

SUBJECT:

SATM
SETTING ADAPTER

TECH UNIT: 200.01

TECHNICAL DATA
SECTION 200.01



A Business Unit of Smith International, Inc.

COMPLETION SYSTEMS



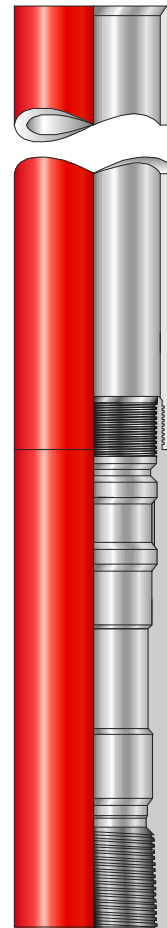
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Setting Adapter Features:

- Right hand release.
- Spline arrangement below the running thread provides positive torque transmission to the liner.
- Manufactured from heavy wall tubular alloys with yield strengths matching the liner.
- Tieback Receptacle adaptation without loss of tensile strength.
- Metal-to-metal seal system for maximum Tieback Receptacle pressure integrity.
- Tieback Receptacle is standard, not a special order.
- Utilizes Retrievable Cementing Bushing assemblies.
- This running thread/spline arrangement is also standard with integrally run liner top packers.



SMITH SERVICES

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COMPLETION SYSTEMS



TECHNICAL DATA - LINER EQUIPMENT

SUBJECT:

**SATM
SETTING ADAPTER - RATING DATA**

TECH UNIT: 200.01

RATING DATA FOR SATM SETTING ADAPTERS (1)

	RUNNING THREAD	TBR OD X ID	D/t RATIO	TBR BURST PRESSURE (3)	TBR COLLAPSE PRESURE (3)	TBR BYPASS	TBR THREAD	MAX TENSILE LOAD ON SETTING ADAPTER (2)
4" x 5-1/2" 14#-17# 10011-013 & 10261-226	3.809-4 SA-LH	4.62 x 4.125	18.66	12,410 PSI	11,150 PSI	INSIDE 5-1/2" 17# 2.03 SQ IN	MTM 4.390-6 SA	267,980 LBS
4-1/2" x 5-1/2" 14#-17# 10010-579	4.438-4 SA-LH	NA	NA	NA	NA	INSIDE 5-1/2" 17# 2.03 SQ IN	NA	102,300 LBS
4-1/2" x 6-5/8" 20#-32# 10011-246 & 10261-258	4.438-4-SA-LH	5.375 X 4.750	17.20	13,520 PSI	12,040 PSI	INSIDE 6-5/8" 32# 2.60 SQ IN	MTM 5.031-6-SA	311,100 LBS
4-1/2" x 7" 35#-38# 10011-111 & 10261-241	4.438-4-SA-LH	5.62 X 5.000	18.12	12,800 PSI	11,460 PSI	INSIDE 7" 38# 2.71 SQ IN	MTM 5.281-6-SA	535,700 LBS
4-1/2" x 7" 35#-38# 10011-088 & 10261-261	4.438-4-SA-LH	5.62 X 4.750	12.91	18,320 PSI	15,710 PSI	INSIDE 7" 38# 2.71 SQ IN	MTM 5.281-6-SA	535,700 LBS
4-1/2" x 7" 41# 10011-159 & 10261-282	4.438-4-SA-LH	5.56 X 5.000	19.85	11,630 PSI	10,520 PSI	INSIDE 7" 41# 2.32 SQ IN	MTM 5.281-6-SA	535,700 LBS
4-1/2" x 7" 44# 10011-176 & 10261-288	4.438-4-SA-LH	5.312 X 4.625	15.46	15,130 PSI	13,300 PSI	INSIDE 7" 44# 3.53 SQ IN	MTM 5.031-6-SA	320,400 LBS
4-1/2" & 5 x 7" 20#-32# 10011-079 & 10261-203	4.875-4-SA-LH	5.81 X 5.250	20.75	11,110 PSI	10,090 PSI	INSIDE 7" 32# 2.65 SQ IN	MTM 5.531-6 SA	406,700 LBS
5" x 7" 35#-38# 10011-003 & 10261-201	4.875-4-SA-LH	5.62 X 5.125	22.70	10,110 PSI	9,260 PSI	INSIDE 7" 38# 2.71 SQ IN	MTM 5.406-6 SA	568,800 LBS
5" x 7-5/8" 24#-39# 10011-079 & 10261-240	4.875-4-SA-LH	6.25 X 5.250	12.50	18,980 PSI	16,190 PSI	INSIDE 7-5/8" 39# 3.79 SQ IN	MTM 5.531-6 SA	406,700 LBS
5-1/2" x 7" 20-26# 10011-017 & 10261-227	5.312-4-SA-LH	6.06 X 5.562	24.33	9,400 PSI	8,660 PSI	INSIDE 7" 26# 2.09 SQ IN	MTM 5.828-6-SA	672,000 LBS
5-1/2" x 7" 29# 10011-077 & 10261-244	5.312-4-SA-LH	6.00 X 5.500	NA	NA SLEEVE ONLY	NA SLEEVE ONLY	INSIDE 7" 29# 2.32 SQ IN	5.781-6-SA	547,600 LBS

NOTES:

1. All ratings are based on 110 KSI minimum yield strength material.
2. The yield stress tensile load of the the setting adapter is at failure with no safety factors.
This tensile load does not include the connection tensile rating, i.e. LT&C or BT&C;
connection may be less depending on weight.
3. The burst and collapse ratings are Lame calculations only, based on 110 KSI materials will vary with minimum yield of material used.
4. Bypass area is based on heaviest weight casing range; Bypass will be greater in lighter weight casing.



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TECHNICAL DATA - LINER EQUIPMENT

SUBJECT:

**SATM
SETTING ADAPTER - RATING DATA**

TECH UNIT: 200.01

RATING DATA FOR SATM SETTING ADAPTERS (1)

	RUNNING THREAD	TBR OD X ID	D/t RATIO	TBR BURST PRESSURE (3)	TBR COLLAPSE PRESURE (3)	TBR BYPASS	TBR THREAD	MAX TENSILE LOAD ON SETTING ADAPTER (2)
5-1/2" x 7-5/8" 24#-39# 10011-100 & 10261-204	5.312-4-SA-LH	6.37 X 5.750	20.54	11,220 PSI	10,180 PSI	INSIDE 7-5/8" 39# 2.60 SQ IN	MTM 6.031-6-SA	503,900 LBS
6" x 8-5/8" 23#-40# 10011-125 & 10261-243	5.750-4-SA-LH	7.375 X 6.750	23.60	9,710 PSI	8,920 PSI	INSIDE 8-5/8" 40# 4.15 SQ IN	MTM 7.031-6-SA	1,182,000 LBS
6-5/8" x 8-5/8" 23#-40# 10011-108 & 10261-243	6.312-4-SA-LH	7.375 X 6.750	23.60	9,710 PSI	8,920 PSI	INSIDE 8-5/8" 40# 4.15 SQ IN	MTM 7.031-6-SA	589,100 LBS
7" x 9-5/8" 32.3#-53.5# 10011-087 & 10261-205	6.750-4-SA-LH	8.250 X 7.375	18.85	12,280 PSI	11,040 PSI	INSIDE 9-5/8" 53.5# 3.75 SQ IN	MTM 7.656-6-SA	861,500 LBS
7" x 9-5/8" 32.3#-53.5# 10011-087 & 10261-318	6.750-4-SA-LH	8.250 X 7.250	16.50	14,130 PSI	12,520 PSI	INSIDE 9-5/8" 53.5# 3.75 SQ IN	MTM 7.656-6-SA	861,500 LBS
7" x 9-5/8" 58.4# 10011-119 & 10261-260	6.750-4-SA-LH	8.12 X 7.375	18.66	10,550 PSI	9,620 PSI	INSIDE 9-5/8" 58.4# 4.09 SQ IN	MTM 7.656-6-SA	861,500 LBS
7-5/8" X 9-5/8" 32.3-47# 10011-183 & 10261-206	7.312-4-SA-LH	8.37 X 7.750	27.00	8,440 PSI	7,840 PSI	INSIDE 9-5/8" 47# 4.16 SQ IN	MTM 8.031-6-SA	667,800 LBS
7-5/8" x 9-5/8" 53.5# 10011-183 & 10261-214	7.312-4-SA-LH	8.31 X 7.750	29.67	7,660 PSI	7,160 PSI	INSIDE 9-5/8" 53.5# 2.97 SQ IN	MTM 8.031-6-SA	667,800 LBS
7-3/4" x 10-3/4" 10011-101 & 10261-249	7.312-4-SA-LH	8.81 X 7.750	11.09	14,020 PSI	12,430 PSI	INSIDE 10-3/4" 85.3# 4.88 SQ IN	MTM 8.031-6-SA	667,800 LBS
8-5/8" x 10-3/4" 65.7# 10011-236 & 10261-259	8.212-4-SA-LH	9.25 X 8.625	29.60	7,680 PSI	7,180 PSI	INSIDE 10-3/4" 65.7# 4.57 SQ IN	MTM 8.906-6-SA	714,800 LBS
9-5/8" x 11-3/4" 42#-65# 10011-211 & 10261-246	9.438-4-SA-LH	10.37 X 9.875	41.89	5,370 PSI	5,120 PSI	INSIDE 11-3/4" 65# 5.15 SQ IN	MTM 10.156-6-SA	858,700 LBS
9-5/8" x 13-3/8" 10011-211 & 10261-207	9.438-4-SA-LH	11.50 X 10.375	20.44	11,280 PSI	10,230 PSI	INSIDE 13-3/8" 85# 12.24 SQ IN	MTM 10.688-6-SA	1,798,700 LBS

NOTES:

1. All ratings are based on 110 KSI minimum yield strength material.
2. The yield stress tensile load of the the setting adapter is at failure with no safety factors. This tensile load does not include the connection tensile rating, i.e. LT&C or BT&C; connection may be less depending on weight.
3. The burst and collapse ratings are Lame calculations only, based on 110 KSI materials will vary with minimum yield of material used.
4. Bypass area is based on heaviest weight casing range; Bypass will be greater in lighter weight casing.



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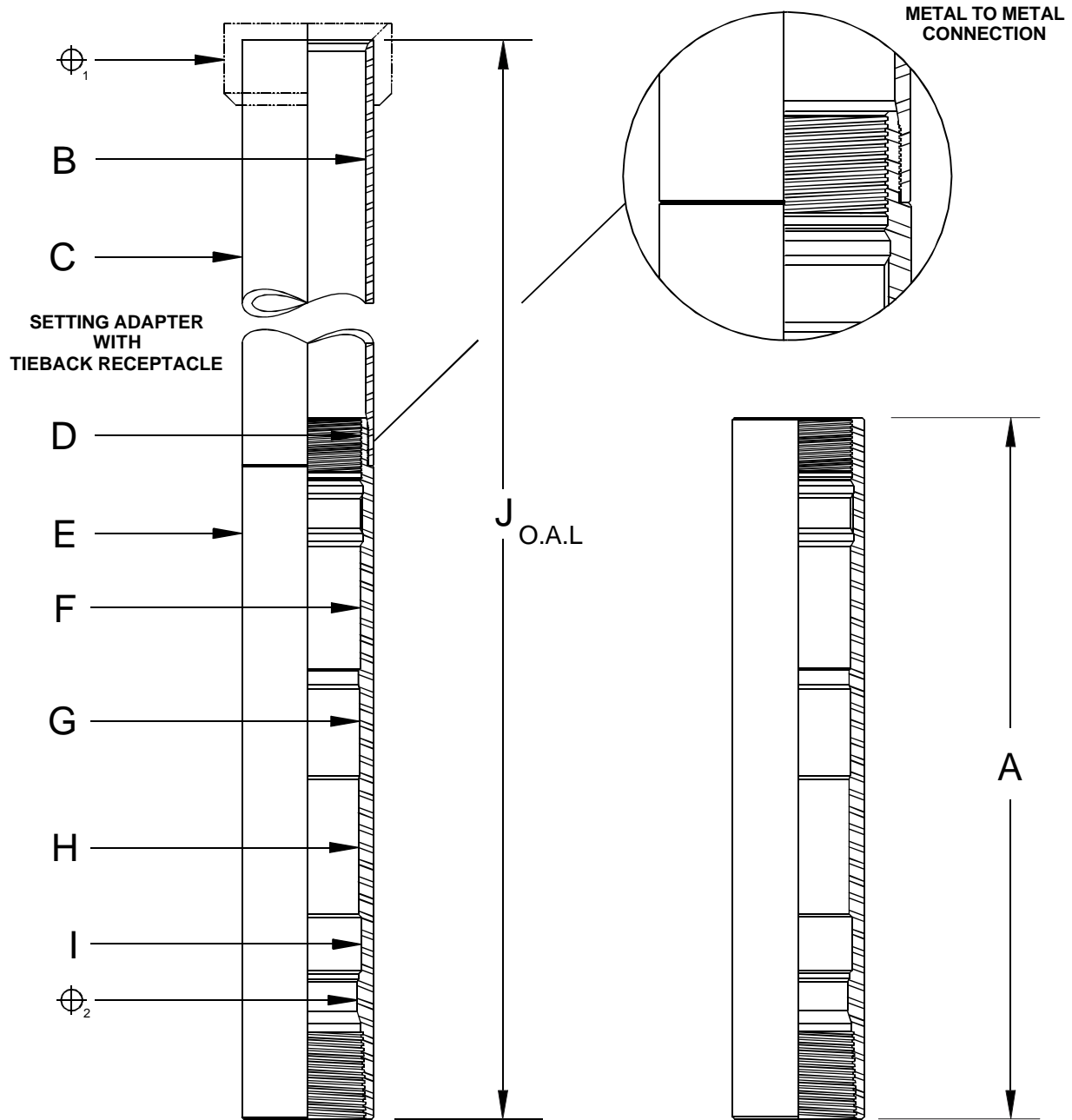


TECHNICAL DATA - LINER EQUIPMENT

SUBJECT:

**SATM
DIMENSIONAL DATA**

TECH UNIT: 200.01



Notes:

ϕ_1 Will vary according to casing weight.

ϕ_2 Will vary according to liner weight and the pin thread connection of the mandrel.

O.A.L is based on a standard 6 ft. tieback receptacle.

SMITH SERVICES

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COMPLETION SYSTEMS



TECHNICAL DATA - LINER EQUIPMENT

SUBJECT:

SATM DIMENSIONAL DATA

TECH UNIT: 200.01

LINER x CASING	CASING WEIGHT	A	B	C	D	E	F	G	H	I	J
in (mm)	lbs/ft (kg/M)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)	in (mm)
3-1/2" (88,9) x 5-1/2" (139,7)	ALL	38.87 (987,3)	4.125 (104,8)	4.62 (117,3)	3.832 (97,3)	4.62 (117,3)	3.620 (91,9)	3.62 (91,9)	3.500 (88,9)	3.80 (96,5)	110.87 (2816,1)
4" (101,6) x 5-1/2" (139,7)	14#-17# (20,8-25,3)	38.87 (987,3)	4.125 (104,8)	4.62 (117,3)	3.832 (97,3)	4.62 (117,3)	3.620 (91,9)	3.62 (91,9)	3.500 (88,9)	3.80 (96,5)	110.87 (2816,1)
4-1/2" (114,3) x 7" (177,8)	20#-32# (29,8-47,6)	44.75 (1136,6)	5.250 (133,3)	5.81 (147,6)	4.287 108,9)	5.81 (147,6)	4.130 (104,9)	4.12 (104,6)	3.950 (100,3)	4.28 (108,7)	116.75 (2965,5)
	35#-38# (52,1-56,5)	44.75 (1136,6)	5.000 (127,0)	5.62 (142,7)	4.457 (113,2)	5.62 (142,7)	4.130 (104,9)	4.12 (104,6)	3.950 (100,3)	4.28 (108,7)	116.75 (2965,5)
5" (127,0) x 7" (177,8)	20#-32# (29,8-47,6)	46.25 (1174,7)	5.250 (133,3)	6.25 (158,7)	4.895 (124,3)	5.81 (147,6)	4.640 (117,8)	4.62 (117,3)	4.464 (113,4)	4.84 (122,9)	118.25 (3003,6)
	35#-38# (52,1-56,5)	49.50 (1257,3)	5.125 (130,2)	5.62 (142,7)	4.725 (120,0)	5.62 (142,7)	4.640 (117,8)	4.62 (117,3)	4.464 (113,4)	4.84 (122,9)	121.50 (3086,1)
5" (127,0) x 7-5/8" (193,7)	ALL	46.25 (1174,7)	5.250 (133,3)	6.25 (158,7)	4.895 (124,3)	5.81 (147,6)	4.640 (117,8)	4.62 (117,3)	4.464 (113,4)	4.84 (122,9)	118.25 (3003,6)
5-1/2" (139,7) x 7" (177,8)	20#-26# (29,8-38,7)	47.37 (1101,6)	5.562 (141,3)	6.06 (153,9)	5.162 (131,1)	6.06 (153,9)	5.060 (128,5)	5.00 (127,0)	4.830 (122,7)	5.16 (131,1)	119.37 (3032,0)
	29# (43,2)	47.37 (1101,6)	5.500 (139,7)	6.00 (152,4)	5.162 (131,1)	5.94 (150,9)	5.060 (128,5)	5.00 (127,0)	4.830 (122,7)	5.16 (131,1)	119.37 (3032,0)
5-1/2" (139,7) x 7-5/8" (193,7)	ALL	44.125 (1120,8)	5.750 (146,1)	6.37 (161,8)	5.162 (131,1)	6.37 (161,8)	5.060 (128,5)	5.00 (127,0)	4.830 (122,7)	5.16 (131,1)	116.12 (2949,4)
7" (177,8) x 9-5/8" (244,5)	ALL	43.37 (1101,6)	7.375 (187,3)	8.25 (209,5)	6.60 (167,6)	8.25 (209,5)	6.565 (166,7)	6.50 (165,1)	6.370 (161,8)	6.70 (170,2)	115.37 (2930,4)
7-5/8" (193,7) x 9-5/8" (244,5)	32#-47# (47,6-69,9)	50.00 (1270,0)	7.750 (196,8)	8.37 (212,6)	7.162 (181,9)	8.31 (211,1)	7.075 (179,7)	7.00 (177,8)	6.895 (175,1)	7.25 (184,2)	122.00 (3098,8)
	53.5# & 53.5# SD (79,6)			8.31 (211,1)							
9-5/8" (244,5) x 11-3/4" (298,5)	ALL	59.75 (1517,6)	9.875 (250,8)	10.375 (263,5)	9.287 (235,9)	10.38 (263,5)	9.150 (232,4)	9.00 (228,6)	8.880 (225,5)	9.37 (238,0)	127.75 (3244,8)
9-5/8" (244,5) x 13-3/8" (339,7)	ALL	55.75 (1416, 1)	10.375 (263,5)	11.50 (292,1)	9.287 (235,9)	11.00 (279,4)	9.150 (232,4)	9.00 (228,6)	8.880 (225,5)	9.37 (238,0)	127.75 (3244,8)

NOTE: All metric conversions are in Italics (for reference only)



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