

CTT 91-TS12

Gestell **F** - **FP**

1	LASTVERTEILUNG UND BODENDRÜCKE
1.1	BEMESSUNG DER FUNDAMENTE
1.1.1	Gestell " F ₁ " (Ortsfester Kran auf Unterwagen C38 TS12 3.8x3.8 m / 12x12 ft)
1.1.2	Gestell " FP ₁ " (Ortsfester Kran C38 TS12 3.8x3.8 m / 12x12 ft mit Ballastblock unter dem Unterwagen)
2	GRUNDBALLAST
2.1	VORBEREITUNG
2.1.1	Bezugsnormen
2.2	TYP UND ANZAHL
2.2.1	Gestell „F ₁ “
2.2.2	Gestell " FP ₁ "
2.3	PLANZEICHNUNGEN GRUNDBALLAST
2.3.1	Grundballast SR „B“ (5000 kg / 11,025 lbs) - Code 390105010
2.3.2	Grundballast IR „C“ (4000kg / 8,820 lbs) - Code 390103005
3	GESTELLE
3.1	GESTELL „F“
3.1.1	Vier Stahlbetonblöcke
3.1.2	Zwei Stahlbetonringe
3.1.3	Eine Grundplatte aus Stahlbeton
3.2	GESTELL " FP "

1



LASTVERTEILUNG UND BODENDRÜCKE

Die Tabellen zeigen die für verschiedenen Krankonfigurationen entstehenden Bodenbelastungen entsprechend der Hakenhöhe und Auslegerlänge.

Die aufgeführten Werten (bei in Betrieb und außer Betrieb befindlichem Kran) beinhalten die dynamischen und statischen Erhöhungskoeffizienten, wie sie von der Norm FEM 1.001 vorgesehen sind.

Die hier wiedergegebenen Daten sind nur für die angegebene spezifische Krankonfiguration anwendbar. Die Daten dürfen weder interpoliert noch extrapoliert werden.

Jede Abweichung von den vorgeschriebenen und empfohlenen Daten bzw. Spezifikationen könnte Fehler im Fundament und das Umkippen des Krans verursachen.

Der Kran darf erst installiert werden, nachdem die ordnungsgemäße und vollständige Trocknung des Betonfundaments oder der Grundballastblöcke/Betonring bei einer eventuellen Konfigurierung auf feststehendem/kreisendem Schlitten sichergestellt ist. Der Kranbetreiber muss, wenn vom Hersteller verlangt, die Modalitäten zertifizieren, nach denen die oben genannten Baustellenarbeiten realisiert wurden, sowie deren Konformität mit den für diesen Zweck von der **Terex Cranes** auferlegten Anweisungen, und eine entsprechende Dokumentation erlassen. Liegen diese Unterlagen nicht vor, sind die Montagearbeiten des Krans als nicht autorisiert zu betrachten.



Hinsichtlich der Turmkonfiguration für die unterschiedlichen Krangestelle wird auf Kapitel 2 - „Technische Merkmale“ des Bedienerhandbuches des Krans verwiesen.

TORSIONSMOMENT

Das Torsionsmoment bezieht sich auf den in Betrieb befindlichen Kran. Ist der Kran außer Betrieb beträgt das Torsionsmoment immer 0. Es berücksichtigt aber keine erhöhten dynamischen Sicherheitsfaktoren gemäß der Norm F.E.M. 1.001 (Tabelle 1.1).

CTT 91	
Torsionsmoment (M_t)	
[kNm]	[lbs.ft]
104	76706

Tabelle 1.1

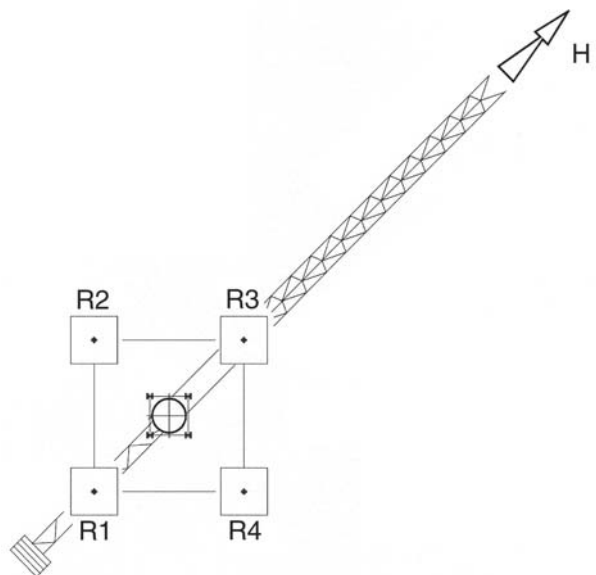
1.1



BEMESSUNG DER FUNDAMENTE

1.1.1

Gestell "F₁" (Orstfester Kran auf Unterwagen **C38 TS12** 3.8x3.8 m / 12x12 ft)

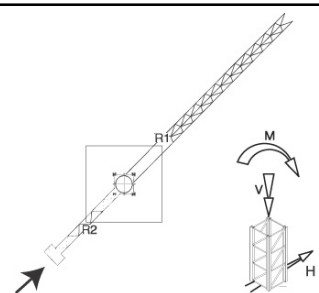
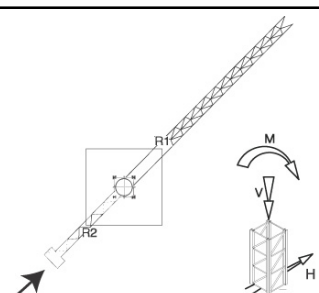
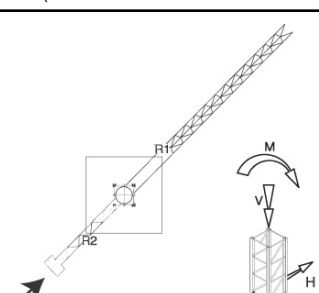


V = Axiallast

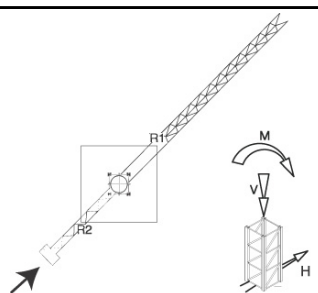
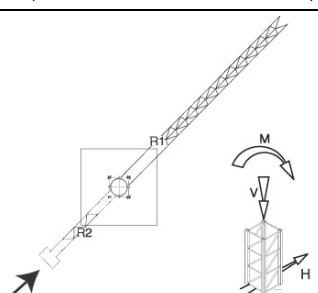
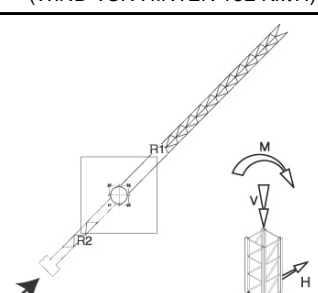
H = Horizontalschub (Windkraft in der angegebenen Richtung)

M = Umsturzmoment

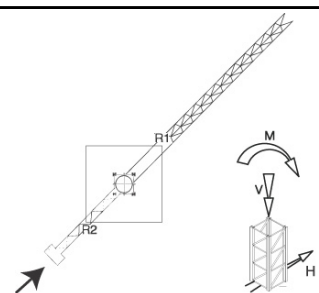
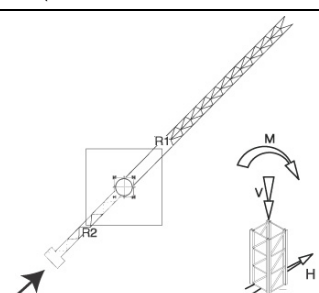
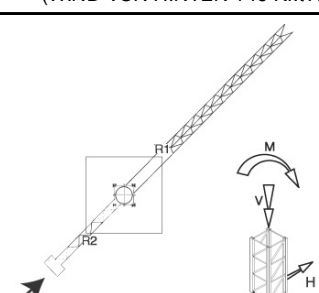
R₁-R₂-R₃-R₄ = min./max. Krafteinwirkungen an den Aufstandspunkten

CTT 91 TS12					F1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 40.85 m		7 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-1021	23,8	1502,0	-559	0	
30	-1034	24,0	1526,2	-568	0	
35	-1098	24,2	1542,3	-574	0	
40	-1115	24,4	1496,7	-557	0	
45	-1161	24,6	1464,4	-563	-18	
50	-1268	24,8	1424,1	-582	-52	
Hakenhöhe 40.85 m		7 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-960	80,1	1499,3	-558	0	
30	-973	81,1	1571,9	-585	0	
35	-1037	82,0	1625,6	-605	0	
40	-1056	82,9	1687,4	-628	0	
45	-1101	83,9	1824,5	-679	0	
50	-1209	84,8	1948,1	-725	0	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 40.85 m		7 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 155 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	1391	87	1692	-663	-33	
30	1404	88	1764	-679	-23	
35	1417	89	1818	-693	-16	
40	1435	90	1884	-709	-8	
45	1332	91	2018	-751	0	
50	1338	92	2140	-796	0	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

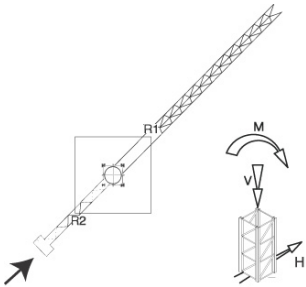
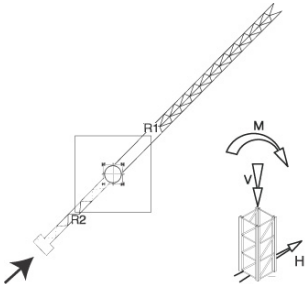
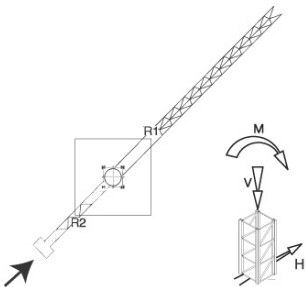
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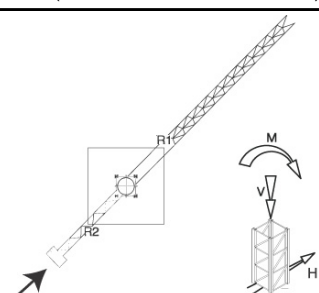
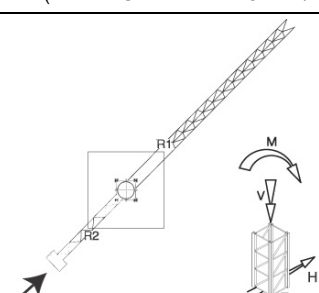
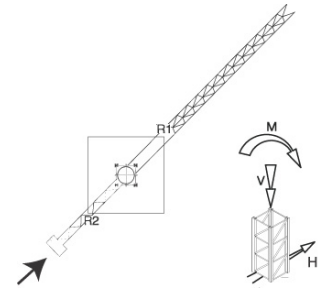
CTT 91 TS12					F1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 34.95 m		6 Turmelemente TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-797	21,8	1313,9	-489	0	
30	-812	22,0	1332,8	-496	0	
35	-776	22,2	1343,5	-500	0	
40	-793	22,4	1292,4	-481	0	
45	-890	22,6	1262,9	-470	0	
50	-947	22,8	1222,6	-464	-9	
Hakenhöhe 34.95 m		6 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-736	71,3	994,2	-370	0	
30	-750	72,3	1053,3	-392	0	
35	-714	73,2	1096,3	-408	0	
40	-733	74,1	1147,4	-427	0	
45	-829	75,0	1276,3	-475	0	
50	-886	76,0	1386,5	-516	0	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 34.95 m		6 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 152 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	1169	75	1111	-499	-86	
30	1183	76	1171	-514	-78	
35	1196	77	1214	-525	-73	
40	1113	78	1267	-514	-43	
45	1110	79	1391	-536	-19	
50	1117	80	1500	-558	0	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

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CTT 91 TS12					F1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 29.05 m		5 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-724	19,7	1155,4	-430	0	
30	-740	20,0	1171,5	-436	0	
35	-753	20,2	1179,6	-439	0	
40	-770	20,4	1123,2	-418	0	
45	-768	20,6	1096,3	-408	0	
50	-774	20,8	1053,3	-392	0	
Hakenhöhe 29.05 m		5 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-664	62,5	564,3	-271	-61	
30	-677	63,4	615,3	-284	-55	
35	-691	64,4	652,9	-294	-51	
40	-709	65,3	695,9	-307	-48	
45	-705	66,2	808,8	-327	-26	
50	-713	67,1	910,9	-348	-9	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 29.05 m		5 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 149 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	948	64	624	-353	-121	
30	961	65	675	-366	-115	
35	974	66	709	-375	-112	
40	992	67	752	-388	-108	
45	889	67	866	-383	-61	
50	895	68	965	-403	-44	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

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CTT 91 TS12				F1	Unterwagen C38 TS12 (3.8x3.8 m)	
NORM FEM 1001						
Hakenhöhe 23.15 m		4 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-701	17,7	1023,7	-381	0	
30	-717	18,0	1034,5	-385	0	
35	-730	18,2	1042,6	-388	0	
40	-748	18,4	988,8	-371	-3	
45	-744	18,6	961,9	-365	-7	
50	-751	18,8	916,3	-358	-17	
Hakenhöhe 23.15 m		4 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KMH)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-640	53,7	198,8	-197	-123	
30	-655	54,6	244,5	-209	-118	
35	-668	55,5	274,1	-218	-116	
40	-687	56,5	309,0	-229	-114	
45	-683	57,4	416,5	-248	-93	
50	-691	58,3	507,8	-267	-78	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 23.15 m		4 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 146 KMH)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	826	53	224	-248	-165	
30	840	54	266	-260	-160	
35	853	55	293	-268	-159	
40	770	55	327	-253	-132	
45	767	56	433	-272	-111	
50	774	57	523	-291	-96	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

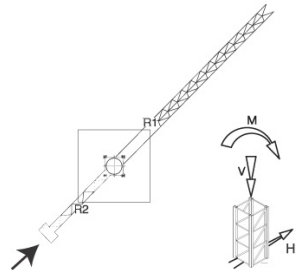
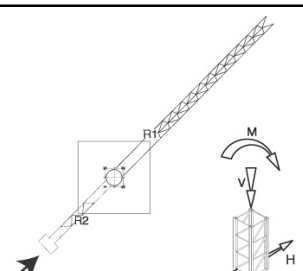
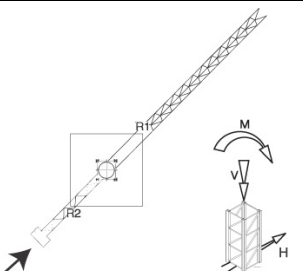
CTT 91 TS12					F1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 17.25 m		3 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-680	15,7	913,6	-340	0	
30	-693	16,0	927,0	-346	-1	
35	-708	16,2	929,7	-350	-4	
40	-725	16,4	873,3	-344	-19	
45	-721	16,6	846,4	-338	-23	
50	-728	16,8	800,7	-331	-33	
Hakenhöhe 17.25 m		3 Turmelemente TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-617	39,7	-206,9	-116	-193	
30	-632	40,4	-172,0	-126	-190	
35	-645	41,1	-158,5	-132	-191	
40	-664	41,7	-134,4	-141	-191	
45	-660	42,4	-37,6	-158	-172	
50	-668	43,1	43,0	-175	-159	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 17.25 m		3 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 142 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	705	42	-97	-194	-158	
30	718	43	-62	-191	-168	
35	731	44	-42	-191	-175	
40	749	45	-14	-190	-185	
45	746	45	84	-202	-171	
50	752	46	166	-219	-157	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

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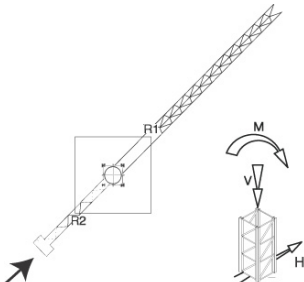
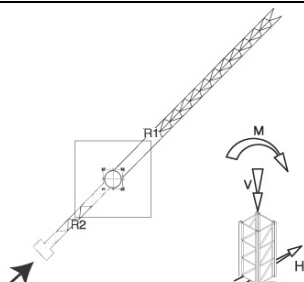
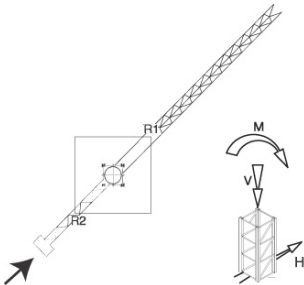


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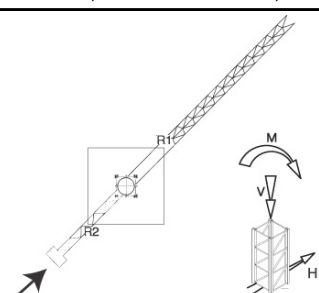
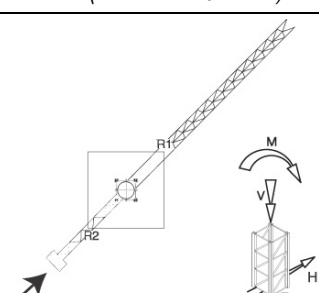
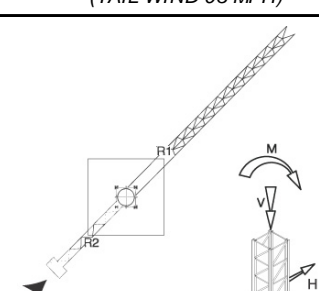
Amerikanisches Maßeinheitssystem

CTT 91 TS12				F1		C38 TS12 (12x12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 134 ft		No.7 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-229,491	5,350	1,107,815	-125,647	0		
98	-232,413	5,394	1,125,664	-127,670	0		
115	-246,798	5,439	1,137,539	-129,018	0		
131	-250,619	5,484	1,103,906	-125,197	0		
148	-260,959	5,529	1,080,083	-126,546	-4,046		
164	-285,009	5,574	1,050,359	-130,817	-11,688		
Hook height 134 ft		No.7 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-215,780	18,004	1,105,824	-125,422	0		
98	-218,702	18,229	1,159,371	-131,491	0		
115	-233,087	18,431	1,198,978	-135,986	0		
131	-237,358	18,633	1,244,559	-141,156	0		
148	-247,472	18,858	1,345,678	-152,619	0		
164	-271,748	19,061	1,436,841	-162,959	0		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 134 ft		No.7 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 96 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	312,621	19,532	1,247,886	-148,920	-7,390		
98	315,678	19,761	1,301,335	-152,716	-5,124		
115	318,555	19,978	1,341,184	-155,694	-3,583		
131	322,489	20,195	1,389,763	-159,433	-1,812		
148	299,337	20,414	1,488,720	-168,844	0		
164	300,843	20,631	1,578,468	-179,023	0		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

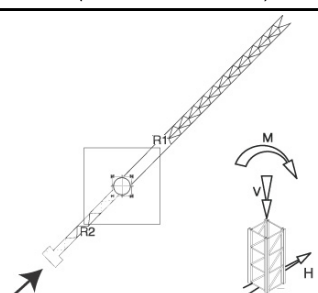
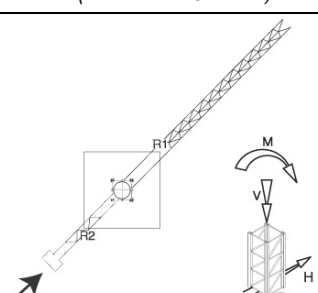
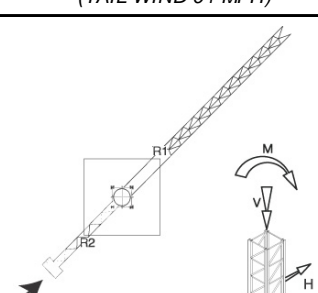
CTT 91TS2_Stress_F1.40.85_001_am

CTT 91 TS12				F1		C38 TS12 (12x12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 115 ft		No.6 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-179,142	4,900	969,080	-109,913	0		
98	-182,514	4,945	983,020	-111,486	0		
115	-174,422	4,990	990,912	-112,385	0		
131	-178,243	5,035	953,223	-108,115	0		
148	-200,046	5,080	931,465	-105,642	0		
164	-212,858	5,125	901,741	-104,294	-2,023		
Hook height 115 ft		No.6 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-165,431	16,026	733,282	-83,165	0		
98	-168,578	16,251	776,872	-88,110	0		
115	-160,486	16,453	808,587	-91,706	0		
131	-164,757	16,656	846,276	-95,977	0		
148	-186,335	16,858	941,348	-106,766	0		
164	-199,147	17,083	1,022,627	-115,982	0		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 115 ft		No.6 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	262,827	16,905	819,159	-112,159	-19,254		
98	265,883	17,127	863,783	-115,454	-17,488		
115	268,761	17,337	895,406	-117,967	-16,414		
131	250,217	17,547	934,537	-115,550	-9,559		
148	249,543	17,759	1,025,881	-120,561	-4,210		
164	251,049	17,970	1,106,511	-125,510	-14		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

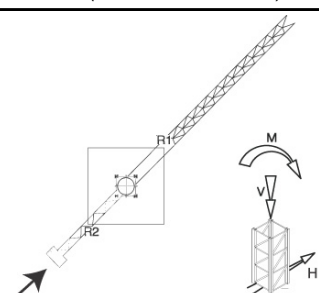
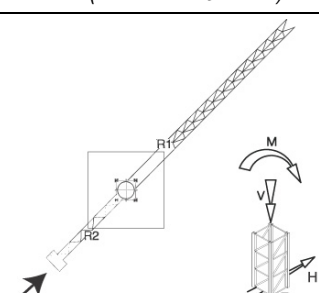
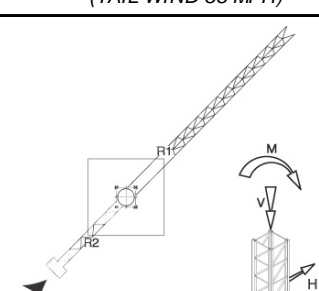
CTT 91TS2_Stress_F1_34.95_001.am

CTT 91 TS12				F1		C38 TS12 (12×12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 95 ft		No.5 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-162,734	4,428	852,177	-96,651	0		
98	-166,330	4,495	864,052	-98,000	0		
115	-169,252	4,540	870,026	-98,674	0		
131	-173,073	4,585	828,427	-93,954	0		
148	-172,624	4,630	808,587	-91,706	0		
164	-173,972	4,675	776,872	-88,110	0		
Hook height 95 ft		No.5 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-149,248	14,048	416,205	-60,913	-13,711		
98	-152,170	14,250	453,821	-63,835	-12,362		
115	-155,317	14,475	481,553	-66,083	-11,463		
131	-159,362	14,678	513,268	-69,005	-10,789		
148	-158,463	14,880	596,539	-73,500	-5,844		
164	-160,261	15,082	671,843	-78,220	-2,023		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 95 ft		No.5 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 93 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	213,032	14,345	460,357	-79,364	-27,152		
98	216,089	14,559	497,759	-82,249	-25,795		
115	218,966	14,761	522,680	-84,382	-25,101		
131	222,899	14,964	554,387	-87,163	-24,287		
148	199,748	15,169	638,737	-86,158	-13,716		
164	201,254	15,371	711,676	-90,671	-9,956		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

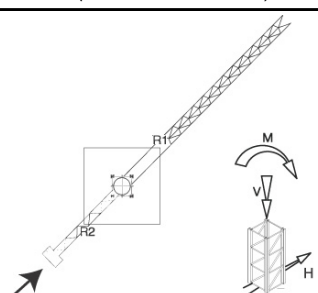
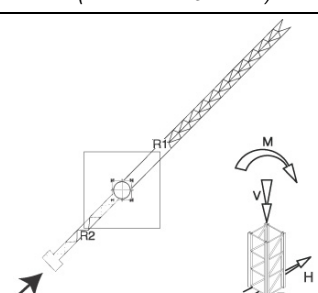
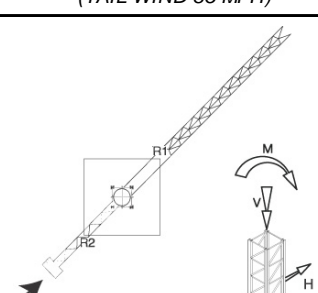
CTT 91TS2_Stress_F1.29.05_001.am

CTT 91 TS12				F1		C38 TS12 (12x12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 76 ft		No.4 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-157,564	3,978	755,040	-85,638	0		
98	-161,161	4,046	763,006	-86,537	0		
115	-164,083	4,091	768,980	-87,211	0		
131	-168,128	4,136	729,299	-83,390	-674		
148	-167,229	4,181	709,459	-82,041	-1,573		
164	-168,803	4,226	675,826	-80,468	-3,821		
Hook height 76 ft		No.4 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-143,853	12,070	146,627	-44,280	-27,647		
98	-147,225	12,272	180,333	-46,977	-26,523		
115	-150,147	12,475	202,165	-49,000	-26,073		
131	-154,417	12,700	227,906	-51,472	-25,624		
148	-153,518	12,902	307,194	-55,743	-20,904		
164	-155,317	13,104	374,533	-60,014	-17,532		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 76 ft		No.4 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 91 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	185,714	11,858	165,189	-55,796	-37,061		
98	188,771	12,062	196,536	-58,338	-36,048		
115	191,648	12,256	215,847	-60,152	-35,672		
131	173,105	12,450	241,549	-56,974	-29,578		
148	172,431	12,646	319,531	-61,228	-24,988		
164	173,937	12,840	385,899	-65,368	-21,601		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

CTT 91TS2_Stress_F1.23.5_001.am

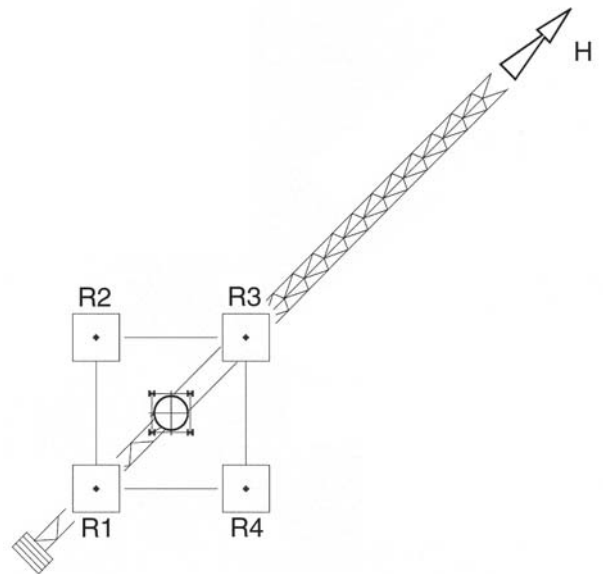
CTT 91 TS12					F1	C38 TS12 (12x12 ft) undercarriage
FEM 1001 STANDARD						
Hook height 57 ft		No.3 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)
Jib	V	H	M	R1	R2	
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]	
82	-152,844	3,529	673,835	-76,422	0	
98	-155,766	3,596	683,718	-77,771	-225	
115	-159,138	3,641	685,710	-78,670	-899	
131	-162,959	3,686	644,111	-77,321	-4,271	
148	-162,060	3,731	624,271	-75,972	-5,170	
164	-163,633	3,776	590,564	-74,399	-7,417	
Hook height 57 ft		No.3 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)
Jib	V	H	M	R1	R2	
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]	
82	-138,683	8,923	-152,601	-26,073	-43,381	
98	-142,055	9,081	-126,860	-28,321	-42,706	
115	-144,977	9,238	-116,903	-29,670	-42,931	
131	-149,248	9,373	-99,128	-31,693	-42,931	
148	-148,349	9,530	-27,732	-35,514	-38,661	
164	-150,147	9,688	31,715	-39,335	-35,739	
FEM 1004 C25 STANDARD						
Jib	V	H	M	R1	R2	
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]	
Hook height 57 ft		No.3 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 88 MPH)
Jib	V	H	M	R1	R2	
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]	
82	158,397	9,450	-71,669	-43,663	-35,535	
98	161,454	9,643	-45,522	-42,945	-37,782	
115	164,331	9,826	-31,031	-42,842	-39,323	
131	168,264	10,009	-10,341	-42,653	-41,480	
148	167,590	10,195	61,907	-45,408	-38,387	
164	169,096	10,378	122,612	-49,227	-35,321	
Jib	V	H	M	R1	R2	
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]	

CTT 91TS2_Stress_F1_17.25_001.am

CTT 91 TS12				F 1		C38 TS12 (12×12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 37 ft		No.2 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-147,450	3,079	610,405	-71,477	-2,248		
98	-150,821	3,124	616,379	-72,601	-2,697		
115	-153,743	3,192	618,297	-73,500	-3,372		
131	-158,014	3,237	572,715	-71,927	-6,968		
148	-157,115	3,282	552,949	-70,578	-7,867		
164	-158,913	3,327	517,251	-69,005	-10,339		
Hook height 37 ft		No.2 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-133,963	7,462	-285,362	-17,307	-49,674		
98	-136,885	7,620	-263,604	-19,330	-49,225		
115	-140,257	7,777	-253,647	-20,679	-49,450		
131	-144,078	7,934	-239,781	-22,477	-49,674		
148	-143,628	8,092	-172,442	-26,073	-45,628		
164	-144,977	8,227	-116,903	-29,670	-42,931		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 37 ft		No.2 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 85 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	131,079	7,123	-254,735	-47,215	-18,324		
98	134,136	7,302	-233,139	-46,755	-20,313		
115	137,013	7,472	-222,878	-46,892	-21,614		
131	140,947	7,642	-206,489	-46,946	-23,527		
148	140,273	7,813	-139,316	-42,968	-27,168		
164	141,779	7,983	-83,504	-40,180	-30,709		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

CTT 91TS2_Stress_F1_1135_001.am

1.2.1 **Gestell "FP₁" (Ortsfester Kran auf Unterwagen C38 TS12 3.8×3.8 m / 12×12 ft mit Ballastblock unter dem Unterwagen)**

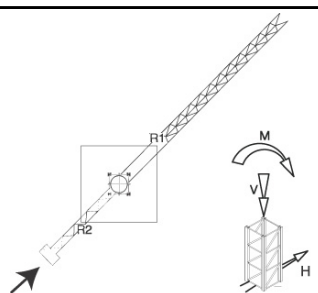
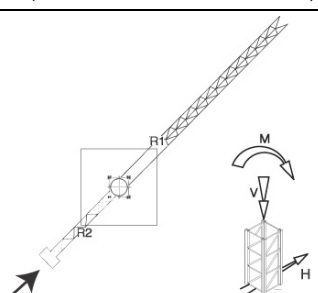
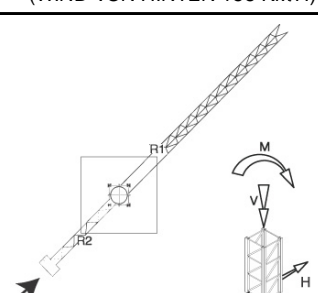


V = Axiallast

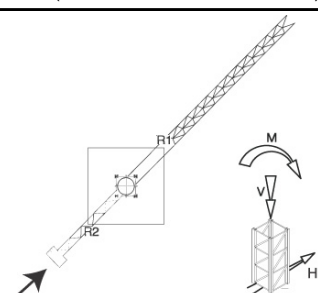
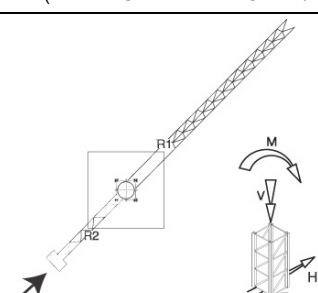
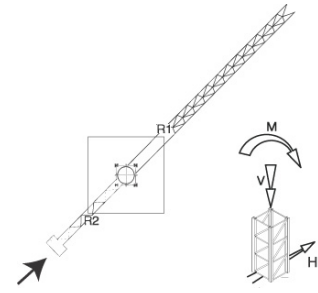
H = Horizontalschub (Windkraft in der angegebenen Richtung)

M = Umsturzmoment

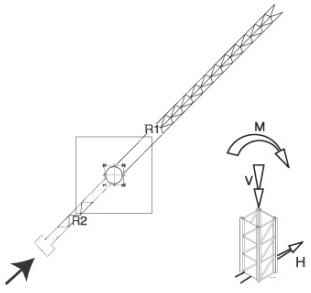
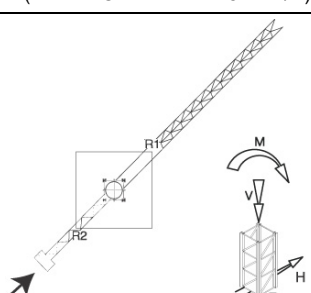
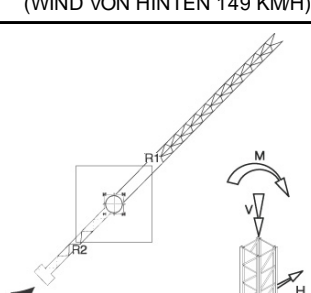
R_1 - R_2 - R_3 - R_4 = min./max. Krafteinwirkungen an den Aufstandspunkten

CTT 91 TS12					FP1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 40.85 m		7 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-1021	23,8	1502,0	-559	0	
30	-1034	24,0	1526,2	-568	0	
35	-1098	24,2	1542,3	-574	0	
40	-1115	24,4	1496,7	-557	0	
45	-1161	24,6	1464,4	-563	-18	
50	-1268	24,8	1424,1	-582	-52	
Hakenhöhe 40.85 m		7 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-960	80,1	1499,3	-558	0	
30	-973	81,1	1571,9	-585	0	
35	-1037	82,0	1625,6	-605	0	
40	-1056	82,9	1687,4	-628	0	
45	-1101	83,9	1824,5	-679	0	
50	-1209	84,8	1948,1	-725	0	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 40.85 m		7 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 155 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	1351	87	1692	-653	-23	
30	1364	88	1764	-669	-13	
35	1377	89	1818	-683	-6	
40	1395	90	1884	-701	0	
45	1392	91	2018	-751	0	
50	1398	92	2140	-796	0	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

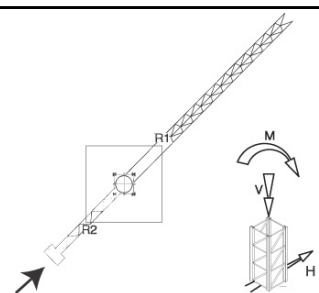
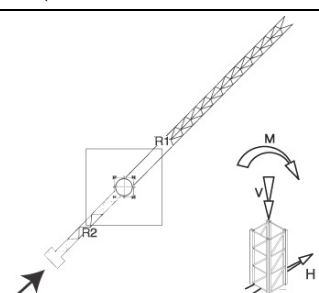
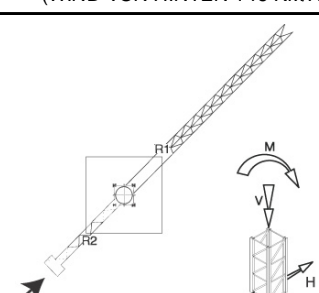
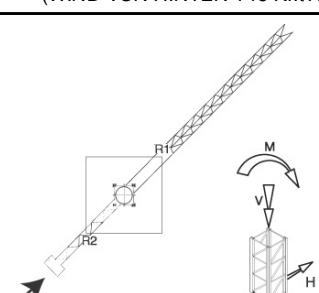
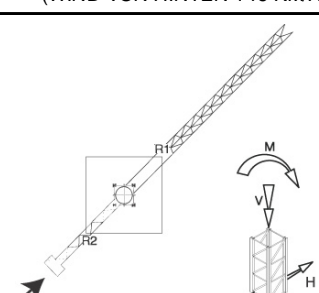
CTT 91TS12_Stress_FP1_40.85_001_d

CTT 91 TS12					FP1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 34.95 m		6 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-797	21,8	1313,9	-489	0	
30	-812	22,0	1332,8	-496	0	
35	-776	22,2	1343,5	-500	0	
40	-793	22,4	1292,4	-481	0	
45	-890	22,6	1262,9	-470	0	
50	-947	22,8	1222,6	-464	-9	
Hakenhöhe 34.95 m		6 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-736	71,3	994,2	-370	0	
30	-750	72,3	1053,3	-392	0	
35	-714	73,2	1096,3	-408	0	
40	-733	74,1	1147,4	-427	0	
45	-829	75,0	1276,3	-475	0	
50	-886	76,0	1386,5	-516	0	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 34.95 m		6 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 152 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	1129	75	1111	-489	-76	
30	1143	76	1171	-504	-68	
35	1156	77	1214	-515	-63	
40	1173	78	1267	-529	-58	
45	1170	79	1391	-551	-34	
50	1177	80	1500	-573	-15	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

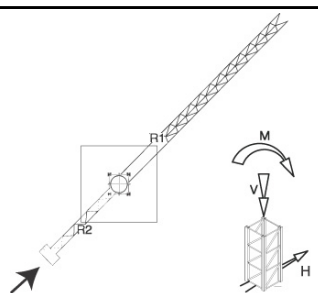
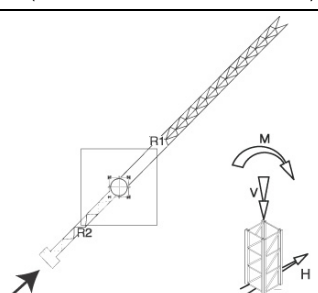
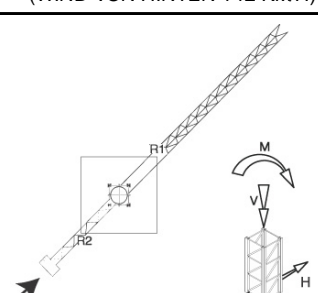
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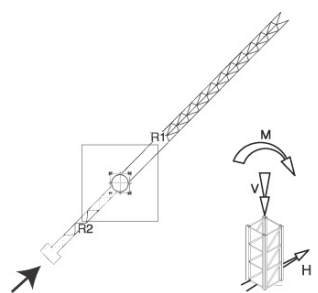
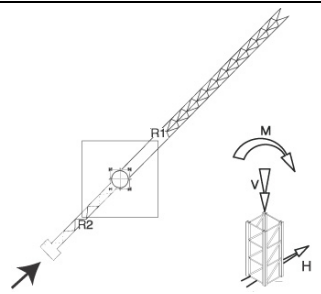
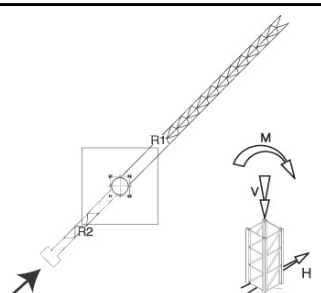
CTT 91 TS12					FP1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 29.05 m		5 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-724	19,7	1155,4	-430	0	
30	-740	20,0	1171,5	-436	0	
35	-753	20,2	1179,6	-439	0	
40	-770	20,4	1123,2	-418	0	
45	-768	20,6	1096,3	-408	0	
50	-774	20,8	1053,3	-392	0	
Hakenhöhe 29.05 m		5 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KMH)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-664	62,5	564,3	-271	-61	
30	-677	63,4	615,3	-284	-55	
35	-691	64,4	652,9	-294	-51	
40	-709	65,3	695,9	-307	-48	
45	-705	66,2	808,8	-327	-26	
50	-713	67,1	910,9	-348	-9	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 29.05 m		5 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 149 KMH)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	908	64	624	-343	-111	
30	921	65	675	-356	-105	
35	934	66	709	-365	-102	
40	952	67	752	-378	-98	
45	949	67	866	-398	-76	
50	955	68	965	-418	-59	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

CTT 91TS12_Stress_FP1_29.05_001_d

CTT 91 TS12						FP1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001							
Hakenhöhe 23.15 m		4 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)	
Ausleger	V	H	M	R1	R2		
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]		
25	-701	17,7	1023,7	-381	0		
30	-717	18,0	1034,5	-385	0		
35	-730	18,2	1042,6	-388	0		
40	-748	18,4	988,8	-371	-3		
45	-744	18,6	961,9	-365	-7		
50	-751	18,8	916,3	-358	-17		
Hakenhöhe 23.15 m		4 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)	
Ausleger	V	H	M	R1	R2		
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]		
25	-640	53,7	198,8	-197	-123		
30	-655	54,6	244,5	-209	-118		
35	-668	55,5	274,1	-218	-116		
40	-687	56,5	309,0	-229	-114		
45	-683	57,4	416,5	-248	-93		
50	-691	58,3	507,8	-267	-78		
NORM FEM 1004 C25							
Ausleger	V	H	M	R1	R2		
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]		
Hakenhöhe 23.15 m		4 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 146 KM/H)	
Ausleger	V	H	M	R1	R2		
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]		
25	786	53	224	-238	-155		
30	800	54	266	-250	-150		
35	813	55	293	-258	-149		
40	830	55	327	-268	-147		
45	827	56	433	-287	-126		
50	834	57	523	-306	-111		
Ausleger	V	H	M	R1	R2		
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]		

CTT 91TS12_Stress_FP1_23.15_001.d

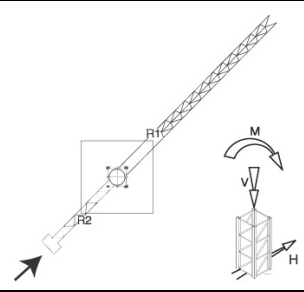
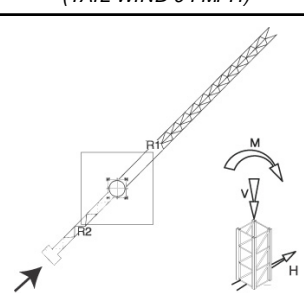
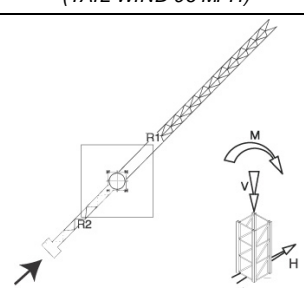
CTT 91 TS12					FP1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 17.25 m		3 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-680	15,7	913,6	-340	0	
30	-693	16,0	927,0	-346	-1	
35	-708	16,2	929,7	-350	-4	
40	-725	16,4	873,3	-344	-19	
45	-721	16,6	846,4	-338	-23	
50	-728	16,8	800,7	-331	-33	
Hakenhöhe 17.25 m		3 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-617	39,7	-206,9	-116	-193	
30	-632	40,4	-172,0	-126	-190	
35	-645	41,1	-158,5	-132	-191	
40	-664	41,7	-134,4	-141	-191	
45	-660	42,4	-37,6	-158	-172	
50	-668	43,1	43,0	-175	-159	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 17.25 m		3 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 142 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	765	42	-97	-209	-173	
30	778	43	-62	-206	-183	
35	791	44	-42	-206	-190	
40	809	45	-14	-205	-200	
45	806	45	84	-217	-186	
50	812	46	166	-234	-172	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

CTT 91 TS12					FP1	Unterwagen C38 TS12 (3.8x3.8 m)
NORM FEM 1001						
Hakenhöhe 11.35 m		2 Turmschüsse TS12 22.6				Kran in Betrieb (WIND VON HINTEN 72km/h)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-656	13,7	827,6	-318	-10	
30	-671	13,9	835,7	-323	-12	
35	-684	14,2	838,3	-327	-15	
40	-703	14,4	776,5	-320	-31	
45	-699	14,6	749,7	-314	-35	
50	-707	14,8	701,3	-307	-46	
Hakenhöhe 11.35 m		2 Turmschüsse TS12 22.6				Kran außer Betrieb (WIND VON HINTEN 151 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	-596	33,2	-386,9	-77	-221	
30	-609	33,9	-357,4	-86	-219	
35	-624	34,6	-343,9	-92	-220	
40	-641	35,3	-325,1	-100	-221	
45	-639	36,0	-233,8	-116	-203	
50	-645	36,6	-158,5	-132	-191	
NORM FEM 1004 C25						
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
Hakenhöhe 11.35 m		2 Turmschüsse TS12 22.6				Kran außer Betrieb C25 (WIND VON HINTEN 137 KM/H)
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	
25	643	32	-345	-225	-97	
30	657	32	-316	-223	-105	
35	670	33	-302	-224	-111	
40	687	34	-280	-224	-120	
45	684	35	-189	-206	-136	
50	691	36	-113	-194	-152	
Ausleger	V	H	M	R1	R2	
[m]	[kN]	[kN]	[kNm]	[kN]	[kN]	

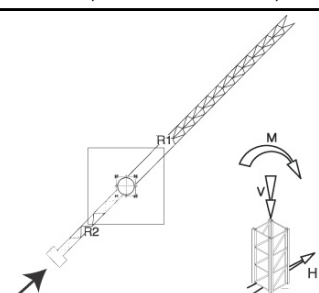
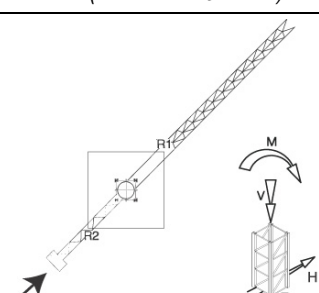
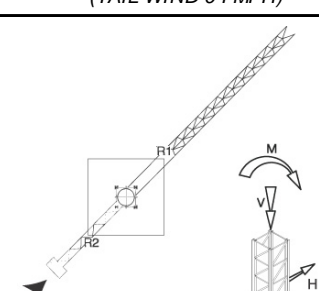
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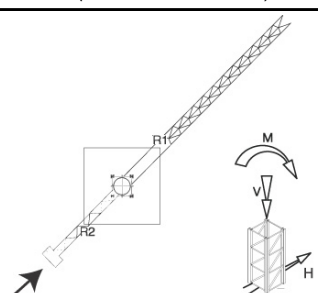
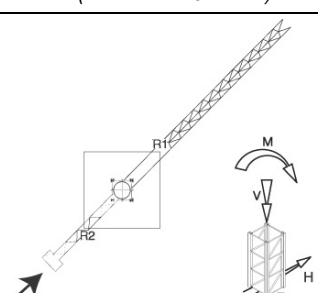
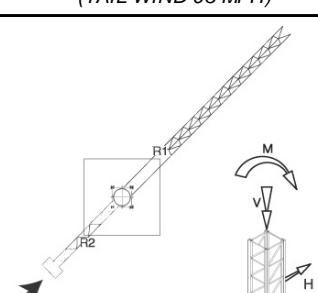
Amerikanisches Maßeinheitssystem

CTT 91 TS12				FP1		C38 TS12 (12×12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 134 ft		No.7 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-229,491	5,350	1,107,815	-125,647	0		
98	-232,413	5,394	1,125,664	-127,670	0		
115	-246,798	5,439	1,137,539	-129,018	0		
131	-250,619	5,484	1,103,906	-125,197	0		
148	-260,959	5,529	1,080,083	-126,546	-4,046		
164	-285,009	5,574	1,050,359	-130,817	-11,688		
Hook height 134 ft		No.7 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-215,780	18,004	1,105,824	-125,422	0		
98	-218,702	18,229	1,159,371	-131,491	0		
115	-233,087	18,431	1,198,978	-135,986	0		
131	-237,358	18,633	1,244,559	-141,156	0		
148	-247,472	18,858	1,345,678	-152,619	0		
164	-271,748	19,061	1,436,841	-162,959	0		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 134 ft		No.7 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 96 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	303,630	19,532	1,247,886	-146,673	-5,143		
98	306,687	19,761	1,301,335	-150,468	-2,876		
115	309,564	19,978	1,341,184	-153,447	-1,335		
131	313,498	20,195	1,389,763	-157,621	0		
148	312,823	20,414	1,488,720	-168,844	0		
164	314,329	20,631	1,578,468	-179,023	0		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

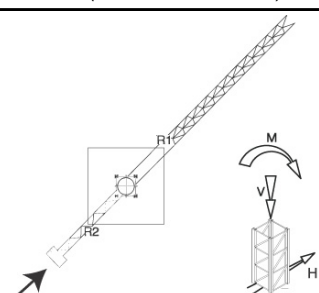
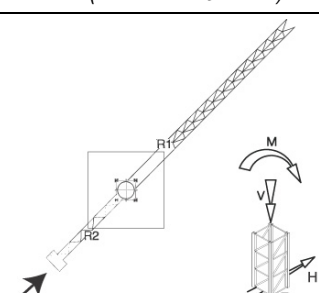
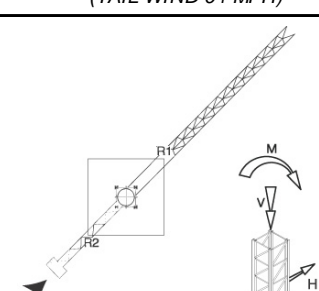
CTT 91TS12_Stress_FP 1.40.85_001.am

CTT 91 TS12				FP1		C38 TS12 (12×12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 115 ft		No.6 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-179,142	4,900	969,080	-109,913	0		
98	-182,514	4,945	983,020	-111,486	0		
115	-174,422	4,990	990,912	-112,385	0		
131	-178,243	5,035	953,223	-108,115	0		
148	-200,046	5,080	931,465	-105,642	0		
164	-212,858	5,125	901,741	-104,294	-2,023		
Hook height 115 ft		No.6 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-165,431	16,026	733,282	-83,165	0		
98	-168,578	16,251	776,872	-88,110	0		
115	-160,486	16,453	808,587	-91,706	0		
131	-164,757	16,656	846,276	-95,977	0		
148	-186,335	16,858	941,348	-106,766	0		
164	-199,147	17,083	1,022,627	-115,982	0		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 115 ft		No.6 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	253,836	16,905	819,159	-109,912	-17,006		
98	256,893	17,127	863,783	-113,206	-15,240		
115	259,770	17,337	895,406	-115,719	-14,166		
131	263,703	17,547	934,537	-118,921	-12,930		
148	263,029	17,759	1,025,881	-123,933	-7,582		
164	264,535	17,970	1,106,511	-128,882	-3,386		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

CTT 91TS2_Stress_FP1_34.95_001.am

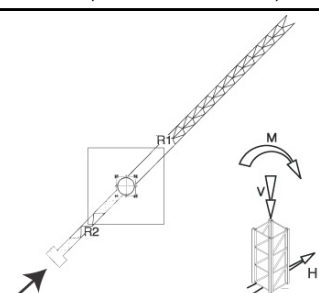
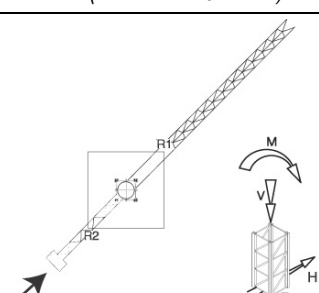
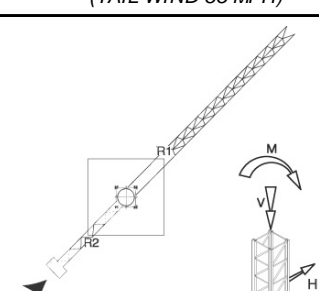
CTT 91 TS12				FP1		C38 TS12 (12×12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 95 ft		No.5 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-162,734	4,428	852,177	-96,651	0		
98	-166,330	4,495	864,052	-98,000	0		
115	-169,252	4,540	870,026	-98,674	0		
131	-173,073	4,585	828,427	-93,954	0		
148	-172,624	4,630	808,587	-91,706	0		
164	-173,972	4,675	776,872	-88,110	0		
Hook height 95 ft		No.5 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-149,248	14,048	416,205	-60,913	-13,711		
98	-152,170	14,250	453,821	-63,835	-12,362		
115	-155,317	14,475	481,553	-66,083	-11,463		
131	-159,362	14,678	513,268	-69,005	-10,789		
148	-158,463	14,880	596,539	-73,500	-5,844		
164	-160,261	15,082	671,843	-78,220	-2,023		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 95 ft		No.5 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 93 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	204,041	14,345	460,357	-77,116	-24,904		
98	207,098	14,559	497,759	-80,001	-23,548		
115	209,975	14,761	522,680	-82,134	-22,854		
131	213,909	14,964	554,387	-84,915	-22,039		
148	213,234	15,169	638,737	-89,530	-17,087		
164	214,740	15,371	711,676	-94,043	-13,327		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

CTT 91TS2_Stress_FP1.29.05_001.am

CTT 91 TS12				FP1		C38 TS12 (12×12 ft) undercarriage	
FEM 1001 STANDARD							
Hook height 76 ft		No.4 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-157,564	3,978	755,040	-85,638	0		
98	-161,161	4,046	763,006	-86,537	0		
115	-164,083	4,091	768,980	-87,211	0		
131	-168,128	4,136	729,299	-83,390	-674		
148	-167,229	4,181	709,459	-82,041	-1,573		
164	-168,803	4,226	675,826	-80,468	-3,821		
Hook height 76 ft		No.4 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-143,853	12,070	146,627	-44,280	-27,647		
98	-147,225	12,272	180,333	-46,977	-26,523		
115	-150,147	12,475	202,165	-49,000	-26,073		
131	-154,417	12,700	227,906	-51,472	-25,624		
148	-153,518	12,902	307,194	-55,743	-20,904		
164	-155,317	13,104	374,533	-60,014	-17,532		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 76 ft		No.4 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 91 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	176,724	11,858	165,189	-53,548	-34,813		
98	179,781	12,062	196,536	-56,090	-33,800		
115	182,658	12,256	215,847	-57,905	-33,424		
131	186,591	12,450	241,549	-60,346	-32,950		
148	185,917	12,646	319,531	-64,599	-28,359		
164	187,423	12,840	385,899	-68,739	-24,972		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

CTT 91TS2_Stress_FP123.5_001.am

CTT 91TS2_Stress_FP1_17.25_001_am

CTT 61/A TS12						FP1	C38 TS12 (12×12 ft) undercarriage
FEM 1001 STANDARD							
Hook height 37 ft		No.2 TS12 22.6 tower sections				In service crane (TAIL WIND 45 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-147,450	3,079	610,405	-71,477	-2,248		
98	-150,821	3,124	616,379	-72,601	-2,697		
115	-153,743	3,192	618,297	-73,500	-3,372		
131	-158,014	3,237	572,715	-71,927	-6,968		
148	-157,115	3,282	552,949	-70,578	-7,867		
164	-158,913	3,327	517,251	-69,005	-10,339		
Hook height 37 ft		No.2 TS12 22.6 tower sections				Out of service crane (TAIL WIND 94 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	-133,963	7,462	-285,362	-17,307	-49,674		
98	-136,885	7,620	-263,604	-19,330	-49,225		
115	-140,257	7,777	-253,647	-20,679	-49,450		
131	-144,078	7,934	-239,781	-22,477	-49,674		
148	-143,628	8,092	-172,442	-26,073	-45,628		
164	-144,977	8,227	-116,903	-29,670	-42,931		
FEM 1004 C25 STANDARD							
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
Hook height 37 ft		No.2 TS12 22.6 tower sections				Out of service crane C25 (TAIL WIND 85 MPH)	
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		
82	144,566	7,123	-254,735	-50,587	-21,696		
98	147,623	7,302	-233,139	-50,126	-23,685		
115	150,500	7,472	-222,878	-50,264	-24,986		
131	154,433	7,642	-206,489	-50,318	-26,899		
148	153,759	7,813	-139,316	-46,340	-30,539		
164	155,265	7,983	-83,504	-43,552	-34,081		
Jib	V	H	M	R1	R2		
[ft]	[lbs]	[lbs]	[lbs.ft]	[lbs]	[lbs]		

CTT 91TS2_Stress_FP1_1135_001.am

2

GRUNDBALLAST

2.1



VORBEREITUNG

Die Ballastblöcke müssen mit äußerster Sorgfalt vorbereitet werden.

Sie dürfen erst nach Austrocknung und Feststellung ihres genauen Gewichts installiert werden.

Das Gewicht der Grundballastblöcke muss innerhalb einer Toleranzgrenze von $\pm 3\%$ liegen.

2.1.1



Bezugsnormen

Die entsprechend des normierten Sicherheitskoeffizienten vorgegebene Anzahl der Grundballastblöcke stellt die Standsicherheit des Krans sicher, und zwar unabhängig von den Bodenfestigkeitswerten und verhindert so ein Umkippen des Krans.

Der Grundballast entspricht den Standsicherheitskoeffizienten der Norme F.E.M. 1001 und F.E.M. 1004.

2.2



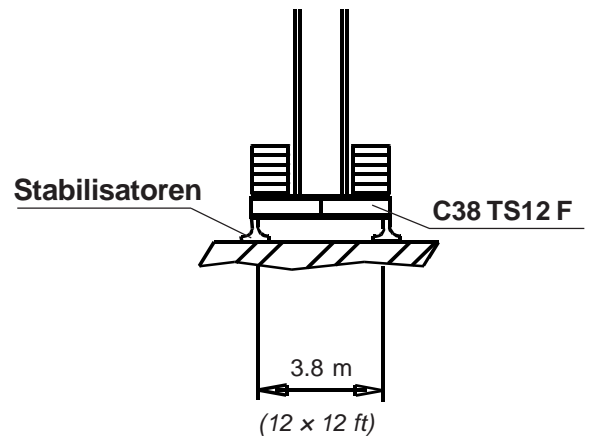
TYP UND ANZAHL

Den Unterwagen (Gestell "F" und "FP") sowie den dafür vorgesehenen Bereich unter dem Unterwagen (Gestell "FP") mit der exakten Anzahl der für die Auslegerlänge und Hakenhöhe erforderlichen Ballastblöcke belegen.

CTT 91 TS12		GRUNDBALLAST	
TYP BALLASTBLOCK		BLOCKGEWICHT	
		kg	lbs
SR "B"	Code 390105010	5000	11,025
IR "C"	Code 390103005	4000	8,820

2.2.1 Gestell "F₁"

Ortsfester Kran auf Unterwagen "C38 TS12 F" (3.8 × 3.8 m / 12 × 12 ft)



CTT 91 TS12			F 1	Unterwagen C38 TS12 F (3.8×3.8 m)	
Hakenhöhe 40.85 m					
7 Turmschüsse TS12 22.6					
Ausleger	NORM FEM 1001		NORM FEM 1004 C25		
	Auf dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Gesamtballast	
	Ballastblock SR "B" (5 t)		Ballastblock SR "B" (5 t)		
[m]	[Anz.]	[t]	[Anz.]	[t]	
25	12	60	20	100	
30	12	60	20	100	
35	12	60	20	100	
40	12	60	20	100	
45	14	70	18	90	
50	14	70	18	90	

CTT 91TS12_Zavorra_F1.40.85_001.d

CTT 91 TS12			F 1	Unterwagen C38 TS12 F (3.8×3.8 m)	
Hakenhöhe 34.95 m					
6 Turmschüsse TS12 22.6					
Ausleger	NORM FEM 1001		NORM FEM 1004 C25		
	Auf dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Gesamtballast	
	Ballastblock SR "B" (5 t)		Ballastblock SR "B" (5 t)		
[m]	[Anz.]	[t]	[Anz.]	[t]	
25	8	40	16	80	
30	8	40	16	80	
35	8	40	16	80	
40	8	40	14	70	
45	10	50	14	70	
50	10	50	14	70	

CTT 91TS12_Zavorra_F1.34.95_001.d

CTT 91 TS12			F 1	Unterwagen C38 TS12 F (3.8x3.8 m)
Hakenhöhe 29.05 m				
5 Turmschüsse TS12 22.6				
Ausleger	NORM FEM 1001		NORM FEM 1004 C25	
	Auf dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)		Ballastblock SR "B" (5 t)	
[m]	[Anz.]	[t]	[Anz.]	[t]
25	6	30	12	60
30	6	30	12	60
35	6	30	12	60
40	6	30	12	60
45	8	40	10	50
50	8	40	10	50

CTT 91TS12_Zavorra_F1_29.05_001_d

CTT 91 TS12			F 1	Unterwagen C38 TS12 F (3.8x3.8 m)
Hakenhöhe 23.15 m				
4 Turmschüsse TS12 22.6				
Ausleger	NORM FEM 1001		NORM FEM 1004 C25	
	Auf dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)		Ballastblock SR "B" (5 t)	
[m]	[Anz.]	[t]	[Anz.]	[t]
25	6	30	10	50
30	6	30	10	50
35	6	30	10	50
40	6	30	8	40
45	8	40	8	40
50	8	40	8	40

CTT 91TS12_Zavorra_F1_23.15_001_d

CTT 91 TS12			F 1	Unterwagen C38 TS12 F (3.8x3.8 m)
Hakenhöhe 17.25 m				
3 Turmschüsse TS12 22.6				
Ausleger	NORM FEM 1001		NORM FEM 1004 C25	
	Auf dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)		Ballastblock SR "B" (5 t)	
[m]	[Anz.]	[t]	[Anz.]	[t]
25	6	30	8	40
30	6	30	8	40
35	6	30	8	40
40	6	30	8	40
45	6	30	8	40
50	6	30	8	40

CTT 91TS12_Zavorra_F1_17.25_001_d

CTT 91 TS12			F1	Unterwagen C38 TS12 F (3.8x3.8 m)
Hakenhöhe 11.35 m				
2 Turmschüsse TS12 22.6				
Ausleger	NORM FEM 1001		NORM FEM 1004 C25	
	Auf dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)		Ballastblock SR "B" (5 t)	
[m]	[Anz.]	[t]	[Anz.]	[t]
25	6	30	6	30
30	6	30	6	30
35	6	30	6	30
40	6	30	6	30
45	6	30	6	30
50	6	30	6	30

CTT 91TS12_Zavorra_F1_1135_001_d



Amerikanisches Maßeinheitssystem

CTT 91 TS12			F1	C38 TS12 F (12x12 ft) undercarriage
Hook height 134 ft				
No.7 TS12 22.6 tower sections				
Jib	FEM 1001 STANDARD		FEM 1004 C25 STANDARD	
	On the undercarriage	Total ballast	On the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)		Blocks SR "B" (11,025 lbs)	
[ft]	[no.]	[lbs]	[no.]	[lbs]
82	12	132,300	20	220,500
98	12	132,300	20	220,500
115	12	132,300	20	220,500
131	12	132,300	20	220,500
148	14	154,350	18	198,450
164	14	154,350	18	198,450

CTT 91TS12_Zavorra_F1_40.85_001_am

CTT 91 TS12			F1	C38 TS12 F (12x12 ft) undercarriage
Hook height 115 ft				
No.6 TS12 22.6 tower sections				
Jib	FEM 1001 STANDARD		FEM 1004 C25 STANDARD	
	On the undercarriage	Total ballast	On the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)		Blocks SR "B" (11,025 lbs)	
[ft]	[no.]	[lbs]	[no.]	[lbs]
82	8	88,200	16	176,400
98	8	88,200	16	176,400
115	8	88,200	16	176,400
131	8	88,200	14	176,400
148	10	110,250	14	154,350
164	10	110,250	14	154,350

CTT 91TS12_Zavorra_F1_34.95_001_am

CTT 91 TS12			F1	C38 TS12 F (12x12 ft) undercarriage
Hook height 95 ft				
No.5 TS12 22.6 tower sections				
Jib	FEM 1001 STANDARD		FEM 1004 C25 STANDARD	
	On the undercarriage	Total ballast	On the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)		Blocks SR "B" (11,025 lbs)	
[ft]	[no.]	[lbs]	[no.]	[lbs]
82	6	66,150	12	132,300
98	6	66,150	12	132,300
115	6	66,150	12	132,300
131	6	66,150	12	132,300
148	8	88,200	10	110,250
164	8	88,200	10	110,250

CTT 91TS2_Zavorra_F1.29.05_001.am

CTT 91 TS12			F1	C38 TS12 F (12x12 ft) undercarriage
Hook height 76 ft				
No.4 TS12 22.6 tower sections				
Jib	FEM 1001 STANDARD		FEM 1004 C25 STANDARD	
	On the undercarriage	Total ballast	On the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)		Blocks SR "B" (11,025 lbs)	
[ft]	[no.]	[lbs]	[no.]	[lbs]
82	6	66,150	10	110,250
98	6	66,150	10	110,250
115	6	66,150	10	110,250
131	6	66,150	8	88,200
148	8	88,200	8	88,200
164	8	88,200	8	88,200

CTT 91TS2_Zavorra_F1.23.5_001.am

CTT 91 TS12			F1	C38 TS12 F (12x12 ft) undercarriage
Hook height 57 ft				
No.3 TS12 22.6 tower sections				
Jib	FEM 1001 STANDARD		FEM 1004 C25 STANDARD	
	On the undercarriage	Total ballast	On the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)		Blocks SR "B" (11,025 lbs)	
[ft]	[no.]	[lbs]	[no.]	[lbs]
82	6	66,150	8	88,200
98	6	66,150	8	88,200
115	6	66,150	8	88,200
131	6	66,150	8	88,200
148	6	66,150	8	88,200
164	6	66,150	8	88,200

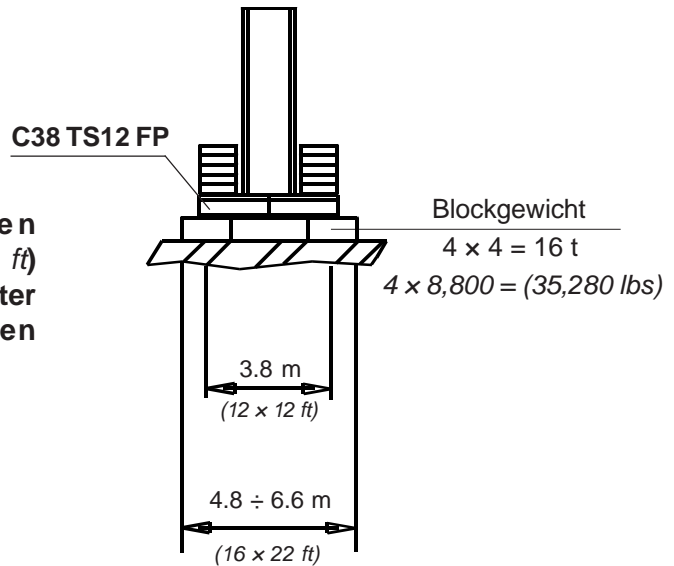
CTT 91TS2_Zavorra_F1.17.25_001.am

<i>CTT 91 TS12</i>			<i>F1</i>	<i>C38 TS12 F (12x12 ft) undercarriage</i>
<i>Hook height 37 ft</i>				
<i>No.2 TS12 22.6 tower sections</i>				
Jib	<i>FEM 1001 STANDARD</i>		<i>FEM 1004 C25 STANDARD</i>	
	<i>On the undercarriage</i>	Total ballast	<i>On the undercarriage</i>	Total ballast
	<i>Blocks SR "B" (11,025 lbs)</i>		<i>Blocks SR "B" (11,025 lbs)</i>	
<i>[ft]</i>	<i>[no.]</i>	<i>[lbs]</i>	<i>[no.]</i>	<i>[lbs]</i>
82	6	66,150	6	66,150
98	6	66,150	6	66,150
115	6	66,150	6	66,150
131	6	66,150	6	66,150
148	6	66,150	6	66,150
164	6	66,150	6	66,150

CTT 91TS2_Zavorra_F1_1135_001.am

2.2.2 Gestell "FP₁"

Ortsfester Kran auf Unterwagen
"C38 TS12 FP" (3.8 x 3.8 m / 12x12 ft)
mit 4 Ballastblöcken IR "C", welche unter
dem Wagen positioniert werden
(Gesamtgewicht 16 t / 35,280 lbs).



CTT 91 TS12				FP1	Unterwagen C38 TS12 FP (3.8x3.8 m)	
Hakenhöhe 40.85 m						
7 Turmschüsse TS12 22.6						
Ausleger	NORM FEM 1001			NORM FEM 1004 C25		
	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)		Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)	
[m]	[Anz.]	[Anz.]	[t]	[Anz.]	[Anz.]	[t]
25	10	4	66	16	4	96
30	10	4	66	16	4	96
35	10	4	66	16	4	96
40	10	4	66	16	4	96
45	12	4	76	16	4	96
50	12	4	76	16	4	96

CTT 91TS12_Zavorra_FP1_40.85_001.d

CTT 91 TS12				FP1	Unterwagen C38 TS12 FP (3.8x3.8 m)	
Hakenhöhe 34.95 m						
6 Turmschüsse TS12 22.6						
Ausleger	NORM FEM 1001			NORM FEM 1004 C25		
	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)		Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)	
[m]	[Anz.]	[Anz.]	[t]	[Anz.]	[Anz.]	[t]
25	6	4	46	12	4	76
30	6	4	46	12	4	76
35	6	4	46	12	4	76
40	6	4	46	12	4	76
45	8	4	56	12	4	76
50	8	4	56	12	4	76

CTT 91TS12_Zavorra_FP1_34.95_001.d

CTT 91 TS12				FP1	Unterwagen C38 TS12 FP (3.8×3.8 m)	
Hakenhöhe 29.05 m						
5 Turmschüsse TS12 22.6						
Ausleger	NORM FEM 1001			NORM FEM 1004 C25		
	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)		Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)	
[m]	[Anz.]	[Anz.]	[t]	[Anz.]	[Anz.]	[t]
25	4	4	36	8	4	56
30	4	4	36	8	4	56
35	4	4	36	8	4	56
40	4	4	36	8	4	56
45	6	4	46	8	4	56
50	6	4	46	8	4	56

CTT 91TS2_Zavorra_FP1_29.05_001.d

CTT 91 TS12				FP1	Unterwagen C38 TS12 FP (3.8×3.8 m)	
Hakenhöhe 23.15 m						
4 Turmschüsse TS12 22.6						
Ausleger	NORM FEM 1001			NORM FEM 1004 C25		
	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)		Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)	
[m]	[Anz.]	[Anz.]	[t]	[Anz.]	[Anz.]	[t]
25	4	4	36	6	4	46
30	4	4	36	6	4	46
35	4	4	36	6	4	46
40	4	4	36	6	4	46
45	4	4	36	6	4	46
50	4	4	36	6	4	46

CTT 91TS2_Zavorra_FP1_23.15_001.d

CTT 91 TS12				FP1	Unterwagen C38 TS12 FP (3.8×3.8 m)	
Hakenhöhe 17.25 m						
3 Turmschüsse TS12 22.6						
Ausleger	NORM FEM 1001			NORM FEM 1004 C25		
	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)		Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)	
[m]	[Anz.]	[Anz.]	[t]	[Anz.]	[Anz.]	[t]
25	4	4	36	6	4	46
30	4	4	36	6	4	46
35	4	4	36	6	4	46
40	4	4	36	6	4	46
45	4	4	36	6	4	46
50	4	4	36	6	4	46

CTT 91TS2_Zavorra_FP1_17.25_001.d

CTT 91 TS12				FP1	Unterwagen C38 TS12 FP (3.8x3.8 m)	
Hakenhöhe 11.35 m						
2 Turmschüsse TS12 22.6						
Ausleger	NORM FEM 1001			NORM FEM 1004 C25		
	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast	Auf dem Unterwagen	Unter dem Unterwagen	Gesamtballast
	Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)		Ballastblock SR "B" (5 t)	Ballastblock IR "C" (4 t)	
[m]	[Anz.]	[Anz.]	[t]	[Anz.]	[Anz.]	[t]
25	4	4	36	4	4	36
30	4	4	36	4	4	36
35	4	4	36	4	4	36
40	4	4	36	4	4	36
45	4	4	36	4	4	36
50	4	4	36	4	4	36

CTT 91TS12_Zavorra_FP1_1135_001_d



Amerikanisches Maßeinheitssystem

CTT 91 TS12				FP1	C38 TS12 FP (12×12 ft) undercarriage	
Hook height 134 ft						
No.7 TS12 22.6 tower sections						
Jib	FEM 1001 STANDARD			FEM 1004 C25 STANDARD		
	on the undercarriage	under the undercarriage	Total ballast	on the undercarriage	under the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)		Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)	
[ft]	[no.]	[no.]	[lbs]	[no.]	[no.]	[lbs]
82	10	4	145,530	16	4	211,680
98	10	4	145,530	16	4	211,680
115	10	4	145,530	16	4	211,680
131	10	4	145,530	16	4	211,680
148	12	4	167,580	16	4	211,680
164	12	4	167,580	16	4	211,680

CTT 91TS12_Zavorra_FP1_40.85_001_Lam

CTT 91 TS12				FP1	C38 TS12 FP (12x12 ft) undercarriage	
Hook height 115 ft						
No.6 TS12 22.6 tower sections						
Jib	FEM 1001 STANDARD			FEM 1004 C25 STANDARD		
	on the undercarriage	under the undercarriage	Total ballast	on the undercarriage	under the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)		Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)	
[ft]	[no.]	[no.]	[lbs]	[no.]	[no.]	[lbs]
82	6	4	101,430	12	4	167,580
98	6	4	101,430	12	4	167,580
115	6	4	101,430	12	4	167,580
131	6	4	101,430	12	4	167,580
148	8	4	123,480	12	4	167,580
164	8	4	123,480	12	4	167,580

CTT 91TS12_Zavorra_FP1_34.95_001_Lam

CTT 91 TS12				FP1	C38 TS12 FP (12×12 ft) undercarriage	
Hook height 95 ft						
No.5 TS12 22.6 tower sections						
Jib	FEM 1001 STANDARD			FEM 1004 C25 STANDARD		
	on the undercarriage	under the undercarriage	Total ballast	on the undercarriage	under the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)		Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)	
[ft]	[no.]	[no.]	[lbs]	[no.]	[no.]	[lbs]
82	4	4	79,380	8	4	123,480
98	4	4	79,380	8	4	123,480
115	4	4	79,380	8	4	123,480
131	4	4	79,380	8	4	123,480
148	6	4	101,430	8	4	123,480
164	6	4	101,430	8	4	123,480
						123,480

CTT 91TS2_Zavorra_FP1.29.05_001.am

CTT 91 TS12				FP1	C38 TS12 FP (12×12 ft) undercarriage	
Hook height 76 ft						
No.4 TS12 22.6 tower sections						
Jib	FEM 1001 STANDARD			FEM 1004 C25 STANDARD		
	on the undercarriage	under the undercarriage	Total ballast	on the undercarriage	under the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)		Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)	
[ft]	[no.]	[no.]	[lbs]	[no.]	[no.]	[lbs]
82	4	4	79,380	6	4	101,430
98	4	4	79,380	6	4	101,430
115	4	4	79,380	6	4	101,430
131	4	4	79,380	6	4	101,430
148	4	4	79,380	6	4	101,430
164	4	4	79,380	6	4	101,430

CTT 91TS2_Zavorra_FP1.23.6_001.am

CTT 91 TS12				FP1	C38 TS12 FP (12×12 ft) undercarriage	
Hook height 57 ft						
No.3 TS12 22.6 tower sections						
Jib	FEM 1001 STANDARD			FEM 1004 C25 STANDARD		
	on the undercarriage	under the undercarriage	Total ballast	on the undercarriage	under the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)		Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)	
[ft]	[no.]	[no.]	[lbs]	[no.]	[no.]	[lbs]
82	4	4	79,380	6	4	101,430
98	4	4	79,380	6	4	101,430
115	4	4	79,380	6	4	101,430
131	4	4	79,380	6	4	101,430
148	4	4	79,380	6	4	101,430
164	4	4	79,380	6	4	101,430

CTT 91TS2_Zavorra_FP1.17.25_001.am

CTT 91 TS12				FP1	C38 TS12 FP (12x12 ft) undercarriage	
Hook height 37 ft						
No.2 TS12 22.6 tower sections						
Jib	FEM 1001 STANDARD			FEM 1004 C25 STANDARD		
	on the undercarriage	under the undercarriage	Total ballast	on the undercarriage	under the undercarriage	Total ballast
	Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)		Blocks SR "B" (11,025 lbs)	Blocks IR "C" (8,820 lbs)	
[ft]	[no.]	[no.]	[lbs]	[no.]	[no.]	[lbs]
82	4	4	79,380	4	4	79,380
98	4	4	79,380	4	4	79,380
115	4	4	79,380	4	4	79,380
131	4	4	79,380	4	4	79,380
148	4	4	79,380	4	4	79,380
164	4	4	79,380	4	4	79,380

CTT 91TS12_Zavorra_FP1_1135_001.am

PLANZEICHNUNGEN GRUNDBALLAST

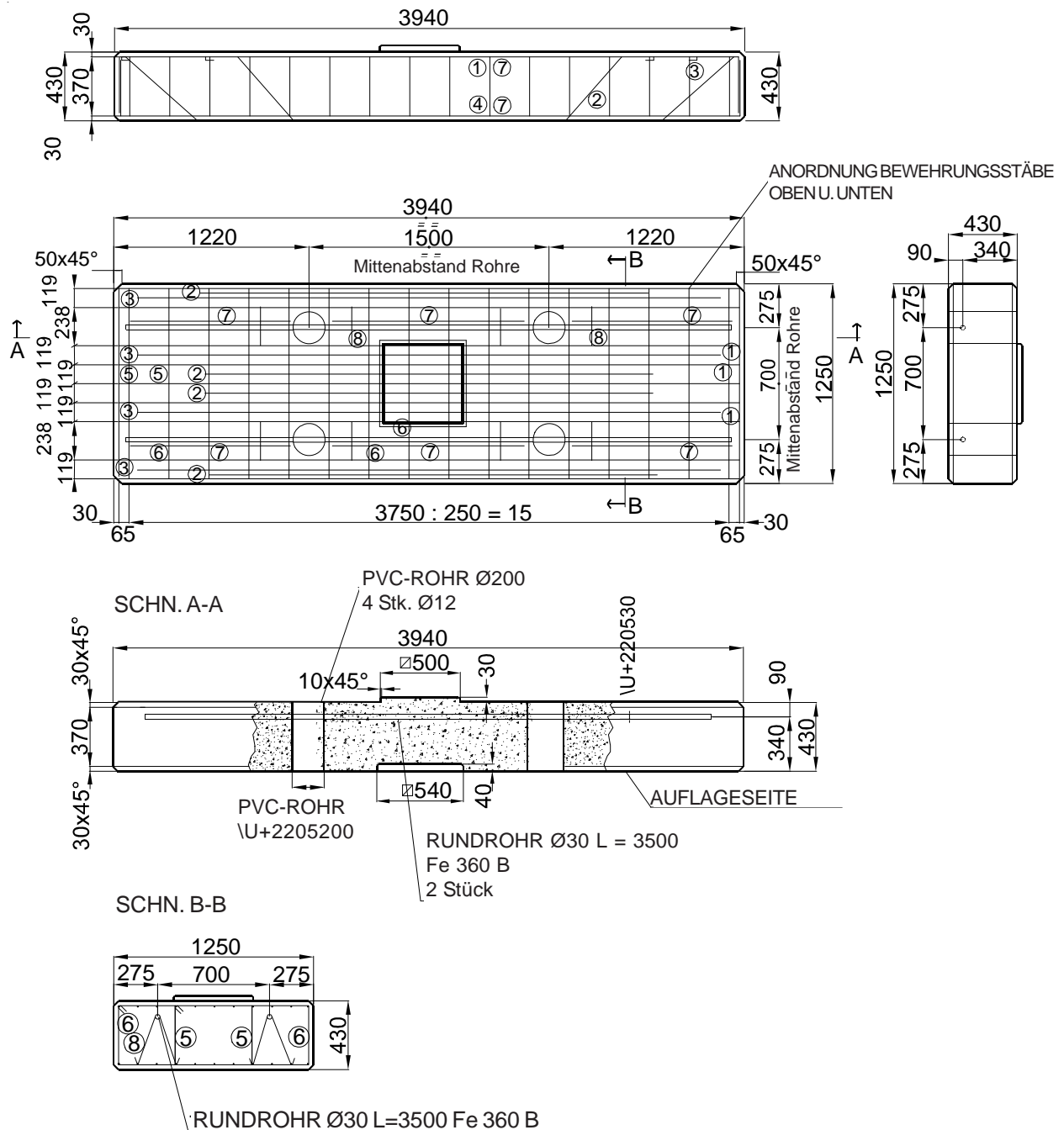
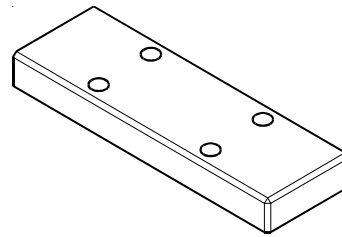
2.3

2.3.1 Grundballast SR "B" (5000 kg / 11,025 lbs) - Code 390105010

SR "B"

Spezifisches
Gesamtgewicht Stb.

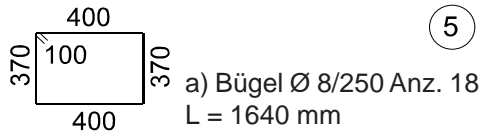
kg/m ³	lbs/ft ³
2400	150



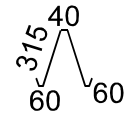
Maßangaben in mm [1 mm = 0.03937 in.]

Eisen für Armierung Grundballast SR "B"

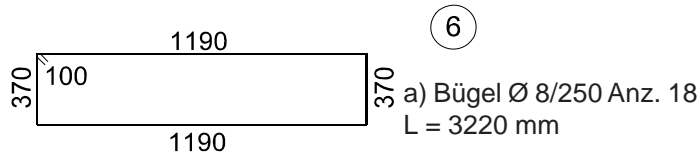
SR "B"



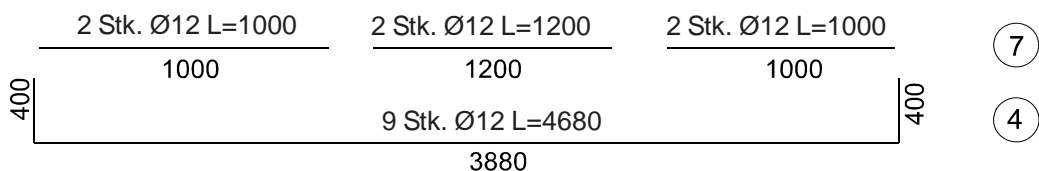
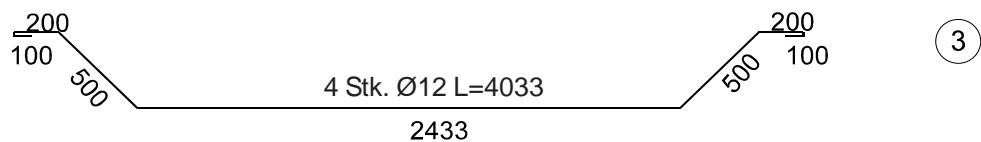
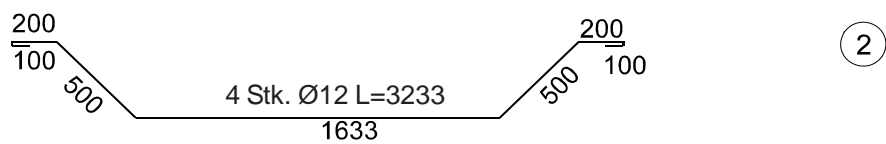
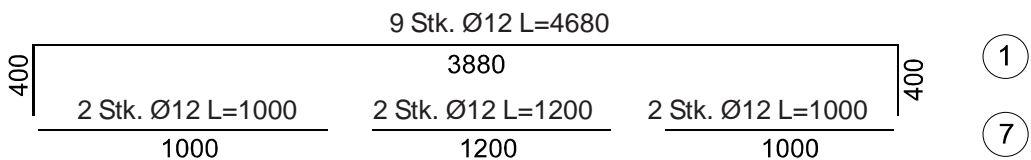
a) Bügel Ø 8/250 Anz. 18
L = 1640 mm



8 Stk. VERBINDUNGSBÜGEL Ø 12
L=790 NEBEN DEN ROHREN



a) Bügel Ø 8/250 Anz. 18
L = 3220 mm



Beton: B 255 frostbeständig gemäß INORM B 4200 oder B 25 frostbeständig (DIN 1045)

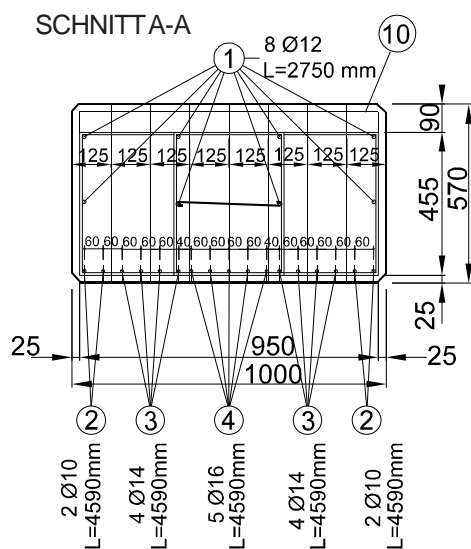
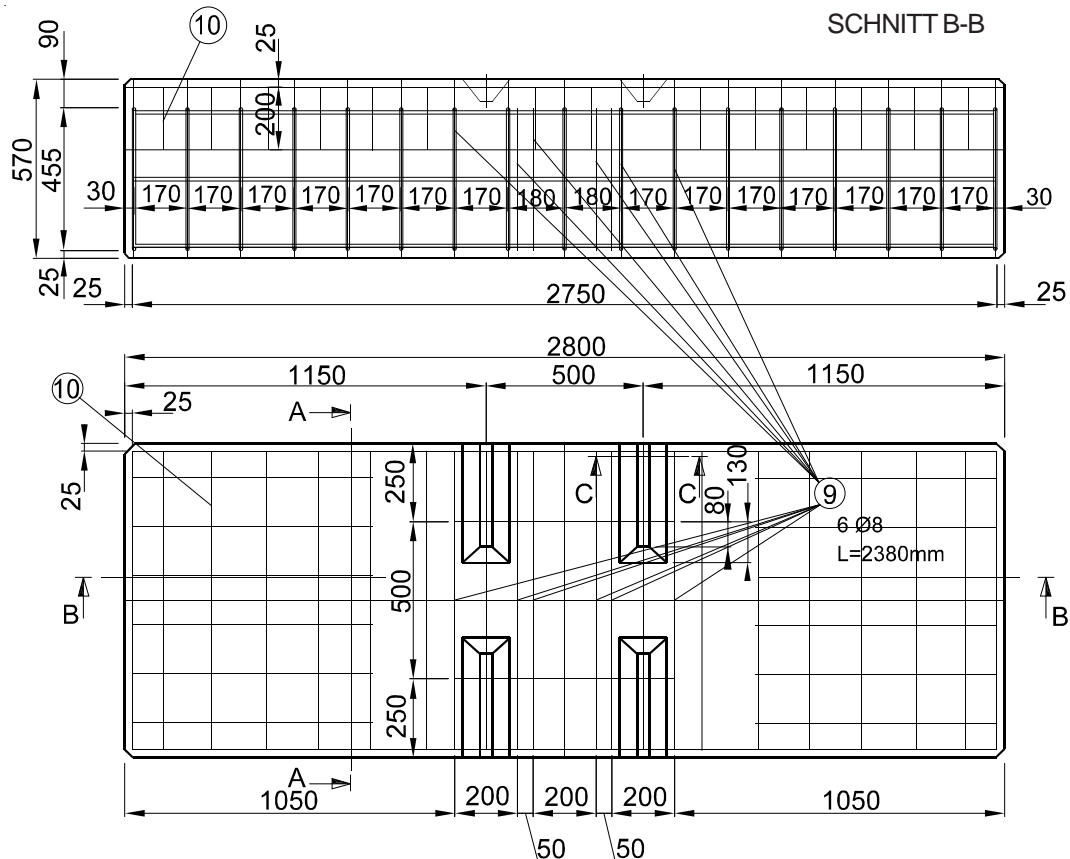
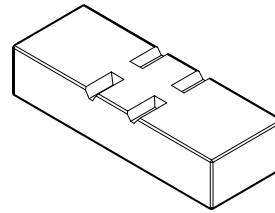
Stahl: STS 50/620

AUSHÄRTUNG: VIER WOCHEN

2.3.2 Grundballast IR "C" (4000 kg / 8,820 lbs) - Code 390103005

IR "C"

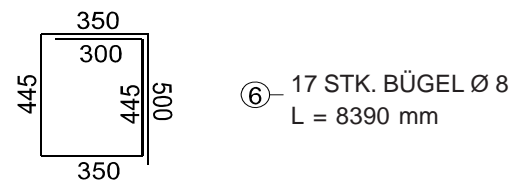
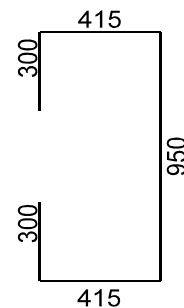
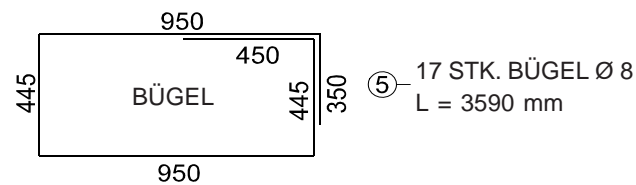
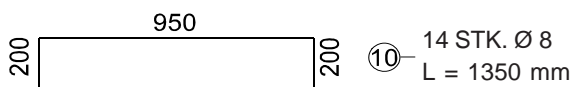
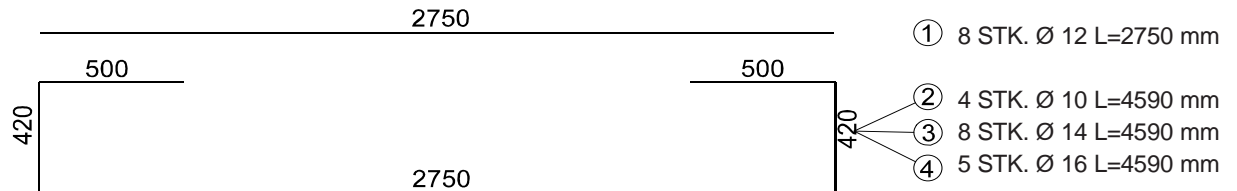
Spezifisches Gesamtgewicht Stb.	
kg/m ³	lbs/ft ³
2400	150



Maßangaben in mm [1 mm = 0.03937 in.]

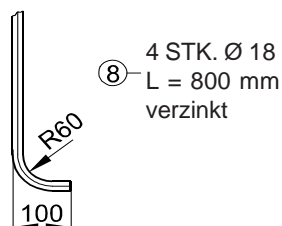
Bewehrungsstäbe für Grundballast IR "C"

IR "C"

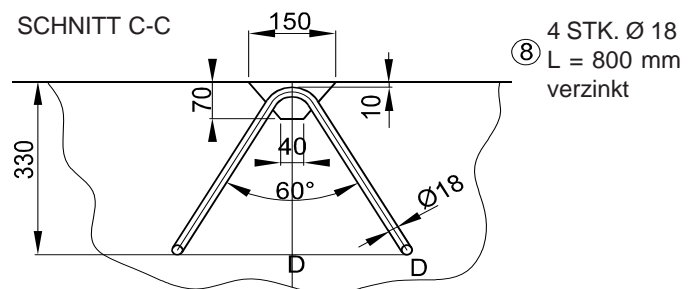


⑦ 17 STK. S-Haken Ø 8
 L = 450 mm

SCHNITT D-D



SCHNITT C-C



Beton: B 255 frostbeständig gemäß INORM B 4200 oder B 25 frostbeständig (DIN 1045)

Stahl: STS 50/620

AUSHÄRTUNG: VIER WOCHEN



GESTELL "F"



3.1.1 Vier Stahlbetonblöcke

$$L = \sqrt{\frac{R}{\sigma_t}}$$

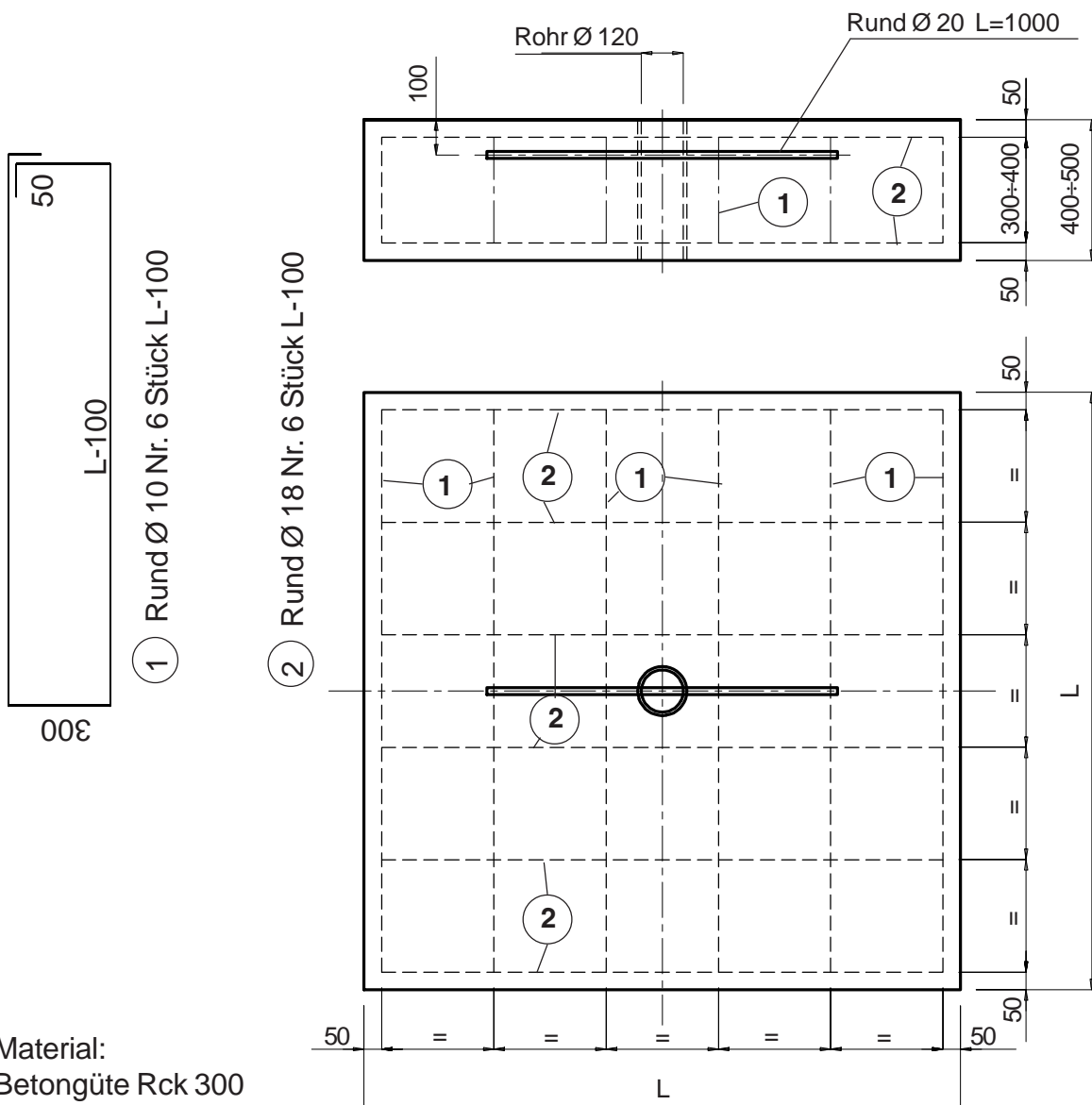


Abb. 3.1.1

Die Auflagerplatten sind wie in Abbildung 3.1.2 dargestellt zu positionieren.

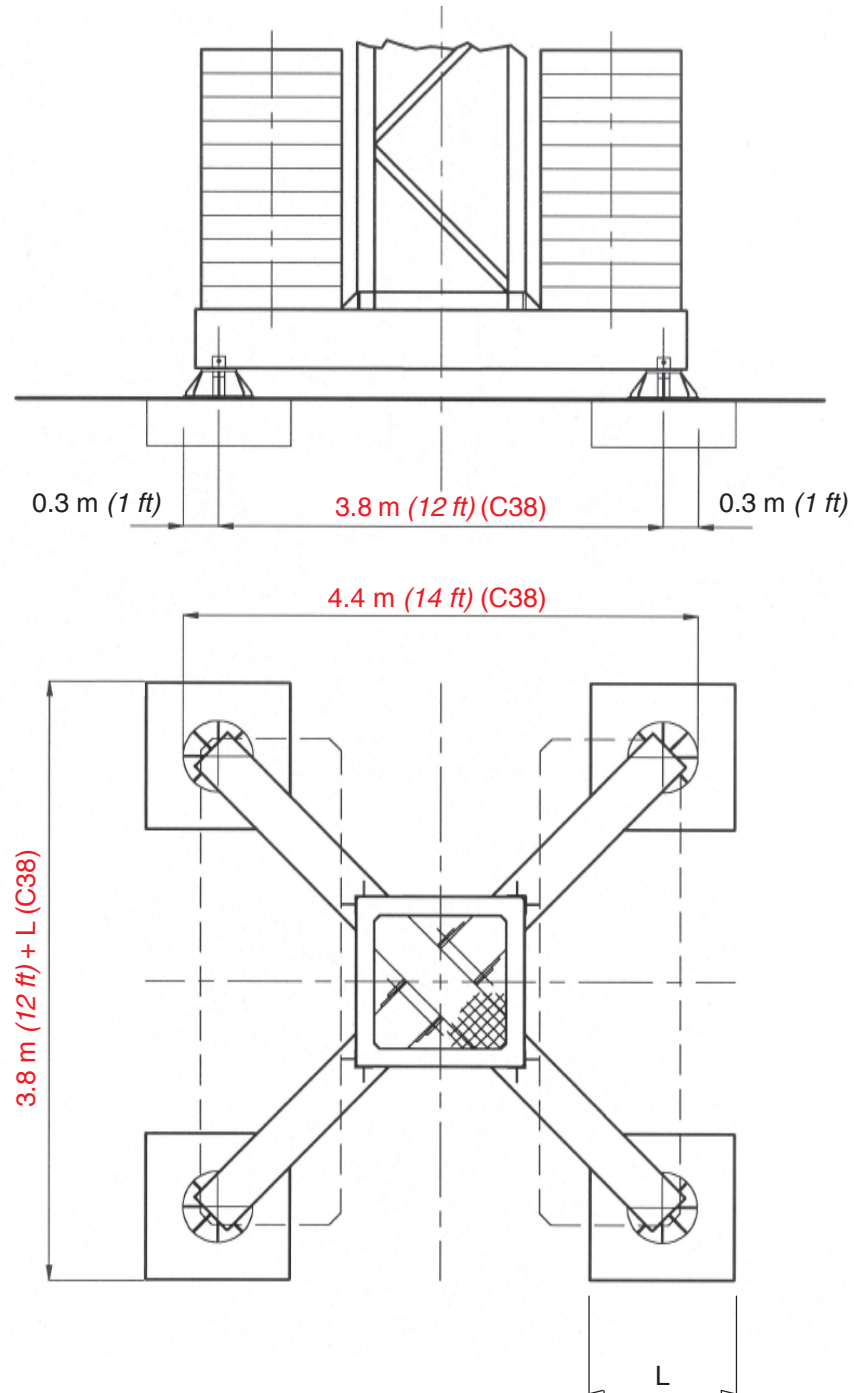


Abb. 3.1.2

3.1.2 Zwei Stahlbetonringe

Die Auflagerplatten sind wie in Abbildung 3.1.3 dargestellt zu positionieren.

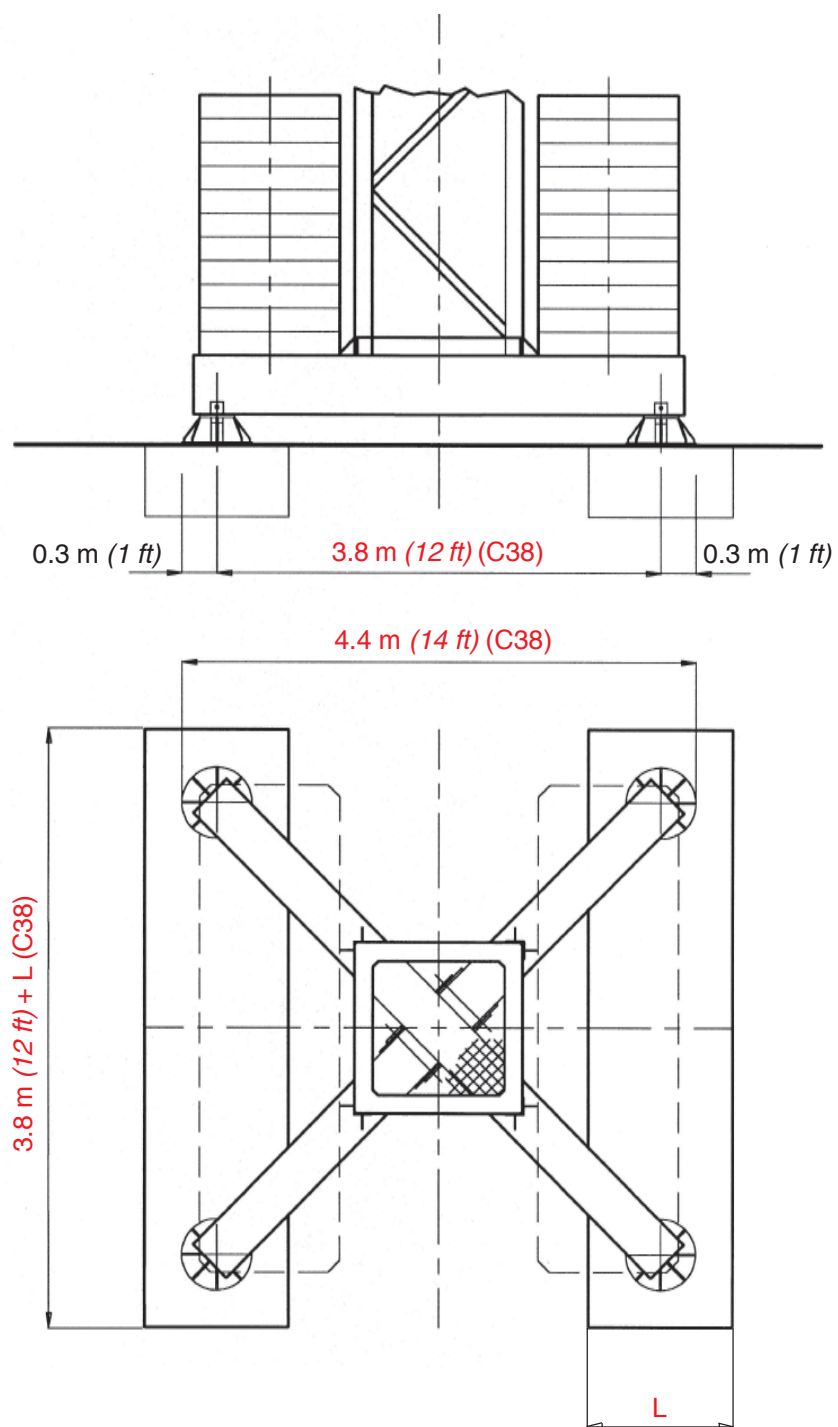


Abb. 3.1.3

3.1.3 Eine Grundplatte aus Stahlbeton

Die Auflagerplatten sind wie in Abbildung 3.1.4 dargestellt zu positionieren.

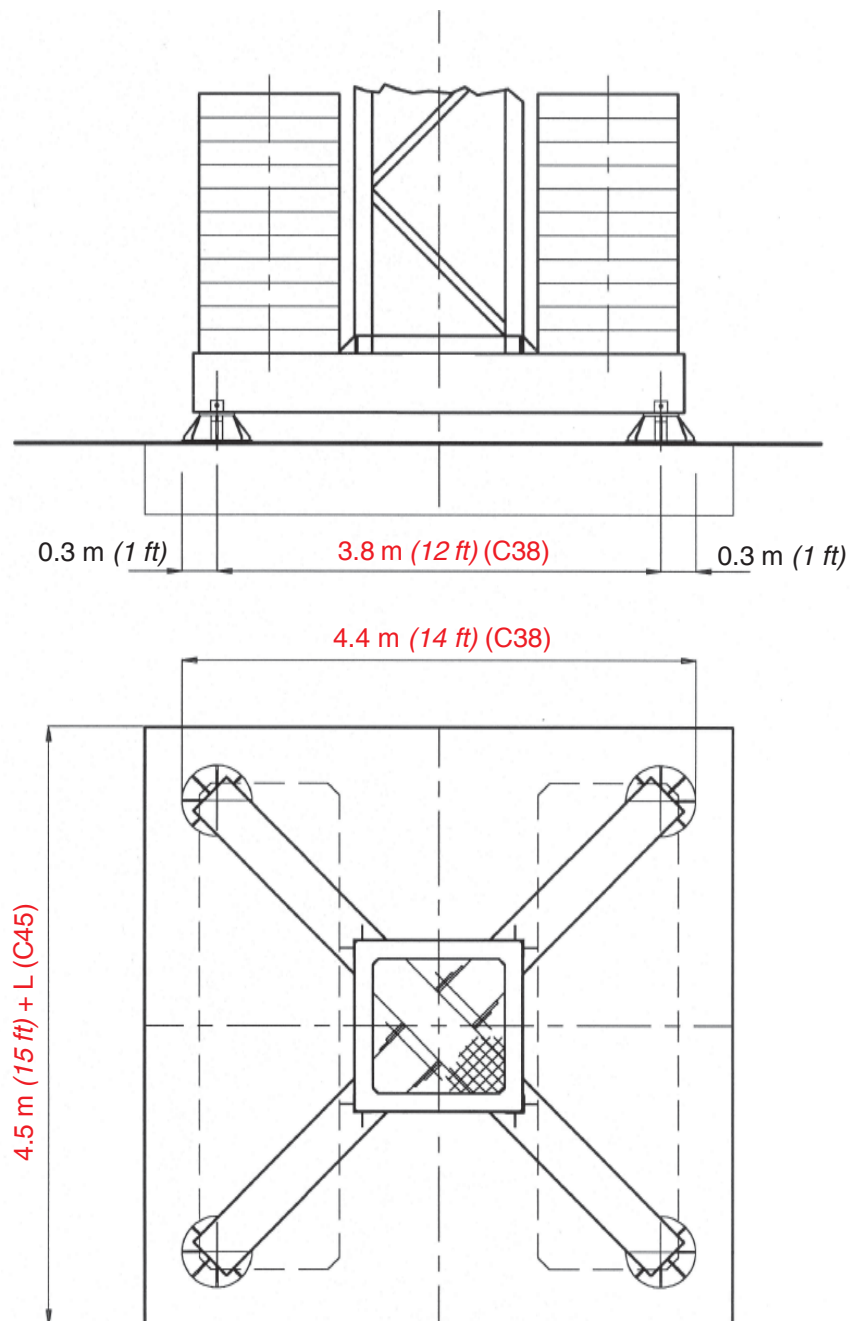


Abb. 3.1.4

3.2



GESTELL "FP"

Für Kräne mit Konfiguration "FP" (ortsfester Kran auf Wagen mit Unterwagenballast) ist die Auflage auf die Unterwagenballaste IR "C" vorgesehen.

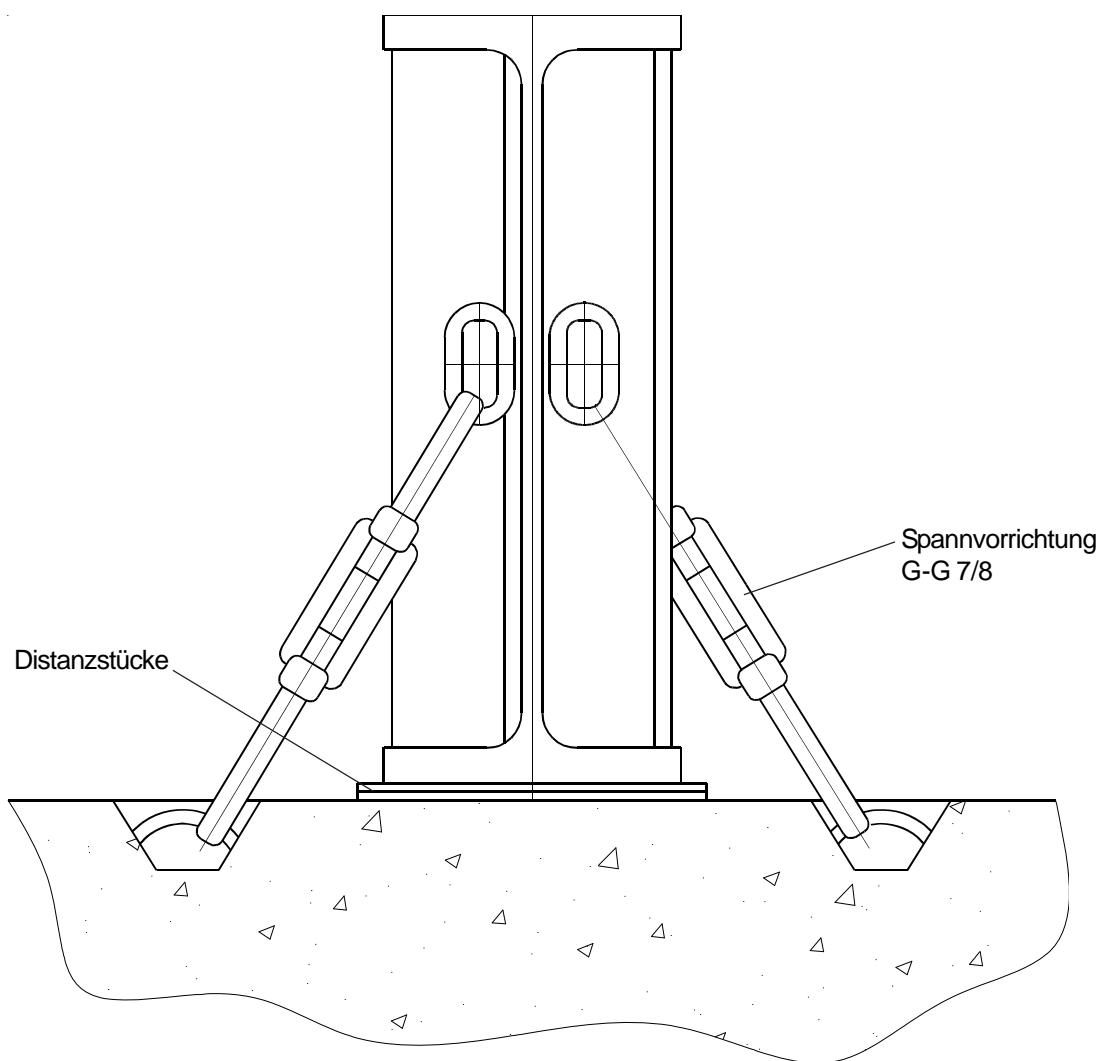
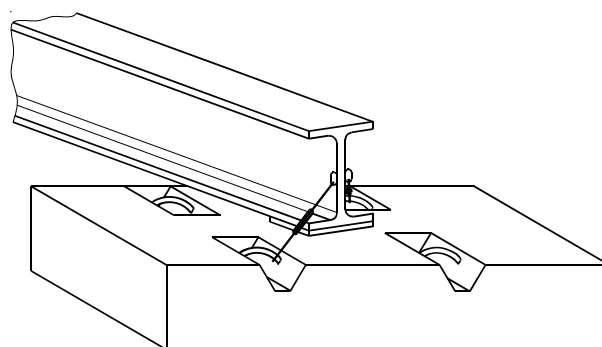


Abb. 3.2.1