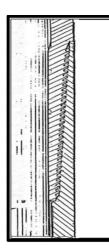


SPECIAL FEATURES

Hook thread prevents jump out and hoop loading caused by tension loads. The elimination of hoop loading improves pressure seal under both tension and compression loading of the joint.

If you want a FLUSH-FLUSH O.D. JOINT, this is the best joint for you. It is economical, dependable, and fast running.



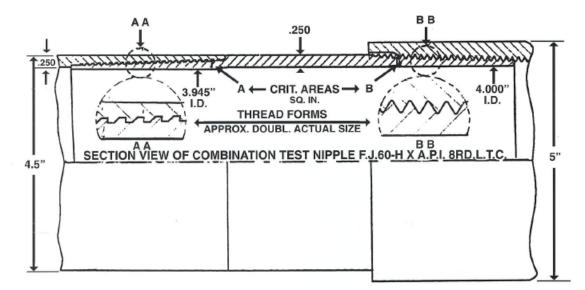
4 1/2" 14.98 lbs/ft FJ-60 J55 N80 P110 PIPE BODY DIMENSIONS Nominal Pipe Body O.D. (in) 4 500 4.500 Nominal Pipe Body I.D. (in) 3.826 3.826 Nominal Wall Thickness (in) 0.337 0.337 Nominal Weight (lbs/ft) 15.10 15.10 Plain End Weight (lbs/ft) 14.98 14.98 Drift I.D. (in) 3.701 3.701 PIPE BODY PERFORMANCE DATA Minimum Pipe Body Yield Strength (lbs) 353 000 485,000 Minimum Collapse Pressure (psi) 11,090 14,340 Minimum Interal Yield Pressure (psi) 10,490 14,420 CONNECTION DIMENSIONS AND PERF. DATA Connection O.D. (in) 4.500 4.500 Pin Connection I.D. Bored (in) 3.826 3.826 Make-up Loss (in) 4.250 4.250 Critical Area (sq in) 2 7 4 2 2.742 Joint Efficiency (%) 62 62 Reference Minimum Parting Load (lbs) 274,000 342,000 Reference String Length (ft) 10,767 14,300 Collapse Pressure Rating (psi) 11,090 14,340 Internal Pressure Rating (psi) 10,490 14,420 Interchangable With Weights (lbs) 13.04 13.04 RECOMMENDED MAKE-UP TORQUE Minimum Final Torque (ft/lbs) 1,600 1,600 Maximum Final Torques (ft/lbs) 3,200 3,200

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WOOLLEY FLUSH JOINT LINER TECHNICAL DATA



SKETCH TO ILLUSTRATE THE SET UP FOR TENSILE TESTING, PARTING LOAD CAPACITY OF WOOLLEY F.J.60-H FLUSH JOINT THREAD VS. A.P.I., 8RD, L.T.C. THREADS CUT ON OPPOSITE ENDS OF EACH J OR K-55 4 1/2" O.D., 11.60# CASING TEST NIPPLE



Repeated tests with above setup established two things. the A.P.I. 8rd thread always jumped out at approximately 160,000# tension, leaving the flush joint F.J.60-H undamaged and not tested near to its limit.

The setup was then changed to F.J.60-H thread on both ends of the same test nipples in order to determine parting load of the flush joint thread.

On this setup we had repeated parting loads of 196,000# with one test going to 220,000#.

On all tests to ultimate tensile on the F.J.60-H flush joint, there were no jump outs. All pins parted in critical root of the last effective pin thread.

All tension testing started at 100,000#, then increased in tensile steps of 15,000# with Hydrotest to 6,000 psi betwen tensile steps. There were no leaks prior to parting.