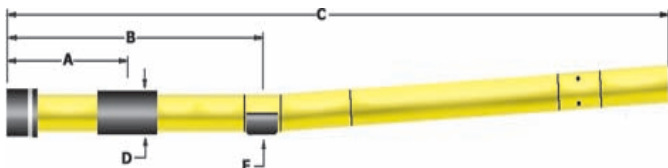




9 5/8" (244 mm)

Mud Motors



	Imperial		Metric	
A. Distance to stabilizer	28	inch	711	mm
B. Box to Bend	92	inch	2,337	mm
C. Overall Length	348	inch	8,839	mm
D. Thread Prot. Diameter	10.75	inch	273	mm
E. Kick Pad Diameter	9.75	inch	248	mm

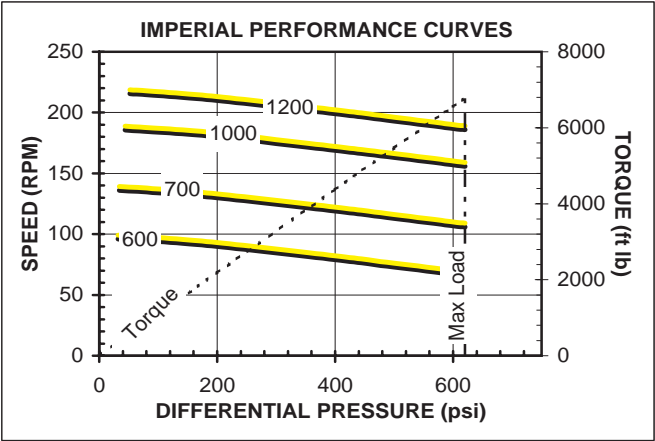
Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	4,480	lb	1,993	daN	
Maximum Flow Rate	1,200	gpm	4.54	m ³ /min	
Maximum Torque	6,780	ft-lb	9,192	N-m	
Maximum Power	434	hp	324	kW	
Maximum Weight on bit	Dynamic	179,300	lb	79,700	daN
	Static	551,000	lb	245,000	daN
Maximum Allowable Pull	495,000	lb	220,000	daN	
Pull to Yield Motor	1,530,000	lb	681,000	daN	

Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	12 1/4" 311 mm	13 3/4" 375 mm	17 1/2" 445 mm
0.26	0.00	0.00	0.00
0.52	0.23	0.00	0.00
0.78	1.89	0.00	0.00
1.03	3.92	0.00	0.00
1.27	5.87	0.00	0.00
1.50	7.74	1.26	0.00
1.72	9.54	3.05	0.00
1.93	11.25	4.76	0.00
2.12	12.79	6.31	0.00
2.30	14.26	7.78	0.64
2.60	16.71	10.22	3.08
2.82	18.50	12.01	4.88
2.95	19.56	13.07	5.93
3.00	19.97	13.48	6.34

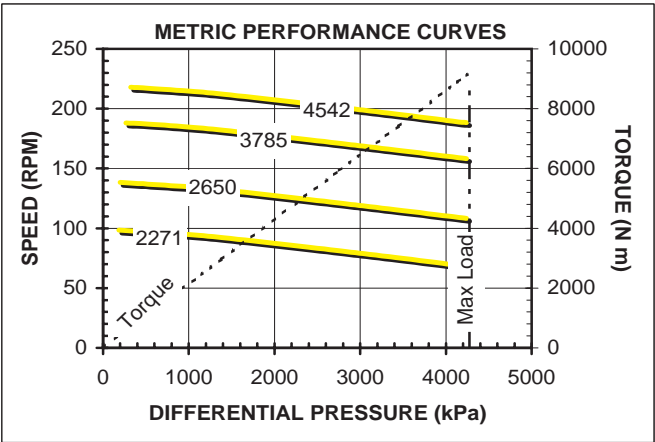
9 5/8" (244 mm) 3-4 4.5 Stage



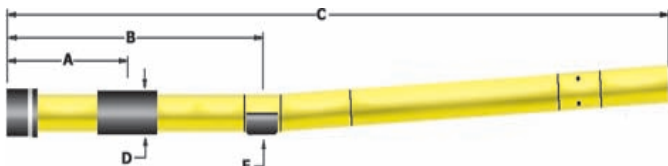
Maximum Pump Rate	1,200 gpm	4,542 Lpm
Revolutions per unit volume	0.188 rev/gal	0.050 rev/L
Pressure at full Load	620 psi	4,275 kPa
Torque at full load	6,780 ft lb	9,192 N m



Drilling Fluid Flow (GPM)	600	700	1000	1200
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	32	34	44	52
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (PSI)	588	586	576	568



Drilling Fluid Flow (L/min)	2271	2650	3785	4542
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	221	234	303	359
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (kPa)	4054	4040	3971	3916



	Imperial		Metric	
A. Distance to stabilizer	28	inch	711	mm
B. Box to Bend	92	inch	2,337	mm
C. Overall Length	398	inch	10,109	mm
D. Thread Prot. Diameter	10.75	inch	273	mm
E. Kick Pad Diameter	9.75	inch	248	mm

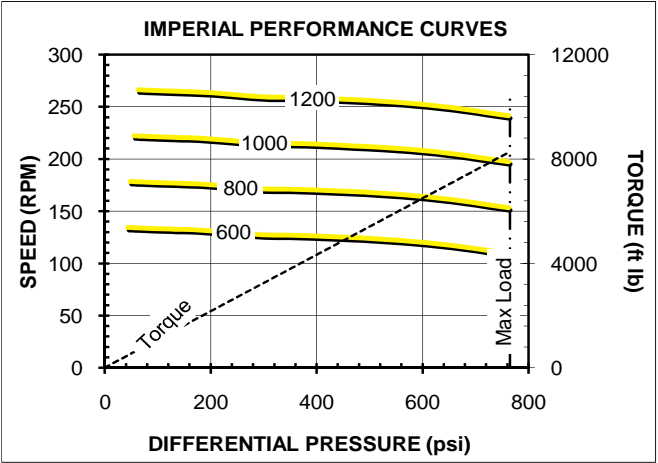
Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	5,092	lb	2,265	daN	
Maximum Flow Rate	1,200	gpm	4.54	m ³ /min	
Maximum Torque	8,272	ft-lb	11,215	N-m	
Maximum Power	536	hp	400	kW	
Maximum Weight on bit	Dynamic	179,300	lb	79,700	daN
	Static	551,000	lb	245,000	daN
Maximum Allowable Pull	495,000	lb	220,000	daN	
Pull to Yield Motor	1,530,000	lb	681,000	daN	

Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	12 1/4"	13 3/4"	17 1/2"
	311 mm	375 mm	445 mm
0.26	0.00	0.00	0.00
0.52	0.31	0.00	0.00
0.78	1.49	0.00	0.00
1.03	3.23	0.00	0.00
1.27	4.90	0.63	0.00
1.50	6.50	0.97	0.00
1.72	8.03	2.50	0.00
1.93	9.49	3.96	0.00
2.12	10.81	5.28	0.00
2.30	12.06	6.53	0.44
2.60	14.15	8.62	2.53
2.82	15.68	10.15	4.06
2.95	16.59	11.06	4.97
3.00	16.94	11.40	5.31

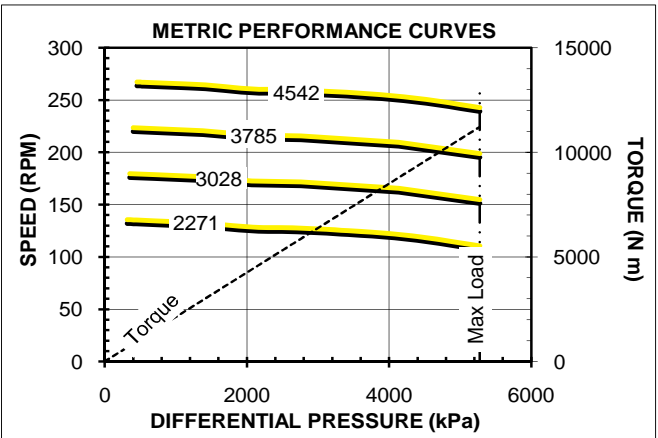
9 5/8" (244 mm) 3-4 6.0 Stage



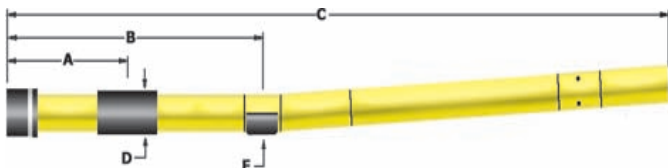
Maximum Pump Rate	1,200 gpm	4,540 Lpm
Revolutions per unit volume	0.225 rev/gal	0.059 rev/L
Pressure at full Load	765 psi	5,275 kPa
Torque at full load	8,272 ft lb	11,215 N m



Drilling Fluid Flow (GPM)	600	800	1000	1200
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	46	51	58	66
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (PSI)	719	714	707	699



Drilling Fluid Flow (L/min)	2271	3028	3785	4542
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	317	352	400	455
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (kPa)	4957	4923	4875	4819



	Imperial		Metric	
A. Distance to stabilizer	28	inch	711	mm
B. Box to Bend	92	inch	2,337	mm
C. Overall Length	348	inch	8,839	mm
D. Thread Prot. Diameter	10.75	inch	273	mm
E. Kick Pad Diameter	9.75	inch	248	mm

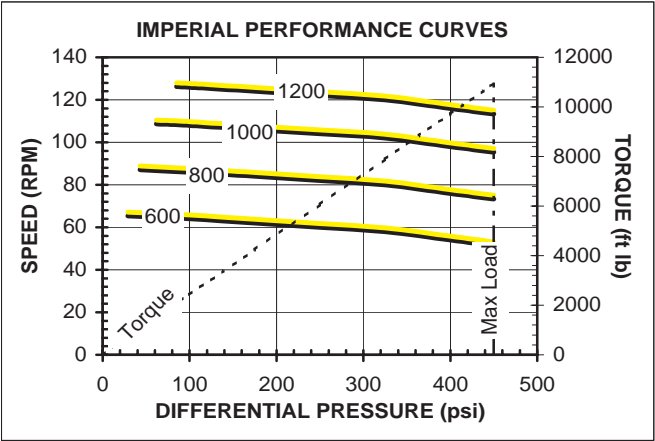
Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	4,483	lb	1,994	daN	
Maximum Flow Rate	1,200	gpm	4.54	m ³ /min	
Maximum Torque	10,940	ft-lb	14,833	N-m	
Maximum Power	189	hp	139	kW	
Maximum Weight on bit	Dynamic	179,300	lb	79,700	daN
	Static	551,000	lb	245,000	daN
Maximum Allowable Pull	495,000	lb	220,000	daN	
Pull to Yield Motor	1,530,000	lb	681,000	daN	

Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	12 1/4" 311 mm	13 3/4" 375 mm	17 1/2" 445 mm
0.26	0.00	0.00	0.00
0.52	0.23	0.00	0.00
0.78	1.89	0.00	0.00
1.03	3.92	0.00	0.00
1.27	5.87	0.00	0.00
1.50	7.74	1.26	0.00
1.72	9.54	3.05	0.00
1.93	11.25	4.76	0.00
2.12	12.79	6.31	0.00
2.30	14.26	7.78	0.64
2.60	16.71	10.22	3.08
2.82	18.50	12.01	4.88
2.95	19.56	13.07	5.93
3.00	19.97	13.48	6.34

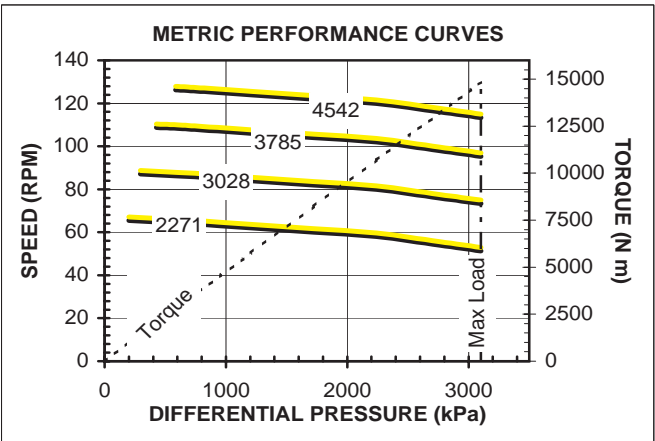
9 5/8" (244 mm) 5-6 3.0 Stage



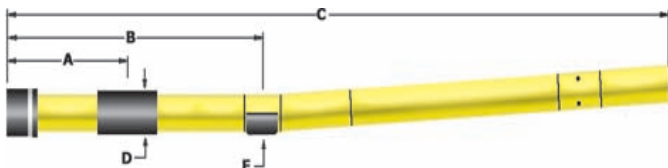
Maximum Pump Rate	1,200 gpm	4,542 Lpm
Revolutions per unit volume	0.117 rev/gal	0.031 rev/L
Pressure at full Load	450 psi	3,103 kPa
Torque at full load	10,940 ft lb	14,833 N m



Drilling Fluid Flow (GPM)	600	800	1000	1200
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	29	43	62	85
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (PSI)	421	407	388	365



Drilling Fluid Flow (L/min)	2271	3028	3785	4542
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	200	296	427	586
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (kPa)	2903	2806	2675	2517



	Imperial		Metric	
A. Distance to stabilizer	28	inch	711	mm
B. Box to Bend	92	inch	2,337	mm
C. Overall Length	402	inch	10,211	mm
D. Thread Prot. Diameter	10.75	inch	273	mm
E. Kick Pad Diameter	9.75	inch	248	mm

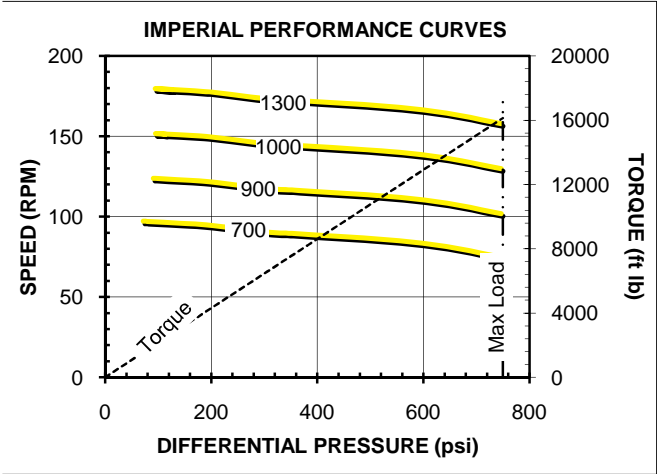
Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	5,365	lb	2,386	daN	
Maximum Flow Rate	1,300	gpm	4.921	m ³ /min	
Maximum Torque	16,120	ft-lb	21,850	N-m	
Maximum Power	404	hp	302	kW	
Maximum Weight on bit	Dynamic	179,300	lb	79,700	daN
	Static	551,000	lb	245,000	daN
Maximum Allowable Pull	495,000	lb	220,000	daN	
Pull to Yield Motor	1,530,000	lb	681,000	daN	

Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	12 1/4"	13 3/4"	17 1/2"
	311 mm	375 mm	445 mm
0.26	0.00	0.00	0.00
0.52	0.23	0.00	0.00
0.78	1.89	0.00	0.00
1.03	3.92	0.00	0.00
1.27	5.87	0.00	0.00
1.50	7.74	1.26	0.00
1.72	9.54	3.05	0.00
1.93	11.25	4.76	0.00
2.12	12.79	6.31	0.00
2.30	14.26	7.78	0.64
2.60	16.71	10.22	3.08
2.82	18.50	12.01	4.88
2.95	19.56	13.07	5.93
3.00	19.97	13.48	6.34

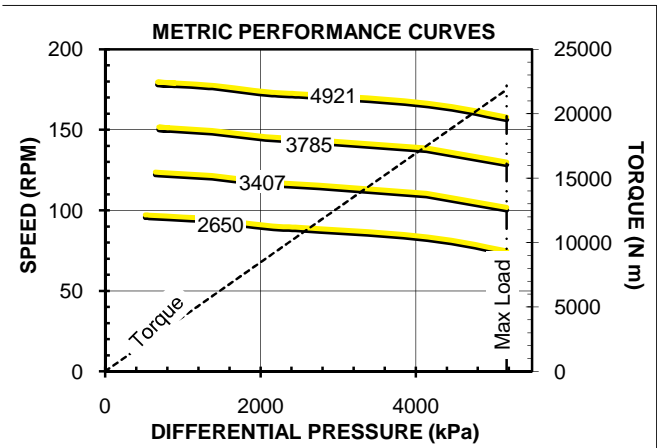
9 5/8" (244 mm) 5-6 5.0 Stage



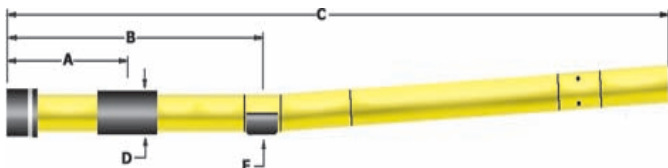
Maximum Pump Rate	1,300 gpm	4,920 Lpm
Revolutions per unit volume	0.138 rev/gal	0.036 rev/L
Pressure at full Load	750 psi	5,170 kPa
Torque at full load	16,120 ft lb	21,850 N m



Drilling Fluid Flow (GPM)	700	900	1100	1300
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	75	94	117	130
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (PSI)	675	656	633	620



Drilling Fluid Flow (L/min)	2650	3407	4164	4921
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	517	648	807	896
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (kPa)	4654	4523	4364	4275



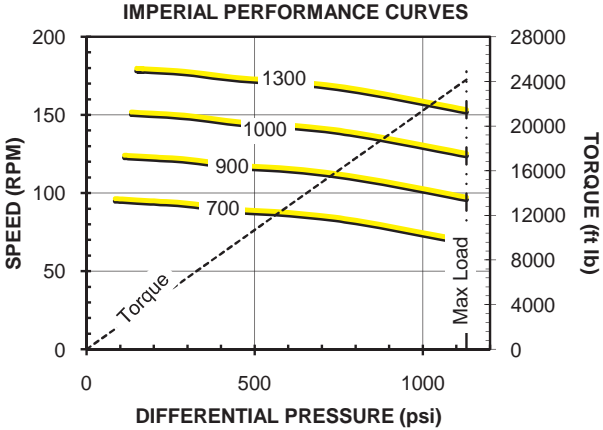
	Imperial		Metric	
A. Distance to stabilizer	28	inch	711	mm
B. Box to Bend	92	inch	2,337	mm
C. Overall Length	402	inch	10,211	mm
D. Thread Prot. Diameter	10.75	inch	273	mm
E. Kick Pad Diameter	9.75	inch	248	mm

Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	5,365	lb	2,386	daN	
Maximum Flow Rate	1,300	gpm	4.921	m ³ /min	
Maximum Torque	24,170	ft-lb	32,770	N-m	
Maximum Power	768	hp	573	kW	
Maximum Weight on bit	Dynamic	179,300	lb	79,700	daN
	Static	551,000	lb	245,000	daN
Maximum Allowable Pull	495,000	lb	220,000	daN	
Pull to Yield Motor	1,530,000	lb	681,000	daN	

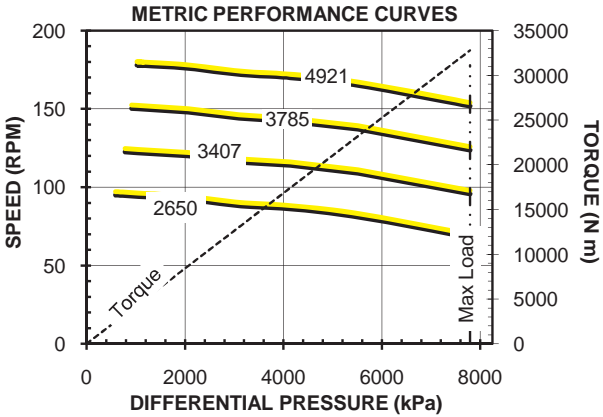
Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	12 1/4"	13 3/4"	17 1/2"
	311 mm	375 mm	445 mm
0.26	0.00	0.00	0.00
0.52	0.23	0.00	0.00
0.78	1.89	0.00	0.00
1.03	3.92	0.00	0.00
1.27	5.87	0.00	0.00
1.50	7.74	1.26	0.00
1.72	9.54	3.05	0.00
1.93	11.25	4.76	0.00
2.12	12.79	6.31	0.00
2.30	14.26	7.78	0.64
2.60	16.71	10.22	3.08
2.82	18.50	12.01	4.88
2.95	19.56	13.07	5.93
3.00	19.97	13.48	6.34

9 5/8" (244 mm) 5-6 5.0 Stage HR

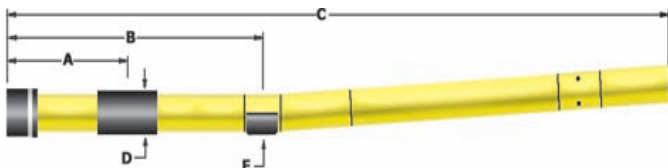
Maximum Pump Rate	1,300 gpm	4,920 Lpm
Revolutions per unit volume	0.138 rev/gal	0.036 rev/L
Pressure at full Load	1,130 psi	7,760 kPa
Torque at full load	24,170 ft lb	24,170 N m



Drilling Fluid Flow (GPM)	700	900	1100	1300
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	85	113	133	167
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (PSI)	1045	1017	997	963



Drilling Fluid Flow (L/min)	2650	3407	4164	4921
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	586	779	917	1151
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (kPa)	7205	7012	6874	6640



	Imperial		Metric	
A. Distance to stabilizer	28	inch	711	mm
B. Box to Bend	92	inch	2,337	mm
C. Overall Length	378	inch	9,601	mm
D. Thread Prot. Diameter	10.75	inch	273	mm
E. Kick Pad Diameter	9.75	inch	248	mm

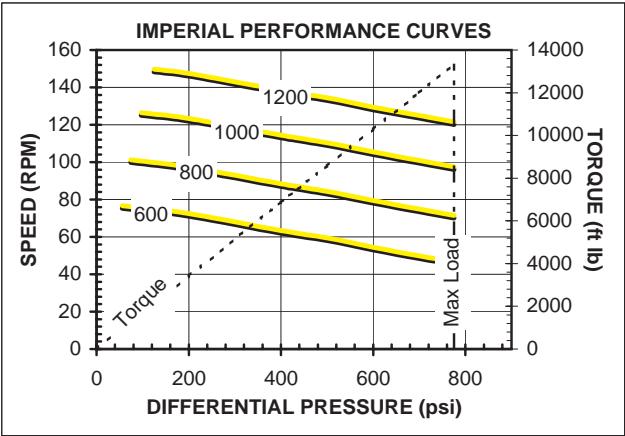
Top Connection	AS PER REQUEST				
Bottom Connection	6 5/8" Reg		6 5/8" Reg		
Weight	5,144	lb	2,288	daN	
Maximum Flow Rate	1,200	gpm	4.54	m ³ /min	
Maximum Torque	13,302	ft-lb	18,035	N-m	
Maximum Power	543	hp	405	kW	
Maximum Weight on bit	Dynamic	179,300	lb	79,700	daN
	Static	551,000	lb	245,000	daN
Maximum Allowable Pull	495,000	lb	220,000	daN	
Pull to Yield Motor	1,530,000	lb	681,000	daN	

Build Rate (degrees/100ft(30 m))			
Bend Settings (degrees)	Hole Sizes (in, mm)		
	12 1/4"	13 3/4"	17 1/2"
	311 mm	375 mm	445 mm
0.26	0.00	0.00	0.00
0.52	0.24	0.00	0.00
0.78	1.83	0.00	0.00
1.03	3.82	0.00	0.00
1.27	5.74	0.61	0.00
1.50	7.57	1.22	0.00
1.72	9.33	2.98	0.00
1.93	11.00	4.65	0.00
2.12	12.52	6.17	0.00
2.30	13.96	7.60	0.61
2.60	16.35	10.00	3.01
2.82	18.11	11.75	4.76
2.95	19.15	12.79	5.80
3.00	19.55	13.19	6.20

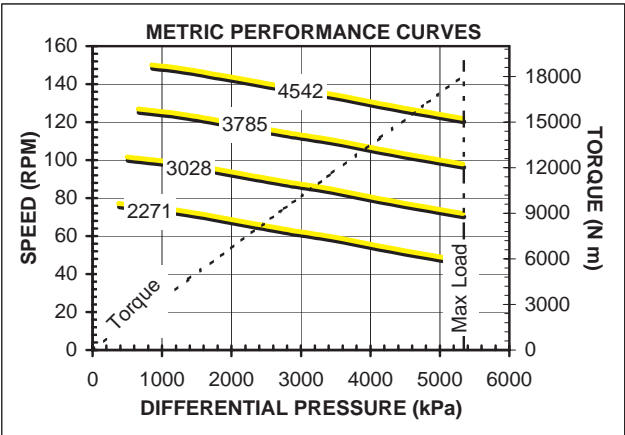
9 5/8" (244 mm) 6-7 5.0 Stage



Maximum Pump Rate	1,200 gpm	4,542 Lpm
Revolutions per unit volume	0.130 rev/gal	0.034 rev/L
Pressure at full Load	775 psi	5,343 kPa
Torque at full load	13,302 ft lb	18,035 N m



Drilling Fluid Flow (GPM)	600	800	1000	1200
Pressure Drop Across Motor with No Load (off-bottom pressure) (PSI)	56	74	97	125
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (PSI)	719	701	678	650



Drilling Fluid Flow (L/min)	2271	3028	3785	4542
Pressure Drop Across Motor with No Load (off-bottom pressure) (kPa)	386	510	669	862
Maximum Allowable Differential Pressure (on-bottom - off-bottom pressure) (kPa)	4957	4833	4675	4482

