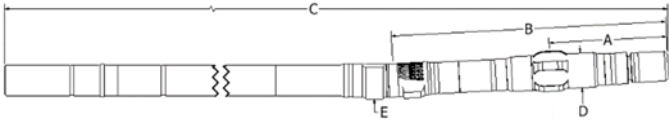


RVEN-96 : 7/8 Lobe 5.9 Stage



Dimensions

Bit to Stabilizer Center	A	50 in
Bit to Bend, ABH	B	89.5 in
Bit to Bend, Fixed	B	79.7 in
Bit to Top Sub	C	446 in
Body OD, Slick	D	9.62 in
Body OD, Stabilizer	D	10.75 in
Pad Radius, ABH	E	5.2 in
Pad Radius, Fixed	E	5.1 in
Bottom Connection	6-5/8 REG Box 7-5/8 REG Box	
Top Connection	6-5/8 REG Box	
Top Sub Float Bore	5F-6R	

Recommended Operating Limits

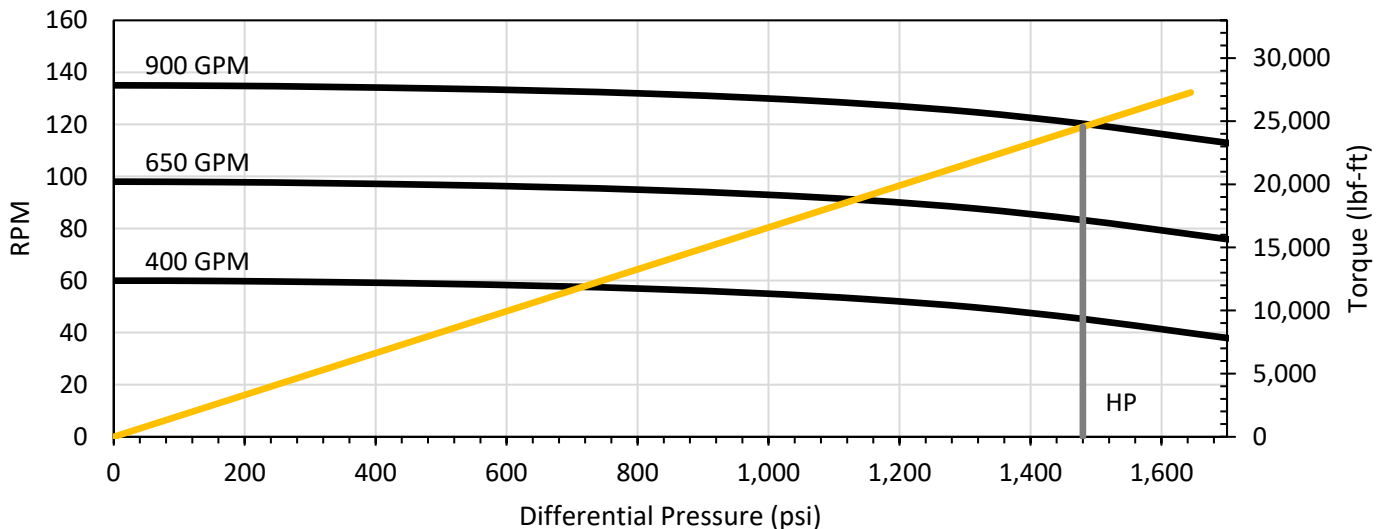
Max WOB	90,000 lbf
Max Overpull, Backream	130,000 lbf
Max Overpull, Re-Run	553,000 lbf
Max Overpull, POOH	1,172,000 lbf

Performance Details

HP

Max Diff Pressure	1,480 psi
Max Torque	24,470 lbf-ft
Stall Torque	36,700 lbf-ft
Rotation	0.150 rev/gal
Flow Range	400-900 gpm
Speed Range	60-135 rpm

Theoretical Performance Curve



Performance curves based on testing at 70°F. Actual field performance may vary with field operation conditions.

Predicted Build Rates (Adj.) – Degrees/100ft

Bend Setting	Slick Hole Size			Stabilized Hole Size		
	12 1/4	14 3/4	17 1/2	12 1/4	14 3/4	17 1/2
Deg						
0.39	-	-	-	3.1	4.0	5.0
0.78	2.4	-	-	4.9	5.8	6.8
1.15	4.3	-	-	6.6	7.5	8.6
1.50	6.2	2.7	-	8.2	9.2	10.2
1.83	7.9	4.4	-	9.8	10.7	11.7
2.12	9.3	5.9	2.1	11.1	12.0	13.1
2.38*	10.7	7.2	3.5	12.3	13.2	14.3
2.60*	11.8	8.4	4.6	13.3	14.3	15.3
2.77*	12.7	9.3	5.5	14.1	15.0	16.1
2.90*	13.4	9.9	6.1	14.7	15.6	16.7
2.97*	13.7	10.3	6.5	15.0	16.0	17.0
3.00*	13.9	10.4	6.7	15.2	16.1	17.1

*Bend Setting not recommended for Rotary Drilling

Predicted Build Rates (Fixed) – Degrees/100ft

Bend Setting	Slick Hole Size			Stabilized Hole Size		
	12 1/4	14 3/4	17 1/2	12 1/4	14 3/4	17 1/2
Deg						
0.78	1.7	-	-	5.0	5.9	6.9
1.15	3.6	-	-	6.8	7.7	8.7
1.50	5.4	1.6	-	8.4	9.4	10.4
1.75	6.7	2.9	-	9.6	10.5	11.6
1.83	7.1	3.3	-	10.0	10.9	11.9
2.00	8.0	4.2	-	10.8	11.7	12.8
2.12	8.6	4.8	-	11.4	12.3	13.3
2.25*	9.3	5.5	1.3	12.0	12.9	13.9
2.38*	9.9	6.2	2.0	12.6	13.5	14.6
2.50*	10.6	6.8	2.6	13.2	14.1	15.1

*Bend Setting not recommended for Rotary Drilling