

CONTROL LEVER - CONNECTIONS
(60° V SERRATIONS)

Issued 10-15-53
Revised

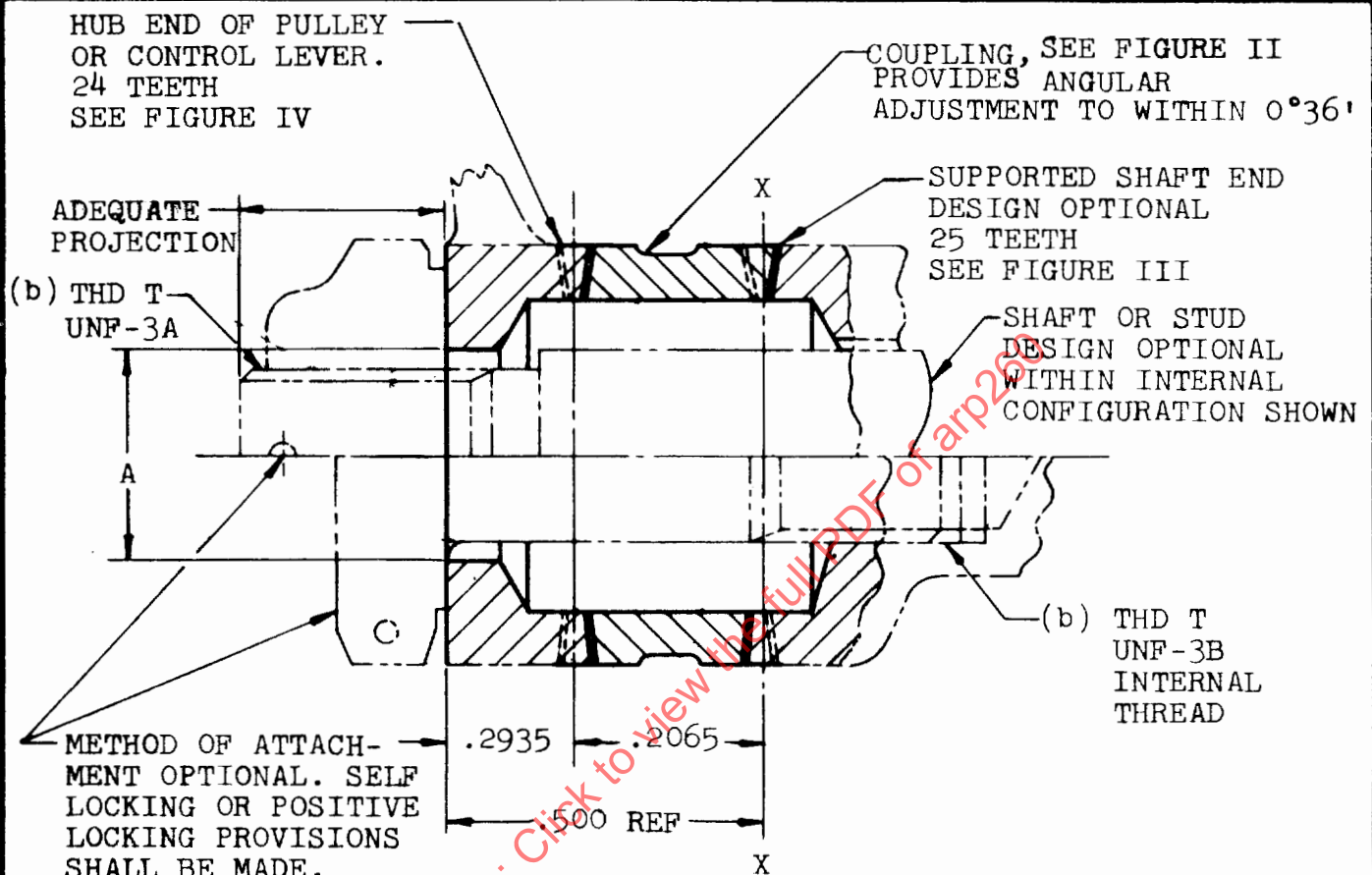


FIGURE I
INSTALLATION

NOM SIZE T	A DIA +.005 -.002	T	MAX APPLIED OVERHUNG MOMENT LB-IN.	MAX TORQUE LB-IN	MIN-MAX WRENCH TORQUE LB-IN.
.250	.281	.250-28	100	750	70-85
.375	.406	.375-24	500	750	225-300
.500	.531	.500-20	1100	750	500-750

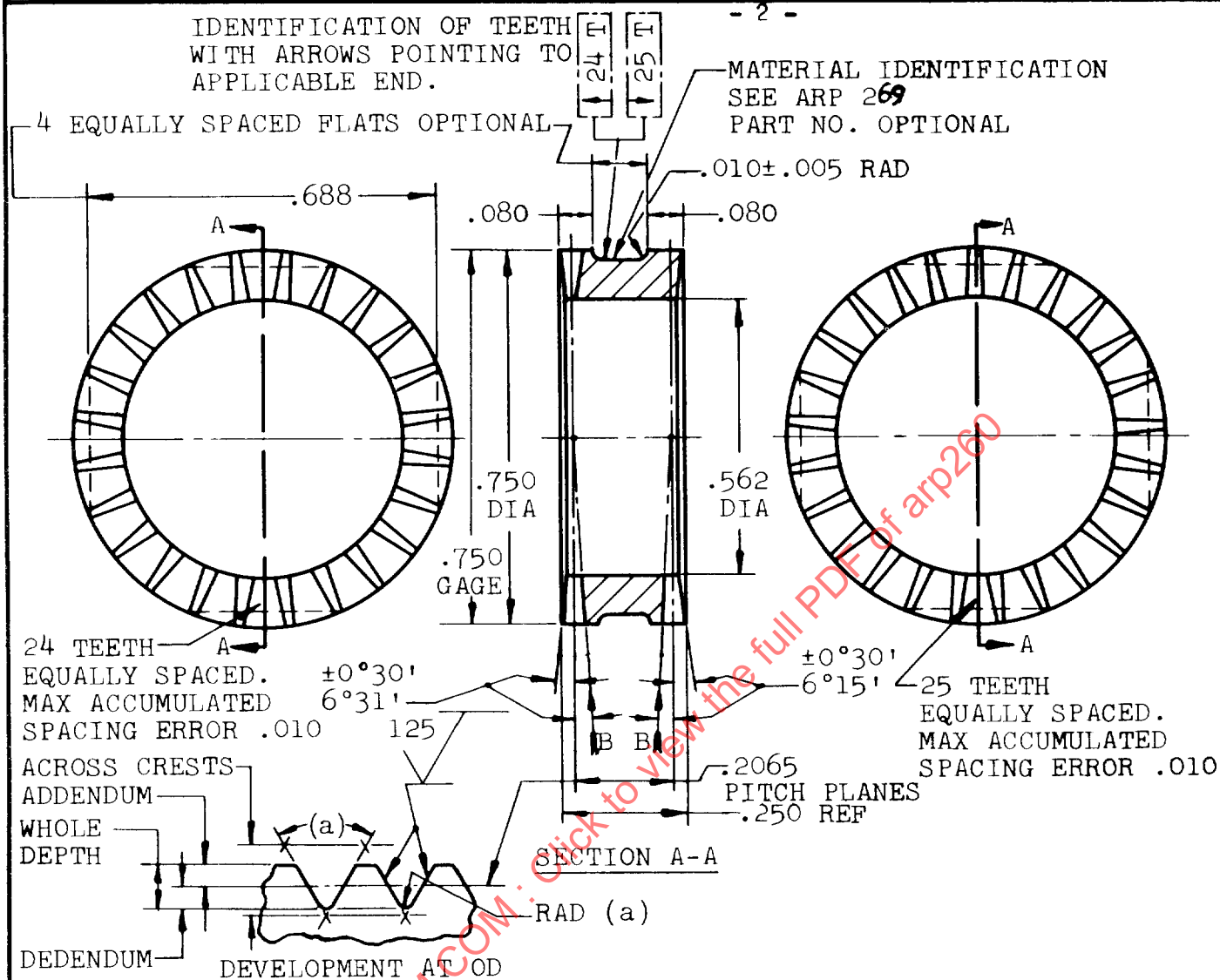
FIGURE I REPRESENTS GENERAL INSTALLATION FOR AIRCRAFT ENGINE TO AIRCRAFT CONTROLS.

NOMINAL USE: POWER LEVER, PROPELLER CONTROL, ETC.

FOR OTHER COMPLETE INTER-CONTROL APPLICATIONS, VARIATION IN DESIGN AND METHOD OF ATTACHMENT PERMITTED.

(a) MINIMUM WRENCH TORQUE REQUIRED TO PREVENT TOOTH SEPARATION UNDER COMBINED TORSION AND BENDING LOADS APPLIED ABOUT AXIS XX THROUGH LEVER OR PULLEY SIDE FORCES.

(b) REFERENCE SPECIFICATION MIL-T-7742.



SERRATED FACE COUPLING DATA AT .750 DIA

NO. OF TEETH	24	25
ADDENDUM	.0205-.0245	.0190-.0230
DEDENDUM	.0305-.0345	.0290-.0330
CHORDAL THICKNESS (THEOR)	.0491	.0471
CHORDAL THICKNESS (MACH DIM) AT GAGE	.0476-.0506	.0456-.0486
ACROSS CRESTS (THEOR)	.0850	.0816

SPIRAL ANGLE TO BE WITHIN 0°30' OF TRUE POSITION

(a) ANGLE PRODUCED BY 60° TOOL WITH .005-.010 TIP RADIUS IN DIRECTION B. DIA .562 SHALL BE CONCENTRIC WITH .750 DIA WITHIN .004 FIR.

PITCH PLANES OF TEETH SHALL BE SQ WITH AXIS OF .750 DIA WITHIN .004 FIR.

MATERIAL: RECOMMEND STEEL. HARDNESS ROCKWELL C26 MINIMUM.

SURFACE ROUGHNESS: AS107.

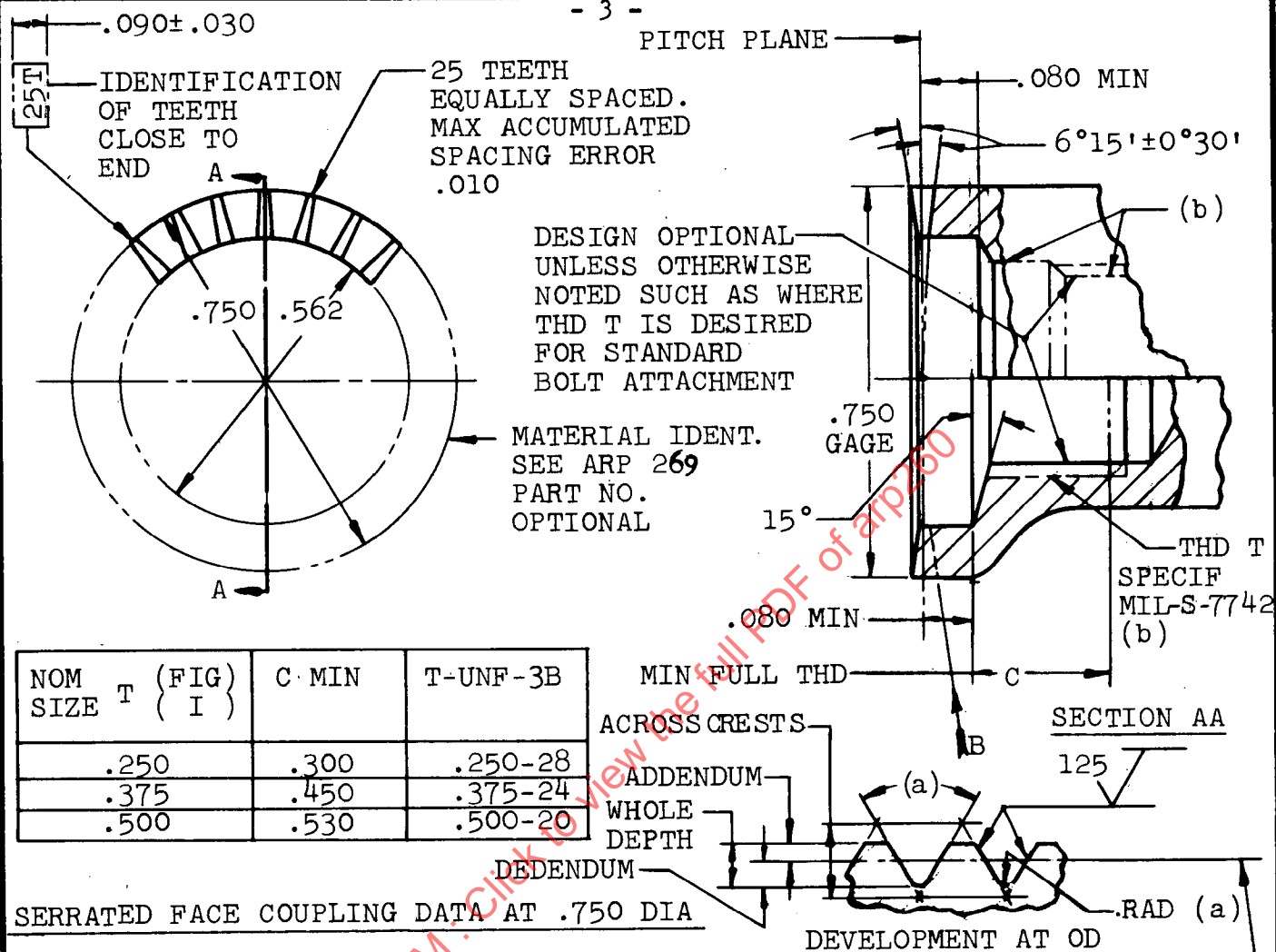
BREAK SHARP EDGES .003-.015 (.003-.005 AT TOP LAND OF TEETH).

DIMENSIONS IN INCHES: UNLESS OTHERWISE SPECIFIED: TOLERANCES; LINEAR DIMENSIONS ±.010 ANGULAR DIMENSIONS ±2°.

NOMINAL USE: ANGULAR ADJUSTMENT FOR CONTROL LEVERS.

FIGURE II COUPLING - SERRATED FACE

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NO. OF TEETH	25
ADDENDUM	.0190-.0230
DEDENDUM	.0290-.0330
CHORDAL THICKNESS (THEOR)	.0471
CHORDAL THICKNESS (MACH DIM)	.0456-.0486---AT GAGE
ACROSS CRESTS (THEOR)	.0816

SPIRAL ANGLE TO BE WITHIN 0°30' OF TRUE POSITION

- (a) ANGLE PRODUCED BY 60° TOOL WITH .005-.010 TIP RADIUS IN DIRECTION B.
- (b) DESIGN MAY BE HOLE FOR SHAFT, THD FOR STUD, ETC; KEYED, PINNED, LOCKED OR SPLINED. ANGULAR RELATIONSHIP OF FACE OF TEETH TO SPLINE, ETC; UNIMPORTANT.

DIA .562 SHALL BE CONCENTRIC WITH SUPPORT DIA OR SPLINE PD WITHIN .005 FIR.

PITCH PLANES OF TEETH SHALL BE SQ. WITH AXIS OF .750 DIA WITHIN .004 FIR.

MATERIAL: RECOMEND STEEL. HARDNESS ROCKWELL C26 MIN.

SURFACE ROUGHNESS: AS107.

BREAK SHARP EDGES .003-.015 (.003-.005 AT TOP LAND OF TEETH).

DIMENSIONS IN INCHES: UNLESS OTHERWISE SPECIFIED: TOLERANCES; LINEAR DIMENSIONS ±.010 ANGULAR DIMENSIONS ±2°.

FIGURE III - SUPPORTED SHAFT END