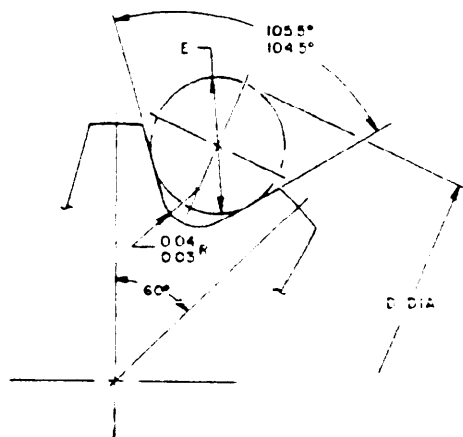
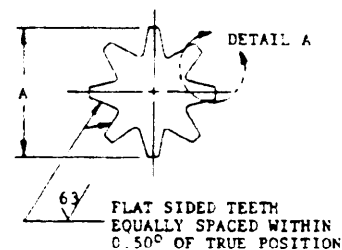
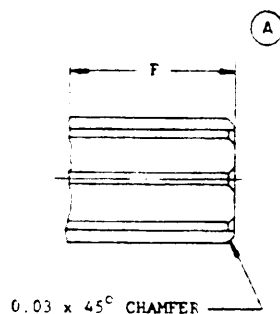
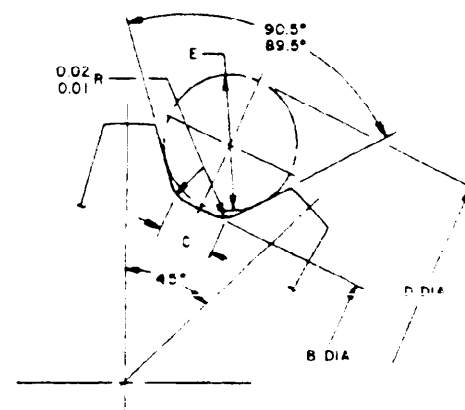


FED. SUP CLASS

6115



DETAIL A  
6 TEETH.



DETAIL A  
8 TEETH

## SPLINE DESIGN DATA

NO. OF TEETH	MAJ DIA A	ROOT DIA B	NOM ROOT WIDTH C	OVER 2 WIRES DIA D	WIRE DIA E	ENGAGM'T LENGTH MIN F
6	0.450 0.445	NA	NA	0.6955 0.6928	0.1920	0.700
8	0.525 0.520	0.405 0.395	0.067	0.7700 0.7673	0.1800	0.700
8	0.610 0.605	0.455 0.445	0.065	0.8230 0.8203	0.1800	0.750

(A) DENOTES CHANGES

PA NAVY - AS  
Other Coast

TITLE

NONMETALLIC SHAFT-COUPPLING DETAILS,  
ENGINE DRIVEN ACCESSORIES

MILITARY STANDARD

MS14184(AS)

PROCUREMENT SPECIFICATION

SUPERSEDES

SHEET 1 OF 1

This military standard is approved by NAVAL AIR SYSTEMS COMMAND,  
Department of the Navy and shall be used by  
that activity. All other military activities are required  
to employ this standard where suitable.

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PLATE NO 22071

APPROVED 8, SEPT 1979 REVISED (A) 10 JUNE 80

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P.A. NAVY - AS  
Other Code

TITLE

NONMETALLIC SHAFT-COUPLING DETAILS,  
ENGINE DRIVEN ACCESSORIES

MILITARY STANDARD

MS14184(AS)

PROCUREMENT SPECIFICATION

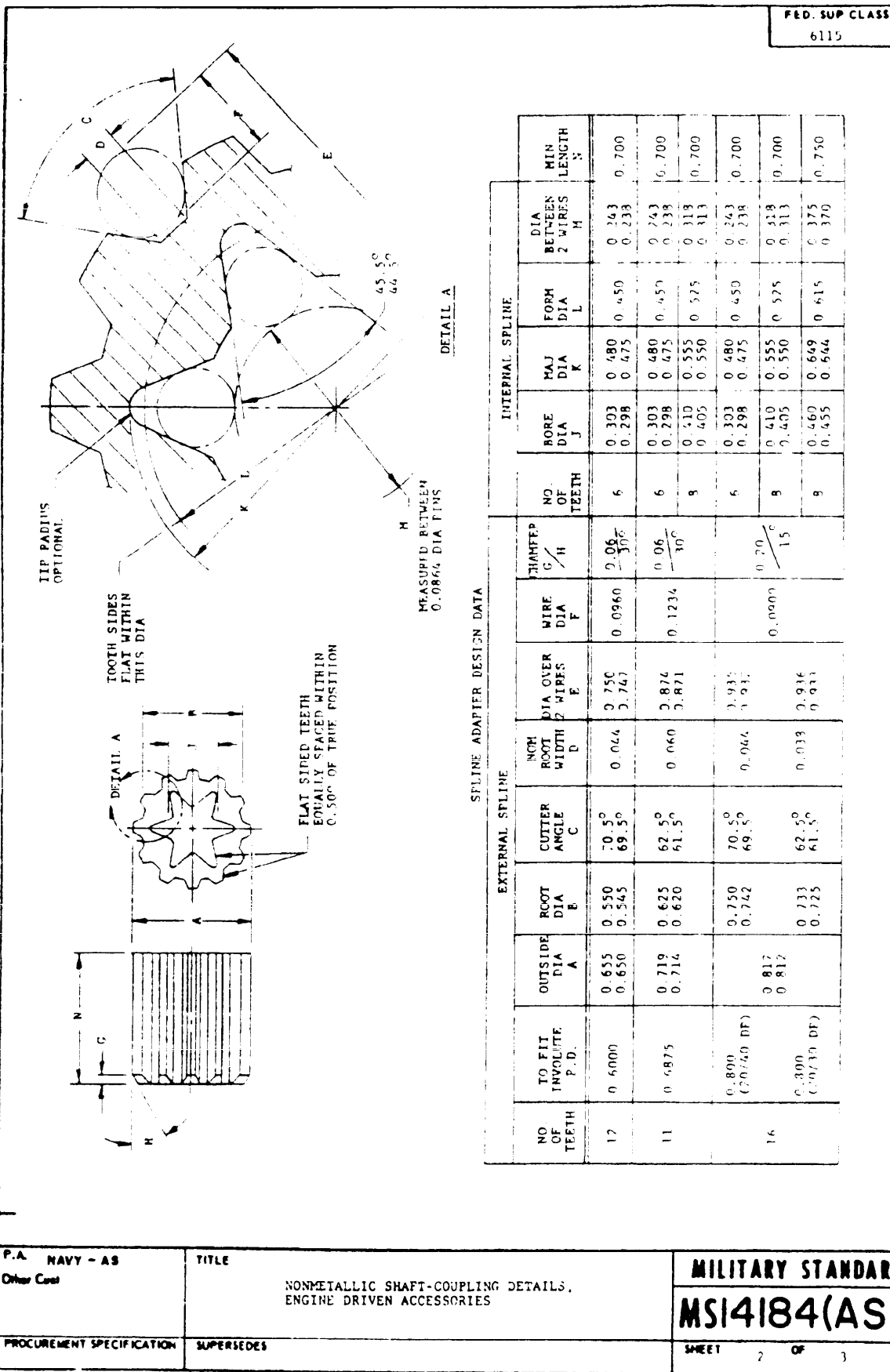
SUPERSEDES

SHEET 2 OF 3

DD FORM 672-1 (limited coordination)

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PLATE NC 23071



APPROVED 8, SEPT 1978 REVISED (A) FOR CHANGES SEE SHEETS 1, 2, AND 3.

FED. SUP CLASS  
6115

## REQUIREMENTS:

1. **SPLINES.** MALE SHAFT SPLINES SHALL HAVE A MINIMUM SURFACE HARDNESS OF 34 ROCKWELL C TO A MINIMUM CASE DEPTH OF 0.035 INCHES.
2. **MATERIAL SELECTION.** THE PLASTIC SPLINED BUSHING SHALL BE FABRICATED FROM HIGH STRENGTH SELF-LUBRICATING POLYMERIC MATERIALS HAVING ULTIMATE COMPRESSIVE STRENGTHS OF A MINIMUM OF 28,000 PSI. TYPICAL MATERIALS INCLUDE THE POLYAMIDE, ARAMID AND POLYAMIDE-IMIDE RESINS, BELONGING TO THE DUPONT VESPEL AND AMOCO TORILON FAMILIES. THE PROCESS OF MATERIAL SELECTION SHOULD CONSIDER STRENGTH, FATIGUE AND AGING PROPERTIES, FLUID COMPATIBILITY, THERMAL EXPOSURE, DIMENSIONAL STABILITY, AND FORMING PROPERTIES.
3. **SHEAR SECTION.** THE SHAFT SHALL INCLUDE A SHEAR SECTION ALLOWING THE SHAFT TO SHEAR AT THE TORQUE SPECIFIED BY THE SPECIFICATION FOR THE ACCESSORY EQUIPMENT.

## NOTES:

1. **DIMENSIONS.** ALL LINEAR DIMENSIONS ARE IN INCHES EXCEPT ROUGHNESSES WHICH ARE IN MICROINCHES.
2. **APPLICATION.** THE SPECIFIED BUSHINGS MAY BE USED ONLY WITH INVOLUTE SPLINES HAVING 30 DEGREE PRESSURE ANGLES.
3. **FINISH.** ALL BURRS AND SHARP EDGES SHALL BE REMOVED.
4. **APPLICATION.** THIS COUPLING IS DESIGNED TO BE USED AT THE INTERFACE OF AIRCRAFT ACCESSORIES AND THE OUTPUT SHAFT OF THE AIRCRAFT ENGINE DRIVE PAD WITHOUT MODIFICATION OR REPLACEMENT OF THE EXISTING FEMALE OUTPUT SHAFT. THE FEMALE SHAFT SPLINE SHALL BE THOROUGHLY CLEANED TO REMOVE SEDIMENT AND GREASE BEFORE INSTALLATION OF THE BUSHING. THE DESIGN RESULTS IN AN INTERFERENCE FIT OF THE BUSHING INTO THE INVOLUTE SPLINE AND A SLIDING FIT OF THE NEW ACCESSORY SHAFT INTO THE BUSHING.
5. **INSTALLATION.** THE NONMETALLIC SPLINE ADAPTER IS DESIGNED TO BE INSTALLED IN THE DRIVE SHAFT FEMALE SPLINE PRIOR TO INSTALLING THE DRIVEN ACCESSORY. NONMETALLIC SPLINE ADAPTERS ARE INTENDED TO FIT TIGHTLY IN THE FEMALE SPLINE IN WHICH THEY ARE INSTALLED. TO AVOID DAMAGING THE DRIVE SHAFT OR ACCESSORY SHAFT BEARINGS AND SEALS, THE SPLINE ADAPTERS SHOULD BE PRESSED INTO THE MATING SPLINES AND THE PRESSURE SHOULD BE REMOVED AS SOON AS THE SPLINE ADAPTER IS FULLY INSTALLED.
6. **RETENTION AND PRELOAD.** THE NONMETALLIC SPLINE ADAPTERS HAVE BEEN DESIGNED TO FIT TIGHTLY IN NEW FEMALE SPLINES. THE TIGHTNESS OF THE FIT WILL DIMINISH WHEN THE NONMETALLIC ADAPTER IS INSTALLED IN WORN OR USED FEMALE SPLINES. THE SPLINE ADAPTER HAS BEEN DESIGNED TO FIT TIGHTLY TO ACHIEVE A COMPRESSIVE PRELOAD WHICH EXTENDS THE OPERATING TORSIONAL RANGE OF THE NONMETALLIC SPLINE ADAPTER. THE TIGHT FIT ALSO PROVIDES A RESISTANCE TO AXIAL MOVEMENT WHICH AFFORDS SOME DEGREE OF RETENTION. HOWEVER, THE APPLICATION GENERALLY SHOULD REQUIRE SOME POSITIVE METHOD OF AXIAL RETENTION OF THE PART. POSITIVE RETENTION CAN BE ACHIEVED BY A VARIETY OF METHODS INCLUDING LENGTHENING THE NONMETALLIC ADAPTER, INCORPORATION OF FLANGES IN THE ADAPTER DESIGN, AND THE USE OF SNAP OR SPIRAL LOCK RINGS TO LIMIT THE AMOUNT OF AXIAL CLEARANCE.

The military standard is approved by NAVAL AIR SYSTEMS COMMAND, Department of the Navy and shall be used by the military. All other military activities are required to employ this standard where applicable.

P.A. NAVY - AS Other Code	TITLE NONMETALLIC SHAFT-COUPLING DETAILS, ENGINE DRIVEN ACCESSORIES	MILITARY STANDARD <b>MS14184(AS)</b>
PROCUREMENT SPECIFICATION	SUPERSEDES	SHEET 3 OF 3

DD FORM 672-1 (limited circulation)  
1 MAR 72

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