



PRODUCT INFORMATION BULLETIN



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

FROM: PETER SIESSEL – VICE PRESIDENT, HYSTER MARKETING

SUBJ: New AC Controlled E25-40ZS Product

Hyster Company is pleased to announce the new *AC Controlled* E25-40ZS Counterbalanced Electric Rider product scheduled for April 2004 production. Continuing to set the stage in our industry, Hyster AC technology is providing vehicle performance options with levels of control that were not possible with DC control systems of the past - **Until Now!** Hyster AC technology provides better torque, travel speed capabilities, reliability, and thermal performance when compared to *other manufacturers conventional equipment*. Once again, Hyster Company has redefined the meaning of forklift productivity and efficiency.

The new E25-40ZS models provide a host of new features that include, AC Traction Motor and Controller, a new Thermal Management System, Dash Display with Extended Shift Functionality, CANbus Based Electrical System, Brushless On-Demand Power Steering and New Brake and Backup Lights. The following provide the detail of these new features.

Hyster AC Advantage

The E25-40ZS traction control system features an AC transistor controller that provides faster loaded speeds, faster acceleration, controlled ramp descent, improved efficiency and better thermal capabilities than other manufacturers, conventional equipment.

- The Hyster AC traction motor is less complex than equivalent DC motors; having ***no brushes, brush rigging or motor commutator***, this motor is designed to provide superior torque, travel speed capabilities, reliability, and thermal performance for years of maintenance free service.
- The simplicity of the Hyster AC motor allows it to operate at lower overall temperatures than equivalent DC motors.
- A unique feature of Hyster AC technology is the systems ability to provide a wide range of torque at any speed, enhancing the truck's range of motor performance.
- Changing the direction of travel is smooth and fast, while acceleration and deceleration is easy to control.
- On board ability to adjust truck settings can be achieved to meet customer requirements (through technician password) to take advantage of enhanced levels of performance. Hyster trucks outperform other manufacturer's conventionally equipped products. ***Keep in mind, whenever performance is increased, energy consumption is also increased regardless of truck manufacturer.***
- These features directly translate to lower operating costs, higher reliability, and longer product life.

Hydraulic Motor Options

- The *optional* AC hoist motor has all the same features as the traction motor. The Hyster AC hoist motor, when controlled by the Hoist Motor Transistor Controller, provides equal torque and speed performance as the transistor controlled DC Hoist Motor. As a result, energy consumption is equivalent as well. **Note: This option is required when an attachment other than a side-shifter is used.**
- The **standard** contactor controlled system utilizes the current **DC** hoist motor with brush wear indicators and a temperature sensor. With this feature, the brush wear indicators provide an advanced warning to the operator when the motor must be serviced.

Thermal Management System

The Hyster Thermal Management System is well balanced between the thermal limits of the motor and the controller. Hyster's AC system provides improved thermal performance over the previous DC system. Positioned up away from the floor, the AC traction and pump motor controllers are mounted in a sealed control compartment area behind the counterweight preventing external contamination. In tough thermal applications, the new Hyster AC system allows the truck to continue running at a reduced power level, if necessary, rather than shutting down.

Dash Display

The dash display provides diagnostic capabilities and on board ability to adjust truck performance settings for enhanced levels of performance. The Extended Shift enabled / disabled feature is programmed through the dash display with service access passwords. With the Extended Shift enabled (factory setting) the truck matches SEM performance. With Extended Shift disabled (high Performance setting) the truck exceeds SEM performance. **Keep in mind, whenever performance is increased, energy consumption is also increased regardless of truck manufacturer.**

CANbus (Controller Area Network) Electrical System

Unlike other manufacturer's existing designs, the new E25-40ZS uses Hyster Company's field proven CANbus technology. This innovative technology links several electrical sub-systems into one integrated system that simplifies the electrical system by the reduction in the number of wire and wire connections required throughout the truck. This reduction greatly reduces the opportunity for wiring related failures and truck down time by minimizing time needed for trouble shooting. The result provides our customers with enhanced truck reliability and diagnostic capabilities that increase efficiency while decreasing the cost to maintain and repair.

On-Demand Power Steering

The Hyster brushless power steering motor with integrated steering controller provides on demand steering for low noise and low energy consumption. This power steering motor eliminates service costs associated with parts and labor typical of a brushed motor; which ultimately reduces truck down and increases truck up time for a more productive and cost efficient operation. This feature allows us to provide our customers with a **100% brushless** truck if ordered with the transistor controlled hydraulic option.

LED Brake and Back-up Lights

The new Hyster light packages will no longer utilize incandescent bulbs but will now feature LED (**L**ight **E**mitting **D**iode) lamps. These extremely tough LED lamps will enhance our brake and backup light package and offer the following benefits to our customers:

- LEDs are solid state and have no filaments; therefore, they are much more tolerant to vibration.
- LED life expectancy is in the 10,000-hour range, which is many times longer than incandescent light bulbs.
- LEDs draw less amps than incandescent light bulbs, as much as four to five times less.
- LEDs are low profile and therefore provide less visual obstruction and are positioned closer to the truck overhead guard...lessening the chance of inadvertent damage.

Perhaps the most influential customer realization will be the thousands of hours of life expectancy, resulting in the elimination of costly maintenance.

Marketing Department

HYSTER

SUMMARY

The introduction of the Hyster E25-40ZS AC Power product will advance our competitive position in the marketplace by providing improved reliability over the current DC SEM offerings. By design, these new Hyster products use fewer components, allow for software updates that don't require hardware changes and utilize simple but durable motors with fewer wearable parts. Perhaps the most influential customer realization will be the extended service intervals through the use of the Hyster **BRUSHLESS** AC traction motor, the **BRUSHLESS** on-demand power steer motor and (optional) **BRUSHLESS** AC hoist motor.

As we make the conversion from old to new, we wish to ensure you have the interim marketing tools for the new series. To this end, please find the following information attached.

A complete set of standard price pages. A Hyster launch box will be sent to your dealership in April 2004 that will provide the formal distribution of these pages, the feature brochure and technical guide, the E25-40ZS Sales Training CD, the High Lift sheets as well as the SPED price pages. For your convenience, the Standard and SPED price pages are available immediately online at www.hysterusa.com. ***Please remember to refresh HERO by selecting the "completely reload tables" option in the download area of the price book thereby activating these series.***

We are excited about the release of this very important addition to our Class I family and the many opportunities and competitive advantages this series will provide your dealership. For further detail or assistance, please contact your Regional Product Manager or the Hyster Marketing Department.

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

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.