 DC 9/80 OPERATIONS MANUAL	Hydraulic Power Chapter 12 - 1/3	I	
		07/04/20	Rev 1

GENERAL

The aircraft has two hydraulic independent systems, designated left and right.

Some services receive hydraulic pressure from the left system and other from the right system. There are some services (for example flaps), which receive pressure from both hydraulic systems.

Airplane systems that receive pressure from both hydraulic systems will operate at a reduced rate if one hydraulic system is inoperative.

Each system has a hydraulic reservoir with a fluid capacity of 17 USG, and has a mechanical pump driven by the engine. A transfer hydraulic pump mechanically connects the two systems; the right system has an electric auxiliary pump that can operate even when the right engine is off.

DESCRIPTION:

LEFT HYDRAULIC SYSTEM:


The left hydraulic system supply pressure for the operation of the following systems:

- left engine thrust reverser
- inboard flight spoilers
- elevator augments power
- slat drive mechanism
- outboard flaps actuators (both wings)
- left and right wheel brakes
- left nose wheel steering actuator
- transfer hydraulic pump
- ground spoiler (both panels)

RIGHT HYDRAULIC SYSTEM:

The right hydraulic system supply pressure for the operation of the following systems:

- right engine thrust reverser
- rudder power
- outboard flight spoilers
- rudder throw limiter
- slat drive mechanism
- rear stair
- inboard flaps actuator (both wings)
- left and right wheel brakes
- right nose wheel steering actuator
- transfer hydraulic pump
- ground spoiler (both panels)

 DC 9/80 OPERATIONS MANUAL	Hydraulic Power Chapter 12 - 2/3	I	
		07/04/20	Rev 1

ENGINES HYDRAULIC PUMPS

Each engine is mechanically linked to a pump that generates pressure at more than 3000 PSI. To keep extend the hydraulic system service life, pressure can be decreased to 1500 PSI when systems demand for pressure are low.

AUXILIARY HYDRAULIC PUMP

There is an electric pump installed into the right system capable of providing continuous hydraulic fluid flow at 3000 PSI and is designed for continuous operation.

HYDRAULIC TRANSFER UNIT

A power transfer unit mechanically connects left and right hydraulic systems and enable hydraulic pressure to be transferred from the highest to the lowest side (the high-pressure side operates as a motor and the low pressure side operates as a pump).

CONTROLS AND INDICATORS

C/M 2 INSTRUMENT PANEL

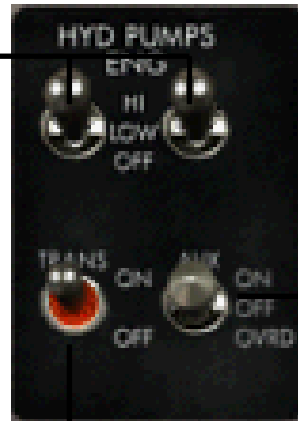
ENGINE HYD PUMP

Switch (1, 2):

HI: Engine driven pump will operate at 3000 PSI output

LOW: Engine driven pump will operate at 1500 PSI output.

OFF: no pressure output for system operation, fluid will circulate for pump lubrication and cooling.



AUX HYD PUMP

Switch:

ON: turns on electrical auxiliary pump.

OFF: turns the pump off

OVRD: temporary, to bypass the overheating protection system.

TRANSFER HYD PUMP Switch:

ON: Mechanically connects left side with right side hydraulic systems.

OFF: disconnects the two systems.

CENTER INSTRUMENT PANEL



HYD QUANTITY LOW Light (2):

Comes on to indicate respective system quantity is below set level.

HYD PRESSURE

Readout:

Displays fluid pressure between pump and reservoir.

HYD QUANTITY Readout:

Displays fluid quantity in the reservoir.