FEDERAL SUPPLY CLASS

RATIONALE

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

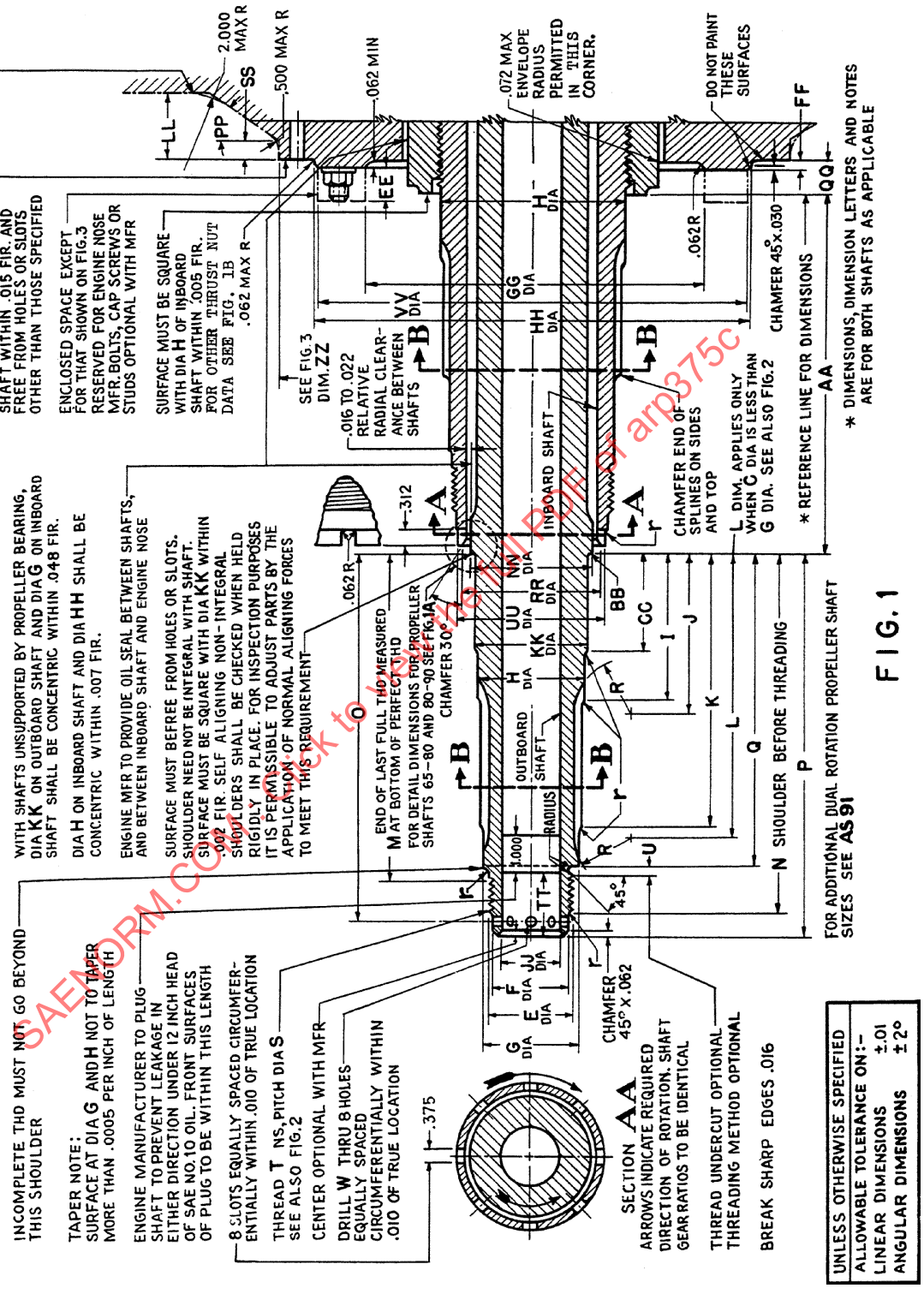


FIG. 1

ISSUED 1948-11 REVISED 1954-12 NONCURRENT 1973-08 REAFFIRMED NONCURRENT 2006-07

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

LET	TOLERANCE OUT-BOARD SHAFT	TOLERANCE IN-BOARD SHAFT	41 — 60 INVOLUTE SPLINES	41 — 60 INVOLUTE SPLINES	51 — 70 INVOLUTE SPLINES	51 — 70 INVOLUTE SPLINES	65 — 80 INVOLUTE SPLINES	65 — 80 INVOLUTE SPLINES	80 — 90 INVOLUTE SPLINES	80 — 90 INVOLUTE SPLINES
A	+.000	−.005	3.083	4.680	3.750	5.539	5.250	6.411	6.411	7.554
			—	—	—	—	—	—	—	—
B	MAX.		2.917	4.436	3.583	5.294	5.000	6.151	6.151	7.294
C	+.000	−.020	2.850	—	3.517	—	4.900	—	—	—
	+.010	−.020	—	4.321	—	5.179	—	6.036	6.036	7.179
D	+.0000	−.0030	.1299	.2233	.1299	.2233	.1953	.2233	.2233	.2234
E	+.000	−.004	2.807	4.245	3.432	5.120	4.870	5.995	5.995	7.120
F	+.000	−.005	2.688	4.062	3.312	4.938	4.688	5.812	5.812	6.938
G	+.000	−.002	2.812	4.296	3.500	5.156	4.875	6.011	6.011	7.156
H	+.000	−.002	3.125	4.687	3.812	5.562	5.281	6.426	6.426	7.570
I	±.020	±.025	4.438	1.812	7.375	1.812	11.250	3.250	15.125	3.312
J	±.030	±.040	4.938	2.312	7.875	2.312	11.750	3.750	15.625	3.812
K	±.020		8.250	5.375	11.188	5.375	16.125	7.400	20.750	8.000
L	±.020	—	—	—	11.312	—	—	—	—	—
M	+.000−*	+.010−*	9.475	8.360	12.412	8.360	18.297	10.360	23.735	11.610
N	+.010	−.030	10.641	9.735	13.578	9.735	19.672	11.610	25.110	13.110
O	±.015	—	10.938	—	13.812	—	20.062	—	25.562	—
P	±.020		11.312	10.625	14.250	10.625	20.312	12.500	25.812	14.062
Q	±.010	±.020	9.375	8.250	12.312	8.250	18.188	10.250	23.625	11.500
R	MAX		1.530	2.030	1.530	2.030	2.030	2.030	2.030	3.030
	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	4.7918	5.9168	5.9168	—
	+.0000	−.0080	—	—	—	—	—	—	—	7.0418
T	—		2.8125-12	4.250-8	3.4375-12	5.125-8	4.875-8	6.000-8	6.000-8	7.125-8
U	±.030		.170	.250	.170	.250	.250	.250	.250	.250
V	APPROX		.035	.068	.035	.068	.060	.068	.068	.068
W	±.0100	—	.2656	—	.2656	—	.2656	—	.2656	—
X	—		36	32	44	38	41	44	44	52
Y	—		12/24	7/16	12/24	7/16	8/16	7/16	7/16	7/16
Z	THEO		3.0000	4.5714	3.6667	5.4286	5.1250	6.2857	6.2857	7.4286
AA	±.040		10.688		10.688		16.062		17.625	
BB	MAX	—	.094	—	.094	—	.094	—	.094	—
CB	±.020	—	—	—	—	—	7.875	—	8.875	—
CC	±.020	—	2.375	—	2.375	—	3.875	—	4.875	—
CF	+.0000 −.0005	—	—	—	—	—	5.3149 135MM BRG	—	6.4567 164 MM BRG	—
EE	MAX		.750		.750		.750		1.000	
FF	±.010		.312		.312		.312		.312	
GG	MIN		7.750		8.750		9.625		11.375	
HH	±.001		10.123		11.123		12.625		14.373	
JJ	+.005 −.000	—	2.188	—	2.812	—	4.125	—	5.156	—
KK	+.0000 −.0005	—	3.1498 (80 MM BRG)		3.8191 (97MM BRG)		5.3543 136MM BRG	—	6.4960 165MM BRG	—
LL	MIN		2.062 **		2.062 **		4.000		4.000	
MM	***		***		***		***		***	
NN	+.000 −.010	—	3.604	—	4.354	—	5.812	—	6.938	—
PP	MIN		35° **		35° **		45°		45°	
QQ	±.035		.938		.938		.938		.938	
RR	—	±.010	—	3.852	—	4.602	—	5.688	—	6.750
SS	MIN		.500		.500		.500		.500	
TT	±.030	—	3.000	—	3.000	—	2.000	—	2.000	—
UU	—	+.010	—	4.000	—	4.812	—	5.781	—	6.875
VV	MAX		10.102		11.072		12.574		14.250	

*** SEE FIG. 1B, PAGE 2A

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

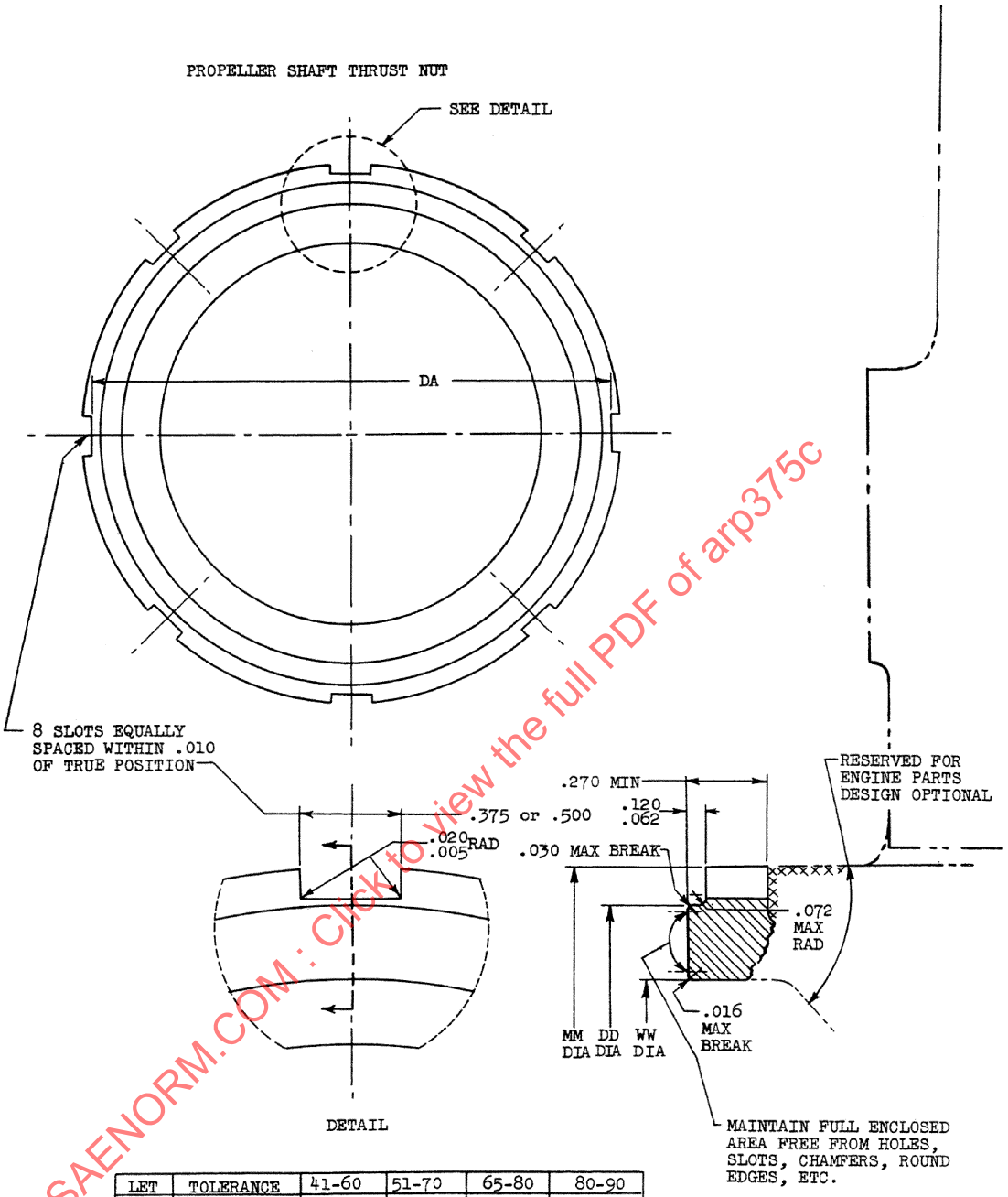
UNLESS OTHERWISE SPECIFIED

ALLOWABLE TOLERANCE ON:-

LINEAR DIMENSIONS ±.01

ANGULAR DIMENSIONS ± 2°

TABLE FOR FIG. 1, 1A AND 2



LET	TOLERANCE	41-60	51-70	65-80	80-90
DA	±.010	5.880	6.770	7.600	8.812
DD	±.010	5.812	6.688	7.562	8.750
MM	MAX	6.188	7.062	7.938	9.125
	***MIN	6.120	6.995	7.910	9.100
WW	MAX	5.010	5.885	6.760	7.948

*** MIN VALUE OF MM APPLIES OVER THE .270 MIN LENGTH, DETAILED ABOVE, BEYOND WHICH THE CONTOUR MAY VARY TO SUIT DESIGN OF THE ENGINE NOSE BUT SHALL NEVER EXCEED THE MAXIMUM VALUE OF MM.

FIG. 1B

UNLESS OTHERWISE SPECIFIED
BREAK ALL EDGES .005-.016 ALLOWABLE TOLERANCE ON:- LINEAR DIMENSIONS ±.01 ANGULAR DIMENSIONS ±2°

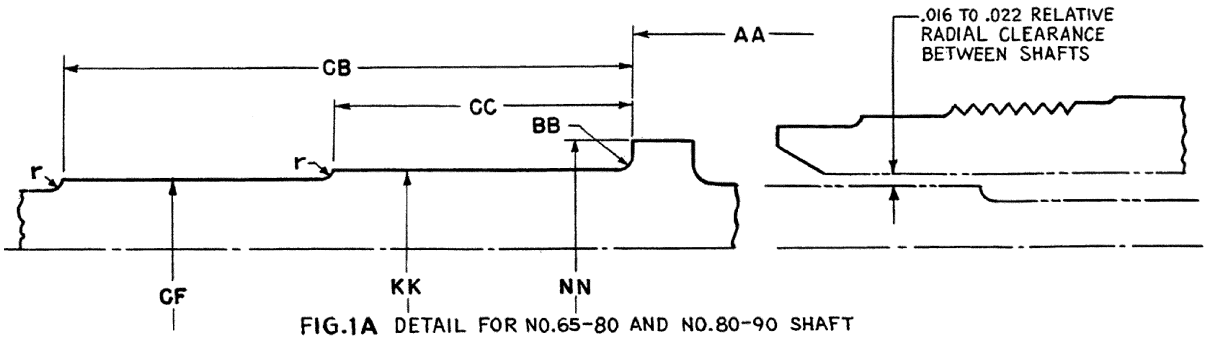
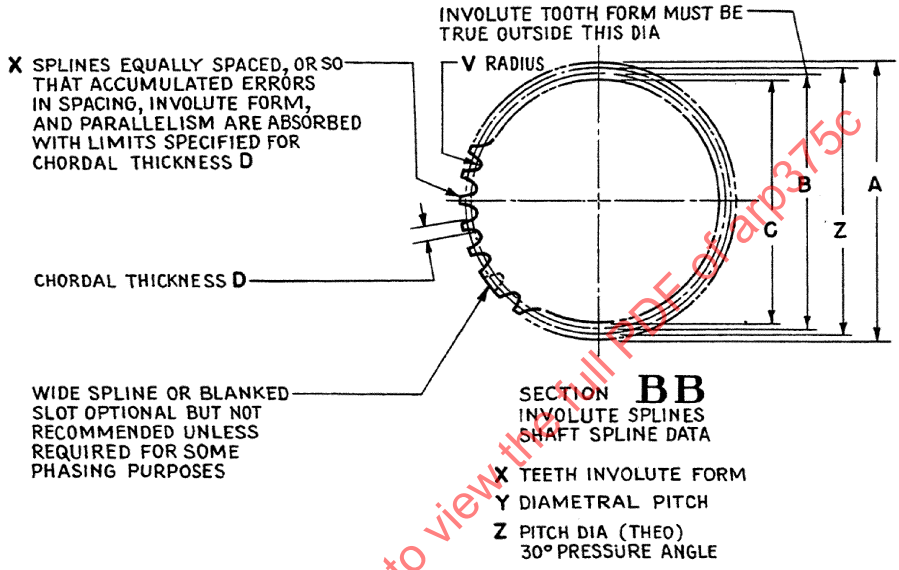
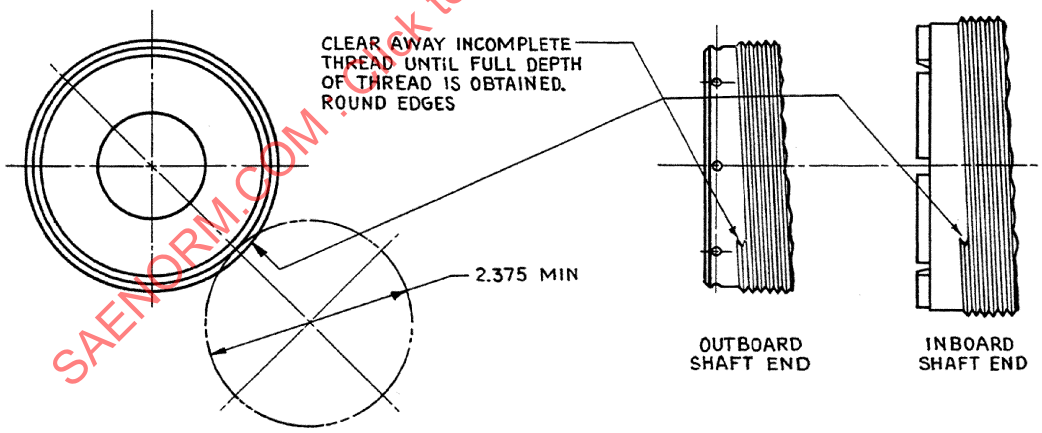


FIG.1A DETAIL FOR NO.65-80 AND NO.80-90 SHAFT



SECTION **BB**
INVOLUTE SPLINES
SHAFT SPLINE DATA

X TEETH INVOLUTE FORM
Y DIAMETRAL PITCH
Z PITCH DIA (THEO)
30° PRESSURE ANGLE



REMOVAL OF INCOMPLETE THREAD
METHOD OF REMOVAL OPTIONAL

FIG. 2

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