CASA 212

CASA 212

Accessories Required For Smokejumping:

Primary Vertical Anchor:	MEDC-760- Vertical Anchor Cable Casa 212 Aircraft STC Strength: 2,000 pounds STC #: SA3888NM
	MTDC-836- Secondary Support Strut for Casa 212 Vertical Anchor Cable
Secondary Horizontal Anchor:	Casa Factory Design

United States of America

Department of Transportation — Federal Aviation Administration

Supplemental Type Certificate

Number SA3888NM

This certificate, issued to U.S. Forest Service, MEDC
Bldg. #1, Fort Missoula
Missoula, Montana 59801

certifies that the change in the type design for the following product with the limitations and conditions therefor as specified hereon meets the airworthiness requirements of Part 25 *of the* Federal Air *Regulations.*

Original Product — Type Certificate Number: A43EU
Make: Construcciones Aeronauticas, S.A. (CASA)
Model: C-212-CC

Description of Type Design Change:
Installation of static-line anchor system for smoke-jumper operations in accordance with FAA sealed drawing number MEDC-760B, dated 10-14-87, or later approved revisions.

Limitations and Conditions:
This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any other previously approved modification will introduce no adverse effect upon the airworthiness of the aircraft.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: February 11, 1986
Date of issuance: January 25, 1988

Date reissued:
Date amended:

By direction of the Administrator

David T. Grossman (*Signature*) Supervisor
Denver Aircraft Certification Field Office
Northwest Mountain Region, Aurora, Colorado
(*Title*)

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.

FAA Form 8110-2 (10-68)

U.S. Department
of Transportation

Federal Aviation
Administration

NORTHWEST MOUNTAIN REGION
Denver Aircraft Certification Field Office
10455 East 25th Avenue-Suite 307
Aurora, Colorado 80010
(303) 340-5575 or 5578

FEB 1 1986

U.S. Forest Service, MEDC
Bldg. #1, Fort Missoula
Missoula, MT 59801

Gentlemen:

Project No. ANM-100D-0015

We find that you have satisfactorily demonstrated compliance with the applicable certification regulations as evidenced by the enclosed Supplemental Type Certificate (STC) SA3888NM for installation of static-line anchor system in CASA C-212-CC aircraft.

This STC is official FAA approval of your installation and may be used to authorize identical installations on other aircraft of the same model, subject to the limitations noted on the certificate. It may be transferred or otherwise made available to another party by means of a licensee arrangement in accordance with Federal Aviation Regulations (FAR) 21.47. You are requested to advise your local office within 30 days after the transfer when you transfer or grant licensee rights to the STC in order that we may take the necessary recording or reissuance action.

As recipient of this approval, except as provided in FAR 21.3(d), you are required to report any failure, malfunction, or defect in any product or part manufactured by you that you have determined has resulted or could result in any of the occurrences listed in FAR Part 21.3(c). The report should be communicated initially by telephone to the Supervisor, Denver Aircraft Certification Field Office, telephone number (303) 340-5575, within 24 hours after it has been determined that the failure has occurred. In addition, written notification to the Supervisor, ANM-191D, at the above address is required. FAA Form 8330-2 (Malfunction or Defect Report) or any other appropriate format is acceptable in transmitting the required details.

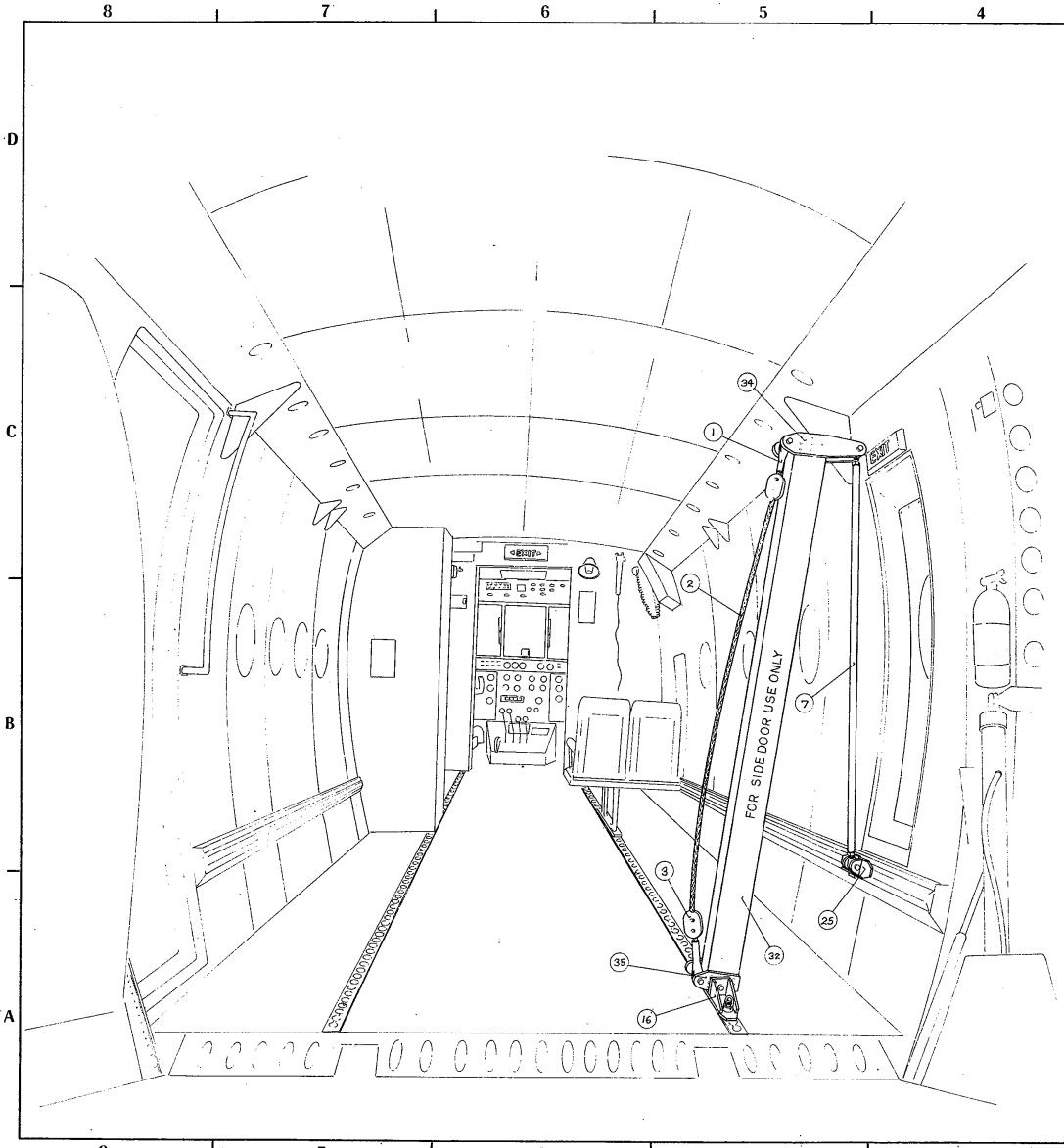
If you plan to manufacture replacement or modification parts for sale in conformance with approved data listed on the Certificate, you are required to comply with FAR Part 21.303. A Parts Manufacturer Approval (PMA) may be issued under the provisions of FAR 21.303(d) when you submit a statement certifying that you have established a fabrication inspection system as required by FAR 21.303(h). The identification requirements for parts produced under a PMA are in FAR 45.15. Your statement may be in letter form, with a reference to the STC number, and should be mailed to the address indicated above.

Sincerely,

David T. Grossman

David T. Grossman
Supervisor, Denver Aircraft
Certification Field Office

Enclosure

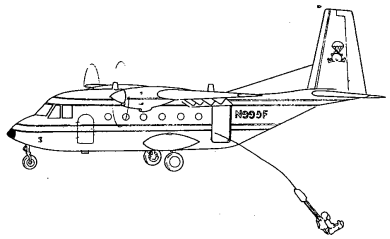


MATERIALS LIST

NO	PART NAME	REQD	MATERIAL DESCRIPTION	SHEET
1	FORK	2	PART 1	2
2	CABLE	1	PART 2	2
3	STOP ASSEMBLY	2	PARTS 4 to 6	2
7	ROD	1	PART 7	2
16	BASE ASSEMBLY	1	PARTS 17 to 24	3
25	SIDE ANCHOR BASE			
	ASSEMBLY	1	PARTS 26 to 28	3
32	UPRIGHT	1	PART 33	4
34	TOP ARM	2	PART 34	4
35	BOTTOM PLATE	2	PART 35	4

NOTES:

1. ALL WELDS SHALL COMPLY WITH FAA PUBLICATION EA-AC 43.13-1A AND 2A, LATEST REVISION CHAPTER 2, SECTION 2. WELD SYMBOLS ARE ACCORDING TO AMERICAN STANDARD WELDING GRAPHICS.
2. THE CABLE ENDS ARE TO BE SWAGED IN ACCORDANCE WITH FAA PUBLICATION EA-AC 43.13-1A AND 2A, LATEST REVISION CHAPTER 4, SECTION 1.
3. BASE, TOP AND VERTICAL ASSEMBLIES SHALL BE PRIMED AND PAINTED.
4. STENCIL ("FOR SIDE DOOR USE ONLY") SHALL BE OF AT LEAST 2" LETTERS, AND APPEAR ON BOTH SIDES OF UPRIGHT.
5. ALL WORK ON ANCHOR AND CABLE SHALL BE DONE BY, OR UNDER THE SUPERVISION OF, A FAA CERTIFIED AIRCRAFT MECHANIC.
6. RIVET INSTALLATION AND PLACEMENT SHALL BE IN ACCORDANCE WITH AIR FRAME & POWERPLANT MECHANICS HANDBOOK, & EA-AC 43.13-1A SECTION 3.



CASA 212 AIRCRAFT SIDE DOOR EXIT

This is a REDUCED PRINT.

DATE	REVISION	BY
2-11-88	PART 38 WAS MS20470AD5-8	WAK
10-14-87	MAT'L CHANGE & RIVET REV	WAK

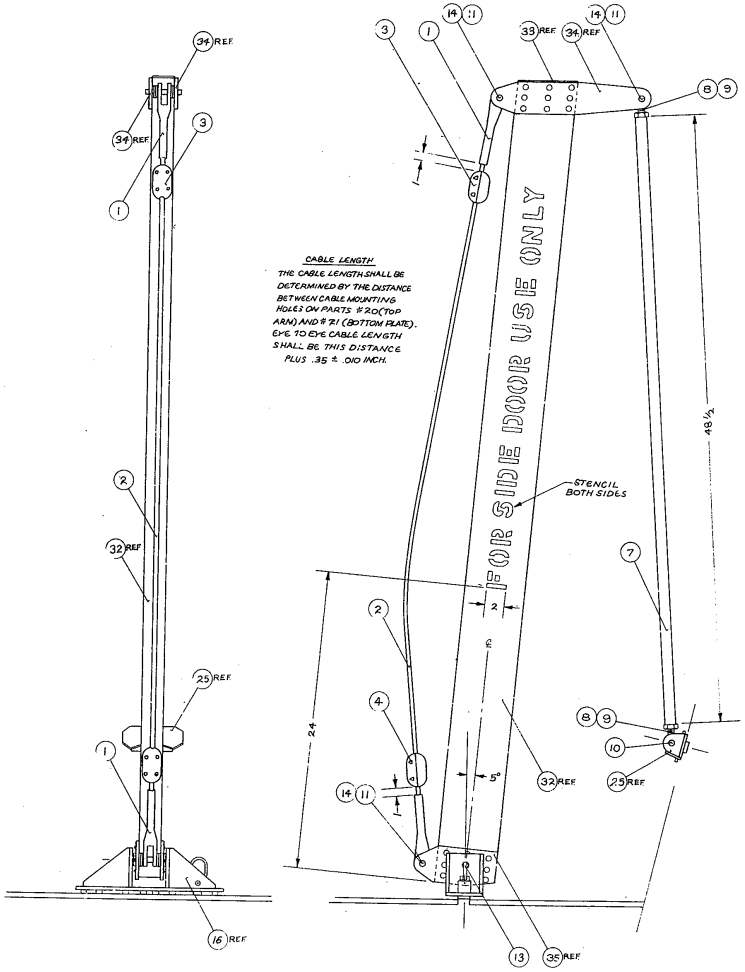
TOLERANCES:
FRACTIONS ± 1/32
DECIMALS ± .005
ANGLES ± 1/2°

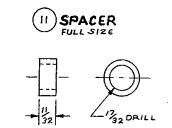
U.S. DEPT. OF AGRICULTURE
FOREST SERVICE
EQUIPMENT DEVELOPMENT CENTER
MISSOULA, MONTANA

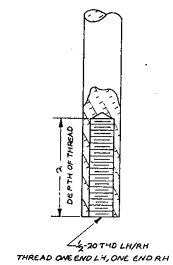
DRAWN W KILROY
DESIGNED J TIETZ/KILROY
CHECKED KARSKY
APPROVED PIERCE
SCALE NONE
DATE 1-86

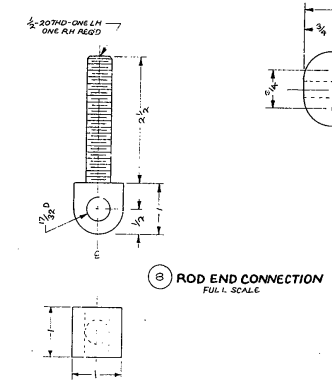
TITLE
VERTICAL ANCHOR CABLE
CASA 212 AIRCRAFT

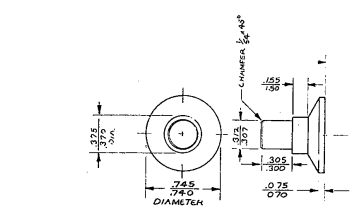
SHEET 1 OF 4 MEDC-760 B

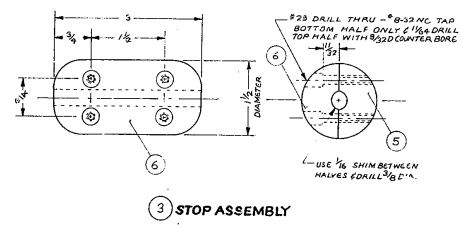






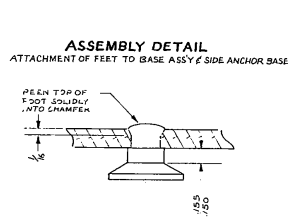






MATERIALS LIST

NO	PART NAME	REQD	MATERIAL DESCRIPTION	SHEET
1	FORK	2	MS 20667-12	
2	CABLE	AR	3/8 DIA., 7 X 19 AIRCRAFT CABLE, GALV. OR TINNED.	
3	STOP ASSEMBLY	2	PARTS 4-6	
4	CAP SCREWS	4	8-32 NC X 7/8 LONG SOCKET HEAD CAP SCREWS.	
5	RIGHT HALF	1	3/4 X 1 1/2 X 3 LONG, 6061-T6 ALUMINUM, FLAT.	
6	LEFT HALF	1	" " " " " " " "	
7	ROD	1	3/4-6061-T6 ALUMINUM ROUND.	
8	ROD END CONNECTION	2	1" SQUARE HOT ROLLED STEEL, M1020	
9	NUT	2	1/2-20 UNF HEX NUT.	
10	CAP SCREW ASS'Y	1	AN8-21A WITH LOCKNUT, MS 20365-820A	
11	SPACER	6	3/4-6061-T6 ALUMINUM ROUND	
12	WASHER-SPACER	AR	3/16 I.D. X 1 3/8 O.D. X 7/64 ZINC PLATED STD FLAT WASHER, STEEL	
13	BOLT	1	AN8-37A WITH LOCKNUT, MS 20365-820A	
14	BOLT	3	AN8-27A WITH LOCKNUT, MS 20365-820A	
15	TRACK ENGAGEMENT FEET	11	3/4 ROUND COLD ROLLED STEEL 1018.	



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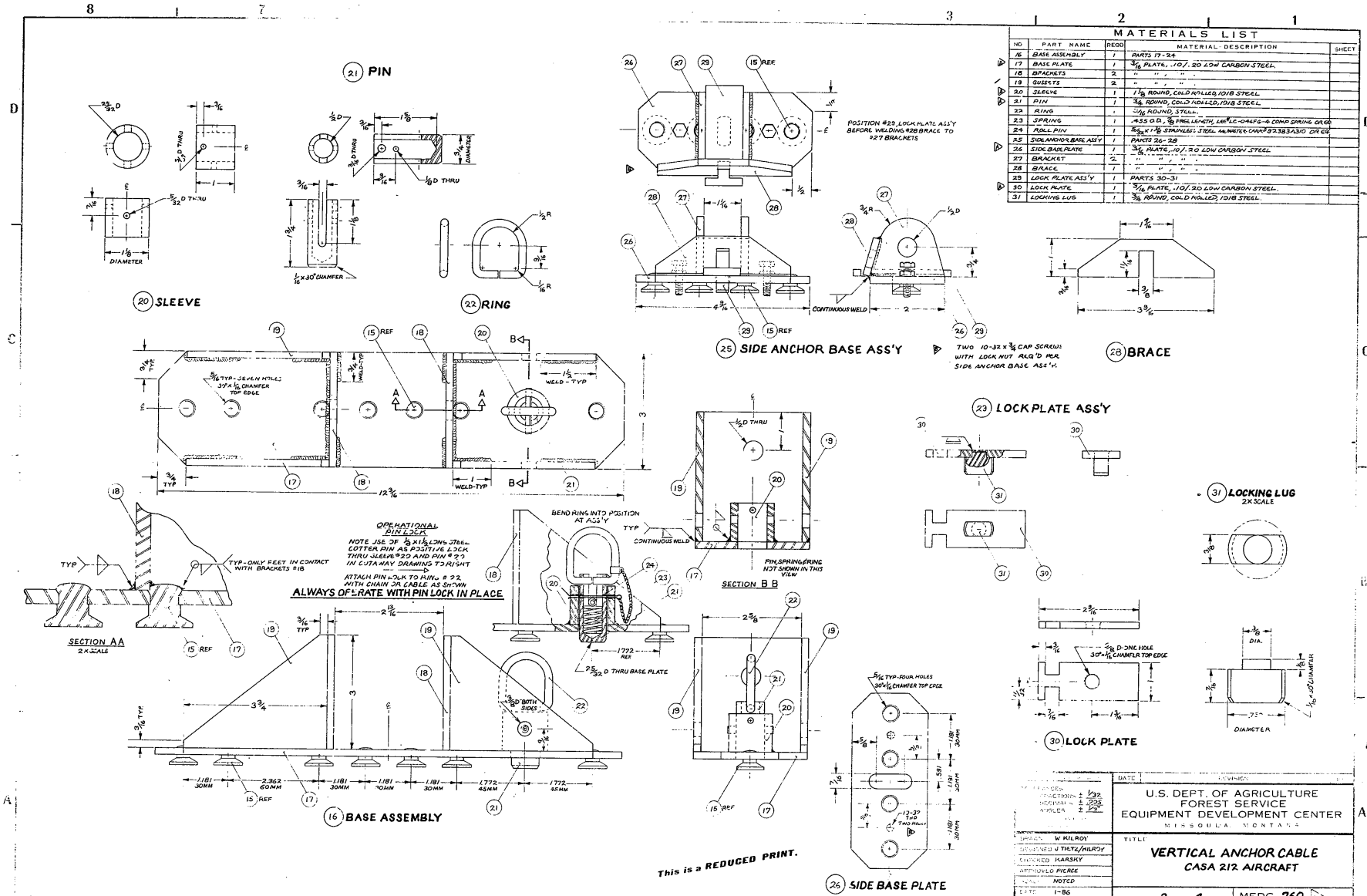
TOLERANCES: FRACTIONS ± 1/32, DECIMALS ± .005, ANGLES ± 1/2°	DATE	REVISION	BY
	U.S. DEPT. OF AGRICULTURE FOREST SERVICE EQUIPMENT DEVELOPMENT CENTER MISSOULA, MONTANA		
DRAWN W KILROY	TITLE		
DESIGNED J TIETZ/KILROY	VERTICAL ANCHOR CABLE CASA 212 AIRCRAFT		
CHECKED KARSKY			
APPROVED PIERCE			
SCALE NOTED			
DATE 1-86	SHEET 2 OF 4	MEDC-760 B	



MATERIALS LIST

NO	PART NAME	REQ'D	MATERIAL DESCRIPTION	SHEET
16	BASE ASSEMBLY	1	PARTS 17-24	
17	BASE PLATE	1	3/16 PLATE, .10/.20 LOW CARBON STEEL.	
18	BRACKETS	2	" " " "	
19	GUSSETS	2	" " " "	
20	SLEEVE	1	1 1/8 ROUND, COLD ROLLED, 1018 STEEL	
21	PIN	1	3/8 ROUND, COLD ROLLED, 1018 STEEL	
22	RING	1	3/16 ROUND, STEEL.	
23	SPRING	1	.455 O.D., 3/8 FREE LENGTH, LEE #LC-044F6-4 COMP SPRING OR EQ	
24	ROLL PIN	1	5/32 x 1 1/8 STAINLESS STEEL MUNITEC CAN# 923383A310 OR EQ	
25	SIDE ANCHOR BASE ASS'Y	1	PARTS 26-28	
26	SIDE BASE PLATE	1	3/16 PLATE, .10/.20 LOW CARBON STEEL	
27	BRACKET	2	" " " "	
28	BRACE	1	" " " "	
29	LOCK PLATE ASS'Y	1	PARTS 30-31	
30	LOCK PLATE	1	3/16 PLATE, .10/.20 LOW CARBON STEEL.	
31	LOCKING LUG	1	3/8 ROUND, COLD ROLLED, 1018 STEEL	

DATE | REVISION

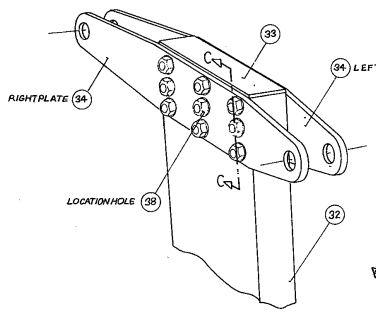
U.S. DEPT. OF AGRICULTURE
FOREST SERVICE
EQUIPMENT DEVELOPMENT CENTER
MISSOULA, MONTANA

DRAWN: W KILROY
DESIGNED: J TIETZ/KILROY
CHECKED: KARSKY
APPROVED: PIERCE
SCALE: NOTED
DATE: 1-86

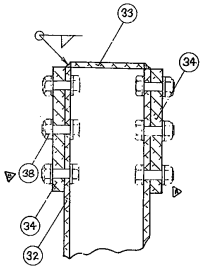
TITLE: VERTICAL ANCHOR CABLE
CASA 212 AIRCRAFT

SHEET 3 OF 4 | MEDC-760

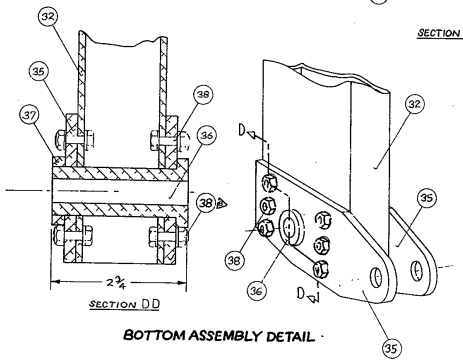
MATERIALS LIST				
NO	PART NAME	REQ'D	MATERIAL-DESCRIPTION	SHEET
32	UPRIGHT	1	5 x 1 3/4 x .125 WALL 6063-T52 SC ALUMINUM REC. TUBE	
33	TOP CAP	1	5 x 1 3/4 x 1/8 ALUMINUM 6061-T6 PLATE.	
34	TOP ARM - LEFT & RIGHT REQ'D	2	1/4-6061-T6 ALUMINUM PLATE.	
35	BOTTOM PLATE LEFT & RIGHT REQ'D	2	" " " " " "	
36	BUSHING	1	1 3/8-6061-T6 ALUMINUM ROUND	
37	COLLAR	1	" " " " "	
38	CAP SCREW ASS'Y	30	AN 3-7A WITH TWO AN 960-3 WASHERS & AN 320365-1032 NUT.	



TOP ASSEMBLY DETAIL

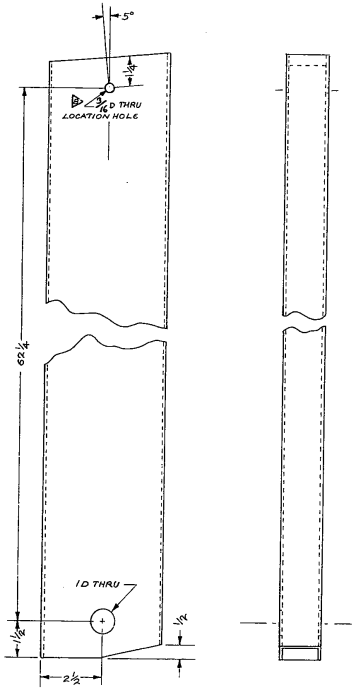


SECTION CC

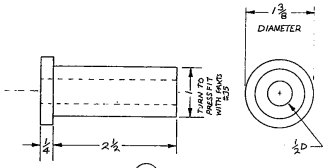


SECTION DD

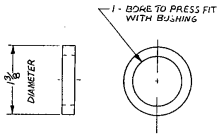
BOTTOM ASSEMBLY DETAIL



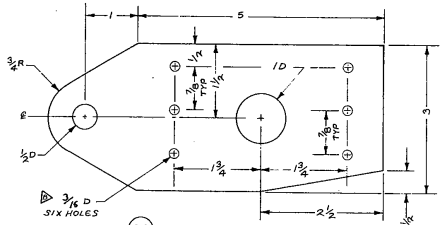
32 UPRIGHT
HALF SCALE



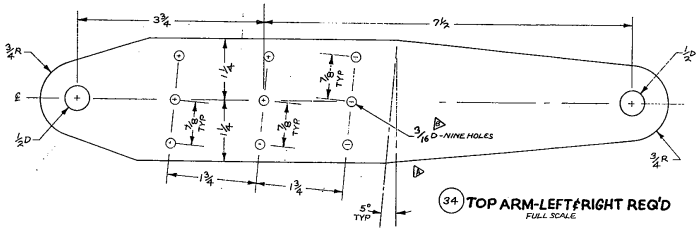
36 BUSHING
FULL SCALE



37 COLLAR
FULL SCALE



35 BOTTOM PLATE-LEFT & RIGHT REQ'D
FULL SCALE



34 TOP ARM-LEFT & RIGHT REQ'D
FULL SCALE

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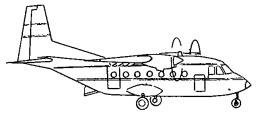
TOLERANCES: FRACTIONS ± 1/32, DECIMALS ± .005, ANGLES ± 1/2°	DATE	REVISION	BY
	U.S. DEPT. OF AGRICULTURE FOREST SERVICE EQUIPMENT DEVELOPMENT CENTER MISSOULA, MONTANA		
DRAWN W KILROY	TITLE		
DESIGNED J TIETZ/KILROY	VERTICAL ANCHOR CABLE CASA 212 AIRCRAFT		
CHECKED KARSKY			
APPROVED PIERCE			
SCALE NOTED			
DATE 1-86	SHEET 4 OF 4	MEDC-760 B	

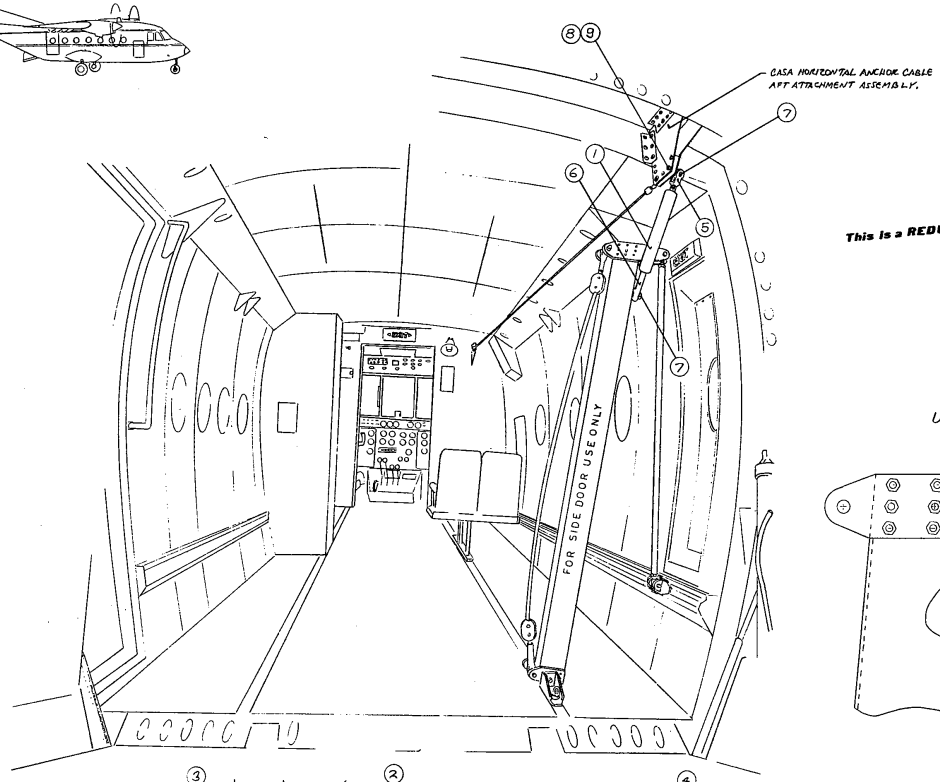
MATERIALS LIST

NO	PART NAME	REQD	MATERIAL-DESCRIPTION	SHEET
1	TUBE ASSEMBLY	1	PARTS 2 THRU 4	
2	TUBE	1	1.00 .125 WALL ROUND MECHANICAL TUBING	
3	FEMALE END	1	3/4 ROUND HOT ROLLED, STEEL.	
4	MALE END	1	" " " " "	
5	YOKE	1	3/8-24 THD STEEL, MCMASTER-CARR # 6071K14 OR EQ	
6	CONTROL LINKAGE	2	3/8-16 THD STEEL, MCMASTER-CARR # 6068K15 OR EQ	
7	CAP SCREW ASS'Y	2	3/8-16 X 1 3/4 CAP SCREW W/LOCK WASHER & HEX NUT.	
8	EYE BOLT	1	SEE NOTE #B	
9	LOCK NUT	1	SEE NOTE #B	

NOTE:
A. SECONDARY SUPPORT STRUT TIES INTO THE AFT ATTACHMENT ASSEMBLY OF CASA OVERHEAD HORIZONTAL ANCHOR CABLE.
B. SELECT EYEBOLT AND LOCKNUT COMPATABLE WITH PART # 5 (YOKE) AND THE HOLE SIZE (ASSEMBLY BOLTS) IN ANCHOR CABLE AFT ATTACHMENT ASSEMBLY.

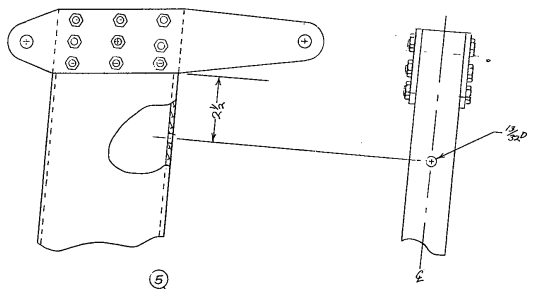
THIS STRUT IS AN ACCESSORY TO THE STC'd CASA ANCHOR DESIGN. IT IS NOT NECESSARY FOR THIS STRUT TO BE INSTALLED FOR THE STC TO BE VALID. THIS STRUT IS USED FOR REINFORCING THE VERTICAL (PRIMARY) STRUT FROM FORE AND AFT LOADS CAUSED BY PERSONNEL STUMBLING OR FALLING AGAINST THE STRUT.

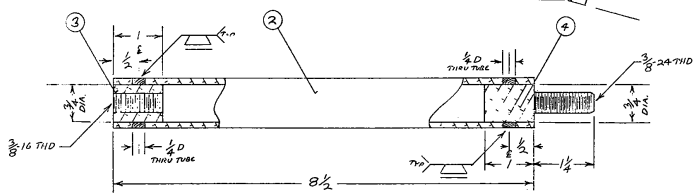




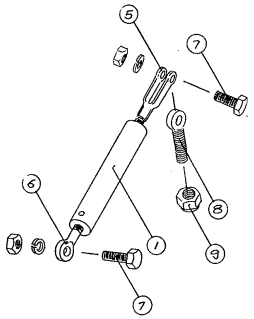
This is a REDUCED PRINT

UPRIGHT MODIFICATION DETAIL
HALF SCALE - PART #32, MEDC DWG # 760





1 TUBE ASSEMBLY
FULL SCALE



UNLESS OTHERWISE SPECIFIED	DATE	REVISION	BY
TOLERANCES: FRACTIONS ± ___ DECIMALS ± ___ ANGLES ± ___ DIMENSIONS ARE IN INCHES BREAK SHARP EDGES	U.S. DEPT. OF AGRICULTURE FOREST SERVICE TECHNOLOGY & DEVELOPMENT CENTER MISSOULA, MONTANA		
DRAWN W KILROY	TITLE SECONDARY SUPPORT STRUT FOR CASA 212 VERTICAL ANCHOR CABLE (MEDC DRAWING # 760)		
DESIGNED			
CHECKED			
APPROVED			
SCALE			
DATE 8/89	SHEET 1 OF 1	MTDC-836	