Lube Oil shutdown during priming

Saumyen Chakraborty (Engine) - 2024-09-27 - Hydraulic Governor/Actuator
Related Governor- PG with low lube oil shutdown and external servo booster

Priming is a process of cleaning and preparing an equipment before it is put into use. It is a very essential process to ensure the efficient working of a machine. Priming is also a process of injecting fuel into the fuel injection system or valve train of an engine. This process generally involves the same operating fluid to clean unwanted items from the machine. When it comes to diesel engine or any engine, fuel filters are mainly primed. This is because, the primary function of a fuel filter is to capture contaminants in the working fuel.

Priming is done before crank the engine when engine is stationary. At the same time booster motor is operated to build pressure inside Governor. It may be happened that low lube oil shutdown plunger would be come out due to the pressure oil that was induced in Governor by servo motor. Thus system indicate a lube oil failure alarm before starting engine. Even if operator ignore the alarm, engine will not be started after cranking also since Governor is in trip mode.

This is happened due to alignment of inlet passages of Governor Components in one line that caused the pressure oil entry in lube oil system and throw the plunger out and allow engine to trip mode.

Governor drive shaft need to rotate a little, say 30 degree will help to overcome it. Rotation of Drive shaft will misaligned inlet passages and stop the pressure oil flow. Drive shaft rotation would be done by instant run command. Instant run command will rotate the crank shaft and rotate the Governor drive consequently.

What one should do if lube oil shutdown plunger come out in trip mode during priming,

1. Stop the priming
2. Do an instant run command (just press run command switch and release it immediately)
3. Do priming and check for lube oil shutdown plunger position. It will not be tripping.