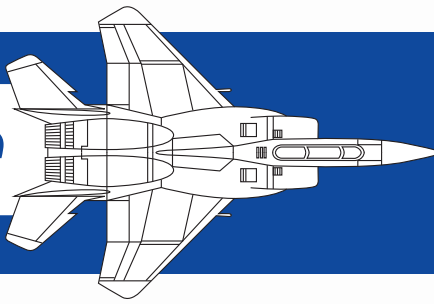


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Rapid Re-lube Kit

for Rolls-Royce Engine Fan Blades and Discs



- New technique for on-wing check and repair maintenance environments.
- A special Molybdenum Disulphide based material, PL470 achieves an improved dry film lubricant on the fan blade root and dovetail.
- Each kit is designed to be used with a specific engine type and contains various cleaning and applicator pads, fan disc key slot masking clips and other items.
- This rapid 14 stage operation, facilitated by the contents of the kit, entails thorough cleaning to remove contamination and debris before the application of PL470 lubricant to the fan blade roots.
- Because the engine removal is no longer required, this process can take place 'on-wing' between flights resulting in a very rapid turnaround - a key function that significantly reduces operating costs.

Engine Mark	Trent 700	RB211-524GH-T &RB211-535E4	Trent 500	Trent 800	V2500	Trent 900	Trent 1000	BR710 BR715
OMat	4/71	4/72	4/73	4/74	4/78 (Co-Mat 04-017)	4/76	4/77	4/78
Fan Blade Cleaning Pads	6	6	6	6	6	6	6	6
Fan Blade Applicator Handle	2	2	2	2	2	2	2	2
Fan Blade Applicator Paint Pads	6	6	6	6	6	6	6	6
Paint Tray	2	2	2	2	2	2	2	2
Fan Disc Cleaning Handle	1	1	1	1	1	1	1	1
Fan Disc Cleaning Roller	5	5	5	5	5	5	5	5
Fan Disc Applicator Handle	1	1	1	1	1	1	1	1
Fan Disc Applicator Pads	6	5	6	6	5	6	6	5
Fan Disc Key Slot Masking Clips	4 Red (front) 4 Orange (rear)	Not Required	4 Green	4 Yellow	Not Required	4 Blue	4 White	Not Required



Key Contents

- 1 Key slot masking clips
- 2 Fan disc applicator handle
- 3 Fan disc cleaning handle
- 4 Fan disc applicator pads
- 5 Paint trays
- 6 Fan blade applicator handles
- 7 Fan blade applicator pads
- 8 Fan blade cleaning pads
- 9 Fan disc cleaning rollers
- 10 OMat - 4/70 - Dry film lubricant

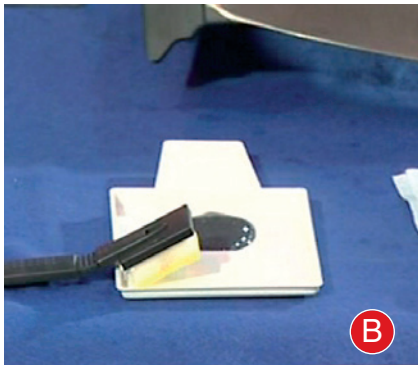
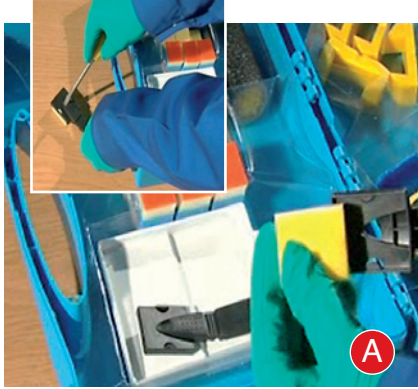
Re-fill Kits.

An additional re-fill kit, containing the cleaning pads and lubricant applicator pads is also available. The Re-fill Kit contains all the consumable products needed to service an engine providing that the operator has retained the following components from the original Kit:

- 1. Key slot masking clips
- 2. Fan disc applicator handle
- 3. Fan disc cleaning handle



Rapid Re-lube System

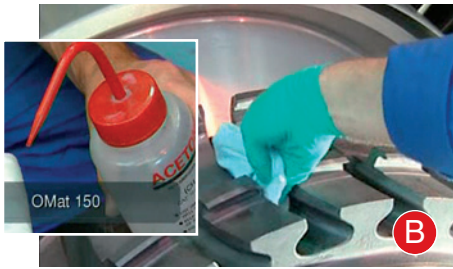
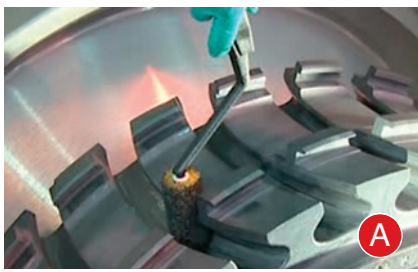


Fan Blade Application

- 1) Disassemble the shear keys and straps.
- 2) Clean the fan blade.
- 3) Clean the fan blade dovetail root using the fan blade cleaning pad. Remove all loose Dry Film Lubricant (DFL).
- 4) Clean the fan blade root using a lint-free cloth and solvent cleaning solution.
- 5) Assemble the applicator pad and handle (A). Loose fibres must be removed from the pads before use.
- 6) Shake the DFL container before opening. Remove any congealed DFL.
- 7) Pour DFL into the paint tray (B). Remove any dried lubricant from the paint tray before pouring.
- 8) Apply DFL to the applicator paint pad (C). Remove excess DFL from the paint pad using the edge of the paint tray. NOTE: Do not overload the paint pad as this will result in drips when the DFL is applied to the fan blade root.
- 9) Place the paint pad on the fan blade root as shown (D) and press gently down. Apply DFL in even strokes along the fan blade root and return, following the guideline as shown (D). For example, from left-to-right of the fan blade and then from right-to-left. NOTE: The paint pad must be replaced after eight fan blade applications (A) as the fibres become sticky and the paint pad deteriorates.
- 10) Remove any DFL drips on the shear key-slot using a lint-free cloth and solvent cleaning solution.
- 11) Visually inspect the DFL after each fan blade application to ensure the bedding surfaces have been coated evenly (E).
- 12) Allow DFL to dry for ten minutes at room temperature before application of DFL to the reverse side of the fan blade.
- 13) Allow the DFL to dry for 30 minutes at room temperature before fan blade assembly.
- 14) Dispose of all used items responsibly.

Fan Disc Application

- 1) Clean the fan disc dovetail slots using the cleaning handle and rollers (A). Remove all loose Dry Film Lubricant (DFL).
 - 2) Clean the fan disc dovetail slots using a lint-free cloth and solvent cleaning solution (B).
 - 3) (Trent engine marks only) Insert the key-slots masking clips into the fan disc, with the notch facing forward. Make sure the clips are inserted in both sides of the slot before DFL application (C).
 - 4) Assemble the fan disc applicator pad and handle. Loose fibres must be removed from the applicator pads before use. This is done by gently rubbing the pad with a finger and then wiping it with a lint-free cloth to remove any released fibres. Some fibre loss at this stage is normal. A few dispersed fibres in the applied DFL is also acceptable as they do not interfere with the performance of the DFL. Any excessive shedding or clumping of fibres in the applied DFL is not acceptable - if this occurs the DFL should be removed by wiping with Acetone (Omat 150) and re-applied.
 - 5) Shake the DFL container before opening. Remove any congealed DFL.
 - 6) Pour DFL into the paint tray. Remove any dried lubricant from the paint tray before pouring.
 - 7) Apply DFL to the applicator (D). NOTE: Do not overload the paint pad with DFL as this will result in drips when the DFL is applied to the disc dovetail slot.
 - 8) Place the applicator pad into the fan disc dovetail slot as shown (E) and locate to the left-hand-side (LHS) of the dovetail slot, pushing left and up onto the surface. Apply one coat of DFL to the LHS of the slot with an even stroke along the full length of the dovetail, from the front to the rear of the disc and then from the rear to the front (F). Then locate the applicator pad to the right-hand-side (RHS) of the dovetail slot, pushing right and up onto the surface. Apply one coat to the RHS of the slot with an even stroke along the full length of the dovetail slot, from the front to the rear of the disc and then from the rear to the front. Repeat the process for all the dovetail slots.
- REMEMBER:** Insert the masking clips before application. The applicator pad must be replaced after 6 fan disc applications as the fibres become sticky and the pad deteriorates.
- 9) Visually inspect the dovetail slot after each complete application (G) to ensure the bedding surfaces are coated evenly with DFL.
 - 10) Allow the DFL to dry for 30 minutes before fan blade assembly.
 - 11) Dispose of all used items responsibly.



IMPORTANT: The information provided is as Guideline Instruction Only - Repairing of the root lubrication should always be carried out in accordance with the appropriate Rolls Royce repair schemes and using the appropriate Rolls Royce overhaul materials. The consistency and accuracy of this repair is very important as incorrect application can lead to significant fan vibration.