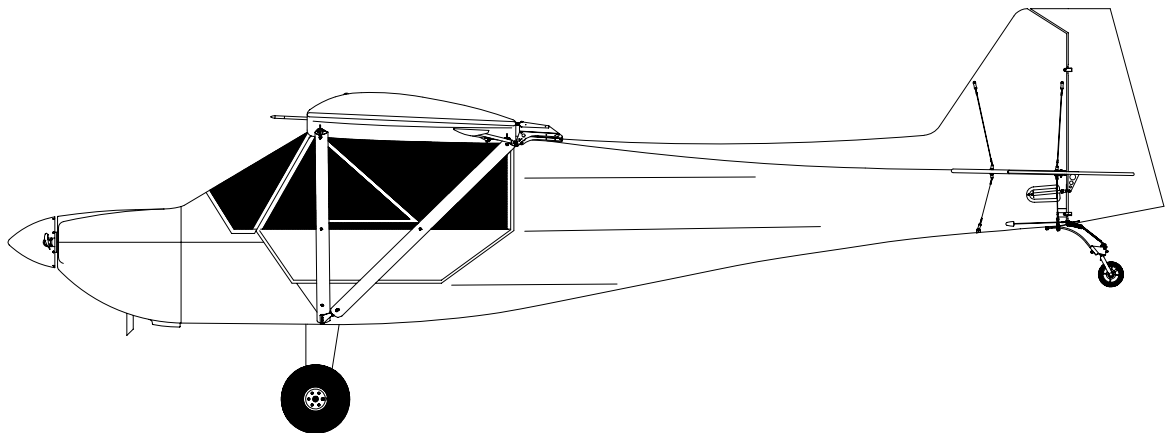




S-7S COURIER

FIGURES MANUAL



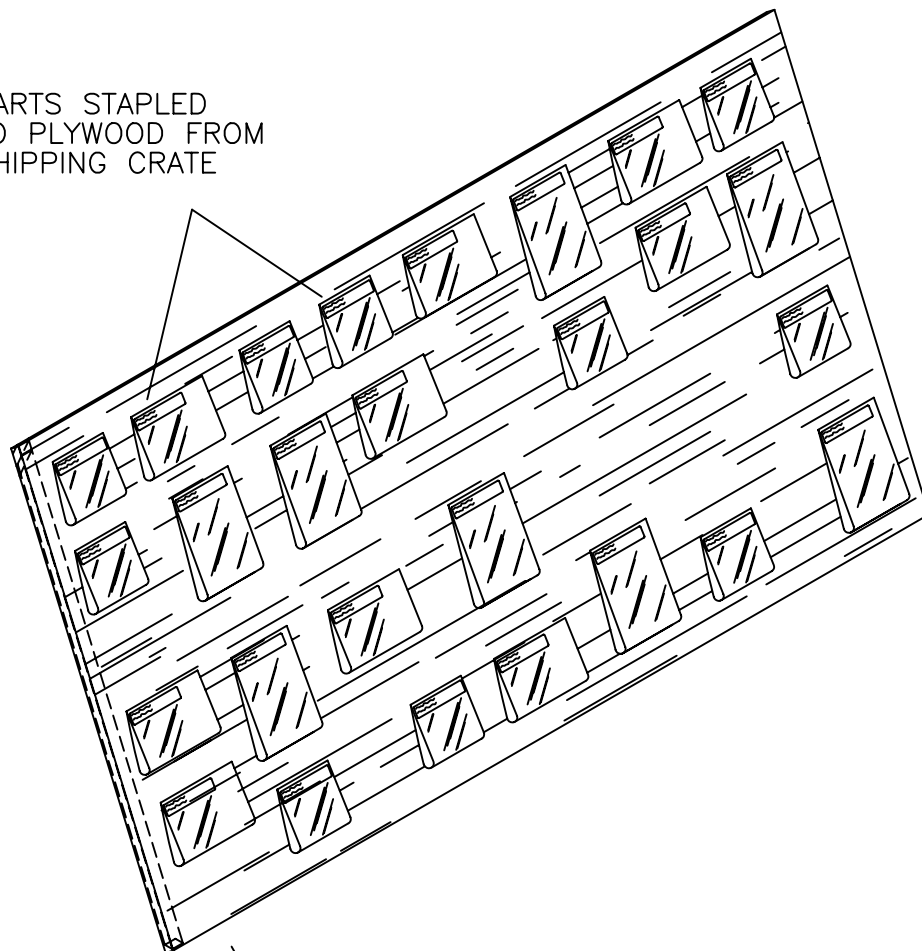
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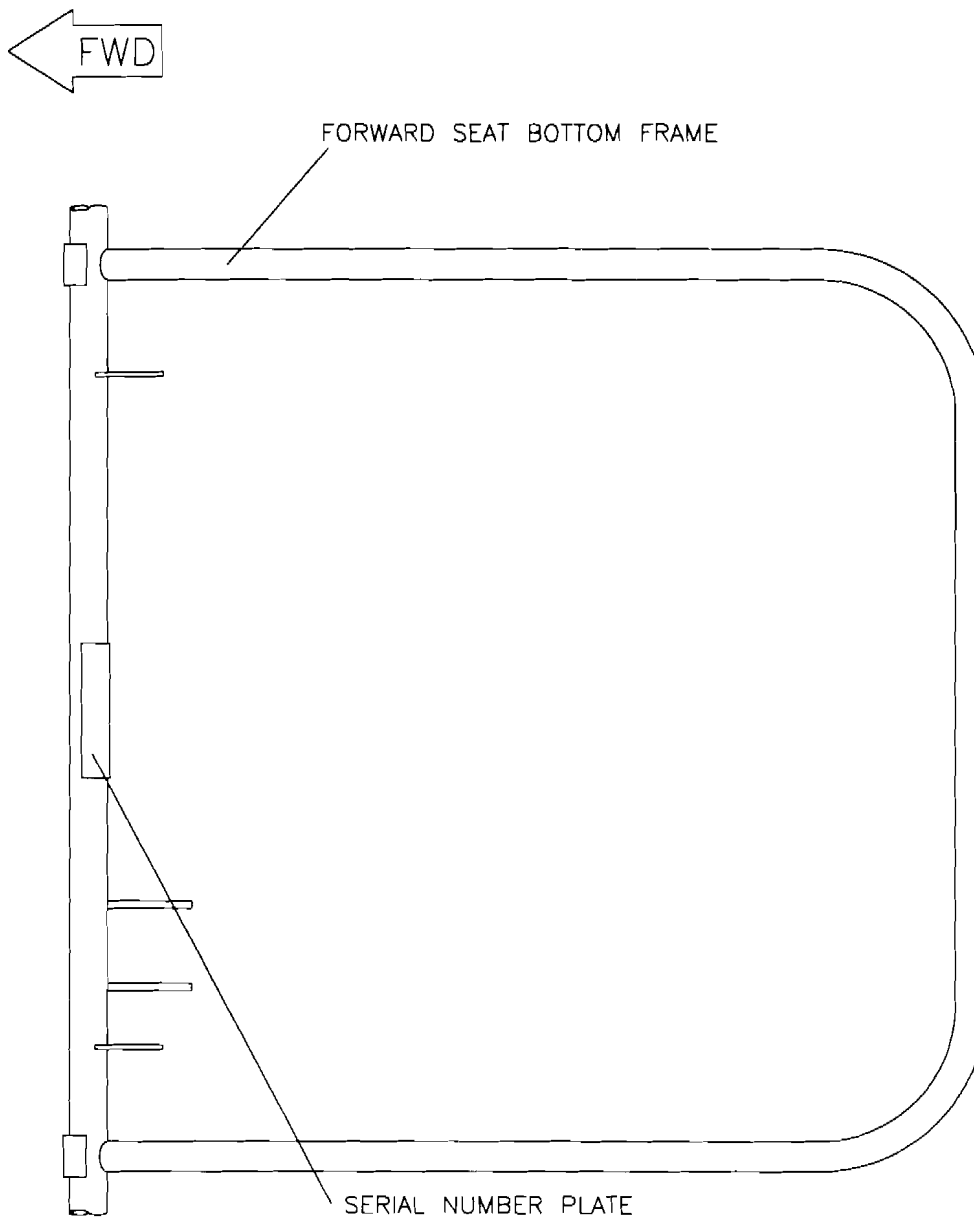
PARTS STAPLED
TO PLYWOOD FROM
SHIPPING CRATE



NAIL BOARD TO
SHOP WALL

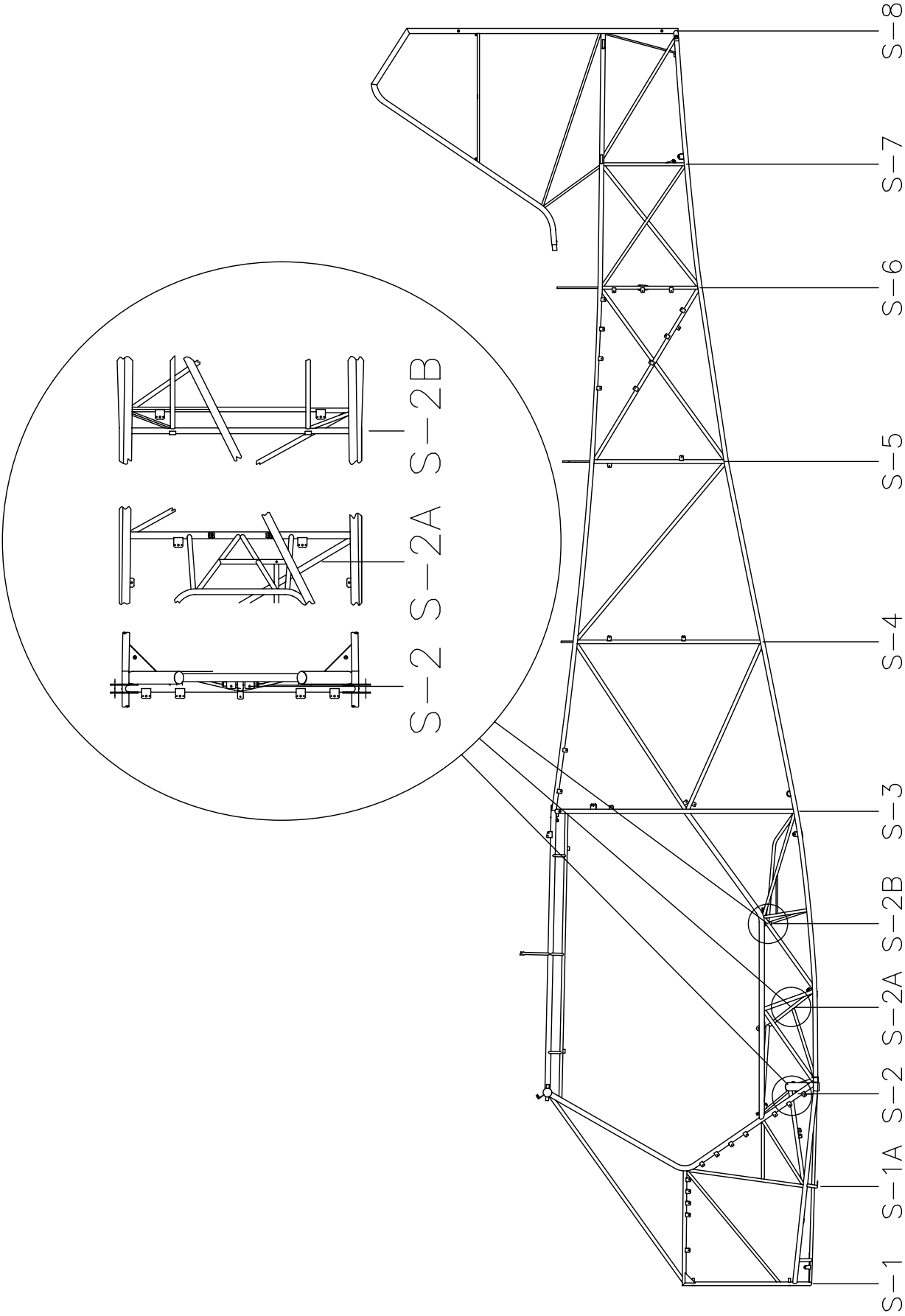
MD4363

RANS S-7S
ORGANIZATION FIGURE 00-01



MD4293

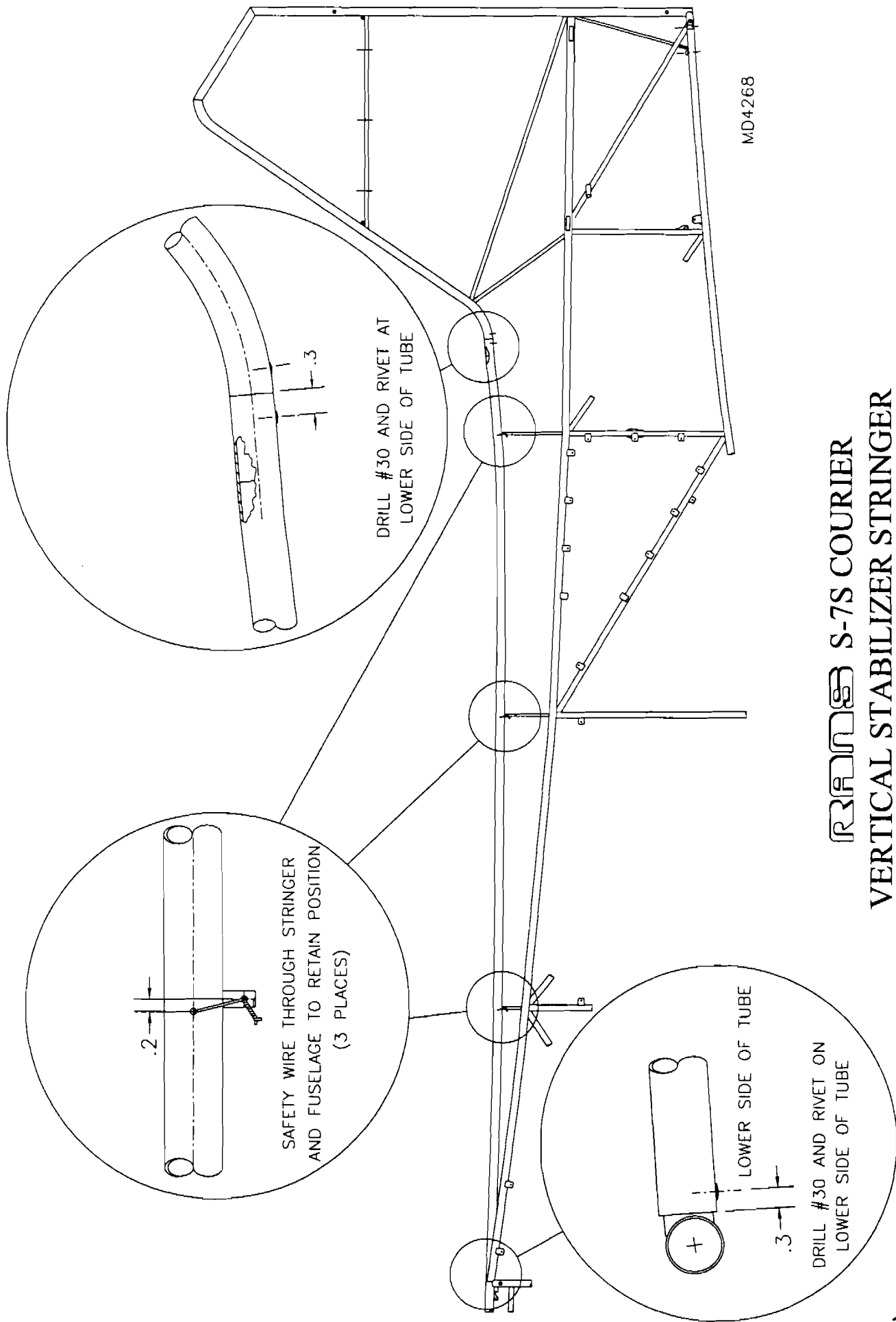
RANS S-7S
SERIAL PLATE LOCATION FIGURE 00-02



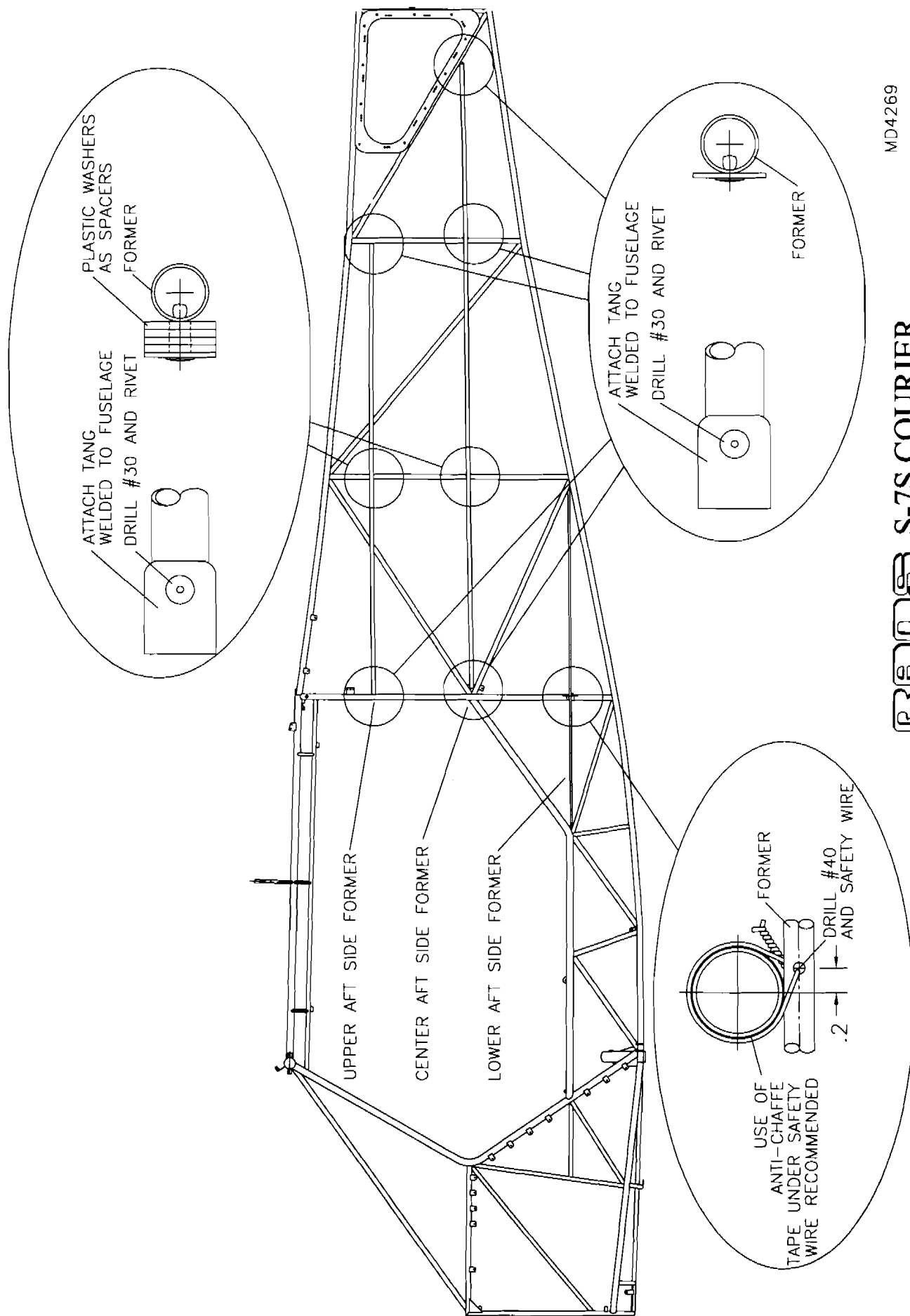
MD4295

RRR S-7S

FUSELAGE STATION IDENTIFICATION FIGURE 00-03

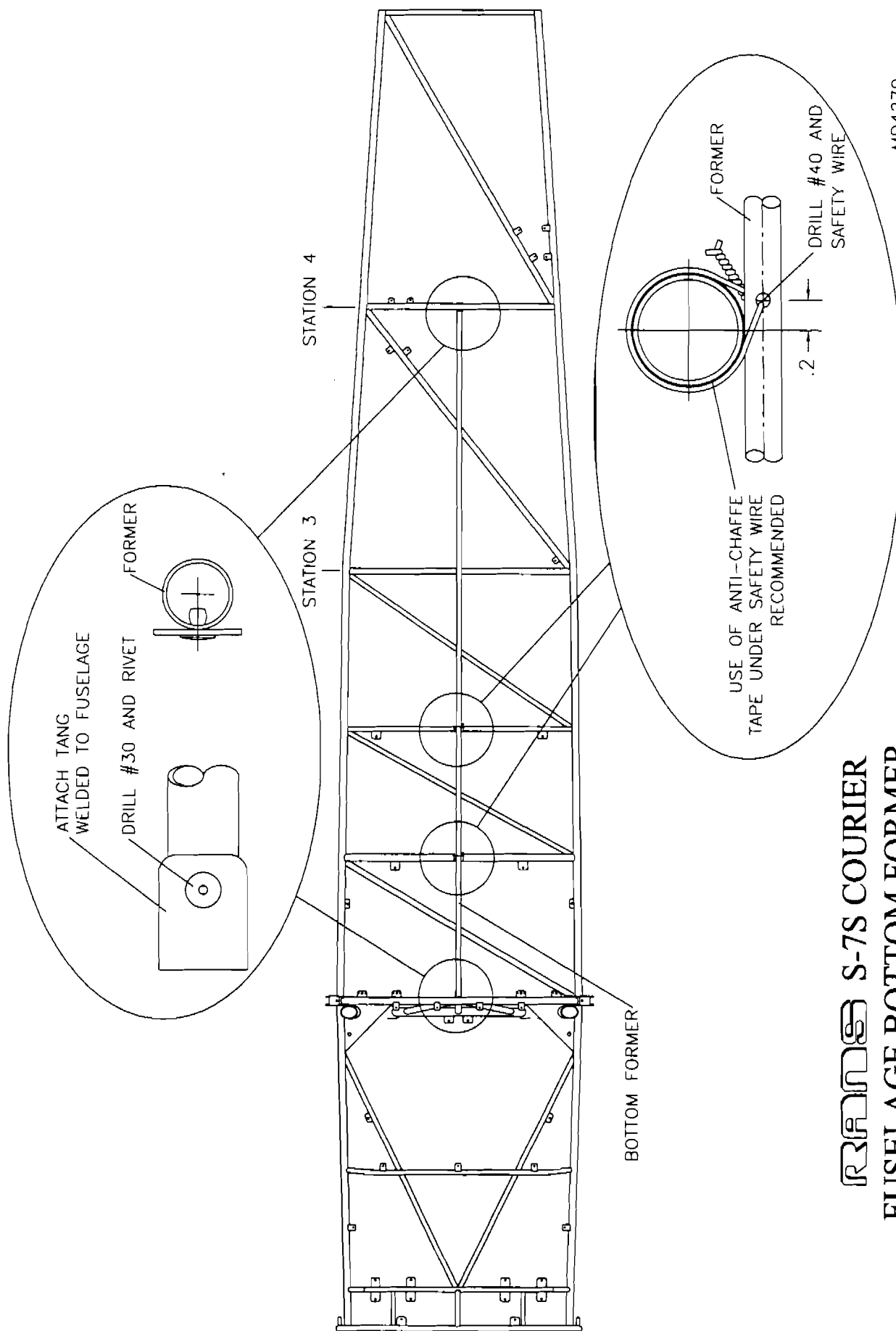


S-7S COURIER
VERTICAL STABILIZER STRINGER
FIGURE 01-01



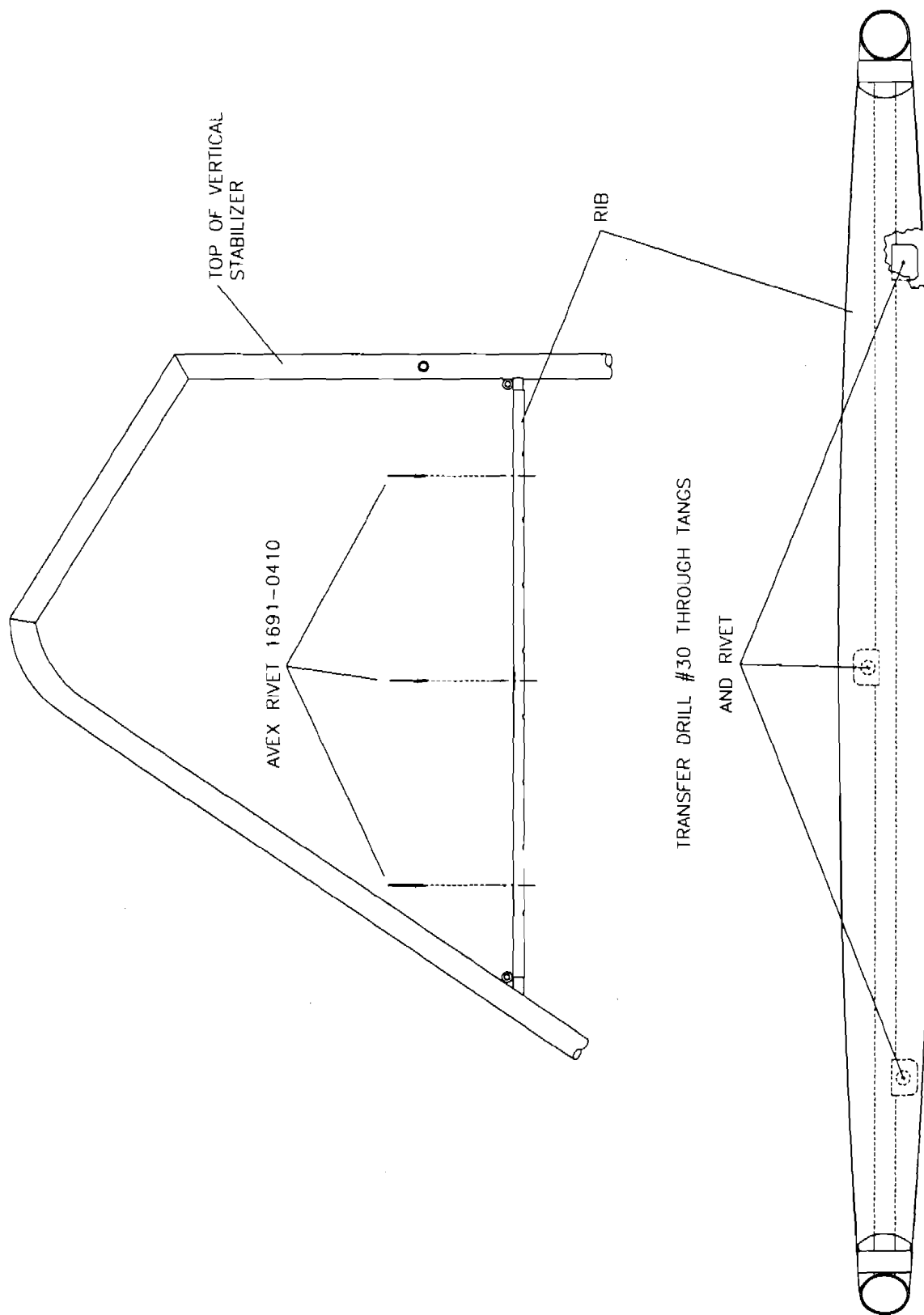
MD4269

RRF S-7S COURIER FUSELAGE SIDE FORMER FIGURE 01-02



RRR S-7S COURIER
FUSELAGE BOTTOM FORMER
FIGURE 01-03

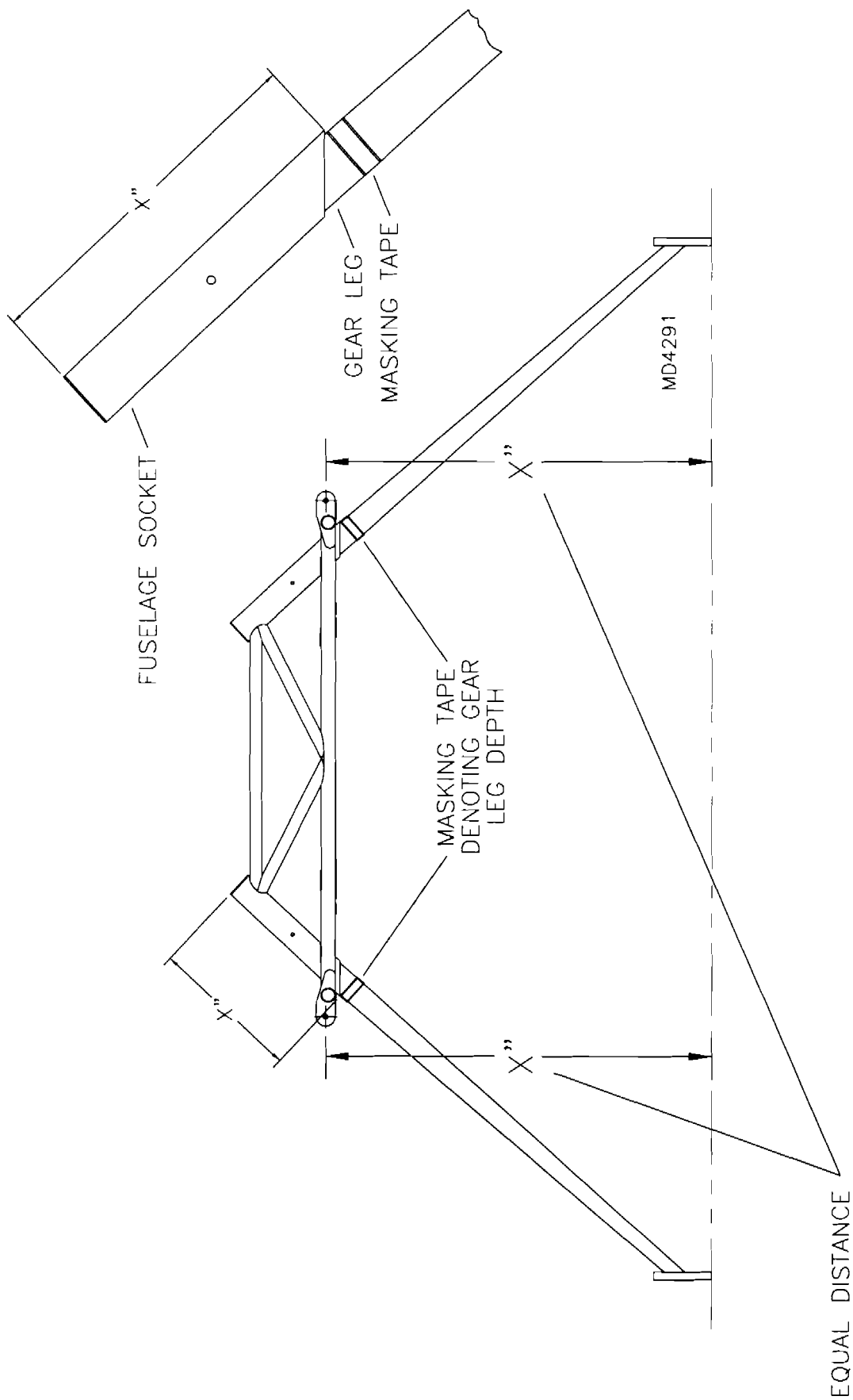
MD4270



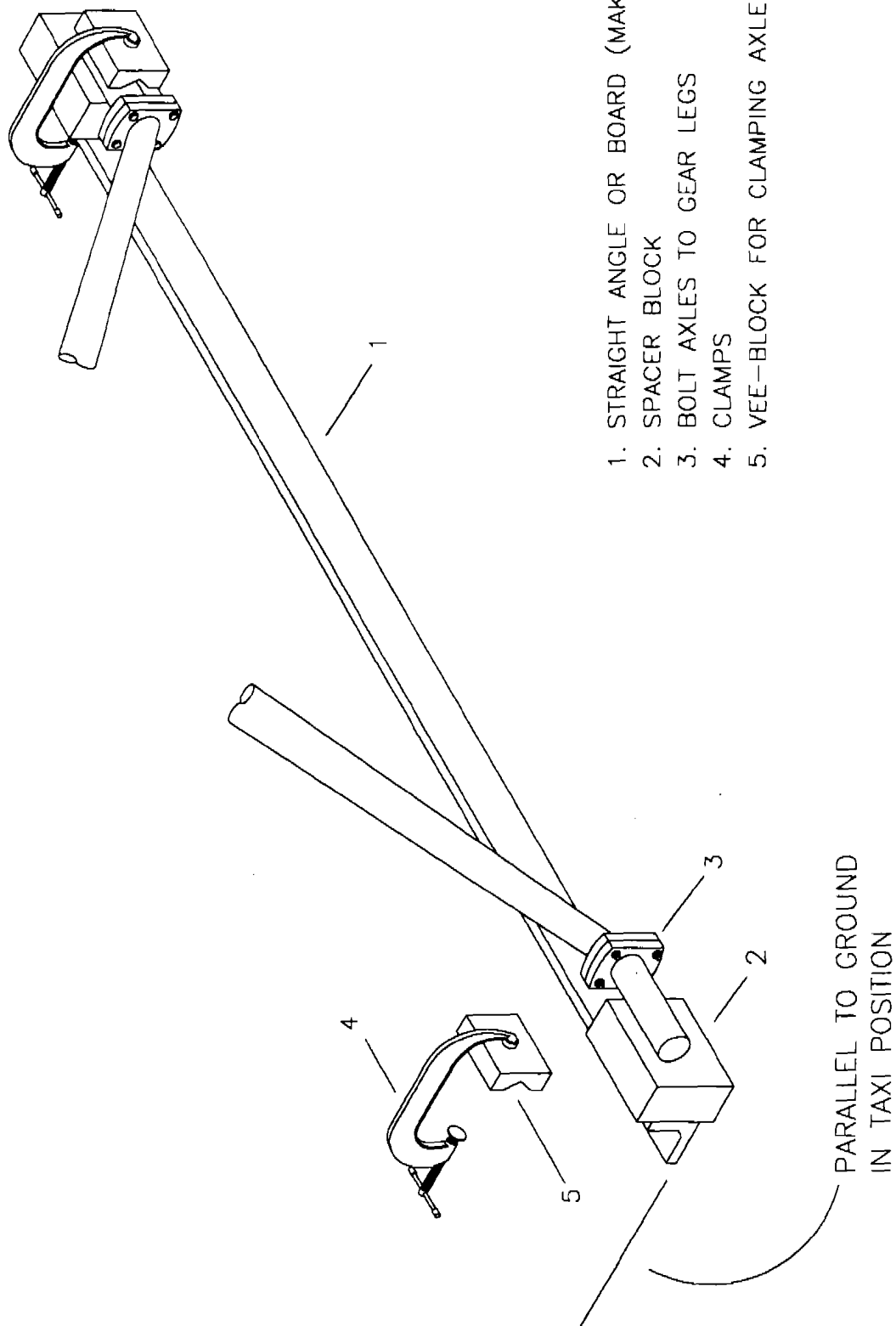
MD4282

RRR S-7S

VERTICAL STABILIZER RIB FIGURE 01-04

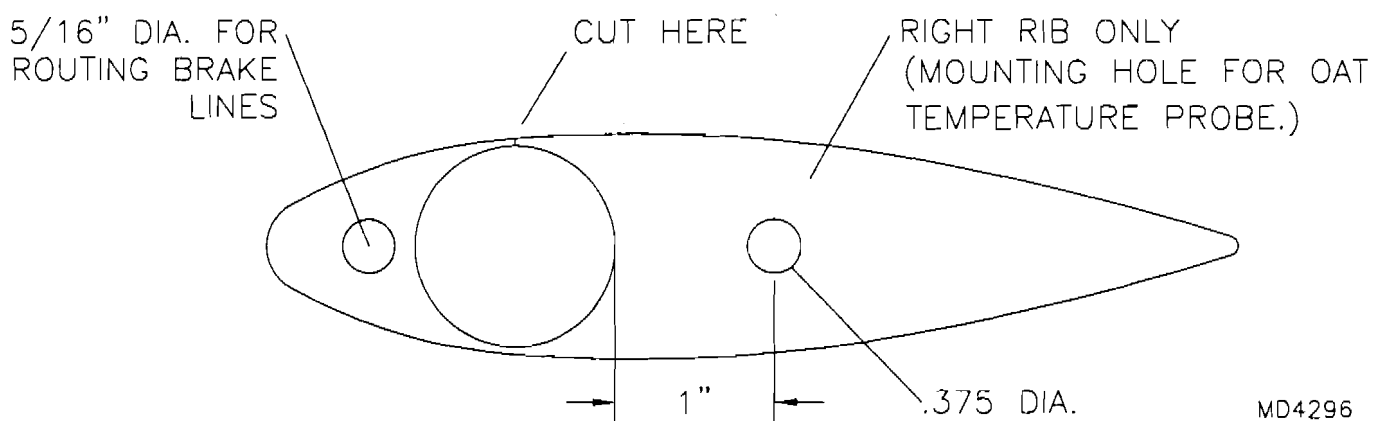
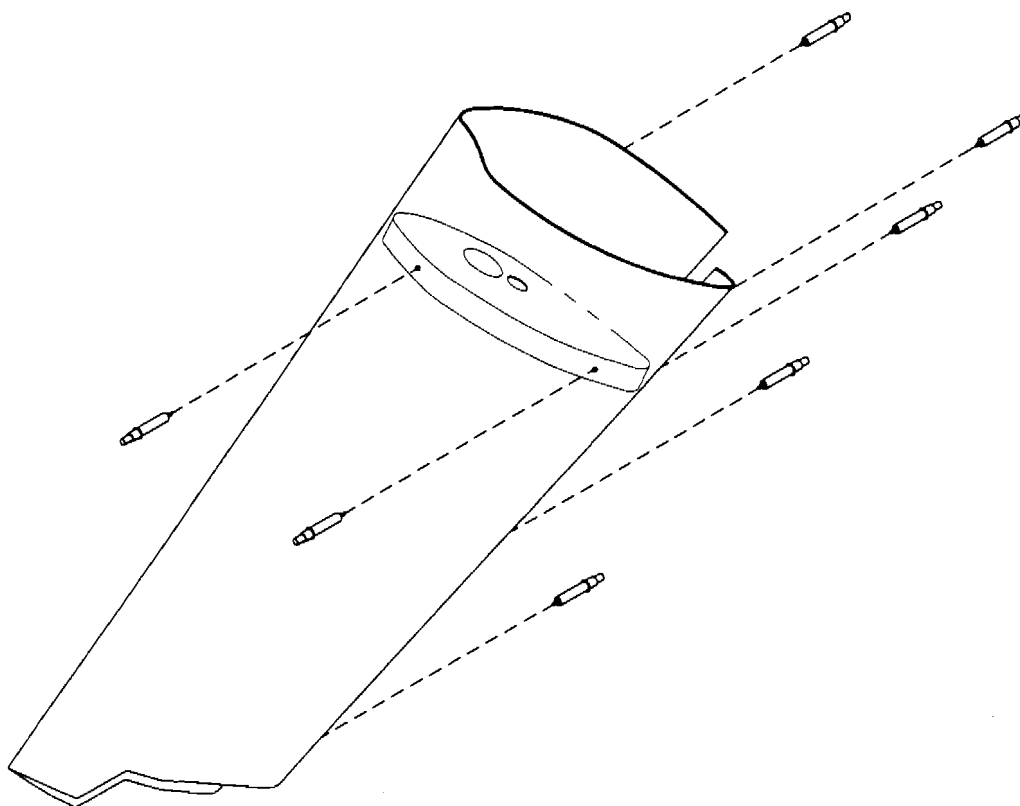


RRR S-7S
GEAR LEG INSTALLATION FIGURE 01-05



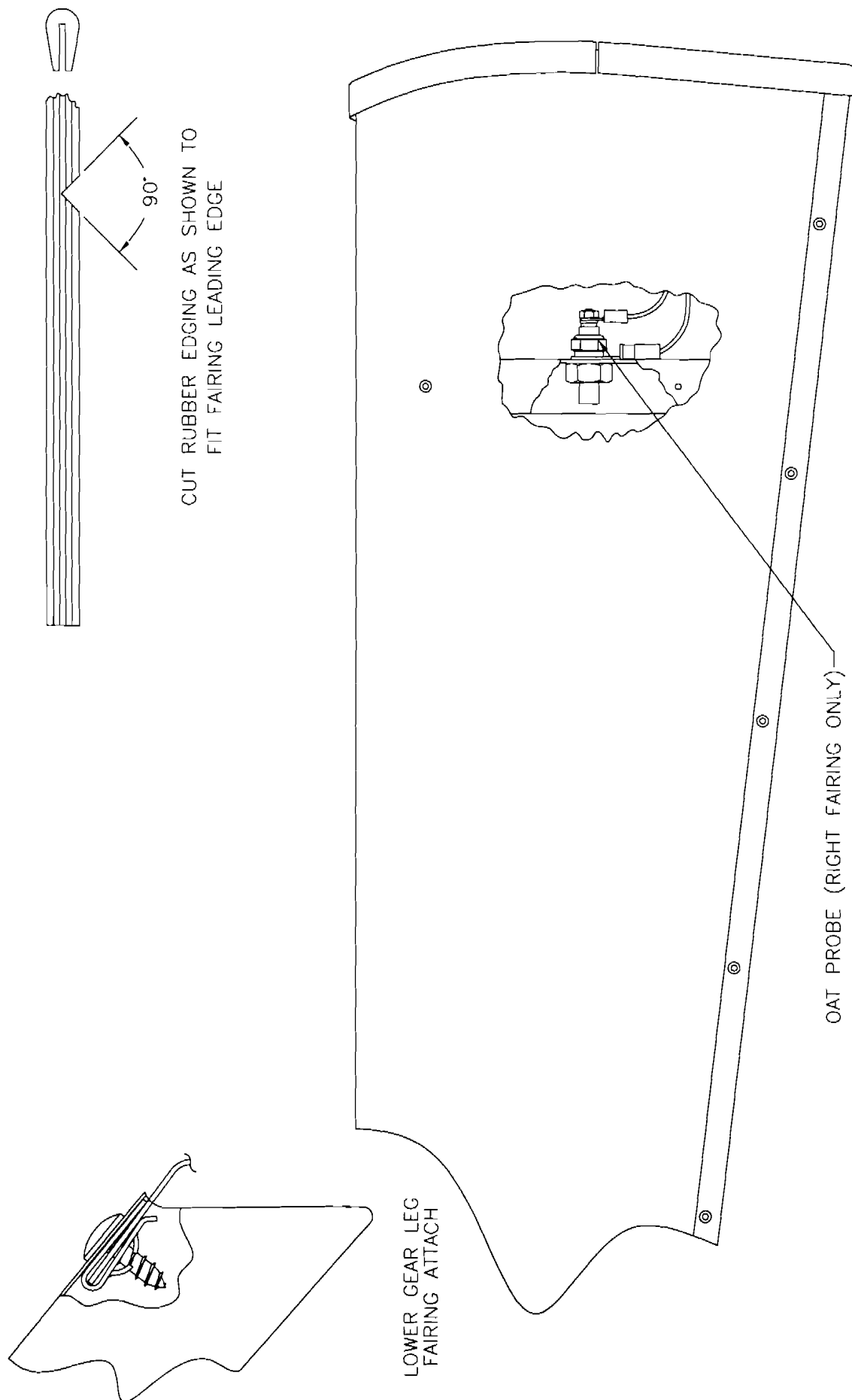
MD4290
REV. A

RRMS S-7S GEAR LEG ALIGNMENT JIG FIGURE 01-06



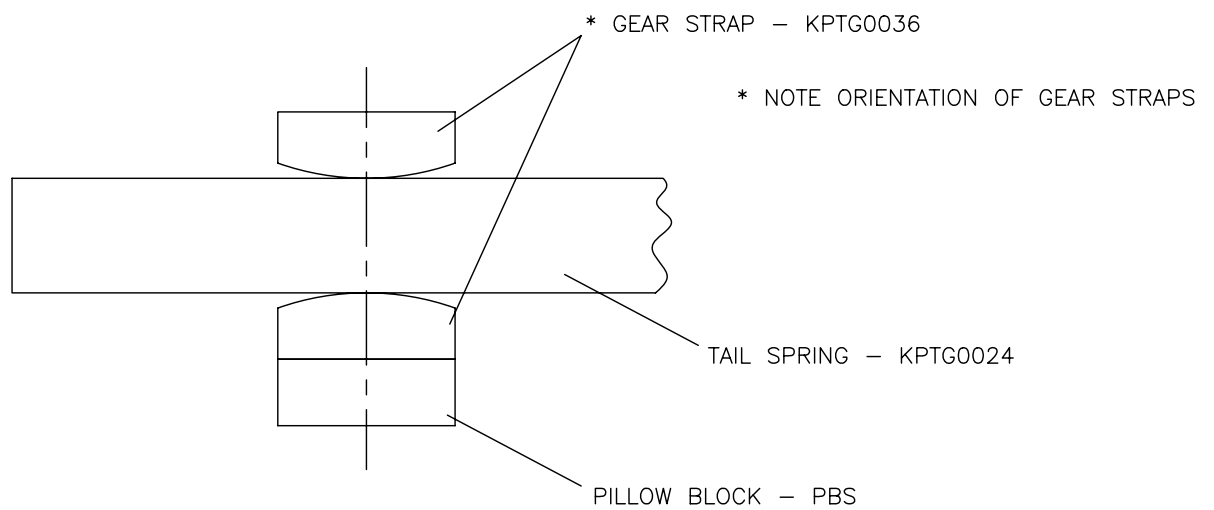
MD4296

RANS S-7S
GEAR LEG FAIRING FIGURE 01-07



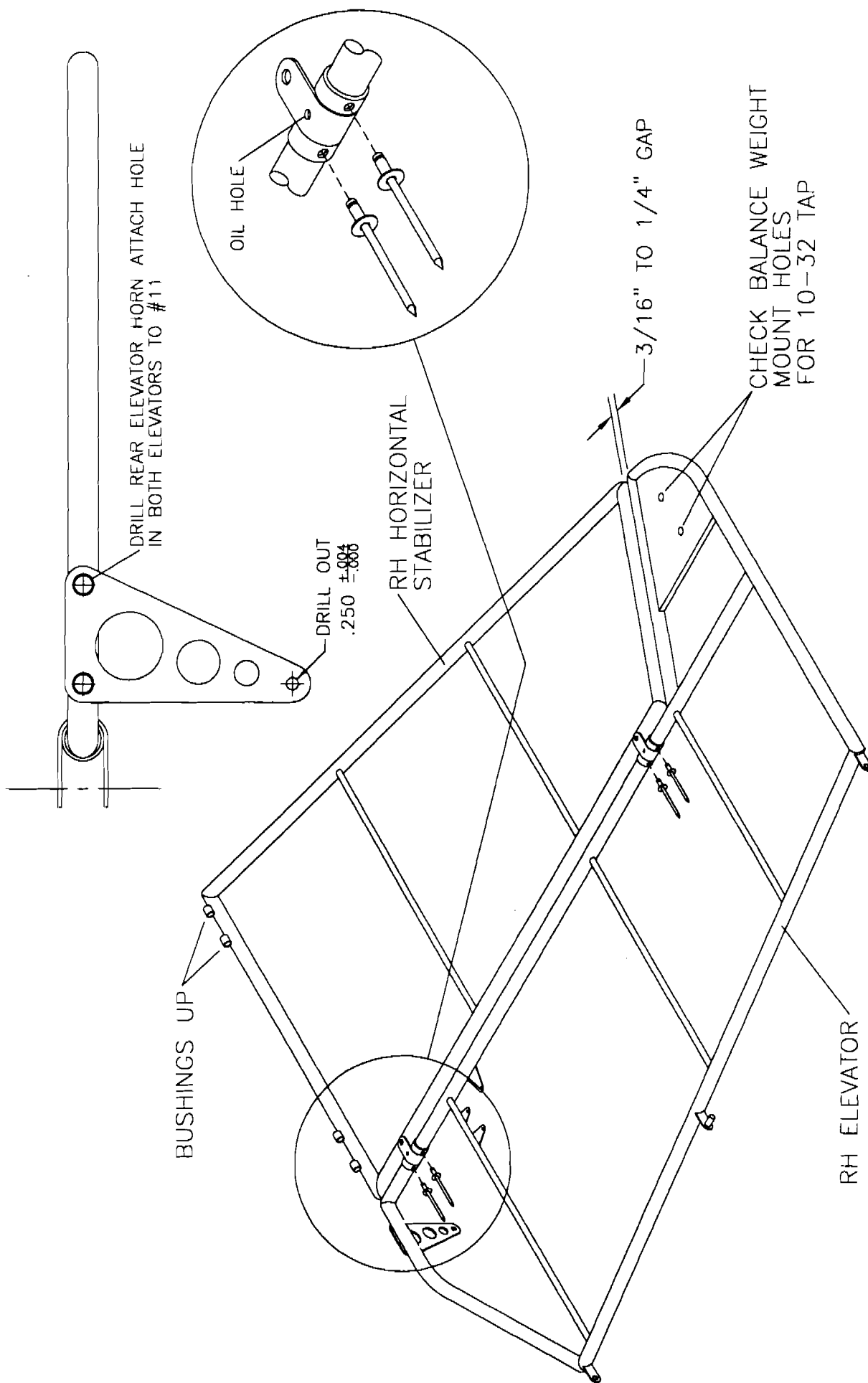
MD4272

S-7S COURIER
GEAR LEG FAIRING FIGURE 01-08



MD5054

RANS S-7S
TAIL SPRING INSTALLATION FIG. 01-08A



MD4286
REV. A

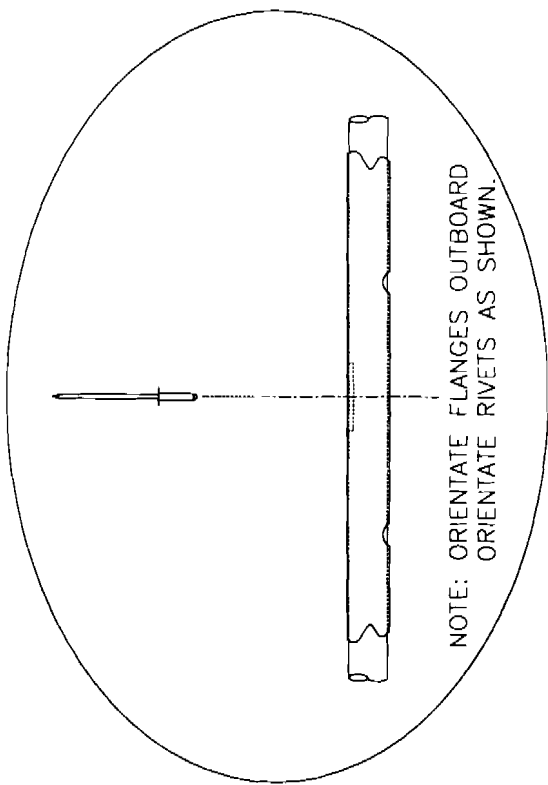
RAMS S-7S

ELEVATOR HINGE ALIGNMENT FIGURE 01-09

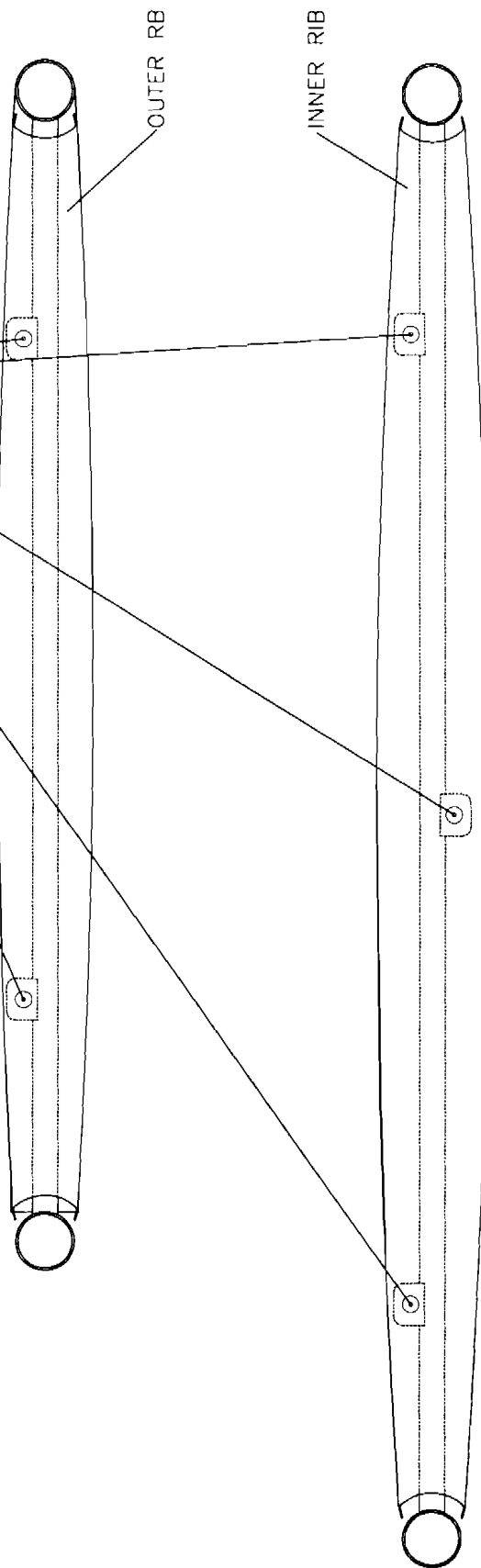
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RRR S-7S
FIGURE 01-10

MD4318



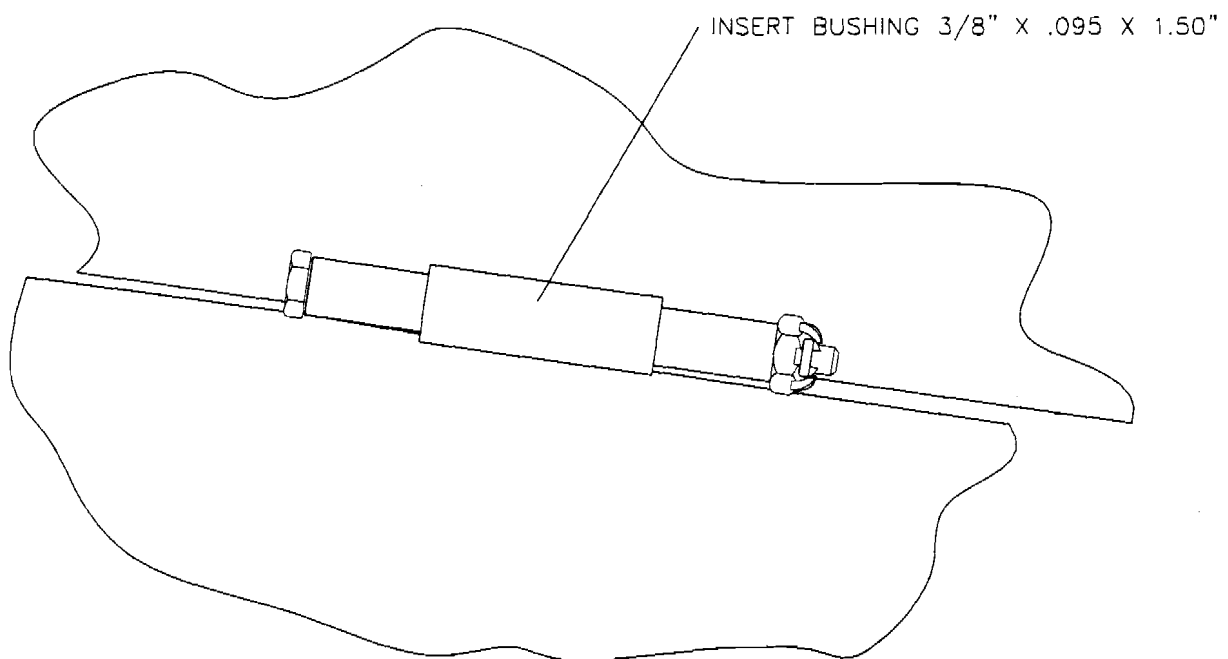
TRANSFER DRILL #30 THROUGH TABS



MD4285

RRAN S-7S

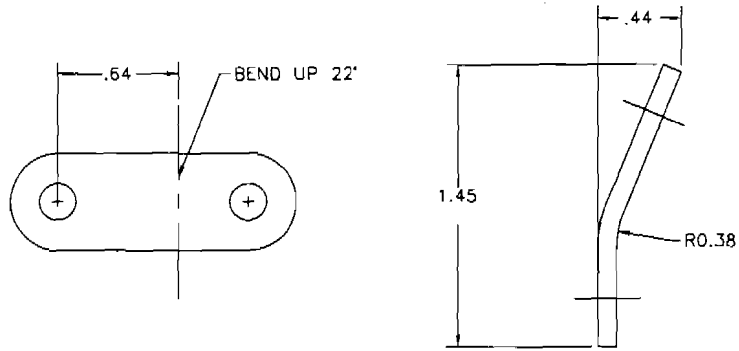
HORIZONTAL STABILIZER RIBS FIGURE 01-11



MD4308

RANS S-7S
HORIZONTAL TAIL TO FUSELAGE
ATTACH (TYPICAL) FIGURE 01-12

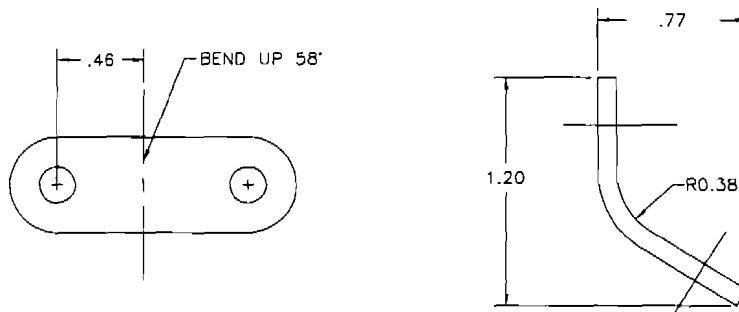
1:1



BEND PROFILE

ATTACH TANG
HORIZONTAL STABILIZER BOTTOM
MAKE (6)

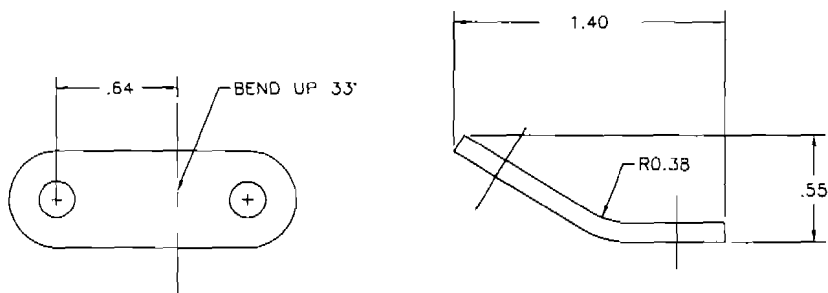
1:1



BEND PROFILE

ATTACH TANG
VERTICAL FIN MAKE (4)

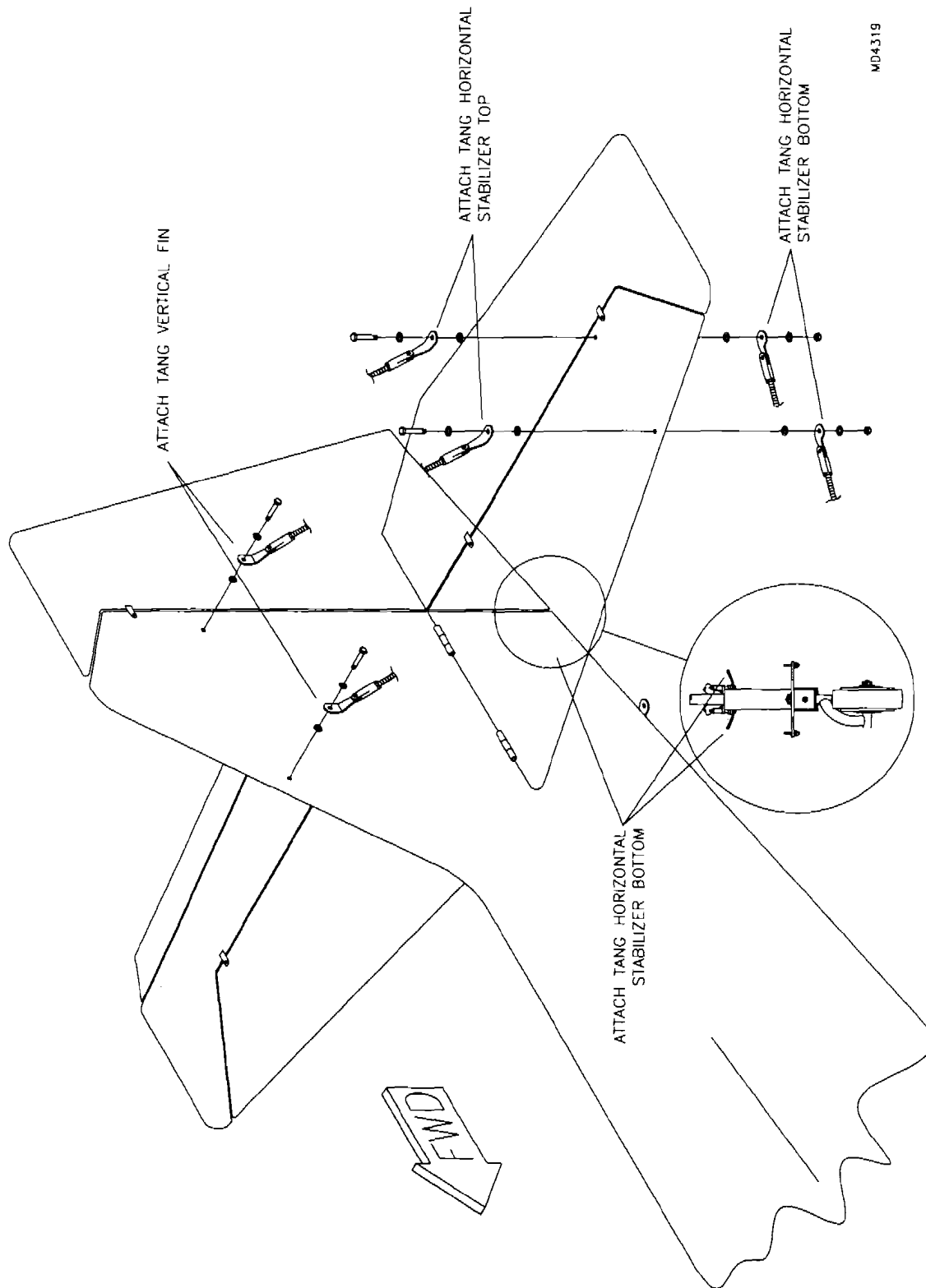
1:1



ATTACH TANG
HORIZONTAL STABILIZER TOP
MAKE (4)

MD4313

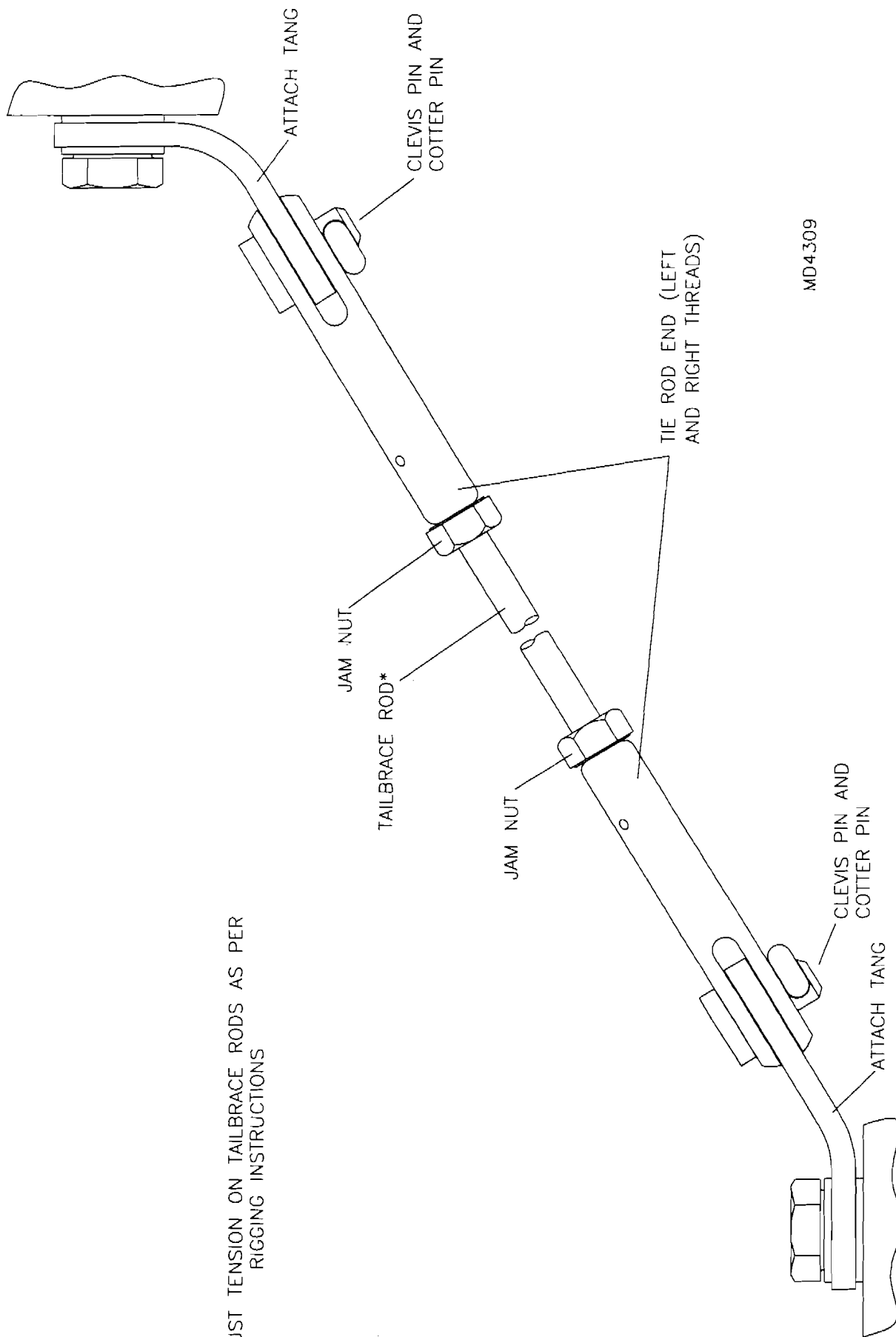
RANS S-7S
MODIFIED TANGS FOR TAIL BRACE
ROD ATTACH FIGURE 01-13



MD4319

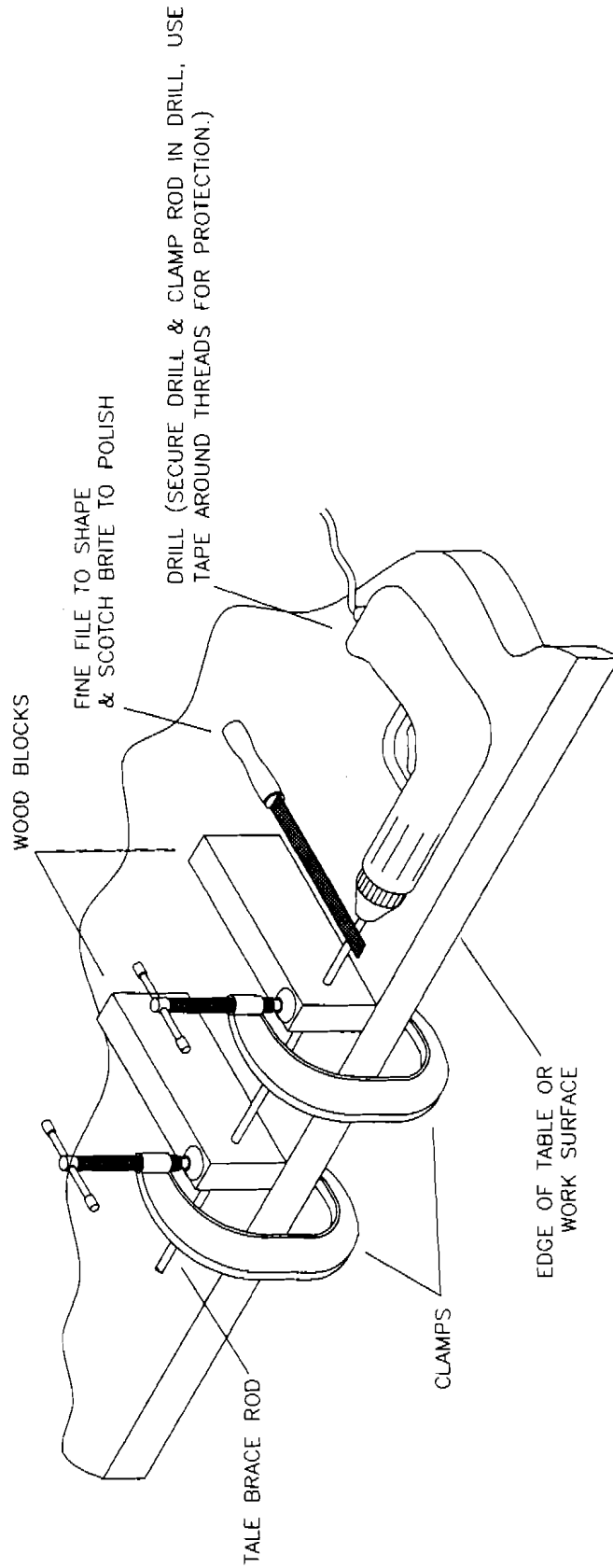
RRM S-7S
TANG LOCATIONS FOR TAIL BRACE RODS
FIGURE 01-14

* ADJUST TENSION ON TAILBRACE RODS AS PER RIGGING INSTRUCTIONS

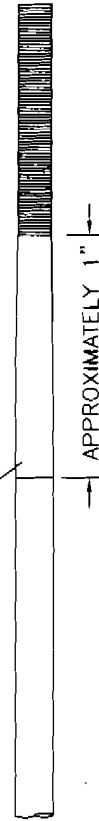


MD4309

RRM S-7S HORIZONTAL TAIL BRACING (TYPICAL) FIGURE 01-15

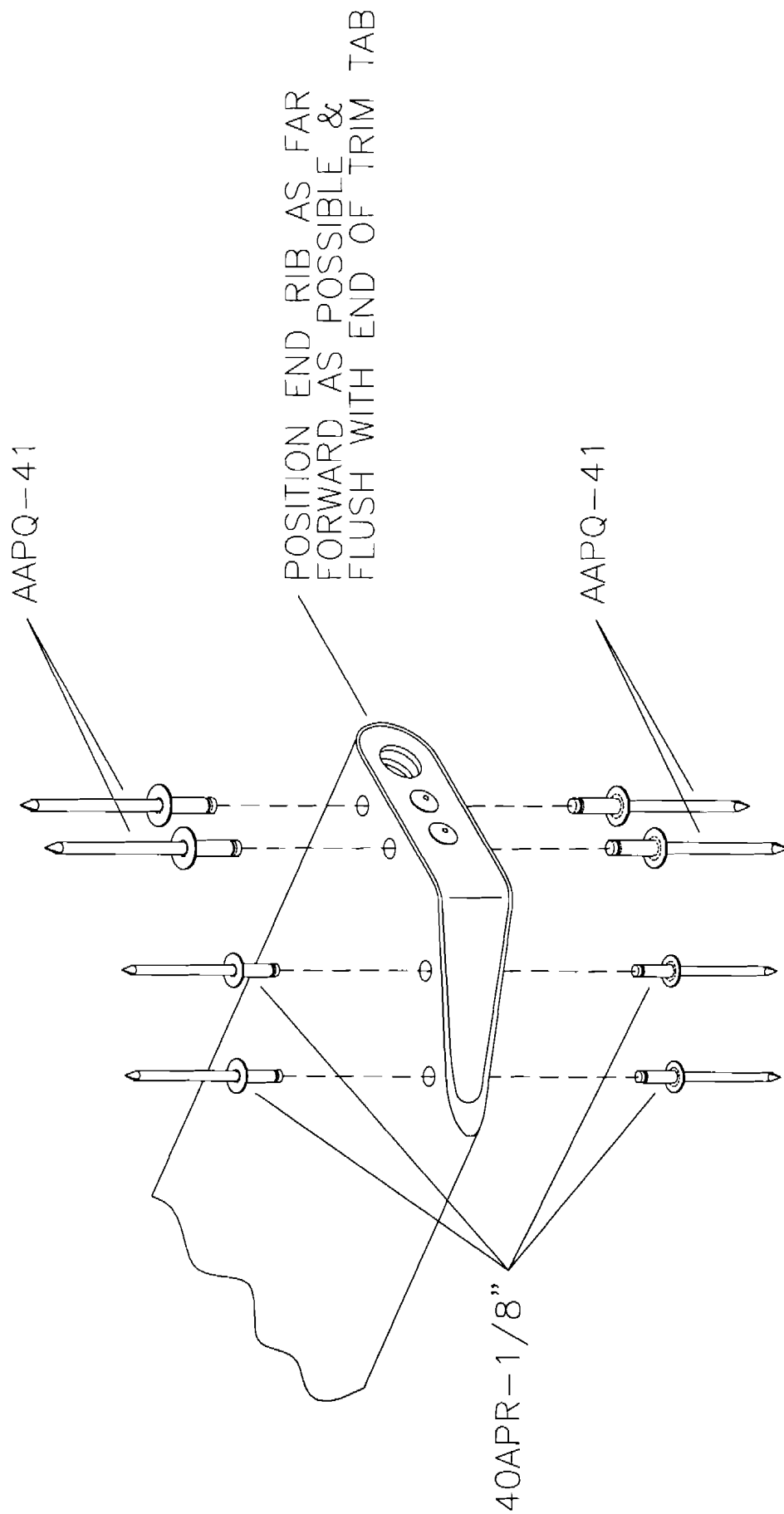


SMOOTH TRANSITION AREA FROM FULL DIA.
TO THREAD DIA. - NO ABRUPT CHANGES IN
CROSS SECTION.



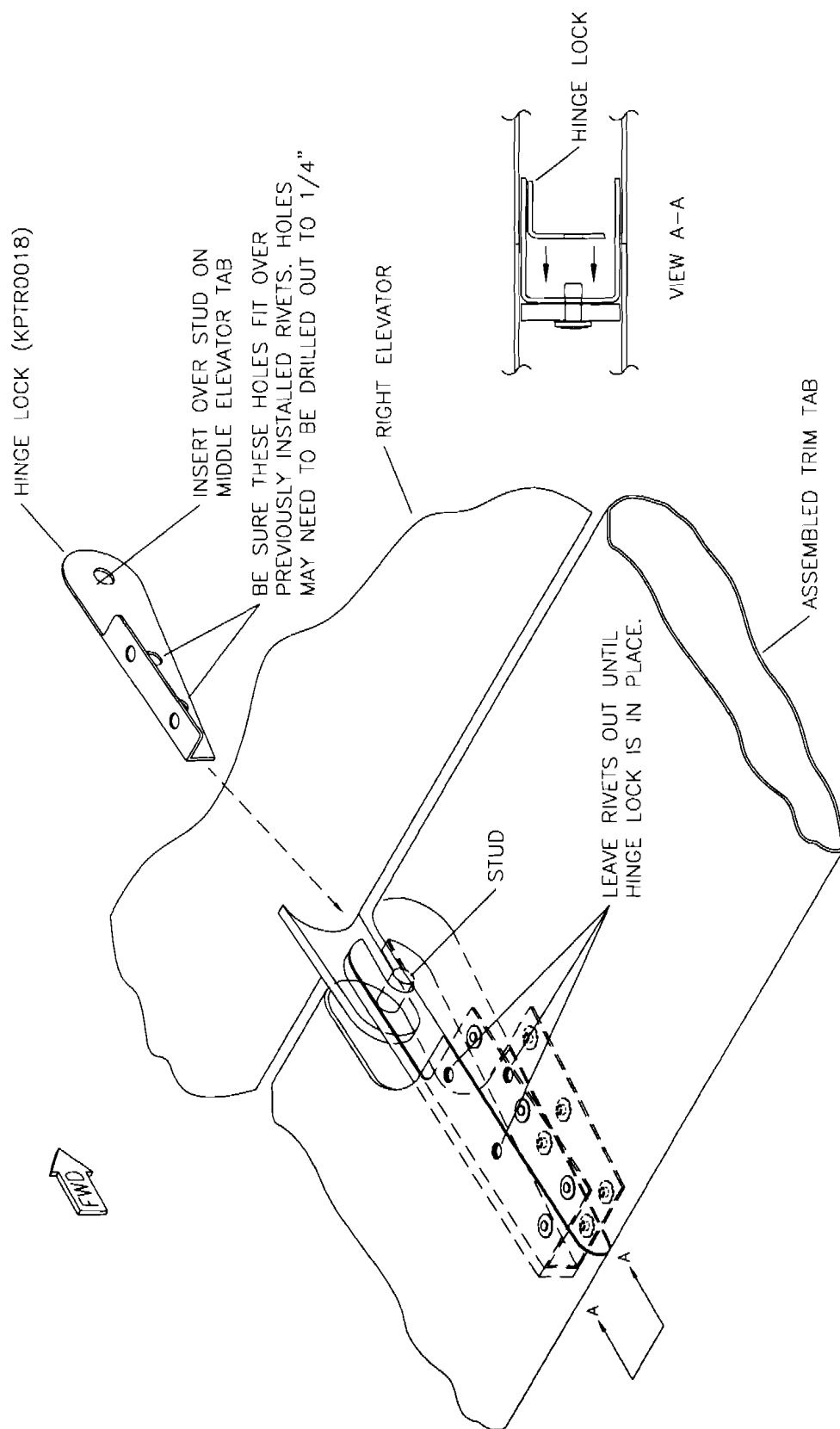
RRR S-7S MD4464

TAIL BRACE ROD MODIFICATION FIGURE 01-15A



MD4306

RRR S-7S **TRIM TAB AND RIBS FIGURE 01-16**



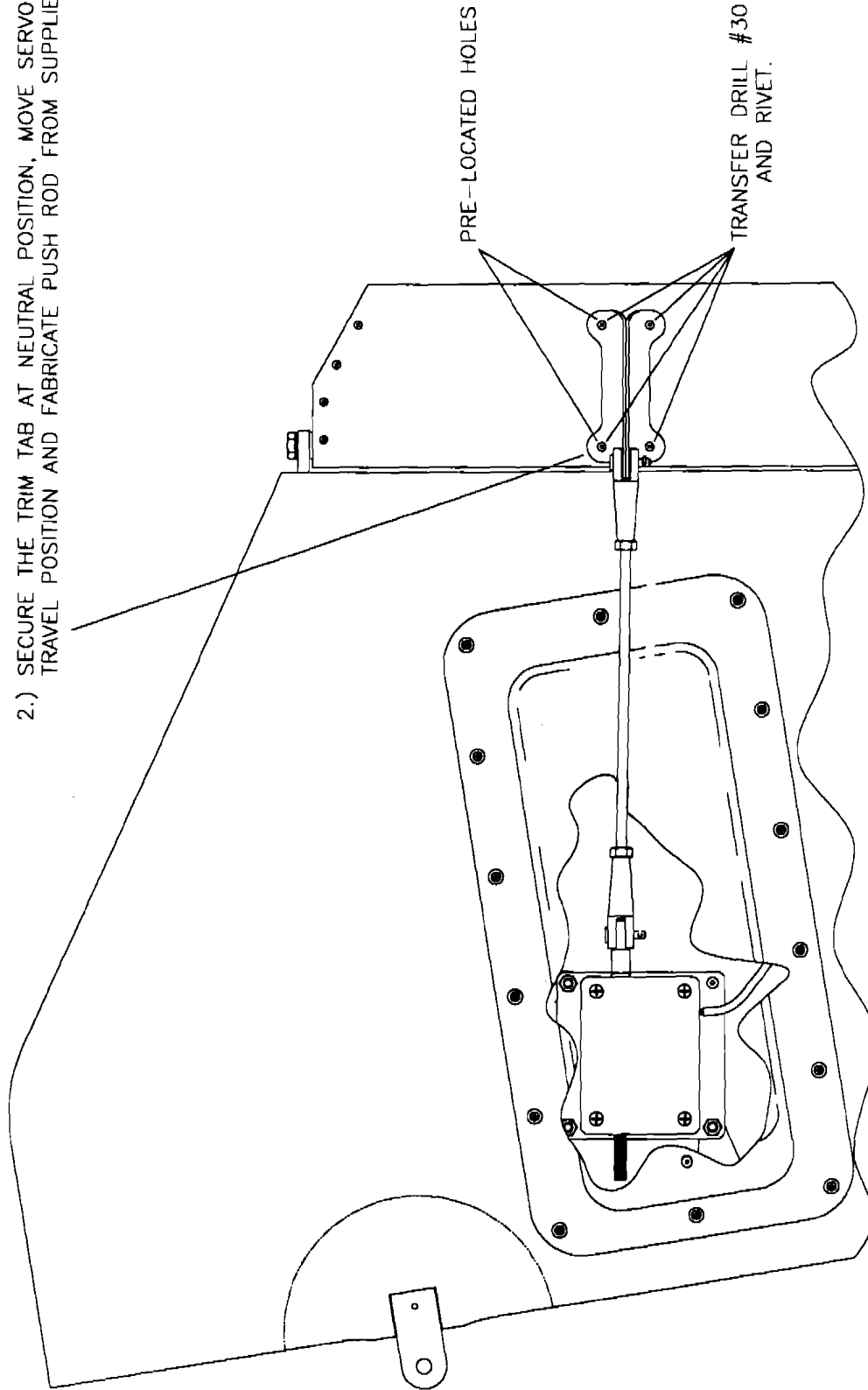
MD4297

RRR S-7S

TRIM TAB CENTER RIB AND HINGE LOCK FIGURE 01-17

1.) LOCATE TRIM TAB HORNS USING TWO (2) PRE-LOCATED HOLES
IN INBOARD TRIM TAB. TRANSFER DRILL ALL HOLES #30 AND RIVET.

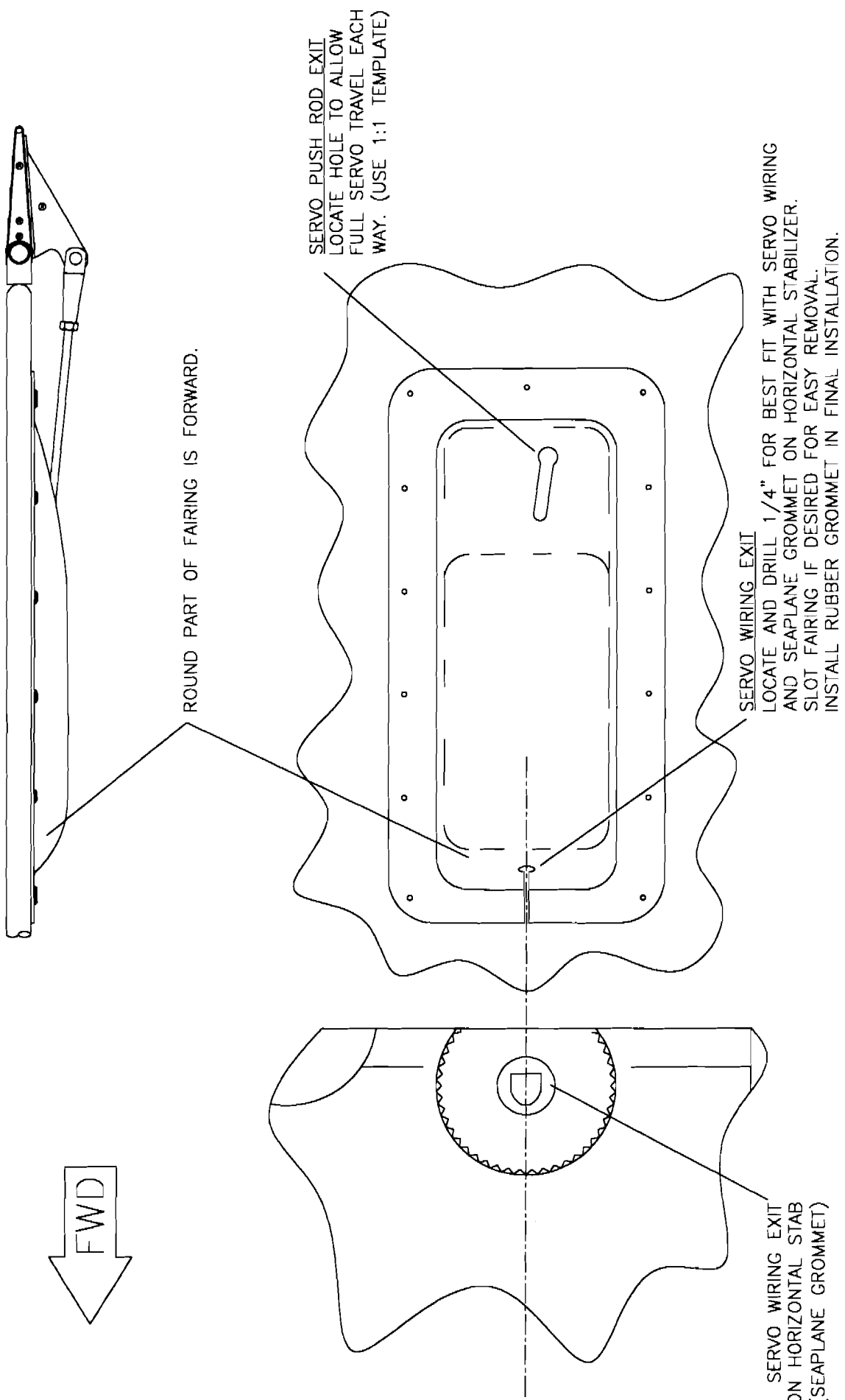
2.) SECURE THE TRIM TAB AT NEUTRAL POSITION, MOVE SERVO TO HALF
TRAVEL POSITION AND FABRICATE PUSH ROD FROM SUPPLIED MATERIAL.



MD4317

RRR S-7S

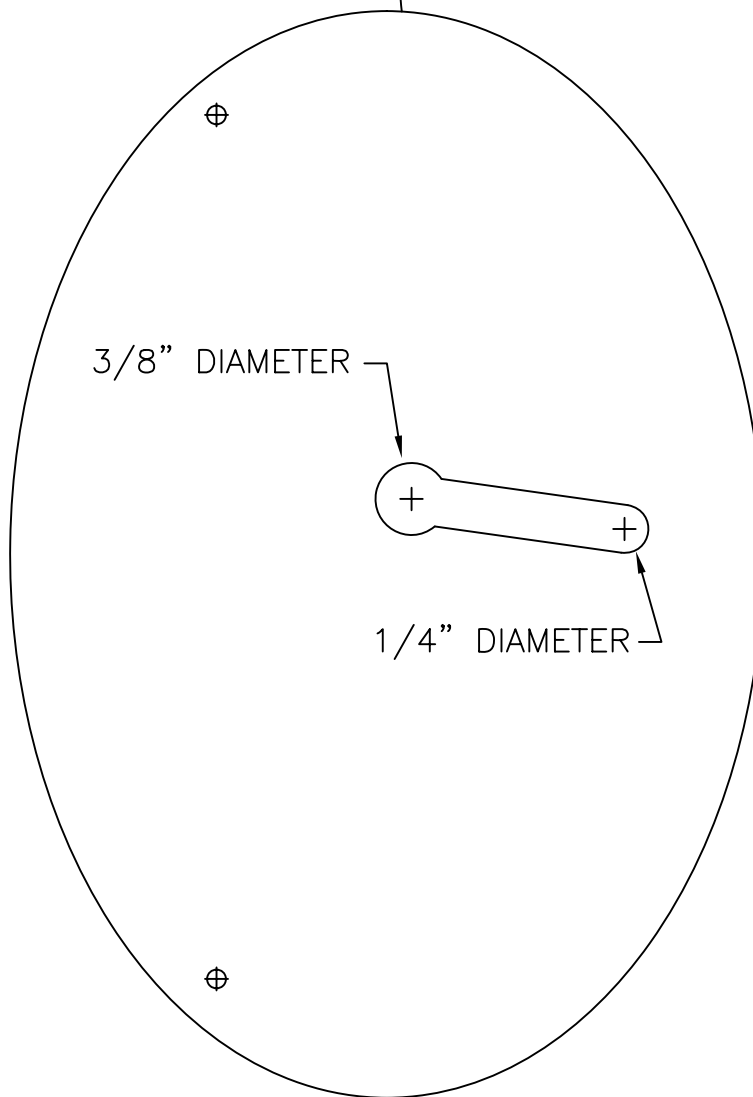
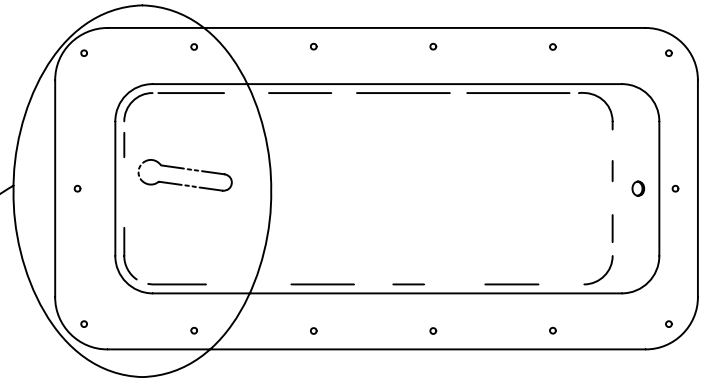
TRIM TAB HORN INSTALLATION FIGURE 01-18



RRR S-7S **INSTALLATION OF TRIM EXIT** **FAIRING FIGURE 01-19**

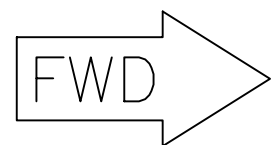
MD4316

USE 1:1 TEMPLATE TO
LOCATE CUT-OUT AS SHOWN



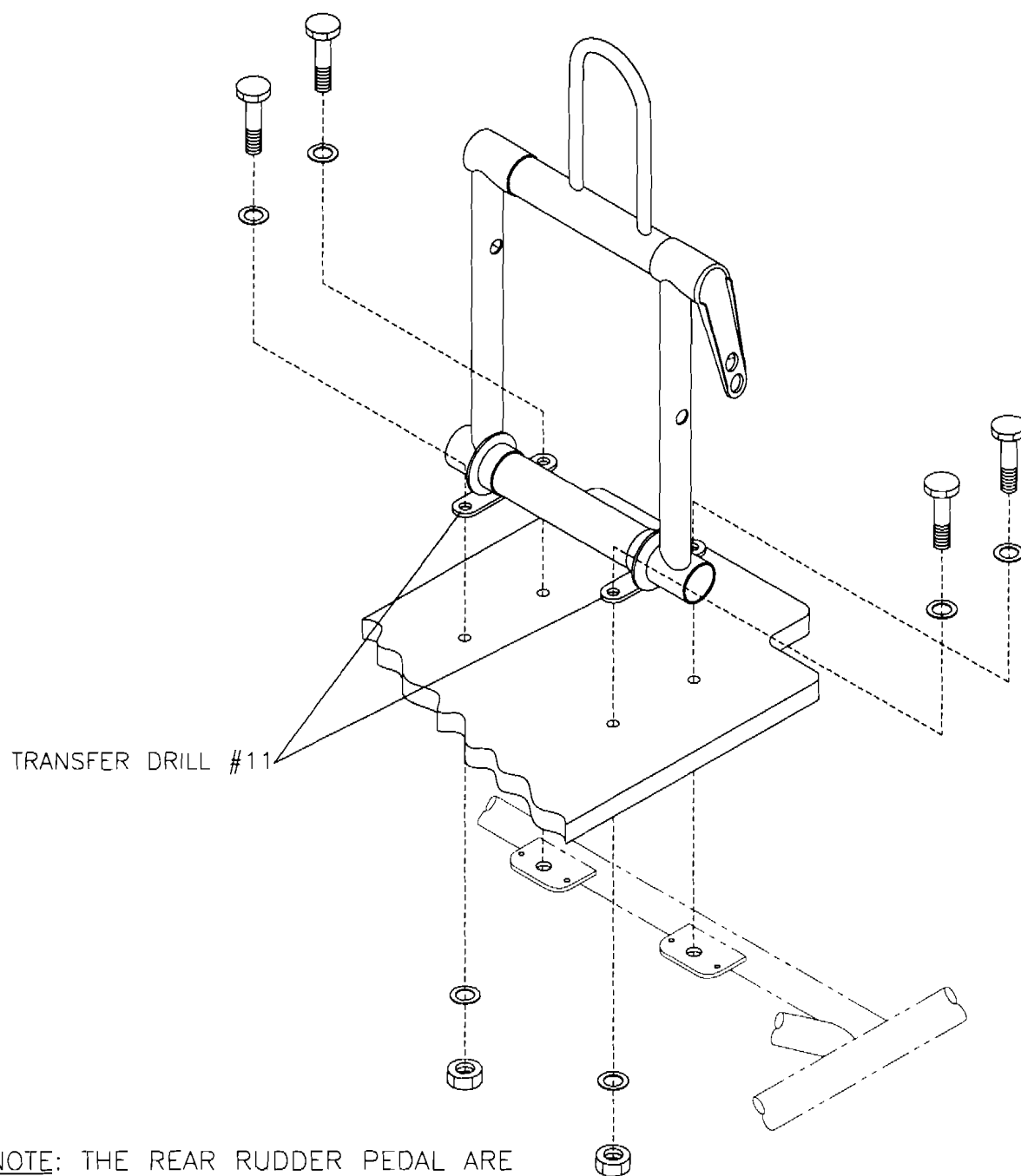
1:1 TEMPLATE

MD4487
REV. A



RANS S-7S
TRIM EXIT FAIRING - SERVO PUSH ROD EXIT
FIGURE 01-19A

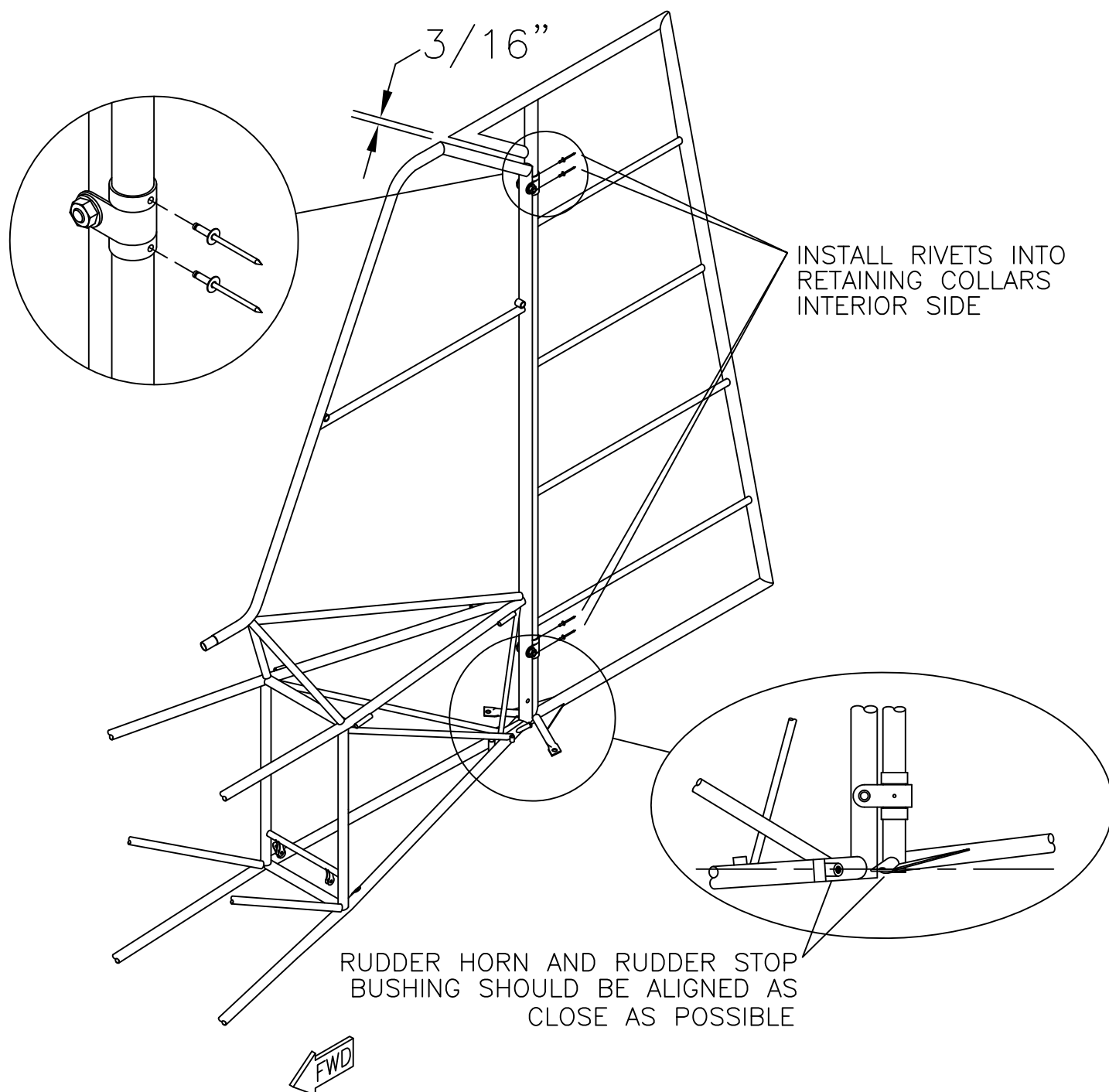
04/07/2010



NOTE: THE REAR RUDDER PEDAL ARE BOLTED AT THE FRONT TO THE WELDED TABS AND AT THE AFT TO THE FLOORBOARD ONLY.

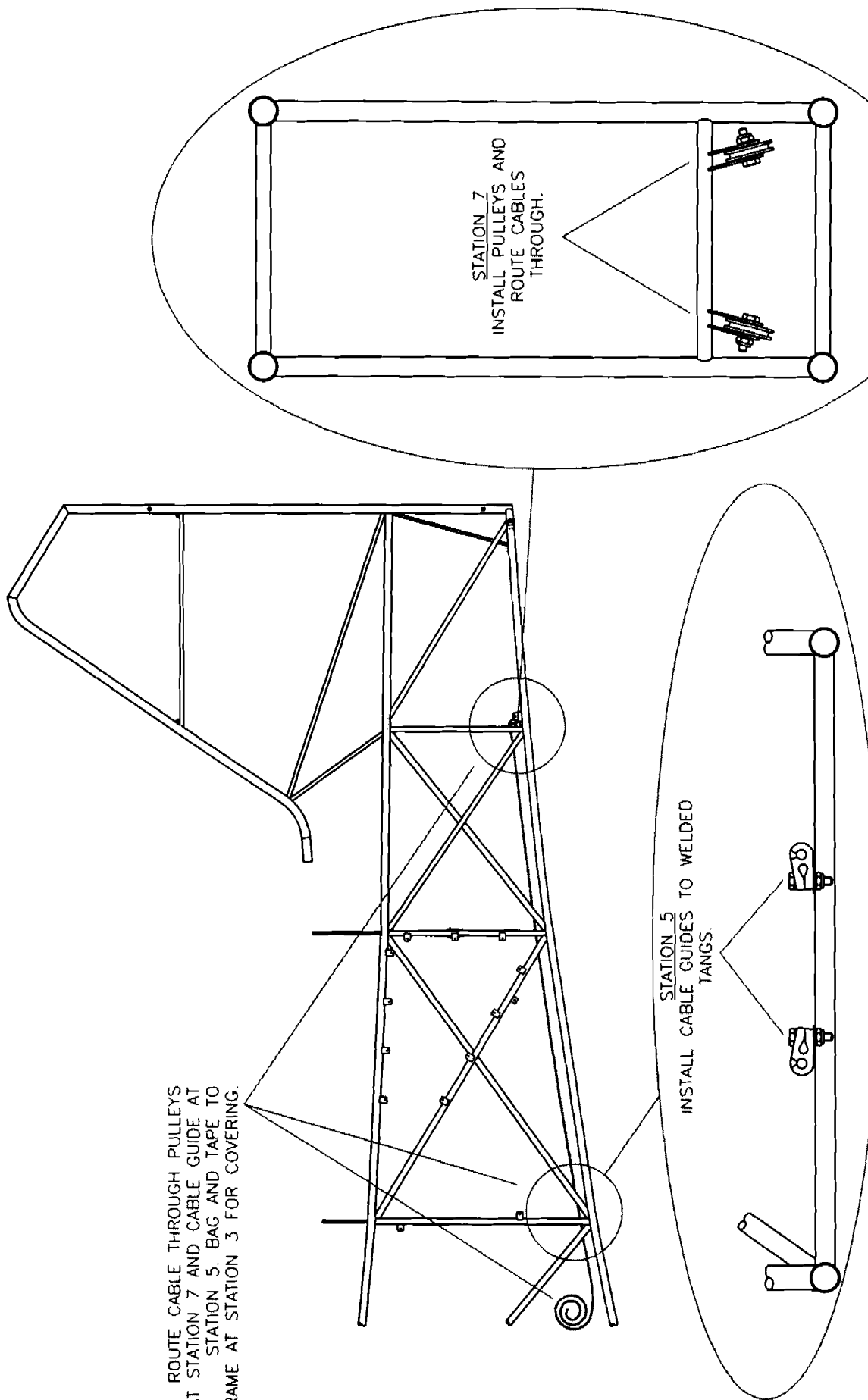
MD4305

RANS S-7S **REAR RUDDER PEDAL AND FLOORBOARD FIGURE 01-20**



MD4294

RANS S-7S **RUDDER HINGE ALIGNMENT FIGURE 01-21**

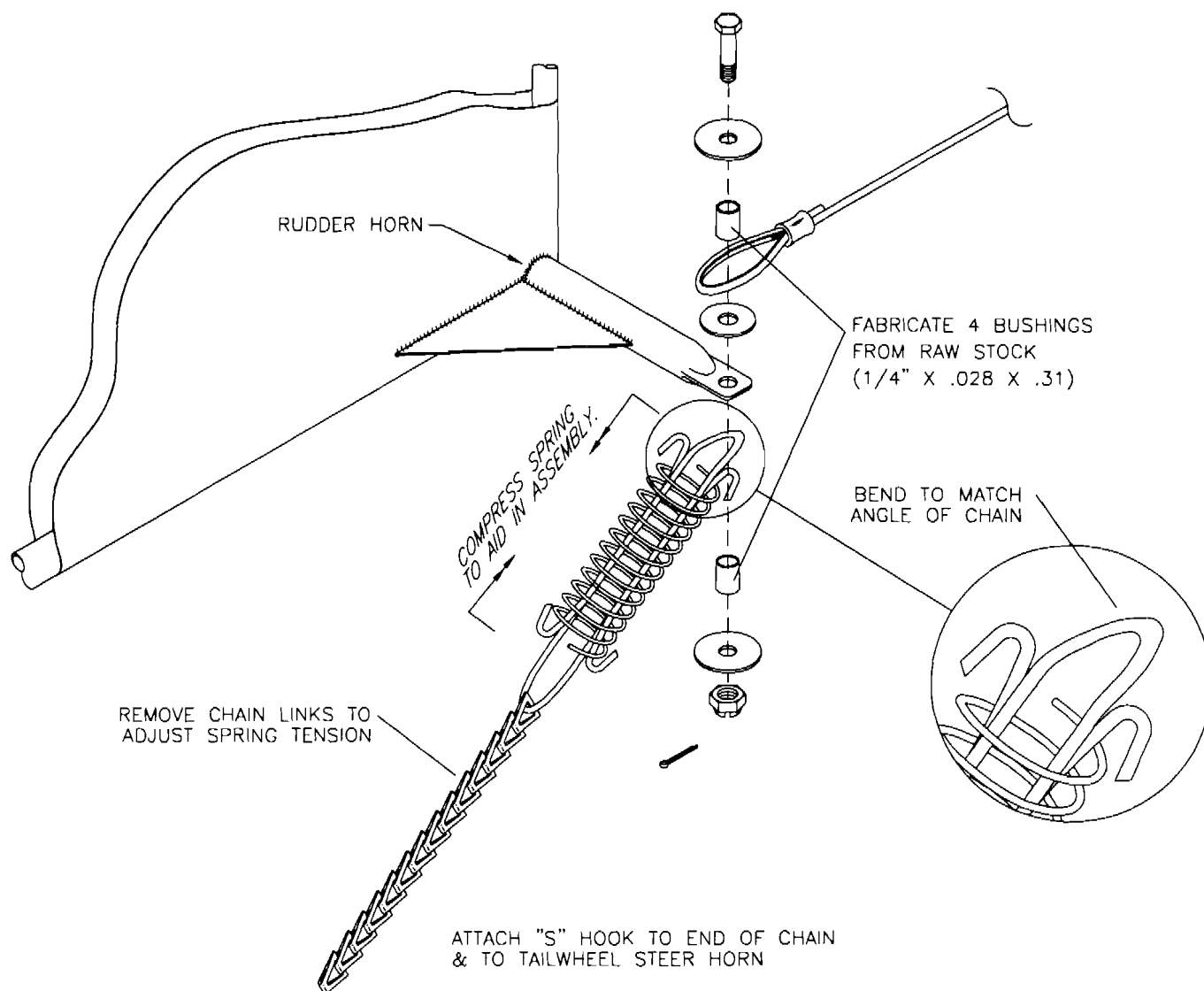


MD4314

RRAN S-7S

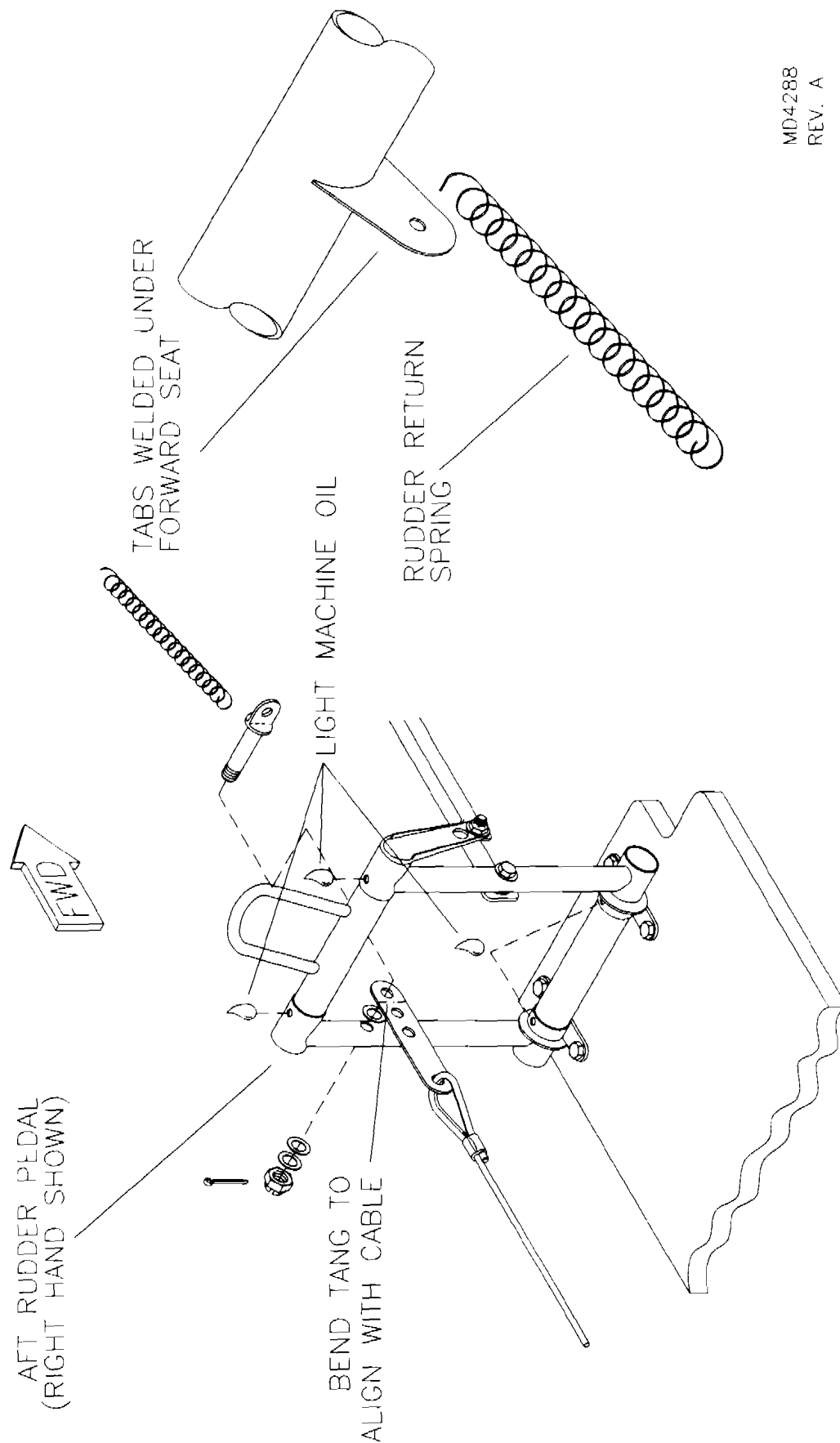
RUDDER CABLE GUIDES AT STATION 5 AND PULLEYS AT STATION 7

FIGURE 01-22



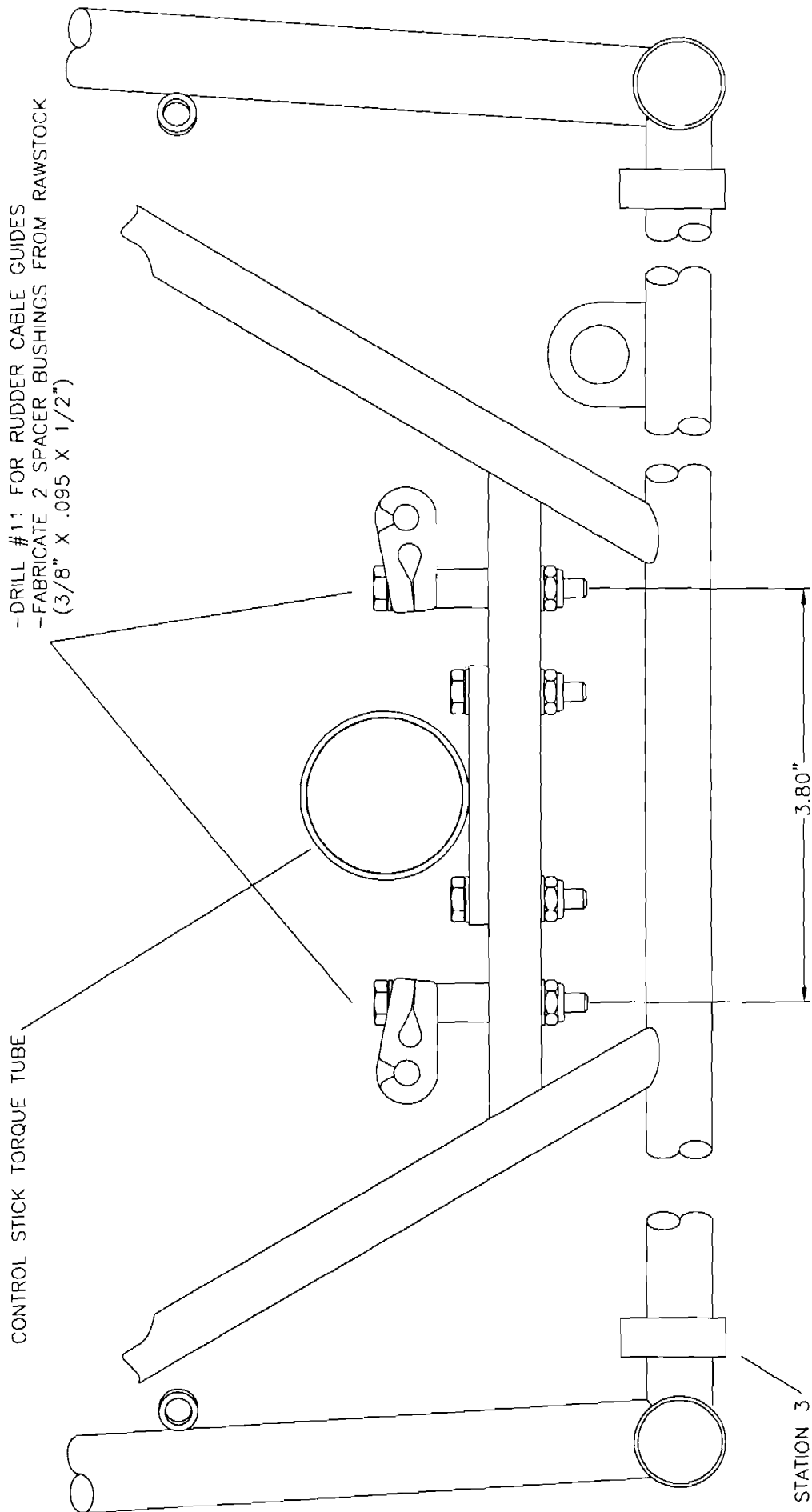
MD4287

RANS S-7S **RUDDER CABLE TO RUDDER ATTACH FIGURE 01-23**



MD4288
REV. A

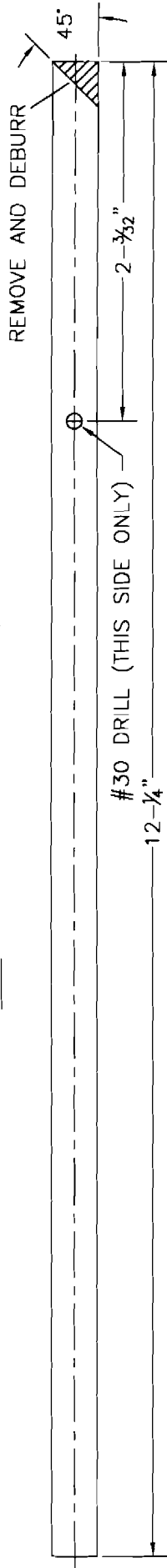
RRAMES S-7S
RUDDER CABLE AND RETURN SPRING TO RUDDER PEDAL ATTACH
FIGURE 01-24



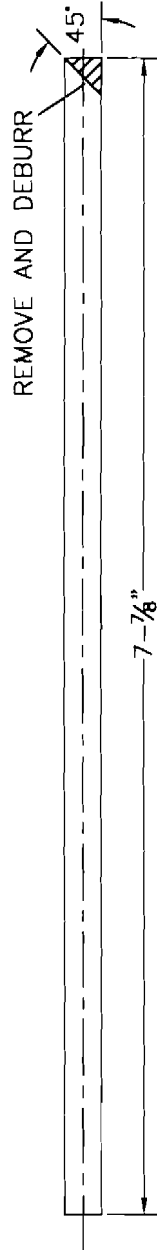
MD4312

RUDDER S-7S
RUDDER CABLE GUIDES AS STATION 3
FIGURE 01-25

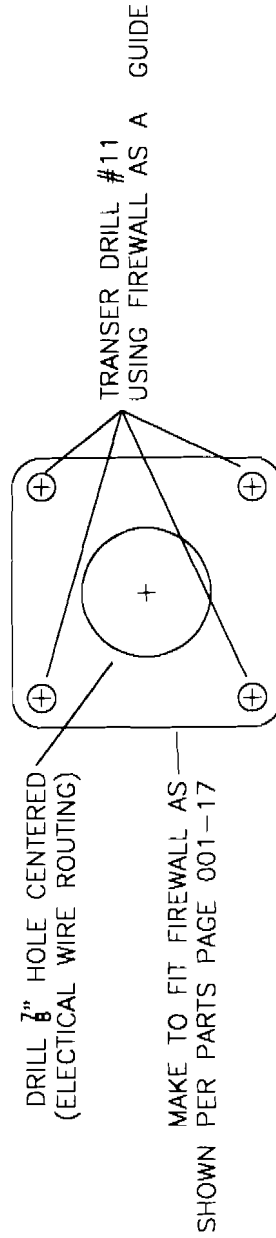
NOTE: FABRICATE FROM RAW STOCK



OIL BOTTLE VENT OVERFLOW TUBE (.375 DIA. X .035 TUBING) — MAKE 1



FUEL OVERFLOW TUBE (.25 DIA. X .028 TUBING) — MAKE 2

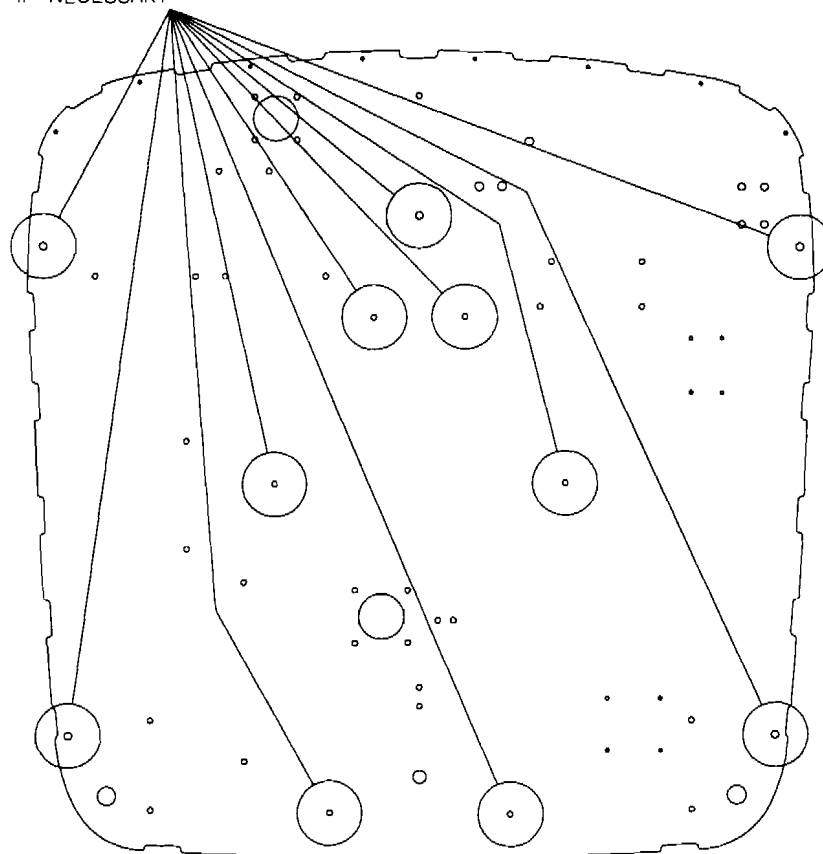


FIREWALL CLOSEOUT(.025 ALUMINUM SHEET) — MAKE 1

MD4421

RRM S-7S ENGINE COMPARTMENT DRAIN TUBES FIGURE 01-26

CHECK FIREWALL FIT WITH THESE
CORRESPONDING FUSELAGE ATTACH
POINTS, MODIFY IF NECESSARY



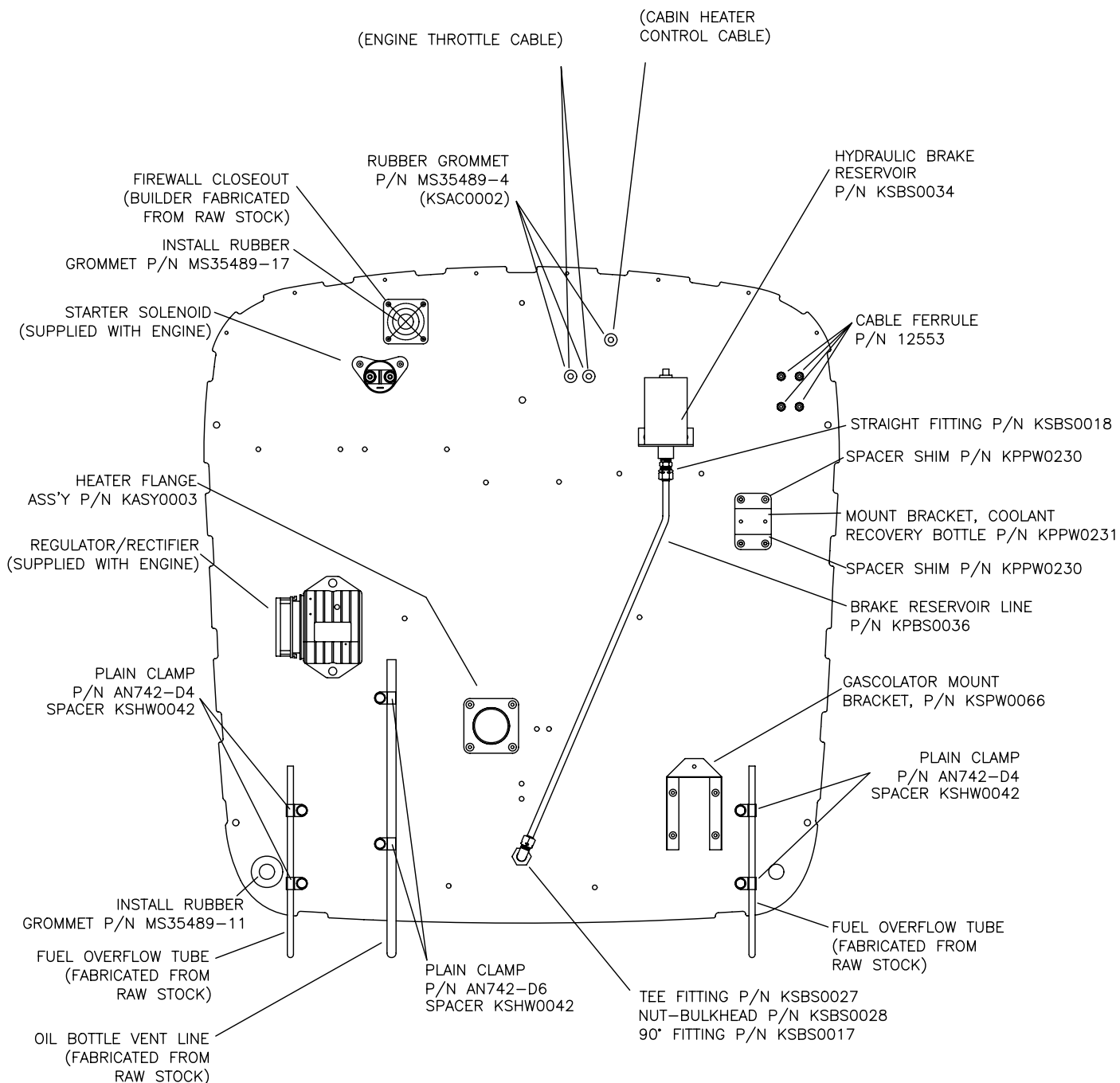
FRONT VIEW

MD4422

RANS S-7S
FIREWALL FIT UP FIGURE 01-27

11/19/02

NOTE: ALL HOLES IN FIREWALL
ARE PRE-LOCATED

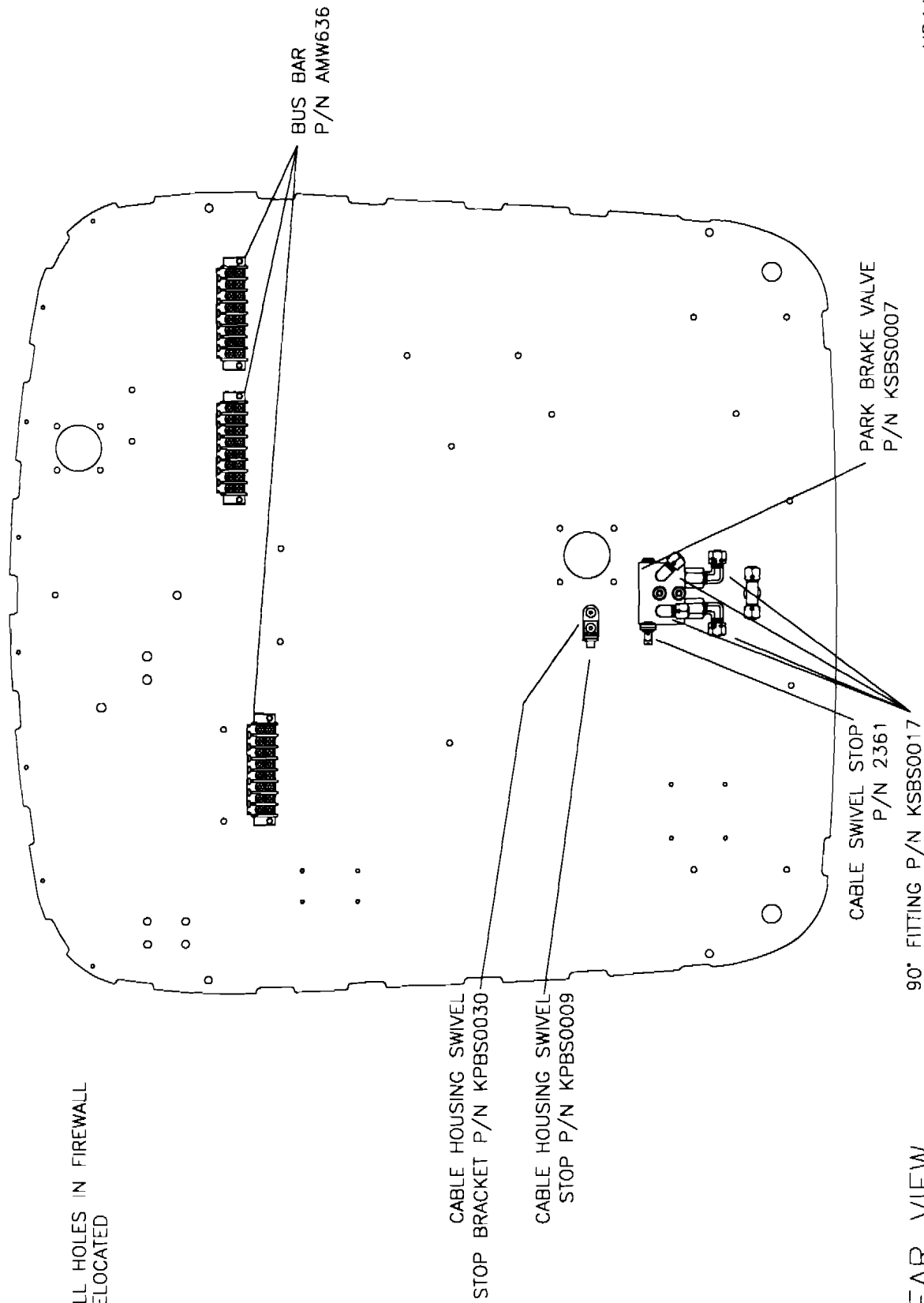


FRONT VIEW

MD4420
REV. B

RANS S-7S FIREWALL ATTACHMENTS FIGURE 01-28

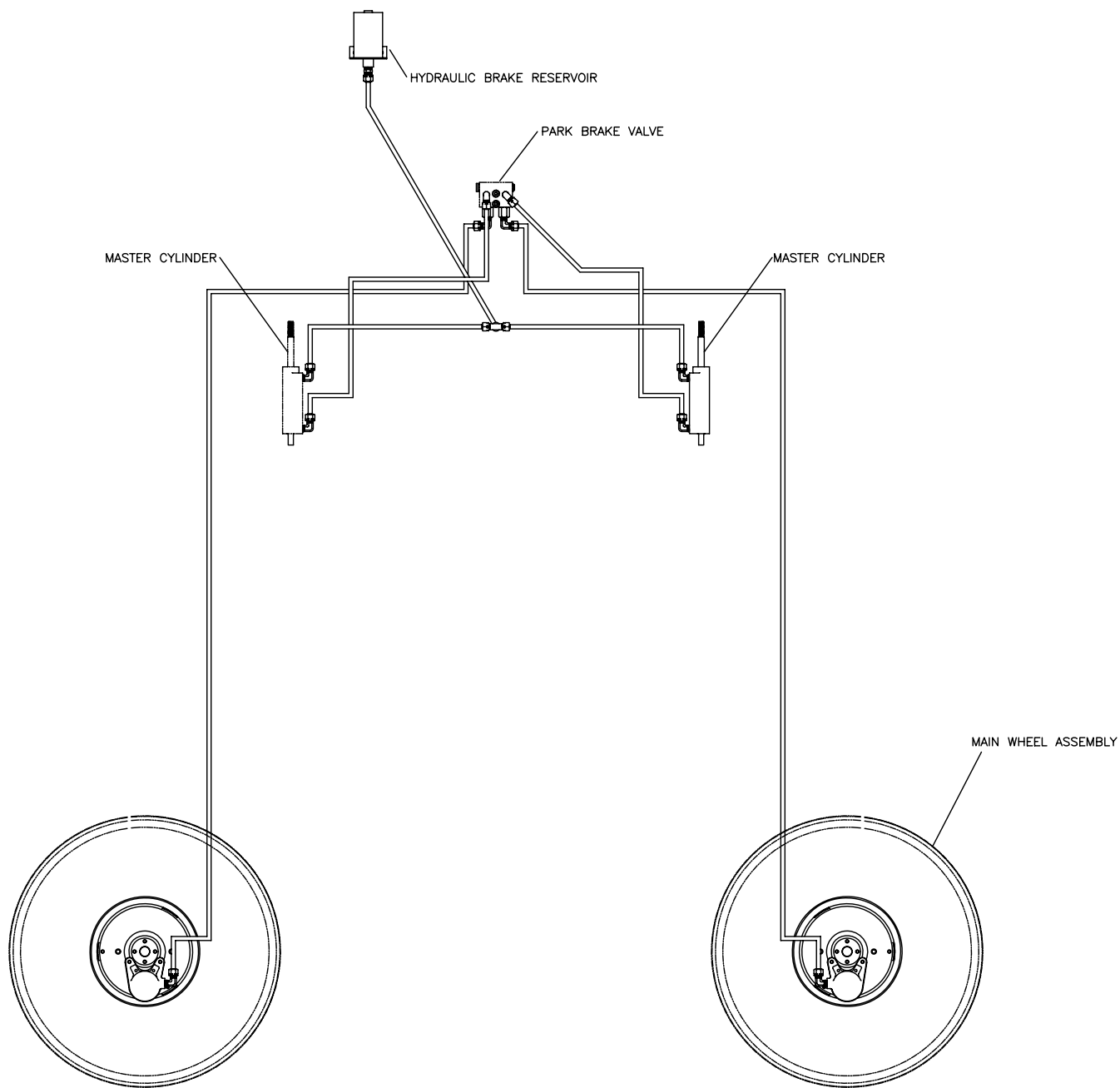
NOTE: ALL HOLES IN FIREWALL
ARE PRELOCATED



REAR VIEW

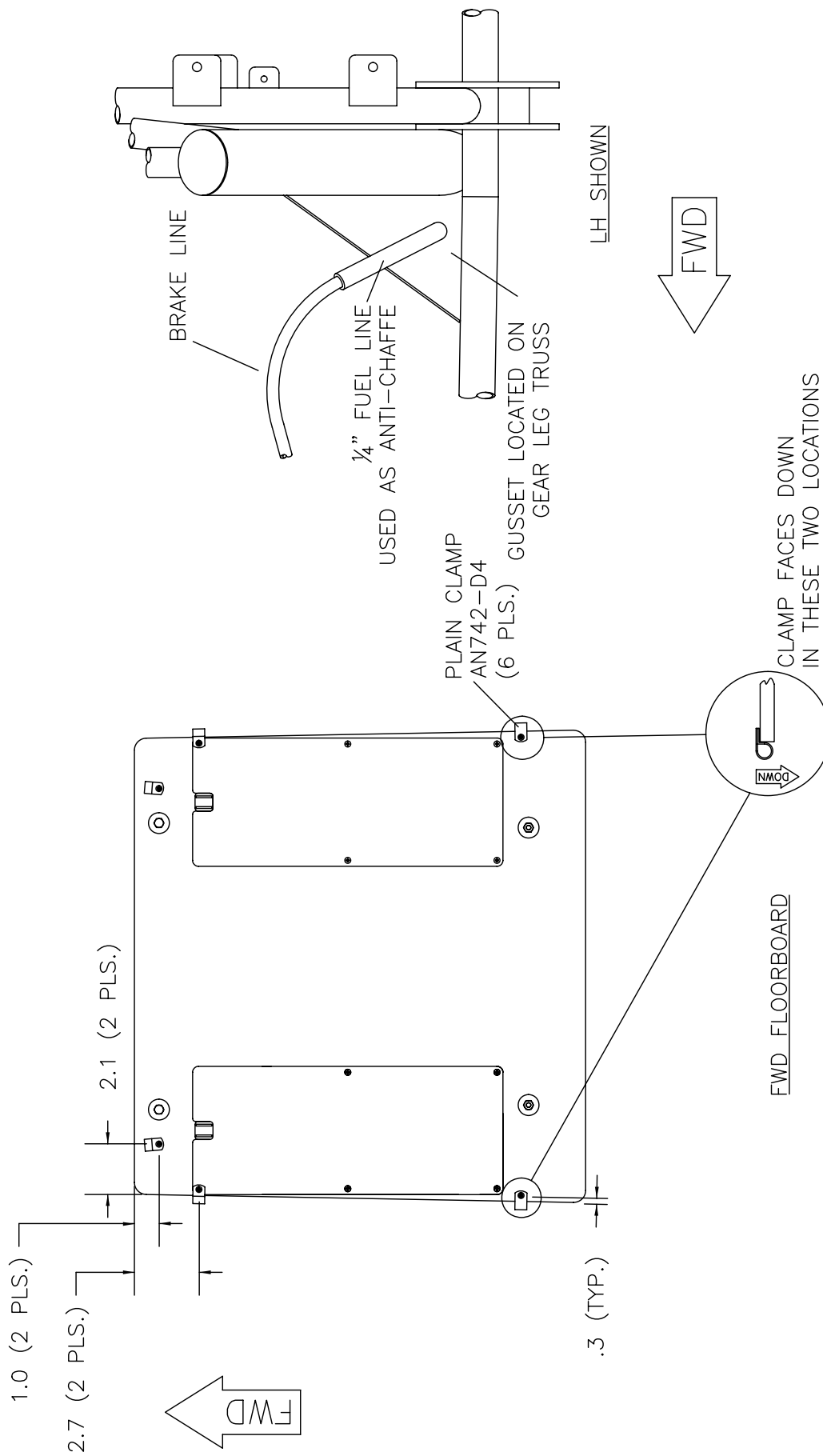
RAM S-7S FIREWALL ATTACHMENTS FIGURE 01-29

MD4420
REV. A



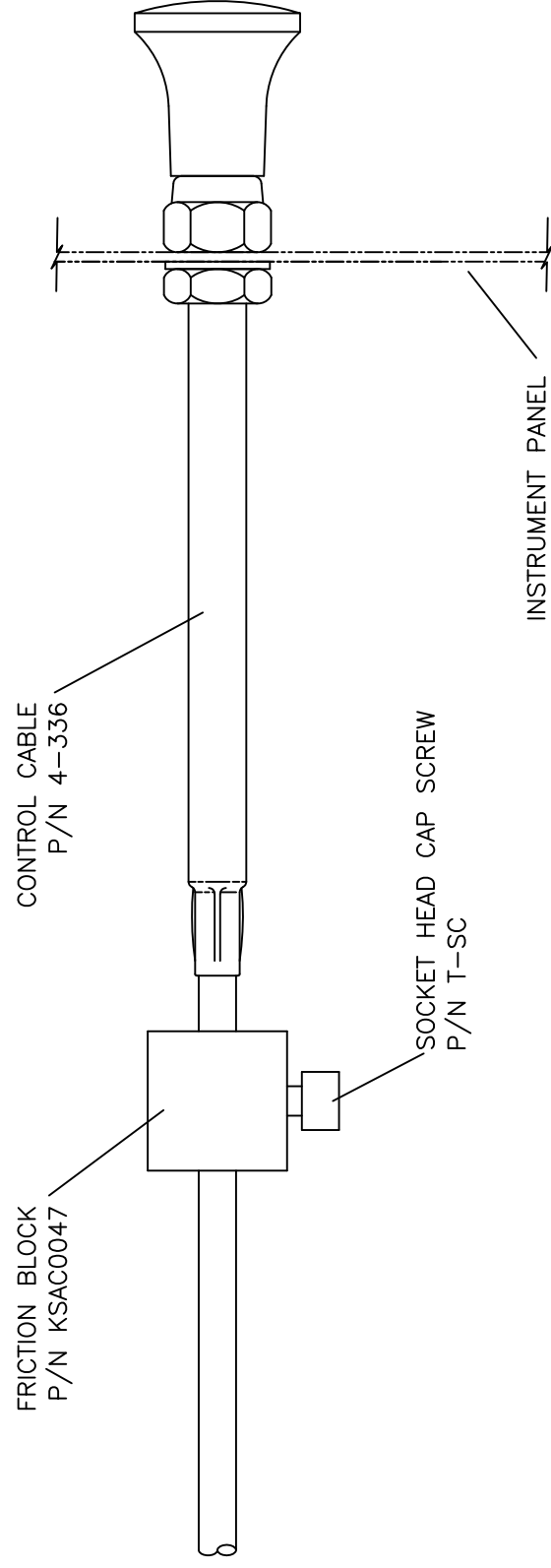
MD4424
REV. A

RANS S-7S
BRAKE SYSTEM SCHEMATIC FIGURE 01-30



MD4425
REV. A

RAMS S-7S **BRAKE LINE ROUTING FIGURE 01-31**

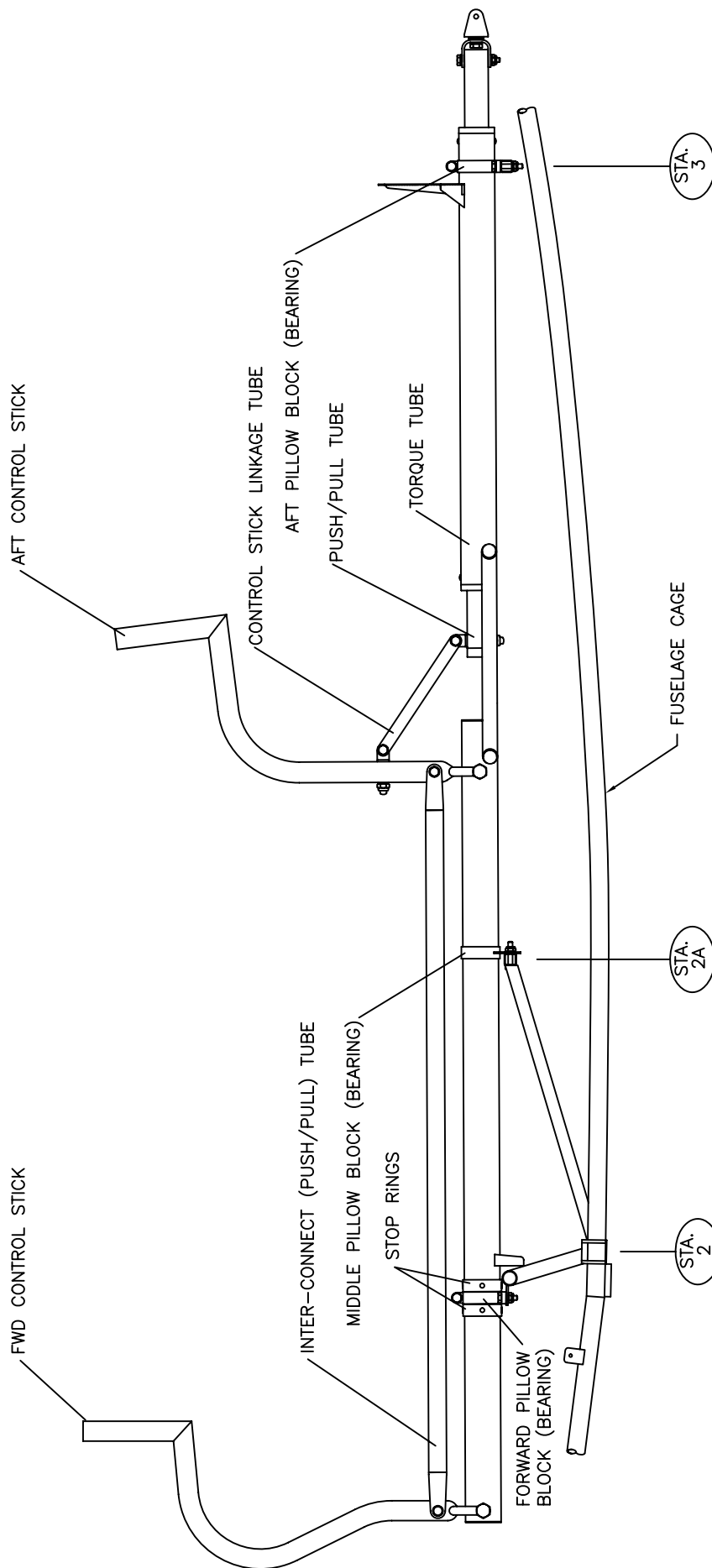


MD4423

RRR S-7S

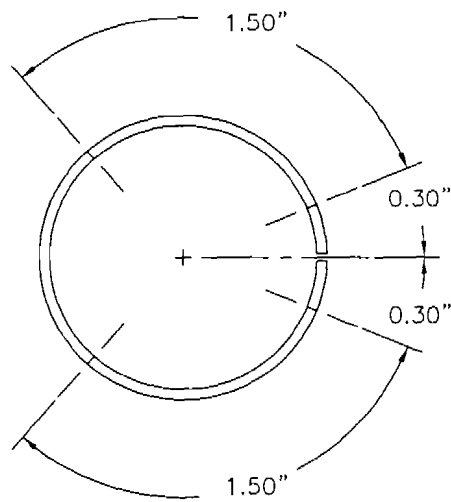
PULL KNOB INSTALLATION

FIGURE 01-32



MD4303
REV. B

RFA S-7S CONTROL STICK ASSEMBLY FIGURE 02-01

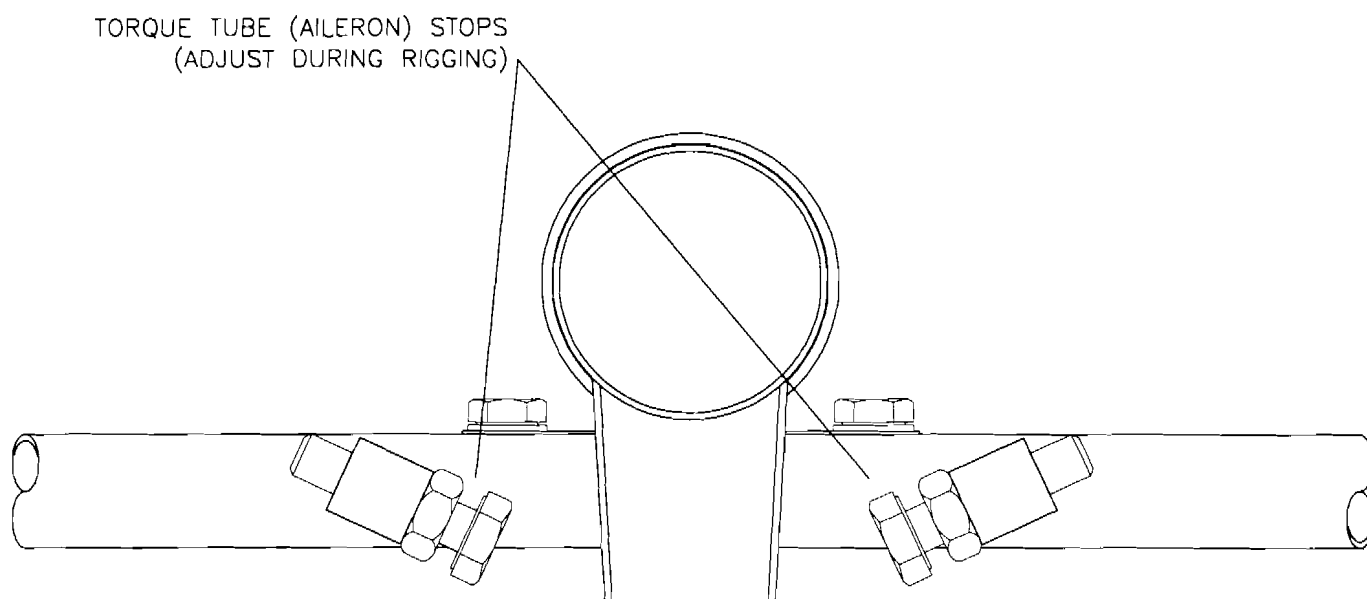
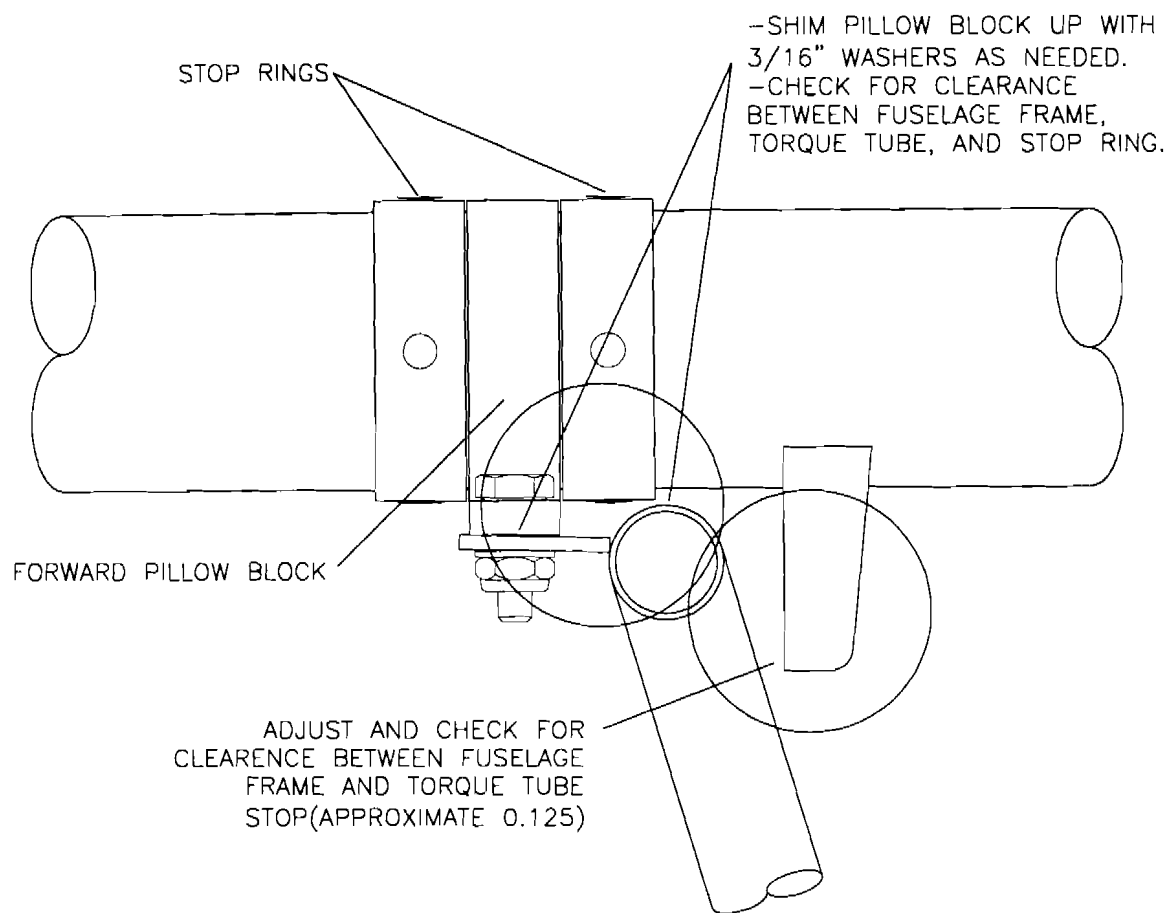


DRILL 4 #40 HOLES ON CENTERLINE OF RING.
TRANSFER DRILL #30 AT TIME OF ASSEMBLY AND RIVET CCPQ-42

MD4496

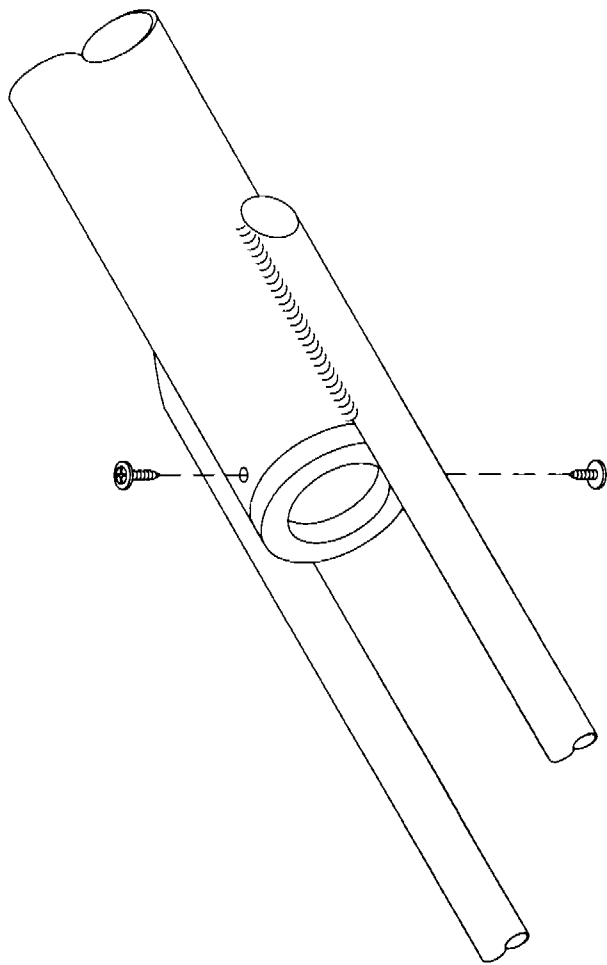
RANS S-7S
STOP RING MODIFICATION FIGURE 02-01A

06/24/05

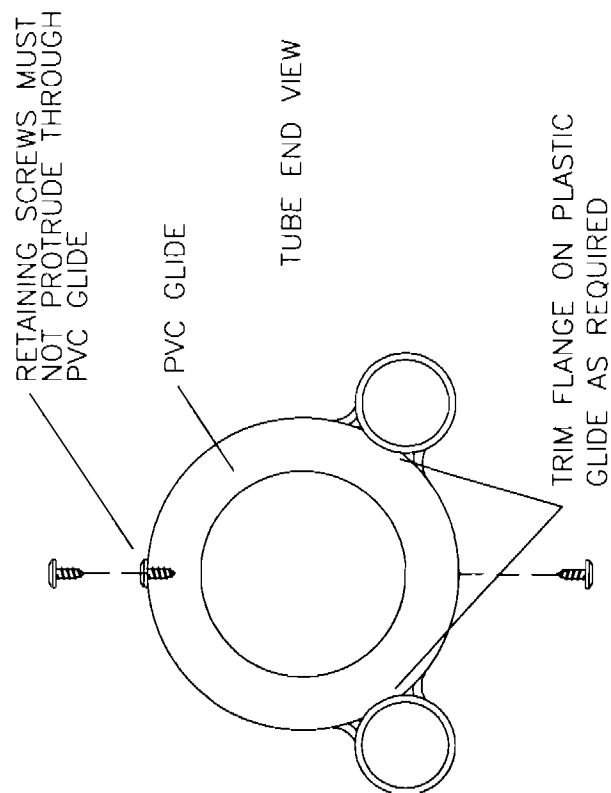


MD4304

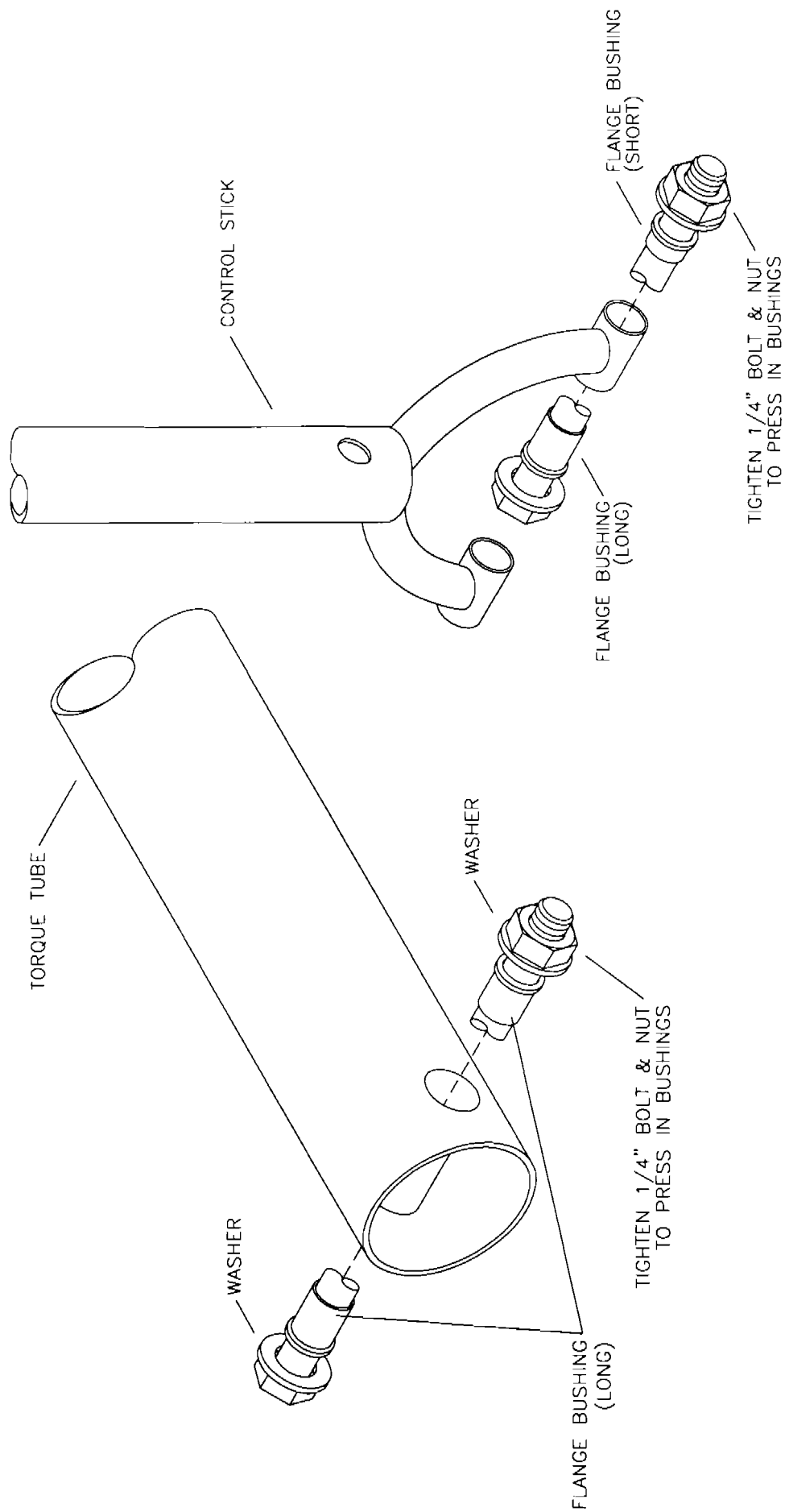
RANS S-7S **FORWARD TORQUE TUBE MOUNT FIGURE 02-02**



MD4300



RRR S-7S
TORQUE TUBE GLIDE INSTALLATION FIGURE 02-03



MD4299

RRM S-7S

CONTROL STICK/TORQUE TUBE FLANGE BUSHING INSTALLATION

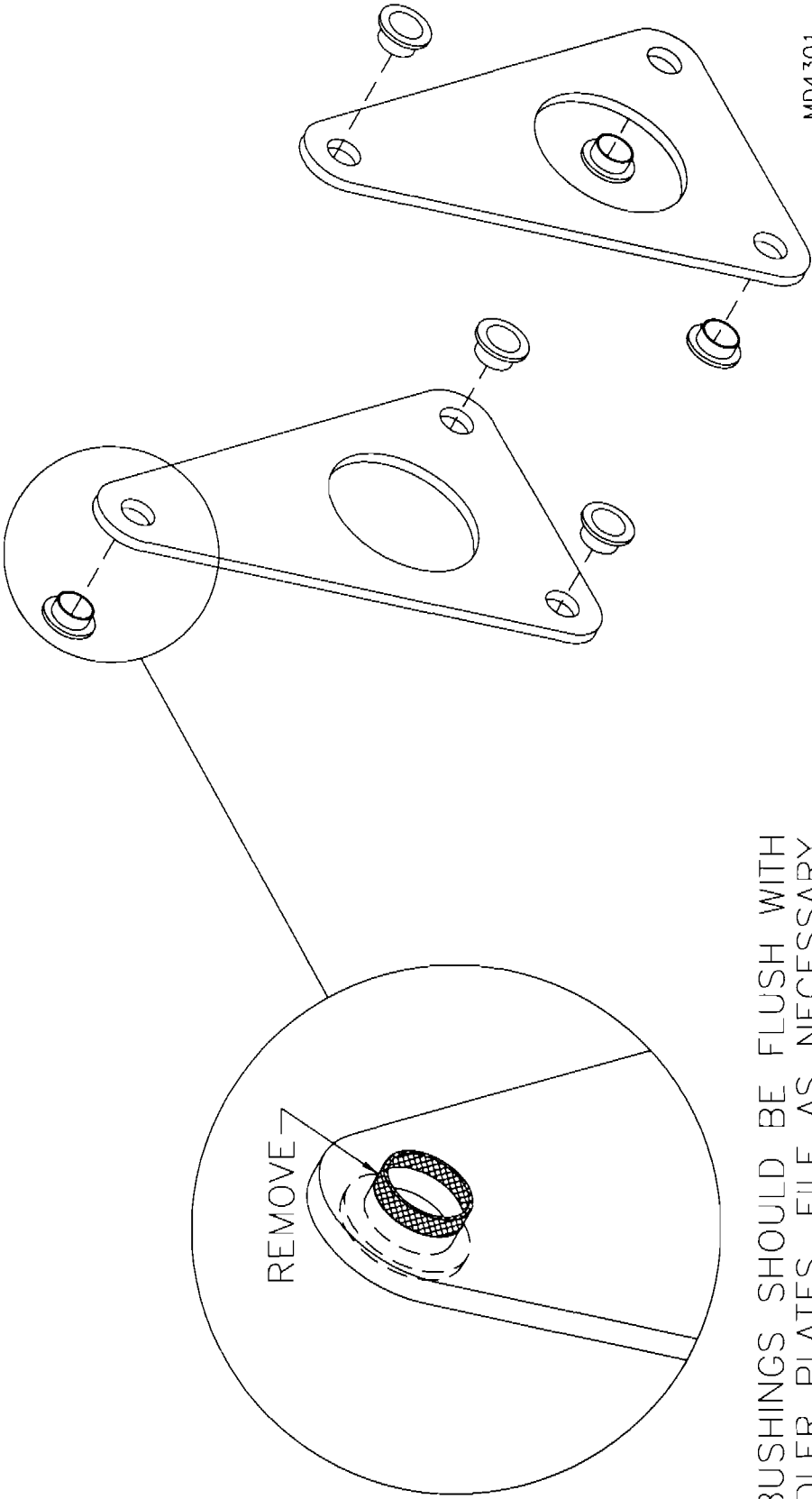
FIGURE 02-04

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RRR S-7S

FIGURE 02-05

MD4302



*NOTE: BUSHINGS SHOULD BE FLUSH WITH
IDLER PLATES, FILE AS NECESSARY.

RRMS S-7S **IDLER BRACKET FLANGE BUSHING** **INSTALLATION FIGURE 02-06**

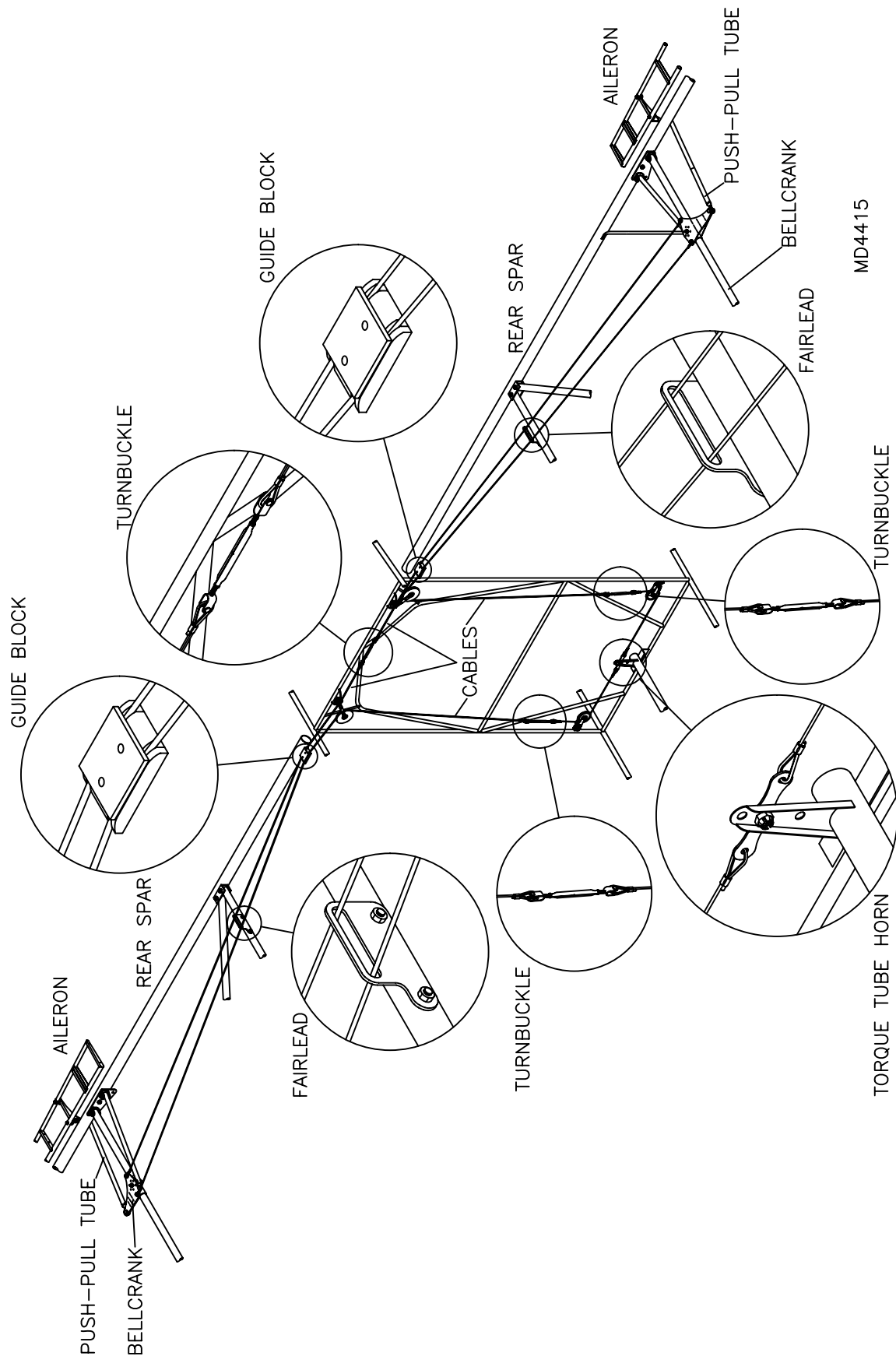
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RANS S-7S

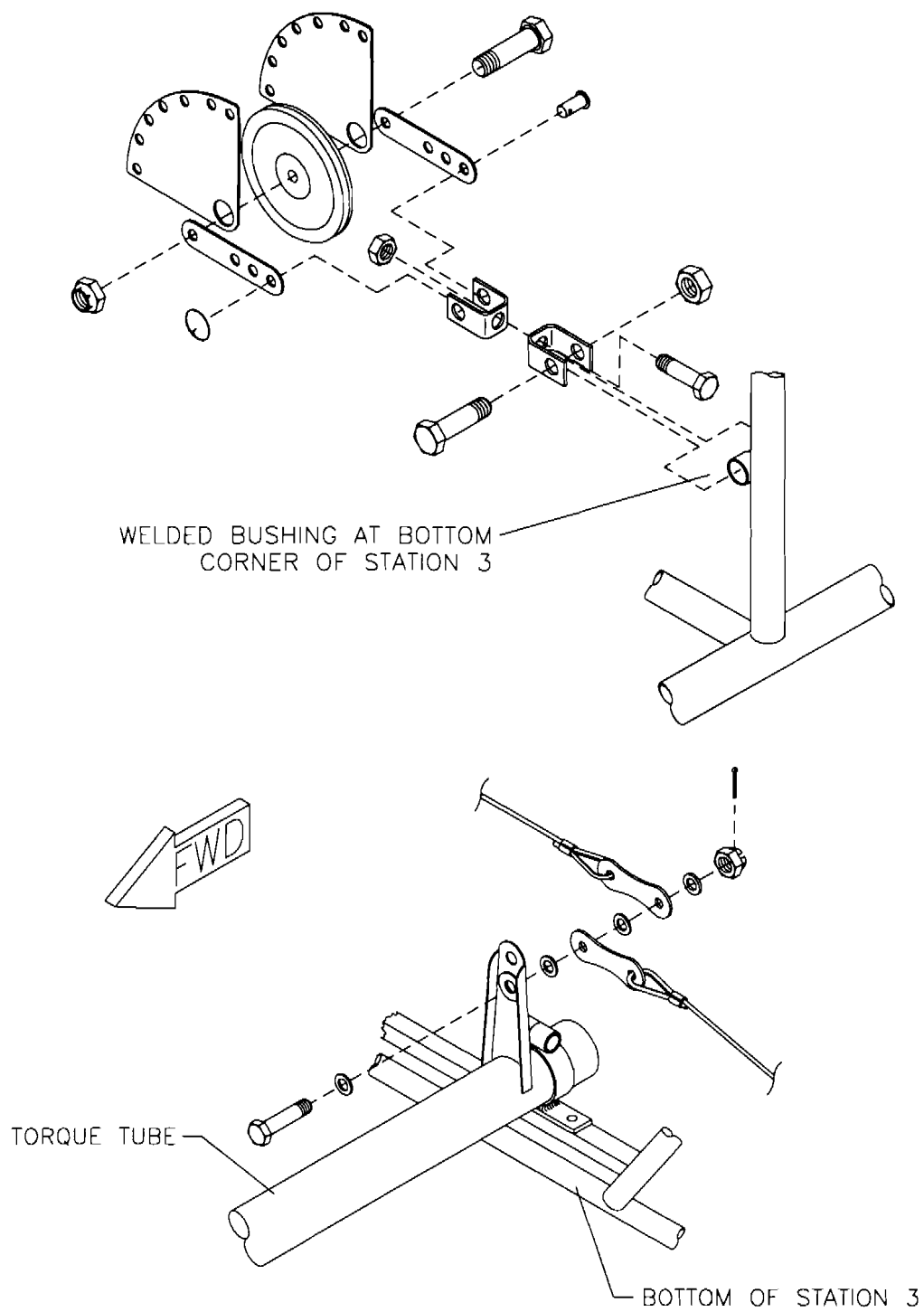
MD4307

FIGURE 02-07

01/03/05

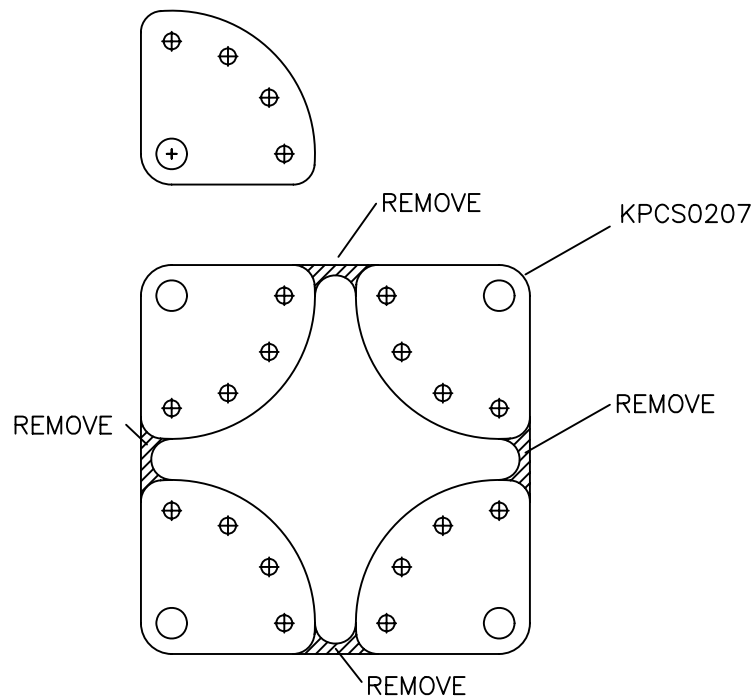
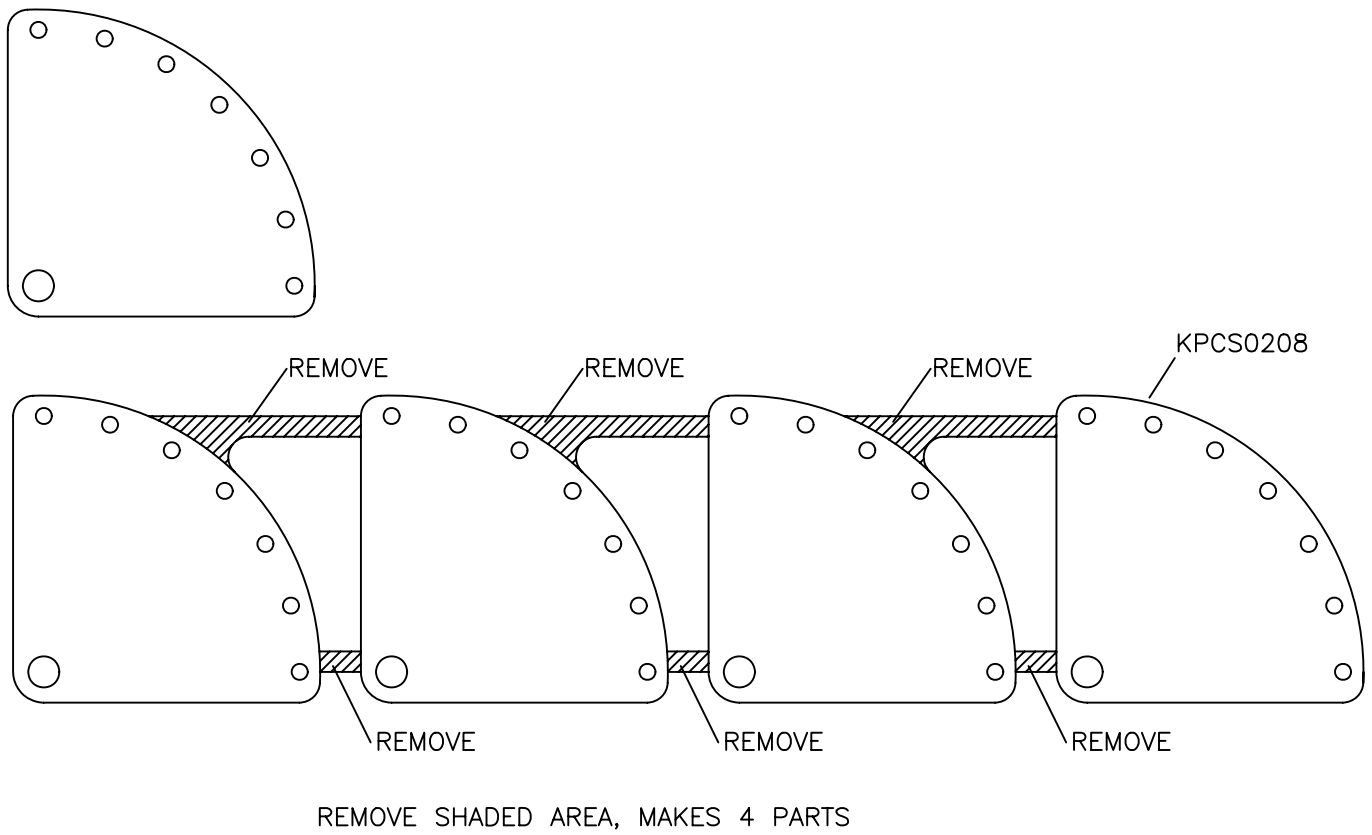


RRR
 AILERON CONTROL SYSTEM OVERVIEW
 FIGURE 02-08



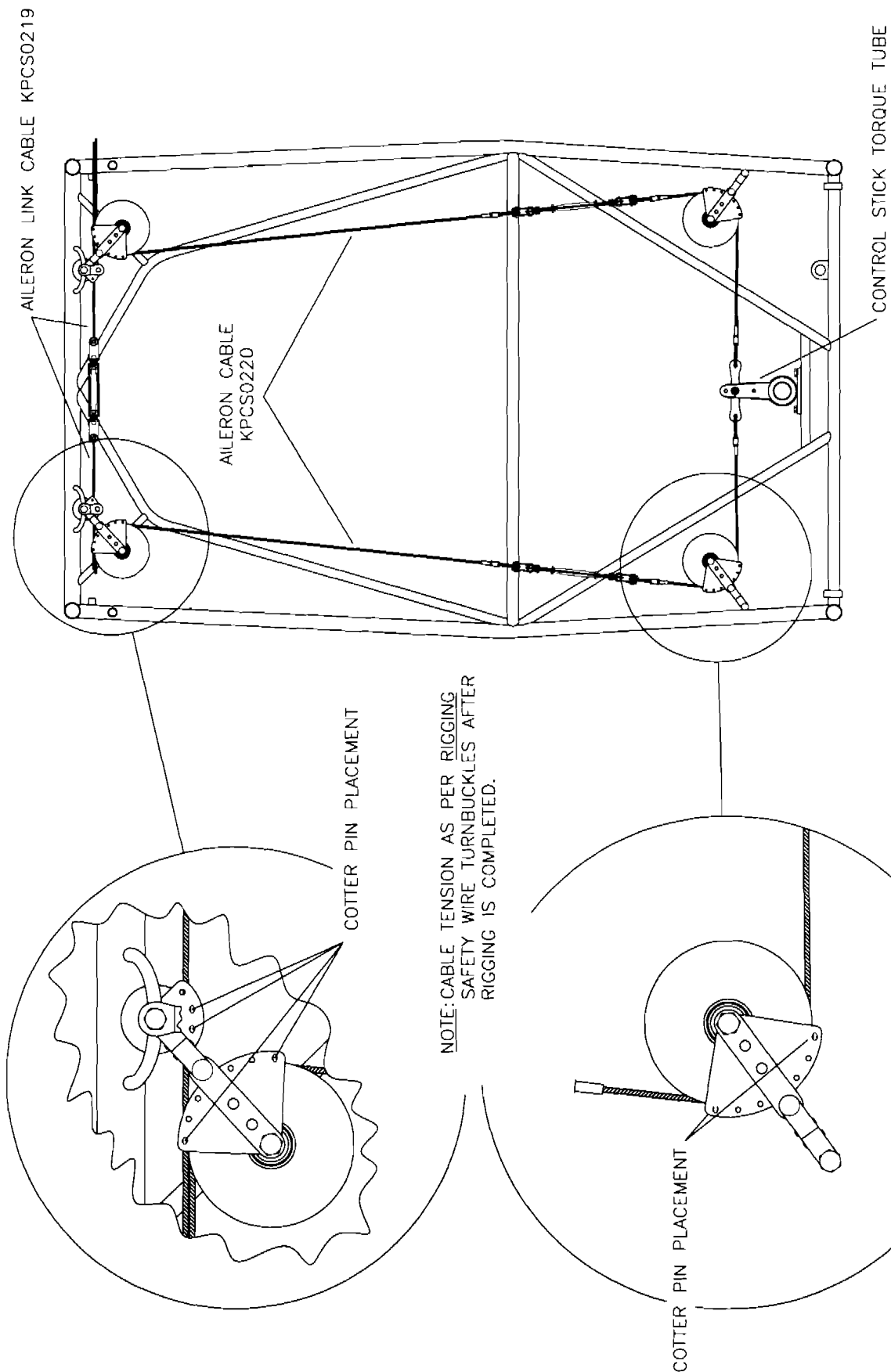
MD4417

RANS S-7S **AILERON CABLE SYSTEM FIGURE 02-09**



MD4390

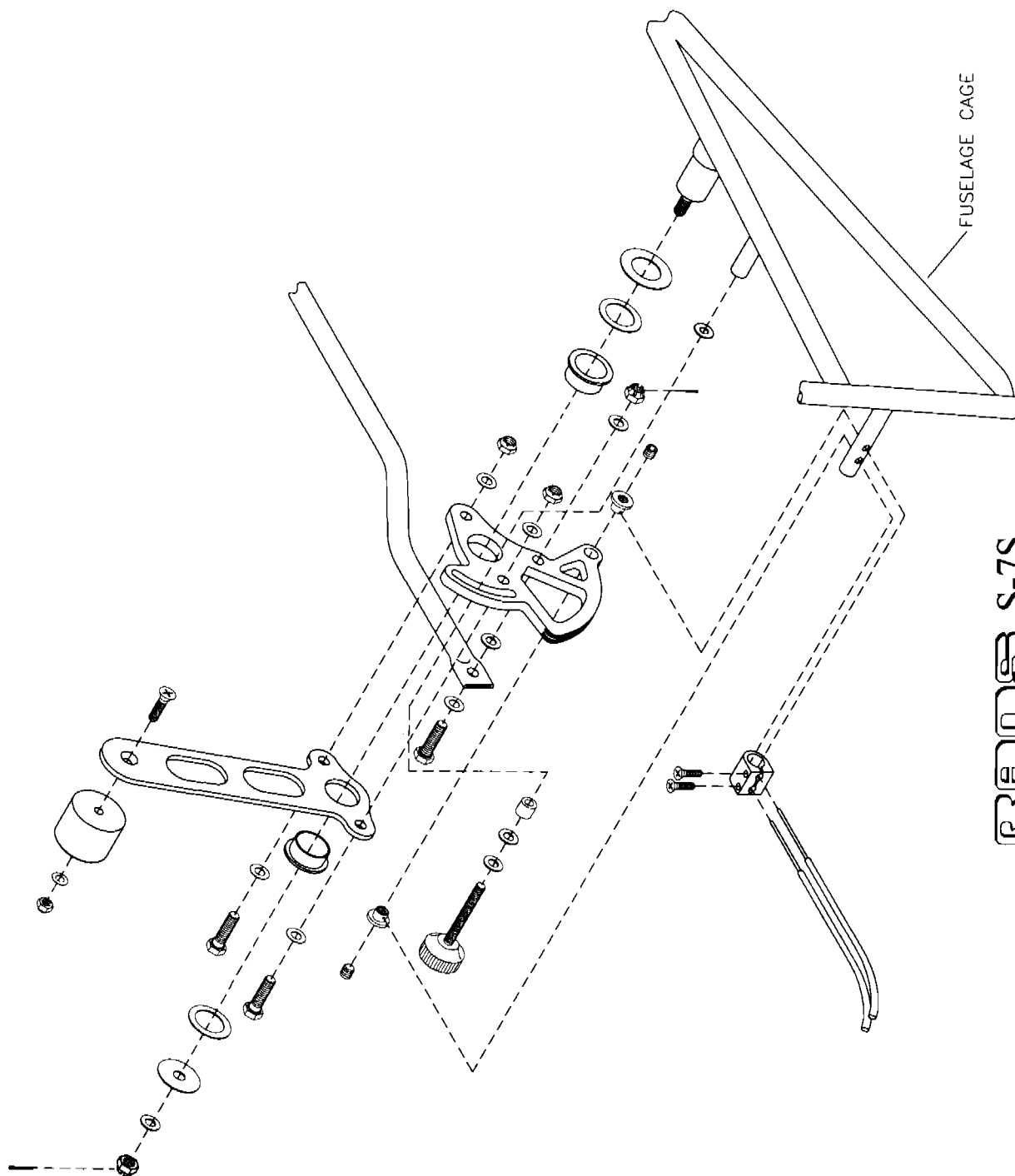
RANS S-7S **CABLE KEEP MODIFICATION FIGURE 02-10**



MD4416

RA-7S

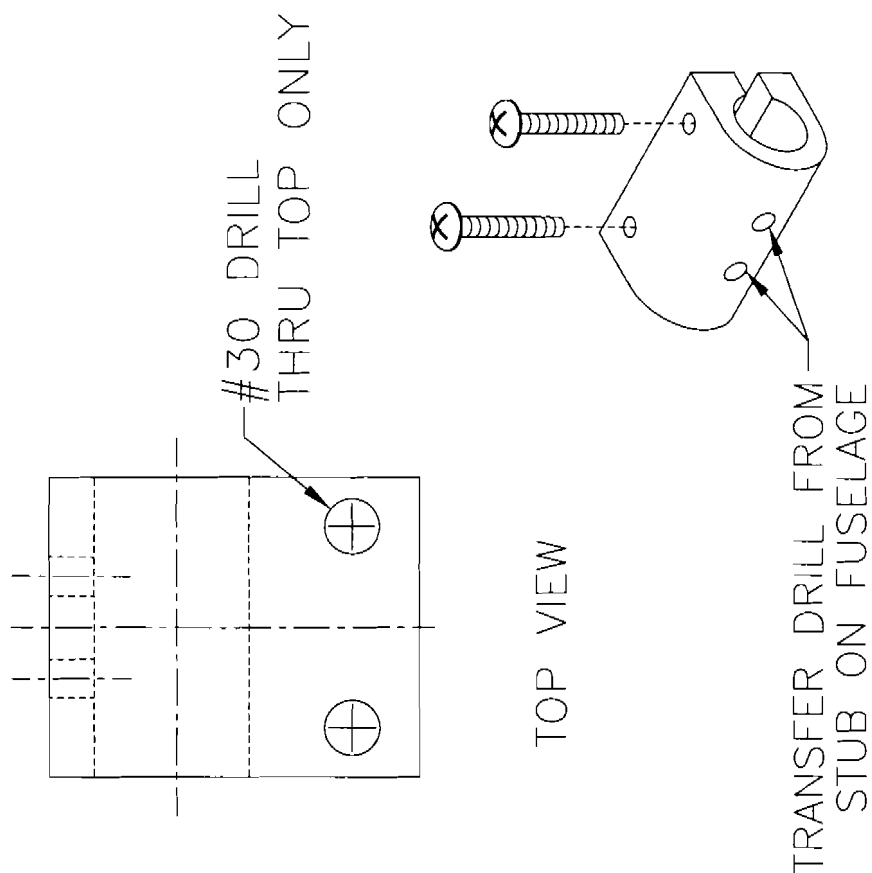
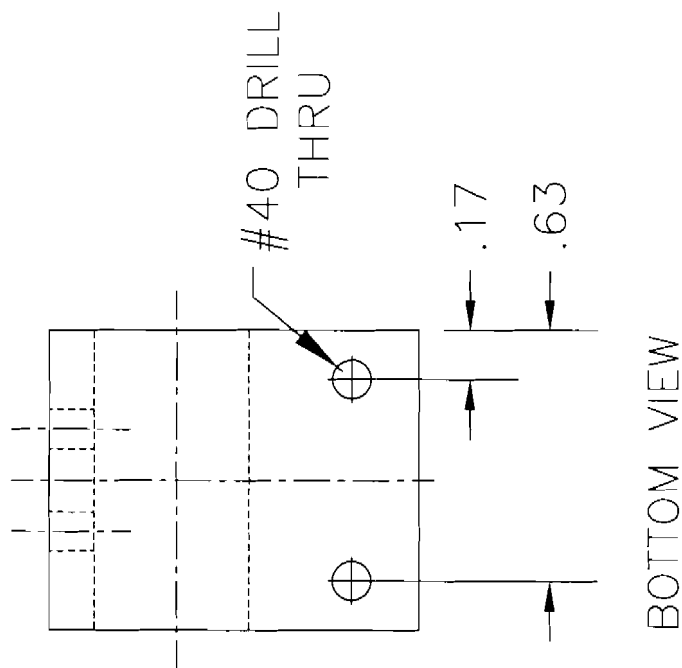
AILERON CONTROL SYSTEM FIGURE 02-11



MD4323

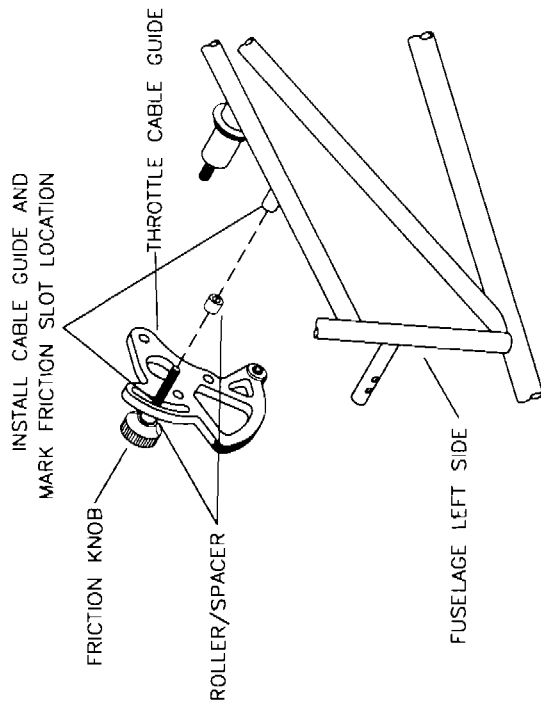
RAM S-7S

FORWARD THROTTLE LEVER INSTALLATION FIGURE 02-12

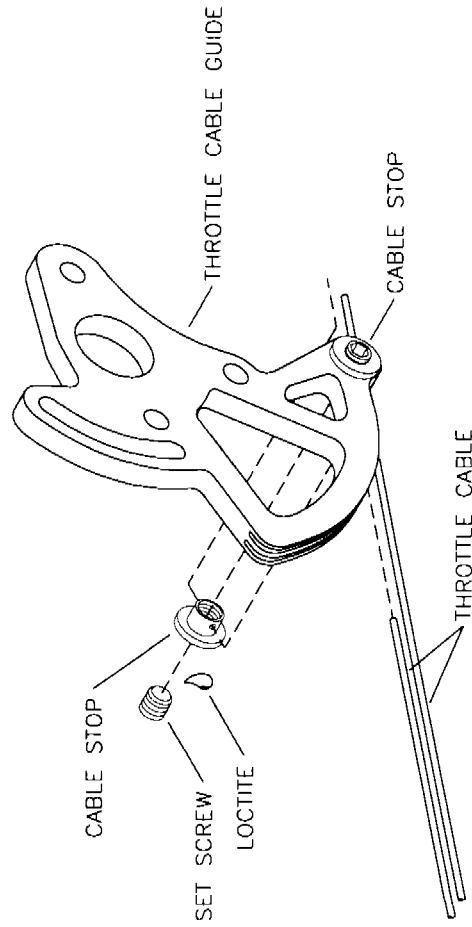


RRR S-7S
THROTTLE CABLE RETENTION
BLOCK FIGURE 02-13

MD4321



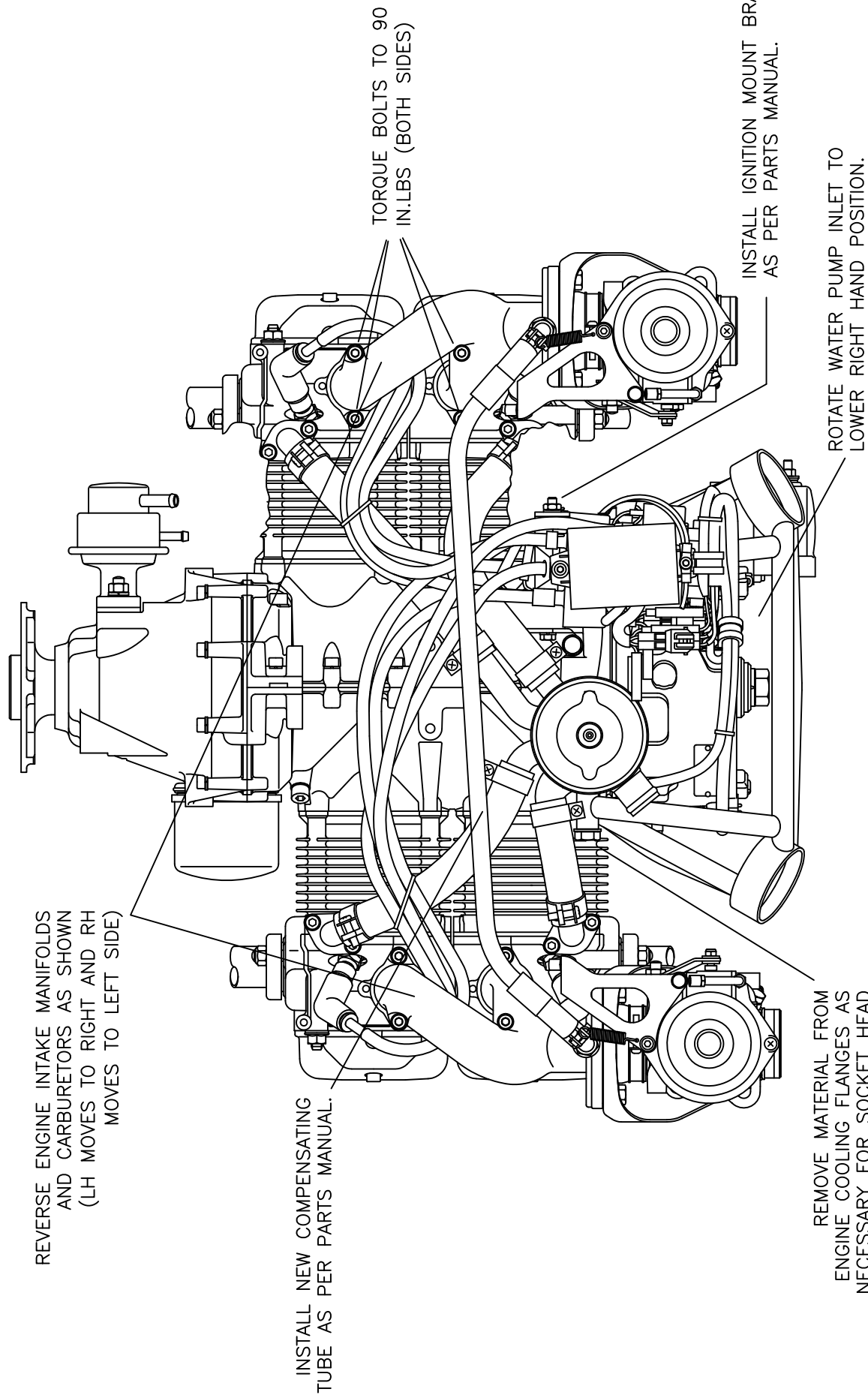
FRICTION KNOB



CABLE STOP

MD4322

RRAMES S-7S **THROTTLE FRICTION KNOB AND** **CABLE STOP INSTALL FIGURE 02-14**

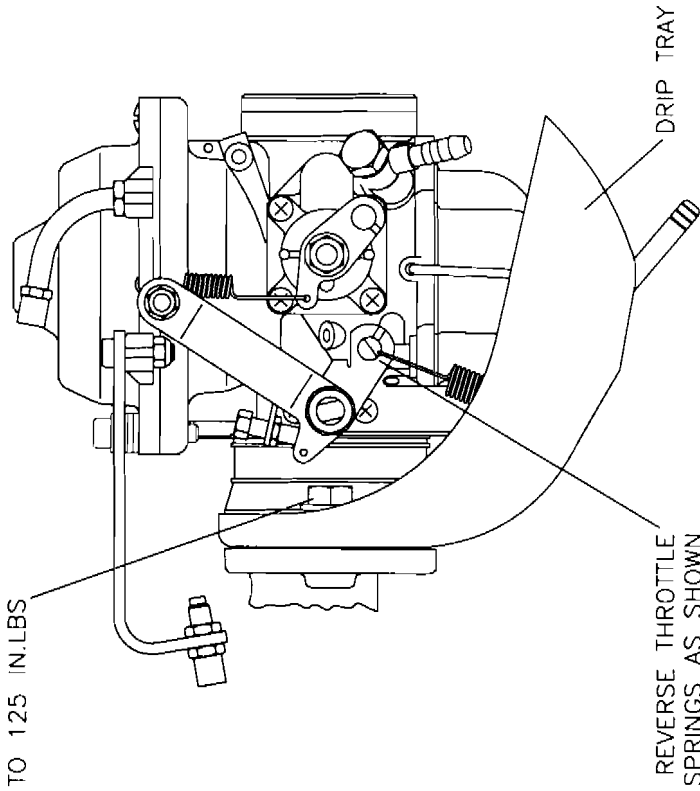


S-7S COURIER ENGINE MODIFICATION

FIGURE 03-01

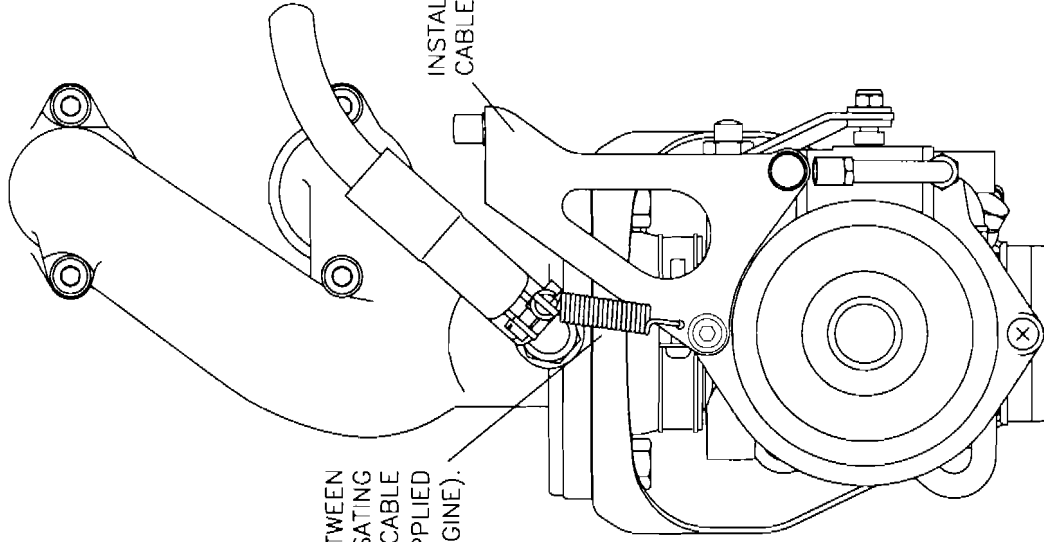
MD4445
REV. A

REMOVE CARBURETOR.
INSTALL DRIP TRAY.
REUSE HARDWARE,
AND TORQUE BOLTS
TO 125 IN.LBS



INSTALL SPRING BETWEEN
CLAMP ON COMPENSATING
TUBE AND THROTTLE CABLE
MOUNT(SPRING IS SUPPLIED
WITH ENGINE).

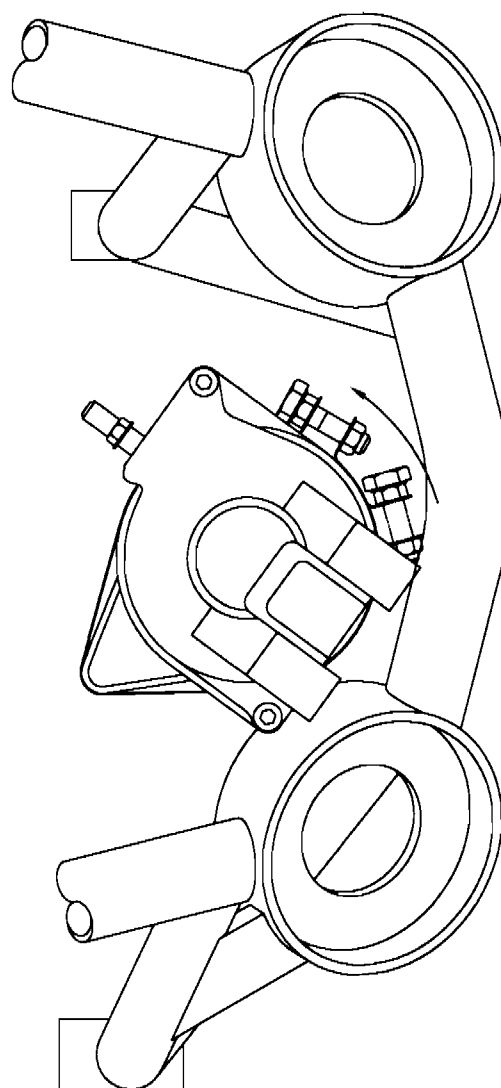
INSTALL THROTTLE
CABLE MOUNT



MD4444

RRR S-7S

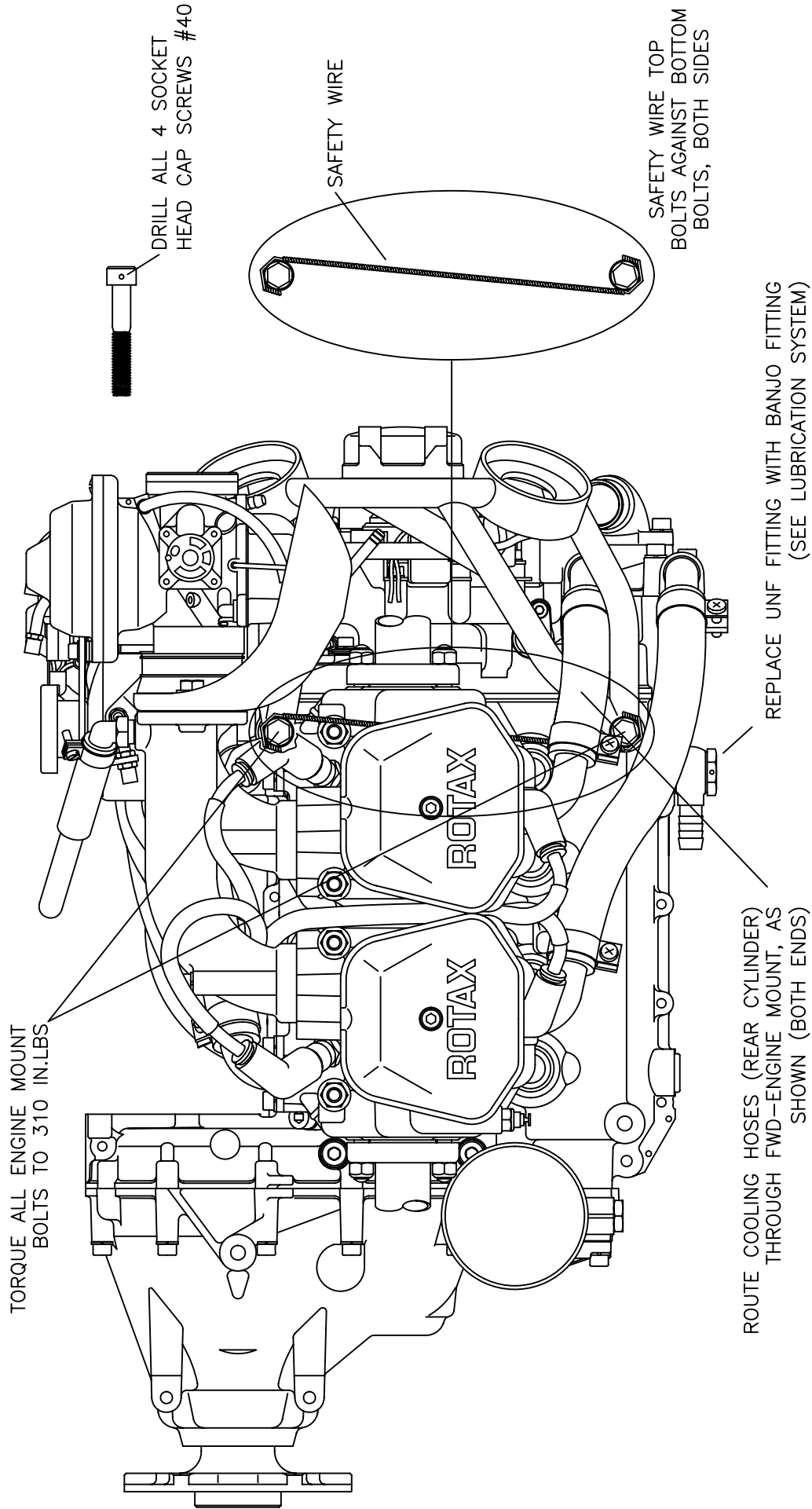
CARBURETOR MODIFICATION FIGURE 03-02



ROTATE MOUNT STRAP TO
CLEAR ENGINE MOUNT

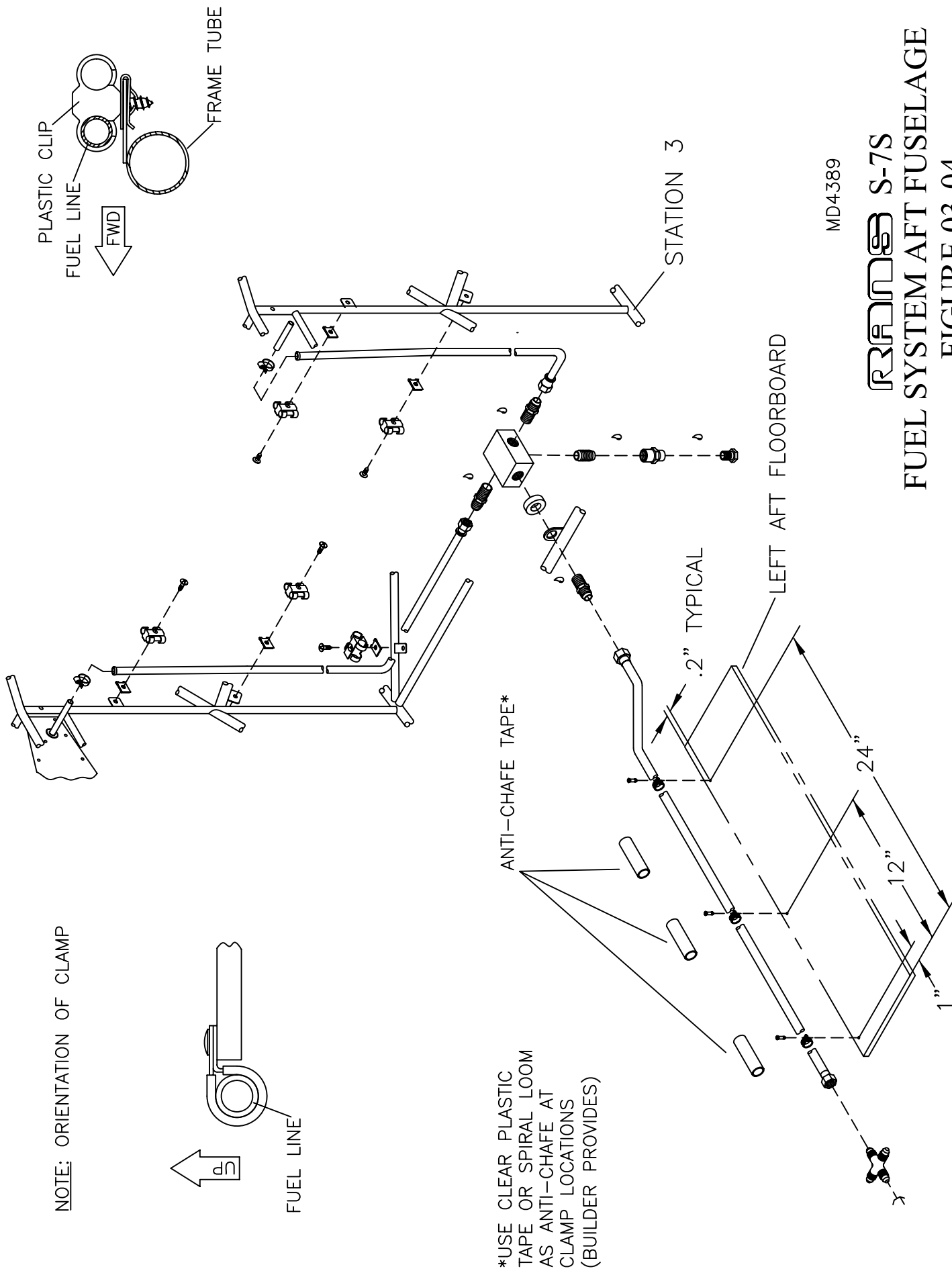
MD4481

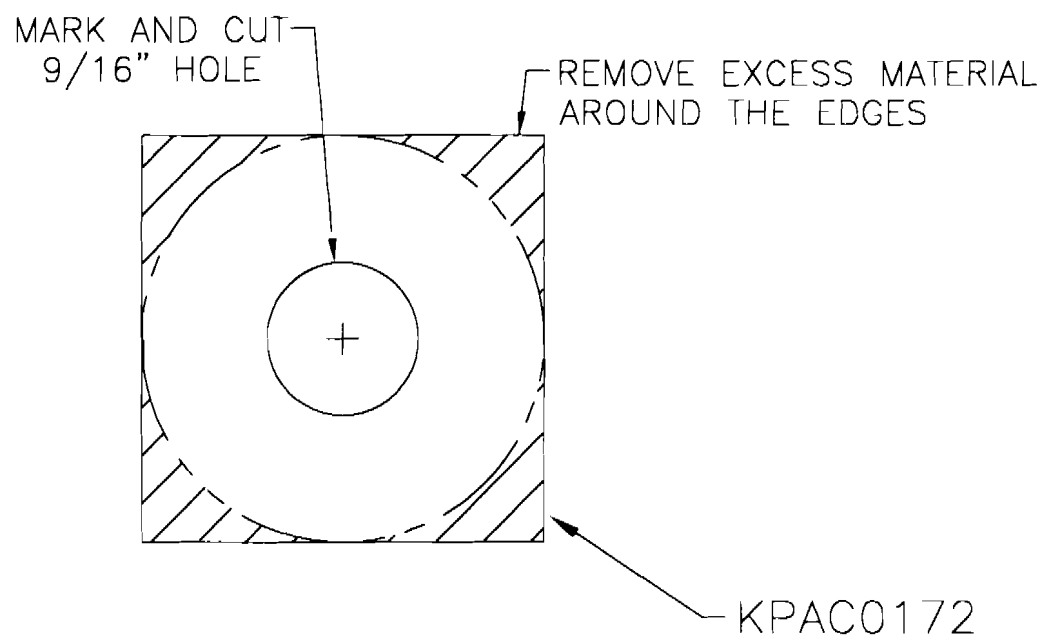
RANS S-7S
STARTER MOUNT STRAP MODIFICATION
FIGURE 03-02A



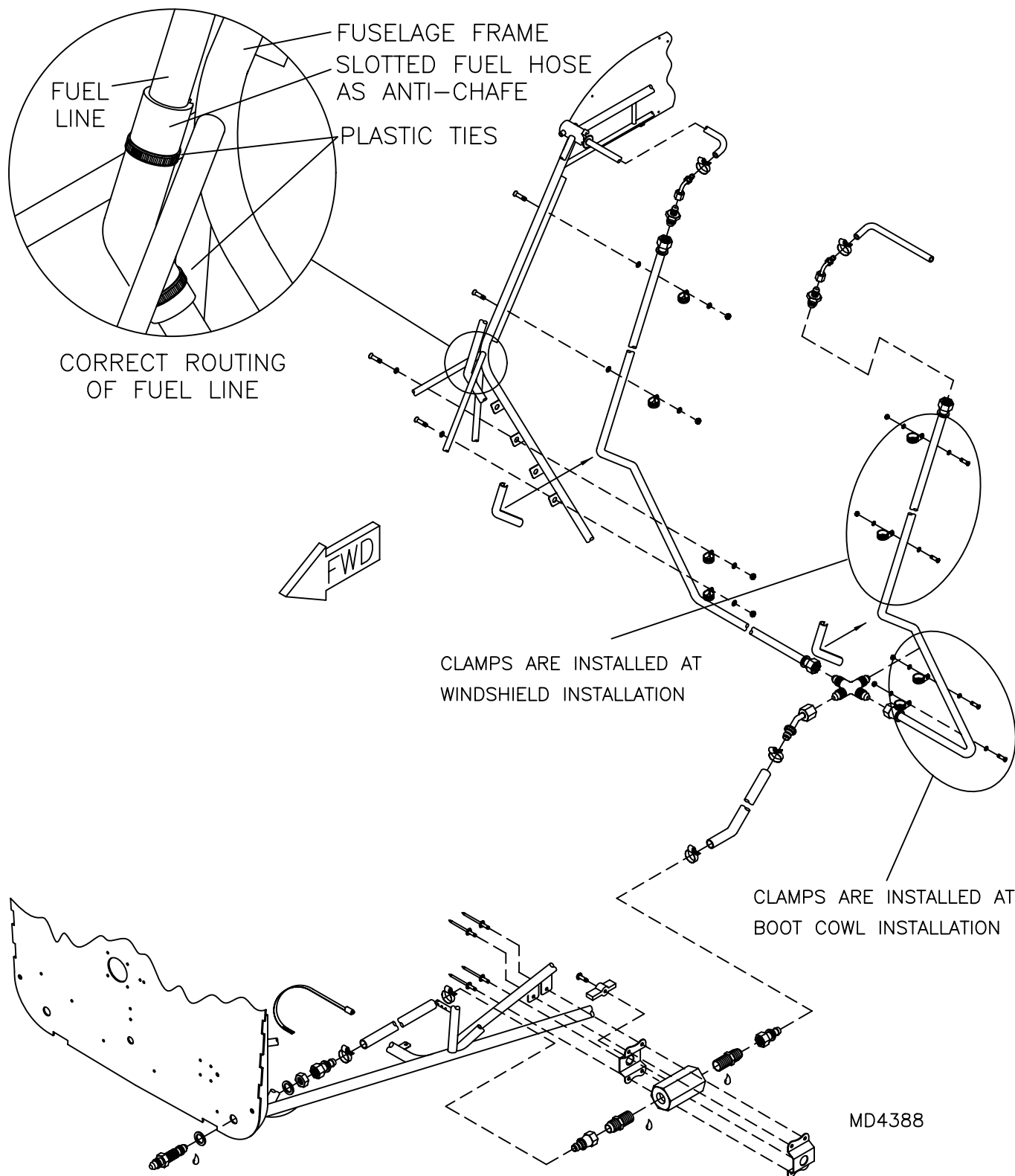
MD4446
REV. A

RAMS S-7S **ENGINE MOUNT ATTACH DETAILS FIGURE 03-03**



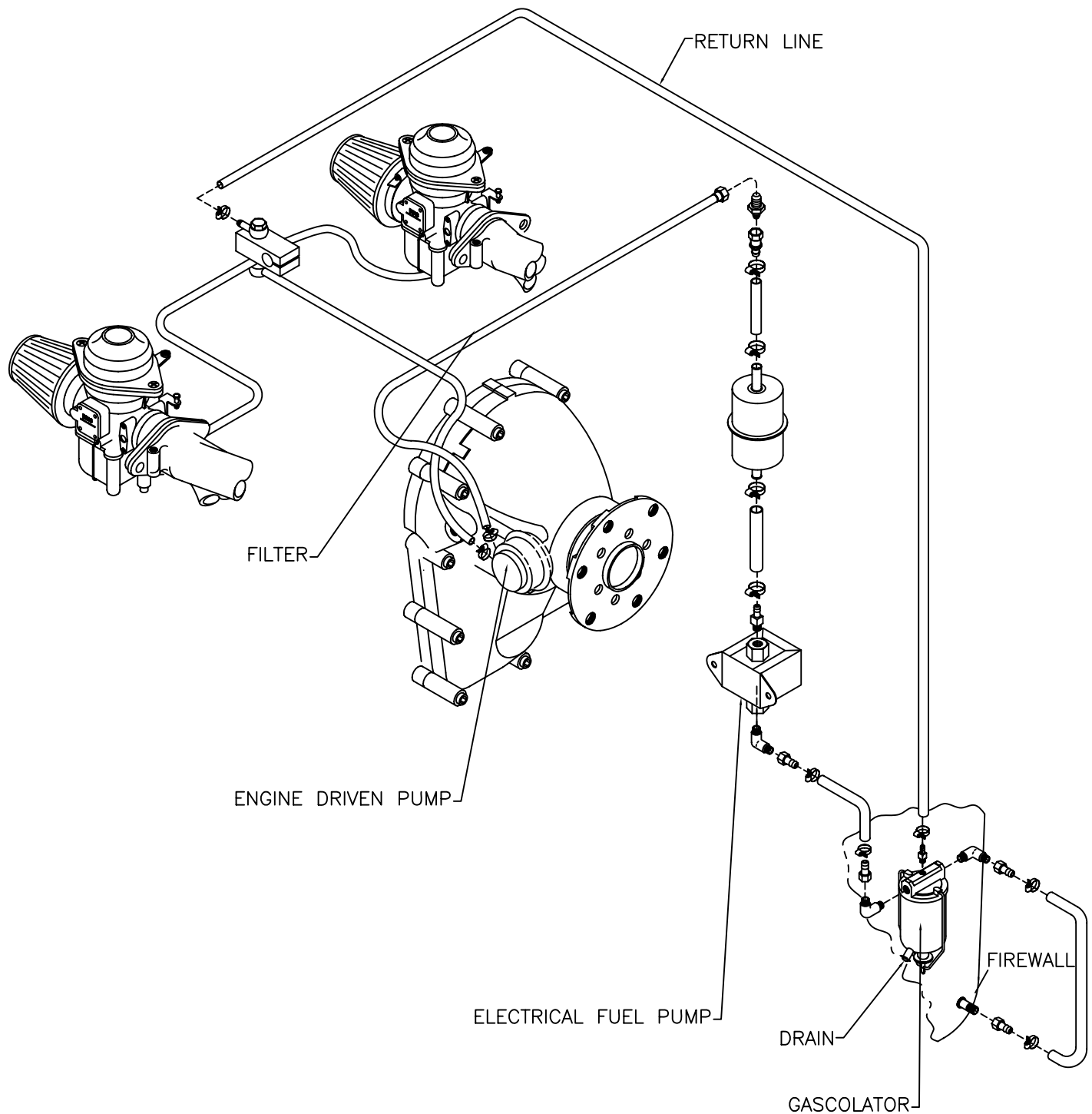


RANS S-7S MD4482
RUBBER WASHER MODIFICATION FIGURE 03-04A



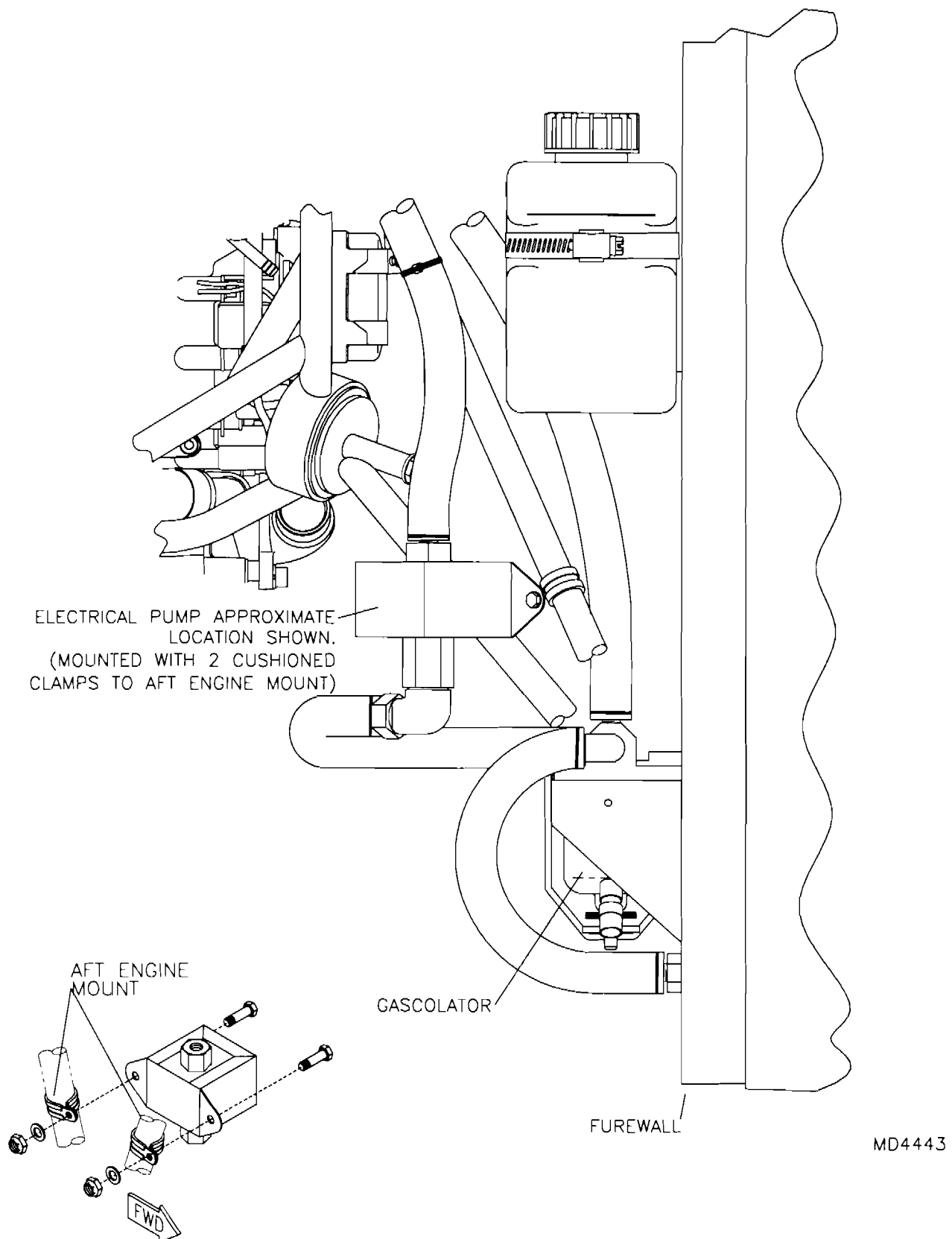
RANS
FUEL SYSTEM - FWD FUSELAGE
FIGURE 03-05

NOTE: IT IS RECOMMENDED TO USE
FIRE SLEEVE OVER ALL FUEL LINES.

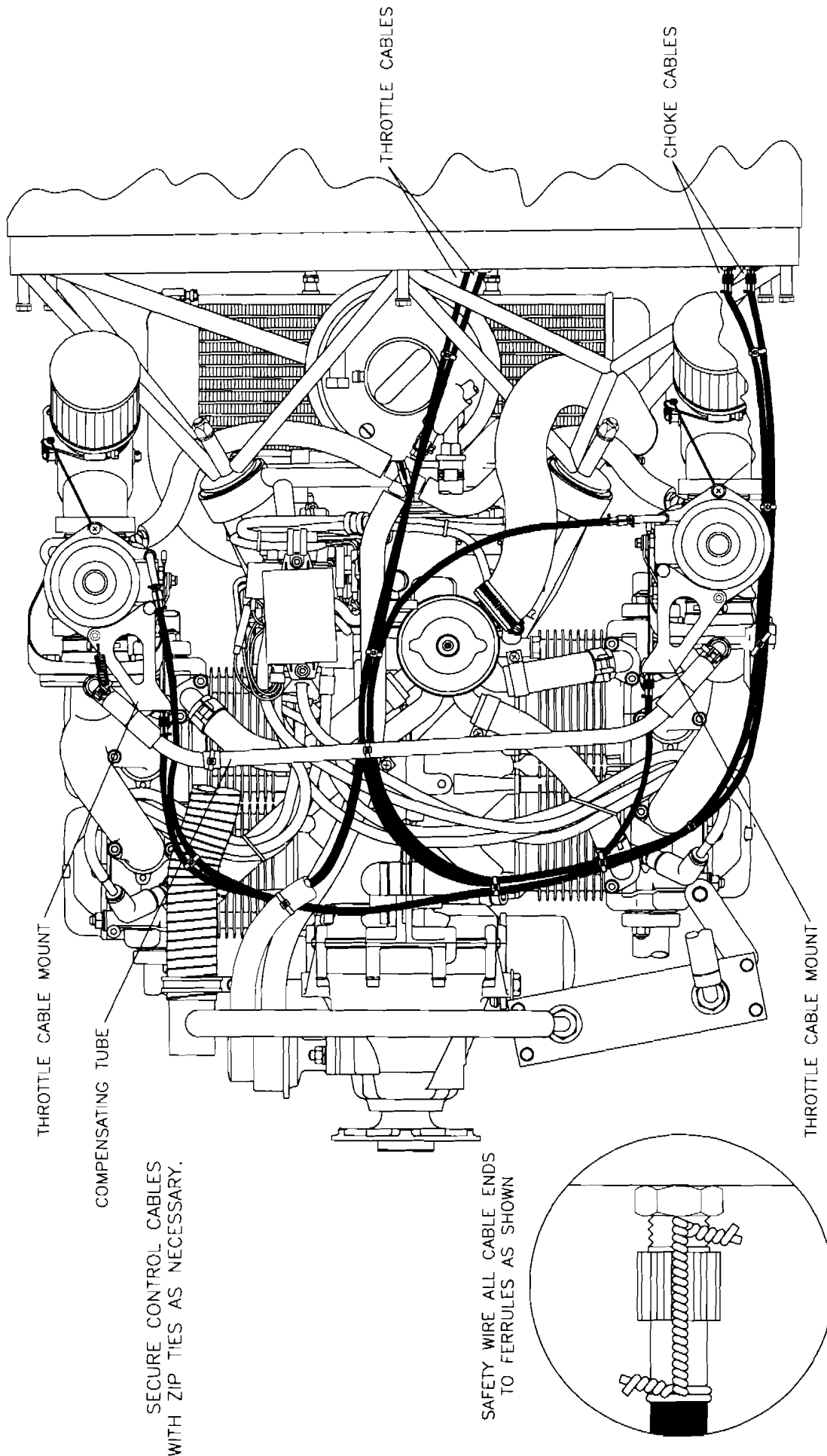


RANS S-7S
FUEL LINE INSTALL - FIREWALL
FORWARD FIGURE 03-06

MD4442

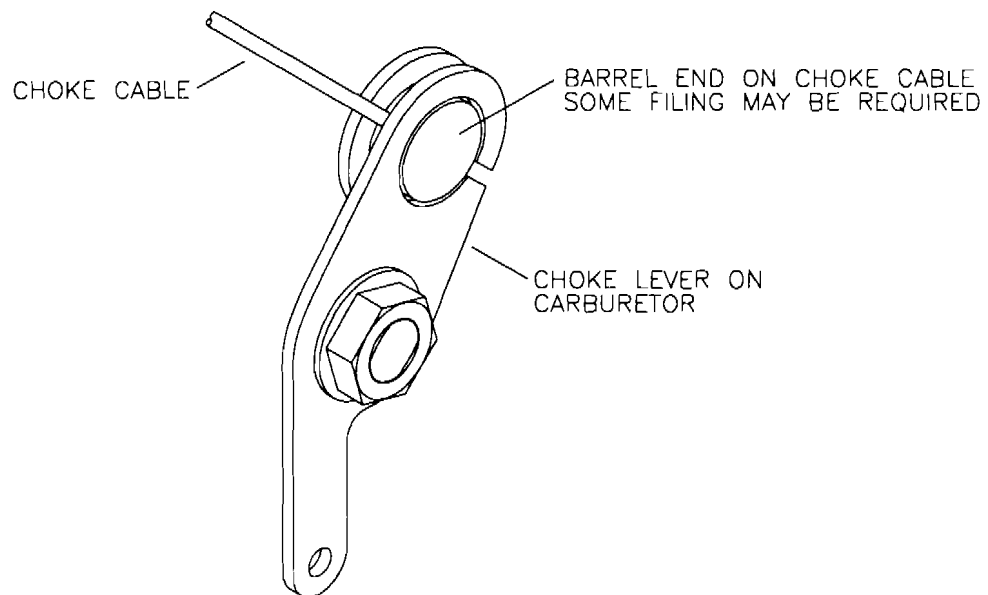
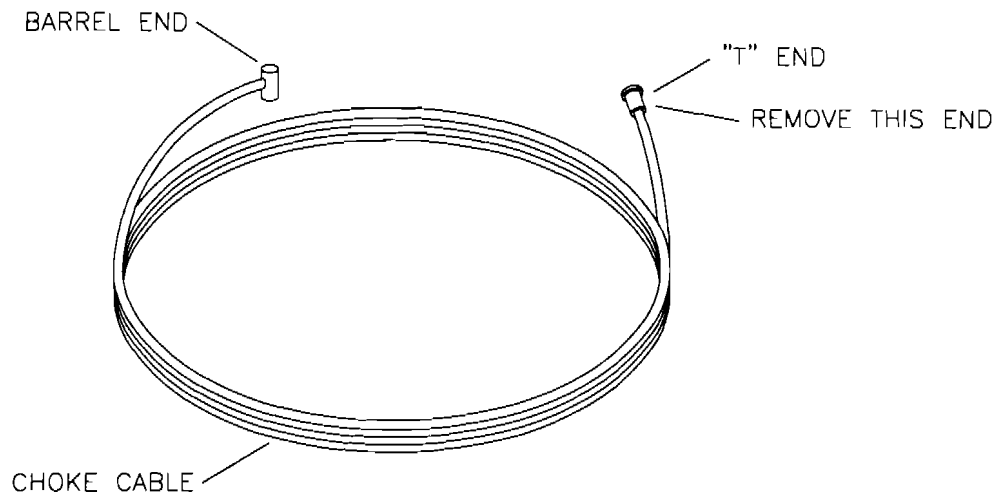


RANS S-7S
ELECTRICAL FUEL PUMP MOUNTING FIGURE 03-07



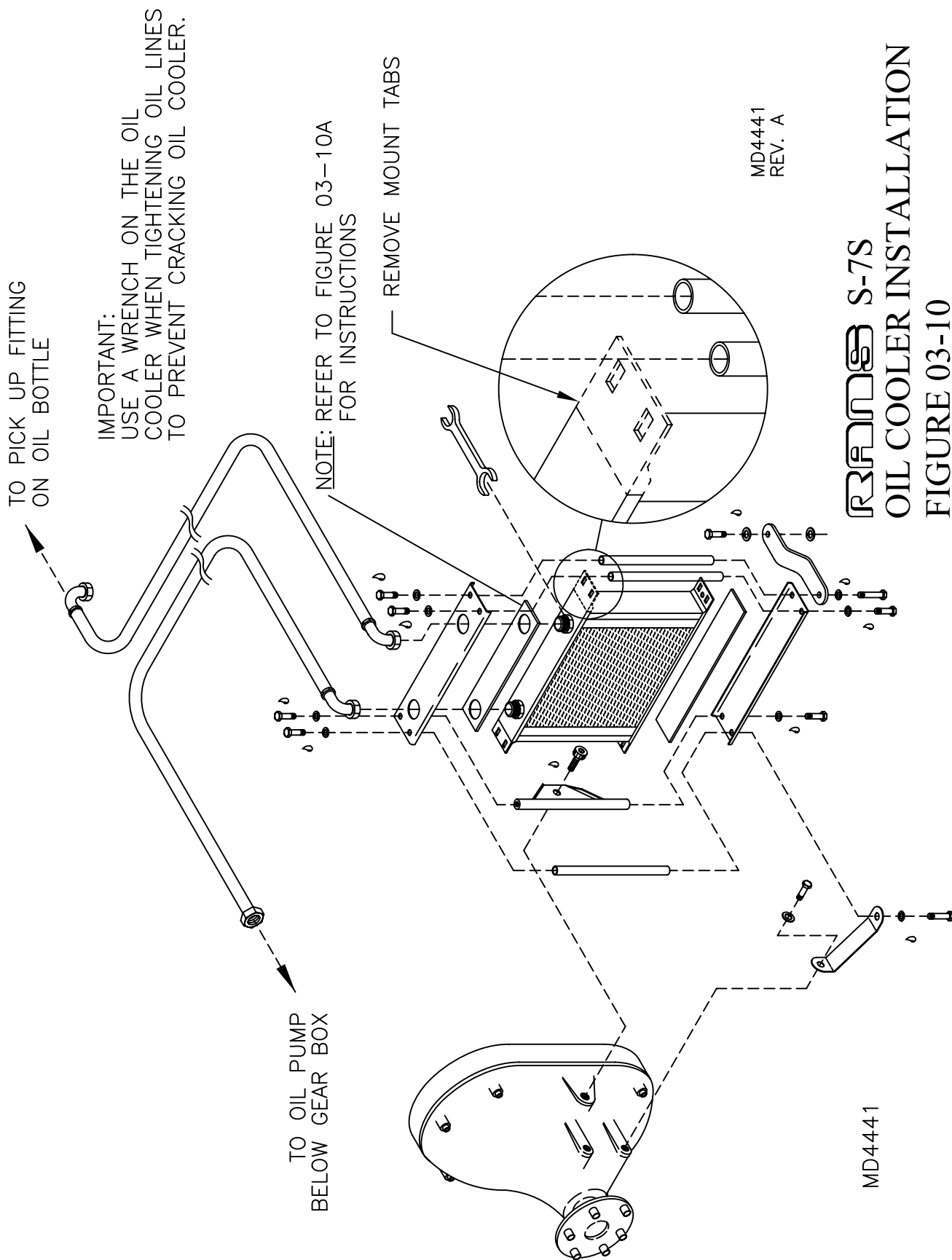
RAMMS S-7S **THROTTLE AND CHOKE CONTROL** **CABLE ROUTING FIGURE 03-08**

MD4438

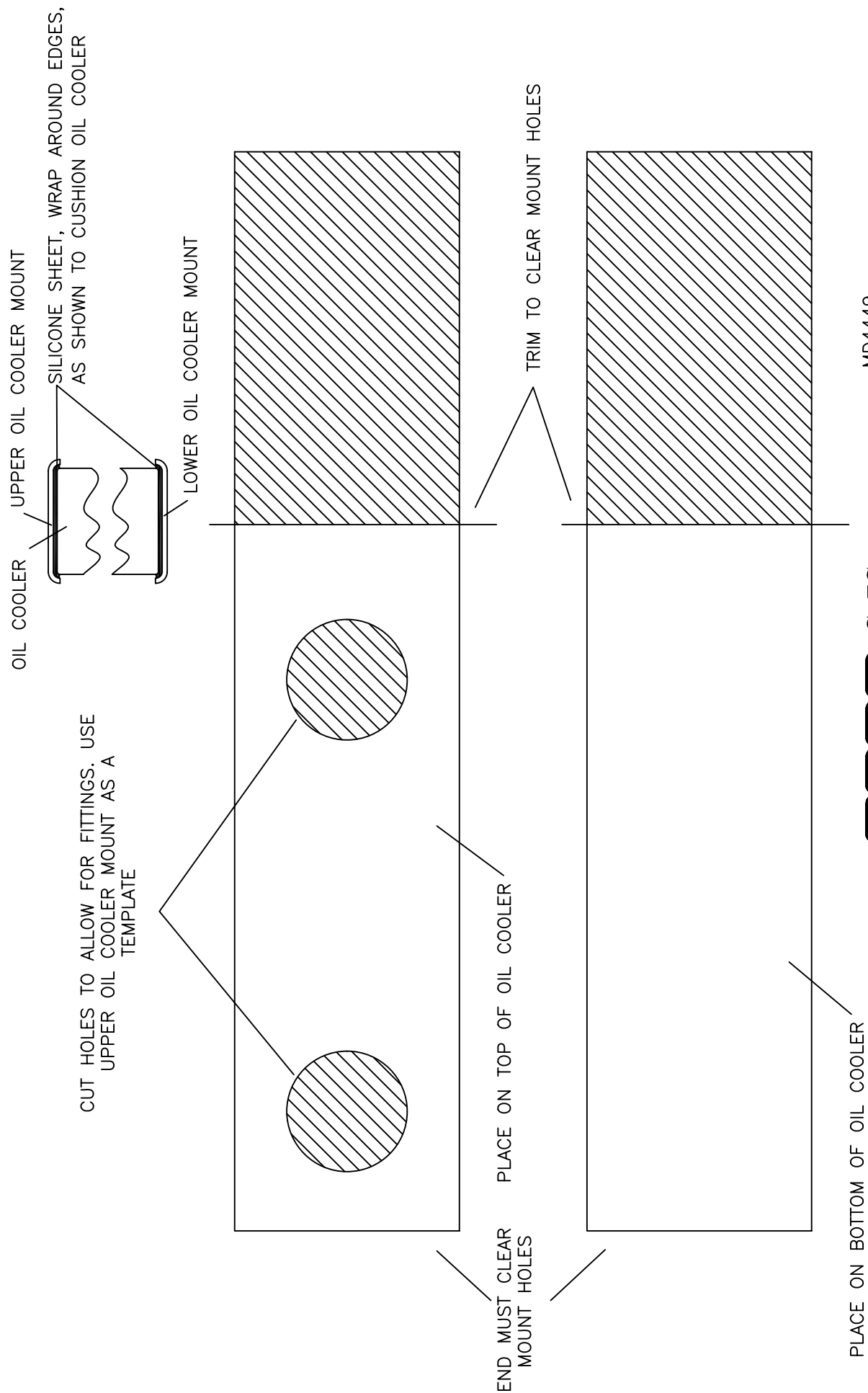


MD4440

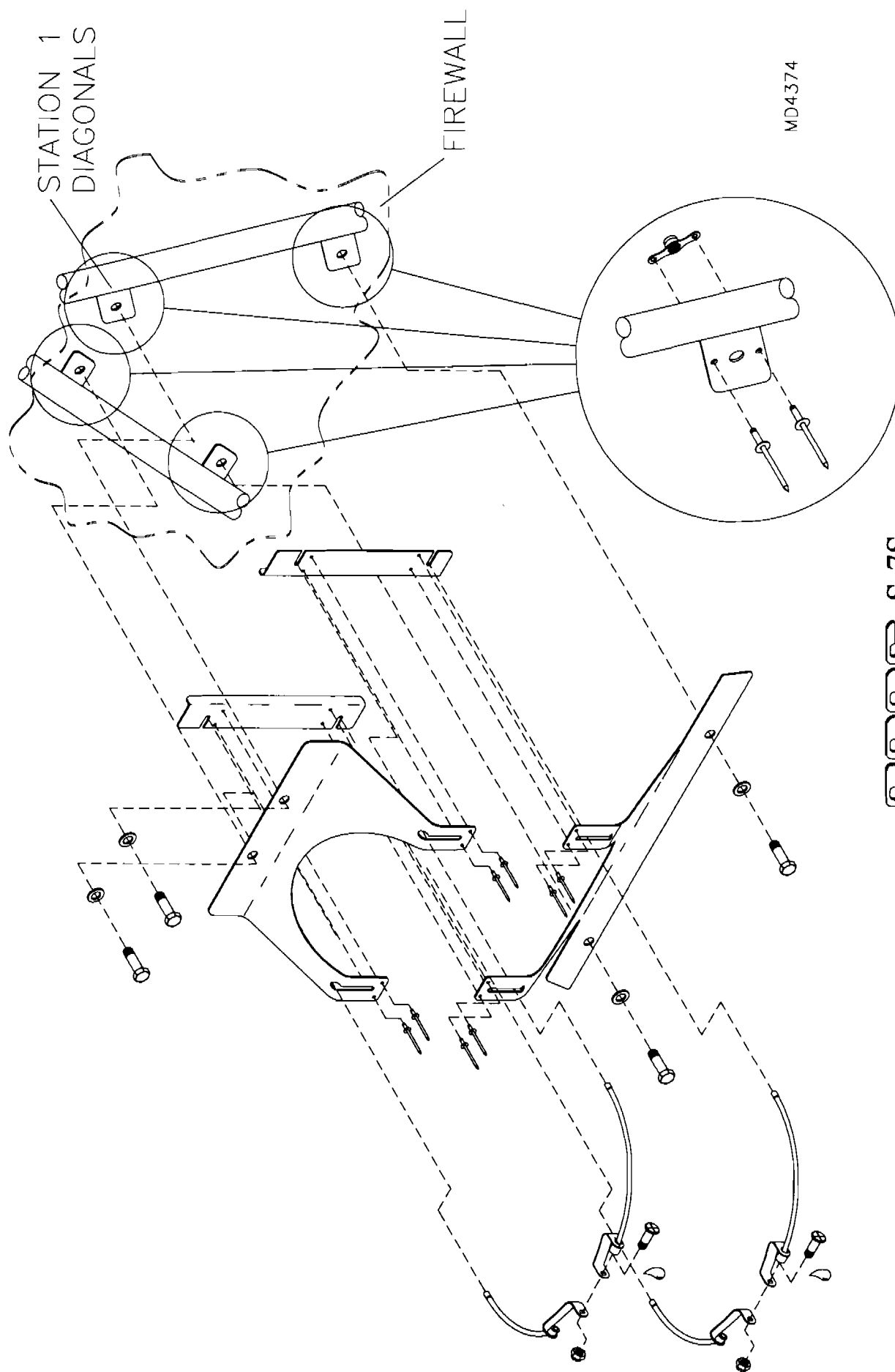
RANS S-7S **CHOKE CABLE INSTALLATION FIGURE 03-09**



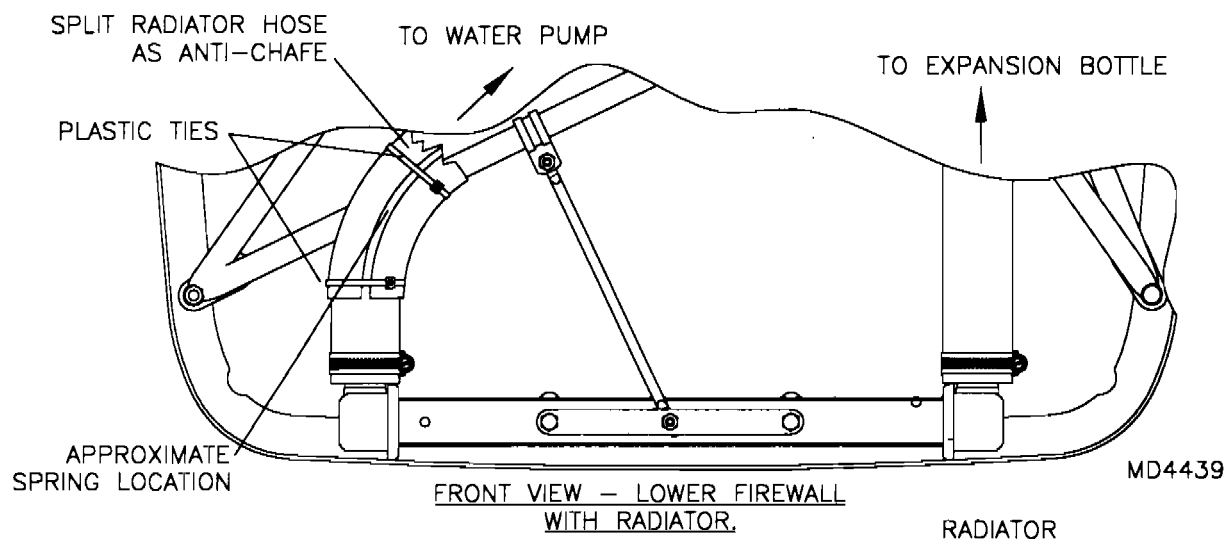
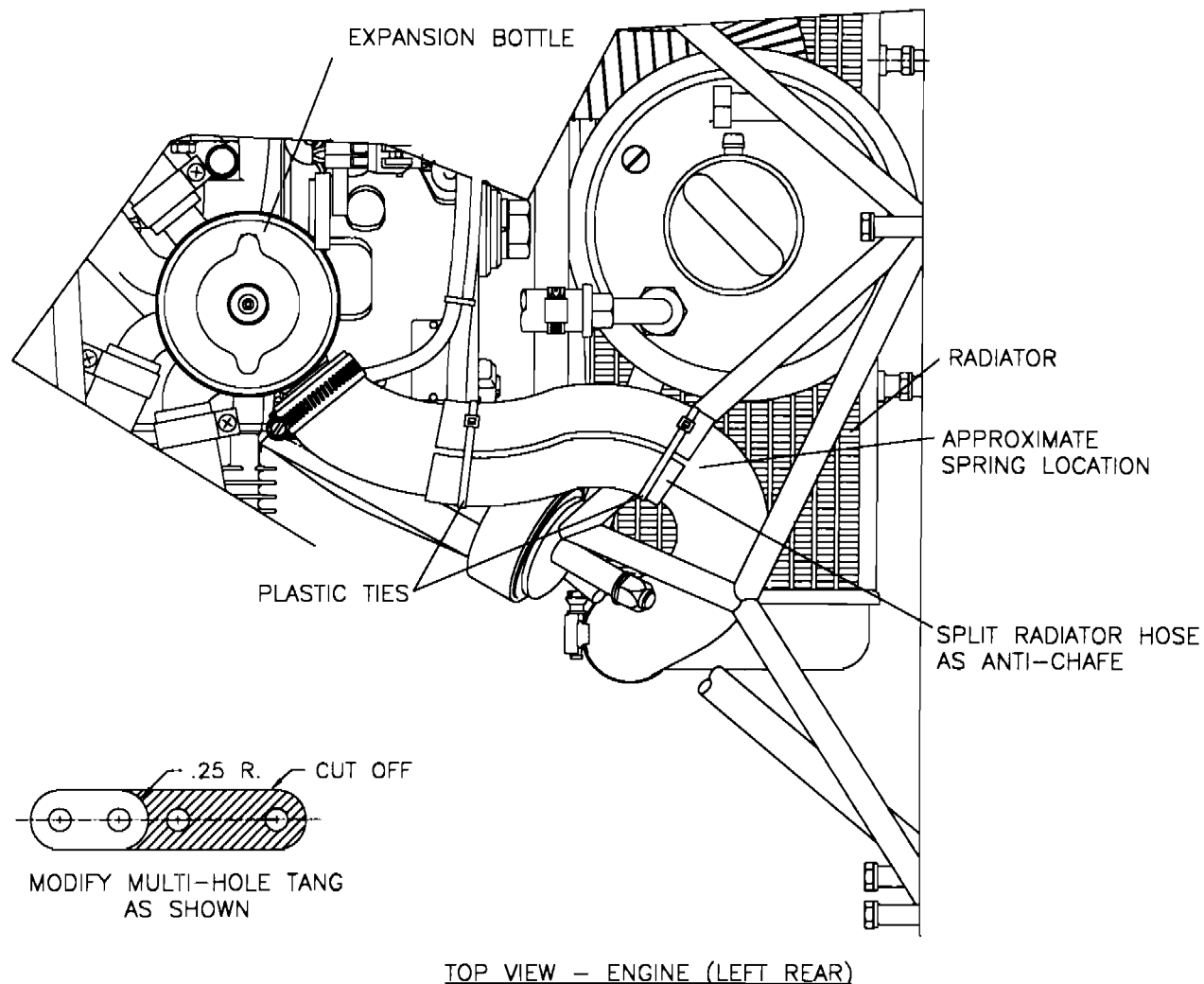
RANCO S-7S
OIL COOLER INSTALLATION
FIGURE 03-10



RAMMS S-7S
OIL COOLER INSTALLATION
FIGURE 03-10A



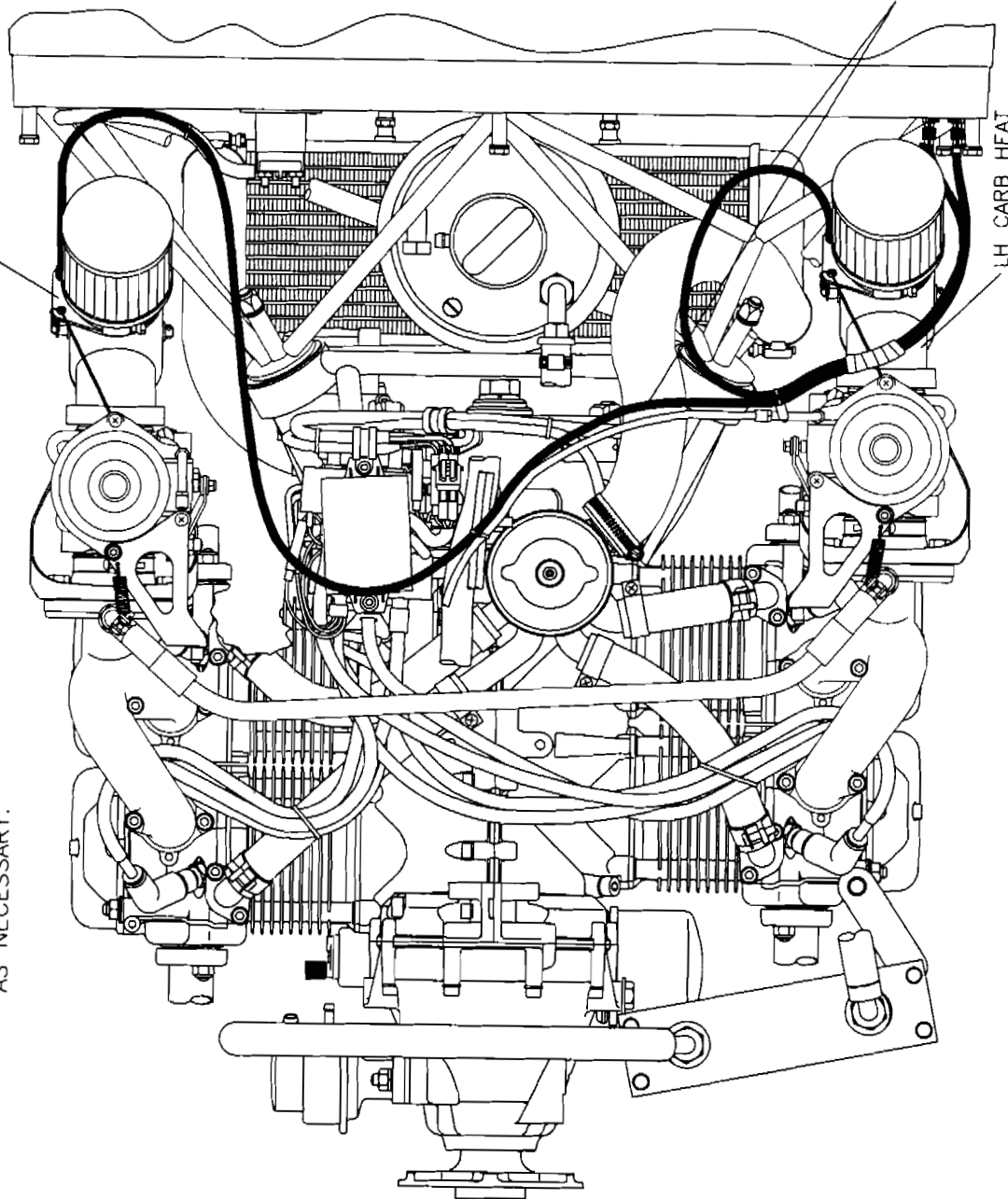
RFA S-7S
OIL TANK SUPPORT INSTALLATION
FIGURE 03-11



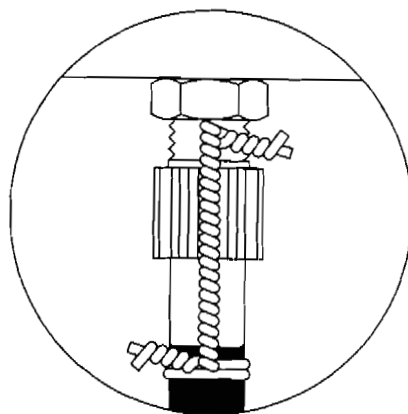
RANS S-7S **RADIATOR HOSE INSTALLATION FIGURE 03-12**

SECURE CONTROL CABLES WITH ZIP TIES
AS NECESSARY.

RH CARB HEAT



SAFETY WIRE ALL CABLE HOUSING ENDS
TO FERRULES AS SHOWN



CARB HEAT CONTROL CABLES

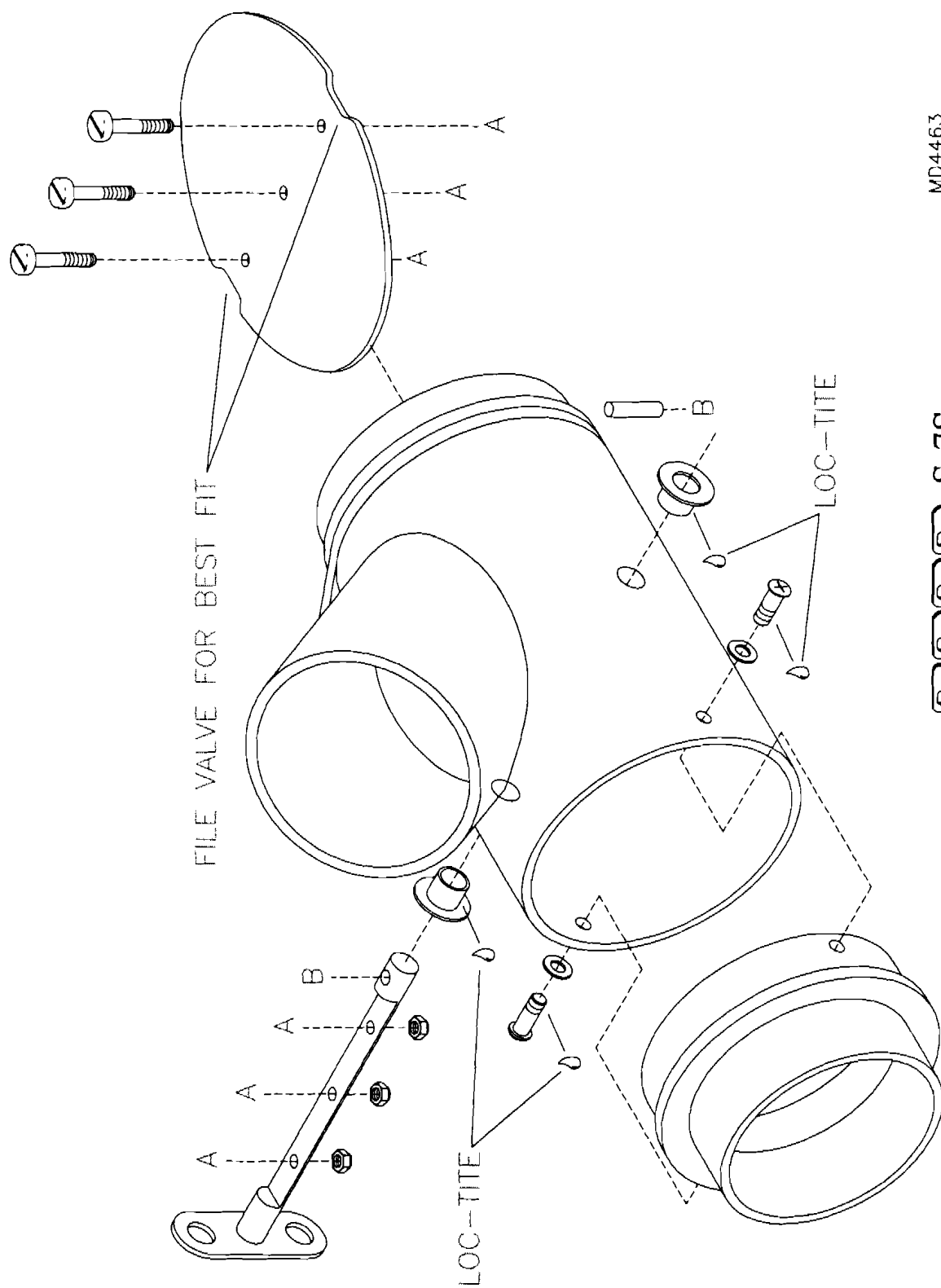
LH CARB HEAT

RAM S-7S

CARBURETOR HEAT CONTROL

CABLE ROUTING FIGURE 03-13

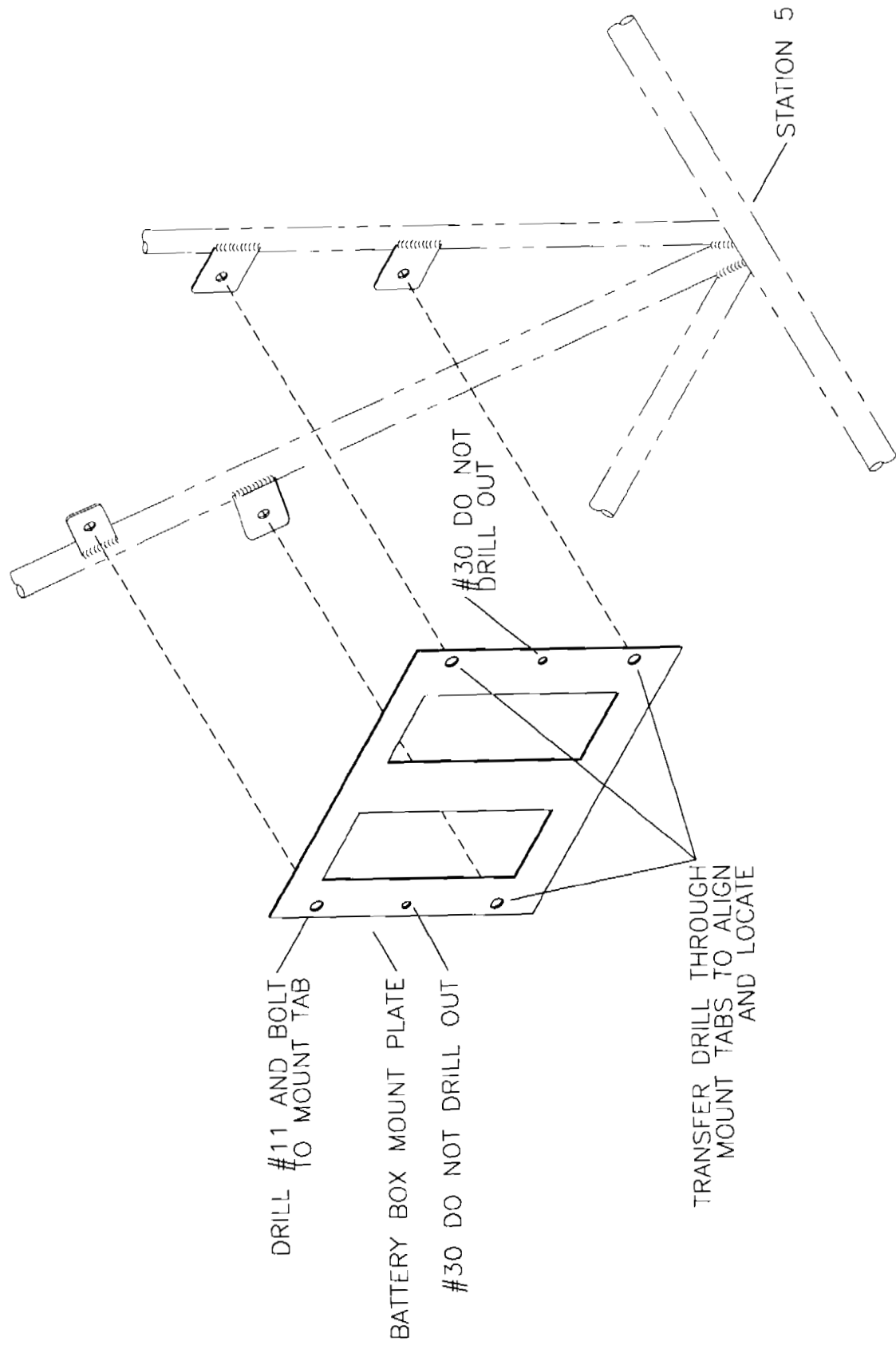
MD4436



MD4463

RRM S-7S

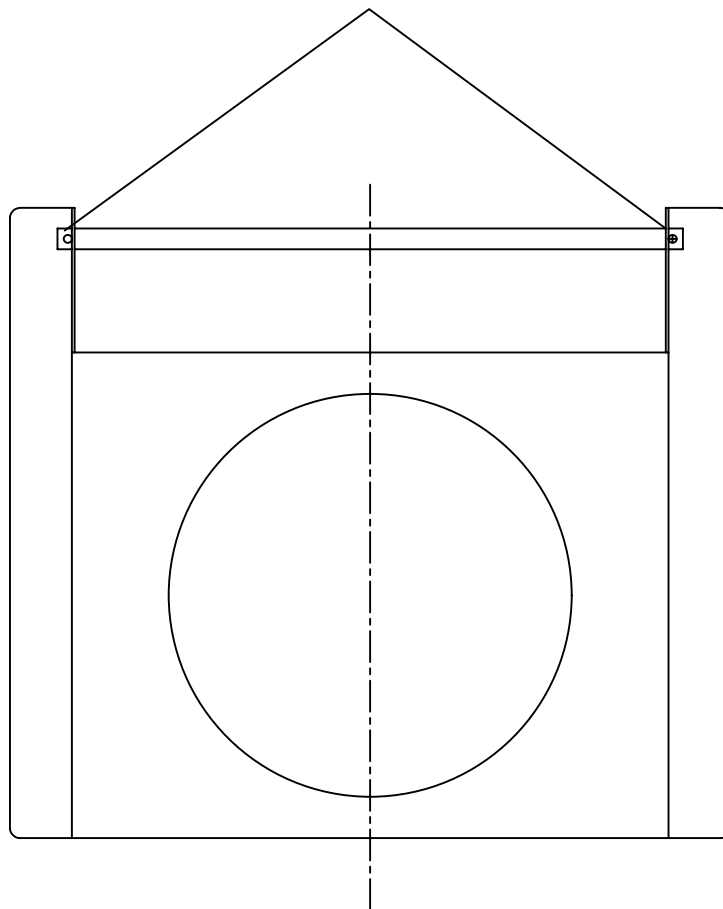
CARB HEAT ASSEMBLY FIGURE 03-14



MD4289

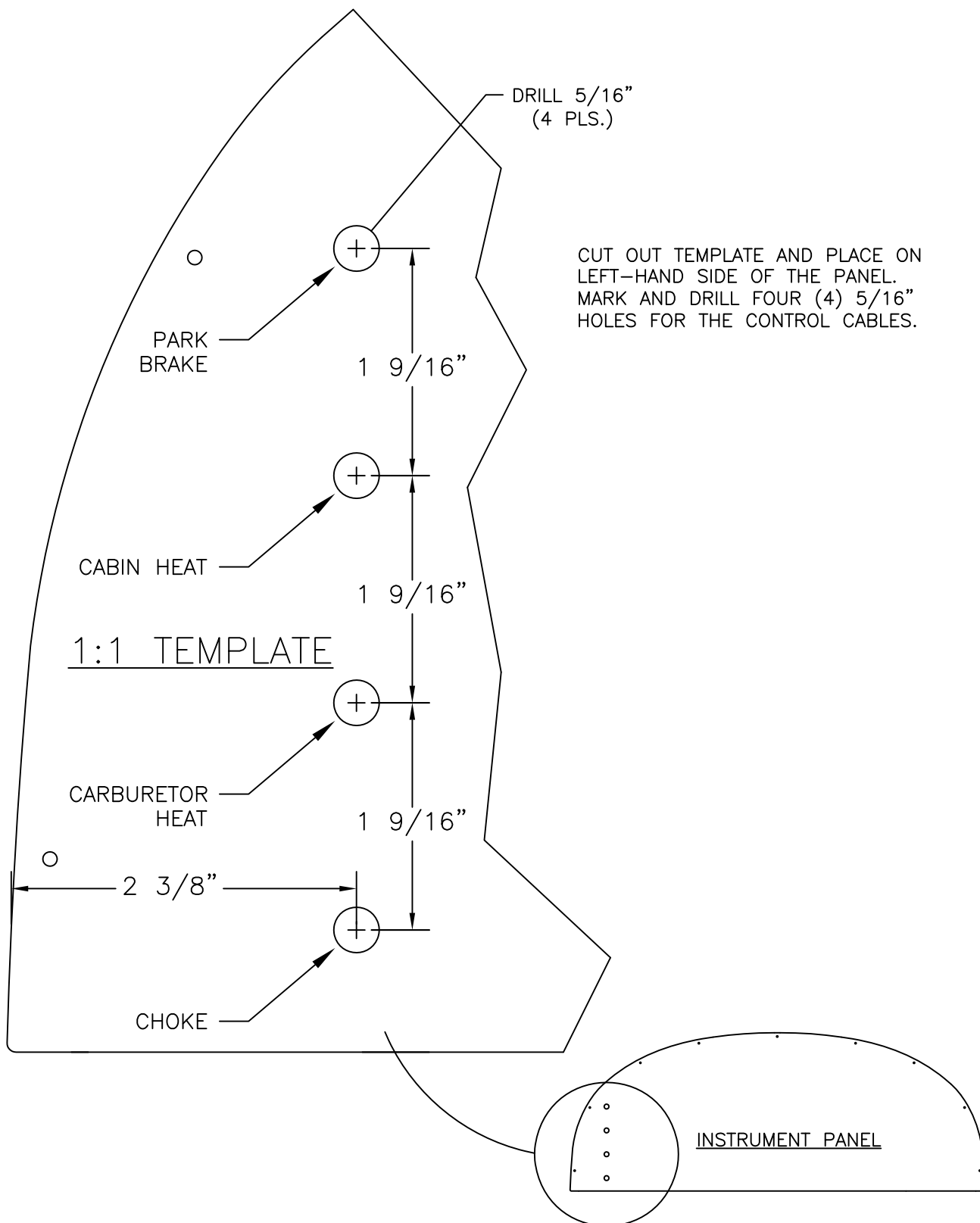
RRAMES S-7S
BATTERY BOX PLATE FIGURE 04-01

CENTER BATTERY BAR AND DRILL #40
AS NECESSARY



RANS S-7S
BATTERY BAR MODIFICATION
FIGURE 04-01A

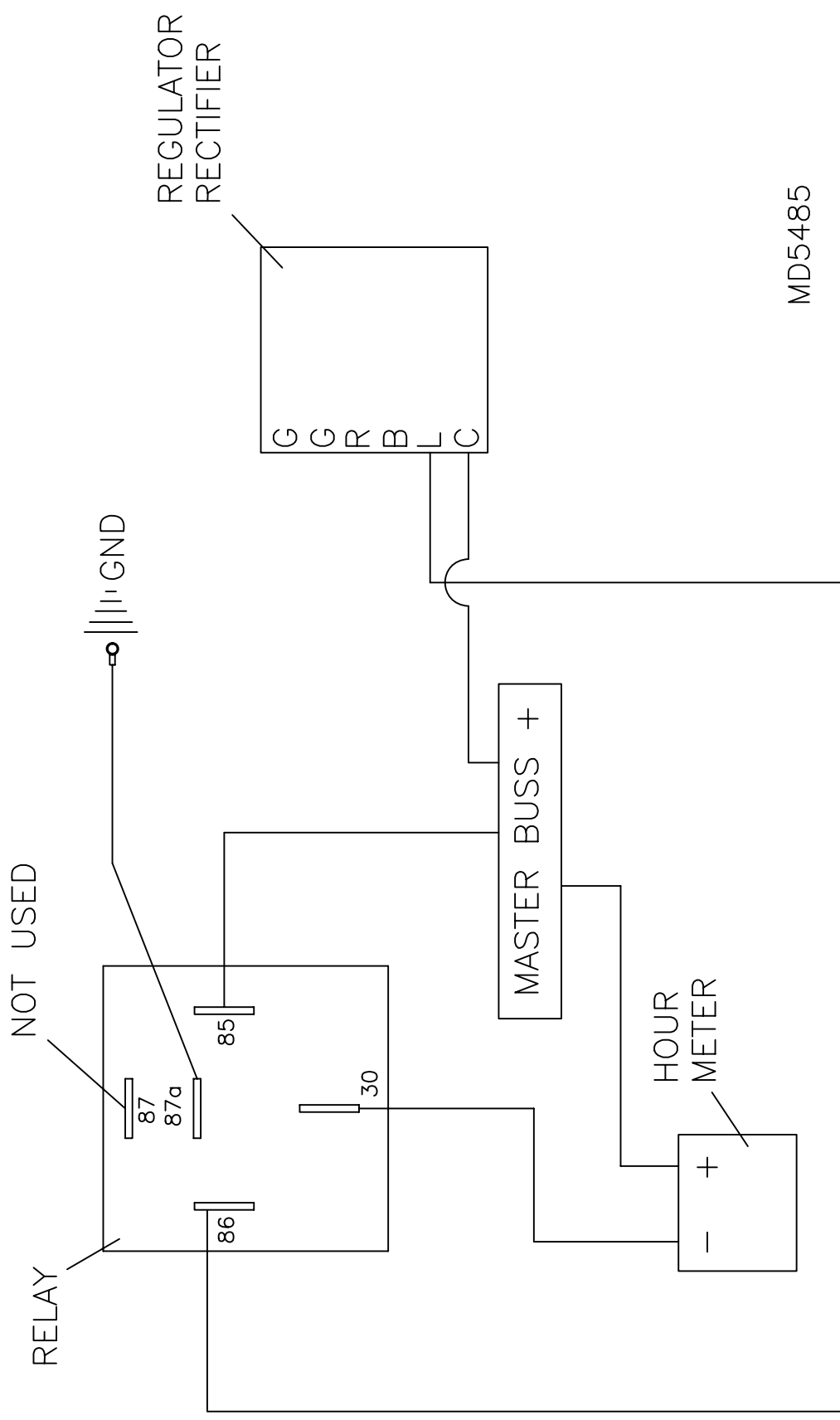
MD5468



MD4437

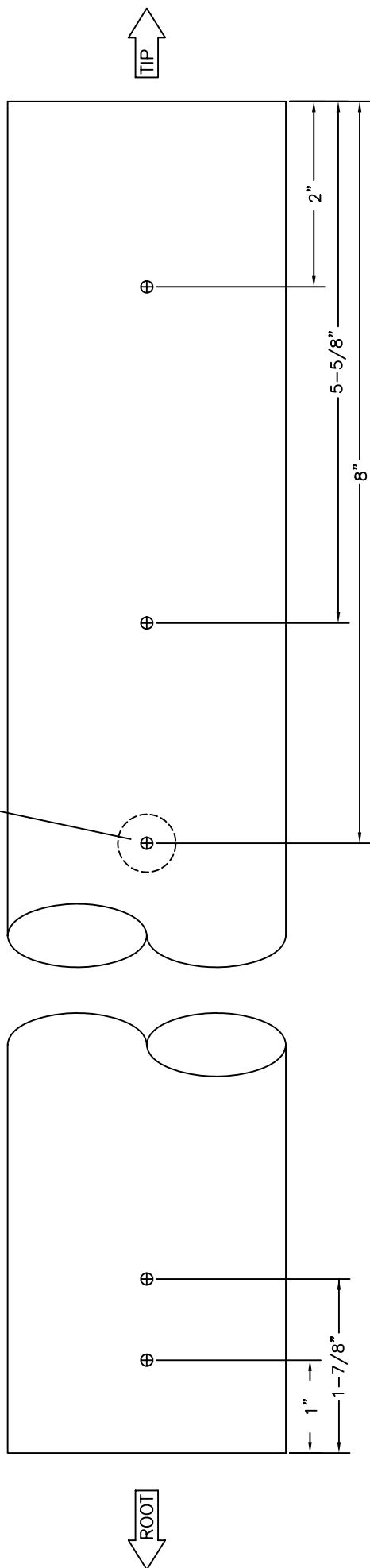
RANS S-7S
VERTICAL INSTRUMENT PANEL
DRILL TEMPLATE
FIGURE 04-02

01/15/2013

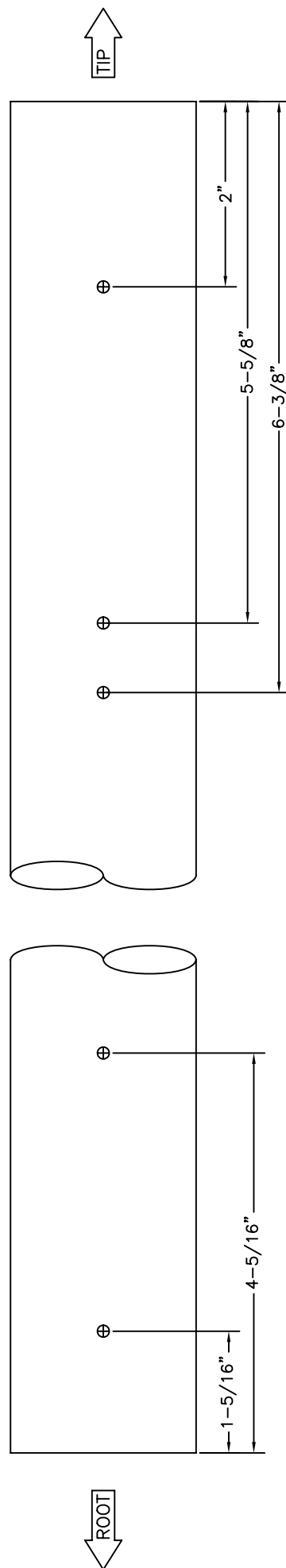


RAMS S-7S
HOUR METER RELAY
FIGURE 04A-01

LH SPAR ONLY (STEP DRILL TO 5/8" ON BOTH SIDES; THIS HOLE ONLY)
FOR PITOT/STATIC PROBE ASSEMBLY INSTALLATION



LEADING EDGE SPAR (FWD SIDE SHOWN)

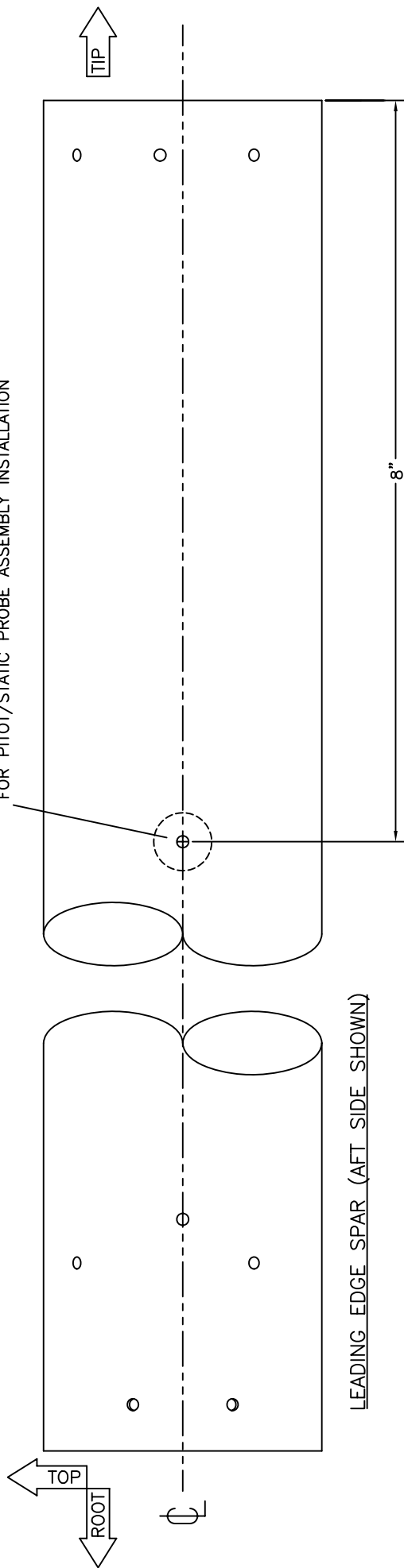


TRAILING EDGE SPAR (AFT SIDE SHOWN)

MD4351

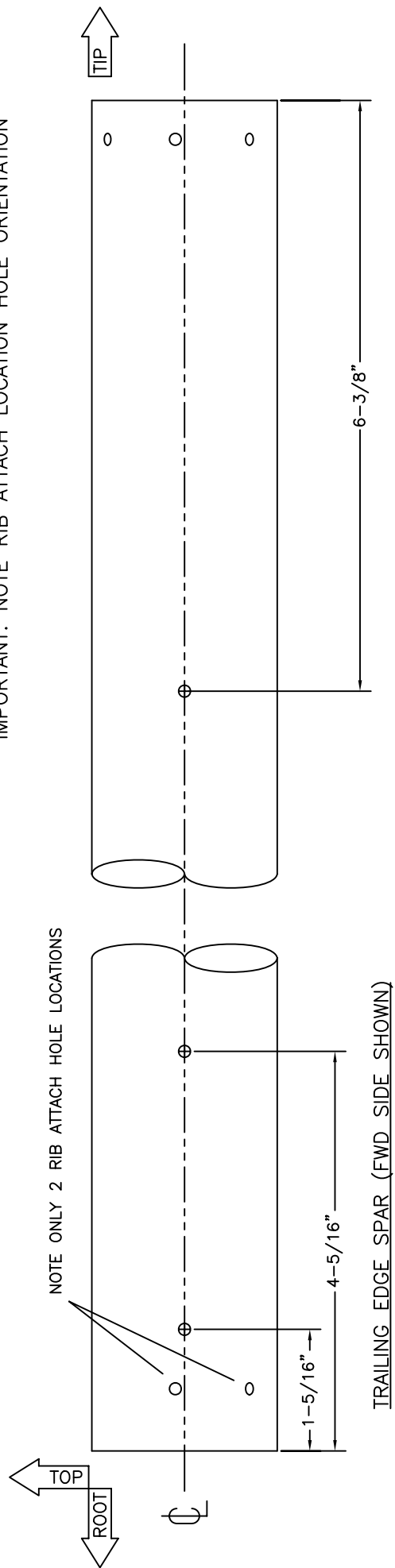
RAMS S-7S WING SPAR ORIENTATION FIGURE 05-02

LH SPAR ONLY (STEP DRILL TO 5/8" ON BOTH SIDES; THIS HOLE ONLY)
FOR PITOT/STATIC PROBE ASSEMBLY INSTALLATION



LEADING EDGE SPAR (AFT SIDE SHOWN)

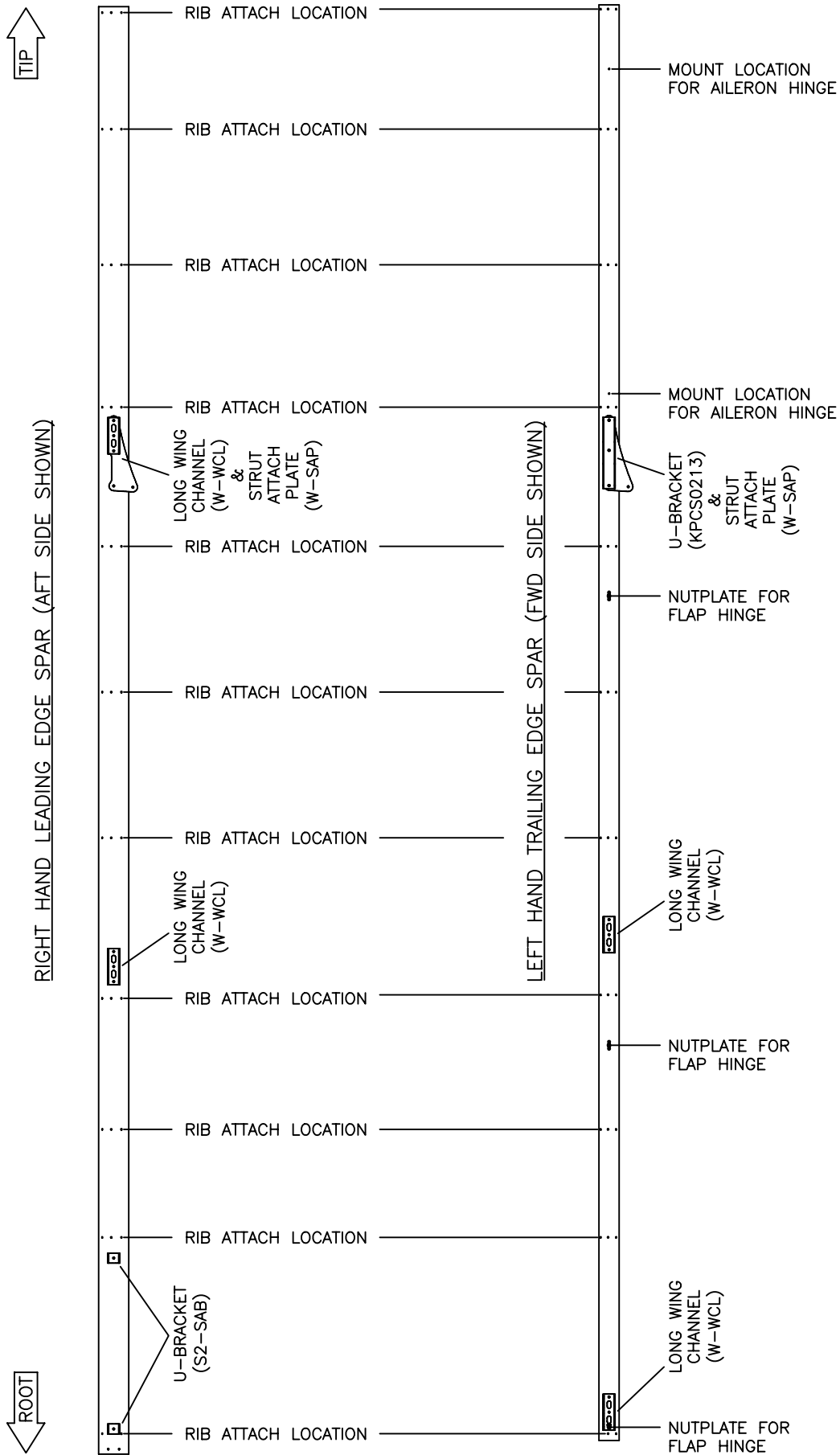
IMPORTANT: NOTE RIB ATTACH LOCATION HOLE ORIENTATION



TRAILING EDGE SPAR (FWD SIDE SHOWN)

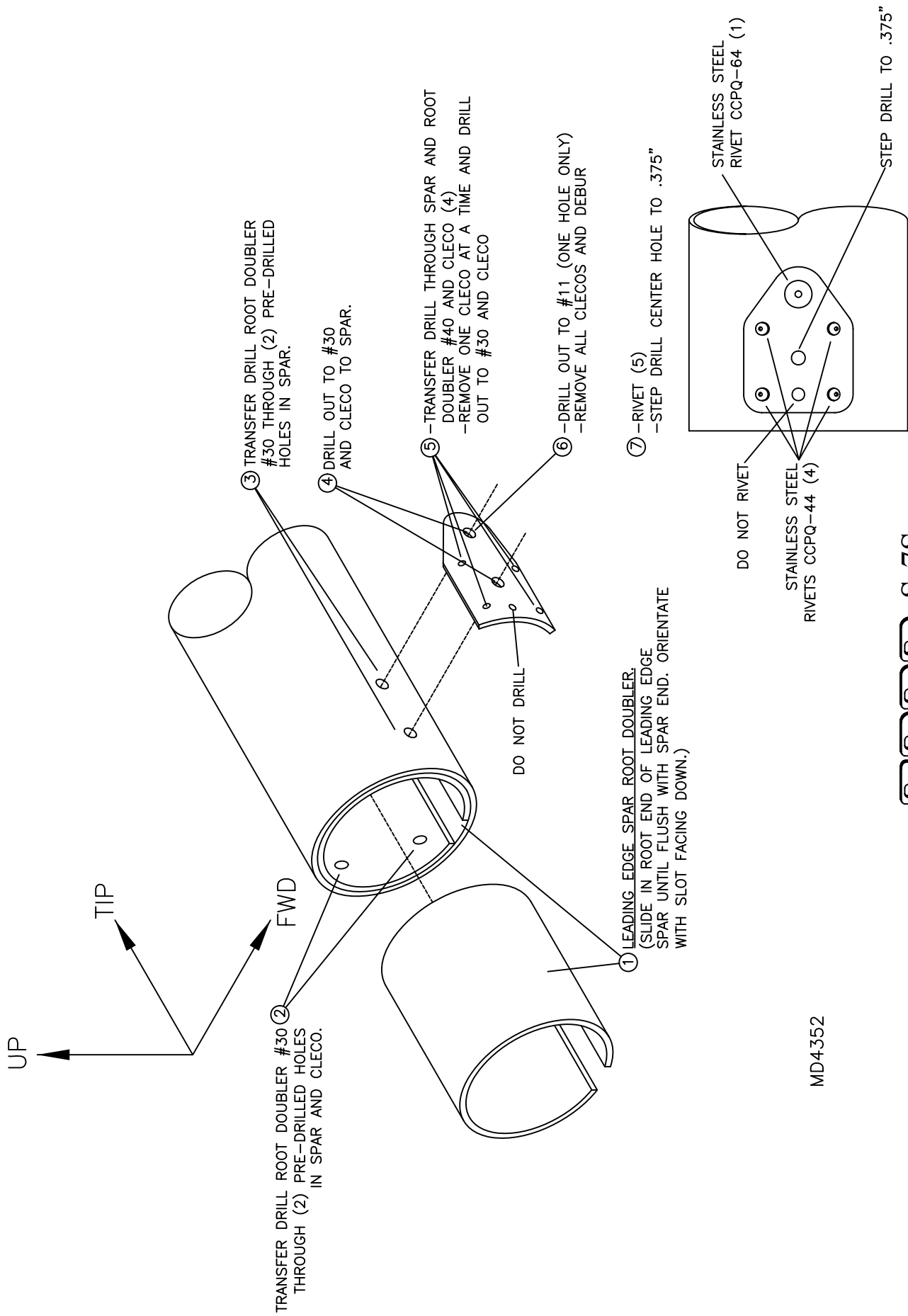
MD4351

S-7S WING SPAR ORIENTATION FIGURE 05-02A



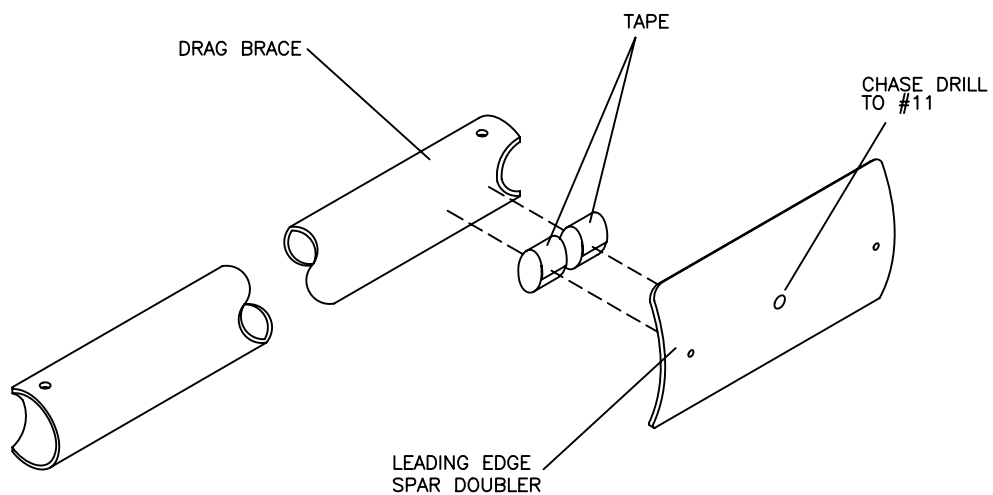
MD4351

RFA S-7S
WING SPAR ORIENTATION
FIGURE 05-03

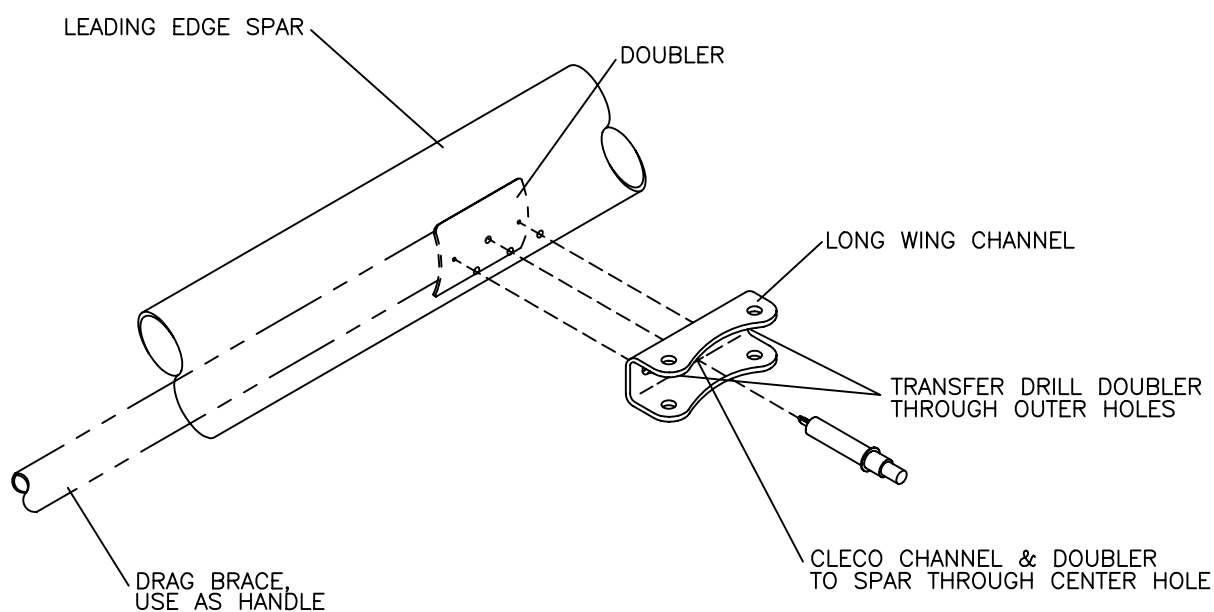


MD4352

RAMP S-7S
**LEADING EDGE SPAR ROOT DOUBLER &
 LEADING EDGE SPAR PATCH INSTALLATION**
FIGURE 05-05

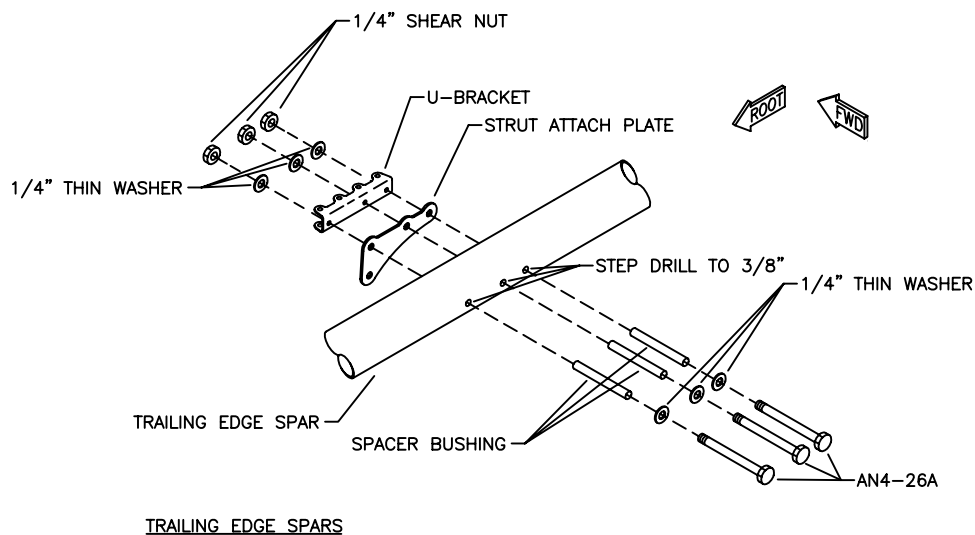
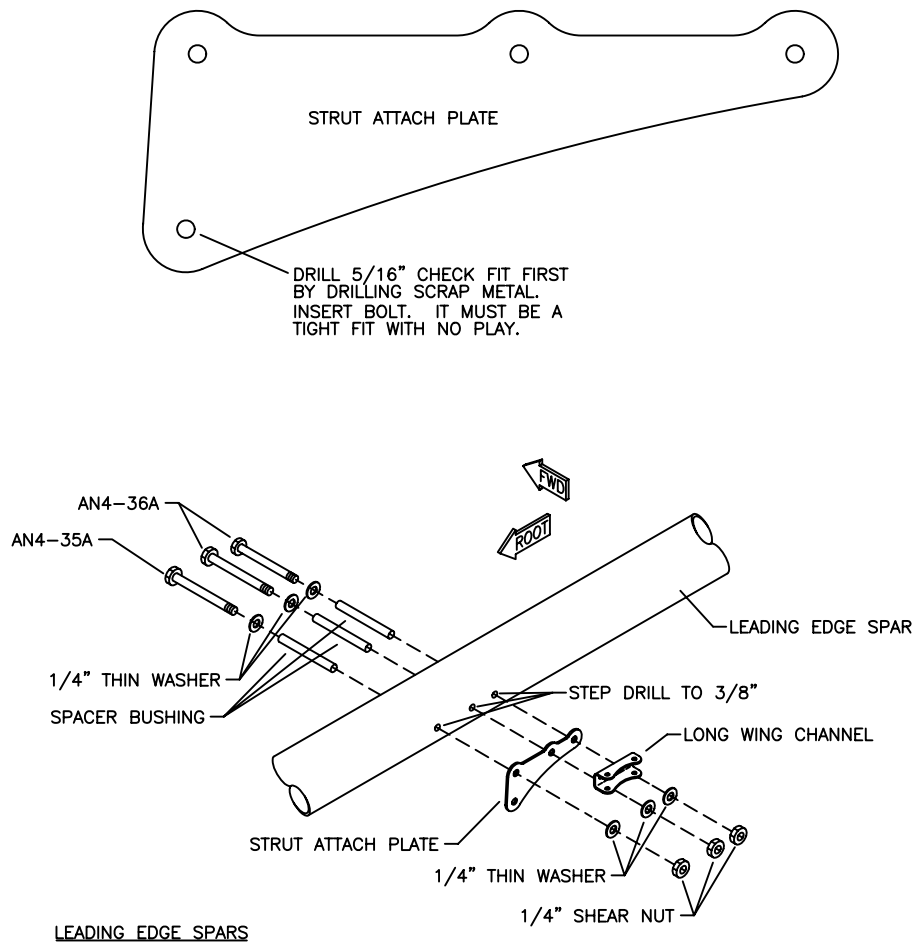


NOTE: USE DRAG BRACE TO POSITION DOUBLER INSIDE THE LEADING EDGE SPAR.



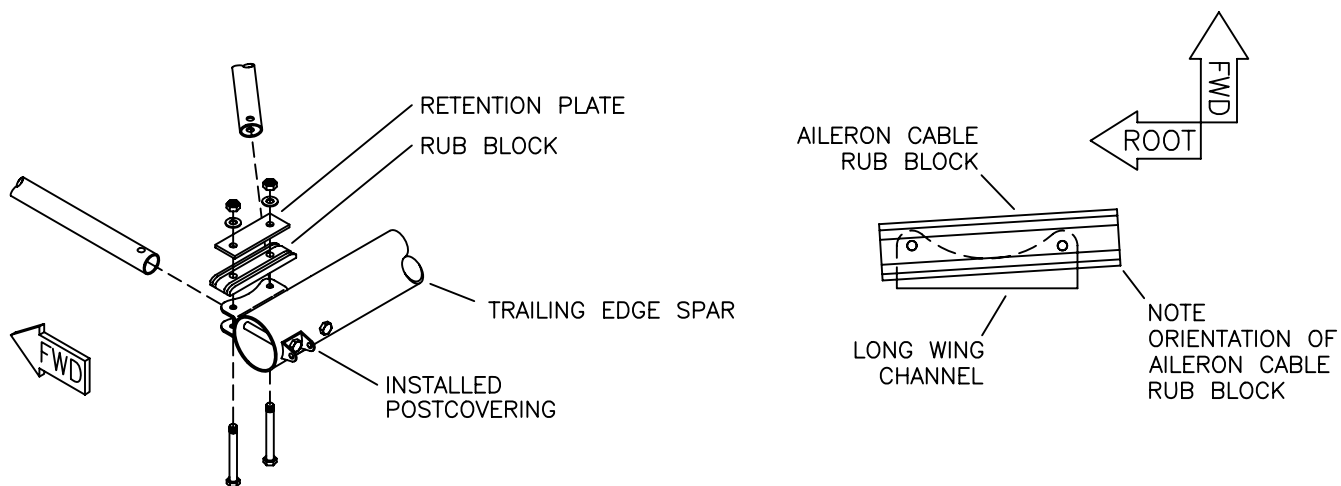
MD4353

RANS S-7S **LEADING EDGE SPAR** **DOUBLER INSTALLATION** **FIGURE 05-14**

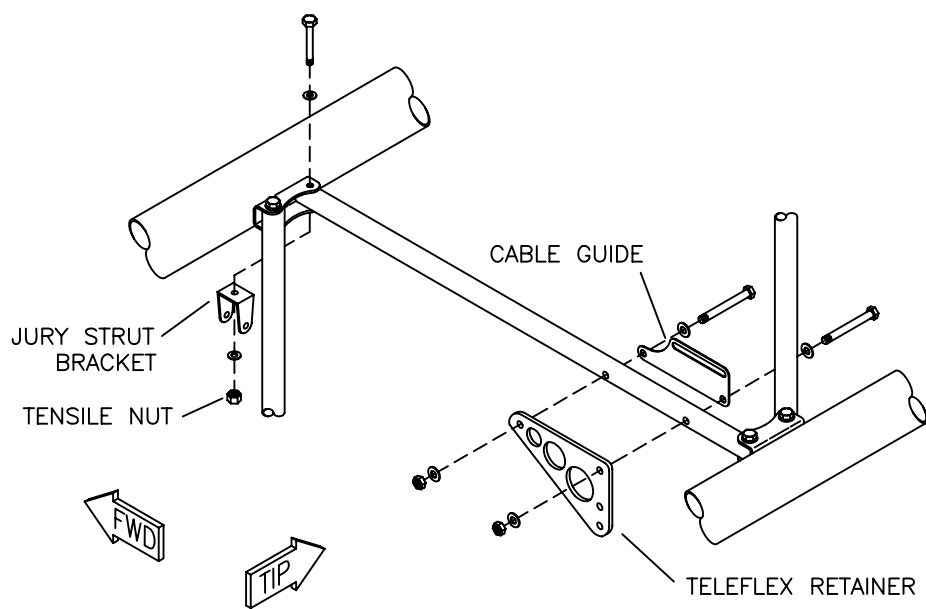


MD4354

RANS S-7S
STRUT ATTACH PLATE INSTALLATION
LEADING AND TRAILING EDGE SPARS
FIGURE 05-18



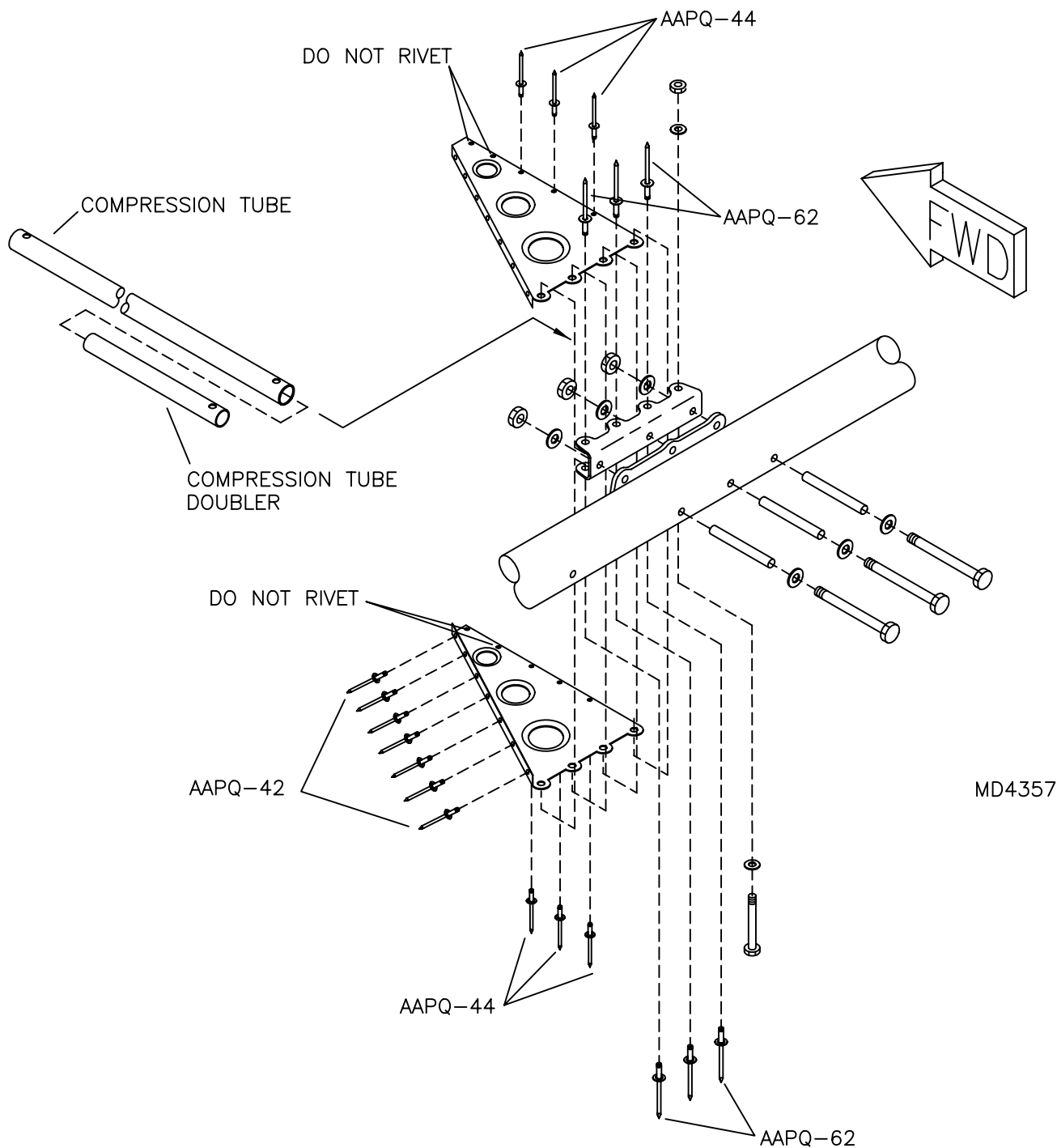
AILERON CABLE RUB BLOCK



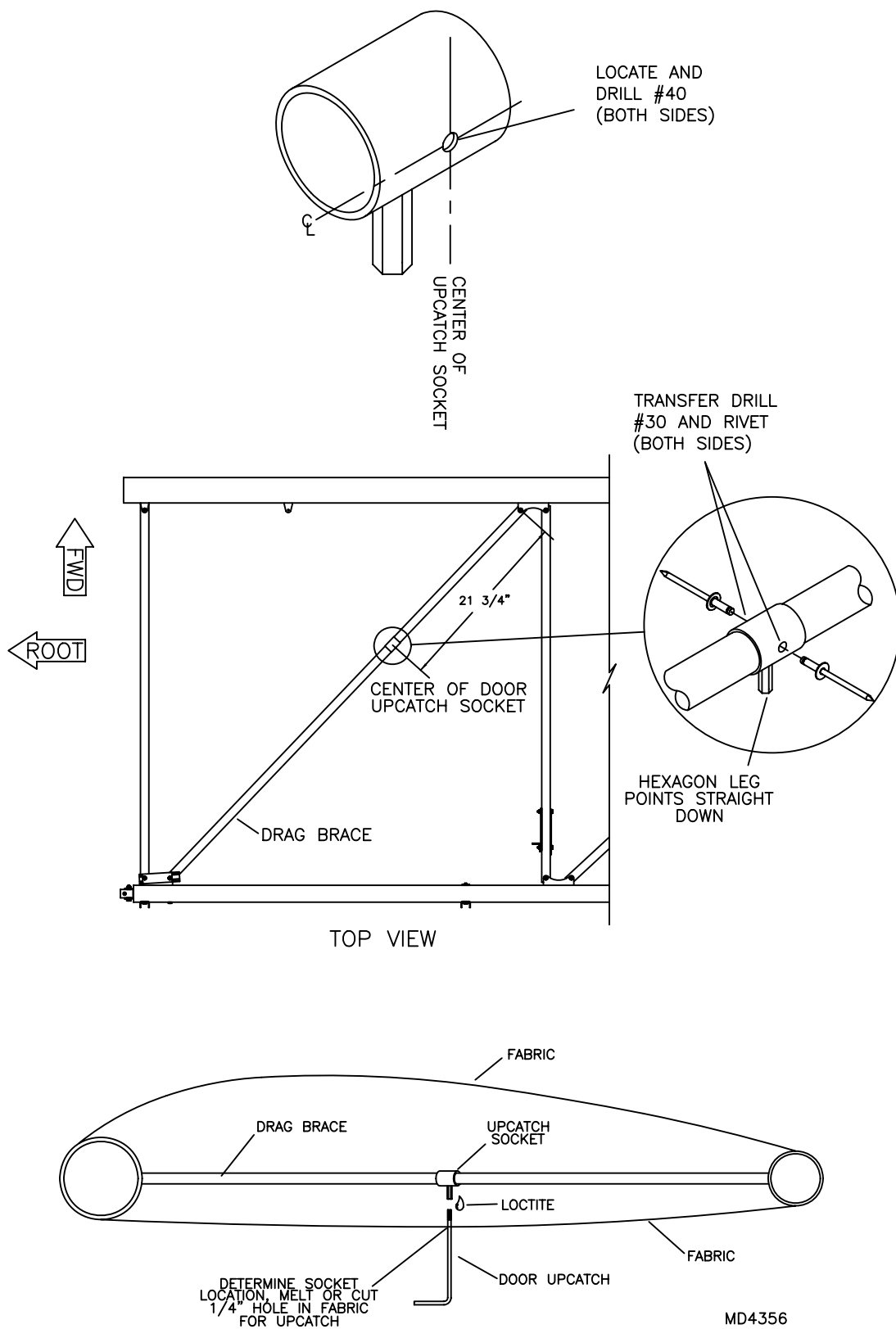
MD4355

JURY STRUT BRACKET, CABLE GUIDE AND TELEFLEX RETAINER

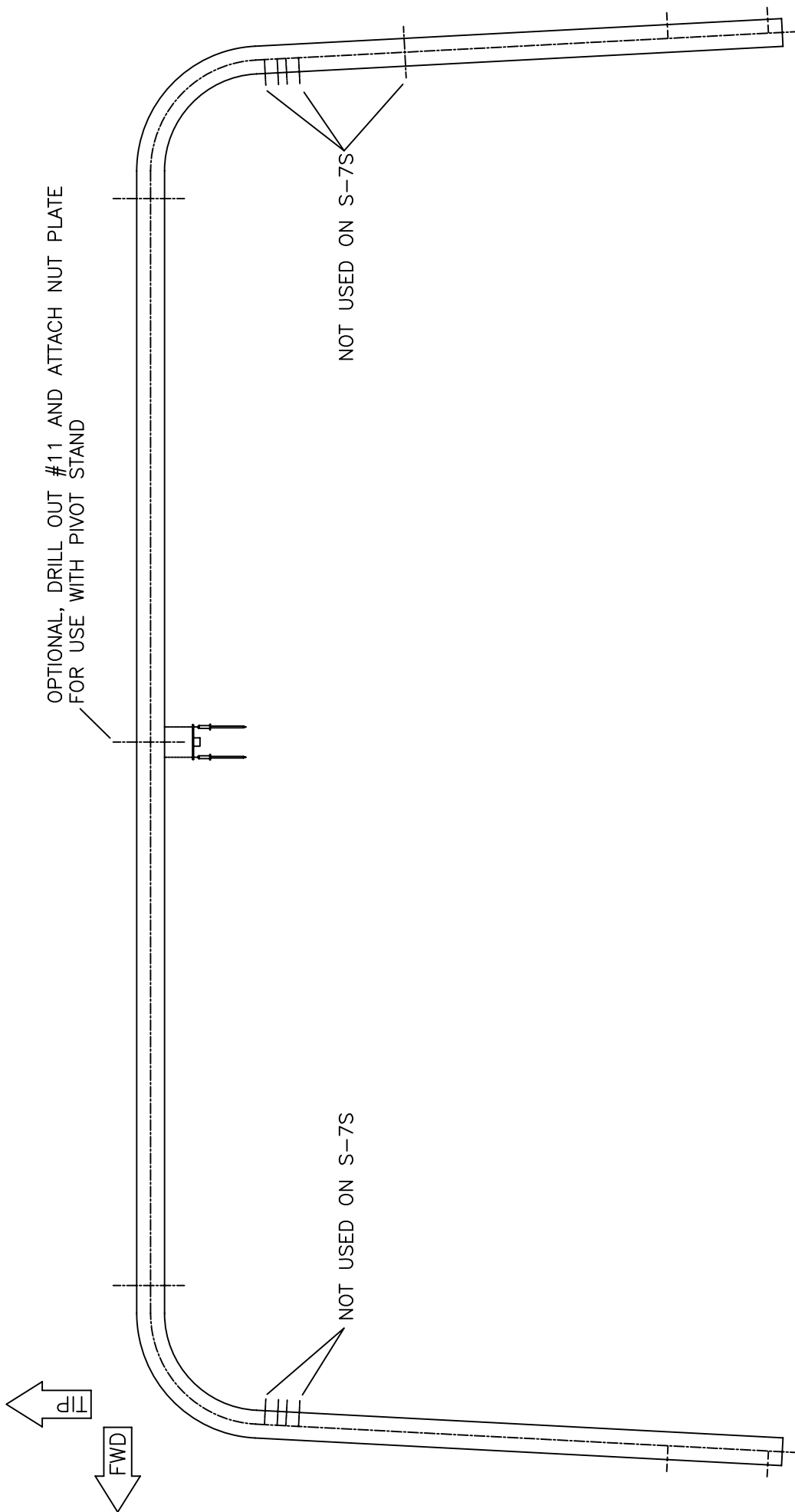
RANS S-7S **WING FRAME ASSEMBLY DETAILS** **FIGURE 05-26**



RANS S-7S
BELLCRANK BRACE INSTALLATION
FIGURE 05-27

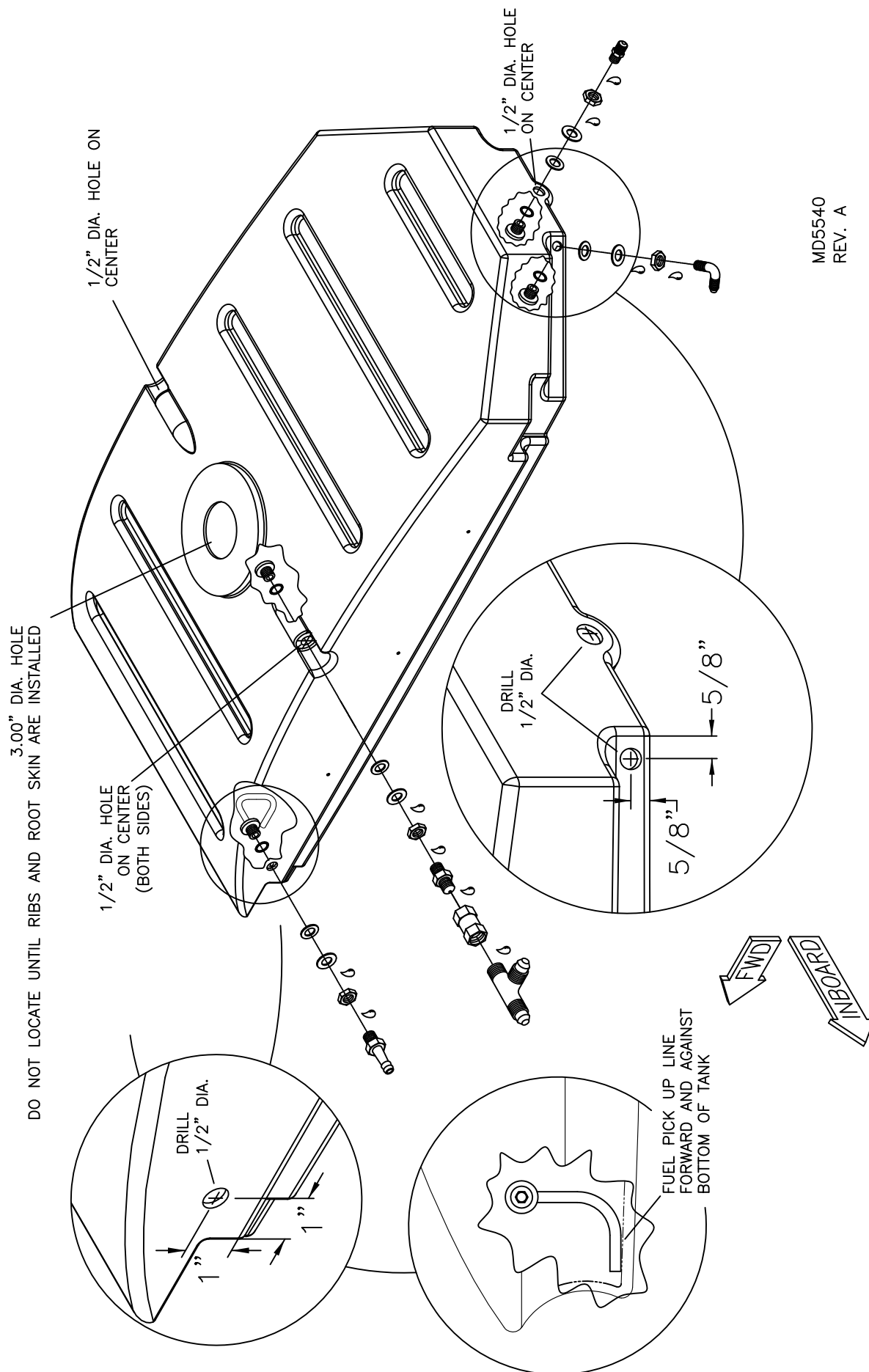


RANS S-7S
DOOR UPCATCH INSTALLATION
FIGURE 05-31

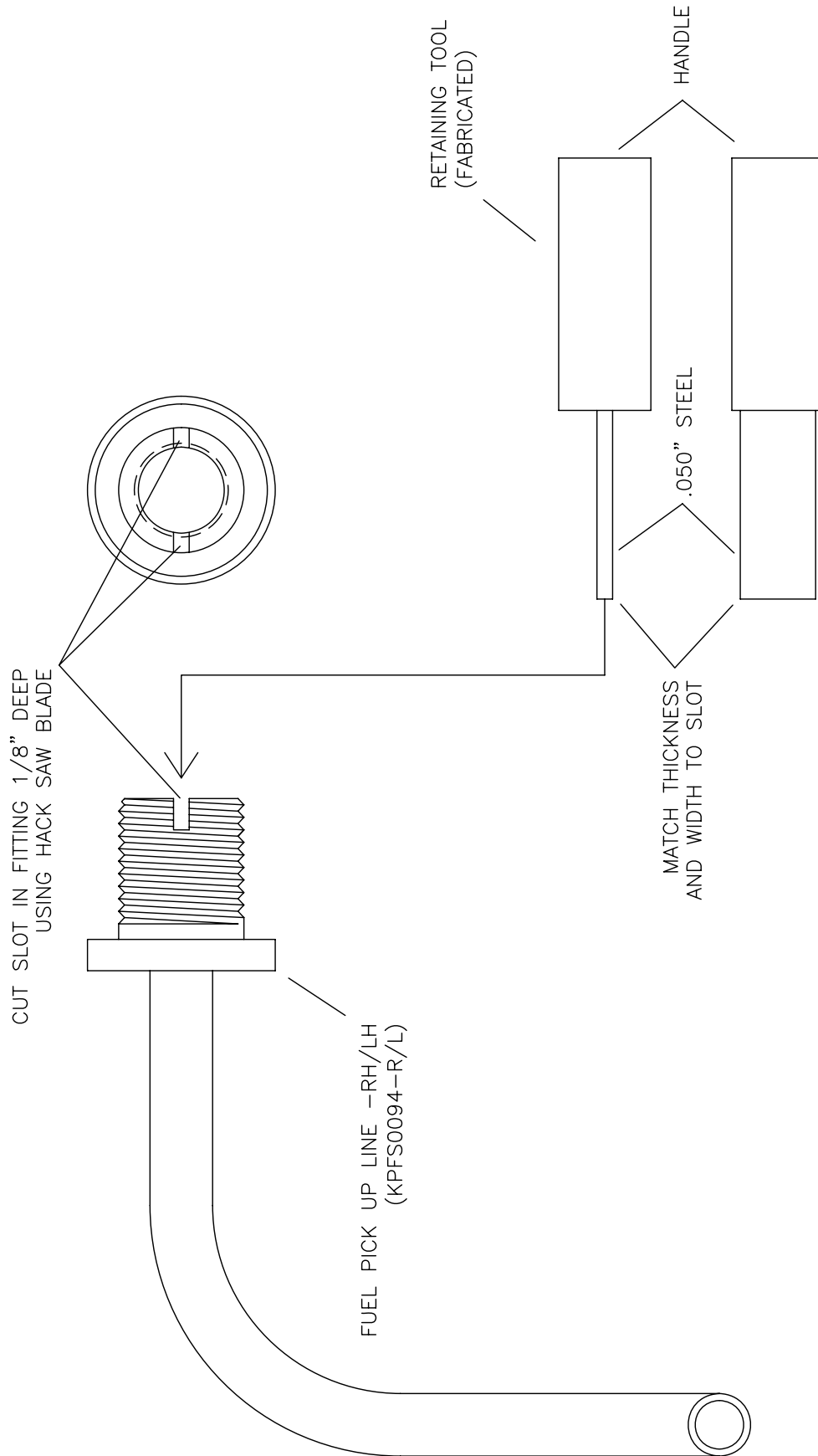


MD5552

RAMMS S-7S
TIP BOW ORIENTATION
FIGURE 05-35

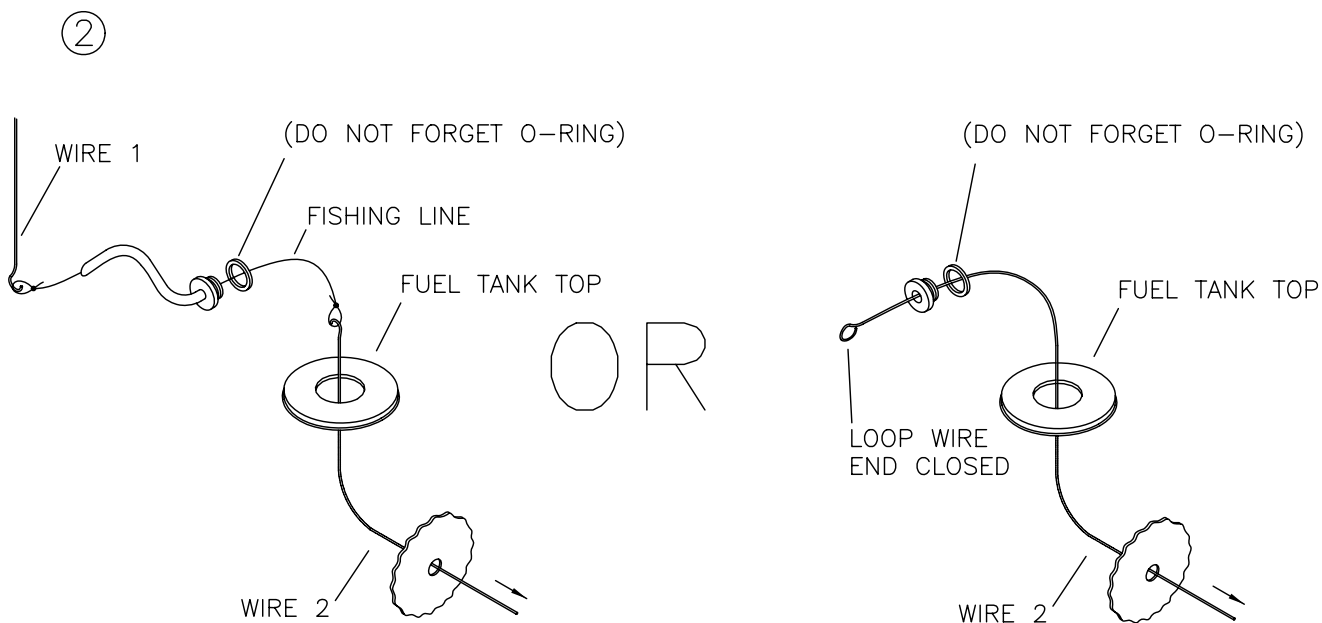
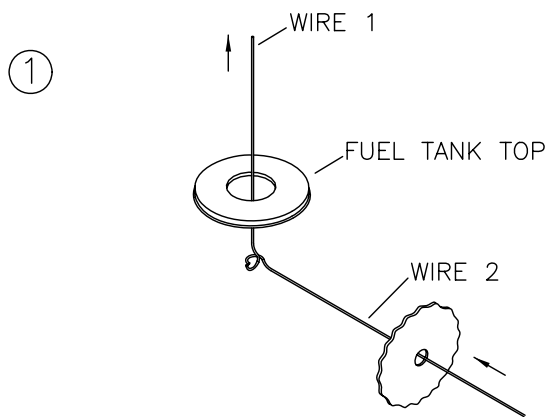


RAMS S-7S
WING FUEL TANK ASSEMBLY
FIGURE 05A-02



RAM S-7S
FUEL PICK UP LINE MODIFICATION
FIGURE 05A-03

MD4823

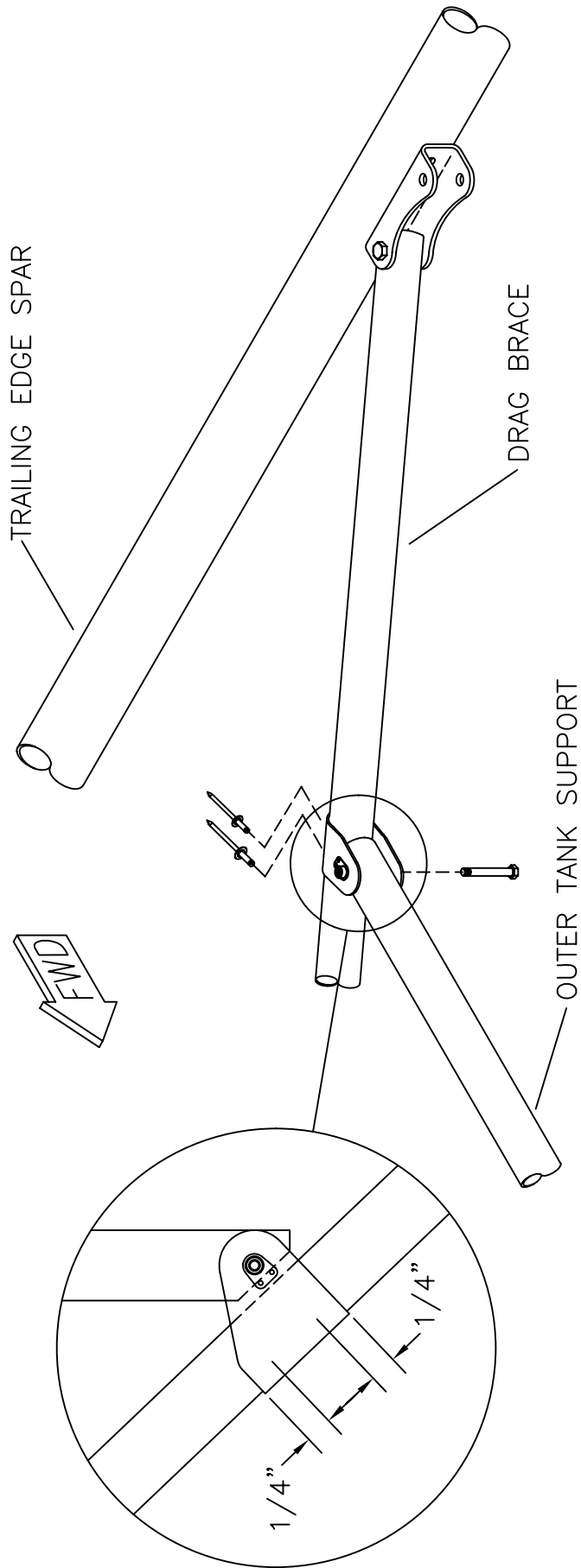


③ INSTALL RUBBER WASHER, STEEL WASHER AND NUT.

④ REMOVE FISHING LINE AND/OR WIRE.

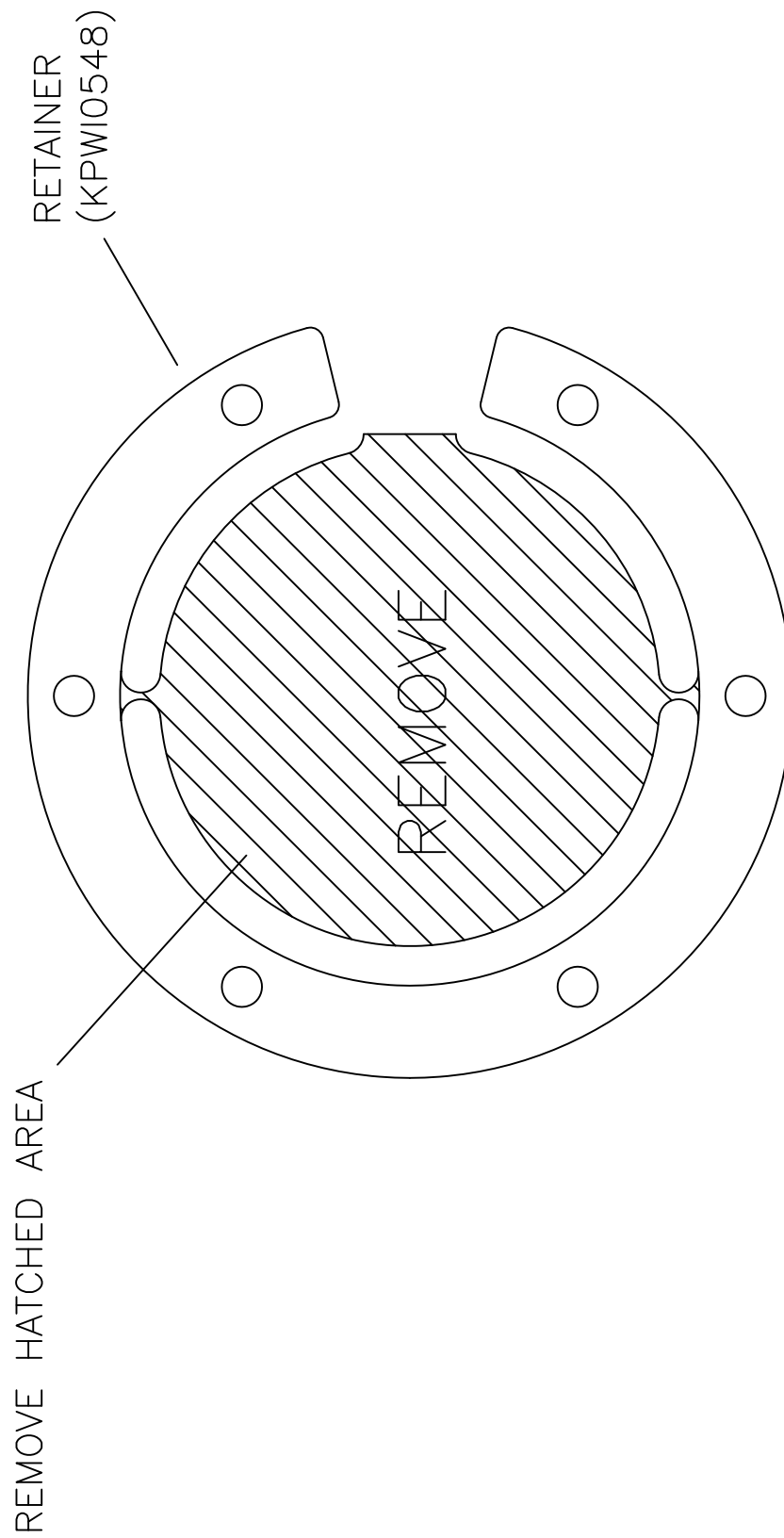
RANS S-7S
FUEL TANK FITTING INSTALLATION
FIGURE 05A-04

MD4832



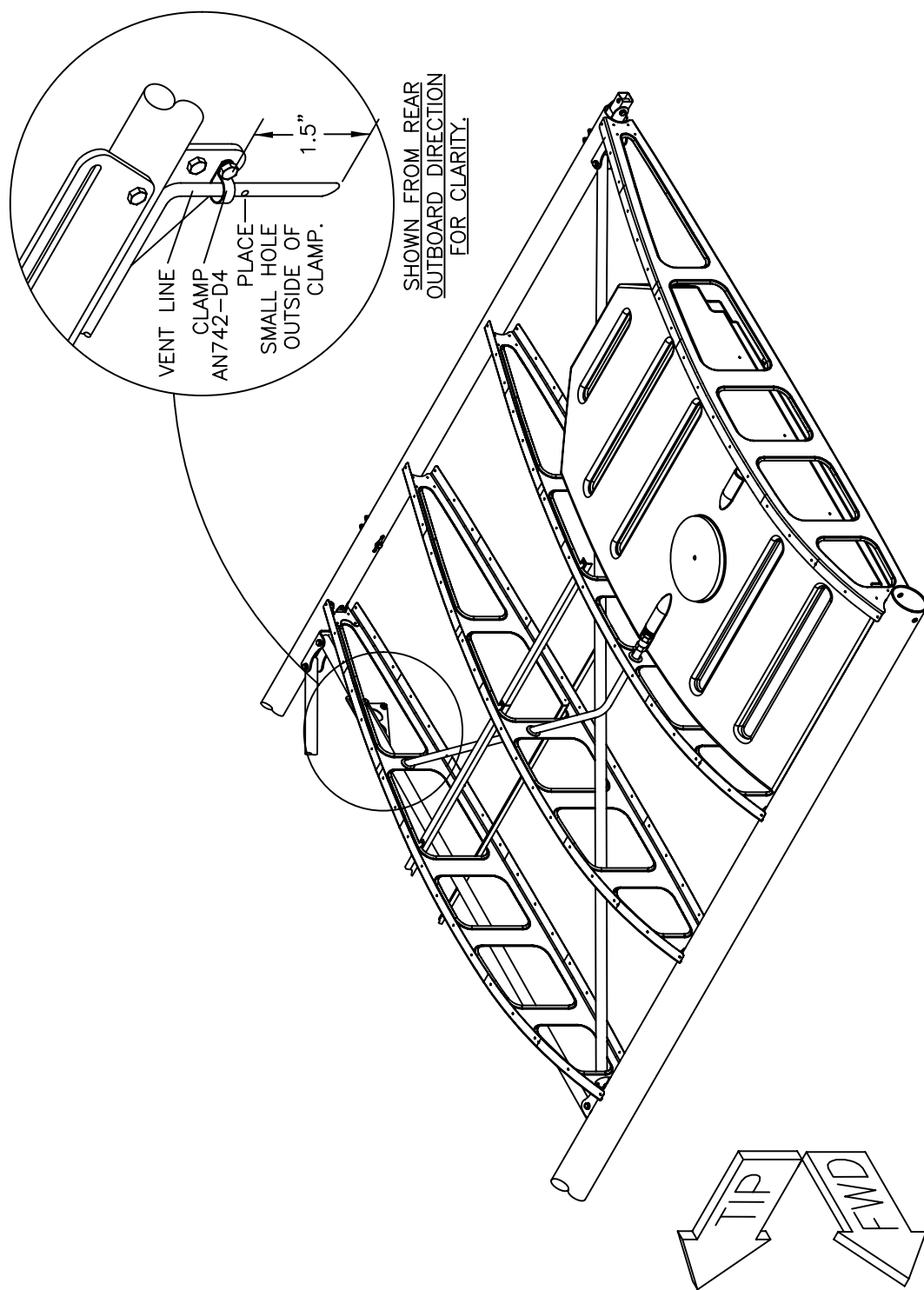
MD4359

R4400 S-7S
WING TANK SUPPORT TUBE INSTALLATION
FIGURE 05A-08



MD5549

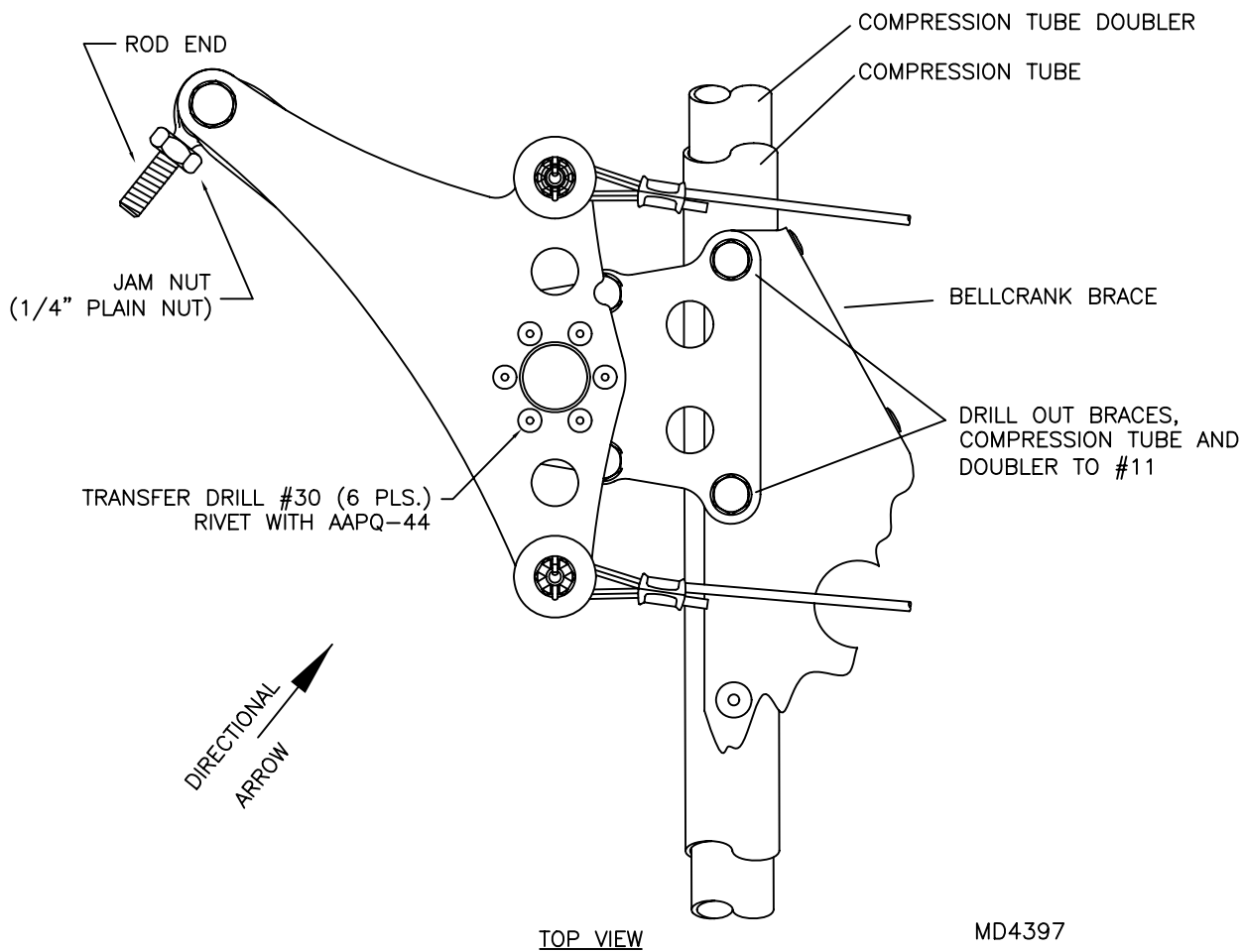
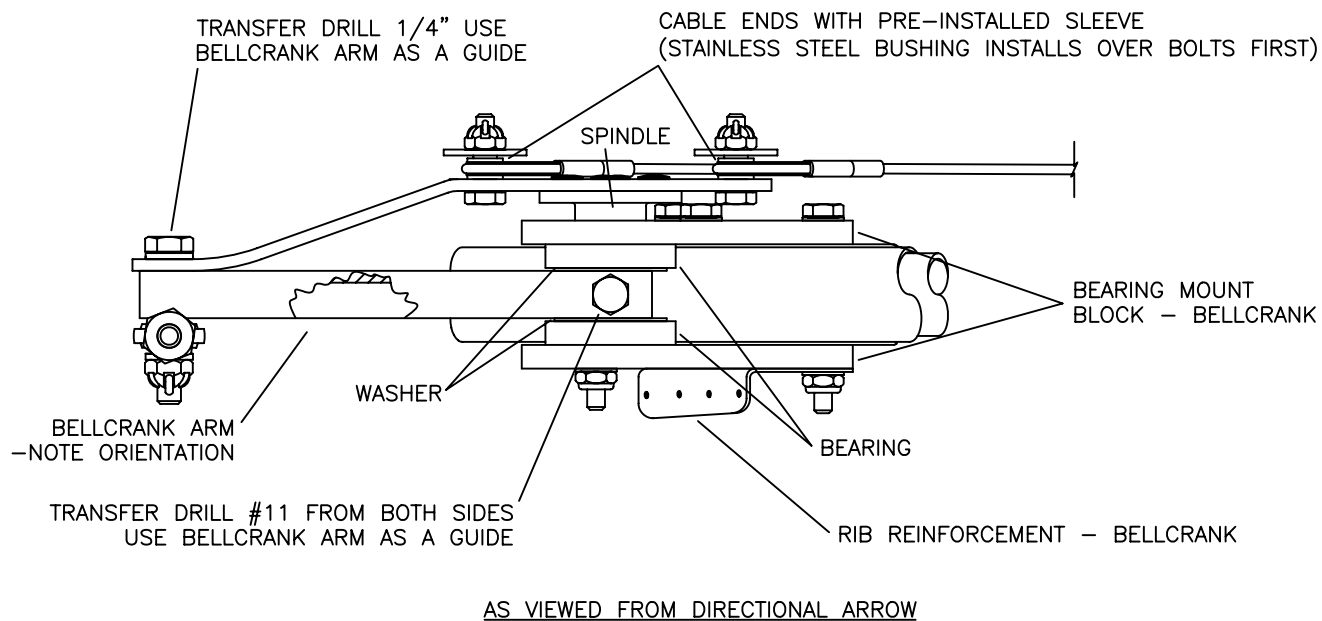
RRMS S-7S
RETAINER MODIFICATION
FIGURE 05A-15



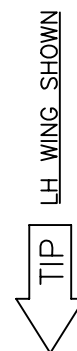
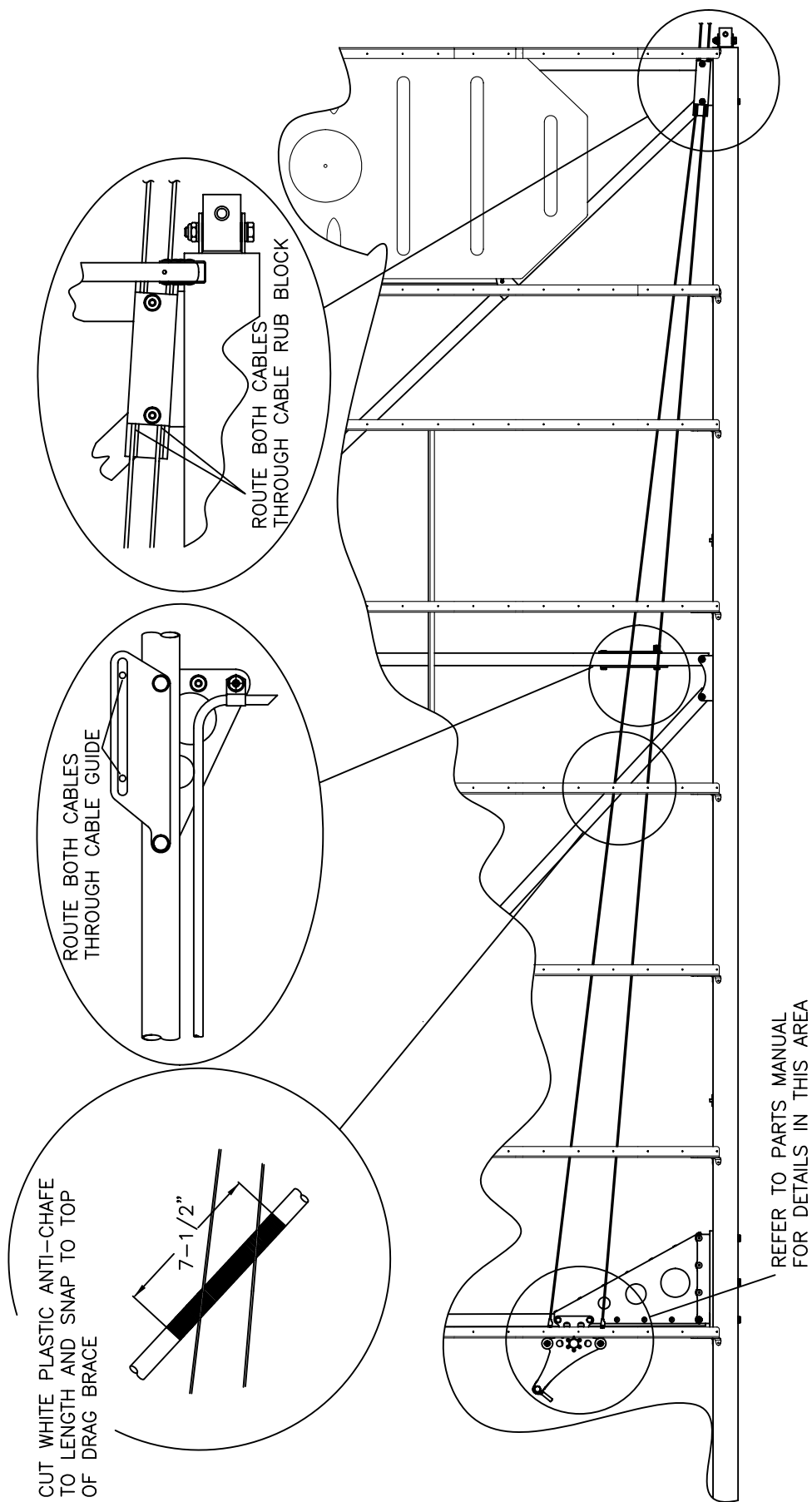
MD4360

RAMS S-7S **FUEL SYSTEM VENT LINE INSTALLATION** **FIGURE 05A-18**

RH WING SHOWN



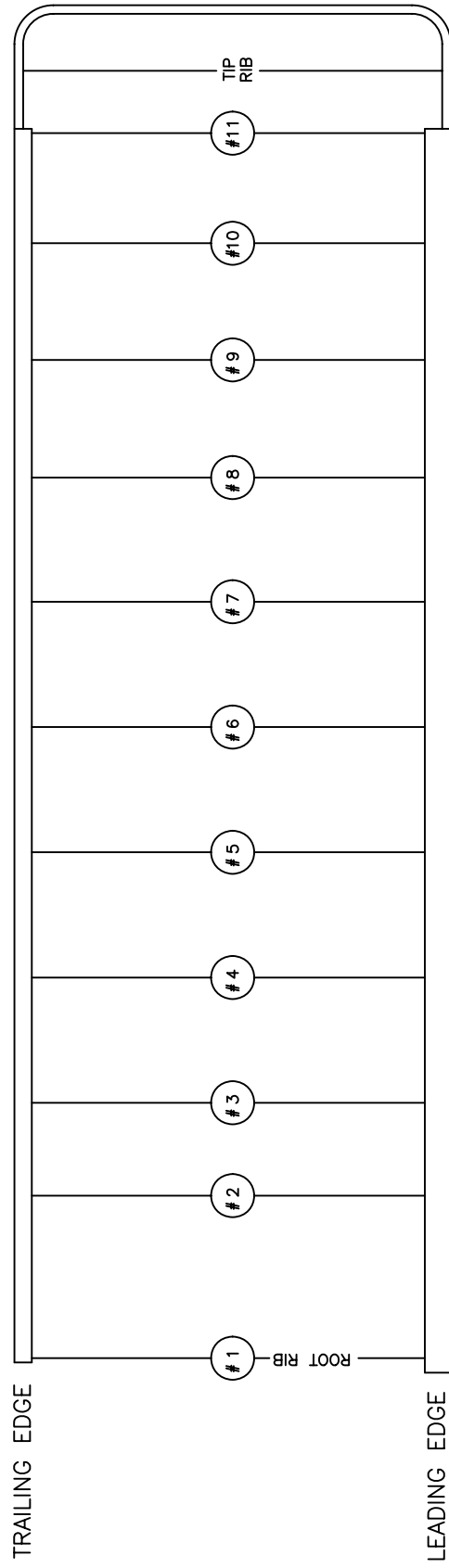
RANS S-7S **WING BELL CRANK ASSEMBLY AND INSTALLATION** **FIGURE 05B-04**



LH WING SHOWN

Ram S-7S
 AILERON CABLE INSTALLATION - WING
 FIGURE 05B-13

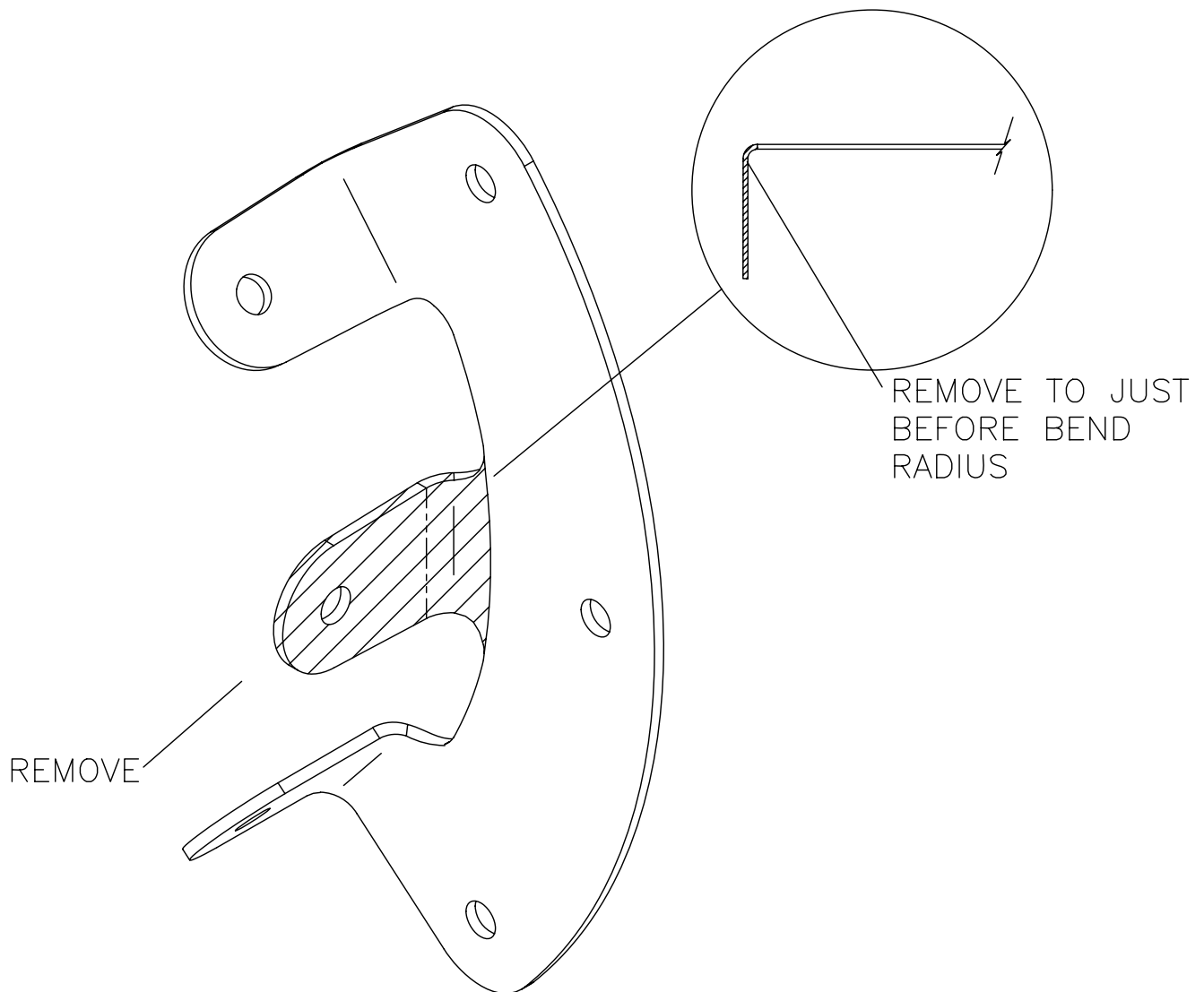
MD4365



RIB LOCATIONS CAN BE IDENTIFIED BY PRE-DRILLED HOLES IN SPARS AND TIP BOW

RRF S-7S RIB LOCATIONS FIGURE 05C-01

MD4348

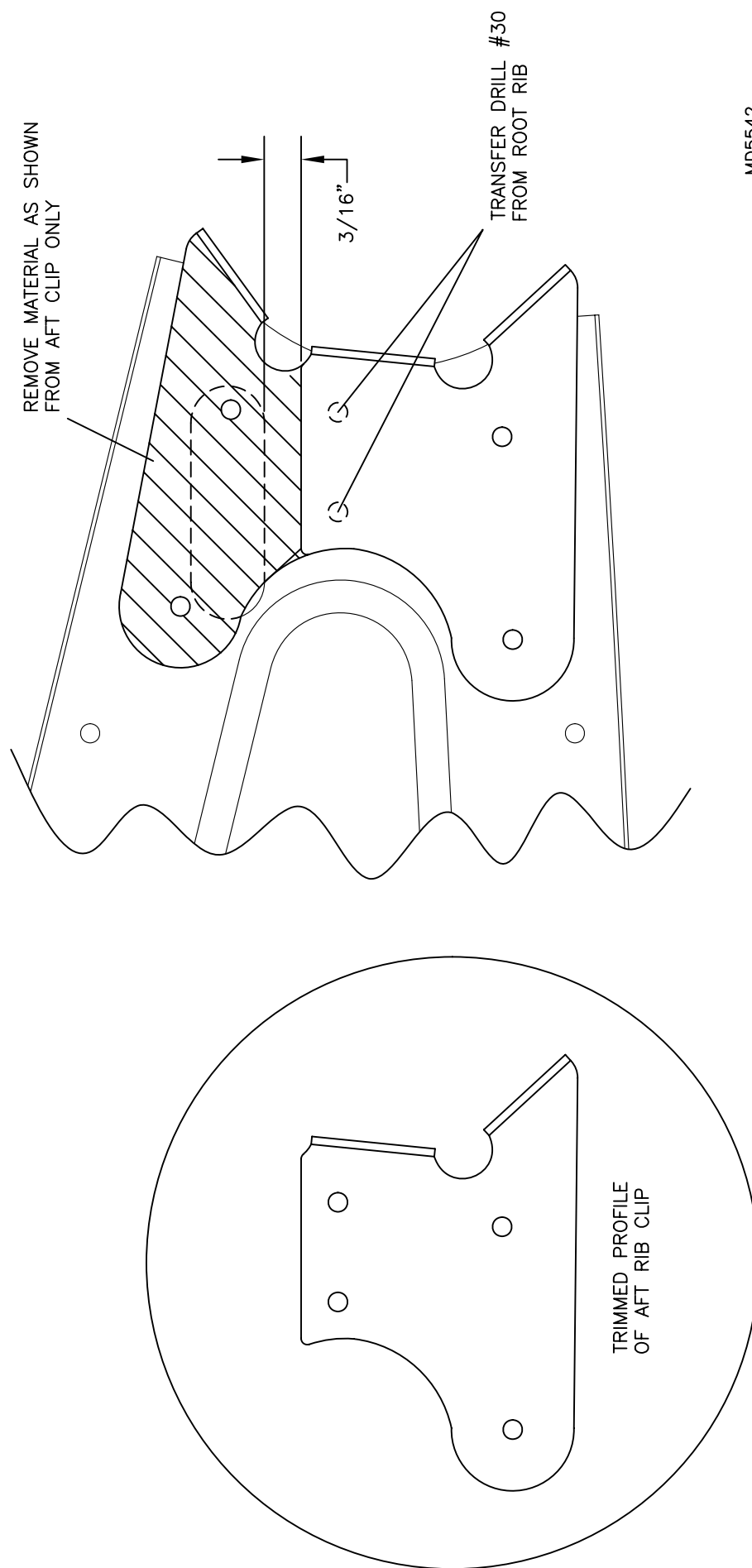


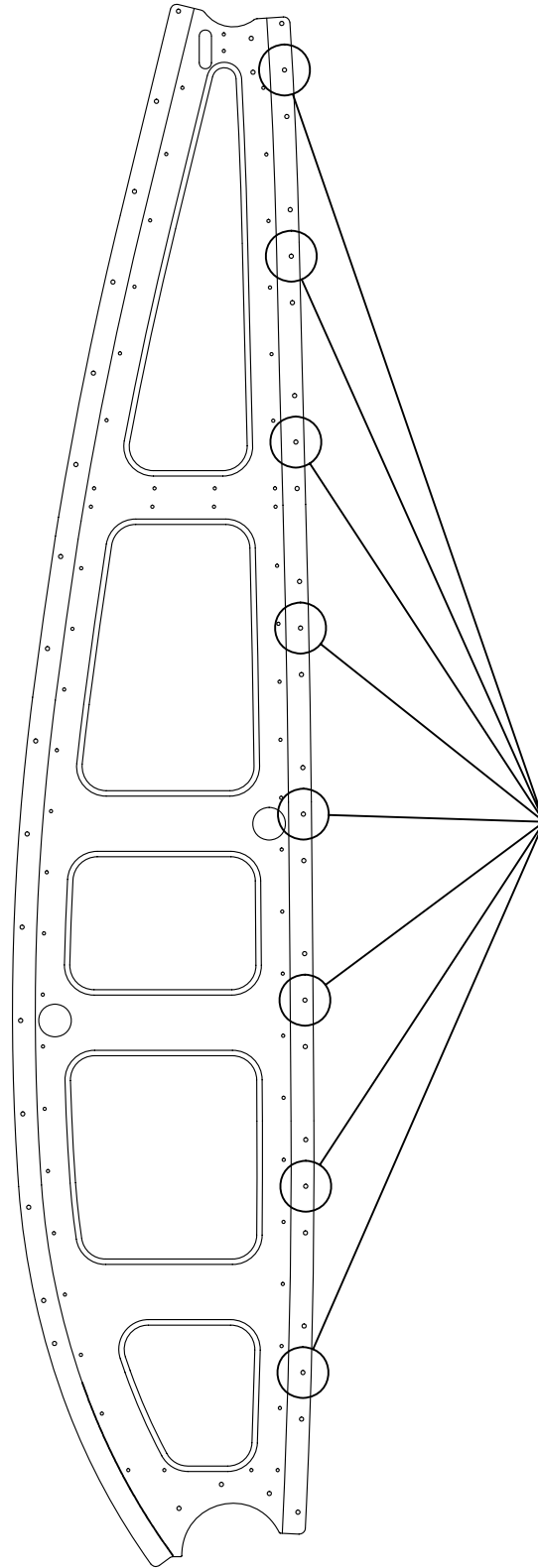
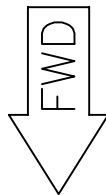
MD5558

RANS S-7S
ROOT RIB - FWD RIB ATTACH CLIP MODIFICATION
FIGURE 05C-06

06/15/2011

RRAM S-7S ROOT RIB - AFT RIB ATTACH CLIP MODIFICATION FIGURE 05C-07





DRILL TO #11 FOR TINNEMAN CLIPS
DO NOT DIMPLE!!

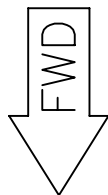
DIMPLE ALL RIVET HOLES ON UPPER AND LOWER FLANGES EXCEPT
THOSE THAT ARE CIRCLED

MD5557

RAMS S-7S

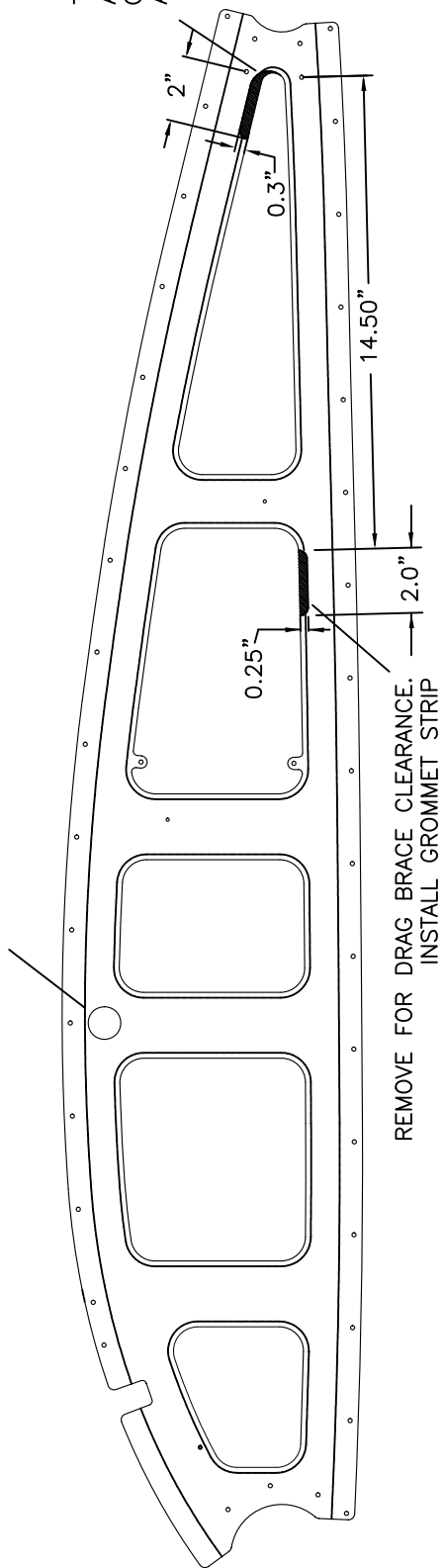
ROOT RIB MODIFICATION

FIGURE 05C-09



HOLE FOR FUEL TANK VENT LINE.
MIRROR TO ROOT RIB.
CLECO, TRANSFER DIMENSION AND CUT OPENING.

TRIM FOR
AILERON CABLES.
CONTOUR
AS SHOWN

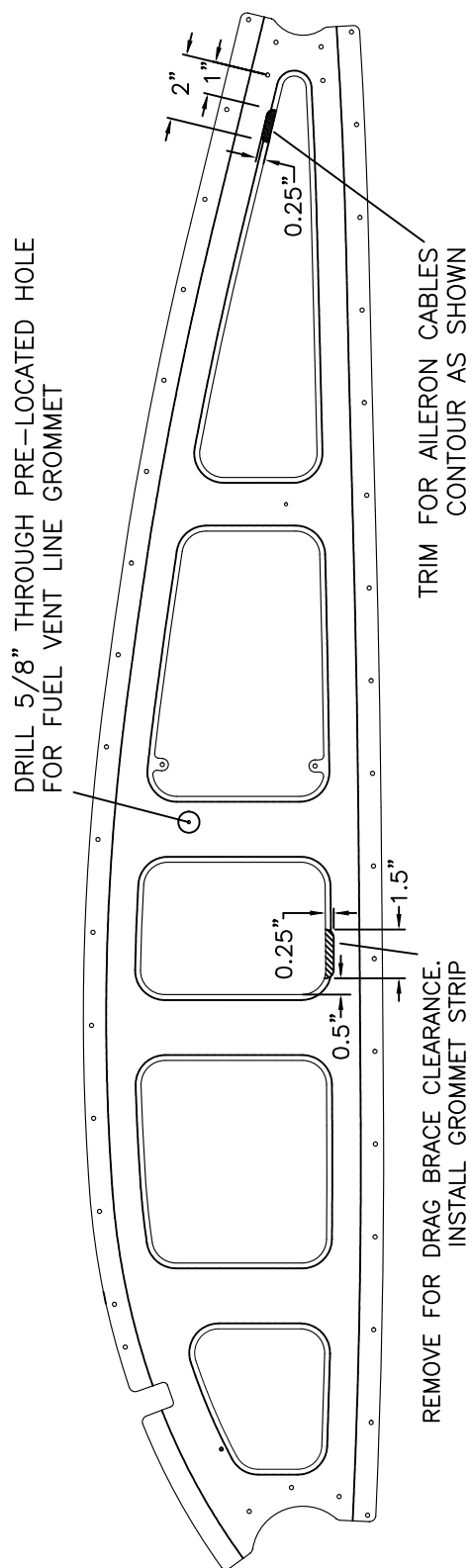
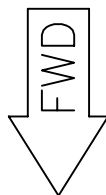


MD5557

RRAN S-7S

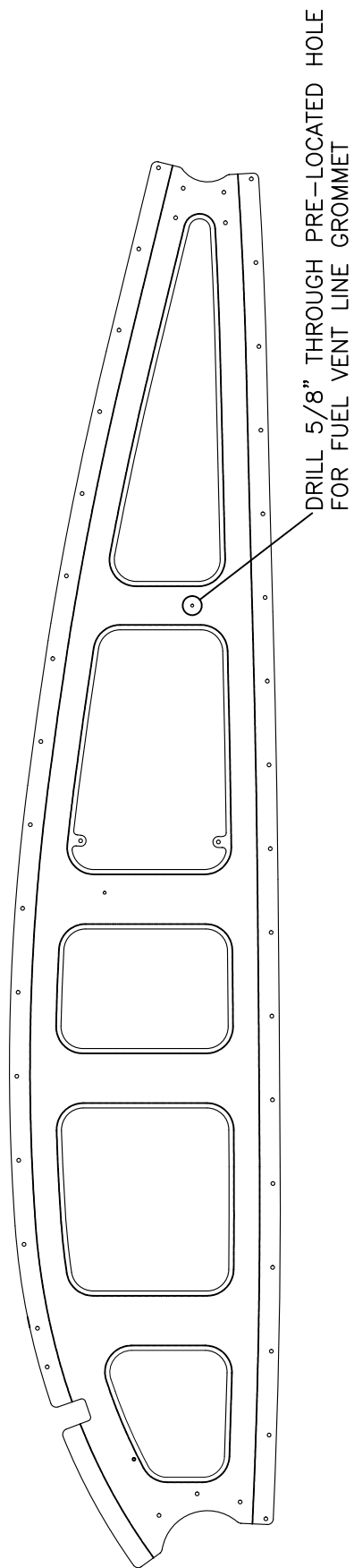
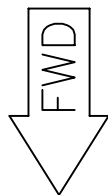
RIB #2 MODIFICATION

FIGURE 05C-09A



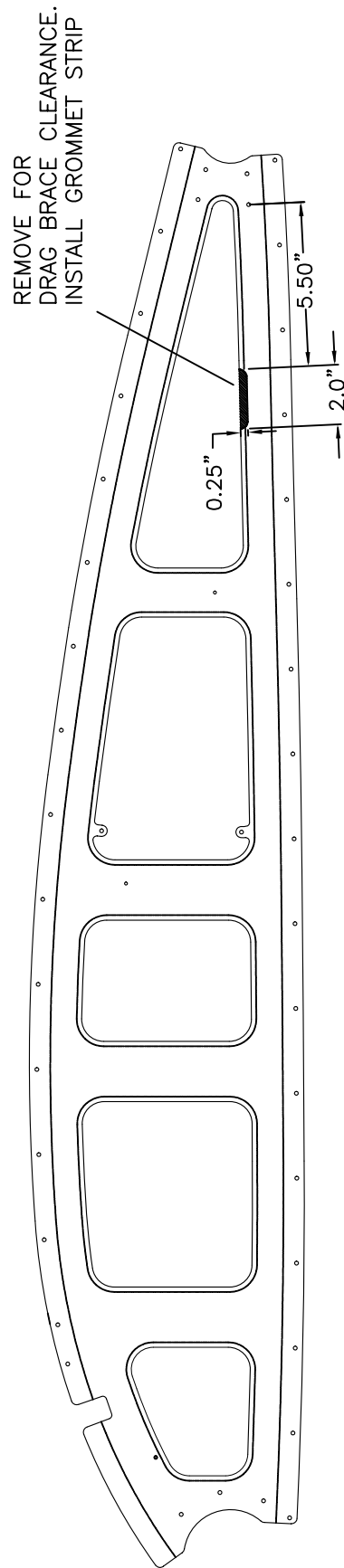
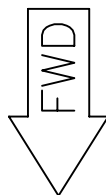
MD5557

RRR S-7S
RIB #3 MODIFICATION
FIGURE 05C-09B



MD5557

RRM S-7S
RIB #4 MODIFICATION
FIGURE 05C-09C

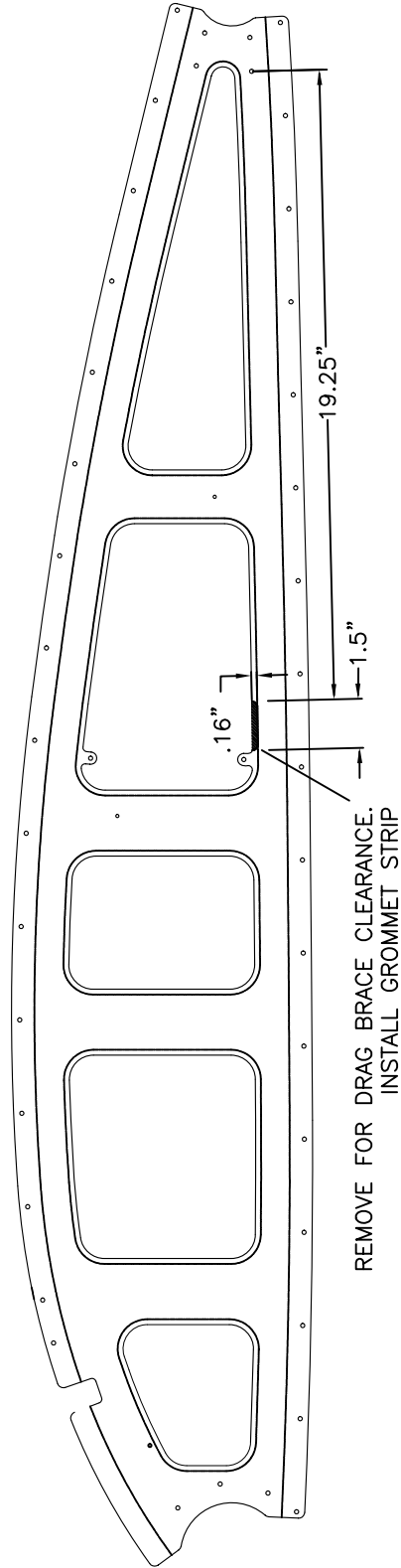
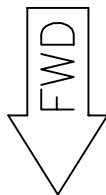


MD5557

RAMBO S-7S

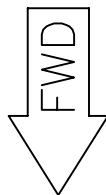
RIB #5 MODIFICATION

FIGURE 05C-09D



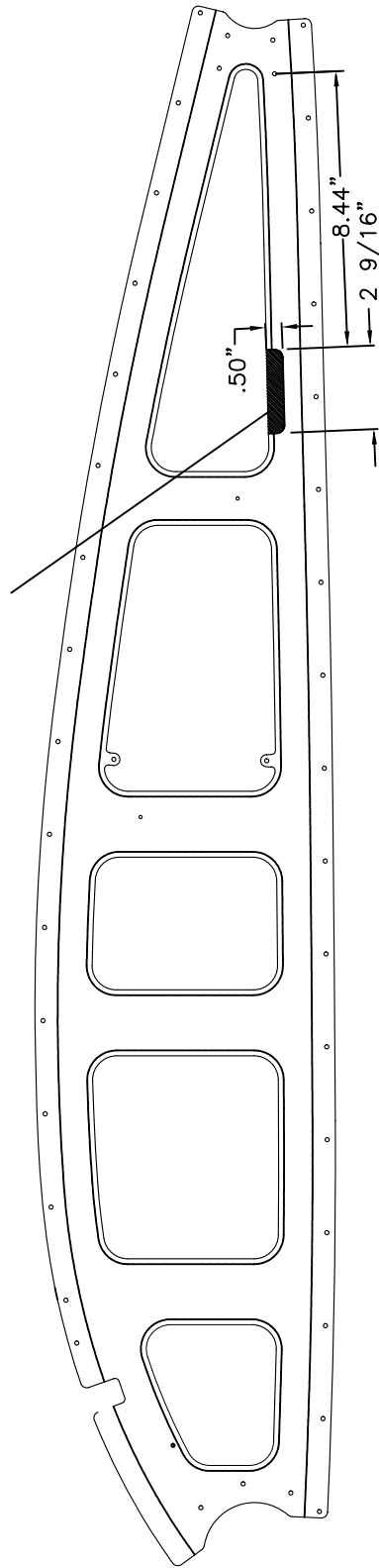
MD5557

RRR S-7S
RIB #6 MODIFICATION
FIGURE 05C-09E



REMOVE FOR BELLCRANK
MOUNT PLATE PLACEMENT

CAUTION:
RIB REINFORCEMENT PLATE
INSTALLS BELOW THIS REMOVAL.
DO NOT REMOVE EXCESS MATERIAL

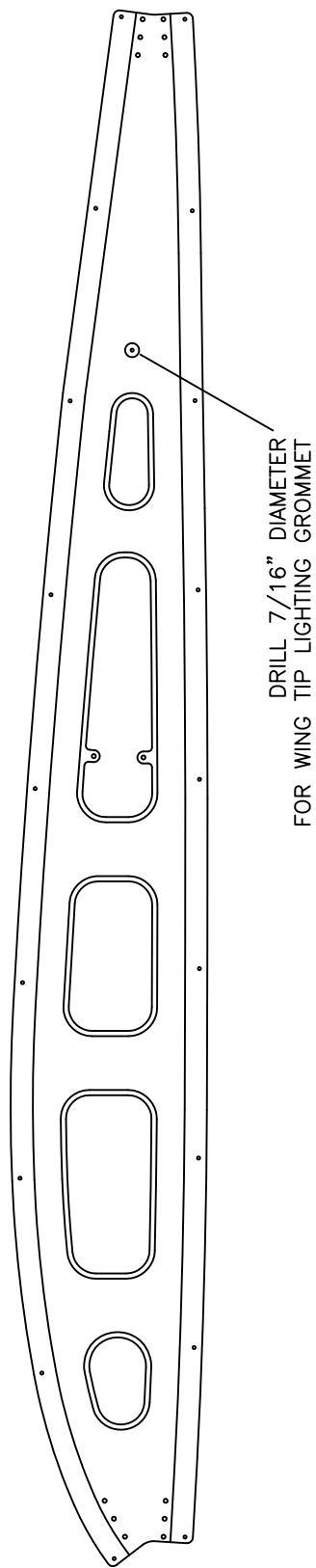
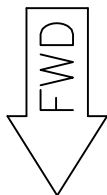


MD5557

RIPRIDE S-7S

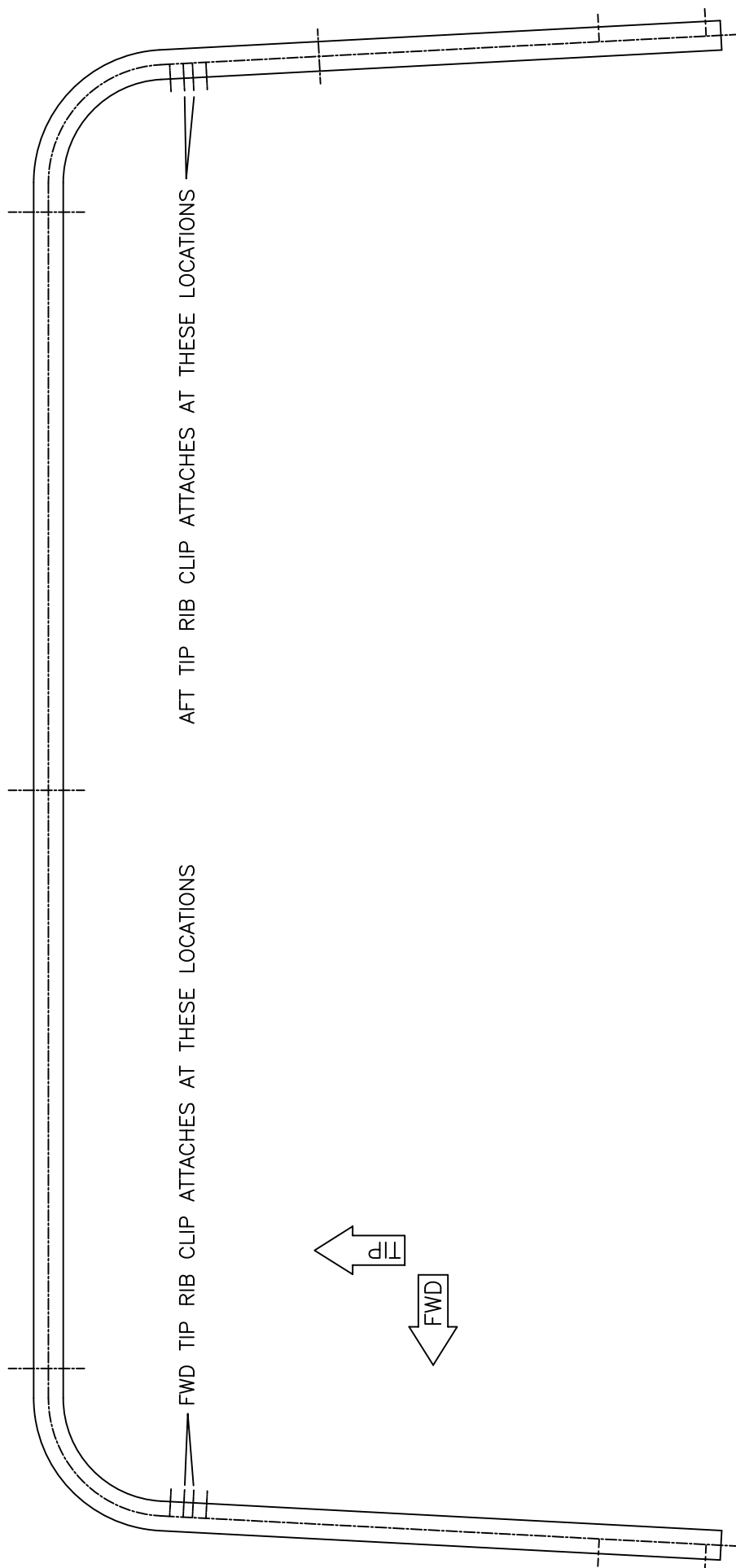
RIB #8 MODIFICATION

FIGURE 05C-09F



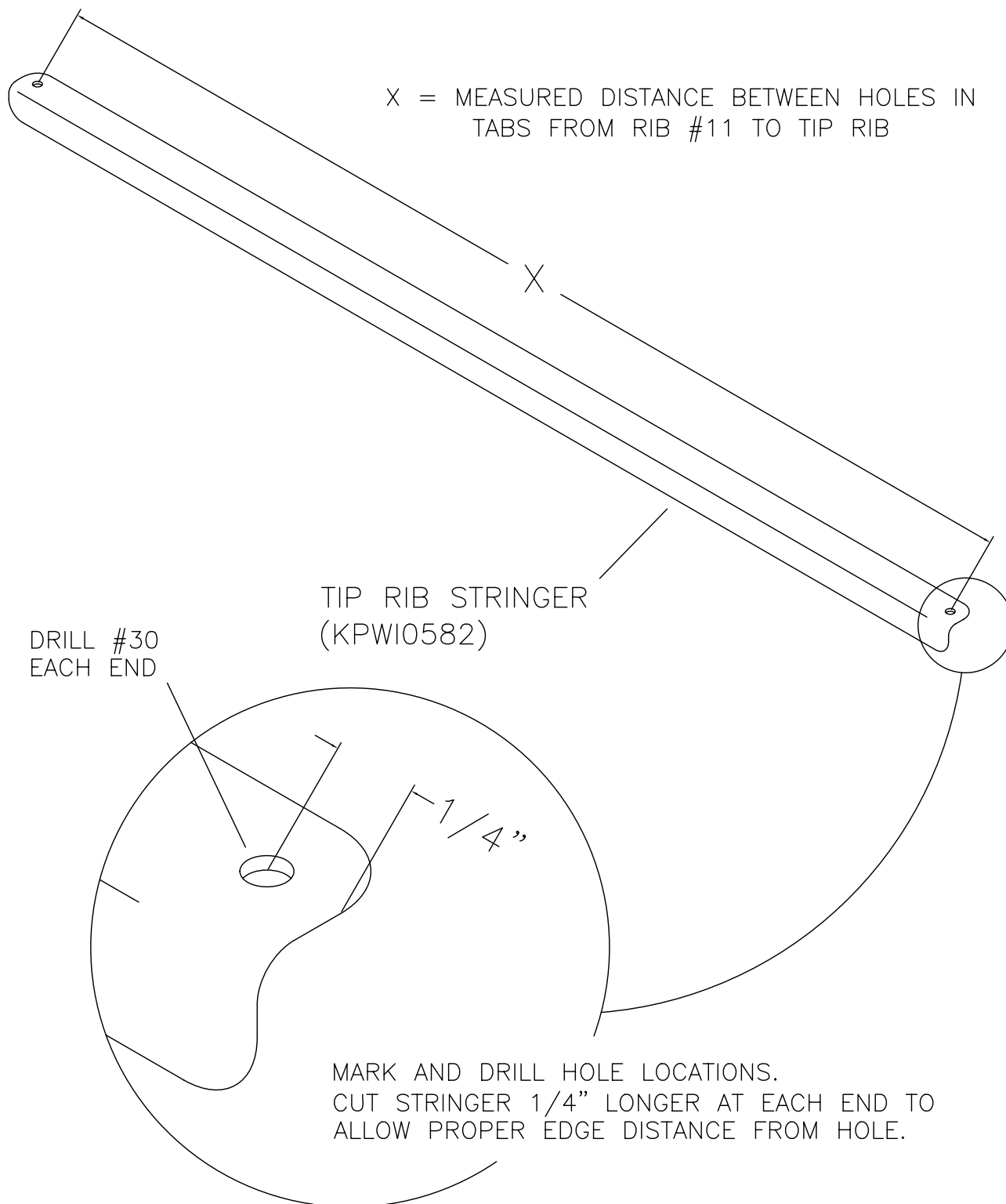
MD5557

RRR S-7S TIP RIB MODIFICATION FIGURE 05C-09G



MD5552

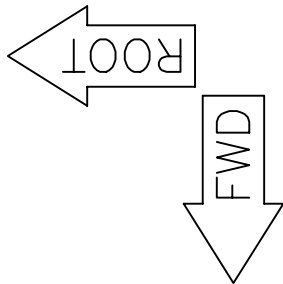
RFA S-7S
TIP RIB CLIP LOCATION
FIGURE 05C-11



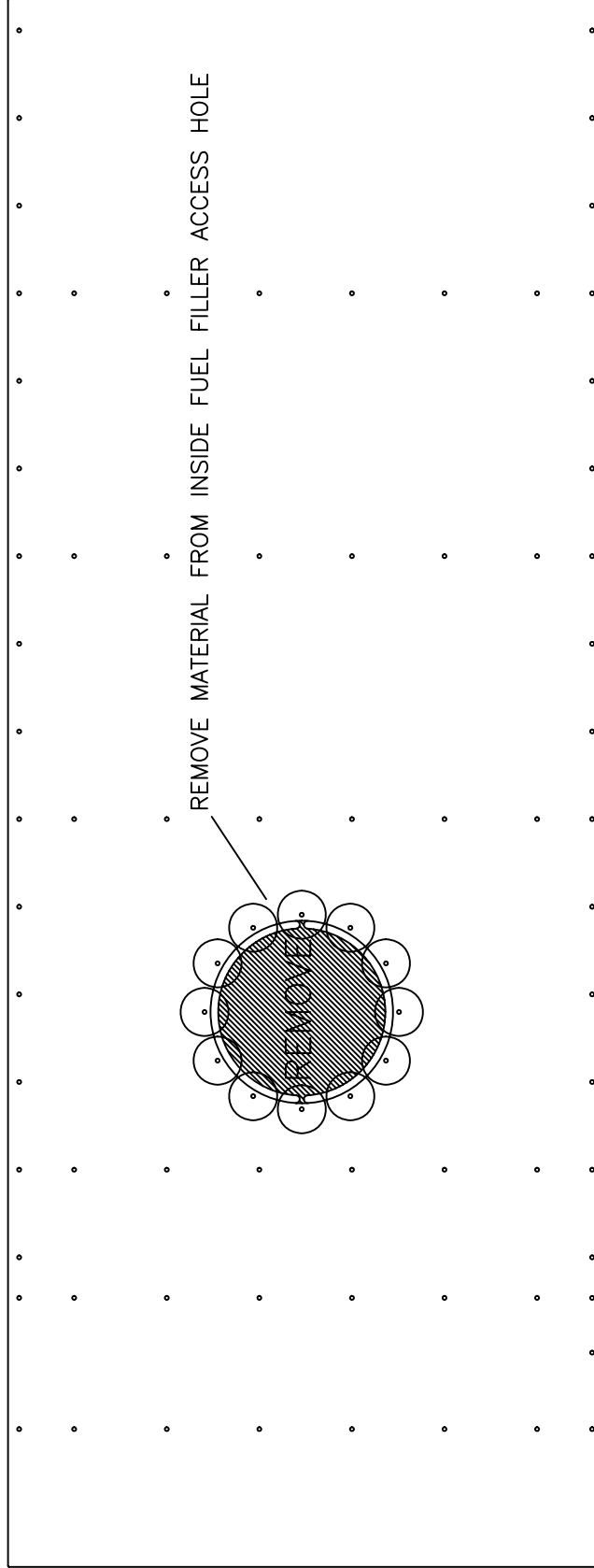
MD5559

RANS S-7S
TIP RIB STRINGER FABRICATION
FIGURE 05C-19

06/15/2011



DIMPLE ALL RIVET HOLES EXCEPT THOSE THAT ARE CIRCLED

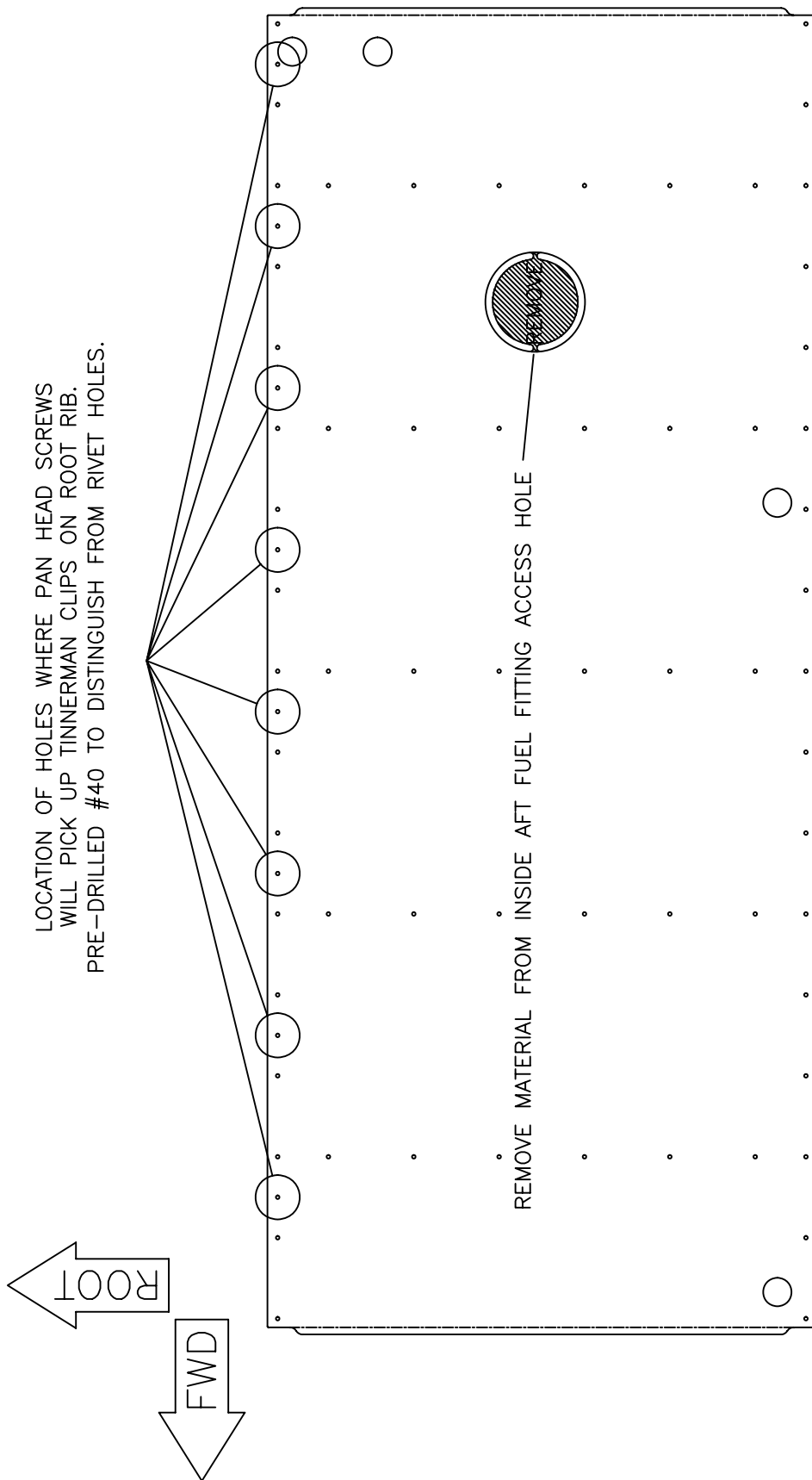


LEFT TOP ROOT SKIN SHOWN

THIS HOLE IDENTIFIES
FWD OUTBOARD SIDE

MD5556

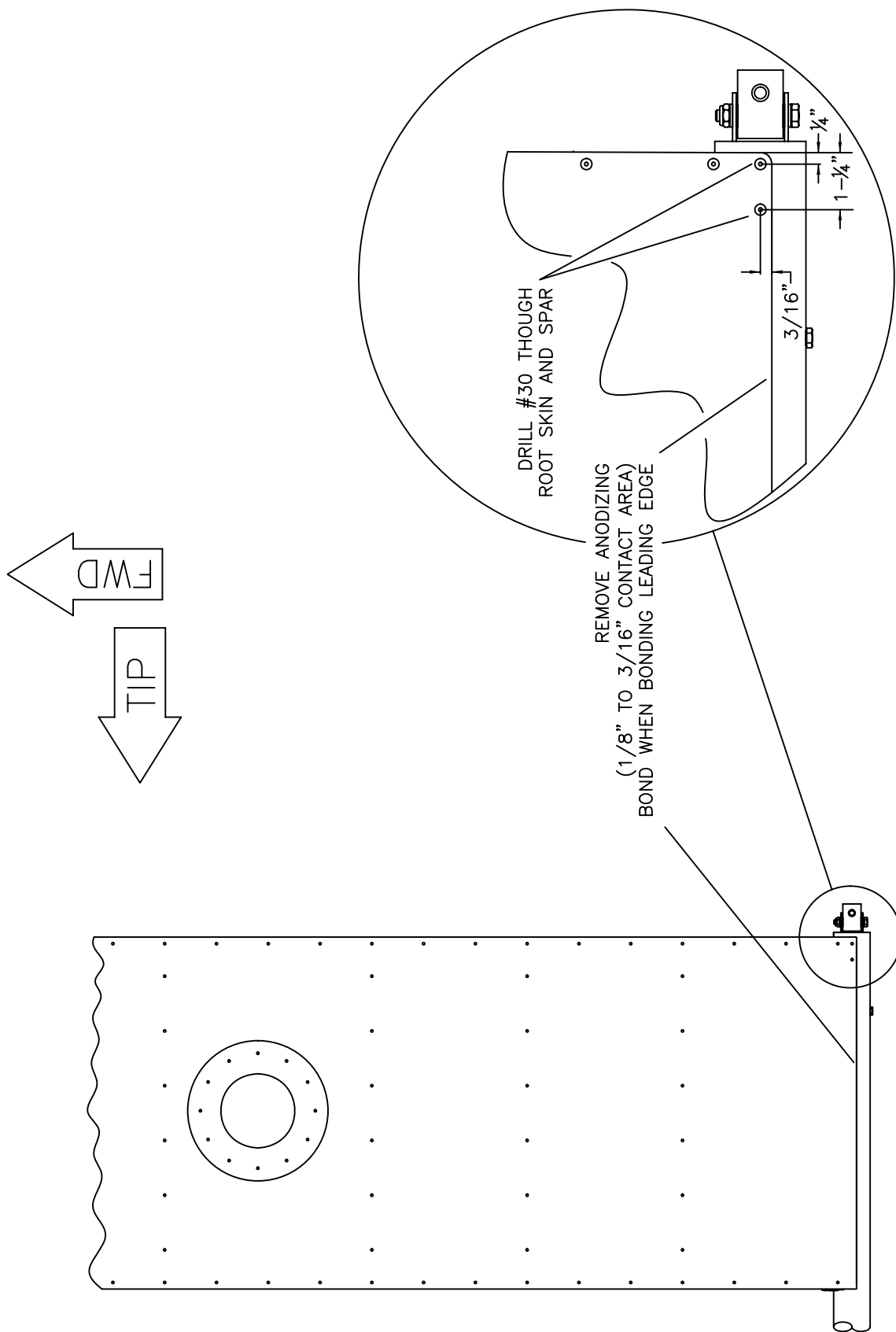
RRR S-7S
UPPER ROOT SKIN MODIFICATION
FIGURE 05C-23



DIMPLE ALL RIVET HOLES EXCEPT THOSE THAT ARE CIRCLED
LEFT BOTTOM ROOT SKIN SHOWN

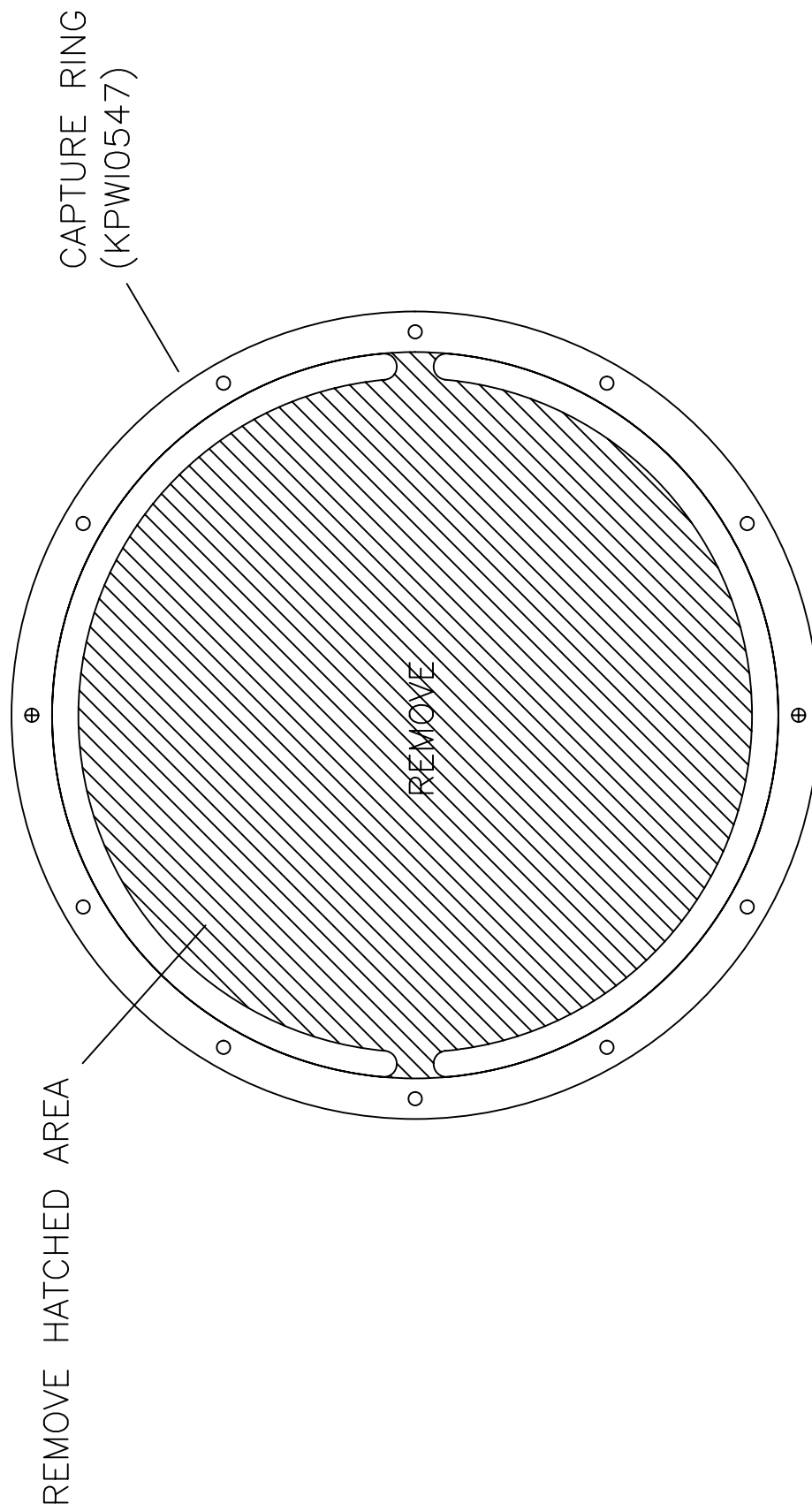
MD5555

RA-7S LOWER ROOT SKIN MODIFICATION FIGURE 05C-24



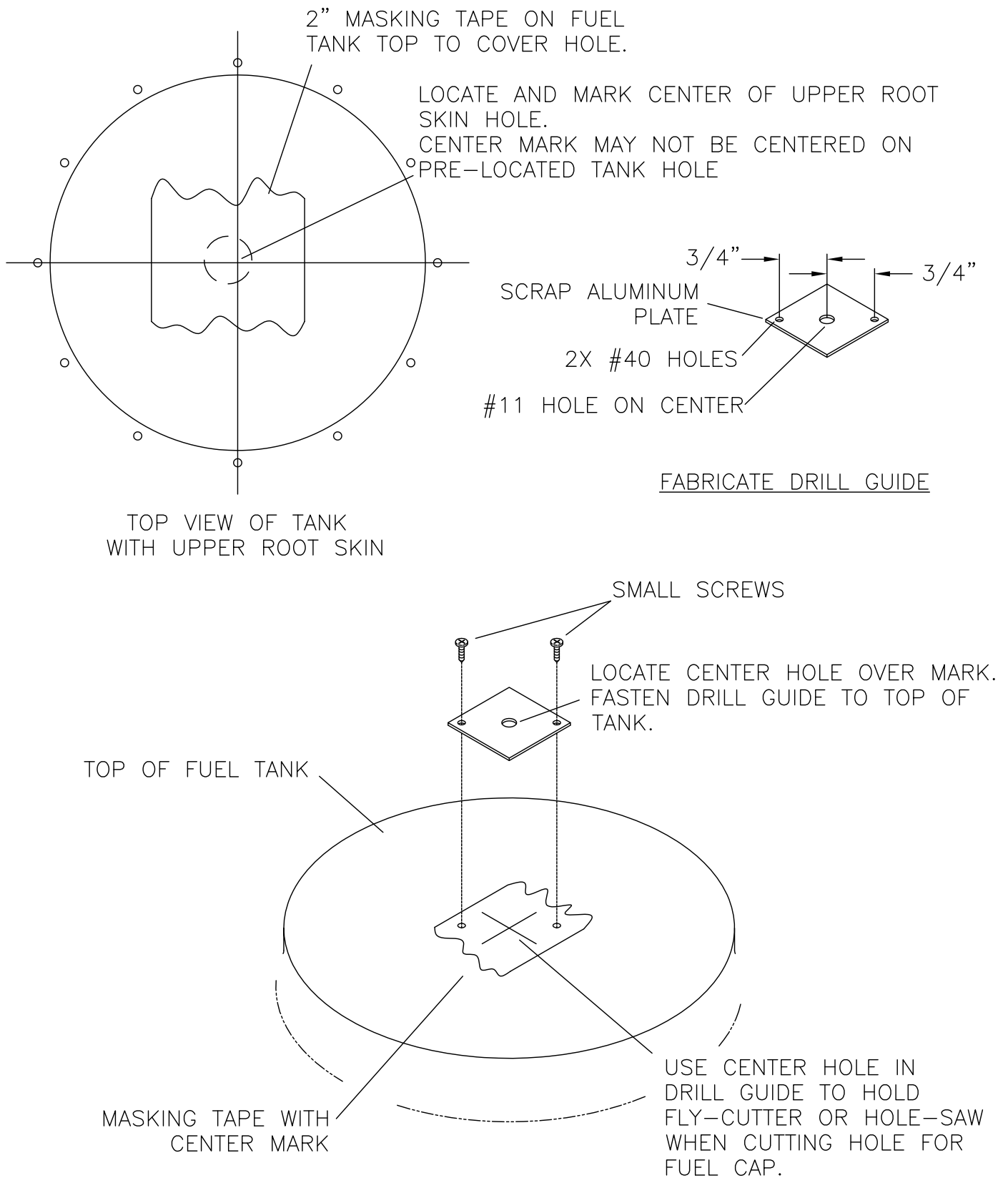
MD4366

RFA S-7S
TOP ROOT SKIN INSTALLATION
FIGURE 05C-31



MD5549

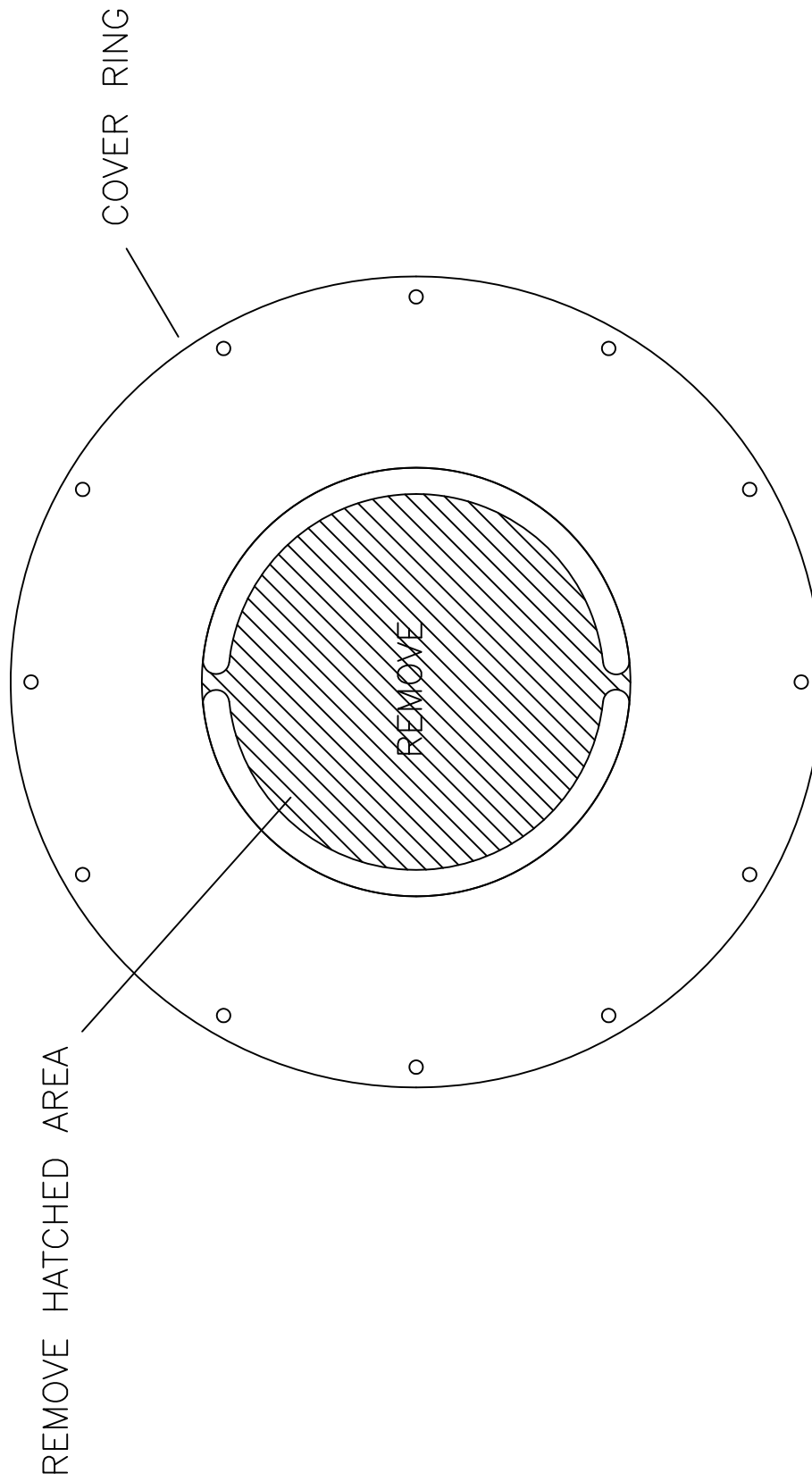
RRMS S-7S
CAPTURE RING MODIFICATION
FIGURE 05C-37



RANS S-7S COURIER
FUEL CAP HOLE PLACEMENT
FIGURE 05C-38

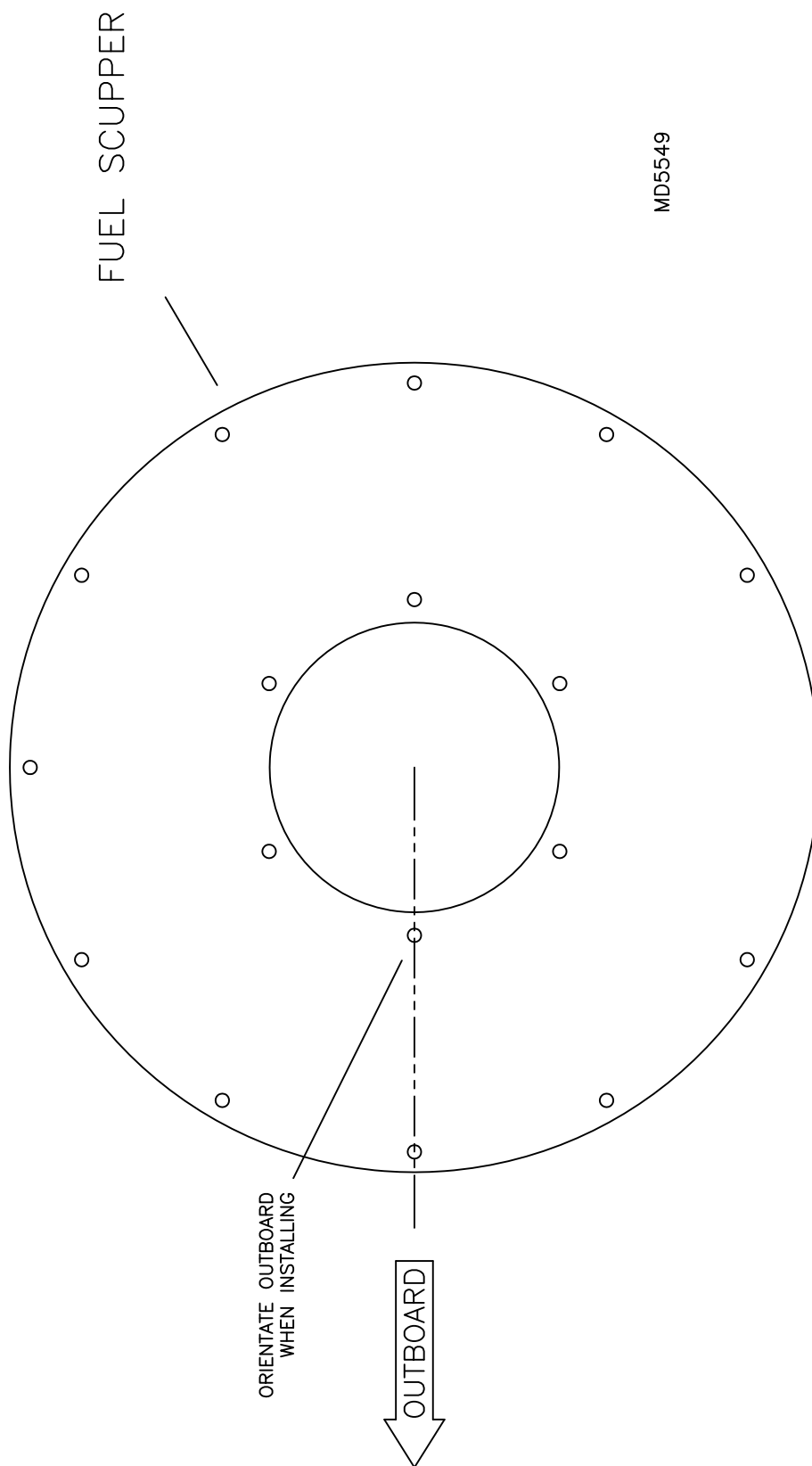
MD5560
 REV. A

07/28/2014

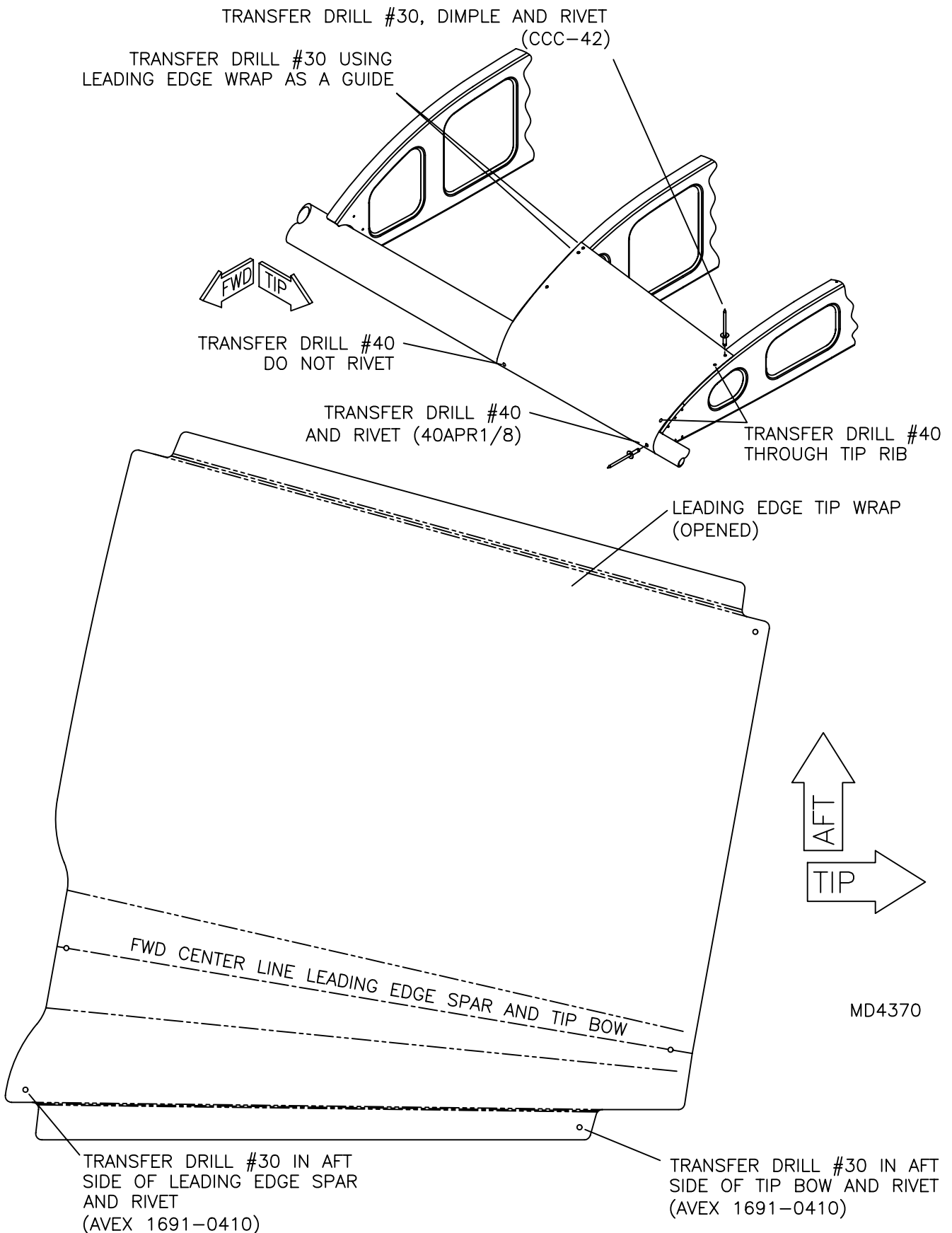


MD5549

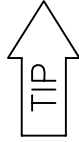
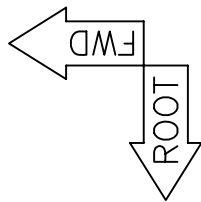
RRM S-7S
COVER RING MODIFICATION
FIGURE 05C-42



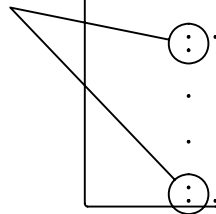
RRF S-7S COURIER
FUEL SCUPPER ORIENTATION
FIGURE 05C-42A



RANS S-7S
LEADING EDGE TIP WRAP INSTALLATION
FIGURE 05C-48



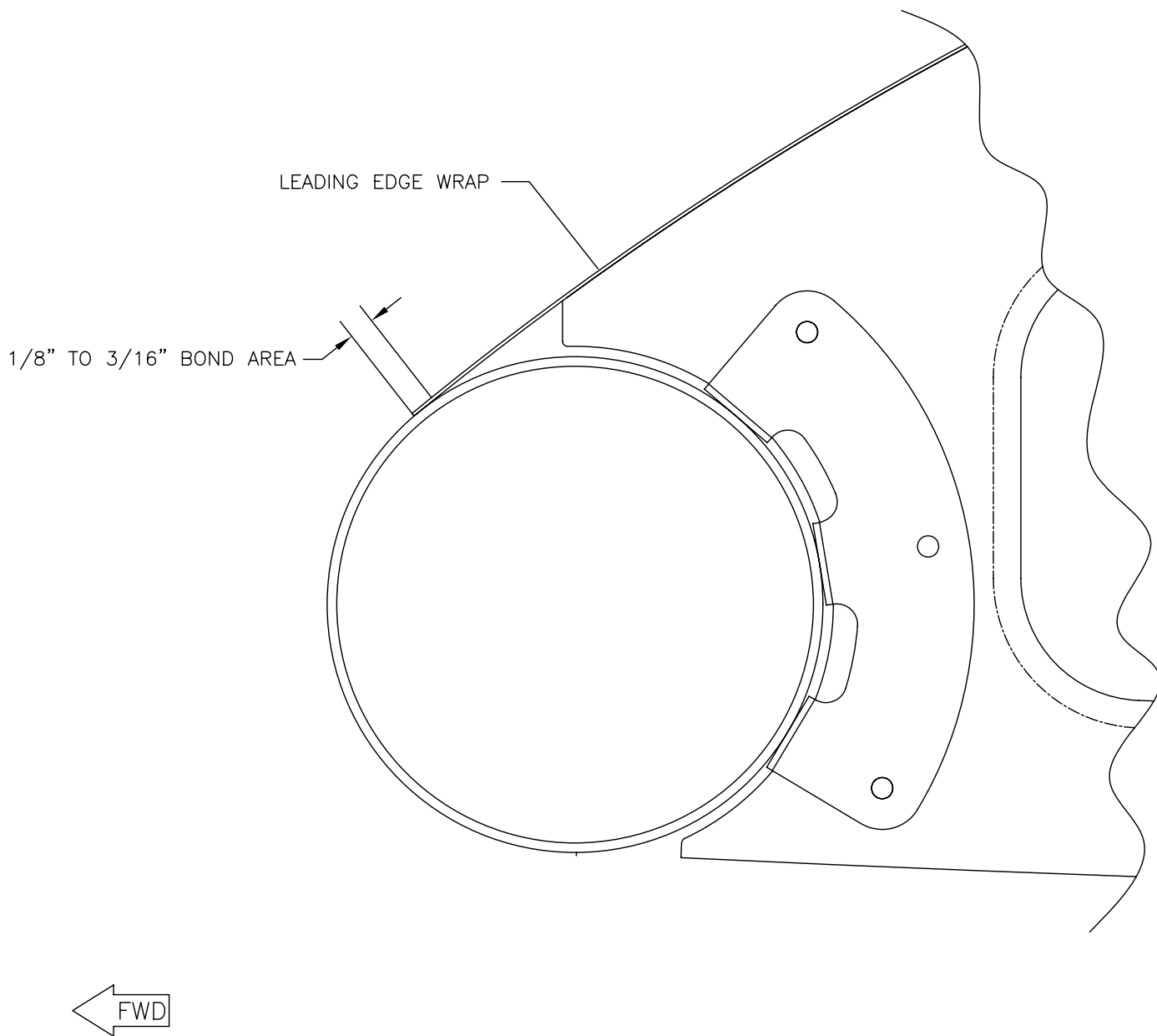
KEY TO POSITIONING



RH WING SHOWN
DIMPLE ALL HOLES

MD5554

RFMS S-7S LEADING EDGE WRAP MODIFICATION FIGURE 05C-54

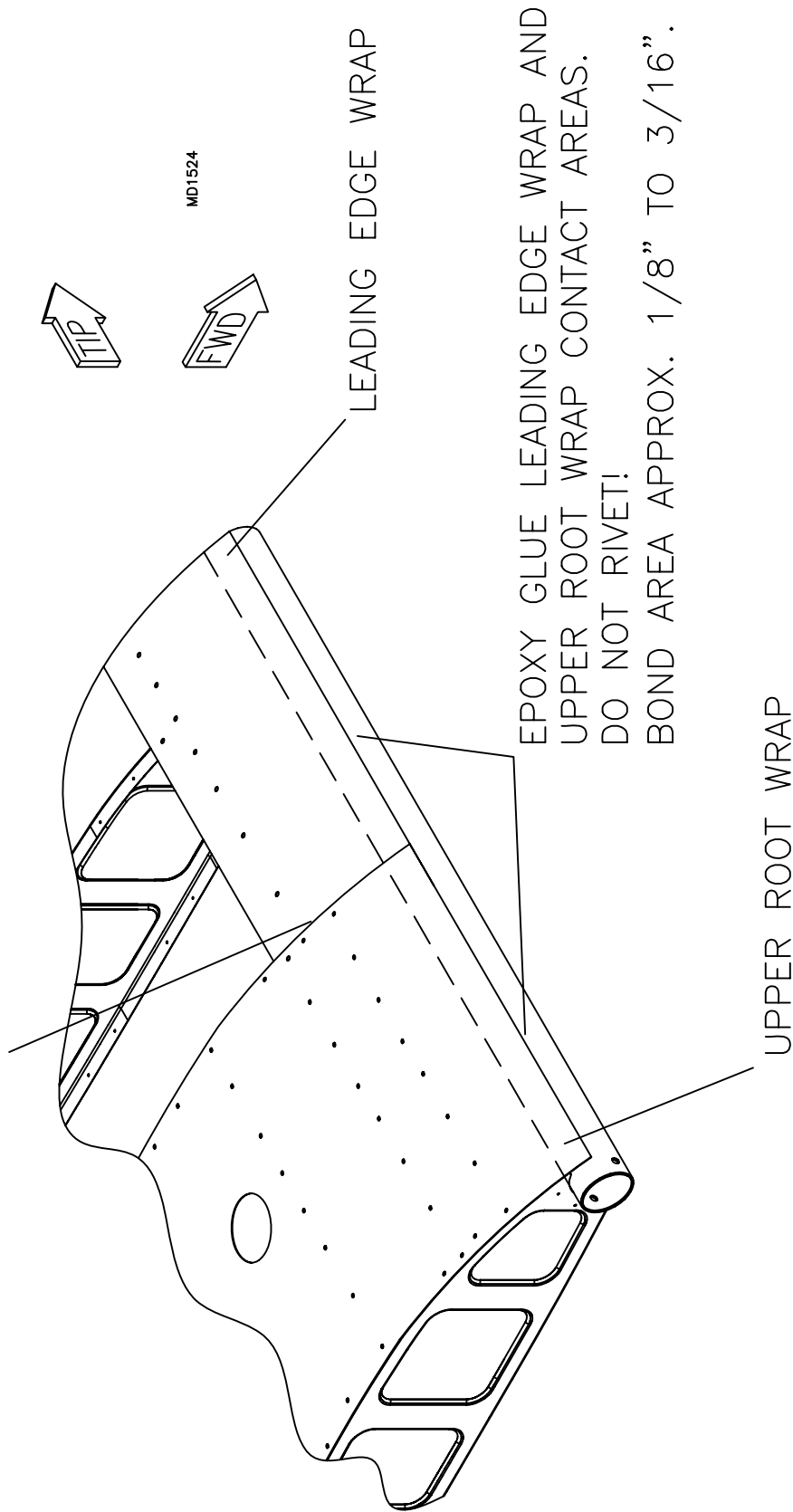


MD1525

RANS S-7S
LEADING EDGE WRAP BOND AREA
FIGURE 05C-55

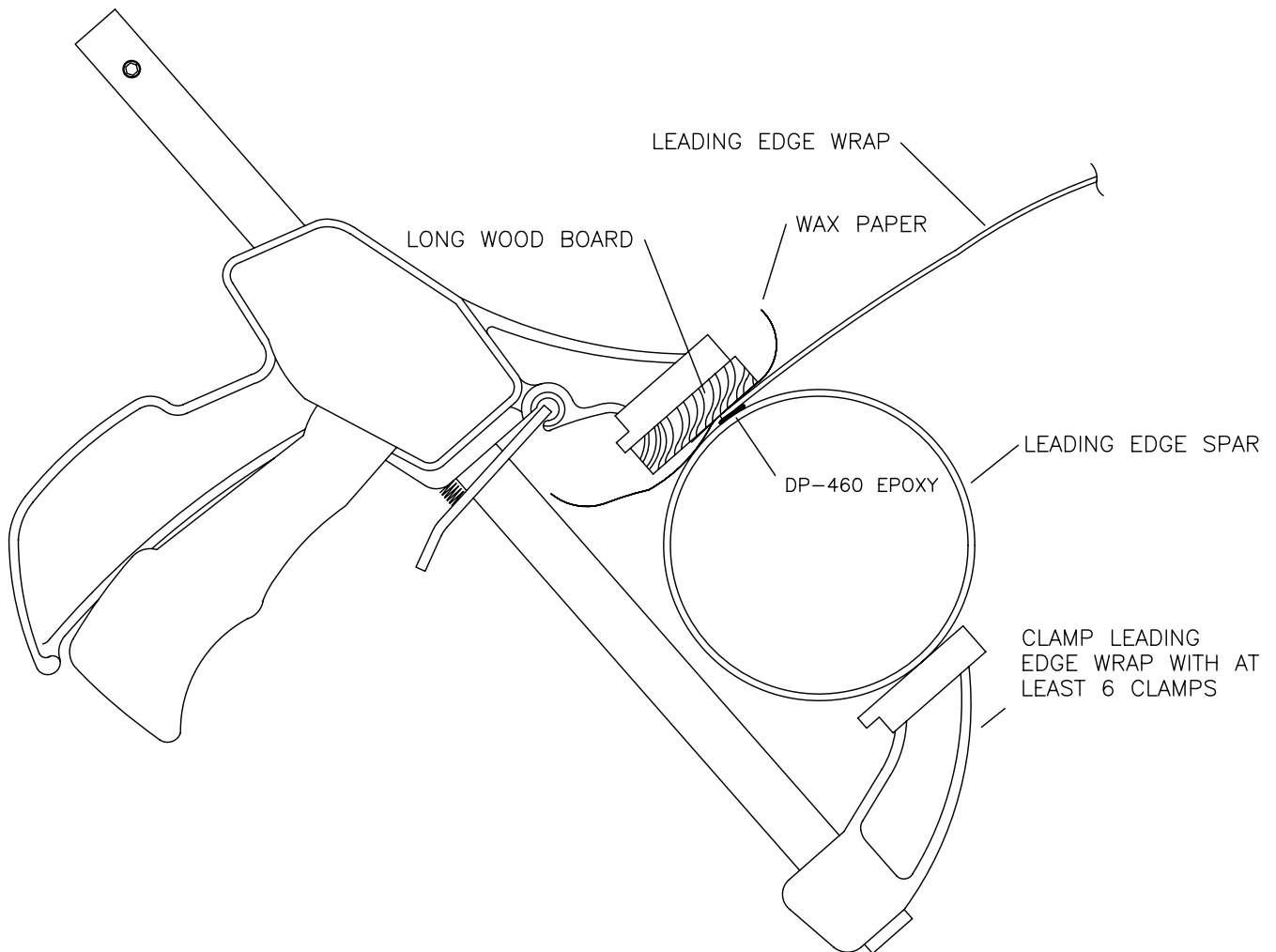
06/15/2011

LEADING EDGE WRAP INSERTS
UNDER UPPER ROOT WRAP



MD4371

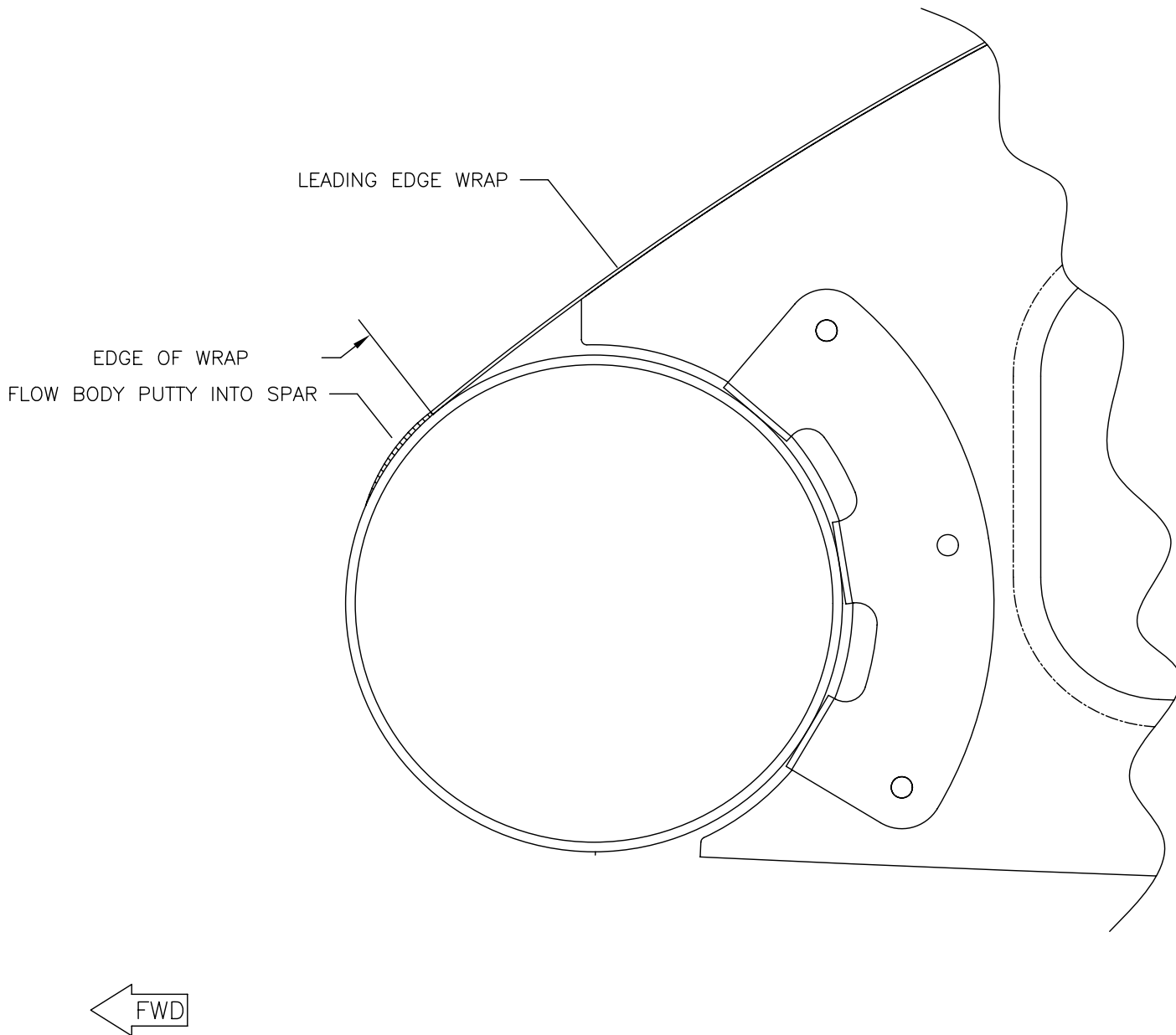
RRM S-7S
LEADING EDGE & UPPER ROOT WRAP BOND AREA
FIGURE 05C-56



MD1525

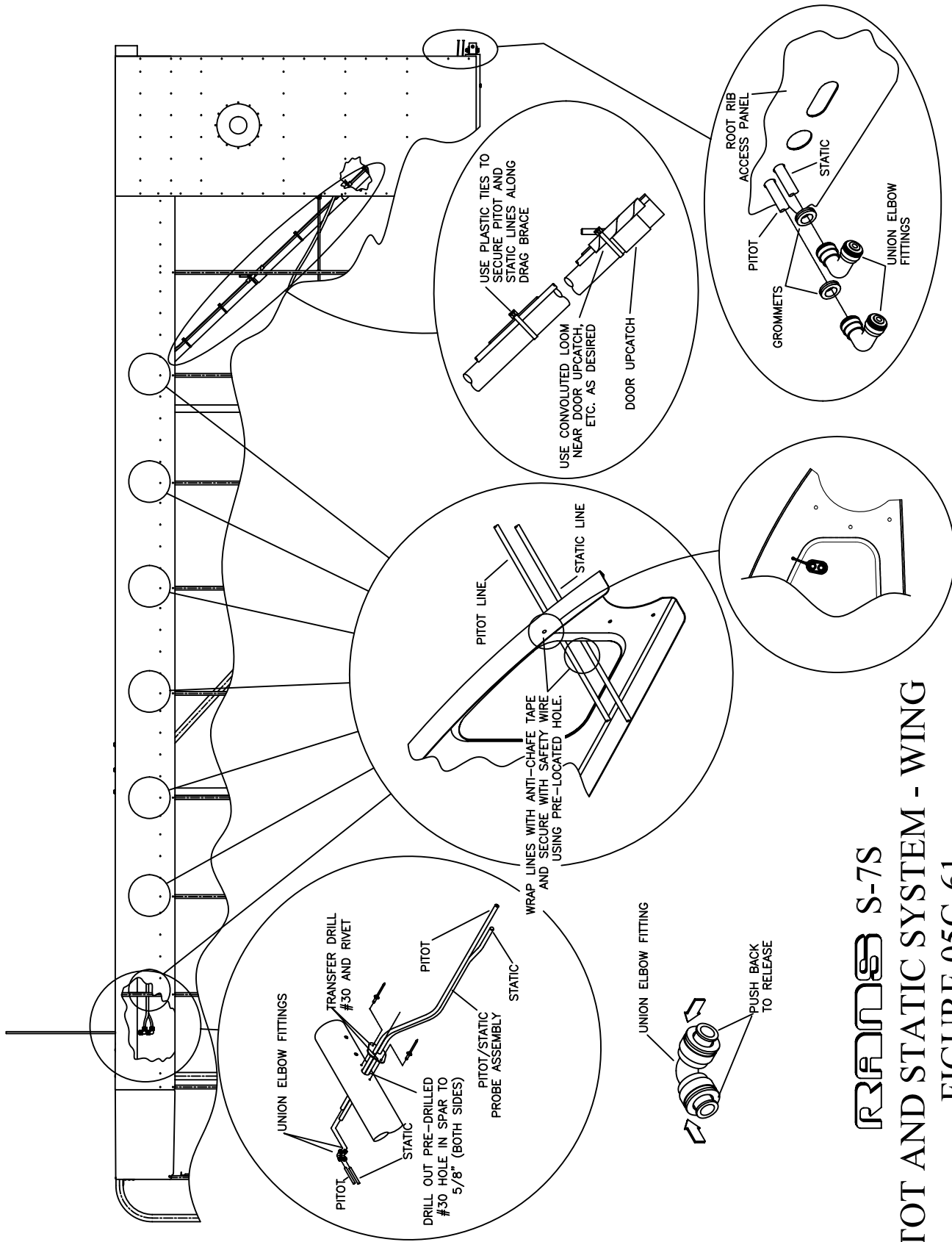
RANS S-7S
LEADING EDGE WRAP CLAMPING
FIGURE 05C-57

06/15/2011

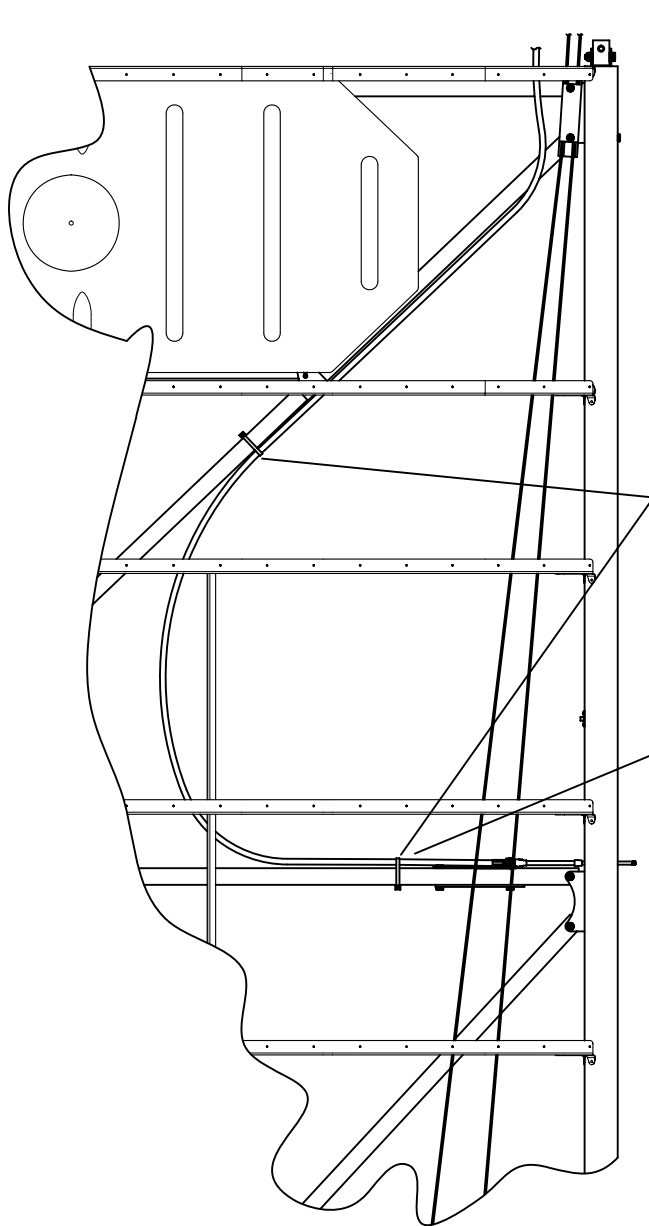


MD1525

RANS S-7S
LEADING EDGE WRAP FILLET
FIGURE 05C-59



RAM S-7S
PITOT AND STATIC SYSTEM - WING
FIGURE 05C-61



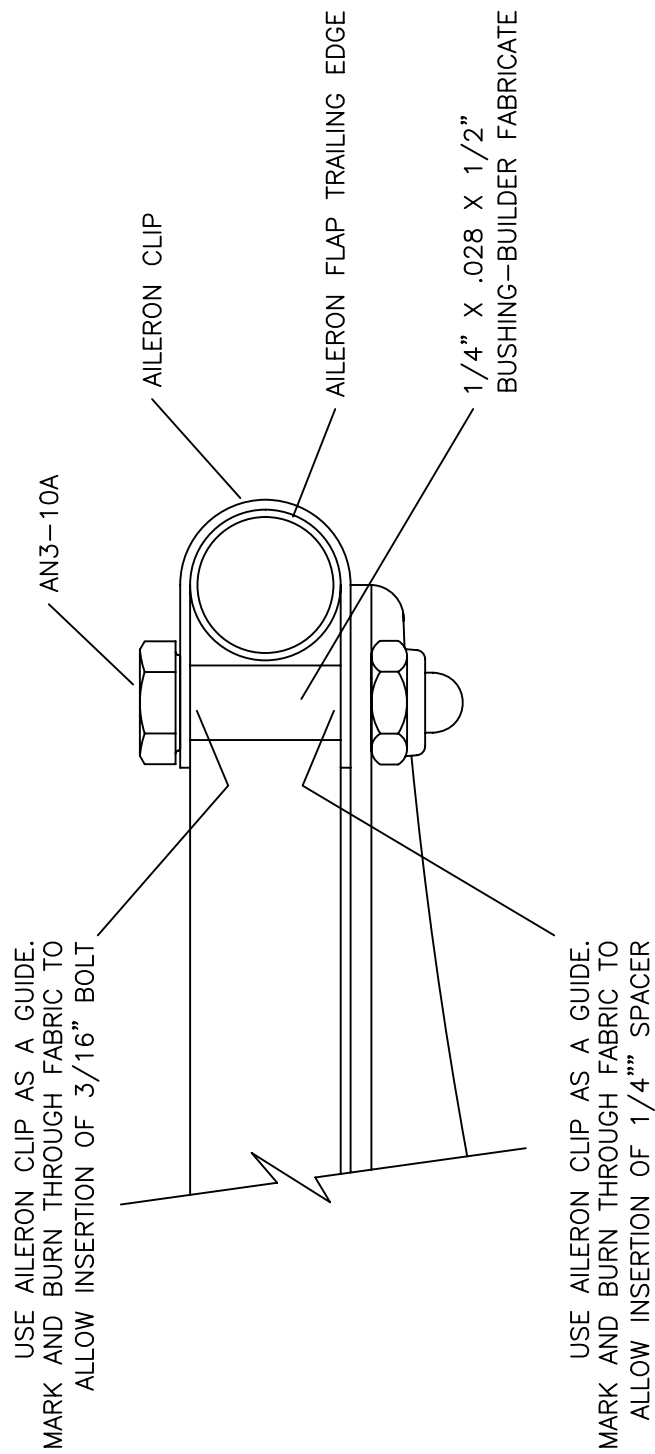
SECURE FLAP TELEFLEX CABLE TO FRAME
TUBES USING PLASTIC TIES.

TIGHTEN THIS PLASTIC TIE SO THAT MOVEMENT
OF CABLE IS POSSIBLE AND PUSH FLAP
TELEFLEX CABLE INSIDE WING STRUCTURE FOR
COVERING. RETRIEVE AFTER COVERING.

TIP

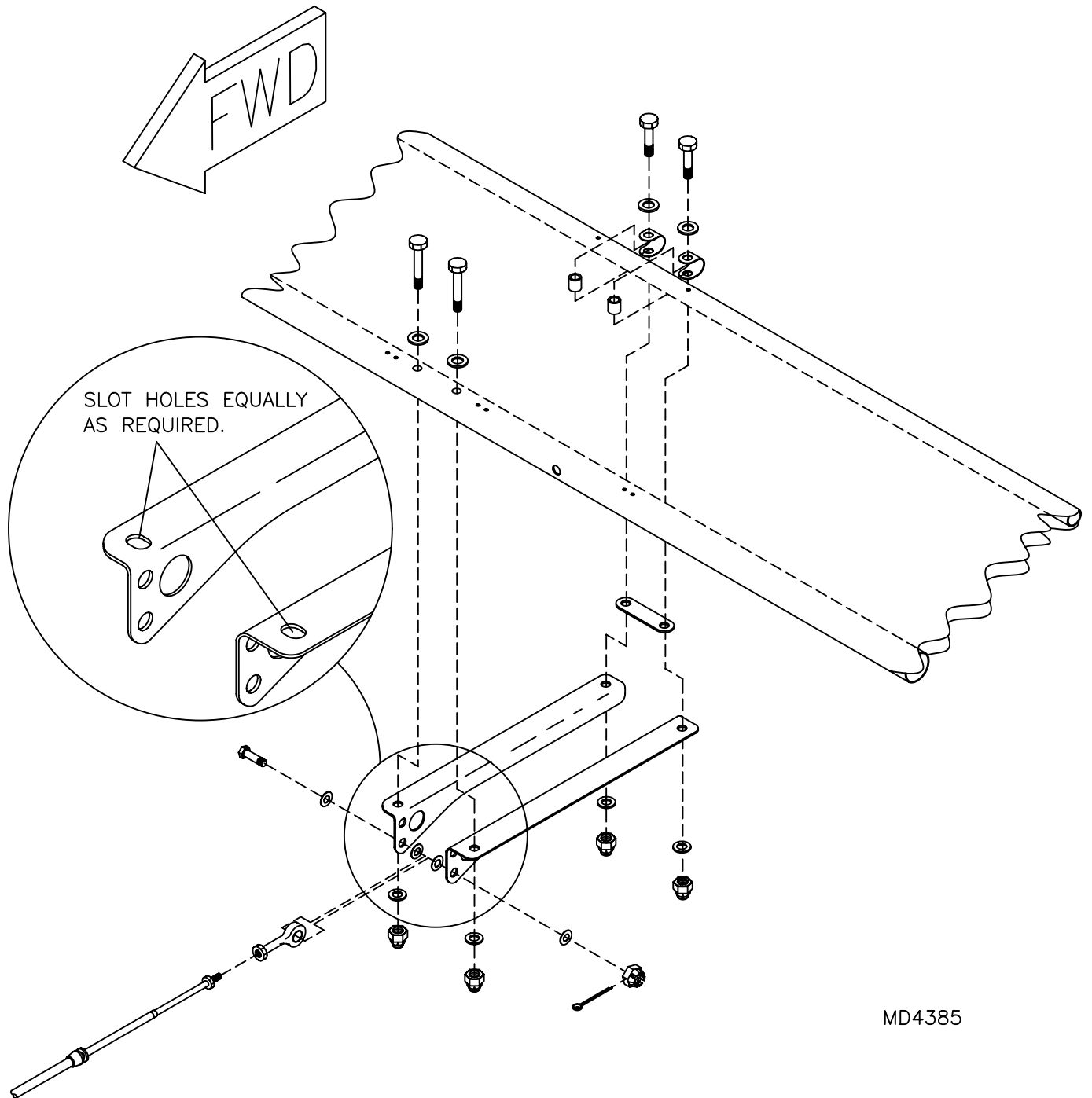
LH WING SHOWN

RRR S-7S
FLAP TELEFLEX CABLE INSTALLATION - WING
FIGURE 05C-67

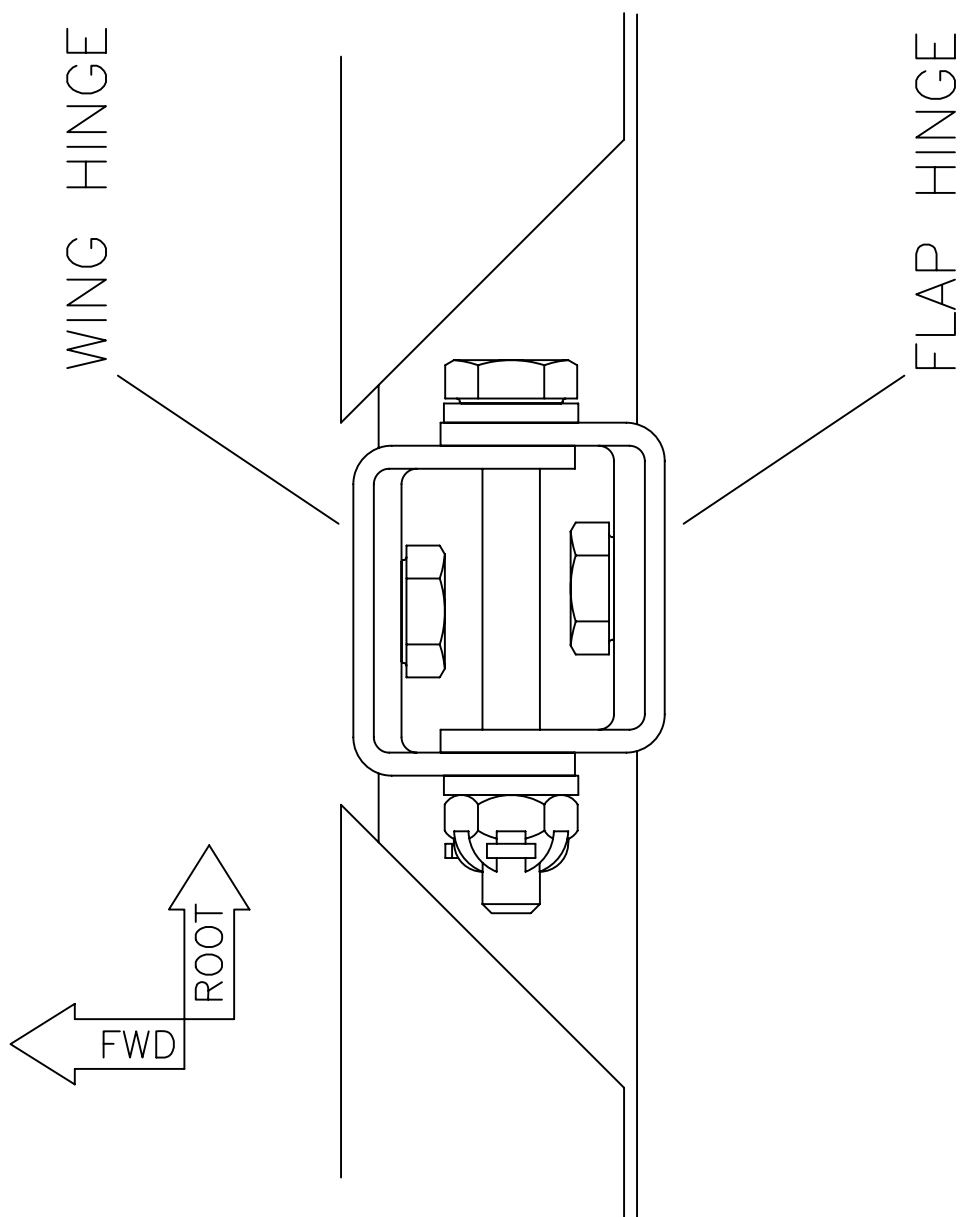


MD4349

RRM S-7S **AILERON AND FLAP ATTACH ANGLE** (TRAILING EDGE) **FIGURE 05D-05**



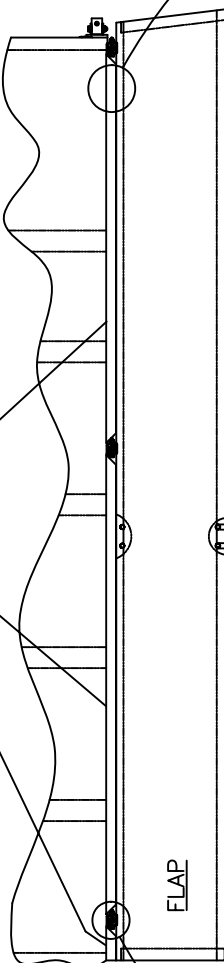
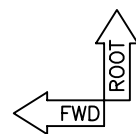
RANS S-7S
FLAP HORN ATTACH ANGLE INSTALLATION
FIGURE 05D-08



RAM S-7S
FLAP HINGE ORIENTATION
FIGURE 05D-09

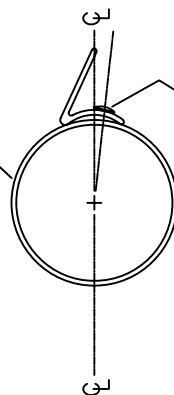
MD4384

CONTROL SURFACE GAP SEAL (3 PIECES PER WING)

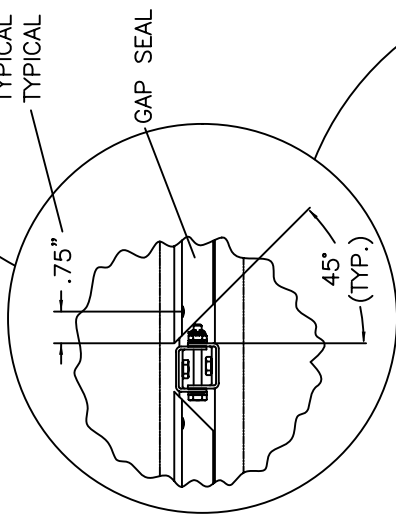


TYPICAL EDGE DISTANCE FOR RIVETS IS 3/4".
TYPICAL DISTANCE BETWEEN OTHER RIVETS IS 8" TO A MAX. OF 10."

TRAILING EDGE SPAR



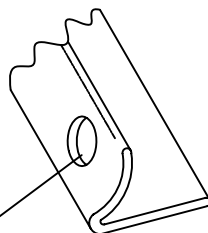
#30 DRILL (TYP.)
LOCATE BELOW CENTERLINE
OF TRAILING EDGE SPAR.
ORIENTATION OF GAP SEAL
ON TRAILING EDGE SPAR.



DETAIL FOR CUTTING AND
RIVETING OF GAP SEAL

IMPORTANT: TRIM AFT EDGE OF GAPSEAL TO PROVIDE
.060" CLEARANCE (MIN.) BETWEEN GAP SEAL
AND FLAP LEADING EDGE.

DRILL 5/8" OR AS REQUIRED
FOR BOLT HEAD CLEARANCE



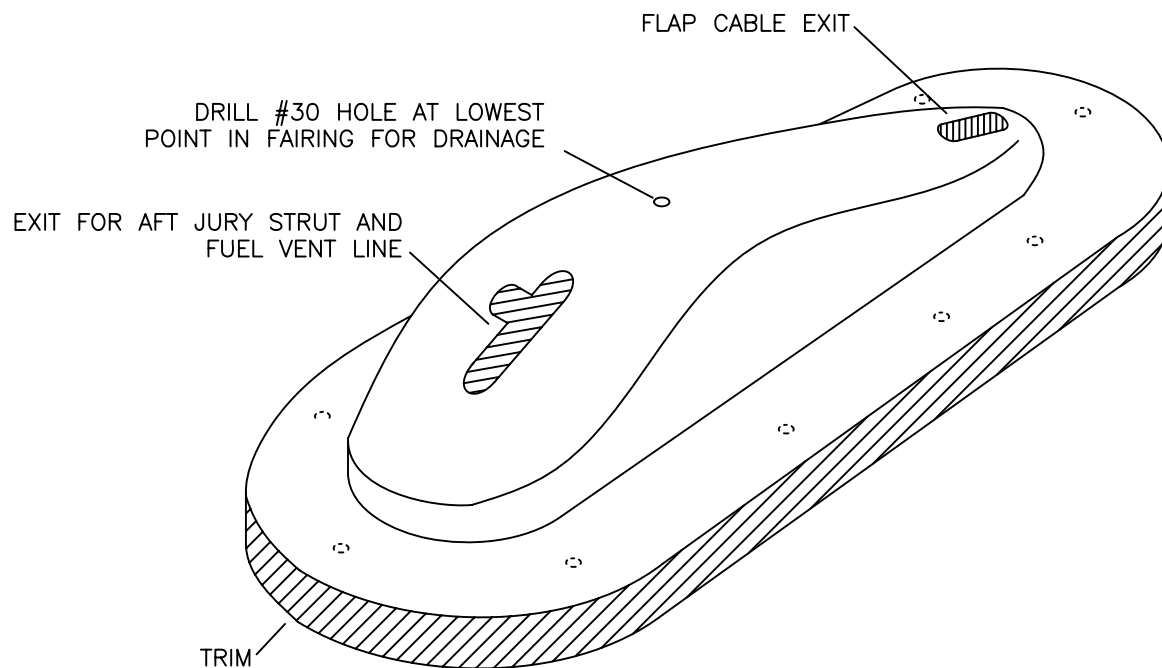
DETAIL GAP SEAL FOR
BOLT HEAD CLEARANCE

RAM S-7S

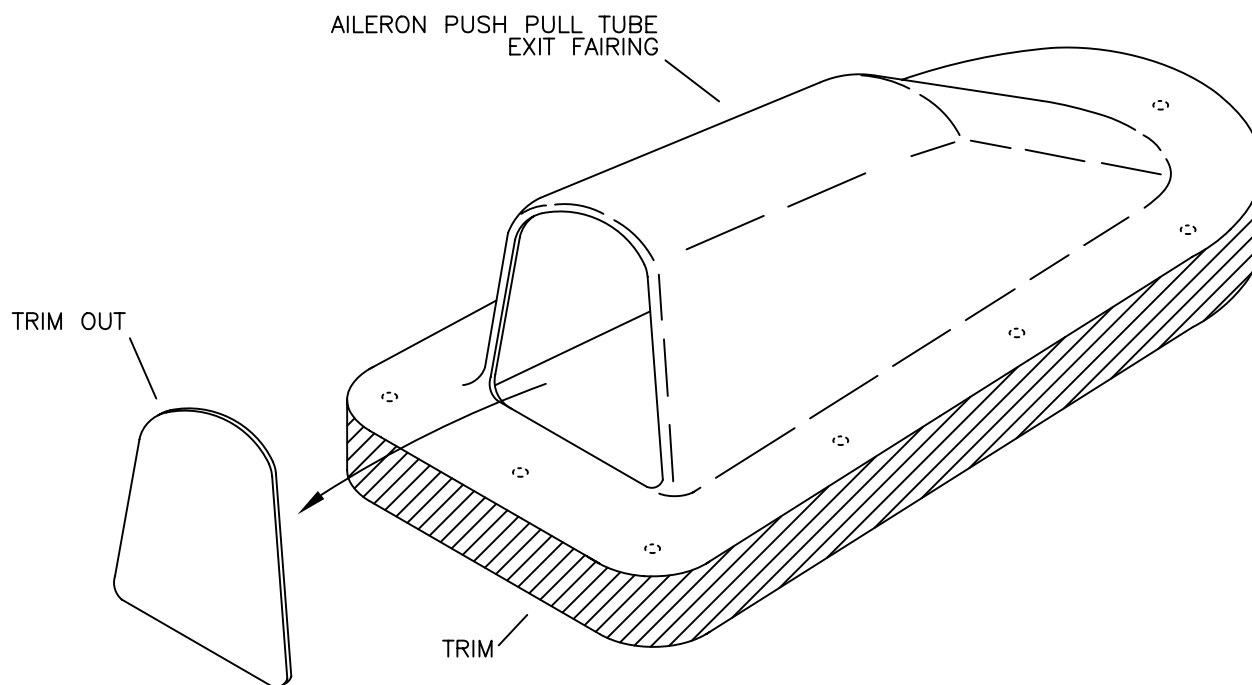
GAP SEAL INSTALLATION

FIGURE 05D-13

MD4382



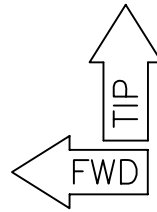
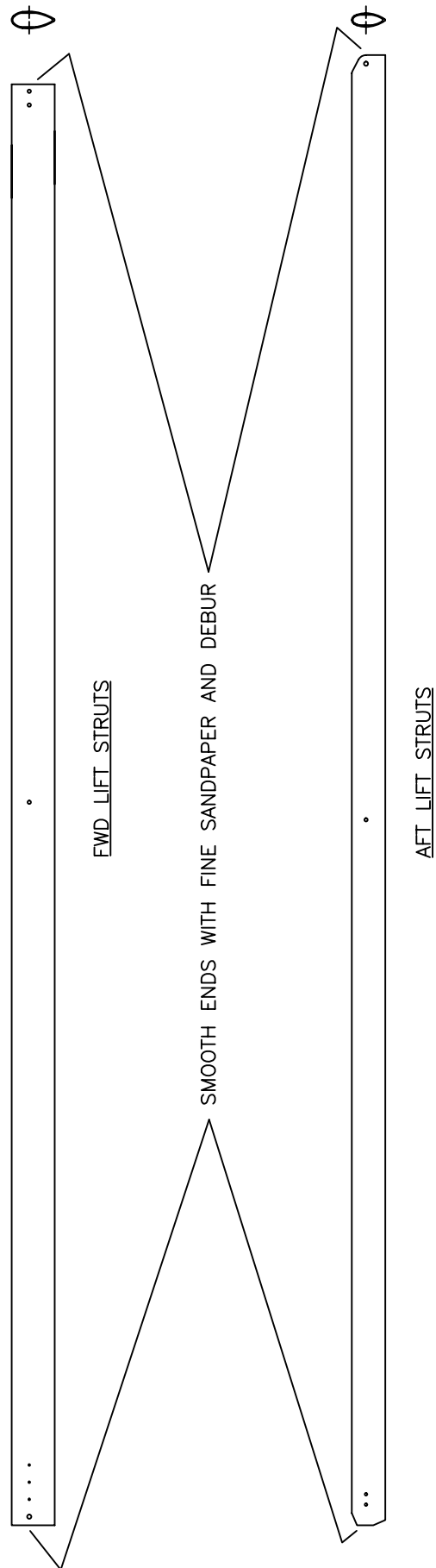
FLAP CABLE EXIT



AILERON PUSH PULL TUBE EXIT

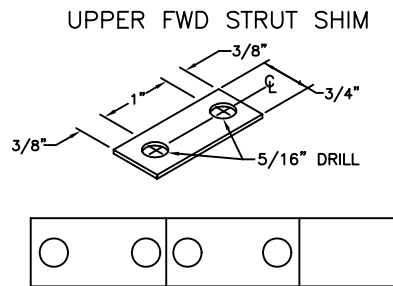
MD4418

RANS S-7S
EXIT FAIRING MODIFICATION
FIGURE 05D-19

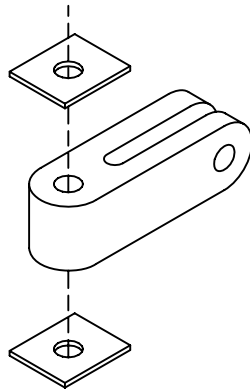
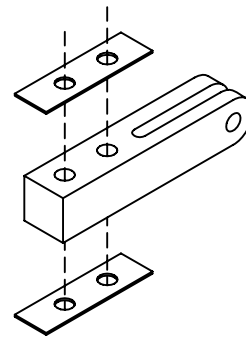


R3000 S-7S
LIFT STRUT ORIENTATION
FIGURE 05E-01

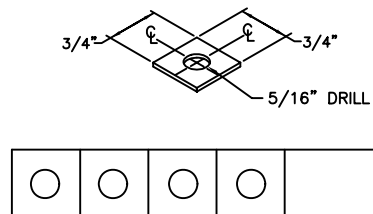
MD4383



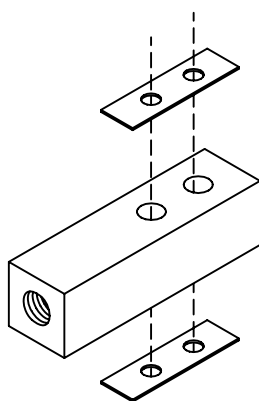
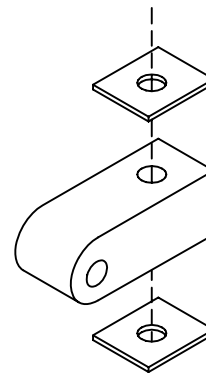
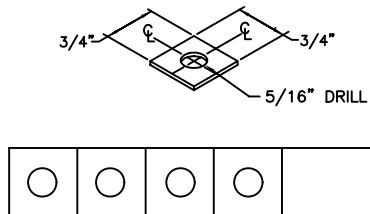
HINT: DRILL HOLES IN SHIM, THEN CUT TO LENGTH. MAKE AS REQUIRED.



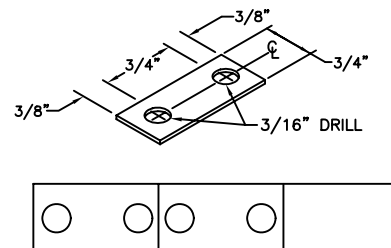
UPPER AFT STRUT SHIM



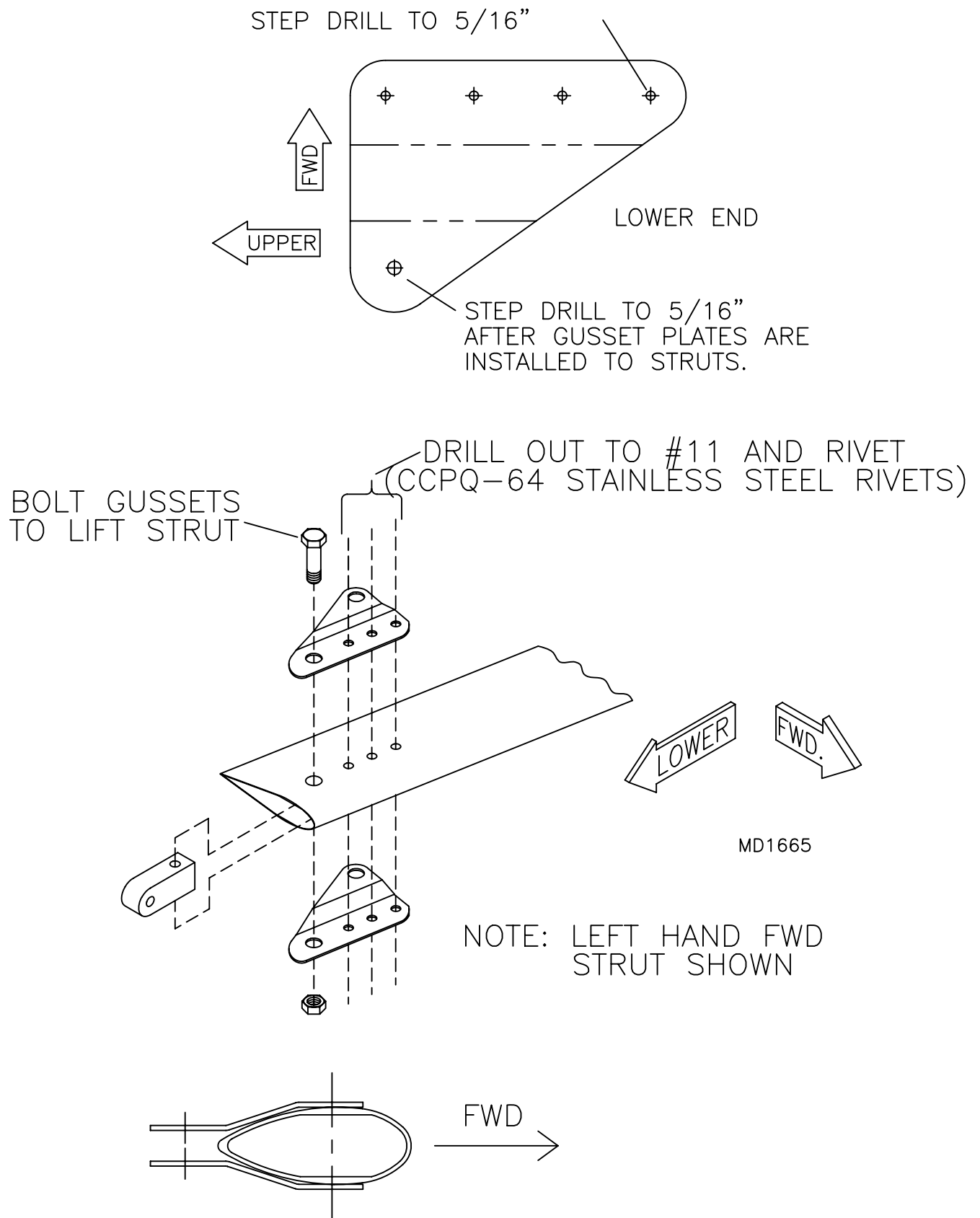
LOWER FWD STRUT SHIM



ADJUSTABLE STRUT SHIM



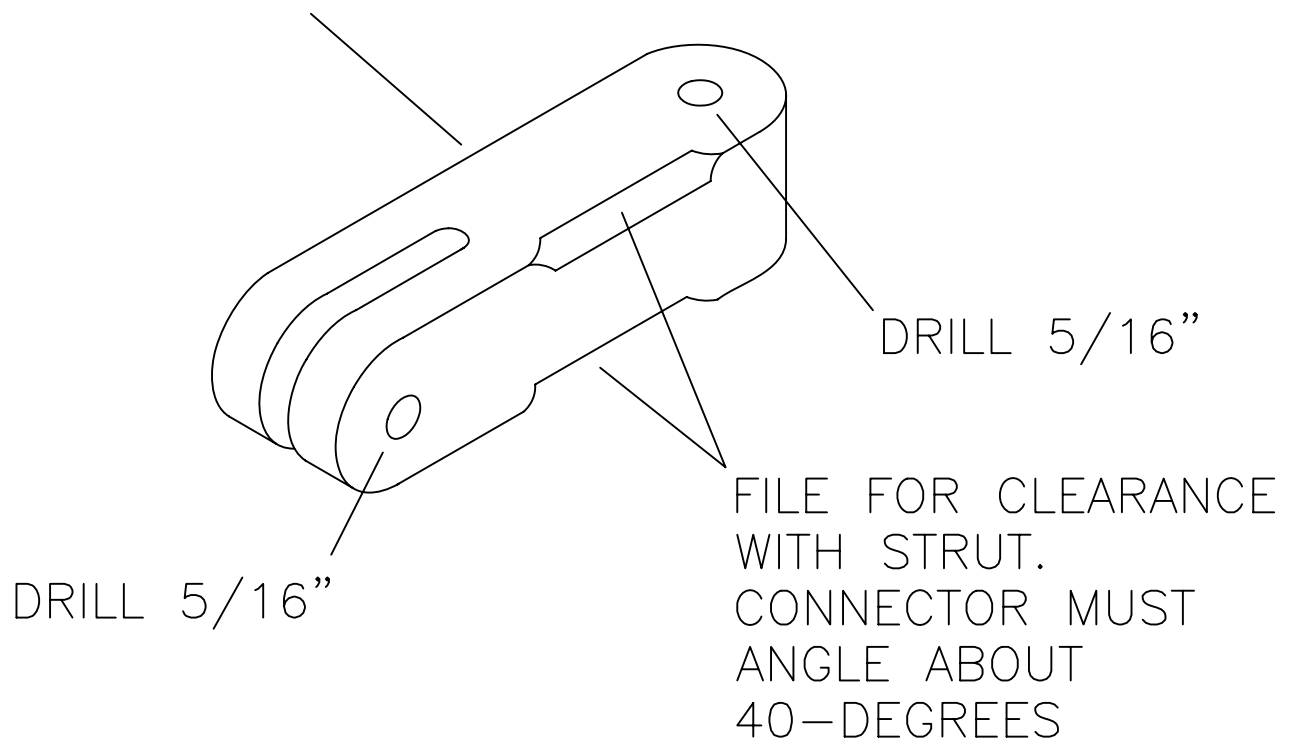
RANS S-7S **LIFT STRUT SHIMS** **FIGURE 05E-03**



RANS S-7S
LIFT STRUT GUSSET PLATES
FIGURE 05E-04

MD4376

AFT CONNECTOR — LIFT STRUT
(LS-ACU-2)

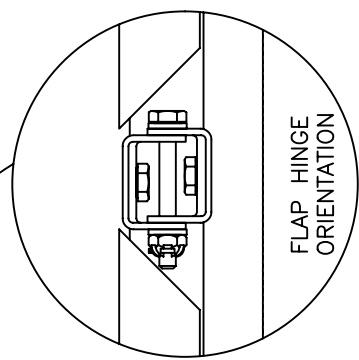
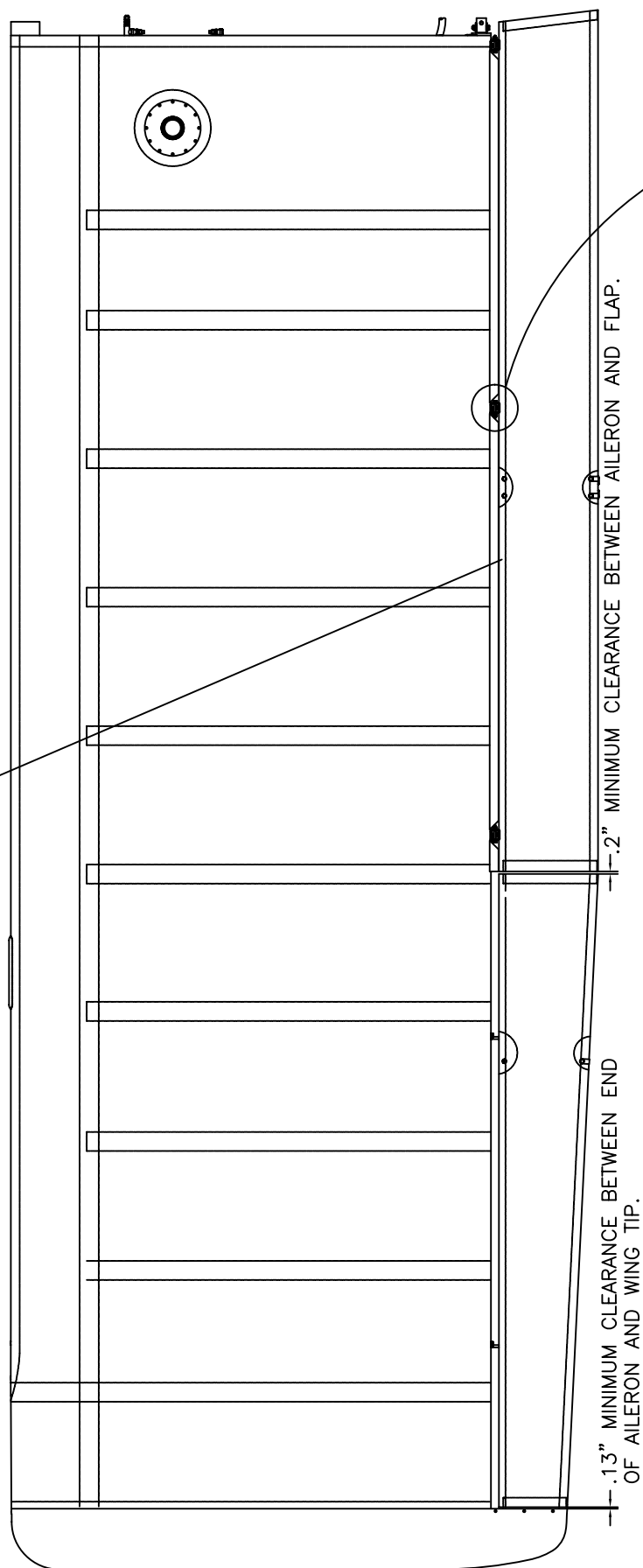


RANS S-7S
UPPER AFT LIFT STRUT CONNECTOR MODIFICATION
FIGURE 05E-13

MD1416

06/15/2011

MINIMUM CLEARANCE BETWEEN FLAP AND GAP SEAL - .060" (ENTIRE LENGTH)

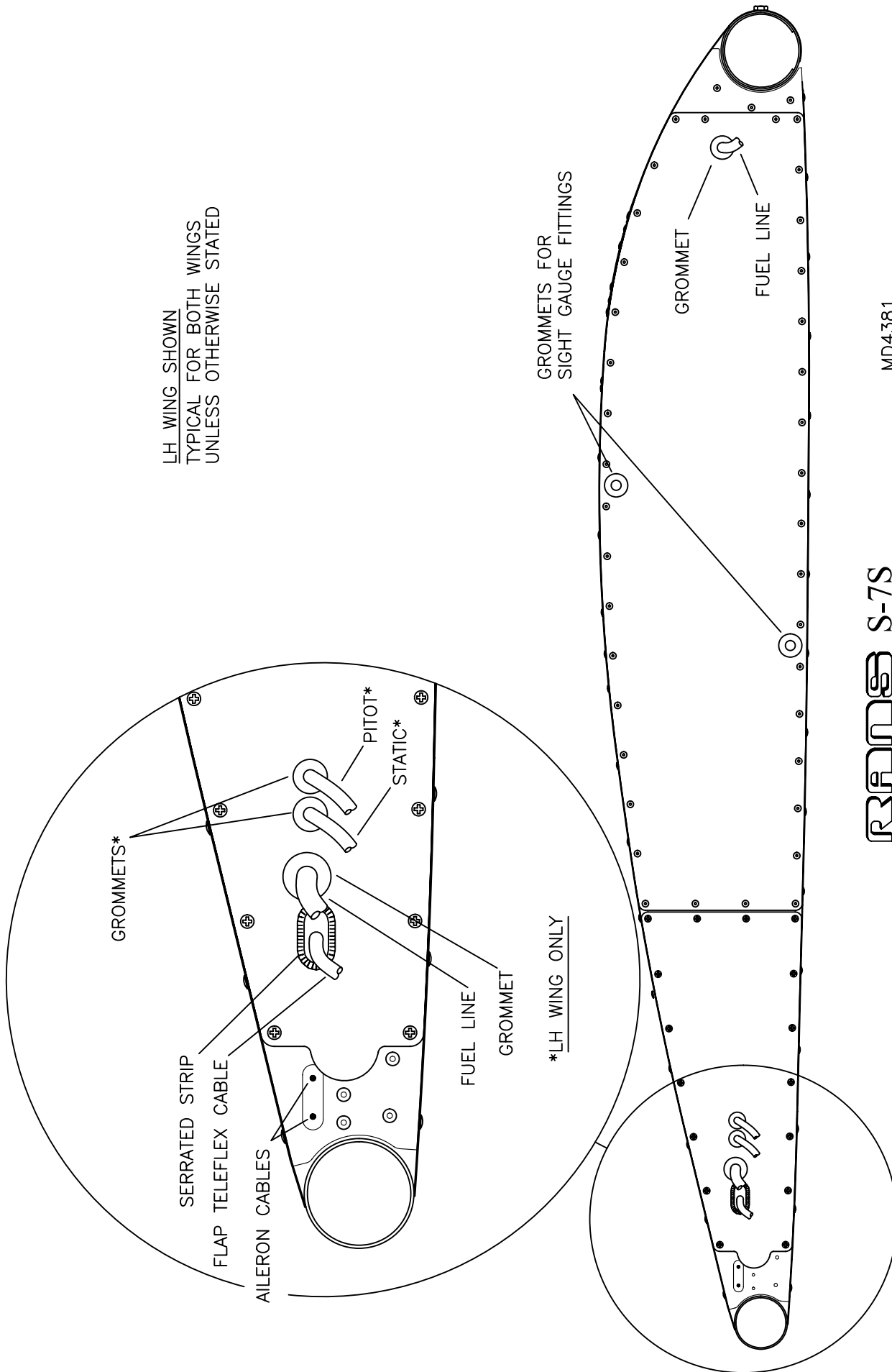


MD4384

RAMS S-7S

CONTROL SURFACE CLEARANCE - WING

FIGURE 05F-04

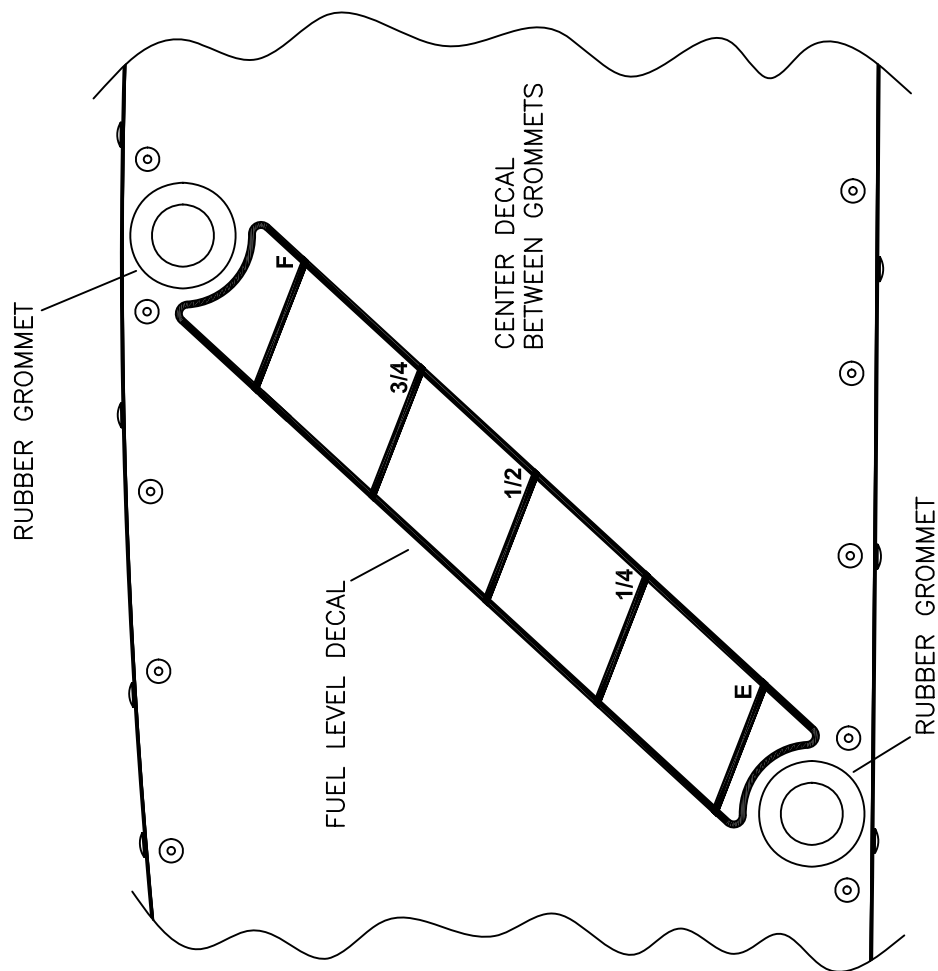


LH WING SHOWN
TYPICAL FOR BOTH WINGS
UNLESS OTHERWISE STATED

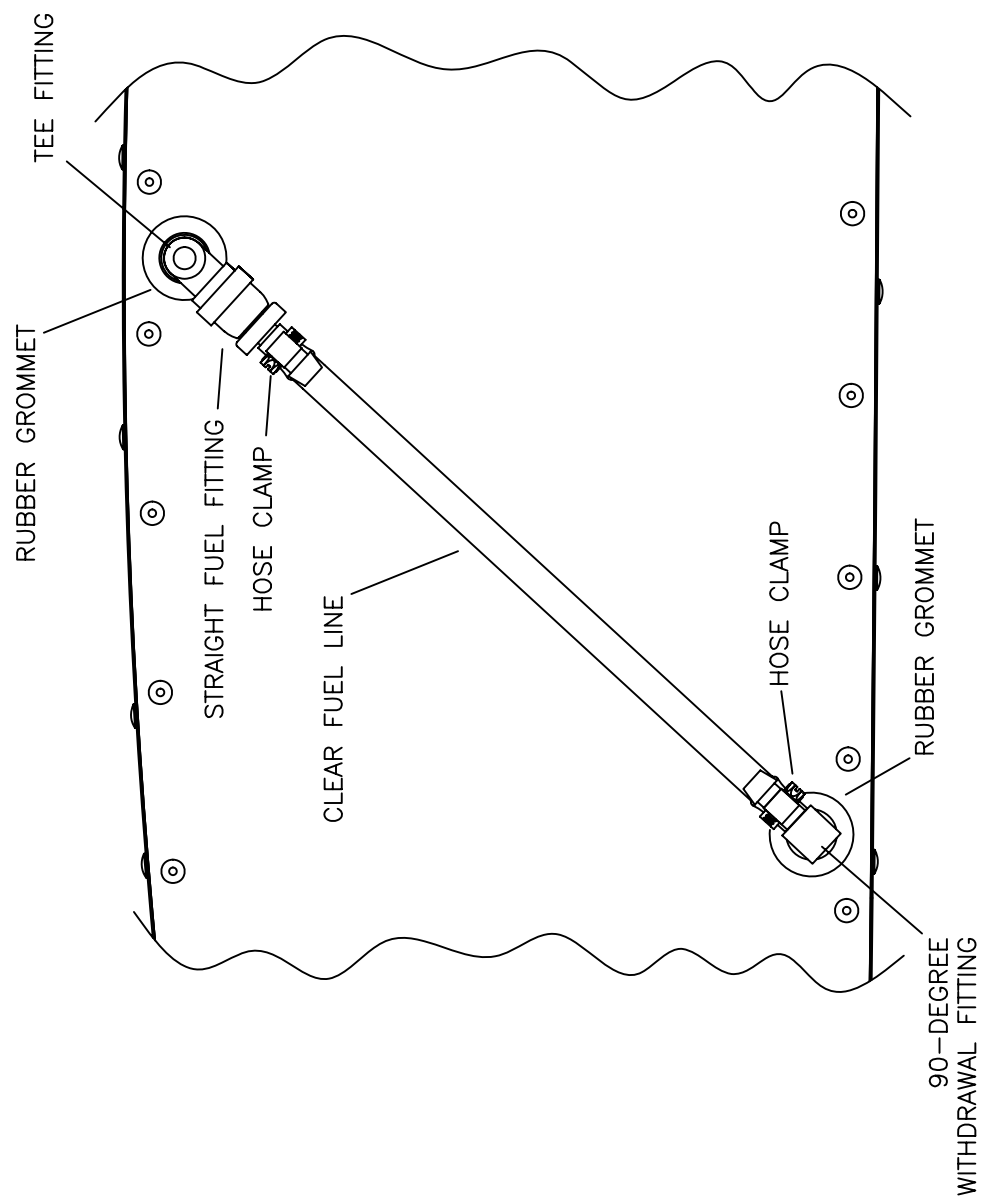
*LH WING ONLY

05G-03
ROOT CLOSEOUT DETAIL
FIGURE 05G-03

MD4381

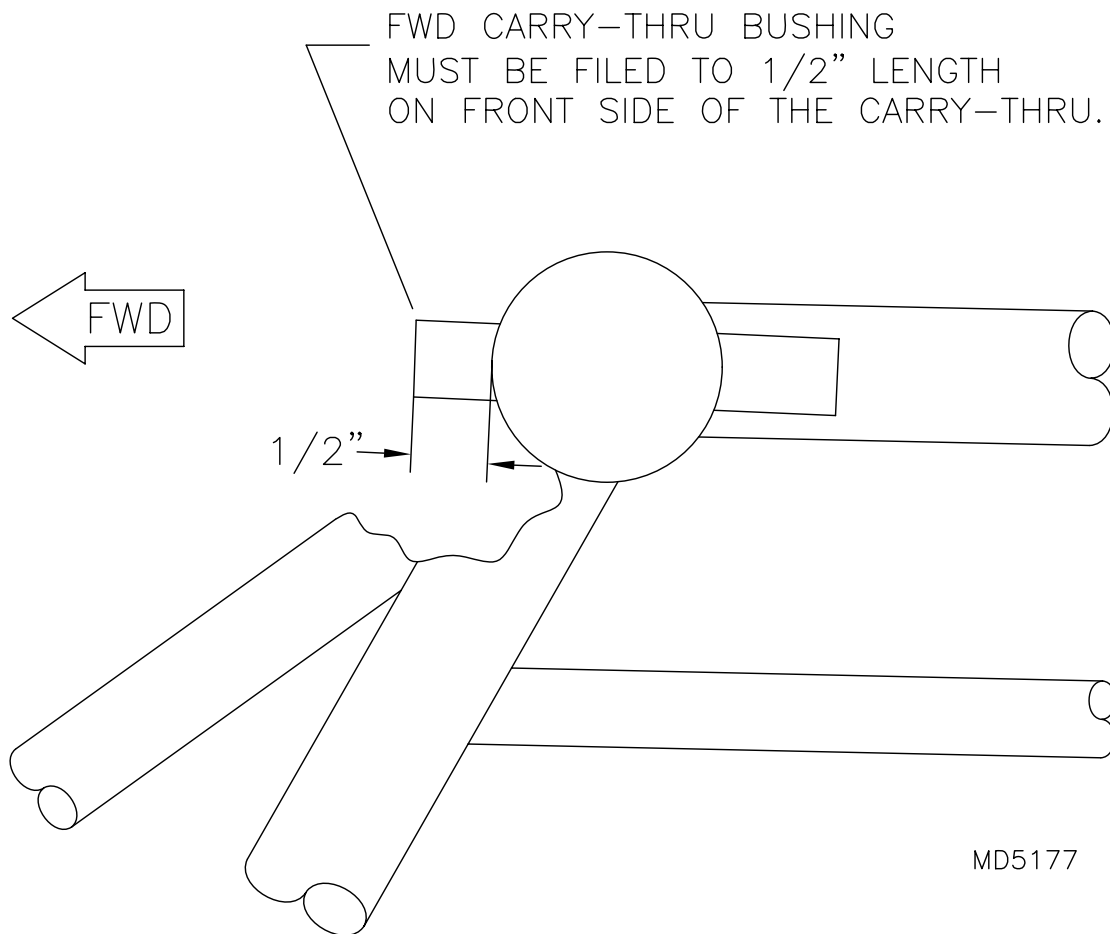


 S-7S MD4414
 FUEL SIGHT GAUGE DECAL INSTALLATION
 FIGURE 05G-04

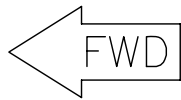


RAMS S-7S
FUEL SIGHT GAUGE INSTALLATION
FIGURE 05G-05

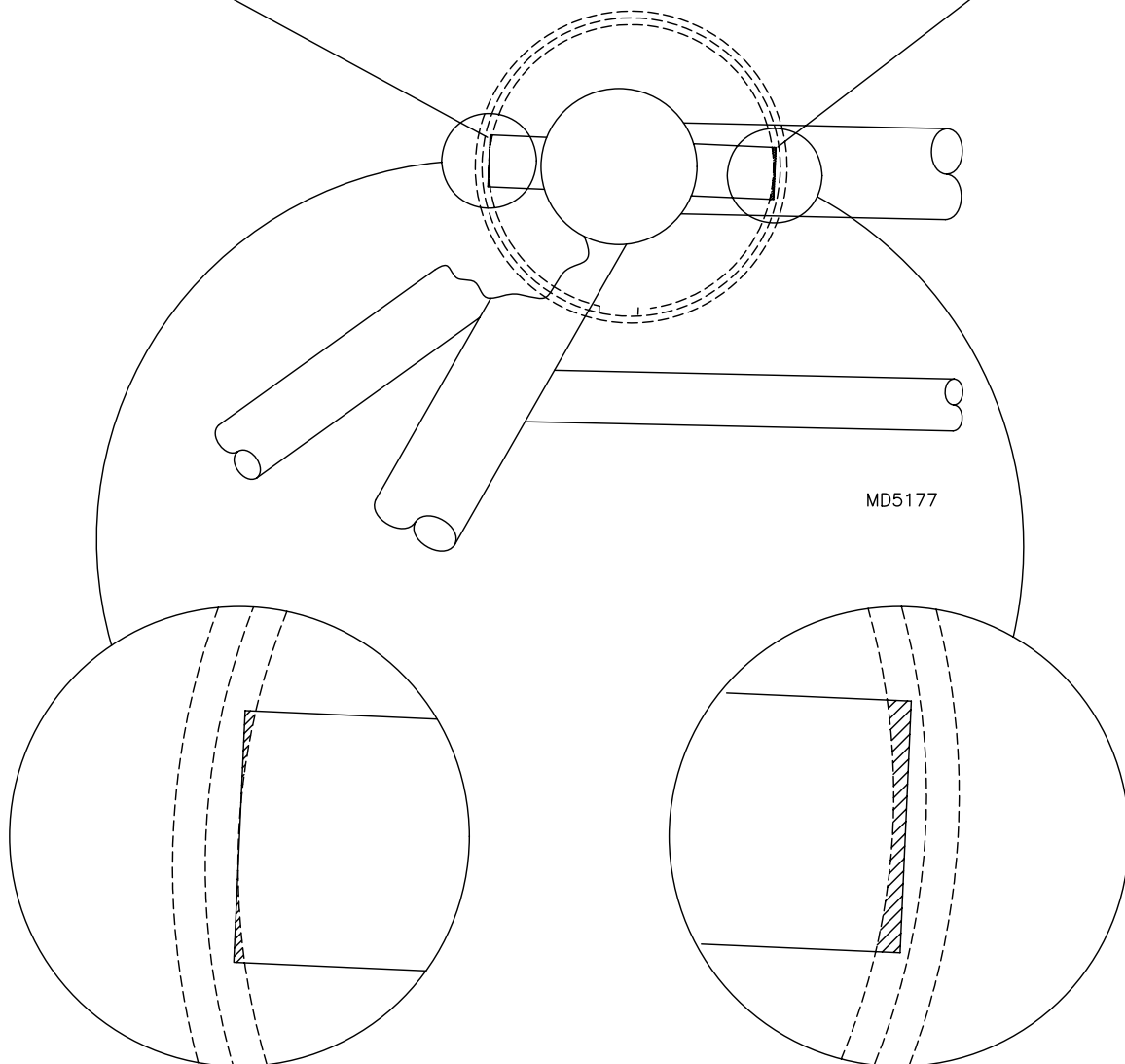
MD4414



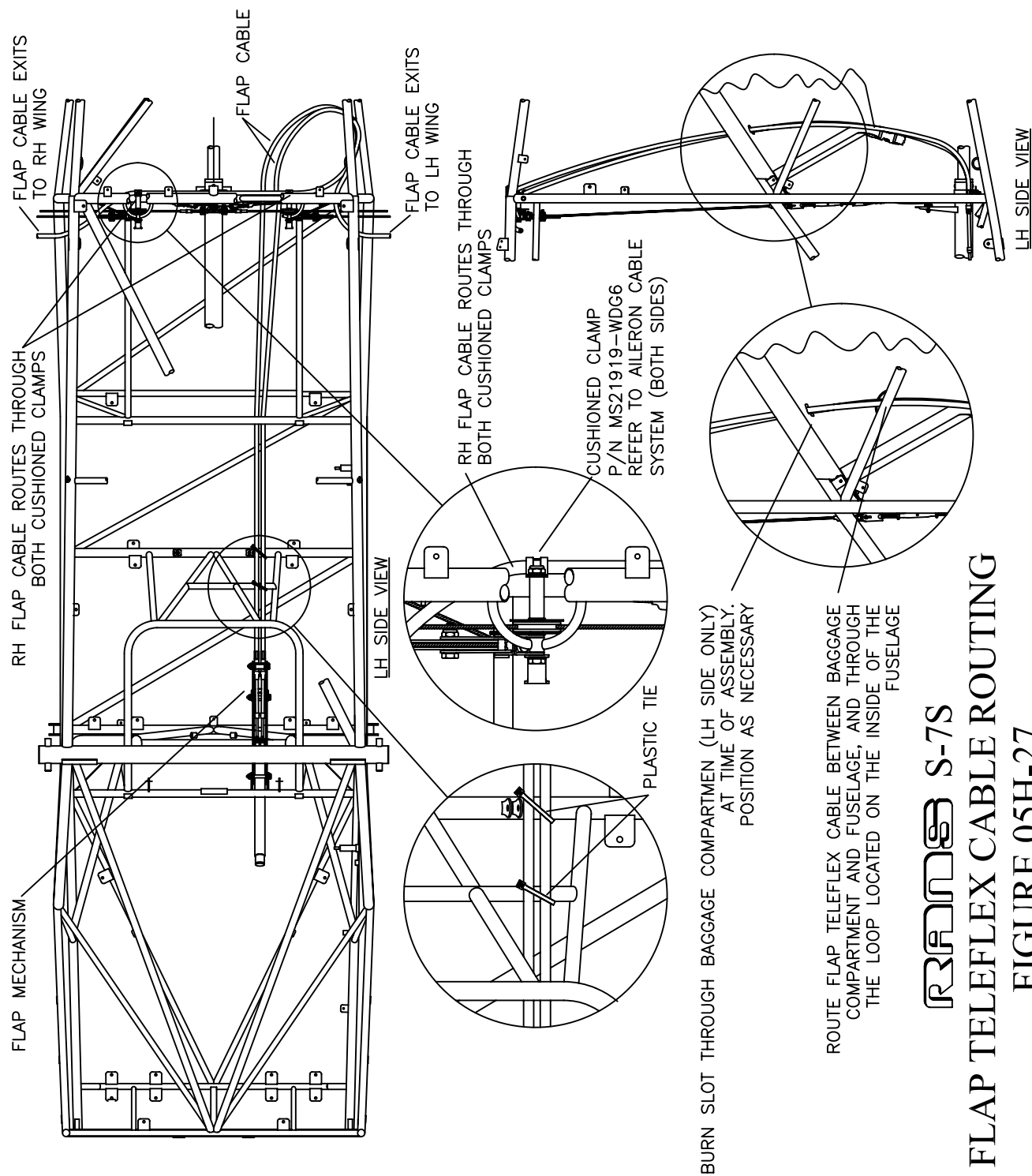
RANS S-7S
WING ATTACHMENT (T-BONE) MODIFICATION
FIGURE 05H-07



CONTOUR FWD AND AFT PORTION OF THE BUSHING (T-BONE)
UNTIL LEADING EDGE SPAR (WITH DOUBLER INSTALLED) SLIPS OVER
THE CARRY-THRU BUSHING.



RANS S-7S
WING ATTACHMENT (T-BONE) MODIFICATION
FIGURE 05H-08

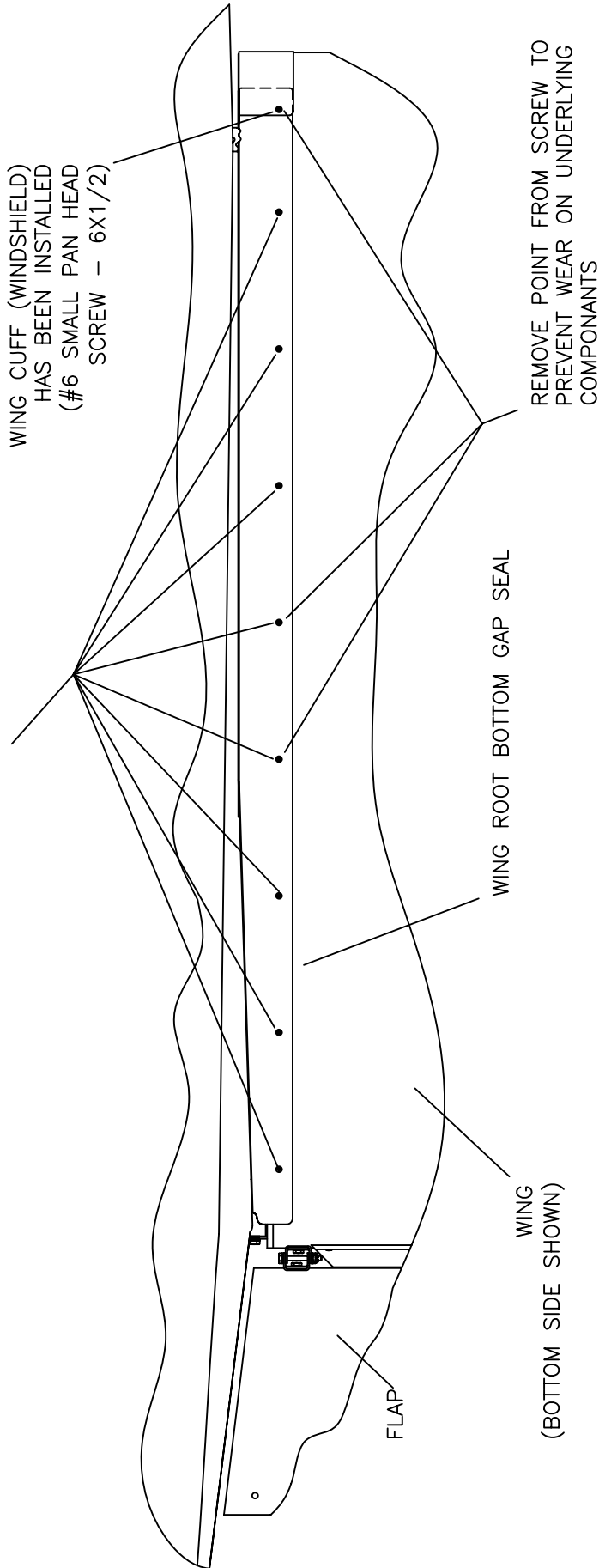


MD4406

RAMS S-7S
FLAP TELEFLEX CABLE ROUTING
FIGURE 05H-27

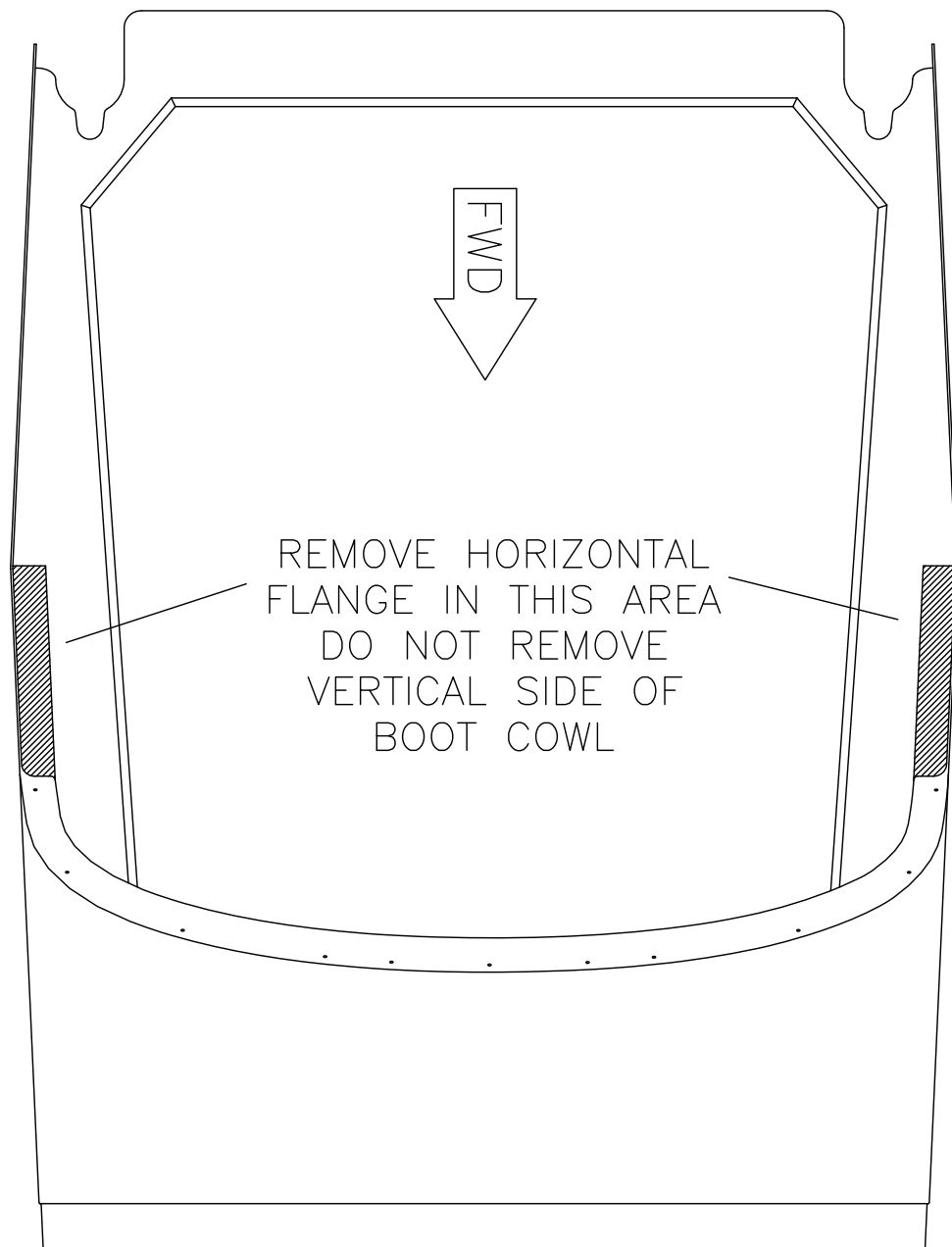
LOCATE CENTER OF TINNERMANS INSTALLED ON ROOT RIB.
 DRILL #30 AND INSTALL #8 PAN HEAD SCREW – 8X1/2

LOCATE ON WING AFTER
 WING CUFF (WINDSHIELD)
 HAS BEEN INSTALLED
 (#6 SMALL PAN HEAD
 SCREW – 6X1/2)



RRR S-7S
WING ROOT BOTTOM GAP SEAL ATTACH
FIGURE 05H-30

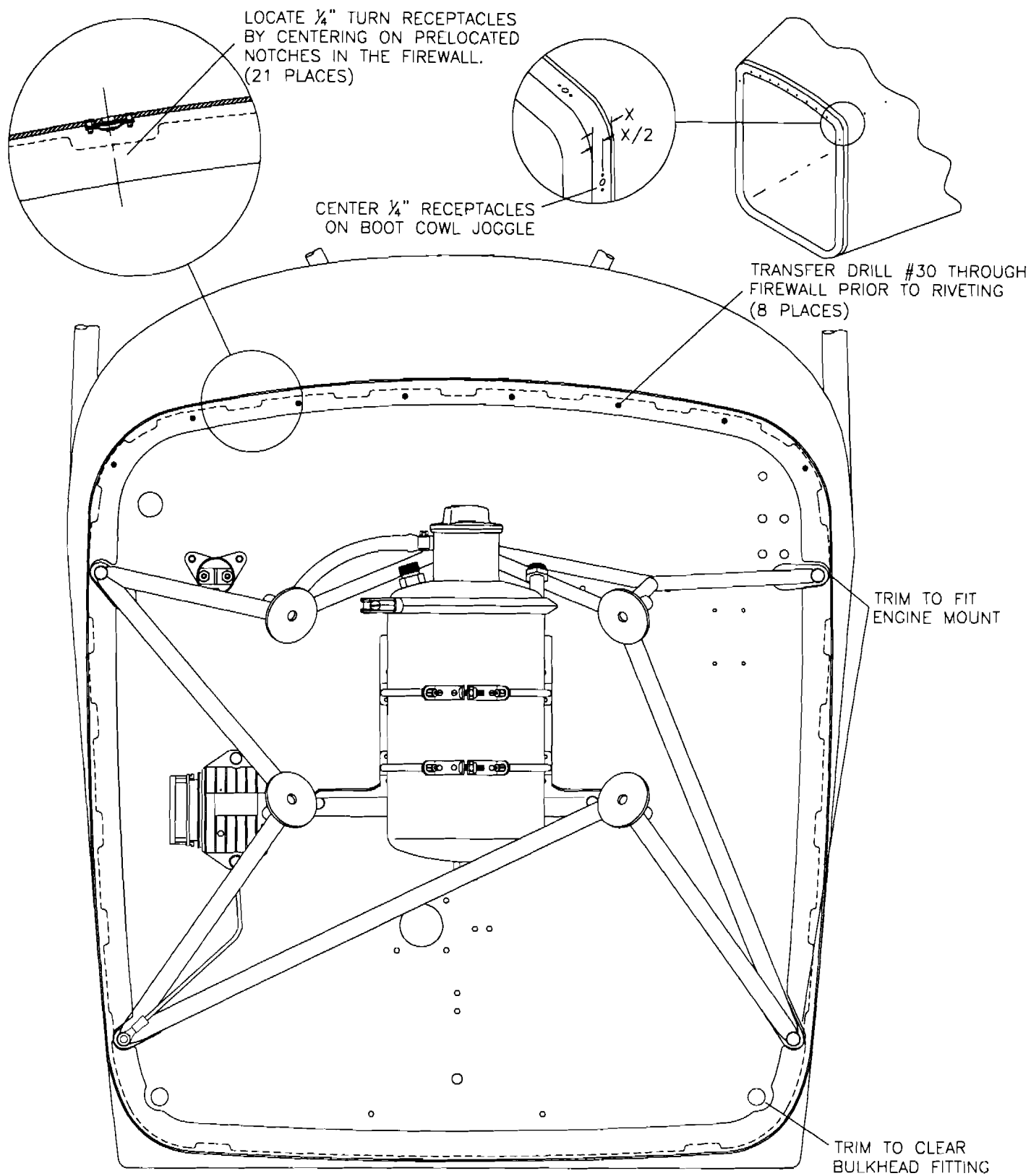
MD4407



TOP VIEW OF BOOT COWL

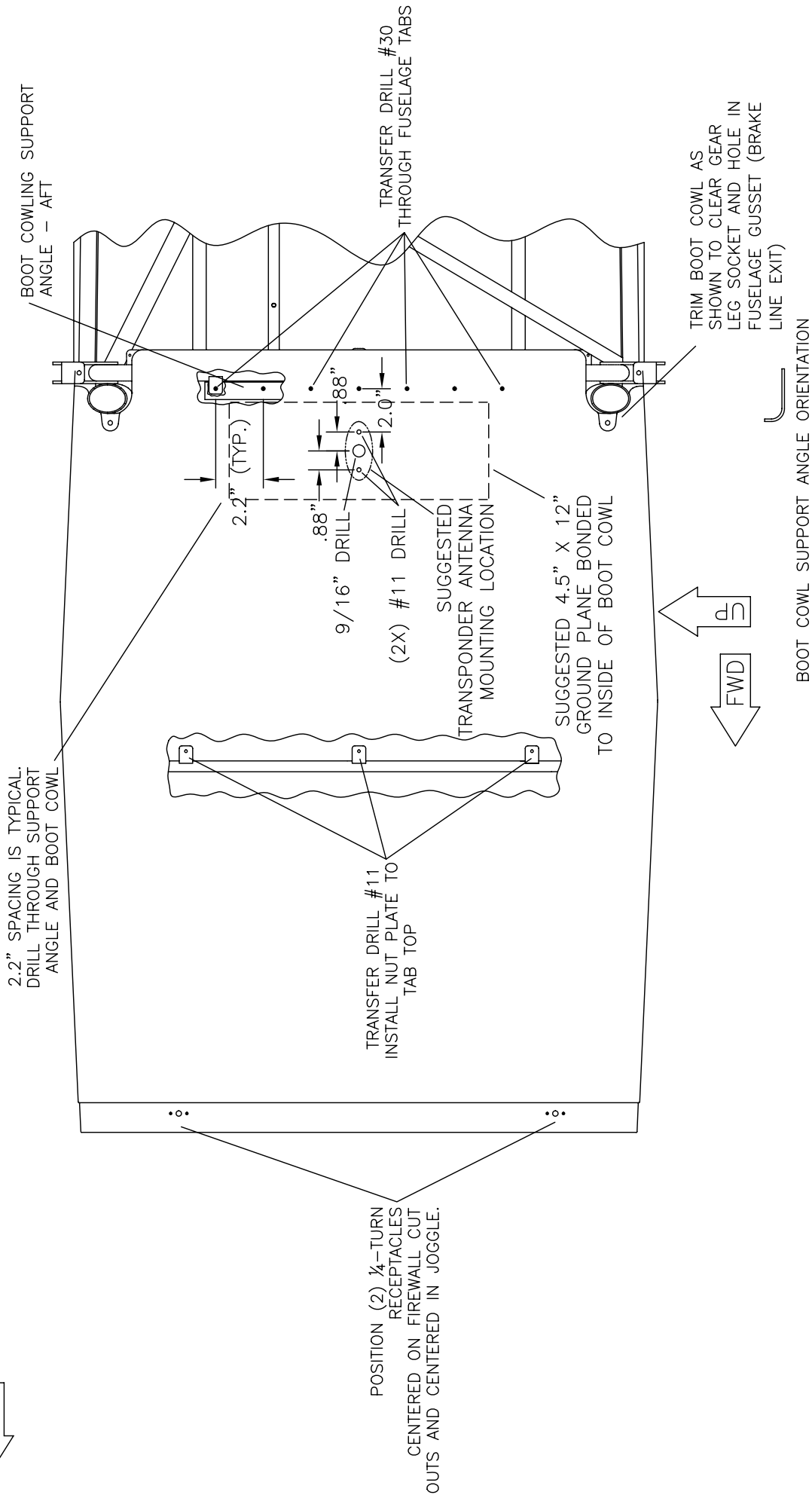
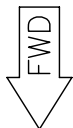
MD5569

RANS S-7S
BOOT COWL TRIMMING
FIGURE 06-00



RANS S-7S
BOOT COWL, FRONT DETAILS FIG. 06-01

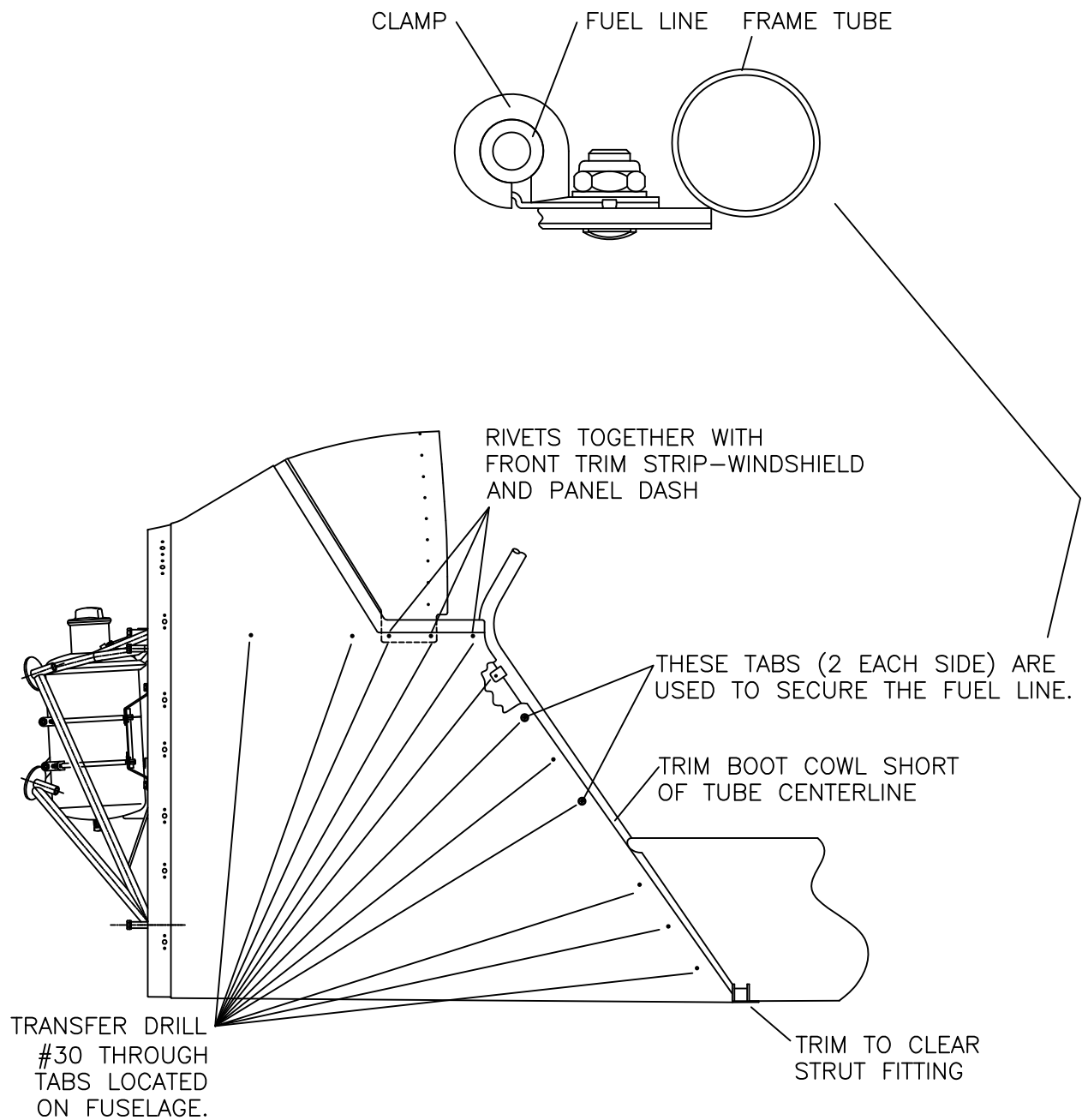
MD4396



RAMS S-7S

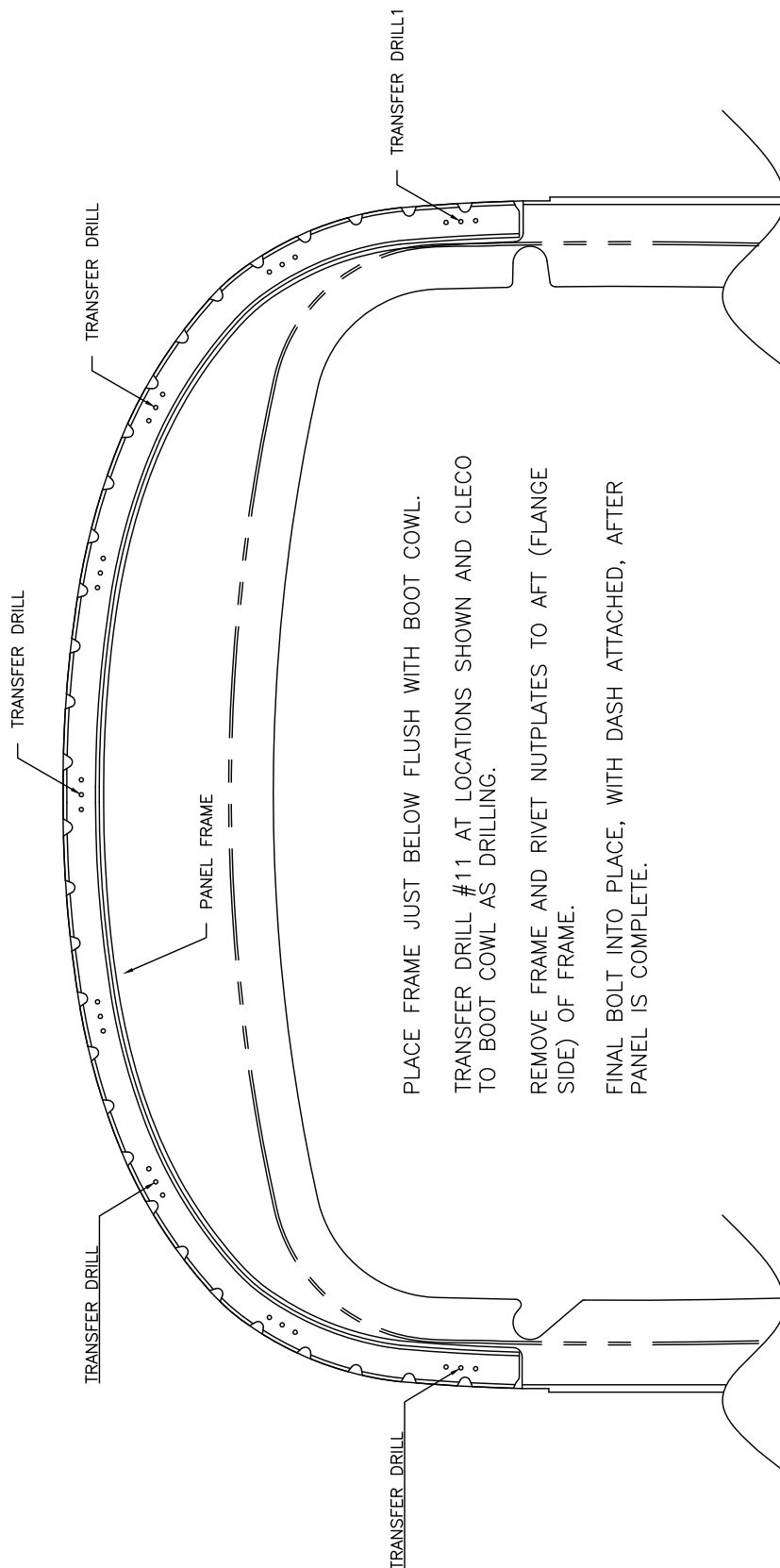
BOOT COWL BOTTOM DETAIL FIGURE 06-02

MD4398
REV. A



MD4399

RANS S-7S
BOOT COWL SIDE DETAIL
FIGURE 06-03



PLACE FRAME JUST BELOW FLUSH WITH BOOT COWL.

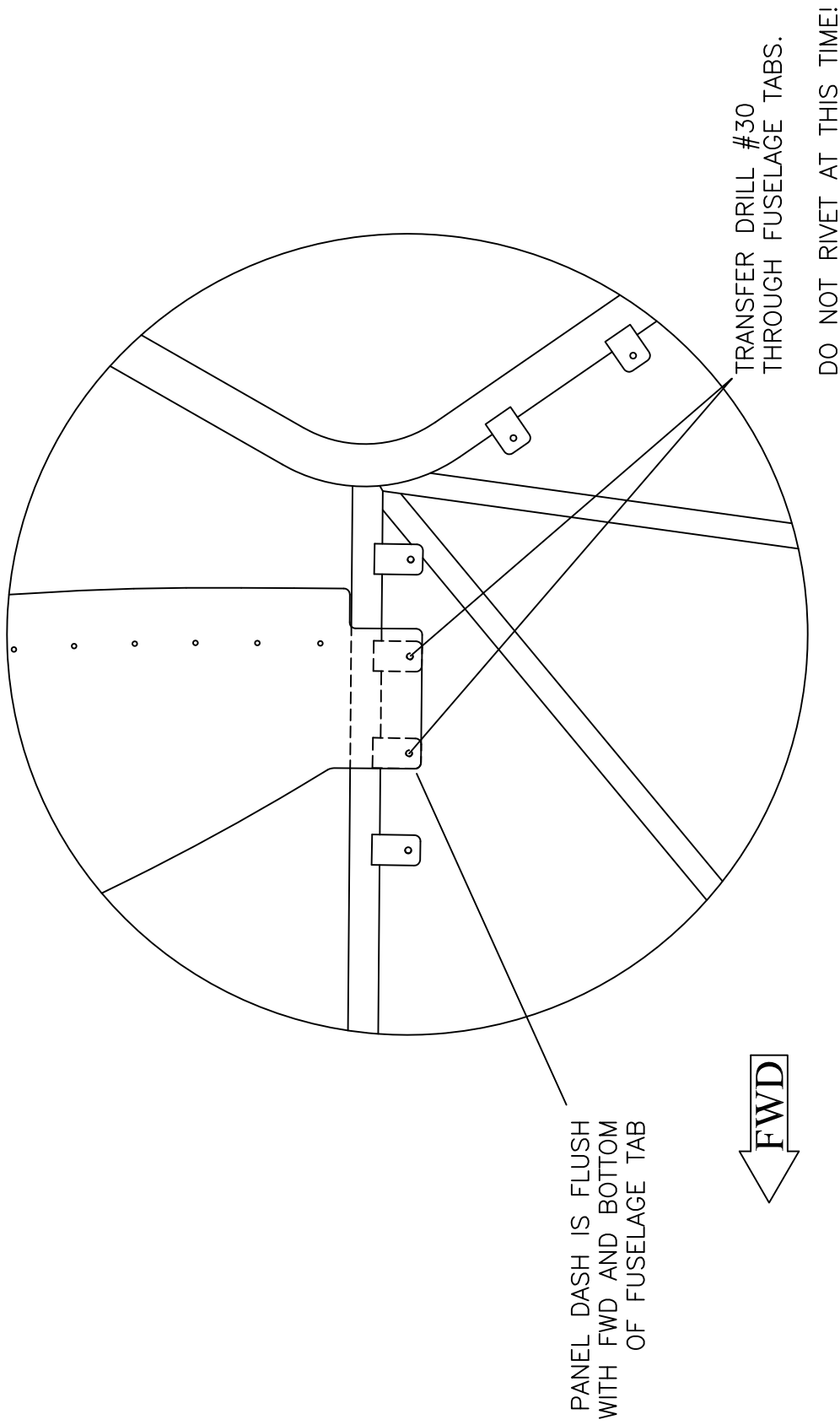
TRANSFER DRILL #11 AT LOCATIONS SHOWN AND CLECO TO BOOT COWL AS DRILLING.

REMOVE FRAME AND RIVET NUTPLATES TO AFT (FLANGE SIDE) OF FRAME.

FINAL BOLT INTO PLACE, WITH DASH ATTACHED, AFTER PANEL IS COMPLETE.

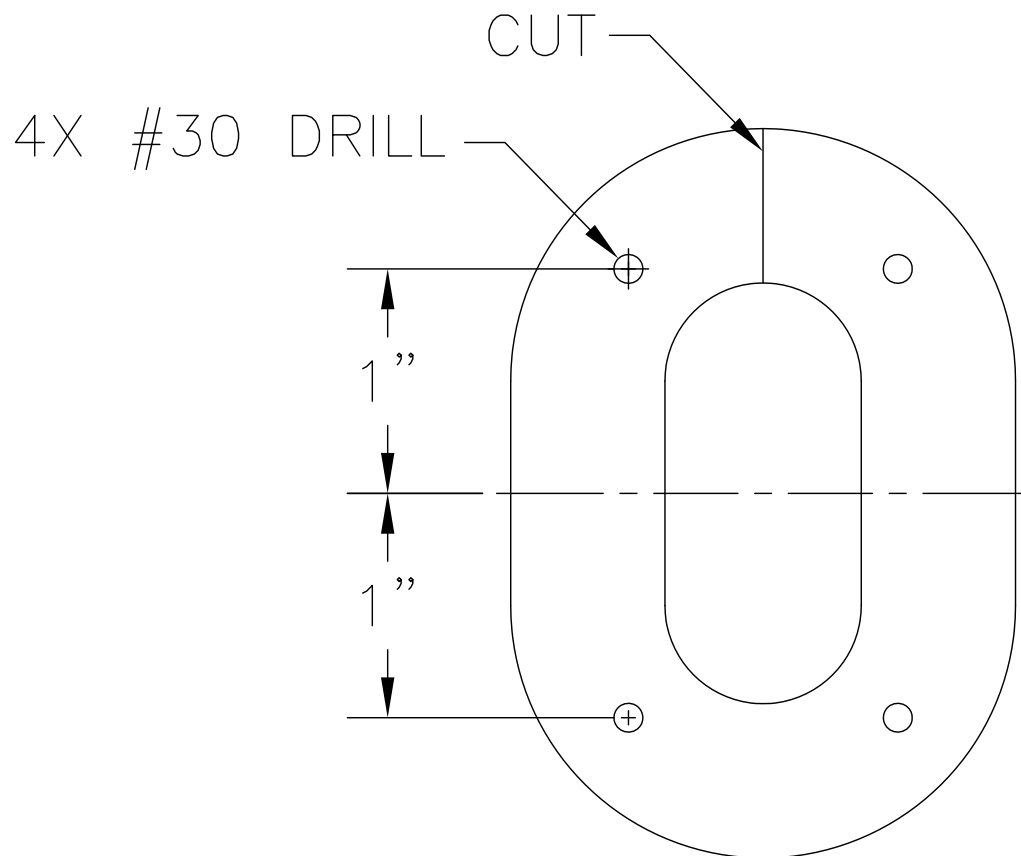
MD5569

RAMS S-7S
 VERTICAL INSTRUMENT PANEL
 FORWARD FRAME MOUNTING
 FIGURE 06-03A



MD5564

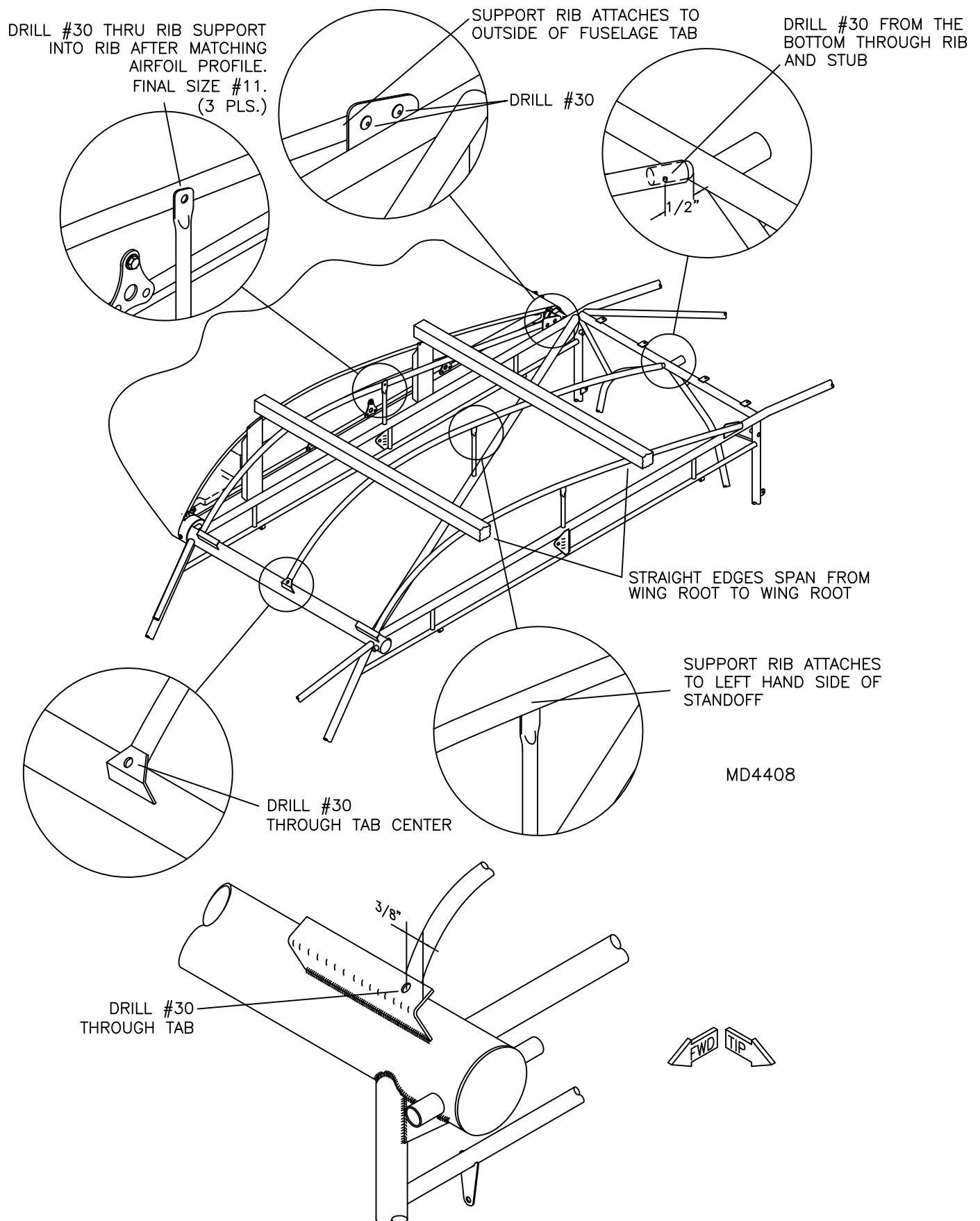
RFA S-7S
VERTICAL INSTRUMENT PANEL ALIGNMENT
FIGURE 06-03B



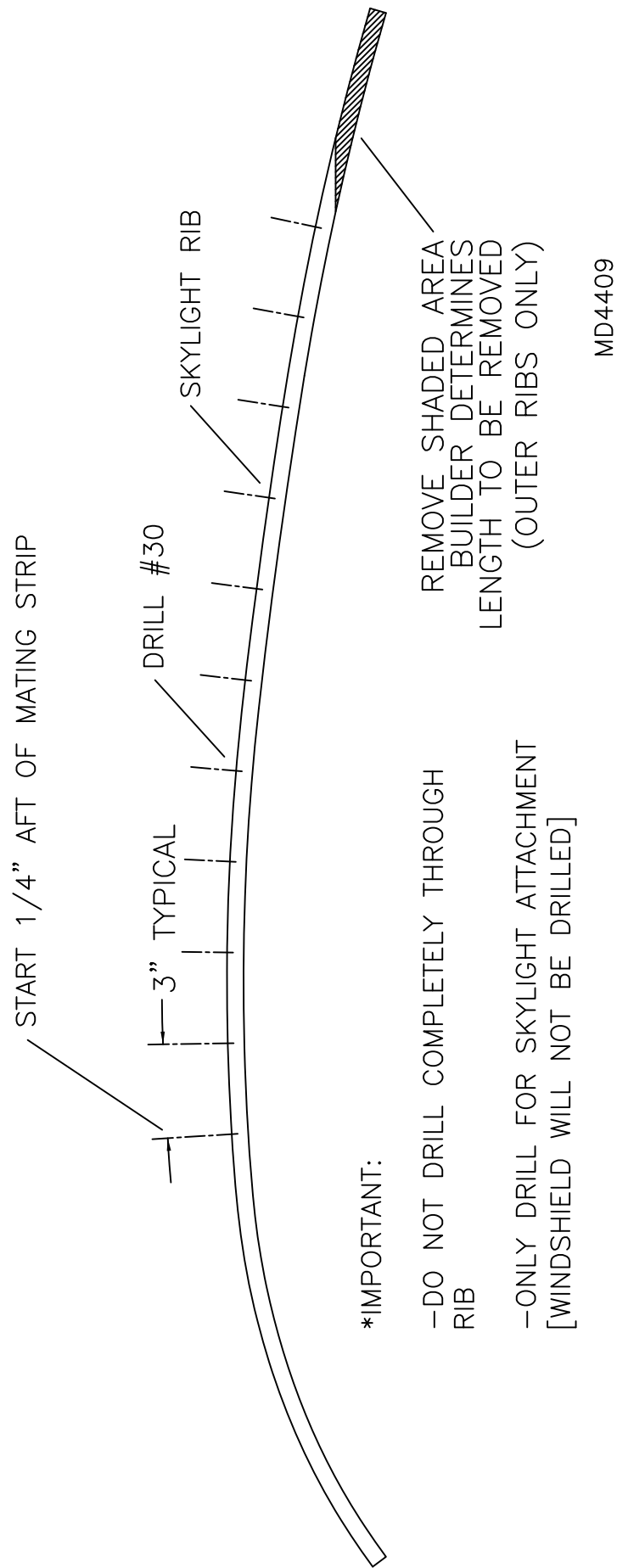
MD5118

RANS S-7S
INSTRUMENT PANEL CLOSEOUT MODIFICATION
FIGURE 06-03C

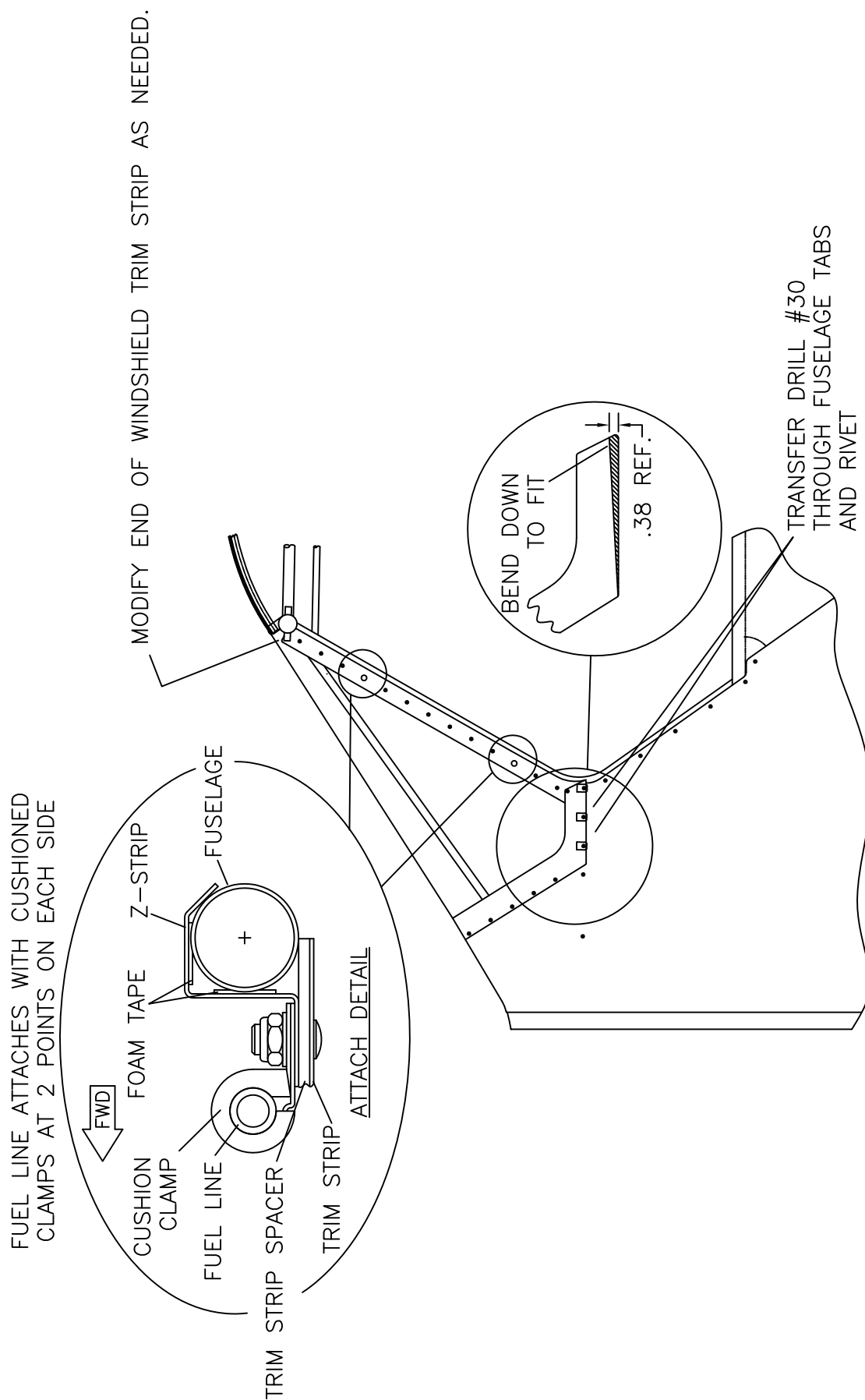
01/15/2013



RANS S-7S
WINDSHIELD INSTALLATION
FIGURE 06-04

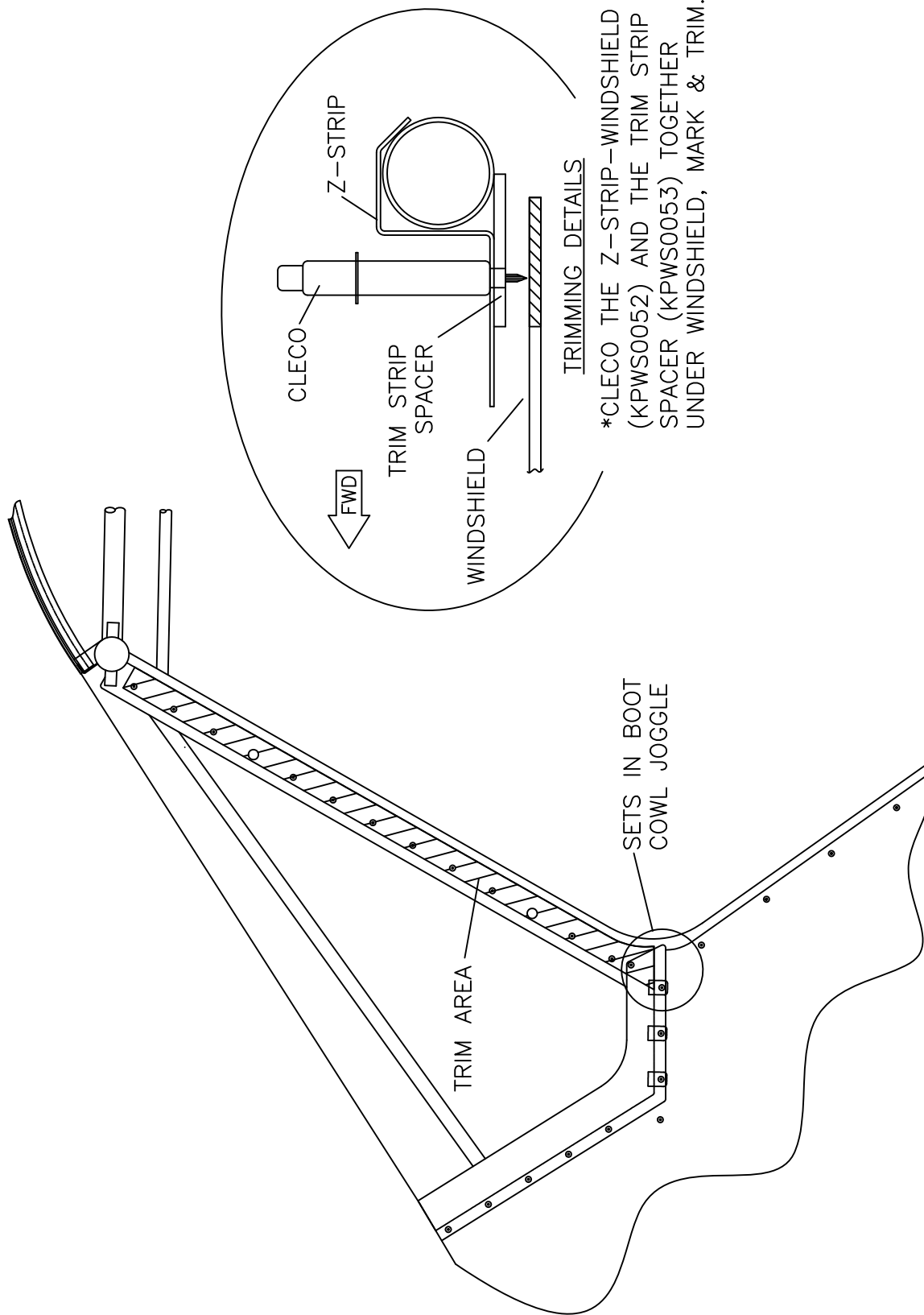


RRR S-7S
WINDSHIELD SUPPORT TUBE DRILL
FIGURE 06-05



RAMS S-7S
WINDSHIELD INSTALLATION
FIGURE 06-06

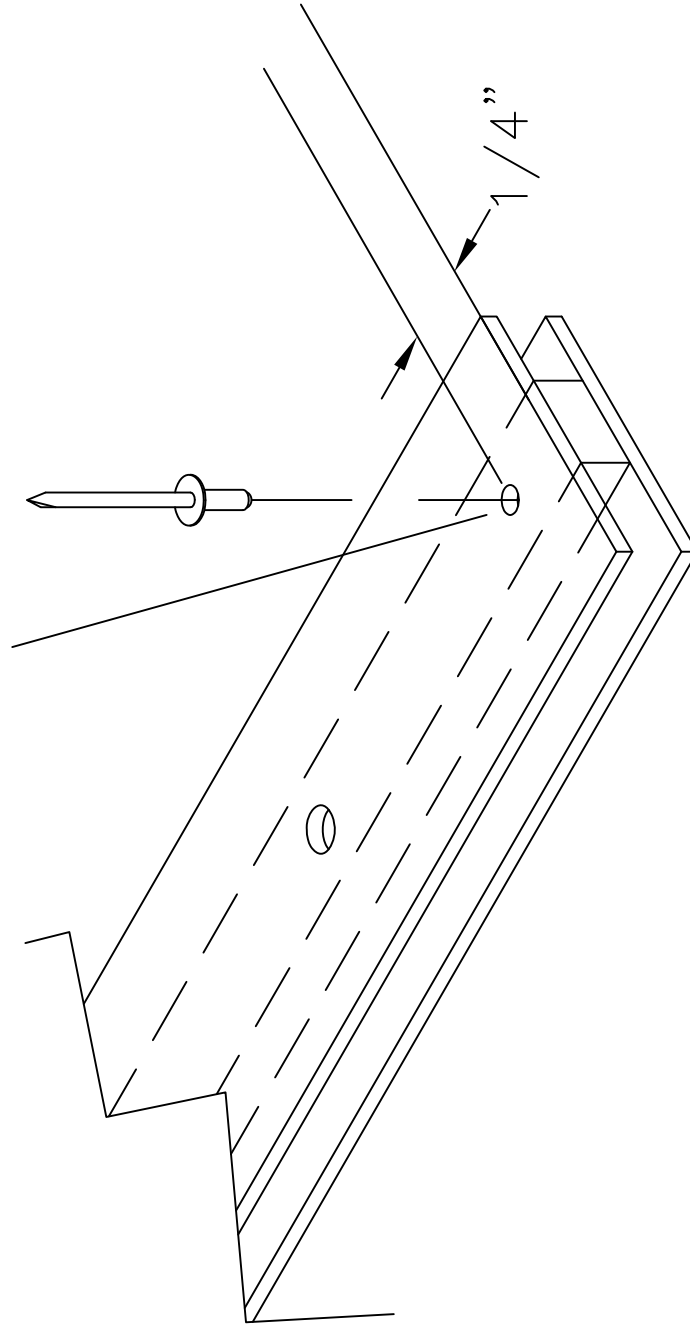
MD4410



MD5572

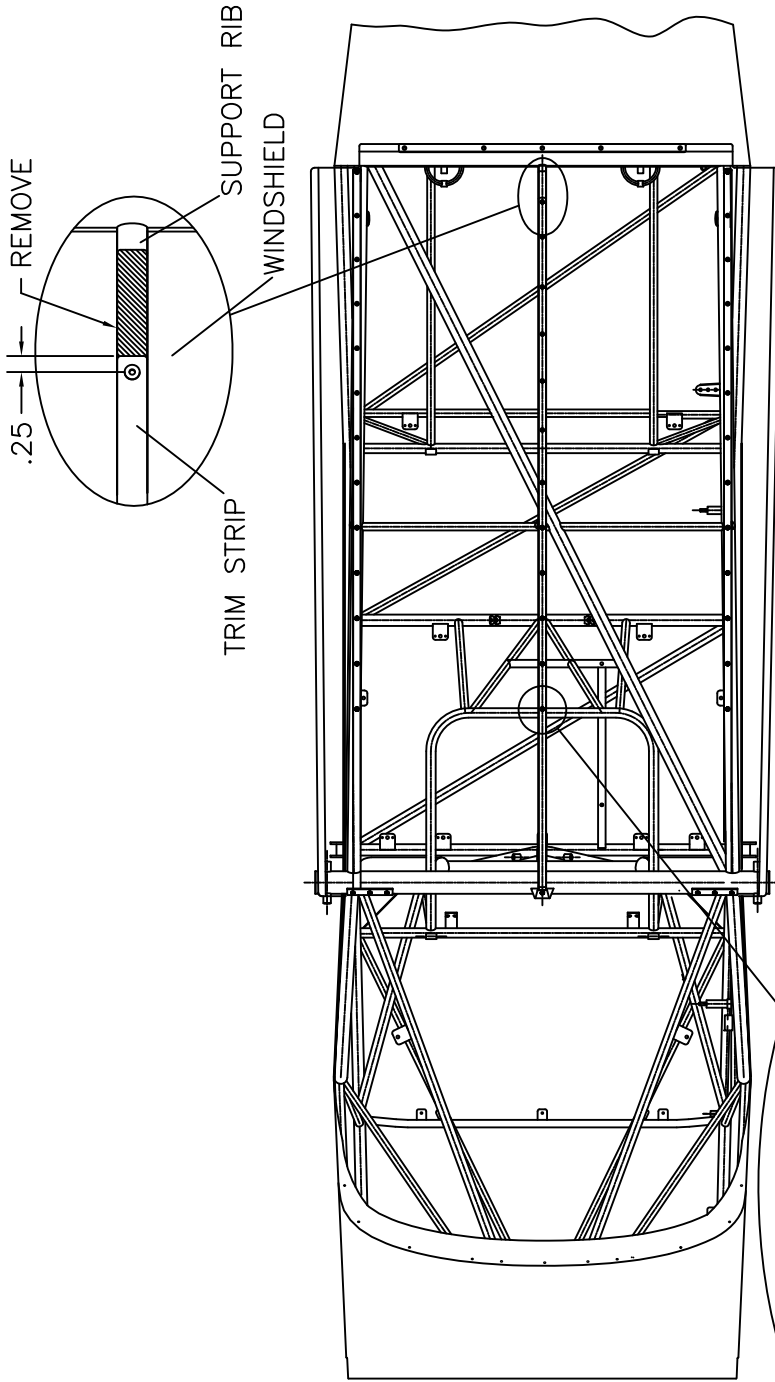
RRMS S-7S
FORMED WINDSHIELD TRIMMING
FIGURE 06-06A

LOCATE AND DRILL #40.
SQUEEZE RIVET DURING
FINAL ASSEMBLY TO
PREVENT CHAFING ON
WING.



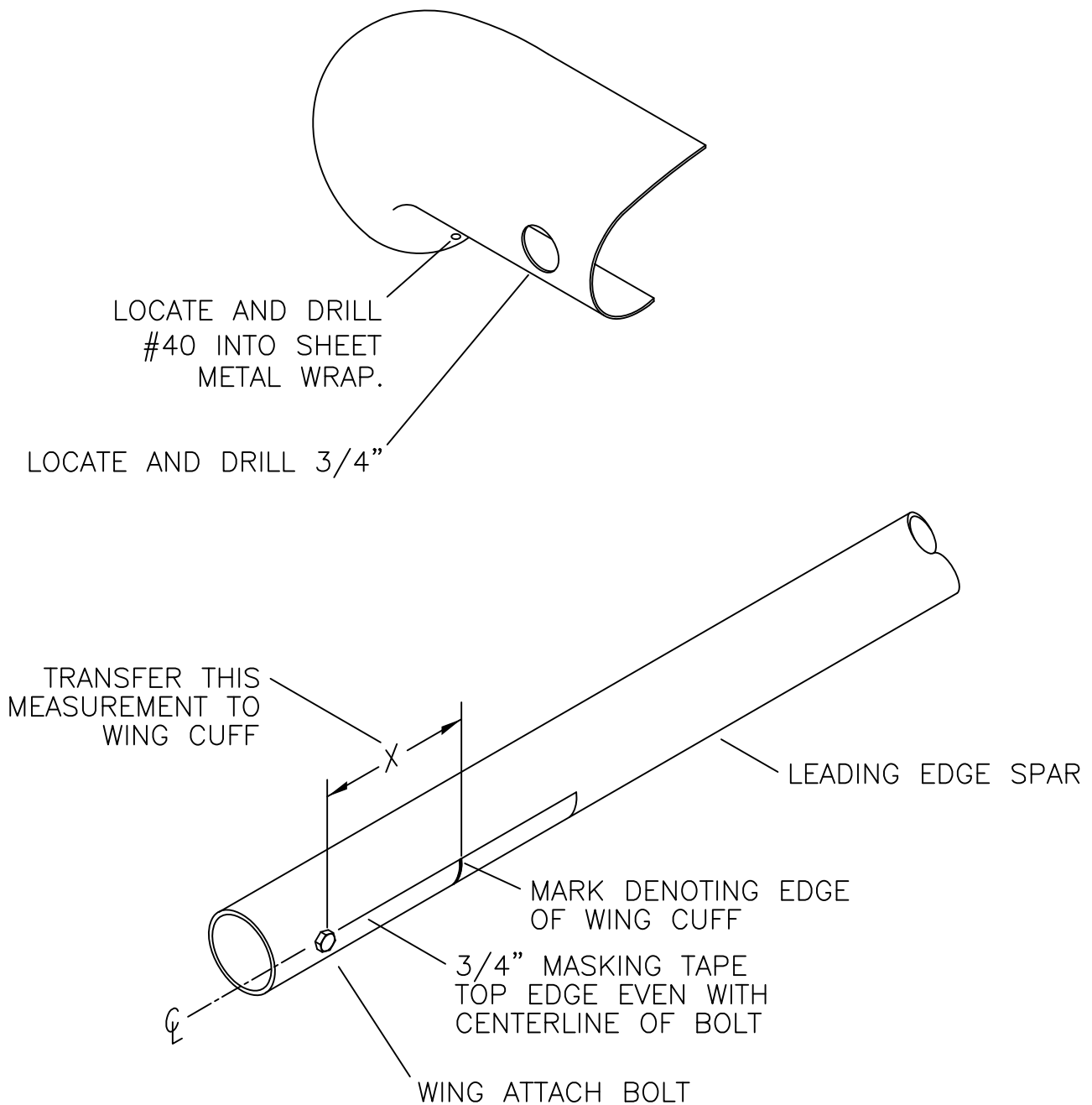
MD5576

RRR S-7S **MATING STRIP MODIFICATION** **FIGURE 06-06B**



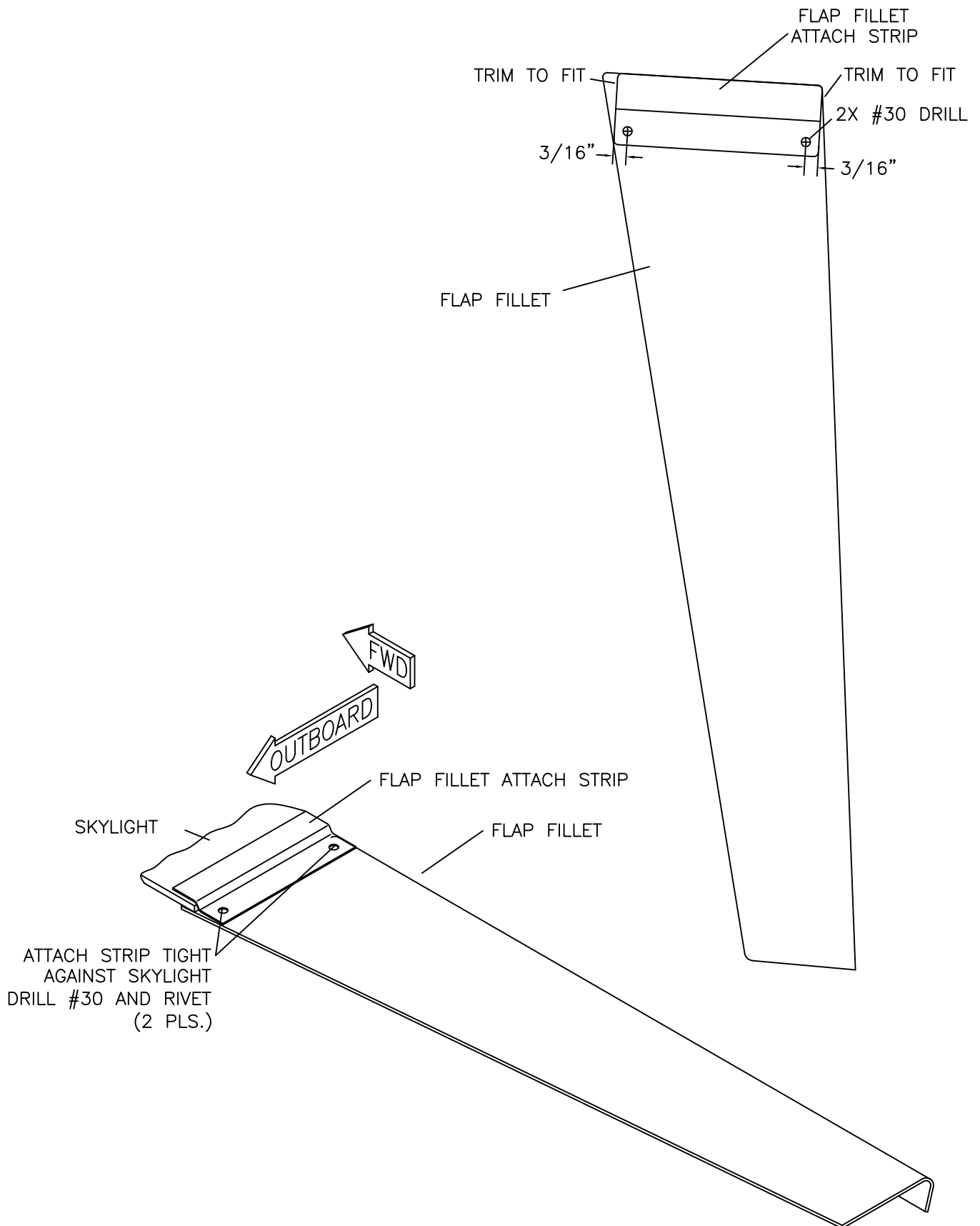
MD4411

RAMMER S-7S **WINDSHIELD INSTALLATION** **FIGURE 06-07**



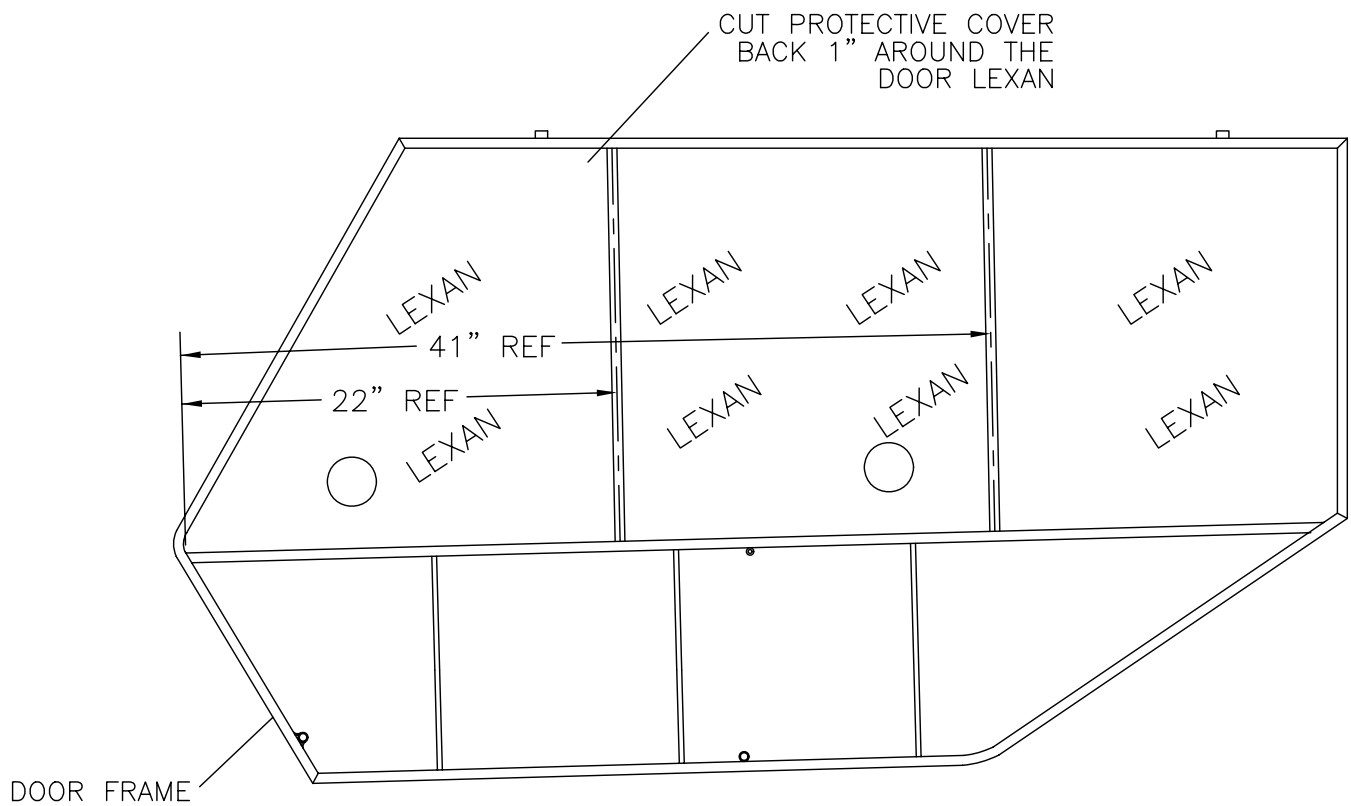
MD4412
REV. A

RANS S-7S
WING CUFF INSTALLATION
FIGURE 06-08



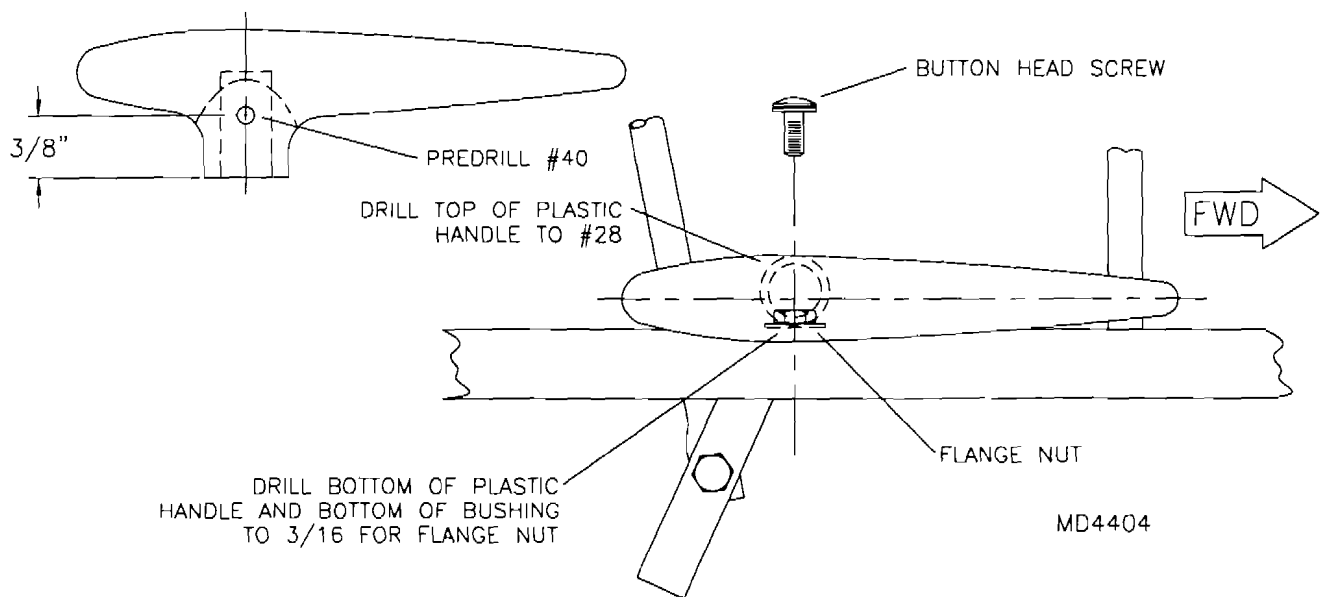
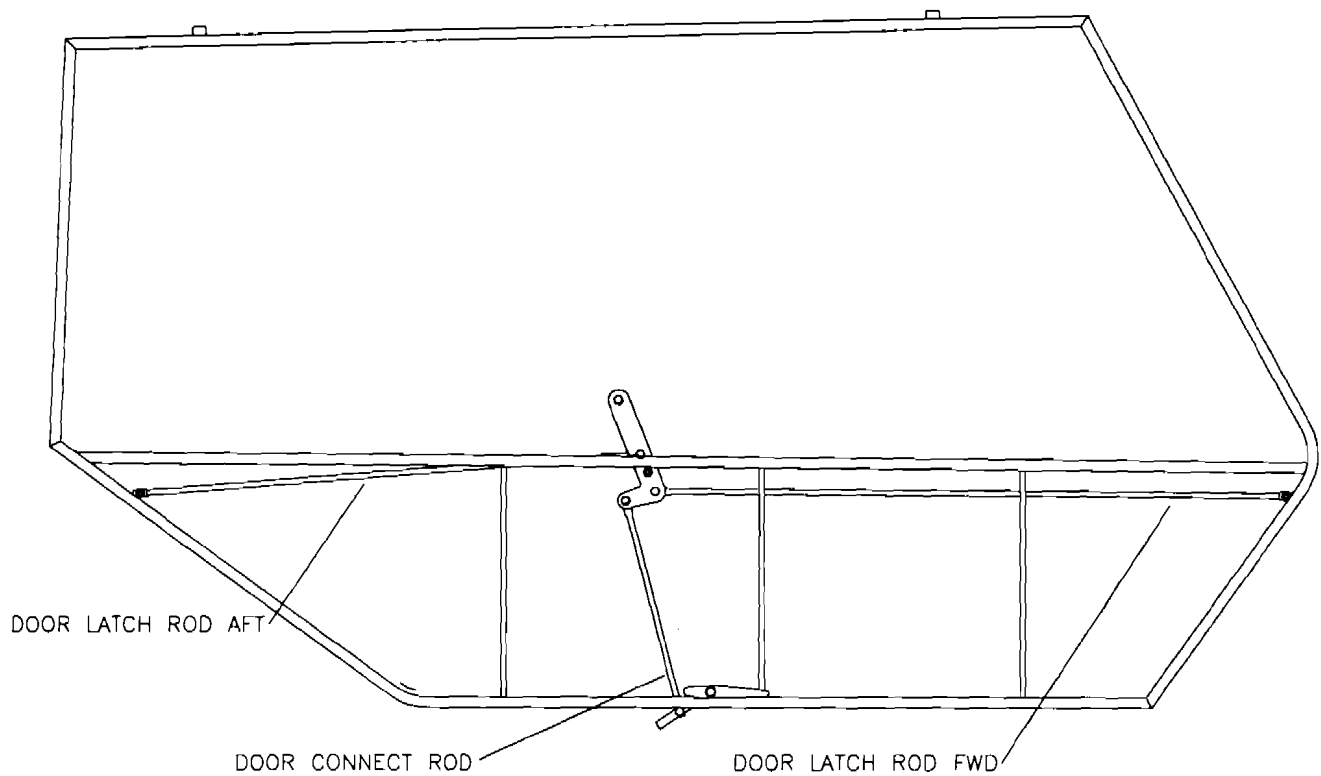
RANS S-7S
FLAP FILLET MODIFICATION
FIGURE 06-08A

MD5083



MD4403
REV. A

RANS S-7S
DOOR ASSEMBLY - LEXAN AND TRIM
FIGURE 06-09



RANS S-7S
DOOR LATCH DETAIL FIGURE 06-10

SPINNER BACKING PLATE

COUNTER SINK SO RIVET
HEADS ARE FLUSH.

NUT PLATE

SPINNER CUT OUT TEMPLATE FOR SENSENICH
WOOD PROP. (ASSURE $\frac{1}{8}$ " MINIMUM CLEARANCE
BETWEEN PROP AND SPINNER DOME.)

SPINNER DOME

TEMPLATE

180° REF. LINE

180°

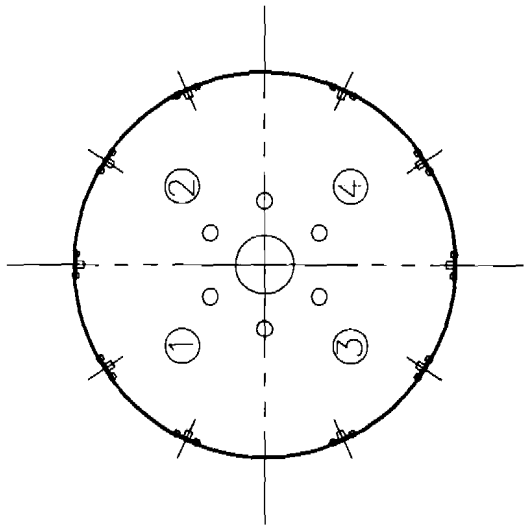
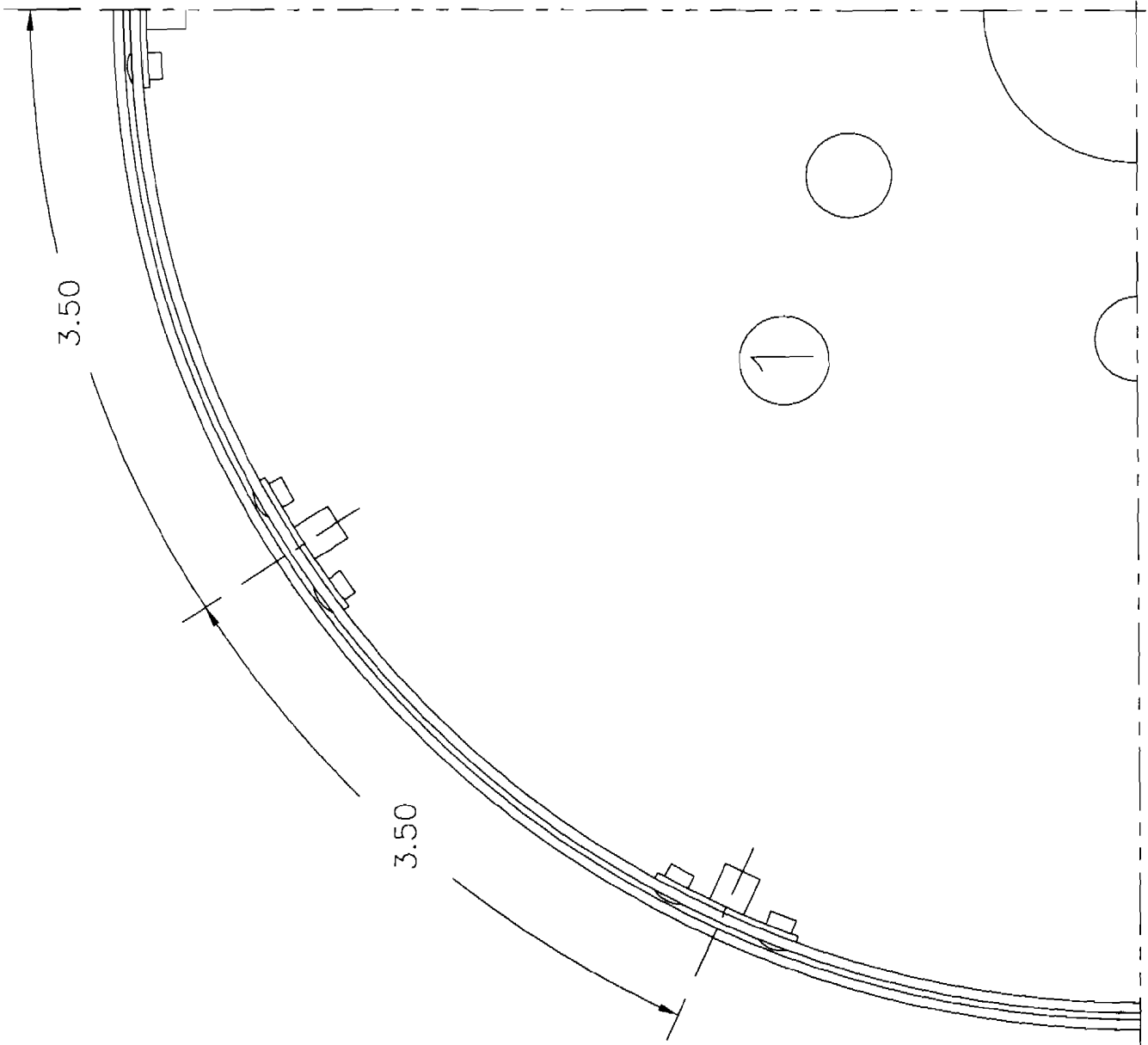
5/16" TYPICAL

TEMPLATE

MD4378

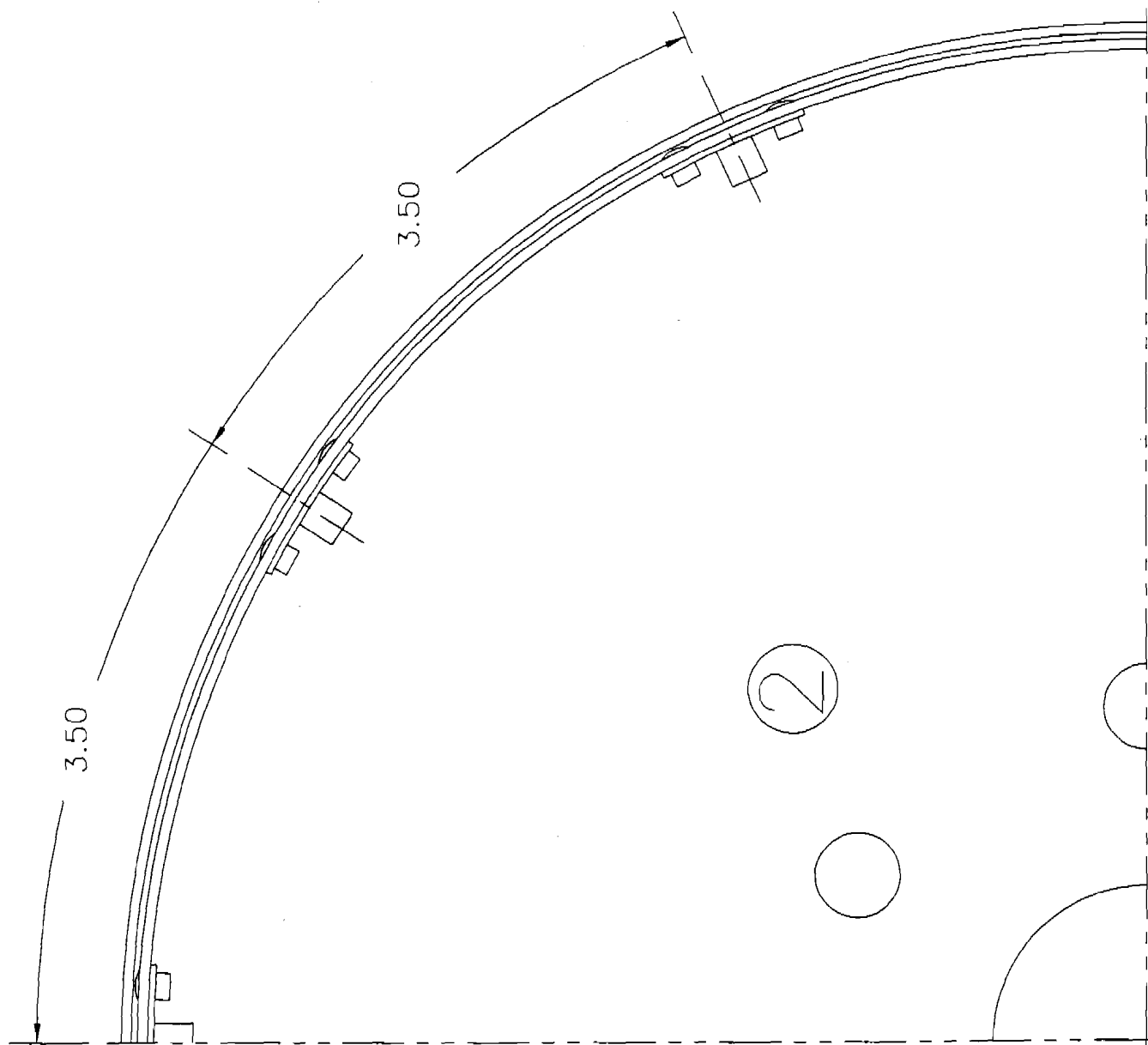
RRF S-7S

SPINNER DETAIL FIGURE 06-11



MD4377

RRF S-7S
SPINNER BACKING
PLATE TEMPLATE #1
FIGURE 06-12-A

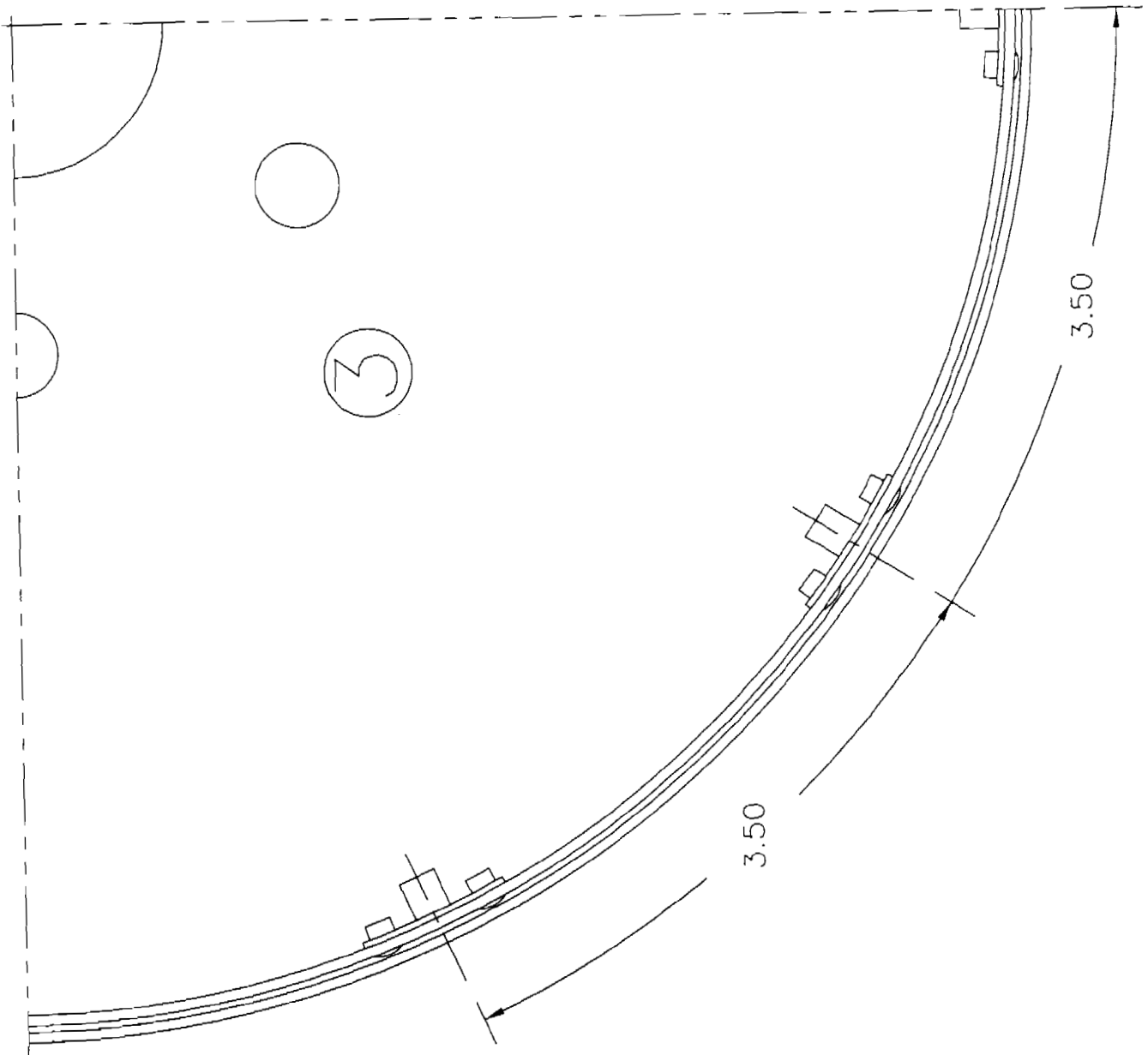


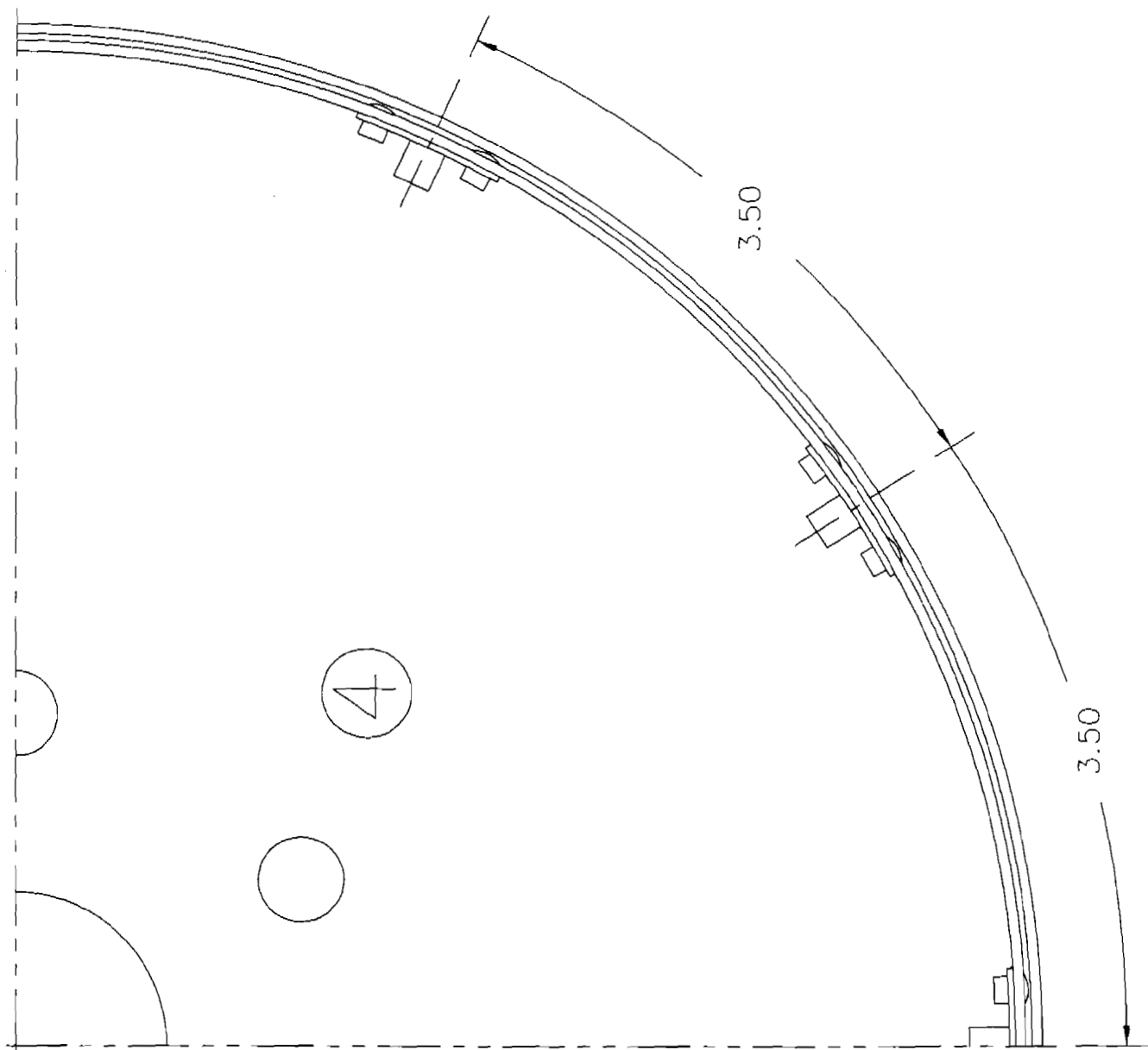
MD4377

SPINNER S-7S
SPINNER BACKING
PLATE TEMPLATE #2
FIGURE 06-12-B

MD4377

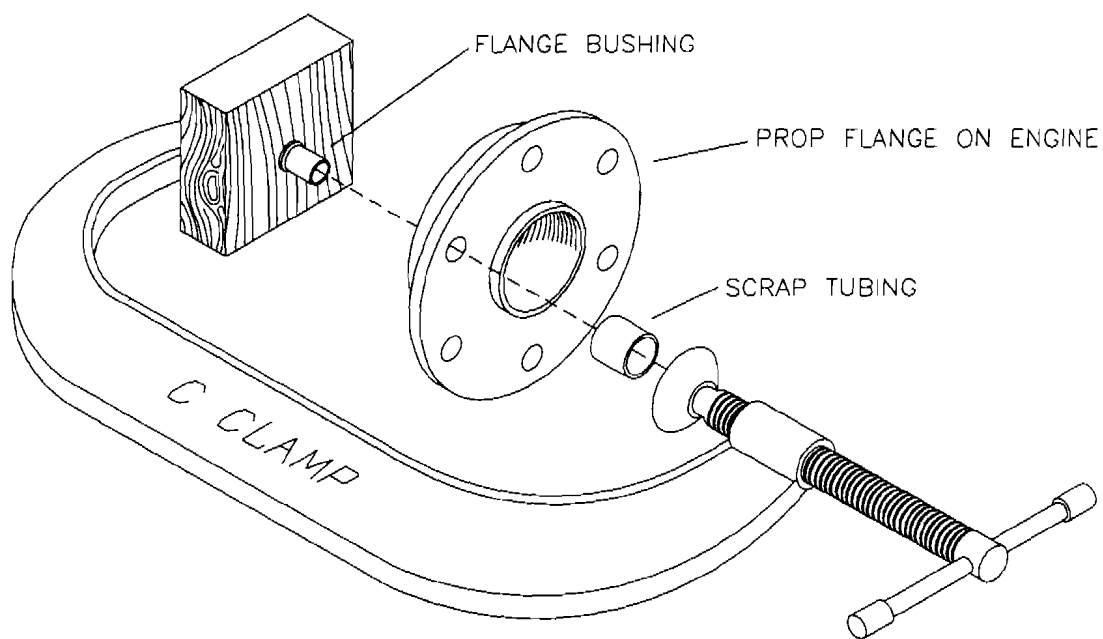
RRR S-7S
SPINNER BACKING
PLATE TEMPLATE #3
FIGURE 06-12-C





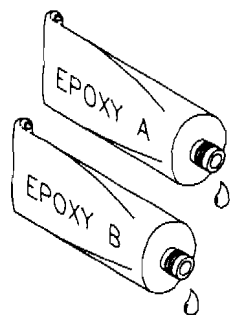
MD4377

RRMS S-7S
SPINNER BACKING
PLATE TEMPLATE #4
FIGURE 06-12-D

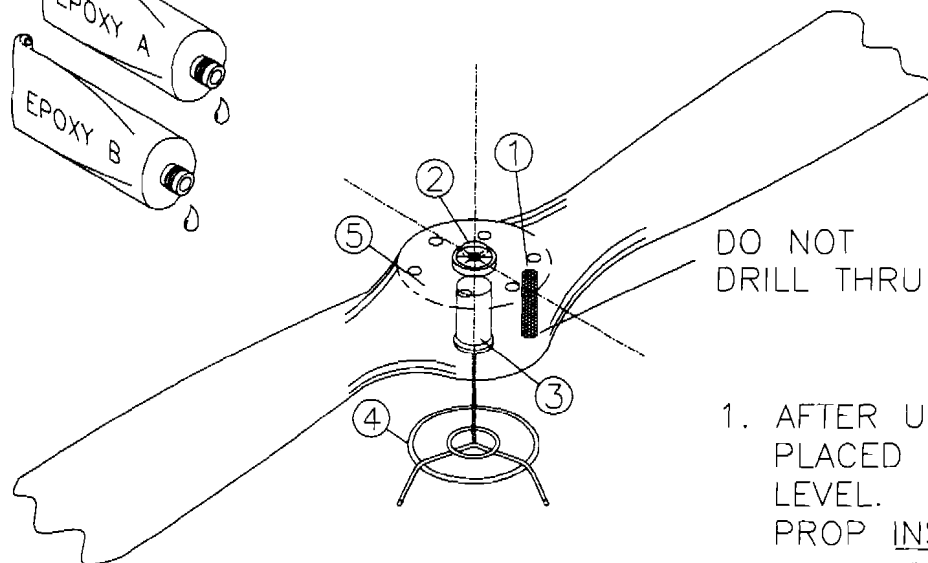


MD4401

RANS S-7S
FLANGE BUSHING INSTALLATION
FIGURE 06-13

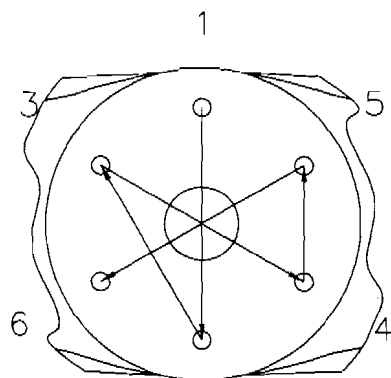


NOTE: BALANCE PROP
INDOORS OUT
OF WIND



1. AFTER USING COINS
PLACED TO CENTER BUBBLE
LEVEL. DRILL A HOLE INTO
PROP INSIDE OF CRUSH PLATE
ZONE. FILL WITH LEAD "BB'S"
SEAL WITH EPOXY.

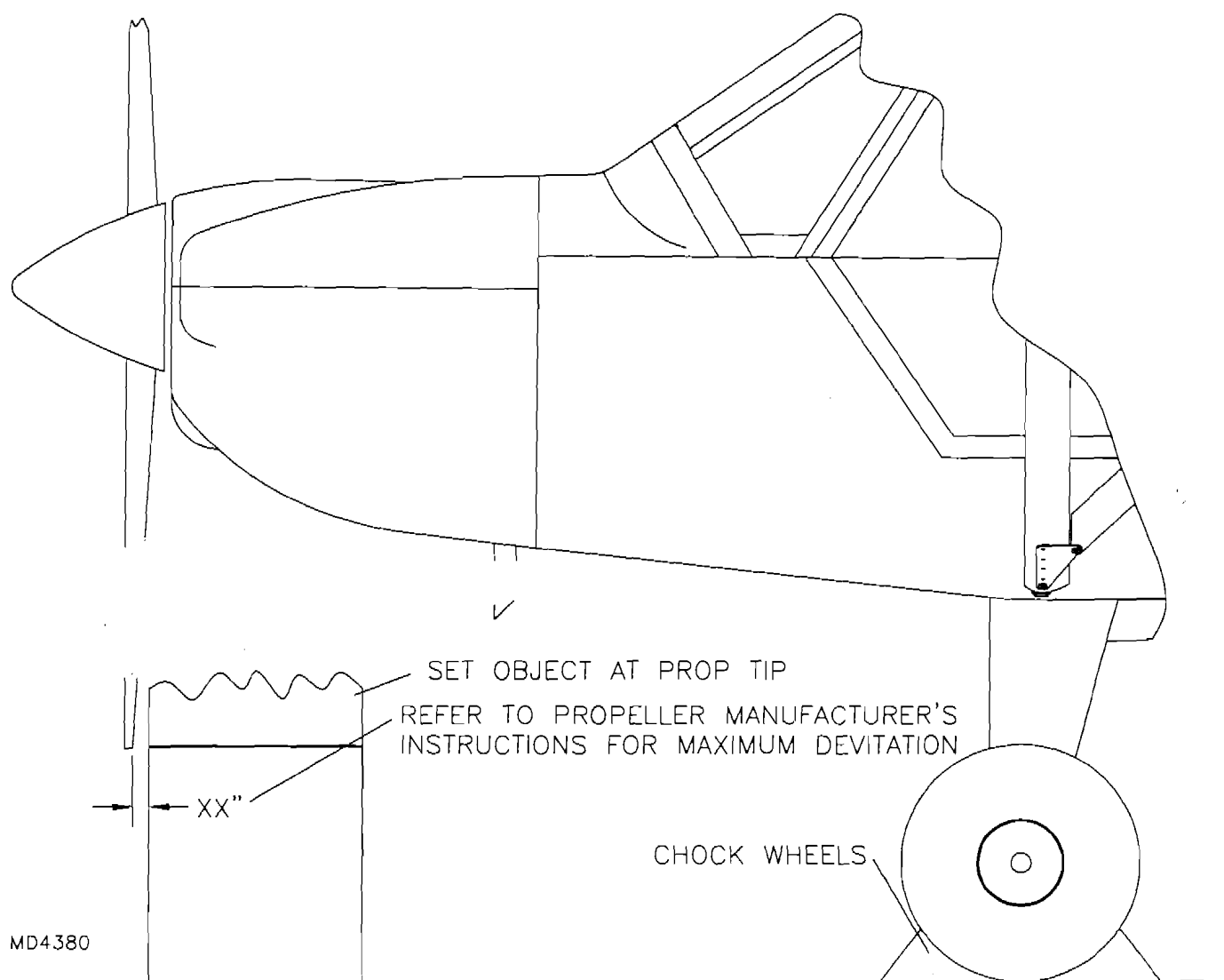
2. CENTER LEVEL
3. DUAL AXIS PROP BALANCER INSERT
SPECIFY PROP INSIDE DIAMETER WHEN
ORDERING.
4. STAND FOR INSERT
5. CRUSH PLATE ZONE



MD4379

2
RE-TORQUE BOLTS AFTER 5 HRS. OF FLIGHT

RANS S-7S **WOOD PROPELLER STATIC BALANCE AND** **TORQUE FIGURE 06-14**

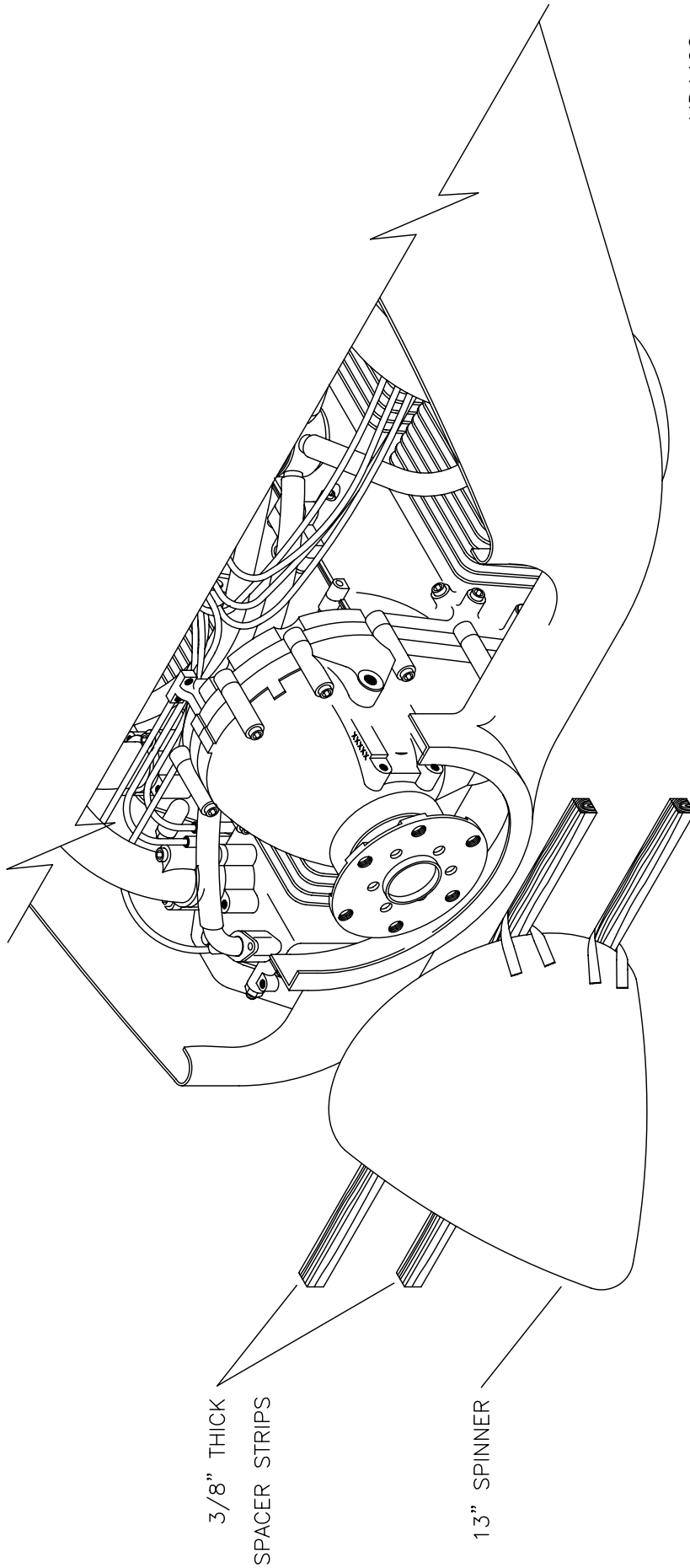


TRACK PROP IN CALM CONDITIONS

IMPORTANT!

CHECK PROPELLER TORQUE EVERY 50 HOURS OR AFTER LARGE CHANGES IN CLIMATE. WOOD PROPS WILL SHRINK AND EXPAND WITH HUMIDITY. IF YOU LIVE IN A CLIMATE WITH LARGE CHANGES IN HUMIDITY OR FLY TO A DIFFERENT CLIMATE, PROP TORQUE MAY CHANGE MORE OFTEN. FAILURE TO MAINTAIN PROP TORQUE MAY RESULT IN SEPARATION OF THE PROPELLER FROM THE AIRCRAFT AND MAY CAUSE INJURY OR DEATH. REFER TO PROPELLER MANUFACTURER'S INSTRUCTIONS FOR SPECIAL MAINTENANCE REQUIREMENTS.

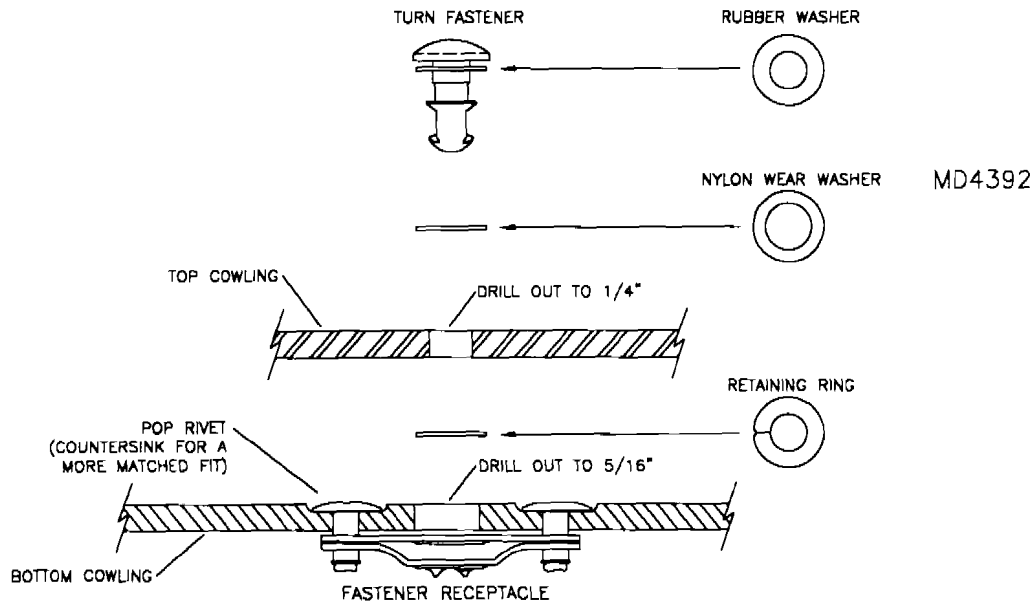
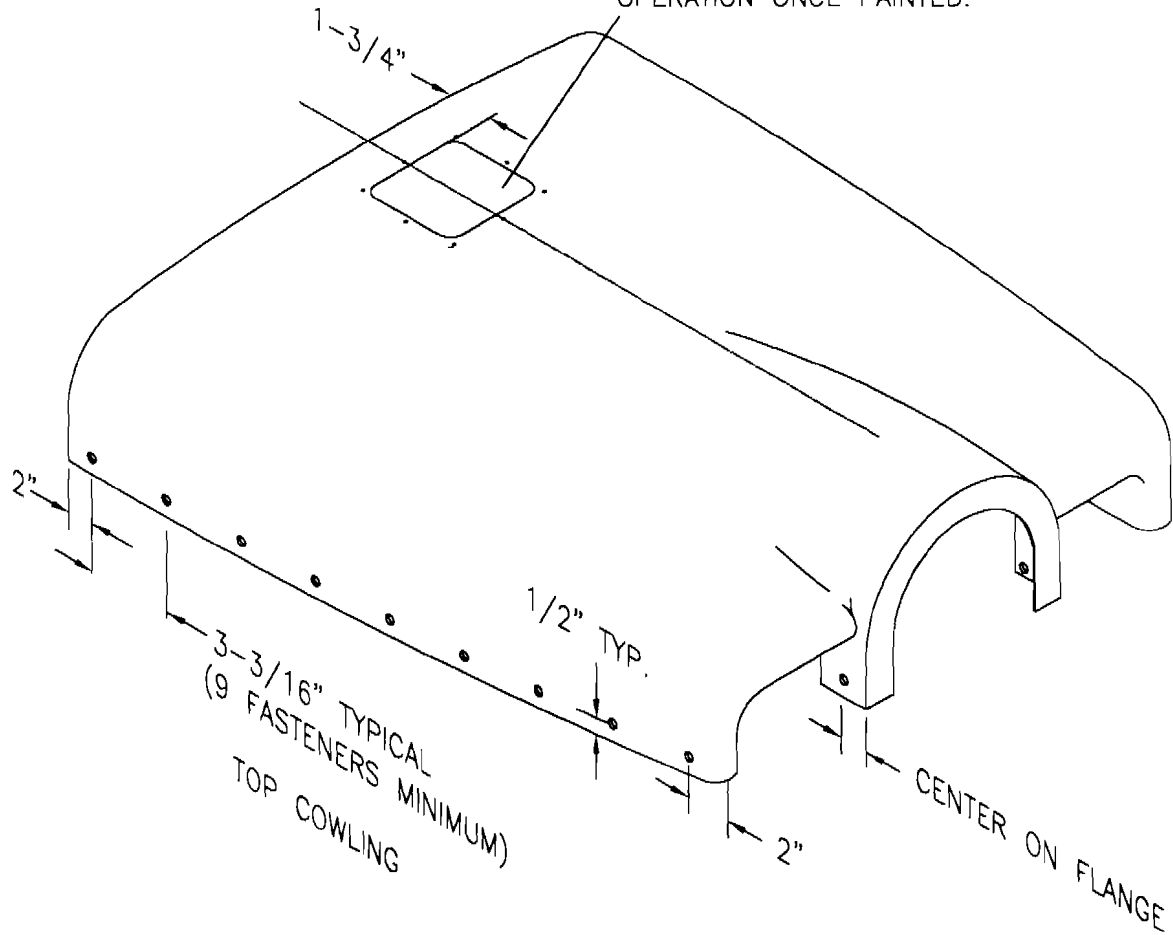
RANS S-7S
WOOD PROPELLER TRACKING
FIGURE 06-15



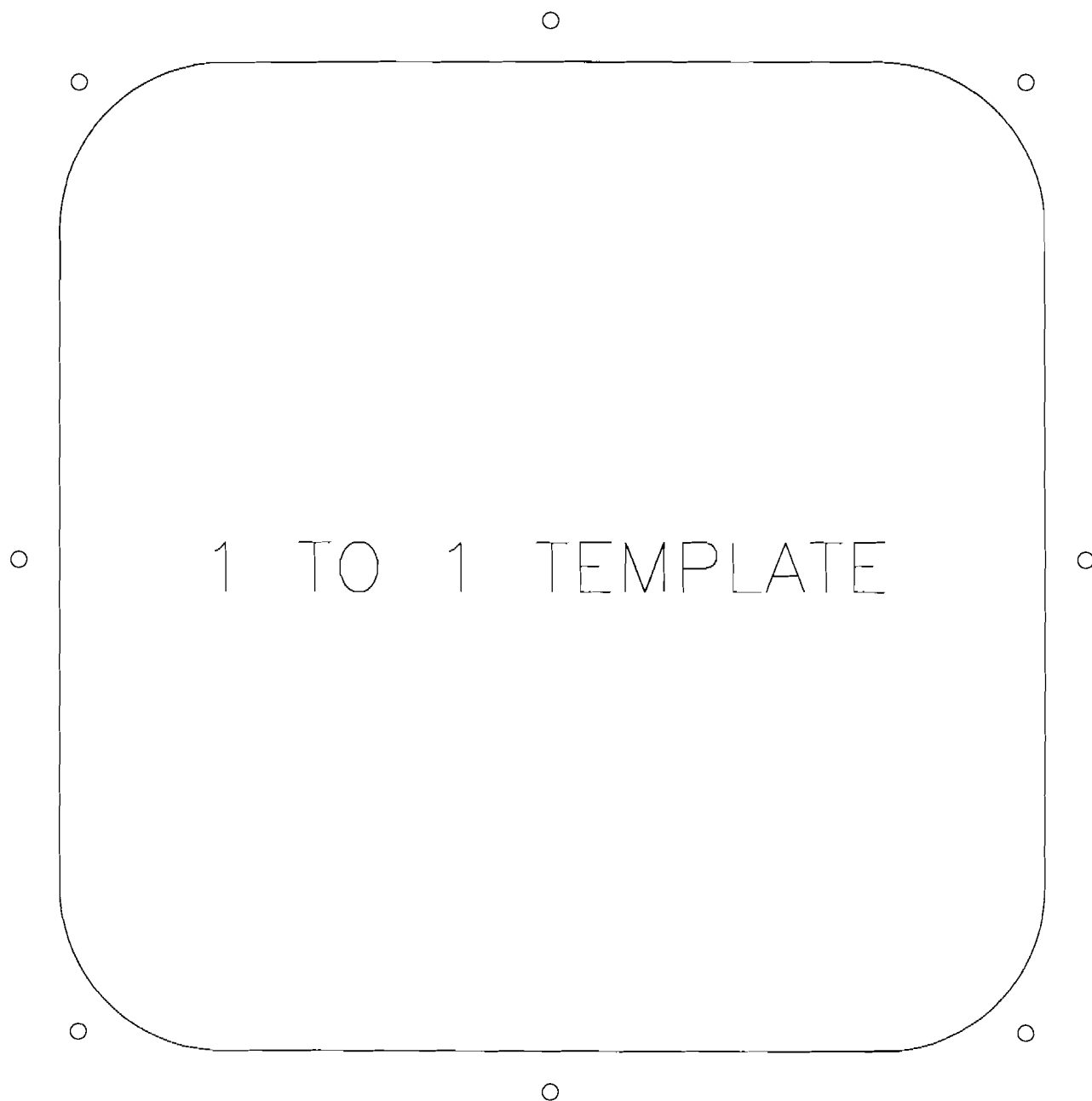
MD4402

RAMS S-7S SPINNER TO COWLING FIGURE 06-16

CUT AND DRILL USING 1:1 TEMPLATE,
TEST FIT WITH OIL DOOR P/N KPCW0036
MAINTAIN SUFFICIENT CLEARANCE FOR PROPER
OPERATION ONCE PAINTED.

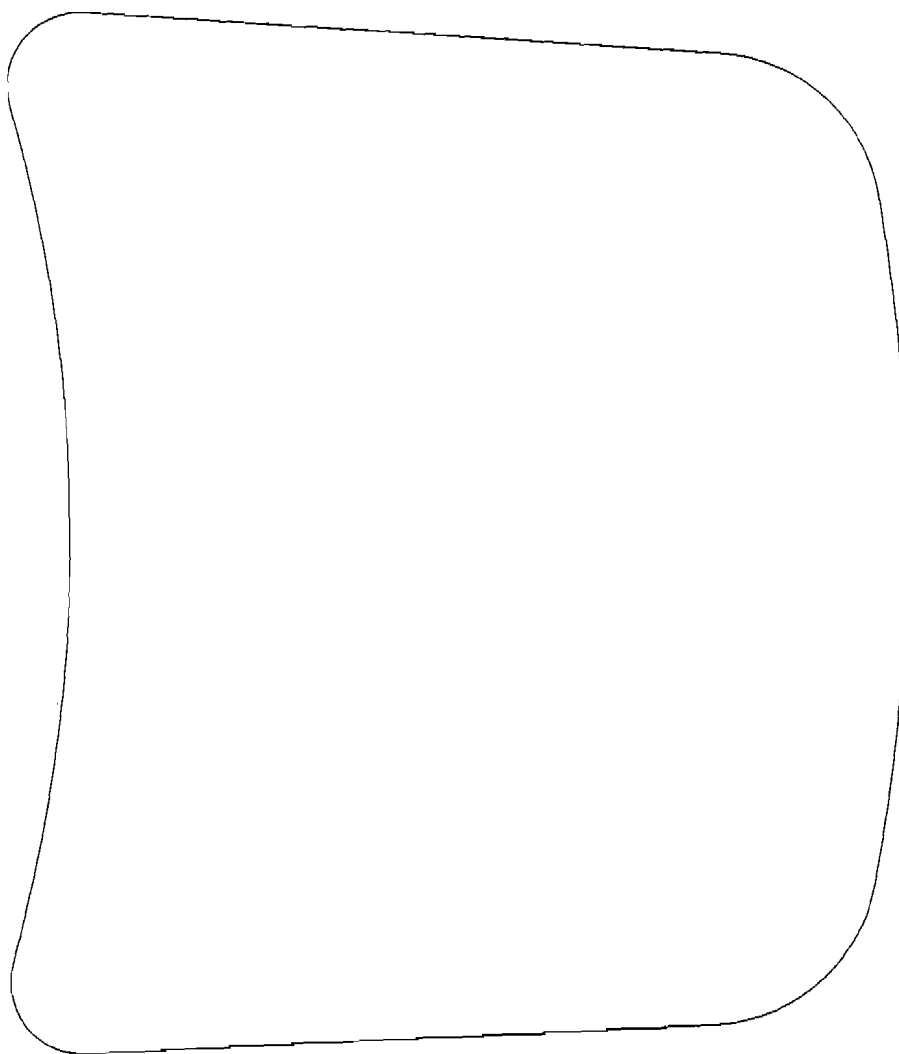
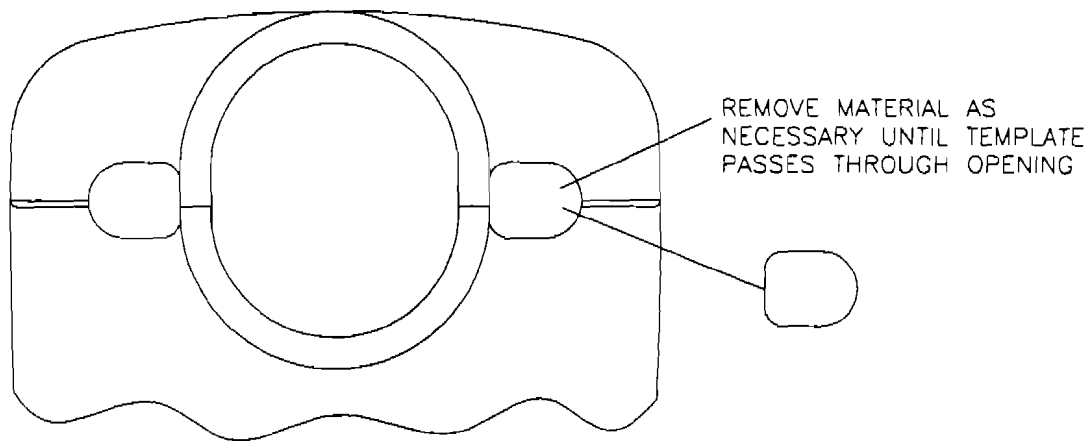


RANS S-7S
UPPER COWLING DRILL FIGURE 06-18



MD4394

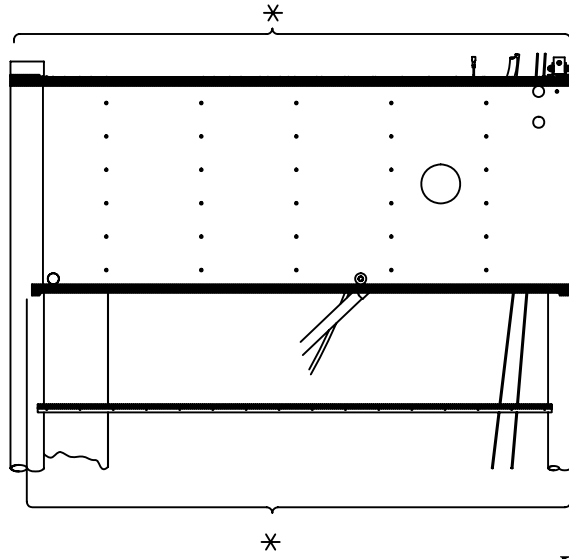
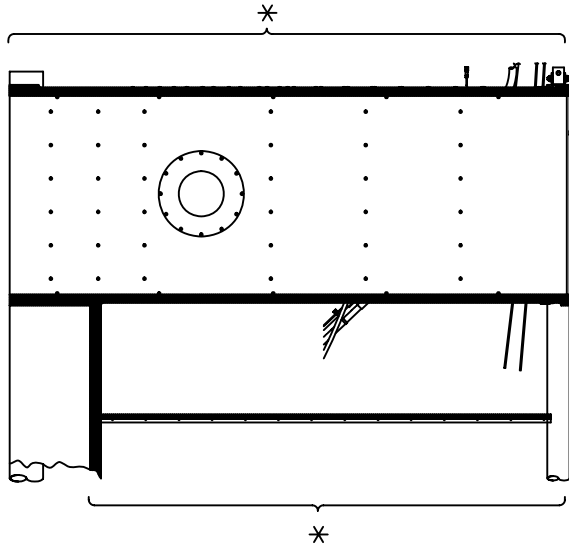
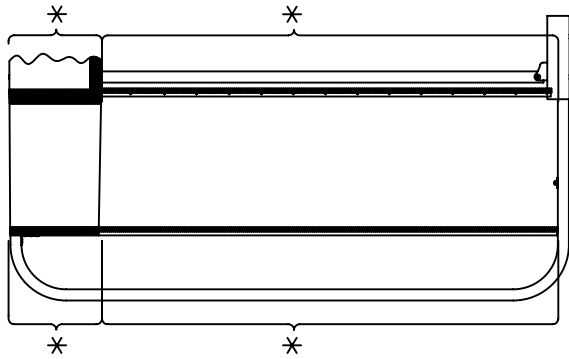
RANS S-7S
OIL CHECK DOOR TEMPLATE
FIGURE 06-19



1 TO 1 TEMPLATE

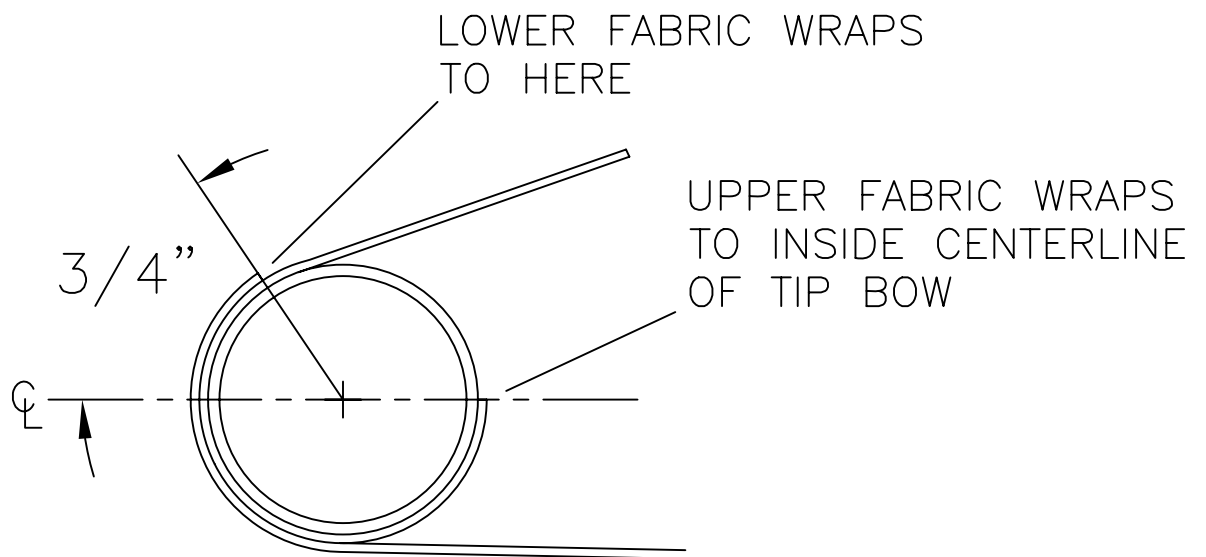
RANS S-7S
AIR INTAKE TEMPLATE FIGURE 06-20

MD4395

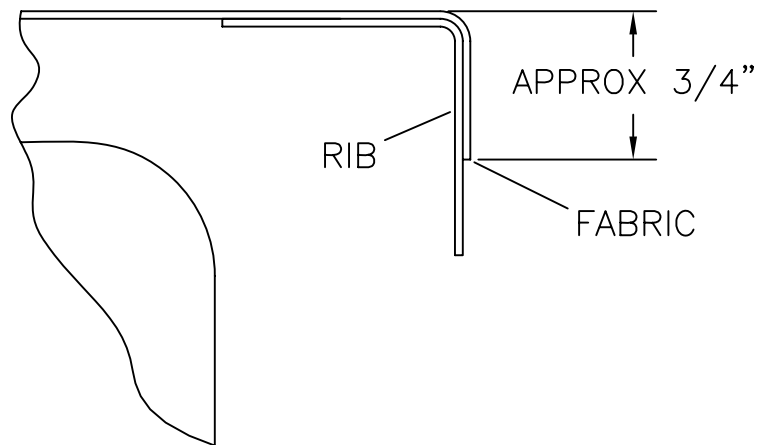


* APPLY ANTI-CHAFE TAPE
(3/4" MASKING TAPE) BEFORE COVERING
ALL SHARP METAL EDGES MUST RECEIVE
ANTI-CHAFE TAPE

RRM S-7S
WING COVERING - ANTI-CHAFE TAPE
FIGURE 07A-04



WING TIP BOW DETAIL

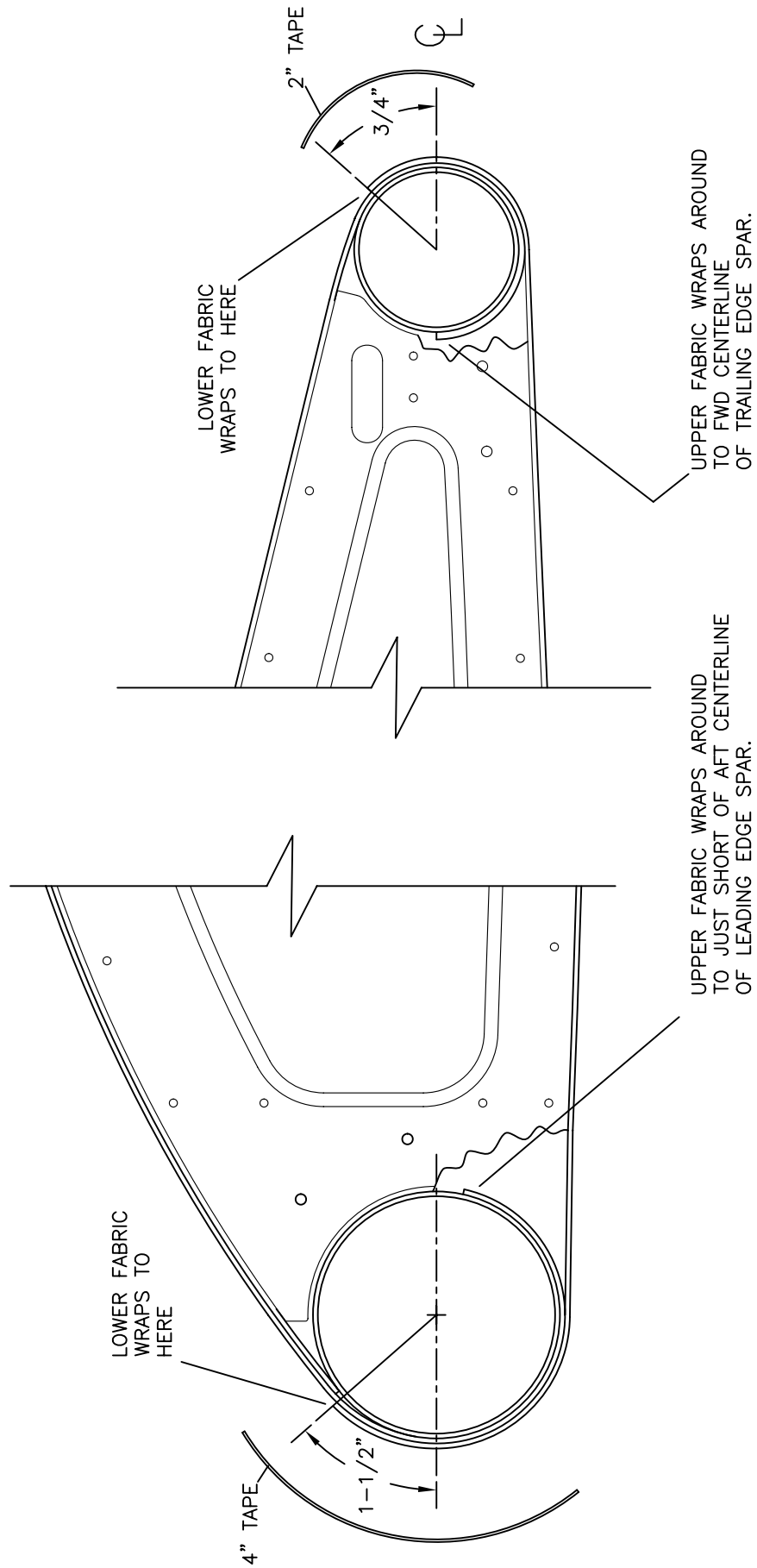


ROOT RIB DETAIL

MD4340

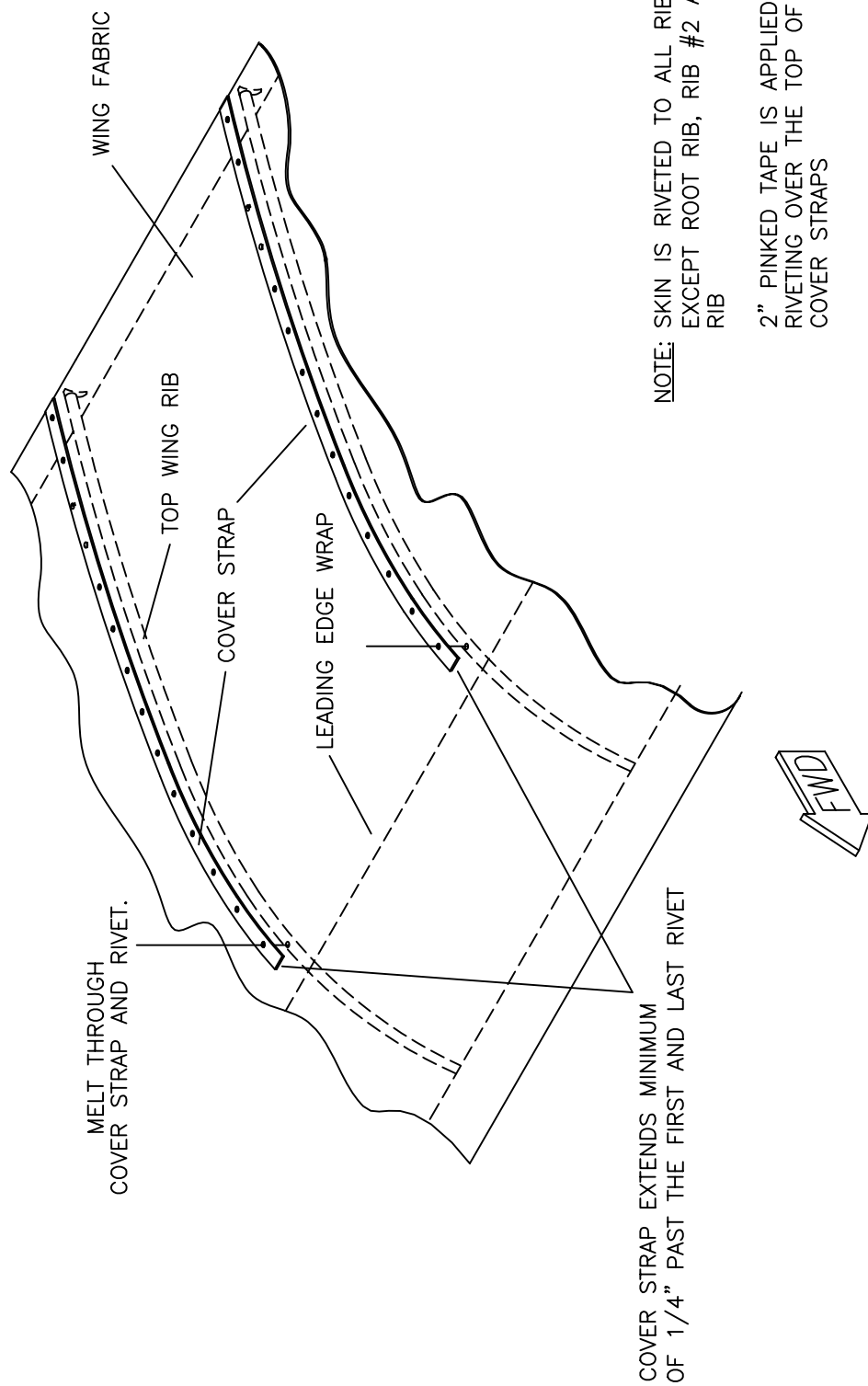
RAANS S-7S
WING COVERING - FABRIC
OVERLAP ON TIP AND ROOT
FIGURE 07A-17

06/15/2011



MD4341

RAM S-7S
WING COVERING - FABRIC OVERLAP ON LEADING EDGE AND TRAILING EDGE SPAR
FIGURE 07A-17A

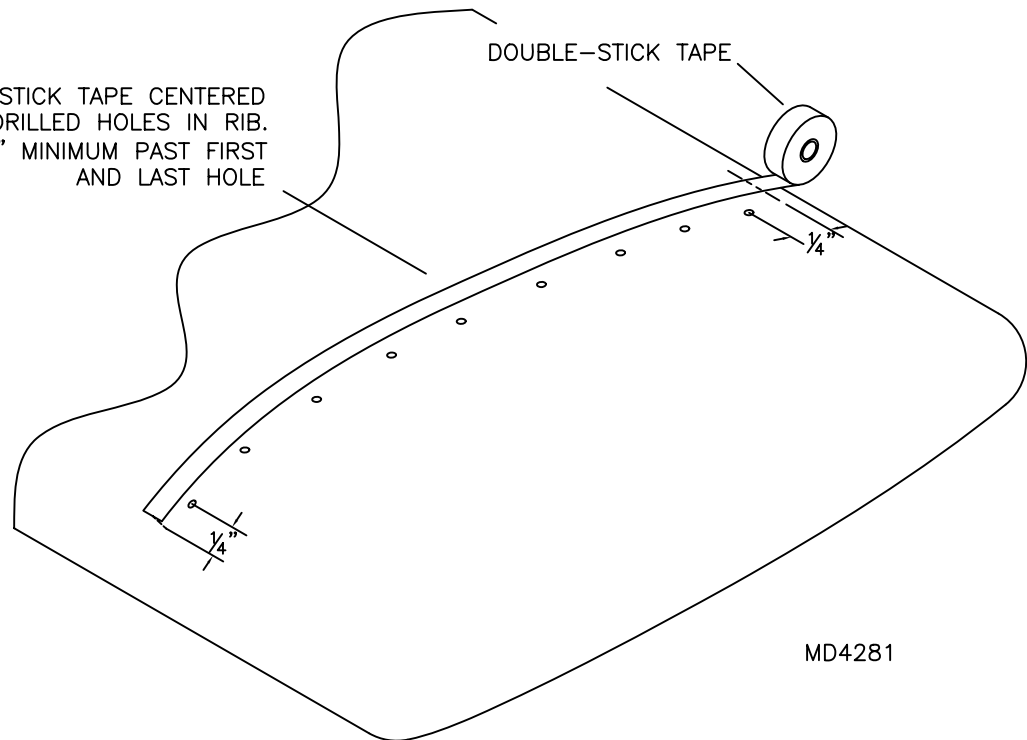


MD4337

RFA S-7S **WING COVERING RIVETING** **FIGURE 07A-26**

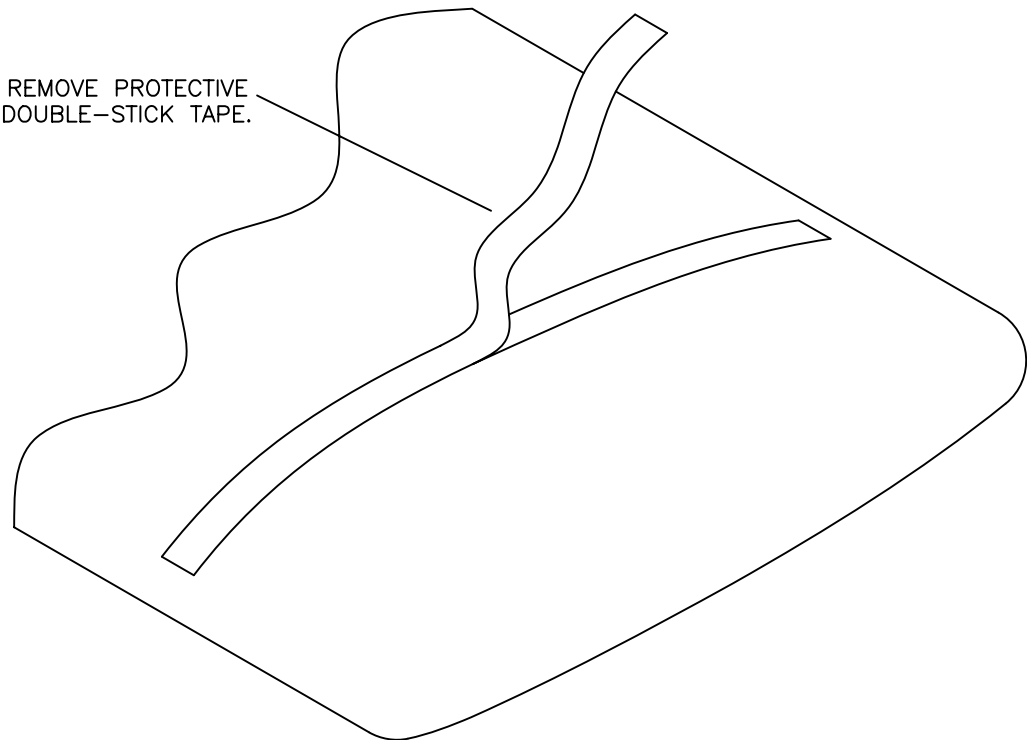
STEP 1:

APPLY DOUBLE-STICK TAPE CENTERED
ON PRE-DRILLED HOLES IN RIB.
EXTEND 1/4" MINIMUM PAST FIRST
AND LAST HOLE



STEP 2:

REMOVE PROTECTIVE
PAPER FROM DOUBLE-STICK TAPE.



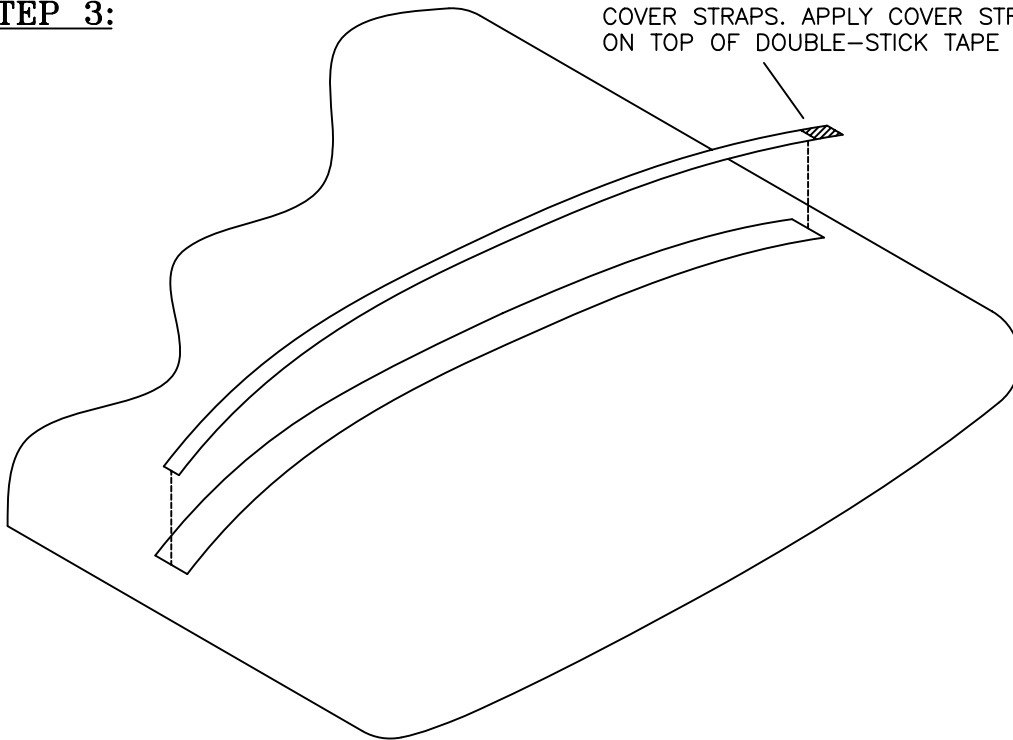
MD4281

RANS S-7S
FABRIC RIVETING
FIGURE 07A-26A

06/15/2011

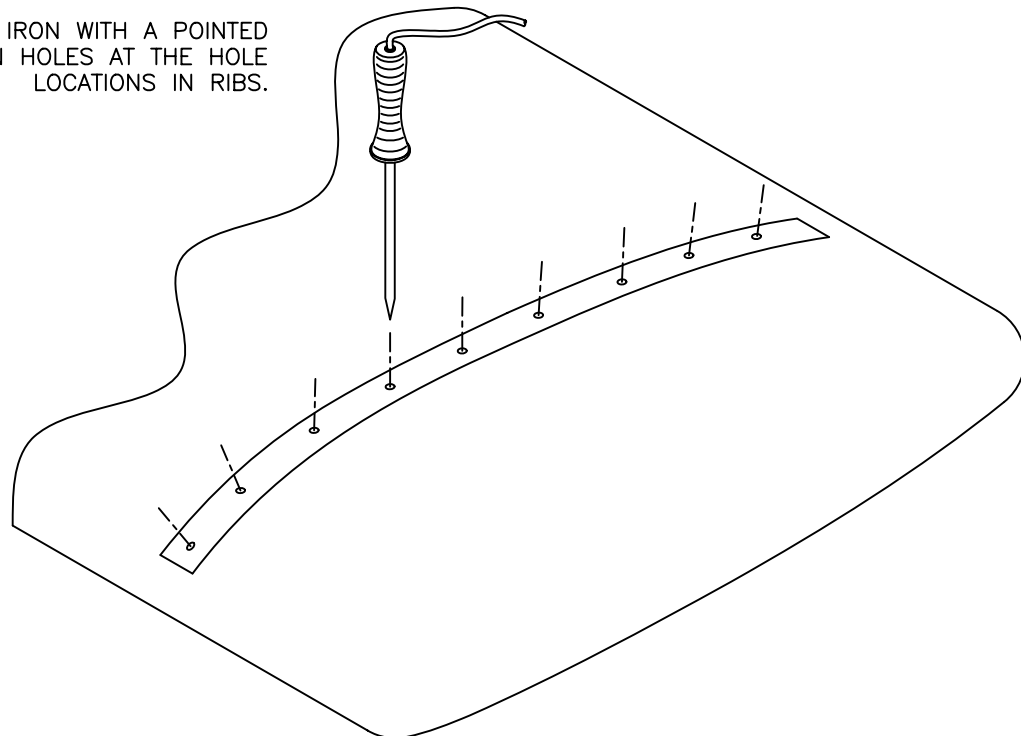
STEP 3:

REMOVE PROTECTIVE PLASTIC FROM BOTH SIDES OF COVER STRAPS. APPLY COVER STRAP CENTERED ON TOP OF DOUBLE-STICK TAPE AND CUT OFF EXCESS.



STEP 4:

USE A HOT IRON WITH A POINTED TIP TO BURN HOLES AT THE HOLE LOCATIONS IN RIBS.



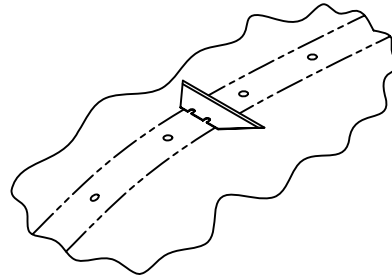
MD4281

RANS S-7S
FABRIC RIVETING
FIGURE 07A-26B

06/15/2011

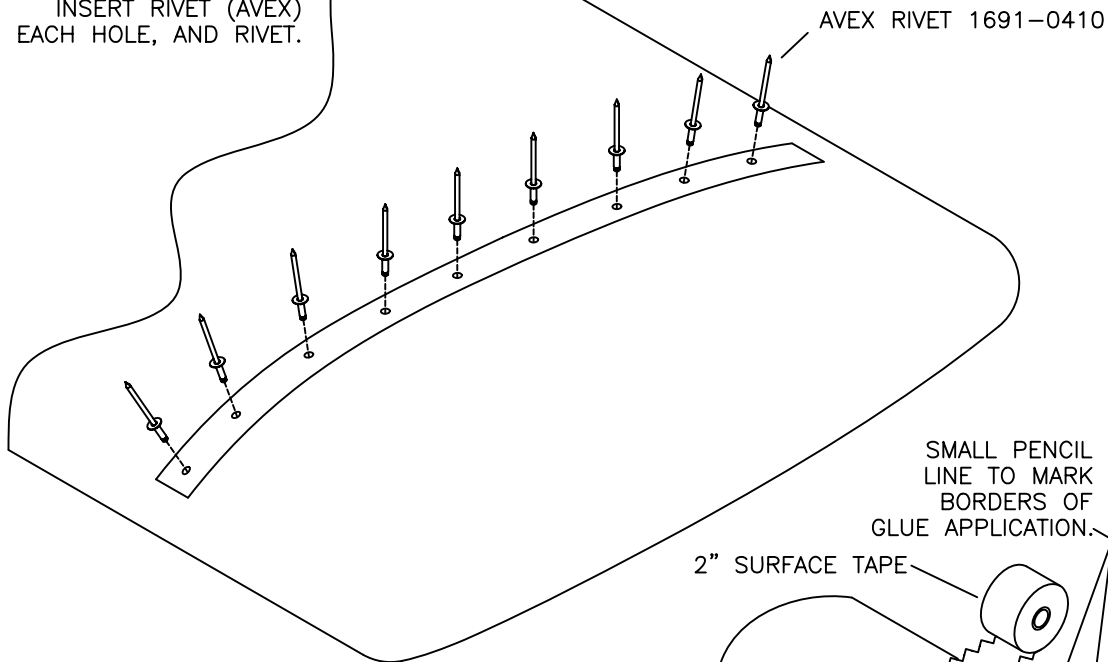
STEP 5:

USE A SHARP BLADE TO CUT OFF
MELTED BUILD UP ON TOP OF COVER STRAP.



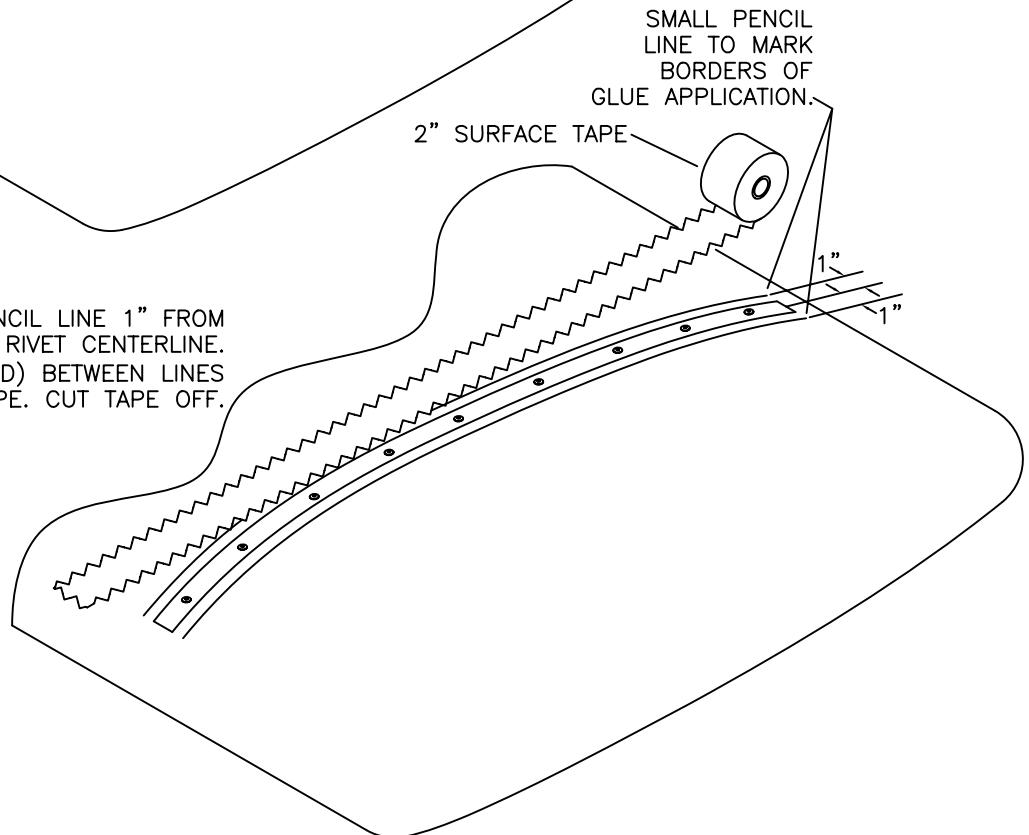
STEP 6:

INSERT RIVET (AVEX)
IN EACH HOLE, AND RIVET.



STEP 7:

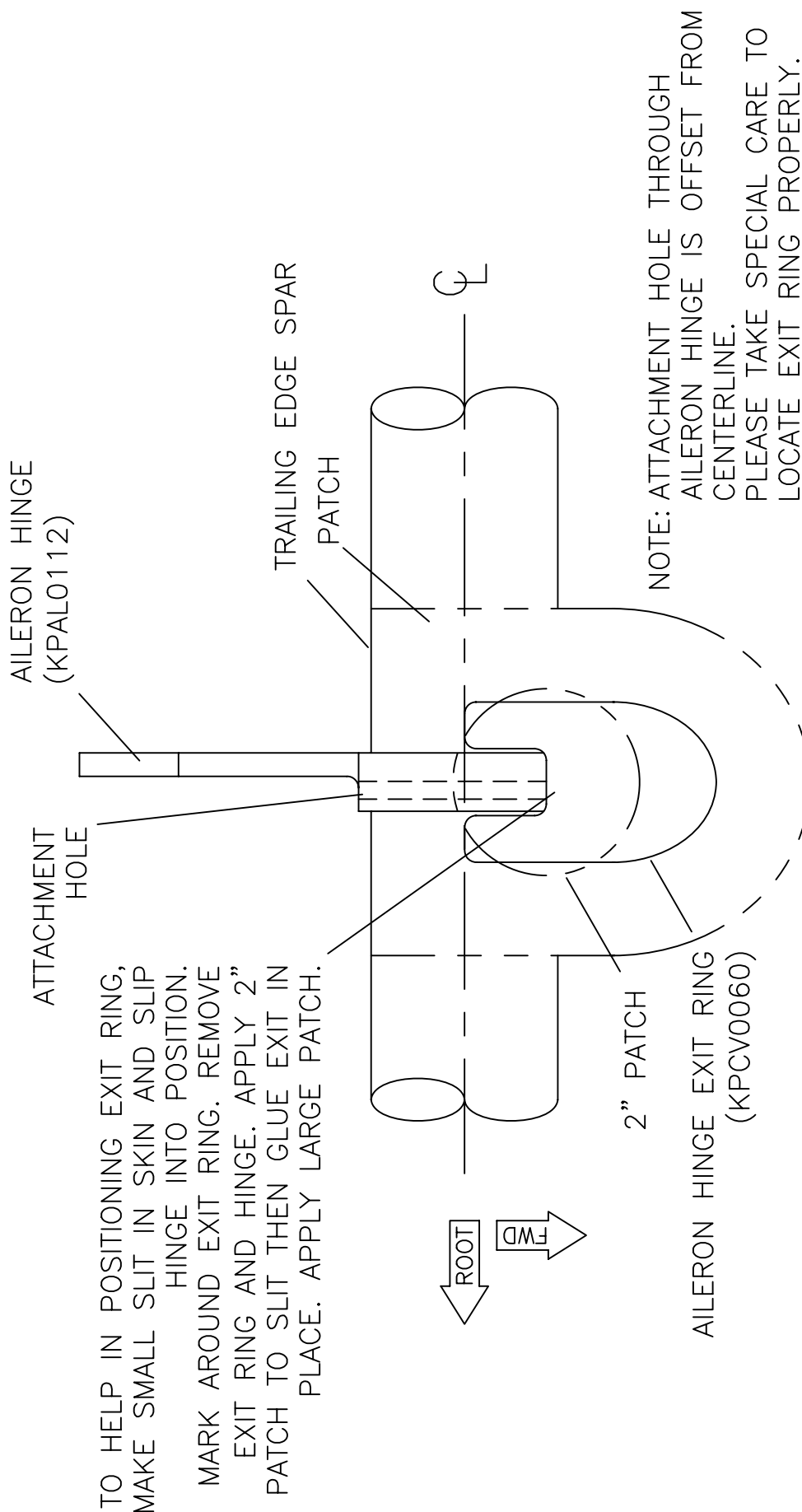
DRAW SMALL PENCIL LINE 1" FROM
EACH SIDE OF THE RIVET CENTERLINE.
APPLY GLUE (THINNED) BETWEEN LINES
AND APPLY TAPE. CUT TAPE OFF.



MD4281

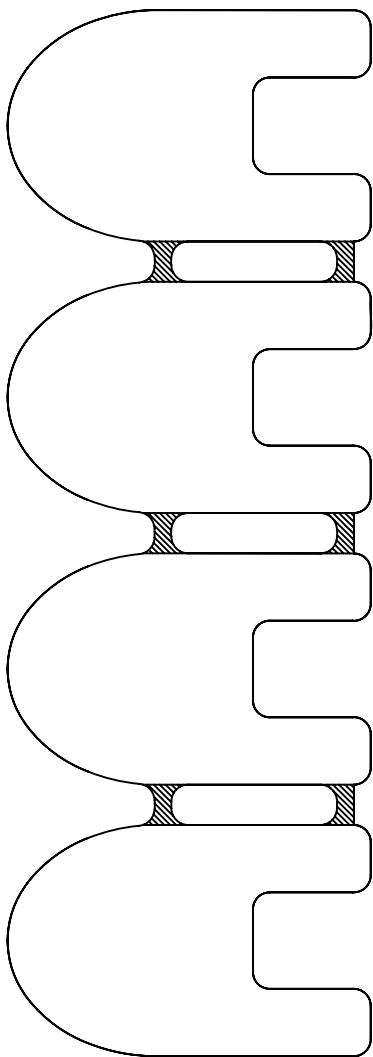
RANS S-7S
FABRIC RIVETING
FIGURE 07A-26C

06/15/2011



RAMS S-7S
AILERON HINGE EXIT RING PLACEMENT
FIGURE 07A-33A

MD5561

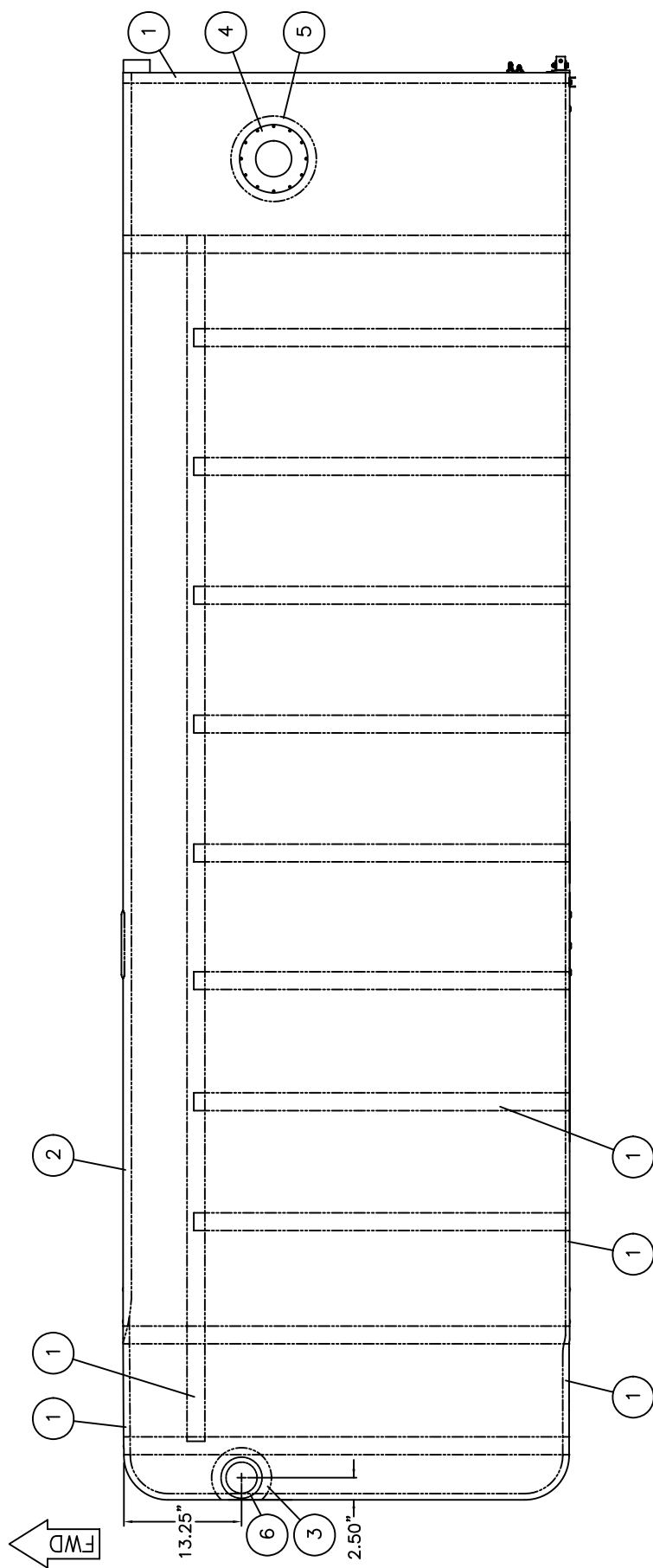


EXIT RING
AILERON HINGE – WING
(KPCV0060)

REMOVE HATCHED AREAS

MD5549

RRM S-7S
AILERON HINGE EXIT RING MODIFICATION
FIGURE 07A-33B



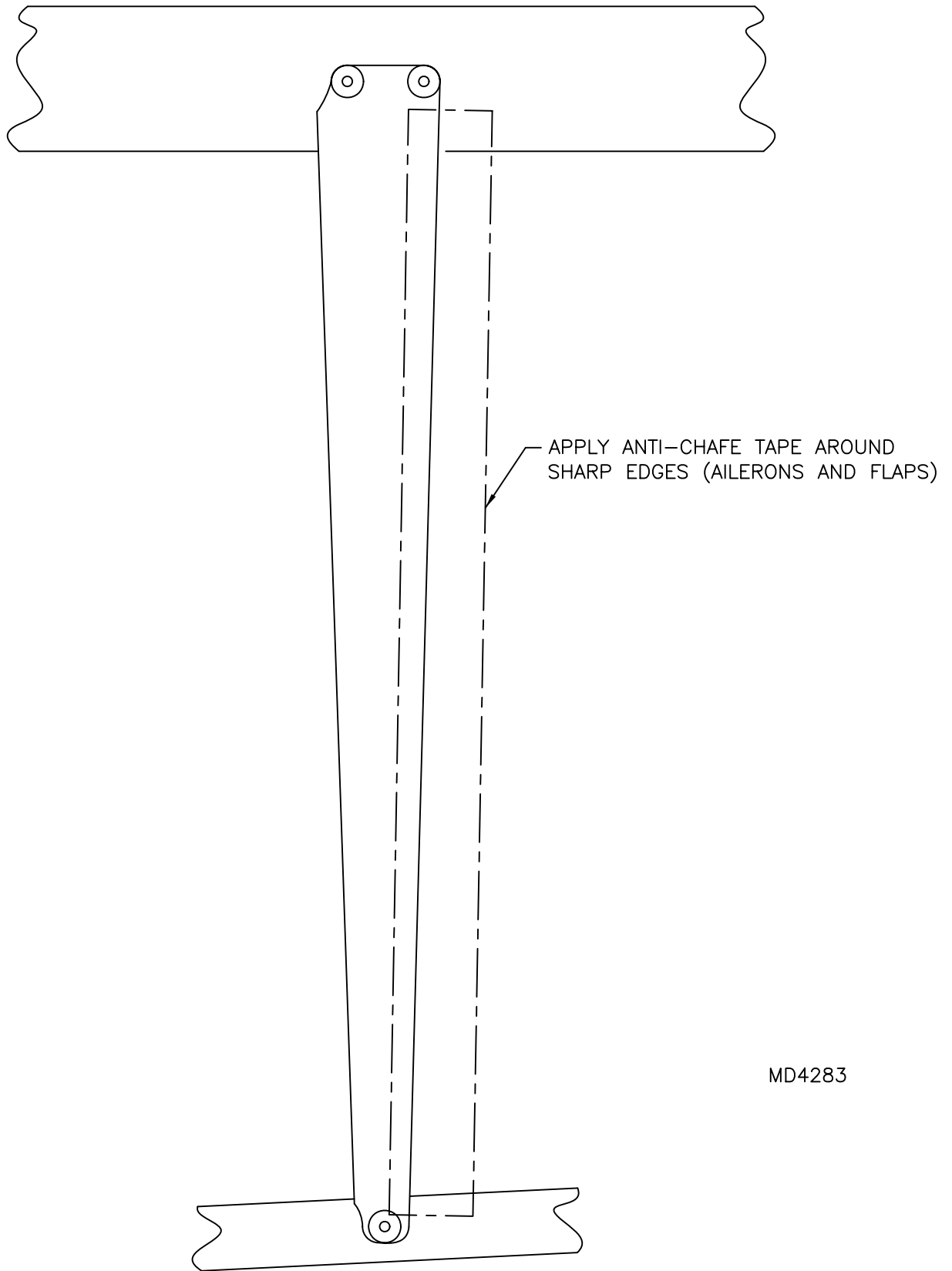
- ① 2" PINKED TAPE
- ② 4" PINKED TAPE
- ③ 6.5" DIA. ROUND PATCH**
- ④ COVER RING*
- ⑤ 9 5/8" DIA. ROUND PATCH
- ⑥ INSPECTION RING**

* INSTALL COVER RING AFTER COVERING
AND PRIOR TO PRIMING

** INSTALL FOR OPTIONAL STROBES

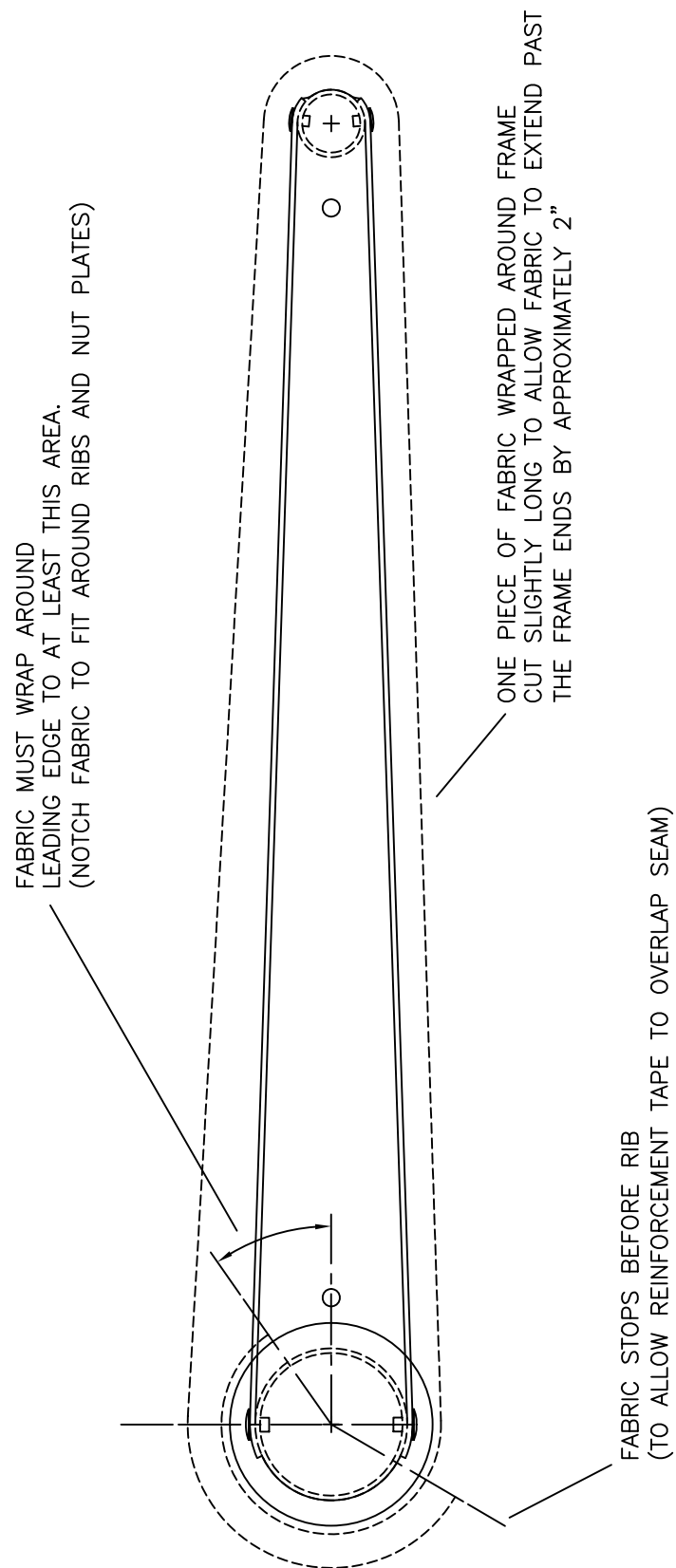
MD4338

RFA S-7S **WING TOP COVERING** **FIGURE 07A-37**



MD4283

RAINS S-7S
ANTI-CHAFE TAPE APPLICATION FOR AILERONS AND FLAPS
FIGURE 07B-03

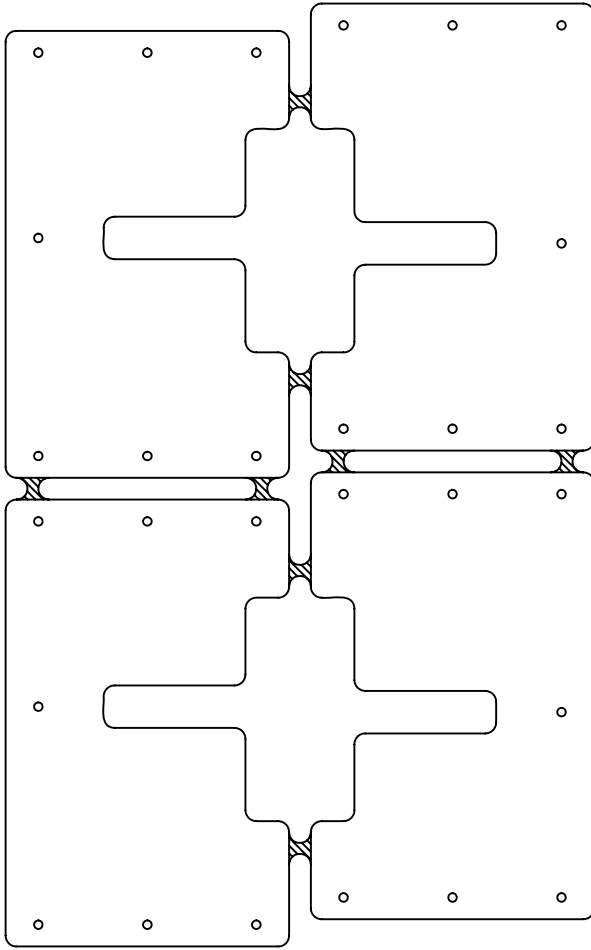


MD4284

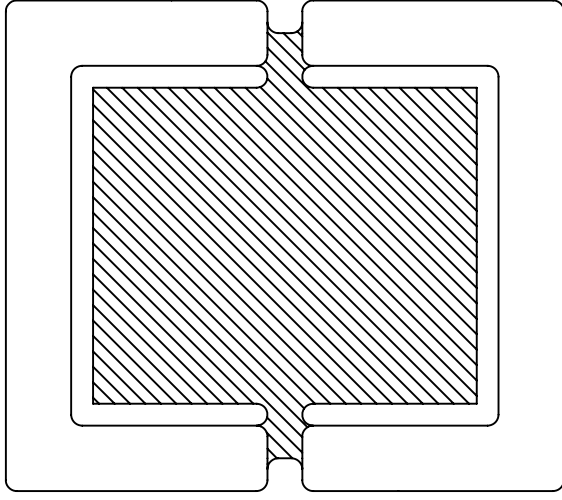
RRF S-7S

AILERON AND FLAP COVERING

FIGURE 07B-05



EXIT COVER
AILERON HINGE – AILERON
(KPCV0059)

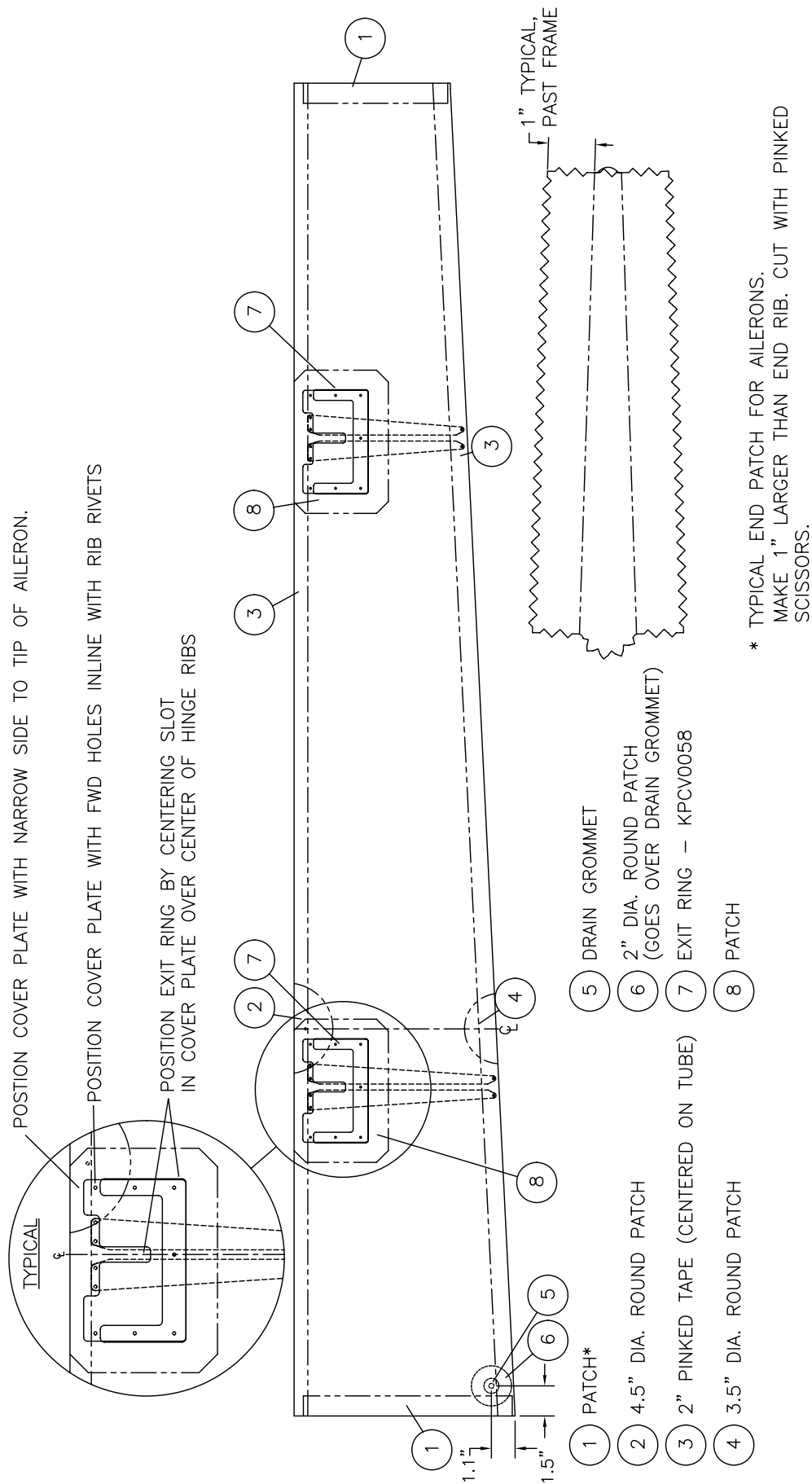


EXIT RING
AILERON HINGE – AILERON
(KPCV0058)

REMOVE HATCHED AREAS

MD5549

RRR S-7S
AILERON HINGE COVER AND RING MODIFICATION
FIGURE 07B-12

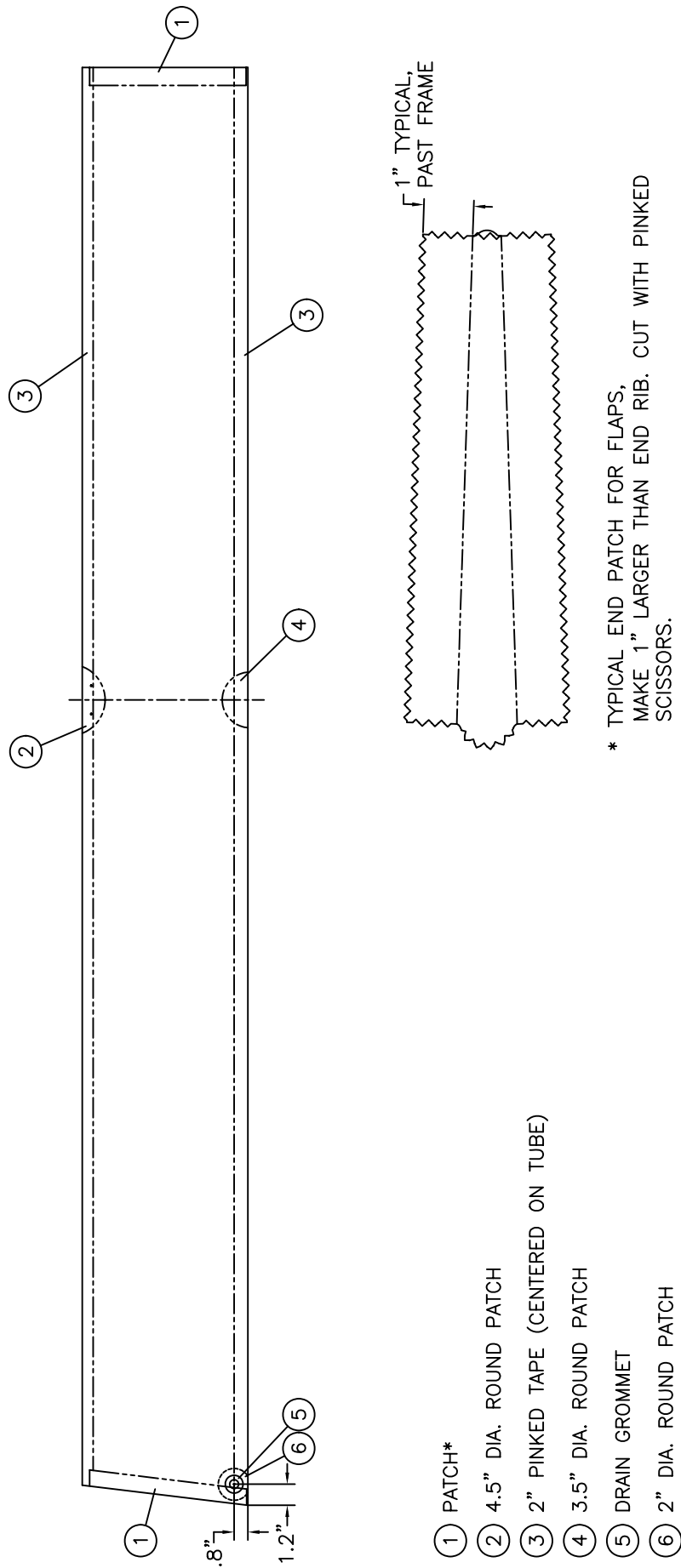


MD5538

LOWER SIDE OF LEFT HAND
AILERON SHOWN

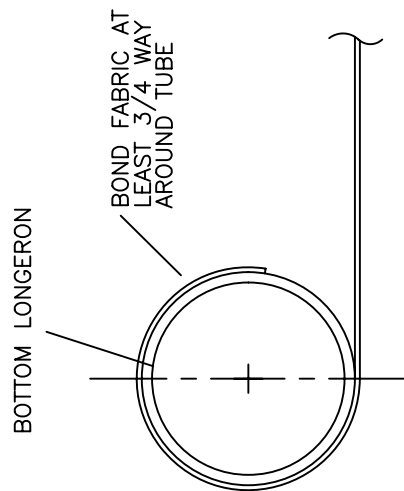
S-7S AILERON COVERING FIGURE 07B-13

NOTE: DRAIN GROMMETS LOCATED AT THE LOWER
INBOARD SIDE OF THE FLAPS
MAKE LEFT AND RIGHT

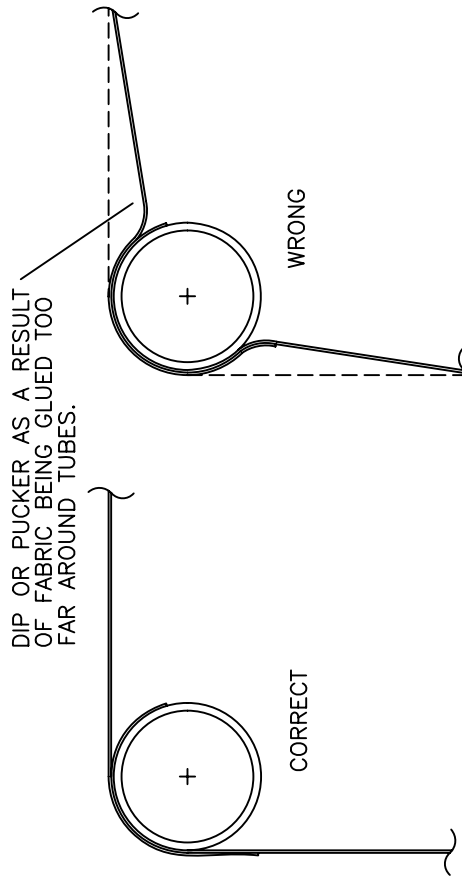


MD4279

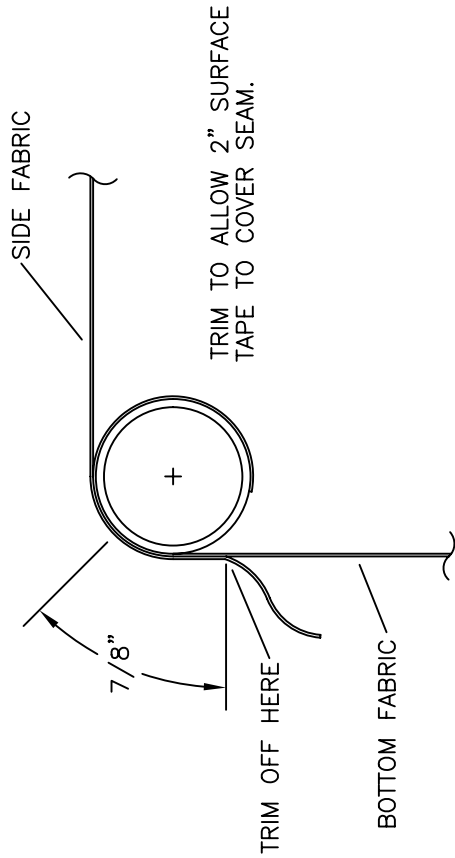
RRM S-7S COURIER FLAP COVERING FIGURE 07B-14



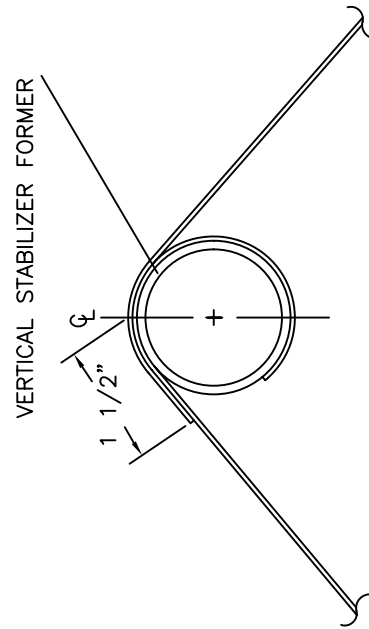
FABRIC ATTACH TO BOTTOM LONGERONS



GENERAL INFORMATION



FABRIC OVERLAP (SIDE AND BOTTOM FABRIC)



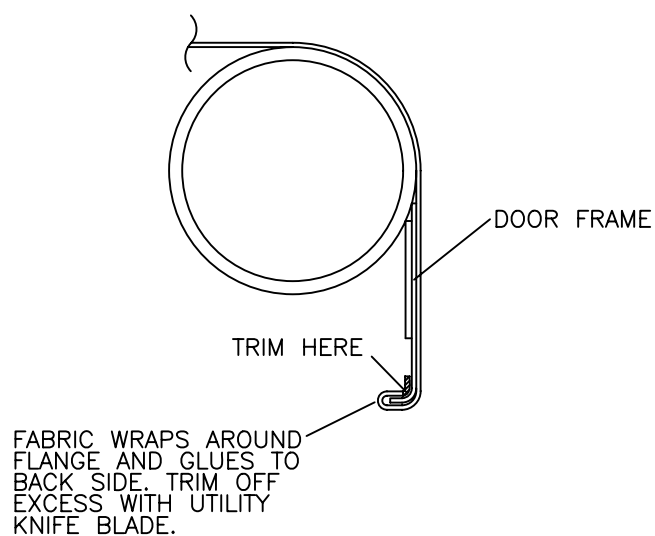
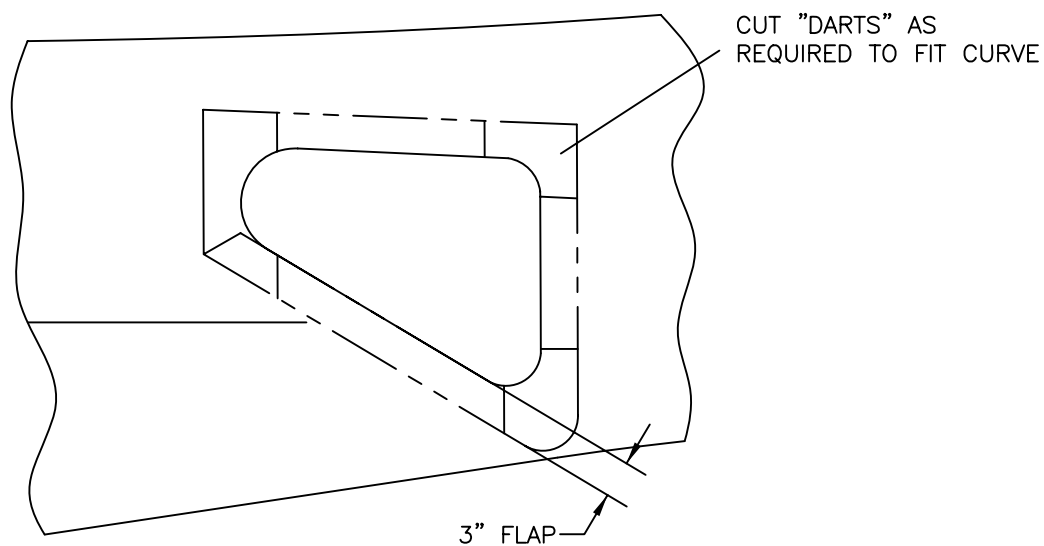
FABRIC OVERLAP (TOP OF FUSELAGE)

RRF S-7S

FUSELAGE COVERING DETAILS

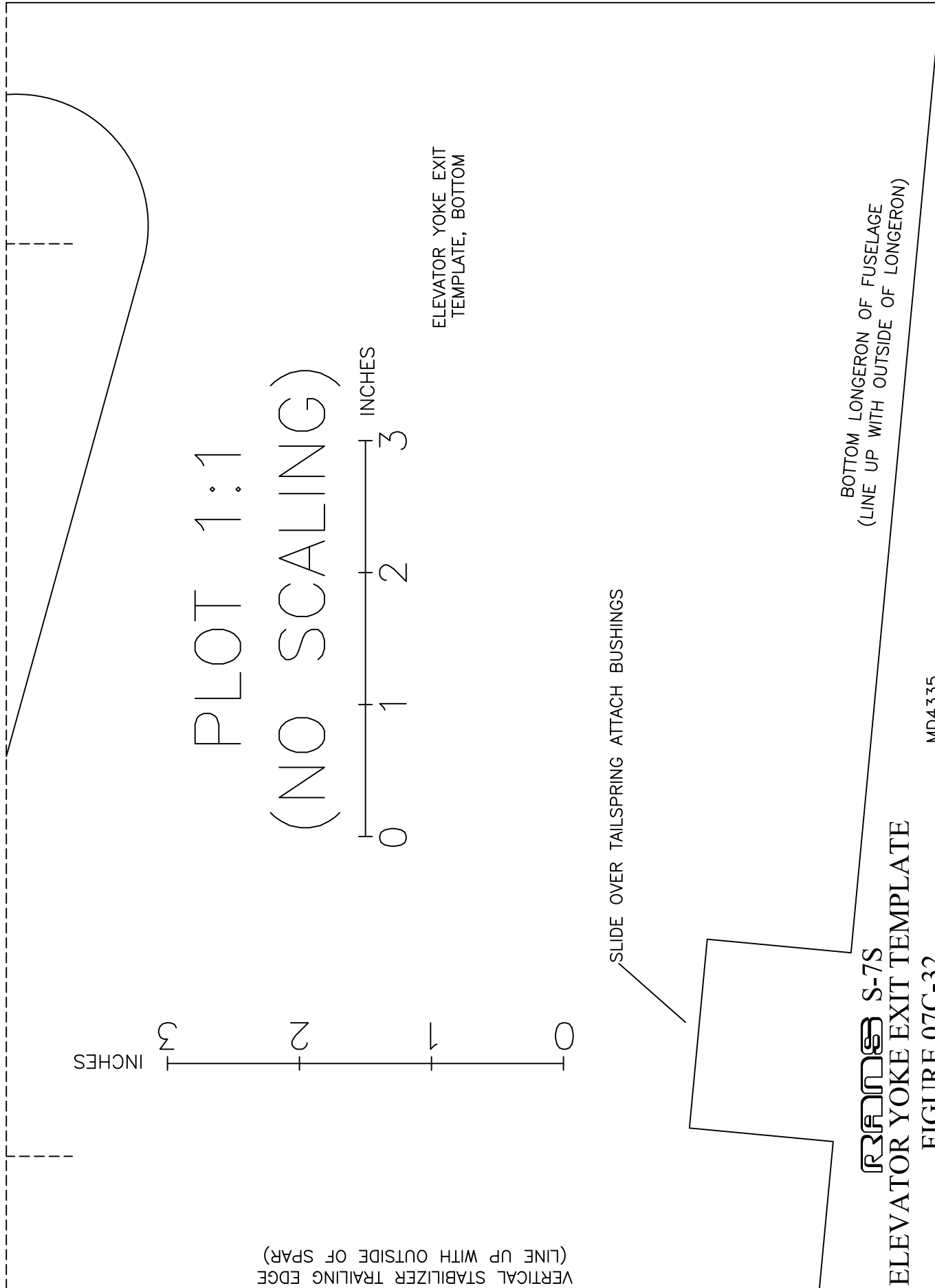
FIGURE 07C-07

MD4334

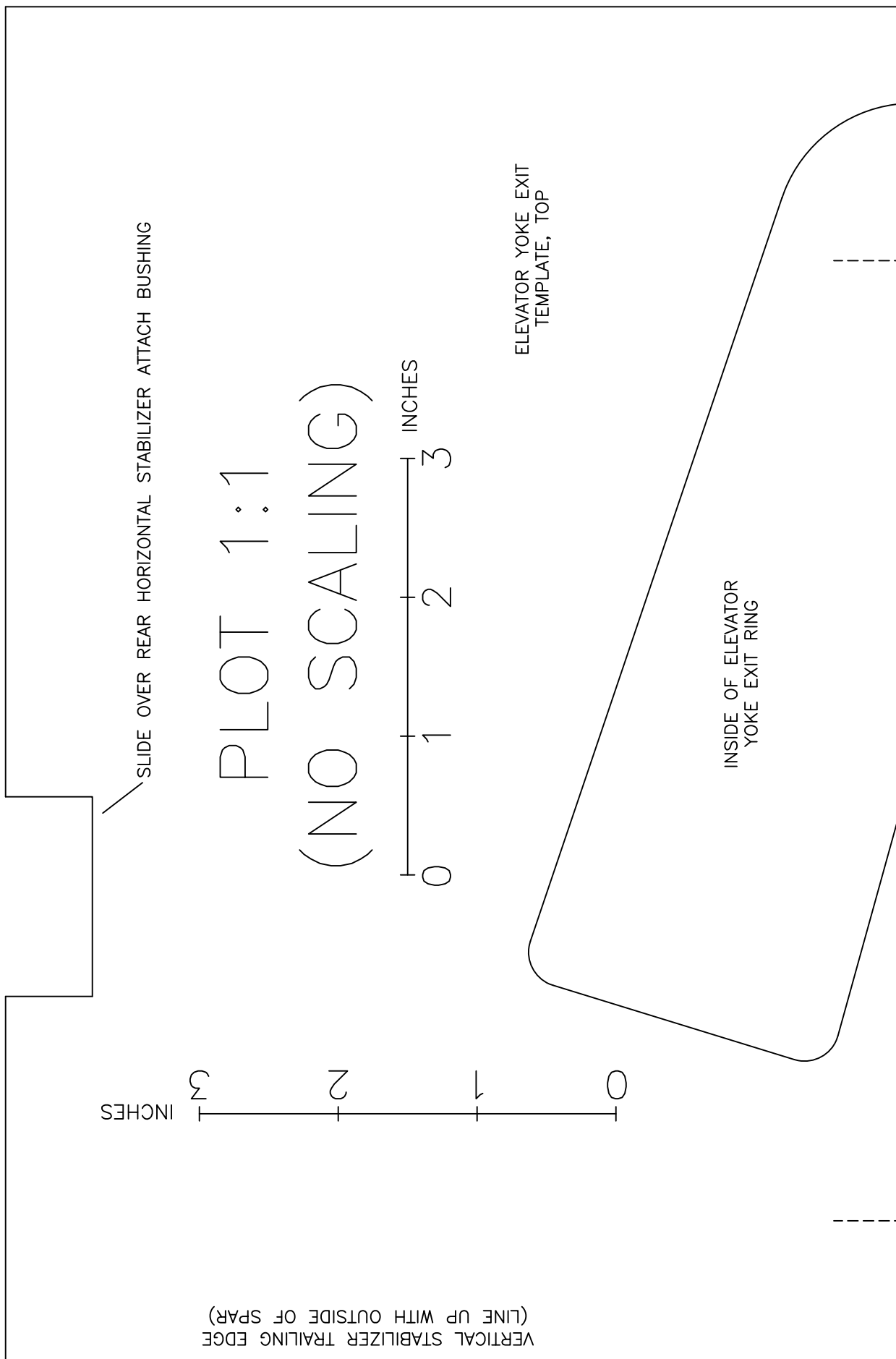


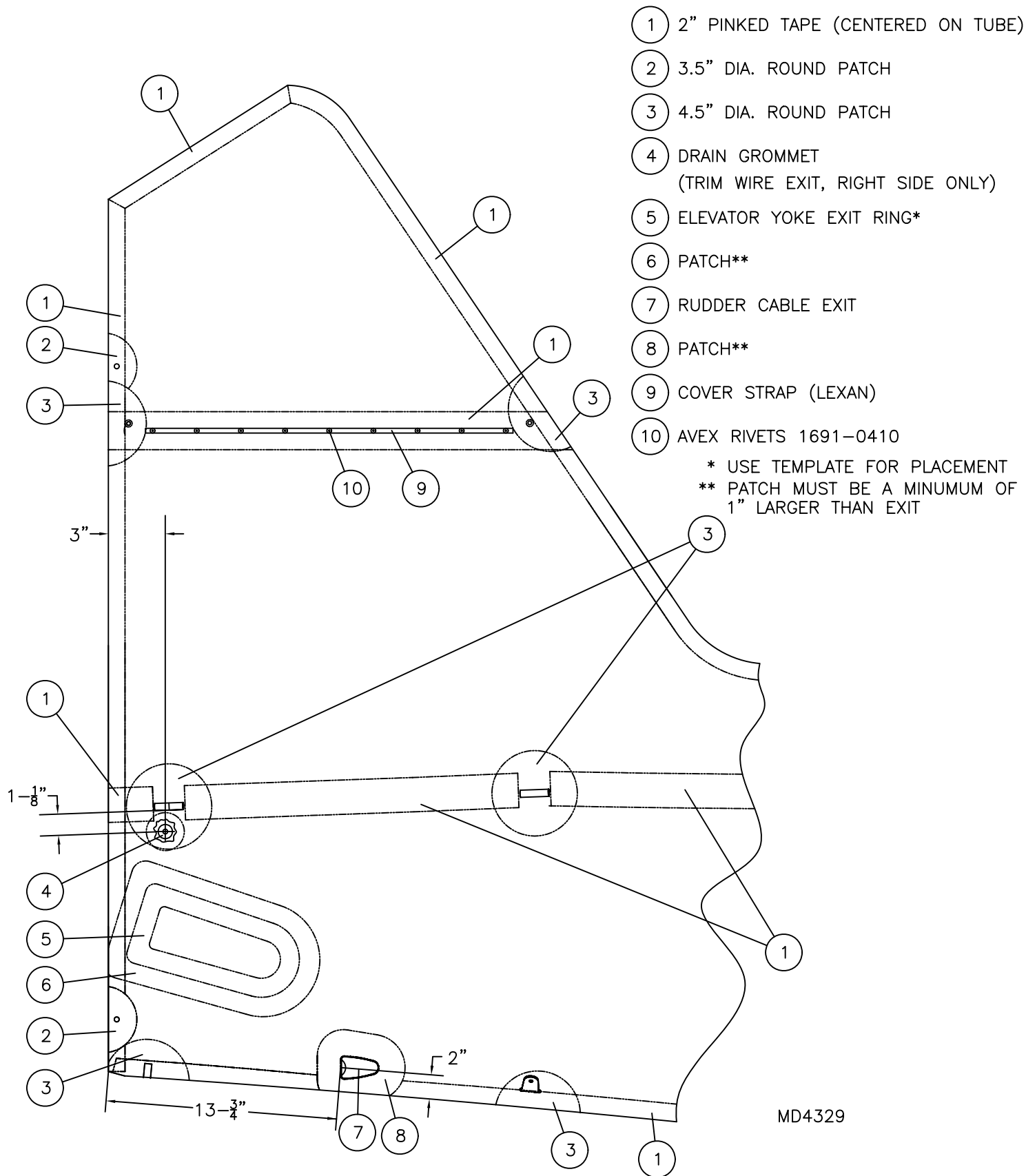
MD4333

RANS S-7S
FUSELAGE COVERING DETAIL -
BATTERY ACCESS DOOR
FIGURE 07C-18



MD4335





RANS S-7S
VERTICAL STABILIZER AND REAR
FUSELAGE COVERING
FIGURE 07C-34

① 3.5" DIA. ROUND PATCH (CENTERED OVER TABS)

② 4.5" DIA. ROUND PATCH

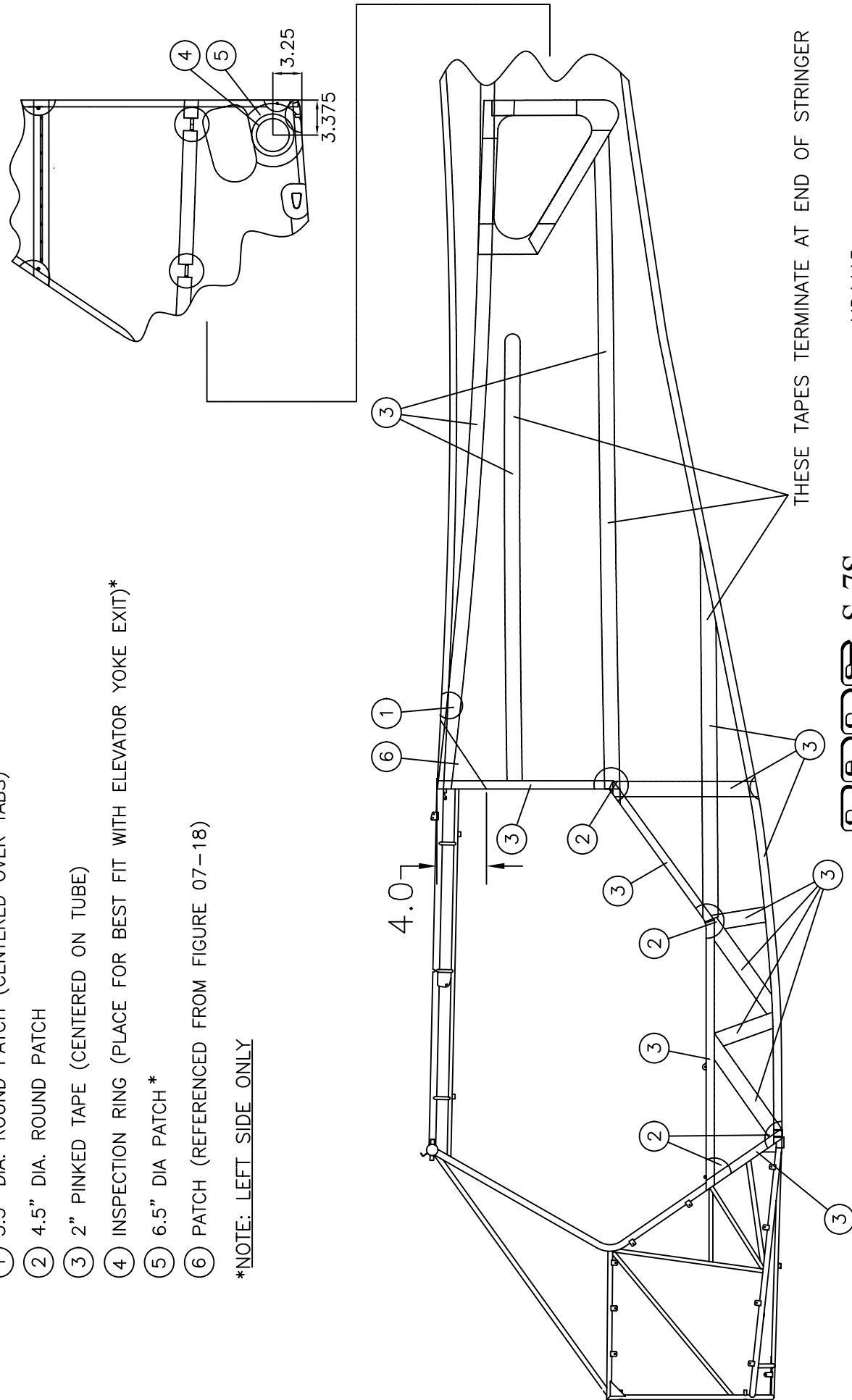
③ 2" PINKED TAPE (CENTERED ON TUBE)

④ INSPECTION RING (PLACE FOR BEST FIT WITH ELEVATOR YOKE EXIT)*

⑤ 6.5" DIA PATCH*

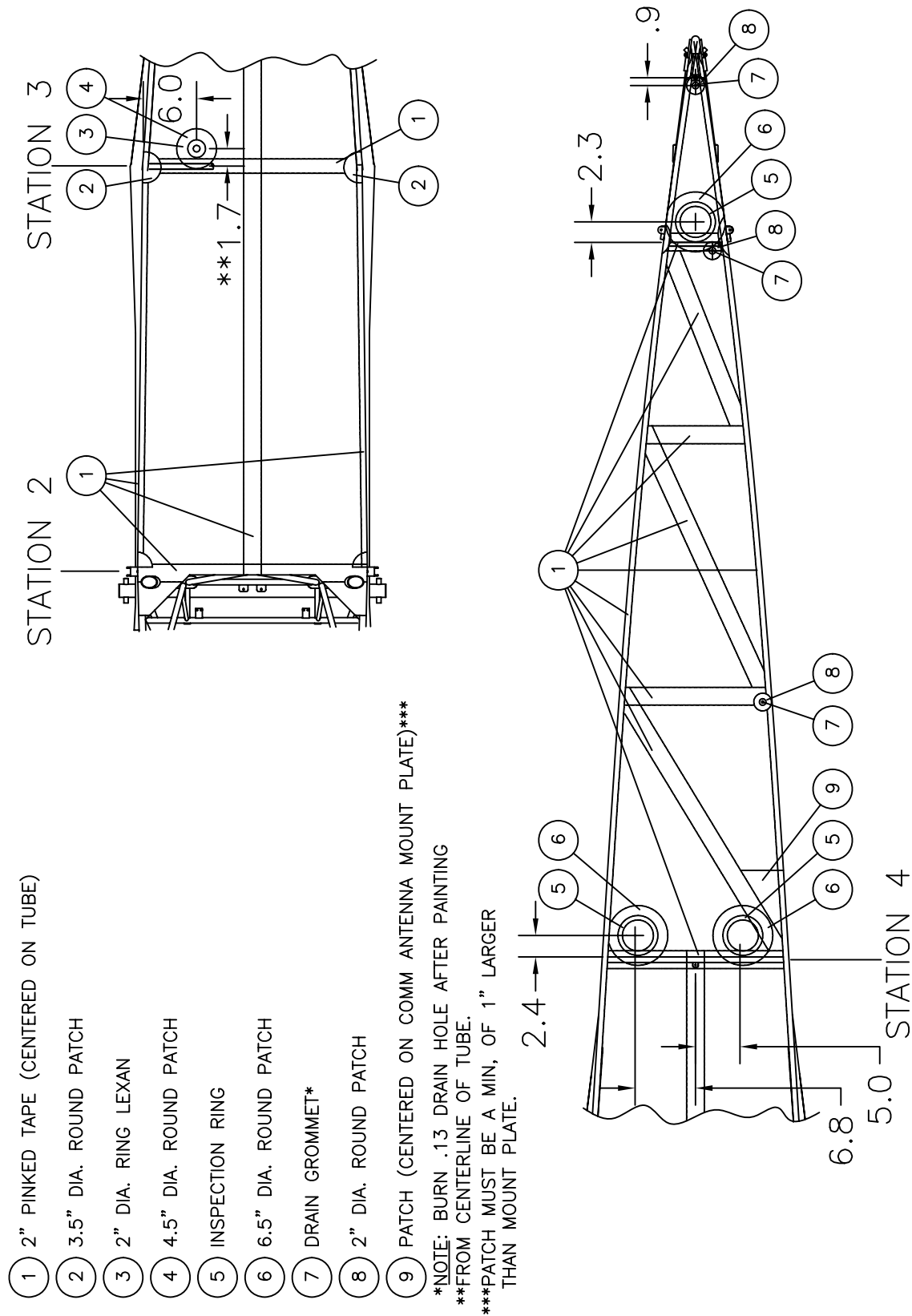
⑥ PATCH (REFERENCED FROM FIGURE 07-18)

*NOTE: LEFT SIDE ONLY



RFA S-7S
FUSELAGE SIDE COVERING
FIGURE 07C-35

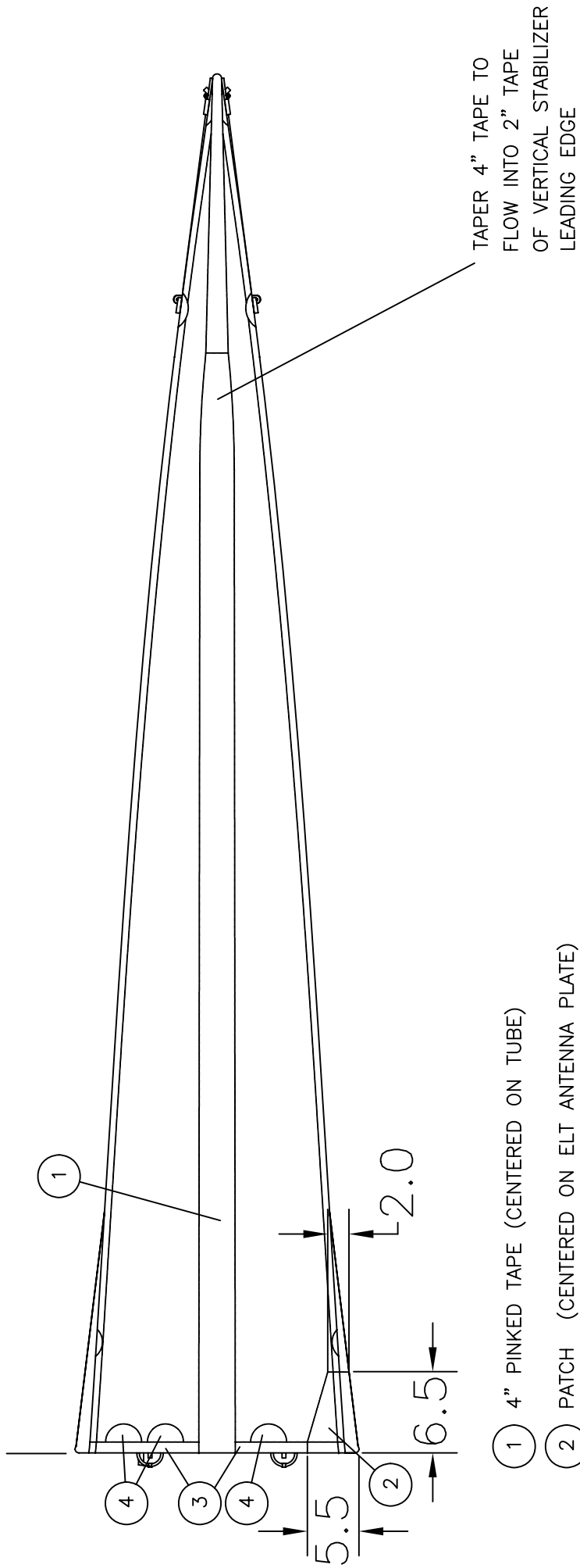
MD4413



RAMS S-7S
 FUSELAGE BOTTOM COVERING
 FIGURE 07C-35A

MD4332

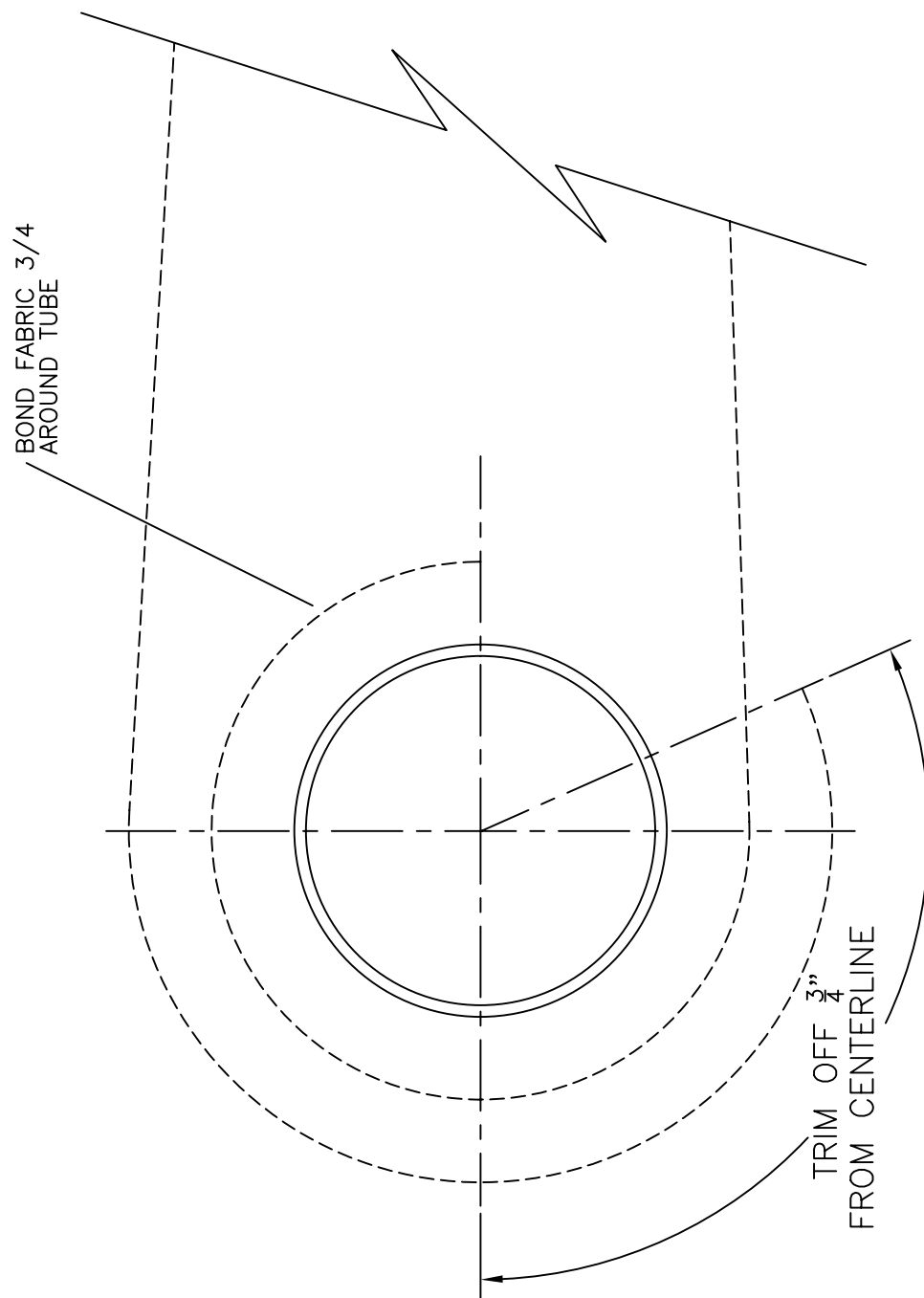
STATION 3



- 1 4" PINKED TAPE (CENTERED ON TUBE)
- 2 PATCH (CENTERED ON ELT ANTENNA PLATE)
- 3 2" PINKED TAPE (CENTERED ON TUBE)
- 4 3.5 " DIA. ROUND PATCH (CENTERED OVER TABS)

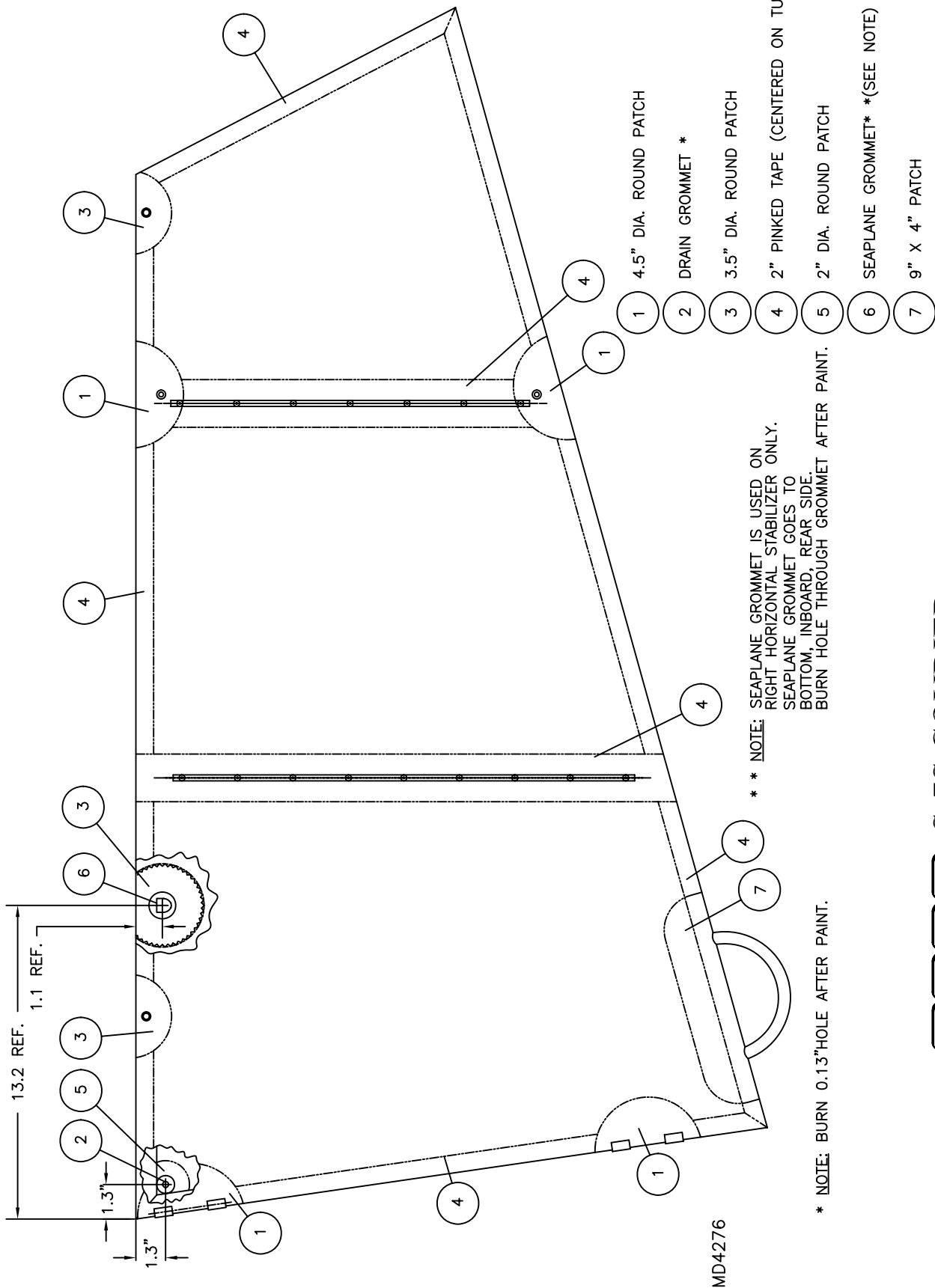
RRR S-7S
FUSELAGE TOP COVERING
FIGURE 07C-36

MD4327

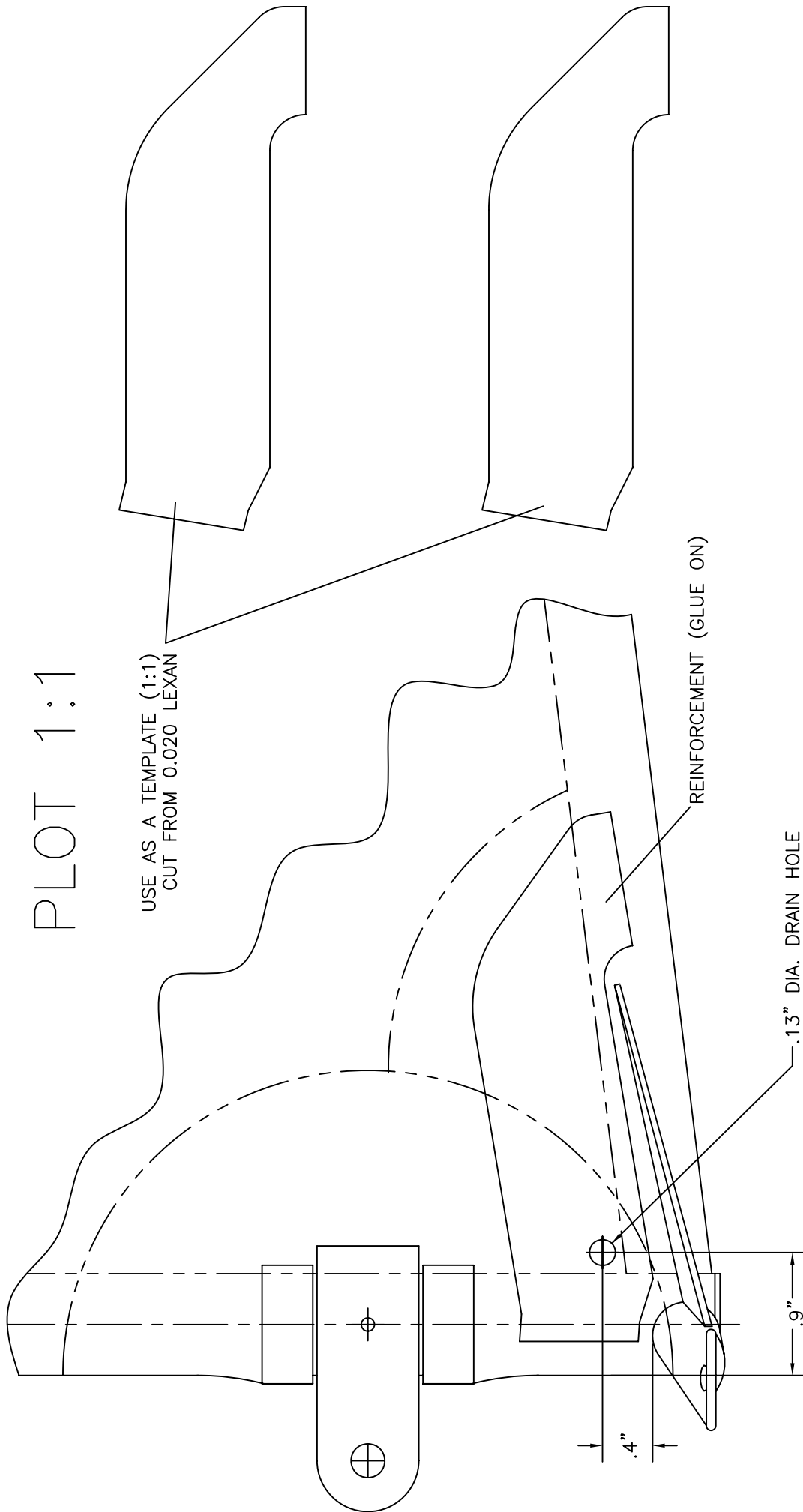


MD4326

RRR S-7S
FABRIC OVERLAP TYPICAL FOR TAIL SURFACES
FIGURE 07D-06



R3A S-7S COURIER
HORIZONTAL STABILIZER COVERING
FIGURE 07D-18



PLOT 1:1

USE AS A TEMPLATE (1:1)
CUT FROM 0.020 LEXAN

REINFORCEMENT (GLUE ON)

.13" DIA. DRAIN HOLE

.4"

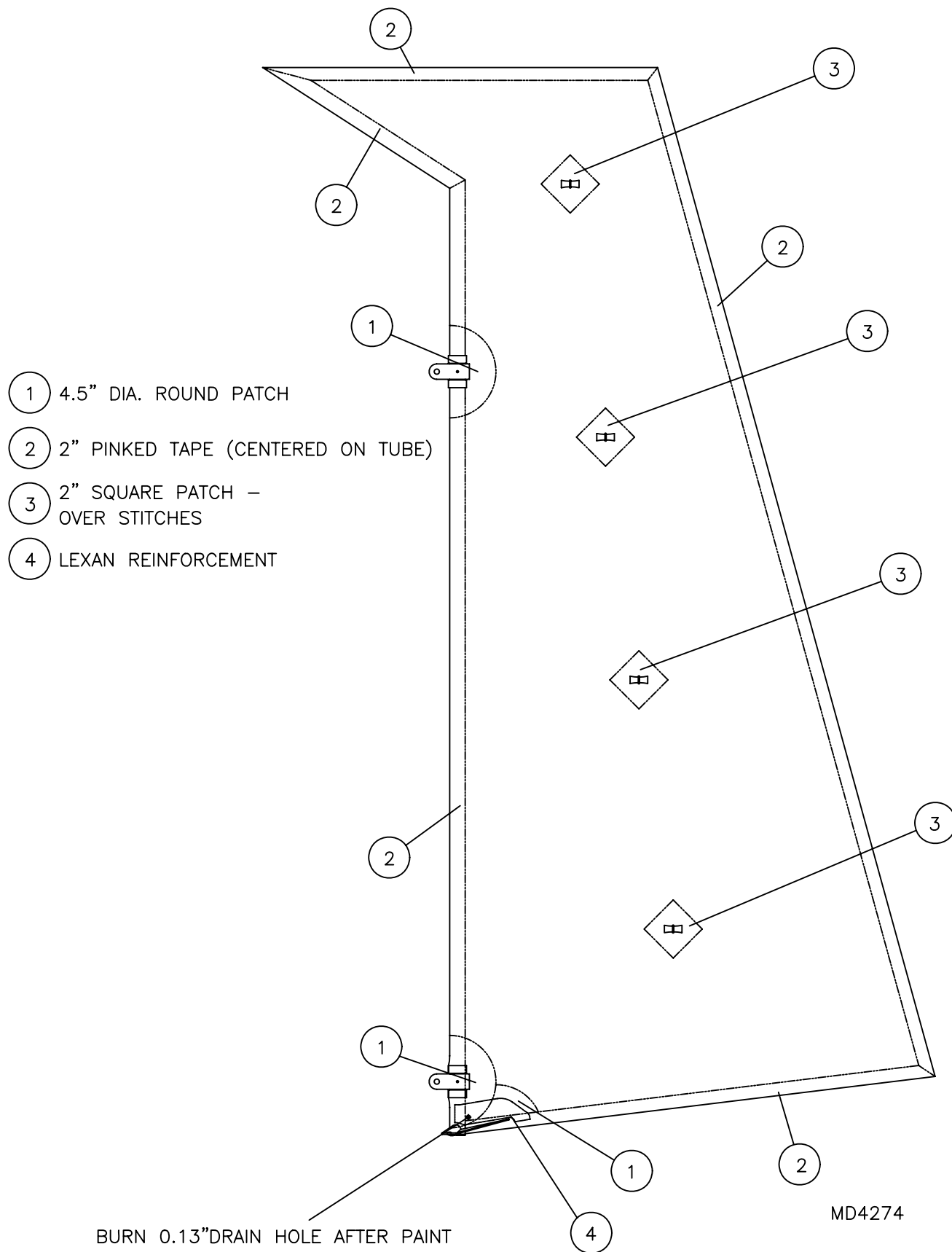
.9"

MD4275

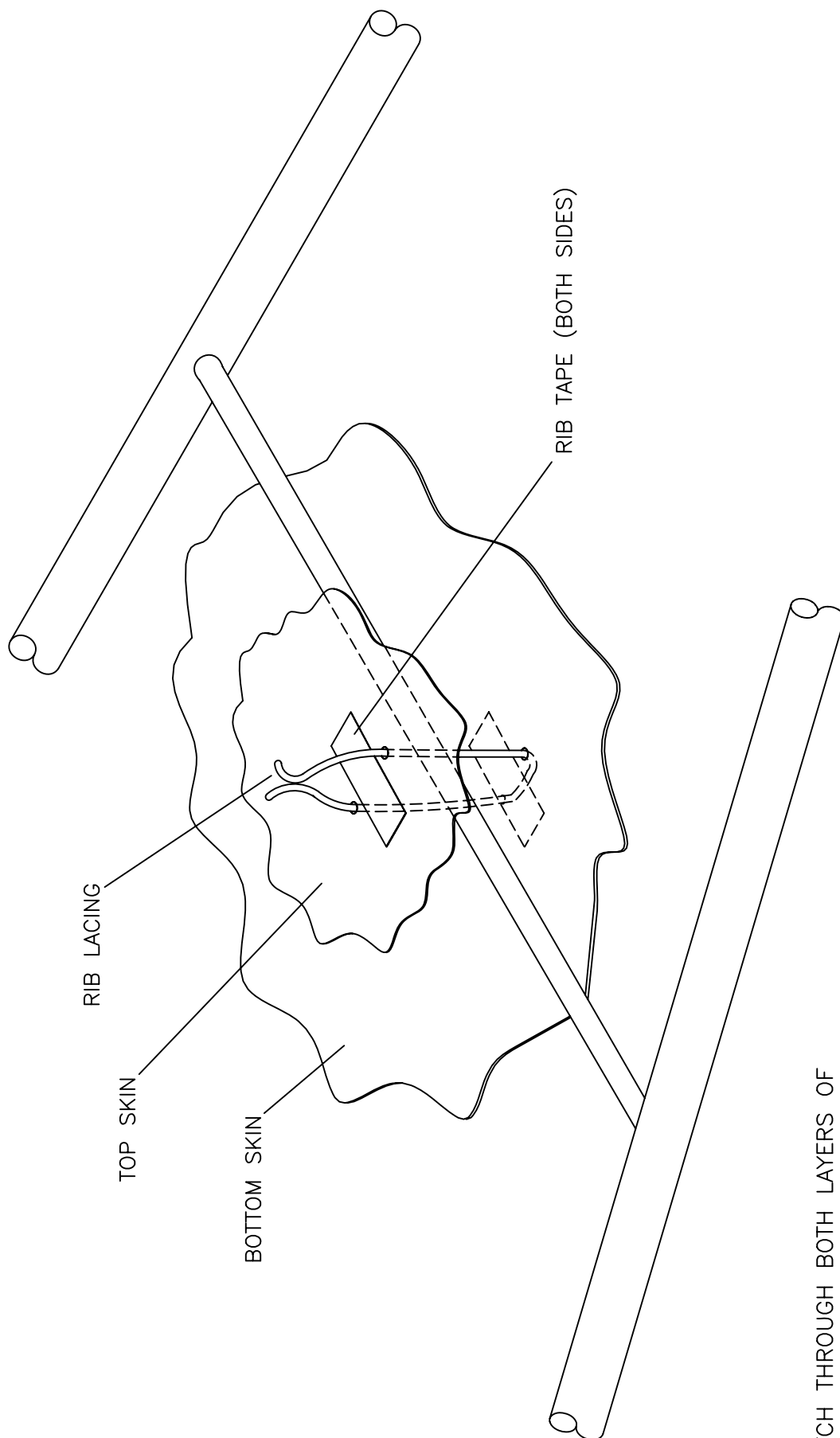
RAMS S-7S

RUDDER - FABRIC REINFORCEMENT

FIGURE 07E-11



RANS S-7S
RUDDER COVERING
FIGURE 07E-12



STITCH THROUGH BOTH LAYERS OF FABRIC COMPLETELY AROUND TUBE. TIE A KNOT AND ROTATE THE KNOT TO INTERIOR SIDE. PLACE A DIAMOND PATCH OVER STITCH ON EACH SIDE.

S-7S COURIER
ELEVATOR AND RUDDER STITCHING
FIGURE 07E-12A

MD4273

1 PATCH TO COVER BALANCE WEIGHT MOUNT PLATE
(BOTTOM OF EACH ELEVATOR)

2 2" PINKED TAPE (CENTERED ON TUBE)

3 4.5" DIA. ROUND PATCH

4 DRAIN GROMMET* (BOTTOM SIDE/ SEE NOTE)

5 2" DIA. ROUND PATCH

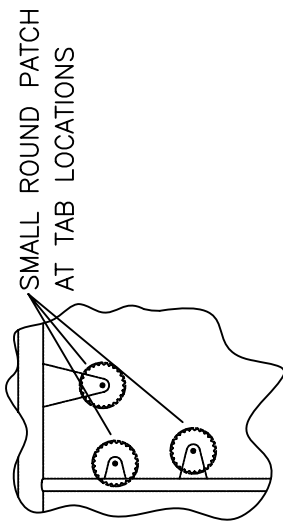
6 SQUARE PATCH

7 PATCH** (SEE NOTE)

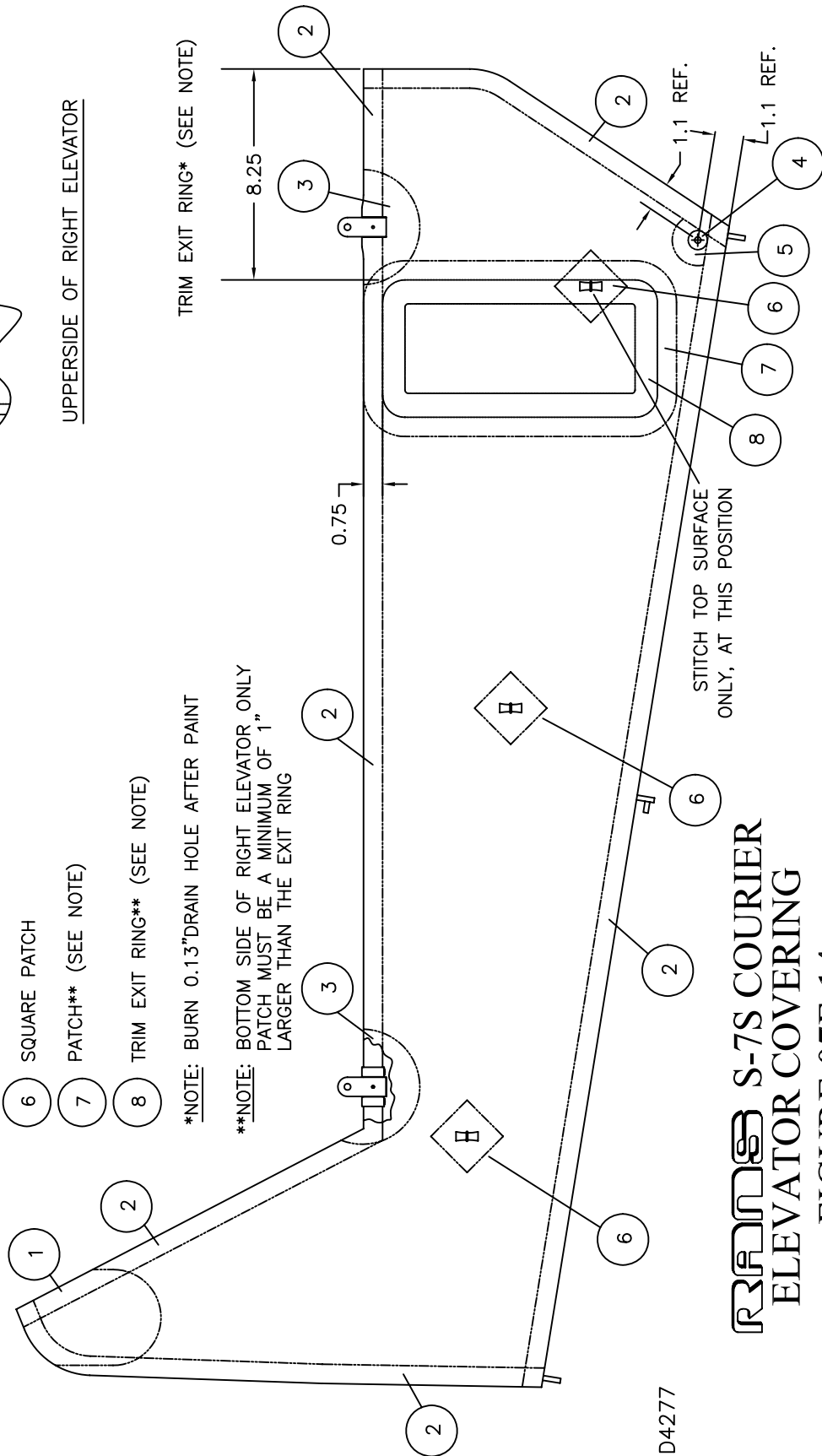
8 TRIM EXIT RING** (SEE NOTE)

*NOTE: BURN 0.13" DRAIN HOLE AFTER PAINT

**NOTE: BOTTOM SIDE OF RIGHT ELEVATOR ONLY
PATCH MUST BE A MINIMUM OF 1"
LARGER THAN THE EXIT RING



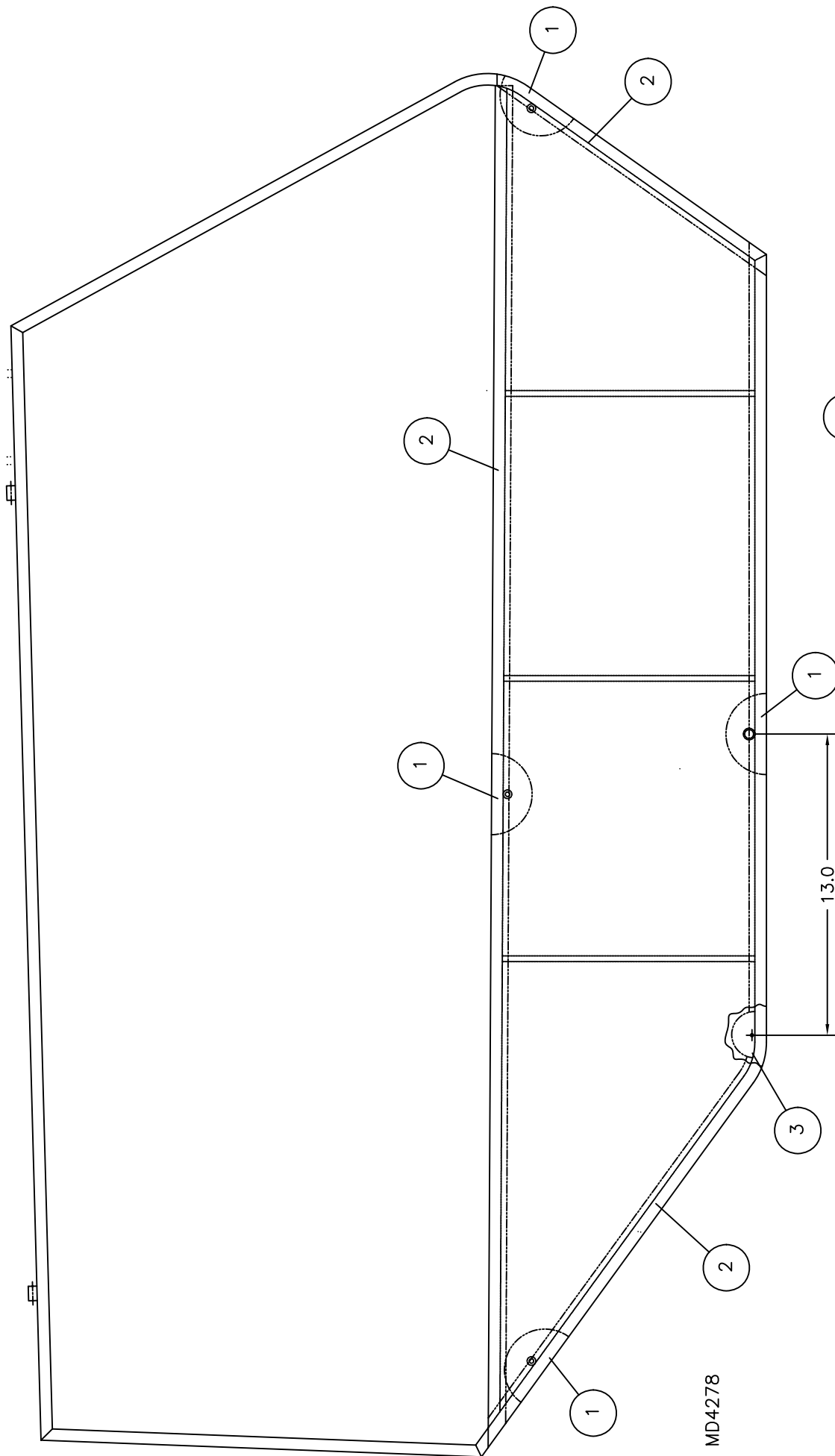
UPPERSIDE OF RIGHT ELEVATOR



MD4277

**RRM S-7S COURIER
ELEVATOR COVERING**

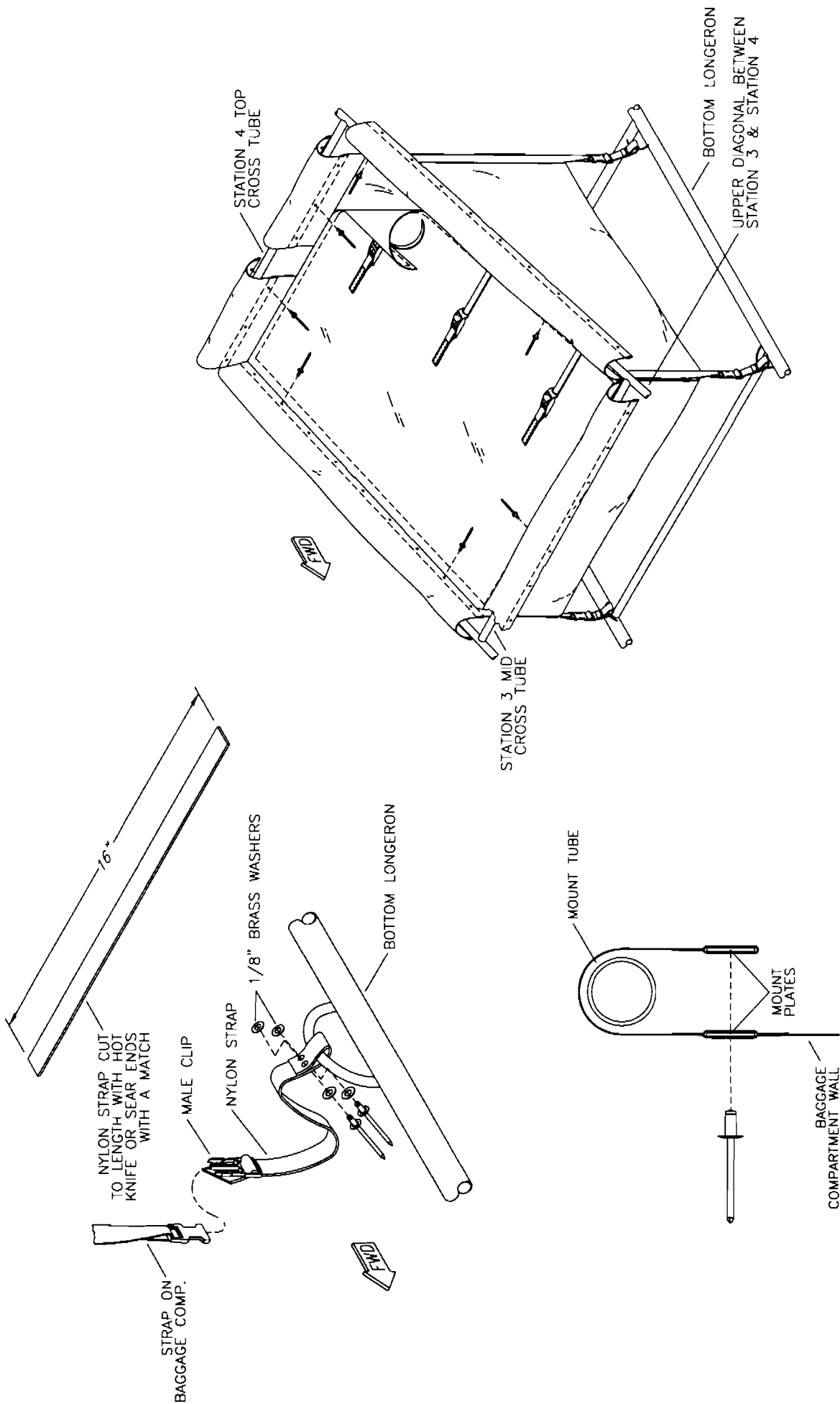
FIGURE 07F-14



- 1 3.5" DIA. ROUND PATCH
- 2 2" PINKED TAPE (CENTERED ON TUBE)
- 3 2" DIA. ROUND PATCH* (SEE NOTE)

RAM S-7S COURIER **DOOR COVERING** **FIGURE 07G-11**

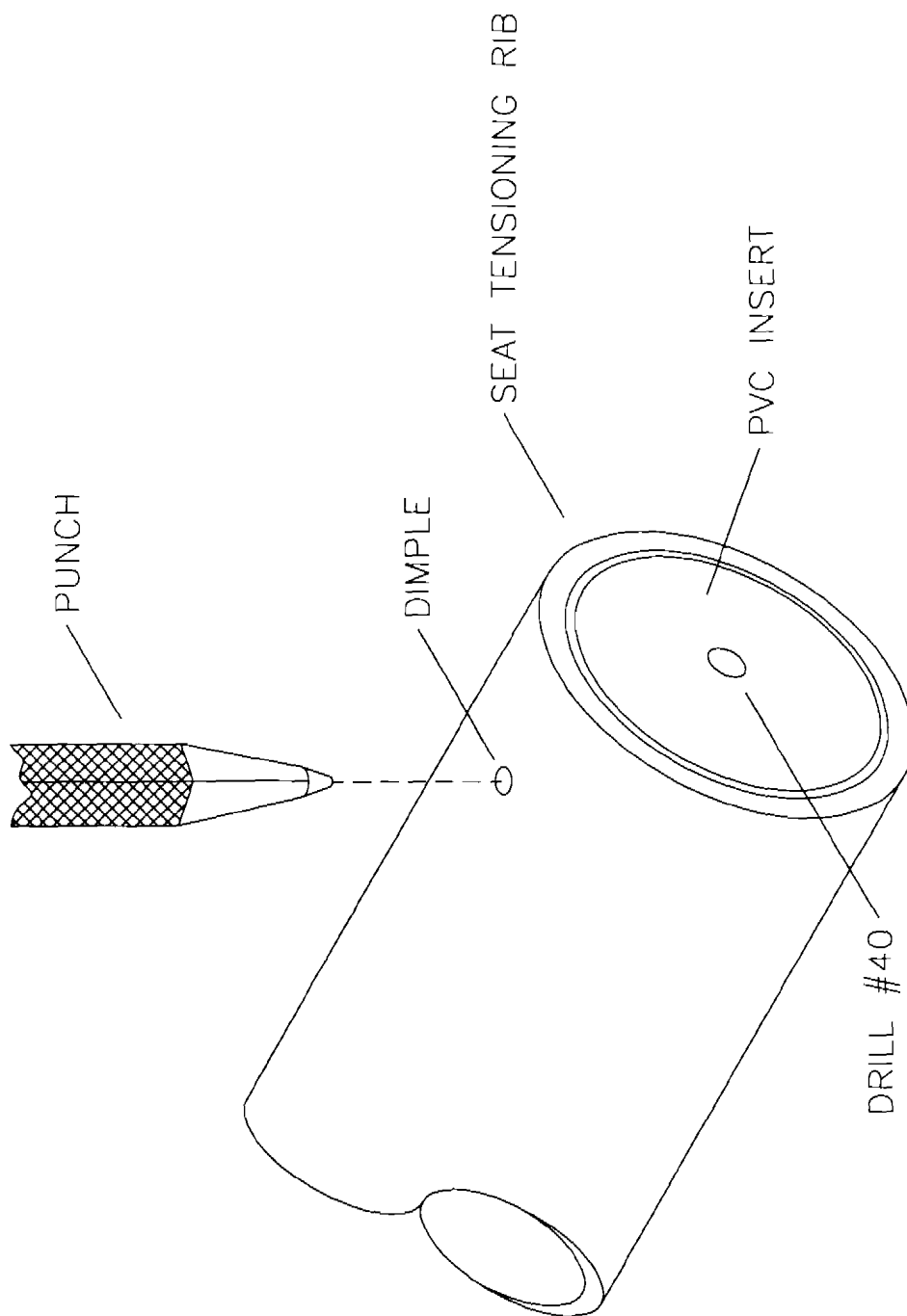
*NOTE: APPLY PATCH ON INSIDE OF DOOR ONLY
 BURN A .13" HOLE AFTER PAINTING
 FOR DRAINING.



MD4315

R4400 S-7S

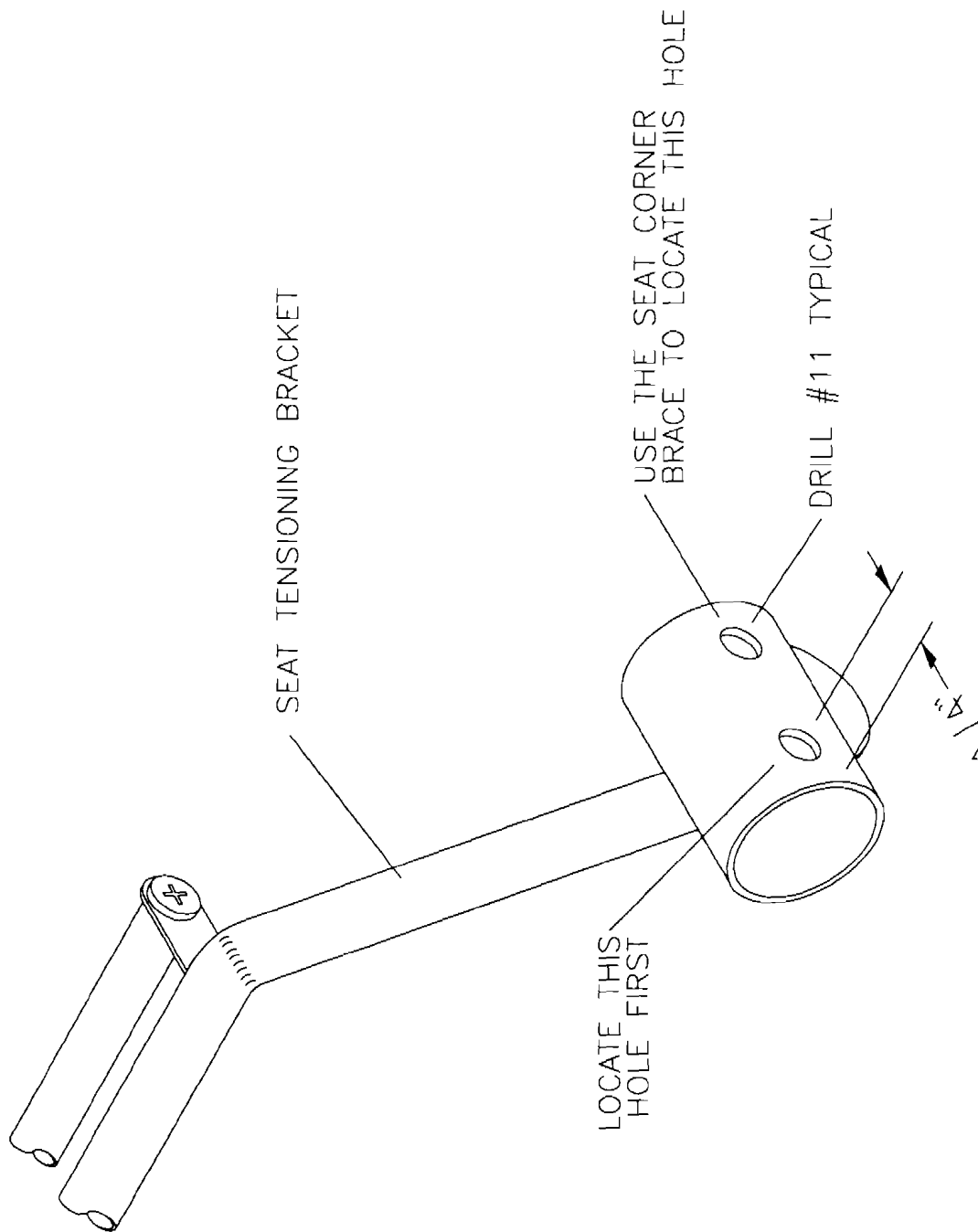
BAGGAGE COMPARTMENT FIGURE 08-01



MD4311

RRF S-7S

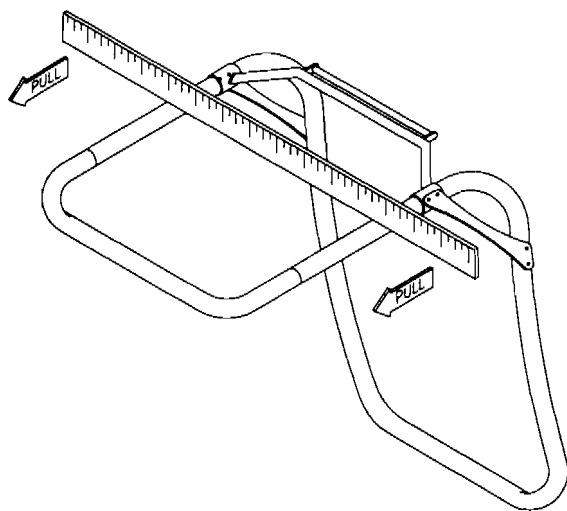
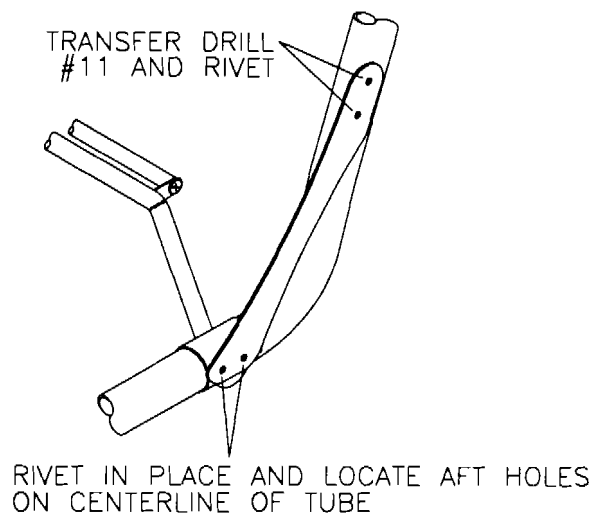
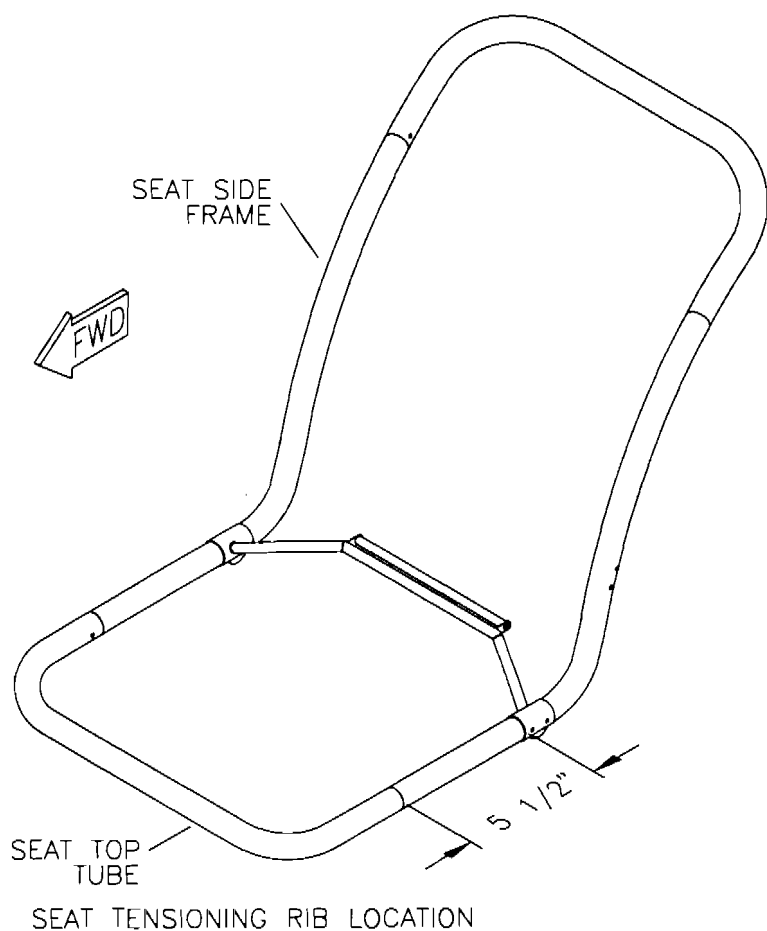
SEAT TENSIONING RIB FIGURE 08-02



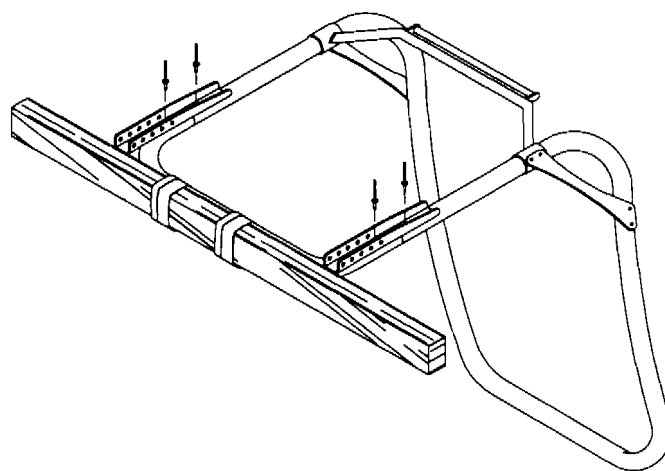
MD4310

RRR S-7S

SEAT TENSIONING BRACKET FIGURE 08-03



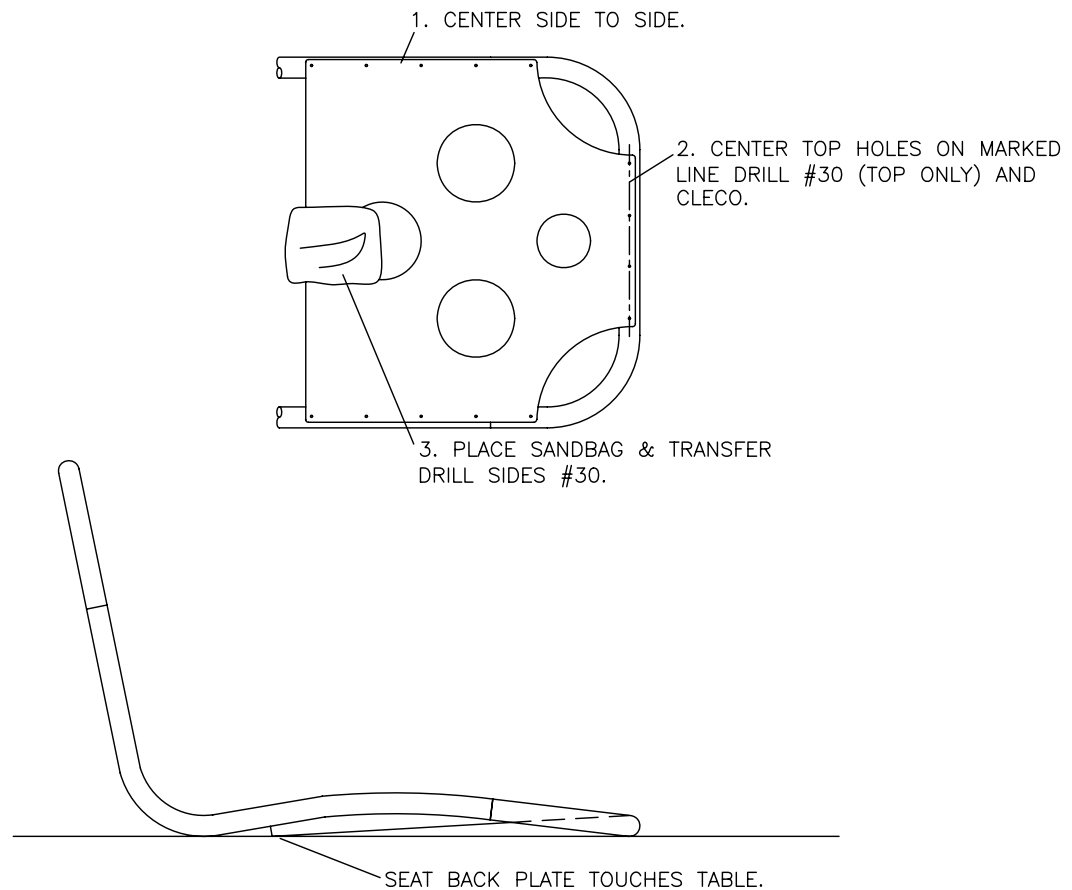
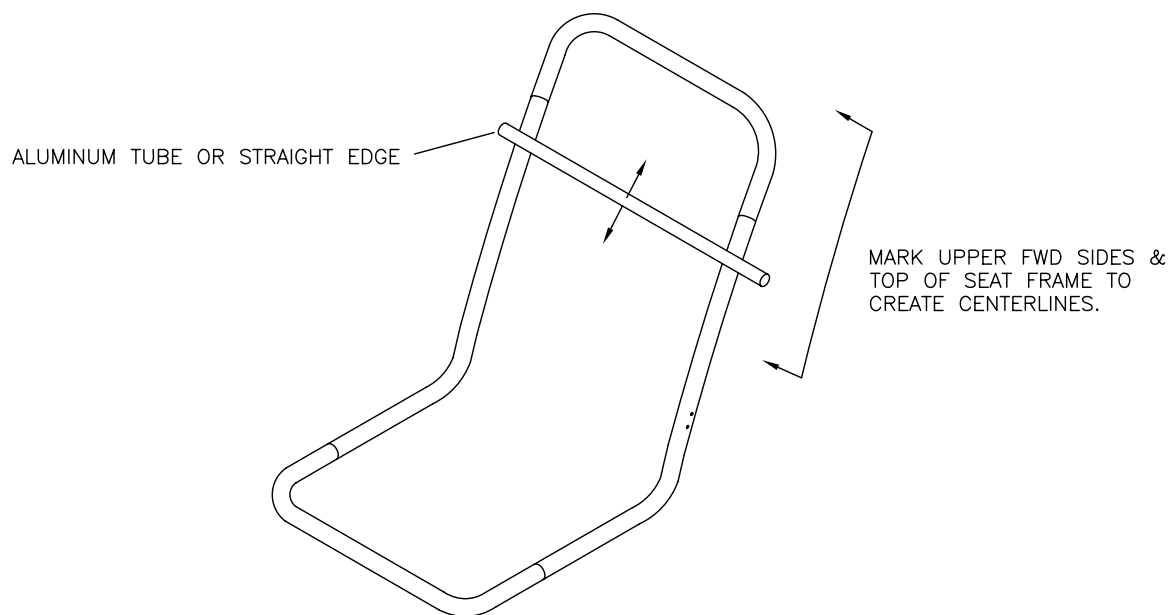
DRAG STRAIGHT EDGE LIGHTLY ALONG FRAME TO MARK CENTERLINE.



TAPE A STRAIGHT EDGE IN POSITION TO LOCATE SEAT CHANNELS FLUSH WITH FRONT OF SEAT TUBE.

MD4298

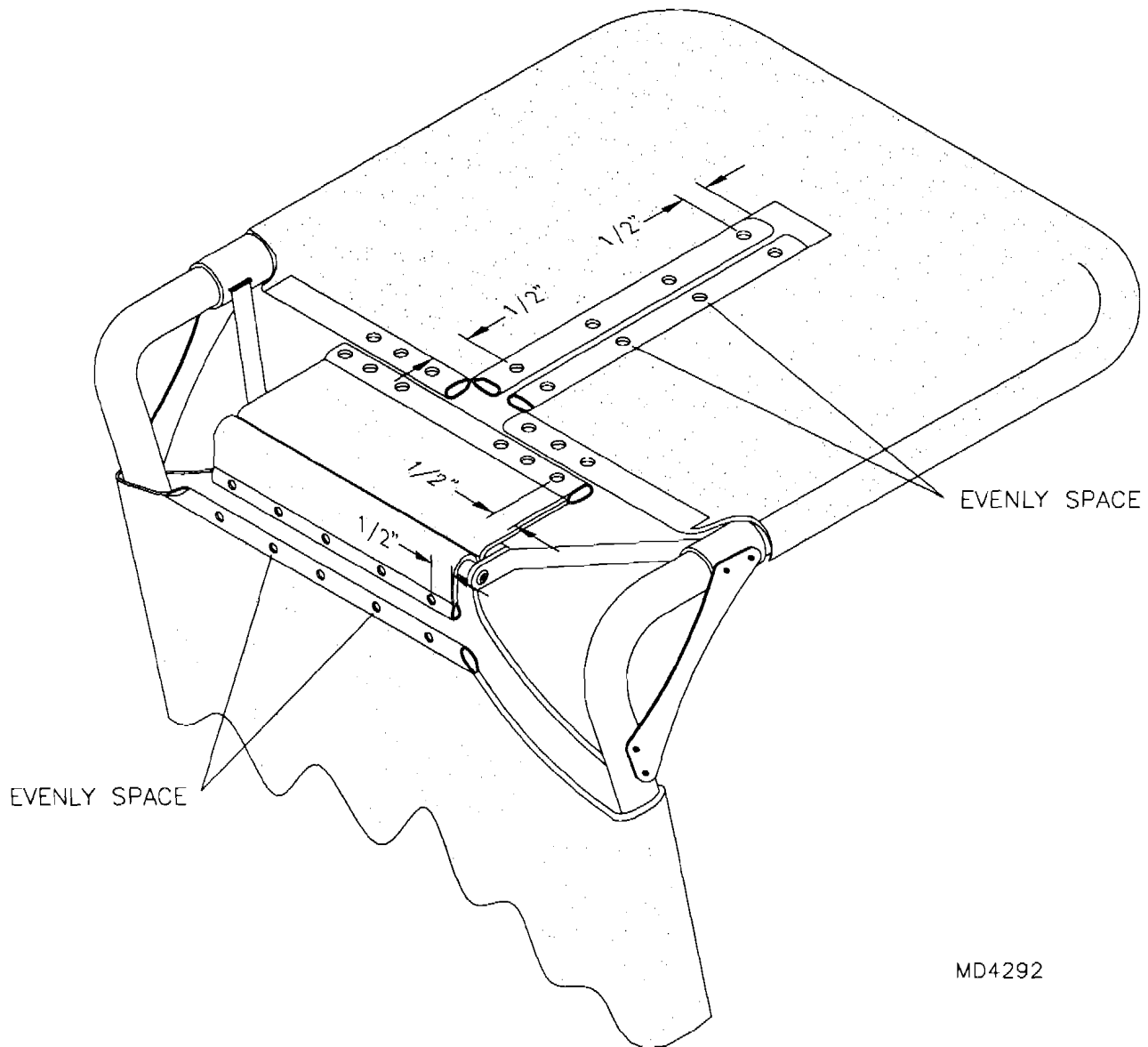
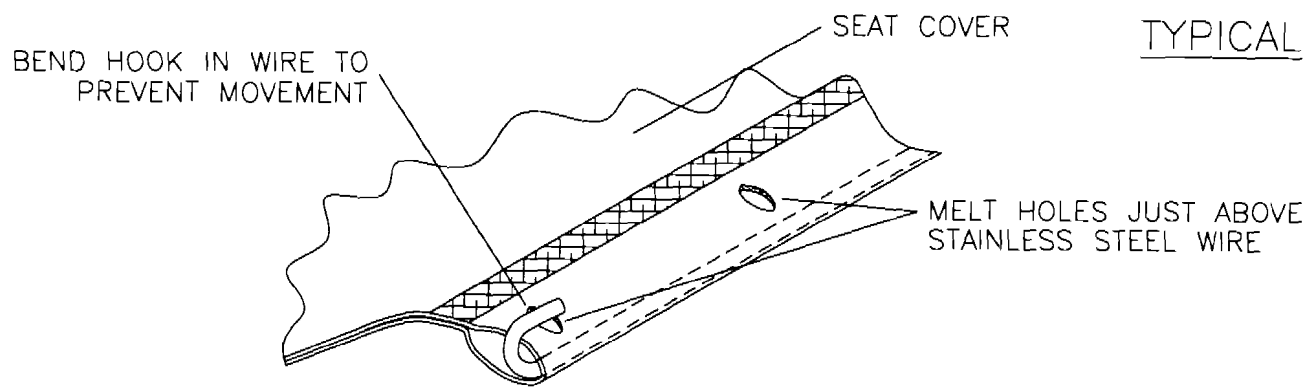
RANS S-7S **SEAT FRAME ASSEMBLY FIGURE 08-04**



RANS S-7S
SEAT BACK PLATE INSTALLATION
FIGURE 08-04A

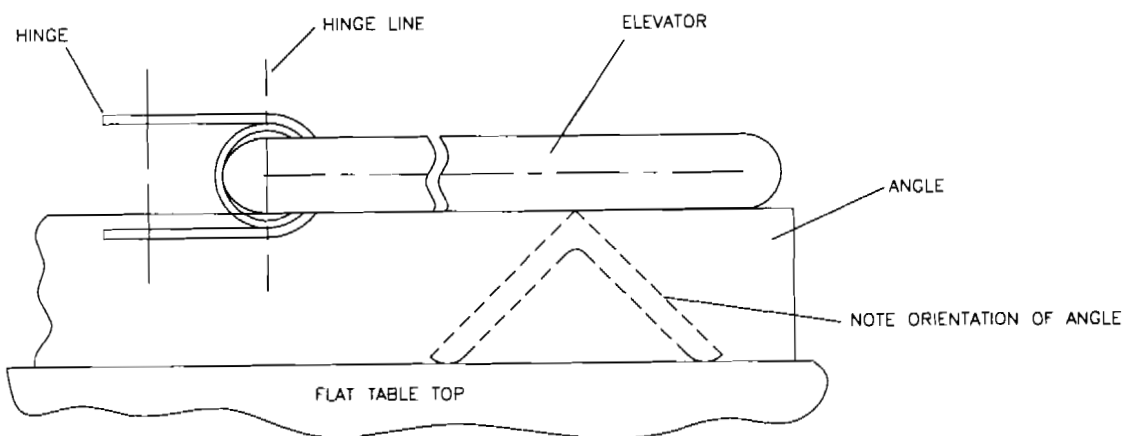
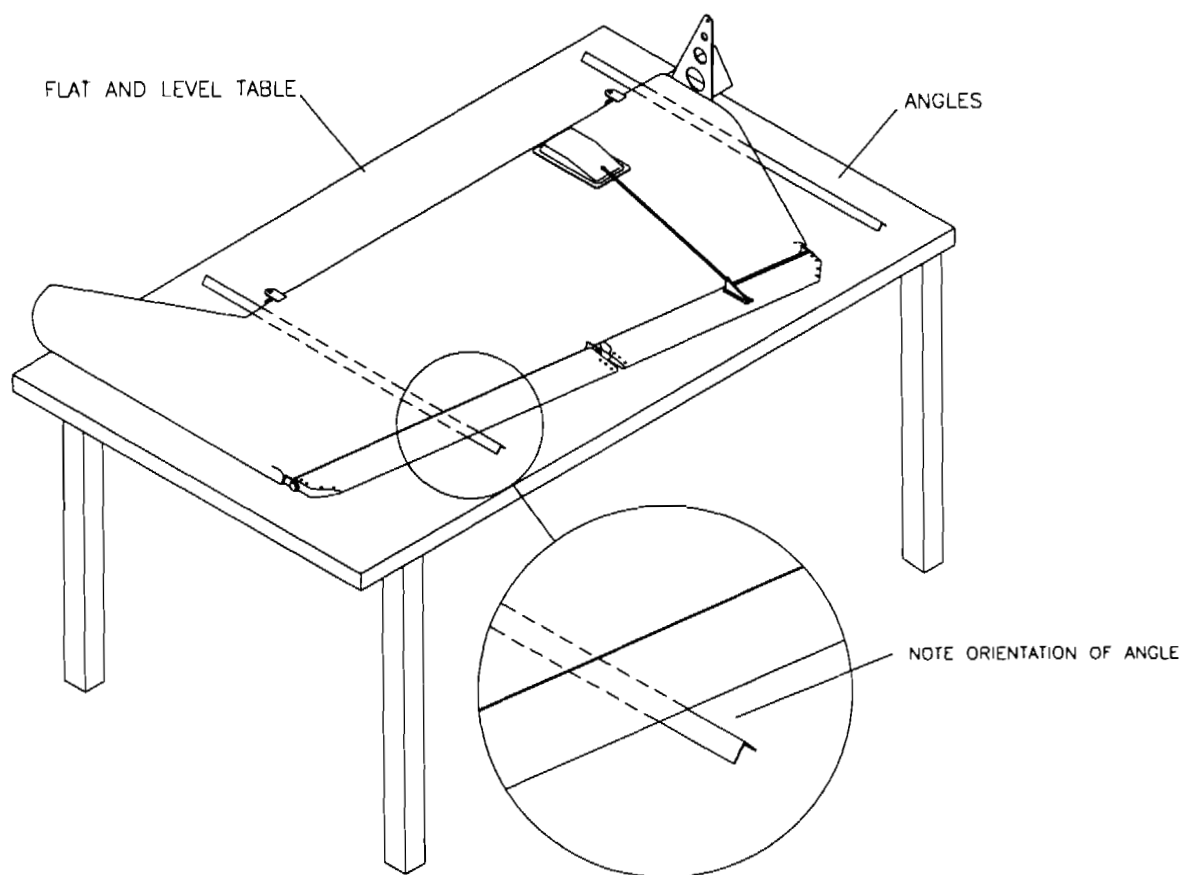
MD5237

09/15/2008



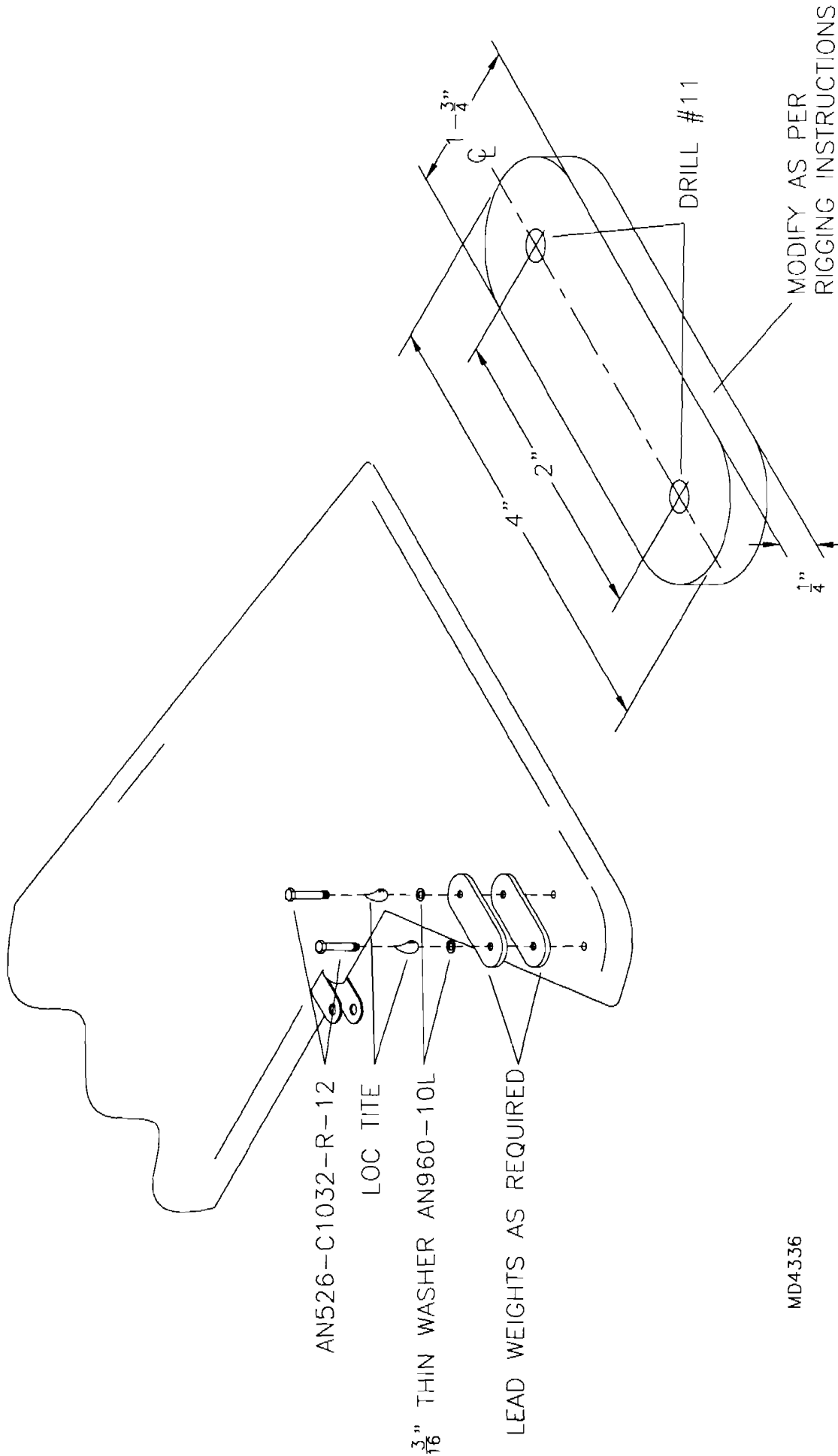
MD4292

RANS S-7S
SEAT LACING FIGURE 08-05



MD4328

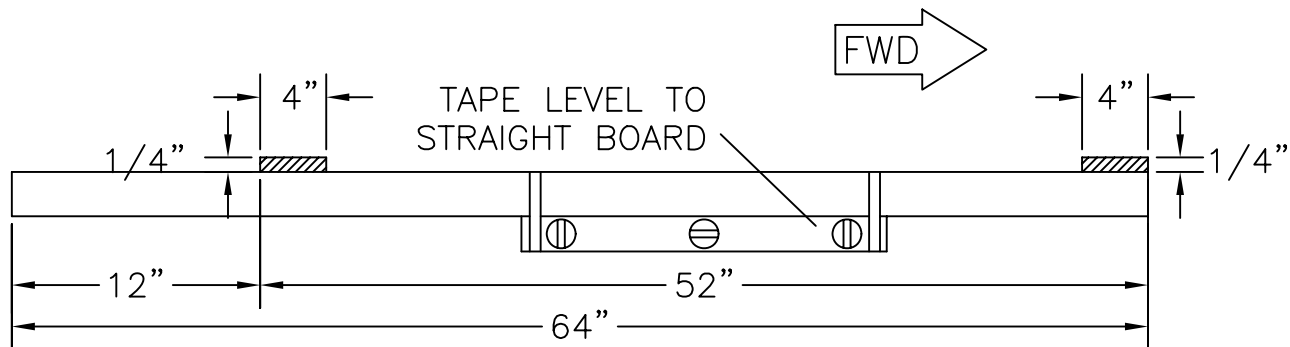
RANS S-7S
ELEVATOR MASS BALANCE
FIGURE 09-03



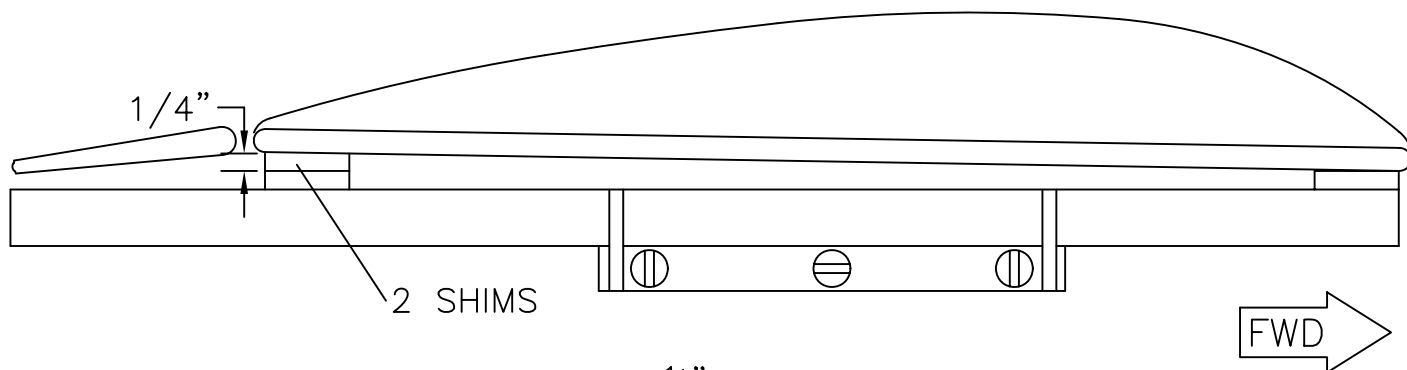
MD4336

RAM S-7S
ELEVATOR MASS BALANCE
WEIGHT AND ATTACH FIGURE 09-04

NOTE: RH ELEVATOR REQUIRES
 MORE WEIGHT THAN LH ELEVATOR



FIRST, FABRICATE RIGGING LEVEL AS SHOWN
AND USE TO LEVEL WING ROOT.

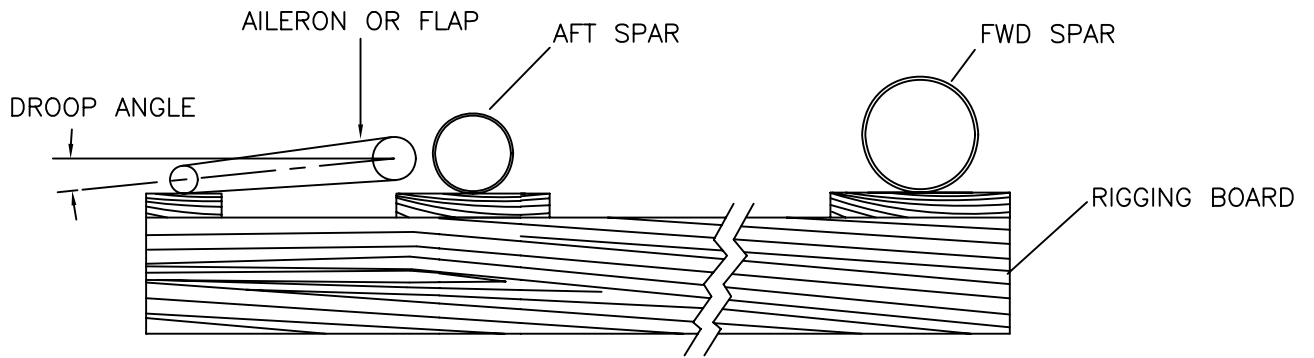


PLACE ADDITIONAL $\frac{1}{4}$ " SHIM AS SHOWN.
WITH LEVEL JUST OUTBOARD OF STRUT ATTACH POINTS,
ADJUST REAR STRUT FOR LEVEL READING.

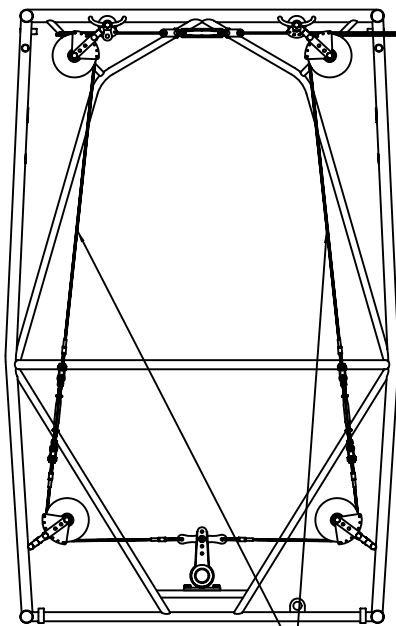
MD4426

RANS S-7S
WING WASH OUT RIGGING LEVEL
FIGURE 09A-01

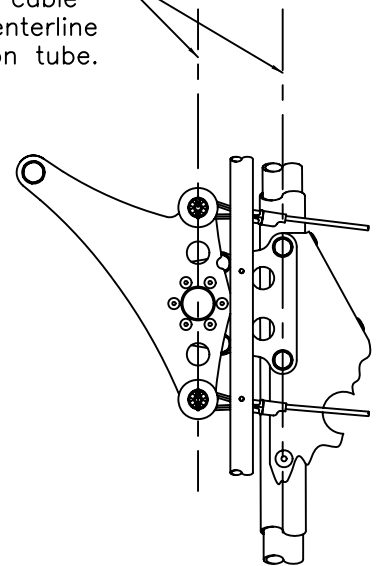
06/15/2011



CENTER FORWARD CONTROL STICK (AILERON NEUTRAL) AND FIX IN THIS POSITION.
 ADJUST AILERON CABLE LENGTH AND CABLE TENSION AND CHECK THAT BOTH AILERON
 BELL CRANKS ARE IN NEUTRAL POSITION (VISUAL INSPECTION) WITH STICK CENTERED.
 ADJUST CABLE TENSION TO 25 LB. - 0.0 + 5 LBS (2 PLS)



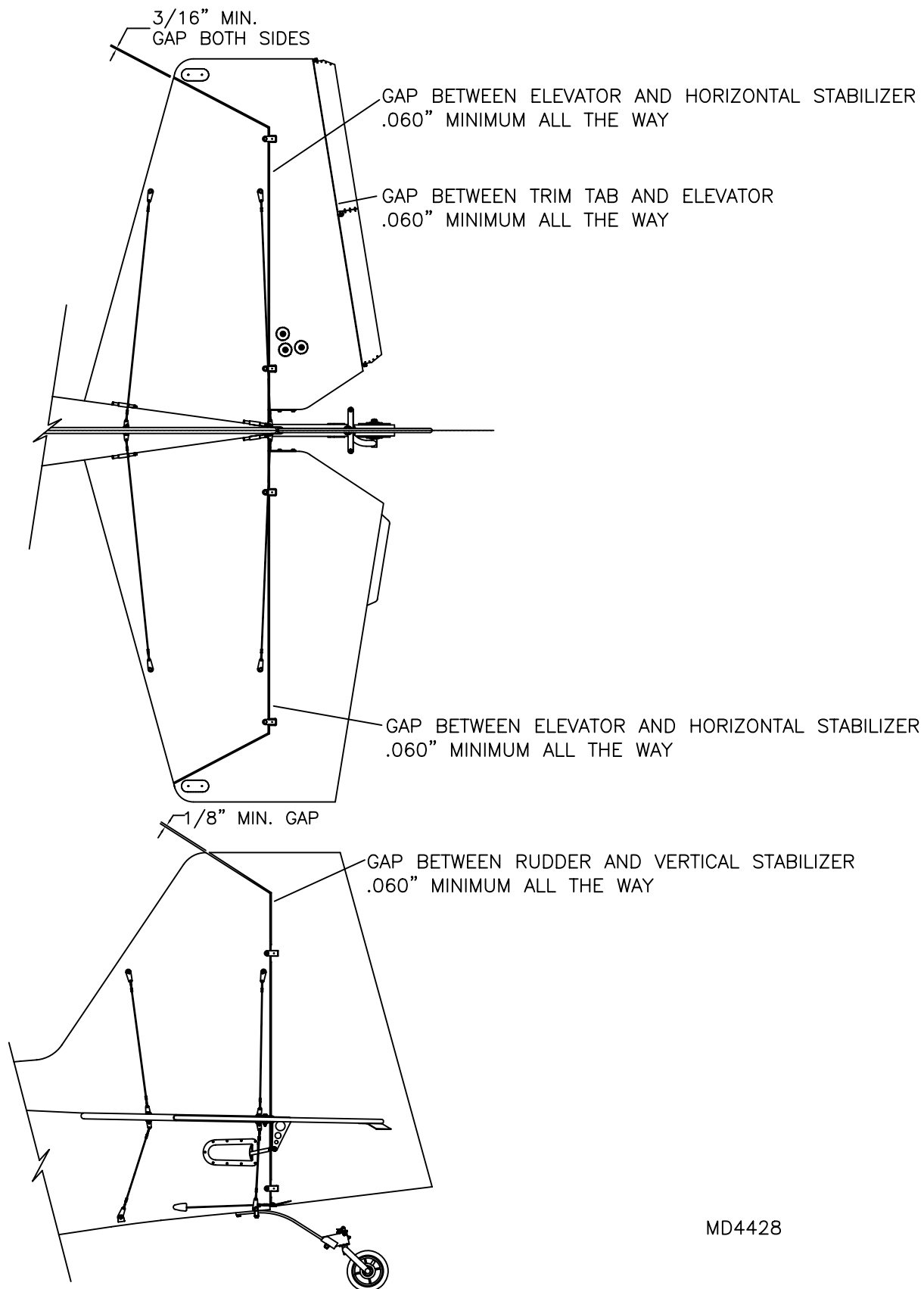
In neutral position of bellcrank
 the centerline through both cable-
 attach bolts is parallel to centerline
 of compression tube.



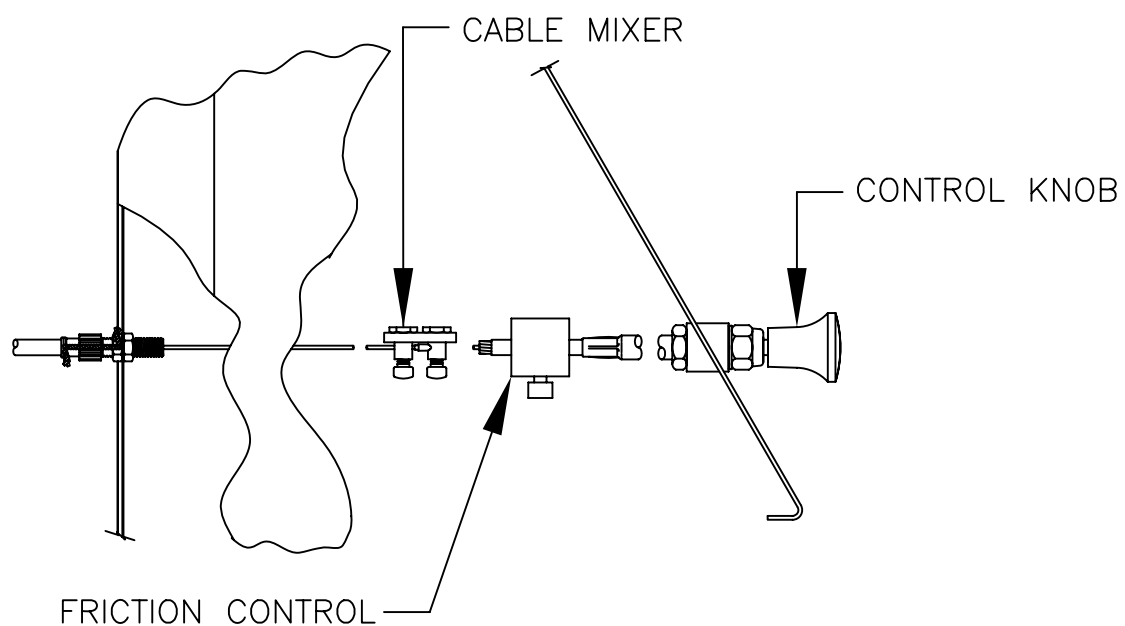
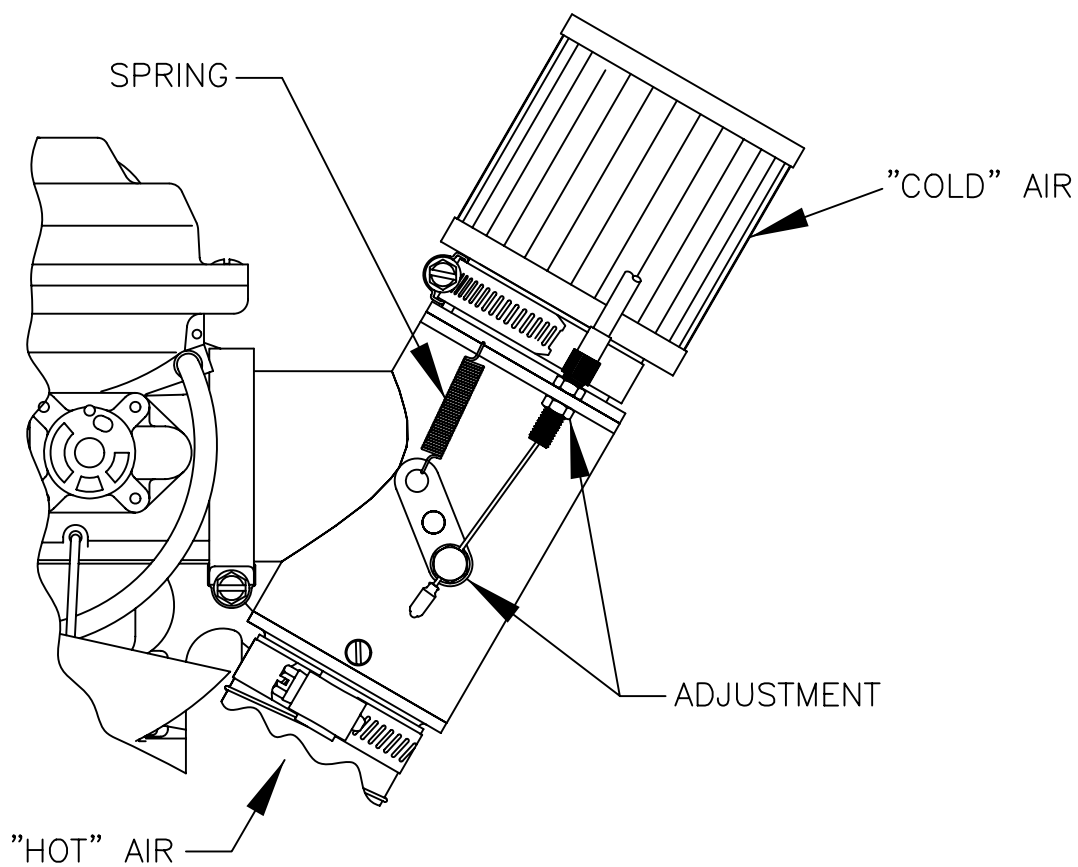
MD4427

RANS S-7S **AILERON RIGGING** **FIGURE 09A-09**

06/15/2011

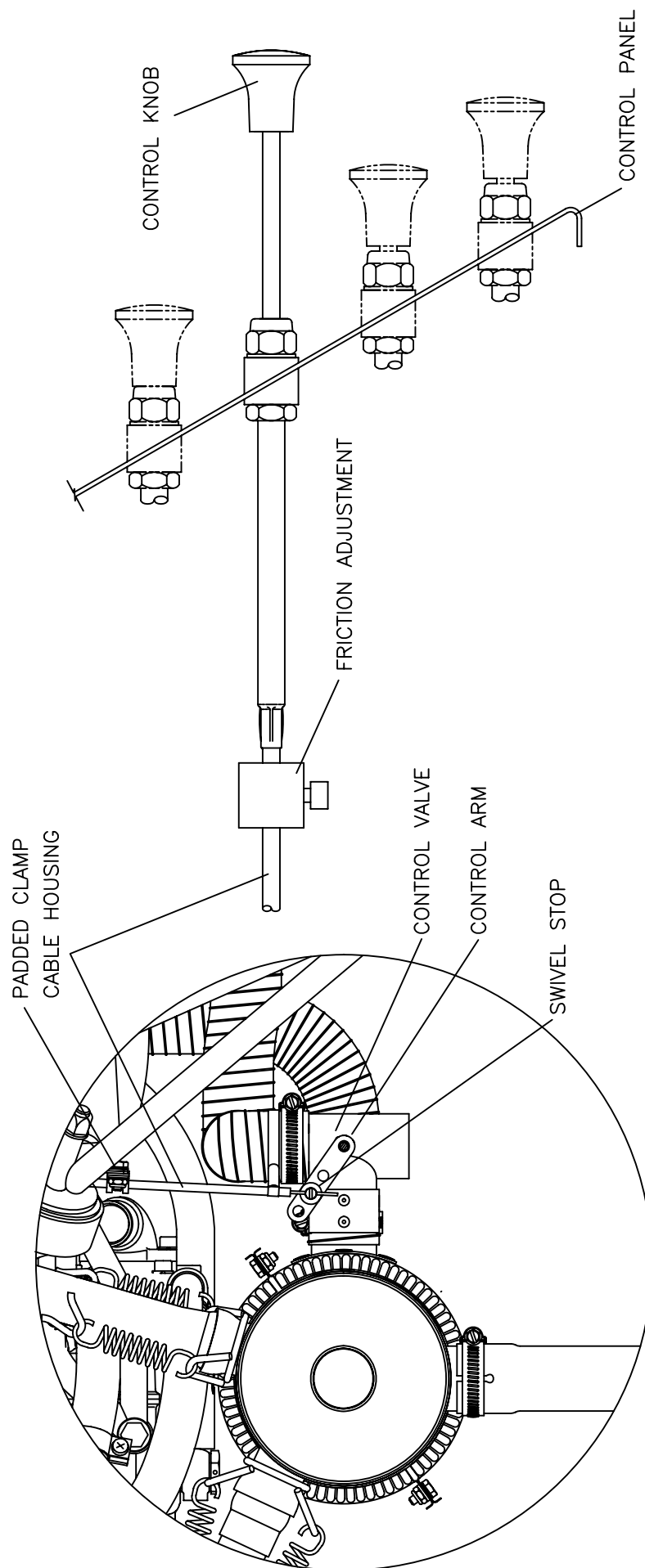


RANS S-7S
CONTROL SURFACE RIGGING
CLEARANCES - TAIL
FIGURE 09B-09



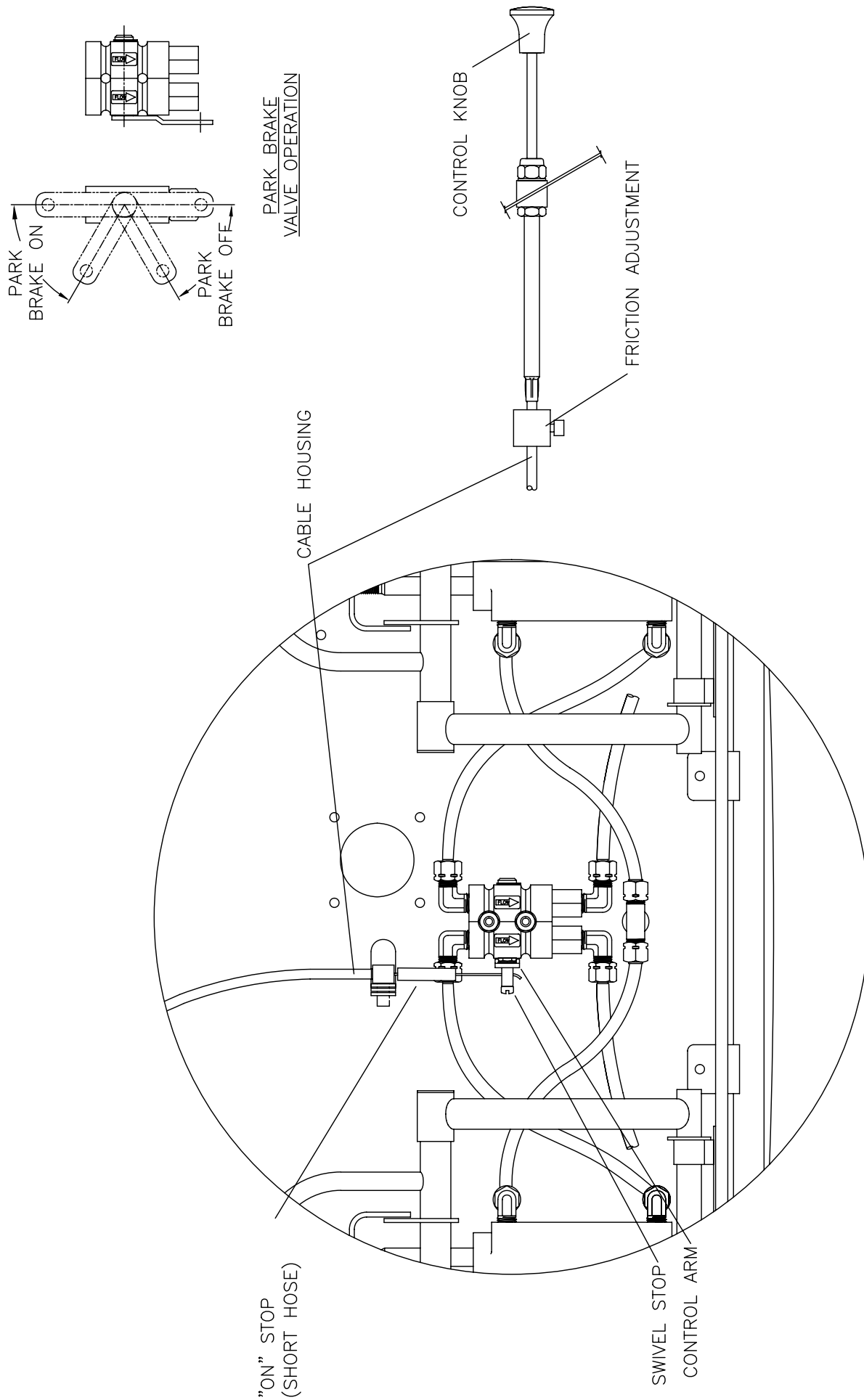
MD4429

RANS
CARBURETOR HEAT RIGGING
FIGURE 09C-07



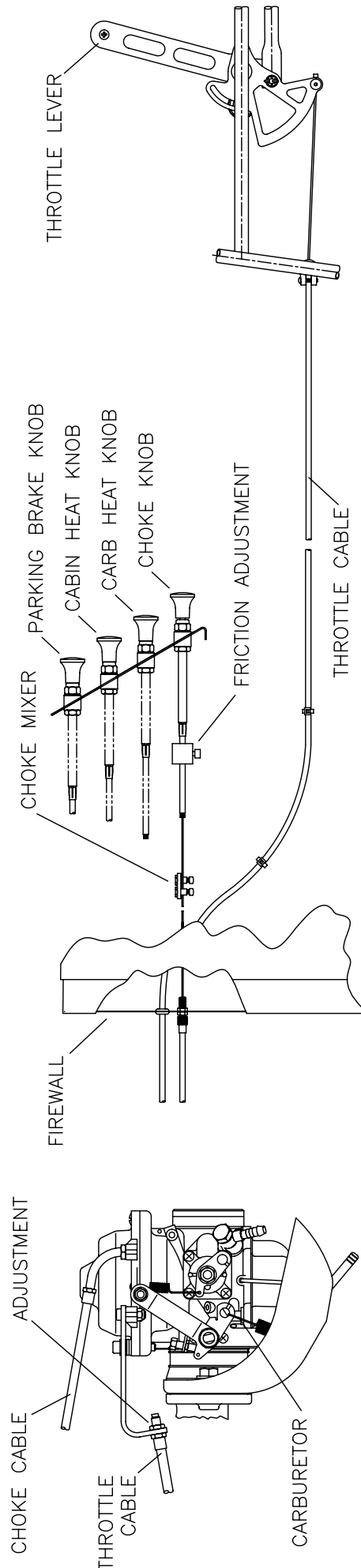
RRMS S-7S
CABIN HEAT RIGGING
FIGURE 09D-02

MD4433



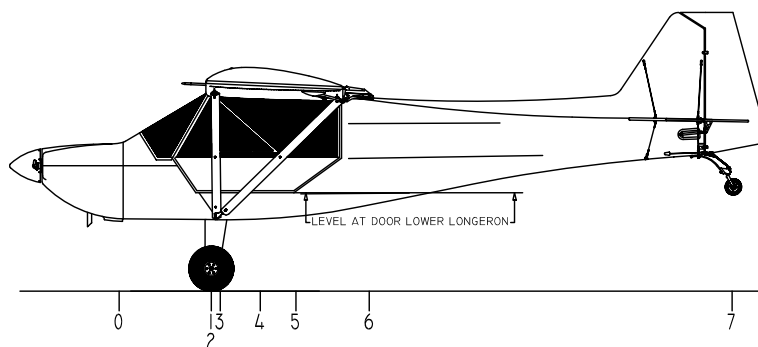
RAM S-7S
PARK BRAKE RIGGING
FIGURE 09D-04

MD4434



RAMS S-7S
THROTTLE AND CHOKE RIGGING
FIGURE 09D-06

MD4435



N _____	
DATE WEIGHED	
ENGINE TYPE	ROTAX 912ULS
C.G. CONDITION	
EMPTY WEIGHT	LBS.
GROSS WT.	1320 LBS.

RANS S-7S COURIER WEIGHT AND BALANCE

ACCEPTABLE C.G. 46.1" TO 50.5" FROM DATUM O.
DATUM = FRONT OF FIREWALL; AIRCRAFT IN
LEVEL ATTITUDE. (LEVEL REFERENCE TO
DOOR LOWER LONGERON)

#	ITEM	WEIGHT	ARM	MOMENT
1	MAIN - RH	352	34.1	12,003.2
2	MAIN - LH	348	34.1	11,866.8
3	PILOT	190	37.4	7,106
4	FUEL	56	52.6	8,205.6
5	PASSENGER	170	65.4	11,118
6	BAGGAGE *	20	92.5	1,850
7	TAILWHEEL	51	226.8	11,566.8
TOTAL=		1287	TOTAL=	63,716.4

$$\frac{\text{TOTAL MOMENTS}}{\text{TOTAL WEIGHT}} = \text{C.G.}$$

$$\frac{63,716.4}{1,287} = 49.51"$$

#	ITEM	WEIGHT	ARM	MOMENT
1	MAIN - RH		34.1	
2	MAIN - LH		34.1	
3	PILOT		37.4	
4	FUEL		52.6	
5	PASSENGER		65.4	
6	BAGGAGE *		92.5	
7	TAILWHEEL		226.8	
TOTAL=			TOTAL=	

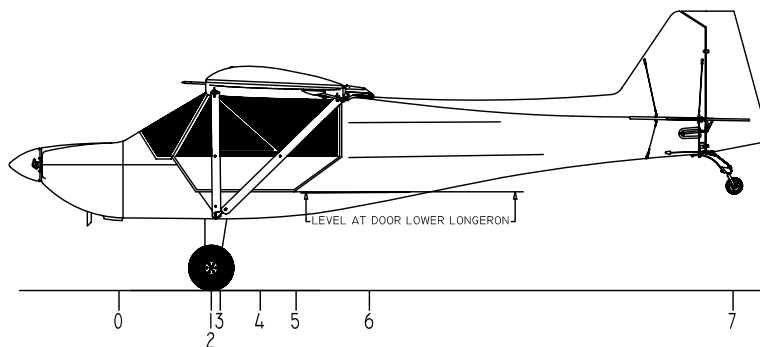
$$\frac{\text{TOTAL MOMENTS}}{\text{TOTAL WEIGHT}} = \text{C.G.}$$

$$\text{_____} =$$

MD5550

* 50 LBS. MAXIMUM BAGGAGE

RANS S-7S WEIGHT & BALANCE STANDARD TAILWHEEL FIGURE 10-01



N _____	
DATE WEIGHED	
ENGINE TYPE	ROTAX 912ULS
C.G. CONDITION	
EMPTY WEIGHT	LBS.
GROSS WT.	1320 LBS.

~~RANS~~ S-7S COURIER WEIGHT AND BALANCE

ACCEPTABLE C.G. 46.1" TO 50.5" FROM DATUM 0.
DATUM = FRONT OF FIREWALL; AIRCRAFT IN
LEVEL ATTITUDE. (LEVEL REFERENCE TO
DOOR LOWER LONGERON)

#	ITEM	WEIGHT	ARM	MOMENT
1	MAIN - RH	352	34.1	12,003.2
2	MAIN - LH	348	34.1	11,866.8
3	PILOT	190	37.4	7,106
4	FUEL	156	52.6	8,205.6
5	PASSENGER	170	65.4	11,118
6	BAGGAGE *	20	92.5	1,850
7	TAILWHEEL	53	228	12,084
TOTAL=		1289	TOTAL=	64,233.6

$$\frac{\text{TOTAL MOMENTS}}{\text{TOTAL WEIGHT}} = \text{C.G.}$$

$$\frac{64,233.6}{1,289} = 49.83"$$

#	ITEM	WEIGHT	ARM	MOMENT
1	MAIN - RH		34.1	
2	MAIN - LH		34.1	
3	PILOT		37.4	
4	FUEL		52.6	
5	PASSENGER		65.4	
6	BAGGAGE *		92.5	
7	TAILWHEEL		228	
TOTAL=			TOTAL=	

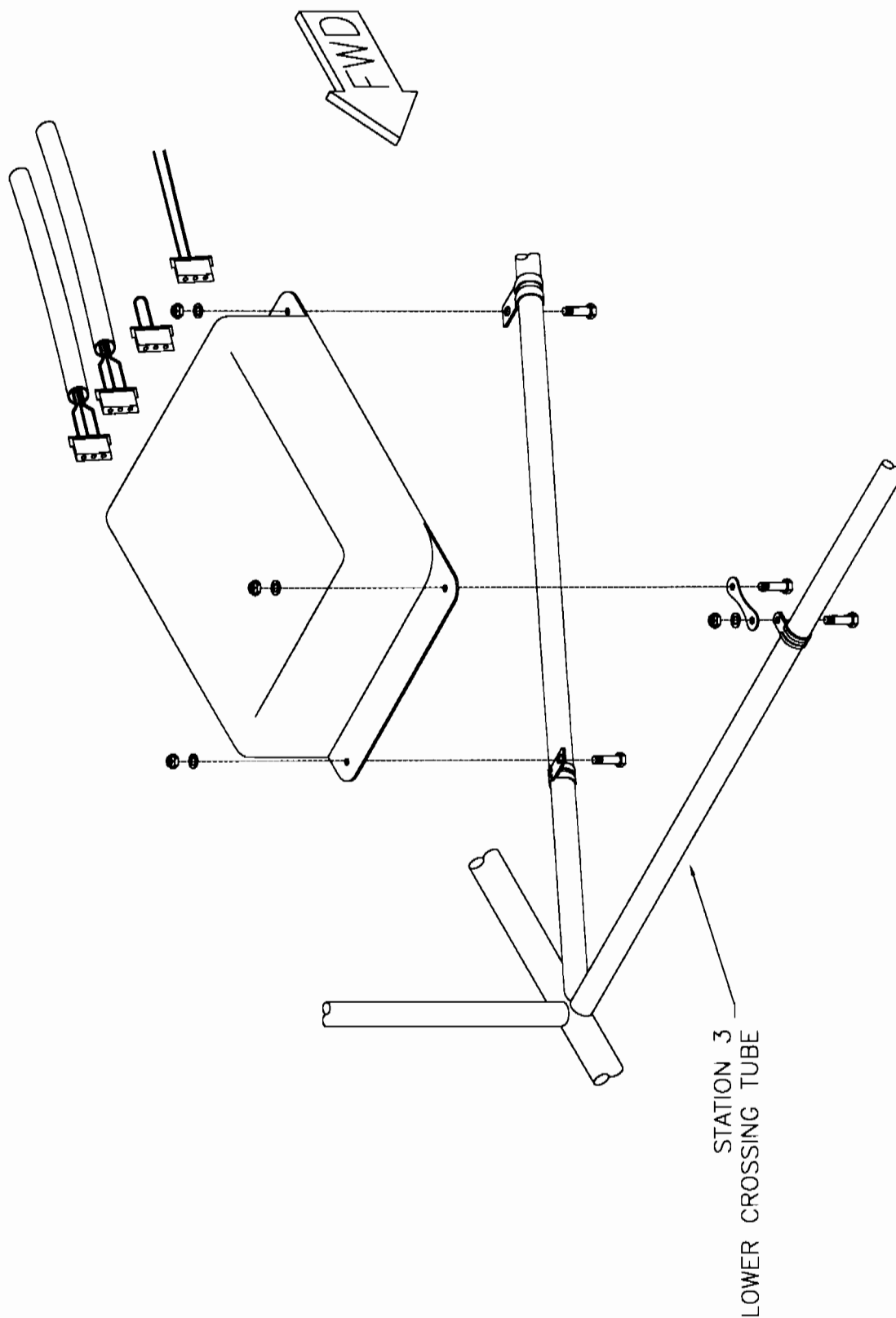
$$\frac{\text{TOTAL MOMENTS}}{\text{TOTAL WEIGHT}} = \text{C.G.}$$

$$\text{_____} =$$

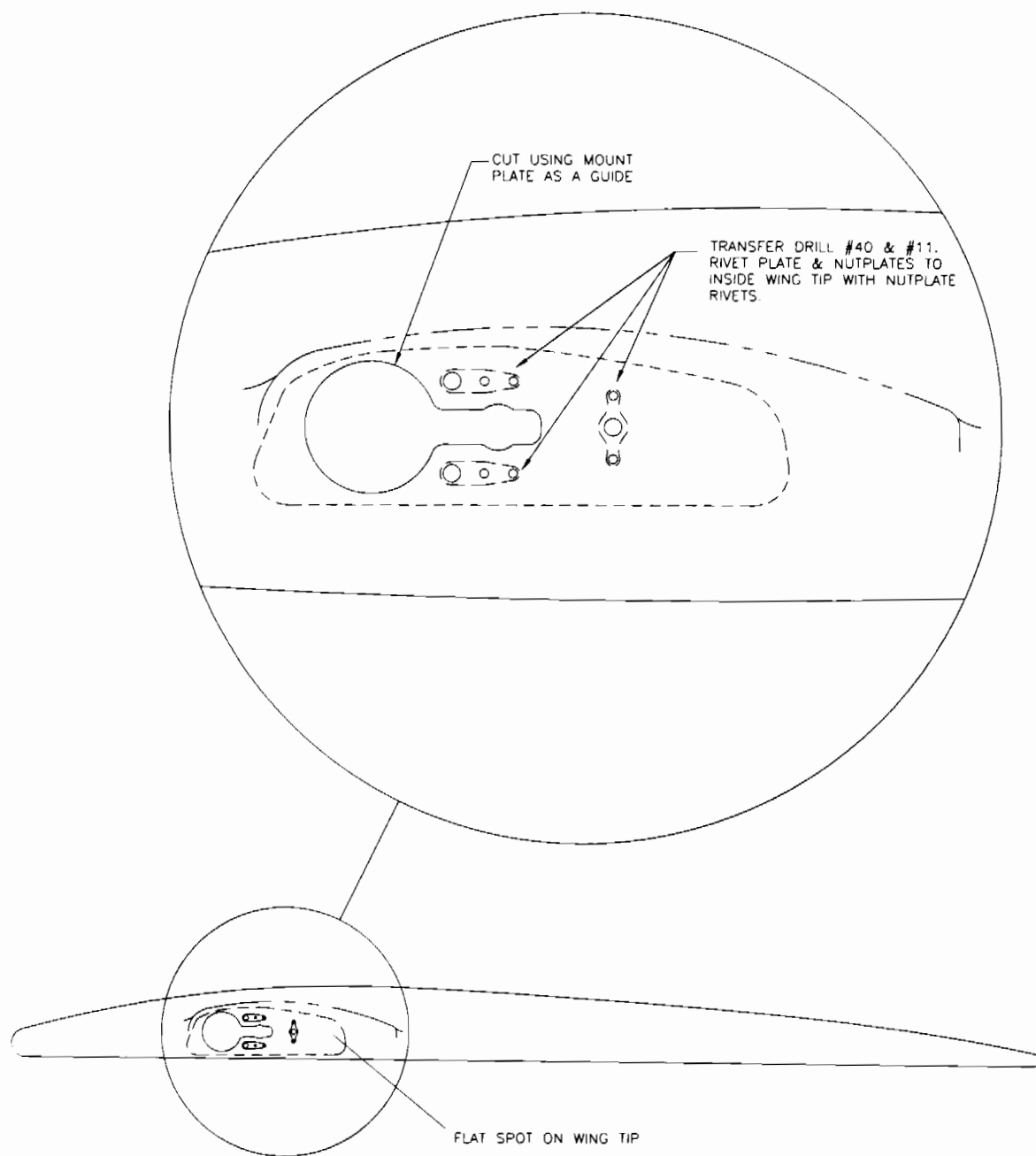
MD5550

* 50 LBS. MAXIMUM BAGGAGE

RANS S-7S WEIGHT & BALANCE RANS BUSH TAILWHEEL FIGURE 10-01A



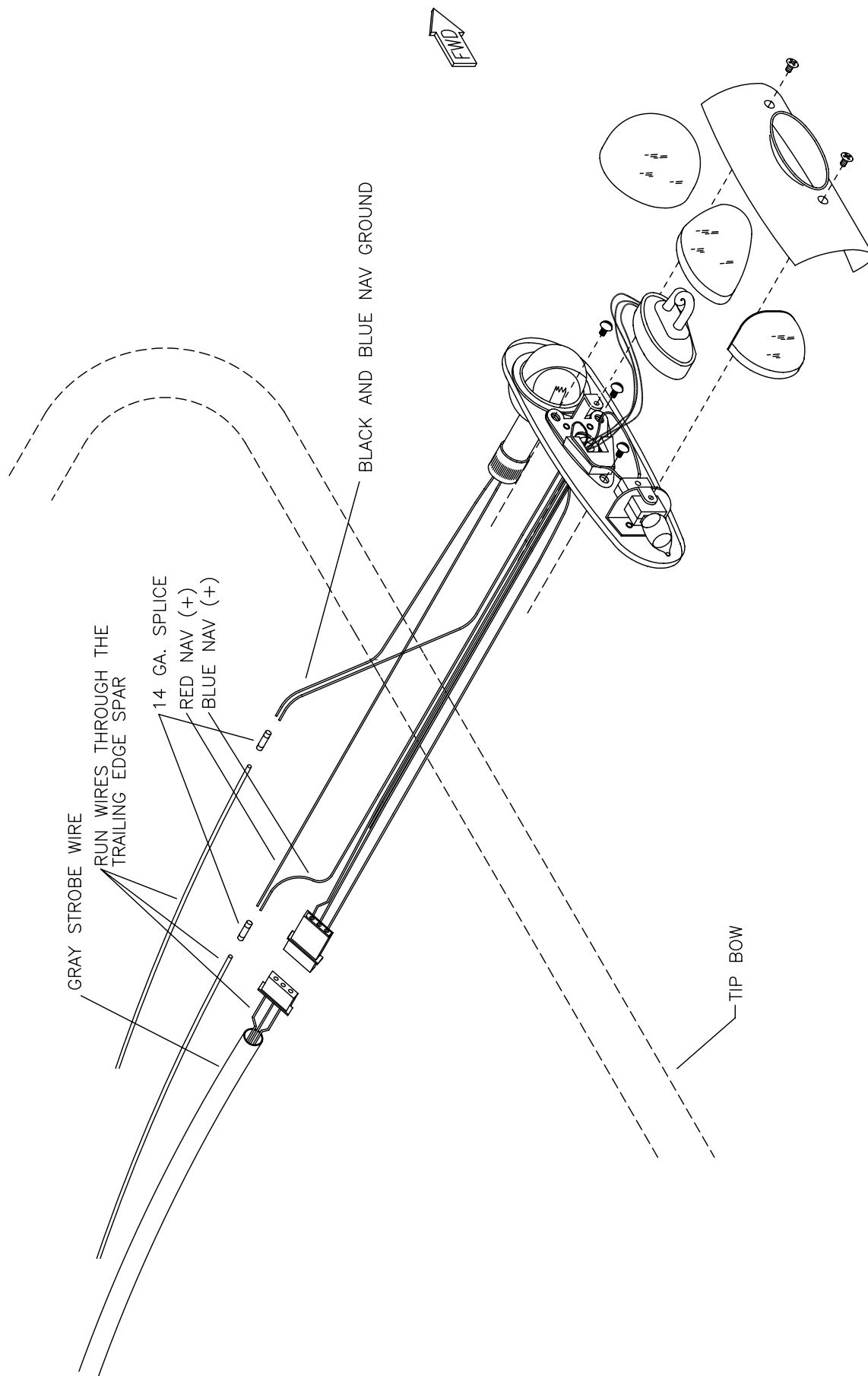
RRMS S-7S
STROBE POWER BOX INSTALLATION
FIGURE 11B-01



MD4483
REV. A

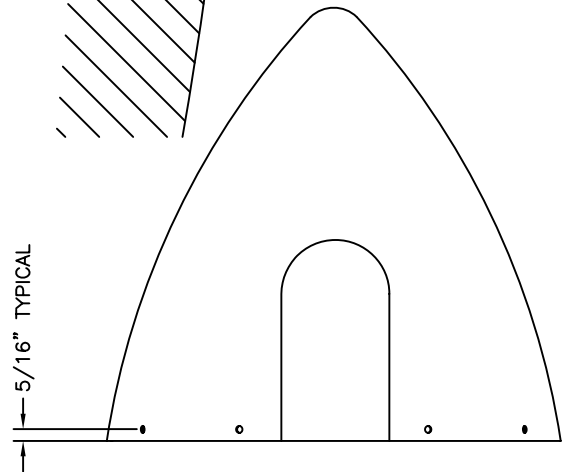
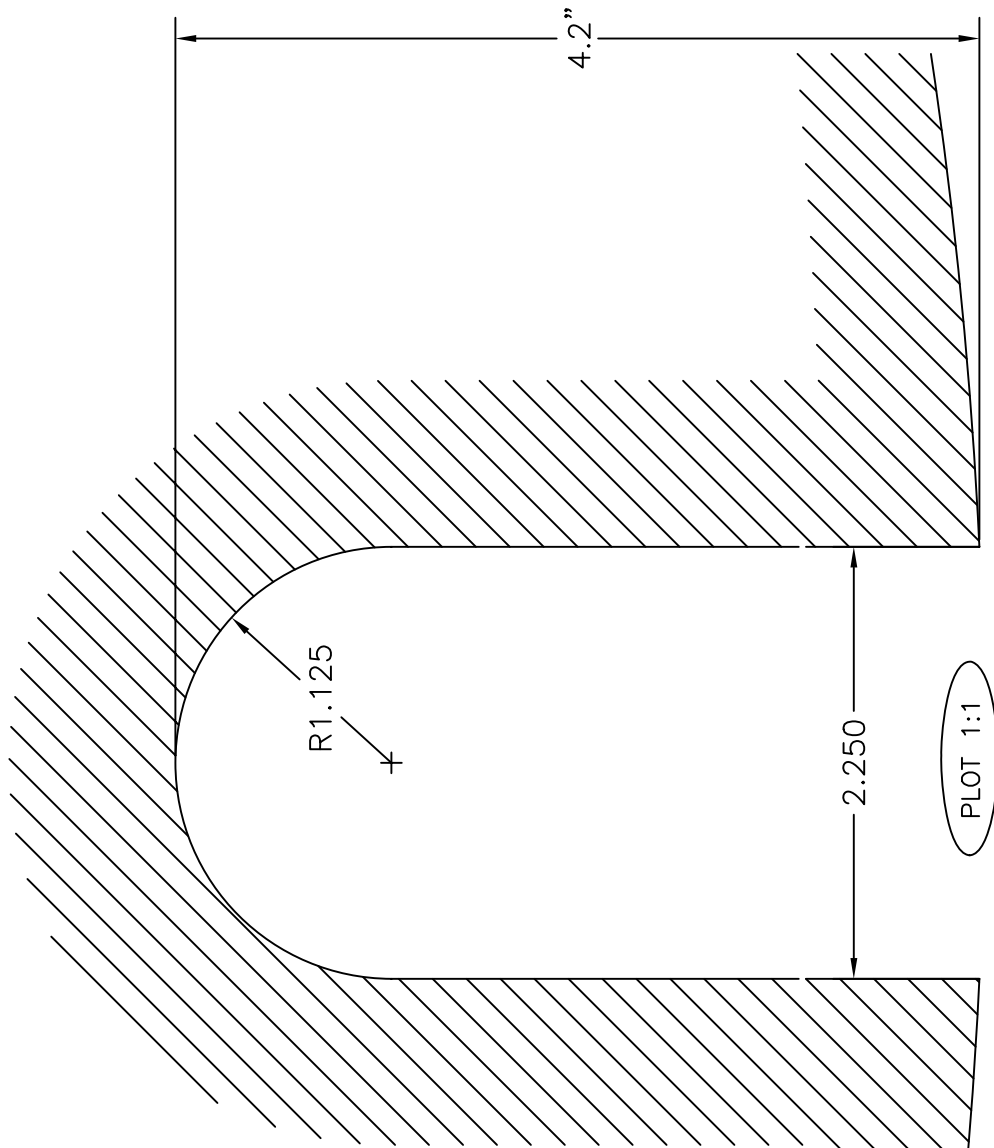
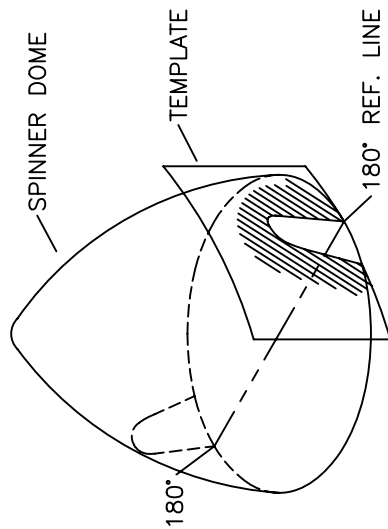
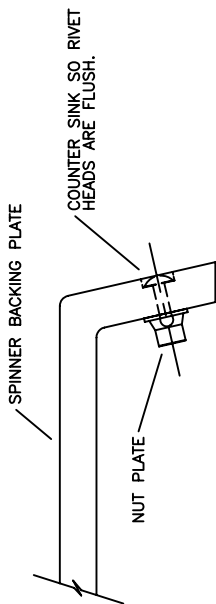
RANS S-7S
STROBE / NAV WING TIP MODIFICATION
FIGURE 11B-02

09/01/05



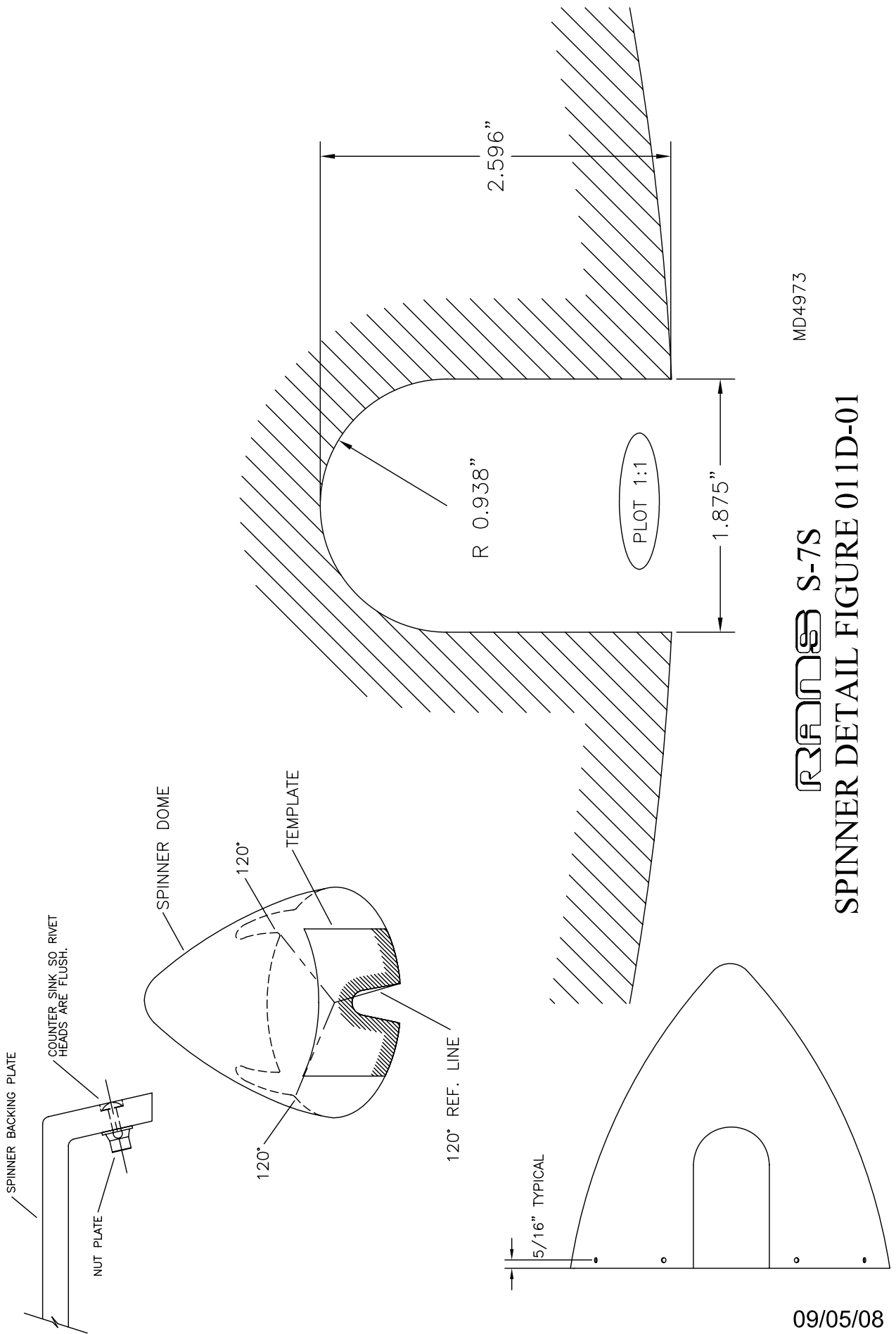
MD3719
REV. A

RAMMS S-7S
STROBE / NAV LIGHT WIRING
FIGURE 11B-03



MD4973

RAMS S-7S SPINNER DETAIL FIGURE 011C-01



MD4973

RAM S-7S SPINNER DETAIL FIGURE 011D-01