### SECTION/OPERATION

#### 23

# FINAL BODY INSTALLATION

| <u>COMPONENT</u> | PROCEDURE  | <u>PRINT #</u> | <u>TEMPLATE</u> |
|------------------|--|----------------|-----------------|
| BODY             | Final install<br>Cut holes for<br>fuel filler caps | E32-2000       |                 |

SKID PANTS (E45-2000)

Fit

# NOTES

| FLOORPAN:      | Access all holes for pedals, cyclic sticks, collective<br>controls with duals.<br>Check that fresh air collector and cabin air/heat is<br>connected.  |
|----------------|---|
| NUT PLATES AND |   |
| DZUS BUTTONS:  | See General Construction Procedures (section 1) for details on nut plates and Dzus buttons.   |
| BODY:          | Refer to section 8 for body installation.   |
| SKID PANTS:    | Fit the skid pants to the front gear first. The rear<br>skid pants will be more complicated to fit because<br>of the bushing for the ground handling wheels.<br>Allow 1/4" clearance between the top of the pants<br>and the body to enable the landing gear to flex. |

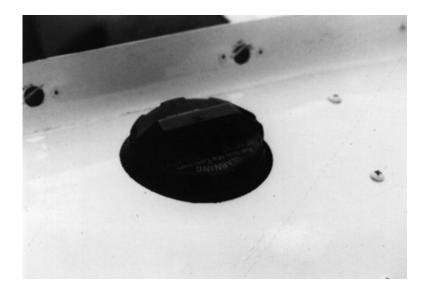
TOOLS REQUIRED FOR OPERATION 23:

| Band saw<br>Cleco<br>Cleco Pliers             |                        |
|---|------------------------|
| Drill bits of the following sizes:            | 1/8"<br>1/2"<br>7/8"   |
| Hand drill (air or electric)<br>Pop rivet gun |                        |
| Ratchet with sockets of the following sizes:  | 5/16"<br>3/8"<br>7/16" |
| Screwdriver<br>Tape Measure                   |                        |
| Wrenches of the following sizes:              | 5/16"<br>3/8"<br>7/16" |



#### Photo #1

The fuel tanks must be located and positioned on the airframe after the cabin fuselage has been installed. Do not cut the hole for the fuel filler cap in the body panels until the fuel tanks are final installed and bolted in place on the airframe. Otherwise, you may find that there has been a movement of up to 1/2" from the initial mock up position. The hole for the fuel tank should be 3/4" to 1" larger in diameter than the fuel cap, with the top of the fuel cap extending above the surface of the fuselage approximately 1/4". (Flush with the fuselage is also acceptable.)



### <u>Photo #2</u>

Remove the cap from the fuel tank and cover the hole with tape to prevent any debris from falling in. Tape off the approximate area of the fuselage to be to be removed to prevent damage to the paint. In the location of the fuel tank hole, drill a 1/2" hole through the fuselage. Enlarge this hole until the gas tank cap can be installed in the tank.



Photo #3

Parts as received from RotorWay International for the skid pants.



#### Photo #4

Fit each set (1 inside and 1 outside) together. Cleco two places on rear and mark the front where they fit the best. This will help when fitting them to the landing gear. (It is recommended to fit the skid pants to the front gear first. Fitting the rear skid pants is slightly more complicated because of the ground handling wheel bushings. These photos show the fitting of the rear skid pants.)



#### Photo #5

Hold the outside pant in position on landing gear.

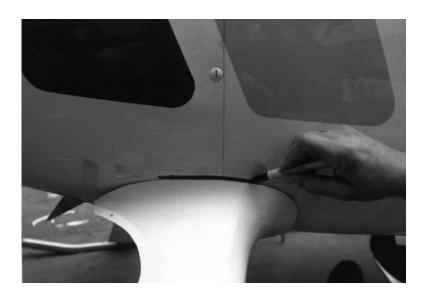


Photo #6

Mark on the body where the top of the pant touches.



# <u>Photo #7</u>

Place the end of the tape on the mark and hold the two inch mark on the tape where it contacts the gear. Find the distance to the center of the ground handling wheel bushing.



<u>Photo #8</u>

Transfer this measurement to the outside pant as shown.



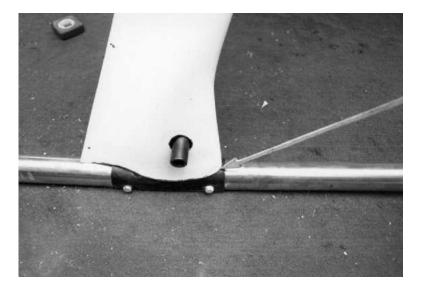
### <u>Photo #9</u>

Measure from the front of the gusset to the center of the bushing and add 5/8" to the measurement (for nut plate clearance).



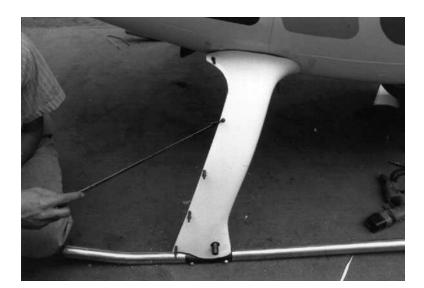
#### <u>Photo #10</u>

Transfer the measurement in previous photo to the pants.



#### <u>Photo #11</u>

Drill a 7/8" hole and fit the pants on the landing gear. After the top is positioned correctly, cut off the bottom of the pants to fit the shoe, as shown by the arrow.



<u>Photo #12</u>

Repeat steps 5 through 11 for the inside pant. Then drill and install cleco to check the fit of both assembled halves.



# <u>Photo #13</u>

After the desired fit is achieved, mark the edges on the body.



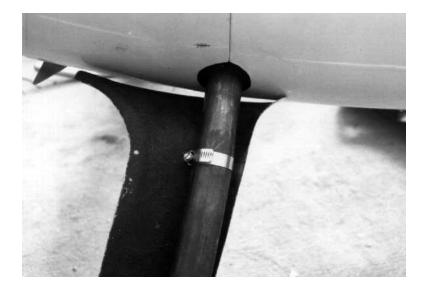
# <u>Photo #14</u>

Remove the outside pants and hold the inside pants in position. Mark where the slots are to be cut for the hose clamps.



### <u>Photo #15</u>

Cut two slots 1/2" to 3/4" apart centered on the leg of the landing gear. Install the hose clamp and check fit. Cut and install another clamp near the lower end of pants.



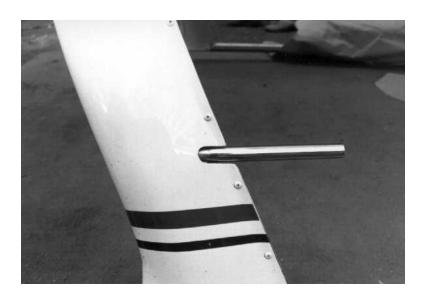
#### <u>Photo #16</u>

Check the fit of the inside pant to body with the hose clamp holding it. Note the clearance between pant and body.



#### <u>Photo #17</u>

Re-install the outside pant. Drill and cleco the front overlap for nut plates and screws. Mark and cut the top edge of flare for clearance if necessary. 1/4" clearance is required between pants and body to allow landing gear to flex.



<u>Photo #18</u>

Make sure the pants have been fitted around the step prior to painting.



<u>Photo #19</u>

After the pants have been final fitted and painted, glue the rubber molding around the top of the pants using weatherstrip adhesive supplied.