



PRODUCT INFORMATION BULLETIN



D/C # 4

February 22, 2005

Series Impact: D098 (formerly C098)

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

FROM: Kelly Smith – DIRECTOR, HYSTER MARKETING

SUBJ: New E70-120Z AC Controlled Model

Hyster Company is pleased to announce the new **AC Controlled** E70-120Z Counterbalanced Electric Rider product scheduled for April 2005 production. The E70-120Z model represents the next Hyster model to feature AC control technology. As a result, our entire electric rider product offerings utilize Hyster AC controls and all of the associated benefits of the system. Additional features now available on the E70-120Z include several ergonomic improvements to offer maximum comfort for operators. The result is an excellent package of power, performance and comfort that will make a significant improvement in your customers' bottom line.

As we make the conversion from old to new, we wish to ensure you have the interim marketing tools for the new series. This launch includes a complete set of Standard Price Pages and the E70-120Z Technical Guide. For your convenience, the standard and SPED price pages as well as the High Lift Sheets for this series are available immediately online at www.hysterusa.com.

E70-120Z PRICING

All new orders will be fulfilled with the new E70-120Z models. Some current orders may be converted to the new model. The Hyster Product Supply Call Center will contact dealers if this occurs. **New prices are effective immediately on all stock and rental orders. Customer orders will be price protected until March 24, 2005.**

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

- The Hyster AC traction and pump motors are less complex than conventional DC motors, providing superior torque, speed capabilities, reliability, and thermal performance.
 - The simplicity of the new Hyster AC motor allows the truck to operate at lower overall temperatures than equivalent DC motors of equal output. 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.**
 - As a result, overall periodic maintenance intervals can be extended to 500 hours in normal operating environments, reducing downtime and increasing productivity.
 - Auto Deceleration System (ADS) and Ramp-Hold features provide increased control and improved operator comfort when slowing down and negotiating ramps. ADS will bring the unit to a full, gradual stop when the pedal is released and will maintain the operator's intended speed down the ramp without the need to apply the brakes or plug the truck. Brake lining service life can be significantly extended with the use of ADS. If the unit is stopped on a ramp with the parking brake off, a unit equipped with Ramp-Hold will allow the truck to slowly descend down the ramp at a controlled rate of three inches per second to allow the unit to be brought to a stop. These features are both fully adjustable to suit the application and operator needs.

Hoist Motor

- The standard **Single** AC hoist motor has the same performance and efficiency of the prior dual transistor-controlled units without the additional complexity of a second motor and pump. Whether the application requires a tall mast or heavy attachment work, the new Hyster AC hoist system generates significant savings in cost per hour by eliminating the maintenance required by TWO brushed DC motors while maintaining excellent performance and battery shift life.
-

OTHER NEW HYSTER DESIGN BENEFITS

- The new overhead guard features curved front legs for added operator space. There is an additional four inches of room at the shoulders that provides exceptional entry and egress for the operator. A longer grab handle is positioned to accommodate operators of all heights and achieves a three-point entry stance.
- The redesigned operator step has been oversized for improved footing with a self-cleaning tread plate insert for maximum grip.
- Standard, on-demand power steering features a brushless motor that provides excellent control with reduced noise and requires no maintenance.
- A new steering column provides more operator leg room, and increased tilt adjustability in a low profile column. The directional shifter and tilt release have been relocated for easy and convenient access.
- The new Hyster AC pump and motor assembly has been relocated to underneath the battery compartment to reduce noise while operating.

Control System Advantages

- The E70-120Z has on-board ability to adjust truck settings and performance levels that meet customer requirements (through technician password) to take advantage of enhanced levels of performance. Hyster trucks outperform other manufacturer's 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 Hyster Thermal Management System is well balanced between the thermal limits of the motors and the controls. This provides **significantly** more reserve thermal capacity than prior systems allowing the truck to keep performing in the most demanding application. The AC traction and pump motor controllers are mounted in a sealed compartment area within the counterweight preventing external contamination and impact damage. Fresh air, provided by three industrial-quality fans move the air laterally through the compartment, transferring heat from the controls of the truck out and away from the operator. The fans are thermostatically controlled and do not operate unless they are required. In the unlikely event the unit reaches a point where performance needs to be reduced, top speed is maintained to keep your customers productive. Reductions are so gradual, the operator may not notice a difference until well into the upper levels of thermal cutback. By design, this truck takes care of itself to prevent damage to components under tough working conditions. Overall, the new E70-120Z provides significantly better thermal capacity than the previous E70-120XL3 series.
- The field-proven Hyster CANBus operating system minimizes the amount of necessary wiring and provides excellent troubleshooting abilities that increase truck efficiency while reducing maintenance and repair costs for the life of the truck.
- The On-Board diagnostics feature a large 40-character display with a 20-segment BDI unit to provide detailed and accurate information on truck status. Our new control system provides on board diagnostic capabilities in both run and non run-time scenarios resulting in minimized truck down time. All adjustments and tests can be made without the need of a handset. The programming menus and settings are identical to other four-wheel AC electric rider models in the Hyster product line for commonality and ease of service or adjustment.

Brake and Back-up Lights

The brake and back up light arrangements have been upgraded to LED lights in lieu of incandescent lights to provide maintenance-free operation with excellent durability for thousands of hours of carefree operation. This aligns the E70-120Z series with the rest of our AC electric rider product offerings.

Maintenance Savings

Based on the engineering improvements to the new E70-120Z, customers can expect cost savings in many areas, including reduced replacement of contact tips and the elimination of motor brushes. Also, a significant savings can be realized in maintenance costs when comparing this new model to its predecessor. Estimated savings from reduced parts replacement and labor are up to 38 cents per hour compared to the E70-120XL3 model.

Costs Associated With Periodic Maintenance Over 10,000 Hours

E70-120XL3	\$1.06 Hour
E70-120Z	\$0.68 Hour

SUMMARY

The introduction of the Hyster E70-120Z AC product will advance our competitive position in the marketplace by providing improved thermal performance and 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 AC 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** AC hoist motor, and **BRUSHLESS** on-demand power steer motor.

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,



Kelly A. Smith
Director, Hyster Marketing

CONFIDENTIAL MATERIAL.

**For use by Hyster Company Employees and Hyster Authorized Dealers Only.
Do not copy or distribute.**

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.