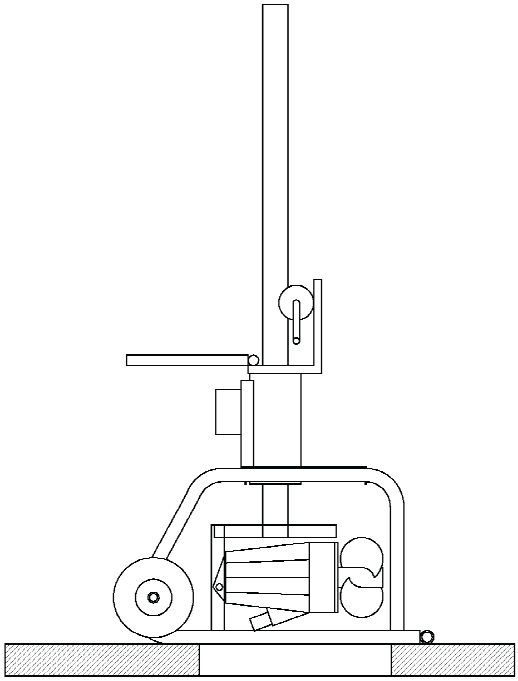
Stallkamp

OPERATING MANUAL

Duoport-S chassis for submersible motor agitator 3.0 & 4.0 kW



Drg. no.: 4 –102955/0/1

Document no.: 8160632 Version: March 2013

Space for notes:

General information

- **The technical specifications, weights and measures are to be considered approximate and not binding.**
- **Pictures are for illustration purposes and can deviate from the actual product.**

\Technik\TPR\Anleitungen Stallkamp\Betriebsanleitungen\Fahrgestell\Duoport - S - 3&4kW\BA_Fahrgestell Duoport-S für TMR 3&4KW_englischV2_8160632_EN(UK).doc
Date saved: 01.03.2019 07:58:00
Date printed 01/03/2019
BA_Fahrgestell Duoport-S für TMR 3&4KW_englischV2_8160632_EN(UK).doc

© Erich Stallkamp ESTA GmbH – In der Bahler Heide 4 – Industriegebiet West – 49413 Dinklage, Germany – Tel. +49 (0)4443 / 9666-0 – Fax +49 (0)4443 / 9666-60 – info@stallkamp.de – www.stallkamp.de

1. TABLE OF CONTENTS

2. MANUFACTURER'S DECLARATION

Manufacturer: Erich Stallkamp ESTA GmbH

Address: In der Bahler Heide 4
49413 Dinklage
Germany

Tel.: (0049) 04443 / 9666-0
Fax.: (0049) 04443 / 9666-60

Product name: Duoport-S chassis for submersible motor agitator 3.0 & 4.0 kW

We hereby declare that the above-designated chassis was produced by Erich Stallkamp ESTA GmbH.

Erich Stallkamp ESTA-GmbH, Dipl.-Ing. (FH) H. Ansorge (AL-TPR, Bevollmächtigter der GL)

Dinklage, dated 06 March 2013

This declaration is not an assurance of characteristics in the sense of the German law on product liability.

The safety instructions provided in the product documentation must be observed.

3. GENERAL INFORMATION

Our devices are developed according to the current state of technology, manufactured with great care and subject to a continual quality control. This operating manual should help you to get to know the device and to employ its proper operational possibilities.

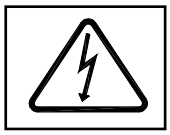
The operating manual contains important notices in order to operate the chassis safely, appropriately and cost-effectively. It is necessary to observe the operating manual to ensure the reliability and long lifespan of the chassis and to avoid hazards.

The operating manual does not take local, on-site requirements into consideration; the operator is solely responsible for ensuring that these are observed, including by external installers.

Designation of notices in the operating manual

In the Operating Manual, safety instructions about causes of endangerment to persons are designated with the general hazard symbol DIN 4844-W9,

warnings about electrical voltage, with the safety signs according to DIN 4844-W8



All other notices whose disregard might restrict the functional reliability of the device or represent a danger for the machine are marked with the word

ATTENTION!

This machine unit may not be operated beyond the values defined in the technical documentation with respect to pumped liquid, delivery flow rate, rotational speed, density, pressure, temperature as well as motor power output or other instructions contained in the operating manual or contract documentation. If you have any queries, please consult the manufacturer.

The type plate designates the most important operating data and the machine serial number. We request that this always be specified in the event of enquiries, subsequent orders and when ordering spare parts.

Provided that additional information or notices are required or in case of damage, please contact our local field sales employee or contact us directly.

Unauthorised conversion and spare part manufacture

Conversions and modifications to the devices and their machine units are only permissible with the explicit approval of the manufacturer. The use of non-"genuine spare parts" abrogates all liability.

4. SAFETY

This operating manual contains fundamental information which must be observed during installation and operation as well as when performing maintenance work on the device.

It is therefore absolutely necessary that the installer as well as the responsible specialist personnel and operator read these instructions before installation and commissioning, and that they are continually available at the location where the machine is operated.

Not only the safety instructions in this operating manual must be observed, but also the warning signs and provisions of the respective professional association.

4.1. Qualification of the personnel

The personnel performing the operation, maintenance, inspection and installation must be appropriately qualified for this work.

Area of responsibility, competence and the monitoring of the personnel must be precisely regulated by the operator. If the necessary skills are not available to the personnel, then they should be appropriately trained and instructed.

Furthermore, the operator must ensure that the personnel fully understands the contents of the operating manual.

4.2. Dangers if the safety instructions are not observed

Failure to observe the safety instructions can endanger persons as well as the environment and the machine. Failure to observe the safety instructions results in the loss of all claims for damages.

Specifically, failure to observe instructions can, for example, result in the following dangers:

- Failure of important functions of the device or system.
- Endangerment of persons due to electrical, mechanical, chemical or other exposure.
- Endangerment of the environment due to leakage of hazardous materials.

WARNING SIGNS

Observe all notice and warning signs. Dangerous gases can escape when stirring the manure.

DANGER OF POISONING!

If the manure is stored below slatted floors, the presence of persons in buildings during agitation is only permissible with sufficient ventilation. Therefore, windows and doors must be open and the ventilator set to full power.

4.3. Safety-conscious work

Observe all safety instructions presented in this operating manual, the existing national regulations for accident prevention as well as possible internal work, operation and safety regulations of the company at all times.

Safety instructions for the operator and attendant:

- ✓ If hot or cold machine parts can pose a hazard, then these parts must be protected on site against contact.
- ✓ Contact protection for moving parts may not be removed while the machine is in operation.
- ✓ Any leakage of dangerous materials must be conducted away so that there is no endangerment to persons and environment. Observe statutory provisions.

4.4. Safety instructions for maintenance, inspection and installation work

The operator has to ensure that all maintenance, inspection and installation work is carried out by authorised and qualified personnel.

Fundamentally, all work on the machine can only be carried out when the machine is at a standstill.

Directly after completion of the work, all safety and protection equipment must be reattached or made functional.

5. GUARANTEE

This section contains the general particulars for the guarantee. Contractual agreements are always treated with priority and are hereby not rescinded. The period of guarantee is a component of Stallkamp's general terms and conditions. Agreements deviating from this must be specified in writing in the order confirmation.

5.1. General

Stallkamp is obligated to repair every defect to products sold by Stallkamp under the condition:

- ✓ that it is a quality defect of the material, manufacture or design;
- ✓ that the defect is reported in writing to Stallkamp or the Stallkamp representative within the period of the guarantee;
- ✓ that the product is employed exclusively in the specified operating conditions described in the operating manual and employed for the intended purpose;
- ✓ that the monitoring device integrated in the product is correctly connected (temperature protection);
- ✓ that genuine Stallkamp parts are used.

5.2. Exclusion of liability

No guarantee or liability is assumed for damage to the device if one or several of the following points are applicable:

- A faulty configuration of the device on our part because of inadequate or incorrect information from the ordering party or operator.

- Failure to observe the safety instructions, regulations or the necessary requirements in this operating manual which apply according to German law.
- Installation, disassembly or repair of the device not in keeping with the regulations.
- Inadequate maintenance.
- Possible chemical, electrical or electrochemical influences.
- Wear and tear.

Since maintenance has an influence on the safety and functional capability of the device, it is an integral component of the guarantee. The operator of the device is obligated to carry out maintenance work according to the regulations of the manufacturer, including the repair and replacement of wearing parts.

The liability of Stallkamp thereby excludes any liability for personal damages, material damages or financial losses.

The manufacturer reserves the right to modify the performance, specifications or configuration data without prior information.

6. PRODUCT DESCRIPTION

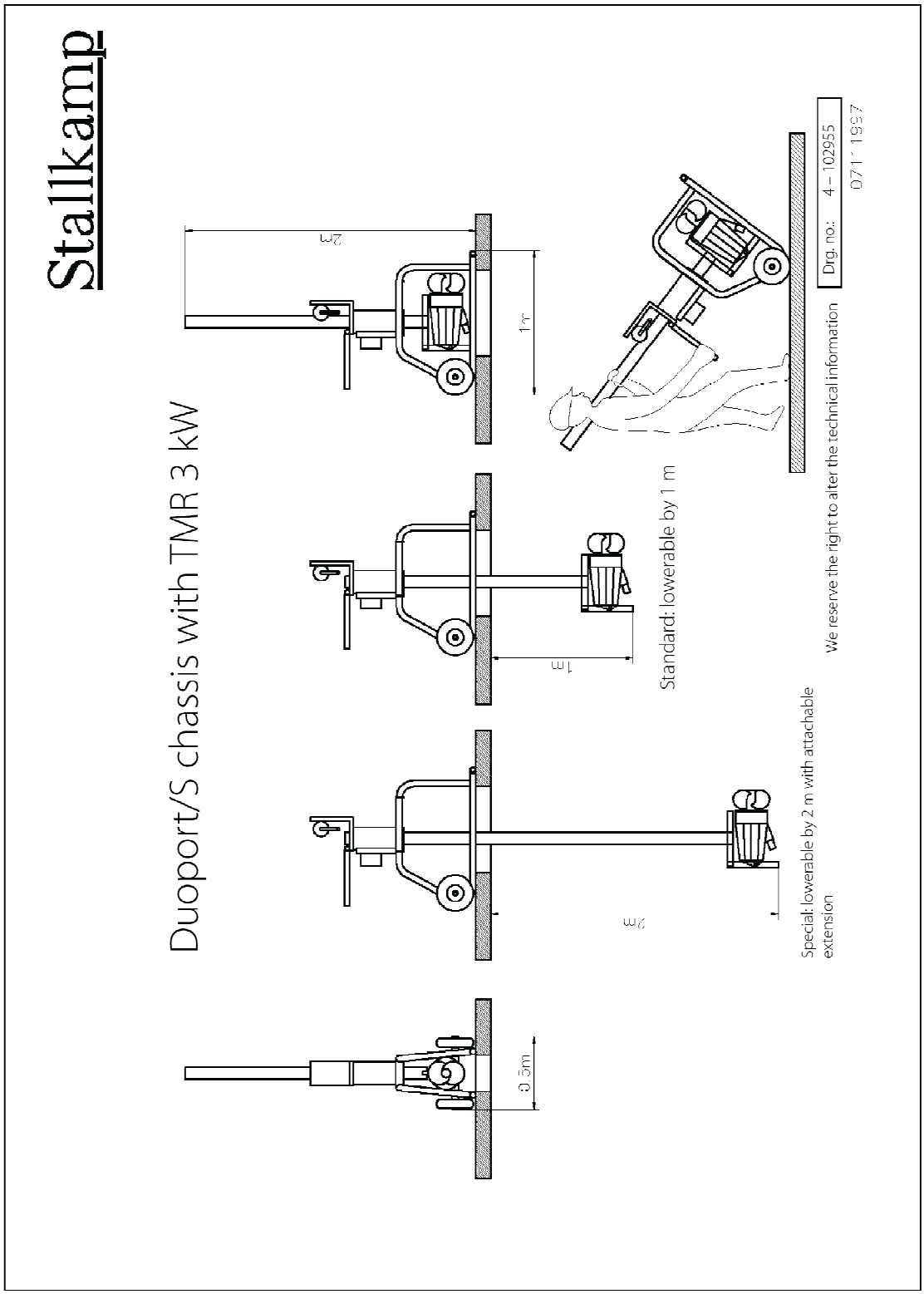
The galvanized Duoport-S chassis for the submersible motor agitator 3 kW is equipped as follows:

- Two-wheel chassis with hard rubber wheels,
- Lowerable, split guide rail for lowering the agitator,
- Slewing ring for changing the direction of flow,
- Safety cable winch with load brake for lifting and lowering the agitator.

6.1. Applications

The Duoport-S chassis is designed to accommodate a Stallkamp submersible motor agitator 3 kW (see operating manual of submersible motor agitator). This is a high-speed agitator, which is exclusively intended for the agitation of pig manure (low-viscosity manure). This chassis allows the submersible motor agitator 3 kW to be driven manually to the vehicle-accessible liquid manure pit and lowered over the pit opening (at least 250 mm x 600 mm, max. 700 mm x 900 mm). Overrun rails are required for larger pit openings.

7. DIMENSIONS OF THE DUOPORT-S CHASSIS FOR TMR 3 & 4 KW



8. COMMISSIONING

8.1. Prior to commissioning: safety instructions

The following rules should fundamentally be observed to prevent accidents during maintenance and installation work:

(1) Never work alone. The danger of drowning and suffocation must not be underestimated.

(2) Check whether sufficient oxygen is available and that no poisonous gases exist.

(3) Before welding work or using electrical tools, check whether there is a danger of explosion.

(4) Pay attention to the danger of electrical accidents.

(5) Examine lifting gear to ensure its fully satisfactory condition.

(6) Ensure an adequate shutoff at the place of work, e.g., cordoning trellis.

(7) Wear a hardhat, safety glasses and safety footwear.

(8) Keep a first-aid kit ready.

Otherwise, observe the health and safety regulations as well as the prevailing governmental regulations.

8.2. Commissioning the Duoport-S chassis with a submersible motor agitator 3 & 4 kW

Open the pit cover and measure the pit width. The pit opening must be at least 250x600 mm and max. 700x900 mm. In case of larger pit openings, the chassis must be moved over the pit opening on additional overrun rails.

Fig. 1

Chassis in transport position

Duoport-S chassis equipped with a submersible motor agitator 3.0 kW and motor protection switch in transport position.

Fig. 2

Chassis over the pit opening (pit opening not illustrated)

Move the chassis forward over the pit opening so that the TMR is positioned directly above the pit opening. Attention, do not position the wheels too close to the pit edge. If the pit opening is too small, see Fig. 3.

Fig. 3

Stirrup extension

For larger pit openings, release the stirrup from the two clamp screws and pull it out towards the front. Then retighten the clamp screws.

Fig. 4

Lowering agitator

Use the cable winch to lower the submersible motor agitator into the pit until it reaches the end stop of the guide rail (approx. 1 m). If it does not reach the bottom of the pit, you have to use the guide rail extension. See Fig 5.

Fig. 5

Attaching the extension rail

Attach the extension rail to extend the guide rail and screw it tight with the two hexagon socket screws. Then use the cable winch to lower the agitator down to the bottom of the pit. Attention, make sure that the cables are arranged neatly. Crank the agitator up again by approx. 50cm. The system to prove the capacitive level on the agitator must not touch the bottom of the pit during agitation. The agitator must be switched off before making any adjustment to the chassis.

Fig. 6

Clamping device with chain

Secure the chassis with the clamping device under the pit edge to prevent it from knocking up, twisting and shifting.

Fig. 7

Hand crank with clamping device

Attach the chain to the hook of the hand crank. Fix the clamping device under the pit opening and brace the chassis to the pit opening using the hand crank.

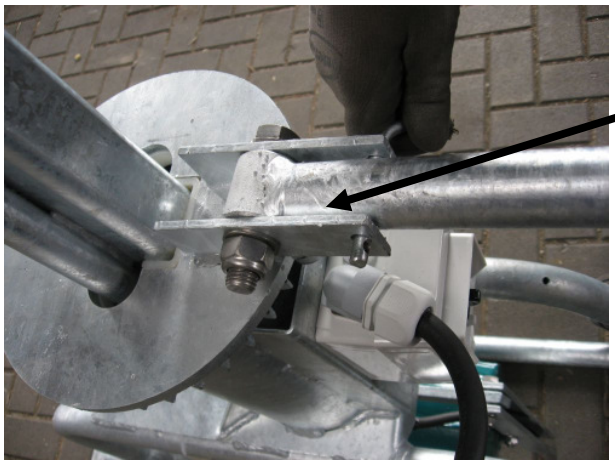


Fig. 8

Adjusting the direction of flow

To adjust the direction of flow, you must first remove the locking bolt for the rotary lever.

Fig. 9

Adjusting the direction of flow

Fold the rotary lever upwards and turn the agitator in the desired direction by means of the rotary lever. Then lock it again.

Attention, the agitator blades must not touch the pit walls. The agitator must be switched off before making any adjustment to the chassis.

Fig. 10

Switching on the agitator

Ensure that nothing can fall in the pit opening by protecting it with suitable cover plates or safety fences. Connect the mains plug to the switch box on the chassis and start the agitator with the motor protection switch. (see operating manual of submersible motor agitator: direction test, etc.)

After completing the agitation process, stop the agitator, crank it up and return the chassis into transport position. Now proceed in reverse order.

9. MAINTENANCE

Lubricate all joints and rotating parts on the chassis at regular intervals (approx. every 3 months). After use, clean the chassis and especially the telescopic rail.

The maintenance work that should be performed on the submersible motor agitator can be found in the "Submersible motor agitator" operating manual.

The maintenance work that should be performed on the hand-crank cable winch can be found in the "Hand-crank cable winch" operating manual.

10. NOTICES

10.1. Regulation of the professional association

The following accident prevention regulations of the Agricultural Professional Association can be found in Paragraph 2.8 under "Special provisions for pits and canals":

Paragraph 2.8

§ 1 Protection against falling in

(1) Pits, ditches, canals, wells and other similar pits in the house and courtyard area must be protected with fences or coverings to prevent persons from falling in. If these are not deeper than 100cm, other safety precautions suffice.

§ 2 Openings

(1) If removal and entry openings, etc., are opened, it must be guaranteed that persons and objects cannot fall in.

(2) Pits and canals that are customarily entered must have facilities which permit risk-free entry. The openings of these pits and canals must be dimensioned in such a way to allow the rescue of any accident victims.

§ 3 Entry

(1) Before entry and during the presence in pits and canals, ensure that sufficient respiratory air is present and that plant facilities are reliably protected against being switched on. The handling of naked flames is not permitted.

(2) Entry for the recovery of an accident victim is only permissible if two other persons secure the entering person with a rope which is firmly anchored outside the tank.

§ 4 Tanks and canals for animal faeces

(1) For tanks and canals in the open air, it must be guaranteed by suitable measures that fermentation gas cannot flow into the buildings.

(2) Closed tanks in the open air must have vent openings on opposite-lying sides.

(3) If tanks and canals are found in the buildings – also under slatted floors – it must be guaranteed that fermentation gases are conducted away from the buildings.

(4) If tanks and canals in the buildings are furnished with agitating, pumping and rinsing plants, facilities for the removal of fermentation gases must be present which automatically switch on when the agitator and rinsing works are operating. They may only be switched off after conclusion of the work process. The gases conducted away must not endanger persons.

(5) Canals must be designed so as to avoid any unnecessary whirling up of the faeces.

(6) Operating stations for agitating, pumping and rinsing equipment etc. must be built up over the floor.

(7) Closed rooms in which there are operating stations may not have openings to the tanks and canals.

(8) Operation instructions must be permanently attached to the operating stands.

§ 5 Removal of animal faeces from tanks and canals

(1) No smoking and no naked flames are allowed in the immediate proximity of removal openings during the agitating and removal of faeces.

(2) In the buildings in which there are open tanks and canals, the presence of persons and animals during agitation and removal is only permissible with sufficient ventilation.

§ 6 Warning signs

(1) Easily visible warning signs must be attached to openings of tanks and canals which indicate the danger of gases.

(2) Refer to the "Information Sheet with Notice, Warning, Mandatory, Prohibition and Rescue Signs" of the Federal Association of Agricultural Professional Associations.

You can find us here

Stallkamp

...Lead by innovative technology

Dinklage lies in the heart of the Oldenburg Münsterland.

From the exit (A1) Lohne Dinklage No. 65, direction Dinklage, towards Dinklage Vechta, then industrial area West.

- Pump technology
- Agitating technology
- Stainless steel tanks

Erich Stallkamp ESTA GmbH
In der Bahler Heide 4 – Industriegebiet West – 49413 Dinklage, Germany
Tel. +49 (0) 44 43 / 96 66-0 – Fax +49 (0) 44 43 / 96 66-60
info@stallkamp.de – http://www.stallkamp.de

Stallkamp – the competent solution for every application