From: To:

Young Brian

Subject:

FW: Todd Brown_Under Water Hull Preliminary

Date: Thursday, May 25, 2017 11:30:04

Brian,

I just received the below surveyor's report from Len O'Conner this morning for the TODD BROWN.

v/r,

Chief, Inspections Division Marine Investigator



From: O'Connor, Len [mailto:1

Sent: Thursday, May 25, 2017 9:21 AM

To:

Subject: [Non-DoD Source] FW: Todd Brown_Under Water Hull Preliminary

this is all we have right now in the way of underwater survey on the UTV Todd Brown. Eric Sharp with Budwine is scheduled to go up and finish the rest of the survey when they get the vessel cleaned out.

If you need any further information please don't hesitate to call.

Len O'Connor

GM Vessel Operations & Facility

From: Eric Sharp

Sent: Thursday, May 25, 2017 9:13 AM

To: O'Connor, Len

Subject: Fwd: Todd Brown_Under Water Hull Preliminary

Sincerely,

Eric Sharp Marine Surveyor Budwine & Associates

Begin forwarded message:

To: <1

Cc: "< Byron

Subject: Todd Brown Under Water Hull Preliminary

Good morning Len,

Per request, please see below the preliminary Underwater Machinery & Hull survey of the M/V "Todd Brown"

There is no new excessive damages noted in way of the hull. Under water machinery damages noted as follows:

Starboard outboard flanking rudder

- in way of the starboard outboard flanking rudder, the entire rudder is distorted aft approximately 0 - 1.5" for height. Rudder contains multiple scattered fractures and distortions as well - RECOMMEND - Renew starboard out board flanking rudder & rudder shaft

Port Wheel

- all port wheel flukes contain minor abrasions and distortions from 0 - 1/2" with the $\underline{12}$ o'clock fluke distorted forward $\underline{0}$ - $\underline{1.25}$ " over an area of 4" x 18" with a 0 - 1/2" tear distorted forward and aft 0 - 1" - Recommend - Remove and renew or refurbish port wheel

Port inboard flanking rudder

- the aft upper 12" of rudder is distorted inboard 0 1.5" over an area of 12" x 6" RECOMMEND Heat & Fair
- the forward lower 12" of rudder is distorted inboard 0 1.5" over an area of 12" x 6" RECOMMEND Heat & Fair

Port outboard flanking rudder

- in way of the port outboard flanking rudder, the entire rudder is distorted aft approximately 0 - 1.5" for height. Rudder contains multiple scattered distortions as well - RECOMMEND - Renew port out board flanking rudder & rudder shaft

Port & Starboard Shafts

Although there is no visible damages, the undersigned recommends both port and starboard shaft to be rolled and dyed to test for straightness due to possible excessive strain from the rolling hitch used to flip and lift the vessel







Sincerely,

Eric Sharp Marine Surveyor Budwine & Associates