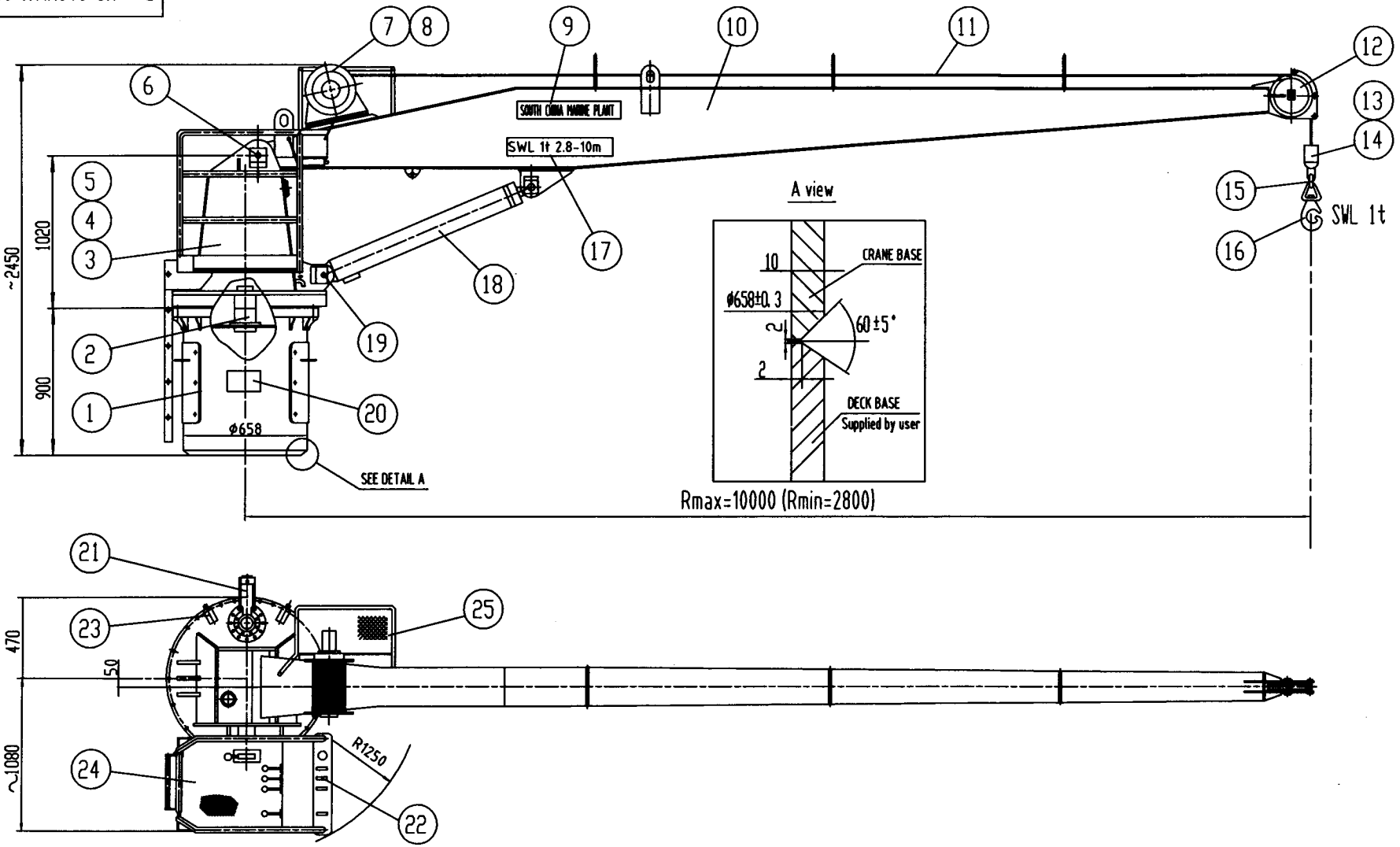
Drg. NO.:242HX11-00



Old Cad File						Contract:	Customer:	Project:	Model:		
						SCM CIMC		Cad File: YQ800 Series	Drg. NO.: 242HX11-00		
Cad File									CAD FILE: 242HX11-00		
								YQ800-1-10 Hydaulic Crane	Edition	Weight(kg)	Scale
Sign	Date								Rev.1	2000	1:20
						Designed by	Verified by		SHEET NO: 1 OF 2 SHEETS		
						Checked by	Approved by		SCM, CHINA		
		Index	Date	Sign	Description of Change	Reason of Change	Standardized	Confirmed by	Material: General arrangement		

Drg. NO.:242HX11-00

TECHNICAL DATA

Safety working load	1 t
Max.working radius	10 m
Min.working radius	2.8m
Hoisting Speed at SWL	~18m/min
Slewing Speed (no load)	~1.1r/min
Luffing time (no load)	20 s
Hoisting height	30 m
Slewing Sector	360°
Max. allowable (list/trim)	5° / 2°

Electric motor				
	Model	Y160M-4-H	Duty	S6-40%
	Voltage	380V/50Hz/3ph	Insulation class	B
	Power rating	15KW	Protection class	IP44
	Speed	1445r/min	Current	30.5A

FORCE TO DECK

STATIC MOMENT	=	126	kNm
TEST MOMENT	=	154	kNm
SLEW BRAKE MOMENT	=	34	kNm
WEIGHT OF CRANE	=	~2.0	t

NO.	Drg. NO.	Name	Qty.	Material	Single Weight (Kg)	Total Weight (Kg)	Remarks
25	242HX11-16	Maintenance platform for winch	1				
24	242HX11-15	Control console	1				
23	242HX11-14	Badge plate	1				
22	242HX11-13	Slewing limit mounting	2				cancel When No Slewing Limit
21	242HX11-12	mounting of Slewing unit	1				
20	242HX11-11	Data name plate	1				
19	242HX11-10-0	mounting of Cylinder's Shaft	2				
18	HSG80I-150/75E-1311-2891L302	Cylinder	1				
17	248HX5-00	SWL name plate	1				
16	BG2 GB1949-80	Marine hook	1				
15	D3 19.60kN	Marine shackle	1				
14	WT16 GB560-87	Marine rope thimble	1				
13	248HX122-01-0	Swivel	1				
12	242HX11-09-0	Sheave bracket	1				
11	16ZNB-18X19WFC-16NAT1770	Wire Rope	48m				
10	242HX11-08	Jib	1				
9	248HX9-00	Manufacturer name plate	1				
8	242HX11-07	mounting of Winch	1				
7	245HX62-00	Winch	1				
6	242HX11-06-0	mounting of Jib's Shaft	1				
5	242HX11-05	Comprehensive mounting drawing	1				
4	242HX11-04	Welding socket of king	1				
3	242HX11-03	King	1				
2	242HX11-02-0	mounting of EL motor/oil pump	1				
1	242HX11-01	Base	1				

Old Cad File	Index	Date	Sign	Description of Change	Reason of Change
Cad File					
Sign / Date					

Contract: Customer: Project: Model:

SCM CSIC

Designed by: Verified by:
Checked by: Approved by:
Standardized: Confirmed by:

Cad File: YQ800 Series

YQ800-1-10 Hydaulic Crane

Material: General arrangement

Drg. NO.: 242HX11-00
CAD FILE: 242HX11-00

Edition	Weight(kg)	Scale
Rev.1	2000	1:20

SHEET NO: 2 OF 2 SHEETS

SCM, CHINA

TECHNICAL SPECIFICATION

PROJECT:

CUSTOMER:

DATE: 2007-1-17

SCM PROVISION CRANE

TYPE OF CRANE: YQ800-1t-10m
PROVISION CRANE

ENVIRONMENT: High humidity
Crane design temperature is in accordance with class requirements.
Environment temp -10℃-+40℃.

CERTIFICATION: Makers certificate. Test report.
CCS certificate.

DESIGN RULES: CCS rules

DRAWING: enclosed

SPARE PARTS LIST：enclosed

SOUTH CHINA MARINE MACHINERY PLANT

YQ800-1t-10m provision crane technical specification

Main Data

SWL	**1 TON**
MAX OUTREACH, horizontal jib	**10 M**
MIN OUTREACH	**2.8M**
HOOK SPEED, full load	**0-18 M/MIN**
HOOK SPEED, no load	**0-18 M/MIN**
HEIGHT OF LIFT	**30 M**
SLEWING SECTOR CONT	**360 DEGR**
SLEWING SPEED	**1.1 RPM**
HEEL /TRIM	**5/2DEGR**
LUFFING TIME, average up/down	**20 SEC**
WEIGHT OF CRANE(approx.)	**2. 0TON**
POWER CONSUMPION, motor rating S6-40%	**15 KW**
MAIN ELECTRIC SUPPLY	**380V-50Hz-3PH**

NOTE! Speed, weight and power consumption are approximate within +/-5%.

And the data are subject to the final drawings for approval.

1. CRANE CONTROL/OPERATION

The crane is controlled from spring return levers directly on the main valve located on the open platform above the slewing ring. Entrance to platform by ladder from deck.

The speeds are controlled stepless from 0 to max.

Two motions can be operated at the same time with full capacity, but with reduced speed.

2. LOAD LIMITING SYSTEM

Each hydraulic circuit is provided with equipment for limiting hydraulic pressure to preset values corresponding with crane capacity.

3. LIMIT SWITCHES

3.1 Hood travel up/down (over hoisting/lowering limit)

Not installed.

3.2 Luffing up-down

The luffing cylinder is designed for safe buffering in extreme positions.

3.3 Slewing limit

Not installed.

4. EL. HYDRAULIC POWER PACK

-The crane is provided with a built in power pack.

-The electric pump motor is located in center of the pedestal with output shaft pointing upwards and driving the hydraulic pump through a flexible coupling.

-The slewing column steel structure is utilized as tank for the hydraulic oil.

-The hydraulic oil circuit has a full flow return filter with changeable filter inserts.

-The tank is provided with an oil level indicator.

5. EL. PUMP MOTOR

The electric pump motor is of squirrel cage type, fan cooled and certified for use in hazardous area, type of enclosure IP44, isolation class B.

Duty: S6-40%ED

6. EL. STARTER

A Y- starter for location in deck housing will be supplied as a loose item. The starter will be included as standard, light for motor running and power available, and start/stop buttons in the front door. In addition a start/stop push button on crane pedestal.

7. SLEWING MACHINERY

The crane is provided with a slewing ring designed for marine applications. The gearing is internal. The slewing gear is of the planetary type with multi disk brake. Adjustment of back lash between pinion and gearing on slewing ring is possible, slewing motor is of the axial piston type.

8. HOISTING MACHINERY

The winch unit consists of:

- Drum with bearing and brackets.
- Winch gear with hydraulic operated fail safe brake.
- Hydraulic motor with safety valve to freeze movement in case of pressure drop.

The drum is designed for a capacity to take the wire rope on max 3 layers. When hook in lowest position, at least 3 turns of wire remains on the drum.

The wire rope is the anti-twisting type and is made of galvanized steel. The wire sheaves are provided with heavy duty roller bearing on stainless axles.

All bearings have grease nipple lubrication.

9. JIB LUFFING CYLINDER

Luffing of crane jib by hydraulic cylinder. The jib cylinders are designed for marine use and has spherical bronze bearings on stainless steel axles.

The piston rod is completed to prevent rust attack.

10. SFAETY FEATURE

10.1 The hoisting machinery is designed with equipment for emergency lowering of load in case of power failure.

10.2 The jib cylinders load control valve is designed for emergency lowering of the jib in case of power failure.

11. HYDRAULIC PIPES AND HOSES

The hoses are selected to give a safety factor of min 4 against rupture.

12. STEEL STRUCTURE

The steel quality is selected in accordance with the classification societies recommendation to obtain necessary ductility for the lower temperature design limit.

All important welds are carried out in accordance with welding procedures. After welding, a certain amount of NDT control is carried out.

13. SURFACE TREATMENT

13.1 EXTERIOR

Abrasive blast clean of all structure to ISO8503 SA 2.5

One primer coat, type epoxy zincrich paint.

Dry film thickness approx 50 microns.

One intermediate coat, type epoxy siderite paint.

Dry film thickness approx 100 microns.

One top coat.

Dry flim thickness approx 50 microns.

13.2 INTERIOR CRANE HOUSE(HYDRAULIC OIL TANK)

Abrasive blast clean of all surface to SA2.5

One primer coat, type epoxy zincrich paint.

Dry film thickness approx 50 microns.

One mid-coat, type oil resistant paint.

Dry film thickness approx 50 microns.

One top coat, varnish

Dry film thickness approx 25～30 microns.

13.3 INTERIOR PEDESTAL

Abrasive blast clean of all surfaces to SA2.5

One primer coat, type epoxy zincrich paint.

Dry film thickness approx 50 microns.

One intermedidatc coat, type epoxy siderite paint.

Dry film thickness approx 100 microns.