FLYWHEEL CLUTCH

The flywheel clutch is a multiple-disc wet type clutch (running in sprayed oil). This clutch is operated manually and sends the torque from the engine through the universal joint to the transmission.

Clutch discs (driven plates) 2, whose facings have checkered oil grooves, are slightly “dished” to facilitate smooth clutch engagement. Dishing the clutch discs will permit a gradual engagement of the clutch facings with the flywheel and pressure plate. When in the engaged position, the dished clutch discs are pressed flat between the flywheel and pressure plate.
In the DD machine, oil for the lubrication and cooling of the clutch disc friction surfaces is from the supply used for the operation of the steering clutches.

Oil is pulled from the reservoir through strainer 1 by gear pump 2 and goes to relief valve 3. After this relief valve, the oil flows to the steering clutch valves. The remainder of the oil flows through oil cooler 4 (built in the lower tank of the radiator) to clutch main shaft 5 from which it is sprayed on the clutch discs and pressure plate for lubrication and cooling.

The oil used for actuating the clutch valves is returned to the top of the clutch case for lubrication.