

**052-IC4-1038
Install Hook Block
Status: Approved**

Distribution Restriction: Approved for public release; distribution is unlimited.

Destruction Notice: None

Foreign Disclosure: FD1 - This training product has been reviewed by the training developers in coordination with the Maneuver Support Center of Excellence, (MSCoE), Fort Leonard Wood, MO 65473 foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

Conditions: Given a truck-mounted hydraulic crane with operator maintenance performed, an assistant operator, a hook block, doctrinal references, and personal protective equipment. This task should not be trained in MOPP 4.

Standards: Install a hook block using a two to six part line without error according to the steps set forth in this task and doctrinal references. Perform all operations without damage to equipment and the environment and without injury to personnel.

Special Conditions: None

Safety Risk: Low

MOPP 4: Never

Task Statements

Cue: Instructed to install hook block.

DANGER

None

WARNING

None

CAUTION

None

Remarks: None

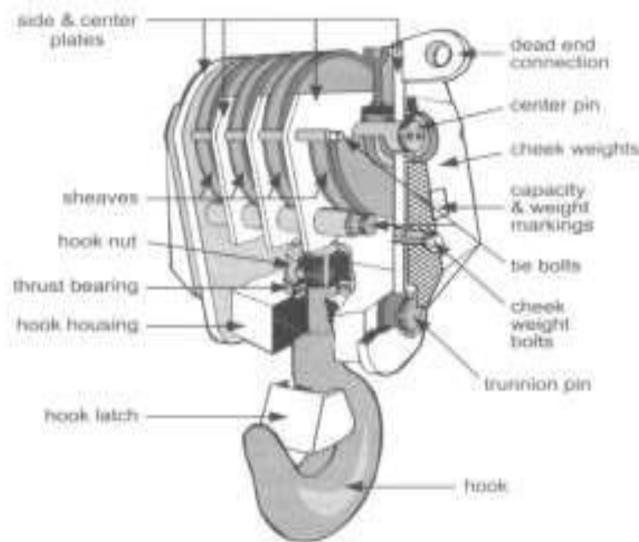
Notes: None

Performance Steps

DANGER

Failure to perform this step correctly can result in lift failure.

1. Perform six-part line reeving.



Crane Graphics
Typical Hook Block

a. Slowly pull the cable from the drum over the top of boom with the aid of another operator and operating the hoist lever, then over the right idler sheave, down through the first sheave to the right of the boom point main sheave.

b. Pull out enough cable to reeve the six-part line (approximately 20 feet). This avoids cable twisting.

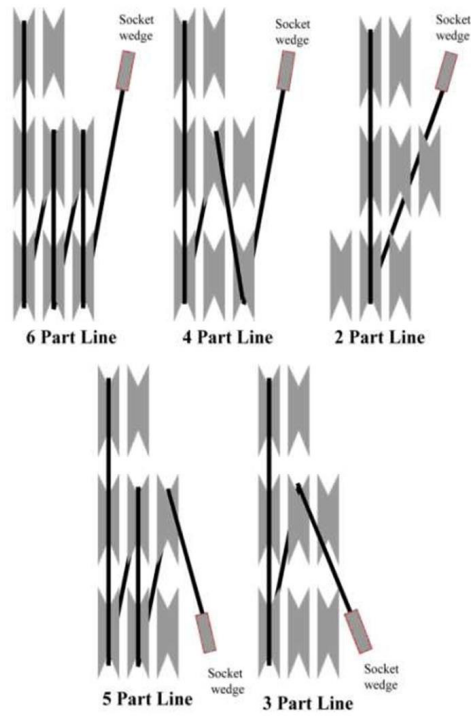
Note: With the crane positioned for over the rear operation, the boom down at -3° (degrees), and centered over the hook block, follow the sequences below to reeve a six-part line.

c. Reeve the cable around the first sheave to the right of the hook block.

d. Reeve the cable around the second sheave of the boom point main sheave.

- e. Reeve the cable around the second sheave of the hook block.
 - f. Reeve the cable around the third sheave of the boom point main sheave.
 - g. Reeve the cable around the third sheave of the hook block (22 ton only).
 - h. Reeve the cable around the fourth sheave of the boom point main sheave.
 - i. Reeve the cable around the fourth sheave of the hook block.
 - j. Reeve the cable around the fifth sheave of the boom point main sheave.
 - k. Reeve the cable around the fifth sheave of the hook block.
 - l. Reeve the cable around the sixth sheave of the boom point main sheave.
 - m. Reeve the cable around the sixth sheave of the hook block.
2. Install the wedge socket and wedge.

Hook Block Reeving AT422T (ATEC)



- a. Pull the dead end of the cable through the bottom end of the socket.
- b. Form loop with the cable, and put the dead end of the cable back through the socket, keeping the loop formed.
- c. Insert the wedge into the loop and pull both ends of the cable tight, leaving a 6- to 8-inch tail.
- d. Insert the cable clip through the wedge and around the dead end of the cable. Secure with a cable clamp.
Note: After this procedure the wedge, socket, and cable form a unit that is referred to as a wedge-and-socket.
- e. Hook the wedge-and-socket to the left boom anchor.
- f. Secure with anchor pin safety pin.

3. Inspect the rigging.

Note: Operator will perform all check while standing in front of the BOOM TIP.

- a. Ensure the cable runs left to right.
- b. Check all safety pins.
- c. Ensure that all lines are going to their proper sheaves according to the reeving diagram.
- d. Ensure that the reel line is outside of the safety bar.
- e. Ensure that exit cables are 6 to 8 inches long.
- f. Ensure that the u-bolts on the socket wedge are tight.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if all steps are passed (P). Score the Soldier NO-GO if any step is failed (F). If the Soldier fails any step, show the Soldier how to do it correctly.

Evaluation Preparation: Setup: Provide all the items listed in the conditions section. Brief Soldier: Tell the Soldier to complete the performance measures according to the standards set forth in the task.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Reeved a six-part line.			
2. Installed the wedge socket and wedge.			
3. Inspected the rigging.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	ASME B30.5	Mobile and Locomotive Cranes	Yes	No
	ISBN 978-0920855140	Ipt's Crane and Rigging Handbook by Ronald G. Garby, Ronald Garry Garby	Yes	No
	RIGGING	Bob's Rigging & Crane Handbook (6th Edition).	Yes	No
	TB 43-0142	SAFETY INSPECTION AND TESTING OF LIFTING DEVICES	Yes	No
	TM 5-3810-300-10	OPERATORS MANUAL FOR CRANE, TRUCK MOUNTED, HYDRAULIC, 25 TON (CCE), GROVE MODEL TM S-300-5 (NSN 3810-01-054-9779) (REPRINTED W/BASIC INCL C2)	Yes	No
	TM 5-3810-307-10	CAPACITY, DIESEL ENAGINE DRIVEN, GROVE WORLDWIDE CONTRACT OPERATORS MANUAL FOR (ATEC) ALL TERRAIN CRANE AT422-T, 22 TON CAPACITY, DIESEL ENGINE DRIVEN GROVE WORLDWIDE CONTRACT DAAE07- 97-D-X001 (NSN 3810	Yes	Yes

TADSS : None

Equipment Items (LIN): None

Materiel Items (NSN) :

Step ID	NSN	LIN	Title	Qty
	3810-01-448-2619	C36586	Crane Wheel Mounted Hydraulic 25 Ton All Terrain AT422T	1
	3810-01-054-9779	F43429	Crane Truck Mounted 25 Ton: TMS300-5	1

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. Avoid unnecessary stripping and damage to vegetation and waterways. Control dust conditions and limit water erosion by dressing area at the end of each day. Avoid unnecessary equipment usage and follow established procedures for cleanup of fluid leaks. Restore site and surrounding areas as close as possible to original ecological condition.

Safety: In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. Hard hats must be worn at all times. Hearing protection must be worn while vehicle is running. Eye protection, gloves, and proper foot protection must be worn when operating equipment. Use three points of contact when mounting or dismounting vehicle. Remove all jewelry. Use caution around moving parts.

Prerequisite Individual Tasks :

Task Number	Title	Proponent	Status
052-12N-1006	Perform Operators Preventive Maintenance Checks and Services (PMCS)	052 - Engineer (Individual)	Approved

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
052-IC4-1039	Move a Load with Crane and Hook Block	052 - Engineer (Individual)	Approved
052-IC4-1163	Perform Crane Maneuvering Operations	052 - Engineer (Individual)	Approved
052-IC4-1164	Perform Clamshell Operations	052 - Engineer (Individual)	Approved

Supported Individual Tasks : None

Supported Collective Tasks :

Task Number	Title	Proponent	Status
05-PLT-5809	Install Piles	05 - Engineers (Collective)	Approved
05-PLT-5806	Construct Timber Pile Wharves	05 - Engineers (Collective)	Approved
05-PLT-5802	Construct Onshore Mooring Anchors	05 - Engineers (Collective)	Approved
05-PLT-5106	Install a Culvert	05 - Engineers (Collective)	Approved

ICTL Data :

ICTL Title	Personnel Type	MOS Data
ASIC4 Crane Operator V2	Enlisted	MOS: 12N, Skill Level: SL1, ASI: C4, Duty Pos: AFQ, LIC: EN, SQI: O
ASIC4 Crane Operator	Enlisted	MOS: 12N, Skill Level: SL1, ASI: C4, Duty Pos: AFQ, LIC: EN, SQI: O