



UNIFIED AND AMERICAN NATIONAL FINE

THREAD DIA	THREADS PER INCH T.P.I.	W	R	EXTERNAL RELIEF DIA	INTERNAL RELIEF DIA
No. 10	32	.094	.01	.143	.203
1/4	28	.094	.03	.196	.265
5/16	24	.110	.03	.251	.328
3/8	24	.110	.03	.313	.391
7/16	20	.125	.03	.364	.455
1/2	20	.125	.03	.426	.518
9/16	18	.125	.03	.481	.581
5/8	18	.125	.03	.544	.644
3/4	16	.141	.03	.659	.771
7/8	14	.156	.06	.772	.897
1	12	.156	.06	.881	1.025
1-1/8	12	.188	.06	1.006	1.150
1-1/4	12	.188	.06	1.131	1.273
1-3/8	12	.188	.06	1.260	1.400
1-1/2	12	.188	.06	1.380	1.525
1-1/2	8	.250	.06	1	2

SEE ENGINEERING STANDARDS APPROVAL RECORD FOR ORIGINAL SIGNATURES AND CHANGE SUMMARY

DRAWN	S.T. GUNG
CHECKED	D. BINNINGTON
STRESSED	
APPROVED	W. CLENNETT

**UNDERCUT, THREAD,
UNIFIED AND AMERICAN
NATIONAL FINE**

DS 14

SHEET: 1 of 2

REV:

REV:

REV:

REV:

REV: B - 7 DEC 99

REV: A - 11 NOV 99

APPROVED: MAR 1958

NOTES:

1. FOR EXTERNAL THREADS THE RELIEF DIA. IS OBTAINED BY SUBTRACTING THE BASIC THREAD DEPTH FROM THE MIN. PITCH DIAMETER AND THEN SUBTRACTING A FURTHER .003 FOR ECCENTRICITY

EXAMPLE - 1/2-20 UNF-2A

MINIMUM PITCH DIAMETER = 0.4619

MINIMUM THREAD DEPTH = 0.0324

0.4295

MINUS ALLOWANCE = 0.003

RELIEF DIAMETER 0.426

2. FOR INTERNAL THREADS THE RELIEF DIA IS OBTAINED BY ADDING 0.7939 X PITCH TO THE MAXIMUM PITCH DIA. AND THEN ADDING A FURTHER 0.005 FOR ECCENTRICITY.

EXAMPLE - 1/2-20 UNF-2B

MAXIMUM PITCH DIAMETER= 0.4731

PLUS (0.7939 X P) = 0.04

PLUS ALLOWANCE = 0.005

RELIEF DIAMETER 0.518

3. FOR LARGER SIZES THAN 1-1/2 INCHES DIA. IN 16 PITCH, 12 PITCH AND 8 PITCH SERIES USE THE UNDERCUT FOR THE APPROPRIATE T.P.I. AND CALCULATE RELIEF DIA AS PER NOTES 1 OR 2 AS APPLICABLE.
4. ALL RELIEF DIAMETERS GIVEN IN THE TABLE ARE BASED ON THE UNIFIED THREAD CLASSES 2A & 2B. THEY ARE ACCEPTABLE FOR THE AMERICAN NATIONAL CLASSES 2 & 3 AND FOR THE UNIFIED NATIONAL CLASSES 2A, 2B, 3A & 3B
5. FINISH ON UNDERCUT: 125 RMS OR BETTER
6. THIS DRAWING SUPERSEDES CS-78

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DRAWN	S.T. GUNG	UNDERCUT, THREAD, UNIFIED AND AMERICAN NATIONAL FINE	DS 14
CHECKED	D. BINNINGTON		
STRESSED			SHEET: 2
APPROVED	W. CLENNETT		

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