S•O•S℠ FLUID ANALYSIS

Coolant Analysis

Cooling system problems contribute to more that 50% of all engine related failures. Diesel engines produce a tremendous amount of power and heat that must be dissipated to keep your engine running properly. In addition, your engine's cooling system (depending on design) is used to absorb heat from transmission and hydraulic components.

Poor cooling system maintenance can reduce engine and component life and lead to serious failures and downtime. Keep your cooling system, and the components they protect healthy with the Toromont Coolant Analysis program.

We offer a two-level program, which gives an indication of overall cooling system condition and identifies issues with maintenance procedures and operational practices.

Level 1: Basic coolant maintenance check

- ✓ Up to 7 observational parameters and 4 analytical tests
- ✓ Indicates major problems with coolant and predicts major system problems
- ✓ Results can be used to determine if a level 2 analysis is required
- ✓ Elemental analysis (14 elements)
- ✓ Glycol percentage, freezing point and boiling point
- ✓ pH
- ✓ Conductivity
- ✓ Nitrite levels
- ✓ Coolant physical characteristics, foam, colour, oil, contamination, precipitates and odour

Level 2: Comprehensive cooling system analysis

- ✓ Evaluating coolant chemistry
- ✓ Elemental analysis
- ✓ Contaminants
- ✓ Water quality Includes all tests performed in Level 1, plus
- ✓ Anion analysis of coolant additives & their breakdown product
- ✓ Level 1 coolant analysis
- ✓ Total dissolved solids
- ✓ Chlorides/carbonates/sulfates
- ✓ Glycolic acid
- ✓ Phosphates
- ✓ Sebacic acid

TOROMONT FLUID ANALYSIS PROGRAMS

Type of test	Part number	Service	Brief description
Basic oil analysis	SOSOIL SOSOIL-X SOSOIL-L SOSOIL-C	SOS kits 10 SOS kits 50 SOS kits 100 SOS kits	• Elemental analysis (23 elements) - ASTM D5185 • Crackle test • Fuel dilution percentage by GC, if required • Oil condition analysis for soot, oxidation, sulfation and nitration, ASTM E2412 – FTIR method • Viscosity at 100 °C – ASTM D445 • ISO particle count on hydraulic systems • PQI for all other systems
Coolant analysis – Level 1	SOSCOOL1	Basic coolant analysis kit – Level 1	• Elemental analysis (14 elements) • Glycol percentage, freezing point and boiling point • pH • Conductivity • Nitrite levels • Coolant physical characteristics, foam, colour, oil, contamination, precipitates and odour
Coolant analysis – Level 2	SOSCOOL2	Advanced coolant analysis kit – Level 2	• Level 1 coolant analysis • Total dissolved solids • Chlorides/carbonates/sulfates • Glycolic acid • Phosphates • Sebacic acid
Diesel fuel analysis	SOSFUEL	Diesel fuel analysis kit	• Elemental analysis • Sulfur analysis • API[SB1] • Water content using Karl Fischer method • Bacteria (if water is positive) • Visual inspection • ISO particle count

Questions about our coolant analysis program?

Contact the Toromont SOS Fluid Analysis lab team:

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