

DOUBLE TEE TYPE "A" LOAD TABLE

8DT 12

Table of safe superimposed live load (psf)

Normal Weight Concrete No Topping 8'-0" x 12" Double Tee

Strand Pattern	Span, ft												
	16	18	20	22	24	26	28	30	32	34	36	38	40
28-S	80*	57*	40*	28*									
48-S			90*	69*	53*	40*	30*						
68-S				92*	72*	57*	45*	35*	27*				
68-D1								73*	61*	50*	41*	34*	28*

Dead Load	f _t f _b a	Span, ft												
		16	18	20	22	24	26	28	30	32	34	36	38	40
		114	145	179	216	258	302	351	403	458	518	580	647	717
		-364	-461	-570	-689	-821	-963	-1117	-1283	-1459	-1647	-1847	-2058	-2280
		0.042	0.068	0.104	0.152	0.215	0.296	0.398	0.524	0.679	0.865	1.087	1.350	1.657

100 plf Live Load	f _t f _b a	Span, ft												
		16	18	20	22	24	26	28	30	32	34	36	38	40
		38	48	59	72	86	101	117	134	153	173	194	216	239
		-122	-154	-190	-230	-274	-322	-373	-429	-488	-551	-617	-688	-762
		0.012	0.019	0.029	0.043	0.061	0.084	0.112	0.148	0.192	0.244	0.307	0.381	0.468

*Capacity governed by ultimate strength

Values below heavy line require release strengths higher than 3500 psi

f_c = 5000 psi

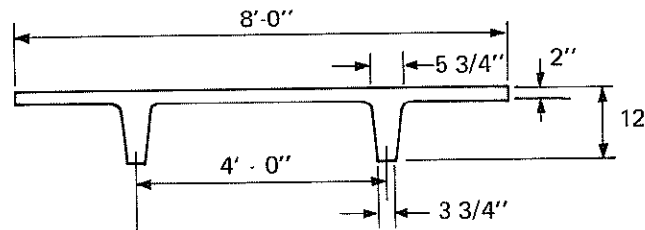
f_{pu} = 270,000 psi

Notation

- f_t = top fiber stress, psi (after assumed 22% loss)
- f_b = bottom fiber stress, psi (after assumed 22% loss)
- a = center deflection, in.
- 0.001 / α = initial center camber, in. (after assumed 10% loss)
- l = span (ft)
- M_u = ult. moment capacity, in.-kips

Strand Pattern Designation

- 108 - D1
- No. of strand (10)
- S = straight, D = depressed
- No. of depression points
- Diameter of strand in 16ths



Section Properties

- A = 287 in.²
- I = 2872 in.⁴
- y_b = 9.13 in.
- y_t = 2.87 in.
- Z_b = 315 in.³
- Z_t = 1001 in.³
- wt = 299 plf
- 37 psf

Strand Pattern	Eccentricity in.		Prestress alone					M _u
			end		center		α	
	end	ctr	f _t	f _b	f _t	f _b		
28-S	5.13	5.13	-74	893	-74	893	0.463	581
48-S	4.13	4.13	-58	1499	-58	1499	0.745	987
68-S	3.13	3.13	48	1819	48	1819	0.847	1219
68-D1	3.13	6.63	48	1819	-425	3326	1.479	1919

**Normal Weight Concrete
No Topping
8'-0" x 12" Double Tee**

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