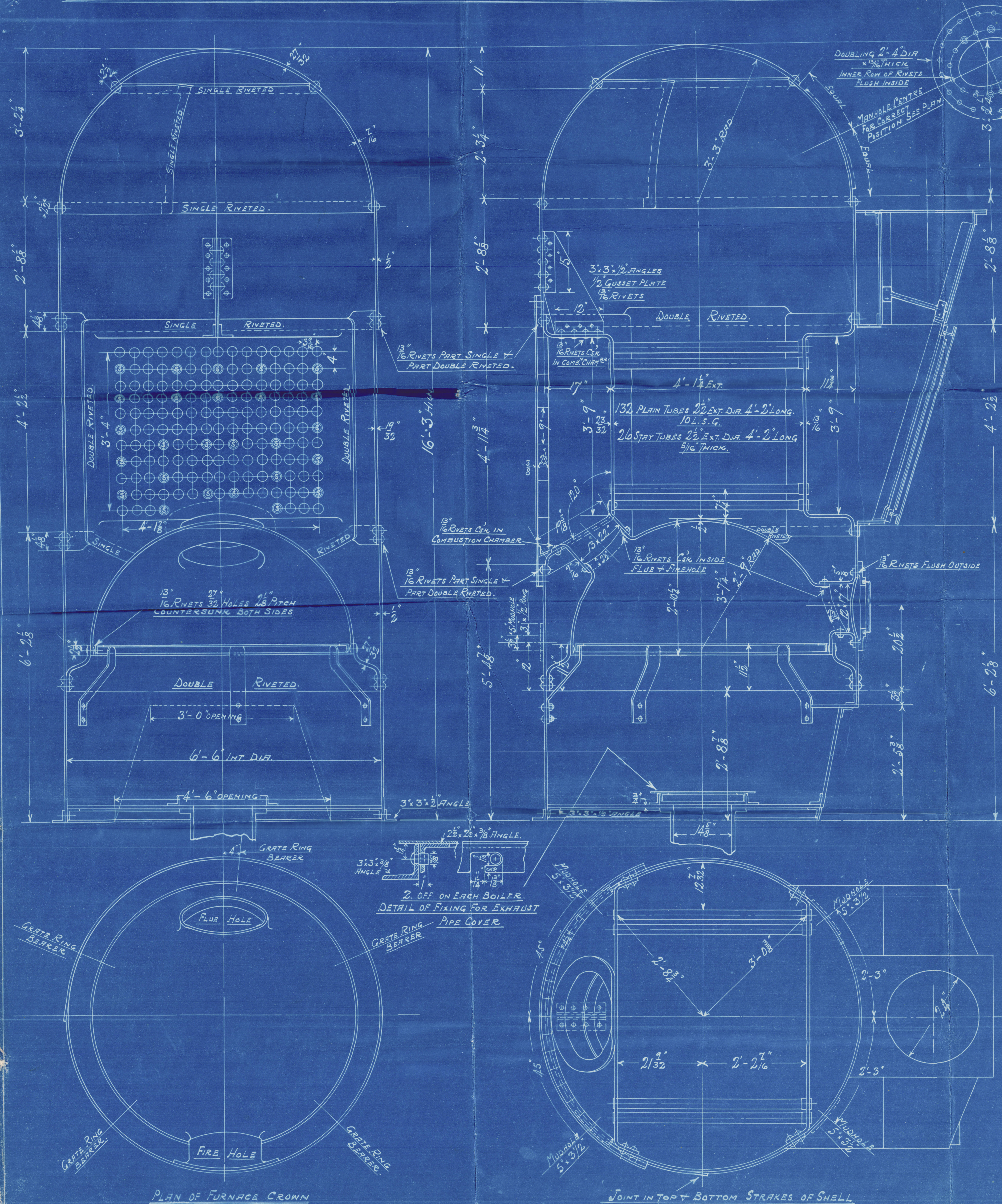


COCHRAN PATENT VERTICAL MULTITUBULAR BOILER

HORIZONTAL FLUE TUBES



MANHOLE
16\"/>

26/2/13

PLAIN TUBE HOLES 2 1/2\"/>

PLAIN TUBE HOLES 2 1/2\"/>

STAY TUBE HOLES SCREWED
2 1/2\"/>

STAY TUBE HOLES SCREWED
2 1/2\"/>

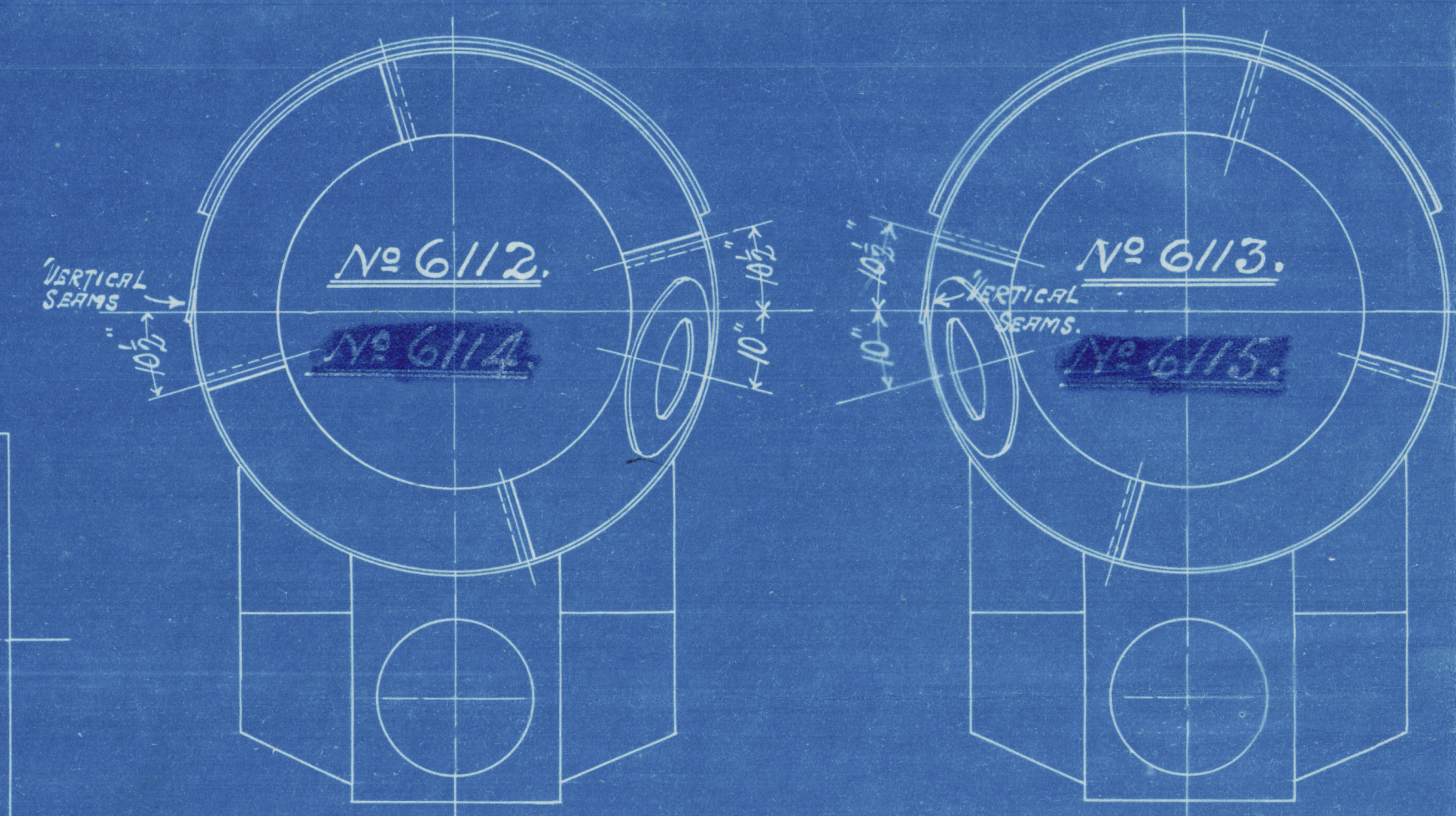
SCALE 1/2\"/>

HEATING SURFACE	
TUBES	416 Sq. Ft.
PLATE	84 "
TOTAL	500 "
GRATE AREA	22.5 "

PLATE	2' 3 3/8\"/>	2' 3 3/8\"/>	100	=	67.3%
RIVETS	55 1/2\"/>	5 1/2\"/>	100	=	71.1%
FRONT TUBE PLATE	4\"/>	2' 3 3/8\"/>	100	=	35.2%
BACK "	4\"/>	2' 3 3/8\"/>	100	=	37.5%
SHELL	20' 5\"/>	2' 3 3/8\"/>	100	=	106 LBS
FRONT TUBE PLATE	20' 5\"/>	2' 3 3/8\"/>	100	=	101.3 "
BACK "	20' 5\"/>	2' 3 3/8\"/>	100	=	103.5 "
FURNACE	12' 50\"/>	1' 8\"/>	100	=	113.6 "

PLATE	2' 3 3/8\"/>	2' 3 3/8\"/>	100	=	67.3%
RIVETS	55 1/2\"/>	5 1/2\"/>	100	=	74.5%
FRONT TUBE PLATE	4\"/>	2' 3 3/8\"/>	100	=	35.2%
BACK "	4\"/>	2' 3 3/8\"/>	100	=	37.5%
SHELL	20' 5\"/>	2' 3 3/8\"/>	100	=	110 LBS
FRONT TUBE PLATE	20' 5\"/>	2' 3 3/8\"/>	100	=	140 "
BACK "	20' 5\"/>	2' 3 3/8\"/>	100	=	164 "
FURNACE	14' 00\"/>	1' 8\"/>	100	=	106 "

STEEL PLATES & RIVETS ALL HOLES DRILLED IN PLACE
MAN & MUDHOLE DOORS MADE OF TESTED PLATE &
FITTED WITH STUDS SCREWED THROUGH DOORS WITH NUTS
INSIDE MADE BY MESSRS BARR, THOMSON & CO. KILMARNOCK.



PLAN SHOWING POSITIONS OF MANHOLES & SHELL
CROWN JOINTS.

COCHRAN & CO ANNAN LTD.
ENGINEERS & BOILERMAKERS
ANNAN, SCOTLAND

S.S. N° 916
PATENT BOILERS N° 6113
6'-6\"/>

SCALE 1\"/>

PLATES NOT EXPOSED TO FLAME OR FLANGED
PLATES EXPOSED TO FLAME OR FLANGED EXCEPT FURNACE CROWN
FURNACE CROWN

COCHRAN & CO., ANNAN, LD.

Boiler No. 6113

Drawing No. E 8440

W970-0063

GLASGOW REPORT No. 33093

Messrs Swan & Hunter

W. Richardson Ltd

No. 916

No 12250

Lloyds Test
200 lbs.

H.C. 14.8.13.



M.V. "ARUM"

NEWCASTLE-ON-TYNE

Report No. 6647
LLOYD'S REGISTER
FOUNDATION