



## State of the Engine Address

### *Past, Present and Future*

Carolina Thomas Bus Buzz #115

***Much recent attention*** has been focused on the availability of the Cummins ISB 6.7 – the school bus industry’s most popular diesel engine – in school buses. While this may be news to some, the Cummins ISB 6.7 has been available in Thomas Built Buses from the very beginning of our compliance with the 2007 Environmental Protection Agency (EPA) emissions standards.

The purpose of this communication is to clarify information currently afloat in the industry and set the record straight regarding our past, present and future course with regard to engines at Thomas Built Buses and Carolina Thomas.

#### ***Overview - Cummins ISB and Thomas Built Buses: Consistency you can count on.***

Over the past several years, we have openly shared important information with every North Carolina LEA concerning our buses and engines, and our plans to meet EPA emissions standards going forward. Because of the many changes mandated by the federal government, we knew it was imperative to keep you informed of our plans and progress - and to get it right.

Together, Thomas Built Buses and Carolina Thomas have consistently recommended the Cummins ISB 6.7 with SCR/DEF as the right approach to meet the stringent requirements of the EPA emissions standards. And over the course of time, we have statistically proven that the combination of Cummins clean diesel and SCR/DEF technology in the Thomas product line provides the lowest Total Cost of Ownership (TCO) in the industry. And today the industry agrees – all school bus manufacturers now offer the Cummins ISB 6.7 engine.

Here is a brief review of our past recommendations and the results, where we are today, and where we are going in the future.

#### ***The Past – Focusing on Engine Innovation from Day One***

##### **2008 - Thomas recommended the Cummins ISB 6.7 clean diesel engine in our buses.**

While we still had our own captive Mercedes (MBE) engine at the time, several key factors led to our recommendation of the Cummins ISB engine for the future, including:

- **Stability:** We could use the same engine platform for many years to come.
- **Locality:** The Cummins ISB was produced in North Carolina, providing a shorter supply chain to Thomas Built Buses, also produced in North Carolina.
- **Support Expertise:** We had the capability to provide parts, maintenance training, and technical knowledge to support the Cummins engine.

##### **2009 - Thomas recommended the SCR/DEF solution for 2010 EPA compliance.**

To meet 2010 EPA emissions standards, we informed customers that we would offer the Selective Catalytic Reduction (SCR)/ Diesel Exhaust Fluid (DEF) system, with very little change to the Cummins ISB engine. Many LEAs were told at the time that our decision was flawed and that SCR/DEF technology was problematic and even dangerous. But we stood firm in our conviction that SCR/DEF provided the best solution for emissions compliance, fuel economy, engine durability and reliability, and lowest TCO in the industry.

## ***The Present – The Proof is in the Results***

### **2013 - Delivering results that count.**

Five years after the fact, the results prove that customers who chose Thomas Built Buses and Carolina Thomas have benefited from our decision to recommend the Cummins ISB 6.7 clean diesel engine with SCR/DEF in our buses. As further proof, all school bus manufacturers now offer the Cummins ISB 6.7 and SCR/DEF technology for many of the same reasons we first recommended it. But what sets us apart in the industry is more than just our engine offerings. It's our commitment to consistently deliver results.

### **Benefits to our customers include:**

- **Best Fuel Economy:** The Thomas Saf-T-Liner C2 gets better fuel economy than our competition. This data is stored onboard each bus. Compare for yourself or [read the details](#) of the independent test results.
- **Best Emissions System:** More durable and reliable than EGR, the Cummins ISB with SCR/DEF meets all 2010 EPA requirements without the use of engine emissions credits. The Cummins ISB is clean diesel technology: better for the environment and for customers.
- **Easier to Service:** The Thomas Saf-T-Liner C2 engine compartment is simpler, cleaner, and easier to service. Compare for yourself or read the [white paper](#) for a side-by-side comparison.
- **Durability:** The Thomas Saf-T-Liner C2 with Cummins ISB engine is more durable than the competition. Don't just take our word for it - call around to other LEAs or Google search "[EGR engine problems](#)".
- **Reliability:** SCR/DEF is more reliable with fewer regenerations relative to in-cylinder EGR.
- **Consistent Service Parts:** Service parts have remained consistent over the past several years.
- **Universally Accepted:** The rest of the world is already converted/converting to SCR/DEF.
- **Lowest Total Cost of Ownership (TCO):** The Thomas bus has statistically achieved the lowest [Total Cost of Ownership \(TCO\)](#) position in the industry.
- **Unrivaled Customer Service:** Thomas Built Buses was the first school bus manufacturer to offer the Cummins ISB and SCR/DEF solution in North Carolina. As the innovator in clean diesel technologies, our customers can count on expert manufacturing and service knowledge, experience, and training for the Cummins engine that is unmatched in the industry.

## ***The Future – 2014 and Beyond***

### **Thomas Built Buses, Carolina Thomas and Cummins: An unbeatable combination.**

From day one, we've consistently offered and recommended the Cummins ISB clean diesel engine with SCR/DEF in our buses as the best available technology to meet EPA emissions standards. And today the industry agrees. Along the way, we've listened to our customers and we've learned a lot about what works and what doesn't. And we haven't rested on our success. We've responded with more information and training, expert advice, and significant improvements to our products, service, and support.

We've been a constant, innovative force – a champion of the Cummins ISB engine and SCR/DEF technology – from the very beginning. We've been consistent with what we've offered – and we plan to keep it that way.

Cummins, Thomas Built Buses and Carolina Thomas: Consistency you can count on. Innovation you can rely on. Teamwork you can trust.

