TECHNICAL DATA 3.1

Performances and characteristics

• Hook capacity			t	100/65/50/40/35/12
• Hook speed			m/min.	14/22/28/35/39/87
• Slewing maximum speed with load: (with 220 m/min peripherical speed limit)				
- intensive use and grab use			rpm	1,45
- heavy use			rpm	0,72
• Boom luffing time:				
- intensive use and grab	- from min. to max range		sec.	38
	- from max to min. range		sec.	41
- heavy use	- from min. to max range		sec.	76
	- from max to min. range		sec.	82
• Travel speed			km/h	2,0 ÷ 5,0
• Minimum operating radius			m	10,00
• Maximum operating radius			m	44,00
• Hoisting height with linearity of load:				
- up to 38 m			m	37,00
- from 38 m to 42 m			m	30,00
- from 42 m to 44 m			m	26,00
• Working depth below quay level			m	15,00
• Maximum gradient			%	8
• Outside steering radius			m	13,00
• Platform slewing radius			m	7,00

Capacities

• Maximum moment	tm	1600
• Power of diesel engine (Prime Power)	kW; rpm	805; 1500
• Power of electrical motor	kW; rpm	450; 1500
• Maximum hoisting tackle	n.	2 x 1
• Maximum boom length	m	43,50
• Height of boom fulcrum	m	16,00
• Operator cab view height	m	19,70
• Maximum stabilisers open	m	13,00 x 11,50
• Maximum load on stabilisers (360°)	t	190

Dimensions

• Maximum crane length with stabilisers	mm	17800
• Maximum crane length with lowered boom:	mm	67900
• Maximum crane width with stabilisers:		
- with stabilisers pads 1100 mm (width)	mm	8400
• Maximum height without pylon	mm	8300

• Maximum height with pylon lowered	mm	9400
• Maximum height with pylon erected	mm	29200
• Maximum height of pylon pivot	mm	3800
• Minimum height from ground (on rubber)	mm	300
• Distance between axles:		
- $1^{st}/2^{nd}/3^{rd}$ axle	mm	1670
- $3^{rd}/4^{th}$ axle	mm	3134
- $4^{th}/5^{th}/6^{th}$ axle	mm	1670
• Wheel track	mm	4170

Diesel engine

• Make		MTU
• Model		16V 2000 G63
• Type		diesel four stroke
• Aspiration system		turbo-charged
• Combustion system		direct injection
• Cooling		water
• Capacity	litres	31,84
• Maximum power (Prime power)	kW – r.p.m.	805 - 1500
• Bore and stroke	mm	130 x 150
• Cylinders	n.	16 a V
• Fuel consumption	g/kWh	194 (± 5%)

Fuel tank

Maximum capacity: 6500 litres.
Crane endurance in average conditions of utilisation: about 125 hours.

Hydraulic oil tank

Maximum capacity: 3000 litres.

Wheels

• Tyres	14.00 x 24”
• Rims	10.00 W x 24”

Suspensions

Oscillating rocker arms type suspensions.

The maximum wheels stroke is ± 150 mm.

Hoist winch

• Max hook capacity	t	100
• Min. hook speed with max load (100 t)	m/min.	14
• Max hook speed with min. load (12 t)	m/min.	87
• Drum pitch diameter	mm	1300

Ropes

• Rope number	n.	2
• Rope diameter	mm	50
• Rope breaking load	kN	2280
• Rope length	m	205

Ground pressure

• On wheels in travelling condition	kg/cm^2	10,00
• On stabilisers with max load:		
- with footings (1,1 x 4,3 m)	kg/cm^2	4,02
• Average pressure on area occupied by the crane		
- (18,0 x 12,8 m) with stabilisers span 11,5 m	t/m^2	1,70
- (18,0 x 8,9 m) with stabilisers span 7,6 m	t/m^2	2,31

Axles

- 6 steering axles
  - 2 axles are steering and driving too
  - 4 axles are steering only

The power train includes two types of reduction unit:
- a central bevel drive unit
- a final epicyclical reduction units on the wheel hubs.

Axles load during travel

Configuration with block

• Rear axles (4,5,6)	kg	147000
• Front axles (1,2,3)	kg	143000

Configuration with block and “load” (12 t)

• Rear axles (4,5,6)	kg	153000
• Front axles (1,2,3)	kg	149000

Configuration with pylon and boom lowered to ground on forward

• Rear axles (4,5,6)	kg	207000
• Front axles (1,2,3)	kg	57000
• Wheel at boom end	kg	23000

Max admitted load for each axle

• Dynamic (up to 5 km/h)	kg	65000
• Static	kg	80000

Wind

• In service (max wind speed)	km/h	86,4
• Crane stationary on stabilisers (max wind speed):		
- boom erected	km/h	151
- boom lowered to ground	km/h	from 151 to 200
- boom and pylon lowered to ground	km/h	> 200
• Crane in travelling (max wind speed):		
- with hoist block only suspended	km/h	72
- with hoist block and grab suspended	km/h	50

Noise level

The noise level measures are effectuated according to UNI EN ISO 3744.

The acoustic pressure level in the operator upper cab is 57.7 dB (A).

The acoustic pressure level in the operator lower cab (if present) is 70.4 dB (A).

The mean acoustic pressure level outside the crane (at the wheels level and at 4 meters from the chassis) is 81.2 dB (A).

The mean acoustic power level outside the crane (at the wheels level and at 4 meters from the chassis) is 112.3 dB (A).

These values are in according to the limits fixed by Directive 14/2000 CE (for both prescriptions starting from 3 January 2002 and from 3 January 2006).

Materials

• Counterweights	Fe 360
• Platform, boom and chassis	Fe 510
• Pylon	Fe 510
• Stabilisers and beams	Fe 510
• Hook	34 Ni Cr Mo 6
• Shafts and pins	39 Ni Cr Mo 3 bon
• Gears	17 Ni Cr Mo 6
• Boom	Fe 510

Final colours

• Chassis, platform, pylon, operator upper cab	Blue	RAL 5012
• Boom, lower cab	Grey	RAL 7035
• Machinery room panels	White	RAL 9002
• Mechanisms	Grey	RAL 7001
• Counterweight, stabilisers (striped)	Yellow Black	RAL 1021 RAL 9005

Crane classification

Classification according FEM 1987:

	Grab use	**General cargo**	**Heavy use**
Structures	A7 (Q3 – U6)	A5 (Q2 - U5)	A3 (Q1 - U4)
Mechanisms			
Hoisting	M7 (L3 - T6)	M7 (L3 - T6)	M3 (L2 – T3)
Slewing	M7 (L3 - T6)	M6 (L2 - T6)	M4 (L2 – T4)
Luffing	M7 (L3 - T6)	M6 (L2 - T6)	M5 (L2 – T5)
Travel	M4 (L4 - T2)	M4 (L4 - T2)	M4 (L4 - T2)

R.0493.E01

CAPACITIES TABLE 3.2

MOBILE HARBOUR CRANE / RÖRLIG HAMNKRAN
MHC 130

BOOM/ARM 43.5 m - COUNTERWEIGHT/ MOTVIKT 80 t

L RADIUS (m)	I ANGLE (°)	⇧ H (m) ⇩	CAPACITIES AT 75% HEAVY LIFTING (t) FEM A3	CAPACITIES AT 66% GENERAL CARGO (t) FEM A5	CAPACITIES AT 50% GRAB USE (t) FEM A7
L RADIE (m)	I VINKEL (°)	⇧ H (m) ⇩	BELASTNINGAR VID 75% TUNGT BRUK (t) FEM A3	BELASTNINGAR VID 66% INTENSIVT BRUK (t) FEM A5	BELASTNINGAR VID 50% ANVÄNDNING AV GRIPSKOPA (t) FEM A7
10.0	80.9	37.0	100.0	65.0	35.0
12.0	78.2	37.0	100.0	65.0	35.0
14.0	75.5	37.0	100.0	65.0	35.0
16.0	72.8	37.0	100.0	65.0	35.0
18.0	70.0	37.0	100.0	65.0	35.0
20.0	67.2	37.0	89.0	65.0	35.0
22.0	64.3	37.0	79.0	65.0	35.0
24.0	61.3	37.0	70.5	59.5	35.0
26.0	58.3	37.0	63.5	55.5	35.0
28.0	55.1	37.0	57.5	52.0	35.0
30.0	51.8	37.0	52.5	48.5	35.0
32.0	48.4	37.0	48.0	45.0	35.0
34.0	44.8	37.0	44.5	41.5	32.5
36.0	40.9	37.0	41.0	38.0	30.0
38.0	36.7	37.0	38.0	35.0	28.0
40.0	32.0	30.0	35.0	32.0	26.0
42.0	26.7	30.0	32.0	29.5	24.0
44.0	20.0	26.0	29.5	27.5	22.0

NOTE / ANMÄRKNINGAR

A) Max. height under hook "H" is calculated with load linearity.
Max. höjd under kroken "H" har beräknats med linear last.

B) Radius "L" is intended from slewing centre to C/L of suspended load (ropes).
Radien "L" avses från rotationscentret till den upphöjda lastens (vajrar) barycentrum.

C) Shown capacities are intended for crane perfectly positioned on outriggers, standard counterweight.
De uttryckta belastningarna avses med kranen perfekt stabiliserad och med standardmotvikt.

D) Shown capacities are effective working capacities under hook.
I tabellen uttrycks belastningarna för arbete under kroken.

E) The grab weight is included in shown capacities.
Gripskopans specifika vikt är medräknad i belastning med gripskopa.

F) Capacities on wheels are prohibited.
Belastningar på gummi är förbjudna.

Rif. A.3/MHC 130/STD

130_HELSINGBORG_apr_05 04/04/05

CAPACITIES TABLE 3.2

MOBILE HARBOUR CRANE / RÖRLIG HAMNKRAN
MHC 130
REDUCED STABILIZERS SPAN / ÖPPNING STABILISATORER REDUCERAD : 7.6 m

BOOM/ARM 43.5 m - COUNTERWEIGHT/MOTVIKT 80 t

L RADIUS (m)	I ANGLE (°)	⇧ H (m) ⇩	CAPACITIES AT 75% HEAVY LIFTING (t) FEM A3	CAPACITIES AT 66% GENERAL CARGO (t) FEM A5	CAPACITIES AT 50% GRAB USE (t) FEM A7
L RADIE (m)	I VINKEL (°)	⇧ H (m) ⇩	BELASTNINGAR VID 75% TUNGT BRUK (t) FEM A3	BELASTNINGAR VID 66% INTENSIVT BRUK (t) FEM A5	BELASTNINGAR VID 50% ANVÄNDNING AV GRIPSKOPA (t) FEM A7
10.0	80.9	37.0	80.0	65.0	35.0
12.0	78.2	37.0	80.0	65.0	35.0
14.0	75.5	37.0	80.0	65.0	35.0
16.0	72.8	37.0	69.0	58.5	35.0
18.0	70.0	37.0	60.0	51.5	35.0
20.0	67.2	37.0	53.0	45.5	35.0
22.0	64.3	37.0	47.0	40.5	35.0
24.0	61.3	37.0	42.0	36.5	35.0
26.0	58.3	37.0	37.5	33.5	33.0
28.0	55.1	37.0	34.0	31.0	29.5
30.0	51.8	37.0	31.0	28.5	26.5
32.0	48.4	37.0	28.5	26.0	24.0
34.0	44.8	37.0	26.0	24.0	21.5
36.0	40.9	37.0	24.0	22.0	19.0
38.0	36.7	37.0	22.0	20.0	17.0
40.0	32.0	30.0	20.0	18.0	15.5
42.0	26.7	30.0	18.0	16.5	14.0
44.0	20.0	26.0	16.5	15.0	13.0

NOTE / ANMÄRKNINGAR

A) Max. height under hook "H" is calculated with load linearity.
Max. höjd under kroken "H" har beräknats med linear last.

B) Radius "L" is intended from slewing centre to C/L of suspended load (ropes).
Radien "L" avses från rotationscentret till den upphöjda lastens (vajrar) barycentrum.

C) Shown capacities are intended for crane perfectly positioned on outriggers, standard counterweight.
De uttryckta belastningarna avses med kranen perfekt stabiliserad och med standardmotvikt.

D) Shown capacities are effective working capacities under hook.
I tabellen uttrycks belastningarna för arbete under kroken.

E) The grab weight is included in shown capacities.
Gripskoparns specifika vikt är medräknad i belastning med gripskopa.

F) Capacities on wheels are prohibited.
Belastningar på gummi är förbjudna.

Rif. A.3/MHC 130/OS_HELSINGBORG

130_RED_HELSINGBORG_apr_05 04/04/05

3.3 GENERAL ASSEMBLY

MHC130
GM6980