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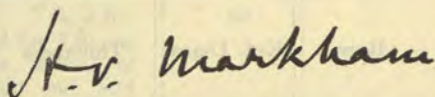
# ADMIRALTY FLEET ORDER

## BOILER TUBES, ETC.

ADMIRALTY, S.W.1,  
11th March, 1943.

The following Order having been approved by My Lords Commissioners of the Admiralty is hereby promulgated for information and guidance and necessary action.

By <sup>2</sup>Command of <sup>1</sup>their Lordships,



**Distribution Limited**

*To Commanders - in - Chief, Flag Officers, Senior Naval Officers, Captains and Commanding Officers of H.M. Ships mentioned herein, Superintendents or Officers in Charge of H.M. Dockyards and Repair Bases, and Admiralty Engineer Overseers.*

NOTE:—The scale of distribution is shown in the Admiralty Fleet Order Volume, 1941, Instructions, paragraph 10.

Head of "P" Branch



## 1156.—Boiler Tubes, etc.

H.M. Ships "Assurance", "Barflake", "Bicester", "Birdlip", "Bonito", "Bramham", "Bredon", "Butser", "Catterick", "Charon", "Decision", "Dexterous", "Duncton", "Dunkery", "Egilsay", "Ensay", "Filla", "Frisky", "Goathland", "Griper", "Holcombe", "Hursley", "Inkpen", "Ithuriel", "Jaunty", "Limbourne", "Melbreak", "Meteor", "Musketeer", "Pindos", "Portsdown", "Prudent", "Quickmatch", "Restive", "Rother", "Rotherham", "Sirius", "Slazak", "St. Kilda", "Tanatside", "Tenacity", "Unst", "Verbena", "Wensleydale", "Whalsay", "Whiting", "Yestor"

(N.S.—11.3.1943.)

Particulars of the boilers and tubes fitted are as follows:—

H.M. Ships "Assurance", "Frisky", "Jaunty", "Prudent", "Restive" and "Tenacity" (N.S./P. 8167/42.)

Type and No. of boilers	...	Scotch	...	...	...	1 No.
Total No. of tubes fitted	...	{ Generator	...	...	...	460 No.
	...	{ Air Preheater	...	...	...	312 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	3 in. Swelled to 3½ in. at front and for length of 3 in.	8 W.G.	7 ft. 11¼ in.	333	
Stay ...	3 in. Swelled to 3¼ in. at front end for length of 3 in. Screwed both ends 10 T.P.I. and nuts fitted both ends.	5/16 in.	7 ft. 11¼ in.	95	
Stay ...	3 in. Swelled to 3¼ in. at front end for length of 3 in. Screwed both ends 10 T.P.I. and nuts fitted both ends.	3/8 in.	7 ft. 11¼ in.	26	
Stay ...	3 in. Swelled to 3¼ in. at front end for length of 3 in. Screwed both ends 10 T.P.I. and nuts fitted both ends.	7/16 in.	7 ft. 11¼ in.	6	
<i>Airheating Tubes</i>					
—	2¾ in. Swelled to 2 13/16 in. at front end 3 in. up.	14 W.G.	4 ft. 1¾ in.	312	

## H.M.S. "Barflake" (P. 18337/42.)

Type and No. of boilers	...	Marine Return Tube	...	...	2 No.
Total No. of tubes fitted	...	{ Generator	...	...	598 No.
	...	{ Air Heater	...	...	464 No.

*Main*

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	2¾ in. Swelled to 2 7/8 in. at front end for 3 in. up.	8 W.G.	7 ft. 4 in.	414	
Stay ...	2¾ in. Swelled to 3 in. at front end for 2 in. up and screwed continuous thread of 9 T.P.I. for 2 in. at front end, and 1½ in. at other. (Tube not nutted.)	5/16 in.	7 ft. 4 in.	100	
Stay ...	2¾ in. Swelled to 3 in. at front end for 2 in. up and screwed continuous thread of 9 T.P.I. for 2 in. at front end, and 1½ in. at other. (Tube not nutted.)	¼ in.	7 ft. 4 in.	64	
Stay ...	2¾ in. Swelled to 3 in. at front end for 2 in. up and screwed continuous thread of 9 T.P.I. for 2 in. at front end and 1½ in. at other. (Tubes nutted.)	3/8 in.	7 ft. 4¾ in.	16	
Stay ...	2¾ in. Swelled to 3 in. at front end for 2 in. up and screwed continuous thread of 9 T.P.I. for 2 in. at front end and 1½ in. at other. (Tubes nutted.)	7/16 in.	7 ft. 4¾ in.	4	
<i>Air Heater Tubes</i>					
Plain ...	2¾ in.	14 W.G.	3 ft. 1½ in.	452	
Stay ...	2¾ in. Swelled to 3 in. at one end for 3 in. up and screwed both ends for 3 in. up, continuous thread of 9 T.P.I. (Nutted both ends.)	¼ in.	3 ft. 2½ in.	12	



H.M. Ships "Bicester" and "Slazak" (P. 10953/42.)

Main

Type and No. of boilers ... { 3 Drum Small Tube with 2 No. Melesco Superheaters.  
 Total No. of tubes fitted ... Generator ... 4,312 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 3/4	128	9 4 1/2	144	All tubes are bent.
B	1 3/4	128	9 0 5/16	140	
C	1 1/2	116	8 9 1/2	224	
D	1 1/8	116	8 7 3/4	220	
E	1 1/8	116	8 6 1/4	224	
F	1	104	8 3 3/16	252	
G	1	104	8 2 3/8	248	
H	1	104	8 2 3/8	244	
J	1	104	8 2 3/8	240	
K	1	104	8 2 1/2	236	
L	1	104	8 2 13/16	232	
M	1	104	8 3 9/16	228	
N	1	104	8 4 1/8	224	
O	1	104	8 5 5/16	220	
P	1	104	8 6 1/2	216	
Q	1	104	8 7 15/16	212	
R	1	104	8 9 3/8	208	
S	1	104	8 11 9/16	204	
T	1	104	9 1 1/8	200	
U	1	104	9 3 7/8	196	

H.M. Ships "Birdlip", "Bredon", "Butser", "Dunston", "Portsdown" and "Yestor" (P. 17463/42.)

Type and No. of boilers ... Scotch ... 1 No.  
 Total No. of tubes fitted ... { Generator ... 318 No. Air Heater ... 278 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	3 1/4 in.	8 W.G.	7 ft. 3 in.	219	All tubes are bent.
	Swelled to 3 5/16 in. at front end for 3 in.				
Stay ...	3 1/4 in.	5/16 in.	7 ft. 3 in.	60	
	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed to 3 1/4 in. and 3 1/2 in. diameter 2 3/4 in. up continuous thread 9 T.P.I.				
Stay ...	3 1/4 in.	3/8 in.	7 ft. 3 in.	31	
	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed to 3 1/4 in. and 3 1/2 in. diameter 2 3/4 in. up continuous thread 9 T.P.I.				
Stay ...	3 1/4 in.	7/16 in.	7 ft. 3 in.	8	
	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed to 3 1/4 in. and 3 1/2 in. diameter 2 3/4 in. up continuous thread 9 T.P.I.				
Air Heater Tubes					
	2 3/4 in.	14 W.G.	5 ft. 7 1/4 in.	278	
	Swelled to 2 13/16 in. at front end.				

H.M.S. "Bonito" (P.12003/42.)

Type and No. of boilers ... Scotch ... 1 No.  
 Total No. of tubes fitted ... { Generator ... 265 No. Air Heater ... 206 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	3 1/4 in.	8 W.G.	6 ft. 10 1/4 in.	187	All tubes are bent.
	Swelled to 3 5/16 in. at front end for 3 in.				
Stay ...	3 1/4 in.	5/16 in.	6 ft. 10 1/4 in.	54	
	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at ends to 3 1/4 in. or 3 1/2 in. diameter 2 3/4 in. up, continuous thread 9 T.P.I.				
Stay ...	3 1/4 in.	3/8 in.	6 ft. 10 1/4 in.	20	
	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at ends to 3 1/4 in. or 3 1/2 in. diameter 2 3/4 in. up, continuous thread 9 T.P.I.				
Stay ...	3 1/4 in.	7/16 in.	6 ft. 10 1/4 in.	4	
	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at ends to 3 1/4 in. or 3 1/2 in. diameter 2 3/4 in. up, continuous thread 9 T.P.I.				

Air Heater Tubes

2 3/4 in. | 14 W.G. | 4 ft. 1 1/4 in. | 206  
 Swelled to 2 13/16 in. at front end.

H.M.S. "Bramham" (P. 10953/42.)

Type and No. of boilers ... 3 Drum Small Tube fitted with 2 No Melesco superheater.  
 Total No. of tubes fitted ... Generator ... 4,312 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 3/4	128	9 4 1/2	144	All tubes are bent.
B	1 3/4	128	9 0 5/16	140	
C	1 1/2	116	8 9 1/2	224	
D	1 1/8	116	8 8 1/4	220	
E	1 1/8	116	8 6 1/4	224	
F	1	104	8 3 3/16	252	
G	1	104	8 2 3/8	248	
H	1	104	8 2 3/8	244	
J	1	104	8 2 3/8	240	
K	1	104	8 2 1/2	236	
L	1	104	8 2 13/16	232	
M	1	104	8 3 9/16	228	
N	1	104	8 4 1/8	224	
O	1	104	8 5 5/16	220	
P	1	104	8 7	216	
Q	1	104	8 8 5/16	212	
R	1	104	8 9 7/8	208	
S	1	104	8 11 9/16	204	
T	1	104	9 1 1/8	200	
U	1	104	9 4 1/8	196	



H.M.S. "Catterick" (P. 11526/42.)

Type and No. of boilers ... Three Drum Small Tube fitted with 2 Superheaters per boiler. 2 No.  
 Total No. of tubes fitted ... Generator ... 4,312 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 3/4	128	9 5 1/16	144	All tubes are bent.
B	1 3/4	128	9 0 1/16	140	
C	1 1/2	116	8 9 5/8	224	
D	1 1/2	116	8 7 5/8	220	
E	1 1/2	116	8 6 5/8	224	
F	1	104	8 3 7/16	252	
G	1	104	8 2 1/16	248	
H	1	104	8 2 1/16	244	
J	1	104	8 2 1/16	240	
K	1	104	8 2 1/16	236	
L	1	104	8 3 1/16	232	
M	1	104	8 3 1/16	228	
N	1	104	8 4 1/16	224	
O	1	104	8 5 5/8	220	
P	1	104	8 6 3/8	216	
Q	1	104	8 8 1/16	212	
R	1	104	8 9 1/16	208	
S	1	104	8 11 1/16	204	
T	1	104	9 1 3/16	200	
U	1	104	9 4 3/16	196	

H.M. Ships "Charon" (P. 18052/42); "Decision" (P. 18053/42); "Dexterous" and "Griper" (P. 19403/42).

Type and No. of boilers ... Scotch ... 1 No.  
 Total No. of tubes fitted ... Generator ... 460 No.  
 ... Airheating Tubes ... 312 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	3 in.	8 W.G.	7 ft. 11 1/4 in.	333	Swelled to 3 1/8 in. at front end for 3 in.
Stay ...	3 in.	5/16 in.	7 ft. 11 1/4 in.	95	Swelled to 3 1/4 in. at front end for 3 in. All stay tubes to be screwed at both ends for a length of 2 3/4 in. up, continuous threads 10 T.P.I.
Stay ...	3 in.	3/8 in.	7 ft. 11 1/4 in.	26	Swelled to 3 1/4 in. at front end for 3 in. All stay tubes to be screwed at both ends for a length of 2 3/4 in. up, continuous threads 10 T.P.I.
Stay ...	3 in.	7/16 in.	7 ft. 11 1/4 in.	6	Swelled to 3 1/4 in. at front end for 3 in. All stay tubes to be screwed at both ends for a length of 2 3/4 in. up continuous threads 10 T.P.I.
					<i>Air Heating Tubes</i>
—	2 3/4 in.	14 W.G.	4 ft. 1 3/4 in.	312	Swelled to 2 1/8 in. at front end 3 in. up.

H.M.S. "Dunkery" (P. 18050/42.); H.M.S. "Inkpen" (P. 18055/42.)

Type and No. of boilers ... Scotch ... 1 No.  
 Total No. of tubes fitted ... Generator ... 318 No.  
 ... Air Heating Tubes ... 278 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	3 1/4 in.	8 W.G.	7 ft. 3 in.	219	Swelled to 3 5/8 in. at front end for 3 in.
Stay ...	3 1/4 in.	5/16 in.	7 ft. 3 in.	60	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at both ends for a length of 2 3/4 in. up, continuous thread 9 T.P.I.
Stay ...	3 1/4 in.	3/8 in.	7 ft. 3 in.	31	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at both ends for a length of 2 3/4 in. up, continuous thread 9 T.P.I.
Stay ...	3 1/4 in.	7/16 in.	7 ft. 3 in.	8	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at both ends for a length of 2 3/4 in. up, continuous thread 9 T.P.I.

Air Heater Tubes

2 3/4 in. | 14 W.G. | 5 ft. 7 3/4 in. | 278  
 Swelled to 2 1/8 in. at front end 3 in. up.

H.M. Ships "Egilsay" (P. 18056/42); "Ensay" (P. 18049/42); "Filla" (P. 16797/42.); and "Whalsay" (P. 18054/42).

Type and No. of boilers ... Scotch ... 1 No.  
 Total No. of tubes fitted ... Generator ... 384 No.  
 ... Air Heating Tubes ... 266 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	2 3/4 in.	8 W.G.	8 ft. 0 1/4 in.	270	Swelled to 2 7/8 in. for 3 in. at front end.
Stay ...	2 3/4 in.	7/16 in.	8 ft. 0 1/4 in.	2	Swelled to 3 in. O.D. at front end, 3 in. up. All stay tubes screwed with consecutive thread at both ends for 3 in. along, 9 threads T.P.I.
Stay ...	2 3/4 in.	3/8 in.	8 ft. 0 1/4 in.	8	Swelled to 3 in. O.D. at front end, 3 in. up. All stay tubes screwed with consecutive thread at both ends for 3 in. along, 9 threads T.P.I.



Main—contd.

Row	Ext. Diam.	Thickness.	Fitted Length.	Total No. of Tubes fitted	Remarks.
Stay ...	2 3/4 in.	5/16 in.	8 ft. 0 1/4 in.	50	Swelled to 3 in. O.D. at front end, 3 in. up. All stay tubes screwed with consecutive thread at both ends for 3 in. along, 9 threads T.P.I.
Stay ...	2 3/4 in.	1/2 in.	8 ft. 0 1/4 in.	54	
<i>Air Heating Tubes</i>					
Plain ...	2 3/4 in.	14 W.G.	3 ft. 5 3/4 in.	260	Swelled at one end to 3 in. for 2 3/4 in., screwed both ends for 2 3/4 in. up—9 T.P.I.
Stay ...	2 3/4 in.	1/2 W.G.	3 ft. 6 1/2 in.	6	

H.M. Ships "Goathland", "Tanatside" and "Wensleydale" (P. 19450/42).

Particulars of the boilers and tubes fitted in H.M. Ships "Goathland", "Tanatside" and "Wensleydale" are identical with those published in A.F.O. 4323/40 for H.M.S. "Cattistock".

H.M.S. "Holcombe" (P. 17851/42).

Type and No. of boilers ... Three Drum Small Tube ... 2 No.  
 Total No. of tubes fitted ... Generator ... 4,312 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 3/4	128	9 4 1/2	144	All tubes are bent.
B	1 3/4	128	9 0 1/8	140	
C	1 1/8	116	8 9 7/16	224	
D	1 1/8	116	8 8	220	
E	1 1/8	116	8 6 1/2	224	
F	1	104	8 3 3/8	252	
G	1	104	8 2 15/16	248	
H	1	104	8 2 5/8	244	
J	1	104	8 2 1/2	240	
K	1	104	8 2 11/16	236	
L	1	104	8 3 1/16	232	
M	1	104	8 3 11/16	228	
N	1	104	8 4 3/16	224	
O	1	104	8 5 1/2	220	
P	1	104	8 6 11/16	216	
Q	1	104	8 8 5/8	212	
R	1	104	8 9 13/16	208	
S	1	104	8 11 1/16	204	
T	1	104	9 1 7/16	200	
U	1	104	9 4 1/4	196	

H.M. Ships "Hursley" and "Pindos" (P. 10953/42.)

Type and No. of boilers ... Three Drum Water Tube with 2 No. Melesco Superheaters.  
 Total No. of tubes fitted ... Generator ... 4,312 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 3/4	128	9 4 5/16	144	All tubes are bent.
B	1 3/4	128	9 0 3/16	140	
C	1 1/8	116	8 9 9/16	224	
D	1 1/8	116	8 7 7/8	220	
E	1 1/8	116	8 6 1/16	224	
F	1	104	8 3 7/16	252	
G	1	104	8 2 15/16	248	
H	1	104	8 2 5/8	244	
J	1	104	8 2 1/2	240	
K	1	104	8 2 5/8	236	
L	1	104	8 3	232	
M	1	104	8 3 5/16	228	
N	1	104	8 4 3/8	224	
O	1	104	8 5 5/16	220	
P	1	104	8 6 1/2	216	
Q	1	104	8 7 7/8	212	
R	1	104	8 9 1/2	208	
S	1	104	8 11 3/8	204	
T	1	104	9 1 1/4	200	
U	1	104	9 3 11/16	196	

H.M.S. "Ithuriel" (P. 17367/42.)

Type and No. of boilers ... { Main—Three Drum Small Tube type, fitted with Superheaters. 3 No.  
 Auxiliary—Oil Fired "Spiralflo" Thimble Tube. 1 No.  
 Total No. of tubes fitted ... { Generator ... 7,644 No.  
 Superheater ... 580 No.  
 Auxiliary ... 168 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A.1	1 3/4	128	10 4 5/16	114	All tubes are bent.
A.2	1 3/4	128	10 4 5/16	102	
A.3	1 3/4	128	10 3 15/16	42	
B	1 3/4	128	10 0 7/16	264	
C	1 1/8	116	9 9 1/2	402	
D	1 1/8	116	9 7 7/8	408	
E	1 1/8	116	9 6 7/8	402	
F	1	104	9 3 7/16	450	
G	1	104	9 2 15/16	456	
H	1	104	9 2 3/4	450	
J	1	104	9 2 11/16	444	
K	1	104	9 2 5/8	438	
L	1	104	9 3 1/4	432	
M	1	104	9 3 11/16	426	
N	1	104	9 4 5/8	420	
O	1	104	9 5 5/8	414	
P	1	104	9 6 3/4	408	
Q	1	104	9 8 5/16	402	
R	1	104	9 9 11/16	396	
S	1	104	9 11 5/8	390	
T	1	104	10 1 1/2	384	



H.M.S. "Ithuriel" (P. 17367/42.)—contd.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
<i>Superheater Tubes</i>					
U	in. 1 3/8	W.D.G. 116	ft. in. 19 9 1/2	288 196 Nos. 1 and 3 boilers. 96 No. 2 boiler.	All tubes are bent.
V	1 3/8	116	20 3 1/8		
<i>Auxiliary</i>					
—	2	10 S.W.G.	9 in.	108	Thimble tube type.
—	2	10 S.W.G.	10 in.	60	

H.M.S. "Limbourne" (P.19450/42.)

Type and No. of boilers ... Admiralty 3 Drum Small Tube ... 2 No.  
Total No. of tubes fitted ... Generator ... 4,312 No.

*Main*

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
A	in. 1 3/4	W.D.G. 128	ft. in. 9 4 1/2	144	All tubes are bent.
B	1 3/8	128	9 0 1/8	140	
C	1 1/8	116	8 9 7/16	224	
D	1 1/8	116	8 8	220	
E	1 1/8	116	8 6 1/2	224	
F	1	104	8 3 3/8	252	
G	1	104	8 2 5/16	248	
H	1	104	8 2 3/8	244	
J	1	104	8 2 1/2	240	
K	1	104	8 2 1/16	236	
L	1	104	8 3 1/16	232	
M	1	104	8 3 11/16	228	
N	1	104	8 4 5/16	224	
O	1	104	8 5 1/2	220	
P	1	104	8 6 1/4	216	
Q	1	104	8 8 1/8	212	
R	1	104	8 9 13/16	208	
S	1	104	8 11 1/2	204	
T	1	104	9 1 1/8	200	
U	1	104	9 4 1/4	196	

H.M.S. "Melbreak" (P. 17652/42.)

Particulars of the boilers and tubes fitted in H.M.S. "Melbreak" are identical with those published in A.F.O. 2742/41 for H.M. Ships "Mendip", "Meynell", "Hambleton" and "Holderness".

(A.F.O. 2742/41.)

H.M.S. "Meteor" (P. 19843/42.)

Type and No. of boilers ... *Main*—Three Drum Small Tube with Melesco Superheaters. 2 No.  
*Auxiliary*—Thimble Tube ... 1 No.  
Total No. of tubes fitted ... Generator ... 9,044 No.  
Thimble Tubes ... 309 No.

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
<i>Main</i>					
	in.	W.D.G.	ft. in.		
A	1 3/8	128	11 10 3/8	276	All tubes are bent.
B	1 3/4	128	11 7 3/8	272	
C	1 1/8	116	11 4	428	
D	1 1/8	116	11 2 3/4	424	
E	1 1/8	116	11 1	428	
E.1	1 1/8	116	10 11	16	
F	1	104	10 9	480	
G	1	104	10 9	476	
H	1	104	10 9 3/8	472	
J	1	104	10 9 3/8	468	
K	1	104	10 9	464	
L	1	104	10 9	460	
M	1	104	10 10	456	
N	1	104	10 11 3/8	452	
O	1	104	11 0 3/8	448	
P	1	104	11 1 1/2	444	
Q	1	104	11 2	440	
R	1	104	11 4	436	
S	1	104	11 5 3/8	432	
T	1	104	11 7	428	
U	1	104	11 10	424	
V	1	104	12 1	420	
<i>Auxiliary</i>					
A	1 3/4-1 3/8	10 W.G.	8 0 1/2	261	Thimble tubes.
B	1 3/4-1 3/8	10 W.G.	7 1/2	24	Tapered ends.
C	1 3/4-1 3/8	10 W.G.	6 1/2	24	



H.M.S. "Musketeer" (P. 19223/42.)

Type and No. of boilers ... *Main*—  
 Three Drum Small Tube with 2 No.  
 Melesco Superheaters.  
 ... *Auxiliary*—  
 Thimble Tube type ... 1 No.  
 Total No. of tubes fitted ... Generator ... 9,044 No.  
 ... Thimble type ... 192 No.

*Main*

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 3/4	128	11 10 3/8	8	
A.1	1 3/4	128	11 11 1/16	268	
B	1 3/4	128	11 7 9/16	272	
C	1 1/8	116	11 4 5/8	428	
D	1 1/8	116	11 2 11/16	424	
E	1 1/8	116	11 1 1/8	428	
E.1	1 1/8	116	10 11 3/4	16	
F	1	104	10 9 5/8	480	
G	1	104	10 9 1/2	476	
H	1	104	10 9 7/16	472	
J	1	104	10 9 1 1/2	468	
K	1	104	10 9 11/16	464	
L	1	104	10 10 1/4	460	
M	1	104	10 10 3/8	456	
N	1	104	10 11 9/16	452	
O	1	104	11 0 5/8	448	
P	1	104	11 1 7/8	444	
Q	1	104	11 3 1/4	440	
R	1	104	11 4 5/8	436	
S	1	104	11 6 1/4	432	
T	1	104	11 8 1/2	428	
U	1	104	11 10 3/4	424	
V	1	104	12 1 5/8	420	

*Auxiliary*

A	2	10 W.G.	10	72	} M.S. thimble ends.
B	2	10 W.G.	9	120	

H.M.S. "Quickmatch" (P. 17797/42.)

Type and No. of boilers ... Admiralty Three Drum Small 2 No.  
 Tube type, with Melesco  
 Superheaters.  
 Total No. of tubes fitted... Generator ... 8,996 No.

*Main*

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 3/4	128	10 7 1/4	288	
B	1 3/4	128	10 2 13/16	284	
C	1 1/8	116	9 11 5/8	444	
D	1 1/8	116	9 10 7/8	440	
E	1 1/8	116	9 8 13/16	444	
E.1	1 1/8	116	9 7 15/16	16	
F	1	104	9 5 5/8	500	
G	1	104	9 5 11/16	496	
H	1	104	9 5 3/16	492	
J	1	104	9 5 1/2	488	
K	1	104	9 5 5/16	484	
L	1	104	9 5 7/8	480	
M	1	104	9 6 2/16	476	
N	1	104	9 7 3/16	472	
O	1	104	9 8 5/16	468	
P	1	104	9 9 1/2	464	
Q	1	104	9 10 15/16	460	
R	1	104	10 0 1/4	456	
S	1	104	10 2 5/16	452	
T	1	104	10 4 3/8	448	
U	1	104	10 7 1/4	444	

H.M.S. "Rother" (P. 9819/42.)

Particulars of the boilers and tubes fitted in H.M.S. "Rother" are identical with those published in A.F.O. 5301/42 for H.M. Ships "Swale", "Spey" and "Tay."  
 (A.F.O. 5301/42.)

H.M.S. "Rotherham" (P. 18362/42.)

Type and No. of boilers ... Admiralty Three Drum with 2 No.  
 Melesco Superheaters.  
 Total No. of tubes fitted ... Generator ... 8,996 No.

*Main*

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	1 3/4	128	10 6 5/8	288	} All tubes are bent.
B	1 3/4	128	10 3 1/4	284	
C	1 1/8	116	10 0 3/8	444	
D	1 1/8	116	9 10 5/8	440	
E	1 1/8	116	9 9 1/4	444	
E.1	1 1/8	116	9 8 1/4	16	
F	1	104	9 6 7/16	500	
G	1	104	9 5 7/8	496	
H	1	104	9 5 11/16	492	
J	1	104	9 5 5/8	488	
K	1	104	9 5 1/4	484	
L	1	104	9 6 3/8	480	
M	1	104	9 6 7/8	476	
N	1	104	9 7 1/2	472	
O	1	104	9 8 3/8	468	
P	1	104	9 9 3/8	464	
Q	1	104	9 11 1/2	460	
R	1	104	10 0 7/8	456	
S	1	104	10 2 3/4	452	
T	1	104	10 4 1/2	448	
U	1	104	10 7 3/4	444	



H.M.S. "Sirius" (P. 15616/42.)

Particulars of the boilers and tubes fitted in H.M.S. "Sirius" are identical with those published in A.F.O. 153/42 for H.M.S. "Euryalus".

(A.F.O. 153/42.)

H.M.S. "St. Kilda" (P. 18076/42.)

Particulars of the boilers and tubes fitted in H.M.S. "St. Kilda" are identical with those published in A.F.O. 5421/42 for H.M.S. "Orfasy".

(A.F.O. 5421/42.)

H.M.S. "Unst" (P. 17975/42.)

Type and No. of boilers ... Cylindrical Horizontal Return Tube. 1 No.

Total No. of tubes fitted ... { Generator ... 384 No. Air Heater Tubes ... 266 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	2 3/4 in.	8 W.D.G.	7 ft. 11 3/4 in.	270	Swelled to 2 7/8 in. at front end for 3 in. up.
Stay ...	2 3/4 in.	7/16 in.	8 ft. 0 in.	2	Fitted with nut at front end only. Swelled to 3 in. external diameter for 3 in. along at one end and screwed 9 T.P.I. continuous thread at both ends for 3 in. along.
Stay ...	2 3/4 in.	3/8 in.	8 ft. 0 in.	8	Fitted with nut at front end only. Swelled to 3 in. external diameter for 3 in. along at one end and screwed 9 T.P.I. continuous thread at both ends for 3 in. along.
Stay ...	2 3/4 in.	5/16 in.	7 ft. 11 3/4 in.	50	Without nut. Swelled to 3 in. external diameter for 3 in. along at one end and screwed 9 T.P.I. continuous thread at both ends for 3 in. along.
Stay ...	2 3/4 in.	1/4 in.	7 ft. 11 3/4 in.	54	Without nut. Swelled to 3 in. external diameter for 3 in. along at one end and screwed 9 T.P.I. continuous thread at both ends for 3 in. along.
<i>Air Heater Tubes</i>					
Plain ...	2 3/4 in.	14 W.G.	3 ft. 5 1/2 in.	260	Swelled to 2 13/16 in. at one end for 2 in. up.
Stay ...	2 3/4 in.	1/4 in.	3 ft. 7 in.	6	Swelled to 3 in. at one end for 3 in. up. Screwed 9 T.P.I. at both ends for 3 in. up.

H.M.S. "Verbena" (P. 17016/42.)

Particulars of the boilers and tubes fitted in H.M.S. "Verbena" are identical with those published in A.F.O. 1713/41 for H.M.S. "Candytuft".

(A.F.O. 1713/41.)

H.M.S. "Whiting" (P.18051/42.)

Type and No. of boilers ... Scotch ... 1 No.  
 Total No. of tubes fitted ... { Generator ... 265 No. Air Heater Tubes ... 206 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain ...	3 1/4 in.	8 W.G.	6 ft. 10 1/2 in.	187	Swelled to 3 5/8 in. at front end for 3 in.
Stay ...	3 1/4 in.	5/16 in.	6 ft. 10 1/2 in.	54	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at ends for 2 3/4 in. up, continuous thread 9 T.P.I.
Stay ...	3 1/4 in.	3/8 in.	6 ft. 10 1/2 in.	20	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at ends for 2 3/4 in. up, continuous thread 9 T.P.I.
Stay ...	3 1/4 in.	7/16 in.	6 ft. 10 1/2 in.	4	Swelled to 3 1/2 in. at front end for 3 in. All stay tubes to be screwed at ends for 2 3/4 in. up, continuous thread 9 T.P.I.
<i>Air Heater Tubes</i>					
—	2 3/4 in.	14 W.G.	4 ft. 1 3/4 in.	206	Swelled to 9 13/16 in. at front end 3 in. up.

Records affected, D.354 and D.682 (Standard copy).

(This Order will not be reprinted.)

(A.F.Os. 153/42, 5301/42 and 5421/42.)



