If you are using a printed copy of this procedure, and not the on-screen version, then you MUST make sure the dates at the bottom of the printed copy and the on-screen version match.
The on-screen version of the Collider-Accelerator Department Procedure is the Official Version.
Hard copies of all signed, official, C-A Operating Procedures are available by contacting the ESSHQ Procedures Coordinator, Bldg. 911A

C-A OPERATIONS PROCEDURES MANUAL

15.3.5.5 Westinghouse Oil Filter Inspection

(Booster/AGS Ring Power Supply Systems Group Procedure EPS-W-005)

Note: This document was formerly a C-A Group Procedure. The content of the group procedure was reviewed by the Technical Supervisor. All approvals and/or issue dates of the original group procedure are maintained for present use.

Hand Processed Changes

HPC No.	Date	Page Nos.	Initials

Approved: _____***Signature on File***_____ _____
Collider-Accelerator Department Chairman Date

M. Bannon

Booster/AGS Ring Power Supply Systems
Group Procedure EPS-W-005
Revision 00

Maintenance

The best maintenance for a hydraulic system is filtration. If your system has a suction filter or strainer, it should be checked for cleanliness every 15 to 30 days.

When adding new oil to the system, only oil that has been pre-filtered to at least an ISO standard level of 18/16/14 should be used.

Check the filters in the system once a week. Most of the filters used have some type of indicator on them to tell you when the filter element is getting to close to the by-pass setting. Once the filter goes into the bypass mode, the system is unprotected and damage to the system can occur.

Berendsen Fluid Power has included a filter and oil log in the back of this manual. With this log, you can track the usage of filter elements and the cleanliness of your oil. After a time, you will be able to schedule the filter element changes to you system.

Oil samples should be taken every 3 to 6 months. After the oil is tested, the report can tell you if a component in your system is wearing and you can take corrective action.

Check the system for overheating. High temperatures will reduce the life of the seals in the system and cause leaks. It will also reduce the life of the components in the system.

Temperature changes of the oil in the reservoir cause a certain amount of moisture condensation which over a period of time, will result in a build up of water at the bottom of the reservoir. This water should be drawn off at 6 month intervals or as required.

At the same time (every 6 months), the reservoir should be drained and inspected for silt or sludge. The cleanout doors should be removed and the reservoir cleaned by hand with a solvent or light oil.

Filter Log (Liquid Rheostat Hydraulics)

Pressure Filter Element Number _____

Return Filter Element Number _____

Suction Filter Element Number_____

Oil type and Number_____

Date of Element Change	Filter Changed	Oil Sample Taken

FILTER LOG (MG Set)

Pressure Filter Element Number - V0411B8C05 (Vickers)

Oil Type - DTE-25 (Hydraulic)

Element Changed

Date/By Filter Drained	Oil Sample Taken		Filter (before)			Filter (after)		
Only	Yes	No	Input (psi)	Output (psi	Flow (gpm)	Input (psi)	Output (psi	Flow (gpm)

Procedure for Changing Oil Filter Element of Westinghouse MG Set

1. Record the pressures of the filter inlet and outlet and the flow of the system when the shaft pump is circulating oil.
2. LOTO the (208 3 Phase fused disconnect switch) for the lift pumps.
3. Fill out a Confined Space Entry Certification Sign-in Sheet. Air is being forced into pit at this time as well as air conditioning so it is not necessary for air sampling as long as pit is being fed from these two fresh air sources.
4. People working on changing filter must be confined space trained.
5. Close valves on the input and output of the filter canister.
6. Remove drain cap plug from drain and install hose from drain to a bucket.
7. Open drain valve (on the bottom of filter canister) and the oil canister bleed plug (on the top of the oil filter canister)
8. Drain all oil from filter canister. **Stop here….. if that's all that is being done is checking for water, sludge, silt on filter canister bottom, then go to step 12. Do not do steps 9, 10, 11.**
9. Remove the top cover of the canister and remove filter and place in a double clear bags.
10. Replace with new filter element. (V0411B8C05 VICKERS)
11. Reinstall the top cover of filter canister.
12. Close the drain valve and reinstall drain cap.
13. Reinstall the bleed plug and tighten plug.
14. Close the valve for the output pressure meter until all oil is back in system.
15. Open the valves on the input and output of the filter canister.
16. Unlock the FDS for the lift pumps.
17. Turn on pumps and check for leaks.
18. After the oil has flowed for a few minutes open the valve for the output pressure meter.
19. If all is ok turn the motor-generator set on and record the new pressures and flow in the log.