The Most Popular Marine Propulsion Engines in the Shipping Industry

Marine engines are one of the biggest and expensive engines in the world. It requires great engineering skills and resources to manufacture such massive machinery, which is responsible for propulsion of the ship. The criteria for purchasing a marine engine are to get higher speed along with economical fuel consumption and long machinery life.

As more and more stringent environmental regulations are introduced, engine manufacturers are also working on their research and development to comply with stringent emission norms keeping in mind the economical factors for the ship owners or buyers.

here are many engine manufacturer designs that you will see on a vessel, but the most prominent players in the engine manufacturing industry are SULZER, MAN and B&W.

The famous marine engines which were widely used as a ship propulsion plant are as follows:

SULZER

RD series

It is the oldest engine series from SULZER and very rarely seen in shipping industry today.It is equipped with rotary exhaust valves and fuel valve with short spindle. The cylinder liner quills were of wet type and placed only at the upper part. It has pulse turbo charging system with no auxiliary blower fitted for supporting the scavenge pressure.

RND series

One of the most famous design of SULZER with a slogan of “Our Exhaust valves never burns” as this engine doesn’t have any. It has loop scavenging i.e. exhaust and inlet ports are provided in the liner. It was fitted with more liner quills at the bottom of exhaust port and is of dry type. Auxiliary blowers are provided and constant turbo charging system is adopted. It produces more power than the engines of RD series.

RTA series

It is the modern day engine design with exhaust valves fitted. It has become very famous in modern shipping as it is a balanced blend of automation and mechanical engineering. It consumes less fuel and produces more power with three fuel valves in one cylinder.

RT Flex series

It is the latest and the toughest engine from Wartsila Sulzer with maximum automation installed. It consists of a common rail fuel injection method and uses fully integrated electronic system based on a high performance computer eliminating parts like fuel pump, fuel cam, chain drive etc. resulting in reduced maintenance.

MAN B&W

MAN B&W is another leading diesel engine manufacturer with the head office situated in Germany. It has different categories of engines for different users with latest ME-B series complying with the latest norms and taking care of ship owner's economical criterion of selection.

KEF series

It was introduced about 20 years ago and is incorporated with exhaust valves which are push rod operated and installed with pulse type turbo charging system. No servomotor was fitted in this engine and reversing is done with mechanical means.

KGF Series

The KGF series was similar to KEF series and consists of exhaust valve rotator with roller bearing installed for that. In this engine the reversing cam is held in a hub which is keyed in to the shaft. Cam shaft is turned in the same direction for reversing and the pressure required for reversing is about 40 bars. There is no direct link between chain drive and engine cam shaft.

MC series

The MC series engines are the most popular engines now and are fitted with electronic control unit for better and safe operation of the engine. This engine is installed with VIT for an economical fuel consumption and power production. Air is used for reversing of the engine which moves the fuel pump cam follower from ahead to astern position.

ME series

It is the upgraded version of MC engine with electronic automation installed for safety and economy of the plant. They provide optimal combustion at all operations and speed with smokeless operation. This series also comes with liquid gas injection system for LPG fuel.