



G0012 Top Lift Frame Operation

G0012	Version 1	General Info	28/1/04
-------	-----------	--------------	---------

Optional Toplift Frame

Where a Steelbro sidelifter is required to carry out numerous container transfers as part of a continuous on site supply chain in conjunction with companion vehicles or rail wagons, the Steelbro toplift frame offers favourable options to operators.

The Steelbro toplift frame is fabricated to complement any standard Steelbro sidelifter at time of manufacturing. The toplift frame is easily demountable offering both toplift frame or standard lifting chain operations where required.

The toplift frame is secured to the lifting cranes of the Steelbro sidelifter with a small chain assembly secured to the standard oblong-lifting ring placed over the top arm-lifting pin. The four twistlock mechanisms for securing the toplift frame to the container are operated by the sidelifter hydraulic system. Both the hydraulic and electrical connections for the toplift frame are fitted with quick release couplings mounted on the rear top arm assembly.

To attach the toplift frame to the sidelifter.

Using a suitable forkhoist supporting the toplift frame, position between lifting arm modules at height of sidelifter chassis.

Ensure lifting chains are removed first.

Move lifting arms across to toplift frame.

Secure yellow oblong lifting rings to each top arm lifting pin.

Remove dust caps from hydraulic couplings and connect toplift frame hydraulic hoses.

Remove dummy plug from electrical coupling and connect toplift frame electrical plug.

Where a toplift frame is fitted to a sidelifter, for the lifting arms to operate an electrical connection is required. To allow all functions to work without the lifting frame, a dummy plug needs to be connected to the electric plug mounted on the top arm.

Raise the toplift frame and remove the fork hoist.

Operation of toplift frame.

The toplift frame is positioned above the top corner castings of the container with normal operation of lifting arms, keeping the lifting G pin in line with the centre of container. As each twistlock is positioned an interlock safety pin is engaged. This prevents the twistlocks from being operated during any lifting operations.

The twistlocks are operated by selecting the twistlock position on the function switch of the remote control box and the operation of the rear crane joystick.



Indicator lights for the operator are mounted on the rear top of the lifting frame, consisting of three coloured lights. Red, white and amber. When positioning the toplift frame over the container, the red light is illuminated, indicating that no lift should be carried out as twistlocks are in the unlocked position. Once the toplift frame is correctly positioned on top of the container, with all four twistlocks correctly in the corner castings of the container, the amber light will be illuminated, indicating correct position and ready to lock.

When the twistlocks are in the locked position and fully locked, the white light will illuminate, indicating that you can commence your lift. Both the red and amber lights should cease to operate when the white light is on. Only lift and transfer a container when the white light is illuminated.

Stowage of toplift frame during transit.

For stowage, the toplift frame has two poles secured permanently next to the front and rear twistlocks on the lifting side and held in position by a stowage hook fitted in the centre of frame.

On the offside of the sidelifter chassis, at a central point between the two lifting cranes, two small chains with snap hooks are secured. Both the poles and hooks are used to secure the toplift frame. Raise the top arms of sidelifter until toplift frame is over halfway across the sidelifter. Remove the poles from the stowage hook and secure this end to each snap hook on sidelifter chassis.

Lower the top arms until toplift frame is stowed on an angle with securing poles on a diagonal across the sidelifter chassis.