

GP 04-14-01	Equipment Lifts by Cranes	April 2007
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Equipment Lifts by Cranes

GP 04-14-01

Scope

- 1) [I] This Global Practice (GP) covers lifts using cranes associated with the erection and dismantling of plant equipment and structures. It does not cover lifts using other devices such as hydraulic jacks or permanent or fixed lifting equipment, such as overhead trolleys, exchanger hoists, etc.
- 2) [I] This GP is applicable only to onshore applications including inland and near shore terminals.

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1. Required References

- 1) This section lists the Practices, codes, standards, specifications, and publications that shall be used with this document. Unless otherwise specified herein, use the latest edition.
- 2) All sections of the Practices, codes, standards, specifications, and publications are to be applicable. All requirements specified in this GP are additions to those of the documents referenced in this section unless specifically noted as exceptions.
- 3) Local codes and standards may be substituted for those referenced herein, provided the following provisions are met:
 - a) The resultant design meets the safety and serviceability criteria attained through this GP.
 - b) [A] Substitution is accepted by the authorities at the facility location and by Owner's Engineer.

1.1. Global Practices–ExxonMobil Engineering Practices

GP 05-01-01	Pressure Vessels
GP 18-07-01	Welding Procedures

1.2. AISC–American Institute of Steel Construction

AISC 360	Specification for Structural Steel Buildings
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1.3. ASCE–American Society of Civil Engineers

ASCE 7	Minimum Design Loads for Buildings and Other Structures
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1.4. ASME–American Society of Mechanical Engineers

ASME B30.3	Construction Tower Cranes
ASME B30.4	Portal, Tower, and Pedestal Cranes
ASME B30.5	Mobile and Locomotive Cranes
ASME B30.6	Derricks
ASME B30.9	Slings
ASME B30.10	Hooks - Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings
ASME B30.20	Below-the-Hook Lifting Devices
ASME B30.22	Articulating Boom Cranes
ASME B30.23	Personnel Lifting Systems Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings

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ASME B30.26	Rigging Hardware Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings
ASME BTH-1	Design of Below-the-Hook Lifting Devices

1.5. ASTM-American Society for Testing and Materials

ASTM A 36/A 36M	Standard Specification for Carbon Structural Steel
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1.6. Other Publications

TMEE 233	ExxonMobil Onshore Crane/Lifting Safety Management Guide
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2. Definitions

[I] Equipment (as used in this Practice) to be lifted is synonymous with structures to be lifted.

Term	[I] Description
Cranes	Land-based equipment and machinery used to lift, lower, and swing loads at various radii. These include, but are not limited to: crawler-mounted lattice boom; carrier-mounted lattice and telescope boom; stiffleg and guy derricks; pedestal; rough terrain; all terrain; boom truck and carry deck; tower cranes; overhead and gantry cranes, as well as lift enhancing attachments for these cranes.
Critical Lifts	Lifts meeting one or more of the following, unless Owner, through risk assessment, specifies otherwise: 1) The load is being lifted over or near an occupied building, operating equipment, or electrical power-lines. 2) Two or more pieces of lifting equipment are required to work in unison. (This includes using a tailing crane.) 3) Special lifting equipment, such as ginpoles or non-standard crane configurations, is used. 4) The load is greater than 50 tons (45 metric tons). 5) The load represents more than 90 percent of the manufacturer's rated capacity at the working radius. 6) The load is greater than 20 tons (18 metric tons) and is also greater than 80 percent of the manufacturer's rated capacity.
Engineered Lifting Components	Rigging hardware designed to meet the requirements of a specific lift or lifts.

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