

RATIONALE

THIS DOCUMENT HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE 5-YEAR REVIEW POLICY.

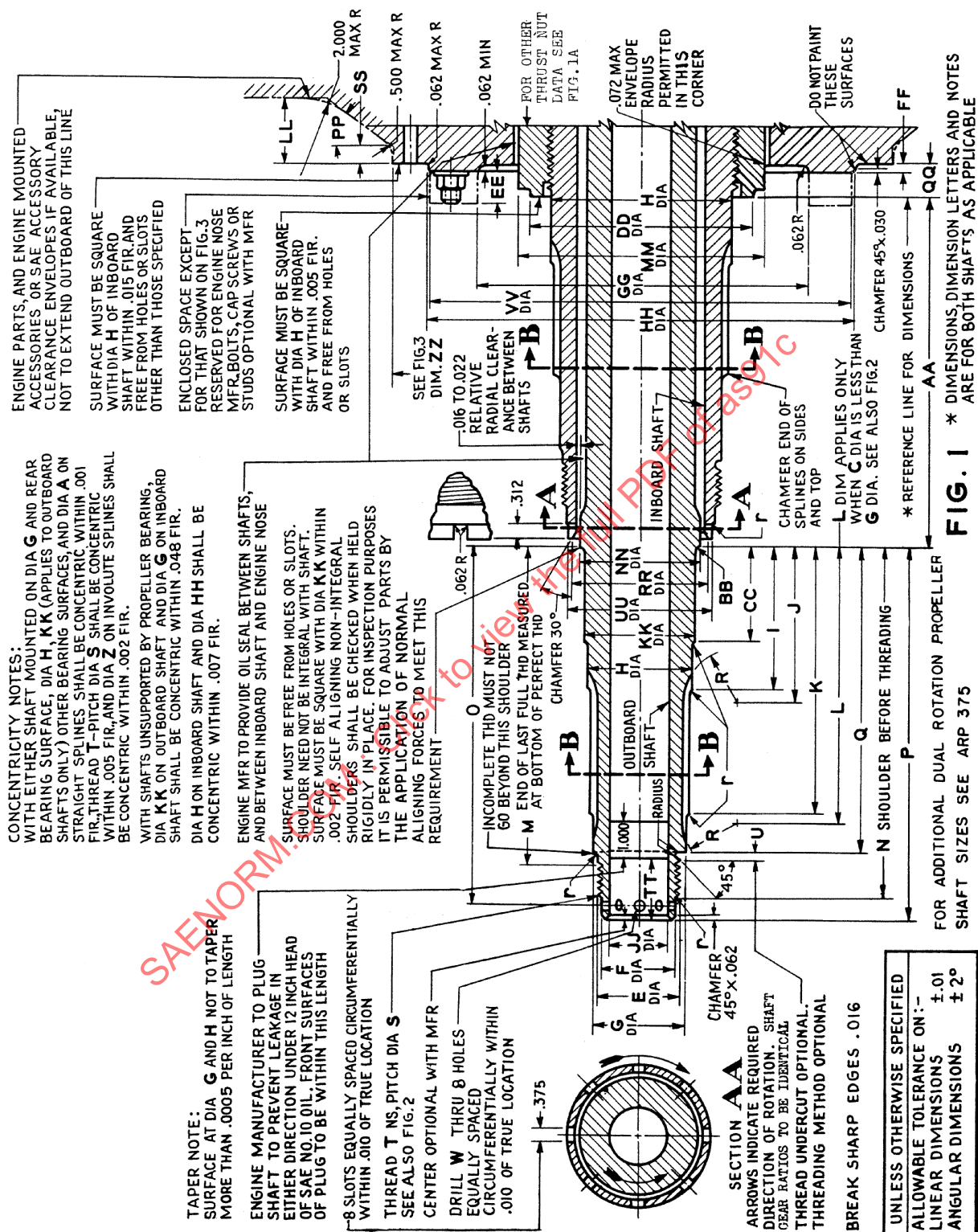


FIG. 1 * DIMENSIONS, DIMENSION LETTERS AND NOTES ARE FOR BOTH SHAFTS AS APPLICABLE

FOR ADDITIONAL DUAL ROTATION PROPELLER

SHAFT SIZES SEE ARP 375

PREPARED BY SAE COMMITTEE E-25, GENERAL STANDARDS FOR AEROSPACE PROPULSION SYSTEMS



AEROSPACE STANDARD

PROPELLER SHAFT ENDS, DUAL ROTATION (PROPELLER SUPPLIED BEARING)

AS91
SHEET 1 OF 5

REV.
C

LET	TOLERANCE		40 — 60***		50 — 70***		60 — 80		60L — 80	
	OUTBOARD SHAFT	INBOARD SHAFT	STRAIGHT SPLINES	INVOLUTE SPLINES	STRAIGHT SPLINES	INVOLUTE SPLINES	INVOLUTE SPLINES	INVOLUTE SPLINES	INVOLUTE SPLINES	INVOLUTE SPLINES
A	+ .000	-.002	3.117	—	3.804	—	—	—	—	—
	+ .000	-.005	—	4.680	—	5.539	4.680	6.411	4.680	6.411
B	MAX		2.875	4.436	3.554	5.294	4.436	6.151	4.436	6.151
C	MIN		2.783	—	3.462	—	—	—	—	—
D	+ .010	-.020	—	4.321	—	5.179	4.321	6.036	4.321	6.036
	± .0008		.3040	—	.375	—	—	—	—	—
E	+ .0000	-.0030	—	.2233	—	.2233	.2233	.2233	.2233	.2233
	+ .000	-.004	2.807	4.245	3.432	5.120	4.245	5.995	4.245	5.995
F	+ .000	-.005	2.688	4.062	3.312	4.938	4.062	5.812	4.062	5.812
G	+ .000	-.002	2.812	4.296	3.500	5.156	4.296	6.011	4.296	6.011
H	+ .000	-.002	3.125	4.687	3.812	5.562	4.687	6.426	4.687	6.426
I	± .020	± .025	4.438	1.812	7.375	1.812	8.250	3.250	13.250	3.250
J	± .030	± .040	4.938	2.312	7.875	2.312	8.750	3.750	13.750	3.750
K	± .020		8.250	5.375	11.188	5.375	12.297	7.400	17.297	7.400
L	± .020	—	8.375	—	11.312	—	—	—	—	—
M	+ .000-*	+ .010-*	9.475	8.360	12.412	8.360	13.808	10.360	18.808	10.360
N	+ .010	-.030	10.641	9.735	13.578	9.735	15.183	11.610	20.183	11.610
O	± .015	—	10.938	—	13.812	—	15.438	—	20.438	—
P	± .020		11.312	10.625	14.250	10.625	15.688	12.500	20.688	12.500
Q	—	± .020	9.375	8.250	12.312	8.250	13.688	10.250	18.688	10.250
R	MAX		1.530	2.030	1.530	2.030	2.030	2.030	2.030	2.030
	MIN		1.125	1.125	1.125	1.125	1.125	1.125	1.125	1.125
r	+ .030	-.000	.062	.062	.062	.062	.062	.062	.062	.062
S	+ .0000	-.0030	2.7560	—	3.3810	—	—	—	—	—
	+ .0000	-.0050	—	4.1668	—	5.0418	4.1668	5.9168	4.1668	5.9168
T	—		2.8125-12	4.250-8	3.4375-12	5.125-8	4.250-8	6.000-8	4.250-8	6.000-8
U	± .030		.170	.250	.170	.250	.250	.250	.250	.250
V	APPROX		—	.068	—	.068	.068	.068	.068	.068
W	± .0100	—	.2656	—	.2656	—	.2656	—	.2656	—
X	—		16	32	16	32	44	32	44	44
Y	—		—	7/16	—	7/16	7/16	7/16	7/16	7/16
Z	THEO		—	4.5714	—	5.4286	4.5714	6.2857	4.5714	6.2857
AA	± .040		10.688	—	10.688	—	12.562	—	12.562	—
BB	MAX	—	.094	—	.094	—	.094	—	.094	—
CC	± .020	—	2.375	—	2.375	—	4.938	—	5.938	—
EE	MAX		.750	—	.750	—	.750	—	.750	—
FF	—		.312	—	.312	—	.312	—	.312	—
GG	MIN		7.750	—	8.750	—	9.625	—	9.625	—
HH	± .001		10.123	—	11.123	—	12.625	—	12.625	—
JJ	+ .005	—	2.188	—	2.812	—	3.562	—	3.562	—
KK	+ .005	—	3.1498 (80MM BRG)	—	3.8191 (97MM BRG)	—	4.7246 (120MM BRG)	—	4.7246 (120MM BRG)	—
LL	MIN		2.062 **	—	2.062 **	—	2.062 **	—	2.062 **	—
NN	MIN		3.594	—	4.344	—	5.375	—	5.375	—
PP	MIN		35° **	—	35° **	—	35° **	—	35° **	—
QQ	± .025		.938	—	.938	—	.938	—	.938	—
RR	—		3.852	—	4.602	—	5.688	—	5.688	—
SS	MIN		.500	—	.500	—	.500	—	.500	—
TT	± .030	—	3.000	—	3.000	—	3.000	—	3.000	—
UU	—		4.000	—	4.812	—	5.781	—	5.781	—
VV	MAX		10.102	—	11.072	—	12.574	—	12.574	—

INBOARD AXIAL DIMENSIONS ARE FROM THRUST NUT

M DIM. MAX LIMIT GIVES MIN FULL THREAD

* MINUS VALUE DEPENDS ON METHOD OF THREADING AND THD RUNOUT RELATION TO SHOULDER **Q**

TO OBTAIN DIM. FOR FULL NUMBER OF PITCHES, WHEN DESIRED, DEDUCT BASIC **M** FROM BASIC **N**

M DIM. DOES NOT APPLY WHEN UNDERCUT IS USED

** **LL** TO BE 4.000 AND **PP** TO BE 45° WHEN PRACTICABLE

*** INACTIVE FOR NEW DESIGN

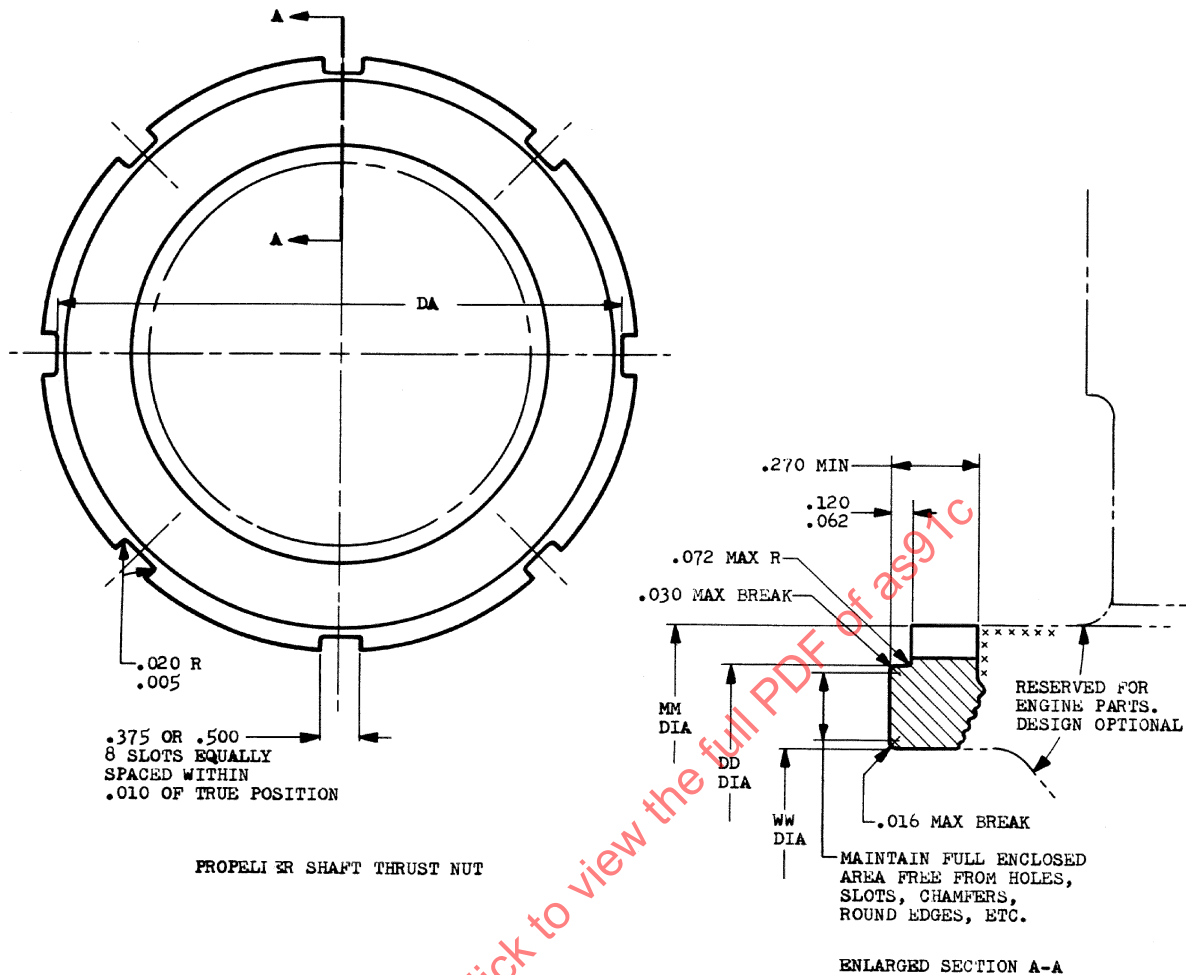
TABLE FOR FIG. 1 AND 2

UNLESS OTHERWISE SPECIFIED

ALLOWABLE TOLERANCE ON:—

LINEAR DIMENSIONS ±.01

ANGULAR DIMENSIONS ±2°



LETTER	TOLERANCE	SHAFT SIZE			
		40-60***	50-70***	60-80	60L-80
DA	$\pm .010$	5.880	6.770	7.500	7.600
DD	$\pm .010$	5.812	6.688	7.562	7.562
MM	MAX	6.188	7.062	7.938	7.938
	MIN #	6.120	6.995	7.910	7.910
WW	MAX	5.010	5.885	6.760	6.760

*** INACTIVE FOR NEW DESIGN.

MIN VALUE OF MM APPLIES ONLY TO .270 MIN LENGTH DETAILED ABOVE, BEYOND WHICH MM MAX ONLY APPLIES AND MM MIN MAY SUIT DESIGN AS FAR AS ENGINE NOSE OUTLINE.

FIG. 1A

UNLESS OTHERWISE SPECIFIED

BREAK ALL EDGES .005-.016
ALLOWABLE TOLERANCE ON: -
LINEAR DIMENSIONS $\pm .01$
ANGULAR DIMENSIONS $\pm 2^\circ$

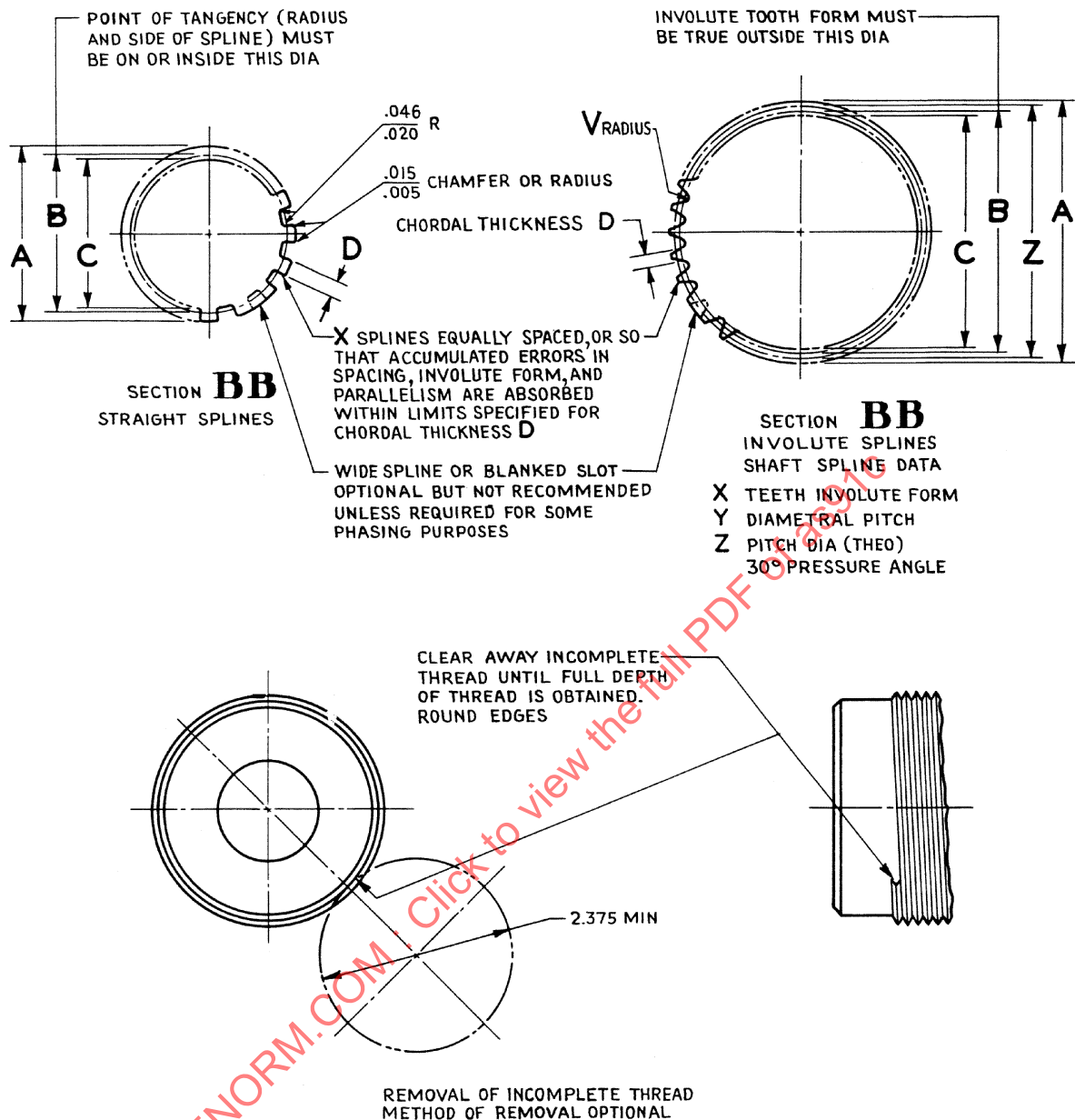


FIG. 2

UNLESS OTHERWISE SPECIFIED	
ALLOWABLE TOLERANCE ON :-	
LINEAR DIMENSIONS	±.01
ANGULAR DIMENSIONS	± 2°