Profile of Product

LATTICE BOOM CRAWLER CRANE DEMAG

CC 8800-1

1 General Specifications

Max. lifting capacity acc. to DIN		1,600 t at 10 m radius (SSL configuration) 1,302 t at 18 m radius (SSL configuration) Capacities > 1350t with special equipment
Max. load moment		24,020 tm with HSSL 42m configuration
Standard counterweight		295 t counterweight plus 60 t central ballast Central ballast to be mounted on the car body
Boom configurations		**Length:**
Main boom	SSL	54 – 108 m
Main boom	HSSL	54 – 84 m
Main boom	SSL/LSL	114 – 156 m (SGL* 106 m)
Luffing fly jib	SWSL	36 – 108 m (main boom length 54 – 108 m)
Fixed jib	SFVL	12 m (main boom length 54 – 108 m)
Fixed jib	LF	18 m, 20°
		(*SGL = base length of heavy boom)
Travel speed on crawlers		Max. 1.0 km/h
Total weight		Approx. 855t, incl. 235 t counterweight, 54 m SSL boom and hook block
Ground bearing pressure		17.5 N/cm^2

2 CRAWLER CARRIER

The crawler carrier consists of a centre pot with 2 cross beams and two Crawler side frames with tracks. Cross beams and crawler frames are pin-connected hydraulically to crawler side frames.

Track width: 10.5 m

2.1	Carbody	Welded structure fabricated from high-strength fine grain structural steel. Contains slewing ring and slewing gears as well as quick connection.
2.1.1	Slew ring	5 row roller bearing slew ring with external ring gear for ease of service and maintenance.
2.2	Cross beams	Bending-resistant welded structure fabricated from high-strength fine grain structural steel. Jacking cylinders are included as standard.
2.3	Crawler side frames	Two part bending-resistant welded structure fabricated from high-strength fine grain structural steel. Centralized lubrication included as standard.
2.3.1	Crawlers	Crawler pads: 2000 mm wide. Track rollers with hardened rolling surfaces. Raised position for both drive sprockets and idler wheels, drive sprockets and idler wheels provide load bearing capacity for erection, adjustable track tension. Total crawler force 3100 KN per side

3 SUPERSTRUCTURE

3.1	Steel structure	Two part bending-resistant welded structure fabricated from high-strength fine grain structural steel.
3.2	Crane drive	12 m container located on the left side of the superstructure containing the diesel engines, hydraulic pumps and distributors, tanks and the operators cabin.
3.2.1	Engines	Type: Daimler Chrysler OM 502 LA Output: 2 x 390kW / 529HP at 1,800 ^{1}/min in compliance with Euromot step III and EPA Tier 3 Cylinders: 8 Cooling: water-cooled Fuel tank: 2000 l

3.2.2	Hydraulic pumps	Each engine drives 3 variable displacement axial piston pumps plus gear pumps, with power limiting control. Hydraulic valve blocks are connected twice to independent pump circuits for emergency cases.	
3.4	Rope drums and ropes	The superstructure is equipped with 3 rope drums as standard (hoist 1, hoist 2 and boom hoist). All drums are removable to minimise transport weight. Hoist W1 and hoist 3 as an option to be fitted on boom butt respectively in superstructure. Rope ends provided with quick-connect rope end fittings.	
3.4.1	Hoist 1 / 2	Drum diameter: Rope diameter: Rope length: perm. line pull: Line speed: max.	875 mm 40 mm 1,540 m 352 kN 105 m / min
3.4.2	Hoist 3 (optional) (in superstructure)	Drum diameter: Rope diameter: Rope length: perm. line pull: Line speed: max.	875 mm 40 mm 760 m 352 kN 90 m / min
3.4.3	Boom hoist	Drum diameter: Rope diameter: Rope length: Line speed max.:	820 mm 40 mm 2 x 410 m 40 m / min
3.4.4	Jib luffing system W1 (optional for fly jib) (in boom foot)	Drum diameter: Rope diameter: Rope length: Line speed: max.	875 mm 40 mm 1,100 m 95 m / min
3.4.5	Boom derricking system W2 (optional for superlift) (in mast foot)	Drum diameter: Rope diameter: Rope length: Line speed: max.	875 mm 40 mm 1,540 m 105 m / min
3.5	Slew system	4 planetary gear units powered by hydraulic motor. Spring- applied, hydraulically released holding brake and non-wearing hydraulic braking. Slewing speed infinitely variable 0 – 0.6 ^{1}/min. Total slewing moment 2350 KNm Slewing gears are mounted in carbody !	

3.6	Control	IC-1 control-system and load-moment-indicator with coloured touch-screen allows simple control and supervision and additional functions as: • Indefinitely adjustable superlift radius between 19 m and 25 m with mast radius of 22 m and between 24 and 30 m with mast radius of 26.4 m • Indefinitely adjustable main boom angle between 45 deg and 88 deg at SWSL configuration • Working range limiter • Diagnosis and troubleshooting • User defined joystick configuration Electronic proportional valve pilot control. The crane is controlled by joystick levers ergonomically positioned in the crane cab. All working speeds are infinitely variable controlled by the lever position. Automatic power control for optimal utilisation of engine output. Wireless control system for assembly
3.6.1	Emergency control system	Control unit (wireless), for use when crane control system is out of order – nearly full functionality.
3.7	Crane cab	Comfortable cab with large windscreen. Safety glazing used throughout, roof window, self-contained hot air heater, instrumentation and crane controls. The seat and the control unit tilts back for improved operator view. Camera system installed on the superstructure to monitor the rope drums. Air conditioner as standard.
3.8	Counterweights (standard)	235 t installed on the superstructure consists of base plate(25 t) and 21 cwt plates (10 t each).
3.9	Electrical system	24V system, 4 batteries 12V / 180Ah, 2 3-phase alternators 28V, 80A additional 3phase generator 210V / 60 Hz , 20 KVA for air-condition, heater, lighting. emergency generator 210V / 60 Hz, 16 KVA.
3.10	Safety devices	Electronic safe load indicator integrated in IC-1 control system, hoist limit switch, limit switches for boom movements, hydraulic boom backstop, aircraft warning light, anemometer.
3.11	Hydraulic raising system for Gantry	Cylinders on superstructure to raise Gantry
3.12	Reeving winch	For easy reeving of hook blocks and bridles.
3.14	Hydraulic quick connection	For easy assembly and disassembly of car body and superstructure.

4 BOOM COMBINATIONS

4.1 General

Tubular chord lattice structure fabricated from high-strength fine grain structural steel with quick-disconnect pin connections.
Four-section fork-and-eye connections.
Walkways on boom, jib and mast. Hydraulic cylinder for pinning as standard.

The boom is guyed by pendant bars which are stowed on the respective boom sections for transportation.

Dimensions type 3227: 3500 x 3200 mm
(main boom and jib)
Dimensions type 2621: 2820 x 2530 mm
(Superlift mast)

Some boom sections can be slotted into each other for easy transport.

4.1.1 Boom combinations "S" and "S/L"

"S" means heavy booms consisting of inserts of one system (main boom).

"S/L" means stepped booms consisting of inserts of two different systems (main boom and jib).

Main boom

4.2.1 SSL combination (type 3227)

108 m boom consisting of:

Boom foot:	10.00 m
(prepared to accommodate drum W1)	
2 Inserts:	6.00 m
7 Inserts:	12.00 m
Boom head:	2.00 m
2 sheave sets	625 t each

Main boom length: 54 – 108 m

Hydraulic pinning of boom foot included as standard.
In combination with Superlift attachment.

4.2.2 SSL/LSL combination (type 3227)

Consisting of SSL boom (heavy base length = 106 m) extended by jib sections type 3226 and the boom head with only one sheave set.

Main boom length: 114 – 156 m
in combination with Superlift attachment.

Luffing jib

4.3.	SWSL combination (type 3227)	108 m jib consisting of: adapter head for main boom Jib foot: 10.00 m 2 Inserts: 6.00 m 7 Inserts: 12.00 m boom head from main boom 2.00 m 1 sheave set (from main boom) 625 t The SWSL jib mounts on the SSL boom in combination with Superlift system. Fly Jib length: 36 – 108 m Main boom lengths: 54 – 108 m Main boom angles: 45° – 88° *) *) Main boom angle indefinitely adjustable

Fixed jib

4.4.1	SFVL combination (so called heavy vessel lift combination) (type 3227)	12 m consisting of: Adapter head for main boom Jib foot: 10.00 m Boom head from main boom: 2.00 m 2 sheave sets (from main boom) 625 t each Jib lengths 12 m Jib angle (to boom) 13° The jib mounts on the SSL boom. Main boom lengths for SSL: 54 - 108 m in combination with Superlift system
4.4.2	LF (for use with hoist 3) (type 2420)	18 m consisting of: Jib foot: 9.00 m Jib Top (max. 350 t): 9.00 m Jib lengths 18 m Jib angle (to boom) 20° The jib mounts every main boom (SSL, SSL/LSL). Main boom lengths SSL: 54 – 108 m Main boom lengths SSL/LSL: 114 – 138 m Mounting on luffing jib SWSL on request.

Superlift System (-SL, optional)

4.5.1	Telescopic SL	50 m Superlift Mast (type 2621) consisting of: Mast foot: 9.00 m 2 Insert 12.00 m 1 Insert 8.00 m Mast Top: 9.00 m Pendant bars, backstop cylinders, tray Superlift counterweight 0 – 640 t at mast radius of 22 m indefinitely adjustable with the telescopic frame between 19 m and 25m or with a mast radius of 26.4 m indefinitely adjustable between 24 m and 30 m
4.5.2	Counterweight carrier	Telescopic SL described as above Additional counterweight carrier of 640 t with 16 wheels on 4 axles (2 driven, all steered – full manoeuvrability at slewing, follow up and crab steering). The counterweight carrier allows the use of crane capacities where the superlift counterweight does not lift off the ground (load chart values in brackets).
4.6	Runner (for use with hoist H3)	Max. lifting capacity 60 t with 2 lines. Mounts on boom head.
4.7	Hydraulic aggregate for pinning boom inserts	Incl. mobile hydraulic cylinder
4.8	self-assembly system for basic machine	sheave set for mounting the crawlers with the superlift mast.

5 HOOK BLOCKS

5.1	2x675 t set, rebuildable to 2x335 t, rebuildable to 675 t, rebuildable to 360 t	Hook block, max. 2 x 21 lines, weight 40 t max. 2 x 11 lines, weight 17 t max. 21 lines, weight 17 t max. 11 lines, weight 14.5 t
5.2	100 t	Hook block, 1-sheave, max. 3 lines, weight 3.7 t / 7.7 t

6 OPTIONS

6.1	540t Superlift counterweight plates	Consisting of 54 standard counterweight plates 10 t for Counterweight-Carrier
6.2	630t Superlift counterweight plates	Consisting of 63 standard counterweight plates 10 t for SL-Tray
6.3	Counterweight carrier	4 axle carrier for max. 640 t total weight with hydraulic drive and steering (see 4.5.2)
6.4	Alternate Counterweight plates	Customer specific combinations of counterweight plates 7.5 t / 10 t / 15 t (especially for optimised transport).
6.5	Casted Counterweights	Instead of steelbox counterweights
6.5	Winch H 3	Additional winch, rope 40 mm for use with runner. Rope length 760 m.
6.6	Runner 2 m – 60 t	For 1 or 2 lines, mounted on main boom or jib. Distance to sheave set in steep boom position approx. 1.3 m. Lifting capacity: max. 60 t.
6.7	Heavy load equipment 1600t	Special equipment for loads above 1350t: Hook-Block-System 1600t reinforced main boom head 1600t sheave-set
6.8	Special boom configurations	Special boom configurations on request (i. e. for erection of wind mills).
6.9	Automatic lubrication	for slewing ring and superstructure
6.10	Quick connect nuts for slewing ring	Quick connect nuts, with hydraulic tools, for quick connection carrier/superstructure to reduce transport weight of carbody below 40t
6.11	Fire suppression system	Automatic fire suppression system incl. shutters at container
6.12	Fire detection system	Detection only
6.13	Bunk bed in cabin	foldable bunk-bed
6.14	folding seats in cabin	2 folding sets in cabin
6.15	handrails for walkways	For main-boom, jib and SL-mast
6.16	Painting	Other than standard colors RAL 9003 (superstructure) and RAL 7037 (car body) all RAL colors and special decals are possible.

7 SPECIAL OPTIONS

to be separately enquired

8 NATIONAL REGULATIONS

The crane is designed for erection work and meets DIN standards.

Different national regulations may require technical and price modifications, and may affect delivery time

Subject to modification without notice. (Sept-11-2006)