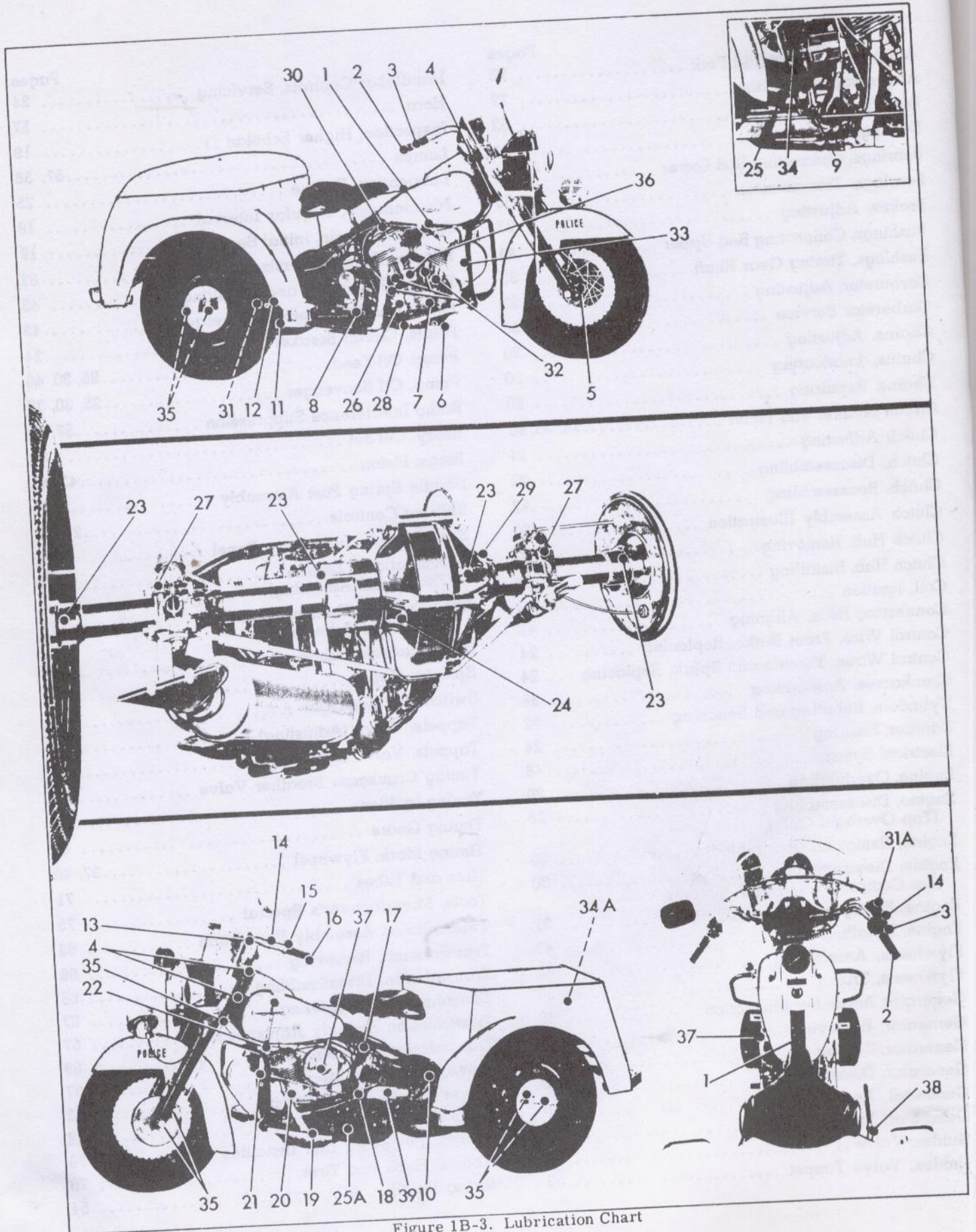


SERVICE MANUAL
1940-58 45" SV & SERVI-CAR

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REGULAR SERVICE INTERVALS

Regular lubrication and maintenance service should be performed at intervals indicated in accompanying table. For a more detailed description of service and maintenance procedures see sections of manual pertaining to Servi-Car maintenance attention.

REGULAR LUBRICATION AND SERVICE INTERVALS CHART

REGULAR SERVICE INTERVAL	FIG. 1B-3 INDEX NO.	GREASE	FIG. 1B-3 INDEX NO.	OIL	FIG. 1B-3 INDEX NO.	SERVICE
EVERY 1000 MILES				Rear Chain	37 34 27 28 31,31A 32 33 34,34A	Air Cleaner Battery Rear Chain Adjustment Rear Chain Oiler Hydraulic Brake Fluid Tappets Alternator Drive Belt Tension (1966 & Later) Battery
EVERY 2000 MILES	1 29 18 17 8 19 6 12 10 9 5 23 38	Saddle Bar Bearing Speedometer Drive Clutch Release Cable Housing Seat Post Clutch Push Rod Bearing Clutch Pedal Bearing Rear Brake Pedal Bearing Master Cylinder Lever Body Frame Bearings Starter Crank Bearing (1963 and earlier) Front Wheel Hub (2) (1966 & earlier) Rear Axle Bearings (4) Parking Brake Hand Lever	11 7 14 13 3 15 1 22 21 20	Rear Brake Rod Clevis Front Brake Rod Clevis Brake Hand Lever Front Brake Cable Throttle Control Cable Spark Control Cable (1963 and earlier) Saddle Bar Bearing Shifter Lever Bearing Shifter Rod Clevis Generator Bearing (1960 and earlier)	25 25A 26 36 30	Front Chain Adjustment 1963 & Earlier 1964 & Later Front Chain Oiler Circuit Breaker Spark Plugs
EVERY 5000 MILES OR 1 YEAR (whichever comes first)	2 16 24 20 36	Throttle Control Spiral Spark Control Spiral (1963 and earlier) Rear Axle Differential Generator Bearing (1961 to 1965) Circuit Breaker Cam			37 35	Service Air Cleaner Adjust Brakes Switch Tires Time Ignition Inspect Generator or Alternator

REGULAR LUBRICATION AND SERVICE INTERVALS CHART (Cont)

REGULAR SERVICE INTERVAL	FIG. 1B-3 INDEX NO.	GREASE	FIG 1B-3 INDEX NO.	OIL	FIG 1B-3 INDEX NO.	SERVICE
EVERY 10000 MILES OR YEARLY (if used for winter operation)	5	Front Wheel Hub (1967 & later)			39	Starter Motor
EVERY 50,000 MILES	4	Repack Steering Head Bearings				
WEEKLY					34 34A	Check Tires Check Battery 1963 & Earlier 1964 & Later

SERVICE INTERVAL ENGINE AND TRANSMISSION

	300 MILES	1000 MILES	2000 MILES	5000 MILES or 1 YEAR	SPRING AND FALL
ENGINE OIL	Check	Check	Change		Change
TRANSMISSION OIL		Check			Change

ENGINE AND TRANSMISSION LUBRICANTS

HARLEY-DAVIDSON OIL

Use proper grade of oil for the lowest temperature expected before next oil change period as follows:

Use Harley-Davidson Oil	Use Grade	Air Temperature (Cold Engine Starting Conditions)
Medium Heavy	75	Above 40° F.
Special Light	58	Below 40° F.
Regular Heavy	105	Severe operating conditions at high air temperatures.

HARLEY-DAVIDSON GREASE-ALL GREASE.

Use for all bearings on Servi-Car.

HARLEY-DAVIDSON CHAIN GREASE AND CHAIN SAVER.

Designed especially as a chain lubricant. Penetrates inner bearings for a long chain life.

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SERVI-CAR

SPECIFICATIONS

Model G (1963 and Earlier) With Towbar
 Model GA (1963 and Earlier) Less Towbar
 Model GE (1964 and Later) Electric Starting
 (Less Towbar)

DIMENSIONS

Wheel Base 61 in.
 Overall Length 100 in.
 Overall Width 48 in.

CAPACITIES

Fuel Tank 3.4 U.S. Gallons (approximate)
 Oil Tank 3-1/2 Quarts
 Transmission 3/4 Pint (approximate)

ENGINE

Model Designation Letter G or GE
 Number of Cylinders 2
 Type 45 Degree V Type
 Horsepower 21 H.P. at 4400 R.P.M.
 Taxable Horsepower 6.03
 Bore (69.67 mm) 2.745 in.
 Stroke (96.8 mm) 3.8125 in.
 Piston Displacement (742 cc) 45.28 cu. in.
 Torque 30 Lb.-Ft. at 2400 R.P.M.
 Compression Ratio 4.75 to 1

NOTE: The serial (V.I.N.) numbers of the Harley-Davidson Servi-Car are stamped on the right or left side of the engine crankcase and frame steering head. Always give these numbers when ordering parts or making an inquiry.

IGNITION SYSTEM

Spark Plugs - Heat Range for
 Average Use No. 3

TRANSMISSION

Type Constant Mesh
 Speeds 3 Speeds Forward, 1 Reverse

NUMBER OF SPROCKET TEETH

Engine 22
 Clutch 59
 Transmission 17
 Rear Wheel 37

GEAR RATIOS

First (Low) Gear 14.4 to 1
 Second Gear 9.7 to 1
 Third (High) Gear 5.85 to 1
 Reverse Gear 12.45 to 1

TIRE DATA

Tire Size
 1968 & earlier 5.00 x 16
 1969 & later 5.10 x 16
 Tire Pressure Front Rear
 1968 & earlier 12 lbs. 18 lbs.
 1969 & later 20 lbs. 24 lbs.

The tire inflation pressures given above are for Servi-Car with empty box and rider weighing 150 pounds. Pressures may be increased slightly for loaded box and heavier rider.

CAUTION: Use only 5.00/5.10 x 16 inner tubes with 5.10 x 16 size tires - 5.00 x 16 tube must not be used.

45 SIDE VALVE

Models and Compression Ratios

Model	Compression Ratio
WLD and WLDR—High compression	6 to 1
W—WL and G—Medium compression	4.75 to 1
Average developed power and R.P.M.—25 H.P. at 4600 R.P.M.	

NOTE—Medium compression model is recommended particularly for sidecar service, but is also entirely suitable for solo service. Gearing will, of course, have to be correct for either service (See "Gear Ratios"). Medium compression model motor also applies to Servi-Car.

License Data

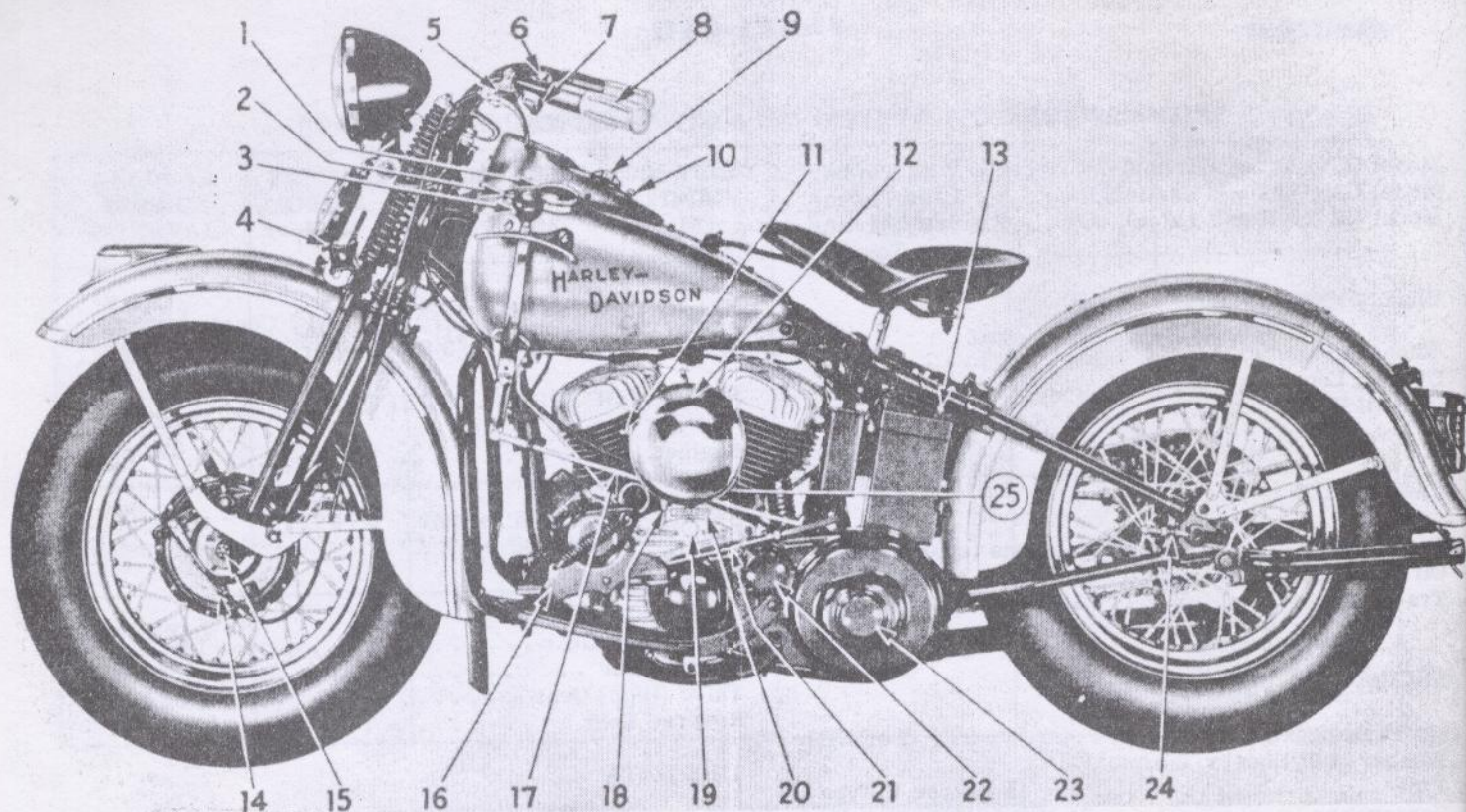
Number of cylinders	2
Cylinder bore (69.85 mm.)	2 3/4 inches
Piston displacement (739.46 c.c.)	45.12 cu. in.
Stroke (96.85 mm.)	3-13/16 inches
Horsepower (N.A.C.C. Rating)	6.05
Wheel Base	57 1/2 inches

Gear Ratios

	Motor Sprocket	Clutch Sprocket	Counter-shaft Sprocket	Rear Wheel Sprocket	High Gear Ratio
Solo (except WLDR)	31	59	17	41	4.59 to 1
WLDR	30	59	17	41	4.74 to 1
Sidecar	27	59	17	41	5.27 to 1
Servi-Car	22	59	17	37	5.84 to 1

Tire Inflation Pressures

Solo—4.00" tire—Front, 16 lbs.—Rear, 18 lbs.
 5.00" tire—Front, 12 lbs.—Rear, 14 lbs.
 These are pressures for average load and service. Raise slightly for extra passenger or maintained high speed solo riding.
 In Sidecar or Servi-Car service, raise pressure 2 lbs. or more per tire, depending on load. Pressure for Sidecar tire, same as rear tire.



Illus. 1—Left Side Description

1. Gas tank cap. Tank capacity 3 gallons. Use Ethyl or other "Anti-Knock" gasoline.

2. Gas shut-off and reserve supply valve plunger. Gas is shut off when plunger is turned down finger-tight against its seat; unscrew plunger (but do not lift it) to use main gas supply; lift plunger to use reserve supply of approximately 3 quarts.

Caution—Gas and oil tank caps are not interchangeable. Oil tank cap which is the shorter cap is not vented; using it on gas tank will vacuum-lock tank.

3. Gear shifter lever—positions marked. Must be at **neutral** and clutch engaged when starting motor. **Fully release** clutch before shifting.

4. Ride control (extra equipment). Applies friction and snubs fork action to prevent front end bouncing at higher speeds. For normal service adjust free; tighten (turn right) to desired friction, when running at high speeds.

5. Front wheel brake hand lever. See description No. 14.

6. Horn button.

7. Headlamp dimming switch.

8. Spark control grip—turn inward to advance spark; turn outward to retard spark. Fully advanced is the proper normal running position. When motor is laboring under a hard pull, retard part way for better performance and to avoid knocking. Some motors start best with slight retard.

9. Ignition-light switch and switch lock. Switch OFF in straight ahead position. Turn **left** for parking with lights (see wiring diagram concerning attaching front parking lamps). Turn to first **right** position for ignition only—second **right** position for ignition and running lights. Bear in mind that lighting headlamp when motor is dead also turns ignition ON.

Switch can be locked only in OFF and PARK positions. See "Instrument Panel Signal Lights."

10. Speedometer light switch.

11. Carburetor choke lever. Down position—choke open; Up position—full choke. See "Starting Motor."

12. Carburetor air cleaner (extra equipment). See "Air Cleaner."

13. Positive battery terminal. Keep clean and connection tight.

14. Front wheel brake control adjustment. Properly adjusted, hand lever will move freely about one-quarter of its full movement before brake starts to take effect. If adjusted tighter, brake may drag.

15. Front wheel axle nut. See "Removing Front Wheel."

16. Clutch footpedal. **Toe down**—clutch engaged; **heel down**—clutch released.

17. Gear shifter rod. After each re-adjustment of front chain also whenever any irregularity is noticed with shifting and positive engagement in different positions, check the adjustment of this rod and re-adjust as necessary.

To check and re-adjust, set shifter lever 3 at **neutral** position, disconnect shifter rod, and with slight back and forward movement carefully "feel" transmission lever into exact position where shifter spring plunger (inside transmission) seats fully in retaining notch. Next, see that lever 3 is at exact position, and then re-adjust length of rod to fit. It is advisable to repeat this check in **low** and **second** positions to be sure of having best all-around adjustment.

Shifter control must be kept in correct adjustment, otherwise driving dogs on shifting clutches inside transmission will not fully engage in the different positions, and are likely to become damaged from jumping out of engagement under driving load.

18. Gasoline strainer. Turn off lower end, remove screen, and clean and flush at least once a month, or oftener if the need for cleaning is indicated by irregular carburetion. See No. 25.

19. Timing inspection hole plug. To check ignition timing, reset circuit breaker assembly after it has been lifted out, follow the marks indicating original factory setting.

With front piston on **compression stroke** (directly after intake valve closes, turning motor ahead) and **flywheel mark** showing in the center of inspection hole (piston is 9/32 inch before center) the marks on circuit breaker head and breaker cam register as shown in circuit breaker illustration No. 3.

WLDR is timed 11/32 inch before top center. With flywheel mark halfway between back side and center of inspection hole follow procedure outlined above for correct ignition timing.

20. Motor or serial number. Always give this number when ordering parts or making any inquiry about your motorcycle.

21. Clutch footpedal cable. See "Adjusting Clutch Control." Check adjustment after each front chain re-adjustment.

22. Front chain inspection hole cover.

23. Clutch inspection hole cover.

24. Left side rear wheel adjusting screw. By means of this screw and a like screw on right side, rear wheel is moved to adjust rear chain. See "Adjusting Rear Chain."

25. Carburetor bowl drain plug. Remove plug, drain and clean bowl each time gasoline strainer No. 18 is serviced.

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