

DWT 13,000 MT Chemical Tanker

ITEM	표준선 (2021 LNG fueled)		13K CT 21조선 2011		13K CT 세광 2011 (TS base)		13K CT 극동 2023 (TS base)		유일조선 (Methanol OnDeck)		2023 표준선 (Methanol InHold)	
LOA / LBP (m)	127.90	120.00	128.60	120.40	128.83	120.40	128.60	120.40	128.00	120.00	129.90	122.00
Breadth (m)	21.00		20.40		20.40		20.40		21.00		21.00	
Depth (m)	11.70		11.50		11.80		11.50		11.70		11.80	
t1/t2 (m)	8.70	8.70	8.70	8.70	8.70	8.70	8.35	8.70	8.70	8.70	8.55	8.55
CB (t1/t2)	0.780		0.797		0.796		0.796		0.7800		0.7822	
LCB (%)												
L/B, B/t	5.714	2.414	5.902	2.345	5.902	2.345	5.902	2.443	5.714	2.414	5.810	2.456
DW (ton) (t1/t2) (ton)	13,078	13,078	13,021	13,021	13,094	13,094		13,011	13,040		13,044	
Disp. (ton) (t1/t2) (ton)	17,578	17,578	17,474	17,474	17,473	17,473		17,471	17,570		17,604	
CARGO TANK (M3)	14,000	12 sets	14,364	12 sets	14,261	12 sets	14,278	12 sets	14,000	12 sets	14,084	12 sets
L/W, LW / (Lx(B+D)) (ton)	(4,500)	1.147	4,453	1.159	4,379	1.130	4,460	1.161	4,530	1.154	4,560	1.140
LCG / VCG (%)	-9.68 / 9.25		-9.79 / 9.089 / tanktop 12.25 -INCTEST		-10.625 / 9.048 / tanktop 12.0		-10.12 / 8.8 / tanktop 12.25 (4460 / 50.08)		10.4 / 9.2		10.4 / 9.2 3사 x평균:8.44% 3사 x평균 & 21표준선 고려 9.2	
M/E (type/sets)	MAN 6S35ME-C9.7	1 sets	MAN 6S35MC-C7	1 sets	MAN 6S35MC-C7	1 sets	MAN 6S35ME-B9.5		W6L32	1 sets	W6L32	1 sets
N.MCR	5,220 kW	x 167 RPM	4,457 kW	x 173 RPM			5,220 kW	x 167 RPM	3,480 kW	x 750 RPM	3,480 kW	x 750 RPM
S.MCR	4,080 kW	x 160 RPM	4,457 kW	x 173 RPM	4,457 kW	x 173 RPM	3,700 kW	x 148RPM	3,000 kW	x 125.9 RPM	3,000 kW	x 125.9 RPM
NCR	80% MCR		90% MCR		90% MCR		90% MCR		90% MCR		90% MCR	
	3,264 kW	x 148.5 RPM	4,011 kW	x 167.0 RPM	4,011 kW	x 167.0 RPM	3,330 kW	x 142.9 RPM	2,700 kW	x 121.6 RPM	2,700 kW	x 121.6 RPM
SPEED est, S.M (kts)	13.41 (at MT 13.64)	15%	13.81	15%		15%	13.42	15%	12.96	15%	13.00	15%
SPEED spec, Fn (kts)	13.5	0.202	13.4	0.201	13.400	0.201	12.800	0.192	13.0	0.195	13.0	0.193
Propeller (Dia / Blade)	(4.50 m)	4 B	(4.30 m)	5 B	4 B		4.5		(4.80 m)	4B	(4.80 m)	4B
(Type / Rpm)	FPP		FPP	203.7			FPP		CPP		CPP	
(Rpm margin / Ca)	5%		5%				5%					
SFOC / DFOC(at NCR)	163.8 g/kw.h	12.8 t/day	175.0 g/kw.h	16.8 t/day			169.5g/kWh	13.55 ton/day	337.4 g/kw.h	21.9 t/day	337.4 g/kw.h	21.9 t/day
FOT / MGT	380 m3	400 m3	630 m3	76 m3	667 m3	80 m3	509 m3	98 m3	280 m3	325 m3	493 m3	194 m3
FWT / BWT	315 m3	5,450 m3	167 m3	5,457 m3	195 m3	5,470 m3	308 m3	5,183 m3	177 m3	5,300 m3	177 m3	5,300 m3
Thruster(stern/bow)	-	1EA	-	1EA		1EA		1EA	-	1EA	-	1EA
기타	LNG 21C				T/C FWT 196		LSHFO & MGO		C.R by MGO: 7,100 NM C.R by Meth: 3,100 NM Total C.R: 10,200 NM		C.R by MGO: 4,100 NM C.R by Meth: 5,400 NM Total C.R: 9,500 NM 극동2023 환산 depth 11.9m 추정됨 k-factor = 1.15, 1.15 적용 시 4,600ton나오며, METHANOL 추진 변동사항 반영하여 4,560 ton 으로 결정함.	
	Rev.4											
	AE-E/R aft	10.1		10.0								
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	E/R len.	20.3		18.2								
	19.6											
	Cargo len.	82.58		84.70								
	84.78											
	Fore len.	9.62		8.5								

13K CT LCB comparison

	LBP	draft	disp	lcb	lcb %	kmt	CB	HOMO. TR	DEN 0.7 HOMO TR (MAX. TRIM condition)
21C	120.4	8.70	17473.00	61.02	0.683	8.776	0.7960	1.210	2.376
세광	120.4	8.70	17473.20	61.02	0.684	8.776	0.7960	1.568	2.804
신극동	120.4	8.70	17470.61	61.039	0.697	8.772	0.7954	1.589	1.678
LNG version	120	8.70	17578.10	61.097	0.914	8.926	0.7804	0.595	1.959
Methanol version	122	8.55	17593.3	62.219	0.999	8.901	0.7818	0.846	2.279
Methanol version (changed HULL)	122	8.55	17592.7	62.210	0.992	8.9	0.7817	0.732	2.279
Methanol version (changed HULL2)	122	8.55	17604.2	62.209	0.991	8.9	0.7822	0.726	2.159