

3.18.2 MPDE Fuel Service System

3.18.2.1 Alignment/Startup

3.18.2.1.1 Normal Conditions

The MPDEs fuel service system normally receives and returns fuel from both F.O. day tanks simultaneously. The NYE MPDEs are serviced from the STBD F.O. day tanks and the SIE MPDEs are serviced from the port F.O. day tank. Returned fuel is routed to the appropriate day tank via a check valve and piping. The fuel return line should always be aligned to the same tank providing the fuel to prevent overfilling of another tank.

The main engine fuel supply is equipped with triplex fuel oil strainers. The triplex strainers are provided with inlet and outlet pressure gages to alert the operator when the strainer requires servicing. Each MPDE is also provided with engine mounted duplex primary fuel strainers, triplex secondary fuel filters, and a manual fuel system priming pump.

3.18.2.1.2 Emergency Conditions

CAUTION

Emergency fuel supply from the fuel storage tanks to the MPDE is to be used as a temporary measure only. This fuel may contain impurities and water since it has not been run through the fuel oil purifiers. It can be expected that engine mounted fuel strainers and filters will require close monitoring to ensure that they do not become clogged.

For emergency operation, there is a day tank cross connect for fuel supply and return in case one of the tanks needs to be isolated. The fuel supply may be provided from either the storage tanks or the day tanks. The valve on the appropriate tank is opened, supplying fuel through the strainers and filters feeding the engine. The fuel delivered for cooling and lubrication is returned to the appropriate day tank via a check valve and piping. If suction is provided from a storage tank, care must be taken with the return fuel to avoid overfilling the day tank receiving the return flow. Refer to drawing 200-261-01-010 – Fuel Oil System for proper valve line up.