

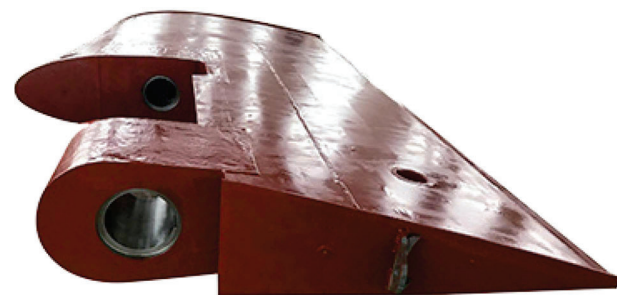


ЭЛЕМЕНТЫ РУЛЕВОГО УСТРОЙСТВА



RUDDER SYSTEM

Rudder Blade



The balanced rudder blade is usually a rudder of which the axis is between the front and back of the rudder blade .It acts as a balance when steering.

1.The pressure center of the rudder blade is close to the rudder axis, and the rudder torque required is small.

2.The rudder blade can reduce the required power of the rudder.

3.According to the client's request and drawings, we can customize the product.

1. Product name: rudder blade for marine boat

2. Raw material:35# ,45# , 40Cr, 42CrMo, etc

3. Supply range:OD.200-1000 mm,Weight≤15T

4. Standard: ISO, GB, ASTM, DIN, JIS

5. Process: EAF + LF + VD + Forged + Heat Treatment (optional)

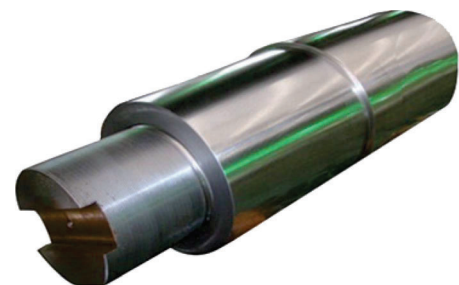
6. Heat treatment: Normalized / Annealed / Quenched / tempered

7. Delivery condition: Hot forged +Rough machined (black surface after Q/T)+ Turned (optional)

8. Inspection Equipment; Metallurgical analysis, Tensile strength tester, Hardness tester, Altimeter, Scale Micrometer, pressure tester, etc.

9. Certificates: CCS, BV, ABS, GL, DNV, RINA, LR,etc

Rudder Pintle



The Marine Rudder Pintle is designed and manufactured for the rudder system of kinds of ships, It suitable for different size rudder stock, from 50mm to 600mm. There are upper rudder pintle and lower rudder pintle.

The diameter and length of the rudder pintle will be decided by the design of the whole rudder system.

RUDDER SYSTEM

Rudder Stock



The rudder stock is a part of the rudder system. It is a very important part of the steering system because it makes sure the vessel change the direction. Our rudder stocks are made of stainless steel, forged steel and alloy steel.

Features:

1.material:stainless steel, forged steel, alloy steel

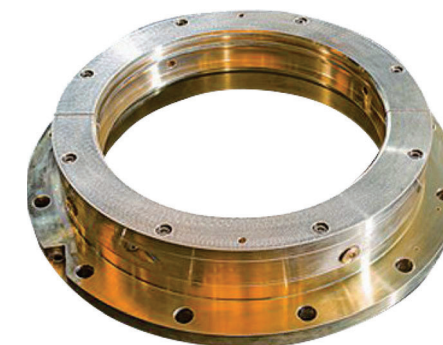
2.certificates:ABS,BV,DNV,GL,LR, RINA,KR,CCS

3.test:100% ultrasonic flaw detection test

4.delivery time: according to the quantity and size

The Rudder Stock is a part of the rudder system. A rudder system includes the rudder blade, rudder stock, rudder pintle, carriers ,bearings and other accessories. The rudder stock is a very important part of the steering system. It makes sure the vessel change direction.

Rudder Pintle Sealing device



This rudder pintle sealing apparatus is compact in structure and easy to be maintained. It is suitable when the axial size is small.

It is suitable for the sealing between the rudder stock and hull. We offer two types of this product. One type is with a shaft diameter of 100-300mm and the other type 65-100mm. It is approved by CCS, ABS, BV, GL, etc. We can provide the certification if needed.



RUDDER SYSTEM

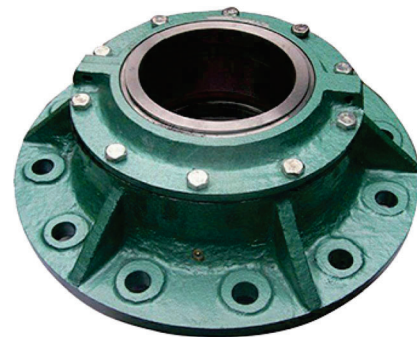
Roller Upper Rudder Carrier



Type A

It is suitable for small and medium vessels with upper and lower rudder constructions.

Type A Light Roller Upper Rudder Carrier Dia.40-Dia.150, is used for rudders with small loads and pintles of small flexibility.



Type B

Type B Heavy Roller Upper Rudder Carrier, Dia. 120- Dia.340 , Automatic self-aligning ability and suitable for hinged rudder with heavy loads under bad situation.



Type C

Type C Watertight Roller Upper Rudder Carrier, Dia.120mm- Dia. 400, has the advantages of type B and Sealing Features.

RUDDER SYSTEM

Gliding Watertight Lower Rudder Bearing



The gliding watertight lower rudder bearing is mainly applicable to marine transport ships, engineering ships and inland river transport ships with a rudder stock of 50-500mm. It is used together with CB*789 upper rudder bearing and has a good sand prevention effect.

Advantages

- 1.Simple structure, easy to install.
- 2.Durable material, long service life.
- 3.Depending on the customer's needs, the product can be customized.

Plane Frictional Watertight Upper Rudder Carrier



The plane frictional watertight upper rudder carrier is mainly used to bear the weight of the rudder stock and the rudder blade. And it causes radial load by hydrodynamic forces acting on the rudder. In addition, it can guarantee the maneuverability of the ship. This series of products have been widely used in all kinds of large and medium-sized ships.

Advantages

- 1.Fast rotate speed and simple structure.
- 2.Endurable material and long life-Span.
- 3.Products can be designed according to customer drawings and requirements.