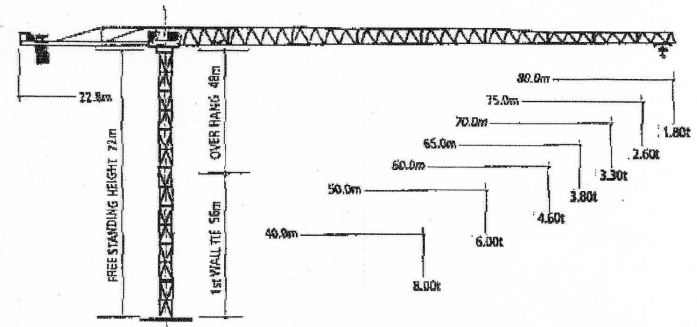


STATIC CALCULATION

Topless Crane 312TL - Max Load 12ton



출고기간 : 1~2개월

Radius & Capacity

Jib Length (m)	Radius (m)														
	6.0	8.0	10.0	12.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0	50.0			
80	30.92	6.00	6.00	6.00	6.00	5.19	4.43	3.84	3.37	2.99	2.67	2.40	2.17	1.97	1.80
75	16.78	12.00	9.77	7.50	6.02	4.97	4.19	3.58	3.10	2.71	2.39	2.11	1.88	1.67	1.50
70	39.50	6.00	6.00	6.00	6.00	6.00	6.00	5.57	4.86	4.29	3.83	3.44	3.12	2.84	2.60
65	19.87	12.00	11.91	9.22	7.45	6.21	5.28	4.56	3.99	3.53	3.14	2.82	2.54	2.30	
60	42.03	6.00	6.00	6.00	6.00	6.00	6.00	5.55	4.92	4.40	3.97	3.61	3.30		
50	21.93	12.00	12.00	10.35	8.41	7.04	6.02	5.23	4.60	4.09	3.66	3.31	3.00		
40	43.73	6.00	6.00	6.00	6.00	6.00	6.00	5.80	5.15	4.62	4.17	3.80			
30	23.07	12.00	12.00	10.97	8.93	7.50	6.43	5.61	4.95	4.42	3.97	3.60			
20	47.40	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.65	5.08	4.60			
10	24.80	12.00	12.00	11.87	9.70	8.16	7.03	6.15	5.44	4.87	4.40				
0	50.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00					
0	26.10	12.00	12.00	12.00	10.30	8.68	7.47	6.54	5.80						
0	40.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00							
0	27.80	12.00	12.00	12.00	10.94	9.23	8.00								

8월달이후 ; 금액상승(추후조정)

Speeds(400V-50Hz / 440V-60Hz)

Gear	Load (t)			
	2	2.5	4.5	6.0
100	100	80	50	40
4	4	5.2	9	12
50	50	40	25	20

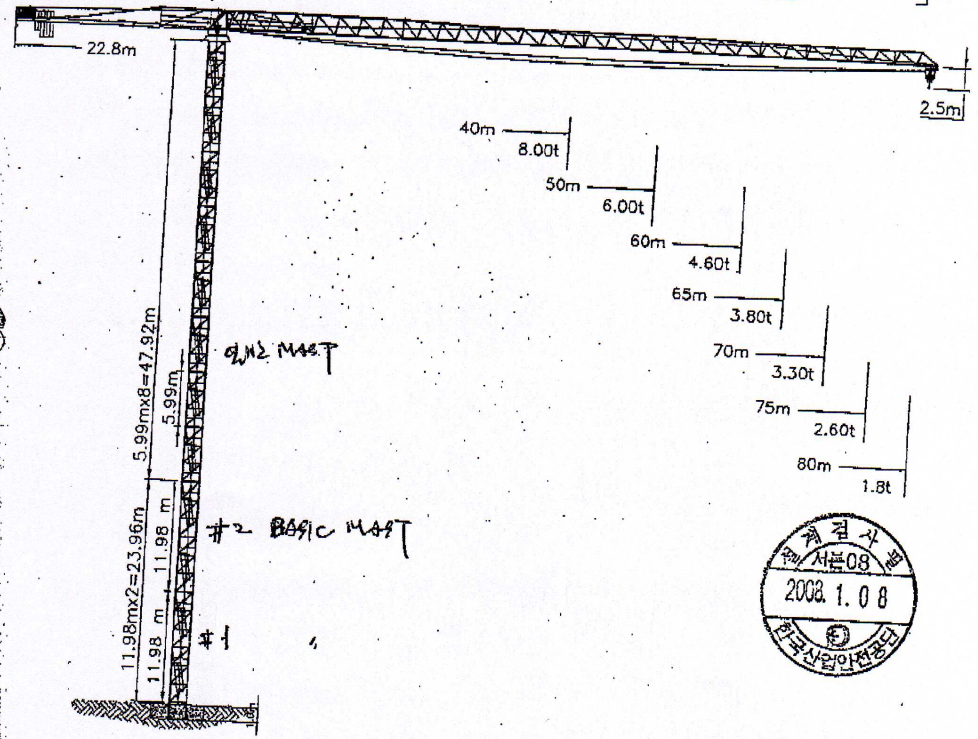
Drum Capacity: 600m

Motor	5.5Kw	3 x 4.4Kw
V	4.3-43-86r/min	0.67rpm
Power requirement(upper part)		Hoist: 45Kw

Project: 312 TL

TOWER CRANE 구성품

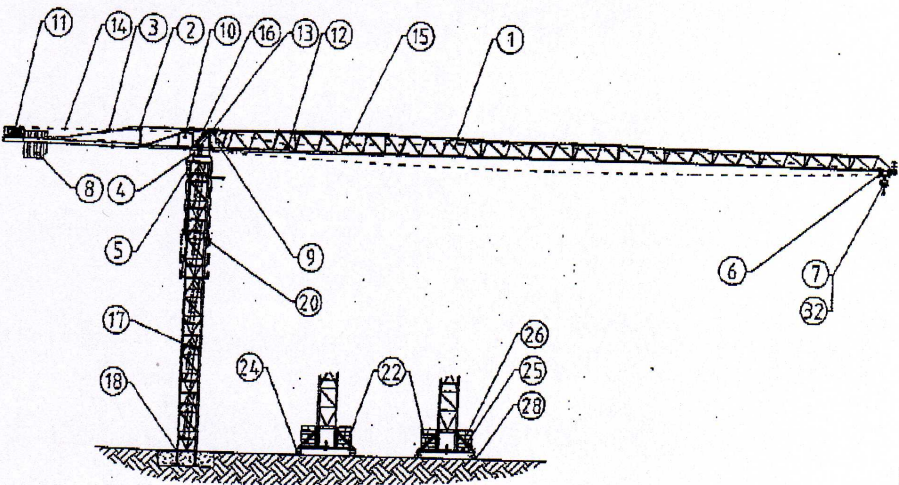
1. 철 구조물 - 중곡제라
 - MAST
 - CATE
 - TURN TABLE
 - JIB SECTION
 - C/JIB SECTION
2. 조립부품 및 구동부, 전장품
 - 볼트류
 - PIN류
 - MOTOR류
 - HOOK
 - 유압 유니트 & 실린더
 - 전장품



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2.1 General

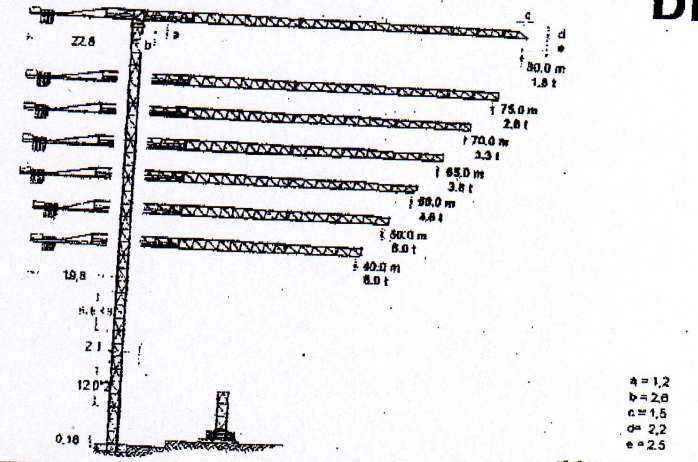
2.1.1 Crane components



1 Jib	17 Tower
2 Counter jib	18 Fixing angles
3 Tie bar counter jib	19
4 Turntable	20 Telescopic cage
5 Support for slewing ring	21
6 Trolley	22 Chassis frame
7 Hookblock	23
8 Counterjib ballast	24 Foundation block
9 Cabin	25 Basic ballast block
D10 Controlhouse	26 Standard ballast block
11 Hoist unit	27
12 Trolley unit	28 Boogies
13 Slewing unit	29
14 Hoist rope	30
15 Trolley rope	31
16 Load moment Limiter	32 Additional weights for hook block



2.1.2 Jib Lengths, Load diagrams, speeds

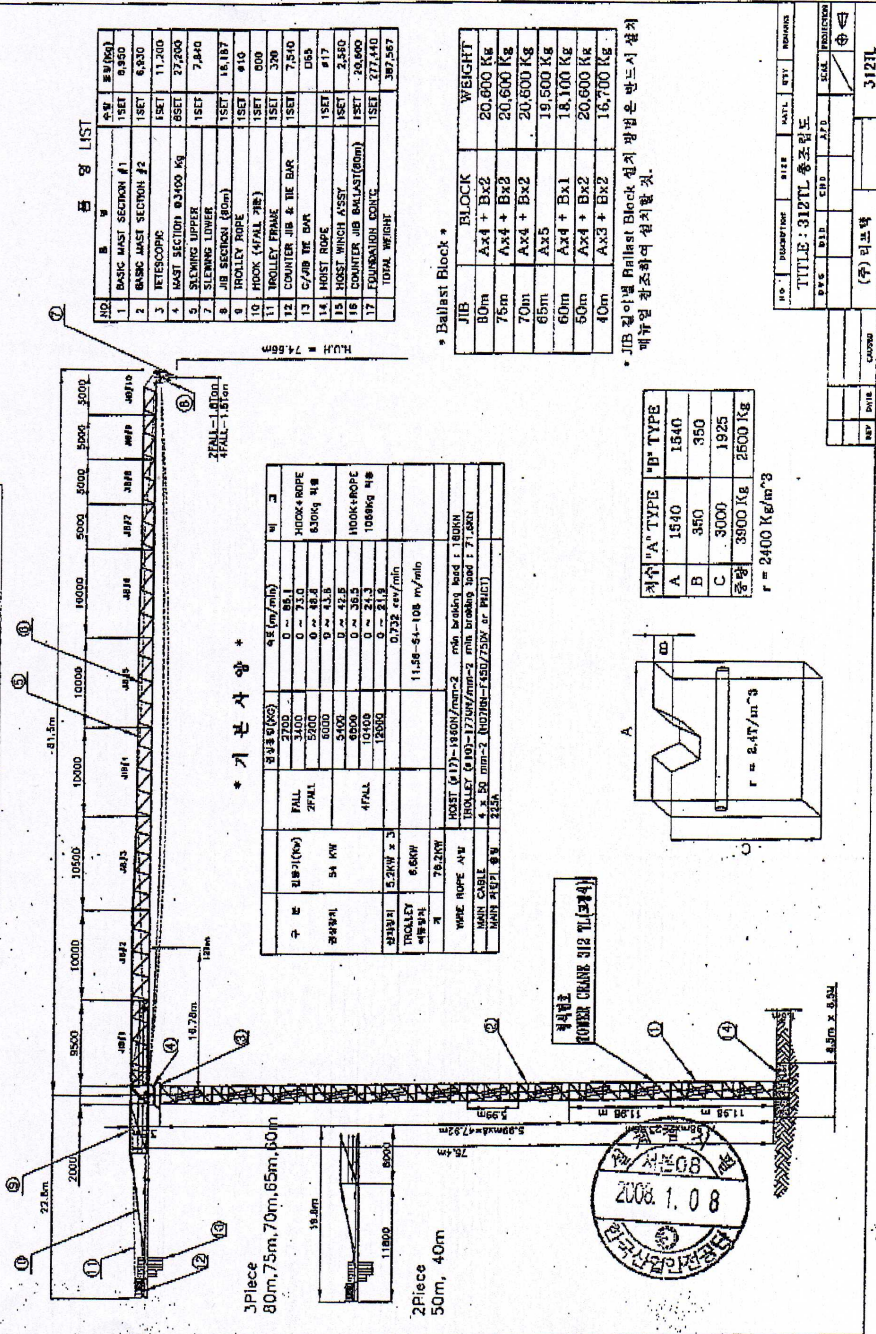


max. Load	at m	at	16	20	25	30	35	40	45	50	55	60	65	70	75	80
8.0 to	30.92	2	6.00	6.00	6.00	6.00	5.18	4.42	3.84	3.37	2.99	2.67	2.40	2.17	1.97	1.80
12.0 to	16.78	4	12.00	6.77	7.50	8.02	4.67	4.18	3.68	3.19	2.71	2.26	2.11	1.98	1.89	1.80
9.0 to	37.50	2	6.00	6.00	6.00	6.00	6.00	5.57	4.86	4.29	3.83	3.44	3.12	2.84	2.60	
12.0 to	19.87	4	12.00	11.97	9.22	7.45	6.21	5.28	4.56	3.89	3.33	3.14	2.82	2.54	2.30	
6.0 to	42.03	2	6.00	6.00	6.00	6.00	6.00	6.00	5.55	4.92	4.40	3.97	3.61	3.30		
12.0 to	21.33	4	12.00	12.00	10.35	8.41	7.04	6.02	5.23	4.50	4.09	3.66	3.31	3.00		
4.0 to	43.70	2	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.15	4.62	4.17	3.80			
12.0 to	23.07	4	12.00	12.00	10.97	8.93	7.50	6.43	5.61	4.95	4.42	3.97	3.60			
8.0 to	47.41	2	6.00	6.00	6.00	6.00	6.00	6.00	6.00	5.65	5.08	4.60				
12.0 to	24.75	4	12.00	12.00	11.37	9.70	8.15	7.03	6.16	5.44	4.87	4.40				
6.0 to	50.00	2	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00				
12.0 to	28.12	4	12.00	12.00	12.00	10.30	8.68	7.47	6.54	5.80						
8.0 to	48.00	2	6.00	6.00	6.00	6.00	6.00	6.00	6.00							
12.0 to	27.99	4	12.00	12.00	12.00	10.94	9.25	8.00								

Hoist winch 37 kW				Hoist winch 54 kW							
P max				P max							
6.0 - 12.0 [to]				6.0 - 12.0 [to]							
Load	[kg]	1,30	2,20	3,60	5,00	Load	[kg]	2,70	3,48	5,20	8,00
v	[m/min]	108.0	68.0	44.0	28.0	v	[m/min]	65.0	73.0	48.6	43.8
Load	[kg]	2,60	4,40	7,20	12,00	Load	[kg]	5,40	8,80	10,40	12,00
v	[m/min]	54.0	34.0	22.0	14.0	v	[m/min]	42.8	35.5	24.3	21.6
Drum capacity		520.0 m				Drum capacity		800.0 m			
Trolley travelling	Rotation	Crane travelling		Power requirement - upper part							
Motor	8.0 kW	3 x 5.2 kW	4 x 5.0 kW	Hoist unit							
v	11.58-54-108 [m/min]	6.732 rpm	25.0 m/min	37 kW 67 kVA							
				45 kW 77 kVA							



312.TL 중조립도



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△ DESIGN CONDITION OF CRANE (고정식)

312.T

항목	내용	
1. 정격 하중	MAX. 12 TONS	
2. 주권의 달기구	종류: 2 / 4 Falls	
	2 Falls (Tip Load : 80m - 1.8T) 4 Falls (Tip Load : 80m - 1.5T)	
자재 하중	440 Kg / 800 Kg	
3. 작업 반경	40m ~ 80m	
4. 발라스트 블록	80m : 20.60T 75m : 20.60T 70m : 20.60T 65m : 19.5T	
	C/JIB : 80~60m : 22.8m (3토막) 50~40m : 19.8m (2토막)	
5. 양정	BASIC MAST(11.98m) : 2EA	
	MAST(5.99m) : 8EA	
6. 속도	H.U.H MAX : 150 M (4FALL기준)	
	FREE STANDING : 72.00 M	
	2FALL	4FALL
	권상 54 Kw	43.8 6.0 ton 21.9 12.0 48.6 5.2 ton 24.3 10.4 73.0 3.4 ton 36.5 6.8 85.1 2.7 ton 42.6 5.4
선회 3x5.2 Kw	0 ~ 0.732 rev/min	
평행 6.6 Kw	11.58 / 54 / 108 m/min	
7. 용도	건설현장 기차재 운반용 크레인	
8. 사용 와이어 로프(권상/평행)	Ø17 x 1960 (N/mm) - 35W x 7 min. B : 180 Ø10 x 1770 (N/mm) - 6 x 25Ei + Fc min. B : 71.6	
9. 설치 위치	<input type="checkbox"/> 옥내 <input checked="" type="checkbox"/> 옥외	
10. 하중 받는 횟수	<input type="checkbox"/> 경 <input checked="" type="checkbox"/> 중 <input type="checkbox"/> 중	
11. 주위 온도	-25°C ~ +40°C	
12. 방폭사용 유무	<input type="checkbox"/> 유 <input checked="" type="checkbox"/> 무	
13. 운전 위치	<input checked="" type="checkbox"/> cabin <input type="checkbox"/> pendant <input type="checkbox"/> remote	
14. 사용 전압	SUPPLY : 440V AC 3Ø 60Hz	
	CONTROL : DC 24V	
15. 메인 FUSE 용량	225 A	
16. 동력 케이블	4C x 50 mm ² (Rubber cable H07RN-F450/750V), PNCT.	
17. 설계기준 (풍속)	풍속 45 m/sec로 설계되어짐	

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