

CICA HOIST SECTOR FAQs – TYPES OF CRANES/CRANE DEFINITION

A. What are the crane types?

Summary: Mobile cranes, vehicle loading cranes, tower cranes, overhead travelling cranes, monorail cranes, portal cranes, jib cranes and serial hoist

B. What cranes do the overhead crane and hoist group review?

Summary: Bridge cranes, gantry cranes, monorail cranes, portal cranes, jib cranes and serial hoist.

Bridge Crane

An overhead crane, commonly called a bridge crane, is a type of crane found in industrial environments. An overhead crane consists of parallel runways with a traveling bridge spanning the gap. The common bridge crane can have either a chain or wire rope hoist that is normally mounted onto a traversing trolley and then connected to long travel motors. A typical bridge crane can lift and lower and travel in 4 directions.

Bridge Crane	Design Standard	AS1418.3
	Operating Standard	AS2550.3



Lifting Industry Standards

Gantry crane

Gantry cranes are a type of crane built atop a gantry, which is a structure used to straddle an object or workspace. They are also called portal cranes, the "portal" being the empty space straddled by the gantry. The terms gantry crane and overhead crane (or bridge crane) are often used interchangeably, as both types of crane straddle their workload. The usual distinction drawn between the two is that with gantry cranes, the entire structure (including gantry) is usually wheeled (often on rails).

By contrast, the supporting structure of an overhead crane is fixed in location, often in the form of the walls or ceiling of a building, to which is attached a movable hoist running overhead along a rail or beam (which may itself move). Further confusing the issue is that gantry cranes may also incorporate a movable beam-mounted hoist in addition to the entire structure being wheeled, and some overhead cranes are suspended from a freestanding gantry.

Gantry Crane	Design Standard	AS1418.3
	Operating Standard	AS2550.3

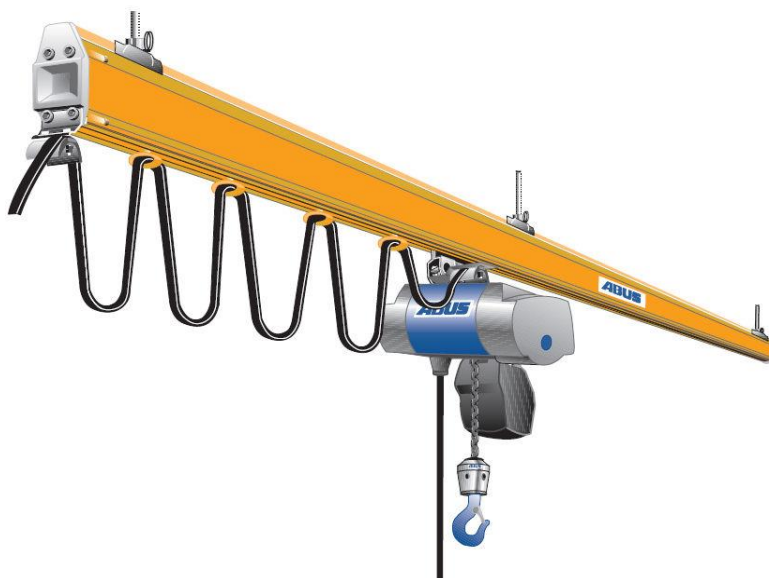


Lifting Industry Standards

Monorail crane

A monorail system is a simple lifting device with one stationary beam that has a hoist and trolley. Because of its lightweight design, it delivers fast speeds for handling materials to specific locations. AS1418.2, AS1418.3 and AS2550.3 are the design and operating standards for monorail cranes.

Monorail Crane	Design Standard	AS1418.2 AS1418.18
	Operating Standard	AS2550.1 AS2550.3



Portal crane

Portal cranes are a form of crane where a large rectangular framework forms a flat-topped arch with a gantry across the top. This whole portal frame can move in one direction by a railway truck under each end. The lifting gear itself is on a small trolley that can move crossways along the horizontal gantry. For this reason, the cranes are often described as "gantry" cranes. Gantry cranes and portal cranes are similar, but gantry cranes have a single horizontal beam rather than an arch. Portal cranes are commonly found in shipyards. Most of the world's very biggest cranes, both in size and in lifting capacity are of this type.

Portal Crane	Design Standard	AS1418.3
	Operating Standard	AS2550.3



Jib crane

Jib Cranes consist of a horizontal load supporting boom, which is attached to a pivoting vertical column that is either free standing or building mounted. They enable lifting and lowering of a load within a fixed arc of rotation. Jib Cranes can be provided in a variety of capacities and configurations including motorized rotating column.

<i>Jib Crane</i>	<i>Design Standard</i>	<i>AS1418.3</i>
	<i>Operating Standard</i>	<i>AS2550.3</i>



Lifting Industry Standards

Serial hoist

Serial hoists are stand along hoist packages, it can be manually operated or power operated. It forms part of the crane unit,

A chain hoist is a type of serial hoist, it typically referred to as a hoist that uses chain as it means of lifting items. A chain hoist can be confusingly referred to as a chain block, but a chain hoist refers to an electric hoist that uses chain to assist lifting loads.

Serial Hoist	Design Standard	AS1418.3
	Operating Standard	AS2550.1



Serial Hoist



Chain Hoist



Chain Block