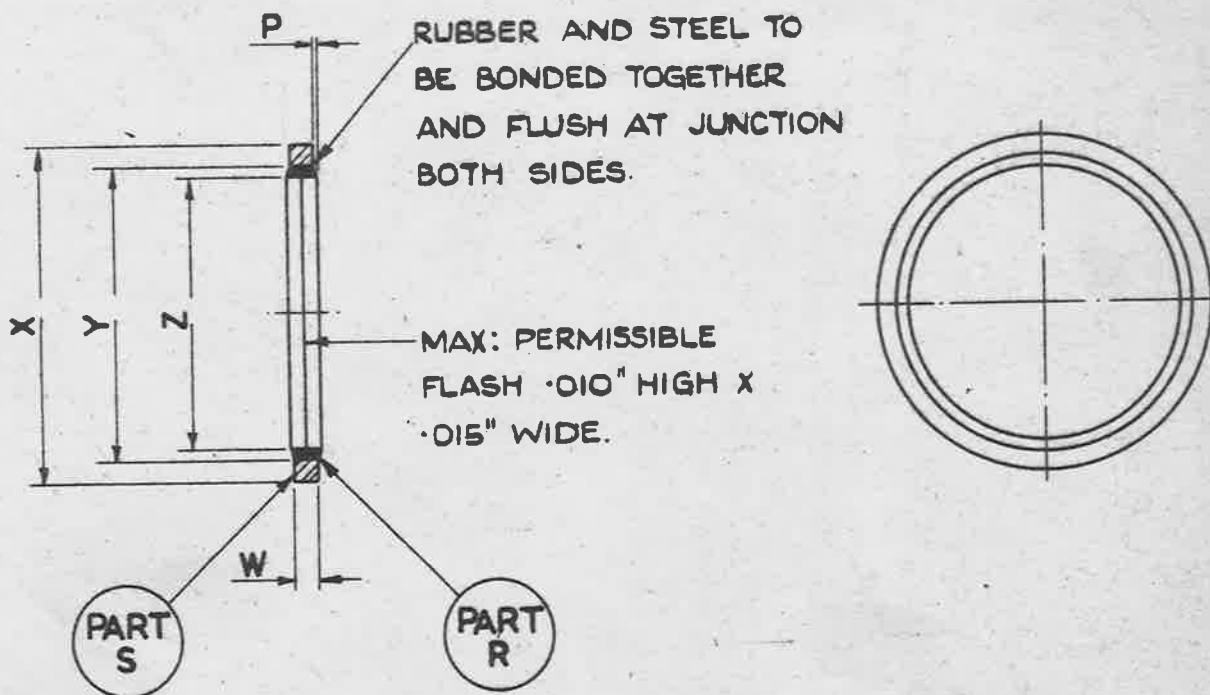


BASED ON MESSRS DOWTY EQUIPMENT LTD. DRAWING NOS
 SP. 779, 815 AND G.D.1404.

AG.S. 1186.

IT IS CLAIMED THAT THIS DESIGN IS PATENTED.



PART NO OF COMPLETE SEAL. e.g. AG.S.1186-A.
 PART NO OF COMPONENT METAL WASHER. e.g. AG.S.1186-SA.

MATERIALS:-

PART 'R' - SYNTHETIC RUBBER. DOWTY SPECN A.C.C.R. 190, TYPE 2.
 SUITABLE FOR USE WITH THE FLUIDS, AT THE TEMPERATURES
 TABULATED ON SHEET 3.

PART 'S' - STEEL TO A MINIMUM ULT: TENSILE OF 35 T.S.I.
 CADMIUM PLATE TO D.T.D. 904. (LATEST ISSUE.)

SM 596 SM 720

TITLE:- SEALS, BONDED. STEEL & SYNTHETIC RUBBER.	ISSUE	B	6				
	ALT. NO	MOD/AGS	MOD/ACS	912	960		
MINISTRY OF SUPPLY APPLICATIONS FOR A.G.S. SHEETS TO:- ATR4A, THAMES HOUSE, MILLBANK, S.W.1. GENERAL INQUIRIES TO:- A.D.S.A.E. THAMES HOUSE, MILLBANK, S.W.1.	R.A.E. APPROVAL			A.D.S.A.E. APPROVAL			
	SIGNATURE	DATE	SIGNATURE	DATE			
	<i>C. S. R. ...</i>	29.4.52	<i>G. T. Yambon</i>	25/6/52			
	SHEET NO	1	A.G.S. NO 1186.				
	NO OF SHEETS	3					

ORIGINAL APPROVAL DATE 29.5.46

ALL DIMENSIONS ARE IN INCHES.

AG.S. 1186

MARK	NOM.DIA OR THREAD	PART R		PART S			MARK	NOM.DIA OR THREAD	PART R		PART S		
		Z	P	Y	X	W			Z	P	Y	X	W
1	6 B.A.	.115 .125	.015 / .015 .008 / .015	.161 .164	.245 .255	.054 / .054 .048 / .054	15	1/4	1.280 1.290	.010 / .020	1.400 1.410	1.625 1.635	.128 / .138
2	4 B.A.	.157 .167		.202 .212	.281 .291		H	1 B.S.P.	1.329 1.337		1.447 1.457	1.685 1.690	
3	2 B.A.	.200 .210		.245 .255	.325 .335		16	3/8	1.410 1.420		1.530 1.540	1.745 1.755	
4	1/4	.265 .275		.310 .320	.515 .525		17	1/2	1.530 1.540		1.650 1.660	1.875 1.885	
5	1/4	.270 .280		.370 .380	.525 .530		J	1/4 B.S.P.	1.685 1.693		1.803 1.813	2.062 2.067	
6	5/16	.322 .330		.370 .380	.525 .530		18	3/4	1.780 1.790		1.900 1.910	2.245 2.255	
7	5/16	.335 .345		.390 .400	.555 .565		K	1/2 B.S.P.	1.902 1.910		2.018 2.028	2.307 2.312	
A	1/8 B.S.P.	.403 .411		.461 .471	.625 .630		19	2	2.030 2.040		2.150 2.160	2.495 2.505	
8	.40	.438 .442		.485 .495	.723 .727		L	3/4 B.S.P.	2.156 2.164		2.290 2.300	2.745 2.755	
9	7/16	.455 .465		.510 .520	.745 .755		M	2 B.S.P.	2.380 2.390		2.500 2.510	2.870 2.880	
B	1/4 B.S.P.	.536 .544		.594 .604	.810 .815		N						
10	9/16	.580 .590		.640 .650	.875 .880		P	2 1/2 B.S.P.	2.990 3.000		3.120 3.130	3.550 3.560	
BB	19 T.P.I. 60%	.618 .626		.676 .686	.875 .880								
11	5/8	.645 .655		.733 .743	1.000 1.005								
C	3/8 B.S.P.	.675 .683	.733 .743	.937 .942									
12	11/16	.710 .720	.770 .780	.995 1.005									
CC	14 T.P.I. 75%	.770 .778	.830 .840	1.060 1.065									
D	1/2 B.S.P.	.843 .851	.901 .911	1.125 1.130									
E	5/8 B.S.P.	.920 .928	.978 .988	1.250 1.255									
13	15/16	.950 .960	1.020 1.030	1.305 1.315									
F	3/4 B.S.P.	1.060 1.068	1.118 1.128	1.375 1.380									
14	1/8	1.150 1.160	1.210 1.220	1.435 1.445									
G	7/8 B.S.P.	1.208 1.216	1.266 1.276	1.500 1.505									

TITLE SEALS, BONDED. STEEL AND SYNTHETIC RUBBER.

ISSUE X 2
MOD/AGS 912 MOD/ACS 960

MINISTRY OF SUPPLY
APPLICATIONS FOR A.G.S. SHEETS TO-
ATR 4A THAMES HOUSE, MILLBANK, SW.1.

R.A.E. APPROVAL SIGNATURE DATE
G.T. Tamber 29.7.52
A.D.S.A.E. APPROVAL SIGNATURE DATE
G.T. Tamber 25/6/52

GENERAL INQUIRIES TO-
A.D.S.A.E. THAMES HOUSE, MILLBANK, SW.1.

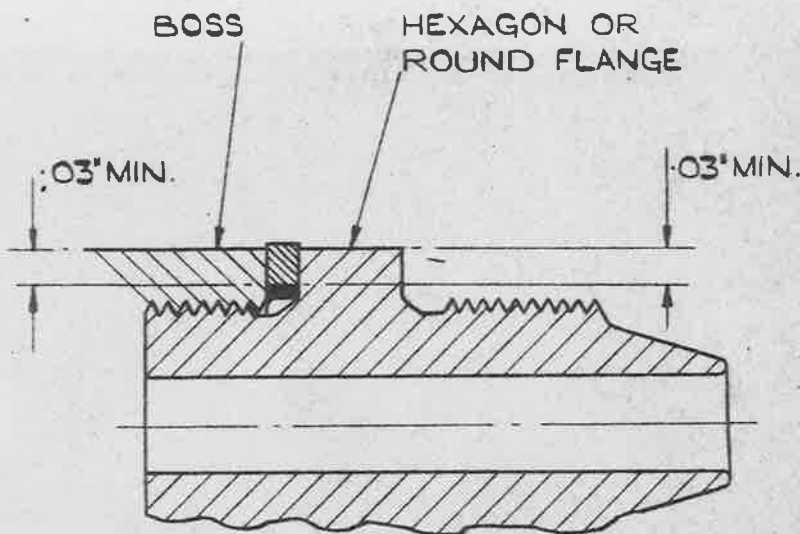
SHEET NO 2
NO OF SHEETS 3
A.G.S. NO 1186

SUITABLE FOR USE WITH:-

FLUID		TEMPERATURE RANGE	
		FROM	TO
OILS	O.M.13. (D.T.D. 44) O.M.15. (D.T.D. 585) O.M.71. (D.E.D. 2479) O.M.31. (D.E.D. 2480)	-50°C.	+100°C. CONTINUOUS. +120°C. FOR INTERMITTENT PERIODS, EACH NOT EXCEEDING 15 MINUTES DURATION.
	D.E.D. 2472. A, B, C & D.	LIMITED BY OIL.	+100°C. CONTINUOUS +150°C. FOR INTERMITTENT PERIODS, EACH NOT EXCEEDING 5 MINUTES DURATION.
	D.E.D. 2482 R.D.E./F/ KER 209.	-50°C.	+70°C
WATER		0°C.	+100°C
AIR		-40°C.	+70°C.

THESE SEALS ARE UNSUITABLE FOR USE WITH CASTOR BASE FLUIDS.

FOR SATISFACTORY FUNCTIONING THE RUBBER MUST BE FULLY COVERED AND THE METAL RING SHROUDED TO A WIDTH OF AT LEAST .03" AS SHOWN IN ADJACENT SKETCH. THE EXISTING RANGE OF HEXAGON A/F SIZES FOR A.G.S. ADAPTORS AND BANJO BOLTS IS SATISFACTORY.



SM 596

TITLE SEALS, BONDED, STEEL & SYNTHETIC RUBBER.

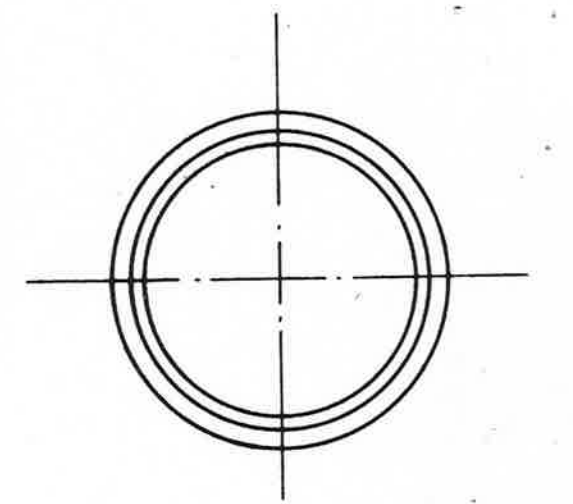
ISSUE	1				
ALIN ^o	MOD/AGS 912				
R.A.E. APPROVAL			A.D. S.A.E. APPROVAL		
SIGNATURE	DATE	SIGNATURE	DATE		
<i>C.S. [Signature]</i>	24.4.52	<i>C.T. [Signature]</i>	25/6/52		
SHEET NO	3	A.G.S. No 1186.			
NO OF SHEETS	3				

MINISTRY OF SUPPLY
APPLICATIONS FOR A.G.S. SHEETS TO:-
R4A. THAMES HOUSE, MILLBANK, S.W.1.
GENERAL INQUIRIES TO:-
R.A.E. THAMES HOUSE, MILLBANK, S.W.1.

FORM	AST. No.
7	F. 2
8	F. 25
9	E 75

*** REQUIREMENTS RELATING TO PASSIVATING AND CHROMATE DIPPING MAY BE RELAXED.** SM 2051

RUBBER AND STEEL TO BE BONDED TOGETHER AND FLUSH AT JUNCTION BOTH SIDES.



MATERIALS :-
PART 'R' SYNTHETIC RUBBER DOWTY SPEC. N.
A.C.C.R. 190 TYPE 2 SUITABLE FOR USE WITH THE FLUIDS AT THE TEMPERATURES TABULATED ON SHEET. 3.
PART 'S' STEEL TO A MINIMUM ULT. TENSILE OF 35 T.S.I CADMIUM PLATE TO #D.T.D 904 (LATEST ISSUE)

PART No. OF COMPLETE SEAL
E.G. A.G.S. 1186-A PART No. OF COMPONENT METAL WASHER
E.G. A.G.S. 1186-SA

FOR ASSEMBLY TORQUE FIGURES SEE AG.S. 1186 SHT. 4.

DESIGNED	DRAWN	TRACED	CHECKED	APPROVED FOR	DATE
DOWTY.	F.A.C.	F.A.C.	F.A.C.	<i>AGS</i>	24.1.58

ISSUED BY THE SOCIETY OF BRITISH AIRCRAFT CONSTRUCTORS LTD.,
20, KING STREET, ST. JAMES'S, LONDON, S.W.1.

REF.	DRAWING OR PART No.	DESCRIPTION	LIMITS NOT SHOWN

UNIT	OW	HA	RE	MARKS

THIRD ANGLE PROJECTION

A.G.S. 1186 SHEET. 1

REVISE ALL IN 4 F.3

SM 2051

MARK	NOM. DIA. OR THREAD	PART 'R'			PART 'S'		
		Z	P	Y	X	W	
1	6 B.A.	.115' .125'		.161' .164'	.250' .255'	.048" / .054"	
2	4 B.A.	.157' .167'		.202' .212'	.286' .291'		
3	2 B.A.	.200' .210'		.245' .255'	.330' .335'		
4	1" / 4	.265' .275'		.310' .320'	.520' .525'		
5	1" / 4	.270' .280'		.370' .380'	.525' .530'		
6	5" / 16	.322' .330'		.370' .380'	.525' .530'		
7	5" / 16	.335' .345'		.390' .400'	.560' .565'		
A	1/8" B.S.P.F. / 3/8"	.403' .411'		.461' .471'	.625' .630'	.080" / .086"	
8	.40"	.438' .442'		.485' .495'	.723' .727'		
9	7" / 16	.455' .465'		.510' .520'	.750' .755'		
B	1/4" B.S.P.F. / 1/2"	.530' .544'		.594' .604'	.810' .815'		
10	9" / 16	.580' .590'		.640' .650'	.875' .880'		
BB	19 T.P.I. / 60" WHIT B.S. 84	.618' .626'		.676' .686'	.875' .880'		
11	5" / 8	.645' .655'		.733' .743'	1.000' 1.005'		
C	3" B.S.P.F. / 8"	.675' .683'		.733' .743'	.937' .942'		
12	11" / 16	.710' .720'		.770' .780'	1.000' 1.005'		
CC	14 T.P.I. / 75" WHIT B.S. 84	.770' .778'		.830' .840'	1.060' 1.065'		
D	1/2" B.S.P.F. / 13/16"	.843' .851'		.901' .911'	1.125' 1.130'		
E	5/8" B.S.P.F. / 7/8"	.920' .928'		.978' .988'	1.250' 1.255'		

MARK	NOM. DIA. OR THREAD	PART 'R'			PART 'S'		
		Z	P	Y	X	W	
13	15" / 16	.950' .960'		1.020' 1.030'	1.310' 1.315'	.092" / .102"	
F	3/4" B.S.P.F. / 1"	1.060' 1.068'		1.118' 1.128'	1.375' 1.380'		
FF	1" / 16	1.090' 1.100'		1.200' 1.210'	1.520' 1.525'		
14	1" / 8	1.150' 1.160'		1.210' 1.220'	1.440' 1.445'		
G	7/8" B.S.P.F. / 1 1/16"	1.208' 1.216'		1.266' 1.276'	1.500' 1.505'		
15	1" / 4	1.280' 1.290'		1.400' 1.410'	1.630' 1.635'		
H	1" B.S.P.F. / 5/16"	1.329' 1.337'		1.447' 1.457'	1.685' 1.690'		
16	3" / 8	1.410' 1.420'		1.530' 1.540'	1.750' 1.755'		
17	1" / 2	1.530' 1.540'		1.650' 1.660'	1.880' 1.885'		
J	1 1/4" B.S.P.F. / 5/8"	1.685' 1.693'		1.803' 1.813'	2.062' 2.067'		
18	3" / 4	1.780' 1.790'		1.900' 1.910'	2.250' 2.255'		
K	1 1/2" B.S.P.F. / 7/8"	1.902' 1.910'		2.018' 2.028'	2.307' 2.312'		
19	2"	2.030' 2.040'		2.150' 2.160'	2.500' 2.505'		
L	3" B.S.P.F. / 4"	2.156' 2.164'		2.290' 2.300'	2.750' 2.755'		
LL	2 1/4"	2.280' 2.290'		2.400' 2.410'	2.770' 2.775'		
M	2" B.S.P.F. / 2 3/8"	2.380' 2.390'		2.500' 2.510'	2.875' 2.880'		
MM	2 1/2"	2.530' 2.540'		2.650' 2.660'	3.060' 3.065'		
N	2 3/4" B.S.P.F. / 2 6/8"	2.620' 2.630'		2.750' 2.760'	3.130' 3.135'		
P	2 1/2" B.S.P.F. / 3 0/8"	2.990' 3.000'		3.120' 3.130'	3.555' 3.560'		

USED ON _____

HT _____ PT _____ SCALE _____ LIMITS NOT SHOWN

APPROVED FOR _____ DATE _____

CHECKED _____ TRACED _____

DESIGNED _____ DRAWN _____ F.A.C. F.A.C. F.A.C.

HESTON F.A.C. F.G.PARKER 27.1.58

ISSUED BY THE SOCIETY OF BRITISH AIRCRAFT COMPONENTS LTD.,
19, KING STREET, ST. JAMES, LONDON, S.W.1

AGS.1186 - SHEET 2.

SEALS, BONDED STEEL AND SYNTHETIC RUBBER

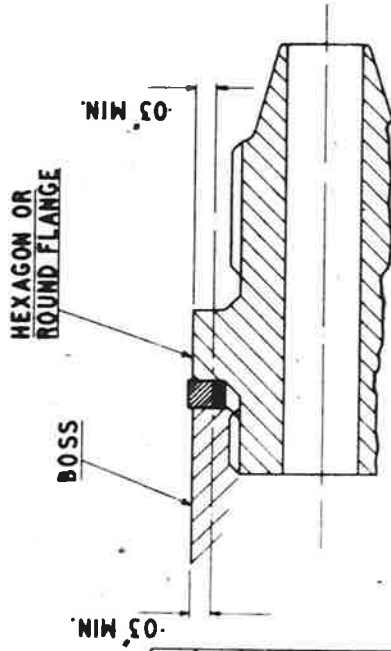
A.G.S. 1186. SHEET 3.

1	REVISED
2	R. 2
3	F. 37
4	F. 67

SM 2051

SUITABLE FOR USE WITH:-

FLUID	TEMPERATURE RANGE	
	FROM	TO
OILS	0.M.13	+ 100° C CONTINUOUS
	0.M.15.(D.I.D. 585.)	+ 120° C FOR INTERMITTENT PERIODS, EACH NOT EXCEEDING 15 MINUTES
	0.M.71.(D.E.D. 2479.) 0.M.31 (D.E.D. 2480.)	DURATION
OILS	D.E.D. 2472	+ 100° C CONTINUOUS
	A, B, C & D.	+ 150° C FOR INTERMITTENT PERIODS, EACH NOT EXCEEDING 5 MINUTES DURATION
	D.E.D. 2482	
	R.D.E./F/KER 209	+ 70° C
WATER	0° C	+ 100° C
AIR	- 40° C	+ 70° C



FOR SATISFACTORY FUNCTIONING THE RUBBER MUST BE FULLY COVERED AND THE METAL RING SHROUDED TO A WIDTH OF AT LEAST .03" AS SHOWN IN SKETCH. THE EXISTING RANGE OF HEXAGON A/F SIZES FOR A.G.S. ADAPTORS AND BANJO BOLTS IS SATISFACTORY.

ALL MOUNTING FACES FOR BONDED SEALS TO BE SLIGHTLY SPOT FACED.

THE SURFACE FINISH OF THE SPOT FACE TO BE A MAXIMUM OF 63 MICRO INCHES C.L.A.

THE SEAL TO BE ASSEMBLED WITH GREASE TO D.T.D. 900/4601.

DRAWING OR PART No.		DESCRIPTION		LIMITS NOT SHOWN		MATERIAL-REMARKS	
REP.							
HT				PT			
DESIGNED	DRAWN	TRACED	CHECKED	DATE	DATE		
F.A.C.	F.A.C.	F.A.C.	F.A.C.	18/11/57	17/1/58		
ISSUED BY THE SOCIETY OF BRITISH AIRCRAFT ENGINEERS LTD., 20, BOND STREET, ST. JAMES'S, LONDON, S.W.1.							
A.G.S. 1186. SHEET 3.							

SM 2051

ISSUE	ALT. No.
I	

THREAD SIZE.		TORQUE REQD. IN LB/INS.	
B.S.P.	UNIFIED.	SINGLE SEAL.	DOUBLE SEAL.
1/8"	3/8"	60 - 66	95 - 105
-	7/16"	100 - 110	130 - 140
1/4"	1/2"	136 - 146	160 - 180
.60 X 19	9/16"	190 - 210	247 - 273
3/8"	5/8"	223 - 247	345 - 375
.75 X 14	3/4"	348 - 378	455 - 500
1/2"	-	475 - 525	590 - 640
5/8"	7/8"	570 - 630	630 - 690
3/4" & OVER	1 1/16" & OVER	665 - 735	665 - 735

AS DRAWING	OR UNIT	MATERIAL - REMARKS

REF.	DRAWING OR PART No.	DESCRIPTION	HT	PT	SCALE	LIMITS NOT SHOWN

A.G.S. 1186 SHT. 4.

BONDED SEAL TORQUE FIGURES.

ISSUED BY THE SOCIETY OF BRITISH AIRCRAFT CONSTRUCTORS LTD.,
29, KING STREET, ST. JAMES'S, LONDON, S.W.1.