

TECHNICAL SHEET

946FM





AMCO  **VEBA**
MARINE **CRANES BY HYVA**

soggetto a modifica senza preavviso

subject to change without notice


Änderungen ohne Vorankündigung
vorbehalten

946FM
HC1 - HC2

Momento dinamico max <i>Max dynamic moment</i> Max dynamisches Hubmoment	55300 daNm			
Portata massima - Max tiro singolo argano <i>Max load - Max single pull of winch</i> Max. Hubkraft - Max. Einzelzug der Winde				
		HC1	HC2	
	2S	14400 kg	12240 kg	3600 kg
	3S	14120 kg	11300 kg	3600 kg
	4S	13925 kg	11140 kg	3600 kg
	5S	13800 kg	11040 kg	3600 kg
	6S	13350 kg	10680 kg	2600 kg
	7S	13080 kg	10460 kg	2600 kg
	8S	12850 kg	10280 kg	2600 kg
	6S J4	3000 kg	2550 kg	900 kg
Peso gru in ordine di lavoro - Peso con argano <i>Crane weight in operating conditions - Weight with winch</i> Gewicht des Krans in Arbeitszustand - Gewicht mit Winde	2S	4060 kg		4220 kg
	3S	4310 kg		4470 kg
	4S	4590 kg		4750 kg
	5S	4830 kg		4990 kg
	6S	5030 kg		5190 kg
	7S	5220 kg		5380 kg
	8S	5400 kg		5560 kg
	6S J4	5900 kg		6060 kg
Pressione massima d'esercizio <i>Max working pressure</i> Max. Betriebsdruck	HC1: 300 bar HC2: 275 bar			
Portata massima d'olio <i>Max oil flow rate</i> Max. Fördermenge der Pumpe	80 l/min			
Capacità serbatoio olio minima <i>Min. oil tank capacity</i> Min. Fassungsvermögen des Ölbehälters	210 l			
Angolo di rotazione <i>Slewing angle</i> Schwenkbereich	400°			
Inclinazione massima di lavoro <i>Max working heel</i> Max. Arbeitsneigung	4°			
Potenza assorbita <i>Absorbed power</i> Leistungsaufnahme	HC1: 52 kW HC2: 48 kW			
Massimo momento al basamento <i>Max. moment at the base</i> Max. Moment am Sockel	55300 daNm (Md)			
Massima forza verticale sul basamento <i>Max vertical force on the base</i> Max. vertikale Kraft auf dem Sockel	22820 daN (N)			
Coppia di rotazione <i>Slewing torque</i> Schwenkmoment	7000 daNm (Mr)			
Viti di fissaggio del basamento <i>Crane mounting screws of the base</i> Sockelbefestigungsschrauben	N.28 M24x3			
	Classe di resistenza <i>Property class</i> Festigkeitsklasse	8.8		
	Coppia di serraggio <i>Tightening torque</i> Anzugsmoment	691 Nm		
Grado di protezione IP (EN 60529) <i>IP protection degree (EN 60529)</i> Schutzgrad IP (EN 60529)	54			



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	Tempi Times Zeiten [s]	
	Apertura Opening Ausfahren	Chiusura Closing Einfahren
Cilindri Cylinders Zylinder		
Rotazione (360°) <i>Slewing (360°)</i> Umdrehung (360°)	45-60"	45-60"
Cilindro 1°braccio <i>1.boom cylinder</i> 1. Ausleger-Zylinder	57"	57"
Cilindro 2°braccio <i>2.boom cylinder</i> 2. Ausleger-Zylinder	60"	38"
Elementi telescopici Boom extensions Teleskopausschübe		
2S	12"	20"
3S	17"	26"
4S	24"	38"
5S	30"	46"
6S	36"	54"
7S	45"	63"
8S	57"	70"
Cilindro articolazione braccio jib <i>Jib boom articulation cylinder</i> Jib-Ausleger Gelenkzylinder	18"	13"
Elementi telescopici jib Jib extensions Teleskopische Jib-Ausschübe		
J1	8"	5"
J2	17"	11"
J3	26"	17"
J4	32"	22"




**CAPACITÀ CIRCUITO
IDRAULICO**

**CAPACITY OF HYDRAULIC
SYSTEM**

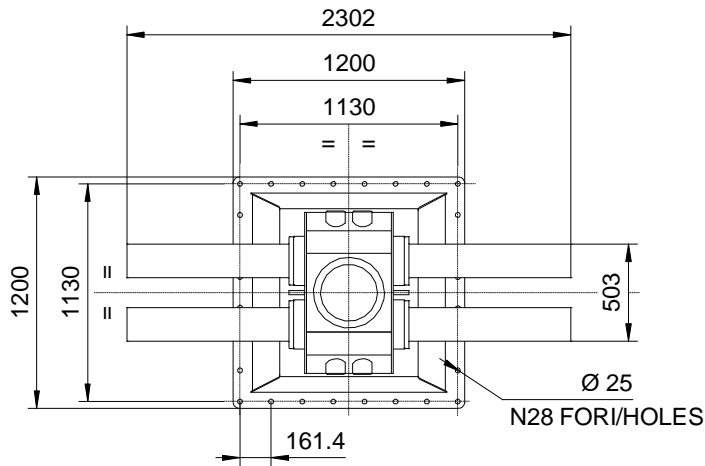
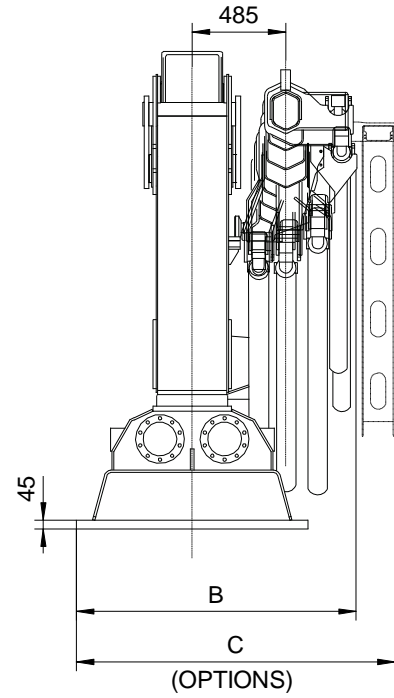
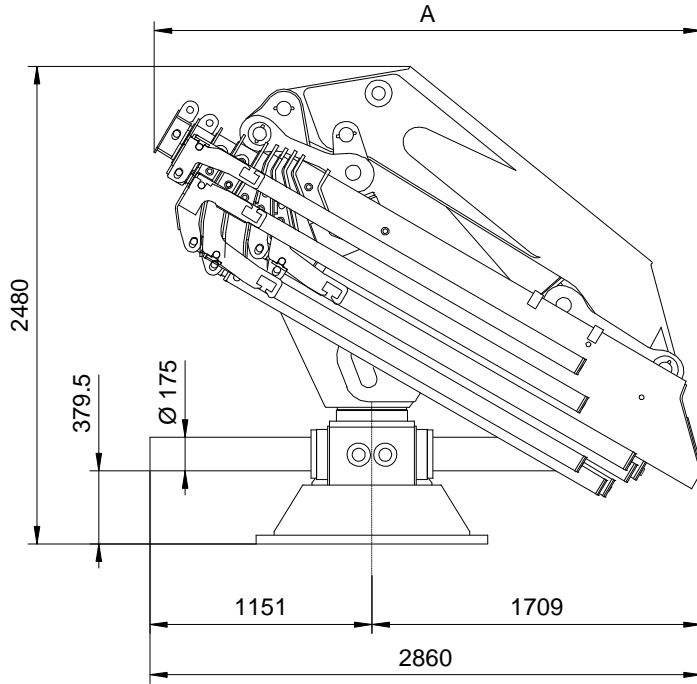
**VOLUMEN DES
HYDRAULIKKREISES**

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 Versione <i>Version</i>	CAPACITÀ CIRCUITO IDRAULICO CAPACITY OF HYDRAULIC SYSTEM VOLUMEN DES HYDRAULIKKREISES [dm ³]	
	Cilindri estesi <i>Open cylinders</i> Ausgefahrene Zylinder	Cilindri chiusi <i>Closed cylinders</i> Eingefahrene Zylinder
2S	132	83
3S	143	89
4S	154	94
5S	163	98
6S	172	102
7S	182	108
8S	191	113
6S J4	202	123



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Version	A	B	C
2S	2260	1325	1530
3S	2380	1325	/
4S	2480	1325	1530
5S	2610	1345	/
6S	2730	1345	1530
7S	2780	1460	/
8S	2840	1460	/

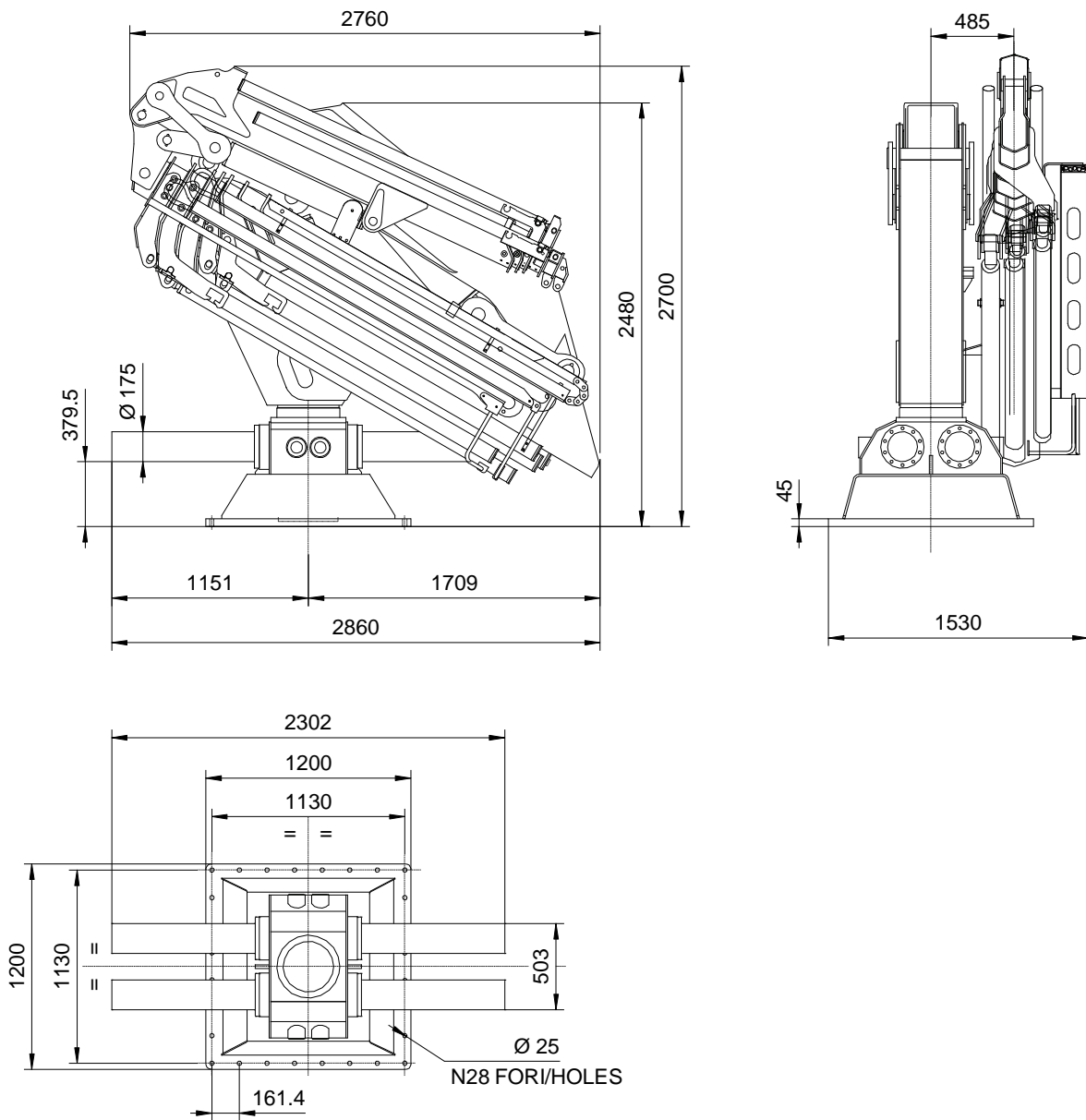


**DIMENSIONI D'INGOMBRO
CON JIB**

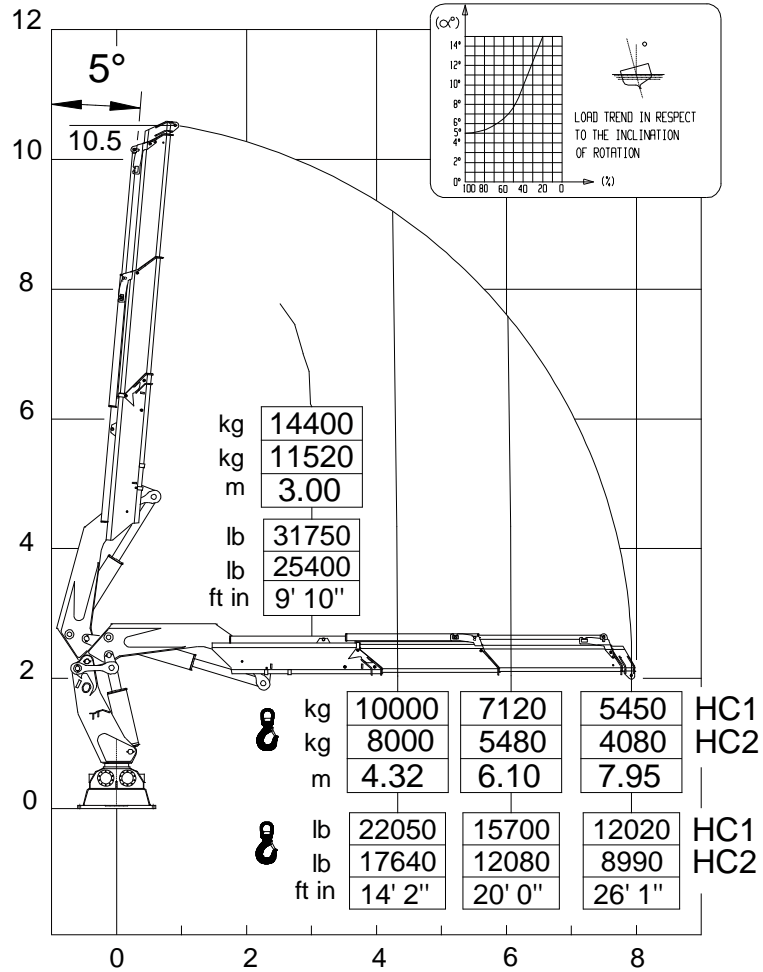
**OVERALL DIMENSIONS
WITH JIB**

**GESAMTABMESSUNGEN
MIT JIB**

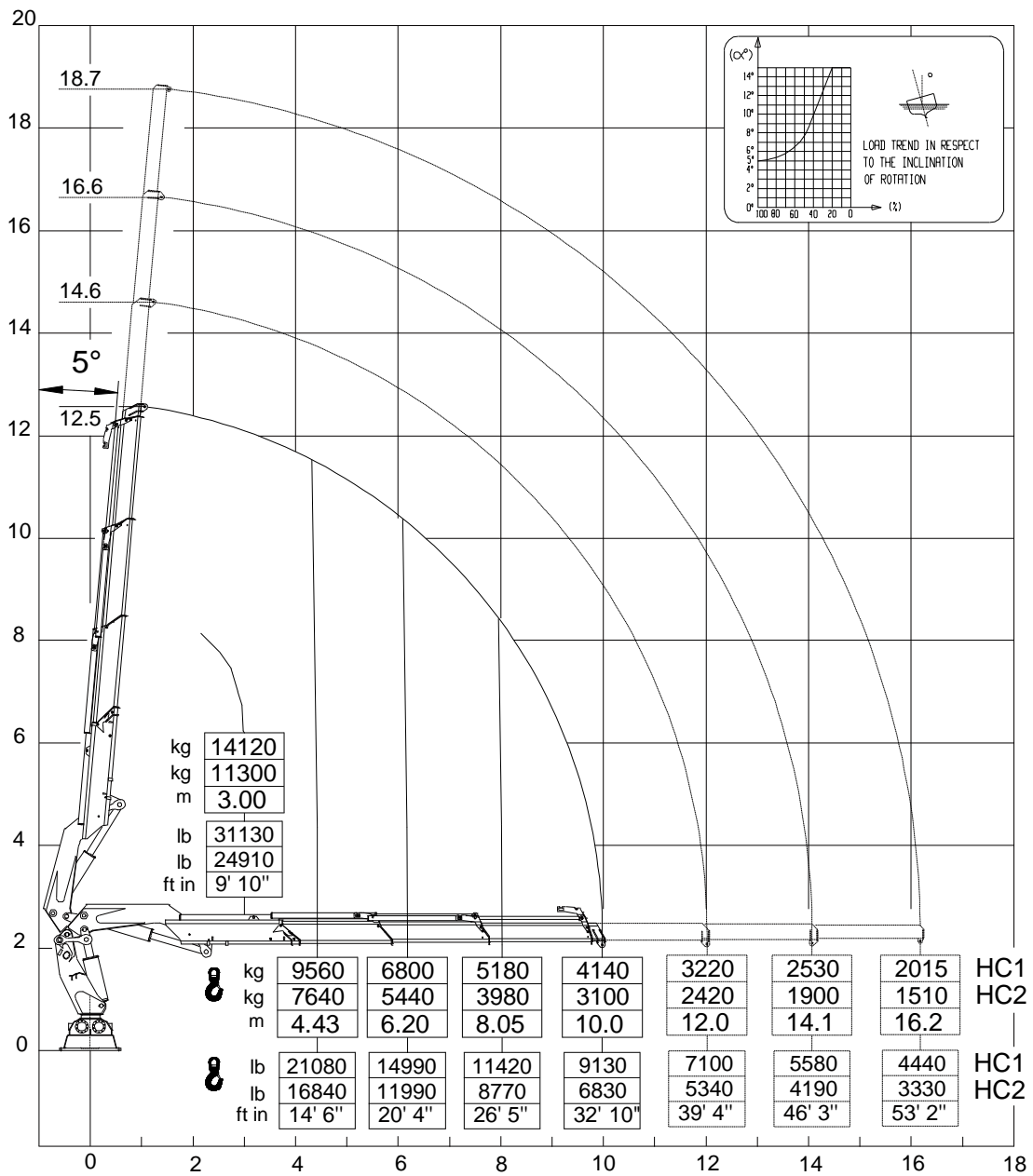
946FM 6SJ4



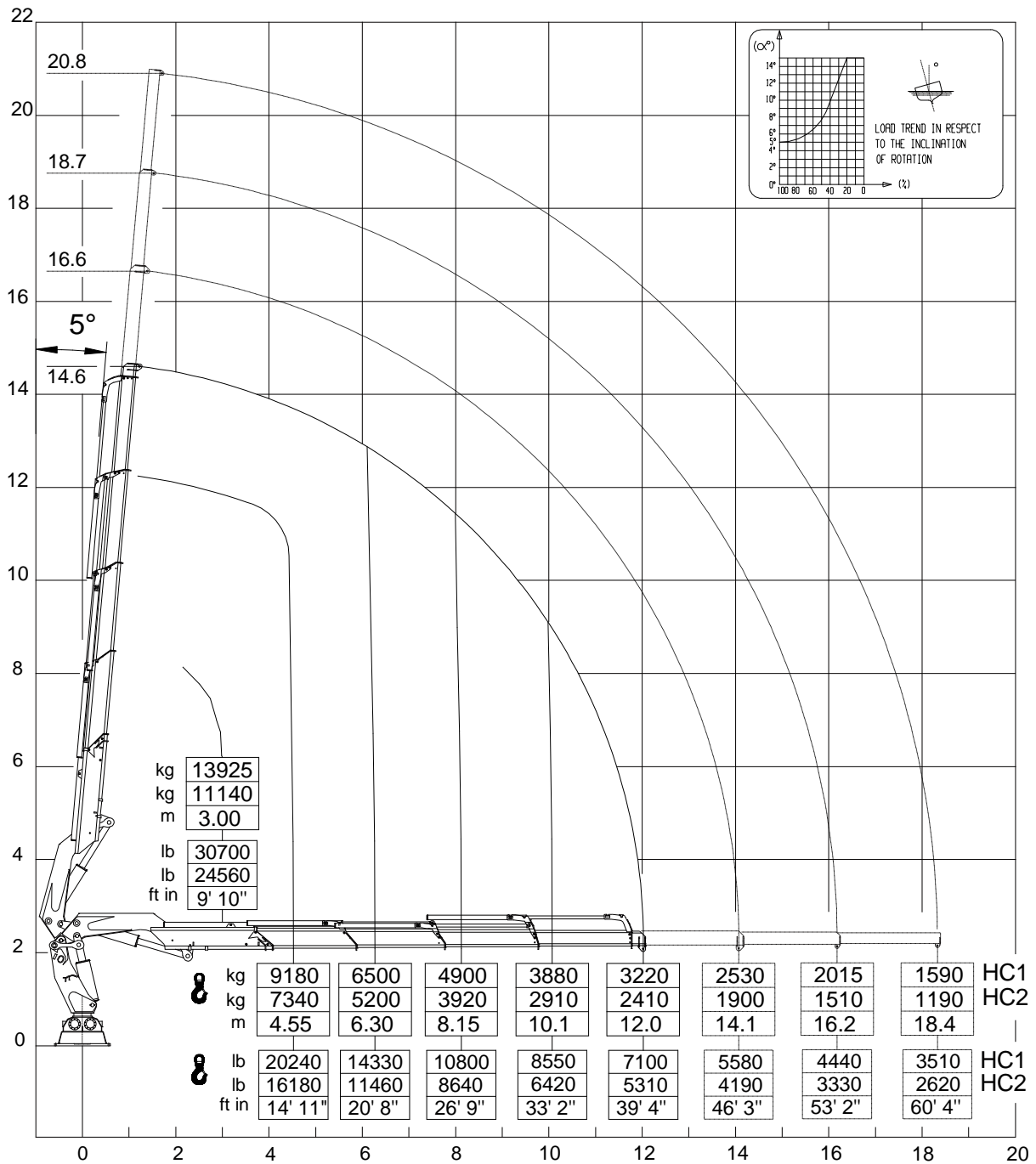
946FM 2S



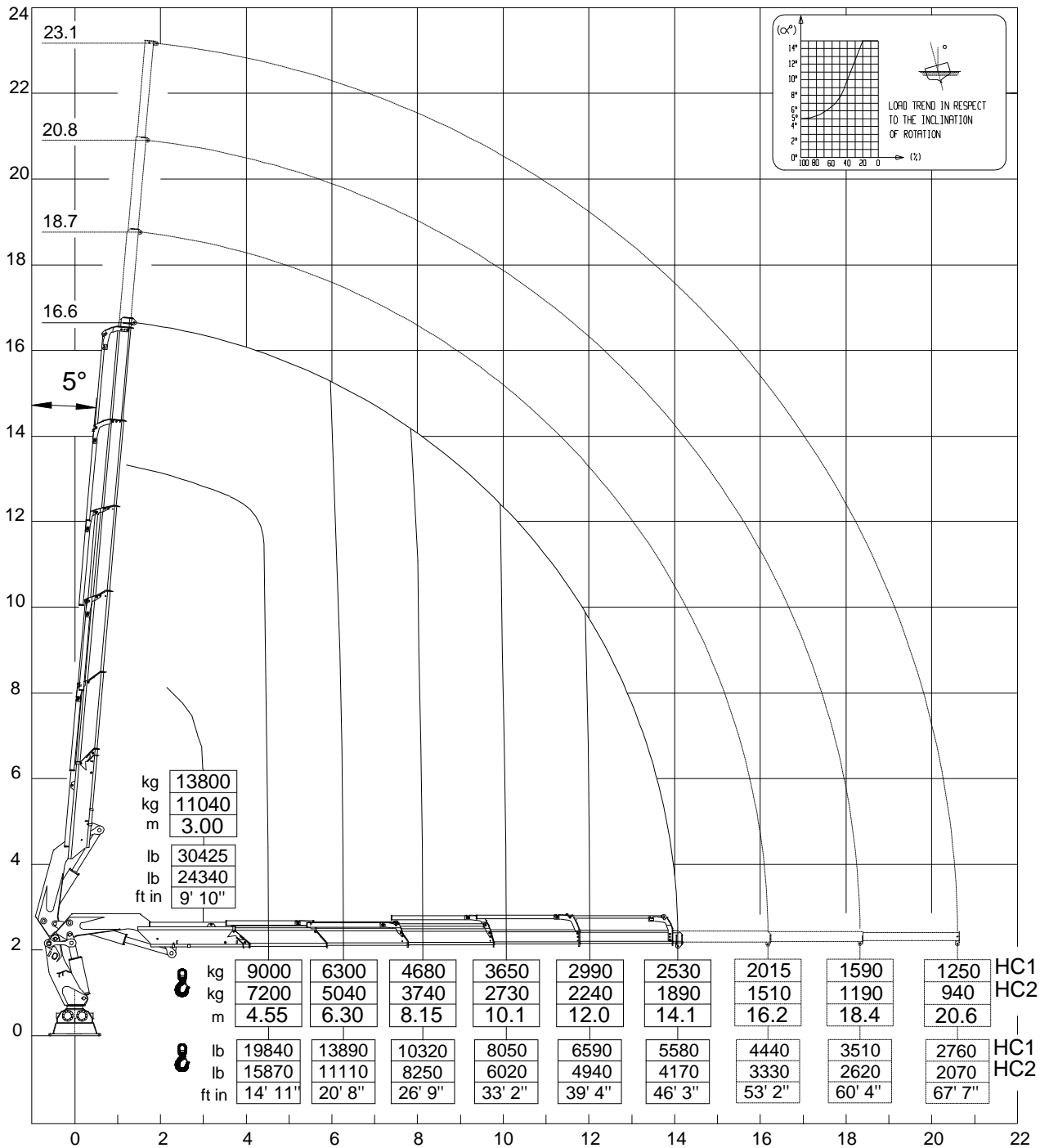
946FM 3S



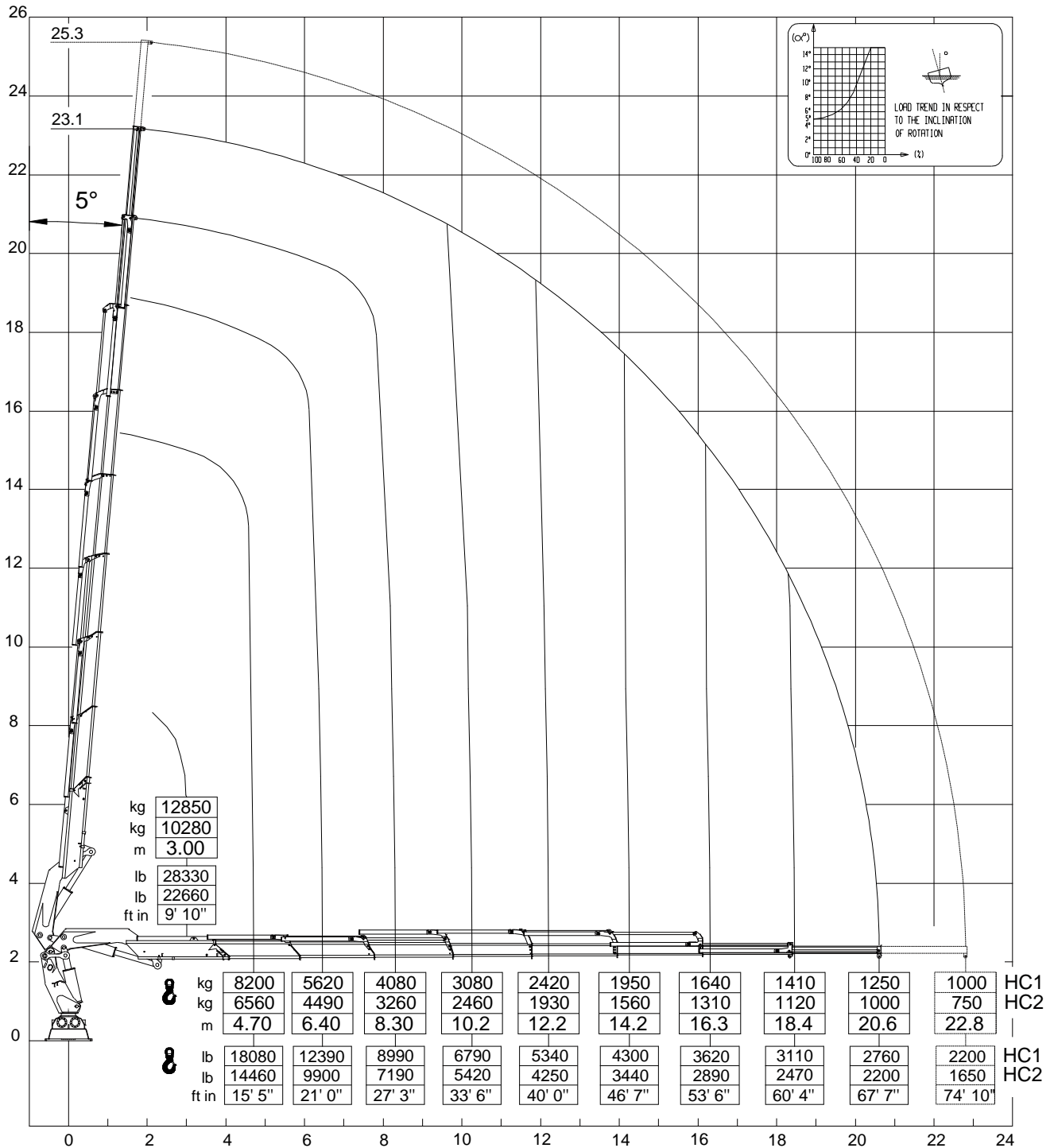
946FM 4S



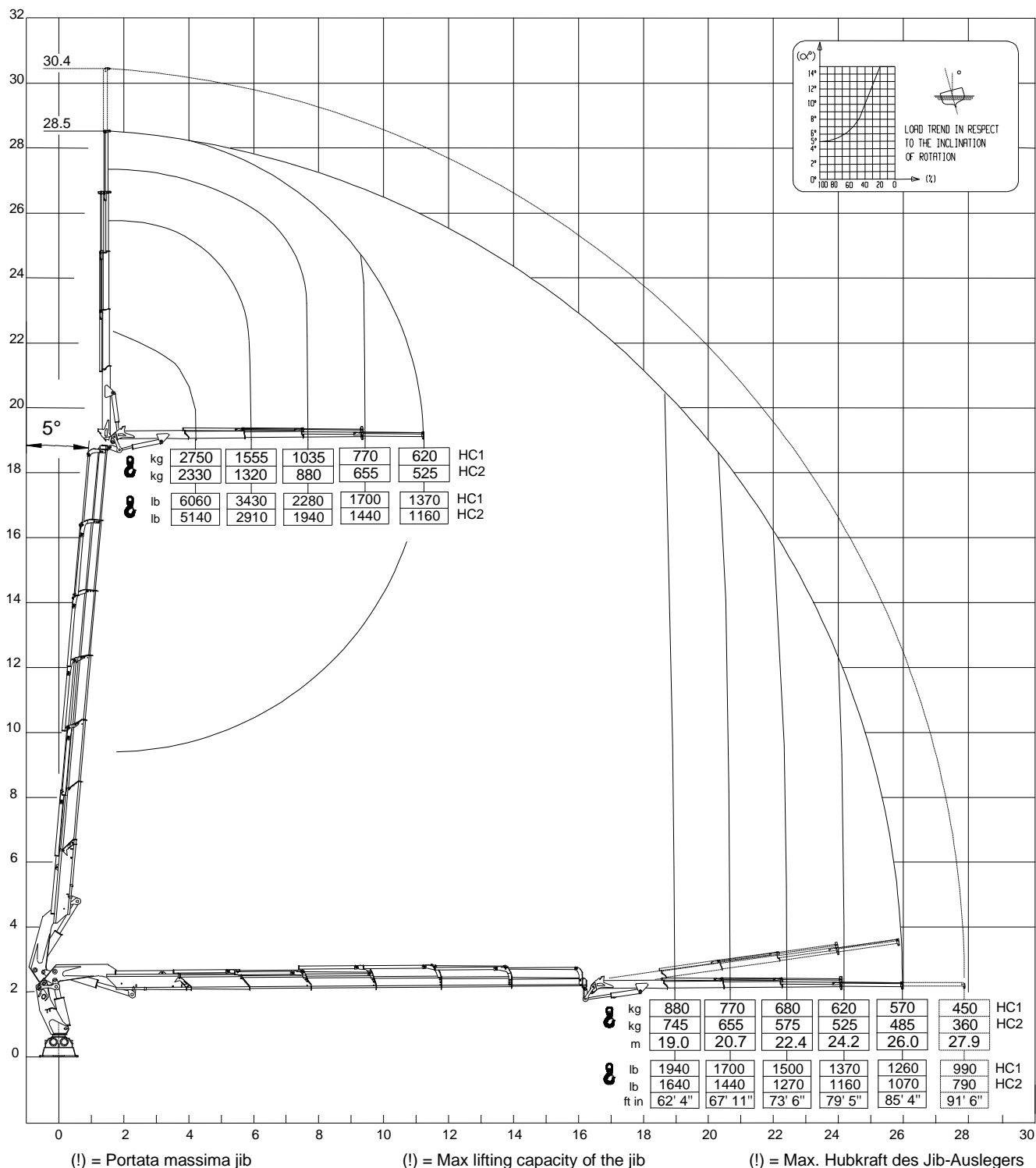
946FM 5S



946FM 8S



946FM 6SJ4



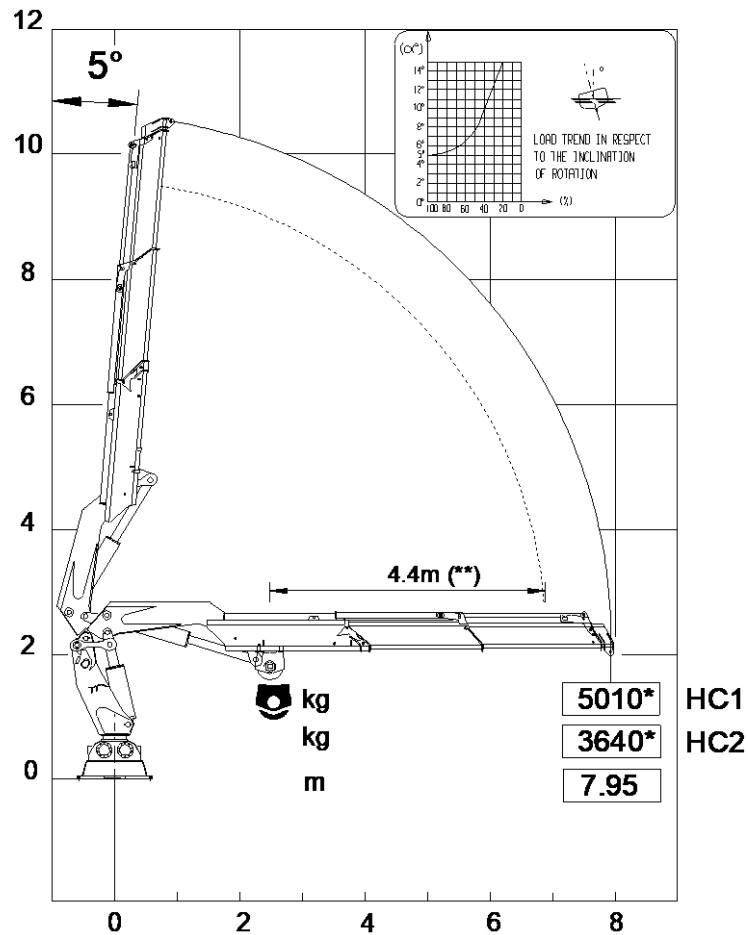
! smontare il jib (vedi §B.10.8) per sollevare carichi superiori alla portata massima (!).

! remove the jib boom (see §B.10.8) to lift loads greater than the max. capacity (!).

! Den Jib-Ausleger demontieren (siehe §B.10.8) um höhere Lasten als die max. Hubkraft (!) zu heben.



946FM 2S



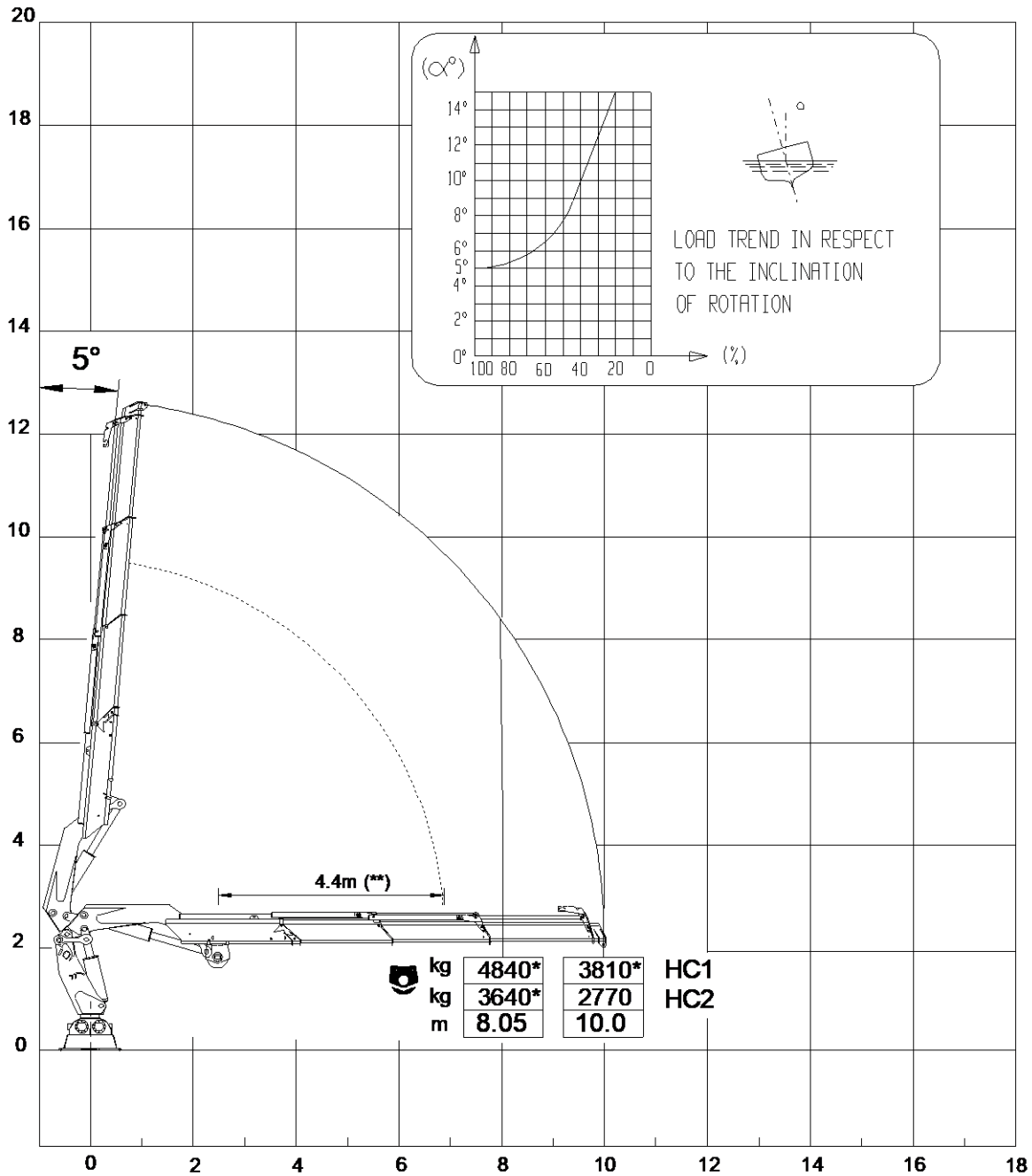
(*) = Puleggia argano con tiro doppio
(**) = Distanza minima di utilizzo argano
Verricello max. tiro diretto: 3600 daN

(*) = Winch pulley with double pull
(**) = Min distance for using the winch
Max. winch direct pull: 3600 daN

(*) = Winch pulley with double pull
(**) = Min Abstand für Benutzung der Winde
Max. Seilwinde-Hubkraft: 3600 daN



946FM 3S



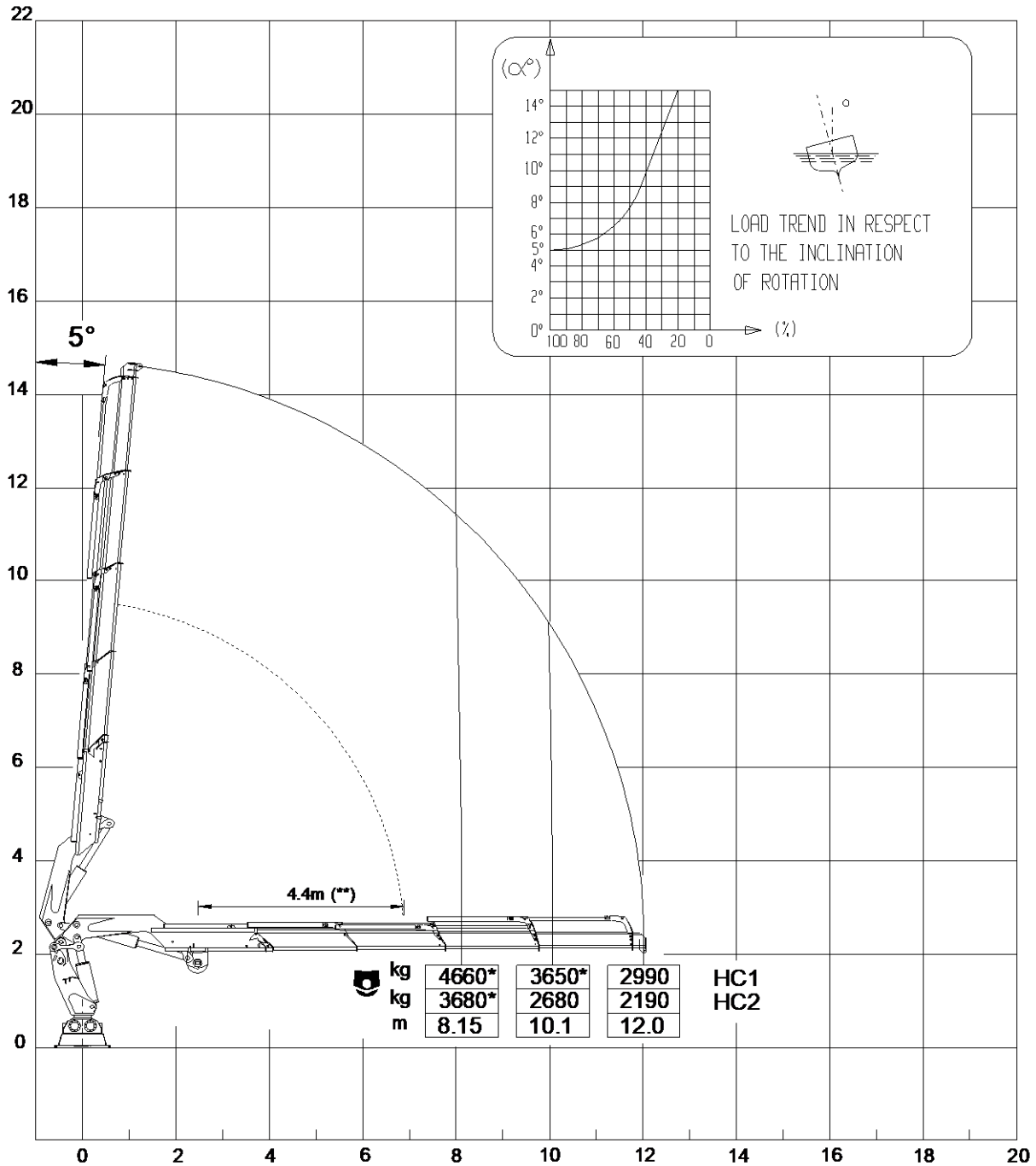
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(**) = Distanza minima di utilizzo argano
Verricello max. tiro diretto: 3600 daN

(*) = Winch pulley with double pull
(**) = Min distance for using the winch
Max. winch direct pull: 3600 daN

(*) = Winch pulley with double pull
(**) = Min Abstand für Benutzung der Winde
Max. Seilwinde-Hubkraft: 3600 daN



946FM 4S



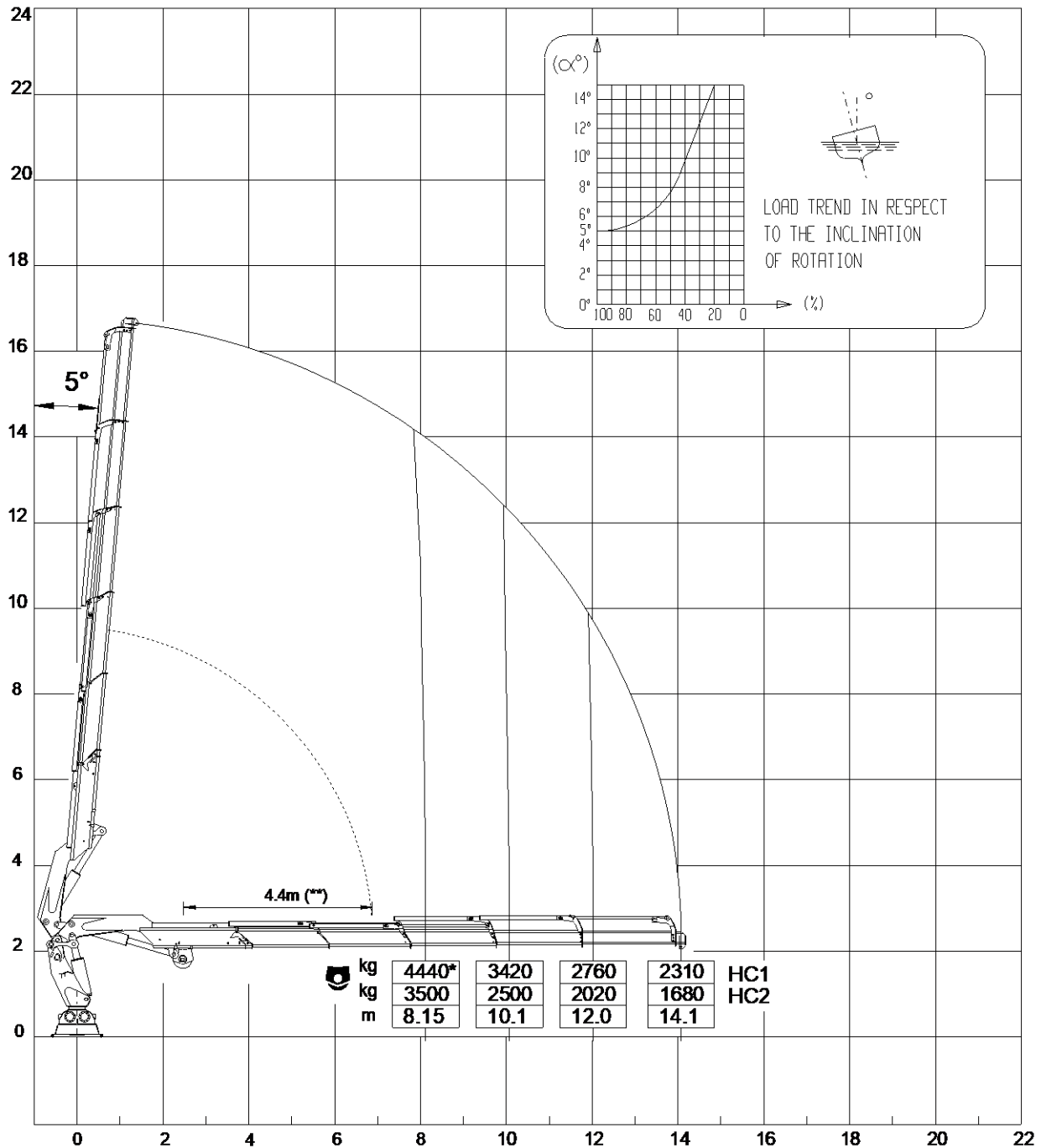
(*) = Puleggia argano con tiro doppio
 (**) = Distanza minima di utilizzo argano
 Verricello max. tiro diretto: 3600 daN

(*) = Winch pulley with double pull
 (**) = Min distance for using the winch
 Max. winch direct pull: 3600 daN

(*) = Winch pulley with double pull
 (**) = Min Abstand für Benutzung der Winde
 Max. Seilwinde-Hubkraft: 3600 daN



946FM 5S



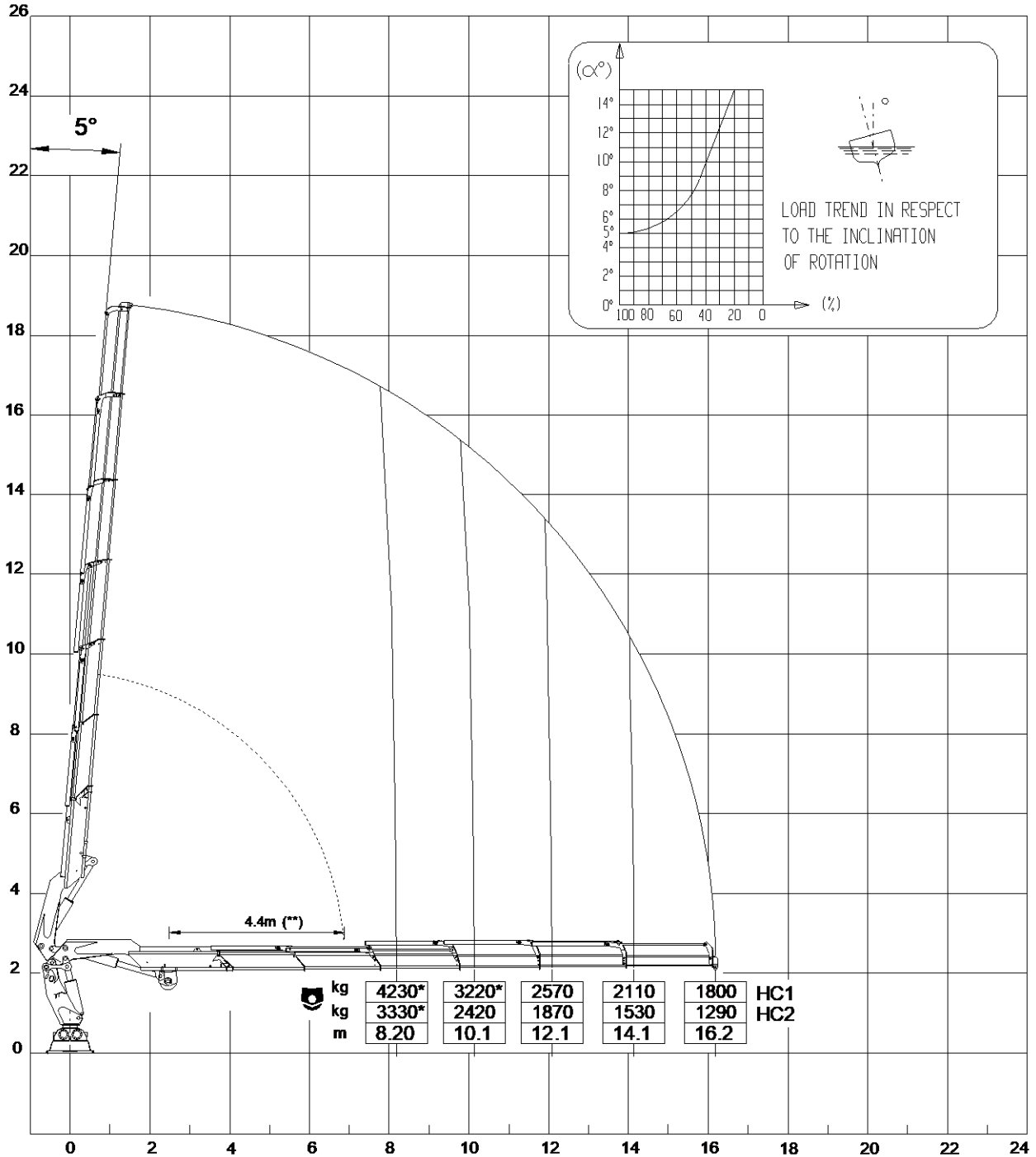
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(**) = Distanza minima di utilizzo argano
Verricello max. tiro diretto: 3600 daN

(*) = Winch pulley with double pull
(**) = Min distance for using the winch
Max. winch direct pull: 3600 daN

(*) = Winch pulley with double pull
(**) = Min Abstand für Benutzung der Winde
Max. Seilwinde-Hubkraft: 3600 daN



946FM 6S



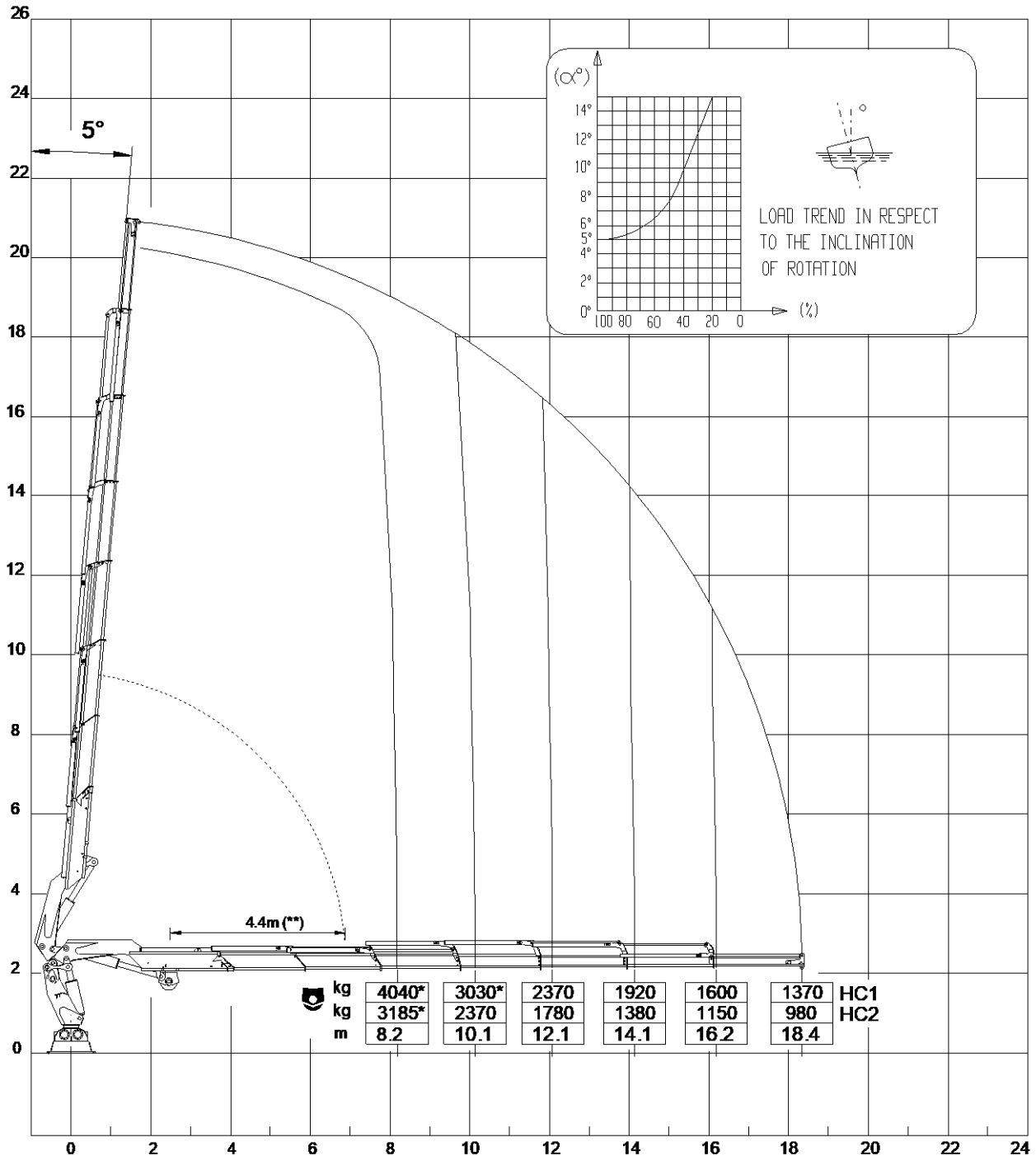
(*) = Puleggia argano con tiro doppio
(**) = Distanza minima di utilizzo argano
Verricello max. tiro diretto: 2600 daN

(*) = Winch pulley with double pull
(**) = Min distance for using the winch
Max. winch direct pull: 2600 daN

(*) = Winch pulley with double pull
(**) = Min Abstand für Benutzung der Winde
Max. Seilwinde-Hubkraft: 2600 daN



946FM 7S



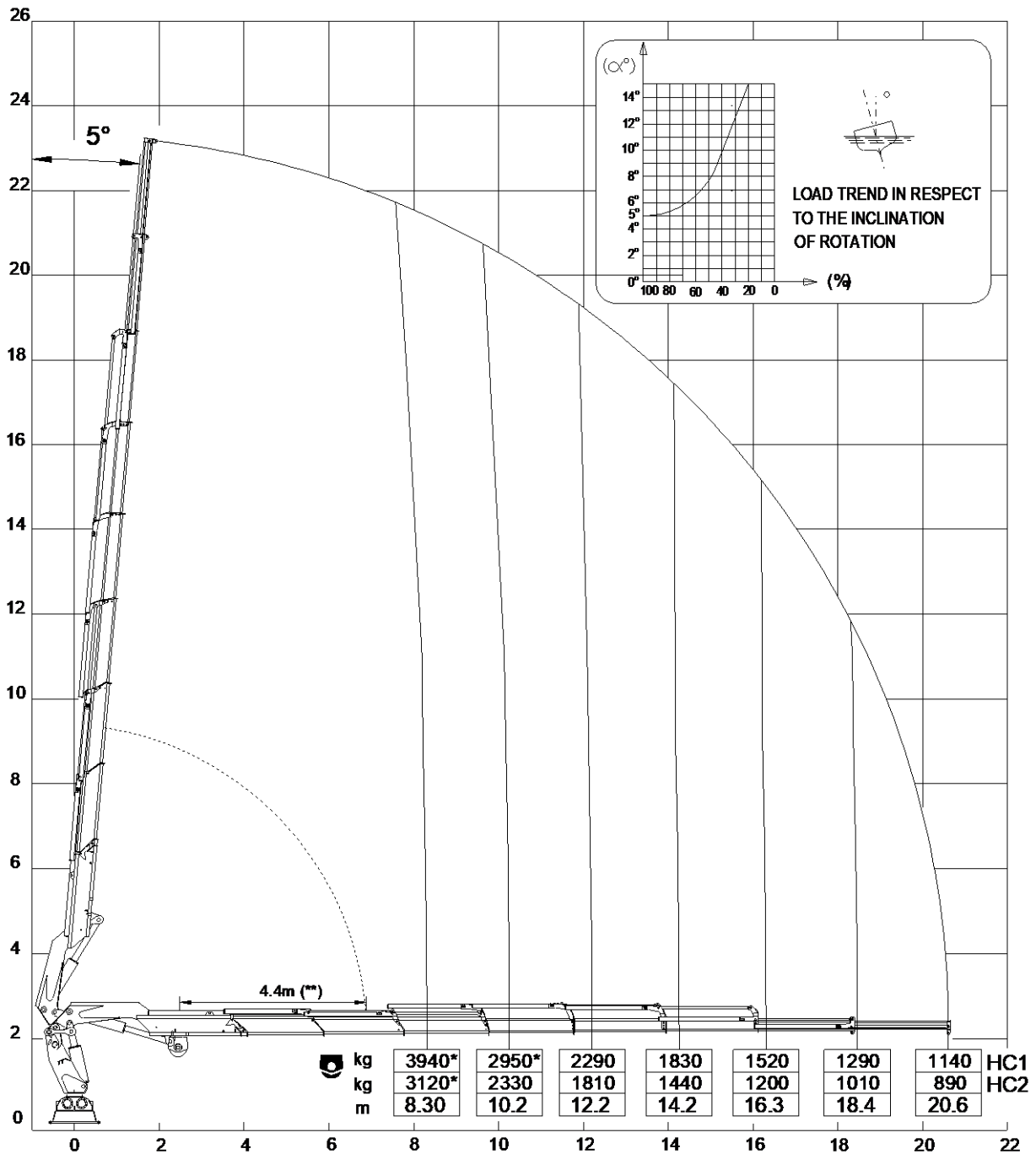
(*) = Puleggia argano con tiro doppio
 (***) = Distanza minima di utilizzo argano
 Verricello max. tiro diretto: 2600 daN

(*) = Winch pulley with double pull
 (***) = Min distance for using the winch
 Max. winch direct pull: 2600 daN

(*) = Winch pulley with double pull
 (***) = Min Abstand für Benutzung der Winde
 Max. Seilwinde-Hubkraft: 2600 daN



946FM 8S



(*) = Puleggia argano con tiro doppio
(**) = Distanza minima di utilizzo argano
Verricello max. tiro diretto: 2600 daN

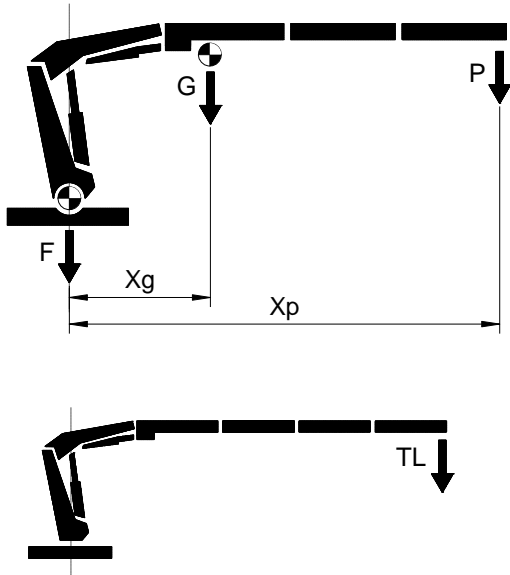
(*) = Winch pulley with double pull
(**) = Min distance for using the winch
Max. winch direct pull: 2600 daN

(*) = Winch pulley with double pull
(**) = Min Abstand für Benutzung der Winde
Max. Seilwinde-Hubkraft: 2600 daN



PESI E BARICENTRI

In questo allegato vengono mostrati i dati necessari per eseguire i calcoli di stabilità e la prova di carico secondo la norma EN 12999.



Di seguito si elencano i parametri utilizzati nei calcoli:

F = peso parti fisse
 G = peso bracci a sbalzo
 Xg = distanza di G da asse colonna
 P = carico nominale
 Xp = distanza di P da asse colonna
 Gb = peso bracci riportato in punta
 Ks = coeff. di carico (1.25)
 TL = carico di prova
 TL2 = carico di prova aggiuntivo

Con buona approssimazione si può ritenere che F gravi sull'asse colonna.

Il peso dei bracci riportato in punta, Gb, si calcola con la seguente formula:

Il carico di prova, TL, si calcola con la seguente formula:

dove $K_s = 1.2$

WEIGHTS AND CENTRES OF GRAVITY

This appendix contains the data needed for the stability and load test calculations in accordance with EN 12999.

The parameters used in the calculations are listed below:

F = weight of fixed parts
 G = weight of extension booms
 Xg = distance of G from column axis
 P = nominal load
 Xp = distance of P from column axis
 Gb = weight of booms applied to tip
 Ks = load coefficient (1.25)
 TL = test load
 TL2 = additional test load

As a general rule F affects the axis column.

The following formula is used to calculate the weight of the booms applied to the tip (Gb):

$$G_b = \frac{G}{X_p} X_g$$

The following formula is used to calculate the test load (TL):

$$TL = K_s \cdot P + (K_s - 1) \cdot G_b$$

where $K_s = 1.2$

GEWICHTE UND SCHWERPUNKTE

Dieser Anhang enthält die erforderlichen Daten für die Stabilitätsberechnungen und die Belastungsprüfung gemäß EN 12999.

Nachstehend werden die in den Berechnungen verwendeten Parameter aufgeführt:

F = Gewicht der festen Teile
 G = Gewicht freitragende Ausleger
 Xg = Abstand von G von der Säulenachse
 P = Nennlast
 Xp = Abstand von P von der Säulenachse
 Gb = Gewicht Ausleger an der Spitze
 Ks = Ladekoeff. (1.25)
 TL = Prüflast
 TL2 = Zusätzliche Prüflast

Mit gutem Annäherungswert kann davon ausgegangen werden, dass F auf der Säulenachse lastet.





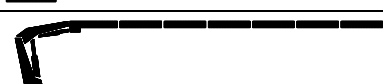



Das Gewicht der Ausleger an der Spitze Gb wird mit der folgenden Formel berechnet:









Die Prüflast TL wird mit der folgenden Formel berechnet:

$$TL \geq 1.25 \cdot P$$

wo $K_s = 1.2$



946FM HC1	F	G	Xg	P	Xp	Gb	Ks	TL (TL2)
	[kg]	[kg]	[m]	[kg]	[m]	[kg]		[kg]
2S 	2320	1740	2.64	5450	7.95	578	1.2	6813
3S 		1990	3.36	4140	10.0	669		5175
4S 		2270	4.20	3220	12.0	795		4025
5S 		2510	5.00	2530	14.1	890		3214
6S 		2710	5.71	2015	16.2	955		2609
7S 		2900	6.45	1590	18.4	1017		2111
8S 		3080	7.16	1250	20.6	1071		1714
6SJ4 		3580	8.95	570	26.0	1232		798 (213)

946FM HC2	F	G	Xg	P	Xp	Gb	Ks	TL (TL2)
	[kg]	[kg]	[m]	[kg]	[m]	[kg]		[kg]
2S 	2320	1740	2.64	4080	7.95	578	1.2	5100
3S 		1990	3.36	3100	10.0	669		3875
4S 		2270	4.20	2410	12.0	795		3051
5S 		2510	5.00	1890	14.1	890		2446
6S 		2710	5.71	1510	16.2	955		2003
7S 		2900	6.45	1190	18.4	1017		1631
8S 		3080	7.16	1000	20.6	1071		1414
6SJ4 		3580	8.95	485	26.0	1232		679 (240)

