

STARSHIP WEIGHT TABLE		
	Minimum	Maximum
Ship Class	Weight	Weight
I	1,000	5,000
II	5,000	15,000
III	15,000	25,000
IV	25,000	40,000
V	40,000	60,000
VI	60,000	80,000
VII	80,000	100,000
VIII	100,000	120,000
IX	120,000	140,000
X	140,000	160,000
XI	160,000	180,000
XII	180,000	210,000
XIII	210,000	240,000
XIV	240,000	300,000
XV	300,000	350,000
XVI	350,000	400,000
XVII	400,000	450,000
XVIII	450,000	500,000
XIX	500,000	600,000
XX	600,000	700,000

Computer Control Types

Computer Control Type	System Mass (mt)	Appropriate Ship Classes	SS Requirement	Maximum WDF Allowed	Availability	Date Entered Service	Cost
K-1	45	1-2	0.1	3	RRR/99	2160	5
K-2	400	2-6	0.6	7	RRR/96	2160	9
K-3	1200	2-10	1	12	RRR/94	2160	15
K-3X	2100	11-20	2.5	20	RRR/90	2165	38
K-4	3,350	4-12	2.1	20	RRR/88	2190	40
L-1	60	1-2	0.1	5	RRR/95	2200	7
L-2	515	2-6	0.8	10	RRR/91	2190	16
L-3	1,400	2-11	1.3	15	RRR/90	2195	21
L-4	3,500	4-12	2.3	25	RRR/89	2195	42

WARP ENGINE TYPES

SINGLE ENGINE USE

Warp Engine Type	Mass (MT)	Power Units Available	Computer Control Required	Stress Column (Eng/SS)	Superstructure	Availabilty	Cost	Year
FFTL-1A	3,000	8	K-1	Q/R	0.3	RRR/98		2160
FFTL-1B	3,500	8	L-1	Q/R	0.3	RRR/96		2200
FFTL-2A	10,000	10	K-2	M/O	1	RRR/93		2160
FFTL-2B	12,000	10	L-2	M/O	1	RRR/94		2203
FFTL-3A	18,000	16	K-2	K/O	1.4	RRR/88		2177
FFTL-3B	16,000	14	L-2	J/O	1.2	RRR/91		2190
FFTL-4A	26,000	15	K-3	N/L	2.2	RRR/89		2190
FFTL-4B	40,000	17	L-3	O/M	3.3	RRR/78		2204
FFTL-5	34,000	14	L-3	N/M	2.8	RRR/80		2217
FFTL-6A	450	3	K-1	Q/R	0.2	RRR/99		2166
FFTL-6B	500	3	L-1	Q/R	0.2	RRR/99		2220
FFTL-7	60,000	14	L-3	N/M	4	RRR/81		2227

WARP ENGINE TYPES

DUAL ENGINE USE

Warp Engine Type	Mass (MT)	Power Units Available	Computer Control Required	Stress Column (Eng/SS)	Superstructure	Availabilty	Cost	Year
FFTL-1A	6,000	9 EA	K-3	Q/R	0.6	RRR/98		2160
FFTL-1B	7,000	9 EA	L-3	Q/R	0.6	RRR/96		2200
FFTL-2A	20,000	12 EA	K-3	O/P	2	RRR/93		2160
FFTL-2B	24,000	12 EA	L-3	O/P	2	RRR/94		2203
FFTL-3A	36,000	18 EA	K-3	M/P	2.8	RRR/91		2177
FFTL-3B	32,000	16 EA	L-3	M/O	2.4	RRR/89		2190
FFTL-4A	52,000	16 EA	K-4	O/L	4.4	RRR/78		2190
FFTL-4B	80,000	18 EA	L-4	P/L	6.6	RRR/80		2204
FFTL-5	68,000	15 EA	L-4	O/M	5.6	RRR/99		2217
FFTL-6A	900	4 EA	K-1	Q/R	0.4	RRR/99		2166
FFTL-6B	1,000	4 EA	L-1	Q/R	0.4	RRR/81		2220
FFTL-7	120,000	15	L-4	O/M	8	RRR/88		2227
FFTL-X	160,000	14-EA	K-3X	Q/S	10	RRR/36		2166

WARP ENGINE TYPES

TRI ENGINE USE

Warp Engine Type	Mass (MT)	Power Units Available	Computer Control Required	Stress Column (Eng/SS)	Superstructure	Availabilty	Cost	Year
FFTL-1A*	9,000	9 EA	K-3	Q/S	0.9	RRR/5		2200
FFTL-2A *	30,000	12 EA	K-3	Q/R	3	RRR/9		2175
FFTL-4B *	120,000	18 EA	L-4	P/L	9.9	RRR/3		2235
FFTL-X/1A	163,000	2x14,1x8	K-4	Q/S	10.3	III/1		2215

HISTORICAL NOTES

THE B MODEL ENGINES WERE INTRODUCED AS IMPROVEMENTS ALLOWED A GREATER SPEED THAN ON THE PREVIOUS ENGINE MODELS

THE FFTL-X ENGINE WAS BUILT IN 2166 FOR USE IN THE BATTLE CRUISER PROTOTYPE. THE ENGINE PROVED AS EXPENSIVE AS THE REST OF THE PROJECT SO WAS SHELVED. IT EVOLVED INTO THE FAR LIGHTER AND MORE POWERFUL FFTL-3B 11 YEARS LATER. IT WAS ONLY EVER PRODUCED IN A TWIN INSTALLATION AT CLASS 14, AS IT WAS CUSTOM MADE FOR THE BATTLE CRUISER PROJECT.

MOVEMENT POINT RATIO TABLE

SINGLE WARP DRIVES

Movement Point Ratios												
Ship Class	1/4	1/3	1/2	1/1	2/1		3/1		4/1		5/1	6/1
I	FFTL-6A 17 3/4	FFTL-6A 13 2/4	FFTL-1A 23 3/4	FFTL-1A 11.5 2/4	FFTL-1A 5.5 2/3	FFTL-1A 7 2/3	FFTL-1A 4 1/3	FFTL-1A 3 1/2	FFTL-1A 2 1/1	FFTL-1A 2 1/1	FFTL-1B 2 2/3	
	FFTL-6B 17 4/5	FFTL-6B 13 3/5	FFTL-1B 23 4/5	FFTL-1B 11.5 3/5	FFTL-1B 5.5 3/4	FFTL-1B 7 3/4	FFTL-1B 4 2/4	FFTL-1B 3 2/3	FFTL-1B 2 1/3	FFTL-1B 2 1/3	FFTL-1B 2 1/3	
			FFTL-6A 8.5 2/3	FFTL-6A 4 1/3	FFTL-6A 4 1/3	FFTL-6A 4 1/3						
			FFTL-6B 8.5 3/4	FFTL-6B 4 2/4	FFTL-6B 4 2/4	FFTL-6B 4 2/4						
II				FFTL-1A 11.5 2/4	FFTL-2A 14 3/4	FFTL-1A 5.5 2/3	FFTL-2A 7 2/4	FFTL-1A 4 1/3	FFTL-2A 5 2/3	FFTL-1A 1/2 1/3	FFTL-2A 1/3 1/3	FFTL-1A 1/1 1/2
				FFTL-1B 11.5 3/5	FFTL-2B 14 4/5	FFTL-1B 5.5 3/4	FFTL-2B 7 3/5	FFTL-1B 4 2/4	FFTL-2B 5 3/4	FFTL-1B 3 2/3	FFTL-2B 2/4 2/4	FFTL-1B 1/3 2/3
III				FFTL-2A 14 3/4	FFTL-3A 23 3/4	FFTL-2A 7 2/4	FFTL-3A 11.5 2/4	FFTL-2A 5 2/3	FFTL-3A 7.5 2/3	FFTL-2A 1/3 1/3	FFTL-3A 1/3 1/3	FFTL-2A 1/2 2/3
				FFTL-2B 14 4/5	FFTL-3B 20 4/5	FFTL-2B 7 3/5	FFTL-3B 10 3/5	FFTL-2B 5 3/4	FFTL-3B 6.5 3/4	FFTL-2B 3.5 2/4	FFTL-3B 5 2/4	FFTL-2B 3 2/3
IV				FFTL-2A 14 3/4	FFTL-4A 21 4/5	FFTL-2A 7 2/4	FFTL-3B 10 3/5	FFTL-2A 5 2/3	FFTL-3B 6.5 3/4	FFTL-2A 1/3 2/4	FFTL-3B 2/4 2/4	FFTL-2A 1/2 2/3
				FFTL-3A 23 3/4	FFTL-5 20 4/5	FFTL-2B 7 3/5	FFTL-4A 10.5 3/5	FFTL-2B 5 3/4	FFTL-4A 7 3/4	FFTL-2B 3.5 2/4	FFTL-4A 5.5 2/4	FFTL-3A 3 2/3
				FFTL-3B 20 4/5		FFTL-3A 11.5 2/4	FFTL-5 10 3/5	FFTL-3A 7.5 2/3	FFTL-5 6.5 3/4	FFTL-3A 5.5 1/3	FFTL-5 5 2/4	FFTL-3B 4 2/3
V				FFTL-3B 20 4/5	FFTL-4A 21 4/5	FFTL-2B 7 3/5	FFTL-4A 10.5 3/5	FFTL-2B 5 3/4	FFTL-4A 7 3/4	FFTL-2B 3.5 2/4	FFTL-4A 5.5 2/4	FFTL-2B 2/3 2/4
				FFTL-4A 21 4/5	FFTL-5 20 4/5	FFTL-3A 11.5 2/4	FFTL-4B 12 4/5	FFTL-3A 7.5 2/3	FFTL-4B 8 3/5	FFTL-3A 5.5 1/3	FFTL-4B 6 3/4	FFTL-3B 4 2/3
				FFTL-5 20 4/5		FFTL-3B 12 4/5	FFTL-5 10 3/5	FFTL-3B 6.5 3/4	FFTL-5 6.5 3/4	FFTL-3B 5 2/4	FFTL-5 5 2/4	FFTL-4A 4 2/3
VI				FFTL-7 20 4/5		FFTL-3B 10 3/5	FFTL-5 10 3/5	FFTL-3A 7.5 2/3	FFTL-4B 8 3/5	FFTL-3A 5.5 1/3	FFTL-4B 6 3/4	FFTL-3B 2/3 2/3
						FFTL-4A 10.5 3/5	FFTL-7 10 3/5	FFTL-3B 6.5 3/4	FFTL-5 6.5 3/4	FFTL-3B 5 2/4	FFTL-5 5 2/4	FFTL-4A 4 2/3
						FFTL-4B 12 4/5		FFTL-4A 7 3/4	FFTL-7 6.5 3/4	FFTL-4A 5.5 2/4	FFTL-7 5 2/4	FFTL-4B 5 2/4
VII				FFTL-7 20 4/5		FFTL-4A 10.5 3/5	FFTL-5 10 3/5	FFTL-4A 7 3/4	FFTL-5 6.5 3/4	FFTL-4A 5.5 2/4	FFTL-5 5 2/4	FFTL-4A 2/3 2/3
						FFTL-4B 12 4/5	FFTL-7 10 3/5	FFTL-4B 8 3/5	FFTL-7 6.5 3/4	FFTL-4B 6 3/4	FFTL-7 5 2/4	FFTL-4B 5 2/3
VIII				FFTL-7 20 4/5		FFTL-4A 10.5 3/5	FFTL-5 10 3/5	FFTL-4A 7 3/4	FFTL-5 6.5 3/4	FFTL-4A 5.5 2/4	FFTL-5 5 2/4	FFTL-4A 2/3 2/3
						FFTL-4B 12 4/5	FFTL-7 10 3/5	FFTL-4B 8 3/5	FFTL-7 6.5 3/4	FFTL-4B 6 3/4	FFTL-7 5 2/4	FFTL-4B 5 2/3
IX						FFTL-4A 10.5 3/5	FFTL-7 10 3/5	FFTL-4A 7 3/4	FFTL-5 6.5 3/4	FFTL-4A 5.5 2/4	FFTL-5 5 2/4	FFTL-4A 2/3 2/3
						FFTL-5 10 3/5		FFTL-4B 8 3/5	FFTL-7 6.5 3/4	FFTL-4B 6 3/4	FFTL-7 5 2/4	FFTL-4B 5 2/3

MOVEMENT POINT RATIO TABLE

SINGLE WARP DRIVES

Ship Class	Movement Point Ratios											
	1/4	1/3	1/2	1/1	2/1	3/1		4/1		5/1		6/1
X						FFTL-4A 7 3/4 FFTL-4B 8 3/5	FFTL-5 6.5 3/4 FFTL-7 6.5 3/4	FFTL-4A 5.5 2/4 FFTL-4B 6 3/4	FFTL-5 5 2/4 FFTL-7 5 2/4	FFTL-4A 4 2/3 FFTL-4B 5 2/4	FFTL-5 4 2/3 FFTL-7 4 2/3	FFTL-4B 4 2/3 FFTL-7 3 1/3
XI						FFTL-7 6.5 3/4		FFTL-4A 5.5 2/4 FFTL-4B 6 3/4	FFTL-7 5 2/4	FFTL-4A 4 2/3 FFTL-4B 5 2/4	FFTL-7 4 2/3	FFTL-4B 4 2/3 FFTL-7 3 1/3
XII								FFTL-7 5 2/4		FFTL-4A 4 2/3 FFTL-4B 5 2/4	FFTL-7 4 2/3	FFTL-4B 4 2/3 FFTL-7 3 1/3
XIII										FFTL-4A 4 2/3	FFTL-7 4 2/3	FFTL-7 3 1/3

MOVEMENT POINT RATIO TABLE

DUAL WARP DRIVES

Movement Point Ratios

Ship Class	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1					
I	FFTL-6A 11.5 3/4 FFTL-6B 11.5 4/5	FFTL-6A 5.5 2/4 FFTL-6B 5.5 3/5	FFTL-6A 4 2/3 FFTL-6B 4 3/4	FFTL-6A 3 1/3 FFTL-6B 3 2/4										
II		FFTL-1A 13 3/4 FFTL-1B 13 4/5	FFTL-1A 8.5 2/4 FFTL-1B 8.5 3/5	FFTL-1A 6.5 2/3 FFTL-1B 6.5 3/4	FFTL-1A 5 1/3 FFTL-1B 5 2/4	FFTL-1A 4 1/2 FFTL-1B 4 2/3	FFTL-1A 3.5 1/1 FFTL-1B 3.5 1/3							
III		FFTL-1B 13 4/5 FFTL-2A 17 3/4	FFTL-1A 8.5 2/4 FFTL-1B 8.5 3/5	FFTL-2A 11.5 2/4 FFTL-1B 8.5 3/5	FFTL-1A 6.5 2/3 FFTL-1B 6.5 3/4	FFTL-2A 8.5 2/3 FFTL-1B 6.5 2/4	FFTL-1A 5 1/3 FFTL-2A 7 1/3 FFTL-1B 5 2/4	FFTL-1A 4 1/2 FFTL-2A 5.5 1/2 FFTL-1B 4 2/3	FFTL-1A 3.5 1/1 FFTL-2A 5 1/1 FFTL-1B 3.5 1/3					
IV		FFTL-2A 17 3/4 FFTL-2B 17 4/5 FFTL-3B 23 4/5	FFTL-1B 8.5 3/5 FFTL-2A 11.5 2/4 FFTL-2B 11.5 3/5	FFTL-3A 17 3/4 FFTL-3B 15 3/5 FFTL-1A 8.5 3/4	FFTL-1B 6.5 3/4 FFTL-2A 8.5 2/3 FFTL-2B 8.5 3/4	FFTL-3A 13 2/4 FFTL-3B 11.5 3/4 FFTL-1A 6.5 2/3	FFTL-1B 5 2/4 FFTL-2A 7 1/3 FFTL-2B 7 2/4	FFTL-3A 10 2/3 FFTL-3B 9 2/4 FFTL-1A 5 1*3	FFTL-1B 4 2/3 FFTL-2A 5.5 1/2 FFTL-2B 5.5 1/2	FFTL-3A 8.5 1/3 FFTL-3B 7.5 2/3 FFTL-1A 4 1/2	FFTL-1B 3.5 1/3 FFTL-2A 5 1/1 FFTL-2B 5 1/3	FFTL-3A 7 1/2 FFTL-3B 6.5 1/3 FFTL-1A 3.5 1/1	FFTL-2B 4 1/2 FFTL-3A 6.5 1/1 FFTL-3B 5.5 1/2	
V		FFTL-2B 17 4/5 FFTL-3B 23 4/5 FFTL-4A 23 4/5	FFTL-2A 11.5 2/4 FFTL-2B 11.5 3/5 FFTL-3A 17 3/4	FFTL-3B 15 3/5 FFTL-4A 15 3/5 FFTL-3A 17 3/4	FFTL-2A 8.5 2/3 FFTL-2B 8.5 3/4 FFTL-3A 13 2/4	FFTL-3B 11.5 3/4 FFTL-4A 11.5 3/4 FFTL-3A 10 2/3	FFTL-2A 7 1/3 FFTL-2B 7 2/4 FFTL-3A 10 2/3	FFTL-3B 9 2/4 FFTL-4A 9 2/4 FFTL-3A 8.5 1/3	FFTL-2A 5.5 1/2 FFTL-2B 5.5 2/3 FFTL-3A 7 2/3	FFTL-3B 7.5 2/3 FFTL-4A 7.5 2/3 FFTL-3A 7 1/2	FFTL-2A 5 1/1 FFTL-2B 5 1/3 FFTL-3A 7 1/2	FFTL-3B 6.5 1/3 FFTL-4A 6.5 1/3 FFTL-3A 6 1/3	FFTL-2B 4 1/2 FFTL-3A 6.5 1/1 FFTL-3B 5.5 1/2	FFTL-4A 5.5 1/2
VI		FFTL-4A 23 4/5 FFTL-5 21 4/5	FFTL-2B 11.5 3/5 FFTL-3A 17 3/4 FFTL-3B 15 3/5	FFTL-4A 15 3/5 FFTL-5 14 3/5	FFTL-2A 8.5 2/3 FFTL-2B 8.5 3/4 FFTL-3A 13 2/4	FFTL-3B 11.5 3/4 FFTL-4A 11.5 3/4 FFTL-5 10.5 3/4	FFTL-2A 7 1/3 FFTL-2B 7 2/4 FFTL-3A 10 2/3	FFTL-3B 9 2/4 FFTL-4A 9 2/4 FFTL-5 8.5 2/4	FFTL-2A 5.5 1/2 FFTL-2B 5.5 2/3 FFTL-3A 8.5 1/3	FFTL-3B 7.5 2/3 FFTL-4A 7.5 2/3 FFTL-5 7 2/3	FFTL-2A 5 1/1 FFTL-2B 5 1/3 FFTL-3A 7 1/2	FFTL-3B 6.5 1/3 FFTL-4A 6.5 1/3 FFTL-5 6 1/3	FFTL-2B 4 1/2 FFTL-3A 6.5 1/1 FFTL-3B 5.5 1/2	FFTL-4A 5.5 1/2
VII		FFTL-5 21 4/5	FFTL-2B 11.5 3/5 FFTL-3A 17 3/4 FFTL-3B 15 3/5	FFTL-4A 15 3/5 FFTL-4B 17 4/5 FFTL-5 14 3/5	FFTL-2B 8.5 3/4 FFTL-3A 13 2/4 FFTL-3B 11.5 3/4	FFTL-4A 11.5 3/4 FFTL-4B 13 3/5 FFTL-5 10.5 3/4	FFTL-2B 7 2/4 FFTL-3A 10 2/3 FFTL-3B 9 2/4	FFTL-4A 9 2/4 FFTL-4B 10 3/4 FFTL-5 8.5 2/4	FFTL-2B 5.5 2/3 FFTL-3A 8.5 1/3 FFTL-3B 7.5 2/3	FFTL-4A 7.5 2/3 FFTL-4B 8.5 2/4 FFTL-5 7 2/3	FFTL-2B 5 1/3 FFTL-3A 7 1/2 FFTL-3B 6.5 1/3	FFTL-4A 6.5 1/3 FFTL-4B 7 2/3 FFTL-5 6 1/3	FFTL-2B 4 1/2 FFTL-3A 6.5 1/1 FFTL-3B 5.5 1/2	FFTL-4A 5.5 1/2
VIII			FFTL-3A 17 3/4 FFTL-3B 15 3/5 FFTL-4A 15 3/5	FFTL-4B 17 4/5 FFTL-5 14 3/5	FFTL-3A 13 2/4 FFTL-3B 11.5 3/4 FFTL-4A 11.5 3/4	FFTL-4B 13 3/5 FFTL-5 10.5 3/4	FFTL-3A 10 2/3 FFTL-3B 9 2/4 FFTL-4A 9 2/4	FFTL-4B 10 3/4 FFTL-5 8.5 2/4	FFTL-3A 8.5 1/3 FFTL-3B 7.5 2/3 FFTL-4A 7.5 2/3	FFTL-4B 8.5 2/4 FFTL-5 7 2/3	FFTL-3A 7 1/2 FFTL-3B 6.5 1/3 FFTL-4A 6.5 1/3	FFTL-4B 7 2/3 FFTL-5 6 1/3	FFTL-3A 6.5 1/1 FFTL-3B 5.5 1/2 FFTL-4A 5.5 1/2	FFTL-4B 5.5 1/2
IX		FFTL-7 21 4/5	FFTL-3B 15 3/5 FFTL-4A 15 3/5 FFTL-4B 17 4/5	FFTL-5 14 3/5 FFTL-7 14 3/5	FFTL-3A 13 2/4 FFTL-3B 11.5 3/4 FFTL-4A 11.5 3/4	FFTL-4B 13 3/5 FFTL-5 10.5 3/4	FFTL-3A 10 2/3 FFTL-3B 9 2/4 FFTL-4A 9 2/4	FFTL-4B 10 3/4 FFTL-5 8.5 2/4	FFTL-3A 8.5 1/3 FFTL-3B 7.5 2/3 FFTL-4A 7.5 2/3	FFTL-4B 8.5 2/4 FFTL-5 7 2/3	FFTL-3A 7 1/2 FFTL-3B 6.5 1/3 FFTL-4A 6.5 1/3	FFTL-4B 7 2/3 FFTL-5 6 1/3	FFTL-3A 6.5 1/1 FFTL-3B 5.5 1/2 FFTL-4A 5.5 1/2	FFTL-4B 5.5 1/2

MOVEMENT POINT RATIO TABLE

DUAL WARP DRIVES

Movement Point Ratios

Ship Class	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1							
X		FFTL-7 21 4/5	FFTL-4A 15 3/5 FFTL-5 14 3/5 FFTL-7 14 3/5	FFTL-3A 13 2/4 FFTL-3B 11.5 3/4 FFTL-4A 11.5 3/4	FFTL-4B 13 3/5 FFTL-5 10.5 3/4 FFTL-7 10.5 3/4	FFTL-3A 10 2/3 FFTL-3B 9 2/4 FFTL-4A 9 2/4	FFTL-4B 10 3/4 FFTL-5 8.5 2/4 FFTL-7 8.5 2/4	FFTL-3A 8.5 1/3 FFTL-3B 7.5 2/3 FFTL-4A 7.5 2/3	FFTL-4B 8.5 2/4 FFTL-5 7 2/3 FFTL-7 7 2/3	FFTL-3A 7 1/2 FFTL-3B 6.5 1/3 FFTL-4A 6.5 1/3	FFTL-4B 7 2/3 FFTL-5 6 1/3 FFTL-7 6 1/3	FFTL-3A 6.5 1/1 FFTL-3B 5.5 1/2 FFTL-4A 5.5 1/2	FFTL-4B 6.5 1/3 FFTL-5 5.5 1/2 FFTL-7 5.5 1/2	FFTL-4B 5.5 1/2		
	XI			FFTL-7 14 3/5 FFTL-X 13 4/4	FFTL-4A 11.5 3/4 FFTL-4B 13 3/5 FFTL-5 10.5 3/4	FFTL-7 10.5 3/4 FFTL-X 10 3/4 FFTL-5 10.5 3/4	FFTL-4A 9 2/4 FFTL-4B 10 3/4 FFTL-5 8.5 2/4	FFTL-7 8.5 2/4 FFTL-X 8 2/4 FFTL-5 7 2/3	FFTL-4A 7.5 2/3 FFTL-4B 6.5 2/3 FFTL-5 7 2/3	FFTL-7 7 2/3 FFTL-X 6.5 1/3 FFTL-5 6 1/3	FFTL-4A 6.5 1/3 FFTL-4B 7 2/3 FFTL-5 6 1/3	FFTL-7 6 1/3 FFTL-X 5.5 1/3 FFTL-5 5.5 1/2	FFTL-4A 5.5 1/2 FFTL-4B 6.5 1/3 FFTL-5 5.5 1/2	FFTL-7 5.5 1/2 FFTL-X 5 1/2 FFTL-5 5.5 1/2	FFTL-4B 5.5 1/2 FFTL-X 4.5 1/1	
		XII			FFTL-7 14 3/5 FFTL-X 13 4/4	FFTL-5 10.5 3/4 FFTL-7 10.5 3/4	FFTL-X 10 3/4 FFTL-4B 10 3/4 FFTL-5 8.5 2/4	FFTL-4B 10 3/4 FFTL-7 8.5 2/4 FFTL-X 8 2/4	FFTL-7 8.5 2/4 FFTL-X 7 2/3 FFTL-5 6.5 2/3	FFTL-4B 7 2/3 FFTL-7 6.5 2/3 FFTL-X 6.5 1/3	FFTL-7 7 2/3 FFTL-X 6 1/3 FFTL-5 5.5 1/3	FFTL-4B 6 1/3 FFTL-7 6 1/3 FFTL-X 5.5 1/3	FFTL-7 6 1/3 FFTL-X 5.5 1/3 FFTL-5 5.5 1/2	FFTL-4B 6.5 1/3 FFTL-7 5.5 1/2 FFTL-X 5 1/2	FFTL-7 5.5 1/2 FFTL-X 5 1/2 FFTL-5 5.5 1/2	FFTL-4B 5.5 1/2 FFTL-X 4.5 1/1
			XIII				FFTL-7 10.5 3/4 FFTL-X 10 3/4	FFTL-4B 10 3/4 FFTL-5 8.5 2/4	FFTL-7 8.5 2/4 FFTL-X 8 2/4	FFTL-4B 8.5 2/4 FFTL-7 7 2/3	FFTL-7 7 2/3 FFTL-X 6.5 2/3 FFTL-5 6.5 2/3	FFTL-4B 7 2/3 FFTL-7 6 1/3 FFTL-X 5.5 1/3	FFTL-7 6 1/3 FFTL-X 6 1/3 FFTL-5 5.5 1/3	FFTL-4B 6.5 1/3 FFTL-7 5.5 1/2 FFTL-X 5.5 1/2	FFTL-7 5.5 1/2 FFTL-X 5 1/2 FFTL-5 5.5 1/2	FFTL-4B 6.5 1/2 FFTL-7 5.5 1/2 FFTL-X 5 1/2
XIV								FFTL-4B 10 3/4 FFTL-7 8.5 2/4	FFTL-X 8 2/4 FFTL-4B 8 2/4	FFTL-7 7 2/3 FFTL-X 6.5 2/3	FFTL-4B 6.5 2/3 FFTL-7 6 1/3 FFTL-X 5.5 1/3	FFTL-7 6 1/3 FFTL-X 5.5 1/3 FFTL-5 5.5 1/3	FFTL-4B 6 1/3 FFTL-7 6 1/3 FFTL-X 5.5 1/3	FFTL-7 5.5 1/2 FFTL-X 5.5 1/2 FFTL-5 5.5 1/2	FFTL-4B 6.5 1/2 FFTL-7 5.5 1/2 FFTL-X 5 1/2	FFTL-7 5.5 1/2 FFTL-X 5 1/2 FFTL-5 5.5 1/2
	XV							FFTL-7 8.5 2/4	FFTL-X 8 2/4	FFTL-7 7 2/3	FFTL-X 6.5 2/3	FFTL-7 6 1/3	FFTL-X 5.5 1/3	FFTL-7 5.5 1/2	FFTL-X 5 1/2	FFTL-7 5.5 1/2
		XVI						FFTL-X 8 2/4		FFTL-7 7 2/3	FFTL-X 6.5 2/3	FFTL-7 6 1/3	FFTL-X 5.5 1/3	FFTL-7 5.5 1/2	FFTL-X 5 1/2	FFTL-7 5.5 1/2
			XVII							FFTL-7 7 2/3	FFTL-X 6.5 2/3	FFTL-7 6 1/3	FFTL-X 5.5 1/3	FFTL-7 5.5 1/2	FFTL-X 5 1/2	FFTL-7 5.5 1/2
XVIII										FFTL-X 6.5 2/3		FFTL-7 6 1/3	FFTL-X 5.5 1/3	FFTL-7 5.5 1/2	FFTL-X 5 1/2	FFTL-7 5.5 1/2
	XIX										FFTL-X 5.5 1/3		FFTL-7 6 1/3	FFTL-X 5.5 1/2	FFTL-7 5.5 1/2	FFTL-X 4.5 1/1

IMPULSE ENGINE TYPES

Engine Type	Mass (MT)	Power Units Available	Control Computer Type	Appropriate Ship Class	Superstructure	Availability	Cost (MCr)	Year
FNSP-1A	238	1	K-1	I-VIII	0.1	RRR/99		2151
FNSP-1B	238	2	K-1	II-XI	0.1	RRR/99		2151
FNSP-2A	363	1	K-1	II-VII	0.1	RRR/99		2155
FNSP-2B	363	2	K-1	III-X	0.1	RRR/99		2155
FNSP-2C	363	4	K-1	IV-XII	0.1	RRR/99		2155
FNSP-3A	650	2	K-1	II-IX	0.1	RRR/99		2174
FNSP-3B	650	3	K-1	III-X	0.1	RRR/99		2174
FNSP-3C	650	4	K-1	V-XI	0.1	RRR/96		2174
FNSP-X	1000	4	K-3X	VI-XIV	0.2	RRR/93		2166
FNSP-4A	788	3	K-1A	IV-XII	0.1	RRR/98		2190
FNSP-4B	788	6	K-2	V-XII	0.1	RRR/91		2190
FNSP-4C	788	8	K-2	VI-XII	0.1	RRR/89		2190
FNSP-5A	950	4	K-1A	III-XI	0.1	RRR/97		2204
FNSP-5B	950	7	K-2	IV-XII	0.1	RRR/87		2204
FNSP-5C	950	10	K-3	V-XII	0.1	RRR/80		2204
FNSP-6A	1070	5	K-2	VII-X	0.1	RRR/90		2217
FNSP-6B	1070	8	K-2	VIII-XI	0.1	RRR/85		2217
FNSP-6C	1070	12	K-3X	IX-XII	0.1	RRR/79		2217

THE FNSP-X WAS A RESULT OF THE BATTLECRUISER PROGRAM, THE ENGINE LATER WAS DOWNSIZED INTO THE STANDARD FNSP-3, BUT IS STILL THE ONLY ENGINE THAT CAN PROPEL LARGE VESSELS OVER CLASS 13.

MOVEMENT POINT RATIO TABLE

IMPULSE ENGINES

Movement Point Ratios

Ship Class	1/4	1/3	1/2	1/1		2/1		3/1		4/1		5/1		6/1		7/1		8/1		9/1	
I	FNSP-1A 5.5	FNSP-1A 4	FNSP-1A 3	FNSP-1A 1.5		FNSP-1A 0.5															
II				FNSP-1A 1.5	FNSP-2A 1.5	FNSP-1A 0.5	FNSP-2A 0.5	FNSP-1B 1		FNSP-1B 0.5											
				FNSP-1B 3	FNSP-3A 3	FNSP-1B 1.5	FNSP-3A 1.5	FNSP-3A 1		FNSP-3A 0.5											
III				FNSP-1A 1.5	FNSP-3A 3	FNSP-1A 0.5	FNSP-3A 1.5	FNSP-1B 1	FNSP-5A 2	FNSP-1B 0.5	FNSP-5A 1.5	FNSP-5A 1									
				FNSP-1B 3	FNSP-3B 4	FNSP-1B 1.5	FNSP-3B 2	FNSP-2B 1		FNSP-2B 0.5											
				FNSP-2A 1.5	FNSP-5A 5.5	FNSP-2A 0.5	FNSP-5A 3	FNSP-3A 1		FNSP-3A 0.5											
				FNSP-2B 3	FNSP-5B 5.5	FNSP-2B 1.5	FNSP-5B 3	FNSP-3B 1		FNSP-3B 0.5											
IV				FNSP-1A 1.5	FNSP-3A 3	FNSP-1A 0.5	FNSP-3A 1.5	FNSP-1B 1	FNSP-4A 1.5	FNSP-1B 0.5	FNSP-4A 1	FNSP-2C 1		FNSP-5B 1.5							
				FNSP-1B 3	FNSP-3B 4	FNSP-1B 1.5	FNSP-3B 2	FNSP-2B 1	FNSP-5A 2	FNSP-2B 0.5	FNSP-5A 1.5	FNSP-5A 1									
				FNSP-2A 1.5	FNSP-4A 4	FNSP-2A 0.5	FNSP-4A 2	FNSP-2C 2	FNSP-5B 3	FNSP-2C 1.5	FNSP-5B 2.5	FNSP-5B 2									
				FNSP-2B 3	FNSP-5A 5.5	FNSP-2B 1.5	FNSP-5A 3	FNSP-3A 1		FNSP-3A 0.5											
				FNSP-2C 5.5	FNSP-5B 10	FNSP-2C 3	FNSP-5B 5	FNSP-3B 1.5		FNSP-3B 1											
V				FNSP-1A 1.5	FNSP-4B 8.5	FNSP-1A 0.5	FNSP-3C 3	FNSP-1B 1	FNSP-4B 3	FNSP-1B 0.5	FNSP-4B 2	FNSP-2C 1		FNSP-4B 1		FNSP-5C 2		FNSP-5C 1.5			
				FNSP-2A 1.5	FNSP-5A 5.5	FNSP-1B 1.5	FNSP-4A 2	FNSP-2B 1	FNSP-5A 2	FNSP-2B 0.5	FNSP-5A 1.5	FNSP-3C 1		FNSP-5B 1.5							
				FNSP-2C 5.5	FNSP-5B 10	FNSP-2A 0.5	FNSP-4B 4	FNSP-2C 2	FNSP-5B 3	FNSP-2C 1.5	FNSP-5B 2.5	FNSP-4B 1.5		FNSP-5C 2.5							
				FNSP-3A 3	FNSP-5C 14	FNSP-2B 1.5	FNSP-5A 3	FNSP-3A 1	FNSP-5C 5	FNSP-3A 0.5	FNSP-5C 3.5	FNSP-5A 1									
				FNSP-3B 4		FNSP-2C 3	FNSP-5B 5	FNSP-3B 1.5		FNSP-3B 1	FNSP-3B 2	FNSP-5B 2									
				FNSP-3C 5.5		FNSP-3A 1.5	FNSP-5C 7	FNSP-3C 2		FNSP-3C 1.5	FNSP-3C 3	FNSP-5C 3									
				FNSP-4A 4		FNSP-3B 2		FNSP-4A 1.5		FNSP-4A 1	FNSP-4A 1										
VI				FNSP-1A 1.5	FNSP-5A 5.5	FNSP-1A 0.5	FNSP-X 3	FNSP-1B 1	FNSP-4A 1.5	FNSP-1B 0.5	FNSP-4A 1	FNSP-2C 1	FNSP-5C 3	FNSP-4B 1		FNSP-4C 1.5		FNSP-4C 1			
				FNSP-2C 5.5	FNSP-5B 10	FNSP-1B 1.5	FNSP-4A 2	FNSP-2B 1	FNSP-4B 3	FNSP-2B 0.5	FNSP-4B 2	FNSP-3C 1		FNSP-4C 2		FNSP-5C 2		FNSP-5C 1.5			
				FNSP-3A 3	FNSP-5C 14	FNSP-2B 1.5	FNSP-4B 4	FNSP-2C 2	FNSP-4C 4	FNSP-2C 1.5	FNSP-4C 3	FNSP-X 1		FNSP-5B 1.5							
				FNSP-3B 4		FNSP-2C 3	FNSP-4C 5.5	FNSP-3A 1	FNSP-5A 2	FNSP-3A 0.5	FNSP-5A 1.5	FNSP-4B 1.5		FNSP-5C 2.5							
				FNSP-3C 5.5		FNSP-3A 1.5	FNSP-5A 3	FNSP-3B 1.5	FNSP-5B 3	FNSP-3B 1	FNSP-5B 2.5	FNSP-4C 2.5									
				FNSP-4A 4		FNSP-3B 2	FNSP-5B 5	FNSP-3C 2	FNSP-5C 5	FNSP-3C 1.5	FNSP-5C 3.5	FNSP-5A 1									
				FNSP-4B 8.5		FNSP-3C 3	FNSP-5C 7	FNSP-X 2		FNSP-X 1.5	FNSP-X 2	FNSP-5B 2									

MOVEMENT POINT RATIO TABLE

IMPULSE ENGINES

Movement Point Ratios

Ship Class	1/4	1/3	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1
VII				FNSP-2C FNSP-5C 5.5 14	FNSP-1A FNSP-4A 0.5 2	FNSP-1B FNSP-4A 1 1.5	FNSP-1B FNSP-4A 0.5 1	FNSP-2C FNSP-5C 1 3	FNSP-4B 1	FNSP-4C 1.5	FNSP-4C 1	
				FNSP-3A FNSP-6A 3 7	FNSP-2B FNSP-4B 1.5 4	FNSP-2B FNSP-4B 1 3	FNSP-2B FNSP-4B 0.5 2	FNSP-3C FNSP-6A 1 1.5	FNSP-4C 2	FNSP-5C 2	FNSP-5C 1.5	
				FNSP-3B 4	FNSP-2C FNSP-4C 3 5.5	FNSP-2C FNSP-4C 2 4	FNSP-2C FNSP-4C 1.5 3	FNSP-X 1	FNSP-5B 1.5			
				FNSP-3C 5.5	FNSP-3A FNSP-5A 1.5 3	FNSP-3A FNSP-5A 1 2	FNSP-3A FNSP-5A 0.5 1.5	FNSP-4B 1.5	FNSP-5C 2.5			
				FNSP-4A 4	FNSP-3B FNSP-5B 2 5	FNSP-3B FNSP-5B 1.5 3	FNSP-3B FNSP-5B 1 2.5	FNSP-4C 2.5	FNSP-6A 1			
				FNSP-4B 8.5	FNSP-3C FNSP-5C 3 7	FNSP-3C FNSP-5C 2 5	FNSP-3C FNSP-5C 1.5 3.5	FNSP-5A 1				
				FNSP-5A 5.5	FNSP-X FNSP-6A 3 3.5	FNSP-X FNSP-6A 2 2.5	FNSP-X FNSP-6A 1.5 2	FNSP-5B 2				
VIII				FNSP-3A 3	FNSP-1A FNSP-4B 0.5 4	FNSP-1B FNSP-4B 1 3	FNSP-1B FNSP-4B 0.5 2	FNSP-2C FNSP-6A 1 1.5	FNSP-4B 1	FNSP-4C 1.5	FNSP-4C 1	
				FNSP-3C 5.5	FNSP-2B FNSP-4C 1.5 5.5	FNSP-2B FNSP-4C 1 4	FNSP-2B FNSP-4C 0.5 3	FNSP-3C FNSP-6B 1 2.5	FNSP-4C 2	FNSP-5C 2	FNSP-5C 1.5	
				FNSP-4A 4	FNSP-2C FNSP-5A 3 3	FNSP-2C FNSP-5A 2 2	FNSP-2C FNSP-5A 1.5 1.5	FNSP-X 1	FNSP-5B 1.5	FNSP-6B 1.5	FNSP-6B 1	
				FNSP-4B 8.5	FNSP-3A FNSP-5B 1.5 5	FNSP-3A FNSP-5B 1 3	FNSP-3A FNSP-5B 0.5 2.5	FNSP-4B 1.5	FNSP-5C 2.5			
				FNSP-5A 5.5	FNSP-3B FNSP-5C 2 7	FNSP-3B FNSP-5C 1.5 5	FNSP-3B FNSP-5C 1 3.5	FNSP-4C 2.5	FNSP-6A 1			
				FNSP-6A 7	FNSP-3C FNSP-6A 3 3.5	FNSP-3C FNSP-6A 2 2.5	FNSP-3C FNSP-6A 1.5 2	FNSP-5A 1	FNSP-6B 2			
				FNSP-6B 11.5	FNSP-X FNSP-6B 3 5.5	FNSP-X FNSP-6B 2 4	FNSP-X FNSP-6B 1.5 3	FNSP-5B 2				
					FNSP-4A 2	FNSP-4A 1.5	FNSP-4A 1	FNSP-5C 3				
IX					FNSP-2C FNSP-5B 3 5	FNSP-2B FNSP-4C 1 4	FNSP-1B FNSP-4B 0.5 2	FNSP-2C FNSP-6A 1 1.5	FNSP-4B 1	FNSP-4C 1.5	FNSP-4C 1	FNSP-6C 1.5
					FNSP-3B FNSP-5C 2 7	FNSP-2C FNSP-5A 2 2	FNSP-2B FNSP-4C 0.5 3	FNSP-3C FNSP-6B 1 2.5	FNSP-4C 2	FNSP-5C 2	FNSP-5C 1.5	
					FNSP-3C FNSP-6A 3 3.5	FNSP-3A FNSP-5B 1 3	FNSP-2C FNSP-5A 1.5 1.5	FNSP-X FNSP-6C 1 3.5	FNSP-5B 1.5	FNSP-6B 1.5	FNSP-6B 1	
					FNSP-X FNSP-6B 3 5.5	FNSP-3B FNSP-5C 1.5 5	FNSP-3A FNSP-5B 0.5 2.5	FNSP-4B 1.5	FNSP-5C 2.5	FNSP-6C 2.5	FNSP-6C 2	
					FNSP-4A FNSP-6C 2 8.5	FNSP-3C FNSP-6A 2 2.5	FNSP-3B FNSP-5C 1 3.5	FNSP-4C 2.5	FNSP-6A 1			
					FNSP-4B 4	FNSP-X FNSP-6B 2 4	FNSP-3C FNSP-6A 1.5 2	FNSP-5A 1	FNSP-6B 2			
					FNSP-4C 5.5	FNSP-4A FNSP-6C 1.5 5.5	FNSP-X FNSP-6B 1.5 3	FNSP-5B 2	FNSP-6C 3			
					FNSP-5A 3	FNSP-4B 3	FNSP-4A FNSP-6C 1 4	FNSP-5C 3				

MOVEMENT POINT RATIO TABLE

IMPULSE ENGINES

Movement Point Ratios

Ship Class	1/4	1/3	1/2	1/1	2/1	3/1	4/1	5/1	6/1	7/1	8/1	9/1			
X					FNSP-2C 3	FNSP-5A 3	FNSP-2B 1	FNSP-4C 4	FNSP-2B 0.5	FNSP-4C 3	FNSP-2C 1	FNSP-5C 3	FNSP-4B 1	FNSP-4C 1.5	FNSP-4C 1
					FNSP-3B 2	FNSP-5B 5	FNSP-2C 2	FNSP-5A 2	FNSP-2C 1.5	FNSP-5A 1.5	FNSP-3C 1	FNSP-6A 1.5	FNSP-4C 2	FNSP-5C 2	FNSP-5C 1.5
					FNSP-3C 3	FNSP-5C 7	FNSP-3B 1.5	FNSP-5B 3	FNSP-3B 1	FNSP-5B 2.5	FNSP-X 1	FNSP-6B 2.5	FNSP-5B 1.5	FNSP-6B 1.5	FNSP-6B 1
					FNSP-X 3	FNSP-6A 3.5	FNSP-3C 2	FNSP-5C 5	FNSP-3C 1.5	FNSP-5C 3.5	FNSP-4B 1.5	FNSP-6C 3	FNSP-5C 2.5	FNSP-6C 2	FNSP-6C 1.5
					FNSP-4A 2	FNSP-6B 5.5	FNSP-X 2	FNSP-6A 2.5	FNSP-X 1.5	FNSP-6A 2	FNSP-4C 2.5		FNSP-6A 1		
					FNSP-4B 4	FNSP-6C 5.5	FNSP-4A 1.5	FNSP-6B 4	FNSP-4A 1	FNSP-6B 3	FNSP-5A 1		FNSP-6B 2		
					FNSP-4C 5.5		FNSP-4B 3	FNSP-6C 4	FNSP-4B 2	FNSP-6C 3.5	FNSP-5B 2		FNSP-6C 2.5		
							FNSP-2C 2	FNSP-5A 2	FNSP-2C 1.5	FNSP-5A 1.5	FNSP-2C 1	FNSP-5A 1	FNSP-4B 1	FNSP-6C 2.5	FNSP-4C 1.5
XI						FNSP-3C 2	FNSP-5B 3	FNSP-3C 1.5	FNSP-5B 2.5	FNSP-3C 1	FNSP-5B 2	FNSP-4C 2	FNSP-5C 2	FNSP-5C 1.5	FNSP-5C 1.5
						FNSP-X 2	FNSP-5C 5	FNSP-X 1.5	FNSP-5C 3.5	FNSP-X 1	FNSP-5C 3	FNSP-5B 1.5	FNSP-6B 1.5	FNSP-6B 1	FNSP-6B 1
						FNSP-4B 3	FNSP-6B 4	FNSP-4B 2	FNSP-6B 3	FNSP-4B 1.5	FNSP-6B 2.5	FNSP-5C 2.5	FNSP-6C 2	FNSP-6C 1.5	FNSP-6C 1.5
						FNSP-4C 4	FNSP-6C 4	FNSP-4C 3	FNSP-6C 3.5	FNSP-4C 2.5	FNSP-6C 3	FNSP-6B 2.5	FNSP-6B 2		
XII						FNSP-X 2	FNSP-5B 3	FNSP-2C 1.5	FNSP-4C 3	FNSP-2C 1	FNSP-5B 2	FNSP-4B 1	FNSP-6C 2.5	FNSP-4C 1.5	FNSP-4C 1
						FNSP-4A 1.5	FNSP-5C 5	FNSP-X 1.5	FNSP-5B 2.5	FNSP-X 1	FNSP-5C 3	FNSP-4C 2	FNSP-5C 2	FNSP-5C 1.5	FNSP-5C 1.5
						FNSP-4B 3	FNSP-6C 4	FNSP-4A 1	FNSP-5C 3.5	FNSP-4B 1.5	FNSP-6C 3	FNSP-5B 1.5	FNSP-6C 2	FNSP-6C 1.5	FNSP-6C 1.5
						FNSP-4C 4		FNSP-4B 2	FNSP-6C 3.5	FNSP-4C 2.5		FNSP-5C 2.5			
XIII							FNSP-X 1.5		FNSP-X 1		FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X .5
XIV									FNSP-X 1		FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X .5
XV									FNSP-X 1		FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X .5
XVI									FNSP-X 1		FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X .5
XVII									FNSP-X 1		FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X .5
XVIII											FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X .5
XIX											FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X 0.5	FNSP-X .5

SHIELD GENERATORS

Shield Generator Type	Mass (MT)	Control Computer Type	DPC	Superstructure	Availability	Cost (MCr)	Year
FDS-1	165	K-1	0.5	1	LLL/99	2	2160
FDS-2	290	K-1	0.5	2	LLL/98	3	2160
FDS-3	355	K-2	0.5	2.2	LLL/96	4	2174
FDS-4	505	K-2	0.5	2.5	LLL/92	6	2190
FDS-5	715	K-3	0.5	2.8	LLL/90	7	2204
FDS-6	50	K-1A	0.5	0.5	LLL/99	1	2220
FDS-X	850	K-3X	0.5	3.2	LLL/86	9.2	2166

SHIELD POINT RATIO TABLE

Shield Point Ratio

Ship Class	1/2						
	FDS-1	FDS-2	FDS-3	FDS-4	FDS-5	FDS-6	FDS-X
I	9	11	13	13	13	3	11
	26	31	37	37	37	9	31
II	7	9	12	12	13	1	9
	20	26	34	34	37	3	26
III	5	7	10	11	11	-	7
	14	20	29	31	31	-	20
IV	3	5	9	10	9	-	5
	9	14	26	29	26	-	14
V	1	3	8	9	8	-	3
	3	9	23	26	23	-	9
VI	-	2	7	8	8	-	3
	-	6	20	23	23	-	9
VII	-	1	5	6	7	-	3
	-	3	14	17	20	-	9
VIII	-	-	3	5	6	-	3
	-	-	9	14	17	-	9
IX	-	-	1	3	5	-	3
	-	-	3	9	14	-	9
X	-	-	-	1	3	-	3
	-	-	-	3	9	-	9
XI	-	-	-	-	2	-	3
	-	-	-	-	6	-	9
XII	-	-	-	-	1	-	3
	-	-	-	-	3	-	9
XIII	-	-	-	-	-	-	3
	-	-	-	-	-	-	9
XIV	-	-	-	-	-	-	3
	-	-	-	-	-	-	9

LASER WEAPON TYPE

Beam Weapon Type	Mass (Mt)	Damage	+3	+2	+1	Maximum Range	Firing Chart	WDF	Superstructure (Single/Bank)	Availability	Cost (Mcr)	Year
FL-1	500	2	N/A	N/A	N/A	6	D	0.4	0.8 / 1.2	LLL/98	9	2201
FL-2	610	2	N/A	N/A	N/A	8	F	0.5	0.9 / 1.4	LLL/98	12	2210
FL-3	680	2	N/A	N/A	(1-4)	10	G	0.7	1.2 / 1.8	LLL/96	14	2213
FL-4	740	3	N/A	N/A	(1-4)	10	G	1	1.5 / 2.3	LLL/94	20	2221
FL-5	820	2	N/A	(1-4)	(5-7)	10	H	1.1	2 / 3	LLL/92	22	2228
FL-6	930	3	N/A	(1-4)	(5-7)	10	H	1.4	2.4 / 3.6	LLL/90	32	2232

LASERS CANNOT BE FITTED AS A BANK UNLESS AN M SERIES COMPUTER IS FITTED

ELECTRON LASER WEAPON TYPE

Weapon Type	Mass (Mt)	Damage	+3	+2	+1	Maximum Range	Firing Chart	WDF	Superstructure (Single/Bank)	Availability	Cost (Mcr)	Year
FEL-1	400	2	N/A	N/A	N/A	4	A	0.2	0.4 / 0.6	LLL/99	4	2160
FEL-2	550	1	N/A	N/A	N/A	6	F	0.3	0.6 / 0.9	LLL/99	5	2160
FEL-3	750	2	N/A	N/A	N/A	6	D	0.4	1.2 / 1.8	LLL/98	7	2160
FEL-4	915	2	N/A	N/A	N/A	8	F	0.5	1.4 / 2.1	LLL/97	11	2160
FEL-5	1020	2	N/A	N/A	(1-4)	10	G	0.7	1.8 / 2.7	LLL/95	13	2174
FEL-6	1110	3	N/A	N/A	(1-4)	10	G	0.9	2.2 / 3.3	LLL/87	14	2217
FEL-7	1230	2	N/A	(1-4)	(5-7)	10	H	1	3 / 4.5	LLL/91	15	2221

FEL WEAPONS (FEDERATION ELECTRON LASERS) WERE THE MAIN BEAM WEAPON OF UFP SHIPS UNTIL THE 2220S, THEY WERE REPLACED BY FL SERIES WEAPONS WHICH WEIGHED 33% LESS, BUT OTHERWISE HAD THE SAME PERFORMANCE.

ELECTRON LASERS CANNOT BE FITTED AS A BANK UNLESS AN M SERIES COMPUTER IS FITTED

MEGA LASER WEAPON TYPE

Weapon Type	Mass (Mt)	Damage	+3	+2	+1	Maximum Range	Firing Chart	WDF	Superstructure (Single/Bank)	Availability	Cost (Mcr)	Year
FML-1	3500	10	(1-3)	(4-8)	(9-12)	12	I	4.5	8 / N/A	RRR/53	67	2230

THE FML-1 WAS THE FEDERATION'S FIRST, AND ONLY, MEGA LASER WEAPON. ALTHOUGH IMMENSELY POWERFUL AND LONG RANGED (FOR ITS TIME), IT COULD ONLY BE FIRED DIRECTLY FORWARD IN A VERY NARROW (1 HEX WIDE) ARC.

LASER CANNON WEAPON TYPE

Beam Weapon Type	Mass (Mt)	Damage	+3	+2	+1	Maximum Range	Firing Chart	WDF	Superstructure (Single/Bank)	Availability	Cost (Mcr)	Year
FLC-1	500	3	n/a	n/a	(1-6)	6	C	0.7	1.4 / 2.1	LLL/85	12	2160
FLC-2	700	4	n/a	n/a	n/a	10	B	0.7	1.5 / 2.3	LLL/83	15	2160
FLC-3	950	4	n/a	n/a	n/a	10	G	1.1	1.6 / 2.4	LLL/81	18	2174
FLC-4	1250	4	n/a	n/a	(1-10)	10	G	1.4	2 / 3	LLL/79	21	2217

FLC WEAPONS PROVIDED THE HEAVIER FIREPOWER ABOARD UFP SHIPS FOR A PERIOD. THEY BECAME LESS POPULAR WHEN STANDARD LASERS INCREASED IN POWER AND RANGE, LARGELY AS THEY COULD ONLY BE FIRED EVERY OTHER TURN.

LASER CANNONS CANNOT BE FITTED AS A BANK UNLESS AN M SERIES COMPUTER IS FITTED

MISSILE WEAPON TYPE

Missile Type	Mass (Mt)	Power to Arm	Damage	Range	Firing Chart	WDF	Superstructure	Availability	Cost (MCr)	Year
FT-1	240	2	4	6	D	0.8	1	RRR/85	5	2160
FT-2	300	2	8	8	F	2	1.7	RRR/81	10	2162
FT-3	360	2	10	10	G	2.7	2.6	RRR/76	13	2190
FT-4	400	2	12	10	H	3.9	3.3	RRR/62	16	2215

ALL FT WEAPONS HAVE A FIXED MAXIMUM ALLOCATION OF 5 SHOTS PER MOUNT. FT WEAPONS ARE VULNERABLE TO ECM AND ANTI MISSILE DEFENCES. FT WEAPONS CANNOT BE USED AT WARP.

ACCELERATOR CANNON TYPE

Missile Type	Mass (Mt)	Power to Arm	Damage	Range	Firing Chart	WDF	Superstructure	Availability	Cost (MCr)	Year
FAC-1	480	3	8	8	F	2	1.5	RR1/52	10	2201
FAC-2	660	4	10	10	G	2.8	2.4	RR1/46	14	2203
FAC-3	840	4	12	10	H	3.9	2.9	RR1/40	16	2219
FAC-4	1000	4	12	15	K	5.1	3.4	RR1/46	14	2245

ALTHOUGH A STEP BACKWARDS FROM THE FT IN SOME RESPECTS, THE FAC WAS FAR LESS SUSCEPTIBLE TO ECM, AND ON AVERAGE A SHIP COULD CARRY AT LEAST 20 RELOADS FOR EACH LAUNCHER.