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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 Command of their Lordships,

It. V. markham

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" Bracell	The second bearing the second
7 1 33	The second base and base
	- Later Charles - Later - Late
	- 12 HA - 10 H A - 10
	THE RESERVE OF THE PARTY OF THE

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 Air Preheater		 	460 No.
	(Air Preneater	***	 ***	312 No.

·Ro	w	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain	• • • • • • • • • • • • • • • • • • • •		8 W.G. 3½ in. at front a		333	
Stay		of 3 in.	5 in. 31 in. at front of Screwed both of fitted both end	ends 10 T.P.I.	95	
Stay		of 3 in.	$\frac{3}{8}$ in. $3\frac{1}{4}$ in. at front of Screwed both of fitted both end	ends 10 T.P.I.	26	
Stay		Swelled to of 3 in.	⁷ / ₁₆ in. 3¼ in. at front of Screwed both of fitted both end	end for length ends 10 T.P.I.	6	

Airheating Tubes

-	2 ³ in. Swelled to	14 W.G. 2 13 in. at front	4 ft. 13 in. end 3 in. up.	312
			1	1

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

Type and No. of boilers	Marine Return	Tube		 2 No.
Total No. of tubes fitted	\cdots $\begin{cases} Generator \\ Air Heater \end{cases}$			 598 No.
Total No. of tubes fitted	··· \ Air Heater		***	 464 No.
	Main			

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain	$2\frac{3}{4}$ in. Swelled to 2	8 W.G.	7 ft. 4 in. d for 3 in. up.	414	
Stay	and screens 9 T.P.I.	5 in. 3 in. at front enewed continuous for 2 in. at froother. (Tube n	s thread of ont end, and	100	
Stay	and screen	in. at front end wed continuou for 2 in. at fro	s thread of ont end, and	64	AND W.B
Stay	1½ in. at 2¾ in.	other. (Tube i	7 ft. 43 in.	16	
ahopat	and screen	in. at front end wed continuou for 2 in. at fro other. (Tubes i	s thread of ont end and	In color to a	
Stay	and screen	76 in. in. at front end wed continuou for 2 in. at fro other. (Tubes i	s thread of ont end and	4	
		Air Hea	ter Tubes		
Plain	23 in.	14 W.G.	3 ft. 1½ in.	452	
Stay	and screw	in, at one end red both ends is sthread of 9 T.I	for 3 in. up,	12	

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

	Main				
Type and No. of boilers	3 Drui Meles	n Small	Tube eaters.	with	2 No.
Total No. of tubes fitted	Generator				4,312 No.

Row	Ext. Diam.	Thickness	Fitted Length	of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		
A	134	128	9 41	144	7 14
В	134	128	9 0 5	140	
C	118	116	8 91	224	
D	118	116	8 74	220	
E	118	116	8 61	224	
F	1	104	8 3 3	252	moul
G	1	104	8 25	248	
H	1	104	8 23	244	
J	1	104	8 23	240	
K	1	104	8 21	236	(All tube
L	1	104	8 2 13	232	are bent
M	1	104	8 3 16	228	1
N	1	104	8 4 5	224	100
0	i	104	8 5 5	220	
P	1	104	8 61	216	
Q	1	104	8 7 15	212	
R	î	104	8 95	208	
S	i	104	8 11 9	204	
T	1	104	9 13	200	90.0
Ū	1	104	9 37	196	

H.M. Ships "Birdlip", "Bredon", "Butser", "Duncton", "Portsdown" and

" Yestor" (P. 17463/42.)	THE DESCRIPTION OF		
Type and No. of boilers	Seotch		 1 No.
	Generator	444	 318 No.
Total No. of tubes fitted	Generator Air Heater		 278 No.

Row		Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain		3½ in. Swelled to 3	8 W.G. 8 5 in. at front	7 ft. 3 in. end for 3 in.	219	
Stay		All stay t	$\frac{5}{16}$ in. $\frac{1}{2}$ in. at front equbes to be screen, diameter $2\frac{3}{4}$ hread 9 T.P.I.	wed to $3\frac{1}{4}$ in.	60	
Stay		All stay t	$\frac{3}{4}$ in. at front ubes to be scrent diameter $2\frac{3}{4}$ in read 9 T.P.I.	wed to $3\frac{1}{4}$ in.	31	
Stay	***	All stay t	$\frac{7}{16}$ in. $3\frac{1}{2}$ in. at front subes to be screen. diameter $2\frac{3}{4}$ hread 9 T.P.I.	wed to 3\frac{1}{4} in.	8	
-		$2\frac{3}{4}$ in. Swelled to 2	Air Heater To 14 W.G.	5 ft. 73 in.	278	

H.M.S. " Bonito " ()	P.1	1200	3/42
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Type and No. of boilers	Seotch		1 ***	 1 No.
Total No. of tubes fitted	Generator Air Heater		***	 265 No.
	(Air Heater	***	1000	 206 No.
	Main			

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain	3½ in. Swelled to 3	8 W.G.	6 ft. 10¼ in. end for 3 in.	187	A
Stay	Swelled to 3 All stay t to 34 in. c	$\frac{5}{16}$ in. $3\frac{1}{2}$ in. at front ubes to be scr or $3\frac{1}{2}$ in. diames thread 9 T.P	end for 3 in. ewed at ends ter 2 ³ in. up,	54	
Stay	Swelled to 3 All stay to 3\frac{1}{4} in. o	$\frac{3}{8}$ in. $\frac{1}{2}$ in. at front ubes to be scror $3\frac{1}{2}$ in. diames thread 9 T.P.	ewed at ends ter 23 in. up,	20	
Stay	Swelled to 3 All stay to 31 in. o	$\frac{7}{16}$ in. $\frac{1}{2}$ in. at front ubes to be screen $3\frac{1}{2}$ in. diameter thread 9 T.P.	end for 3 in. ewed at ends ter 23 in. up,	4	
	23 in.	ir Heater Tube 14 W.G. 13 in. at front 6	4 ft. 13 in.	206	

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

Type and No. of boilers	····	3 Drum Sma Melesco sur		with	2 No
Total No. of tubes fitted		Generator	411	 	4 312 No

		M	lain		
Row	Ext. Diam.	Thickness	Fitted Length	of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.	1	
A	13	128	9 43	144)
В.	13	128	9 0 5	140	
C D E F G	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	116	8 91	224 .	
D	11	116	8 8 16	220	
E	118	116	8 6 16	224	
F	1	104	8 3 5	252	
G	1	104		248	
H	1	104	8 21	244	
H	1	104	8 2 15 8 2 1 8 2 1 8 2 16 8 2 16	240	
K	1	104	8 21	236	All tubes
L	1	104	8 3 16	232	are bent.
M	1	104	8 35	228	die bent.
N	1	104	8 41	224	
0 P	1	104	8 4½ 8 5½	220	
P	1	104	8 7	216	
Q R	1	104	8 8 5	212	
R	1	104	8 97	208	
S	1	104	8 11福	204	
T	1	104	9 1 11	200	
U	1	104	9 4 5	196	

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

Type and No. of boilers

Total No. of tubes fitted

Three Drum Small Tube fitted 2 No. with 2 Superheaters per boiler.

MALL " Books" C.Incom/124

... Generator 4,312 No.

Main

		161	aire		
Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
A	in.	W.D.G. 128	ft. in. 9 5 16	144) day
B C D	13 11 11 11 11 11	128 116 116	9 0 13 8 95 8 77 8 78	140 224 220	in the
E F G	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	116 104 104	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	224 252 248	
H J K	1 1	104 104 104	8 2 16 8 2 16 8 2 16 8 2 16	244 240 236	All tubes
L M	1	104 104	8 3 1 8 3 11	232 228	are bent.
N O P	1 1 1	104 104 104	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	224 220 216	
Q R S	1 1	104 104 104	8 8½ 8 9½ 8 11½ 8 11½	212 208 204	- year
T	1	104 104	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	200 196	

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

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks		
Plain		8 W.G.		333			
Stay	· All stay t	3 in. 5 in. 7 ft. 11½ in. 95 Swelled to 3½ in. at front end for 3 in. All stay tubes to be screwed at both ends for a length of 2¾ in. up, continuous threads 10 T.P.I.					
Stay	Swelled to All stay ends for	³ / ₈ in. 3¼ in. at front, tubes to be serval length of 2¾ hreads 10 T.P.I.	end for 3 in. ewed at both in. up, con-	26	the latest		
Stay	All stay ends for	$\frac{7}{16}$ in. $3\frac{1}{4}$ in. at front tubes to be ser a length of $2\frac{5}{4}$ hreads 10 T.P.1	ewed at both in. up con-	6			
-	$2\frac{3}{4}$ in. Swelled to	Air Heating T 14 W.G. 2 18 in. at front	4 ft. 13 in.	312	i.		

H.M.S. " Dunkery "	(P. 18050/42.);	H.M.S. "Inkpen"	(P. 18055/42.)
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.Type and No. of boilers	for the	Scotch		· M·	Tar for	1 No.
Total No. of tubes fitted	Lumerille	Generator Air Heating	Tubes		1:	318 No. 278 No.
	1000	Main				

Ro	W	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain	***		8 W.G. 3 5 in. at front	7 ft. 3 in. end for 3 in.	219	eids
Stay	1944	All stay t	$\frac{5}{16}$ in. $3\frac{1}{2}$ in. at front cubes to be scr a length of $2\frac{3}{4}$ hread 9 T.P.I.	ewed at both	60	
Stay	***		$\frac{3}{8}$ in. $\frac{3}{2}$ in. at front tubes to be scr		31 pm = 11	10000
*		ends for	a length of 23 read 9 T.P.I.	in. up, con-	sh Indiane	- Gua
Stay	***	3½ in. Swelled to 3	$\frac{7}{16}$ in. $3\frac{1}{2}$ in. at front	7 ft. 3 in. end for 3 in.	8	
" topot	(NA) NE	All stay t	ubes to be ser a length of 23 read 9 T.P.I.	ewed at both	the Market	epide, M. D.

Air Heater Tubes

			4211745	
ı	22 in.	14 W.G.	5 ft. 73 in.	278
1	Swelled to	2 in. at front		
		16	order of min cap.	

H.M. Ships "Egilsay" (P. 1		18049	(42);	" Filla "
(P. 16797/42.); and "W.	halsay" (P. 18054/42).			WEST TO SERVICE STREET
Type and No. of boilers	Scotch			1 No.
Total No. of tubes fitted	\cdots { Generator \cdots { Air Heating Tubes		4-4	384 No.
Local Ivo. of thoes held	··· \ Air Heating Tubes	921	***	266 No.

Main							
Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks		
Plain		8 W.G. 27 in. for 3 in. a		270	100		
Stay	Swelled to 3 up. All s secutive t	in. 3 in. O.D. at from tay tubes screw hread at both hreads T.P.I.	2	SC N TOUR			
Stay	Swelled to 3 up. All s secutive t	in. O.D. at fr tay tubes screv hread at both hreads T.P.I.	8	Deserve			

-					4 3
μ	7011	122-	C	On	20
250	LLOI	186	-		vu

Row	Ext. Diam.	Thickness.	Fitted Length.	Total No. of Tubes fitted	Remarks.
Stay	23 in.	₩ in.	8 ft. 01 in.	50	
Harmith	Swelled to up. All secutive	3 in. O.D. at fr stay tubes screethread at both threads T.P.I.	ont end, 3 in. wed with con-	Solost con	Wood!
Stay	23 in. Swelled to up, All secutive	‡ in. 3 in. O.D. at free stay tubes screet thread at both threads T.P.I.	ont end, 3 in. wed with con- ends for 3 in.	54 mg	yal?
		Air Heating T	ubes		
Plain	$2\frac{3}{4}$ in. Swelled $2\frac{13}{16}$	14 W.G. in. at front en		260	
Stay	Swelled at	¼ W.G. one end to 3 i both ends for	n. for 23 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 Total No. Fitted Ext. Diam. Thickness Row of Tubes Remarks Length fitted W.D.G. ft. in. in. $\begin{array}{ccc} 9 & 4\frac{1}{2} \\ 9 & 0\frac{1}{8} \end{array}$ 13 128 144 A 134 B 128 140 C 116 8 97 224 D 118 116 8 8 220 E 118 116 8 61 224 F 8 33 104 252 G 8 215 104 248 H 25 104 8 244 8 21/2 104 240 K 104 8 211 236 All tubes 8 3 1 L 104 232 are bent. M 8 311 104 228 NO 104 224 104 8 51 220 P 8 61 104 216 Q 8 81 104 212 Ř 104 8 9 13 208 S 104 1 8 11 13 204 T 1 104 9 1 16 200 U 1 104 9 44 196

H.M. Ships	" Hursley "	and "Pindos"	(P. 10953/42.)
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Type and No. of boilers	***	Three Drum Melesco Su		with	2 No.
Total No. of tubes fitted	10/4	Generator	 	***	4,312 No.
		Main	my - in		

Row	Ext. Diam.	Thickness	Fitted Length	of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.	1	
A	13	128	9 4 5	144)
В	13	128	9 0 3	140	1 4
C	11	116	8 93	224	100
D	118	116	8 75	220	
E	11	116	8 6 1	224	
F	1	104	8 3 7 16	252	
G	mo.1	104	8 2 15	248	
H	1	104	8 25	244	
J	1	104	8 21	240	
K	1	104	8 25	236	All tubes
L	1	104	8 3	232	are bent.
M	1	104	8 3 %	228	1
N	101	104	8 43	224	
0,	1	104	8 5 5	220	
P	1	104	8 61	216	
Q	1	104	. 8 77	212	
R	1	104	8 91	208	
S	1	104	8 113	204	+
T	1	104	9 11	200	1 -
U	1	104	9 3 11	196	

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

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

					100000
Row	Ext. Diam.	Thickness	Fitted Length	of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.	1	
A.I	13	128	10 4 5	114	7
A.2	13	128	10 45	102	1 - 10 -
A.3	13 .	128	10 3 15	42	1 - UX
В	13	128	10 0 9	264	100
C	118	116	$9 9\frac{1}{2}$	402	1
D	11/8	116	9 77	408	Nr.
E	118	116	9 67	402	1 wys
F	1	104	9 37	450	11
G	I I	104	9 2 15	456	1
H	1.0	104	9 23	450	All tubes
J	1	104	9 211	444	are bent.
K	1	104	9 25	438	
L	1	104	9 31	432	No.
M	1	104	9 3 11	426	0
N	1	104	9 45	420	1 4
0	1	104	9 55	414	60
P	1	104	9 63	408	31
Q	1)	104	9 8 5	402	
- R	1	104	9 9 11	396	137
S	1	104	9 115	390	ST.
T	1	104	10 13	384	

H.M. Ships " Hunday " and " Nades "

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

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
dimensil-	Bessit .	Superhe	ater Tubes	Dist. Distin	3.5
U	in. 118	W.D.G. 116	ft. in. 19 9½	288 196 Nos. 1	Vii Dit
v	118	116	20 318	and 3 boilers. 96 No. 2 boiler.	All tubes are bent,
All subsections		Aus	viliary	7,000	N N
=	2 2	10 S.W.G. 10 S.W.G.	9 in. 10 in.	108 60	Thimble tube type.

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

Type and No. of boilers	THE STORY	Admiralty	3 Drum	Small	Tube	2 No.
Total No. of tubes fitted	onis T	Generator	***	***		4,312 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
A B C D E F G H J K L M N O P Q R S T U	in. 134 144 148 148 148 148 1 1 1 1 1 1 1 1 1	W.D.G. 128 128 116 116 116 104 104 104 104 104	ft. in. 9	144 140 224 220 224 252 248 244 240 236 232 228 224 220 216 212 208 204 200 196	All tubes are bent.

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", "Hambledon" 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 2 No. Melesco Superheaters. Auxiliary— Thimble Tube 1 No.
Total No. of tubes fitted	Generator 9,044 No. Thimble Tubes 309 No.
10140 No.	Main both miles to old fam'?

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.	1	
A	13	128	11 107	276)
В	13	128	11 75	272	
C	13 18 18 18	116	11 4	428	./3
D	11	116	11 23	424	- Talk
E	11	116	11 1	428	96
E.1	11	116	10 11	16	2
F	1	104	10 9	480	- (1)
G	1	104	10 9	476	-3
H	1	104	10 93	472	1.3
J	1	104	10 93	468	The same
K	1 1	104	10 9	464	(All tubes
L	1	104	10 9	460	are bent.
M	1	104	10 10	456	
N	1	104	10 113	452	78
0	1	104	11 03	448	1 1
P	1	104	$11 1\frac{1}{2}$	444	10.
Q	1	104	11 2	440	100
R	1	104	11 4	436	15
S	1	104	11 57	432	wa'
T	1	104	11 7	428	No.
U	1	104	11 10	424	
V	1	104	12 1	420)
	100	301111			
	745	Auxi	liary		
A	13-13	10 W.G.	8 04	261	Thimble tubes.
В	13-13	10 W.G.	. 7½	24	Tapered
C	13 13	10 W.G.	$6\frac{1}{2}$	24	ends.
C	13/4-13/8	10 11.0.	02	150	,

2 No.

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

Type and No. of boilers

Admiralty Three Drum Small Tube type, with Melesco

Superheaters.

... Generator Total No. of tubes fitted...

.... 8,996 No.

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.	ENGLOSO W	OVER N. M. D
A	134	128	10 74	288	
В	$1\frac{3}{4}$	128	10 2 13	284	
C	148	116	9 117	444	
D	11/8	116	9 10 7	440	
E	11/8	116	9 8 13	444	
E.1	11/8	116	9 7 15 16	16	
F	1	104	9 57	500	
G	1	104	9 5 11	496	
H	1	104	$9 5\frac{3}{16}$	492	
J	1	104	$9 5\frac{1}{4}$	488	
K	1	104	$9 5\frac{5}{16}$	484	
L	1	104	$9 5\frac{7}{8}$	480	
M	1	104	9 6 9	476	
N	1	104	$9 7\frac{3}{16}$	472	*
0	To	104	9 8 5	468	
P	1	104	9 91	464	
Q	1	104	9 10 15	460	
R	1	104	10 01	456	
R	1	104	10 2 5	452	
T	1	104	10 43	448	
Ū	1	104	10 71	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. ... Generator Total No. of tubes fitted 8,996 No.

		M	lain		
Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	in.	W.D.G.	ft. in.		-
A	134	128	10 65	288	7
В	134	128	10 31	284	
C	118	116	10 03	444	
D	11/8	116	9 105	440	
E	11/8	116	9 91	444	
E.1	11/8	116	9 84	16	
F	1	104	9 6-7	500	
G	1	104	9 57	496	
H	1	104	9 516	492	
J	1	104	9 55	488	Walls and the Charles
K	1	104	9 53	484	} All tubes
L	1	104	9 63	480	are bent.
M	1	104	9 67	476	- 1
N	1	104	9 71	472	
0	1 1	104	9 83	468	
P	1	104	9 93	464	
Q	1	104	9 111	460	
R	1	104	10 07	456	-
S	1	104	10 23	452	
T	1	104	10 47	448	
U	1	104	10 73	444	J

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

Type and No. of boilers	Main- Three Drum Small Tube w Melesco Superheaters, $Auxiliary-$ Thimble Tube type	rith 2 No
Total No. of tubes fitted	Generator Thimble type	9,044 No 192 No

Main

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
	100	HI D. C.	201-		
A	in.	W.D.G.	ft. in.		
A A.1	124 124 124 125 126 126	128	11 10%	8	
A.I	13	128	11 11 16	268	
B	12	128	11 7 9	272	
Ď	18	116	11 45	428	
E	18	116	11 21	424	
	18	116	11 118	428	
E.1 F	118	116	10 113	16	
	1	104	10 95	480	
G	1	104	$10 9\frac{1}{2}$	476	
H	1	104	10 9 7	472	
J	1	104	$10 \ 9\frac{1}{2}$	468	
K	1	104	10 9 11 16	464	
L	1	104	10 101	460	
M	1	104	10 103	456	
N	10	104	10 11 %	452	* 12
0	1	104	11 05	448	
P	1	104	11 17	444	
Q	1	104	11 34	440	
R	1	104	11 45	436	+
Q R S T	1	104	11 64	432	
T	1	104	11 81	428	
U	1	104	11 103	424	
V	1	104	12 15	420	

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

15

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	$\cdots \begin{cases} \text{Generator} & \dots & \dots \\ \text{Air Heater Tubes} & \dots & \dots \end{cases}$	384 No. 266 No.
	Main	

Row	Ext. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain	$2\frac{3}{4}$ in. Swelled to 2	8 W.D.G. $2\frac{7}{8} \text{ in. at front en}$	7 ft. 11 ³ in. ad for 3 in. up.	270	
Stay	Swelled t 3 in. alo 9 T.P.I.	In in. h nut at from 3 in. external ng at one end continuous the 3 in. along.	diameter for and screwed	2	
Stay	Swelled t 3 in. alo 9 T.P.I.	3 in. h nut at from o 3 in. external ng at one end continuous th 3 in. along.	diameter for and screwed	M. m. n. 8 Karns	
Stay	diameter screwed 9	t. Swelled to for 3 in. along a T.P.I. continus for 3 in. along	t one end and ous thread at	50	is the I
itay	diameter screwed 9	¼ in. tt. Swelled to for 3 in. along a 7.P.I. continu s for 3 in. along	t one end and ous thread at	54	
		Air Heater Tub	es		
Plain	$2\frac{3}{4}$ in. Swelled to 2	14 W.G.	3 ft. $5\frac{1}{2}$ in. d for 2 in. up.	260	
Stay		¼ in. 3 in. at one end 9 T.P.I. at be		6	

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 Air Heater Tubes	 	265 No.
Total No. of tubes litted	··· \ Air Heater Tubes	 ***	206 No.
	Main		

Row	Ext	. Diam.	Thickness	Fitted Length	Total No. of Tubes fitted	Remarks
Plain .	3 Sw	in. elled to	8 W.G. 3 5 in. at front	6 ft. 10½ in. end for 3 in.	187	
Stay .	Sw	elled to All stay	\$\frac{5}{16}\$ in. 3\frac{1}{2}\$ in. at front tubes to be ser in. up, contin	end for 3 in.	54	
Stay .	Sw	All stay	3 in. 3 in. at front tubes to be scr	rewed at ends	20	
Stay .	Sw	elled to All stay	$\frac{7}{16}$ in. $3\frac{1}{2}$ in. at front tubes to be sern. up, contin	end for 3 in.	4	

Swelled to 9 13 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.)

H. St. S. Sirius " (P. 10610/42.)

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

out Paymonties of the believe and rebis moved in Hilliss." Verbeastland denilest with those published along MAIL 17 101 H. M.S. Change in thicker cooks of the

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

		ed in H.M.S. J. St. Telebra and HESTER.
1935		Type and No. of boilers . R.M. H.
	265	William V. Com. Com. Section
		Total No. of tubes fitted (125,125)

Swelled to St. making to the 101 inc.
Swelled to St. man front and for Sin.
All say hubre-to-be surrowed at onde St in. 10 in 10 in 10 in 10 in. 10 in

Figure			
	1 2970		