# TABLE OF CONTENTS

1.0 Purpose 

2.0 Scope 

3.0 Procedure 

3.1 Roles, Accountabilities and Responsibilities Crane Operator 

3.1.1 MPC HEO Supervisor or designee 

3.1.2 Servicing Group Representative 

3.1.3 Rigger 

3.1.4 Signal Person 

3.1.5 Responsible Engineer 

3.1.6 Lift Director 

3.2 General Rules 

3.3 Rigging Equipment Requirements 

3.3.1 Industry Code and Standards 

3.3.2 Rigging Equipment Criteria 

3.3.3 Rigging Equipment Inspections 

3.3.4 Rigging Equipment Recovery 

3.3.5 Rigging Removal from Service Criteria 

3.3.6 Rigging Recordkeeping 

3.3.7 Rigging Anchor Points 

3.3.8 Extractors (Aerial, Truck Mount, Self Propelled) 

3.4 Rigging Operations Training & Qualifications 

3.5 Signal Requirements 

3.5.1 Industry Codes and Standards 

3.5.2 Signals 

3.5.3 Standard Method Hand Signals 

3.5.4 Line of Communication 

4.0 Definitions 

5.0 References 

6.0 Attachments 

7.0 Revision History 

Attachment A: Standard Method Hand Signals
1.0 Purpose

The purpose of this safety practice is to:

1.1 Establish safety related work practices provide protection against and minimize injury to workers, and otherwise provide safe direction during Rigging and Signaling Operations at the Galveston Bay Refinery (GBR).

1.2 Provide direction to site personnel concerned with or responsible for rigging or signaling.

1.3 Guide in the development and enforcement of appropriate rigging permits and approvals.

1.4 Ensure compliant and reliable inspection of all MPC rigging equipment.

2.0 Scope

2.1 This practice shall apply to:

2.1.1 All mechanical lifting activities within or associated with GBR or contractors whether for operations, maintenance, TAR, construction, decommissioning, demolition or abandonment. The term rigging equipment used within this document is taken to include any use of manually operated or power operated equipment used to change the position of a movable or suspended object in a vertical or horizontal direction including pulling or pushing activities where rigging equipment is being used. This rigging activities includes load bearing equipment intended for the purpose of, but not limited to, jacking, sliding, skating, cabling, and/or bull rigging.

2.1.2 Provision for criteria, inspection, distribution, recovery, removal of rigging equipment either proprietary or otherwise used in the GBR site.

2.1.3 All personnel who will be performing activities associated with use of lifting equipment either manually or power operated.

2.1.4 Personnel responsible or accountable for inspection, issuing or recovering of rigging equipment at the GBR site.

2.1.5 All signaling activities associated with mechanical lifting activities within GBR and personnel responsible for providing or receiving such signals.

3.0 Procedure

3.1 Roles and Responsibilities

3.1.1 MPC HEO Supervisor or Designee Rigging Supervisor

Responsible for the following:

3.1.1.1 Approval of all GBR owned, rented, specialty, or non-stock rigging equipment received or issued through the GBR Rigging Loft.

3.1.1.2 Management of receiving, inspecting, stocking, tagging, recording, issuing, and recovering of all purchased or rental rigging equipment through the GBR Rigging Loft.

3.1.1.3 Management of personnel’s skills for the recording data into the GBR rigging recordkeeping program.

3.1.1.4 Management of site standards and updating practices, and procedures,

3.1.1.5 Handle ordering of rigging equipment either purchased or rented,

3.1.1.6 The receiving, inspecting, stocking, tagging, recording, issuing, and recovering of all purchased or rental rigging equipment through the MPC Rigging Loft as directed.
3.1.1.7 The recording of rigging equipment data into the MPC GBR recordkeeping program.

3.1.1.8 The inspection of rigging equipment, supplied through the GBR Rigging Loft, prior to either issuing or upon returned.

3.1.2 Servicing Group Representative, MPC Representative or Contractor Rigging Supervisor
Responsible for the following:

3.1.2.1 Ensuring that a qualified person is designated as the lift director (if required).

3.1.2.2 Ensuring all personnel involved in rigging operations are qualified as required by this practice.

3.1.2.3 Ensuring all necessary barricades are positioned to prevent entry into the rigging operations area.

3.1.2.4 Contacting all entities that might be affected within the rigging operations area.

3.1.3 Qualified Rigger
Responsible for the following:

3.1.3.1 Performing inspection of all rigging equipment before each use.

3.1.3.2 Perform all rigging operations in accordance to 1926.1404(r)(1) and the manufacturers specifications

3.1.3.3 Demonstrate the ability to properly attach the rigging and any below-the-hook lifting devices necessary for the load configuration. Understanding and comprehending intricacies of handling and moving loads.

3.1.3.4 During a critical lift initiating, completing and signing the PR-20 Critical Lift Pre-Lift Check List.

3.1.3.5 Tag or remove from service and rigging or rigging hardware that is not inspected or defective.

3.1.3.6 Authority to suspend any rigging operations that has the potential to cause an injury or incident.

3.1.3.7 Maintain on their person evidence of a qualified rigger credential on their person always.

3.1.4 Qualified Signal Person
Responsible for the following:

3.1.4.1 Identifying themselves as the primary signal person and communicating agreed upon hand signals or voice signals with the operator of the lifting equipment in accordance with this practice.

3.1.4.2 During a critical lift participating and reviewing the Critical Lift Pre-Lift Check List of the work to be performed.

3.1.4.3 The basic understanding of rigging and lifting equipment operations, limitations and dynamics.

3.1.4.4 The use of standard or non-standard signals as described in accordance with this practice

3.1.5 Responsible Engineer / HEOS
Responsible for the following:
3.1.5.1 Providing weights and physical dimensions of intended load for the purpose of lifting, jacking, cabling, sliding, skating, bull rigging with special attention given to calculating the weight of any material in fouled and dirty equipment.

3.1.5.2 Shall review and approve all rigging anchor points. This is to ensure the anchor points are structurally sound to support the total rigging weight plus the equipment item weight.

3.1.6 Lift Director

The lift director’s responsibilities shall include the following, but not limited to (ASME B.30.5-3.1.3.2.2):

3.1.6.1 Ensuring necessary traffic controls are in place to restrict unauthorized access to the rigging operation’s work area.

3.1.6.2 Ensuring that personnel involved in rigging operations understand their responsibilities, assigned duties, and the associated hazards.

3.1.6.3 Appointing the signal person(s) and conveying that information to the rigging operations personnel.

3.1.6.4 Ensuring that signal person(s) appointed meet the requirements of ASME B30.5 Section 5-3.3.

3.1.6.5 The Servicing Group Representative or the Contractor Rigging Supervisor shall fulfill this role as required.

3.2 General Rules

3.2.1 The utilization of rigging equipment shall require, but is not limited to:

3.2.1.1 An assessment of the rigging operation has been completed and verified that all proposed rigging is within its working load limit and manufacturer’s specifications and that no other applicable critical lift triggers will be met. This shall be considered Standard Rigging Operations. Complete a Safe Work Permit (SWP) and Job Safety Analysis (JSA).

3.2.1.2 An assessment of the rigging operation has been completed and verified that all proposed rigging applied to intended loads has met at least one of the critical lift triggers. This shall be considered Critical Rigging Operations. Complete a Critical Lift Plan, Critical Lift Pre-Lift Checklist, SWP, and JSA.

3.2.2 Qualified Rigger

3.2.2.1 Personnel performing rigger type activities associated with the use of rigging equipment shall be a Qualified Rigger. A Qualified Rigger is a rigger who meets the criteria for a qualified person. Per 1926 Subpart CC – Cranes & Derricks in Construction, Each Qualified Rigger may have different credentials or experience. A Qualified Rigger is a person that: possesses a recognized degree, certificate, or professional standing, or has extensive knowledge, training, and experience, and can successfully demonstrate the ability to solve problems related to rigging loads.

3.2.2.1.1 During a Critical Lift participate and review the Critical Lift Pre-Lift Checklist of the work to be performed. Note: All Riggers during the Critical Lift Pre-Lift will be verified that personnel are Qualified Riggers.

3.2.2.2 The person designated as the Qualified Rigger must possess the ability to:

3.2.2.2.1 Establish gross weight of the load being lifted.
3.2.2.2 Determine the correct rigging configuration for the load.
3.2.2.3 Establish the correct rigging hardware for the load based on the gross weight and the configuration.
3.2.2.4 Determine the center of gravity for the load.
3.2.2.5 Inspect all of the rigging and rigging hardware prior to use and remove from service any rigging or rigging hardware that is not inspected or defective.
3.2.2.6 Use all the rigging and rigging hardware in accordance to the manufacturer's specifications.
3.2.2.7 Ensure that sufficient tag lines/Riggers are used to control the load. In tight or congested areas other positive means can be used to control the load safely (i.e. Push/Pull sticks).
3.2.2.8 Ensure that softeners are use when needed.

3.2.3 Each load that requires rigging has unique properties that can range from the simple to the complex. For example, a rigger may have extensive experience in rigging structural components and other equipment to support specific construction activities. Such experience may have been gained over many years. However, this experience does not automatically qualify the rigger to rig unstable, unusually heavy, or eccentric loads that may require a tandem lift, multiple-lifts, or use of custom rigging equipment. In essence, the rigger must be capable of performing the rigging work needed for the exact types of loads and lifts for a particular job with the equipment and rigging that will be used for that job.

3.2.4 All MPC rigging equipment will be obtained from the GBR Rigging Loft through a check out/in process.

Note: The check in/out process does not apply to Bay Plant contractors.

3.2.5 All rigging equipment must be approved, for use by MPC HEO Rigging Supervisor or designee.

3.2.6 The utilization of signal persons shall require:

3.2.6.1 All personnel used in signaling of rigging or lifting operations shall be qualified. According to the requirements of OSHA 1926.1428 one of the following options must be used to ensure a signal person is qualified;

3.2.6.2 Third party qualified evaluator. The signal person has documentation from a third party qualified evaluator showing that he or she meets the qualification requirements.

3.2.6.3 Employer's qualified evaluator (not a third party). The employer's qualified evaluator assesses the individual, determines the individual meets the qualification requirements, and provides documentation of that determination. This assessment may not be relied on by other employers.

3.3 Rigging Equipment Requirements

3.3.1 Industry Code and Standards

All rigging equipment utilized at GBR shall at minimum meet the requirements of ASME B30.5, OSHA 1926 Subpart CC, and all other applicable industry codes and standards.

3.3.2 Rigging Equipment Criteria

3.3.2.1 Rigging equipment shall meet the following:
3.3.2.1.1 All slings made with synthetic material shall be made with nylon or polyester material and be a minimum of 2-ply slings.

3.3.2.1.2 All alloy steel chains, wire rope slings with welded end terminations, or metal mesh slings shall have a certificate of proof test provided by the user or equivalent entity per requirements of 1910.184.

3.3.2.1.3 All synthetic slings within GBR excluding Alky units shall have a legible label consisting of white background with black font.

3.3.2.1.4 All MPC rigging equipment will be obtained from the GBR Rigging Loft through a check out/in process.

3.3.2.1.5 All rigging equipment must be cleared through the GBR Rigging Loft.

3.3.2.1.6 All non-MPC owned rigging equipment shall be approved through the MPC HEO Rigging Supervisor.

3.3.2.1.7 All rigging and rigging hardware will be inspected prior to use by a competent person. Any rigging or rigging hardware with visible defects will be removed from service or a Do Not Use tag applied.

3.3.2.1.8 All Below the Hook lifting devices shall be proof tested and have a rated capacity identified.

3.3.2.1.9 Specialty or non-stock rigging equipment must be approved by the MPC HEO Rigging Supervisor prior to issue or use.

3.3.2.2 Alky units requires specific rigging:

3.3.2.2.1 All synthetic slings must be polyester material and at a minimum of 2-ply slings.

3.3.2.2.2 Synthetic slings will kept on the unit for the entire duration of the useful sling life.

3.3.2.2.3 All synthetic slings on Alky units shall have a label consisting of yellow background with black font.

3.3.3 Rigging Equipment Inspections

All rigging equipment will be inspected in accordance with ASME 30.1, 30.9, 30.10, 30.26, and OSHA 1910.184 and 1926.2651 at a minimum.

3.3.3.1 Initial Inspection – Prior to MPC rigging equipment being issued from the GBR Rigging Loft, an inspection shall be conducted as the rigging material is received and/or inventoried from the manufacturer or supplier. What is referred to as “out-of-the-box” inspection shall be conducted by the HEO Rigging Supervisor or the contractor rigging competent person. For non MPC rigging equipment proof of inspection shall be made available upon request.

3.3.3.2 Frequent Inspection – Inspection of MPC rigging equipment and non MPC rigging equipment shall occur prior to each use. This inspection shall be conducted by the end user of the rigging equipment.

3.3.3.3 Periodic Inspection – For MPC rigging equipment issued from the GBR Rigging Loft this inspection shall occur prior to issue and upon return prior to re-stocking. This inspection shall be conducted by the HEO Supervisor or
designee. For non MPC rigging equipment this inspection should occur on a regular basis and documentation made available upon request.

3.3.3.4 Annual Inspection - Inspection shall be conducted on all MPC owned rigging equipment annually. This inspection shall be conducted by either the HEO Supervisor or a 3rd party nationally accredited or qualified by the same to perform inspections on rigging equipment. For non MPC rigging equipment proof of this inspection shall be made available upon request.

3.3.4 Rigging Equipment Recovery

3.3.4.1 All MPC rigging equipment or non MPC rigging equipment procured through the GBR Rigging Loft shall be returned to the GBR Rigging Loft after use or as soon as practical shall be returned to the GBR Rigging Loft after use or as soon as practical.

3.3.4.2 Damaged MPC rigging equipment or non MPC rigging equipment procured through the GBR Rigging Loft shall be returned to the GBR Rigging Loft immediately for inspection and/or removal from service.

3.3.4.3 Damaged or missing MPC rigging equipment or non MPC rigging equipment procured through the GBR Rigging Loft shall be replaced at initial user’s expense.

3.3.5 Rigging Removal from Service Criteria

The following is potential removal criteria for rigging hardware including, but not limited to, slings, shackles, swivel hoist rings, turnbuckles, eyebolts, eye nuts, wire rope clips, wedge sockets, links, rings, swivels, and rigging blocks.

3.3.5.1 Manufacturer’s recommended removal criteria shall be the primary process for removal from service

3.3.5.2 Identification label/tag is missing or illegible

3.3.5.3 Indications of heat damage including weld spatter or arc strikes

3.3.5.4 Excessive pitting, corrosion, or chemical exposure

3.3.5.5 Bent, twisted, distorted, stretched, elongated, cracked, broken load bearing components, excessive kinks, or bird-caging

3.3.5.6 Cracks, excessive nicks or gouges

3.3.5.7 A 10% reduction of the original dimension at any point

3.3.5.8 Excessive thread damage or wear

3.3.5.9 Evidence of unauthorized welding or modification (job-made).

3.3.5.10 Swivel and swivel hoist rings that exhibit a lack of ability to freely rotate or pivot.

3.3.6 Rigging Recordkeeping

3.3.6.1 Rigging recordkeeping shall meet ASME and OSHA standards.

3.3.6.2 Rigging Anchor Points: All fixed, existing or fabricated structures used for the purpose of rigging anchor points shall be reviewed and approved by an Engineer in an applicable discipline. The Responsible Engineer shall determine whether anchor points require Non Destructive Examination (NDE) prior to being utilized.

3.3.7 Extractors (Aerial, Truck Mount, Self Propelled)
3.3.7.1 All Extractors shall have sufficient capacity to support intended loads.

3.3.7.2 All Extractors shall have sufficient footing prior to pulling or pushing the intended load.

3.3.7.3 Rigging equipment attached to the Extractors shall be in accordance with this practice.

3.3.7.4 Owner/Manufacturer shall provide documentation of the Extractor’s working capacities.

3.3.7.5 Documentation shall be provided on all extractor attachment points

3.4 Rigging Operations Training & Qualifications

3.4.1 Qualified Rigger: Personnel performing rigger operations shall be a Qualified Rigger.

3.4.1.1 A Qualified Rigger is a rigger who meets the criteria for a qualified person. Per OSHA 1926 .1401 Subpart CC – Cranes & Derricks in Construction.

3.4.1.2 Each Qualified Rigger may have different credentials or experience.

3.4.1.3 Qualified Rigger is a person that: possesses a recognized degree, certificate, or professional standing, or has extensive knowledge, training, and experience, and can successfully demonstrate the ability to solve problems related to rigging loads.

3.4.1.4 Employee training & qualification records will be provided upon request and will reflect the following as minimum information: trainee’s name, date trained, brief description of course contents, qualification and instructor name. All training will consist of a formal and practical evaluation for the type of rigging operations that will be performed at GBR.

3.4.1.5 Contractor training & qualification records shall be maintained onsite or made available upon request.

3.4.1.6 Training & qualification records for MPC Employees shall be maintained through GBR L&D.

3.4.2 Lift Director shall be knowledgeable in crane and lifting dynamics and receive the appropriate training.

3.5 Signal Requirements

3.5.1 Industry Codes and Standards

All signal persons at GBR will meet the requirements of ASME B30.5, OSHA 1926 Subpart CC, and all other applicable industry codes and standards.

3.5.2 Signals

3.5.2.1 Signals must be hand, voice, or audible signals.

3.5.2.2 Hand Signals – The Standard Method shall be used where applicable.

3.5.2.3 Non-standard hand signals - the signal person, operator, and lift director (where there is one) must contact each other prior to the operation and agree on the non-standard hand signals that will be used.

3.5.3 Standard Method Hand Signals (See Attachment A)

3.5.4 Line of Communication

3.5.4.1 A continuous line of communication will be maintained between the Qualified Signal person and the Crane Operator. This shall be maintained through the
following methods:

3.5.4.1.1 A dedicated radio channel shall be used for each lift.

3.5.4.1.2 Direct line of sight from the operator working the controls to the signal person giving the signals.

3.5.4.2 The lift will not commence if signals stop for any reason unless a safe method is agreed upon prior to each lift between the operator and signalperson during the pre-lift meeting.

3.5.4.3 The only exception to this rule would be an event where an emergency occurs that prevents the signal person from performing his/her assigned duties. The next qualified person on the job site can assume the role until a qualified signal person arrives or all employees are a safe distance from the hazard.

4.0 Definitions

4.1 **Bull Rigging** – Task where making use of rigging equipment and requiring physical exertion to extract or install equipment or objects where the use of a crane is not practical.

4.2 **Critical Rigging Operations** – Any rigging operation where the attached rigging is beyond its working load limit and manufacturer’s specifications or any other critical lift triggers are met per the critical lift requirements specified in PR-20 Lifting Equipment policy, a Critical Lift Plan (PR-20 Attachment B), Pre-Lift Check List (PR-20 Attachment A), SWP, and JSA are required.

4.3 **Extractor** – A device designed for purpose of extracting and or supporting exchanger bundles.

4.4 **Lift Director** – The lift director directly oversees the work being performed by a crane and the associated rigging crew. This role can be fulfilled by the Servicing Group Representative on the SWP.

4.5 **Permit for Mobile Equipment or Work Near Overhead Power Lines** – Permit required for any rigging operations that is within 20 feet of unprotected energized line. This permit shall be included with the Critical Lift Plan and Pre-Lift Checklist (if applicable) and attached to the SWP and JSA.

4.6 **Non-Standard Hand Signal** – Hand signal utilized where it is infeasible to make use of standard hand signal and is in accordance with paragraph (c) (2) of OSHA 1926.1428. When using non-standard hand signals, the signal person, operator, and lift director (where there is one) must contact each other prior to the operation and agree on the non-standard hand signals that will be used.

4.7 **Qualified Person** – A person who, by possession of a recognized degree in an applicable field or certificate of professional standing or who, by extensive knowledge, training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.

4.8 **Rigging Equipment** – Mechanical load bearing equipment either manual or power operated, designed for the purpose of changing the position of a movable or suspended object in a vertical or horizontal direction whether pulling or pushing.

4.9 **Specialty Rigging Equipment** – Any mechanical rigging equipment requiring special design specifically to assist in the movement of intended loads and/or may not be stocked in the GBR Rigging Loft.

4.10 **Standard Hand Signal** – Standard Hand Signals found in the OSHA 1926 Subpart CC Appendix A shall be the method used for standard signaling of all rigging or lifting operations. For the purpose of this practice, this Standard Hand Signal can be found in Attachment A.
4.11 **Standard Rigging Operations** – Any rigging operation where the attached rigging is within its working load limit and manufacturer’s specifications and does not meet any other critical lift triggers. A SWP and JSA required.

5.0 **References**

5.1 ASME B30.1 (Jacks, Industrial Rollers, Air Casters and Hydraulic Gantry)

5.2 ASME B30.5 (Mobile and Locomotive Cranes)

5.3 ASME B30.9 (Slings)

5.4 ASME B30.10 (Hooks)

5.5 ASME B30.20 (Below The Hook Lifting Devices)

5.6 ASME B30.26 (Rigging Hardware)

5.7 ASME P30-1 (Planning for Load Handling Activities)

5.8 OSHA 1926 Subpart CC (Crane & Derrick in Construction)

5.9 OSHA 1926 Subpart CC Appendix A (Standard Hand Signals)

5.10 OSHA 1910 (General Industry)

5.11 MPC GBR PR-20 Lifting Equipment

6.0 **Attachments**

6.1 Attachment A: Standard Method Hand Signals

7.0 **Revision History**

<table>
<thead>
<tr>
<th>Revision Number</th>
<th>Description of Change</th>
<th>Written by</th>
<th>Approved by</th>
<th>Revision Date</th>
<th>Effective Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aligns with lifting classifications update under MOC 63988.</td>
<td>M. A. Hernandez</td>
<td>V. J. Meeks</td>
<td>8/9/2019</td>
<td>9/30/2019</td>
</tr>
</tbody>
</table>
## Attachment A

### Standard Method Hand Signals

<table>
<thead>
<tr>
<th>Signal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOP</td>
<td>With arm extended horizontally to the side, palm down, arm is swung back and forth.</td>
</tr>
<tr>
<td>EMERGENCY STOP</td>
<td>With both arms extended horizontally to the side, palms down, arms are swung back and forth.</td>
</tr>
<tr>
<td>HOIST</td>
<td>With upper arm extended to the side, forearm and index finger pointing straight up, hand and finger make small circles.</td>
</tr>
<tr>
<td>RAISE BOOM</td>
<td>With arm extended horizontally to the side, thumb points up with other fingers closed.</td>
</tr>
<tr>
<td>SWING</td>
<td>With arm extended horizontally, index finger points in direction that boom is to swing.</td>
</tr>
<tr>
<td>RETRACT TELESCOPING BOOM</td>
<td>With hands to the front at waist level, thumbs point at each other with other fingers closed.</td>
</tr>
<tr>
<td>RAISE THE BOOM AND LOWER THE LOAD</td>
<td>With arm extended horizontally to the side and thumb pointing up, fingers open and close while load movement is desired.</td>
</tr>
<tr>
<td>DOG EVERYTHING</td>
<td>Hands held together at waist level.</td>
</tr>
<tr>
<td>LOWER</td>
<td>With arm and index finger pointing down, hand and finger make small circles.</td>
</tr>
<tr>
<td>LOWER BOOM</td>
<td>With arm extended horizontally to the side, thumb points down with other fingers closed.</td>
</tr>
<tr>
<td>EXTEND TELESCOPING BOOM</td>
<td>With hands to the front at waist level, thumbs point outward with other fingers closed.</td>
</tr>
<tr>
<td>TRAVEL/TOWER TRAVEL</td>
<td>With all fingers pointing up, arm is extended horizontally out and back to make a pushing motion in the direction of travel.</td>
</tr>
<tr>
<td><strong>Standard Method Hand Signals (Continued)</strong></td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td><strong>LOWER THE BOOM AND RAISE THE LOAD</strong> – With arm extended horizontally to the side and thumb pointing down, fingers open and close while load movement is desired.</td>
<td><strong>MOVE SLOWLY</strong> – A hand is placed in front of the hand that is giving the action signal.</td>
</tr>
<tr>
<td><img src="image4.png" alt="Image" /></td>
<td><img src="image5.png" alt="Image" /></td>
</tr>
<tr>
<td><strong>CRAWLER CRANE TRAVEL, BOTH TRACKS</strong> – Rotate fists around each other in front of body; direction of rotation away from body indicates travel forward; rotation towards body indicates travel backward.</td>
<td><strong>USE MAIN HOIST</strong> – A hand taps on top of the head. Then regular signal is given to indicate desired action.</td>
</tr>
<tr>
<td><img src="image7.png" alt="Image" /></td>
<td><img src="image8.png" alt="Image" /></td>
</tr>
<tr>
<td><strong>TROLLEY TRAVEL</strong> – With palm up, fingers closed and thumb pointing in direction of motion, hand is jerked horizontally in direction trolley is to travel.</td>
<td></td>
</tr>
</tbody>
</table>