

LIFE SAVING SYSTEMS

Combined Rescue Boat, Life raft, Hose Handling/ Provision Cranes

- GüRDESAN designs and manufactures such cranes designed for transferring hoses, pipes, provisions and designed with the aim of life saving appliances using Rescue Boat & Life Rafts, in accordance with the Chapter 6 of LSA Code that provides international standards for life-saving appliances required by Chapter 3 of the international convention for the SOLAS/1974.
- Rescue Boat & Life Raft functions are tested in accordance with the Article 8 of Part 1 of the Resolution MSC.81 (70). Rescue Boat & Life Rafts are approved by many classification societies.
- Rescue Boat & Life Raft & Hose/Provision cranes are provided with hydraulic power unit. Electro-hydraulic power unit is located in a safe and isolated place in the vessel.
- The roller bearings, designed for slewing system, give high performance in heavy marine conditions. Slewing Gearbox is designed and manufactured with planet gears and is driven by hydraulic motor.
- To satisfy the international convention requirements for a rescue boat launch and recovery appliance, the winch is equipped with the statutory manual and governor brakes allowing the craft to be lowered employing no other means than gravity.
- The lowering speed is controlled within the parameters required by current regulations.
- GüRDESAN Combined Rescue Boat, Life Raft, Hose & Provision Cranes are famous in shipping world with their multi-functioning features, strength, long life and reliability.
- The cranes are approved by many classification societies with Type Approval Certificates. The engineering and manufacturing sources of GÜRDESAN enable the cranes to conduct the tasks that get heavier day by day.





• On all types of vessels or on certain types of specialised vessel, increasing use is being made of deck cranes to perform various lifting tasks. GüRDESAN is achieving considerable success in supplying such cranes to vessels that can conduct both life saving appliance and provision/hose handling work.



• All GüRDESAN Combined Rescue Boat, Life Raft, Hose/Provision Cranes are manufactured under the quality guarantee of ISO 9001 Quality Management System recognised by Turk Loydu and accredited by SWEDAC Ackreditering. Service after sale is available wherever you are in the world.



COMBINED RESCUE BOAT, LIFE RAFT HOSE HANDLING/ PROVISION CRANES









LIFE SAVING SYSTEMS

Rescue Boat, Life Raft, Provision Cranes

- GüRDESAN designs and manufactures Rescue Boat & Life Raft Cranes in accordance with the Chapter 6 of LSA Code that provides international standards for life-saving appliances required by Chapter 3 of the international convention for the SOLAS/1974.
- Rescue Boat & Life Raft Cranes are tested in accordance with the Article 8 of Part 1 of the Resolution MSC.81 (70).
- Rescue Boat & Life Raft & Provision Cranes are approved by many classification societies.
- Rescue Boat and/or Life Raft Cranes (with or without provision) are provided with electric drivers.
- Limiting switches are available for hoisting and emergency crank handle.
- On a Rescue Boat & Life Raft & Provision Crane with hydraulic accumulator; hoisting winches are provided with electric drivers and slewing reducers are provided with hydraulic drivers.
- Davits are equipped with IP 56-certified electric motors. If required, they can also be equipped with EEx d-certified motors.
- Portable remote control with necessary length of electric cable is provided.
- All components are selected for long life under severe marine conditions.
- The materials used and the all components are approved by many classification societies.
- Service after sale is available wherever you are in the world.



RESCUE BOAT, LIFE RAFT, PROVISION CRANES



• GÜRDESAN designs and manufactures such cranes that can handle both Rescue Boats-Life rafts and Provisions. Vessels must carry proper cranes for rescue boats and life rafts according to IMO regulations. Characteristics of these cranes are described in Chapter 3 of the international convention for the SOLAS/1974.



• All components of GüRDESAN Hose and Multipurpose Cranes are selected for long life under severe marine conditions and manufactured under the quality guarantee of ISO 9001 Quality Management System recognised by Turk Loydu and accredited by SWEDAC Ackreditering.











DECK CRANES

Hose And Multi-Purpose Cranes

- GüRDESAN designs and manufactures Multi-Purpose Service and Hose Handling Cranes in variety of sizes and capacities for all types of ship.
- Certification by various number of classification societies is available as a subject of the customers demands.
- Alternative power and control systems are available on customers' demands.
- Service/Cargo cranes are provided with hydraulic control joysticks on an open platform above the slewing ring.
- Service/Cargo cranes are provided with push buttons on the pedestal. Electric starter is located in closed area.
- Service/Cargo cranes are provided with
- In Service/Cargo Cranes, Oil cooler can be provided for continuous use in hot
- In Service/Cargo Cranes, EEx d components can be selected for tankers on hazardous area.
- In Service/Cargo Cranes, Control from enclosed drivers' cabin by servo-hydraulic /electric joystick can be provided.
- In Service/Cargo Cranes, Limit switches are available for slewing motions.
- Hose Handling Cranes are provided with EEx-certified motor in the pedestal with push buttons on the pedestal. Electric starter is located in safe area.
- Hose Handling Cranes are provided with hydraulic controls on an open platform above the slewing ring.
- Hose Handling Cranes are supplied with limit switch.
- Hose Handling Cranes can be connected to a central power pack for avoiding the use of electric power in the vicinity of crane
- In Hose Handling Cranes, remote control is available from fixed control stand.
- In Hose Handling Cranes, portable remote control of intrinsically safe type can be supplied under certain conditions.
- In Hose Handling Cranes, limit switches are available for slewing motions.





• A growing trend for simpler and more elegant but strong and powerful cranes has spawned some novel new designs. GüRDESAN Hose Handling and Multi-Purpose Service Cranes are vividly shining with their simpler, elegant but more powerful designs.



• All components of GüRDESAN Hose Handling and Multipurpose Cranes are selected for long life under severe marine conditions and manufactured under the quality guarantee of ISO 9001 Quality Management System recognised by Turk Loydu and accredited by SWEDAC ACKREDITERING.











PROPULSION&MANOEUVRING

Propulsion and Rudder Systems

- GÜRDESAN designs and manufactures Propulsion and Manoeuvring Systems for all types of vessels. Products are approved by many classification societies. The manoeuvring systems are available as Mechanic, Hydro-Mechanic or Hydraulic. The vessels can be equipped with the Rudder Systems such as Semi Spade Rudders, Spade Rudders, High Lift Rudders and Rudders Supported by Sole Piece. Repair and maintenance work for these propulsion and manoeuvring system components is available.
- Propulsion and Manoeuvring systems are professionally projected. The projects built up by expert engineers are not remarked by classification societies. All components are manufactured with great care. GÜRDESAN transports produced systems carefully to where the vessels are and provides expert supervision during the fitting process.
- The vessels are powered up with GÜRDESAN Propulsion and Manoeuvring systems without any problem for years. GÜRDESAN claims that our engineers are capable of equipping any type of ship with most efficient propulsion and manoeuvring system a ship needs.



PROPULSION AND MANOEUVRING



• GÜRDESAN is specialist in manoeuvring systems. Any type of rudder systems for all tonnages and types of vessels is included within GÜRDESAN's production range.



• GÜRDESAN is capable of designing and producing proper shafting systems for all tonnages of vessels. The engineering section of the company professionally works and co-operates with expert companies for specific calculations such as Sag & Gap calculations.













PROPULSION&MANOEUVRING

Propelers and Propeller Nozzles

- GÜRDESAN equips vessels with Propellers and Propeller Nozzles. Depending on the design of the vessel, the propeller can be manufactured with 3, 4, 5, 6 or more blades and with any diameter. Propeller Nozzles with any diameter (as big as 4 meters) are available. Repair and maintenance work for these propulsion system components is also available.
- The propeller manufacturer is at liberty to use any equipment and method that enables the tolerances to be verified to the required accuracy according to the requirements of international standards and the customers. The design, engineering and manufacturing resources of GÜRDESAN provides GÜRDESAN with the capability of supplying the most efficient propulsion systems to all types and tonnages of vessels. As the propulsion systems cover a wide range of factors according to specific requirements, such as avoiding the cavitation vs..., GÜRDESAN's propulsion systems and Nozzles help the vessels for more efficient



PROPULSION AND MANOEUVRING



• GÜRDESAN is capable of providing vessels with any sizes of propellers and nozzles they need. These propulsion system components are designed and manufactured with any sizes and characteristics for all tonnages and types of vessels.



• Propellers and Nozzles are manufactured in GÜRDESAN facilities with great care and great experience GÜRDESAN achieved within the years of supplying the shipping world.











HATCH COVERS

Hatch Covers

- GÜRDESAN designs and manufactures Hatch covers for all types and sizes of vessels. Hatch Cover production range includes Puntoon Type, Single-pull Type, Folding Type and Stacking Type Hatch Covers. All types of ramps and elevator systems for RO-RO's and Ferries are also available as a subject of customers demands.
- GÜRDESAN Hatch Covers are recognisable with their long life under severe marine conditions. By the very nature of the task to be performed, Hatch covers are exposed to the weather and have to be able to withstand constant salt spray and extremes of temperature. In these conditions, GÜRDESAN offers one of the best selections in the shipping world concerning Hatch Covers.
- GÜRDESAN proudly claims that the Hatch Covers of ours are one of the best in shipping market. The Hatch Covers of GÜRDESAN are approved by many great classification societies. All the rule revisions of the classification societies are carefully followed by our engineers and experts. Thus the best possible service is performed to give the best to the customers and to the vessels they own.



HATCH COVERS



• GÜRDESAN equips vessels with any type of Hatch Covers they need. The covers are designed and manufactured with great care and under the supervision of the classification societies.



• Hatch covers are manufactured and painted in our facilities and transported to the ship for fitting under the supervision of our engineers. They are produced to be exposed to the severe weather and marine conditions.

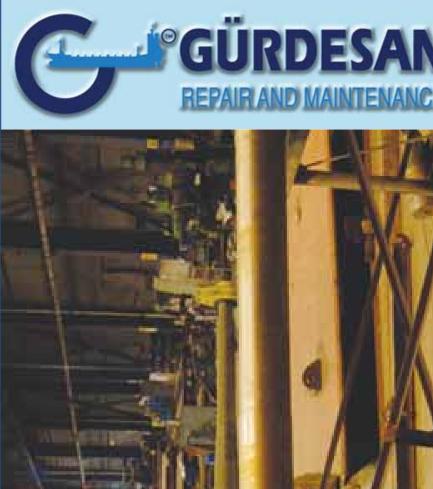












REPAIR AND **MAINTENANCE**

Repair and Maintenance Work

- GÜRDESAN conducts repair and maintenance work of the equipment of any tonnages of ship. Particularly specialist and experienced in the maintenance and repair of propulsion and manoeuvring systems of any tonnages of ship, controllable-pitch propellers and systems, all types of rudder systems and nozzles.
- Repair and maintenance work requires experience, expertise and knowledge on the work to be conducted. GÜRDE-SAN's experience and expertise relies on long years of being a member of competitive shipping world.
- There is no machinery, such as windlass and mooring winch or propulsion and manoeuvring system, which GÜRDESAN is incapable of repairing it.
- GÜRDESAN gained its expertise by facing a large number of problems occurred in vessels during their run in severe marine conditions. If a ship needs repair or maintenance work, GÜRDESAN, is a good answer for it.
- Experts and engineers of GÜRDESAN approach to the components to be repaired with a great care and a wide view of experience achieved during the years of being in the shipping business.
- The best possible materials and machinery are used for maintenance and repair works. The machineries or equipments repaired by GÜRDESAN are easily approved by classification societies and satisfy the customers.
- During repair and maintenance work, to give the best to the customers, state of the art laboratory facility of GÜRDESAN is used. Any material used for repair is easily tested with the highly developed testing equipments.
- The laboratory facility of GÜRDESAN is recognised by many classification societies and proudly serves the companies who seek a support from GÜRDESAN.



REPAIR AND MAINTENANCE WORK



 GÜRDESAN's repair and maintenance capability includes a wide range of machinery and equipment such as propulsion and manoeuvring systems. If a ship needs repair or maintenance work, GÜRDESAN is a good answer



• GÜRDESAN is capable of repairing controllable pitch propellers and systems, all types of rudder systems and nozzles of any tonnages of vessels. Repair and maintenance work requires experience, expertise and knowledge. GÜRDESAN's experience and expertise relies on long years of being a member of the competitive shipping world.











DECK MACHINERY

Combined Anchor And Mooring Windlasses

- GÜRDESAN designs and manufactures Combined Anchor & Mooring Windlasses for all types and tonnages of vessels. The company achieved considerable success in the supply of Combined Anchor & Mooring Windlasses to wide variety of vessels.
- GÜRDESAN is capable of supplying electrically or hydraulic driven Combined Anchor & Mooring Windlasses suitable for handling up to 78 mm diameter and Grade Q3 anchor chain. The cable lifters of GÜRDESAN windlasses have a capacity of up to 40 tonnes. The designs and manufacturing sources of GÜRDESAN is capable of exceeding these values as a subject of customer demands.
- The Combined Anchor & Mooring Windlasses of GÜRDESAN may be of auto-tension type with split drum, double drum or single drum and single cable lifter or double cable lifter. Complementing these are the pumps, controls and other equipment necessary to enable a complete system to be provided.
- GÜRDESAN offers a choice of two drive systems, namely high-pressure hydraulic or electric drive. The high pressure system can operate at 350 Bar and also employs electric motor-driven hydraulic pumps, mounted in pairs on the oil tank together with all necessary hydraulic components. A separate control valve unit is provided and incorporates a block valve for heave and lowering and an auto-tension valve as a subject of customers' demands.
- GÜRDESAN's electric-driven deck machinery system is available with or without automatic tension systems and may have a electric motor with electro magnetic brake. A frequency inverter controlled motor can be supplied as an alternative.
- In addition to the above units, GÜRDESAN is capable of manufacturing winches for special purposes using its wide design and manufacturing sources,
- GÜRDESAN selects all components for long life under severe marine conditions and assures its quality with the ISO 9001 Quality Management System recognised by Turk Loydu and accredited by SWEDAC Ackreditering.
- GÜRDESAN powers the windlasses up with its own Hydraulic Power Packs. Hydraulic Power Packs are available separately. Any windlass can also be connected to the central hydraulic system.
- The Combined Anchor & Mooring Windlasses of GÜRDESAN comply with the OCIMF recommendations and the related classification society. The certification by many classification societies is also available as a subject of customers' demands.



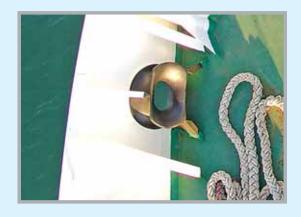
COMBINED ANCHOR AND MOORING WINDLASSES



• GüRDESAN selects all components of Combined Anchor & Mooring Windlasses for long life under severe marine conditions. There is service availability after sale wherever you are in the world. GüRDESAN crowns its quality with a certificate of ISO 9001 Quality Management System recognised by Turk Loydu and accredited by SWEDAC Ackreditering.



• GüRDESAN proudly encourages those ship-owners who do not have GüRDESAN Combined Anchor & Mooring Windlass and their facilities to take advantage of GÜRDESAN Anchoring and mooring equipments.











DECK MACHINERY

Mooring Winches

- GÜRDESAN designs and manufactures Mooring Winches for all types and tonnages of vessels. The company achieved considerable success in the supply of Mooring Winches to wide variety of vessels
- The Mooring Winches of GÜRDESAN may be of auto-tension type with split drum, double drum or single drum. Complementing these are the pumps, controls and other equipment necessary to enable a complete system to be provided.
- GÜRDESAN offers a choice of two drive systems, namely high-pressure hydraulic or electric drive. The high pressure system can operate at 280 Bar and also employs electric motor-driven hydraulic pumps, mounted in pairs on the oil tank together with all necessary hydraulic components. A separate control valve unit is provided and incorporates a block valve for Mooring and an auto-tension valve as a subject of customers' demands.
- GÜRDESAN's electric-driven deck machinery system is available with or without automatic tension systems and may have a electric motor with electro magnetic brake. A frequency inverter controlled motor can be supplied as an alternative.
- In addition to the above units, GÜRDESAN is capable of manufacturing winches for special purposes using its wide design and manufacturing sources.
- GÜRDESAN selects all components for long life under severe marine conditions and assures its quality with the ISO 9001 Quality Management System recognised by Turk Loydu and accredited by SWEDAC Ackreditering.
- GÜRDESAN powers the winches up with its own Hydraulic Power Packs. Hydraulic Power Packs are available separately. Any winch can also be connected to the central hydraulic system.



MOORING WINCHES



• GüRDESAN selects all components of mooring winches for long life under severe marine conditions. There is service availability after sale wherever you are in the world. GüRDESAN crowns its quality with a certificate of ISO 9001 Quality Management System recognised by Turk Loydu and accredited by SWEDAC Ackreditering.

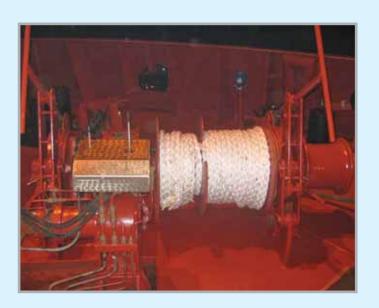


• GÜRDESAN proudly encourages those ship-owners who do not have GÜRDESAN mooring winches and their facilities to take advantage of GÜRDESAN mooring machinery.











DECK EQUIPMENT

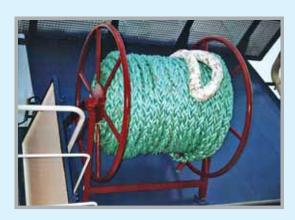
Deck Equipment

- GÜRDESAN manufactures a wide variety of Deck Equipments needed on a vessel. Generally, reference is made to the widely used international standards (ISO), British standards (BS), Japanese Industrial Standards (JIS) and German standards (DIN).
- GÜRDESAN manufactures Deck Equipments in accordance with DIN standards such as Warping Rollers (DIN 81905, DIN 81906, JIS F 2014), Warping Rollers with Socket (DIN 81907-A Type, DIN 81907-B Type), Warping Rollers with Foundation, Multi Purpose Chocks (DIN 81915-A Type, DIN 81915-B Type, DIN 81915-C Type, DIN 81915-D Type), Fairleads for 1 and 2 ropes (DIN 81902, JIS F 2026), Double Bollards (DIN 82607-D Type), Chain Stoppers, Cable Clenches, Hawses, Hose Drums and Rope Drums.
- GÜRDESAN manufactures Closed Fairleads and Panama-Type Fairleads complying with the OCIMF recommendations. Although the terms "closed fairleads" and "panama fairleads" are often used interchangeably, not all closed chocks are "panama" chocks". Panama chocks must comply with Panama Canal regulations, which stipulate, among others, a minimum surface radius, a minimum throat opening and a safe working load.
- Roller Fairleads, Pedestal Fairleads and Universal Fairleads are among GÜRDESAN's deck equipment range. The rollers on fairleads resemble sheaves and may be mounted near the edge of the deck to serve as mooring fairleads; or maybe mounted upon a pedestal elsewhere on the deck to provide a fair lead to a winch drum or warping head. Deckside fairleads may be of the open or closed type. Universal roller fairleads consist of several cylindrical rollers, or a combination of rollers and curved surfaces.
- GÜRDESAN manufactures eyeplates. Eyeplates are used in the manifold area for securing hoses and have various other applications aboard ships.
- GÜRDESAN also manufactures Hose and Rope Drums with any size according to customers' requirements and to related standards.
- GÜRDESAN is the address of the most reliable and strong Deck Equipment and proudly claims it being in this competitive shipping world for many

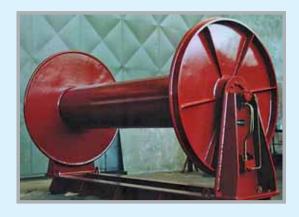




 GÜRDESAN manufactures a wide variety of Deck Equipments needed on vessels. Generally, reference is made to the widely used international standards (ISO), British standards (BS), Japanese Industrial Standards (JIS) and German standards (DIN). GÜRDESAN, however, preferably bases on German DIN standards.



• GÜRDESAN offers a complete range of mooring equipment including Warping Rollers, Warping Rollers with Socket, Warping Rollers with Foundation, Multi-Purpose Chocks, Roller Fairleads, Pedestal Fairleads, Universal Roller Fairleads, Fairleads for 1 and 2 ropes, Double Bollards, Chain Stoppers, Cable Clenches Hawses, Rope Drums and Hose Drums.











DECK EQUIPMENT

Ladders

- GÜRDESAN manufactures Ladders for all types and tonnages of vessels. The production range covers Bulwark Ladders, Accommodation Ladders and Gangways.
- The accommodation ladders are used on merchant ships including passenger ships to enable persons to embark and disembark safely. The production range includes both Single-flight and Multi-flight Ladders. The material can be structural steels or aluminium alloys in accordance with the related standard of Shipbuilding -Accommodation Ladders ISO 5488. Revolving platform and the ladders, of single-flight or multi-flight construction, are hinged from an upper revolving platform and are capable of being varied in direction and inclination between the ship and the lower access level. The ladder may be supported by steel wire ropes or chains from the lower suspension point or by rollers fixed to the bottom of the ladder. The steel wires used are approved by classification societies.
- The fixed platform ladders are hinged from a fixed anchorage and are capable of being varied in inclination between the ship and the lower access level. These ladders are supported by steel wire ropes or chains from suspension point(s) in the lower part of the ladders. These ladders may also be of single-flight or multi-flight construction. The wire ropes used on the ladders are approved by the classification societies.
- The gangways are manufactured to be carried on board ships, to provide a lightweight, convenient and safe means of access from ship to shore, for use primarily by the ship's crew. The gangways may also be used for access from ship to sip when conditions are favourable.
- GÜRDESAN claims that the Ladders with any aim manufactured in our facilities are one of the best in the shipping market.



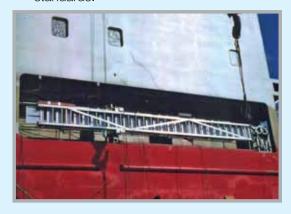
LADDERS



• GÜRDESAN manufactures Ladders for all types and tonnages of vessels. All types of ladders are manufactured according to international standards. Ladders are also tested according to the ISO standards.



• GÜRDESAN's ladder variety covers Bulwark Ladders, Accommodation Ladders (Shipbuilding – Accommodation Ladders ISO 5488), Gangways (Shipbuilding – Aluminium Shore Gangways for Seagoing Vessels ISO 7061). The characteristics such as lifting capacity, initial sag and deflection under load are tested according to these standards.











LIFE SAVING SYSTEMS

Free Fall Davits (Launching and Retrieval systems)

- There are regulations of International marine Organisation, IMO, which vessels must comply with. Life saving appliances occupies an important share of the regulations.
- GÜRDESAN Designs and manufactures Free Fall Davits in accordance with the Chapter 6 of LSA Code that provides international standards for life-saving appliances required by Chapter 3 of the international convention for the SOLAS/1974.
- Free Fall Davits are tested in accordance with the Article 8 of Part 1 of the Resolution MSC.81 (70).
- Free Fall Davits are approved by many classification societies.
- Davits are provided with hydraulic drivers.
- Davits can be supplied with hydraulic power-packs or connected to the central hydraulic system.
- Davits combine launching and retrieval functions. They can also be supplied only as a launching ramp.
- Sliding rollers are bronze and balancing rollers are polyamide.
- Electric starters and hydraulic powerpacks are located in a safely closed area.



FREE FALL DAVITS



• Free fall Davits of GüRDESAN that are placed on the aft of the vessels are one of the best choices in the market for Launching and Retrieving of the Free Fall Life Boats. They are famous with their long life, strength and reliability in the competitive shipping world.



• GüRDESAN Free Fall Davits (Launching and Retrieval systems) are very attractive choices with their functionality and simplicity. All components are selected for long life under severe marine conditions. Free Fall Davits are manufactured under the quality guarantee of ISO 9001 Quality Management System recognised by Turk Loydu and accredited by SWEDAC Ackreditering.







