



## STANDARDS SHEET

DASH NO.	TITLE	STANDARD	STYLE	SEE SHT.
-1	DETAILS, END FITTING	AND10077-1/2	C	2
-2	DETAILS, BOSSED END	AND10050-4		3
-3	DETAILS, BOSSED END	AND10050-6		4
-4	DETAILS, BOSSED END	AND10050-10		5
-5	DETAILS, BOSSED END	MS33649-10		6
-6	DETAILS, END FITTING	MS33656-4	E	7
-7	DETAILS, END FITTING	MS33656-10	E	8
-8	DETAILS, END FITTING	MS33656-16	E	9
-9	DETAILS, END FITTING	MS33657-16	S	10
-10	DETAILS, END FITTING	MS33656-8	E	11
-11	DETAILS, END FITTING	AND10077-3/4	A	12
-12	DETAILS, END FITTING	MS33657-8	E	13
-13	DETAILS, BOSSED END	AND10050-8		14

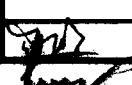
"A"

"A"

"A"

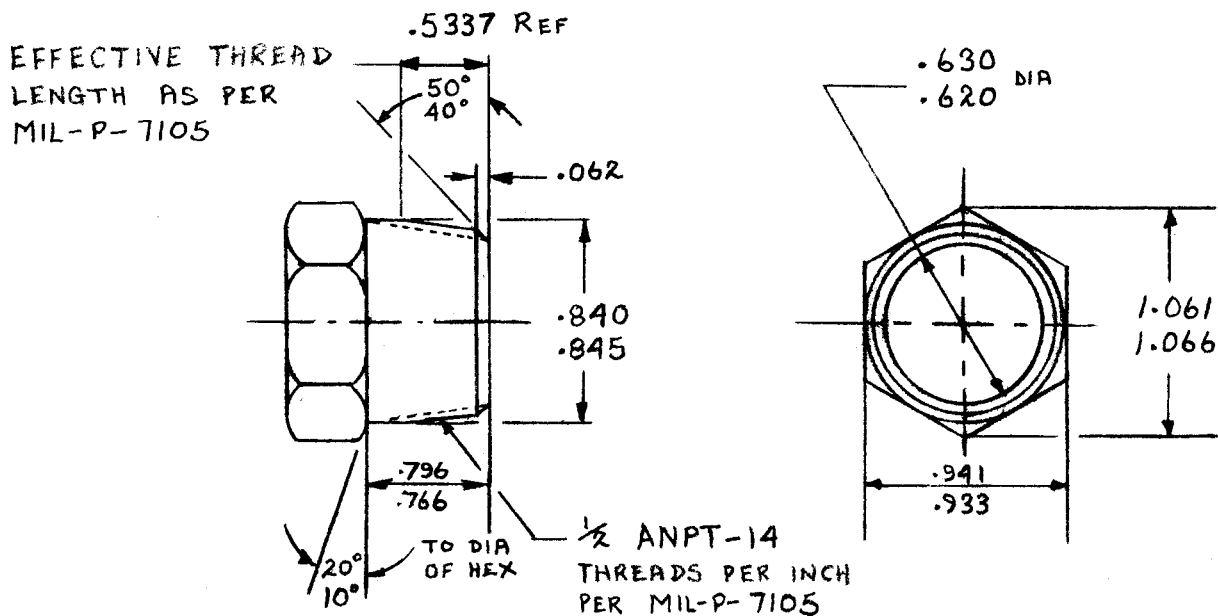
"A"

REV "A" DETAILS -10, -11, -12 &amp; -13 added. Date May 1, 1968

DRAWN	RJS	CLASSIFICATION	STANDARD
CHECKED	RJS	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68 Sht. 1 of 14
STRESSED			
APPROVED			



## STANDARDS SHEET

SURFACE FINISH

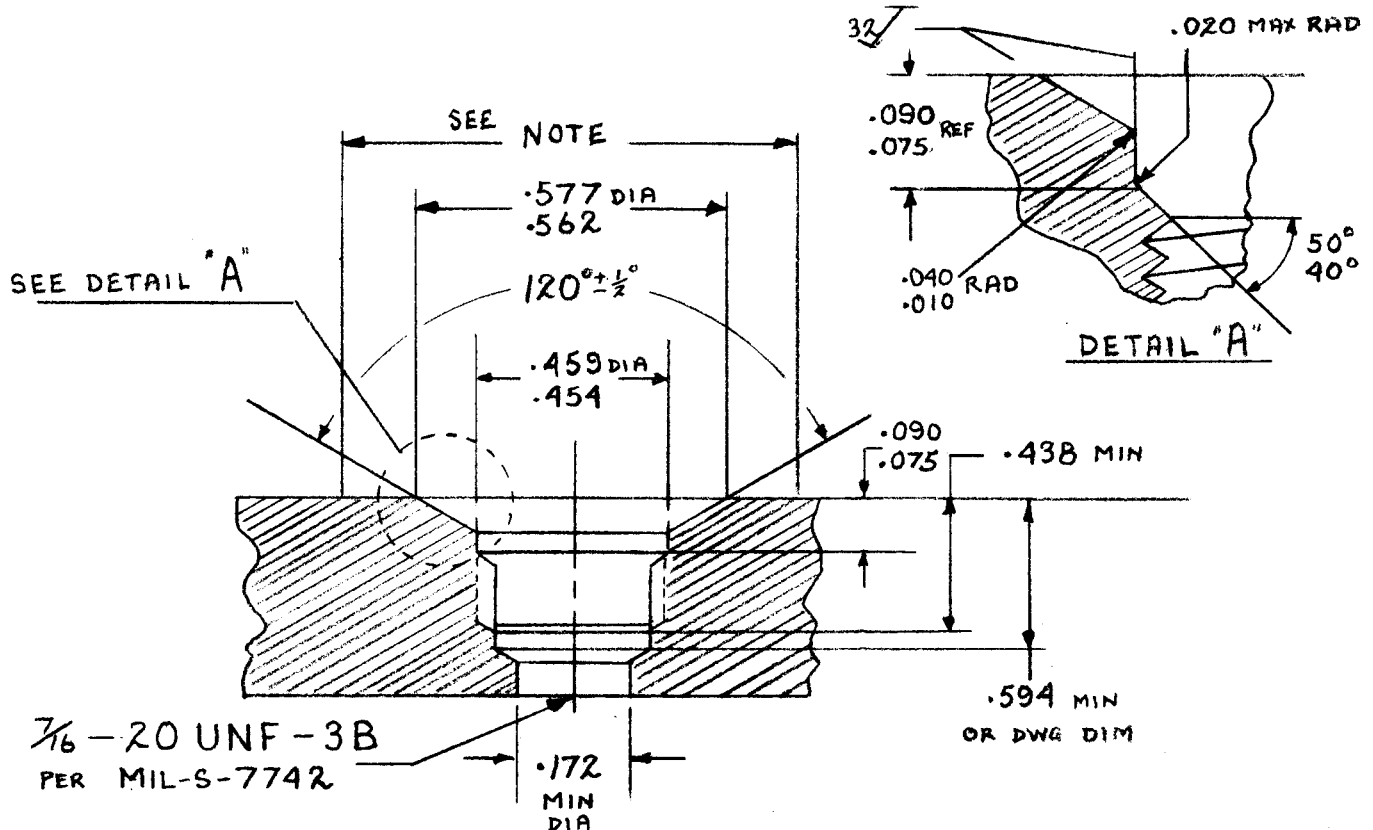
1. Break all sharp edges and remove all hanging burrs and slivers which might be dislodged under use.
2. Surface roughness 125 max. unless noted.
3. Tolerances as stated.
4. Dimensions in inches.

— I DETAILS  
AND 100077 STYLE - C

DRAWN	RJS	CLASSIFICATION	STANDARD
CHECKED	RJS	STANDARD DIMESNIONS FOR BOSSES AND END FITTINGS	DS-68 Sht. 2 of 10
STRESSED			
APPROVED	<i>[Signature]</i>		



## STANDARDS SHEET



NOTE: Surface of boss shall be spotfaced minimum .828 finish 64.

## SURFACE FINISH

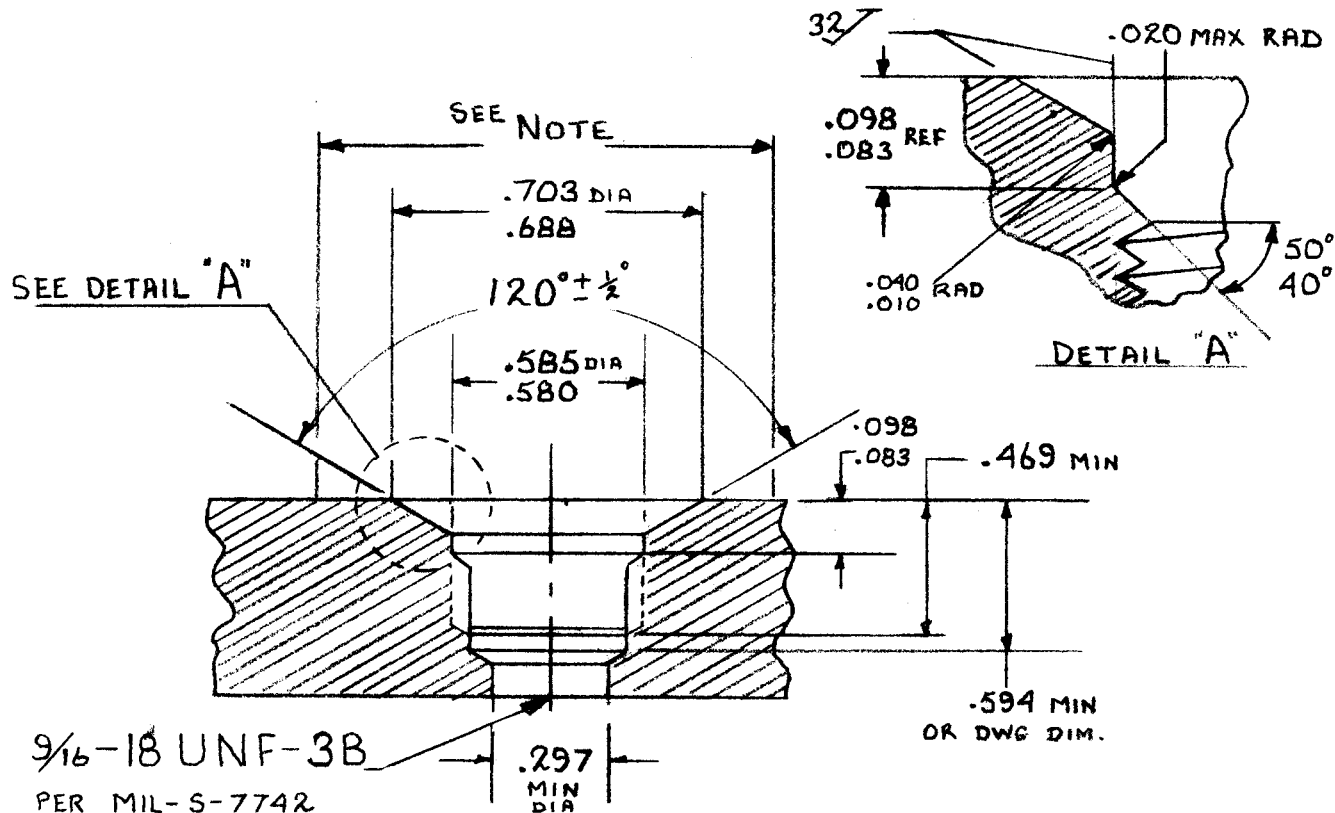
1. Break all sharp edges and remove all hanging burrs and slivers which might be dislodged under use.
2. Surface roughness 125 unless noted.
3. Tolerances as stated.
4. Dimensions in inches.
5. Diameter .577, diameter .459, and thread shall be concentric within .005 inch full indicator reading.
6. Squareness between thread and face of boss at diameter .577 shall not exceed .005 inch.
7. The countersink of diameter .577 and counterbore of diameter .459 shall be free from longitudinal and spiral tool marks.

— 2 DETAILS  
AND 10050-4

DRAWN	RJS	CLASSIFICATION	STANDARD
CHECKED	RJS	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68 Sht. 3 of 10
STRESSED			
APPROVED			



## STANDARDS SHEET



NOTE: Surface of boss shall be spotfaced min. .969 finish 64.

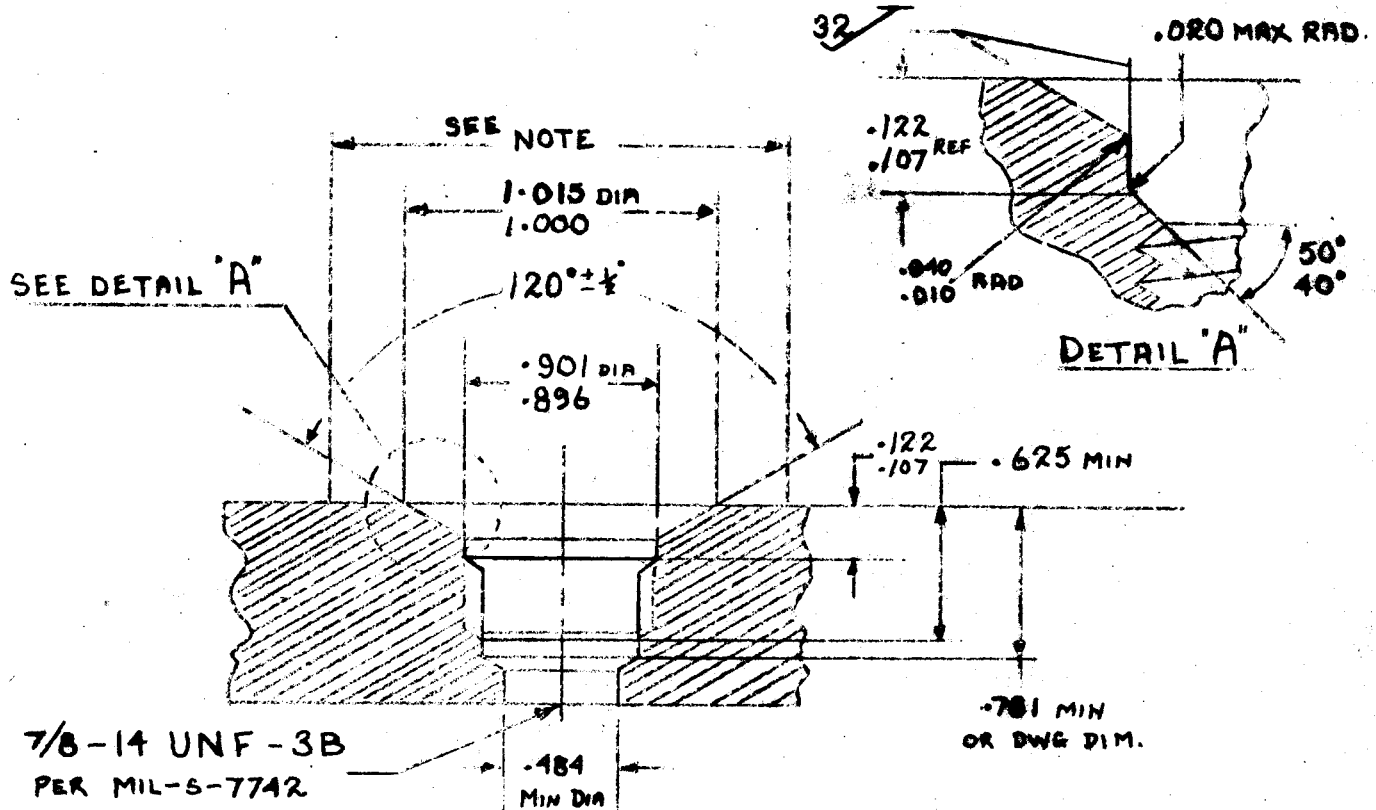
## SURFACE FINISH

1. Break all sharp edges and remove all hanging burrs and slivers which might be dislodged under use.
2. Surface roughness 125 unless noted.
3. Tolerances as stated.
4. Dimensions in inches.
5. Diameter .703, diameter .585, and thread shall be concentric within .005 inch full indicator reading.
6. Squareness between thread and face of boss at diameter .703 shall not exceed .005 inch.
7. The countersink of diameter .703 and counterbore of diameter .585 shall be free from longitudinal and spiral tool marks.

— 3 DETAILS  
AND 10050-6

DRAWN	RJS	CLASSIFICATION	STANDARD
CHECKED	RJS	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68 Sht. 4 of 10
STRESSED			
APPROVED			

## STANDARDS SHEET

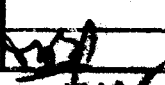


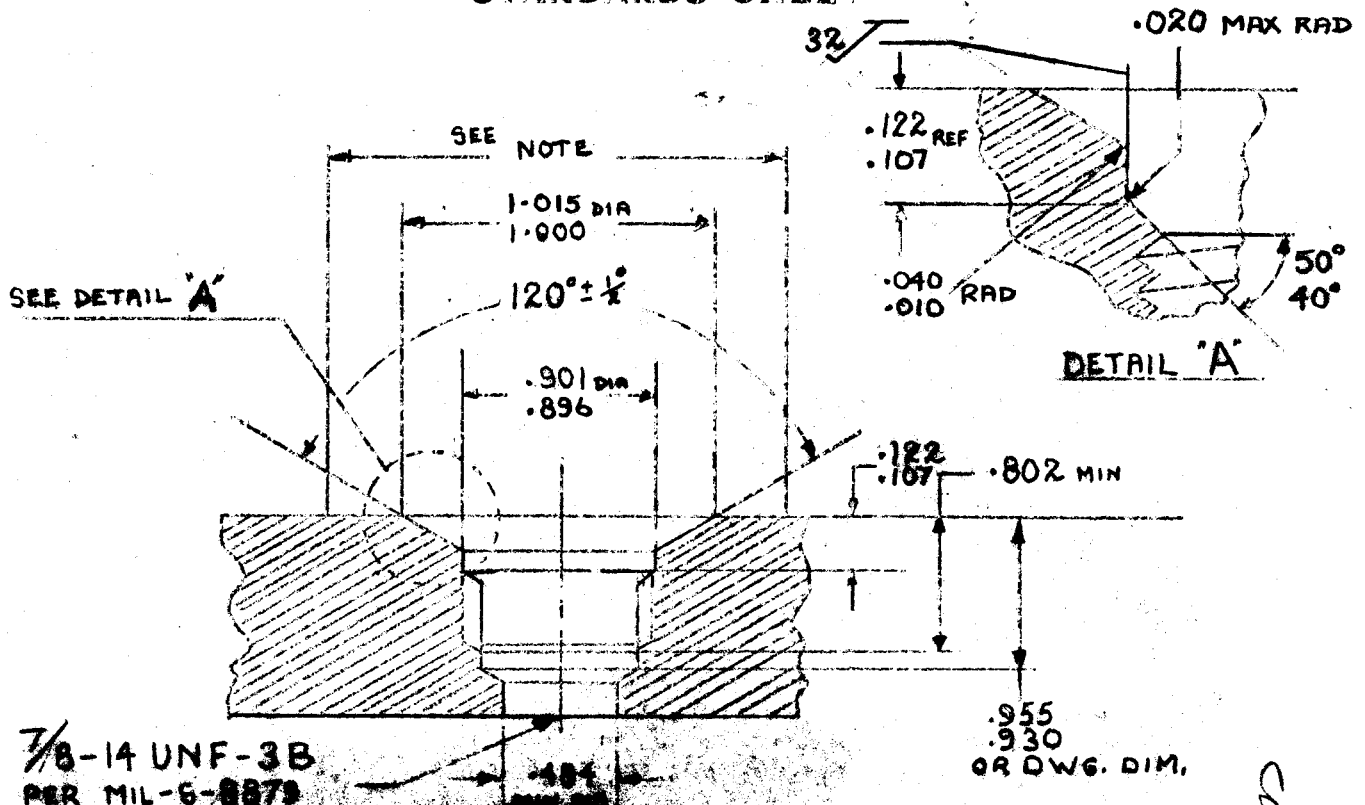
**NOTE:** Surface of boss shall be spotfaced min. 1.344 finish 64.

### SURFACE FINISH

1. Break all sharp edges and remove all hanging burrs and slivers which might be dislodged under use.
2. Surface roughness 125 unless noted.
3. Tolerances as stated.
4. Dimensions in inches.
5. Diameter 1.015, diameter .901 and thread shall be concentric within .005 inch full indicator reading.
6. Squareness between thread and face of boss at diameter 1.015 shall not exceed .005 inch.
7. The countersink of diameter 1.015 and counterbore of diameter .901 shall be free from longitudinal and spiral tool marks.

— 4 DETAILS  
AND 10050-10

DRAWN	RJS	CLASSIFICATION	STANDARD
CHECKED	RJS	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68 Sht. 5 of 10
STRESSED			
APPROVED			



NOTE: Surface of boss shall be spotfaced minimum 1.344 finish 64

#### SURFACE FINISH

1. Break all sharp edges and remove all hanging burrs and slivers which might be dislodged under use.
2. Surface roughness 125 unless noted.
3. Tolerances as stated.
4. Dimensions in inches.
5. Diameter 1.015, diameter .901 and thread shall be concentric within .005 inch full indicator reading.
6. Squareness between thread and face of boss at diameter 1.015 shall not exceed .005 inch.
7. The countersink of diameter 1.015 and counterbore of diameter .901 shall be free from longitudinal and spiral tool marks.

## — 5 DETAILS

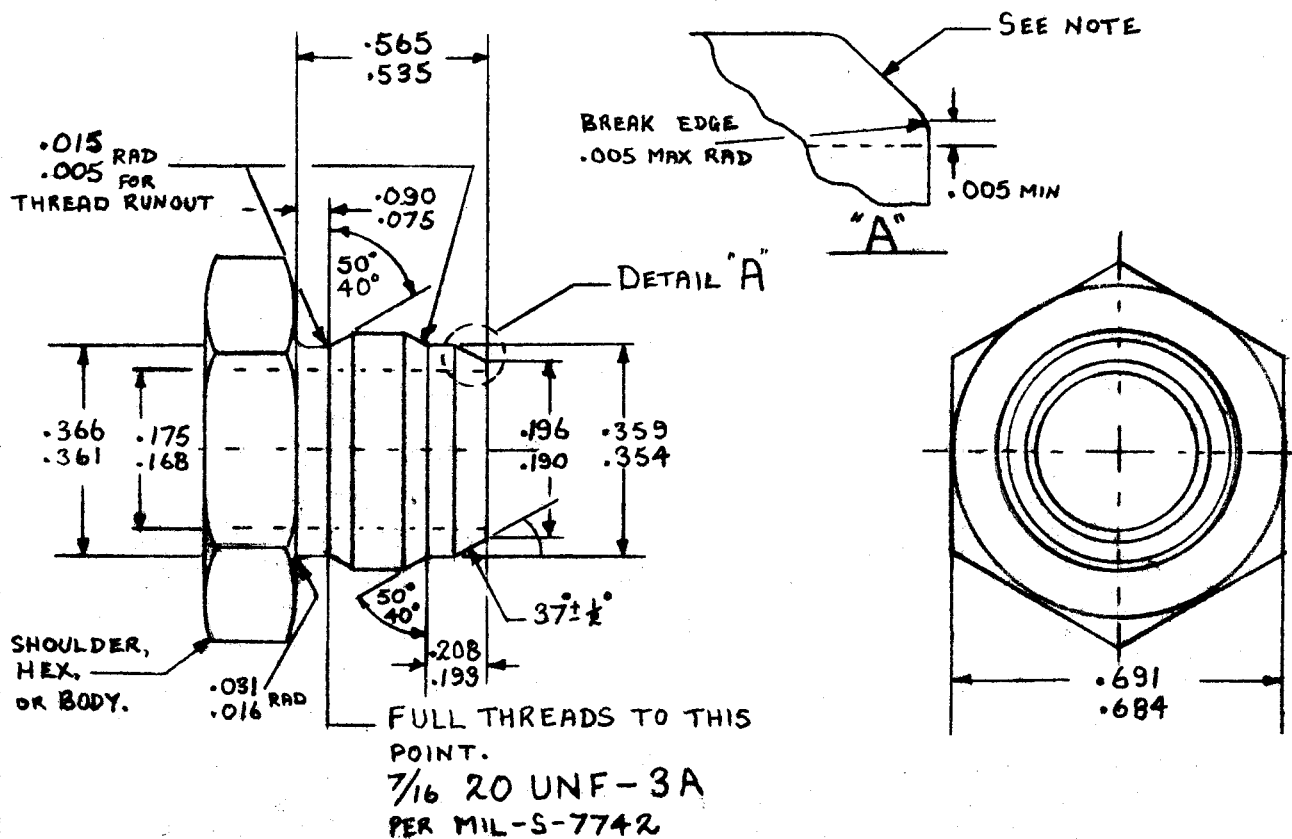
MS-33649-10

DRAWN	RJS	CLASSIFICATION	STANDARD
CHECKED	RJS	STANDARD DIMENSIONS FOR BOSSSES AND END FITTINGS	DS-68 Sht. 6 of 10
STRESSED			
APPROVED			





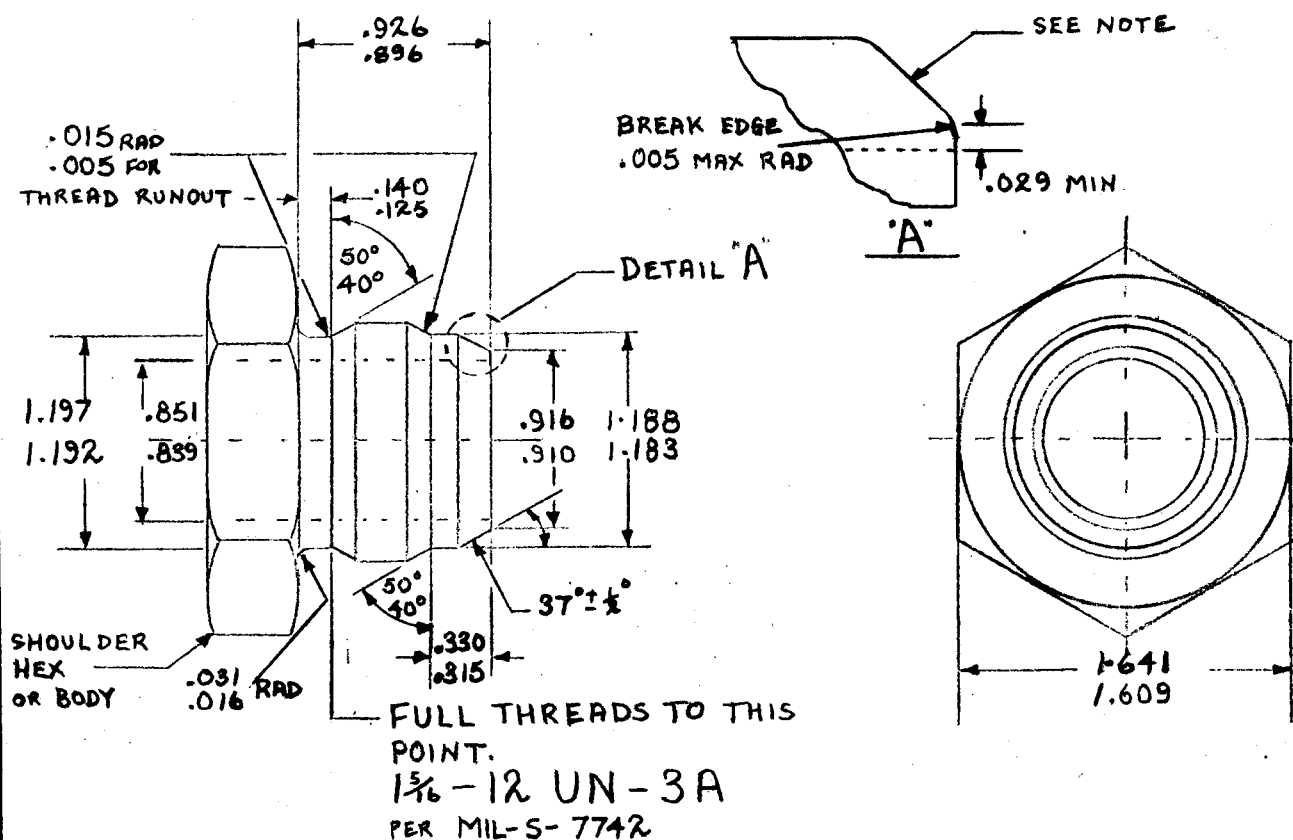
## STANDARDS SHEET



DRAWN	RJS	CLASSIFICATION	STANDARD
CHECKED	RJS	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68 Sht.7 of 10
STRESSED			
APPROVED			



# STANDARDS SHEET



**NOTE:** This surface shall be a smooth uniform conical surface free from burrs, tool marks and visible flat spots except annular tool marks will be allowed to 100 microinches RHR max.

### SURFACE FINISH

1. Concentricity of diameter 1.188, diameter .916, diameter 1.197 and thread shall be measured and calculated as an included angle within .005 total indicator reading.
2. Surface roughness 125  $\sqrt{\text{max}}$  unless noted.
3. Remove all burrs, slivers and sharp edges.
4. Dimensions in inches.
5. Squareness between thread and face of hex or body shall not exceed .008.

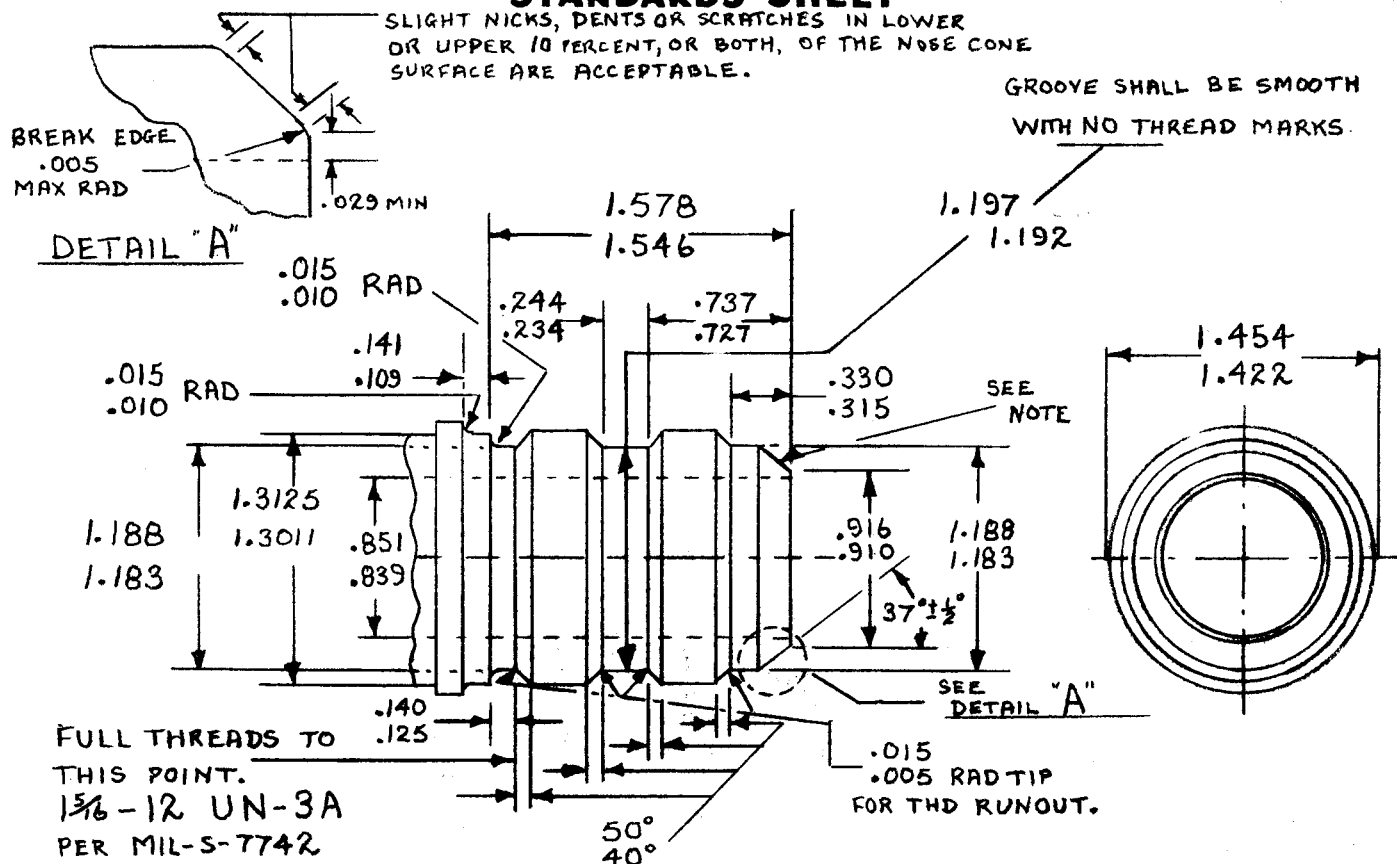
- 8 DETAILS

MS 33656-16 STYLE "E"

DRAWN	R.J.S.	CLASSIFICATION	STANDARD
CHECKED	R.J.S.	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68
STRESSED			Sht. 9 of 10
APPROVED	<i>[Signature]</i>		



## STANDARDS SHEET



**NOTE:** This surface shall be a smooth uniform conical surface free from burrs, tool marks and visible flat spots except annular tool marks will be allowed to 100 microinches RHR max.

## SURFACE FINISH

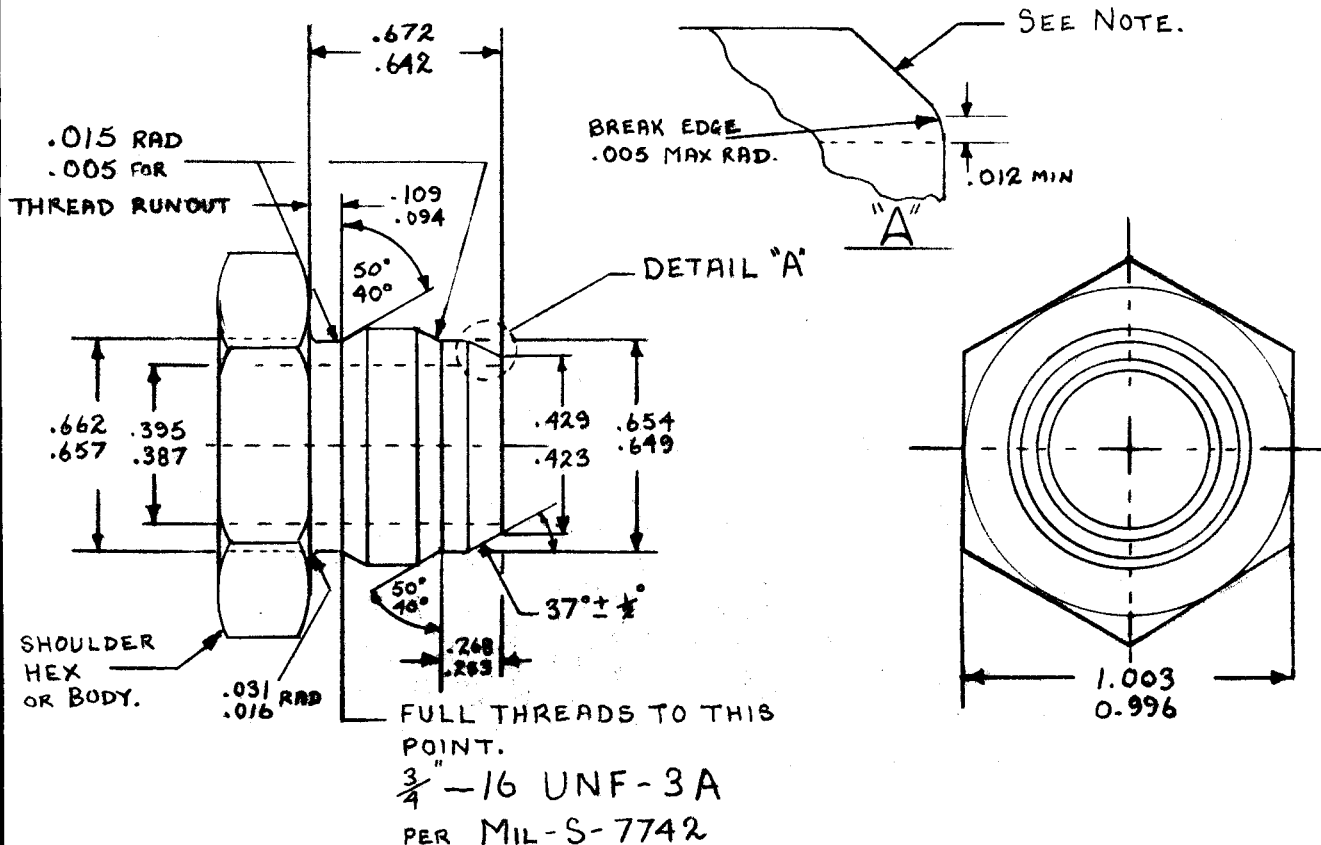
1. Concentricity of diameter 1.188, diameter .916, diameter 1.197 and thread shall be measured and calculated as an included angle within .005 total indicator reading.
2. Surface roughness  $125 \sqrt{\text{max}}$  unless noted.
3. Remove all burrs, slivers and sharp edges.
4. Dimensions in inches.
5. Squareness between thread and face of hex or body shall not exceed .008.

— 9 DETAILS

MS 33657-16 STYLE "S"

DRAWN	RJS	CLASSIFICATION	STANDARD
CHECKED	RJS	STANDARD DIMENSIONS FOR BOSSSES AND END FITTINGS	DS-68 Sht. 10 of 10
STRESSED			
APPROVED			

# STANDARDS SHEET



**NOTE:** This surface shall be a smooth uniform conical surface free from burrs, tool marks and visible flat spots except annular tool marks will be allowed to 100 microinches RHR max.

SURFACE FINISH

1. Concentricity of diameter .654, diameter .429, diameter .662 and thread shall be measured and calculated as an included angle within .005 total indicator reading.
2. Surface roughness ~~125~~ max. unless noted.
3. Remove all burrs, slivers and sharp edges.
4. Dimensions in inches.
5. Squareness between thread and face of hex or body shall not exceed .008.

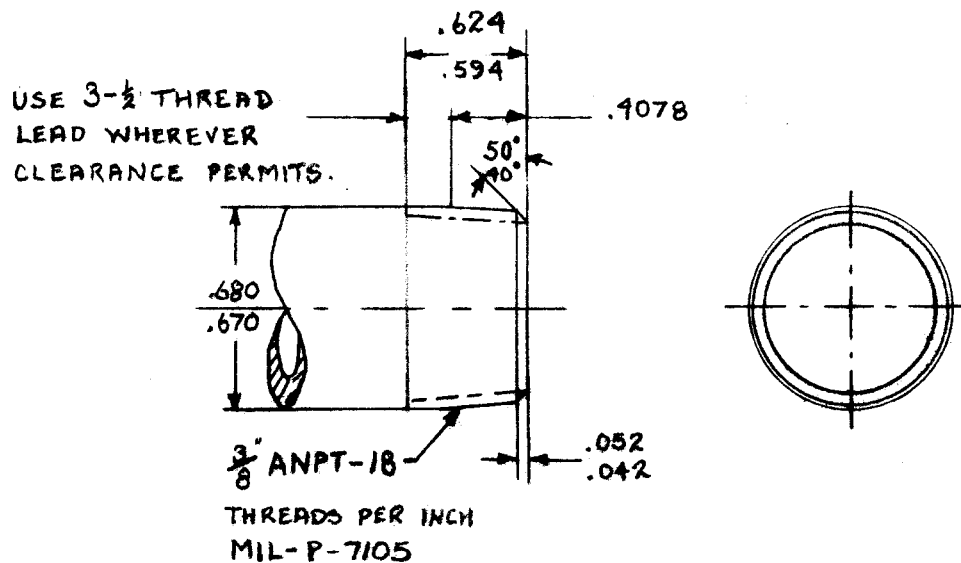
— 10 DETAILS

MS 33656-8 STYLE "E"

<b>DRAWN</b>	<b>BLS</b>	<b>CLASSIFICATION</b>	<b>STANDARD</b>
<b>CHECKED</b>	<b>BLS</b>	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68
<b>STRESSED</b>			Sht. 11 of 14
<b>APPROVED</b>	<b>BLS</b>		



## STANDARDS SHEET

SURFACE FINISH

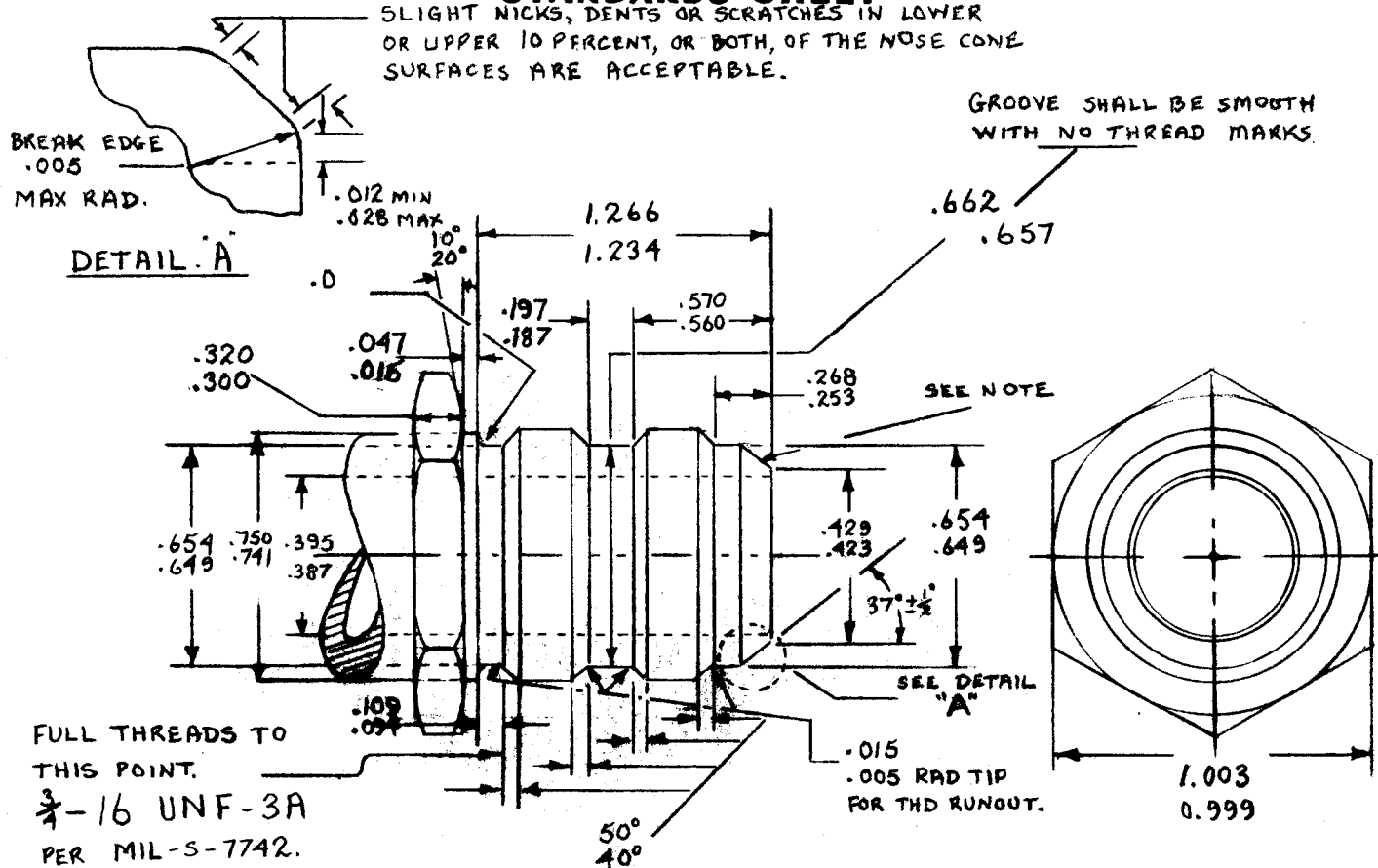
1. Break all sharp edges and remove all hanging burrs and slivers which might be dislodged under use.
2. Surface roughness 125  $\sqrt{\text{max}}$ , unless noted.
3. Tolerances as stated.
4. Dimensions in inches.

— II DETAILS  
AND 10077  $\frac{3}{8}$  STYLE 'A'

DRAWN	R. H.	CLASSIFICATION	STANDARD
CHECKED	R. H.	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68 9ht. 12 of 14
STRESSED			
APPROVED			



## STANDARDS SHEET



NOTE: This surface shall be a smooth uniform conical surface free from burrs, tool marks and visible flat spots except annular tool marks will be allowed to 100 microinches RHR max.

## SURFACE FINISH

1. Concentricity of diameter .654, diameter .429, diameter .662 and thread shall be measured and calculated as an included angle within .005 total indicator reading.
2. Surface roughness 125  $\sqrt{\text{max}}$  unless noted.
3. Remove all burrs, slivers and sharp edges.
4. Dimensions in inches.
5. Squareness between thread and face of hex or body shall not exceed .005.

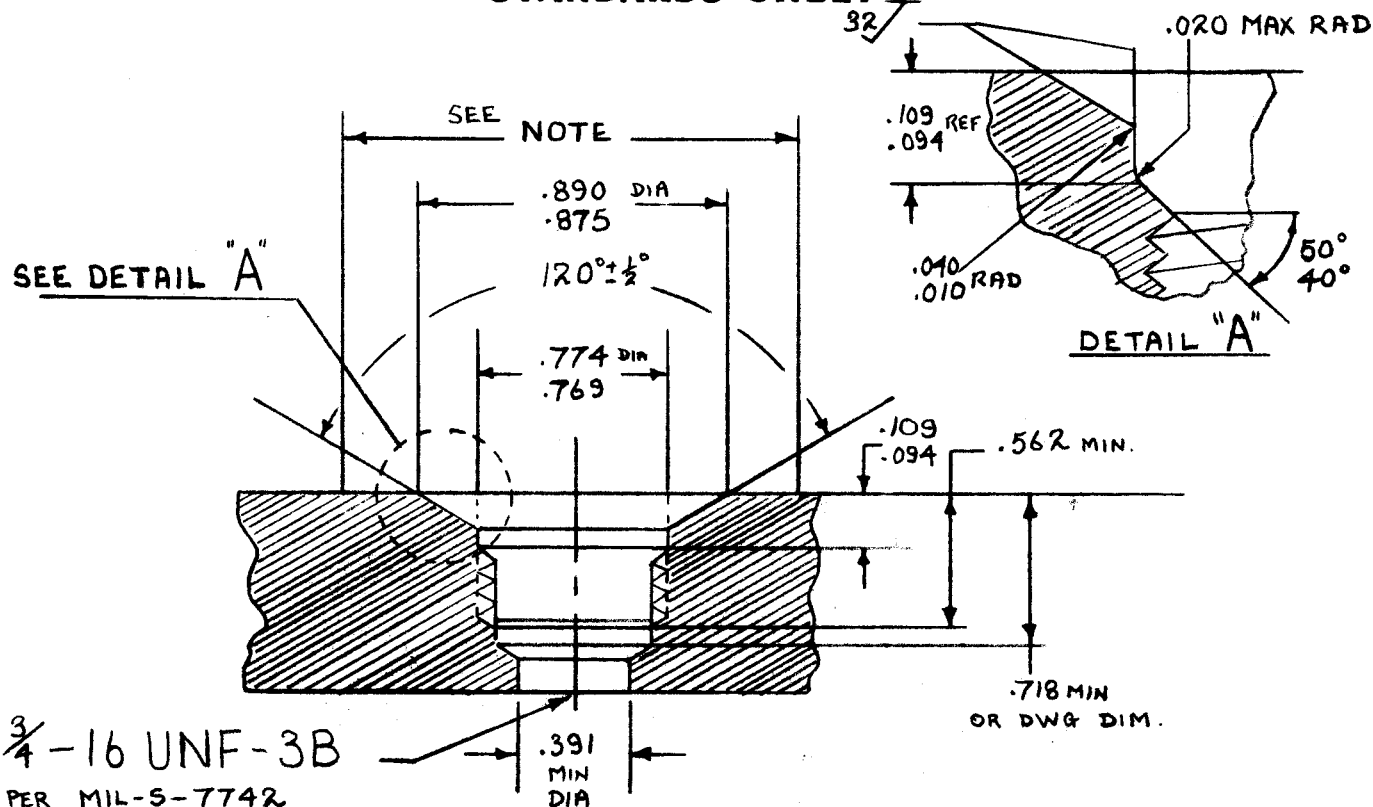
-12 DETAILS

MS-33657-8 STYLE 'E'

DRAWN	R46	CLASSIFICATION	STANDARD
CHECKED	K 83.	STANDARD DIMENSIONS FOR BOSSSES AND END FITTINGS	DS-68 Sht. 13 of 14
STRESSED			
APPROVED	R 83		



## STANDARDS SHEET



NOTE: Surface of boss shall be spotfaced minimum 1.188 finish 64.

## SURFACE FINISH

1. Break all sharp edges and remove all hanging burrs and slivers which might be dislodged under use.
2. Surface roughness 125 unless noted.
3. Tolerances as stated.
4. Dimensions in inches.
5. Diameter .890, diameter .774, and thread shall be concentric within .005 inch full indicator reading.
6. Squareness between thread and face of boss at diameter .890 shall not exceed .008 inch.
7. The countersink of diameter .890 and counterbore of diameter .774 shall be free from longitudinal and spiral tool marks.

-13 DETAILS  
AND 10050-8

DRAWN	CLASSIFICATION	STANDARD
CHECKED	STANDARD DIMENSIONS FOR BOSSES AND END FITTINGS	DS-68 Sht. 14 of 14
STRESSED		
APPROVED		