From: Knudsen, Torben
Sent: Wed Jul 21 20:51:30 2010
To: Pere, Allen L; Corser, Kent
Subject: FW: BOP Shear Rams
Importance: Normal
Attachments: 5000sheardata.xls

This is a shear-ability chart from the Horizon

Torben Knudsen, P.E.
BP Drilling Engineer
Wyoming Team
Office: 281-366-6757
Mobile: 281-467-8096
-----Original Message-----
From: Halvorson, Kathleen
Sent: Friday, August 17, 2007 12:59 PM
To: Knudsen, Torben
Subject: Fw: BOP Shear Rams
Info on shearability of various sizes of pipe.
Figu <<.. >> red you'd be interested.
Have a good weekend.
K
-----Original Message-----
From: subsea <subsea@dwh.rig.deepwater.com>
To: Halvorson, Kathleen; DWH OIM <oim@dwh.rig.deepwater.com>; DWH Toolpusher <toolpusher@dwh.rig.deepwater.com>
Sent: Fri Aug 17 14:12:25 2007
Subject: FW: BOP Shear Rams

Kathleen

For now I would say no on us shearing 16" casing, but will wait and see what Cameron comes back with. I am not sure if you have seen this shear data chart or not? hope this helps. Let us know if you need more information.

Mark Hay
Sr. Subsea Supervisor
Deepwater Horizon
Rig - 713-232-8262 Ext. 253
Fax - 713-232-8268
subsea@dwh.rig.deepwater.com < mailto:subsea@dwh.rig.deepwater.com>

-----Original Message-----
From: Coltrin, George [mailto:george.coltrin@bp.com]

Sent: Friday, February 10, 2006 5:42 PM
To: DeepwaF@bp.com; James J Spizale (Spizale, James J); ReedJT@bp.com; Sepulvado, Ronald W (SepulvRW@bp.com); Nunley, Dwight D (Dwight.Nunley@BP.com), subsea
Cc: rig_dwh, toolpusher; rig_dwh, oim
Subject: FW: BOP Shear Rams

Mark: thanks for the info ... looks like the 6-5/8" 40# dp needs to be sheared with the casing shear rams. what about the 6-5/8" 32# dp?

Jim & Teddy: how much awareness of this issue is there among key personnel on the rig?

From: subsea [mailto subsea@dwh.rig.deepwater.com]
Sent: Friday, February 10, 2006 4:27 PM
To: Deepwater Horizon, Formen; Coltrin, George
Subject: FW: BOP Shear Rams

George,

Here is the information that you were asking about

Mark Hay
Subsea Eng.
Deepwater Horizon
Rig - 713-232-8262
Fax - 713-232-8268
subsea@dwh.rig.deepwater.com
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-----Original Message-----
From: Bowles, Tom T [mailto:Thomas.Bowles@bp.com]
Sent: Friday, June 17, 2005 6:10 AM
To: Deepwater Horizon, Formen; Halvorson, Kathleen; Louviere, Robert
Cc: Coltrin, George, Skelton, Jake, Toolpusher@dwh.rig.deepwater.com; OIM@dwh.rig.deepwater.com
Subject: FW: BOP Shear Rams

Bob Louviere, - Thanks for sharing this information from Steve ..... Copy distribution to all involved.... Referenced shear ram capabilities for high strength drill pipe landing strings on future BP wells, Bonsai and Kaskida....
Tom ...

From: Louviere, Robert
Sent: Thursday, June 16, 2005 6:43 PM
To: Coltrin, George; Halvorson, Kathleen; Bowles, Tom T
Cc: Skelton, Jake

Subject: FW: BOP Shear Rams

FYI.

From: Donohue, Steve [mailto:SDonohue@houston.deepwater.com]

Sent: Thursday, June 16, 2005 3:45 PM

To: Louviere, Robert ; Holst, Katy

Cc: Keeton, John

Subject: RE: BOP Shear Rams

Bob.

Can't cut it with the SBR shear rams, but can cut it with the casing shears. See attached chart. Although 50.4 S135, 6 5/8" pipe is not listed, 40.9 is, and this is already out of the pressure range for the SBR's. Note, the Horizon has 4,000 psi available to both the casing shears and SBR's if required.

Regards

Steve

-----Original Message-----

From: Louviere, Robert [mailto:louvr1@bp.com]

Sent: Thursday, June 16, 2005 3:40 PM

To: Holst, Katy

Cc: jkeeton@houston.deepwater.com; sdonohue@houston.deepwater.com

Subject: BOP Shear Rams

Katy,

Basic question has come up regarding BOP shear rams: will the rams shear 6-5/8" 50.4# 0.813 WT S-135 landing string if required for any unforeseen reason? Asked a few folks here at BP, but no one was definite in their response. Please clarify.

Thanks,

Bob Louviere
Sr. Drilling Engineering Consultant
BP GOM Deepwater Exploration
Phone: (281) 366-3980
Cell: (337) 258-5114

Cameron 18-3/4" 15M TL BOP

						Shear Pressure (psi) @ Ambient		Shear Pressure (psi) @ 5000psi Wellbore		Shear Pressure (psi) @ 10,000psi Wellbore	
Size (in)	Weight. (ppf)	Grade	Minimum Yield (psi)	I.D. (in)	Wall (in)	18" Piston with Shear Blind Rams	28" Piston with Casing Shear Rams	18" Piston with Shear Blind Rams	28" Piston with Casing Shear Rams	18" Piston with Shear Blind Rams	28" Piston with Casing Shear Rams
Casing											
13.375	68	L80	80000	12.415	0.480	[illegible]	1735	[illegible]	2095	[illegible]	2295
9.625	47	L80	80000	8.681	0.472	3084	1197	3831	1487	4578	1777
7	29	L80	80000	6.184	0.408	1920	745	2667	1035	3414	1325
Drill String											
3.5	12.95	S135	135000	2.750	0.375	3462	548	2459	838	2909	1128
3.5	13.3	S135	135000	2.764	0.368	3388	539	2385	829	2882	1119
3.5	25.3	HWDP	55000	2.062	0.719	[illegible]	381	[illegible]	671	[illegible]	961
5	19.5	S135	135000	4.276	0.362	2922	785	2769	1075	3546	1365
5	49.3	HWDP	55000	3.000	1.000	[illegible]	262	[illegible]	1052	[illegible]	1342
6.625	40.9	S135	135000	5.345	0.640	4614	1291	[illegible]	2081	[illegible]	2371
6.625	70.5	HWDP	55000	4.500	1.063	[illegible]	1126	[illegible]	1416	[illegible]	1706
Drill Collars											
4.75	50	Drill Collar	110000	2.000	1.375	[illegible]	1768	[illegible]	2958	[illegible]	2348
6.5	91	Drill Collar	110000	2.813	1.844	[illegible]	3271	[illegible]	3561	[illegible]	3850
8	150	Drill Collar	100000	2.813	2.594	[illegible]	4897	[illegible]	5187	[illegible]	5477
9.5	216	Drill Collar	100000	3.000	3.250	[illegible]	7036	[illegible]	7326	[illegible]	7615

Note:1: Shear pressures in GREEN are within 5000psi operating system limitation and the geometry of the ram.

Note 2: Shear pressures in RED are outside the operating system capacity and/or the geometry of the ram.

Note 3: All shear pressures listed are calculated values. Actual shear pressures may differ due to varations in tubular mechanical properties, age or condition of tubular, and condition of ram blades.

Note 4: Calculated pressures in excess of 2700 psi should be verified by an actual shear test.

Above information is relative to Transocean's Deepwater Horizon MODU..htb 6/17/2005