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Benjn. R. Vickers & Sons Ltd.
Registered in England No. 130013

ECOSURE HSE – Instructions For Use

Vickers' ECOSURE HSE bio-hydraulic fluids are based on high performance, fully saturated, synthetic esters. These biodegradable, low toxicity products behave differently to traditional mineral based hydraulic oils. Vickers Oils' Standard Terms and Conditions of Sale (available from our web site) apply providing ECOSURE HSE is used in accordance with the following instructions for use:

1. ECOSURE HSE grades are suitable for use in hydraulic systems operating at temperatures in the range -30°C to 100°C and at working pressures up to 300 bar. For use outside these conditions, please contact our Technical Service Department at the above address.
2. Any previous fluid in use in the system must be thoroughly drained and all filters renewed.
3. Carry over of previous mineral or ester based hydraulic fluid should be not more than 5% of the total system capacity to avoid any compatibility issues. For other fluids please contact us.
4. The equipment manufacturer's fluid viscosity guidelines must be adhered to. These will normally be available in the equipment manual.
5. ECOSURE HSE must be filled via a fine filter, preferably 10 micron absolute pore size, to remove any possible contamination that may occur once the packaging is opened.
6. Any top-up of the system must be with the same grade of ECOSURE HSE. Do not mix with other fluids including other biodegradable hydraulic fluids.
7. Water content must not exceed 0.1% (1000ppm). This must be strictly adhered to. Any free water must be separated off on a regular basis. Use of a hygroscopic breather on the Hydraulic Power Pack to absorb airborne moisture is recommended.
8. Representative samples (minimum 100ml) must be sent to Vickers Oils for analysis within one month of sampling date in accordance with the following schedule, unless otherwise agreed:
 - I. On initial running i.e. within the first 10 operating hours
 - II. At the earlier of one month or 100 operating hours
 - III. At the earlier of three months or 300 operating hours
 - IV. Every three months or 300 operating hours thereafter
9. In case of any issues arising from the sample analysis, all recommendations by Vickers Oils must be followed.
10. Equipment must be operated according to the manufacturer's instructions and the above instructions. In case of conflicting instructions, please contact us for advice.
11. In case of any operational performance issues, Vickers Oils must be informed immediately and confirmed in writing as soon as possible (refer to contact information above).

Vickers Oils reserves the right to amend these instructions from time to time as required. For advice or further information on any of the above, or to obtain a current copy of these instructions, please contact our Technical Service Dept at the above address.