Evaluasi kondisi lingkungan dan olah gerak kapal terhadap kerusakan fender pada Pelabuhan Merak

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Abstrak

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Pelabuhan Merak terletak pada Selat Sunda yang memisahkan Samudra Hindia dan Laut Jawa. Kondisi ini membuat arus laut pada Selat Sunda tinggi dengan kecepatan arus 2,4 knot yang dapat membuat kapal sulit bersandar dan membahayakan struktur dermaga salah satunya fender. Maksud dari tugas akhir ini adalah menghitung gaya fender akibat arus sehingga mendapatkan spesifikasi fender yang sesuai serta memberikan solusi olah gerak kapal agar waktu pelayanan kapal satu jam pada Pelabuhan Merak terpenuhi.
Tugas akhir ini dilakukan dengan pengambilan data primer dan data sek:under. Data primer didapat dengan cara observasi lapangan seperti berlayar dari Pelabuhan Merak menuju Pelabuhan Bakauheni dan sebaliknya untuk melakukan pengamatan di anjungan kapal untuk mengetahui data Global Positioning System (GPS), kondisi kapal berlayar, dan kondisi kapal sandar dan tolak menuju dan dari pelabuhan, melakukan pengukuran dermaga, dan melakukan wawancara. Sedangkan data sekunder yang didapat yaitu data arus serta pasang surut suralaya, data fasilitas pelabuhan dan data kapal. Data primer dan sekunder ini kemudian diolah yang hasil perhitungannya digunakan untuk dibandingkan dengan kondisi yang ada pada
Pelabuhan Merak saat ini.;
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ABSTRACT
Port of Merak is located in Sunda Strait that separate Indian Ocean and Java Sea. These condition make sea current in Sunda Strait becomes high with maximmn speed 2,4 knots which can make ship difficult and dangerous to pier structure especially fender. The purpose of this final project is to calculate force due to current to get appropriate specification of fenders and provide solution of ship maneuvering to get one hour services at port of merak fulfilled.
The final project is accomplished by taking primary and secondary data. Primary data was obtained by field observation as sailing from Port of Merak to Port of Bakauheni and vice versa to do observation in the Bridge of Ship to collect data from Global Positioning System (GPS), condition of the ship sailed, and the condition of the ship approach and departure to and from the port, taking measurement in dock and conduct interviews. While secondary data was obtained are sea current data, tidal of Suralaya, port facilities and ship data. The primary and secondary data will be processed that the result of calculation is used to be compared with the condition that existed in Port of Merak today., Port of Merak is located in Sunda Strait that separate Indian Ocean and Java Sea. These condition make sea current in Sunda Strait becomes high with maximmn speed 2,4 knots which can make ship difficult and dangerous to pier structure especially fender. The purpose of this final project is to calculate force due to current to get appropriate specification of fenders and provide solution of ship maneuvering to get one hour services at port of merak fulfilled.
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