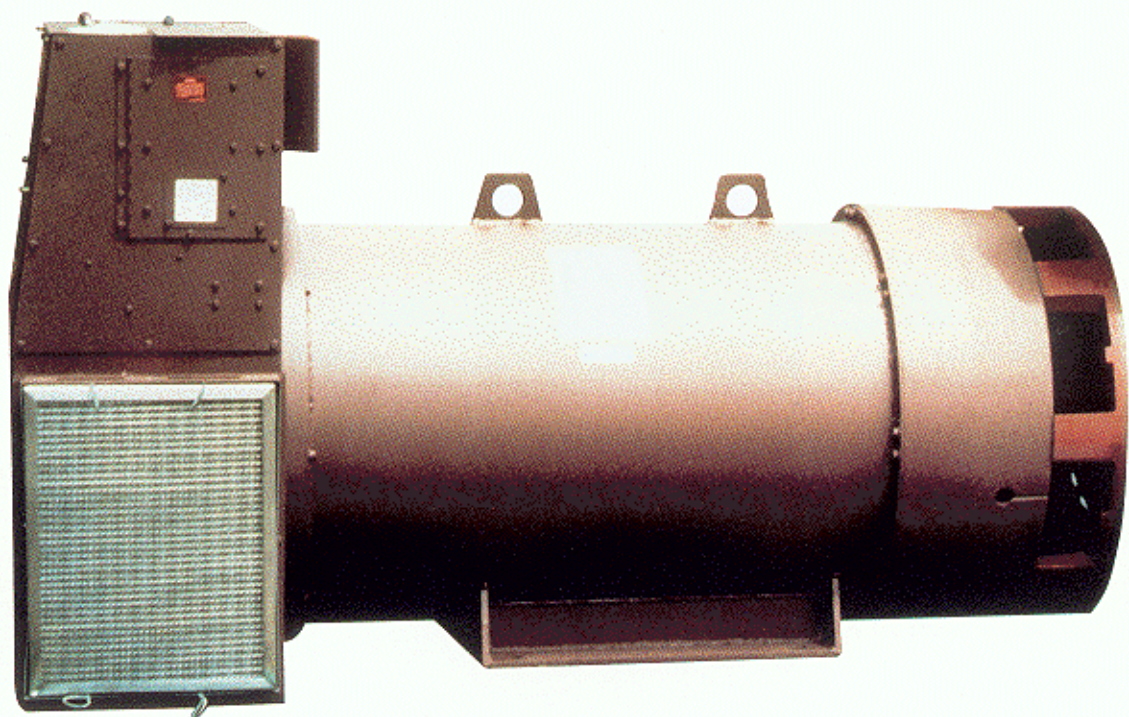


**CRANE DUTY  
MAGNAMAX<sup>®</sup>**



**Your Generator  
For All Port  
Crane Applications**

ISO 9002  
CERTIFIED

**MARATHON<sup>®</sup>  
ELECTRIC**

**RUNS.  
AND RUNS.  
AND RUNS.  
AND RUNS.**





# CRANE DUTY MAGNA MAX<sup>®</sup>

## MagnaMAX Crane D

Features that make it the indus

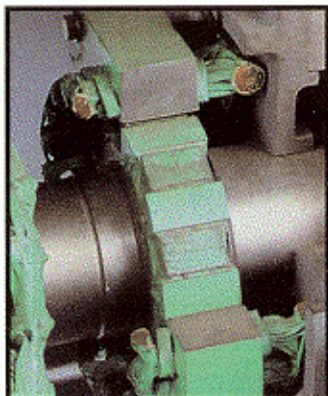
### Patented Regulator

The digital voltage regulator is PMG powered and completely encapsulated for reliable operation in all environments. Fully tested to withstand 20 G's in all planes, and vibration to 0.035 inch peak. Includes 1/4% regulation, adjustable volts/hertz underspeed protection, 3 phase true RMS sensing, paralleling, loss of sensing protection (senses continuity) and over excitation protection as standard. The regulator is conveniently mounted on a hinged panel for ease of inspection, maintenance and safety.



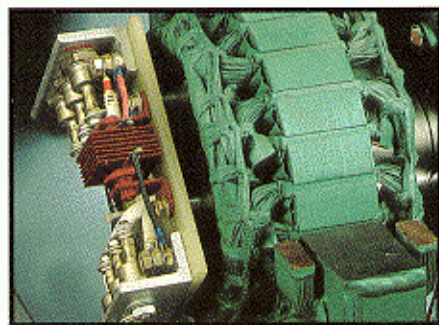
### PMG Excitation

The permanent magnet generator (PMG) excitation system provides 300% short circuit excitation support for a minimum of 10 seconds and isolates the regulator power circuit from non-linear loads. The PMG is mounted outboard of the bearing for ease of inspection and maintenance.



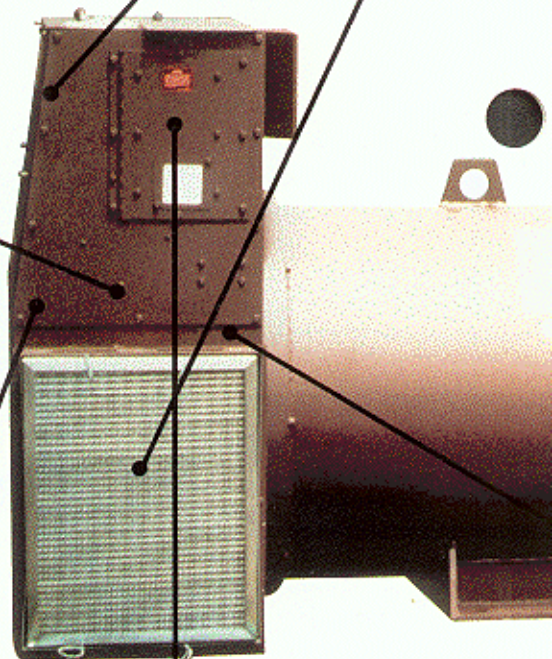
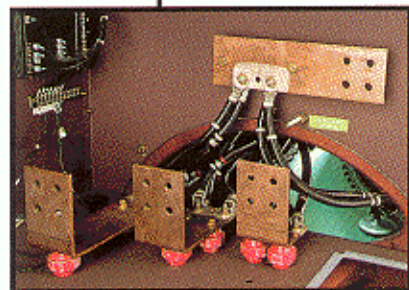
### Brushless Exciter

The rotating rectifier assembly utilizes 1000 volt rectifiers and surge protection for induced spike protection. The exciter is mounted outboard of the bearing for ease of inspection and maintenance. The exciter stator design includes toroidal wrapped coils. The exciter stator and rotor are vacuum pressure impregnated in 100% solids epoxy.



### 4 Bus Bars

The oversize conduit box provides ample room for lead connections to the 4 bus bars that are provided as standard for simplified load lead terminations. The load leads can access the conduit box from the top, bottom, or either side. The load lead connections are isolated from all rotating components.



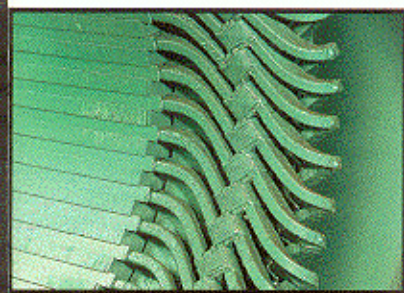


# uty Generators.

## try standard.

### Side Intake Air

Stainless Steel Filters, along with multiple changes in direction of air flow, provides clean cooling air with reduced moisture. Pressure shut off/alarm switch protects the generator from overheating due to dirty air filters.

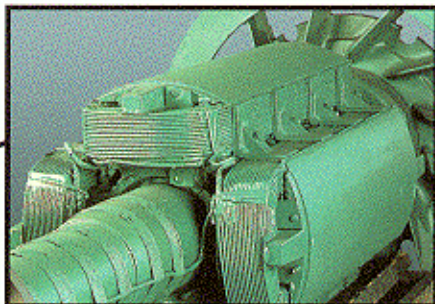


### Form Wound Coils

Coils are precision formed using double dacron glass over Amide-Imide overcoated polyester insulated copper rectangular wire. The coils are then wrapped with multiple layers of glass tape over mica tape to provide a superior insulation system. The coils are lashed to steel surge rings located at both ends of the winding.

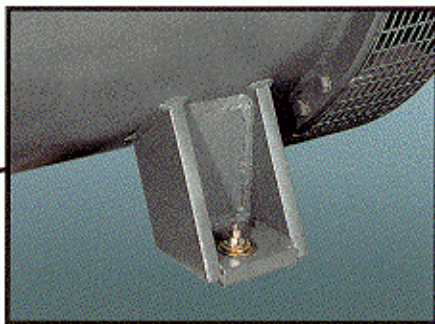
### VPI Treatment

The wound stator assembly is vacuum pressure impregnated in 100% solids epoxy for maximum system integrity and environmental protection. The completed stator assembly, PMG stator, exciter stator and rotor are given additional overcoats of Polyester and Epoxy for added environmental protection.



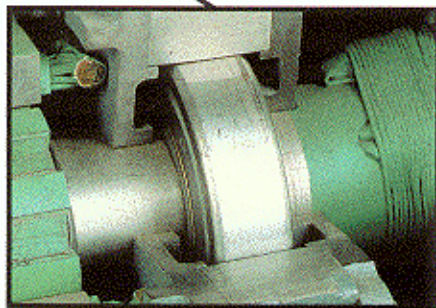
### Unirotor Construction

This Marathon Electric exclusive features a single piece rotor lamination, coupled with a die-cast rotor core and amortisseur winding. The copper field winding is layer wound with thermo setting epoxy for high mechanical and electrical integrity and has an epoxy overcoat for salt spray protection.



### Rugged Construction

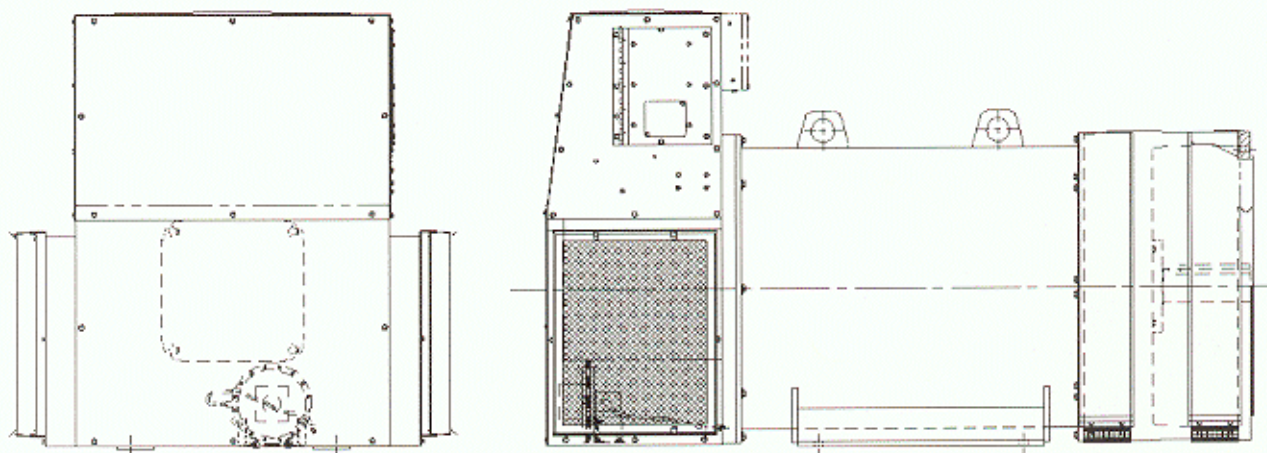
This heavy-duty frame construction assures low vibration and long life. Internal frame supports, along with the external girth rings and the rigid mounting feet, are welded to the rolled steel plate to form a strong, unitized frame. A IP23 dripcover and space heaters are standard.



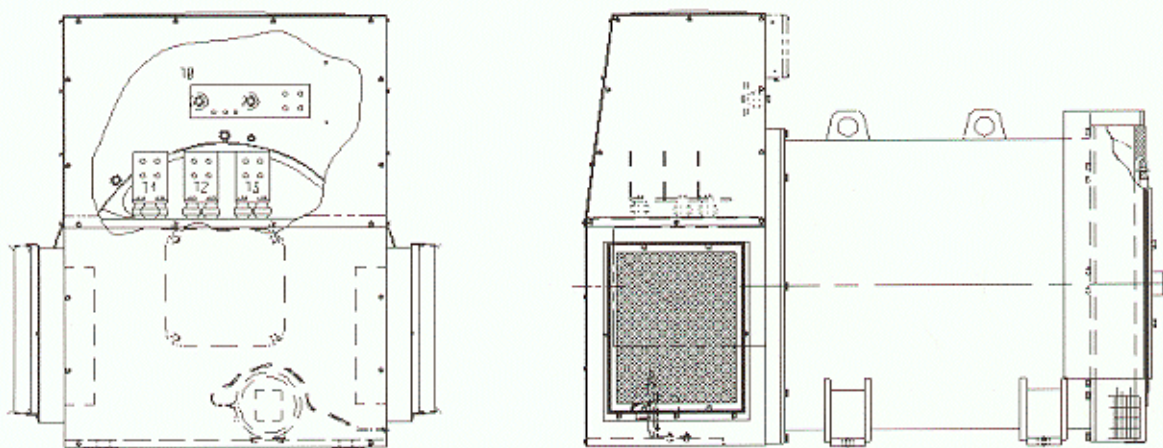
### Heavy-Duty Bearings

Heavy-duty, shielded ball bearings are designed for a minimum B-10 life of 40,000 hours. The bearings are protected on each side by cast-iron bearing caps to prevent contamination from entering the bearing. Extended grease and relief fittings make bearing regreasing easy. Available in single bearing or close coupled two bearing construction.





## Two Bearing Close Coupled Design



## Single Bearing Design

Ratings for these generators are very application specific, due to the critical requirements of cranes. Each installation requires a comprehensive review of the specifications and the crane control requirements. For Application Engineering assistance, please contact the factory or forward your specification requirements. Dimension prints will be submitted with each quotation.

Marathon Electric Mfg. Corp.  
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Facsimile No. (715) 675-7290  
Telex No. 260175

SB 508 8/94 Litho in U.S.A.

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