

## **12: SUMMARY OF ASSEMBLY OPERATIONS**

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The following notes provide an overview of assembly of a unit and may be used in conjunction with the previous chapters for specific cross reference where there is any elaboration required for a particular assembly operation.

- 1: Select a boss using the Boss Selection Chart to match the particular orders to be assembled – Remove 3M 5200 / SIKA from freezer to thaw  
K4 Bosses are common and the same boss is used for Left & Right Hand units**
- 2: Select the B/Carrier of the correct Hand  
K4 B/Carriers are handed with the pitch stop integrated**  
  
**Check, Clean and de-burr B/Carrier – Check grease holes bored  
Insert Vesconite™ Sleeve and Aft Washer  
Assemble the Boss with a Blade Carrier – Check for interference  
Registration can be either side of recess**
- 3: De-Burr Flats on Boss & any Internal Tap burrs  
Wash & Brush with soap and water with Teepol if required  
Check the grease hole has been bored and de-burred both sides**  
  
**Install the 4 x Reversing Tri Rollers with Loctite™ – Check free  
Punch threads with Pin Punch to lock permanently  
This routine is identical to the K3 unit routines**
- 4: Select Collar to accept spring tail – check spring mounts flush  
Mount Forward Veconite™ washer over Collar and check free and flu**
- 5: Select the Nose Cone – Shaft or Saildrive ( Lombardini / Yanmar / Nanni options )  
Machine Nose Cone Face to required Nose Cone Trim pattern.  
Check the N/Cone thread is free on the boss with M50 x 2.5 thread**
- 6: Select the Spring – Chamfer ends and check depth both ends  
Left Handed units require a Right Handed spring and vica versa as per K3**
- 7: Assemble the Boss with grease and 3M 5200 / SIKA on the Locking Screws only  
Insert 2 x feeler gauges @ 0.004" = 0.10 mm between Collar & B/Carrier  
These ensure residual tolerances when Nose Cone is tightened down on thread**  
  
**Tighten Nose Cone to eliminate tolerances – B/Carrier becomes tight to move  
Torque N/Cone screws down over split join which locks Nose Cone to Boss  
Torque opposite M8 Balance screws  
Remove the 0.10 or 0.004" feeler gauges leaving required clearances**
- 8: Preload the internal Torsion Spring to required tension– Tighten the split Collar  
Torque Collar screws down over split join onto boss  
Insert M6 x 16 Set Screw and lock Collar to Boss**  
  
**Seal and clean up the Nose Cone joints with 3M 5200 / SIKA and exit holes of the  
screws to provide a clean finished unit.**
- 9: Select K4 Nut – check Ø and length so Vernier spigot aligns OK**
- 10: Clean up unit with Mineral Turps – Leave to dry**