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LAMPIRAN

Lampiran 1. Tabel Perhitungan Kekuatan Batas Kapal FPSO Menggunakan Metode NLFEA Kondisi *Sagging* dan *Hogging* Model 1.

Sagging				Hogging			
Moment	Rotation	Curvature		Moment	Rotation	Curvature	
-1.82E+12	-9.00E-05	-2.87E-08	-2.87E-02	2.58E+11	1.28E-05	4.07E-09	4.07E-03
-3.64E+12	-1.80E-04	-5.73E-08	-5.73E-02	8.58E+11	4.26E-05	1.36E-08	1.36E-02
-6.09E+12	-3.01E-04	-9.60E-08	-9.60E-02	1.12E+12	5.56E-05	1.77E-08	1.77E-02
-8.06E+12	-3.99E-04	-1.27E-07	-1.27E-01	1.40E+12	6.95E-05	2.21E-08	2.21E-02
-9.93E+12	-4.92E-04	-1.57E-07	-1.57E-01	2.23E+12	1.11E-04	3.55E-08	3.55E-02
-1.16E+13	-5.90E-04	-1.88E-07	-1.88E-01	2.25E+12	1.12E-04	3.56E-08	3.56E-02
-1.21E+13	-6.49E-04	-2.07E-07	-2.07E-01	3.48E+12	1.72E-04	5.49E-08	5.49E-02
-1.25E+13	-7.25E-04	-2.31E-07	-2.31E-01	4.84E+12	2.39E-04	7.62E-08	7.62E-02
-1.25E+13	-7.39E-04	-2.35E-07	-2.35E-01	6.07E+12	3.00E-04	9.56E-08	9.56E-02
-1.26E+13	-7.48E-04	-2.38E-07	-2.38E-01	7.30E+12	3.61E-04	1.15E-07	1.15E-01
-1.26E+13	-7.57E-04	-2.41E-07	-2.41E-01	8.50E+12	4.20E-04	1.34E-07	1.34E-01
-1.26E+13	-7.57E-04	-2.41E-07	-2.41E-01	9.66E+12	4.78E-04	1.52E-07	1.52E-01
-1.25E+13	-7.55E-04	-2.41E-07	-2.41E-01	1.07E+13	5.35E-04	1.70E-07	1.70E-01
-1.25E+13	-7.55E-04	-2.41E-07	-2.41E-01	1.17E+13	5.94E-04	1.89E-07	1.89E-01
-1.25E+13	-7.57E-04	-2.41E-07	-2.41E-01	1.21E+13	6.51E-04	2.07E-07	2.07E-01
-1.23E+13	-7.47E-04	-2.38E-07	-2.38E-01	1.23E+13	6.98E-04	2.22E-07	2.22E-01
-1.19E+13	-7.28E-04	-2.32E-07	-2.32E-01	1.24E+13	7.04E-04	2.24E-07	2.24E-01
				1.24E+13	7.06E-04	2.25E-07	2.25E-01
				1.24E+13	7.07E-04	2.25E-07	2.25E-01
				1.24E+13	7.11E-04	2.27E-07	2.27E-01
				1.25E+13	7.23E-04	2.30E-07	2.30E-01
				1.26E+13	7.45E-04	2.37E-07	2.37E-01
				1.26E+13	7.53E-04	2.40E-07	2.40E-01
				1.26E+13	7.53E-04	2.40E-07	2.40E-01
				1.26E+13	7.53E-04	2.40E-07	2.40E-01
				1.26E+13	7.53E-04	2.40E-07	2.40E-01
				1.26E+13	7.54E-04	2.40E-07	2.40E-01
				1.26E+13	7.54E-04	2.40E-07	2.40E-01
				1.26E+13	7.56E-04	2.41E-07	2.41E-01



Lampiran 2. Tabel Perhitungan Kekuatan Batas Kapal FPSO Menggunakan Metode NLFEA Kondisi *Sagging* dan *Hogging* Model 2.

Sagging				Hogging			
Moment	Rotation	Curvature		Moment	Rotation	Curvature	
-1.11E+12	-8.85E-05	-2.82E-08	-2.82E-02	2.22E+12	1.77E-04	5.64E-08	5.64E-02
-2.22E+12	-1.77E-04	-5.64E-08	-5.64E-02	4.44E+12	3.54E-04	1.13E-07	1.13E-01
-3.33E+12	-2.65E-04	-8.45E-08	-8.45E-02	6.67E+12	5.31E-04	1.69E-07	1.69E-01
-4.43E+12	-3.53E-04	-1.13E-07	-1.13E-01	8.89E+12	7.08E-04	2.26E-07	2.26E-01
-5.52E+12	-4.40E-04	-1.40E-07	-1.40E-01	1.03E+13	8.22E-04	2.62E-07	2.62E-01
-6.46E+12	-5.33E-04	-1.70E-07	-1.70E-01	1.08E+13	8.64E-04	2.75E-07	2.75E-01
-7.15E+12	-6.39E-04	-2.04E-07	-2.04E-01	1.17E+13	9.38E-04	2.99E-07	2.99E-01
-7.62E+12	-7.54E-04	-2.40E-07	-2.40E-01	1.20E+13	9.76E-04	3.11E-07	3.11E-01
-7.79E+12	-8.01E-04	-2.55E-07	-2.55E-01	1.22E+13	1.00E-03	3.19E-07	3.19E-01
-8.16E+12	-9.35E-04	-2.98E-07	-2.98E-01	1.24E+13	1.04E-03	3.32E-07	3.32E-01
-8.15E+12	-9.40E-04	-2.99E-07	-2.99E-01	1.25E+13	1.07E-03	3.40E-07	3.40E-01
-8.13E+12	-9.40E-04	-2.99E-07	-2.99E-01	1.26E+13	1.08E-03	3.43E-07	3.43E-01
-8.11E+12	-9.41E-04	-3.00E-07	-3.00E-01	1.26E+13	1.08E-03	3.46E-07	3.46E-01
-8.12E+12	-9.49E-04	-3.02E-07	-3.02E-01	1.26E+13	1.08E-03	3.45E-07	3.45E-01
-8.12E+12	-9.49E-04	-3.02E-07	-3.02E-01	1.25E+13	1.08E-03	3.44E-07	3.44E-01
-8.12E+12	-9.50E-04	-3.02E-07	-3.02E-01	1.24E+13	1.08E-03	3.42E-07	3.42E-01
-8.12E+12	-9.50E-04	-3.02E-07	-3.02E-01	1.24E+13	1.07E-03	3.41E-07	3.41E-01
-8.12E+12	-9.50E-04	-3.03E-07	-3.03E-01	1.23E+13	1.07E-03	3.40E-07	3.40E-01
-8.12E+12	-9.50E-04	-3.03E-07	-3.03E-01	1.22E+13	1.06E-03	3.38E-07	3.38E-01
-8.12E+12	-9.51E-04	-3.03E-07	-3.03E-01	1.21E+13	1.06E-03	3.37E-07	3.37E-01
-8.11E+12	-9.51E-04	-3.03E-07	-3.03E-01	1.21E+13	1.05E-03	3.36E-07	3.36E-01
-8.11E+12	-9.51E-04	-3.03E-07	-3.03E-01	1.20E+13	1.05E-03	3.34E-07	3.34E-01
-8.10E+12	-9.51E-04	-3.03E-07	-3.03E-01	1.19E+13	1.05E-03	3.33E-07	3.33E-01
-8.10E+12	-9.51E-04	-3.03E-07	-3.03E-01	1.19E+13	1.05E-03	3.33E-07	3.33E-01
-8.10E+12	-9.54E-04	-3.04E-07	-3.04E-01	1.24E+13	1.09E-03	3.46E-07	3.46E-01
-8.11E+12	-9.56E-04	-3.05E-07	-3.05E-01	1.27E+13	1.11E-03	3.53E-07	3.53E-01
-8.12E+12	-9.60E-04	-3.06E-07	-3.06E-01	1.26E+13	1.11E-03	3.52E-07	3.52E-01
-8.14E+12	-9.66E-04	-3.08E-07	-3.08E-01	1.26E+13	1.10E-03	3.51E-07	3.51E-01
-8.16E+12	-9.72E-04	-3.10E-07	-3.10E-01	1.26E+13	1.10E-03	3.51E-07	3.51E-01
-8.19E+12	-9.81E-04	-3.12E-07	-3.12E-01	1.25E+13	1.10E-03	3.51E-07	3.51E-01
	04	-3.17E-07	-3.17E-01	1.25E+13	1.10E-03	3.51E-07	3.51E-01
	03	-3.22E-07	-3.22E-01	1.25E+13	1.10E-03	3.51E-07	3.51E-01
	03	-3.26E-07	-3.26E-01	1.25E+13	1.10E-03	3.51E-07	3.51E-01
	03	-3.27E-07	-3.27E-01	1.25E+13	1.10E-03	3.51E-07	3.51E-01
	03	-3.31E-07	-3.31E-01	1.25E+13	1.10E-03	3.51E-07	3.51E-01
Optimized using	03	-3.32E-07	-3.32E-01	1.25E+13	1.10E-03	3.50E-07	3.50E-01



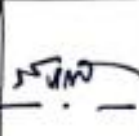
-8.20E+12	-1.03E-03	-3.29E-07	-3.29E-01	1.25E+13	1.10E-03	3.50E-07	3.50E-01
-8.00E+12	-1.02E-03	-3.23E-07	-3.23E-01	1.25E+13	1.10E-03	3.50E-07	3.50E-01
-7.90E+12	-1.01E-03	-3.22E-07	-3.22E-01	1.25E+13	1.10E-03	3.50E-07	3.50E-01
				1.25E+13	1.10E-03	3.50E-07	3.50E-01
				1.25E+13	1.10E-03	3.50E-07	3.50E-01
				1.25E+13	1.10E-03	3.51E-07	3.51E-01



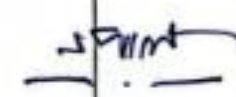
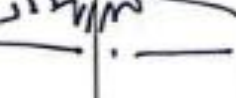
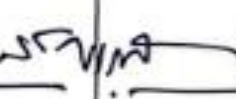
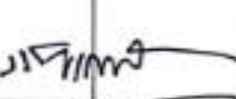
Lampiran 3. Bukti Kartu Asistensi Skripsi

LEMBAR ASISTENSI SKRIPSI

Nama : Samsuarni Dewi Utami
 NIM : D081201004
 Judul Skripsi : Pengaruh Bukaam Geladak Pada FPSO Terhadap Kekuatan Membujur Kapal
 Peminatan : OSAREL (Ocean Structure Analysis Research Laboratory)
 Pembimbing : Prof. Muhammad Zubair Muis Alie, M.T

NO.	Hari/Tanggal/ Bulan/Tahun	Deskripsi	Paraf Mahasiswa	Paraf Pembimbing
1.	Rabu/6/1/ 2024.	1. Membeni tebal plat 2. Mengecek ulang model pada acba.		
2.	Jumat/ 15/1/2024	1. Model tidak bisa terghue 2. Setelah dicek, model yang dibuat di ansys memerlukan banyak pertimbangan untuk digunakan. Asistensi proposal		
3.	7/1/2024			
4.	18/3/2024	- Membuat editor Giga di Ansys. - Membuat model di ansys. - Menyelesaikan Seluruh model di ansys. Olakan		



5.	26/2/24	- Menghitung Ketebalan Beam 20mm - menghitung tebal Plat bar 10 mm.	
		- Menghitung tebal selam bahan dalam longiride. - Mesh 400 - Mesh 200	
6.	mont 29-1 April 2024	- Pelebaran mpe - Titik pembebaran. - coba running.	
7.	21/4/2024	- Running mesh. 80, sub 500, - max 1000, min 10, 0.001.	
8.	22/4/2024	- Running mesh. 500, 600, 1000, 10, 0.001. - Running mesh. 800, 700, 1000, 10, 0.001.	
9.	23/4/2024	- Running mesh 300. 400, 1000, 10, 0.001 - Running mesh 400 600, 710, 310, 0.01.	



10.	24/04/2024	Mach. 440, N.S. 570, 700, 470, 0.01 Mach. 570, N.S. 371, 415, 370, 0.002.	570/11/17
11.	25/04/2024	- Mach. 395, N.S. 775, 395, 740, 0.01. - Mach. 515, N.S. 510, 625, 455, 0.001	515/11/17
12.	26/04/2024	- Mach. 510, N.S. 645, 800, 450, 0.001 - 515, N.S. 330, 950, 345, 0.001	515/11/17
13.	27/04/2024	- 515, N.S. 635, 800, 450, 0.001. - 515, N.S. 630, 800, 450, 0.001.	515/11/17
14.	28/04/2024	- 515, N.S. 605, 800, 450, 0.001. - 515, 610, 300, 450, 0.001. (gaseous) - 515, 590, 300, 450, 0.001. (gaseous).	515/11/17
15.	29/04/2024	- 515, 600, 300, 450, 0.001 - 515, 550, 300, 400, 0.001	515/11/17



16.	30/4/2014	- 520, 605, 800, 450, 0,01. - 535, 605, 800, 450, 0,01 - 515, 625, 800, 450, 0,001 - 515, 680, 800, 450, 0,001	} 119/11/12	
17.	1/5/24	- 515, 590, 800, 450, 0,001. - Mesh 520, ns. 610, 800, 420, 0,001. (linear). - M. 520, ns. 625, 800, 450, 0,01. - Pn. 520. ns. 600, 875, 520, 0,01. (converged). - Pn. 520, ns. 595, 800, 450, 0,01. - m. 520, ns. 600, 800, 450, 0,01.	} 119/11/12	
18.	2/5/24.	- m. 520, ns. 601, 1000, 10, 0,01. - m. 520, ns. 601, 800, 500, 0,01. - m. 540, ns. 605, 800, 450, 0,01.	} 119/11/12	



19.	3/5/2014.	- M. 520, NS. 595, 1000, 10, 0.01. - M. 540, NS. 615, 1000, 10, 0.001. - M. 540, NS. 635, 900, 300, 0.001. - M. 185, NS. 35, 1000, 10, 0.001.	} $\frac{5}{11} \frac{1}{11} \frac{1}{11}$	
20.	4/9/2014.	- M. 515, NS. 600, 1000, 10, 0.01. <u>Woke 1</u> - M. 300, NS. 100, 100, 10, 0.001. - M. 300, NS. 100, 100, 10, 0.001. - M. 300, NS. 90, 100, 5, 0.001. - M. 300, NS. 85, 100, 5, 0.01.	} $\frac{5}{11} \frac{1}{11} \frac{1}{11}$	
21.	6/5/2014.	- M. 300, NS. 80, 100, 5, 0.001. - M. 300, NS. 95, 100, 10, 0.001. - M. 300, NS. 110, 100, 10, 0.001. - M. 300, NS. 115, 2000, 5, 0.001. - M. 300, NS. 135, 2100, 5, 0.001.	} $\frac{5}{11} \frac{1}{11} \frac{1}{11}$	



29.	29/5/2024	Asistensi draft seminar hari.	} 55 menit
30.	30/5/2024	Asistensi draft Seminar hari dan persiapan ppt	} 55 menit
31.	31/5/2024	Presenter seminar hari (latihan).	} 55 menit
32.	5/6/2024	- Revisi awal draft skripsi (latihan).	} 55 menit
33.	13/6/2024	- Revisi draft skripsi.	} 55 menit

