INSTRUCTION MANUAL

MANUFACTURER:

STOKOTA Sp. z o.o.

Dear Customer,

In order to obtain maximum capacity of the unit and minimize potential downtime, careful reading and understanding of this instruction is necessary.

Before starting the unit for the first time please read each section. If you have any questions, please contact our Technical Department.

We wish you satisfaction in the use of our product.

1. THE SUBJECT OF THE INSTRUCTION

The subject of this instruction are general principles of use and maintenance of a fuel tank for the transport of liquid fuel class 3 according to ADR hazard classes.

2. TECHNICAL CHARACTERISTICS

Dimensions, weight, volumes:

- See: attached technical documentation

3. SAFETY.

This manual contains the instructions to be followed during the operation, inspection and maintenance of the tank. That is why it is necessary for the operators and other qualified personnel, including mechanics, to read this manual before the first starting of the unit.

A copy of this manual should be placed near the unit in order to make it available at any time if there is a need to use it. It is important that untrained persons do not remain in the vicinity of the unit in operation.

3.1. Qualifications of operators and ADR training.

All personnel responsible for the operation, inspection and maintenance of the tank must have relevant qualifications to perform their work.

The personnel without the required qualification must be trained in a an appropriate way. If necessary, such training may be provided by the producer of the unit upon the order of the owner of the unit.

Besides, the owner of the unit is obliged to submit a copy of this manual to all the persons involved in order to make it possible for them to get thoroughly acquainted with the principles of use and maintenance of the unit.

The information regarding ADR training of the personnel handling the unit have been included in section 1.3 of THE EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD (ADR).

3.2. Danger due to improper use.

A failure to comply with the safety directives included in this manual, improper use or careless handling of the unit may cause danger for persons, environment or the unit itself, such as:

- failure of important functions of the unit;
- failure of recommended methods of service and maintenance;
- danger for life and health of persons caused by electric, mechanical and chemical hazard;
- danger for the environment caused by a leak of the transported load classified as dangerous.

3.3. How to work safely.

Safe work is a responsibility of each employee. Therefore, it is important to comply with:

- all safety measures included in this manual;
- all national regulations concerning accident prevention;
- all internal regulations in relation to maintenance and safety of the company which owns the unit.

3.4. Safety measures for the operators

Among all the safety measures described in this manual, particular attention must be paid to the following:

- the release of dangerous liquids or products (for example explosive, toxic, hot) should be led in such manner that no danger is posed to persons or the environment. Adhere to national regulations in this scope;
- never perform inspection or maintenance activities when the unit is in operation.

3.5. Safety measures at maintenance and inspection

Among all the safety measures described in this manual, particular attention must be paid to the following:

- the owner of the unit is obligated to ensure that only qualified and trained personnel performs inspection, maintenance and service activities of the unit;
- never perform inspection or maintenance activities when the unit is in operation Strictly adhere to the instructions related to switching off the unit included in this manual;
- the pump, accessories and conduits should be cleaned in an appropriate way before an inspection, maintenance or technical service. The same applies to the inside of the tank;
- after an inspection, maintenance or technical service is performed, check if all safety and protective devices are in place and ready for operation.

3.6. Changes to the unit

Any changes or modifications to the unit are allowed only upon a written consent of the producer and after obtaining the consent of the Transportation Technical Supervision.

Original parts and accessories have been installed by the producer for safe, appropriate and durable operation of the unit. Replacing them with different parts or accessories may result in a decline of responsibility for any potential damage caused by the use of those parts.

3.7. Main sources of danger

IT IS STRICTLY PROHIBITED FOR ANY PERSONS OTHER THAN TRAINED OPERATORS TO REMAIN WITHIN THE "WORK AREA" OF THE UNIT IN OPERATION.
TRAINED OPERATORS ARE OBLIGED TO ENSURE THAT UNAUTHORIZED PERSONS DO NOT CROSS THE „WORK AREA".

The work area is understood as an area with the unit in operation in the middle, enlarged from each side by at least 4 m from external dimensions of the vehicle.

Main sources of danger:

- drive mechanism,
- explosion-hazard zone around the unit.

Drive mechanism.

The fuel pump is driven by the truck's engine by means of a driving shaft. This is a dangerous element of the driving line, that is why it is absolutely prohibited to undertake any activities which involve any direct contact with the driving mechanism when the engine is running.

The maintenance of the drive mechanism may be performed only when the engine is switched off.

Explosion-hazard zone.

Due to the kind of products transported, there is an explosion-hazard zone around the unit during loading/unloading, that is why it is prohibited to use products which may generate a spark/an electric charge within the work area.

4. GENERAL DESCRIPTION OF THE CONSTRUCTION.

4.1. Tank.

- the tank is a welded construction made of aluminium alloy with welded dish ends at front and rear.
- in the lower part of the tank there are welded supports to fix the tank to the undercarriage.
- inside the tank, special reinforcement is welded to transfer dynamic and static load.
- on the top of the tank, along its entire length, there is a welded shield to protect tank fittings.

4.2. Control system for loading and unloading of the tank.

This system is used to control the opening and closing of bottom and breathing valves. It is fed with compressed air from the pneumatic system of the vehicle.

The system is controlled by control blocks which are located in the cabinet for the measuring system.

4.3. Fittings in the hatch cover.

The hatch cover of every compartment is equipped with the following:

- fire protection which prevents flame to reach the inside of the tank compartment;
- breathing valve, which prevents the emission of vapours of transported products to the atmosphere, simultaneously maintaining positive and negative pressure in the tank compartment, as well as reducing the discharge of the transported product if the tank is overturned.

The breathing valve opens automatically, if there is positive or negative pressure inside the compartment.

- filler opening by which the tank can be loaded from the top
- optic level sensor which prevents overfilling of the compartment when loaded from the bottom. After a set level is exceeded, the sensor, by a signal, closes the pump at loading terminal.

4.4. Anti-electrostatic system.

The anti-electrostatic system consists of:

- anti-electrostatic belt between tank and chassis;
- anti-electrostatic wires between non-metal elements;
- anti-electrostatic wires inside compartments;
- grounding bolts.

4.5. Measurement installation.

The measurement installation consists of:

- Pneumatic manifolds
- fuel filters;
- fuel pumps,
- flow meters;
- hose reels

4.6. Loading and unloading possibilities:

Bottom loading

- open the cabinet on the right side of the vehicle
- connect plug of the optoelectric sensors in the socket (overfill system).
- connect the API – couplings.
- open the red steering block – open bottom valve
- start filling (loading)
- after the ending the loading, disconnect the hoses, couplings, close the cbinet.

Unloading via API

- open the cabinet on the right side of the vehicle
- connect the API to hose
- open the red steering block : open the bottom valve
- start discharging
- after ending the discharging, disconnect the hoses, couplings, close the cabinet

Unloading by the counter

- switch ON PTO and start the pump
- open the cabinet
- open the compartment by the black steering block
- unwind the hose from the hose reel, or connect hose to measure unit coupling
- set on the counter the adequate fuel amount, select delivery way and run the system
- during unloading use the pneumatic pressure regulator
- after ending the discharging.
- close the black steering block
- switch OFF PTO and stop the pump
- winds the hose,
- close the door

5. TECHNICAL SERVICE AND MAINTENANCE.

Technical service is required in order to maintain both the tank and the undercarriage in continuous technical efficiency.
Technical service involves:

- daily maintenance;
- periodical maintenance.

The description of the fuel pump service has been included in the pump manual, provided together with technical documentation. However, it is important to remember the following instructions regarding the pump's maintenance.

6.1. Daily maintenance

- remove the residues of the product transported from the external surface of the tank - wash the vehicle if necessary;
- check if all the connections are appropriate and if the electric and pneumatic installations operate properly;
- check the state of screw connections with the particular attention paid to the screws which fix the tank to the frame of the undercarriage, tighten if necessary – turning moment 200Nm;
- check the air preparation block of the bottom valves control system;
- oil level – if needed, supplement with liquid composed of: 1 portion of glycol + 4 portions of spirit to the level of the upper part of the sight vane;
- nominal pressure should be 6 bar.

In order to adjust, unblock the switch by pulling it up, make the required adjustment and push it back.

- release (into a vessel) the condensed vapours from the vapour recovery system;
- check the tightness of the discharge system during loading and unloading;
- check if the marking is fixed properly – clean if needed.

6.2. Periodical maintenance

The periodical maintenance should be performed at least twice a month, or even more frequently, depending on the intensiveness of use of the vehicle.

Within the periodical maintenance, besides the activities related to daily maintenance, the following activities must be performed:

- clean and wash the tank thoroughly;
- check the paint coat – fix the defects;
- check the terminals of the release system and the pneumatic installation connections;
- check the electric system terminals and connections;
- check the tightness of screws;

ATTENTION!!!
AT LEAST EVERY TWO MONTHS IT IS NECESSARY TO LUBRICATE THE SHAFT OF THE FUEL PUMP.
A FAILURE TO PERFORM THIS ACTIVITY MAY RESULT IN DAMAGING THE SHAFT!!!

Copyright

STOKOTA Sp. z o.o. is continuously working on further development of all types and versions of the products. Please understand us if we reserve ourselves the right to change a form, equipment and technique of this unit.