



PRODUCT INFORMATION BULLETIN

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TO: ALL HYSTER DEALER PRINCIPALS, SALES MANAGERS, & SALES REPRESENTATIVES

FROM: PETER SIESSEL – VICE PRESIDENT, HYSTER MARKETING

SUBJ: Diesel Engines & Emissions Compliancy

With the recent announcements covering the Spark Ignited (SI) Emissions changes it is apparent how complex the EPA Government Legislation was. It encompassed every SI engine we use in our Hyster Forklift trucks.

Running parallel to the SI program but on a different timeframe are the Diesel Emissions of EPA. The volume usage of Diesel engines is much lower than SI engines, and not wanting to complicate the initial SI announcements we now need to provide details of the Legislative changes that have affected Diesels, and the impact this is having.

Below is an outline of the timeline and a description of the EPA changes:

- Tier 1 Diesel regulations were adopted in 1994 for 50 HP+ engines, and would be introduced between 1996 and 2000.
- In 1998 the Environmental Protection Agency (EPA) outlined Tier 1 standards for under 50 HP, and also defined more stringent rules for Tier 2 and Tier 3 levels, with phase in over the 2000 to 2008 timeframe.
- For Hyster Forklift trucks the timing and levels of control were stated to be:
 - 25 to 50 HP Tier 2 in **2004**.
Standards are **CO** 4.1 g/bhp.hr, **NMHC+NOx** 5.6 g/bhp.hr, and **PM** 0.45 g/bhp.hr.
 - 50 to 100 HP Tier 2 in **2004**.
Standards are **CO** 3.7 g/bhp.hr, **NMHC+NOx** 5.6 g/bhp.hr, and **PM** 0.30 g/bhp.hr.
 - **Note!** For your information:-
 - 100 to 175 HP Tier 2 regulations came in in **2003** at **CO** 3.7 g/bhp.hr, **NMHC+NOx** 4.9 g/bhp.hr, and **PM** 0.22 g/bhp.hr.
 - 175 to 300 HP Tier 2 regulations came in in **2003** at **CO** 2.6 g/bhp.hr, **NMHC+NOx** 4.9 g/bhp.hr, and **PM** 0.22 g/bhp.hr

In order to meet these new Emissions levels, various fuel control changes had to be made to the engines, so please consult your new Operators, Service and Parts manuals to see this level of detail.

As always, we appreciate the support of our distribution network and the sales organization.

Sincere Regards,



Peter M. Siessel
Vice President of Marketing – Hyster Company

PM = Particulate Matter,
CO = Carbon Monoxide,
NOx = Oxides of Nitrogen,

NMHC = Non Methane Hydrocarbons,
g/bhp.hr = Grams per Brake Horsepower, Hour of operation.

The information contained in this bulletin is for information purposes only, Hyster Company reserves the right to change the design of our products without incurring an obligation to modify previously manufactured products.