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CESSNA UNIVERSAL
INSTALLATION INSTRUCTIONS FOR:

SKI ATTACH BRACKETS

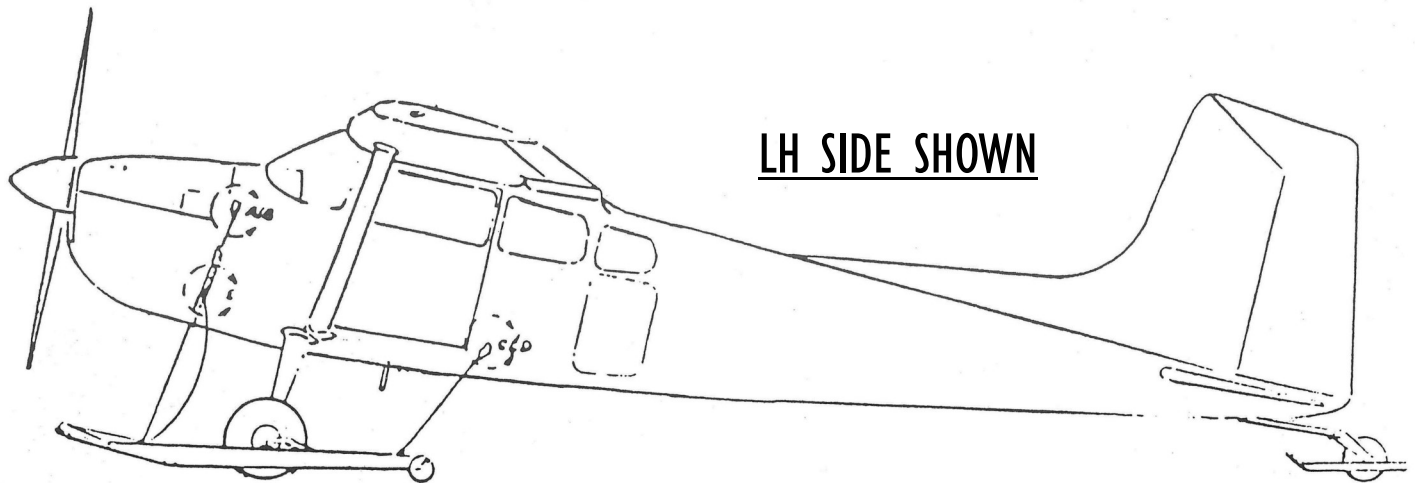
FOR CESSNA MODELS:

C170B & C180: S/N 30000 THRU S/N 51312
USE KIT: 3168-180

C180: S/N 51313 & ON
C185: S/N 0001 & ON
USE KIT: 3168-185

**CESSNA UNIVERSAL
INSTALLATION INSTRUCTIONS FOR
SKI ATTACH BRACKET**

FEB. 12-89



CESSNA 180/185

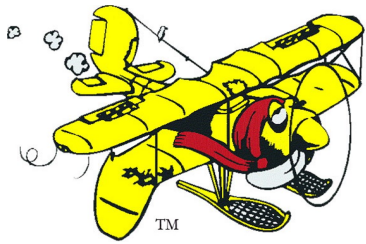
FOR CESSNA MODELS:

**C170B & C180: S/N 30000 THRU S/N 51312
USE KIT: 3168-180**

**C180: S/N 51313 & ON
C185: S/N 0001 & ON
USE KIT: 3168-185**

**INSTALLATION OF
SKI ATTACH BRACKET
CESSNA 170/180/185**

A REDRAWN 2-12-89 SHEET 1 OF 8 DWG NO 3168




INSTALLATION INSTRUCTIONS FOR:

F. ATLEE DODGE SKI CABLE ATTACH BRACKETS

FOR: CESSNA 170/180/185

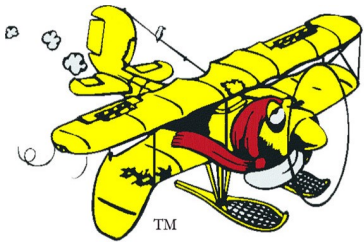
P/N: 3168

1.  Indicates previously drilled hole in the cable attach brackets.
2. All attach brackets have a 1/4 inch hole punched in them to accept a shackle (AN 115-5)...If larger shackle (AN 115-6) is desired, it will be necessary to re-drill to 5/16 + 0.005 - 0.000.
3. Drawing Sheet 4 and 5 show the two types of forward bungee cable attach brackets. Cessna 180 with S/N 18051313 and on, and Cessna 185 with S/N 1850001 and on, use -6L and -6R cable attach brackets. All other models use -4L and -4R with -4D doubler. See item 5 for drilling and attaching procedures.
4. Drawing Sheet 6 AFT Limit Cable Attach Bracket. If your aircraft has a rear seat attach bracket on the inside of the cabin as shown on sheet 6 (bottom left corner) use attach bracket -5L and -5R with -2L & -2R doubler.

NOTE: Proceed as in instruction item 5 with the exception of hole #3 as indicated on Drawing Sheet 6. Drill out the rivets corresponding to #1, 2, 3, 4, and 5 with a #30 drill. Hole #3 must be picked up with a hole finder in the -2 doubler with a #30 drill. After the #30 hole is picked up, ream through doubler and the fuselage with a #11 drill. This hole being blind will have a cherry max rivet CR3213-6-4 installed when permanently installing the -2 bracket.

5. Cable Attach Bracket Installation Procedure:
Remove the rivets required to install the attach brackets to the fuselage. Use a #30 drill to remove the rivets and ream with a #11 drill. Temporarily install the bracket on the fuselage using one of the bolts supplied in the kit, in the previously drilled #11 hole in the bracket.

Mark the bracket by drilling through the remaining holes with #11 drill. Remove the bracket and complete drilling the holes in the bracket. Debur all drilled holes and prime the holes drilled through the aluminum fuselage and area under the bracket with zinc chromate or equivalent. Assemble the bracket to the fuselage using the hardware supplied in the kit.
6. Drawing Sheet 7. AFT Limit Cable Attach Bracket **without** a seat bracket installed on the inside of the A/C cabin, proceed as follows:



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October 3, 1990

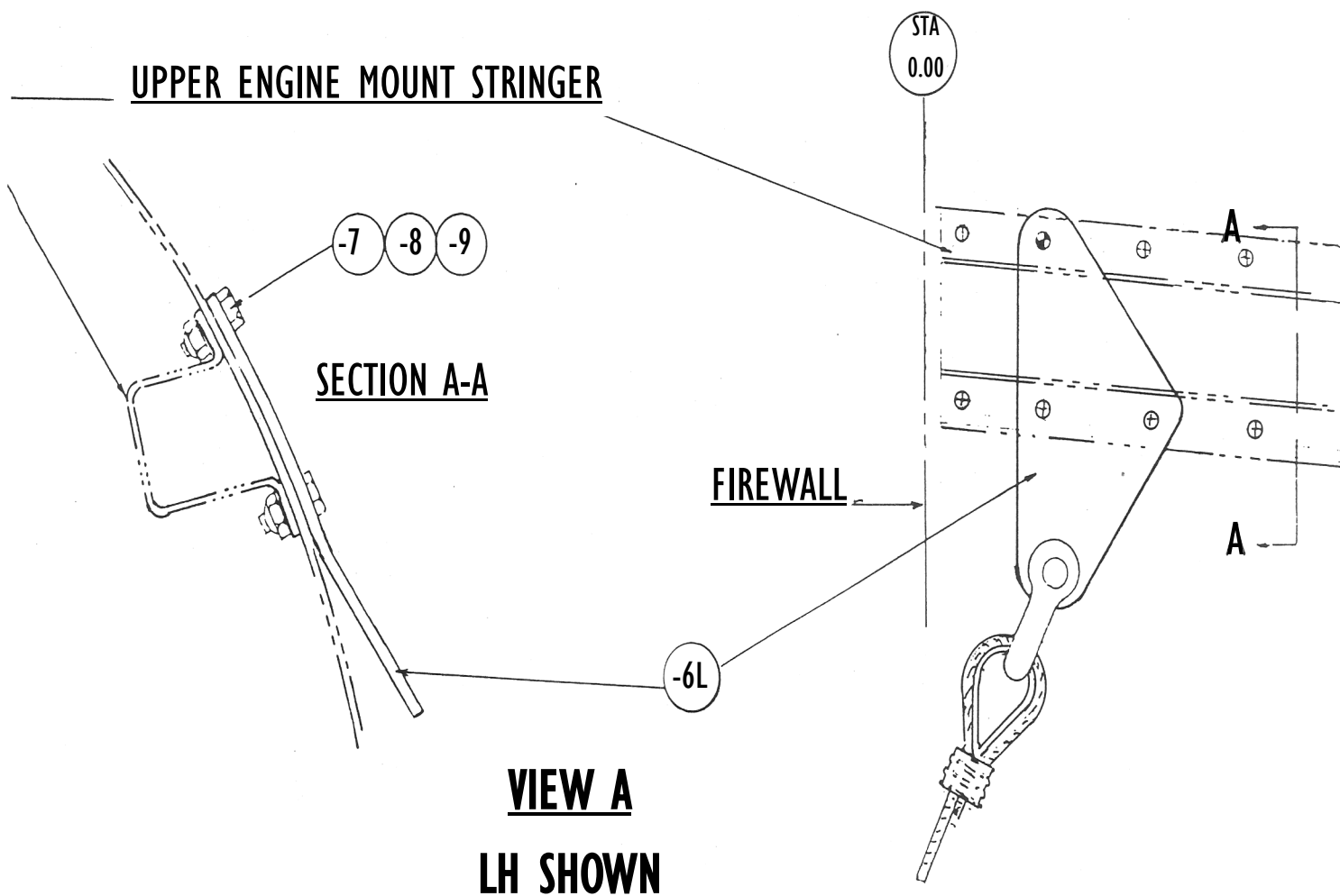
Drill #11 holes in the bracket at the center punch mark #1 and #4 as shown on Drawing Sheet 7. Remove the three rivets on the fuselage indicated as #1, 2 and 3. At hole #1 in the fuselage, ream with a #11 drill. Bolt bracket to fuselage at hole #1 using kit hardware. Using drilled holes #2 and #3 in fuselage as a drill guide, mark the doubler with a #11 drill. Using the bracket as a drill guide, drill holes #4 and #5 through the fuselage skin.

Remove -5 bracket, complete drilling holes #2 and #3. Drill holes in -2 doubler, using the -2 bracket as a drill guide, drill the -2L or -2R doubler. The doubler may be trimmed as required when installing.

Debur all holes, prime aluminum drilled holes and under area of the bracket and assemble bracket to fuselage. Repeat on opposite side.

7. Drawing Sheet 8, -3 FWD limit cable bracket installation at the firewall.
8. Refer to AC43.B-1B & AC43-13-2B for all general AN hardware methods, techniques & practices.
9. NOTE: When using these brackets, cable lengths and bungees supplied by the ski manufacturer may not provide proper rigging. A separate FAA approval must be obtained for rigging. This rigging must provide ski incidence angles (e.g., nose up and nose down) and bungee tension intended by the ski manufacturer.

NOTE: THIS PART IN KIT P/N 3168-185 ONLY



-6L & -6R BRACKET ASSY.

FWD BUNGEE CABLE ATTACH

USED ON ALL MODELS 180 FROM S/N 18051313 & ON

USED ON ALL MODEL 185 S/N 185-0001 & ON

INSTALLATION OF
SKI ATTACH BRACKET

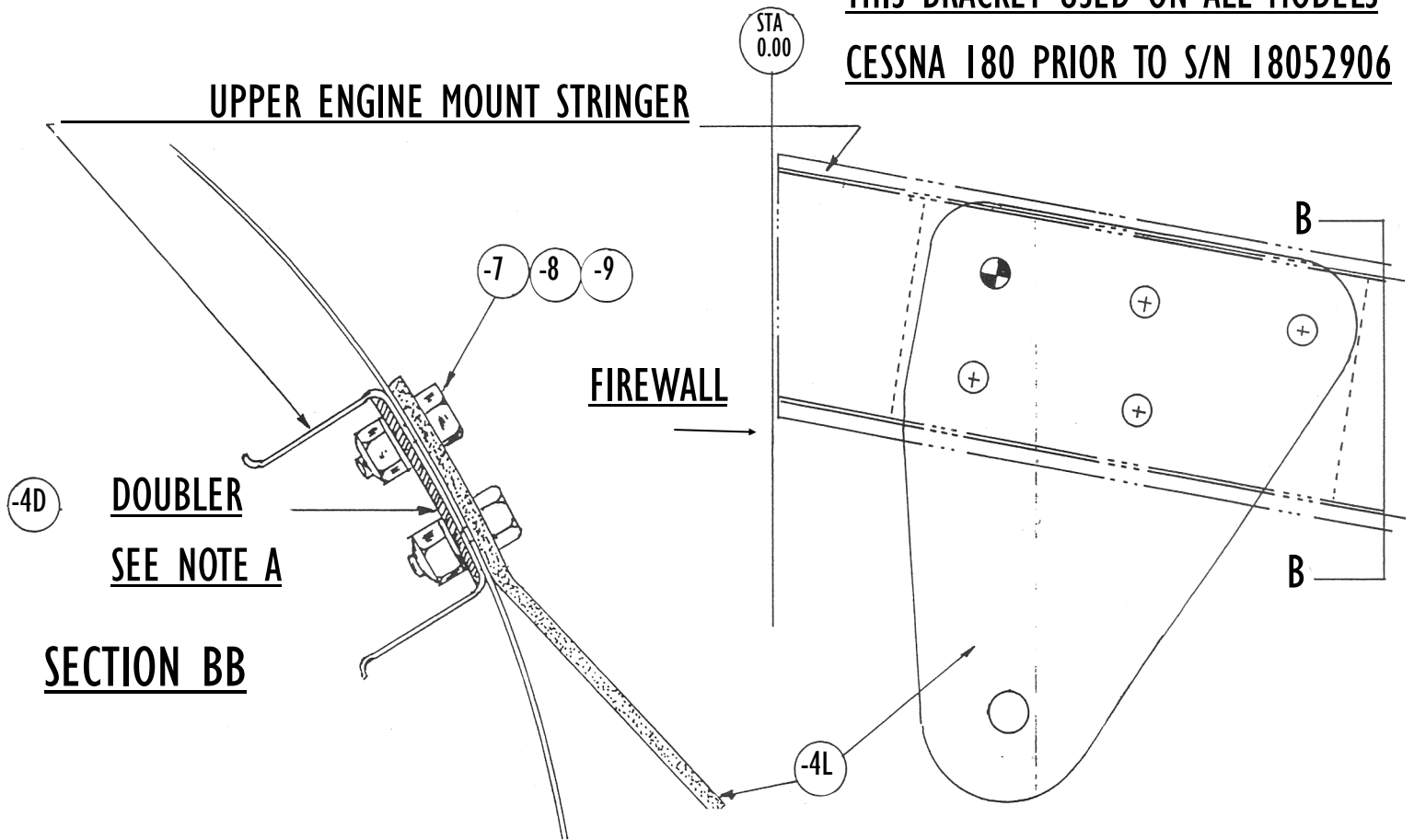
CESSNA 180/185

SHEET 4 OF 8 DWG NO 3168

11-9-87

NOTE: THIS PART IN KIT P/N 3168-180 ONLY

**THIS BRACKET USED ON ALL MODELS
CESSNA 180 PRIOR TO S/N 18052906**



VIEW B

LH SHOWN

NO SCALE

NOTES:

**"A" FABRICATE -4D DOUBLER FROM .063-2024
T3 OR 6061 T6. CUT 1 3/8 +/- 1/16 X 3 +/-
1/8 RADIUS. TOW SIDES TO 3/32 R. (CHECK FIT)
DEBURR, PRIME w/ ZINCCHROMATE BEFORE
INSTALLING. "THIS PART MAY NOT BE SUPPLIED
IN THE KIT".**

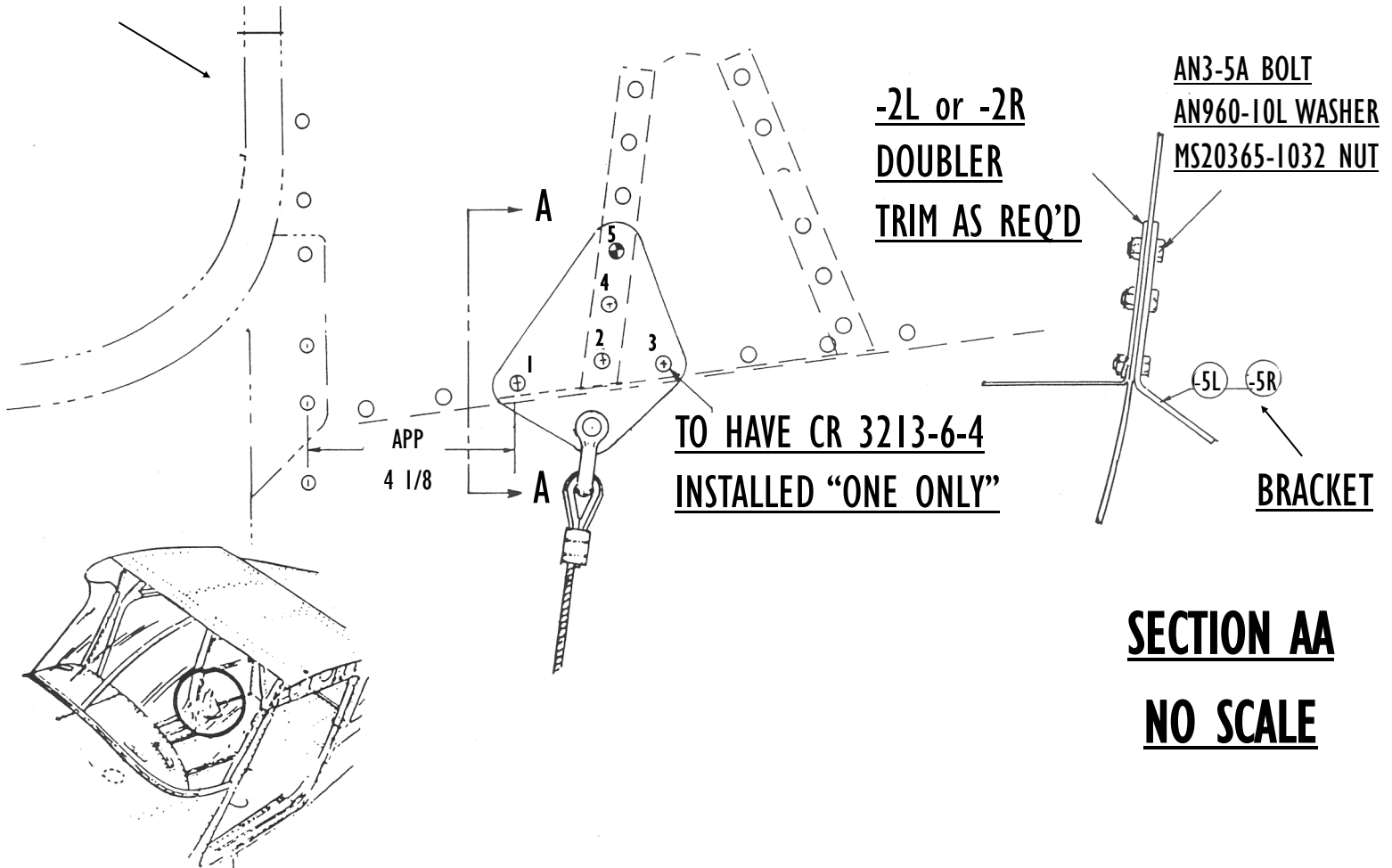
-4L & -4R BRACKET ASSY.

FWD BUNGEE CABLE ATTACH

INSTALLATION OF SKI ATTACH BRACKET	
CESSNA C170 & C180	
SHEET 5 OF 8	DWG NO 3168

MAIN DOOR CABIN

REAR DOOR SILL



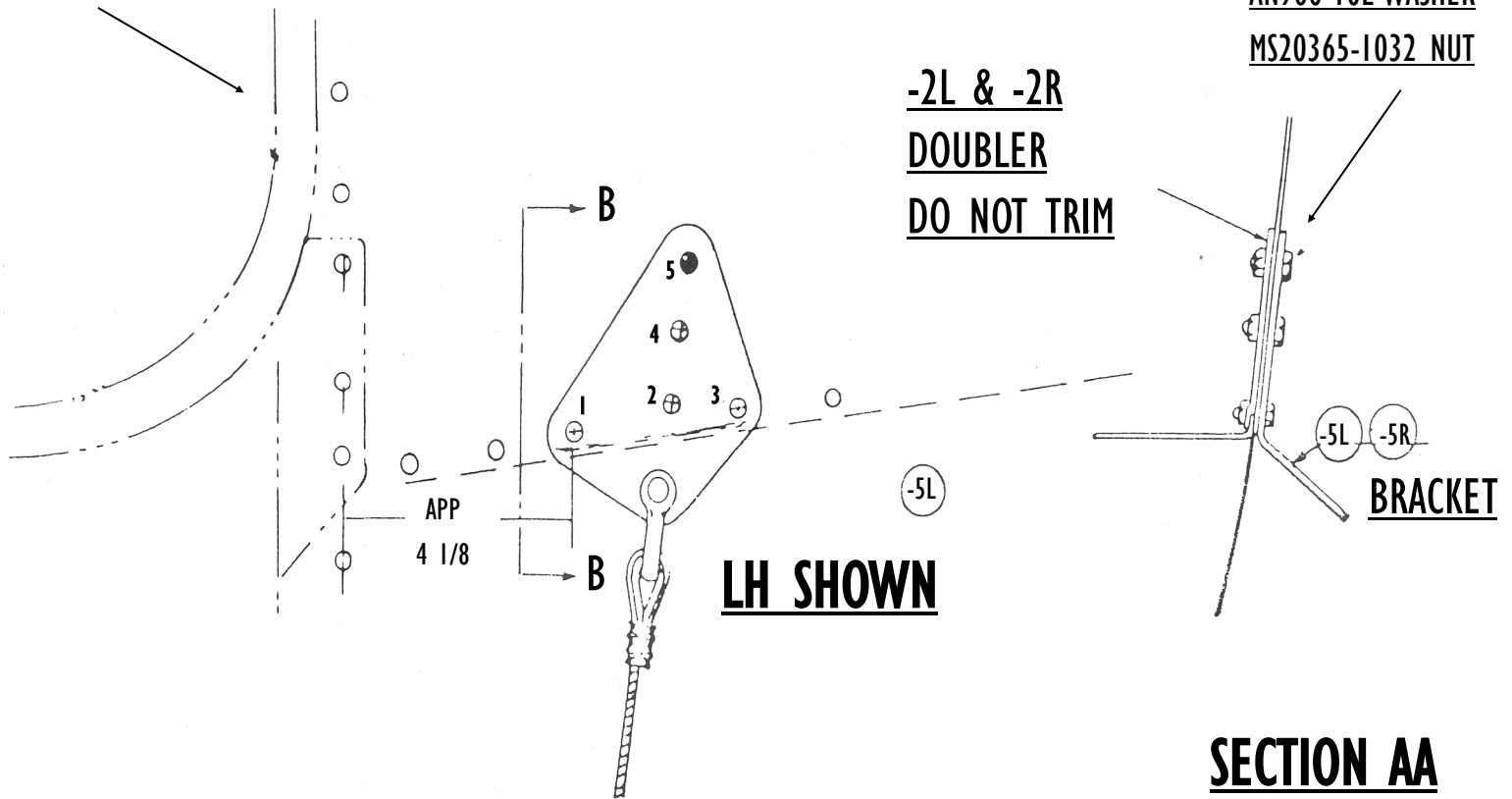
WHEN THE SEAT BRACKET CESSNA P/N
0511312-1 IS INSTALLED, USE AFT LIMIT
CABLE ATTACH BRACKET P/N -5L & -5R
DOUBLER and -2L & -2R. NOTE: -2L AND 2R
WILL HAVE TO BE TRIMMED TO FIT THE
FORWARD SIDE OF THE SEAT BRACKET.
REMOVE THE 4 EA. RIVETS WITH A NO. 30
DRILL. REAM WITH NO. 11 FOLLOW
PROCEDURES IN THE INSTALLATION
INSTRUCTIONS.

-5L & -5R BRACKET ASSY.

AFT LIMIT CABLE ATTACH

INSTALLATION OF
SKI ATTACH BRACKET
CESSNA 170/180/185

MAIN CABIN DOOR
REAR DOOR SILL



SECTION AA
NO SCALE

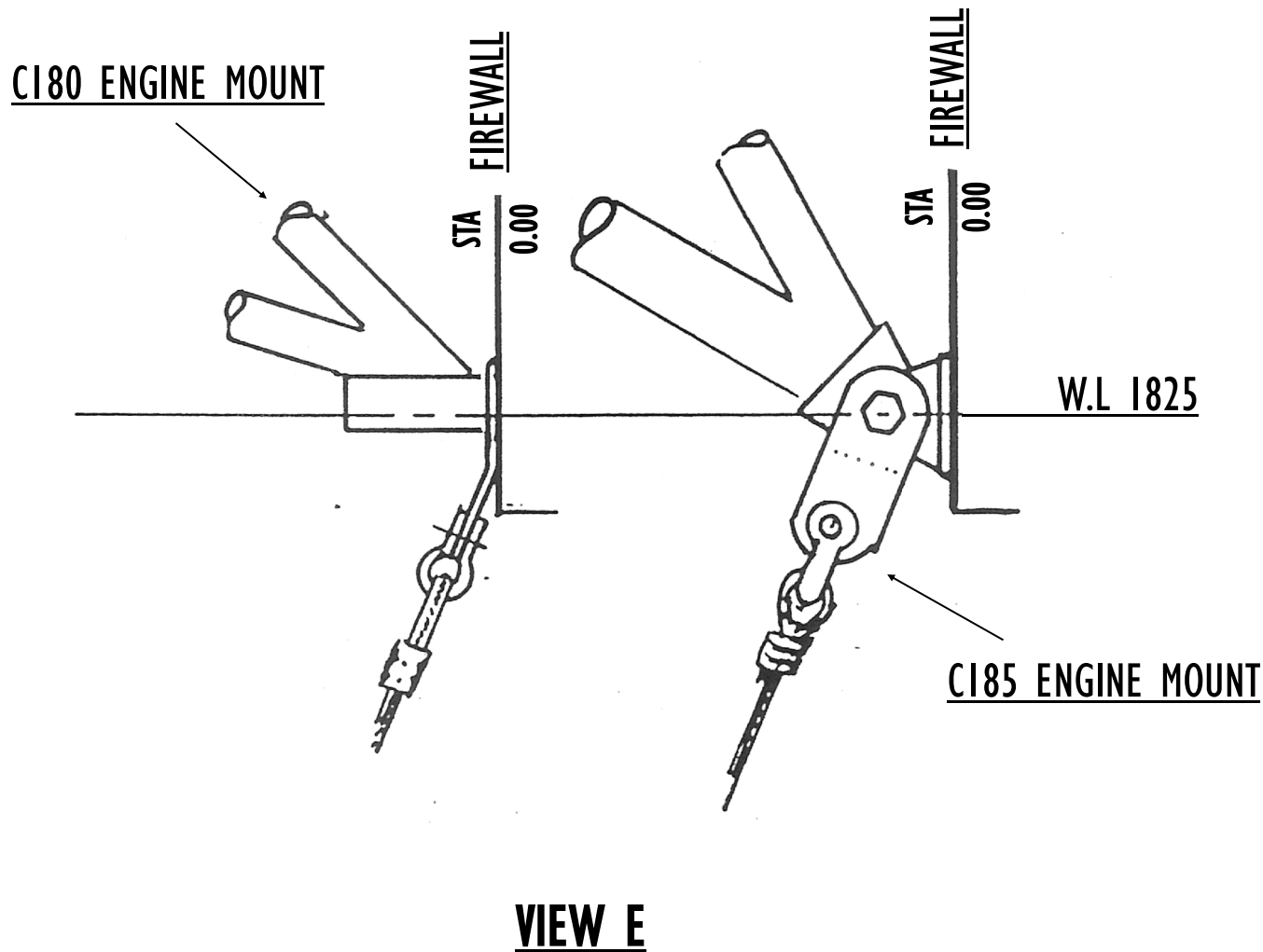
WHEN THE SEAT BRACKET IS NOT
INSTALLED USE 5L & 5R AFT LIMIT
CABLE BRACKET. USE -2L AND -2R
DOUBLER, DO NOT TRIM. DRILL
EXISTING RIVETS OUT WITH A NO. 30
DRILL & REAM WITH A NO. 11 DRILL.

-5L & -5R BRACKET ASSY.

AFT LIMIT CABLE ATTACH

INSTALLATION OF
 SKI ATTACH BRACKET
 CESSNA 170/180/185

A	REDRAWN 9-19-90	SHEET 7 OF 8	DWG NO 3168
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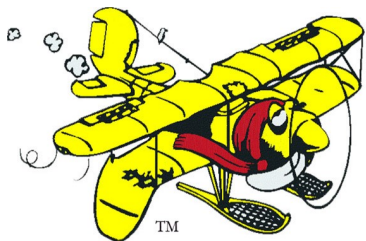


-3 BRACKET REPLACED EXISTING
WASHER ON FIREWALL, C180
NOTCH AIRCRAFT COWLING AS
REQUIRED TO CLEAR -3 BRACKET.
TYPICAL TO EITHER ENGINE
MOUNT.

-3 BRACKET ASSY.

FWD LIMIT CABLE ATTACH

INSTALLATION OF SKI ATTACH BRACKET	
CESSNA 170/180/185	
SHEET 8 OF 8	DWG NO 3168



PARTS LIST FOR:

CESSNA SKI ATTACH BRACKET

ALL KITS INCLUDE INSTALLATION INSTRUCTIONS

KIT 3168-185:

-5L AFT LIMIT CABLE ATTACH BRACKET, LH	1 EACH
-5R AFT LIMIT CABLE ATTACH BRACKET, RH	1 EACH
-2L AFT DOUBLER, LH	1 EACH
-2R AFT DOUBLER, RH	1 EACH
-3 ENGINE MOUNT BRACKET	2 EACH
-6L FWD BUNGEE CABLE ATTACH BRACKET, LH	1 EACH
-6R FWD BUNGEE CABLE ATTACH BRACKET, RH	1 EACH
HARDWARE KIT	1 EACH

HARDWARE KIT:

AN3-5A BOLT	18 EACH
AN960-10L WASHER	36 EACH
MS20365-1032 NUT	18 EACH

KIT 3168-180:

-5L AFT LIMIT CABLE ATTACH BRACKET, LH	1 EACH
-5R AFT LIMIT CABLE ATTACH BRACKET, RH	1 EACH
-2L AFT DOUBLER, LH	1 EACH
-2R AFT DOUBLER, RH	1 EACH
-3 ENGINE MOUNT BRACKET	2 EACH
-4L FWD BUNGEE CABLE ATTACH BRACKET, LH	1 EACH
-4R FWD BUNGEE CABLE ATTACH BRACKET, RH	1 EACH
HARDWARE KIT	1 EACH
-4D DOUBLER FOR -4L & -4R BRACKET	2 EACH

INSTALLATION OF SKI ATTACH BRACKET	
CESSNA 180/185	
SHEET 8A OF 8	DWG NO 3168