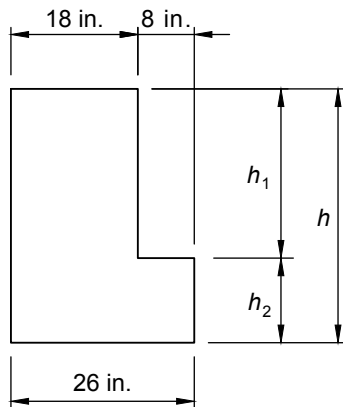


3.10 L-Beam Load Tables (cont.)

Normalweight concrete



$f'_c = 5000$ psi
 $f_{pu} = 270,000$ psi
 1/2 in. diameter,
 low-relaxation strand

Section Properties								
Designation	<i>h</i> in.	<i>h</i> ₁ / <i>h</i> ₂ in.	<i>A</i> in. ²	<i>I</i> in. ⁴	<i>y</i> _{<i>b</i>} in.	<i>S</i> _{<i>b</i>} in. ³	<i>S</i> _{<i>t</i>} in. ³	<i>wt</i> lb/ft
26LB20	20	12/8	424	14,298	9.09	1573	1311	442
26LB24	24	12/12	528	24,716	10.91	2265	1888	550
26LB28	28	16/12	600	39,241	12.72	3085	2568	625
26LB32	32	20/12	672	58,533	14.47	4017	3358	700
26LB36	36	24/12	744	83,176	16.45	5056	4255	775
26LB40	40	24/16	848	114,381	18.19	6288	5244	883
26LB44	44	28/16	920	152,104	20.05	7586	6351	958
26LB48	48	32/16	992	197,159	21.94	8986	7566	1033
26LB52	52	36/16	1064	250,126	23.83	10,496	8879	1108
26LB56	56	40/16	1136	311,586	25.75	12,100	10,300	1183
26LB60	60	44/16	1208	382,118	27.67	13,810	11,819	1258

1. Check local area for availability of other sizes.
2. Loads shown include 50% superimposed dead load and 50% live load. Top tension stress at transfer has been allowed to exceed $6\sqrt{f'_c}$; therefore, top reinforcement is required.
3. Loads can be significantly increased by use of structural composite topping.

Key

- 9670 – Superimposed service load capacity, lb/ft
- 0.4 – Estimated camber at erection, in.
- 0.2 – Estimated long-time camber, in.

Table of superimposed service load capacity, lb/ft, and cambers, in.

Designation	Number strand	<i>y</i> _{<i>s</i>} in.	Span, ft																		
			16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48	50	
26LB20	15	2.67	9670	7560	6050	4930	4080	3420	2900	2480	2130	1840	1600	1400	1230	1080	950				
			0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.4	1.5	1.6	1.7	1.8	1.9	1.9				
			0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6			
26LB24	15	2.67			9160	7490	6220	5230	4440	3810	3290	2860	2500	2190	1930	1710	1520	1350	1200	1070	
					0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.5	1.5	1.5
					0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0
26LB28	18	3.33					8430	7170	6050	5200	4510	3930	3450	3040	2690	2390	2130	1900	1700	1530	
							0.6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.6	
							0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2
26LB32	21	4.00						9260	7900	6800	5910	5160	4540	4010	3560	3180	2840	2550	2290	2060	
							0.6	0.7	0.7	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.5	1.5	
							0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3
26LB36	24	4.50							8720	7580	6640	5850	5180	4610	4120	3690	3320	3000	2710		
							0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.5	1.5	
							0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
26LB40	27	5.11								9370	8210	7240	6420	5720	5120	4600	4140	3740	3390		
							0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.5	1.5	1.5	
							0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
26LB44	28	5.29										8990	7980	7120	6380	5740	5180	4690	4260		
									0.8	0.8	0.9	1.0	1.0	1.1	1.2	1.2	1.3	1.4	1.5	1.5	
									0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
26LB48	32	5.75											9630	8600	7720	6960	6290	5700	5190		
									0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.5	1.5	
									0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
26LB52	35	6.28												9130	8240	7450	6770	6160			
															0.9	1.0	1.1	1.1	1.2	1.3	
															0.4	0.4	0.4	0.4	0.4	0.5	
26LB56	37	7.00														9530	8640	7850	7150		
																0.9	1.0	1.1	1.1	1.1	
																0.4	0.4	0.4	0.4	0.4	0.4
26LB60	38	7.68																9900	9000	8210	
																		0.9	0.9	1.0	1.0
																			0.3	0.3	0.3

Strength is based on strain compatibility; bottom tension is limited to $12\sqrt{f'_c}$; see pages 3–8 through 3–11 for explanation.