

AL17

DEPT	INSTRUCTIONS
	<u>MASTER WORKSHEET FOR ARMATURE SERVICING</u> <u>PARTICULARS FOR INVERTOR 100B</u> <u>NOTE:</u> Because of the relatively high cost of armatures and rotors it is necessary to consider carefully before categorising a component 'DIE' or 'BER'. Every effort must be made to reclaim or repair assemblies before they are discarded.
OP	1. a. Paint Unit Serial No on armature using Lacquer Enamel White (M14) (HAZCHEM) and enter on Form 720K. b. Carry out visual check on commutator and/or sliprings for damage and grooving.
OP	2. a. Check commutator and/or slipring diameters exceeds: Commutator <u>33.32</u> mm (<u>1.312</u> in) Slipring <u>20.62</u> mm (<u>0.812</u> in) b. Check commutator and/or slipring eccentricity is less than: Commutator <u>0.020</u> mm (<u>0.0008</u> in) Slip ring <u>0.02</u> mm (<u>0.0008</u> in)
OP	3. a. Examine armature windings for damage, and check for open or short circuit windings. b. Measure armature insulation resistance between segments and/or sliprings to shaft using Insulation Tester BS MC II (ST22) set to <u>250</u> V Range. (1) <u>COMMUTATOR</u> Minimum acceptable insulation resistance between segments and shaft <u>0.2 Megohms</u> (2) <u>SLIPRING</u> Minimum acceptable insulation resistance between slipring and shaft <u>0.2 Megohms</u>
OP	4. a. Clean up armature centres. b. Fit armature to resurfacing machine. c. Check bearing surfaces for concentricity Maximum TIR <u>-</u> mm (<u>-</u> in)

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OP	<u>NOTE:</u> If the limit at 4c cannot be obtained, remove the Armature from resurfacing machine, clean, align and true centres. Re-check as in para 4b and c. If Armature limit still cannot be obtained, recategorise Armature. 5. Using mica undercutter attachment and appropriate cutting tool, undercut mica to: Width <u>0.50</u> mm (<u>0.020</u> in) Depth <u>0.50</u> mm (<u>0.020</u> in) Chamfer <u>0.127</u> mm (<u>0.005</u> in)
OP	6. a. Resurface commutator and/or sliprings as applicable, and using crocus paper P320C(MV77) break surface finish to: Commutator <u>0.000508 - 0.000635</u> mm (20 - 25 µin) Sliprings <u>0.000508 - 0.000635</u> mm (20 - 25 µin) b. Remove Armature from resurfacing machine. c. Check commutator and/or sliprings diameters exceeds: Commutator <u>33.32</u> mm (<u>1.312</u> in) Sliprings <u>20.62</u> mm (<u>0.812</u> in) d. Check commutator bar to bar variation does not exceed: <u>0.0020</u> mm (<u>0.0008</u> in) e. Check commutator eccentricity does not exceed: <u>0.020</u> mm (<u>0.0008</u> in)
OP	7. Examine Armature windings for damage, and check for open or short circuit windings.
OP	8. Measure Armature insulation resistance between segments and/or sliprings to shaft using Insulation Tester B8 Mk II (ST22) set to <u>250</u> V range. a. <u>COMMUTATOR</u> Minimum acceptable insulation resistance between segments and shaft <u>0.2 Megohms</u> b. <u>SLIPRINGS</u> Minimum acceptable insulation resistance between sliprings and shaft <u>0.2 megohms</u>

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OP	9. Measure ring to ring resistance of sliprings using bridge megger (ST -) Minimum resistance -
OP	10. Measure Armature out of balance to -
OP	11. Using a strip of double coated adhesive tissue (M 5), cover the commutator and/or sliprings for protection.
OP	12. Sign Form 720K for completion of servicing.
SUP	13. Insure that all operations in para's 1 to 12 have been completed and signed for iaw instructions, and that Armature serial number corresponds to that on Form 720K.