

## REPORT of SURVEY for REPAIRS, &amp;c.

Date of writing Report 4 Nov 99 When handed in at Local Office 4 Nov. 1899 Port of West Hartlepool  
 No. in Survey held at West Hartlepool Date, First Survey 22nd Aug 99 Last Survey 27th Oct 1899  
 Reg. Book. 839 on the Wood, Iron or Steel S. S. "Clam" (No. of Visits 1) Master J. E. Evans 99-99

TONNAGE:— Built at West Hartlepool By whom W. Gray & Co. Lim. When 1892-3  
 GROSS 3552 Owners Shell Transport & Trading Co. Lim. Port belonging to London  
 UNDER DEK 3066 Owners' Address M. Samuels & Co.  
 NET 2311 (If not already recorded in Appendix to Register Book.)

Surveyed Afloat in Dry Dock? Name of Dock Gray's dock Destined Voyage Batoum

WB=CellDBorDBa feet; u&B feet; I feet; } Particulars of Classification (which must be inserted  
 total capacity tons. FPT tons; APT tons; MT feet tons. } precisely as in Register Book & Supplements).

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, girders, and of the inner bottom plating, especially in the boiler space.

Last Report, No. 98 Port Alg

(Periodical Surveys, when held, must be reported in detail and serially 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, Chains, or Hawsers is reported, the particulars of weight or size and test of the articles should be clearly stated, and also the weight or size, &c., required by the Rules, together with the vessel's equipment Letter, if any. State also the dates and initials of any letters respecting this case.)

REPAIRS, OR EXAMINATION AS PER RULE, FOR Damage, Relassing, & Oil fuel installation.

Vessel stated to have been damaged by grounding in the Mediterranean, temporarily repaired at Algiers, see Algiers Report No. 98. Now placed in dry dock, and the following repairs effected:— Scarp cut in stem at about load line, and the lower part renewed, the upper part taken out to machine scarp, faired and replaced. Rudder lifted and pintles rebushed. Iron flat keel, 8 plates renewed, and 3 faired in place. Outside plating, Starboard side, in A Strake (garboard) 5 plates renewed, and 6 faired in place; in B Strake—7 plates renewed, 1 off and faired, 4 faired in place; in C Strake, 7 renewed, 1 off and faired, and 1 faired in place; in D Strake 5 plates

SUMMARY OF DAMAGE REPAIRS:—	Plates.	Frames.	R. Frames.	Floors.	Beams.	Str. Plates.	Dk. Plates.	Other Items:—
Renewed	78	96 partly	80 partly	70 partly	4		7	Stem part renewed.
Removed and Faired or Repaired	13			14	2		5	4 Centre floor plates renewed.
Faired or Repaired in place	38	18	18	4				Flat keel angles part renewed &c.

  

PRESENT CONDITION OF THE	Stringers	Engine Room Skylights	Boats
Decks	good	good	good
Caulking of Decks	good	good	good
Waterways	good	good	good
Coamings	good	good	good
Beams & Fastenings	good	good	good
Outside Plating	good	good	good
Caulking of ditto	good	good	good
Rivets	good	good	good
Breasthooks & Crutches	good	good	good
Transoms	good	good	good
Frames	good	good	good
Reverser Frames	good	good	good
Floors	good	good	good
Keelsons	good	good	good

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, 1,98," or "to remain as classed and to have record of survey, 1,98, and the notations of ss No. 1-98 and ptND98, &c."

This vessel is now in good & efficient condition, and eligible in our opinion to be reclassified as before 100A1 "Carrying petroleum in bulk", with record of Survey 10.99, and notation S.S. Apl. No. 3-10.99, when the Equipment is complete, and the land pumps have been tested.

Office Fee (if chargeable) per Scale II., Sec. 37 £  
 Survey Fee (per Section 25) £  
 Special Damage or Repair Fee (if any) (per Sec. 25.) £  
 Travelling Expenses (if chargeable) £  
 Second Surveyor's Fee (if any) £  
 Committee's Minute  
 Character assigned

100A1 Carry. Petr. in bulk  
 No. 3-10.99 subject Dry 99  
 + Lme 10.99 subject.



MON. 6 NOV 1899

Port of WEST HARTLEPOOL.Continuation of Report No. 1103 dated 27<sup>th</sup> Oct. 1899 on theSteel S. S. "Claw"

5 plates renewed, 2 off & fairied & 1 fairied in place; in E Strake - 8 plates renewed, 1 off & fairied, and 2 fairied in place; in F Strake - 5 plates renewed, 3 off & fairied, and 2 fairied in place; in G Strake - 2 plates renewed, 2 off & fairied, and 5 fairied in place; in H Strake - 2 plates renewed, 3 fairied in place; in I Strake - 1 plate renewed, & 1 fairied in place; in K Strake - 1 plate renewed & 1 fairied in place; in L Strake - 1 plate renewed; in M Strake, 1 plate part renewed; in N Strake, 1 plate renewed (Sheerstrake).

Outside plating, port side in A Strake - 5 plates renewed, 1 off & fairied, and one fairied in place; in B Strake - 6 plates renewed, and one fairied in place; in C Strake - 2 plates renewed, 1 off & fairied and 2 fairied in place; in D Strake - one plate renewed & one fairied in place; in E Strake - 2 plates renewed, 1 off & fairied, & 1 fairied in place; in F Strake - 1 plate renewed & 1 fairied in place; in G Strake - 1 plate renewed, and 1 fairied in place; in H Strake - 1 plate renewed, & 1 fairied in place; in I Strake - 1 plate renewed; in K Strake - 1 plate renewed; in L Strake 1 plate renewed; in M Strake - 1 plate renewed; in N Strake (Sheerstrake) 1 plate renewed.

The whole of the riveting and caulking of bottom plating examined, and made good where necessary. Bottom of vessel cleaned and recoated.

All oil tanks, cofferdams, water ballast tanks, bunkers, & fore hold, cleaned out and examined. Ceiling lifted in bunkers, previously removed in fore hold.

Draming etc - On starb. side of boiler room, 3 frames and 2 reversed frames fairied in place, one web frame plate, and one side stringer plate fairied in place.

In No. 2 oil tank - (Starb. side) - 13 frames part renewed, and one fairied in place; 8 reversed frames part renewed, 3 pairs double reversed frames on webs part renewed; nine floors renewed and 2 taken out and fairied; 2 web frame plates part renewed & 5 diamond plates renewed. Side keelson bottom angles off & re-riveted, all intercostals re-riveted. One big keelson angle renewed & 1 part renewed, bulk plate to same fairied and replaced, 5 intercostals renewed. 4 Channel stanchions out and fairied.

In No 3 oil tank (Starb. side) - 9 frames part renewed, and 5 fairied in place; 6 reversed frames part renewed, and 2 fairied in place; 2 floors renewed, 3 part renewed, and 3 taken out & fairied. Bulk plate and both angles taken



Port of

WEST HARTLEPOOL.

Continuation of Report No. 11039 dated 27<sup>th</sup> Oct. 1899 on the

## Stub S. S. "Clam"

taken out & fairied; 2 diamond plates riveted; and 4 channel stanchions out & fairied. In forward bulkhead, the frame bar part renewed, floor part renewed; 1 vertical plate stiffener part renewed & new knee fitted at bottom, one large bracket knee fairied in place.

In No. 3 oil tank, port side - 3 frames & 2 reverse frames part renewed; 1 rev. bar fairied in place; 2 floors part renewed, and one fairied in place. In forward bulkhead, the frame angle part renewed, floor fairied in place; 2 vertical plate stiffeners off & fairied & one angle on each part renewed.

Middle line bulkhead - 1 centre girder plate renewed, two flat keel angles part renewed. On Starb<sup>d</sup> side - 2 vertical plate stiffeners part renewed & one fairied in place. On port side - 5 floor knees off & fairied, and 1 renewed, and the large angles connecting brackets & floors to centre girder renewed.

In No. 4 oil tank, Starb<sup>d</sup> side - 4 frames part renewed, and 3 fairied in place; 2 rev. bars part renewed & 4 fairied in place; 2 floors part renewed, 1 out & fairied; 1 web frame plate part renewed; 2 diamond plates re-riveted. Bulk plate and angles of bilge keelson out & fairied, & 3 intercostals out and fairied. 4 channel stanchions out & fairied. In forward bulkhead the frame angle part renewed, floor plate part renewed, 3 vertical plate stiffeners fairied in place, 2 knees to same out & fairied & 1 renewed, 4 angles on stiffeners part renewed.

Middle line bulkhead - 3 floors knees fairied in place on port side, and face angles fitted to same.

In No. 5 oil tank, Starb<sup>d</sup> side - 19 frames part renewed, and 1 fairied in place; 15 reverse bars part renewed, 3 pairs double reverse bars on webs part renewed, and 2 rev. bars fairied in place. 18 floors renewed, 1 out & fairied, and 1 fairied in place. 4 web frame plates part renewed; 5 channel stanchions out & fairied, and 1 gusset to same renewed. In side keelson - 2 bottom angles renewed, 2 large knees at bulkhead fairied and replaced; 10 intercostals renewed, 8 out & fairied. Bilge keelson plate and angles all renewed. 5 lengths of lower side stringer out & fairied, and 7 diamond plates renewed. In forward bulkhead frame bar and floor part renewed. One bulkhead plate part renewed, and 1 horizontal stiffener part renewed.

In No. 5 oil tank, port side - 9 frames part renewed, and two fairied in place; 10 reverse bars part renewed, and 2 fairied in place; 9 floors renewed, 1 out & fairied; 2 web frame plates part renewed; 3 channel stanchions out and fairied.

Double



MON. 6 NOV 1899

Port of

WEST HARTLEPOOL.

Continuation of Report No. 11039 dated 27<sup>th</sup> Oct. 1899 on theSteel S. S. "Clann"

Double angles, and 10 intercostals to side keelson renewed. Bilge keelson of plate and 3 angles part renewed; 4 diamond plates renewed. In forward bulkhead - frame angle and floor part renewed.

Middle line bulkhead - 1 centre girder plate renewed, one bulkhead plate part renewed, and 2 flat keel angles part renewed. On starb. side - 6 floor knees renewed, 6 off & faired, and 9 large angles to same renewed; 3 vertical plate stiffeners part renewed, and one faired in place. On port side - 7 floor knees and large angles to same renewed.

In forward coffer dam - starb. side - 1 frame & 1 reversed frame part renewed; 3 stay plates renewed, 2 out & faired. In forward bulkhead - double frame angles part renewed, and floor faired in place.

Port side - 1 frame & 1 reversed frame part renewed, 2 stay plates renewed, 3 out & faired. In forward bulkhead - the double frame angles part renewed, floor out & faired; one bulk plate stiffener off & faired & angle to same renewed.

In fore hold, starb. side - 9 frames and 9 reversed frames part renewed; 8 floors renewed, 1 out & faired; one web frame plate part renewed. Double angles to side keelson part renewed & 2 intercostals renewed. Bilge keelson renewed throughout of plate and angles. Lower side stringer renewed throughout of plate and angles, & 2 diamond plates renewed.

Port side - 5 frames part renewed & 3 faired in place; 4 reversed frames part renewed & 3 faired in place; 5 floors renewed, 4 out & faired; one web frame plate part renewed. Double angles to side keelson renewed, & 2 diamond plates renewed.

Two centre girder plates renewed, & 2 flat keel angles renewed; 4 centre keelson angles, and 2 foundation plates to same on floors renewed. Large web at middle line on cofferdam bulkhead, taken down faired and replaced.

Fore peak bulkhead - Double frame angles part renewed on each side of ship. Floor plate renewed on each side; one bulkhead plate renewed, & 2 part renewed; 3 bulkhead plates out & faired; 2 vertical stiffeners renewed, 4 off & faired; 1 horizontal stiffener renewed, 2 off & faired.

Fore peak - 10 frames and 10 reversed frames part renewed on each side of ship; 5 floor plates renewed on each side, and 5 right across. Bilge keelson of plate & angles renewed on each side; lower side stringer plate renewed on each side.



Port of

WEST HARTLEPOOL.

Continuation of Report No. 11039 dated 27<sup>th</sup> Oct. 1899 on theSteel S.S. "Clam"

Each Side; 3 bulk beams & angles at this stringer renewed, 1 beam out & fair & angles to same renewed, tie plate and angle at middle line renewed. Middle side stringer plate renewed on port side; 1 bulk beam & angles at this stringer renewed, one out & fair, tie plate and angle at middle line renewed. Tank top plating at forward end renewed & two deep floor plates fitted. In middle line bulkhead - 8 plates renewed, 2 out & fair, and 14 vertical stiffeners renewed.

On upper deck forward - 7 deck plates renewed, 5 off & fair. The vessel sealed throughout inside & outside and recoated, except in the oil tanks. Cement renewed in fore peak, fore hold and cofferdams. Ceiling renewed in fore hold, and relaid in bunkers. The ceiling for the oil tanks was found stacked in 'tween decks, and has not been laid, the vessel being about to take in a cargo of oil. The iron cargo battens throughout the ship have been repaired where necessary. All cargo oil tanks and cofferdams filled and tested with 12 ft. head of water. Fore & after peaks and double bottom tanks tested as required & found good. Steam windlass & steam steering gear overhauled. Chain cables taken out of locker and ranged. 90 fms. of 3½" stud wire hawser renewed, test 26 tons, certificate by Webster & Co. 27 Oct. 1899. 2 new life boats & 1 jib supplied.

One bow anchor missing is said to have been broken at Port Said, the Superintendent states that a new anchor is at that port waiting to be placed on board; the vessel will call there after leaving Batoum.

Oil Fuel Installation - The fore & after peak tanks, both cofferdams, and the three tanks of double bottom in machinery space have now been fitted for carrying oil fuel. A supply tank for main boilers has also been constructed on each side of ship in lower 'tween deck bunkers abreast boilers, in accordance with approved plan attached hereto. The air pipes to all these compartments have been increased in number and size, all being brought above the weather deck and fitted with a goose neck at the end. The after cofferdam, both supply tanks, the three double bottom tanks, and after peak tank, being all connected by sluice valves, as approved by the Committee, these compartments have been tested with a head of water 12 ft. above top of coffer dam. The forward cofferdam & fore peak tank have been tested with a 12 ft. head of water in each case. The top of double bottom



MON. 6 NOV 1899

Port of WEST HARTLEPOOL.

Continuation of Report No. 11039 dated 27<sup>th</sup> Oct. 1899 on theSteel S.S. "Clam"

bottom in boiler space, has been covered with Portland Cement 4" thick, angles  $3\frac{1}{2}" \times 3\frac{1}{2}"$  being laid fore & aft, and athwartships, and connected to tank top, dividing the cement into about 3 ft. squares.

Drainage wells have been constructed on middle deck, before & abaft the forward coffer dam, and at fore side of after coffer dam, also on top of double bottom abaft the after coffer dam, and across front of after peak tank above tube, special arrangements being made for pumping or draining these parts.

The fore peak & forward coffer dam bulkheads in fore hold have wood cargo battens fitted a frame space from the bulkheads. The after bulkhead of forward coffer dam, and the forward bulkhead of after coffer dam, have wood cargo battens fitted in the 'tween decks, and iron cargo battens in the oil tanks a frame space from the bulkheads. The after bulkhead of after coffer dam, & the after end of supply tanks are sheathed in the bunkers with close wood lining about 9" from the bulkhead, drain pipes being led from these spaces down into the special drainage wells just abaft after coffer dam. The pocket bunker under each supply tank, has a thick layer of cement in the bottom, with a drain pipe leading into the drainage well below. The fore & after peak tanks have been additionally strengthened by brackets being fitted on each side at tops of middle line bulkheads. Where the fuel tank bulkheads, have been protected by cargo battens or lining, holes have been drilled through the horizontal bulkhead stiffeners, to admit of any drainage dripping through into the space below. The after peak bulkhead has also been sheathed with close wood lining, at back of lockers in Engineers' Store-room.

Special Survey No. 3, for reclassification - In addition to the above mentioned work, the following has now been done to complete the Special Survey - wood lining removed under side lights in cabins, and plating examined; it was not found necessary to drill the shell plating at any part of the Vessel. Mast wedges removed, masts, spars and general equipment examined. There are no sluice valves in ship except those now fitted in connection with the oil fuel tanks, these have been tried and found in working order. There are two hand pumps in the vessel, one to top of fore peak tank, & one to fore hold, these have yet to be seen to complete the Survey.

Repairs due to wear and tear - In the forward compartment of double bottom under boilers, 6 floors have been doubled.



MON. 6 NOV 1899

Port of WEST HARTLEPOOL.

Continuation of Report No. 11039 dated 27<sup>th</sup> Oct. 1899 on theSteel S.S. "Clans"

doubled, one partly doubled, and 8 intercostals renewed on Starboard side; 5 floors doubled, two partly doubled and 6 intercostals renewed on port side; the watertight floor at after end of this tank has been renewed right across the ship.

In the middle compartment of double bottom, under boilers, 4 floors have been doubled, and 5 intercostals renewed on Starboard side; 4 floors doubled and 5 intercostals renewed on port side; the watertight floor at after end of this tank has been renewed right across ship. The cement renewed in way of the doublings. Some of the defective floors were wasted through in places. All floors, girders & tank top throughout double bottom sealed & cement washed.

Bunker casings repaired, Saddle coaling hatch repaired on port side, angles round bunker hatches at lower deck renewed.

To complete the survey on this vessel, the two hand pumps forward have to be tested, and a new lower anchor has to be supplied. The owners have been informed of this, and it is understood these things will be attended to at Port Said. The vessel has sailed for Batoum to load a cargo of oil, and will then proceed to Port Said.

Chas. Fowling.

C E Burney.