

REPORT OF SURVEY

File No. 08106

This report is issued in accordance with the terms and conditions printed on the reverse side of the last page (or) attached as enclosure #1 (electronic reports)

This is to certify that the undersigned Marine Surveyor did on August 4, 2008, acting at the request of Mr. Ronald Greger, and for the account of Whom Concerned, attend on board the vessel "NOELANI", while at Big Break, California, for the purpose of performing a Towing Winch Certification Survey.

WINCH DESCRIPTION

The subject towing winch is an Almon-Johnson Ltd., Series 224 Towing Machine. The winch was purchased from Everett Engineering (Everett Engineering, Inc., 1420 West Marine View Drive, Everett, Washington 98201- (425) 259-3117). The original stock winch was equipped with a drum, pawl, level wind, planetary drive gears with a band brake clutch and an 18" warping head off the starboard side. Everett Engineering customized the stock winch as with the following features:

- Moved level wind drive to outside to allow addition of new band brake.
- Installed new 6" wide stainless steel band brake for holding.
- Modified level wind for "Canadian Link" to allow winding of chain surge gear onto drum.
- Replaced original clutch brake band with stainless steel band.
- Inspected gears and repaired where necessary.
- Welded on a flange to the drum to increase wire capacity to 3200' x 2" wire rope.
- Installed pennant drum, which can carry an additional 1100' x 2" wire rope for an under rider.
- Installed disc brake on the pennant drum with 22000 lb. holding power.



- Installed a Hydrostar MR-375, low speed, high torque, radial piston hydraulic motor rated at 13,740 ft-lbs of torque / 165 HP continuous output.
- Line pull of the main drum is reportedly 166,000 Lbs. Brake holding power is estimated at 300,000 Lbs.
- Blasted and recoated the entire winch assembly.



CONDITION AT TIME OF INSPECTION

We made the following observations regarding the condition of the subject towing winch:

Winch was found bolted to heavily built girders welded to the deck of the towing vessel.

The winch was equipped with a heavily built rope guide constructed of 8" pipe. The guide was welded to the deck of the towing vessel and braced with diagonal shoring of the same size pipe.

The entire winch assembly was noted to be in almost new condition. Coatings were in excellent condition with no corrosion present (except for on uncoated working parts of the winch).

The main drum was equipped with 2600' of wire rope said to be 6x26 IWRC XIPS, with a spelter set D-socket. The pennant drum was equipped with 600' of wire rope said to be 6x26 IWRC XIPS, with a spelter set D-socket on each end.



The hydraulic power is supplied by a Detroit Diesel 6-71N diesel engine located in the vessel's engine room. The Vickers vane pump hydraulic pump was found driven off of the front of the engine, which also was used to drive a fire pump (see Recommendations).

A secondary vane pump was plumbed in and was intended to be driven by an 208 VAC electric motor. However, the motor had been removed (see Recommendations).

Vessel owner plans on having two additional variable displacement hydraulic pumps capable of operating the towing winch run off of each of the vessel's gensets. One pump is in place but is not yet plumbed.



Winch controls were located at an enclosed control house at the aft end of the second deck, to starboard. The control room was equipped with the winch hydraulic controls (low voltage controls to electric pilot valve) and controls for the Detroit Diesel 6-71N auxiliary engine, disc brake control and dog pawl, as well as main engine controls, steering and necessary navigation equipment. The clutch band brake and winch band brake controls, which were stainless steel wheels connected to rods on the winch brakes, were located immediately adjacent to the control house.

The winch drum has an alarm, which rings in the pilot house if the drum begins to pay out while towing.

During usage the winch can be set dogged on the pawl, set on the band brake only (for bar crossings), on the disc brake only or with both the band brake and disc brake set (this would be the normal setting for at sea towing in average weather conditions).

While present during the inspection the winch was operated and all features were noted to operate as intended.

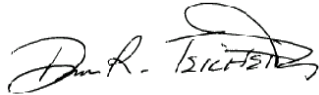
RECOMMENDATIONS

1. Either install a suitable size 208 VAC electric motor on the existing hydraulic pump, or plumb the hydraulic pump located on the inboard genset, for back-up hydraulic power to the winch.
2. Carry a complete set of replacement hydraulic hoses for all of the pressurized hydraulic hoses in the system.
3. Install a cover over the coupling on the hydraulic pump on the Detroit Diesel 6-71 hydraulic pump engine.

CLOSING COMMENTS

Based upon our observations it is our opinion that the subject Almon-Johnson Ltd., Series 224 Towing Machine, as it was found set up and modified onboard the T/V "NOELANI", with compliance with the above recommendations, is suitable for ocean towing. We hereby certify that the winch is adequate for its intended use.

Submitted without prejudice.

A handwritten signature in black ink, appearing to read "Dana R. Teicheira". The signature is fluid and cursive, with a large loop at the end.

Dana R. Teicheira
NAMS Certified Marine Surveyor