

# REPORT ON MACHINERY

No. 30,227

Received at London Office 6-NOV-1917

Date of writing Report 29-10-17 when handed in at Local Office 2-11-17 Port of Hull  
 No. in Survey held at Hull Date, First Survey 6-4-16 Last Survey 27-10-17  
 Reg. Book 19 on the steel screw trawler "Nitres" (Number of Vents) Gross 261 Tons Net 102  
 Master Beverly Built at Beverly By whom built Cook, Walton & Gommell When built 1917-10  
 Engines made at Hull By whom made Amos Smith & Co. 2823 when made 1917-10  
 Boilers made at Hull By whom made Amos Smith & Co. 2823 when made 1917-10  
 Registered Horse Power 74 Owners Loyal Trawling Co. Port belonging to Grimby  
 Nom. Horse Power as per Section 28 74 Is Refrigerating Machinery fitted for cargo purposes no Is Electric Light fitted yes

**ENGINES, &c.**—Description of Engines Triple expansion No. of Cylinders Three No. of Cranks 3  
 Dia. of Cylinders 12 1/2" - 21 1/2" - 35 1/2" Length of Stroke 24" Revs. per minute as per rule 7.16 Material of screw shaft Iron  
 Is the screw shaft fitted with a continuous liner the whole length of the stern tube yes Is the after end of the liner made water tight  
 in the propeller boss yes If the liner is in more than one length are the joints burned yes If the liner does not fit tightly at the part  
 between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive yes If two  
 liners are fitted, is the shaft lapped or protected between the liners yes Length of stern bush 34"  
 Dia. of Tunnel shaft as per rule 6.4 Dia. of Crank shaft journals as per rule 6.72 Dia. of Crank pin 7" Size of Crank webs 4 3/8" x 14 3/8" Dia. of thrust shaft under  
 collars 6 7/8" Dia. of screw 8-9" Pitch of Screw 11-0" No. of Blades 4 State whether moveable no Total surface 29 sq ft  
 No. of Feed pumps one Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work yes  
 No. of Bilge pumps one Diameter of ditto 2 3/4" Stroke 12" Can one be overhauled while the other is at work yes  
 No. of Donkey Engines two & 2 cycles Sizes of Pumps 6 1/4", 4 3/4" x 6", 6", 3" x 6" dup No. and size of Suctions connected to both Bilge and Donkey pumps  
 In Engine Room two 2" dia In Holds, &c. one 2" dia in each compartment  
 all suction also connected to yellow  
 No. of Bilge Injections one sizes 3" Connected to condenser, or to circulating pump yes Is a separate Donkey Suction fitted in Engine room of size 2" cycle  
 Are all the bilge suction pipes fitted with roses yes Are the roses in Engine room always accessible yes Are the sluices on Engine room bulkheads always accessible none  
 Are all connections with the sea direct on the skin of the ship yes Are they Valves or Cocks both  
 Are they fixed sufficiently high on the ship's side to be seen without lifting the stokehold plates yes Are the Discharge Pipes above or below the deep water line above  
 Are they each fitted with a Discharge Valve always accessible on the plating of the vessel yes Are the Blow Off Cocks fitted with a spigot and brass covering plate yes  
 What pipes are carried through the bunkers Forward suction How are they protected strong casings  
 Are all Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times yes  
 Are the Bilge Suction Pipes, Cocks, and Valves arranged so as to prevent any communication between the sea and the bilges yes  
 Dates of examination of completion of fitting of Sea Connections 23-7-17 of Stern Tube 23-7-17 Screw shaft and Propeller 23-7-17  
 Is the Screw Shaft Tunnel watertight yes Is it fitted with a watertight door yes worked from yes

**BOILERS, &c.**—(Letter for record S) Manufacturers of Steel J. Spencer & Sons  
 Total Heating Surface of Boilers 1267 sq ft Is Forced Draft fitted no No. and Description of Boilers one single ended  
 Working Pressure 180 lb Tested by hydraulic pressure to 360 lb Date of test 1-3-17 No. of Certificate 3195  
 Can each boiler be worked separately yes Area of fire grate in each boiler 37.6 sq ft No. and Description of Safety Valves to  
 each boiler two spring loaded Area of each valve 4.9 sq in Pressure to which they are adjusted 185 Are they fitted with easing gear yes  
 Smallest distance between boilers or uptakes and bunkers or woodwork 10" Bl lagged Mean dia. of boilers 152" Length 10-3 29/32" Material of shell plates steel  
 Thickness 1/32" Range of tensile strength 28-32 tons Are the shell plates welded or flanged no Descrip. of riveting: cir. seams double  
 long. seams P.D.B. Diameter of rivet holes in long. seams 1 1/16" Pitch of rivets 7" Lap of plates or width of butt straps 15 7/16"  
 Per centages of strength of longitudinal joint  
 rivets 91-2 Working pressure of shell by rules 180 Size of manhole in shell 16" x 12"  
 plate 84.82  
 Size of compensating ring 9" x 1 1/2" No. and Description of Furnaces in each boiler two plain Material steel Outside diameter 44 3/8"  
 Length of plain part top 7.8" Thickness of plates bottom 7.2 1/2" crown 7 13/16" Description of longitudinal joint welded No. of strengthening rings yes  
 Working pressure of furnace by the rules 185 Combustion chamber plates: Material steel Thickness: Sides 1 1/16" Back 1 1/16" Top 1 1/16" Bottom 3/4"  
 Pitch of stays to ditto: Sides 10" x 7" Back 9 1/2" x 9" Top 9 1/2" x 7" If stays are fitted with nuts or riveted heads nuts Working pressure by rules 191  
 Material of stays steel Diameter at smallest part 2.07" Area supported by each stay 85.5 sq in Working pressure by rules 217 End plates in steam space:  
 Material steel Thickness 1 1/32" Pitch of stays 16 1/2" x 16 1/4" How are stays secured 9.7 x 4" Working pressure by rules 187.5 Material of stays steel  
 Diameter at smallest part 5.05" Area supported by each stay 268 sq in Working pressure by rules 196 Material of Front plates at bottom steel  
 Thickness 3 1/32" Material of Lower back plate steel Thickness 1 9/16" Greatest pitch of stays 13 3/4" x 9 1/2" Working pressure of plate by rules 217  
 Diameter of tubes 3 1/2" Pitch of tubes 4 7/8" x 4 3/4" Material of tube plates steel Thickness: Front 3 1/32" Back 27/32" Mean pitch of stays 11 1/4"  
 Pitch across wide water spaces 13 3/4" Working pressures by rules 190 Girders to Chamber tops: Material steel Depth and  
 thickness of girder at centre 8 3/4" x 9 1/2" x 1 1/2" Length as per rule 33" Distance apart 8 1/2" x 9 1/2" Number and pitch of stays in each Three 7"  
 Working pressure by rules 180 Superheater or Steam chest; how connected to boiler yes Can the superheater be shut off and the boiler worked  
 separately yes Diameter yes Length yes Thickness of shell plates yes Material yes Description of longitudinal joint yes Diam. of rivet  
 holes yes Pitch of rivets yes Working pressure of shell by rules yes Diameter of flue yes Material of flue plates yes Thickness yes  
 If stiffened with rings yes Distance between rings yes Working pressure by rules yes End plates: Thickness yes How stayed yes  
 Working pressure of end plates yes Area of safety valves to superheater yes Are they fitted with easing gear yes

If a Report also sent on the Hull of the ship, it will be sent by post, state whether, and when, one will be sent.

