

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

June 2021

Page 1 of 15

IMPORTANT NOTICE

PLEASE READ CAREFULLY

- (a) The recommendations and advice contained in this Guidance Note are based on specifications, procedures and other information which have been collected by the British Industrial Truck Association Limited ("BITA") from its members. They represent what is, so far as BITA is aware, the best available data at the time of publication on the construction and use of industrial trucks in the general conditions described and are intended to provide guidance for such use.
- (b) However, there are a wide variety of situations in which industrial trucks may be used, consequently in all cases the suitability and safety of this Guidance Note must be determined by the person seeking to apply it on the basis of their own judgement, in the light of the conditions in which use is envisaged and subject to all relevant statutory requirements.
- (c) BITA accepts no responsibility for the recommendations, advice, statements, opinions and conclusions expressly or by implication set out below and gives no warranty, representation of assurance in respect of the accuracy or validity of the same.

CONTENTS

Section	Topic	Page
0	Scope	2
1	Legislation	3
2	Requirements for persons undertaking Thorough Examination and safety inspections	4
3	Frequency of Thorough Examination and safety inspections	4&5
4	General requirements to facilitate Thorough Examination and safety inspections	5&6
5	Content of Thorough Examination and safety inspection	6
5.1	Load handling mechanism	6&7
5.2	Braking systems	7&8
5.3	Steering systems	8
5.4	Traction system	8&9
5.5	Safety systems	9
5.6	General structure	10
5.7	Protected trucks in potentially explosive areas	10&11
6	On conclusion of Thorough Examination and safety inspection	11&12
7	Bibliography	12
Annex 1	Sample report of Thorough Examination	13
Annex 2	Check list for Thorough Examination	14
Annex 3	Example label identifying inspection status	15

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

June 2021

Page 2 of 15

0. SCOPE

The purpose of this guidance note is to identify the statutory duties of the duty holder and the Competent Person for Thorough Examinations under LOLER 98 and safety inspections under PUWER 98. Guidance is provided on what should be included in schemes of Thorough Examination and inspection. This guidance applies to industrial and rough-terrain, masted and variable-reach trucks and their attachments. Additional inspection requirements will be required for rough terrain variable reach trucks, for details of these further instruction the manufacture should be contacted.

Purpose of Thorough Examination and Safety Inspection

The thorough examination and safety inspection is intended to:

- verify that the truck is operating as it is intended to when lifting and travelling;
- identify defects which could compromise the safe use of the truck;
- specify the time-scales within which identified defects or weaknesses need to be rectified;
- assess the correct function of all safety devices;
- check that warning notices are correctly fixed and legible; and,
- where necessary specify any limitations on the use of the truck, for example, pending completion of remedial activities

It includes Thorough Examination of the lifting parts of the truck (LOLER 98, regulation 9), statutory reporting requirements (LOLER 98, regulation 10), as well as inspection of other safety critical parts which are not directly part of the lifting mechanism (PUWER 98, regulation 6).

NOTE: Where the Competent Person decides that they have insufficient information to allow decisions to be made on defects then more detailed examination and/or testing and/or more frequent timescales for safety inspection will need to be specified.

Low lift (pallet) trucks, i.e. non-stacking powered and manual trucks with forks or load platform that lift to not more than 300mm from the ground do not require Thorough Examination under LOLER 98 regulation 9. They do, however, need periodic safety inspections under this guidance as means of addressing PUWER regulation 6.

LOLER 98 regulation 9(1) requires that every employer shall ensure that before the lifting equipment is placed into service for the first time it is thoroughly examined for any defect unless the safety of the equipment is not dependent on installation or on-site assembly and the equipment is supplied with either:

- manufacturer's Declaration of Conformity of less than one year old, or,
- physical evidence that a Thorough Examination has been carried out within the required inspection interval.

NOTE: Employers are also required to ensure that any lifting equipment leaving their undertaking is accompanied by physical evidence of a valid Thorough Examination.

DAILY, WEEKLY, PERIODIC INSPECTIONS

This guidance note is not intended to cover the driver's routine pre-use checks or weekly checks or inspections, which are part of the maintenance process.

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

June 2021

Page 3 of 15

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

1. LEGISLATION

The requirements for work equipment and equipment for lifting are implemented in UK law by two Statutory Instruments.

They are:-

- SI 1998 No. 2306 - The Provision and Use of Work Equipment Regulations 1998 (PUWER 98)¹⁾
- SI 1998 No. 2307 – The Lifting Operations and Lifting Equipment Regulations 1998 (LOLER 98)²⁾

The requirements for operations in potentially explosive atmospheres are implemented in UK law by:

- SI 2002 No. 2776 - The Dangerous Substances and Explosive Atmospheres Regulations 2002³⁾, as amended

These Statutory Instruments are supported by Approved Codes of Practice and Guidance published by the Health & Safety Executive.

They are:-

- Safe use of work equipment – Provision and Use of Work Equipment Regulations 1998. Approved Code of Practice and Guidance, L22.
- Safe use of lifting equipment – Lifting Operations and Lifting Equipment Regulations 1998. Approved Code of Practice and Guidance, L113.
- Rider-operated lift trucks – Operator training and safe use. Approved Code of Practice and Guidance, L117

The Approved Codes of Practice and Guidance contain the regulations, code of practice and guidance material. They are available to download electronically free of charge and can be purchased in hardcopy from the HSE website, www.hse.gov.uk

This legislation is addressed to those responsible directly or indirectly for work equipment and its use, and includes employers, employees, the self-employed and those who hire work equipment.

NOTE: Dangerous Substances and Explosive Atmospheres Regulations 2002. Approved Code of Practice and Guidance, L138, is not included in the list of ACOP because it has not yet been updated to reflect the 2015 amendment.

¹⁾ In NI: NISR 1999 No. 304 - Lifting Operations and Lifting Equipment Regulations (Northern Ireland) 1999

²⁾ In NI: NISR 1999 No. 305 - Provision and Use of Work Equipment Regulations (Northern Ireland) 1999

³⁾ In NI: NISR 2003 No. 152 - Dangerous Substances and Explosive Atmospheres Regulations (Northern Ireland) 2003

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

June 2021

Page 4 of 15

2. REQUIREMENTS FOR PERSONS UNDERTAKING THOROUGH EXAMINATION AND SAFETY INSPECTIONS

- 2.1 Only Competent Persons shall carry out Thorough Examinations and safety inspections. A Competent Person is defined as a person who, based on their education, training and professional experience, has sufficient practical and theoretical knowledge in the technology of industrial trucks to evaluate the safety of an industrial truck according with the indications of this guideline. In addition, the Competent Person shall be sufficiently familiar with the current national regulations in the field of safety at workplaces, to perform the inspections safely. For further information see HSE L113, paragraphs 296-300 and section 4.1 of FEM 4.004.
- 2.2 The Competent Person shall be sufficiently independent to reach an unbiased judgement. Where the Examination is carried out by a person who is servicing/maintaining the equipment, the servicing/maintenance should be carried out after the Examination has been undertaken in order to avoid 'self-checking'.

Further guidance on competence and Competent Person can be found at www.hse.gov.uk/competence/what-is-competence.htm

3. FREQUENCY OF THOROUGH EXAMINATION AND SAFETY INSPECTIONS

- 3.1 Thorough Examination and safety inspections of lift trucks in accordance with clause 5 of this guidance note shall be made at intervals not exceeding 12 months between examinations. The interval shall be reduced in accordance with 3.2, 3.3 and 3.4 as applicable.
NOTE: The interval to the first Examination shall commence at the date of the manufacturer's Declaration of Conformity or documented thorough pre-delivery inspection, or, where applicable, manufacturers inspection following on-site assembly.

- 3.2 In the case of any truck with an elevating operator position or one used for lifting persons, for instance in a work platform, the Thorough Examination shall be made at not more than 6 month intervals. This includes lorry mounted trucks where the operator can be lifted with the truck as part of the mount/dismount sequence.

3.3 Risk Assessment Guidance

The intervals in 3.1 and 3.2 should be decreased due to intensity of use, the use environment, or previous inspection history, as determined by a Competent Person authorised by the duty holder. Some guidance on the factors to be considered is given below:

- 3.3.1 12 month interval between safety inspections:

Any truck working up to 40 hours per week including attachments permanently fitted to the truck.
NOTE: This includes integrated attachments and interchangeable equipment which is left permanently mounted to the truck.

- 3.3.2 6 month maximum interval between safety inspections:

- Any truck working between 40 and 80 hours per week.
- Any truck used for elevating persons, no matter how infrequently
- Any work platform used for lifting persons, no matter how infrequently

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

June 2021

Page 5 of 15

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

3.3.3 4 month maximum interval between safety inspections:

- a) Any truck working in excess of 80 hours per week.
- b) Any truck working in arduous environments such as:
 - i) Marine environments
 - ii) Corrosive chemical environments, e.g. lorry mounted trucks where indicated by truck condition
 - iii) Metal Manufacturing or processing
 - iv) Cement/aggregate processing or where abrasive particulates are present
 - v) Brine processes
 - vi) Cold stores, e.g. below -10°C

3.3.4 Attachments and Accessories

If not permanently fitted to the truck the interval between Thorough Examinations for removeable attachments, interchangeable equipment, fork extensions, lifting accessories, etc. shall not exceed 6 months.

NOTE: The interval for attachments and accessories applies to all such items not permanently fitted to the truck, even if they are mounted on a truck subject to a longer interval at the time of examination.

3.4 Additional Examinations

The truck shall be subject to Thorough Examination before reintroduction into service following any exceptional event that may affect its safety. Such events include overloading, accidents, incidents, impacts, etc.

The interval to the next examination may commence from the date of the additional examination.

4. GENERAL REQUIREMENTS TO FACILITATE THOROUGH EXAMINATION AND SAFETY INSPECTIONS

4.1 Truck shall preferably be cleaned prior to Thorough Examination. If the truck is heavily contaminated to the extent the Competent Person cannot conduct the Thorough Examination in its entirety, the Thorough Examination may be refused until a later date to allow cleaning/decontamination to be carried out. The truck will be removed from service should the existing report of Thorough Examination have expired or will expire during this waiting period.

4.2 Adequate lighting and a safe working area must be provided for the Competent Person to safely conduct the Thorough Examination. The Competent Person should be given sufficient time to complete the Thorough Examination without interference from others.

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

June 2021

Page 6 of 15

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

4.3 Reasons for refusing to carry out a thorough examination include:

- a) The equipment is presented in such a dirty condition that the inspection is unreasonably difficult to undertake.
- b) The equipment cannot be driven correctly, or has insufficient battery power, fuel or oil to enable the test to be satisfactorily completed.
- c) Access to routine inspection compartments that are not accessible or cannot be readily opened due to damage, corrosion or other reasons.
- d) The condition of the equipment is such that, in the opinion of the competent person, a full inspection may cause injury to any person(s) or damage to the equipment or any other property.

4.4 In the event that the Competent Person is unable to complete a Thorough Examination due to a serious defect involving the lifting parts, they must inform the relevant Enforcement Authority in accordance with LOLER regulation 10 (see clause 6.2). Once the issues have been put right, they may return to complete the Thorough Examination and Safety Inspection.

4.5 Test certificates, such as for the lift chain(s) and forks are not required for the Thorough Examination. However, where the Competent Person has insufficient information to allow decisions to be made, the certificates should be made available on request to the Competent Person along with previous reports of Thorough Examination and/or maintenance records if requested.

4.6 The Operating Instruction Manual for the truck shall be made available on request, this does not have to be the original manufacturers manual but must apply to the truck being examined.

5. CONTENT OF THOROUGH EXAMINATION AND SAFETY INSPECTION

The Thorough Examination and safety inspection should include items identified in sub-clauses 5.1 to 5.6. (and 5.7 in the case of ATEX category equipment). Defects or weaknesses in other items (e.g. condition of paintwork or damage to panels) need not be considered unless, in the opinion of the Competent Person, they are likely to imminently affect the safe use of the truck.

The Thorough Examination and safety inspection should be carried out by the Competent Person who produces the report, however assistance may be sought from site personnel as necessary to allow the Competent Person to discharge their duties effectively.

Where reference is made in sub-clauses 5.1 to 5.6 to visible components this means components which are visible without the removal of panelling or parts but includes components which can be viewed when, for example, hinged panels or doors are opened.

5.1 LOAD HANDLING MECHANISM [LOLER]

5.1.1 Visually inspect the lift chains with particular attention to cracked or missing link plates, elongated holes in side plates, loose or worn pins or corrosion, chain elongation, chain anchors and chain pulleys, in accordance with BITA Guidance Note GN15, or in the case of telescopic (Variable Reach) trucks, in accordance with the manufacturer's instructions.

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

June 2021

Page 7 of 15

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

- 5.1.2 Visually inspect the mast/telescopic boom assembly when at maximum lift height/boom extension and operate the mast/boom throughout its full range of movements, including tilt, to establish that it moves in a controlled, even manner. In particular, look for any marks/scoring which indicate that the mast or boom is damaged or the carriage movement impaired.
- 5.1.3 Inspect the lift, tilt and reach hydraulic cylinders for external leakage and security of mounting. Also inspect the associated hoses and piping for signs of damage or potential failure, for example, as indicated by exposed braiding on flexible hoses or bulges and kinks on hoses and corrosion on pipes.
- 5.1.4 Check that the fork arms, if fitted, have a combined stamped capacity (S.W.L) to at least the truck's capacity as stated on the equipment identification or rating plate. Check that there are no visible cracks, deformation or excessive wear in accordance with BITA GN62. Check also that the fork location means, for example, latch pins, and the fork arm end stops are in a satisfactory condition.
NOTE: the Competent Person may determine that the fork arms require further examination by the way of Non-Destructive Inspection, for example MPI by a qualified technician.
- 5.1.5 Load handling attachments, where fitted, should be visually inspected for distortion, cracks and security of mounting. Any hydraulic components and associated hoses and piping should be visually checked for signs of leakage or potential failure and any moveable attachments should be operated throughout their full range to ensure that they move in a controlled, even manner. Refer to BITA GN62 for guidance.
- 5.1.6 The load handling parts of the truck should be tested to assess internal leakage under their worst-case configuration for the load. Testing should be carried out with the hydraulic oil at the normal operating temperature after the load handling systems has been cycled through its full motions several times. Testing with a representative load, ideally $\geq 50\%$ of the actual capacity, using the test criteria 5.1.6.1 and 5.1.6.2 meets this requirement, but the Competent Person may determine alternative testing as appropriate. However, if significant movement is observed with a reduced load, a rated load test within a defined time limit should be specified on the report.
- 5.1.6.1 The lifting system – load descent:
- masted trucks up to and including 10,000 kg, it shall be no more than 50 mm in 5 minutes
 - masted trucks over 10,000 kg, it shall be not more than 100 mm in 5 minutes; and
 - telescopic boom trucks at maximum out reach for the test load, as specified on the loadchart, shall be not more than 75 mm in 5 minutes
- 5.1.6.2 The tilt system – forward tilting movement:
- masted trucks with the load at 2500 mm or the maximum height if less than 2500 mm shall not permit more than 5° rotation in 10 minutes.
 - telescopic boom trucks at maximum load, shall be not more than 5° rotation in 10 minutes.
- 5.2 BRAKING SYSTEMS [PUWER]
- 5.2.1 Visually inspect all visible hydraulic or pneumatic hoses, piping or components for leaks, corrosion and signs of potential failure. Also check security of mountings.
- 5.2.2 Visually check accessible cables and linkages for damage, excessive wear, security of mounting and signs of potential failure. Carry out functional testing of the braking controls to ensure that they move freely, as expected, when the brakes are operated.

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

June 2021

Page 8 of 15

- 5.2.3 Check the mechanical condition of brake operating pedals and levers.
- 5.2.4 Check the operational performance of all service and parking brake systems (hydraulic, pneumatic, mechanical and electrical) and that they operate as expected when applied. If the competent person has any doubts about the brake performance, then further testing within a defined time limit should be specified on the report.
NOTE: Parking brake performance can be verified by ensuring that it holds the truck stationary on the maximum operating site gradient when carrying a representative load, ideally $\geq 50\%$ of the actual capacity.
- 5.3 STEERING SYSTEMS (AS APPLICABLE) [PUWER]
- 5.3.1 Visually inspect all accessible mechanical components, including cables, chains, drive belts, linkages and ball joints for damage, excessive wear, signs of failure and corrosion. Also check security of mountings.
- 5.3.2 Visually inspect all hydraulic components, including steering unit, pump, cylinders and hoses for leaks, damage and signs of potential failure. Also check security of mountings.
- 5.3.3 Manoeuvre the truck, in a figure of eight, to check the steering response and operation, particularly at slow speed input from the steering wheel.
- 5.4 TRACTION SYSTEM [PUWER]
- 5.4.1 Visually inspect the prime mover and transmission for leakage of hydraulic fluid, fuel, lubricating oil or coolant, damage and signs of potential failure. Also check security of mountings.
- 5.4.2 Visually inspect all controls, cables and linkages for correct operation, corrosion, damage and signs of potential failure. Also check security of mountings.
- 5.4.3 Visually inspect the condition of the exhaust system and its components on IC engine trucks to ensure they are performing to specification, including a visual inspection of the emissions.
Note: Carbon monoxide (CO) emissions will not be apparent to a visual inspection and are not covered by this guidance.
- 5.4.4 Inspect the condition of the battery cell connectors and also check that associated cables are sound and have good insulation.
- 5.4.5 Visually inspect the tyres for specification, wear, damage and bonding failure. For further information see GN50 & GN67.
- 5.4.6 Visually inspect the wheels and their assemblies for sound condition and security of fixing, with particular attention to advance bands, where appropriate, with four-piece wheels.
- 5.4.7 Drive the truck in both forward and reverse directions. There should be a smooth take up of drive through both acceleration and deceleration, and whilst changing gear if applicable, with no unusual noise or vibration.
- 5.4.8 Check LPG systems, including fittings, pipework and valves, for signs of deterioration, corrosion, damage or leaks.
- 5.4.8.1 Fixed LPG fuel tanks require hydraulic pressure testing in accordance with a scheme of examination, generally at an interval not exceeding 15 years, with the date and testing authority symbol marked on the tank.

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

June 2021

Page 9 of 15

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

5.4.8.2 Removeable LPG cylinders should be securely mounted on the truck and free from dents, scrapes and gouges. They require additional Thorough Examination and inspections which are generally carried out by the gas supplier during filling.

The scheme of examination and Thorough Examination of LPG fixed tanks and removeable cylinders is outside the scope of this guidance.

5.5 SAFETY SYSTEMS [PUWER *except as noted*]

5.5.1 Check for correct function of all visual and audible warning devices, e.g. horn, reversal travel alarm, control panel lights and load moment indicator.

5.5.2 Check should be made to ensure all safety interlocks fitted to the truck control system are securely mounted and are functioning correctly, e.g. seat switch, starter inhibitor or micro switches on pedal or lever controls.

NOTE: Micro switches mounted through slots to facilitate adjustment, can often work loose and move out of adjustment.

5.5.3 Checks should be made on pedestrian control machine to ensure the tiller returns to the uppermost position on its own, and the anti-pinning device should either stop the machine or move the machine away from the operator on activation.

5.5.4 Check Operation of cut back speeds, e.g. on rider pallet trucks:

- Platform Stowed Walkie Speed, (Cutback speed 1)
- Platform Down Rider ON No side arms (Cutback Speed 2)
- Platform Down Rider ON Side arms Up (Full Speed)

5.5.5 Check operation of side arms fitted to Stacker machines to ensure lift is inhibited once the fork height reaches 1800 mm. Once the side arms are lower/stowed in the closed position, lift should be re-enabled.

5.5.6 Visually inspect that electrical circuits are in good condition and that no components such as fuses or key switch have been bridged or bypassed.

5.5.7 Check that capacity/data plates(s) are securely attached, legible and have/has the capacity rating for the truck and any attachments fitted. Check also that where fitted, that information from a load capacity indicator is clearly visible to the operator. [LOLER]

5.5.8 Check that each function is clearly labelled to its identity and the marking is securely attached and legible.

5.5.9 Check that, where fitted, road lights, screen wipers and reversing mirrors are functional. Where screen wash systems are fitted these should be filled and fully functional.

5.5.10 Check that the wire guidance systems lock onto the wire and function correctly. Where fitted the automatic end of aisle slow down and stop functions should be tested to ensure correct operation.

5.5.11 Where fitted, visually inspect the escape harness and expiration date, mounting point and container for security of mounting and damage.

5.5.12 Check operation of any operator assistance systems fitted e.g. blue spot, cameras and reverse detection systems.

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

June 2021

Page 10 of 15

5.6 GENERAL STRUCTURE [POWER *except as noted*]

- 5.6.1 Where possible visually inspect the chassis/frame for major damage and any obvious signs of cracking in welds. Protective panels and covers enclosing moving parts or hot areas of the equipment should be sound and fit for purpose.
- 5.6.2 Visually inspect the roll-over protective structure, the overhead guard or cab for security of mounting, excessive damage and deformation or signs of potential failures. See BITA GN65 for guidance. All transparent screens must be clear and undamaged.
- 5.6.3 Visually inspect the load backrest extension, where fitted, for security of mounting and structural soundness.
- 5.6.4 Where possible visually inspect all fastenings securing structural members and components, e.g. fluid containers, batteries, axles and counterweights for security of mounting and damage.
- 5.6.5 The seat should be suitable for the equipment to which it is fitted. Visually inspect the security of the seat mountings, antivibration mountings, finger guards and panels to which it is attached. Account should be taken of any corrosion, misalignment and damage. The operator restraint e.g. seat belt, covers, shall be visually inspected for damage, contamination and wear. The operator restraint function (seat belt clasp, inertia reel and inertia reel lock) shall be tested for correct operation.
NOTE: An operator restraint, e.g. seat belt, must be fitted on seated operator counterbalance lift trucks up to 10 tonne capacity irrespective of age. This does not apply to reach trucks. See BITA GN50 for guidance.

5.7 PROTECTED TRUCKS IN POTENTIALLY EXPLOSIVE AREAS

- 5.7.1 When conducting TE inspections on protected trucks used in potentially explosive areas, it will be necessary to access items housed inside special enclosures. It will also be necessary to carry out functional tests. Therefore, the Competent Person shall have sufficient training to enable familiarity with the protected equipment, to understand the function of and be able to operate the Ex equipment. Such knowledge shall be kept up to date, for example by participation in courses carried out by the Ex manufacturer.
- 5.7.2 Whenever the Competent Person has concerns regarding the results of TE inspection, they are recommended to involve a third party on specific points.
- 5.7.3 Protected trucks used in potentially explosive areas possess features specially designed to render them suitable for operations in such atmospheres. It is essential for reasons of safety in those areas that, throughout the life of such trucks, the integrity of those special features is preserved. This should be achieved through initial inspection and on-going regular periodic inspections.
- 5.7.3.1 In addition to the competency criteria listed in 2.1, competent persons carrying out regular periodic inspections on Ex equipment should:
- have knowledge of area classification and sufficient technical knowledge to understand its implications for the location;
 - have technical knowledge and understanding of the theoretical and practical requirements for equipment and installations used in those hazardous areas;
 - understand the requirements of the different levels of inspections.

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

June 2021

Page 11 of 15

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

5.7.3.2 A forklift truck adapted to work in a potentially explosive area may contain various types of Ex protection concepts. The scope of the detailed inspection shall be a combination of the requirements of each type of Ex protection. The detailed inspection requirements depend on the protection concept utilized and are, therefore, outside the scope of this guidance.

6. ON CONCLUSION OF THOROUGH EXAMINATION AND SAFETY INSPECTION

6.1 The Competent Person carrying out the Thorough Examination shall prepare a report, an example of a report pro-forma is shown in Annex 1. It includes the information required under LOLER 98, Schedule 1.

The original of the report should then be given to the truck users representative with a copy of the original being sent to the owner (who may be the same person) within 28 days.

6.1.1 The report may be provided in paper or electronic format. Reports shall be kept for a minimum period of two years.

The report shall identify any:

- Defects presenting a danger to persons,
- Requirements to remove the equipment from service,
- Items requiring replacement or rectification along with time by which activity must be completed,
- Items requiring monitoring and action needed when specified criteria reached,
- Observations, recommendations and comments.

6.2 If the Competent Person carrying out the Thorough Examination considers that there is an existing or imminent risk of serious injury which may put the driver of the truck or personnel working in close proximity to the machine in danger, the Competent Person shall immediately recommend that the machine be withdrawn from service.

6.2.1 Under LOLER, any existing defect or imminent failure of a safety critical element associated with the lifting parts of the truck which poses a danger to persons must be reported to the relevant Enforcement Authority by the Competent Person.

Generally, the relevant Enforcement Authority will be the [HSE](#) for all lease and rental trucks, and for factories and manufacturing sites, or will be the [Local Authority](#) for retail, warehousing and distribution sites (except for lease and rental trucks).

NOTE: Chain or fork wear beyond replacement limits, or a missing or defaced capacity/data plate are reportable safety critical issues under LOLER.

6.2.2 Any imminent serious failure of any safety critical parts not associated with lifting loads can be reported to the HSE using the [concerns form](#) on the website hse.gov.uk or similar at the relevant local authority.

6.2.3 Machines withdrawn from service due to a safety critical issue may be returned to service immediately after completion of repair/remedial activities.

NOTE: The obligation to report safety critical issues associated with lifting parts is not removed by repair/remedial activities.

NOTE: If, upon completion of a repair, a Thorough Examination of all relevant elements of the machine is carried out before re-entry into service, the interval to the next examination may commence at the date of this examination.

BRITISH INDUSTRIAL TRUCK ASSOCIATION



GUIDANCE NOTE

GN28 Rev 5

June 2021

Page 12 of 15

THOROUGH EXAMINATION AND SAFETY INSPECTIONS OF INDUSTRIAL LIFT TRUCKS

6.3 Upon completion of a Thorough Examination, it is recommended that the Competent Person apply a suitable label indicating the following:-

- a) Thoroughly examined and inspected in accordance with BITA Guidance Note GN28 and LOLER Regulation 9
- b) Next safety inspection required – day/month/year
- c) Where applicable, date by which repairs must be carried out – day/month/year – or that the equipment is withdrawn from service pending rectification.

NOTE: The thorough examination period for the next Thorough Examination may require reducing or increasing to compensate for usage or arduous environments. (See clause 3.3).

A pro-forma example of a suitable label can be found in Annex 3.

7. BIBLIOGRAPHY

- BITA GN15 Industrial truck leaf chains; Maintenance and inspection
- BITA GN49 Engineers working at heights
- BITA GN50 Tyre tread wear
- BITA GN60 Operator restraint
- BITA GN62 Maintenance, Inspection and Repair of Fork Arms & Attachments
- BITA GN65 Overhead guard (FOPS) damage
- BITA GN67 Multi-Piece Pneumatic Tyred Wheels – Inspection, Maintenance & Repairs
- BS EN 60079-17:2014 Explosive atmospheres. Electrical installations inspection and maintenance
- PM28 Working platforms (non-integrated) on forklift trucks. HSE Guidance Note PM28, fourth edition, published April 2013. Available via HSE's website at www.hse.gov.uk/pubns/pm28.pdf
- INDG422 Thorough Examination of lifting equipment. A simple guide for employers. Available via HSE's website at www.hse.gov.uk/pubns/indg422.pdf
- FEM 4.004 Periodic Inspection of Industrial Trucks. Available via FEM's website at https://www.fem-eur.com/wp-content/uploads/2016/03/FEM-4.004_Periodic-Inspection_2019-08-29.pdf

Annex 1 – sample Report of Thorough Examination

REPORT OF THOROUGH EXAMINATION

Report in accordance with Schedule 1 to LOLER 1998 (GB) & LOLER 1999 (NI)

Only to be completed by a Competent Person

Name and address of employer for whom this examination is made:		Record Number:
		Examination Date:
Location or address examined at (if different):	Tick Box	Reason for Thorough Examination
	<input type="checkbox"/>	After installation or assembly
	<input type="checkbox"/>	In service - within an interval of 6 months
Relevant Enforcement Authority (HSE or LA):	<input type="checkbox"/>	In service - within an interval of 12 months
	<input type="checkbox"/>	In accordance with an examination scheme
	<input type="checkbox"/>	Following exceptional circumstances - (e.g. accident)

DETAILS OF EQUIPMENT

Make:	Model:	Serial No:	Fleet No:	Date of Manufacture:	Attachments:
Hours:	Description:	User Manual Available:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Safe Working Load: (S.W.L.)
					kg.....at.....mm
					S.W.L. with Attachments:
					kg.....at.....mm

DEFECTS
 Identification of any part found to have a defect which is or could become a danger to persons. A description of the defect and particulars of any repair, renewal or alteration required to remedy the defect found along with the time by which the defect could become a danger.
 Defects that have an imminent or immediate risk of serious personal injury will be reported to the relevant Enforcement Authority.

Description of defect and remedial actions required	Timescale for repair, renewal or alteration (if immediate state NOW)

MEASUREMENTS AND OTHER EXAMINATIONS:

Chain elongation (1):		Chain elongation (2):		Chain elongation (3):		Chain elongation (4):		Forks:		Date of previous examination:	or hours:
Dimension	Wear %	Dimension	Wear %	Dimension	Wear %	Dimension	Wear %	Dimension	Wear %		
Other tests performed / Comments:										Latest date for next examination:	or hours:

DECLARATION BY THE COMPETENT PERSON

I hereby declare that the equipment described in this report was thoroughly examined in accordance with BITA GN28 and

- No faults have been detected – The equipment is safe to operate
 Faults have been detected; however, the equipment is safe to operate subject to completion of the actions above within the time limits specified
 The equipment must not be used until the above recommendations are carried out -

Name	Competent Person	Signature
Name and address of company responsible for this Thorough Examination:		
Name of person receiving this report (if required)	Signature	

Annex 2 – Check list for Thorough Examination

CHECK LIST FOR THOROUGH EXAMINATION

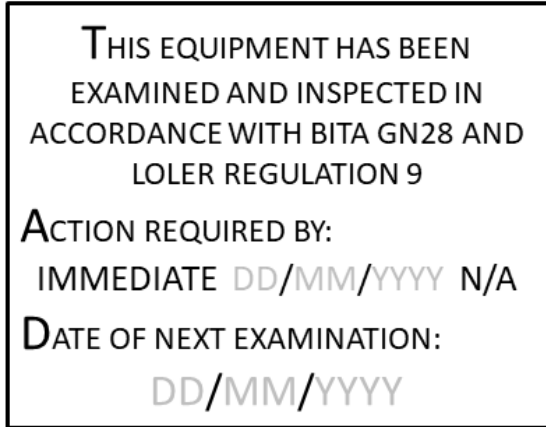
Make:	Model:	Date of Examination:	Record Number:
-------	--------	----------------------	----------------

No.	Section	Item	Ref.	Details of test	Additional comments if appropriate
1	Load Handling	Chains	5.1.1		
		Mast/Boom & fork carriage	5.1.2		
		Hydraulics	5.1.3		
		Fork arms	5.1.4		
		Attachments	5.1.5		
		Operation	5.1.6		
2	Braking	Visual check	5.2.1		
		Cables and linkages	5.2.2		
		Pedals and levers	5.2.3		
		Performance, parking & service brakes	5.2.4		
3	Steering	Mechanical components	5.3.1		
		Hydraulic components	5.3.2		
		Operation - mechanical systems	5.3.3		
4	Traction ICE/Electric	Prime mover & transmission	5.4.1		
		Controls, cables & linkages	5.4.2		
		Exhaust system & emissions	5.4.3		
		Battery & cables	5.4.4		
		Tyres	5.4.5		
		Wheels	5.4.6		
		Operation	5.4.7		
		LPG systems	5.4.8		
5	Safety Systems	Operation of visual & audible warnings	5.5.1		
		Operation of interlocks	5.5.2		
		Tiller controls	5.5.3		
		Cutback speeds	5.5.4		
		Side arms	5.5.5		
		Electrical circuits	5.5.6		
		Security & mounting of capacity and data plates	5.5.7		
		Security & mounting of control function markings	5.5.8		
		Lighting, wipers & mirrors	5.5.9		
		Wire guidance systems & aisle interlocks	5.5.10		
		Escape harness	5.5.11		
		Operator assistance systems	5.5.12		
6	Structure	Chassis	5.6.1		
		Overhead guard	5.6.2		
		Load backrest extension	5.6.3		
		Security of all fastenings	5.6.4		
		Seating / platform / operator restraint	5.6.5		
7	ATEX	All Protection	5.7		Use and attach separate sheet if applicable

Additional information

Annex 3 – Example labels identifying inspection status

Option 1 – single label



Option 2 – multiple labels

