

THE BRUCE[®] CONNECTOR

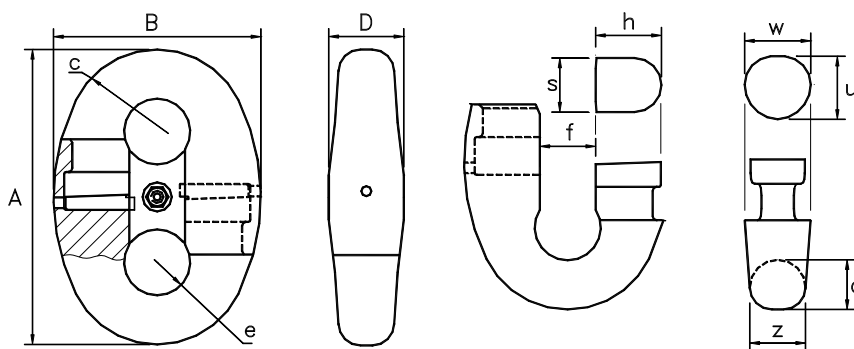
(Patented)



HIGH FATIGUE LIFE FROM A KENTER-STYLE JOINING SHACKLE



- FATIGUE LIFE EXCEEDING THAT OF STUD-LINK CHAIN*
- IMPROVED LOCKING MECHANISM REDUCES STRESS AND EXTENDS FATIGUE LIFE
- LOOKS LIKE A STANDARD KENTER AND IS COMPATIBLE WITH WILDCATS AND FAILEADERS
- AVAILABE IN GRADE R4 MATERIAL AND SIZES CORRESPONDING TO POPULAR SIZES OF STUD-LINK AND STUDLESS CHAIN.



Dimension designation	Bruce dimensions times d
A	6.00
B	4.20
c	1.83
D	1.52
e	0.67
f	1.13
h	1.34
s	1.10
u	1.30
w	1.34
z	1.13

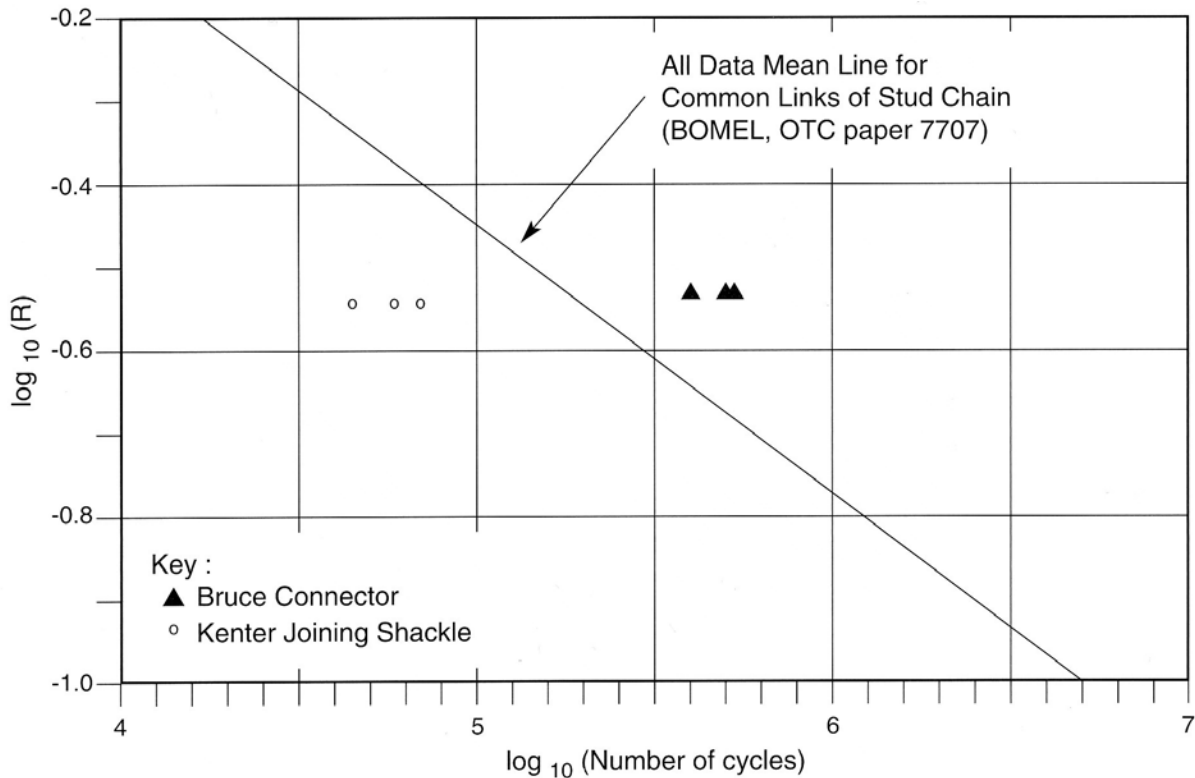
* Fatigue testing at the National Engineering Laboratory, East Kilbride, Scotland, in March 1999 showed that the mean fatigue performance of three 76mm Bruce Connectors in air was 2.3 times and the lowest performance 1.5 times that of same sized chain in air reported in OTC paper No. 7707

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COMPARISON BETWEEN FATIGUE PERFORMANCE OF JOINING SHACKLES, COMMON LINKS, AND BRUCE CONNECTORS*



- R = Ratio of tension range to K3 breaking load $\Delta P/P_{brK3}$
 ΔP = Tension range in chain during fatigue testing
 P_{brK3} = Guaranteed minimum breaking load of K3 chain

*FATIGUE DATA FROM TESTS CARRIED OUT BY THE NATIONAL ENGINEERING LABORATORY FOR BRUCE ANCHOR LIMITED

Link Type	Number of Cycles	Failure Location
Bruce Connector	390,124	Male Flange Neck
Bruce Connector	482,758	Male Flange Neck
Bruce Connector	535,646	No Failure
Standard Kenter	42,897	Material Surrounding Recess
Standard Kenter	56,541	Male flange Neck
Standard Kenter	67,521	Material Surrounding Recess

Note: Test load 440kN to 1800kN, sinusoidal waveform