

Global Manufacturing Standards	 Manufacturing Equipment Handling and Packaging	Standard Number w-KA2
		Issue Date: 20060929
		Rev:

1. Purpose and Scope

This standard specifies the requirements for packaging and handling of machinery and equipment shipped into any Ford Motor Company facility that may be subject to lifting or transportation.

This standard supplements the requirements of the Global Manufacturing Standard, wKA-1, Weight Marking of Manufacturing Equipment. These two (2) standards shall be used together to facilitate safe handling of equipment.

1.1 Applicability/Scope

This standard applies to all machinery and equipment where individual pieces, or groups of component pieces, may be lifted or transported either in whole or as a sub-assembly, and any equipment or machinery which may be subject to lifting or transportation, having an individual mass exceeding 100Kg (220 lb).

All new or rebuilt machinery and equipment shall comply with the requirements of this standard.

This standard shall apply at all Ford Motor Company locations.

1.2 Exceptions

None

1.3 Mandatory and Preferred Items

Mandatory requirements for this standard are characterized by the use of the word "shall". There are no deviations for these requirements. Preferred items are characterized by the use of the word "should".

1.4 Objectives

The objectives of this manufacturing standard are as follows:

- Specify packaging performance criteria which will prevent non-containerized equipment from toppling or falling over when resting unsecured on a surface or when being handled.
- Specify packaging requirements for equipment to be transported or moved in order to facilitate safe and efficient handling and rigging.
- Specify packaging requirements that will promote safe and efficient handling of equipment and machinery.

2. Reference Standards

2.1 Ford Standards and Specifications

wKA-1 – Weight Marking of Manufacturing Equipment

Manufacturing Engineering

General Guidelines

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FAS08-128 – Safe Practices for Overhead Cranes and Hoists

Safety Bulletin 130 – Mobile Boom Crane Operators Training and Testing Requirements

UAW-Ford Lifting and Rigging Mini Manual Training Guide

W-DX - Worldwide Die Design and Construction Specifications, Vehicle Operations

2.2 Industry Standards

ISO TR 10232 – General-purpose flat pallets for through transit of goods – Design rating and maximum working load

ISO TR 10233 – General-purpose flat pallets for through transit of goods – Performance requirements

ISO TR 11444 – Quality of sawn wood used for the construction of pallets

49 Code of Federal Regulations

3. Definitions

Manufacturing machinery – Any piece of equipment used to machine, handle, or assemble components or other pieces of materials that are part of the automotive manufacturing and assembly process.

Lift points – The portion of a machine or piece of equipment whose primary purpose is to facilitate handling of the equipment. Examples of lift points include; fork pockets or eye bolts designed and rated for lifting of the equipment.

4. Appendices

None

5. General Requirements

All machines, equipment and component pieces of equipment systems supplied to any Ford Motor Company location must be designed in such a manner that it will not fall or topple over when standing unrestrained on a reasonably horizontal surface. The horizontal surface shall include, but not be limited to, a plant operations floor or the flatbed of a shipping trailer.

6. Instructions / Requirements

6.1 Equipment Design Requirements

All manufacturing machinery shall be designed and packaged to facilitate safe handling and shall have lift points intended for moving and handling the equipment integrated into the design. All lift points must be clearly identified as such. Examples of lift points include; Manufacturing Engineering

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