

Available Items for Delivery (Main Export Products)

Ship Engine Parts

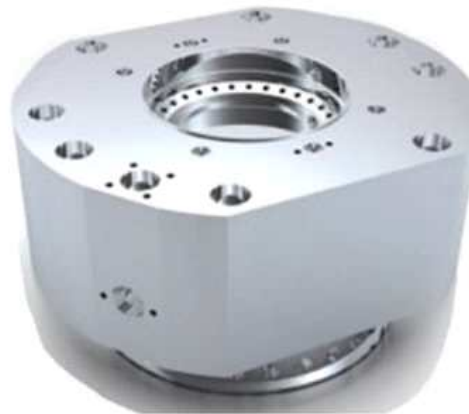
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Piston Crown

In marine 2-stroke diesel engines, the piston crown is a critical component that plays a decisive role in engine performance and durability. Located at the very top of the piston, it forms part of the combustion chamber.

It withstands the extreme heat generated during combustion and is continuously exposed to friction during high-speed reciprocating motion (approximately 10-20 m/s) against the cylinder wall. Therefore, heat resistance and wear resistance are extremely important.



Cylinder Cover

In large marine two-stroke diesel engines, the cylinder cover plays a crucial role in sealing the top of the engine's combustion chamber and securing various key components. The cylinder cover forms the combustion chamber together with the upper part of the cylinder liner. It serves to completely seal the chamber, preventing the escape of the high-temperature, high-pressure gases generated during the combustion process.



**CROSS HEAD
PIN**

The crosshead pin in a marine two-stroke diesel engine is a critical component vital to engine performance and durability. Its primary role and characteristics are as follows:

The crosshead pin serves as the pivotal connection point in the power transmission process, converting the reciprocating motion of the piston assembly into the rotational motion of the connecting rod assembly.



Piston Rod

In a marine two-stroke diesel engine, the piston rod is a key component that transmits the piston's linear reciprocating motion to the crankshaft's rotational motion via the crosshead and connecting rod. The piston rod is a characteristic component primarily found in large, low-speed two-stroke diesel engines for ships.



RUDDER STOCK

The Rudder Stock is a core shaft component that transmits rotational force generated by the ship's steering gear to the Rudder Blade, thereby changing the vessel's direction of travel. It is a major shipbuilding equipment belonging to the ship's navigation system rather than an engine component.

The Rudder Stock is a vital component that serves as the 'backbone' of the steering system, essential for the safe operation of a vessel.



**Intermediate
Shaft**

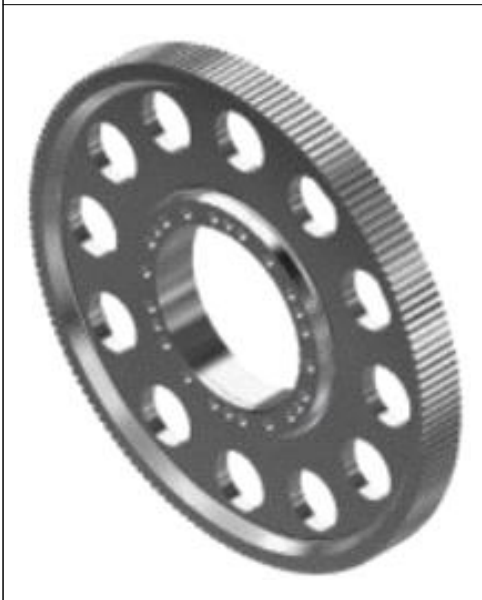
The intermediate shaft plays a crucial role in a ship's propulsion system. Its primary functions are to transmit power generated by the engine (including two-stroke diesel engines) to the propeller shaft and to maintain proper alignment and load distribution within the shaft system.

It is a core component that transmits rotational power (torque) generated by the crankshaft of the main engine (e.g., a large two-stroke diesel engine) to the propeller shaft.




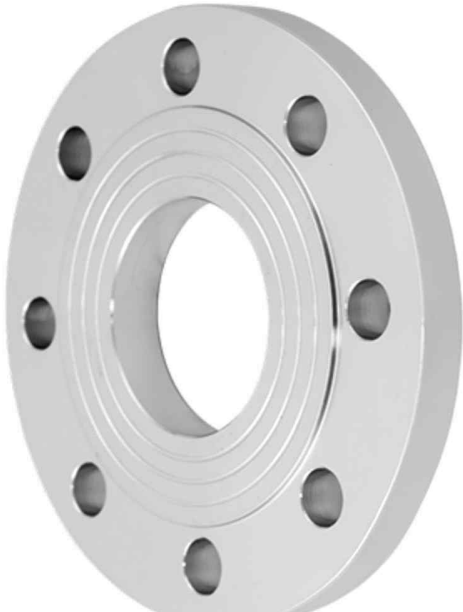
Propeller Shaft



In the shipbuilding industry, the propeller shaft of a two-stroke engine is a core component that transmits the engine's power to the propeller to propel the vessel. Two-stroke engines, primarily used in large ships, often drive the propeller shaft directly without a separate reduction gear, necessitating the shaft to be constructed very large and robust.



GearWheel

On a ship, the gearwheel primarily transmits engine power to the propeller and reduces the engine's high rotational speed (RPM) to an appropriate low speed for the propeller to operate efficiently. It is a core component in the ship's propulsion system. Gear wheels are typically made from special alloy steel with high elasticity and strength to withstand the harsh conditions of the marine environment (corrosion, high loads).

	<p>PIPE</p>	<p>In the shipbuilding industry, large forged pipes for two-stroke engines are primarily used in critical areas that must withstand high-temperature/high-pressure environments, playing a vital role in providing exceptional strength and durability.</p> <p>Two-stroke engines are mainly used as the primary propulsion engines for large vessels such as container ships, tankers, and bulk carriers. They are also used as industrial machinery components.</p>
	<p>FLANGE</p>	<p>Medium-to-large forged flanges serve as the 'connecting link' that securely joins piping or equipment connection points. Manufactured using the forging method—where molten metal is shaped under pressure—rather than conventional casting, they offer exceptional strength and durability. They are essential components for safely connecting large piping systems (such as petrochemical plants and power stations) in high-pressure, and high-temperature environments without leakage.</p>

	<p>FLANGED SHAFT</p>	<p>Flanged shafts are typically produced through the forging process and serve as essential mechanical components across various industrial sectors.</p> <p>In the medium-to-large forging industry, flanged shafts are high-strength, high-durability power transmission components manufactured using forging technology. They are primarily used as critical connecting elements in large-scale industrial machinery and equipment.</p>
	<p>Table Roller</p>	<p>Forged table rollers are critical components used in steel mills and metal processing industries to transport and support heavy steel products at high temperatures. They are specially manufactured through a forging process to achieve superior durability and strength compared to standard cast rollers.</p>



Y-TYPE VALVE
(for thermal power generation)

Y-pattern(body) globe valves feature a design in which the valve stem forms an angle with the direction of fluid flow. They offer low pressure loss, excellent flow control, and high shut-off performance, making them essential for high-pressure and high-temperature environments such as steam and feedwater systems in thermal and nuclear power plants. We can manufacture valves in a variety of configurations. Various shapes of valves can be made.



BONNET
(for thermal power generation)

The forged bonnet is one of the core components of valves used in the high-pressure and high-temperature environments of thermal power plants. It combines with the valve body to block internal pressure and protect the valve stem and internal components. Designed for the safe and efficient operation of power plants, it is a highly durable valve cover. It is an essential component for maintaining the valve's pressure seal and protecting its internal mechanism.



VALVE
(for thermal
power
generation)



Forged valves used in thermal power plants are core components specially designed to withstand extreme high-temperature and high-pressure environments. Based on superior mechanical strength and durability compared to standard cast steel valves, they ensure the safe and efficient operation of power plants.

These high-performance industrial valves play a crucial role in withstanding the harsh operating conditions of thermal power plants, ensuring safety, reliability, and efficiency.

Available Items for Delivery (Main Export Products)
Industrial machinery components (Available Valve Types)

[9]

Primary Materials: SA182F92, SA182F91, SA105, A182F11, A182F22, etc.

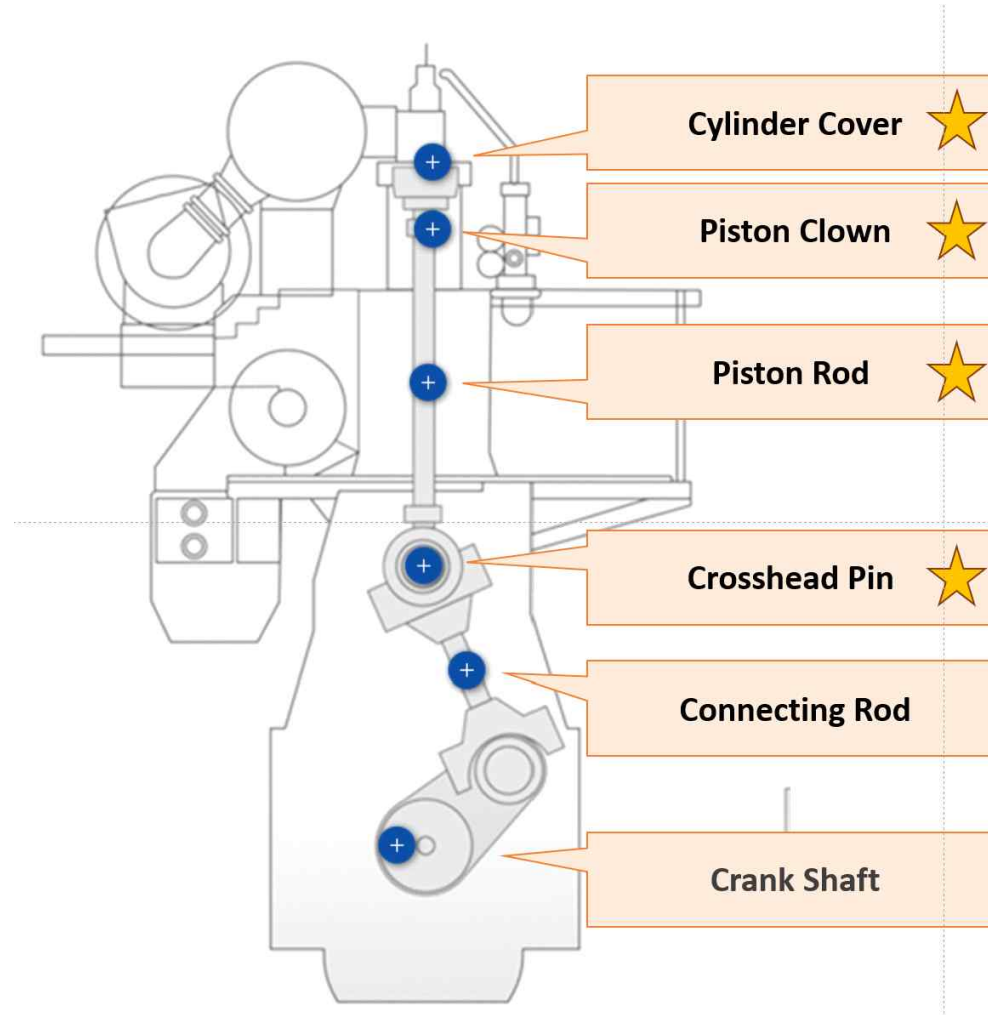
Current Types in Production

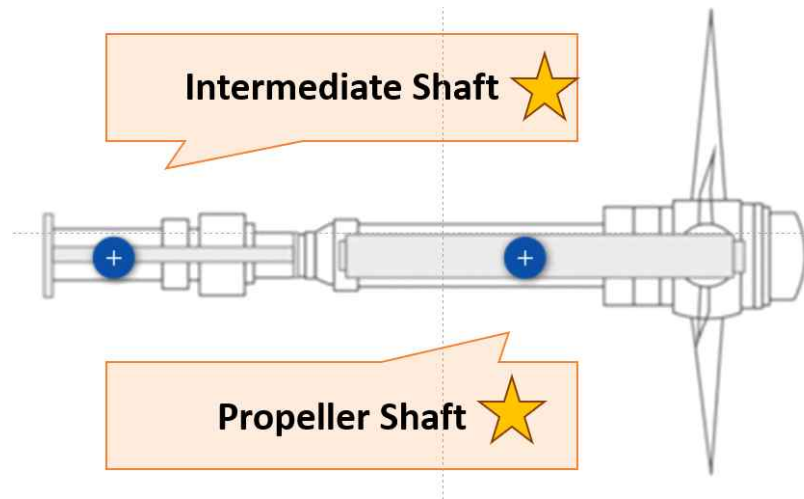
- 1) Parallel-side gate valve (T-slot) / Body / DN150. 6" / ASME 4500
- 2) Gate Parallel Side Gate Valve (T-Slot) / Body / DN80. 3" / ASME 4500
- 3) Check_Y-Type Stop Check Valve (Stem Guide) / Body / DN200. 8" / ASME 2500
- 4) Globe_Y-Type Valve / Bonnet / DN200.8" / ASME 2500
- 5) Valve Inlet BWE-508x15,1 -ID234x22 - Clamp
- 6) Globe_Angle Valve / Body / DN150.6" / ASME 2500
- 7) Check_Y-Type Stop Check Valve (Stem Guide) / Body / DN30. 12" / ASME 1500
- 8) Control_Angle Valve / Body / DN150.6" / ASME 600
- 9) Body (Forged) 2" (50A) 1500LB Angle Control Valve
- 10) Gate Parallel-Side Gate Valve (T-Slot) / Body / DN200. 8" / ASME 900
- 11) Parallel Gate Valve (T-Slot) / Body / DN450. 18" / ASME 2250
- 12) Parallel Gate Valve (T-Slot) / Body / DN400. 16" / ASME 2500

We manufacture various large-size valves and produce bodies for key items tailored to customer needs.
(Specialized in key valve production)

Delivery Method: Delivered in a forged, heat-treated, rough-machined (anti-rust) state.

Ship's Engine Parts





Marine 2-stroke to 4-stroke engines, diesel engines

All MAN TYPE (now Everllence) models from S50MC to G95ME can be produced (G, S, L All types available)

**INNO
STEEL**