CLAIMS

1. A system for coupling and decoupling of a twistlock to and from a container, the system comprising:

   an actuated linkage having a master effector at an end of said linkage;

   an array of end effectors, each end effector corresponding to a different type of twistlock;

   said actuated linkage arranged to move the master effector between a pre-determined end effector within said array, a twistlock storage area and a casting of said container, said casting arranged to receive the twistlock;

   wherein the master effector is arranged to engage the predetermined end effector and either de-couple a twistlock from the casting before moving the twistlock to the twistlock storage area or engaging a twistlock within the twistlock storage area and moving said twistlock to the casting for coupling to the container;

   wherein the twistlock storage area includes a twistlock storage rack for holding and receiving a plurality of twistlocks.

2. The system according to claim 1, wherein the actuated linkage is movably mounted so as to permit linear translation of the actuated linkage.

3. The system according to claim 2, wherein the actuated linkage is arranged to move the master effector through a combination of articulation of the linkage and the movable mounting.

4. The system according to claim 2 or 3, wherein the movable mounting includes a linear actuator the linear actuator arranged to drive the actuated linkage.

5. The system according to any one of claims 2 to 4, wherein the movable mounting includes a linear guide, said linear guide arranged to guide the movement of the actuated linkage.

6. The system according to any one of claims 1 to 5, wherein the array of end effectors includes an array of tool recesses, each tool recess corresponding to one end actuator.

~~7. The system according to any one of claims 1 to 6, wherein the twistlock storage area includes a twistlock storage rack for holding and receiving a plurality of twistlocks~~

~~8.~~7.The system according to any one of claims 1 to ~~7~~6, further including a work cell, said work cell comprising a platform upon which the actuated linage is mounted, said platform having lifting components such that the work cell is arranged to be lifted via said lifting components.

~~9.~~8.The system according to any one of claims 1 to ~~8~~7, wherein the ~~tool, storage area includes a twistlock storage rack, said~~ twistlock storage rack arranged to be selectively removed from the system.

~~10.~~9. A method for coupling and decoupling a twistlock to and from a container, the method comprising the steps of:

moving a master effector, located at the end of an actuated linkage, to an array of end effectors, each end effector corresponding to a different type of twistlock ~~an actuated linkage having a at an end of said linkage~~;

fixing a predetermined end effector to the master effector, from the array of end effectors;

either;

moving the end effector to a casting of the container and engaging a twistlock coupled thereto with the end effector, and de-coupling the twistlock using the end effector, then;

moving the de-coupled twistlock to a twistlock storage area and disengaging said twistlock from the end effector to said twistlock storage area; said twistlock storage area includes a twistlock storage rack for holding and receiving a plurality of twistlocks;

or;

moving the end effector to a twistlock storage area and engaging a twistlock coupled thereto with the end effector, and de-coupling the twistlock using the end effector, then; said twistlock storage area includes a twistlock storage rack for holding and receiving a plurality of twistlocks;

moving the twistlock to a casting of the container and coupling the twistlock to the casting, then;

disengaging said twistlock from the end effector.

~~11.~~10. The method according to claim ~~10~~9, wherein each moving step includes the step of linearly translating the actuated linkage along a linear guide.