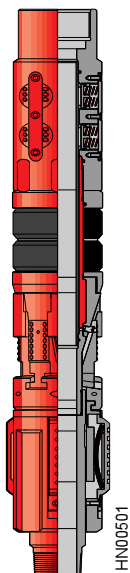
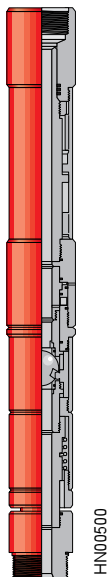


RTTS™ PACKER AND SSC™ II VALVE



RTTS PACKER

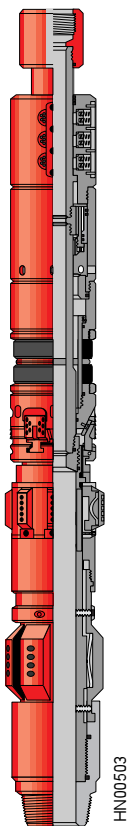
- Hookwall type retrievable packer designed for testing, treating, and squeezing.
- Optional integral circulating valve may be opened and locked at any time to allow circulation above the packer.
- Designed to hold pressure from either direction.
- Ideal for performing multiple operations on one or more zones with only one trip in the well.
- Large mandrel ID allows pumping large volumes of fluid with minimum pressure drop.
- Large ID also allows passage of tubing-type perforating guns.
- Sizes available to run in all standard casing sizes from $2\frac{3}{8}$ -in. through 20-in. O.D.



SSC II VALVE

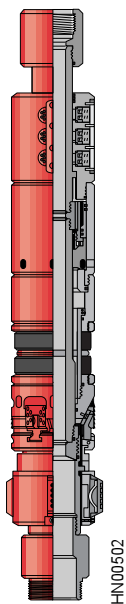
- Full-opening, ball-type, subsurface control valve.
- Can be installed without left-hand rotation eliminating the problems inherent when unscrewing pipe joints.
- Ball valve automatically closes to shut in the well when the SSC II is set down.
- Ball valve is opened by picking up and can be reclosed by setting back down if high pressure is detected below the valve.
- Only right-hand rotation is required to release the workstring from the valve.
- Rotation is not required to reattach the workstring to the valve.
- Can be used to test the blowout preventers during drilling.

CHAMP® PACKERS



CHAMP L/L PACKER

- Liner-lock feature allows the Champ packer to be locked in the running position until it lands on the appropriate liner.
- Excellent for use in highly deviated wells with deep liners.



CHAMP PACKER

- Hookwall-type retrievable packer with a concentric bypass.
- Design helps eliminate problems associated with accidentally opening a conventional bypass during circulation around the bottom of the packer.
- Excellent for use in highly deviated wells or where pipe manipulation is difficult.
- Bypass can be opened by picking straight up (no torque required).
- Easy to relocate in multiple zones with only one trip in the well for treating, testing, or squeezing.

ENGLISH / METRIC UNITS

SECTION No. 200

DIMENSIONS and STRENGTHS

NOTE:

There are some differences in the values in these tables and those previously published. The differences are slight and the former values are sufficiently accurate for dependable results.

The values in these tables have been calculated on the IBM 370/155 Computer.



Copyright © 1995, 2000 Halliburton Company

ALL RIGHTS RESERVED

ENGLISH							
NON-UPSET, EXTERNAL UPSET AND							
Size O.D. In.	L I N E	Grade	Wt. With Couplings, Lb./Ft.			Inside Diameter In.	Drift Diameter In.
			Non- Upset	Upset	Integral Joint		
1.050 (26.67mm)	1	*F-25	—	1.20	—	.824	.730
	2	H-40	1.14	1.20	—	.824	.730
	3	J-55	1.14	1.20	1.20	.824	.730
	4	C-75	1.14	1.20	1.20	.824	.730
	5	N-80	1.14	1.20	1.20	.824	.730
1.315 (33.40mm)	6	*F-25	—	1.80	—	1.049	.955
	7	H-40	1.70	1.80	1.72	1.049	.955
	8	J-55	1.70	1.80	1.72	1.049	.955
	9	*J-55	—	—	2.25	.957	.848
	10	C-75	1.70	1.80	1.72	1.049	.955
	11	*C-75	—	—	2.25	.957	.848
	12	N-80	1.70	1.80	1.72	1.049	.955
	13	*N-80	—	—	2.25	.957	.848
	14	*P-105	—	—	2.25	.957	.848
1.660 (42.16mm)	15	*F-25	—	2.40	—	1.380	1.286
	16	H-40	—	—	2.10	1.410	1.286
	17	H-40	2.30	2.40	2.33	1.380	1.286
	18	J-55	—	—	2.10	1.410	1.286
	19	J-55	2.30	2.40	2.33	1.380	1.286
	20	*J-55	—	—	3.02	1.278	1.184
	21	C-75	2.30	2.40	2.33	1.380	1.286
	22	*C-75	—	—	3.02	1.278	1.184
	23	N-80	2.30	2.40	2.33	1.380	1.286
	24	*N-80	—	—	3.02	1.278	1.184
	25	*P-105	—	—	3.02	1.278	1.184
1.900 (48.26mm)	26	*F-25	2.75	2.90	—	1.610	1.516
	27	H-40	—	—	2.40	1.650	1.516
	28	H-40	2.75	2.90	2.76	1.610	1.516
	29	J-55	—	—	2.40	1.650	1.516
	30	J-55	2.75	2.90	2.76	1.610	1.516
	31	*J-55	—	—	3.64	1.500	1.406
	32	C-75	2.75	2.90	2.76	1.610	1.516
	33	*C-75	—	—	3.64	1.500	1.406
	34	N-80	2.75	2.90	2.76	1.610	1.516
	35	*N-80	—	—	3.64	1.500	1.406
	36	*P-105	—	—	3.64	1.500	1.406
2.063 (52.40mm)	37	H-40	—	—	3.25	1.751	1.657
	38	J-55	—	—	3.25	1.751	1.657
	39	C-75	—	—	3.25	1.751	1.657
	40	N-80	—	—	3.25	1.751	1.657

*NonAPI Standard. Shown for information only.

UNITS INTEGRAL JOINT TUBING CONNECTIONS

Threaded & Coupled			Integral Joint Box O.D. In.	** Collapse Strength psi	** Internal Yield Pressure psi	Joint Yield - Load, 1000 Lb.**		
O.D. of Cplg., In.		O.D. of Upset In.				Threaded&Coupled		Integral Joint
Non- Upset	Upset					Non- Upset	Upset	
—	1.660	1.315	—	5960	4710	—	8.3	—
1.313	1.660	1.315	—	7680	7530	6.4	13.3	—
1.313	1.660	1.315	1.327	10560	10360	8.7	18.3	18.0
1.313	1.660	1.315	1.327	14410	14120	11.9	25.0	25.0
1.313	1.660	1.315	1.327	15370	15070	12.7	26.6	27.0
—	1.900	1.469	—	5540	4430	—	12.4	—
1.660	1.900	1.469	1.550	7270	7080	11.0	19.8	16.0
1.660	1.900	1.469	1.550	10000	9730	15.1	27.2	22.0
—	—	—	1.600	12940	13100	—	—	35.0
1.660	1.900	1.469	1.550	13640	13270	20.5	37.0	29.9
—	—	—	1.600	17640	17870	—	—	48.0
1.660	1.900	1.469	1.550	14550	14160	21.9	39.5	31.9
—	—	—	1.600	18820	19060	—	—	51.0
—	—	—	1.600	24700	25010	—	—	67.0
—	2.200	1.812	—	4440	3690	—	16.7	—
—	—	—	1.880	5570	5270	—	—	22.2
2.054	2.200	1.812	1.880	6180	5900	15.5	26.7	22.2
—	—	—	1.880	7660	7250	—	—	30.5
2.054	2.200	1.812	1.880	8490	8120	21.4	36.8	30.5
—	—	—	1.927	11200	11070	—	—	48.0
2.054	2.200	1.812	1.880	11580	11070	29.1	50.1	41.6
—	—	—	1.927	15270	15100	—	—	66.0
2.054	2.200	1.812	1.880	12360	11810	31.1	53.5	44.4
—	—	—	1.927	16290	16110	—	—	71.0
—	—	—	1.927	21380	21140	—	—	93.0
2.200	2.500	2.094	—	3920	3340	11.9	20.0	—
—	—	—	2.110	4920	4610	—	—	26.9
2.200	2.500	2.094	2.110	5640	5340	19.1	32.0	26.9
—	—	—	2.110	6640	6330	—	—	37.0
2.200	2.500	2.094	2.110	7750	7350	26.3	44.0	37.0
—	—	—	2.162	10360	10130	—	—	57.0
2.200	2.500	2.094	2.110	10570	10020	35.8	60.0	50.4
—	—	—	2.162	14130	13820	—	—	80.0
2.200	2.500	2.094	2.110	11280	10680	38.2	64.0	53.8
—	—	—	2.162	15070	14740	—	—	84.0
—	—	—	2.162	19780	19340	—	—	110.0
—	—	—	2.325	5590	5290	—	—	35.7
—	—	—	2.325	7690	7280	—	—	49.1
—	—	—	2.325	10480	9920	—	—	66.9
—	—	—	2.325	11180	10590	—	—	71.4

** All values calculated using API formula.

METRIC							
NON-UPSET, EXTERNAL UPSET AND							
Size O.D. mm	L I N E	Grade	Mass With Couplings, kg/m			Inside Diameter mm	Drift Diameter mm
			Non- Upset	Upset	Integral Joint		
26.67 (1.050 in)	1	*F-25	—	1.79	—	20.93	18.54
	2	H-40	1.70	1.79	—	20.93	18.54
	3	J-55	1.70	1.79	1.79	20.93	18.54
	4	C-75	1.70	1.79	1.79	20.93	18.54
	5	N-80	1.70	1.79	1.79	20.93	18.54
33.40 (1.315 in)	6	*F-25	—	2.68	—	26.64	24.26
	7	H-40	2.53	2.68	2.56	26.64	24.26
	8	J-55	2.53	2.68	2.56	26.64	24.26
	9	*J-55	—	—	3.35	24.31	21.54
	10	C-75	2.53	2.68	2.56	26.64	24.26
	11	*C-75	—	—	3.35	24.31	21.54
	12	N-80	2.53	2.68	2.56	26.64	24.26
	13	*N-80	—	—	3.35	24.31	21.54
42.16 (1.660 in)	14	*P-105	—	—	3.35	24.31	21.54
	15	*F-25	—	3.57	—	35.05	32.66
	16	H-40	—	—	3.13	35.81	32.66
	17	H-40	3.42	3.57	3.47	35.05	32.66
	18	J-55	—	—	3.13	35.81	32.66
	19	J-55	3.42	3.57	3.47	35.05	32.66
	20	*J-55	—	—	4.49	32.46	30.07
	21	C-75	3.42	3.57	3.47	35.05	32.66
	22	*C-75	—	—	4.49	32.46	30.07
	23	N-80	3.42	3.57	3.47	35.05	32.66
	24	*N-80	—	—	4.49	32.46	30.07
	25	*P-105	—	—	4.49	32.46	30.07
48.26 (1.900 in)	26	*F-25	4.09	4.32	—	40.89	28.51
	27	H-40	—	—	3.57	41.91	38.51
	28	H-40	4.09	4.32	4.11	40.89	38.51
	29	J-55	—	—	3.57	41.91	38.51
	30	J-55	4.09	4.32	4.11	40.89	38.51
	31	*J-55	—	—	5.42	38.10	35.71
	32	C-75	4.09	4.32	4.11	40.89	38.51
	33	*C-75	—	—	5.42	38.10	35.71
	34	N-80	4.09	4.32	4.11	40.89	38.51
	35	*N-80	—	—	5.42	38.10	35.71
	36	*P-105	—	—	5.42	38.10	35.71
52.40 (2.063 in)	37	H-40	—	—	4.84	44.48	42.09
	38	J-55	—	—	4.84	44.48	42.09
	39	C-75	—	—	4.84	44.48	42.09
	40	N-80	—	—	4.84	44.48	42.09

*NonAPI Standard. Shown for information only.

UNITS INTEGRAL JOINT TUBING CONNECTIONS

Threaded & Coupled			Integral Joint Box O.D. mm	** Collapse Strength 100 kPa†	** Internal Yield Pressure 100 kPa†	Joint Yield - Load, 1000 N.**		
O.D. of Cplg., mm		O.D. of Upset mm				Threaded&Coupled		Integral Joint
Non- Upset	Upset					Non- Upset	Upset	
—	42.16	33.40	—	410.9	324.7	—	37	—
33.35	42.16	33.40	—	529.5	519.2	28	59	—
33.35	42.16	33.40	33.71	728.1	714.3	39	81	80
33.35	42.16	33.40	33.11	993.5	913.5	53	111	111
33.35	42.16	33.40	33.71	1059.7	1039.0	57	118	120
—	48.26	37.31	—	382.0	305.4	—	55	—
42.16	48.26	37.31	39.37	501.2	488.1	49	88	71
42.16	48.26	37.31	39.37	689.5	670.9	67	121	98
—	—	—	40.64	892.2	903.2	—	—	156
42.16	48.26	37.31	39.37	940.4	914.9	91	165	133
—	—	—	40.64	1216.2	1232.1	—	—	214
42.16	48.26	37.31	39.37	1003.2	976.3	97	176	142
—	—	—	40.64	1297.6	1314.1	—	—	227
—	—	—	40.64	1703.0	1724.4	—	—	298
—	55.88	46.02	—	306.1	254.4	—	74	—
—	—	—	47.75	384.0	363.4	—	—	99
52.17	55.88	46.02	47.75	426.1	406.8	69	119	99
—	—	—	47.75	528.1	499.9	—	—	136
52.17	55.88	46.02	47.75	585.4	559.9	95	164	136
—	—	—	48.95	772.2	763.2	—	—	214
52.17	55.88	46.02	47.75	798.4	763.2	130	223	185
—	—	—	48.95	1052.8	1041.1	—	—	294
52.17	55.88	46.02	47.75	852.2	814.3	138	238	197
—	—	—	48.95	1123.2	1110.7	—	—	316
—	—	—	48.95	1474.1	1457.6	—	—	414
55.88	63.50	53.19	—	270.3	230.3	53	89	—
—	—	—	53.59	339.2	317.8	—	—	120
55.88	63.50	53.19	53.59	388.9	368.2	85	142	120
—	—	—	53.59	457.8	436.4	—	—	164
55.88	63.50	53.19	53.59	534.3	506.8	117	196	164
—	—	—	54.91	714.3	698.4	—	—	254
55.88	63.50	53.19	53.59	728.8	690.9	159	267	224
—	—	—	54.91	974.2	952.9	—	—	356
55.88	63.50	53.19	53.59	777.7	736.4	170	285	239
—	—	—	54.91	1039.0	1016.3	—	—	374
—	—	—	54.91	1363.5	1333.4	—	—	489
—	—	—	59.06	385.4	364.7	—	—	159
—	—	—	59.06	530.2	501.9	—	—	218
—	—	—	59.06	722.6	684.0	—	—	298
—	—	—	59.06	770.8	730.2	—	—	317

** All values calculated using API formula.

ENGLISH

NON-UPSET, EXTERNAL UPSET AND

Size O.D. In.	L I N E	Grade	Wt. With Couplings, Lb./Ft.			Inside Diameter In.	Drift Diameter In.
			Non- Upset	Upset	Integral Joint		
2.375 (60.33mm)	1	*F-25	4.00	—	—	2.041	1.947
	2	*F-25	4.60	4.70	—	1.995	1.901
	3	H-40	4.00	—	—	2.041	1.947
	4	H-40	4.60	4.70	—	1.995	1.901
	5	J-55	4.00	—	—	2.041	1.947
	6	J-55	4.60	4.70	4.70	1.995	1.901
	7	*J-55	—	—	5.30	1.939	1.845
	8	*J-55	—	—	6.20	1.853	1.759
	9	*J-55	—	—	7.70	1.703	1.609
	10	C-75	4.00	—	—	2.041	1.947
	11	C-75	4.60	4.70	4.70	1.995	1.901
	12	*C-75	—	—	5.30	1.939	1.845
	13	C-75	5.80	5.95	5.95	1.867	1.773
	14	*C-75	—	—	6.20	1.853	1.759
	15	*C-75	—	—	7.70	1.703	1.609
	16	N-80	4.00	—	—	2.041	1.947
	17	N-80	4.60	4.70	4.70	1.995	1.901
	18	*N-80	—	—	5.30	1.939	1.845
	19	N-80	5.80	5.95	5.95	1.867	1.773
	20	*N-80	—	—	6.20	1.853	1.759
	21	*N-80	—	—	7.70	1.703	1.609
	22	P-105	4.60	4.70	4.70	1.995	1.901
	23	*P-105	—	—	5.30	1.939	1.845
	24	P-105	5.80	5.95	5.95	1.867	1.773
	25	*P-105	—	—	6.20	1.853	1.759
	26	*P-105	—	—	7.70	1.703	1.609
	27	*P-110	4.60	4.70	—	1.995	1.901
	28	*P-110	5.80	5.95	—	1.867	1.773
2.875 (73.03mm)	29	*F-25	6.40	6.50	—	2.441	2.347
	30	H-40	6.40	6.50	—	2.441	2.347
	31	J-55	6.40	6.50	6.50	2.441	2.347
	32	*J-55	—	—	7.90	2.323	2.229
	33	*J-55	—	—	8.70	2.259	2.165
	34	*J-55	—	—	9.50	2.195	2.101
	35	*J-55	—	—	10.70	2.091	1.997
	36	*J-55	—	—	11.00	2.065	1.971
	37	C-75	6.40	6.50	6.50	2.441	2.347
	38	*C-75	—	—	7.90	2.323	2.229
	39	C-75	8.60	8.70	8.70	2.259	2.165
	40	*C-75	—	—	9.50	2.195	2.101
	41	*C-75	—	—	10.70	2.091	1.997
	42	*C-75	—	—	11.00	2.065	1.971
	43	N-80	6.40	6.50	6.50	2.441	2.347
	44	*N-80	—	—	7.90	2.323	2.229
	45	N-80	8.60	8.70	8.70	2.259	2.165
	46	*N-80	—	—	9.50	2.195	2.101
	47	*N-80	—	—	10.70	2.091	1.997
	48	*N-80	—	—	11.00	2.065	1.971
	49	P-105	6.40	6.50	6.50	2.441	2.347
	50	*P-105	—	—	7.90	2.323	2.229
	51	P-105	8.60	8.70	8.70	2.259	2.165
	52	*P-105	—	—	9.50	2.195	2.101
	53	*P-105	—	—	10.70	2.091	1.997
	54	*P-110	6.40	6.50	—	2.441	2.347

*NonAPI Standard. Shown for information only.

UNITS INTEGRAL JOINT TUBING CONNECTIONS

Threaded & Coupled			Integral Joint Box O.D. In.	** Collapse Strength psi	** Internal Yield Pressure psi	Joint Yield - Load, 1000 Lb.**		
O.D. of Cplg., In.		O.D. of Upset In.				Threaded&Coupled		Integral Joint
Non- Upset	Upset					Non- Upset	Upset	
2.875	—	—	—	3530	3080	18.8	—	—
2.875	3.063	2.594	—	4160	3500	22.5	32.6	—
2.875	—	—	—	5230	4920	30.1	—	—
2.875	3.063	2.594	—	5890	5600	36.0	52.2	—
2.875	—	—	—	7190	6770	41.4	—	—
2.875	3.063	2.594	2.700	8100	7700	49.5	71.7	72.0
—	—	—	2.740	9170	8840	—	—	81.0
—	—	—	2.937	10760	10580	—	—	95.0
—	—	—	3.125	13360	13620	—	—	118.0
2.875	—	—	—	9520	9230	56.5	—	—
2.875	3.063	2.594	2.700	11040	10500	67.4	97.8	98.0
—	—	—	2.740	12510	12050	—	—	111.0
2.875	3.063	2.594	2.906	14330	14040	96.6	126.9	127.0
—	—	—	2.937	14670	14420	—	—	130.0
—	—	—	3.125	18220	18570	—	—	161.0
2.875	—	—	—	9980	9840	60.3	—	—
2.875	3.063	2.594	2.700	11780	11200	71.9	104.3	104.0
—	—	—	2.740	13340	12860	—	—	118.0
2.875	3.063	2.594	2.906	15280	14970	103.0	135.4	135.0
—	—	—	2.937	15650	15390	—	—	139.0
—	—	—	3.125	19430	19810	—	—	172.0
2.875	3.063	2.594	2.700	15460	14700	94.4	136.9	137.0
—	—	—	2.740	17510	16870	—	—	155.0
12.875	3.063	2.594	2.906	20060	19650	135.2	177.7	178.0
—	—	—	2.937	20540	20200	—	—	182.0
—	—	—	3.125	25510	26010	—	—	226.0
2.875	3.063	2.594	—	13800	15400	98.9	143.5	—
2.875	3.063	2.594	—	17910	20590	141.6	186.2	—
3.500	3.668	3.094	—	3870	3300	33.0	45.3	—
3.500	3.668	3.094	—	5580	5280	52.8	72.5	—
3.500	3.668	3.094	3.220	7680	7260	72.6	99.7	100.0
—	—	—	3.437	9550	9250	—	—	124.0
—	—	—	3.500	10530	10320	—	—	137.0
—	—	—	3.625	11470	11390	—	—	149.0
—	—	—	3.687	12960	13120	—	—	168.0
—	—	—	3.750	13310	13570	—	—	173.0
3.500	3.668	3.094	3.220	10470	9910	99.0	135.9	136.0
—	—	—	3.437	13020	12600	—	—	169.0
3.500	3.668	3.094	3.500	14350	14060	149.4	186.3	186.0
—	—	—	3.625	15640	15520	—	—	203.0
—	—	—	3.687	17670	17890	—	—	229.0
—	—	—	3.750	18150	18490	—	—	236.0
3.500	3.668	3.094	3.220	11160	10570	105.6	145.0	145.0
—	—	—	3.437	13890	13450	—	—	180.0
3.500	3.668	3.094	3.500	15300	15000	159.3	198.7	198.0
—	—	—	3.625	16690	16560	—	—	217.0
—	—	—	3.687	18850	19090	—	—	245.0
—	—	—	3.750	19360	19730	—	—	251.0
3.500	3.668	3.094	3.220	14010	13870	138.6	190.3	190.0
—	—	—	3.437	18230	17650	—	—	236.0
3.500	3.668	3.094	3.500	20090	19690	209.1	260.8	261.0
—	—	—	3.625	21900	21730	—	—	285.0
—	—	—	3.687	24740	25050	—	—	321.0
3.500	3.668	3.094	—	13080	14530	145.2	199.3	—

** All values calculated using API formula.

METRIC

NON-UPSET, EXTERNAL UPSET AND

Size O.D. mm	L I N E	Grade	Mass With Couplings, kg/m			Inside Diameter mm	Drift Diameter mm
			Non- Upset	Upset	Integral Joint		
60.33 (2.375 in)	1	*F-25	5.95	—	—	51.84	49.45
	2	*F-25	6.85	6.99	—	50.67	48.29
	3	H-40	5.95	—	—	51.84	49.45
	4	H-40	6.85	6.99	—	50.67	48.29
	5	J-55	5.95	—	—	51.84	49.45
	6	J-55	6.85	6.99	6.99	50.67	48.29
	7	*J-55	—	—	7.89	49.25	46.86
	8	*J-55	—	—	9.23	47.07	44.68
	9	*J-55	—	—	11.46	43.26	40.87
	10	C-75	5.95	—	—	51.84	49.45
	11	C-75	6.85	6.99	6.99	50.67	48.29
	12	*C-75	—	—	7.89	49.25	46.86
	13	C-75	8.63	8.85	8.85	47.42	45.03
	14	*C-75	—	—	9.23	47.07	44.68
	15	*C-75	—	—	11.46	43.26	40.87
	16	N-80	5.95	—	—	51.84	49.45
	17	N-80	6.85	6.99	6.99	50.67	48.29
	18	*N-80	—	—	7.89	49.25	46.86
	19	N-80	8.63	8.85	8.85	47.42	45.03
	20	*N-80	—	—	9.23	47.07	44.68
	21	*N-80	—	—	11.46	43.26	40.87
	22	P-105	6.85	6.99	6.99	50.67	48.29
	23	*P-105	—	—	7.89	49.25	46.86
	24	P-105	8.63	8.85	8.85	47.42	45.03
	25	*P-105	—	—	9.23	47.07	44.68
	26	*P-105	—	—	11.46	43.26	40.87
	27	*P-110	6.85	6.99	—	50.67	48.29
	28	*P-110	8.63	8.85	—	47.42	45.03
73.03 (2.875 in)	29	*F-25	9.52	9.67	—	62.00	59.61
	30	H-40	9.52	9.67	—	62.00	59.61
	31	J-55	9.52	9.67	9.67	62.00	59.61
	32	*J-55	—	—	11.76	59.00	56.62
	33	*J-55	—	—	12.95	57.38	54.99
	34	*J-55	—	—	14.14	55.75	53.37
	35	*J-55	—	—	15.92	53.11	50.72
	36	*J-55	—	—	16.37	52.45	50.06
	37	C-75	9.52	9.67	9.67	62.00	59.61
	38	*C-75	—	—	11.76	59.00	56.62
	39	C-75	12.80	12.95	12.95	57.38	54.99
	40	*C-75	—	—	14.14	55.75	53.37
	41	*C-75	—	—	15.92	53.11	50.72
	42	*C-75	—	—	16.37	52.45	50.06
	43	N-80	9.52	9.67	9.67	62.00	59.61
	44	*N-80	—	—	11.76	59.00	56.62
	45	N-80	12.80	12.95	12.95	57.38	54.99
	46	*N-80	—	—	14.14	55.75	53.37
	47	*N-80	—	—	15.92	53.11	50.72
	48	*N-80	—	—	16.37	52.45	50.06
	49	P-105	9.52	9.67	9.67	62.00	59.61
	50	*P-105	—	—	11.76	59.00	56.62
	51	P-105	12.80	12.95	12.95	57.38	54.99
	52	*P-105	—	—	14.14	55.75	53.37
	53	*P-105	—	—	15.92	53.11	50.72
	54	*P-110	9.52	9.67	—	62.00	59.61

*NonAPI Standard. Shown for information only.

UNITS

INTEGRAL JOINT TUBING CONNECTIONS

Threaded & Coupled			Integral Joint Box O.D. mm	** Collapse Strength 100 kPa†	** Internal Yield Pressure 100 kPa†	Joint Yield - Load, 1000 N**		
O.D. of Cplg., mm		O.D. of Upset mm				Threaded&Coupled		Integral Joint
Non- Upset	Upset					Non- Upset	Upset	
73.03	—	—	—	243.4	212.4	84	—	—
73.03	77.80	65.89	—	286.8	241.3	100	145	—
73.03	—	—	—	360.6	339.2	134	—	—
73.03	77.80	65.89	—	406.1	386.1	160	232	—
73.03	—	—	—	495.7	466.8	184	—	—
73.03	77.80	65.89	68.58	558.5	530.9	220	319	320
—	—	—	69.60	632.2	609.5	—	—	360
—	—	—	74.60	741.9	729.5	—	—	423
—	—	—	79.38	921.1	939.1	—	—	525
73.03	—	—	—	656.4	636.4	251	—	—
73.03	77.80	65.89	68.58	761.2	723.9	300	435	436
—	—	—	69.60	862.5	830.8	—	—	494
73.03	77.80	65.89	73.81	988.0	968.0	430	565	565
—	—	—	74.60	1011.5	994.2	—	—	578
—	—	—	79.38	1256.2	1280.4	—	—	716
73.03	—	—	—	688.1	678.4	268	—	—
—	77.80	65.89	68.58	812.2	772.2	320	464	463
73.03	—	—	69.60	919.8	886.7	—	—	525
73.03	77.80	65.89	73.81	1053.5	1032.1	458	602	601
—	—	—	74.60	1079.0	1061.1	—	—	618
—	—	—	79.38	1339.6	1365.8	—	—	765
73.03	77.80	65.89	68.58	1065.9	1013.5	420	609	609
—	—	—	69.60	1207.3	1163.1	—	—	689
73.03	77.80	65.89	73.81	1383.1	1354.8	601	790	792
—	—	—	74.60	1416.2	1392.7	—	—	810
—	—	—	79.38	1758.9	1793.3	—	—	1005
73.03	77.80	65.89	—	951.5	1061.8	440	638	—
73.03	77.80	65.89	—	1234.8	1419.6	630	828	—
88.90	93.17	78.59	—	266.8	227.5	147	202	—
88.90	93.17	78.59	—	384.7	364.0	235	322	—
88.90	93.17	78.59	81.79	529.5	500.6	323	443	445
—	—	—	87.30	658.4	637.8	—	—	552
—	—	—	88.90	726.0	711.5	—	—	609
—	—	—	92.08	790.8	785.3	—	—	663
—	—	—	93.65	893.6	904.6	—	—	747
—	—	—	96.25	917.7	935.6	—	—	770
88.90	93.17	78.59	81.79	721.9	683.3	440	605	605
—	—	—	87.30	897.7	868.7	—	—	752
88.90	93.17	78.59	88.90	989.4	969.4	664	829	827
—	—	—	92.08	1078.3	1070.1	—	—	903
—	—	—	93.65	1218.3	1233.5	—	—	1019
—	—	—	95.25	1251.4	1274.8	—	—	1050
88.90	93.17	78.59	81.79	769.5	728.8	470	645	645
—	—	—	87.30	957.7	927.3	—	—	801
88.90	93.17	78.59	88.90	1054.9	1034.2	709	884	881
—	—	—	92.08	1150.7	1141.8	—	—	965
—	—	—	93.65	1299.7	1316.2	—	—	1090
—	—	—	95.25	1334.8	1360.3	—	—	1117
88.90	93.17	78.59	81.70	966.0	956.3	616	846	845
—	—	—	87.30	1256.9	1216.9	—	—	1050
88.90	93.17	78.59	88.90	1385.2	1357.6	930	1160	1161
—	—	—	92.08	1510.0	1498.2	—	—	1268
—	—	—	93.65	1705.8	1727.1	—	—	1428
88.90	93.17	78.59	—	901.8	1001.8	646	887	—

** All values calculated using API formula.

ENGLISH

NON-UPSET, EXTERNAL UPSET AND

Size O.D. In.	L I N E	Grade	Wt. With Couplings, Lb./Ft.			Inside Diameter In.	Drift Diameter In.
			Non- Upset	Upset	Integral Joint		
3.500 (88.90mm)	1	*F-25	7.70	—	—	3.068	2.943
	2	*F-25	9.20	9.30	—	2.992	2.867
	3	*F-25	10.20	—	—	2.922	2.797
	4	H-40	7.70	—	—	3.068	2.943
	5	H-40	9.20	9.30	—	2.992	2.867
	6	H-40	10.20	—	—	2.922	2.797
	7	J-55	7.70	—	—	3.068	2.943
	8	J-55	9.20	9.30	9.30	2.992	2.867
	9	J-55	10.20	—	10.30	2.922	2.797
	10	*J-55	—	—	12.80	2.764	2.639
	11	*J-55	—	—	12.95	2.750	2.625
	12	*J-55	—	—	15.80	2.548	2.423
	13	*J-55	—	—	16.70	2.480	2.355
	14	C-75	7.70	—	—	3.068	2.943
	15	C-75	9.20	9.30	9.30	2.992	2.867
	16	C-75	10.20	—	10.30	2.922	2.797
	17	*C-75	—	—	12.80	2.764	2.639
	18	C-75	12.70	12.95	12.95	2.750	2.625
	19	*C-75	—	—	15.80	2.548	2.423
	20	*C-75	—	—	16.70	2.480	2.355
	21	N-80	7.70	—	—	3.068	2.943
	22	N-80	9.20	9.30	9.30	2.992	2.867
	23	N-80	10.20	—	10.30	2.922	2.797
	24	*N-80	—	—	12.80	2.764	2.639
	25	N-80	12.70	12.95	12.95	2.750	2.625
	26	*N-80	—	—	15.80	2.548	2.423
	27	*N-80	—	—	16.70	2.480	2.355
	28	P-105	9.20	9.30	9.30	2.992	2.867
	29	*P-105	—	—	10.30	2.922	2.797
	30	*P-105	—	—	12.80	2.764	2.639
	31	P-105	12.70	12.95	12.95	2.750	2.625
	32	*P-105	—	—	15.80	2.548	2.423
	33	*P-105	—	—	16.70	2.480	2.355
	34	*P-110	9.20	9.30	—	2.992	2.867
	35	*P-110	12.70	12.95	—	2.750	2.625
4.000 (101.60mm)	36	*F-25	9.50	—	—	3.548	3.423
	37	*F25	—	11.00	—	3.476	3.351
	38	H-40	9.50	—	—	3.548	3.423
	39	H-40	—	11.00	—	3.476	3.351
	40	J-55	9.50	—	—	3.548	3.423
	41	J-55	—	11.00	—	3.476	3.351
	42	*J-55	—	—	11.60	3.428	3.303
	43	C-75	9.50	—	—	3.548	3.423
	44	C-75	—	11.00	11.00	3.476	3.351
	45	*C-75	—	—	13.40	3.340	3.215
	46	N-80	9.50	—	—	3.548	3.423
	47	N-80	—	11.00	11.00	3.476	3.351
	48	*N-80	—	—	13.40	3.340	3.215
	49	*P-105	—	—	11.00	3.476	3.351
	50	*P-105	—	—	13.40	3.340	3.215

*NonAPI Standard. Shown for information only.

UNITS INTEGRAL JOINT TUBING CONNECTIONS

Threaded & Coupled			Integral Joint Box O.D. In.	** Collapse Strength psi	** Internal Yield Pressure psi	Joint Yield - Load, 1000 Lb.**		
O.D. of Cplg., In.		O.D. of Upset In.				Threaded&Coupled		Integral Joint
Non- Upset	Upset					Non- Upset	Upset	
4.250	—	—	—	2970	2700	40.7	—	—
4.250	4.500	3.750	—	3680	3180	49.7	64.8	—
4.250	—	—	—	4330	3610	57.8	—	—
4.250	—	—	—	4630	4320	65.1	—	—
4.250	4.500	3.750	—	5380	5080	79.5	103.6	—
4.250	—	—	—	6060	5780	92.6	—	—
4.250	—	—	—	5970	5940	89.5	—	—
4.250	4.500	3.750	3.905	7400	6980	109.4	142.5	142.0
4.250	—	—	3.955	8330	7950	127.3	—	160.0
—	—	—	4.312	10350	10120	—	—	199.0
—	—	—	4.312	10530	10320	—	—	203.0
—	—	—	4.500	12930	13090	—	—	249.0
—	—	—	4.562	13690	14020	—	—	264.0
4.250	—	—	—	7540	8100	122.0	—	—
4.250	4.500	3.750	3.905	10040	9520	149.1	194.3	194.0
4.250	—	—	3.955	11360	10840	173.5	—	219.0
—	—	—	4.312	14110	13800	—	—	272.0
4.250	4.500	3.750	4.312	14350	14060	231.0	276.1	276.0
—	—	—	4.500	17630	17850	—	—	339.0
—	—	—	4.562	18670	19130	—	—	359.0
4.250	—	—	—	7870	8640	130.1	—	—
4.250	4.500	3.750	3.905	10530	10160	159.1	207.2	207.0
4.250	—	—	3.955	12120	11560	185.1	—	233.0
—	—	—	4.312	15060	14730	—	—	290.0
4.250	4.500	3.750	4.312	15310	15000	246.4	294.5	295.0
—	—	—	4.500	18800	19040	—	—	362.0
—	—	—	4.562	19920	20400	—	—	383.0
4.250	4.500	3.750	3.905	13050	13330	208.8	272.0	272.0
—	—	—	3.955	15920	15180	—	—	306.0
—	—	—	4.312	19760	19320	—	—	380.0
4.250	4.500	3.750	4.312	20090	19690	323.4	386.6	387.0
—	—	—	4.500	24680	24990	—	—	475.0
—	—	—	4.562	26140	26770	—	—	503.0
4.250	4.500	3.750	—	12620	13970	218.7	284.9	—
4250	4.500	3.750	—	17940	20630	338.8	365.6	—
4.750	—	—	—	2630	2470	45.0	—	—
—	5.000	4.250	—	3220	2870	—	76.9	—
4.750	—	—	—	4060	3960	72.0	—	—
—	5.000	4.250	—	4900	4590	—	123.1	—
4.750	—	—	—	5110	5440	99.0	—	—
—	5.000	4.250	4.405	6590	6300	—	169.2	169.0
—	—	—	4.000	7300	6880	—	—	137.0
4.750	—	—	—	6350	7420	135.0	—	—
—	5.000	4.250	4.405	8410	8600	—	230.8	231.0
—	—	—	4.625	11350	10830	—	—	285.0
4.750	—	—	—	6590	7910	144.0	—	—
—	5.000	4.250	4.405	8800	9170	—	246.1	246.0
—	—	—	4.625	12110	11550	—	—	304.0
—	—	—	4.405	10700	12040	—	—	323.0
—	—	—	4.625	15900	15160	—	—	400.0

** All values calculated using API formula.

NON-UPSET, EXTERNAL UPSET AND							METRIC
Size O.D. mm	L I N E	Grade	Mass With Couplings, kg/m			Inside Diameter mm	Drift Diameter mm
			Non- Upset	Upset	Integral Joint		
88.90 (3.500 in)	1	*F-25	11.46	—	—	77.93	74.75
	2	*F-25	13.69	13.84	—	76.00	72.82
	3	*F-25	15.18	—	—	74.22	71.04
	4	H-40	11.46	—	—	77.93	74.75
	5	H-40	13.69	13.84	—	76.00	72.82
	6	H-40	15.18	—	—	74.22	71.04
	7	J-55	11.46	—	—	77.93	74.75
	8	J-55	13.69	13.84	13.84	76.00	72.82
	9	J-55	15.18	—	15.33	74.22	71.04
	10	*J-55	—	—	19.05	70.21	67.03
	11	*J-55	—	—	19.27	69.85	66.68
	12	*J-55	—	—	23.51	64.72	61.54
	13	*J-55	—	—	24.85	62.99	59.82
	14	C-75	11.46	—	—	77.93	74.75
	15	C-75	13.69	13.84	13.84	76.00	72.82
	16	C-75	15.18	—	15.33	74.22	71.04
	17	*C-75	—	—	19.05	70.21	67.03
	18	C-75	18.90	19.27	19.27	69.85	66.68
	19	*C-75	—	—	23.51	64.72	61.54
	20	*C-75	—	—	24.85	62.99	59.82
	21	N-80	11.46	—	—	77.93	74.75
	22	N-80	13.69	13.84	13.84	76.00	72.82
	23	N-80	15.18	—	15.33	74.22	71.04
	24	*N-80	—	—	19.05	70.21	67.03
	25	N-80	18.90	19.27	19.27	69.85	66.68
	26	*N-80	—	—	23.51	64.72	61.54
	27	*N-80	—	—	24.85	62.99	59.82
	28	P-105	13.69	13.84	13.84	76.00	72.82
	29	*P-105	—	—	15.33	74.22	71.04
	30	*P-105	—	—	19.05	70.21	67.03
	31	P-105	18.90	19.27	19.27	69.85	66.68
	32	*P-105	—	—	23.51	64.72	61.54
	33	*P-105	—	—	24.85	62.99	59.82
	34	*P-110	13.69	13.84	—	76.00	72.82
	35	*P-110	18.90	19.27	—	69.85	66.68
101.60 (4.000 in)	36	*F-25	14.14	—	—	90.12	86.94
	37	*F-25	—	16.37	—	88.29	85.12
	38	H-40	14.14	—	—	90.12	86.94
	39	H-40	—	16.37	—	88.29	85.12
	40	J-55	14.14	—	—	90.12	86.94
	41	J-55	—	16.37	16.37	88.29	85.12
	42	*J-55	—	—	17.26	87.07	83.90
	43	C-75	14.14	—	—	90.12	86.94
	44	*C-75	—	16.37	16.37	88.29	85.12
	45	C-75	—	—	19.94	84.84	81.66
	46	N-80	14.14	—	—	90.12	86.94
	47	N-80	—	16.37	16.37	88.29	85.12
	48	*N-80	—	—	19.94	84.84	81.66
	49	*P-105	—	—	16.37	88.29	85.12
	50	*P-105	—	—	19.94	84.84	81.66

*NonAPI Standard. Shown for information only.

UNITS

INTEGRAL JOINT TUBING CONNECTIONS

Threaded & Coupled			Integral Joint Box O.D. mm	** Collapse Strength 100 kPa†	** Internal Yield Pressure 100 kPa†	Joint Yield - Load, 1000 N**		
O.D. of Cplg., mm		O.D. of Upset mm				Threaded&Coupled		Integral Joint
Non- Upset	Upset					Non- Upset	Upset	
107.95	—	—	—	204.8	186.2	181	—	—
107.95	114.30	95.25	—	253.7	219.3	221	288	—
107.95	—	—	—	298.5	248.9	257	—	—
107.95	—	—	—	319.2	297.9	289	—	—
107.95	114.30	95.25	—	370.9	350.3	354	461	—
107.95	—	—	—	417.8	398.5	412	—	—
107.95	—	—	—	411.6	409.5	398	—	—
107.95	114.30	95.25	99.19	510.2	481.3	487	634	632
107.95	—	—	100.46	574.3	548.1	566	—	712
—	—	—	109.53	713.6	697.7	—	—	885
—	—	—	109.53	726.0	711.5	—	—	903
—	—	—	114.30	891.5	902.5	—	—	1108
—	—	—	115.88	943.9	966.6	—	—	1174
107.95	—	—	—	519.9	558.5	543	—	—
107.95	114.30	95.25	99.19	692.2	656.4	663	864	863
107.95	—	—	100.46	783.2	747.4	772	—	974
—	—	—	109.53	972.8	951.5	—	—	1210
107.95	114.30	95.25	109.53	989.4	969.4	1027	1228	1228
—	—	—	114.30	1215.5	1230.7	—	—	1508
—	—	—	115.88	1287.2	1319.0	—	—	1597
107.95	—	—	—	542.6	595.7	579	—	—
107.95	114.30	95.25	99.19	726.0	700.5	708	922	921
107.95	—	—	100.46	835.6	797.0	823	—	1036
—	—	—	109.53	1038.3	1015.6	—	—	1290
107.95	114.30	95.25	109.53	1055.6	1034.2	1096	1310	1312
—	—	—	114.30	1296.2	1312.8	—	—	1610
—	—	—	115.88	1373.4	1406.5	—	—	1704
107.95	114.30	95.25	99.19	899.8	919.1	929	1210	1210
—	—	—	100.46	1097.6	1046.6	—	—	1361
—	—	—	109.53	1362.4	1332.1	—	—	1690
107.95	114.30	95.25	109.53	1385.2	1357.6	1439	1720	1721
—	—	—	114.30	1701.6	1723.0	—	—	2113
—	—	—	115.88	1802.3	1845.7	—	—	2237
107.95	114.30	95.25	—	870.1	963.2	973	1267	—
107.95	114.30	95.25	—	1236.9	1422.4	1507	1626	—
120.65	—	—	—	181.3	170.3	200	—	—
—	127.00	107.95	—	222.0	197.9	—	342	—
120.65	—	—	—	279.9	273.0	320	—	—
—	127.00	107.95	—	337.8	316.5	—	547	—
120.65	—	—	—	352.3	375.1	440	—	—
—	127.00	107.95	111.89	454.4	434.4	—	753	752
—	—	—	101.60	503.3	474.4	—	—	609
120.65	—	—	—	437.8	511.6	601	—	—
—	127.00	107.95	111.89	579.8	592.9	—	1026	1028
—	—	—	117.48	782.6	746.7	—	—	1258
120.65	—	—	—	454.4	545.4	641	—	—
—	127.00	107.95	111.89	606.7	632.2	—	1095	1094
—	—	—	117.48	835.0	796.3	—	—	1352
—	—	—	111.89	737.7	830.1	—	—	1437
—	—	—	117.48	1096.3	1045.2	—	—	1779

** All values calculated using API formula.

ENGLISH

NON-UPSET, EXTERNAL UPSET AND

Size O.D. In.	L I N E	Grade	Wt. With Couplings, Lb./Ft.			Inside Diameter In.	Drift Diameter In.
			Non- Upset	Upset	Integral Joint		
4.500 (114.30mm)	1	*F-25	12.60	12.75	—	3.958	3.833
	2	H-40	12.60	12.75	—	3.958	3.833
	3	J-55	12.60	12.75	12.75	3.958	3.833
	4	*J-55	—	—	13.50	3.920	3.795
	5	C-75	12.60	12.75	12.75	3.958	3.833
	6	*C-75	—	—	13.50	3.920	3.795
	7	*C-75	—	—	15.50	3.826	3.701
	8	*C-75	—	—	19.20	3.640	3.515
	9	N-80	12.60	12.75	12.75	3.958	3.833
	10	*N-80	—	—	13.50	3.920	3.795
	11	*N-80	—	—	15.50	3.826	3.701
	12	*N80	—	—	19.20	3.640	3.515
	13	*P-105	—	—	12.75	3.958	3.833
	14	*P-105	—	—	13.50	3.920	3.795
	15	*P-105	—	—	15.50	3.826	3.701
	16	*P-105	—	—	19.20	3.640	3.515

*NonAPI Standard. Shown for information only.

UNITS INTEGRAL JOINT TUBING CONNECTIONS

Threaded & Coupled			Integral Joint Box O.D. In.	** Collapse Strength psi	** Internal Yield Pressure psi	Joint Yield - Load, 1000 Lb.**		
O.D. of Cplg., In.		O.D. of Upset In.				Threaded&Coupled		Integral Joint
Non- Upset	Upset					Non- Upset	Upset	
5.200	5.563	4.750	—	2870	2630	65.2	90.0	—
5.200	5.563	4.750	—	4500	4220	104.4	144.0	—
5.200	5.563	4.750	4.910	5720	5800	143.5	198.0	198.0
—	—	—	4.935	6420	6200	—	—	211.0
5.200	5.563	4.750	4.910	7200	7900	195.7	270.0	270.0
—	—	—	4.935	8170	8460	—	—	288.0
—	—	—	5.125	10390	9830	—	—	331.0
—	—	—	5.312	12960	12540	—	—	412.0
5.200	5.563	4.750	4.910	7500	8430	208.7	288.0	288.0
—	—	—	4.935	8540	9020	—	—	307.0
—	—	—	5.125	11090	10480	—	—	353.0
—	—	—	5.312	13820	13380	—	—	439.0
—	—	—	4.910	8950	11070	—	—	378.0
—	—	—	4.935	10350	11840	—	—	403.0
—	—	—	5.125	13820	13760	—	—	463.0
—	—	—	5.312	18140	17560	—	—	567.0

** All values calculated using API formula.

METRIC

NON-UPSET, EXTERNAL UPSET AND

Size O.D. mm	L I N E	Grade	Mass With Couplings, kg/m			Inside Diameter mm	Drift Diameter mm
			Non- Upset	Upset	Integral Joint		
114.30 (4.000 in)	1	*F-25	18.75	18.97	—	100.53	97.36
	2	H-40	18.75	18.97	—	100.53	97.36
	3	J-55	18.75	18.97	18.97	100.53	97.36
	4	*J-55	—	—	20.09	99.57	96.39
	5	C-75	18.75	18.97	18.97	100.53	97.36
	6	*C-75	—	—	20.09	99.57	96.39
	7	*C-75	—	—	23.07	97.18	94.01
	8	*C-75	—	—	28.57	92.46	89.28
	9	N-80	18.75	18.97	18.97	100.53	97.36
	10	*N-80	—	—	20.09	99.57	96.39
	11	*N-80	—	—	23.07	97.18	94.01
	12	*N-80	—	—	28.57	92.46	89.28
	13	*P-105	—	—	18.97	100.53	97.36
	14	*P-105	—	—	20.09	99.57	96.39
	15	*P-105	—	—	23.07	97.18	94.01
	16	*P-105	—	—	28.57	92.46	89.28

*NonAPI Standard. Shown for information only.

UNITS INTEGRAL JOINT TUBING CONNECTIONS

Threaded & Coupled			Integral Joint Box O.D. mm	** Collapse Strength 100 kPa†	** Internal Yield Pressure 100 kPa†	Joint Yield - Load, 1000 N**		
O.D. of Cplg., mm		O.D. of Upset mm				Threaded&Coupled		Integral Joint
Non- Upset	Upset					Non- Upset	Upset	
132.08	141.30	120.65	—	197.9	181.3	290	400	—
132.08	141.30	120.65	—	310.3	291.0	464	641	—
132.08	141.30	120.65	124.71	394.4	399.9	638	881	881
—	—	—	125.35	442.6	427.5	—	—	939
132.08	141.30	120.65	124.71	496.4	544.7	870	1201	1201
—	—	—	125.35	563.3	583.3	—	—	1281
—	—	—	130.18	716.4	677.8	—	—	1472
—	—	—	134.93	893.6	864.6	—	—	1833
132.08	141.30	120.65	124.71	517.1	581.2	928	1281	1281
—	—	—	125.35	588.8	621.9	—	—	1366
—	—	—	130.18	764.6	722.6	—	—	1570
—	—	—	134.93	952.9	922.5	—	—	1953
—	—	—	124.71	617.1	763.2	—	—	1681
—	—	—	125.35	713.6	816.3	—	—	1793
—	—	—	130.18	952.9	948.7	—	—	2060
—	—	—	134.93	1250.7	1210.1	—	—	2522

** All values calculated using API formula.

**ENGLISH
TUBING BODY**

Size O.D. In.	L I N E	Wt. with Cplgs. Lb/Ft.	Minimum Collapse Pressure (P.S.I.)			
			J-55	C-75	N-80	P-105
1.050 (26.67mm)	1	1.20	10560	14410	15370	20170
	2	1.50	13770	18770	20020	26280
1.315 (33.40mm)	3	1.80	10000	13640	14550	19090
	4	2.25	12940	17640	18820	24700
1.660 (42.16mm)	5	2.40	8500	11580	12360	16220
	6	3.02	11200	15270	16290	21380
	7	3.24	11560	15760	16810	22060
1.900 (48.26mm)	8	2.90	7750	10570	11280	14290
	9	3.64	10360	14130	15070	19780
	10	4.19	11220	15300	16320	21420
2.062 (52.37mm)	11	3.25	7690	10480	11180	14060
	12	4.50	10690	14580	15550	20410
2.375 (60.33mm)	13	4.60	8100	11040	11780	15460
	14	5.30	9170	12510	13340	17510
	15	5.95	10510	14330	15280	20060
	16	6.20	10760	14670	15650	20540
	17	7.70	13360	18220	19430	25510
2.875 (73.03mm)	18	6.40	7680	10570	11170	14010
	19	7.90	9550	13020	13890	18230
	20	8.70	10530	14350	15300	20090
	21	9.50	11470	15640	16690	21900
	22	10.70	12960	17670	18850	24740
	23	11.00	13310	18150	19360	25410
	24	11.65	14260	19440	20740	27220
3.500 (88.90mm)	25	9.20	7400	10040	10530	13050
	26	10.20	8330	11360	12120	15920
	27	12.80	10350	14110	15060	19760
	28	12.95	10530	14350	15310	20090
	29	15.80	12930	17630	18800	24680
	30	16.70	13690	18670	19920	26140
	31	17.05	14130	19270	20560	26980
4.000 101.60mm)	32	9.50	5110	6350	6590	7720
	33	11.00	6590	8410	8800	10700
	34	11.60	7300	9790	10270	12690
	35	13.40	8330	11350	12110	15900
	36	19.00	12030	16410	17500	22970
	37	22.50	14220	19390	20680	27140
	4.500 (114.30mm)	38	12.60	5720	7200	7500
39		13.50	6420	8170	8540	10350
40		15.50	7620	10390	11090	13820
41		19.20	9510	12960	13820	18140
42		21.60	10860	14810	15800	20740
43		24.60	11990	16340	17430	22880
44		26.50	13240	18060	19260	25280

**UNITS
PRESSURE RATINGS***

Inside Dia. Inch	Drift Dia. Inch	Minimum Internal Yield Pressure (P.S.I.)			
		J-55	C-75	N-80	P-105
.824	.672	10360	14120	15070	19780
.742	.648	14120	19250	20530	26950
1.049	.955	9730	13270	14160	18580
.957	.848	13100	17870	19060	25010
1.380	1.280	8120	11070	11800	15500
1.278	1.184	11070	15100	16110	21140
1.264	1.170	11480	15660	16700	21920
1.610	1.516	7350	10020	10680	14020
1.500	1.406	10130	13820	14740	19340
1.462	1.368	11090	15130	16140	21180
1.751	1.657	7290	9920	10590	13890
1.613	1.519	10500	14320	15270	20050
1.995	1.901	7700	10500	11200	14700
1.939	1.845	8840	12050	12860	16870
1.867	1.773	10290	14040	14970	19650
1.853	1.759	10580	14420	15390	20200
1.703	1.609	13620	18570	19810	26010
2.441	2.347	7260	9910	10570	13870
2.323	2.229	9250	12600	13450	17650
2.259	2.165	10320	14060	15000	19690
2.195	2.101	11390	15520	16560	21730
2.091	1.997	13120	17890	19090	25050
2.065	1.971	13570	18490	19730	25890
1.995	1.901	14730	20090	21430	28120
2.992	2.867	6980	9520	10160	13340
2.922	2.797	7950	10840	11560	15180
2.764	2.639	10120	13800	14730	19320
2.750	2.625	10320	14060	15000	19690
2.548	2.423	13090	17850	19040	24990
2.480	2.355	14020	19130	20400	26770
2.440	2.315	14580	19880	21200	27830
3.548	3.423	5440	7420	7910	10380
3.476	3.351	6300	8600	9170	12040
3.428	3.303	6880	9390	10010	13140
3.340	3.215	7940	10830	11550	15160
3.000	2.875	12030	16410	17500	22970
2.780	2.655	14680	20020	21350	28020
3.958	3.833	5790	7900	8440	11070
3.920	3.795	6200	8460	9020	11840
3.826	3.701	7210	9830	10480	13760
3.640	3.515	9200	12540	13380	17560
3.500	3.375	10690	14580	15560	20420
3.380	3.255	11980	16330	17420	22870
3.240	3.115	13480	18380	19600	25730

*All values calculated using API formula.

METRIC TUBING BODY						
Size O.D. mm	L I N E	Mass with Cplgs. kg/m	Minimum Collapse Pressure (100 kPa†)			
			J-55	C-75	N-80	P-105
26.67 (1.050in)	1	1.79	728.1	993.5	1059.7	1390.7
	2	2.23	949.4	1294.1	1380.3	1811.9
33.40 (1.315in)	3	2.68	689.5	940.4	1003.2	1316.2
	4	3.35	892.2	1216.2	1297.6	1703.0
42.16 (1.660in)	5	3.57	586.1	798.4	852.2	1118.3
	6	4.49	772.2	1052.8	1123.2	1474.1
	7	4.82	797.0	1086.6	1159.0	1521.0
48.26 (1.900in)	8	4.32	534.3	728.8	777.7	985.3
	9	5.42	714.3	974.2	1039.0	1363.8
	10	6.24	773.6	1054.9	1125.2	1476.9
52.37 (2.062in)	11	4.84	530.2	722.6	770.8	969.4
	12	6.70	737.0	1005.3	1072.1	1407.2
60.33 (2.375in)	13	6.85	558.5	761.2	812.2	1065.9
	14	7.89	632.2	862.5	919.8	1207.3
	15	8.85	724.6	988.0	1053.5	1383.1
	16	9.23	741.9	1011.5	1079.0	1416.2
	17	11.46	921.1	1256.2	1339.6	1758.9
73.03 (2.875in)	18	9.52	529.5	728.8	770.1	966.0
	19	11.76	658.4	897.7	957.7	1256.9
	20	12.95	726.0	989.4	1054.9	1385.2
	21	14.14	790.8	1078.3	1150.7	1510.0
	22	15.92	893.6	1218.3	1299.7	1705.8
	23	16.37	917.7	1251.4	1334.8	1752.0
	24	17.34	983.2	1340.3	1430.0	1876.8
	25	13.69	510.2	692.2	726.0	899.8
88.90 (3.500in)	26	15.18	574.3	783.2	835.6	1097.6
	27	19.05	713.6	972.8	1038.3	1362.4
	28	19.27	726.0	989.4	1055.6	1385.2
	29	23.51	891.5	1215.5	1296.2	1701.6
	30	24.85	943.9	1287.2	1373.4	1802.3
	31	25.37	974.2	1328.6	1417.6	1860.2
101.60 (4.000in)	32	14.14	352.3	437.8	454.4	532.3
	33	16.37	454.4	579.8	606.7	737.7
	34	17.26	503.3	675.0	708.1	874.9
	35	19.94	574.3	782.6	835.0	1096.3
	36	28.28	829.4	1131.4	1206.6	1583.7
	37	33.48	980.4	1336.9	1425.8	1871.2
114.30 (4.500in)	38	18.75	394.4	496.4	517.1	617.1
	39	20.09	442.6	563.3	588.8	713.6
	40	23.07	525.4	716.4	764.6	952.9
	41	28.57	655.7	893.6	952.9	1250.7
	42	32.14	748.8	1021.1	1089.4	1430.0
	43	36.61	826.7	1126.6	1201.8	1577.5
	44	39.44	912.9	1245.2	1327.9	1743.0

**UNITS
PRESSURE RATINGS***

Inside Dia. mm	Drift Dia. mm	Minimum Internal Yield Pressure (100 kPa†)			
		J-55	C-75	N-80	P-105
20.93 18.85	17.07 16.46	714.3 973.5	973.5 1327.2	1039.0 1415.5	1363.8 1858.1
26.64 24.31	24.26 21.54	670.9 903.2	914.9 1232.1	976.3 1314.1	1281.0 1724.4
35.05 32.46 32.11	32.51 30.07 29.72	559.9 763.2 791.5	763.2 1041.1 1079.7	813.6 1110.7 1151.4	1068.7 1457.6 1511.3
40.89 38.10 37.13	38.51 35.71 34.75	506.8 698.4 764.6	690.9 952.9 1043.2	736.4 1016.3 1112.8	966.6 1333.4 1460.3
44.48 40.97	42.09 38.58	502.6 723.9	684.0 987.3	730.2 1052.8	957.7 1382.4
50.67 49.25 47.42 47.07 43.26	48.29 46.86 45.03 44.68 40.87	530.9 609.5 709.5 729.5 939.1	723.9 830.8 968.0 994.2 1280.4	772.2 886.7 1032.1 1061.1 1365.8	1013.5 1163.1 1354.8 1392.7 1793.3
62.00 59.00 57.38 55.75 53.11 52.45 50.67	59.61 56.62 54.99 53.37 50.72 50.06 48.29	500.6 637.8 711.5 785.3 904.6 935.6 1015.6	683.3 868.7 969.4 1070.1 1233.5 1274.8 1385.2	728.8 927.3 1034.2 1141.8 1316.2 1360.3 1477.5	956.3 1216.9 1357.6 1498.2 1727.1 1785.1 1938.8
76.00 74.22 70.21 69.85 64.72 62.99 61.98	72.82 71.04 67.03 66.68 61.54 59.82 58.80	481.3 548.1 697.7 711.5 902.5 966.6 1005.3	656.4 747.4 951.5 969.4 1230.7 1319.0 1370.7	700.5 797.0 1015.6 1034.2 1312.8 1406.5 1461.7	919.8 1046.6 1332.1 1357.6 1723.0 1845.7 1918.8
90.12 88.29 87.07 84.84 76.20 70.61	86.94 85.12 83.90 81.66 73.03 67.44	375.1 434.4 474.4 547.4 829.4 1012.1	511.6 592.9 647.4 746.7 1131.4 1380.3	545.4 632.2 690.2 796.3 1206.6 1472.0	715.7 830.1 906.0 1045.2 1583.7 1931.9
100.53 99.57 97.18 92.46 88.90 85.85 82.30	97.36 96.39 94.01 89.28 85.73 82.68 79.12	399.2 427.5 497.1 634.3 737.0 826.0 929.4	544.7 583.3 677.8 864.6 1005.3 1125.9 1267.3	581.9 621.9 722.6 922.5 1072.8 1201.1 1351.4	763.2 816.3 948.7 1210.7 1407.9 1576.8 1774.0

*All values calculated using API formula.

†100 kPa= 1 Bar.

ENGLISH UNITS									
HYDRIL "PH-4"									
Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Tubing		Connections		Pipe Tensile - 1000 Lb Connection is stronger than Pipe			
		Inside Dia. Inch	Drift Dia. Inch	O.D. Turned Inch	I.D. Bored Inch	J-55	C-75	N-80	P-105
2.875 (73.03mm)	11.00	2.065	1.971	3.750	2.000	173	236	251	330
	11.65	1.995	1.901	3.750	1.945	185	252	269	353
3.500 (88.90mm)	16.70	2.480	2.355	4.500	2.406	264	359	383	503
	17.05	2.440	2.315	4.563	2.375	272	371	396	519
4.000 (101.60mm)	19.00	3.000	2.875	5.000	2.920	302	412	440	577
	22.50	2.780	2.655	5.188	2.700	357	487	520	682
4.500 (114.30mm)	21.60	3.500	3.375	5.500	3.420	346	471	503	660
	24.60	3.380	3.255	5.563	3.300	381	520	555	728
	26.50	3.240	3.115	5.688	3.160	421	575	613	804

ENGLISH UNITS									
HYDRIL "PH-6"									
Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Tubing		Connections		Pipe Tensile - 1000 Lb Connection is stronger than Pipe			
		Inside Dia. Inch	Drift Dia. Inch	O.D. Turned Inch	I.D. Bored Inch	J-55	C-75	N-80	P-110
2.375 (60.33mm)	5.95	1.867	1.773	2.906	1.805	93	127	135	178
	6.20	1.853	1.759	2.938	1.795	95	130	139	182
	7.70	1.703	1.609	3.125	1.645	118	161	172	226
2.875 (73.03mm)	7.90	2.323	2.229	3.438	2.265	124	169	180	236
	8.70	2.259	2.165	3.500	2.200	137	186	198	261
	9.50	2.195	2.101	3.625	2.130	149	203	217	285
	10.70	2.091	1.997	3.688	2.030	168	229	245	321
	11.00	2.065	1.971	3.750	2.000	173	236	251	329
3.500 (88.90mm)	12.80	2.764	2.639	4.313	2.700	199	272	290	380
	12.95	2.750	2.625	4.313	2.687	203	276	295	387
	15.80	2.548	2.423	4.500	2.485	249	339	362	475
	16.70	2.480	2.355	4.563	2.406	264	359	383	503
4.000 (101.60mm)	13.40	3.340	3.215	4.625	3.275	209	285	304	400
4.500 (114.30mm)	15.50	3.826	3.701	5.125	3.765	242	331	353	463
	19.20	3.640	3.515	5.313	3.560	302	412	439	567

METRIC UNITS									
TUBING CONNECTIONS*									
Size O.D. mm	Wt. with Cplgs. kg/m	Tubing		Connections		Pipe Tensile - 1000 N Connection is stronger than Pipe			
		Inside Dia. mm	Drift Dia. mm	O.D. Turned mm	I.D. Bored mm	J-55	C-75	N-80	P-105
73.03 (2.875 <i>in</i>)	16.37 17.34	52.45 50.67	50.06 48.29	95.25 95.25	50.80 49.40	770 823	1050 1121	1117 1197	1468 1570
88.90 (3.500 <i>in</i>)	24.85 25.37	62.99 61.98	59.82 58.80	114.30 115.90	61.11 60.33	1174 1210	1597 1650	1704 1761	2237 2309
101.60 (4.000 <i>in</i>)	28.28 33.48	76.20 70.61	73.03 67.44	127.00 131.78	74.17 68.58	1343 1588	1833 2166	1957 2313	2567 3034
114.30 (4.500 <i>in</i>)	32.14	88.90	85.73	139.70	86.87	1539	2095	2237	2936
	36.61	85.85	82.68	141.30	83.82	1695	2313	2469	3238
	39.44	82.30	79.12	144.48	80.26	1873	2558	2727	3576
ENGLISH UNITS									
TUBING CONNECTIONS*									
Size O.D. mm	Mass with Cplgs. kg/m	Tubing		Connections		Pipe Tensile - 1000 N Connection is stronger than Pipe			
		Inside Dia. mm	Drift Dia. mm	O.D. Turned mm	I.D. Bored mm	J-55	C-75	N-80	P-105
60.33 (2.375 <i>in</i>)	8.85 9.23 11.46	47.42 47.07 43.26	45.03 44.68 40.87	73.81 74.63 79.38	45.85 45.59 41.78	414 423 525	565 578 716	601 618 765	792 810 1005
73.03 (2.875 <i>in</i>)	11.76	59.00	56.62	87.33	57.53	552	752	801	1050
	12.95	57.38	54.99	88.90	55.88	609	827	881	1161
	14.14	55.75	53.37	92.08	54.10	663	903	965	1268
	15.92	53.11	50.72	93.68	51.56	747	1019	1090	1428
88.90 (3.500 <i>in</i>)	16.37	52.45	50.06	95.25	50.80	770	1050	1117	1463
	19.05	70.21	67.03	109.55	68.58	885	1210	1290	1690
	19.27	69.85	66.68	109.55	68.25	903	1228	1312	1721
	23.51	64.72	61.54	114.30	63.12	1108	1508	1610	2113
101.60 (4.000 <i>in</i>)	24.85	62.99	59.82	115.90	61.11	1174	1597	1704	2237
	19.94	84.84	81.66	117.48	83.19	930	1268	1352	1779
114.30 (4.500 <i>in</i>)	23.07	97.18	94.01	130.18	95.63	1076	1472	1570	2060
	28.57	92.46	89.28	134.95	90.42	1343	1833	1953	2522
*All HYDRIL "PH-4" tubing connections of a given size are interchangeable. For pressure ratings of pipe body see page 18-21.									

ENGLISH UNITS
RUCKER ATLAS BRADFORD FL-3S

Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Tubing		Connections	FL Joint Tensile - 1000 Lb			
		Inside Dia. Inch	Drift Dia. Inch	Pin I.D. (Bored) Inch	J-55	C-75	N-80	P-105
2.375 (60.33mm)	4.70	1.995	1.901	1.926	44	56	59	70
	5.95	1.867	1.773	1.823	—	88	93	112
	6.65	1.815	1.721	1.771	96	—	101	—
2.875 (73.03mm)	6.50	2.441	2.347	2.372	61	77	81	98
	7.90	2.323	2.229	2.279	93	118	124	149
	8.70	2.259	2.165	2.215	103	130	137	164
	10.40	2.151	2.057	2.107	139	177	186	223
3.500 (88.90mm)	7.70	3.068	2.943	2.968	75	95	100	—
	9.30	2.992	2.867	2.917	107	135	142	171
	10.30	2.992	2.797	2.847	120	152	160	192
	13.30	2.764	2.639	2.689	177	224	235	282
	12.95	2.750	2.625	2.675	180	227	239	287
	15.50	2.602	2.477	2.527	210	266	280	336
4.000 (101.60mm)	9.50	3.548	3.423	3.448	90	115	121	—
	11.00	3.476	3.351	3.401	127	161	169	203
	11.60	3.428	3.303	3.353	138	174	183	—
	14.00	3.340	3.215	3.265	199	199	209	251

METRIC UNITS AND FL-4s TUBING CONNECTIONS*								
Size O.D. mm	Mass with Cplgs. kg/m	Tubing		Connections	FL Joint Tensile - 1000 N			
		Inside Dia. mm	Drift Dia. mm	Pin I.D. (Bored) mm	J-55	C-75	N-80	P-105
60.33 (2.375in)	6.99	50.67	48.29	43.92	196	249	262	311
	8.85	47.42	45.03	46.30	—	391	414	498
	9.90	46.10	43.71	44.98	427	—	449	—
73.03 (2.875in)	9.67	62.00	59.61	60.25	271	343	360	436
	11.76	59.00	56.62	57.89	414	525	552	663
	12.95	57.38	54.99	56.26	458	578	609	730
	15.48	54.64	52.25	53.52	618	787	827	992
88.90 (3.500in)	11.46	77.93	74.75	75.39	334	423	445	—
	13.84	76.00	72.82	74.09	476	601	632	761
	15.33	74.22	71.04	72.31	534	676	712	854
	19.79	70.21	67.03	68.30	787	996	1045	1254
	19.27	69.85	66.68	67.95	801	1010	1063	1277
	23.07	66.09	62.92	64.19	934	1183	1246	1495
101.60 (4.000in)	14.14	90.12	86.94	87.58	400	512	538	—
	16.37	88.29	85.12	86.39	565	716	752	903
	17.26	87.07	83.90	85.17	614	774	814	—
	20.83	84.84	81.66	82.93	885	885	930	1117

*Each size and wall designed individually for maximum performance-not interchangeable.
For pressure ratings of pipe body see page 18-21.

ENGLISH UNITS				
RUCKER ATLAS BRADFORD				
Size O.D. Inch	Wt. with Cp lgs. Lb/Ft	Tubing		Coupling
		Inside Dia. Inch	Drift Dia. Inch	Outside Dia. Inch
2375 (60.33mm)	4.70	1.995	1.901	2.875
	5.30	1.939	1.845	2.875
	5.95	1.867	1.773	2.875
	6.20	1.853	1.759	2.875
	7.70	1.703	1.609	3.000
2875 (73.03mm)	6.50	2.441	2.347	3.500
	7.90	2.323	2.229	3.500
	8.70	2.259	2.165	3.500
	9.50	2.195	2.101	3.500
	11.00	2.065	1.971	3.625
	11.65	1.995	1.901	3.625
3500 (88.90mm)	9.30	2.992	2.867	4.250
	10.30	2.922	2.797	4.250
	12.95	2.750	2.625	4.250
	15.80	2.548	2.423	4.375
	16.70	2.480	2.355	4.375
4.000 (101.60mm)	11.00	3.476	3.351	4.500
	13.40	3.340	3.215	4.265
	22.80	2.780	3.655	5.000
4.500 (114.30mm)	12.75	3.958	3.833	5.000
	13.50	3.920	3.795	5.000
	15.50	3.826	3.701	5.250
	16.90	3.754	3.629	5.250
	19.20	3.640	3.515	5.250
	21.60	3.500	3.375	5.375

METRIC UNITS				
TC-4S TUBING CONNECTIONS*				
Size O.D. mm	Mass with Cplgs. kg/m	Tubing		Coupling Outside Dia. mm
		Inside Dia. mm	Drift Dia. mm	
60.33 (2.375in)	6.99	50.67	48.29	73.03
	7.89	49.25	46.86	73.03
	8.85	47.42	45.03	73.03
	9.23	47.07	44.68	73.03
	11.46	43.26	40.87	76.20
73.03 (2.875in)	9.67	62.00	59.61	88.90
	11.76	59.00	56.62	88.90
	12.95	57.38	54.99	88.90
	14.14	55.75	53.37	88.90
	16.37	52.45	50.06	92.08
	17.34	50.67	48.29	92.08
88.90 (3.500in)	13.84	76.00	72.82	107.95
	15.33	74.22	71.04	107.95
	19.27	69.85	66.68	107.95
	23.51	64.72	61.54	111.13
	24.85	62.99	59.82	111.13
101.60 (4.000in)	16.37	88.29	85.12	114.30
	19.94	84.84	81.66	117.48
	33.93	70.61	67.44	127.00
114.30 (4.500in)	18.97	100.53	97.36	127.00
	20.09	99.57	96.39	127.00
	23.07	97.18	94.01	133.35
	25.15	95.35	92.18	133.35
	28.57	92.46	89.28	133.35
	32.14	88.90	85.73	136.53

* RUCKERATLAS BRADFORDTC-4S joints have tensile strength comparable to body of tubing.
For pressure ratings of pipe body see page 18-21.

ENGLISH								
8 ROUND, BUTTRESS AND								
Size O.D. Inch	L I N E	Grade	Wt. with Cplgs. Lb/Ft.	Inside Dia. Inch	Thread & Coupling		Extreme Line	
					Drift Dia. Inch	O.D. of Box Inch	Drift Dia. Inch	O.D. of Box Inch
4.500 (114.30mm)	1	*F-25	9.50	4.090	3.965	5.000	—	—
	2	H-40	9.50	4.090	3.965	5.000	—	—
	3	J-55	9.50	4.090	3.965	5.000	—	—
	4	J-55	10.50	4.052	3.927	5.000	—	—
	5	J-55	11.60	4.000	3.875	5.000	—	—
	6	K-55	9.50	4.090	3.965	5.000	—	—
	7	K-55	10.50	4.052	3.927	5.000	—	—
	8	K-55	11.60	4.000	3.875	5.000	—	—
	9	C-75	11.60	4.000	3.875	5.000	—	—
	10	C-75	13.50	3.920	3.795	5.000	—	—
	11	N-80	11.60	4.000	3.875	5.000	—	—
	12	N-80	13.50	3.920	3.795	5.000	—	—
	13	C-95	11.60	4.000	3.875	5.000	—	—
	14	C-95	13.50	3.920	3.795	5.000	—	—
	15	P-110	11.60	4.000	3.875	5.000	—	—
	16	P-110	13.50	3.920	3.795	5.000	—	—
	17	P-110	15.10	3.826	3.701	5.000	—	—
	18	*V-150	15.10	3.826	3.701	5.000	—	—
5.000 (127.00mm)	19	*F-25	11.50	4.560	4.435	5.563	—	—
	20	J-55	11.50	4.560	4.435	5.563	—	—
	21	J-55	13.00	4.494	4.369	5.563	—	—
	22	J-55	15.00	4.408	4.283	5.563	4.151	5.360
	23	K-55	11.50	4.560	4.435	5.563	—	—
	24	K-55	13.00	4.494	4.369	5.563	—	—
	25	K-55	15.00	4.408	4.283	5.563	4.151	5.360
	26	C-75	15.00	4.408	4.283	5.563	4.151	5.360
	27	C-75	18.00	4.276	4.151	5.563	4.151	5.360
	28	N-80	15.00	4.408	4.283	5.563	4.151	5.360
	29	N-80	18.00	4.276	4.151	5.563	4.151	5.360
	30	C-95	15.00	4.408	4.283	5.563	4.151	5.360
	31	C-95	18.00	4.276	4.151	5.563	4.151	5.360
	32	P-110	15.00	4.408	4.283	5.563	4.151	5.360
	33	P-110	18.00	4.276	4.151	5.563	4.151	5.360
	34	*V-150	15.00	4.408	4.283	5.563	—	—
	35	*V-150	18.00	4.276	4.151	5.563	—	—
	36	*V-150	20.80	4.156	4.031	5.563	—	—
	37	*V-150	24.20	4.000	3.875	5.563	—	—

*NonAPI Standard. Shown for information only.

UNITS

EXTREMLINE CASING CONNECTIONS

** Collapse Strength psi	** Min. Internal Yield Pressure psi	** Body Yield Load 1000 Lb.	Joint Parting - Load 1000 Lb.**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
1920	1990	69	71	—	—	—
2770	3190	111	77	—	—	—
3310	4380	152	101	—	—	—
4010	4790	165	132	—	203	—
4960	5350	184	154	162	225	—
3310	4380	152	112	—	—	—
4010	4790	165	146	—	249	—
4960	5350	184	170	180	277	—
6130	7290	250	—	212	288	—
8170	8460	288	—	257	331	—
6350	7780	267	—	223	304	—
8540	9020	307	—	270	349	—
7010	9240	317	—	234	325	—
9650	10710	364	—	284	374	—
7560	10690	367	—	279	385	—
10670	12410	422	—	338	443	—
14320	14420	485	—	406	509	—
18110	18360	661	—	519	683	—
1820	1930	83	84	—	—	—
3060	4240	182	133	—	—	—
4140	4870	208	169	182	252	—
5550	5700	241	207	223	293	328
3060	4240	182	147	—	—	—
4140	4870	208	186	201	309	—
5550	5700	241	228	246	359	416
6970	7770	328	—	295	375	416
10000	9500	396	—	376	452	446
7250	8290	350	—	311	396	437
10490	10140	422	—	396	477	469
8090	9840	416	—	326	424	459
12010	11770	501	—	416	512	493
8830	11400	481	—	388	503	547
13450	13620	580	—	495	606	587
10260	15540	656	—	497	685	—
16860	18550	791	—	634	826	—
22860	18580	910	—	755	847	—
27000	18580	1060	—	905	847	—

** All values calculated using API formula.

METRIC								
8 ROUND, BUTTRESS AND								
Size O.D. mm	L I N E	Grade	Mass with Cplgs. kg/m	Inside Dia. mm	Thread & Coupling		Extreme Line	
					Drift Dia. mm	O.D. of Box mm	Drift Dia. mm	O.D. of Box mm
114.30 (4.000in)	1	*F-25	14.14	103.89	100.71	127.00	—	—
	2	H-40	14.14	103.89	100.71	127.00	—	—
	3	J-55	14.14	103.89	100.71	127.00	—	—
	4	J-55	15.63	102.92	99.75	127.00	—	—
	5	J-55	17.26	101.60	98.43	127.00	—	—
	6	K-55	14.14	103.89	100.71	127.00	—	—
	7	K-55	15.63	102.92	99.75	127.00	—	—
	8	K-55	17.26	101.60	98.43	127.00	—	—
	9	C-75	17.26	101.60	98.43	127.00	—	—
	10	C-75	20.09	99.57	96.39	127.00	—	—
	11	N-80	17.26	101.60	98.43	127.00	—	—
	12	N-80	20.09	99.57	96.39	127.00	—	—
	13	C-95	17.26	101.60	98.43	127.00	—	—
	14	C-95	20.09	99.57	96.39	127.00	—	—
	15	P-110	17.26	101.60	98.43	127.00	—	—
	16	P-110	20.09	99.57	96.39	127.00	—	—
	17	P-110	22.47	97.18	94.01	127.00	—	—
	18	*V-150	22.47	97.18	94.01	127.00	—	—
127.00 (5.000in)	19	*F-25	17.11	115.82	112.65	141.30	—	—
	20	J-55	17.11	115.82	112.65	141.30	—	—
	21	J-55	19.35	114.15	110.97	141.30	—	—
	22	J-55	22.32	111.96	108.79	141.30	105.44	136.14
	23	K-55	17.11	115.82	112.65	141.30	—	—
	24	K-55	19.35	114.15	110.97	141.30	—	—
	25	K-55	22.32	111.96	108.79	141.30	105.44	136.14
	26	C-75	22.32	111.96	108.79	141.30	105.44	136.14
	27	C-75	26.79	108.61	105.44	141.30	105.44	136.14
	28	N-80	22.32	111.96	108.79	141.30	105.44	136.14
	29	N-80	26.79	108.61	105.44	141.30	105.44	136.14
	30	C-95	22.32	111.96	108.79	141.30	105.44	136.14
	31	C-95	26.79	108.61	105.44	141.30	105.44	136.14
	32	P-110	22.32	111.96	108.79	141.30	105.44	136.14
	33	P-110	26.79	108.61	105.44	141.30	105.44	136.14
	34	*V-150	22.32	111.96	108.79	141.30	—	—
	35	*V-150	26.79	108.61	105.44	141.30	—	—
	36	*V-150	30.95	105.56	102.39	141.30	—	—
	37	*V-150	36.01	101.60	98.43	141.30	—	—

*NonAPI Standard. Shown for information only.

ENGLISH									
8 ROUND, BUTTRESS AND									
Size O.D. Inch	L I N E	Grade	Wt. with Cplgs. Lb/Ft.	Inside Dia. Inch	Thread & Coupling		Extreme Line		
					Drift Dia. Inch	O.D. of Box Inch	Drift Dia. Inch	O.D. of Box Inch	
5.5000 (139.70mm)	1	*F-25	13.00	5.044	4.919	6.050	—	—	
	2	H-40	14.00	5.012	4.887	6.050	—	—	
	3	J-55	14.00	5.012	4.887	6.050	—	—	
	4	J-55	15.50	4.950	4.825	6.050	4.653	5.860	
	5	J-55	17.00	4.892	4.767	6.050	4.653	5.860	
	6	K-55	14.00	5.012	4.887	6.050	—	—	
	7	K-55	15.50	4.950	4.825	6.050	4.653	5.860	
	8	K-55	17.00	4.892	4.767	6.050	4.653	5.860	
	9	C-75	17.00	4.892	4.767	6.050	4.653	5.860	
	10	C-75	20.00	4.778	4.653	6.050	4.653	5.860	
	11	C-75	23.00	4.670	4.545	6.050	4.545	5.860	
	12	N-80	17.00	4.892	4.767	6.050	4.653	5.860	
	13	N-80	20.00	4.778	4.653	6.050	4.653	5.860	
	14	N-80	23.00	4.670	4.545	6.050	4.545	5.860	
	15	C-95	17.00	4.892	4.767	6.050	4.653	5.860	
	16	C-95	20.00	4.778	4.653	6.050	4.653	5.860	
	17	C-95	23.00	4.670	4.545	6.050	4.545	5.860	
	18	P-110	17.00	4.892	4.767	6.050	4.653	5.860	
	19	P-110	20.00	4.778	4.653	6.050	4.653	5.860	
	20	P-110	23.00	4.670	4.545	6.050	4.545	5.860	
	21	*V-150	20.00	4.778	4.653	6.050	—	—	
	22	*V-150	23.00	4.670	4.545	6.050	—	—	
6.000 (152.40mm)	23	F-25	15.00	5.524	5.399	6.625	—	—	
	24	H-40	18.00	5.424	5.299	6.625	—	—	
	25	J-55	18.00	5.424	5.299	6.625	—	—	
	26	N-80	18.00	5.424	5.299	6.625	—	—	
	27	N-80	20.00	5.352	5.227	6.625	—	—	
	28	N-80	23.00	5.240	5.115	6.625	—	—	
	29	P-110	23.00	5.240	5.115	6.625	—	—	
	30	P-110	26.00	5.132	5.007	6.625	—	—	
	6.625 (166.28mm)	31	*F-25	17.00	6.135	6.010	7.390	—	—
		32	H-40	20.00	6.049	5.924	7.390	—	—
33		J-55	20.00	6.049	5.924	7.390	—	—	
34		J-55	24.00	5.921	5.796	7.390	5.730	7.000	
35		K-55	20.00	6.049	5.924	7.390	—	—	
36		K-55	24.00	5.921	5.796	7.390	5.730	7.000	
37		C-75	24.00	5.921	5.796	7.390	5.730	7.000	
38		C-75	28.00	5.791	5.666	7.390	5.666	7.000	
39		C-75	32.00	5.675	5.550	7.390	5.550	7.000	
40		N-80	24.00	5.921	5.796	7.390	5.730	7.000	
41		N-80	28.00	5.791	5.666	7.390	5.666	7.000	
42		N-80	32.00	5.675	5.550	7.390	5.550	7.000	
43		C-95	24.00	5.921	5.796	7.390	5.730	7.000	
44		C-95	28.00	5.791	5.666	7.390	5.666	7.000	
45		C-95	32.00	5.675	5.550	7.390	5.550	7.000	
46		P-110	24.00	5.921	5.796	7.390	5.730	7.000	
47		P-110	28.00	5.791	5.666	7.390	5.666	7.000	
48		P-110	32.00	5.675	5.550	7.390	5.550	7.000	

*NonAPI Standard. Shown for information only.

UNITS EXTREMLINE CASING CONNECTIONS

** Collapse Strength psi	** Min. Internal Yield Pressure psi	** Body Yield Load 1000 Lb.	Joint Parting - Load 1000 Lb.**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
1660	1810	94	95	—	—	—
2630	3110	161	130	—	—	—
3120	4270	222	172	—	—	—
4040	4810	248	202	217	300	339
4910	5320	273	229	247	329	372
3120	4270	222	189	—	—	—
4040	4810	248	222	239	366	429
4910	5320	273	252	272	402	471
6070	7250	372	—	327	423	471
8440	8610	437	—	403	497	497
10460	8430	497	—	473	550	549
6280	7740	397	—	348	446	496
8830	8990	466	—	428	524	523
11160	8990	530	—	502	579	577
6930	9190	471	—	374	480	521
10000	10680	554	—	460	563	549
12920	10680	630	—	540	608	606
7460	10640	546	—	445	568	620
11080	12360	641	—	548	667	654
14520	12360	729	—	643	724	722
13480	16860	874	—	701	908	—
18390	16860	994	—	823	910	—
1540	1740	107	108	—	—	—
2780	3360	206	179	—	—	—
3620	4620	283	239	279	—	—
4740	6720	412	—	323	—	—
5690	7560	461	—	366	—	—
7180	8870	536	—	432	—	—
10380	12190	737	—	565	—	—
12380	13920	833	—	646	—	—
1370	1620	123	121	—	—	—
2520	3040	229	184	—	—	—
2970	4180	315	245	266	374	—
4560	5110	382	314	340	453	477
2970	4180	315	267	290	453	—
4560	5110	382	342	372	548	605
5570	6970	520	—	453	583	605
7830	8260	610	—	552	683	648
9830	9200	688	—	638	771	717
5760	7440	555	—	481	615	637
8170	8810	651	—	586	721	682
10320	9820	734	—	677	814	755
6290	8830	659	—	546	665	668
9200	10460	773	—	665	780	716
11800	11660	872	—	769	880	793
6710	10230	763	—	641	786	796
10140	12120	895	—	781	922	852
13200	13500	1009	—	904	1040	944

** All values calculated using API formula.

METRIC								
8 ROUND, BUTTRESS AND								
Size O.D. mm	L I N E	Grade	Mass with Cplgs. kg/m	Inside Dia. mm	Thread & Coupling		Extreme Line	
					Drift Dia. mm	O.D. of Box mm	Drift Dia. mm	O.D. of Box mm
139.70 (5.500in)	1	*F-25	19.35	128.12	124.94	153.67	—	—
	2	H-40	20.83	127.31	124.13	153.67	—	—
	3	J-55	20.83	127.31	124.13	153.67	—	—
	4	J-55	23.07	125.73	122.56	153.67	118.19	148.84
	5	J-55	25.30	124.26	121.08	153.67	118.19	148.84
	6	K-55	20.83	127.31	124.13	153.67	—	—
	7	K-55	23.07	125.73	122.56	153.67	118.19	148.84
	8	K-55	25.30	124.26	121.08	153.67	118.19	148.84
	9	C-75	25.30	124.26	121.08	153.67	118.19	148.84
	10	C-75	29.76	121.36	118.19	153.67	118.19	148.84
	11	C-75	34.23	118.62	115.44	153.67	115.44	148.84
	12	N-80	25.30	124.26	121.08	153.67	118.19	148.84
	13	N-80	29.76	121.36	118.19	153.67	118.19	148.84
	14	N-80	34.23	118.62	115.44	153.67	115.44	148.84
	15	C-95	25.30	124.26	121.08	153.67	118.19	148.84
	16	C-95	29.76	121.36	118.19	153.67	118.19	148.84
	17	C-95	34.23	118.62	115.44	153.67	115.44	148.84
	18	P-110	25.30	124.26	121.08	153.67	118.19	148.84
	19	P-110	29.76	121.36	118.19	153.67	118.19	148.84
	20	P-110	34.23	118.62	115.44	153.67	115.44	148.84
	21	*V-150	29.76	121.36	118.19	153.67	—	—
	22	*V-150	34.23	118.62	115.44	153.67	—	—
152.40 (6.000in)	23	F-25	22.32	140.31	137.13	168.28	—	—
	24	H-40	26.79	137.77	134.59	168.28	—	—
	25	J-55	26.79	137.77	134.59	168.28	—	—
	26	N-80	26.79	137.77	134.59	168.28	—	—
	27	N-80	29.76	135.94	132.77	168.28	—	—
	28	N-80	34.23	133.10	129.92	168.28	—	—
	29	P-110	34.23	133.10	129.92	168.28	—	—
	30	P-110	38.69	130.35	127.18	168.28	—	—
	168.28 (6.625in)	31	*F-25	25.30	155.83	152.65	187.71	—
32		H-40	29.76	153.64	150.47	187.71	—	—
33		J-55	29.76	153.64	150.47	187.71	—	—
34		J-55	35.72	150.39	147.22	187.71	145.54	177.80
35		K-55	29.76	153.64	150.47	187.71	—	—
36		K-55	35.72	150.39	147.22	181.71	145.54	177.80
37		C-75	35.72	150.39	147.22	187.71	145.54	177.80
38		C-75	41.67	147.09	143.92	187.71	143.92	177.80
39		C-75	47.62	144.15	140.97	187.71	140.97	177.80
40		N-80	35.72	150.39	147.22	187.71	145.54	177.80
41		N-80	41.67	147.09	143.92	187.71	143.92	177.80
42		N-80	47.62	144.15	140.97	187.71	140.97	177.80
43		C-95	35.72	150.39	147.22	187.71	145.54	177.80
44		C-95	41.67	147.09	143.92	187.71	143.92	177.80
45		C-95	47.62	144.15	140.97	187.71	140.97	177.80
46		P-110	35.72	150.39	147.22	187.71	145.54	177.80
47		P-110	41.67	147.09	143.92	187.71	143.92	177.80
48		P-110	47.62	144.15	140.97	187.71	140.97	177.80

*NonAPI Standard. Shown for information only.

UNITS EXTREMELINE CASING CONNECTIONS

** Collapse Strength 100 kPa†	** Min. Internal Yield Pressure 100 kPa†	** Body Yield Load 1000 N	Joint Parting - Load 1000 N**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
114.5	124.8	418	423	—	—	—
181.3	214.4	716	578	—	—	—
215.1	294.4	988	765	—	—	—
278.5	331.6	1103	899	965	1334	1508
338.5	366.8	1214	1019	1099	1463	1655
215.1	294.4	988	841	—	—	—
278.5	331.6	1103	988	1063	1628	1908
338.5	366.8	1214	1121	1210	1788	2095
418.5	499.9	1655	—	1455	1882	2095
581.9	593.6	1944	—	1793	2211	2211
721.2	581.2	2211	—	2104	2447	2442
433.0	533.7	1766	—	1548	1984	2206
608.8	619.8	2073	—	1904	2331	2326
769.5	619.8	2358	—	2233	2516	2567
477.8	633.6	2095	—	1664	2135	2318
689.5	736.4	2464	—	2046	2504	2442
890.8	736.4	2802	—	2402	2705	2696
514.3	733.6	2429	—	1979	2527	2758
763.9	852.2	2851	—	2438	2967	2909
1001.1	852.2	3243	—	2860	3221	3212
929.4	1162.5	3888	—	3118	4039	—
1267.9	1162.5	4422	—	3661	4048	—
106.2	120.0	476	480	—	—	—
191.7	231.7	916	796	—	—	—
249.6	318.5	1259	1063	1241	—	—
326.8	463.3	1833	—	1437	—	—
392.3	521.2	2051	—	1628	—	—
495.0	611.6	2384	—	1922	—	—
715.7	840.5	3278	—	2513	—	—
853.6	959.7	3705	—	2874	—	—
94.5	111.7	547	538	—	—	—
173.7	209.6	1019	818	—	—	—
204.8	288.2	1401	1090	1183	1664	—
314.4	352.3	1699	1397	1512	2015	2122
204.8	288.2	1401	1188	1290	2015	—
314.4	352.3	1699	1521	1655	2438	2691
384.0	480.6	2313	—	2015	2593	2691
539.9	569.5	2713	—	2455	3038	2882
677.8	634.3	3060	—	2838	3430	3189
397.1	513.0	2469	—	2140	2736	2834
563.3	607.4	2896	—	2607	3207	3034
711.5	677.1	3265	—	3011	3621	3358
433.7	608.8	2931	—	2429	2958	2971
634.3	721.2	3438	—	2958	3470	3185
813.6	803.9	3879	—	3421	3914	3527
462.6	705.3	3394	—	2851	3496	3541
699.1	835.6	3981	—	3474	4101	3790
910.1	930.8	4488	—	4021	4626	4199

** All values calculated using API formula.

† 100 kPa = 1 Bar.

ENGLISH
8 ROUND, BUTTRESS AND

Size O.D. Inch	L I N E	Grade	Wt. with Cplgs. Lb/Ft.	Inside Dia. Inch	Thread & Coupling		Extreme Line	
					Drift Dia. Inch	O.D. of Box Inch	Drift Dia. Inch	O.D. of Box Inch
7.000 (177.80mm)	1	*F-25	17.00	6.538	6.413	7.656	—	—
	2	H-40	17.00	6.538	6.413	7.656	—	—
	3	H-40	20.00	6.456	6.331	7.656	—	—
	4	J-55	20.00	6.456	6.331	7.656	—	—
	5	J-55	23.00	6.366	6.241	7.656	6.151	7.390
	6	K-55	26.00	6.276	6.151	7.656	6.151	7.390
	7	K-55	20.00	6.456	6.331	7.656	—	—
	8	K-55	23.00	6.366	6.241	7.656	6.151	7.390
	9	K-55	26.00	6.276	6.151	7.656	6.151	7.390
	10	C-75	23.00	6.366	6.241	7.656	6.151	7.390
	11	C-75	26.00	6.276	6.151	7.656	6.151	7.390
	12	C-75	29.00	6.184	6.059	7.656	6.059	7.390
	13	C-75	32.00	6.094	5.969	7.656	5.969	7.390
	14	C-75	35.00	6.004	5.879	7.656	5.879	7.530
	15	C-75	38.00	5.920	5.795	7.656	5.795	7.530
	16	N-80	23.00	6.366	6.241	7.656	6.151	7.390
	17	N-80	26.00	6.276	6.151	7.656	6.151	7.390
	18	N-80	29.00	6.184	6.059	7.656	6.059	7.390
	19	N-80	32.00	6.094	5.969	7.656	5.969	7.390
	20	N-80	35.00	6.004	5.879	7.656	5.879	7.530
	21	N-80	38.00	5.920	5.795	7.656	5.795	7.530
	22	C-95	23.00	6.366	6.241	7.656	6.151	7.390
	23	C-95	26.00	6.276	6.151	7.656	6.151	7.390
	24	C-95	29.00	6.184	6.059	7.656	6.059	7.390
	25	C-95	32.00	6.094	5.969	7.656	5.969	7.390
	26	C-95	35.00	6.004	5.879	7.656	5.879	7.530
	27	C-95	38.00	5.920	5.795	7.656	5.795	7.530
	28	P-110	26.00	6.276	6.151	7.656	6.151	7.390
	29	P-110	29.00	6.184	6.059	7.656	6.059	7.390
	30	P-110	32.00	6.094	5.969	7.656	5.969	7.390
	31	P-110	35.00	6.004	5.879	7.656	5.879	7.530
	32	P-110	38.00	5.920	5.795	7.656	5.795	7.530
	33	*V-150	29.00	6.184	6.059	7.656	—	—
	34	*V-150	32.00	6.094	5.969	7.656	—	—
	35	*V-150	35.00	6.004	5.879	7.656	—	—
	36	*V-150	38.00	5.920	5.795	7.656	—	—

*NonAPI Standard. Shown for information only.

UNITS

EXTREMELINE CASING CONNECTIONS

** Collapse Strength psi	** Min. Internal Yield Pressure psi	** Body Yield Load 1000 Lb.	Joint Parting - Load 1000 Lb.**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
1100	1440	123	118	—	—	—
1450	2310	196	122	—	—	—
1980	2720	230	176	—	—	—
2270	3740	316	234	—	—	—
3270	4360	366	284	313	432	499
4320	4980	415	334	367	490	506
2270	3740	316	254	—	—	—
3270	4360	366	309	341	522	632
4320	4980	415	364	401	592	641
3770	5940	499	—	416	557	632
5250	6790	566	—	489	631	641
6760	7650	634	—	562	707	685
8230	7930	699	—	633	779	761
9710	7930	763	—	703	833	850
10680	7930	822	—	767	833	917
3830	6340	532	—	442	588	666
5410	7240	604	—	519	667	675
7020	8160	676	—	597	746	721
8600	8460	745	—	672	823	801
10180	8460	814	—	746	876	895
11390	8460	877	—	814	876	965
4150	7530	632	—	505	636	699
5870	8600	717	—	593	722	709
7820	9690	803	—	683	808	757
9730	10050	885	—	768	891	841
11640	10050	966	—	853	920	940
13420	10050	1041	—	931	920	1013
6210	9960	830	—	693	853	844
8510	11220	929	—	797	955	902
10760	11640	1025	—	897	1053	1002
13010	11640	1119	—	996	1096	1118
15110	11640	1205	—	1087	1096	1207
9800	15300	1267	—	1049	1296	—
13020	15870	1398	—	1180	1363	—
16230	15870	1526	—	1311	1363	—
19240	15870	1644	—	1430	1363	—

** All values calculated using API formula.

METRIC								
8 ROUND, BUTTRESS AND								
Size O.D. mm	L I N E	Grade	Mass with Cplgs. kg/m	Inside Dia. mm	Thread & Coupling		Extreme Line	
					Drift Dia. mm	O.D. of Box mm	Drift Dia. mm	O.D. of Box mm
177.80 (7.000in)	1	*F-25	25.30	166.07	162.89	194.46	—	—
	2	H-40	25.30	166.07	162.89	194.46	—	—
	3	H-40	29.76	163.98	160.81	194.46	—	—
	4	J-55	29.76	163.98	160.81	194.46	—	—
	5	J-55	34.23	161.70	158.52	194.46	156.24	187.71
	6	J-55	38.69	159.41	156.24	194.46	156.24	187.71
	7	K-55	29.76	163.98	160.81	194.46	—	—
	8	K-55	34.23	161.70	158.52	194.46	156.24	187.71
	9	K-55	38.69	159.41	156.24	194.46	156.24	187.71
	10	C-75	34.23	161.70	158.52	194.46	156.24	187.71
	11	C-75	38.69	159.41	156.24	194.46	156.24	187.71
	12	C-75	43.16	157.07	153.90	194.46	153.90	187.71
	13	C-75	47.62	154.79	151.61	194.46	151.61	187.71
	14	C-75	52.09	152.50	149.33	194.46	149.33	191.26
	15	C-75	56.55	150.37	147.19	194.46	147.19	191.26
	16	N-80	34.23	161.70	158.52	194.46	156.24	187.71
	17	N-80	38.69	159.41	156.24	194.46	156.24	187.71
	18	N-80	43.16	157.07	153.90	194.46	153.90	187.71
	19	N-80	47.62	154.79	151.61	194.46	151.61	187.71
	20	N-80	52.09	152.50	149.33	194.46	149.33	191.26
	21	N-80	56.55	150.37	147.19	194.46	147.19	191.26
	22	C-95	34.23	161.70	158.52	194.46	156.24	187.71
	23	C-95	38.69	159.41	156.24	194.46	156.24	187.71
	24	C-95	43.16	157.07	153.90	194.46	153.90	187.71
	25	C-95	47.62	154.79	151.61	194.46	151.61	187.71
	26	C-95	52.09	152.50	149.33	194.46	149.33	191.26
	27	C-95	56.55	150.37	147.19	194.46	147.19	191.26
	28	P-110	38.69	159.41	156.24	194.46	156.24	187.71
	29	P-110	43.16	157.07	153.90	194.46	153.90	187.71
	30	P-110	47.62	154.79	151.61	194.46	151.61	187.71
	31	P-110	52.09	152.50	149.33	194.46	149.33	191.26
	32	P-110	56.55	150.37	147.19	194.46	147.19	191.26
	33	*V-150	43.16	157.07	153.90	194.46	—	—
	34	*V-150	47.62	154.79	151.61	194.46	—	—
	35	*V-150	52.09	152.50	149.33	194.46	—	—
	36	*V-150	56.55	150.37	147.19	194.46	—	—

*NonAPI Standard. Shown for information only.

UNITS EXTREMELINE CASING CONNECTIONS

** Collapse Strength 100 kPa†	** Min. Internal Yield Pressure 100 kPa†	** Body Yield Load 1000 N	Joint Parting - Load 1000 N**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
75.8	99.3	547	525	—	—	—
100.0	159.3	872	543	—	—	—
136.5	187.5	1023	783	—	—	—
156.5	257.9	1406	1041	—	—	—
225.5	300.6	1628	1263	1392	1922	2220
297.9	343.4	1846	1486	1632	2180	2251
156.5	257.9	1406	1130	—	—	—
225.5	300.6	1628	1375	1517	2322	2811
297.9	343.4	1846	1619	1784	2633	2851
259.9	409.5	2220	—	1850	2478	2811
362.0	468.2	2518	—	2175	2807	2851
466.1	527.4	2820	—	2500	3145	3047
567.4	546.8	3109	—	2816	3465	3385
669.5	546.8	3394	—	3127	3705	3781
736.4	546.8	3656	—	3412	3705	4079
264.1	437.1	2366	—	1966	2616	2963
373.0	499.2	2687	—	2309	2967	3003
484.0	562.6	3007	—	2656	3318	3207
592.9	583.3	3314	—	2989	3661	3563
701.9	583.3	3621	—	3318	3897	3981
785.3	583.3	3901	—	3621	3897	4293
286.1	519.2	2811	—	2246	2829	3109
404.7	592.9	3189	—	2638	3212	3154
539.2	668.1	3572	—	3038	3594	3367
670.9	692.9	3937	—	3416	3963	3741
802.5	692.9	4297	—	3794	4092	4181
925.3	692.9	4631	—	4141	4092	4506
428.2	686.7	3692	—	3083	3794	3754
586.7	773.6	4132	—	3545	4248	4012
741.9	802.5	4559	—	3990	4684	4457
897.0	802.5	4978	—	4430	4875	4973
1041.8	802.5	5360	—	4835	4875	5369
675.7	1054.9	5636	—	4666	5765	—
897.7	1094.2	6219	—	5249	6063	—
1119.0	1094.2	6788	—	5832	6063	—
1326.5	1094.2	7313	—	6361	6063	—

** All values calculated using API formula.

† 100 kPa = 1 Bar.

ENGLISH								
8 ROUND, BUTTRESS AND								
Size O.D. Inch	L I N E	Grade	Wt. with Cplgs. Lb/Ft.	Inside Dia. Inch	Thread & Coupling		Extreme Line	
					Drift Dia. Inch	O.D. of Box Inch	Drift Dia. Inch	O.D. of Box Inch
7.625 (193.68mm)	1	*F-25	20.00	7.125	7.000	8.500	—	—
	2	H-40	24.00	7.025	6.900	8.500	—	—
	3	J-55	26.40	6.969	6.844	8.500	6.750	8.010
	4	K-55	26.40	6.969	6.844	8.500	6.750	8.010
	5	C-75	26.40	6.969	6.844	8.500	6.750	8.010
	6	C-75	29.70	6.875	6.750	8.500	6.750	8.010
	7	C-75	33.70	6.765	6.640	8.500	6.640	8.010
	8	C-75	39.00	6.625	6.500	8.500	6.500	8.010
	9	N-80	26.40	6.969	6.844	8.500	6.750	8.010
	10	N-80	29.70	6.875	6.750	8.500	6.750	8.010
	11	N-80	33.70	6.765	6.640	8.500	6.640	8.010
	12	N-80	39.00	6.625	6.500	8.500	6.500	8.010
	13	C-95	26.40	6.969	6.844	8.500	6.750	8.010
	14	C-95	29.70	6.875	6.750	8.500	6.750	8.010
	15	C-95	33.70	6.765	6.640	8.500	6.640	8.010
	16	C-95	39.00	6.625	6.500	8.500	6.500	8.010
	17	P110	29.70	6.875	6.750	8.500	6.750	8.010
	18	P-110	33.70	6.765	6.640	8.500	6.640	8.010
	19	P-110	39.00	6.625	6.500	8.500	6.500	8.010
	20	V-150	33.70	6.765	6.640	8.500	—	—
	21	V-150	39.00	6.625	6.500	8.500	—	—
	22	V-150	45.30	6.435	6.310	8.500	—	—
8.625 (219.08mm)	23	*F-25	24.00	8.097	7.972	9.625	—	—
	24	H-40	28.00	8.017	7.892	9.625	—	—
	25	H-40	32.00	7.921	7.796	9.625	—	—
	26	J-55	24.00	8.097	7.972	9.625	—	—
	27	J-55	32.00	7.921	7.796	9.625	7.700	9.120
	28	J-55	36.00	7.825	7.700	9.625	7.700	9.120
	29	K-55	24.00	8.097	7.972	9.625	—	—
	30	K-55	32.00	7.921	7.796	9.625	7.700	9.120
	31	K-55	36.00	7.825	7.700	9.625	7.700	9.120
	32	C-75	36.00	7.825	7.700	9.625	7.700	9.120
	33	C-75	40.00	7.725	7.600	9.625	7.600	9.120
	34	C-75	44.00	7.625	7.500	9.625	7.500	9.120
	35	C-75	49.00	7.511	7.386	9.625	7.386	9.120
	36	N-80	36.00	7.825	7.700	9.625	7.700	9.120
	37	N-80	40.00	7.725	7.600	9.625	7.600	9.120
	38	N-80	44.00	7.625	7.500	9.625	7.500	9.120
	39	N-80	49.00	7.511	7.386	9.625	7.386	9.120
	40	C-95	36.00	7.825	7.700	9.625	7.700	9.120
	41	C-95	40.00	7.725	7.600	9.625	7.600	9.120
	42	C-95	44.00	7.625	7.500	9.625	7.500	9.120
	43	C-95	49.00	7.511	7.386	9.625	7.386	9.120
	44	P-110	40.00	7.725	7.600	9.625	7.600	9.120
	45	P-110	44.00	7.625	7.500	9.625	7.500	9.120
	46	P-110	49.00	7.511	7.386	9.625	7.386	9.120
	47	*V-150	44.00	7.625	7.500	9.625	—	—
	48	*V-150	49.00	7.511	7.386	9.625	—	—

*NonAPI Standard. Shown for information only.

UNITS EXTREMLINE CASING CONNECTIONS

** Collapse Strength psi	** Min. Internal Yield Pressure psi	** Body Yield Load 1000 Lb.	Joint Parting - Load 1000 Lb.**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
1100	1430	145	138	—	—	—
2040	2750	276	212	—	—	—
2890	4140	414	315	346	483	553
2890	4140	414	342	377	581	700
3280	5650	564	—	461	624	700
4670	6450	641	—	542	709	700
6320	7400	729	—	635	806	766
8430	8610	839	—	751	929	851
3400	6020	602	—	490	659	737
4790	6890	683	—	575	749	737
6560	7900	778	—	674	852	806
8810	9180	895	—	798	981	896
3710	7150	714	—	560	716	774
5120	8180	811	—	659	813	774
7260	9380	923	—	772	925	846
9980	10900	1063	—	914	1065	941
5340	9470	940	—	769	960	922
7850	10860	1069	—	901	1093	1008
11060	12620	1231	—	1066	1258	1120
8860	14800	1458	—	1207	1482	—
13450	17210	1679	—	1428	1706	—
19680	18350	1971	—	1721	1932	—
950	1340	173	161	—	—	—
1640	2470	318	233	—	—	—
2210	2860	366	279	—	—	—
1370	2950	381	244	—	—	—
2530	3930	503	372	417	579	686
3450	4460	568	434	486	654	688
1370	2950	381	263	—	—	—
2530	3930	503	402	452	690	869
3450	4460	568	468	526	780	871
4020	6090	775	—	648	847	871
5.350	6850	867	—	742	947	942
6680	7610	957	—	834	1046	1007
8200	8480	1059	—	939	1157	1007
4100	6490	827	—	688	895	917
5520	7300	925	—	788	1001	992
6950	8120	1021	—	887	1105	1060
8570	9040	1129	—	997	1222	1060
4360	7710	982	—	789	976	963
6010	8670	1098	—	904	1 092	1 042
7730	9640	1212	—	1017	1206	1113
9690	10740	1341	—	1144	1334	1113
6380	10040	1271	—	1055	1288	1240
8400	11160	1404	—	1186	1423	1326
10720	12430	1553	—	1335	1574	1326
9640	15220	1914	—	1591	1925	—
12950	16950	2118	—	1789	2130	—

** All values calculated using API formula.

METRIC								
8 ROUND, BUTTRESS AND								
Size O.D. mm	L I N E	Grade	Mass with Cplgs. kg/m	Inside Dia. mm	Thread & Coupling		Extreme Line	
					Drift Dia. mm	O.D. of Box mm	Drift Dia. mm	O.D. of Box mm
193.68 (7.625in)	1	*F-25	29.76	180.98	177.80	215.90	—	—
	2	H-40	35.72	178.44	175.26	215.90	—	—
	3	J-55	39.29	177.01	173.84	215.90	171.45	203.45
	4	K-55	39.29	177.01	173.84	215.90	171.45	203.45
	5	C-75	39.29	177.01	173.84	215.90	171.45	203.45
	6	C-75	44.20	174.63	171.45	215.90	171.45	203.45
	7	C-75	50.15	171.83	168.66	215.90	168.66	203.45
	8	C-75	58.04	168.28	165.10	215.90	165.10	203.45
	9	N-80	39.29	177.01	173.84	215.90	171.45	203.45
	10	N-80	44.20	174.63	171.45	215.90	171.45	203.45
	11	N-80	50.15	171.83	168.66	215.90	168.66	203.45
	12	N-80	58.04	168.28	165.10	215.90	165.10	203.45
	13	C-95	39.29	177.01	173.84	215.90	171.45	203.45
	14	C-95	44.20	174.63	171.45	215.90	171.45	203.45
	15	C-95	50.15	171.83	168.66	215.90	168.66	203.45
	16	C-95	58.04	168.28	165.10	215.90	165.10	203.45
	17	P110	44.20	174.63	171.45	215.90	171.45	203.45
	18	P-110	50.15	171.83	168.66	215.90	168.66	203.45
	19	P-110	58.04	168.28	165.10	215.90	165.10	203.45
	20	*V-150	50.15	171.83	168.66	215.90	—	—
	21	*V-150	58.04	168.28	165.10	215.90	—	—
	22	*V-150	67.41	163.45	160.27	215.90	—	—
219.08 (8.625in)	23	*F-25	35.72	205.66	202.49	244.48	—	—
	24	H-40	41.67	203.63	200.46	244.48	—	—
	25	H-40	47.62	201.19	198.02	244.48	—	—
	26	J-55	35.72	205.66	202.49	244.48	—	—
	27	J-55	47.62	201.19	198.02	244.48	195.58	231.65
	28	J-55	53.57	198.76	195.58	244.48	195.58	231.65
	29	K-55	35.72	205.66	202.49	244.48	—	—
	30	K-55	47.62	201.19	198.02	244.48	195.58	231.65
	31	K-55	53.57	198.76	195.58	244.48	195.58	231.65
	32	C-75	53.57	198.76	195.58	244.48	195.58	231.65
	33	C-75	59.53	196.22	193.04	244.48	193.04	231.65
	34	C-75	65.48	193.68	190.50	244.48	190.50	231.65
	35	C-75	72.92	190.78	187.60	244.48	187.60	231.65
	36	N-80	53.57	198.76	195.58	244.48	195.58	231.65
	37	N-80	59.53	196.22	193.04	244.48	193.04	231.65
	38	N-80	65.48	193.68	190.50	244.48	190.50	231.65
	39	N-80	72.92	190.78	187.60	244.48	187.60	231.65
	40	C-95	53.57	198.76	195.58	244.48	195.58	231.65
	41	C-95	59.53	196.22	193.04	244.48	193.04	231.65
	42	C-95	65.48	193.68	190.50	244.48	190.50	231.65
	43	C-95	72.92	190.78	187.60	244.48	187.60	231.65
	44	P-110	59.53	196.22	193.04	244.48	193.04	231.65
	45	P-110	65.48	193.68	190.50	244.48	190.50	231.65
	46	P-110	72.92	190.78	187.60	244.48	187.60	231.65
	47	*V-150	65.48	193.68	190.50	244.48	—	—
	48	*V-150	72.92	190.78	187.60	244.48	—	—

*NonAPI Standard. Shown for information only.

UNITS EXTREMELINE CASING CONNECTIONS

** Collapse Strength 100 kPa†	** Min. Internal Yield Pressure 100 kPa†	** Body Yield Load 1000 N	Joint Parting - Load 1000 N**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
75.8	98.6	645	614	—	—	—
140.7	189.6	1228	943	—	—	—
199.3	285.4	1842	1401	1539	2148	2460
199.3	285.4	1842	1521	1677	2584	3114
226.1	389.6	2509	—	2051	2776	3114
322.0	444.7	2851	—	2411	3154	3114
435.7	510.2	3243	—	2825	3585	3407
581.2	593.6	3732	—	3341	4132	3785
234.4	415.1	2678	—	2180	2931	3278
330.3	475.0	3038	—	2558	3332	3278
452.3	544.7	3461	—	2998	3790	3585
607.4	632.9	3981	—	3550	4364	3986
255.8	493.0	3176	—	2491	3185	3443
353.0	564.0	3608	—	2931	3616	3443
500.6	646.7	4106	—	3434	4115	3763
688.1	751.5	4728	—	4066	4737	4186
368.2	652.9	4181	—	3421	4270	4101
541.2	748.8	4755	—	4008	4862	4484
762.6	870.1	5476	—	4742	5596	4982
610.9	1020.4	6486	—	5369	6592	—
927.3	1186.6	7469	—	6352	7589	—
1356.9	1265.2	8767	—	7655	8594	—
65.5	92.4	770	716	—	—	—
113.1	170.3	1415	1036	—	—	—
152.4	197.2	1628	1241	—	—	—
94.5	203.4	1695	1085	—	—	—
174.4	271.0	2237	1655	1855	2576	3051
237.9	307.5	2527	1931	2162	2909	3060
94.5	203.4	1695	1170	—	—	—
174.4	271.0	2237	1788	2011	3069	3866
237.9	307.5	2527	2082	2340	3470	3874
277.2	419.9	3447	—	2882	3768	3874
368.9	472.3	3857	—	3301	4212	4190
460.6	524.7	4257	—	3710	4653	4479
565.4	584.7	4711	—	4177	5147	4479
282.7	447.5	3679	—	3060	3981	4079
380.6	503.3	4115	—	3505	4453	4413
479.2	559.9	4542	—	3946	4915	4715
590.9	623.3	5022	—	4435	5436	4715
300.6	531.6	4368	—	3510	4341	4284
414.4	597.8	4884	—	4021	4857	4635
533.0	664.7	5391	—	4524	5365	4951
668.1	740.5	5965	—	5089	5934	4951
439.9	692.2	5654	—	4693	5729	5516
579.2	769.5	6245	—	5276	6330	5898
739.1	857.0	6908	—	5938	7002	5898
664.7	1049.4	8514	—	7077	8563	—
892.9	1168.7	9421	—	7958	9475	—

** All values calculated using API formula.

† 100 kPa = 1 Bar.

ENGLISH

8 ROUND, BUTTRESS AND

Size O.D. Inch	L I N E	Grade	Wt. with Cplgs. Lb/Ft.	Inside Dia. Inch	Thread & Coupling		Extreme Line	
					Drift Dia. Inch	O.D. of Box Inch	Drift Dia. Inch	O.D. of Box Inch
9.625 (244.48mm)	1	*F-25	29.30	9.063	8.907	10.625	—	—
	2	H-40	32.30	9.001	8.845	10.625	—	—
	3	H-40	36.00	8.921	8.765	10.625	—	—
	4	J-55	36.00	8.921	8.765	10.625	—	—
	5	J-55	40.00	8.835	8.679	10.625	8.599	10.100
	6	K-55	36.00	8.921	8.765	10.625	—	—
	7	K-55	40.00	8.835	8.679	10.625	8.599	10.100
	8	C-75	40.00	8.835	8.679	10.625	8.599	10.100
	9	C-75	43.50	8.755	8.599	10.625	8.599	10.100
	10	C-75	47.00	8.681	8.525	10.625	8.525	10.100
	11	C-75	53.50	8.535	8.379	10.625	8.379	10.100
	12	N-80	40.00	8.835	8.679	10.625	8.599	10.100
	13	N-80	43.50	8.755	8.599	10.625	8.599	10.100
	14	N-80	47.00	8.681	8.525	10.625	8.525	10.100
	15	N-80	53.50	8.535	8.379	10.625	8.379	10.100
	16	C-95	40.00	8.835	8.679	10.625	8.599	10.100
	17	C-95	43.50	8.755	8.599	10.625	8.599	10.100
	18	C-95	47.00	8.681	8.525	10.625	8.525	10.100
	19	C-95	53.50	8.535	8.379	10.625	8.379	10.100
	20	P-110	43.50	8.755	8.599	10.625	8.599	10.100
	21	P-110	47.00	8.681	8.525	10.625	8.525	10.100
	22	P-110	53.50	8.535	8.379	10.625	8.379	10.100
	23	*V-150	53.50	8.535	8.379	10.625	—	—
	24	*V-150	58.40	8.435	8.279	10.625	—	—
	25	*V-150	61.10	8.375	8.219	10.625	—	—
	26	*V-150	71.80	8.125	7.969	10.625	—	—
10.750 (273.05mm)	27	*F-25	32.75	10.192	10.036	11.750	—	—
	28	H-40	32.75	10.192	10.036	11.750	—	—
	29	H-40	40.50	10.050	9.894	11.750	—	—
	30	J-55	40.50	10.050	9.894	11.750	—	—
	31	J-55	45.50	9.950	9.794	11.750	9.794	11.460
	32	J-55	51.00	9.850	9.694	11.750	9.694	11.460
	33	K-55	40.50	10.050	9.894	11.750	—	—
	34	K-55	45.50	9.950	9.794	11.750	9.794	11.460
	35	K-55	51.00	9.850	9.694	11.750	9.694	11.460
	36	C-75	51.00	9.850	9.694	11.750	9.694	11.460
	37	C-75	55.50	9.760	9.604	11.750	9.604	11.460
	38	N-80	51.00	9.850	9.694	11.750	9.694	11.460
	39	N-80	55.50	9.760	9.604	11.750	9.604	11.460
	40	C-95	51.00	9.850	9.694	11.750	9.694	11.460
	41	C-95	55.50	9.760	9.604	11.750	9.604	11.460
	42	P-110	51.00	9.850	9.694	11.750	9.694	11.460
	43	P-110	55.50	9.760	9.604	11.750	9.604	11.460
	44	P-110	60.70	9.660	9.504	11.750	9.504	11.460
	45	P-110	65.70	9.560	9.404	11.750	—	—
	46	*P-110	71.10	9.450	9.294	11.750	—	—
	47	*V-150	65.70	9.560	9.404	11.750	—	—
	48	*V-150	71.10	9.450	9.294	11.750	—	—

*NonAPI Standard. Shown for information only.

UNITS EXTREMELINE CASING CONNECTIONS

** Collapse Strength psi	** Min. Internal Yield Pressure psi	** Body Yield Load 1000 Lb.	Joint Parting - Load 1000 Lb.**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
860	1280	206	185	—	—	—
1400	2270	365	254	—	—	—
1740	2560	410	294	—	—	—
2020	3520	564	394	453	639	—
2570	3950	630	452	520	714	770
2020	3520	564	423	489	755	—
2570	3950	630	486	561	843	975
2980	5390	859	—	694	926	975
3750	5930	942	—	776	1016	975
4630	6440	1018	—	852	1098	1032
6380	7430	1166	—	999	1257	1173
3090	5750	916	—	737	979	1027
3810	6330	1005	—	825	1074	1027
4750	6870	1086	—	905	1161	1086
6620	7930	1244	—	1062	1329	1235
3330	6820	1088	—	847	1074	1078
4130	7510	1193	—	948	1178	1078
5080	8150	1289	—	1040	1273	1141
7330	9410	1477	—	1220	1458	1297
4430	8700	1381	—	1106	1388	1283
5310	9440	1493	—	1213	1500	1358
7930	10900	1710	—	1422	1718	1544
8970	14860	2332	—	1909	2321	—
11570	16230	2532	—	2098	2519	—
13130	16560	2651	—	2211	2638	—
19640	16560	3136	—	2672	2692	—
650	1140	229	196	—	—	—
880	1820	367	205	—	—	—
1420	2280	457	314	—	—	—
1580	3130	629	420	—	700	—
2090	3580	715	493	—	796	975
2700	4030	801	565	—	891	1092
1580	3130	629	450	—	819	—
2090	3580	715	528	—	931	1236
2700	4030	801	606	—	1043	1383
3100	5490	1092	756	—	1160	1383
3950	6040	1196	843	—	1271	1515
3220	5860	1165	804	—	1228	1456
4020	6450	1276	895	—	1345	1595
3490	6960	1383	927	—	1354	1529
4300	7660	1515	1032	—	1483	1675
3670	8060	1602	1080	—	1594	1820
4630	8860	1754	1203	—	1745	1993
5860	9760	1922	1338	—	1912	2000
7490	10650	2088	1472	—	2077	—
9280	10980	2269	1618	—	2418	—
8330	14530	2847	1978	—	2799	—
10890	14970	3094	2174	—	2957	—

** All values calculated using API formula.

METRIC								
8 ROUND, BUTTRESS AND								
Size O.D. mm	L I N E	Grade	Mass with Cplgs. kg/m	Inside Dia. mm	Thread & Coupling		Extreme Line	
					Drift Dia. mm	O.D. of Box mm	Drift Dia. mm	O.D. of Box mm
244.48 (9.625in)	1	*F-25	43.60	230.20	226.24	269.88	—	—
	2	H-40	48.07	228.63	224.66	269.88	—	—
	3	H-40	53.57	226.59	222.63	269.88	—	—
	4	J-55	53.57	226.59	222.63	269.88	—	—
	5	J-55	59.53	224.41	220.45	269.88	218.42	256.54
	6	K-55	53.57	226.59	222.63	269.88	—	—
	7	K-55	59.53	224.41	220.45	269.88	218.42	256.54
	8	C-75	59.53	224.41	220.45	269.88	218.42	256.54
	9	C-75	64.74	222.38	218.42	269.88	218.42	256.54
	10	C-75	69.94	220.50	216.54	269.88	216.54	256.54
	11	C-75	79.62	216.79	212.83	269.88	212.83	256.54
	12	N-80	59.53	224.41	220.45	269.88	218.42	256.54
	13	N-80	64.74	222.38	218.42	269.88	218.42	256.54
	14	N-80	69.94	220.50	216.54	269.88	216.54	256.54
	15	N-80	79.62	216.79	212.83	269.88	212.83	256.54
	16	C-95	59.53	224.41	220.45	269.88	218.42	256.54
	17	C-95	64.74	222.38	218.42	269.88	218.42	256.54
	18	C-95	69.94	220.50	216.54	269.88	216.54	256.54
	19	C-95	79.62	216.79	212.83	269.88	212.83	256.54
	20	P-110	64.74	222.38	218.42	269.88	218.42	256.54
	21	P-110	69.94	220.50	216.54	269.88	216.54	256.54
	22	P-110	79.62	216.79	212.83	269.88	212.83	256.54
	23	*V-150	79.62	216.79	212.83	269.88	—	—
	24	*V-150	86.91	214.25	210.29	269.88	—	—
	25	*V-150	90.93	212.73	208.76	269.88	—	—
	26	*V-150	106.85	206.38	202.41	269.88	—	—
273.05 (10.750in)	27	*F-25	48.74	258.88	254.91	298.45	—	—
	28	H-40	48.74	258.88	254.91	298.45	—	—
	29	H-40	60.27	255.27	251.31	298.45	—	—
	30	J-55	60.27	255.27	251.31	298.45	—	—
	31	J-55	67.71	252.73	248.77	298.45	248.77	291.08
	32	J-55	75.90	250.19	246.23	298.45	246.23	291.08
	33	K-55	60.27	255.27	251.31	298.45	—	—
	34	K-55	67.71	252.73	248.77	298.45	248.17	291.08
	35	K-55	75.90	250.19	246.23	298.45	246.23	291.08
	36	C-75	75.90	250.19	246.23	298.45	246.23	291.08
	37	C-75	82.59	247.90	243.94	298.45	243.94	291.08
	38	N-80	75.90	250.19	246.23	298.45	246.23	291.08
	39	N-80	82.59	247.90	243.94	298.45	243.94	291.08
	40	C-95	75.90	250.19	246.23	298.45	246.23	291.08
	41	C-95	82.59	247.90	243.94	298.45	243.94	294.08
	42	P-110	75.90	250.19	246.23	298.45	246.23	291.08
	43	P-110	82.59	247.90	243.94	298.45	243.94	291.08
	44	P-110	90.33	245.36	241.40	298.45	241.40	291.08
	45	P-110	97.77	242.82	238.86	298.45	—	—
	46	*P-110	105.81	240.03	236.07	298.45	—	—
	47	*V-150	97.77	242.82	238.86	298.45	—	—
	48	*V-150	105.81	240.03	236.07	298.45	—	—

*NonAPI Standard. Shown for information only.

UNITS EXTREMELINE CASING CONNECTIONS

** Collapse Strength 100 kPa†	** Min. Internal Yield Pressure 100 kPa†	** Body Yield Load 1000 N	Joint Parting - Load 1000 N**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
59.3	88.3	916	823	—	—	—
96.5	1565	1624	1130	—	—	—
1200	176.5	1824	1308	—	—	—
139.3	242.7	2509	1753	2015	2842	—
1772	272.3	2802	2011	2313	3176	3425
139.3	242.7	2509	1882	2175	3358	—
177.2	272.3	2802	2162	2495	3750	4337
205.5	371.6	3821	—	3087	4119	4337
258.6	408.9	4190	—	3452	4519	4337
319.2	444.0	4528	—	3790	4884	4591
4399	5123	5187	—	4444	5591	5218
213.0	396.4	4075	—	3278	4355	4568
262.7	436.4	4470	—	3670	4777	4568
327.5	473.7	4831	—	4026	5164	4831
456.4	5468	5534	—	4724	5912	5494
229.6	470.2	4840	—	3768	4777	4795
284.8	517.8	5307	—	4217	5240	4795
350.3	561.9	5734	—	4626	5663	5075
505.4	6488	6570	—	5427	6486	5769
305.4	5998	6143	—	4920	6174	5707
366.1	650.9	6641	—	5396	6672	6041
546.8	751.5	7606	—	6325	7642	6868
618.5	1024.6	10373	—	8492	10324	—
797.7	1119.0	11263	—	9332	11205	—
905.3	1141.8	11792	—	9835	11734	—
1354.1	1141.8	13950	—	11886	11975	—
44.8	78.6	1019	872	—	—	—
60.7	125.5	1632	912	—	—	—
97.9	157.2	2033	1397	—	—	—
108.9	215.8	2798	1868	—	3114	—
144.1	246.8	3180	2193	—	3541	4337
186.2	277.9	3563	2513	—	3963	4857
108.9	215.8	2798	2002	—	3643	—
144.1	246.8	3180	2349	—	4141	5498
186.2	277.9	3563	2696	—	4639	6152
213.7	378.5	4857	3363	—	5160	6152
272.3	416.4	5320	3750	—	5654	6739
222.0	404.0	5182	3576	—	5462	6477
277.2	444.7	6676	3981	—	5983	7095
240.6	479.9	6152	4124	—	6023	6801
296.5	528.1	6739	4591	—	6597	7451
253.0	555.1	7126	4804	—	7090	8096
319.2	610.9	7802	5351	—	7762	8865
404.0	672.9	8549	5952	—	8505	8896
516.4	734.3	9288	6548	—	9239	—
639.8	757.0	10093	7197	—	10756	—
574.3	1001.8	12664	8799	—	12451	—
750.8	1032.1	13763	9670	—	13153	—

** All values calculated using API formula.

† 100 kPa = 1 Bar.

ENGLISH 8 ROUND, BUTTRESS AND								
Size O.D. Inch	L I N E	Grade	Wt. with Cplgs. Lb/Ft.	Inside Dia. Inch	Thread & Coupling		Extreme Line	
					Drift Dia. Inch	O.D. of Box Inch	Drift Dia. Inch	O.D. of Box Inch
11.750 (298.45mm)	1	*F-25	38.00	11.150	10.994	12.750	—	—
	2	H-40	42.00	11.084	10.928	12.750	—	—
	3	J-55	47.00	11.000	10.844	12.750	—	—
	4	J-55	54.00	10.880	10.724	12.750	—	—
	5	J-55	60.00	10.772	10.616	12.750	—	—
	6	K-55	47.00	11.000	10.844	12.750	—	—
	7	K-55	54.00	10.880	10.724	12.750	—	—
	8	K-55	60.00	10.772	10.616	12.750	—	—
	9	C-75	60.00	10.772	10.616	12.750	—	—
	10	N-80	60.00	10.772	10.616	12.750	—	—
	11	C-95	60.00	10.772	10.616	12.750	—	—
13.375 (339.73mm)	12	*F-25	48.00	12.715	12.559	14.375	—	—
	13	H-40	48.00	12.715	12.559	14.375	—	—
	14	J-55	54.50	12.615	12.459	14.375	—	—
	15	J-55	61.00	12.515	12.359	14.375	—	—
	16	J-55	68.00	12.415	12.259	14.375	—	—
	17	K-55	54.50	12.615	12.459	14.375	—	—
	18	K-55	61.00	12.515	12.359	14.375	—	—
	19	K-55	68.00	12.415	12.259	14.375	—	—
	20	C-75	72.00	12.347	12.191	14.375	—	—
	21	*C-75	77.00	12.275	12.119	14.375	—	—
	22	*C-75	85.00	12.159	12.003	14.375	—	—
	23	*C-75	98.00	11.937	11.781	14.375	—	—
	24	N-80	72.00	12.347	12.191	14.375	—	—
	25	*N-80	77.00	12.275	12.119	14.375	—	—
	26	N-80	85.00	12.159	12.003	14.375	—	—
	27	*N-80	98.00	11.937	11.781	14.375	—	—
	28	C-95	72.00	12.347	12.191	14.375	—	—
	29	*P-110	72.00	12.347	12.191	14.375	—	—
	30	*V-150	72.00	12.347	12.191	14.375	—	—
	16.000 (406.40mm)	31	*F-25	55.00	15.376	15.188	17.000	—
32		H-40	65.00	15.250	15.062	17.000	—	—
33		J-55	75.00	15.124	14.936	17.000	—	—
34		J-55	84.00	15.010	14.822	17.000	—	—
35		K-55	75.00	15.124	14.936	17.000	—	—
36		K-55	84.00	15.010	14.822	17.000	—	—
37		*K-55	109.00	14.688	14.500	17.000	—	—
38		*C-75	109.00	14.688	14.500	17.000	—	—
39		*N-80	109.00	14.688	14.500	17.000	—	—

*NonAPI Standard. Shown for information only.

UNITS

EXTREMELINE CASING CONNECTIONS

** Collapse Strength psi	** Min. Internal Yield Pressure psi	** Body Yield Load 1000 Lb.	Joint Parting - Load 1000 Lb.**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
620	1120	270	222	—	—	—
1070	1980	478	307	—	—	—
1510	3070	737	477	—	807	—
2070	3560	850	568	—	931	—
2660	4010	952	649	—	1042	—
1510	3070	737	509	—	935	—
2070	3560	850	606	—	1079	—
2660	4010	952	693	—	1208	—
3070	5460	1298	869	—	1361	—
3180	5830	1384	924	—	1440	—
3440	6920	1644	1066	—	1596	—
560	1080	338	260	—	—	—
770	1730	541	322	—	—	—
1130	2730	853	514	—	909	—
1540	3090	962	595	—	1025	—
1950	3450	1069	675	—	1140	—
1130	2730	853	547	—	1038	—
1540	3090	962	633	—	1169	—
1950	3450	1069	718	—	1300	—
2590	5040	1558	978	—	1598	—
2990	5400	1662	1054	—	2054	—
3810	5970	1829	1177	—	2261	—
5720	6120	2144	1408	—	2296	—
2670	5380	1661	1040	—	1693	—
3100	5760	1773	1122	—	2148	—
3870	6360	1951	1252	—	2364	—
5910	6530	2287	1498	—	2400	—
2820	6390	1973	1204	—	1893	—
2880	7400	2596	1402	—	2433	—
2880	10090	3323	1887	—	2976	—
290	850	384	258	—	—	—
670	1640	736	439	—	—	—
1020	2630	1178	710	—	1200	—
1410	2980	1326	817	—	1351	—
1020	2630	1178	752	—	1331	—
1410	2980	1326	865	—	1499	—
2560	3950	1739	1181	—	1962	—
2980	5380	2372	1499	—	-	—
3080	5740	2530	1594	—	-	—

** All values calculated using API formula.

METRIC								
8 ROUND, BUTTRESS AND								
Size O.D. mm	L I N E	Grade	Mass with Cplgs. kg/m	Inside Dia. mm	Thread & Coupling		Extreme Line	
					Drift Dia. mm	O.D. of Box mm	Drift Dia. mm	O.D. of Box mm
298.45 (11.750in)	1	*F-25	56.55	283.21	279.25	323.85	—	—
	2	H-40	62.50	281.53	277.57	323.85	—	—
	3	J-55	69.94	279.40	275.44	323.85	—	—
	4	J-55	80.36	276.35	272.39	323.85	—	—
	5	J-55	89.29	273.61	269.65	323.85	—	—
	6	K-55	69.94	279.40	275.44	323.85	—	—
	7	K-55	80.36	276.35	272.39	323.85	—	—
	8	K-55	89.29	273.6~	269.65	323.85	—	—
	9	C-75	89.29	273.61	269.65	323.85	—	—
	10	N-80	89.29	273.61	269.65	323.85	—	—
	11	C-95	89.29	273~61	269.65	323.85	—	—
339.73 (13.375in)	12	*F-25	71.43	322.96	319.00	365.13	—	—
	13	H-40	71.43	322.96	319.00	365.13	—	—
	14	J-55	81.10	320.42	316.46	365.13	—	—
	15	J-55	90.78	317.88	313.92	365.13	—	—
	16	J-55	101.20	315.34	311.38	365.13	—	—
	17	K-55	81.10	320.42	316.46	365.13	—	—
	18	K-55	90.78	317.88	313.92	365.13	—	—
	19	K-55	101.20	315.34	311.38	365.13	—	—
	20	C-75	107.15	313.61	309.65	365.13	—	—
	21	*C-75	114.59	311.79	307.82	365.13	—	—
	22	*C-75	126.49	308.84	304.88	365.13	—	—
	23	*C-75	145.84	303.20	299.24	365.13	—	—
	24	N-80	107.15	313.61	309.65	365.13	—	—
	25	*N-80	114.59	311.79	307.82	365.13	—	—
	26	*N-80	126.49	308.84	304.88	365.13	—	—
	27	*N-80	145.84	303.20	299.24	365.13	—	—
	28	C-95	107.15	313.61	309.65	365.13	—	—
	29	*P-110	107.15	313.61	309.65	365.13	—	—
	30	*V-150	107.15	313.61	309.65	365.13	—	—
406.40 (16.000in)	31	*F-25	81.85	390.55	385.78	431.80	—	—
	32	H-40	96.73	387.35	382.58	431.80	—	—
	33	J-55	111.61	384.15	379.38	431.80	—	—
	34	J-55	125.01	381.25	376.48	431.80	—	—
	35	K-55	111.61	384.15	379.38	431.80	—	—
	36	K-55	125.01	381.25	376.48	431.80	—	—
	37	*K-55	162.21	373.08	368.30	431.80	—	—
	38	*C-75	162.21	373.08	368.30	431.80	—	—
	39	*N-80	162.21	373.08	368.30	431.80	—	—

*NonAPI Standard. Shown for information only.

UNITS EXTREMLINE CASING CONNECTIONS

** Collapse Strength 100 kPa†	** Min. Internal Yield Pressure 100 kPa†	** Body Yield Load 1000 N	Joint Parting - Load 1000 N**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
42.7	77.2	1201	988	—	—	—
73.8	136.5	2126	1366	—	—	—
104.1	211.7	3278	2122	—	3590	—
142.7	245.5	3781	2527	—	4141	—
183.4	276.5	4235	2887	—	4635	—
104.1	211.7	3278	2264	—	4159	—
142.7	245.5	3781	2696	—	4800	—
183.4	276.5	4235	3083	—	5373	—
211.7	376.5	5774	3866	—	6054	—
219.3	402.0	6156	4110	—	6405	—
237.2	477.1	7313	4742	—	7099	—
38.6	74.5	1503	1157	—	—	—
53.1	119.3	2406	1432	—	—	—
77.9	188.2	3794	2286	—	4043	—
106.2	213.0	4279	2647	—	4559	—
134.4	237.9	4755	3003	—	5071	—
77.9	188.2	3794	2433	—	4617	—
106.2	213.0	4279	2816	—	5200	—
134.4	237.9	4755	3194	—	5783	—
178.6	347.5	6930	4350	—	7108	—
206.2	372.3	7393	4688	—	9137	—
262.7	411.6	8136	5236	—	10057	—
394.4	422.0	9537	6263	—	10213	—
184.1	370.9	7388	4626	—	7531	—
213.7	397.1	7887	4991	—	9555	—
266.8	438.5	8678	5569	—	10516	—
407.5	450.2	10173	6663	—	10676	—
194.4	440.6	8776	5356	—	8420	—
198.6	510.2	11548	6236	—	10823	—
198.6	695.7	14781	8394	—	13238	—
20.0	58.6	1708	1148	—	—	—
46.2	113.1	3274	1953	—	—	—
70.3	181.3	5240	3158	—	5338	—
97.2	205.5	5898	3634	—	6010	—
70.3	181.3	5240	3345	—	5921	—
97.2	205.5	5898	3848	—	6668	—
176.5	272.3	7735	5253	—	8727	—
205.5	370.9	10551	6668	—	—	—
212.4	395.8	11254	7090	—	—	—

** All values calculated using API formula.

† 100 kPa = 1 Bar.

ENGLISH
8 ROUND, BUTTRESS AND

Size O.D. Inch	L I N E	Grade	Wt. with Cplgs. Lb/Ft.	Inside Dia. Inch	Thread & Coupling		Extreme Line	
					Drift Dia. Inch	O.D. of Box Inch	Drift Dia. Inch	O.D. of Box Inch
18.625 (473.08mm)	1	H-40	87.50	17.755	17.567	19.625	—	—
	2	J-55	87.50	17.755	17.567	19.625	—	—
	3	K-55	87.50	17.755	17.567	19.625	—	—
20.000 (508.00mm)	4	*F-25	94.00	19.124	18.936	21.000	—	—
	5	H-40	94.00	19.124	18.936	21.000	—	—
	6	J-55	94.00	19.124	18.936	21.000	—	—
	7	J-55	106.50	19.000	18.812	21.000	—	—
	8	J-55	133.00	18.730	18.542	21.000	—	—
	9	K-55	94.00	19.124	18.936	21.000	—	—
	10	K-55	106.50	19.000	18.812	21.000	—	—
	11	K-55	133.00	18.730	18.542	21.000	—	—

*NonAPI Standard. Shown for information only.

UNITS
EXTREMLINE CASING CONNECTIONS

** Collapse Strength psi	** Min. Internal Yield Pressure psi	** Body Yield Load 1000 Lb.	Joint Parting - Load 1000 Lb.**			
			Threaded & Coupled			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
630	1630	994	559	—	—	—
630	2250	1367	754	—	1329	—
630	2250	1367	794	—	1427	—
410	960	673	359	—	—	—
520	1530	1077	581	—	—	—
520	2110	1480	784	907	1402	—
770	2410	1685	913	1057	1596	—
1500	3060	2125	1192	1380	2012	—
520	2110	1480	824	955	1479	—
770	2410	1685	960	1113	1683	—
1500	3060	2125	1253	1453	2123	—

** All values calculated using API formula.

METRIC								
8 ROUND, BUTTRESS AND								
Size O.D. mm	L I N E	Grade	Mass With Cplgs. kg/m	Inside Dia. mm	Thread & Coupling		Extreme Line	
					Drift Dia. mm	O.D. of Box mm	Drift Dia. mm	O.D. of Box mm
473.08 (18.625in)	1	H-40	130.21	450.98	446.20	498.48	—	—
	2	J-55	130.21	450.98	446.20	498.48	—	—
	3	K-55	130.21	450.98	446.20	498.48	—	—
508.00 (20.000in)	4	*F-25	139.89	485.75	480.98	533.40	—	—
	5	H-40	139.89	485.75	480.98	533.40	—	—
	6	J-55	139.89	485.75	480.98	533.40	—	—
	7	J-55	158.49	482.60	477.83	533.40	—	—
	8	J-55	197.93	475.74	470.97	533.40	—	—
	9	K-55	139.89	485.75	480.98	533.40	—	—
	10	K-55	158.49	482.60	477.83	533.40	—	—
	11	K-55	197.93	475.74	470.97	533.40	—	—

*NonAPI Standard. Shown for information only.

UNITS EXTREMELINE CASING CONNECTIONS

** Collapse Strength 100 kPa†	** Min. Internal Yield Pressure 100 kPa†	** Body Yield Load 1000 N	Joint Parting - Load 1000 N**			
			Round Thread			Ext. Line Joint
			Round Thread		Buttress Thd.	
			Short	Long		
43.4	112.4	4422	2487	—	—	—
43.4	155.1	6081	3354	—	5912	—
43.4	155.1	6081	3532	—	6348	—
28.3	66.2	2994	1597	—	—	—
35.9	105.5	4791	2584	—	—	—
35.9	145.5	6583	3487	4035	6236	—
53.1	166.2	7495	4061	4702	7099	—
103.4	211.0	9452	5302	6139	8950	—
35.9	145.5	6583	3665	4248	6579	—
53.1	166.2	7495	4270	4951	7486	—
103.4	211.0	9452	5574	6463	9444	—

** All values calculated using API formula.

† 100 kPa = 1 Bar.

ENGLISH CASING BODY

Size O.D. Inch	L I N E	Wt. with Cplgs. Lb/Ft.	Minimum Collapse Pressure (P.S.I.)					
			K-55	C-75	N-80	C-95	P-110	V-150
4.500 (114.30mm)	1	11.60	4960	6130	6350	7010	7560	—
	2	13.50	6420	8170	8540	9650	10670	12880
	3	15.10	7620	10390	11080	—	14320	18110
	4	16.60	8360	11400	12160	—	16720	22110
	5	18.80	9510	12960	13830	—	19010	25930
	6	21.60	10860	14810	15800	—	21730	29630
	7	24.60	11990	16340	17430	—	23970	32690
	8	26.50	13240	18060	19260	—	26490	36120
5.000 (127.00mm)	9	13.00	4140	4990	—	—	—	—
	10	15.00	5550	6970	7250	8090	8830	10260
	11	18.00	7390	10000	10490	12010	13450	16860
	12	20.30	8240	11240	11990	—	16490	21470
	13	20.80	8500	11590	12360	—	17000	22870
	14	23.20	9510	12970	13830	—	19020	25940
	15	24.20	9900	13500	14400	—	19800	27000
5.500 (139.70mm)	16	14.00	3120	3560	—	—	—	—
	17	15.50	4040	4860	—	—	—	—
	18	17.00	4910	6070	6280	6930	7460	—
	19	20.00	6620	8440	8830	10000	11080	13480
	20	23.00	7670	10460	11160	12920	14520	18390
	21	26.00	8700	11860	12650	—	17390	23720
	22	32.30	10880	14830	15820	—	21760	29670
	23	36.40	12290	16760	17880	—	24590	33530
6.625 (168.28mm)	24	20.00	2970	3360	—	—	—	—
	25	24.00	4560	5570	5760	6290	6710	—
	26	28.00	6170	7830	8170	9200	10140	12130
	27	32.00	7320	9830	10320	11800	13210	16510
7.000 (177.80mm)	28	20.00	2270	2660	—	—	—	—
	29	23.00	3270	3770	3830	4150	—	—
	30	26.00	4320	5250	5410	5870	6210	—
	31	29.00	5400	6760	7020	7820	8510	9800
	32	32.00	6460	8230	8600	9730	10760	13020
	33	35.00	7270	9710	10180	11640	13010	16230
	34	38.00	7830	10680	11390	13420	15110	19240
	35	41.00	8490	11580	12350	—	16980	22810
	36	44.00	9140	12460	13290	—	18280	24920
	37	49.50	10280	14010	14950	—	20550	28020

*NonAPI Standard. Shown for information only.

**UNITS
PRESSURE RATINGS***

Inside Dia. Inch	Drift Dia. Inch	Minimum Internal Yield Pressure (P.S.I.)					
		K-55	C-75	N-80	C-95	P-110	V-150
4.000	3.875	5350	7290	7780	9240	10690	14580
3.920	3.795	6200	8460	9020	10710	12410	16920
3.826	3.701	7210	9830	10480	—	14420	19660
3.754	3.629	7980	10880	11600	—	15960	21760
3.640	3.515	9200	12540	13380	—	18390	25080
3.500	3.375	10690	14580	15560	—	21390	29170
3.380	3.255	11980	16330	17420	—	23960	32670
3.240	3.115	13480	18380	19600	—	26950	36750
4.494	4.369	4870	6640	—	—	—	—
4.408	4.283	5700	7770	8290	9840	11400	15540
4.276	4.151	6970	9500	10140	12040	13940	19010
4.184	4.059	7850	10710	11420	—	15710	21420
4.156	4.031	8120	11080	11820	—	16250	22160
4.044	3.919	9200	12550	13380	—	18400	25100
4.000	3.875	9630	13130	14000	—	19250	26250
5.012	4.887	4270	5820	—	—	—	—
4.950	4.825	4810	6560	—	—	—	—
4.892	4.767	5320	7250	7740	9190	10640	—
4.778	4.653	6320	8610	9190	10910	12640	17230
4.670	4.545	7260	9900	10560	12540	14530	19810
4.548	4.423	8330	11360	12120	—	16660	22720
4.276	4.151	10710	14600	15580	—	21420	29210
4.090	3.965	12340	16820	17950	—	24680	33650
6.049	5.924	4180	5710	—	—	—	—
5.921	5.796	5110	6970	7440	8830	10230	—
5.791	5.666	6060	8260	8810	10460	12120	16520
5.675	5.550	6900	9410	10040	11920	13800	18820
6.456	6.331	3740	5100	—	—	—	—
6.366	6.241	4360	5940	6340	7530	—	—
6.276	6.151	4980	6790	7240	8600	9950	—
6.184	6.059	5610	7650	8160	9690	11220	15300
6.094	5.969	6230	8490	9060	10760	12460	16990
6.004	5.879	6850	9340	9960	11830	13700	18680
5.920	5.795	7420	10130	10800	12820	14850	20250
5.820	5.695	8110	11060	11800	—	16230	22130
5.720	5.595	8800	12000	12800	—	17600	24000
5.540	5.415	10040	13690	14600	—	20080	27380

** All values calculated using API formula.

**METRIC
CASING BODY**

Size O.D. mm	L I N E	Mass with Cplgs. kg/m	Minimum Collapse Pressure (100 kPa†)					
			K-55	C-75	N-80	C-95	P-110	V-150
114.30 (4.500in)	1	17.26	342.0	422.6	437.8	483.3	521.2	—
	2	20.09	442.6	563.3	588.8	665.3	735.7	888.0
	3	22.47	525.4	716.4	763.9	—	987.3	1248.6
	4	24.70	576.4	786.0	838.4	—	1152.8	1524.4
	5	27.98	655.7	893.6	953.5	—	1310.7	1787.8
	6	32.14	748.8	1021.1	1089.4	—	1498.2	2042.9
	7	36.61	826.7	1126.6	1201.8	—	1652.7	2253.8
	8	39.44	912.9	1245.2	1327.9	—	1826.4	2490.3
127.00 (5.000in)	9	19.35	285.4	344.0	—	—	—	—
	10	22.32	382.7	480.6	499.9	557.8	608.8	707.4
	11	26.79	509.5	689.5	723.3	828.1	927.3	1162.4
	12	30.21	568.1	775.0	826.7	—	1136.9	1480.3
	13	30.95	586.1	799.1	852.2	—	1172.1	1576.8
	14	34.53	655.7	894.2	953.5	—	1311.4	1788.5
	15	36.01	682.6	930.8	992.8	—	1365.2	1861.5
139.70 (5.500in)	16	20.83	215.1	245.5	—	—	—	—
	17	23.07	278.5	335.1	—	—	—	—
	18	25.30	338.5	418.5	433.0	477.8	514.3	—
	19	29.76	456.4	581.9	608.8	689.5	763.9	929.4
	20	34.23	528.8	721.2	769.5	890.8	1001.1	1267.9
	21	38.69	599.8	817.7	872.2	—	1199.0	1635.4
	22	48.07	750.1	1022.5	1090.7	—	1500.3	2045.6
	23	54.17	847.4	1155.6	1232.8	—	1695.4	2311.8
168.28 (6.625 in)	24	29.76	204.8	231.7	—	—	—	—
	25	35.72	314.4	384.0	397.1	433.7	462.6	—
	26	41.67	425.4	539.9	563.3	634.3	699.1	836.3
	27	47.62	504.7	677.8	711.5	813.6	910.8	1138.3
177.80 (7.000in)	28	29.76	156.5	183.4	—	—	—	—
	29	34.23	225.5	259.9	264.1	286.1	—	—
	30	38.69	297.9	362.0	373.0	404.7	428.2	—
	31	43.16	372.3	466.1	484.0	539.2	586.7	675.6
	32	47.62	445.4	567.4	592.9	670.9	741.9	897.7
	33	52.09	501.2	669.5	701.9	802.5	897.0	1119.0
	34	56.55	539.9	736.4	785.3	925.3	1041.8	1326.5
	35	61.01	585.4	798.4	851.5	—	1170.7	1572.6
	36	65.48	630.2	859.1	916.3	—	1260.4	1718.1
	37	73.66	708.8	966.0	1030.8	—	1416.9	1931.9

*NonAPI Standard. Shown for information only.

UNITS PRESSURE RATINGS*

Inside Dia. mm	Drift Dia. mm	Minimum Internal Yield Pressure (100 kPa†)					
		K-55	C-75	N-80	C-95	P-110	V-150
101.60	98.43	368.9	502.6	536.4	637.1	737.0	1005.3
99.57	96.39	427.5	583.3	621.9	738.4	855.6	1166.6
97.18	94.01	497.1	677.8	722.6	—	994.2	1355.5
95.35	92.18	550.2	750.1	799.8	—	1100.4	1500.3
92.46	89.28	634.3	864.6	922.5	—	1267.9	1729.2
88.90	85.73	737.0	1005.3	1072.8	—	1474.8	2011.2
85.85	82.68	826.0	1125.9	1201.1	—	1652.0	2252.5
82.30	79.12	929.4	1267.3	1351.4	—	1858.1	2533.8
114.15	110.97	335.8	457.8	—	—	—	—
111.96	108.79	393.0	535.7	571.6	678.4	786.0	1071.4
108.61	105.44	480.6	655.0	699.1	830.1	961.1	1310.7
106.27	103.10	541.2	738.4	787.4	—	1083.2	1476.9
105.56	102.39	559.9	763.9	815.0	—	1120.4	1527.9
102.72	99.54	634.3	865.3	922.5	—	1268.6	1730.6
101.60	98.43	664.0	905.3	965.3	—	1327.2	1809.9
127.31	124.13	294.4	401.3	—	—	—	—
125.73	122.56	331.6	452.3	—	—	—	—
124.26	121.08	366.8	499.9	533.7	633.6	733.6	—
121.36	118.19	435.7	593.6	633.6	752.2	871.5	1188.0
118.62	115.44	500.6	682.6	728.1	864.6	1001.8	1365.8
115.52	112.34	574.3	783.2	835.6	—	1148.7	1566.5
108.61	105.44	738.4	1006.6	1074.2	—	1476.9	2014.0
103.89	100.71	850.8	1159.7	1237.6	—	1701.6	2320.1
153.64	150.47	288.2	393.7	—	—	—	—
150.39	147.22	352.3	480.6	513.0	608.8	705.3	—
147.09	143.92	417.8	569.5	607.4	721.2	835.6	1139.0
144.15	140.97	475.7	648.8	692.2	821.9	951.5	1297.6
163.98	160.81	257.9	351.6	—	—	—	—
161.70	158.52	300.6	409.5	437.1	519.2	—	—
159.41	156.24	343.4	468.2	499.2	592.9	686.0	—
157.07	153.90	386.8	527.4	562.6	668.1	773.6	1054.9
154.79	151.61	429.5	585.4	624.7	741.9	859.1	1171.4
152.50	149.33	472.3	644.0	686.7	815.6	944.6	1287.9
150.37	147.19	511.6	698.4	744.6	883.9	1023.9	1396.2
147.83	144.65	559.2	762.6	813.6	—	1119.0	1525.8
145.29	142.11	606.7	827.4	882.5	—	1213.5	1654.7
140.72	137.54	692.2	943.9	1006.6	—	1384.5	1887.8

** All values calculated using API formula.

† 100 kPa = 1 Bar.

**ENGLISH
CASING BODY**

Size O.D. Inch	L I N E	Wt. with Cplgs. Lb/Ft.	Minimum Collapse Pressure (P.S.I.)					
			K-55	C-75	N-80	C-95	P-110	V-150
7.625 (193.68mm)	1	26.40	2890	3280	3400	3710	—	—
	2	29.70	3910	4670	4790	5120	5340	—
	3	33.70	5090	6320	6560	7260	7850	8860
	4	39.00	6600	8430	8810	9980	11060	13450
	5	45.30	7910	10790	11510	—	15420	19680
7.750	6	46.10	7800	10630	11340	—	14980	19050
8.625 (219.08mm)	7	28.00	1880	2120	—	—	—	—
	8	32.00	2530	2950	—	—	—	—
	9	36.00	3450	4020	4100	4360	—	—
	10	40.00	4400	5350	5520	6010	6380	—
	11	44.00	5350	6680	6950	7730	8400	9650
	12	49.00	6440	8200	8570	9690	10710	12950
	13	52.00	7060	9210	9650	—	12260	15160
	14	36.00	2020	2320	—	—	—	—
9.625 (244.48mm)	15	40.00	2570	2980	3090	3330	—	—
	16	43.50	3250	3750	3810	4130	4430	—
	17	47.00	3880	4630	4750	5080	5310	—
	18	53.50	5130	6380	6620	7330	7930	8970
	19	58.40	5990	7570	7890	—	9750	11570
10.750 (273.05mm)	20	40.50	1580	1720	—	—	—	—
	21	45.50	2090	2410	—	—	—	—
	22	51.00	2700	3100	3220	3490	3670	—
	23	55.50	3390	3950	4020	4300	4630	—
	24	60.70	4160	5020	5160	—	5860	—
	25	65.70	4920	6080	6300	—	7490	8330
11.750 (298.45mm)	26	47.00	1510	1620	—	—	—	—
	27	54.00	2070	2380	—	—	—	—
	28	60.00	2660	3070	3180	3440	3610	3680
	29	65.00	3290	3810	3870	—	4490	4850
13.375 (339.73mm)	30	61.00	1540	1660	1670	—	—	—
	31	68.00	1950	2220	2260	—	—	—
	32	72.00	2230	2590	2670	2820	—	—
	33	77.00	2580	2990	3100	—	—	—
	34	85.00	3300	3810	3870	—	4490	4850
	35	92.00	4080	4910	5050	—	5700	6410
	36	98.00	4660	5720	5910	—	6930	7550
	37	92.68	3450	4040	4110	—	4710	5170
14.000 (355.60mm)	38	99.43	4040	4860	4990	—	5620	6330
	39	106.13	4630	5670	5870	—	6860	7490
	40	112.78	5220	6490	6740	—	8110	9230
	41	119.38	5800	7310	7620	—	9360	11020

*NonAPI Standard. Shown for information only.

**UNITS
PRESSURE RATINGS***

Inside Dia. Inch	Drift Dia. Inch	Minimum Internal Yield Pressure (P.S.I.)					
		K-55	C-75	N-80	C-95	P-110	V-150
6.969	6.844	4140	5650	6020	7150	—	—
6.875	6.750	4730	6450	6890	8180	9470	—
6.765	6.640	5430	7400	7900	9380	10860	14800
6.625	6.500	6310	8610	9180	10900	12620	17210
6.435	6.310	7510	10240	10920	—	15020	20480
6.560	6.500	7390	10080	10750	—	14780	20150
8.017	7.892	3390	4630	—	—	—	—
7.921	7.796	3930	5360	—	—	—	—
7.825	7.700	4460	6090	6490	7710	—	—
7.725	7.600	5020	6850	7300	8670	10040	—
7.625	7.500	5580	7610	8120	9640	11160	15220
7.511	7.386	6220	8480	9040	10740	12430	16950
7.435	7.310	6640	9050	9660	—	13280	18110
8.921	7.765	3520	4800	—	—	—	—
8.835	8.679	3950	5390	5750	6820	—	—
8.755	8.599	4350	5930	6330	7510	8700	—
8.681	8.525	4720	6440	6870	8150	9440	—
8.535	8.379	5450	7430	7930	9410	10900	14860
8.435	8.279	5950	8110	8650	—	11900	16230
10.050	9.894	3130	4270	—	—	—	—
9.950	9.794	3580	4880	—	—	—	—
9.850	9.694	4030	5490	5860	6960	8060	—
9.760	9.604	4430	6040	6450	7660	8860	—
9.660	9.504	4880	6650	7100	—	9760	—
9.560	9.404	5330	7260	7750	—	10650	14530
11.000	10.844	3070	4190	—	—	—	—
10.880	10.724	3560	4860	—	—	—	—
10.772	10.616	4010	5460	5830	6920	8010	10920
10.682	10.526	4370	5960	6360	—	8750	11930
12.515	12.359	3090	4220	4500	—	—	—
12.415	12.259	3450	4710	5020	—	—	—
12.347	12.191	3700	5040	5380	6390	—	—
12.275	12.119	3960	5400	5760	—	—	—
12.159	12.003	4380	5970	6360	—	8750	11930
12.031	11.875	4840	6590	7030	—	9670	13190
11.937	11.781	5170	7060	7530	—	10350	14110
12.700	12.544	4470	6090	6500	—	8940	12190
12.600	12.444	4810	6560	7000	—	9630	13130
12.500	12.344	5160	7000	7500	—	10310	14060
12.400	12.244	5500	7500	8000	—	11000	15000
12.300	12.144	5840	7970	8500	—	11690	15940

** All values calculated using API formula.

**METRIC
CASING BODY**

Size O.D. mm	L I N E	Mass with Cplgs. kg/m	Minimum Collapse Pressure (100 kPa†)					
			K-55	C-75	N-80	C-95	P-110	V-150
193.68 (7.625in)	1	39.29	199.3	226.1	234.4	255.8	—	—
	2	44.20	269.6	322.0	330.3	353.0	368.2	—
	3	50.15	350.9	435.7	452.3	500.6	541.2	610.8
	4	58.04	455.1	581.2	607.4	688.1	762.6	927.3
	5	67.41	545.4	743.9	793.6	—	1063.2	1356.8
196.85	6	68.60	537.8	732.9	781.9	1032.8	1313.4	—
219.08 (8.625 in)	7	41.67	129.6	146.2	—	—	—	—
	8	47.62	174.4	203.4	—	—	—	—
	9	53.57	237.9	277.2	282.7	300.6	—	—
	10	59.53	303.4	368.9	380.6	414.4	439.9	—
	11	65.48	368.9	460.6	479.2	533.0	579.2	665.3
	12	72.92	444.0	565.4	590.9	668.1	738.4	892.8
	13	77.38	486.8	635.0	665.3	—	845.3	1045.2
244.48 (9.625 in)	14	53.57	139.3	160.0	—	—	—	—
	15	59.53	177.2	205.5	213.0	229.6	—	—
	16	64.74	224.1	258.6	262.7	284.8	305.4	—
	17	69~94	267.5	319.2	327.5	350.3	366.1	—
	18	79.62	353.7	439.9	456.4	505.4	546.8	618.4
	19	86.91	413.0	521.9	544.0	—	672~2	797.7
273.05 (10.750in)	20	60.27	108.9	118.6	—	—	—	—
	21	67.71	144.1	166.2	—	—	—	—
	22	75.90	186.2	213.7	222.0	240.6	253.0	—
	23	82.59	233.7	272.3	277.2	296.5	319.2	—
	24	90.33	286.8	346.1	355.8	—	404.0	—
	25	97.77	339.2	419.2	434.4	—	516.4	574.3
298.45 (11.750in)	26	69.94	104.1	111.7	—	—	—	—
	27	80.36	142.7	164.1	—	—	—	—
	28	89.29	183.4	211.7	219.3	237.2	248.9	253.7
	29	96.73	226.8	262.7	266.8	—	309.6	334.4
339.73 (13.375in)	30	90.78	106.2	114.5	115.1	—	—	—
	31	101.20	134.4	153.1	155.8	—	—	—
	32	107.15	153.8	178.6	184.1	194.4	—	—
	33	114.59	177.9	206.2	213.7	—	—	—
	34	126.49	227.5	262.7	266.8	—	309.6	334.4
	35	136.91	281.3	338.5	348.2	—	393.0	441.9
	36	145.84	321.3	394.4	407.5	—	477.8	520.5
	37	137.92	237.9	278.5	283.4	—	324.7	356.4
355.60 (14.000in)	38	147.97	278.5	335.1	344.0	—	387.5	436.4
	39	157.94	319.2	390.9	404.7	—	473.0	516.4
	40	167.83	359.9	447.5	464.7	—	559.2	636.3
	41	177.66	399.9	504.0	525.4	—	645.3	759.8

*NonAPI Standard. Shown for information only.

**UNITS
PRESSURE RATINGS***

Inside Dia. mm	Drift Dia. mm	Minimum Internal Yield Pressure (100 kPa†)					
		K-55	C-75	N-80	C-95	P-110	V-150
177.01	173.84	285.4	389.6	415.1	493.0	—	—
174.63	171.45	326.1	444.7	415.0	564.0	652.9	—
171.83	168.66	374.4	510.2	544.7	646.7	748.8	1020.4
168.28	165.10	435.1	593.6	632.9	751.5	870.1	1186.6
163.45	160.27	517.8	706.0	752.9	—	1035.6	1412.0
166.62	165.10	509.5	695.0	741.2	—	1019.0	1389.3
203.63	200.46	233.7	319.2	—	—	—	—
201.19	198.02	271.0	369.6	—	—	—	—
198.76	195.58	307.5	419.9	447.5	531.6	—	—
196.22	193.04	346.1	472.3	503.3	597.8	692.2	—
193.68	190.50	384.7	524.7	559.9	664.7	769.5	1049.4
190.78	187.60	428.9	584.7	623.3	740.5	857.0	1168.7
188.85	185.67	457.6	624.0	666.0	—	915.6	1248.6
226.59	197.23	242.7	330.9	—	—	—	—
224.41	220.45	272.3	371.6	396.4	470.2	—	—
222.38	218.42	299.9	408.9	436.4	517.8	599.6	—
220.50	216.54	325.4	444.0	473.7	561.9	650.9	—
216.79	212.83	375.8	512.3	546.8	648.8	751.5	1024.6
214.25	210.29	410.2	559.2	596.4	—	820.5	1119.0
255.27	251.31	215.8	294.4	—	—	—	—
252.73	248.77	246.8	336.5	—	—	—	—
250.19	246.23	277.9	378.5	404.0	479.9	555.7	—
247.90	243.94	305.4	416.4	444.7	528.1	610.9	—
245.36	241.40	336.5	458.5	489.5	—	672.9	—
242.82	238.86	367.5	500.6	534.3	—	734.3	1001.8
279.40	275.44	211.7	288.9	—	—	—	—
276.35	272.39	245.5	335.1	—	—	—	—
273.61	269.65	276.5	376.5	402.0	477.1	552.3	752.9
271.32	267.36	301.3	410.9	438.5	—	603.3	822.5
317.88	313.92	213.0	291.0	310.3	—	—	—
315.34	311.38	237.9	324.7	346.1	—	—	—
313.61	309.65	255.1	347.5	370.9	440.6	—	—
311.79	307.82	273.0	372.3	397.1	—	—	—
308.84	304.88	302.0	411.6	436.5	—	603.3	822.5
305.59	301.63	333.7	454.4	484.7	—	666.7	909.4
303.20	299.24	356.5	486.8	519.2	—	713.6	972.8
322.58	318.62	308.2	419.9	448.2	—	616.4	840.5
320.04	316.08	331.6	452.3	482.6	—	664.0	905.3
317.50	313.54	355.8	482.6	517.1	—	710.8	969.4
314.96	311.00	379.2	517.1	551.6	—	758.4	1034.2
312.42	308.46	402.7	549.5	586.1	—	806.0	1099.0

** All values calculated using API formula.

† 100 kPa = 1 Bar.

ENGLISH UNITS								
HYDRIL "SUPER EU"								
Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Casing		Connections		Super EU Min. Parting Load 1000 Lb		
		Inside Dia. Inch	Drift Dia. Inch	O.D. (Turned) Inch	I.D. (Bored) Inch	C-75	N-80	P-110
5.000 (127.00mm)	15.00	4.408	4.283	5.370	4.328	392	413	516
	18.00	4.276	4.151	5.420	4.196	477	502	627
	20.30	4.184	4.059	5.420	4.104	525	553	691
	23.20	4.044	3.919	5.420	3.964	525	553	691
5.500 (139.70mm)	15.50	4.950	4.825	5.900	4.870	403	424	530
	17.00	4.892	4.767	5.900	4.812	445	468	585
	20.00	4.778	4.653	6.000	4.698	526	554	692
	23.00	4.670	4.545	6.000	4.590	601	633	791
	26.00	4.548	4.423	6.068	4.468	674	709	887
6.625 (168.28mm)	24.00	5.921	5.796	7.072	5.841	613	645	806
	28.00	5.791	5.666	7.072	5.711	725	763	954
	32.00	5.675	5.550	7.152	5.595	823	866	1083
7.000 (177.80mm)	23.00	6.366	6.241	7.444	6.286	592	623	778
	26.00	6.276	6.151	7.444	6.196	676	711	889
	29.00	6.184	6.059	7.572	6.104	760	800	1000
	32.00	6.094	5.969	7.572	6.014	842	886	1107
	35.00	6.004	5.879	7.572	5.924	913	961	1202
	38.00	5.920	5.795	7.635	5.840	985	1036	1296
7.625 (193.68mm)	26.40	6.969	6.844	8.125	6.889	666	701	876
	29.70	6.875	6.750	8.250	6.795	762	802	1003
	33.70	6.765	6.640	8.250	6.685	873	919	1148
	39.00	6.625	6.500	8.250	6.545	1011	1064	1330
	45.30	6.435	6.310	8.312	6.355	1098	1155	1444
8.625 (219.08mm)	32.00	7.921	7.796	9.135	7.841	807	849	1062
	36.00	7.825	7.700	9.135	7.745	919	967	1209
	40.00	7.725	7.600	9.135	7.645	1034	1088	1360
	44.00	7.625	7.500	9.300	7.545	1147	1208	1510
	49.00	7.511	7.386	9.300	7.431	1275	1342	1677
9.625 (244.48mm)	36.00	8.921	8.765	10.165	8.811	918	967	1208
	40.00	8.835	8.679	10.165	8.725	1031	1085	1356
	43.50	8.755	8.599	10.165	8.655	1122	1181	1476
	47.00	8.681	8.525	10.165	8.581	1217	1281	1601
	53.50	8.535	8.379	10.165	8.435	1245	1311	1639
	58.40	8.435	8.279	10.165	8.355	1245	1311	1639
10.750 (273.05mm)	45.50	9.950	9.794	11.250	9.850	1157	1217	1522
	51.00	9.850	9.694	11.375	9.750	1303	1372	1714
	55.50	9.760	9.604	11.375	9.660	1433	1509	1886
	60.70	9.660	9.504	11.500	9.560	1577	1660	2075
	65.70	9.560	9.404	11.500	9.460	1719	1810	2262

METRIC UNITS								
CASING CONNECTIONS*								
Size O.D. mm	Mass with Cplgs. kg/m	Casing		Connections		Super EU Min. Parting Load 1000 N		
		Inside Dia. mm	Drift Dia. mm	O.D. (Turned) mm	I.D. (Bored) mm	C-75	N-80	P-110
127.00 (5.000in)	22.32	111.96	108.19	136.40	109.93	1744	1837	2295
	26.79	108.61	105.44	137.67	106.58	2122	2233	2789
	30.21	106.27	103.10	137.67	104.24	2335	2460	3074
	34.53	102.72	99.54	137.67	100.69	2335	2460	3074
139.70 (5.500in)	23.07	125.73	122.56	149.86	123.70	1793	1886	2358
	25.30	124.26	121.08	149.86	122.23	1979	2082	2602
	29.76	121.36	118.19	152.40	119.33	2340	2464	3078
	34.23	118.62	115.44	152.40	116.59	2673	2816	3519
	38.69	115.52	112.34	154.13	113.49	2998	3154	3946
166.28 (6.625in)	35.72	150.39	147.22	179.63	148.36	2727	2869	3555
	41.67	147.09	143.92	179.63	145.06	3225	3394	4244
	47.62	144.15	140.97	181.66	142.11	3661	3852	4817
177.80 (7.000in)	34.23	161.70	158.52	189.08	159.66	2633	2771	3461
	38.69	159.41	156.24	189.08	157.38	3007	3163	3954
	43.16	157.07	153.90	192.33	155.04	3381	3559	4448
	47.62	154.79	151.61	192.33	152.76	3745	3941	4924
	52.09	152.50	149.33	192.33	150.47	4061	4275	5347
	56.55	150.37	147.19	193.93	148.34	4381	4608	5765
193.68 (7.625in)	39.29	177.01	173.84	206.38	174.98	2963	3118	3897
	44.20	174.63	171.45	209.55	172.59	3390	3567	4462
	50.15	171.83	168.66	209.55	169.80	3883	4088	5107
	58.04	168.28	165.10	209.55	166.24	4497	4733	5916
	67.41	163.45	160.27	211.13	161.42	4884	5138	6423
219.08 (8.625in)	47.62	201.19	198.02	232.03	199.16	3590	3777	4724
	53.57	198.76	195.58	232.03	196.72	4088	4301	5378
	59.53	196.22	193.04	232.03	194.18	4599	4840	6050
	65.48	193.68	190.50	236.22	191.64	5102	5373	6717
	72.92	190.78	187.60	236.22	188.75	5671	5970	7460
244.48 (9.625in)	53.57	226.59	222.63	258.19	223.80	4083	4301	5373
	59.53	224.41	220.45	258.19	221.62	4586	4826	6032
	64.74	222.38	218.42	258.19	219.84	4991	5253	6566
	69.94	220.50	216.54	258.19	217.96	5413	5698	7122
	79.62	216.79	212.83	258.19	214.25	5538	5832	7291
	86.91	214.25	210.29	258.19	212.22	5538	5832	7291
273.05 (10.750mm)	61.71	252.73	248.77	285.75	250.19	5147	5413	6770
	75.90	250.19	246.23	288.93	247.65	5796	6103	7624
	82.59	247.90	243.94	288.93	245.36	6374	6712	8389
	90.33	245.36	241.40	292.10	242.82	7015	7384	9230
	97.77	242.82	238.86	292.10	240.28	7646	8051	10062

*All weights of a given size of HYDRIL "SUPER EU" are interchangeable.

For pressure ratings of pipe body see page 56-63.

ENGLISH UNITS								
HYDRIL "SUPER FJ-P"								
Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Casing		Connections		Super FJ-P Min. Parting Load 1000 Lb		
		Inside Dia. Inch	Drift Dia. Inch	Box O.D. Inch	Pin I.D. (Bored) Inch	N-80	P-110	V-150
4.500 (114.30mm)	15.10	3.826	3.701	4.594	3.746	248	310	397
	18.80	3.640	3.515	4.594	3.560	303	378	484
5.000 (127.00mm)	18.00	4.276	4.151	5.094	4.196	300	375	481
	20.30	4.184	4.059	5.094	4.104	360	450	576
	20.80	4.156	4.031	5.094	4.076	360	450	576
	23.20	4.044	3.919	5.094	3.964	360	450	576
	24.20	4.000	3.875	5.125	3.920	388	485	621
5.500 (139.70mm)	20.00	4.778	4.653	5.625	4.698	332	414	530
	23.00	4.670	4.545	5.625	4.590	412	515	659
	26.00	4.548	4.423	5.625	4.468	448	560	717
6.625 (168.28mm)	28.00	5.791	5.666	6.750	5.711	469	586	750
	32.00	5.675	5.550	6.781	5.595	562	703	900
7.000 (177.80mm)	26.00	6.276	6.151	7.125	6.196	430	538	688
	29.00	6.184	6.059	7.125	6.104	501	626	802
	32.00	6.094	5.969	7.156	6.014	571	714	914
	35.00	6.004	5.879	7.188	5.924	579	723	926
	38.00	5.920	5.795	7.188	5.840	657	822	1052
7.625 (193.68mm)	26.40	6.969	6.844	7.750	6.889	400	500	639
	29.70	6.875	6.750	7.750	6.795	490	613	785
	33.70	6.765	6.640	7.750	6.685	572	714	914
	39.00	6.625	6.500	7.813	6.545	631	789	1010
	45.30	6.435	6.310	7.813	6.355	781	977	1250
7.750	46.10	6.560	6.500	7.938	—	698	873	1118
8.625 (219.08mm)	32.00	7.921	7.796	8.750	7.811	493	617	789
	36.00	7.825	7.700	8.750	7.745	579	724	927
	40.00	7.725	7.600	8.750	7.645	679	849	1087
	44.00	7.625	7.500	8.750	7.545	757	947	1212
	49.00	7.511	7.386	8.750	7.431	890	1113	1424
	52.00	7.435	7.310	8.813	7.355	930	1163	1489
9.625 (244.48mm)	36.00	8.921	8.765	9.750	8.781	553	691	884
	40.00	8.835	8.679	9.750	8.755	636	795	1018
	43.50	8.755	8.599	9.750	8.675	713	891	1141
	47.00	8.681	8.525	9.750	8.601	785	982	1257
	53.50	8.535	8.379	9.750	8.455	916	1145	1466
	58.40	8.435	8.279	9.844	8.355	1049	1312	1679
10.750 (273.05mm)	45.50	9.950	9.794	10.875	9.870	722	903	1156
	51.00	9.850	9.694	10.875	9.770	832	1040	1332
	55.50	9.760	9.604	10.875	9.680	927	1159	1483
	60.70	9.660	9.504	10.906	9.580	976	1220	1561
	65.70	9.560	9.404	11.000	9.480	1127	1408	1803
11.750 (298.46mm)	47.00	11.000	10.844	11.938	10.890	706	882	1129
	54.00	10.880	10.724	11.938	10.800	876	1095	1402
	60.00	10.772	10.616	11.938	10.692	1060	1324	1695
	65.00	10.682	10.526	12.000	10.600	1164	1455	1863
13.375 (339.73mm)	61.00	12.515	12.359	13.563	12.435	956	1195	1529
	68.00	12.415	12.259	13.563	12.305	1151	1439	1842
	72.00	12.347	12.191	13.563	12.235	1284	1605	2054

METRIC UNITS								
CASING CONNECTIONS*								
Size O.D. mm	Mass with C/plgs. kg/m	Casing		Connections		Super FJ-P Min. Parting Load 1000 N		
		Inside Dia. mm	Drift Dia. mm	Box O.D. mm	Pin I.D. (Bored) mm	N-80	P-110	V-150
114.30 (4.500in)	22.47 21.98	97.18 92.46	94.01 89.28	116.69 116.69	95.15 90.42	1103 1348	1379 1681	1766 2153
127.00 (5.000in)	26.79	108.61	105.44	129.39	106.58	1334	1668	2140
	30.21	106.27	103.10	129.39	104.24	1601	2002	2562
	30.95	105.56	102.39	129.39	103.53	1601	2002	2562
	34.53	102.72	99.54	129.39	100.69	1601	2002	2562
	36.01	101.60	98.43	130.18	99.57	1726	2157	2762
139.70 (5.500in)	29.76	121.36	118.19	142.88	119.33	1477	1842	2358
	34.23	118.62	115.44	142.88	116.59	1833	2291	2931
	38.69	115.52	112.34	142.88	113.49	1993	2491	3189
168.28 (6.625in)	41.67	147.09	143.92	171.45	145.06	2086	2607	3336
	47.62	144.15	140.97	172.24	142.11	2500	3127	4003
177.80 (7.000in)	38.69	159.41	156.24	180.98	157.38	1913	2393	3060
	43.16	157.07	153.90	180.98	155.04	2229	2785	3567
	47.62	154.79	151.61	181.76	152.76	2540	3176	4066
	52.09	152.50	149.33	182.58	150.47	2576	3216	4119
	56.55	150.37	147.19	182.58	148.34	2922	3656	4680
193.68 (7.625in)	39.29	177.01	173.84	196.85	174.98	1779	2224	2842
	44.20	174.63	171.45	196.85	172.59	2180	2727	3492
	50.15	171.83	168.66	196.85	169.80	2544	3176	4066
	58.04	168.28	165.10	198.45	166.24	2807	3510	4493
	67.41	163.45	160.27	198.45	161.42	3474	4346	5560
196.85	68.60	166.62	165.10	201.63	—	3105	3883	4973
219.08 (8.625in)	47.62	201.19	198.02	222.25	198.40	2193	2745	3510
	53.57	198.76	195.58	222.25	196.72	2576	3221	4124
	59.53	196.22	193.04	222.25	194.18	3020	3777	4835
	65.48	193.68	190.50	222.25	191.64	3367	4212	5391
	72.92	190.78	187.60	222.25	188.75	3959	4951	6334
	77.38	188.85	185.67	223.85	186.82	4137	5173	6623
244.48 (9.625in)	53.57	226.59	222.63	247.65	223.04	2460	3074	3932
	59.53	224.41	220.45	247.65	222.38	2829	3536	4528
	64.74	222.38	218.42	247.65	220.35	3172	3963	5075
	69.94	220.50	216.54	247.65	218.47	3492	4368	5591
	79.62	216.79	212.83	247.65	214.76	4075	5093	6521
	86.91	214.25	210.29	250.04	212.22	4666	5836	7469
273.05 (10.750in)	67.71	252.73	248.77	276.23	250.70	3212	4017	5142
	75.90	250.19	246.23	276.23	248.16	3701	4626	5925
	82.59	247.90	243.94	276.23	245.87	4124	5155	6597
	90.33	245.36	241.40	277.01	243.33	4341	5427	6944
	97.77	242.82	238.86	279.40	240.79	5013	6263	8020
298.45 (11.750in)	69.94	279.40	275.44	303.23	276.61	3140	3923	5022
	80.36	276.35	272.39	303.23	274.32	3897	4871	6236
	89.29	273.61	269.65	303.23	271.58	4715	5889	7540
	96.73	271.32	267.36	304.80	269.24	5178	6472	8287
339.73 (13.375in)	90.78	317.88	313.92	344.50	315.85	4253	5316	6801
	101.20	315.34	311.38	344.50	312.55	5120	6401	8194
	107.15	313.61	309.65	344.50	310.77	5712	7139	9137

*HYDRIL "SUPER FJ-P" threads are not interchangeable except where weights are shown bracketed together. HYDRIL "SUPER FJ-P" interchangeable with HYDRIL "FJ-P"

For pressure ratings of pipe body see page 56-63.

ENGLISH UNITS								
HYDRIL TRIPLESEAL								
Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Casing		Connections		"TS" Minimum Parting Load 1000 Lb		
		Inside Dia. Inch	Drift Dia. Inch	Box O.D. (Turned) Inch	Pin I.D. (Bored) Inch	C-75	N-80	P-110
4.500 (114.30mm)	11.00	4.026	3.901	4.719	3.930	192	202	253
	11.60	4.000	3.875	4.719	3.920	208	219	273
	12.60	3.958	3.833	4.719	3.878	233	245	306
	13.50	3.920	3.795	4.719	3.840	255	268	335
	15.10	3.826	3.701	4.750	3.746	308	324	405
	18.80	3.640	3.515	4.750	3.560	308	324	405
5.000 (127.00mm)	13.00	4.494	4.369	5.219	4.414	237	249	311
	15.00	4.408	4.283	5.219	4.328	294	309	387
	18.00	4.276	4.151	5.250	4.196	353	372	465
	20.30	4.184	4.059	5.250	4.104	353	372	465
	23.20	4.044	3.919	5.250	3.964	353	372	465
5.500 (139.70mm)	14.00	5.012	4.887	5.750	4.932	249	262	327
	15.50	4.950	4.825	5.750	4.870	294	310	387
	17.00	4.892	4.767	5.781	4.812	337	355	444
	20.00	4.778	4.653	5.781	4.698	416	438	548
	23.00	4.670	4.545	5.781	4.590	416	438	548
	26.00	4.548	4.423	5.781	4.468	416	438	548
6.625 (168.28mm)	20.00	6.049	5.924	6.938	5.970	368	388	484
	24.00	5.921	5.796	6.938	5.840	483	508	635
	28.00	5.791	5.666	6.969	5.710	593	624	780
	32.00	5.675	5.550	6.969	5.595	593	624	780
7.000 (177.80mm)	20.00	6.456	6.331	7.313	6.376	360	378	473
	23.00	6.366	6.241	7.313	6.286	446	469	586
	26.00	6.276	6.151	7.313	6.196	531	558	698
	29.00	6.184	6.059	7.313	6.104	610	642	802
	32.00	6.094	5.969	7.344	6.014	644	678	847
	35.00	6.004	5.879	7.344	5.924	644	678	847
	38.00	5.920	5.795	7.344	5.840	644	678	847
7.625 (193.68mm)	26.40	6.969	6.844	7.938	6.889	511	538	672
	29.70	6.875	6.750	7.938	6.795	608	640	800
	33.70	6.765	6.640	8.000	6.685	682	718	897
	39.00	6.625	6.500	8.000	6.545	738	777	971
	45.30	6.435	6.310	8.000	6.355	738	777	971

METRIC UNITS								
CASING CONNECTIONS*								
Size O.D. mm	Wt. with Cplgs. kg/m	Casing		Connections		"TS" Minimum Parting Load 1000 N		
		Inside Dia. mm	Drift Dia. mm	Box O.D. (Turned) mm	Pin I.D. (Bored) mm	C-75	N-80	P-110
114.30 (4.500in)	16.37	102.26	99.09	119.86	99.82	854	899	1125
	17.26	101.60	98.43	119.86	99.57	925	974	1214
	18.75	100.53	97.36	119.86	98.50	1036	1090	1361
	20.09	99.57	96.39	119.86	97.54	1134	1192	1490
	22.47	97.18	94.01	120.65	95.15	1370	1441	1802
	27.98	92.46	89.28	120.65	90.42	1370	1441	1802
127.00 (5.000in)	19.35	114.15	110.97	132.56	112.12	1054	1108	1383
	22.32	111.96	108.79	132.56	109.93	1308	1375	1721
	26.79	108.61	105.44	133.35	106.58	1570	1655	2068
	30.21	106.27	103.10	133.35	104.24	1570	1655	2068
	34.53	102.72	99.54	133.35	100.69	1570	1655	2068
139.70 (5.500in)	20.83	127.31	124.13	146.05	125.27	1108	1165	1455
	23.07	125.73	122.56	146.05	123.70	1308	1379	1721
	25.30	124.26	121.08	146.84	122.23	1499	1579	1975
	29.76	121.36	118.19	146.84	119.33	1850	1948	2438
	34.23	118.62	115.44	146.84	116.59	1850	1948	2438
	38.69	115.52	112.34	146.84	113.49	1850	1948	2438
168.28 (6.625in)	29.76	153.64	150.47	176.23	151.64	1637	1726	2153
	35.72	150.39	147.22	176.23	148.34	2148	2260	2825
	41.67	147.09	143.92	177.01	145.03	2638	2776	3470
	47.62	144.15	140.97	177.01	142.11	2638	2776	3470
177.80 (7.000in)	29.76	163.98	160.81	185.75	161.95	1601	1681	2104
	34.23	161.70	158.52	185.75	159.66	1984	2086	2607
	38.69	159.41	156.24	185.75	157.38	2362	2482	3105
	43.16	157.07	153.90	185.75	155.04	2713	2856	3567
	47.62	154.79	151.61	186.54	152.76	2865	3016	3768
	52.09	152.50	149.33	186.54	150.47	2865	3016	3768
	56.55	150.37	147.19	186.54	148.34	2865	3016	3768
	193.68 (7.625in)	39.29	177.01	173.84	201.63	174.98	2273	2393
44.20	174.63	171.45	201.63	172.59	2705	2847	3559	
50.15	171.83	168.66	203.20	169.80	3034	3194	3990	
58.04	168.28	165.10	203.20	166.24	3283	3456	4319	
67.41	163.45	160.27	203.20	161.42	3283	3456	4319	

*All weights of a given size of HYDRIL TRIPLE SEAL are interchangeable.

For pressure ratings of pipe body see page 56-63.

ENGLISH UNITS

HYDRIL TRIPLESEAL

Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Casing		Connections		"TS" Minimum Parting Load 1000 Lb		
		Inside Dia. Inch	Drift Dia. Inch	Box O.D. (Turned) Inch	Pin I.D. (Bored) Inch	C-75	N-80	P-110
7.750	46.10	6.560	6.500	8.125		869	915	1143
8.625 (219.08mm)	32.00	7.921	7.796	8.938	7.811	576	606	758
	36.00	7.825	7.700	8.938	7.745	689	725	906
	40.00	7.725	7.600	8.938	7.645	797	839	1048
	44.00	7.625	7.500	9.031	7.545	880	926	1157
	49.00	7.511	7.386	9.031	7.431	880	926	1157
9.625 (244.48mm)	36.00	8.921	7.765	10.000	8.781	646	680	850
	40.00	8.835	8.679	10.000	8.755	760	800	1000
	43.50	8.755	8.599	10.000	8.675	865	911	1139
	47.00	8.681	8.525	10.000	8.601	962	1012	1265
	53.50	8.535	8.379	10.063	8.455	1076	1132	1415
10.750 (273.05mm)	40.50	10.050	9.894	11.188	9.910	720	758	947
	45.50	9.950	9.794	11.188	9.870	869	915	1143
	51.00	9.850	9.694	11.188	9.770	1017	1070	1338
	55.50	9.760	9.604	11.188	9.680	1148	1209	1511
	60.70	10.682	9.504	11.250	9.580	1279	1346	1683
	65.70	9.560	9.404	11.313	9.480	1410	1484	1855
11.750 (298.45mm)	47.00	11.000	10.844	12.188	10.860	872	918	1147
	54.00	10.880	10.724	12.188	10.800	1068	1124	1405
	60.00	10.772	10.616	12.188	10.692	1242	1308	1635
	65.00	9.660	10.526	12.188	10.600	1368	1440	1800
	71.00	10.586	10.430	12.250	10.474	1210	1274	1592
	75.00	10.514	10.358	12.250	10.402	1307	1376	1720
	79.00	10.438	10.282	12.250	10.326	1412	1486	1858
	83.00	10.368	10.212	12.250	10.256	1506	1585	1982
13.375 (339.73mm)	68.00	12.415	12.259	13.813	12.305	1273	1340	1675
	72.00	12.347	12.191	13.813	12.235	1398	1472	1840
	77.00	12.275	12.119	13.813	12.165	1531	1611	2014
	85.00	12.159	12.003	13.813	12.049	1741	1832	2290
	92.00	12.031	11.875	14.000	11.921	1973	2077	2596
	98.00	11.937	11.781	14.000	11.827	2128	2240	2800
14.000 (355.60mm)	—	12.700	12.544	14.500	12.590	1957	2061	2576
	—	12.600	12.444	14.500	12.490	2146	2259	2824
	—	12.500	12.344	14.625	12.390	2334	2456	3070
	—	12.400	12.244	14.625	12.290	2519	2652	3315
	—	12.300	12.144	14.625	12.190	2704	2846	3557

METRIC UNITS								
CASING CONNECTIONS*								
Size O.D. mm	Wt. with Cplgs. kg/m	Casing		Connections		"TS" Minimum Parting Load 1000 N		
		Inside Dia. mm	Drift Dia. mm	Box O.D. (Turned) mm	Pin I.D. (Bored) mm	C-75	N-80	P-110
196.85	68.60	166.62	165.10	206.38	—	3866	4070	5084
219.08 (8.625in)	47.62	201.19	198.02	227.03	198.40	2562	2696	3372
	53.57	198.76	195.58	227.03	196.72	3065	3225	4030
	59.53	196.22	193.04	227.03	194.18	3545	3732	4662
	65.48	193.68	190.50	229.39	191.64	3914	4119	5147
	72.92	190.78	187.60	229.39	188.75	3914	4119	5147
244.48 (9.625in)	53.57	226.59	197.23	254.00	223.04	2874	3025	3781
	59.53	224.41	220.45	254.00	222.38	3381	3559	4448
	64.74	222.38	218.42	254.00	220.35	3848	4052	5067
	69.94	220.50	216.54	254.00	218.47	4279	4502	5627
	79.62	216.79	212.83	255.60	214.76	4786	5035	6294
273.05 (10.750in)	60.27	255.27	251.31	284.18	251.71	3203	3372	4212
	67.71	252.73	248.77	284.18	250.10	3866	4070	5084
	75.90	250.19	246.23	284.18	248.16	4524	4760	5952
	82.59	247.90	243.94	284.18	245.87	5107	5378	6721
	90.33	271.32	241.40	285.75	243.33	5689	5987	7486
	97.77	242.82	238.86	287.35	240.79	6272	6601	8251
298.45 (11.750in)	69.94	279.40	275.44	309.58	275.84	3879	4083	5102
	80.36	276.35	272.39	309.58	274.32	4751	5000	6250
	89.29	273.61	269.65	309.58	271.58	5525	5818	7273
	96.73	245.36	267.36	309.58	269.24	6085	6405	8007
	105.66	268.88	264.92	311.15	266.04	5382	5667	7082
	111.61	267.06	263.09	311.15	264.21	5814	6121	7651
	117.56	265.13	261.16	311.15	262.28	6281	6610	8265
	123.52	263.35	259.39	311.15	260.50	6699	7050	8816
339.73 (13.375in)	101.20	315.34	311.38	350.85	312.55	5663	5961	7451
	107.15	313.61	309.65	350.85	310.77	6219	6548	8185
	114.59	311.79	307.82	350.85	308.99	6810	7166	8959
	126.49	308.84	304.88	350.85	306.05	7744	8149	10186
	136.91	305.59	301.63	355.60	302.79	8776	9239	11548
	145.84	303.20	299.24	355.60	300.41	9466	9964	12455
355.60 (14.000in)	—	322.58	318.62	368.30	319.19	8705	9168	11459
	—	320.04	316.08	368.30	317.25	9546	10049	12562
	—	317.50	313.54	371.48	314.71	10382	10925	13656
	—	314.96	311.00	371.48	312.17	11205	11797	14746
	—	312.42	308.46	371.48	309.63	12028	12660	15822

*All weights of a given size of HYDRIL TRIPLESEAL are interchangeable.

For pressure ratings of pipe body see page 56-63.

ENGLISH UNITS
RUCKER ATLAS BRADFORD FL-3S

Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Casing		Connections	FL Joint Tensile - 1000 Lb			
		Inside Dia. Inch	Drift Dia. Inch	Pin I.D. (Bored) Inch	J-55	C-75	N-80	P-110
4.500 (114.30mm)	9.50	4.090	3.965	3.990	118	—	—	—
	10.50	4.052	3.927	3.952	129	—	—	—
	11.60	4.000	3.875	3.925	174	174	184	229
	12.60	3.958	3.833	3.883	148	188	198	238
	13.50	3.920	3.795	3.845	200	200	211	264
	15.10	3.826	3.701	3.751	230	230	242	303
	18.10	3.754	3.629	3.679	—	299	314	393
	20.00	3.640	3.515	3.565	340	340	357	447
	21.60	3.500	3.375	3.425	—	—	—	—
	5.000 (127.00mm)	11.50	4.560	4.435	4.460	141	—	—
13.00		4.494	4.369	4.419	197	—	—	—
15.00		4.408	4.283	4.333	228	228	240	300
18.00		4.276	4.151	4.201	326	326	343	428
20.80		4.156	4.031	4.081	—	—	—	—
23.60		4.044	3.919	3.969	—	419	441	552
24.20		4.000	3.875	3.925	—	—	—	—
5.500 (139.70mm)		14.00	5.012	4.887	4.912	172	—	—
	15.50	4.950	4.825	4.875	236	—	—	—
	17.00	4.892	4.767	4.817	259	259	273	341
	20.00	4.778	4.653	4.703	360	360	379	474
	23.00	4.670	4.545	4.595	409	409	431	539
	26.00	4.548	4.423	4.473	—	464	488	610
	28.40	4.440	4.315	4.365	—	—	—	—
	6.625 (168.28mm)	20.00	6.049	5.924	5.974	300	—	—
25.20		5.965	5.845	5.895	341	—	—	—
24.00		5.921	5.796	5.846	362	362	381	477
28.00		5.791	5.666	5.716	502	502	529	661
32.00		5.675	5.550	5.600	—	567	596	746
7.000 (177.80mm)	17.00	6.538	6.413	6.438	—	—	—	—
	20.00	6.456	6.331	6.381	300	—	—	—
	23.00	6.366	6.241	6.291	348	348	366	—
	26.00	6.276	6.151	6.201	466	466	491	613
	29.00	6.184	6.059	6.109	—	522	549	686
	32.00	6.094	5.969	6.019	—	575	606	757
	35.00	6.004	5.879	5.929	—	628	661	826
	38.00	5.920	5.795	5.845	—	677	712	890
	41.00	5.820	5.695	5.745	—	—	—	—
	7.625 (193.68mm)	24.00	7.025	6.900	6.950	—	—	—
26.40		6.969	6.844	6.894	393	393	414	—
29.70		6.875	6.750	6.800	—	527	555	694
33.70		6.765	6.640	6.690	—	600	632	790
39.00		6.625	6.500	6.550	—	691	727	909
45.30		6.435	6.310	6.360	—	—	—	—
8.625 (219.08mm)		24.00	8.097	7.972	8.022	362	—	—
	28.00	8.017	7.892	7.942	415	—	—	—
	29.35	7.981	7.856	7.906	—	—	—	—
	32.00	7.921	7.796	7.846	478	—	—	—
	36.00	7.825	7.700	7.750	638	638	672	—
	40.00	7.725	7.600	7.650	—	714	751	931
	44.00	7.625	7.500	7.550	—	788	830	1037
	49.00	7.511	7.386	7.436	—	866	912	1140

METRIC UNITS AND FL-4S CASING CONNECTIONS*								
Size O.D. mm	Mass with Cplgs. kg/m	Casing		Connections	FL Joint Tensile - 1000 N			
		Inside Dia. mm	Drift Dia. mm	Pin I.D. (Bored) mm	J-55	C-75	N-80	P-110
114.30 (4.00in)	14.14	103.89	100.71	101.35	525	—	—	—
	15.63	102.92	99.75	100.38	574	—	—	—
	17.26	101.60	98.43	99.70	774	774	818	1019
	18.75	100.53	97.36	98.63	658	836	881	1059
	20.09	99.57	96.39	97.66	890	890	939	1174
	22.47	97.18	94.01	95.28	1023	1023	1076	1348
	26.94	95.35	92.18	93.45	—	1330	1397	1748
	29.76	92.46	89.28	90.55	1512	1512	1588	1988
	32.14	88.90	85.73	87.00	—	—	—	—
	127.00 (5.00in)	17.11	115.82	112.65	113.28	627	—	—
19.35		114.15	110.97	112.24	876	—	—	—
22.32		111.96	108.79	110.06	1014	1014	1068	1334
26.79		108.61	105.44	106.71	1450	1450	1526	1904
30.95		105.56	102.39	103.66	—	—	—	—
35.12		102.72	99.54	100.81	—	1864	1962	2455
36.01		101.60	98.43	99.70	—	—	—	—
139.70 (5.50in)		20.83	127.31	124.13	124.77	765	—	—
	23.07	125.73	122.56	123.83	1050	—	—	—
	25.30	124.26	121.08	122.35	1152	1152	1214	1517
	29.76	121.36	118.19	119.46	1601	1601	1686	2108
	34.23	118.62	115.44	116.71	1819	1819	1917	2398
	38.69	115.52	112.34	113.61	—	2064	2171	2713
	42.26	112.78	109.60	110.87	—	—	—	—
	168.28 (6.625in)	29.76	153.64	150.47	151.74	1334	—	—
37.50		151.51	148.46	149.73	1517	—	—	—
35.72		150.39	147.22	148.49	1610	1610	1695	2122
41.67		147.09	143.92	145.19	2233	2233	2353	2940
47.62		144.15	140.97	142.24	—	2522	2651	3318
177.80 (7.00in)		25.30	166.07	162.89	163.53	—	—	—
	29.76	163.98	160.81	162.08	1334	—	—	—
	34.23	161.70	158.52	159.79	1548	1548	1628	—
	38.69	159.41	156.24	157.51	2073	2073	2184	2727
	43.16	157.07	153.90	155.17	—	2322	2442	3051
	47.62	154.79	151.61	152.88	—	2558	2696	3367
	52.09	152.50	149.33	150.60	—	2793	2940	3674
	56.55	150.37	147.19	148.46	—	3011	3167	3959
	61.01	147.83	144.65	145.92	—	—	—	—
	193.68 (7.625in)	35.72	178.44	175.26	176.53	—	—	—
39.29		177.01	173.84	175.11	1748	1748	1842	—
44.20		174.63	171.45	172.72	—	2344	2469	3087
50.15		171.83	168.66	169.93	—	2669	2811	3514
58.04		168.28	165.10	166.37	—	3074	3234	4043
67.41		163.45	160.27	161.54	—	—	—	—
219.08 (8.625in)		35.72	205.66	202.49	203.76	1610	—	—
	41.67	203.63	200.46	201.73	1846	—	—	—
	43.68	202.72	199.54	200.81	—	—	—	—
	47.62	201.19	198.02	199.29	2126	—	—	—
	53.57	198.76	195.58	196.85	2838	2838	2989	—
	59.53	196.22	193.04	194.31	—	3176	3341	4141
	65.48	193.68	190.50	191.77	—	3505	3692	4613
	72.92	190.78	187.60	188.87	—	3852	4057	5071

*Each size and wall designed individually for maximum performance-not interchangeable.
For pressure ratings of pipe body see page 56-63.

ENGLISH UNITS				
RUCKER ATLAS BRADFORD				
Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Casing		Coupling
		Inside Dia. Inch	Drift Dia. Inch	Outside Dia. Inch
4.500 (114.30mm)	9.50	4.090	3.965	5.000
	10.50	4.052	3.927	5.000
	11.60	4.000	3.875	5.000
	12.60	3.958	3.833	5.000
	13.50	3.920	3.795	5.000
	15.10	3.826	3.701	5.250
	18.10	3.754	3.629	5.250
	20.00	3.640	3.515	5.250
	21.60	3.500	3.375	5.375
24.50	3.374	3.249	5.375	
5.000 (127.00mm)	11.50	4.560	4.435	5.500
	13.00	4.494	4.369	5.500
	15.00	4.408	4.283	5.500
	18.00	4.276	4.151	5.875
	20.80	4.156	4.031	5.875
	23.60	4.044	3.919	5.875
	24.20	4.000	3.875	5.875
5.500 (139.70mm)	14.00	5.012	4.887	6.050
	15.50	4.950	4.825	6.050
	17.00	4.892	4.767	6.050
	20.00	4.778	4.653	6.375
	23.00	4.670	4.545	6.375
	26.00	4.548	4.423	6.375
	28.40	4.440	4.315	6.375
6.625 (168.28mm)	20.00	6.049	5.924	7.390
	25.20	5.965	5.845	7.390
	24.00	5.921	5.796	7.390
	28.00	5.791	5.666	7.390
	32.00	5.675	5.550	7.500
7.000 (177.80mm)	17.00	6.538	6.413	7.656
	20.00	6.456	6.331	7.656
	23.00	6.366	6.241	7.656
	26.00	6.276	6.151	7.656
	29.00	6.184	6.059	7.875
	32.00	6.094	5.969	7.875
	35.00	6.004	5.879	7.875
	38.00	5.920	5.795	8.000
	41.00	5.820	5.695	8.000
	49.50	5.540	5.415	8.250
7.625 (193.68mm)	24.00	7.025	6.900	8.500
	26.40	6.969	6.844	8.500
	29.70	6.875	6.750	8.500
	33.70	6.765	6.640	8.500
	39.00	6.625	6.500	8.500
	45.30	6.435	6.310	8.625

METRIC UNITS				
TC-4S CASING CONNECTIONS*				
Size O.D. mm	Wt. with Cplgs. kg/m	Casing		Coupling
		Inside Dia. mm	Drift Dia. mm	Outside Dia. mm
114.30 (4.500in)	14.14	103.89	100.71	127.00
	15.63	102.92	99.75	127.00
	17.26	101.60	98.43	127.00
	18.75	100.53	97.36	127.00
	20.09	99.57	96.39	127.00
	22.47	97.18	94.01	133.35
	26.94	95.35	92.18	133.35
	29.76	92.46	89.28	133.35
	32.14	88.90	85.73	136.53
	36.46	85.70	82.52	136.53
127.00 (5.000in)	17.11	115.82	112.65	139.70
	19.35	114.15	110.97	139.70
	22.32	111.96	108.79	139.70
	26.79	108.61	105.44	149.23
	30.95	105.56	102.39	149.23
	35.12	102.72	99.54	149.23
	36.01	101.60	98.43	149.23
139.70 (5.500in)	20.83	127.31	124.13	153.67
	23.07	125.73	122.56	153.67
	25.30	124.26	121.08	153.67
	29.76	121.36	118.19	161.93
	34.23	118.62	115.44	161.93
	38.69	115.52	112.34	161.93
168.28 (6.625in)	42.26	112.78	109.60	161.93
	29.76	153.64	150.47	187.71
	37.50	151.51	148.46	187.71
	35.72	150.39	147.22	187.71
	41.67	147.09	143.92	187.71
177.80 (7.000in)	47.62	144.15	140.97	190.50
	25.30	166.07	162.89	194.46
	29.76	163.98	160.81	194.46
	34.23	161.70	158.52	194.46
	38.69	159.41	156.24	194.46
	43.16	157.07	153.90	200.03
	47.62	154.79	151.61	200.03
	52.09	152.50	149.33	200.03
	56.55	150.37	147.19	203.20
	61.01	147.83	144.65	203.20
73.66	140.72	137.54	209.55	
193.68 (7.625in)	35.72	178.44	175.26	215.90
	39.29	177.01	173.84	215.90
	44.20	174.63	171.45	215.90
	50.15	171.83	168.66	215.90
	58.04	168.28	165.10	215.90
	67.41	163.45	160.27	219.08

* RUCKER ATLAS BRADFORD joints have tensile strengths comparable to body of casing.
For pressure ratings of pipe body see page 56-63.

ENGLISH UNITS				
RUCKER ATLAS BRADFORD				
Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Casing		Coupling
		Inside Dia. Inch	Drift Dia. Inch	Outside Dia. Inch
8.625 (219.08mm)	24.00	8.097	7.972	9.625
	28.00	8.017	7.892	9.625
	29.35	7.981	7.856	9.625
	32.00	7.921	7.796	9.625
	36.00	7.825	7.700	9.625
	40.00	7.725	7.600	9.625
	44.00	7.625	7.500	9.625
	49.00	7.511	7.386	9.625
9.625 (244.48mm)	32.30	9.001	8.845	10.625
	36.00	8.921	8.765	10.625
	40.00	8.835	8.679	10.625
	43.50	8.755	8.599	10.625
	47.00	8.681	8.525	10.625
	53.50	8.535	8.379	10.625
10.750 (273.05mm)	32.75	10.192	10.036	11.750
	40.50	10.050	9.894	11.750
	45.50	9.950	9.794	11.750
	51.00	9.850	9.694	11.750
	55.50	9.760	9.604	11.750
	60.70	9.660	9.504	11.750
	65.70	9.560	9.404	11.750

METRIC UNITS				
TC-4S CASING CONNECTIONS*				
Size O.D. mm	Wt. with Cplgs. kg/m	Casing		Coupling
		Inside Dia. mm	Drift Dia. mm	Outside Dia. mm
219.08 (8.625in)	35.72	205.66	202.49	244.48
	41.67	203.63	200.46	244.48
	43.68	202.72	199.54	244.48
	47.62	201.19	198.02	244.48
	53.57	198.76	195.58	244.48
	59.53	196.22	193.04	244.48
	65.48	193.68	190.50	244.48
	72.92	190.78	187.60	244.48
244.48 (9.625in)	48.07	228.63	224.66	269.88
	53.57	226.59	222.63	269.88
	59.53	224.41	220.45	269.88
	64.74	222.38	218.42	269.88
	69.94	220.50	216.54	269.88
	79.62	216.79	212.83	269.88
273.05 (10.750in)	48.74	258.88	254.91	298.45
	60.27	255.27	251.31	298.45
	67.71	252.73	248.77	298.45
	75.90	250.19	246.23	298.45
	82.59	247.90	243.94	298.45
	90.33	245.36	241.40	298.45
	97.77	242.82	238.86	298.45

* RUCKER ATLAS BRADFORD joints have tensile strengths comparable to body of casing.

For pressure ratings of pipe body see page 56-63.

ENGLISH UNITS

MINIMUM PERFORMANCE

Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Grade	Inside Dia. Inch	Collapse Resistance P.S.I.	Internal Yield Pressure P.S.I.	Pipe Body Yield Load Lb
2.375 (60.33mm)	* 4.85	D	1.995	6850	7110	70000
	6.65	D	1.815	11440	11350	101360
	4.85	E	1.995	11040	10500	97820
	6.65	E	1.815	15600	15470	138220
	6.65	X	1.815	19760	19600	175080
	* 4.85	G	1.995	13250	14700	137000
	6.65	G	1.815	21840	21660	193500
	* 4.85	S	1.995	16560	18900	176000
	6.65	S	1.815	28080	27850	248790
	2.875 (73.03mm)	10.40	D	2.151	12110	12120
6.85		E	2.441	10470	9910	135900
10.40		E	2.151	16510	16530	214340
10.40		X	2.151	20910	20930	271500
* 6.85		G	2.441	12560	13870	190000
10.40		G	2.151	23110	23140	300080
* 6.85		S	2.441	15700	17830	245000
10.40		S	2.151	29720	29750	385820
3.500 (88.90mm)	13.30	D	2.764	10350	10120	199150
	15.50	D	2.602	12300	12350	236700
	9.50	E	2.992	10040	9520	194260
	13.30	E	2.764	14110	13800	271570
	15.50	E	2.602	16770	16840	322780
	13.30	X	2.764	17880	17480	343990
	15.50	X	2.602	21250	21330	408850
	* 9.50	G	2.992	12110	13340	272000
	13.30	G	2.764	19760	19320	380190
	15.50	G	2.602	23480	23570	451890
	* 9.50	S	2.992	15140	17140	350000
	13.30	S	2.764	25400	24840	488820
	15.50	S	2.602	30190	30310	581000
4.000 (101.60mm)	14.00	D	3.340	8330	7940	209260
	11.85	E	3.476	8410	8600	230750
	14.00	E	3.340	11350	10830	285360
	14.00	X	3.340	14380	13720	361460
	* 11.85	G	3.476	10310	12040	323000
	14.00	G	3.340	15900	15160	399500
	* 11.85	S	3.476	12820	15470	415000
	14.00	S	3.340	20170	19490	513680

METRIC UNITS						
PROPERTIES OF DRILL PIPE*						
Size O.D. mm	Mass with Cplgs. kg/ft	Grade	Inside Dia. mm	Collapse Resistance 100 kPa†	Internal Yield Pressure 100 kPa†	Pipe Body Yield Load 1000 N
60.33 (2.375in)	*7.22	D	50.70	472.2	490.2	311
	9.90	D	46.10	788.7	782.5	451
	7.22	E	50.70	761.1	723.9	435
	9.90	E	46.10	1075.5	1066.6	615
	9.90	X	46.10	1362.4	1351.3	779
	*7.22	G	50.70	913.5	1013.5	609
	9.90	G	46.10	1505.8	1493.4	861
	*7.22	S	50.70	1141.7	1303.1	783
	9.90	S	46.10	1936.0	1920.1	1107
73.03 (2.875in)	15.48	D	54.60	834.9	835.6	699
	10.19	E	62.00	121.8	683.2	605
	15.48	E	54.60	1138.3	1139.7	953
	15.48	X	54.60	1441.6	1443.0	1208
	*10.19	G	62.00	865.9	956.3	845
	15.48	G	54.60	1593.3	1595.4	1335
	*10.19	S	62.00	1082.4	1229.3	1090
	15.48	S	54.60	2049.1	2051.1	1716
88.90 (3.500in)	19.79	D	70.20	713.6	697.7	886
	23.07	D	66.10	848.0	851.5	1053
	14.14	E	76.00	692.2	656.3	864
	19.79	E	70.20	972.8	951.4	1208
	23.07	E	66.10	1156.2	1161.0	1436
	19.79	X	70.20	1232.7	1205.2	1530
	23.07	X	66.10	1465.1	1470.6	1819
	*14.14	G	76.00	834.9	919.7	1210
	19.79	G	70.20	1362.4	1332.0	1691
	23.07	G	66.10	1618.8	1625.0	2010
	*14.14	S	76.00	1043.8	1181.7	1557
	19.79	S	70.20	1751.2	1712.6	2174
	23.07	S	66.10	2081.5	2089.8	2584
	101.60 (4.000in)	20.83	D	84.80	574.3	547.4
17.63		E	88.30	579.8	592.9	1026
20.83		E	84.80	782.5	746.7	1269
20.83		X	84.80	991.4	945.9	1608
*17.63		G	88.30	710.8	830.1	1437
20.83		G	84.80	1096.2	1045.2	1777
*17.63		S	88.30	883.9	1066.6	1846
20.83		S	84.80	1390.6	1343.7	2285

* All values calculated using API formula.
† 100 kPa = 1 Bar.

ENGLISH UNITS

MINIMUM PERFORMANCE

Size O.D. Inch	Wt. with Cplgs. Lb/Ft	Grade	Inside Dia. Inch	Collapse Resistance P.S.I.	Internal Yield Pressure P.S.I.	Pipe Body Yield Load Lb
4.500 (114.30mm)	16.60	D	3.826	7620	7210	242410
	20.00	D	3.640	9510	9200	302400
	13.75	E	3.958	7200	7900	270040
	16.60	E	3.826	10390	9830	330560
	20.00	E	3.640	12960	12540	412360
	16.60	X	3.826	12750	12450	418700
	20.00	X	3.640	16420	15890	522320
	*13.75	G	3.958	8920	11070	378000
	16.60	G	3.826	13820	13760	462780
	20.00	G	3.640	18150	17560	577300
	*13.75	S	3.958	10910	14230	486000
	16.60	S	3.826	16800	17690	595000
	20.00	S	3.640	23330	22580	742240
5.000 (127.00mm)	19.50	D	4.276	7390	6970	290100
	16.25	E	4.408	6970	7770	328070
	19.50	E	4.276	10000	9500	395600
	16.25	X	4.408	8090	9840	415560
	19.50	X	4.276	12010	12040	501090
	25.60	X	4.000	17100	16620	671520
	16.25	G	4.408	8610	10880	459300
	19.50	G	4.276	12990	13300	553830
	25.60	G	4.000	18900	18380	742200
	16.25	S	4.408	9860	13990	590530
	19.50	S	4.276	15700	17100	712070
	25.60	S	4.000	24300	23630	954260
5.500 (139.70mm)	21.90	D	4.778	6610	6320	320550
	24.70	D	4.670	7670	7260	364630
	21.90	E	4.778	8440	8610	437120
	24.70	E	4.670	10460	9900	497220
	21.90	X	4.778	10000	10910	553680
	24.70	X	4.670	12920	12540	629810
	21.90	G	4.778	10740	12060	611960
	24.70	G	4.670	14000	13860	696110
	21.90	S	4.778	12710	15510	786810
	24.70	S	4.670	17050	17830	895000
*5.562 (141.28mm)	19.00	D	4.975	4580	5090	267000
	22.20	D	4.859	5480	6090	317000
	25.25	D	4.733	6730	7180	369000
	19.00	E	4.975	5640	6950	365000
	22.20	E	4.859	6740	8300	432000
	25.25	E	4.733	8290	9790	503000
6.625 (168.28mm)	*22.20	D	6.065	3260	4160	307000
	25.20	D	5.965	4010	4790	358940
	*31.90	D	5.761	5020	6275	463000
	*22.20	E	6.065	4020	5530	418000
	25.20	E	5.965	4810	6540	489460
	*25.20	G	5.965	6160	9150	685000
	*25.20	S	5.965	6430	11770	881000

METRIC UNITS						
PROPERTIES OF DRILL PIPE*						
Size O.D. mm	Mass with Cplgs. kg/ft	Grade	Inside Dia. mm	Collapse Resistance 100 kPa†	Internal Yield Pressure 100 kPa†	Pipe Body Yield Load 1000 N
114.30 (4.500in)	24.70	D	97.20	525.3	497.1	1078
	29.76	D	92.50	655.6	634.3	1345
	20.46	E	100.50	496.4	544.6	1201
	24.70	E	97.20	716.3	677.7	1470
	29.76	E	92.50	893.5	864.6	1834
	24.70	X	97.20	879.0	858.4	1862
	29.76	X	92.50	1132.1	1095.5	2323
	*20.46	G	100.50	615.0	763.2	1681
	24.70	G	97.20	952.8	948.7	2059
	29.76	G	92.50	1251.4	1210.7	2568
	*20.46	S	100.50	752.2	981.1	2162
	24.70	S	97.20	1158.3	1219.6	2647
	29.76	S	92.50	1608.5	1556.8	3302
	127.00 (5.000in)	29.02	D	108.60	509.5	480.5
24.18		E	112.00	480.5	535.7	1459
29.02		E	108.60	689.4	655.0	1760
24.18		X	112.00	557.7	678.4	1849
29.02		X	108.60	828.0	830.1	2229
38.10		X	101.60	1179.0	1145.9	2987
24.18		G	112.00	593.6	750.1	2043
29.02		G	108.60	895.6	917.0	2464
38.10		G	101.60	1303.1	1267.2	3301
24.18		S	112.00	679.8	964.5	2627
29.02		S	108.60	1082.4	1179.0	3167
38.10		S	101.60	1675.4	1629.2	4245
139.70 (5.500in)	32.59	D	121.40	455.7	435.7	1426
	36.76	D	118.60	528.8	500.5	1622
	32.59	E	121.40	581.9	593.6	1944
	36.76	E	118.60	721.1	682.5	2212
	32.59	X	121.40	689.4	752.2	2463
	36.76	X	118.60	890.8	864.6	2802
	32.59	G	121.40	740.5	831.5	2722
	36.76	G	118.60	965.2	955.6	3096
	32.59	S	121.40	876.3	1069.3	3500
	36.76	S	118.60	1175.5	1229.3	3981
*141.28 (5.562in)	28.28	D	126.40	315.7	350.9	1188
	33.04	D	123.40	377.8	419.8	1410
	37.58	D	120.20	464.0	495.0	1641
	28.28	E	126.40	388.8	479.1	1624
	33.04	E	123.40	464.7	572.2	1922
	37.58	E	120.20	571.5	675.0	2237
	168.28 (6.625in)	*33.04	D	154.10	224.7	286.8
37.50		D	151.50	276.4	330.2	1597
*47.47		D	146.30	346.1	432.6	2060
*33.04		E	154.10	277.1	381.2	1859
37.50		E	151.50	331.6	450.9	2177
*37.50		G	151.50	424.7	630.8	3047
*37.50		S	151.50	443.3	811.5	3919

* All values calculated using API formula.

† 100 kPa = 1 Bar.

TABLE 204 - ENGLISH UNITS
**STRETCH DATA FOR DRILL PIPE,
 TUBING AND CASING**

Size of Tubing, D.P. or Casing	Length of Pipe Suspended in Well, Feet	Stretch Per 1000 Lb. Pull Above Wt. of Pipe, Inches Factor C	Pull Above Weight of Pipe Per In. Stretch of Pipe Pounds	Stretch Due To Own Weight Suspended in Water, Inches
2.375" Upset Tubing 4.70 #/Ft.	500	.115	6,450	.14
	1,000	.310	3,225	.56
	2,000	.620	1,612	2.22
	3,000	.930	1,075	5.00
	4,000	1.240	806	8.88
	5,000	1.550	644	13.88
	10,000	3.100	322	55.51
2.875" Upset Tubing 6.50 #/Ft.	500	.110	9,080	.14
	1,000	.220	4,540	.56
	2,000	.440	2,270	2.22
	3,000	.660	1,513	5.00
	4,000	.880	1,135	8.88
	5,000	1.100	908	13.88
	10,000	2.200	454	55.51
3.500" Upset Tubing 9.30 #/Ft.	500	.0772	12,960	.14
	1,000	.1544	6,480	.56
	2,000	.3088	3,240	2.22
	3,000	.4632	2,160	5.00
	4,000	.6176	1,620	8.88
	5,000	.7720	1,296	13.88
	10,000	1.544	648	55.51
2.875" Drill Pipe 10.40 #/Ft.	500	.070	14,300	.14
	1,000	.140	7,150	.56
	2,000	.280	3,575	2.22
	3,000	.420	2,383	5.00
	4,000	.560	1,787	8.88
	5,000	.700	1,430	13.88
	10,000	1.40	715	55.51

FORMULA FOR FREE PIPE DEPTH

$$L = \frac{S \times 1000 \times 1000}{P \times C}$$

- Where: L = Length of free pipe in feet.
 S = Stretch pulled in pipe, in inches.
 P = Pull on pipe to get the stretch "S" in pounds
 C = Constant for given pipe size and weight being stretched.
 (For this equation use C factor at pipe length of 1000 ft.)

TABLE 204 - METRIC UNITS
**STRETCH DATA FOR DRILL PIPE,
 TUBING AND CASING**

Size of Tubing, D.P. or Casing	Length of Pipe Suspended in Well, meters	Stretch Per 1000 N Pull Above Pipe Mass mm Factor C	Pull Above Pipe Mass Per CM Stretch of Pipe, N	Stretch Due To Own Mass Suspended in Water, mm
60.33mm Upset Tubing 6.99 kg/m	100	.57	17419	1.5
	200	1.15	8710	6.0
	500	2.88	3484	37.6
	1000	5.74	1742	150.3
	2000	11.48	871	601.1
	3000	17.22	581	1352.5
	5000	28.74	348	3756.9
73.03mm Upset Tubing 9.67 kg/m	100	.41	24195	1.5
	200	.83	12098	6.0
	500	2.07	4839	37.6
	1000	4.13	2420	150.3
	2000	8.27	1210	601.1
	3000	12.40	807	1352.5
	5000	20.67	484	3756.9
88.90mm Upset Tubing 13.69 kg/m	100	.29	34557	1.5
	200	.58	17278	6.0
	500	1.45	6911	37.6
	1000	2.89	3456	150.3
	2000	5.79	1728	601.1
	3000	8.68	1152	1352.5
	5000	14.47	691	3756.9
73.03mm Drill Pipe 15.48 kg/m	100	.26	38212	1.5
	200	.52	19106	6.0
	500	1.31	7642	37.6
	1000	2.62	3821	150.3
	2000	5.23	1911	601.1
	3000	7.85	1274	1352.5
	5000	13.08	764	3756.9

FORMULA FOR FREE PIPE DEPTH

$$L = \frac{S \times 1000 \times 1000}{P \times C}$$

- Where: L = Length of free pipe in meters.
 S = Stretch pulled in pipe, in millimeters.
 P = Pull on pipe to get the stretch "S" in Newtons.
 C = Constant for given pipe size and weight being stretched.
 (For this equation use C factor at pipe length of 1000 meters.)

See page 85 for example

TABLE 204 - ENGLISH UNITS

STRETCH DATA FOR DRILL PIPE, TUBING AND CASING

Size of Tubing, D.P. or Casing	Length of Pipe Suspended in Well, Feet	Stretch Per 1000 Lb. Pull Above Wt. of Pipe, Inches Factor C	Pull Above Weight of Pipe Per In. Stretch of Pipe Pounds	Stretch Due To Own Weight Suspended in Water, Inches
3.500" Drill Pipe 13.30 #/Ft.	500	.055	18,200	.14
	1,000	.110	9,100	.56
	2,000	.220	4,550	2.22
	3,000	.330	3,033	5.00
	4,000	.440	2,275	8.88
	5,000	.550	1,820	13.88
	10,000	1.10	910	55.51
4.500" Drill Pipe 16.60 #/Ft.	500	.0450	22,200	.14
	1,000	.0900	11,100	.56
	2,000	.180	5,550	2.22
	3,000	.270	3,700	5.00
	4,000	.360	2,775	8.88
	5,000	.450	2,220	13.88
	10,000	.900	1,110	55.51
5.500" Casing 17 #/Ft.	500	.0402	24,800	.14
	1,000	.0804	12,400	.56
	2,000	.160	6,230	2.22
	3,000	.240	4,133	5.00
	4,000	.320	3,100	8.88
	5,000	.402	2,480	13.88
	10,000	.804	1,240	55.51
7.000" Casing 23 #/Ft.	500	.0301	33,220	.14
	1,000	.0602	16,610	.56
	2,000	.120	8,305	2.22
	3,000	.181	5,537	5.00
	4,000	.241	4,152	8.88
	5,000	.301	3,322	13.88
	10,000	.602	1,661	55.51

NOTE: The above figures apply only to steel pipe that has not been stretched or is not being stretched beyond its elastic limit.

Example:

A 7" RTTS is set at 15,000 feet on 2 3/8: 4.7 #/ft. EUE tubing. There are indications that the casing has collapsed above the tool. Pick up pipe weight, mark pipe and pull 20,000 pounds above pipe weight. This 20,000 pounds stretches pipe 25 inches. Where is the casing collapsed?

S = 25 inches

P = 20,000 pounds

C = .31 (C factor from table at 1000 ft.)

$$L = \frac{25 \times 1000 \times 1000}{20,000 \times .31}$$

L = 4032 feet

TABLE 204 - METRIC UNITS
**STRETCH DATA FOR DRILL PIPE,
 TUBING AND CASING**

Size of Tubing, D.P. or Casing	Length of Pipe Suspended in Well, meters	Stretch Per 1000 N Pull Above Pipe Mass, mm Factor C	Pull Above Pipe Mass Per CM Stretch of Pipe, N	Stretch Due To Own Mass Suspended in Water, mm
88.90mm Drill Pipe 19.79 kg/m	100	.21	48332	1.5
	200	.41	24166	6.0
	500	1.03	9666	37.6
	1000	2.07	4833	150.3
	2000	4.14	2417	601.1
	3000	6.21	1611	1352.5
	5000	10.34	967	3756.9
114.30mm Drill Pipe 24.70 kg/m	100	.17	58753	1.5
	200	.34	29377	6.0
	500	.85	11750	37.6
	1000	1.70	5875	150.3
	2000	3.40	2938	601.1
	3000	5.10	1958	1352.5
	5000	8.51	1175	3756.9
139.70mm Casing 25.30 kg/m	100	.15	66207	1.5
	200	.30	33104	6.0
	500	.76	13241	37.6
	1000	1.51	6621	150.3
	2000	3.02	3310	601.1
	3000	4.53	2207	1352.5
	5000	7.55	1324	3756.9
177.80mm Casing 34.23 kg/m	100	.11	88795	1.5
	200	.23	44398	6.0
	500	.56	17759	37.6
	1000	1.13	8880	150.3
	2000	2.25	4440	601.1
	3000	3.38	2960	1352.5
	5000	5.63	1776	3756.9

NOTE: The above figures apply only to steel pipe that has not been stretched or is not being stretched beyond its elastic limit.

Example:

A 7" RTTS is set at 5000 meters on 60.33 mm 6.99 kg/m EUE tubing. There are indications that the casing has collapsed above the tool. Pick up pipe weight, mark pipe and pull 90,000 Newtons above pipe weight. This 90,000 Newtons stretches pipe 635 millimeters, where is the casing collapsed?

S = 635 millimeters

P = 90,000 Newtons

C = 5.74 (C factor from table at 1000 meters)

$$L = \frac{635 \times 1000 \times 1000}{90,000 \times 5.74}$$

L = 1229 meters

TABLE 205 - ENGLISH UNITS

SLACK-OFF DATA FOR TUBING AND DRILL PIPE

Size of Tubing or Drill Pipe	Slack-Off Factor*
1.900 O.D. EUE Tubing	0.68
2.375 O.D. EUE Tubing	0.39
2.875 O.D. EUE Tubing	0.26
3.500 O.D. EUE Tubing	0.17
2.875 O.D. 10.40 lb/ft DP	0.16
3.500 O.D. 13.30 lb/ft DP	0.12
4.500 O.D. 16.60 lb/ft DP	0.10

* Inches to slack-off to obtain 1000 lbs. weight on packer for each 1000 ft. of depth. An allowance is included for coiling and friction.

$$\text{Required slack (inc.)} = \frac{\text{Desired Weight}}{1000} \times \frac{\text{Packer Depth}}{1000} \times \text{Factor}$$

Example:

Weight desired on packer 15,000 lbs.
 Depth packer set 5,000"
 Size of Tubing 2.375" EUE
 Slack-off factor for 2.375" EUE from table = 0.39

$$\frac{15,000}{1000} \times \frac{5,000}{1000} \times 0.39 = 29.25 \text{ (use 29 inches)}$$

The setting stroke required to set any particular tool is not included in these figures and will have to be added.

NOTE: The above figures apply only to pipe that has not been stretched, or is not being stretched beyond its elastic limit.

TABLE 205 - METRIC UNITS

SLACK-OFF DATA FOR TUBING AND DRILL PIPE

Size of Tubing or Drill Pipe	Slack-Off Factor*
48.26 mm O.D. EUE Tubing	12.50
60.33 mm O.D. EUE Tubing	7.17
73.03 mm O.D. EUE Tubing	4.78
88.90 mm O.D. EUE Tubing	3.12
73.03 O.D. 10.40 lb/ft DP	2.94
88.90 O.D. 13.30 lb/ft DP	2.21
114.30 O.D. 16.60 lb/ft DP	1.84

* Inches to slack-off to obtain 1000 lbs. weight on packer for each 1000 ft. of depth. An allowance is included for coiling and friction.

$$\text{Required slack (inc.)} = \frac{\text{(N) Desired Weight}}{1000} \times \frac{\text{(m) Packer Depth}}{1000} \times \text{Factor}$$

Example:

Weight desired on packer 70,000 N
 Depth packer set 1524.0 m
 Size of Tubing 60.33 mm EUE
 Slack-off factor for 60.33 mm EUE from table = 7.17

$$\frac{70,000}{1000} \times \frac{1524}{1000} \times 7.17 = 764.90 \text{ mm (use 765 mm)}$$

The setting stroke required to set any particular tool is not included in these figures and will have to be added.

NOTE: The above figures apply only to pipe that has not been stretched, or is not being stretched beyond its elastic limit.

TUBING

ENGLISH

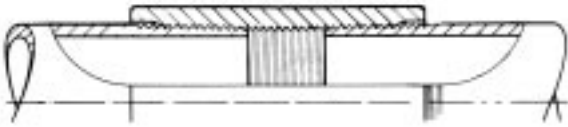
METRIC

API Non-Upset Tubing

Sizes:

1.050" - 4 1/2"

26.67 - 114.30 mm

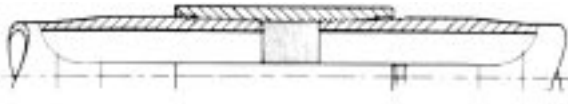


API External Upset Tubing

Sizes:

1.050" - 4 1/2"

26.67 - 114.30 mm

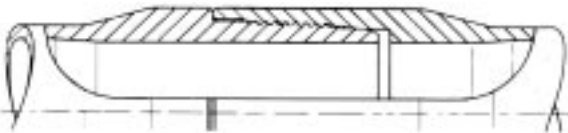


Extreme-Line Tubing

Sizes:

2 7/8" - 3 1/2"

60.33 - 88.90 mm

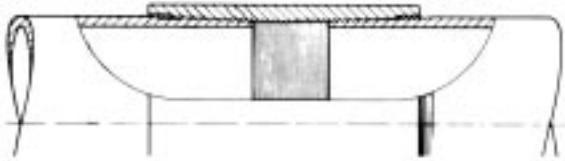


CASING

API SHORT OR LONG

ENGLISH**METRIC****Round-Thread Casing**

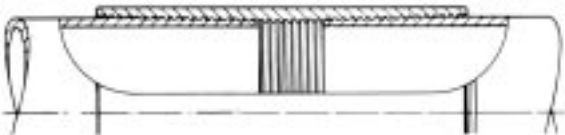
Sizes:

4½" - 20"
(21½" & 24½")114.30 - 508.00 mm
(546.10 & 622.30 mm)**API Buttress-Thread Casing**

Sizes:

4½" - 20"

114.30 - 508.00 mm

**API Extreme-Line Casing**

Sizes:

5" - 10¾"

127.00 - 273.10 mm

