

**TECHNICAL  
BRIEF**

180 River Road • Rio Vista, CA 94571 • Tel 707-374-6800 • Fax 707-374-6801  
Email: info@barriersystemsinc.com • Website: barriersystemsinc.com

**OIL SAMPLING / OIL ANALYSIS**

Barrier Systems Barrier Transfer Machines, both TTM-3's used in construction applications and Barrier Transfer Machines used in permanent system applications, typically needs extremely high reliability. In addition, because these machines are typically unique and other machines cannot be substituted to perform their jobs, special preventative maintenance is required and warranted.

Barrier Systems Inc. requires that an oil sampling and oil analysis program be set up as part of the regular routine maintenance program. Years of experience has conclusively shown that regular oil analysis and sampling of both hydraulic and engine oils will give early warning of problems before they are visible, audible or otherwise noticeable. This early warning can be used for diagnosis, formulation of corrective action, possible spare parts ordering or other indicated actions to minimize the reliability impact of any potential problem.

In order to minimize confusion, Barrier Systems recommends that all samples be taken at the same time intervals as shown in Table I attached (Table I, Sampling Location and Frequency)

For permanent system applications, and customer owned constructions machines, it is recommended that the customer select a "local" firm to perform the oil analysis. These services are typically available from filter suppliers, hydraulic component distributors and engine and hydraulic service centers.

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For leased construction machines the contractor / customer should [must]return the oil samples to Barrier Systems in properly marked containers identified with the machine serial number, date of sample, number of engine hours and location. Barrier systems will complete the testing of the oil samples and provide feedback reports to the contractor / customer.

Any questions on this technical brief or on the evaluation of test results should be referred to Barrier Systems Engineering Department, 180 River Road, Rio Vista, CA 94571. (707-374-6800, fax 707-374-6801)

<b>Permanent Machines with Individual Planetary Hubs and TTV-3 Machines</b>	
Engine	Prior to oil change at first 50 hours and every 200 hours thereafter
Planetary Hubs (2 or 4)	Same as above
Hydraulic Oil	Same as above
<b>Oil Sampling Frequency and Locations</b>	
<b>Permanent Barrier Transfer Machines with Axles</b>	
Engine	Prior to oil change at first 50 hours and every 200 hours thereafter
Differentials (both)	Same as above
Planetaries (4)	Same as above
Hydraulic Oil	Same as above
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