

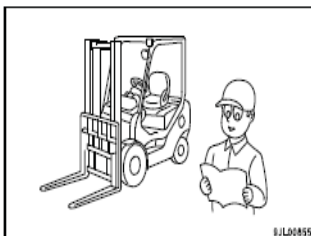
# Forklift Safety Instructions

## 2. SAFETY

### 2.1 BASIC PRECAUTIONS

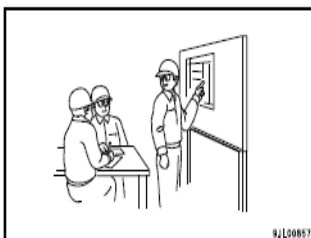
#### FOLLOW THE INSTRUCTIONS IN THE OPERATION AND MAINTENANCE MANUAL AS WELL AS ON THE SAFETY LABELS

- Read the instructions in this manual and the safety labels attached to various parts of the lift truck, and understand and follow them. If you do not understand or do not follow the instructions, this will lead to improper operation which may result in personal injury or property damage.
- Be sure that you understand the proper method of using the lift truck and the procedure for carrying out an inspection, and ensure that they are carried out safely.
- Read this manual and safety labels again from time to time. If the Operation and Maintenance Manual or safety labels have been lost or have become dirty and cannot be read, obtain replacements from your Komatsu Forklift dealer and attach the safety labels in the specified positions. See "SAFETY LABELS" on page 2-38.



#### FOLLOW THE SAFETY RULES IN PLACE

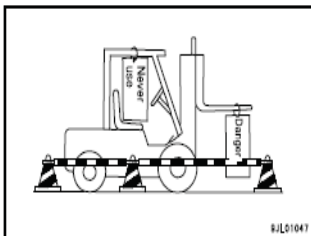
- Before operation, establish an operating plan and hold a meeting to discuss operating safety.
- In confined areas, position a signal person and carry out operations in accordance with his/her instructions.
- Only trained and qualified persons are allowed to operate this lift truck.
- During operation, safety must be your primary responsibility ensuring the safety of those you are working around, the lift truck, yourself, and other property in the work area.
- Do not operate the lift truck if you are fatigued, ill or mentally unstable, or when you have been drinking or have taken any medication which can make you sleepy.
- When carrying out operation, inspection, or maintenance of the lift truck, always follow all work shop rules, safety regulations and precautions.
- During operation, always pay attention to safety and be careful of pedestrians and other surrounding conditions.



#### DON'T USE A DEFECTIVE LIFT TRUCK

##### USE LOCK-OUT TAG-OUT PROCEDURES AS FOLLOWS

- If any abnormality is detected during start-up inspection or operation (noise, vibration, odor, maladjusted gauge, smoke, oil leak, or erroneous indication of warning device or monitor), report it to the administrator immediately and take adequate corrective actions.
- Do not operate the lift truck until the abnormality is corrected
- Remove the key from the faulty lift truck and hang signs in the operator's compartment to prevent its use.
- If the lift truck has suffered a failure and the lift truck must be parked without lowering the forks, put markers on the tips of the forks and take steps to prevent pedestrians or other vehicles from hitting the forks.
- Select a parking place where people or vehicles do not pass, and stop the lift truck so that it is difficult for anyone to go under the forks. *The area under the forks is a danger zone.*

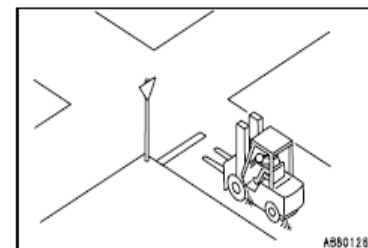
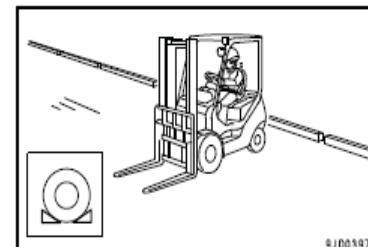


## 2. SAFETY

### BASIC PRECAUTIONS

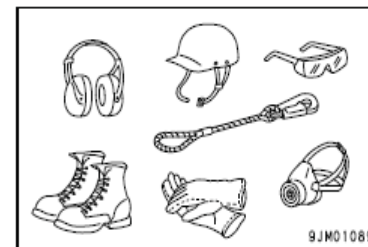
#### SECURE SAFETY AT THE WORKING AREA

- Working on rough surfaces can result in bodily injuries such as backache. Always keep passages and work areas flat and smooth without bumps.
- Wipe up all spilled oil or grease from the ground to prevent tip-over or collision due to slipping.
- When working on platforms, docks, quays, or other places where there is danger of falling, set up blocks to prevent the lift truck from going over the edge.
- Put warning signs up in dangerous places to warn the operator not to approach those places.
- Mark traffic areas clearly, and establish a clear traffic rule such as temporary stop line, speed limit, and no-entry area for other vehicles and pedestrians.
- Provide adequate lighting for safe operations.



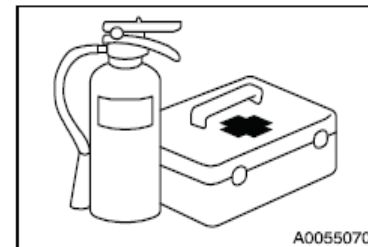
#### WEAR SAFETY CLOTHES WHILE IN OPERATION

- Avoid loose clothing, jewelry, and loose long hair, which can catch on controls or in moving parts and cause serious injury or death.
- Always wear a hard hat and safety boots.
- Depending on the working conditions, wear other safety equipment in addition to the hard hat and safety boots.



#### FIRE, FIRST AID AND GENERAL SAFETY

- When you feel something unusual occurring with the lift truck, promptly stop working, move the lift truck to a safe place for parking, stop the engine for safety. Then report to the supervisor.
- Be sure that fire extinguishers have been provided and that you read the labels to ensure that you know how to use them.
- Know what to do in the event of a fire.
- Be sure that you know the phone numbers of persons you should contact in case of an emergency.
- Provide a first aid kit at the storage point.
- If a fuel leak is discovered, do not operate the lift truck. Be sure to make repairs, stopping the leak before starting the operation again, while reporting the trouble to the supervisor.



# Forklift Safety Instructions

## BASIC PRECAUTIONS

## 2. SAFETY

### CAUTIONS FOR SAFETY-RELATED EQUIPMENT

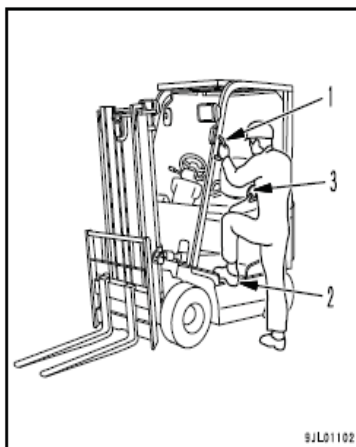
- Confirm that all protective guards, covers, and mirrors are properly mounted. Repair them immediately when broken.
- Be sure that you fully understand the usage of safety-related equipment.
- Never remove the safety-related equipment and keep fully functional at all times.
- Do not operate this lift truck if the overhead guard or load backrest has been or appears to have been damaged or loosened until repairs have been made by your authorized Komatsu Forklift dealer.

### PRACTICE SUFFICIENTLY BEFORE OPERATION

- Take sufficient time for practice until you become familiar with the operation of each component before starting actual operations.
- Even after you become familiar with the components, operate with caution and avoid harsh operation to avoid bodily injury or property damage.
- Each lift truck is more or less peculiar in the performance of the brake, accelerator, and load handling device even when it is the same model type. When you change lift trucks, understand the peculiarity of each lift truck before starting operation. Be especially careful with the brake, since its performance varies by individual lift truck.

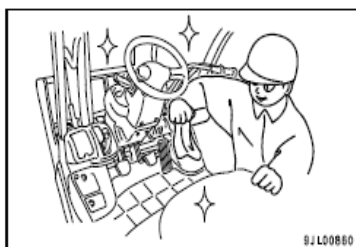
### JUMPING ON AND OFF THE LIFT TRUCK IS STRICTLY PROHIBITED

- Never jump on or off the lift truck as it is extremely dangerous.
- Even when the lift truck accidentally starts to move without the operator onboard, never attempt to stop the truck by jumping on it.
- Always mount and dismount the lift truck from the left side.
- While mounting and dismounting the lift truck, always support yourself securely with your hands and feet at three locations (three-point stance):
  1. With your left hand grab the assist grip (handrail),
  2. put your left foot on the step, then
  3. with your right hand grab the seat assist grip.
- Do not hold on the control levers or steering wheel when mounting or dismounting the lift truck.



### KEEP THE OPERATOR'S COMPARTMENT CLEAN AND CLEAR

- Keep the operator's compartment clean and tidy. Be sure to clean up all oil or mud. If the operator's hand or foot slips it could lead to a serious accident.
- Do not leave tools or spare parts lying around in the operator's compartment; always keep them in the tool box when not being used. They may damage or obstruct the control levers or pedals.
- Do not drive the lift truck if your hands are wet or covered with oil. Your hands will slip on the work equipment control levers or directional lever and could cause a serious accident.



## 2. SAFETY

## BASIC PRECAUTIONS

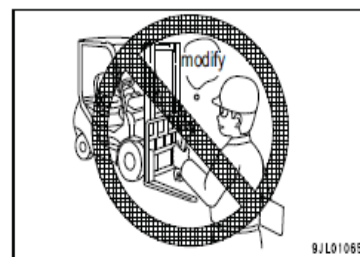
### PRECAUTIONS WHEN WASHING LIFT TRUCK

- If water gets into the electrical system (controller, sensor, connectors, etc.), there is the hazard that it will cause malfunctions or operational failure. Do not wash the electrical system with water or high-pressure steam.
- For more details on the washing method, see "LIFT TRUCK WASHING PROCEDURE" on page 3-35.



### DO NOT MODIFY THE LIFT TRUCK

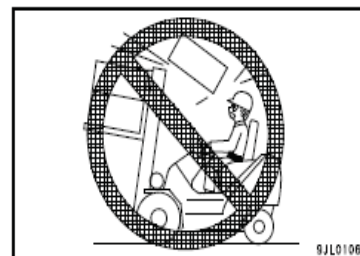
- Contact your Komatsu Forklift dealer in advance for any modification (installation, removal and modification) of the lift truck, attachment or option. Some modifications may cause safety hazards and violate the law.
- Do not install any equipment or parts which obstruct or limit the operator's view.
- Komatsu Forklift will not be responsible for any bodily injury, property damage or failure which results from modifications made without consent of Komatsu Forklift in writing.



### DON'T REMOVE THE OVERHEAD GUARD AND LOAD BACKREST

- The overhead guard is installed to protect the operator from falling objects. It is designed to withstand the force of light boxes or small packages. It is not designed to withstand every possible impact.
- Always be careful to prevent injury or property damage from falling objects.
- Do not use a Komatsu lift truck when it is equipped with a non-genuine overhead guard or load backrest.

**Note:** Komatsu lift trucks are usually equipped with the optimum overhead guard and load backrest when they are shipped out of Komatsu Forklift plants.



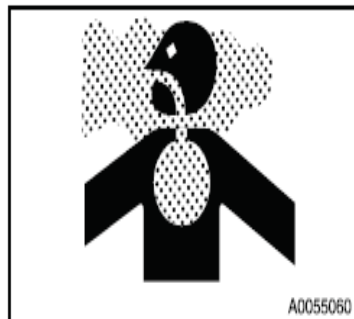
### REDUCE LOAD FOR LIFT TRUCKS WITH ATTACHMENT

- The permissible load for lift trucks equipped with any attachment is lower than the permissible load for the standard lift truck, the reasons being:
  - The overall permissible load is lowered by as much as the weight of an attachment itself.
  - The load center shifts toward the front due to the thickness of an attachment.
- Follow the load limit as indicated in the load capacity chart on the data plate.
- On some detachable-type attachments and inserting-type attachments, there is an additional load capacity chart or attachment weight label provided at a certain place. Follow the instructions in the chart or the label when installing such an attachment.



### ENGINE EXHAUST GAS IS POISONOUS

Do not leave the engine running where there is poor ventilation. The engine exhaust gas contains carbon monoxide, which can cause gas poisoning and result in serious injury or death.



### ASBESTOS CAUTION

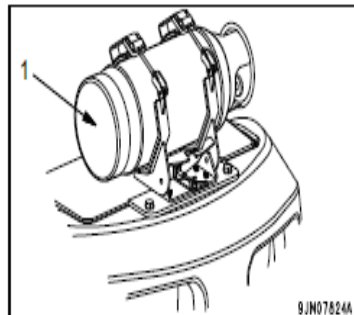
- Non-Genuine Parts (unspecified parts of Komatsu Forklift) such as the clutch disc, brake lining, gaskets and packing may contain asbestos.
- Use Komatsu genuine parts. All the parts used in this lift truck are asbestos-free.

### WINDOW WASHER CAUTION

- Use window washer which contains ethyl alcohol.
- Never use window washer that contains methanol, as it is harmful to the eyes.

### PRECAUTIONS WHEN REFUELING LPG TRUCKS

- Only trained and authorized personnel may change LPG cylinders (1).
- LPG is heavier than air and will sink to the lowest area possible. Avoid parking near areas near floor drains, lubrication pits, or other areas where escaped fuel may collect.
- After changing, ensure that the replacement cylinder is securely mounted.
- If you smell LPG odor or there is frost on the fuel cylinder:
  - do not start the engine;
  - close the fuel valve at the LPG cylinder;
  - park and tag the truck and have qualified personnel inspect and repair the fuel system.
- For additional information, consult the National Fire Protection Association pamphlet 58 for the safe storage and handling of liquefied petroleum gases.



### LPG FUEL SYSTEM SAFETY

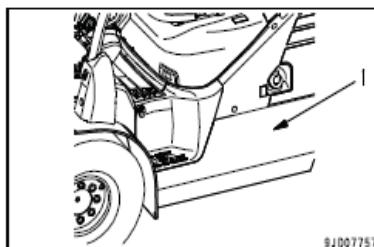
- Testing of the LPG fuel system and repairs are to be performed by qualified personnel only.
- Accidents involving fuel systems are always dangerous and can cause fire and explosion, serious injury, death and property damage. Keep the following points in mind when working with fuel systems.
  - LPG is heavier than air and will sink to the lowest area possible. Avoid parking truck in areas near floor drains or lubrication pits where escaped fuel may collect.
  - Store all LPG cylinders OUTDOORS in a secured area and safe from any vehicle traffic.
  - NEVER WELD ON AN LPG PRESSURE VESSEL, STORAGE TANK OR CYLINDER.
  - Ensure that the fuel tank is properly mounted.
  - Always use a UL-listed LPG tank.
- Before testing or repairing the LPG fuel system:
  - Read, understand and remember relevant information in standard 58 of the NATIONAL FIRE PROTECTION AGENCY (NFPA).
  - Ensure you are wearing proper personal protective equipment.
  - Ensure there are NO SOURCES OF IGNITION nearby.
  - Ensure your work area is adequately ventilated.
  - Keep in mind that LPG is stored under high pressure and ensure that the LPG fuel storage container valve is turned OFF (closed), and pressure is released from the lines.
  - Disconnect the battery and fuel hose coupling.
  - Test for fuel leaks. DO NOT work on the system if the fuel storage container is filled with fuel past the 80% liquid level. Before testing, make sure the system gas pressure is greater than 90 psi (621 kPa). Test all connections, container, valves and fittings with soap and water or equivalent solution.
- When replacing LPG fuel system components, always use Komatsu genuine parts.

## 2.2 FIRE PREVENTION

### ENGINE FIRE PREVENTION - CHECKS BEFORE STARTING

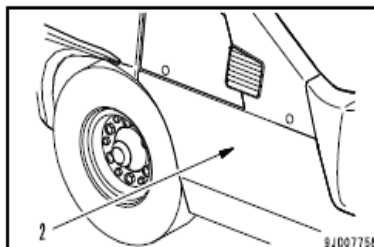
Always check the following points before starting the lift truck engine. If you find a loosely connected battery terminal, secure it. Also, clean any accumulations of dirt, tree waste or paper. If any problem persists, do not hesitate to contact your Komatsu Forklift dealer for servicing.

1. Check around the engine
  - Accumulation of tree waste or paper around the hot engine area and its circumference
  - Oil leakage or fuel leakage around the engine
  - Damage or gas leakage of muffler or exhaust pipe
  - Loosen or damaged electrical wiring or clamps around the engine
2. Check around battery
  - Loose or corroded battery terminals, connectors or clamps
  - Accumulation of tree waste, paper or entry of metals around battery
  - Damaged cable or wiring harness
3. Check oil or fuel leakage
  - Oil leakage from hydraulic piping or fuel leakage from fuel tank (1)



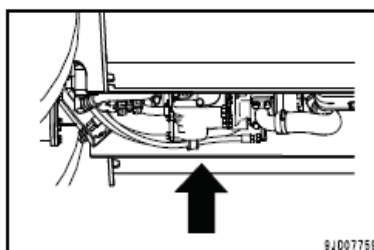
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- Accumulation of tree waste or paper around fuel tank (1) or hydraulic oil tank (2)



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- Accumulation of dirt under the frame (engine or transmission system)  
In particular, dirt or paper may accumulate easily on a lift truck with an undercover. Carefully check for such accumulation.



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4. Check the inside of the operator's cab (for cab models) for accumulation of cigarettes and other flammables

### FIRE FROM FAULTY ELECTRICAL WIRING

Short-circuiting of the electrical wiring may cause a fire.

- Clean all electrical wiring connections and firmly secure them.
- Check wiring daily for looseness, wear and damage. Retighten loose connectors and wiring clamps. Damaged wiring must be repaired or replaced by your Komatsu Forklift dealer.

### FIRE FROM FUEL OR OIL

Fuel, oil, antifreeze, and window washer fluid are flammable, so keep them away from open flame. Strictly follow these instructions:

- Do not smoke or allow any flame near fuel, oil, coolant or window washer fluid, or clothes soaked with them.
- Carry out refueling and refilling away from flames or sparks.
- Stop the engine before refilling fuel or oil.
- Do not leave the area while refilling fuel or oil.
- Tighten the fuel cap and oil cap securely after refilling.
- Wipe off any spilled fuel, oil, and grease after refilling.
- Do not spill fuel on overheated surfaces or electrical system components.
- Store fuel and oil in a designated, well-ventilated, dark and cool place away from unauthorized personnel.
- Put clothes soaked in oil and other flammable objects in a secure container and store them in a safe place.
- When inspecting or servicing the lift truck using devices and equipment, be cautious and take measures to avoid igniting fires with a spark or flame.



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*Failure to comply with these safety policies may result in serious injury or death.*

### FIRE FROM FAULTY PIPING

Ensure clamps, guards and cushions of hoses and tubes are fixed securely. Loose hoses or tubes damaged by vibration during operation or by rubbing against other parts can cause eruption of high pressure fluid, fire and bodily injury.

### IF A FIRE BREAKS OUT

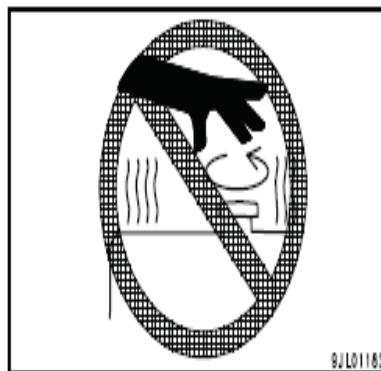
- If a fire breaks out, turn the starting switch to the OFF (STOP) position to stop the engine.
- Do not jump off the lift truck in a rush. Support yourself securely with handrails and use steps to evacuate.

## Forklift Safety Instructions

### AVOID BURN INJURY

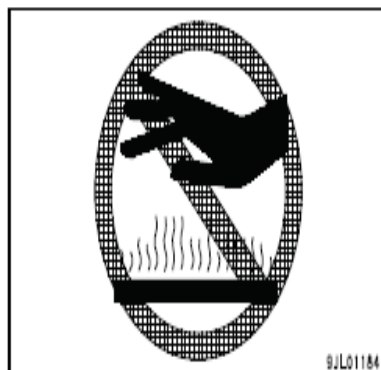
#### HIGH TEMPERATURE COOLANT

Immediately after the lift truck is used, the coolant is still very hot, so there is always a danger of burns when you open the radiator cap, as steam or boiling water may spurt out. After the coolant temperature has gone down sufficiently, turn the radiator cap slowly to release the remaining pressure.



#### HIGH TEMPERATURE PARTS AND OIL

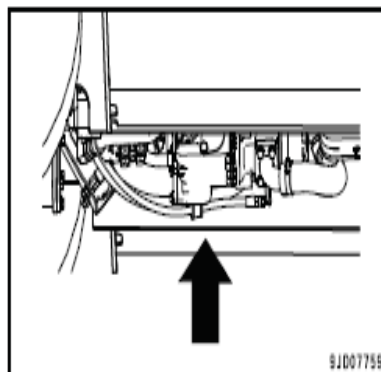
To prevent burns from high temperature parts or by spurting oil, carry out inspection and maintenance work after these parts cool down and can be touched safely with bare hands.



### CLEANING

After operating, use an air blower or similar device to clean off any dirt, tree waste, and paper that has accumulated on the lift truck.

- Around the engine.  
Carefully clean the circumference of the exhaust manifold.
- Under the frame.  
In particular, dirt or paper may accumulate easily on a lift truck with an undercover. Carefully clean such accumulation.
- On the floor plate.
- Around the muffler.



## 2.3 SAFETY CHECKS BEFORE STARTING OPERATION

### ALWAYS CONDUCT A START-UP INSPECTION IN THE BEGINNING OF THE DAY FOR SAFE OPERATION OF THE LIFT TRUCK

- For details of the inspection, see "START-UP INSPECTION" on page 4-15.
- Do not operate a lift truck before completing start-up inspection.
- Report any abnormality immediately to a Komatsu Forklift dealer. Never operate the lift truck in question until repairs are completed.

### CHECK AND ADJUSTMENT BEFORE STARTING ENGINE

Check the following before starting the engine:

- Check for coolant level, fuel level, oil level in the engine oil pan, and hydraulic oil level.
- Adjust the seat (seat position, backrest angle), steering wheel position and center mirror, and make sure the locks are secured.

### PRECAUTIONS BEFORE STARTING THE ENGINE

Before starting the engine:

- Check that the parking brakes are set, and that the electric forward/reverse lever is in the neutral position.
- Check that the surrounding area is safe, then sit in the operator's seat.
- Sound the horn to warn people nearby.

### DO NOT START THE ENGINE BY SHORT-CIRCUITING OR PUSHING

- Do not start the engine by short-circuiting the starting circuit.
- Starting the engine by pushing the vehicle is not possible because this is a hydrostatic transmission type vehicle. Forcibly pushing the vehicle can cause failure of the hydraulic components.



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### CAUTION WHEN CHECKING SAFETY FUNCTION

- To check the safety function, apply travel interlock, lift interlock, neutral start, and parking brake warning.
- Before the check, secure sufficient space in case of unexpected movement of the vehicle, and perform the check after confirming no people or obstacles are nearby.

### CAUTION IN COLD WEATHER

- Allow sufficient time for warming-up the lift truck in cold weather. If the lift truck is insufficiently warmed-up, it may move slowly or change its motion suddenly, which can result in an accident.
- Know where to find safety salt, ice melter or oil absorbent.
- For operation and maintenance, see "COLD WEATHER OPERATION" on page 3-34.

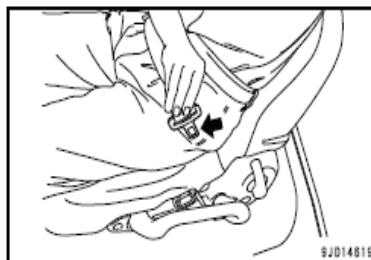


## Forklift Safety Instructions

### 2.4 SAFE TRAVEL

#### BE SURE TO WEAR THE SAFETY SEAT BELT

- Always fit your seat belt correctly when operating. If your seat belt is fitted incorrectly, there is danger of serious personal injury if the lift truck should tip over.
- Always check the seat belt mounts and check for any damage to the seat belt. If any abnormality is found, repair or replace the seat belt immediately.



#### CHECK AND ADJUST THE REAR VIEW MIRROR AND LAMPS

- When reversing, never depend on the rear view mirror. The operator must visually check behind him. Also, adjust the rear view mirror so that the operator can check from the operator's seat that the area behind the lift truck is safe. Always keep the surface of the mirror clean. If the mirror is broken, replace it with a new one.
- Check that all lamps light up correctly. Replace any broken bulbs (for lift trucks equipped with lamps).

#### BEFORE STARTING UP THE ENGINE, CHECK THE SURROUNDINGS FOR SAFETY

- Before starting the engine, check that the parking brake is set, and that the directional and speed levers are in the neutral position.
- Adjust the operator's seat and the steering wheel before starting the engine. Always lock them in position after adjusting. Adjusting the seat or steering wheel during operation is dangerous as it may cause you to lose your balance or operate the lift truck in an unsafe manner.
- Before starting the engine, first check that the surrounding area is safe, and sit securely in the operator's seat.
- Sound the horn before starting the engine to warn people around you.
- Before moving the lift truck, raise the forks [approximately 15 to 20 cm (6 - 8 in.) from the ground surface], and tilt the mast back.
- When ready to move, release the parking brake.
- *Do not attempt to start the engine by intentionally short-circuiting the engine starting circuit.*
- *Do not attempt to jump start the lift truck.*

#### DON'T ALLOW A PASSENGER ON THE TRUCK

- Never allow any other person to ride with you on the lift truck.
- Do not use anyone for a makeshift human counterweight.



### STAY IN THE SEAT

#### TRAVEL INTERLOCK (POWER TRANSMISSION CUTOFF) AND MAST/ATTACHMENT INTERLOCK

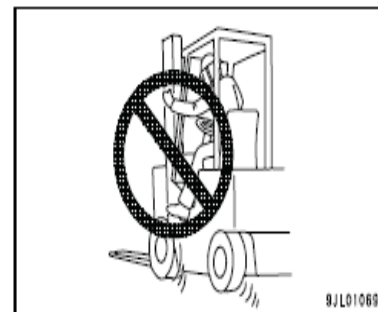
- If you operate the lift truck when you are not seated properly or off the seat, an accident can occur. To prevent such an accident, this lift truck has Travel Interlock and Mast/Attachment Interlock safety features that make travel and truck operation impossible if you are not seated properly (Operator Presence System).
- If you operate the lift truck in so that your weight is not properly applied to the seat, like standing up or leaning forward or sideways out of the seat, Travel Interlock begins to alarm in about three seconds and cuts off the transmission of engine power. Then the truck will not move, even if you depress the accelerator pedal or operate the forward-reverse lever.
- Additionally, Mast/Attachment Interlock disables lifting/lowering, tilting and attachment functions. Even if you operate the lift, tilt or attachment levers, these functions will not work.
- For details, see "FUEL SELECTION SWITCH (DUAL FUEL)" on page 3-8, "NEUTRAL/TRAVEL INTERLOCK INDICATOR LAMP" on page 3-11 and "MAST/ATTACHMENT INTERLOCK INDICATOR LAMP" on page 3-12.



### MAINTAIN PROPER POSTURE WHILE TRAVELING

During travel:

- Do not stick your hands or feet outside the truck body.
- Always keep your body beneath the overhead guard.



### A SUDDEN SHIFT OF THE F-R LEVER IS DANGEROUS

To change the travel direction, stop the lift truck completely and then operate the F-R lever.

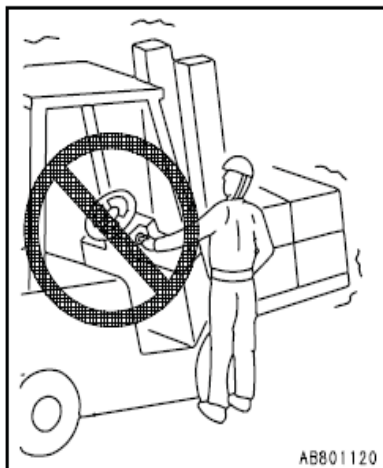
### NEVER TURN OFF THE STARTING SWITCH WHILE TRAVELING

When the starting switch is turned to OFF while traveling, the operating efforts for power steering and power brakes may increase.

## Forklift Safety Instructions

### DON'T TRY TO OPERATE THE LIFT TRUCK FROM OUTSIDE

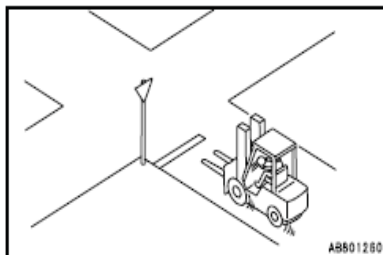
- Always keep your body under the overhead guard.
- Do not put your hand or foot out of the overhead guard.
- You must be properly seated in the operator's seat when operating any function of the lift truck.



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### BE SAFETY CONSCIOUS WHILE DRIVING

- Keep a clear view of the path of travel and watch for other traffic, personnel, and safe clearances.
- When passing oncoming vehicles, reduce speed and keep a safe distance from the other vehicle.
- In places where there are speed limits, observe the speed limit and maintain a safe distance from other vehicles.
- When traveling, always pay careful attention to the area around your lift truck, particularly in the direction of travel or when turning.
- Do not attempt to pass another lift truck or vehicle on a narrow path or on a spot of limited view like a crossing.
- When passing through an area of limited view, like a crossing or when running into a narrow path, sound the horn and check the surroundings for safety.
- Even if you sound the horn, not everyone in the surrounding area will necessarily hear it. Always pay careful attention to the movements of people in the surrounding area.
- When crossing a passage or turning at a corner, stop the lift truck once to confirm the safety around.
- Always pay careful attention to the movements of people in the surrounding area, and take steps to prevent people from entering the working area.
- When traveling on a slope or through a crowded spot, always give way (yield) to a loaded lift truck.



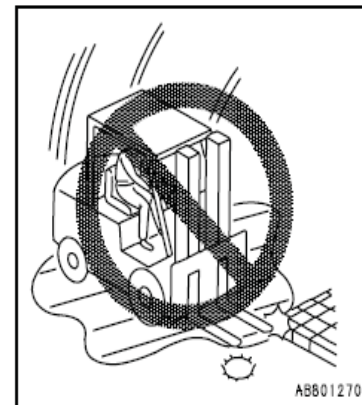
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### DO NOT REST YOUR FOOT ON THE INCHING PEDAL WHILE TRAVELING

- Keep your foot off the inching pedal while traveling to prevent the brake from overheating and losing braking effect.
- Depressing the pedal engages the clutch halfway, which makes the engine brake ineffective.
- This can also cause the transmission to overheat, leading to wear or seizure of the multiple clutch plates.

### DO NOT DRIVE ON ROUGH OR SLIPPERY SURFACE

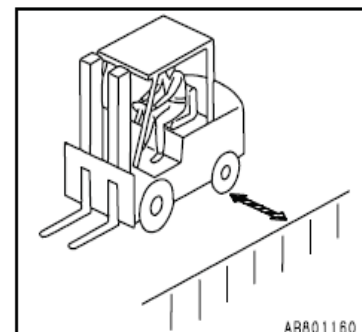
- Avoid traveling in places which are flooded or where there are holes.
- Do not try to drive the lift truck on soft ground.
- Avoid curbs, rails, ditches, or other obstacles, and do not travel directly over them.
- Do not travel on slippery road surfaces.
- When entering buildings, check the weight limit of the floor and be careful not to exceed the limit.



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### DRIVING ON A ROAD SHOULDER IS STRICTLY PROHIBITED

- There is a danger that soft road shoulders may collapse, so do not go near them.
- Always maintain a safe distance from the edge of road shoulders and platforms.



AB801160

### PRECAUTIONS FOR LIFT TRUCKS WITH SOLID PNEUMATIC TIRES

- Solid pneumatic tires installed on pneumatic tire rims generate remarkably more heat while traveling than air-filled pneumatic tires, deteriorating the tire rubber and causing premature wear and separation of the tires from the rims.
- Never operate a lift truck equipped with solid pneumatic tires continuously for long periods under the following conditions:
  - Excessive load weight
  - High-speed travel
  - Repeated steering movements
- If unsure of the condition of your tires, always contact your local Komatsu authorized dealer for inspection.

### APPLY THE BRAKES CORRECTLY WHILE THE ENGINE IS RUNNING

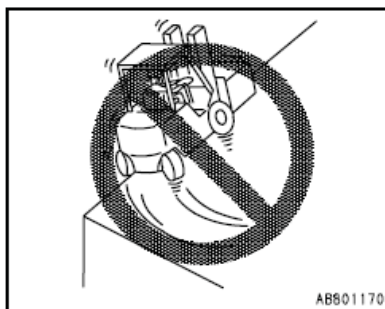
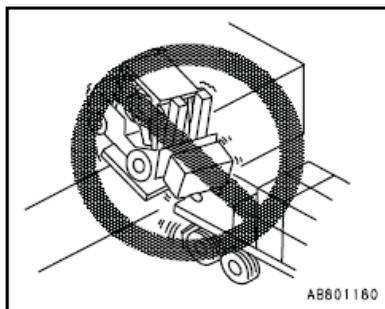
- Do not stop the engine while the truck is in motion. When the engine is not running, the operating efforts for power steering and power brakes (if present) increase, making it dangerous to stop the engine while running.
- If the inching pedal is depressed, the braking effect of the engine will be lost.
- Do not use the brakes unnecessarily or too frequently. If you rest your foot on the inching pedal during operations, the multiple clutch plates of the transmission will overheat, deforming the clutch plates and causing them to malfunction, in the worst case.



# Forklift Safety Instructions

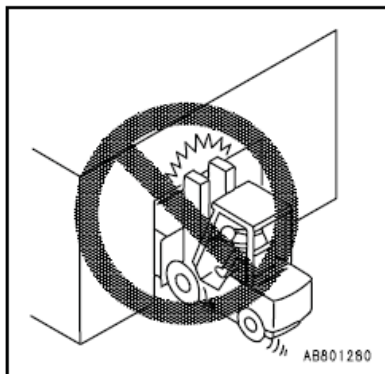
## EXERCISE EXTRA CARE WHEN DRIVING INTO A RAILWAY CAR, TRUCK OR CONTAINER

- Do not travel on the edge of docks. There is a danger that the lift truck may fall, which may result in serious injury or death.
- Before starting operations, check the load limit for the gangplanks, and do not use them if they do not have ample strength to take the weight of the lift truck when loaded.
- Apply the brakes on the truck and block the wheels before driving the forklift into the truck.
- When driving into trailers, use jacks and take steps to prevent the trailer from sinking when the forklift truck travels on it.
- When driving the forklift inside trucks, reduce speed when backing out and be sure to check that the gangplanks are safe.
- Be careful of pedestrians.
- Tell the truck driver not to move the truck until the operation is completed.
- If there is some system to secure the truck to the dock, always use this system. Secure the gangplanks so that they do not slip and fall.



## BE AWARE OF THE LIFT TRUCK'S MAXIMUM HEIGHT AND WIDTH

- Ensure that there is ample height and width for the lift truck to pass.
- Do not extend your hands or legs outside the operator's compartment or the area covered by the overhead guard (safe area).
- Check that the surrounding area is safe.
- Be careful of electric wires and other obstacles inside and outside the building.



## OBSERVE THE WEIGHT LIMIT

Do not exceed the weight limit on floors and roads where the weight limit is specified.

## EMERGENCY ACTION AT A RAILWAY CROSSING

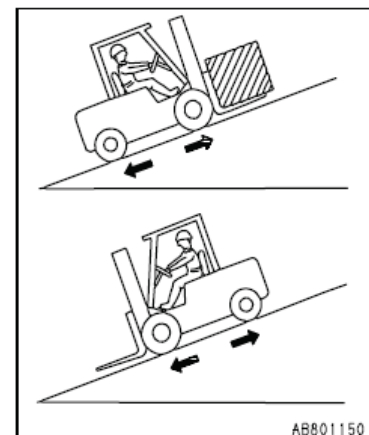
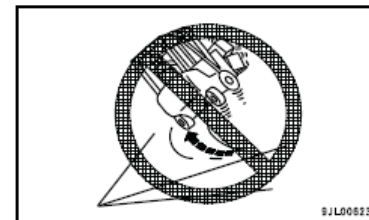
When the lift truck becomes disabled at a railway crossing or similar place due to engine trouble, the lift truck cannot be moved with the neutral start function of the cell motor as it can on a passenger vehicle. In such an emergency, burn a safety flare or take similar action to warn the approaching train of the failure.

## SHOULD THE LIFT TRUCK BECOME INOPERATIVE IN A DANGEROUS PLACE LIKE A RAILROAD CROSSING, LET ALL PEOPLE AROUND KNOW IMMEDIATELY

- If engine trouble occurs on a railroad crossing and the lift truck does not move, it is impossible to use the starting motor as can be done on a standard-shift automobile. (This is because a neutral safety switch is installed.)
- In such an emergency, light a flare or smoke candle to warn approaching trains and people in the area that there is a broken-down truck on the tracks.

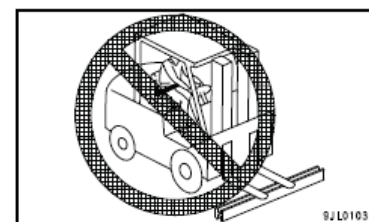
## WHEN DRIVING UP OR DOWN A SLOPE, EXERCISE EXTRA CARE

- Do not turn, or travel across or at an angle on slopes. There is danger that the lift truck will tip over.
- Before starting to drive up a slope, stop the lift truck and adjust the clearance between the ground surface and the bottom of the forks so that the bottom of the forks or pallet do not contact the ground surface or the tip of the fork does not stick into the ground when traveling.
- For safe travel on slopes:
  - When loaded: Travel forward up the slope, and in reverse down the slope with the load upgrade.
  - When unloaded: Travel in reverse up the slope and forward down the slope with the load-engaging means downgrade.
- On a downslope, drive down slowly and use the foot brake.
- When starting on slopes, the lift truck may start to move down the slope depending on the amount the pedals are depressed. Always leave ample room in front of and behind the lift truck when starting on slopes.
- Be careful of the truck sliding downhill if Travel Interlock is engaged while traveling uphill or on a slope. Stay securely in the operator's seat! See "FUEL SELECTION SWITCH (DUAL FUEL)" on page 3-8 for more information.



## DO NOT TRAVEL DIRECTLY OVER OBSTACLES ON THE ROAD

Avoid clutter, curbs, rails, ditches, or other obstacles, and do not travel directly over them. Also, the impact applied when traveling over obstacles can result in bodily injuries such as backache.

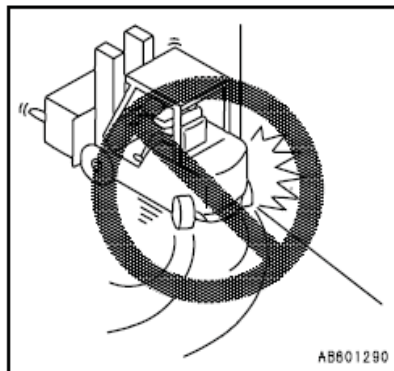




## Forklift Safety Instructions

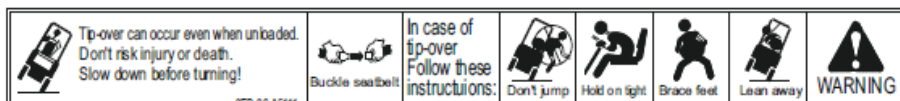
### WHEN MAKING A TURN, BE CAREFUL OF THE SWINGING COUNTERWEIGHT

- Remember that a fork lift truck steers with the rear wheels, not the front wheels. It will not drive like an automobile.
- When turning while traveling forward, the counterweight will swing far out. Keep an ample clearance from walls to ensure safety.
- When turning, travel slowly and be careful that the front or rear wheels do not come off the ground.
- When turning on soft road shoulders, there is danger that the rear wheels may come off the road shoulder and cause the lift truck to tip.



### NEVER JUMP OFF WHEN THE LIFT TRUCK APPEARS TO BE TIPPING OVER

- Always fasten your seat belt during operations for your safety should the lift truck tip over.
- To avoid tipping over and other accidents, carry out proper operation, inspection and maintenance of the lift truck, and read and understand this Operation and Maintenance Manual.
- When the lift truck appears to be tipping over:
  - Do not jump off the lift truck or you may be crushed by it.*
  - Lean in the opposite direction to the direction the lift truck is tipping.
  - Grip the steering wheel tightly.
  - Brace yourself with both feet to support your body.
- Practice this series of actions from time to time to master how to act in emergency situations.



(a)

(b)

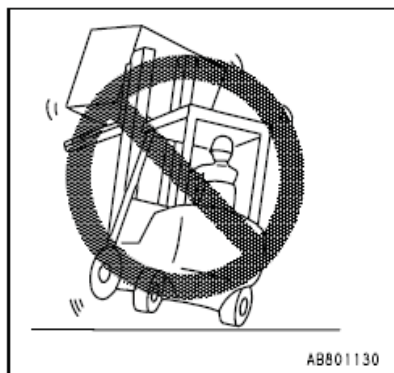
(c)

(d)

(e)

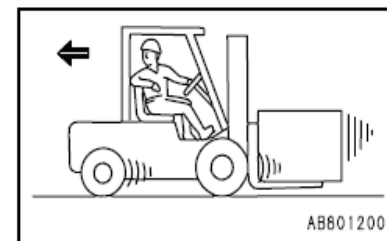
### DO NOT TRAVEL WITH THE FORKS RAISED HIGH

- If the load-engaging means or load is raised, the center of gravity of the lift truck will also rise and increase the danger of the lift truck tipping. Do not turn the lift truck when the forks are raised high. During travel, keep the forks about 15 to 20 cm (6 - 8 in.) above the ground with the mast tilted back.
- Do not suddenly raise the forks or tilt the mast to the front or rear when the forks are loaded. There is danger that the lift truck will tip.
- Reduce speed before turning the lift truck.
- In particular, when traveling unloaded, the rear of the lift truck is heavy. If the lift truck is turned at high speed, there is a greater chance of tipping than when traveling with the forks loaded.



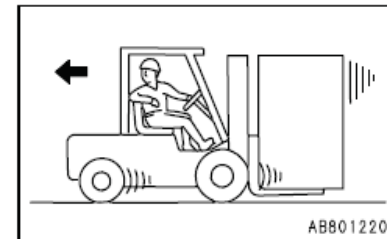
### WHEN BACKING UP THE LIFT TRUCK, VISUALLY CHECK BEHIND THE TRUCK

- Before backing the lift truck, make sure that there is no one behind the truck before starting to travel.
- The rear view mirror is simply an aid for checking the rear. When driving in reverse, do not use the rear view mirror. Turn to face the rear and check the area directly behind the lift truck for safe unobstructed travel.
- Even if you sound the backup buzzer, the people behind the truck may not necessarily hear it. Always check that there is no one behind the truck before driving the truck. (For lift trucks equipped with backup buzzer)



### WHEN CARRYING A HIGH LOAD, USE A SIGNAL PERSON OR DRIVE FACING BACKWARDS

- If the view to the front is obstructed by the load, turn to the rear and drive the lift truck in reverse.
- When driving in reverse with a high load, use a signal person to ensure the safety of the load and the safety in the surrounding area.

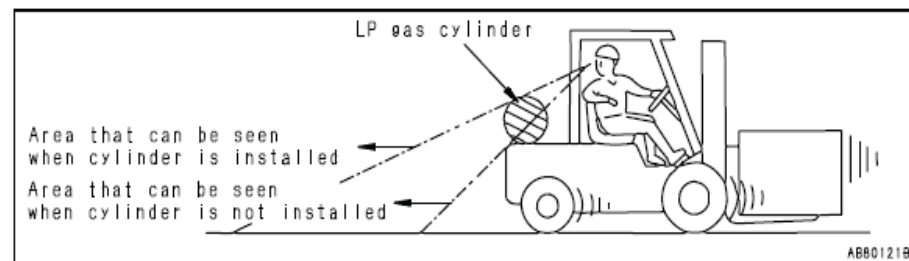


### REQUIRED BRAKING DISTANCE DIFFERS DEPENDING ON THE ROAD CONDITIONS

- Allow plenty of time for brake operation depending on the situation, as the road surface and weight of the load affect the stopping distance. Longer braking distance is required for heavy loads and stopping on downhill slopes and wet or slippery surfaces.
- When traveling downhill, reduce speed and make sure you have ample room at the bottom of the slope to stop.

### PAY SPECIAL ATTENTION TO THE REAR VIEW WHEN AN LPG CYLINDER IS INSTALLED

- The installed LP gas cylinder partially blocks the rear view and poses danger of hitting people, or nearby objects and piled commodities. In order to warn people nearby and check for safe conditions in the area of the truck, install backup warning devices such as the backup alarm buzzer and strobe light, or backup safety checking devices such as the rear view mirror. See "OPTIONAL SAFETY EQUIPMENT" on page 2-44.
- When installing optional warning devices, call your Komatsu Forklift dealer for details.



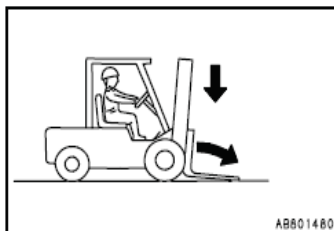
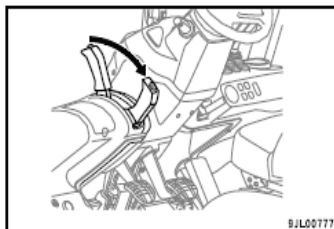
# Forklift Safety Instructions

## PARK THE LIFT TRUCK IN A SAFE PLACE

- Park the lift truck in the specified place.
- Park the lift truck on a firm surface.
- Do not park near any emergency exit, stairway, fire extinguisher, or other safety equipment. Park the lift truck in a place where it will not obstruct pedestrians or other vehicles.
- Never park the lift truck near heat, ignition sources, or any flammable object.
- If there is no way to avoid parking on a slope, immobilize the lift truck by putting blocks under the tires in addition to normal parking procedures.
- LPG trucks: LPG is heavier than air and will sink to the lowest area possible. Avoid parking near areas near floor drains or lubrication pits where escaped fuel may collect.

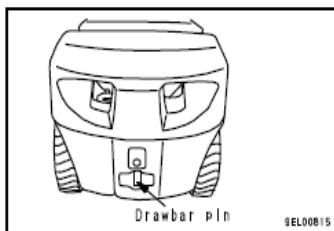
## FOLLOW THESE STEPS FOR PARKING

1. Stop the lift truck on level ground.
2. Apply the parking brake securely to make sure that the lift truck cannot move.
3. Set the directional lever and speed lever to neutral.
4. Tilt the mast forward and lower the fork to the floor.
5. Turn the starting switch to the OFF position.
6. Pull out the starting switch key and leave the lift truck.
7. LPG trucks: close fuel valve on fuel cylinder after parking the lift truck.



## BE CAREFUL WHEN USING THE DRAWBAR

- The drawbar at the back of the counterweight is provided to pull out the lift truck when it has gotten stuck in dirt or a ditch as well as when it is being loaded on a truck.
- Do not use the drawbar for any other purposes than to bail out a stuck lift truck, or to be towed by another lift truck or to be hoisted.

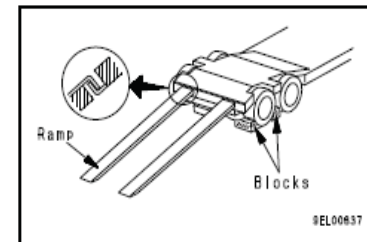


## DON'T USE A LIFT TRUCK TO TOW ANOTHER BROKEN-DOWN LIFT TRUCK

If there is any problem with the brakes or steering system of your lift truck, do not use another lift truck to tow it as there is danger that the lift truck may run out of control.

## PRECAUTIONS FOR LOADING AND UNLOADING

- If you operate the lift truck in such a posture that your weight is not properly applied to the seat, like standing up or leaning forward or sideways, Travel Interlock begins to alarm in approximately three seconds and cuts off the transmission of engine power. Then the truck does not move even if you depress the accelerator pedal or operate the forward-reverse lever. The truck will slide downhill if Travel Interlock activates on an uphill grade or a slope.
- Select flat and solid ground for loading and unloading. Avoid a road shoulder or a place near a cliff.
- Use ramps of sufficient length, width and strength. Moreover, set them securely so that they will not shift or be displaced.
- Always operate the mast and forks from the operator's compartment. Be careful not to operate the lever by mistake. There is danger that the forks or work equipment may cause serious injury.



## KEEP UNAUTHORIZED PEOPLE OUT OF WORKING AREA AND ENSURE A SIGNAL PERSON IS ON DUTY

- Do not allow anyone in the working area except the signal person.
- Do not let any person or other lift truck come close during operation.
- When working with a signal person, always follow their instructions.

## NEVER GO BENEATH RAISED FORK

The space under a lifted fork is an area of danger, so never allow anyone to go under the fork. There is a danger of personal injury to any person who could be crushed under the forks when they come down.



## STANDING OR WORKING ON THE FORK IS STRICTLY PROHIBITED

- Do not manually place a load on the forks or manually remove a load from the forks.
- Do not stand on the forks to support a load as the load may slip off the forks and fall on the person below.
- Do not try to move or adjust any part of the load, the forklift or the surroundings while on the forklift.





# Forklift Safety Instructions

## BE CAREFUL NOT TO GET CAUGHT IN THE MAST STRUCTURE

Never put your hands or feet into the mast structure. There is danger that you will get caught in moving parts and be seriously injured.



## DON'T CLIMB ON THE MAST OR LOAD BACKREST

If you climb on the mast or load backrest, there is a danger that you could get caught up in the moving parts or fall off.

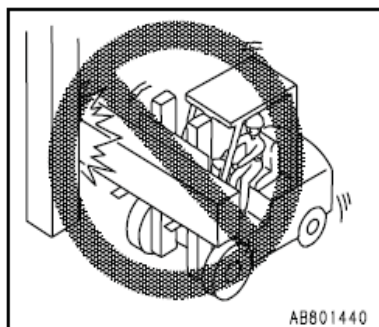


## USE A PALLET OR SKID OF SUFFICIENT STRENGTH

- Always be sure that the pallets and skids have ample strength. If broken or damaged pallets or skids are used, there is a risk that the load may fall.
- Always check that the load is positioned securely and safely on the pallet before moving the truck.

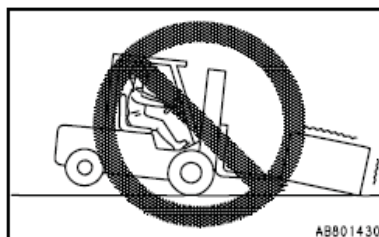
## HANDLE A LONG OR WIDE LOAD WITH EXTRA CARE

- Be extremely careful when carrying long or wide loads. Raise the load slowly and be careful not to touch anything in the surrounding area.
- Keep the load as low as possible and be sure to maintain the balance.
- When turning, operate slowly and be careful not to let the load shift or move.



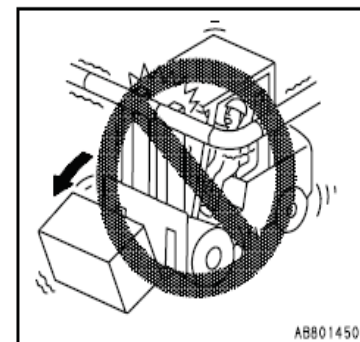
## BE CAREFUL OF THE FORK TIPS

- Do not allow the tips of the forks to get close to people. The tips of the forks are pointed, so there is a risk that they may cause injury.
- Do not attempt to hook something with the tips of the fork, otherwise the hooked object can suddenly come off the tip, and the reaction can cause danger to the lift truck as well as to the hooked object.



## WATCH OUT OVERHEAD

- As the fork goes up, the mast height increases. Be mindful of this fact during operations.
- Take care so that the mast or the overhead guard will not hit electric wiring, piping, sprinklers, beams in the ceiling, and so on. If such contact occurs, there is the danger that the load on the fork may fall off or the lift truck may tip over.



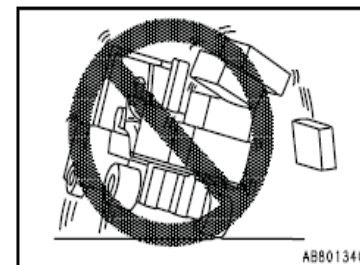
## OVERLOADING IS STRICTLY PROHIBITED

- Do not load the lift truck over the maximum capacity shown in the load capacity chart, otherwise there is the danger that the rear wheels may come off the ground, the operator may lose control of the lift truck; and the truck may tip over. Moreover the load on the forks can collapse.
- Never exceed the max. load shown in the load capacity chart on the data plate. (See "LOAD CENTER AND ACTUAL CAPACITY" on page 2-36.)



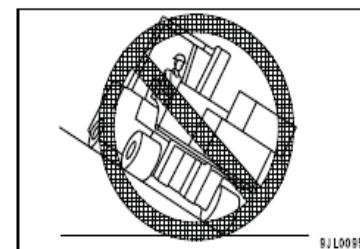
## DON'T HANDLE A LOAD IN AN UNSECURE MANNER

- Make sure that the center of gravity of the load is in line with the center of the lift truck. Do not carry loads off-center. There is danger that unbalanced loads may cause the lift truck to tip.
- Place the load so that it contacts the load backrest.
- Do not handle unstable loads. If there is danger that the load may fall off, secure it in position and take steps to prevent the load from collapsing or falling.



## DO NOT LOAD AND UNLOAD ON SLOPES

Loading or unloading on the slopes may cause the lift truck to lose balance and tip over.



## DO NOT LOWER LOADED FORKS HASTILY

Do not operate the forks roughly or make sudden stops. Sudden lowering may cause the load to collapse and fall, and the lift truck may lose balance and tip over.

## Forklift Safety Instructions

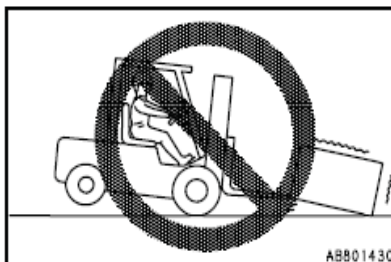
### DON'T HANDLE A LOAD THAT EXCEEDS THE LOAD BACKREST HEIGHT

Keep the height of the load within the height of the load backrest. Do not carry any load that is higher than the load backrest. *If the load is higher than the load backrest, there is danger that it will fall back on top of the operator, resulting in serious injury or death.*



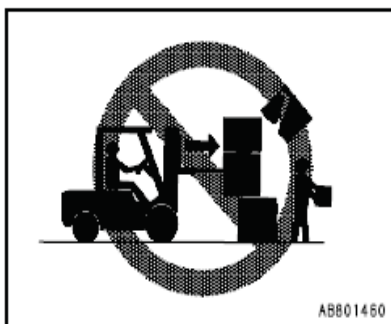
### DO NOT PRY LOAD WITH THE TIPS OF THE FORK

If you pry a load with the tips of the fork, the load may be damaged or snagged. A snagged load can suddenly come off the tip and cause damage to the lift truck as well as the load.



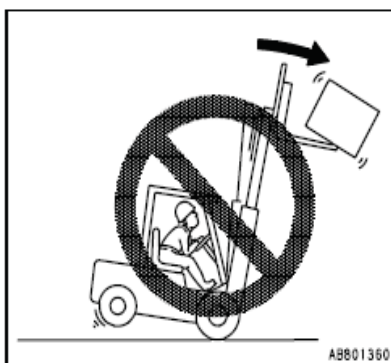
### DON'T USE THE FORK TO PUSH OR PULL A LOAD

There is the risk that the load will be damaged or fall.



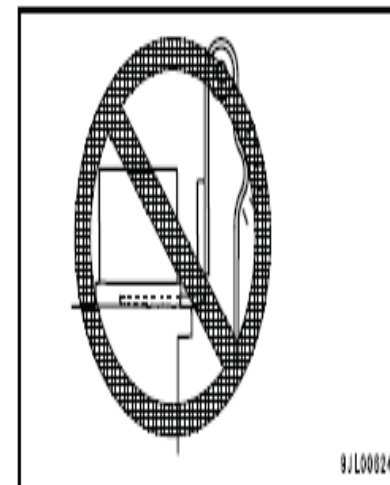
### DON'T TILT THE MAST FORWARD WITH A LOAD ON THE FORK

- Do not tilt the mast forward with the load raised. Do not raise the load when the mast is tilted forward. There is danger of the load falling or the truck tipping over.
- Do not travel with the mast tilted forward.
- Do not load and unload on slopes.



### BE CAREFUL OF SLACK IN THE HOIST CHAINS

- If there is any slack in the chain, the mast rail or forks may catch in the load or a shelf, and there is danger that the load may fall and the lift truck tip.
- Always be careful that there is no slack in the chain when pulling the forks out from pallet or shelf.



### DON'T USE THE LIFT TRUCK IMPROPERLY

- Do not use the lift truck for any other purpose than was originally intended (the loading work using the fork or attachments).
- Do not use the forks to open or close the doors of railroad cars or warehouses.
- Do not push any other vehicle.
- Do not hook ropes on the forks and use the forks to lift loads.
- Do not use the drawbar pin for towing operations.

