Contents

1 Subject of specification 2
2 Scope of validity 2
2.1 Order of precedence 2
2.2 Deviations 2
3 Equipment subject to UDT 2
4 Equipment subject to ZDT 3
5 General requirements 3
5.1 Nameplate 3
5.2 Import of equipment 4
6 Technical documentation 4
6.1 Hoisting device documentation 4
6.2 Registration documentation 4
6.3 Complement documentation 5
7 Relevant documents 5
7.1 Grupa LOTOS S.A. specifications 5
8 Codes and regulations 6
9 Record of changes 6

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1 Subject of specification

This specification used in conjunction with other technical specifications of Grupa LOTOS S.A. establishes the minimum requirements for the design and fabrication of hoisting devices subject to UDT/ZDT supervision and installed/operated in Grupa LOTOS S.A.

2 Scope of validity

This specification applies to the preparation of tender documents, inquiries and contracts concerning new investments and modernization projects planned by Grupa LOTOS S.A.

It shall also be a basis for preparing both detailed specifications and inquiries for individual or package unit supplies.

2.1 Order of precedence

In case of conflicts existing between this specification and other documents, the following order of precedence shall govern:

- The current Polish legislation
- Terms of purchase order / contract and other requirements agreed in writing Grupa LOTOS S.A.
- Data Sheets approved by Grupa LOTOS S.A.
- This specification
- Other Specifications
- Drawings and other documents
- Standards

2.2 Deviations

Any deviation from this specification and the relevant specifications, standards and related documents including proposals, which the bidder claims to be economically and/or technically superior solutions, must be submitted in writing for review and approval by Grupa LOTOS SA. Non-approved exceptions are not acceptable by Grupa LOTOS S.A.

The Supplier must report in writing any ambiguity in this or any other specifications of Grupa LOTOS S.A. or non-compliance with the referred documents / standards and obtain a written explanation from Grupa LOTOS S.A.

3 Equipment subject to UDT

List of hoisting devices subject to UDT supervision is determined in Rozporządzenie Rady Ministrów z dnia 7 grudnia 2012 w sprawie rodzajów urządzeń technicznych podlegających dozorowi technicznemu. (Regulation of the Council of Ministers of 7 December 2012 concerning groups of technical devices subject to technical supervision)

4 Equipment subject to ZDT

ZDT supervision applies to equipment covered by simplified supervision, i.e.:

- hand operated hoists and hoisting winches, of lifting capacity up to 2000 kg and with single-phase drive of lifting capacity up to 1000 kg
- hand operated jib cranes of lifting capacity up to 2000 kg
- hand operated or power driven movable lifting jacks of lifting capacity up to 2000 kg

5 General requirements

Hoisting devices and their accessories, covered by European Union (EU) directives must comply with Polish regulations which introduced EU directives to Polish law.

For equipment produced in Poland and supplied to Grupa LOTOS S.A. the Notified Body shall be UDT-CERT (ident. no. 1433).

Manufacturers of hoisting devices no covered with EU directives but subject to Polish law regulation shall have UDT authorization for their production, according to art. 9 Ustawa of Dozorze Technicznym z dnia 21 grudnia 2000r. (Dziennik Ustaw nr 122, poz. 1321). (The Law on Technical Inspection of 21 Dec 2000 (Journal of Laws No 122, pos. 1321). This also applies to materials and components for manufacturing of such equipment.

Manufacturer of equipment incurs costs related to authorization issuing.

In case of modernization and repairs of existing equipment, UDT requirements must be met.

Manufacturers performing refurbishment / modernization works must have UDT authorization.

In case of importing equipment from manufacturers that do not have UDT authorization, inspection and tests in manufacturer's workshops shall be performed on the grounds of technical requirements agreed with UDT. Manufacturer incurs costs of such agreements and potential UDT inspection.

Requirements specified above are considered met, if manufacturer or the party repairing/modernizing technical equipment has a quality management system that conforms to Polish Norms and is approved and supervised by UDT.

5.1 Nameplate

Hoisting devices shall be furnished with nameplates containing at least the following data:

- Manufacturer name and address
- Designation of equipment series or type
- Year of production
- Serial number, if applicable
- Lifting capacity (not necessary)
- CE marking (not necessary on the nameplate)

In case of device that is foreseen for operation in explosion hazard zone, adequate designation shall be put on nameplate.

Designation and inscriptions related to operation and safety at work shall be prepared on Polish language, in legible and durable way. Use of pictograms is allowed.

5.2 Import of equipment

Import of UTB according to specification no 8100 – General requirements for equipment subject to UDT/TDT/ZDT approval.

6 Technical documentation

6.1 Hoisting device documentation

The hoisting device documentation shall contain:

- Technical description of device and its accessories
- Dimensional outline drawings
- Diagrams of electric, hydraulic and pneumatic systems together with descriptions.
- List of equipment and characteristic of individual components.
- Kinematic schemes (the schemes should contain parameters of gear ratios)
- Diagrams of cable or chain systems, giving diameters of drums, cable and chain pulleys, as well as clamping method of cables and chains ends.
- Diagram of lift capacity limiter
- Characteristics of lifting capacity
- Operating instructions
- All necessary strength calculations (steel structures, lifting capacity of cables, coefficient of stability)

6.2 Registration documentation

Registration documentation (acceptance) shall comply with Rozporządzenie Ministra Gospodarki, Pracy i Polityki Socjalnej z dnia 29 października 2003 w sprawie warunków technicznych dozoru technicznego w zakresie eksploatacji niektórych urządzeń transportu bliskiego (Regulation of Minister of Economy, Labour and Social Policy of 29 Oct 2003 on technical requirements of technical inspection in scope of operation of some material handling equipment), and shall contain in particular:

- Technical description of equipment
- Dimensional outline drawing
- Electric diagrams (schematic and assembly ones)
- Diagrams of hydraulic and pneumatic systems
- Kinematic diagrams of mechanisms
- Diagrams of rope/rod systems
- Certificate of lifting capacity limiter
- Spare parts catalogue
- Copy of type examination certificate (if issued for equipment or protecting devices)
- Assembly and disassembly instructions

- Operation and maintenance instructions, which should contain:
- functional description of mechanisms and electric, hydraulic and pneumatic equipment
- adjustment instruction for protecting devices, brakes
- installation instruction of running rails for overhead cranes
- instruction of inspections and repairs, determining inspection types and time intervals, containing also a list of most frequently occurring failures along with remedies for them
- lubricating instruction, determining recommended lubricants and their possible substitutes, as well as physical and chemical characteristics, first filling amount, working time until first change and frequency of replacement.
- Manufacturer's Declaration of Conformity (original and translation).

6.3 Complement documentation

Complement documentation for devices assembled at site shall contain:

- Acceptance report of construction part along with annexes
- Report stating correctness of erection along with annexes
- Location sketch of equipment
- Electric supply diagrams
- Reports of protective measurements (electric)
- Reports of tests performed after erection completion.

After completion of equipment modernization, it is necessary to issue documentation in scope agreed with relevant body of technical inspection, which shall contain in particular:

- Authentication of proper execution of equipment modernization, erection and testing after completion of modernization, giving scope of executed works issued by the manufacturer with proper authorisation for modernization of UTB.
- Certificate for load carrying elements as well as for protective devices
- Report of protective measurements (electric)
- Other documents, as agreed with technical inspection body.

7 Relevant documents

7.1 Grupa LOTOS S.A. specifications

Any "Technical Specification" issued by GRUPA LOTOS S.A. listed in Contract Files.

8 Codes and regulations

Design, fabrication, installation and documentation shall be in compliance with all applicable Polish laws and regulations. Several applicable regulations are listed below.

- Ustawa o Dozorze Technicznym z dnia 21 grudnia 2000r z późniejszymi zmianami (Dz. U. 2013, poz.963).
- Rozporządzenie Rady Ministrów z dnia 7 grudnia 2012 r. w sprawie rodzajów urządzeń technicznych podlegających dozorowi technicznemu (Dz.U. 2012 nr 0 poz. 1468)
- Rozporządzenie Ministra Gospodarki, Pracy i Polityki Społecznej z dnia 29 października 2003 r. w sprawie warunków technicznych dozoru technicznego w zakresie eksploatacji niektórych urządzeń transportu bliskiego (Dz.U. 2003 nr 193 poz. 1890)
- Rozporządzenie Ministra Gospodarki z dnia 10 lipca 2001 r. w sprawie warunków technicznych dozoru technicznego, jakim powinny odpowiadać przenośniki kabinowe i krzesełkowe (Dz.U. 2001 nr 77 poz. 827).
- Rozporzadzenia wprowadzające do prawa polskiego przepisy dyrektyw Uni Europejskiej.

9 Record of changes

No.	Date	Description	Introduced by
0		This specification entirely replaces the former LOTOS Group S.A. standard No. PR 07 860 with the same title.	W. Zaborowski
1	30-11-2013	Review, update, standardize and changes to the Standard within scope of order No. OK/990/2012	Editorial board coordinated by T.Wróbel
-	31-08-2015	Page layout corrections, no contents changes.	T. Wróbel