Premium Tubular Specialist

5.5”	20#	P-110	MRK-1

Nominal OD: 5.500 in. Nominal Weight: 20 lbs./ft. Drift: 4.653 in.

Nominal ID: 4.778 in. Wall Thickness: 0.361 OD Tolerance: API

Performance

Body Yield: (641 x 1000) lb. Internal Yield PSI: 12,640 psi Min. Yield: 110,000 psi

Collapse: 11,100 psi

Connection Data
Geometry

Connection OD: 6.300 Coupling Length: 9.250 in. Connection ID: 4.778

Make-Up Loss: 4.250? Thread/Inch: 5

Make-Up Torques

Minimum: 10,000 ft-lbs. Maximum: 18,000 ft-lbs.

Yield Torque: 25,000 ft-lbs. Max. Operating Torque: 22,000 ft-lbs.

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DEEP WELL TUBULAR SERVICE (DWTS)	Running Procedures for MRK-1 Casing	December 15,2023 Rev. 1 (12-7-23)

OVERVIEW OF RUNNING PROCEDURES:

Compatibility:

MRK-1 is compatible with API connections of different weights, but still the same size.
All threads cleaned of storage compound and debris.

Make-Up:

1. DWTS recommends running at optimum torque listed on the current data sheet.
   Any torque between minimum and maximum make up torque is acceptable.
2. RPM guideline recommendation is at or below on listed **table**.
3. Shift to low-gear prior to shouldering AND at least 2 turns before shoulder.
4. If there is no definitive shoulder, then add torque to achieve shoulder.
5. Use proper thread compound and apply to all threads and shoulder area.

TABLE 1:

Casing Size:	High-Gear:	Low-Gear:
(5” - 5 ½”)	30	10
(6” - 8”)	25	10

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DEEP WELL TUBULAR SERVICE (DWTS)	Running Procedures for MRK-1 Casing	December 7,2023 Rev. 1 (12-7-23)

Pre-Job Procedures:

Verifying Casing & Accessories:

Confirm size, weight, grade, and thread type.
Verify Torque Data Sheet on Website for correct torques.
Verify accessories thread type to be run with casing.
MRK-1 is interchangeable with API BTC and is not weight sensitive.
Treat BTC and MRK-1 connection as a position make up.

Cleaning:

Make sure Pin and Box are clean and clear of storage compound, rust, and dirt/dust.
Do not use wire brush when cleaning connections.
Clean (10-15) thread protectors for the run.

Visual Thread Inspection:

After Pin and Box are cleaned inspect threads to ensure no damage has occurred.
Inspect black crested threads not in perfect thread area.
2 black crested threads are allowed not more than (25%).
Inspect Field end starting thread for shaving and burrs.

Thread Compound Application:

Apply BOL 2000 or equivalent per API specs to BOX END ONLY.
Application of thread compound should cover (40-60%) of thread profile.
Mustache brush is recommended to apply thread compound.
Adding too much dope can cause irregular graphs.

Running Procedures:

Verifying Torques:

Verifying torques by checking stencil, correct data sheet, and with torque turn monitoring equipment is implemented correctly.

Dump Test:

Dump Test using Torque Turn dump valve and tongs to reach appropriate torque and dumps at proper torque entering the torque turn equipment. This is done before making up any connections without any accessories pre-bucked on in case TT or tongs do not dump correctly.

Thread Locking:

Clean Box while pipe is on catwalk on rig floor (not over the stump/hole) –
- Thoroughly clean Box and Pin connections to remove all oil, dust, dirt, and dope.

Applying thread lock should on be applied to PIN THREADS ONLY.
If accessories are standard API BTC, then make up should be a positional make up.
It may be necessary to adjust optimum torque to reach position.
Use the diamond on the Pin end for positional make up.
If accessory is M1, then make up to (10%) of maximum make up –
- May need more torque to achieve shoulder.

Stabbing of Casing:

The use of a stabbing guide is recommended while running –
- The stabbing guide assist in NOT setting the Pin end on the collar and causing damage.

Be sure pipe is vertically aligned –
- If not, then this will cause cross threading, and damaged threads.

Make-Up:

Initial stab start rotation in low gear to ensure not cross threaded.
After initial rotation with no cross-threading **REFERENCE TABLE 1** for RPMs.
At least 2 turns in low gear under (10RPMs) to have proper shoulder engagement.
If there is no definitive shoulder engagement, then raise torque and go back into connection.
If no torque is registered, then back out 3 rounds and check TT equipment.
Backups are required until enough weight and casing does not turn in stump –
- If casing rotates in stump, then apply backups.

The coupling is allowed to rotate (½) turn –
- If turning more, then apply backups to coupling and finish make up.

Shoulder Criteria:

There is thread interference with a definitive shoulder engagement.
The minimum delta torque required is (20%) of optimum running torque.
Secondary reference is the API position on the Pin end to the coupling face.

Rotating Casing:

Refer to Data Sheet for Max Operating Torque.
It is NOT recommended to start at Max Operating Torque.
If rotating is required start with the Minimum Makeup Torque and (15RPMs).
If more torque is necessary, then it is recommended to bump Torque and RPMs in increments.
When working pipe, it is recommended to decrease torque and RPMs slowly –

This allows built up torque and kinetic energy to dissipate without yielding and backing off down hole.

TABLE 1:

Casing Size:	High-Gear:	Low-Gear:
(5” - 5 ½”)	30	10
(6” - 8”)	25	10