



LIGHT MAINTENANCE MANUAL

TFE731-2 (72-02-01)

C. Installation of Fan Blades (Fan Disc Installed on Engine) (Subtask 72-70-03-420-005-A01)

CAUTION: DURING THE FOLLOWING BLADE INSTALLATION PROCEDURE DO NOT USE ANY FORCE OTHER THAN HAND PRESSURE FOR REMOVING THE FAN BLADES. USE OF FORCE OTHER THAN HAND PRESSURE CAN RESULT IN DAMAGE TO FAN BLADE MIDSPAN DAMPERS, FAN DISC, AND SUBSEQUENT MIDSPAN DAMPER FAILURE.

CAUTION: DUE TO THE POTENTIAL FOR MISASSEMBLY, THE FOLLOWING PROCEDURE IS NOT ALLOWED ON PRE SB TFE731-72-3643 CONFIGURATION.

- (1) [Post SB TFE731-72-3643] Install fan blades (fan disc installed on engine).
 - (a) Apply dry-film lubricant to dovetail area of fan blades, as required, using Dow Corning 321, dry-film lubricant in spray can. If more than 50 percent of base metal in dovetail area is exposed, recoat with Dow Corning 321, dry-film lubricant. Refer to IRM, 72-IR-02, using instructions for specific fan hub part number.
 - (b) Install retainer ring with anti-rotation tangs facing forward on forward face of fan disc.
 - (c) Place anti-rotation tangs of retainer ring between two adjacent fan blades (No. 1 and No. 30).
 - (d) Install plastic guide rods (part of PN 5837184-1, retaining ring compression tool) into dovetail slots to temporarily hold retaining ring in place during fan blade installation process. Using PN 5837184-1, retaining ring compression tool, compress retainer ring anti-rotation tangs together. Jaws of ring compression tool and retaining ring anti-rotation tangs must be aligned in between two dovetail slots so that blades can be installed into the adjacent dovetails.
 - (e) Partially install blade previously marked as No. 1 blade into the No. 1 slot position. Blade should be inserted only into the slot deep enough to hold it in position.
 - (f) Working in a clockwise direction, install the remaining blades into their respective positions, one at a time, inserting each blade only deep enough to hold it in position. Remove plastic guide rods as blades are installed. When inserting the last blade it may be necessary to carefully reposition the No. 1 blade slightly in order to facilitate installation.
 - (g) Thread fixture rod portion of PN 293002-1, fan shaft stretching fixture, PN 293002-2, fan shaft stretching fixture or PN 293002-3, fan shaft stretching fixture into internal threads of fan shaft, then place PN 3210196-1, fan blade installation tool on rod. Using the fan blade installation tool as a guide, position the blades by hand so that they are inserted an equal amount into the disc.
 - (h) Using the handles of the fan blade installation tool, push the blades into their full seated positions by using hand pressure only while slightly rotating the tool in a counterclockwise direction.
 - (i) If the blades lock up before reaching the fully seated position, do not attempt to seat the blades any further. Using hand pressure only, slightly remove the blades, one at a time, to unlock the midspan dampers until the blades are no longer locked up. Using the PN 3210196-1, fan blade installation tool as a guide, reposition the blades evenly in the hub and push the blades into their fully seated position by using hand pressure only while slightly rotating the tool in a counterclockwise direction.
 - (j) If the blades become locked up so tightly that excessive force (greater than hand pressure) must be used to unlock them, remove all blades and visually inspect for damage. Accomplish fan blade midspan damper eddy current inspection of all midspan dampers. Refer to [INSPECTION/CHECK \(PGBLK 72-70-03-8000\)](#).

EFFECTIVITY
ALL

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INSTALLATION
Page 4009
9 Jan 2018