

# Technical Specification Hydraulic Marine Crane PK150002M (CP084)

Valid for serial number

1100226011

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First Edition: 01/2023

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**EN**

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Signs and symbols - abbreviation

--> 123456789	Valid to crane number		
123456789 -->	Valid from crane number		
KTYPE	Crane model		
CRANETYPE	Crane type	MAR HYBRID FRESCH	Marine Hybrid Freshwater
EEX	Ex Zone Crane	EEX1 EEX2	Zone 1 (2G) Zone 2 (3G)
ELEK	Electric	24V OHNE	24 Volt without
STGA	Control types	FLVP FLVK FL I NK J	Floor control with valve plate Floor control with valve box Floor control Standing platform Emergency control Cabin
MS	Mounting base	M0500 M0625 M1000	Base 0,5m Base 0,625m Base 1,0m
MT	Mounting base - Type	M_F O_F	with Flange without Flange
VS	Valve Hoses	VS2,0 VS3,0 VS4,0 VS5,0	Valve hose 2,0m Valve hose 3,0m Valve hose 4,0m Valve hose 5,0m
IL	Ladder-High stand platform	IL01 IL02	Ladder 1,0m Ladder 0,8m
SCHT	Limitation of rotation	SCHT01 SCHT02	mechanical hydraulic/ electrical
TOT	Dead center	SE TOSTD TOKD	continuous Dead center STD defined by customer

## Signs and symbols - abbreviation

HYA	Hydraulic extensions	( )	Configuration with one hydraulic extension boom
		A	Crane with 2 hydraulic extension booms
		B	Crane with 3 hydraulic extension booms
		C	Crane with 4 hydraulic extension booms
		D	Crane with 5 hydraulic extension booms
		E	Crane with 6 hydraulic extension booms
		F	Crane with 7 hydraulic extension booms
		G	Crane with 8 hydraulic extension booms
		H	Crane with 9 hydraulic extension booms
ROU	Return oil utilization	OHNE	without switchable return oil utilization
		MIT	with switchable return oil utilization
		NEIN	without return oil utilization
O	Overload protection	OM	Pressure gauge
		OA	with lock cylinder
		OASS	with lock cylinder and rope winch
		OERC	Pressure switch + RC
		MOC_S	OCS-Shipboard
		MOC_C	OCS-Offshore
OWOA	Optic and acoustic warning	MIT	Optic and acoustic warning
MANRIDING	Manriding (with winch)	MR_KORB	Workman basket
		MR_S	Manriding (with winch)
KORB	Workman basket	BB015AM	
		BB014AM	
		BB004BM	
NOTAU	Emergency cut-off	AUS01	Emergency cut-off relay
		AUS02	Emergency cut-off, hydraulic
OOS	Offshore Overload protection	OOS001	Overload switch - lifting cylinder
		OOS002	Overload switch - lifting cylinder + Rope winch
		OOS003	Overload switch - lifting cylinder + Outer boom ram
		OOS004	Overload switch - lifting cylinder + Outer boom ram + Rope winch
PLC	Programable logic control	PLC01	Programable logic control
STRAN	Number of strands	1	single line
		2	double line
		12	1+2 lines operation
TOPSTOP	Topstop	TOPSTOP01	Topstop with chain and weight
		TOPSTOP02	Topstop MOC

Signs and symbols - abbreviation

SL	Hose-equipment	4	2 Auxiliary equipment - hose tray		
SLVO	Preparation SL	VSL4	Preparation SL 2 auxiliary equipments		
SKUPP	Quick-coupling	MIT	Quick-coupling, crane		
S	Rope winch	SH	Rope winch - main boom		
		SHE	with limiting switch - main boom		
		SHES	with limiting switch - main boom + Winch overload		
		SHEM	with limiting switch - main boom Marine		
		SHESM	with limiting switch - main boom + Winch overload - Marine		
		SK	Rope winch - outer boom		
		SKE	with limiting switch - outer boom		
		SKES	with limiting switch - outer boom + Winch overload		
		SKEM	with limiting switch - outer boom Marine		
		SKESM	with limiting switch - outer boom + Winch overload - Marine		
		SEVO	Rope winch preparation	VSK	Rope winch - outer boom
				VSKEM	with limiting switch - outer boom Marine
VSKES	with limiting switch - outer boom + Winch overload				
VSKESM	with limiting switch - outer boom + Winch overload - Marine				
SWK	Rope winch capacity	0.9	0,9t		
		1.3	1,3t		
		1.6	1,6t		
		2.0	2,0t		
		2.5	2,5t		
		3.0	3,0t		
		3.5	3,5t		
		4.5	4,5t		
		5.5	5,5t		
		6.5	6,5t		
9.6	9,6t				

STU	Hour meter	STU01	Hour meter
TSTB	Control valve	PVG32 PSL PSV DNCE50 SDM081	DANFOSS PVG32 PSL Hawe PSV Hawe DNCE50 Dinoil SDM081 Walvoil
APVG	Auxiliary functions Control valve	1 APVG 2 APVG 3 APVG 1 APVG - RC 2 APVG - RC 3 APVG - RC	1- Additional function 2- Auxiliary functions 3- Auxiliary functions 1- Additional function + RC 2- Auxiliary functions + RC 3- Auxiliary functions + RC
FERN	Remote control	FFST KFST K_FFST	Radio remote control Cable remote control Cable radio remote control
RC	Remote control preparation	RC001	Danfoss
FERT	Type - remote control	PALF2 HET2 PALF4 SCAN01	Palfinger Scanreco Hetric/ABITRON Palfinger Pocket RC Scanreco G2
FRQZ	Frequency RC	00001 00006	Frequency - EU Frequency - J
HHST	Hand lever	KREUZ LINEA	Cross levers Linear lever
FFKT	Function - RC	4/4 5/5 6/6 7/7 8/8	4-function remote control 5-function remote control 6-function remote control 7-function remote control 8-function remote control
PUMPE	Type - pump	PU002 PU003	Fixed displacement pump Variable displacement pump
EHP	Hand pump	LOSE MONT1 MONT2	loose mounted Standing platform mounted
HDF	High pressure filter	HDF01 HDF03	loose mounted

Signs and symbols - abbreviation

ZUBA	Mounting equipment	BUSCH	Screws + Bushing
		SCH	Screws
KZS	Protecting sheet	KZS01	Protecting sheet
LHA	Crane hook	LHA12	8,0t
		LHA14	5,4t
		LHA15	12,8t
		LHA16	21,6t
		LHA17	26t
		LHA09	11,5t
OEL	Oil for crane test	OEL01	tested with mineral oil
		OEL02	tested with bio oil
SCHEI	Working light	SCH03	Outer boom
		SCH03L	LED Outer boom
		SCH15L	LED Pull-in part
W_ANZEIG	Angle indication	W_HA	Angle indication Main boom
		W_KA	Angle indication Outer boom
DV	Rotary distributor	DV01	Rotary distributor 1-circuit

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**Specifications**

Subject to change, production tolerances have to be taken into account.

**Basic data**

Classification:	HC2 HD4/S2 EN12999
Max. lifting moment:	105,5 mt (1035,0 kNm) [763,380 ft.lb]
Max. hydraulic outreach:	21,5 m [70' 6"]
Slewing area:	continuous
Slewing torque:	12,0 mt (118,0 kNm) [87030 ft.lb]
Operating pressure:	30,0 MPa (300 bar) [4350 psi]
Pump capacity:	100 l/min [26.4 US gpm]
Fv max. (dynamic):	(Crane weight + Max. load capacity) x 1.2
Gross crane moment (dynamic, load combination A1, acc. to classification): Mb shipboard harbour condition, heel/trim 5°/2°	146,6 mt (1438,0 kNm) [1,060,610 ft.lb]
Gross torsional moment (dynamic, load combination A1, acc. to classification): Mt shipboard harbour condition, heel/trim 5°/2°	18,9 mt (185,0 kNm) [136,450 ft.lb]

**Max. hydraulic outreach  
Hook**

HYA B	8,8 m [28' 10"]
HYA C	10,7 m [35' 1"]
HYA D	12,6 m [41' 4"]
HYA E	14,6 m [47' 11"]
HYA F	16,8 m [55' 1"]
HYA G	19,0 m [62' 4"]
HYA H	21,5 m [70' 6"]

(at straight crane boom position)

### Crane weight - NK

Subject to change, production tolerances have to be taken into account.

Hook		
HYA B		8160 kg [17,990 lb]
HYA C		8660 kg [19,090 lb]
HYA D		9120 kg [20,110 lb]
HYA E		9580 kg [21,120 lb]
HYA F		10,060 kg [22,180 lb]
HYA G		10330 kg [22,770 lb]
HYA H		10630 kg [23,430 lb]

All weights are without accessories, auxiliary equipment and oil.

### Additional weight

Control types	I Breit	I
	105 kg [230 lb]	90 kg [200 lb]
Mounting base		M0625 525 kg [1,160 lb]
Hose-equipment		SL4 70 kg [150 lb]
HYA B		SL4 110 kg [240 lb]
HYA C		SL4 110 kg 240 kg
HYA D		SL4 140 kg [310 lb]
HYA E		SL4 140 kg [310 lb]
HYA F		SL4 180 kg [400 lb]
HYA G		SL4 190 kg [420 lb]
HYA H		

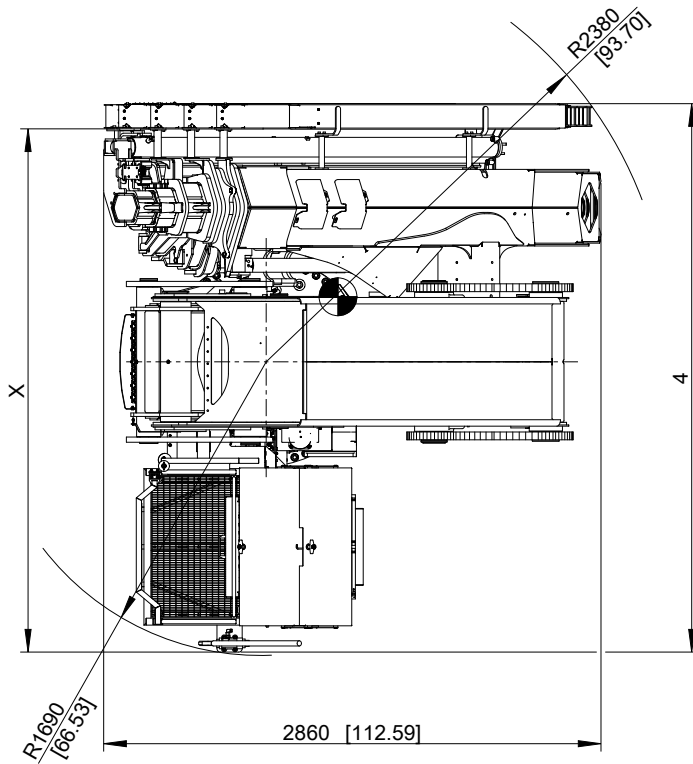
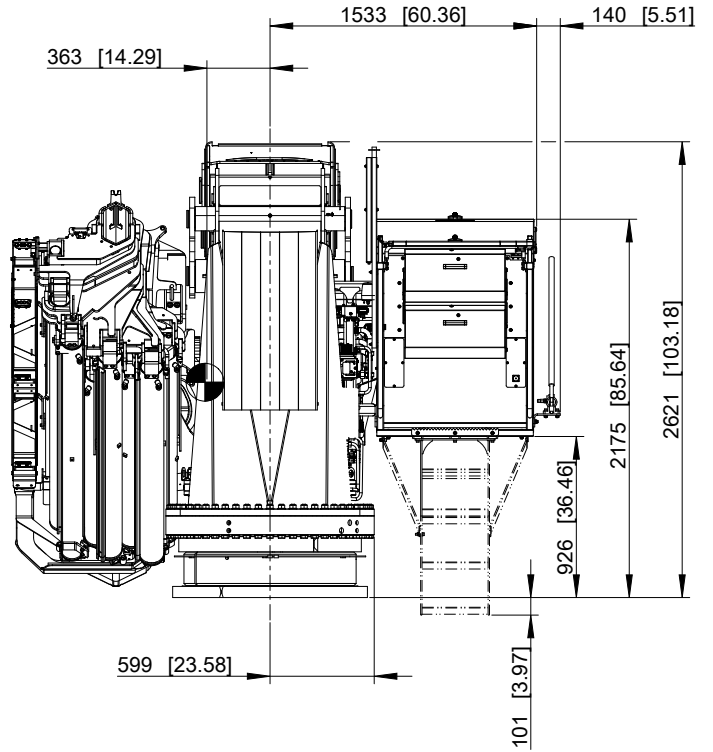
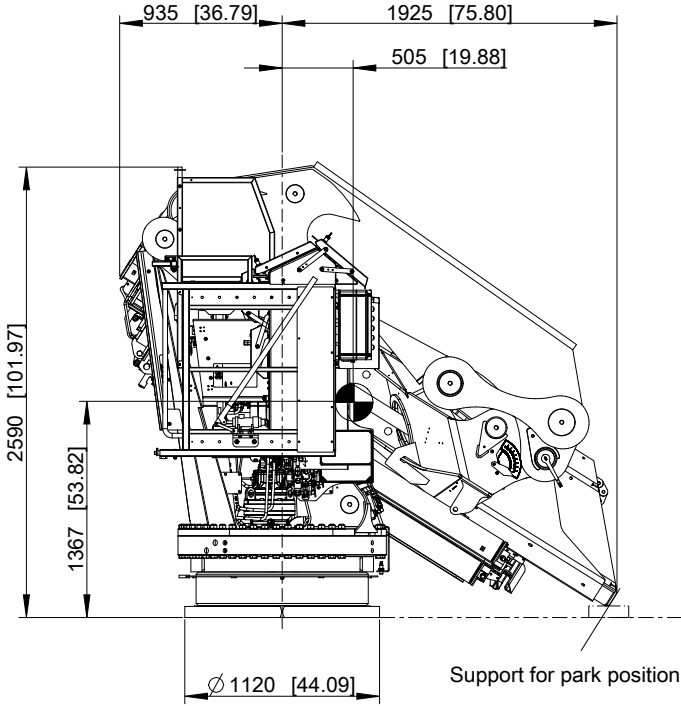
### Rope winch

Rope Pull-in part Pulley head	Hook block Load attachment Hook	
SKESM S3.0 / S3.5	1STRAN	2STRAN
475 kg [1,050 lb]	35 kg [80 lb]	84 kg [190 lb]
SKESM S4.5 / S5.5 / S6.5	1STRAN	2STRAN
775 kg [1,710 lb]	63 kg [140 lb]	212 kg [470 lb]

Park position I BREIT

Subject to change, production tolerances have to be taken into account.

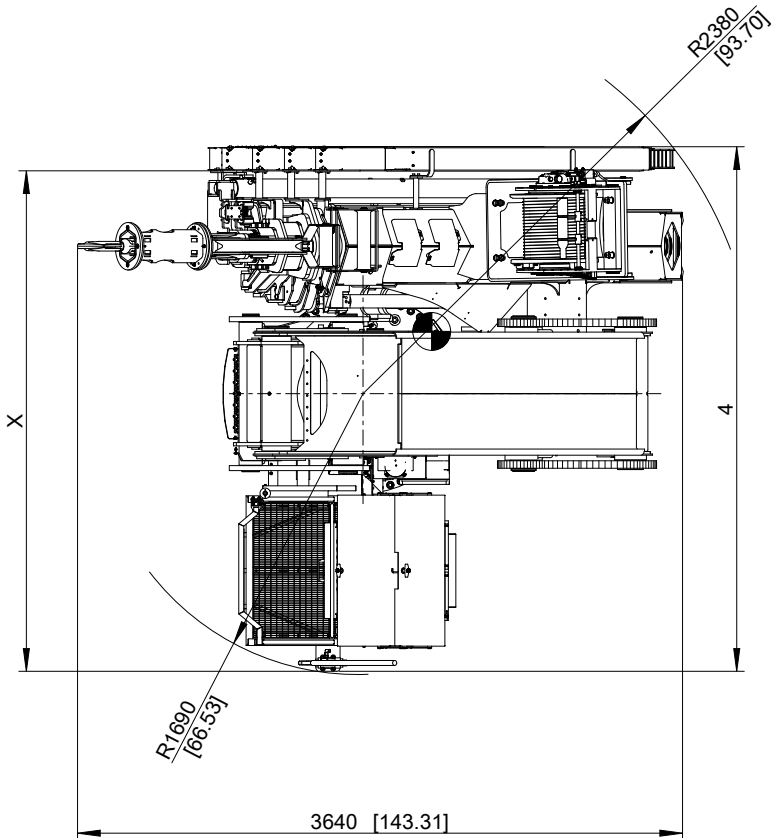
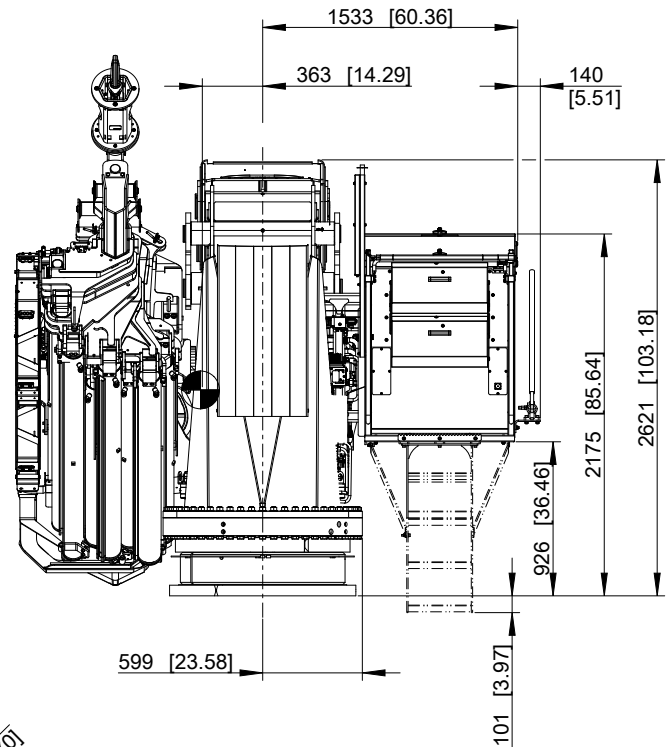
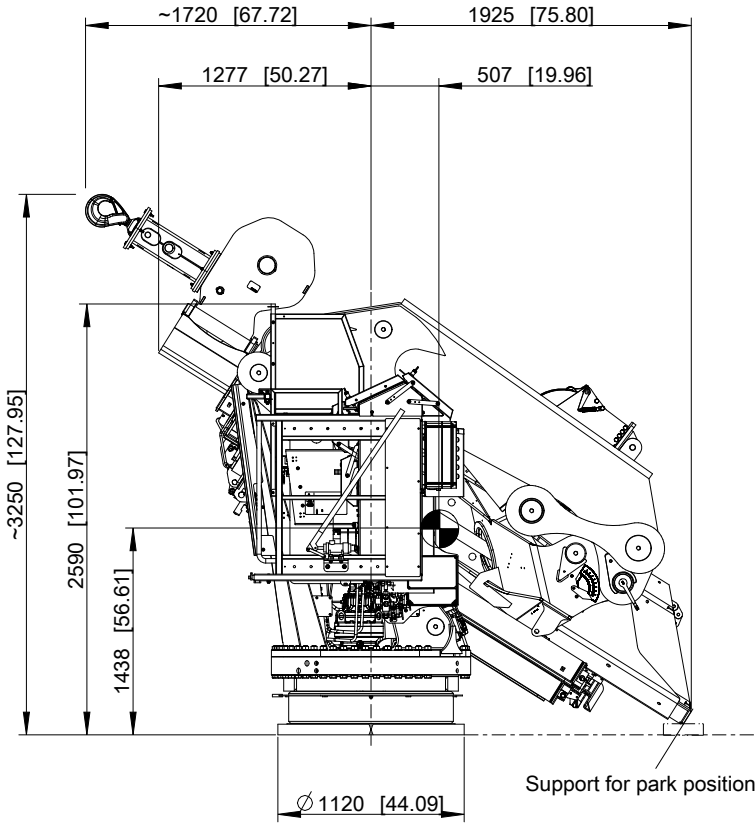
Attention, if support is not existing, boom will be underneath 324mm [12.76]!



HYA	X	4
3(B)	2775 mm (109.25")	3150 mm (124.02")
4(C)	2835 mm (111.61")	
5(D)	2835 mm (111.61")	
6(E)	2895 mm (113.98")	
7(F)	2975 mm (117.13")	
8(G)	3005 mm (118.31")	
9(H)	3005 mm (118.31")	

Subject to change, production tolerances have to be taken into account.

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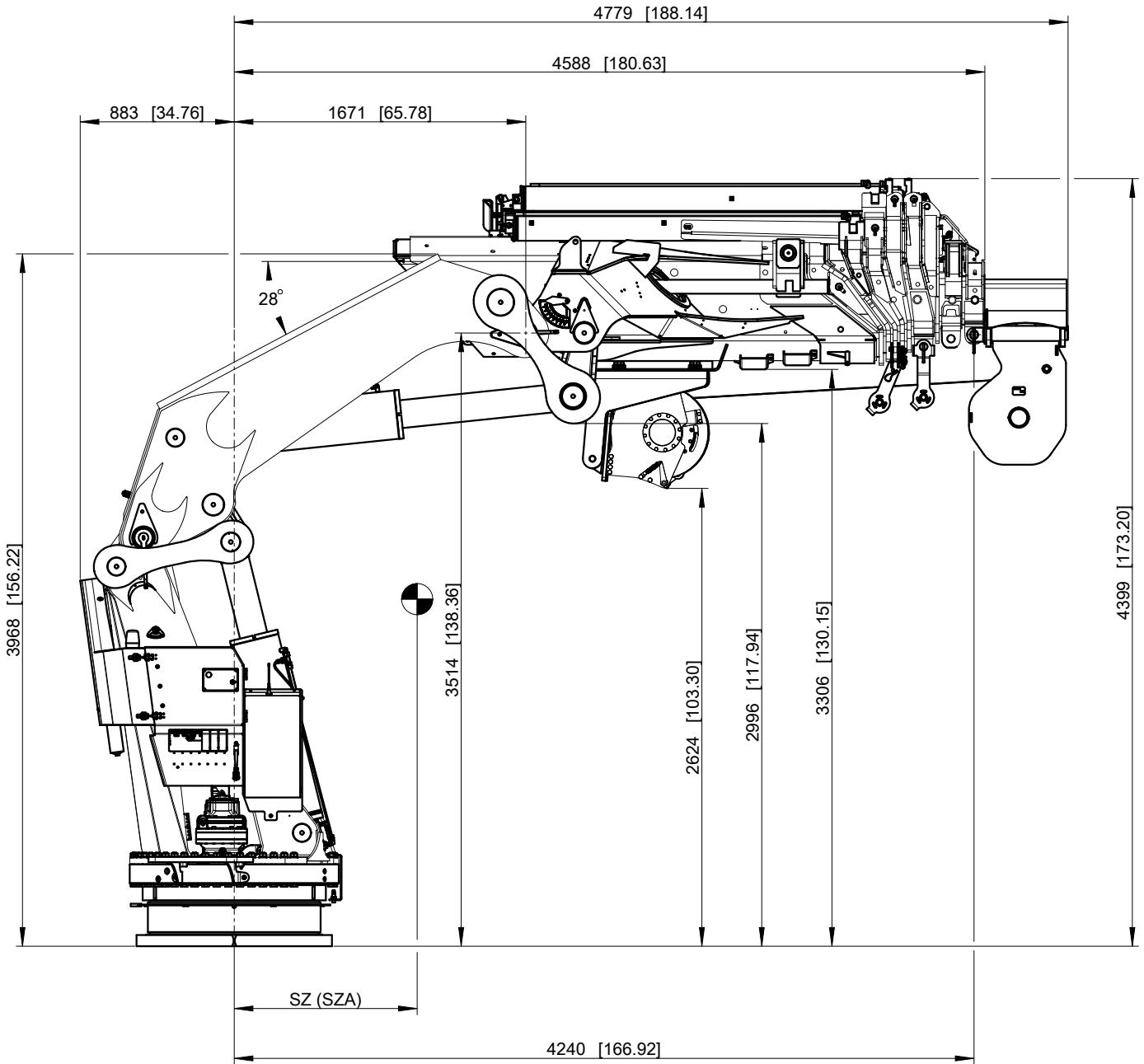


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All centers of gravity excluding installation equipment, accessories and oil.

Working position

Subject to change, production tolerances have to be taken into account.

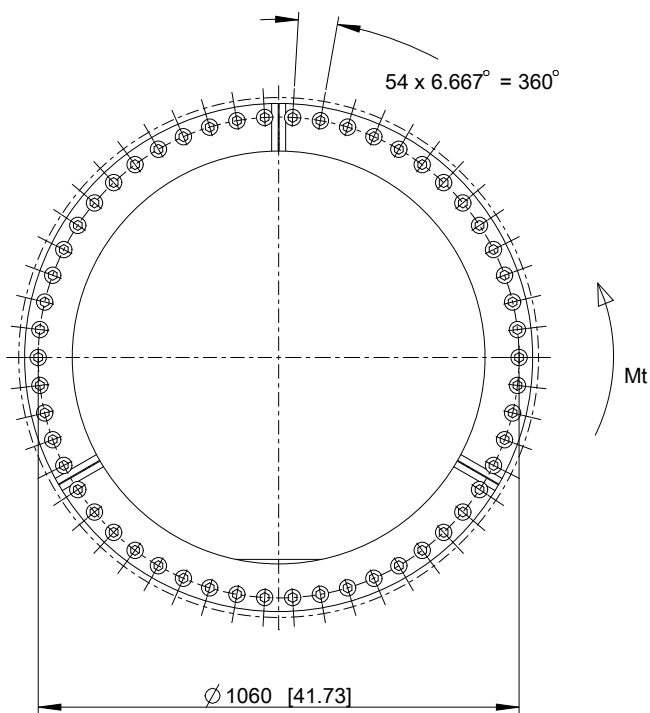
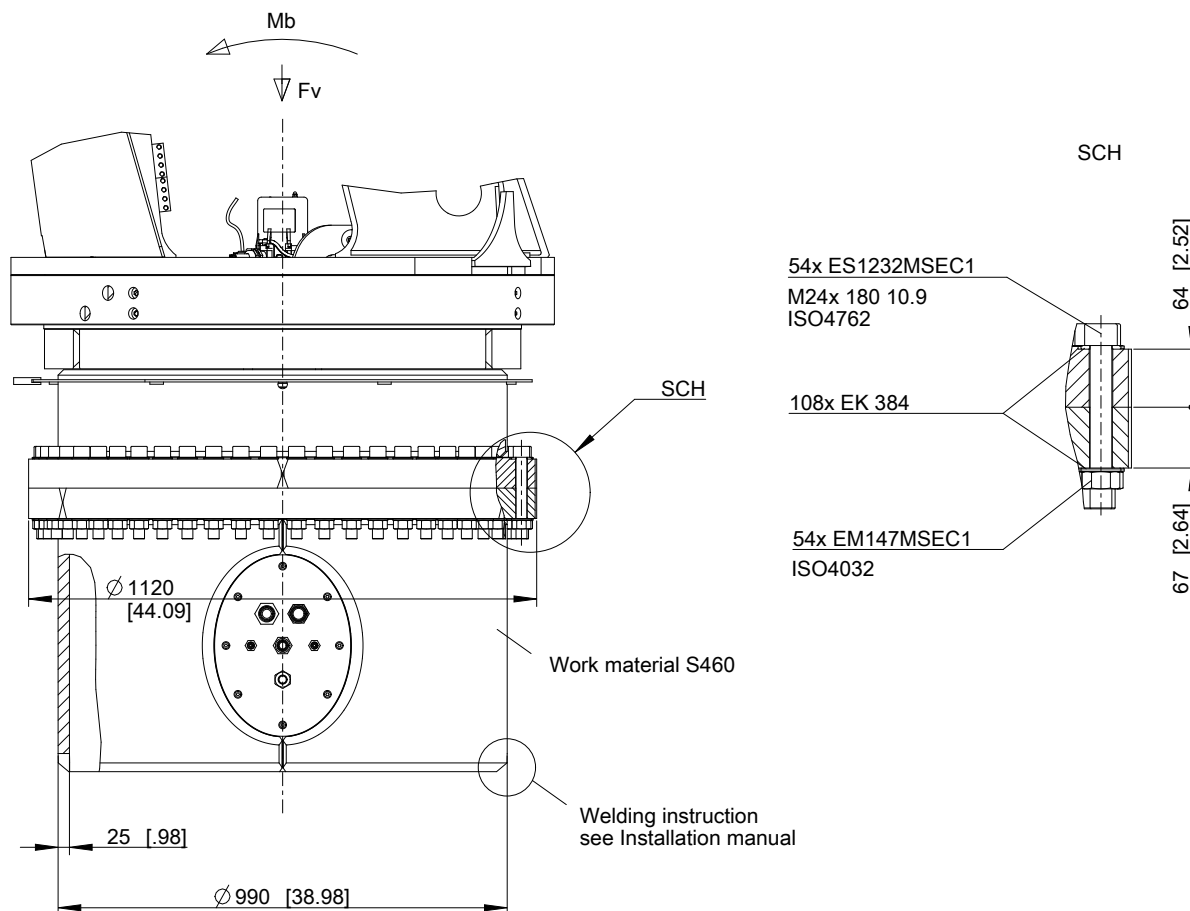


HYA	3(B)	4(C)	5(D)	6(E)		7(F)		8(G)		9(H)	
SKEM	S5.5 S6.5	S5.5 S6.5	S4.5 S5.5 S6.5	S3.0 S3.5	S4.5 S5.5 S6.5	S3.0 S3.5	S4.5 S5.5 S6.5	S3.0 S3.5	S4.5 S5.5 S6.5	S3.0 S3.5	S4.5 S5.5 S6.5
SZ	1218 mm [47.95"]	1298 mm [51.10"]	1361 mm [53.58"]	1369 mm [53.90"]	1417 mm [55.79"]	1430 mm [56.30"]	1475 mm [58.07"]	1475 mm [58.07"]	1517 mm [59.72"]	1511 mm [59.49"]	1552 mm [61.10"]
SZA	1853 mm [72.95"]	2291 mm [90.20"]	2729 mm [107.44"]	3133 mm [123.35"]	3184 mm [125.35"]	3631 mm [142.95"]	3677 mm [144.76"]	4100 mm [161.42"]	4143 mm [163.11"]	4525 mm [178.15"]	4566 mm [179.76"]

HYA	3(B)	4(C)	5(D)	6(E)	7(F)	8(G)	9(H)
SZ	998 mm [39.29"]	1094 mm [43.07"]	1178 mm [46.38"]	1256 mm [49.45"]	1323 mm [52.09"]	1374 mm [54.09"]	1420 mm [55.91"]
SZA	1526 mm [60.08"]	1959 mm [77.13"]	2414 mm [95.04"]	2907 mm [114.45"]	3403 mm [133.98"]	3873 mm [152.48"]	4322 mm [170.16"]

All centers of gravity excluding installation equipment, accessories and oil.  
SZ = fully retracted SZA = fully extended

Subject to change, production tolerances have to be taken into account.

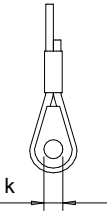


Rope winch assembly - General view

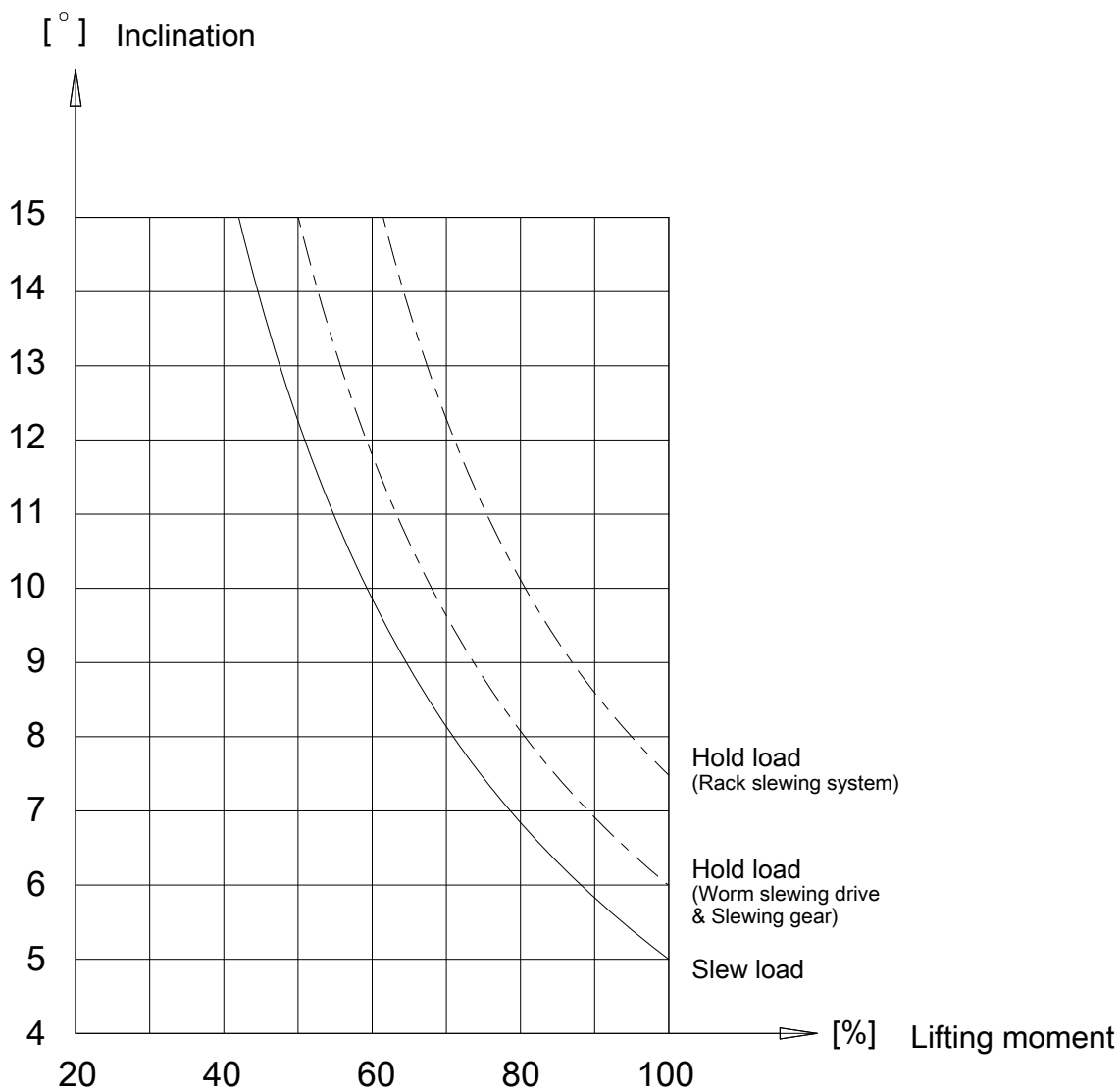
Subject to change, production tolerances have to be taken into account.

	S3.0		S3.5		S4.5		S5.5		S6.5	
	1STRAN	2STRAN	1STRAN	2STRAN	1STRAN	2STRAN	1STRAN	2STRAN	1STRAN	2STRAN
9(H)	●	●	●	●	●	●	●	●	●	●
8(G)	●	●	●	●	●	●	●	●	●	●
7(F)	●	●	●	●	●	●	●	●	●	●
6(E)	●	●	●	●	●	●	●	●	●	●
5(D)					●	●	●	●	●	●
4(C)							●	●	●	●
3(B)							●	●	●	●

● Available

	Rope winch	k	∅ Rope
	S3.0/S3.5	30 mm (1.18")	D15
S4.5/S5.5/S.6.5	40 mm (1.57")	D18	

Subject to change, production tolerances have to be taken into account.

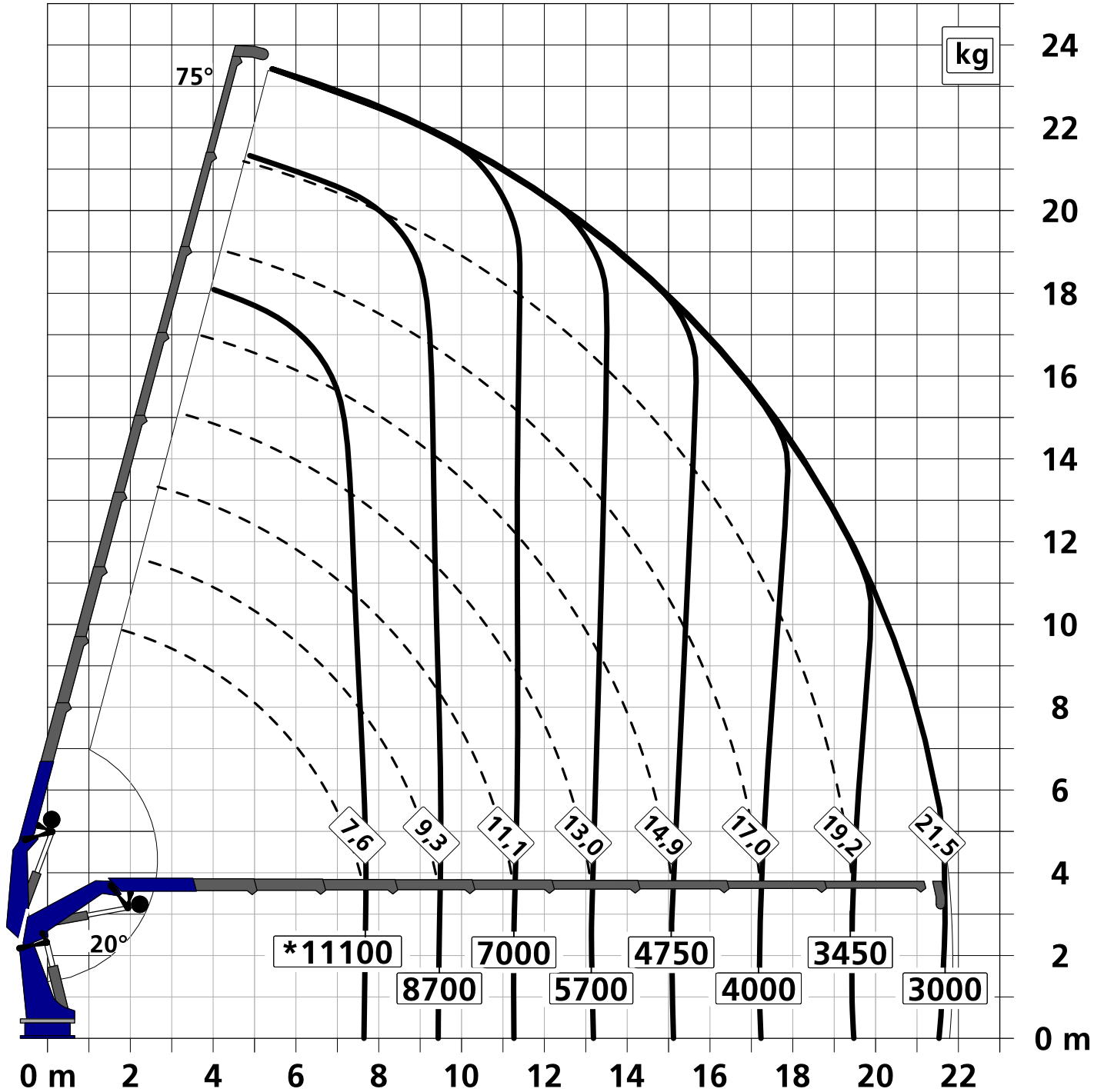


Lifting capacity diagram H S6.5

Subject to change, production tolerances have to be taken into account.

Symbolic crane figure

Full working range with reduced capacities in the area >60° are optionally available.



--- SWL - Safe Working Load

\* Load capacity dependent on:

- Load capacity of the winch
- Winch operation mode (single or double line)
- Crane design

to guaranty proper winch spooling behavior.

-->123456789 Valid to device number  
123456789--> Valid from crane number

STGA Control - crane

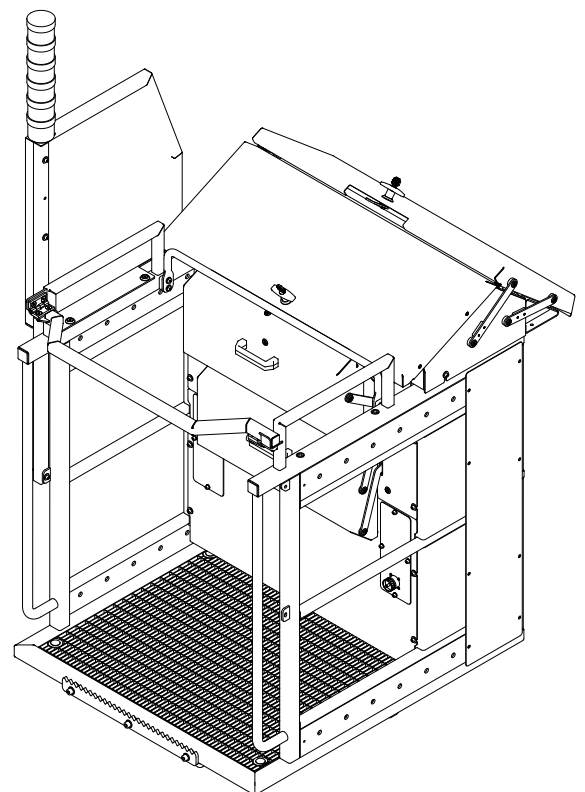
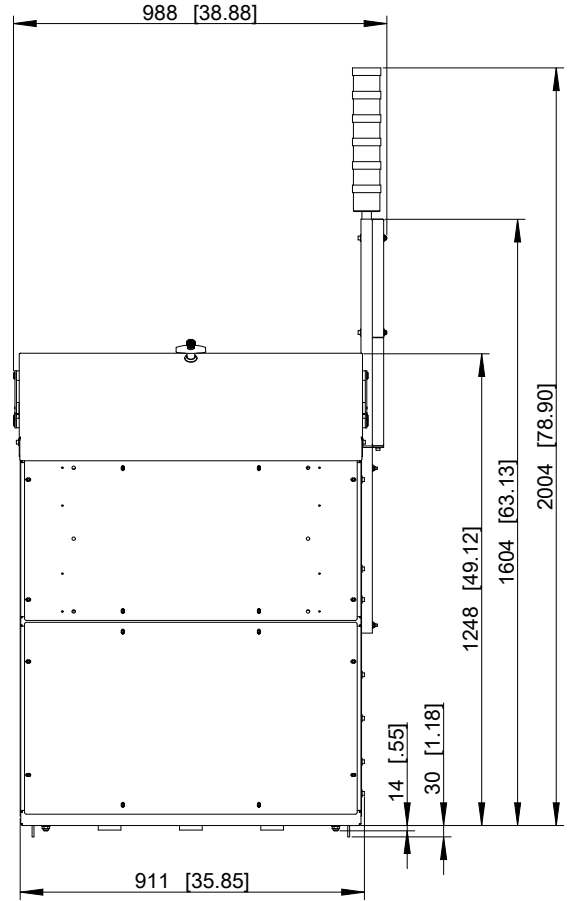
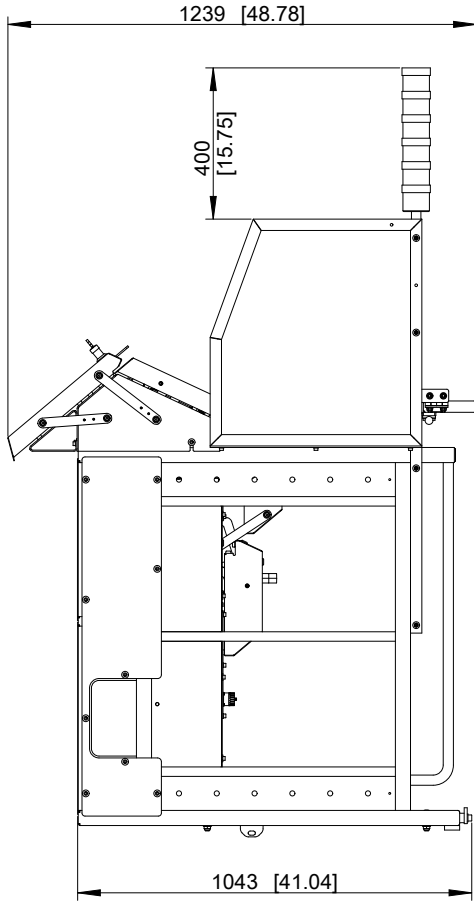
FL Floor control  
FLVK Floor control with valve box  
FLVP Floor control with valve plate  
I Standing platform  
NK Emergency control - crane column  
NK2K Emergency control - crane column, double circuit  
J Cabin  
FLVKN Floor control - Niro

NOTAU Emergency shut-down

AUS01 Emergency cut-off relay  
AUS02 Emergency cut-off, hydraulic

Control system - I BREIT

Subject to change, production tolerances have to be taken into account.



	I
max. Weight	175 kg (386 lbs)