



Deehun Marine Surveyors Co., Ltd.

上海谋林海事技术有限公司

Independent Surveyors

Rm 302 of 14 Bdg

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M.V. “ APL SINGAPORE ”

Voyage No. 215E

LASHING SURVEY REPORT

Report No. (18)0402SA

BILL OF LADING NO. APLU104309888

ETD April 2 SHANGHAI to OAKLAND ETA April 18

DEEHUN MARINE SURVEYORS CO., LTD.



Survey Place / Date: B3, Waigaoqiao 2, Shanghai April 02, 2018

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CARGO LOADING AND SECURING REPORT

We, as the independent marine surveyor, acting on behalf of the cargo shipper: Sea-Air Logistics (Shanghai) Ltd., carry out a survey at berth no.3, Waigaoqiao Zhendong International Container Terminal, Port of Shanghai, P. R. China, for the purpose of executing a monitoring loading and securing operation including lashing plan on the subject vessel, and we confirmed as follows:

1.0 CARGO UNDER SURVEY:

Bill of lading no: APLU104309888,
Cargo description: 1 boarding float,
Dimension: 27.12 x 6.72 x 2.69 meters @ 90.000 tons as declared,
Departure/Destination: Shanghai to Oakland,
Location onboard: 1 bed of 12 x 40' flat racks under deck at bay no. 58:
TRLU6004335 at bay 581216, TRLU6027475 at bay 581016,
TEXU8954895 at bay 580816, AMFU4251461 at bay 580616,
TLLU1471721 at bay 580416, TLLU1471716 at bay 580216,
TRIU0809934 at bay 580116, TRIU0800454 at bay 580316,
TCLU6058034 at bay 590516, TLLU1462519 at bay 580716,
TCLU6048191 at bay 580916, TCLU6077100 at bay 581116.
Operation facility: floating crane "XIANG YANG No. 8" at 1030-1235 hours on April 02, 2018.
Carrying Vessel: "APL SINGAPORE"/215E, IMO: 9074547, LOA=277 meters.

2.0 CARGO CONDITION:

A. Packing condition:

The cargo was transported to the terminal by shipper's barge and it was in nude condition. There were 4 lifting ears (size: Φ 55mm δ 65mm) on deck. There were some steel posts with rubber fenders on both gunwales. There were 4 long pipes mounted on 5 steel cradles and clamped on to the cradles with angle steels/rods and bolts, which were padded with rubber sheets between pipes and cradles. The cradles with the pipes were secured to the boarding float with wires and turnbuckles athwartship. As inspection, the surveyor noted that 4 pipes were partly welded to the cradles' top angle steel and the cradles were welded to boarding float deck firmly, as requested, 4 pipes were each welded to the deck with L type angle steel 100x50mm at one end and each pipe was secured with lashing strap @ MSL10mt to the deck ring another end in longitudinal vertical fore and aft of the float. There were 2 dog houses on middle deck and secured





with straps and iron wires properly. The boarding float with the pipes and cradles were in newly painting condition.

B. Surface condition by visual inspection:

No obvious physical damage noted on the surface, the cargo was in intact condition except somewhere/paint coating were burnout for welding/securing purpose.

3.0 SECURING OF CARGO:

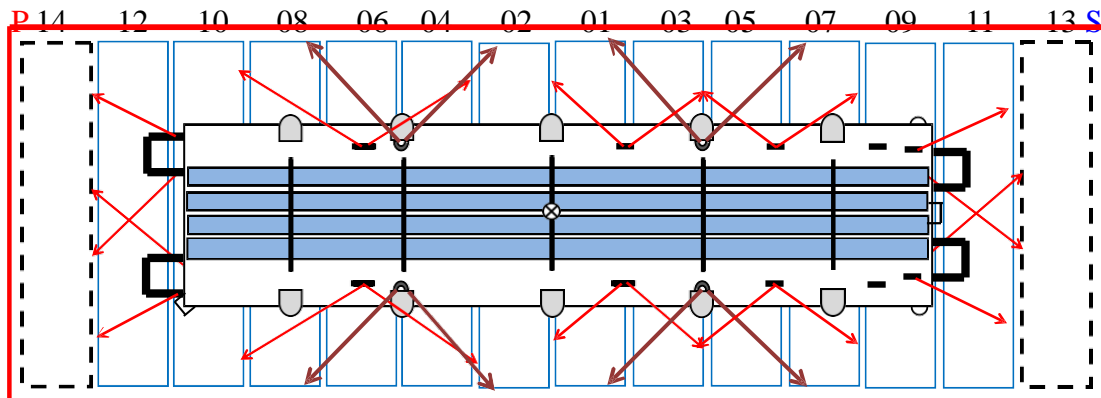
The cargo was stowed across the vessel on board at bay 58 under deck and padded with rubber sheets on the steel contact surface of the flat racks. The boarding float was secured with 8 pieces of lashing chains ($\Phi 13\text{mm}$) on 4 lifting points in “^” way, 20 pieces of lashing straps (MSL5MT) secured on deck cleats in “^” way. All lashing materials were padded with cloth/corner protection at contact surface where necessary.

4.0 CONCLUSION:

Cargo weight as cargo owner’s declaration, content/quality was unknown.

All lashing materials were certified, and securing manner was considered proper/firm and suited to the cargo in good seamanship, and strong enough as per calculation program according to CSM requirements of “IMO 2003 edition, annex 13” and to withstand normal possible perils at sea for the present voyage to the discharging port.

5.0 The cargo was loaded by floating crane at sea side on 1 bed of 12 x 40’ flat racks under deck at bay 58 as per ship’s stowage plan. **The loading operation was commenced at 1030 hours LT and completed at 1235 hours LT on April 02, 2018**, securing operation was finished at 1320 hours LT on April 02, 2018. The lashing operation was monitored by shipper’s surveyor, carrier’s surveyor and duty officer, also inspected and approved by the Chief Officer of the said vessel (BB cargo documents were signed at 1355 hours). Refer to following draft for cargo stowage and lashing condition under deck at bay 58:





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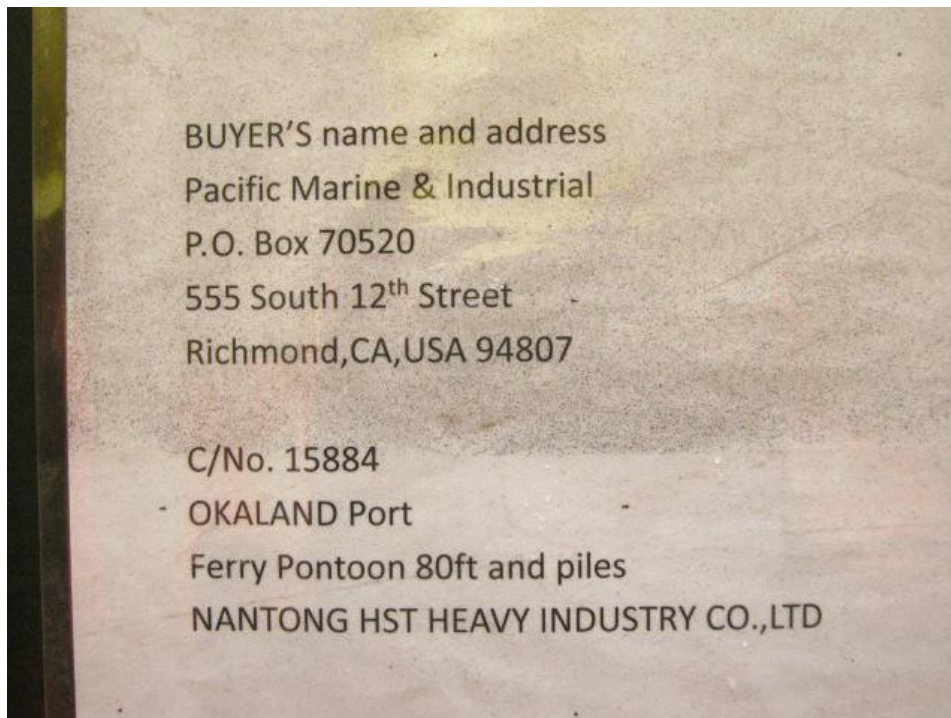
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General view of cargo in factory



Cargo markings





Lifting rings on deck



Mooring cleat on deck





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Zinc pieces on the hull



Steel cradles for pipes' placed





Cradles were secured and welded on deck



Pipes were welded on to the cradle's top angle steel





Pipe's one end was welded on to the deck with L type angle steel



Pipe's another end was secured onto the deck ring





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12 x 40' FR at bay 58



Lashing materials





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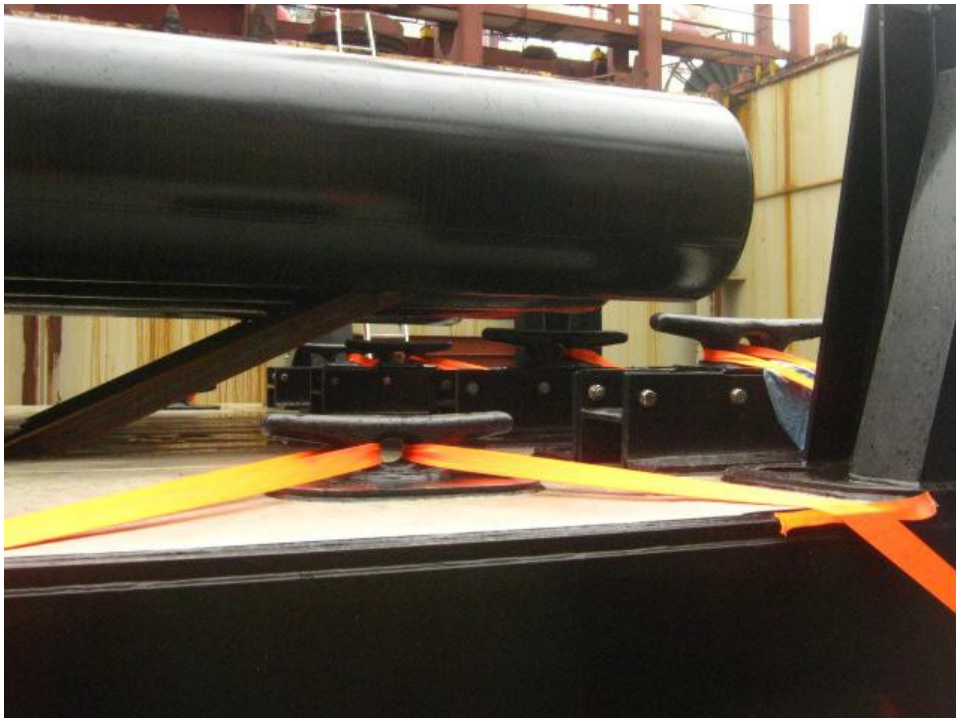
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Lashing materials



Lashing on the cleats





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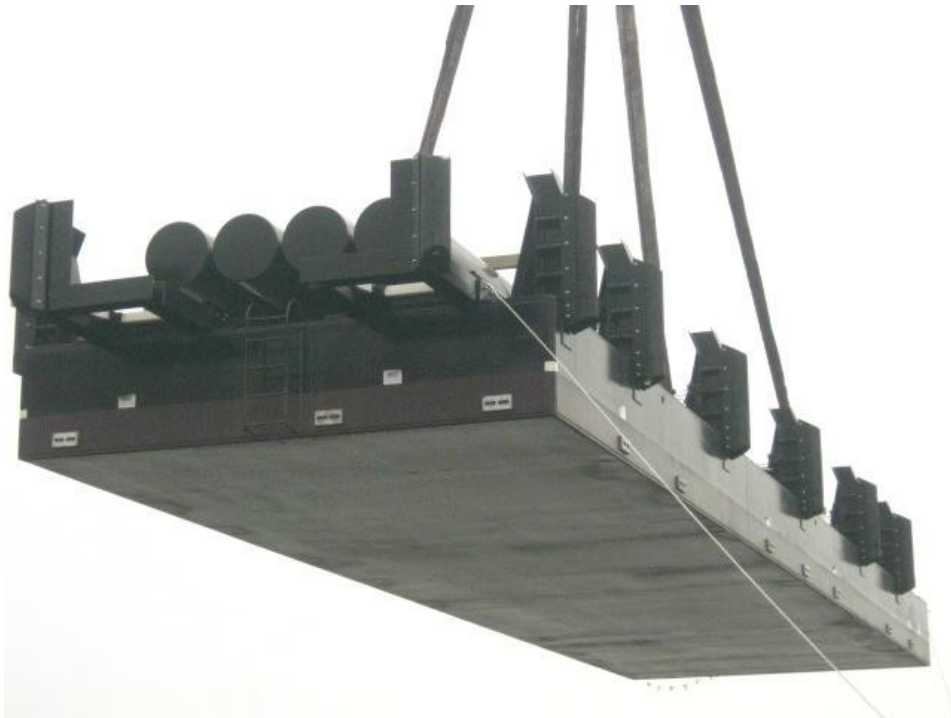
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Loading operation





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Cargo was properly stowed under deck at bay 58



Padding for the lashing where necessary





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Cargo was properly stowed and secured under deck at bay 58





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Cargo was properly stowed and secured under deck at bay 58



Capt. Xu Gen Long 徐根龙 船长
Deehun Marine Surveyors Co., Ltd.
上海谋林海事技术有限公司
April 02, 2018 Shanghai

Deehun Marine Surveyors Co., Ltd.
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Received by Chief Officer:

CHRIS CRUZ
(with ship's stamp)





ATTACHMENT FOR LASHING CALCULATION:

	Code of Safe Practice for Cargo Stowage and Securing 2003 Edition, Annex 13	LASHCON IMO Version 9.10.0 Oct 2004	Sign: Capt. Xu Gen Long Time: 7:23 Date: 18.04.02									
Input of cargo unit data		Give cargo unit stowage position										
Cargo unit specification: Mass of cargo unit: Coefficient of friction:	Boarding Float m 90.00 ton μ 0.30 (-)	Vertical: Tween-deck Longitudinal: 0.9 L	Calculation method: <input checked="" type="radio"/> Alternative calculation <i>Recommended</i> <input type="radio"/> Advanced calculation									
Wind exposed area: Sea exposed area: Lever arm of tipping: Lever arm of stability:	AW As a 1.13 m b 12.20 m											
Input of lashing data												
Max securing load [kN]:	MSL	1 98	2 98	3 98	4 98	5 49	6 49	7 49	8 49	9	10	
Transverse lashing direction		SB - PS	SB - PS	SB - PS	SB - PS	SB - PS	SB - PS	SB - PS	SB - PS	SB - PS	SB - PS	
Longitudinal lashing direction		Fwd - Aft	Aft - Fwd	Fwd - Aft	Fwd - Aft	Fwd - Aft	Fwd - Aft	Fwd - Aft	Fwd - Aft	Fwd - Aft	Fwd - Aft	
Vertical securing angle [degr]:	α	40	40	40	40	45	45	45	45			
Horizontal securing angle [degr]:	β	30	30	30	30	30	30	30	30			
Horizontal securing distance:	d [m]	24.0	24.0	24.0	24.0	20.0	16.0	16.0	16.0			
RESULTS:												
Actual forces	Securing capacity [kN / kNm]				Accelerations							
Transverse sliding force [kN]:	420.5	Transv. capacity:		PS [kN] 449 OK	SB [kN] 449 OK		Transverse: a _x = 4.67 m/s ²					
Longitudinal sliding force [kN]:	114.0	Long. capacity:		Fwd [kN] 232 OK	Aft [kN] 232 OK		Vertical: a _y = 5.83 m/s ²					
Cargo tipping moment [kNm]	475.1	Tipping capacity:		PS [kNm] 13843 OK	SB [kNm] 13744 OK		Longitudinal: a _z = 1.27 m/s ²					
Main Vessel Data:												
Vessel Name:	Ship Id:	Lpp [m]:	B [m]:	V [kn]:	GM [m]:							
APL SINGAPORE/215E	9074547	263.00	40.00	20.00	5.00							
Suppose ship's speed/20kts, GM/5m, Stowage location at bow, under deck high ship's stowage condition would be much better than calculation												
 Received by Chief Officer (with ship's stamp)												
<i>Actual lashing force more than above calculation.</i> Attending Surveyor: Capt. Xu Gen Long MP: 0086-13916107909 Deehun Marine Surveyors Co., Ltd. dms-marine@163.com 												

