

# REPORT of SURVEY for REPAIRS, &c.

Date of writing Report 26.10.36 When handed in at Local Office 27.10.36 Port of London

No. in Survey held at London Date, First Survey 22.5 Oct. Last Survey 24.5 Oct 1936  
Leg. Book. 87219 on the ~~Wood, Iron or Steel~~ N.V. "ARTHUR TOWN" (No. of Visits 4)

TONNAGE: GROSS 527 BUILT at Jæst By whom N.V. Schipw Gede van der Werf When 1936  
UNDER DK. 332 Owners A. Simpson  
NET 263 Managers Coumen Langstaff & Co. Owners' Address (if not already recorded in Appendix to Register Book)  
Port belonging to London

Surveyed Afloat or in Dry Dock? Afloat Name of Dock River Thames Destined Voyage Continent.

WB=CellDBorDBa feet; uE&B feet; f feet  
total capacity tons. FPT tons; APT tons; MT feet tons.  
N.B.—All alterations in the existing records should be underlined.

If the Vessel has Water Ballast Tanks, state whether the manhole covers have been removed, and the insides of the tanks examined. Also state the amount of deterioration (if any) found in the thicknesses of the floors, framing, rudders, and of the inner bottom plating, especially in the boiler space.

Last Report, No. Port

Periodical Surveys, when held, must be reported in detail and seriatim in the terms of the Rules. State clearly the cause of Repairs, if any, and, in detail, the nature and extent of Examinations and subsequent repairs. Repairs on account of Damage (the cause of which must be stated) should be separated from Repairs due to other causes; and besides being detailed in the body of the report, should be summarised in the form shown below. Whenever the replacement of Anchors or Chains is reported the particulars should be clearly stated in the space provided on the back of this form. State also the dates and initials of any letters respecting this case.

In damage cases where the Surveyor has not made a special damage report he is required to state whether he offered his services for this purpose and to whom and why they were declined

Was a damage report made by anyone else? If so, by whom?

REPAIRS, OR EXAMINATION AS PER RULE, FOR Steering Gear (Hand operated)

This vessel, having completed two cross channel voyages, is now reported to be particularly heavy on steering, requiring on occasion two men at the wheel in the Bridge House. The opinion on board was that the gear was binding at intervals particularly under speed in the loaded condition.

The steering unit fitted on the rudder head is the ordinary hand gear — right and left handed single thread screw shaft — operated from the Bridge (distant about 20'0) through a line of shafting and intermediate chain drive. A sketch

SUMMARY OF DAMAGE REPAIRS:	Shell Plates.	Frames.	R. Frames.	Floors.	Beams.	Str. Plates.	Dk. Plates.	Other Items:—
Renewed								
Removed and Faired or Repaired								
Faired or Repaired in place								

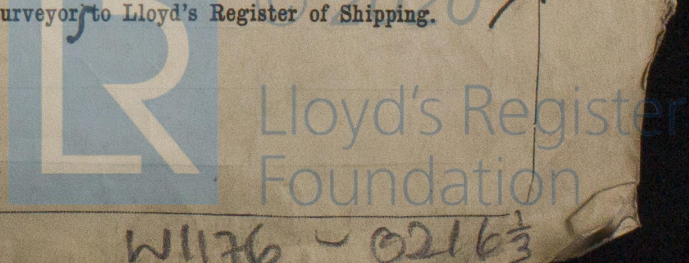
PRESENT CONDITION OF THE	State if Tanks have been examined inside	Air and Sounding Pipes	Copper, or Y.M. of Wood Vessels
Decks	State if Tanks now tested	Dblng. Plates under Sounding Pipes	(State if on Felt). When put on, Month Year
aulking of Decks	Bulkheads	Engine Room Skylights	Boats
Coamings	Ceiling	Coal Bunkers, Open'gs, Lids, &c.	Masts, Yards, &c.
reams & Fastenings	Cement or Asphalt (State which.)	Bunkers	Condition, how ascertained (State if wedges removed)
Outside Plating	Rudder	Scuppers	Sails
Reasthooks	Steering gear and its connections	Cargo Hatchways	Equipment letter
Ransoms	Windlass	Hatches	Anchors, No. of
rames	Have pumps now been examined and found efficient?	of Wood Vessels	Chain Locker
Reverse Frames	Have Sluice Valves now been examined and found efficient?	Caulking ditto	Cables (State if now ranged)
ongitudinals	Have Watertight Doors now been examined and found efficient?	Treenails ditto	length mean diamr. (on board)
ransverses	Have Ventilators and their Coamings been examined and found efficient?	Breasthooks & Stemson ditto	Rule length size
loors		Transoms Pointers, & Crutches ditto	Hawser & Warps
elsons		Timbers of Frame at openings ditto	Standing and Running Rigging
ringers		Ditto Ditto at other places ditto	
Inner Bottom Plating		Stringers, Clamps & Shells ditto	
		Salting ditto (State if examined.)	

General Observations, Opinion as to Class, Recommendation, &c.:—  
State clearly whether any and, if so, what alteration is suggested to be made in the existing classification and notification of the vessel in the Register Book consequent upon this survey, thus, for example:—"to remain as now classed in the Register Book without fresh record of Survey," "to remain as classed and to have record of survey, 1,24," or "to remain as classed and to have record of survey, 1,24, and the notations of ss No. 1-24 and ptnd24, &c."

The above is submitted for the information of the Committee.

Survey Fee (per Section 29) £ : Fees applied for, 19  
Special Damage or Repair Fee (if any) £ : Received by me, 19  
Velling Expenses (if chargeable) £ :  
and Surveyor's Fee (if any) £ :  
Surveyor to Lloyd's Register of Shipping.

Committee's Minute FRI 9 APR 1937  
Character Assigned See minute or F.E. apt

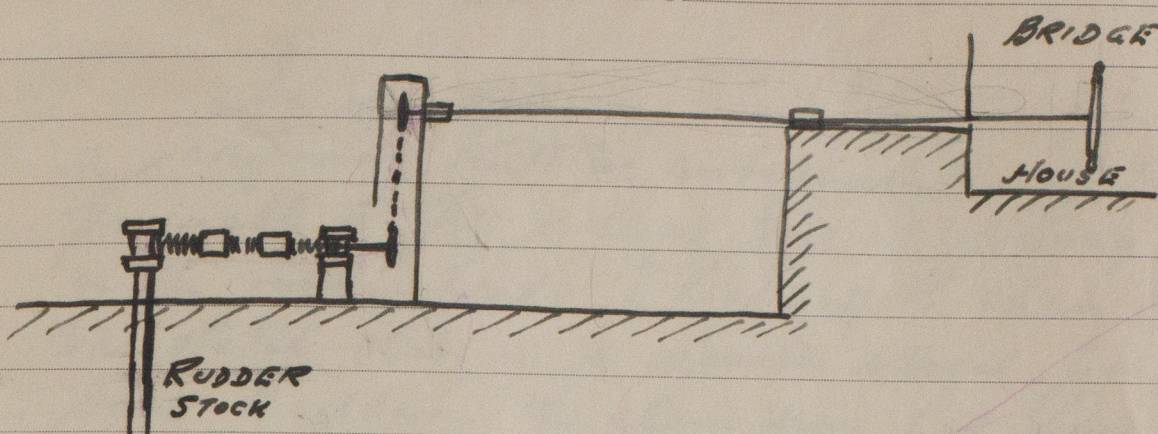


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M.V. "ARTHUR TOWN"

of the arrangement is shown:-



The rudder is of Oertiz type.

On examination it was found that:-

- (a) The rudder in addition to being free laterally was undesirably buoyant - rising and falling about  $\frac{1}{2}$ " on passing waves - in itself sufficient to create some distortion in the gear, the forward end of which is carried on a pedestal. (This buoyancy has now been eliminated by drilling holes top and bottom in the hollow rudder)
- (b) Whilst complete freedom of movement existed in most parts of the gear, some binding was suspected in the after carrier block of the screw shaft. (This has now been eased)
- (c) There was evidence of chafing on the face of the upper chain sprocket due apparently to faulty meshing with the chain when considerable force was applied to get the rudder over. (An additional bearing has been fitted on the extreme after end of overhead shafting to prevent the sprocket being pulled out of alignment)

On completion of these modifications, little effort was required to operate the rudder whilst the vessel was manoeuvring slowly but quite considerable effort is still required when the vessel is fully under way. It would appear for easy operation that the mechanical advantage provided is insufficient for the size of rudder and it is proposed to effect further modifications at Antwerp to which port the vessel has now proceeded. These modifications are:-

1. Fitting the maximum size of hand wheel



- in the Bridge House.
- 2 Fitting an enlarged size of lower sprocket in the intermediate chain drive.

In our opinion, these modifications form a satisfactory tentative arrangement - it might be preferable to fit a larger size of steering unit on the rudder head. (Regarding the chain drive it was stated that in a similar vessel from the same Builders, the chain drive had been replaced by a vertical shaft and bevel pinions).

On examination it was found that the emergency steering arrangements included a filler of considerable weight for shipment on the lower yoke i.e. the whole hand steering unit would have to be removed before the emergency filler could be fitted and it was further observed that no rudder brake or locking device is fitted.

Modifications in respect of these items are contemplated by the Owner and it is proposed to discuss a suitable arrangement on the vessel's return to this port.

C.H.S.

The Antwerp Surveyors have been advised.

C.H.S.