# Jema Autolifte A/S

# FOUR POST LIFT JA5000F-E

# INSTALLTION, OPERATION AND MAINTENANCE MANUAL



## **INDEX**

1. Important safety instructions4~6	
1.1 Important notices	
1.2 Qualified personnel	
1.3 Danger notices	
1.4 Warning signs	
1.5 Sound level	
1.6 Training	
2. Overview of the lift6	
2.1 General descriptions	
2.2 Construction of the lift	
2.3 Optional parts	
3. Installation instructions7~12	
3.1 Preparations before installation	
3.1.1 Tools and equipments needed	
3.1.2 A list for parts checking	
3.1.3 Ground conditions	
3.2 Precautions for installation	
3.3 Installation	
3.4 Items to be checked after installation	_
4. Operation instructions12~1	3
4.1 Precautions	
4.2 Flow chart for operation	
4.3 Operating instructions	
5. Trouble shooting14	_
6. Maintenance	
7. Annex	)
Annex1, Overall diagram	
Annex2, Floor plan	
Annex3, Wiring diagram	
Annex4, Hydraulic working system	
Annex5, Spare parts list	
Annex6, Size and weight requirements on vehicles	
8. EC DECLARATION OF CONFORMITY26	

# **User's Records**

Fill the following blanks with Model No			plate.	
Serial No.				
Production Date				
The following specially maintain this lift.	trained people are	permitted	to operate a	and
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.		_		
Insta	allation Re	cord	S	
Model No.				
Serial No				
Customer's Name:		<u></u>		
Installation Date:				
Declaration				
The above mentioned lift hat the reliability of safety locks that this lift is in normal world	s have passed strict tes	ts. Therefore	we hereby dec	_
Installation date	Installer's signature	9		
	User's signature			

#### 1. IMPORTANT SAFETY INSTRUCTIONS

#### 1.1 Important notices

Jema Autolifte A/S will offer one-year's quality warranty for the whole lift, during which any quality problem will be properly solved to the user's satisfaction. However, we will not take any responsibility for whatever bad consequence resulted from improper installation and operation, overload running or unqualified ground condition.

Users must always bear in mind that this lift is specially designed for lifting cars or other vehicles, so never use it for any other purposes. Otherwise, we, as well as our sales agency, will not bear any responsibility for accidents or damages of the lift.

Make sure to pay careful attention to the label of the lifting capacity attached on the lift and never try to lift cars with its weight beyond. Read this manual carefully before operating the machine so as to avoid economic loss or personnel casualty incurred by wrong operation. Without our professional advice, users are not permitted to make any modification to the control unit or whatever mechanical unit.

#### 1.2 Qualified personnel

- 1.2.1 Only properly trained personnel can operate the lift.
- 1.2.2 Electrical connection must be done by a competent electrician.
- 1.2.3 People who are not concerned are not allowed in the lifting area.

#### 1.3 Danger notices

- 1.3.1 Do not install the lift on any asphalt surface.
- 1.3.2 Read and understand all safety warnings before operating the lift.
- 1.3.3 Do not leave the controls while the lift is still in motion.
- 1.3.4 Keep hands and feet away from any moving parts. Keep feet clear of the lift when lowering.
- 1.3.5 Only properly trained personnel can operate the lift.
- 1.3.6 Do not wear unfit clothes such as large clothes with flounces, tires, etc. which could be caught by moving parts of the lift.
- 1.3.7 To prevent evitable incidents, surrounding areas of the lift must be tidy and with nothing unconcerned.
- 1.3.8 The lift is simply designed to raise the entire body of vehicles, with its maximum weight within the lifting capacity.
- 1.3.9 Always insure the safety latches are engaged before any attempt to work near or under the vehicle. Never remove safety related components from the lift. Do not use if safety related components are damaged or missing.
- 1.3.10 Do not rock the vehicle while on the lift or remove any heavy component from vehicle that may cause excessive weight shift.
- 1.3.11 Check at any time the parts of the lift to ensure the agility of moving parts and the performance of synchronization. Ensure regular maintenance and if anything abnormal occurs, stop using the lift immediately and contact our dealers for help.
- 1.3.12 Lower the lift to its lowest position and do remember to cut off the power source when service finishes.
- 1.3.13 Do not modify any parts of the lift without manufacturer's advice.
- 1.3.14 If the lift is going to be left unused for a long time, users are required to:
- a. Disconnect the power source;
- b. Empty the oil tank;
- c. Lubricate the moving parts with hydraulic oil.

#### Attention: For environment protection, please dispose the disused oil in a proper way.

1.4 Warnings (Read and understand all safety warnings before operation)

All safety warning signs attached on the lift are for the purpose of drawing the user's attention to safety operation. The labels must be kept clean and need to be replaced when they are worn-out or have dropped. Read the explanations of the labels carefully and try to memorize them.



#### 1.5 Sound Level

The sound emitted from the lift should not exceed 75DB. For the sake of your health, we suggest putting a noise detector in your working area.

#### 1.6 Training

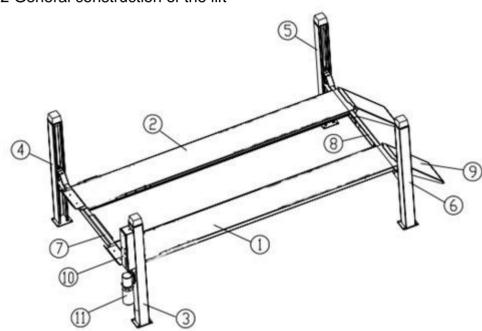
Only properly trained people are allowed to operate the lift. We are quite willing to provide professional training for the users when necessary.

#### 2. Overview of the lift

#### 2.1 General descriptions

This 4 post lift is generally composed by four posts, two beams, two platforms, a hydraulic oil cylinder and a set of power unit. It is driven by an electro-hydraulic system. Up and down of platforms is controlled by the to and fro movement of the oil cylinder. To ensure ultra safety of operators, it is equipped with mechanical safety locks in the four posts, which will automatically engaged in the process of lifting so as to prevent the platforms from sudden dropping down in case the hydraulic system fails to work.

#### 2.2 General construction of the lift



- 1. Platform A
- 2. Platform B
- 3. Main post 1
- 4. Post2
- 5. Post3
- 6. Post4
- 7. Main beam
- 8. Assistant beam
- 9. Ramps
- 10. Control box
- 11. Hydraulic pump

Weight for JA5000F-E = 1145 KG

#### 2.3 Optional parts

1. Jacking beam



#### 3. Installation instructions

#### 3.1 Preparations before installation

#### 3.1.1 Tools and equipments needed

- ✓ Appropriate lifting equipment
- ✓ Anti-abrasion hydraulic oil.
- ✓ Rotary Hammer Drill with 3/4" drill bit.
- Chalk and tape measure, magnetic plump, 8 meters ø15 level pipe.
- ✓ Sockets and open wrenches, a set of inside hex wrenches, cross and straight screw drivers.
- ✓ Hammer, 4pounds, sharp nose pliers, ø17,ø19,ø22 socket spanners₀

#### 3.1.2 List for parts checking --- Annex 1 ( Packing list )

Unfold the package and check if any parts missed as per Annex 1. Do not hesitate to contact us in case any parts missed, but if you do not contact us and insist installing upon the lack of some parts, Jema Autolifte A/S as well as our dealers will not bear any responsibility for this and will charge for any parts subsequently demanded by the buyer.

#### 3.1.3 Ground conditions

The lift should be fixed on a smooth and solid concrete ground with its strength more than 3000psi, tolerance of flatness less than 5mm and minimum thickness of 200mm. In addition, newly built concrete ground must undergo more than 28days' cure and reinforcement.

#### 3.2 Precautions for installation

- 3.2.1 Make sure the four posts stand paralleled and are vertical to the ground. No slanting.
- 3.2.2 Joints of oil hose and steel cable must be firmly connected in order to avoid the looseness of steel cable and leakage of oil.
- 3.2.3 All bolts should be firmly screwed up.
- 3.2.4 Do not place any vehicle on the lift in the case of trial running.

#### 3.3 Installation instructions

#### Step1: Choose a proper site

Location requirement

If not specifically stated, our lifts are only for indoor use. It should be fixed on a smooth and solid concrete ground. Do not install this lift on expansion beams of concrete or on a second or an elevated floor without first consulting building architect. Make sure that the space around or over the lift should be free of obstructions like heaters, building supports, electrical lines etc.

#### Step 2: Fix the installation layout

Once the installation site is determined, mark first the standing point of the four posts by a tape measure and chalk. Ensure two diagonal lines are of the same length.

#### Step 3: Remove the packing materials

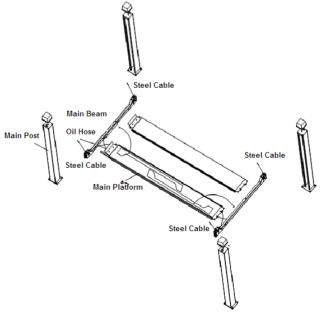
- 1. Place some wooden battens on the ground and then use a crane to have the packing rack removed on to the battens so as to make its base is of some clearance from the ground.
- 2. Have the platforms of the lift suspended by a crane and then screw off the upside bolt and remove the first platform on to the wooden battens initially prepared.
- 3. Screw off the downside bolt and take away the packing rack on both sides.
- 4. Remove the shock absorption plastic film with a knife.

#### Step 4: Use a crane to have the general parts positioned in accordance with following layout.

For convenient installation, it would be better to pad something supporting under the platform.

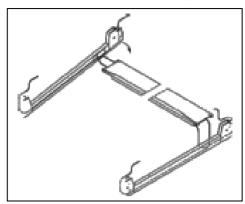
Oil cylinder, steel cable and oil hose have already been fixed in the main platform before packing.

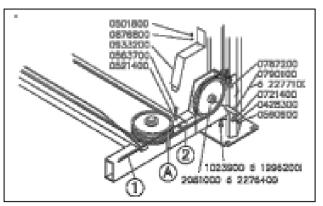
Wires rope, oil hose, safety lock etc, have already been fixed in the beams before packing.



#### Step 5: Before installing your new lift,

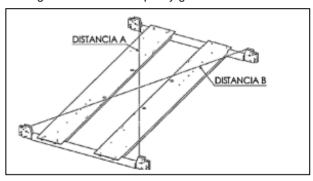
check the following. Next position the carriages on the ends of the platform so the opening on their inside sections face each other. Pass the cables through the openings to the other side ensuring there are no crossovers, as otherwise they may be damaged. Move the carriages in towards the platform after inserting the pulleys into their respective carriage openings.





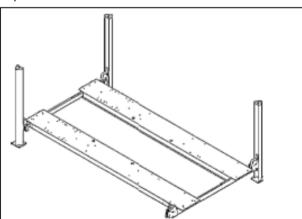
#### Step 6: Platform installation

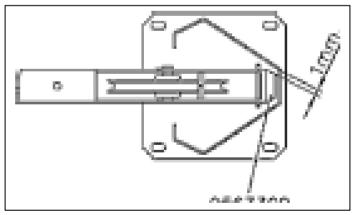
Fix the drive platform to the carriages using the bolts, but do not tighten yet. Now check to ensure the structure is parallel by measuring the diagonals, using the same points each time. When the diagonal measurements are equal (DIST.A = DIST.B), fix the drive platform to the carriages. Mount the four pulley guide cables on the ends of the carriages using the corresponding axles, washers and nuts.



#### Step 7: Post installation

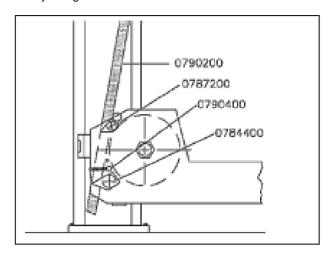
Both platforms must be parallel to each other. Now position the columns on the ends of the carriages, except for the drive column, where the hydraulic unit should now be mounted, since the column is on the floor. Position the columns so that they are centered over the carriages with a separation of 1mm.



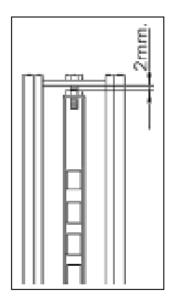


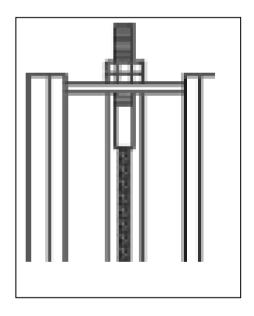
#### Step 8: SAFETY RACK AND CABLE ASSEMBLY

Safety rack Ref. 003250 is inserted through the end of the crossbeam between the sheet metal and blocking wedges Ref. 0784400 and the safety wedges Ref. 0787200.



To fix the safety rack to the post, unscrew the bolt and safety nut at the top end, insert the bolt through the elongated opening on the top of the post, screw the safety nut back on, and then screw the bolt into the safety rack (the nut should be between the top of the post and the rack, as in). A separation of 2mm should be left between the nut and the top plate of the post. Finally, tighten the nut over the safety rack to fix in place. Repeat for each post.





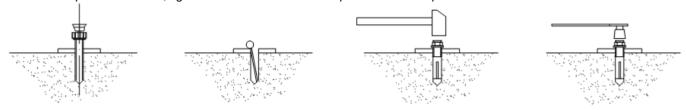
The cables will lie between the guide wheels and cable breakage safety wedges. To fix them to the posts, unscrew both nuts, pass the threaded ends through the holes on the top plate, replace the load bearing nut and tighten until the cables are tense. Hold in place using the locknuts. Mounted cross beams by fixing in place with screws Ref. 0501800.

#### Step 9: FIXING POSTS

The posts should be completely vertical before the anchor bolts are fully tightened. To facilitate leveling, plates Ref. 0565200 are included with the lift to adjust post bases. It is important to leave an approximate 1mm gap between the crossbeam guide stops Ref. 0563300 and the posts

Using the columns as guides, drill 14mmØ holes in the floor to a depth of 100mm, clean out the holes and insert the anchor bolts by hand without removing the nut to avoid damaging the thread, and leave untighten.

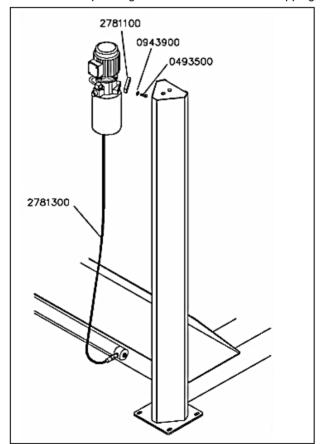
To anchor the posts to the floor, tighten the anchor bolts to a torque of Mo = 5m•Kp.



#### **Step 10: HYDRAULIC UNIT CONNECTION**

Fix the hydraulic unit on the drive post using the corresponding screws, nuts and washers. Connect the ref. 2781300 flexible connector for the oil to the hydraulic unit and the hydraulic cylinder inlet nipple. Last, assemble ramps And stops on both platforms using the shafts and screws supplied.

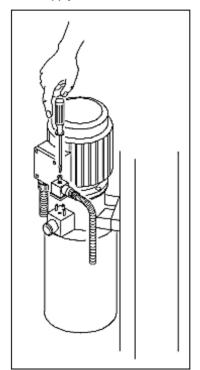
Check before operating the lift. If the tanks needs topping up, use oil type 30

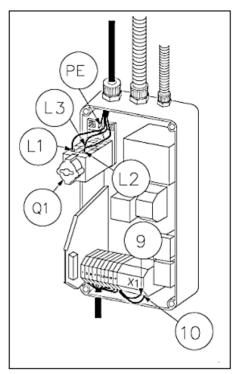


#### Step 11: ELECTRICAL CONNECTIONS:

CONTROL BOX, MOTOR AND POWER SUPPLY INSTRUCTIONS FOR ELECTRICAL CONNECTION

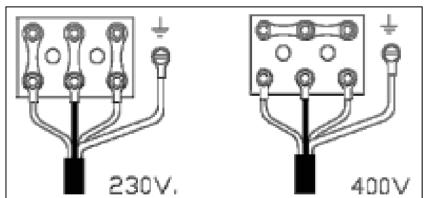
- 1. Mount the control box on the corresponding post.
- 2. The electrical hose from the control box is connected to the motor terminal as indicated, depending on the voltage required.
- 3. Connect the adaptor to the electro valve on the hydraulic unit.
- 4. The mains supply cable is connected to switch Q1 on points L1, L2, L3 and PE.







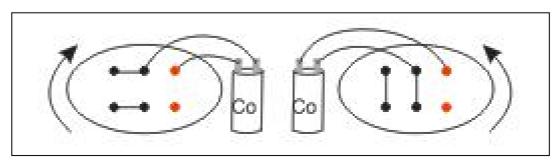
Check if the transformer and motor connection are correct to the local power supply.



Any intervention in the electrical circuit, even if it is not important, has to be made by the Official Technical Service of Jema Autolifte.

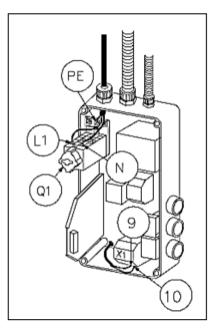
For connection to the mains supply, use a hose size 4x1.5mm (3 phase + PE).

- 1. Mount the control box on the drive post.
- 2. The cable from the control box to the motor is connected as indicated in.



3. Connect the adaptor to the electrovalve on the hydraulic unit.

4. The mains supply cable is connected to and PE. For connection to the mains supply, use a hose size 3x1.5mm (2 phase + PE).



Insert the electrical hoses running from the control box (A1) and the connection boxes the connection box (A5) (Mod. JA5000F-E) to the carriages (Mod. JA5000F-E), ensuring that the cables coincide with the numbered terminals. Perform the same operation for connection box (A6). See Electrical diagram.

IMPORTANT: The use of protective fuses is recommended on the mains supply line, as indicated in the electrical diagrams.

#### 3.4. Items to be checked after installation.

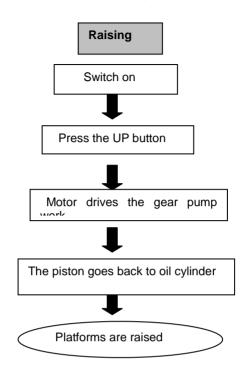
S/N	Check items	YES	NO
1	Are the posts vertical to the floor?		
2	Is the oil hose well connected?		
3	Is the steel cable well connected?		
4	Are two platforms well connected?		
5	Are electrical connections right?		
6	Are the rest joints firmly screwed?		
7	Are all items need lubricating added with grease?		

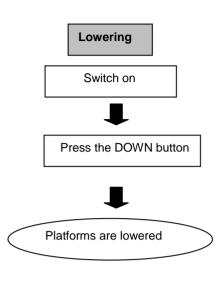
#### 4. Operation instructions

#### 4.1 Precautions

- 4.1.1 Check all the joints of oil hose. Only when there is no leakage, the lift can start work.
- 4.1.2 The lift, if its safety device malfunctions, shall not be used.
- 4.1.3 The lift shall not rise or lower an automobile if its center of gravity is not positioned midway of the platforms. Otherwise, Jema Autolifte as well as our dealers will not bear any responsibility for any consequence resulted thereby.
- 4.1.4 Operators and other personnel concerned should stand in a safety area during lifting and lowering process.
- 4.1.5 When the platforms rise to the desired height, switch off the power at once to prevent any mal-operation done by unconcerned people.
- 4.1.6. Make sure the safety lock of the lift is engaged before start working under the vehicle and no people under the vehicle during lifting and lowering process.

#### 4.2 Flow chart for operation





#### 4.3 Operation instructions

#### Raise the lift

- 1. Make sure that you have read and understood the operation manual before operation.
- 2. Park the vehicle on the platforms to ensure its gravity is positioned midway of the platforms.
- 3. Switch on. When the power indicator is on, press the UP button until platforms rise to the desired height.
- 4. Before perform any service around or under the vehicle, operators must press the safety lock button to ensure the mechanical safety lock is fully engaged, turn off the power so as to avoid any wrong operation done by irrelevant personnel and check again the stability of the vehicle.

#### Lower the lift

- 1. Switch on. When the power indicating light is on, press the DOWN I and DOWN II button and then platforms of the list will go down gradually.
- 2. Drive away the vehicle when platforms have lowered to the lowest position.
- 3. Turn off the power.

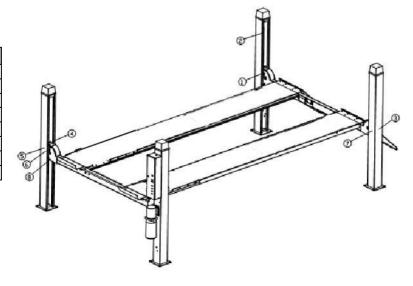
**5. Trouble Shooting**ATTENTION: If the trouble could not be fixed by yourself, please do not hesitate to contact us for help .We will offer our service at the earliest time we can. By the way, your troubles will be judged and solved much faster if you could provide us more details or pictures of the trouble.

TROUBLES	CAUSE	SOLUTION	
Abnormal noise	Abrasion exists on insider surface of the posts.	Grease the inside of the post.	
	Trash in the post.	Clear the trash	
	The wire connection is loose.	Check and make a good connection.	
Motor does not run and	The motor is blown.	Replace it.	
will not rise	The limit switch is damaged or the wire connection is loose.	Connect it or adjust or replace the limit switch.	
	The motor run reversely.	Check the wire connection.	
	Overflow valve is loose or jammed.	Clean or adjust it.	
Motor runs but will not	The gear pump is damaged.	Replace it.	
rise	Oil level is too low.	Add oil.	
	The oil hose became loose or dropped off.	Tighten it.	
	The cushion valve became loose or jammed.	Clean or adjusts it.	
	The oil hose leaks.	Check or replace it.	
	The oil cylinder is not tightened.	Replace the seal.	
Platforms go down slowly	The single valve leaks.	Clean or replace it.	
after being raised	The overflow valve leaks.	Clean or replace it.	
	Manual unloading valve or electrical unloading valve leaks.	Clean or replace it.	
	The oil filter is jammed.	Clean or replace it.	
	Oil level is too low.	Add oil.	
Rising too slow	The overflow valve is not adjusted to the right position.	Adjust it.	
	The hydraulic oil is too hot ( above 45°).	Change the oil.	
	The seal of the cylinder is abraded.	Replace the seal.	
	Inside surface of the posts is not well greased.	Add grease.	
	The throttle valve jammed.	Clean or replace.	
Lauraniaa taa alaur	The hydraulic oil is dirty.	Change the oil.	
Lowering too slow	The anti-surge valve jammed.	Clean it.	
	The oil hose jammed.	Replace it.	
The steel cable is abraded	No grease when installation or out of lifetime	Replace it.	

#### 6. Maintenance

Easy and low cost routine maintenance can ensure the lift work normally and safely. Following are requirements for routine maintenance. You may decide the frequency of routine maintenance by consulting your lift's working conditions and time.

S/N	Name
1	Slider
2	Steel cable
3	Side slider
4	Sliding wheel
5	Safety block A1(A2)
6	Safety block B1(B2)
7	Spring
8	Shaft



#### THE FOLLOWING PARTS NEED TO BE LUBRICATED

#### 6.1 Daily checking items before operation

The user must perform daily check. Daily check of safety latch system is very important – the discovery of device failure before action could save your time and prevent you from great loss, injury or casualty.

- Before operation, judge whether the safety latches are engaged by sound.
- ·Check whether oil hose well connected and whether it leaks or not.
- ·Check the connections of chain and steel cable and check the power unit.
- ·Check whether plug bolts firmly screwed.
- ·Check if safety teeth and safety block matched well or not.

#### 6.2 Weekly checking items

- ·Check the flexibility of moving parts.
- ·Check the working conditions of safety parts.
- ·Check the amount of oil left in the oil tank. Oil is enough if the carriage can be raised to highest position. Otherwise, oil is insufficient.
- ·Check whether plug bolts firmly screwed.

#### 6.3 Monthly checking items

- ·Check whether plug bolts firmly screwed.
- ·Check the tightness of the hydraulic system and screw firm the joints if it leaks.
- ·Check the lubrication and abrasion circumstance of axial pins, carriages, lifting arms and other related parts and replace in time with new ones if they failed to work well.
- ·Check the lubrication and abrasion circumstance of steel cable.

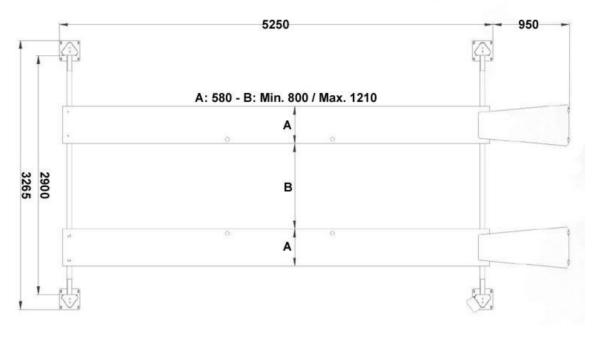
#### 6.4 Yearly checking items

- ·Empty the oil tank and check the quality of hydraulic oil.
- ·Wash and clean the oil filter.

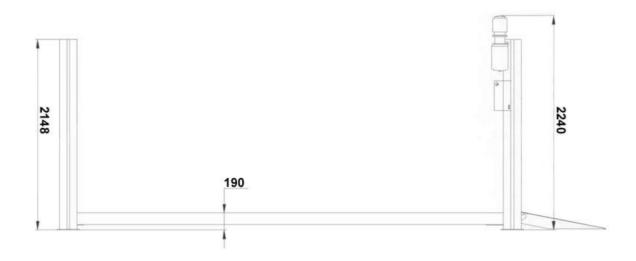
If users strictly follow the above maintenance requirements, the lift will keep in a good working condition and meanwhile accidents could be avoided to a large extent.

### Annex1: Overall diagram

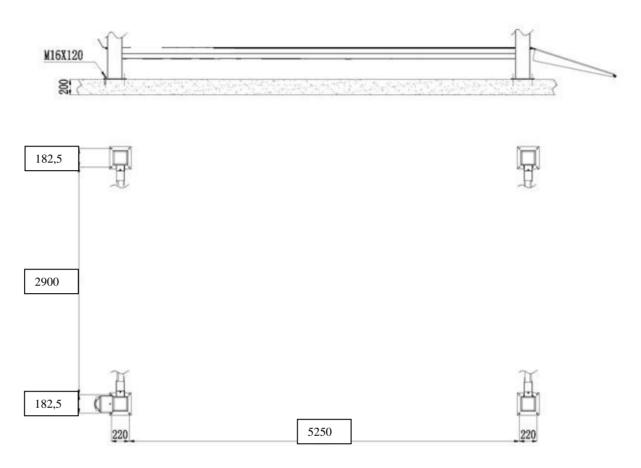




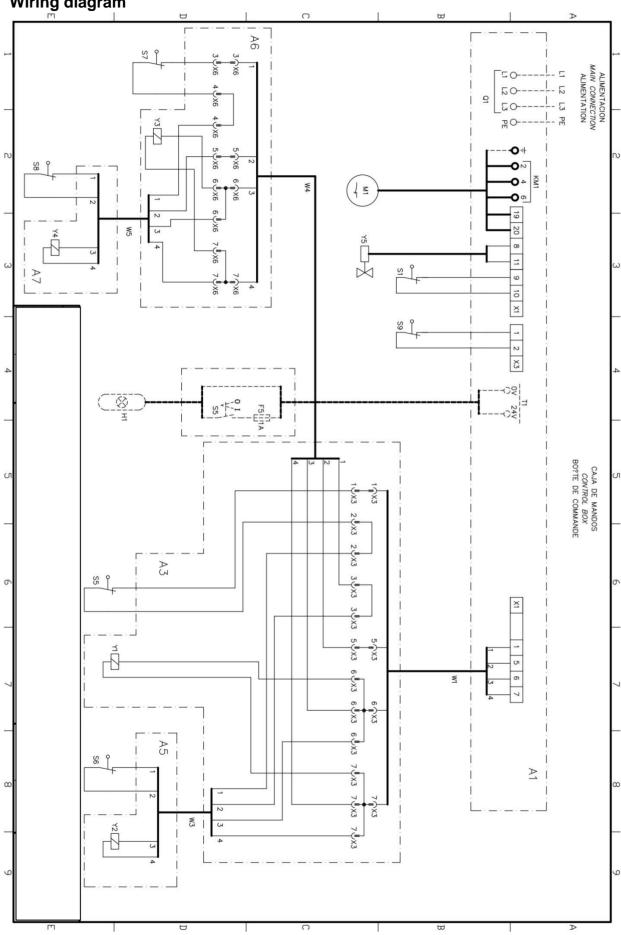


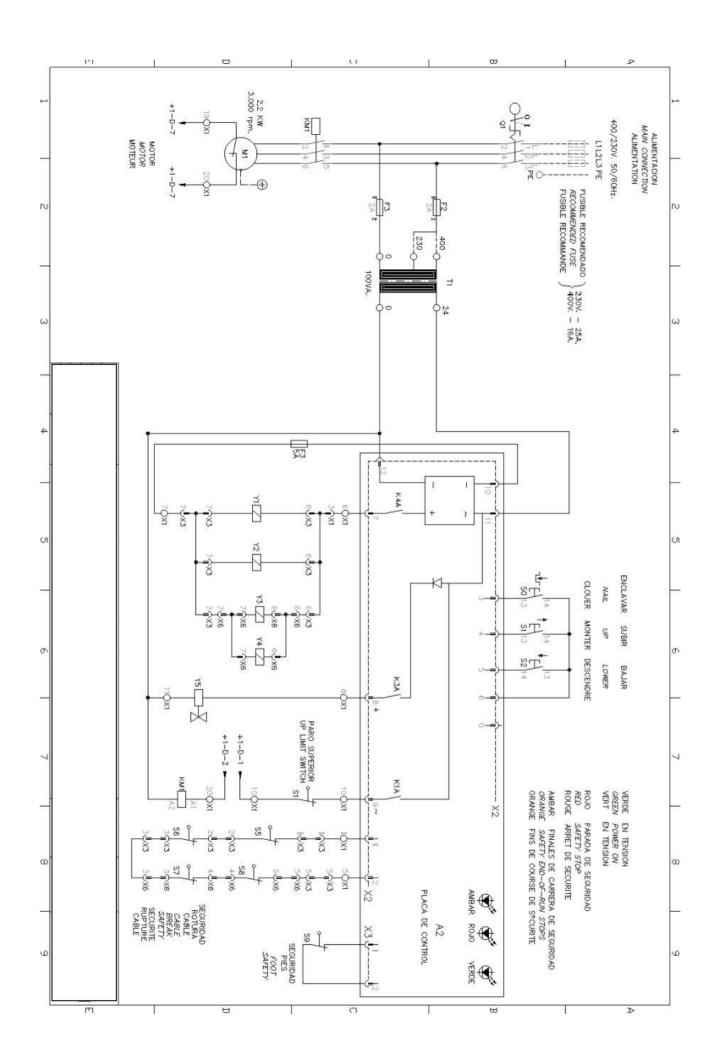


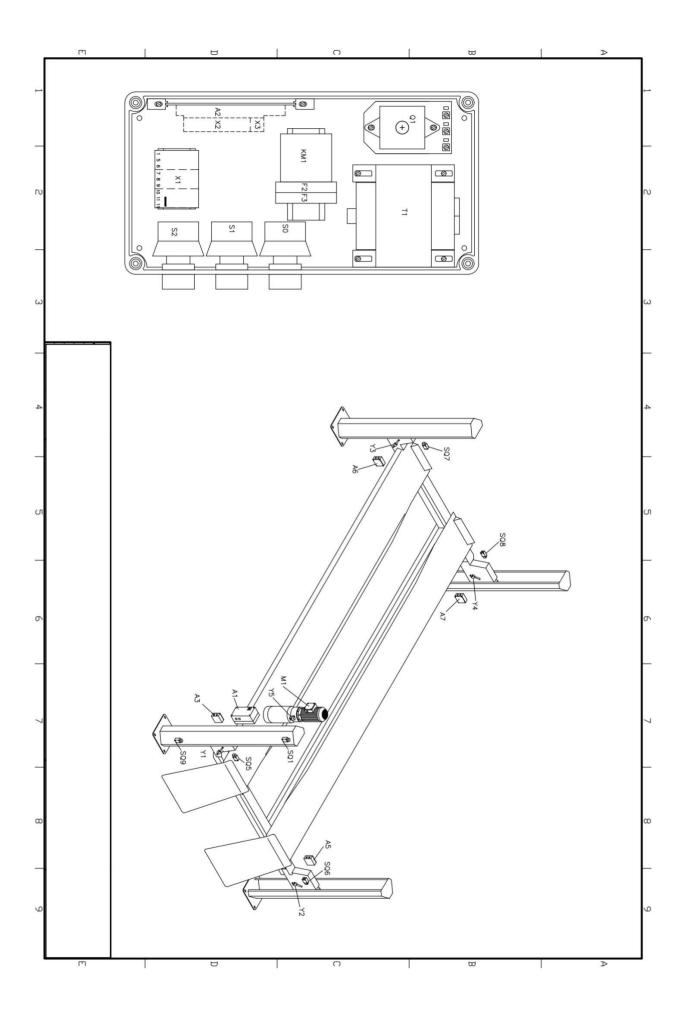
## Annex2: Floor plan



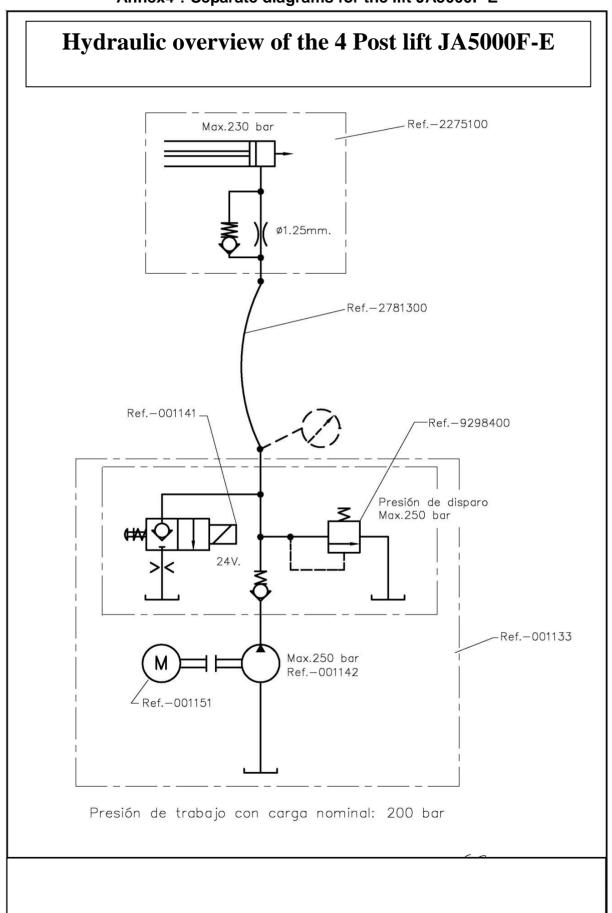
# Annex 3: Wiring diagram



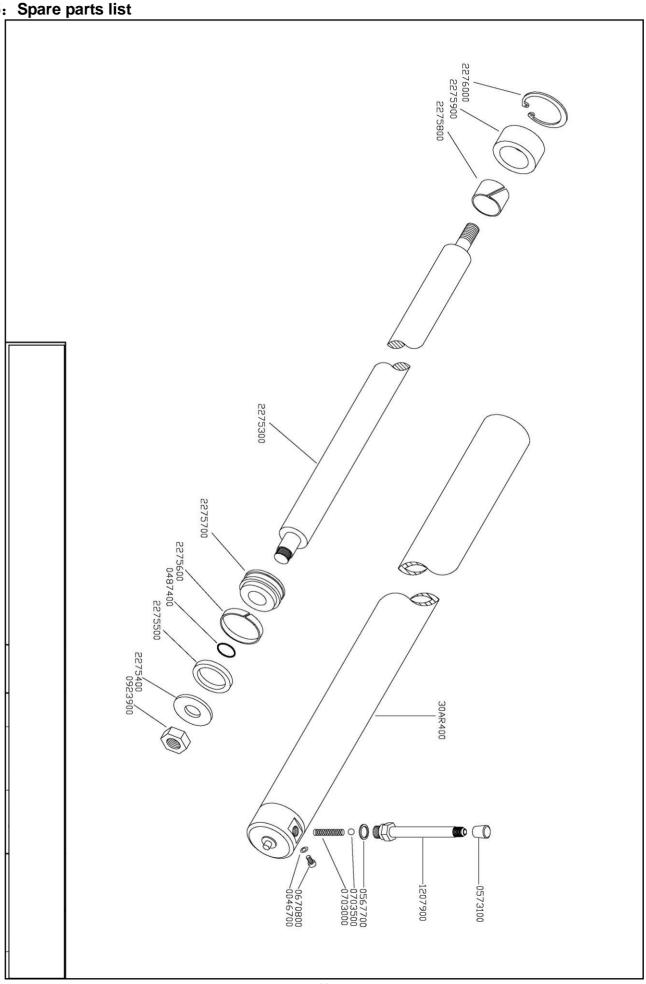


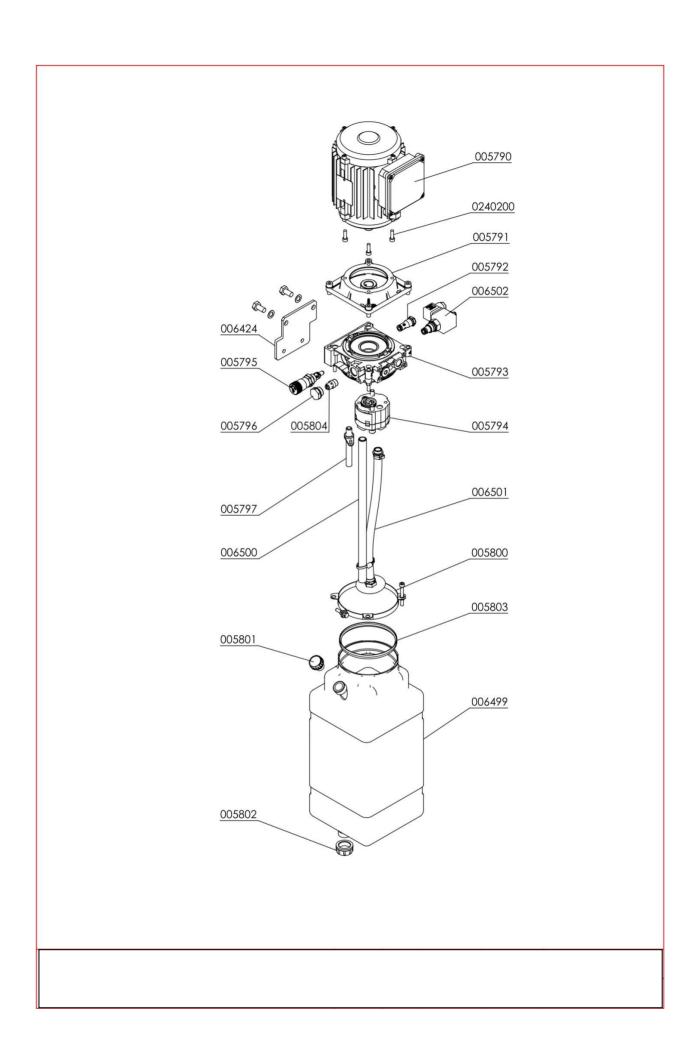


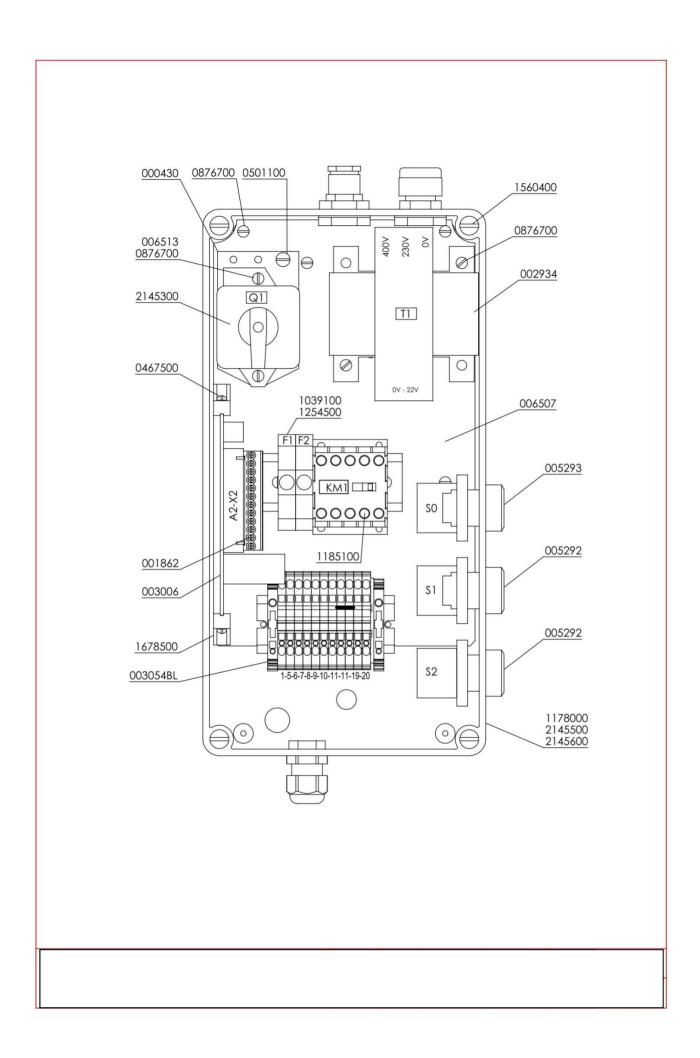
Annex4: Separate diagrams for the lift JA5000F-E



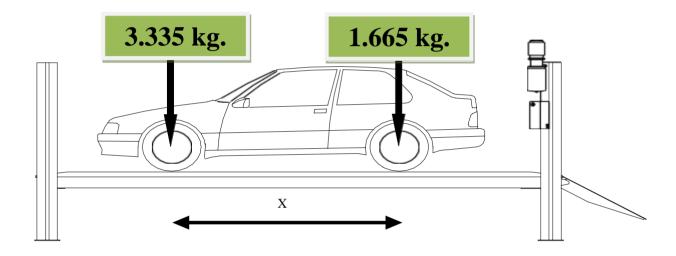
Annex5: Spare parts list







## Annex6: Size and weight requirements on vehicles





## **Declaration of Conformity CE**

Especialistas en Posventa · Equipamiento de taller

#### XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

#### Xxxxxxxxxxxxxxxxxxxxxxx

#### XXXXXXXXXXXXXXXXXXXXXXXXXXXXX

#### xxxxxxxxxxxxxxxxxxxxxxxxx

#### por la presente declara bajo su única responsabilidad que el producto

hereby declares under its sole responsibility that the product verklaarthierbijalsproducent in eigenverantwoordelijkheiddat het volgende product nousdéclaronscommeconstructeur et unique responsable que le produit pela presente declaração, abaixo declara sua responsablidade de que o produto

Descripción Description; Omschrijving;Descrição
Modelo –Model; Modelle № Serie – Serial; Serie nr; numéro de serie Año de Fabricación –Year; Jaartal;année

#### cumple con todos los requisitos de las siguientes Directivas Europeas

fulfils all the relevant provisions of the following European Directives
Voldoetaan de richtlijnen van de volgendeEuropese normen
Répondaudirectives des normes Européennesuivantes
cumpre com todos os requsitos das sequintes Diretrizes Europeass

2006/42/CE	Directiva de Máquinas Machine Directive; Machine richtlijn; Directive machine; Diretriz de Máquinas
2006/95/CE	Directiva de baja tensión Low Voltage Equipment; Richtlijnvoorlaagspannings machines; Directive pour machines basse tension; Diretirz de baixa tensão

#### y las Normas Armonizadas y especificaciones técnicas empleadas (si son aplicables)

and Harmonized Standards and technical specifications used in (where applicable)
enge harmonise er destandaar den en technisch especificaties gebruikt in (waartoepasbaar)
et standards harmonisés et specifications techniques utilisésdans (ou applicable)
e Normas Harmonizadas e especificações técnicas empregadas (se aplicáveis)

EN 1493:2011	Elevadores de vehículos VehicleLifts; Hefbruggen; Pontsélévateurs; Elevadores de veículos
EN 12100: 2012	Seguridad de las máquinas. Principios generales para el diseño. Evaluación del riesgo y reducción del riesgo.  Sofety of machinery - General principles for design - Risk assessment and risk reduction.  Sicherheit von Maschinen. Allgemeine Gestaltungsleitsätze. Risikobeurteilung und Risikominderung.  Sécurité des machines. Principes généraux de conception. L'évaluation des risques et la réduction des risques.
EN 60204 -1:2007	Seguridad de las máquinas. Equipo eléctrico de las máquinas. Requisitos generales. Safety of machinery. Electrical equipment of machines. General requirements Machineveiligheid. Elektrischeuitrusting van machines. Algemenevereisten. La sécurité des machines. Equipementélectrique des machines. Exigencesgenerals.

Suivant les directivesEuopéenne 2006/42/CE, xxxxxxxxxxxxxxxxxxxxxxx déclare que cette machine a passéavecsuccès le test CE, norme EN 1493:2011. Le fichier technique estdisponible chez les autoritésEuropéenne.

autoritésEuropéenne .

Firma/Signature:



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