

MANN+HUMMEL FM100 Oil Cleaning Centrifuge Maintenance Procedure

Applicable for the FM100-3/4 Centrifuge Range

The MANN+HUMMEL FM100 Oil Cleaning Centrifuge should be cleaned at regular intervals ensuring that the thickness of the dirt deposit inside the rotor does not exceed approximately 30mm. This operation is normally carried out after a specified period of operational use and may be combined with other maintenance procedures.

Maintenance Procedure

1. Stop the flow of oil to the centrifuge by either stopping the engine or isolating the centrifuge from the lubricating system by means of a valve. Ensure the centrifuge has come to a complete stop before proceeding.

2. Loosen the band clamp and remove the centrifuge cover. Inspect cover bearing and thrust pad and replace cover assembly (Part N°. 0321A) if wear or damage is evident. Examine the centrifuge body O ring and replace if damaged (Kit N°. 0743A).

3. Withdraw the rotor assembly and allow the oil to drain from the rotor before removing from the centrifuge body.

4. Unscrew the rotor cover nut and separate the rotor cover from the rotor body.

5. Remove the standtube.

6. Remove sludge deposits from the inside of the rotor cover using a spatula. Clean the rotor components using a suitable cleaning fluid. Ensure that all rotor components (including the two nozzles located in the rotor body) are thoroughly cleaned and free from
- debris before re-assembly.

7. Examine the spindle journals to ensure that they are free from damage and excessive wear. Replace spindle if damaged (Part N°. 4805A)

8. Examine the rotor assembly O ring for damage and renew if necessary (Kit N°. 0743A).

10. Fit a new paper insert (Part N°. 3070A) into the rotor cover.

11. Reassemble the rotor assembly.

12. Examine the bottom bearing situated in the centrifuge body for wear and damage. Replace body assembly if necessary.

13. Replace the rotor assembly onto the centrifuge body and check that the rotor spins freely.

14. Replace the centrifuge cover and band clamp and tighten to 5 Nm.

15. With the centrifuge running, check all joints for leaks.

Important Notes

All FM100 centrifuge assemblies are fitted with a cut off valve (C.O.V.), which is located in the centrifuge body. The C.O.V. is designed to protect the engine by stopping the supply of lube oil to the centrifuge at start-up and during periods when the oil pressure is below the C.O.V. rating. This item is intended to provide maintenance free operation for extended periods and should only be disassembled and inspected for damage if a problem becomes evident.

Maintenance Action

Every Oil Drain Interval:

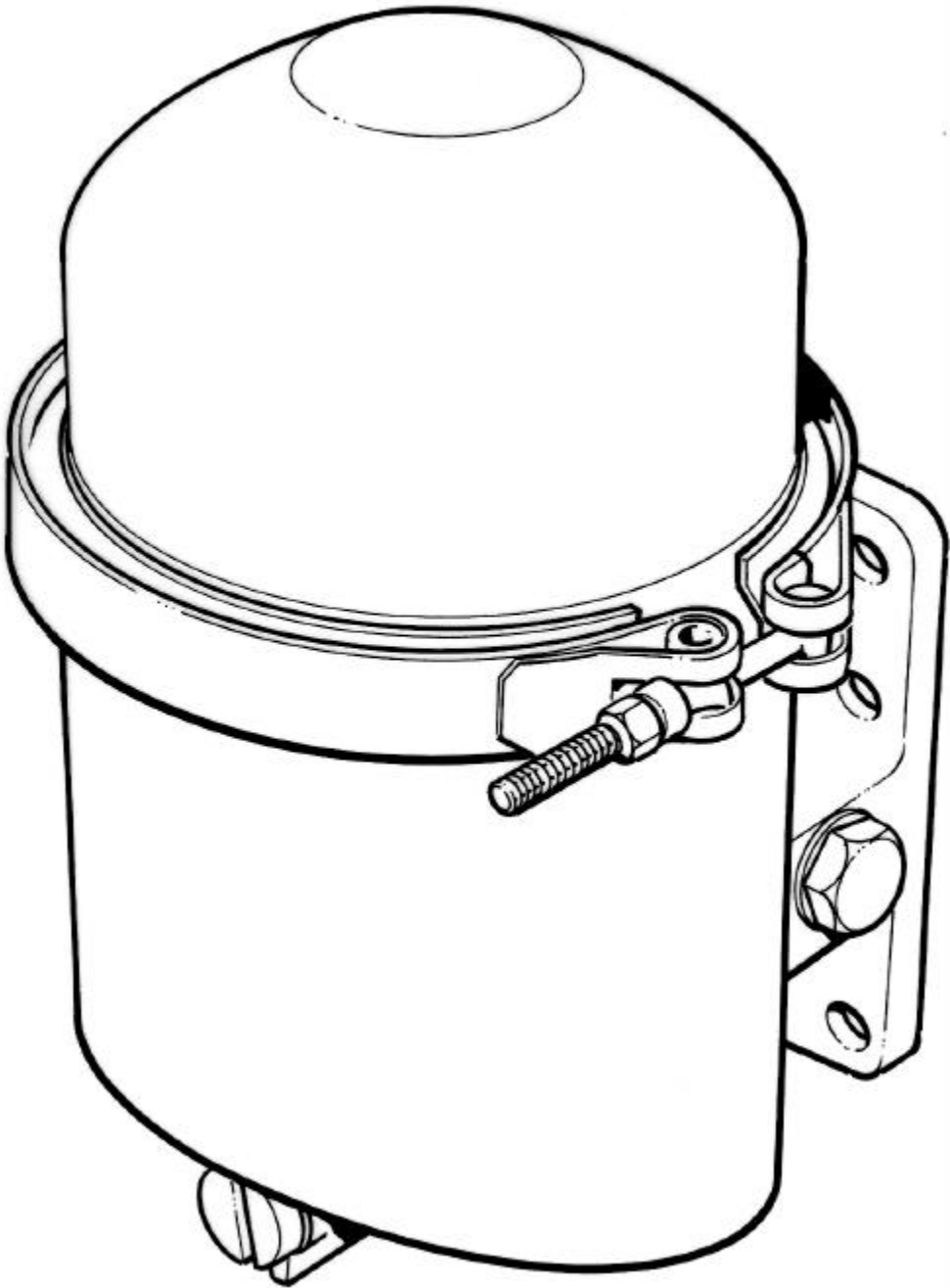
- Clean rotor assembly / replace paper insert (Part N°. 3070A)
- Inspect centrifuge body O ring & rotor O ring. Replace if damaged
- Inspect cover bearing & thrust pad for wear and replace cover assembly if necessary
- Inspect spindle journals for wear and replace spindle if necessary
- Inspect centrifuge body bearing for wear and replace body assembly if necessary

Engine Overhaul:

- Replace Centrifuge

Please note that this should be used as a guide only. Maintenance intervals for the centrifuge are dependant on a number of factors and differ with engine type and operational environment.

OIL CONDITIONING SYSTEMS
SPARE PARTS LIST



FM100 -

Spare Parts List

FM100	PART NO.	QTY	FM100-03 (0156A)	FM100-04 (0156B)
CUT OFF VALVE RATING (BAR)			1.8	1.3
OIL INLET THREAD SPECIFICATION			3/8" BSP	3/8" BSP

BODY ASSEMBLY	0236A	1	•	
	0236B	1		•
CORE PLUG	1601A	1	•	•

ROTOR ASSEMBLY	0416A	1	•	•
ROTOR BODY	4404A	1	•	•
ROTOR COVER	4610A	1	•	•
SPINDLE	4805A	1	•	•
WASHER (1/2" PLAIN)	1407P	1	•	•
PIN	1002P	1	•	•
STAND TUBE	3096A	1	•	•
COVER NUT	1840A	1	•	•
NOZZLE	4904A	2	•	•
PAPER INSERT	3070A	1	•	•

COVER ASSEMBLY	0321A	1	•	•
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BAND CLAMP	3023A	1	•	•
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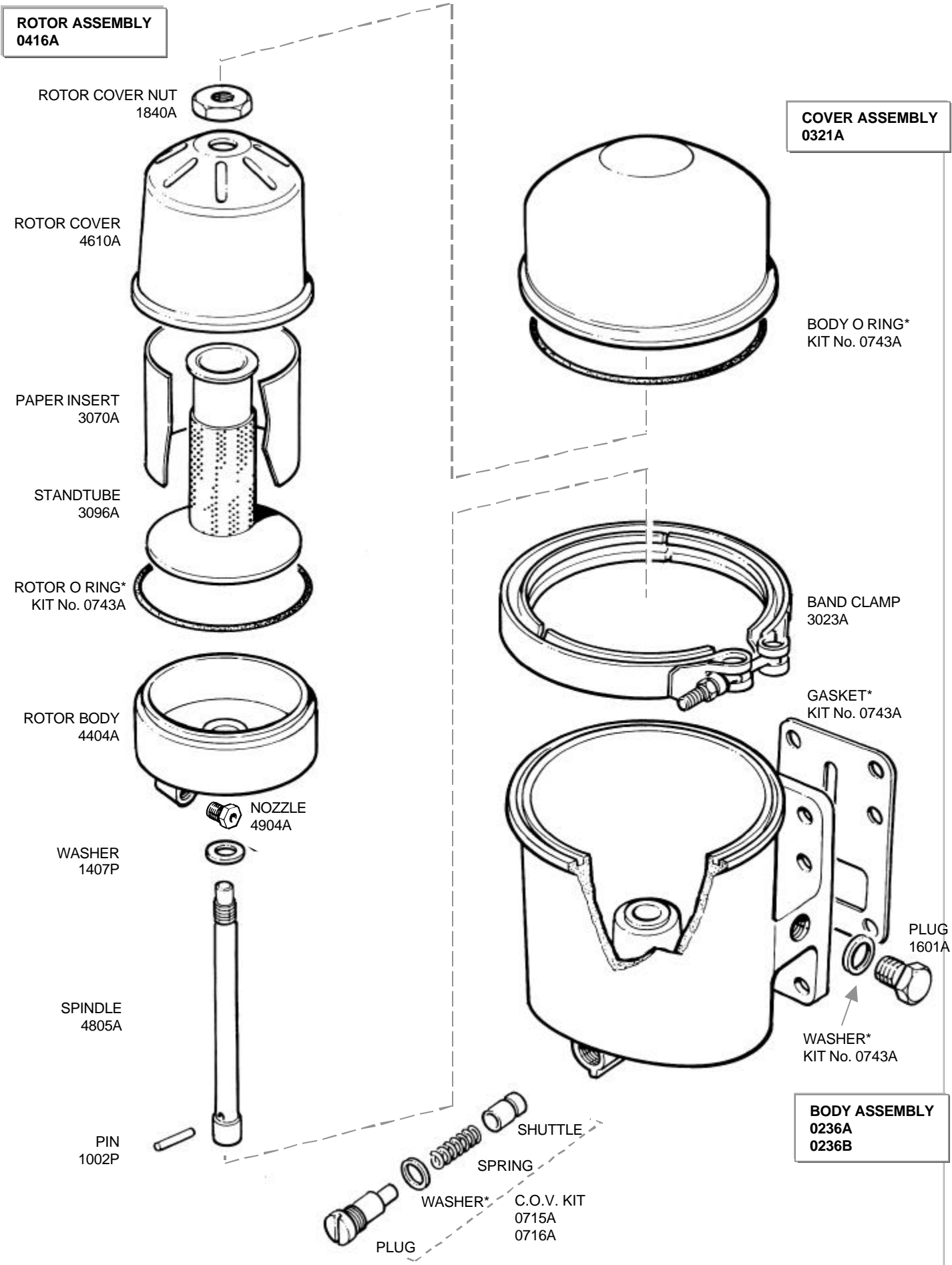
FM100 KITS	PART No.	QTY	FM100-03 (0156A)	FM100-04 (0156B)
CUT OFF VALVE (C.O.V.) KIT		1	•	
CUT OFF VALVE (C.O.V.) KIT		1		•
SEALS KIT	0743A	1	•	•

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*SEALS KIT 0743A COMPRISES OF: C.O.V. WASHER, CORE PLUG WASHER, GASKET, BODY O RING & ROTOR BODY O RING