69.8 mm) from the centerline of the clutch adjuster screw. See Figure 30. The capacity is 32 ounces (946 ml).

#### CAUTION

Do not overfill the primary chaincase with lubricant. Overfilling may cause rough clutch engagement, incomplete disengagement, clutch drag and/or difficulty in finding neutral at engine idle.

 Install the five allen head socket screws to secure the clutch inspection cover to the primary chaincase cover. Alternately tighten screws to 7-9 ft-lbs (10-12 Nm) in the pattern shown in Figure 29.

#### NOTE

Check clutch adjustment every 5000 miles. See your Harley-Davidson dealer for service.

## PRIMARY CHAIN

Check the primary (front) chain adjustment after the first 1000 miles and every 5000 miles thereafter. Service as necessary.

### NOTE

Allowing the chain to run loose will cause the motorcycle to jerk when running at low speed resulting in excessive chain and sprocket wear.

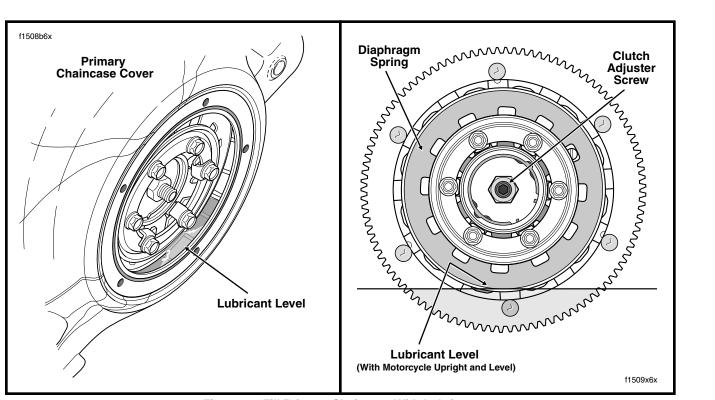


Figure 30. Fill Primary Chaincase With Lubricant

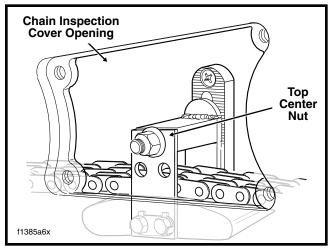


Figure 31. Primary Chaincase Cover

#### Proceed as follows:

- See Figure 29. On the left side of the vehicle, remove the four screws with flat washers to free the primary chain inspection cover from the primary chaincase cover.
- Check the primary chain tension. Push on the upper strand to verify that it has free up and down movement

**Table 6. Primary Chain Adjustment** 

PRIMARY CHAIN ADJUSTMENT (Free Play)									
Free Play	Inches	Millimeters							
COLD ENGINE	5/8-7/8 inch	15.9-22.2 mm							
HOT ENGINE	3/8-5/8 inch	9.5-15.9 mm							

midway between the engine compensating sprocket (front) and the clutch sprocket (rear).

- Measure the free play to be sure that it falls within the ranges specified for a hot or cold engine. See Table 6.
- 4. If the chain is too tight or too loose, then adjustment is necessary. Proceed as follows:
  - Locate the chain tensioner assembly and loosen the top center nut a maximum of two turns. See Figure 31.
  - b. Raise or lower the chain tensioner assembly as necessary to obtain the specified free play.

#### NOTE

As chains stretch and wear, they run tighter at one spot than another. Always adjust the free play at the tightest spot in the chain.

#### NOTE

Replace the primary chain if it is worn to the point where it cannot be properly adjusted.

#### **CAUTION**

Do not adjust the primary chain tighter than specified. Running a chain that is too tight will result in excessive wear.

- Tighten the top center nut of the chain tensioner assembly to 21-29 ft-lbs (29-39 N-m).
- Using a new gasket, position the primary chain inspection cover in the primary chaincase cover. Install 4 screws with flat washers. Tighten the screws to 50-70 in-lbs (6-8 N-m).

## **REAR DRIVE BELT**

The inner tooth surface of the secondary belt has a thin coating of polyethylene lubricant. During initial operation, this coating will wear off as it is burnished into the belt fabric. This is a normal condition and not an indication of belt wear.

Belt tension is set at the factory and should be checked after the first 1000 miles (800 km) and every 2500 miles (4000 km) thereafter.

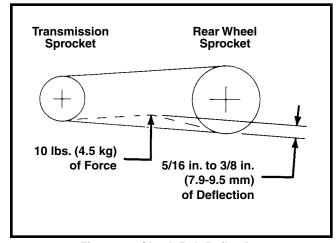


Figure 32. Check Belt Deflection

See Figure 32. With the rear wheel on the ground and one rider sitting on the motorcycle, use the BELT TENSION GAUGE (Part No. HD-35381) to apply 10 lbs. (4.5 kg) of force at the midpoint of the bottom belt strand. Belt deflection should be 5/16-3/8 inch (7.9-9.5 mm). If belt tension adjustment is necessary, see your Harley-Davidson dealer or follow the instructions given in the applicable Service Manual.

Check rear brake caliper position on rear brake disc. Disc should run true within brake caliper.

## **A**WARNING

A misaligned rear wheel and/or brake caliper could cause the rear brake disc to bind. During vehicle operation, this condition can cause loss of vehicle control, which could result in death or serious injury.

## CHASSIS LUBRICATION Greasing

 Use recommended wheel bearing grease (HD-99855-89) for steering head bearings and rear fork bushings. Use a multi-purpose chassis grease for other applications.

#### **CAUTION**

Do not switch brands/greases indiscriminately. Some greases interact chemically when mixed and may significantly reduce the service life of the bearing.

2. Remove and lubricate handlebar throttle control grip with fresh graphite every 5000 miles, once each year or when operation indicates lubrication is necessary.

- Lubricate the throttle control cables (using Lubit-8 Tufoil Chain and Cable Lube, HD Part No. 94968-85TV), speedometer drive cable and clutch control cable every 5000 miles. Lubricate front brake hand lever and clutch control hand lever only if necessary.
- Grease the rear brake pedal shaft pivots and shifter shaft pivots every 5000 miles at the fitting.
- Pack the steering head bearings with fresh grease at 10,000 mile intervals or 2 years, whichever occurs first.
- Lubricate the jiffy stand mechanism with Loctite Lubriplate® after the first 1000 miles and every 5000 miles thereafter.

## **Oil Applications**

All control connections and parts as indicated in the REGU-LAR MAINTENANCE INTERVALS CHART should be oiled regularly, particularly after washing motorcycle or driving in wet weather.

## Front Fork Oil

Drain front fork oil and refill every 20,000 miles, or prior to storage. If fork does not appear to be working properly or an appreciable amount of oil leakage should develop, see your Harley-Davidson dealer. If there is insufficient oil in either side of fork, the rebound action will be incorrect.

## **FUEL FILTER STRAINER**

#### **Carbureted Models**

A screen type fuel strainer is located at the top of the fuel supply valve inside the fuel tank. Inspect/clean the screen every 20,000 miles.

#### NOTE

Check the fuel valve, lines and fittings for leakage as part of the pre-ride inspection.

## CARBURETOR

The carburetor has been specifically designed for emissions control operation. All jets are fixed at the factory.

Carburetor controls include the throttle, enrichener and idle speed adjusting screw. Check and adjust operation after the first 500 miles and every 5000 miles thereafter.

#### CAUTION

Operation at higher altitudes (approximately 4000 ft. elevation) may require carburetor modifications for best engine performance. See your Harley-Davidson dealer for necessary adjustments.

We recommend that any carburetor service be performed by your Harley-Davidson dealer.

## **AIR CLEANER**

Inspect the air filter element after 1000 miles and every 2500 miles thereafter. Inspect the filter more often under dusty or adverse conditions. Clean as necessary.

## Removal

#### Carbureted

- Remove Allen head screw and air cleaner cover. See Figure 33.
- Remove three TORX screws and bracket from filter element.
- Gently pull two rubber breather tubes from the back of the filter element and remove the filter element and gasket.
- 4. Gently pull the breather tubes from the breather bolts on the backplate.

## **Fuel Injected**

- Remove Allen head screw and air cleaner cover. See Figure 33.
- Remove four TORX screws and bracket from filter element.

- Gently pull two rubber breather tubes from the back of the filter element and remove the filter element and gasket.
- Gently pull the breather tubes from the breather bolts on the backplate.

# **Cleaning and Inspection**

#### **CAUTION**

Never run the engine with the filter element removed. The filter prevents dirt and dust from entering the engine.

- Thoroughly clean the air cleaner backplate.
- 2. Thoroughly clean inside of the air cleaner cover.
- Replace the filter element if damaged or if filter media cannot be adequately cleaned.

#### **WARNING**

Do not use gasoline or solvents to clean the filter element. Volatile or flammable cleaning agents may cause an intake system fire, which could result in death or serious injury.

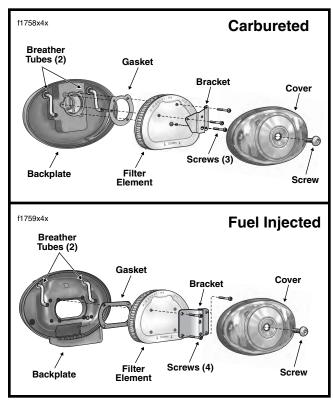


Figure 33. Air Cleaner Assembly

 Thoroughly wash the filter element and breather tubes in warm, soapy water. To remove soot and carbon, soak element for 30 minutes in warm water with mild detergent.

#### **A**WARNING

Compressed air can pierce the skin and cause injury. Never use your hand to check for leaks or to determine air flow rates. Wear safety glasses to shield your eyes from flying dirt and debris. Failure to comply could result in death or serious injury.

- Dry the filter element using low pressure compressed air (32 psi/221 kPa maximum). Rotate the element while moving air nozzle up and down the element interior. Do not rap the element on a hard surface.
- Hold the filter element up to a strong light source. The element can be considered sufficiently clean if light is uniformly visible through the element.
- 7. Direct compressed air through the breather tubes to be verify that they are not plugged.
- 8. Inspect breather tubes for tears, cuts, holes or other damage. Replace as necessary.

#### NOTE

The breather tubes allow crankcase vapors to be directed into the air filter element. By providing effective recirculation of crankcase vapors, the tubes serve to eliminate the pollutants normally discharged from the crankcase. Air cleaner mounting without installation of the breather tubes, or with breather tubes that are not air tight, allows crankcase vapors to be vented into the atmosphere in violation of legal emissions standards.

9. Install the ends of each breather tube into the holes at the back of the filter element.

#### Installation

#### Carbureted

- Start filter element on backplate while fitting end of breather tubes over heads of cylinder head socket screws. Position filter element on backplate with flat side down, as indicated by ink stamp on lower edge.
- Install bracket and filter element to backplate with three TORX screws making sure gasket holes are aligned with backplate holes. Tighten screws to 20-40 in-lbs (2-5 Nm).
- Re-position seal on edge of air cleaner cover, if necessary. Install new seal if torn or damaged.

 Apply a drop of Loctite 243 (Blue) to threads of air cleaner cover screw. Install screw and air cleaner cover. Tighten air cleaner cover screw to 3-5 ft-lbs (4-7 Nm).

**Fuel Injected** 

- Start filter element on backplate while fitting end of breather tubes over heads of cylinder head socket screws. Position filter element on backplate with flat side down, as indicated by ink stamp on lower edge.
- Install bracket and filter element to backplate with four TORX screws making sure gasket holes are aligned with backplate holes. Tighten screws to 20-40 in-lbs (2-5 Nm).
- Re-position seal on edge of air cleaner cover, if necessary. Install new seal if torn or damaged.
- Apply a drop of Loctite 243 (Blue) to threads of air cleaner cover screw. Install screw and air cleaner cover. Tighten air cleaner cover screw to 3-5 ft-lbs (4-7 Nm).

# **HYDRAULIC LIFTERS**

Lifters are self-adjusting, hydraulic type. Lifter length is automatically adjusted to compensate for engine expansion and wear of the valve mechanism, thereby keeping the valve mechanism free of lash when the engine is running.

When starting an engine that has been turned off for a few minutes, the valve mechanism may be slightly noisy until the hydraulic units completely refill with oil.

If the valve mechanism becomes abnormally noisy at any other time, it is an indication that one or more of the hydraulic units may not be functioning properly.

Always check the oil supply in the oil pan first, since normal circulation of the oil through the engine is necessary for proper operation of the hydraulic units.

If there is oil in the pan, the units may not be functioning properly because of dirt in the oil supply passages leading to the lifter units. See your Harley-Davidson dealer for service.

# **CLUTCH/CLUTCH CONTOL CABLE**

Oil and adjust the clutch control cable after 1000 miles and every 5000 miles thereafter to compensate for lining wear. Use Lubit-8 Tufoil Chain and Cable Lube (HD Part No. 94968-85TV). The need for attention to clutch and controls will be indicated by the clutch slipping under load, or dragging when released. In this situation, the control cable adjustment should be the first item checked. See your Harley-Davidson dealer for proper service.

#### **BRAKES**

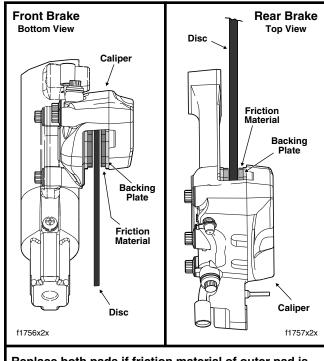
## **A**WARNING

Inspect brake pads for wear every 2500 miles. If riding under adverse conditions (steep hills, heavy traffic, or if you have a tendency to use only one brake), more frequent inspection is necessary (every 1000 miles or less). Use both brakes evenly. Use of one brake accelerates wear and affects braking efficiency. Operation with excessively worn brakes can lead to brake failure, which could result in death or serious injury.

Check brake pads and brake discs for wear after 1000 miles and every 2500 miles thereafter. Check the fluid level in the master cylinder reservoirs after 1000 miles and every 5000 miles thereafter. Use only D.O.T. 5 SILICONE HYDRAULIC BRAKE FLUID approved for brake system use (available from your Harley-Davidson dealer).

#### **A**WARNING

Since special tools, correct replacement parts and proper procedures are required, see your Harley-Davidson dealer for all brake service. Poor quality parts or improper procedures can lead to brake failure, which could result in death or serious injury.



Replace both pads if friction material of outer pad is 0.04 inches (1.02 mm) or less above the backing plate.

Figure 34. Measuring Brake Outer Pad

#### **Brake Pad Inspection**

- View the lower area of each caliper with the aid of a flashlight. Brake pad inspection can be performed without removing the caliper.
- Using a thin plastic 6 inch rule, measure the brake outer pad from the caliper bracket side. Place the rule against the brake disc through the space alongside the caliper.
- See Figure 34. If the brake pad friction material is 0.04 inch (1.02 mm) thick or less, replace the pads immediately.

#### **A**WARNING

For correct and safe brake operation, always replace brake pads in pairs. Mismatched brake pads can lead to brake system component damage and loss of braking performance, which could result in death or serious injury.

#### **Brake Disc Inspection**

The minimum brake disc thickness is stamped on the side of the disc.

When checking the brake pads and discs, inspect the brake hoses for any signs of damage.

# **TIRES**

Always keep tires properly inflated. For correct cold tire inflation pressures, see Table 9 on page 97. Check pressures before riding when tires are cold. Do not over-inflate tires.

#### **A**WARNING

Improper tire inflation will cause abnormal tread wear and can result in unstable handling characteristics. Under-inflation can cause the tire to slip on the rim or result in sudden tire failure. Unstable handling or complete tire failure can cause loss of vehicle control, which could result in death or serious injury.

Check inflation pressure and inspect tread for punctures, cuts breaks, etc., at least weekly if vehicle is in daily use, or before each trip if used only occasionally.

## **A**WARNING

Riding with damaged, excessively worn, unbalanced or improperly inflated tires adversely affects traction, steering and handling. Same as original equipment tires must be used when replacing tires. Other tires may not fit correctly and can also affect handling and stability. Unstable handling or complete tire failure can cause loss of vehicle control, which could result in death or serious injury.

#### FLAT TIRE REPAIR

#### **A**WARNING

For the reasons listed below, tire replacement must be performed by an authorized Harley-Davidson dealer following Service Manual procedures. Service at unauthorized locations can adversely affect motorcycle handling and stability, conditions that may lead to loss of vehicle control, which could result in death or serious injury.

- Special mounting procedures.
- Limited clearances at rear drive belt guard and fender braces.
- Vehicle alignment.
- A motorcycle tire that has been damaged or punctured is not safe to use. Never use a damaged tire or one that has been punctured and repaired.
- SA tire can be defective without showing any apparent damage. If you strike an object (such as a curb) at even low speeds, internal damage may occur. Always have the tire removed and carefully inspected for internal (as well as external) damage. Use of a damaged tire may lead to loss of vehicle control resulting in personal injury and/or vehicle damage.

# **VEHICLE ALIGNMENT**

#### **A**WARNING

Vehicle stability is adversely affected if wheels are out of alignment. Major alignment of the front and rear wheel is partially controlled by two stabilizer links, one at the top of the engine and one at the front of the engine. Do not change the adjustment of the links. Changing the adjustment as little as 1/3 turn can adversely affect motorcycle stability leading to loss of vehicle control, which could result in death or serious injury.

Following Service Manual procedures, check the stabilizer links and engine mounts for wear every 10,000 miles. Replace the stabilizer links if end play is 0.025 inch or more. See your Harley-Davidson dealer for service.

Check vehicle alignment every 10,000 miles, whenever the rear wheel is removed and installed, or after adjustment of the rear drive belt.

#### **WARNING**

Major alignment should be performed only by your Harley-Davidson dealer using Service Manual procedures. Service at unauthorized locations can adversely affect motorcycle handling and stability, conditions that may lead to loss of vehicle control, which could result in death or serious injury.

#### FRONT FORK BEARINGS

Check front fork for proper bearing adjustment at first 5000 miles and every 10,000 miles thereafter. Repack bearings at 10,000 mile intervals. With motorcycle front end raised off the floor, be sure front fork turns freely without any binding or interference and that there is no appreciable front to rear fork shake, which would indicate excessive bearing looseness.

#### **A**WARNING

Improperly adjusted front fork bearings will adversely affect motorcycle handling and stability and may lead to loss of vehicle control, which could result in death or serious injury. Always see your Harley-Davidson dealer for front fork bearing adjustments.

# **REAR SWINGARM PIVOT SHAFT**

Check the tightness of the rear swingarm pivot shaft fastener after the first 1000 miles and every 5000 miles thereafter.

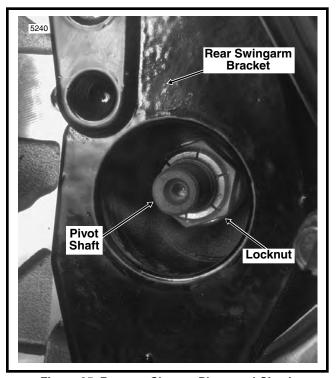


Figure 35. Remove Chrome Plugs and Check Pivot Shaft Locknut Torque

- 1. Remove the decorative chrome plugs from the rear swingarm brackets (left and right side of vehicle).
- 2. See Figure 35. Hold right side nut on the pivot shaft and tighten left side locknut to 40-45 ft-lbs (54-61 Nm).
- Snap the chrome plugs back into the rear swingarm brackets.

# **SPARK PLUGS**

Check the spark plugs after the first 1000 miles and every 5000 miles thereafter and replace if necessary. Replace the spark plugs every 10,000 miles.

#### CAUTION

Do not pull on wires because this may damage the internal conductor causing high resistance and reduction in firing voltage.

- Pull on the molded connector caps to disconnect cables from spark plugs. Mark cables as they are removed to ensure proper assembly.
- 2. Remove spark plugs and examine.

**Table 7. Spark Plug Data** 

SIZE	12 mm
GAP	0.038-0.043 in. (0.97-1.09 mm)
TYPE	HD-6R12 (No Substitute)

- Refering to the specifications in Table 7, set the spark plug gap using a wire-type gauge. Bend the outside of the electrode so only a slight drag on the gauge is felt when passing it between electrodes. Never make adjustments by bending the center electrode.
- Before installing spark plugs, check condition of threads in cylinder head and on plug. If necessary soften deposits with penetrating oil and clean out with a thread chaser.
- 5. Install spark plug finger tight and then tighten to 11-18 ft-lbs (15-24 Nm) for proper heat transfer.

#### NOTE

If a torque wrench is not available, first tighten spark plugs finger tight. Next, tighten plugs an additional one quarter turn with a spark plug wrench.

6. Connect cables to spark plugs.

#### **IGNITION TIMING**

Ignition timing is non-adjustable on Twin Cam 88<sup>TM</sup> equipped motorcycles. Spark timing is advanced electronically, as engine speed increases or decreases, to suit starting, low speed and high speed operation.

The engines in these motorcycles are specifically designed to achieve optimum fuel economy within exhaust emission controls. Ignition characteristics have been developed to provide maximum engine performance and driveability.

## **HEADLAMP**

The headlamp is a replaceable bulb (and not a sealed beam). Made of quartz glass filled with Halogen gas, the bulb is very delicate and must be handled with care.

#### NOTE

When replacement is required, use only the specified bulb available from your Harley-Davidson dealer. Improper wattage or bulb may cause charging system problems.

 Remove the Phillips screw at the bottom of the headlamp door (chrome ring). Remove the headlamp door.

- Remove the three Phillips screws to free the retaining ring from the headlamp housing. Carefully remove the lens and bulb assembly.
- 3. Squeeze the two external tabs to remove the wire connector at the back of the headlamp bulb. Remove the headlamp housing assembly from the vehicle.
- 4. Remove the rubber boot at the back of the lens.
- Push down on loops of wire form to free ends from slots on lens insert. See Figure 36. Use hinge to swing wire form out of the way.

#### **A**CAUTION

The bulb contains Halogen gas under pressure. Handle the bulb carefully. Wear adequate eye protection to avoid possible injury.

Remove and discard bulb.

#### CAUTION

Never touch the quartz bulb with your fingers. Fingerprints will etch the glass and cause premature bulb failure. Always wrap the bulb in paper or a clean dry cloth during handling.

7. Install new bulb in lens. Rotate bulb as necessary so that backplate makes full contact with lens insert.

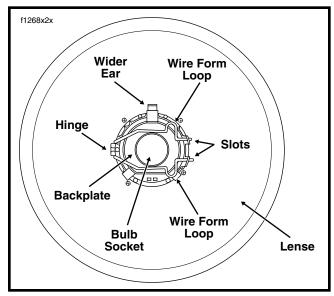


Figure 36. Headlamp Lense/Bulb Assembly (Rear View)

#### NOTE

Wider ear on backplate should point toward the top of the lense. The top can be determined by the position of the headlamp door bracket, which is at the bottom (on the opposite side).

- Use hinge to place wire form over socket at back of bulb. Press down on loops so ends of wire form engage slots on lens insert.
- Install rubber boot at back of lens tucking outer edge into headlamp housing.
- 10. Install the wire connector at the back of headlamp bulb.
- 11. Fit lens and bulb assembly into headlamp housing. Align holes in retaining ring with those in headlamp housing. Install the three Phillips screws.
- 12. Fit the square-shaped portion of the headlamp door spring into the slot at the top of the headlamp housing and then snap the headlamp door (chrome ring) into place. Install the Phillips screw at the bottom of the headlamp door.

#### **HEADLAMP ADJUSTMENT**

Check headlamp beam for proper height and lateral alignment.

# **A**WARNING

DO NOT modify the ignition/light key switch wiring to circumvent the automatic-on headlamp feature. High visibility is an important safety consideration for motorcycle riders. To reduce the risk of vehicle damage and personal injury, ensure the headlamp is on at all times. Failure to do so could result in death or serious injury.

- 1. Verify correct front and rear tire inflation pressure.
- Place the motorcycle on a level floor or pavement in an area with minimum light.
- See Figure 37. Point the front of the motorcycle toward a screen or wall which is 25 feet (7.62 m) from where patch of front tire contacts floor (i.e. - directly below front axle).
- Draw a horizontal line on screen or wall that is exactly the same height above the floor as the headlamp center.
- Have a person whose weight is roughly the same as that of the principal rider sit on the motorcycle seat. The

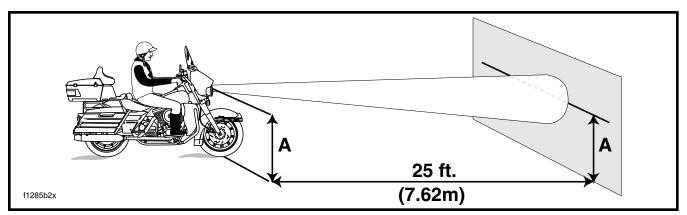


Figure 37. Check Headlamp Alignment

- weight of the rider will compress the vehicle suspension slightly.
- Stand the motorcycle upright with both tires resting on the floor and with the front wheel held in straight alignment (directly forward).
- 7. Turn the Ignition/Light Key Switch to IGNITION. Set the Light Switch on the left handlebar to Hi(gh) beam.
- 8. Check the light beam for proper height alignment. The main beam of light should be centered on the horizontal line on the screen or wall.
- 9. Check the light beam for proper lateral alignment. The main beam of light should be directed straight ahead (i.e., equal area of light to right and left of center).

#### NOTE

The headlamp adjustment can be performed without removing the headlamp door (chrome ring).

10. If the headlamp alignment requires adjustment, use slots in headlamp door to insert Phillips screw driver between headlamp housing and rubber gasket. Turn the vertical adjuster screw as necessary to adjust the headlamp vertically. Turn the horizontal adjuster screw to adjust the headlamp horizontally. See Figure 38.

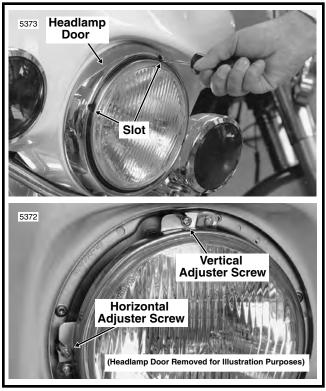


Figure 38. Adjust Headlamp Alignment - FLHTP-I

#### **BATTERY**

Batteries are permanently sealed, maintenance-free, valveregulated, lead/calcium and sulfuric acid batteries. The batteries are shipped pre-charged and ready to be put into service. Do not attempt to open these batteries for any reason.

# **A**WARNING

All batteries contain electrolyte. Electrolyte is a sulfuric acid solution that is highly corrosive and can cause severe chemical burns. Avoid contact with skin, eyes, and clothing. Avoid spillage. Always wear protective face shield, rubberized gloves and protective clothing when working with batteries. A warning label is attached to the top of the battery. See Figures 39 and 40. Never remove warning label from battery. Failure to read and understand all precautions contained in warning label before performing any service on batteries could result in death or serious injury.

# **Battery Storage**

If the motorcycle will not be operated for several months, such as during the winter season, remove the battery from the motorcycle and fully charge. See CHARGING BATTERY, page 81.

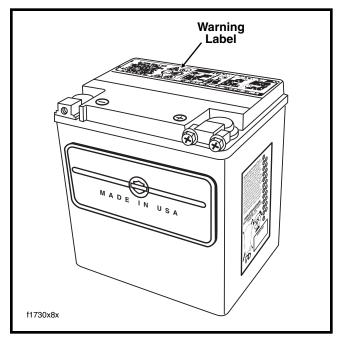


Figure 39. Maintenance-Free Battery

Self-discharge is a normal condition and occurs continuously at a rate that depends on the ambient temperature and the battery's state of charge. Batteries discharge at a faster rate



Figure 40. Read Battery Warning Label

at higher ambient temperatures. To reduce the self-discharge rate, store battery in a cool (not freezing), dry place. See Figure 41.

Charge the battery every month if stored at temperatures below 60° F. (16° C). Charge the battery more frequently if stored in a warm area above 60° F. (16° C).

#### NOTE

The H-D Battery Tender Automatic Battery Charger (P/N 99863-93TA) may be used to maintain battery charge for extended periods of time without risk of overcharging or boiling.

# ANTIDOTE External - Flush with water. Internal - Drink large quantities of milk or water, followed by milk of magnesia, vegetable oil or beaten eggs. Call doctor immediately. Eyes - Flush with water, get immediate medical attention.

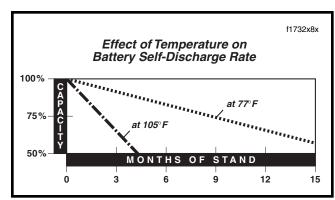


Figure 41. Battery Self-Discharge Rate

When returning a battery to service after storage, refer to the instructions under CHARGING BATTERY, page 81.

#### **A**WARNING

Store the battery out of the reach of children. Inadequate safety precautions could result in death or serious injury.

# **Battery Removal/Installation**

#### Removal

#### NOTE

To access the battery without removal, see BATTERY ACCESS, page 80.

Battery care is the most important factor determining service life (not the length of time or miles of service). Clean terminal connections and check tightness monthly or every 2500 miles.

- Standing on left side of vehicle, press down on rear of seat and pull retaining pin from hole in support post.
- 2. Raise seat toward fuel tank console.
- Remove two nuts to free back of shroud from rear fender studs. Raise and remove shroud.

## **A**WARNING

Always disconnect the negative battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

- 4. Unthread bolt and remove battery negative cable (black) from battery negative (-) terminal.
- Unthread bolt and remove battery positive cable (red) from battery positive (+) terminal.
- Using a T-40 TORX drive head, loosen bolt to move lip of hold-down clamp off edge of battery. Remove battery from battery box.

#### Installation

1. Place battery in battery box, terminal side forward.

#### **A**WARNING

Always connect the positive battery cable first. If the positive cable should contact ground with the negative cable installed, the resulting sparks may cause a battery explosion which could result in death or serious injury.

- Insert bolt through battery positive cable (red) into threaded hole of battery positive (+) terminal. Tighten bolt to 60-96 in-lbs (6.8-10.9 Nm).
- Insert bolt through battery negative cable (black) into threaded hole of battery negative (-) terminal. Tighten bolt to 60-96 in-lbs (6.8-10.9 Nm).
- Apply a light coat of petroleum jelly, grease or corrosionretardant material to both terminals.
- Rotate the hold-down clamp so that the lip (with rubber pad) rests on the edge of the battery. Using a T-40 TORX drive head, tighten the clamp bolt to 15-20 ft-lbs (20-27 Nm).
- 5. Slide front ends of shroud beneath extension at rear of fuel tank console. Align holes at rear of shroud with studs in rear fender. Install two nuts to secure shroud to rear fender. Verify that air lines and cable conduit are not pinched by shroud as nuts are tightened.
- Move seat down until support post engages hole in rear seat bracket.
- While pressing down on rear of seat, insert retaining pin in hole of support post.

# **Battery Access (Without Removal)**

NOTE

To remove the battery for service or replacement, see BATTERY REMOVAL/INSTALLATION, page 78.

#### Removal

- Standing on left side of vehicle, press down on rear of seat and pull retaining pin from hole in support post.
- Raise seat toward fuel tank console.
- 3. Rotate latch on shroud to release battery cover. Remove battery cover from shroud.

#### Installation

- Install battery cover inserting tabs into holes in shroud. Rotate latch to lock cover in place.
- Move seat down until support post engages hole in rear seat bracket.
- While pressing down on rear of seat, insert retaining pin in hole of support post.

# **Battery Charging Warnings**

Never charge a battery without first reviewing the instructions for the charger being used. In addition to the manufacturer's instructions, follow these safety precautions:

- Always wear proper eye, face and hand protection.
- Always charge batteries in a well-ventilated area.
- Turn the charger "OFF" before connecting the leads to the battery to avoid dangerous sparks.
- Never try to charge a visibly damaged or frozen battery.
- Connect the charger leads to the battery; red positive (+) lead to the positive (+) terminal and black negative (-) lead to the negative (-) terminal. If the battery is still in the vehicle, connect the negative lead to the chassis ground. Be sure that the ignition and all electrical accessories are turned off.
- Make sure that the charger leads to the battery are not broken, frayed or loose.
- If the battery releases an excessive amount of gas during charging, decrease the charging rate. If the battery gets hotter than 110°F. (43°C) during charging, discontinue charger and allow the battery to cool. Overheating may result in plate distortion, internal shorting, dryout or other damage.

 Always turn the charger "OFF" before removing charger leads from the battery to avoid dangerous sparks.

# **Charging Battery**

Charge the battery if any of the following conditions exist:

- Vehicle lights appear dim.
- Electric starter sounds weak.
- Battery has not been used for an extended period of time.

# **A**WARNING

Charge the battery in a well ventilated area. Explosive hydrogen gas escapes from the battery during charging. Keep open flames, electrical sparks and smoking materials away from the battery at all times. Inadequate safety precautions could result in death or serious injury.

 Remove the battery from the motorcycle. See BAT-TERY, REMOVAL, page 78. Place the battery on a level surface.

#### **CAUTION**

Always remove the battery from the motorcycle before charging. Accidental electrolyte leakage will damage motorcycle parts.

# **A**WARNING

Always unplug or turn OFF the battery charger before connecting the charger clamps to the battery. Connecting clamps with the charger ON could cause a spark resulting in a battery explosion. A battery explosion may rupture the battery case causing a discharge or spray of sulfuric acid that could result in death or serious injury.

#### **CAUTION**

Do not reverse the charger connections described in the following steps or the charging system of the motorcycle could be damaged.

- Connect the red battery charger lead to the positive (+) terminal of the battery.
- Connect the black battery charger lead to the negative (–) terminal of the battery.

#### NOTE

If the battery is still in the vehicle, connect the negative lead to the chassis ground. Be sure that the ignition and all electrical accessories are turned off.

Step away from the battery and turn on the charger. See the charging instructions in Table 8.

#### **A**WARNING

Always unplug or turn OFF the battery charger before disconnecting the charger clamps from the battery. Disconnecting clamps with the charger ON could cause a spark resulting in a battery explosion. A battery explosion may rupture the battery case causing a discharge or spray of sulfuric acid that could result in death or serious injury.

- After the battery is fully charged, disconnect the black battery charger lead to the negative (–) terminal of the battery.
- Disconnect the red battery charger lead to the positive (+) terminal of the battery.

# JUMP STARTING PROCEDURE

Harley-Davidson does not recommend jump-starting a motorcycle, although we realize that there may be circumstances when it is done. Therefore, we suggest jump-starting be done as follows:

#### **A**WARNING

Do not smoke or allow sparks when making terminal connections. Be sure that the jumper cable clamps do not accidentally touch each other or anything else except the battery terminals or appropriate ground, or the resulting sparks may cause a battery explosion which could result in death or serious injury.

#### NOTE

This procedure presumes the BOOSTER battery is in another vehicle. Never jump start a damaged battery. Be sure vehicles do not touch and ignitions are off.

#### CAUTION

All Harley-Davidson motorcycles have a 12 Volt battery and a 12 Volt electrical system. Be sure that the booster vehicle also has a 12 Volt system or electrical components may be damaged.

**Table 8. Battery Charging Rates/Estimated Times** 

Battery Amp-Hour	State of Charge		3	6	10	20
	Voltage Reading	% of Charge	Amp Charger	Amp Charger	Amp Charger	Amp Charger
	12.8 V	100%	-	-	-	-
POLICE	12.6 V	75%	2.5 hours	1.25 hours	45 minutes	25 minutes
	12.3 V	50%	5 hours	2.5 hours	1.5 hours	50 minutes
28	12.0 V	25%	7.5 hours	3.75 hours	2.25 hours	70 minutes
	11.8 V	0%	10 hours	5 hours	3 hours	1.5 hours

The figures listed above assume that the battery is charging at room temperature. If warmer than room temperature, use a slightly shorter charging time. If colder, use a slightly longer charging time.

The use of constant current chargers to charge sealed maintenance-free batteries is not recommended. Any overcharge will cause dryout and premature battery failure. If a constant current charger is the only type available, do **not** exceed the charge times listed above and do **not** continue charging the battery if it gets hot. When charging, never exceed 15 volts for more than 30 minutes.

#### **Connection To Booster Battery**

- 1. Turn off all unnecessary lights and accessories.
- 2. See BATTERY ACCESS (WITHOUT REMOVAL) in this section, steps 1-3.
- 3. **POSITIVE CABLE**: Connect positive (+) booster cable to positive (+) terminal of DISCHARGED battery.
- 4. Connect other end of positive (+) booster cable to positive (+) terminal of ASSISTING battery.

 NEGATIVE CABLE: Connect negative (-) booster cable to negative (-) terminal of ASSISTING battery.

# **A**WARNING

Do not connect free end of negative booster cable to or near the discharged battery negative terminal. Inadequate safety precautions may produce sparks causing a battery explosion, which could result in death or serious injury.

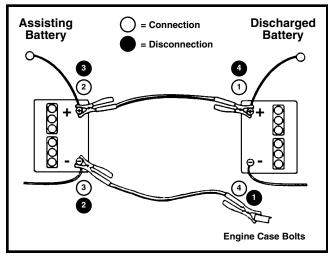


Figure 42. Jump Starting Battery

#### **CAUTION**

Do not connect free end of negative booster cable to painted or chrome parts or discoloration can occur.

Connect other end of negative (-) booster cable to a safe ground (away from the DISCHARGED battery).

#### NOTE

The suggested location for ground cable connection is the engine case bolts.

7. Start motorcycle.

#### **Disconnection From Booster Battery**

- NEGATIVE CABLE: Disconnect negative (-) booster cable from safe ground (away from the battery).
- Disconnect other end of negative (-) booster cable from negative (-) terminal of ASSISTING battery.
- POSITIVE CABLE: Disconnect positive (+) booster cable from positive (+) terminal of ASSISTING battery.
- Disconnect other end of positive (+) booster cable from positive (+) terminal of DISCHARGED battery.
- See BATTERY ACCESS (WITHOUT REMOVAL), steps 4-6.

# **FUSES**

Fuses are provided to protect the motorcycle wiring. To inspect or replace the fuses, carefully follow the procedures below. If an electrical fault occurs after replacement of a fuse, see your Harley-Davidson dealer for service.

- 1. Place the Ignition/Light Key Switch in the OFF position.
- Raise lid of left side saddle bag. Grasp bail wire inside saddlebag and rotate each stud a full 1/4 turn in a counterclockwise direction. Remove bail head studs with flat washers. Remove saddlebag.
- Remove wing nut style bolt to release bottom of siren amplifier mounting bracket from clamp on saddlebag rail. Rotate bracket upward to gain complete access to side cover area.
- Gently pull side cover from frame downtubes (no tools required). Exercise caution to avoid scratching side cover on amplifier mounting bracket.
- Pull fuse blocks from tabs on mounting panel. Tabs on panel fit into slots on each side of fuse block cover. To remove the cover, raise the latches slightly to disengage the tabs on the fuse blocks. See Figure 43.

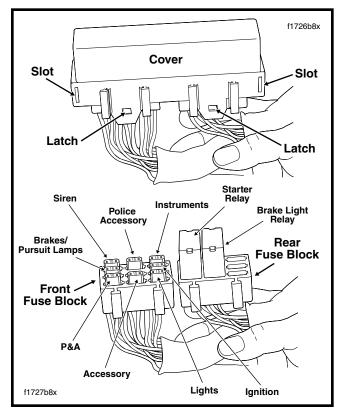


Figure 43. Fuse Blocks (Under Left Side Cover)

Remove the fuse and inspect the element. Replace the fuse if the element is burned or broken. Automotive type ATO fuses are used.

#### NOTE

Two spare fuses (both a 10 amp and 15 amp) can be found in the fuse block cover.

#### CAUTION

Always use replacement fuses that are of the correct type and value. Use of incorrect fuses can result in damage to electrical systems.

- Slide cover over fuse blocks until latches fully engage tabs on blocks. Slide fuse blocks into position on mounting panel. Tabs on panel fit into slots on each side of fuse block cover.
- Align barbed studs in side cover with grommets in frame downtubes and push firmly into place (no tools required).
- Rotate siren amplifier mounting bracket downward. Install wing nut style bolt to secure bracket to clamp on saddlebag rail.
- Position left side saddlebag on vehicle. Place flat washers on bail head studs. Insert stud through holes in saddlebag and front mounting bracket. When groove on

stud engages wire form of spring plate on inboard side of bracket, turn stud clockwise a full 1/4 turn until it snaps in place. Install rear bail head stud in the same manner.

#### **GENERAL MAINTENANCE**

Chrome and aluminum parts must be maintained regularly to ensure that they retain their original shine and luster. Care should be taken to keep your new Harley-Davidson motorcycle clean and waxed to inhibit rust and corrosion.

## **CLEANING YOUR MOTORCYCLE**

To aid you in keeping your motorcycle clean, see your Harley-Davidson dealer for cleaning, polishing and waxing products.

#### **A**CAUTION

Observe all warnings and cautions on the labels of cleaning compounds to prevent possible injury and/or vehicle damage.

# **A**WARNING

Do not wash brake discs with cleaners that contain either chlorine or silicon. Chlorine causes rust, while silicon will make the brake discs slick. Impaired brake function can cause loss of vehicle control, which could result in death or serious injury.

#### **WARNING**

When washing your motorcycle, avoid getting the brakes, engine, mufflers or air cleaner too wet. A wet engine can start and run poorly (until it dries), while wet brake pads or a wet disc can affect braking efficiency, which could result in death or serious injury. Start engine immediately after washing and verify that brakes and engine are operating properly before riding.

# ACCESSORIES MAINTENANCE WINDSHIELDS

#### **CAUTION**

Harley-Davidson windshields are made of Lexan<sup>®</sup>. Lexan<sup>®</sup> is a more durable and distortion-resistant material than other types of motorcycle windshield material, but still requires attention and care to maintain.

DO NOT use harsh chemicals including rain sheeting products on Harley-Davidson windshields. They may cause dulling or hazing. If you wish to use a windshield protectant on your windshield, try Harley Glaze Polish and Sealant<sup>®</sup>.

- DO NOT use benzine, paint thinner, gasoline or any other types of harsh cleaner. They will damage the windshield surface.
- To remove minor surface scratches, use NOVUS<sup>®</sup>
   No. 2 Scratch Remover, P/N 99836-94T.

#### NOTE

Covering the windshield with a clean, wet cloth for approximately 15-20 minutes before washing will make dried bug removal easier.

Use mild soap and warm water to wash the windshield. Wipe dry with a soft clean towel.

#### **DETACHABLE WINDSHIELD**

#### NOTE

FLHP/FLHP-I model vehicles are equipped with a detachable windshield.

#### Removal

- 1. See Figure 44. Use a finger to raise the wireform latch springs on each side of the windshield.
- Standing at the front of the vehicle, gently pull the top of the windshield until the upper notches on the side brackets are free of the upper grommets.

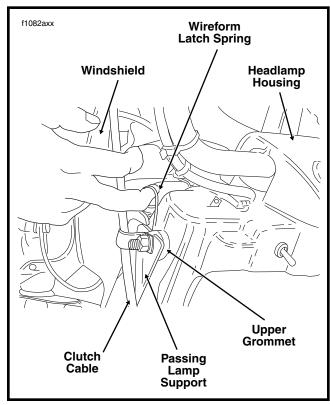


Figure 44. Detachable Windshield (Left Side View)

- 3. Carefully raise the windshield until the lower notches in the side brackets are free of the lower grommets.
- Remove windshield from vehicle.

#### Installation

#### **CAUTION**

Be sure that the notches on each bracket of the windshield are firmly seated on a rubber grommet.

- Lower the windshield into position carefully inserting the side brackets between the headlamp housing and the passing lamp supports until the bottom notches are seated on the lower grommets.
- 2. Standing at the front of the vehicle, gently push the top of the windshield toward the rear until the upper notches fully engage the upper grommets. See Figure 44.
- Push down on the wireform latch springs so that they overhang the rubber grommets.

# HINGES AND LATCHES -FUEL DOOR AND SADDLEBAGS

Lubricate the rub points of latches and hinges using Lubit-8 Tufoil Chain and Cable Lube (HD Part No. 94968-85TV) after 1000 miles and every 5000 miles thereafter. This lubricant resists attracting dust.

## **STORAGE**

#### CAUTION

Proper long-term storage is important for the safe, trouble-free operation of your motorcycle. If you are not able to do these tasks yourself, your Harley-Davidson dealer has trained technicians who can perform the work using proper tools and procedures.

# **Placing Motorcycle In Storage**

If the motorcycle will not be operated for several months, such as during the winter season, certain procedures must be followed to protect parts from corrosion, preserve the battery and prevent the build-up of gum and varnish deposits in the carburetor.

While preparing the vehicle for storage, make a detailed list of all the things you do (and then fasten it to a handgrip).

When removing the vehicle from storage, the list will be useful in getting your motorcycle back into proper operating condition.

 Warm the motorcycle to operating temperature, change the oil and then turn engine over to circulate the new oil.

# **A**WARNING

Gasoline is extremely flammable and highly explosive. Do not store motorcycle with gasoline in tank within the home or garage where open flames, pilot lights, sparks or electric motors are present. Inadequate safety precautions could result in death or serious injury.

- Fill fuel tank adding one of the commercially available gasoline stabilizers. Follow the manufacturer's instructions. Run the engine until stabilizer has had a chance to reach the carburetor float bowl or fuel injectors. On carbureted vehicles, turn fuel supply valve to the OFF position.
- Adjust the belt.
- Check tire inflation and adjust to the proper inflation pressure, if necessary.
- Wash and wax painted and chrome surfaces.

 Remove the battery from the motorcycle and charge.
 Store the battery above freezing temperatures. For more information, see BATTERY, page 76.

#### **WARNING**

Keep open flames, electrical sparks and smoking materials away from the battery at all times. Inadequate safety precautions could result in death or serious injury.

 If the motorcycle is to be covered, use a light canvas or other material that will breathe. Plastic materials that do not breathe promote the formation of condensation and lead to corrosion.

# **Removal From Storage**

#### **CAUTION**

Prior to starting vehicle after extended storage period, place transmission in gear, disengage clutch and push vehicle back and forth a few times to ensure proper clutch disengagement.

 Charge battery and install. For more information, see BATTERY, page 76.

- Remove and inspect the spark plugs. Replace if necessary.
- Clean the air cleaner element.
- 4. Start and run the engine until it reaches normal operating temperature. Turn the engine off.
- Check the engine oil level. Check the transmission lubricant level.
- Check controls to verify that they are operating properly.
   Operate the front and rear brakes, throttle, clutch and shifter.
- 7. Turn the handlebars through the full operating range to check steering for smoothness.
- 8. Check tire pressure. Incorrect pressure will result in poor riding characteristics and can affect handling and stability.
- Check all electrical equipment and switches for proper operation, including the stoplamp, turn signals and horn.
- 10. Check for any fuel, oil or brake fluid leaks.

# **GENERAL**

The following checklist of possible operating troubles and their probable causes will be helpful in keeping your motorcycle in good operating condition. More than one of these conditions may be causing the trouble and all should be carefully checked.

#### **CAUTION**

This troubleshooting section is intended solely as a guide to diagnosing problems. Carefully read the appropriate sections of this manual before performing any work. Repair and maintenance operations not listed in this Owner's Manual are in the Service Manual and should be performed by your Harley-Davidson dealer.

# **ENGINE**

# Starter Does Not Operate or Does Not Turn Engine Over

- 1. Engine run switch in OFF position.
- 2. Ignition switch not on.
- 3. Discharged battery or loose or corroded connections (solenoid chatters).

## **Engine Turns Over But Does Not Start**

- Fuel tank empty.
- Fuel valve turned off.\*
- Vacuum line to fuel valve disconnected.\*
- 4. Fuel valve\* or filter clogged.
- Discharged battery or loose or broken battery terminal connections.
- Fouled spark plugs.
- Spark plug cables connections loose or in bad condition and shorting.
- Loose or corroded wire or cable connection(s) at coil or battery.
- 9. Engine flooded with fuel as a result of over-enrichening.
- 10. Engine oil too heavy (winter operation).
- 11. Throttle held open when enrichener is used.\*
- 12. Fuel pump inoperative.\*\*

#### **Starts Hard**

 Spark plugs in bad condition or have improper gap or are partially fouled.

<sup>\*</sup> Carbureted Models \*\* Fuel Injected Models

- 2. Spark plug cables in bad condition and leaking.
- 3. Battery nearly discharged.
- Loose wire or cable connection(s) at one of the battery terminals or at coil.
- Carburetor not adjusted correctly.\*
- 6. Engine oil too heavy (winter operation).
- Fuel tank vent plugged or carburetor fuel line\* closed off, restricting fuel flow.
- 8. Water or dirt in fuel system and carburetor.\*
- 9. Fuel pump inoperative.\*\*

# Starts But Runs Irregularly or Misses

- Spark plugs in bad condition or partially fouled.
- Spark plug cables in bad condition and leaking.
- 3. Spark plug gap too close or too wide.
- 4. Battery nearly discharged.
- Damaged wire or loose connection at battery terminals or coils.
- 6. Intermittent short circuit due to damaged wire insulation.
- 7. Water or dirt in fuel system, filter, or carburetor.
- 8. Fuel vent system plugged. See dealer.

\* Carbureted Models \*\* Fuel Injected Models

9. One or both injectors fouled.

# A Spark Plug Fouls Repeatedly

- 1. Excessive enrichener use.
- Fuel mixture too rich.
- Incorrect spark plug.

# Pre-ignition or Detonation (Knocks or Pings)

- 1. Incorrect fuel.
- 2. Incorrect spark plug for the kind of service.

#### **Overheats**

- 1. Insufficient oil supply or oil not circulating.
- Heavy carbon deposit from "lugging" engine. See dealer.
- Insufficient air flow over cylinder heads during extended periods of idling or parade duty.

#### **Excessive Vibration**

- 1. Stabilizer links worn or loose. See dealer.
- 2. Engine isolation mounts loose. See dealer.

- 3. Rear fork pivot shaft nuts loose. See dealer.
- 4. Front engine mounting bolts loose. See dealer.
- Engine to transmission mounting bolts loose. See dealer.
- 6. Broken frame. See dealer.
- 7. Front chain or rear belt badly worn or links tight as a result of insufficient lubrication.
- 8. Wheels and/or tires damaged. See dealer.
- 9. Vehicle not properly aligned. See dealer.

# LUBRICATION SYSTEM Oil Does Not Return to Oil Pan

- Oil pan empty.
- 2. Restricted oil lines or fittings. See dealer.
- 3. Restricted oil filter. See dealer.
- 4. O-ring at oil pump return missing or cut.

# **Engine Leaks Oil From Cases, Push Rods, Hoses**

- Loose parts. See dealer.
- Imperfect seal at gaskets, push rod cover, washers, etc. See dealer.
- 3. Restricted vent line or oil return line to tank. See dealer.

# **ELECTRICAL SYSTEM**

# **Alternator Does Not Charge**

- 1. Module not grounded. See dealer.
- 2. Engine ground wire loose or broken. See dealer.
- 3. Loose or broken wires in charging circuit. See dealer.

# **Alternator Charge Rate is Below Normal**

- Weak battery.
- Excessive use of add-on accessories.
- Loose or corroded connections.
- 4. Extensive periods of idling or low speed riding.

# **CARBURETOR**

#### Carburetor Floods

1. Excessive "pumping" of hand throttle grip.

# TRANSMISSION Transmission Shifts Hard

- Bent shifter rod. See dealer.
- Transmission shifting mechanism needs adjustment. See dealer.

## **Transmission Jumps Out of Gear**

- 1. Shifter rod improperly adjusted. See dealer.
- Shifter forks (inside transmission) improperly adjusted. See dealer.
- 3. Worn shifter dogs in transmission. See dealer.

# **Clutch Slips**

- 1. Clutch controls improperly adjusted. See dealer.
- 2. Worn friction discs. See dealer.
- 3. Insufficient clutch spring tension. See dealer.

# **Clutch Drags or Does Not Release**

- 1. Clutch controls improperly adjusted. See dealer.
- 2. Insufficient clutch spring tension. See dealer.
- 3. Transmission case over-filled.
- 4. Clutch discs warped. See dealer.

#### **Clutch Chatters**

1. Friction discs or steel discs worn or warped. See dealer.

#### **BRAKES**

# **Brakes Do Not Hold Normally**

- Master cylinder low on fluid. See dealer.
- 2. Brake line contains air bubbles. See dealer.
- 3. Master or wheel cylinder piston worn. See dealer.
- 4. Brake pads contaminated with grease or oil. See dealer.
- Brake pads badly worn (1/16 in. minimum lining thickness). See dealer.
- 6. Brake disc badly worn or warped. See dealer.
- Brake fades because of heat build up. Excessive braking or brake pads dragging. See dealer.
- Brake drags. Insufficient hand lever free play. See dealer.

# **DIMENSIONS (IN.)**

	FLHTP-I	FLHP/FLHP-I
Wheel Base	63.50	63.50
Overall Length	94.25	94.25
Overall Width	39.00	34.45
Road Clearance	5.12	5.12
Overall Height	61.00	55.06
Saddle Height	29.50	29.50

# **WEIGHT (LBS.)**

FL	HIP-I	FLMP/FLMP-I
DRY WEIGHT		
(as shipped from		
the factory)	778	721
GVWR	1179	1179
GAWR - Front	410	410
GAWR - Rear	769	769

EI UTD I

ELUD/ELUDI

#### NOTE

Gross Vehicle Weight Rating (GVWR) (maximum allowable loaded vehicle weight) and corresponding Gross Axle Weight Ratings (GAWR) are given on a label located on the frame down tube.

# **CAPACITIES (U.S.)**

	FLHTP-I	FLHP/FLHP-I
Fuel Tank (gallons)		
Total	5	5 *
Reserve	0	0.9
Oil Tank (quarts) with filter	4	4
Transmission (approx. ounc	ces) 20-24	20-24
Front Fork - Each		
(ounces)	9.7	9.7
Primary Chaincase		
(approx. ounces)	32	32

## **IGNITION SYSTEM**

Ignition	Timing	Non-adjustable
Battery		12 Volt, 30 amp. hr.

# **Spark Plugs**

Type	HD-6R12
Size	12mm
Gap	. 0.038-0.043 in. (0.97-1.09 mm)
Torque Specification	11-18 ft-lbs (15-24.4 Nm)

<sup>\*</sup> Includes Reserve on Carbureted Models

# TWIN CAM 88<sup>TM</sup> ENGINE

Number of Cylinders	2
Type	. 4-Cycle, 45° V-Type, Air-Cooled
Compression Ratio	9 to 1

# **SAE Standard Horsepower**

Model	Bore in. (mm)	Stroke in. (mm)	Displacement cu. in. (cc)	Torque ft-lb @ RPM
FLHP	3.75 (95.3)	4.0 (102)	88 (1450)	86@3500
FLHTP-I/FLHP-I	3.75 (95.3)	4.0 (102)	88 (1450)	86@3500

#### **TRANSMISSION**

Type	Constant Mesh, Foot Shif
Speeds	5 Forward

## NUMBER OF SPROCKET TEETH

Engine	25 (24 EFI)
Clutch	36 (37 EFI)
Transmission	32
Rear Wheel	70

#### **OVERALL GEAR RATIOS**

First (Low) Gear	10.110 (10.8 EFI)
Second Gear	6.958 (7.45 EFI)
Third Gear	4.953 (5.29 EFI)
Fourth Gear	3.862 (4.13 EFI)
Fifth Gear	3.150 (3.37 EFI)

#### TIRE DATA

# **A**WARNING

Be sure that tires, rims and air valves are correctly matched to wheel rims. Mismatching tires, tubes, rims and air valves may result in damage to the tire bead during mounting or may allow the tire to slip on the rim, possibly causing tire failure. Do not use tires other than those specified or motorcycle stability may be adversely affected. Use only tube tires on all Harley-Davidson laced (wire spoked) wheels. When mounting tube type tires, use protective rubber rim strips. Use only tubeless type tires on all Harley-Davidson cast and disc wheels. See your Harley-Davidson dealer for service. Inadequate safety precautions could result in death or serious injury.

#### NOTE

Tire sizes are molded on the tire sidewall. Tube sizes are printed on the tube.

# **A**WARNING

The Dunlop front and rear tires on Harley-Davidson motorcycles are not interchangeable. DO NOT put a front tire at the rear of the vehicle. DO NOT put a rear tire at the front of the vehicle. Improper placement of front and rear tires can adversely affect motorcycle stability and handling, which may lead to loss of vehicle control resulting in death or serious injury.

**Table 9. Tire Pressures** 

DUNLOP TIRES ONLY		TIRE PRESSURE PSI (COLD)	
		Front	Rear
Solo Rider	FLHTP-I	36	36
Solo Rider	FLHP/FLHP-I	36	36

#### **A**WARNING

Maximum inflation pressure must not exceed specification on tire sidewall. Over-inflation can result in tire failure or adversely affect motorcycle stability and handling, which may lead to loss of vehicle control resulting in death or serious injury.

## **FUEL**

Use a good quality unleaded gasoline. For carbureted and fuel injected motorcycles, use at least **91 pump octane**. Octane rating is usually labelled on the pump.

## **A**WARNING

Remove the fuel filler cap slowly. Fill fuel tank slowly to prevent fuel spillage. Do not fill above the bottom of the filler neck insert. See Figure 20. Leave enough air space to allow for fuel expansion. Expansion can cause an overfilled tank to overflow fuel through the filler cap vent onto surrounding areas. After refueling, be sure filler cap is securely tightened. Gasoline is extremely flammable and highly explosive. Inadequate safety precautions could result in death or serious injury.

#### **CAUTION**

Use of gasoline that contains methanol can cause failure of fuel system rubber components and/or engine damage. A gasoline/alcohol blend spill can stain painted surfaces of vehicle.

Todays service station pumps are often of the higher capacity variety. With the high flow of gasoline into a motorcycle tank, air entrapment and pressurization is a

possibility. The pressurized air may force gasoline to escape through whatever opening is available within the filler tube. This may not only soil clothing, but may create a potential fire hazard as well.

#### **GASOLINE BLENDS**

Your motorcycle was designed to get the best performance and efficiency using unleaded gasoline. Most gasolines sold in the United States are blended with alcohol and/or ether to create "oxygenated" blends. The type and amount of alcohol or ether added to the fuel is important.

- DO NOT USE GASOLINES CONTAINING METHA-NOL. Using gasoline/methanol blends will result in starting and driveablility deterioration and damage to critical fuel system components.
- ETHANOL is a mixture of 10% ethanol (Grain alcohol) and 90% unleaded gasoline. Gasoline/ethanol blends can be used in your motorcycle if the ethanol content does not exceed 10%.
- Gasolines containing ETHER: Gasoline/ether blends are a mixture of gasoline and as much as 15% ether. Gasoline/ether blends can be used in your motorcycle if the ether content does not exceed 17%.
- REFORMULATED OR OXYGENATED GASOLINES (RFG): "Reformulated gasoline" is a term used to

describe gasoline blends that are specifically designed to burn cleaner than other types of gasoline, leaving fewer "tailpipe" emissions. They are also formulated to evaporate less when you are filling your tank. Reformulated gasolines use additives to "oxygenate" the gas. Your motorcycle will run normally using this type of gas and Harley-Davidson recommends you use it when possible, as an aid to cleaner air in our environment.

You may find that some gasoline blends adversely affect the starting, driveability or fuel efficiency of your bike. If you experience one or more of these problems, we recommend you try a different brand of gasoline or higher octane rating.

# **GUARDS**

Front and rear chrome guards are provided as standard equipment.

#### **WARNING**

The front and/or rear guards may provide limited leg protection and cosmetic vehicle protection under unique circumstances (i.e., fall over while stopped, very slow speed slide). They are not made nor intended to provide protection from bodily injury in a collision with another vehicle or any other object. Failure to act accordingly could result in death or serious injury.

BULB CHART					
NUMBER OF BULBS REQUIRED	CURRENT DRAW (AMPERAGE)	WATTAGE	HARLEY-DAVIDSON PART NO.		
1	4.58 5	55 60	67697-81		
1	0.59 2.25	7 27	68168-89A		
2 2	2.25/.59 2.25	27/7 27	68168-89 68572-64B		
2	0.3	3.7	53439-79		
1 1 1	2.5 2.5 N/A	30 30 20	68663-64B 68665-64B 67598-88		
	NUMBER OF BULBS REQUIRED  1  1  2 2 2	NUMBER OF BULBS REQUIRED CURRENT DRAW (AMPERAGE)  1 4.58 5  1 0.59 2.25  2 2.25/.59 2.25  2 0.3  1 2.5 1 2.5 N/A	NUMBER OF BULBS REQUIRED         CURRENT DRAW (AMPERAGE)         WATTAGE           1         4.58 5 60         55 60           1         0.59 7 2.25 27         7           2         2.25/.59 27         27/7 2           2         0.3 3.7         3.7           1         2.5 30 30         30		

	BULB CHART (Cont'd)							
LAMP DESCRIPTION, ALL LAMPS 12V	NUMBER OF BULBS REQUIRED	CURRENT DRAW (AMPERAGE)	WATTAGE	HARLEY-DAVIDSON PART NO.				
INSTRUMENT PANEL LAMPS FLHTP-I								
High Beam	1	.15	2.1	68024-94				
Oil Pressure	1	.15	2.1	68024-94				
Neutral	1	.15	2.1	68024-94				
Turn Signal	2	.15	2.1	68024-94				
GAUGE LAMPS - FLHTP-I Speedometer ** Tachometer **								
Voltmeter	1	.24	3.4	67445-00				
Fuel Gauge	1	.24	3.4	67445-00				
Engine **								
Pursuit	1	0.08	1.1	68642-96				
INSTRUMENT PANEL/GAUGE LAMPS- FLHP/FLHP-I Indicator Module (with LEDs) High Beam ** Oil Pressure ** Neutral **	-	0.05	-	68113-99				
Turn Signal ** Fuel Gauge Speedometer ** Odometer ** Engine ** Pursuit **	1	.19	2.7	67136-85				

<sup>\*\*</sup> LED Illuminated. LEDs are not repairable. Assembly must be replaced if LED fails.

## OWNER'S IDENTIFICATION CARD

See Figure 45. A permanent Owner's Identification Card is issued to each Harley-Davidson new motorcycle owner when the completed warranty registration form is received at Harley-Davidson Motor Company.

The Owner's Identification Card is a permanent record showing proof of your ownership and gives all of the information necessary for you and your dealer to simplify and expedite service and obtain parts and accessories.

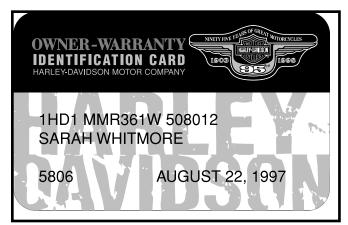


Figure 45. Owner's Warranty Identification Card

Keep this card in your possession, since it is required by your Harley-Davidson dealer for any warranty service performed on your motorcycle.

If you have any questions regarding service or warranty, contact your Harley-Davidson dealer for service.

## **WARRANTY AND MAINTENANCE**

This Owner's Manual contains your new motorcycle warranty and a number of tear-out service coupons.

The approved service and maintenance procedures on each coupon and the mileage intervals cover items which are the owner's responsibility to have performed. All of the specified maintenance services must be performed to keep your warranty in force.

Bring this Owner's Manual with you when you visit your dealer at the specified mileages to have your motorcycle inspected and serviced. Have the owner record stubs dated and signed for required proof of service during the warranty period. The dealer records should be retained by the dealer, or owner, as a record of proper maintenance. Also keep other receipts covering any service or maintenance performed. These records should be transferred to each subsequent owner.

## **A**WARNING

We caution you against the use of certain non-standard parts such as after-market and custom made extended front forks, which may adversely affect stability and handling and lead to an accident, possibly resulting in death or serious injury. Removing or altering factory installed standard parts may also affect performance and result in vehicle damage. The use of any non-standard parts, including mufflers, may void your warranty.

Harley-Davidson dealerships are independently owned and operated and may sell parts and accessories that are not manufactured or approved by Harley-Davidson. Therefore, you should understand that we are not and cannot be responsible for the quality, suitability or safety of any non-Harley-Davidson part, accessory or design modification, including labor, which may be sold and/or installed by our dealers.

### **IMPORTANT**

If moving from your present address, or selling your motorcycle, please fill out and mail the post card at the back of this manual. This is necessary in the event that the Company needs to contact the owner concerning information that could affect the safe operation of the motorcycle.

## **EPA NOISE REGULATIONS**

EPA noise regulations require that the following statements be included in the Owner's Manual.

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED: Federal law prohibits the following acts or the causing thereof: (1) The removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW.

- Replacing the muffler(s) and/or the entire exhaust system with parts not certified to be noise legal for street use.
- Removing or modifying the muffler internal baffles in any way.
- Replacing the air intake/cleaner assembly with one not certified to be noise legal for street use.

 Modifying the air intake/cleaner assembly in such a way as to make the vehicle no longer noise legal for street use.

Harley-Davidson recommends that any and all noise related maintenance be done by an authorized Harley-Davidson dealer using genuine Harley-Davidson parts.

# WARRANTY/SERVICE INFORMATION

Your selling dealer is responsible for providing the warranty repair work on your motorcycle.

For normal service work or warranty work under the above conditions, you may obtain the name and location of your nearest U.S. Harley-Davidson dealer by calling 1-800-443-2153 (toll free), in any state except Alaska and Hawaii.

#### NOTE

The number shown above is accessible only with a touchtone phone.

## REPORTING SAFETY DEFECTS

Required by the National Highway Traffic Safety Administration (NHTSA).

#### NHTSA STATEMENT:

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Harley-Davidson.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or Harley-Davidson.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800/424-9393 (or 366-0123 in Washington D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

## HARLEY-DAVIDSON LIMITED WARRANTY (12 MONTHS/UNLIMITED MILEAGE)

Harley-Davidson Warrants to the first retail purchaser and authorized transferees of our new 2000 model motorcycles/sidecars that any authorized Harley-Davidson Dealer will repair or replace without charge any parts (except tires, maintenance items and battery under certain conditions) found under normal use in the U.S.A. or Canada to be defective in factory materials or workmanship, and upon the following terms and conditions:

#### DURATION AND TRANSFER

- The duration of this limited warranty is twelve months, measured from the date of initial retail purchase from an authorized Harley-Davidson Dealer.
- 2. Any unexpired portion of this limited warranty may be transferred, with written authorization, upon the resale of the motorcycle/sidecar during the warranty period. To obtain authorization, a transfer application must be filed with Harley-Davidson and the motorcycle/sidecar must pass inspection by one of our authorized Dealers. The customer is responsible for any charge incurred for work performed by the Dealer beyond the inspection procedure itself. (See your Owner's Manual for complete details.)

#### OWNER OBLIGATIONS

- To qualify for warranty protection, you and the selling Dealer must complete the Warranty Registration Form and return it to us within 10 days after delivery. We will then send you an Owner-Warranty Identification Card.
- To obtain warranty service, return your motorcycle/ sidecar at your expense within the warranty period to any authorized Dealer. You must be able to present your Owner-Warranty Identification Card and/or Owner's Manual upon our Dealer's request. Our Dealer should be able to provide warranty service during normal business hours and as soon as possible, depending upon the workload of the Dealer's service department and the availability of necessary parts.

#### **EXCLUSIONS**

This warranty will not apply to any motorcycle/sidecar as follows:

- Which has not been operated or maintained as specified in the Owner's Manual.
- Which has been abused, altered outside of original factory specifications, improperly stored or used "off the highway", for racing or competition of any kind.
- Which has had the odometer removed or tampered with.

#### OTHER LIMITATIONS

This warranty does not cover:

- Parts and labor for normal maintenance as recommended in the Owner's Manual, including such items as the following: lubrication, oil and filter change, fuel system cleaning, battery maintenance, engine tuneup, spark plugs, light bulbs, brake, clutch and chain/ belt adjustment (including chain replacement).
- Seats, saddlebags, paint, chrome, or trim deterioration caused by ordinary wear and tear, exposure or improper maintenance.

#### IMPORTANT/READ CAREFULLY

- Our Dealers are independently owned and operated and may sell other products. Because of this, HAR-LEY-DAVIDSON IS NOT RESPONSIBLE FOR THE SAFETY, QUALITY, OR SUITABILITY OF ANY NON-HARLEY-DAVIDSON PART, ACCESSORY OR DESIGN MODIFICATION INCLUDING LABOR WHICH MAY BE SOLD AND/OR INSTALLED BY OUR DEALERS.
- THERE IS NO OTHER EXPRESS WARRANTY (OTHER THAN EMISSIONS AND NOISE WARRAN-TIES) ON THE MOTORCYCLE. ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS IS LIMITED TO THE DURATION OF THIS WARRANTY.
- TO THE FULLEST EXTENT ALLOWED BY LAW, HARLEY-DAVIDSON AND ITS DEALERS SHALL NOT BE LIABLE FOR LOSS OF USE, INCONVE-NIENCE, LOST TIME, COMMERCIAL LOSS OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

EHICLE IDENTIFICATION N	JMBER			TRANSFERRING DEALER (plea	ise print)	
				<b>4</b> .		
URCHASER (please print)			_	<b>~</b>	DEALER NUMBER	
picase printy		^	M			
AME: FIRST		LAST	.		NAME	
AME: FIRST	INITIAL	LAST MI			ADDRESS	
DDRESS		SY		CITY	STATE	ZIP
ПΥ	STATE	ZIP	-	TRANSFERRING DEA	LER INSPECTION INFO	RMATION
AUTHORIZED AI WARRAN' To validate the warranty tra. The prior owner must provide pr In the event they have not, it is t maintenance service performed, warranty transfer shall not be effe The vehicle must be inspected b dition. If any of the conditions liste is NOT transferrable. The Limited Warranty Transfer F Motor Company, by the authoriz' transfer Fe, within 30 days of the	he responsibility of the custor or any other required work per solution with the customers of the customers of an authorized Harley-Davids d under Exclusions in the Lim form must be completed and ed dealer, along with an indi- ed date of sale (to the above in e date of sale (to the above in	ATION DATE.  TIONS must be complied with: services have been performmer to have the next schedul rformed at his/her expense. T squired work is performed. son dealer to determine its co tited Warranty exist, the warrant if forwarded to Harley-Davids ividual check for each \$100. eferenced purchaser). A copy	ed he nr- hty on of	DATE OF INSPECTION  M   D   YR  Is vehicle visually stock?  Y  If vehicle is not visually stock, what	VEHICLE MILEAGE AT 1	
the bill of sale must also accom whom the vehicle was purchased be covered until all the transfer in this information has been rec Identification Card. Note: Transfers received after t	and the vehicle identification formation has been completel eived, the purchaser will b	number No warranty repairs of y received and processed. On the mailed an Owner-Warran	vi <b>ll</b> ce nty		N MOTOR COMPANY USE	

Warranty Transfer Applications are available from your Harley-Davidson Dealer.

## HARLEY-DAVIDSON EMISSION CONTROL SYSTEM WARRANTY

The following warranty applies to the emission control system and is in addition to the LIMITED WARRANTY, and NOISE CONTROL SYSTEM WARRANTY.

Harley-Davidson Inc., warrants to the first owner and each subsequent owner that his vehicle is designed and built so as to conform at the time of sale with applicable regulations of the U.S. Federal Environmental Protection Agency at the time of manufacture and that it is free from defects in materials and workmanship which cause his motorcycle not to meet U.S. Environmental Protection Agency Standards within 5 years or 18,641 miles (30,000 kilometers) whichever occurs first.

The warranty period shall begin on the date the motorcycle is delivered to the first retail purchaser or, if the motorcycle is placed in service as a demonstrator or company vehicle prior to sale at retail, on the date it is first placed in service.

#### THE FOLLOWING ITEMS ARE NOT COVERED BY THE EMISSION CONTROL SYSTEM WARRANTY

- 1. Failures which arise as a result of misuse, alterations, accident or non-performance of maintenance as specified in the Owner's Manual.
- 2. The replacement of parts (such as spark plugs, fuel and oil filters, etc.) used in required maintenance.
- 3. Loss of time, inconvenience, loss of motorcycle use or other consequential damages.
- 4. Any motorcycle on which the odometer mileage has been changed so that the mileage cannot be determined.

#### RECOMMENDATIONS FOR REQUIRED MAINTENANCE

IT IS RECOMMENDED THAT ANY EMISSION SYSTEM MAINTENANCE BE PERFORMED BY AN AUTHORIZED HARLEY-DAVIDSON DEALER USING GENUINE HARLEY-DAVIDSON REPLACEMENT PARTS. THE MAINTENANCE, REPLACEMENT OR REPAIR OF THE EMISSION CONTROL SYSTEM MAY BE PERFORMED BY ANY OTHER QUALIFIED SERVICE OUTLET OR INDIVIDUAL. NON-GENUINE PARTS MAY BE USED ONLY IF SUCH PARTS ARE CERTIFIED TO COMPLY WITH U.S. ENVIRONMENTAL PROTECTION AGENCY STANDARDS.

Harley-Davidson Motor Company P.O. Box 653 Milwaukee, Wisconsin 53201, U.S.A.

## HARLEY-DAVIDSON NOISE CONTROL SYSTEM WARRANTY

The following warranty applies to the noise control system and is in addition to the LIMITED WARRANTY, and EMISSION CONTROL SYSTEM WARRANTY.

Harley-Davidson Inc., warrants to the first owner and each subsequent owner that his vehicle is designed and built so as to conform at the time of sale with applicable regulations of the U.S. Environmental Protection Agency (as tested following F-76 Drive-By test procedure) at the time of manufacture and that it is free from defects in materials and workmanship which cause his motorcycle not to meet U.S. Environmental Protection Agency Standards within 1 year or 3,730 miles (6,000 kilometers) whichever occurs first.

The warranty period shall begin on the date the motorcycle is delivered to the first retail purchaser or, if the motorcycle is placed in service as a demonstrator or company vehicle prior to sale at retail, on the date it is first placed in service.

#### THE FOLLOWING ITEMS ARE NOT COVERED BY THE NOISE CONTROL SYSTEM WARRANTY

- 1. Failures which arise as a result of misuse, alterations, or accident as specified in the Owner's Manual.
- 2. Replacing, removing, or modifying any portion of the NOISE CONTROL SYSTEM (consisting of the exhaust system and air intake/cleaner assembly) with parts not certified to be noise legal for street use.
- 3. Loss of time, inconvenience, loss of motorcycle use or other consequential damages.
- 4. Any motorcycle on which the odometer mileage has been changed so that the mileage cannot be determined.

#### RECOMMENDATIONS FOR REQUIRED MAINTENANCE

IT IS RECOMMENDED THAT ANY NOISE SYSTEM MAINTENANCE BE PERFORMED BY AN AUTHORIZED HARLEY-DAVIDSON DEALER USING GENUINE HARLEY-DAVIDSON REPLACEMENT PARTS. THE MAINTENANCE, REPLACEMENT OR REPAIR OF THE NOISE CONTROL SYSTEM MAY BE PERFORMED BY ANY OTHER QUALIFIED SERVICE OUTLET OR INDIVIDUAL. NON-GENUINE PARTS MAY BE USED ONLY IF SUCH PARTS ARE CERTIFIED TO COMPLY WITH U.S. ENVIRONMENTAL PROTECTION AGENCY STANDARDS.

Harley-Davidson Motor Company P.O. Box 653 Milwaukee, Wisconsin 53201, U.S.A.

## **NOTES**

1,000 MILE	! 	1,000 MILE
(1600 km)	I	(1600 km)
MAINTENANCE	! !	MAINTENANCE
Date	and lubrication se These services are	d to perform the applicable maintenance rvices listed on the back of this coupor to be performed at your regular rates and e owner. I also authorize you to road test proper operation.
Mileage	     	Owner's Signature
		VIN
Dealer (or other) Signature	Date	Mileage
OWNER RECORD	 	DEALER RECORD

#### 1000 MILE MAINTENANCE 1000 MILE MAINTENANCE □1. Change engine oil & oil filter. □1. Change engine oil & oil filter. Inspect air cleaner and service as required. Inspect air cleaner and service as required. Change primary chaincase lubricant and clean magnetic drain plug. 3. Change primary chaincase lubricant and clean magnetic drain plug. Check/adjust primary chain. Check/adjust primary chain. □4. Check clutch adjustment. 4. Check clutch adjustment. ☐5. Change transmission lubricant and clean magnetic drain plug. Change transmission lubricant and clean magnetic drain plug. □6. Check and adjust drive belt. Check and adjust drive belt. The state of th The state of th ■8. Check rear brake pedal adjustment. ■8. Check rear brake pedal adjustment. Inspect brake pads and discs for wear. ■9. Inspect brake pads and discs for wear. 10. Check brake fluid reservoir levels and condition. 10. Check brake fluid reservoir levels and condition. □11. Inspect oil lines and brake system for leaks. □11. Inspect oil lines and brake system for leaks. 12. Lubricate the following: front brake hand lever, throttle control 12. Lubricate the following: front brake hand lever, throttle control cables, throttle, clutch control cable and hand lever, jiffy stand. cables, throttle, clutch control cable and hand lever, jiffy stand. □13. Check, adjust operation of enrichener.\* □13. Check, adjust operation of enrichener.\* ☐14. Inspect fuel valve\*, lines and fittings for leaks. ☐14. Inspect fuel valve.\* lines and fittings for leaks. □15. Check tire pressure and inspect tread. □15. Check tire pressure and inspect tread. ☐16. Check battery condition and clean battery connections. ☐16. Check battery condition and clean battery connections. 17. Check operation of all electrical equipment and switches. ☐17. Check operation of all electrical equipment and switches. ☐18. Check rear fork pivot nut. ☐18. Check rear fork pivot nut. 19. Check air suspension - pressure, operation and leakage. 19. Check air suspension - pressure, operation and leakage. 20. Check tightness of all critical fasteners: hand controls, brake system, 20. Check tightness of all critical fasteners: hand controls, brake system, axle nuts, front fork components, riser and handle bar fasteners. axle nuts, front fork components, riser and handle bar fasteners. 21. Check engine idle speed adjustment. 21. Check engine idle speed adjustment. ☐22. Check condition of spark plugs. □22. Check condition of spark plugs. ☐23. Lubricate hinges, latches - fuel door\*, saddlebags. □23. Lubricate hinges, latches - fuel door\*, saddlebags. ☐24 Road test ☐24 Road test

\* If applicable

2,500 MILE	! 	2,500 MILE
(4000 km)	I	(4000 km)
MAINTENANCE	 	MAINTENANCE
Date	and lubrication s These services ar paid for by me, tl	ed to perform the applicable maintenance ervices listed on the back of this coupon re to be performed at your regular rates and he owner. I also authorize you to road test r proper operation.
Mileage Mileage	   <del></del> 	Owner's Signature
	 	VIN
Dealer (or other) Signature	   Date 	Mileage
OWNER RECORD	 	DEALER RECORD

2500	MII	FΙ	MAI	NTF	NAN	JCF

☐ 1. Inspect engine oil.
☐ 2. Inspect air cleaner and service as required.
☐ 3. Inspect rear belt.
☐ 4. Inspect transmission lubricant.
☐ 5. Inspect oil lines and brake system for leaks.
☐ 6. Inspect brake pads and discs for wear.
☐ 7. Inspect fuel valve,\* lines and fittings for leaks.
☐ 6. Inspect tire pressure and inspect tread.
☐ 7. Inspect operation of throttle and enrichener\* controls.
☐ 8. Inspect operation of all electrical equipment and switches.
☐ 9. Inspect battery condition and connections.
☐ 10. Check stabilizer links and engine mounts.
☐ 11. Road test.

\* If applicable

#### 2500 MILE MAINTENANCE

- □1. Inspect engine oil.
- 2. Inspect air cleaner and service as required.
- ☐3. Inspect rear belt.
- 4. Inspect transmission lubricant.
- ☐5. Inspect oil lines and brake system for leaks.
- ☐6. Inspect brake pads and discs for wear.
- 17. Inspect fuel valve,\* lines and fittings for leaks.
- ☐6. Inspect tire pressure and inspect tread.
- 7. Inspect operation of throttle and enrichener\* controls.
- 38. Inspect operation of all electrical equipment and switches.
- 9. Inspect battery condition and connections.
- □10. Check stabilizer links and engine mounts.
- ☐11 Road test

5,000 MILE		5,000 MILE
(8000 km)	I	(8000 km)
MAINTENANCE		MAINTENANCE
Date	and lubrication set These services are	ed to perform the applicable maintenance ervices listed on the back of this coupor e to be performed at your regular rates and e owner. I also authorize you to road test proper operation.
Mileage		Owner's Signature
	   	VIN
Dealer (or other) Signature	   Date 	Mileage
OWNER RECORD	 	DEALER RECORD

#### 5000 MILE MAINTENANCE

### Change engine oil & oil filter. Inspect air cleaner and service as required. ☐3. Change primary chaincase lubricant and clean magnetic drain plug. Check/adjust primary chain. □4. Check clutch adjustment. Change transmission lubricant and clean the magnetic drain plug. Check and adjust belt. Lube the foot shift and brake lever bearings. Check rear brake pedal adjustment. Inspect brake pads and discs for wear. □10. Check brake fluid reservoir levels and condition. □11. Inspect oil lines and brake system for leaks. ☐12. Lubricate the following: front brake hand lever, throttle control cables, throttle, clutch control cable and hand lever, jiffy stand. □13. Check, adjust operation of enrichener.\* □14. Inspect fuel valve\*, lines and fittings for leaks. ■15. Check tire pressure and inspect tread. □16. Check front fork bearing adjustment. ☐17. Check operation of all electrical equipment and switches. ☐18. Check battery condition and clean battery connections. ☐19. Inspect spark plugs. ☐20. Check air suspension - pressure, operation and leakage. □21. Lubricate hinges, latches - fuel door\*, saddlebags. □22. Check engine idle speed adjustment. □23. Road test.

5000 MILE MAINTENANCE

■1. Change engine oil & oil filte	<b>□</b> 1.	Change	enaine	oil &	oil filter
-----------------------------------	-------------	--------	--------	-------	------------

- 2. Inspect air cleaner and service as required.
- Change primary chaincase lubricant and clean magnetic drain plug. Check/adiust primary chain.
- □4. Check clutch adjustment.
  - 5. Change transmission lubricant and clean the magnetic drain plug.
  - 6. Check and adjust belt.
- 7. Lube the foot shift and brake lever bearings.
- 38. Check rear brake pedal adjustment.
- Inspect brake pads and discs for wear.
- □10. Check brake fluid reservoir levels and condition.
- ☐11. Inspect oil lines and brake system for leaks.
- ☐12. Lubricate the following: front brake hand lever, throttle control cables, throttle, clutch control cable and hand lever, iiffy stand.
- □13. Check, adjust operation of enrichener.\*
- □14. Inspect fuel valve\*, lines and fittings for leaks.
- □15. Check tire pressure and inspect tread.
- □16. Check front fork bearing adjustment.
- ☐17. Check operation of all electrical equipment and switches.
- ☐18. Check battery condition and clean battery connections.
- ☐19. Inspect spark plugs.
- ☐20. Check air suspension pressure, operation and leakage.
- □21. Lubricate hinges, latches fuel door\*, saddlebags.
- ☐22. Check engine idle speed adjustment.
- 23. Road test.

\* If Applicable

7,500 MILE		7,500 MILE
(12000 km)	I	(12000 km)
MAINTENANCE	 	MAINTENANCE
Date	and lubrication se These services are	d to perform the applicable maintenance rvices listed on the back of this coupor e to be performed at your regular rates and e owner. I also authorize you to road test proper operation.
Mileage	<del></del>   	Owner's Signature
		VIN
Dealer (or other) Signature	   Date 	Mileage
OWNER RECORD	 	DEALER RECORD
	1	

7500	N A I I		$\Lambda \Lambda \Lambda I \Lambda$	ITENA	$N \cap \square$
7500	IVIII	_	IVIAIIN	IICIVA	ועני⊏

☐12 Road test

Inspect engine oil.
 Inspect air cleaner and service as required.
 Inspect rear belt.
 Inspect transmission lubricant.
 Inspect brake pads and discs for wear.
 Inspect oil lines and brake system for leaks.
 Inspect fuel valve,\* lines and fittings for leaks.
 Inspect tire pressure and inspect tread.
 Inspect operation of throttle and enrichener\* controls.
 Inspect operation of all electrical equipment and switches.
 Inspect battery condition and connections.

7500 MILE MAINTENANCE

- □1. Inspect engine oil.
- 2. Inspect air cleaner and service as required.
- □3. Inspect rear belt.
- □4. Inspect transmission lubricant.
- ☐5. Inspect brake pads and discs for wear.
- ☐6. Inspect oil lines and brake system for leaks.
- ☐7. Inspect fuel valve,\* lines and fittings for leaks.
- ■8. Inspect tire pressure and inspect tread.
- □9. Inspect operation of throttle and enrichener\* controls.
- ☐10. Inspect operation of all electrical equipment and switches.
- □11. Inspect battery condition and connections.
- ☐12. Road test.

\* If applicable

	10,000 MILE	i	10,000 MILE	
	(16000 km)	Î	(16000 km)	
	MAINTENANCE	M <sub>1</sub>	AINTENANCE	
	Date	and lubrication serving These services are to	to perform the applicable mainted ces listed on the back of this control be performed at your regular rate owner. I also authorize you to road oper operation.	oupor es an
_	Mileage		owner's Signature	
		 	VIN	
	Dealer (or other) Signature		Mileage	

OWNER RECORD

**DEALER RECORD** 

#### 10,000 MILE MAINTENANCE 10,000 MILE MAINTENANCE □1. Change engine oil & oil filter. □1. Change engine oil & oil filter. 2. Inspect air cleaner and service as required. Inspect air cleaner and service as required. ☐3. Change primary chaincase lubricant and clean ☐3. Change primary chaincase lubricant and clean magnetic drain plug. Check/adjust primary chain. magnetic drain plug. Check/adjust primary chain. □4. Check clutch adjustment. □4. Check clutch adjustment. □6. Check and adjust belt. Check and adjust belt. The state of th 7. Lube the foot shift and brake lever bearings. ■8. Check rear brake pedal adjustment. ■8. Check rear brake pedal adjustment. 9. Inspect brake pads and discs for wear. 9. Inspect brake pads and discs for wear. 10. Check brake fluid reservoir levels and condition. 10. Check brake fluid reservoir levels and condition. ■11. Inspect oil lines and brake system for leaks. □11. Inspect oil lines and brake system for leaks. ☐12. Lubricate the following: front brake hand lever, throttle control cables. 12. Lubricate the following: front brake hand lever, throttle control cables, throttle, clutch control cable and hand lever, iiffy stand. throttle, clutch control cable and hand lever, iiffy stand. 13. Lubricate and adjust steering head bearings. 13. Lubricate and adjust steering head bearings. □14. Check, adjust operation of throttle control and enrichener.\* □14. Check, adjust operation of throttle control and enrichener.\* ☐15. Inspect fuel valve,\* lines and fittings for leaks. ☐15. Inspect fuel valve,\* lines and fittings for leaks. 16. Check operation of all electrical equipment and switches. 16. Check operation of all electrical equipment and switches. 17. Check battery condition and clean battery connections. 17. Check battery condition and clean battery connections. ☐18. Change spark plugs. ☐18. Change spark plugs. □19. Check tire pressure and inspect tread. □19. Check tire pressure and inspect tread. ☐20. Check air suspension - pressure, operation and leakage. ☐20. Check air suspension - pressure, operation and leakage. 21. Check stabilizer links and engine mounts. □21. Check stabilizer links and engine mounts. 22. Check tightness of all critical fasteners: hand controls, brake system, 22. Check tightness of all critical fasteners: hand controls, brake system, axle nuts, front fork components, riser and handle bar fasteners. axle nuts, front fork components, riser and handle bar fasteners. 23. Inspect FLHP/FLHP-I windshield bushings. 23. Inspect FLHP/FLHP-I windshield bushings. ☐24. Lubricate hinges, latches - fuel door\*, saddlebags. ☐24. Lubricate hinges, latches - fuel door\*, saddlebags. 25. Check engine idle speed adjustment. 25. Check engine idle speed adjustment. ☐26. Road test. ☐26. Road test.

\* If applicable

12,500 MILE	12,500 MILE			
(20000 km)	(20000 km)			
MAINTENANCE	MAINTENANCE			
Date	I You are authorized to perform the applicable maintenation and lubrication services listed on the back of this counterpaid for by me, the owner. I also authorize you to road this motorcycle for proper operation.			
 Mileage	Owner's Signature			
	VIN			
Dealer (or other) Signature	Date Mileage			
OWNER RECORD	DEALER RECORD			

12,50	00 MILE MAINTENANCE	12,5	00 MILE MAINTENANCE
<b>1</b> 10. <b>1</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.	<b>□</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.

15,000 MILE (24000 km)  MAINTENANCE	
Date	You are and lubri These se paid for the
Mileage	

Dealer (or other) Signature

## 15,000 MILE

(24000 km)

## **MAINTENANCE**

authorized to perform the applicable maintenance cation services listed on the back of this coupon. ervices are to be performed at your regular rates and by me, the owner. I also authorize you to road test rcycle for proper operation. **Owner's Signature** 

VIN **Date** Mileage

**DEALER RECORD** 

15,0	00 MILE MAINTENANCE	15,0	00 MILE MAINTENANCE
<b>□</b> 1.	Change engine oil & oil filter.	<b>□</b> 1.	Change engine oil & oil filter.
<b>□</b> 2.	Inspect air cleaner and service as required.	<b>□</b> 2.	Inspect air cleaner and service as required.
□3.	Change primary chaincase lubricant and clean magnetic drain plug.	□3.	Change primary chaincase lubricant and clean magnetic drain plug.
	Check/adjust primary chain.		Check/adjust primary chain.
<b>4</b> .	Check clutch adjustment.	<b>4</b> .	Check clutch adjustment.
<b>□</b> 5.	Change transmission lubricant and clean the magnetic drain plug.	<b>□</b> 5.	Change transmission lubricant and clean the magnetic drain plug.
<b>□</b> 6.	Check and adjust belt.	<b>□</b> 6.	Check and adjust belt.
<b>□</b> 7.	Lube the foot shift and brake lever bearings.	<b>□</b> 7.	Lube the foot shift and brake lever bearings.
□8.	Inspect brake pads and discs for wear.	□8.	Inspect brake pads and discs for wear.
<b>□</b> 9.	Check brake fluid reservoir levels and condition.	□9.	Check brake fluid reservoir levels and condition.
<b>□</b> 10.	Inspect oil lines and brake system for leaks.	<b>□</b> 10.	Inspect oil lines and brake system for leaks.
<b>□</b> 11.	Lubricate the following: front brake hand lever, throttle control cables,	<b>□</b> 11.	Lubricate the following: front brake hand lever, throttle control cables,
	throttle, clutch control cable and hand lever, jiffy stand.		throttle, clutch control cable and hand lever, jiffy stand.
<b>1</b> 12.	Check, adjust operation of throttle control and enrichener*.	<b>1</b> 12.	Check, adjust operation of throttle control and enrichener*.
<b>□</b> 13.	Inspect fuel valve*, lines and fittings for leaks.	<b>□</b> 13.	Inspect fuel valve*, lines and fittings for leaks.
<b>1</b> 4.	Check tire pressure and inspect tread.	<b>□</b> 14.	Check tire pressure and inspect tread.
<b>□</b> 15.	Check front fork bearing adjustment.	<b>1</b> 5.	Check front fork bearing adjustment.
<b>□</b> 16.	Check operation of all electrical equipment and switches.	<b>□</b> 16.	Check operation of all electrical equipment and switches.
<b>□</b> 17.	Check battery condition and clean battery connections.	<b>□</b> 17.	Check battery condition and clean battery connections.
<b>□</b> 18.	Inspect spark plugs.	<b>□</b> 18.	Inspect spark plugs.
<b>1</b> 9.	Check air suspension - pressure, operation and leakage.	<b>1</b> 9.	Check air suspension - pressure, operation and leakage.
<b>2</b> 0.	Lubricate hinges, latches - fuel door*, saddlebags.	<b>2</b> 0.	Lubricate hinges, latches - fuel door*, saddlebags.
<b>□</b> 21.	Check engine idle speed adjustment.	<b>□</b> 21.	Check engine idle speed adjustment.
<b>□</b> 22.	Road test.	<b>□</b> 22.	Road test.

17,500 MILE	17,500 MILE
(28000 km)	(28000 km)
MAINTENANCE	MAINTENANCE
Date	You are authorized to perform the applicable maintenant and lubrication services listed on the back of this couper. These services are to be performed at your regular rates a paid for by me, the owner. I also authorize you to road to this motorcycle for proper operation.
Mileage	Owner's Signature
Dealer (or other) Signature	l Date Mileage
OWNER RECORD	   DEALER RECORD

7,50	00 MILE MAINTENANCE	17,5	00 MILE MAINTENANCE
<b>⊒</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.	<b>□</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.

\* If applicable

	20,000 MILE
I	(32000 km)
I <b>N</b>	MAINTENANCE
and lubrication ser These services are	d to perform the applicable maintenand rvices listed on the back of this coupo to be performed at your regular rates are owner. I also authorize you to road te proper operation.
   <del></del> 	Owner's Signature
 	VIN
     Date 	Mileage
	You are authorize and lubrication se These services are paid for by me, the this motorcycle for

**OWNER RECORD** 

**DEALER RECORD** 

#### 20,000 MILE MAINTENANCE 20,000 MILE MAINTENANCE □1. Change engine oil & oil filter. 1. Change engine oil & oil filter. 2. Inspect air cleaner and service as required. 2. Inspect air cleaner and service as required. ☐3. Change primary chaincase lubricant and clean ☐3. Change primary chaincase lubricant and clean magnetic drain plug. Check/adjust primary chain. magnetic drain plug. Check/adjust primary chain. □4. Check clutch adjustment. □4. Check clutch adjustment. ☐6. Check and adjust belt. □6. Check and adjust belt. The state of th The state of th ■8. Inspect brake pads and discs for wear. ■8. Inspect brake pads and discs for wear. 9 Check brake fluid reservoir levels and condition 9 Check brake fluid reservoir levels and condition ■10. Inspect oil lines and brake system for leaks. ■10. Inspect oil lines and brake system for leaks. 11. Lubricate the following: front brake hand lever, throttle control cables, 11. Lubricate the following: front brake hand lever, throttle control cables, throttle, clutch control cable and hand lever, jiffy stand. throttle, clutch control cable and hand lever, iiffy stand. □12. Lubricate and adjust steering head bearings. 12. Lubricate and adjust steering head bearings. ☐13. Check, adjust operation of throttle control and enrichener.\* ☐13. Check, adjust operation of throttle control and enrichener.\* □14. Inspect fuel valve,\* lines and fittings for leaks. ☐14. Inspect fuel valve,\* lines and fittings for leaks. 15. Clean fuel tank filter screen.\* □15. Clean fuel tank filter screen.\* ☐16. Check operation of all electrical equipment and switches. ☐16. Check operation of all electrical equipment and switches. ☐17. Check battery condition and clean battery connections. 17. Check battery condition and clean battery connections. ■18. Change spark plugs. ■18. Change spark plugs. □19. Check tire pressure and inspect tread. □19. Check tire pressure and inspect tread. ☐20. Visually inspect, adjust and repack steering head bearings. 20. Visually inspect, adjust and repack steering head bearings. □21. Change front fork oil. □21. Change front fork oil. ☐22. Check air suspension - pressure, operation and leakage. ☐22. Check air suspension - pressure, operation and leakage. □23. Check stabilizer links and engine mounts. □23. Check stabilizer links and engine mounts. 24. Check tightness of all critical fasteners: hand controls, brake system, 24. Check tightness of all critical fasteners: hand controls, brake system, axle nuts, front fork components, riser and handle bar fasteners. axle nuts, front fork components, riser and handle bar fasteners. □25. Inspect FLHP/FLHP-I windshield bushings. 25. Inspect FLHP/FLHP-I windshield bushings. ☐26. Lubricate hinges, latches - fuel door\*, saddlebags. □26. Lubricate hinges, latches - fuel door\*, saddlebags. □27. Check engine idle speed adjustment. □27. Check engine idle speed adjustment.

☐28. Road test.

\* If applicable

□28. Road test.

22,500 MILE	22,500 WILE
(36000 km)	(36000 km)
MAINTENANCE	MAINTENANCE
Date	You are authorized to perform the applicable maintenant and lubrication services listed on the back of this couper. These services are to be performed at your regular rates a paid for by me, the owner. I also authorize you to road to this motorcycle for proper operation.
Mileage	Owner's Signature
	VIN
Dealer (or other) Signature	
OWNER RECORD	   DEALER RECORD

22,50	00 MILE MAINTENANCE	22,50	00 MILE MAINTENANCE
□3. □4. □5. □6. □7. □8. □9. □10.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.	<b>□</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.

25,000 MILE	25,000 MILE
(40000 km)	(40000 km)
MAINTENANCE	MAINTENANCE
Date	You are authorized to perform the applicable maintenance and lubrication services listed on the back of this coupor. These services are to be performed at your regular rates an paid for by me, the owner. I also authorize you to road test this motorcycle for proper operation.
Mileage	Owner's Signature
Dealer (or other) Signature	
OWNER RECORD	DEALER RECORD

25,000 MILE MAINTENANCE	25,000 MILE MAINTENANCE
☐1. Change engine oil & oil filter.	☐1. Change engine oil & oil filter.
☐2. Inspect air cleaner and service as required.	2. Inspect air cleaner and service as required.
☐3. Change primary chaincase lubricant and clean magnetic drain plug.	☐3. Change primary chaincase lubricant and clean magnetic drain plug.
Check/adjust primary chain.	Check/adjust primary chain.
☐4. Check clutch adjustment.	☐4. Check clutch adjustment.
☐5. Change transmission lubricant and clean the magnetic drain plug.	$\Box$ 5. Change transmission lubricant and clean the magnetic drain plug.
☐6. Check and adjust belt.	☐6. Check and adjust belt.
□7. Lube the foot shift and brake lever bearings.	To Lube the foot shift and brake lever bearings.
■8. Inspect brake pads and discs for wear.	■8. Inspect brake pads and discs for wear.
Quantification of the second of the secon	☐9. Check brake fluid reservoir levels and condition.
☐10. Inspect oil lines and brake system for leaks.	☐10. Inspect oil lines and brake system for leaks.
☐11. Lubricate the following: front brake hand lever, throttle control cables,	☐11. Lubricate the following: front brake hand lever, throttle control cables,
throttle, clutch control cable and hand lever, jiffy stand.	throttle, clutch control cable and hand lever, jiffy stand.
☐12. Check, adjust operation of throttle control and enrichener*.	☐12. Check, adjust operation of throttle control and enrichener*.
☐13. Inspect fuel valve*, lines and fittings for leaks.	☐13. Inspect fuel valve*, lines and fittings for leaks.
☐14. Check tire pressure and inspect tread.	□14. Check tire pressure and inspect tread.
☐15. Check front fork bearing adjustment.	☐15. Check front fork bearing adjustment.
☐16. Check operation of all electrical equipment and switches.	☐16. Check operation of all electrical equipment and switches.
☐17. Check battery condition and clean battery connections.	☐17. Check battery condition and clean battery connections.
☐18. Inspect spark plugs.	☐18. Inspect spark plugs.
$\square$ 19. Check air suspension - pressure, operation and leakage.	☐19. Check air suspension - pressure, operation and leakage.
☐20. Lubricate hinges, latches - fuel door*, saddlebags.	☐20. Lubricate hinges, latches - fuel door*, saddlebags.
☐21. Check engine idle speed adjustment.	☐21. Check engine idle speed adjustment.
☐22. Road test.	☐22. Road test.

\* If applicable 
\* If applicable

27,500 MILE	27,500 MILE
(44000 km)	(44000 km)
MAINTENANCE	MAINTENANCE
Date	You are authorized to perform the applicable maintenance and lubrication services listed on the back of this coupor. These services are to be performed at your regular rates an paid for by me, the owner. I also authorize you to road test this motorcycle for proper operation.
Mileage	Owner's Signature
	VIN
Dealer (or other) Signature	Date   Mileage
OWNER RECORD	DEALER RECORD

27,500 MILE MAINTENANCE	27,500 MILE MAINTENANCE
<ol> <li>Inspect engine oil.</li> <li>Inspect air cleaner and service as required.</li> <li>Inspect rear belt.</li> <li>Inspect transmission lubricant.</li> <li>Inspect brake pads and discs for wear.</li> <li>Inspect oil lines and brake system for leaks.</li> <li>Inspect fuel valve,* lines and fittings for leaks.</li> <li>Inspect tire pressure and inspect tread.</li> <li>Inspect operation of throttle and enrichener* controls.</li> <li>Inspect operation of all electrical equipment and switched.</li> <li>Inspect battery condition and connections.</li> <li>Road test.</li> </ol>	<ul> <li>☐ 1. Inspect engine oil.</li> <li>☐ 2. Inspect air cleaner and service as required.</li> <li>☐ 3. Inspect rear belt.</li> <li>☐ 4. Inspect transmission lubricant.</li> <li>☐ 5. Inspect brake pads and discs for wear.</li> <li>☐ 6. Inspect oil lines and brake system for leaks.</li> <li>☐ 7. Inspect fuel valve,* lines and fittings for leaks.</li> <li>☐ 8. Inspect tire pressure and inspect tread.</li> <li>☐ 9. Inspect operation of throttle and enrichener* controls.</li> <li>☐ 10. Inspect operation of all electrical equipment and switches.</li> <li>☐ 11. Inspect battery condition and connections.</li> <li>☐ 12. Road test.</li> </ul>

\* If applicable

30,000 MILE	30,000 MILE
(48000 km)	(48000 km)
MAINTENANCE	MAINTENANCE
Date	You are authorized to perform the applicable maintenance and lubrication services listed on the back of this coupor. These services are to be performed at your regular rates are paid for by me, the owner. I also authorize you to road te this motorcycle for proper operation.
Mileage	Owner's Signature
Dealer (or other) Signature	I I Mileage
OWNER RECORD	   DEALER RECORD

### 30,000 MILE MAINTENANCE □1. Change engine oil & oil filter. Inspect air cleaner and service as required. ☐3. Change primary chaincase lubricant and clean magnetic drain plug. Check/adjust primary chain. □4. Check clutch adjustment. ☐6. Check and adjust belt. The state of th ■8. Inspect brake pads and discs for wear. Quantity of the service of the se □10. Inspect oil lines and brake system for leaks. ☐11. Lubricate the following: front brake hand lever, throttle control cables, throttle, clutch control cable and hand lever, iiffy stand. 12. Lubricate and adjust steering head bearings. □13. Check, adjust operation of throttle control and enrichener.\* ☐14. Inspect fuel valve,\* lines and fittings for leaks. 15. Check operation of all electrical equipment and switches. □16. Check battery condition and clean battery connections. □17. Change spark plugs. ■18. Check tire pressure and inspect tread. ☐19. Check air suspension - pressure, operation and leakage. 20. Check stabilizer links and engine mounts. 21. Check tightness of all critical fasteners; hand controls, brake system. axle nuts, front fork components, riser and handle bar fasteners.

□22. Inspect FLHP/FLHP-I windshield bushings. □23. Lubricate hinges, latches - fuel door\*, saddlebags.

■24. Check engine idle speed adjustment.

## 30,000 MILE MAINTENANCE 1 Change engine oil & oil filter

Inspect air cleaner and service as required.
Change primary chaincase lubricant and clean
magnetic drain plug. Check/adjust primary chain.
Check clutch adjustment.
Change transmission lubricant and clean the magnetic drain plug.
Check and adjust belt.
Lube the foot shift and brake lever bearings.
Inspect brake pads and discs for wear.
Check brake fluid reservoir levels and condition.
Inspect oil lines and brake system for leaks.
Lubricate the following: front brake hand lever, throttle control cables,
throttle, clutch control cable and hand lever, jiffy stand.
Lubricate and adjust steering head bearings.
Check, adjust operation of throttle control and enrichener.*
Inspect fuel valve,* lines and fittings for leaks.
Check operation of all electrical equipment and switches.
Check battery condition and clean battery connections.
Change spark plugs.
Check tire pressure and inspect tread.
Check air suspension - pressure, operation and leakage.
Check stabilizer links and engine mounts.
Check tightness of all critical fasteners: hand controls, brake system,
axle nuts, front fork components, riser and handle bar fasteners.
Inspect FLHP/FLHP-I windshield bushings.
Lubricate hinges, latches - fuel door*, saddlebags.
Check engine idle speed adjustment.
Road test.

25. Road test.

<sup>\*</sup> If applicable

32,500 WILE	32,500 WILE
(52000 km)	(52000 km)
MAINTENANCE	MAINTENANCE
Date	You are authorized to perform the applicable maintenand and lubrication services listed on the back of this coupo These services are to be performed at your regular rates ar paid for by me, the owner. I also authorize you to road te this motorcycle for proper operation.
Mileage	Owner's Signature
	VIN I
Dealer (or other) Signature	Date Mileage
OWNER RECORD	   DEALER RECORD

20 FOO MILE

20 FOO MILE

32,500 MILE MAINTENANCE		32,500 MILE MAINTENANCE	
<b>□</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.	<b>□</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.

35,000 MILE		35,000 MILE
(56000 km)	1	(56000 km)
MAINTENANCE		MAINTENANCE
Date	<ul> <li>and lubrication se</li> <li>These services are</li> </ul>	d to perform the applicable maintenance rvices listed on the back of this coupor to be performed at your regular rates and e owner. I also authorize you to road test proper operation.
Mileage	- <u>i</u>	Owner's Signature
	 	VIN
Dealer (or other) Signature		Mileage

**OWNER RECORD** 

35,000 MILE MAINTENANCE		35,000 MILE MAINTENANCE		
<b>□</b> 1.	Change engine oil & oil filter.	<b>□</b> 1.	Change engine oil & oil filter.	
<b>□</b> 2.	Inspect air cleaner and service as required.	<b>□</b> 2.	Inspect air cleaner and service as required.	
□3.	Change primary chaincase lubricant and clean magnetic drain plug.	□з.	Change primary chaincase lubricant and clean magnetic drain plug.	
	Check/adjust primary chain.		Check/adjust primary chain.	
<b>4</b> .	Check clutch adjustment.	<b>4</b> .	Check clutch adjustment.	
<b>□</b> 5.	Change transmission lubricant and clean the magnetic drain plug.	<b>□</b> 5.	Change transmission lubricant and clean the magnetic drain plug.	
<b>□</b> 6.	Check and adjust belt.	<b>□</b> 6.	Check and adjust belt.	
<b>□</b> 7.	Lube the foot shift and brake lever bearings.	<b>□</b> 7.	Lube the foot shift and brake lever bearings.	
□8.	Inspect brake pads and discs for wear.	□8.	Inspect brake pads and discs for wear.	
<b>9</b> 9.	Check brake fluid reservoir levels and condition.	<b>9</b> .	Check brake fluid reservoir levels and condition.	
<b>□</b> 10.	Inspect oil lines and brake system for leaks.	<b>□</b> 10.	Inspect oil lines and brake system for leaks.	
<b>□</b> 11.	Lubricate the following: front brake hand lever, throttle control cables,	<b>□</b> 11.	Lubricate the following: front brake hand lever, throttle control cables,	
	throttle, clutch control cable and hand lever, jiffy stand.		throttle, clutch control cable and hand lever, jiffy stand.	
<b>1</b> 12.	Check, adjust operation of throttle control and enrichener*.	<b>1</b> 12.	Check, adjust operation of throttle control and enrichener*.	
<b>□</b> 13.	Inspect fuel valve*, lines and fittings for leaks.	<b>□</b> 13.	Inspect fuel valve*, lines and fittings for leaks.	
<b>1</b> 14.	Check tire pressure and inspect tread.	<b>1</b> 4.	Check tire pressure and inspect tread.	
<b>1</b> 5.	Check front fork bearing adjustment.	<b>1</b> 5.	Check front fork bearing adjustment.	
<b>□</b> 16.	Check operation of all electrical equipment and switches.	<b>□</b> 16.	Check operation of all electrical equipment and switches.	
<b>□</b> 17.	Check battery condition and clean battery connections.	<b>□</b> 17.	Check battery condition and clean battery connections.	
<b>□</b> 18.	Inspect spark plugs.	<b>□</b> 18.	Inspect spark plugs.	
<b>1</b> 9.	Check air suspension - pressure, operation and leakage.	<b>1</b> 9.	Check air suspension - pressure, operation and leakage.	
<b>□</b> 20.	Lubricate hinges, latches - fuel door*, saddlebags.	<b>2</b> 0.	Lubricate hinges, latches - fuel door*, saddlebags.	
<b>1</b> 21.	Check engine idle speed adjustment.	<b>1</b> 21.	Check engine idle speed adjustment.	
<b>2</b> 22.	Road test.	<b>2</b> 2.	Road test.	

37,500 MILE	i I	37,500 MILE
(60000 km)	I	(60000 km)
MAINTENANCE	[ 	MAINTENANCE
Date	and lubrication set These services ar paid for by me, th	ed to perform the applicable maintenance ervices listed on the back of this coupon e to be performed at your regular rates and e owner. I also authorize you to road test proper operation.
 Mileage	 	Owner's Signature
	<del></del>   	VIN
Dealer (or other) Signature	   Date 	Mileage
OWNER RECORD	1   	DEALER RECORD

37,500 MILE MAINTENANCE		37,500 MILE MAINTENANCE	
□4. □5. □6. □7. □8. □9.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections.	_	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections.

40,000 MILE	İ	40,000 MILE
(64000 km)	I	(64000 km)
MAINTENANCE	¦ I	MAINTENANCE
Date	and lubrication se These services are	ed to perform the applicable maintenance ervices listed on the back of this coupor e to be performed at your regular rates and e owner. I also authorize you to road test proper operation.
Mileage	! !	Owner's Signature
	 	VIN
	i	
Dealer (or other) Signature	Date	Mileage
	1	

OWNER RECORD

## 40,000 MILE MAINTENANCE

<b>□</b> 1.	Change engine oil & oil filter.
$\square_2$ .	Inspect air cleaner and service as required.
П3.	Change primary chaincase lubricant and clean
	magnetic drain plug. Check/adjust primary chain.
<b>4</b> .	Check clutch adjustment.
<b>□</b> 5.	Change transmission lubricant and clean the magnetic drain plug.
<b>□</b> 6.	Check and adjust belt.
<b>□</b> 7.	Lube the foot shift and brake lever bearings.
□8.	
<b>_</b> 9.	
<b>□</b> 10.	Inspect oil lines and brake system for leaks.
<b>□</b> 11.	Lubricate the following: front brake hand lever, throttle control cables,
_	throttle, clutch control cable and hand lever, jiffy stand.
	Check, adjust operation of throttle control and enrichener.*
	Inspect fuel valve,* lines and fittings for leaks.
	Clean fuel tank filter screen.*
	Check operation of all electrical equipment and switches.
	Check battery condition and clean battery connections.
	Change spark plugs.
	Check tire pressure and inspect tread.
	Visually inspect, adjust and repack steering head bearings.
	Change front fork oil.
	Check air suspension - pressure, operation and leakage.
_	Check stabilizer links and engine mounts.
<b>_</b> 23.	Check tightness of all critical fasteners: hand controls, brake system,
	axle nuts, front fork components, riser and handle bar fasteners.
<b>2</b> 4.	Inspect FLHP/FLHP-I windshield bushings.
<b>2</b> 5.	Lubricate hinges, latches - fuel door*, saddlebags.
	Check engine idle speed adjustment.
<b>2</b> 7.	Road test.

### 40.000 MILE MAINTENANCE

40,0	40,000 MILE MAINTENANCE				
<b>□</b> 1.	Change engine oil & oil filter.				
<b>1</b> 2.	Inspect air cleaner and service as required.				
□3.	Change primary chaincase lubricant and clean				
	magnetic drain plug. Check/adjust primary chain.				
<b>4</b> .	Check clutch adjustment.				
<b>□</b> 5.	Change transmission lubricant and clean the magnetic drain plug.				
<b>□</b> 6.	Check and adjust belt.				
<b>□</b> 7.	Lube the foot shift and brake lever bearings.				
<b>□</b> 8.					
<b>_</b> 9.					
<b>1</b> 10.	Inspect oil lines and brake system for leaks.				
<b>山</b> 11.	Lubricate the following: front brake hand lever, throttle control cables,				
	throttle, clutch control cable and hand lever, jiffy stand.				
_	Check, adjust operation of throttle control and enrichener.*				
	Inspect fuel valve,* lines and fittings for leaks.  Clean fuel tank filter screen.*				
_					
_	Check operation of all electrical equipment and switches.  Check battery condition and clean battery connections.				
	Change spark plugs.				
	Check tire pressure and inspect tread.				
_	Visually inspect, adjust and repack steering head bearings.				
_	Change front fork oil.				
_	Check air suspension - pressure, operation and leakage.				
_	Check stabilizer links and engine mounts.				
_	Check tightness of all critical fasteners: hand controls, brake system,				
	axle nuts, front fork components, riser and handle bar fasteners.				
<b>2</b> 4	Inspect FLHP/FLHP-I windshield bushings.				
_	Lubricate hinges, latches - fuel door*, saddlebags.				
	Check engine idle speed adjustment.				
_	Road test.				

	42,500 MILE
Ī	(68000 km)
	MAINTENANCE
and lubrication se These services are	ed to perform the applicable maintenance rvices listed on the back of this coupor to be performed at your regular rates and e owner. I also authorize you to road temproper operation.
· i ———— ! !	Owner's Signature
<del></del>	VIN
l Date	Mileage
	You are authorized and lubrication see These services are paid for by me, the this motorcycle for the services are paid for by me, the this motorcycle for the services are paid for by me, the this motorcycle for the services are paid for by me, the services are pa

**OWNER RECORD** 

42,500 MILE MAINTENANCE		42,5	42,500 MILE MAINTENANCE	
□2. II □3. II □4. II □5. II □6. II □7. II □8. II □9. II □10. II □11. II	nspect engine oil. nspect air cleaner and service as required. nspect rear belt. nspect transmission lubricant. nspect brake pads and discs for wear. nspect oil lines and brake system for leaks. nspect fuel valve,* lines and fittings for leaks. nspect tire pressure and inspect tread. nspect operation of throttle and enrichener* controls. nspect operation of all electrical equipment and switches. nspect battery condition and connections. Road test.	<b>□</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.	

<b>45,000 MILE</b> (72000 km)	 
(12000 KIII)	1
MAINTENANCE	1
Date	You ar and lul These paid for this mo
Mileage	

# 45,000 MILE

(72000 km)

## **MAINTENANCE**

ou are authorized to perform the applicable maintenance and lubrication services listed on the back of this coupon. These services are to be performed at your regular rates and aid for by me, the owner. I also authorize you to road test his motorcycle for proper operation.

Owner's Signature

VIN

Date Mileage

OWNER RECORD

Dealer (or other) Signature

45,000 MILE MAINTENANCE		45,000 MILE MAINTENANCE		
<b>□</b> 1.	Change engine oil & oil filter.	<b>□</b> 1.	Change engine oil & oil filter.	
<b>□</b> 2.	Inspect air cleaner and service as required.	<b>□</b> 2.	Inspect air cleaner and service as required.	
□3.	Change primary chaincase lubricant and clean magnetic drain plug.	□з.	Change primary chaincase lubricant and clean magnetic drain plug.	
	Check/adjust primary chain.		Check/adjust primary chain.	
<b>4</b> .	Check clutch adjustment.	<b>4</b> .	Check clutch adjustment.	
<b>□</b> 5.	Change transmission lubricant and clean the magnetic drain plug.	<b>□</b> 5.	Change transmission lubricant and clean the magnetic drain plug.	
<b>□</b> 6.	Check and adjust belt.	<b>□</b> 6.	Check and adjust belt.	
<b>□</b> 7.	Lube the foot shift and brake lever bearings.	<b>□</b> 7.	Lube the foot shift and brake lever bearings.	
□8.	Inspect brake pads and discs for wear.	□8.	Inspect brake pads and discs for wear.	
<b>□</b> 9.	Check brake fluid reservoir levels and condition.	□9.	Check brake fluid reservoir levels and condition.	
<b>□</b> 10.	Inspect oil lines and brake system for leaks.	<b>□</b> 10.	Inspect oil lines and brake system for leaks.	
<b>□</b> 11.	Lubricate the following: front brake hand lever, throttle control cables,	<b>□</b> 11.	Lubricate the following: front brake hand lever, throttle control cables,	
	throttle, clutch control cable and hand lever, jiffy stand.		throttle, clutch control cable and hand lever, jiffy stand.	
<b>1</b> 12.	Check, adjust operation of throttle control and enrichener*.	<b>1</b> 12.	Check, adjust operation of throttle control and enrichener*.	
<b>□</b> 13.	Inspect fuel valve*, lines and fittings for leaks.	<b>□</b> 13.	Inspect fuel valve*, lines and fittings for leaks.	
<b>1</b> 4.	Check tire pressure and inspect tread.	<b>□</b> 14.	Check tire pressure and inspect tread.	
<b>□</b> 15.	Check front fork bearing adjustment.	<b>1</b> 5.	Check front fork bearing adjustment.	
<b>□</b> 16.	Check operation of all electrical equipment and switches.	<b>□</b> 16.	Check operation of all electrical equipment and switches.	
<b>1</b> 7.	Check battery condition and clean battery connections.	<b>1</b> 7.	Check battery condition and clean battery connections.	
<b>□</b> 18.	Inspect spark plugs.	<b>□</b> 18.	Inspect spark plugs.	
<b>1</b> 9.	Check air suspension - pressure, operation and leakage.	<b>1</b> 9.	Check air suspension - pressure, operation and leakage.	
<b>2</b> 0.	Lubricate hinges, latches - fuel door*, saddlebags.	<b>2</b> 0.	Lubricate hinges, latches - fuel door*, saddlebags.	
<b>1</b> 21.	Check engine idle speed adjustment.	<b>1</b> 21.	Check engine idle speed adjustment.	
<b>2</b> 2.	Road test.	<b>2</b> 22.	Road test.	

47,500 MILE		47,500 MILE
(76000 km)	Ī	(76000 km)
MAINTENANCE	I M	AINTENANCE
Date	and lubrication services are	to perform the applicable maintenance vices listed on the back of this coupor to be performed at your regular rates an owner. I also authorize you to road testroper operation.
Mileage	i ————————————————————————————————————	Owner's Signature
	   	VIN
Dealer (or other) Signature	   Date	Mileage
OWNER RECORD	 	DEALER RECORD

47,500 MILE MAINTENANCE		47,500 MILE MAINTENANCE	
<b>□</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.	<b>□</b> 11.	Inspect engine oil. Inspect air cleaner and service as required. Inspect rear belt. Inspect transmission lubricant. Inspect brake pads and discs for wear. Inspect oil lines and brake system for leaks. Inspect fuel valve,* lines and fittings for leaks. Inspect tire pressure and inspect tread. Inspect operation of throttle and enrichener* controls. Inspect operation of all electrical equipment and switches. Inspect battery condition and connections. Road test.

50,000 MILE	50,000 MILE
(80000 km)	(80000 km)
MAINTENANCE	MAINTENANCE
Date	You are authorized to perform the applicable maintenance and lubrication services listed on the back of this coupor. These services are to be performed at your regular rates an paid for by me, the owner. I also authorize you to road test this motorcycle for proper operation.
Mileage	Owner's Signature
Dealer (or other) Signature	   Date Mileage
OWNER RECORD	l DEALER RECORD

#### 50,000 MILE MAINTENANCE 50,000 MILE MAINTENANCE □1. Change engine oil & oil filter. □1. Change engine oil & oil filter. Inspect air cleaner and service as required. **2**. Inspect air cleaner and service as required. ☐3. Change primary chaincase lubricant and clean ☐3. Change primary chaincase lubricant and clean magnetic drain plug. Check/adjust primary chain. magnetic drain plug. Check/adjust primary chain. □4. Check clutch adjustment. 4. Check clutch adjustment. ☐5. Change transmission lubricant and clean the magnetic drain plug. □6. Check and adjust belt. 6. Check and adjust belt. The state of th 7. Lube the foot shift and brake lever bearings. Inspect brake pads and discs for wear. Inspect brake pads and discs for wear. Quantity of the service of the se Check brake fluid reservoir levels and condition. 10. Inspect oil lines and brake system for leaks. □10. Inspect oil lines and brake system for leaks. 11. Lubricate the following: front brake hand lever, throttle control cables, 11. Lubricate the following: front brake hand lever, throttle control cables, throttle, clutch control cable and hand lever, jiffy stand. throttle, clutch control cable and hand lever, jiffy stand. 12. Lubricate and adjust steering head bearings. 12. Lubricate and adjust steering head bearings. ☐13. Check, adjust operation of throttle control and enrichener.\* □13. Check, adjust operation of throttle control and enrichener.\* □14. Inspect fuel valve,\* lines and fittings for leaks. ☐14. Inspect fuel valve,\* lines and fittings for leaks. ☐15. Check operation of all electrical equipment and switches. ☐15. Check operation of all electrical equipment and switches. ☐16. Check battery condition and clean battery connections. ☐16. Check battery condition and clean battery connections. □17. Change spark plugs. □17. Change spark plugs. □18. Check tire pressure and inspect tread. □18. Check tire pressure and inspect tread. ☐19. Check air suspension - pressure, operation and leakage. ☐19. Check air suspension - pressure, operation and leakage. 20. Check stabilizer links and engine mounts. 20. Check stabilizer links and engine mounts. □21. Check tightness of all critical fasteners: hand controls, brake system, ☐21. Check tightness of all critical fasteners: hand controls, brake system, axle nuts, front fork components, riser and handle bar fasteners. axle nuts, front fork components, riser and handle bar fasteners. 22. Inspect FLHP/FLHP-I windshield bushings. 22. Inspect FLHP/FLHP-I windshield bushings. ☐23. Lubricate hinges, latches - fuel door\*, saddlebags. □23. Lubricate hinges, latches - fuel door\*, saddlebags. ☐24. Check engine idle speed adjustment. ☐24. Check engine idle speed adjustment. □25. Road test. ☐25 Road test

\* If applicable

## **SERVICE LITERATURE**

For detailed and complete technical and parts information the following publications are available (Fall of 1999) through your Harley-Davidson dealer. Order by part numbers listed below.

PUBLICATION	Part No.
FL Service Manual	99483-00
Police Models Service Supplement	99483-00SF
Police Models Parts Catalog	99454-00
Wiring Diagrams Manual (All Models)	99948-00

# **NOTES**

Page No.		Page No.
11	Changing Chaincase Lubricant	57
87	Checking Oil Level	52
20	Cleaning Your Motorcycle	86
63	Clutch/Clutch Control Cable	66
	Clutch Hand Lever	22
76	D	
	Dimensions	95
78	E	
	Engine-Twin Cam 88 <sup>TM</sup>	96
38		
99	•	
	Engine Stop Switch	26
95	EPA Noise Regulations	102
63	<u>-</u>	
62	F	
46	Flat Tire Repair	69
	Friction Adjusting Screw	26
	Front Air Suspension	32

Pa	age No.	Page I	No.
Front Fork Bearings	70		
Front Fork Oil	62		
Fuel	97	Ignition/Light Key Switch and Fork Lock Mechanism	13
Fuel Filler Cap	31	Ignition System	
Fuel Gauge		Ignition Timing	
Fuel Supply Valve		Indicator Lamps	
Fuel Filter Strainer		maiodioi Edinpo	.,
Fuses	85	J	
G		Jiffy Stand2	29
<u> </u>		Jump Starting Procedure	32
Gasoline Blends			
Gear Shifter Lever		L	
General Maintenance		Left Turn Signal Switch2	23
Greasing		Lubrication Summary	
Guards	98	Lubrication Guillinary	+0
н		M	
Handlebar Controls (Left Side)	22	Maintenance Check-off Coupons	)9
Handlebar Controls (Right Side)		Microphone Input Jack	20
Hazard Warning 4-Way Flasher		Mirrors	
Headlamp Adjustment		N	
Headlamp Adjustment		NHTSA Statement10	าว
Headlamp Switch: Hi/Lo Beam		Number of Sprocket Teeth	
Hinges and Latches - Fuel Door and Saddlebags		Number of Sprocket reem	<b>7</b> 0
Horn/Siren Yelp Switch			
Hydraulic Lifters	66		

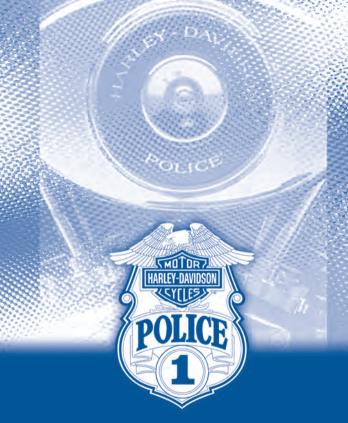
Page No.

## S

Saddlebags	3
Safe Operating Maintenance	4
Safe Operating Rules	
Seat	3
Service Literature	15
Shifting Gears	4
Siren Wail Switch: On/Off	2
Spark Plugs 71,	9
Speedometer/Odometer	1
Starting the Engine - Carbureted Models	3
Starting the Engine - Fuel Injected Models	4
Stopping the Engine	4
Storage	8
Placing Motorcycle In Storage	8
Removal from Storage	9
Air Suspension Adjustments	3
<del>-</del>	
I	
Tachometer	1
Throttle Control Grip	2
Tire Data	9

## Page No.

Tires	. 68
Transmission	. 96
Transmission Lubrication	. 55
Trip-Odometer	. 20
Turn Signal Switch Operation	. 28
V	
Vehicle Alignment	. 69
Vehicle Identification Number (VIN)	
Voltmeter	
W	
Warranty and Maintenance	101
Warranty/Service Information	103
Weight	. 95
Windshield, Detachable	. 87
Windshields	. 87
Winter Lubrication	. 54



Harley-Davidson Motor Company Service Communications Milwaukee, WI 53201



Printed in the U.S.A. PN: 99478-00