D TECHNICAL SHEET

D.1 CRANE'S TECHNICAL DATA

Versions				2S	3S	4S	5S	6S	7S	8S
Max. net lifting moment			*t m* *kNm*	23.3 228	22.9 224	22.0 216	21.2 208	20.8 204	20.4 200	20.1 197
Max. dynamic moment			*daNm* *kNm*	28290 282.9						
Capacity at min. hydraulic outreach Max rated capacity	hook [S2]		*kg*	5435	5340	5045	4765	4585	4415	4280
	grab [S1]		*kg*	5435	5340	5045	4765	4585	4415	4280
	min. outreach		*m*	4.28	4.28	4.36	4.44	4.53	4.61	4.70
Capacity at max. hydraulic outreach	hook [S2]		*kg*	2910	2255	1725	1320	1035	805	630
	grab [S1]		*kg*	2910	2255	1725	1320	1035	805	630
	max. outreach		*m*	8.08	10.11	12.22	14.43	16.65	18.90	21.18
Capacity of 1st man. extension	capacity		*kg*	N/A	1765	1390	1035	870	670	540
	max. outreach		*m*	N/A	12.22	14.44	16.65	18.90	21.18	23.28
Max. load height above the base for the last extension	hydraulic		*m*	10.4	12.4	14.5	16.7	19.0	21.2	23.5
	manual		*m*	N/A	19.0	21.2	23.5	23.5	25.6	25.6
Weight of crane without stabilizers			*kg*	2315	2455	2595	2720	2825	2945	3035
Weight of stabilizers		ST-M	*kg*	285						
		EX-H	*kg*	355						
		SE-H	*kg*	510						
Weight of 1st man ext.			*kg*	N/A	80	85	65	63	43	32
Max. working pressure			*bar*	330						
Max. oil flow rate			*ℓ/min*	50						
			ℓ/min	80						
Power needed			*kW*	35.7						
			kW	57.2						
Oil tank capacity			*ℓ*	130						
Slewing angle			°	415°						
Gross slewing torque			*daNm* *kNm*	2820 28.2						
Max. base inclination			°	4°						
			°	3°						
Max boom inclination for use with CE winch			°	75°						
Max. stabilizer force on the ground with stabilizers fully extended		ST	*daN*	12400						
		EX	*daN*	10880						
		SE	*daN*	7950						
Max. stabilizer pressure on the ground with stabilizers fully extended		ST	*MPa*	3.3						
		EX	*MPa*	2.9						
		SE	*MPa*	2.1						
Lifting coversion factor, k			*kgm/bar*	85.10						
Distribution factor of dyn. moment on base, β			-	0.70						
Position of standard dead point (see D.6)			▲							

Versions				4SJ3	5SJ3	6SJ2
Max. net lifting moment			*t m* *kNm*	19.1 187	17.8 174	11.0 108
Max. dynamic moment			*daNm* *kNm*	28010 280.1	27160 271.6	26455 264.5
Capacity at min. hydraulic outreach Max rated capacity	hook [S2]		*kg*	2600	2450	1215
	grab [S1]		*kg*	N/A	N/A	N/A
	min. outreach		*m*	7.36	7.27	7.26
Capacity at max. hydraulic outreach	hook [S2]		*kg*	515	465	490
	grab [S1]		*kg*	N/A	N/A	N/A
	max. outreach		*m*	20.41	21.94	22.24
Capacity of 1st man. extension	capacity		*kg*	435	405	330
	max. outreach		*m*	22.08	23.60	23.80
Max. load height above the base for the last extension	hydraulic		*m*	22.7	24.2	24.5
	manual		*m*	26.5	27.7	26.1
Weight of crane without stabilizers			*kg*	3255	3210	3100
Weight of stabilizers		ST-M	*kg*	285		
		EX-H	*kg*	355		
		SE-H	*kg*	510		
Weight of 1st man ext.			*kg*	35	30	22
Max. working pressure			*bar*	335		330
Max. oil flow rate			*ℓ/min*	50		
			ℓ/min	80		
Power needed			*kW*	36.2		35.7
			kW	58.0		57.2
Oil tank capacity			*ℓ*	130		
Slewing angle			°	415°		
Gross slewing torque			*daNm* *kNm*	2820 28.2		
Max boom inclination for use with CE winch			°	75°		
Max. base inclination			°	3°		
			°	N/A		
Max. stabilizer force on the ground with stabilizer fully extended		ST	*daN*	12290	11920	11610
		EX	*daN*	10780	10450	10180
		SE	*daN*	7870	7630	7440
Max. stabilizer pressure on the ground with stabilizer fully extended		ST	*MPa*	3.23	3.13	3.05
		EX	*MPa*	2.83	2.75	2.68
		SE	*MPa*	2.07	2.01	1.95
Lifting coversion factor, k			*kgm/bar*	85.10		
Distribution factor of dyn. moment on base, β			-	0.70		
Position of standard dead point (see D.6)						

D.2 WINCH SETTINGS

TI1 - SINGLE LINE PULL

Versions		4SJ3	5SJ3	6SJ2
Max line pull	*kg*	1000	1000	1000
Start angle - pull% Final angle - pull%	%	-	-	-

TI2 - SINGLE LINE PULL

Versions		2S	3S	4S	5S	6S	7S	8S
Max line pull	*kg*	2000	2000	2000	2000 (*)	2000 (*)	2000 (*)	2000 (*)
Start angle - pull% Final angle - pull%	%	-	-	-	50°-95% 75°-86%	58°-91% 75°-86%	50°-59% 75°-53%	47°-44% 75°-39%

N/A: configuration not available
(*): configuration requiring pull derating: available only for CE/TOP cranes (PCS)
Pull%: pull derating percentage

When the crane is equipped with winch, the max. working pressure and the limiter setting pressure are increased by 10 bar with respect to the standard ones.

D.3 TOTAL WEIGHTS

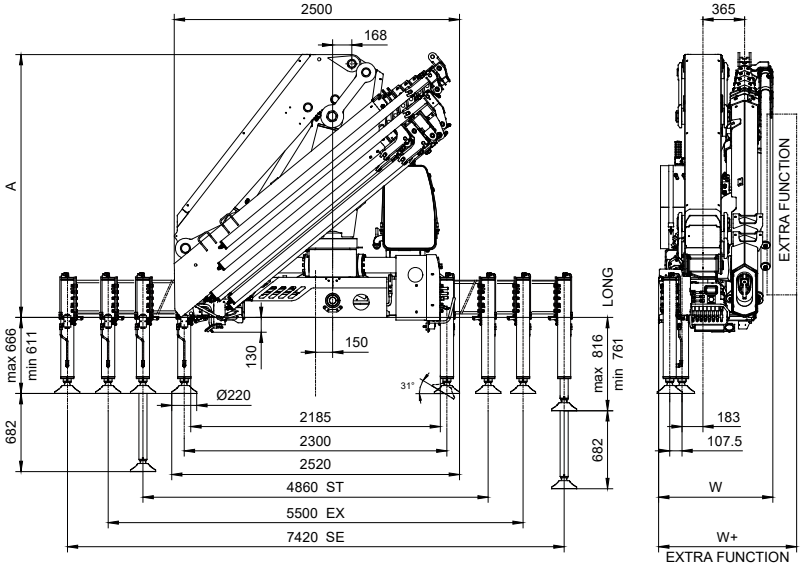
The table shows the total weights including oil inside the cylinders (fully retracted) and considering oil tank empty.

kg	Crane version									
Type of stabilizers	**2S**	**3S**	**4S**	**5S**	**6S**	**7S**	**8S**	**4SJ3**	**5SJ3**	**6SJ2**
ST-M	2600	2740	2880	3005	3110	3230	3320	3540	3495	3385
EX-H	2670	2810	2950	3075	3180	3300	3390	3610	3565	3455
SE-H	2825	2965	3105	3230	3335	3455	3545	3765	3720	3610

The weights may vary by ± 3%
Additional weight for TI1 winch: 95 kg
Additional weight for TI2 winch: 150 kg
Additional weight of 1st extra function activated with slides: 8 kg pro hydraulic extension
Additional weight of 2nd extra function activated with slides: 2 kg pro hydraulic extension
Additional weight of 1st extra function activated with hose reel: 20 kg
Additional weight of 2nd extra function activated with hose reel: 10 kg

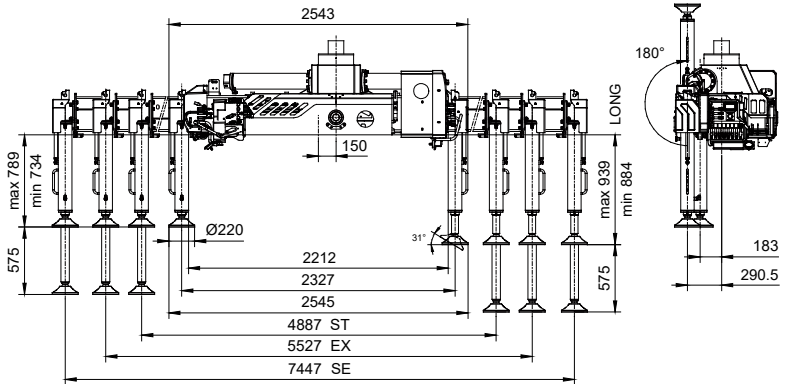
D.4 OVERALL DIMENSIONS

FIXED STABILIZERS LEGS



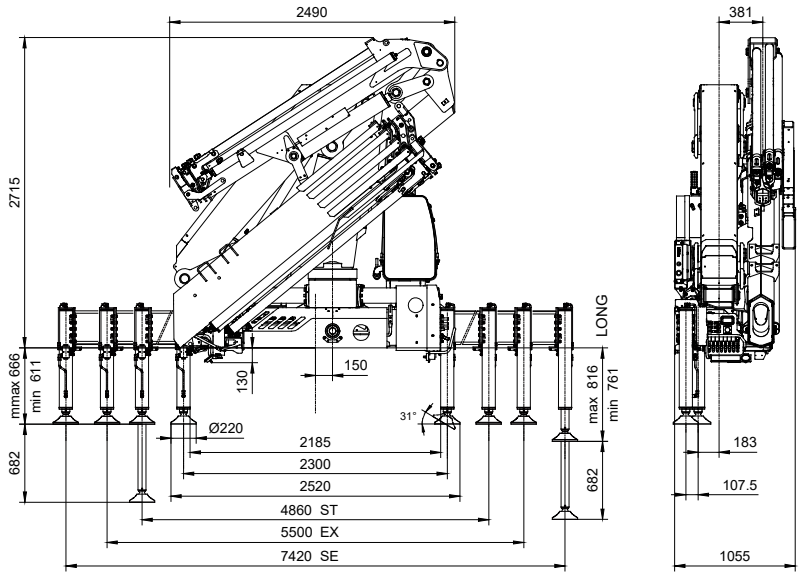
		2S	3S	4S	5S	6S	7S	8S
A (mm)		2300	2300	2300	2300	2300	2300	2330
W (mm)		935	935	935	935	935	1005	1005
W+ (mm)	slides	1055	1055	1055	1055	1055	N/A	N/A
	hose reel	N/A	N/A	N/A	N/A	N/A	1080	1080

TURNING STABILIZERS LEGS

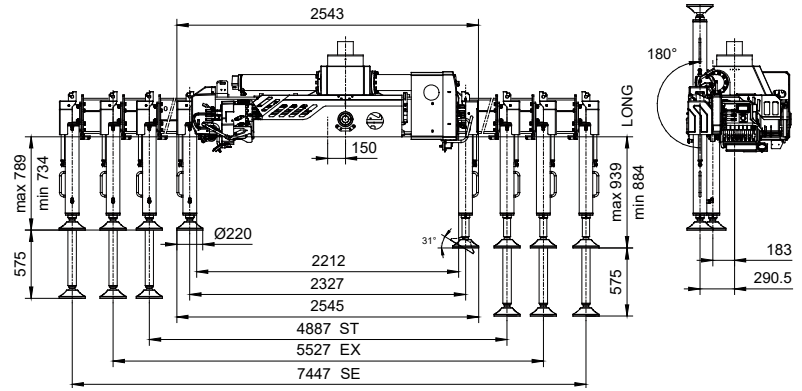


OVERALL DIMENSIONS
4SJ3

FIXED STABILIZERS LEGS

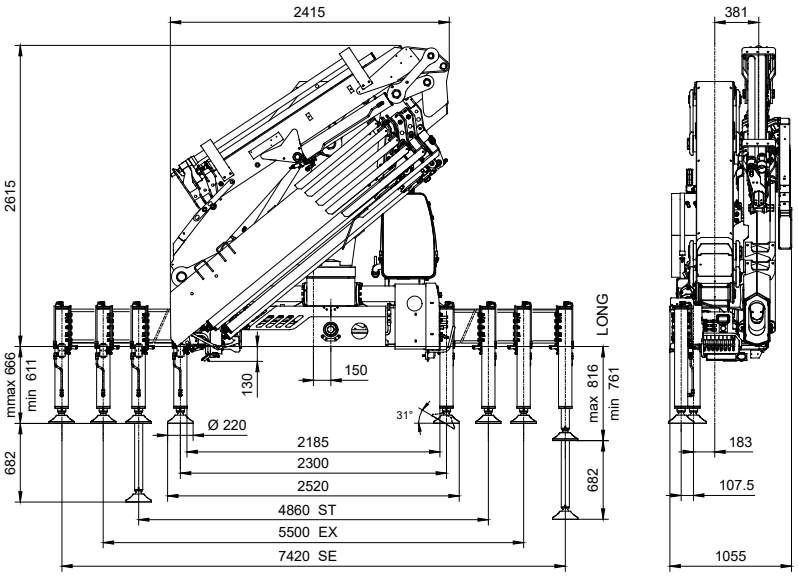


TURNING STABILIZERS LEGS

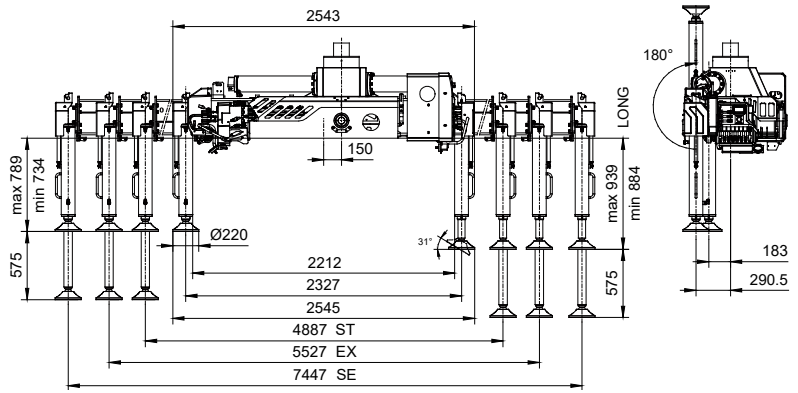


OVERALL DIMENSIONS
5SJ3

FIXED STABILIZERS LEGS

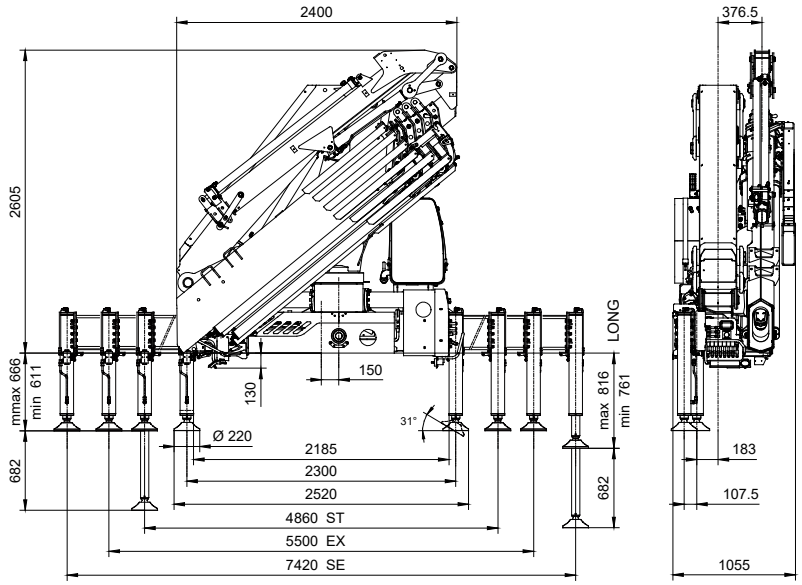


TURNING STABILIZERS LEGS

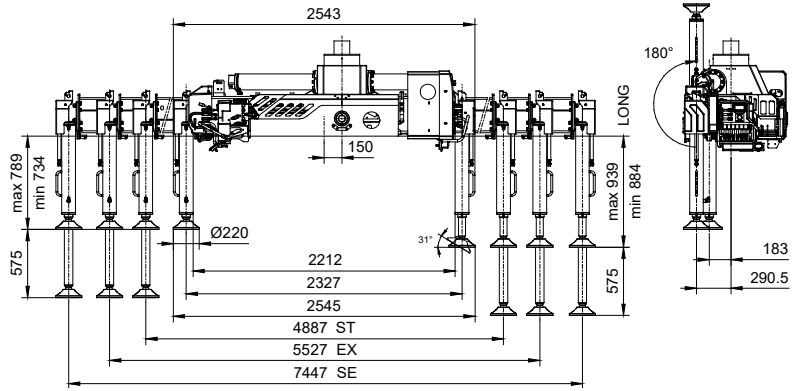


OVERALL DIMENSIONS
6SJ2

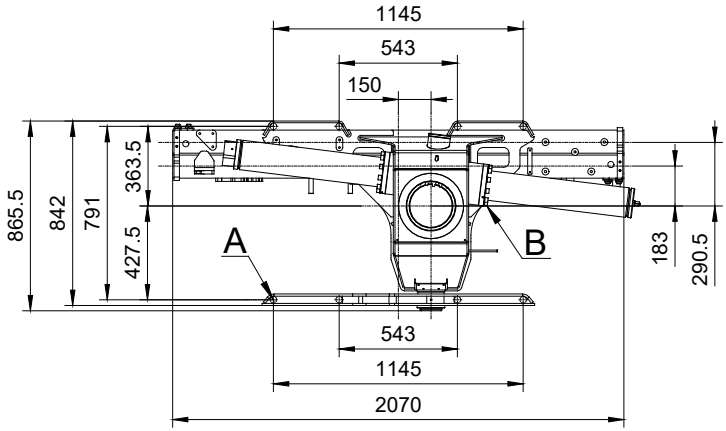
FIXED STABILIZERS LEGS



TURNING STABILIZERS LEGS



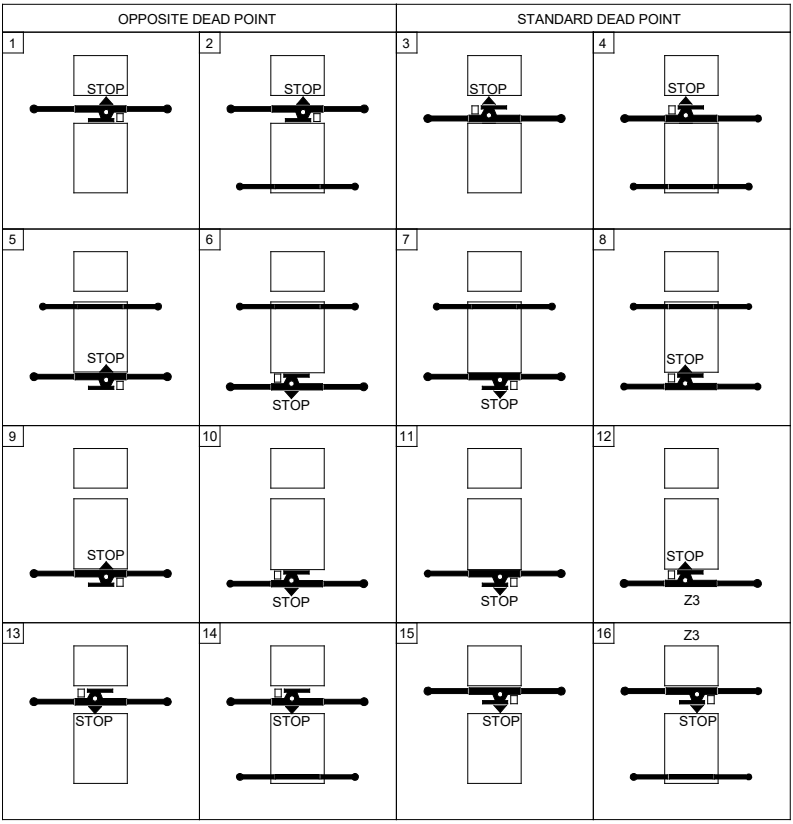
D.5 BASE DIMENSIONS AND MOUNTING BOLTS



Ref.	Description	Q.ty	Material Grade	Size (Q.ty)	Tightening torque
A	Kit with 8 crane mounting bolts	8	42CrMo4+QT EN 10083-3	M24x2 L=1100 (4) L=1015 (4)	400 Nm
	Kit with 4 crane mounting bolts	4	42CrMo4+QT EN 10083-3	M30x2 L=1000 (2) L=1100 (2)	700 Nm
B	Fixing bolts for each slewing cylinder	10	8.8	M14x2 L=75	80 Nm

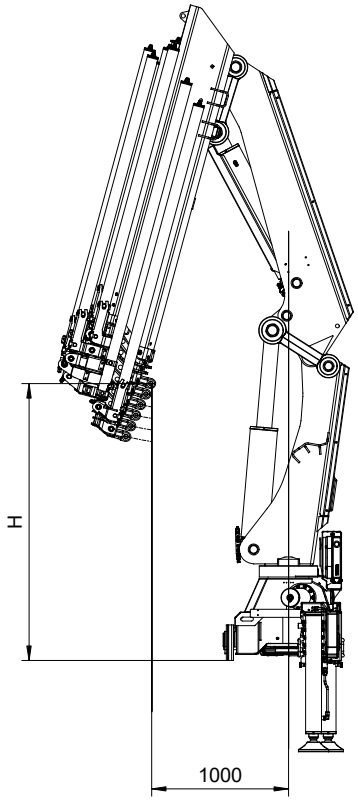
D.6 INSTALLATION TYPE NUMBER

Installation types numbers (ITN) for cranes with standard dead point (STOP) toward swivel bridge.



Legend:
▲ : position of dead point (STOP)
□ : position of main manual controls (on column side)

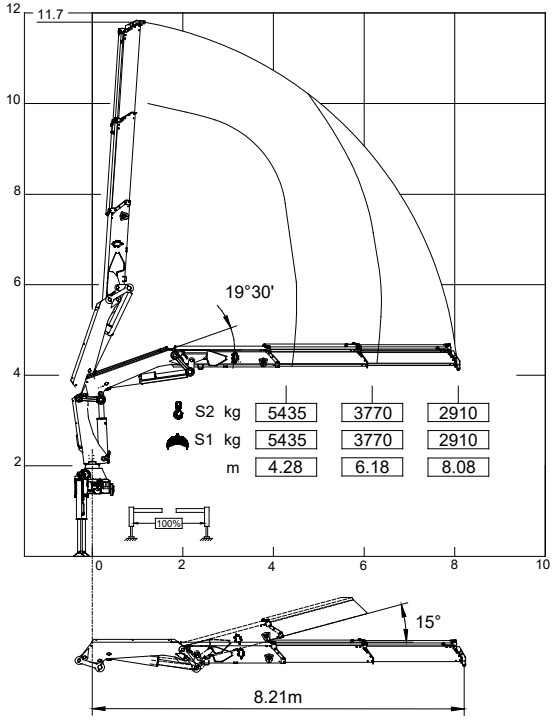
D.7 LIFTING HEIGHT CLOSE TO THE COLUMN



Version	H mm
2S	2015
3S	2015
4S	1931
5S	1847
6S	1762
7S	1678
8S	1593

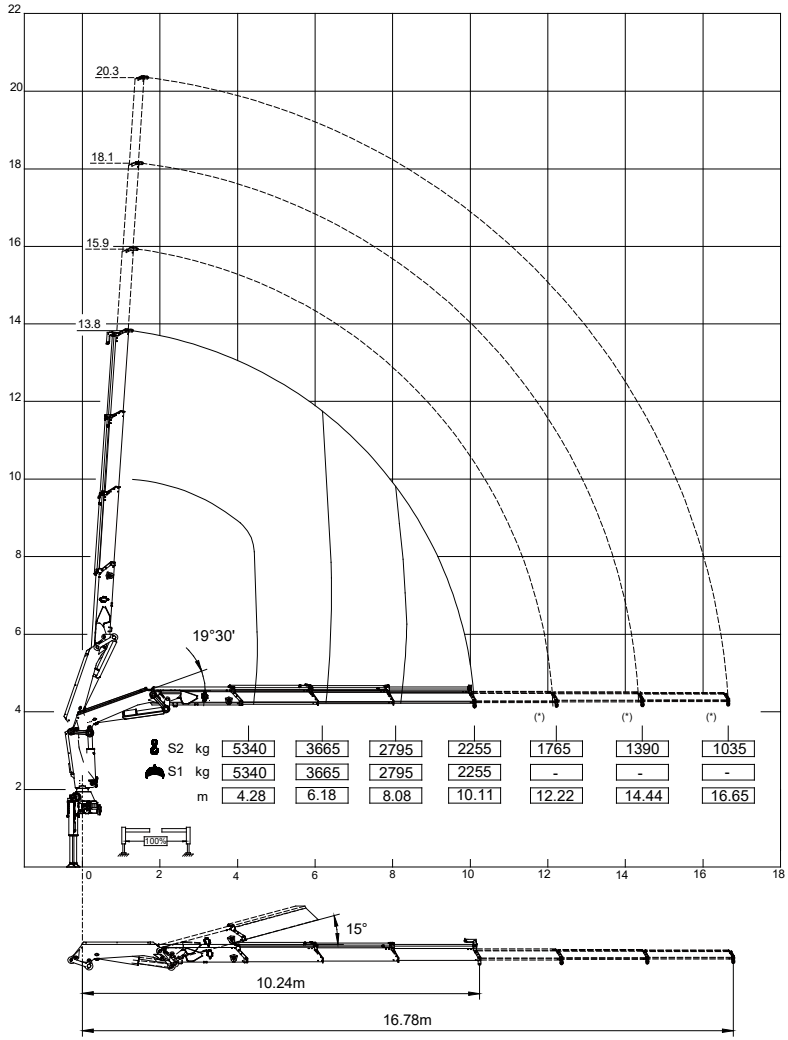
D.8 LOAD CHARTS FOR USE WITH HOOK/TOOL

925NG 2S



If an additional lifting tool is mounted, the rated capacities shall be reduced by the tool's weight

LOAD CHARTS FOR USE WITH HOOK/TOOL
925NG 3S

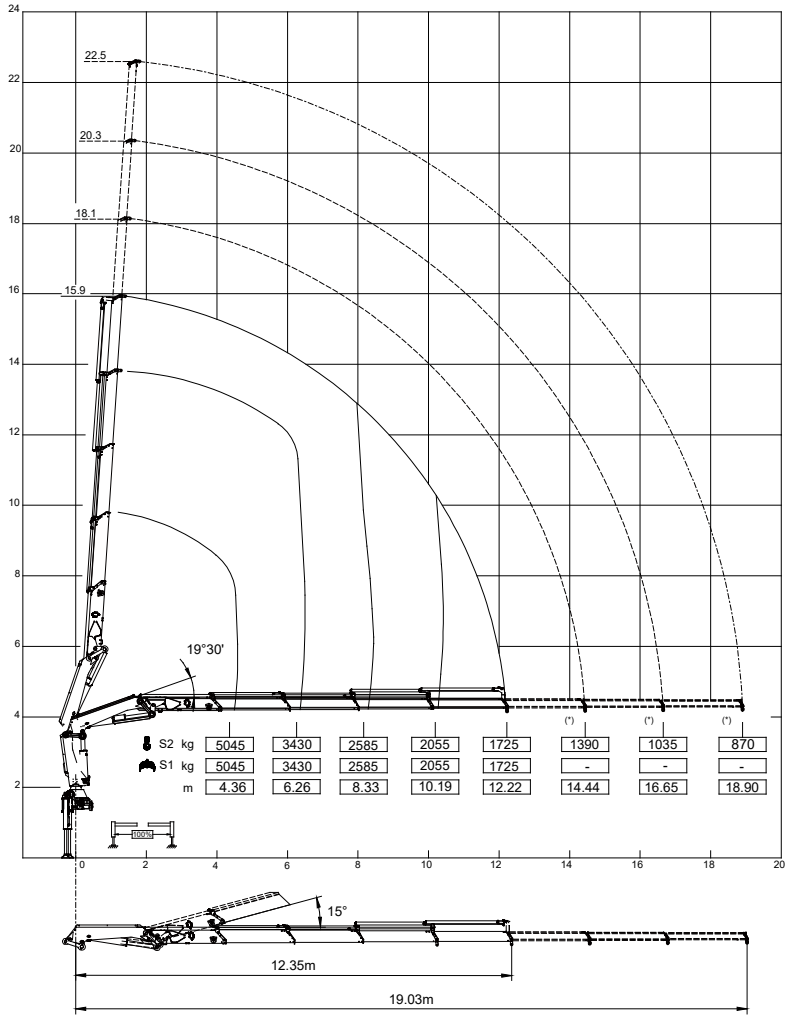


S2	kg	5340	3665	2795	2255	1765	1390	1035
S1	kg	5340	3665	2795	2255	-	-	-
	m	4.28	6.18	8.08	10.11	12.22	14.44	16.65

(*) (*) (*)

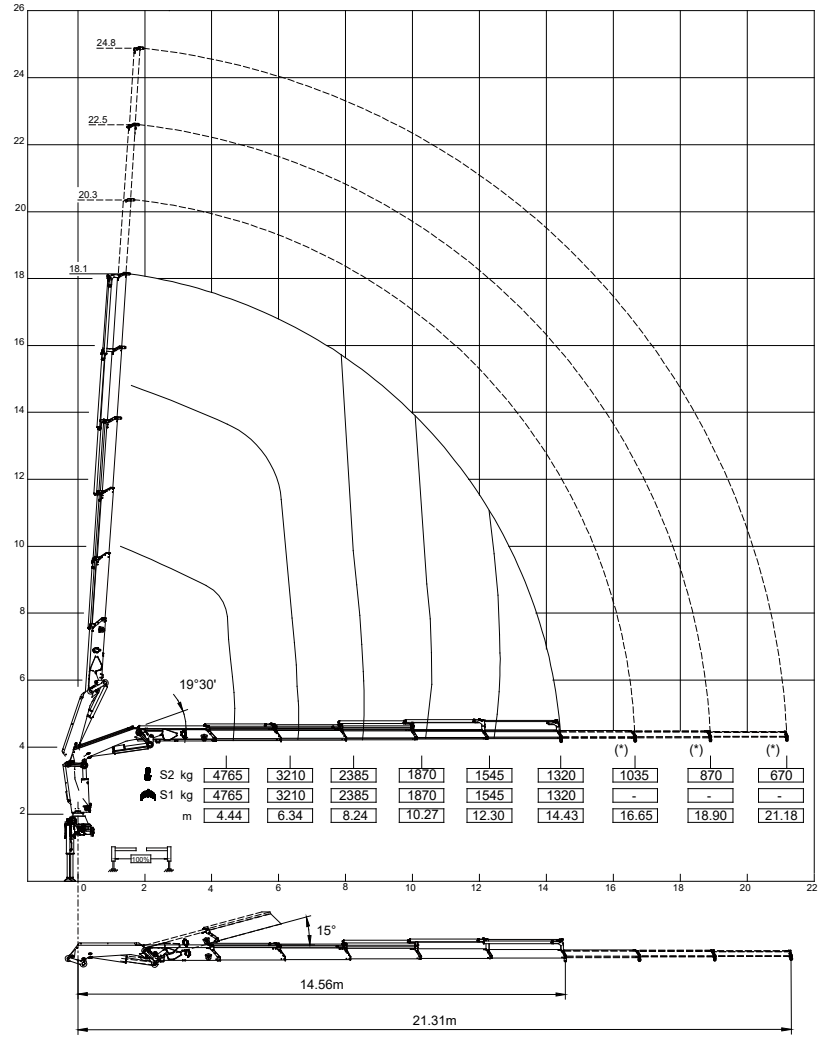
(*) Manual extensions (optional): these cannot lift additional hydraulic tools
If an additional lifting tool is mounted, the rated capacities shall be reduced by the tool's weight

LOAD CHARTS FOR USE WITH HOOK/TOOL
925NG 4S



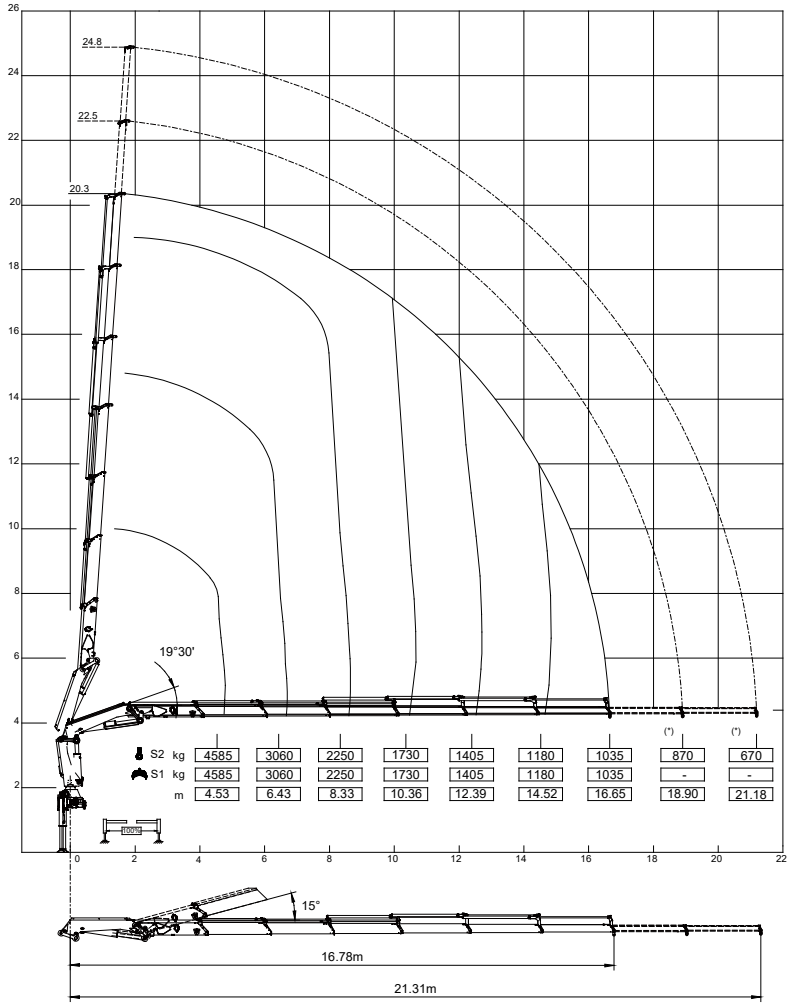
(*) Manual extensions (optional): these cannot lift additional hydraulic tools
If an additional lifting tool is mounted, the rated capacities shall be reduced by the tool's weight

LOAD CHARTS FOR USE WITH HOOK/TOOL
925NG 5S



(*) Manual extensions (optional): these cannot lift additional hydraulic tools
If an additional lifting tool is mounted, the rated capacities shall be reduced by the tool's weight

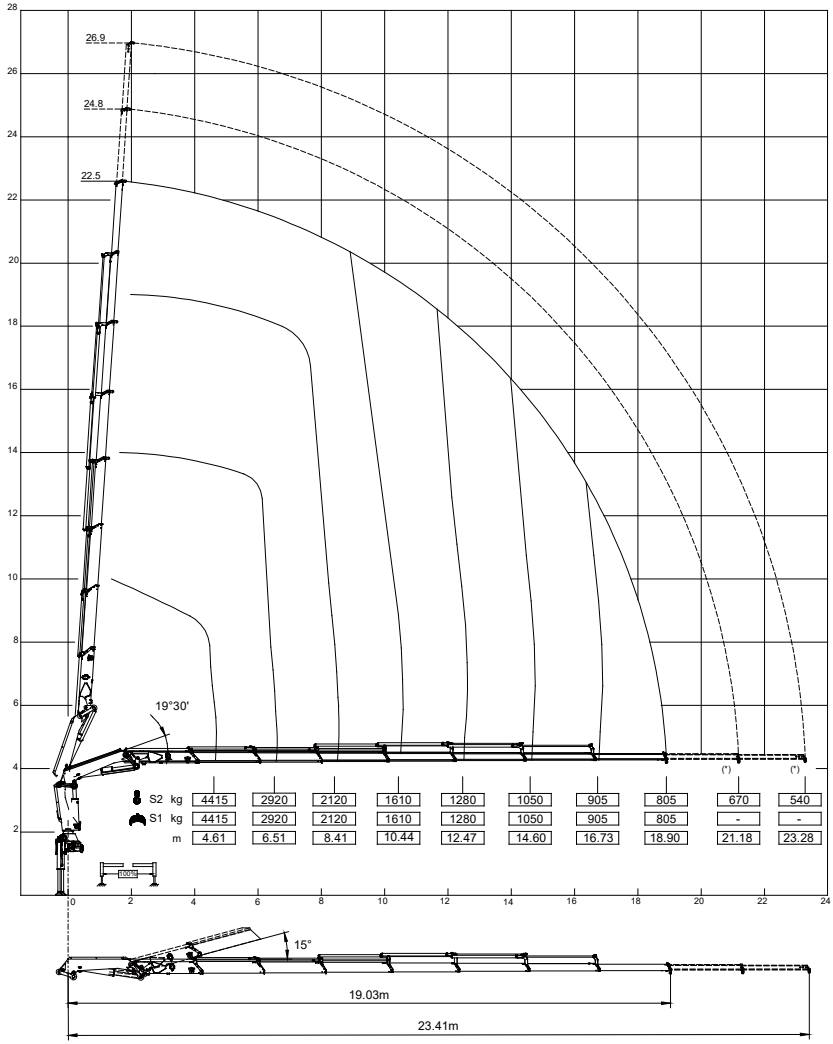
LOAD CHARTS FOR USE WITH HOOK/TOOL
925NG 6S



									(*)	(*)
S2	kg	4585	3060	2250	1730	1405	1180	1035	870	670
S1	kg	4585	3060	2250	1730	1405	1180	1035	-	-
	m	4.53	6.43	8.33	10.36	12.39	14.52	16.65	18.90	21.18

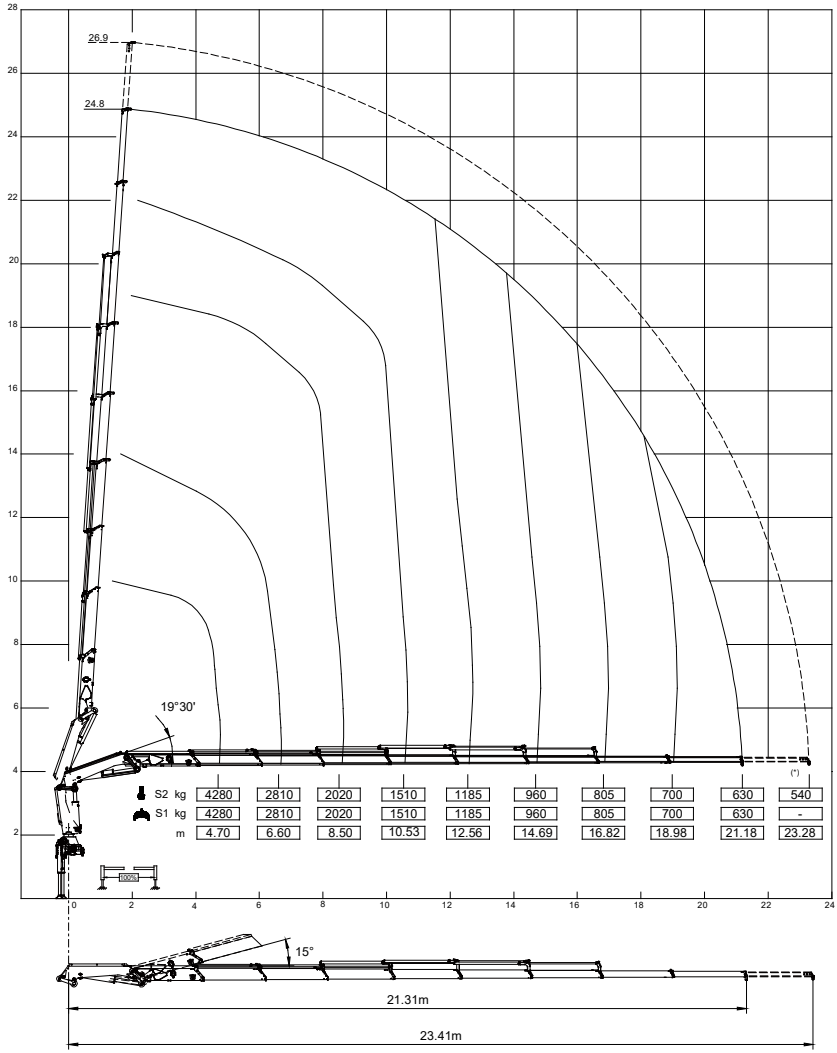
(*) Manual extensions (optional): these cannot lift additional hydraulic tools
If an additional lifting tool is mounted, the rated capacities shall be reduced by the tool's weight

LOAD CHARTS FOR USE WITH HOOK/TOOL
925NG 7S



(*) Manual extensions (optional): these cannot lift additional hydraulic tools
If an additional lifting tool is mounted, the rated capacities shall be reduced by the tool's weight

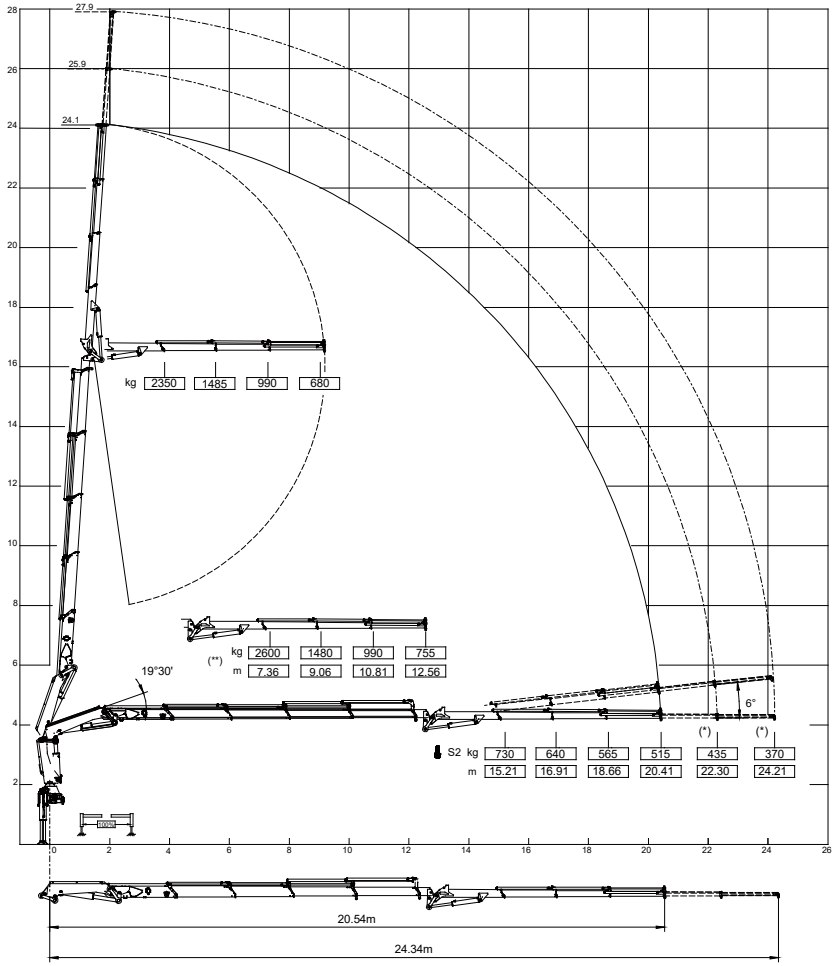
LOAD CHARTS FOR USE WITH HOOK/TOOL
925NG 8S



S2 kg	4280	2810	2020	1510	1185	960	805	700	630	540
S1 kg	4280	2810	2020	1510	1185	960	805	700	630	-
m	4.70	6.60	8.50	10.53	12.56	14.69	16.82	18.98	21.18	23.28

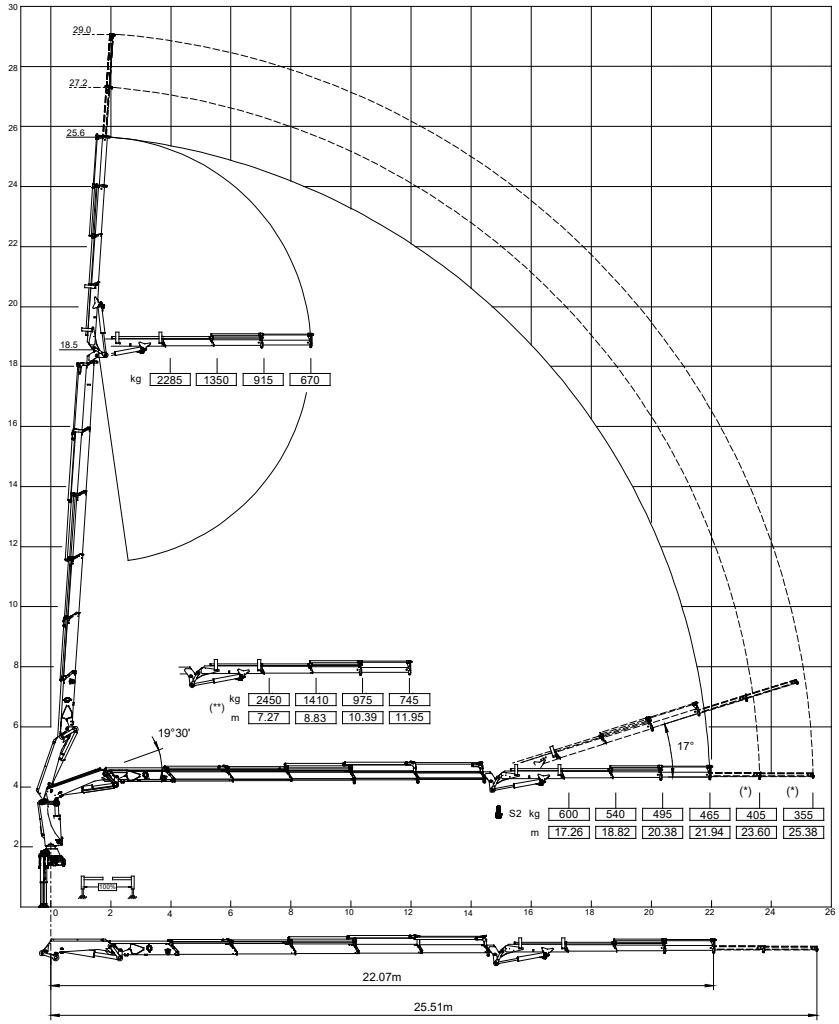
(*) Manual extensions (optional): these cannot lift additional hydraulic tools
If an additional lifting tool is mounted, the rated capacities shall be reduced by the tool's weight

LOAD CHART FOR USE WITH HOOK
925NG 4SJ3



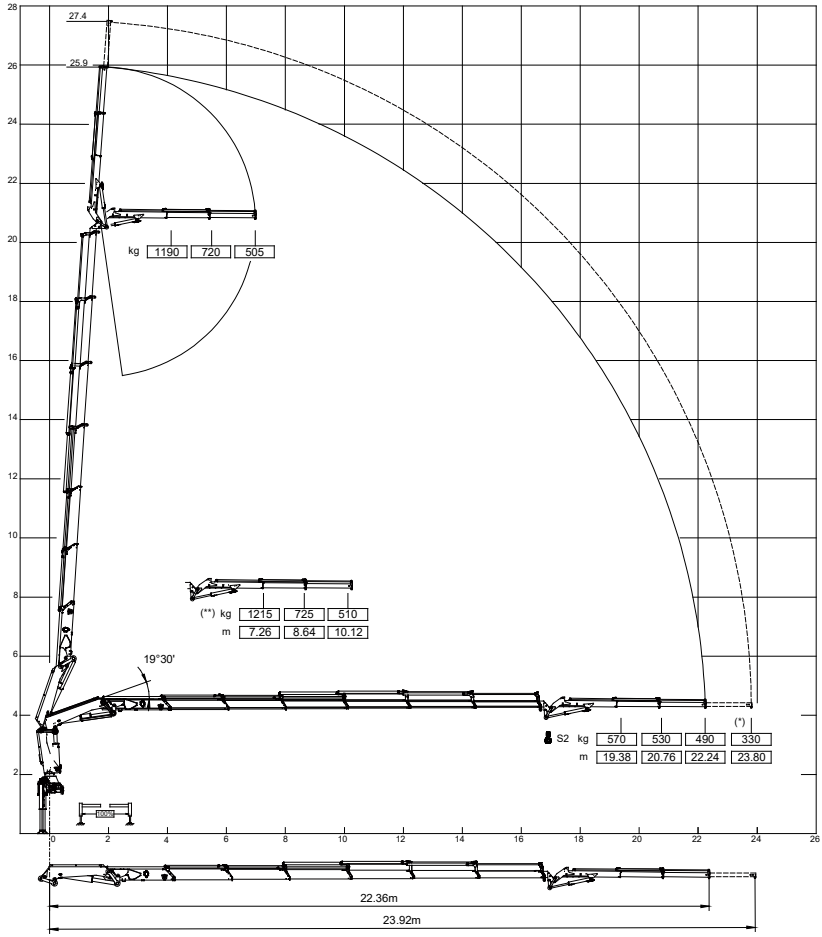
(*) Manual extensions (optional): these cannot lift additional hydraulic tools
(**) Max. lifting capacity of jib
The given rated capacities can be moved only by operating the jib.

LOAD CHART FOR USE WITH HOOK
925NG 5SJ3



(*) Manual extensions (optional): these cannot lift additional hydraulic tools
(**) Max. lifting capacity of jib
The given rated capacities can be moved only by operating the jib.

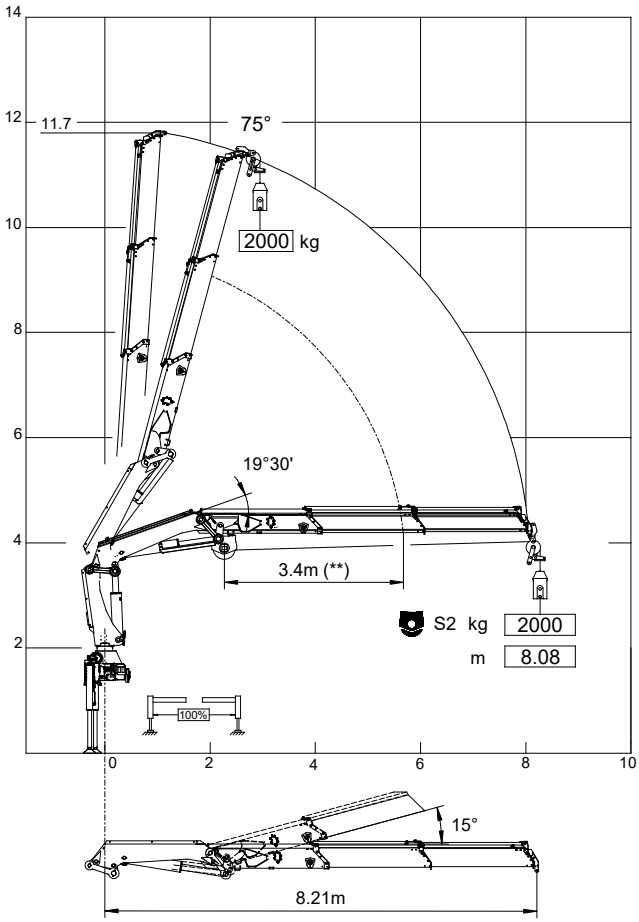
LOAD CHART FOR USE WITH HOOK
925NG 6SJ2



(*) Manual extensions (optional): these cannot lift additional hydraulic tools
(**) Max. lifting capacity of jib
The given rated capacities can be moved only by operating the jib.

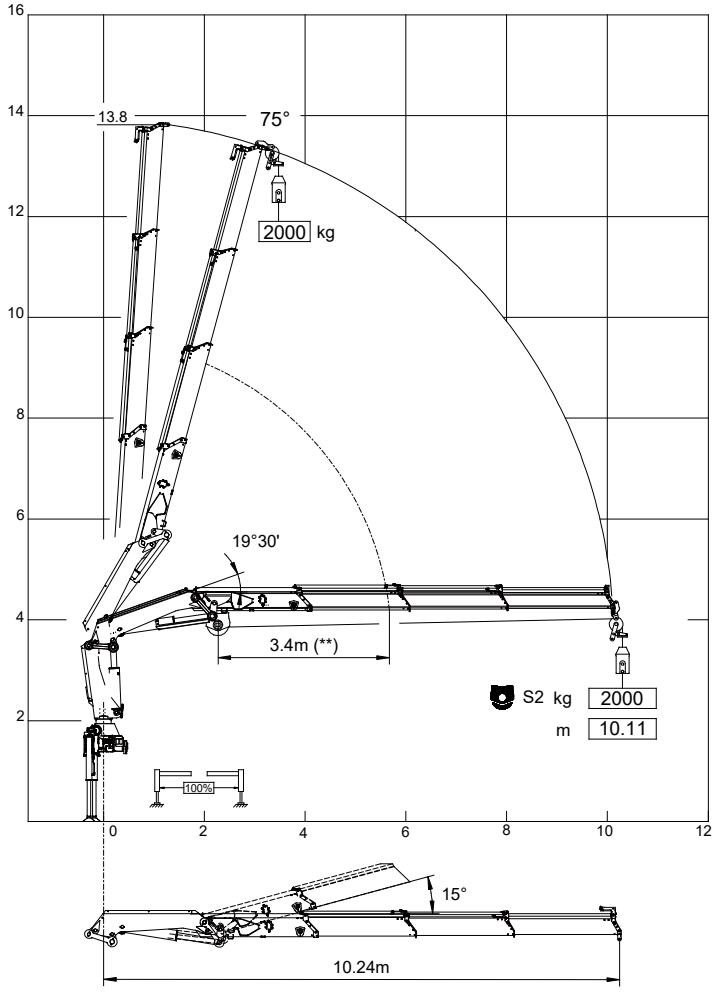
D.9 LOAD CHARTS FOR TI2 WINCH IN SINGLE LINE

925NG 2S + TI2 SINGLE LINE



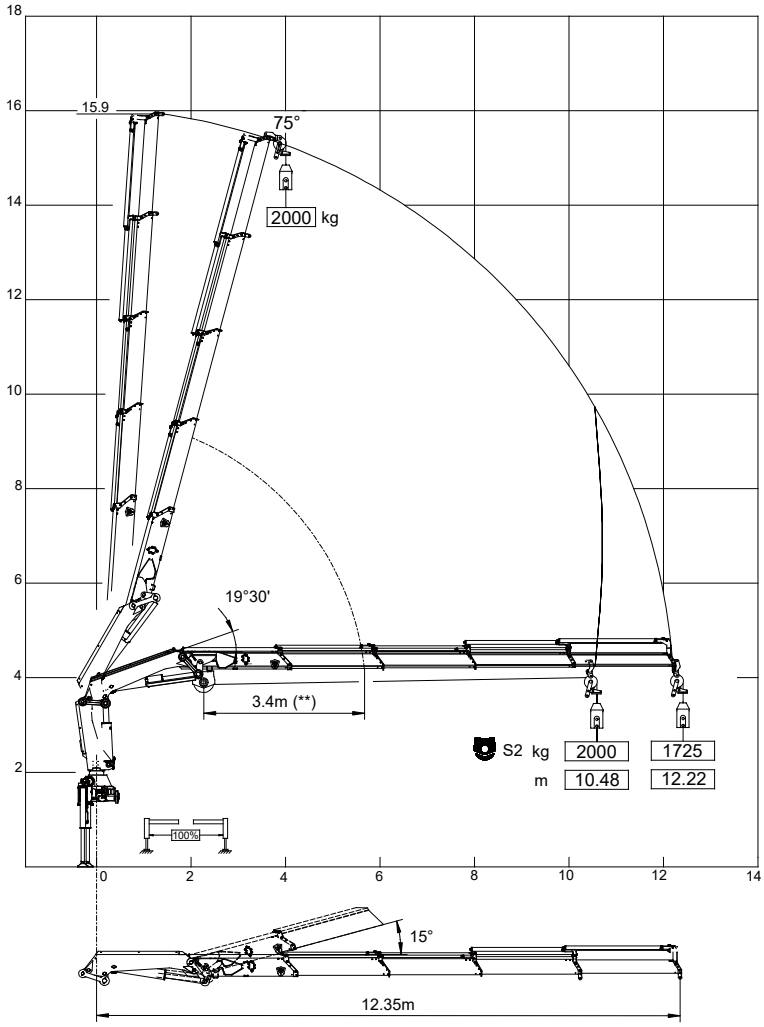
(**) Minimum distance winch - pulley
Winch max. pull: 2000 kg

LOAD CHART FOR WINCH TI2 IN SINGLE LINE
925NG 3S + TI2 SINGLE LINE



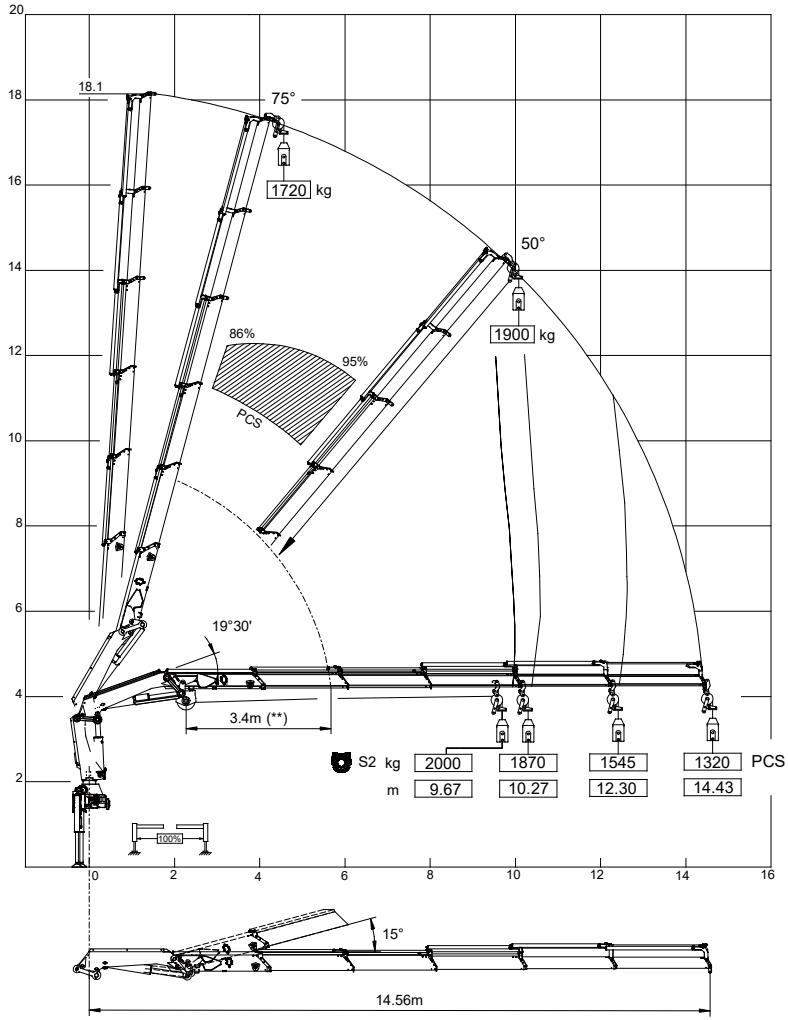
(**) Minimum distance winch - pulley
Winch max. pull: 2000 kg

LOAD CHART FOR WINCH TI2 IN SINGLE LINE
925NG 4S + TI2 SINGLE LINE



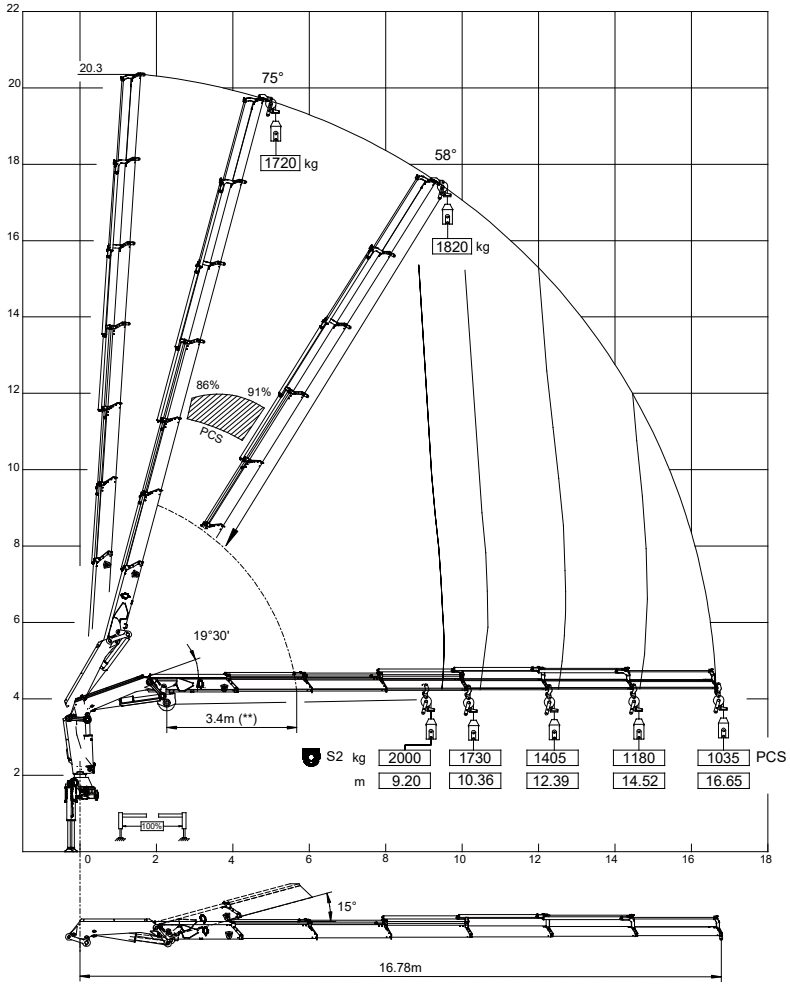
(**) Minimum distance winch - pulley
Winch max. pull: 2000 kg

LOAD CHART FOR WINCH TI2 IN SINGLE LINE
925NG 5S + TI2 SINGLE LINE



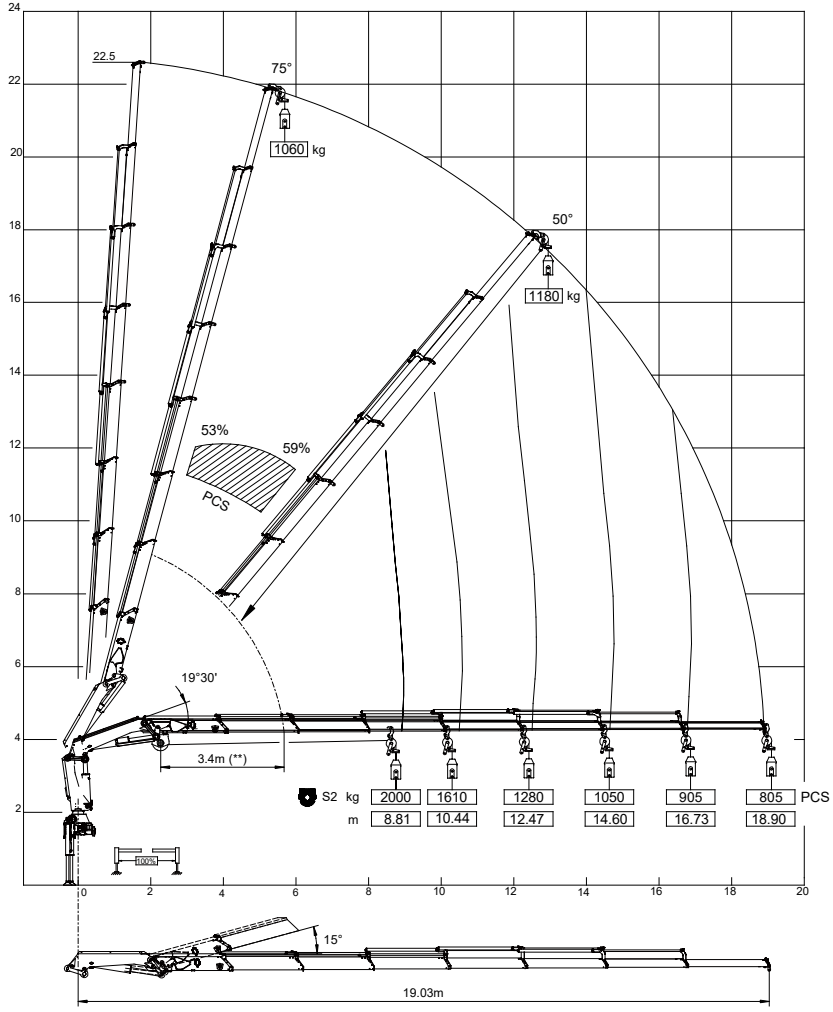
(**) Minimum distance winch - pulley
Winch max. pull with PCS: 2000 kg
PCS: Pull Control System, present on CE/TOP cranes

LOAD CHART FOR WINCH TI2 IN SINGLE LINE
925NG 6S + TI2 SINGLE LINE



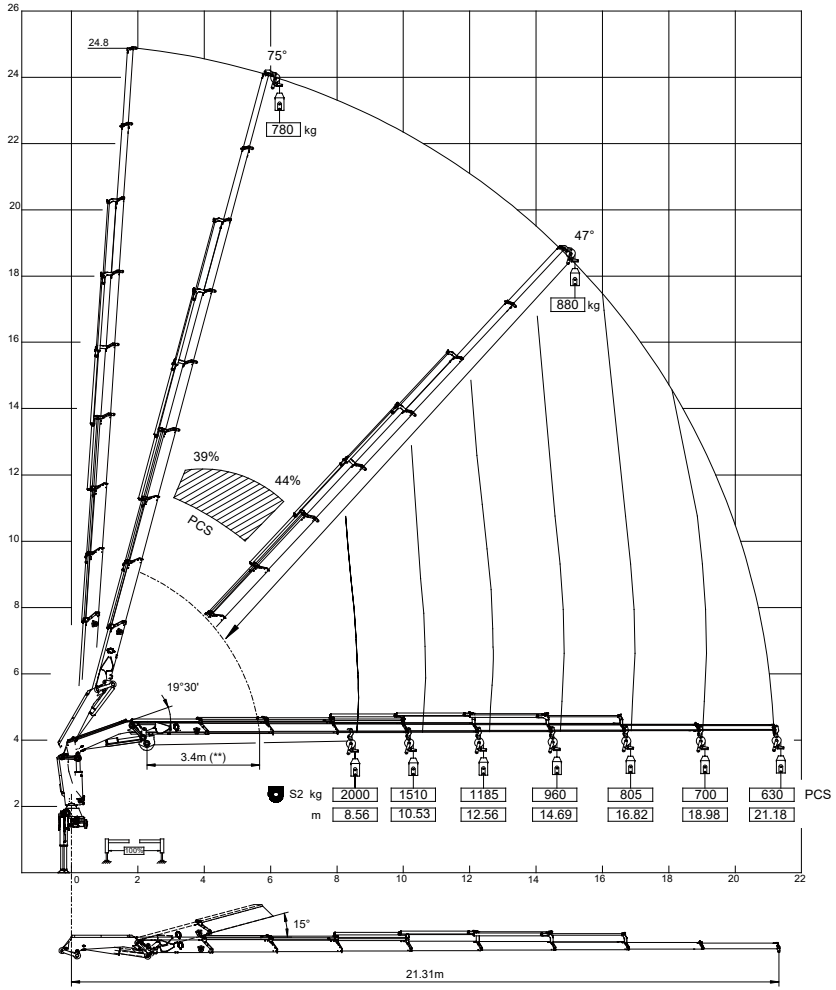
(**) Minimum distance winch - pulley
Winch max. pull with PCS: 2000 kg
PCS: Pull Control System, present on CE/TOP cranes

LOAD CHART FOR WINCH TI2 IN SINGLE LINE
925NG 7S + TI2 SINGLE LINE



(**) Minimum distance winch - pulley
Winch max. pull with PCS: 2000 kg
PCS: Pull Control System, present on CE/TOP cranes

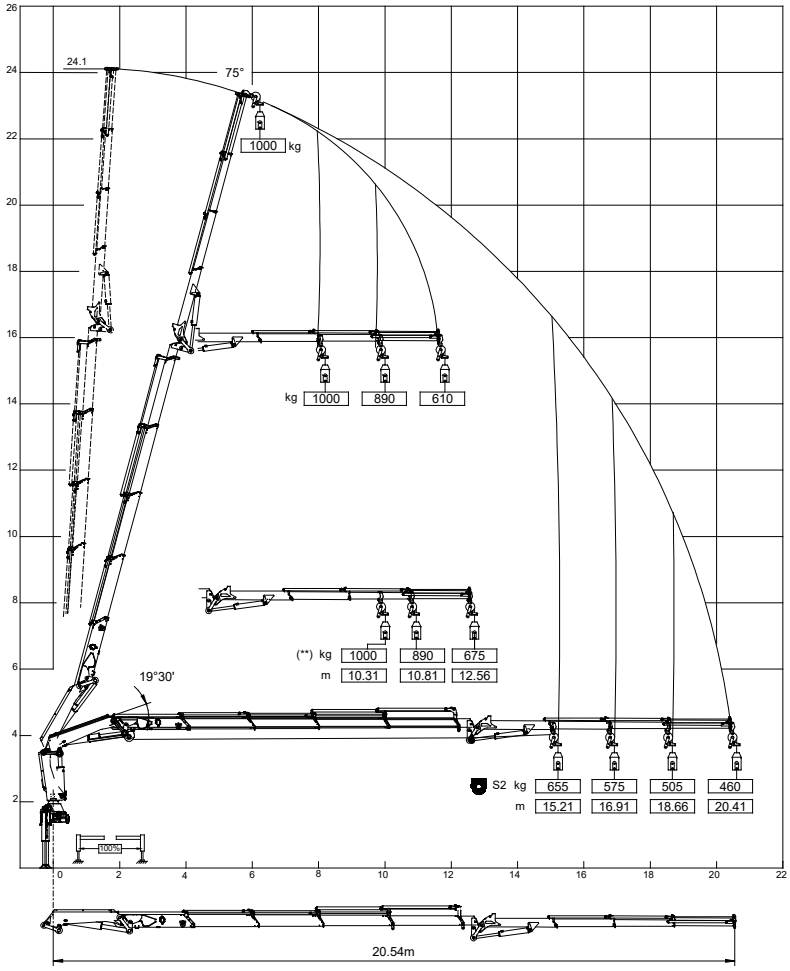
LOAD CHART FOR WINCH TI2 IN SINGLE LINE
925NG 8S + TI2 SINGLE LINE



(**) Minimum distance winch - pulley
Winch max. pull with PCS: 2000 kg
PCS: Pull Control System, present on CE/TOP cranes

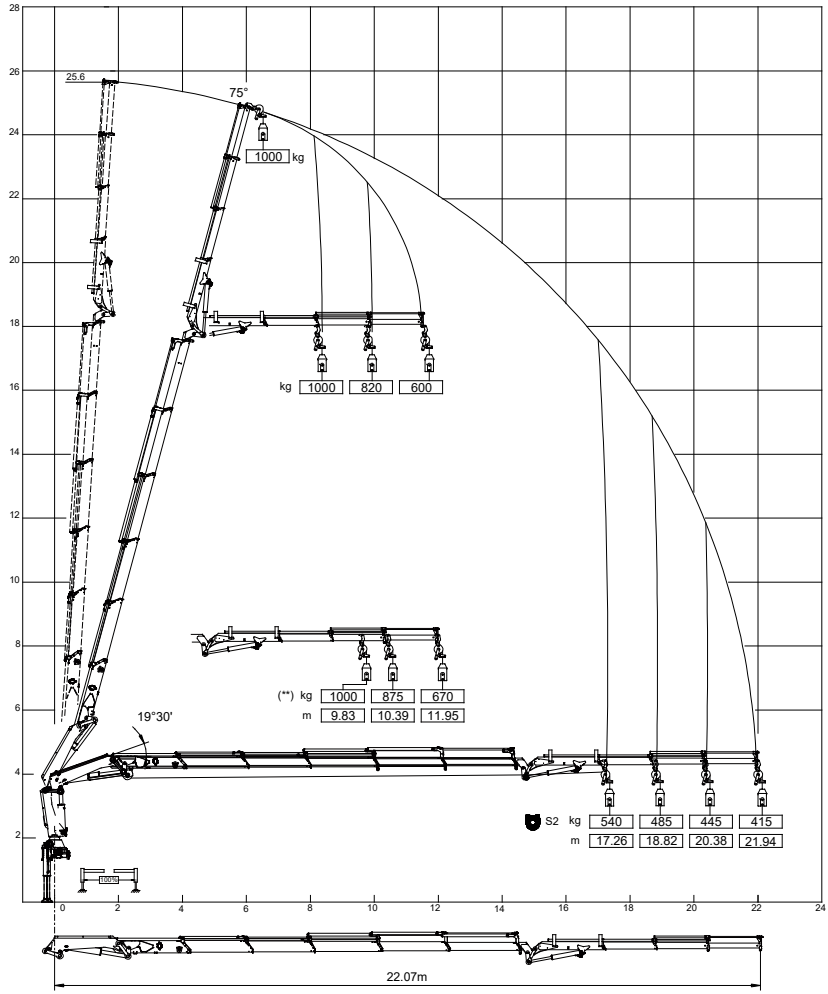
D.10 LOAD CHARTS FOR TI1 WINCH IN SINGLE LINE

925NG 4SJ3 + TI1 SINGLE LINE



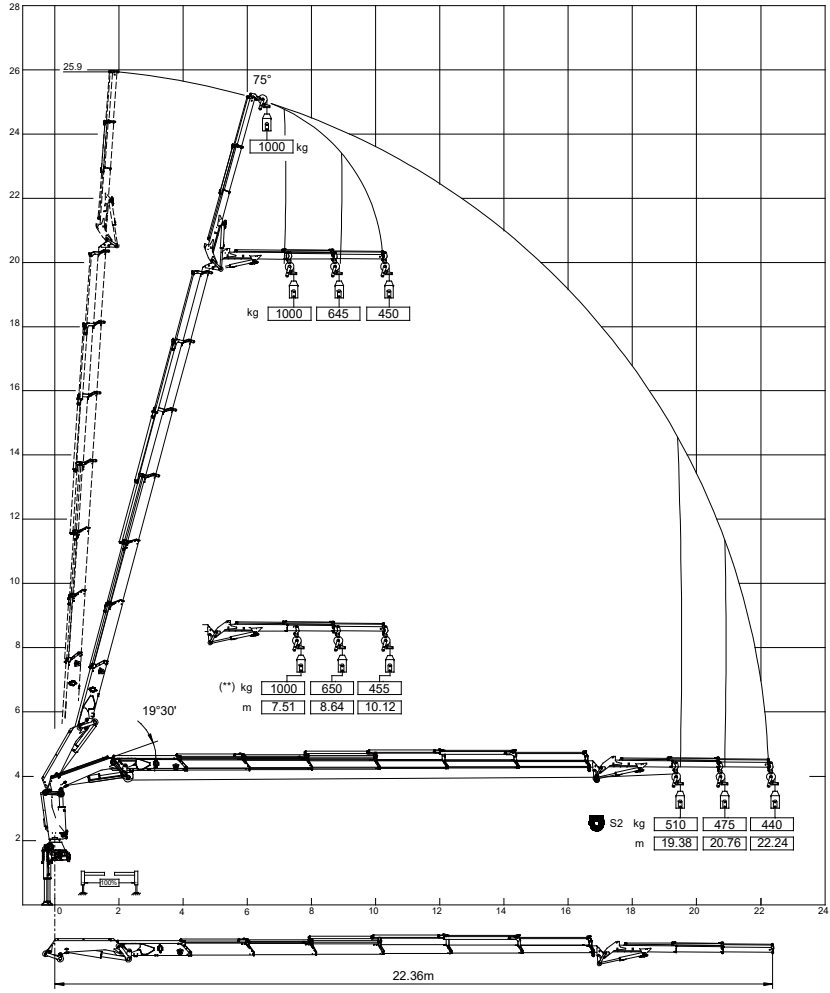
(**) Max. lifting capacity of jib
Winch max. pull: 1000 kg

LOAD CHART FOR WINCH TI1 IN SINGLE LINE
925NG 5SJ3 + TI1 SINGLE LINE



(**) Max. lifting capacity of jib
Winch max. pull: 1000 kg

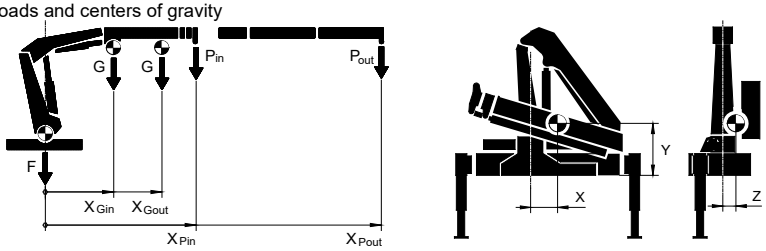
LOAD CHART FOR WINCH TI1 IN SINGLE LINE
925NG 6SJ2 + TI1 SINGLE LINE



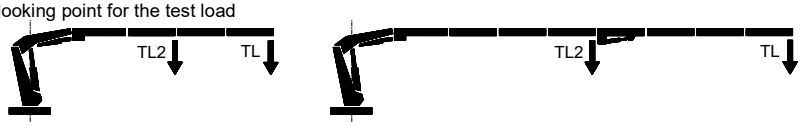
(**) Max. lifting capacity of jib
Winch max. pull: 1000 kg

D.11 CENTERS OF GRAVITY AND TEST LOADS

This annex contains the data needed for the stability test in accordance with EN 12999.
Loads and centers of gravity



Hooking point for the test load



Key:
F = weight of fixed parts (stabilizers, base, column, 1st boom cylinder)
G = weight of booms
X_G = distance between G and column axis
P = rated capacity
X_P = distance between P and column axis
TL = test load, to be hooked to the last hydraulic extension
TL2 - #S = additional test load, to be hooked to the hydraulic extension indicated in the table below
X, Y, Z = coordinates of center of gravity for whole crane folded in transport position (EX-H version)
in = configuration with all hydraulic extensions fully retracted
out = configuration with all hydraulic extensions fully extracted

WEIGHTS AND CENTERS OF GRAVITY

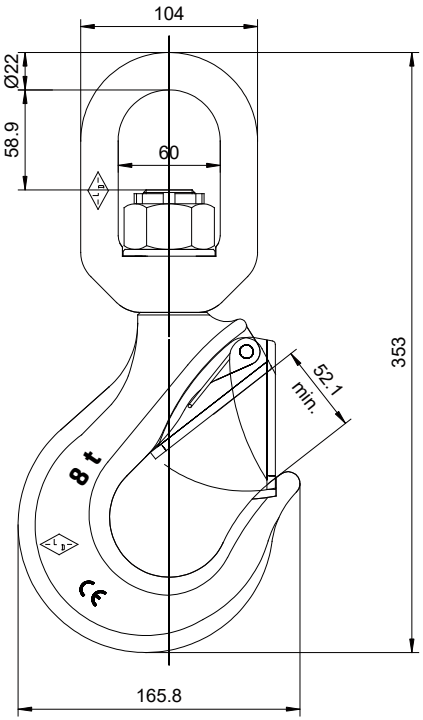
925NG	F	G	X_G in / out	P in / out	X_P in / out	TL (TL2 - #S)	X	Y	Z
	kg	kg	m	kg	m	kg		mm	
2S	ST-M : 1510 EX-H : 1580 SE-H : 1735	1090	2.05 2.89	5435 2910	4.28 8.08	3638	232	755	17
3S		1230	2.17 3.51	5340 2255	4.28 10.11	2819	230	770	37
4S		1370	2.28 4.30	5045 1725	4.36 12.22	2166	221	785	55
5S		1495	2.38 5.09	4765 1320	4.44 14.43	1689	211	800	68
6S		1600	2.46 5.88	4585 1035	4.53 16.65	1355	203	812	77
7S		1720	2.52 6.63	4415 805	4.61 18.90	1006 (122 - 4S)	193	830	90
8S		1810	2.58 7.29	4280 630	4.70 21.18	788 (157 - 4S)	188	843	97
4SJ3		2030	9.13 9.39	730 515	15.21 20.41	644 (269 - 4S)	183	1007	114
5SJ3		1985	9.38 9.56	600 465	17.26 21.94	581 (228 - 5S)	194	1023	111
6SJ2		1875	9.13 9.17	570 490	19.38 22.24	613 (174 - 6S)	182	945	105

The data are relating to crane configuration with horizontal booms.
For the jib version, the "in" data are relating to standard crane's extensions always fully extracted.

D.12 HOOK DATA

HOOK MOUNTED ON STANDARD BOOM
VERSIONS: 2S, 3S, 4S, 5S, 6S, 7S, 8S

DIMENSIONS

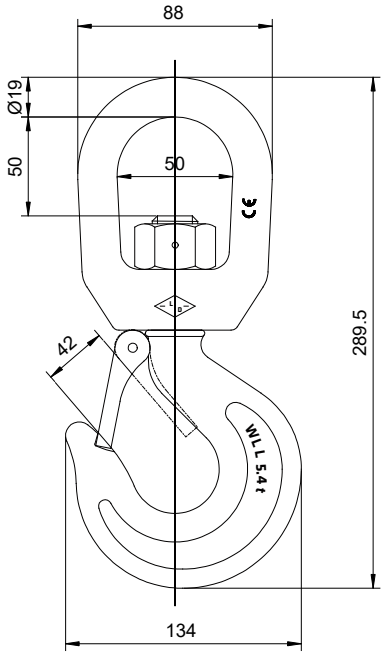


TECHNICAL PROPERTIES
Working load limit (WLL) : 8000 kg
Material: alloy steel
Weight: 6.2 kg
Swivel hook
Reference standard: DIN 15401

HOOK DATA

HOOK MOUNTED ON JIB BOOM
VERSION: 4SJ3, 5SJ3, 6SJ2

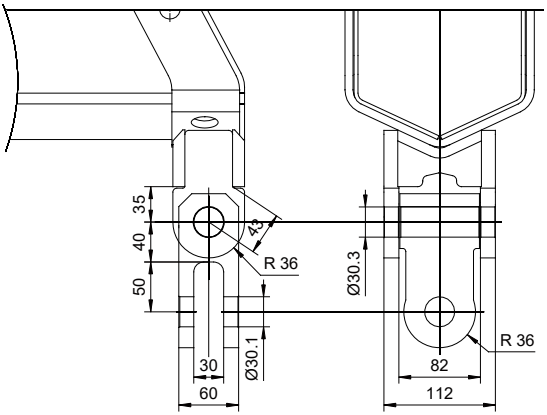
DIMENSIONS

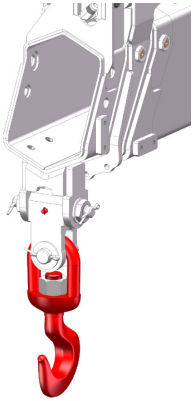


TECHNICAL PROPERTIES
Working load limit (WLL) : 5400 kg
Material: alloy steel
Weight: 3.2 kg
Swivel hook
Reference standard: DIN 15401

D.13 LOAD ATTACHMENT

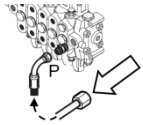
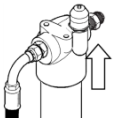
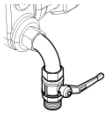
ATTACHMENT FOR HOOK AND LIFTING TOOL





D.14 HYDRAULIC SYSTEM

FITTINGS FOR CONNECTION TO PUMP

925NG	NO RDC		RDC	
Control valve pressure line		M 7/8"-14 JIC		M 3/4"-16 GAS
Tank suction line		M 1"1/2 BSP		M 1" 1/2 BSP

EXTENSION TIMES OF HYDRAULIC CYLINDERS

925NG	Extension time s	Retraction time s
Slewing (180°)	20	20
1.boom cylinder	18	32
2.boom cylinder	25	16
boom extension 1S (SGS active)	N/A	N/A
boom extension 2S (SGS active)	N/A	N/A
boom extension 3S (SGS active)	N/A	N/A
boom extension 4S (SGS active)	N/A	N/A
boom extension 5S (SGS active)	N/A	N/A
boom extension 6S (SGS active)	N/A	N/A
boom extension 7S (SGS active)	N/A	N/A
boom extension 8S (SGS active)	70	58
jib articulation cylinder	N/A	N/A
jib extension 2S	N/A	N/A
jib extension 3S	N/A	N/A

Times are indicative and referring to the following operating conditions:
- unloaded crane operated with a single control lever
- oil flow rate recommended for NO RDC crane
- ISO VG 46 oil at a temperature of 50°C

MAX. ALLOWABLE SINK RATE FOR THE LOAD

The sink rate is the uncontrolled descent of the load in a given time interval due to internal leakage of hydraulic components. The table below shows the maximum permitted descent of the rated load, at the max. hydraulic outreach and in the given time interval.

925NG	Time interval min.	Max. load descent mm
2S	10	404
3S	10	506
4S	10	244
5S	10	289
6S	10	333
7S	10	378
8S	10	424
4SJ3	10	408
5SJ3	10	439
6SJ2	10	445

CAPACITY OF HYDRAULIC SYSTEM

925NG	Cylinders extended ℓ	Cylinders retracted ℓ
2S	74	47
3S	82	52
4S	90	56
5S	98	62
6S	106	67
7S	115	74
8S	123	81
4SJ3	106	66
5SJ3	107	72
6SJ2	116	73

Capacities do not include the oil tank.

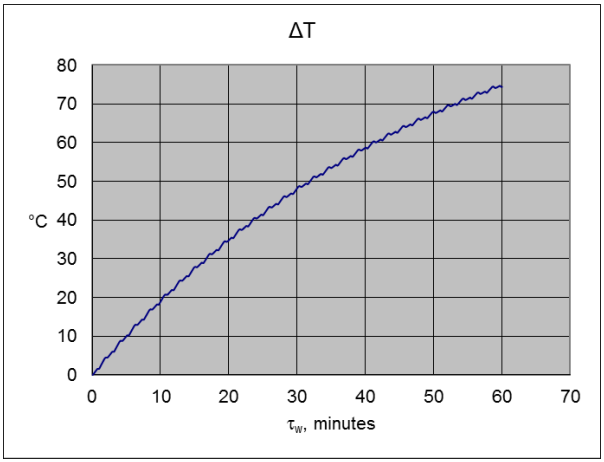
ADDITIONAL CAPACITY FOR HYDRAULICALLY OPERATED STABILIZER EXTENSIONS

EX-H	+4.0	+2.5
SE-H	+6.5	+3.5

D.15 OIL COOLER

TECHNICAL SPECIFICATIONS
Heat transfer coefficient: 235 W/K (oil flow rate of 40 ℓ/min)
Activation temperature: 48 °C
Weight: 13.5 kg
Capacity: 4 ℓ

For a crane without oil cooler performing a sequence of standard work cycles, the difference in temperature between the oil and the environment is shown in the graph below.



The oil cooler is recommended when

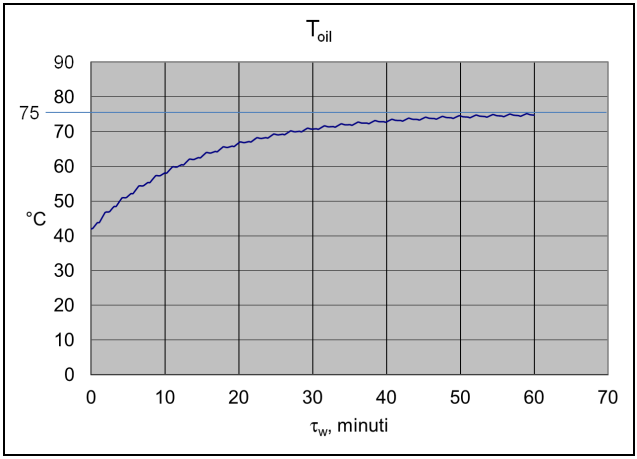
$$T_{env} + \tau_w > 57$$

where:
T_{env} : temperature of the environment (°C)
ΔT : difference in temperature between the oil and the environment (°C)
τ_w : working time (minutes)

However, when a crane equipped with oil cooler carries out a sequence of standard work cycles, the oil temperature exceeds 75 °C after the following working times:

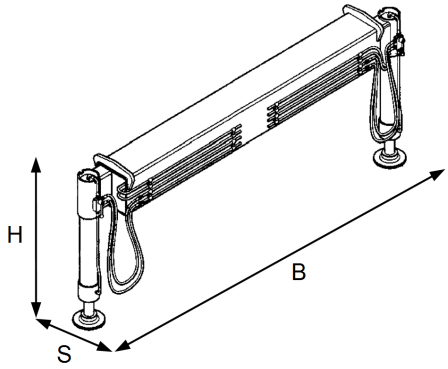
T_{env} (°C)	τ_w to exceed 75 °C (minutes)
42	no limit
45	35
48	25
50	21
52	18
54	15

The graph below shows the temperature trend (T_{oil}) with oil cooler when T_{env} = 45 °C.



Notes:
The max recommended oil temperature is 75°C (at 80°C you must stop working)
The calculation of the oil temperature is purely indicative and depending on several variables (e.g. working cycle, wind, humidity, weather, etc.)

D.16 ADDITIONAL STABILIZERS



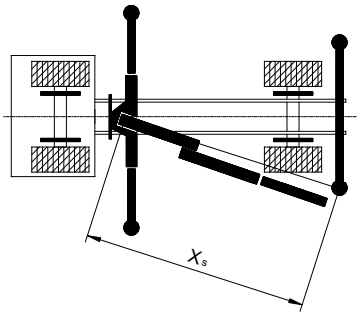
Additional stabilizers must be chosen so that:
- the installation is stable (see Installer Manual)
- the max. force acting on the additional stabilizers, F_s, is lower than the max. load allowed by the stabilizers itself, R_{max}.

$$F_s = M_{dyn} / X_s \qquad F_s \geq 0.6\ F_{sg}$$

where:
M_{dyn}: max. dynamic moment of the crane
X_s: distance between column axis - stab. cylinder
F_{sg}: max force on stabilizer leg

Check that: $F_s \leq R_{max}$

R_{max} is given in the technical specifications of the additional stabilizers.



- In addition, CE additional stabilizer must be equipped with safety devices integrated with the crane's stability control system. Therefore we recommend to install the following models designed by the crane's manufacturer:

Code	Spread (m)	Weight (kg)	R_{max} (kg)	Overall dimensions BxHxS (mm)
7850106	3.33	270	8200	2334x930x220
7850107	3.33	260	8200	2334x840x220
7850105	4.74	390	8250	2346x930x400
7850121	4.74	380	8250	2346x840x400
7850103	5.02	570	12700	2420x1095x430
7850104	5.02	540	12700	2420x970x430

For further information see the User Manual for outriggers.

D.17 RECOMMENDED ADDITIONAL LIFTING TOOLS

CLAMSHELL BUCKET

Crane version	Gross load kg (1)	Data of recommended tool				Payload kg (3)	Load ratio	
		HYVA model	weight kg	volume dm^3	capacity kg (2)		crane (4)	tool (5)
2S	2910	H605-650	410	650	975	**2500**	48%	100%
3S	2255	H605-650	410	650	975	**1845**	61%	100%
4S	1725	H605-450	340	450	675	**1385**	59%	100%
5S	1320	H604-325	235	325	487,5	**1085**	55%	100%
6S	1035	H604-200	195	200	300	**840**	48%	100%
7S	805	H604-200	195	200	300	**610**	61%	100%
8S	630	H604-200	195	200	300	**435**	79%	100%

Notes
(1) The gross load is the load capacity of crane at maximum hydraulic outreach
(2) The tool's load capacity is calculated multiplying the volume by a density of 1.5 kg/dm^3
(3) The payload is the gross load of crane minus the tool's weight
(4) The crane's load ratio is the percentage value of the liftable load with respect to the gross load
(5) The tool's load ratio is the percentage value of the liftable load with respect to tool's capacity

Stress history class: S1

RECOMMENDED ADDITIONAL LIFTING TOOLS
ORANGE PEEL GRAPPLE

Crane version	Gross load kg (1)	Data of recommended tool				Payload kg (3)	Load ratio	
		HYVA model	weight kg	volume dm^3	capacity kg (2)		crane (4)	tool (5)
2S	2910	H653-4 large	435	500	750	**2475**	41%	100%
3S	2255	H653-4 large	435	500	750	**1820**	53%	100%
4S	1725	H653-4 large	395	350	525	**1330**	53%	100%
5S	1320	H653-4 small	250	240	360	**1070**	46%	100%
6S	1035	H653-4 small	235	180	270	**800**	49%	100%
7S	805	H653-4 small	235	180	270	**570**	63%	100%
8S	630	H653-4 small	235	180	270	**395**	80%	100%

Notes
(1) The gross load is the load capacity of crane at maximum hydraulic outreach
(2) The tool's load capacity is calculated multiplying the volume by a density of 1.5 kg/dm^3
(3) The payload is the crane's gross load minus the tool's weight
(4) The crane's load ratio is the percentage value of the liftable load with respect to the gross load
(5) The tool's load ratio is the percentage value of the liftable load with respect to tool's capacity

Stress history class: S1

RECOMMENDED ADDITIONAL LIFTING TOOLS
LOGGING GRAPPLE

Crane version	Gross load kg (1)	Data of recommended tool			Payload kg (2)	Load ratio	
		HYVA model	weight kg	capacity kg		crane (3)	tool (4)
2S	2910	H634-0,25	170	4000	**2740**	100%	69%
3S	2255	H634-0,25	170	4000	**2085**	100%	52%
4S	1725	H634-0,25	170	4000	**1555**	100%	39%
5S	1320	H634-0,25	170	4000	**1150**	100%	29%
6S	1035	H634-0,25	170	4000	**865**	100%	22%
7S	805	H634-0,25	170	4000	**635**	100%	16%
8S	630	H634-0,25	170	4000	**460**	100%	12%

Notes
(1) The gross load is the load capacity of crane at maximum hydraulic outreach
(2) The payload is the gross load of crane minus the tool's weight
(3) The crane's load ratio is the percentage value of the liftable load with respect to the gross load
(4) The tool's load ratio is the percentage value of the liftable load with respect to tool's capacity

Stress history class: S1

RECOMMENDED ADDITIONAL LIFTING TOOLS
BRICK STACK GRAPPLE

Crane version	Gross load kg (1)	Data of recommended tool			Payload kg (2)	Load ratio	
		HYVA model	weight kg	capacity kg		crane (3)	tool (4)
2S	2910	H332-850	245	2200	**2665**	84%	100%
3S	2255	H332-850	245	2200	**2010**	100%	91%
4S	1725	H332-850	245	2200	**1480**	100%	67%
5S	1320	H332-850	245	2200	**1075**	100%	49%
6S	1035	H332-850	245	2200	**790**	100%	36%
7S	805	H332-850	245	2200	**560**	100%	25%
8S	630	H332-850	245	2200	**385**	100%	18%

Notes
(1) The gross load is the load capacity of crane at maximum hydraulic outreach
(2) The payload is the gross load of crane minus the tool's weight
(3) The crane's load ratio is the percentage value of the liftable load with respect to the gross load
(4) The tool's load ratio is the percentage value of the liftable load with respect to tool's capacity

Stress history class: S2

RECOMMENDED ADDITIONAL LIFTING TOOLS
PALLET FORK

Crane version	Gross load kg (1)	Data of recommended tool			Payload kg (2)	Load ratio	
		HYVA model	weight kg	capacity kg		crane (3)	tool (4)
2S	2910	H415-2000 500	155	2000	**2755**	74%	100%
3S	2255	H415-1500 500	135	1500	**2120**	73%	100%
4S	1725	H415-1500 500	135	1500	**1590**	95%	100%
5S	1320	H415-1500 500	135	1500	**1185**	100%	79%
6S	1035	H415-1500 500	135	1500	**900**	100%	60%
7S	805	H415-1500 500	135	1500	**670**	100%	45%
8S	630	H415-1500 500	135	1500	**495**	100%	33%

Notes
(1) The gross load is the load capacity of crane at maximum hydraulic outreach
(2) The payload is the gross load of crane minus the tool's weight
(3) The crane's load ratio is the percentage value of the liftable load with respect to the gross load
(4) The tool's load ratio is the percentage value of the liftable load with respect to tool's capacity

Stress history class: S2