

Engineered Solutions – From Concept to Completion

Innovative Re-Circulating Drip Tank Reduces Engine Oil Consumption.

Working with Bombardier Transportation at Central Rivers Depot, Flowonics Limited has developed an innovative re-circulating drip tank for rail use. Having identified a major issue regarding engine oil loss from the Cummins QSK19 power unit fitted to 'Voyager', 'Super Voyager' and 'Meridian' units, Bombardier contacted Flowonics to develop an effective solution.



Vehicles were surveyed to identify a suitable space envelope into which a drip tank could be fitted and the requirements for filtration of the collected oil were established. This done, Flowonics designed the new tank and associated components to meet the agreed functional requirements. Following engineering approvals, successful service trials were carried out.

Re-circulating drip tanks supplied by Flowonics are now fitted to all vehicles in the Class 220, Class 221 and Class 221 DEMU fleets. The installation of the new tanks has generated significant benefits to train operators and maintainers, including:

- Reduction in the environmental impact of these vehicles by capturing oil that had previously been lost into the atmosphere during the operation of the units.
- Re-circulation allows operators to significantly reduce engine oil consumption by allowing the captured oil to be filtered and returned back into the engine.
- Recirculation reduces maintenance and operating costs for these units due to the significant reduction in engine oil consumption.

The development of this innovative solution demonstrates the application of the Flowonics expertise in Engineered Solutions for the rail industry.

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