



MODEL FURY 20 HYDRAULIC SETTING TOOL OPERATING PROCEDURE

Operational Procedure:

1. Run the Model Fury 20 Hydraulic Setting Tool and BP/CR several feet below the setting depth. Note: The Fury circulation ports are located below the ball seat. These ports will allow the tubing to fill going in the hole or for circulating a maximum rate of ¼ BPM while going in the hole. Well fluid must clean and free of debris (sand) for the HST to work properly. Warning: The setting sequence will begin at 1,250 psi differential pressure in the tubing “at the tool” (see step 4).
2. Pick up slowly to setting depth to remove slack from tubing string.
3. Drop a 5/8” diameter brass ball and slowly pump down until it has seated (pressure increase).
4. Slowly pressure workstring to establish a 1,250 psi (1,750 psi max) differential pressure inside the tubing “at the tool” to begin the setting sequence.
5. To Shear a 30,000 Pound Shear Stud (5-1/2” 6” Casing)
Continue pressuring workstring to establish a 1,400 psi differential pressure inside the tubing “at the tool” to anchor the BP/CR against the casing wall. Pick up tubing to the neutral position. Hold pressure for 5 minutes.
6. Continue pressuring workstring to establish a 2,090 psi (2,590 psi max) differential pressure inside the tubing “at the tool” to complete the set. Pick up on tubing to determine if disconnected from BP/CR. If the HST has not disconnected from BP/CR then pick up 1,000 pounds over tubing weight and pressure workstring again to establish 2,090 psi (2,590 psi max) inside the tubing “at the tool” to complete set. Over pressuring HST will cause damage to tool.
7. To Shear a 50,000 Pound Shear Stud (7” & Larger Casing)
Continue pressuring workstring to establish a 2,500 psi differential pressure inside the tubing “at the tool” to anchor the BP/CR against the casing wall. Pick up tubing to the neutral position. Hold pressure for 5 minutes.
8. Continue pressuring workstring to establish a 3,482 psi (3,982 psi max) differential pressure inside the tubing “at the tool” to complete the set. Pick up on tubing to determine if disconnected from BP/CR. If the HST has not disconnected from BP/CR then pick up 1,000 pounds over tubing weight and pressure workstring again to establish 3,482 psi (3,982 psi max) inside the tubing “at the tool” to complete set. Over pressuring HST will cause damage to tool.
8. Apply 1,000 pounds of set down weight to determine if BP/CR is securely set.
9. The Fury 20 HST will automatically dump pressure when fully stroked out. Clean and re-dress Hydraulic Setting Tool and Setting Adapter Kit.



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Troubleshooting:

Condition: HST does not disconnect from BP/CR.

30,000 Pound Shear Stud (5-1/2" 6" Casing)

Pull 1,000 pounds over tubing weight and pressure workstring again to establish a 2,090 psi (2,590 psi max) inside the tubing "at the tool" to disconnect from BP/CR.

If unsuccessful, then bleed off pressure, return tubing to the neutral point and reverse circulate capacity of the tubing (+10 BBL) to remove debris that may be inside the tubing and tool. Circulate Ball back to the Ball Seat then pull 1,000 pounds over tubing weight and pressure workstring again to establish a 2,090 psi (2,590 psi max) inside the tubing "at the tool" to disconnect from BP/CR.

If unsuccessful, then bleed off pressure and pull 30,000 pounds over tubing weight to disconnect from BP/CR. Over pressuring HST will cause damage to tool.

50,000 Pound Shear Stud (7" & Larger Casing)

Pull 1,000 pounds over tubing weight and pressure workstring again to establish a 3,482 psi (3,982 psi max) inside the tubing "at the tool" to disconnect from BP/CR.

If unsuccessful, then bleed off pressure, return tubing to the neutral point and reverse circulate capacity of the tubing (+10 BBL) to remove debris that may be inside the tubing and tool. Circulate Ball back to the Ball Seat then pull 1,000 pounds over tubing weight and pressure workstring again to establish a 3,482 psi (3,982 psi max) inside the tubing "at the tool" to disconnect from BP/CR.

If unsuccessful, then bleed off pressure and pull 50,000 pounds over tubing weight to disconnect from BP/CR. Over pressuring HST will cause damage to tool.



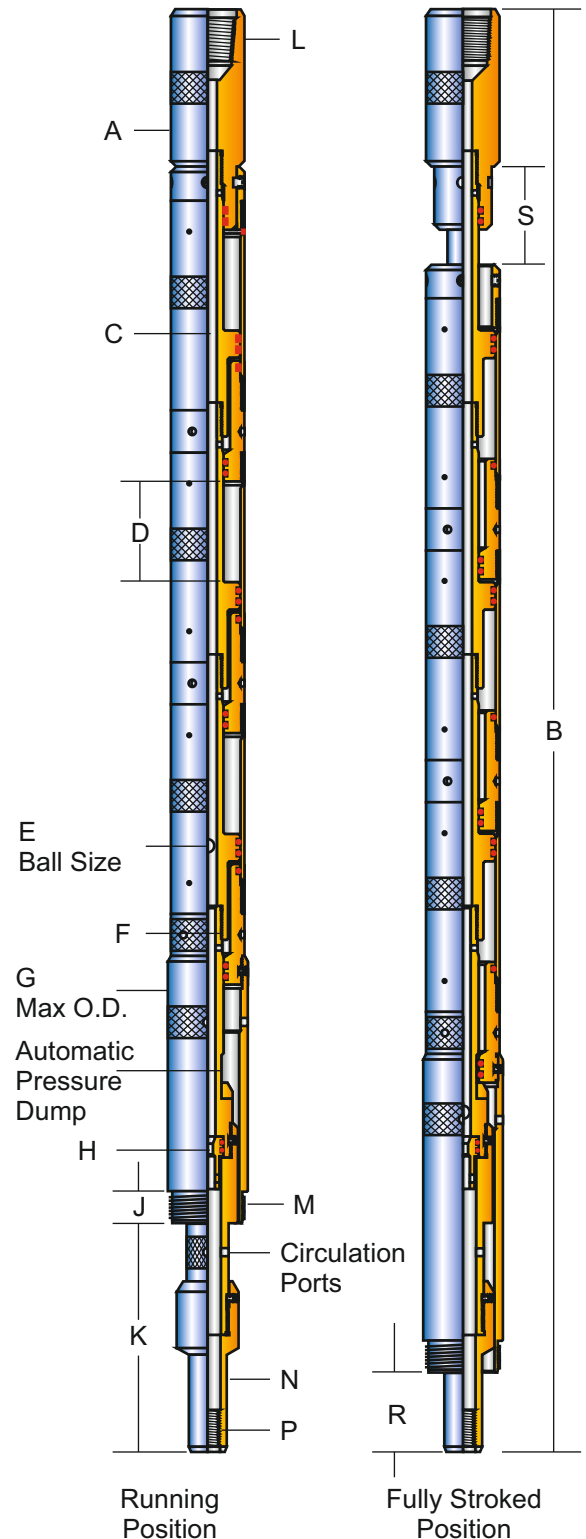
MODEL FURY 20 HYDRAULIC SETTING TOOL DIMENSIONAL DATA & SPECS

Dimensional Data

Ref	Fury 20 HST
A	3.812 Max. O.D.
B	76.312
C	.875
D	10.500 Stroke
E	.625 Dia. Ball
F	.812
G	3.812 Max. O.D.
H	.500 Min. I.D.
J	1.500
K	12.750
L	2-3/8" API Regular
M	3.500 6P ACME
N	1.812
P	1.125 7UN VEE
R	1.750
S	11.000

Specifications

Item	Fury 10 HST
Part Number	120-3812-200
Lower End of Tool	BT-20 WLPSA
Max. Running O.D.	3.812
Min. I.D. Thru Ball Seat	.500
Internal Pressure Rating	6.500 PSI
Temperature Rating (Nitrile O-Ring Kit)	200°F
Temperature Rating (Viton O-Ring Kit)	350°F
Ball Size (Bronze or Phenolic)	.625 Dia.
Total Hydraulic Chambers	2
Total Piston Area	14.358
PSI Required to Begin Setting Sequence	1.250 PSI (4 -6.000# PINS)
PSI Required at Tool to Shear 30.000 #	2.090 PSI (30.000#)
PSI Required at Tool to Shear 50.000 #	2.823 PSI (50.000#)
Tool Length (Running Position)	76.312
Total Stroke	10.500
Joint Strength @ Piston	100.000 LBS



All dimensions are in US inches