E.I.R.Co's Steamer "SURPRISE"

Length 85ft Breadth 16ft Locomotive Engine 90 H.P.

EAST INDIAN RAILWAYS COMPANYS STEAM TUG AND TOW BOATS FOR BENGAL RIVERS, CONTRACTED FOR BY R. STEPHENSON & CO. OF NEWCASTLE ON TYNE.

TOW BOATS LENGTH 100 FEET BREADTH 30 FEET. CAPABILITY FOR WEIGHT OF CARGO AT 6 FT DRAFT

TUG STEAMER LENGTH 125 FEET BREADTH 30 FEET 150 NOMINAL H.P. CAPABILITY, WEIGHT FOR CARGO

No 1

ENGINES 200 N.H.P. CYLINDERS 32 INS STROKE 72 INS

C.W. CARGO 50 TONS... OF COALS 50 TONS

LOAD DRAFT 9 FEET DISPLACEMENT 784 TONS

EXPERIMENTAL TROOP STEAMER BUILT IN ACCORDANCE WITH A REPORT OF COMMISSION THAT VISITED THE RHONE IN 1857 ON DESIGN & SPECIFICATION OF MR T.S. WINTERMORE ONE OF THE COMMISSION. TO BE TRIED ON THE THAMES DEC. 1860.

LENGTH OVER ALL 375 FEET BREADTH 48 FEET HEIGHT OF GIRDER 18 FEET.

No 2

ENGINES 120 N.H.P

INDUS STEAM FLOTILLA No 1 BUILT FOR SCINDE RAILWAY COMPANY, BY J. SCOTT RUSSELL & Co

INDUS S. Steamer Tried Feby 9th and Reported in Engineer 17th Feb 1860. After trials in towing, a false Stern 11 feet long was added to protect Rudder & Steering Sheaves & wheel erected over it

3569 ton.

DECK PLAN OF EAST INDIAN RAILWAY COMPANY'S TOW BARGE 200 LONG 30 BROAD

DECK PLAN OF EAST INDIAN RAILWAY COMPANY'S TUG & STEAMER 225 LONG 30½ BROAD

TERMINAL by STERN BARGE 180 feet long 30 feet broad.

Oriental Inland Steam Co's STEAMER 'JUMNA' with additional trussings as sailed from LIVERPOOL for GREENOCK for Experimental Trials with TRAIN of 5 BARGES. 920 feet long.

1 Barge 130 feet long
1 do do Outside do do
1 Steamer do do
Mr Bourne's System of towing Vessels articulated together

Mr Bourne's Patent Oriental Inland Steam Co's Steamer "Jumna" lost at sea.
Train 920 feet. Modification of "Jumna" as above the No 2. addition of 2 side rudders to Steamer & 4 barge, extension of stern to admit of balanced rudder; extension of bow to give her finer lines, the addition of a donkey engine to work 2 screws acting as bow rudders and donkey engines to blowers.

Temporary deck and Timber fittings proposed by A. Henderson for sailing out E.I.R. Co's seventh Steamer.

No 6

No 7

2nd Cargo barge 180 feet x 30 with mid-ship girder and 6 Keelsons, turn in top side & Deck stringer designed by A. Henderson

Section of E.I.R. Co's Steamer as fitted with false bottom by C. Mitchell & Co for sailing out to India.

No 4

No 5

E.I.R. Co's 8th STEAMER

210ft long 33 3/4in broad. 9 deep

200 × 33¾ × 9

E.I.R. Co's 5th 6th and 7th STEAMERS.

200 × 30 × 7

Oriental I.S. Co's Train INDUS tried at Kurrachee in 1859. average of numerous trials as shewn below: loaded to 2.6.

The Steamer "JUMNA" was sunk by the short barge in crossing from Kurrachee harbour to the mouth of the River.

100 × 18 | 100 × 18 | 100 × 18 | 40 × 18 | 200 × 20

Engines 100 N.H.P. high pressure

Steamer alone average speed 8.56 miles per hour. Towing two Barges 7.14 miles per hour. Towing three Barges 5.64 miles per hour, and Towing Four Barges 5.28 miles per hour.

Result of Trial of two last Vessels induced the increase of length of second Vessel from 75 to 85 feet as shewn below & now ready for trial in Dec. 1860.

No 8

BHURR. 57 LONG 12.5 BROAD — ONE TUG STEAMER AND THREE TOW BOATS OF NATIVE TYPE FOR CALCUTTA CANALS AND UPPER RIVERS

OULAC 60 LONG 12.5 BROAD C.W.C. at 4 feet 48 Tons

TOW BOAT 75 LONG 12.5 BROAD C.W.C. at 4 feet 73 Tons

TUG STEAMER 85 LONG 12.5 BROAD C.W.C. at 4 feet 69 Tons

Combined capability W. C. at 4 feet draft 218 Tons.

Private Experimental ASSAM NAUTILUS FLOTILLA C.W.C. at 4 feet 42½ Tons

130 × 22

O.I.S. Co's Steamer "SUTLEJ" 230 × 20.

After loss of Indus, the "SUTLEJ" was lengthened 30 feet with barge Rudder and is now making regular voyages between the mouth of the Indus and Moultan, towing astern as in above sketch.

E.I.R. Co's Timber Cargo Boats 85 feet long each 16 ft broad, of Towing alongside Draft Steamer 3.6 Boats carrying Locomotive and Tenders.

System. Light.

E.I.R. Co's Tug Steamer SURPRISE 85 × 16

Locomotive Engine Light Draft 3.6

3 Steamers & 2 Tow Barges C.W.C. at 2.6 — 393 Tons

Do 3.6 — 715

3 Steamers & 4 Tow Barges C.W.C. at 2.6 — 512 Tons

Do 3.6 — 930

No 9

THE JOINTED STEAM SHIP Mc GWENEYS PATENT

DECK PLANS

Engines 20 H.P. C.W.C. at 2.6, 9 TONS 3.6 35 "

E.I.R. Co's Steam Tug QUEEN OF THE GANGES and EXCELSIOR Built in Calcutta.

175 × 27

228 × 27.

Two Locomotive Engines of 90 N. H.P. each

Extract from Newcastle Guardian from its own Correspondent at Calcutta, 20th Oct 1860. Light draft 2.9. Capability for ... Cargo at 3.6. 90 Tons.

"Some days ago one of the East Indian Railway Co's Flats was sunk in going up the River by the Steamer "Queen of the Ganges" which she had in Tow; It appears the former had been backing and her stern struck the Flat, made a large hole in her and she sunk. It was supposed to contain £ 20,000 worth of Iron-work, of which was the Sone Bridge, made at the works of Sir W. G. Armstrong, Newcastle-on-Tyne."

A. Hendersons small Nautilus Flotilla of one Tug & two Tow Barges for Mercantile Purposes. This Steam Tug has had Improvements in Injection, additional Floats, Donkey Engine and Blower added, also Gauge Glass for Draft. Displacement & area of Mid. Sec. at time of trial.

© 2021 Lloyd's Register Foundation

IRON 498-0336