



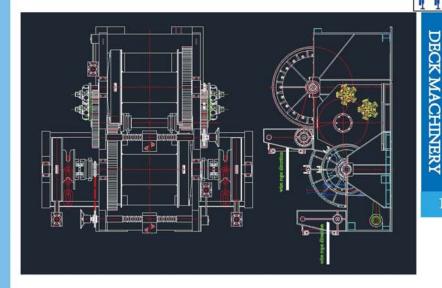
### Anchor Handling Towing Winch AHTW Series 起拋锚/拖缆机

The unit is powered by the electro hydraulic power pack mounted below deckThe Anchor Handling/Towing Winch would comprise a lower anchor handling drum and an upper towing drum mounted in a waterfall configuration. Both drums would be of fabricated construction with fixed high tensile steel main shafts. All main shafts would be supported on the fabricated steel base plate by heavy-duty roller type bearings mounted in steel housings, Transmission would be from two low speed high torque medium pressure hydraulic motors. The motors would be positioned at one side of the winch, driving through a totally enclosed spur gearbox. The drums are each fitted with a wrap up type band brake, which is hydraulically released and spring applied, giving a failsafe to on mode of operation. The brake would operate from a hydraulic cylinder complete with spring, through mechanical linkages to provide the required braking torque. One (1) spooling device to be designed for upper towing drum. The unit is powered by the electro hydraulic power pack mounted below deck.



液压起抛锚/拖缆绞车由两个上下分布的拖船卷筒组成, 卷筒安装在高强度主轴上,主轴由装配在基座上的重载轴承来支撑,由低速大扭矩液压马达驱动。液压马达装配在绞车一侧,并且通过闭式齿轮箱驱动。每个卷筒都配有液压释放、弹簧作用带式刹车便于更安全的操作。利用带弹簧的液压缸及机械连杆提供所需要的刹车力矩。拖缆卷筒配有排缆器。该液压组合锚机由置于船舱内的专用液压动力泵站提供动力。

Anchor Handling Towing Winch AHTW Series 起抛锚/拖缆机



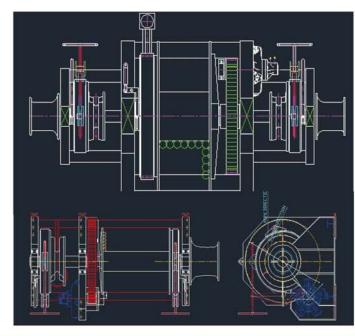
SPECIFICATIONS规格					
RATED PULL 工作拉力速 度	20TON TO 300 TON	CLUTCH 离合器	HYDRAULIC, PNUEMATIC, MANUAL  LOCAL CONTROL REMOTE CONTROL		
DRUM BRAKE 卷筒刹车方 式	SPRING LOADED, HYDRAULIC RELEASE, PNUEMATIC RELEASE, MANUAL	CONTROL 操作方式			
BRAKE HOLDING 支持负裁	5 TON TO 500 TON (STATIC 1st LAYER)	SPOOLER 排缆器	OPTIONAL		
CLUTCH 离合器	HYDRAULIC, PNUEMATIC, MANUAL	GYPSY 描述轮	OPTIONAL		

The combine anchor windless comprises of gypsy, towing/mooring drum and warping heads, mounted on a common high tensile steel shaft, The unit is driven by a low speed high torque piston type hydraulic motor or electrical driven motor via a single stage open spur gear unit. Each gypsy can be engaged and disengaged manually by means of individual manual jaw clutch mounted on the main shaft. The gypsy is also fitted with a manual operated band brake with a screw lever mechanism. The brake is a wrap-up design consisting of two halves wrapped around the brake race. Each half has a frictional material lining bolted to the brake band. The towing/ mooring drum can be engaged or disengaged by means of a hydraulic operated / air /manual jaw clutch, which is positioned on the hexagonal section of the shaft. The drum can also be provided by a fail-safe type band brake with spring loaded hydraulic/air release function. Drum may also be fitted with a spooler.



组合锚机是由锚链轮和卷筒组成的,并安装在一个高强度的主轴上,而主轴是通过装配在 机座上的重载轴承来支撑,由低速大扭矩的液压马达或电动马达驱动。锚链轮是手动控制, 卷筒可以配用液压或气动装置来实现控制。卷筒上还配置拥有弹簧作用带式的刹车以便有 更安全的操作,它是利用带弹簧的液压缸/气缸来提供所需要的刹车力矩。容绳量大的卷筒 也可以配有排缆器。

**Combine Anchor Windlass** 组合锚机 AWM Series

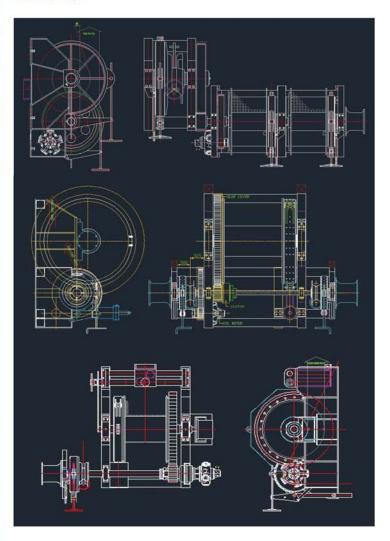




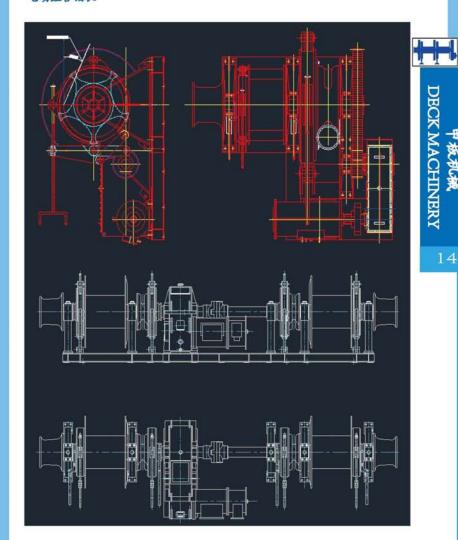
DECK MACHINERY

SPECIFICATIONS 規格 ANCHOR WINDLASS 起锚机		SPECIFICATIONS 规格  MOORING/TOWING WINCH系泊/拖缆机		
DUTY PULL 拉力	1 TON TO 70 TON	DRUM BRAKE 基質剎车方式		
RATED PULL 工作拉力速度	>9m/min	BRAKE HOLDING 静止最大刹车力	5 TON TO 450 TON	
BRAKE HOLDING 静止最大刹车力	8.3TON TO 450 TON (STATIC)	CLUTCH 高合器	MANUAL/HYDRAULIC/PNUEMATIC	
BRAKE 剥车方式	MANUAL OPERATED BAND BRAKE	CONTROLMETHOD 操作方式	MANUAL/HYDRAULIC/PNUEMATIC	
CLUTCH 离合器	MANUAL OPERATED JAW CLUTCH	CONTROL 控制	LOCAL & REMOTE	
CONTROL 控制	LOCAL	SPOOLER 排規器	OPTIONAL	

Hydrulic Combined Anchor Wind lass 液压组合锚机



Electrical Combined Anchor Wind lass 电动组合锚机



### Anchor Windlass 锚机 AW Series

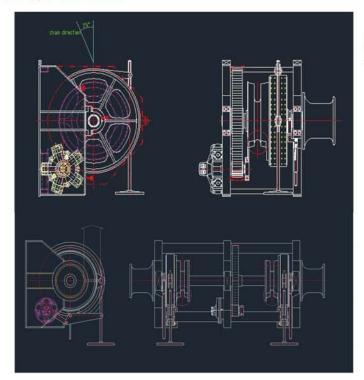
The hydraulic/electrical windlass winch comprises of gypsy and warping head, mounted on a common high tensile steel shaft, supported by heavy duty bearings which mounted onto the steel fabricated skid frame, and it be driven by a low speed, high torque hydraulic motor/Electric motor through guarded spur gear reduction.

Each gypsy can be engaged and disengaged manually by means of individual jaw clutch mounted on the shaft. The gypsy is also fitted with a manual operated band brake with a screw lever mechanism. Casting warping heads for general purpose are also fitted at the end of the main shaft.



液压/电动锚机安装于船舶艏部,主要由一根由重载轴承支撑的刚性主轴,铸钢锚链轮和副卷筒组成并固定在钢结构机架上。低速大扭矩液压/电动马达通过一对具有减速作用的开式齿轮副驱动主轴旋转。链轮配有手动牙嵌式离合器,通过操纵该离合器手柄,可使链轮与主轴啮合或脱开。链轮上还配有带式手动刹车,并可通过操作手轮和螺杆达到松开或是刹紧刹车。主轴的一端连着铸钢副卷筒,用于一般绞缆作业。

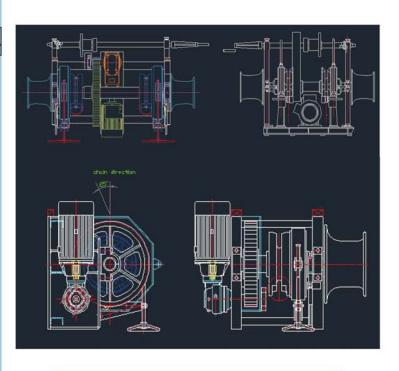
### Hydraulic Anchor Windlass 液压锚机 AWH Series



SP	PECIFICATIONS 规格		
ANC	HORWINDLASS 起锚机		
CHAIN SIZE 锚链尺寸	DIA 17mm U2 TO DIA 122mm U3		
DUTY PULL 拉力	1 TON TO 70 TON		
RATED PULL 工作拉力速度	>9m/min		
BRAKE HOLDING 静止最大刹车力	8.3TON TO 450 TON (STATIC)		
BRAKE 刹车方式	MANUAL OPERATED BAND BRAKE		
CLUTCH 高合器	MANUAL OPERATED JAW CLUTCH		

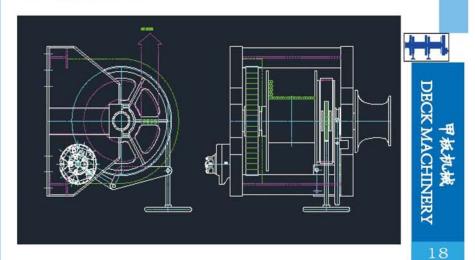


甲板机械 DECK MACHINERY

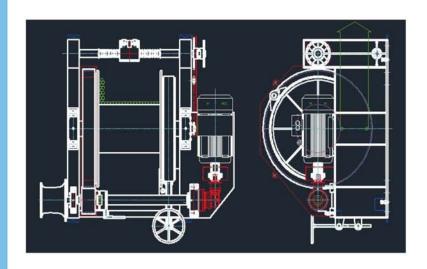


SF	PECIFICATIONS 规格
ANC	HOR WINDLASS 起锚机
CHAIN SIZE 锚链尺寸	DIA 17mm U2 TO DIA 122MM U3
DUTY PULL 拉力	1 TON TO 70 TON
RATED PULL 工作拉力速度	>9 m/min
BRAKE HOLDING 静止最大刹车力	8.3TON TO 450 TON (STATIC)
BRAKE 刹车方式	MANUAL OPERATED BAND BRAKE
CLUTCH 高合器	MANUAL OPERATED JAW CLUTCH

Hydraulic Anchor Winch 液压锚绞车 AWH Series



Electric Anchor Winch 电动锚绞车 AWE Series



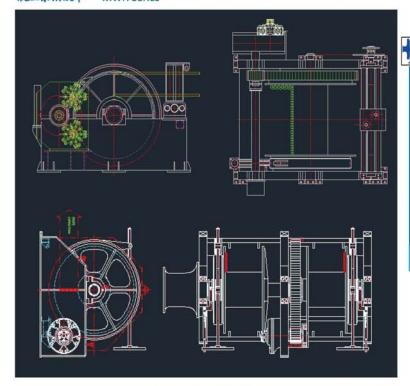
### Mooring Winch 系泊绞车 MW Series

The Mooring Winch would comprise of drum for mooring function. All drums would be of fabricated construction with fixed high tensile steel shafts. All main shafts would be supported by the heavy duty roller bearings mounted in steel housings, bolted to a fabricated steel skid frame. A pinion & gear would be mounted, carrying all necessary jaw clutches, support bearings and pinion gears, to allow independent operation of the drum through the drive package. The motors would be positioned at a gearbox that is located one side of the winch frame, driving through gear units. The drum is fitted with a wrap up type band brake, which is can be hydraulically/ pneumatic released and spring applied fail safe brake or manual. All brake straps are lined with a marine high grade non asbestos material that is bolted to position. An automatic wire spooling system may be provided for the mooring drum.



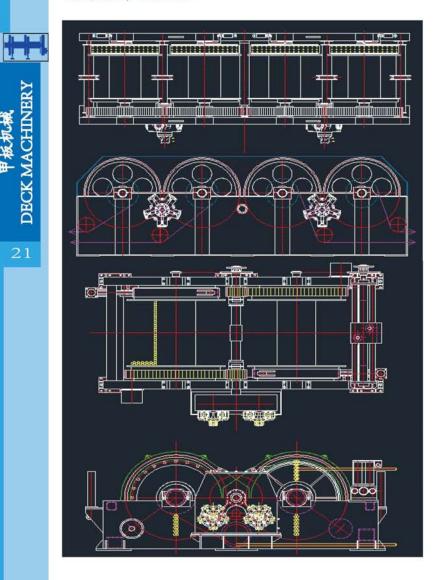
系泊绞车主要是由一根由重载轴承支撑的刚性主轴,主卷筒和副卷筒组成并固定在钢结构机架上。低速大扭矩液压/电动马达通过一对具有减速作用的开式齿轮副驱动主轴旋转。主卷筒配有手动牙嵌式离合器,通过操纵该离合器手柄,可使主卷筒与主轴啮合或脱开。主卷筒上有带式手动制车,并可通过手动操作手轮和螺杆达到松开或剥紧削车。也可以配置拥有弹簧作用带式的刹车以便有更安全的操作,这是利用带弹簧的液压缸/气缸来提供所需要的刹车力矩。主轴的一端连接着铸钢副卷筒,用于一般绞缆作业。容绳量大的卷筒也可以配有排缆器。

Hydraulic Mooring Winch 液压系泊绞车 MWH Series

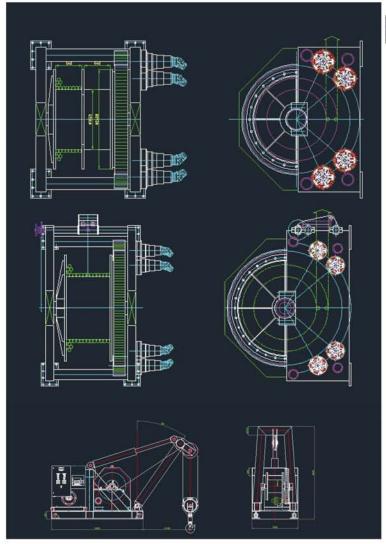


DECK MACHINERY

SPECIFICATIONS 规格				
RATED PULL 工作拉力速 度	2 TON TO 200 TON	CLUTCH 离合器	HYDRAULIC, PNUEMATIC, MANUAL	
DRUM BRAKE 卷筒刹车方 式	SPRING LOADED, HYDRAULIC RELEASE, PNUEMATIC RELEASE, MANUAL	CONTROL 操作方式	LOCAL CONTROL REMOTE CONTROL	
BRAKE HOLDING 支持负载	5 TON TO 500 TON (STATIC 1st LAYER)	DRAG BRAKE 阻力制动	PNUEMATIC HYDRAULIC	
CLUTCH 离合器	HYDRAULIC, PNUEMATIC, MANUAL	SPOOLER 排缆器	OPTIONAL	



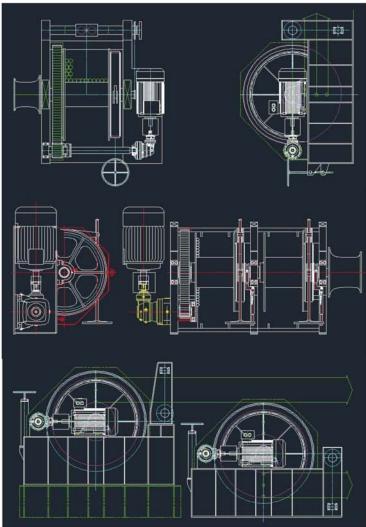
Hydraulic Mooring Winch 液压系泊绞车 MW Series (Offshore)





DECK MACHINERY

## Electric Mooring Winch 电动系泊绞车 MWE Series



### Towing Winch 拖缆机 TW Series

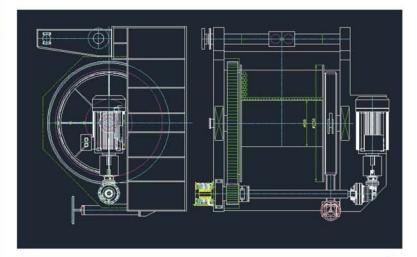
The Towing Winch would comprise one single drum for towing function. The drum would be of fabricated construction with fixed high tensile steel shafts. All main shafts would be supported by the heavy duty roller bearings mounted in steel housings, bolted to a fabricated steel skid frame. A central pinion shaft would be mounted, carrying all necessary jaw clutches, support bearings and pinion gears, to allow independent operation of the drum through thedrive package. Transmission would be from low speed high torque medium pressure motor. The motor would be located one side of the winch frame, driving through two pairs of reduction gear unit. The drum is fitted with a wrap up type band brake, which can be pneumatic hydraulically released and spring applied fail safe brake. The brake would operate from a pneumatic/hydraulic cylinder complete with spring, through mechanical linkages to provide the required braking torque. All brake straps are lined with a marine high grade non asbestos material that is bolted to position. An automatic wire spooling system can be provided for the towing drum. The system comprises a lead screw and driving tongue, guide bar, side support frames, bushed carriage with vertical rollers and a chain drive mechanism and driven chain wheels, drive chain and fabricated steel guard. All winch mounted valves and motor are supplie d with mating counter flanges.



拖缆机主要由一根刚性主轴,及在其上的拖缆卷筒和两只座在刚性底座上的重载轴承座组成,低速大扭矩液压/电动马达通过二级开式齿轮副驱动主轴旋转。卷筒配有液压/气动/手动控制 牙嵌式离合器,操作离合器可使卷筒工作或停止。卷筒制动器为带式常闭式刹车,可以由气/液压通过控制阀件驱动刹车油缸使制动器刹紧或松开,当气/液压动力源失效时,可通过手动控制制动器,卷筒上可带排缆器。

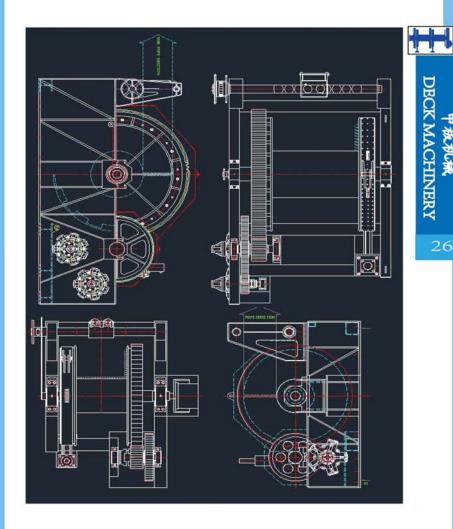


甲板机械 DECK MACHINERY



SPECIFICATIONS 规格				
RATED PULL 工作拉力速度	20 TON TO 300 TON	CLUTCH 离合器	HYDRAULIC, PNUEMATIC, MANUAL  LOCAL CONTROL REMOTE CONTROL	
PRING LOADED, HYDRAULIC RELEASE, PNUEMATIC RELEASE, MANUAL	HYDRAULIC RELEASE, PNUEMATIC RELEASE,	CONTROL 操作方式		
BRAKE HOLDING 支持负载	30 TON TO 600 TON (STATIC 1st LAYER)	DRAG BRAKE 阻力制动	PNUEMATIC HYDRAULIC	
CLUTCH PNU	HYDRAULIC, PNUEMATIC, MANUAL	SPOOLER 排线器	OPTIONAL	
		RATCHET 固定 架	MANUAL/HYDRAULIC /PNUEMATIC/NIL	

Hydraulic Towing Winch 液压拖缆机 TWH Series



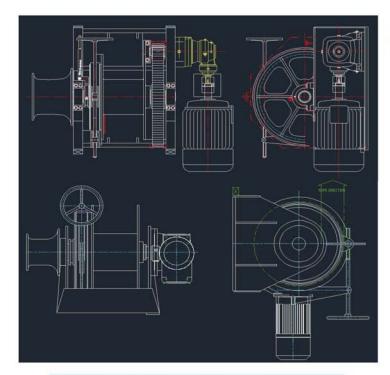
### Tugger Winch 移货绞车 TG Series

The Hydraulic/Electric Tugger Winch comprises one steel fabricated drum and one warping head, mounted on a common high tensile steel shaft, supported by heavy duty bearings which mounted onto the steel fabricated skid frame, and it be driven by a low speed, high torque electric/hydraulic motor through guarded spur gear reduction. The drum can be engaged and disengaged manually by jaw clutch that is position on a hexagonal section of the main shaft. The drum is also fitted with a manual operated band brake with a screw lever mechanism. One casting warping head for general purpose is also fitted at the end of the main shaft.



移貨绞车主要由一根由重載轴承支撑的剛性主轴,主卷筒和副卷筒组成并固定在钢结构机架上,低速大扭矩电动/液压马达通过一对具有减速作用的开式齿轮副驱动主轴旋转。主卷筒配有手动牙嵌式离合器,通过操纵该离合器手柄可使主卷筒与主轴啮合或脱开.主卷筒上还有带式手动刹车,并可通过操作手轮和螺杆松开或是刹紧刹车,主轴的一端连接着铸钢副卷筒,用于一般的绞缆作业。

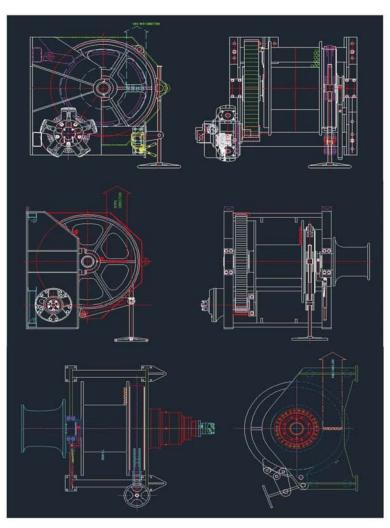
### Electric Tugger Winch 电动移货绞车 TGE Series



SPECIFICATIONS 规格				
DUTY PULL 抖力	2 TON TO 30 TON			
RATED PULL 工作拉力速度	>10m/min			
BRAKE HOLDING 静止最大刹车力	STON TO SO TON (STATIC)			
BRAKE 剥车方式	MANUAL OPERATED BAND BRAKE			
CLUTCH 高合器	MANUAL OPERATED JAW CLUTCH			



甲板が載 DECK MACHINERY



Capstans 绞盘 VC Series

The Capstan comprises of a cast steel warp head mounted directly to the reduction gearbox. The planetary gearbox would be mounted to the fabricated tubular stand with combined deck mounting flange. Transmission would be from a medium pressure hydraulic motor flanged to the input of the reduction gearbox.



DECK MACHINERY

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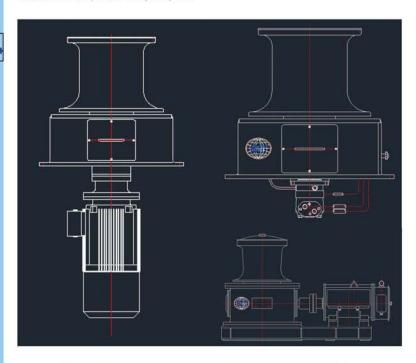






立式绞盘由减速箱及直接安装在其上的铸钢绞盘头组成, 减速箱则是固定于筒形钢结构上。其配有法兰盘可固定在甲板上。液压马达通过减速箱驱动绞盘头旋转。

Electric/Hydraulic/Horizontal Capstans 电动/液压/水平绞盘 VCE/VCH/HCE



Si	SPECIFICATIONS 规格				
DUTY PULL 拉力	1 TON TO 30 TON				
RATED PULL 工作拉力速度	>10 m/min				
BRAKE HOLDING 静止最大刹车力	STON TO 50 TON (STATIC)				
SLACK SPEED 轻载	>30 m/min				
WARPING HEAD 绞盘头	200 mm TO 800mm				
CONTROL 操作方式	LOCAL CONTROL REMOTE CONTROL				

### Storage Winch 容绳绞车 SR Series

The storage reel comprises of one steel fabricated drum mounted on a common high tensile steel shaft, supported by heavy duty bearings which mounted onto the steel fabricated skid frame, and it be driven by a low speed, high torque motor through guarded spur gear reduction.





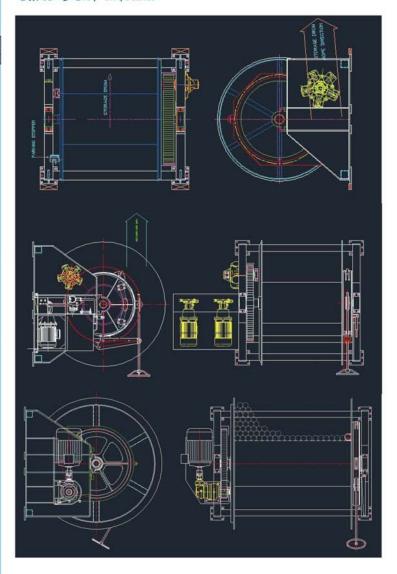
甲板机械 3CK MACHINER

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容绳绞车主要由一根由重载轴承支撑的刚性主轴及一副容绳卷简组成并固定在钢结构机架上, 低速大扭矩马达通过一对具有减速作用的开式齿轮副驱动主轴旋转。

SPECIFICATIONS 规格				
DUTY PULL 拉力	3 TON TO 15 TON			
RATED PULL 工作拉力速度	>10m/min			
DRUM CAPACITY 容絕量	1000m x40mm to 1500mm x81mm			
CONTROL 操作方式	LOCAL CONTROL			

### Electric/Hydraulic/Storage Winch 电动/液压容绳绞车 SRH/E Series



### Shark Jaw/Tow Pin 鲨鱼钳/档销 SJ/TP Series

The Hydraulic Lock Jaw comprising of a pair of palm plates, it would be operated through a series of linkages by a heavy-duty hydraulic cylinder. Each palm plate can be individually controlled. When the hydraulic cylinder is activated, it pushes the palm plate above the main deck to its vertical position. When both palm plates in the activated position, the anchor cable is restricted within the gap formed between the two plates. An emergency system is incorporated to provide quick release of the wire rope/chain.

鲨鱼钳有两块钳板, 其连接着一组连杆和液压油缸,油缸工作时通过连杆将钳板顶出甲板至垂直位置, 每块钳板可单独操控, 当两块钳板都升出并垂直于甲板时为闭合状态, 可使锚链或钢丝绳被夹在两块 钳板中间,应急系统可使夹在两块钳板中间锚链或钢丝绳被快速释放.



The Hydraulic Towing Pin comprises a pair of bollards. Each bollard is fabricated from steel tubing, activated into its extended position above the deck by a heavy duty hydraulic cylinder.

每套液压挡销有一对销柱, 其为管形钢结构, 由内装的油缸顶出甲板。

SJ SPECIFICATIONS 规格		TP SPECIFICATIONS 规格		
CAPACITY 工作拉力	100 TON TO 500 TON	TYPE	PARALLEL. SLANT	
ROPE SIZE 钢丝绳	40MM TO 102MM	CAPACITY 工作拉力	100 TON TO 500 TON	
CHAIN SIZE 衛徒	40MM TO 102MM	HEIGHT 容鈍量	500MM TO 850MM	
CONTROL 操作方式	LOCAL CONTROL & REMOTE PANEL	CONTROL 操作方式	LOCAL CONTROL & REMOTE PANE	

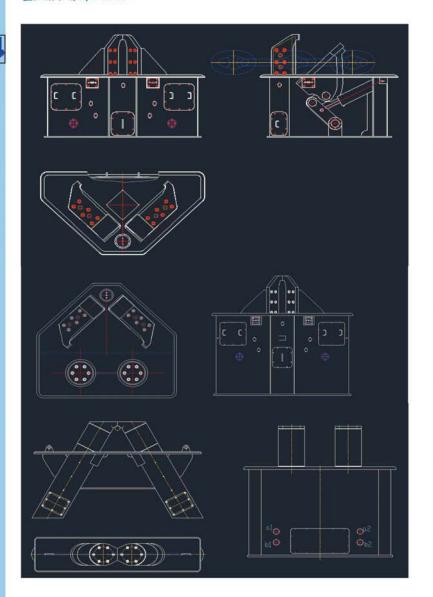


DECK MACHINERY

Shark Jaw/Tow Pin 鲨鱼钳/档销 SJ/TP Series



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### HPU 动力站

The unit would comprise electric motors, Class 'F' insulation, IP54, TEFC. Each motor would be flexibly coupled to the hydraulic pump and would be mounted on a fabricated skid base plate all suitable for below deck mounting.

泵站由多台电机组成, 各电机用活动连轴节与液压泵相连,装在钢结构支架上, 整台泵站的机座可固定在甲板。

Within the power pack would be mounted all necessary components to be used in conjunction with the winch, including: Cooler, Filters, Relief Valves, Gauges, & Reservoir, etc. 泵站包含所有操作绞车的必需部件,如: 冷却器, 滤器, 安全阀, 表和油箱等。

All components would be mounted on the power pack prior to dispatch from our works. Starter would be supplied loose for shipyard to position.

有部件在出厂前都已安装在泵站上, 电机的启动箱会以散装形式提供, 由船厂自行安装在合适的地方。

Starter to be consisting of HRC fuses, overload alarm, under-voltage alarm with manual reset, contactors, Start/Stop, A-meter, Hour-meter, Low oil level alarm, High temperature alarm, Power On indicator light, motor RUN indicating light, motor trip indicator light, Space heater "ON" indicating light and name plateetc., a general alarm connection port would be provided also for remote monitoring.

启动箱有以下装置, 并提供遥控报警接线柱.

### Specification

A-meter
Hour meter
High temperature alarm
Low oil level alarm
Run indicating light
Motor trip alarm
Motor start/stop push button
Load enquiry push button
Space heater "ON"indicating light
Over-load Alarm
Under-voltage Alarm
Alarm reset push button

安培表 计时温整报 高温泊住指数警 运行指故障状型 马达起/停接纽

> 加热器指示灯 过载报警 低压报警 报警复位按钮。









甲板机械 DBCK MACHINERY

# HPU 动力站

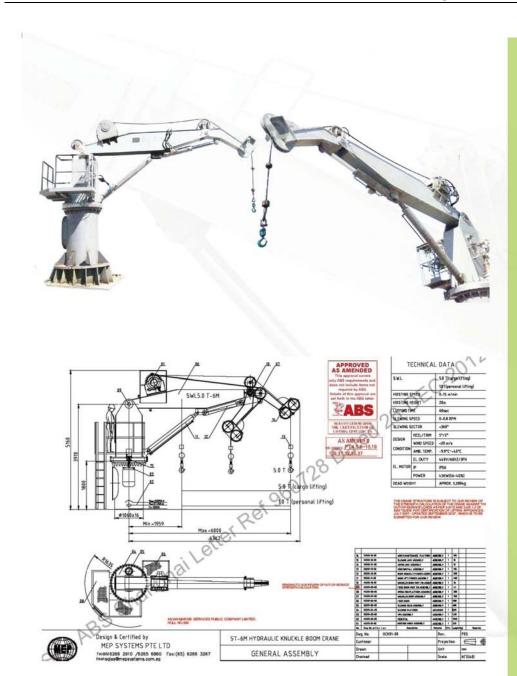
	HPU SPECIFICATIONS 规格			
Capacity 容量	1 x 5.5 kw to 4 x 160 kw			
Power 电力	110V 1 PH to 690V 3 PH			
Cooler 冷却	Freshwater, Seawater, None			
Accumulator 容油罐	Optional			





8 POINT MOORING SYSTEMS 8点定位系统





### Telescopic Crane 伸缩吊机



Telescopic cranes have compact construction and can telescope to reduce the overall size when stored tominimize occupying space on board. The crane can be equipped with one or multi telescopic cylinders.

伸缩式吊机结构紧凑,不使用时可以将吊臂收到最小的外形尺寸以减少船上的占用面积。 吊机可配一个或多个伸缩臂。

### Knuckle Boom Crane 液压折臂吊机



Knuckle boom crane has compact construction which minimize occupying space on board. Further more, it has accurate actions for handling of very delicate instruments. These cranes havebeen widely used onboard fishing boat, research boat, engineering vessel, navy vessel and other special vessels.

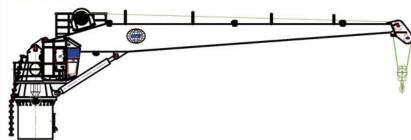
折臂式吊机结构紧凑,可减少在平台和船上的占用面积。同时吊臂的操作灵活多变 在不排放钢丝绳时,吊钩也可触至海面,可用于装卸精密仪器等,而广泛地用于渔 船、探测船、工程船、军舰和特殊船舶上。

# Telescopic Knuckle Boom Crane 折臂/伸缩型吊机

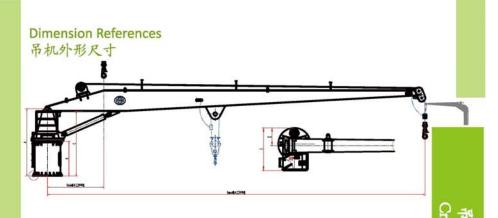
Knuckle Boom crane have compact construction which minimize occupying space on board. Further more, it has accurate actions for handling of very delicate instruments. These cranes have been widely used onboard fishing boat, research boat, engineering vessel, navy vessel and other special vessels. 折臂/仲錦式吊机结构紧凑,可减少在平台和船上的占用面积。同时吊臂的操作灵活多变在不排放钢丝绳时,吊钩也可触至海面,可用于装卸精密仪器等,而广泛地用于渔船、探测船、工程船、军舰和特殊船舶上。

### Fixed Boom Crane

固定吊机

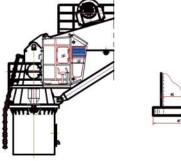


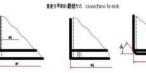
Simplicity has always been our design critria when making full cylinder luffing cargo cranes. Simple with focus on reliability, maintenace, weight and center of gravity. Normal lifting capacity of the crane is from 10T to 50T (Max.150T) and hoisting speed is between 10m/min and 30m/min. 普通型货物甲板吊机以简单作为设计标准,采用全油缸变幅,具有重量轻,重心低,工作可靠及维修方便的特点,该吊机起升能力通常在10T-50T之间,最大不超过100T,满载时起升速度在10M/MIN-30M/MIN之间。

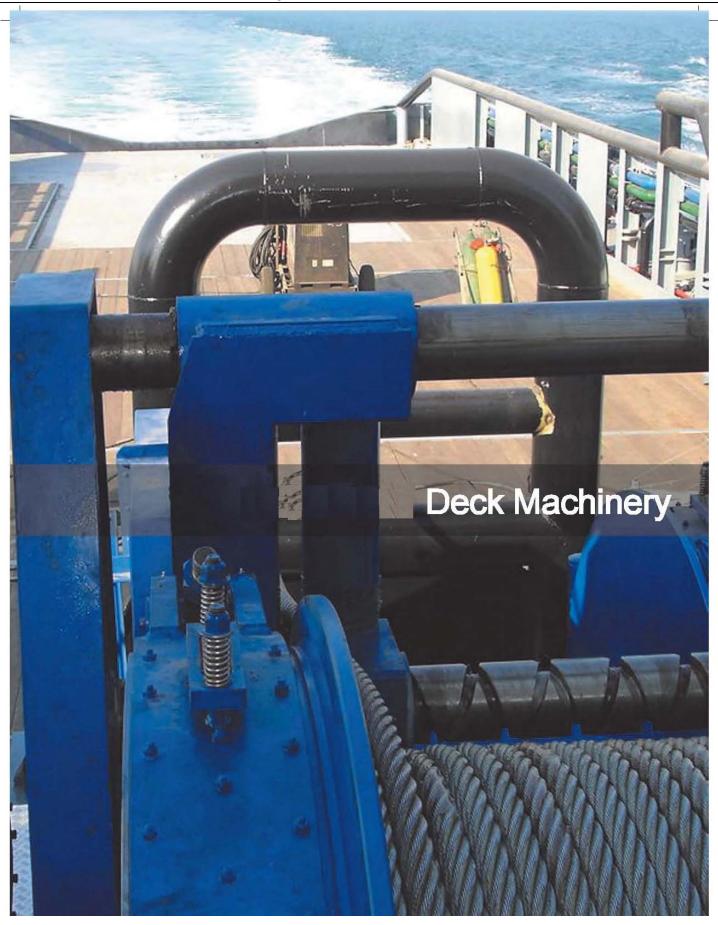


### DIMENSIONS(mm)

SERIES	А	В	С	н	E	ФЕ	ΦG
15	1920	900	1830	461	1541	848	658
25	1995	1000	1903	500	1570	930	740
60	2220	1050	2123	621	1871	1105	956
95	2720	1100	2587	695	1972	1252	1090
135	3270	1200	3108	770	2060	1375	1230
200	3395	1250	3223	870	2258	1575	1425
340	4025	1350	3830	970	2470	1775	1625
610	4225	1400	4013	1089	2690	1965	1800
680	4700	1500	4455	1230	2900	2160	2000
950	4900	1500	4635	1360	3200	2420	2250
1100	5150	1500	4585	1510	3500	2720	2550



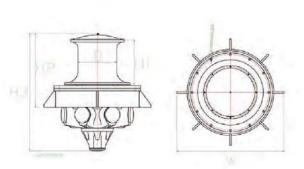


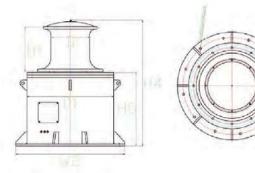


# Capstan

· Capacity: Up to 20 Ton

· Configuration: Vertical / Horizontal





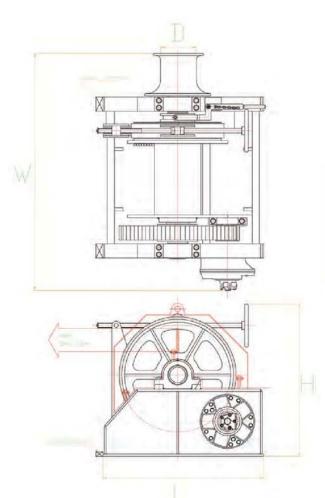




Pull	Speed		s mm.				
Tons (To	(Ton/Min)	D	H1	H2	W	D1	No. Of Holes
1	15	180	220	535	610	450	4
1.5	15	220	240	555	750	600	4
2	15	250	260	625	970	750	6
3	15	300	320	685	970	750	6
4	15	340	400	715	1100	880	6
5	15	400	450	915	1150	920	8
6	15	400	450	915	1150	920	8
8	15	500	600	1125	1500	1250	8
10	15	500	600	1125	1500	1250	8
12	15	600	680	1210	1500	1250	12
15	15	600	680	1210	1500	1250	12

# **Tugger Winch**

· Capacity: Up to 20 Ton



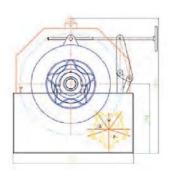


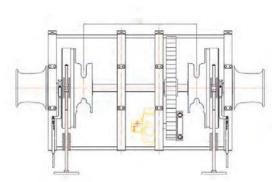
D C	Rated Pull	Brake	Main Dimension			\A/-:-b4	Power
Drum Capacity	@ 1st Layer	Holding	Ĺ	W	Н	Weight	Required
lo18MM DIA. X 220MTR	350KN X 15M/MIN	45KN	1546	1120	1060	1.1 Ton	11KW
Jo18MM DIA. X 220MTR	50KN X 10M/MIN	75KN	1671	1120	1060	1.5 Ton	11KW
Jo20MM DIA. X 250MTR	80KN X 10M/MIN	120KN	1985	1120	1360	1.5 Ton	11KW
Jo22MM DIA. X 250MTR	100KN X 10M/MIN	150KN	1985	1450	1360	2.3 Ton	22KW
Jo28MM DIA. X 350MTR	150KN X 12M/MIN	225KN	2350	1950	1923	4.4 Ton	45KW
Jo32MM DIA. X 500MTR	200KN X 10M/MIN	300KN	1760	2000	1923	4.6 Ton	55KW

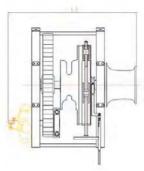
# **Anchor Windlass**

· Capacity: Up to 120mm dia Chain

· Configuration: Single / Double Gypsy









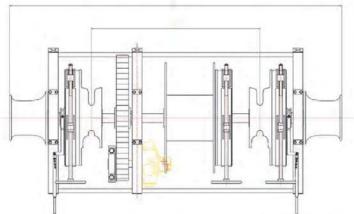
				Main Dimension				
Chain Size mm	Pull Rate kN x m/min	Over Load kN	Brake Holding kN	Ctr Dis. C (mm)	Length L1 (mm)	Length L (mm)	Width W (mm)	Height H (mm)
17.5	13.0 x10	19.5	82.2	1000	1190	2380	900	990
19	15.0 x 10	23	95.5	1000	1190	2380	900	990
20.5	18.0 x 10	27	110	1000	1190	2380	900	990
22	20.5 x 10	31	126	1000	1190	2380	900	990
24	24.5 x 10	36.5	149.5	1000	1215	2430	900	990
26	28.5 x 10	43	175	1000	1250	2500	900	1050
28	33.5 x 10	50	202	1000	1300	2600	900	1100
30	38.5 x 10	57.5	231.5	1000	1350	2700	900	1200
32	43.5 x 10	65.5	262.5	1000	1350	2700	1050	1200
34	49.0 x 10	73.5	295	1000	1450	2900	1050	1350
36	55.0 x 10	82.5	329.5	1000	1450	2900	1050	1350

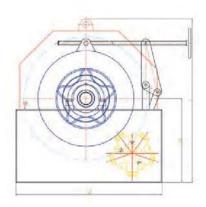
# **Combination Windlass / Winch**

· Windlass Capacity: Up to 120mm dia Chain

· Winch Capacity: Up to 20 Ton

Configuration: Single / Double Gypsy and Single / Double Drum





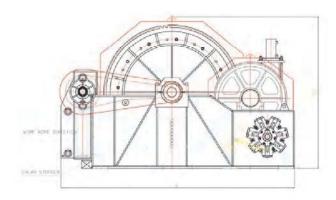


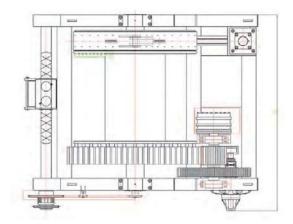
					Main Dimension				
Chain Size mm	Drum Cap. ф x m	The state of the s		Ctr Dis. C (mm)	Length L (mm)	Width W (mm)	Heigth H (mm)		
19	72 x 110	30 x 15	600	1850	3500	1800	1750		
20.5	72 x 110	30 x 15	600	1850	3500	1800	1750		
22	90 x 110	50 x 15	900	2000	3700	2200	1950		
24	90 x 110	50 x 15	900	2000	3700	2200	1950		
26	90 x 110	50 x 15	900	2000	3700	2200	1950		
28	90 x 110	50 x 15	900	2000	3700	2200	1950		
30	110 x 110	50 x 15	1100	2100	3800	2400	2250		
32	110 x 110	50 x 15	1100	2100	3800	2400	2250		
34	110 x 110	50 x 15	1100	2200	3950	2400	2250		
36	110 x 110	50 x 15	1500	2200	3950	2400	2250		

# **Mooring Winch**

· Capacity: Up to 200 Ton

· Configuration: Single Drum / Double Drum / Waterfall





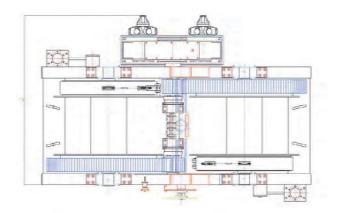




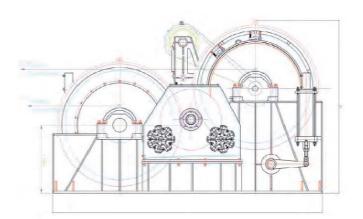
D 0 :	Rated Pull	Brake	Mair	Dime	nsion	\A/oinht	Power	
Drum Capacity	@ 1st Layer	Holding	L	W	Н	Weight	Required	
ф18 x 300m	500KN X 18M/MIN	75KN	1730	1120	1060	1.5 Ton	22KW	
φ25 x 370m	1000KN X 15M/MIN	150KN	1985	1450	1360	2.3 Ton	37KW	
φ28 x 700m	150KN X 12M/MIN	225KN	2350	1950	1923	4.4 Ton	45KW	
φ34 x 600m	200KN X 10M/MIN	300KN	2760	2000	1923	4.6 Ton	55KW	
ф38 x 100m	300KN X 9M/MIN	450KN	3270	3180	2050	11.5 Ton	75KW	
φ42 x 1500m	400KN X 10M/MIN	600KN	3480	3456	2420	16 Ton	110KW	
φ50 x 1200m	500KN X 10M/MIN	750KN	3347	3640	2420	16 Ton	150KW	
φ53 x 1000m	600KN X 8M/MIN	900KN	3350	3975	2600	19 Ton	150KW	
φ56 x 1000m	700KN X 13M/MIN	1000KN	3500	4725	2823	22 Ton	225KW	
φ56 x 1000m	850KN X 12M/MIN	1200KN	3500	4725	2823	22 Ton	270KW	
ф64 x 1000m	1000KN X 10M/MIN	1500KN	3520	5090	3145	26.5 Ton	270KW	

# **Anchor Handling / Towing Winch**

- Capacity: Up to 300 Ton
- Configuration: Single Drum / Double Drum / Waterfall
- Drive: Electrical / Electro-hydraulic / Diesel-hydraulic





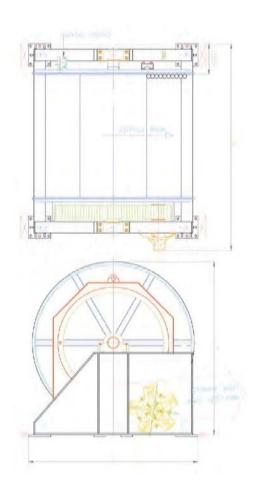




D C	Rated Pull	Brake	The state of the s		ain Dimension		Power
Drum Capacity	@ 1st Layer	Holding	L	W	Н	Weight	Required
þ42MM DIA. X 1000MTR	40 TON X 8M/MIN	90KN	5320	3240	3860	32 Ton	90KW
þ48MM DIA. X 1000MTR	60 TON X 9M/MIN	120KN	5700	3335	3860	35 Ton	150KW
þ52MM DIA. X 1000MTR	75 TON X 8M/MIN	150KN	5700	3415	3860	36 Ton	150KW
p52MM DIA. X 1200MTR	100 TON X 6M/MIN	180KN	5700	3640	3860	39 Ton	180KW
þ58MM DIA. X 1500MTR	150 TON X 6M/MIN	200KN	5700	4200	3860	42 Ton	270KW
p64MM DIA. X 1500MTR	200 TON X 6M/MIN	300KN	5700	5600	3860	45 Ton	360KW
p76MM DIA. X 1800MTR	250 TON X 6M/MIN	350KN	8000	4500	5138	50 Ton	440KW
p76MM DIA. X 2000MTR	300 TON X 6M/MIN	400KN	8000	4800	5138	56 Ton	500KW

# Storage Steel

Capacity: Up to 20 TonDrive: Electro-Hydraulic



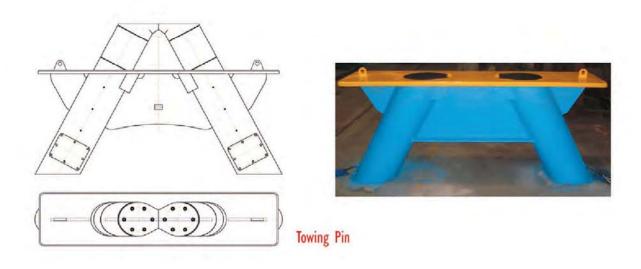


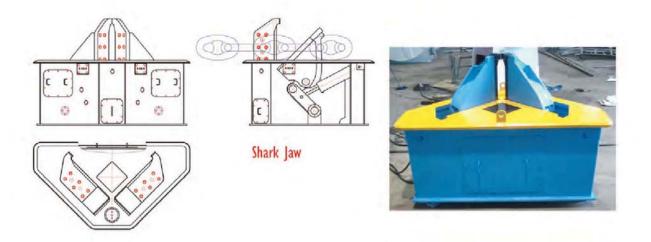
D	Rated Pull	Brake	Main Dimension			VA/-1-1-A	Power
Drum Capacity	@ 1st Layer	Holding	L	W	Н	Weight	Required
φ52MM DIA. X 1000MTR	50KN X 15M/MIN	75KN	2100	2450	2250	4.3 Ton	18.5KW
φ56MM DIA. X 1200MTR	80KN X 15M/MIN	120KN	2100	2550	2250	4.6 Ton	30KW
φ76MM DIA. X 1500MTR	100KN X 15M/MIN	150KN	2200	2610	2250	5.0 Ton	45KW

# Towing Pin / Shark Jaw

· Capacity: Up to 500 Ton SWL

· Drive: Electro-hydraulic

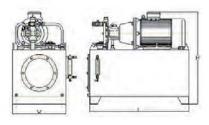


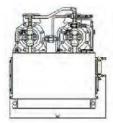


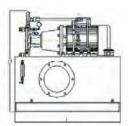
# **Power Pack**

- · Power Pack: Up to 500KW
- · Configuration: Single / Double / Triple / Quaduple Motors

### A Type Power Pack

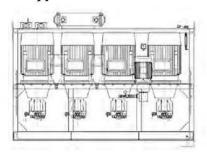


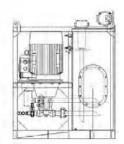






### **B Type Power Pack**







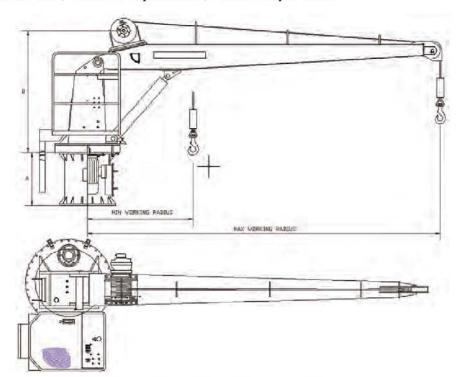
Oil Tank	Mair	Dime	Module		
Capacity (L)	Pump	L	W	Н	Weight
300	max45cc	1150	600	1100	0.65 TON
475	max100cc	1300	700	1210	0.7 TON
475	max100cc	1300	700	1250	0.7 TON
750	max140cc	1500	850	1550	1.0 TON
850	max140cc	1600	850	1600	1.1 TON
1100	max140cc	1800	1000	1600	1.4 TON
750	max28cc	1200	1200	1300	1.0 TON
750	max28cc	1200	1200	1300	1.0 TON
680	max45cc	1200	1100	1300	1.1 TON
800	max71cc	1400	1100	1500	1.35 TON
1250	max140cc	1600	1500	1550	1.6 TON
1500	max140cc	2000	1830	2000	2.5 TON
1600	max140cc	2000	1830	2100	2.6 TON
1600	max190cc	2000	1830	2100	2.7 TON
2600	max140cc	2500	1830	2300	3.2 TON
2600	max190cc	2500	1830	2300	3.5 TON
3100	max140cc	3000	1700	2300	4.3 TON
3600	max190cc	4500	1900	2600	5.5 TON

# **Marine Deck Crane**

 Types: Provision Crane / Flow Boom Crane / Knuckle Boom Crane / Telescopic Crane

· Capacity: Up to 20 Ton

· Large range of working radius





### Offshore Pedestal Crane

Offshore Pedestal Crane matches the demanding expectations of today's offshore requirements with competitive pricing, design and engineering to adhere to exact specifications that will meet all applicable international design codes and classification society requirements including API 2C. This is part of our effort to become your professional turnkey procurement management with After-sales Service Support.

Offshore Pedestal Crane ranges from 3 Ton to 50 Ton S.W.L. with 4m to 50m Working Radius with Operation up to Sea State 6, and is suitable for:

- · Drilling platforms
- · Production platforms
- FPS0
- · Floating drilling vessels
- Accommodation platforms
- Diving support vessels
- · Pipe and cable laying vessels
- Work barges

to provide the following technical support to our customer: -

- · Design for high quality products with Strict test and inspection
- · Precise installation and debugging
- · High quality service within the period of equipment service life
- · Provides service of storing spare parts for users
- · Set up complete maintenance/inspection files
- · Provides annual examination/repair/maintenance
- · Provides inspecting/estimating service
- · Provides storage service of disassembling crane
- Develops fabrication business of rethreading crane
- · Offshore crane tenancy
- Training and certificate business of offshore crane drivers
- Improve technical competence through technical cooperation with international well-known crane manufacturing companies, becoming their machining/fabricating, maintenance/service base in China
- Provides fabricating business of life boat davits (with life boats)
- Utilizes advantages of field/equipments/personnel, provides machining/fabrication business of steel structures



### Offshore Pedestal Crane - Product Brief Introduction

Offshore Pedestal Cranes have two types, wire rope luffing and cylinder luffing crane according to framework style.

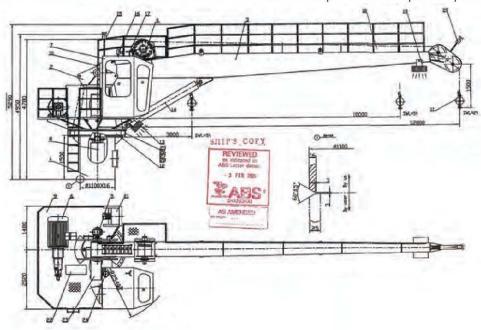
### Wire rope luffing crane virtues:

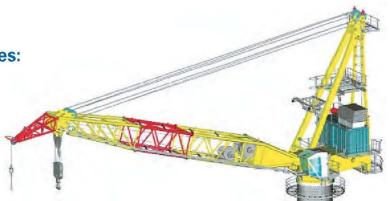
- Trust boom can reduce the total weight and wind hinder
- Settling for bigger work radius
- · Lifting capacity can satisfy the more weight
- Specification serial: -
  - Work radius: 4.5m ~ 50m
  - SWL: max. 50T
  - Hoist speed: 10m/min ~ 125m/min
  - Luffing speed: 50S ~ 100SSlew speed: 0.8r/min ~ 2r/min



- The figuration is smaller
- · Settling for smaller work radius
- The boom is tough and in all control
- · Specification serial: -
  - Work radius: 4m ~ 35m
  - SWL: max. 25T
  - Hoist speed: 10m/min ~ 125m/min
  - Luffing speed: 40S ~ 100S
  - Slewing speed: 0.8r/min ~ 2r/min

Note: We are able to custom make crane to S.W.L 200Ton x 80mtr upon customer's special request.





# Steel Wire Rope 钢丝绳





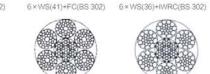
























6 × FI(25)+IWRC(BS 302)





6 × S(19)+FC(BS 302)

# Mooring Ropes









12-ply braided rope 十二股编织绳











十六股编织绳



Double-layer multi-ply braided rope 双层多股编织绳

ATLAS 尼龙单丝六股复合绳







Macromolecular polyethylene ropes 高分子聚乙烯 (迪尼麻)绳索

Safety netting and Loading net 安全网及吊货网

Aramid fiber ropes 芳纶纤维绳索

# Sacrificial Anode 牺牲阳极

### 牺牲阳极主要技术参数及安装方法

- 1、牺牲阳极块在船体外侧水下部位安放的数量,应根据船舶结构、航区及 材料性能,按阳极计算公式计算确定,再修换中一般可参照原来的数量、 面积或计算相应的更换。发现不符不足应适当增加,若产生过保护则应相 应较少。
- 2、牺牲阳极安装位置应均匀配置又尽量减少水流阻力,全船的牺牲阳极块 又1/3-1/2集中再尾部,安装角度应与水流方向一致,应避免在无阳极同安 放阳极,可参照船体外部的阳极布置示图。
- 3、牺牲阳极块的安装,一般是采用焊接法,但也允许采用螺钉固定法安装 (详见安装方法示图)。采用焊接法时应将阳极块背面紧压船壳后再将铁 脚牢固地焊接船壳板上,并敲净焊渣。螺栓固定法多用在铝壳船上热交换 器上等,埋头螺钉固紧后在螺钉头上应抹上层漆灰或水泥,以防螺钉孔腐 蚀松支。阳极在安装背面涂一层绝缘涂料。
- 4、采用螺钉固定的牺牲阳极块发现松动时,应予重新安装或更换。
- 5、牺牲阳极块表面严禁涂漆或玷污,焊接后铁脚缝附近应补刷油漆。
- 6、阳极的使用寿命,一般1~3年,但我厂也可根据客户要求,提供3年期 以上的阳极设计、加工。

### Main technical parameters and setting method for sacrificial anode

- 1. The amount of sacrificial anode blocks settled in the sidewall of vessel under water dhould be determined by the vessel's structure, navigating area and material characteristics, and be calculated by anode, The amount or area may be exchanged based on former amount or by relative calculation when maintenance and/or exchang, and suitable increasing or decreasing can be made when insufficient or over-sufficient prorection is happen.
- 2.Place of sacrificial anode should be settled be settled evenly and try to decrese flowing resistance, Abour 1/3 to 1/2 amount of anodes should be settled around tail, the settling direction should be same as the flowing, and avoid non-anode and anode are settled together, it can be done according to be the reference schematic diagram of vessel's outside body.
- 3.Sacrificial anode can be settled by welding or fixed by screw(see the schematic diagram), When welding, the back of anode should be pressed closely and welded its foot tightly in the shell, All ewlding slag should be knocked away, Bolt fixing methok mostly used in heat-exchangers, After fixing paint or cement should be coated on the head of screw to prevent corrosion happened around the screw and loose. Insulation paint should be coated on the back surface of anode.
- 4.Re-fixing or exchange should be made when loose is foung in screw fixing.5.Surface of anode is not allowed to paint or contaminate, and paint should be srpplemented around its foot after welding.
- 6.The life of anode is normally 1 to 3 years, but we also can designing and supply anode with 3 years-life according to requirement of customers.

