APPROVED BY Director of Quality, Labour Safety and Environmental Control

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## OCCUPATIONAL HEALTH AND SAFETY PROCEDURE BDS-16 'OPERATION AND MAINTENANCE OF LIFT TRUCKS'

# I. GENERAL PROVISIONS

# **Purpose and Scope of Application**

1. Occupational Health and Safety Procedure BDS-16 'Operation and Maintenance of Lift Trucks' (hereinafter – the Procedure) sets forth the requirements for the operation and maintenance of lift trucks.

2. This Procedure shall apply to the employees of Public Company ORLEN Lietuva (hereinafter – the Company) and contractors (under relevant contracts concluded with the Company, hereinafter – the Contractor), involved in the operation and maintenance of lift trucks, load handling and transportation.

# **II. REFERENCES**

3. This Procedure has been developed in line with the effective revisions of the following documents:

3.1. ORLEN S.A. Standard L1 'Performing work with powered industrial trucks with mechanical lifting system (forklift trucks)';

3.2. ORLEN S.A. Standard S7 T1 'Execution of transport works carried out with the use of powered industrial trucks with a mechanical lifting system'.

## **III. TERMS AND DEFINITIONS**

4. Terms and definitions used herein:

**Lift truck** – a specialized vehicle with an internal combustion or electric motor used for load handling and transportation.

**Manager of lift truck operators** – manager of organizational unit or another employee responsible for organizing the work of lift truck operators and ensuring the safe operation of lift trucks.

**Lift truck operator** – an employee of the Company or Contractor holding a valid class B driving license or a tractor driving license, trained to operate lift trucks and authorized by the Company or Contractor to operate a lift truck as part of his/her work tasks.

**Inspection log** – a document used by lift truck operators to keep a record of truck inspections and to certify that such inspections have been carried out (Annex 2 to Occupational Health and Safety Procedure BDS-4 'Maintenance of Work Equipment' (hereinafter – Procedure BDS-4)).

# IV. DUTIES OF EMPLOYEES

### 5. Manager of lift truck operators shall:

5.1. Ensure that lift trucks are inspected, tested and marked in accordance with the requirements of Procedure BDS-4;

5.2. Organize the necessary training for lift truck operators;

5.3. Ensure that the operated lift trucks have the EU Declaration of Conformity, CE marking, supporting documentation and manufacturer's operation and maintenance instructions in English or another language understandable by lift truck operators.

5.4. Ensure that operators do not use trucks that have not been inspected or have been found to be unfit for safe operation;

5.5. Ensure that work involving lift trucks is properly controlled and that truck operators comply with the requirements set out in this Procedure.

6. Lift truck operators shall:

6.1. Use the lift truck only for its intended purpose, in accordance with the manufacturer's instructions and the methods described in this Procedure;

6.2. Inspect the lift truck daily before use in accordance with the manufacturer's instructions and the requirements of this Procedure, and record the results of inspection in the inspection log;

6.3. If the inspected lift truck is found to be noncompliant with the safety requirements, or it has broken down or been damaged in any other way during the work, inform the manager of lift truck operators, mark the lift truck in accordance with Annex 6 to Procedure BDS-4, and not use it for any work.

# V. MAIN RISKS

7. Lift truck operators are exposed to the following main risks during load transportation and handling:

- Poisoning caused by the exhaust fumes of internal combustion engine;

- Exposure to electric current;

- Exposure to noise;

- Truck tip-over;
- Falling of load;
- Falling of worker.

# **VI. GENERAL REQUIREMENTS**

8. Lift trucks shall have EU Declaration of Conformity, CE marking, supporting documentation and manufacturer's operation and maintenance instructions in the Lithuanian language.

7. Lift trucks shall have a factory plate with the following information:

- Manufacturer or supplier;
- Type of lift truck;
- Year of manufacture;
- Serial number;
- Rated lifting capacity;

- Unladen weight (the unladen weight of a lift truck is approximately equal to its double lifting capacity).

9. The total weight of the lift truck is its own weight plus the weight of the load. This total weight needs to be considered when driving on different road surfaces.

10. Lift trucks with a lift height of more than 2000 mm shall be marked with the sign 'DO NOT STAND UNDER FORKS' (Figure 1).



Fig. 1. Sign 'DO NOT STAND UNDER FORKS!'

11. When entering and exiting the lift truck, operators shall use the handles and steps,

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maintain the three points of contact and not hold onto the truck's control levers or steering wheel. Operators shall fasten the seat belt and close the cabin door after entering the lift truck. The operators are not allowed to stick their head, arms, legs or any other part of the body outside the cab during truck operation.

12. To avoid the lift truck tip-over, the load center of gravity distance shall be observed when lifting a load (see Fig. 2 for load center of gravity). It is prohibited to lift loads if the truck body is not in a horizontal position and the soil surface is not strong enough.

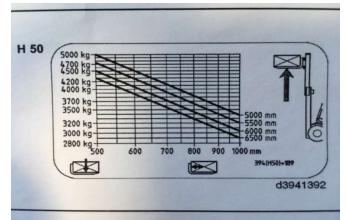


Fig. 2. Chart of load center of gravity

13. If the lift truck starts to tip over:

- Do not try to jump out;
- Hold onto the truck cab and stay inside;
- Do not unbuckle your seat belt;
- Hold on to the handles;
- Lean against the side of the truck opposite to the tipping direction.

14. The use of diesel-powered lift trucks in indoor areas should be limited, as the exhaust fumes from diesel engines contain soot particles that may cause lung cancer; lift trucks with electric motors should be used instead.

# VII. REQUIREMENTS FOR LIFT TRUCK INSPECTIONS BEFORE START OF WORK

15. Every day before the start of work, the operator shall inspect the truck and make sure

that:

- 15.1. The steering, braking and drive systems are in good working order;
- 15.2. The lighting equipment, light and sound warning signals are functional;
- 15.3. Oil or fuel is not leaking;

15.4. Tyre pressure complies with the manufacturer's recommendations and is the same

in all tyres;

15.5. The lifting equipment is in good working order and there are no leaks in the hydraulic

system;

- 15.6. The rear-view mirrors are in the correct position.
- 16. It is allowed to use the lift truck if:
- 16.1. The forks are free from any visible damage, are not bent, badly worn or cracked;
- 16.2. The tyres are intact and maintain the required pressure level;
- 16.3. The pedals are not slippery;
- 16.4. The overhead guard is securely fastened and undamaged;
- 16.5. The cargo net (if required) is securely fastened;
- 16.6. There are no leaks in the hydraulic system;
- 16.7. The foot and hand brakes are in good working order;
- 16.8. Protection against unintentional operation is functioning;
- 16.9. Forks are properly protected against falling or tilting out;
- 16.10. The chains are sufficiently and evenly tensioned;
- 16.11. The signaling devices are functioning properly;

16.12. The lights and stop lamp are in good working order;

16.13. Steering free play does not exceed the width of two fingers;

16.14. Safety devices are functioning properly;

16.15. The hydraulic system for raising, lowering and tilting the mast as well as the built-in devices are in good working order.

17. The truck operator shall report any defects identified to the manager of truck operators and not use the truck until the defects have been rectified.

## **VIII. REQUIREMENT FOR LOADING OPERATIONS**

18. The lift truck shall be positioned perpendicular to the storage and loading bay at a distance greater than the length of the forks and for ramps – at least 1 m from the edge of the ramp.

19. The load shall be picked up in the way as to ensure that its centre of gravity is as close as possible to the rear of the forks – in this case, the horizontal distance (arm) to the load centre of gravity is the smallest.

20. The load shall be evenly distributed over both forks. The forks shall be centered and spread apart from each other as far as possible.

21. Load may be picked up when the mast is tilted forward, and lifted when the mast is tilted backward.

22. When picking up the load, the load centre of gravity must be aligned with the truck's longitudinal axis so that the load does not stick out more than 1/3 of the fork length. When lifting larger loads that do not fit on the standard forks, a fork extension shall be used and the load shall be tie-down lashed.

23. The load can only be moved after it is securely and evenly placed on the truck and lifted approximately 30 cm off the ground. The truck shall start moving slowly and smoothly.

24. The following is prohibited when lifting loads:

24.1. Strapping or rigging by unauthorized persons not holding load rigging certificates;

24.2. Using devices not designed for lifting instead of special slings;

24.3. Lifting loads that are unstable, or in unsuitable or overfilled containers;

24.4. Lifting packages without properly securing them (with a wrapping film, lashing straps, packing tape);

24.5. Lifting loads exceeding the truck's rated loading capacity;

24.6. Lifting loads covered in soil, rubble, etc., frozen to the ground or pressed;

24.7. Lifting loads with only one fork;

24.8. Lifting and carrying loads with the load centre of gravity at the front of the forks;

24.9. Lifting and transporting compressed gas cylinders, flammable and toxic liquids in glass containers without special pallets/containers. Warning signals (orange beacons) shall be in operation when transporting these materials;

24.10. Staying under the lifted load, raised forks or under other load lifting and handling equipment;

24.11. Lifting or lowering vehicles with people inside the vehicle.

# IX. REQUIREMENTS FOR LOAD TRANSPORATION

25. The movement path/aisle shall not be obstructed by vehicles, empty pallets or the truck itself. The loading and unloading bays shall be level, with a maximum slope of 5 degrees. Working in obstructed areas is prohibited. In winter, the loading and unloading bays shall be regularly cleared of snow and ice, sanded or salted.

26. The loading bays and ramps shall be illuminated during the dark hours. Working in non-illuminated areas is prohibited. If floodlighting is used, it must not dazzle the workers.

27. Truck operators shall reverse the truck when driving down the ramps or platforms to avoid dropping the load or truck tip-over.

28. When transporting loads, the operator shall take into account the dimensions of the load, the ground surface and weather conditions and drive at a safe speed, which shall not exceed 6 kilometers per hour.

29. When moving loads that obstruct the truck driver's view of the road, the truck shall go

backward. In this case, the operator shall drive at a minimum speed.

30. When moving a suspended load, the truck shall be driven at a speed that prevents the dangerous swinging of the load and the need to brake suddenly.

31. When carrying loads that obstruct the view, or driving uphill or downhill, the truck shall move backward or have an accompanying worker.

32. When driving through crowded areas or gates, the operator shall make sure there are no people or obstacles, slow down and sound the horn.

33. When driving through a gate, the minimum distance from the edge of the truck or load to the edge of the gate must be at least 300 mm on each side of the truck and the minimum distance between the load or highest point of the truck and the top of the gate must be at least 200 mm.

34. The following is prohibited when carrying loads:

34.1. Entering or exiting he truck without it coming to a complete stop;

34.2. Driving the truck without wearing a seat belt;

34.3. Carrying people on the forks, pallet or load, or in the truck cab if the cab is not designed to carry people;

34.4. Raising or lowering the carriage with the load while the truck is moving; 34.5. Using the truck to push other vehicles;

34.6. Driving within 1 m of the edge of ramps, pits, openings;

34.7. Moving objects on the ground with the forks of the truck;

34.8. Turning around on a sloping road;

34.9. Lifting, lowering or tilting the load while the truck is moving;

34.10. Carrying loads with the load centre of gravity at the front of the forks;

34.11. Increasing the lifting capacity of the truck by using additional counterweights.

# X. REQUIREMENTS FOR UNLOADING OPERATIONS

35. When lifting or lowering a load near a wall, stack or shelf, the truck operator shall ensure that there are no people between them and the truck.

36. Pallets shall be placed at the point of unloading so that the forks can be pulled out easily from under the load.

37. When depositing a load, the truck operator shall raise the fork at least 20 cm above the shelf, rack or stack on which the load is to be deposited.

38. Once the load has been deposited, the truck driver shall make sure that it is secured against falling down.

39. Loads shall be stacked by keeping aisles and passages clear. Stacking near ditches, pits and slopes, obstructing electrical panels, traffic routes, emergency exits and fire-fighting equipment is prohibited.

40. The height of the stack shall not exceed 3 times the width of the stack in open areas and 4 times the width of the stack in enclosed areas.

41. At the end of the work, the operator shall park the truck in such a way as not to endanger other road users or workers and shall:

41.1. Not obstruct traffic routes or emergency exits;

41.2 Lower the forks to the ground;

41.3. Tilt the mast forward to release the chains;

41.4. Disengage the gear;

41.5. Apply the park brakes, use the brake pads on slopes;

41.6. Remove the ignition key;

41.7. Never leave the truck with a lifted load unattended.

## **XI. MAINTENANCE REQUIREMENTS FOR BATTERIES OF ELECTRIC TRUCKS**

42. The battery shall be recharged with 20% of its capacity remaining. Operating a truck with a draining battery can result in the overheating of other electrical components. The traction motor and control panel are the most likely to overheat in such case.

43. The electrolyte level should be checked before and after each charge, as the decrease in the amount of distilled water in the battery will cause the plates to heat up and become brittle, which

can lead to irreversible battery damage. The dropping electrolyte level shall be reported to the manager of truck drivers.

44. Before disconnecting the charger cable, truck operator shall check the indicator light to make sure that the charging cycle is complete.

45. When charging the battery, the battery or charger can be connected or disconnected only after the battery charger is switched off.

46. The top of the battery shall be kept clear to ensure sufficient ventilation during charging.

47. Use of open flame or hot works are prohibited in the battery charging room during charging.

48. The batteries can only be charged with the room ventilation switched on.

### XII. EMPLOYEE TRAINING

49. The Company's employees responsible for organizing, planning and controlling the handling and transportation of loads with the use of lift trucks shall be instructed and tested on this Procedure in accordance with the Company's employee indoctrination rules.

50. Truck operators of the Company and Contractors shall be trained and certified under non-formal education programs for lift truck drivers and tested on this Procedures and shall be familiar with the truck manufacturer operation and maintenance instructions.

## XIII. FINAL PROVISIONS

51. Director of Quality, Labour Safety and Environmental Control of the Company shall organize the periodic reviews and updates of this Procedure.

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