

TABLE A-K3.1 (Cont'd)
Fatigue Design Parameters

Description	Stress Category	Constant C_f	Threshold F_{TH} ksi (MPa)	Potential Crack Initiation Point
SECTION 3 - WELDED JOINTS JOINING COMPONENTS OF BUILT-UP MEMBERS				
Base metal and weld metal in members without attachments built-up plates or shapes connected by various longitudinal complete-joint-penetration groove welds, back gouged and welded from second side, or by various fillet welds.	B	120×10^8	16 (110)	From surface or internal discontinuities in weld away from end of weld
Base metal and weld metal in members without attachments built-up plates or shapes, connected by various longitudinal complete joint-penetration groove welds with backing not removed, or by continuous joint-penetration groove welds.	B'	61×10^8	12 (83)	From surface or internal discontinuities in weld, including weld attaching backing bars
Base metal and weld metal at termination of longitudinal welds at end holes in connected built-up members.	D	22×10^8	7 (48)	From the weld termination into the web or flange
Base metal at ends of longitudinal fillet weld segments.	E	11×10^8	4.5 (31)	In connected material at start and stop locations of any weld deposit
Base metal at ends of partial length coverplates narrower than the member having square or tapered ends, without welds across the ends of coverplates wider than the flange with welds across the ends.	E	11×10^8	4.5 (31)	In flange at toe of end weld or in flange at termination of longitudinal weld or in edge of flange with wide coverplates
thickness ≤ 0.8 in. (20 mm)	E	11×10^8	4.5 (31)	
thickness > 0.8 in. (20 mm)	E'	3.9×10^8	2.6 (18)	
Base metal at ends of partial length coverplates wider than the member without welds across the ends.	E'	3.9×10^8	2.6 (18)	In edge of flange at end of coverplate weld
SECTION 4 - LONGITUDINAL FILLET WELDED END CONNECTIONS				
Base metal at junction of axially loaded members with longitudinally welded end connections. Welds shall be on one side of the axis of the member to avoid weld stresses.	E	11×10^8	4.5 (31)	Initiating from end of any weld termination extending into the base metal
thickness ≤ 13 mm	E	11×10^8	4.5 (31)	
thickness > 13 mm	E'	3.9×10^8	2.6 (18)	

TABLE A-K3.1 (Cont'd)
Fatigue Design Parameters

Illustrative Typical Examples	
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