



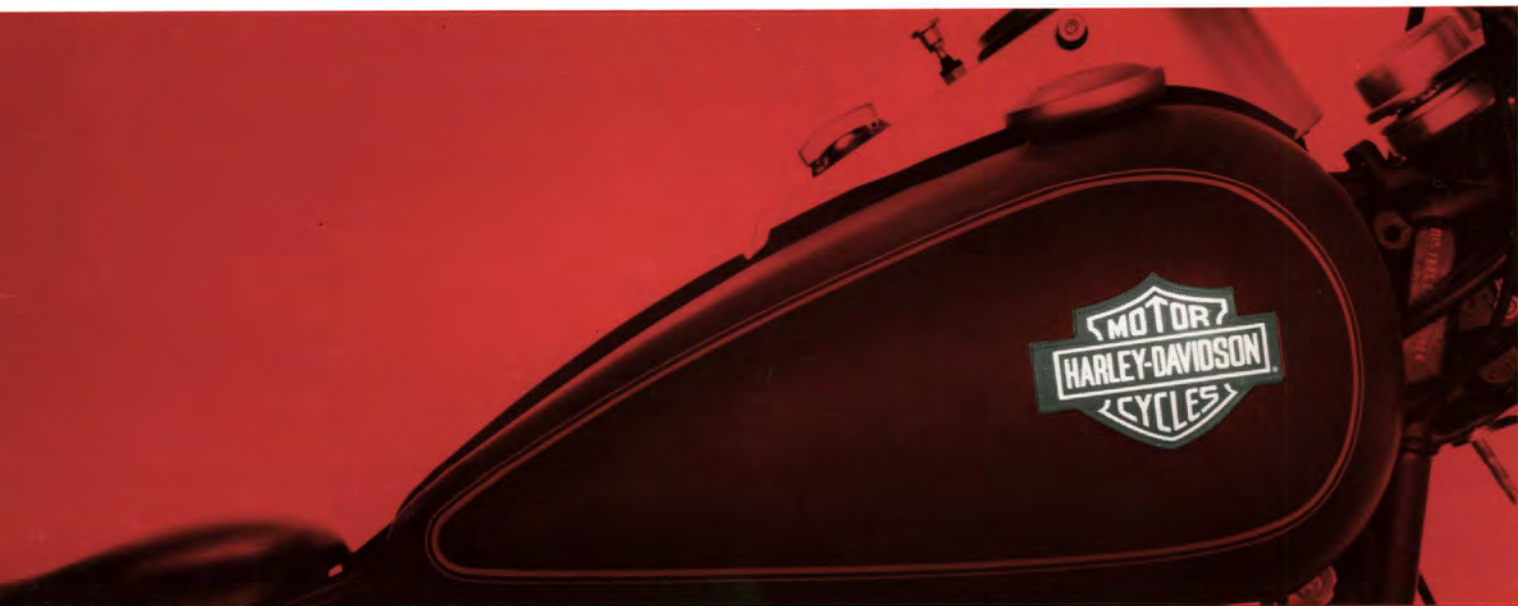
Harley-Davidson Motor Co., Inc.

OWNER'S MANUAL

FX Models 1340cc 4-Speed

1985

Part No. 99460-85



IMPORTANT NOTICE!

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

WARNING

Means there is the possibility of personal injury to yourself or others.

CAUTION

Means there is the possibility of damage to the vehicle.

Other information of particular importance has been placed in italic type.

We recommend you take special notice of these items.

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 field. 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 personal motorcycling safety and pleasure.

Your Owner's Manual contains instructions for operation and maintenance. Minor repairs are covered in the Owner's Maintenance Guide and information covering major repairs is provided in the Harley-Davidson Service Manual. Such major repairs require the attention of a skilled mechanic and the use of special tools and equipment. Your Harley-Davidson dealer has the facilities, experience and genuine Harley-Davidson parts necessary to properly render this valuable service. We recommend that any emission system maintenance be performed by an authorized Harley-Davidson dealer.

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NOTES

SAFE OPERATING RULES

Before operating your new motorcycle it is your responsibility to read and follow operating and maintenance instructions in this manual, and follow these basic rules for your personal safety.

- Know and respect the Rules of the Road (see RULES OF THE ROAD). Also read and observe the MOTORCYCLE SAFETY booklet that comes with this Owner's Manual.
- Use only Harley-Davidson approved parts and accessories.
- Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a well ventilated area with the engine stopped. 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. Do not overfill fuel tank. Leave at least one inch 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.
- Before starting engine, check for proper operation of brake, clutch, shifter, throttle controls, correct fuel and oil supply.
- A new motorcycle must be operated according to a special break-in procedure. (See BREAK-IN — THE FIRST 500 MILES.)
- Operate 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 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 any other condition affecting stability and the possibility of loss of control.

- 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. Should this happen, reduce speed and guide the motorcycle with a relaxed grip to a straight-away position. Do not brake abruptly or force the handlebars as this may aggravate an unstable condition. New riders should gain experience under various conditions while driving at moderate speeds.
- 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 shut off. Wear clothing that will completely cover the legs when riding and avoid contact with the exhaust system.
- Do not allow others under any circumstances to operate your motorcycle unless you are certain that they are experienced, licensed riders and are familiar with the operation of your particular motorcycle.
- When leaving motorcycle unattended, lock steering head and remove ignition key from switch. Protect your motorcycle against theft.
- Safe motorcycle operation requires mental awareness and good judgment combined with a defensive driving attitude. Don't allow fatigue, alcohol or drugs to endanger your safety or the safety of others.
- Maintain your motorcycle in proper operating condition in accordance with the Maintenance Schedules in this Owner's Manual. Particularly important to motorcycle stability is the tire inflation pressure, tread condition, and proper adjustment of wheel bearings and steering head bearings. Do not operate motorcycle with a loose, worn or damaged steering system or front or rear suspension system as 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. Look for excessive flat or pointed tread cross section. Replace only with approved tires. (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.
- Do not tow a trailer.
- Regularly inspect shock absorbers and front forks. Worn parts can affect stability. If you have questions as to how these should function, see 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.

- Consult your dealer regarding any questions you may have about your motorcycle. Should any abnormality occur in the operation of your motorcycle, immediately contact your Harley-Davidson dealer for correction of the problem. Continued operation of a misperforming motorcycle most likely will aggravate an initial problem, cause repairs to be more costly, and perhaps affect your personal safety.

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 pass on the left side 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 or turn.
- 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.
- 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.
- When intending to turn to the left, give 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 passing the intersection of the street and then turn carefully to the left.
- In turning either right or left, watch for pedestrians as well as vehicles.
- Do not leave the curb or parking area without signaling and seeing that your way is clear to drive into moving traffic. A moving line of traffic has the right-of-way.
- See that your license tags are installed in the position specified by law and that they are clearly visible under all conditions. Keep them 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 accordingly.

ACCESSORIES AND CARGO

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 every accessory or

combination of accessories to make specific recommendations about their use, the rider must be responsible for the safe operation of the motorcycle when installing accessories or hauling additional weight. The following guidelines should be used when equipping a motorcycle and carrying passengers and cargo.

1. The Gross Vehicle Weight Rating (GVWR) is shown on the information plate located on the lower portion of the front frame tube. GVWR is the sum of the weight of the motorcycle and accessories and the maximum weight of the rider, passenger and cargo that may be safely carried.

Do not tow a trailer with this motorcycle. Do not exceed the Gross Vehicle Weight Rating as indicated on the frame label.

Overloading the motorcycle or towing a trailer will result in unstable handling and reduced braking efficiency which could cause an accident with personal injury.

2. 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 on each saddlebag or 25 pounds maximum in Tour Pak.

3. Luggage racks are designed for lightweight items — do not overload racks.
4. Be sure cargo is secure and will not shift while riding. Recheck load periodically.
5. Accessories that change the operator's riding position may increase reaction time and affect handling.
6. Additional electrical equipment may overload the motorcycle's electrical system and cause an unsafe operating condition.
7. 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.

PRE-RIDING CHECK LIST

Read sections on OPERATION and CONTROLS before riding this motorcycle.

Before riding your motorcycle at any time, a general inspection should be made to make sure that it is in safe riding condition.

1. Check amount of fuel in tank and add gasoline if required.

WARNING

Do not overfill. Leave at least one inch air space to allow for fuel expansion. Expansion can cause an overfilled tank to overflow gasoline through the filler cap vent onto surrounding areas. After refueling, make sure filler cap is securely tightened.

2. Check oil tank oil level. See ENGINE LUBRICATION.
3. Check controls to make sure they are operating properly; operate the front and rear brakes, throttle, clutch and shifter.
4. Check steering for smoothness by turning the handlebars through the full operating range.

5. Check tire pressure. Incorrect pressure will result in poor riding characteristics and can affect handling and stability. See TIRE DATA, for correct inflation pressures to use.
6. Check all electrical equipment and switches including the stoplamp, turn signals and horn for proper operation.
7. Check for any fuel, oil or hydraulic fluid leaks.
8. Check the rear chain adjustment and lubrication. Service as required.
9. Check to make sure all fasteners are tight.

BREAK-IN — THE FIRST 500 MILES

The sound design, quality materials, and workmanship that is built into your new Harley-Davidson will give you high performance right from the start. However, for the first 500 miles, to wear-in critical parts, observe the few simple driving rules below. This will guarantee future performance and durability.

1. During the first 50 miles, keep the engine speed below 2500 rpm in any gear.
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.

3. 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.

STARTING THE ENGINE

Use recommended oil in relation to expected temperatures. See engine lubrication chart in the MAINTENANCE AND LUBRICATION section.

WARNING

Before starting the engine, shift the transmission to neutral and fully disengage clutch to prevent accidental movement which could cause possible damage to motorcycle or personal injury.

Electric Starter

The carburetor choke control knob is located on the instrument panel (FXWG and FXST) or below gas tank on left side (FXEF and FXSB).

1. To start a cool engine at temperatures above 50°F., open throttle twice, then fully release. Pull choke knob to first detent (fast idle) position (above 65°F., fast idle may not be required). Turn the ignition switch on and press starter button to operate the electric starter.
2. To start a cold engine at temperatures below 50°F., open throttle twice, then fully release. Pull the choke knob outward to the fully closed (choke) position; turn the ignition switch on and press starter button to operate the electric starter.

NOTE

Engine Stop Switch on right handlebar must be in RUN (ignition on) position to start engine.

3. As soon as engine starts, open choke to fast idle position (2nd detent). See Figure 14.
4. To start a warm or hot engine, set throttle ¼ open, turn on ignition switch and operate the electric starter. (DO NOT CHOKE.)

NOTE

When 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, open choke all the way, turn ignition on and operate starter with choke and throttle wide open.

Kick Starter

1. Move the choke knob outward to the fully closed position, fully open the throttle, and with ignition switch off, push starter pedal down once or twice to prime the cylinders. Open throttle twice, then fully close throttle.
2. To start a cool engine at air temperatures above 50°F., place choke knob in first detent (fast idle) position. (For air temperatures above 65°F., fast idle may not be required.) Turn ignition switch on and start engine with vigorous strokes of the starter pedal.
3. To start a cold engine at air temperatures below 50°F., pull choke knob outward to fully closed choke position. Turn ignition switch on and start engine with vigorous strokes of the starter pedal.

WARNING

Be sure kick starter engages fully and that there is pres-

sure on the starter pedal before pushing pedal on downward stroke. Keep foot on pedal and hold down at bottom of stroke until engine starts, or stops turning over. Release pedal slowly. Do not allow pedal to snap back against upper stop.

NOTE

Engine Stop Switch on right handlebar must be in RUN (ignition on) position to start engine.

4. As soon as the engine starts, open choke to fast idle position (2nd detent). See Figure 14.
5. To start a warm or hot engine, set throttle $\frac{1}{4}$ open, turn on the ignition switch and start engine with a vigorous stroke of the starter pedal. (DO NOT CHOKE.)

NOTE

When the engine does not start within 2 or 3 starting kicks, 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, turn off the ignition and crank the engine over 3 or 4 times with choke and throttle wide open. This will clear the engine. Then follow correct starting procedure as previously described for cold, warm or hot engine.

NOTE

Flooding can be caused by opening and closing the throttle too much, because throttle is interconnected to the accelerating pump which injects extra gas into the engine each time throttle is opened.

SHIFTING GEARS

CAUTION

Never accelerate the engine above 2000 rpm after a cold start. The engine should be allowed to run slowly for a few minutes during warm weather and for a longer time in cold weather. This will allow the engine to warm up and let oil reach all surfaces needing lubrication.

1. To start moving with motorcycle upright and engine idling, pull the clutch lever (located on left handlebar) to fully disengage clutch. Push shifter lever down firmly but gently to end of its travel to engage first gear (see Figure 1). Then release the clutch lever slowly to engage the clutch and at the same time, open throttle gradually.
2. Engage second gear after the motorcycle has run a few yards as follows: close the throttle, disengage the clutch and lift the gear shifter pedal up to the

end of its travel. Then engage the clutch and operate the throttle gradually. Repeat the same operation to engage third, and fourth gears.

For correct operation of your motorcycle under average conditions, the following shifting points are recommended:

Gear Change	Speed
Acceleration (Upshift)	
First to Second	15 mph (25 kph)
Second to Third	25 mph (40 kph)
Third to Fourth	40 mph (65 kph)
Deceleration (Downshift)	
Fourth to Third	30 mph (50 kph) or less
Third to Second	20 mph (30 kph) or less
Second to First	10 mph (15 kph) or less

3. To shift to lower gears, reverse the shifting of the gear shifter pedal, disengaging the clutch completely before each gear change and only partially closing the throttle so that the engine will not drag when clutch is again engaged. Keep in mind that

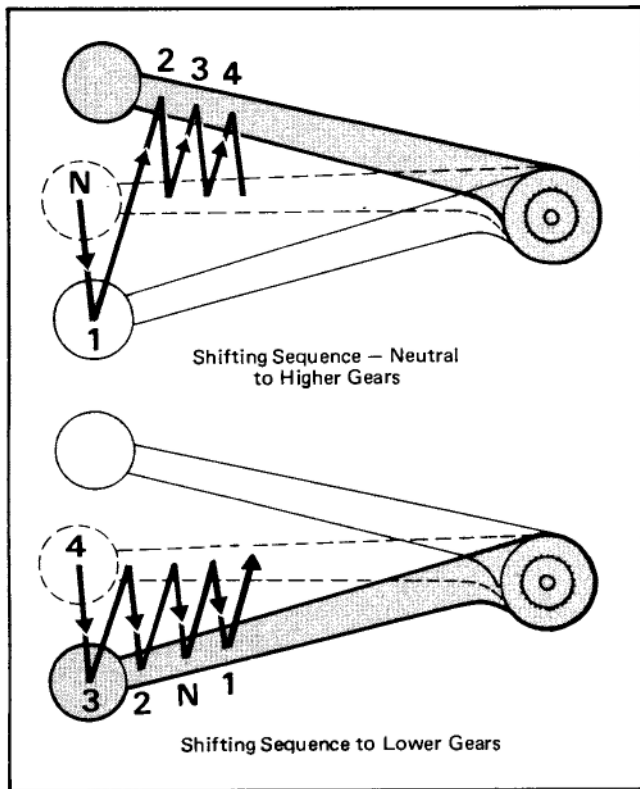


Figure 1. Shifting

by lifting the gear shifter lever up, a high gear is engaged; by pushing the gear shifter lever down, a lower gear is engaged. When stopping, operate gear shift until neutral is reached. Note that neutral is 1/2 stroke up from first gear or 1/2 stroke down from second gear.

CAUTION

Do not shift gears without fully disengaging the clutch.

WARNING

When shifting to lower gears with the motorcycle in motion, do not downshift at speeds higher than those listed in the table. Shifting to lower gears when speed is too high may severely damage the transmission or cause the rear wheel to lose traction.

4. Shift to neutral before stopping engine. Shifting mechanism can be damaged by shifting gears while engine is stopped.

NOTE

Always start motorcycle in motion in first gear.

5. When engine speed decreases, as in climbing a hill or running at a reduced speed, change from a higher gear to the next lower gear by partially clos-

ing the throttle so that the engine accelerates as soon as the clutch lever is pulled.

STOPPING THE ENGINE

Stop the engine by turning off the engine stop switch on the right handlebar and then turn off the ignition key switch. If the engine should be stalled or stopped in any way, turn off the ignition switch at once to prevent battery discharge.

OPERATING RECOMMENDATIONS

CAUTION

Do not run the engine at extremely high RPM with clutch disengaged or transmission in neutral. Maximum recommended engine RPM is 5200. Do not exceed 5400 maximum RPM under any conditions! Do not idle the engine unnecessarily for more than a few minutes with motorcycle standing still.

An engine run long distances at high speed must be given closer than ordinary attention to avoid over-

heating and possible consequent damage. Have the engine checked regularly and keep it well tuned.

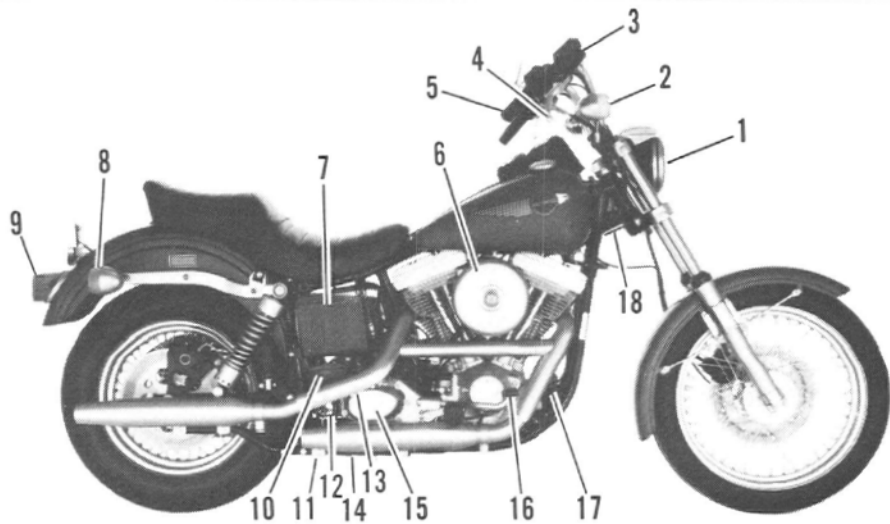
Valve seating and good compression is particularly important. This applies particularly to a motorcycle equipped with windshield and splash shields or lap apron.

WARNING

When riding on wet roads or under rainy conditions, braking efficiency is greatly reduced and caution should be used when applying the brakes, accelerating, and turning. This is especially true immediately after the rain begins and the oil from the road surface combines with the water.

When descending a long, steep grade, downshift and use engine compression together with intermittent application of both brakes to slow the motorcycle. Avoid continuous use of brakes which may cause overheating of the brakes and reduced efficiency.

Do not coast for a long distance with the engine off because the transmission is properly lubricated only when the engine is running. Also to prevent transmission damage, do not tow the motorcycle without removing the drive chain or belt.

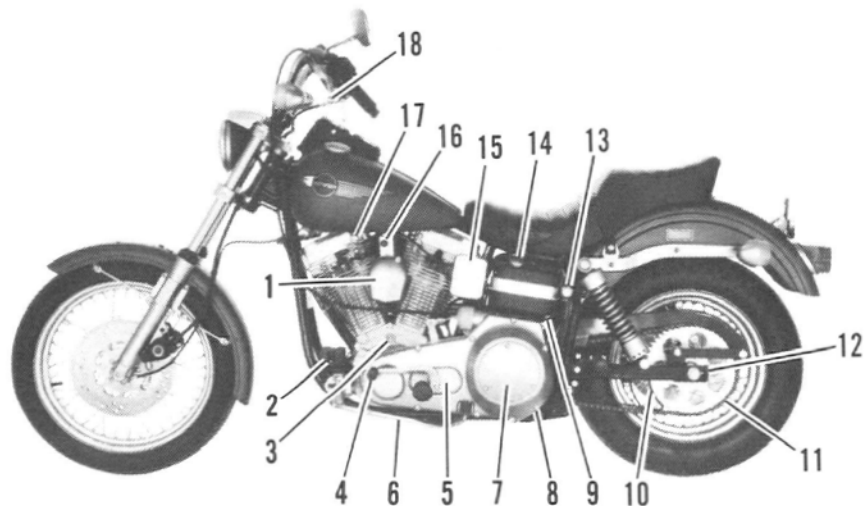


- 1. Headlamp
- 2. Front turn signal lamp
- 3. Front brake master cylinder
- 4. Front brake hand lever
- 5. Throttle control grip
- 6. Carburetor air cleaner

- 7. Battery
- 8. Rear turn signal lamp
- 9. Tail/stop lamp
- 10. Rear brake fluid reservoir
- 11. Oil filter
- 12. Rear brake master cylinder

- 13. Transmission oil filler plug
- 14. Transmission oil drain plug
- 15. Transmission oil level plug
- 16. Rear brake pedal
- 17. Ignition module
- 18. Steering lock

Figure 3. FXEF Right Side View

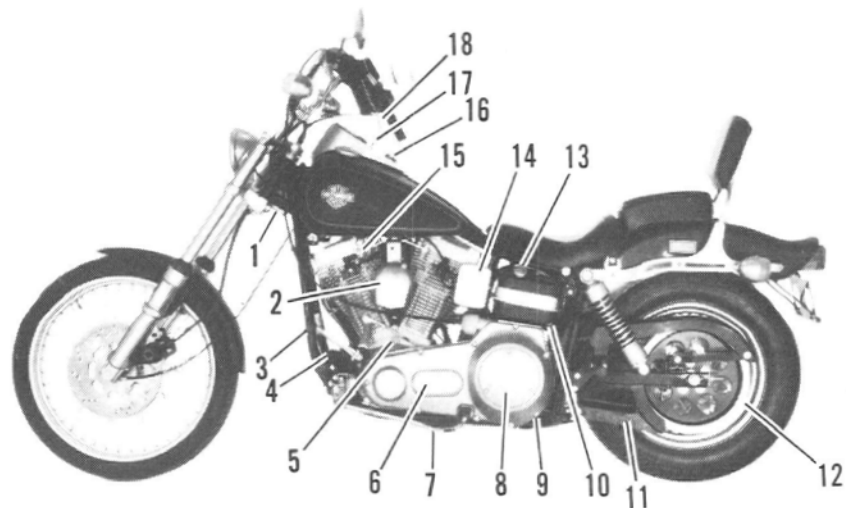


1. Horn
2. Voltage regulator
3. Timing inspection hole plug
4. Shift lever
5. Primary chain inspection cover
6. Jiffy stand

7. Clutch inspection cover
8. Chaincase drain plug
9. Oil tank drain plug
10. Debris deflector
11. Rear sprocket & drive chain
12. Rear chain adjuster

13. Ignition-light key switch
14. Oil tank fill plug & dipstick
15. Ignition coil
16. Carburetor choke knob
17. Fuel supply valve
18. Clutch hand lever

Figure 2. FXEF Left Side View



1. Steering lock

2. Horn

3. Shift lever

4. Voltage regulator

5. Timing inspection hole plug

6. Primary chain inspection cover

7. Jiffy stand

8. Clutch inspection cover

9. Chain case drain plug

10. Oil tank drain plug

11. Debris deflector

12. Rear sprocket & drive belt

13. Oil tank fill plug & dipstick

14. Ignition coil

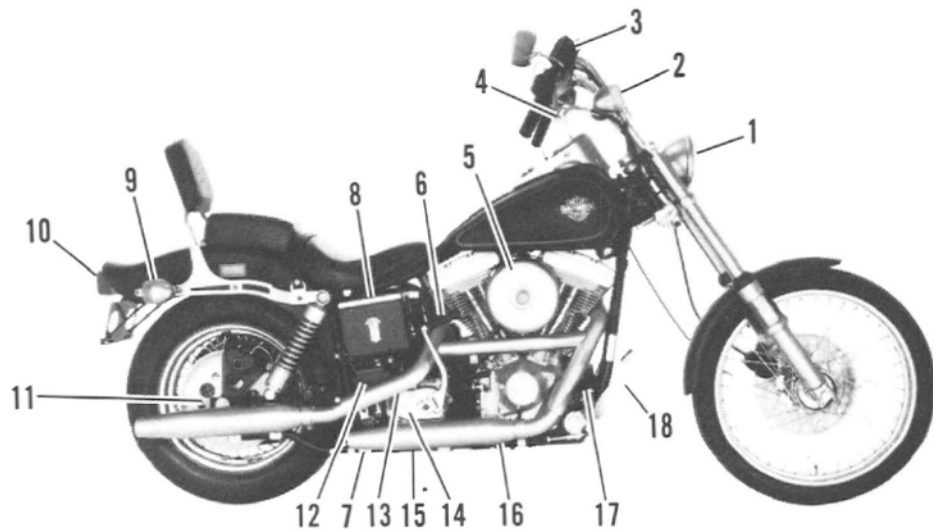
15. Fuel supply valve

16. Ignition/light switch

17. Carburetor choke knob

18. Clutch hand lever

Figure 4. FXWG Left Side View

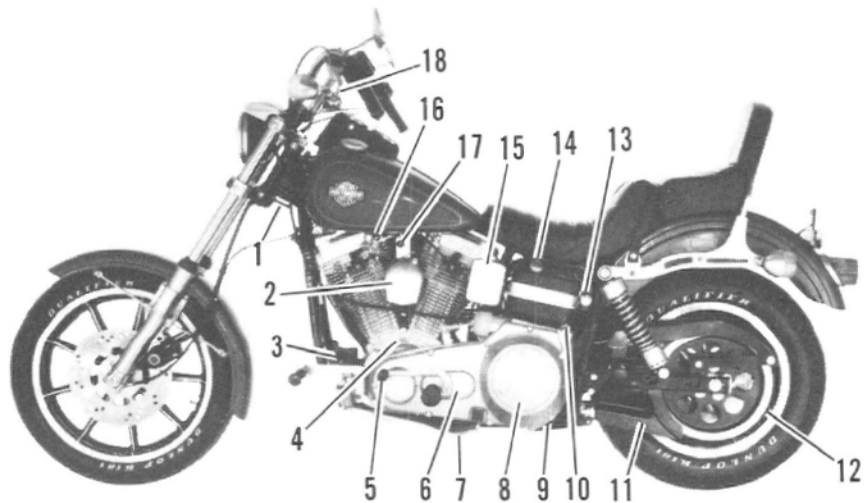


- 1. Headlamp
- 2. Front turn signal lamp
- 3. Front brake master cylinder
- 4. Front brake hand lever
- 5. Carburetor air cleaner
- 6. Kick starter

- 7. Oil filter
- 8. Battery
- 9. Rear turn signal lamp
- 10. Tail/stop lamp
- 11. Rear belt adjuster
- 12. Rear brake fluid reservoir

- 13. Transmission oil filler plug
- 14. Transmission oil level plug
- 15. Transmission oil drain plug
- 16. Rear brake master cylinder
- 17. Ignition module
- 18. Rear brake pedal

Figure 5. FXWG Right Side View

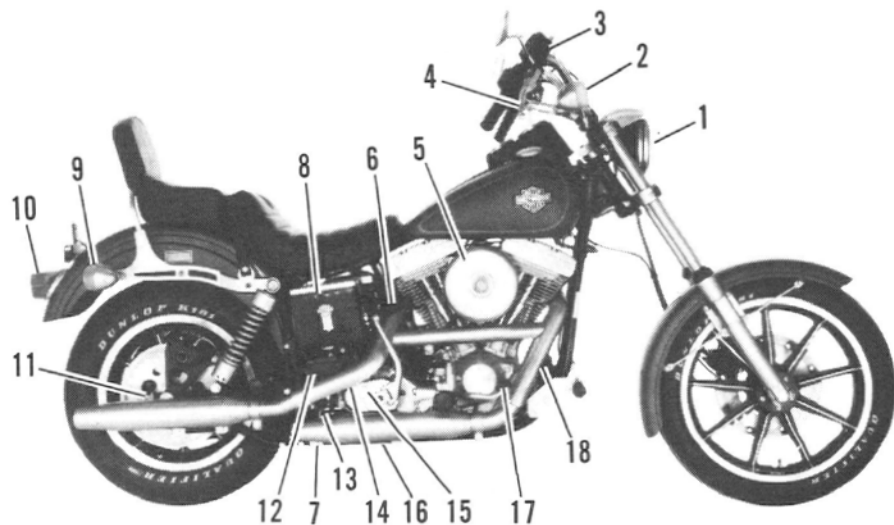


1. Steering lock
2. Horn
3. Voltage regulator
4. Timing inspection hole plug
5. Shift lever
6. Primary chain inspection cover

7. Jiffy stand
8. Clutch inspection cover
9. Chain case drain plug
10. Oil tank drain plug
11. Debris deflector
12. Rear sprocket & drive belt

13. Ignition/light switch
14. Oil tank fill plug & dipstick
15. Ignition coil
16. Fuel supply valve
17. Carburetor choke knob
18. Clutch hand lever

Figure 6. FXSB Left Side View

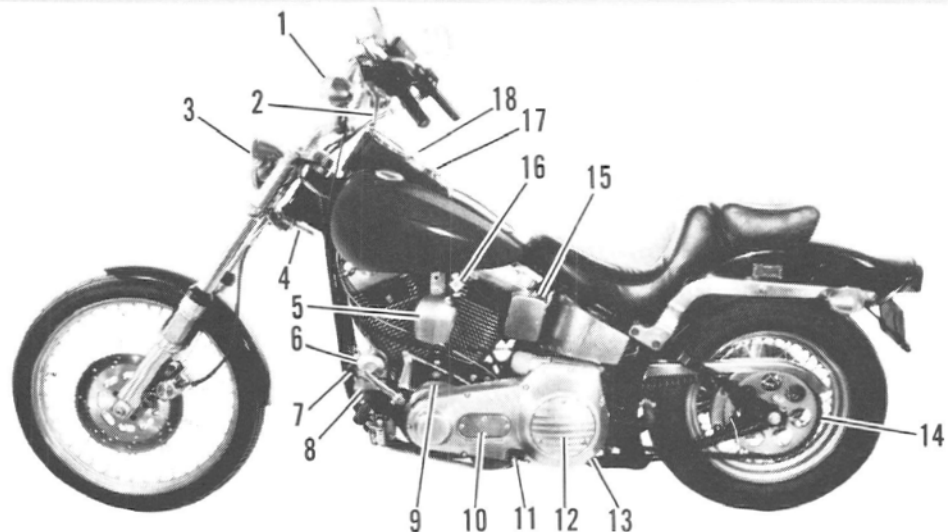


- 1. Headlamp
- 2. Front turn signal lamp
- 3. Front brake master cylinder
- 4. Front brake hand lever
- 5. Carburetor air cleaner
- 6. Kick starter

- 7. Oil filter
- 8. Battery
- 9. Rear turn signal lamp
- 10. Tail/stop lamp
- 11. Rear belt adjuster
- 12. Rear brake fluid reservoir

- 13. Rear brake master cylinder
- 14. Transmission oil filler plug
- 15. Transmission oil level plug
- 16. Transmission oil drain plug
- 17. Rear brake pedal
- 18. Ignition module

Figure 7. FXSB Right Side View

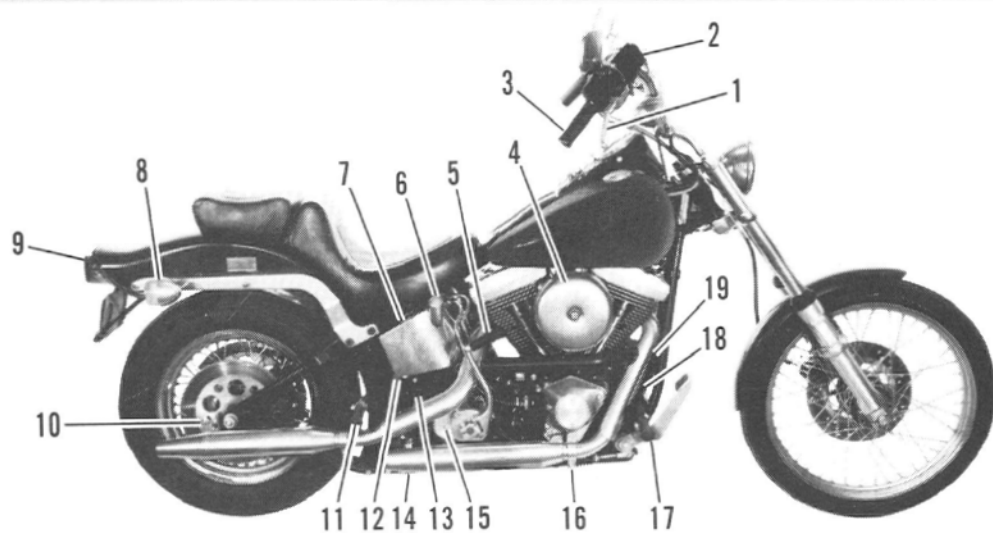


- 1. Front turn signal lamp
- 2. Clutch hand lever
- 3. Headlamp
- 4. Steering lock
- 5. Horn
- 6. Oil filter
- 7. Shift lever

- 8. Voltage regulator
- 9. Timing inspection hole plug
- 10. Primary chain inspection cover
- 11. Jiffy stand
- 12. Clutch inspection cover

- 13. Chain case drain plug
- 14. Rear sprocket & drive chain
- 15. Ignition coil
- 16. Fuel supply valve
- 17. Ignition/light switch
- 18. Carburetor choke knob

Figure 8. FXST Left Side View



- | | | |
|----------------------------------|----------------------------|----------------------------------|
| 1. Front brake hand lever | 8. Rear turn signal lamp | 14. Transmission oil drain plug |
| 2. Front brake master cylinder | 9. Tail/stop lamp | 15. Transmission oil filler plug |
| 3. Throttle grip control | 10. Rear chain adjuster | 16. Rear brake master cylinder |
| 4. Carburetor air cleaner | 11. Passenger footrest | 17. Rear brake pedal |
| 5. Kick starter | 12. Oil tank drain plug | 18. Ignition module |
| 6. Oil tank fill plug & dipstick | 13. Electric starter motor | 19. Rear brake fluid reservoir |
| 7. Battery (under seat) | | |

Figure 9. FXST Right Side View

NOTES

GASOLINE SUPPLY VALVE

The gasoline supply valve (Figure 10) is located under the gas tank. Gasoline to carburetor is shut off when handle is in horizontal position. Turning the handle down to vertical position turns on main gasoline supply; turning handle up to vertical position turns on reserve supply.

WARNING

Valve should always be closed when engine is not running to ensure against accidentally flooding engine or surroundings with gasoline.

NOTE

To always maintain a reserve supply, do not operate the motorcycle with the valve in the RESERVE position after refueling.

WARNING

Do not overfill. Leave at least one inch air space to allow for fuel expansion. Expansion can cause an overfilled tank to overflow gasoline through the filler cap vent on to surrounding areas.

GASOLINE FILLER CAP

To open the gas cap, turn cap counterclockwise and lift up. To close, turn clockwise until the cap clicks. The ratchet action of the gas cap prevents overtightening.

NOTE

On models equipped with left and right gas tanks, the left side tank cap has a left hand thread. Operation is just the opposite as described above.

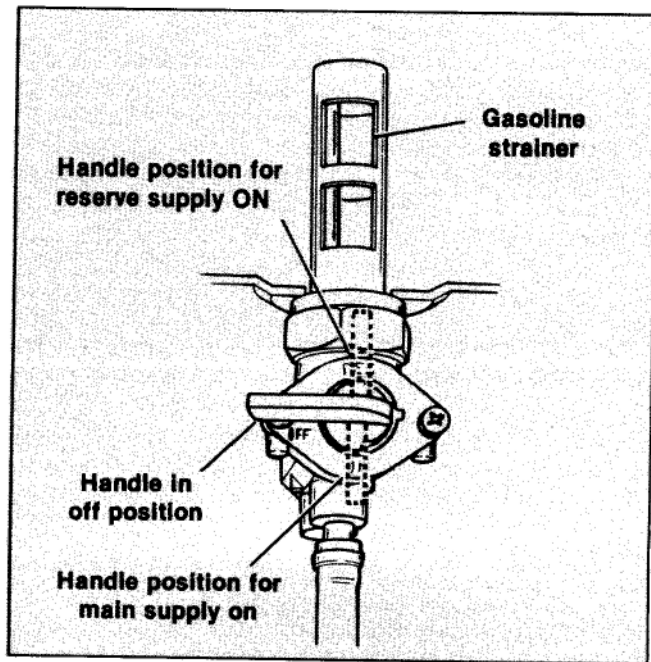


Figure 10. Gasoline Supply Valve

IGNITION-LIGHT KEY SWITCH

FXST/FXWG Models

The ignition-light switch (Figure 11) is located on the instrument panel. Lift lock cover and use switch key to lock or unlock. It is not necessary to keep the key inserted in the lock to operate this switch after it has been unlocked. The center position of the switch is the off position for both lights and ignition. The right (counterclockwise) of center position is for accessories only. There are two positions to the left (clockwise) of center position. For U.S.A. operation, both positions operate ignition and lights, with standard wiring, as required by law. The switch can be locked only in the off and the accessories positions. Remember that lighting the headlamp when the engine is not running also turns the ignition on. To protect yourself, always lock switch in off position and remove key when motorcycle is left unattended. Make a record of key number so it can be replaced in case of loss.

FXEF/FXSB Models

The ignition-light switch is located at the rear of the oil tank, under the seat on the left side of the motorcycle

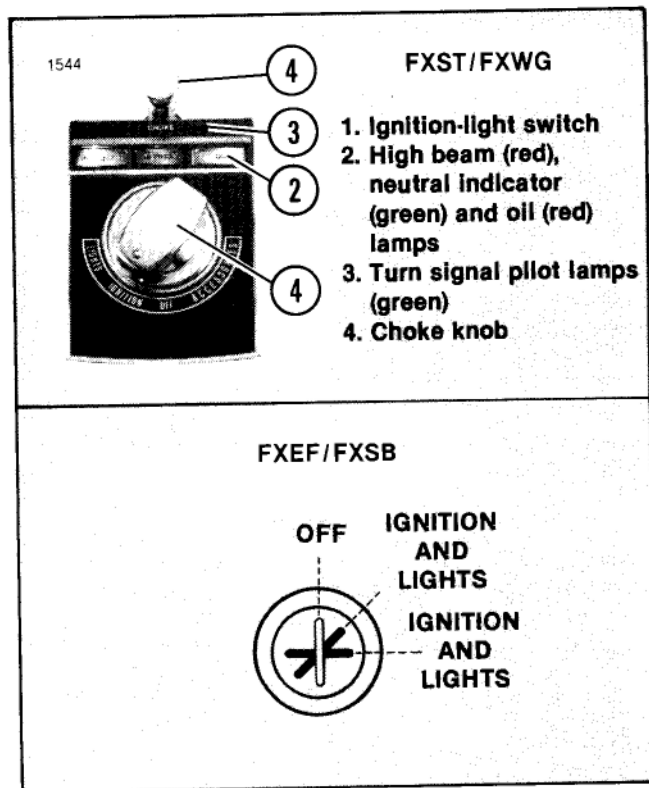


Figure 11. Ignition-Light Switch

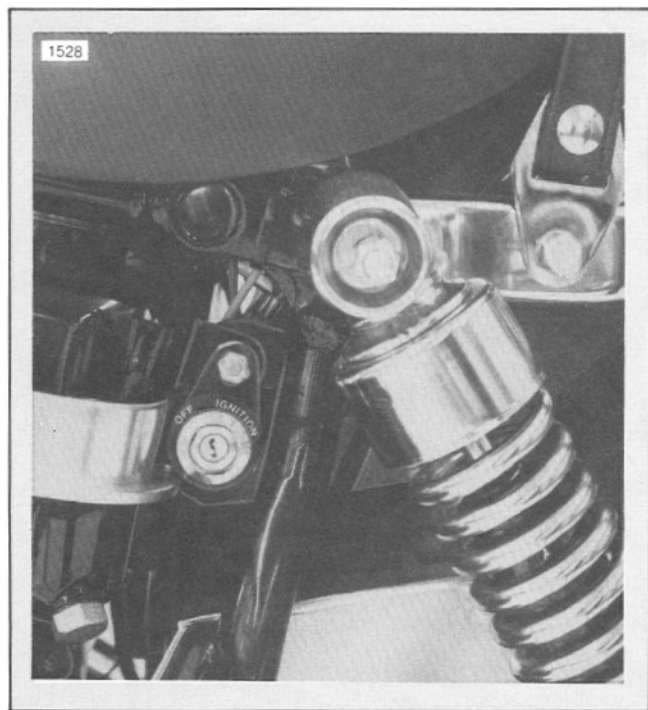


Figure 12. Ignition-Light Switch — FXSB/FXEF

(Figure 12). From OFF vertical position, there are two positions to the right for ignition and lights (Figure 11). For U.S.A. operation, both positions operate ignition and lights, with standard wiring, as required by law. Key can be removed to lock switch in OFF position. To protect yourself, always remove key when motorcycle is left unattended. Make a record of key number so it can be replaced in case of loss.

HEADLAMP DIMMER SWITCH AND HIGH BEAM INDICATOR LIGHT

The headlamp dimmer switch (1, Figure 13) on the left handlebar controls the headlamp high and low beams.

High beam indicator light remains lit when high beam is on.

TURN SIGNAL SWITCHES

Right turn switch button (6, Figure 13) on right handlebar operates the right front and right rear flashing lamps. Left turn switch button (2, Figure 13) on left handlebar operates the left front and left rear flashing lamps.

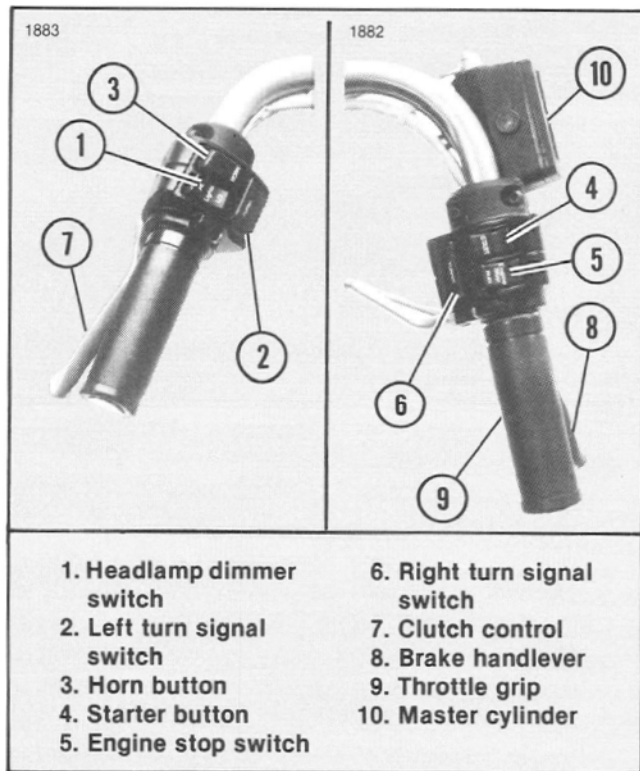


Figure 13. Handlebar Controls

HORN

The horn is operated by the horn button (3, Figure 13) on the left handlebar.

ELECTRIC STARTER

The starter button (4, Figure 13) is located on the right handlebar. With ignition on, engine stop switch (5, Figure 13) in run position and transmission in neutral, push button to operate starting motor.

KICK STARTER (MODELS FXSB/FXWG/FXST)

The starter crank pedal is located on the right side and has a spring return. When starting the engine, push the pedal down with full, vigorous strokes to turn the engine over. Also see KICK STARTER in OPERATION section.

ENGINE STOP SWITCH

Rocker switch (5, Figure 13) on right handlebar turns ignition on or off and should be used to stop the engine at all times. To stop the engine, push switch to position marked OFF, then turn off ignition key switch.

Be sure switch is in RUN position to operate engine.

TRIP ODOMETER

A trip odometer reset knob is located on or near the speedometer. The trip odometer may be used to record distances on trips or mileage between service intervals. To reset the trip odometer to zero, turn the reset knob clockwise.

THROTTLE CONTROL GRIP

The throttle control grip (9, Figure 13) is located on the right handlebar. Turn control grip outward (clockwise) to

close throttle; turn control grip inward (counterclockwise) to open throttle.

A spring loaded friction adjusting screw is located at the bottom of the throttle grip clamp. Turn this knurled screw outward to provide a self-closing throttle, which should return to idle position when hand is removed from throttle grip. Turn the screw inward to increase friction on grip as desired to provide a damping effect on throttle motion to reduce rider fatigue on long trips where steady speeds are maintained. The throttle friction **should not** be used under normal stop and go operating conditions.

WARNING

Do not overtighten the friction screw. Operation with the friction screw overtightened is not recommended because of the possible hazard involved when the engine will not return to idle automatically in an emergency.

CHOKE

Pull carburetor choke knob **out** to close choke. Push knob **in** to open choke.

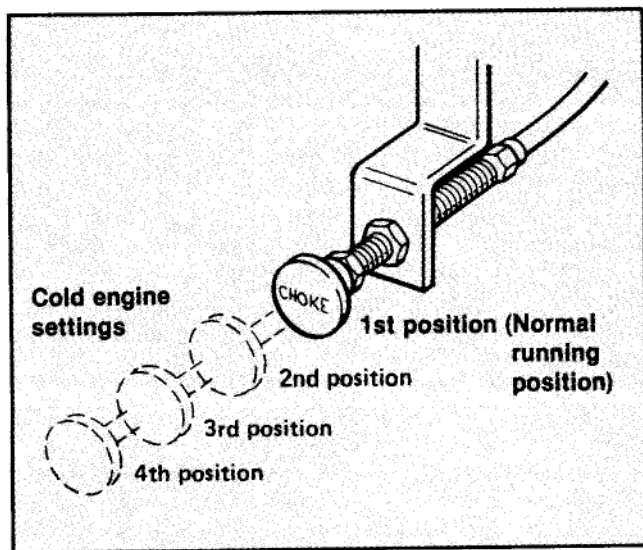


Figure 14. Setting the Choke

The choke has four positions (Figure 14). As knob is pulled out to each position, the high idle cam progressively increases engine idle speed for proper engine operation.

CLUTCH HAND LEVER

The clutch hand lever (7, Figure 13) is located on the left handlebar where it may be easily operated with the fingers of the left hand. Pull lever in against handlebar grip to disengage clutch; release the lever slowly to its outward position to engage clutch.

WARNING

Before starting engine, always shift transmission to neutral or fully disengage clutch to prevent accidental movement which could cause damage to the motorcycle or personal injury.

WARNING

Make sure fingers are not positioned between hand control levers and handlebar grips or operation of vehicle could be impaired.

GEAR SHIFTER

The gear shifter is located on left side, where it may be operated conveniently with the toe of the left foot. Pushing lever all the way down (full stroke) shifts transmission to the next lower gear, while lifting lever all the way up (full stroke) shifts transmission into the next higher gear. The operator must release lever after each gear change to allow lever to return to its central position before another gear change can be made.

Neutral position is between first (low) and second gears. The neutral indicator light will light when transmission is in neutral. First gear is the last gear position that can be found by pushing lever full strokes downward. To shift from first gear to neutral, lift lever half its full stroke. The shift to neutral can also be made from second gear by pushing lever downward one-half stroke.

It is not necessary to shift transmission to neutral before attempting to start the engine. By disengaging the clutch with the clutch hand lever and holding in the disengaged position, engine may be started regardless of the gear in which the transmission might be engaged. However, it is better whenever possible to start the engine with transmission in the neutral position.

With the motorcycle standing still and the engine not running, it usually will be necessary to move the motorcycle backward and forward with the clutch fully disengaged while maintaining a slight pressure on the foot shift lever before a shift from one gear to another can be made. Even with the engine running and the motorcycle standing still, difficulty may be experienced in shifting gears. This difficulty arises when transmission gears are not turning and shifting parts are not lined up to permit engagement. When this difficulty is experienced, do not under any circumstances, attempt to force the shift

by “roughing” the shifter lever; the results of such abuse will be a damaged or broken shifter mechanism. Either roll the motorcycle as indicated above, or if the engine is running, engage the clutch very slightly at the same time applying light pressure to the shifter lever to make the shift. Both of these procedures set transmission gears in motion and then the shift can be made easily. See also OPERATION.

BRAKES

The brake foot pedal on the right hand side operates the rear wheel brake while the right side hand lever operates the front wheel brake.

Brakes should be applied uniformly and gradually to prevent wheels from locking. A balance between rear and front braking is generally best. Begin braking with the rear brake and then apply the front brake slightly later as more braking force is needed.

WARNING

Do not apply either brake strongly enough to lock the wheel because this may cause the wheel to skid with possible loss of control of the motorcycle.

JIFFY STAND

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

WARNING

Be sure jiffy stand is fully retracted before riding the motorcycle. If jiffy stand is not fully retracted during vehicle operation, it could contact the road surface causing a momentary disturbance before retracting. This momentary disturbance could distract the rider, possibly leading to loss of vehicle control.

OIL PRESSURE SIGNAL LIGHT

The oil pressure signal light is located on the instrument panel or headlamp bracket and is marked OIL. Light will go on when the ignition-light switch is turned on before starting the engine. After the engine has started, light should go off.

If the oil signal light fails to go off at speeds above idling, it is usually due to an empty oil tank or a diluted oil supply. In freezing weather the oil feed line may clog with ice and sludge, thus preventing circulation of the oil. A grounded oil signal switch wire, faulty signal switch, or trouble with the oil pump will also cause the

light to stay on. If the oil light fails to go off, always check the oil supply. Then, if oil supply is normal and the light still does not go out, see your Harley-Davidson dealer for service.

STEERING LOCK

The steering lock is located on the lower front fork bracket. Turning fork to the left aligns hole in bracket with hole in steering head. A high strength padlock, should be used to lock the fork in this position to discourage unauthorized use or theft when parking your motorcycle.

REAR SHOCK ABSORBER SPRING ADJUSTMENT (Except FXST)

The rear shock absorber springs can be adjusted to three positions for the weight the motorcycle is to carry. The average weight solo rider would use the extended spring position (off cam). A heavy solo rider might require the position with springs slightly compressed (first cam step); buddy seat riders require the fully compressed spring position (second cam step).

To adjust the rear shock absorber springs, turn cushion spring adjusting cam (Figure 15) to desired position with spanner wrench. Both cushion spring adjusting cams must be adjusted to the same position. When

returning to off cam position, cams should be backed off in opposite direction. A spanner wrench for this purpose is available from your Harley-Davidson dealer.

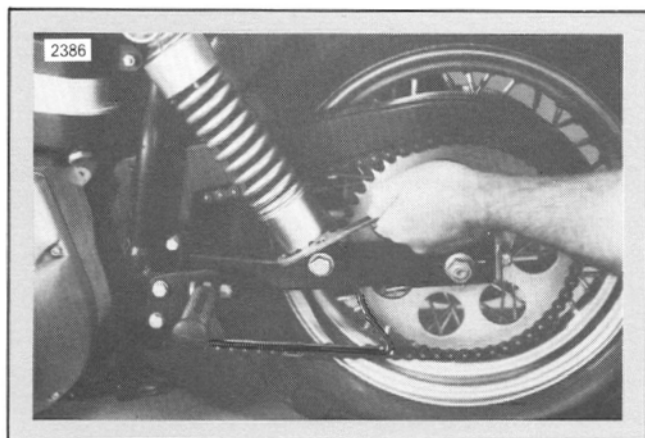


Figure 15. Rear Shock Absorber Spring Adjustment

WARNING

The FXST model features maintenance-free non-adjustable rear suspension. Components are set at the factory. Do not attempt to adjust these components!

CAUTION as it appears on decal located on each FXST shock absorber;

CAUTION

Contents are under pressure. Do not loosen or disconnect hose fittings. In case of loss of pressure or damage contact your Harley-Davidson dealer for repairs or replacement.

NOTES

WARNING

For your personal welfare, all the listed service and maintenance recommendations should be followed because they may affect the safe operation of your motorcycle.

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 driven its first 500 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 mentioned, 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 when convenient to do so.

WARNING

Stop the engine and support the motorcycle securely

before performing all service procedures. Service should be performed in an adequately lighted and ventilated work area using proper tools. When working on motorcycle, do not support motorcycle by placing supports under brake pedal. Damage to the brake system could occur causing possible malfunction and personal injury.

CHECK AT FIRST 500 MILES

1. Change engine oil.
2. Replace oil filter.
3. Clean tappet oil screen.
4. Change primary chaincase oil and clean magnetic drain plug.
5. Inspect air cleaner and service as required.
6. Check and adjust chains/belts.
7. Check battery electrolyte level: check and clean battery connections.
8. Check rear brake pedal adjustment and free play.
9. Inspect brake pad linings and discs for wear.
10. Check brake fluid level and condition.
11. Check clutch adjustment.
12. Inspect fuel valve, lines and fittings for leaks.
13. Inspect oil lines and brake system for leaks.
14. Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever

15. Grease the following: foot shift lever bearings*, seat bar bearings*, seat post*, rear fork pivot bearings (except FXST).
16. Check tightness of all fasteners.
17. Check tire pressure and inspect tread.
18. Check engine low and fast idle speed adjustment.
19. Check operation of throttle and choke controls.
20. Check operation of all electrical equipment and switches.
21. Check wheel spoke tightness.*
22. Lubricate rear chain if required.*
23. Change transmission oil and clean magnetic drain plug.
24. Clean fuel tank filter screen.
25. Check front and rear fork bearing adjustment.
26. Road test.

*If applicable to equipment

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.

The following items should be checked:

1. Tires for correct pressure, abrasions or cuts.
2. Chain/belt for proper tension and lubrication.
3. Brakes, steering and throttle for responsiveness.
4. Brake fluid level and condition. Hydraulic lines and fittings for leaks. Also, check brake pads and discs for wear.
5. Cables for fraying or crimping and free operation.
6. Engine oil, primary chaincase oil, and transmission fluid levels.
7. Wheel spoke tightness, if applicable.
8. Headlight, taillight and directional light operation.

REGULAR SERVICE INTERVALS

Regular lubrication and maintenance will help you keep your new Harley-Davidson operating at peak performance, and will give you lower operating costs, longer motorcycle life, and greater riding pleasure. Your Harley-Davidson dealer knows best how to service your motorcycle with factory approved methods and equipment assuring you of thorough and competent workmanship.

NOTE

The performance of regular service interval operations is required to keep your new motorcycle warranty in force. The use of other than Harley-Davidson approved parts and service procedures could void the warranty. Also, any alterations to the emission system components such as the carburetor and exhaust system may be in violation of federal and state law.

STORAGE

If your motorcycle will not be operated for several months, such as during the winter season, there are several things which should be done to protect parts against corrosion, preserve the battery and prevent the build-up of gum and varnish in the carburetor.

This information is in the OWNER'S MAINTENANCE GUIDE available through your local Harley-Davidson dealer.

WARNING

After extended periods of storage and prior to starting vehicle, place transmission in gear, disengage the clutch and push vehicle back and forth a few times to ensure proper clutch disengagement.

ENGINE LUBRICATION

General

Engine oil is a major factor in the performance and service life of the engine. Use the proper grade of oil for the lowest temperature expected before the next oil change as shown below. Your Harley-Davidson dealer has the proper grade oil to suit your requirements.

Use Harley-Davidson POWER BLEND SUPER PREMIUM OIL for normal and severe usage in air temperatures between 10° F. and 100° F plus. For other conditions, or if POWER BLEND SUPER PREMIUM is not available, use oils as shown in the chart below.

Air Temperature (Cold Engine Starting Conditions)	Use Harley-Davidson Oil Grade
10° to 100° F. plus Normal & severe operating conditions	Power Blend Super Premium
Below 40° F. Above 40° F. Above 60° F. Severe operating conditions at air temperatures Above 80° F.	Special Light Medium Heavy Regular Heavy Extra Heavy Grade 60

Regular Maintenance Intervals — FX

SERVICE TO BE PERFORMED	MILEAGE INTERVALS						
	Every 300	First 500	Every 2500	Every 5000	Every 7500	Every 10,000	Every Spring or Fall
Change engine oil		X	X	X	X	X	X
Replace oil filter		X	X	X	X	X	
Check tappet oil screen		X	X	X	X	X	
Change primary chaincase oil and clean magnetic drain plug		X		X		X	
Inspect air cleaner and service as required		X	X	X	X	X	
Check and adjust chains/belts		X	X	X	X	X	
Check battery electrolyte level; check and clean connections		X	X	X	X	X	
Check rear brake pedal adjustment and free play		X	X	X	X	X	
Check brake pad linings and discs for wear		X	X	X	X	X	X
Check brake fluid level and condition		X	X	X	X	X	
Check clutch adjustment		X	X	X	X	X	
Check primary chaincase oil level			X		X		X
Inspect fuel valve, lines and fittings for leaks		X	X	X	X	X	
Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever,		X	X	X	X	X	
Check tightness of all fasteners		X	X	X	X	X	
Check tire pressure and inspect tread		X	X	X	X	X	X
Check engine low and fast idle speed adjustment		X	X	X	X	X	
Check operation of throttle and choke controls		X	X	X	X	X	
Check operation of all electrical equipment and switches		X	X	X	X	X	
Inspect oil lines and brake system for leaks		X	X	X	X	X	

Regular Maintenance Intervals — FX (Cont'd)

SERVICE TO BE PERFORMED	MILEAGE INTERVALS						
	Every 300	First 500	Every 2500	Every 5000	Every 7500	Every 10,000	Every Spring or Fall
Lubricate rear chain if required*	X	X	X	X	X	X	
Check ignition timing and vacuum hose			X	X	X	X	
Check condition of spark plugs and replace if necessary			X		X		
Replace spark plugs				X		X	
Check transmission oil level			X		X		
Change transmission oil and clean magnetic drain plug		X		X		X	X
Check wheel spoke tightness*		X	X	X	X	X	
Clean fuel tank filter screen		X	X	X	X	X	
Check front and rear fork bearing adjustment		X		X		X	
Check condition of rear shock absorber rubber bushing				X		X	
Grease the following: foot shift lever bearing* rear fork pivot bearings*		X	X	X	X	X	
Lubricate throttle control grip sleeve and speedometer cable				X		X	
Change front fork oil				X		X	X
Repack wheel bearings with grease						X	
Road test		X	X	X	X	X	
Date Completed:							

*If applicable to equipment

CHECKING OIL LEVEL

Engine oil level should be checked only when engine is at normal operating temperature. Naturally, the engine will require a longer warm up period in colder weather. Preferably, the motorcycle should be driven for a few minutes to ensure oil is hot and normal operating oil pressure is achieved. When the above conditions are met, turn the engine off. Position motorcycle STRAIGHT UP and completely level. Locate the oil tank fill plug. It is a friction fit in the filler neck. Remove it by pulling straight out with a rocking or twisting motion. The plug has a dipstick attached to indicate oil level in the tank.

Wipe off dipstick and insert into tank with plug pushed completely into filler neck. Remove and note oil level. If oil level is down to or below lower mark on dipstick add only enough oil to bring level to upper mark on dipstick. Do not fill above upper mark on dipstick.

NOTE

On the FXST model, if oil level is down to or below lower mark on dipstick add only enough oil to bring level up to the bottom of rubber seal on fill plug. Do not fill above the bottom of rubber seal on fill plug.

Remove oil tank fill plug and check oil level whenever refueling gas tank.

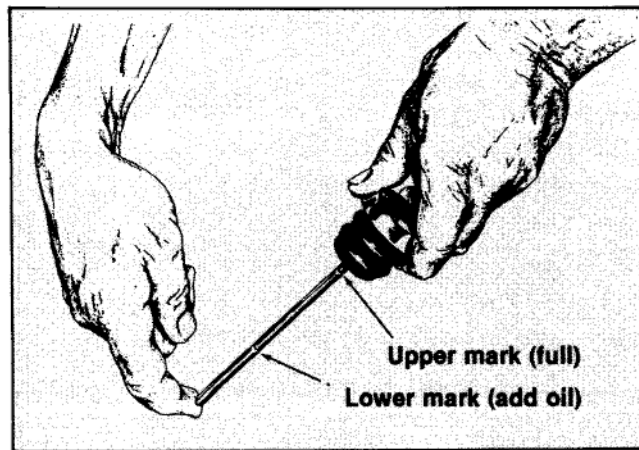


Figure 16. Engine Oil Level

CAUTION

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

CAUTION

Do not switch brands indiscriminately because some oils interact chemically when mixed. Use of inferior oils or non-detergent oils can damage the engine.

Oil should be changed after the first 500 miles for a new engine, and thereafter at about 2500 mile intervals in normal service at warm or moderate temperatures. Oil change intervals should be shorter in cold weather — see WINTER LUBRICATION. Completely drain oil tank of used oil and refill with fresh oil. If service is extremely hard or on dusty roads, drain and refill at shorter intervals. Draining should be done after a ride while oil is hot. It is not necessary to drain the crankcase as it does not accumulate used oil. At the time of the first 500 mile oil change, and at least every second oil change thereafter thoroughly flush and clean out tank to remove any sediment and sludge that may have accumulated. Your dealer has facilities for quick flushing and cleaning of oil tank.

CAUTION

When draining and refilling the oil tank or transmission, be careful that dirt and debris do not enter case or oil tank. Do not allow draining oil on rear wheel, tire or brake components.

Oil Filter

Oil filter is located underneath the motorcycle, behind the transmission. FXST model has oil filter located above the voltage regulator. Replace oil filter whenever changing oil.

Completely drain oil tank before removing oil filter. Clean filter gasket contact surface on mounting plate. Surface should be smooth and free of any debris or old gasket material. Apply a thin film of oil to gasket contact surface on mounting plate and to gasket on new oil filter.

Screw filter onto adapter until gasket contacts plate surface. Apply another 1/2 to 3/4 of a turn by hand.

WARNING

Do not allow draining oil on tire when changing the filter.

Tappet Oil Filter Screen

Overhead and tappet oil filter screen (1, Figure 17) is located in crankcase above oil pump. Unscrew slotted plug, remove and clean or replace screen. Closed end of screen faces top.

Primary Chaincase Magnetic Drain Plug

The primary chaincase magnetic drain plug is located at bottom of the primary housing at the rear. Unscrew plug and remove foreign material from end of plug. This should be done when primary chaincase oil is changed initially at 500 miles and every 5000 miles thereafter.

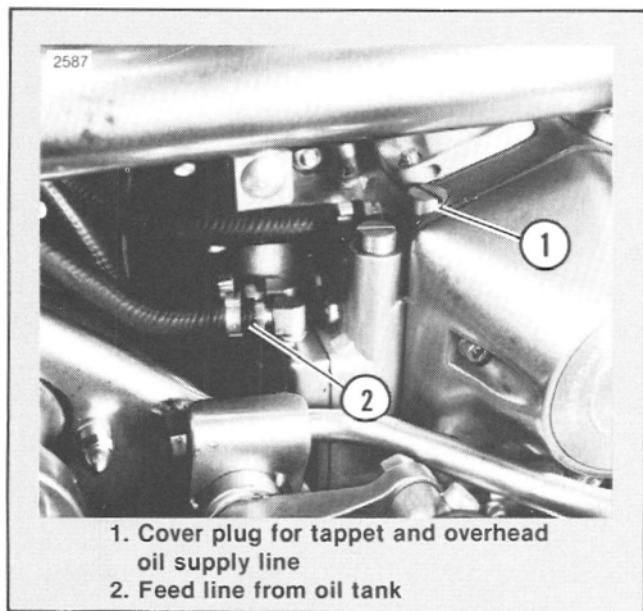


Figure 17. Tappet Oil Filter Screen

Winter Lubrication

Combustion in any engine generates water vapor. When starting and warming up in cold weather, much of the vapor condenses to water on relatively cool metal sur-

faces. If engine is driven enough to get the crankcase thoroughly warmed up, most of this water is again vaporized and blown out through the breather. However, a moderately driven engine, making only short runs now and then and seldom being thoroughly warmed up, is likely to accumulate an increasing amount of water in the oil tank. This water will, in freezing weather, become slush or ice and if allowed to accumulate too long, will block oil lines and damage the engine. Also, water mixed with oil for some time forms sludge that is harmful to the engine and causes undue wear of various working parts. Therefore, winter oil change interval should be shorter than normal for all engines, and any engine used only for short runs, particularly in commercial service, must have oil changed frequently along with a thorough tank flush-out to remove any water and sludge, before new oil is put in tank. The farther below freezing the temperature drops, the shorter the oil change interval should be.

TRANSMISSION LUBRICATION

Use Harley-Davidson TRANSMISSION LUBRICANT, Part No. 99892-84. Remove transmission oil filler plug.

Check oil level every month or every 2500 miles, whichever comes first. Add lubricant if necessary and fill to level of the filler opening or level plug opening. The transmission lubricant capacity is approximately 1½ pts. The motorcycle should be standing STRAIGHT UP, not leaning on jiffy stand, when adding lubricant to transmission. Drain transmission and refill to correct level with fresh, clean lubricant after the first 500 miles, and thereafter seasonally or every 5000 miles, whichever comes first. If transmission should become submerged in water, drain immediately and refill to proper level.

The transmission drain plug is located on the rear face of the transmission at the lower right side. When reinstalling the drain plug, tighten it to 7 ft-lbs torque.

CAUTION

Do not overtighten drain plug. When draining and refilling the transmission, be careful that dirt and debris does not get into the case. Do not allow draining oil to get on rear wheel or tire.

PRIMARY CHAINCASE LUBRICATION

The 1340cc models feature a wet type "Diaphragm - Spring

Clutch". This clutch design incorporates easier hand lever pull along with improved performance and durability.

The primary chaincase is totally enclosed with its own oil bath.

Lubrication is a major factor in the performance and service life of the new clutch components. Use Harley-Davidson PRIMARY CHAINCASE LUBRICANT, Part No. 99887-84 for all operating temperatures.

Chaincase oil should be changed initially at 500 miles and every 5000 miles thereafter. Chaincase capacity is 1-1/2 quarts.

PRIMARY CHAINCASE OIL LEVEL

1. Position motorcycle STRAIGHT UP and level.
2. Remove screws and nylon washers that secure clutch inspection cover.
3. Remove clutch inspection cover carefully, to avoid damaging o-ring or finish on cover.
4. Primary chaincase oil should be level with bottom of clutch spring slot openings or level with bottom of clutch inspection opening.

NOTE

Clutch adjustment can be checked at this point. Refer to the Owner's Maintenance Guide or applicable Service Manual.

CAUTION

Replace o-ring if damaged or not seating properly to avoid oil leakage.

5. Replace clutch inspection cover and secure with screws and new nylon washers. Tighten to 4-6 ft-lbs torque. Do not overtighten.

CAUTION

When draining or refilling with oil, do not allow dirt or debris to enter chaincase. Do not allow draining oil on rear wheel, tire, or brake components.

NOTE

Whenever draining chaincase oil, inspect and clean chaincase magnetic drain plug.

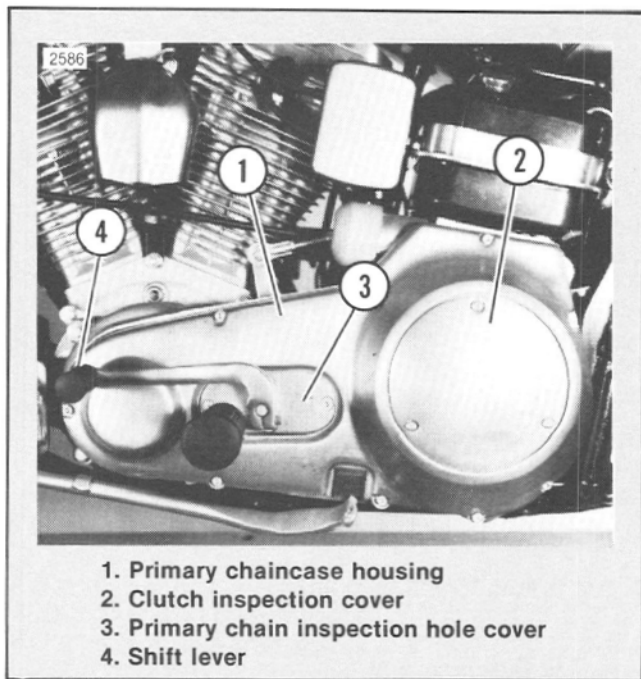


Figure 18. Primary Drive Housing

Check primary chaincase oil level and clutch adjustment every 2500 miles. We recommend your Harley-Davidson dealer perform these services for you.

WARNING

To avoid possible personal injury, **DO NOT** operate the motorcycle without the primary drive cover in place.

CHAINS

General

The adjustment of the front and rear chains should be checked after the first 500 miles and at 2500 mile intervals thereafter. Adjust the chains if necessary. If chains are allowed to run too loose they will cause the motorcycle to jerk when running at low speed, and both chains and sprocket will wear excessively.

Inspect chains occasionally for links in bad condition. If any are found, replacement of entire chain is recommended.

When the front chain adjustment is checked at 2500 mile intervals also check clutch adjustment and primary chaincase oil level.

Rear Chain Lubrication (FXEF/FXST)

Brush dirt off chain and lubricate at 300 mile intervals with Harley-Davidson CHAIN SPRAY or CHAIN LUBE PLUS if available; if not available, use engine oil.

If the motorcycle is operated under extremely dusty or dirty conditions, thorough cleaning and lubrication of the rear chain may be advisable from time to time.

Rear Chain Adjustment (FXEF/FXST)

A properly adjusted chain should have 1/2 in. to 5/8 in. (1-1/8 in. to 1-1/4 in. for FXST models) total free up and down movement midway between the transmission sprocket and the rear wheel sprocket.

1. Loosen axle nut on right side.
2. With the motorcycle upright and one rider sitting on it, turn the axle adjuster nuts on both sides of the rear wheel an equal amount of turns to keep the rear wheel in alignment. See Service Manual for correct REAR WHEEL ALIGNMENT.

CAUTION

Check rear wheel alignment. Wheel must run centrally in the swing arm.

3. With 1/2 in. to 5/8 in. (1-1/8 in. to 1-1/4 in. for FXST models) total free up and down movement established in chain midway between sprockets, tighten axle nut to 60-65 ft-lbs torque.
4. Check rear brake caliper position on rear brake disc. Disc should run true within brake caliper.

WARNING

Misalignment of rear wheel and/or brake caliper could cause rear brake disc to bind-up resulting in severe damage and/or personal injury.

SECONDARY DRIVE BELT (FXSB/FXWG)

The secondary belt inner tooth surface has a thin coating of polyethylene lubricant. During initial opera-

tion 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 should be checked after the first 500 miles and every 2500 miles thereafter.

See Figure 19. When 10 lbs. of force is applied at the mid-point of the belt's bottom strand, deflection should equal 5/8 in. to 3/4 in. with rear wheel on the ground, motorcycle upright and one rider sitting on it.

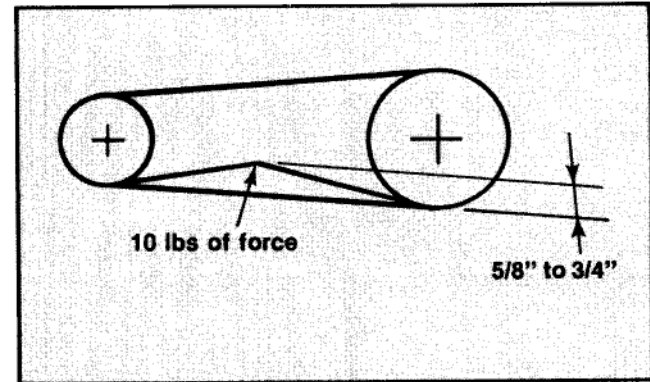


Figure 19. Belt Tension

NOTE

If the motorcycle is to be used under extreme load conditions the secondary belt deflection may be set to a minimum of 3/8 in.

CHASSIS LUBRICATION

NOTE

We recommend the following maintenance procedures be performed by your Harley-Davidson dealer or any other qualified service outlet or individual.

Greasing

1. Use wheel bearing grease for steering head bearings and wheel bearings. Use a multi-purpose chassis grease for other applications.
2. Use a hand grease gun to avoid overgreasing. Excess grease can damage oil seals and produces a messy condition.

3. Remove and coat handlebar throttle control grip sleeve with graphite every 5000 miles, or when operation indicates lubrication is necessary.
4. Remove and coat speedometer drive cable with a graphite-based lubricant every 5000 miles.
5. When greasing the rear fork pivot bearing housing at the fitting, apply a very small quantity of grease (one stroke of grease gun) to fitting at 2000 mile intervals with hand grease gun.

CAUTION

Do not over-grease.

NOTE

The FXST model features maintenance-free rear fork pivot bearings which are permanently lubed. See your Harley-Davidson dealer for service or repairs.

Oil Applications

All control connections and parts as indicated in the

REGULAR MAINTENANCE INTERVAL CHART should be oiled regularly, particularly after washing motorcycle or driving in wet weather.

Front Fork Oil

The front fork oil should be drained and refilled once annually. If fork does not appear to be working properly, or an appreciable amount of oil leakage should develop, attention should be given by an authorized Harley-Davidson dealer.

The oil specified for your motorcycle is available at your Harley-Davidson dealer.

If fork should at any time become submerged in water, drain and refill immediately.

SPARK PLUGS

The spark plugs should be inspected every 2500 miles. Spark plugs should be replaced every 5000 miles.

Disconnect spark plug cables from plugs by pulling on the molded connector caps. Connector is the simple snap-on type.

CAUTION

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

Before installing spark plugs, the gap should be checked and adjusted if necessary to 0.038 to 0.043 in.

Be sure that your motorcycle has the correct spark plug, which is the Harley-Davidson No. 5R6A.

CAUTION

Spark plugs must be tightened to 18-22 ft-lbs torque for proper heat transfer. If a torque wrench is not available, tighten plugs finger tight and tighten an additional one quarter turn with a spark plug wrench.

See Service Manual for complete spark plug service instructions.

CARBURETOR

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

Carburetor controls include throttle, choke and low/high idle speed adjusting screws. Operation should be checked and adjusted after the first 500 miles and every 2500 miles thereafter.

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

CAUTION

Operation at higher altitudes (approximately 4000 ft. elevation) may require carburetor modifications for best engine performance. A high altitude carburetor kit, which provides leaner fuel/air mixtures, is available from your Harley-Davidson dealer.

AIR CLEANER

Carburetor air cleaner is equipped with a plastic foam air filter element which is oil saturated.

Remove air cleaner cover and inspect filter element at least every 2500 miles, or more often under dusty condi-

tions. The need for servicing is indicated by the appearance of the outside surface of the filter. Filter should be cleaned and re-oiled if a film of dirt has built up covering the surface pores, or if light spots show on the surface which means that dust is drying out the oil. A dirty, dark appearance is normal, as long as pores in the filter remain open and covered with an oil film.

1. To clean filter, remove it from screen and wash it in a non-flammable petroleum solvent or detergent and water and allow to dry thoroughly.
2. Evenly apply 1 to 1½ tablespoons of engine oil to the filter element with an atomizer or work that amount of oil into the filter element by hand. There should be no excess.
3. Replace element on screen so that three grooves are toward screen, and re-install on engine.

Caution

Do not run engine without filter element in place.

GASOLINE STRAINER

A screen type gasoline strainer is located on top of the gasoline supply valve inside the gasoline tank (see Figure 10). Check the fuel valve, lines and fittings for leakage as part of the pre-ride inspection. Screen should be cleaned at 2500 mile intervals. See your Harley-Davidson dealer for service.

IGNITION TIMING

Ignition timing is preset at the factory. Spark timing is advanced electronically as engine speed increases to suit starting, low speed and high speed requirements.

Ignition timing should be checked every 2500 miles. If ignition timing is not correct, your Harley-Davidson dealer can provide the necessary services for timing your motorcycle.

HYDRAULIC TAPPETS

Tappets are self-adjusting, hydraulic type. They automatically adjust length to compensate for engine expansion and valve mechanism wear, and thus keep the valve mechanism free of lash when the engine is running.

When starting an engine which has been shut off even for a few minutes, the valve mechanism may tend to be slightly noisy until the hydraulic units completely refill with oil. If at any time, other than for a short period immediately after engine is started, valve mechanism becomes abnormally noisy, it is an indication that one or more of the hydraulic units may not be functioning properly. Always check the lubricating oil supply in the oil tank first if the valve mechanism is noisy, since normal circulation of oil through the engine is necessary for proper operation of the hydraulic units. If there is oil

in the tank, the units may not be functioning properly due to dirt in the oil supply passages leading to the lifter units. Tappet oil supply filter screen (1, Figure 17) may require cleaning. Drive at moderate speed to the nearest Harley-Davidson dealer for further attention.

WHEEL BEARINGS

Front and rear wheels have tapered roller bearings with lip type seals to prevent entry of dirt and water. Bearings should be repacked at 10,000 mile intervals, or yearly if operated in winter weather. Use wheel bearing grease and new seals. Excessive looseness or roughness with correct bearing adjustment when wheel is turned, indicates worn bearings and they will require replacement. Wheel bearing end play is .004-.018 in. with front axle nut tightened to 50 ft-lbs torque and rear axle nut tightened to 60-65 ft-lbs torque. Bearing and sleeve replacement should be performed by your Harley-Davidson dealer to ensure proper bearing end play.

BRAKES

WARNING

Because brake performance is a critical safety item, brake system servicing requires special tools, correct replacement parts and procedures. We recommend that any service procedures be performed by a qualified Harley-Davidson mechanic.

Every 2500 miles, check fluid level in front brake master cylinder and rear brake fluid reservoir. Check brake pad linings and brake discs for wear. Also check all hydraulic lines, connections and calipers for leaks. Use only DOT 5 HYDRAULIC BRAKE FLUID which is approved for use in hydraulic brake systems.

WARNING

Brake fluid causes eye irritation. Avoid eye contact. In case of eye contact, flush eyes with plenty of water and obtain medical attention. KEEP BRAKE FLUID OUT OF THE REACH OF CHILDREN.

WARNING

Brake pads must be inspected for wear every 2500 miles. Failure to replace pads when necessary could result in brake malfunction and personal injury. However, if you ride under adverse conditions, steep hills, heavy traffic, etc., or if you tend to use the rear brake only, more frequent inspection at 1000 miles or less will be necessary. We do not recommend using the rear brake only.

Visual inspection of brake pads can be made without removing the caliper by viewing the lower rear area of each caliper with the aid of a flashlight. See Figure 20. Always replace brake pads in pairs. If this routine maintenance is ignored, loss in braking performance and brake system component damage could occur.

The rear brake outer pad on all models can be measured from the caliper bracket side using a 6 in. rule. Place the rule against the brake disc through the notch in the bracket. See Figure 21. The outer surface of the brake pad backing plate should measure $\frac{1}{4}$ in. or more away from the brake disc. **If it measures less than $\frac{1}{4}$ in., replace both brake pads immediately.**

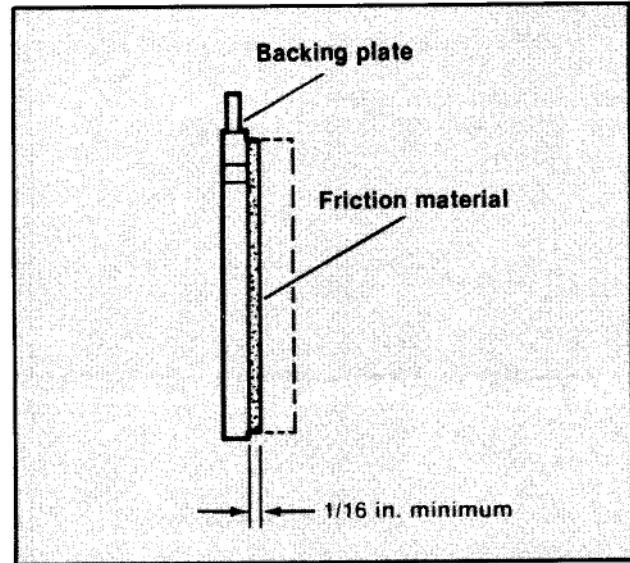


Figure 20. Brake Pad — Side View

NOTE

This $\frac{1}{4}$ in. dimension includes the thickness of the backing plate plus minimum $\frac{1}{16}$ in. for friction material.

TIRES

Care should be taken to keep tires properly inflated. See TIRE DATA in SPECIFICATIONS section for correct cold tire inflation pressures. Check before riding when tires are cold. Do not overinflate tires.

WARNING

Improper tire inflation will cause abnormal tread wear and could result in unstable handling. Under-inflation could result in the tire slipping on the rim.

Check inflation pressure and inspect tread for punctures, cuts, breaks, etc., at least weekly if in daily use; or before trips, if used occasionally.

WARNING

Riding with excessively worn, unbalanced or improperly inflated tires is hazardous and will adversely affect traction, steering and handling. Same as original equipment tires must be used. Other tires will not fit correctly and may be hazardous to use.

Rim bands must be used on tube type spoked wheels but are not required on tubeless type cast wheels.

WARNING

Because tires, tubes, air valves and wheels are critical

safety items, and servicing of these items requires special tools and skills, we recommend you see your dealer for these services.

FRONT AND REAR FORK BEARING (Except FXST)

Check front and rear fork for proper bearing adjustment at 500 miles and every 5000 miles thereafter. With front end of motorcycle raised off the floor, make sure front fork turns freely without any binding or interference and that there is no appreciable front to rear fork shake indicating excessive bearing looseness. Steering head bearings should be adjusted if necessary according to Service Manual procedure.

With rear end of motorcycle raised off the floor, check rear fork for side to side play. If there is appreciable rear fork shake indicating excessive looseness, the bearing adjustment should be checked according to the Service Manual procedure. The FXST model features maintenance-free rear fork pivot bearings. See your Harley-Davidson dealer for service or repairs.

WARNING

Adjustment of front and rear fork bearings is critical. Improperly adjusted bearings will adversely affect motor-

cycle handling and stability. It is recommended that fork bearing adjustments be performed by your Harley-Davidson dealer.

BATTERY

It is the care given a battery, rather than the time and miles of service, which is most important in determining its life.

Inspect the level of the battery solution at least once a week during motorcycle operation, adding pure distilled water as often as necessary to keep the solution above the plates. Check the battery solution level after the first 500 miles and every 5000 miles thereafter, or once every Spring. If the motorcycle is not used for an extended period of time, check solution level before placing in service.

On FXST model, the battery is located underneath the seat.

Remove the battery cover and filler plugs. With a hydrometer or syringe, add water to each cell to raise level of solution between upper and lower level limits shown on battery. Motorcycle should be in an upright position to check the solution level.

Clean connections and check tightness every 1250 miles.

CAUTION

If battery is filled to a higher level than specified, some of the solution will be forced out through the vent tube when battery is charging. This will not only weaken the solution, but also may damage parts near the battery. Keep battery clean and lightly coat terminals with petroleum jelly to prevent corrosion. Do not overtighten terminal connections. To prevent battery case damage caused by pressure build-up, be sure vent tube is properly routed and not kinked or obstructed.

WARNING

Batteries contain sulfuric acid which can cause severe burns. Avoid contact with skin, eyes or clothing.

ANTIDOTE

External — flush with water.

Internal — Drink large quantities of water followed by milk of magnesia, vegetable oil, or beaten eggs. Call doctor immediately.

WARNING

Batteries produce explosive hydrogen gas at all times — especially when being charged. Keep cigarettes,

open flame, and sparks away from the battery at all times. Ventilate area when charging battery. Always protect hands and protect eyes with shield or goggles when working near a battery or acid. KEEP BATTERIES AND ACID OUT OF THE REACH OF CHILDREN!

ALTERNATOR CHARGING RATE AND CONTROL MODULE

The alternator output is controlled and changed to direct current by the control module located at the front of the engine. The regulator increases charging rate when battery is low or lamps are lighted, decreases charging rate when no lamps are lighted and when battery charge is up. This unit requires no interval attention. Should any electrical system trouble be experienced that might be traceable to the alternator or control module, the motorcycle should be taken to your Harley-Davidson dealer who has the necessary electrical testing equipment to give required attention.

CIRCUIT BREAKERS

To protect the motorcycle wiring, there are four circuit breakers: main, lighting, accessory, and ignition.

Each of these breakers is self-resetting and auto-

matically returns steady power to the circuit when an electrical fault that causes it to trip is found and corrected. If the electrical fault is not found and corrected, the breaker cycles on and off causing the motorcycle to operate erratically and eventually the battery will lose its charge.

For electrical problems, it is best to see your Harley-Davidson dealer who has necessary parts and equipment to perform electrical services.

CLUTCH

The need for attention to clutch and controls will also be indicated by the clutch slipping under load, or dragging in released position. In any case, the first thing to be checked is the adjustment of controls. See your Harley-Davidson dealer for proper servicing.

WARNING

After extended periods of storage and prior to starting vehicle, place transmission in gear, disengage clutch and push vehicle back and forth a few times to ensure proper clutch disengagement.

ADJUSTING CLUTCH CABLE (Figure 22 and 23)

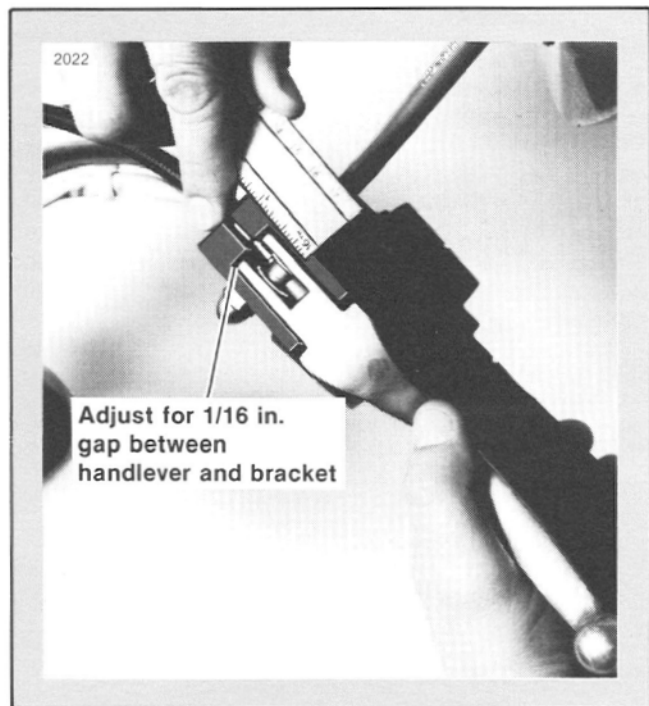


Figure 22. Adjusting Clutch Free Play

The clutch hand lever should have approximately 1/16 in. free play before disengaging the clutch.

1. Loosen the adjusting sleeve locknut (2) and cable clip nut (3).
2. Turn threaded sleeve (1) out for less free play or in for more free play.

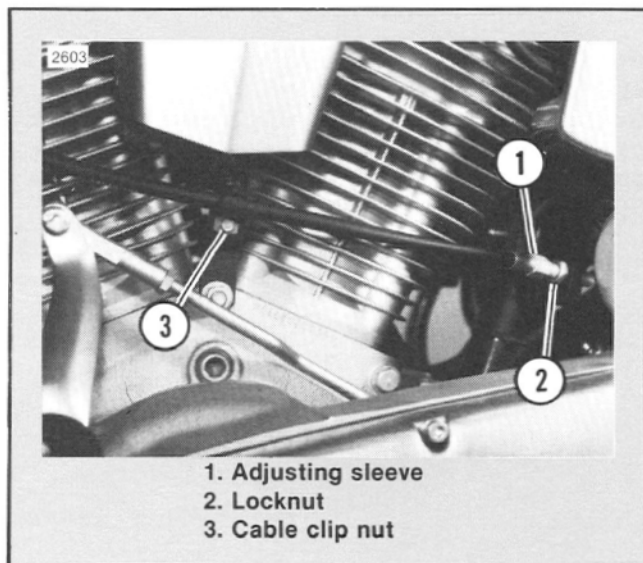


Figure 23. Clutch Cable Adjustment

3. With proper free play established, hold adjusting sleeve (1) to prevent movement and tighten locknut (2) securely.
4. Tighten cable clip nut securely.

CAUTION

Not maintaining the proper clutch hand lever free play of 1/16 in. could cause clutch slippage and premature wear of clutch components. Excessive free play may cause vehicle to move forward due to improper disengagement of clutch.

NOTE

If clutch still does not operate properly after adjusting the clutch cable, see your Harley-Davidson dealer for proper servicing.

GENERAL MAINTENANCE

Chrome and aluminum parts must be maintained regularly to ensure that they retain their original shine and luster. Several of these service procedures are outlined in the OWNER'S MAINTENANCE GUIDE. Care should be taken to keep your new Harley-Davidson motorcycle waxed and clean as often as possible to inhibit rust and corrosion.

BULB CHART

The bulb chart, below, gives the location and bulb requirements for your Harley-Davidson motorcycle.

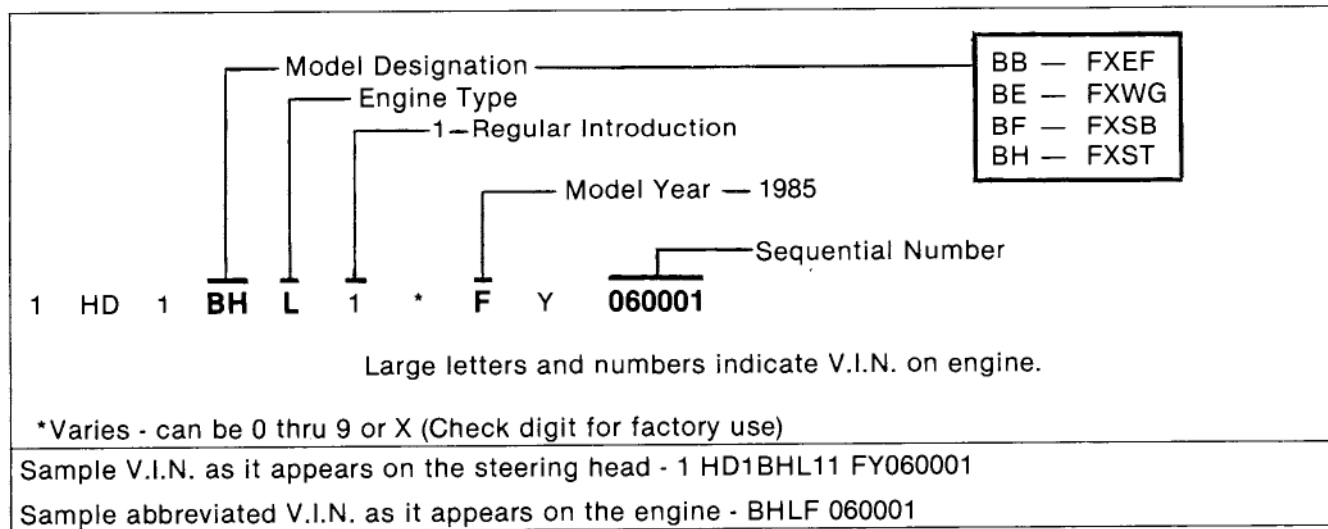
LAMP DESCRIPTION	NO. OF BULBS REQUIRED	CURRENT DRAW	HARLEY-DAVIDSON PART NUMBER
HEADLIGHT	1	3.9/2.73 Amps/50/35 Watts	67698-81A
TAIL & STOP LIGHT Tail Lamp Stop Lamp	1	.59 Amps/ 3 C.P. 2.1 Amps/32 C.P.	68165-64
TURN SIGNAL	4	2.1 Amps/32 C.P.	68572-64A
INSTRUMENT LIGHTS Speedometer Lamp	1	.27 Amps/ 2 C.P.	71090-64
Tachometer Lamp	1	.12 Amps/ 1 C.P.	71099-74
High Beam Indicator	1	.27 Amps/ 2 C.P.	68462-64 (FXWG/FXST) 71092-68A (FXEF/FXSB)
Neutral Indicator	1	.27 Amps/ 2 C.P.	68462-64 (FXWG/FXST) 67851-75 (FXEF/FXSB)
Oil Pressure Signal	1	.27 Amps/ 2 C.P.	68462-64 (FXWG/FXST) 68536-75 (FXEF/FXSB)

VEHICLE IDENTIFICATION NUMBER (V.I.N.)

The full 17 digit serial, or Vehicle Identification Number (V.I.N.) is stamped on the steering head and on a label located on the right front frame downtube. An abbreviated V.I.N. is stamped on the left side crankcase at base of front cylinder.

NOTE

Always give one of these numbers when ordering parts or making any inquiry about your motorcycle.



NOTES

SPECIFICATIONS

DIMENSIONS (in.)

	FXEF	FXSB	FXWG	FXST
Wheel Base	63.0	63.5	65.0	66.3
Overall Length	91.5	92.0	93.0	94.3
Overall Width	33.75	29.0	27.5	29.0
Overall Height	45.75	41.75	47.0	47.0
Saddle Height	26.6	27.0	25.75	26.12
Ground Clearance . .	5.12	5.75	6.0	5.12

WEIGHT (lbs.)

	FXEF	FXWG/ FXSB	FXST
Dry Weights (as shipped from factory)	572	572	618
GVWR	1085	1085	1085
GAWR-front	390	390	390
GAWR-rear	695	695	695

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 front frame downtube.

CAPACITIES

Fuel Tank	
FXEF	Total 4.2 Gallons (US)
	Reserve 1 Gallon (US)
FXSB	Total 4.2 Gallons (US)
	Reserve 1 Gallon (US)
FXWG/FXST	Total 5.2 Gallons (US)
	Reserve 1.2 Gallons (US)
Oil Tank	Except FXST 4 Quarts (US)
	FXST 3 Quarts (US)
Primary Chaincase	1.5 Quarts (US)
Transmission	1.5 Pints (US)

TIRE DATA

MODEL	RECOMMENDED TIRE		TIRE PRESSURE ALL LOADS UP TO GAWR	
	FRONT	REAR	FRONT	REAR
			(psi)	(psi)
FXEF, FXSB	Dunlop K181 MJ90-19	Dunlop K181 MT90-16	30	32 - solo 32 - with passenger
FXWG, FXST	Dunlop Rib MH90-21	Dunlop K181 MT90-16	30	32 - solo 32 - with passenger
		Dunlop K101A MT90-16	30	28 - solo 36 - with passenger

WARNING

For your personal safety, know your loaded vehicle weight. Exceeding your GROSS AXLE WEIGHT RATING could cause premature tire wear and/or tire failure.

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 front frame downtube.

WARNING

Maximum inflation pressure must not exceed specification located on tire sidewall.

WARNING

For your own personal safety, tires, tubes, and air valves must be 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, causing tire failure. In addition, using tires or tubes other than those specified may adversely affect motorcycle stability. Use only tube type tires on all Harley-Davidson laced (wire spoked) wheels and tubeless type tires on all Harley-Davidson cast wheels. Protective rubber strips must be used on laced (wire spoked) wheels. See your dealer for correct tires and tubes.

GASOLINE

Use a good quality leaded or unleaded gasoline (89 pump octane or higher).

“Pump Octane” is the octane number usually shown on the gas pump.

The engine in this vehicle has been designed specifically to achieve optimum fuel economy within exhaust emission controls. Ignition characteristics have been developed to provide maximum engine performance and driveability.

The ignition control unit uses a two-stage curve, and in certain transient light load conditions, as the throttle is opened, the initiation of the spark changes from normal to fully advanced. At this point, the operator may detect a slight noise which is caused by the rapid pressure rise within the combustion chamber as the spark advances rapidly. This noise should not be confused with detonation, which can be relieved by the use of a higher grade of fuel, but is simply a mechanical response to the instantaneous rapid pressure rise. This noise is not detrimental to the performance of the engine.

CALIFORNIA EVAPORATIVE EMISSION CONTROL

All new 1985 Harley-Davidson motorcycles sold in the state of California are equipped with an evaporative emission control system. This system is designed to meet the CARB regulations in effect at the time of manufacture.

The system requires a small amount of maintenance. Periodic inspection is required to make sure hoses are properly routed, not kinked or blocked, and that all fittings are secure. Mounting hardware should also be checked periodically for tightness.

Kits are available through authorized Harley-Davidson dealers to convert non-California vehicles to California specifications. If this need should arise, see your local California Harley-Davidson dealer for details.

WARNING

Do not overfill fuel tank. Leave at least one inch air space to allow for fuel expansion. Expansion can cause an overfilled tank to overflow gasoline.

STOPPING DISTANCE

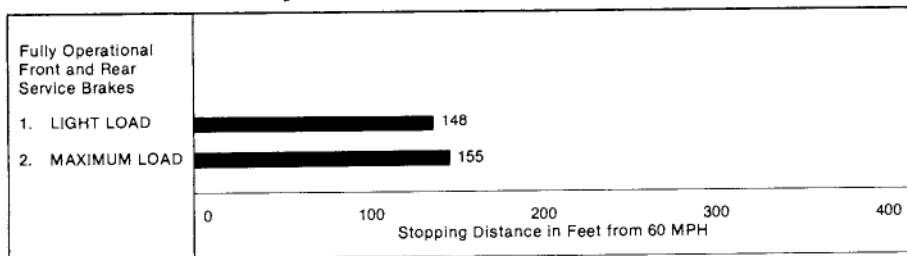
Required by Federal Motor Vehicle Safety Regulation 575.101.

This figure indicates braking performance that can be met or exceeded by the vehicle to which it applies,

without locking the wheels, under different conditions of loading.

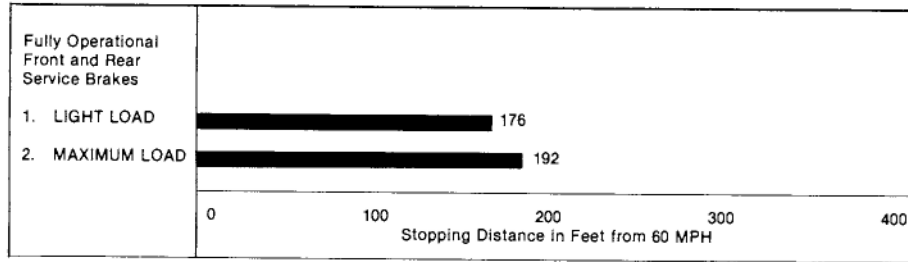
Notice: The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

Harley-Davidson 1985 FXEF/FXSB



1. Light Load Vehicle Weight includes 200 lb. driver - no accessories.
2. Maximum Loaded Vehicle Weight includes 300 lb. driver and passenger load plus full accessory equipment.

Harley-Davidson 1985 FXWG/FXST



1. Light Load Vehicle Weight includes
200 lb. driver - no accessories.
2. Maximum Loaded Vehicle Weight includes
300 lb. driver and passenger
load plus full accessory equipment.

NOTES

OWNER'S IDENTIFICATION CARD

A permanent Owner's Identification Card is issued to each Harley-Davidson new motorcycle owner when we receive the completed warranty registration form.

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.

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, we recommend that you contact your Harley-Davidson dealer for assistance.

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 serviced.

Starting with the 500 and 1250 mile maintenance intervals, all of the specified maintenance services must be performed to keep your warranty in force. Dealer charges for the recommended service procedures are nominal — you will be repaid with long, trouble-free service and will protect your investment in a quality Harley-Davidson product.

Bring this Owner's Manual along 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.

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 performance and handling, and could cause an accident with possible injury to yourself or others. Also, removing factory installed standard parts may affect performance and cause an injury. The use of any non-standard parts including mufflers may void your warranty according to terms of the warranty.

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.

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

4. 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.

Harley-Davidson Dealers are independently owned and operated and may sell parts and accessories other than 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 you move from your present address, or sell your motorcycle, please fill out and mail the post card at the back of this manual. This will ensure that you receive all consumer related service information.

WARRANTY/SERVICE INFORMATION

Your selling dealer is responsible for providing the war-

warranty repair work on your motorcycle. Should you move from your present address, travel a long distance or require emergency warranty repair work, the warranty repair work may be performed by any authorized Harley-Davidson dealer. (Consult your Limited Warranty for complete details.)

For normal service work or warranty work under the above conditions, you may obtain the name and location of your nearest Harley-Davidson dealer by calling 1-800-558-2001 (toll free) in any state except Wisconsin, Alaska, and Hawaii. In Wisconsin call 1-800-242-3102 (toll free). Service is 24 hours a day, 365 days per year.

SERVICE LITERATURE

For further technical information the following publications are available through your Harley-Davidson dealer. Order by part numbers below:

Publication	Part No.
Owner's Maintenance Guide	99952-85
Service Manual	99482-85
FX Models Parts Catalog	99455-85

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 Motor Co., 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 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 CO., INC., Milwaukee, Wisconsin 53201 U.S.A.

HARLEY-DAVIDSON LIMITED WARRANTY

(12 MONTHS/UNLIMITED MILEAGE)

Harley-Davidson warrants to the first retail purchaser and his authorized transferees of our new 1985 model motorcycles/sidecars that our Selling 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

1. The duration of this limited warranty is twelve months, measured from the date of initial retail purchase from an authorized Harley-Davidson Selling Dealer, with no mileage limitation.
2. Any unexpired portion of this limited warranty may be transferred, with written authorization, upon the resale of the motorcycle/sidecar during the first 12 months of ownership. To obtain authorization, a transfer application must be filed with Harley-Davidson together with a fee of \$25.00 to cover administrative costs, and the motorcycle/sidecar must pass inspection by one of our participating 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

1. 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.
2. To obtain warranty service, return your motorcycle/sidecar at your expense within the warranty period to the Selling Dealer, or to any other authorized Dealer if you have moved a long distance, are touring a long distance, or need emergency service. 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 his normal business hours and as soon as possible, depending upon his service department's workload and the availability of necessary parts.

EXCLUSIONS

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

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

OTHER LIMITATIONS

This warranty does **not** cover:

1. 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 tune-up, spark plugs, brake, clutch and chain/belt adjustment (including chain replacement).
2. Seats, saddlebags, paint, chrome, or trim deterioration caused by ordinary wear and tear, exposure or improper maintenance.
3. Motorcycle battery after the first 6 months following the date of original retail motorcycle purchase, however, if your battery is found to be defective, within the terms of this limited warranty, between

the seventh through twelfth months, you will be charged for the full cost of our dealer's installation labor and for the cost of the battery's replacement, on a pro-rated basis. (See your dealer for complete details.)

IMPORTANT/READ CAREFULLY

1. Our Dealers are independently owned and operated and may sell other products. Because of this, HARLEY-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.
2. THERE IS NO OTHER EXPRESS WARRANTY (OTHER THAN EMISSIONS AND NOISE WARRANTIES) ON THE MOTORCYCLE, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS IS LIMITED TO THE DURATION OF THIS WARRANTY.
3. TO THE FULLEST EXTENT ALLOWED BY LAW, HARLEY-DAVIDSON AND ITS DEALERS SHALL NOT BE LIABLE FOR LOSS OF USE, INCONVENIENCE, 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.

99919-84

HARLEY-DAVIDSON MOTOR CO., INC.
LIMITED WARRANTY TRANSFER FORM

(PLEASE PRINT)

VEHICLE IDENTIFICATION NUMBER

--

DEALERSHIP

NUMBER
NAME
ADDRESS
CITY STATE ZIP

PURCHASER

FIRST	INITIAL	LAST
NAME		
ADDRESS		
CITY	STATE	ZIP

WARRANTY EXPIRATION DATE
 WILL BE 12 MONTHS FROM INITIAL
 RETAIL PURCHASE DATE

INSPECTION PERFORMED BY
 TRANSFER DEALER ON:

M	D	YR	

WARRANTY TRANSFER INSTRUCTIONS:To validate the warranty transfer, the following items **must** be complied with:

- The prior purchaser must provide proof that required scheduled maintenance services have been performed. In the event they have not, it is the responsibility of the customer to have the next scheduled maintenance service performed or any other required work at his expense.
- The vehicle must be inspected by an authorized Harley-Davidson Dealer to determine its condition. If any of the conditions, listed under Exclusions in the Limited Warranty exist, the Warranty is **not** transferable.
- The Limited Warranty Transfer Form must be completed and forwarded to Harley-Davidson Motor Co., Inc. by the dealer along with the \$25.00 Transfer Fee. Upon receipt of this form the purchaser will receive a Owner-Warranty Identification Card.

--

PURCHASER SIGNATURE

DATE

--

DEALER SIGNATURE

DATE

NOTE: ATTACH \$25.00 TRANSFER FEE TO THIS FORM

HARLEY-DAVIDSON USE ONLY
TRANSFER
FEE RECEIVED:

COPY 1 — Harley-Davidson

(Warranty Transfer Forms are available from any authorized Harley-Davidson Dealer.)

HARLEY-DAVIDSON NOISE CONTROL SYSTEM WARRANTY

(APPLIES TO VEHICLES MANUFACTURED JAN. 1, 1983 AND LATER)

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

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

NOTES

500 MILE
(800 km)
MAINTENANCE

Date

Mileage

Dealer (or other) Signature

OWNER RECORD

500 MILE
(800 km)
MAINTENANCE

You 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 paid for by me, the owner. I also authorize you to road test this motorcycle for proper operation.

Owner's Signature

VIN

Date _____ **Mileage** _____

DEALER RECORD

500 MILE MAINTENANCE

1. Change engine oil.
2. Replace oil filter.
3. Clean tappet oil screen.
4. Change primary chaincase oil and clean magnetic drain plug.
5. Inspect air cleaner and service as required.
6. Check and adjust chains/belts.
7. Check battery electrolyte level. Check and clean battery connections.
8. Check rear brake pedal adjustment and free play.
9. Inspect brake pad linings and discs for wear.
10. Check brake fluid level and condition.
11. Check clutch adjustment.
12. Inspect fuel valve, lines and fittings for leaks.
13. Inspect oil lines and brake system for leaks.
14. Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever
15. Grease the following: foot shift lever bearings*, rear fork pivot bearings.*
16. Check tightness of all fasteners.
17. Check tire pressure and inspect tread.
18. Check engine low and fast idle speed adjustment.
19. Check operation of throttle and choke controls.
20. Check operation of all electrical equipment and switches.
21. Check wheel spoke tightness.*
22. Lubricate rear chain if required.*
23. Change transmission oil and clean magnetic drain plug.
24. Clean fuel tank filter screen.
25. Check front and rear fork bearing adjustment.
26. Road test.

*If applicable to equipment.

500 MILE MAINTENANCE

1. Change engine oil.
2. Replace oil filter.
3. Clean tappet oil screen.
4. Change primary chaincase oil and clean magnetic drain plug.
5. Inspect air cleaner and service as required.
6. Check and adjust chains/belts.
7. Check battery electrolyte level. Check and clean battery connections.
8. Check rear brake pedal adjustment and free play.
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17. Check tire pressure and inspect tread.
18. Check engine low and fast idle speed adjustment.
19. Check operation of throttle and choke controls.
20. Check operation of all electrical equipment and switches.
21. Check wheel spoke tightness.*
22. Lubricate rear chain if required.*
23. Change transmission oil and clean magnetic drain plug.
24. Clean fuel tank filter screen.
25. Check front and rear fork bearing adjustment.
26. Road test.

*If applicable to equipment.

2500 MILE
(4000 km)
MAINTENANCE

Date

Mileage

Dealer (or other) Signature

OWNER RECORD

2500 MILE
(4000 km)
MAINTENANCE

You 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 paid for by me, the owner. I also authorize you to road test this motorcycle for proper operation.

Owner's Signature

VIN

Date _____ **Mileage** _____

DEALER RECORD

2500 MILE MAINTENANCE

1. Change engine oil.
2. Replace oil filter.
3. Clean tappet oil screen.
4. Check primary chaincase oil level.
5. Inspect air cleaner and service as required.
6. Check and adjust chains/belts.
7. Check battery electrolyte level; check and clean battery connections.
8. Check rear brake pedal adjustment and free play.
9. Inspect brake pad linings and discs for wear.
10. Check brake fluid level and condition.
11. Check clutch adjustment.
12. Inspect fuel valve, lines and fittings for leaks.
13. Inspect oil lines and brake system for leaks.
14. Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever
15. Grease the following: foot shift lever bearings*, rear fork pivot bearings*.
16. Check tightness of all fasteners.
17. Check tire pressure and inspect tread.
18. Check engine low and fast idle speed adjustment.
19. Check operation of throttle and choke controls.
20. Check operation of all electrical equipment and switches.
21. Check wheel spoke tightness.*
22. Lubricate chain if required.*
23. Clean fuel tank filter screen.
24. Check ignition timing and vacuum hose.
25. Check transmission oil level.
26. Check condition of spark plugs and replace as necessary.
27. Road test.

*If applicable to equipment.

2500 MILE MAINTENANCE

1. Change engine oil.
2. Replace oil filter.
3. Clean tappet oil screen.
4. Check primary chaincase oil level.
5. Inspect air cleaner and service as required.
6. Check and adjust chains/belts.
7. Check battery electrolyte level; check and clean battery connections.
8. Check rear brake pedal adjustment and free play.
9. Inspect brake pad linings and discs for wear.
10. Check brake fluid level and condition.
11. Check clutch adjustment.
12. Inspect fuel valve, lines and fittings for leaks.
13. Inspect oil lines and brake system for leaks.
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16. Check tightness of all fasteners.
17. Check tire pressure and inspect tread.
18. Check engine low and fast idle speed adjustment.
19. Check operation of throttle and choke controls.
20. Check operation of all electrical equipment and switches.
21. Check wheel spoke tightness.*
22. Lubricate chain if required.*
23. Clean fuel tank filter screen.
24. Check ignition timing and vacuum hose.
25. Check transmission oil level.
26. Check condition of spark plugs and replace as necessary.
27. Road test.

*If applicable to equipment.

5000 MILE
(8000 km)
MAINTENANCE

Date

Mileage

Dealer (or other) Signature

OWNER RECORD

5000 MILE
(8000 km)
MAINTENANCE

You 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 paid for by me, the owner. I also authorize you to road test this motorcycle for proper operation.

Owner's Signature

VIN

Date _____ **Mileage** _____

DEALER RECORD

5000 MILE MAINTENANCE

- 1. Change engine oil.
- 2. Replace oil filter.
- 3. Clean tappet oil screen.
- 4. Change primary chaincase oil and clean magnetic drain plug.
- 5. Inspect air cleaner and service as required.
- 6. Check and adjust chains/belts.
- 7. Check battery electrolyte level; check and clean battery connections.
- 8. Check rear brake pedal adjustment and free play.
- 9. Inspect brake pad linings and discs for wear.
- 10. Check brake fluid level and condition.
- 11. Check clutch adjustment.
- 12. Inspect fuel valve, lines and fittings for leaks.
- 13. Inspect oil lines and brake system for leaks.
- 14. Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever
- 15. Grease the following: foot shift lever bearings*, rear fork pivot bearings*, throttle control grip sleeve, speedometer cable.
- 16. Check tightness of all fasteners.
- 17. Check tire pressure and inspect tread.
- 18. Check engine low and fast idle speed adjustment.
- 19. Check operation of throttle and choke controls.
- 20. Check operation of all electrical equipment and switches.
- 21. Check wheel spoke tightness.*
- 22. Lubricate rear chain if required.*
- 23. Clean fuel tank filter screen.
- 24. Check front and rear fork bearing adjustment.
- 25. Check ignition timing and vacuum hose.
- 26. Change transmission oil and clean the magnetic drain plug.
- 27. Change spark plugs.
- 28. Check condition of rear shock absorber rubber bushing.
- 29. Change front fork oil.
- 30. Road test.

*If applicable to equipment.

5000 MILE MAINTENANCE

- 1. Change engine oil.
- 2. Replace oil filter.
- 3. Clean tappet oil screen.
- 4. Change primary chaincase oil and clean magnetic drain plug.
- 5. Inspect air cleaner and service as required.
- 6. Check and adjust chains/belts.
- 7. Check battery electrolyte level; check and clean battery connections.
- 8. Check rear brake pedal adjustment and free play.
- 9. Inspect brake pad linings and discs for wear.
- 10. Check brake fluid level and condition.
- 11. Check clutch adjustment.
- 12. Inspect fuel valve, lines and fittings for leaks.
- 13. Inspect oil lines and brake system for leaks.
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- 16. Check tightness of all fasteners.
- 17. Check tire pressure and inspect tread.
- 18. Check engine low and fast idle speed adjustment.
- 19. Check operation of throttle and choke controls.
- 20. Check operation of all electrical equipment and switches.
- 21. Check wheel spoke tightness.*
- 22. Lubricate rear chain if required.*
- 23. Clean fuel tank filter screen.
- 24. Check front and rear fork bearing adjustment.
- 25. Check ignition timing and vacuum hose.
- 26. Change transmission oil and clean the magnetic drain plug.
- 27. Change spark plugs.
- 28. Check condition of rear shock absorber rubber bushing.
- 29. Change front fork oil.
- 30. Road test.

*If applicable to equipment.

7500 MILE
(12000 km)
MAINTENANCE

Date

Mileage

Dealer (or other) Signature

OWNER RECORD

7500 MILE
(12000 km)
MAINTENANCE

You 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 paid for by me, the owner. I also authorize you to road test this motorcycle for proper operation.

Owner's Signature

VIN

Date _____ **Mileage** _____

DEALER RECORD

7500 MILE MAINTENANCE

- 1. Change engine oil.
- 2. Replace oil filter.
- 3. Clean tappet oil screen.
- 4. Check primary chaincase oil level.
- 5. Inspect air cleaner and service as required.
- 6. Check and adjust chains/belts.
- 7. Check battery electrolyte level; check and clean battery connections.
- 8. Check rear brake pedal adjustment and free play.
- 9. Inspect brake pad linings and discs for wear.
- 10. Check brake fluid level and condition.
- 11. Check clutch adjustment.
- 12. Inspect fuel valve, lines and fittings for leaks.
- 13. Inspect oil lines and brake system for leaks.
- 14. Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever,
- 15. Grease the following: foot shift lever bearings*, rear fork pivot bearings*
- 16. Check tightness of all fasteners.
- 17. Check tire pressure and inspect tread.
- 18. Check engine low and fast idle speed adjustment.
- 19. Check operation of throttle and choke controls.
- 20. Check operation of all electrical equipment and switches.
- 21. Check wheel spoke tightness.*
- 22. Lubricate rear chain if required.*
- 23. Clean fuel tank filter screen.
- 24. Check ignition timing and vacuum hose.
- 25. Check transmission oil level.
- 26. Check condition of spark plugs and replace as necessary.
- 27. Road test.

*If applicable to equipment.

7500 MILE MAINTENANCE

- 1. Change engine oil.
- 2. Replace oil filter.
- 3. Clean tappet oil screen.
- 4. Check primary chaincase oil level.
- 5. Inspect air cleaner and service as required.
- 6. Check and adjust chains/belts.
- 7. Check battery electrolyte level; check and clean battery connections.
- 8. Check rear brake pedal adjustment and free play.
- 9. Inspect brake pad linings and discs for wear.
- 10. Check brake fluid level and condition.
- 11. Check clutch adjustment.
- 12. Inspect fuel valve, lines and fittings for leaks.
- 13. Inspect oil lines and brake system for leaks.
- 14. Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever.
- 15. Grease the following: foot shift lever bearings*, rear fork pivot bearings*
- 16. Check tightness of all fasteners.
- 17. Check tire pressure and inspect tread.
- 18. Check engine low and fast idle speed adjustment.
- 19. Check operation of throttle and choke controls.
- 20. Check operation of all electrical equipment and switches.
- 21. Check wheel spoke tightness.*
- 22. Lubricate rear chain if required.*
- 23. Clean fuel tank filter screen.
- 24. Check ignition timing and vacuum hose.
- 25. Check transmission oil level.
- 26. Check condition of spark plugs and replace as necessary.
- 27. Road test.

*If applicable to equipment.

10,000 MILE
(16,000 km)
MAINTENANCE

Date

Mileage

Dealer (or other) Signature

OWNER RECORD

10,000 MILE
(16,000 km)
MAINTENANCE

You 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 paid for by me, the owner. I also authorize you to road test this motorcycle for proper operation.

Owner's Signature

VIN

Date _____ **Mileage** _____

DEALER RECORD

10,000 MILE MAINTENANCE

1. Change engine oil.
2. Replace oil filter.
3. Clean tappet oil screen
4. Change primary chaincase oil and clean magnetic drain plug.
5. Inspect air cleaner and service as required.
6. Check and adjust chains/belts.
7. Check battery electrolyte level; check and clean battery connections.
8. Check rear brake pedal adjustment and free play.
9. Inspect brake pad linings and discs for wear.
10. Check brake fluid level and condition.
11. Check clutch adjustment.
12. Inspect fuel valve, lines and fittings for leaks.
13. Inspect oil lines and brake system for leaks.
14. Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever.
15. Grease the following: foot shift lever bearings*, rear fork pivot bearings*, throttle control grip sleeve, speedometer cable.
16. Check tightness of all fasteners.
17. Check tire pressure and inspect tread.
18. Check engine low and fast idle speed adjustment.
19. Check operation of throttle and choke controls.
20. Check operation of all electrical equipment and switches.
21. Check wheel-spoke tightness.*
22. Lubricate rear chain if required.*.
23. Clean fuel tank filter screen.
24. Check front and rear fork bearing adjustment.
25. Check ignition timing and vacuum hose.
26. Change transmission oil and clean the magnetic drain plug.
27. Change spark plugs.
28. Check condition of rear shock absorber rubber bushing.
29. Repack wheel bearings with grease.
30. Change front fork oil.
31. Road test.

*If applicable to equipment.

10,000 MILE MAINTENANCE

1. Change engine oil.
2. Replace oil filter.
3. Clean tappet oil screen.
4. Change primary chaincase oil and clean magnetic drain plug.
5. Inspect air cleaner and service as required.
6. Check and adjust chains/belts.
7. Check battery electrolyte level; check and clean battery connections.
8. Check rear brake pedal adjustment and free play.
9. Inspect brake pad linings and discs for wear.
10. Check brake fluid level and condition.
11. Check clutch adjustment.
12. Inspect fuel valve, lines and fittings for leaks.
13. Inspect oil lines and brake system for leaks.
14. Lubricate the following: front brake handlever, throttle control cables, choke control cable, clutch control cable and handlever.
15. Grease the following: foot shift lever bearings*, rear fork pivot bearings*, throttle control grip sleeve, speedometer cable.
16. Check tightness of all fasteners.
17. Check tire pressure and inspect tread.
18. Check engine low and fast idle speed adjustment.
19. Check operation of throttle and choke controls.
20. Check operation of all electrical equipment and switches.
21. Check wheel spoke tightness.*
22. Lubricate rear chain if required.*.
23. Clean fuel tank filter screen.
24. Check front and rear fork bearing adjustment.
25. Check ignition timing and vacuum hose.
26. Change transmission oil and clean the magnetic drain plug.
27. Change spark plugs.
28. Check condition of rear shock absorber rubber bushing.
29. Repack wheel bearings with grease.
30. Change front fork oil.
31. Road test.

*If applicable to equipment.

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PATENT NOTICE

Harley-Davidson products are manufactured under one or more of the following patents: U.S. Patents — 2986162, 2987934, 2998809, 3116089, 3144831, 3144860, 3226994, 3229792, 3434887, 3559773, 3673359, 3709317, Des. 225,626.

To the best knowledge of Harley-Davidson Motor Co., Inc., the material contained herein is accurate as of the date this publication was approved for printing. Harley-Davidson Motor Co., Inc., reserves the right to change specifications, equipment, or designs at any time without notice and without incurring obligation.

HARLEY-DAVIDSON MOTOR CO., INC.



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Milwaukee, WI 53201