



CMEIG Media Release

CMEIG members working for a better environment

For many years manufacturers have been seeking better ways to design, operate and maintain construction equipment in order to reduce their impact on the environment. The improvements so far have been:

- Limiting diesel emissions that contribute to green house gases
- Increasing use of biodegradable oils
- Recycling the chassis and parts
- Air conditioning gases
- Reducing noise emissions from engines
- Managing waste during services in the factory and onsite

Many OEMS have recognised that the design, production and end of product life should not burden the environment. For example, Table 1 shows that selecting appropriate materials in the product design phase can reduce the impact on the environment by not depleting natural resources. The same material can be recycled on the production line into new products.

Table 1 Construction equipment and the environment (Courtesy of Volvo).

Product phase	Impact on environment
Materials extraction	Depletion of resources
Production phase	Emissions to air and water Generation of waste
Distribution	Emissions to air quality Energy consumption
Use of equipment	
End of life	Generation of waste Spreading of hazardous substances

Vorobieff notes that the relatively high price of steel will force product designers to look at other materials that can also provide strength and durability, and be recycled into the next machine. Many of the thermoplastic materials are suitable for recycling. Many OEMs now consider a design for recycling analysis whereby, various components are considered for their fitness to be recycled.

One of the greatest concerns for manufacturers is to recognise the extent of chemical products used in various products around the world. For instance, there are some 19 million known chemical substances in the world with 3.5 million new chemical substances being developed each year and 100,000 chemical substances used commercially. The need to recognise the ease at which chemical substances are being developed should be concern for not only equipment manufacturers but the general community as a whole.

The Europeans have set the standard for reducing emissions from compression ignition engines for 'non-road mobile machinery'¹. Since 1998 a series of stages are being incorporated in legislation to prevent manufacturers using engines that do not meet specific standards. Stage 3 and 4 will be completed in 2011 and 2013 respectively with much of the engines in Australia meeting Stage 3 today. These new generation engines will mean less pollution from construction mobile plant.

Australian dealers importing from Japan, USA and European countries are likely to have low emission machines, but not all manufacturers outside these countries are incorporating these engines. The Association urges you to ask your equipment supplier what level of emissions are being met in the engine of the mobile plant being proposed for purchasing.

Last year the Australian Government introduced a bill into Parliament to amend the Ozone Protection Act 1989 (OPA). The new Ozone Protection and Synthetic Greenhouse Gas Management Act 1989 was passed by Parliament in 2003. As a result of the introduction of the new Act, it has discouraged the manufacture, import and export of Hydro fluorocarbons (HFCs), Perfluorocarbons (PFCs) and Bromochloromethane (BCM) unless the company has a license. In addition any import of air conditioning or refrigeration equipment containing HFCs or Hydrochlorofluorocarbon (HCFCs) will be prohibited without a license.

Air conditioning units used for most mobile construction equipment contains 134A gas and this has been a great step in minimising the ongoing effects in the reduction in the ozone layer.

Finally, when trained technicians from dealers maintain or repair equipment onsite they are given specific training to ensure that waste oils or chemicals are not disposed onsite and can be taken back to the workshop for controlled disposal. May be you should ask what procedures are taken on site to improve the service of your mobile equipment?

If you can think of other ways for manufacturers to better improve the environment, CMEIG would like to hear your ideas, please send them to inquiry@cmeig.com.au

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For more information about CMEIG, call (02) 9884 7236 or email: inquiry@cmeig.com.au

¹ Directive 97/68/EC – Emissions of Gaseous and Particulate Pollutants for Internal Combustion Engines to be Installed in Non-road Mobile Machinery