

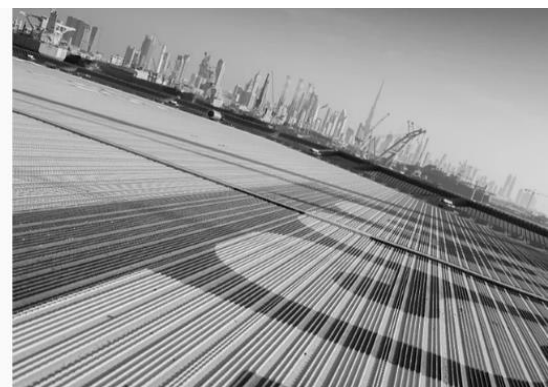
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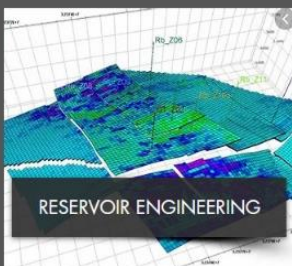
From Conventional and Unconventional reservoirs, to Field Production and Operation Technologies, **OilProduction** provides Technical Consulting and Advice tailored to your needs and based on tangible experiences.



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**OilProduction** provides a wide range of services for the different stages in the life of an hydrocarbon field, from Seismic Interpretation, Prospect Maturation, Reservoir Modeling, Field Development Strategy, Engineering, Well Reservoir Management and Production Operations, to Knowledge Management as a tool to strengthen your organization' skills.

## | AREAS & DISCIPLINES



## DRILL PIPE DATA TABLES

The following tables provide data for the drill string. Data are given for the pipe body, tool joint, and drill pipe assembly.

The tool joint sizes displayed represent common O.D. and I.D. configurations, although additional size combinations are available.

Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
2 3/8	6.65	E-75 EU	6,300	138,200	0.280	1.815	1.843	0.867	1.733	15,474	15,599
	6.65	E-75 EU	6,300	138,200	0.280	1.815	1.843	0.867	1.733	15,474	15,599
	6.65	E-75 EU	6,300	138,200	0.280	1.815	1.843	0.867	1.733	15,474	15,599
2 3/8	6.65	X-95 EU	7,900	175,100	0.280	1.815	1.843	0.867	1.733	19,600	19,759
	6.65	X-95 EU	7,900	175,100	0.280	1.815	1.843	0.867	1.733	19,600	19,759
	6.65	X-95 EU	7,900	175,100	0.280	1.815	1.843	0.867	1.733	19,600	19,759
2 3/8	6.65	G-105 EU	8,800	193,500	0.280	1.815	1.843	0.867	1.733	21,663	21,839
	6.65	G-105 EU	8,800	193,500	0.280	1.815	1.843	0.867	1.733	21,663	21,839
	6.65	G-105 EU	8,800	193,500	0.280	1.815	1.843	0.867	1.733	21,663	21,839
2 3/8	6.65	S-135 EU	11,300	248,800	0.280	1.815	1.843	0.867	1.733	27,853	28,079
	6.65	S-135 EU	11,300	248,800	0.280	1.815	1.843	0.867	1.733	27,853	28,079
	6.65	S-135 EU	11,300	248,800	0.280	1.815	1.843	0.867	1.733	27,853	28,079
	6.65	S-135 EU	11,300	248,800	0.280	1.815	1.843	0.867	1.733	27,853	28,079
2 3/8	6.65	Z-140 EU	11,700	258,000	0.280	1.815	1.843	0.867	1.733	28,884	29,119
	6.65	Z-140 EU	11,700	258,000	0.280	1.815	1.843	0.867	1.733	28,884	29,119
	6.65	Z-140 EU	11,700	258,000	0.280	1.815	1.843	0.867	1.733	28,884	29,119
	6.65	Z-140 EU	11,700	258,000	0.280	1.815	1.843	0.867	1.733	28,884	29,119
2 3/8	6.65	V-150 EU	12,500	276,400	0.280	1.815	1.843	0.867	1.733	30,947	31,199
	6.65	V-150 EU	12,500	276,400	0.280	1.815	1.843	0.867	1.733	30,947	31,199
	6.65	V-150 EU	12,500	276,400	0.280	1.815	1.843	0.867	1.733	30,947	31,199
	6.65	V-150 EU	12,500	276,400	0.280	1.815	1.843	0.867	1.733	30,947	31,199
2 7/8	6.85	E-75 IU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467
	6.85	E-75 IU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467
	6.85	E-75 EU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467
	6.65	E-75 IU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467
	6.85	E-75 EU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467
	6.85	E-75 EU	8,100	135,900	0.217	2.441	1.812	1.121	2.241	9,907	10,467
2 7/8	6.85	X-95 IU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940
	6.85	X-95 IU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940
	6.85	X-95 EU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940
	6.65	X-95 IU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940
	6.85	X-95 EU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940
	6.85	X-95 EU	10,200	172,100	0.217	2.441	1.812	1.121	2.241	12,548	12,940
2 7/8	6.85	G-105 IU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020
	6.85	G-105 IU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020
	6.85	G-105 EU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020
	6.65	G-105 IU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020
	6.85	G-105 EU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020
	6.85	G-105 EU	11,300	190,300	0.217	2.441	1.812	1.121	2.241	13,869	14,020
2 7/8	6.85	S-135 IU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034
	6.85	S-135 IU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034
	6.85	S-135 EU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034
	6.65	S-135 IU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034
	6.85	S-135 EU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034
	6.85	S-135 EU	14,500	244,600	0.217	2.441	1.812	1.121	2.241	17,832	17,034

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# DRILL PIPE DATA TABLES

Grant Prideco offers all API tool joint connections as well as most non-API connections. Custom specifications and special sizes can be provided to meet specific requirements.

The technical data are calculated per API RP7G Latest Edition and API Spec 5D Latest Edition.

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
NC26	3 3/8	1 3/4	6,900	313,700	3,900	1.10	9	10	7.17	3 3/16	1 5/8	0.134	0.110	2 3/8
HT26	3 3/8	1 3/4	8,700	313,700	5,200	1.38	9	12	7.25	N/A	1 5/8	0.134	0.111	
SLH90	3 1/4	1 13/16	6,900	270,200	3,700	1.10	9	10	7.00	3 1/32	1 11/16	0.134	0.107	
NC26	3 3/8	1 3/4	6,900	313,700	3,900	0.87	9	10	7.17	3 1/4	1 5/8	0.134	0.110	2 3/8
HT26	3 3/8	1 3/4	8,700	313,700	5,200	1.10	9	12	7.25	N/A	1 5/8	0.134	0.111	
SLH90	3 1/4	1 13/16	6,900	270,200	3,700	0.87	9	10	7.00	3 3/32	1 11/16	0.134	0.107	
NC26	3 3/8	1 3/4	6,900	313,700	3,900	0.78	9	10	7.17	3 9/32	1 5/8	0.134	0.110	2 3/8
HT26	3 3/8	1 3/4	8,700	313,700	5,200	0.99	9	12	7.25	N/A	1 5/8	0.134	0.111	
SLH90	3 1/4	1 13/16	6,900	270,200	3,700	0.78	9	10	7.00	3 1/8	1 11/16	0.134	0.107	
NC26	3 5/8	1 1/2	9,000	390,300	4,900	0.80	9	10	7.62	3 13/32	1 3/8	0.132	0.117	2 3/8
HT26	3 3/8	1 5/8	9,500	353,400	5,700	0.84	9	12	7.35	N/A	1 1/2	0.133	0.112	
SLH90	3 1/4	1 11/16	7,700	311,500	4,200	0.68	9	10	7.10	3 7/32	1 9/16	0.133	0.109	
GPDS26	3 1/2	1 11/16	9,700	333,900	5,800	0.86	9	10	7.35	3 5/16	1 9/16	0.133	0.112	
XT24	3 1/8	1 1/2	9,500	261,500	5,700	0.81	10	15	7.32	2 15/16	1 3/8	0.131	0.112	2 3/8
XT26	3 3/8	1 5/8	12,600	330,600	7,600	1.08	10	15	7.52	3 1/32	1 1/2	0.132	0.115	
HT26	3 3/8	1 5/8	9,500	353,400	5,700	0.81	9	12	7.35	N/A	1 1/2	0.133	0.112	
GPDS26	3 1/2	1 5/8	10,500	353,400	6,300	0.90	9	10	7.39	3 5/16	1 1/2	0.133	0.113	
XT24	3 1/8	1 3/8	10,400	295,400	6,200	0.83	10	15	7.41	2 15/16	1 1/4	0.130	0.113	2 3/8
XT26	3 3/8	1 1/2	13,200	367,400	7,900	1.06	10	15	7.62	3	1 3/8	0.131	0.117	
HT26	3 3/8	1 1/2	10,100	390,300	6,100	0.81	9	12	7.45	N/A	1 3/8	0.131	0.114	
GPDS26	3 1/2	1 1/2	11,200	390,300	6,700	0.90	9	10	7.48	3 9/32	1 3/8	0.132	0.114	
NC26	3 3/8	1 3/4	6,900	313,700	3,900	0.85	9	10	7.19	3 9/32	1 5/8	0.236	0.110	2 7/8
HT26	3 3/8	1 3/4	8,700	313,700	5,200	1.07	9	12	7.27	N/A	1 5/8	0.235	0.111	
NC31	4 1/8	2 5/32	11,500	434,500	6,200	1.42	9	11	7.88	3 11/16	2 1/32	0.239	0.120	
XT26	3 3/8	1 3/4	11,500	290,900	6,900	1.42	10	15	7.43	2 29/32	1 5/8	0.234	0.114	
HT31	4	2 5/32	14,900	434,500	8,900	1.84	9	13	7.83	3 1/2	2 1/32	0.239	0.120	
XT31	4	2 3/8	13,200	309,100	7,900	1.63	10	15	7.75	3 13/32	2 1/4	0.242	0.118	
NC26	3 1/2	1 1/2	8,800	390,300	4,900	0.86	9	10	7.50	3 3/8	1 3/8	0.234	0.115	2 7/8
HT26	3 3/8	1 3/4	8,700	313,700	5,200	0.85	9	12	7.27	N/A	1 5/8	0.235	0.111	
NC31	4 1/8	2 5/32	11,500	434,500	6,200	1.13	9	11	7.88	3 3/4	2 1/32	0.239	0.120	
XT26	3 3/8	1 3/4	11,500	290,900	6,900	1.13	10	15	7.43	3 1/32	1 5/8	0.234	0.114	
HT31	4	2 5/32	14,900	434,500	8,900	1.46	9	13	7.83	3 19/32	2 1/32	0.239	0.120	
XT31	4	2 3/8	13,200	309,100	7,900	1.29	10	15	7.75	3 1/2	2 1/4	0.242	0.118	
NC26	3 5/8	1 3/4	7,200	313,700	3,900	0.64	9	10	7.46	3 13/32	1 5/8	0.236	0.114	2 7/8
HT26	3 3/8	1 3/4	8,700	313,700	5,200	0.77	9	12	7.27	N/A	1 5/8	0.235	0.111	
NC31	4 1/8	2 5/32	11,500	434,500	6,200	1.02	9	11	7.88	3 13/16	2 1/32	0.239	0.120	
XT26	3 3/8	1 3/4	11,500	290,900	6,900	1.02	10	15	7.43	3 1/16	1 5/8	0.234	0.114	
HT31	4	2 5/32	14,900	434,500	8,900	1.32	9	13	7.83	3 5/8	2 1/32	0.239	0.120	
XT31	4	2 3/8	13,200	309,100	7,900	1.17	10	15	7.75	3 17/32	2 1/4	0.242	0.118	
NC26	3 5/8	1 1/2	9,000	390,300	4,900	0.62	9	10	7.64	3 17/32	1 3/8	0.234	0.117	2 7/8
HT26	3 1/2	1 1/2	12,100	390,300	7,300	0.83	9	12	7.60	3 5/16	1 3/8	0.233	0.116	
NC31	4 1/8	2 1/8	11,900	447,100	6,400	0.82	9	11	7.91	3 29/32	2	0.239	0.121	
XT26	3 3/8	1 3/4	11,500	290,900	6,900	0.79	10	15	7.43	3 7/32	1 5/8	0.234	0.114	
HT31	4	2 5/32	14,900	434,500	8,900	1.03	9	13	7.83	3 23/32	2 1/32	0.239	0.120	
XT31	4	2 3/8	13,200	309,100	7,900	0.91	10	15	7.75	3 5/8	2 1/4	0.242	0.118	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

### Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
2 7/8	6.85	Z-140 IU	15,100	253,700	0.217	2.441	1.812	1.121	2.241	18,492	17,500
	6.65	Z-140 IU	15,100	253,700	0.217	2.441	1.812	1.121	2.241	18,492	17,500
	6.85	Z-140 EU	15,100	253,700	0.217	2.441	1.812	1.121	2.241	18,492	17,500
	6.85	Z-140 EU	15,100	253,700	0.217	2.441	1.812	1.121	2.241	18,492	17,500
2 7/8	6.85	V-150 IU	16,200	271,800	0.217	2.441	1.812	1.121	2.241	19,813	18,398
	6.65	V-150 IU	16,200	271,800	0.217	2.441	1.812	1.121	2.241	19,813	18,398
	6.85	V-150 EU	16,200	271,800	0.217	2.441	1.812	1.121	2.241	19,813	18,398
	6.85	V-150 EU	16,200	271,800	0.217	2.441	1.812	1.121	2.241	19,813	18,398
2 7/8	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509
	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509
	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509
	10.40	E-75 IU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509
	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509
	10.40	E-75 IU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509
	10.40	E-75 EU	11,600	214,300	0.362	2.151	2.858	1.602	3.204	16,526	16,509
2 7/8	10.40	X-95 EU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911
	10.40	X-95 IU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911
	10.40	X-95 EU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911
	10.40	X-95 IU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911
	10.40	X-95 EU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911
	10.40	X-95 IU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911
	10.40	X-95 EU	14,600	271,500	0.362	2.151	2.858	1.602	3.204	20,933	20,911
2 7/8	10.40	G-105 EU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112
	10.40	G-105 IU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112
	10.40	G-105 EU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112
	10.40	G-105 IU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112
	10.40	G-105 EU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112
	10.40	G-105 IU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112
	10.40	G-105 EU	16,200	300,100	0.362	2.151	2.858	1.602	3.204	23,137	23,112
2 7/8	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716
	10.40	S-135 IU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716
	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716
	10.40	S-135 IU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716
	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716
	10.40	S-135 IU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716
	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716
	10.40	S-135 EU	20,800	385,800	0.362	2.151	2.858	1.602	3.204	29,747	29,716
2 7/8	10.40	Z-140 IU	21,600	400,100	0.362	2.151	2.858	1.602	3.204	30,849	30,817
	10.40	Z-140 EU	21,600	400,100	0.362	2.151	2.858	1.602	3.204	30,849	30,817
	10.40	Z-140 IU	21,600	400,100	0.362	2.151	2.858	1.602	3.204	30,849	30,817
	10.40	Z-140 EU	21,600	400,100	0.362	2.151	2.858	1.602	3.204	30,849	30,817
	10.40	Z-140 EU	21,600	400,100	0.362	2.151	2.858	1.602	3.204	30,849	30,817
2 7/8	10.40	V-150 IU	23,100	428,700	0.362	2.151	2.858	1.602	3.204	33,052	33,018
	10.40	V-150 EU	23,100	428,700	0.362	2.151	2.858	1.602	3.204	33,052	33,018
	10.40	V-150 IU	23,100	428,700	0.362	2.151	2.858	1.602	3.204	33,052	33,018
	10.40	V-150 EU	23,100	428,700	0.362	2.151	2.858	1.602	3.204	33,052	33,018
	10.40	V-150 EU	23,100	428,700	0.362	2.151	2.858	1.602	3.204	33,052	33,018

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
HT26	3 1/2	1 1/2	12,100	390,300	7,300	0.80	9	12	7.60	3 11/32	1 3/8	0.233	0.116	2 7/8
XT26	3 3/8	1 3/4	11,500	290,900	6,900	0.76	10	15	7.43	3 1/4	1 5/8	0.234	0.114	
HT31	4	2 5/32	14,900	434,500	8,900	0.99	9	13	7.83	3 3/4	2 1/32	0.239	0.120	
XT31	4	2 3/8	13,200	309,100	7,900	0.87	10	15	7.75	3 21/32	2 1/4	0.242	0.118	
HT26	3 1/2	1 1/2	12,100	390,300	7,300	0.75	9	12	7.60	3 3/8	1 3/8	0.233	0.116	2 7/8
XT26	3 3/8	1 3/4	11,500	290,900	6,900	0.71	10	15	7.43	3 9/32	1 5/8	0.234	0.114	
HT31	4	2 5/32	14,900	434,500	8,900	0.92	9	13	7.83	3 25/32	2 1/32	0.239	0.120	
XT31	4	2 3/8	13,200	309,100	7,900	0.81	10	15	7.75	3 11/16	2 1/4	0.242	0.118	
NC31	4 1/8	2 1/8	11,500	447,100	6,400	1.03	9	11	11.14	3 13/16	2	0.188	0.170	2 7/8
NC26	3 1/2	1 1/2	8,800	390,300	4,900	0.76	9	10	10.79	3 13/32	1 3/8	0.183	0.165	
SLH90	3 7/8	2	13,100	444,000	6,900	1.13	9	11	10.95	3 19/32	1 7/8	0.187	0.168	
HT26	3 1/2	1 1/2	12,100	390,300	7,300	1.04	9	12	10.85	3 3/16	1 3/8	0.182	0.166	
HT31	4 1/8	2 1/8	16,600	447,100	10,000	1.43	9	13	11.26	3 19/32	2	0.188	0.172	
XT26	3 1/2	1 1/2	14,800	367,400	8,900	1.28	10	15	11.02	2 31/32	1 3/8	0.181	0.168	
XT31	3 7/8	2 1/8	16,600	415,100	10,000	1.43	10	15	11.06	3 3/8	2	0.188	0.169	
NC31	4 1/8	2	13,200	495,700	7,100	0.90	9	11	11.27	3 29/32	1 7/8	0.187	0.172	
NC26	3 1/2	1 1/2	8,800	390,300	4,900	0.60	9	10	10.76	N/A	1 3/8	0.183	0.165	
SLH90	3 7/8	2	13,100	444,000	6,900	0.90	9	11	10.95	3 11/16	1 7/8	0.187	0.168	
HT26	3 1/2	1 1/2	12,100	390,300	7,300	0.83	9	12	10.85	3 5/16	1 3/8	0.182	0.166	
HT31	4 1/8	2 1/8	16,600	447,100	10,000	1.14	9	13	11.26	3 23/32	2	0.188	0.172	
XT26	3 1/2	1 1/2	14,800	367,400	8,900	1.01	10	15	11.02	3 3/32	1 3/8	0.181	0.168	
XT31	3 7/8	2 1/8	16,600	415,100	10,000	1.14	10	15	11.06	3 1/2	2	0.188	0.169	
NC31	4 1/8	2	13,200	495,700	7,100	0.81	9	11	11.27	3 15/16	1 7/8	0.187	0.173	
NC26	3 1/2	1 1/2	8,800	390,300	4,900	0.54	9	10	10.76	N/A	1 3/8	0.183	0.165	
SLH90	3 7/8	2	13,100	444,000	6,900	0.81	9	11	10.95	3 23/32	1 7/8	0.187	0.168	
HT26	3 5/8	1 1/2	13,100	390,300	7,900	0.81	9	12	10.99	3 3/8	1 3/8	0.182	0.168	
HT31	4 1/8	2 1/8	16,600	447,100	10,000	1.02	9	13	11.26	3 3/4	2	0.188	0.172	
XT26	3 1/2	1 1/2	14,800	367,400	8,900	0.91	10	15	11.02	3 5/32	1 3/8	0.181	0.168	
XT31	3 7/8	2 1/8	16,600	415,100	10,000	1.02	10	15	11.06	3 17/32	2	0.188	0.169	
NC31	4 1/8	2	13,200	495,700	7,100	0.63	9	11	11.29	4 1/16	1 7/8	0.187	0.173	
NC26	3 5/8	1 1/2	9,000	390,300	4,900	0.43	9	10	10.90	N/A	1 3/8	0.183	0.167	
SLH90	3 7/8	2	13,300	444,000	6,900	0.63	9	11	10.95	3 27/32	1 7/8	0.187	0.168	
HT26	3 5/8	1 1/2	13,100	390,300	7,900	0.63	9	12	10.99	3 9/16	1 3/8	0.182	0.168	
HT31	4 1/8	2	18,900	495,700	11,300	0.91	9	13	11.39	3 27/32	1 7/8	0.187	0.174	
XT26	3 1/2	1 3/8	15,900	401,300	9,500	0.76	10	15	11.11	3 5/16	1 1/4	0.180	0.170	
XT31	3 7/8	2 1/8	16,600	415,000	10,000	0.80	10	15	11.06	3 11/16	2	0.188	0.169	
GPDS31	4 1/8	2	17,200	495,700	10,300	0.83	9	11	11.27	3 15/16	1 7/8	0.187	0.172	
HT26	3 5/8	1 1/4	15,300	455,100	9,200	0.71	9	12	11.15	3 17/32	1 1/8	0.180	0.171	
HT31	4 1/8	2	18,900	495,700	11,300	0.88	9	13	11.39	3 7/8	1 7/8	0.187	0.174	
XT26	3 1/2	1 1/4	16,400	432,200	9,800	0.76	10	15	11.19	3 5/16	1 1/8	0.179	0.171	
XT31	4	2	20,400	463,700	12,200	0.94	10	15	11.38	3 21/32	1 7/8	0.187	0.174	
GPDS31	4 1/8	2	17,200	495,700	10,300	0.80	9	11	11.27	3 15/16	1 7/8	0.187	0.172	
HT26	3 5/8	1 1/4	15,300	455,100	9,200	0.66	9	12	11.15	3 9/16	1 1/8	0.180	0.171	
HT31	4 1/8	2	18,900	495,700	11,300	0.82	9	13	11.39	3 29/32	1 7/8	0.187	0.174	
XT26	3 1/2	1 1/4	16,400	432,200	9,800	0.71	10	15	11.19	3 3/8	1 1/8	0.179	0.171	
XT31	4	2	20,400	463,700	12,200	0.88	10	15	11.38	3 23/32	1 7/8	0.187	0.174	
GPDS31	4 1/8	2	17,200	495,700	10,300	0.74	9	11	11.27	4	1 7/8	0.187	0.172	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

### Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
3 1/2	9.50	E-75 EU	14,100	194,300	0.254	2.992	2.590	1.961	3.923	9,525	10,001
	9.50	E-75 IU	14,100	194,300	0.254	2.992	2.590	1.961	3.923	9,525	10,001
	9.50	E-75 IU	14,100	194,300	0.254	2.992	2.590	1.961	3.923	9,525	10,001
	9.50	E-75 EU	14,100	194,300	0.254	2.992	2.590	1.961	3.923	9,525	10,001
	9.50	E-75 EU	14,100	194,300	0.254	2.992	2.590	1.961	3.923	9,525	10,001
	9.50	E-75 IU	14,100	194,300	0.254	2.992	2.590	1.961	3.923	9,525	10,001
	9.50	E-75 EU	14,100	194,300	0.254	2.992	2.590	1.961	3.923	9,525	10,001
3 1/2	9.50	X-95 EU	17,900	246,100	0.254	2.992	2.590	1.961	3.923	12,065	12,077
	9.50	X-95 IU	17,900	246,100	0.254	2.992	2.590	1.961	3.923	12,065	12,077
	9.50	X-95 IU	17,900	246,100	0.254	2.992	2.590	1.961	3.923	12,065	12,077
	9.50	X-95 EU	17,900	246,100	0.254	2.992	2.590	1.961	3.923	12,065	12,077
	9.50	X-95 EU	17,900	246,100	0.254	2.992	2.590	1.961	3.923	12,065	12,077
	9.50	X-95 IU	17,900	246,100	0.254	2.992	2.590	1.961	3.923	12,065	12,077
	9.50	X-95 EU	17,900	246,100	0.254	2.992	2.590	1.961	3.923	12,065	12,077
3 1/2	9.50	G-105 EU	19,800	272,000	0.254	2.992	2.590	1.961	3.923	13,335	13,055
	9.50	G-105 IU	19,800	272,000	0.254	2.992	2.590	1.961	3.923	13,335	13,055
	9.50	G-105 IU	19,800	272,000	0.254	2.992	2.590	1.961	3.923	13,335	13,055
	9.50	G-105 EU	19,800	272,000	0.254	2.992	2.590	1.961	3.923	13,335	13,055
	9.50	G-105 EU	19,800	272,000	0.254	2.992	2.590	1.961	3.923	13,335	13,055
	9.50	G-105 IU	19,800	272,000	0.254	2.992	2.590	1.961	3.923	13,335	13,055
	9.50	G-105 EU	19,800	272,000	0.254	2.992	2.590	1.961	3.923	13,335	13,055
3 1/2	9.50	S-135 EU	25,500	349,700	0.254	2.992	2.590	1.961	3.923	17,145	15,748
	9.50	S-135 IU	25,500	349,700	0.254	2.992	2.590	1.961	3.923	17,145	15,748
	9.50	S-135 IU	25,500	349,700	0.254	2.992	2.590	1.961	3.923	17,145	15,748
	9.50	S-135 EU	25,500	349,700	0.254	2.992	2.590	1.961	3.923	17,145	15,748
	9.50	S-135 EU	25,500	349,700	0.254	2.992	2.590	1.961	3.923	17,145	15,748
	9.50	S-135 IU	25,500	349,700	0.254	2.992	2.590	1.961	3.923	17,145	15,748
	9.50	S-135 EU	25,500	349,700	0.254	2.992	2.590	1.961	3.923	17,145	15,748
3 1/2	9.50	Z-140 IU	26,400	362,600	0.254	2.992	2.590	1.961	3.923	17,780	16,158
	9.50	Z-140 EU	26,400	362,600	0.254	2.992	2.590	1.961	3.923	17,780	16,158
	9.50	Z-140 IU	26,400	362,600	0.254	2.992	2.590	1.961	3.923	17,780	16,158
	9.50	Z-140 EU	26,400	362,600	0.254	2.992	2.590	1.961	3.923	17,780	16,158
3 1/2	9.50	V-150 IU	28,300	388,500	0.254	2.992	2.590	1.961	3.923	19,050	16,943
	9.50	V-150 EU	28,300	388,500	0.254	2.992	2.590	1.961	3.923	19,050	16,943
	9.50	V-150 IU	28,300	388,500	0.254	2.992	2.590	1.961	3.923	19,050	16,943
	9.50	V-150 EU	28,300	388,500	0.254	2.992	2.590	1.961	3.923	19,050	16,943
3 1/2	13.30	E-75 EU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113
	13.30	E-75 IU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113
	13.30	E-75 IU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113
	13.30	E-75 EU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113
	13.30	E-75 EU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113
	13.30	E-75 IU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113
	13.30	E-75 EU	18,600	271,600	0.368	2.764	3.621	2.572	5.144	13,800	14,113
3 1/2	13.30	X-95 EU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877
	13.30	X-95 IU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877
	13.30	X-95 IU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877
	13.30	X-95 EU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877
	13.30	X-95 EU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877
	13.30	X-95 IU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877
	13.30	X-95 EU	23,500	344,000	0.368	2.764	3.621	2.572	5.144	17,480	17,877

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
NC38	4 3/4	2 11/16	18,100	587,300	9,700	1.28	10	12.5	11.07	4 13/32	2 9/16	0.360	0.169	3 1/2
NC31	4 1/8	2 1/8	11,900	447,100	6,400	0.84	9	11	10.49	3 7/8	2	0.354	0.161	
HT31	4 1/8	2 1/8	16,600	447,100	10,000	1.18	9	13	10.62	3 11/16	2	0.353	0.162	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.79	10	15.5	11.31	4 5/32	2 9/16	0.360	0.173	
SLH90	4 3/4	2 11/16	18,688	534,200	11,100	1.33	10	12.5	11.07	4 3/16	2 9/16	0.360	0.169	
XT31	4	2 1/8	18,600	415,100	11,200	1.32	10	15	10.61	3 1/2	2	0.352	0.162	
XT38	4 3/4	2 13/16	23,900	473,000	14,300	1.70	10	15	11.08	4	2 11/16	0.362	0.170	3 1/2
NC38	4 3/4	2 11/16	18,100	587,300	9,700	1.01	10	12.5	11.07	4 15/32	2 9/16	0.360	0.169	
NC31	4 1/8	2	13,200	495,700	7,100	0.74	9	11	10.61	4	1 7/8	0.352	0.162	
HT31	4 1/8	2 1/8	16,600	447,100	10,000	0.93	9	13	10.62	3 13/16	2	0.353	0.162	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.41	10	15.5	11.31	4 1/4	2 9/16	0.360	0.173	
SLH90	4 3/4	2 11/16	18,700	534,200	11,100	1.04	10	12.5	11.07	4 9/32	2 9/16	0.360	0.169	
XT31	4	2 1/8	18,600	415,100	11,200	1.04	10	15	10.61	3 5/8	2	0.352	0.162	3 1/2
XT38	4 3/4	2 13/16	23,900	473,000	14,300	1.34	10	15	11.08	4 3/32	2 11/16	0.362	0.170	
NC38	4 3/4	2 11/16	18,100	587,300	9,700	0.91	10	12.5	11.07	4 17/32	2 9/16	0.360	0.169	
NC31	4 1/8	2	13,200	495,700	7,100	0.67	9	11	10.61	4 1/16	1 7/8	0.352	0.162	
HT31	4 1/8	2	18,900	495,700	11,300	0.95	9	13	10.74	3 27/32	1 7/8	0.351	0.164	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.28	10	15.5	11.31	4 9/32	2 9/16	0.360	0.173	
SLH90	4 3/4	2 11/16	18,700	534,200	11,100	0.94	10	12.5	11.07	4 5/16	2 9/16	0.360	0.169	3 1/2
XT31	4	2 1/8	18,600	415,100	11,200	0.94	10	15	10.61	3 11/16	2	0.352	0.162	
XT38	4 3/4	2 13/16	23,900	473,000	14,300	1.21	10	15	11.08	4 5/32	2 11/16	0.362	0.170	
NC38	4 7/8	2 9/16	20,200	649,200	10,700	0.79	10	12.5	11.45	4 21/32	2 7/16	0.358	0.175	3 1/2
NC31	4 1/8	2	13,200	495,700	7,100	0.52	9	11	10.61	N/A	1 7/8	0.352	0.162	
HT31	4 1/8	2	18,900	495,700	11,300	0.74	9	13	10.74	4	1 7/8	0.351	0.164	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	0.99	10	15.5	11.31	4 7/16	2 9/16	0.360	0.173	
SLH90	4 3/4	2 9/16	20,900	596,100	12,400	0.82	10	12.5	11.24	4 7/16	2 7/16	0.358	0.172	
XT31	4	2	20,400	463,700	12,200	0.80	10	15	10.74	3 13/16	1 7/8	0.350	0.164	
XT38	4 3/4	2 13/16	23,900	473,000	14,300	0.94	10	15	11.08	4 9/32	2 11/16	0.362	0.170	3 1/2
HT31	4 1/8	2	18,900	495,700	11,300	0.72	9	13	10.74	4 1/32	1 7/8	0.351	0.164	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	0.96	10	15.5	11.31	4 15/32	2 9/16	0.360	0.173	
XT31	4	2	20,400	463,700	12,200	0.76	10	15	10.74	3 27/32	1 7/8	0.350	0.164	
XT38	4 3/4	2 13/16	23,900	473,000	14,300	0.91	10	15	11.08	4 5/16	2 11/16	0.362	0.170	
HT31	4 1/4	1 3/4	23,400	584,100	14,000	0.83	9	13	11.14	4	1 5/8	0.348	0.170	3 1/2
HT38	4 3/4	2 11/16	25,300	587,300	15,200	0.89	10	15.5	11.31	4 1/2	2 9/16	0.360	0.173	
XT31	4	2	20,400	463,700	12,200	0.72	10	15	10.74	3 29/32	1 7/8	0.350	0.164	
XT38	4 3/4	2 13/16	23,900	473,000	14,300	0.84	10	15	11.08	4 11/32	2 11/16	0.362	0.170	
NC38	4 3/4	2 11/16	18,100	587,300	9,700	0.97	10	12.5	14.24	4 1/2	2 9/16	0.310	0.218	3 1/2
NC31	4 1/8	2	13,200	495,700	7,100	0.71	9	11	13.93	4 1/32	1 7/8	0.302	0.213	
HT31	4 1/8	2 1/8	16,600	447,100	10,000	0.89	9	13	13.91	3 27/32	2	0.303	0.213	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.36	10	15.5	14.45	4 1/4	2 9/16	0.310	0.221	
SLH90	4 3/4	2 11/16	18,700	534,200	11,100	1.01	10	12.5	14.24	4 9/32	2 9/16	0.310	0.218	
XT31	4	2 1/8	18,600	415,100	11,200	1.00	10	15	13.87	3 5/8	2	0.302	0.212	
XT38	4 3/4	2 11/16	27,700	537,800	16,600	1.49	10	15	14.42	4 1/32	2 9/16	0.310	0.221	3 1/2
NC38	5	2 9/16	20,300	649,200	10,700	0.86	10	12.5	14.84	4 19/32	2 7/16	0.308	0.227	
NC31	4 1/8	2	13,200	495,700	7,100	0.56	9	11	13.93	N/A	1 7/8	0.302	0.213	
HT31	4 1/8	2	18,900	495,700	11,300	0.80	9	13	14.04	3 15/16	1 7/8	0.301	0.215	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.08	10	15.5	14.45	4 3/8	2 9/16	0.310	0.221	
SLH90	4 3/4	2 11/16	18,700	534,200	11,100	0.80	10	12.5	14.24	4 3/8	2 9/16	0.310	0.218	
XT31	4	2 1/8	18,600	415,100	11,200	0.79	10	15	13.87	3 25/32	2	0.302	0.212	3 1/2
XT38	4 3/4	2 11/16	27,700	537,800	16,600	1.18	10	15	14.42	4 5/32	2 9/16	0.310	0.221	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

### Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
3 1/2	13.30	G-105 EU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758
	13.30	G-105 IU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758
	13.30	G-105 IU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758
	13.30	G-105 EU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758
	13.30	G-105 EU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758
	13.30	G-105 IU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758
3 1/2	13.30	G-105 EU	26,000	380,200	0.368	2.764	3.621	2.572	5.144	19,320	19,758
	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404
	13.30	S-135 IU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404
	13.30	S-135 IU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404
	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404
	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404
	13.30	S-135 IU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404
	13.30	S-135 EU	33,400	488,800	0.368	2.764	3.621	2.572	5.144	24,840	25,404
3 1/2	13.30	Z-140 IU	34,600	506,900	0.368	2.764	3.621	2.572	5.144	25,760	26,345
	13.30	Z-140 EU	34,600	506,900	0.368	2.764	3.621	2.572	5.144	25,760	26,345
	13.30	Z-140 IU	34,600	506,900	0.368	2.764	3.621	2.572	5.144	25,760	26,345
	13.30	Z-140 EU	34,600	506,900	0.368	2.764	3.621	2.572	5.144	25,760	26,345
	13.30	Z-140 EU	34,600	506,900	0.368	2.764	3.621	2.572	5.144	25,760	26,345
3 1/2	13.30	V-150 IU	37,100	543,100	0.368	2.764	3.621	2.572	5.144	27,600	28,226
	13.30	V-150 EU	37,100	543,100	0.368	2.764	3.621	2.572	5.144	27,600	28,226
	13.30	V-150 IU	37,100	543,100	0.368	2.764	3.621	2.572	5.144	27,600	28,226
	13.30	V-150 EU	37,100	543,100	0.368	2.764	3.621	2.572	5.144	27,600	28,226
	13.30	V-150 EU	37,100	543,100	0.368	2.764	3.621	2.572	5.144	27,600	28,226
3 1/2	15.50	E-75 EU	21,100	322,800	0.449	2.602	4.304	2.923	5.847	16,838	16,774
	15.50	E-75 EU	21,100	322,800	0.449	2.602	4.304	2.923	5.847	16,838	16,774
	15.50	E-75 EU	21,100	322,800	0.449	2.602	4.304	2.923	5.847	16,838	16,774
3 1/2	15.50	X-95 EU	26,700	408,800	0.449	2.602	4.304	2.923	5.847	21,328	21,247
	15.50	X-95 EU	26,700	408,800	0.449	2.602	4.304	2.923	5.847	21,328	21,247
	15.50	X-95 EU	26,700	408,800	0.449	2.602	4.304	2.923	5.847	21,328	21,247
3 1/2	15.50	G-105 EU	29,500	451,900	0.449	2.602	4.304	2.923	5.847	23,573	23,484
	15.50	G-105 EU	29,500	451,900	0.449	2.602	4.304	2.923	5.847	23,573	23,484
	15.50	G-105 EU	29,500	451,900	0.449	2.602	4.304	2.923	5.847	23,573	23,484
	15.50	G-105 EU	29,500	451,900	0.449	2.602	4.304	2.923	5.847	23,573	23,484
3 1/2	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194
	15.50	S-135 EU	38,000	581,000	0.449	2.602	4.304	2.923	5.847	30,308	30,194
3 1/2	15.50	Z-140 EU	39,400	602,500	0.449	2.602	4.304	2.923	5.847	31,430	31,312
	15.50	Z-140 EU	39,400	602,500	0.449	2.602	4.304	2.923	5.847	31,430	31,312
	15.50	Z-140 EU	39,400	602,500	0.449	2.602	4.304	2.923	5.847	31,430	31,312
	15.50	Z-140 EU	39,400	602,500	0.449	2.602	4.304	2.923	5.847	31,430	31,312
3 1/2	15.50	V-150 EU	42,200	645,500	0.449	2.602	4.304	2.923	5.847	33,675	33,549
	15.50	V-150 EU	42,200	645,500	0.449	2.602	4.304	2.923	5.847	33,675	33,549
	15.50	V-150 EU	42,200	645,500	0.449	2.602	4.304	2.923	5.847	33,675	33,549
	15.50	V-150 EU	42,200	645,500	0.449	2.602	4.304	2.923	5.847	33,675	33,549
	16.60	S-135 EU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
NC38	5	2 7/16	22,200	708,100	11,700	0.85	10	12.5	15.00	4 21/32	2 5/16	0.306	0.229	3 1/2
NC31	4 1/8	2	13,200	495,700	7,100	0.51	9	11	13.93	N/A	1 7/8	0.302	0.213	
HT31	4 1/8	2	18,900	495,700	11,300	0.73	9	13	14.04	4	1 7/8	0.301	0.215	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	0.97	10	15.5	14.45	4 7/16	2 9/16	0.310	0.221	
SLH90	4 3/4	2 9/16	20,900	596,100	12,400	0.80	10	12.5	14.41	4 7/16	2 7/16	0.308	0.220	
XT31	4 1/8	2	21,100	463,700	12,700	0.81	10	15	14.21	3 13/16	1 7/8	0.300	0.217	
XT38	4 3/4	2 11/16	27,700	537,800	16,600	1.07	10	15	14.42	4 7/32	2 9/16	0.310	0.221	3 1/2
NC38	5	2 1/8	26,500	842,400	14,000	0.79	10	12.5	15.37	4 13/16	2	0.302	0.235	
NC31	4 1/8	2	13,200	495,700	7,100	0.40	9	11	13.93	N/A	1 7/8	0.302	0.213	
HT31	4 1/8	2	18,900	495,700	11,300	0.57	9	13	14.04	N/A	1 7/8	0.301	0.215	
HT38	4 3/4	2 9/16	26,900	649,200	16,100	0.81	10	15.5	14.63	4 9/16	2 7/16	0.308	0.224	
SLH90	4 3/4	2 9/16	20,900	596,100	12,400	0.63	10	12.5	14.41	4 19/32	2 7/16	0.308	0.220	
XT31	4 1/8	1 7/8	23,400	509,400	14,000	0.70	10	15	14.34	4 31/32	1 3/4	0.298	0.219	3 1/2
XT38	4 3/4	2 11/16	27,700	537,800	16,600	0.83	10	15	14.42	4 13/32	2 9/16	0.310	0.221	
GPDS38	4 7/8	2 9/16	25,700	649,200	15,400	0.77	10	12.5	14.62	4 11/16	2 7/16	0.308	0.224	
HT31	4 1/8	1 7/8	19,900	541,400	11,900	0.58	9	13	14.17	N/A	1 3/4	0.300	0.217	
HT38	4 3/4	2 9/16	26,900	649,200	16,100	0.78	10	15.5	14.63	4 9/16	2 7/16	0.308	0.224	
XT31	4 1/8	1 3/4	25,000	552,100	15,000	0.72	10	15	14.47	3 31/32	1 5/8	0.297	0.221	
XT38	4 3/4	2 9/16	31,300	599,600	18,800	0.90	10	15	14.59	4 3/8	2 7/16	0.308	0.223	3 1/2
GPDS38	5	2 9/16	25,800	649,200	15,500	0.75	10	12.5	14.84	4 11/16	2 7/16	0.308	0.227	
HT31	4 1/4	1 3/4	23,400	584,100	14,000	0.63	9	13	14.47	4 1/4	1 5/8	0.298	0.221	
HT38	4 3/4	2 9/16	26,900	649,200	16,100	0.73	10	15.5	14.63	4 5/8	2 7/16	0.308	0.224	
XT31	4 1/8	1 3/4	25,000	552,100	15,000	0.67	10	15	14.47	4 1/16	1 5/8	0.297	0.221	
XT38	4 3/4	2 9/16	31,300	599,600	18,800	0.84	10	15	14.59	4 7/16	2 7/16	0.308	0.223	
GPDS38	5	2 9/16	25,800	649,200	15,500	0.70	10	12.5	14.84	4 3/4	2 7/16	0.308	0.227	3 1/2
NC38	5	2 9/16	20,300	649,200	10,700	0.96	10	12.5	16.94	4 17/32	2 7/16	0.276	0.259	
HT38	4 3/4	2 9/16	26,900	649,200	16,100	1.27	10	15.5	16.71	4 1/4	2 7/16	0.276	0.256	
XT38	4 3/4	2 9/16	31,300	599,600	18,800	1.48	10	15	16.68	4 1/32	2 7/16	0.276	0.255	
NC38	5	2 7/16	22,200	708,100	11,700	0.83	10	12.5	17.11	4 21/32	2 5/16	0.274	0.262	
HT38	4 3/4	2 9/16	26,900	649,200	16,100	1.01	10	15.5	16.71	4 3/8	2 7/16	0.276	0.256	
XT38	4 3/4	2 9/16	31,300	599,600	18,800	1.17	10	15	16.68	4 5/32	2 7/16	0.276	0.255	3 1/2
NC38	5	2 1/8	26,500	842,400	14,000	0.90	10	12.5	17.50	4 23/32	2	0.269	0.268	
HT38	4 3/4	2 9/16	26,900	649,200	16,100	0.91	10	15.5	16.71	4 7/16	2 7/16	0.276	0.256	
NC40	5 1/4	2 9/16	27,800	838,300	14,600	0.94	9	12	17.24	4 15/16	2 7/16	0.276	0.264	
XT38	4 3/4	2 9/16	31,300	599,600	18,800	1.06	10	15	16.68	4 1/4	2 7/16	0.276	0.255	
NC38	5	2 1/8	26,500	842,400	14,000	0.70	10	12.5	17.50	4 29/32	2	0.269	0.268	
HT38	4 3/4	2 7/16	28,400	708,100	17,000	0.75	10	15.5	16.90	4 19/32	2 5/16	0.273	0.258	3 1/2
NC40	5 1/2	2 1/4	32,900	980,000	17,100	0.87	10	12.5	18.31	5 3/32	2 1/8	0.271	0.280	
XT38	4 3/4	2 7/16	34,200	658,500	20,500	0.90	10	15	16.86	4 3/8	2 5/16	0.273	0.258	
XT39	4 7/8	2 7/16	38,500	788,600	22,100	1.01	10	15	17.09	4 3/8	2 5/16	0.273	0.261	
GPDS38	5	2 7/16	29,200	708,100	17,500	0.77	10	12.5	17.11	4 23/32	2 5/16	0.274	0.262	
HT38	4 3/4	2 7/16	28,400	708,100	17,000	0.72	10	15.5	16.90	4 5/8	2 5/16	0.273	0.258	
XT38	4 3/4	2 7/16	34,200	658,500	20,500	0.87	10	15	16.86	4 13/32	2 5/16	0.273	0.258	3 1/2
XT39	4 7/8	2 7/16	38,500	788,600	23,100	0.98	10	15	17.09	4 13/32	2 5/16	0.273	0.261	
GPDS38	5	2 7/16	29,200	708,100	17,500	0.74	10	12.5	17.11	4 3/4	2 5/16	0.274	0.262	
HT38	5	2 1/4	37,700	790,900	22,600	0.89	10	15.5	17.63	4 19/32	2 1/8	0.270	0.270	
XT38	4 3/4	2 1/4	36,300	741,400	21,800	0.86	10	15	17.11	4 13/32	2 1/8	0.271	0.262	
XT39	4 7/8	2 1/4	40,700	871,400	24,400	0.96	10	15	17.35	4 3/8	2 1/8	0.270	0.265	
GPDS38	5	2 1/4	33,900	790,900	20,300	0.80	10	12.5	17.35	4 23/32	2 1/8	0.271	0.265	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

### Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
4	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381
	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381
	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381
	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381
	11.85	E-75 IU	19,500	230,800	0.262	3.476	3.077	2.700	5.400	8,597	8,381
4	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978
	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978
	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978
	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978
	11.85	X-95 IU	24,700	292,300	0.262	3.476	3.077	2.700	5.400	10,889	9,978
4	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708
	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708
	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708
	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708
	11.85	G-105 IU	27,300	323,100	0.262	3.476	3.077	2.700	5.400	12,036	10,708
4	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618
	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618
	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618
	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618
	11.85	S-135 IU	35,100	415,400	0.262	3.476	3.077	2.700	5.400	15,474	12,618
4	11.85	Z-140 IU	36,400	430,700	0.262	3.476	3.077	2.700	5.400	16,048	12,894
	11.85	Z-140 IU	36,400	430,700	0.262	3.476	3.077	2.700	5.400	16,048	12,894
	11.85	Z-140 IU	36,400	430,700	0.262	3.476	3.077	2.700	5.400	16,048	12,894
4	11.85	V-150 IU	38,900	461,500	0.262	3.476	3.077	2.700	5.400	17,194	13,404
	11.85	V-150 IU	38,900	461,500	0.262	3.476	3.077	2.700	5.400	17,194	13,404
	11.85	V-150 IU	38,900	461,500	0.262	3.476	3.077	2.700	5.400	17,194	13,404
4	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354
	14.00	E-75 EU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354
	14.00	E-75 IU	23,300	285,400	0.330	3.340	3.805	3.229	6.458	10,828	11,354
4	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382
	14.00	X-95 EU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382
	14.00	X-95 IU	29,500	361,500	0.330	3.340	3.805	3.229	6.458	13,716	14,382
4	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896
	14.00	G-105 EU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896
	14.00	G-105 IU	32,600	399,500	0.330	3.340	3.805	3.229	6.458	15,159	15,896

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
NC40	5 1/4	2 13/16	23,500	711,600	12,400	1.21	9	12	13.41	4 3/4	2 11/16	0.481	0.205	4
SH	4 3/4	2 9/16	15,300	512,000	8,100	0.78	9	12	12.91	4 3/8	2 7/16	0.477	0.198	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.30	10	15.5	13.08	4 9/32	2 9/16	0.477	0.200	
XT38	4 3/4	2 11/16	27,900	537,800	16,600	1.42	10	15	13.04	4 1/16	2 9/16	0.477	0.199	
XT39	4 7/8	2 13/16	32,900	603,000	19,700	1.69	10	15	13.08	4 5/32	2 11/16	0.479	0.200	
NC40	5 1/4	2 13/16	23,500	711,600	12,400	0.95	9	12	13.41	4 27/32	2 11/16	0.481	0.205	4
SH	4 3/4	2 9/16	15,300	512,000	8,100	0.62	9	12	12.91	4 1/2	2 7/16	0.477	0.198	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.02	10	15.5	13.08	4 13/32	2 9/16	0.477	0.200	
XT38	4 3/4	2 11/16	27,700	537,800	16,600	1.12	10	15	13.04	4 3/16	2 9/16	0.477	0.199	
XT39	4 7/8	2 13/16	32,900	603,000	19,700	1.69	10	15	13.08	4 5/32	2 11/16	0.479	0.200	
NC40	5 1/4	2 13/16	23,500	711,600	12,400	0.86	9	12	13.41	4 29/32	2 11/16	0.481	0.205	4
SH	4 3/4	2 9/16	15,300	512,000	8,100	0.56	9	12	12.91	4 9/16	2 7/16	0.477	0.198	
HT38	4 3/4	2 9/16	26,900	649,200	16,100	0.99	9	10	13.27	4 13/32	2 7/16	0.475	0.203	
XT38	4 3/4	2 11/16	27,900	537,800	16,600	1.01	10	15	13.04	4 9/32	2 9/16	0.477	0.199	
XT39	4 7/8	2 13/16	32,900	603,000	19,700	1.21	10	15	13.08	4 11/32	2 11/16	0.479	0.200	
NC40	5 1/2	2 9/16	28,100	838,300	14,600	0.80	9	12	14.23	5 1/16	2 7/16	0.476	0.218	4
SH	4 3/4	2 9/16	15,300	512,000	8,100	0.44	9	12	12.91	4 23/32	2 7/16	0.477	0.198	
HT38	4 3/4	2 7/16	28,400	708,100	17,000	0.81	10	15.5	13.45	4 17/32	2 5/16	0.473	0.206	
XT38	4 3/4	2 11/16	27,700	537,800	16,600	0.79	10	15	13.04	4 7/16	2 9/16	0.477	0.199	
XT39	4 7/8	2 13/16	32,900	603,000	19,700	0.94	10	15	13.08	4 1/2	2 11/16	0.479	0.200	
HT38	4 3/4	2 7/16	28,400	708,100	17,000	0.78	10	15.5	13.45	4 9/16	2 5/16	0.473	0.206	4
XT38	4 3/4	2 11/16	27,700	537,800	16,600	0.76	10	15	13.04	4 15/32	2 9/16	0.477	0.199	
XT39	4 7/8	2 13/16	32,900	603,000	19,700	0.90	10	15	13.08	4 17/32	2 11/16	0.479	0.200	
HT38	5	2 7/16	33,000	708,100	19,800	0.85	10	15.5	13.93	4 5/8	2 5/16	0.472	0.213	
XT38	4 3/4	2 9/16	31,300	599,600	18,800	0.81	10	15	13.23	4 15/32	2 7/16	0.475	0.202	
XT39	4 7/8	2 13/16	32,900	603,000	19,700	0.85	10	15	13.08	4 19/32	2 11/16	0.479	0.200	4
NC40	5 1/4	2 13/16	23,500	711,600	12,400	1.01	9	12	15.64	4 13/16	2 11/16	0.445	0.239	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	1.09	10	15.5	15.28	4 3/8	2 9/16	0.442	0.234	
SH	4 3/4	2 7/16	17,100	570,900	9,100	0.73	9	12	15.31	4 7/16	2 5/16	0.440	0.234	
HT40	5 1/4	2 13/16	31,900	711,600	19,100	1.37	9	15	15.93	4 19/32	2 11/16	0.444	0.244	
NC46	6	3 1/4	33,600	901,200	17,600	1.44	9	12	16.51	5 9/32	3 1/8	0.453	0.253	4
XT38	4 3/4	2 11/16	27,700	537,800	16,600	1.19	10	15	15.25	4 5/32	2 9/16	0.442	0.233	
XT39	4 7/8	2 13/16	32,900	603,000	19,700	1.41	10	15	13.08	4 5/32	2 11/16	0.479	0.234	
NC40	5 1/4	2 11/16	25,700	776,400	13,500	0.87	9	12	15.82	4 15/16	2 9/16	0.443	0.242	
HT38	4 3/4	2 11/16	25,300	587,300	15,200	0.86	10	15.5	15.28	4 17/32	2 9/16	0.442	0.234	
SH	4 3/4	2 7/16	17,100	570,900	9,100	0.58	9	12	15.31	4 19/32	2 5/16	0.440	0.234	4
HT40	5 1/4	2 13/16	31,900	711,600	19,100	1.08	9	15	15.93	4 23/32	2 11/16	0.444	0.244	
NC46	6	3 1/4	33,600	901,200	17,600	1.14	9	12	16.51	5 3/8	3 1/8	0.453	0.253	
XT38	4 3/4	2 11/16	27,700	537,800	16,600	0.95	10	15	15.25	4 5/16	2 9/16	0.442	0.233	
XT39	4 7/8	2 13/16	32,900	603,000	19,700	1.12	10	15	15.29	4 3/8	2 11/16	0.444	0.234	
NC40	5 1/2	2 7/16	30,100	897,200	15,600	0.92	9	12	16.62	5	2 5/16	0.439	0.254	4
HT38	5	2 9/16	29,600	649,200	17,800	0.91	10	15.5	15.95	4 17/32	2 7/16	0.440	0.244	
SH	4 3/4	2 7/16	17,100	570,900	9,100	0.52	9	12	15.31	4 21/32	2 5/16	0.440	0.234	
HT40	5 1/4	2 13/16	31,900	711,600	19,100	0.98	9	15	15.93	4 25/32	2 11/16	0.444	0.244	
NC46	6	3 1/4	33,600	901,200	17,600	1.03	9	12	16.51	5 7/16	3 1/8	0.453	0.253	
XT38	4 3/4	2 11/16	27,700	537,800	16,600	0.85	10	15	15.25	4 3/8	2 9/16	0.442	0.233	4
XT39	4 7/8	2 13/16	32,900	603,000	19,700	1.01	10	15	15.29	4 7/16	2 11/16	0.444	0.234	

\*2" Longer than standard.

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# DRILL PIPE DATA TABLES

## Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
4	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141
	14.00	S-135 EU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141
	14.00	S-135 IU	41,900	513,600	0.330	3.340	3.805	3.229	6.458	19,491	20,141
4	14.00	Z-140 IU	43,500	532,700	0.330	3.340	3.805	3.229	6.458	20,213	20,742
	14.00	Z-140 IU	43,500	532,700	0.330	3.340	3.805	3.229	6.458	20,213	20,742
	14.00	Z-140 IU	43,500	532,700	0.330	3.340	3.805	3.229	6.458	20,213	20,742
	14.00	Z-140 IU	43,500	532,700	0.330	3.340	3.805	3.229	6.458	20,213	20,742
	14.00	Z-140 IU	43,500	532,700	0.330	3.340	3.805	3.229	6.458	20,213	20,742
4	14.00	V-150 IU	46,600	570,700	0.330	3.340	3.805	3.229	6.458	21,656	21,912
	14.00	V-150 IU	46,600	570,700	0.330	3.340	3.805	3.229	6.458	21,656	21,912
	14.00	V-150 IU	46,600	570,700	0.330	3.340	3.805	3.229	6.458	21,656	21,912
	14.00	V-150 IU	46,600	570,700	0.330	3.340	3.805	3.229	6.458	21,656	21,912
	14.00	V-150 IU	46,600	570,700	0.330	3.340	3.805	3.229	6.458	21,656	21,912
4	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896
	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896
	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896
	15.70	E-75 EU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896
	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896
	15.70	E-75 IU	25,800	324,100	0.380	3.240	4.322	3.578	7.157	12,469	12,896
4	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335
	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335
	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335
	15.70	X-95 EU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335
	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335
	15.70	X-95 IU	32,700	410,500	0.380	3.240	4.322	3.578	7.157	15,794	16,335
4	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055
	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055
	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055
	15.70	G-105 EU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055
	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055
	15.70	G-105 IU	36,100	453,800	0.380	3.240	4.322	3.578	7.157	17,456	18,055
4	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213
	15.70	S-135 EU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213
	15.70	S-135 IU	46,500	583,400	0.380	3.240	4.322	3.578	7.157	22,444	23,213
4	15.70	Z-140 IU	48,200	605,000	0.380	3.240	4.322	3.578	7.157	23,275	24,073
	15.70	Z-140 IU	48,200	605,000	0.380	3.240	4.322	3.578	7.157	23,275	24,073
	15.70	Z-140 IU	48,200	605,000	0.380	3.240	4.322	3.578	7.157	23,275	24,073
	15.70	Z-140 IU	48,200	605,000	0.380	3.240	4.322	3.578	7.157	23,275	24,073
4	15.70	V-150 IU	51,600	648,200	0.380	3.240	4.322	3.578	7.157	24,938	25,793
	15.70	V-150 IU	51,600	648,200	0.380	3.240	4.322	3.578	7.157	24,938	25,793
	15.70	V-150 IU	51,600	648,200	0.380	3.240	4.322	3.578	7.157	24,938	25,793
	15.70	V-150 IU	51,600	648,200	0.380	3.240	4.322	3.578	7.157	24,938	25,793

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
NC40	5 1/2	2	36,400	1,080,100	18,900	0.87	9	12	17.15	5 3/16	1 7/16	0.433	0.262	4
HT38	5	2 7/16	33,000	708,100	19,800	0.79	10	15.5	16.13	4 11/16	2 5/16	0.438	0.247	
SH	4 3/4	2 7/16	17,100	570,900	9,100	0.41	9	12	15.31	N/A	2 5/16	0.440	0.234	
HT40	5 1/4	2 11/16	35,900	776,400	21,500	0.86	9	15	16.12	4 29/32	2 9/16	0.442	0.247	
NC46	6	3	39,200	1,048,400	20,500	0.94	9	12	16.90	5 9/16	2 7/8	0.449	0.259	
XT38	4 3/4	2 9/16	31,300	599,600	18,800	0.75	10	15	15.44	4 17/32	2 7/16	0.440	0.236	
XT39	4 7/8	2 9/16	37,000	729,700	22,200	0.88	10	15	15.67	4 17/32	2 7/16	0.440	0.240	
GPDS40	5 1/4	2 11/16	32,700	776,400	19,600	0.78	9	12	15.82	5	2 9/16	0.443	0.242	
HT38	5	2 7/16	33,000	708,100	19,800	0.76	10	15.5	16.13	4 23/32	2 5/16	0.438	0.247	4
HT40	5 1/4	2 11/16	35,900	776,400	21,500	0.83	9	15	16.12	4 15/16	2 9/16	0.442	0.247	
XT38	4 3/4	2 9/16	31,300	599,600	18,800	0.72	10	15	15.44	4 9/16	2 7/16	0.440	0.236	
XT39	4 7/8	2 9/16	37,000	729,700	22,200	0.85	10	15	15.67	4 9/16	2 7/16	0.440	0.240	
GPDS40	5 1/4	2 9/16	34,600	838,300	21,800	0.84	9	12	15.99	5	2 7/16	0.441	0.245	
HT38	5	2 7/16	33,000	708,100	19,800	0.71	10	15.5	16.13	4 25/32	2 5/16	0.438	0.247	4
HT40	5 1/4	2 11/16	35,900	776,400	21,500	0.77	9	15	16.12	5	2 9/16	0.442	0.247	
XT38	4 3/4	2 7/16	34,200	658,500	20,500	0.73	10	15	15.61	4 19/32	2 5/16	0.438	0.239	
XT39	4 7/8	2 9/16	37,000	729,700	22,200	0.79	10	15	15.67	4 5/8	2 7/16	0.440	0.240	
GPDS40	5 1/4	2 9/16	36,400	838,300	21,800	0.78	9	12	15.99	5 1/32	2 7/16	0.441	0.245	
NC40	5 1/4	2 13/16	23,500	711,600	12,400	0.91	9	12	17.22	4 7/8	2 11/16	0.421	0.263	4
HT40	5 1/4	2 13/16	31,900	711,600	19,100	1.24	9	15	17.49	4 5/8	2 11/16	0.420	0.268	
H90	5 1/2	2 13/16	35,400	913,700	20,400	1.37	9	12	17.67	4 31/32	2 11/16	0.420	0.270	
NC46	6	3	39,200	1,048,400	20,500	1.52	9	12	18.34	5 5/16	2 7/8	0.424	0.281	
XT39	4 7/8	2 9/16	37,000	729,700	22,200	1.43	10	15	17.24	4 5/32	2 7/16	0.415	0.264	
XT40	5 1/4	2 13/16	44,000	751,600	26,400	1.71	10	15	17.59	4 5/16	2 11/16	0.420	0.269	
NC40	5 1/4	2 9/16	27,800	838,300	14,600	0.85	9	12	17.57	5	2 7/16	0.417	0.269	4
HT40	5 1/4	2 13/16	31,900	711,600	19,100	0.98	9	15	17.49	4 25/32	2 11/16	0.420	0.268	
H90	5 1/2	2 13/16	35,400	913,700	20,400	1.08	9	12	17.67	5 3/32	2 11/16	0.420	0.270	
NC46	6	3	39,200	1,048,400	20,500	1.20	9	12	18.49	5 7/16	2 7/8	0.424	0.283	
XT39	4 7/8	2 9/16	37,000	729,700	22,200	1.13	10	15	17.24	4 5/16	2 7/16	0.415	0.264	
XT40	5 1/4	2 13/16	44,000	751,600	26,400	1.35	10	15	17.59	4 15/32	2 11/16	0.420	0.269	
NC40	5 1/2	2 7/16	30,100	897,200	15,600	0.83	9	12	18.20	5 1/16	2 5/16	0.414	0.278	4
HT40	5 1/4	2 13/16	31,900	711,600	19,100	0.88	9	15	17.49	4 27/32	2 11/16	0.420	0.268	
H90	5 1/2	2 13/16	35,400	913,700	20,400	0.98	9	15	18.00	5 5/32	2 11/16	0.420	0.275	
NC46	6	3	39,200	1,048,400	20,500	1.09	9	12	18.49	5 15/32	2 7/8	0.424	0.283	
XT39	4 7/8	2 9/16	37,000	729,700	22,200	1.02	10	15	17.24	4 13/32	2 7/16	0.415	0.264	
XT40	5 1/4	2 13/16	44,000	751,600	26,400	1.22	10	15	17.59	4 17/32	2 11/16	0.420	0.269	
NC40	5 1/2	2	36,400	1,080,100	18,900	0.78	9	12	18.73	5 1/4	1 7/8	0.409	0.286	4
HT40	5 1/2	2 9/16	39,500	838,300	23,700	0.85	9	15	17.88	4 15/16	2 7/16	0.415	0.273	
H90	5 3/4	2 11/16	38,400	978,500	21,800	0.83	9	15	18.74	5 5/16	2 9/16	0.417	0.287	
NC46	6	3	39,200	1,048,400	20,500	0.84	9	12	18.49	5 21/32	2 7/8	0.424	0.283	
XT39	4 7/8	2 9/16	37,000	729,700	22,200	0.80	10	15	17.24	4 5/8	2 7/16	0.415	0.264	
XT40	5 1/4	2 13/16	44,000	751,600	26,400	0.95	10	15	17.59	4 3/4	2 11/16	0.420	0.269	
GPDS40	5 1/4	2 9/16	36,400	838,300	21,800	0.78	9	12	17.57	5 1/32	2 7/16	0.417	0.269	
HT40	5 1/4	2 9/16	39,500	838,300	23,700	0.82	9	15	17.88	4 31/32	2 7/16	0.415	0.273	4
XT39	4 7/8	2 9/16	37,000	729,700	22,200	0.77	10	15	17.24	4 21/32	2 7/16	0.415	0.264	
XT40	5 1/4	2 13/16	44,000	751,600	26,400	0.91	10	15	17.59	4 25/32	2 11/16	0.420	0.269	
GPDS40	5 1/4	2 9/16	36,400	868,300	21,800	0.76	9	12	17.57	5 1/16	2 7/16	0.417	0.269	
HT40	5 1/4	2 7/16	41,000	897,200	24,600	0.79	9	15	18.05	5	2 5/16	0.413	0.276	4
XT39	4 7/8	2 9/16	37,000	729,700	22,200	0.72	10	15	17.24	4 25/32	2 7/16	0.415	0.264	
XT40	5 1/4	2 11/16	48,100	816,400	28,900	0.93	10	15	17.79	4 25/32	2 9/16	0.417	0.272	
GPDS40	5 1/4	2 7/16	38,100	897,200	22,900	0.74	9	12	17.74	5 3/32	2 5/16	0.415	0.271	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

### Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
4 1/2	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
	16.60	E-75 EU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
	16.60	E-75 EU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
	16.60	E-75 EU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
	16.60	E-75 IEU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
	16.60	E-75 EU	30,800	330,600	0.337	3.826	4.407	4.271	8.543	9,829	10,392
4 1/2	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
	16.60	X-95 EU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
	16.60	X-95 EU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
	16.60	X-95 EU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
	16.60	X-95 IEU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
	16.60	X-95 EU	39,000	418,700	0.337	3.826	4.407	4.271	8.543	12,450	12,765
4 1/2	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
	16.60	G-105 EU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
	16.60	G-105 EU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
	16.60	G-105 EU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
	16.60	G-105 IEU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
	16.60	G-105 EU	43,100	462,800	0.337	3.826	4.407	4.271	8.543	13,761	13,825
4 1/2	16.60	S-135 IEU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
	16.60	S-135 EU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
	16.60	S-135 IEU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
	16.60	S-135 IEU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
	16.60	S-135 IEU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
	16.60	S-135 EU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
	16.60	S-135 EU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
	16.60	S-135 IEU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
	16.60	S-135 IEU	55,500	595,000	0.337	3.826	4.407	4.271	8.543	17,693	16,773
4 1/2	16.60	Z-140 IEU	57,500	617,000	0.337	3.826	4.407	4.271	8.543	18,348	17,228
	16.60	Z-140 EU	57,500	617,000	0.337	3.826	4.407	4.271	8.543	18,348	17,228
	16.60	Z-140 IEU	57,500	617,000	0.337	3.826	4.407	4.271	8.543	18,348	17,228
	16.60	Z-140 IEU	57,500	617,000	0.337	3.826	4.407	4.271	8.543	18,348	17,228
	16.60	Z-140 EU	57,500	617,000	0.337	3.826	4.407	4.271	8.543	18,348	17,228
4 1/2	16.60	V-150 IEU	61,600	661,100	0.337	3.826	4.407	4.271	8.543	19,658	18,103
	16.60	V-150 EU	61,600	661,100	0.337	3.826	4.407	4.271	8.543	19,658	18,103
	16.60	V-150 IEU	61,600	661,100	0.337	3.826	4.407	4.271	8.543	19,658	18,103
	16.60	V-150 IEU	61,600	661,100	0.337	3.826	4.407	4.271	8.543	19,658	18,103
	16.60	V-150 EU	61,600	661,100	0.337	3.826	4.407	4.271	8.543	19,658	18,103

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
NC46	6 1/4	3 1/4	34,000	901,200	17,600	1.10	9	12	19.14	5 13/32	3 1/8	0.585	0.293	4 1/2
OH	5 7/8	3 3/4	27,300	714,000	14,600	0.89	9	12	17.58	5 15/32	3 5/8	0.596	0.269	
FH	6	3	34,800	976,200	17,600	1.13	9	12	19.03	5 3/8	2 7/8	0.580	0.291	
H90	6	3 1/4	39,000	938,400	18,800	1.27	9	12	18.61	5 11/32	3 1/8	0.585	0.285	
HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.55	9	15	19.59	5 13/32	3 1/8	0.583	0.300	
NC50	6 5/8	3 3/4	38,100	939,100	19,800	1.24	9	12	19.19	5 23/32	3 5/8	0.595	0.294	
HT50	6 1/4	3 3/4	52,700	939,100	31,600	1.71	9	15	18.73	5 13/16	3 5/8	0.595	0.287	
XT40	5 1/4	3	37,400	648,900	22,400	1.21	10	15	17.92	4 7/8	2 7/8	0.579	0.274	
XT46	6	3 1/2	58,100	910,300	34,900	1.89	10	15	18.63	5 5/8	3 3/8	0.589	0.285	
XT50	6 3/8	3 3/4	75,200	1,085,500	45,100	2.44	10	15	19.17	5 31/32	3 5/8	0.595	0.293	
NC46	6 1/4	3 1/4	34,000	901,200	17,600	0.87	9	12	19.14	5 17/32	3 1/8	0.585	0.293	4 1/2
OH	5 7/8	3 1/2	33,900	884,800	18,200	0.87	9	12	18.02	5 19/32	3 3/8	0.590	0.276	
FH	6	3	34,800	976,200	17,600	0.89	9	12	19.03	5 1/2	2 7/8	0.580	0.291	
H90	6	3 1/4	39,000	938,400	18,800	1.00	9	12	18.61	5 15/32	3 1/8	0.585	0.285	
HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.22	9	15	19.59	5 13/32	3 1/8	0.583	0.300	
NC50	6 5/8	3 3/4	38,100	939,100	19,800	0.98	9	12	19.19	5 27/32	3 5/8	0.595	0.294	
HT50	6 1/4	3 3/4	52,700	939,100	31,600	1.35	9	15	18.73	5 13/16	3 5/8	0.595	0.287	
XT40	5 1/4	3	37,400	648,900	22,400	0.96	10	15	17.92	4 7/8	2 7/8	0.579	0.274	
XT46	6	3 1/2	58,100	910,300	34,900	1.49	10	15	18.63	5 5/8	3 3/8	0.589	0.285	
XT50	6 3/8	3 3/4	75,200	1,085,500	45,100	1.93	10	15	19.17	5 31/32	3 5/8	0.595	0.293	
NC46	6 1/4	3	39,700	1,048,400	20,500	0.92	9	12	19.57	5 19/32	2 7/8	0.580	0.299	4 1/2
OH	6	3 1/4	40,300	1,043,800	21,500	0.94	9	12	18.69	5 21/32	3 1/8	0.585	0.286	
FH	6 1/4	2 3/4	40,200	1,111,600	20,100	0.93	9	12	19.96	5 9/16	2 5/8	0.575	0.305	
H90	6	3 1/4	39,000	938,400	18,800	0.90	9	12	18.61	5 17/32	3 1/8	0.585	0.285	
HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.10	9	15	19.59	5 13/32	3 1/8	0.583	0.300	
NC50	6 5/8	3 3/4	38,100	939,100	19,800	0.88	9	12	19.19	5 29/32	3 5/8	0.595	0.294	
HT50	6 1/4	3 3/4	52,700	939,100	31,600	1.22	9	15	18.73	5 13/16	3 5/8	0.595	0.287	
XT40	5 1/4	3	37,400	648,900	22,400	0.87	10	15	17.92	4 7/8	2 7/8	0.579	0.274	
XT46	6	3 1/2	58,100	910,300	34,900	1.35	10	15	18.63	5 5/8	3 3/8	0.589	0.285	
XT50	6 3/8	3 3/4	75,200	1,085,500	45,100	1.74	10	15	19.17	5 31/32	3 5/8	0.595	0.293	
NC46	6 1/4	2 3/4	44,900	1,183,900	23,200	0.81	9	12	19.96	5 25/32	2 5/8	0.575	0.305	4 1/2
OH	6	3	43,400	1,191,100	24,600	0.78	9	12	19.07	5 13/16	2 7/8	0.581	0.292	
FH	6 1/4	2 3/4	40,200	1,111,600	20,100	0.72	9	12	19.96	5 3/4	2 5/8	0.575	0.305	
H90	6 1/4	2 3/4	51,500	1,221,100	24,600	0.93	9	12	19.96	5 11/16	2 5/8	0.575	0.305	
HT46	6 1/4	3 1/4	47,600	901,200	28,600	0.86	9	15	19.59	5 1/2	3 1/8	0.583	0.300	
NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.81	9	12	19.65	6 1/16	3 3/8	0.590	0.295	
HT50	6 3/8	3 1/2	65,700	1,109,900	39,400	1.18	9	15	19.52	5 13/16	3 3/8	0.589	0.301	
XT40	5 1/4	2 13/16	44,000	751,600	26,400	0.79	10	15	18.23	4 15/16	2 11/16	0.575	0.299	
XT46	6	3 1/2	58,100	910,300	34,900	1.05	10	15	18.63	5 5/8	3 3/8	0.589	0.279	
XT50	6 3/8	3 3/4	75,200	1,085,500	45,100	1.35	10	15	19.17	5 31/32	3 5/8	0.595	0.293	
GPDS46	6 1/4	3 1/4	43,300	901,200	26,000	0.78	9	12	19.14	5 19/32	3 1/8	0.585	0.293	4 1/2
HT46	6 1/4	3 1/4	47,600	901,200	28,600	0.83	9	15	19.59	5 17/32	3 1/8	0.583	0.300	
HT50	6 3/8	3 1/2	65,700	1,109,900	39,400	1.14	9	15	19.52	5 13/16	3 3/8	0.589	0.299	
XT40	5 1/4	2 13/16	44,000	751,600	26,400	0.77	10	15	18.23	4 31/32	2 11/16	0.575	0.279	
XT46	6	3 1/2	58,100	910,300	34,900	1.01	10	15	18.63	5 5/8	3 3/8	0.589	0.285	
XT50	6 3/8	3 3/4	75,200	1,085,500	45,100	1.31	10	15	19.17	5 31/32	3 5/8	0.595	0.293	
GPDS46	6 1/4	3 1/4	43,300	901,200	26,000	0.75	9	12	19.14	5 5/8	3 1/8	0.585	0.293	
HT46	6 1/4	3 1/4	47,600	901,200	28,600	0.77	9	15	19.59	5 19/32	3 1/8	0.583	0.300	
HT50	6 3/8	3 1/2	65,700	1,109,900	39,400	1.07	9	15	19.52	5 13/16	3 3/8	0.589	0.299	
XT40	5 1/4	2 13/16	44,000	751,600	26,400	0.71	10	15	18.23	5 1/16	2 11/16	0.575	0.279	4 1/2
XT46	6 1/4	3 1/4	70,200	1,069,300	42,100	1.14	10	15	19.74	5 5/8	3 1/8	0.583	0.302	
XT50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.32	10	15	19.67	5 31/32	3 3/8	0.589	0.301	
GPDS46	6 1/4	3 1/4	43,300	901,200	26,000	0.70	9	12	19.14	5 11/16	3 1/8	0.585	0.293	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

### Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
4 1/2	20.00	E-75 IEU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964
	20.00	E-75 EU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964
	20.00	E-75 IEU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964
	20.00	E-75 IEU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964
	20.00	E-75 EU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964
	20.00	E-75 EU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964
	20.00	E-75 IEU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964
	20.00	E-75 EU	36,900	412,400	0.430	3.640	5.498	5.116	10.232	12,542	12,964
4 1/2	20.00	X-95 IEU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421
	20.00	X-95 EU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421
	20.00	X-95 IEU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421
	20.00	X-95 IEU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421
	20.00	X-95 EU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421
	20.00	X-95 EU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421
	20.00	X-95 IEU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421
	20.00	X-95 EU	46,700	522,300	0.430	3.640	5.498	5.116	10.232	15,886	16,421
4 1/2	20.00	G-105 IEU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149
	20.00	G-105 EU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149
	20.00	G-105 IEU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149
	20.00	G-105 IEU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149
	20.00	G-105 EU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149
	20.00	G-105 EU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149
	20.00	G-105 IEU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149
	20.00	G-105 EU	51,700	577,300	0.430	3.640	5.498	5.116	10.232	17,558	18,149
4 1/2	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335
	20.00	S-135 EU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335
	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335
	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335
	20.00	S-135 EU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335
	20.00	S-135 EU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335
	20.00	S-135 IEU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335
	20.00	S-135 EU	66,400	742,200	0.430	3.640	5.498	5.116	10.232	22,575	23,335
4 1/2	20.00	Z-140 IEU	68,900	769,700	0.430	3.640	5.498	5.116	10.232	23,411	24,199
	20.00	Z-140 EU	68,900	769,700	0.430	3.640	5.498	5.116	10.232	23,411	24,199
	20.00	Z-140 IEU	68,900	769,700	0.430	3.640	5.498	5.116	10.232	23,411	24,199
	20.00	Z-140 EU	68,900	769,700	0.430	3.640	5.498	5.116	10.232	23,411	24,199
	20.00	Z-140 IEU	68,900	769,700	0.430	3.640	5.498	5.116	10.232	23,411	24,199
4 1/2	20.00	V-150 IEU	73,800	824,700	0.430	3.640	5.498	5.116	10.232	25,083	25,927
	20.00	V-150 EU	73,800	824,700	0.430	3.640	5.498	5.116	10.232	25,083	25,927
	20.00	V-150 IEU	73,800	824,700	0.430	3.640	5.498	5.116	10.232	25,083	25,927
	20.00	V-150 EU	73,800	824,700	0.430	3.640	5.498	5.116	10.232	25,083	25,927
	20.00	V-150 IEU	73,800	824,700	0.430	3.640	5.498	5.116	10.232	25,083	25,927
5	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962
	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962
	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962
	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962
	19.50	E-75 IEU	41,200	395,600	0.362	4.276	5.275	5.708	11.415	9,503	9,962

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
NC46	6 1/4	3	39,700	1,048,400	20,500	1.08	9	12	22.89	5 1/2	2 7/8	0.527	0.350	4 1/2
OH6	3 1/2	34,100	884,800	18,200	0.92	9	12	21.64	5 17/32	3 3/8	0.538	0.331	0.350	
H90	6	3 1/4	39,000	938,400	18,800	1.06	9	12	21.94	5 7/16	3 1/8	0.532	0.336	
HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.29	9	15	22.89	5 13/32	3 1/8	0.531	0.350	
NC50	6 5/8	3 5/8	41,700	1,026,000	21,600	1.13	9	12	22.77	5 13/16	3 1/2	0.540	0.348	
HT50	6 1/4	3 5/8	59,200	1,026,000	35,500	1.60	9	15	22.31	5 13/16	3 1/2	0.540	0.341	
XT46	6	3 1/2	58,100	910,300	34,900	1.57	10	15	21.93	5 5/8	3 3/8	0.537	0.335	
XT50	6 3/8	3 1/2	81,200	1,256,300	48,700	2.20	10	15	22.99	5 31/32	3 3/8	0.537	0.352	
NC46	6 1/4	3	39,700	1,048,400	20,500	0.85	9	12	22.89	5 21/32	2 7/8	0.527	0.350	4 1/2
OH	6 1/4	3 1/4	40,700	1,043,800	21,500	0.87	9	12	22.58	5 11/16	3 1/8	0.533	0.345	
H90	6	3 1/4	39,000	938,400	18,800	0.84	9	12	21.94	5 9/16	3 1/8	0.532	0.336	
HT46	6 1/4	3 1/4	47,600	901,200	28,600	1.02	9	15	22.89	5 13/32	3 1/8	0.531	0.350	
NC50	6 5/8	3 1/2	41,500	1,109,900	23,400	0.97	9	12	23.00	5 15/16	3 3/8	0.538	0.352	
HT50	6 1/4	3 1/2	62,700	1,109,900	37,600	1.34	9	15	22.55	5 13/16	3 3/8	0.537	0.345	
XT46	6	3 1/2	58,100	910,300	34,900	1.24	10	15	21.93	5 5/8	3 3/8	0.537	0.335	
XT50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.74	10	15	22.99	5 31/32	3 3/8	0.537	0.352	
NC46	6 1/4	2 3/4	44,900	1,183,900	23,200	0.87	9	12	23.28	5 23/32	2 5/8	0.523	0.356	4 1/2
OH	6 1/4	3	46,600	1,191,100	24,600	0.90	9	12	22.97	5 3/4	2 7/8	0.528	0.351	
H90	6 1/4	3	45,700	1,085,700	21,800	0.88	9	12	22.89	5 5/8	2 7/8	0.527	0.350	
HT46	6 1/4	3 1/4	47,600	901,200	28,600	0.92	9	15	22.89	5 7/16	3 1/8	0.531	0.350	
NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.87	9	12	23.00	6 1/32	3 3/8	0.538	0.352	
HT50	6 1/4	3 1/2	62,700	1,109,900	37,600	1.21	9	15	22.55	5 13/16	3 3/8	0.537	0.345	
XT46	6	3 1/2	58,100	910,300	34,900	1.12	10	15	21.93	5 5/8	3 3/8	0.537	0.335	
XT50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.57	10	15	22.99	5 31/32	3 3/8	0.537	0.352	
NC46	6 1/4	2 3/4	44,900	1,183,900	23,200	0.68	9	12	23.28	5 15/16	2 5/8	0.523	0.356	4 1/2
OH	6 3/8	2 3/4	52,200	1,326,600	27,400	0.79	9	12	23.61	5 31/32	2 5/8	0.524	0.361	
H90	6 3/8	2 3/4	51,700	1,221,100	24,600	0.78	9	12	23.57	5 27/32	2 5/8	0.523	0.360	
HT46	6 1/4	3	57,700	1,048,400	34,600	0.87	9	15	23.34	5 9/16	2 7/8	0.526	0.357	
NC50	6 5/8	3 1/4	51,700	1,269,000	26,800	0.78	9	12	23.43	6 7/32	3 1/8	0.532	0.358	
HT50	6 3/8	3 1/2	65,700	1,109,900	39,400	0.99	9	15	23.85	5 13/16	3 3/8	0.537	0.350	
XT46	6	3 1/4	64,800	1,069,300	38,900	0.98	10	15	22.42	5 5/8	3 1/8	0.531	0.343	
XT50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.22	10	15	23.99	5 31/32	3 3/8	0.537	0.352	
GPDS46	6 1/4	3	53,400	1,048,400	32,000	0.80	9	12	22.89	5 21/32	2 7/8	0.527	0.350	4 1/2
HT46	6 1/4	3	57,700	1,048,400	34,600	0.84	9	15	23.34	5 19/32	2 7/8	0.526	0.357	
HT50	6 3/8	3 1/2	65,700	1,109,900	39,400	0.95	9	15	22.85	5 27/32	3 3/8	0.537	0.350	
XT46	6	3 1/4	64,800	1,069,300	38,900	0.94	10	15	22.42	5 5/8	3 1/8	0.531	0.343	
XT50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.18	10	15	22.99	5 31/32	3 3/8	0.537	0.352	
GPDS46	6 1/4	3	53,400	1,048,400	32,000	0.78	9	12	22.89	5 11/16	2 7/8	0.527	0.350	
HT46	6 1/4	3	57,700	1,048,400	34,600	0.78	9	15	23.34	5 21/32	2 7/8	0.526	0.357	
HT50	6 3/8	3 1/2	65,700	1,109,900	39,400	0.89	9	15	22.85	5 29/32	3 3/8	0.537	0.350	
XT46	6 1/4	3 1/8	75,700	1,144,400	45,400	1.03	10	15	23.26	5 5/8	3	0.528	0.356	4 1/2
XT50	6 3/8	3 1/2	81,200	1,256,300	48,700	1.10	10	15	22.99	5 31/32	3 3/8	0.537	0.352	
GPDS46	6 1/4	3	53,400	1,048,400	32,000	0.72	9	12	22.89	5 3/4	2 7/8	0.527	0.350	
NC50	6 5/8	3 3/4	38,100	939,100	19,800	0.92	9	12	22.12	5 7/8	3 5/8	0.733	0.338	
HT50	6 5/8	3 3/4	53,300	939,100	32,000	1.29	9	15	22.57	5 13/16	3 5/8	0.732	0.345	
FH	7	3 3/4	62,900	1,448,400	33,400	1.53	10	12	23.20	6 3/8	3 5/8	0.732	0.355	
XT46	6	3 1/2	36,500	910,300	21,900	0.89	10	15	21.69	5 5/8	3 3/8	0.726	0.332	
XT50	6 1/2	4	38,700	902,900	23,200	0.94	10	15	21.83	5 31/32	3 7/8	0.738	0.334	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

### Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
5	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026
	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026
	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026
	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026
	19.50	X-95 IEU	52,100	501,100	0.362	4.276	5.275	5.708	11.415	12,037	12,026
5	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999
	19.50	G-105 IEU	57,600	553,800	0.362	4.276	5.275	5.708	11.415	13,304	12,999
5	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672
	19.50	S-135 IEU	74,100	712,100	0.362	4.276	5.275	5.708	11.415	17,105	15,672
5	19.50	Z-140 IEU	76,800	738,400	0.362	4.276	5.275	5.708	11.415	17,738	16,079
	19.50	Z-140 IEU	76,800	738,400	0.362	4.276	5.275	5.708	11.415	17,738	16,079
	19.50	Z-140 IEU	76,800	738,400	0.362	4.276	5.275	5.708	11.415	17,738	16,079
	19.50	Z-140 IEU	76,800	738,400	0.362	4.276	5.275	5.708	11.415	17,738	16,079
	19.50	Z-140 IEU	76,800	738,400	0.362	4.276	5.275	5.708	11.415	17,738	16,079
5	19.50	V-150 IEU	82,300	791,200	0.362	4.276	5.275	5.708	11.415	19,005	16,858
	19.50	V-150 IEU	82,300	791,200	0.362	4.276	5.275	5.708	11.415	19,005	16,858
	19.50	V-150 IEU	82,300	791,200	0.362	4.276	5.275	5.708	11.415	19,005	16,858
	19.50	V-150 IEU	82,300	791,200	0.362	4.276	5.275	5.708	11.415	19,005	16,858
	19.50	V-150 IEU	82,300	791,200	0.362	4.276	5.275	5.708	11.415	19,005	16,858
5	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500
	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500
	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500
	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500
	25.60	E-75 IEU	52,300	530,100	0.500	4.000	7.069	7.245	14.491	13,125	13,500
5	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100
	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100
	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100
	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100
	25.60	X-95 IEU	66,200	671,500	0.500	4.000	7.069	7.245	14.491	16,625	17,100
5	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900
	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900
	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900
	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900
	25.60	G-105 IEU	73,200	742,200	0.500	4.000	7.069	7.245	14.491	18,375	18,900
5	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300
	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300
	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300
	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300
	25.60	S-135 IEU	94,100	954,300	0.500	4.000	7.069	7.245	14.491	23,625	24,300
5	25.60	Z-140 IEU	97,500	989,600	0.500	4.000	7.069	7.245	14.491	24,500	25,200
	25.60	Z-140 IEU	97,500	989,600	0.500	4.000	7.069	7.245	14.491	24,500	25,200
	25.60	Z-140 IEU	97,500	989,600	0.500	4.000	7.069	7.245	14.491	24,500	25,200
	25.60	Z-140 IEU	97,500	989,600	0.500	4.000	7.069	7.245	14.491	24,500	25,200
	25.60	Z-140 IEU	97,500	989,600	0.500	4.000	7.069	7.245	14.491	24,500	25,200
5	25.60	V-150 IEU	104,500	1,060,300	0.500	4.000	7.069	7.245	14.491	26,250	27,000
	25.60	V-150 IEU	104,500	1,060,300	0.500	4.000	7.069	7.245	14.491	26,250	27,000
	25.60	V-150 IEU	104,500	1,060,300	0.500	4.000	7.069	7.245	14.491	26,250	27,000
	25.60	V-150 IEU	104,500	1,060,300	0.500	4.000	7.069	7.245	14.491	26,250	27,000
	25.60	V-150 IEU	104,500	1,060,300	0.500	4.000	7.069	7.245	14.491	26,250	27,000

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.87	9	12	22.61	6 1/32	3 3/8	0.727	0.346	5
HT50	6 5/8	3 3/4	53,300	939,100	32,000	1.02	9	15	22.57	5 13/16	3 5/8	0.732	0.345	
FH7	3 3/4	62,900	1,448,400	33,400	1.21	10	12	23.20	6 1/2	3 5/8	0.732	0.355		
XT46	6	3 1/2	58,100	910,300	34,900	1.12	10	15	21.69	5 5/8	3 3/8	0.726	0.332	
XT50	6 1/2	4	62,500	902,900	37,500	1.20	10	15	21.83	5 31/32	3 7/8	0.738	0.334	
NC50	6 5/8	3 1/4	51,700	1,269,000	26,800	0.90	9	12	23.07	6 3/32	3 1/8	0.722	0.353	5
HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	1.15	9	15	23.10	5 13/16	3 3/8	0.726	0.353	
FH	7	3 3/4	62,900	1,448,400	33,400	1.09	10	12	23.20	6 9/16	3 5/8	0.732	0.355	
XT46	6	3 1/2	58,100	910,300	34,900	1.01	10	15	21.69	5 5/8	3 3/8	0.726	0.332	
XT50	6 1/2	4	62,500	902,900	37,500	1.09	10	15	21.83	5 31/32	3 7/8	0.738	0.334	
GPDS50	6 5/8	3 1/2	60,400	1,110,200	36,200	1.05	9	12	21.61	5 13/16	3 3/8	0.727	0.346	5
NC50	6 5/8	2 3/4	63,400	1,551,700	32,900	0.86	9	12	23.89	6 5/16	2 5/8	0.713	0.365	
HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	0.89	9	15	23.10	5 15/16	3 3/8	0.726	0.353	
FH	7 1/4	3 1/2	72,500	1,619,200	37,400	0.98	10	12	24.38	6 3/4	3 3/8	0.726	0.373	
XT46	6	3 1/2	58,100	910,300	34,900	0.78	10	15	21.69	5 23/32	3 3/8	0.726	0.332	
XT50	6 1/2	3 3/4	77,000	1,085,500	46,200	1.04	10	15	22.39	5 31/32	3 5/8	0.731	0.343	5
GPDS50	6 5/8	3 1/2	60,400	1,110,200	36,200	0.82	9	12	21.61	6 1/32	3 3/8	0.727	0.346	
HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	0.86	9	15	23.10	5 31/32	3 3/8	0.726	0.353	
XT46	6	3 1/2	58,100	910,300	34,900	0.76	10	15	21.69	5 25/32	3 3/8	0.726	0.332	
XT50	6 1/2	3 3/4	77,000	1,085,500	46,200	1.00	10	15	22.39	5 31/32	3 5/8	0.731	0.343	
GPDS50	6 5/8	3 1/2	60,400	1,110,200	36,200	0.79	9	12	21.61	6 3/32	3 3/8	0.727	0.346	5
HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	0.80	9	15	23.10	6 1/32	3 3/8	0.726	0.353	
XT46	6 1/4	3 1/4	70,200	1,069,300	42,100	0.85	10	15	22.78	5 23/32	3 1/8	0.720	0.348	
XT50	6 1/2	3 3/4	77,000	1,085,500	46,200	0.94	10	15	22.39	5 31/32	3 5/8	0.731	0.343	
GPDS50	6 5/8	3 1/2	60,400	1,110,200	36,200	0.73	9	12	21.61	6 5/32	3 3/8	0.727	0.346	
NC50	6 5/8	3 1/2	45,100	1,109,900	23,400	0.86	9	12	28.08	6 1/32	3 3/8	0.641	0.430	5
HT50	6 5/8	3 3/4	53,300	939,100	32,000	1.02	9	15	28.01	5 13/16	3 5/8	0.646	0.428	
FH	7	3 1/2	62,900	1,619,200	37,400	1.20	10	12	29.16	6 1/2	3 3/8	0.641	0.446	
XT50	6 5/8	3 3/4	77,300	1,085,500	46,400	1.48	10	15	28.14	5 31/32	3 5/8	0.646	0.430	
NC50	6 5/8	3	57,800	1,416,200	30,000	0.87	9	12	28.97	6 7/32	2 7/8	0.631	0.443	5
HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	1.00	9	15	28.53	5 13/16	3 3/8	0.640	0.436	
FH	7	3 1/2	62,900	1,619,200	37,400	0.95	10	12	29.16	6 21/32	3 3/8	0.641	0.446	
XT50	6 5/8	3 3/4	77,300	1,085,500	46,400	1.17	10	15	28.14	5 31/32	3 5/8	0.646	0.430	
NC50	6 5/8	2 3/4	63,400	1,551,700	32,900	0.87	9	12	29.36	6 9/32	2 5/8	0.627	0.449	5
HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	0.90	9	15	29.53	5 29/32	3 3/8	0.640	0.436	
FH	7 1/4	3 1/2	72,500	1,619,200	37,400	0.99	10	12	29.82	6 23/32	3 3/8	0.640	0.456	
XT50	6 5/8	3 3/4	77,300	1,085,500	46,400	1.06	10	15	28.14	5 31/32	3 5/8	0.646	0.430	
GPDS50	6 5/8	3 1/2	60,400	1,110,200	36,200	0.83	9	12	28.08	6 1/32	3 3/8	0.641	0.430	
NC50	6 5/8	2 3/4	63,400	1,551,700	32,900	0.67	9	12	29.36	6 17/32	2 5/8	0.627	0.449	5
HT50	6 5/8	3 1/2	66,200	1,109,900	39,700	0.70	9	15	29.53	6 3/16	3 3/8	0.640	0.436	
FH	7 1/4	3 1/4	78,700	1,778,300	41,200	0.84	10	12	30.30	6 15/16	3 1/8	0.635	0.464	
XT50	6 5/8	3 1/2	90,700	1,256,300	54,400	0.96	10	15	28.67	5 31/32	3 3/8	0.640	0.439	
GPDS50	6 5/8	3 1/2	60,400	1,110,200	36,200	0.64	9	12	28.08	6 9/32	3 3/8	0.641	0.430	
HT50	6 5/8	3 1/4	78,000	1,269,000	46,800	0.80	9	15	29.02	6 1/8	3 1/8	0.634	0.444	5
XT50	6 5/8	3 3/4	90,700	1,256,300	54,400	0.93	10	15	28.67	6	3 3/8	0.640	0.439	
GPDS50	6 5/8	3 1/4	72,200	1,269,200	43,300	0.74	9	12	28.54	6 7/32	3 1/8	0.636	0.437	
HT50	6 5/8	3 1/4	78,000	1,269,000	46,800	0.75	9	15	29.02	6 7/32	3 1/8	0.634	0.444	5
XT50	6 5/8	3 3/8	97,000	1,337,300	58,200	0.93	10	15	28.93	6 1/32	3 1/4	0.637	0.443	
GPDS50	6 5/8	3 1/4	72,200	1,269,200	43,300	0.69	9	12	28.54	6 5/16	3 1/8	0.636	0.437	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
5 1/2	21.90	E-75 IEU	50,700	437,100	0.361	4.778	5.828	7.031	14.062	8,413	8,615
	21.90	E-75 IEU	50,700	437,100	0.361	4.778	5.828	7.031	14.062	8,413	8,615
	21.90	E-75 IEU	50,700	437,100	0.361	4.778	5.828	7.031	14.062	8,413	8,615
	21.90	E-75 IEU	50,700	437,100	0.361	4.778	5.828	7.031	14.062	8,413	8,615
5 1/2	21.90	X-95 IEU	64,200	553,700	0.361	4.778	5.828	7.031	14.062	10,019	10,912
	21.90	X-95 IEU	64,200	553,700	0.361	4.778	5.828	7.031	14.062	10,019	10,912
	21.90	X-95 IEU	64,200	553,700	0.361	4.778	5.828	7.031	14.062	10,019	10,912
	21.90	X-95 IEU	64,200	553,700	0.361	4.778	5.828	7.031	14.062	10,019	10,912
5 1/2	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	10,753	12,061
	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	10,753	12,061
	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	10,753	12,061
	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	10,753	12,061
5 1/2	21.90	G-105 IEU	71,000	612,000	0.361	4.778	5.828	7.031	14.062	10,753	12,061
	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	12,679	15,507
	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	12,679	15,507
	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	12,679	15,507
5 1/2	21.90	S-135 IEU	91,300	786,800	0.361	4.778	5.828	7.031	14.062	12,679	15,507
	21.90	Z-140 IEU	94,700	816,000	0.361	4.778	5.828	7.031	14.062	12,957	16,081
	21.90	Z-140 IEU	94,700	816,000	0.361	4.778	5.828	7.031	14.062	12,957	16,081
	21.90	Z-140 IEU	94,700	816,000	0.361	4.778	5.828	7.031	14.062	12,957	16,081
5 1/2	21.90	Z-140 IEU	94,700	816,000	0.361	4.778	5.828	7.031	14.062	12,957	16,081
	21.90	V-150 IEU	101,400	874,200	0.361	4.778	5.828	7.031	14.062	13,473	17,230
	21.90	V-150 IEU	101,400	874,200	0.361	4.778	5.828	7.031	14.062	13,473	17,230
	21.90	V-150 IEU	101,400	874,200	0.361	4.778	5.828	7.031	14.062	13,473	17,230
5 1/2	21.90	V-150 IEU	101,400	874,200	0.361	4.778	5.828	7.031	14.062	13,473	17,230
	24.70	E-75 IEU	56,600	497,200	0.415	4.670	6.630	7.844	15.688	10,464	9,903
	24.70	E-75 IEU	56,600	497,200	0.415	4.670	6.630	7.844	15.688	10,464	9,903
	24.70	E-75 IEU	56,600	497,200	0.415	4.670	6.630	7.844	15.688	10,464	9,903
5 1/2	24.70	E-75 IEU	56,600	497,200	0.415	4.670	6.630	7.844	15.688	10,464	9,903
	24.70	X-95 IEU	71,700	629,800	0.415	4.670	6.630	7.844	15.688	12,933	12,544
	24.70	X-95 IEU	71,700	629,800	0.415	4.670	6.630	7.844	15.688	12,933	12,544
	24.70	X-95 IEU	71,700	629,800	0.415	4.670	6.630	7.844	15.688	12,933	12,544
5 1/2	24.70	X-95 IEU	71,700	629,800	0.415	4.670	6.630	7.844	15.688	12,933	12,544
	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	14,013	13,865
	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	14,013	13,865
	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	14,013	13,865
5 1/2	24.70	G-105 IEU	79,200	696,100	0.415	4.670	6.630	7.844	15.688	14,013	13,865
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,023	17,826
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,023	17,826
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,023	17,826
5 1/2	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,023	17,826
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,023	17,826
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,023	17,826
	24.70	S-135 IEU	101,800	895,000	0.415	4.670	6.630	7.844	15.688	17,023	17,826

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
FH	7	4	57,900	1,265,800	31,200	1.14	10	12	24.83	6 15/32	3 7/8	0.910	0.380	5 1/2
HT55	7	4	77,200	1,265,800	46,300	1.52	10	15	25.32	6 13/32	3 7/8	0.908	0.387	
XT54	6 3/4	4 1/4	70,400	960,700	42,200	1.39	10	15	24.04	6 7/32	4 1/8	0.915	0.368	
XT57	7	4 1/4	94,300	1,208,700	56,600	1.86	10	15	24.72	6 15/32	4 1/8	0.915	0.378	
FH	7	3 3/4	65,100	1,448,400	35,700	1.01	10	12	25.45	6 5/8	3 5/8	0.904	0.389	5 1/2
HT55	7	4	77,200	1,265,800	46,300	1.20	10	15	25.42	6 13/32	3 7/8	0.908	0.389	
XT54	6 3/4	4 1/4	70,400	960,700	42,200	1.10	10	15	24.04	6 7/32	4 1/8	0.915	0.368	
XT57	7	4 1/4	94,300	1,208,700	56,600	1.47	10	15	24.72	6 15/32	4 1/8	0.915	0.378	
FH	7 1/4	3 1/2	75,000	1,619,200	40,000	1.06	10	12	26.62	6 11/16	3 3/8	0.898	0.407	5 1/2
HT55	7	4	77,200	1,265,800	46,300	1.09	10	15	25.42	6 13/32	3 7/8	0.908	0.389	
XT54	6 3/4	4 1/4	70,400	960,700	42,200	0.99	10	15	24.04	6 7/32	4 1/8	0.915	0.368	
XT57	7	4 1/4	94,300	1,208,700	56,600	1.86	10	15	24.72	6 15/32	4 1/8	0.915	0.378	
GPDS55	7	4 1/8	74,200	1,292,500	44,500	1.05	10	12	24.83	6 7/16	3 7/8	0.910	0.380	5 1/2
FH	7 1/2	3	90,200	1,925,500	47,700	0.99	10	12	28.24	6 29/32	2 7/8	0.886	0.432	
HT55	7	4	77,200	1,265,800	46,300	0.85	10	15	25.42	6 5/8	3 7/8	0.908	0.389	
XT54	6 3/4	4 1/4	70,400	960,700	42,200	0.77	10	15	24.04	6 5/16	4 1/8	0.915	0.368	
XT57	7	4 1/4	94,300	1,208,700	56,600	1.03	10	15	24.72	6 15/32	4 1/8	0.915	0.378	5 1/2
GPDS55	7	4	74,200	1,292,500	44,500	0.81	9	12	24.83	6 11/16	3 7/8	0.910	0.380	
FH	7 1/2	3	90,200	1,925,500	47,700	0.95	10	12	28.24	6 15/16	2 7/8	0.886	0.432	
HT55	7	4	77,200	1,265,800	46,300	0.82	10	15	25.42	6 21/32	3 7/8	0.908	0.389	
XT54	6 3/4	4 1/4	70,400	960,700	42,200	0.74	10	15	24.04	6 11/32	4 1/8	0.915	0.368	5 1/2
XT57	7	4 1/4	94,300	1,208,700	56,600	1.00	10	15	24.72	6 15/32	4 1/8	0.915	0.378	
GPDS55	7	4	74,200	1,292,500	44,500	0.78	10	12	24.83	6 23/32	3 7/8	0.910	0.380	
FH	7 1/2	3	90,200	1,925,500	47,700	0.89	10	12	28.24	7	2 7/8	0.886	0.432	
HT55	7	4	77,200	1,265,800	46,300	0.76	10	15	25.42	6 23/32	3 7/8	0.908	0.389	5 1/2
XT54	6 3/4	4	86,600	1,155,100	52,000	0.85	10	15	24.63	6 9/32	3 7/8	0.908	0.377	
XT57	7	4 1/4	94,300	1,208,700	56,600	0.93	10	15	24.72	6 15/32	4 1/8	0.915	0.378	
GPDS55	7	4	74,200	1,292,500	44,500	0.73	10	12	24.83	6 25/32	3 7/8	0.910	0.380	
FH	7	4	57,900	1,265,800	31,200	1.02	10	12	27.37	6 17/32	3 7/8	0.872	0.419	5 1/2
HT55	7	4	77,200	1,265,800	46,300	1.36	10	15	27.85	6 13/32	3 7/8	0.870	0.426	
XT54	6 3/4	4 1/4	70,400	960,700	42,200	1.24	10	15	26.46	6 7/32	4 1/8	0.877	0.405	
XT57	7	4 1/4	94,300	1,208,700	56,600	1.67	10	15	24.14	6 15/32	4 1/8	0.877	0.415	
FH	7 1/4	3 1/2	75,000	1,619,200	40,000	1.05	10	12	29.07	6 11/16	3 3/8	0.859	0.445	5 1/2
HT55	7	4	77,200	1,265,800	46,300	1.08	10	15	27.85	6 13/32	3 7/8	0.870	0.426	
XT54	6 3/4	4 1/4	70,400	960,700	42,200	0.98	10	15	26.57	6 7/32	4 1/8	0.877	0.406	
XT57	7	4 1/4	94,300	1,208,700	56,600	1.32	10	15	27.25	6 15/32	4 1/8	0.877	0.417	
FH	7 1/4	3 1/2	75,000	1,619,200	40,000	0.95	10	12	29.07	6 25/32	3 3/8	0.859	0.445	5 1/2
HT55	7	4	77,200	1,265,800	46,300	0.97	10	15	27.85	6 15/32	3 7/8	0.870	0.426	
XT54	6 3/4	4 1/4	70,400	960,700	42,200	0.89	10	15	26.57	6 7/32	4 1/8	0.877	0.406	
XT57	7	4 1/4	94,300	1,208,700	56,600	1.19	10	15	27.25	6 15/32	4 1/8	0.877	0.417	
GPDS55	7	4	74,200	1,292,500	44,500	0.94	10	12	27.27	6 17/32	3 7/8	0.872	0.417	5 1/2
FH	7 1/2	3	90,200	1,925,500	47,700	0.89	10	12	30.69	7	2 7/8	0.848	0.469	
HT55	7	4	77,200	1,265,800	46,300	0.76	10	15	27.85	6 23/32	3 7/8	0.870	0.426	
XT54	6 3/4	4	86,600	1,155,100	52,000	0.85	10	15	27.17	6 9/32	3 7/8	0.870	0.416	
XT57	7	4 1/4	94,300	1,208,700	56,600	0.93	10	15	27.25	6 15/32	4 1/8	0.877	0.417	5 1/2
GPDS55	7	4	74,200	1,292,500	44,500	0.73	10	12	27.27	6 25/32	3 7/8	0.872	0.417	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

Pipe Data											
Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
5 1/2	24.70	Z-140 IEU	105,600	928,100	0.415	4.670	6.630	7.844	15.688	17,489	18,486
	24.70	Z-140 IEU	105,600	928,100	0.415	4.670	6.630	7.844	15.688	17,489	18,486
	24.70	Z-140 IEU	105,600	928,100	0.415	4.670	6.630	7.844	15.688	17,489	18,486
	24.70	Z-140 IEU	105,600	928,100	0.415	4.670	6.630	7.844	15.688	17,489	18,486
	24.70	Z-140 IEU	105,600	928,100	0.415	4.670	6.630	7.844	15.688	17,489	18,486
5 1/2	24.70	V-150 IEU	113,100	994,400	0.415	4.670	6.630	7.844	15.688	18,386	19,807
	24.70	V-150 IEU	113,100	994,400	0.415	4.670	6.630	7.844	15.688	18,386	19,807
	24.70	V-150 IEU	113,100	994,400	0.415	4.670	6.630	7.844	15.688	18,386	19,807
	24.70	V-150 IEU	113,100	994,400	0.415	4.670	6.630	7.844	15.688	18,386	19,807
	24.70	V-150 IEU	113,100	994,400	0.415	4.670	6.630	7.844	15.688	18,386	19,807
5 7/8	23.40	E-75 IEU	58,600	469,000	0.361	5.153	6.254	8.125	16.251	7,453	8,065
5 7/8	23.40	X-95 IEU	74,200	594,100	0.361	5.153	6.254	8.125	16.251	8,775	10,216
5 7/8	23.40	G-105 IEU	82,000	656,600	0.361	5.153	6.254	8.125	16.251	9,362	11,291
5 7/8	23.40	S-135 IEU	105,500	844,200	0.361	5.153	6.254	8.125	16.251	10,825	14,517
5 7/8	23.40	Z-140 IEU	109,400	875,500	0.361	5.153	6.254	8.125	16.251	11,023	15,054
5 7/8	23.40	V-150 IEU	117,200	938,000	0.361	5.153	6.254	8.125	16.251	11,376	16,130
5 7/8	26.30	E-75 IEU	65,500	533,900	0.415	5.045	7.119	9.083	18.165	9,558	9,271
5 7/8	26.30	X-95 IEU	83,000	676,300	0.415	5.045	7.119	9.083	18.165	11,503	11,744
5 7/8	26.30	G-105 IEU	91,700	747,400	0.415	5.045	7.119	9.083	18.165	12,414	12,980
5 7/8	26.30	S-135 IEU	117,900	961,000	0.415	5.045	7.119	9.083	18.165	14,892	16,688
5 7/8	26.30	Z-140 IEU	122,300	996,600	0.415	5.045	7.119	9.083	18.165	15,266	17,306
5 7/8	26.30	V-150 IEU	131,000	1,067,800	0.415	5.045	7.119	9.083	18.165	15,976	18,543
6 5/8	25.20	E-75 IEU	70,600	489,500	0.330	5.965	6.526	9.786	19.572	4,788	6,538
	25.20	E-75 IEU	70,600	489,500	0.330	5.965	6.526	9.786	19.572	4,788	6,538
	25.20	E-75 IEU	70,600	489,500	0.330	5.965	6.526	9.786	19.572	4,788	6,538
6 5/8	25.20	X-95 IEU	89,400	620,000	0.330	5.965	6.526	9.786	19.572	5,321	8,281
	25.20	X-95 IEU	89,400	620,000	0.330	5.965	6.526	9.786	19.572	5,321	8,281
	25.20	X-95 IEU	89,400	620,000	0.330	5.965	6.526	9.786	19.572	5,321	8,281
6 5/8	25.20	G-105 IEU	98,800	685,200	0.330	5.965	6.526	9.786	19.572	5,500	9,153
	25.20	G-105 IEU	98,800	685,200	0.330	5.965	6.526	9.786	19.572	5,500	9,153
	25.20	G-105 IEU	98,800	685,200	0.330	5.965	6.526	9.786	19.572	5,500	9,153
6 5/8	25.20	S-135 IEU	127,000	881,000	0.330	5.965	6.526	9.786	19.572	6,036	11,768
	25.20	S-135 IEU	127,000	881,000	0.330	5.965	6.526	9.786	19.572	6,036	11,768
	25.20	S-135 IEU	127,000	881,000	0.330	5.965	6.526	9.786	19.572	6,036	11,768
	25.20	S-135 IEU	127,000	881,000	0.330	5.965	6.526	9.786	19.572	6,036	11,768
6 5/8	25.20	Z-140 IEU	131,700	913,700	0.330	5.965	6.526	9.786	19.572	6,121	12,204
	25.20	Z-140 IEU	131,700	913,700	0.330	5.965	6.526	9.786	19.572	6,121	12,204
	25.20	Z-140 IEU	131,700	913,700	0.330	5.965	6.526	9.786	19.572	6,121	12,204
	25.20	Z-140 IEU	131,700	913,700	0.330	5.965	6.526	9.786	19.572	6,121	12,204

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
FH7 1/2	3	90,200	1,925,500	47,700	0.85	10	12	30.69	7 1/32	2 7/8	0.848	0.469	5 1/2	
HT55	7	3 3/4	87,700	1,448,400	52,600	0.83	10	15	28.42	6 21/32	3 5/8	0.863	0.435	
XT54	6 3/4	4	86,600	1,155,100	52,000	0.82	10	15	27.17	6 11/32	3 7/8	0.870	0.416	
XT57	7	4 1/4	94,300	1,208,700	56,600	0.89	10	15	27.25	6 15/32	4 1/8	0.877	0.417	
GPDS55	7 1/8	3 3/4	89,300	1,475,100	53,600	0.85	10	12	28.12	6 23/32	3 5/8	0.865	0.430	
FH	7 1/2	3	90,200	1,925,500	47,700	0.80	10	12	30.69	7 3/32	2 7/8	0.848	0.469	5 1/2
HT55	7	3 3/4	87,700	1,448,400	52,600	0.78	10	15	28.42	6 23/32	3 5/8	0.863	0.435	
XT54	6 3/4	4	86,600	1,155,100	52,000	0.77	10	15	27.17	6 7/16	3 7/8	0.870	0.416	
XT57	7	4	106,200	1,403,100	63,700	0.94	10	15	27.85	6 15/32	3 7/8	0.870	0.426	
GPDS55	7 1/8	4 1/8	66,600	1,196,700	40,000	0.59	10	12	27.31	6 31/32	4	0.875	0.418	
XT57	7	4 1/4	94,300	1,208,700	56,600	1.61	10	15	26.48	6 15/32	4 1/8	1.055	0.405	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	1.27	10	15	26.48	6 15/32	4 1/8	1.055	0.405	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	1.15	10	15	26.48	6 15/32	4 1/8	1.055	0.405	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	0.89	10	15	26.48	6 15/32	4 1/8	1.055	0.405	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	0.86	10	15	26.48	6 17/32	4 1/8	1.055	0.405	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	0.80	10	15	26.48	6 5/8	4 1/8	1.055	0.405	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	1.44	10	15	29.12	6 15/32	4 1/8	1.014	0.445	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	1.14	10	15	29.12	6 15/32	4 1/8	1.014	0.445	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	1.03	10	15	29.12	6 15/32	4 1/8	1.014	0.445	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	0.80	10	15	29.12	6 5/8	4 1/8	1.014	0.445	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	0.77	10	15	29.12	6 21/32	4 1/8	1.014	0.445	5 7/8
XT57	7	4 1/4	94,300	1,208,700	56,600	0.72	10	15	29.12	6 3/4	4 1/8	1.014	0.445	5 7/8
FH	8	5	73,700	1,448,400	38,400	1.04	10	13	28.79	7 7/16	4 7/8	1.418	0.440	6 5/8
HT65	8	5	99,700	1,448,400	59,800	1.41	10	16	29.38	7 11/32	4 7/8	1.415	0.449	
XT65	8	5	135,300	1,543,700	81,200	1.92	10	15	29.18	7 11/32	4 7/8	1.416	0.446	
FH	8	5	73,700	1,448,400	38,400	0.82	10	13	28.79	7 5/8	4 7/8	1.418	0.440	6 5/8
HT65	8	5	99,700	1,448,400	59,800	1.12	10	16	29.38	7 11/32	4 7/8	1.415	0.449	
XT65	8	5	135,300	1,543,700	81,200	1.51	10	15	29.18	7 11/32	4 7/8	1.416	0.446	
FH	8 1/4	4 3/4	86,200	1,678,100	44,600	0.87	10	13	30.25	7 11/16	4 5/8	1.409	0.463	6 5/8
HT65	8	5	99,700	1,448,400	59,800	1.01	10	16	29.38	7 13/32	4 7/8	1.415	0.449	
XT65	8	5	135,300	1,543,700	81,200	1.37	10	15	29.18	7 11/32	4 7/8	1.416	0.446	
FH	8 1/2	4 1/4	109,200	2,102,300	56,100	0.86	10	13	32.36	7 29/32	4 1/8	1.394	0.495	6 5/8
HT65	8	5	99,700	1,448,400	59,800	0.79	10	16	29.38	7 5/8	4 7/8	1.415	0.449	
XT65	8	5	135,300	1,543,700	81,200	1.07	10	15	29.18	7 11/32	4 7/8	1.416	0.446	
GPDS65	8	4 7/8	107,500	1,596,400	64,500	0.85	10	13	29.13	7 5/8	4 3/4	1.414	0.446	
FH	8 1/2	4 1/4	109,200	2,102,300	56,100	0.83	10	13	32.36	7 31/32	4 1/8	1.394	0.495	6 5/8
HT65	8	5	99,700	1,448,400	59,800	0.76	10	16	29.38	7 11/16	4 7/8	1.415	0.449	
XT65	8	5	135,300	1,543,700	81,200	1.03	10	15	29.18	7 11/32	4 7/8	1.416	0.446	
GPDS65	8 1/4	4 7/8	108,200	1,596,400	64,900	0.82	10	13	29.91	7 21/32	4 3/4	1.413	0.458	

\*2" Longer than standard.

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## DRILL PIPE DATA TABLES

Pipe Data

Size OD in.	Nominal Weight lb/ft	Grade and Upset Type	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Wall Thickness in.	Nominal ID in.	Pipe Body Section Area sq in.	Pipe Body Section Modulus cu in.	Pipe Body Polar Section Modulus cu in.	Internal Pressure psi	Collapse Pressure psi
6 5/8	25.20	V-150 IEU	141,200	978,900	0.330	5.965	6.526	9.786	19.572	6,260	13,075
	25.20	V-150 IEU	141,200	978,900	0.330	5.965	6.526	9.786	19.572	6,260	13,075
	25.20	V-150 IEU	141,200	978,900	0.330	5.965	6.526	9.786	19.572	6,260	13,075
	25.20	V-150 IEU	141,200	978,900	0.330	5.965	6.526	9.786	19.572	6,260	13,075
6 5/8	27.70	E-75 IEU	76,300	534,200	0.362	5.901	7.123	10.578	21.156	5,894	7,172
	27.70	E-75 IEU	76,300	534,200	0.362	5.901	7.123	10.578	21.156	5,894	7,172
	27.70	E-75 IEU	76,300	534,200	0.362	5.901	7.123	10.578	21.156	5,894	7,172
6 5/8	27.70	X-95 IEU	96,600	676,700	0.362	5.901	7.123	10.578	21.156	6,755	9,084
	27.70	X-95 IEU	96,600	676,700	0.362	5.901	7.123	10.578	21.156	6,755	9,084
	27.70	X-95 IEU	96,600	676,700	0.362	5.901	7.123	10.578	21.156	6,755	9,084
6 5/8	27.70	G-105 IEU	106,800	747,900	0.362	5.901	7.123	10.578	21.156	7,103	10,040
	27.70	G-105 IEU	106,800	747,900	0.362	5.901	7.123	10.578	21.156	7,103	10,040
	27.70	G-105 IEU	106,800	747,900	0.362	5.901	7.123	10.578	21.156	7,103	10,040
6 5/8	27.70	S-135 IEU	137,300	961,600	0.362	5.901	7.123	10.578	21.156	7,813	12,909
	27.70	S-135 IEU	137,300	961,600	0.362	5.901	7.123	10.578	21.156	7,813	12,909
	27.70	S-135 IEU	137,300	961,600	0.362	5.901	7.123	10.578	21.156	7,813	12,909
	27.70	S-135 IEU	137,300	961,600	0.362	5.901	7.123	10.578	21.156	7,813	12,909
6 5/8	27.70	Z-140 IEU	142,400	997,200	0.362	5.901	7.123	10.578	21.156	7,881	13,387
	27.70	Z-140 IEU	142,400	997,200	0.362	5.901	7.123	10.578	21.156	7,881	13,387
	27.70	Z-140 IEU	142,400	997,200	0.362	5.901	7.123	10.578	21.156	7,881	13,387
	27.70	Z-140 IEU	142,400	997,200	0.362	5.901	7.123	10.578	21.156	7,881	13,387
6 5/8	27.70	V-150 IEU	152,600	1,068,400	0.362	5.901	7.123	10.578	21.156	7,970	14,343
	27.70	V-150 IEU	152,600	1,068,400	0.362	5.901	7.123	10.578	21.156	7,970	14,343
	27.70	V-150 IEU	152,600	1,068,400	0.362	5.901	7.123	10.578	21.156	7,970	14,343
	27.70	V-150 IEU	152,600	1,068,400	0.362	5.901	7.123	10.578	21.156	7,970	14,343

### Notes:

1. Torsional yield strength of conventional tool joints is calculated per API RP7G Latest Edition.
2. Torsional yield strength of Double-Shoulder Tool Joints (HT, XT, GPDS) is calculated per a formula similar to the one in API RP7G Latest Edition.
3. The make-up torque of the tool joint is based on the lower of 60% of the Tool joint torsional yield strength or the T3 value calculated per the equation in API RP7G Latest Edition. Minimum make-up torques of 50% of the tool joint torsional strength, excluding contributions of the secondary shoulder, may also be used.
4. Performance ratings for eXtreme Torque Metal-Seal (XT-M) Connection types are comparable to these shown for XT of the same size.
5. The adjusted weight of the assembly is based on an average pipe length of 29.4 ft plus the tool joint length.
6. The minimum tool joint OD for premium class is based on a tool joint torsional strength of 80% of the torsional strength of the premium class pipe to which it is attached.

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# DRILL PIPE DATA TABLES

Tool Joint Data									Assembly Data					
Connection Type	Outside Diameter in.	Inside Diameter in.	Torsional Yield Strength ft-lb	Tensile Yield Strength lb	Make-up Torque ft-lb	Torsional Ratio Tool Joint to Pipe	* Pin Tong Space in.	* Box Tong Space in.	Adjusted Weight lb/ft	Minimum Tool Joint OD for Prem. Class in.	Drift Diameter in.	Capacity US gal/ft	Displacement US gal/ft	Size OD in.
FH	8 1/2	4 1/4	109,200	2,102,300	56,100	0.77	10	13	32.36	8 1/32	4 1/8	1.394	0.495	6 5/8
HT65	8	5	99,700	1,448,400	59,800	0.71	10	16	29.38	7 3/4	4 7/8	1.415	0.449	
XT65	8	5	135,300	1,543,700	81,200	0.96	10	15	29.18	7 11/32	4 7/8	1.416	0.446	
GPDS65	8 1/4	4 7/8	108,200	1,596,400	64,900	0.77	10	13	29.91	7 3/4	4 3/4	1.413	0.458	
FH	8	5	73,700	1,448,400	38,400	0.97	10	13	30.61	7 1/2	4 7/8	1.389	0.468	6 5/8
HT65	8	5	99,700	1,448,400	59,800	1.31	10	16	31.19	7 11/32	4 7/8	1.386	0.477	
XT65	8	5	135,300	1,543,700	81,200	1.77	10	15	31.00	7 11/32	4 7/8	1.387	0.474	
FH	8 1/4	4 3/4	86,200	1,678,100	44,600	0.89	10	13	32.07	7 11/16	4 5/8	1.381	0.491	
HT65	8	5	99,700	1,448,100	59,800	1.03	10	16	31.19	7 3/8	4 7/8	1.386	0.477	6 5/8
XT65	8	5	135,300	1,543,700	81,200	1.40	10	15	31.00	7 11/32	4 7/8	1.387	0.474	
FH	8 1/4	4 3/4	86,200	1,678,100	44,600	0.81	10	13	32.07	7 3/4	4 5/8	1.381	0.491	
HT65	8	5	99,700	1,448,400	59,800	0.93	10	16	31.19	7 15/32	4 7/8	1.386	0.477	
XT65	8	5	135,300	1,543,700	81,200	1.27	10	15	31.00	7 11/32	4 7/8	1.387	0.474	6 5/8
FH	8 1/2	4 1/4	109,200	2,102,300	56,100	0.80	10	13	34.18	8	4 1/8	1.365	0.523	
HT65	8	5	99,700	1,448,400	59,800	0.73	10	16	31.19	7 23/32	4 7/8	1.386	0.477	
XT65	8	5	135,300	1,543,700	81,200	0.99	10	15	31.00	7 11/32	4 7/8	1.387	0.474	
GPDS65	8	4 7/8	107,500	1,596,400	64,500	0.78	10	13	30.96	7 23/32	4 3/4	1.385	0.474	
FH	8 1/2	4 1/4	109,200	2,102,300	56,100	0.77	10	13	34.18	8 1/32	4 1/8	1.365	0.523	6 5/8
HT65	8	5	99,700	1,448,400	59,800	0.70	10	16	31.19	7 3/4	4 7/8	1.386	0.477	
XT65	8	5	135,300	1,543,700	81,200	0.95	10	15	31.00	7 11/32	4 7/8	1.387	0.474	
GPDS65	8 1/4	4 7/8	108,200	1,596,400	64,900	0.76	10	13	31.74	7 3/4	4 3/4	1.385	0.485	
FH	8 1/2	4 1/4	109,200	2,102,300	56,100	0.72	10	13	34.18	8 1/8	4 1/8	1.365	0.523	6 5/8
HT65	8	5	99,700	1,448,400	59,800	0.65	10	16	31.19	7 27/32	4 7/8	1.386	0.477	
XT65	8	5	135,300	1,543,700	81,200	0.89	10	15	31.00	7 7/16	4 7/8	1.387	0.474	
GPDS65	8 1/4	4 7/8	108,200	1,596,400	64,900	0.71	10	13	31.74	7 27/32	4 3/4	1.385	0.485	

\*2" Longer than standard.