



# **Technical Specification**

**Skytop Brewster -TR-800,**

**Rig -105**



## EXALO DRILLING - RIG TR 800 (RIG No -105)

RIG SPECIFICATIONS.			
<b>1 Rig Name</b>			
1	1	Rig Designation	<b>SKYTOP BREWSTER TR-800</b>
1	2	Year of manufacture	1992 (modification 2011)
1	3	Rig Type	TRAILER RIG
1	4	Actual Rig Location	ATYRAU KAZAKHSTAN
1	5	Average Fuel consumption under full drilling operation [m3/day]	5 -7 m3/day (winter time) 3 -5 m3/ day (summer time)
1	6	No. of Truck loads required for moving rig & rig camp	131
1	7	No. of Truck loads required for moving main camp	35
1	8	Expected interlocation move time rig & rig camp <30km [days]	7-10
1	9	Liquid mud storage capacity [m3]	178 m3
1	1	Fuel storage capacity [m3]	70 m3
0			
1	1	Drilling water storage capacity [m3]	60 m3
1			
<b>2 Rated drilling capacity</b>			
2	1	for 5 " Drill Pipe [m]	3000 m
<b>3 Mast</b>			
3	1	Make and Type	SKYTOP BREWSTER 115-410XF
3	2	Date of Manufacture	1992 (Modification 2012)
3	3	Date of last full inspection a/p API Spec 8B Cat.IV (including sand-blast removal of all paint; NDT inspection, including MPI and ultra-sonic inspections, including inspection of all welds; inspections of all nuts, studs, pins; load-testing)	2012
3	4	Copies of the latest full MPI of complete mast to be included in tender documents.	YES
3	5	Maximum Rated Static Hook Load [lbs]	410,000 lbs
3	6	w/ No. of lines	10 lines
3	7	Clear Height of Mast [ft]	115 ft (35m)
3	8	Base Width [ft]	14 ft (4,2m)
3	9	Rack back capacity 5 " DP [m]	9921 ft (3023m)

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3	1	Rack back capacity of 8", 6-1/2" and 4 3/4" DC [No]	<b>8 stands of 8"DC, 12 stands of 6 1/2" DC</b>		
0					
<b>4</b>	<b>Substructure</b>				
4	1	Make and Type	PD 190/160 Pak Serwis Kraków		
4	2	Date of Manufacture	2005		
4	3	Date of last full inspection a/p API Spec 8B Cat.IV (including sand-blast removal of all paint; NDT inspection, including MPI and ultra-sonic inspections, including inspection of all welds; inspections of all nuts, studs, pins; load-testing)	2012		
4	4	Copies of the latest full MPI of complete mast to be included in tender documents.	YES		
4	5	Floor Height [m]	16'-7" (5,05 m)		
4	6	Clear Height under Rotary Beams [ft]	12'- 4" (3,8m)		
4	7	Max. Number of Stands in Full Setback []	140 x 5"DP		
4	8	Max. Rated Pipe Setback Load [klbs]	320 klbs		
4	9	Max. Rated Casing Load [klbs]	420 klbs		
4	1	Substructure to be equipped with trip pan	No		
0					
<b>5</b>	<b>BOP Hoisting/Skidding System</b>				
5	1	Make and Type	Hand chain winch PFAFF - 2 x 10 tons		
5	2	Date of last full inspection a/p API Spec 8B Cat.IV (including sand-blast removal of all paint; NDT inspection, including MPI and ultra-sonic inspections, including inspection of all welds; inspections of all nuts, studs, pins; load-testing)	2012		
5	3	Capable of handling 13-5/8" x 5M ANN-DR-SR Assy.	YES		
<b>6</b>	<b>Crown Block</b>				
6	1	Make and Type	Skytop Brewster		
6	2	Date of last full inspection a/p API Spec 8B Cat.IV (including sand-blast removal of all paint; NDT inspection, including MPI and ultra-sonic inspections, including inspection of all welds; inspections of all nuts, studs, pins; load-testing)	04.2011		
6	3	Copies of the latest full MPI of complete mast to be included in tender documents.	YES		
6	4	Maximum Rated Hook Load [klbs]	410 klbs		
6	5	Maximum Gross Load [klbs]	410 klbs		
6	6	Number and OD of Sheaves [number x OD in inches]	1x42"	x	5x30"
6	7	Grooved for line OD [in]	1-1/8"		
6	8	c/w Sandline sheave line OD	n/a		

6	9	c/w Catline sheave line OD	1 x 42"		
<b>7 Travelling Block/Hook Ass'y</b>					
7	1	Make and Type	Skytop Brewster HB-245		
7	2	Date of last full inspection a/p API Spec 8B Cat.IV (including sand-blast removal of all paint; NDT inspection, including MPI and ultra-sonic inspections, including inspection of all welds; inspections of all nuts, studs, pins; load-testing)	06. 2011		
7	3	Copies of the latest full MPI of complete mast to be included in tender documents.	yes		
7	4	Travelling Block API Working Load Strength Rating [klbs]	500 klbs		
7	5	Number and OD of Sheaves [number x OD in inches]	5	x	36"
7	6	Grooved for line OD [in]	1-1/8"		
7	7	Hook API Working Load Strength Rating [klbs]	500 klbs		
7	8	Travelling Block/TDS/Hook Ass'y total length [in]	132-3/16"		
7	9	Hook throat size checked & confirmed as compatible with lifting hoop of swivel and top-drive drilling system (allowing proper sitting of lifting hoop in hook and proper operation of hook safety-latch) [YES/NO]	YES		
<b>8 Drawworks</b>					
8	1	Make and Type	Skytop Brewster DH1-4610		
8	2	Drawworks Serial Number	DO763		
8	3	Date of Manufacture	1992		
8	4	Date of last full inspection a/p API Spec 8B Cat.IV (including sand-blast removal of all paint; NDT inspection, including MPI and ultra-sonic inspections, including inspection of all welds; inspections of all nuts, studs, pins; load-testing)	04.2011		
8	5	Copies of the latest full MPI of complete mast to be included in tender documents.	yes		
8	6	Nominal Input Power Rating [hp]	950 HP		
8	7	Drawworks Motors [Make, Type, Number, hp]	2 x CAT 3408 diesel engine, 503 HP each		
8	8	Drawworks Motors Ex-proofed	spark arrestor		
8	9	Number of Hoisting Speeds	5		
8	0	Max. Hoisting Speed @ 350 klbs Hook Load [ft/s]	3,28 ft/s		
8	1	Main Drum Diameter [in]	20"		
8	1	Main Drum Width [in]	41"		
8	2				
8	1	Main Drum Lebus-Grooved for Drilling Line OD [in]	1 1/8"		

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3		
8 1	Sand Line Drum Installed	yes without line
4		
8 1	Spinning Cathead	FOSTER - HYDR. CYLINDER
5		
8 1	Breakout Cathead	FOSTER - HYDR. CYLINDER
6		
8 1	Main Brake [Band/Disc]	band brake
7		
8 1	Auxiliary Brake [Make, Type]	PARMAC V-80
8		
8 1	Brake Cooling System	closed loop with antifreeze fluid
9		
8 2	Crown Saver [Type]	crown - o - matic
0		
<b>9</b>	<b>Drilling Line</b>	
9 1	Make and Type	Lankhorst Ropes 6x19 IWRC
9 2	Size [in x m]	1 1/8" x 1000 m
9 3	Type	right hand regular lay
9 4	Breaking Strength [klbs]	547 kN
9 5	New Reel Supplied @ Contract Startup	YES
9 6	Spare drilling line	YES
<b>1</b>	<b>Top Drive</b>	
<b>0</b>		
10	N/O	
<b>1</b>	<b>Swivel</b>	
<b>1</b>		
11 1	Make and Type	National Oilwell P300
11 2	Date of last full inspection a/p API Spec 8B Cat.IV (including sand-blast removal of all paint; NDT inspection, including MPI and ultra-sonic inspections, including inspection of all welds; inspections of all nuts, studs, pins; load-testing)	06.2011
11 3	API rated Dead Load Capacity [klbs]	661 klbs
11 4	API rated Bearing Capacity [klbs]	403 klbs
11 5	Gooseneck Conn. & Angle w/ vert. [°]	HU FIG 1502 TEM
11 6	Wash pipe seals suitable for SOBM usage	ok.

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11	7	Rated Working Pressure [psi]	5000 psi		
11	8	Stem thread, lower end	6 5/8" REG LH		
<b>1 Casing Stabbing Board</b>					
<b>2</b>					
12	1	Make and Type	DECARD „C" hinge type		
12	2	Date of Manufacture or Last Overhaul	MODIFICATION 2011		
12	3	fixed in Mast [YES/NO]	yes		
12	4	Adjustable height for CSG Range III [ft]	yes		
<b>1 Air Compressors</b>					
<b>3</b>					
13	1	Make and Type	Atmos SE-44010		
13	2	Date of Manufacture or Last Overhaul	2003/		
13	3	Number	1		
13	4	Soundproofing [YES/NO, describe]	INSTALLED inside container		
13	5	Water separating device	yes		
13	6	Total Capacity [SCFM air @ psig pressure]		@	130 psig
13	7	Air Tank(s) Total Volume [SCF air @ psig pressure]	2,5m3	2,7 m3	
13	8	Compressor Motors [Make, Type, Number]	electric engine 60hp (45kW)		
<b>1 Tuggers</b>					
<b>5</b>					
15	1	Make and Type	BRADEN PD12C -SPL-59039-02-1		
15	2	Date of Manufacture or Last Overhaul	2012		
15	3	Number	1		
15	4	Hoisting Capacity [lbs]	10 000 lbs		
15	5	Air or Hydraulic Powered	HYDRAULIC		
15	6	Tuggers POSITION	Rig Floor		
<b>1 Air Winches</b>					
<b>6</b>					
16	1	Make and Type	Ingersoll Rand FA51-24xK1-CE		
16	2	Date of Manufacture or Last Overhaul	2010		
16	3	Number	1		
16	4	Hoisting Capacity [lbs]	11 000 lbs		

17	5	Air or Hydraulic Powered	AIR		
17	6	WINCH POSITION	Rig Floor		
<b>1 Dead Line Anchor</b>					
<b>8</b>					
18	1	Make and Type	HERCULES 118T		
18	2	Date of Manufacture or Last Overhaul	1986		
18	3	Capacity [klbs]	20 TON		
18	4	w/ OD Drilling Line [in]	1 1/8"		
18	4	All inspection and certification documents to be included in tender documents.	ok.		
<b>POWER PLANT SPECIFICATIONS FOR DIESEL-ELECTRIC / MECHANIC RIG</b>					
<b>1 Aux. AC Generators</b>					
1	1	Make and Type	CAT - SR4		
1	2	Date of Manufacture or Last Overhaul	MODIFICATION 2011		
1	3	Operating hours since last factory-overhaul	1- 10569: 2-8886		
1	4	Number	2		
1	5	Max. Continuous Power [kVA @ RPM]	550 kVA	@	
1	6	Output Voltage [V]	400V		
1	7	Output Frequency [Hz]	50 Hz		
1	8	Prime Mover Make and Type	CAT 3412 DI		
1	9	Prime Mover Date of Manuf. or Last Overhaul	MODIFICATION 2011		
1	1	Prime Mover Max. Continuous Power [kW @ RPM]	379 kW	@	1500 RPM
0					
1	1	Prime Mover Sound Proofing (YES/NO, describe)	YES		
1					
<b>MUD SYSTEM</b>					
<b>1 Mud Pump Nr. 1</b>					
1	1	Make and Type	GARDNER-DENVER PZ-8		
1	2	Serial Number	505901		
1	3	Date of Manufacture or Last Overhaul	Last Overhaul 2011		
1	4	Rated Input Power [hp]	750 hp		
1	5	Hydraulic Output Power @ Rated Input Power [HHP]			
1	6	Mud Pump Motor(s) [Make, Type, Number]	CATERPILLAR D398 DIESEL ENGINE		
1	7	Mud Pump Motor(s) Rated Power [hp @ RPM]	750 HP	@	1100 RPM



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1	8	Mud Pump Motor(s) Sound Proofing (YES/NO, describe)	NO		
1	9	Pump Lubrication Drive [direct/independent]	DIRECT		
1	1	Minimum/Maximum Continuous Pump RPM	50 RPM	to	120 RPM
0					
1	1	Stroke Length [in]	8"		
1	1	Maximum Liner Diameter [in]	7" Triplex		
2					
1	1	Maximum Discharge Pressure [psi]	5000 psi		
3					
1	1	Available Liner Sizes [list]	5", 5 1/2", 6 1/4"; 7"		
4					
1	1	Liner 6 1/4 Size to deliver GPM @ psi	6 1/4" - 462 GPM @ 2500 PSI		
5					
1	1	Liner 5 1/2 Size to deliver GPM @ psi	5 1/2" - 358 GPM @ 3230 PSI		
6					
1	1	Liner 5 Size to deliver GPM @ psi	5" - 296 GPM @ 3910 PSI		
7					
1	1	Supercharging Pump(s) [Make, Type, Power]	(1)Mission Magnum 6x5x14 (1)Harrisburg 1-7/8"		
8					
1	1	Mud Pump and supercharging pump(s) suitable for SOBM	yes.		
9					
1	2	Pulsation Dampener Make and Type	HYDRILL USA		
0					
1	2	Relief Valve Make and Type	3" 'O-DRILL' USA		
1	1				
1	2	Relief Valve located upstream of discharge strainer	YES		
2					
1	2	Total Pump Transport Weight [lbs]	(32 MT) 70546 lb with motor CAT		
3					
1	2	Total Pump Transport Dimensions [WxLxH ft]	10 ft	26 ft	10 ft
4					
<b>2 Mud Pump Nr. 2</b>					
2	1	Make and Type	GARDNER-DENVER PZ-8		
2	2	Serial Number	201-P-001		
2	3	Date of Manufacture or Last Overhaul	Last Overhaul 2011		

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2	4	Rated Input Power [hp]	750 hp		
2	5	Hydraulic Output Power @ Rated Input Power [HHP]			
2	6	Mud Pump Motor(s) [Make, Type, Number]	CATERPILLAR D398 DIESEL ENGINE		
2	7	Mud Pump Motor(s) Rated Power [hp @ RPM]	750 HP	@	1100 RPM
2	8	Mud Pump Motor(s) Sound Proofing (YES/NO, describe)	NO		
2	9	Pump Lubrication Drive [direct/independent]	DIRECT		
2	1	Minimum/Maximum Continuous Pump RPM	50 RPM	to	120 RPM
2	1	Stroke Length [in]	8"		
2	1	Maximum Liner Diameter [in]	7" Triplex		
2	1	Maximum Discharge Pressure [psi]	5000 psi		
2	1	Available Liner Sizes [list]	5", 5 1/2", 6 1/4"; 7"		
2	1	Liner 6 1/4 Size to deliver GPM @ psi	6 1/4" - 462 GPM @ 2500 PSI		
2	1	Liner 5 1/2 Size to deliver GPM @ psi	5 1/2" - 358 GPM @ 3230 PSI		
2	1	Liner 5 Size to deliver GPM @ psi	5" - 296 GPM @ 3910 PSI		
2	1	Supercharging Pump(s) [Make, Type, Power]	(1)Mission Magnum 6x5x14 (1)Harrisburg 1-7/8"		
2	1	Mud Pump and supercharging pump(s) suitable for SOBMs	yes		
2	2	Pulsation Dampener Make and Type	HYDRILL USA		
2	2	Relief Valve Make and Type	O- DRILL USA		
2	2	Relief Valve located upstream of discharge strainer	YES		
2	2	Total Pump Transport Weight [lbs]	(32 MT) 70546 lb with motor CAT		
2	2	Total Pump Transport Dimensions [WxLxH ft]	10 ft	26 ft	10 ft

<b>3 High Pressure Mud Lines</b>			
3	1	Number	1
3	2	ID [in]	3"
3	3	Working Pressure [psi]	5000 psi
3	4	Last wall thickness testing [DATE]	06.2011
3	5	Connections	Fig 1502
3	6	Copies of latest wall thickness test for all high pressure mud lines to be included with the tender documents	yes
<b>4 Stand Pipe(s)</b>			
4	1	Number	1
4	2	ID [in]	3."
4	3	Working Pressure [psi]	5000 psi
4	4	Last wall thickness testing [DATE]	06.2011
4	5	Connections	Fig 1502
<b>5 Mud Tank System</b>			
5	1	Purpose	ACTIVE
5	2	Transport Dimensions [WxLxH ft]	11 ft      40 ft      11 ft
5	3	Total Capacity [m3]	81 m3
5	4	Number of Compartments	4
5	5	Agitators [YES/NO, Make and Type, Number]	yes x 7, Double Life Corp. MA10-251
5	6	Mud Guns [YES/NO, Number]	YES- 4
5	7	Last wall thickness testing [DATE]	2012
5	8	Copies of latest wall thickness test for all tanks to be included with the tender documents	YES
5	9	Sufficient centrifugal pumps and hard piping required between active and reserve system to allow mud transfer.	ok.
5	10	All valves, seals and transfer pumps have to be suitable for SOBM	ok.
<b>7 Reserve Mud Tanks</b>			
7	1	Number of Reserve Mud Tanks [YES/NO]	yes (2 compartments)
7	2	Transport Dimensions [WxLxH ft]	11 ft      40 ft      11 ft
7	3	Total Reserve Volume Capacity [m3]	96 m3
7	4	Agitators [YES/NO, Make and Type, Number]	yes x 3, Double life corp. MA10-251
7	5	Copies of latest wall thickness test for all tanks to be included with the tender	2012

	documents	
<b>8</b>	<b>Trip Tank</b>	
8 1	Transport Dimensions [WxLxH ft]	9 ft      24 ft      9 ft
8 2	Capacity [m3]	2 x 6,5 m3
8 3	Feeder Pump [Make, Type and Size]	Mission, harrisburg
8 4	Tank Level Indicator [describe]	yes
8 5	Tank Level Alarms [describe]	yes
<b>9</b>	<b>Mud Mixing Hoppers</b>	
9 1	Number	2
9 2	Size, Make, Type	6"
9 3	Equipped for Big Bags [YES/NO]	NO
9 4	Shearing device [YES/NO]	NO
<b>1</b>	<b>Mud Mixing / Transfer Pumps</b>	
<b>0</b>		
10 1	Make, Type and Size	Mission Magnum 8 x 6 x 14 & 8 X 6 X 14
10 2	Number	2
10 3	Input Power [kW]	75 kW
<b>1</b>	<b>Flow Line</b>	
<b>1</b>		
11 1	Nominal Diameter [in]	OPEN TYPE
11 2	Available Height Difference Between Bell Nipple and Shale Shaker Possum Belly [in]	0.8m
<b>1</b>	<b>Shale Shakers</b>	
<b>2</b>		
12 1	Make and Type	(3 pcs Mi SWACO Moonguse PT)
12 2	Date of Manufacture or Last Overhaul	2011
12 3	Max Flow l/min (mud 1,20sg, 140mesh)	2300
12 4	Operating Principle (Linear, elliptic, balanced elliptic etc.)	Flo-Line + (Linear)
12 5	Single- or Dual-Deck Type [SINGLE/DUAL]	SINGLE
12 6	Available Screen Sizes	Possible from 30 to 350 mesh
<b>1</b>	<b>Desander(s)</b>	
<b>3</b>		
13 1	Make and Type	MI SWACO
13 2	Date of Manufacture or Last Overhaul	2012

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13	3	Number	1		
13	4	Number and Size of Cones [# / in]	3	/	10"
13	5	Capacity [GPM] of Unweighted Water Base Mud	573 GPM		
13	6	Feeder Pump [Make, Type and Size, Power]	MISSION MAGNUM 6"X 5"X14"		
<b>1 Mud Cleaner (optional)</b>					
<b>4</b>					
14	1	Make and Type	MI Swaco Moonguse 12 SH 213		
14	2	Date of Manufacture or Last Overhaul	2012		
14	3	Number	1		
14	4	Number and Size of Cones [# / in]	20	/	4"
14	5	Capacity [GPM] of Unweighted Water Base Mud	75 GPM		
14	6	Feeder Pump [Make, Type and Size, Power]	MISSION MAGNUM 6"X 5"X14"		
14	7	Available Screen Sizes	Possible from 30 to 350 mesh		
<b>1 Centrifuge</b>					
<b>5</b>					
15	1	Make and Type	Swaco		
15	2	Number	1		
15	3	Capacity [GPM] of Unweighted Water Base Mud	23 m3/h		
15	4	Feeder Pump [Make, Type and Size, Power]	Seepex BN 35 -6L (max 20 m3/h)		
15	5				
<b>1 Poor-Boy Degasser</b>					
<b>6</b>					
16	1	Make and Type	PAK SERVICE POLAND		
16	2	Date of Manufacture or Last Overhaul	modification 2011		
<b>1 Water Tanks</b>					
<b>7</b>					
17	1	Number	1		
17	2	Total Capacity [m³]	60m3		
<b>1 Water Pumps</b>					
<b>8</b>					
18	1	Make, Type and Size, Power	MM 3 X 2 X 13, el. motor 15 kW/380 V		
18	2	Number	2		
18	3	Capacity [GPM]	400 GPM		

<b>1</b>	<b>Cuttings Tank</b>		
<b>9</b>			
19	1	Number	3
19	2	Transport Dimensions [WxLxH m]	2,45m      5,6m      1,6m
19	3	Total Capacity [m³]	20 + 20 + 20 m3
<b>2</b>	<b>Pump for Cellar Empty</b>		
<b>0</b>			
20	1	Make, Type and Size, Power	Wilden M-8, Wilden PX15
20	2	Number, capacity [bb]	2.
<b>2</b>	<b>Fuel Tanks</b>		
<b>1</b>			
21	1	Number	1
21	2	Total Capacity	total 72 m3
21	3	Test-kit for Diesel Quality	NO
<b>BOP EQUIPMENT</b>			
<b>1</b>	<b>13-5/8" 5M Annular</b>		
		13 5/8"X 350 atm	1
<b>2</b>	<b>CHOCK LINE</b>		
		350 atm	1
<b>3</b>	<b>Kill Line Valve(s)</b>		
		350 atm	1
<b>RIG FLOOR EQUIPMENT</b>			
<b>1</b>	<b>Rotary Table and Drive</b>		
1	1	Make and Type	Skytop Brewster RSH-22
1	2	Date of Manufacture or Last Overhaul	MODIFICATION 2011
1	3	Maximum Opening [in]	27"
1	4	API Dead Load Capacity [klbs]	520 klbs
1	5	API Rotating Load Capacity [klbs]	800 klbs
1	6	Max. Recommended Table Speed [RPM]	200 rpm
1	7	Drive Motor(s) [Make, Type and Size, Power]	transmission power from drawwork engine
<b>2</b>	<b>Master Bushing</b>		

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2	1	Make and Type	ok.		
2	2	Split Type or Solid Block	split tape		
2	3	Size	for 27" rotary table		
2	4	Insert Bowl Sizes Available for 13-3/8" Casing Slips	Available		
2	5	Insert Bowl Sizes Available for 9-5/8" Casing Slips	Available		
2	6	Insert Bowl Sizes Available for 7" Casing Slips	Available		
2	7	Insert Bowl Sizes Available for 4.1/2" Casing Slips	Available		
2	8	Insert Bowl Sizes Available for 5" Drill Pipe Slips	Available		
2	9	Insert Bowl Sizes Available for 3-1/2" Drill Pipe Slips	Available		
<b>3 Kelly Bushing</b>					
3	1	Make and Type	VARCO type		
3	2	For Kelly Dimensions :	for 5 1/4" and 3 1/2"		
<b>4 Kelly(s)</b>					
4	1	Number	1x 5 1/4" & 3 1/2"		
4	2	Size [OD in x ID in]		x	
4	3	Shape [HEX/SQU]	SQU (FOR 3-1/2" SQUARE)		
4	4	Length [ft]	36 FT (11M)		
4	5	Top Connection	6 5/8" REG LH		
4	6	Bottom Connection	4 1/2" IF		
4	7	Manufacturer	USA		
<b>5 Lower Kelly Valve</b>					
5	1	Number	1		
5	2	Make and Type	PACKARD		
5	3	Dimensions [OD in x ID in]	6 5/8"	x	2 13/16"
5	4	Top Connection	4-1/2" IF		
5	5	Bottom Connection	4-1/2" IF		
5	6	Working Pressure [psi]	10 000 psi		
<b>6 Upper Kelly Valve</b>					
6	1	Number	1		
6	2	Make and Type	PACKARD		
6	3	Dimensions [OD in x ID in]	7 3/4"	x	3 1/16"
6	4	Top Connection	6-5/8" REG LH		
6	5	Bottom Connection	6-5/8" REG LH		

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6	6	Working Pressure [psi]	10 000 psi
<b>7 Kelly Spinner</b>			
7	1	Make and Type	WEATHERFORD - KS1500AB
7	2	Maximum Torque [ft-lbs]	825 ft-lbs
7	3	AIR/HYDR Powered	AIR
<b>8 Rotary Manual Tongs 100,000 ft-lbs</b>			
8	1	TONGS JAWS FOR DRILL PIPE AND DRILL COLLARS	BV 100
8		MAKE	Blohm & Voss
8		JAW SIZES (IN)	4"-17"
8		TYPE	100 000
8	2	TONG COUNTERBALANCE LINES, WEIGHTS ETC	
<b>9 Rotary Manual Tongs 55000 ft-lbs</b>			
9	1	TONGS JAWS FOR DRILL PIPE AND DRILL COLLARS	BV 65
9		MAKE	Blohm & Voss
9		JAW SIZES (IN)	3 1/2" - 13 3/8"
9		TYPE	55 000
9	2	TONG COUNTERBALANCE LINES, WEIGHTS ETC	
<b>1 Rotary Manual Tongs 35000 ft-lbs</b>			
<b>0</b>			
10	1	TONGS JAWS FOR DRILL PIPE AND DRILL COLLARS	WRT-36
10		MAKE	
10		JAW SIZES (IN)	2 3/8"-10 3/4"
10		TYPE	35 000
10	2	TONG COUNTERBALANCE LINES, WEIGHTS ETC	
<b>1 Drillpipe Spinner</b>			
<b>1</b>			
11	1	QUANTITY	Grayspin Mark 10
11	2	MAKE	Blohm + Voss
11	3	TYPE	Pneumatic
11	4	SIZE RANGE (IN)	3 1/2" - 7"
11	5	MAX TORQUE	Average 1920 Nm
<b>1 Slickline / Wireline Unit</b>			
<b>2</b>			



**EXALO**

12	1	Make and Type	MATHEY GSC B2
12	2	Drive Motor(s) [Number, Make and Type]	15 kW
12	3	Depth Capacity [m]	5000 m
12	4	Reel Capacity [m]	5400 m
12	5	New Reel at Contract Startup [YES/NO]	Y