

WHAT IS IT ?

Our What is it? series answers questions about some of the lesser known objects found on the construction site.

PICK IT UP

What is it? A concrete barrier lift. It is also referred to as a barrier tong, grip or grab.

What is it used for? The barrier lift is used to move extremely heavy concrete forms known as Jersey barriers or Jersey walls. These pre-cast barriers are frequently used on roadways to separate traffic but are also used on construction sites to protect workers from areas of active construction or locations which are dangerous such as deep excavations.

How does the barrier lift work? This is a simple yet very effective piece of equipment and requires no auxiliary hydraulic hookups. The barrier lift is attached to a piece of heavy construction equipment such as a crane, bulldozer or loader. The lift is then positioned over the barrier and the equipment operator lowers the lift. Once the barrier lift is lowered, rubber pads automatically grip the barrier. The rubber grips help protect the concrete from damage but also provide a strong bond with the concrete. The barrier is then lifted and lowered to the desired location. The impact of the barrier hitting the ground causes the tension to be relieved and the barrier is automatically released.



Close up of the barrier lift



The barrier lift moving a concrete barrier



Barrier lift suspended in the air

Why are there handles on the side of the barrier lift? The handles are needed in certain situations where it can be difficult to align the lift with the top of the barrier. The handles are used by a trained worker to help guide the lift to the center of the barrier.

Can you use the barrier lift in all weather conditions? Yes, the rubber pads are not only durable but designed to not slip even if they are wet.

How big is the barrier lift? There are several sizes of barrier lifts. The ones used on the Gordie Howe International Bridge project site are approximately 112 cm/44 inches by 97 cm/39 inches by 91 cm/36 inches and weigh approximately 386 kilos/850 pounds.

How much can it lift? The maximum capacity of the barrier lifts used at the Gordie Howe International Bridge project is almost 5500 kg/12100 pounds. However, different models can lift more than 18000 kg/40,000 pounds.