



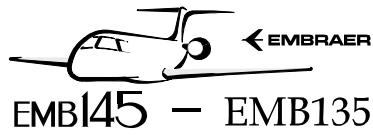
AIRCRAFT MAINTENANCE MANUAL

THRUST REVERSER - MAINTENANCE PRACTICES

EFFECTIVITY: ALL

1. General

- A. This section gives the ground safety precautions for the engine thrust reverser during the aircraft maintenance.



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EMB145 - EMB135

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EFFECTIVITY: ALL

2. Thrust Reverser Ground Safety Precautions

- A. Be careful during the thrust reverser operation to prevent injury to the persons and damage to the material. Some of the general safety items are given below. Other precautions will be added when applicable at the maintenance procedures.

- WARNING:**
- DO NOT TOUCH THE EXHAUST DUCT AND ENGINE COMPONENTS UNTIL THEY ARE COOL. THE TEMPERATURE CAN STAY HOT FOR A LONG TIME AFTER THE ENGINE STOPS.
 - WHEN YOU MUST DO A TASK ON THE THRUST REVERSER, YOU MUST PUT UP APPLICABLE WARNING SIGNS TO PREVENT INJURY TO PERSONS, AS FOLLOWS:
"KEEP AWAY FROM THE THRUST REVERSER DOORS"
"DO NOT OPERATE THE ENGINE CONTROLS"
"DO NOT PRESSURIZE THE HYDRAULIC SYSTEM"
 - ON THE CIRCUIT BREAKER PANEL, OPEN THE CIRCUIT BREAKERS "START 1/2" AND ATTACH A "DO-NOT-CLOSE" TAG TO THEM.
 - BEFORE YOU START A MAINTENANCE PROCEDURE ON THE THRUST REVERSER, MAKE SURE THAT:
THE THRUST REVERSER CIRCUIT BREAKERS 1 AND 2 ARE IN THE OPEN POSITION AND THAT ICUs 1 AND 2 ARE IN THE INHIBIT POSITION ([AMM TASK 78-33-01-980-801-A/200](#)) (UNLESS THEY ARE NECESSARY FOR A GIVEN TASK).
THIS WILL PREVENT INJURY TO PERSONS AND/OR ACCIDENTAL OPERATION OF THE SYSTEM.
 - IF YOU MUST TO DO A TASK ON THE THRUST REVERSER WITH THE DOORS OPEN, MAKE SURE THAT THE THRUST REVERSER DOORS ARE LOCKED. REFER TO ([AMM TASK 78-31-01-980-802-A/200](#)).
 - BE CAREFUL WHEN YOU OPERATE THE THRUST REVERSERS. MAKE SURE THAT THE THRUST REVERSERS ARE CLEAR. INJURY TO PERSONS AND/OR DAMAGE TO EQUIPMENT CAN OCCUR.
 - DURING THE THRUST REVERSER OPERATION PROCEDURES, MAKE SURE THAT THERE IS A TECHNICIAN (EXTERNAL OBSERVER), NEAR THE AIRCRAFT TO MONITOR THE THRUST REVERSER OPERATION. USE THE REAR INTERPHONE SYSTEM (RAMP) FOR COMMUNICATIONS BETWEEN THE COCKPIT AND THE EXTERNAL OBSERVER.
 - THE GROUND CREW MUST STAY AT A SAFE DISTANCE FROM THE THRUST REVERSER AREA DURING THE OPENING/CLOSING OPERATIONS.
 - IF YOU MUST TO DO TASKS WITH THE SKYDROL HYDRAULIC FLUID FREQUENTLY OR FOR LONG TIME, YOUR SKIN CAN DRY OUT. IF YOU DO NOT GIVE CORRECT ATTENTION TO THIS, DERMATITIS OR SECONDARY INFECTIONS BY BACTERIA CAN OCCUR.
 - IF YOU MUST DO TASKS WITH A HEATING GUN, OBEY THE SAFETY PRECAUTIONS GIVEN IN (WM 20-10-00) . EXPLOSION CAN OCCUR IF YOU USE AN INCORRECT HEATING GUN NEAR FLAMMABLE MATERIAL OR FUEL VENT.
 - BE CAREFUL WHEN YOU USE THE HYDRAULIC FLUID. THE HYDRAULIC FLUID IS DANGEROUS. IT CAN CAUSE DAMAGE TO YOUR EYES AND SKIN. PUT ON SAFETY GOGGLES AND PROTECTION CLOTHING. IF HYDRAULIC FLUID COMES IN YOUR EYES OR ON YOUR SKIN, FLUSH YOUR EYES WITH

WATER FOR A MINIMUM OF 15 MINUTES. CLEAN YOUR SKIN WITH SOAP AND WATER. GET MEDICAL HELP.

- MAKE SURE THAT IT IS SAFE TO OPERATE THE THRUST REVERSER DOORS MANUALLY. INJURY TO PERSONS AND/OR DAMAGE TO EQUIPMENT CAN OCCUR.
- BE CAREFUL BEFORE YOU PRESSURIZE THE HYDRAULIC SYSTEM. MAKE SURE THAT THE THRUST LEVERS AGREE WITH THE POSITION OF THE THRUST REVERSER DOORS. A SUDDEN MOVEMENT OF THE DOORS CAN OCCUR AND CAUSE INJURY TO PERSONS AND/OR DAMAGE TO THE EQUIPMENT.
- BE CAREFUL: THE NOMINAL PRESSURE OF THE HYDRAULIC SYSTEM IS 3,000 PSI. THUS, A LEAKAGE IN THE HYDRAULIC LINES COULD CAUSE INJURY TO PERSONS AND DAMAGE TO THE MATERIAL.
- WHEN IT IS NECESSARY TO KEEP THE THRUST REVERSER DOORS IN THE OPEN POSITION TO DO MAINTENANCE OR SYSTEM CHECKS, MAKE SURE THAT:
 - THE RELATED ICU IS IN THE "INHIBIT" MODE.
 - THE THRUST REVERSER 1, THRUST REVERSER 2, HYD. ELEC. PUMP 1 AND HYD. ELEC. PUMP 2 CIRCUIT BREAKERS ARE IN THE OPEN POSITION.
 - THE HOLD-OPEN STAYS ARE CONNECTED TO THE DOOR ACTUATOR ROD.
 - NO OTHER HYDRAULICALLY-POWERED SYSTEM IS OPERATED.
- MAKE SURE THAT THERE ARE NO OBJECTS, PERSONS, AND SUPPORT EQUIPMENT IN THE AREA BEFORE YOU OPERATE THE THRUST REVERSER.
- THE PHOSPHATE-ESTER-BASE OIL IS HIGHLY CORROSIVE AND CAUSES INJURY TO THE EYES AND SKIN. BE CAREFUL NOT TO TOUCH THIS OIL. YOU MUST USE GLOVES AND GOGGLES.

- CAUTION:
- DO NOT DO THE POWER-BACK OPERATION DURING MAINTENANCE PROCEDURES.
 - MAKE SURE THAT ALL HYDRAULIC LINES ARE CONNECTED. DO NOT PERMIT OIL LEAKAGE.
 - BE CAREFUL NOT TO HIT THE THRUST REVERSER WHEN YOU DO THE AIRCRAFT MAINTENANCE OR WHEN YOU REMOVE/INSTALL IT.
 - ALWAYS CLEAN THE HYDRAULIC FLUID THAT FALLS FROM THE ENGINE. DAMAGE COULD COME FROM ITS CORROSIVE ACTION.
 - USE APPLICABLE CONTAINERS TO COLLECT THE REMAINING FLUIDS FROM THE OPEN LINES, TO KEEP THE WORK AREA CLEAN AND SAFE.