

Vehicle Lift "JMP FOX 3500 Hk"

From cars to vans with medium wheelbase up to 4 tonnes total weight.

Lift status: 01.09.2016 Status of operating instructions: 01.09.2016 Revision number: 1 JM-No. 674 01 29



Operation instructions and inspection logbook

Serial number:_____

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Contents

1.	Introduction	1-2
2.	Installation protocol	3
3.	Handover protocol	4
4.	General information	5
	4.1. Installation and inspection of lift	5
	4.2. Hazard instructions	5
5.	Master data sheet for lift	6
	5.1. Manufacturer	6
	5.2. Intended use	6
	5.3. Construction modifications	6
	5.4. Change of installation location	6
	5.5. CE mark/Declaration of Conformity	7
6.	Technical information	8
	6.1. Technical data	8
	6.2. Safety equipment	8
	6.3. Data sheet	9
	6.4. Load distribution	10
	6.5. Foundation plan	11
	6.6. Electrical diagram and parts list	12
	6.7. Hydraulic diagram and hydraulic parts list	13
7.	Safety regulations	14
8.	Operating instructions	15-16
	8.1. Raising the vehicle	17
	8.2. Lowering the vehicle	17
9.	Behaviour in case of malfunction	18
	9.1. Impacting an obstacle	19
	9.2. Emergency lowering	19
10.	Maintenance and care	20
	10.1. Maintenance schedule for lift	20-21
	10.2. Cleaning the lift	22
11.	Safety inspection	23
12.	Installation and commissioning	23
	12.1. Installation guidelines	23
	12.2. Installation and anchoring of lift	24
	12.3. Installation of synchronisation cables	25
	12.4. Installation of safety equipment	26
	12.5. Installation of hydraulic pump	27
	12.6. Installation of support arms	28-30
	12.7. Installation of oil lines	31
	12.8. Electrical connection	32
	12.9. Filling and venting of hydraulic system	
	12.10. Commissioning	32
	12.11. Change of installation location	
	12.12. Selection of dowel length	34-35
13.	Non-recurring safety inspection before commissioning	
14.	Regular safety inspection and servicing	37-46
15.	Extraordinary safety inspection	
16.	EC Type Test Certificate	48

1. Introduction

Congratulations on the purchase of your lift. Please read these operating instructions carefully and observe their contents at all times to avoid unnecessary damage, injury and danger. Any other use of this product or use above or beyond the purpose described is regarded as improper.

Johannes J. Matthies GmbH & Co. KG bears no liability for damage or injury resulting from improper use. The risk in this respect is borne solely by the user.

Proper use of the product also includes the following:

- Observance of all instructions contained in these operating instructions.
- Compliance with inspection and maintenance work and prescribed testing.
- The operating instructions must be observed by all persons working on the lift. This applies in particular to-Chapter 7 "Safety regulations".
- Rules and regulations applying to the location of use must also be observed in addition to the safety instructions in these operating instructions.
- Proper handling of the plant.

Obligations of the operator:

The operator is obliged to ensure that only the following persons are entrusted with work on the plant:

- Persons who have been familiarised with the basic regulations concerning occupational safety and accident prevention and instructed in handling of the lift.
- Persons who have read and understood the warning instructions in these operating instructions and have confirmed this through their signature.

Risks associated with handling of the plant:

The product has been designed and constructed to state-of-the-art technological standards and recognised safety rules and regulations. Despite this, improper use can result in risks to the life and limb of the user or material damage.

The plant may only be operated:

- For the intended purpose.
- If it is in a flawlessly safe condition.

Organisational measures

- Keep the operating instructions at the location of use at all times and ensure they are accessible.
- In addition to the operating instructions, instruction must be provided on generally valid statutory and other binding rules for the prevention of accidents and environmental protection, and these must be observed.
- The awareness of safety and hazards exercised by personnel during work must be checked at least occasionally, taking the operating instructions into consideration.
- Use personal protective equipment insofar as necessary or demanded by regulations.
- All safety and hazard instructions on the plant must be maintained in a legible condition.
- Spare parts must conform to the technical requirements defined by the manufacturer. Contact the Matthies workshop service if necessary.
- Prescribed deadlines or deadlines indicated in the operating instructions for recurring testing/inspections must be observed.

Maintenance tasks, troubleshooting

Observe all configuration, adjustment, maintenance and inspection tasks prescribed in the operating instructions and inspection deadlines, including all information relating to the replacement of parts and equipment! These tasks may only be realised by competent persons who have participated in special in-house training for this purpose. Warranty and liability Our "General Terms & Conditions of Sale & Delivery" apply in all cases.

Warranty and liability claims relating to injury and damage are excluded if they can be traced back to one or more of the following causes:

- Improper use of the plant.
- Improper installation, commissioning, operation and maintenance of the plant.
- Work realised without acceptance for initial commissioning by a competent person.
- A failure to conduct recurring testing/inspections by a competent person.
- Operation of the plant with defective safety equipment or improperly fitted or non-functional safety and protective devices.
- A failure to observe instructions in the operating instructions regarding transportation, storage, installation, commissioning, operation, maintenance and set up of the plant.
- Unilateral structural changes to the plant.
- Unilateral modifications of the lift (e.g. drive conditions: performance, speed, etc.)
- Improperly realised repairs.
- Disasters resulting from third-party interventions and force majeure.

2. Installation protocol

This sheet should be filled in completely and signed following completion of installation. The protocol should be filled in by the competent service technician and faxed to the Matthies workshop service (040 / 73 44 17 - 199). The original must be retained in the inspection logbook.

Johannes J. Matthies GmbH & Co. KG Hammerbrookstraße 97 20097 Hamburg

Installation protocol

The verhicle lift JMP FOX 3500 Hk

with the serial number	was installed on
by the company	in

It has been inspected with regard to function and safety and commissioned. Installation was realised by the operator/competent person (strike out inapplicable).

Following the conclusion of function and safety testing by a trained service technician, the lift is transferred to the on-site electric power supply without an electrical connection (e.g. plug). An electrical connection is to be established on site between the lift and the electric power supply by a qualified electrician (see details in electrical diagram).

The operator confirms the proper installation of the lift, that all information in these operating instructions and the inspection logbook has been read and appropriately observed and that this document is kept at all times where it is accessible to operating personnel.

The competent person confirms the proper installation of the lift, that all information in these operating instructions and the inspection logbook has been read and that the documents have been handed over to the operator.

Anchoring dowels used:		(type/brand)		
Minimum anchoring depth ob	served:	mm		ok
Tightening torque observed: .		mm		ok
Date	Name, operator & company star	mp	Signa	ature of operator
Date	Name, operator & company star	np	Signa	ature of competent

Servicepartner (Stamp)

Vehicle lift status 09/2016 Operation instructions status 09/2016

3. Handover protocol

The verhicle lift JMP FOX 3500 Hk

with the serial number	was installed on
by the company	in

It has been inspected with regard to function and safety and commissioned. Following installation of the lift, the persons (operating personnel) listed below were instructed in handling of the lifting equipment by a trained service technician of the manufacturer or authorised dealer (competent person). (Strike out date, name, signature, empty lines)

Date	Name	Signature
Date	Name	Signature
Date	Name Competent person	Signature of competent person

Service partner

4

4. General information

The technical documentation contains important information on the safe operation and maintenance of functionality of the lift.

- The installation protocol form must be signed and forwarded to the manufacturer to verify installation of the lift.
- This inspection logbook contains forms to verify the non-recurring, regular and extraordinary safety inspections. Use these forms for documentation of inspections and retain the filled-in forms in the inspection logbook.
- Modifications to the construction or a change of installation location must be entered in the master data sheet of the plant.

4.1. Installation and inspection of lift

Work of relevance to safety conducted on the lift and safety inspections must be realised exclusively by persons trained for this purpose. They are referred to in general and in this documentation as experts and competent persons (qualified persons).

- Experts are persons (freelance specialist engineers, TÜV (German Technical Inspection Association) experts) who, due to their training and experience, are permitted to inspect and provide expert assess ments of lifts. They are familiar with relevant occupational safety and accident prevention regulations.
- Competent persons (qualified persons) are persons who possess adequate knowledge and experience of lifts and have participated in special in-house training by the lift manufacturer (service technicians of the manufacturer and authorised dealers are competent persons).

4.2. Hazard instructions

The following three symbols are used with the explanatory meaning to identify hazardous items and important information. Observe in particular texts marked by these symbols.



Danger! Designates a danger to life and limb. A risk of fatality exists if the procedure marked in this manner is realised improperly !

!

Caution! Designates a warning of possible damage to the lift or other material assets of the operator if the procedure marked in this manner is realised improperly !

Notice! Designates a notice of a key function or an important explanatory note !

5. Master data sheet for lift

5.1. Manufacturer

Lift designation: Manufacturer: JMP FOX 3500 Hk Johannes J. Matthies GmbH & CO.KG Hammerbrookstraße 97 20097 Hamburg

5.2. Intended use

The lift is a lifting device for raising motor vehicles with a total weight of 3500 kg during normal workshop operations with a maximum load distribution of 3:1 in the drive direction or contrary to the drive direction. Individual loading of only one or two support arms must not occur.

Installation of the standard lift is prohibited in potentially explosive premises and damp environments (washing bays, outdoors, etc.).

Following modification of the construction and significant repairs to supporting parts and in the event of a change of installation location, the lift must be inspected again by a competent person and any changes confirmed. Operation of the lift is realised directly at the control column.

5.3. Construction modifications

Inspection by an expert is necessary for recommissioning (date, type of change, signature of expert)

Name, address of expert	
Place, date expert	signature expert

5.4. Change of installation location

Inspection by an expert is necessary for recommissioning (date, type of change, signature of competent person)

Name, address of expert Place, Date of expert Signature of expert



pursuant to Machinery Directive 2006/42/EC

Johannes J. Matthies Gmbh & Co. KG Hammerbrookstraße 97 20097 Hamburg

Hiermit erklären wir, dass die Hebebühne, Modell ... Hereby we declare that the lift model... Declare par la presente que le pont elevateur modele ... Por la presente declara, que el elevador modeln ... Con la presente dichiariamo ehe il ponte sollevatore modeUo ...

TYP: JMP FOX 3500 Hk

Serial number:

- In Übereinstimmung mit den folgenden EG -Richtlinien und harmonisierten Normen gefertigt wurde.
- Was manufactured in conformity with EC directives and the harmonized norms.
- Fabrique en conformite avec les directives europt!nnes suivaotes et selon les normes harmonisees en vigueurs.
- Producido de acuerdo a las siguientes reglas de la Comunidad Europea y normas hannonisadas.
- E stato costruito in conformitä con Je direnive CE e Je relarive norme armonizzate.

2006/42/EC	EC Machinery Directive
2014/35/EG	EG-Low voltage Directive
EN 1493:2010	Vehicle - Lifts
EN 60204-1/A1:2009	Safety of machinery - Electrical equipment of machines
	Part 1: General requirements

Prüfinstitut -Certification institute Organisme centificateur -Ente certificatore

CE 0123 (RWT(Jv)

Registrier Nr.-RegisteredNo. Enregistrement No – Registrazione Nr.

04 205-2740/98

Place, date

Responsibility for Documentation: Stefan Onken Hammerbrookstraße 97, 20097 Hamburg

6. Technical data

6.1. Technical data

- Carrying capacity: Load distribution: Raising time approx.: Lowering time approx.: Raising height: Operating voltage: Motor power: Motor speed: Pump capacity: Operating pressure approx .: Pressure relief valve approx .: Oil tank filling capacity approx .: On-site electric power supply: Sound pressure level (measured at control element): Dead weight: Colour:
- 3500 kg max. 3:1 or 1:3 in or contrary to the drive direction 45 sec 45 sec max.1910 mm 3 x 400 V, 50 Hz 2,2 kW 2700 rpm 12 l/min 180 bar 200 bar 8 litres 3PH/N+PE, 400V, 50Hz 16 Amp. slow blow \leq 90 dB(A) 616 kg RAL 7016

6.2. Safety equipment

- Support arm locking system Protection of support arms against unintentional movement (of support arms).
- Synchronisation cables Protection against uneven loading.
- Main switch Protection against unauthorised use.
- Foot deflectors on support arms Protection against crushing in foot area.
- Pushbuttons The lift stops the lifting movement when the buttons are released.



Protection against unintended lowering of the load if the cylinder system or a suspension cable is defective. Press "Lock" following the lifting procedure.

- Opening of the overflow valve in event of overloading.











6.4. Load distribution



D (mm)	P2 (kg)	P1 (kg)	C = P1 + P2 (kg)
710	2100	1040	3140
800	2250	1120	3370
900	2350	1150	3500



6.6. Electrical diagram and parts list



SB0	Emergency stop	QF	Fuse	VC2	AC/DC Converter
SB1	Raising switch	KM	Contactor	YV	Non-return valve
SB2	Lowering switch	TC	Transformer	MQ1	Electromagnet
SB3	Catch switch	HL	Indicator light	MQ2	Electromagnet
SQ2	Limit switches	VC1	AC/DC Converter	КТ	Safety catch contactor
QS	Main switch				



7. Safety regulations

Observe applicable, statutory and valid accident prevention regulations when handling lifts.

Observance of the following regulations is indicated in particular:

- The total weight of the supported vehicle should not exceed 3500 kg, whereby the maximum load distribution is 3:1 in the drive direction or contrary to the drive direction.
- Observe the operating instructions when operating the lift.
- The lift must be lowered completely prior to driving on the vehicle, and driving on should only be realised in the intended direction.
- In the case of vehicles with low ground clearance or special fittings, check whether damage could occur prior to driving onto the lift and raising the vehicle.
- Only persons of 18 years of age or older who have been instructed in operation of the lift (observe the han dover protocol) and have verified their employment for this purpose with regard to the employer are per mitted to operate the lift independently. They must be expressly commissioned by the employer with ope ration of the lift (excerpt BGR 500 (German trade association rules), see handover protocol).
- Any displacement of the centre of gravity must be taken into consideration when removing heavy parts. The vehicle must be appropriately secured against falling through suitable means (e.g. lashing straps, beams, etc.).
- No persons should be in the working area during the raising or lowering procedure.
- The conveyance of persons with the lift is prohibited.
- Climbing up on the lift is prohibited.
- The lift must be inspected by an expert following modification of the construction and repairs to supporting parts.
- Interventions for the purpose of repairing and maintaining the lift may only be undertaken by skilled personnel if the main switch is deactivated.
- The complete raising and lowering procedure should be observed at all times.
- Personnel should move immediately to the safety zone outside the lift in the event of the vehicle moving unintentionally on the platform.
- The vehicle should not be moved when the platform is raised and should be appropriately secured by actu ating the parking brake. Always use the safety catch function of the lift.
- Ensure when lowering the platform that feet are kept out of the working area where they could be entrapped.
- No objects or persons should be under the vehicle or under the lift when lowering the lift.
- When using an optional axle jack, ensure that feet are kept clear of the scissor mechanism.
- Installation of the standard lift is prohibited in potentially explosive premises and damp rooms (e.g. washing bays).



Always observe the safety regulations during handling of the lift. Read the safety regulations in Chapter 7 carefully prior to initial operation!



А	Pump
В	Oil tank
С	Control unit
D	Safety catch
Е	Lift column
F	Support arm
G	Cover plate
Н	Hose routing
I	Support arm
J	Lift carriage
K	Lift column



Press the emergency stop button in hazardous situations if the lift fails to stop after the button is released.

8.1. Raising the vehicle

- Drive the vehicle aligned centrally in a transverse direction into the lift.
- Secure the vehicle against rolling. Pull the parking brake and engage a gear.
- Pivot in the support arms and apply the adjustable pick-up plates at the points provided by the vehicle manufacturer. Rotate the pick-up plates uniformly upwards if necessary.



The load must be supported centrally on the pick-up plate!

- Check that no objects or persons are in the hazardous zone of the lift.
- Activate the main switch.
- Lift the vehicle free of ground contact. Press the "Up" button on the control element.
- Interrupt the lifting procedure when the wheels are free of ground contact and check the pick-up plates again to ensure they are providing safe support.
- The support arm locking systems must be engaged. If not, the lift should be set down and the vehicle repositioned again.
- Raise the vehicle to the desired working height. Press the "Lock" button to secure the position with the safety catch.
- The position of the support arms under the support points should be checked again each time the vehicle is set down and adjusted if necessary.
- The complete lifting procedure should be observed at all times to ensure the vehicle roof does not touch the cross support.
- Check that no objects or persons are in the hazardous zone of the lift.

It is imperative to ensure that the vehicle is safely supported on the pick-up plates, otherwise there is a risk of falling!

Ensure that the support arm locking system is engaged after the vehicle is mounted.

8.2. Lowering the vehicle

- Check that no objects or persons are in the hazardous zone of the lift.
- Lower the vehicle to the desired working height or to the lowermost position by pressing the "Down" button. The lift initially moves up slightly to relieve the catch. The lowering procedure then starts automatically.
- The lowering procedure should be observed at all times.
- Pivot the support arms outwards if the lift has reached the identifiable lowermost position. The vehicle can then be driven out of the lift.

9. Behaviour in case of malfunction

Impaired operational readiness of the lift may be the result of a simple fault. Inspect the plant for specified causes of faults. The Matthies workshop service should be informed if the fault cannot be remedied through checking of the specified causes.



Independent repair work on safety equipment of the lift and inspections of the electrical system should only be realised by skilled personnel.

Problem: Motor fails to start. Possible causes:

No power supply. Main switch is not activated or defective. Main on-site fuse defective. Power supply line interrupted. Thermal protection of motor active. Motor defective.

Problem: Motor running, load is not raised. Possible causes:

Vehicle is too heavy. One phase conductor is not connected or twisted. Hydraulic oil level is too low. Hydraulic valve defective. Pressure relief valve defective. Air/leakage in hydraulic system.

Problem: Lift cannot be lowered. Possible causes:

Lift resting on obstacle. Hydraulic valve defective. "Down" button defective. Safety catch does not trigger.

Problem: Lift lowers without being operated.

Possible causes: Hydraulic lines leaking. Seal rings on pump outlet damaged.

Remedy:

Check power supply. Check main switch. Check fuse, replace if necessary. Check power supply line. Allow motor to cool down. Inform workshop service.

Remedy:

Unload vehicle. Check or connect phase conductor. Refill correct hydraulic oil. Inform workshop service. Inform workshop service. Check for leak, inform workshop service if necessary.

Remedy:

Press "Up" button until the obstacle can be removed Inform workshop service. Have button checked. Inform workshop service.

Remedy:

Repair leakage, inform workshop service if necessary. Replace seal rings, inform workshop service if necessary.

9.1. Impacting an obstacle

If the lift impacts an obstacle with the tracks during lowering, the lift remains stationary due to the mechanical resistance encountered. To remove the object, press the "Up" button continuously until the obstacle can be removed.

9.2. Emergency lowering

Emergency lowering is an intervention in the lift control system and should only be undertaken by competent persons. Nevertheless, in the event of a defect on the lift, it is possible to lower the lift to the lowermost position.



Emergency lowering should only be realised by persons instructed in operation of the lift. Observe the "lowering" instructions.

- Check that no objects or persons are in the hazardous zone of the lift.
- Remove the cover for the safety catches on the columns. Secure the safety catches against engaging with your own aids (e.g. wire/cable ties). If the safety catches are engaged, the lift carriage must be raised with the aid of suitable equipment for as long as necessary to unlock the safety catches manually.
- Unscrew the 14 mm cap nut from the hydraulic control block, loosen the 4 mm socket screw carefully. The lift begins to lower.
- The lowering procedure should be observed at all times. Tighten the socket screw in the event of danger.
- Lower the lift to the lowermost position.
- Shut down the lift until the defective parts have been replaced and the lift is once again in a flawlessly safe condition.

10. Maintenance and care

Prior to maintenance, all preparations must be taken to ensure that there is no risk to life and limb and damage to objects when realising maintenance and repairs on the lift. Disconnect the main electric power supply. Secure the working area around the lift against unauthorised accessing.

Legal basis: Applicable, statutory and valid accident prevention regulations.

Cleaning, care and maintenance work realised should potentially be assured through a service agreement to guarantee the greatest possible availability and functionality of the plant.

The plant must be serviced by a competent person at regular intervals (once a year at the latest) pursuant to the following schedule. The maintenance interval should be shortened in the case of intensive operation and higher levels of soiling. The overall function of the plant should be observed during daily use. The Matthies workshop service must be informed in the event of malfunctions or leaks.

10.1. Maintenance schedule for lift

Daily work:

- Clean type and instruction plates, labels, abridged operating instructions, safety stickers and warning signs and replace if damaged.
- Check the condition and function of the foot deflectors. Replace if damaged.
- Check the rubber support pads for wear and replace if necessary.
- Always check the condition of electrical cables during installation and maintenance. All cables and lines must be secure or secured to stop them being crushed or bent and prevent them touching any moving parts.

Work realised at least once a year:

- Check support arm locking system and toothed disk for wear. Replace if visible wear is detected.
- Check the support arm extenders, support arm pins and threaded pick-up plate bolts for ease of movement. Lubricate lightly with a multi-purpose grease if necessary. Avoid excessive lubrication.
- Check the tracks and lift carriage sliders for wear. After cleaning, lubricate with a multi-purpose grease.
- Check all fastening screws and anchoring dowels with a torque spanner.

Tightening torque (Nm) for shaft screws Strength class Torque table 8.8

		0,10*	0,15**	0,20***
Γ	M8	20	25	30
	M10	40	50	60
-10.9	M12	69	87	105
e 8.8	M16	170	220	260
e tabl	M20	340	430	520
Torqu	M24	590	740	890

Coefficient of sliding friction 0,10 for very good surface, lubricated

* Coefficient of sliding friction 0,15 for good surface, lubricated or dry

** Coefficient of sliding friction 0,20 surface black or phosphated, dry

20

- Visually inspect all welds. Shut down the lift and contact your dealer if any cracks or breakages are detected in welds.
- Check steel synchronisation cables for damage. Replace the complete cable set if cable breakages are detected.
- Clean pin and bearing points, rollers and running surfaces for rollers and check for wear. Replace if necessary.
- Check all hydraulic screw fittings for leaks.
- Check hydraulic oil level and, if necessary, fill up with clean oil with a viscosity of HLP 32 or replace completely with new oil (1 litre container JM No. 558.49.41). The hydraulic oil should be between the upper and lower marking on the oil dipstick after filling.
- Check powder coating and repair if necessary. Treat damage caused by outside influences immediately after detection. Infiltration of deposits of all kinds can cause extensive and permanent damage to the powder coating if areas are not treated. Rust occurs due to mechanical damage, wear, aggressive deposits (road salt, leaking operational fluids), inadequate or unrealised cleaning. These areas must be sanded lightly (120 grit), cleaned and freed from grease. Then rework with appropriate repair paint (observe RAL no. 7016).
- Check all safety equipment (support arm locking system, shut-off bar, circuit breaker, foot deflector, safety plates on support arm, etc.).
- Check electrical cables and their cable ducts for damage.
- Hydraulic hose lines: Hose lines should be replaced every 6 years (operating duration including max. 2 years storage duration) under normal circumstances. The recommended replacement interval is 2 years under increased operating conditions (e.g. multiple shifts, shorter cycle times and pressure pulses, severe inner and outer influences that sharply reduce the duration of use).

Needs-based work:

- Free the lifting cylinder piston rods of sand and dirt with compressed air. Moisten the piston rods lightly with acid-free oil.
- Clean the lifting cylinder wipers and check for damage.
- Grease moving parts.

Checking of lift stability:

Tighten the nuts on the approved anchoring dowels with the torque specified by the manufacturer using a configured torque spanner (see leaflet from respective dowel manufacturer for torque specifications).

10.2. Cleaning the lift

Regular and competent care contributes to the value retention of the lift. Moreover, it can also be one of the preconditions for maintaining warranty rights in the event of any corrosion damage. The best protection for the lift is regular removal of dirt of any kind.

This applies in particular to the following:

- Road salt
- Sand, gravel, soil
- Industrial dust of all kinds
- Water, including in conjunction with other environmental influences
- Aggressive deposits of all kinds
- Permanent humidity due to inadequate ventilation

The frequency with which the lift should be cleaned depends among other things on the frequency of use, handling of the lift, the cleanliness of the workshop and the location of the lift. Furthermore, the degree of soiling depends on the season of the year, weather conditions and the ventilation of the workshop. Weekly cleaning of the lift may be necessary under unfavourable circumstances, but monthly cleaning can also be perfectly adequate.

Do not use any aggressive or abrasive media for cleaning, but rather gentle cleaning agents (e.g. commercially available detergent and lukewarm water).

- Do not use high-pressure cleaners (e.g. steam jets) for cleaning.
- Remove all dirt carefully with a sponge or, if necessary, a brush.
- Ensure that no cleaning agent residue remains on the lift.
- Rub the lift dry with a cloth after cleaning and spray with wax or oil spray.
- Lubricate or oil moving parts (pins, bearing points) according to specifications.
- Ensure when cleaning the workshop floor that no aggressive cleaning agents come into contact with the surfaces of the lift. Continuous contact with any kind of liquid is prohibited.

11. Safety inspection

The safety inspection is necessary to ensure the operational safety of the lifting plant. It must be conducted as follows:

- Prior to initial commissioning following installation of the lifting plant. Use the "Non-recurring safety inspection" form.
- Following initial commissioning at regular intervals of maximum one year. Use the "Regular safety inspection" form.
- Following changes to the construction of the lifting plant. Use the "Extraordinary inspection" form.
- The non-recurring and regular safety inspection must be conducted by a competent person. It is recommended that servicing be conducted simultaneously.
- Changes to the construction (e.g. modification of the carrying capacity or changes to the lifting height) and significant repairs to supporting parts (e.g. welding work) must be followed in all cases by an inspection conducted by an expert (extraordinary safety inspection).

This inspection logbook contains forms with a printed inspection schedule for the safety inspection. Please use the appropriate form, record the conditions of the inspected lift and retain the completely filled-in form in this inspection logbook.

12. Installation and commissioning

12.1. Installation guidelines

- Installation of the lift is realised by trained service technicians of the manufacturer or an authorised dealer. If the operator has appropriately trained service technicians, he can also realise installation of the lift. Installation is to be realised pursuant to the installation instructions.
- The standard lift should not be installed in potentially explosive rooms, an exposed environment or in washing bays.
- Verification of an adequate foundation must be obtained or compiled pursuant to the guidelines in the foundation plan prior to installation. The installation site must be perfectly level. Foundations outdoors and in rooms in which winter weather or frost is to be expected must be primed to freezing depth.
- 3 phases + PE, 400V, 50Hz must be provided on site for the electrical connection. The supply line must be appropriately secured on site pursuant to VDE0100 with 16 Ampere slow blow fuse protection. The minimum conductor cross section is 2.5 mm². The connection point is contained in the control unit.
- All cable bushings must be fitted with cable sleeves or flexible plastic tubing to protect electric cables.
- Following completion of installation and prior to initial commission, on-site (operator) inspection of the lift protective conductor must be conducted pursuant to IEC directives (60364-6-61). An insulation resistance test is also recommended.
- Following completion of installation, a safety sticker must be applied in a visible location.

12.2. Installation and anchoring of lift



- Please note the foundation specifications (see 6.5).
- Position and align the lift columns on the desired installation site pursuant to the drawing above. The inside distance between the foot plates must be 2680 mm to ensure that the cover for the oil lines fits between then.
- Position the bore holes for the dowel anchors through the holes in the base plates.
- Clean the bore holes by blowing them out with air. Insert the anchor dowels into the bore holes (see 12.12 for more precise details).
- The manufacturer recommends Hilti injection anchors or similar dowels from other dowel manufacturers (with approval). Observe the stipulations for these products.
- Check prior to dowel anchoring of the lift whether the supporting concrete is of C20/25 (B25) quality and that reinforcement reaches up to the upper edge of the completed flooring. The dowel length should be determined according to the data sheet in this case. If flooring (tiles, screed) is present on the supporting concrete, the thickness of this flooring must be determined and an appropriate dowel length selected.
- Check that the lift columns are installed exactly vertical and establish contact with the floor with suitable underlying supports (sheet metal strips) if necessary.
- It is necessary to position the underlying supports at the edge and in the middle of the base plate to avoid vertical oscillation of the column.
- Tighten the dowels with the required torque (see dowel manufacturer's stipulations). The convex washer lies flat against the base plate if the dowel is tightened with the required torque. This ensures a secure dowel connection.

Each dowel must be capable of tightening with the required torque. A lesser torque will not ensure the safe operation of the lift or its stability.



Attach the steel cable 1 to the upper side of the lift carriage with the nut F and route it over the upper pulley A back through the column. Routing continues under the lower pulley through to the other side. Route the steel cable there under the steel pulley again through to the underside of the lift carriage. Attach this with the nut F. Attach the steel cable 2 correspondingly.

Check that both lift carriages are at the same height. If this is not the case, set the height using the threaded rods on the steel cables E.



The cables do not support any weight. Their function is to ensure that lift movement is synchronised exactly. Ensure that both cables are evenly tensioned and not too loose, otherwise exact synchronisation of both lift carriages is not ensured. Ensure that the cables are not tensioned too severely, otherwise it is possible that the downwards lift motion will be jerky or too slow or the lift will not move down at all. The steel cable must be routed tautly in the floor tracks and should not cross over each other.

12.4. Installation of safety equipment





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Check the freedom of movement of the safety catch following installation. Blockages of any kind are not permitted.

12.5. Installation of hydraulic pump



The vibration damper between the lift column and motor is required to prevent transmission of vibration from the pump to the lift.

12.6. Installation of support arms

Please first remove the securing pin from the lift carriage, then position the support arm and secure it again with the securing pin. The lift is equipped with symmetrical arms.

A	
B	
· ·	

А	Pin
В	Support arm



Installation of support arm locking system

The support arm locking system can be precisely adjusted using the five holes.



Final state



Installation of foot deflector





12.7. Installation of oil lines

Installation of the oil lines should only be realised by qualified persons. Ensure that no foreign bodies penetrate into the system when connecting the oil lines. Connect the oil lines in accordance with the drawing below.



12.8. Electrical connection

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It is imperative to ensure that the electric power supply is deactivated for installation of the mains power cable. A suitable 400 V supply cable with at least 5x 2.5 mm² should be used for installation. Fuse protection must be 16 Amp. slow blow. The connection must only be established by trained and authorised persons.

- Route the cable from the safety catch solenoid valve into the control cabinet and connect it.
- Connect the grounding cable to the grounding bolt.
- Route the cable from the limit switch into the control cabinet and connect it.

12.9. Filling and venting of hydraulic system

- Ensure that the hydraulic system is clean and avoid dirt.
- Fill the oil tank with 8 I hydraulic oil HLP 32 JM No. 558.49.58 (2x).
- Activate the lift and then press the "Up" button. Ensure that the lift raises, otherwise check the electric power supply and correct polarity.
- Lower the lift to the lowermost position.
- Raise and lower the unloaded lift several times to vent the oil system.

12.10. Commissioning

The non-recurring safety inspection must be conducted prior to commissioning (use the "Non-recurring safety inspection" form).

Where installation of the lift is realised by a competent person (in-house trained installation fitter), he conducts the safety inspection. If installation is realised by the operator, a competent person must be entrusted with the safety inspection. The competent person confirms the faultless function of the lift on the installation protocol and the non-recurring safety inspection form and releases the lift for use.

Following commissioning, the filled-in installation protocol must be sent to the Matthies workshop service (fax 040 / 73 44 17 - 199).

First conduct a trial run of the lift in an unloaded state. Following a successful test and taking the "Non-recurring safety inspection" form into consideration, a second test run should now be conducted in a loaded state.

12.11. Change of installation location

Preconditions corresponding to the installation guidelines must be established for a change of installation location. Realise the location change according to the following procedure.

- Raise the lift to approx. 500 mm.
- Deactivate the main switch.
- Disconnect the mains power.
- Loosen and remove all covers.
- Drain the oil tank.
- Dismount the support arms. Pull out the pin and remove the support arm.
- Detach the synchronisation cables at the bottom of the lift carriage in each case and feed the cable back to the other column
- Detach the electrical cable to the safety catch on the opposite side.
- Detach the hydraulic lines between the cylinders. Seal the hydraulic connections with blind plugs if necessary.
- Detach the crossbar between the two columns.
- Release the dowel anchoring of the base plates.
- Transport the lift to the new installation location.
- Set up the lift in the same manner as for installation and dowel anchoring prior to initial commissioning.



New dowels must be used. The old dowels are no longer suitable for use!

A competent person must conduct a safety inspection prior to recommissioning (Use the "Regular safety inspection" form).

12.12. Selection of dowel length



Changes reserved.

Hilti injection dowel

Betonboden / concrete floor	ohne Bodenbelag / without floor pavement (tiles)							
Dübel type of dowel		HIT-V-5.8 M10x130	HIT-V-5.8 M12x150	HIT-V-5.8 M16x200				
type de cheville			Art.Nr.387061	Art.Nr.956437				
Bohrteife (mm)	ho	90	108	144				
drilling depth								
Profondeur de l'alésage								
Mindestverankerungstiefe (mm)	hef	90	108	144				
min.anchorage depth								
Profondeur minimale dáncrage								
Betonstärke (mm)		min.120	min.138	min.180				
thickness of concrete	Hmin							
Epaisseur du béton								
Bohrerdurchmesser (mm)	do	12	14	18				
diameter of bore								
Diamètre de l'alésage								
Bauteildicke (mm)	trix	max.17	max.19	23				
thickness of the lift-piece								
Epaisseur de la piece	-		10					
Anzugsdrehmoment (Nm)	Tinst	20	40	80				
turning moment								
moment d une force	+.+	400	450	000				
Gesamtlange (mm)		130	150	200				
i otal length								
Longueur totale		10	12	10				
Gewinde	IVI	10	12	10				
fileau								
	a		4					
	ь		4					
Stückzahl	c	δ 40						
piece number	d		10					
nombre des pièces	e		14					
	f		14					
	g		20					
	-	28						
Die Montageanweisung des Dübelherstellers ist Folge zu leisten.								

Bei Bodenbelag (Estrich/Fliesen) sind längere Dübel zu verwenden.

Observe necessarily the installation description of the dowel manufacturer. Use longer dowels with version with floor pavement and tiles

Es können auch gleichwertige Injektionsdübel anderer Hersteller (mit Zulassung) unter Beachtung deren Bestimmungen verwendet werden. It is possible to use equivalent injections dowels (with license) of other manufacturer but observe their regulations. Des chevilles des autres marques (autorisées) peuvent aussi être choisies en respetant les directives du fabricant.





13. Non-recurring safety inspection before commissioning

Fill in and retain in inspection logbook.

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment		
Type plate						
Brief instructions operation						
Warning						
Visual inspection of welds						
Function button "Raise"						
Function lever "Lower"						
Function button "Unlock catch"						
Function limit deactivation						
Function support arm lock						
General condition of lift						
Condition and securing of pins						
Function "Up Off"						
Support structure (warping, cracks)						
Tightening torque of fastening screws						
Firm fitting of all supporting screws						
Condition of power unit						
Surface condition of piston rods						
Condition of covers						
Tightness of hydraulic system						
Level of hydraulic oil						
Condition of hydraulic lines						
Condition of electrical cables						
Condition of paint finish						
Condition of synchronisation cables						
Condition of pulleys						
Condition of support arms						
Condition of carrying plates						
Function test with vehicle						
Condition of concrete floor						
(Tick off applicable, additional tick if review is necessary!)						

Conducted by company:

Name, signature of competent person:

Result of inspection:

Further operation dubious, review necessary
Further operation possible, remedy deficiencies
No deficiencies, no objection to further operation

No deficiencies,	no	objection	to	further	operation

Signature of operator		

Signature of competent person If remedying of deficiencies is necessary:

.....

Deficiency remedied on
(Use a new form for the review!)

..... Signature of operator

14. Regular safety inspection and servicing

Fill in and retain in inspection logbook.

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment	
Type plate					
Brief instructions operation					
Warning					
Visual inspection of welds					
Function button "Raise"					
Function lever "Lower"					
Function button "Unlock catch"					
Function limit deactivation					
Function support arm lock					
General condition of lift					
Condition and securing of pins					
Function "Up Off"					
Support structure (warping, cracks)					
Tightening torque of fastening screws					
Firm fitting of all supporting screws					
Condition of power unit					
Surface condition of piston rods					
Condition of covers					
Tightness of hydraulic system					
Level of hydraulic oil					
Condition of hydraulic lines					
Condition of electrical cables					
Condition of paint finish					
Condition of synchronisation cables					
Condition of pulleys					
Condition of support arms					
Condition of carrying plates					
Function test with vehicle					
Condition of concrete floor					
(Tick off applicable, additional tick if review is necessary!)					

Safety inspection conducted on:	
Conducted by company:	
Name, signature of competent person:	
Result of inspection:	Further operation dubious, review necessary Further operation possible, remedy deficiencies No deficiencies, no objection to further operation
Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment		
Type plate						
Brief instructions operation						
Warning						
Visual inspection of welds						
Function button "Raise"						
Function lever "Lower"						
Function button "Unlock catch"						
Function limit deactivation						
Function support arm lock						
General condition of lift						
Condition and securing of pins						
Function "Up Off"						
Support structure (warping, cracks)						
Tightening torque of fastening screws						
Firm fitting of all supporting screws						
Condition of power unit						
Surface condition of piston rods						
Condition of covers						
Tightness of hydraulic system						
Level of hydraulic oil						
Condition of hydraulic lines						
Condition of electrical cables						
Condition of paint finish						
Condition of synchronisation cables						
Condition of pulleys						
Condition of support arms						
Condition of carrying plates						
Function test with vehicle						
Condition of concrete floor						
(Tick off applicable, additional tick if review is necessary!) Safety inspection conducted on:						
Name, signature of competent person:						
Result of inspection: Further operation dubious, review necessary Further operation possible, remedy deficiencies No deficiencies, no objection to further operation						

Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Fill in and retain in inspection logbook.

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment	
Type plate					
Brief instructions operation					
Warning					
Visual inspection of welds					
Function button "Raise"					
Function lever "Lower"					
Function button "Unlock catch"					
Function limit deactivation					
Function support arm lock					
General condition of lift					
Condition and securing of pins					
Function "Up Off"					
Support structure (warping, cracks)					
Tightening torque of fastening screws					
Firm fitting of all supporting screws					
Condition of power unit					
Surface condition of piston rods					
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Level of hydraulic oil					
Condition of hydraulic lines					
Condition of electrical cables					
Condition of paint finish					
Condition of synchronisation cables					
Condition of pulleys					
Condition of support arms					
Condition of carrying plates					
Function test with vehicle					
Condition of concrete floor					
(Tick off applicable, additional tick if re-	view is n	ecessary!)		1	
Safety inspection conducted on:					
Conducted by company:					
Name, signature of competent person:					
Besult of inspection:					
Further operation dubious, review necessarv					

Further operation dubious, review necessary Further operation possible, remedy deficiencies No deficiencies, no objection to further operation

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No	deficiencies,	no	obje	c

Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Serial number:

Check item	Okav	Deficiency	Review	Comment
		Missing		
lype plate				
Brief instructions operation				
Warning				
Visual inspection of welds				
Function button "Raise"				
Function lever "Lower"				
Function button "Unlock catch"				
Function limit deactivation				
Function support arm lock				
General condition of lift				
Condition and securing of pins				
Function "Up Off"				
Support structure (warping, cracks)				
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Condition of hydraulic lines				
Condition of electrical cables				
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Condition of synchronisation cables				
Condition of pulleys				
Condition of support arms				
Condition of carrying plates				
Function test with vehicle				
Condition of concrete floor				
(Tick off applicable, additional tick if rev	view is n	ecessary!)		
Safety inspection conducted on:				
Conducted by company:				
Name, signature of competent person:				
Result of inspection:				
	Furth	er operation	dubious,	review necessary
	Furth	er operation	possible	, remedy deficiencies
	NO d	eticiencies, r	io objecti	on to turtner operation

Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Fill in and retain in inspection logbook.

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment
Type plate				
Brief instructions operation				
Warning				
Visual inspection of welds				
Function button "Raise"				
Function lever "Lower"				
Function button "Unlock catch"				
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Condition of pulleys				
Condition of support arms				
Condition of carrying plates				
Function test with vehicle				
Condition of concrete floor				
(Tick off applicable, additional tick if re-	view is n	ecessary!)	1	·
Safety inspection conducted on:				
Conducted by company:				
Name, signature of competent person:				
Result of inspection:				
Further operation dubious, review necessary				

Further operation possible, remedy deficiencies

No deficiencies.	no ob	iection	to fur	ther o	peration
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Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Serial number:

Check item	Okay	Deficiency	Poviow	Comment
	Окау	Missing	Review	
Type plate				
Brief instructions operation				
Warning				
Visual inspection of welds				
Function button "Raise"				
Function lever "Lower"				
Function button "Unlock catch"				
Function limit deactivation				
Function support arm lock				
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Level of hydraulic oil				
Condition of hydraulic lines				
Condition of electrical cables				
Condition of paint finish				
Condition of synchronisation cables				
Condition of pulleys				
Condition of support arms				
Condition of carrying plates				
Function test with vehicle				
Condition of concrete floor				
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Safety Inspection conducted on:				
Conducted by company:				
Name, signature of competent person:				
Result of inspection:				
	Furth	ner operation	dubious	, review necessary
	Furth	ner operation	possible	, remedy deficiencies
	No d	eticiencies, r	no object	ion to turther operation

Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Fill in and retain in inspection logbook.

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment	
Type plate					
Brief instructions operation					
Warning					
Visual inspection of welds					
Function button "Raise"					
Function lever "Lower"					
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Condition of synchronisation cables					
Condition of pulleys					
Condition of support arms					
Condition of carrying plates					
Function test with vehicle					
Condition of concrete floor					
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Safety inspection conducted on:					
Conducted by company:					
Name, signature of competent person:	Name, signature of competent person:				
Result of inspection:					
	Further operation dubious, review necessary				

Further operation possible, remedy deficiencies No deficiencies, no objection to further operation

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No deficiencies	, no objectio	on to further

Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment
Type plate				
Brief instructions operation				
Warning				
Visual inspection of welds				
Function button "Raise"				
Function lever "Lower"				
Function button "Unlock catch"				
Function limit deactivation				
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Condition of hydraulic lines				
Condition of electrical cables				
Condition of paint finish				
Condition of synchronisation cables				
Condition of pulleys				
Condition of support arms				
Condition of carrying plates				
Function test with vehicle				
Condition of concrete floor				
(Tick off applicable, additional tick if review is necessary!)				
Safety inspection conducted on:				
Conducted by company:				
Name, signature of competent person:				
Result of inspection:	اللهن ۲۰		dubierre	
	Furth Furth No d	ler operation ler operation eficiencies, r	possible no object	, review necessary , remedy deficiencies ion to further operation

Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Fill in and retain in inspection logbook.

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment
Type plate				
Brief instructions operation				
Warning				
Visual inspection of welds				
Function button "Raise"				
Function lever "Lower"				
Function button "Unlock catch"				
Function limit deactivation				
Function support arm lock				
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Condition of carrying plates				
Function test with vehicle				
Condition of concrete floor				
(Tick off applicable, additional tick if review is necessary!)				
Safety inspection conducted on:				
Conducted by company:				
Name, signature of competent person:				
Result of inspection:				
Further operation dubious, review necessary				

Further operation possible, remedy deficienciesNo deficiencies, no objection to further operation

Signature of competent person If remedying of deficiencies is necessary:	Signature of operator

Deficiency remedied on
(Use a new form for the review!)

Signature of operator

Serial number:

Check item	Okay	Deficiency	Review	Comment
	Onay	Missing	11001000	
Type plate				
Brief instructions operation				
Warning				
Visual inspection of welds				
Function button "Raise"				
Function lever "Lower"				
Function button "Unlock catch"				
Function limit deactivation				
Function support arm lock				
General condition of lift				
Condition and securing of pins				
Function "Up Off"				
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Condition of carrying plates				
Function test with vehicle				
Condition of concrete floor				
(lick of applicable, additional tick if rev	view is n	ecessary!)		
Safety inspection conducted on:				
Conducted by company:				
Name, signature of competent person:				
Result of inspection:				
	Furth	er operation	dubious	, review necessary
	Furth	er operation	possible	, remedy deficiencies
	No d	eficiencies, r	no objecti	ion to further operation

Signature of competent person If remedying of deficiencies is necessary:	Signature of operator
Deficiency remedied on (Use a new form for the review!)	Signature of operator

Fill in and retain in inspection logbook.

Serial number:

Check item	Okay	Deficiency Missing	Review	Comment
Type plate				
Brief instructions operation				
Warning				
Visual inspection of welds				
Function button "Raise"				
Function lever "Lower"				
Function button "Unlock catch"				
Function limit deactivation				
Function support arm lock				
General condition of lift				
Condition and securing of pins				
Function "Up Off"				
Support structure (warping, cracks)				
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Condition of hydraulic lines				
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Condition of paint finish				
Condition of synchronisation cables				
Condition of pulleys				
Condition of support arms				
Condition of carrying plates				
Function test with vehicle				
Condition of concrete floor				

(Tick off applicable, additional tick if review is necessary!)

Safety inspection conducted on:		
Conducted by company:		
Name, signature of competent person:		
Result of inspection:		Further operation dubious, review necessary Further operation possible, remedy deficiencies No deficiencies, no objection to further operation
Signature of competent person If remedying of deficiencies is necessar	ry:	Signature of operator
Deficiency remedied on (Use a new form for the review!)		Signature of operator

48

EC-Type Examination Certificate

Holder of Certificate:	Johannes J. Matthies GmbH & Co. KG Hammerbrookstr. 97 20097 Hamburg GERMANY			
Product:	Platforms for lift Two-column Lift	ing vehicles		
Model(s):	JMP FOX 4000 H	I, JMP FOX 3500 Hk		
Parameters:	Rated voltage: Rated frequency: Rated power:	400VAC/3P/N/PE 50Hz 3kW, 2.2kW		

This EC Type Examination Certificate is issued according to Article 12(3) b or 12(4) a of Council Directive 2006/42/EC relating to machinery. It confirms that the listed Annex-IV equipment complies with the principal protection requirements of the directive. It refers only to the sample submitted to TÜV SÜD Product Service GmbH for testing and certification. See also notes overleaf.

4000kg, 3500kg

Test report no.:

705201323702-01

Max, load: