SM-606
GPX 35/40/50E



CLARK Technical Publications
Lexington, KY
40508

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ENGINE LUBRICATION

Figures 5 and 6

Lubrication schematics are shown in figures 5 and 6. The gear type oil pump is driven from the distributor shaft, which is gear driven from the camshaft. Oil is drawn into the oil pump through a pickup screen and pipe.

Pressurized oil is routed to the oil filter. In case of excessive oil pressure, a bypass valve is provided. Filtered oil flows into the main gallery and then to the camshaft, balance shaft rear bearing, and crankshaft bearings.

The valve lifter oil gallery supplies oil to the valve lifters. Oil flows from the hydraulic lifters through the hollow pushrods to the rocker arms. Oil from overhead drains back to the crankcase through oil drain holes.

The timing chain is drip fed from the front camshaft bearing. The pistons and piston pins are lubricated by oil splash.

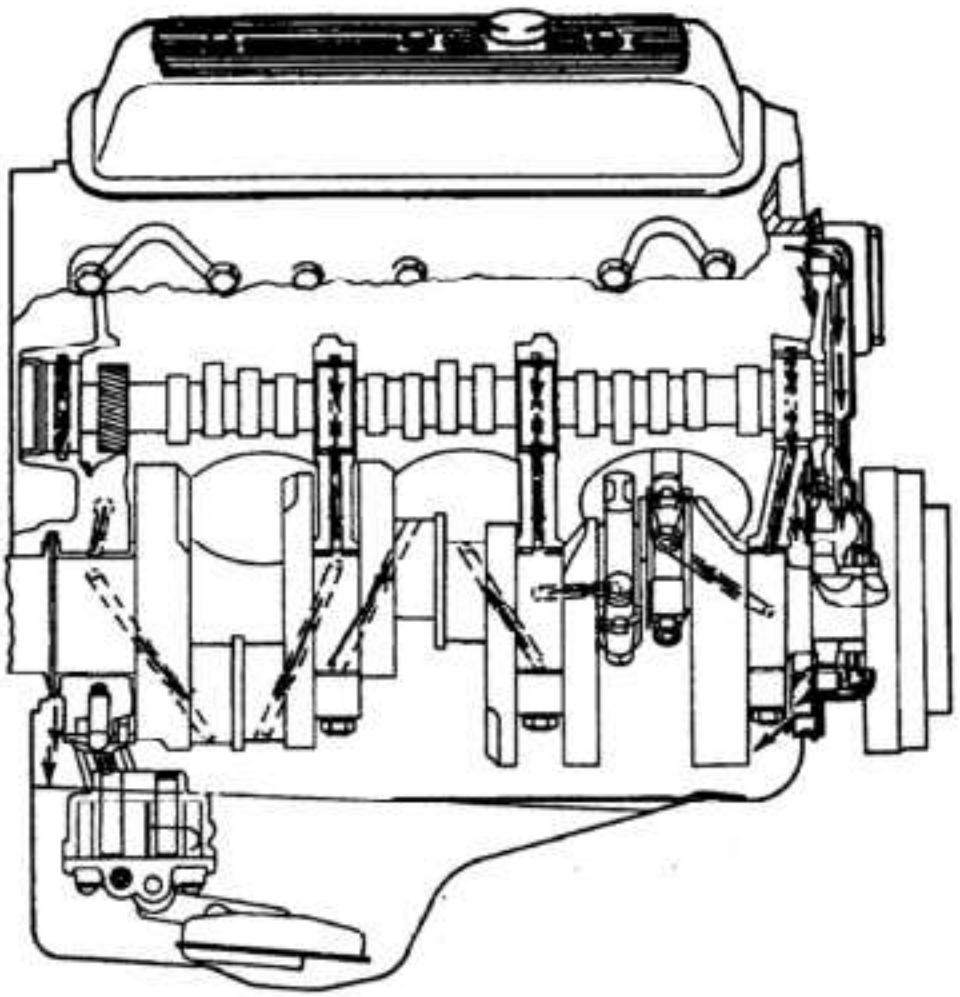


Figure 5 - Engine Lubrication Diagram

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Section 1. Troubleshooting

CONDITION	POSSIBLE CAUSE	SUGGESTED CORRECTION
No steering.	1. Hydraulic fluid level very low. 2. Hose broken. 3. Power steering pump defective. 4. Air in hydraulic oil.	1. Check fluid level. Fill as required. 2. Replace hose. 3. Repair or replace power steering pump. 4. Fix air leak in hydraulic system.
Hard steering.	1. Hydraulic fluid level very low. 2. Power steering pump defective. 3. Steering gear box defective. 4. Air in hydraulic oil.	1. Check fluid level. Fill as necessary. 2. Repair or replace power steering pump. 3. Repair or replace steering gear box. 4. Fix air leak in hydraulic system.
Wheels turn but requires effort.	1. Hydraulic fluid level low. 2. System leaking. 3. Incorrect tire pressure. 4. Lack of lubrication. 5. Air in hydraulic oil. 6. Malfunctioning, damaged, or worn priority demand valve (flow control valve).	1. Check fluid level. Fill as required. 2. Check for leaks. Repair as necessary. 3. Correct tire pressure. 4. Lubricate. 5. Fix air leak in hydraulic system. 6. Inspect, overhaul, or replace priority demand valve (flow control valve).

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DIAMETER IN INCHES	VERTICAL	CHOKER	BASKET	2 LEGS			3 LEGS			4 LEGS		
												
				*Total capacity with this Rig.			*Total capacity with this Rig.			*Total capacity with this Rig.		
	POUNDS			POUNDS			POUNDS			POUNDS		
1/4	2750	2050	5500	4750	3900	2750	5950	4850	3400	7150	5850	4150
3/8	6500	4850	13000	11300	9150	6500	14100	11500	8100	16900	13800	9800
1/2	11000	8250	22000	19100	15600	11000	23800	19400	13800	28600	23300	16500
5/8	16300	12200	32500	28100	23000	16300	35200	28700	20300	42200	34500	24400
3/4	22500	16900	45000	39000	31800	22500	48700	39800	28100	58500	47700	33800
7/8	29000	21800	58000	50200	41000	29000	62800	51300	36300	75300	61500	43500
1	38300	28700	76500	66200	54100	38300	82800	67600	47800	99400	81100	57400
1-1/4	57000	42800	114000	98700	80600	57000	123000	101000	71300	148000	121000	85500
1-1/2	78000	58500	156000	135000	110000	78000	169000	138000	97500	203000	165000	117000
1-3/4	104000	78000	208000	180000	147000	104000	225000	184000	130000	270000	221000	156000
2	129000	96800	258000	223000	182000	129000	279000	228000	161000	335000	274000	194000
2-1/4	161000	121000	322000	279000	228000	161000	349000	285000	201000	418000	341000	242000
				2 legs times vertical safe weight load times the sine of the angle.			2-1/2 legs times vertical safe weight load times the sine of the angle.			3 legs times vertical safe weight load times the sine of the angle.		
				Ref(A)	Ref(B)	Ref(C)	Ref(A)	Ref(B)	Ref(C)	Ref(A)	Ref(B)	Ref(C)
				60°	45°	30°	60°	45°	30°	60°	45°	30°

*These capacities are only this high when the load is equally distributed to each leg.

