

C O P Y

BAHR NAGASH.      COPY OF LLOYDS SURVEY REPORT.      at PORT SUDAN.

This is to certify that on the 27th. December, 1947 at 11.3 Ohrs. I, Clifton Cooper, Dockyard Manager, Port Sudan, at the request of Captain A. R. Hair, Master of the motor vessel "Bahr Nagash", and Gellatly, Hankey & Co., (Sudan) Ltd., Lloyd's Agents at Port Sudan, did proceed on board the said vessel to examine and report on damage to the after part of the hull.

I discussed the matter with the Master and Chief Engineer, and with the aid of a general arrangement plan I was able to gain some idea of the under-water arrangements of the vessel before making any examination of the inside of the hull.

The vessel is a converted Tank Landing Craft with twin screws operated slightly inboard of the Port and Starboard stern frames that support the two rudders.

During her voyage a leak had developed just above the strut that, on the drawing, supports the forward end of the Port stern frame. The Master had been able to keep the leak under with pumping until he reached Port Sudan and he had then trimmed the ship until this point was just clear of the surface. After a hole had been cut in the Non-watertight tank top it was possible for the ship's staff to get at the leak which the Master described to me as a hole approximately four inches diameter the plate being slightly buckled in the vicinity.

The repair effected consisted of a piece of flat bar passed through the hole as a dog on the outside of the hull and a plate approximately seven inches diameter jointed on the inside and secured by a central bolt.

I examined this repair, which although not completely tight due to the buckle, was reasonably sound. Approximately three feet inboard from this point where the end of the hull plate occurred, was another place where it appeared that the hull had had a blow from underneath, causing the upper lap to spring at the corner of the plate and some rivets at this point were obviously likely to leak when the vessel was in its loaded condition.

As it was not possible to dry-dock or slip this vessel at Port Sudan any repair would of necessity have to be arranged from inside the hull. I therefore instructed the Dock yard staff to proceed with the construction of a cement box of size sufficient to cover the whole damaged area.

In addition I have requested the services of a diver for examination of the outside arrangements, there being no steel work plans of the vessel on board. The diver (A Greek employee of the Sudan Railway) was promised for Sunday morning 28th December, 1947.

I have examined the hull plating and framing and intercostals up to a distance of several feet from the damaged area, but all appears sound and in good order.

The Chief Engineer reported that the Port Engine had a slight vibration which did not exist on the Starboard Engine, but that there had been no heating of bearings or shafting (this being an after end job the stern tube gland is actually in the engine room). It is therefore indicated that whatever had bumped up the stern frame had not affected the A. Frame of the propeller shafting.

P.T.O.

Lloyd's Register  
Foundation

010961-010969-01992

I left the vessel at 13:15 hrs.

At 16: 00hrs. I again visited the vessel while work was in progress on the cement box. I have arranged that a removable steel plate cover fitted over the hole that had been cut to allow ingress to the plate patch. I left the vessel at 17: 00hrs.

On the 28th. December at 07:00hrs. I again visited the vessel and spent a considerable time endeavouring to extract information concerning the underwater stern arrangements of the vessel, which are somewhat unorthodox. (In the course of this the interpreter employed met with an accident and had to retire. Fortunately I was able to obtain the assistance of a British Diver later, who proved of great assistance).

It was then discovered that the general arrangement plan is entirely different from the actual steel-work arrangements outside the hull in this vicinity.

On the center line of the vessel is a deadwood which follows the line of the bottom hull plating to a point abaft the propellers. An arrangement of three inch piping welded to each other, to the hull and this deadwood which protects the propellers from damage.

On the Starboard side the protection is intact and in good order and resembles a Vee shaped outer strut with a pipe extending from the bottom of the Vee thwartships to the deadwood with another (single) pipe strut inboard between the propeller and the deadwood.

On the Port Side this horizontal thwartships bottom pipe with the single strut is missing completely, and the Vee shaped outer strut alone remains. From its appearance it would indicate that the protecting has been bumped and the section described lost.

The damage described in Para. 6 above may have occurred at the same time. Obviously the hole which had been repaired by the ship's staff (Para.4) had nothing to do with the loss of the sections of the protecting frame and may possibly have been a badly welded patch that had dropped off.

I have ascertained that the remaining Vee shaped strut is securely fixed to the shell plating and am therefore of the opinion that with the temporary repair over the damaged plating, the vessel can proceed on her voyage to Massawa.

I examined the cement/<sup>box</sup> which has been securely shored to the tank top plating and it is in good order. The Vee shaped Port strut unless knocked upwards and inwards due to a grounding should not cause trouble until the vessel can be dry docked.

If the owners require the original form of protection to the propellers then the missing sections on the Port side should be replaced as early as possible.

I left the vessel at 13: 00hrs. on 28th December 1947.

(Signed: C.Cooper.  
B.O.T. Engineer

Port Sudan, 29th December, 1947.

© 2021  
Lloyd's Register  
Foundation

0199 <sup>2</sup>/<sub>2</sub>