No. 647

April 10, 1973

1973 OILING SYSTEM /FL,FLH,FX-1200

This bulletin outlines changes incorporated in the oiling system of 1200 cc models for 1973. Preliminary information was given in a service letter dated October 20, 1972.

1973 models use a full-flow system (oil is unmetered to flywheel gearshaft passage). To accomplish this, changes were made to the oil pump, right crankcase, gearcase cover, pinion shaft cover bushing, and flywheel gearshaft. These parts are new and non-interchangeable with earlier parts, and carry 1973 part numbers as listed in the 1973 parts catalog supplement.

There are two basic 1973 oil pumps: Pumps on early 1973 engines manufactured up to January 1, 1973 put full oil pressure to the crankpin, and under cold start-up conditions, oil pressure through the pressure regulating valve could exceed 150 lbs. Late 1973 pumps, starting approximately January 1, 1973, have a piston type pressure relief valve replacing the ball type regulating valve. The relief valve now limits the system pressure to approximately 65 lbs. by dumping excess oil into the return line to the oil tank. Either pump (1973) will work on any 1973 1200 cc engine.

The following illustrations show the visual differences between the 1972 and early and late 1973 parts involved in the oiling system change and should be used as a guide in identifying parts. Arrows in illustrations point out areas of change.

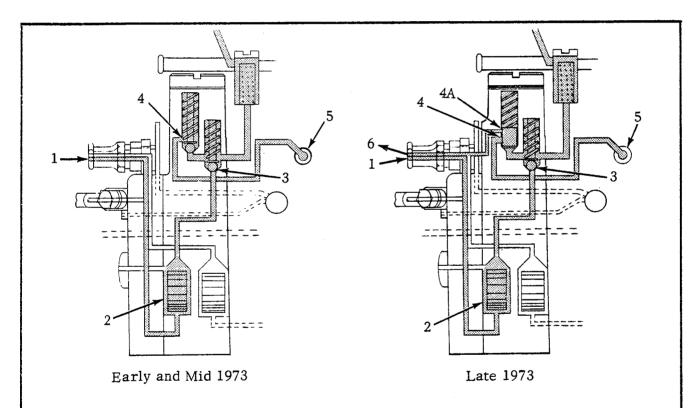
Precautions:

- Do not use 1972 and earlier oil pump on 1973 model engine. Do not use '73 1. pumps on '72 and earlier engine. Again, both early and late 1973 pumps will work on all 1973 model engines.
- 2. Do not use the 1972 and earlier gearcase cover gasket, 25225-70, on 1973 model engine. This will block oil passage, resulting in little or no oil to crankshaft and causes excessive oil pressure at other points. However, the new gasket, 25225-70A, is interchangeable and can be used on earlier models.
- Do not interchange 1970-72 gear case cover with 1973 cover. 3.

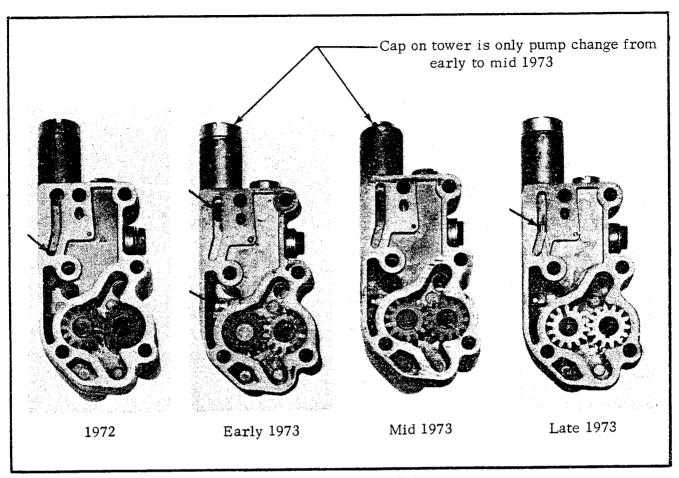
HARLEY-DAVIDSON MOTOR CO., INC.

CHANGED PARTS LIST

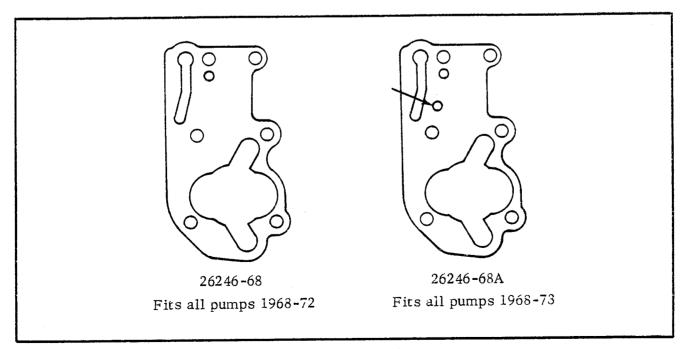
Part Name	1972	Early and Mid 1973	Late 1973
Oil Pump Assembly	26200-68B	26200-73	26200 - 73A
Oil Pump Cover	26232-68	26232-73	26234 - 73
Relief Valve Plunger	26400-54		26400-54
Relief Valve Ball		8866	
Relief Valve Spring	26374-54	26206-73	26207-73
Oil Pump Cover Gasket	26258 - 68	26258-68A	26258-68B
Oil Pump Body Gasket	26246-68	26246-68A	26246 - 68A
Right Crankcase	24 566 - 70	24566-7 3	24566-73
Gear Cover	25216-7 0	25216-73	25216-7 3
Cover Gasket	25225-7 0	25225-70A	25225-70A
Cover Pinion Shaft Bushing	25582-54	25582-73	25582-7 3
Pinion Shaft	24006-58	24006-73	24006-73



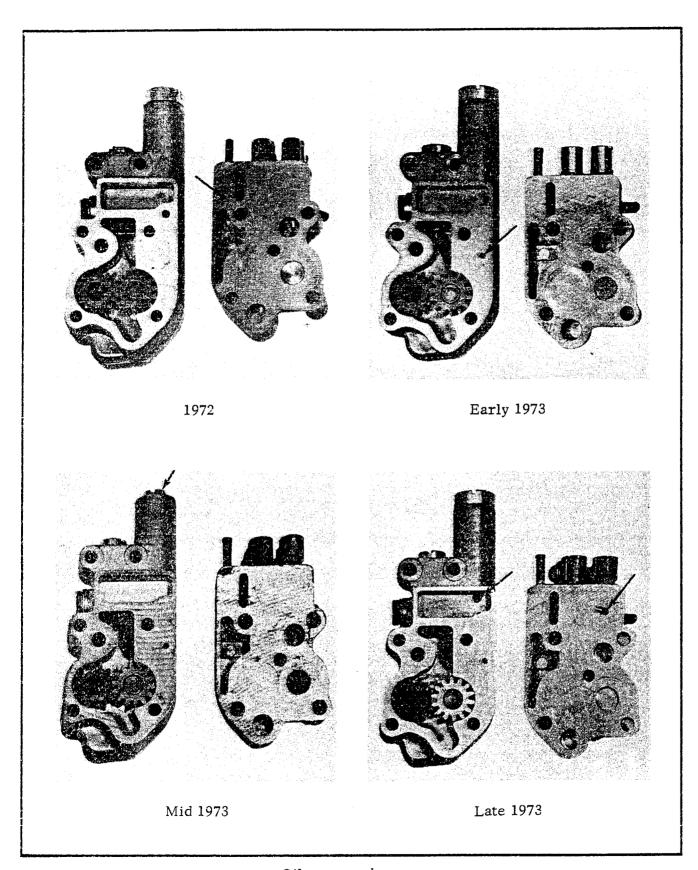
- 1. Gravity feed from oil tank to feed pump
- 2. Feed (pressure) section of pump
- 3. Check valve prevents gravity oil drainage from tank to engine. Oil discharges to overhead system and pressure regulating valve.
- 4. Pressure regulating valve maintains pressure in lifter system. In early and mid 1973 all remaining oil is fed to pinion gear shaft.
- 4A. Oil pressure relief valve. In late 1973 pump, oil is maintained at approximately 65 pounds pressure. Excess oil is fed directly back to oil tank.
- 5. Oil is forced through pinion shaft passage to lubricate engine lower end.
- 6. Oil return to tank



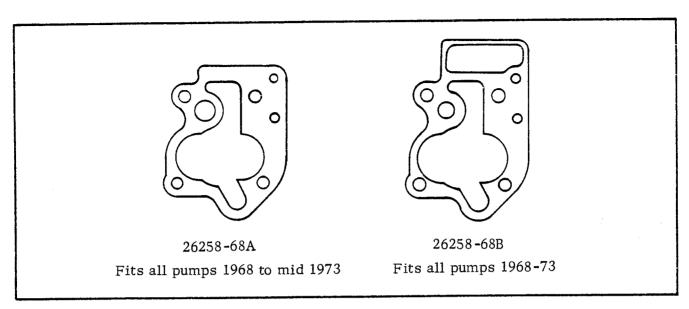
Oil Pump - Engine Side



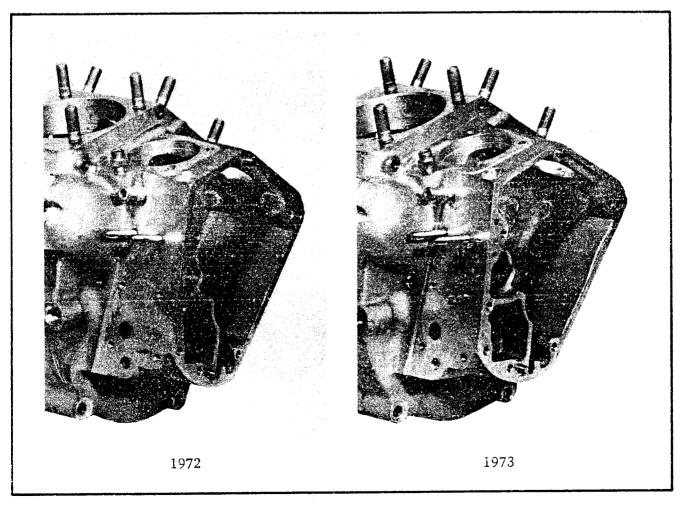
Oil Pump Body Gasket



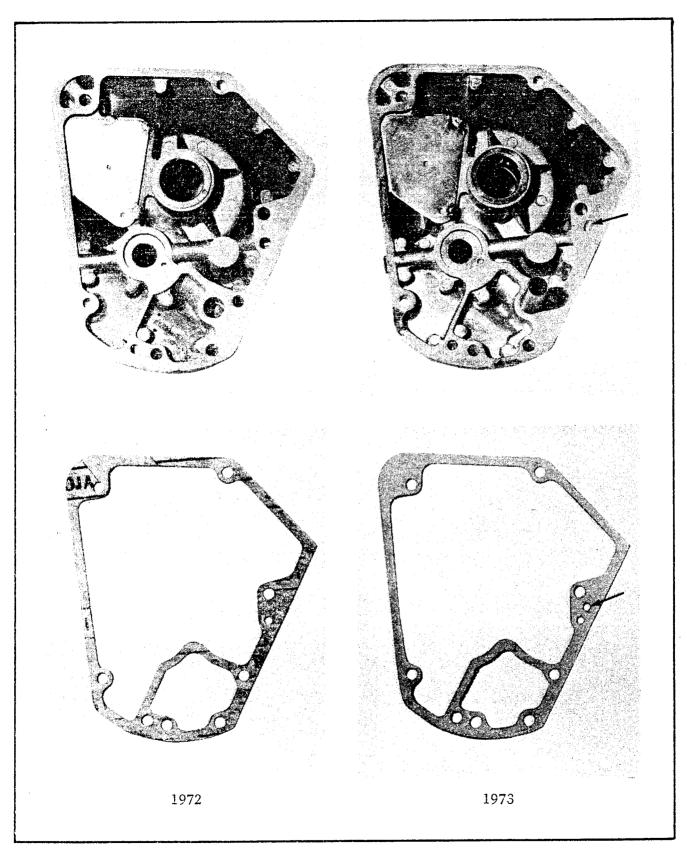
Oil pump and cover



Oil Pump Cover Gasket



Right Crankcase



Gearcase Cover and Gasket