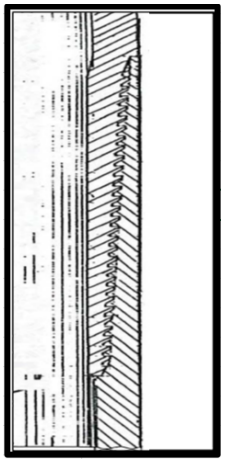
WOOLLEY TOOL, INC.
SINCE 1933
KILGORE PLEASANTON MIDLAND OKLAHOMA CITY

## 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.



**WOOLLEY FLUSH JOINT LINER TECHNICAL DATA**

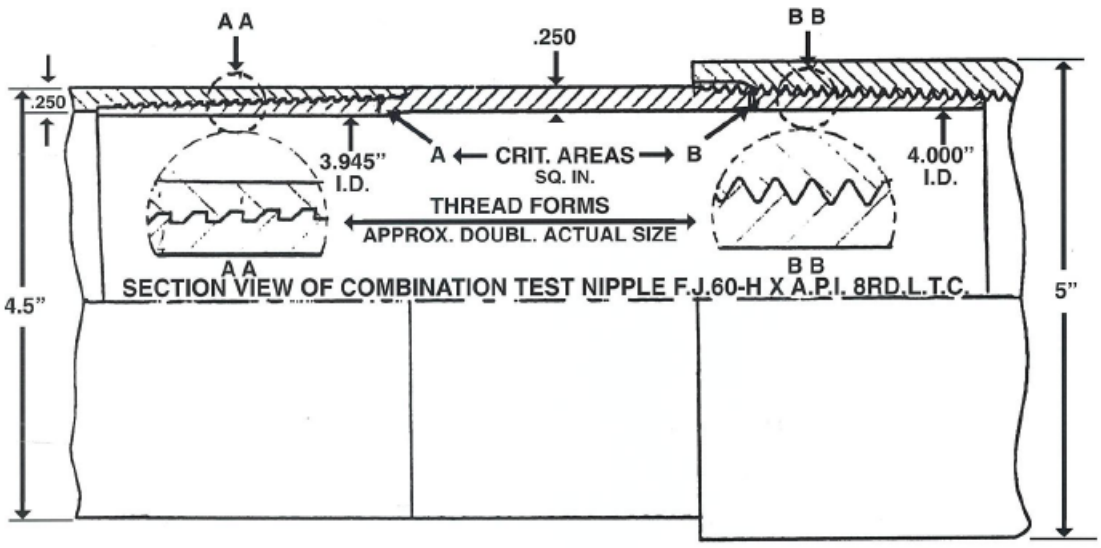
| 4" 11.34 lbs/ft FJ-HS | J55 | N80 | P110 |
|---|---|---|---|
| **PIPE BODY DIMENSIONS** | | | |
| Nominal Pipe Body O.D. (in) | - | 4.000 | 4.000 |
| Nominal Pipe Body I.D. (in) | - | 3.428 | 3.428 |
| Nominal Wall Thickness (in) | - | 0.286 | 0.286 |
| Nominal Weight (lbs/ft) | - | 11.600 | 11.600 |
| Plain End Weight (lbs/ft) | - | 11.340 | 11.340 |
| Drift I.D. (in) | - | 3.303 | 3.303 |
| **PIPE BODY PERFORMANCE DATA** | | | |
| Minimum Pipe Body Yield Strength (lbs) | - | 267,000 | 367,000 |
| Minimum Collapse Pressure (psi) | - | 10,275 | 13,160 |
| Minimum Interal Yield Pressure (psi) | - | 10,010 | 13,764 |
| **CONNECTION DIMENSIONS AND PERF. DATA** | | | |
| Connection O.D. (in) | - | 4.000 | 4.000 |
| Pin Connection I.D. (in) | - | 3.428 | 3.428 |
| Make-up Loss (in) | - | 3.025 | 3.025 |
| Critical Area (sq in) | - | 1.934 | 1.934 |
| Joint Efficiency (%) | - | 58 | 58 |
| Reference Minimum Parting Load (lbs) | - | 193,000 | 241,000 |
| Reference String Length (ft) | - | 10,032 | 13,323 |
| Collapse Pressure Rating (psi) | - | 10,275 | 13,160 |
| Internal Pressure Rating (psi) | - | 10,010 | 13,764 |
| **RECOMMENDED MAKE-UP TORQUE** | | | |
| Minimum Final Torque (ft/lbs) | - | 1,400 | 1,400 |
| Maximum Final Torques (ft/lbs) | - | 2,600 | 2,600 |

WOOLLEY TOOL, INC.

SINCE 1933

KILGORE PLEASANTON MIDLAND OKLAHOMA CITY

**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.**