MILLENNIUM
9050 W. MONROE CIRCLE
WICHITA, KS 67209 316-821-9300

SERVICE BULLETIN

Seat Model 2041 Crew Seat Armrest Removal

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MILLENNIUM CONCEPTS

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Approved By: _____ **Date:** May 28 2021
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REVISION RECORD

Revision	Description	Approval
IR	Initial Release	See Cover Page for Initial Release

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1.0 PLANNING INFORMATION

A. Effectivity

(1) This service bulletin applies to Millennium Concepts Model 2041 crew seating system.

B. Summary and Purpose

(2) Summary: Customer requested to remove the armrest to avoid interaction between the occupant and armrest when the occupant moves through the aisle to get in and out of the crew seats.

(3) Purpose: To remove the armrest.

(4) Execution: This SB provides instructions for removal of the armrest. Additionally, to remedy the hole in the upholstery cover, this SB provides two options.

a. Install a plug to cover the hole in the upholstery; or,

b. Install a new upholstery cover w/o an armrest hole.

NOTE: The option to remedy the hole in the armrest is at the discretion of the installer. The new upholstery cover replacement option includes all covers in order to ensure they all match on dye lot color and wear condition.

C. Compliance

(1) Compliance with this Service Bulletin is **Optional**.

D. Airworthiness Directive

(1) There is no airworthiness directives (AD) associated with this modification.

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E. Manpower

TABLE 1 APPROXIMATE REMOVAL TIME

	Approximate man hours (hr:min)	
Remove the armrest/armrest hub	0:20	0:20
Installation of plug (to cover armrest hole)	0:05	N/A
OR Installation of new upholstery covers	N/A	1:30
Installation of SB ID plate	0:05	0:05
Inspection and paperwork	0:15	0:15
TOTAL MAN HOURS PER SEAT	**0:45**	**2:10**

F. Weight and Balance

(1) Weight Change: Removal of the armrest will decrease the seat weight (by approximately 2 lbs). The seat should be weighed after removal of the armrest and new weight and balance data should be calculated, as applicable to the aircraft which it is installed.

(2) Moment Change: Non significant

G. Electrical Load Data

(1) Not applicable.

H. Software

(1) Not applicable.

I. References

(2) Not applicable.

J. Publications Affected

(3) Not applicable.

K. Interchangeability of parts

(1) Not Applicable.

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2.0 MATERIAL INFORMATION

A. Material – Price and Availability

(1) Modification kits and service bulletin are available from Millennium and can be quoted on condition.

Contact:

PHONE: 316-821-9300
EMAIL: eng@millennium.aero

B. Material

(1) Modification Kit: P/N MKIT2041-25-20-03-C

OR

(2) Modification Kit: P/N MKIT2041-25-20-03-U

Notes:

1. *Each modification kit addresses one seat. There is an option for this modification to remedy the armrest cutout in the upholstery. Either kit below can be used for the modification.*

Table 2 Modification Kit, P/N MKIT2050-25-20-03-C

New Part No.	Description	Qty
9000-2501014-001	ARMREST COVER	1
9654K109	SPRING	2
9000-1130008-001	MODIFICATION ID LABEL	1
9000-1130008-003	MODIFICATION ID LABEL PROTECTIVE FILM	1

Table 3 Modification Kit, P/N MKIT2050-25-20-03-U

New Part No.	Description	Qty
2041-2510812-007	COVER, BACKREST	1
2041-2510813-003	COVER, HEADREST	1
2041-2510811-007	COVER, BOTTOM	1
FG-28363-06	PLASTIC BAG	1
2101700	LUMBAR KNOB	1
9000-1130008-001	MODIFICATION ID LABEL	1
9000-1130008-003	MODIFICATION ID LABEL PROTECTIVE FILM	1

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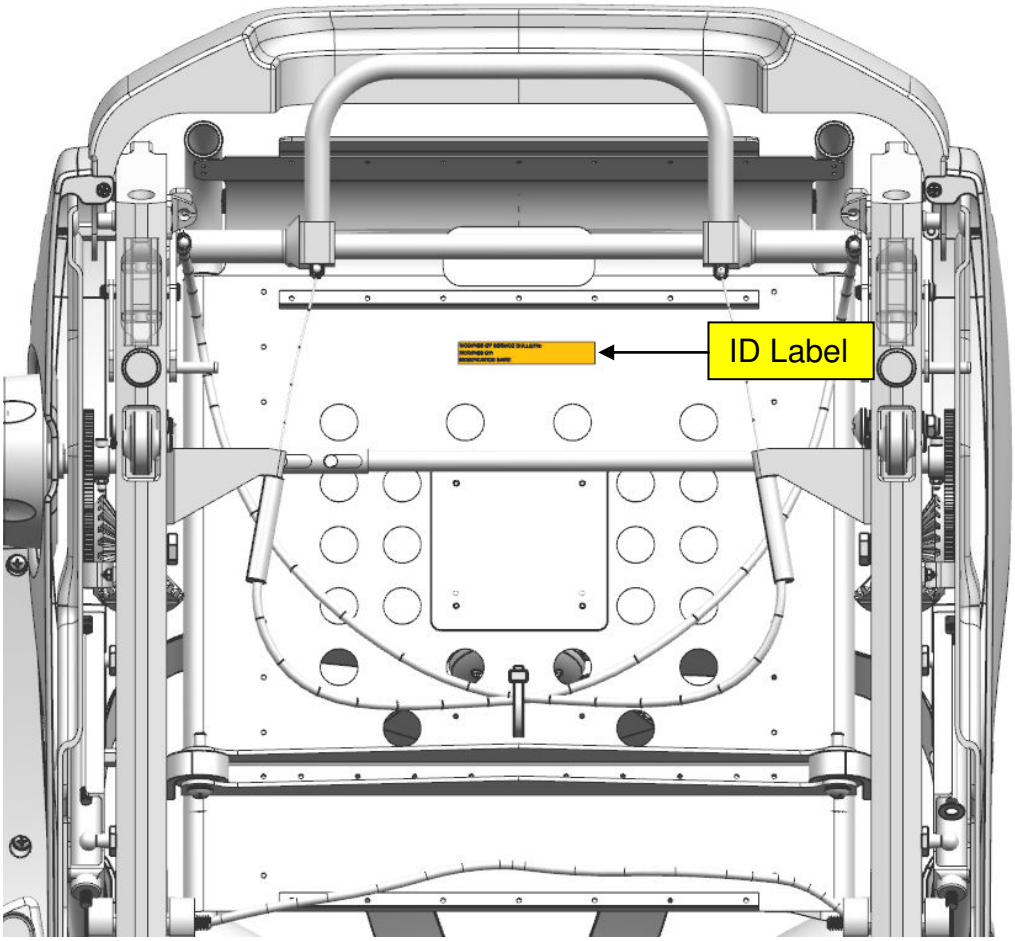


Figure 2.1 Modification ID Label and Protective Film Location

The new SB label should be installed on the bottom side of the seat pan approximate as shown in Figure 2.1

C. Tools (Not Provided)

Note that some tools are optional.

(1) 7/32” and 3/8” sockets
(2) # 2 Phillips head screwdriver
(3) Flat head screwdriver
(4) Small needle plier

D. Warranty Statement

(1) Warranty is unaffected by this modification

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3.0 ACCOMPLISHMENT INSTRUCTIONS

Modifications should only be carried out by a mechanic or technician experienced with aircraft mechanical assemblies.

It is recommended that the mechanic / technician review the entire service bulletin before commencing with the modification.

Any questions relating to this service bulletin should be directed to eng@millennium.aero.

3.1 Restraint System Replacement Procedures

A. The modification to seat shall be performed outside the airplane (i.e. seat not installed).

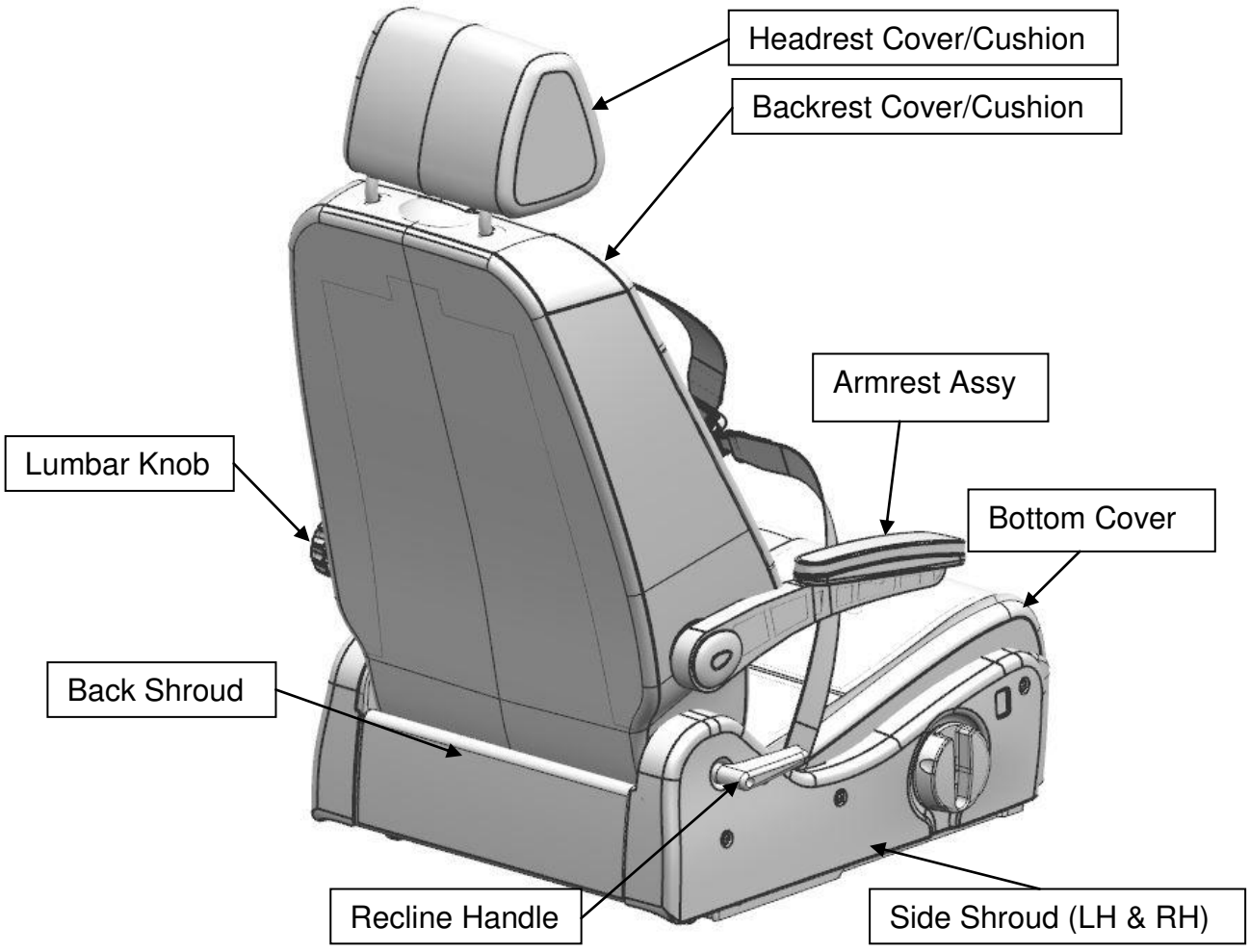


Figure 3.1 Overall Seat Assy

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B. BEFORE ANY MODIFICATION: Refer to Figure 3.1 for part/item identification. Take pictures of the seat modification as needed for a record of the pre-modified seat.

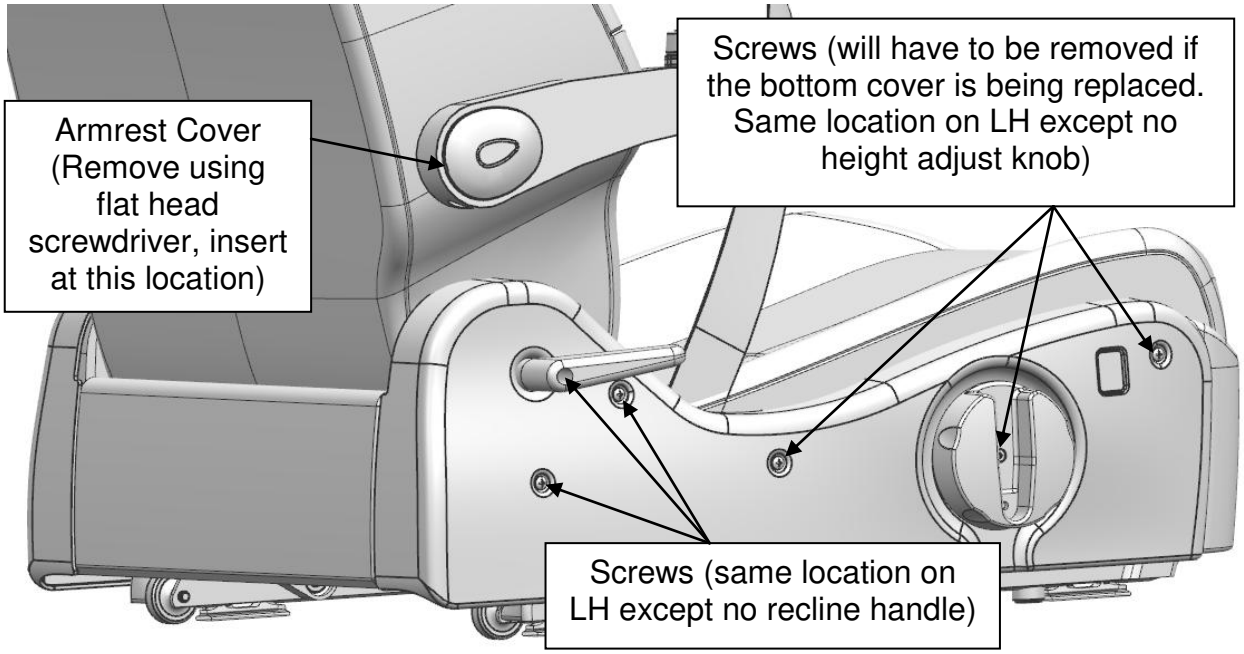


Figure 3.2 Side Shroud, Recline Handle and Armrest Cover Removal

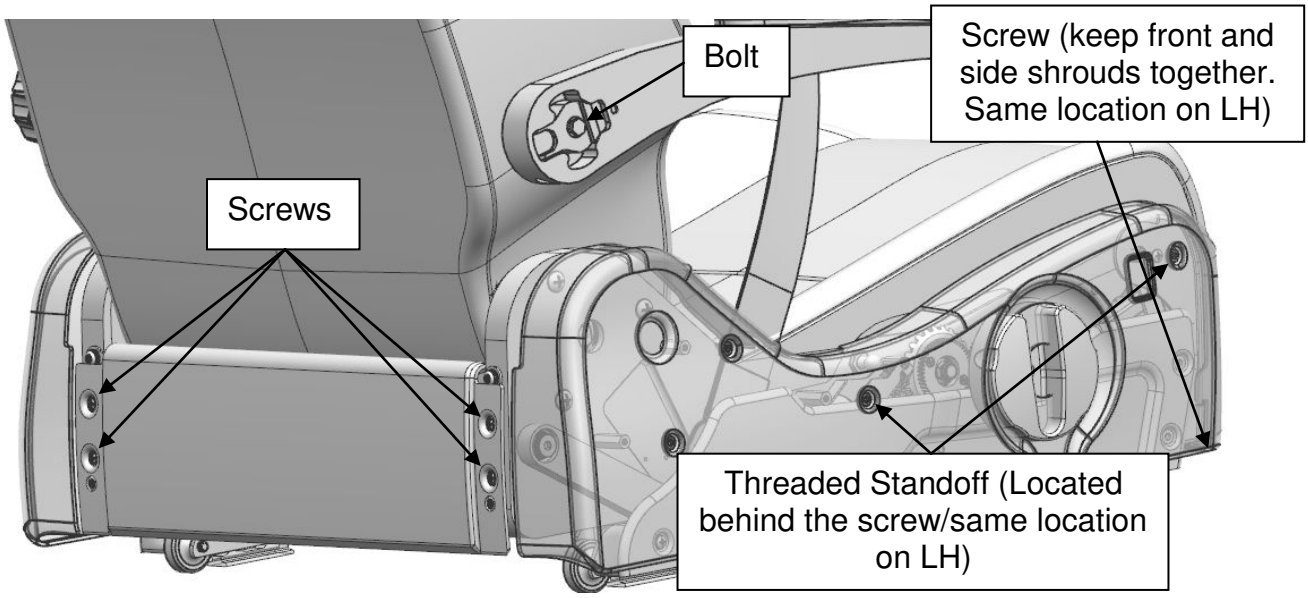


Figure 3.3 Front/Back Shroud, and Armrest Assy Removal

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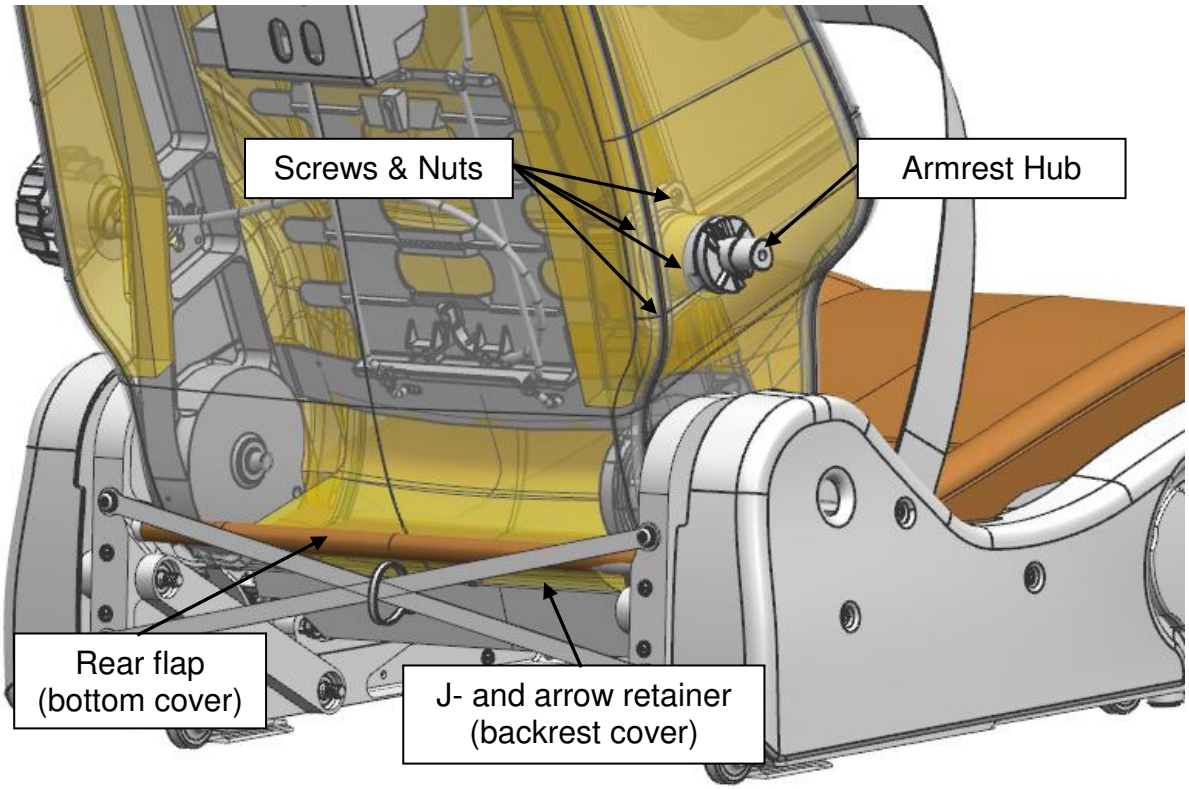


Figure 3.4 Backrest Cover, Armrest Hub Removal

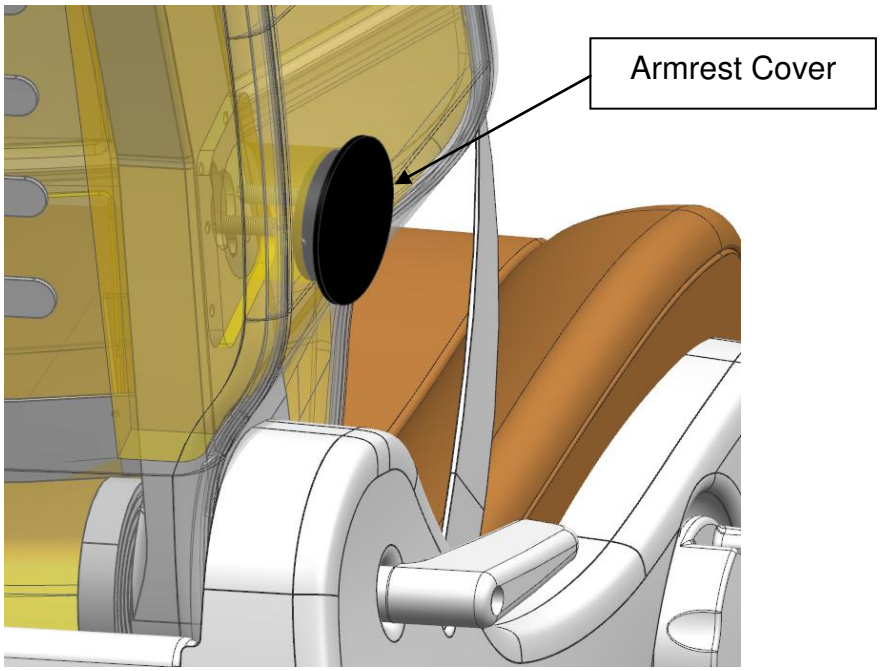


Figure 3.5 Armrest Cover Installation

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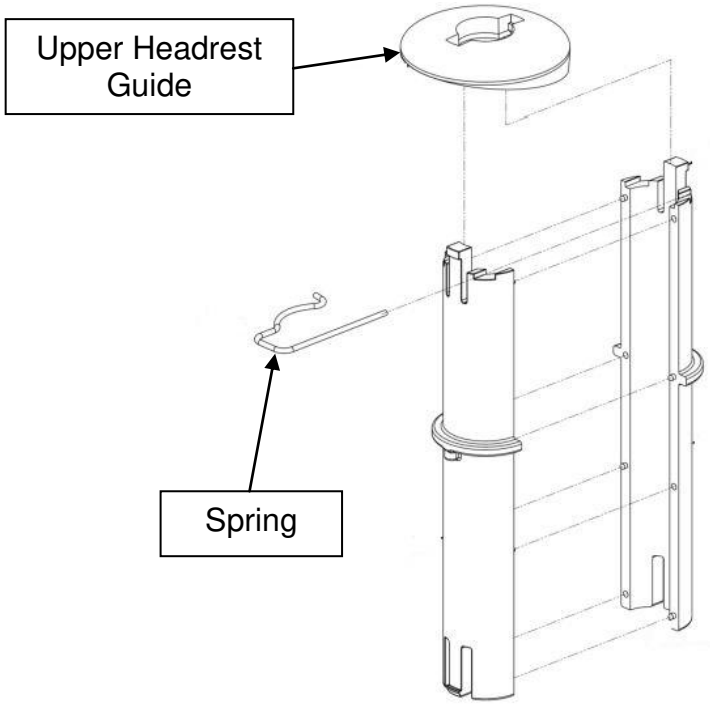


Figure 3.6 Headrest Spring Removal

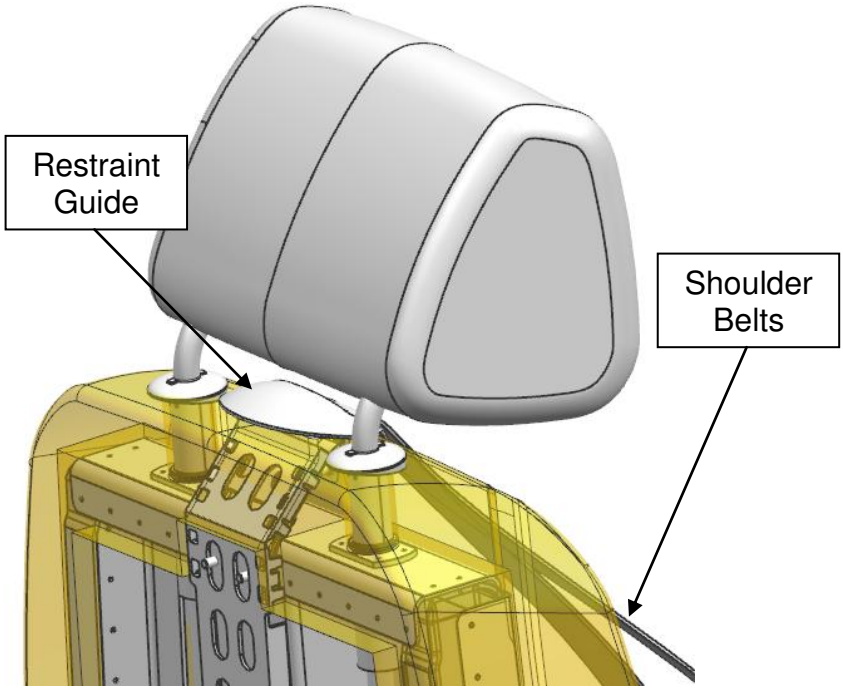


Figure 3.7 Restraint Guide Removal

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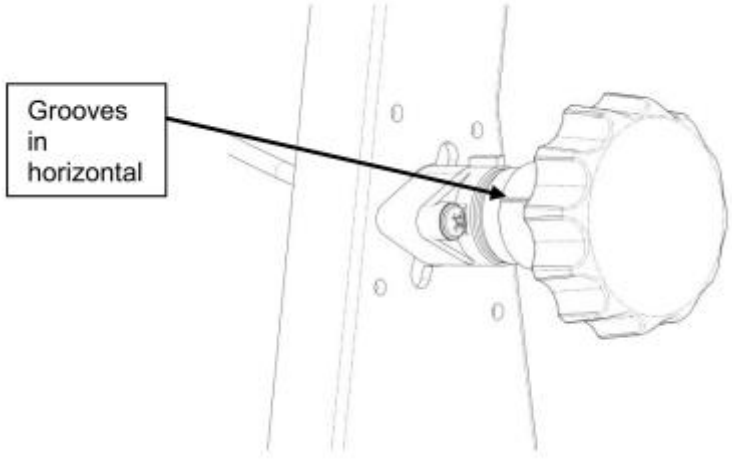


Figure 3.8 Lumbar Knob Removal

C. Remove armrest cover using the flat head screwdriver to pop the cover out of the armrest. See Figure 3.2.

D. Remove the armrest assy by removing the armrest bolt. See Figure 3.3.

E. Remove the recline handle by removing the screw. See Figure 3.2.

F. Loosen the side shrouds (LH & RH) by removing four screws (two on each side). See Figure 3.2.

G. Remove the back shroud out of the frame by removing four screws. See Figure 3.3.

H. Unhook the rear flap of the bottom cover to get better access to the J- and Arrow retainer at the bottom of the backrest cover. See Figure 3.4.

I. Unhook the J- and arrow retainers at the bottom of the backrest cover by peeling the rear part of the cover upward with 2-3 fingers. This rotates the arrow out of the J-retainer. See Figure 3.4.

J. Pull up the backrest cover by rolling it inside out until it just passed the armrest hub.

K. Remove the armrest hub by removing four screws & nut which keep the hub onto the backrest beam.

L. *There is an option:*

(1) If MKIT2041-25-20-03-C is used in this modification then install the armrest cover in this kit using the two springs provided. Hook the springs onto the holes in the backrest beam then hook the other ends onto the armrest cover. Adjust the armrest cover around for the best fit (See Figure 3.5). Re-install the backrest cover, bottom cover, back shroud, side shroud and recline handle in reverse steps above. Ignore step M thru U below.

(2) If MKIT2041-25-20-03-U is used in this modification then continue steps below.

M. Remove the lumbar knob by pushing in the cover and foam around the knob towards the center of the seat so the shaft of the knob becomes visible. Rotate the knob such

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that the one of the grooves in the knob shaft are at the top (see Figure 3.8). Pry the knob up and simultaneously pull the knob away from the seat. There should an audible sound of snaps disengaging from the actuator.

N. Remove the headrest assy by pushing down the backrest cover on the backside of one of the plastic headrest guides and pull the spring out directly aft from underneath the upper part of the guide. Remove the headrest assy out of the seat frame then remove upper headrest guide. See Figure 3.6.

O. Remove restraint guide by pulling up the restraint guide at the front to release the plastic tabs. See Figure 3.7.

P. Repeat the step “J” above then continue rolling it inside out. Note: the hook and loop fastener used to fasten the cover to the cushion is very strong. Use one hand to hold the cushion in place and with the other hand gently peel was the backrest cover to prevent tearing the hook tape from the cushion.

Q. Disconnect the shoulder belt from the restraint system rotary buckle (if needed) then feed the shoulder belt through the slot in the cover. See Figure 3.7.

R. Headrest cover removal: Unhook the arrow and J-retainers at the bottom of the headrest cover between the headrest tubes by peeling the front part of the cover forward with 2-3 fingers. This rotates the arrow retainer out of the J-retainer. Compress the foam on one side of the headrest cushion and pull the cover up over the foam. Remove plastic bag and discard (if present). Note: This plastic bag is a shop aid to assist with the installation of the cover.

S. Bottom cover removal: Remove the height adjust knob and side shroud (LH & RH) by removing the screws indicated in Figure 3.2. Disconnect the front and side shrouds by removing the screw indicated in Figure 3.3. Separate the loop tape from the hook on the front. This hook/loop tape is located at the bottom side of the seat pan. Remove threaded standoffs which hold the bottom cover onto the side rail (see Figure 3.3) then remove the bottom cover out of the cushion. Note: the hook and loop fastener used to fasten the cover to the cushion is very strong. Use one hand to hold the cushion in place and with the other hand gently peel was the bottom cover to prevent tearing the hook tape from the cushion.

T. Install the new covers in MKIT2041-25-20-03-U in reverse steps above (see step “U” below for additional instruction on headrest cover installation). Re-install all removed items in reverse steps above except the armrest and armrest hub which intended to remove permanently.

U. Headrest cover installation: Start by placing the headrest foam and frame in an assembly fixture, or into the seat backrest receptacle. Although not required, the use of plastic shop aid bag part number FG-28363-06 may be used. Pull it over the headrest cushion (see Figure 3.9) and seal it around the vacuum hose. Use the vacuum to pull the air out of the plastic bag. This will reduce the size of the headrest cushion considerably and make it easier to install the cover. Pull the cover down over the headrest cushion and slowly let the air back in the plastic bag and adjust the headrest cover to fit the headrest cushion. Tear away the portion of the plastic bag sticks out from the headrest. Hook the J and arrow retainers together until it “clicks” into place.

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Figure 3.9 Headrest Cover Installation

3.2 Modification ID Label Installation Procedures:

A. Install 9000-1130008-001 Modification ID Label approximately as shown in Figure 2.1 and apply the 9000-1130008-003 Protective film over the new label, approximately centered.

4.0 QUALITY ASSURANCE

A. The service bulletin must be carried out under the direction of the quality assurance department.

B. Upon completion of this service bulletin, approval for return to service per 14 CFR 43.5 shall be appropriately documented.

C. The Service Bulletin Execution Form must be completed, signed and returned to Millennium when the Return to Service Approval has been completed.

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Attention: Quality Assurance Manager
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FAX: +1 (316) 821-9384

Organization:	
Work Authorized by:	*(name, title, date)*
Prepared by:	*(name, title, date)*
Comments:	

List serial numbers and part numbers of modified units

Part No.	Serial No. / Modified Seat Weight	Aircraft Serial No.

* For modification to seats, the serial number must be specified.

Modification / work accomplished by:_____
Technician Date

Modification / work inspected by:_____
Technician Date

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