



REPLACEMENT OF BLADE ASSEMBLY

- 1) REMOVE THE TWO (2) 3/8" DIAMETER LOCKNUTS FROM THE TOP OF THE SHAFT WHERE IT ATTACHES TO THE X-BRACE. REMOVE THE TWO (2) BOLTS FROM THE BOTTOM OF THE X-BRACE AND THE BLADE ASSEMBLY CAN NOW BE REMOVED EASILY.
- 2) BEFORE ATTACHING THE NEW BLADE ASSEMBLY, PLACE BELT ON ALUMINUM HUB. NEXT ATTACH THE NEW BLADE ASSEMBLY TO THE X-BRACE MAKING CERTAIN THAT IT IS CENTERED IN THE DRIFICE, LEFT TO RIGHT AND TOP TO BOTTOM. TIGHTEN THE SHAFT MOUNTING HARDWARE SECURELY.

REPLACEMENT OF INDIVIDUAL FAN BLADES

- 1) IT IS NOT NECESSARY TO REMOVE COMPLETE BLADE ASSEMBLY FROM THE FAN UNIT TO REPLACE INDIVIDUAL FAN BLADES.
- 2) REPLACEMENT FAN BLADES COME IN CLOSELY MATCHED PAIRS. FOR BLADE ASSEMBLY TO REMAIN IN BALANCE, THE BLADE DIRECTLY OPPOSITE THE ONE BEING REPLACED WILL ALSO HAVE TO BE REPLACED.
- 3) REMOVE THE TWO (2) HEX NUTS AND THE TWO (2) LOCKWASHERS FROM THE BACK OF THE DISC. WHILE HOLDING THE BLADE, PUSH THE TWO (2) BOLTS THROUGH THE DISC AND THE BLADE AND THEN REMOVE THE BLADE.
- 4) NOTE: THERE ARE FOUR (4) FIBER WASHERS PER FAN BLADE, TWO (2) PER BOLT; ONE (1) BETWEEN THE BACK OF THE FAN BLADE AND THE FRONT OF THE DISC. ALSO, ONE (1) BETWEEN THE FRONT OF THE BLADE AND BETWEEN EITHER THE FLAT WASHER OR THE STRUT.
- 5) DURING RE-ASSEMBLY, IT IS VERY IMPORTANT THAT THE METAL FLAT WASHER BE INSTALLED WITH THE SHARP (BURRED) EDGE FACING AWAY FROM THE BLADE. NO FLAT WASHER IS REQUIRED ON THE BOLT THAT GOES THROUGH THE STRUT.
- 6) PUT THE BOLTS THROUGH THE STRUT OR FLAT WASHER AND FIBER WASHERS, IN EITHER CASE, AND THEN THROUGH THE BLADE, FIBER WASHER AND DISC. ATTACH THE TWO (2) LOCK WASHERS AND TWO (2) HEX NUTS AND TIGHTEN.
- 7) REPEAT THE ABOVE PROCEDURE FOR ALL BLADES BEING REPLACED. AFTER THE REQUIRED BLADES HAVE BEEN REPLACED, IT WILL BE NECESSARY TO TRACK THE BLADE ASSEMBLY.

BLADE TRACKING & BLADE PITCHING PROCEDURE

- 1) TWO (2) "POINTERS" WILL BE REQUIRED—PREFERABLY A METAL ROD SIMILAR TO THE SHAPE OF A SHARPENED PENCIL OR A BAR GROUND TO A POINT ON ONE END.
- 2) PLACE POINTER PERPENDICULAR TO A LINE EVEN WITH THE BACK OF THE DISC 'B' INCHES FORWARD AT THE TIP OF THE BLADE AND SECURE IT. A SUGGESTED METHOD IS TO FASTEN POINTER TO UPRIGHT. SEE VIEW A.
- 3) IF BLADE IS OUT OF TRACK, BEND BLADE TOWARDS POINTER UNTIL BLADE TIP TOUCHES TIP OF POINTER. SEE VIEW B. TRACK ALL SIX BLADES IN THIS MANNER.
- 4) AFTER BLADES HAVE BEEN TRACKED, PLACE FRONT POINTER INTO POSITION 'A' INCHES ACROSS FROM REAR POINTER WITH POINTS FACING. IF BLADE WILL NOT PASS THROUGH THE TWO POINTERS, TWIST BLADE UNTIL BLADE WILL PASS THROUGH THE POINTERS TOUCHING BOTH VERY LIGHTLY. SEE VIEW C. WHEN THIS IS DONE IT SETS THE PROPER BLADE PITCH.

NO.	REVISION	BY	DATE
MATERIAL		DO NOT SCALE THIS DRAWING	



**DESCRIPTION**  
 INSTRUCTIONS FOR REPLACEMENT OF  
 BLADES / BLADE ASSEMBLY  
 CBH 24-54 / NBF 54

DR. MEL	CK. _____	APP'D. _____
SCALE NTS	DWG. NO. 401-175	
DATE 9-28-89	SHEET 1 OF 1	