Welded Tube Fueling Growth, Shaping Futures

CASING TECHNICAL DATA SHEET 8.625 x 0.352 HCL80 GBCD Slim Hole 9.000" OD

Reviewed by: Sr. Quality Engineer Approved by: Corporate Director-QEHS

| TDS Date (MM/DD/YY) | 11-8-24 | | | | |
|---|---------|------------|----------------|-----------------|------|
| PIPE BODY DATA | | Unit | Imperial | Metric U | Unit |
| Nominal Outside Diameter | | in | 8.625 | 219.08 r | mm |
| Nominal Wall Thickness | | in | 0.352 | 8.94 r | mm |
| Remaining Body Wall (RBW) | | | 95.0% | 95.0% | |
| Type of Thread | | | GBCD Slim Hole | GBCD Slim Hole | |
| Grade | | | HCL80 | HCL80 | |
| Label Weight | | | 32.00 | 32.00 | |
| Plain End Weight | | lb/ft | 31.13 | 46.33 | kg/m |
| Pipe Minimum Yield | | ksi | 80 | 552 M | MPa |
| Pipe Maximum Yield | | ksi | 95 | 655 N | MPa |
| Pipe Minimum Tensile | | ksi | 95 | 655 N | MPa |
| Standard Drift Diameter (min) | | in | 7.796 | 198.02 r | mm |
| Alternate Drift Diameter (min) | | in | 7.875 | 200.03 r | |
| Pipe Body Plain End Yield | | 1b | 732,000 | 332,030 | kg |
| Pipe Body Internal Yield | | psi | 6,200 | 42,750 | kPa |
| Collapse Pressure - Standard | | psi | N/A | N/A 1 | kPa |
| Collapse Pressure - High | | psi | 3,820 | 26,340 | kPa |
| CONNECTION DATA | | | | | |
| Coupling Minimum Yield | | ksi | See Next Page | See Next Page | MPa |
| Coupling Maximum Yield | | ksi | See Next Page | See Next Page | MPa |
| Coupling Minimum Tensile | | ksi | See Next Page | See Next Page | MPa |
| Coupling or Joint Outside Diameter (nom) | | in | See Next Page | See Next Page r | mm |
| Coupling Thread Fracture Strength | | 1b | See Next Page | See Next Page | kg |
| Pipe Thread Fracture Strength | | 1b | See Next Page | See Next Page | kg |
| Pull Out Strength | | lb | See Next Page | See Next Page | kg |
| Nominal Make-Up Torque or Make-up Torque I | Range | ft-lb | See Next Page | See Next Page | N-m |
| Coupling Internal Yield | | psi | See Next Page | See Next Page | kPa |
| Internal Yield of Joint | | psi | See Next Page | See Next Page | kPa |
| WELDED TUBE GENERAL INPUT CRITERIA | | | | | |
| Coupling Color Code | | | Red | | |
| Coupling Color Code for the Band | | | One Br | own | |
| Pipe Color Code Identification | | 2" Band(s) | One Red, Or | e Brown | |
| Additional Color Band (approx.10' from box en | d) | | Blue | ; | |

Note:

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GB Connection Performance Properties Sheet

Rev. 0 (11/08/2024)

ENGINEERING THE RIGHT CONNECTIONS

Casing: Casing Grade:

8.625 OD, 32 ppf WTC HCL80 (95% RBW)

GB CD Slim Hole 9.000 Connection: **Coupling Grade:** API L-80

| PIPE BODY GEOMETRY | | | | | | |
|------------------------|-------|------------------------------------|-------|--|-------|--|
| Nominal OD (in.) | 8 5/8 | Wall Thickness (in.) | 0.352 | Drift Diameter (in.) | 7.796 | |
| Nominal Weight (ppf) | 32.00 | Nominal ID (in.) | 7.921 | API Alternate Drift Dia. (in.) | 7.875 | |
| Plain End Weight (ppf) | 31.13 | Plain End Area (in. ²) | 9.149 | Plain End Area OD Turn (in. ²) | 7.936 | |

| PIPE BODY PERFORMANCE** | | | | | | |
|-------------------------|---------------------|---------------------------|---------|--------------------------------|--------|--|
| Material Specification | WTC HCL80 (95% RBW) | Min. Yield Str. (psi) | 80,000 | Min. Ultimate Str. (psi) | 95,000 | |
| Collapse | | Tension | | Pressure | | |
| API (psi) | 3,050 | Pl. End Yield Str. (kips) | 732 | Min. Int. Yield Press. **(psi) | 6,200 | |
| High Collapse** (psi) | 3,820 | Torque | | Bending | | |
| | | Yield Torque (ft-lbs) | 121,310 | Build Rate to Yield (°/100 ft) | 42.5 | |

| | GB CD Slim Hole 9.000 COUPLING GEOMETRY | | | | | |
|-----------------------|---|--|--------|--|--|--|
| Coupling OD (in.) | 9.000 | Makeup Loss (in.) | 5.0000 | | | |
| Coupling Length (in.) | 10.000 | Critical Cross-Sect. (in. ²) | 8.704 | | | |

| GB CD Slim Hole 9.000 CONNECTION PERFORMANCE RATINGS/EFFICIENCIES | | | | | | | |
|---|----------|-------------------------------|------|-----------|--------------------------------|--------|--|
| Material Specification | API L-80 | Min. Yield Str. (psi) | | 80,000 | Min. Ultimate Str. (psi) | 95,000 | |
| Tension | | Efficiency | | Bending | | | |
| | | | Gas | Liquid*** | | | |
| Tension OD Turn (kips) | 635 | Internal Pressure (%) | 91% | 100% | Build Rate to Yield (°/100 ft) | 38.1 | |
| Thread Str. (kips) | 664 | External Pressure (%) | 1 | 00% | Yield Torque | | |
| Min. Tension Yield (kips) | 661 | Tension (%) | 1 | 00% | Yield Torque (ft-lbs) | 38,530 | |
| Min. Tension Ult. (kips) | 785 | Compression (%) | 100% | | | | |
| Joint Str. (kips) | 664 | Ratio of Areas (Cplg/Pipe) | (|).95 | | | |
| | | Ratio of Areas (Cplg/OD Turn) | 1 | .10 | | | |

| MAKEUP TORQUE | | | | | | |
|----------------------|--------|------------------------------|--------|----------------------|------------|--|
| Min. MU Tq. (ft-lbs) | 10,000 | Max. MU Tq. (ft-lbs) | 20,000 | Running Tq. (ft-lbs) | See GBC RP | |
| | | Max. Operating Tq. (ft-lbs)* | 36,600 | | | |

Units: US Customary (lbm, in., °F, lbf)

1 kip = 1,000 lbs

* See Running Procedure for description and limitations.

See attached: Notes for GB Connection Performance Properties.

GBC Running Procedure (GBC RP): www.gbconnections.com/resources/running-procedures/

Blanking Dimensions: www.gbconnections.com/resources/documentation/#blanking-dimensions

Connection yield torque rating based on physical testing or extrapolation therefrom

** Casing properties applicable to WTC HCL80 (95% RBW) grade with min. yield 80 ksi.

***Liquid Sealability for operational (frac) loading

GB CD Slim Hole US Patent Pending