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REV	DESCRIPTION	BY	CHK	APP	DATE
M	ADDED NOTE 20	WB	MP	EM	02/22/19
N	REVISED NOTES 2, 4, & 20	WB	MP	EM	05/21/19
P	REVISED NOTES 4 & 11	WB	MP	EM	05/28/19
R	REVISED NOTE 3	WB	MP	EM	06/13/19
T	REMOVED -13 & SHEET 4	WB	MP	JR	08/05/19
U	REVISED NOTE 10	WB	MP	JR	06/03/20

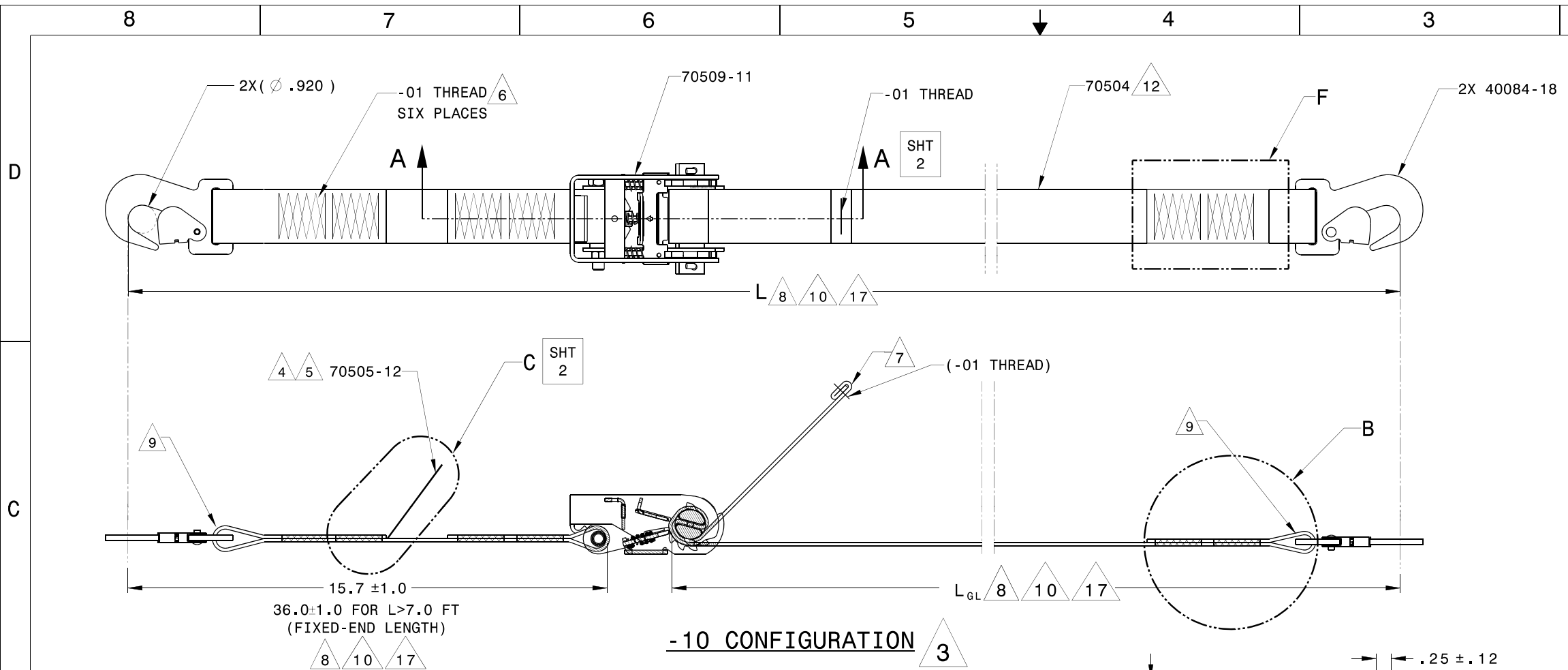
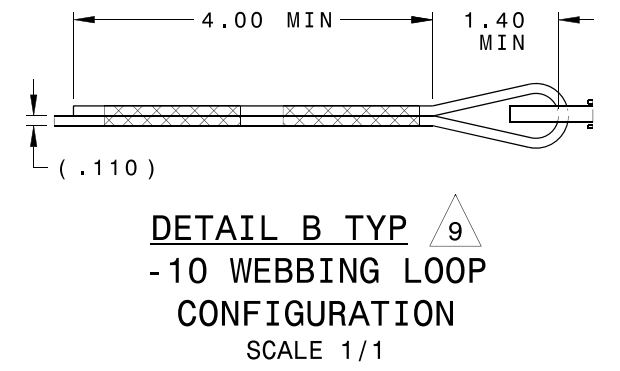
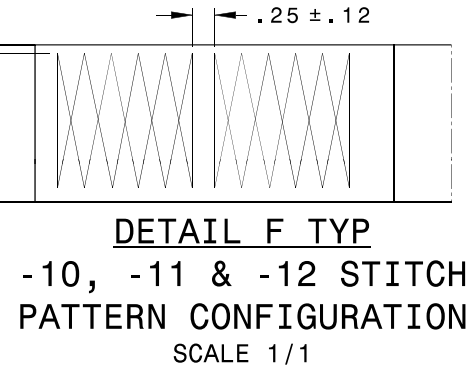


TABLE 1 12 18

CODE	COLOR DESCRIPTION	COLOR GRADE PER FED SPEC 595	EQUIVALENT HEXAGONAL CODE
00	NATURAL, WHITE	-	-
06	RED	#11350	A93D43
07	BLUE	#15065	2C5E81
10	GREEN	#14090	2B6E4E
11	YELLOW	#13655	FDD31D

- NOTES UNLESS OTHERWISE SPECIFIED:
- ASSEMBLE PER ECS-100.
 - ANY CHANGES TO A TSO-C172a COMPLIANT DASH NUMBER (SEE NOTE 20) REQUIRE FAA APPROVAL.
 - 10 THRU -12 ULTIMATE LOAD (UL): 5,000 LBF (22,240 N).
-10 THRU -12 LIMIT LOAD (LL) : 3,333 LBF (14,830 N).
 - LABEL MUST BE STAMPED WITH APPROPRIATE DATE OF MANUFACTURE AND EXPIRY DATE. MANUFACTURE DATE IS DATE OF FINAL ASSEMBLY. EXPIRY DATE IS EITHER THREE YEARS AND TWO MONTHS AFTER DATE OF MANUFACTURE, OR WHEN WEBBING LIFE REACHES SIX YEARS - WHICHEVER COMES FIRST. PURCHASE ORDER DATE FOR WEBBING IS START OF WEBBING LIFETIME. IF STRAP IS TSO APPROVED (SEE NOTE 20), PRINT TSO & ETSO SPECIFICATION NUMBERS IN THE AREAS SPECIFIED. PRIOR TO ISSUE OF APPROVAL, PRINT "PENDING". IF STRAP IS NOT TSO APPROVED, PRINT "N/A". FOR STOCK LABELS PRINTED TO EARLIER REVISIONS, BLACK OUT TEXT: "ISO 16049-1/AS5385 ETSO-C172/TSO-C172a COMPLIANT STRAP".
 - CAPTIVATE BOTTOM PORTION OF LABEL IN SEW PATTERN AS SHOWN IN DETAIL C, APPROX. CENTERED AND SQUARED. ASSEMBLE LABEL TO STRAP SO THAT THE INFORMATION CONTAINED ON TOP PORTION OF THE LABEL FACE IS VISIBLE FROM ABOVE, AS SHOWN IN VIEW E-E.
 - SEW PAIR OF 1.5 INCH x 1.5 INCH ZIG ZAG PATTERNS WHERE SHOWN, CENTERED & SQUARED AS SHOWN IN DETAIL F.
 - BAR TACK TO CAPTIVATE END.
 - TOLERANCE ON OVERALL WEBBING & STRAP LENGTH IS ±2%.
 - APPROPRIATE WEBBING LOOP MUST BE CONFIGURED AT CORRESPONDING HARDWARE ATTACHMENT POINTS. SEE DETAIL B FOR -10, DETAIL D FOR -11, AND DETAIL G FOR -12.
 - LENGTH OF STRAP ASSY IS AN INTEGER NUMBER OF FEET. ALL LENGTHS MUST BE TO THE NEAREST FOOT. MINIMUM LENGTH IS 3 FEET, MAXIMUM LENGTH IS 30 FEET. FOR LENGTHS UNDER 10 FEET, DASH NUMBERS MUST HAVE TWO CHARACTERS, WITH FIRST CHARACTER "0".

11. PART DESCRIPTION:
- 70060 - - - - -
 _____ COLOR CODE (SEE TABLE 1)
 _____ LENGTH IN FEET 8 10
 _____ DASH NO. DEFINES END FITTING ("-10" THRU "-13")
 _____ BASIC PART NO.
12. PART NUMBER CODE FOR 70504 WEBBING:
- 70504 - - - - -
 _____ LENGTH TO THE NEAREST INCH 13 8
 _____ COLOR CODE (SEE TABLE 1)
 _____ BASIC PART NO.
13. FINAL WEBBING DASH NO. IS LENGTH OF WEBBING TO THE NEAREST INCH. TO DETERMINE OVERALL WEBBING LENGTH ADD STRAP LENGTH TO 37 INCHES FOR ALL -10 STRAPS, TO 39 INCHES FOR ALL -11 STRAPS OR TO 43 INCHES FOR ALL -12 STRAPS. FOR EXAMPLE ANY 70060-10-09-XX STRAP ASSY REQUIRES 9 FT (108.0) + 37.0 = 145.0 INCHES OF WEBBING, THEREFORE THE FINAL WEBBING DASH NO. IS -145.
14. OPTION: USE POLYESTER THREAD, NO. 4 CORD, OLIVE DRAB, PER V-T-285.
15. DELETED AT REVISION G.
16. DELETED AT REVISION G.
17. ADJUSTABLE-END LENGTH (L_{GL}) CAN BE DETERMINED BY SUBTRACTING THE SUM OF THE FIXED-END LENGTH AND 2.263 FROM THE OVERALL STRAP LENGTH (L).
18. WHITE (-00), RED(-06), BLUE (-07), GREEN (-10), AND YELLOW (-11) ARE THE ONLY COLORS APPROVED PER TSO-C172a. ALL OTHER COLORS ARE NOT APPROVED.
19. -11 IS INACTIVE AND REPLACED BY -12. -13 IS INACTIVE AND REPLACED BY 70160-10.
20. 70060-10 THRU -12 COMPLY WITH TSO-C172a FOR ALL STRAP LENGTHS.



REV	QTY	DESCRIPTION	UNIT	STOCK SIZE	MATERIAL	MATERIAL SPEC/SOURCE	
1	-	70505-17	LABEL, TSO STRAP				
2	-	47556-33	FITTING ASSY				
AR	AR	70504	WEBBING	(1.75" WIDE) 8	(POLYESTER, TYPE V)	(A-A-55242)	
AR	AR	-01	THREAD	240 TEX	POLYESTER, OLIVE DRAB	MIL-DTL-32072	
-	1	70505-13	LABEL, TSO STRAP				
-	1	70505-12	LABEL, TSO STRAP				
-	2	70506-11	FITTING ASSY				
-	2	40084-18	HOOK SNAP			KINEDYNE CORP	
1	1	70509-11	RATCHET BUCKLE				
-12	-11	-10	PART NO.	NOMENCLATURE	STOCK SIZE	MATERIAL	MATERIAL SPEC/SOURCE

COMPUTER PRODUCED DRAWING USING CATIA V5, NO MANUAL ALTERATION

UNLESS OTHERWISE SPECIFIED

INTERPRET DRAWING PER ASME Y14.5M-1994
 ALL MACH SURFACES TO BE 15° PER
 ASA B46.1 AND FREE FROM FLAWS.
 BREAK ALL SHARP EDGES .015 R MAX.
 REMOVE ALL BURRS.
 FILLET RADI .010 MAX.
 PART MARKINGS TO CONFORM TO ECS-820
 DIMENSIONS ARE IN INCHES.
 DIMENSIONS APPLY AFTER FINISH.
 TOLERANCES: .X ±.1
 .XXX ±.03 FRACTIONS ±1/16
 CATIA DRAWING .XXX ±.010

HEAT TREAT

CUSTOMER APPROVAL SCALE: 1/2 SH 1 OF 3 FSCM 31272 SIZE D DWG. NO. 70060 REV U

DRAWN I. M. NICA 08/19/14
 CHECKED M. POPOFF 08/22/14
 ENGINEER W. BURROWS 08/22/14
 APPROVED E. MORADIANS 08/22/14
 SEE E.O. FOR ORIGINAL SIGNATURES

ANCR INTERNATIONAL
 AZUSA, CA 91702

TITLE
 TSO RATCHET TIEDOWN STRAP ASSY

8

7

6

5

4

3

DWG. NO.

70060

REV

U

SH

2

1

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SECTION A-A
-10, -11 & -12
REEVING DIAGRAM
SCALE 1/1

12.0 MIN
HANDHOLD

(2.237) 17

(70504)

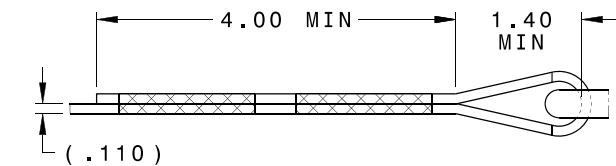
(70505)

(1.75)



CAGE: 31272

ULTIMATE LOAD:
2224 daN - 5000 lbf
TSO#:
ETS0#:
P/N:
MFG:
EXP:
BATCH:



DETAIL D TYP 9
-11 WEBBING LOOP
CONFIGURATION
SCALE 1/1

DETAIL C TYP 5
-10, -11 & -12 LABEL
CAPTIVATION DETAIL
NOT TO SCALE

VIEW E-E TYP 5
-10, -11 & -12
LABEL TOP PORTION
NOT TO SCALE

-01 THREAD 6
THREE PLACES

70509-11

-01 THREAD

70504 12

SHT 1 F

2X 70506-11

(1.62)

A

A

9

4 5 70505-13

C

7

(-01 THREAD)

D

9

16.0 ±1.0
36.0 ±1.0 FOR L > 7.0 FT
(FIXED-END LENGTH)

8 10 17

L_{GL} 8 10 17

L 8 10 17

-11 CONFIGURATION 3 19

SH 2 REV U DWG. NO. 70060

DRAWN	I. M. NICA	08/18/14
CHECKED	M. POPOFF	08/22/14
ENGINEER	W. BURROWS	08/22/14
STRESS		
APPROVED	E. MORADIANS	08/22/14
SCALE:	1/2	



AZUSA, CA 91702

SIZE	D	DWG. NO.	70060	REV	U
SH	2	OF	3	FSCM	31272

8

7

6

5

4

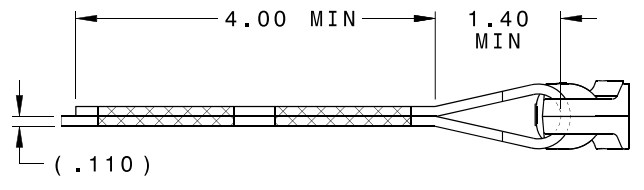
3

2

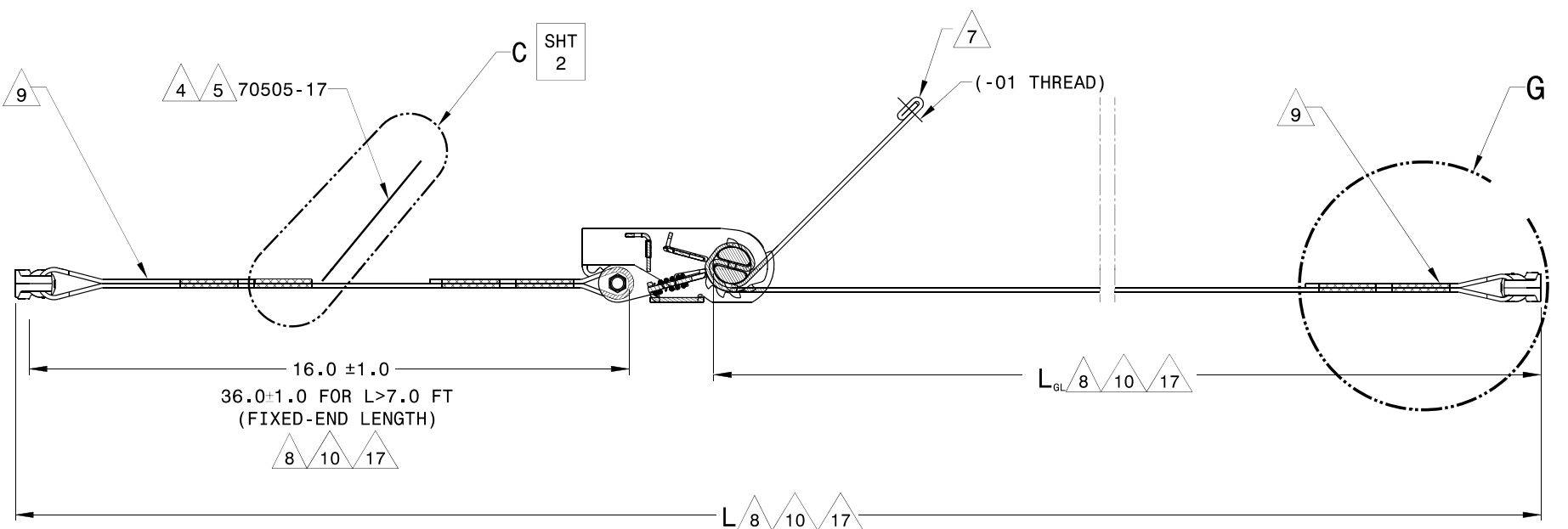
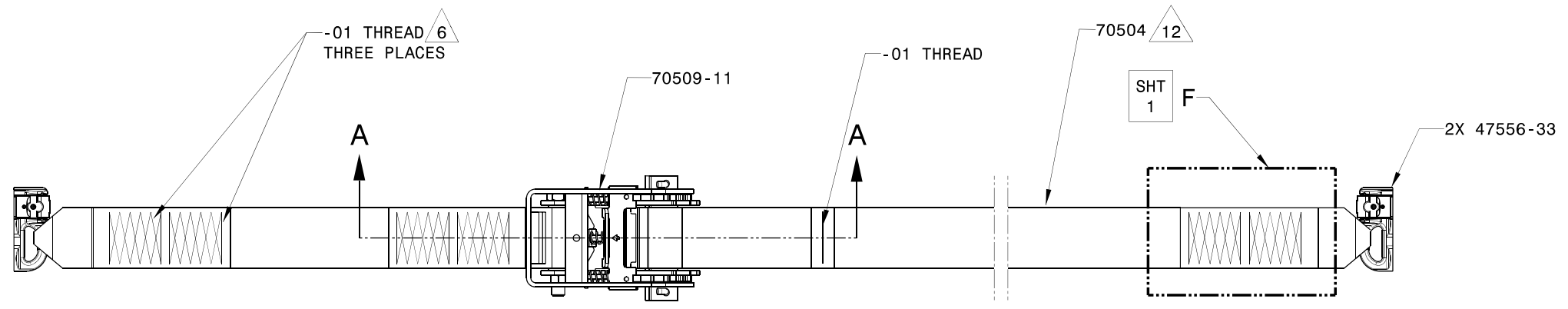
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REFER TO "DocCtrlCopies" FOR LATEST REVISION

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DETAIL G TYP 9
-12 WEBBING LOOP
CONFIGURATION
 SCALE 1/1



-12 CONFIGURATION 3

DRAWN	I. M. NICA	03/21/16
CHECKED	M. POPOFF	04/13/16
ENGINEER	W. BURROWS	04/13/16
STRESS		
APPROVED	E. MORADIANS	04/13/16
SCALE:	1/2 SH 3 OF 3 FSCM 31272	SIZE D



70060