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JUNG-A MARINE

Special Products

Main PRODUCTS

Hull Outfittings

ACC. LADDER, PILOT ASSIST LADDER
PILOT ROPE LADDER REEL
WINCH & MOTOR
WHARF LADDER
DAVIT, CAPSTAN
DECK MACHINERY

Accommodation Outfittings

WINDOW WIPER
CLEAR VIEW SCREEN
SUN SCREEN

New Products

HELIDECK
HELI - REFUELING SYSTEM
CABLE REEL FOR AMP SYSTEM
HATCH
TELESCOPIC HANGAR
AL STRUCTURE
SPECIAL PRODUCT



HEAD OFFICE & 1ST FACTORY
1469-5, Songjeong-dong, Gangseo-gu, Busan, Korea

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Oversea / E-mail : trade@jung-a.co.kr

2ND FACTORY
1489-1, Songjeong-dong, Gangseo-gu, Busan, Korea

3RD FACTORY
24, Jangpyeong-ri, Yongnam-myeon, Tongyeong-si, Gyeongsangnam-do, Korea



History of JUNG-A MARINE

We are happy to be able to tell you that for the past 35rd years we have been engaged in manufacturing & exporting a great variety of out fittings to all over the world spreading a good reputation. Our excellent organization of conducting, manufacturing (export business) and close connections with the best sources of material supply have enabled us to supply goods in the best quality at competitive prices.

1970

1978. 05. Established Jung-A company and started to produce aluminum ladder.

1981. 04. Built a factory at 339-9, Jangnim-dong, Saha-gu, Busan and changed a former name to Jung-A Ship Stores Plant and started to produce shipbuilding equipments.
1984. 03. Joined Korea Shipbuilding Industry Cooperative.

1980

1990

1986. 01. Incorporated Jung-A Ship Stores Plant (Representative director : Yum Jeong-min)
1986. 07. Selected as a company for Small & Medium Business Interrelationship shipbuilding Joint Project, and produced shipboard Clear View Screen, Window Wiper, Accommodation Ladder, and Wharf Ladder.
1988. 12. Developed Clear View Screen Gas-Tight Type.
1990. 10. Appointed as Metal Committee Member for Quality Control from Industrial Advancement Administration.
1991. 02. Acquired "Q-Mark" on ladder from Korea Testing & Research Institute for Chemical Industry.
1996. 08. Moved to a new head office at 316-35, Jangrim-1dong, Saha-gu, Busan (Area: 1,650m², Building site: 660m²)
1997. 08. Yum Dae-bum appointed as a representative director.
1997. 10. Acquired WPS Certification. (AL 6061-T6)-LR
1998. 05. Acquired WPS Certification. (STEEL)-KR
1998. 07. Acquired WPS Certification. (AL)-DNV
1998. 11. Acquired ISO9001 Certification. (Accommodation Ladder)-DNV

2000

2001. 02. Moved to a new head office and factory in Noksan Industrial Complex at 1496-5, Songjeong-dong, Gangseo-gu, Busan (Area: 6,600m², Building site: 3,300m²)
2002. 08. Developed shipboard Sun Screen.
2003. 10. Developed Edge Self Parking Wiper.
2004. 01. Acquired WPS Certification.(STEEL)-DNV
2004. 05. Acquired WPS Certification.(STEEL)-LR
2004. 12. Acquired WPS Certification.(STEEL)-RINA
2005. 03. Acquired Sun Screen Type Approval Certification-ABS
2005. 09. Changed to Jung-A Marine Co., Ltd.
2006. 02. Acquired WPS Certification.(AL)-GL
2006. 07. Acquired Wiper and CVS Motor Certification.
2006. 12. Achieved total sales of KRW 205hundred million in 2006.
2007. 08. Acquired WPS Certification.(AL 5083)-LR
2007. 09. The first helideck Project Launched.
2007. 10. Marine Week 2007 Exhibitor
2008. 10. Approved Research Institute by Government.
2008. 12. Promising Export Firm by SMBA of Korea
2009. 03. Achieved "Q" - mark (From Samsung Heavy Industries Co., Ltd.)
2009. 04. Certificated ISO 17899 for Window Wiper
2009. 11. Granted USD5 Million Export award
2009. 12. Achieved annual sales of 42 Billion won
2010. 11. Granted USD10 Million Export award
2011. 08. Acquired ISO 14001 Certification
2011. 08. Acquired OHSAS 18001 Certification
2012. 06. Acquired Fall Arrest System Type Approval (ABS. KR)
2013. 04. Signed AOPL & JA Helideck License Agreement.

Main Factory

Marine Innovation for tomorrow

JUNG-A MARINE CO., LTD. Has progressed in professional manufacturing of ship's out fittings (accommodation ladder, wharf ladder, clear view screen, window wiper, davit, portable ladder and etc.).

We are happy to be able to tell you that for the past 33rd years we have been engaged in manufacturing & exporting a great variety of out fittings to all over the world spreading a good reputation. Our excellent organization of conducting, manufacturing (export business) and close connections with the best sources of material supply have enabled us to supply goods in the best quality at competitive prices.

So we convince that we can compete successfully in both quality and price.
We welcome your interest in our company and products and remain with best regards.

Panoramic view of the Company

Main Factory 1469-5 Songjeong-Dong, Gangseo-Gu, Busan, Korea

Main Business List

ACC. LADDER : VERTICAL STOWING SYSTEM / HORIZONTAL STOWING SYSTEM
180° TURN-OVER STOWING SYSTEM / TELESCOPIC SYSTEM
WHARF LADDER : SOLID GIRDER TYPE / CURVED STEP TYPE

WINDOW WIPER : EDGE SELF PARKING TYPE /
STRAIGHT-LINE TYPE / PANTOGRAPH TYPE
CLEAR VIEW SCREEN : GAS TIGHT TYPE / WEATHER PROOF TYPE
SUN SCREEN : SPRING ROLLER BLIND TYPE /
CHAIN CLUTCH TYPE

JUNG-A 2nd Factory

www.jung-a.co.kr



2nd Factory
1489-1, Songjeong-dong, Gangseo-gu, Busan, Korea

Main Business List

- ROPE LADDER REEL : FIXED TYPE / TRAVELLING TYPE
- WINCH & MOTOR : ELECTRIC TYPE / AIR DRIVEN TYPE
- DECK MACHINERY : DAVIT / FIRE WIRE REEL / CAPSTAN

JUNG-A 3rd Factory (Tongyeong)



3rd Factory
24, Jangpyeong-ri, Yongnam-myeon,
Tongyeong-si, Gyeongsangnam-do, Korea

Main Business List

- HELIDECK
- HATCH
- CABLE REEL FOR AMP SYSTEM
- SPECIAL ORDER PRODUCT

Accommodation Ladder & Door & Rudder & Canopy

Accommodation Ladder & Door



The side ladder is operated with launching, housing, ascending, and descending by using Hyd' Cylinder, Hyd' Motor and Winch. It must consist with all parts such as Stowing Davit, Upper Platform, Turn Table, and Spindle that are needed for the operation.

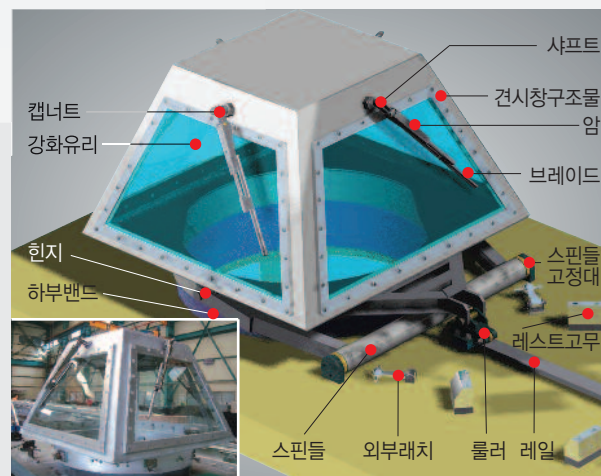
- This equipment is consisted as one universal system with the side ladder and horizontal door, and the entrance door. During the housing, it is basically weather tight and needs safe lockup system.
- The side ladder applies Curved Step, and must be designed so that the space can be minimized during the housing.
- During the housing, it gets loaded on the deck.
At this time, each door must be designed to be parallel with the outward appearances of the ship so that there won't be any protrusion.
- This equipment is operated by Gearing-Hydraulic along with the Hydraulic Power Pack form. It has a hand pump available to use in emergencies.

Rudder & Canopy



It is the key to control the thrust of boat and the direction so as to maintain a ship's sea route or to change the direction. It is consisted of Aluminum Alloy. It must be treated by Anodizing or Alo-Dine to prevent any sort of corrosion caused by penetration of the seawater in the inner part.

배의 추진력 및 방향을 다스리는 키로서 배가 항로를 유지하거나 방향을 변환할 수 있게하는 장치이다.
알루미늄 합금으로 이루어지며 내부에 해수등의 침입에 의한 부식 방지를 위해 Anodizing 또는 Alo-Dine등의 방식처리를 해야 한다.



This equipment is exterior observation device for the crew-member. It is consisted with the Observation Canopy and Window Wiper. The Observation Canopy can use its 12kg power to open/close by manual operation. For the Window Wiper, it is designed and produced by using motor and controller to electronically operate for obtaining the view of Observation Canopy.

본 장비는 승조원의 외부 관측용 장치로 견시창(Observation canopy)과 창닦이(Window Wiper)로 구성, 견시창은 수동으로 12kg의 힘으로 개폐가 가능하며, 창닦이는 견시창의 시야 확보를 위해 모터와 컨트롤러를 이용하여 작동하도록 설계, 제작되어져 있다.

Torpedo Door & Cargo Door

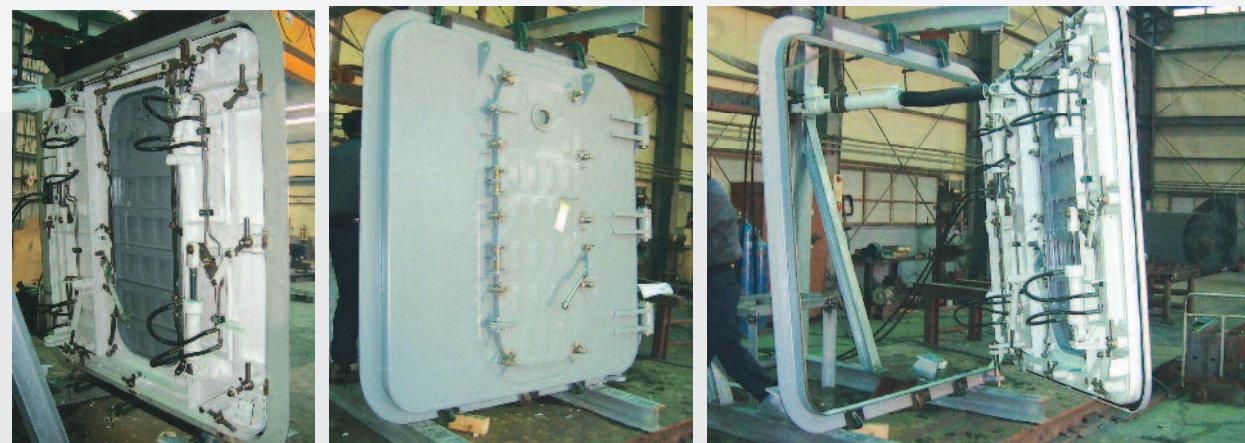
Torpedo Door



- The door to open/close the launching spot of Torpedo Tube that is loaded in the inner part of port/starboard side Heli Hanger.
- The power source is electro-hydraulic, and it is designed to be operated by using the Hyd. Power Pack of side ladder. Each Torpedo Door should be controlled by the Control Stand next to the port/starboard door.
- The Torpedo Door should be designed to be parallel with the outdoor appearances of the ship when closing so that there won't be any protrusion. It must have a safety fixture and a hand pump available to use in emergencies.
- The Torpedo Door should have operations such as Open/Close and Clamp/Unclamp by the Hydraulic Cylinder. All parts such as Spindle and Shaft Holder that are needed for operation must be equipped.

- 좌·우현 Heli Hanger 내부에 탑재되는 Torpedo Tube의 발사구를 개폐하기 위한 Door.
- 동력원은 전기-유압식이며, 현측사다리의 Hyd. Power Pack을 이용(겸용)하여 작동되도록 설계되고 조종은 좌·우현 Door 옆 Control Stand에서 이루어 져야 한다.
- 폐쇄시 선체외판과 평행상태로 되어 어떠한 돌출도 없도록 설계되어야 하며 안전한 고정 장치와 비상시 사용 가능한 Hand Pump가 좌·우현에 각각 구비되어야 한다.
- Hydraulic Cylinder에 의해서 Open/Close, Clamp/Unclamp 등의 동작이 이루어져야 하며 Spindle, Shaft Holder 등 작동에 필요한 모든 부품들이 구비되어야 한다.

Cargo Door



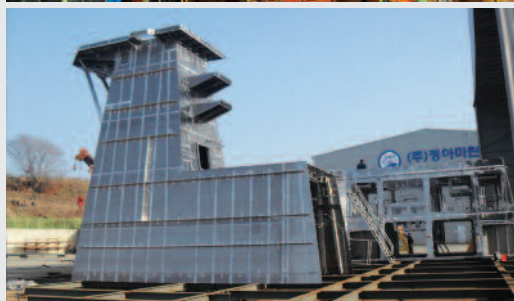
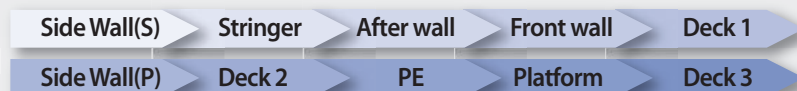
- The door to transfer ammunition and cargo that is installed at the end of port/starboard bow alley.
- The power source is electro-hydraulic. It must have Hyd. Power Pack (1st) that uses both starboard and port. It must have a hand pump available to use in emergencies. The Cargo Door should be controlled at each of the door's sideline exterior Remote Controller W/Box of starboard and port, so that the operator can see condition of opening/closing on one sight.
- The Cargo Door should have operations such as Open/Close and Clamp/Unclamp by the Hydraulic Cylinder. Every part that is needed for the operation must be consisted.

- 본 장비는 우현 및 좌현의 함수측 통로 끝에 설치되어 탄약 및 화물이송을 위한 Door.
- 동력원은 전기-유압식으로 우현 및 좌현을 겸용해서 사용하는 Hyd. Power Pack(1st)를 구비하여야 하며 비상시 사용가능한 Hand Pump가 있어야 한다. 조종은 우현 및 좌현 각각 도어 옆선 외측 Remote Controller W/Box에서 이루어져 Door의 개폐상태를 운용자가 한 눈에 볼 수 있도록 한다.
- Hyd. Cylinder에 의해서 Open/Close, Clamp/Unclamp등의 동작이 이루어지며 작동에 필요한 각 부품들로 구성한다.

AL Structure (Funnel & Mast)

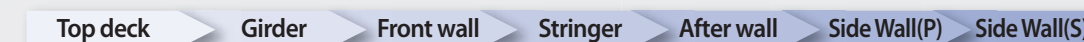
AL Structure (Mast)

- Size : (L)11m × (W)12m × (H)15m
- Weight : 13 Ton
- Material : Aluminium
- Assembly Sequence



AL Structure (Funnel)

- Size : (L)16m × (W)18m × (H)5m
- Weight : 12 Ton
- Material : Aluminium
- Assembly Sequence



Telescopic Hangar



This is a movable hangar which allows for the storage of Helicopters and installed on the coast guards that doesn't have separate helicopter hangar.

This is a leading section which include the door of hangar

This is a Trailing section which install with Driving Motor

This is a Fixed Section which provide a space for each sections It is a weather proof type and consisted of 3 steps.

SIZE

length : contraction - abt. 6.2m. For expansion : abt 13m(Except for Fixed Section) / **width** : abt. 7.5M / **height** : abt. 6.5M

별도의 헬기 격납고가 없는 함정에 설치하여 헬기를 격납할 수 있도록 하는 이동식 격납고이다.

격납고 DOOR가 달린 LEADING SECTION,

DRIVING MOTOR가 설치된 TRAILING SECTION,

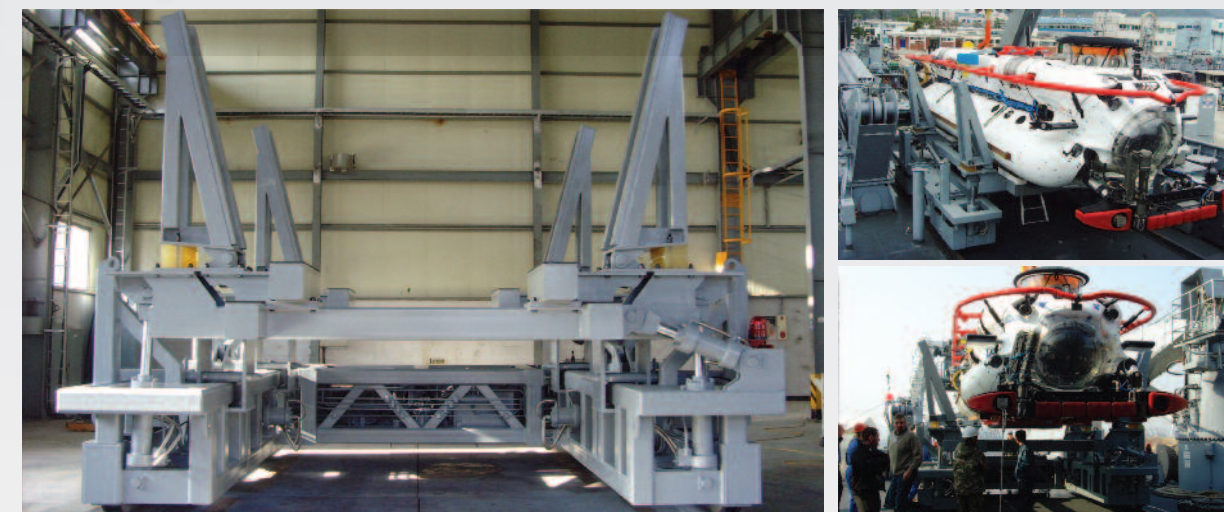
각 SECTION이 들어갈 수 있는 공간을 제공하는 FIXED SECTION, 총3단계로 구성되며 WEATHER PROOF TYPE이다.

SIZE

길이 : 수축시 - 약 6.2M, 확장시 - 약 13M (FIXED SECTION 제외) / **폭** : 약 7.5M / **높이** : 약 6.5M / **전체중량** : 약 23톤

Trolley & DSRV- II (AL Frame) & Ammunition Stowage Container

Trolley & DSRV- II (AL Frame)



A Trolley for deep sea diving rescue boats

Function : Transfer deep-sea diving rescue boats between Hanger and A-FRAME. When deep-sea diving rescue boats junction with the decompression chamber on shipboard, it has to be installed fine-tune four hydraulic cylinder which can be vertical and horizontal movement.

Performance : weight(15ton), transfer-weight(25ton), While it is with deep-sea diving rescue boats, it can be moved 50MM right and left, 300MM up and down

심해잠수구조정 Rescue boats for deep sea diving 용 TROLLEY

기능 : 심해잠수구조정을 격납고와 A-FRAME간 이송

심해잠수구조정과 함상 감압 챔버와 접합시 미세 조정이 가능토록 수직, 수평 이동이 가능한 4개의 유압 실린더 설치

성능 : 중량 (15톤), 이송하중 (25톤) 심해잠수구조정을 탑재한 상태에서 상하 300MM, 좌우 50MM 이동 가능하다.

Ammunition Stowage Container (함포위장막)



An camouflage for the guns of a warship

20MM GUN camouflage material container (for aluminum),

ELEC Driven Operation(if it necessary, it can be used for manual operation), is a special products which used on rail

함포 위장을 위한 컨테이너(재질 알루미늄)로 ELEC 구동방식(유사시 수동 조작 가능)으로 RAIL위를 움직이는 특수품이다.

RAS Outrigger & Retractable Bitt

RAS Outrigger



This is a Maritime freight distribution device, outrigger on folding state, has to be fixed by Fitting so it can not be rotated. When you supply the freight, the outrigger will Spread and fixed to the direction of the sturn by Fitting. The platform will be installed on outrigger that can be accessible to personnel in order to secure the highline.

해상화물 보급 장치로서 평상시 OUTRIGGER가 FOLDING된 상태에서 회전하지 않도록 FITTING류에 의해 고정되어지며, 화물 보급시 OUTRIGGER가 함미 방향으로 펼쳐져 FITTING류에 의해 고정되며, HIGHLINE을 고정시키기 위하여 인원이 접근 가능하도록 OUTRIGGER에 PLATFORM이 설치된다

Retractable Bitt



During mooring and towing, it should be worked up and fixed to the upper deck. and normally it is a mooring-device to be stored on the below deck.

Strength conditions : 1) BITT - BARREL 1/2 of the length of the branch at a height, it has to be able to withstand a horizontal force of 29 tons of action.
The tensile strength of the structure should be designed by 87 ton that applied a safety factor of 3.
2) PADEYE - It has to be able to withstand the action Force of 81.5 tons from DECK LEVEL 100MM minimum height to horizontal.
The tensile strength of the structure should be designed by 224.5 ton that applied a safety factor of 3.

계류 및 예인시 작업 갑판 상부로 올려져서 고정되며, 평상시 갑판 아래에 격납되는 계류 장치이다.

강도조건 : 1) BITT - BARREL 길이의 1/2 지점 높이에 수평으로 29톤의 힘이 작용하여도 변형이 없어야 됨
2) PADEYE - DECK LEVEL로부터 최소 100MM 높이에 수평으로 81.5톤의 힘이 작용하여도 변형이 없어야 됨
구조물의 인장강도는 안전계수 3이 적용된 224.5톤으로 설계되어야 함

Cargo Lift & Moonpool Hatch

Cargo Lift



A sort of elevator system that is used to move up and down the weight in the ship, to operate as the electric-hydraulic. It is 3 tons of maximum load and it takes time to move up or down about 30 seconds, It provided with absorbing shock equipment(Buffer Ass'y) to the hull in the charge of the speed. When platform is located on the upper deck, it should be maintained a steady-state to perform the role of the upper deck for Static Load. It has to be supplied safety-device for Rapid Fall Prevention, Overload, Stopper On / Off, Rising / Falling Action to be completed.

선박내 중량물을 상하로 이동시 사용하는 일종의 엘리베이터 시스템으로 전동-유압식(electro-hydraulic) 으로 작동한다. 최대하중 3톤, 약 30초의 상하이동 시간이 소요되며, 전하중의 과속 상태에서 선체에 가해지는 충격을 흡수하기 위한 완충설비(Buffer Ass'y) 가 함께 구비된다. Platform은 상부 Deck 에 위치한 경우 상부 deck 의 역할을 수행하기 위한 적합한 Static Load에도 정상 상태를 유지한다. 과부하, 급속낙하 방지, Platform의 상승/하강 동작완료 및 Stopper 체결/해제 등을 감지하기 위한 안전장치를 공급한다.

Moonpool Hatch

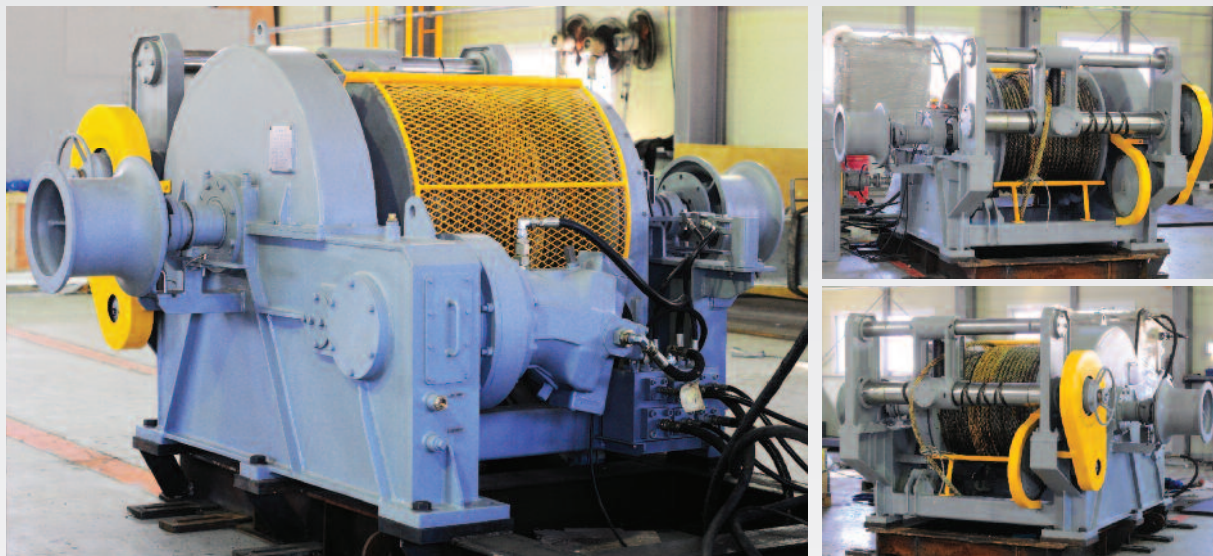


Normally, it is used to prevent the inflow of seawater through the moonpool, During the operation of ROV & Wet Bell, as needed and it should be opened and it is operated by the electric-hydraulic, is powered by Remote Controller installed on the ROV & Diving Control Room nearby the Moonpool. There's nothing more deformation and watertight hatch in the closed state, leave it up to the hatch at the top of the 3.5 tonnes of ROV. It should be structurally stabilized by 1.3bar, considering that the shock due to contact with seawater, and seawater between the hatch and the pressure.

평상시 문물을 통한 해수의 유입을 막기 위해 사용되며, ROV & Wet Bell 운용시 및 기타 필요시에 개방한다. 전동-유압식으로 작동되며 문물 인근 ROV & Diving Control Room에 설치된 Remote Controller에 의해 전원을 공급한다. 해치 폐쇄된 상태에서 3.5톤의 ROV를 해치상단에 올려 두어도 변형 및 수밀에 이상이 없다. 해수 접촉에 의한 충격 및 해수와 해치 사이의 압력이 1.3bar 인 점을 고려하여 구조적으로 안정되어야 한다.

Anchor Winch & Hatch Door

Anchor Winch



This is a device to loosen down and raise on a stern Anchor. Because of installing Rotating Fairlead on the stern end of the hull, Even if the position and orientation of the anchor at loggerheads, there is no damage to the rope. Warping Drum is equipped with anchor winch and it is a role in raising the mooring rope as a separate feature.

선미에 설치된 Anchor를 풀고 내리고 끌어올리는 장치로서 회전형 페어리더가 함미 끝 선체에 설치되어 앵커의 위치와 방향이 틀어져도 로프에 손상이 없다. 앵커 원치에 Warping Drum이 장착되어 별도의 기능으로 계류용 로프를 끌어올리는 역할도 한다. 선박의 일반 성능 및 주문주의 요청에 의해 엔진구동식과 유압작동식으로 나뉜다.

Hatch & Door



Used to prevent the open hole on the deck to carry the cargo and access to people.

- Hydraulically operated WATER-TIGHT HATCH
- WEATHER-TIGHT HATCH(DRILLSHIP)

선박내 화물을 싣고 내리거나 사람이 출입하기 위하여 갑판에 열려있는 구멍을 막기 위해 사용된다.

- 유압작동식 WATER-TIGHT HATCH
- WEATHER-TIGHT HATCH(DRILLSHIP)

Twin Hinged Door

선미 Life Boat 보호를 위한 Casing 개념의 전동-유압식 Hinged Door

OPENING SIZE : ABOUT 4M X 8M
OPERATION : ELETRO-HYDRAULIC POWER UNIT
OPENING TIME : 30 SECOND FOR OPENING OR CLOSING
OPENING ANGLE : MIN 90°
WEIGHT : 7 Ton

Hydro Patch

OPENING SIZE : ABOUT 13M X 7.5M
OPERATION : OPEN - MANUAL TYPE(CRANE 이용)
CLOSE - HYD CYLINDER CLIPPING
TIGHT : WATER TIGHT TYPE
WEIGHT : 28.5 Ton(Hull Part : 17 Ton, Patch : 11.5 Ton)

Offshore AL Structure

Offshore AL Structure (HANDRAIL, STAIR LADDER, STAIR TOWER, PLATFORM)



For two years from 2008 to 2010, Jung-A and Samsung Heavy Industries, as a joint venture of Marine, this project has been in progress for assembling from production, packaging, supply, installation and 170 tons of structures(handrail, stair ladder, stair tiwer, platform, safety gate, etc.) located in the top side of BP SKARV FPSO.

2008부터 2010까지 2년동안 삼성중공업과 정아마린의 합작으로 BP SKARV사 FPSO의 TOP SIDE에 위치한 ALUMINIUM 물량 170톤(사급,도급포함) 가량의 구조물(HANDRAIL, STAIR LADDER, STAIR TOWER, PLATFORM, SAFETY GATE등)을 조립에서부터 제작, 포장, 공급, 설치까지 진행되었던 공사로 삼성에서의 요청으로 NORSOK STANDARD (M-102) 적용하여 ALUMINIUM구조물을 용접 및 가공하였다.

AL Platform & Crow Nest

AL Platform



Platform(aluminum) and Vertical ladder(aluminum) installed on derrick for drilling.

시추를 위한 DERRICK에 설치되는 알루미늄 재질의 PLATFORM과 VERTICAL LADDER이다.

Crow Nest



Mainly located at the highest point of the line tuna purse seine fishing vessels for fishing yellowfin tuna and bonito, control of posting nets and understanding the flow of fish in highest point as Navi deck, and produced Aluminum Cabin by a low specific gravity to increase the speed of the boat after surface treatment coating.

A Radar Mast, which is the necessary equipment for fishing installed on the upper of Crow Nest that made of aluminum.

주로 황다랑어나 가다랑어를 어획하는 원양어선 중에 참치선망선의 가장 높은 곳에 위치하여 어류의 흐름을 파악하고 그물망 포스트를 선망선의 가장 높은 곳에서 조율하는 NAVI DECK로 배의 속도를 높이기 위해 비중이 낮은 알루미늄으로 선실을 제작하여 표면처리 후 도장을 한다. 알루미늄으로 제작되어 어획에 필요한 레이더등의 장비가 장착되는 RADAR MAST가 CROW NEST 상부에 설치되어 있다.

Gangway With Liftcar & Cable Reel for AMP System

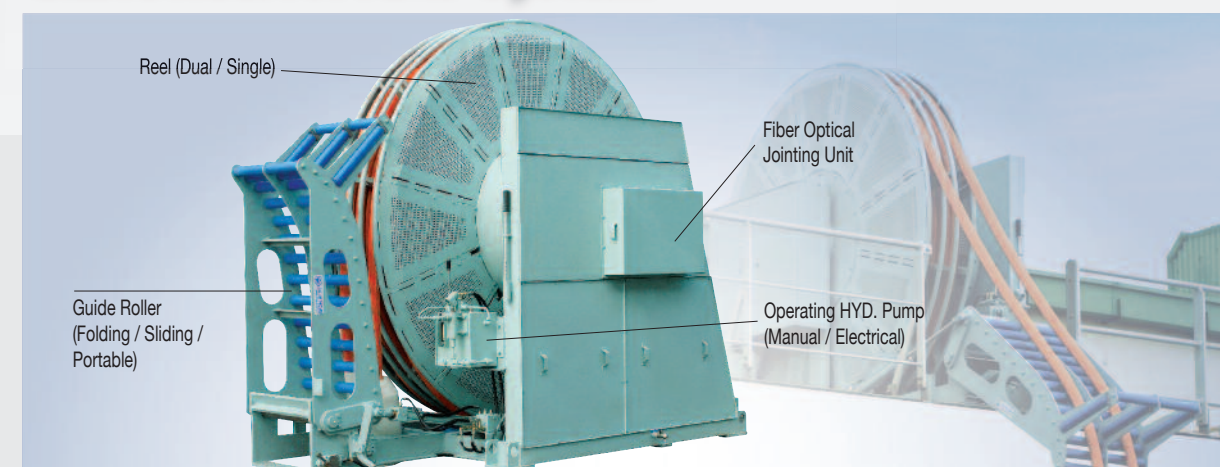
Gangway With Liftcar



It is used in continued-constraints and severe difference of the tidal harbor for the installation, and General forklift was equipped with an aluminum ladder. it can be used within the scope of upward 40 degrees and 10 degrees downward by a hydraulic cylinder. Regardless of the slope, the step always remains horizontal.

조수간만의 차이가 심하고 계속적인 설치에 대한 제약이 있는 항만에 사용되며 일반 지게차에 알루미늄 사다리를 장착하였다 유압실린더에 의해 상방 40도, 하방 10도 범위내에서 사용 가능하며 경사에 관계없이 스텝이 항상 수평상태를 유지한다

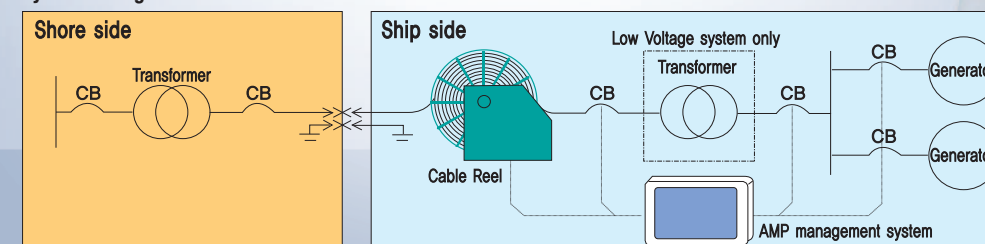
Cable Reel for AMP System



What is AMP System ?

The AMP project is intended to decrease pollutants discharged from ships on the berth and protect the environment of the harbor by stopping the onboard power generator engines, boiler, and other heat sources and alternatively supplying the necessary electric power from the shore side. This project is also known as the "cold ironing" project because all the heat sources are stopped. The POLA ths launched into the AMP project on a large scale and some other harbors are now reviewing the implementation of this project .

System Configuration



AMP System 개요

환경문제로 미국 LA항 내부에 정박 중인 선박의 발전기 사용을 금지
육상 전원을 받아 선박에 사용토록 POLACAP 승인 PLAN의 일부로 AMP System 사용

AMP System 구성요소(FIXED TYPE)

- Electrical Connectors(Up to 25kV)
- Cable Drum
- Flexible Cables
- Electric Control Panel
- Slip Ring Assembly
- Retractable Hydraulic Cable Guide
- Optical Fiber Accumulator
- Motor-Reducer
- Full Wiring and Installation Supervision

풍력 Vertical Ladder & Fall Arrest

풍력 Vertical Ladder



Aluminium Vertical Ladder For Wind Turbine Tower

Rail
design : 72x25x1.3t (oblong profile) / material : Aluminium 6N01-T6

Rung
design : 30x30x1.8t (non-slip ribbing) / material : Aluminium 6063-T5

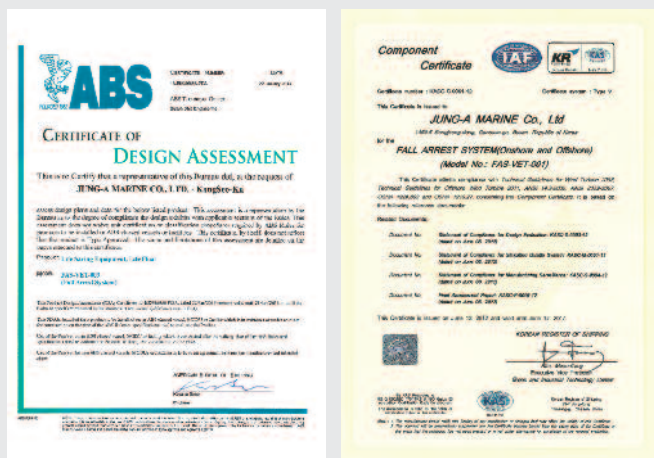
Ladder connector (plastic)
design : rail 72x25mm / material : fiber-reinforced polyamide



Fall Arrest System

When climbing and descending upon a worker's fixed ladder or fixed structures, this product has to be prevented the fall of a worker.
Components : Shock-Absorbers, Top Bracket, Bottom Bracket, Tension Control Device, Wire Rope, etc.

고소 작업자의 고정사다리 또는 고정된 고소작업 구조물 등의 등반 및 하강시 작업자의 추락을 방지하기 위한 제품이다.
구성품 : 충격흡수장치, TOP BRACKET, BOTTOM BRACKET, 텐션 조절 장치, WIRE ROPE 등



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Certificates from classification societies



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- * One year warranty.

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