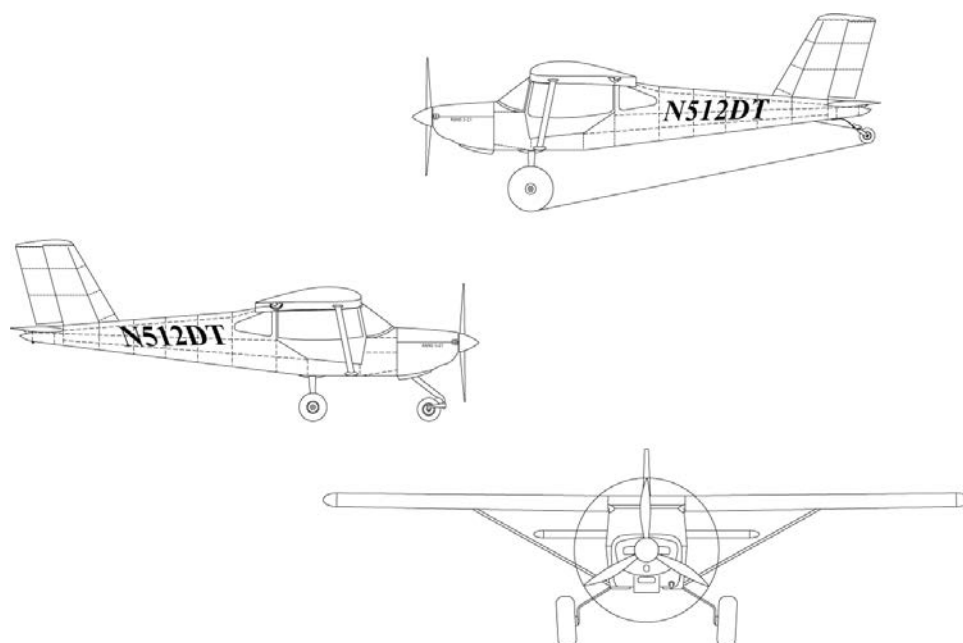




# ***S-21 OUTBOUND***

## **TITAN X-340 INSTALLATION PARTS MANUAL**



Serial Number: \_\_\_\_\_

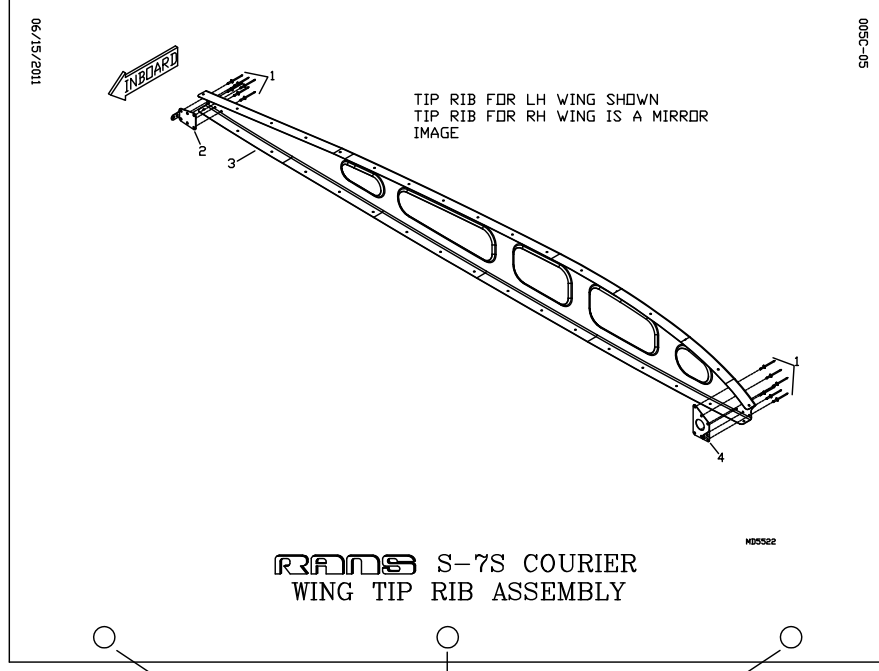
Registration Number: \_\_\_\_\_

COPYRIGHT © 2017  
RANS DESIGNS  
4600 HWY 183 Alt  
HAYS, KANSAS, USA 67601  
785-625-6346  
WWW.RANS.COM

STEP 1:

PARTS MANUAL AS SHIPPED or PRINTED.  
PLACE IN 3-RING BINDER TO SECURE.

PARTS DRAWING PAGE



3-HOLE PUNCH

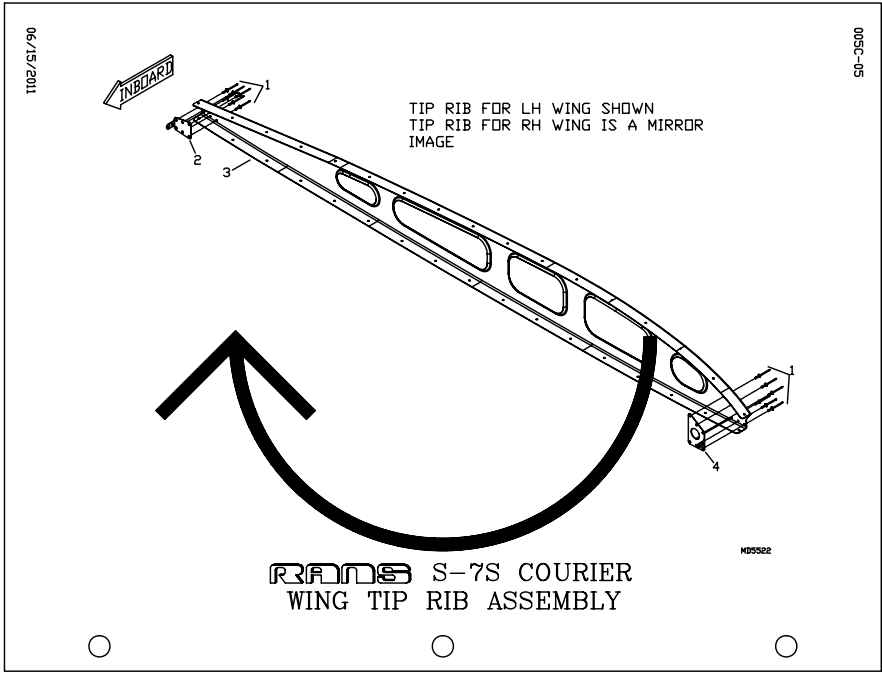
EXAMPLE ONLY.  
MAY NOT REPRESENT ACTUAL PAGES  
FROM YOUR MANUAL.

SEE NEXT PAGE

STEP 2:

OPEN 3-RING BINDER.  
REMOVE PARTS DRAWING PAGE AND  
ROTATE 180° TO FACE  
CORRESPONDING  
PARTS DESCRIPTION PAGE.  
REPEAT FOR REMAINING PAGES

PARTS DRAWING PAGE



PARTS DESCRIPTION PAGE

| S-7S COURIER - WING - TIP RIB ASSEMBLY |                             |             |          | PAGE 005C-06 |
|----------------------------------------|-----------------------------|-------------|----------|--------------|
| #                                      | DESCRIPTION                 | PART NUMBER | QUANTITY |              |
| 1.                                     | 1/8" ALUMINUM RIVET         | AAQ-41      | 24       |              |
| 2.                                     | RIB CLIP TRAILING EDGE - LH | KPW0372-L   | 4        |              |
| 2.                                     | RIB CLIP TRAILING EDGE - RH | KPW0372-R   | 1        |              |
| 3.                                     | WING TIP RIB - LH           | KPW0544-L   | 1        |              |
| 3.                                     | WING TIP RIB - RH           | KPW0544-R   | 1        |              |
| 4.                                     | RIB CLIP LEADING EDGE - LH  | KPW0373-L   | 1        |              |
| 4.                                     | RIB CLIP LEADING EDGE - RH  | KPW0373-R   | 1        |              |

6/15/2011

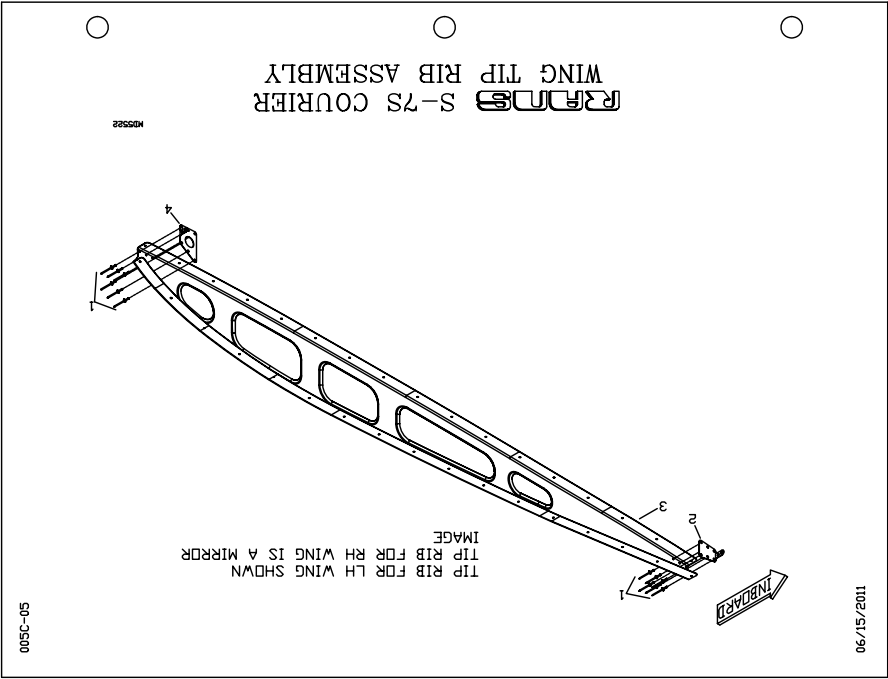
EXAMPLE ONLY.  
MAY NOT REPRESENT ACTUAL PAGES  
FROM YOUR MANUAL.

SEE NEXT PAGE

STEP 3:

PARTS DRAWING PAGE  
FACES CORRESPONDING  
PARTS DESCRIPTION PAGE  
WHEN FINAL SECURED IN  
BINDER

PARTS DRAWING PAGE



PARTS DESCRIPTION PAGE

| S-7S COURIER - WING - TIP RIB ASSEMBLY |                             |             |          |
|----------------------------------------|-----------------------------|-------------|----------|
| #                                      | DESCRIPTION                 | PART NUMBER | QUANTITY |
| 1.                                     | 1/8" ALUMINUM RIVET         | AAPO41      | 24       |
| 2.                                     | RIB CLIP TRAILING EDGE - LH | KPW0372-L   | 4        |
| 2.                                     | RIB CLIP TRAILING EDGE - RH | KPW0372-R   | 1        |
| 3.                                     | WING TIP RIB - LH           | KPW0544-L   | 1        |
| 3.                                     | WING TIP RIB - RH           | KPW0544-R   | 1        |
| 4.                                     | RIB CLIP LEADING EDGE - LH  | KPW0373-L   | 1        |
| 4.                                     | RIB CLIP LEADING EDGE - RH  | KPW0373-R   | 1        |

EXAMPLE ONLY.  
MAY NOT REPRESENT ACTUAL PAGES  
FROM YOUR MANUAL.

# **RANS S-21 OUTBOUND – TITAN X340**

## **PARTS MANUAL**

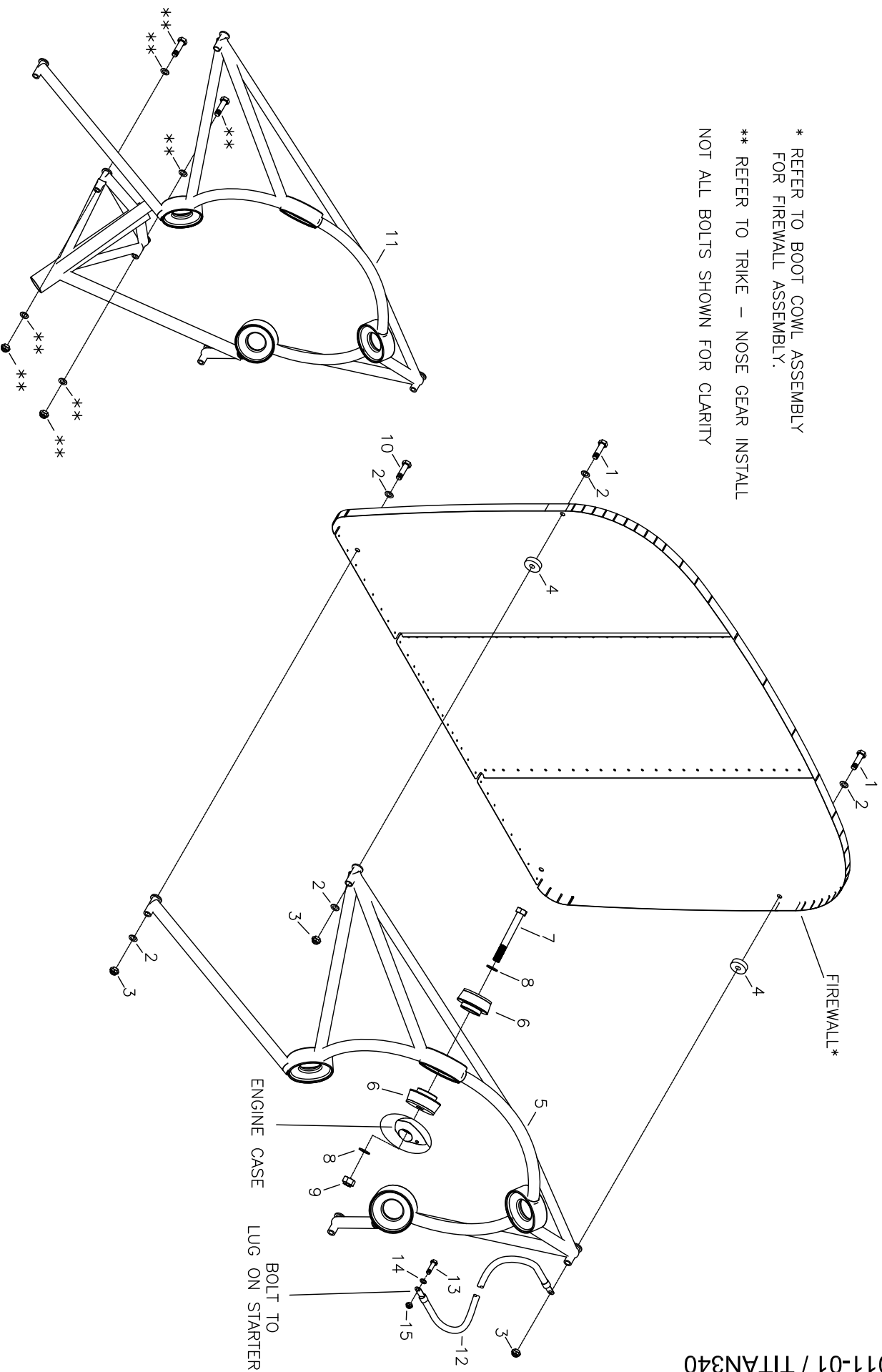
### **TABLE OF CONTENTS**

|                                                                    |                    |
|--------------------------------------------------------------------|--------------------|
| TITAN X-340 - ENGINE MOUNT INSTALLATION -----                      | 011-01 / TITAN340  |
| TITAN X-340 - ENGINE ELECTRICAL ACCESSORY INSTALLATION -----       | 011A-01 / TITAN340 |
| TITAN X-340 - BATTERY BOX ASSEMBLY & INSTALLATION-----             | 011A-03 / TITAN340 |
| TITAN X-340 - FUEL SYSTEM - FIREWALL FORWARD-----                  | 011B-01 / TITAN340 |
| TITAN X-340 - FUEL SYSTEM - FUSELAGE-----                          | 011B-03 / TITAN340 |
| TITAN X-340 - FUEL SYSTEM - HEADER TANK-----                       | 011B-05 / TITAN340 |
| TITAN X-340 - FUEL SYSTEM - ELECTRIC FUEL PUMP -----               | 011B-07 / TITAN340 |
| TITAN X-340 - BAFFLE - RIGHT INSTALLATION -----                    | 011C-01 / TITAN340 |
| TITAN X-340 - BAFFLE - LEFT INSTALLATION -----                     | 011C-03 / TITAN340 |
| TITAN X-340 - LUBRICATION SYSTEM ASSEMBLY & INSTALLATION -----     | 011D-01 / TITAN340 |
| TITAN X-340 - CROSS-OVER EXHAUST ASSEMBLY -----                    | 011E-01 / TITAN340 |
| TITAN X-340 - CABIN HEATER INSTALLATION -----                      | 011E-03 / TITAN340 |
| TITAN X-340 - THROTTLE ASSEMBLY-----                               | 011F-01 / TITAN340 |
| TITAN X-340 - MIXTURE CONTROL ASSEMBLY -----                       | 011G-01 / TITAN340 |
| TITAN X-340 - AIRBOX ASSEMBLY-----                                 | 011H-01 / TITAN340 |
| TITAN X-340 - ENGINE ELECTRICAL-----                               | 011I-01 / TITAN340 |
| TITAN X-340 - ANALOG INSTRUMENTS & ELECTRICAL-----                 | 011I-03 / TITAN340 |
| TITAN X-340 - OPTIONS - REMOTE CHARGING POST -----                 | 011I-05 / TITAN340 |
| TITAN X-340 - OPTIONS - IGNITION BACKUP BATTERY INSTALLATION ----- | 011I-07 / TITAN340 |
| TITAN X-340 - 13" SPINNER ASSEMBLY-----                            | 011J-01 / TITAN340 |
| TITAN X-340 - COWLING ASSEMBLY & INSTALLATION-----                 | 011K-01 / TITAN340 |
| TITAN X-340 - OIL CHECK DOOR INSTALLATION-----                     | 011K-03 / TITAN340 |
| TITAN X-340 - WHIRLWIND PROPELLER INSTALLATION-----                | 011L-01 / TITAN340 |

\* REFER TO BOOT COWL ASSEMBLY FOR FIREWALL ASSEMBLY.

**\*\* REFER TO TRIKE - NOSE GEAR INSTALL**

NOT ALL BOLTS SHOWN FOR CLARITY



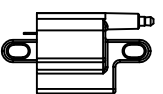
# RRM-8 S-21 OUTBOUND TITAN X-340 ENGINE MOUNT INSTALLATION

# RANS S-21 OUTBOUND

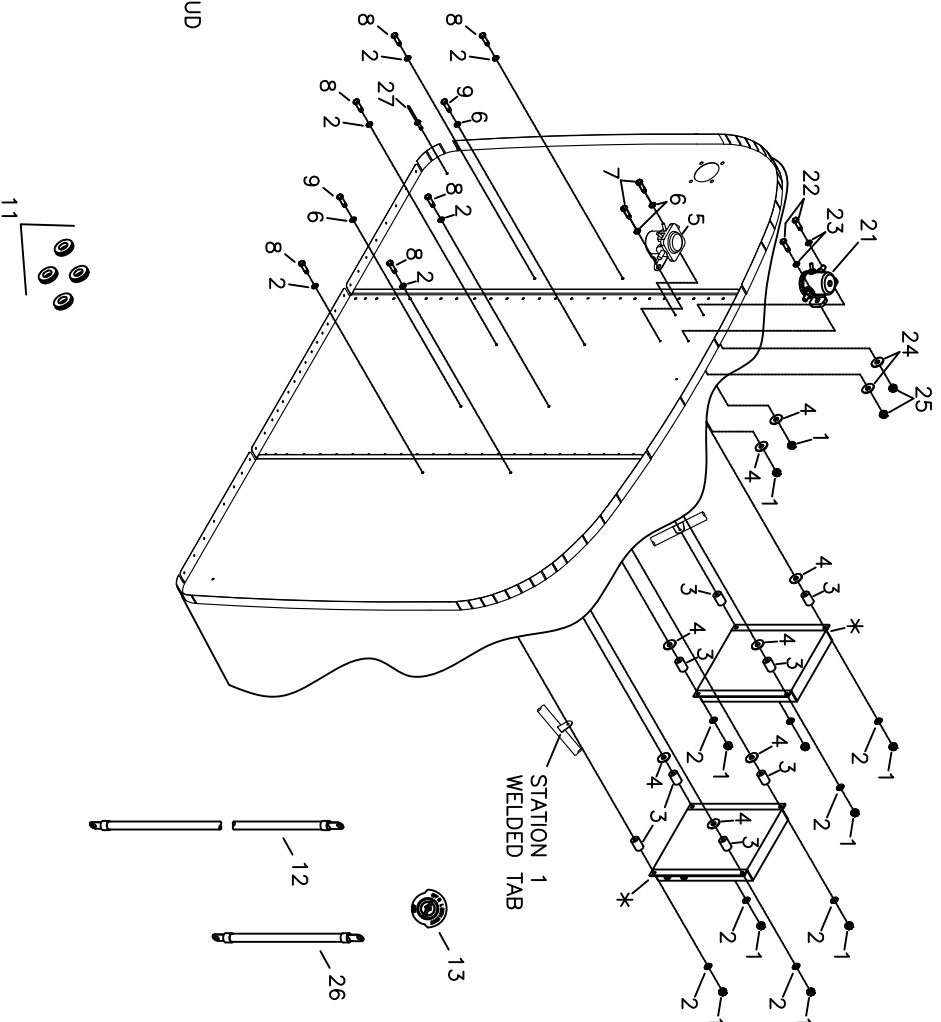
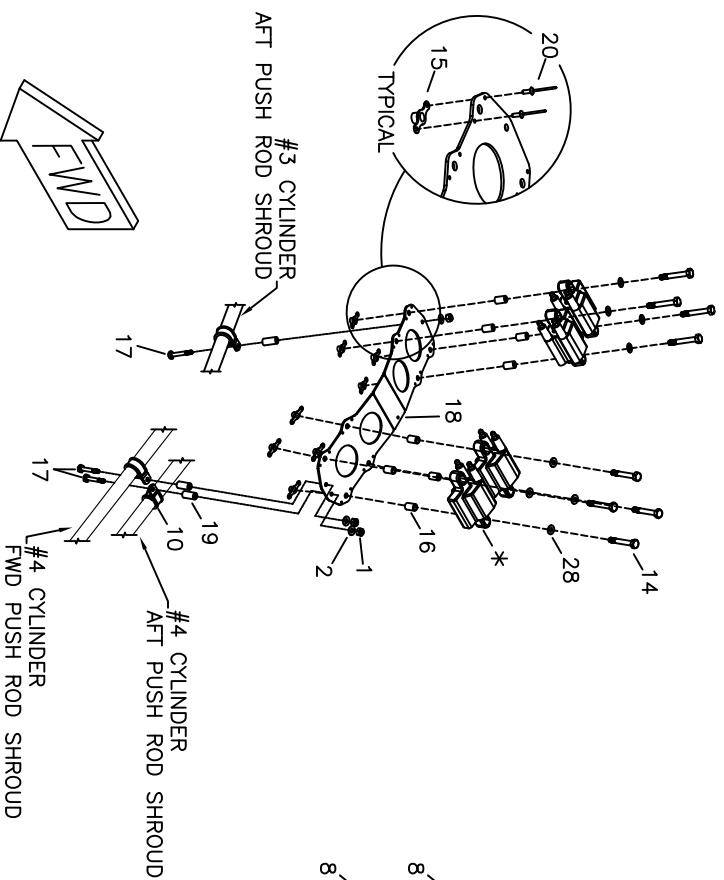
PAGE 011-02 / TITAN340

## TITAN X-340 - ENGINE MOUNT INSTALLATION

| #   | DESCRIPTION                     | PART NUMBER  | QUANTITY |
|-----|---------------------------------|--------------|----------|
| 1.  | 5/16" Bolt                      | AN5-37A      | 2        |
| 2.  | 5/16" Thick Washer              | AN960-516    | 7        |
| 3.  | 5/16" Tensile Nut               | AN365-524A   | 4        |
| 4.  | Engine Mount Spacer             | KPAC0273     | 2        |
| 5.  | Engine Mount (TAILDRAGGER ONLY) | KAPW0072     | 1        |
| 6.  | Rubber Engine Mount             | KSPW0097     | 4        |
| 7.  | 7/16" Bolt                      | AN7-35A      | 4        |
| 8.  | 7/16" Thick Washer              | AN960-716    | 8        |
| 9.  | 7/16" Tensile Nut - Steel       | MS20365-720C | 4        |
| 10. | 5/16" Bolt                      | AN5-34A      | 2        |
| 11. | Engine Mount (TRIKE ONLY)       | KAPW0074     | 1        |
| 12. | Engine Ground Cable             | KAES0023     | 1        |
| 13. | 1/4" Bolt                       | AN4-7A       | 1        |
| 14. | 1/4" Thin Washer                | AN960-416L   | 1        |
| 15. | 1/4" Shear Nut                  | AN364-428C   | 1        |



# MOUNTING SYSTEM FOR CENTER LINE MOUNT IGNITION COILS ONLY



SOME DUPLICATED ASSEMBLY ITEMS NOT NUMBERED

\* Items provided with LIGHTSPEED Ignition System

**REDUCTION S-21 OUTBOUND**

**TITAN X-340**

**ENGINE ELECTRICAL ACCESSORY INSTALLATION**

MD5135  
REV. C

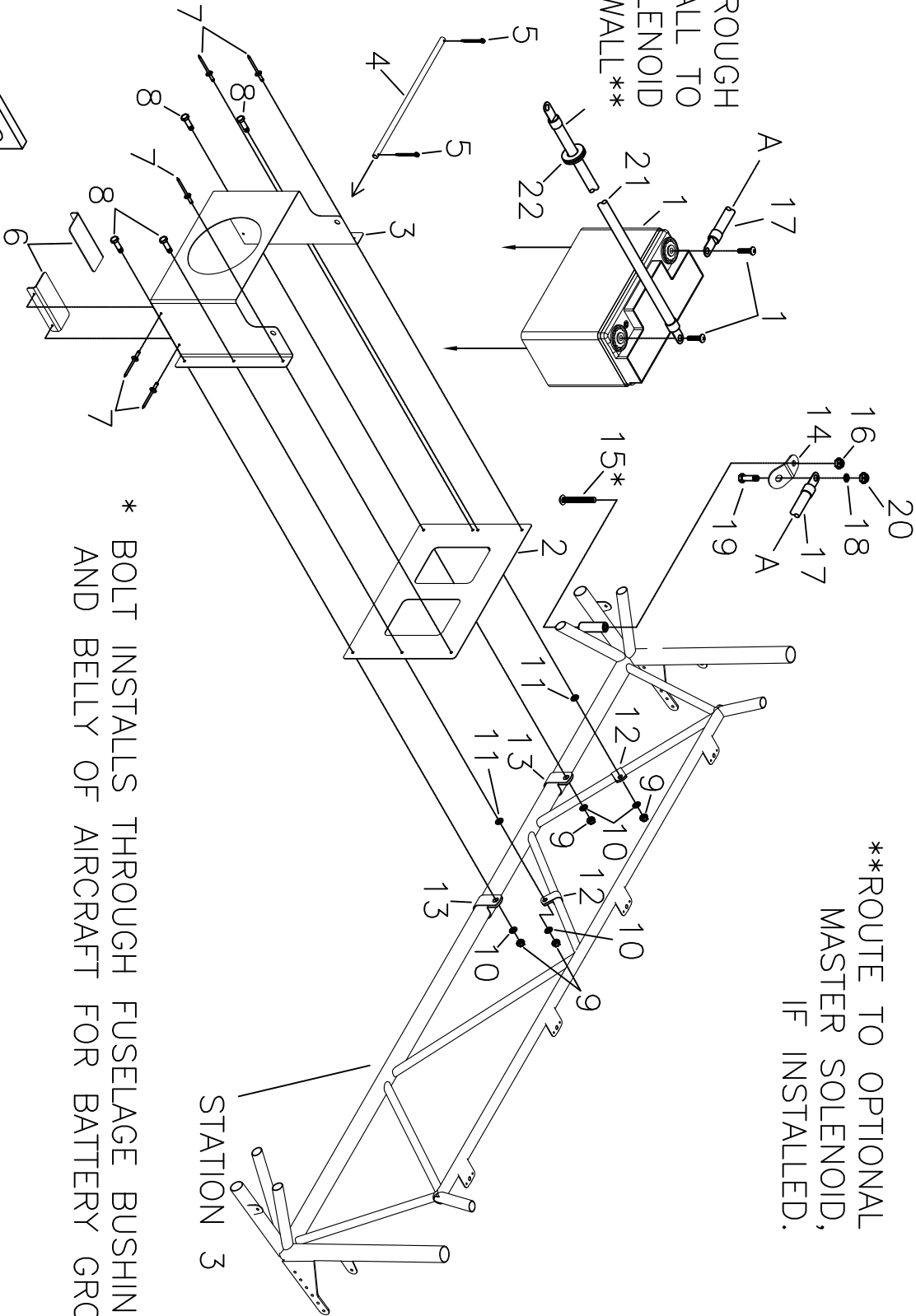
**TITAN X-340 - ENGINE ELECTRICAL ACCESSORY INSTALLATION**

| <b>#</b> | <b>DESCRIPTION</b>                         | <b>PART NUMBER</b> | <b>QUANTITY</b> |
|----------|--------------------------------------------|--------------------|-----------------|
| 1.       | 3/16" Shear Nut                            | AN364-1032A        | 13              |
| 2.       | 3/16" Thin Washer                          | AN960-10L          | 17              |
| 3.       | Aluminum Bushing - 3/8" x .095" x .50" *   | KPST0132           | 1               |
| 4.       | 3/16" Large Washer                         | AN970-3            | 8               |
| 5.       | Starter Solenoid                           | KSPW0040           | 1               |
| 6.       | 3/16" Thick Washer                         | AN960-10           | 4               |
| 7.       | 3/16" Bolt                                 | AN3-4A             | 2               |
| 8.       | 3/16" Bolt                                 | AN3-10A            | 6               |
| 9.       | 3/16" Bolt                                 | AN3-7A             | 2               |
| 10.      | 3/4" Cushion Clamp                         | MS21919-DG12       | 3               |
| 11.      | 3/16" Rubber Grommet                       | KSAC0002           | 4               |
| 12.      | Solenoid / Starter Cable                   | KAES0025           | 1               |
| 13.      | Switch - Ignition                          | KSES0027           | 1               |
| 14.      | 1/4" Bolt                                  | AN4-16A            | 8               |
| 15.      | 1/4" Nut Plate                             | MS21047-4          | 8               |
| 16.      | Aluminum Bushing - 3/8" x .058" x .60" *   | KAAC0044-3         | 1               |
| 17.      | 3/16" Bolt                                 | AN3-12A            | 3               |
| 18.      | Ignition Coil Mount Plate                  | KPPW0376           | 1               |
| 19.      | Aluminum Bushing - 3/8" x .095" x .8125" * | KPST0132           | 0               |
| 20.      | 3/32" Aluminum Rivet                       | 40APR1/8           | 16              |
| 21.      | Master Solenoid                            | KSPW0140           | 1               |
| 22.      | 3/16" Bolt                                 | AN3-4A             | 2               |
| 23.      | 3/16" Thick Washer                         | AN960-10           | 2               |
| 24.      | 3/16" Large Washer                         | AN970-3            | 2               |
| 25.      | 3/16" Shear Nut                            | AN364-1032A        | 2               |
| 26.      | Master / Starter Solenoid Cable            | KAES0029           | 1               |
| 27.      | 1/8" Stainless Steel Rivet - Cherry Q      | CCPQ-41            | 1               |
| 28.      | 1/4" Thick Washer                          | AN960-416          | 8               |

\* Builder Modifies

\*\*ROUTE TO OPTIONAL  
MASTER SOLENOID,  
IF INSTALLED.

ROUTE THROUGH  
FIREWALL TO  
STARTER SOLENOID  
ON FIREWALL\*\*



MD5599  
REV. - ORIG

**REVISION S-21 OUTBOUND**  
**TITAN X-340**  
**BATTERY BOX ASSEMBLY AND INSTALLATION**

# RANS S-21 OUTBOUND

PAGE 011A-04 / TITAN340

## TITAN X-340 - BATTERY BOX ASSEMBLY & INSTALLATION

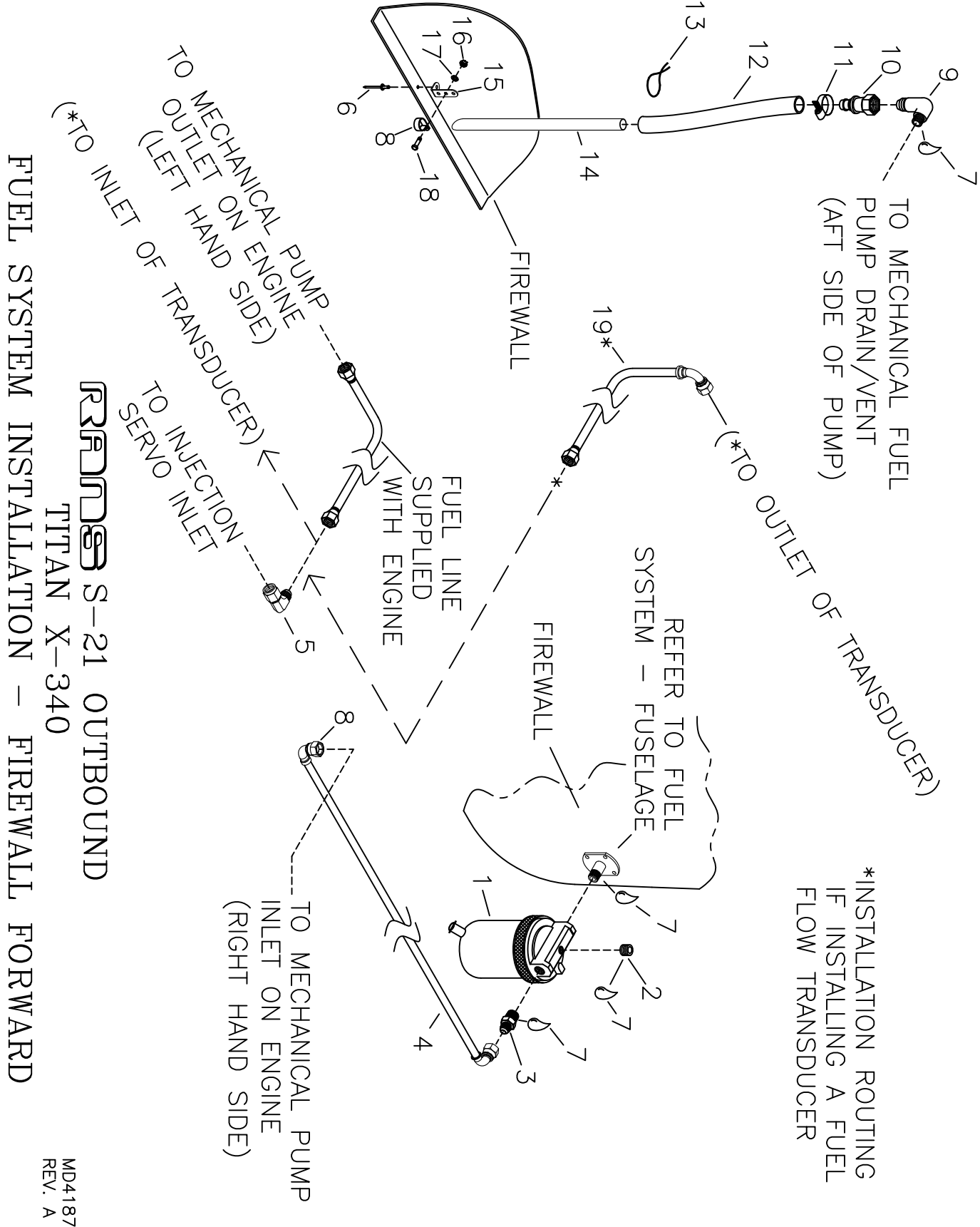
| #   | DESCRIPTION                           | PART NUMBER     | QUANTITY |
|-----|---------------------------------------|-----------------|----------|
| 1.  | Battery - Odyssey PC-545MJ *          | KSPW0103        | 0        |
| 2.  | Battery Mount Plate                   | KPES0038        | 1        |
| 3.  | Battery Box Front Plate               | KPES0037        | 1        |
| 4.  | Battery Bar **                        | BAT-BAR-503/582 | 1        |
| 5.  | Small Cotter Pin                      | MS24665-134     | 2        |
| 6.  | Battery Box Support Angle             | BAT-BOX-3       | 2        |
| 7.  | 1/8" Stainless Steel Rivet - Cherry Q | CCPQ-42         | 7        |
| 8.  | 3/16" Bolt                            | AN3-3A          | 4        |
| 9.  | 3/16" Shear Nut                       | AN364-1032A     | 4        |
| 10. | 3/16" Thin Washer                     | AN960-10L       | 4        |
| 11. | 3/16" Thick Washer                    | AN960-10        | 2        |
| 12. | 3/8" Plain Clamp                      | AN742-D6        | 2        |
| 13. | 5/8" Plain Clamp                      | AN742-D10       | 2        |
| 14. | Tang                                  | FAT-4           | 1        |
| 15. | 1/4" Pan Head Bolt                    | KSHW0113        | 1        |
| 16. | 1/4" Shear Nut - Steel                | AN364-428C      | 1        |
| 17. | Battery / Ground Cable                | KAES0028        | 1        |
| 18. | 5/16" Thick Washer                    | AN960-516       | 1        |
| 19. | 5/16" Bolt                            | AN5-5A          | 1        |
| 20. | 5/16" Shear Nut - Steel               | AN364-524C      | 1        |
| 21. | Battery / Solenoid Cable              | KAES0024        | 1        |
| 22. | 3/4" Rubber Grommet                   | MS35489-11      | 1        |

\* May be purchased separately, call RANS Parts Dept. for pricing

\*\* Builder Modifies

9/11/2018

REV. - ORIG



FUEL SYSTEM INSTALLATION - FIREWALL FORWARD

S-21 OUTBOUND  
TITAN X-340

# RANS S-21 OUTBOUND

PAGE 011B-02 / TITAN340

## TITAN X-340 - FUEL SYSTEM - FIREWALL FORWARD

| #   | DESCRIPTION                                                  | PART NUMBER   | QUANTITY |
|-----|--------------------------------------------------------------|---------------|----------|
| 1.  | Gascolator - High Pressure                                   | KSPW0109      | 1        |
| 2.  | 1/8" Pipe Plug                                               | PIPE-PLUG 1/8 | 1        |
| 3.  | Straight Fitting                                             | AN816-6D      | 1        |
| 4.  | Fuel Line Assembly - Gascolator to Pump                      | KSPW0131      | 1        |
| 5.  | 90 Degree -6 AN Swivel Fitting                               | KSFS0041      | 1        |
| 6.  | 3/16" Stainless Steel Rivet - Cherry Q                       | CCPQ-62       | 1        |
| 7.  | Thread Sealant *                                             | -----         | 0        |
| 8.  | 1/4" Plain Clamp                                             | AN742-D4      | 1        |
| 9.  | 90-degree Elbow - Flare 1/4" Tube to 1/8" NPT                | AN822-4D      | 1        |
| 10. | 1/4" Hose Fitting                                            | 30682-4-4     | 1        |
| 11. | Hose Clamp - 5/8"                                            | 5-6202        | 1        |
| 12. | Black Fuel Line - 1/4"                                       | KSFS0002      | 1 ft     |
| 13. | Safety Wire *                                                | -----         | 0        |
| 14. | Fuel Pump Drain Line, 1/4" x .028" x 5" Aluminum Tube **     | KAAC0044-2    | 1        |
| 15. | Angle Bracket                                                | KPAC0004      | 1        |
| 16. | 3/16" Shear Nut                                              | AN364-1032A   | 1        |
| 17. | 3/16" Thin Washer                                            | AN960-10L     | 1        |
| 18. | 3/16" Bolt                                                   | AN3-3A        | 1        |
| 19. | Optional - Fuel Line Assembly - Transducer to Fuel Servo *** | KSPW0132      | 0        |

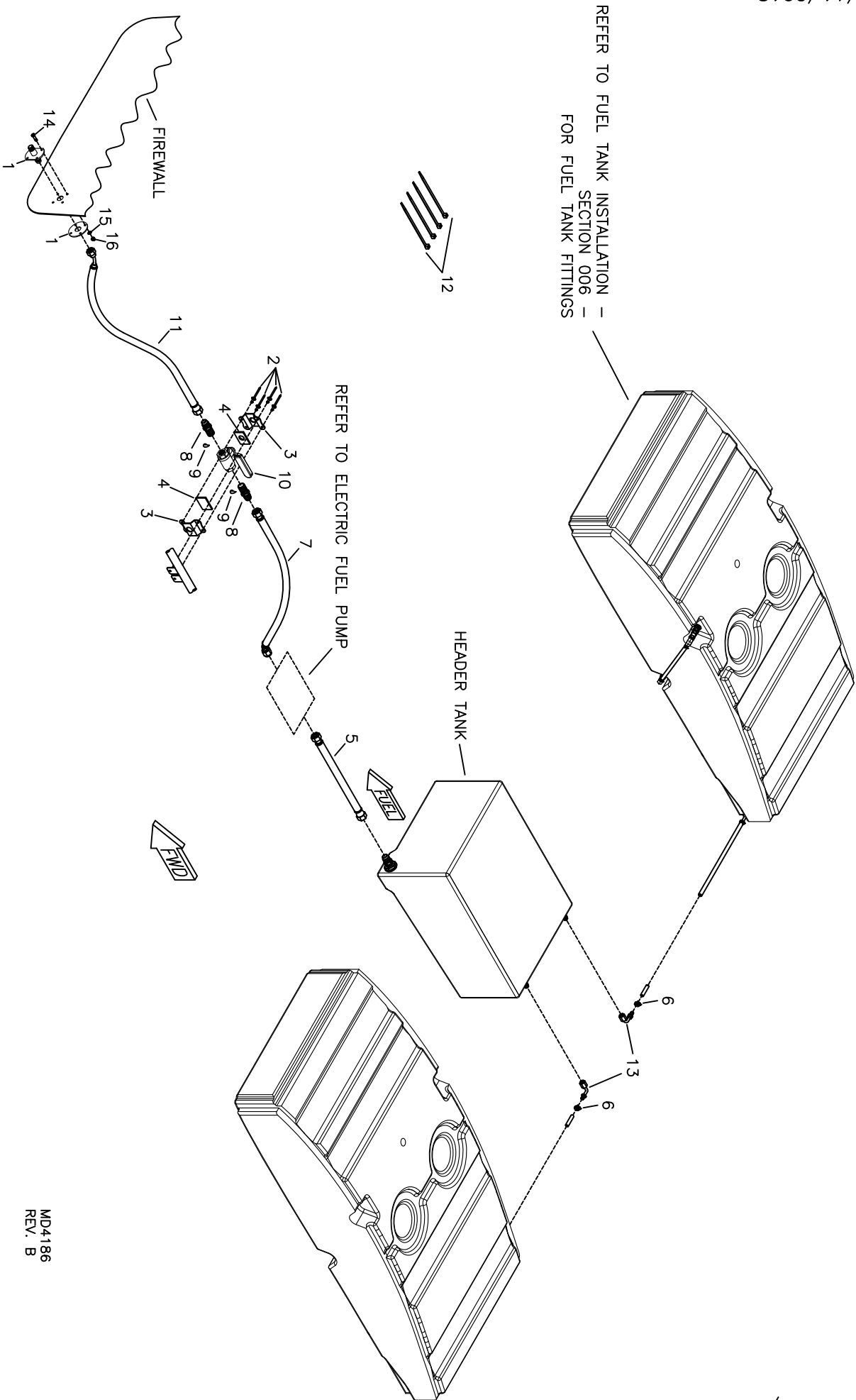
\* Builder Supplied

\*\* Builder Modifies

\*\*\* Optional for installing a Fuel Flow Transducer

9/11/2018

REV. A



TITAN S-21 OUTBOUND  
TITAN X-340  
FUEL SYSTEM - FUSELAGE

MD4186  
REV. B

# RANS S-21 OUTBOUND

PAGE 011B-04 / TITAN340

## TITAN X-340 - FUEL SYSTEM - FUSELAGE

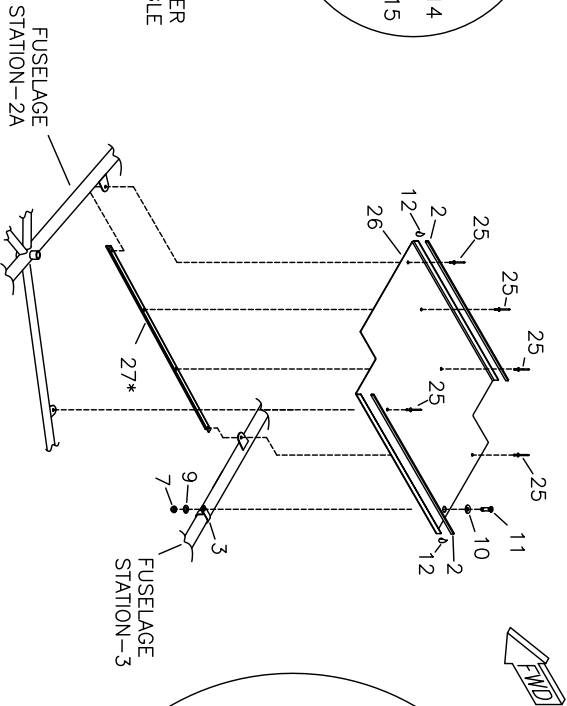
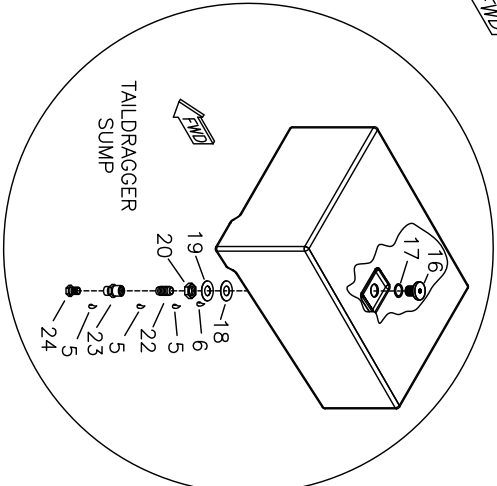
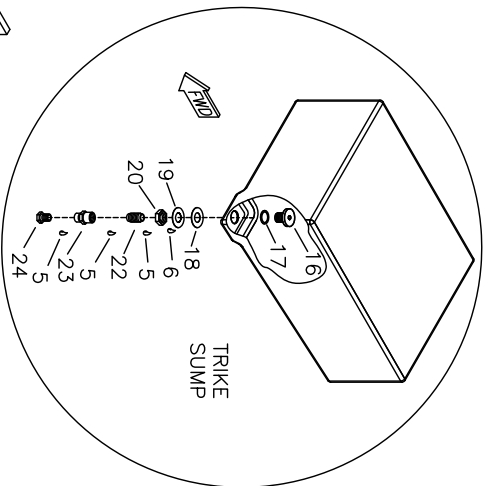
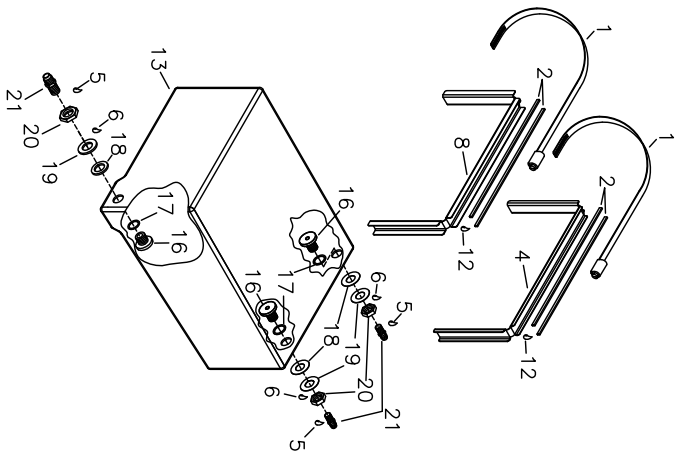
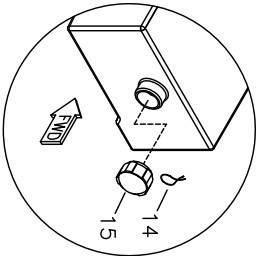
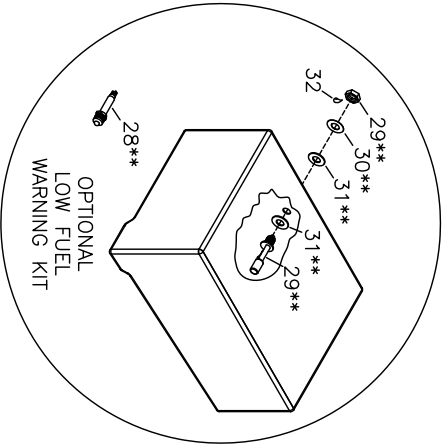
| #   | DESCRIPTION                                   | PART NUMBER | QUANTITY |
|-----|-----------------------------------------------|-------------|----------|
| 1.  | Gascolator Mount - High Pressure              | KSPW0110    | 1        |
| 2.  | 1/8" Aluminum Rivet - Cherry Q                | AAPQ-42     | 4        |
| 3.  | Fuel Valve Mount Bracket                      | KPFS0037    | 2        |
| 4.  | Fuel Valve Silicone Pad *                     | KPFS0106    | 1        |
| 5.  | Fuel Line Assembly - Header Tank to Filter    | KSPW0143    | 1        |
| 6.  | Hose Clamp - 7/8"                             | 5-6203      | 2        |
| 7.  | Fuel Line Assembly - Fuel Pump to Fuel Valve  | KSPW0144    | 1        |
| 8.  | Nipple - Flared Tube & Pipe Thread            | AN816-6D    | 2        |
| 9.  | Thread Sealant **                             | -----       | 0        |
| 10. | Fuel Valve                                    | KSFS0018    | 1        |
| 11. | Fuel Line Assembly - Fuel Valve to Gascolator | KSPW0145    | 1        |
| 12. | Plastic Tie - 7.5"                            | N-TIES      | 4        |
| 13. | 90 Degree 3/8" Hose Fitting                   | 33982-6-6   | 2        |
| 14. | 3/16" Bolt                                    | AN3-4A      | 4        |
| 15. | 3/16" Thin Washer                             | AN960-10L   | 4        |
| 16. | 3/16" Shear Nut                               | AN364-1032A | 4        |

\* Builder Modifies

\*\* Builder Supplied

9/11/2018

REV. B



\* NOTCH FUSELAGE BOTTOM SKIN STRINGER  
TO CLEAR HEADER TANK SUPPORT ANGLE  
\*\* LOW FUEL WARNING KIT IS OPTIONAL

# RRF S-21 OUTBOUND TITAN X-340 FUEL SYSTEM - HEADER TANK

# RANS S-21 OUTBOUND

PAGE 011B-06 / TITAN340

## TITAN X-340 - FUEL SYSTEM - HEADER TANK

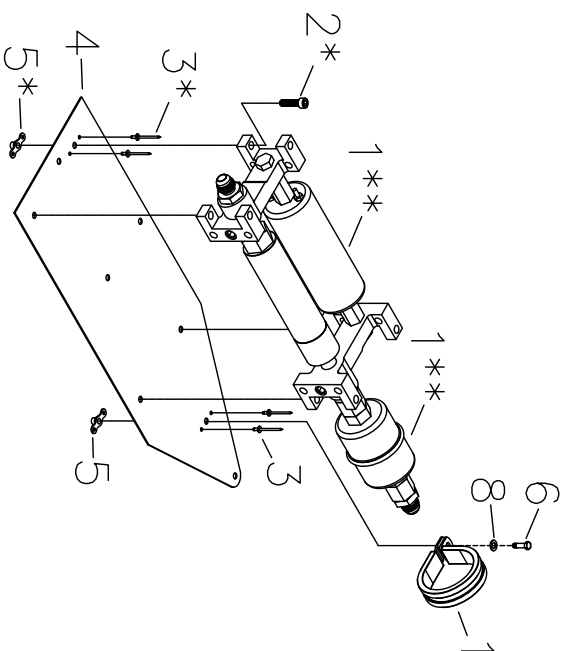
| #   | DESCRIPTION                              | PART NUMBER | QUANTITY |
|-----|------------------------------------------|-------------|----------|
| 1.  | 15" Hose Clamp                           | KSHW0100    | 2        |
| 2.  | Rubber Edging                            | 8510K11     | 7 ft     |
| 3.  | 5/8" Plain Clamp                         | AN742-D10   | 1        |
| 4.  | 6.9 Gal. Header Tank Mount Channel - AFT | KPFS0110    | 1        |
| 5.  | Thread Sealant *                         | -----       | 0        |
| 6.  | Loctite Blue *                           | -----       | 0        |
| 7.  | 3/16" Shear Nut                          | AN364-1032A | 1        |
| 8.  | 6.9 Gal. Header Tank Mount Channel - FWD | KPFS0111    | 1        |
| 9.  | 3/16" Thick Washer                       | AN960-10    | 1        |
| 10. | 3/16" Countersunk Washer                 | NAS1169-10L | 1        |
| 11. | 3/16" Countersunk Machine Screw          | MS24694-S50 | 1        |
| 12. | Adhesive - Superglue *                   | -----       | 0        |
| 13. | Header Tank - 6.9 Gal.                   | KPFS0103    | 1        |
| 14. | Safety Wire *                            | -----       | 0        |
| 15. | Fuel Cap                                 | KSFS0007    | 1        |
| 16. | 3/4" Bulkhead Fitting                    | KSFS0037    | 4        |
| 17. | O-Ring - 3/4" Bulkhead                   | KSFS0039    | 4        |
| 18. | Rubber Washer                            | KSFS0016    | 4        |
| 19. | 3/4" Thick Washer                        | AN960-1216  | 4        |
| 20. | Nut - 3/4" Bulkhead - Reverse Thread     | KSFS0038    | 4        |
| 21. | Nipple - Flared Tube & Pipe Thread       | AN816-6D    | 3        |
| 22. | Close Nipple                             | KSFS0021    | 1        |
| 23. | Reducer                                  | KSFS0022    | 1        |
| 24. | Flush Valve                              | KSFS0011    | 1        |
| 25. | 1/8" Stainless Steel Rivet - Cherry Q    | CCPQ-42     | 5        |
| 26. | 6.9 Gal. Header Tank Mount               | KPFS0109    | 1        |
| 27. | Header Tank Mount Angle                  | KPFU0758    | 1        |
| 28. | Red LED Indicator Light, 12V **          | KSES0071    | 1        |
| 29. | Low Fuel Warning Switch **               | KSES0072    | 1        |
| 30. | 5/8" Thick Washer (AN960-1016) **        | TW-5/8-W    | 1        |
| 31. | 5/8" Rubber Washer **                    | KSFS0040    | 2        |
| 32. | DOW 730 Sealant *                        | -----       | 0        |

\* Builder Supplied

\*\* KAFS0003 - Low Fuel Warning Kit is Optional

9/11/2018

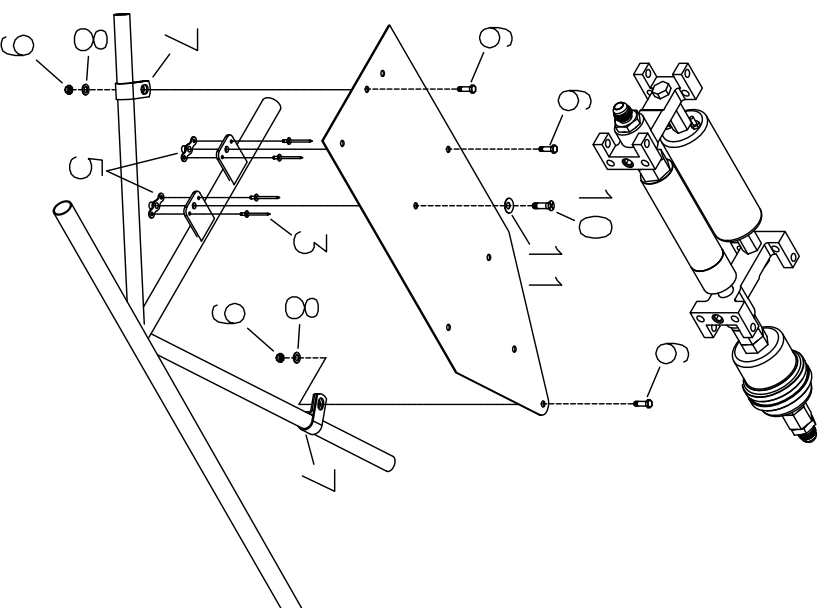
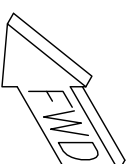
REV. - ORIG



## PUMP TO MOUNT PLATE INSTALL

\* TYPICAL FOR INSTALLING  
PUMP TO MOUNT PLATE

**\*\* PUMP ASSEMBLED IN SHORT CONFIGURATION  
PER DOCUMENTATION AT LINK BELOW.  
<https://www.flyefii.com/products/boost-pump/installation-tips/>**



MOUNT PLATE TO FUSELAGE INSTALL  
UNDER LEFT PILOT SEAT

REFUGES S-21 OUTBOUND  
TITAN X-340  
FUEL SYSTEM - ELECTRIC FUEL PUMP

# RANS S-21 OUTBOUND

PAGE 011B-08 / TITAN340

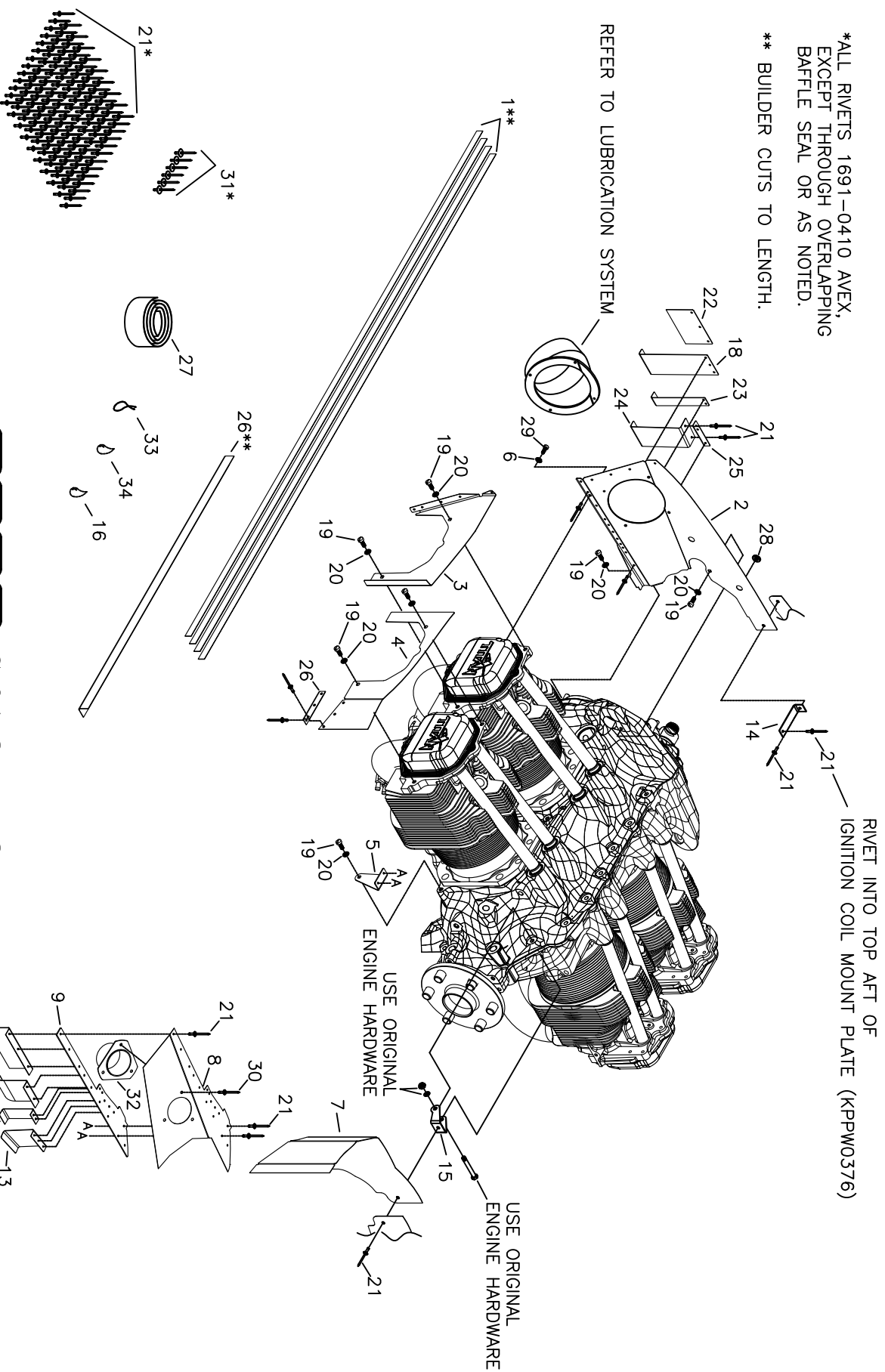
## TITAN X-340 - FUEL SYSTEM - ELECTRIC FUEL PUMP

| #   | DESCRIPTION                        | PART NUMBER | QUANTITY |
|-----|------------------------------------|-------------|----------|
| 1.  | Electric Fuel Pump - High Pressure | KSPW0104    | 1        |
| 2.  | 3/16" Socket Head Cap Screw        | KSHW0111    | 4        |
| 3.  | 3/32" Aluminum Rivet               | 40APR1/8    | 14       |
| 4.  | Fuel Pump Mounting Plate           | KPFS0116    | 1        |
| 5.  | 3/16" Nut Plate                    | K-1000-3    | 7        |
| 6.  | 3/16" Bolt                         | AN3-3A      | 4        |
| 7.  | 1/2" Non-Cushion Clamp             | AN742-D8    | 2        |
| 8.  | 3/16" Thin Washer                  | AN960-10L   | 3        |
| 9.  | 3/16" Shear Nut                    | AN364-1032A | 2        |
| 10. | 3/16" Countersunk Machine Screw    | MS24694-S50 | 1        |
| 11. | 3/16" Countersunk Washer           | NAS1169-10L | 1        |

\*ALL RIVETS 1691-0410 AVEX,  
EXCEPT THROUGH OVERLAPPING  
BAFFLE SEAL OR AS NOTED.

\*\* BUILDER CUTS TO LENGTH.

REFER TO LUBRICATION SYSTEM



RIVET INTO TOP AFT OF  
IGNITION COIL MOUNT PLATE (KPPW0376)

USE ORIGINAL  
ENGINE HARDWARE

USE ORIGINAL  
ENGINE HARDWARE

# **RRR S-21 OUTBOUND** **TITAN X-340** **BAFFLE - RIGHT INSTALLATION**

# RANS S-21 OUTBOUND

PAGE 011C-02 / TITAN340

## TITAN X-340 - BAFFLE - RIGHT INSTALLATION

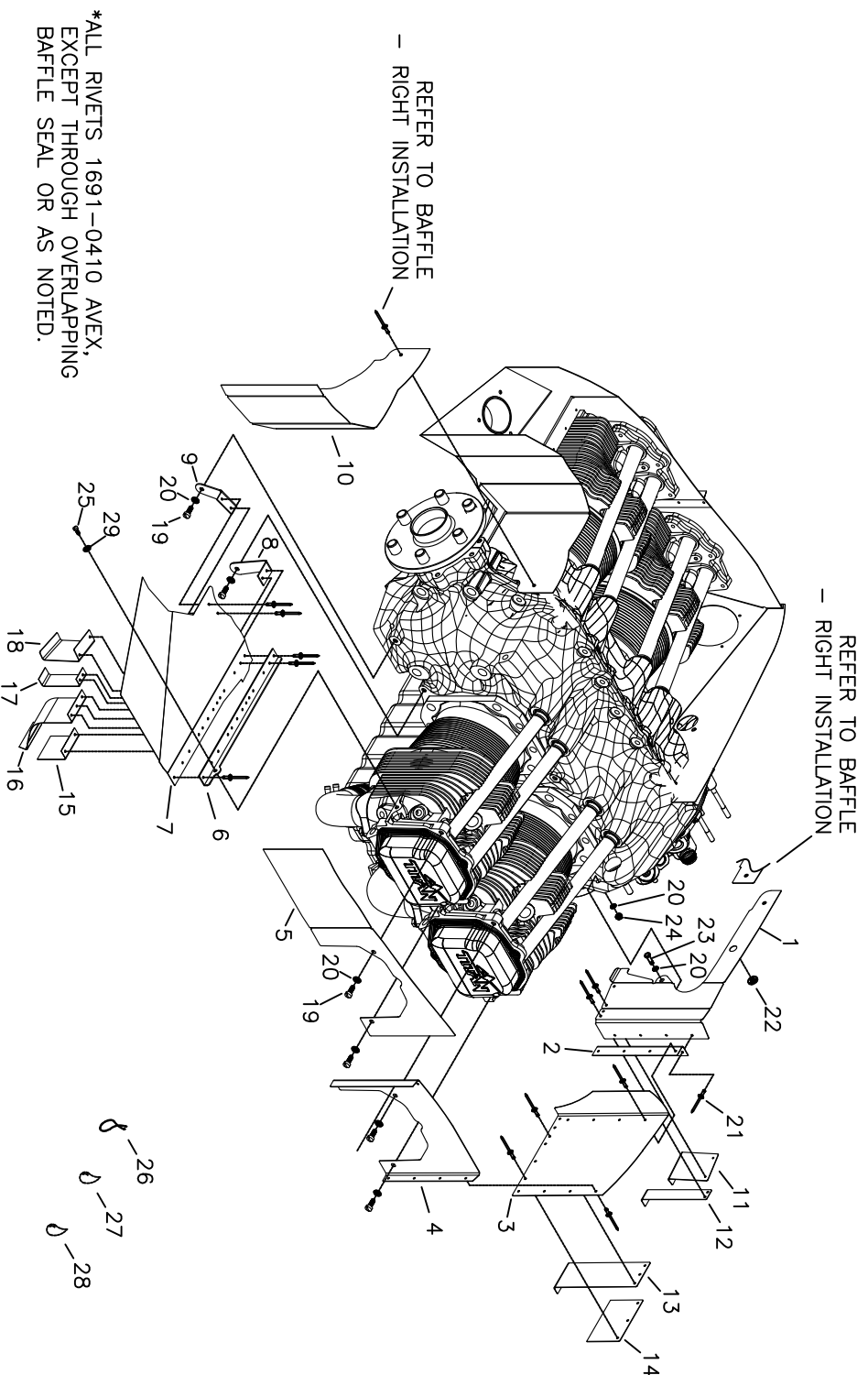
| #   | DESCRIPTION                                  | PART NUMBER  | QUANTITY |
|-----|----------------------------------------------|--------------|----------|
| 1.  | Baffle Seal Capture Strip                    | KPPW0343     | 4        |
| 2.  | Cooling Baffle - AFT - Right                 | KPPW0326-5   | 1        |
| 3.  | Cooling Baffle - Side - Right - AFT          | KPPW0326-3   | 1        |
| 4.  | Cooling Baffle - Side - Right - FWD          | KPPW0326-4   | 1        |
| 5.  | Cooling Baffle - Support Angle - Right - FWD | KPPW0326-18  | 1        |
| 6.  | #8 Loc Washer                                | KSHW0120     | 1        |
| 7.  | Cooling Baffle - FWD - Right                 | KPPW0326-12  | 1        |
| 8.  | Cooling Baffle - Inlet Floor - Right         | KPPW0326-10  | 1        |
| 9.  | Cooling Baffle - Inlet Floor - Reinforcement | KPPW0326-9   | 1        |
| 10. | Cooling Baffle - Outer Cylinder Plate - FWD  | KPPW0326-19  | 1        |
| 11. | Cooling Baffle - Inner Cylinder Plate - FWD  | KPPW0326-20  | 1        |
| 12. | Cooling Baffle - Outer Barrel Plate - FWD    | KPPW0326-22  | 1        |
| 13. | Cooling Baffle - Inner Barrel Plate - RH     | KPPW0326-21R | 1        |
| 14. | Aft Ignition Brace *                         | KPES0036     | 1        |
| 15. | Cooling Baffle - FWD Support Bracket         | KPPW0377     | 1        |
| 16. | Silicone Seal - High Temp - Red **           | -----        | 0        |
| 17. | Cooling Baffle - Outer Barrel Plate - AFT    | KPPW0326-24  | 1        |
| 18. | Cooling Baffle - Inner Cylinder Plate - AFT  | KPPW0326-25  | 1        |
| 19. | 1/4" Course Thread Screw                     | KSHW0103     | 7        |
| 20. | 1/4" Thin Washer                             | AN960-416L   | 7        |
| 21. | 1/8" Aluminum Rivet - Avex                   | 1691-0410    | 127      |
| 22. | Cooling Baffle - Outer Cylinder Plate - AFT  | KPPW0326-31  | 1        |
| 23. | Cooling Baffle - Outer Barrel Plate - AFT    | KPPW0326-26  | 1        |
| 24. | Cooling Baffle - Inner Barrel Plate - LH     | KPPW0326-21L | 1        |
| 25. | Cooling Baffle - Inner Barrel Plate - Mount  | KPPW0326-28  | 1        |
| 26. | Inlet Support Angle *                        | KPPW0326-30  | 1        |
| 27. | Baffle Seal Material *                       | KPPW0328     | 14 ft    |
| 28. | Rubber Grommet                               | MS35489-6    | 1        |
| 29. | 8-32 Bolt                                    | KSHW0102     | 1        |
| 30. | 3/16" Aluminum Rivet - Cherry Q              | AAPQ-62      | 3        |
| 31. | Aluminum Fabric Rivet                        | ABL4-2AV     | 6        |
| 32. | Cabin Heat Inlet                             | KPPW0324     | 1        |
| 33. | Safety Wire **                               | -----        | 0        |
| 34. | Loctite Blue **                              | -----        | 0        |

\* Builder Modifies

\*\* Builder Supplied

9/11/2018

REV. C



**RR1083 S-21 OUTBOUND**  
**TITAN X-340**  
**BAFFLE - LEFT INSTALLATION**

MD5084  
REV. B

# RANS S-21 OUTBOUND

PAGE 011C-04 / TITAN340

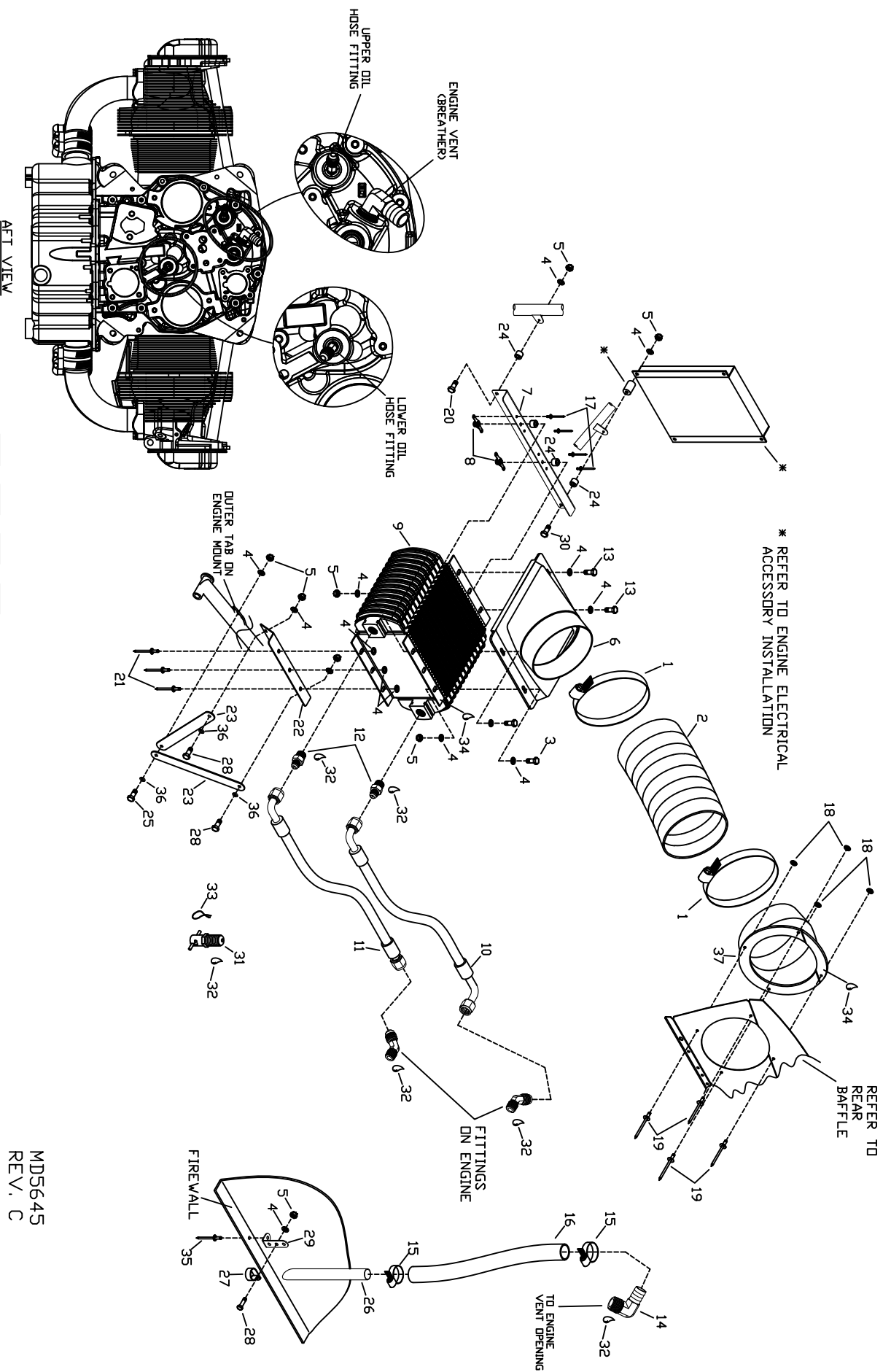
## TITAN X-340 - BAFFLE - LEFT INSTALLATION

| #   | DESCRIPTION                                 | PART NUMBER  | QUANTITY |
|-----|---------------------------------------------|--------------|----------|
| 1.  | Cooling Baffle - AFT- Inner Left            | KPPW0326-7   | 1        |
| 2.  | Cooling Baffle - AFT Support Angle          | KPPW0326-29  | 1        |
| 3.  | Cooling Baffle - AFT - Outer Left           | KPPW0326-6   | 1        |
| 4.  | Cooling Baffle - Side - Left - AFT          | KPPW0326-1   | 1        |
| 5.  | Cooling Baffle - Side - Left - FWD          | KPPW0326-2   | 1        |
| 6.  | Cooling Baffle - Support Angle - Left - FWD | KPPW0326-14  | 1        |
| 7.  | Cooling Baffle - Inlet Floor - Left         | KPPW0326-13  | 1        |
| 8.  | Cooling Baffle - Support Angle - Left - AFT | KPPW0326-15  | 1        |
| 9.  | Cooling Baffle - Support Angle - Left - FWD | KPPW0326-17  | 1        |
| 10. | Cooling Baffle - FWD - Left                 | KPPW0326-16  | 1        |
| 11. | Cooling Baffle - Inner Barrel Plate - AFT   | KPPW0326-27  | 1        |
| 12. | Cooling Baffle - Outer Barrel Plate - AFT   | KPPW0326-26  | 1        |
| 13. | Cooling Baffle - Inner Cylinder Plate - AFT | KPPW0326-25  | 1        |
| 14. | Cooling Baffle - Outer Barrel Plate - AFT   | KPPW0326-24  | 1        |
| 15. | Cooling Baffle - Outer Cylinder Plate - AFT | KPPW0326-23  | 1        |
| 16. | Cooling Baffle - Inner Cylinder Plate - FWD | KPPW0326-20  | 1        |
| 17. | Cooling Baffle - Outer Barrel Plate - FWD   | KPPW0326-22  | 1        |
| 18. | Cooling Baffle - Inner Barrel Plate - LH    | KPPW0326-21L | 1        |
| 19. | 1/4" Course Thread Screw                    | KSHW0103     | 6        |
| 20. | 1/4" Thin Washer                            | AN960-416L   | 8        |
| 21. | 1/8" Aluminum Rivet - Avex                  | 1691-0410    | 52       |
| 22. | Rubber Grommet                              | MS35489-6    | 1        |
| 23. | 1/4" Bolt                                   | AN4-6A       | 1        |
| 24. | 1/4" Shear Nut                              | AN364-428A   | 1        |
| 25. | 8-32 Bolt                                   | KSHW0102     | 1        |
| 26. | Safety Wire *                               | -----        | 0        |
| 27. | Loctite Blue *                              | -----        | 0        |
| 28. | Silicone Seal - High Temp - Red *           | -----        | 0        |
| 29. | #8 Loc Washer                               | KSHW0120     | 1        |

\* Builder Supplied

9/11/2018

REV. B



# RANCO S-21 OUTBOUND TITAN X-340 LUBRICATION SYSTEM INSTALLATION

MD5645  
REV. C

## TITAN X-340 - LUBRICATION SYSTEM ASSEMBLY & INSTALLATION

| #   | DESCRIPTION                              | PART NUMBER | QUANTITY |
|-----|------------------------------------------|-------------|----------|
| 1.  | Hose Clamp - 4 1/2"                      | 5-5264      | 2        |
| 2.  | Hose - 4"                                | KPPW0378    | 1 ft     |
| 3.  | 3/16" Bolt                               | AN3-4A      | 2        |
| 4.  | 3/16" Thin Washer                        | AN960-10L   | 15       |
| 5.  | 3/16" Shear Nut                          | AN364-1032A | 8        |
| 6.  | Oil Cooler - Lower Shroud - 4"           | KPPW0375    | 1        |
| 7.  | Oil Cooler Mount Angle                   | KPPW0325    | 1        |
| 8.  | 3/16" Nut Plate                          | K-1000-3    | 2        |
| 9.  | Oil Cooler - 13 Row                      | KSPW0141    | 1        |
| 10. | Oil Hose Assembly - Upper                | KSPW0122    | 1        |
| 11. | Oil Hose Assembly - Lower                | KSPW0123    | 1        |
| 12. | Nipple - Flared Tube & Pipe Thread       | AN816-8D    | 2        |
| 13. | 3/16" Bolt                               | AN3-7A      | 2        |
| 14. | 5/8" Hose x 1/2" Male NPT 90° Elbow Barb | KSPW0098    | 1        |
| 15. | Hose Clamp - 1"                          | 5-5210      | 2        |
| 16. | Oil Line - 5/8"                          | KSPW0117    | 2 ft     |
| 17. | 3/32" Aluminum Rivet                     | 40APR1/8    | 4        |
| 18. | 1/8" Small Brass Washer                  | AN960-B4    | 4        |
| 19. | 1/8" Aluminum Rivet - Avex               | 1691-0410   | 4        |
| 20. | 3/16" Bolt                               | AN3-6A      | 1        |
| 21. | 3/16" Stainless Steel Rivet - Cherry Q   | CCPQ-64     | 3        |
| 22. | FWD Oil Cooler Support                   | KPPW0379    | 1        |
| 23. | Mount Bracket - Radiator *               | KPAC0174    | 2        |
| 24. | Spacer Bushing, 3/8" x .095" x .30" *    | KPAC0060    | 1        |
| 25. | 3/16" Bolt                               | AN3-5A      | 1        |
| 26. | Engine Breather Vent Tube                | KPPW0332    | 1        |
| 27. | 5/8" Plain Clamp                         | AN742-D10   | 1        |
| 28. | 3/16" Bolt                               | AN3-3A      | 3        |
| 29. | Angle Bracket                            | KPAC0004    | 1        |
| 30. | 3/16" Bolt                               | AN3-13A     | 1        |
| 31. | Oil Drain Valve                          | KSPW0114    | 1        |
| 32. | Thread Sealant **                        | -----       | 0        |
| 33. | Safety Wire **                           | -----       | 0        |
| 34. | Silicone Seal - High Temp - Red **       | -----       | 0        |
| 35. | 3/16" Stainless Steel Rivet - Cherry Q   | CCPQ-62     | 1        |
| 36. | Spacer Bushing, 1/4" x .028" x .125" *   | KAAC0044-2  | 0        |
| 37. | Oil Cooler - Upper Duct - 4"             | KPPW0373    | 1        |

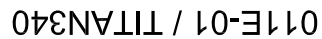
\* Builder Modifies

\*\* Builder Supplied

9/11/2018

REV. C

DUPPLICATED PARTS FOR LEFT AND RIGHT ASSEMBLIES NOT CALLED OUT INDIVIDUALLY.



# RANS S-21 OUTBOUND

PAGE 011E-02 / TITAN340

## TITAN X-340 - CROSS-OVER EXHAUST ASSEMBLY

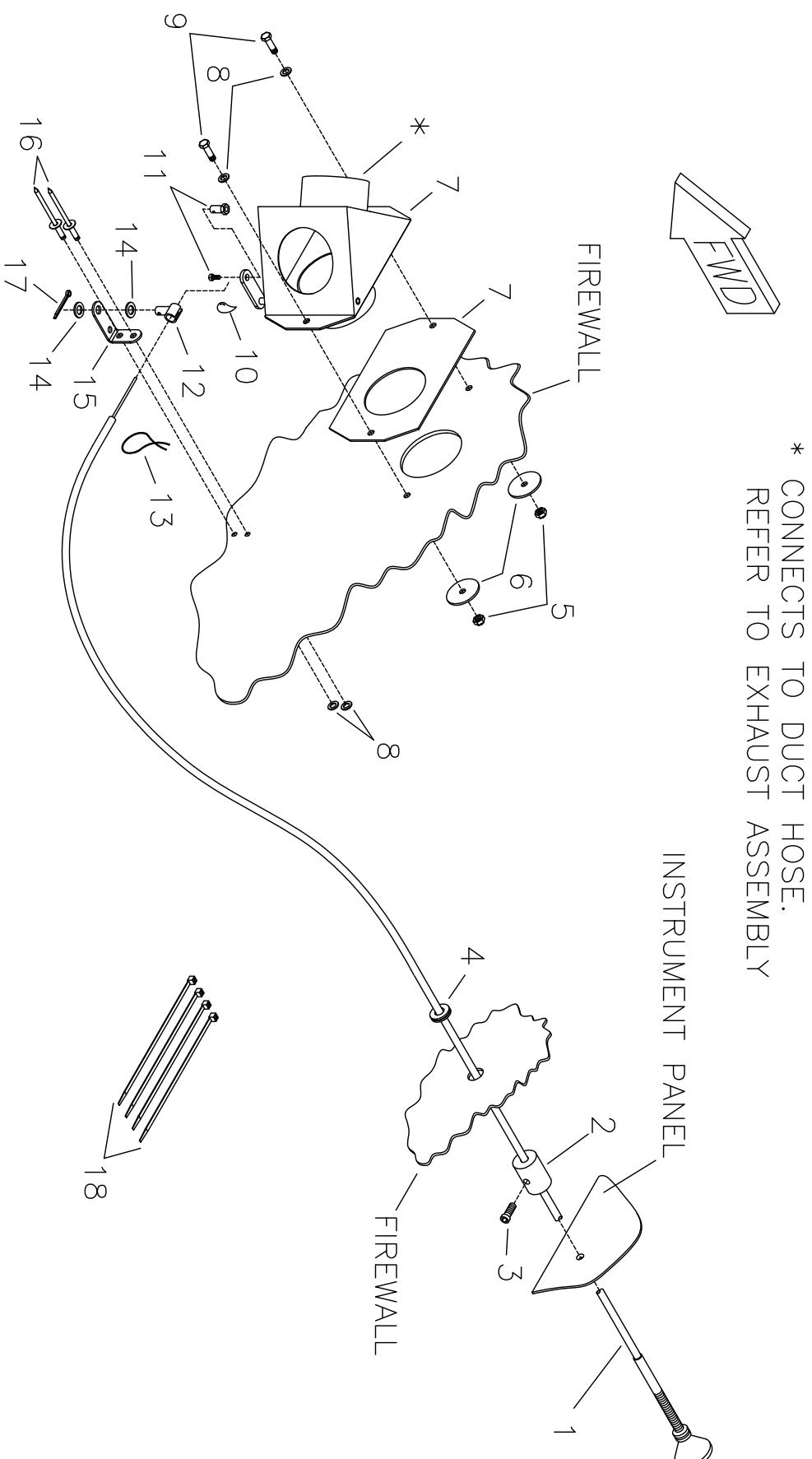
KSEX0017

| #  | DESCRIPTION                                         | PART NUMBER | QUANTITY |
|----|-----------------------------------------------------|-------------|----------|
| 1. | Titan X-340 Cross-over Exhaust Assembly (Complete)  | KSEX0017    | 1        |
| 2. | Tailpipe Support System Kit *                       | KSEX0017-1  | 0        |
| 3. | Gasket Installation Kit *                           | KSEX0017-2  | 0        |
| 4. | Crossover Exhaust System , Cylinders 1,2,3,4 *      | KSEX0017-3  | 0        |
| 5. | Right Muffler with Cabin Heat Shroud and Tailpipe * | KSEX0017-4  | 0        |
| 6. | Left Muffler and Tailpipe *                         | KSEX0017-5  | 0        |
| 7. | Ball Joint Hardware Kit *                           | KSEX0017-6  | 0        |
| 8. | 2" Duct Hose                                        | KPSY0046    | 6 ft     |
| 9. | Hose Clamp - 2 1/4"                                 | 5-5228      | 4        |

\* Supplied with KSEX017, may be purchased separately from RANS Parts Dept

9/11/2018

REV. A



**REDIRECT S-21 OUTBOUND  
TITAN X-340  
CABIN HEATER INSTALLATION**

MD5596  
REV. - ORIG

# RANS S-21 OUTBOUND

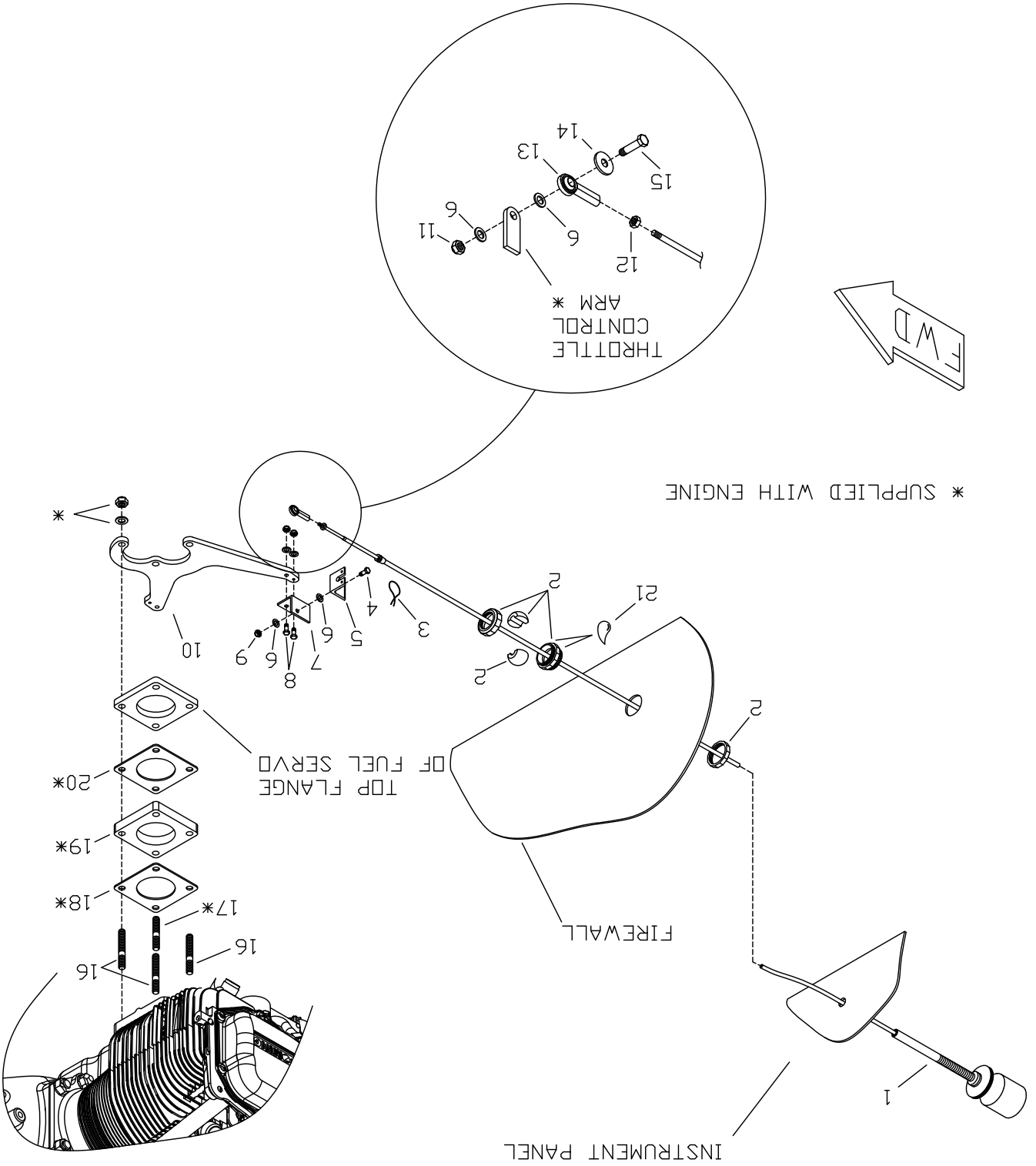
PAGE 011E-04 / TITAN340

## TITAN X-340 - CABIN HEATER INSTALLATION

| #   | DESCRIPTION                            | PART NUMBER | QUANTITY |
|-----|----------------------------------------|-------------|----------|
| 1.  | Control Cable                          | 4-336       | 1        |
| 2.  | Cable Friction Block                   | T-STOP      | 1        |
| 3.  | Socket Head Cap Screw                  | T-SC        | 1        |
| 4.  | 3/16" Rubber Grommet                   | KSAC0002    | 1        |
| 5.  | 3/16" Shear Nut                        | AN364-1032A | 2        |
| 6.  | 3/16" Large Washer                     | AN970-3     | 2        |
| 7.  | Heater Tri-Box                         | KSSY0005    | 1        |
| 8.  | 3/16" Thin Washer                      | AN960-10L   | 4        |
| 9.  | 3/16" Bolt                             | AN3-3A      | 2        |
| 10. | Loctite Blue *                         | -----       | 0        |
| 11. | Cable Swivel Stop & Screw              | 2361        | 1        |
| 12. | Cable Housing Swivel Stop              | KPBS0009    | 1        |
| 13. | Safety Wire *                          | -----       | 0        |
| 14. | 1/4" Thick Washer                      | AN960-416   | 2        |
| 15. | Cable Housing Swivel Stop Bracket      | KPBS0010    | 1        |
| 16. | 3/16" Stainless Steel Rivet - Cherry Q | CCPQ-62     | 2        |
| 17. | Small Cotter Pin                       | MS24665-134 | 1        |
| 18. | Plastic Tie - 7.5"                     | N-TIES      | 4        |

\* Builder Supplied

9/11/2018  
REV. - ORIG



# RPN S-21 OUTBOUND TITAN X-340 THROTTLE ASSEMBLY

MDS645  
REV. A

# RANS S-21 OUTBOUND

## TITAN X-340 - THROTTLE ASSEMBLY

PAGE 011F-02 / TITAN340

| #   | DESCRIPTION                         | PART NUMBER | QUANTITY |
|-----|-------------------------------------|-------------|----------|
| 1.  | Throttle Control Cable              | KSCS0028    | 1        |
| 2.  | Eyeball Firewall Fitting            | KSHW0118    | 1        |
| 3.  | Safety Wire *                       | -----       | 0        |
| 4.  | 3/16" Bolt                          | AN3-4A      | 1        |
| 5.  | Teleflex Retainer                   | W-TEL-R     | 1        |
| 6.  | 3/16" Thin Washer                   | AN960-10L   | 6        |
| 7.  | Retainer Angle - 1" x 1" x 1.25" ** | KPPW0341    | 1        |
| 8.  | 3/16" Bolt                          | AN3-5A      | 2        |
| 9.  | 3/16" Shear Nut                     | AN364-1032A | 3        |
| 10. | Throttle / Mixture Control Mount    | KPPW0340    | 1        |
| 11. | 3/16" Shear Nut - Steel             | AN364-1032C | 1        |
| 12. | 3/16" Plain Nut                     | AN345-10    | 1        |
| 13. | Female Rod End                      | NF-3        | 1        |
| 14. | #10 Washer - Stainless Steel        | BSHW0022    | 1        |
| 15. | 3/16" Bolt                          | AN3-7A      | 1        |
| 16. | Fuel Servo Mount Stud - Longer      | KSHW0114    | 3        |
| 17. | Fuel Servo Mount Stud - Long ***    | -----       | 0        |
| 18. | Gasket ***                          | -----       | 0        |
| 19. | Fuel Servo Spacer ***               | -----       | 0        |
| 20. | Gasket ***                          | -----       | 0        |
| 21. | Loctite Blue *                      | -----       | 0        |

\* Builder Supplied

\*\* Builder Modifies

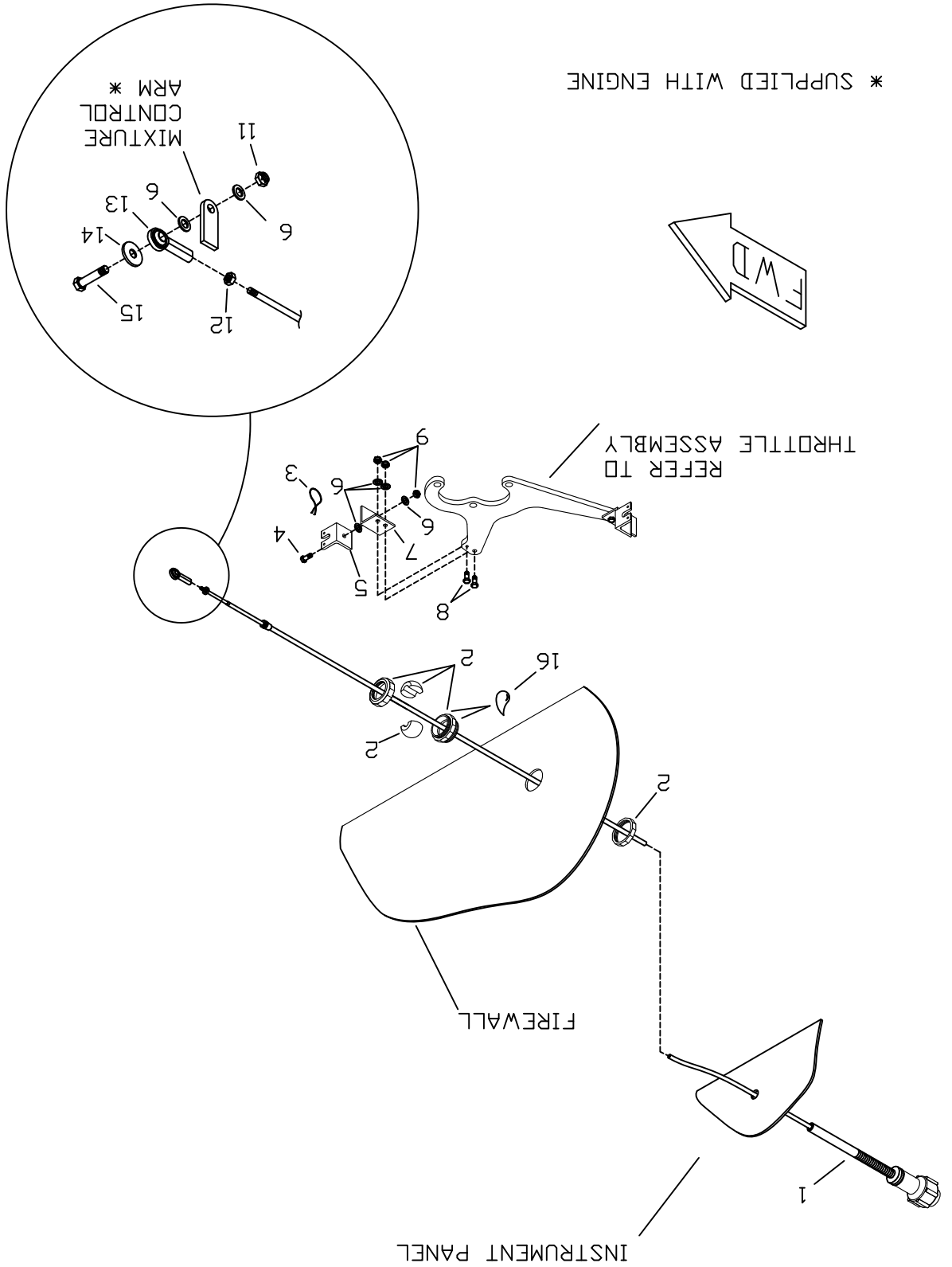
\*\*\* Supplied with Engine

9/11/2018

REV. A

# RANDS S-21 OUTBOUND TITAN X-340 MIXTURE CONTROL ASSEMBLY

MD5645  
REV. A



\* SUPPLIED WITH ENGINE

# RANS S-21 OUTBOUND

PAGE 011G-02 / TITAN340

## TITAN X-340 - MIXTURE CONTROL ASSEMBLY

| #   | DESCRIPTION                         | PART NUMBER | QUANTITY |
|-----|-------------------------------------|-------------|----------|
| 1.  | Mixture Control Cable               | KSCS0029    | 1        |
| 2.  | Eyeball Firewall Fitting            | KSHW0118    | 1        |
| 3.  | Safety Wire *                       | -----       | 0        |
| 4.  | 3/16" Bolt                          | AN3-4A      | 1        |
| 5.  | Teleflex Retainer                   | W-TEL-R     | 1        |
| 6.  | 3/16" Thin Washer                   | AN960-10L   | 6        |
| 7.  | Retainer Angle - 1" x 1" x 1.25" ** | KPPW0341    | 0        |
| 8.  | 3/16" Bolt                          | AN3-5A      | 2        |
| 9.  | 3/16" Shear Nut                     | AN364-1032A | 3        |
| 10. | 3/16" Thick Washer                  | AN960-10    | 2        |
| 11. | 3/16" Shear Nut - Steel             | AN364-1032C | 1        |
| 12. | 3/16" Plain Nut                     | AN345-10    | 1        |
| 13. | Female Rod End                      | NF-3        | 1        |
| 14. | #10 Washer - Stainless Steel        | BSHW0022    | 1        |
| 15. | 3/16" Bolt                          | AN3-7A      | 1        |
| 16. | Loctite Blue *                      | -----       | 0        |

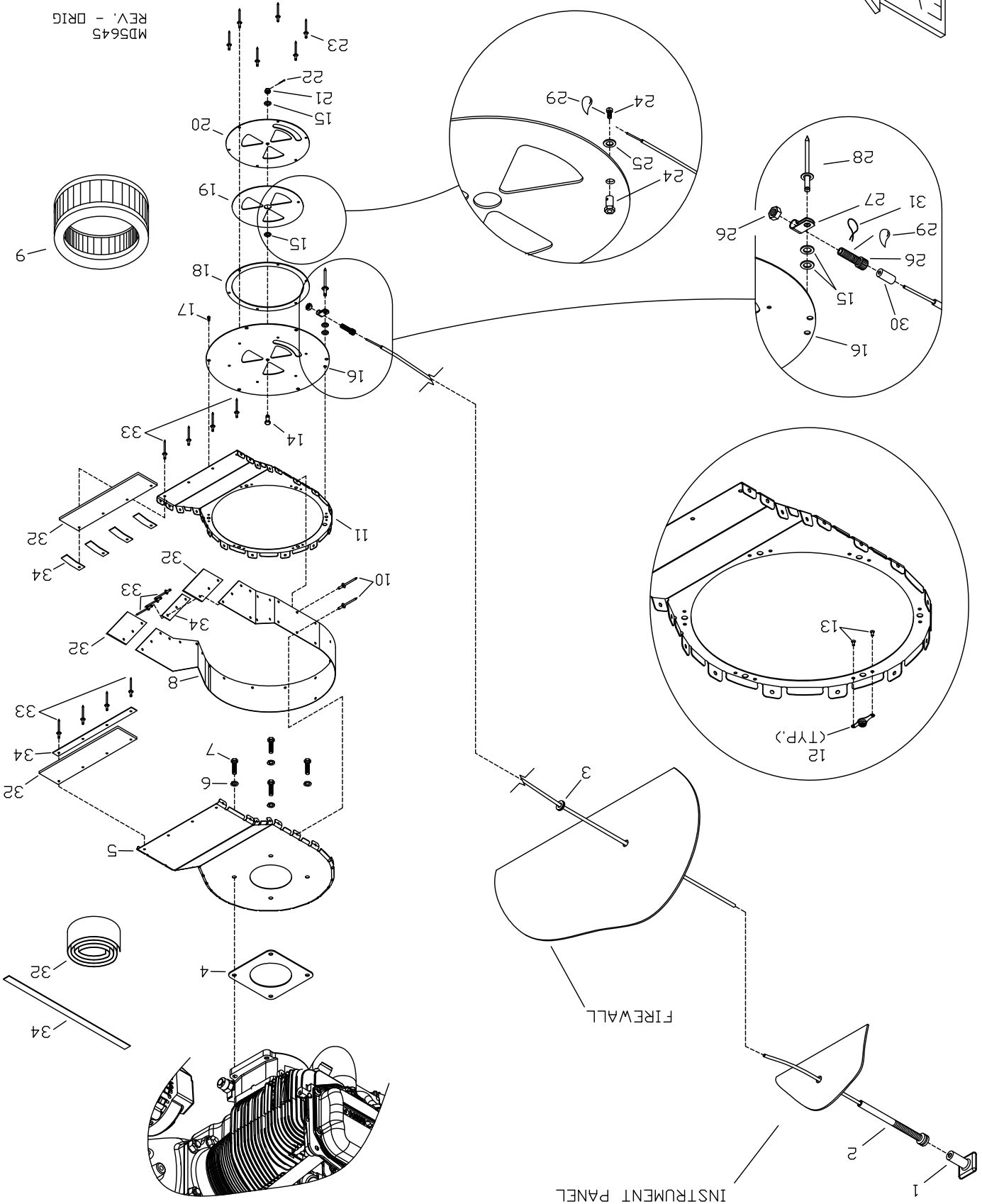
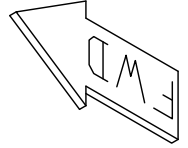
\* Builder Supplied

\*\* Builder Modifies

9/11/2018

REV. A

# RPM S-21 OUTBOUND TITAN X-340 AIRBOX ASSEMBLY



# RANS S-21 OUTBOUND

PAGE 011H-02 / TITAN340

## TITAN X-340 - AIRBOX ASSEMBLY

| #   | DESCRIPTION                             | PART NUMBER  | QUANTITY |
|-----|-----------------------------------------|--------------|----------|
| 1.  | Alternate Air Knob                      | KSCS0032     | 1        |
| 2.  | Alternate Air Control Cable Assembly    | KSCS0030     | 1        |
| 3.  | 3/16" Rubber Grommet                    | KSAC0002     | 1        |
| 4.  | Gasket *                                | -----        | 0        |
| 5.  | Airbox Top                              | KPPW0333     | 1        |
| 6.  | 1/4" Loc Washer                         | AN935-416L   | 4        |
| 7.  | 1/4" Hex Head Cap Screw - course x .75" | KSHW0069     | 4        |
| 8.  | Airbox Side                             | KPPW0337     | 1        |
| 9.  | Air Filter                              | KSPW0113     | 1        |
| 10. | 1/8" Aluminum Rivet - Cherry Q          | AAPQ-41      | 38       |
| 11. | Airbox Bottom                           | KPPW0334     | 1        |
| 12. | 8-32 Nut Plate                          | MS21047-08   | 6        |
| 13. | 3/32" Solid Rivet - Flush               | AN426AD-3-5  | 12       |
| 14. | 3/16" Bolt - Drilled Shank              | AN3-4        | 1        |
| 15. | 3/16" Thick Washer                      | AN960-10     | 4        |
| 16. | Airbox Filter Cover                     | KPPW0335     | 1        |
| 17. | 8-32 Machine Screw                      | AN526-832R6  | 6        |
| 18. | Alternate Air Spacer Ring               | KPPW0336     | 1        |
| 19. | Alternate Air Valve                     | KPPW0339     | 1        |
| 20. | Alternate Air Valve Retainer            | KPPW0338     | 1        |
| 21. | 3/16" Castle Nut                        | AN310-3      | 1        |
| 22. | Small Cotter Pin                        | MS24665-134  | 1        |
| 23. | 1/8" Aluminum Rivet - Cherry Q          | AAPQ-42      | 6        |
| 24. | Cable Swivel Stop & Screw               | 2361         | 1        |
| 25. | 1/4" Thin Washer                        | AN960-416L   | 1        |
| 26. | Adjustable Cable Ferrule                | 12553        | 1        |
| 27. | 1/4" Plain Clamp                        | AN742-D4     | 1        |
| 28. | 3/16" Aluminum Rivet - Cherry Q         | AAPQ-64      | 1        |
| 29. | Loctite Blue **                         | -----        | 0        |
| 30. | Cable Housing Endcap                    | ENDCAP-12000 | 1        |
| 31. | Safety Wire **                          | -----        | 0        |
| 32. | Baffle Seal Material ***                | KPPW0328     | 0        |
| 33. | 1/8" Aluminum Rivet - Avex              | 1691-0410    | 14       |
| 34. | Baffle Seal Capture Strip ***           | KPPW0343     | 0        |

\*Supplied with Injector Fuel Servo

\*\* Builder Supplied

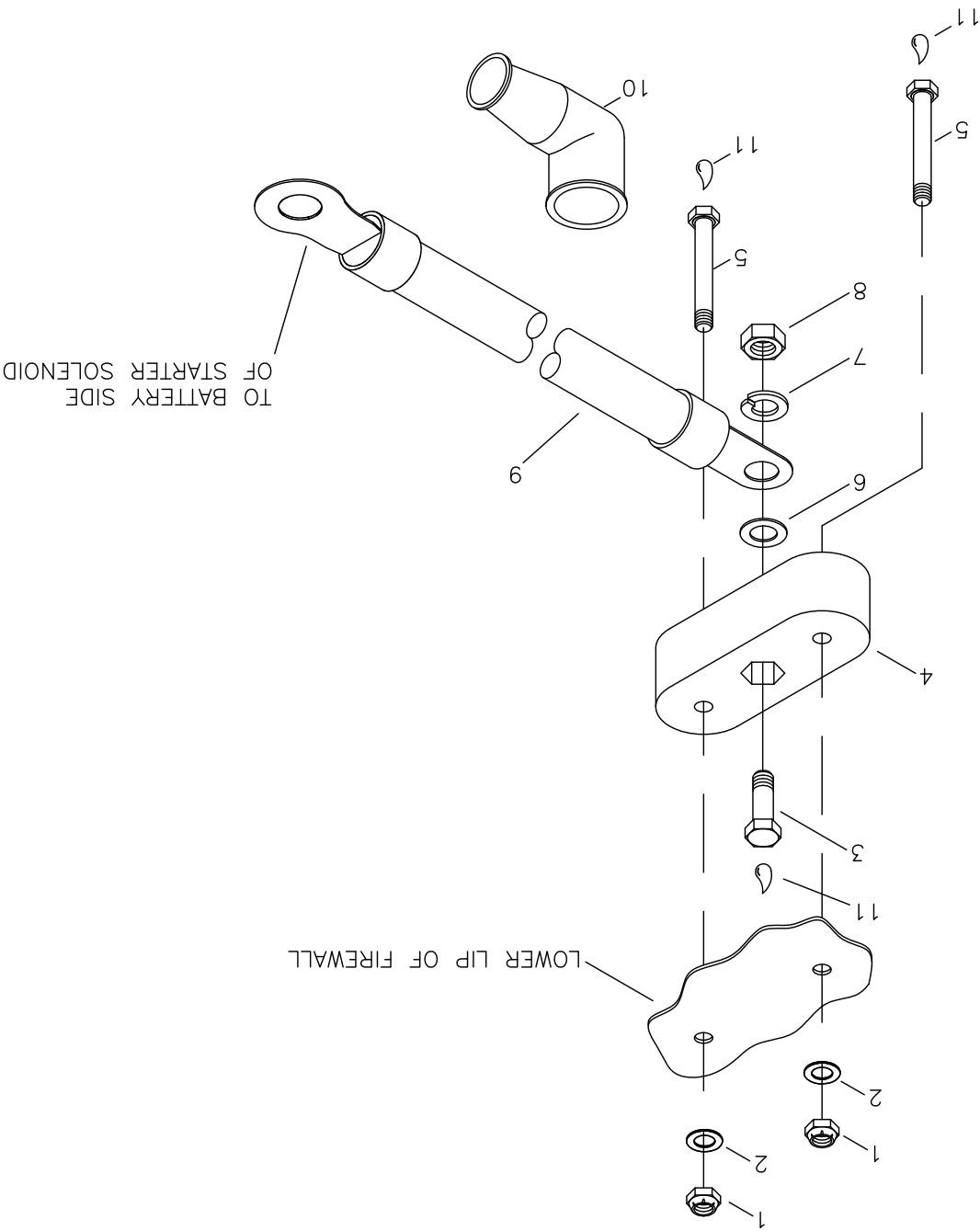
\*\*\* Builder Modifies

9/11/2018

REV. - ORIG

OPTIONS - REMOTE CHARGING POST INSTALLATION  
TITAN X-340  
RAMP S-21 OUTBOUND

MD5501  
REV. - ORIG



# RANS S-21 OUTBOUND

PAGE 011I-06 / TITAN340

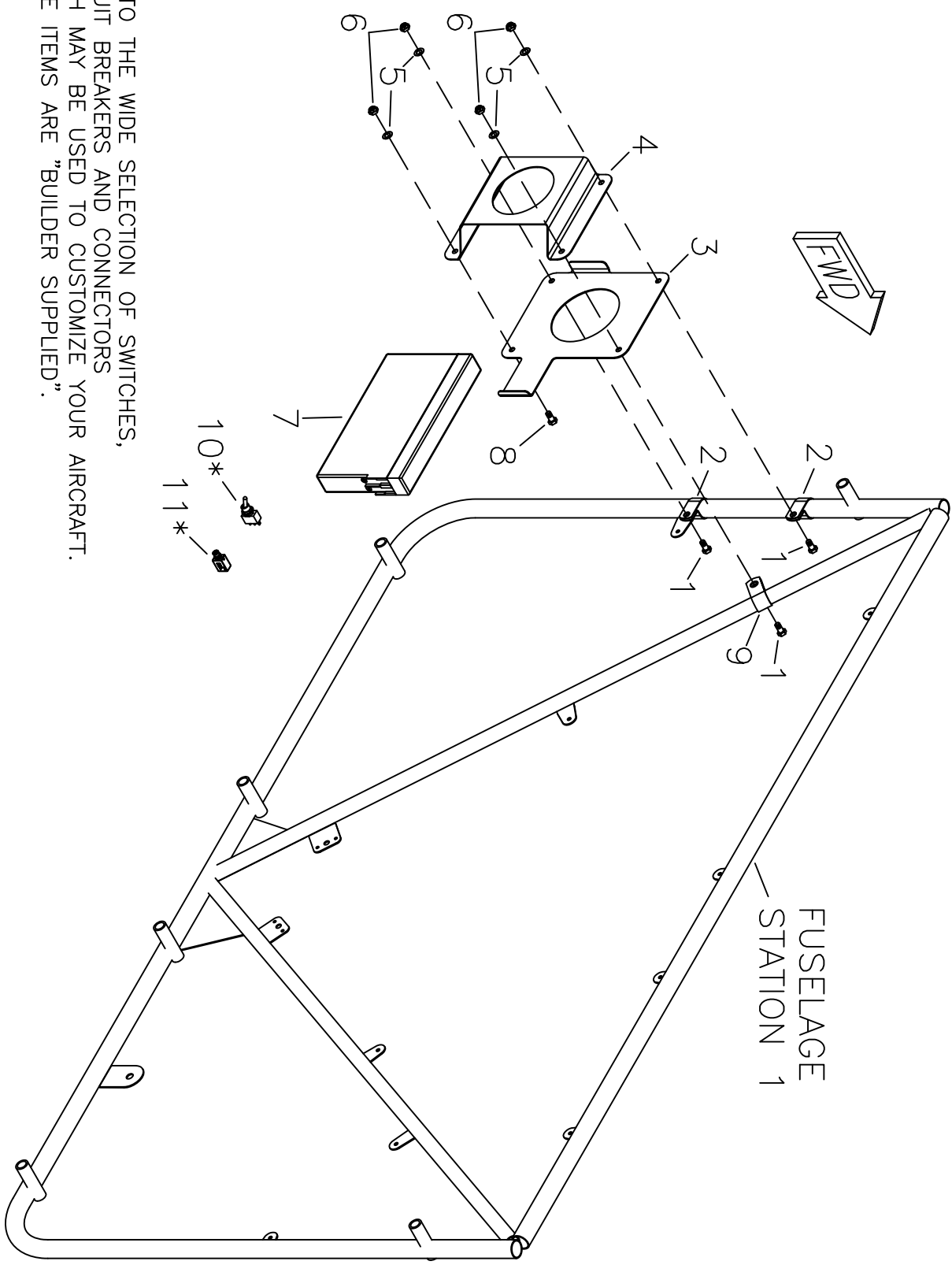
## TITAN X-340 - OPTIONS - REMOTE CHARGING POST

KPES0043

| #   | DESCRIPTION                  | PART NUMBER  | QUANTITY |
|-----|------------------------------|--------------|----------|
| 1.  | 3/16" Shear Nut -Steel       | AN364-1032C  | 2        |
| 2.  | 3/16" Thin Washer            | AN960-10L    | 2        |
| 3.  | 1/4" Plain Bolt              | 1/4 X 1 BOLT | 1        |
| 4.  | Isolator Block               | KPES0026     | 1        |
| 5.  | 3/16" Bolt                   | AN3-7A       | 2        |
| 6.  | 1/4" Thick Washer            | AN960-416    | 1        |
| 7.  | 1/4" Loc Washer              | AN935-416L   | 1        |
| 8.  | 1/4" Plain Nut               | AN345-416    | 1        |
| 9.  | Remote Battery Charger Cable | KAES0023     | 1        |
| 10. | Terminal Boot                | MS25171-3S   | 1        |
| 11. | Silicone Seal *              | -----        | 0        |

\* Builder Supplied

9/11/2018  
REV. - ORIG



**Raptor S-21 OUTBOUND**  
**TITAN X-340**

**OPTIONS - IGNITION BACKUP BATTERY INSTALLATION**

MD5501  
REV. - ORIG

# RANS S-21 OUTBOUND

PAGE 011I-08 / TITAN340

## TITAN X-340 - OPTIONS - IGNITION BACKUP BATTERY INSTALLATION

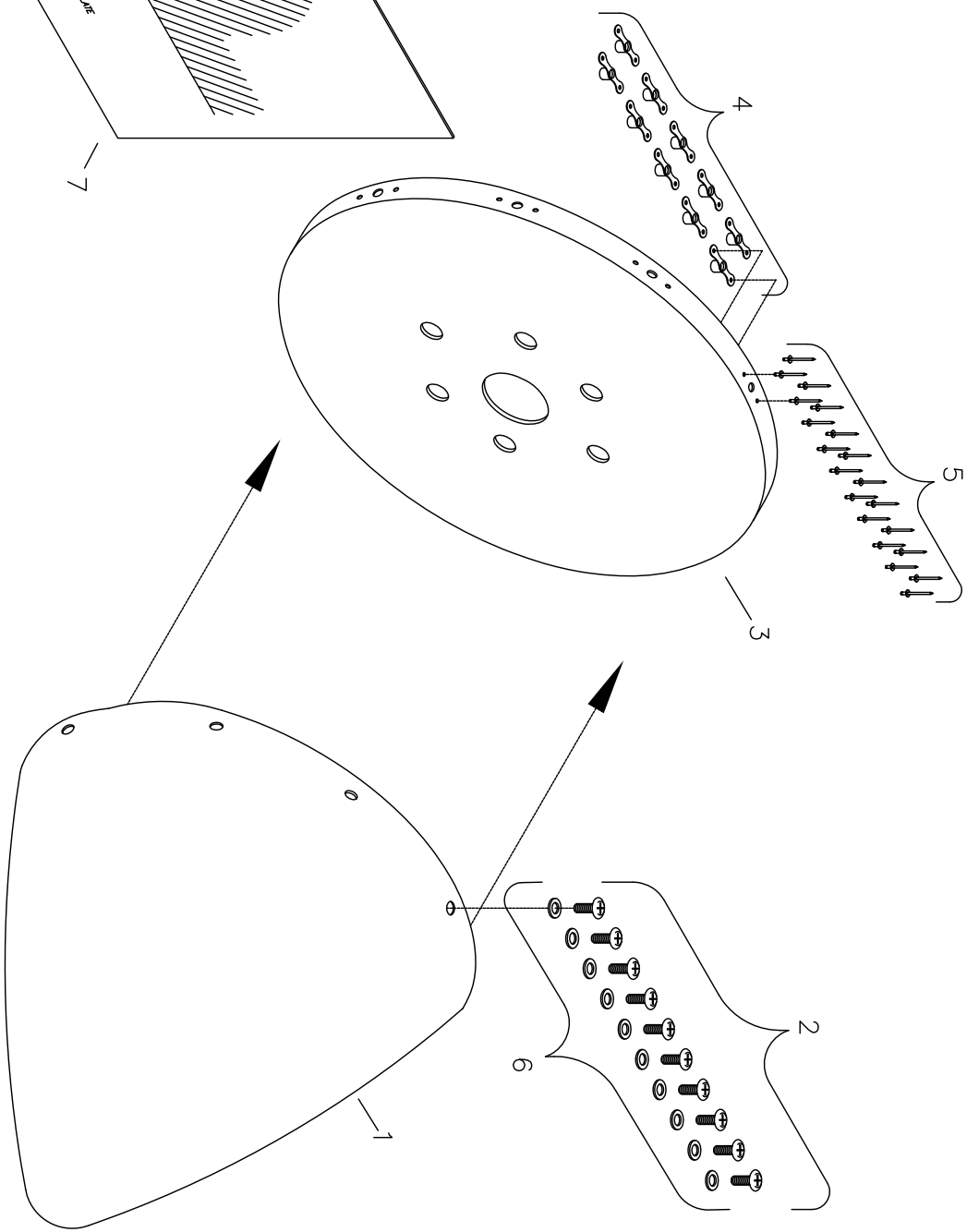
KPES0044

| #   | DESCRIPTION                | PART NUMBER | QUANTITY |
|-----|----------------------------|-------------|----------|
| 1.  | 3/16" Bolt                 | AN3-4A      | 3        |
| 2.  | 5/8" Plain Clamp           | AN742-D10   | 2        |
| 3.  | Backup Battery Mount Plate | KPES0041    | 1        |
| 4.  | Backup Battery Cover       | KPES0042    | 1        |
| 5.  | 3/16" Thick Washer         | AN960-10    | 4        |
| 6.  | 3/16" Shear Nut            | AN364-1032A | 4        |
| 7.  | Backup Battery             | KSES0078    | 1        |
| 8.  | 3/16" Bolt                 | AN3-3A      | 1        |
| 9.  | 1/2" Plain Clamp           | AN742-D8    | 1        |
| 10. | SPDT Switch (ON-ON) *      | -----       | 0        |
| 11. | 10 Amp Breaker *           | -----       | 0        |

\* Builder Supplied

9/11/2018  
REV. - ORIG

NOTE: PROP EXTENSION REQUIRED.  
REFER TO PROPELLER INSTALLATION



**REPAIR S-21 OUTBOUND  
TITAN X-340  
13" SPINNER ASSEMBLY**

# RANS S-21 OUTBOUND

PAGE 011J-02 / TITAN340

## TITAN X-340 - 13" SPINNER ASSEMBLY

KAPR0001

| #  | DESCRIPTION                         | PART NUMBER | QUANTITY |
|----|-------------------------------------|-------------|----------|
| 1. | Spinner Dome - 13"                  | KPPW0232    | 1        |
| 2. | Pan Head Phillips Bolt (5/8" long)  | KSHW0071    | 10       |
| 3. | Spinner Backing Plate - 13" (SAE#2) | KPPW0305    | 1        |
| 4. | 3/16" Nut Plate                     | K-1000-3    | 10       |
| 5. | 3/32" Aluminum Rivet                | 40APR1/4    | 20       |
| 6. | 3/16" Thin Washer                   | AN960-10L   | 10       |
| 7. | Spinner Cut-out Template *          | -----       | 0        |

\* Refer to Figures Manual for Spinner Cut-out Template

9/11/2018  
REV. - ORIG

Exploded view diagram of a cowl assembly. The diagram shows the main cowl body (1) with various mounting points and features. Callouts include: 1 (main cowl body), 2 (mounting bracket), 3 (screw), 4 (washer), 5 (nut), 6 (flange), 7\* (flange), 8\* (flange), 9 (flange), and 10 (flange). The diagram illustrates the assembly of the cowl body with the mounting bracket and the various fasteners.

MD5567  
REV. - ORIG

# RANS S-21 OUTBOUND

PAGE 011K-02 / TITAN340

## TITAN X-340 - COWLING ASSEMBLY & INSTALLATION

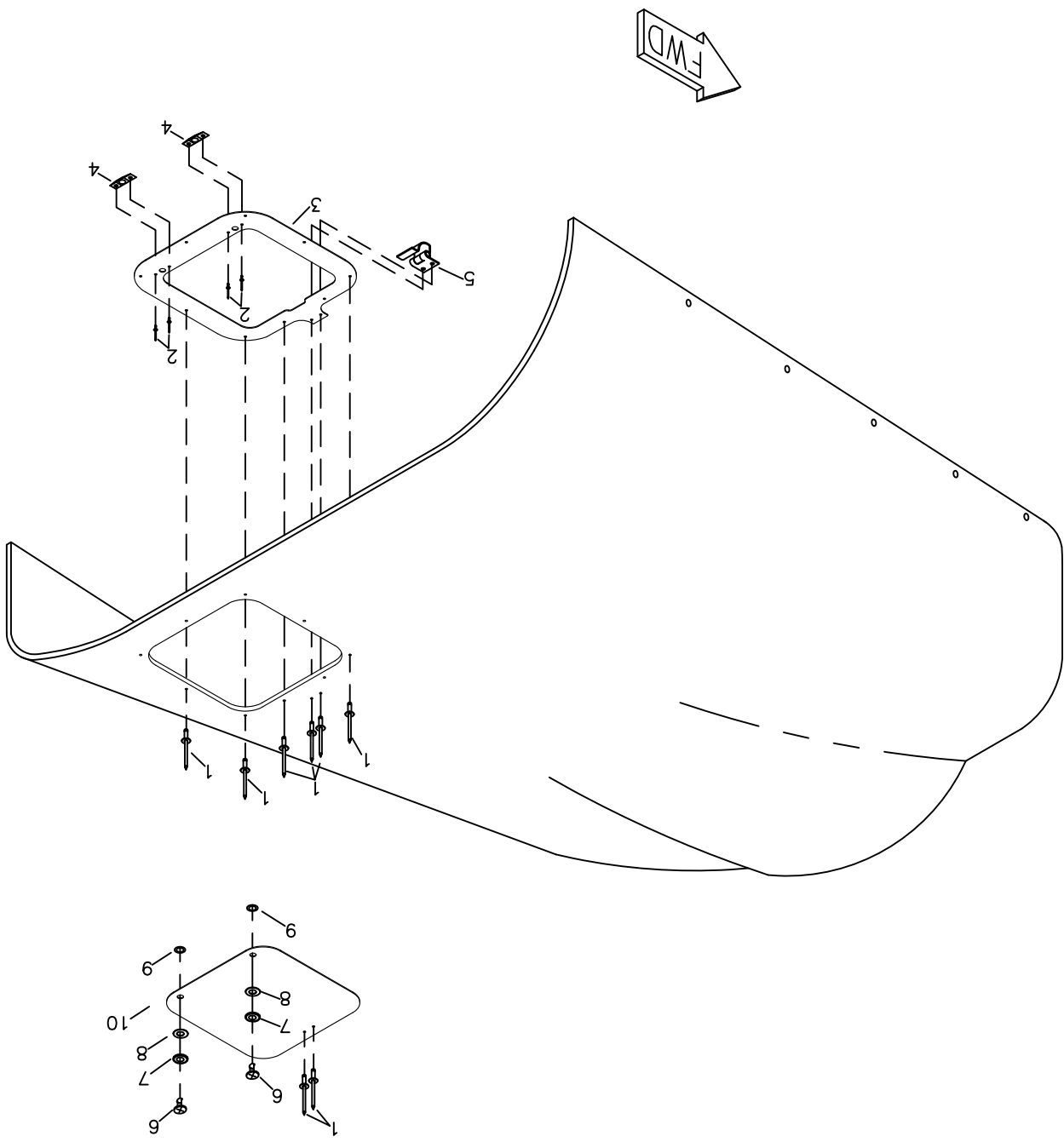
| #   | DESCRIPTION                   | PART NUMBER | QUANTITY |
|-----|-------------------------------|-------------|----------|
| 1.  | 3/32" Aluminum Rivet          | 40APR1/4    | 82       |
| 2.  | 1/4 Turn Receptacle           | #302        | 37       |
| 3.  | 1/4 Turn Stud *               | #220        | 1        |
| 3.  | 1/4 Turn Stud *               | #180        | 13       |
| 3.  | 1/4 Turn Stud *               | #240        | 3        |
| 3.  | 1/4 Turn Stud *               | #200        | 17       |
| 4.  | Rubber Washer                 | #201        | 37       |
| 5.  | Wear Washer Nylon             | #103        | 37       |
| 6.  | Snap Ring                     | #101        | 37       |
| 7.  | Cowling - Upper - Titan X-340 | KPCW0049    | 1        |
| 8.  | Cowling - Lower - Titan X-340 | KPCW0050    | 1        |
| 9.  | 8-32 Nut Plate                | MS21047-08  | 4        |
| 10. | #8 Truss Head Screw           | AN515-8R7   | 4        |

\* Use as needed for secure attachment

9/11/2018  
REV. - ORIG

RRR S-21 OUTBOUND  
TITAN X-340  
OIL CHECK DOOR INSTALLATION

MDS140  
REV. - ORIG



# RANS S-21 OUTBOUND

PAGE 011K-04 / TITAN340

## TITAN X-340 - OIL CHECK DOOR INSTALLATION

| #   | DESCRIPTION                | PART NUMBER | QUANTITY |
|-----|----------------------------|-------------|----------|
| 1.  | 1/8" Aluminum Rivet - Avex | 1691-0410   | 13       |
| 2.  | 3/32" Aluminum Rivet       | 40APR1/4    | 4        |
| 3.  | Oil Door Frame             | KPCW0048    | 1        |
| 4.  | 1/4 Turn Receptacle        | #302        | 2        |
| 5.  | Oil Door Hinge             | KSHW0053    | 1        |
| 6.  | 1/4 Turn Stud              | #180        | 2        |
| 7.  | Rubber Washer              | #201        | 2        |
| 8.  | Wear Washer Nylon          | #103        | 2        |
| 9.  | Snap Ring                  | #101        | 2        |
| 10. | Oil Door                   | KPCW0047    | 1        |



# RANS S-21 OUTBOUND

PAGE 011L-02 / TITAN340

## TITAN X-340 - WHIRLWIND PROPELLER INSTALLATION

| #  | DESCRIPTION                              | PART NUMBER | QUANTITY |
|----|------------------------------------------|-------------|----------|
| 1. | 2-Blade - Propeller (TRIKE ONLY) *       | KSPR0003    | 1        |
| 1. | 2-Blade - Propeller (TAILDRAGGER ONLY) * | KSPR0004    | 1        |
| 2. | Spinner Backing Plate - 13" **           | -----       | 0        |
| 3. | 4" Prop Extension Assembly (SAE#2) *     | KSPW0108    | 1        |

\* Mounting Hardware included with Prop or Extension Assembly

\*\* Referenced from Spinner Assembly

9/11/2018  
REV. - ORIG