

National Cargo Bureau, Inc.

Office of the Surveyor – Newark, NJ

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“A” Frame Unit and Deck Crane Proof Test Report

Report № 106CG36660

15 April 2014

M.V. Richard L. Becker (USA)

REQUESTED BY:

Offshore Marine Towing Inc.
601 NE 28th Court
Pompano Beach, FL 33064
Attn: Kevin Collins

This is to certify that the undersigned surveyor of National Cargo Bureau, Inc. did, at the request of the above, on 15 April 2014, attend on board the Richard Becker, while she lay afloat at 101 North Beach Road, Dania Beach, Florida, for the purpose of witnessing the testing of the vessel’s “A” frame stern derrick and the associated winch, plus the vessels deck crane and associated gear, and has the following to report:

IN ATTENDANCE

Adrian Barker
Kevin Collins
Keith Macklin
Thomas Sheridan

Master- Richard Becker
Offshore Marine Towing, Inc.
Chief Warrant Officer Inspections – U.S.C.G.
Surveyor of National Cargo Bureau, Inc.

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VESSEL'S PARTICULARS

Name:	M.V. Richard L. Becker
Nationality:	USA
Official Number:	577699
Call Sign:	WCY8957
Type Vessel:	Offshore Supply Vessel T Boat Designation COI Certification – ABS Load Line Certified
L.O.A.:	96 feet
Beam:	24 ft.
Draft:	8'-4".
Built:	1976 by Grand Bayou, La Batre, LA
Re-Fit Dates:	1999 & 2003
Service Speed:	10 Knots
Range:	4675 Nautical Miles
Propulsion:	Twin 12V71N Detroit Diesels

"A" FRAME ON THE STERN

The mentioned A-Frame on the stern of the vessel is actually a square shaped box frame supported by hydraulics, hinged on the deck with a turning block amidships at the top of the frame. The associated winch attached to this frame is a 5-lantec model 3523-hsr-sv-xpb hydraulic winch with high speed reverse rotoversals, with ratchet and pawl. The drum has a 24" barrel, 40" flange and a spool of recently replaced 20 mm wire rope. The wire rope was manufactured by "Redaelli Tecna" under inspection certificate #4136752/13-010 has a minimum breaking force of 392kn.

We calculated the Safe Working Load of the wire rope to be 17630 lbs. based on 88150 lbs breaking strength with a safety factor reduction factor of 5. The wire rope is determined to be the weakest link in the SWL of this assembly.

A-FRAME WEIGHT TEST

The "A" Frame arrangement on the M.V. Richard Becker consists of a single wire rope from the above named deck winch led through a turning block at the center of the top cross beam of the A-frame. The turning block is marked with the safe working load of 25 long tons. Certified weights of 10340 lbs, 10220 lbs, 1180 lbs and 325 lbs, were stacked and fixed to the wire fall with nylon slings and lifted with the winch over the deck. The A-Frame was then rotated over the stern of the vessel to its maximum angle aft. The total of 22065 pounds was then held in furthest aft position of the A-Frame for a period of 5 minutes, and held the weight successfully. The test was completed without visible deformation or damage to the A-Frame structure or the associated hydraulic system.

DECK CRANE

The M.V. Richard Becker is also fitted with a telescoping hydraulic deck crane mounted on the port side of the aft working deck. The crane is fitted with a winch mounted on the leg of the lower portion of the crane and led to a single hook. The recently replaced wire rope on the winch has a breaking strength of 45400 pounds which equates to a SWL of 9080 pounds. The load chart for this crane has a minimum close range radius of 5' and a maximum radius of 41 feet.

DECK CRANE WEIGHT TEST

We tested the crane at its close range limit, plus 25%, and at its maximum radius limit plus 25%. The initial lift consisted of a known weight lifted off the deck at 11520 pounds. This weight was successfully lifted at 5' radius and rotated fully. The weight was then reduced to 5620 pounds, and the boom was extended to full radius of 41 feet. The crane successfully lifted the weights for each pick and held the weight for 5 minutes. Upon completion of the weight test, the boom and associated gear was examined to be found without visible deformation or damage to the crane.

REMARKS

The A-Frame on the stern of the M.V. Richard Becker was proof tested with 22065 pounds without incident. The deck crane was proof tested at close radius of 5' with 11520 pounds without incident. The deck crane was also tested at maximum radius of 41' with a proof load of 5620 pounds. These rated Safe Working Loads and the 25% greater proof load tests are reflected on the attached Certificate of Test.

This report is issued without prejudice and is for the benefit of whom it may concern.

NATIONAL CARGO BUREAU, INC.

Thomas M. Sheridan
Thomas M. Sheridan
Deputy Chief Surveyor

Attachments: Certificate of Test