



PRODUCT INFORMATION BULLETIN

D/C # 21

November 24, 2003

Series Impact: A416 (formally A216)

TO: ALL HYSTER DEALER PRINCIPALS, SALES MANAGERS, & SALES REPRESENTATIVES
FROM: PETER SIESSEL – VICE PRESIDENT, HYSTER MARKETING
SUBJ: New J40-65Z AC Controlled Model

Hyster Company is pleased to announce the new AC Controlled J40-65Z Counterbalanced Electric Rider product scheduled for February 2004 production.

Following first production, the J40-65Z product will be featured in 80 volt configurations only. The 36 / 48 volt configurations have been eliminated. This will be the first implementation of 80 volt Electric Rider products for Hyster Company in America.

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. In the near future we will be providing the formal distribution of these pages, the feature brochure and technical guide as well a J40-65Z Sales Training CD, the High Lift sheets and SPED price pages which will be sent to your dealership in a Hyster launch box. For your convenience, the Standard and SPED price pages are available immediately online at www.hysterusa.com. These pages will be effective 11/24/03. **Please remember to refresh HERO by selecting the “completely reload tables” option in the download area of the price book thereby activating these series.**

AC Advantage

Recent developments in control technology have greatly enhanced the speed and torque control capabilities, as well as the efficiency and performance of AC motors and controllers. AC provides vehicle performance options that were not possible with DC control systems of the past. The following outlines the advantages of Hyster Company's AC technology.

- The AC traction motor is less complex than the equivalent DC motor, providing superior torque, speed capabilities, reliability, and thermal performance.
- The simplicity of the AC motor allows it to operate at lower overall temperatures than equivalent DC motors. The simplicity in design eliminates the need to service brushes, brush rigging, and motor commutators. The result is **No arcing – No sparking – No maintenance which directly translates to lower cost, higher reliability, and longer product life.** (*DC motors require regular brush replacements and frequent cleaning of built up carbon as the brushes wear.*)
- The *optional* AC hoist motor has all the same features as the traction motor. The AC hoist motor, when controlled by the Hoist Motor 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.**

Note: 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.

- Like our current DC system, the AC controller can directly accelerate or decelerate (regenerative brake) the traction motor in both directions. However the benefit of the AC controller is that it instantaneously switches torque from one direction to the other without the slight pause during the direction change typical of DC control systems.
 - The AC system provides a very smooth transition between forward and reverse increasing operator productivity.
-

OTHER NEW DESIGN BENEFITS

Control System Advantages

- 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 manufacturers conventionally equipped DC and AC products in many cases. ***Keep in mind, whenever performance is increased, energy consumption is also increased regardless of truck manufacturer.***
- The Thermal Management System is well balanced between the thermal limits of the motors and the controls. The new AC system provides improved thermal performance over the previous DC system. In tough thermal applications, the new AC system will run longer before initiating performance reductions. Additionally, the new system allows the truck to continue running at a reduced power level, rather than shutting down.
- Our new control system provides on board diagnostic capabilities in both run and non run-time scenarios resulting in minimized truck down time.
- The AC controller can instantaneously switch torque from one direction to the other without the slight pause during the direction change typical of DC control systems. This feature provides a very smooth transition between forward and reverse increasing operator productivity.

On-Demand Power Steering

The brush-less power steering motor with integrated steering controller provides on demand steering for low noise and low energy consumption. This feature allows us to provide our customers with a **100% brush-less** truck if ordered with the transistor controlled hydraulic option.

CANbus Technology

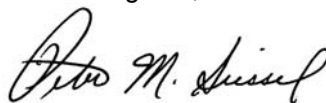
Unlike other manufacturers existing designs, these new AC products will utilize CANbus technology. This field proven technology is found on the current Hyster three wheel StanDrive® and Orderpickers. A significant advantage of this system is the reduction of wires typically not found on other manufacturers conventional systems. This reduction greatly reduces the opportunity for wiring related failures and truck down time by minimizing time needed for troubleshooting. ***The result is increased efficiency and decreased cost to maintain and repair.***

SUMMARY

We are excited about the release of this very important addition to our Class I family and the many opportunities and competitive advantages these trucks 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.