

REPORT OF SURVEY FOR REPAIRS, &c.

Date of writing Report 11-5-1944 When handed in at Local Office 17-5-1944 Port of Swansea.

No. in Survey held at Swansea.
Reg. Book.Date, First Survey 30-12-43 Last Survey 9-5-44. 19
(No. of Visits 88.)

29042. on the Wood-Iron or Steel S.S. "MARKAY".

TONNAGE:-

Built at Chester, Pa.

By whom Sun S.B. & Dry Dock Co.

When 1942. 9.

GROSS 10342.

Owners Keystone Tankship Corp.

Owners' Address

(if not already recorded in Appendix to Register Book).

UNDER DE.

Managers

Port belonging to Wilmington, Del.

NET 6067.

Surveyed Afloat or in Dry Dock? Both. Name of Dock Palmers' Drydock. Destined Voyage To a U.S.A. port.

Cell DBor DBa feet; uE&B feet; f feet
total capacity tons. FPT tons; APT tons; MT feet tons.

Particulars of Classification (which must be inserted precisely as in Register Book & Supplements)

CHARACTER.
* for Special Survey.
Date of last Survey and of
Periodical Surveys.Machinery and Boiler
Surveys
(including date of N.B., if any).+100A1. 7.43. +LMC.9.42.
CL.Carrying Petroleum in bulk.
Fitted for oil fuel 9.42.F.P.
above 150° F.Society's Freeboard (if assigned) as A.B. Assignment.
painted on Ship and now verified

N.B.—All alterations in the existing records should be underlined.

Last Report, No. 22494 Port Gnk.

Periodical Surveys, when held, must be reported in detail and serially in the terms of the Rules and items remaining to complete the Surveys should be summarised. 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 to Owners' Super-

intendent. Copy herewith together with copy Was a damage report made by anyone else? if so, by whom? Underwriters' Surveyor.
of Interim Certificate now issued.

REPAIRS, OR EXAMINATION AS PER RULE, FOR INTERIM CERTIFICATE on account of DAMAGE stated due to:-

1. Running aground off the North Coast of Skye on 15th November, 1943.
2. Drydocking in damaged condition at Swansea during the last week of December, 1943.
3. Grounding at the entrance to the Chesapeake and Delaware Canal on the 27th September, 1943.
4. Causes unknown.

DAMAGE 1.

Vessel placed in drydock and suitably shored. On examination the following damage was found:-

The bottom shell plating and bottom longitudinals torn off from the stem to the aft end of No. 3 wing tank starboard side, and to the aft end of No. 4 tank on the port side. In way of No. 4 centre tank the tearing extended across from the starboard forward end to the port aft end. Shell plating buckled and pierced at forward end of No. 4 wing tank starboard and at the bilge in No. 5

SUMMARY OF DAMAGE REPAIRS:-	Shell Plates.	Frames.	R. Frames.	Floors and Bracket Floors	Beams.	Inner Bottom Plates.	Dk. Plates.	Other Items:-
Renewed								
Removed and Fair'd or Repaired								
Fair'd or Repaired in place								

For temporary repairs:-

See Report, blue-prints and photographs.

PRESENT CONDITION OF THE

Decks	Good.	Bulkheads	See Report.	Engine Room Skylights	Good.	Copper, or Y.M.	
Caulking of Decks	"	Ceiling	"	Coal Bunkers, Openings, Covers, &c.	"	(State if on Felt.)	
Coamings	"	Cement or Asphalt	"	Oil Bunkers	Good.	When fitted, Month	Year
Beams & Fastenings	"	Rudder	Good.	Scuppers	"	Boats	Good.
Outside Plating	See Report	Steering gear and its connections	"	Cargo Hatchways	Fore Hold Good.	Masts, Yards, &c.	"
" " in way of sidelights	Not exd.	Windlass	"	Hatches	"	Condition, how ascertained	From deck
Frames	See Report	Have pumps been examined and found efficient?	See Report.	Planking		(State if wedges removed.)	
Reverse Frames	"	Have Sluice Valves been examined and found efficient?	"	Caulking		Equipment letter	f t
Longitudinals	"	Have Watertight Doors been examined and found efficient?	"	Treenails		Anchors, No. of	3B. 1S.
Transverses	"	Have Ventilators and their Coamings been examined and found efficient?	Yes.	Breasthooks & Stemson		Cables (State if now ranged)	Not ranged.
Floors	"	Have Ventilators and their Coamings been examined and found efficient?	Yes.	Transoms, Pointers & Crutches		" length mean diam.	
Keelsons	"	Air and Sounding Pipes	Good.	Timbers of Frame at openings		(on board)	
Stringers	"	Doubling Plates under Sounding Pipes	"	" " at other places		Rule length size	
Inner Bottom Plating	Not exd.			Stringers, Clamps & Shelves		Chain Locker	Not exd.
Have the Tanks been examined internally	See Rpt.			Sanding	(State if examined.)	Hawsers & Warps	Sufficient.
Have the Tanks been tested?						Standing and Running Rigging	Good.
						Sails	"

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 classed in the Register Book without fresh record of Survey," "to remain as classed and to have record of survey, 1.38," or "to remain as classed and to have record of survey, 1.38, and the notations of ss No. 1-38."

This vessel, in our opinion, is eligible to continue as now classed, without fresh record of survey, subject to permanent repairs to forward bottom, side shell, internal structure and fittings being effected on arrival at a U.S.A. port, being fit to proceed in ballast (at draughts approximately 18ft. forward and 22ft. aft). The vessel's class is also subject to permanent repairs to indented

Survey Fee (per Section 29) Cardiff 122.10. Ind. fee.
Special Damage or Repair Fee (per Sec. 29) Swansea 245.
Travelling Expenses (if chargeable) Swansea £
Second Surveyor's Fee (if any) £

Fees applied for,

19

Received by me,

19

poop sheerstrake plate No. 2 (p.s.a.), stem plate in 2nd below sheer, sheerstrake and bulwark plate in way of No. 5 tank p.s. being effected at Owners' convenience.

Surveyor to Lloyd's Register of Shipping.

LICENCE CASE.

Committee's Minute

Character Assigned

TUES. 13 JUN 1944



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Lloyd's Register
Foundation

Vertical centre girder torn off from forward to near the aft end of No. 4 centre tank.

Lower parts of all transverse bulkheads from the fore peak bulkhead to the forward bulkhead of No. 4 tank, port and centre, and No. 3 tank starboard, inclusive, torn off to a height of about 7ft. above base, forward, to about 11ft. aft.

Bottom transverses and lower parts of webs on shell and longitudinal bulkheads torn off.
Cargo pipe lines, heating coils, ladders, etc. torn off in way of damaged structure.

EFFICIENT TEMPORARY REPAIRS now effected to enable vessel to proceed in ballast to a port in the U.S.A. for permanent repairs.

Fore peak, fore deep tank and forward pumproom closed by a new watertight V-shaped bottom sloping up from 6ft. above base line at centre line to about 10ft. at the port and starboard sides. New bottom plating supported by floors in the fore peak and by channels 15" deep and floors and intercostals in the fore deep tank. The existing parts of the fore peak bulkhead, forward pumproom bulkheads and fore deep-tank after bulkhead were

ANCHORS.

* When a bower anchor is supplied it must be clearly stated whether it is a 1st, 2nd, or 3rd bower.

CHAIN CABLES.

plated down watertight to the new bottom.

Similar girders with 48" x 1" additional rider plates on the after parts but with 24" x $\frac{3}{4}$ "

S.S. "MARKAY"

DAMAGE NO. 4.

Found shell plate starboard abreast No. 6 cargo tank slightly set in and No. 3 shell plate (from aft) in 2nd strake below main sheer, starboard, set in sharply. No repairs effected at this time. To be dealt with when permanent repairs to Damage No. 1 are being effected or at first convenient opportunity.

SPECIAL REASONS LIST.

The following items were not dealt with at this time but remain efficient.

Indented poop sheerstrake plate No. 2 (p.s.a.), stem plate in 2nd below sheer, sheerstrake and bulwark plate in way of No. 5 tank (p.s.)

The reference to drydocking and repairs for grounding may now be deleted.

The following should be added:-

"Permanent repairs to forward bottom, side shell, internal structure and fittings being effected on arrival at a U.S.A. port".

The above temporary repairs were accepted without amendment by all the interested

parties:- Ministry of War Transport, Owners, British Corporation (on behalf of American Bureau - dual class), Salvage Association and British and American Underwriters' Representatives.

s.s. "MARKAY".

TEMPORARY REPAIRS FOR DAMAGE 1. (Contd).

bottom rider plates instead of 24" x 1" were erected port and starboard on the line of the longitudinal bulkheads, i.e. 17' 6" from the centre line. On the port girder attachments were made to the new bottom forward and to the existing shell and bulkhead aft. The starboard girder was attached forward to the new bottom, and aft to the existing longitudinal bulkhead of No. 4 starboard wing tank and existing bottom shell plating of No. 4 centre tank. Existing parts of the longitudinal bulkheads were plated down and attached to the upper edge of the girders throughout their length. The lower edge of the girders sloped up from the base line at the aft end of No. 4 tank to 9ft. above the base at the forward end of the girders.

The existing shell plating, port and starboard, was plated down and girders, consisting of a 30" x $\frac{3}{4}$ " plate and 12" channel, were attached to the lower edges by a double-riveted angles. Attachment was made to the new bottom forward and to existing undamaged longitudinals and shell at the aft end. Large brackets were fitted at the aft end to connect the new shell extension to the existing shell. These girders sloped up from about 7ft. above the base at the aft end to about 10ft. at the forward end and were stiffened by tripping brackets spaced about 6ft. apart.

Existing parts of all vertical webs on the shell and longitudinal bulkheads were extended down to the lower edges of the new girders.

The transverse bulkhead between No. 3 and 4 tanks was plated down to a line joining the lower edges of the girders, the bulkhead between No. 2 and 3 was plated down to the level of the upper edge of the centre line girder and these bulkheads and those forward were attached to the girders by brackets.

12" channels spaced about 12ft. apart were fitted transversely from port to starboard to tie all girders together.

No. 4 starboard tank and No. 5 port tank were made watertight by plates welded to the existing shell and by cement.

No. 4 starboard tank was fitted with a suction pipe led to existing lines; the forward pumproom, the fore deep tanks and the fore peak tank were fitted with suction pipes led to pump in the forward pumproom.

On completion of the repairs these tanks and No. 5 port tank were tested by water and found or made satisfactory. New suction arrangements tested and found satisfactory.

After being floated the vessel was loaded with Fresh Water, Oil Fuel and ballast, etc. to draughts approx. 18ft. forward and 22ft. aft.

Docking stools to facilitate re-drydocking were fitted now where shown on the blue-prints.

DAMAGE NO. 2.

Found flat keel plates in way of No. 5, 6, 7, 8 and 9 tanks buckled and waved in way of keel blocks. No repairs effected at this time. The buckling and waving of the keel plate in way of the keel blocks was of a minor nature and the only damage noted in No. 5 tank was a small buckle near the lower end of two diaphragms on the vertical centre girder.

DAMAGE NO. 3.

Found No. 4 shell plate (from aft) in A and B strake (starboard) set in. No repairs effected at this time. To be dealt with when permanent repairs to Damage No. 1 are being effected or at first convenient opportunity.



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Lloyd's Register
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