

Table 7-6
Available Bearing Strength at Bolt Holes
Based on Edge Distance
 kips/in. thickness

Hole Type	Edge Distance L_e in.	F_u ksi	Nominal Bolt Diameter d_b in.							
			$5/8$		$3/4$		$7/8$		1	
			r_n/Ω_v	$\phi_v r_n$	r_n/Ω_v	$\phi_v r_n$	r_n/Ω_v	$\phi_v r_n$	r_n/Ω_v	$\phi_v r_n$
STD SSLT	$1\frac{1}{4}$	58 65	—	47.3 53.0	—	44.0 49.4	—	40.8 45.7	—	37.5 42.0
	2	58 65		65.3 73.1		78.3 87.8		79.9 89.6		76.6 85.3
SSLP	$1\frac{1}{4}$	58 65	—	42.4 47.5	—	39.2 43.9	—	35.9 40.2	—	31.5 34.7
	2	58 65		65.3 73.1		78.3 87.8		75.0 84.1		70.0 78.3
OVS	$1\frac{1}{4}$	58 65	—	44.0 49.4	—	40.8 45.7	—	37.5 42.0	—	32.0 36.0
	2	58 65		65.3 73.1		78.3 87.8		76.7 85.9		71.0 80.0
LSLP	$1\frac{1}{4}$	58 65	—	24.5 27.4	—	16.3 18.3	—	8.16 9.14	—	—
	2	58 65		63.6 71.3		55.5 62.2		47.3 53.0		39.0 43.0
LSLT	$1\frac{1}{4}$	58 65	—	39.4 44.2	—	36.7 41.1	—	34.0 38.1	—	31.0 35.0
	2	58 65		54.4 60.9		65.3 73.1		66.6 74.6		63.0 71.0
STD, SSLT, SSLP, OVS, LSLP	$L_e \geq L_{e \text{ full}}$	58 65	—	65.3 73.1	—	78.3 87.8	—	91.4 102	—	117 132
LSLT	$L_e \geq L_{e \text{ full}}$	58 65	—	54.4 60.9	—	65.3 73.1	—	76.1 85.3	—	97.9 110
Edge distance for full bearing strength $L_e \geq L_{e \text{ full}}^a$, in.			STD, SSLT, LSLT	$1\frac{5}{8}$		$1\frac{15}{16}$		$2\frac{1}{4}$		$2\frac{9}{16}$
			OVS	$1\frac{11}{16}$		2		$2\frac{5}{16}$		$2\frac{5}{8}$
			SSLP	$1\frac{11}{16}$		2		$2\frac{5}{16}$		$2\frac{11}{16}$
			LSLP	$2\frac{1}{16}$		$2\frac{7}{16}$		$2\frac{7}{8}$		$3\frac{1}{4}$

STD = Standard Hole

SSLT = Short-Slotted Hole oriented transverse to the line of force

SSLP = Short-Slotted Hole oriented parallel to the line of force

OVS = Oversized Hole

LSLP = Long-Slotted Hole oriented parallel to the line of force

LSLT = Long-Slotted Hole oriented transverse to the line of force

LRFD

— indicates spacing less than minimum spacing required per AISC Specification Section J3.3.

Note: Spacing indicated is from the center of the hole or slot to the center of the adjacent hole or slot in the line of force. Hole deformation is considered. When hole deformation is not considered, see AISC Specification Section J3.10.

 $\Omega_v = 2.00$ $\phi_v = 0.75$

Table 7-6 (continued)
Available Bearing Strength at Bolt Holes
Based on Edge Distance
 kips/in. thickness

Hole Type	Edge Distance L_e in.	F_u ksi	Nominal Bolt Diameter d_b in.							
			$1\frac{1}{8}$		$1\frac{1}{4}$		$1\frac{3}{8}$		$1\frac{1}{2}$	
			r_n/Ω_v	$\phi_v r_n$	r_n/Ω_v	$\phi_v r_n$	r_n/Ω_v	$\phi_v r_n$	r_n/Ω_v	$\phi_v r_n$
STD SSLT	$1\frac{1}{4}$	58 65	—	34.3 38.4	—	31.0 34.7	—	27.7 31.1	—	24.5 27.4
	2	58 65		73.4 82.3		70.1 78.6		66.9 75.0		63.6 71.3
SSLP	$1\frac{1}{4}$	58 65	—	26.1 29.3	—	22.8 25.6	—	19.6 21.9	—	16.3 18.3
	2	58 65		65.3 73.1		62.0 69.5		58.7 65.8		55.5 62.2
OVS	$1\frac{1}{4}$	58 65	—	27.7 31.1	—	24.5 27.4	—	21.2 23.8	—	17.9 20.1
	2	58 65		66.9 75.0		63.6 71.3		60.4 67.6		57.1 64.0
LSLP	$1\frac{1}{4}$	58 65	—	—	—	—	—	—	—	—
	2	58 65		31.0 34.7		22.8 25.6		14.7 16.5		6.53 7.31
LSLT	$1\frac{1}{4}$	58 65	—	28.5 32.0	—	25.8 28.9	—	23.1 25.9	—	20.4 22.9
	2	58 65		61.2 68.6		58.5 65.5		55.7 62.5		53.0 59.4
STD, SSLT, SSLP, OVS, LSLP	$L_e \geq L_{e \text{ full}}$	58 65	—	117 132	—	131 146	—	144 161	—	157 176
LSLT	$L_e \geq L_{e \text{ full}}$	58 65	—	97.9 110	—	109 122	—	120 134	—	131 146
Edge distance for full bearing strength $L_e \geq L_{e \text{ full}}^a$, in.			STD, SSLT, LSLT	$2\frac{7}{8}$		$3\frac{3}{16}$		$3\frac{1}{2}$		$3\frac{13}{16}$
			OVS	3		$3\frac{5}{16}$		$3\frac{5}{8}$		$3\frac{15}{16}$
			SSLP	3		$3\frac{5}{16}$		$3\frac{5}{8}$		$3\frac{15}{16}$
			LSLP	$3\frac{11}{16}$		$4\frac{1}{16}$		$4\frac{1}{2}$		$4\frac{7}{8}$

STD = Standard Hole

SSLT = Short-Slotted Hole oriented transverse to the line of force

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OVS = Oversized Hole

LSLP = Long-Slotted Hole oriented parallel to the line of force

LSLT = Long-Slotted Hole oriented transverse to the line of force

LRFD

— indicates spacing less than minimum spacing required per AISC Specification Section J3.3.

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 $\Omega_v = 2.00$ $\phi_v = 0.75$