



# Receiving, Handling, and Storage of GE Drive and Exciter Equipment

## Safety Symbol Legend



### Caution

Indicates a procedure or condition that, if not strictly observed, could result in damage to or destruction of equipment.

*These instructions do not purport to cover all details or variations in equipment, nor to provide every possible contingency to be met during installation, operation, and maintenance. If further information is desired or if particular problems arise that are not covered sufficiently for the purchaser's purpose, the matter should be referred to GE Industrial Systems.*

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## Receiving the Equipment

*GE provides handling and environmental guidelines to the carrier to protect the equipment during shipment.*

### How the Equipment is Shipped

Equipment can consist of an individual drive/exciter or a lineup. General Electric Company (GE) carefully inspects and packs all equipment before shipping it from the factory. A packing list, which itemizes the contents of each package, is attached to the side of each case of the equipment.

### Checking for Damage

**Immediately upon receipt**, place the equipment under adequate cover to protect it from adverse conditions (see *Storage*). Then carefully examine the contents and check them against the packing list.

Immediately report any shortage, damage, or visual indication of rough handling to the carrier. Then notify both the transportation company and GE. Be sure to include the serial number, part (model) number, drive code, GE requisition number, and case number when identifying missing or damaged parts.

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# Equipment Handling Procedures

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## Caution

Shock caused by rough handling can damage electrical equipment.

*The shipped equipment may consist of either a single cabinet or multiple cabinets secured together in a lineup, typically not exceeding 15 ft in length.*

GE recommends that you **do not completely** unpack the equipment until it has been moved as near as possible to its permanent location and it is time to install. This practice helps ensure that loose parts remain with the drive(s). Additionally, the shipping enclosure helps protect the equipment during storage.

**Before lifting and moving the equipment**, always refer to the equipment outline drawings, if available. Become familiar with the designated lift points and the stress points, and any specified handling instructions.

**While lifting and moving the equipment**, be sure to follow the suggested methods in this document for handling the equipment, along with normal handling precautions. Additionally, it is important to observe any instructions that may be printed on or attached to the equipment container or wrapping.

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## Lifting



## Caution

Some drives/excitors must not be lifted and moved using equipment that applies pressure from below, such as a forklift. Doing so could damage the drive/exciter frame.

*Lifting beams are attached across the top of the lineup at the factory. Refer to equipment outline drawings.*

- Use a crane for lifting the drive/exciter or lineup, unless the applicable documentation definitely specifies that other lifting equipment is acceptable. **If a crane is required but not available for lifting, contact GE for guidelines on using other methods.**
- Make sure that the lifting equipment is suitable for the configuration and weight of the drive/exciter.
- Observe the center-of-gravity.
- Make sure that the lifting beams are tightly secured to the drive/exciter.
- Use at least four hooks for lifting (see Figure 1).
- The lift cables should be at an angle greater than 45 degrees from the horizontal. Use spreader bars or similar equipment to ensure this angle.
- Lift the drive/exciter in a slow and steady manner to an acceptable clearance height.
- Check for any flexing of the equipment. If noticed, lower the lineup and re-position the cables.

## Moving

- When using a crane, be sure that motions are slow and smooth so that the drive/exciter does not swing.
- If using other moving devices, such as rollers:
  - Be sure to place the rollers at the shipping splits and at the corners to reduce potential stress.
  - Roll only on the shipping pallets that are attached to the cabinets when shipped from the factory.
- Do not move with a forklift, since the weight of the drive/exciter against the forklift tines would put damaging pressure on the drive/exciter frame.
- Make sure that all doors are closed and latched.

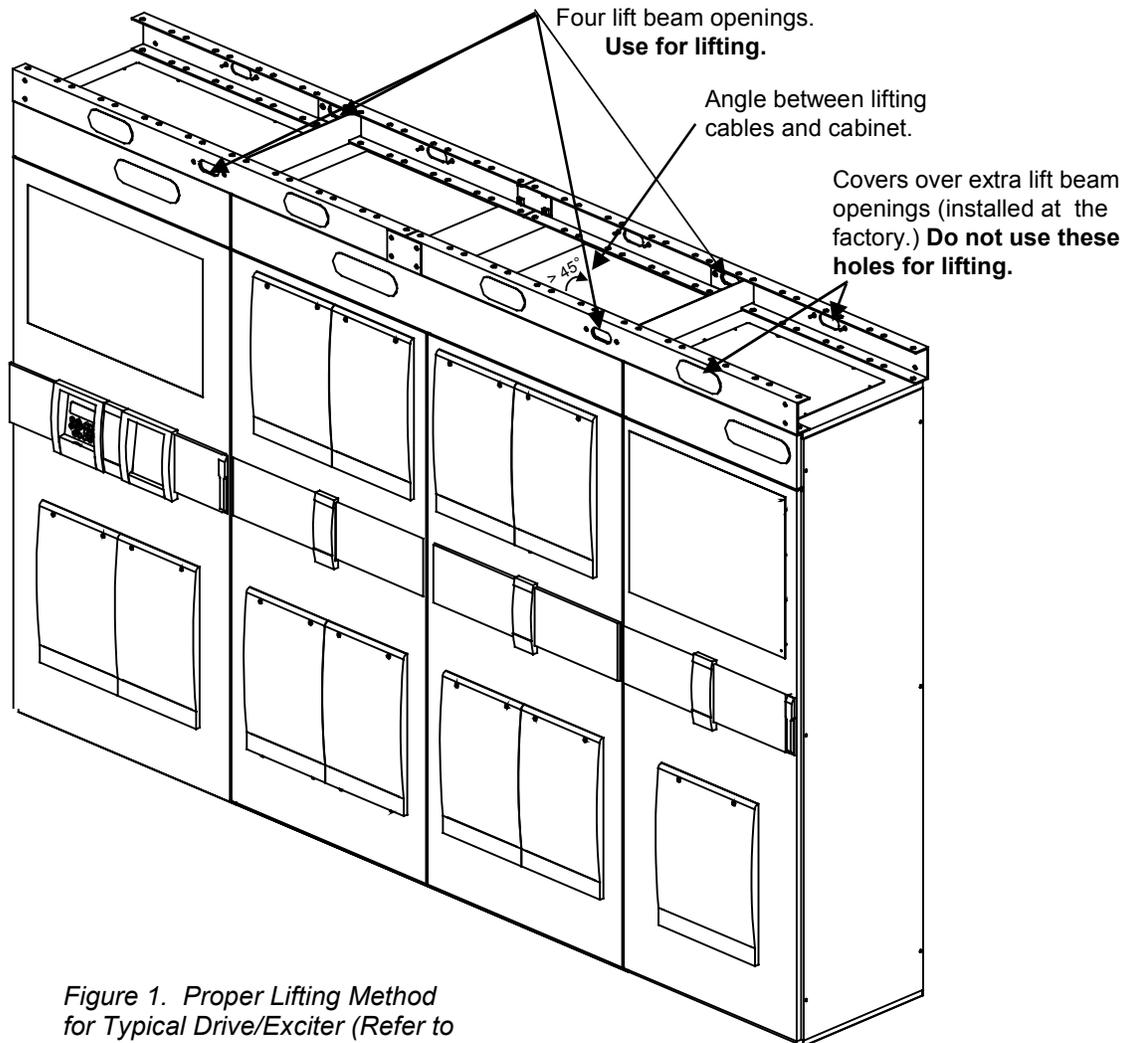


Figure 1. Proper Lifting Method for Typical Drive/Exciter (Refer to equipment outline drawings)

## Unpacking

**Recommended:** Do not completely unpack the equipment until it is placed as near as possible to its permanent location.

- If the equipment has been exposed to low temperatures for an extended period, do not unpack it until it has reached room temperature (location where drive/exciter will be mounted).
- Use standard unpacking tools, including a nail puller.
- When unpacking, check the contents of each case against the packing list. Report any shortage to GE.
- Carefully remove the packaging and move the equipment from its container, still observing all lifting and handling guidelines.
- While unpacking, inspect for damage that may not have been detected at the time of receipt.
- Wipe off any particles of packing materials or foreign substances that may be lodged in or between the parts.
- Small parts (such as bolts and screws) are packed in special containers to keep them together, but may become separated. For this reason, carefully inspect the packing material for loose parts before discarding it.

Document and report equipment damage to GE.

➤ **Do the following if equipment damage is discovered while unpacking**

1. Stop unpacking immediately and report this finding to the carrier (transportation company).
2. Photograph the damage (photographs may be needed later in processing the claim).
3. File a claim with the carrier.
4. Contact the local service office of GE Industrial Systems for assistance.
5. When identifying missing or damaged parts, be sure to include the following information (refer to the nameplate):
  - Serial number
  - Part (model) number
  - Drive/exciter code
  - GE requisition number
  - Case number

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# Storage

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**Packing cases are not suitable for outdoor or unprotected storage.**

## **Caution**

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If the equipment is not installed immediately upon receipt, it must be stored properly to prevent corrosion and deterioration. Use these guidelines:

1. Place the equipment under adequate cover with the following requirements:
  - a. Keep the equipment clean and dry, protected from precipitation and flooding.
  - b. Use only breathable (canvas type) covering material – do not use plastic.
2. Unpack the equipment as described on the following page, and label it.
3. Maintain the following environment in the storage enclosure:
  - a. Ambient storage temperature limits from -25 °C to 70 °C (-13 °F to 158 °F).
  - b. Surrounding air free of dust and corrosive elements, such as salt spray or chemical and electrically conductive contaminants.
  - c. Ambient relative humidity from 5 to 95% with provisions to prevent condensation.
  - d. No rodents.
  - e. Avoid temperature variations that cause moisture condensation on the equipment.



**Moisture on certain internal parts can cause electrical failure.**

## **Caution**

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### **Preventing Condensation**

**Condensation** occurs with temperature drops of 15 °C (27 °F) at 50% humidity over a 4-hour period, and with smaller temperature variations at higher humidity.

If the storage room temperature varies in such a way, install a reliable heating system that keeps the equipment temperature slightly above that of the ambient air. This can include space heaters or panel space heaters (when supplied) inside each enclosure. A 100 watt lamp can sometimes serve as a substitute source of heat.



**To prevent fire hazard, remove all cartons and other such flammable materials packed inside units before energizing any heaters.**

## **Caution**

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## ***Time Limitations and Warranty***

The above specifications apply to shipping and storage duration of up to one year. Longer times may require additional treatment.

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**Note** It is important that the specifications defined in this publication be followed at all times. Failure to do so will void the equipment warranty.

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Product **warranty information**, including warranty period and parts and service coverage are defined at the time of sale. This information is included with customer documentation, but can also be obtained from the nearest GE sales office or GE sales representative, if needed.

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## ***How to Get Help***

If help is needed beyond the instructions provided in the documentation, contact GE as follows:

GE Industrial Systems  
Product Service Engineering  
1501 Roanoke Blvd.  
Salem, VA 24153-6492 USA

Phone: + 1 800 533 5885 (United States, Canada, Mexico)  
+ 1 540 378 3280 (International)  
Fax: + 1 540 387 8606 (All)

*“+” indicates the international access code required when calling from outside of the USA.*



***GE Industrial Systems***