

CHEROKEE BAGGAGE SPACE ENHANCEMENT / MODIFICATION

Baggage compartment is concealed neatly by aft floor carpet.



Baggage compartment with lid raised and items stored below floor:



**GOT
BAGGAGE
COMPARTMENT
& NEED
STORAGE
SPACE?**

KEEP YOUR
BAGGAGE
COMPARTMENT
FOR
LUGGAGE,
NOT
STORAGE

Nearly any Piper Cherokee Aircraft can have the compartment installed.



Aft baggage door opened showing baggage compartment mounted below the floor and concealed by the carpet.



25 LB

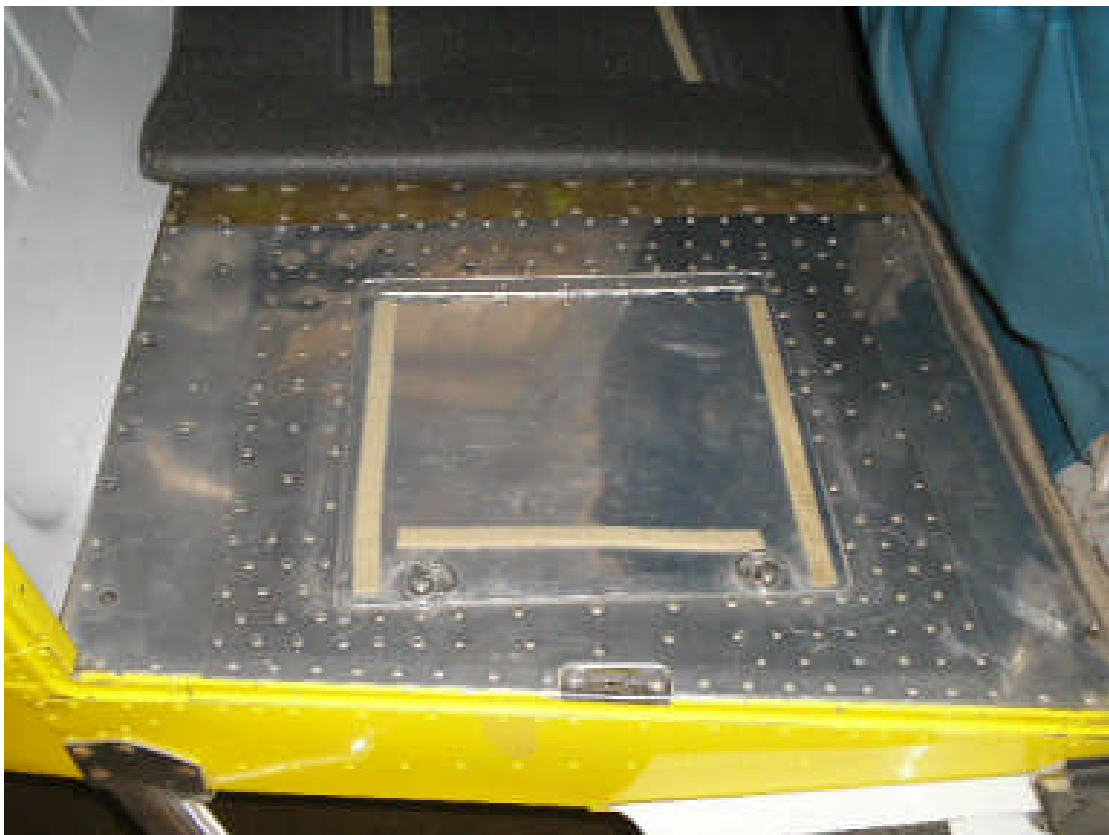
SUPPLEMENTAL
BAGGAGE
COMPARTMENT
UNDER THE
BAGGAGE
FLOOR

COMPLETE KIT
AVAILABLE
WITH
BLUE PRINTS,
INSTRUCTIONS,
ALL PAPER
WORK
AND ALL PARTS
NEEDED
FOR A
COMPLETE
INSTALLATION

Baggage Compartment Parts installed in your airplane:



Baggage Compartment Installed, below carpet.



APPROVED
FOR ALL
CHEROKEES
WITH A
BAGGAGE
COMPARTMENT

FAA

APPROVED

INSTALLED

UNDER

AN STC

APPROVED MODELS

PA 28-150

PA 28-151

PA-28-160

PA 28-161

PA 28-180

PA 28-181

PA 28-201T

PA 28-235

PA 28-236

PA 28S-160

PA 28S-180

PA 28R 180

PA 28-200

PA 28R-201

PA 28R-201T

PA-28RT-201

PA 28RT201T

United States of America
Department of Transportation- Federal Aviation Administration
Supplemental Type Certificate

Number SA01174LA

This Certificate issued to

Aircrafters, Inc.
1890 Via Cordoba
Temecula, California 92591

*Certifies that the changes in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part **23 of the Federal Aviation Regulations*
****Certification basis is net forth in Type Certificate Data Sheet 2A13.**

Original Product Type Certificate Number: 2A13

Make Piper

Models * See Approved Models on Page 3

Description of Type Design Change: Installation of supplemental baggage compartment below existing rear baggage compartment per "FAA Approved Assembly and Installation Instructions" rev. N/C. dated January 30, 2002. or later approved amendment. This installation to be operated and maintained in accordance with the "FAA Approved Airplane Flight Manual Supplement" dated Nov. 2, 2001. and the "Supplemental Under—Floor Baggage Compartment Maintenance Requirements Maintenance Manual Supplement and Instructions for Continued Airworthiness", Document No. 2805, rev. A, dated October 30, 2001, or later approved amendment.

Limitations and Conditions: Installation should not be incorporated in any aircraft unless it is determined that the interrelationship between this installation and any previously approved configuration will not introduce any adverse effect upon the airworthiness of the aircraft. The approval of this modification applies to the above noted airplane models only. A copy of this STC must be included in the permanent records of the modified aircraft. If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission

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

Date of application: **January 14, 1999**

Date reissued:

Date of Issuance: **February 28, 2002**

Date amended:

Aviation Administration.



By direction of the Administrator

(Signature)

Manager, Airframe Branch
Los Angeles Aircraft Certification Office

(Title)

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

United States of America
Department of Transportation- Federal Aviation Administration

Supplemental Type Certificate

(Continuation Sheet)

Number SA01174LA

* Approved Models:

PA-28-150

PA-28-151

PA-28-160

PA-28-161 (excluding Cadet model S/N's 2841001 through 2841365)

PA-28-180

PA-28-181

PA-28-201T

PA-28-235

PA-18-236

PA-28S-160

PA-28S-180

PA-28R-180

PA-28R 200

PA-28R-201

PA-28R-201T

PA-28RT-201

PA-28RT-201T

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

KIT PRICE

\$795.00

INSTALLATION

LABOR

APPROXIMATELY

14.0 HOURS

AIRCRAFTERS. INC.
FAA Station D8WR369N
2210 Palomar Airport Road
Carlsbad, CA 92008

AIRCRAFTERS SUPPLEMENTAL BAGGAGE COMPARTMENT

BILL OF MATERIAL

AIRCRAFTERS DRAWING NUMBER 10001, "SUPPLEMENTAL BAGGAGE COMPARTMENT," REV D. dtd 11/24/00, CONSISTING OF THE FOLLOWING:

____ 1 EACH P/N 10002 BULKHEAD, LONGITUDINAL, REV. A dtd. 4/29/99
____ 1 EA P/N 10003 DOOR, REV. B, dtd 7/14/99
____ 8 EACH P/N 10007-1 ANGLE BRACKET, REV. B, dtd 5/29/99
____ 3 EACH P/N 10008 CLOSURE, REV. N/C. dtd 4/25/99
____ 1 EACH P/N 10009 HINGE, REV. A, dtd 4/29/99
____ 1 EACH P/N 10010-1 ANGLE, AFT DOOR. REV, B,dtd 5/29/99
____ 1 EACH P/N 10010-2 ANGLE, FWD DOOR, REV. B dtd 5-29-99
____ 1 EACH P/N 100111-3 ANGLE., TOP EDGE. REV. B dtd 5/29/99
____ 2 EACH P/N 101110-4 BULKHEAD, ENDS, REV B, dtd 5/29/99
____ 1 EACH P/N 10010-5 FLOOR PANEL OPENING, REV. B 5/29/99
____ 1 EACH P/N A10016 PLACARD, REV. A dtd 9/10/99
____ 4 EACH P/N 10017 SUPPORT BRACKET dtd 5/17/00
____ 1 EACH P/N 10018 FLOOR PANEL dtd 5/17/00
____ 1 EACH P/N 10019 BLANK dtd 5/18/00
____ 2 EACH SOUTHCO 1/4 TURN FASTENER, REF DWR NO. D, dtd 10/16/99
____ 2 EACH 80-36-295-15 RECEPTACLE. REF. DRW. NO. 10015, REV. D, dtd 10/16/99
____ 2 EACH 85-46-100-16 STUD, REF. DRW.NO.10015. REV D, dtd 10/16/99
____ 2 EACH 85-46-101-41 WASHER, REF. DRW. NO. 10015, REV D, dtd 10/16/99
____ A/R MS20470AD4-() 1/8 DIA. SOLID RIVETS, OR
____ A/R NAS1398C4-() BLIND RIVETS, REF. DWG. NOS 10014 & 10015, REV. B, dtd
6/18/99& REV. D & dtd 10/16/99, RESPECTIVELY
____ A/R BLACK AIRTEX NYLON PAD MATERIAL, REF. DWR NO. 10001, REV. C, dtd
8/21/99
____ A/R 888222 HOOK, VELCRO, 5/8"WIDE. ADHESIVE BACK. DWG. NO. 10001. REV.
C dtd 8/21/99
____ A/R 10008222 LOOP, VELCRO, 5/8"WIDE:, ADHESIVE BACK, DWG NO. 10001,
REV. C dtd 8/21/99
____ DRAWING 10001 SHEET 1
____ DRAWING 10001 SHEET 2
____ DRAWING 10013
____ DRAWING 10014
____ DRAWING 10015
____ DRAWING 10018
____ DRAWING 10020
____ COPY OF THE STC
____ ILLUSTRATED PARTS LIST
____ INSTALLATION INSTRUCTIONS
____ AIRPLANE FLIGHT MANUAL SUPPLEMENT
____ MAINTENANCE REQUIREMENTS INSTRUCTIONS FOR CONTINUED
____ AIRWORTHINESS & FAA-APPROVED MAINTENANCE MANUAL SUPPLEMENT

5/21/06

1/08/02

AIRCRAFTERS, INC.
31890 VIA CORDOBA
TEMECULA CA. 92592
PH: 951-304-1292

Baggage Compartment Installation Instruction
PLEASE READ BEFORE STARTING

1. Access the baggage compartment through the baggage door.
2. Remove the trim and striker plate from the door jam. Remove the trim between the rear seat floor and the baggage compartment. The trim will be a screen if you have a bench seat or a strip of metal if you have bucket seats. Save the trim for later reinstallation.
3. Remove the two cargo tie down straps on the left & right sides of the baggage door. Save the hardware for later reinstallation.
4. Remove the carpet from the floor of the baggage compartment. Fold it back past the center of the compartment.
5. Measure and mark the baggage compartment floor as per drawing 10013. Find the center two rows of rivets holding the center hat section in to place, locate the center between the two rivet rows and draw a line down the center. This is the center of the aircraft. Mark the section of the baggage compartment floor to be removed, as per drawing 10013.
6. Drill out all rivets within the section of floor to be removed.
7. Being careful not to cut the hat section stiffener. Piper p/n 62531-00, remove this section of floor. See note A
8. As per drawing 10013 . measure aft 6.94" from the forward bulkhead at station 128.75 and mark this dimension on the hat section stiffener, Piper p/n 62531-00. Measure forward 6.94" from the rear bulkhead at station 156.00 and mark this dimension on the hat section stiffener, Piper p/n 62531-00. Cut out the center section of the hat section stiffener between the marks.
9. As per drawing 10014, install the 3 closures p/n 10008 as follows. Drill four # 30 holes, one in each corner of each closure and install per drawing 10014. two on the bulkhead at station 156.00 and one on the bulkhead at station 128.75, using NAS 1398C4-4 blind rivets. It may be necessary to trim the closures to fit around nut plates or brackets. The closure must cover the complete hole.
10. Per drawing 10014, place the bulkhead longitudinal p/n 10002 between the forward bulkhead at station 128.75 and the rear bulkhead at station 156.00, 2.97" from the center line of the aircraft. With the angle down. trim the divider to fit with 1/8 inch clearance at each end. If necessary cut notches in the bulkhead to clear existing stiffeners on the airplane's outer skin as per drawing 10014.
11. As per drawing 10014, place bulb angle, p/n 10010-3, bulkhead top edge, 2.97 inches in from the center line of the aircraft, between stations 156.00 and 128.75. Trim to fit with 1/8 inch clearance at each end .Place bulb angles p/n 10010-4, bulkhead ends, at the ends of bulkhead p/n 10002 to check the fit and mark where they fit. Mark the bulb angles and the bulkhead so they can be placed together and riveted outside of the aircraft.
12. Remove the bulkhead and the bulb angles from the aircraft.
13. As per drawing 10014 , place bulb angle p/n 10010-3, bulkhead top edge, at the top of the bulkhead, drill with a #30 bit and cleko in place, do not place rivets in the bulkhead between 6.0 to 8.0 inches from the ends, there will be another angle bracket placed in

- these areas. Place bulb angles p/n 10010-4, bulkhead ends, at each end of the bulkhead, drill using a # 30 drill bit and cleko them together. Place the angle brackets, p/n 10007-1, in the lower corners of bulb angles p/n 10010-4, bulkhead ends, and drill in two places using a # 30 drill bit. Install an angle bracket p/n 10007-1 at each end of bulb angle 10010-3, bulkhead top edge, and drill in two places with a # 30 drill and cleko. Drill two # 30 hole in the other end of the angle bracket. These holes will be used to attach this assemble to stations 156.00 and 128.75.
14. Place this assembly back in the aircraft to check the fit before riveting the bulb angles, angle brackets, and the bulkhead together. To check the proper location of the bulkhead place bulb angles p/n 10010-2, forward door angle, and 10010-1, aft door angle, at the cut off ends of the hat sections as per drawing 10014, the ends of the two door angles should touch the bulkhead and the aircraft baggage door frame. Once the fit has been checked, rivet the assemble together using MS 20470 AD 4-4 & 4-5 rivets provided in the kit. Rivets are spaced at two inch pitch, maximum, between rivets and 1/4" spacing at each end.
 15. Place the bulkhead assembly in the aircraft. Drill holes for the attaching rivets in the lower angle of the bulkhead through the aircraft outer side skin using a #30 drill and cleko in place from the out side of the aircraft. Also drill the two attaching holes at stations 156.00 and 128.75. Holes are spaced at 2" max spacing and 1/4" end spacing. Make sure that the lower angle of the angle brackets p/n 10007-1 are drilled for rivets. Rivet the bulkhead assembly in place using MS 20470 AD 4-4 rivets and 4 NAS 1398C4-4 blind rivets to attach the bulkhead to station 156.00 and 128.75.
 16. Place the aft door angle p/n 10010-1, and the forward door angle, p/n 10010-2, in place as per drawing 10014. The door angles fit at the cut ends of the hat section stiffener, Piper p/n 62531-00. Check the fit 7.75 inches form stations 156.00 and 128.75, then attach angle brackets 1007 to each end of the door angles with two each MS 20470 AD 4-4 rivets. Place the forward and aft door angles back in place and drill through angle brackets p/n 10007 in two places where they attach to bulb angle, p/n 10010-3, bulkhead top edge, cleko in place. Drill through bracket, p/n 10007, in two places, where they attach to the baggage door frame cleko in place. Check measurements and rivet the door angles in place using MS 20470 AD 4-4 rivets and NAS 1398C4-4 blind rivets.
 17. Install 4 support brackets pin 10017, as per drawing 10014 on the flanges of the hat section stiffeners, Piper p/n 625331-00, where they meet the door angles. Drill 1 hole in the support brackets p/n 10017, so it can be attached to the hat section stiffeners vertical leg with 1 MS 20470 AD 4-4 rivet to hold it in place. Drill both the forward and aft door angles pins 10010-1& 10010-2 and the support brackets p/n 10017, so they can be riveted together, per drawing 10014. Rivet the support brackets to the door angles with one MS 20426 AD 4-3 solid counter sunk rivets, so the floor will sit flush over the hat section stiffeners and the door angles.
 18. As per drawing 10001 sheet 2, cut the carpet supplied with kit, to fit in the floor of the storage area by measuring the space between the floor stiffeners and cutting the carpet to fit. Measure and cut carpet to fit on the side walls of the storage area and the divider bulkhead. The carpet will be held in place with strips of velcro supplied with the kit. Remove the carpet from the aircraft once it has been cut to fit, it will be installed with the velcro in another step.
 19. Attach the door hinge, p/n 10009, to the door, p/n 10003, as per drawing 10014, using

- MS 20470 AD 4-4 rivets. Holes are spaced at 2" max spacing and 114" end spacing.
20. As per drawing 10015 place the floor panel p/n 10018, in place over the sub-structure, the forward and aft corners may slide under the baggage door posts, if they can not slide under the door posts notch the floor panel p/n 10018, to fit around the door posts. The inboard edge of the floor panel lays over the section of baggage floor that was not removed. Using a hole finder tool locate the first two holes in the forward and aft sections of the hat section stiffener from stations 128.75 and 156.0. these holes will not be covered by the doubler blank p/n 10019. Drill with a #30 drill and cleko in place. Also locate the two holes in the corners of the baggage compartment where the tie down straps fasten to the floor. Drill these holes using a #30 drill. The inboard edges of the forward and aft door angles should line up with the inboard edges of the hole in the floor panel.
 21. Using drawing 10020 as a template lay it over the top of the doubler blank p/n 10019 and tape it in place so it will not move. Mark all indicated holes with a punch and remove the template and drill all holes using a #30 drill.
 22. Place the doubler blank p/n 10019 over the floor panel p/n 10018, and position it in place as per drawing 10015. Once it is in place drill through a few of the holes in the doubler blank and cleko the floor panel and doubler together. Before removing the floor panel p/n 10018 and the doubler blank p/n 10019, from the aircraft mark the holes that can not be riveted due to sub structure, these are the rivets that will attach the floor panel to the forward and all door angles and the first row of rivets in the baggage compartment and the last row of rivets on the doubler and the row that attaches the floor panel to the bulkhead top edge.
 23. Once the floor panel has been drilled and both of the pieces have debured and cleaned , rivet them together using MS 20470ad 4-4 rivets supplied with the kit. Also enlarge the two holes for the tie down straps to 1/4". While the floor panel is removed from the aircraft install the two nut plates for the tie down straps which were removed when the original floor was removed.
 24. As per drawing 10018 install bulb angle pin 10010-5, floor panel opening, to the floor panel assemble and install the 2 Southco receptacles using MS 20426-4-4 rivets
 25. Place the floor panel assembly in the aircraft and cleko it in place, and check to make sure none of the holes that will attack the floor panel assemble to the sub structure have been filled with rivets. It may be necessary to notch bulb angle p/n 10010-3, bulkhead top edge, to clear the forth row of rivets from the top of the doubler p/n 10019. See drawing 10015 note # 8. Once this has been done, drill the holes, using a #30 drill, around the out side of the floor panel where it attaches to the aircraft. Drill the holes at the door frame and where the floor panel will attach to the original baggage floor. Drill all holes in the floor panel where it will attach to the sub-structure and rivet the floor panel to the aircraft using MS 20470 4 () rivets of the proper length and NAS 1389C4 () blind rivets supplied with the kit. Holes are spaced at 2" max spacing and 114" end spacing.
 26. As per drawing 10015 position the door p/n 10003 in place and drill holes for the rivets using a # 30 drill. Holes are spaced at 2" max spacing and 1/4" end spacing. Once the door is riveted in place mark and drill the holes for the Southco fasteners as per drawing 10015. Install the Southco 1/4 turn fasteners in the door
 27. Clean the floor and side walls of the supplemental baggage compartment so the self adhesive velcro will stick to the aluminum.
 28. As per drawing 10001 sheet 2 mark the back of the carpet sections where the self

- adhesive strips of velcro will be placed. Remove the paper from the velcro and place it on the carpet strips. With both pieces of the velcro placed together, put them on the carpet, install the carpet sections in their proper places and press them against the aluminum. This will stick the velcro to the sides and floor of the supplemental baggage area.
29. Fold the baggage floor carpet back down on the baggage compartment floor and cut the carpet so that the Supplemental Baggage Compartment Door can be opened. Also cut holes in the carpet for penetration of the Southco fasteners
 30. Install baggage door trim and striker plate. Check the fit of the baggage door and adjust the striker plate as necessary. Install the carpet trim between the baggage area and the rear seats.
 31. Install the cargo straps using the same hardware that was removed in step 3.
 32. Place the placard p/n A-10016 on the baggage compartment door as per drawing 10001. If the Baggage compartment door is covered with upholstery, place the placard on a piece of aluminum and then attach it to the door with blind rivets or screws.
 33. Install the Flight Manual or Pilots Operating Handbook Supplements, put the Service Manual Supplement and the Parts Manual Supplement with the aircraft paper work, complete a Weight and Balance revision, complete a FAA form 337 and make a logbook entry for the modification.
 34. Supplemental baggage compartment weight 4.0 lbs
Supplemental baggage compartment arm 142.8 Inches

Note A: The use of a sharp tool such as a Formica cutting tool may be used to repetitively scribe the floor sufficiently to cut through the aluminum floor to be removed. Drill radius holes in the corners to eliminate stress risers.

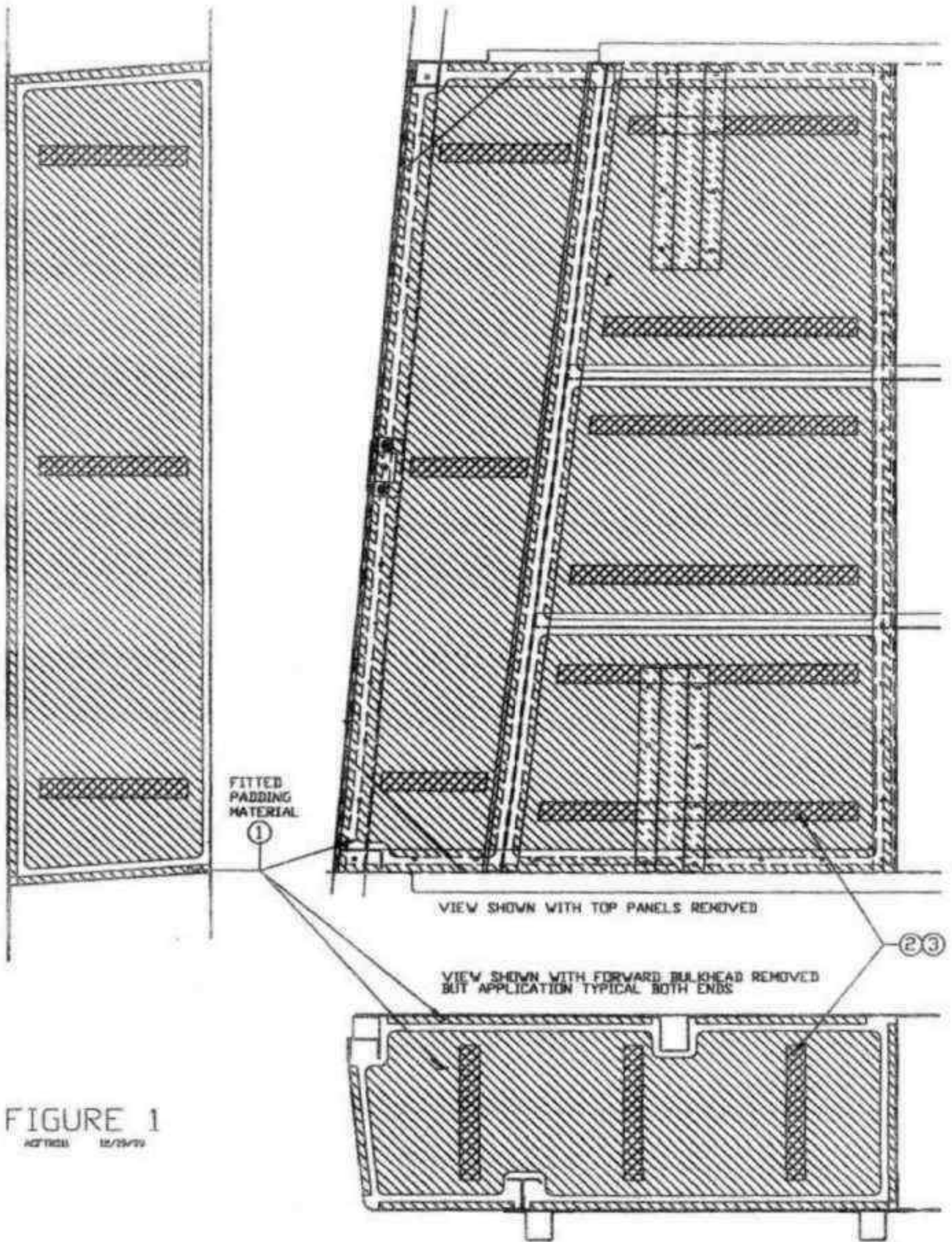


FIGURE 1
 AC/T/1001 12/25/70

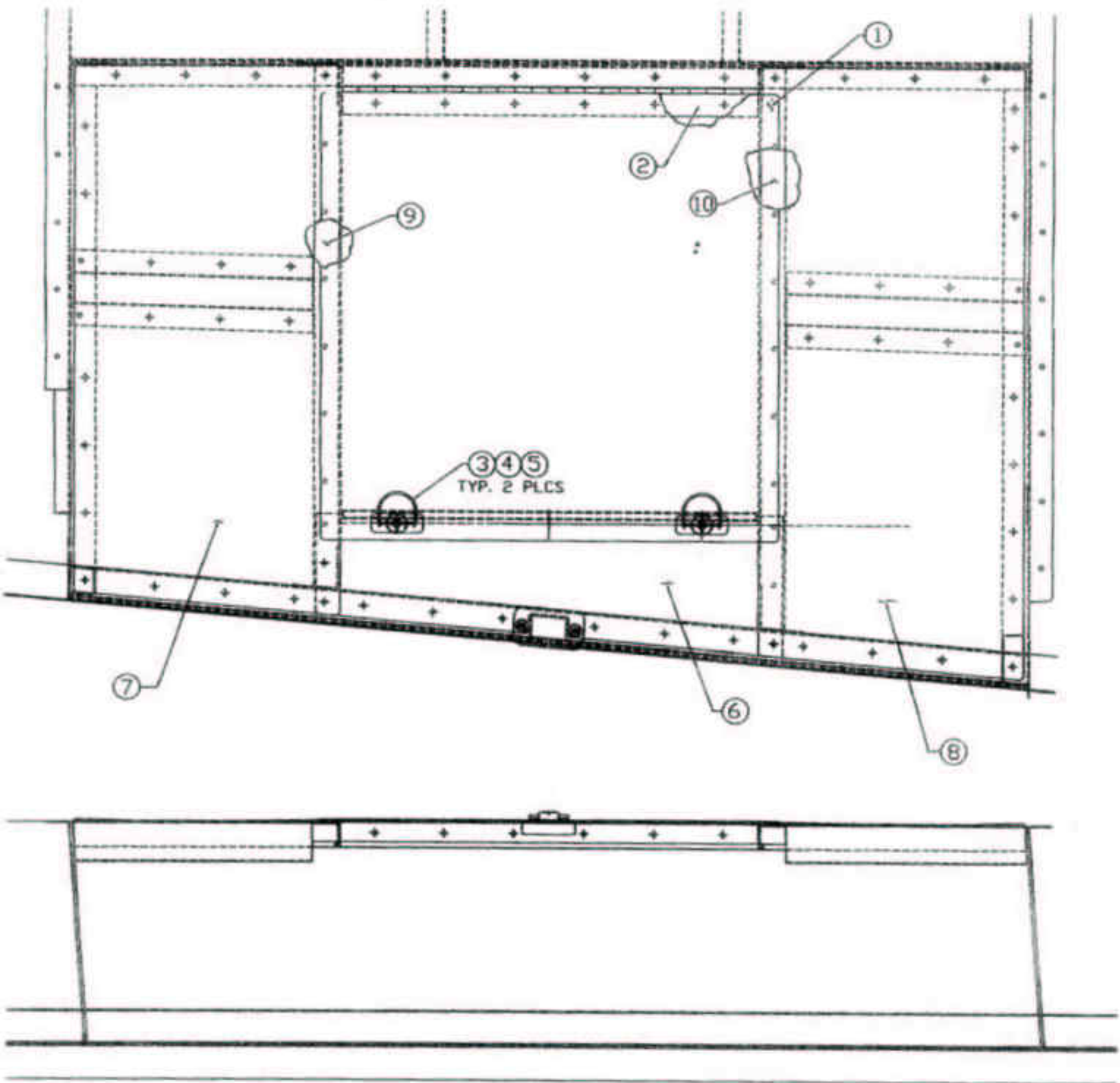
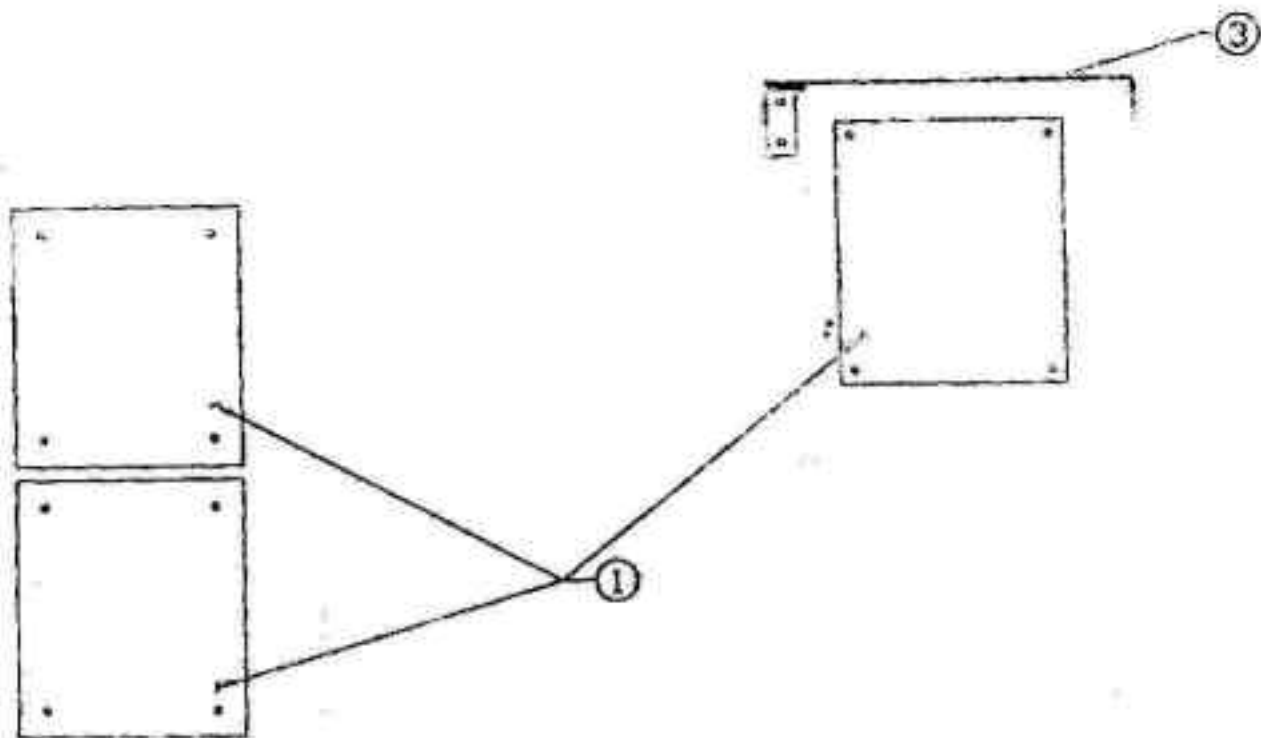
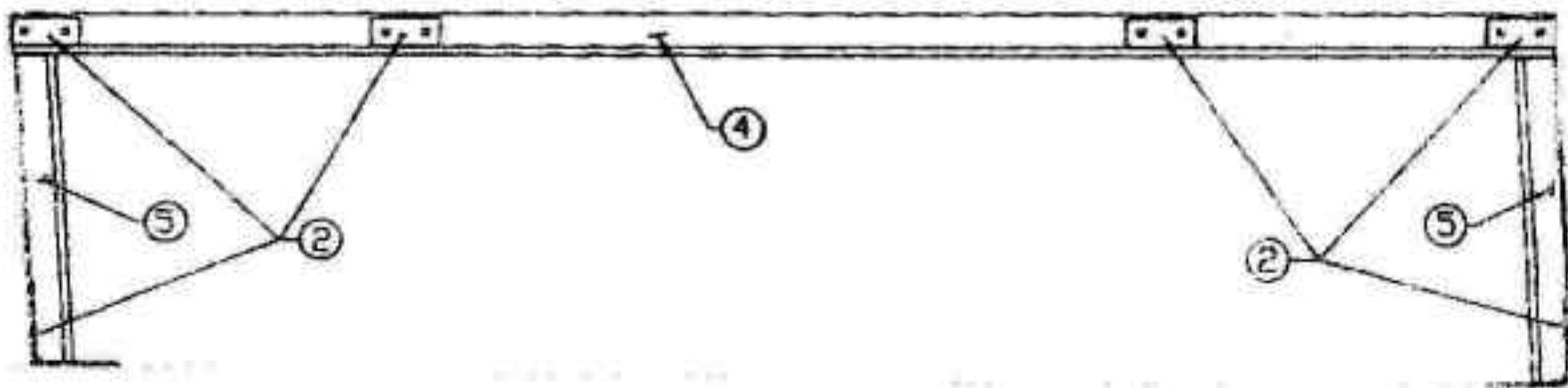


FIGURE 2
AC/TM32 12/19/99



STATION 156.00

STATION 128.75



SECTION A-A OF DWG D-10014

FIGURE 3
APPROXIMATE DIMENSIONS

Aircrafters Supplemental Baggage Compartment

FAA STC Proj. No. ST7073LA-A

Illustrated Parts List

Figure And Number Index	Part Number and Rev.	Nomenclature	Number Req'd
1		Figure 1 (Ref. B-10001 C Supp. Baggage Comp Page 2)	Ref.
1-1		Pad Material, Black Airtex Nylon	A/R
1-2	*888222	Velcro Loop, $\frac{5}{8}$ " Wide, Adhesive Back	A/R
1-3	*10008222	Velcro Loop, $\frac{5}{8}$ " Wide, Adhesive Back	A/R
2		Figure 2 (Ref. D-10015 E Floor Panel Installation)	Ref.
2-1	**B-10003 B	Door	1
2-2	**B-10009 A	Hinge, Door	1
2-3	**85-15-160-1	Stud, Southco $\frac{1}{4}$ Turn Fastener	2
2-4	**85-46-101-41	Washer, Southco $\frac{1}{4}$ Turn Fastener	2
2-5	**85-36-295-15	Receptacle, Southco 1/4 Turn Fastener	2
2-6	**B-10006 B	Center Floor Panel	1
2-7	**B-10004 A	Aft Floor Panel	1
2-8	**B-10005 B	Forward Floor Panel	1
2-9	**B-10010-1	Bulb Angle (Tabulated) Aft Door Angle	1
2-10	**B-10010-2	Bulb Angle (Tabulated) Forward Door Angle	1
	**MS20470AD4-()	$\frac{1}{8}$ Dia. Solid Rivet	A/R
	**NAS1398C4-()	Blind Rivet	A/R
3		Figure 3 (Ref. D-10014 B Sub-structure Installation)	Ref.
3-1	**B-10008 -	Closure	3
3-2	**B-10007-1 C	Angle Bracket (Tabulated)	8
3-3	**B-10002 B	Bulkhead, Longitudinal	1
3-4	**B-10010-3 B	Bulb Angle (Tabulated) Bulkhead Top Edge	1
3-5	**B-10010-4 B	Bulb Angle (Tabulated) Bulkhead Ends	2
	***MS20470AD4-()	$\frac{1}{8}$ Dia. Solid Rivet	A/R
	***NAS1398C4-()	Blind Rivet	A/R