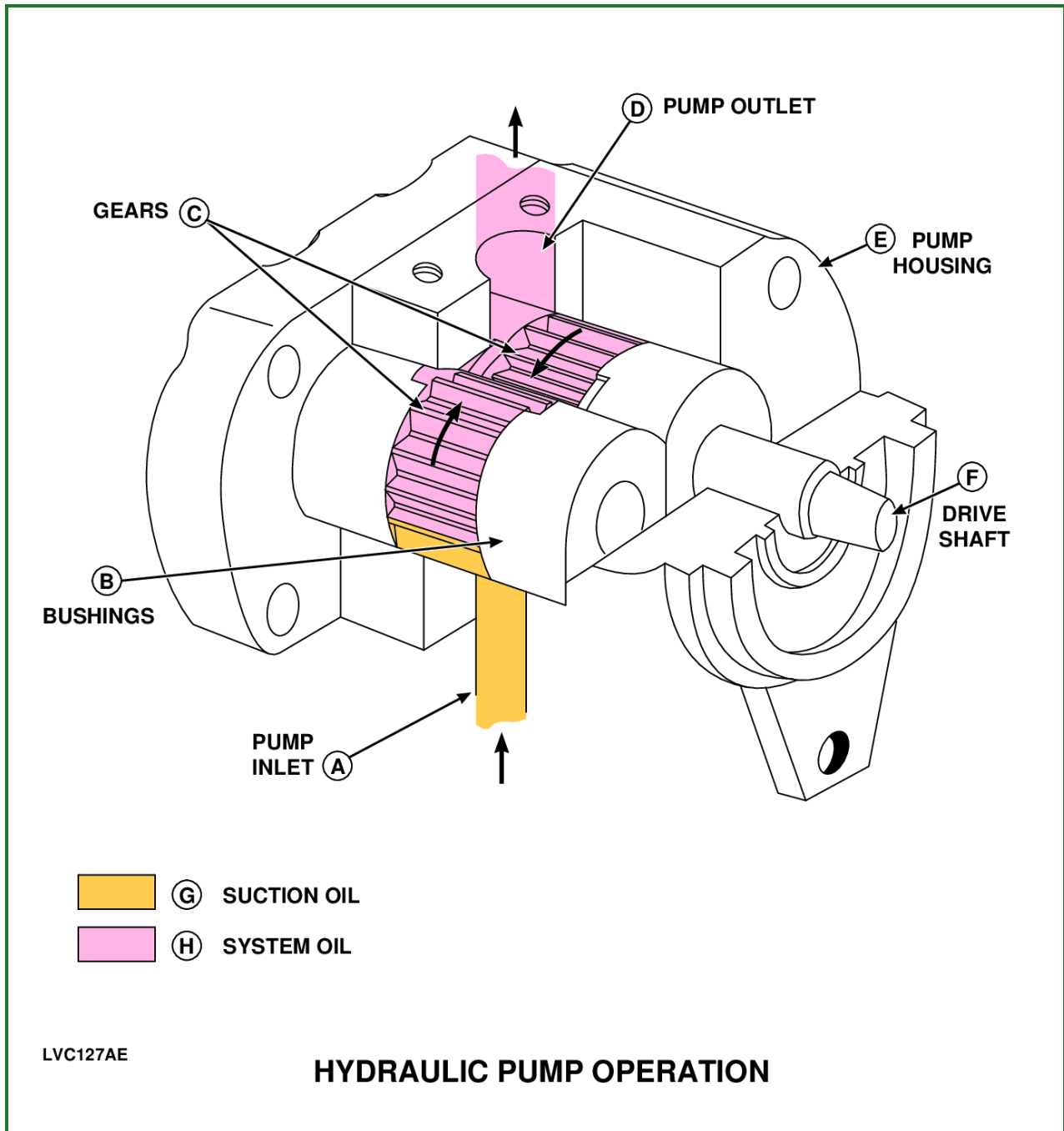


## Hydraulic Pump Operation



## LVC127AE-19: Hydraulic Pump Operation

**LEGEND:**

- A - Pump Inlet
- B - Bushings
- C - Gears
- D - Pump Outlet
- E - Pump Housing
- F - Drive Shaft
- G - Suction Oil
- H - System Oil

## FUNCTION:

Supplies a continuous flow of oil to operate the rockshaft and implements connected to optional selective control valves. Also supplies oil for transmission lubrication and power steering.

MAJOR COMPONENTS:

- Hydraulic Pump

THEORY OF OPERATION:

*NOTE:*

*Early models are equipped with 8 cc and 20 cc pumps. Later models are equipped with 12 cc and 20 cc pumps.*

The hydraulic pump assembly contains two pumps, each of different displacements. The 20cc pump supplies oil for the rockshaft and other tractor hydraulics. The 8 or 12 cc pump supplies oil for the steering system and transmission lubrication.

Both pumps operate identically and use a positive-displacement, external-gear design that moves a set volume of fluid with each revolution. Output volume changes only when the speed of the pump changes.

The engine drives the hydraulic pumps from the camshaft drive gear. As the pump gears (C) rotate, they continuously move in and out of mesh with each other. When the gears separate, a vacuum develops which draws oil into the pump inlet (A). The oil continues to move with the gears as they turn.

As the gears come back into mesh, they form a seal which prevents oil from returning to the pump inlet. Further meshing forces oil out the pump outlet (D) and into the hydraulic system. This cycle repeats continuously as long as the pump turns.

Go to [Section\\_270:Group\\_10](#)

LV,27010HA,A7-19-22MAY96