551-88H-1537
 Operate All Terrain Lifter Army System (ATLAS) Rough Terrain Forklift
 Status: Approved

Security Classification: U - Unclassified

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 Transportation School Fort Eustis, VA 23608 foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.
**Conditions:** Assigned as a Rough Terrain Forklift Operator, Soldier must operate ATLAS rough terrain forklift. Given a completed risk assessment, all applicable publications, forms, and records, tools, materials, personnel, equipment in all weather conditions day or night in an operational environment. Some iterations of this task should be performed in MOPP 4.

**Standards:** On orders; Soldier will operate ATLAS Rough Terrain Forklift IAW TM 10-3930-673-10, procedures and specifications utilizing the task Go/No-Go criteria. Comply with all warnings, cautions, and notes listed in all references. Soldier must perform this task with 100% compliance, without injury or damage to equipment.

**Special Conditions:** None

**Safety Risk:** Medium

**MOPP 4:** Sometimes

**Task Statements**

**Cue:** Assigned as a Rough Terrain Forklift Operator, Soldier must operate ATLAS rough terrain forklift.

**DANGER**

Adhere to all Dangers listed within the lesson. Failure to adhere to all Dangers within the lesson may result in damage to equipment and injury or loss of life to personnel.
WARNING

MODIFICATION HAZARD
Unauthorized modifications, alterations or installations of or to this equipment are prohibited and are in violation of AR 750-10. Any such unauthorized modifications, alterations or installations could result in death, injury or damage to the equipment.

HIGH PRESSURE HYDRAULIC SYSTEM HAZARDS
Hydraulic systems can cause serious injuries if high pressure lines or equipment fail. Never work on hydraulic systems or equipment unless there is another person nearby who is familiar with the operation and hazards of the equipment, and who can give first aid. A second person should stand by controls to turn off hydraulic pumps in an emergency. When the technicians are aided by the operators, the operators must be warned about dangerous areas.

MOVING MACHINERY HAZARDS
Be very careful when operating or working near moving machinery. Running engines, rotating shafts, and other moving machinery parts could cause personal injury or death.

ELECTRICAL HAZARDS
Whenever possible, the power supply to the equipment must be shut off before beginning work on the equipment. Do not be misled by the term "low voltage." Potentials as low as 50 volts may cause death under adverse conditions. Be careful not to contact 115-Vac input connections when installing or operating this equipment. Whenever the nature of the operation permits, keep one hand away from the equipment to reduce the hazard of current flowing through the body.

CAUTION

Adhere to all Cautions listed within the lesson. Failure to adhere to all Cautions within the lesson may result in damage to equipment and injury or loss of life to personnel.

Remarks: None
Notes: None
Performance Steps

1. Start the engine (see Figure 1).
   Note: Prior to this task, all PMCS and safety checks will have been performed.

   a. Adjust operator's seat to your comfort and ensure seat belt is fastened before starting engine.

   b. Unlock the steering wheel and allow the cable to slowly retract.

   c. Engage the parking brake.

   d. Ensure transmission travel lever is in NEUTRAL position.

   e. Ensure that the emergency steer switch is in the ON position.

   f. Ensure that the auxiliary fuel shut-off switch is in the OFF position.

   g. Depress accelerator pedal to 1/2 speed.

   h. Turn ignition switch to the ON position and slowly turn the switch to the start position.

   i. Release the start switch when engine starts and decrease engine speed to idle, allowing warming of engine oil and hydraulic fluid.

   j. Check all instrumentation gages for normal readings and lack of warning indicators.

   CAUTION

   Do not operate starter motor for more than 30 seconds. Wait 2 minutes for batteries to recuperate and starter motor to cool to avoid overheating and damage to starter motor.

   CAUTION

   If any warning indicators are lit or instrumentation gages have incorrect reading, stop engine immediately and investigate cause.

   j. Check all instrumentation gages for normal readings and lack of warning indicators.
2. Move the forklift truck.

   a. Depress the service brake and inching pedal to apply the service brakes.
   
   b. Ensure the forks are in normal carry position at least 24 inches above the ground for maximum stability.

   **WARNING**
   Do not travel with the Automatic Fork level switch in the ON position. This could cause a load to be dropped.

   c. Place the travel and range select lever to the desired direction and gear ratio combination.

   **WARNING**
   Do not operate with the emergency steer switch OFF. If engine power is lost, there will be a loss of emergency steering capacity. Failure to following this precaution could result in injury or death to personnel.

   d. Ensure that the emergency steer switch is ON.
   
   e. Place the PARK BRAKE switch to OFF to release the parking brake.
   
   f. Move the travel select lever to the forward “F” position for forward travel, or down to the reverse “R” position for reverse travel.

   **CAUTION**
   Sound vehicle horn to alert personnel of impending movement. Use care when backing up and use a ground guide if your vision is limited. Observe vehicle clearances around and above the vehicle.
g. Release service brake and slowly depress accelerator for forward travel in desired direction.

3. Steer the forklift.
   a. Select desired steering mode:
      
      (1) 4 wheel steer. Move the steer select control switch to the right position. Front wheels will steer in the direction that the steering wheel is turned; while rear wheels will steer in the opposite direction.

      (2) 2 wheel steer. Move the steer select control switch to the center position. Front wheels will steer in the direction that the steering wheel is turned; while rear wheels will remain in the fixed forward position.

      **WARNING**
      Turn slowly or vehicle could tip or lose the load. This is particularly a concern when in 4 wheel steering mode. Always turn in a lower gear or slower speed.

      **CAUTION**
      Before changing steering modes, synchronize steering to avoid mistracking and tire damage. Be aware of fork extension beyond the end of the carriage and check clearances.

      (3) Crab steer. Move the steer select control switch to the left position. All wheels will steer in the same direction.

   b. Follow Steering System Synchronization procedures to align the front and rear wheels if wheels are not set in the same direction after you change steering modes.

      (1) Use steering wheel to put rear wheels in straight ahead position.

      (2) Move the steer select control switch into the two wheel position.

      (3) Use steering wheel to adjust front wheels to a straight ahead position.

      (4) Move steer select control switch to desired mode to continue operation.

4. Operate forklift with a load (see Figure 2).
   a. Move vehicle to the pallet.

   b. Use the hydraulic joystick to position forks at the bottom of the uppermost pallet. Either manually or using the automatic fork level (auto fork level switch in ON position), level the forks and align the forks with the slots in the pallet.

   **WARNING**
   Always retract the boom before lowering or transporting a load. Failure to do so could cause vehicle instability and result in injury or death to personnel.

   c. Move vehicle or extend the boom to engage the bottom of the pallet with forks.
WARNING

Do not travel with the automatic fork level switch in the ON position. It is possible to drop a load which could cause load damage, or injury or death to personnel.

d. Use the hydraulic joystick to raise the boom and lift the pallet slowly.

e. Use the hydraulic joystick to retract the boom and then lower the pallet to a travel position (approximately two feet above ground level).

f. Move the automatic fork level switch to the OFF position before traveling.

g. Use the electric joystick to raise the fork tips and enable the load to be supported by the carriage. Use care when traveling with a load.

h. Move vehicle to unloading area and in line with unloading area.

i. Move the automatic fork level switch to the ON position. Use the hydraulic and electric joysticks to set load down.

j. Move the automatic fork level switch to the OFF position and use the hydraulic and electric joysticks to remove the weight from forks. Move vehicle slowly away from the pallet.

k. Use the electric joystick to move forks to a carrying position.

l. Repeat steps a through k above for continued operation.

Figure 2
Operating Forklift
5. Stop the forklift.
   a. Release the accelerator pedal.
   b. Depress service brake and inching pedal to apply brakes.
   c. Bring forklift to a complete stop.
   d. Move travel and range select lever to NEUTRAL position.
   e. Engage PARK BRAKE switch to ON position.
   f. Move the hydraulic joystick left to retract the boom and extend the cylinder (see Figure 2).
   g. Push the hydraulic joystick forward to lower the boom until the forks are resting on the ground.

6. Stop the engine.
   a. Turn all lights and accessories off.
   b. Allow engine to idle for three to five minutes.
c. Turn the ignition switch to the OFF position.

d. Perform after operations PMCS.

e. Lock the steering wheel with the steering wheel locking cable and lock.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier a GO if all performance measures are correctly completed/pass (P). Score the Soldier a NO-GO if any of the performance measures are missed or incorrectly performed/fail (F).

Evaluation Preparation: Test this task in with applicable training material. Ensure Soldier understands why this task is important to support the overall training objective.

Setup: Test this task in accordance with prescribed references or Technical Manual (TM).

Brief Soldier: Tell the Soldiers adhere to all Safety precautions when performing the task listed.

Note: Ensure that all required equipment to perform this task is available.

<table>
<thead>
<tr>
<th>PERFORMANCE MEASURES</th>
<th>GO</th>
<th>NO-GO</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Started the engine.</td>
<td></td>
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<tr>
<td>2. Moved the forklift truck.</td>
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<tr>
<td>3. Steered the forklift.</td>
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<tr>
<td>4. Operated forklift with a load.</td>
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<tr>
<td>5. Stopped the forklift.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Stopped the engine.</td>
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</table>

Supporting Reference(s):

<table>
<thead>
<tr>
<th>Step Number</th>
<th>Reference ID</th>
<th>Reference Name</th>
<th>Required</th>
<th>Primary</th>
<th>Source Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC 21-305-20</td>
<td>Manual for the Wheeled Vehicle Operator (AFMAN 24-306(I))</td>
<td>Yes</td>
<td>No</td>
<td></td>
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</tr>
<tr>
<td>TM 10-3930-673-10</td>
<td>OPERATORS MANUAL FOR ALL TERRAIN LIFTER ARMY SYSTEM (ATLAS) CLEAN BURN DIESEL 10,000 LB CAPACITY MODEL SKYTRAK 10,000M (NSN 3930-01-417-2886)</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
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TADSS: None

Equipment Items (LIN): None

Materiel Items (NSN):

<table>
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<tr>
<th>Step ID</th>
<th>NSN</th>
<th>LIN</th>
<th>Title</th>
<th>Qty</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>No materiel items specified</td>
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</table>

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. It is the responsibility of all Soldiers and DA civilians to protect the environment from damage. AR 200-1 delineates TRADOC responsibilities to integrate environmental requirements across Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) and ensure all training procedures; materials and doctrine include sound environmental practices and considerations.

The Army’s environmental vision is to be a national leader in an environmental and natural resource stewardship for present and future generations as an integral part of all Army missions. This Training Support Package meets this standard.
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 ATP-45.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. 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 current CBRN doctrine. In a training environment, leaders must perform risk management in accordance with ATP 5-19, Risk Management. Leaders will complete a DD Form 2977 DELIBERATE RISK ASSESSMENT WORKSHEET 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), as well as any other variables.

All operations will be performed to protect and preserve Army personnel and property against accidental loss. Procedures will provide for public safety incidental to Army operations and activities and safe and healthful workplaces, procedures, and equipment. Observe all safety and/or environment precautions regarding electricity, cable, and lines. Provide ventilation for exhaust fumes during equipment operation and use hearing protection when required IAW AR 385-10, the Clean Air Act (CAA) and the CAA amendments, and the OSHA Hazard Communication standard.

Accidents are an unacceptable impediment to Army missions, readiness, morale, and resources. Decision makers at every level will employ risk management approaches to effectively preclude unacceptable risk to the safety of personnel and property affiliated with this task. (a) Take personal responsibility. (b) Practice safe operations. (c) Recognize unsafe acts and conditions. (d) Take action to prevent accidents. (e) Report unsafe acts and conditions.

No food or drink is allowed near or around electrical equipment (CPU, file servers, printers, projectors, etc.) due to possible electrical shock or damage to equipment. Exercise care in personal movement in and through such areas. Avoid all electrical cords and associated wiring. In event of electrical storm, you will be instructed to power down equipment.

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 ATP 3-11.32, NBC Protection, ATP 3-11.32, CBRN Decontamination.

Prerequisite Individual Tasks: None

Supporting Individual Tasks:

<table>
<thead>
<tr>
<th>Task Number</th>
<th>Title</th>
<th>Proponent</th>
<th>Status</th>
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<tbody>
<tr>
<td>551-88H-1527</td>
<td>Communicate with Hand/Arm Signals During Material Handling Equipment (MHE) Operations</td>
<td>551 - Transportation (Individual)</td>
<td>Approved</td>
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<tr>
<td>551-88H-1401</td>
<td>Perform Preventive Maintenance Checks and Services on Material Handling Equipment</td>
<td>551 - Transportation (Individual)</td>
<td>Approved</td>
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</tbody>
</table>

Supported Individual Tasks: None

Supported Collective Tasks: None

Knowledges:

<table>
<thead>
<tr>
<th>Knowledge ID</th>
<th>Knowledge Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-551-H-0293</td>
<td>Knowledge of ATLAS Rough Terrain Forklift Operations</td>
</tr>
<tr>
<td>K-551-H-0291</td>
<td>Prior training and knowledge of TM 10-3930-673-10</td>
</tr>
<tr>
<td>K-551-H-0292</td>
<td>Knowledge of operator's manual TM 10-3930-673-10</td>
</tr>
<tr>
<td>K-551-H-0138</td>
<td>Knowledge of PMCS procedures</td>
</tr>
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Skills:

<table>
<thead>
<tr>
<th>Skill ID</th>
<th>Skill Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-551-H-0208</td>
<td>Ability to operate ATLAS Rough Terrain Forklift</td>
</tr>
<tr>
<td>S-551-H-0076</td>
<td>Ability to perform preventive maintenance checks and services</td>
</tr>
</tbody>
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ICTL Data: None