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APPLIES ONLY WHEN
C DIA IS LESS THAN G DIA
INCOMPLETE THREAD
MUST NOT GO BEYOND
THIS SHOULDER

THREAD-T-NS
PITCH DIA-S
SEE ALSO FIG 2

DRILL W
THRU-8 HOLES
EQUALLY SPACED

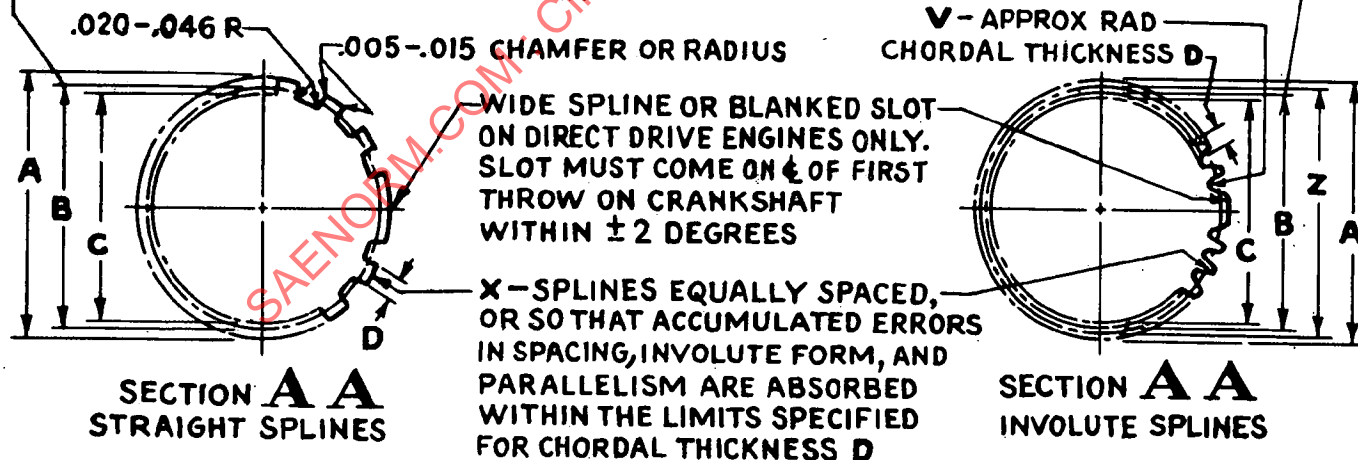
CENTER
OPTIONAL
WITH MFR

CHAMFER 45° X .062

TAPER NOTE:
SURFACES AT DIA G & H
NOT TO TAPER MORE THAN
.0005 PER INCH OF LENGTH

POINT OF TANGENCY (RADIUS AND SIDE OF
SPLINE) MUST BE ON OR INSIDE THIS DIA

INVOLUTE TOOTH FORM MUST BE
TRUE OUTSIDE THIS DIA



CONCENTRICITY NOTE:
WITH SHAFT MOUNTED ON DIA G AND REAR
BEARING SURFACE, DIA H, OTHER BEARING
SURFACES AND DIA A ON STRAIGHT SPLINES
SHALL BE CONCENTRIC WITHIN .001 FULL INDICATOR READING
AND DIAMETER Z ON INVOLUTE SPLINES SHALL BE
CONCENTRIC WITHIN .002 FULL INDICATOR READING

SHAFT ROTATION - EITHER DIRECTION
(SAME REQUIREMENTS APPLY)

FIG 1

UNLESS OTHERWISE SPECIFIED, ALLOWABLE TOLER ON FINISHED DIM IS $\pm .010$
AND ON ANGLES IS ± 2 DEGREES. BREAK EDGES .016

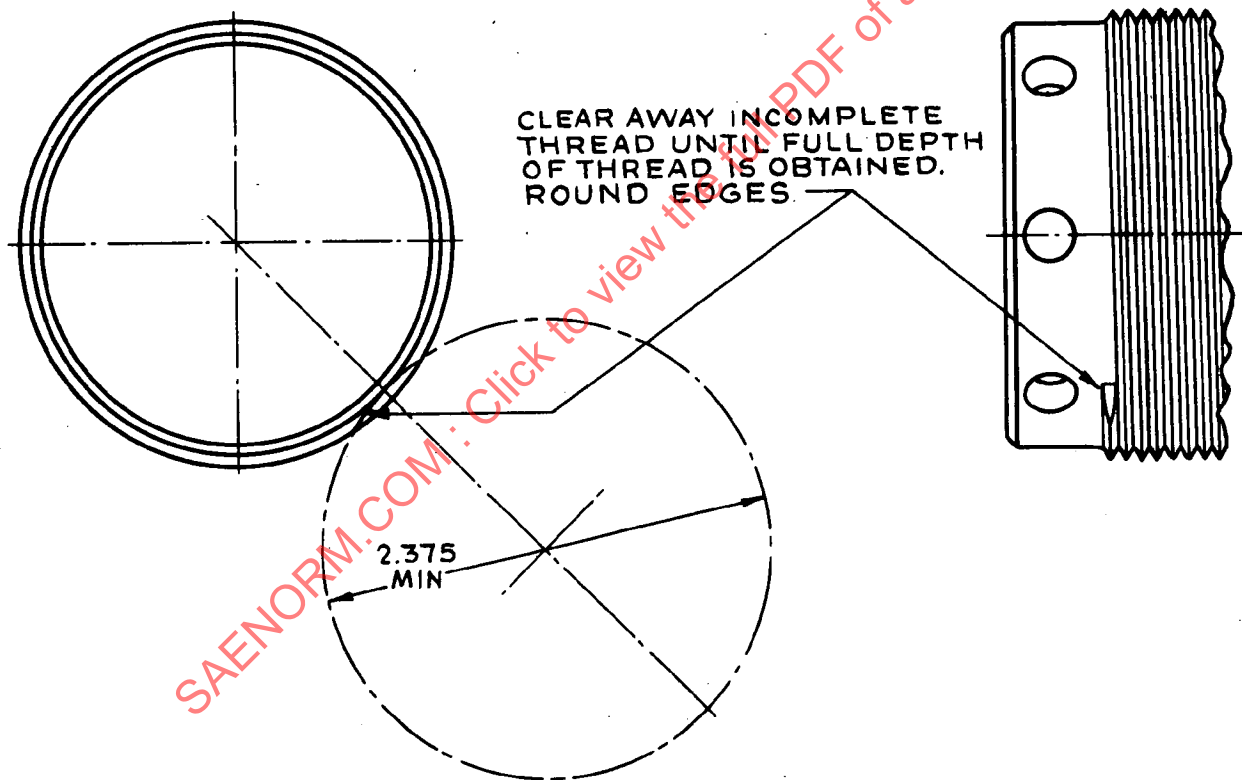
LET	STRAIGHT SPLINES						
	TOLER	NO. 7 $\frac{1}{2}$	NO. 10	NO. 20	NO. 30	NO. 40	NO. 50
A	$\pm .0002$	1.625	1.992	2.367	2.617	3.117	3.804
B	MAX	1.474	1.781	2.156	2.406	2.875	3.554
C	MIN	1.382	1.689	2.064	2.314	2.783	3.462
D	$\pm .0008$	1.590	1.940	2.2310	2.570	3.040	3.750
E	$\pm .0004$	1.370	1.682	2.057	2.307	2.807	3.432
F	$\pm .0005$	1.250	1.562	1.938	2.188	2.688	3.312
G	$\pm .0002$	1.375	1.687	2.062	2.312	2.812	3.500
H	$\pm .0002$	1.636	2.000	2.375	2.625	3.125	3.812
I	$\pm .030$	1.375	1.375	2.094	2.087	2.125	2.062
J	$\pm .040$	1.875	1.875	2.625	2.618	2.656	2.562
K	$\pm .020$	4.375	4.688	5.500	5.868	5.469	5.875
L	$\pm .025$	—	—	—	—	5.781	6.188
M	$\pm .010$ *	5.402	5.402	6.715	7.115	6.778	7.152
N	$\pm .010$ *	6.068	6.068	7.548	7.948	7.611	8.318
O	$\pm .015$	6.375	6.375	7.875	8.243	7.906	8.562
P	$\pm .020$	6.625	6.625	8.125	8.493	8.156	8.812
Q	$\pm .020$	5.312	5.312	6.625	7.025	6.688	7.062
R	MAX	1.530	1.530	1.530	1.530	1.530	1.530
	MIN	1.125	1.125	1.125	1.125	1.125	1.125
S	$\pm .0003$	1.319	1.631	2.006	2.256	2.756	3.381
T	—	1.375-12	1.6875-12	2.0625-12	2.3125-12	2.8125-12	3.4375-12
U	$\pm .030$	.170	.170	.170	.170	.170	.170
V	—	—	—	—	—	—	—
W	—	.199	.2656	.2656	.2656	.2656	.2656
X	—	16	16	16	16	16	16
Y	—	—	—	—	—	—	—
Z	—	—	—	—	—	—	—

INVOLUTE SPLINES			
TOLER	NO. 60 NO. 60A	NO. 70	NO. 80
$\pm .0005$	4.680	5.539	6.411
MAX	4.436	5.294	6.151
$\pm .010$ *	4.321	5.179	6.036
$\pm .0000$ *	.2233	.2233	.2233
$\pm .0004$	4.245	5.120	5.995
$\pm .0005$	4.062	4.938	5.812
$\pm .0002$	4.296	5.156	6.011
$\pm .0002$	4.687	5.562	6.426
$\pm .030$	3.312	3.312	3.312
$\pm .040$	3.812	3.812	3.812
$\pm .020$	7.359	8.188	8.938
—	—	—	—
$\pm .010$ *	8.860	10.360	11.922
$\pm .010$ *	10.235	11.735	13.297
$\pm .015$	10.500	12.125	13.750
$\pm .020$	10.750	12.375	14.000
$\pm .020$	8.750	10.250	11.812
MAX	2.030	2.030	2.030
MIN	1.125	1.125	1.125
$\pm .0005$	4.1668	5.0418	5.9168
—	4.250-8	5.125-8	6.000-8
$\pm .030$	.250	.250	.250
—	.068	.068	.068
—	.2656	.2656	.2656
—	32	38	44
—	16	16	16
THEO	4.5714	5.4286	6.2857

- M** DIMENSION MAX LIMIT GIVES MIN FULL THREAD
***** MINUS VALUE DEPENDS ON METHOD OF THREADING AND
 THREAD RUNOUT RELATION TO SHOULDER Q
TO OBTAIN DIMENSION FOR FULL NUMBER OF PITCHES, WHEN
 DESIRED, DEDUCT BASIC M FROM BASIC N
M DIMENSION DOES NOT APPLY WHEN UNDERCUT IS USED

TABLE 1 FOR FIG 1

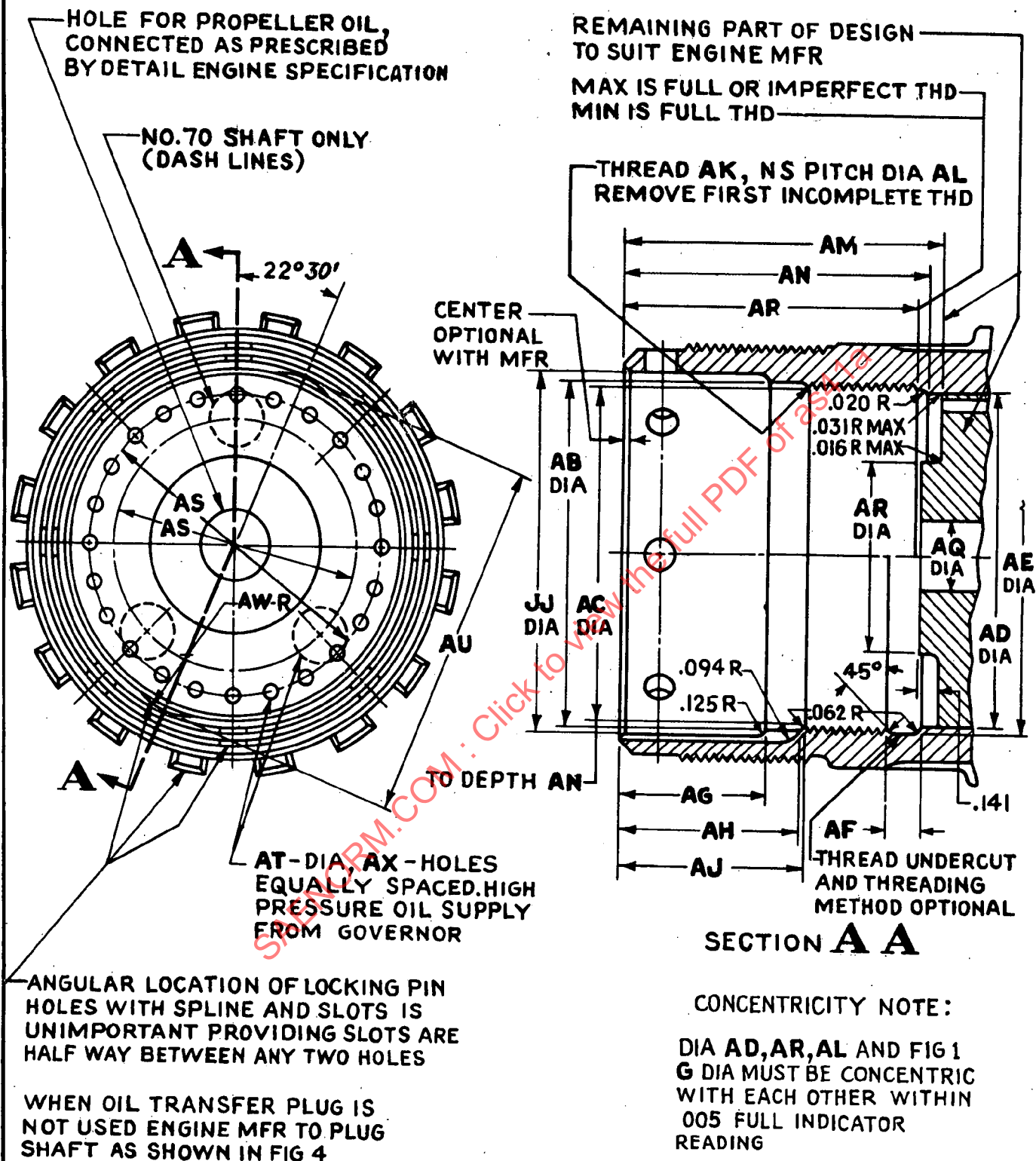
UNLESS OTHERWISE SPECIFIED, ALLOWABLE TOLER ON FINISHED
 DIM IS $\pm .010$ AND ON ANGLES IS ± 2 DEGREES. BREAK EDGES .016



REMOVAL OF INCOMPLETE THREAD
METHOD OF REMOVAL OPTIONAL

FIG 2

UNLESS OTHERWISE SPECIFIED, ALLOWABLE TOLERANCE ON FINISHED DIM IS $\pm .010$
AND ON ANGLES IS ± 2 DEGREES. BREAK EDGES .016



SEE TABLE 2 FOR FIG 3

FIG 3

UNLESS OTHERWISE SPECIFIED, ALLOWABLE TOLER ON FINISHED DIM IS $\pm .010$
AND ON ANGLES IS ± 2 DEGREES. BREAK EDGES .016

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WHEN OIL TRANSFER PLUG IS NOT USED
ENGINE MFR TO PLUG SHAFT SO AS
TO PREVENT LEAKAGE IN EITHER
DIRECTION UNDER 12 INCH HEAD OF SAE
NO. 10 OIL. FRONT SURFACES OF THIS PLUG
TO BE WITHIN THIS LENGTH

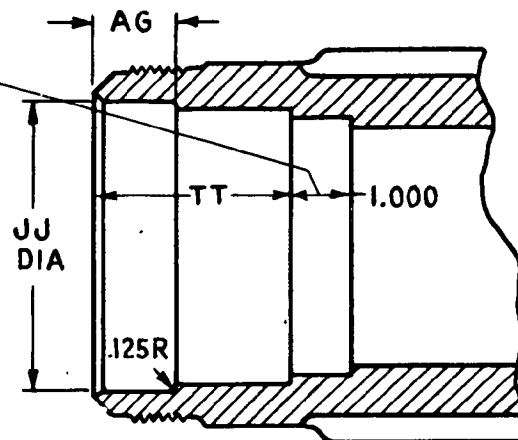


FIG 4

LET	TOLER	NO. 7 ¹ / ₂ NO. 10	NO. 20	NO. 30	NO. 40	NO. 50	NO. 60 NO. 60A	NO. 70	NO. 80
AB	$\pm .020$	—	1.516	1.766	2.266	2.891	3.516	4.266	—
AC	$\pm .088$	—	1.435	1.685	2.185	2.810	3.413	4.163	—
AD	$\pm .088$	—	1.430	1.680	2.180	2.805	3.408	4.158	—
AE	$\pm .020$	—	1.516	1.766	2.266	2.891	3.516	4.266	—
AF	$\pm .030$	—	.125	.156	.156	.250	.250	.250	—
AG	—	—	.500	.562	.562	1.219	1.219	1.219	—
AH	—	—	.656	.781	.781	1.531	1.344	1.406	—
AJ	—	—	.688	.812	.812	1.562	1.375	1.438	—
AK	—	—	1.500 -16	1.750 -16	2.250 -16	2.875 -16	3.500 -12	4.250 -12	—
AL	—	—	1.4594	1.7094	2.2094	2.8344	3.4459	4.1959	—
	TOLER	—	$\pm .0040$ $\pm .0030$	$\pm .0041$ $\pm .0030$	$\pm .0044$ $\pm .0030$	$\pm .0046$ $\pm .0030$	$\pm .0053$ $\pm .0030$	$\pm .0056$ $\pm .0030$	—
AM	$\pm .015$	—	1.500	1.656	1.656	2.719	2.500	2.562	—
AN	—	—	1.375	1.531	1.531	2.594	2.375	2.438	—
AP	MAX	—	1.365	1.520	1.520	2.580	2.365	2.425	—
	MIN	—	1.265	1.420	1.420	2.480	2.240	2.300	—
AQ	MIN	—	.375	.438	.547	.594	.594	.656	—
AR	$\pm .088$	—	.609	.734	1.047	1.483	1.859	2.280	—
AS	—	—	1.100	1.350	1.800	2.400	2.920	3.250	—
AT	—	—	.082	.082	.125	.1405	.1405	.375	—
AU	—	—	1.688	1.938	2.438	3.062	3.688	4.438	—
AW	—	—	.375	.375	.500	.500	.500	.500	—
AX	—	—	24	24	24	24	24	3	—
JJ	$\pm .088$	—	1.625	1.875	2.375	3.062	3.625	4.375	5.156
TT	$\pm .030$	—	2.000	2.000	2.000	3.000	3.000	3.000	3.000

AP DIMENSION MAX LIMIT GIVES MAX FULL OR IMPERFECT THREAD.

MIN LIMIT GIVES MIN FULL THREAD

AP DIMENSION DOES NOT APPLY WHEN UNDERCUT IS USED (ALL THREADS FULL)

TABLE 2 FOR FIG 3 AND FIG 4

UNLESS OTHERWISE SPECIFIED, ALLOWABLE TOLER ON FINISHED DIM IS $\pm .010$
AND ON ANGLES IS ± 2 DEGREES. BREAK EDGES .016

CONCENTRICITY NOTE:
DIA H AND HH TO BE
CONCENTRIC WITHIN .007
FULL INDICATOR READING

**SURFACE MUST BE —
SQUARE WITH DIA H
WITHIN .015 FULL
INDICATOR READING**

**BK BOLT, CAP SCREW,
OR STUD OPTIONAL
WITH MFR BL
NUMBER OF PLACES**

SEE FIG. 8—
DIM 22

ENCLOSED SPACE EXCEPT FOR
THAT SHOWN ON FIG.8 RESERVED
FOR ENGINE NOSE MFR. BOLTS,
CAP SCREWS,OR STUDS OPTIONAL
WITH MFR

ENGINE PARTS AND
ENGINE MOUNTED
ACCESSORIES OR SAE
ACCESSORY CLEARANCE
ENVELOPES IF AVAILABLE,
NOT TO EXTEND OUT
BOARD OF THIS LINE

**SURFACE MUST BE
SQUARE WITH DIA H
WITHIN .005. FULL
INDICATOR READING
AND FREE FROM
HOLES OR SLOTS**

* FOR DIM H
SEE FIG 1

NO. 7 $\frac{1}{2}$
THRU NO. 60

SHAFT SEAL SPECIFICATION:
ENGINE MFR TO PROVIDE SEAL BETWEEN
SHAFT AND ENGINE NOSE. LEAKAGE
PAST SEAL TO BE ZERO FROM ENGINE
INTO PROPELLER WITH SHAFT STATIONARY
AND A MAXIMUM OF ONE OUNCE PER
HOUR IN EITHER DIRECTION WITH SHAFT
RUNNING AND WITH A MIST OF SAE NO.10
OIL PRESENT ON PROPELLER SIDE OF SEAL

**-DO NOT PAINT —
THESE SURFACES**

SEE FIG.6,7 AND 8 FOR OTHER
APPLICABLE DIMENSIONS
SEE TABLE 3 FOR FIG 5

FIG 5

UNLESS OTHERWISE SPECIFIED, ALLOWABLE TOLER ON FINISHED DIM IS $\pm .010$
AND ON ANGLES IS ± 2 DEGREES. BREAK EDGES .016

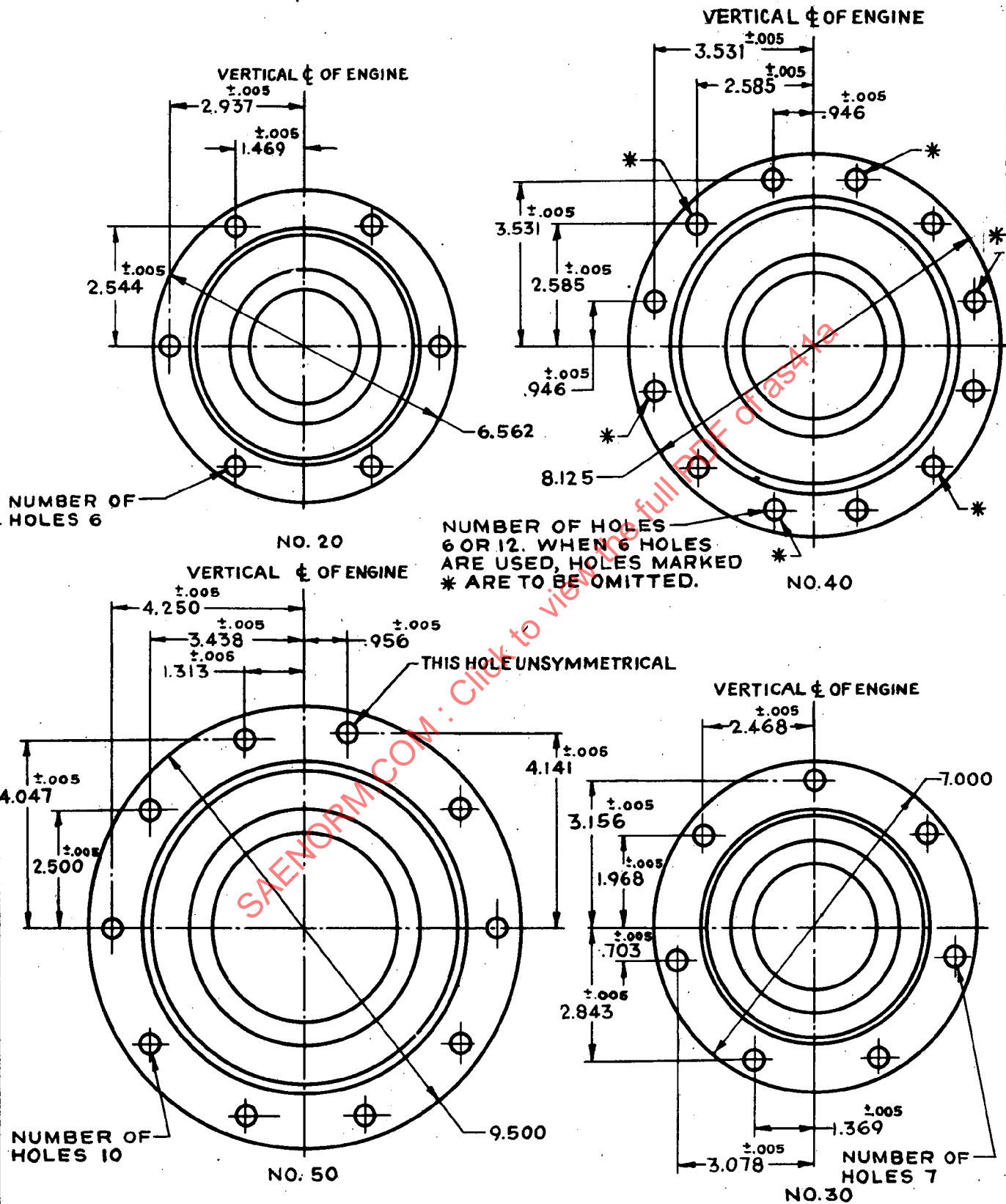
LET	TOLER	NO.7 $\frac{1}{2}$ NO.10	NO.20	NO.30	NO.40	NO.50	NO.60 *	NO.60A	NO.70	NO.80
BC	MAX	—	4.250	4.250	4.750	6.000	6.312	—	—	—
BE		.188	.312	.312	.375	.375	.375	—	—	—
BJ	MIN.	.115	.250	.250	.125	.344	.219	—	—	—
BK	—	.3125	.375	.375	.375	.375	.4375	OPTIONAL	OPTIONAL	OPTIONAL
BL	—	4	6	7	6 OR 12	10	8 OR 16	OPTIONAL	OPTIONAL	OPTIONAL
DD		—	—	—	—	—	—	5.812	6.688	7.562
EE	MAX	.938	.938	.938	1.000	1.000	1.016	.750	.750	.750
FF		.188	.188	.188	.188	.250	.250	.312	.312	.312
GG	MIN	3.750	4.750	4.750	5.875	6.812	7.312	7.750	8.750	9.625
HH	$\pm .001$	3.998	4.998	4.998	6.248	7.248	7.748	10.123	11.123	12.625
LL	MIN †	—	—	—	—	—	—	2.062	2.062	2.062
MM	MAX	—	—	—	—	—	—	6.188	7.062	7.938
PP	MIN †	—	—	—	—	—	—	35°	35°	35°
QQ	$\pm .025$	.312	.344	.025	.172	.406	.625	.938	.938	.938
SS	MIN	—	—	—	—	—	—	.500	.500	.500

* INACTIVE FOR DESIGN PURPOSES

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

TABLE 3 FOR FIG 5

UNLESS OTHERWISE SPECIFIED, ALLOWABLE TOLER ON FINISHED
DIM IS $\pm .010$ AND ON ANGLES IS ± 2 DEGREES BREAK EDGES .016



SEE FIG 5 AND TABLE 3 FOR OTHER APPLICABLE DIMENSIONS

FIG 6

UNLESS OTHERWISE SPECIFIED, ALLOWABLE TOLER ON FINISHED DIM IS $\pm .010$
AND ON ANGLES IS ± 2 DEGREES. BREAK EDGES .016