



SEA[®] USA
ELECTRONIC
OPENING
SYSTEMS
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LIBRA



NEW MINI TANK



HALF TANK



FULL TANK



INSTALLATION MANUALS AND SAFETY INFORMATION

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Details

General

An appliance shall be provided with an instruction manual. The instruction manual shall give instructions for the installation, operation, and user maintenance of the appliance.

The installation instructions shall specify the need for a grounding-type receptacle for connection to the supply and shall stress the importance of proper grounding.

The installation instructions shall inform the installer that permanent wiring is to be employed as required by local codes, and instructions for conversion to permanent wiring shall be supplied.

Information shall be supplied with a gate operator for:

- a) The required installation and adjustment of all devices and systems to effect the primary and secondary protection against entrapment (where included with the operator).
- b) The intended connections for all devices and systems to effect the primary and secondary protection against entrapment. The information shall be supplied in the instruction manual, wiring diagrams, separate instructions, or the equivalent.

Vehicular gate operators (or systems)

A vehicular gate operator shall be provided with the information in the instruction manual that defines the different vehicular gate operator Class categories and give examples of each usage. The manual shall also indicate the use for which the particular unit is intended as defined in Glossary, Section 3. The installation instructions for vehicular gate operators shall include information on the Types of gate for which the gate operator is intended.

A gate operator shall be provided with the specific instructions describing all user adjustments required for proper operation of the gate. Detailed instructions shall be provided regarding user adjustment of any clutch or pressure relief adjustments provided. The instructions shall also indicate the need for periodic checking and adjustment by a qualified technician of the control mechanism for force, speed, and sensitivity.

Instructions for the installation, adjustment, and wiring of external controls and devices serving as required protection against entrapment shall be provided with the operator when such controls are shipped with the operator.

Instructions regarding intended installation of the gate operator shall be supplied as part of the installation instructions or as a separate document. The following instructions or the equivalent shall be supplied where applicable:

- a) Install the gate operator only when:
 - 1) The operator is appropriate for the construction of the gate and the usage Class of the gate,
 - 2) All openings of a horizontal slide gate are guarded or screened from the bottom of the gate to a minimum of 4 feet (1.22 m) above the ground to prevent a 2-1/4 inch (57.2 mm) diameter sphere from passing through the openings anywhere in the gate, and in that portion of the adjacent fence that the gate covers in the open position,
 - 3) All exposed pinch points are eliminated or guarded, and
 - 4) Guarding is supplied for exposed rollers.
- b) The operator is intended for installation only on gates used for vehicles. Pedestrians must be supplied with a separate access opening. The pedestrian access opening shall be designed to promote pedestrian usage. Locate the gate such that persons will not come in contact with the vehicular gate during the entire path of travel of the vehicular gate.
- c) The gate must be installed in a location so that enough clearance is supplied between the gate and adjacent structures when opening and closing to reduce the risk of entrapment. Swinging gates shall not open into public access areas.
- d) The gate must be properly installed and work freely in both directions prior to the installation of the gate operator. Do not over-tighten the operator clutch or pressure relief valve to compensate for a damaged gate.
- e) (not applicable)
- f) Controls intended for user activation must be located at least six feet (6') away from any moving part of the gate and where the user is prevented from reaching over, under, around or through the gate to operate the controls. Outdoor or easily accessible controls shall have a security feature to prevent unauthorized use.



g) The Stop and/or Reset button must be located in the line-of-sight of the gate. Activation of the reset control shall not cause the operator to start.

h) A minimum of two (2) WARNING SIGNS shall be installed, one on each side of the gate where easily visible.

i) For gate operators utilizing a non-contact sensor:

- 1) See instructions on the placement of non-contact sensors for each Type of application,
- 2) Care shall be exercised to reduce the risk of nuisance tripping, such as when a vehicle, trips the sensor while the gate is still moving, and
- 3) One or more non-contact sensors shall be located where the risk of entrapment or obstruction exists, such as the perimeter reachable by a moving gate or barrier.

j) For a gate operator utilizing a contact sensor:

- 1) One or more contact sensors shall be located where the risk of entrapment or obstruction exists, such as at the leading edge, trailing edge, and postmounted both inside and outside of a vehicular horizontal slide gate.
- 2) One or more contact sensors shall be located at the bottom edge of a vehicular vertical lift gate.
- 3) One or more contact sensors shall be located at the pinch point of a vehicular vertical pivot gate.
- 4) A hardwired contact sensor shall be located and its wiring arranged so that the communication between the sensor and the gate operator is not subjected to mechanical damage.
- 5) A wireless contact sensor such as one that transmits radio frequency (RF) signals to the gate operator for entrapment protection functions shall be located where the transmission of the signals are not obstructed or impeded by building structures, natural landscaping or similar obstruction. A wireless contact sensor shall function under the intended end-use conditions.
- 6) One or more contact sensors shall be located on the inside and outside leading edge of a swing gate. Additionally, if the bottom edge of a swing gate is greater than 6 inches (152 mm) above the ground at any point in its arc of travel, one or more contact sensors shall be located on the bottom edge.
- 7) One or more contact sensors shall be located at the bottom edge of a vertical barrier (arm).

Revised 56.8.4 effective February 21, 2008

Instruction regarding intended operation of the gate operator shall be provided as part of the user instructions or as a separate document. The following instructions or the equivalent shall be provided:

IMPORTANT SAFETY INSTRUCTIONS

WARNING – To reduce the risk of injury or death:

ATTENTION: *pour réduire le risque de dommages ou mort:*

1. READ AND FOLLOW ALL INSTRUCTIONS.
2. Never let children operate or play with gate controls. Keep the remote control away from children.
3. Always keep people and objects away from the gate. **NO ONE SHOULD CROSS THE PATH OF THE MOVING GATE.**
4. Test the gate operator monthly. The gate **MUST** reverse on contact with a rigid object or stop when an object activates the non-contact sensors. After adjusting the force or the limit of travel, retest the gate operator. Failure to adjust and retest the gate operator properly can increase the risk of injury or death.
5. Use the emergency release only when the gate is not moving.
6. **KEEP GATES PROPERLY MAINTAINED.** Read the owner's manual. Have a qualified service person make repairs to gate hardware.
7. The entrance is for vehicles only. Pedestrians must use separate entrance.
8. **SAVE THESE INSTRUCTIONS.**



GATE WARNINGS AND PRECAUTIONS

GATE WARNINGS

The first thing to check is that the gate is in good running order as follows:

- A. The gate is rigid and straight and runs smoothly throughout its travel.
- B. The length of each leaf is not over 10 feet (MINI TANK), 13 feet (HALF TANK), 23 feet (FULL TANK).
- C. The weight of each leaf is not over 800 Pound (MINI TANK), 920 Pound (HALF TANK), 2200 Pound (FULL TANK).
- D. The hinges are hardly anchored and are able to support the torque of the operator; they do not have irregular movements and/or any friction during the whole movement of the leaf.

- Install the operator in the correct position

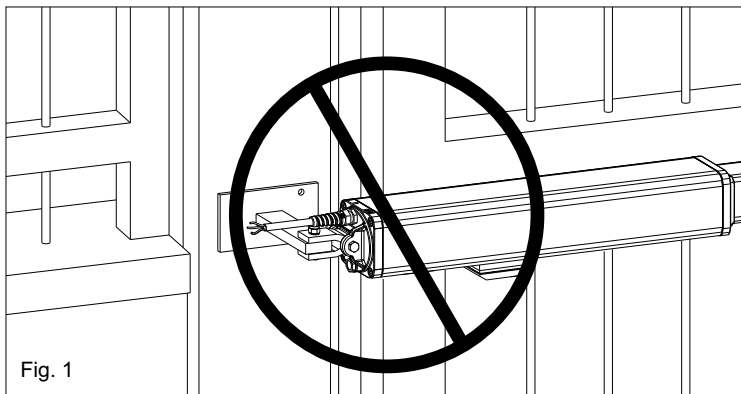


Fig. 1

- Do not install the front bracket in a weak part of the gate

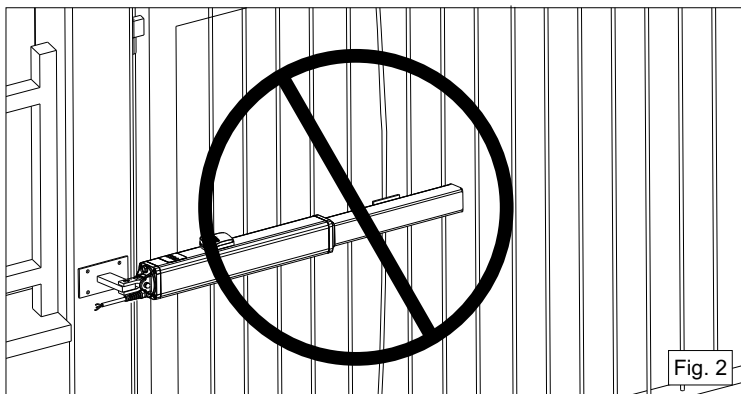


Fig. 2

- Not for pedestrian opening

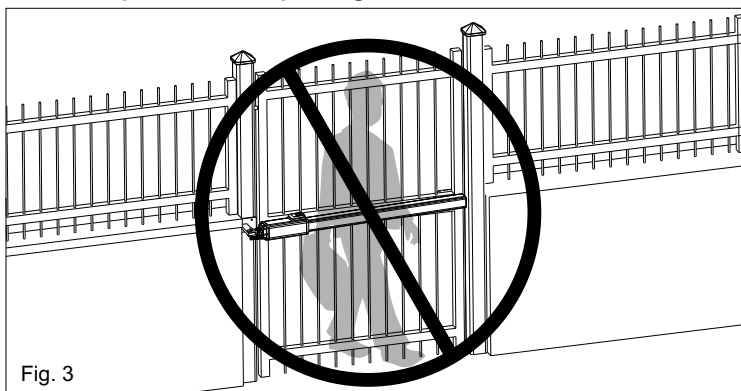


Fig. 3

PRECAUTIONS

LIBRA has been created for the automation of gates used by vehicles only. Be aware to avoid the crossing of the gate path because it is very dangerous for pedestrians (fig. 4).

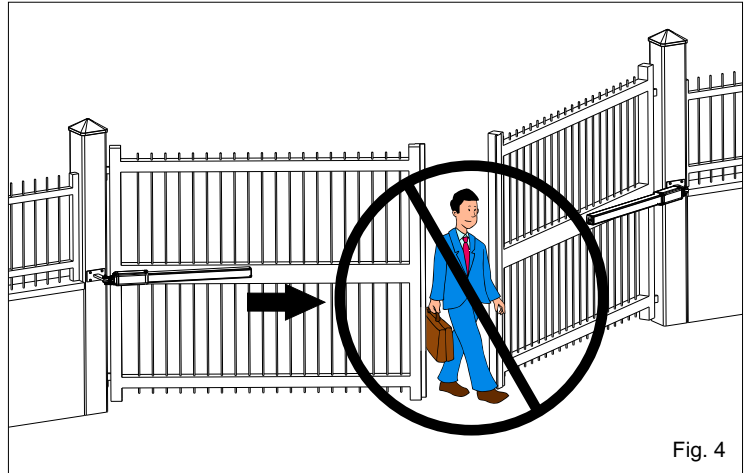


Fig. 4

Install the warning signs, on each side of the gate and in avisible zone which informs the pedestrians about the danger they run when passing or resting in the environment of the gate (fig. 5).

Important:
For a higher security, SEA advices to install infrared photocells.

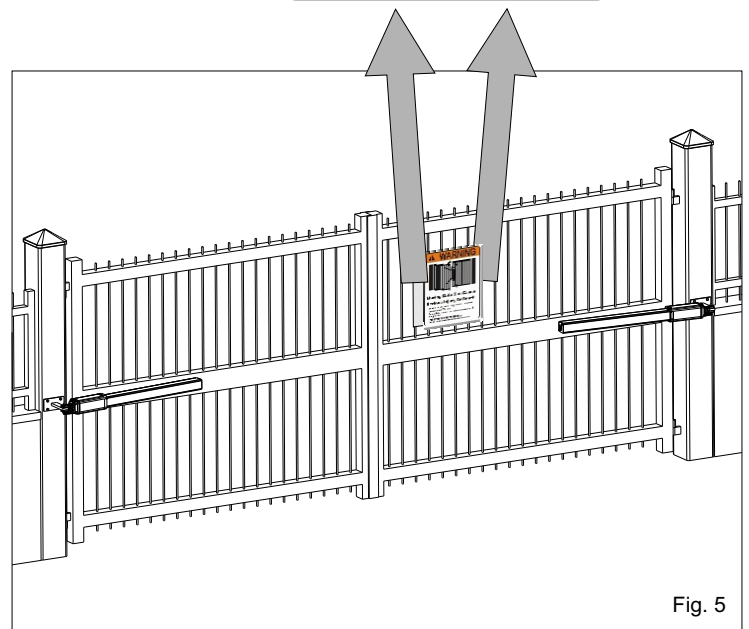


Fig. 5



MECHANICAL INSTALLATION

FEATURES AND SPECIFICATIONS

NEW MINI TANK is an high quality hydraulic operator for residential use with max. leaf length of 9,84 feet. Available in 2 models: SC with lock in closed position up to 5,9 feet and SB without lock up to 9,84 feet. For leaf length over 5,9 feet use electric lock on SC models. Need always electric lock for SB models.

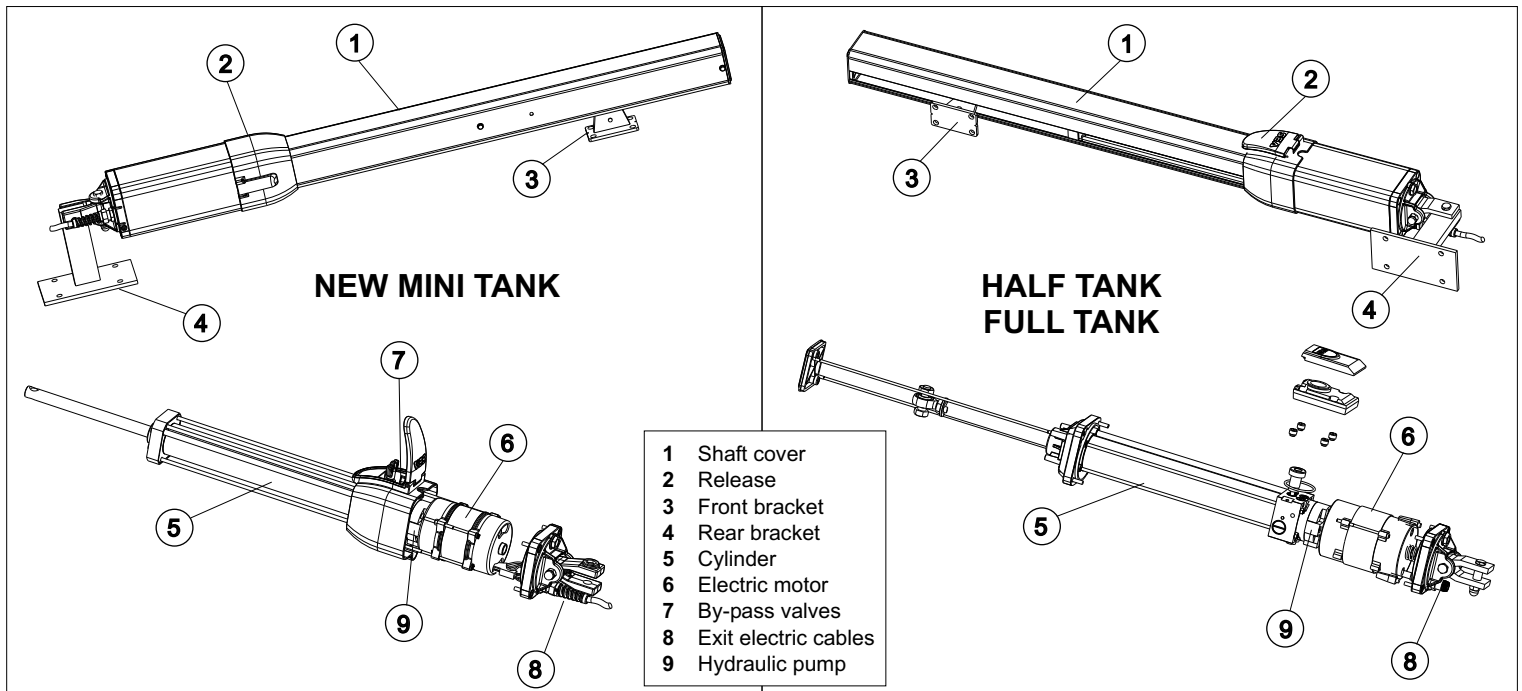
Equipped with by-pass valves for torque regulation. Electronic adjustable slow down in opening and closing with control board. In option Safety Gate for reverse in case of obstacle.

HALF TANK is an high quality hydraulic operator for condominium use with max. leaf length of 19,68 feet. Available in 4 models: AC with lock in open and closed position up to 5,9 feet, SC with lock in closed position up to 5,9 feet, SA with lock in open position up to 19,68 feet and SB without lock up to 19,68 feet. (need electronic lock for SB-SA). Available version HT LARGE for big pillars. For leaf length over 5,9 feet use electric lock for AC - SC models.

Equipped with by-pass valves for torque regulation. Electronic adjustable slow down in opening and closing with control board. In option Safety Gate for reverse in case of obstacle.

FULL TANK is an high quality hydraulic operator for condominium-industrial use with max. leaf length of 23 feet. Continuous use. Available in 4 models: AC with lock in open and closed position up to 5,9 feet, SC with lock in closed position up to 5,9 feet, SA with lock in open position up to 23 feet and SB without lock up to 23 feet (need electronic lock for SB - SA). Available version FT LARGE for big pillars. For leaf length over 5,9 feet use electric lock for AC - SC models.

Equipped with by-pass valves for torque regulation. Electronic adjustable slow down in opening and closing with control board. In option Safety Gate for reverse in case of obstacle.



TECHNICAL FEATURES	NEW MINI TANK	HALF TANK	FULL TANK	HALF TANK LARGE	FULL TANK LARGE
Power supply	120V (60 Hz)				
Power	300 W				
Absorbed current	2,45 A				
Stroke	10,63 inches			15,35 inches	
Cycles hour (at a temp. of 68°F)	40	55	70	55	70
Max working pressure	30bar	40 bar			
Operating temperatures	-4°F +131°F				
Thermal protection	266°F				
Max Thrust	250 da N	640 da N			
Capacitor	60uF				
Weight	22 Lbs	25,1 Lbs	28,2 Lbs	30Lbs	33,5 Lbs
Protection class	3R Type				
Max leaf length	9,84 feet	19,68 feet		23 feet	

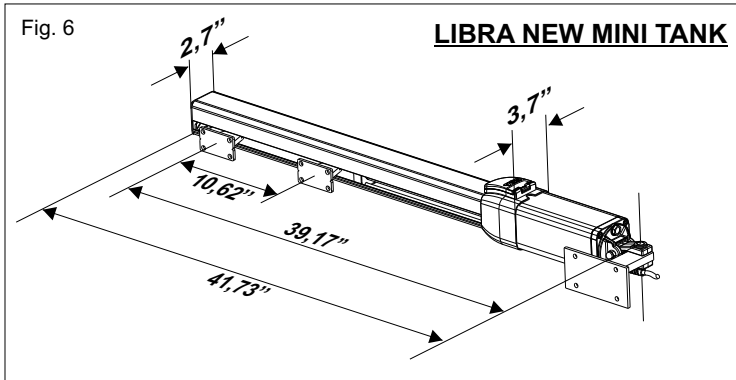
Note: The frequency of use is valid only for the first hour at 68°F room temperature.

Note: in non-automatic logic, use operators without lock.

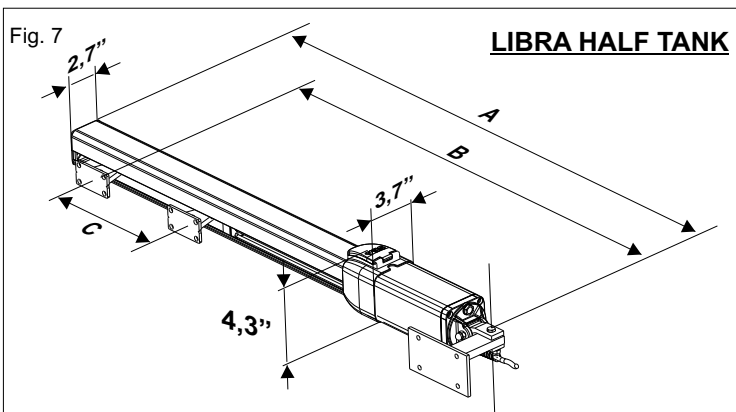


MECHANICAL INSTALLATION

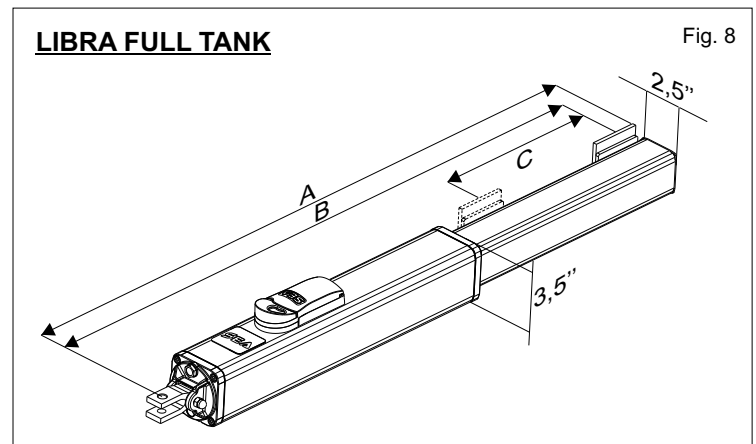
DIMENSIONS



In case you have a Half-Full Tank with double brake, make sure that you use the whole run minus 0.19" in front and 0.19" in the back (ex: $A + B = C - 0.39''$). In case of brake only in closing it is necessary to make the maximum use of the whole run minus 0.19".

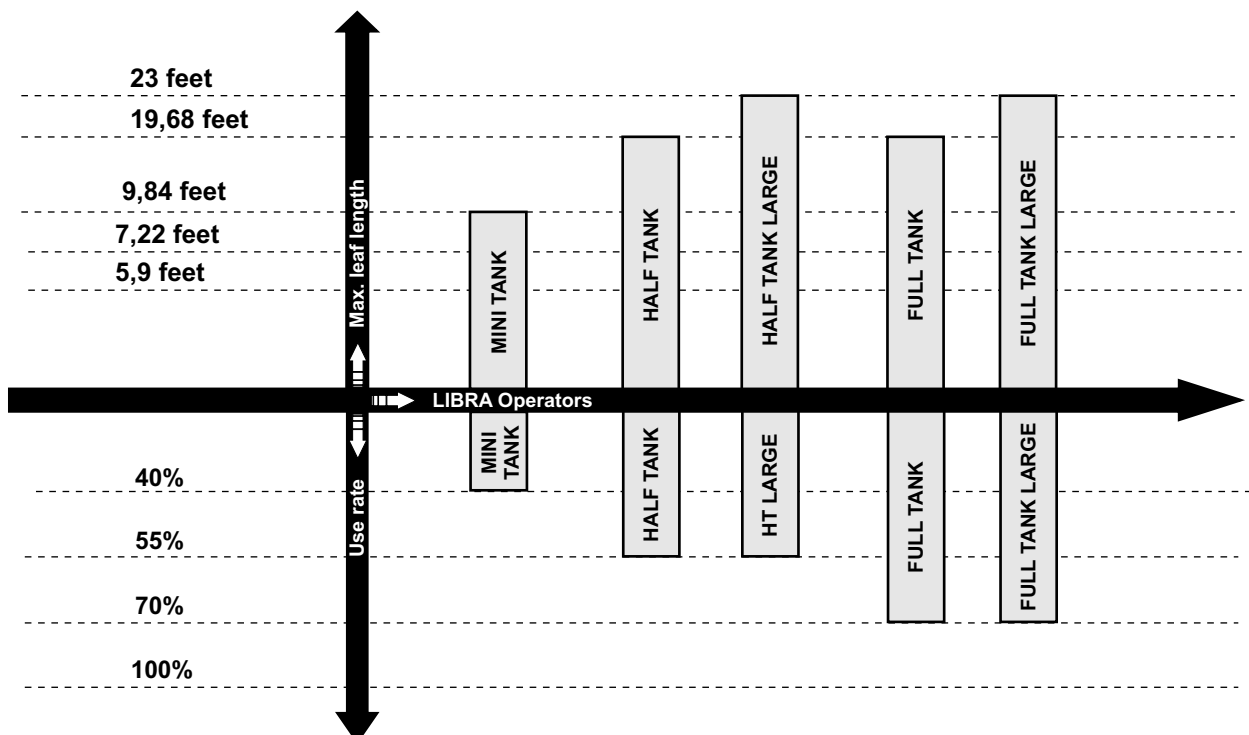


MODEL	A	B	C
HT	41,33 in	39,37 in	10,62 in
HT with brake	43,66 in	40,23 in	10,62 in
HT LARGE	50,78 in	48,81 in	15,35 in
HT LARGE with brake	53,11 in	49,76 in	15,35 in



MODEL	A	B	C
FT	40,35 in	38,58 in	10,63 in
FT with brake	41,73 in	39,37 in	10,63 in
FT LARGE	50,00 in	47,83 in	15,35 in
FT LARGE with brake	51,37 in	48,82 in	15,35 in

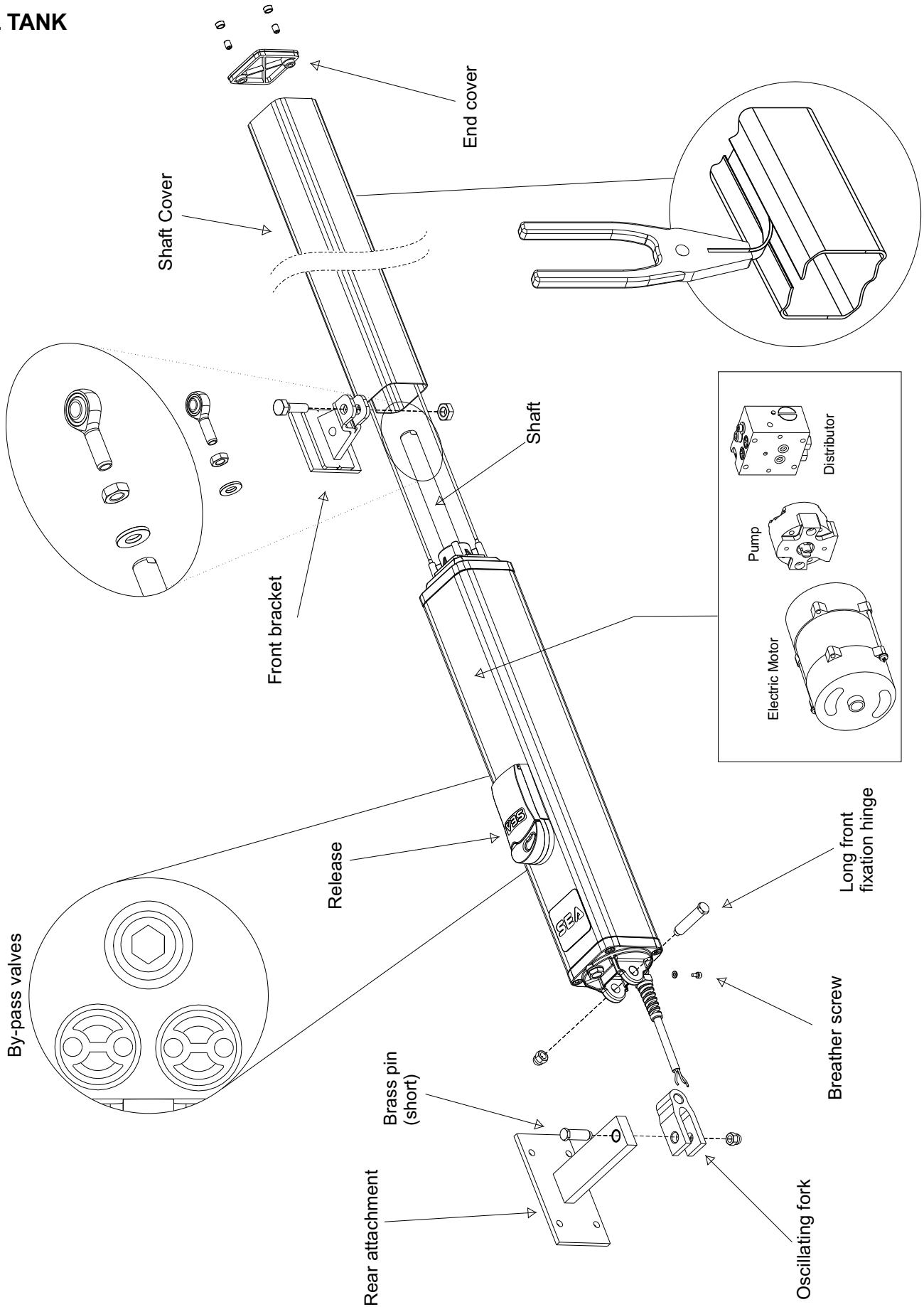
GRAFICO DI UTILIZZO OPERATORI
LIBRA MINI TANK, HALF TANK, FULL TANK





MECHANICAL INSTALLATION

FULL TANK





MECHANICAL INSTALLATION

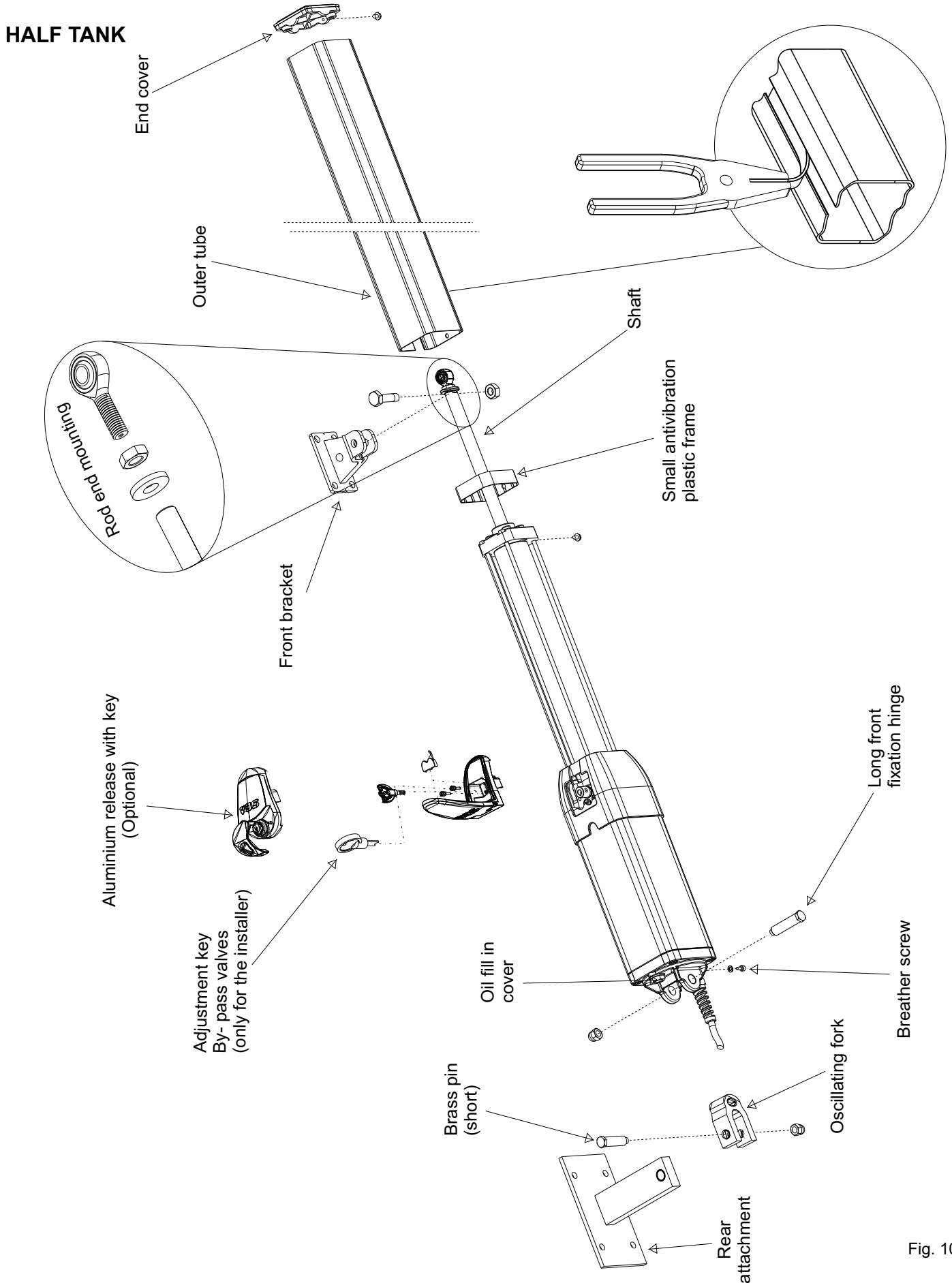
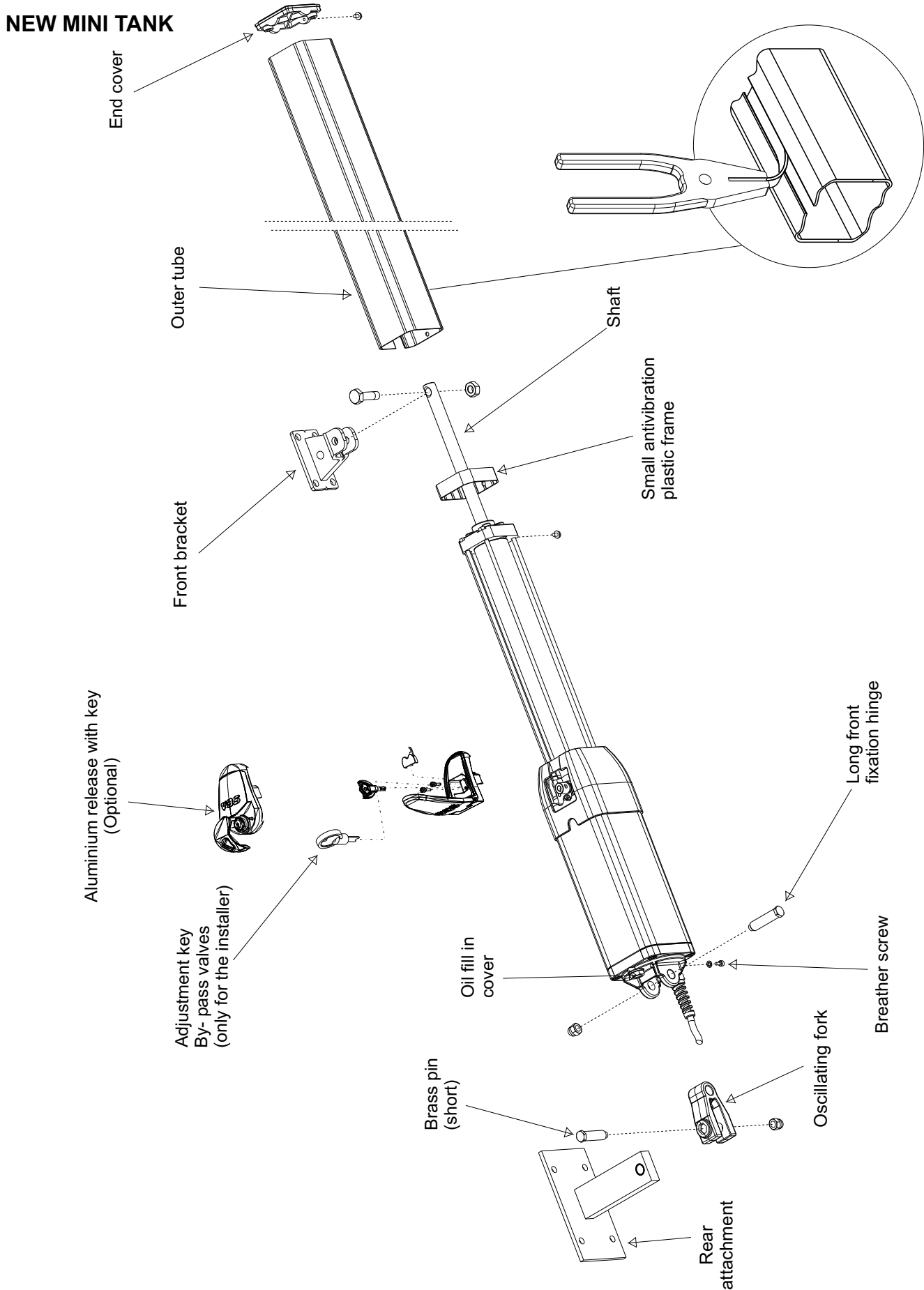


Fig. 10



MECHANICAL INSTALLATION





MECHANICAL INSTALLATION

TYPICAL INSTALLATION

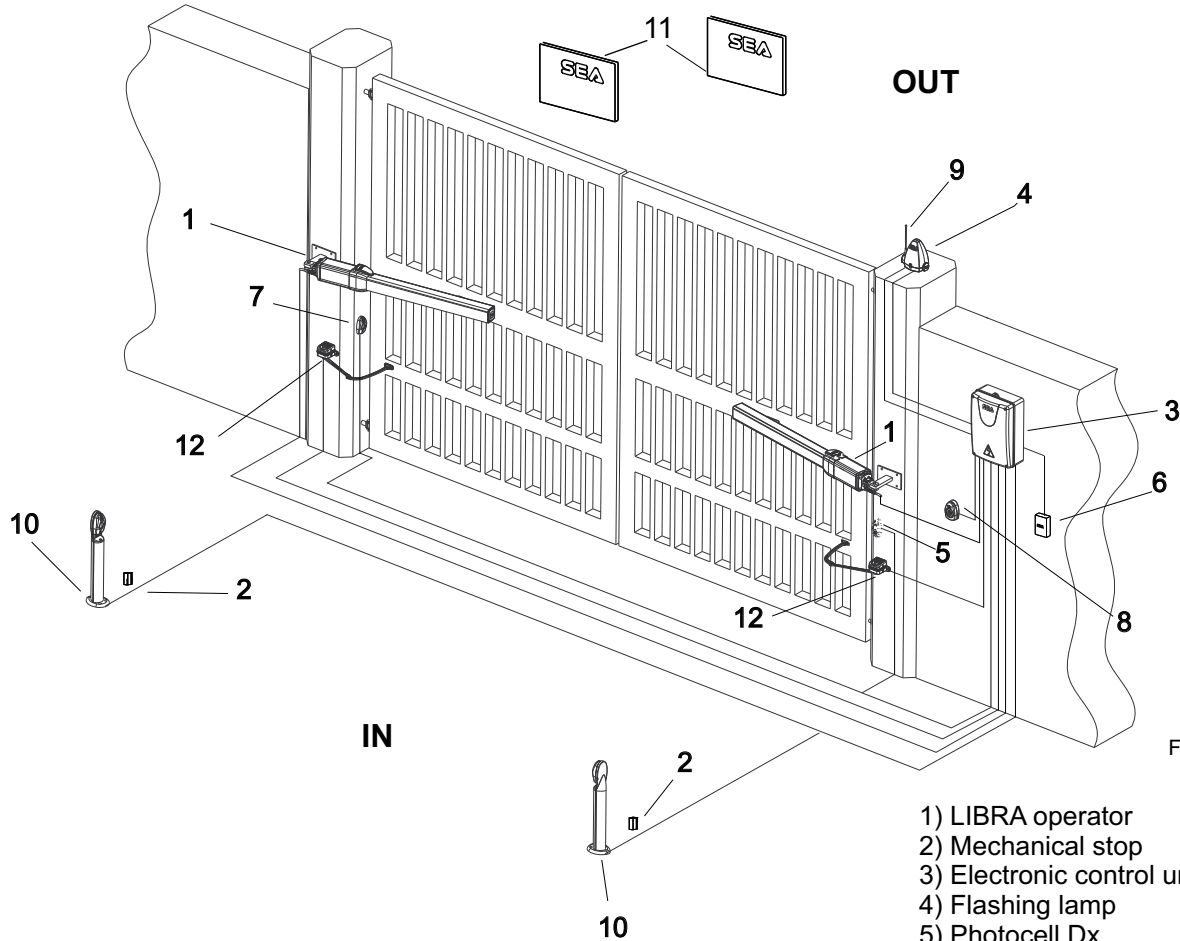


Fig. 12

- 1) LIBRA operator
- 2) Mechanical stop
- 3) Electronic control unit
- 4) Flashing lamp
- 5) Photocell Dx
- 6) Differential switch
- 7) Photocell Sx
- 8) Start - stop push button with key
- 9) Antenna
- 10) Support for photocells with photocells
- 11) Warning notice
- 12) Safety Gate

TYPE OF INSTALLATION

It's possible to install Libra with opening inside (Fig. 13) or opening outside (Fig. 14).

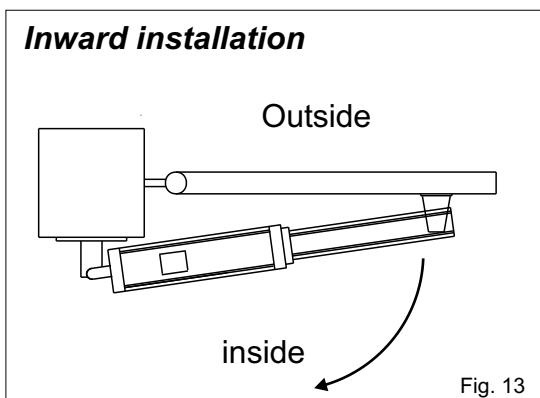


Fig. 13

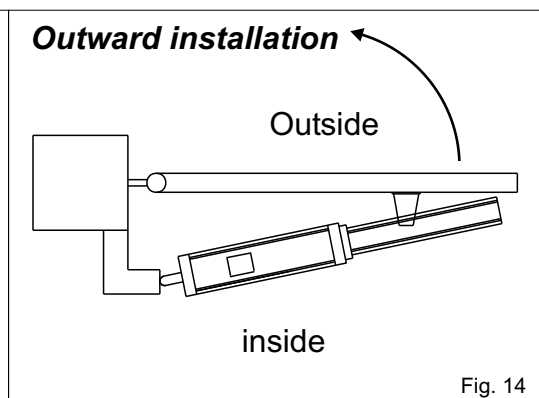


Fig. 14



Install the operator always inside the property

WARNING:
Only for vehicles access, pedestrians **MUST** have separate entrance.



MECHANICAL INSTALLATION

INWARD INSTALLATION

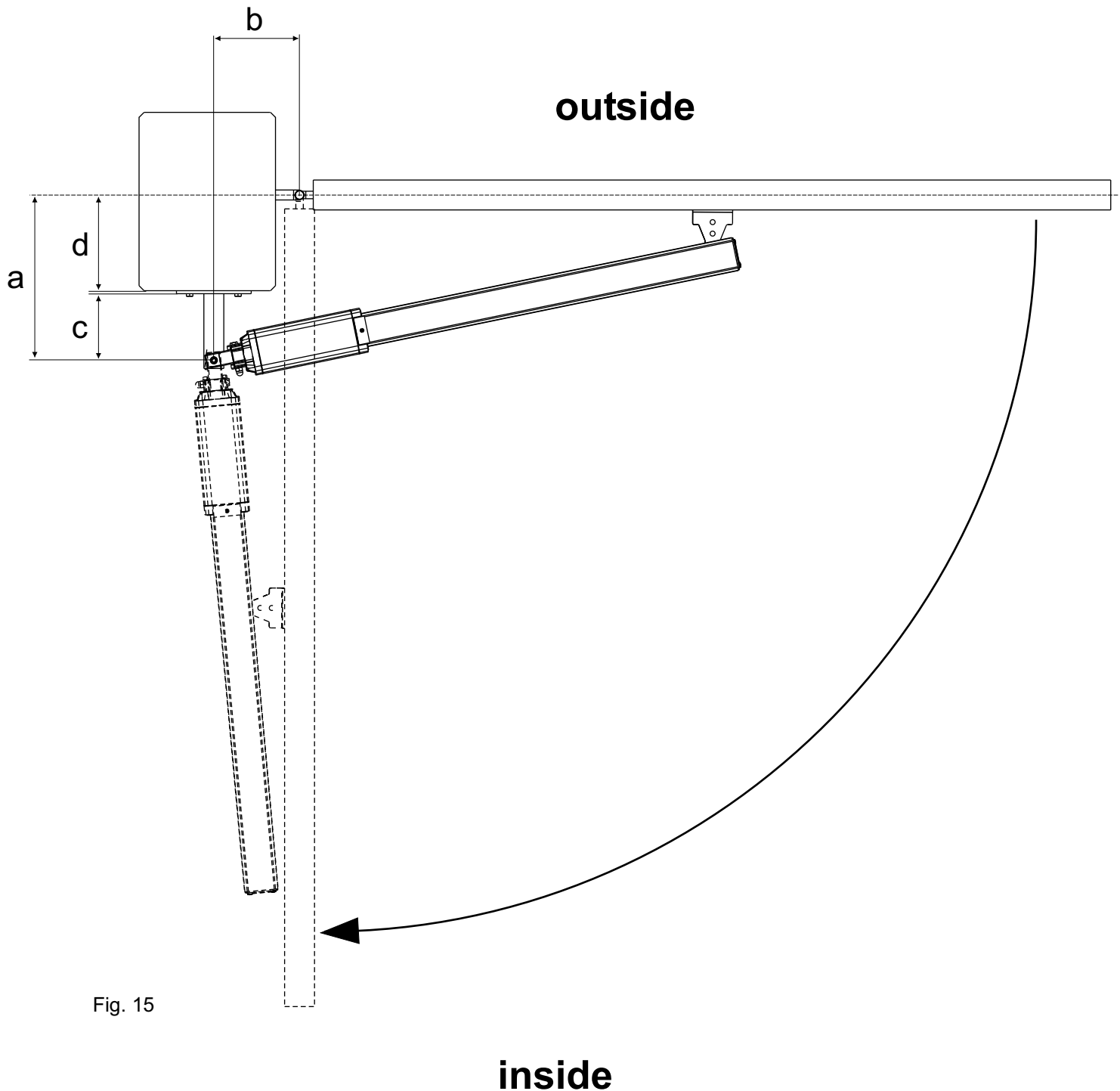


Fig. 15



MECHANICAL INSTALLATION

MINI TANK & HALF TANK/ FULL TANK (Fig.15) **total stroke 10.63 inches - max suggested stroke 9,84 inches**

a inches	b inches	d _{max} inches	Max opening Angle°	Max stroke (inches)	Stroke for 90° (inches)
3.93	4.52	1.96	110°	9.84	8.46
3.93	5.90	1.96	90°	9.84	
4.13	4.33	2.16	110°	9.64	8.46
4.13	5.70	2.16	90°	9.84	
4.72	4.13	2.75	106°	9.84	8.85
4.72	5.11	2.75	90°	9.84	
4.92	4.92	2.95	90°	9.84	
5.51	3.74	3.54	100°	9.84	9.25
5.51	4.33	3.54	90°	9.84	
5.70	3.74	3.74	100°	10.03	9.52
5.70	4.13	3.74	90°	9.84	
5.90	3.93	3.93	90°	9.84	
6.10	3.34	4.13	96°	9.84	9.52
6.29	3.54	4.33	90°	9.96	
6.69	2.95	4.72	92°	9.84	
7.08	2.55	5.11	92°	9.84	

To obtain 110° with d > 2.16 inches make a recess in the gate.

For the Double Brake version with positive stop, the sum of a + b must be of 9,8 inches

For the Double Brake version without positive stop, the sum of a + b must be of 10,6 inches

HALF TANK/ FULL TANK LARGE (Fig.15) **total stroke 15.35 inches - max suggested stroke 14.56 inches**

a inches	b inches	d _{max} inches	Max opening Angle°	Max stroke (inches)	Stroke for 90° (inches)
4.92	6.69	2.95	125°	14.48	11.61
5.11	6.69	3.14	125°	14.64	11.81
5.51	9.25	3.54	90°	14.56	
5.70	6.49	3.74	120°	14.64	12.20
5.70	9.05	3.74	90°	14.56	
6.29	8.26	4.33	90°	14.56	
6.88	7.67	4.72	90°	14.56	
7.28	5.70	5.11	110°	14.56	12.99
7.28	7.48	5.11	90°	14.56	
7.67	5.51	5.51	110°	14.60	13.97
7.67	6.88	5.51	90°	14.56	
9.44	4.33	7.28	100°	14.56	13.97
9.44	4.92	7.28	90°	14.56	
9.84	4.13	7.67	95°	14.56	14.17
9.84	4.52	7.67	90°	14.56	
10.23	3.74	8.07	95°	14.52	14.37
10.23	3.93	8.07	90°	14.56	
10.63	3.54	8.46	90°	14.56	
11.02	3.14	9.05	90°	14.56	
11.61	2.55	9.64	90°	14.52	

To obtain 110° with d > 5.51 inches make a recess in the gate.



MECHANICAL INSTALLATION

OUTWARD INSTALLATION

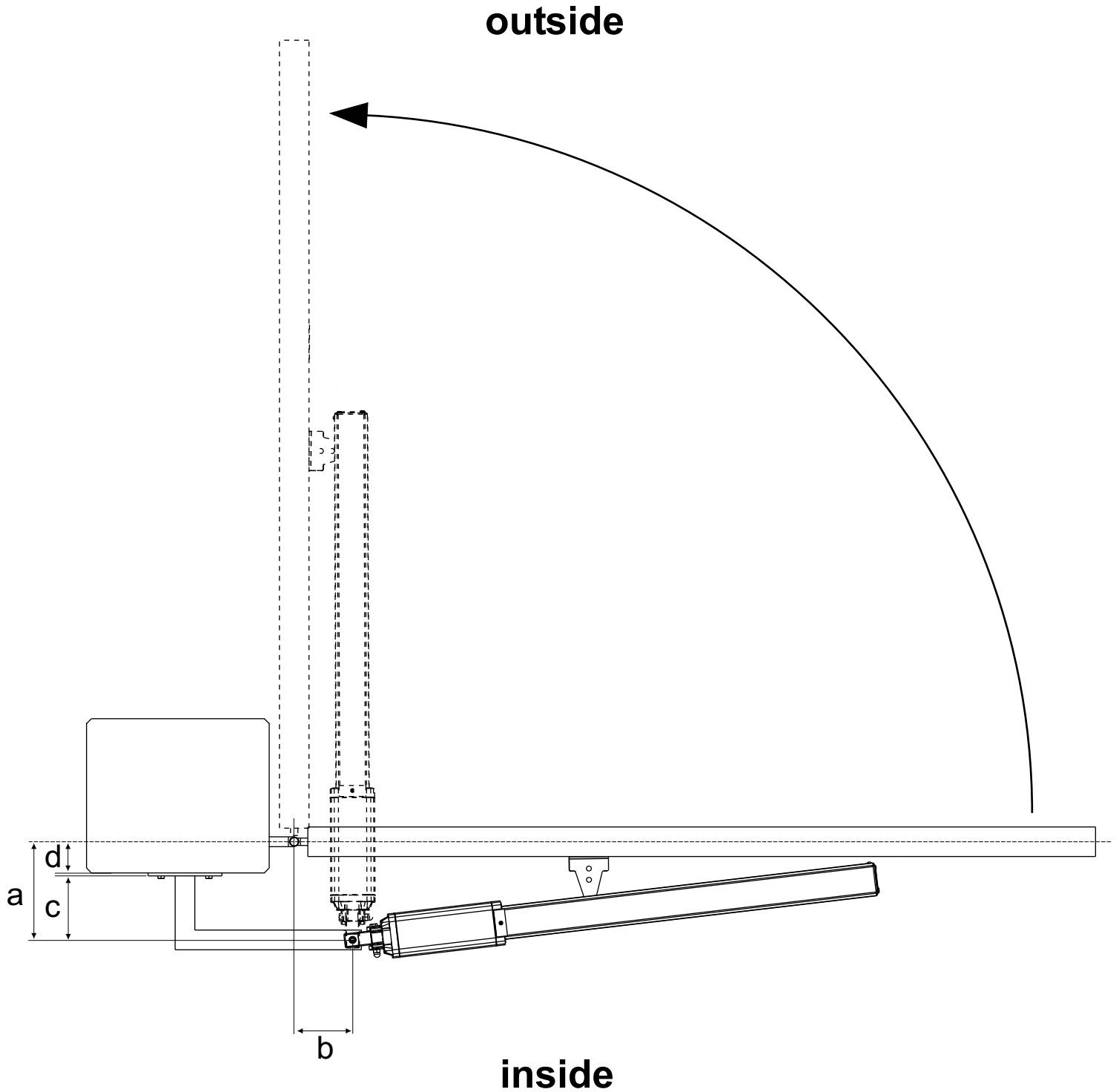


Fig. 16



MECHANICAL INSTALLATION

MINI TANK & HALF TANK/ FULL TANK (Fig.16)
total stroke 10.63 inches - max suggested stroke 9.84 inches

a inches	b inches	Max opening Angle°	Max stroke (inches)	Stroke for 90° (inches)
5.90	3.54	95°	9.84	9.44
6.29	3.54	90°	9.84	
6.49	3.14	95°	9.80	9.56
6.88	3.14	90°	9.84	
7.08	2.75	90°	9.84	
7.08	2.55	90°	9.48	

HALF TANK/ FULL TANK LARGE (Fig.16)
total stroke 15.35 inches - max suggested stroke 14.56 inches

a inches	b inches	Max opening Angle°	Max stroke (inches)	Stroke for 90° (inches)
9.84	3.93	100°	14.01	13.46
10.03	3.75	95°	13.58	13.22
10.43	3.75	95°	13.46	13.18
10.62	3.54	90°	12.99	
10.82	3.54	90°	12.79	
10.82	3.54	90°	12.55	



MECHANICAL INSTALLATION

PRELIMINARY

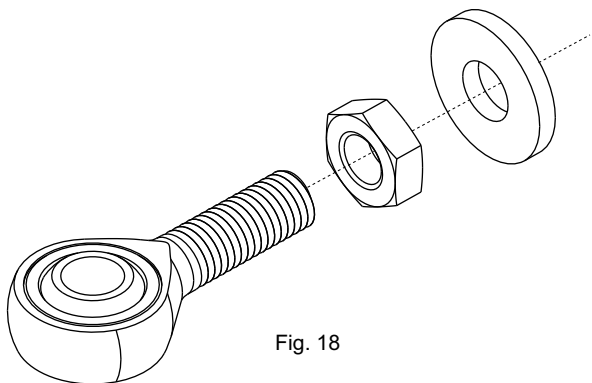
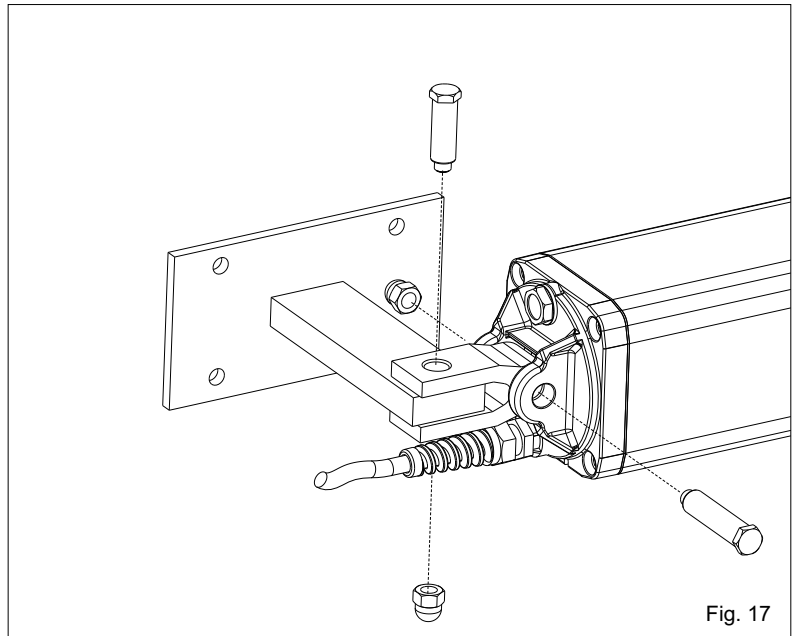
-Open carefully the package, being sure not to loose parts. Parts are listed in fig. 9.

-Attach the rear oscillating bracket as shown in fig. 17.

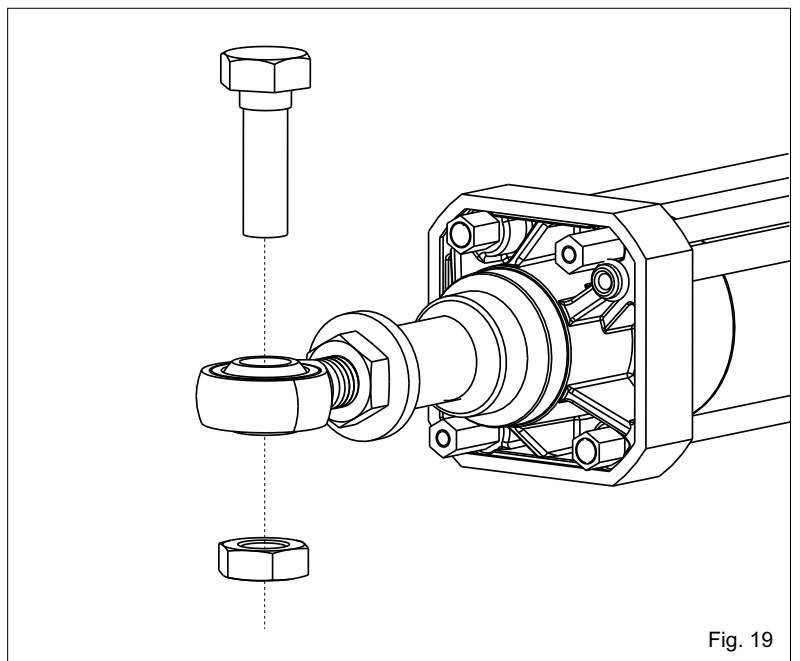
-Attach the spheric joint as shown in fig. 18 and 19.

-Start positioning the rear bracket as specified on following pages

Rear oscillating bracket installation



Spheric joint installation (for HT - FT)

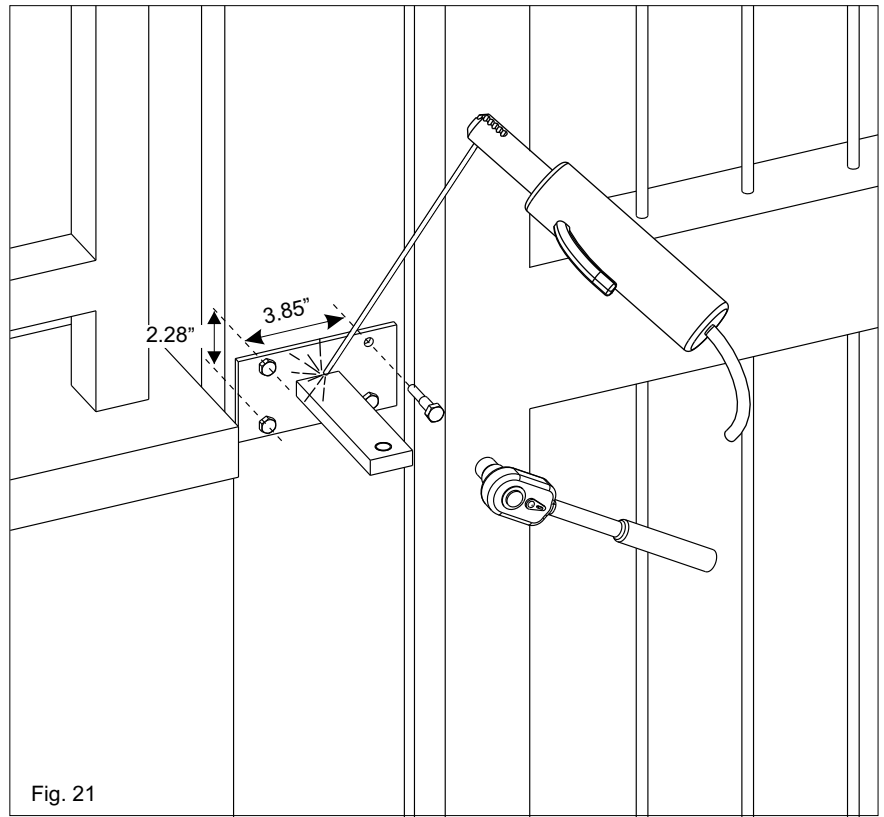
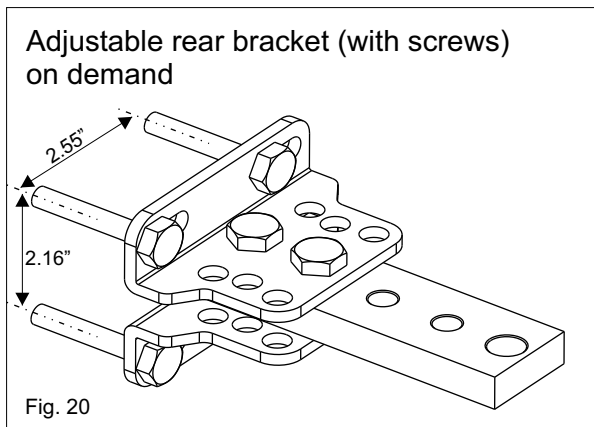




MECHANICAL INSTALLATION

INSTALLATION OF THE REAR BRACKET TO THE POST.

The bracket must be positioned so that the operator is perfectly leveled (Fig. 21).

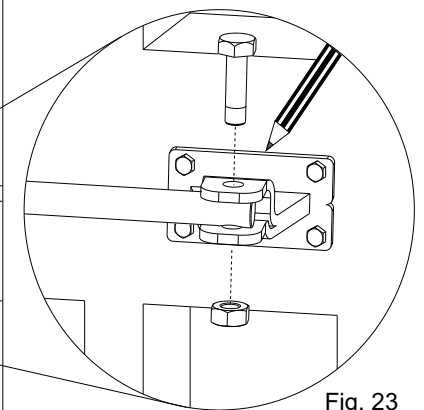
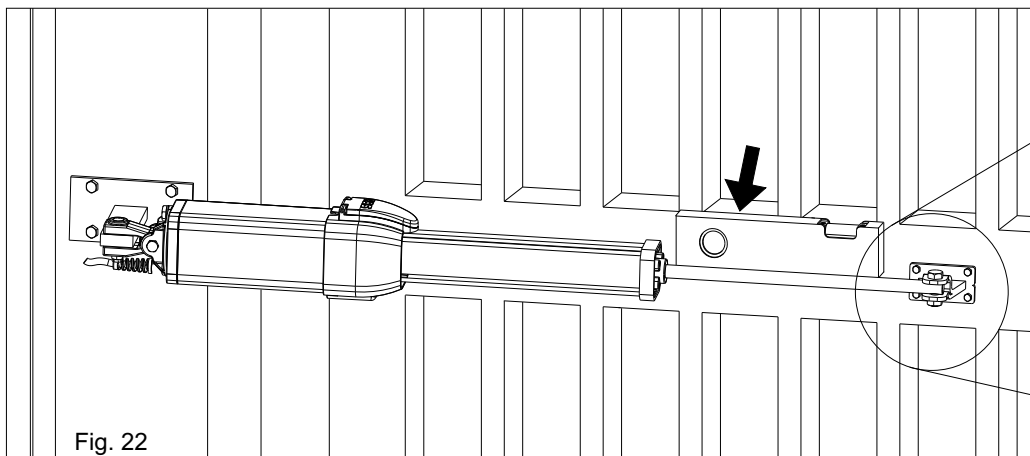


POSITIONING OF THE FRONT FIXATION

Once the operator has been mounted on the back fixation close the leaf and do as follows:

- 1) Release the operator (as in Fig. 45 to 49)
- 2) Pull out completely the chromium plated rod, afterwards bring it back about 0,40 inches.
- 3) Fix the rod on the front fixation (Fig. 23)
- 4) Position the operator perfectly horizontal and mark the position of the front fixation (Fig. 22)

Attention: Avoid the welding of the front fixation to the rod of the hydraulic operator already fixed as the welding residual (squirt) could ruin the chromium -plating of the rod.



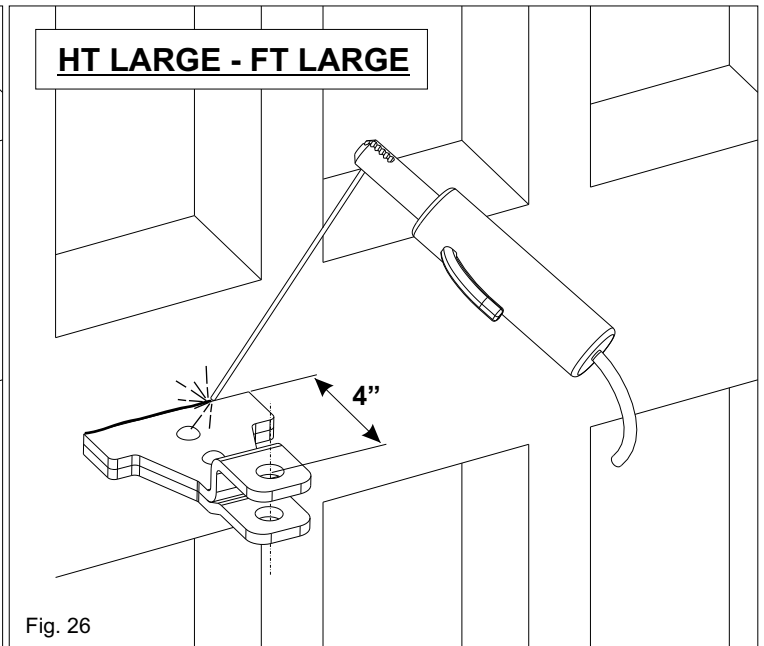
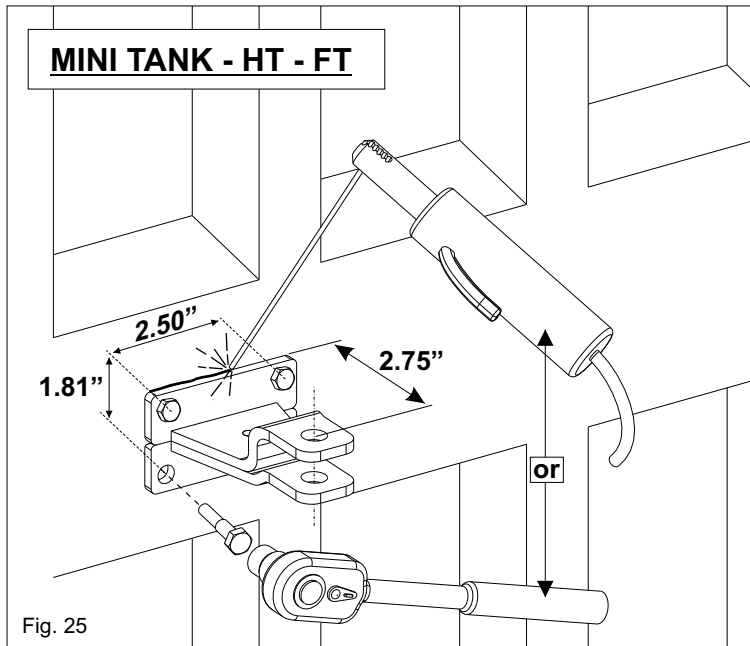
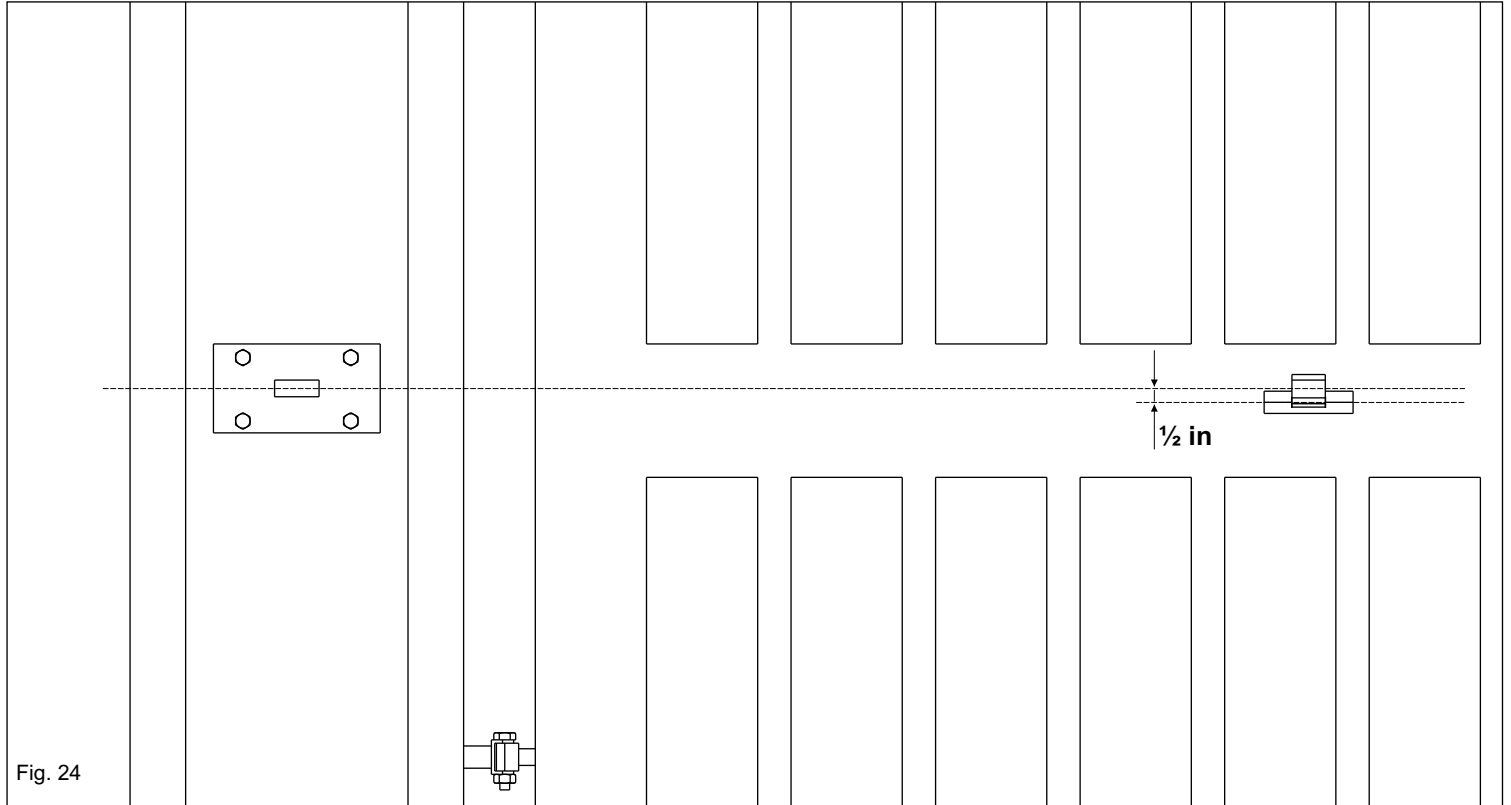


MECHANICAL INSTALLATION

WELDING OF THE FRONT BRACKET TO THE GATE.

The bracket must be positioned so that the operator is perfectly leveled.

P.N. If the brackets are installed before the operator, place the front bracket ½ inch lower than the rear bracket (Fig. 24).



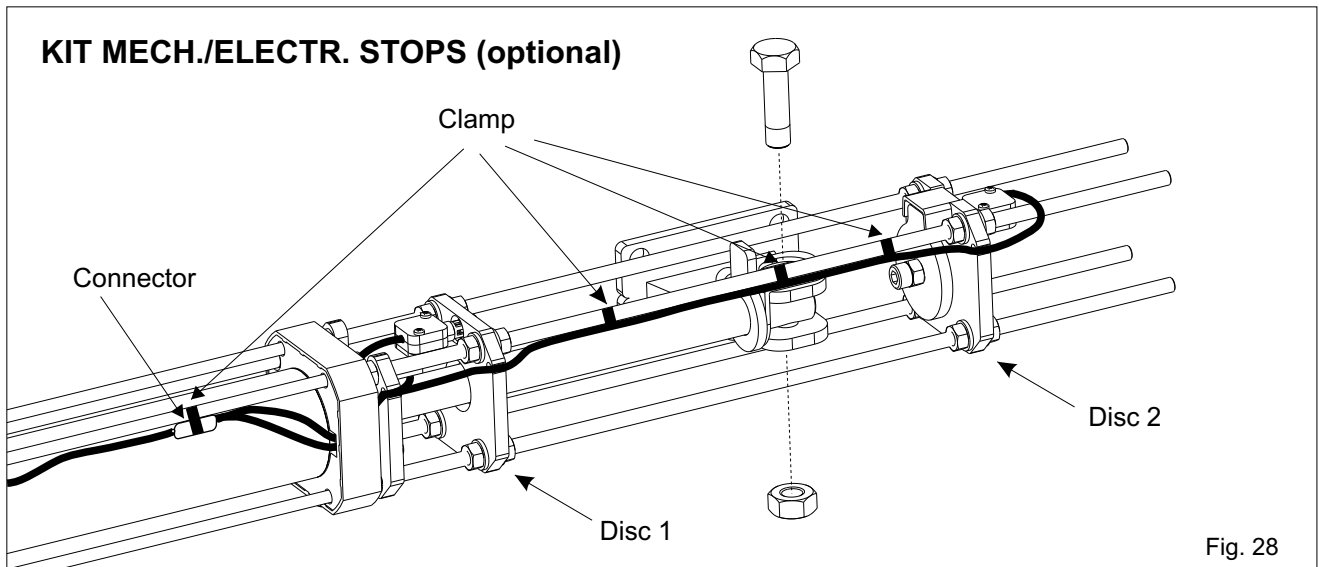
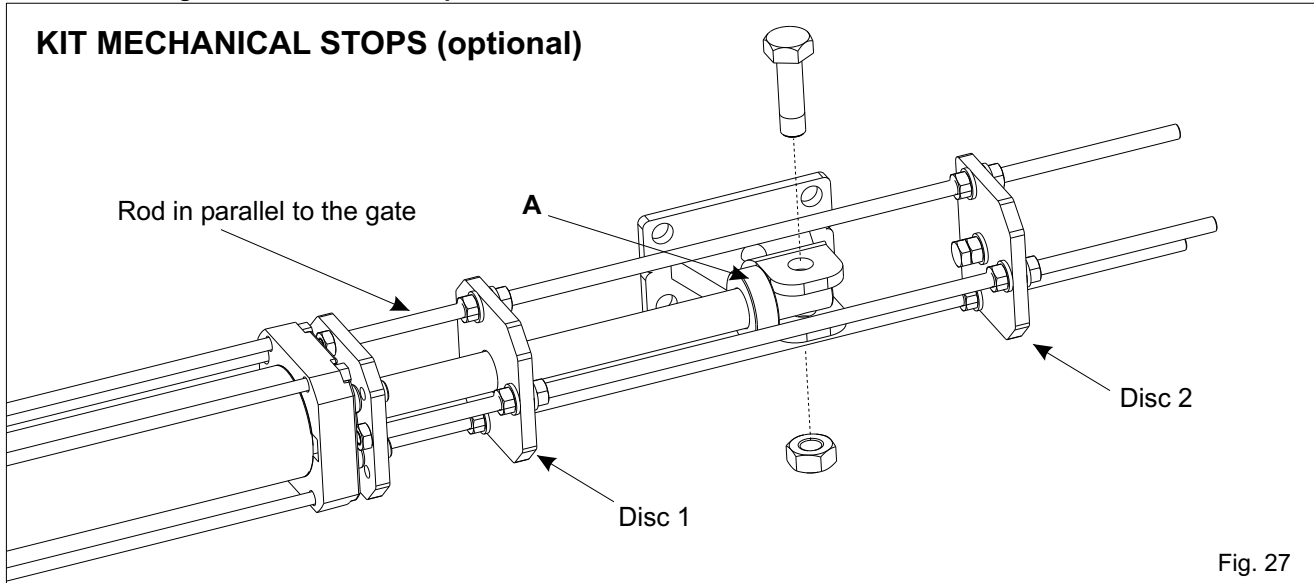


MECHANICAL INSTALLATION

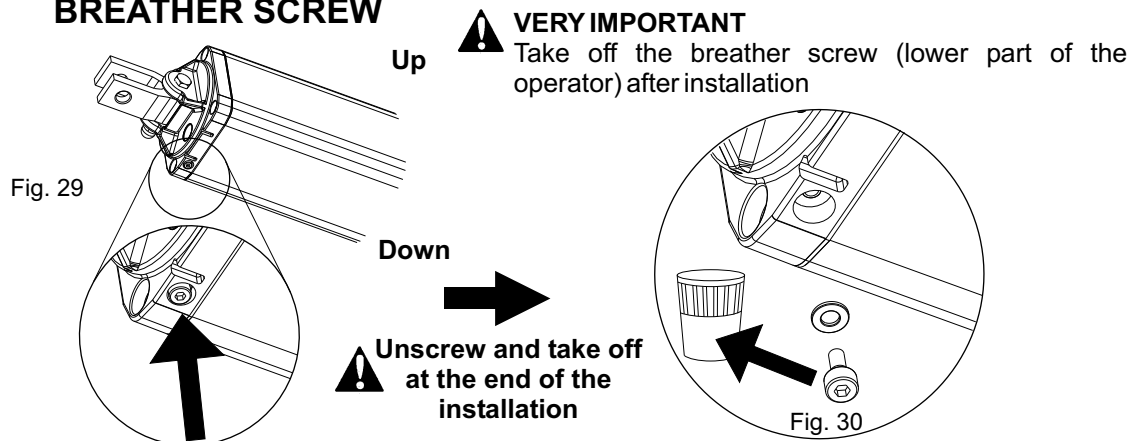
INSTALLATION OF THE MECHANICAL LIMIT SWITCH STOPS (Accessories on request)

- Release the unit (as in Fig. 45 to 49)
- Let the rod come out about 3/4 of its run
- Put the limit switch stops on the front flange of the unit with the two rods (of the three which are present on the stop) which are in parallel to the gate (Fig. 27)
- Fix the stop with the two included screws.
- Put the provided bush (A) into the shaft.
- At this point hook the rod on the front fixation
- To adjust the stop in opening act on disc, and in closing on disc 2.

Attention: the mounting of the mechanical stop does not cause the reduction of the stroke



BREATHER SCREW





MECHANICAL INSTALLATION

TORQUE ADJUSTMENT (By-Pass Valve)

In case of first installation both, the cover of the release and the cover of the by pass valves must not yet be inserted. In this case refer to fig. 31 and fig.33. Should the by-pass valves adjustment be made in a second moment, because of periodical maintenance or other, take off the screw which locks the by-pass cover (fig. 32), take off the by-pass cover and adjust the pressure of the by-pass valves with the special key given to the installer free of charge (Fig. 33).

LIBRA NEW MINI TANK

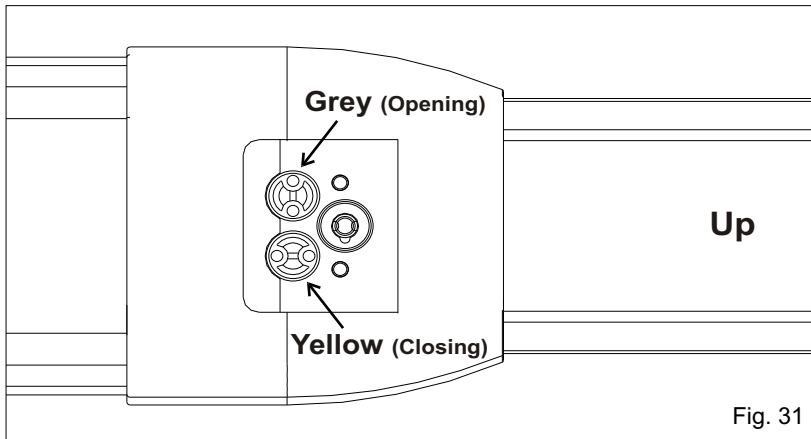


Fig. 31

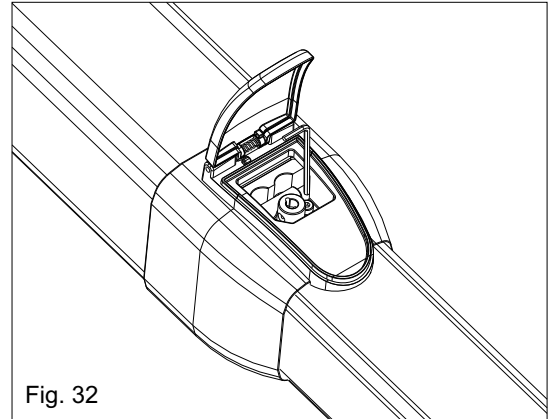


Fig. 32

By-Pass Valves

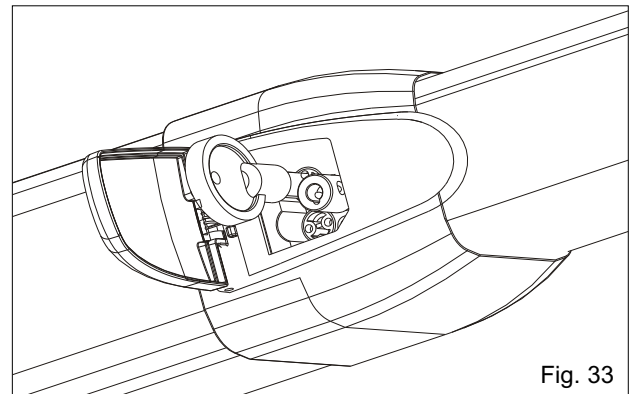


Fig. 33

LIBRA HALF-FULL TANK

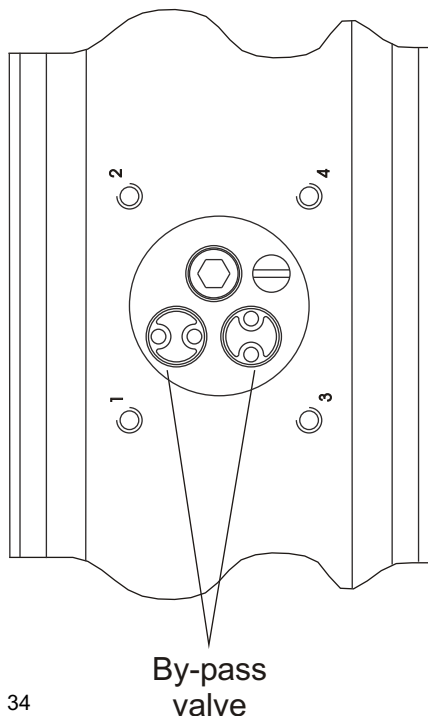
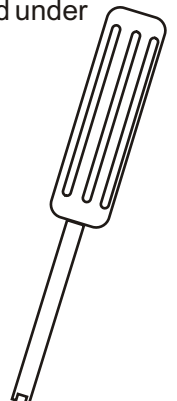
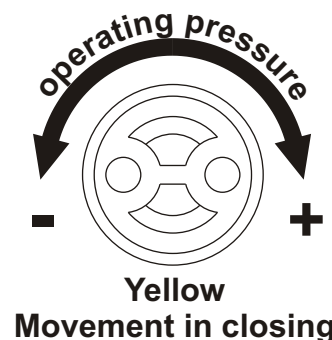
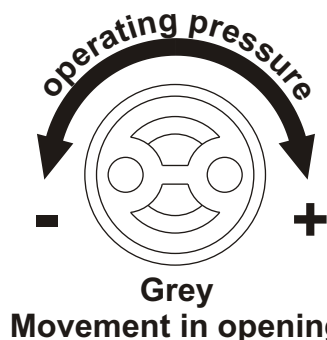


Fig. 34

PRESSURE REGULATION (ANTI-CRUSH SAFETY)

The opening and closing forces transmitted to the gate by the motor-pump assembly are regulated by adjusting two by-pass valves; the plain (silver)-coloured valve adjusts the opening pressure while the yellow (brass)coloured valve adjusts the closing pressure. To increase the operating pressure turn the appropriate valve clockwise; to decrease turn anti-clockwise. **THE MAXIMUM THRUST FORCE DURING THE MOVEMENT, MEASURED AT THE LEADING EDGE OF LEAF, IS SUBJECTED TO THE LAWS IN FORCE IN THE COUNTRY WHERE THE GATE IS INSTALLED.** It is advisable that both opening and closing pressures are similar, with the opening pressure set slightly higher than the closing one. By-pass valves are placed under the key release system.





MECHANICAL INSTALLATION

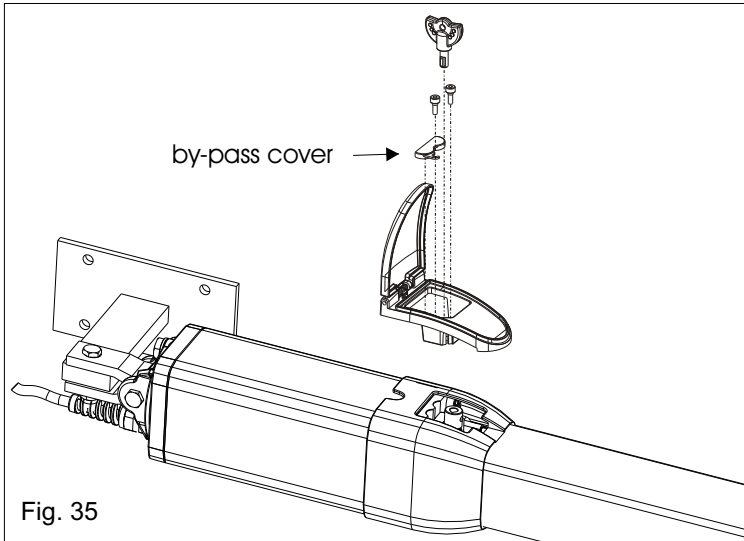


Fig. 35

PLASTIC RELEASE MOUNTING (HALF TANK - MINI TANK)

ATTENTION: the mounting of the plastic release must be effectuated as shown in fig. 35 **only and exclusively after having finished all the installation operations, mounting of the rod cover and calibration of the by-pass valves.**

ALUMINIUM RELEASE WITH KEY MOUNTING (HALF TANK - MINI TANK) - *Accessory on request*

ATTENTION: The mounting of the aluminium release must be executed as shown in figure 36 only and exclusively after having finished all installation operations, the rod cover mounting and the calibration of the by pass valves. **The release key is kept in the inside of the aluminium release cover (see fig. 37)**

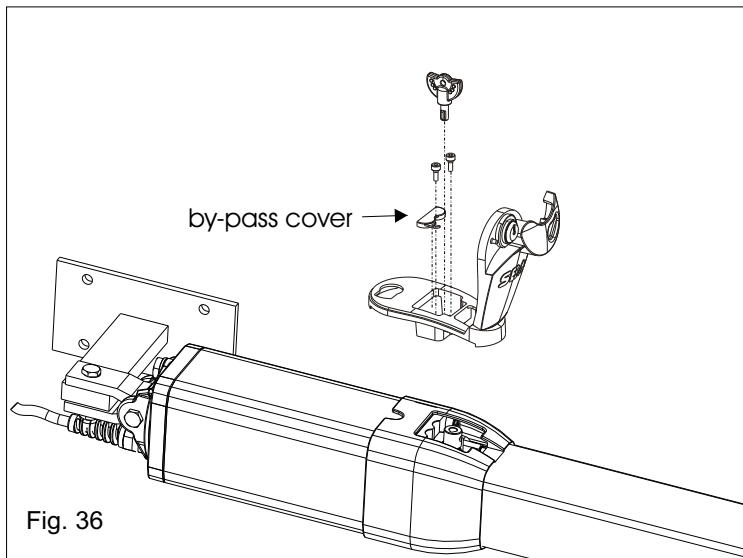


Fig. 36

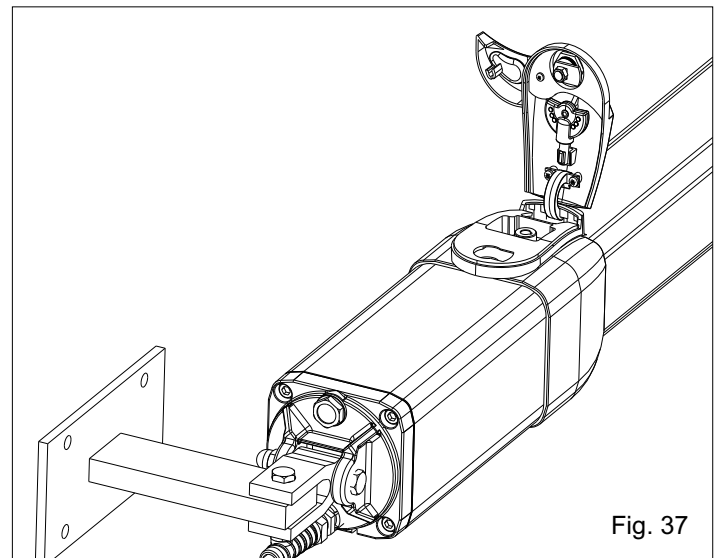


Fig. 37

EXTERNAL RELEASE MOUNTING (HALF TANK - MINI TANK) - *Accessory on request*

ATTENTION: The mounting of the external release must be executed as shown in the figures 38 and 39. For more details refer to the mounting instructions in the external release mounting Kit for Half Tank.

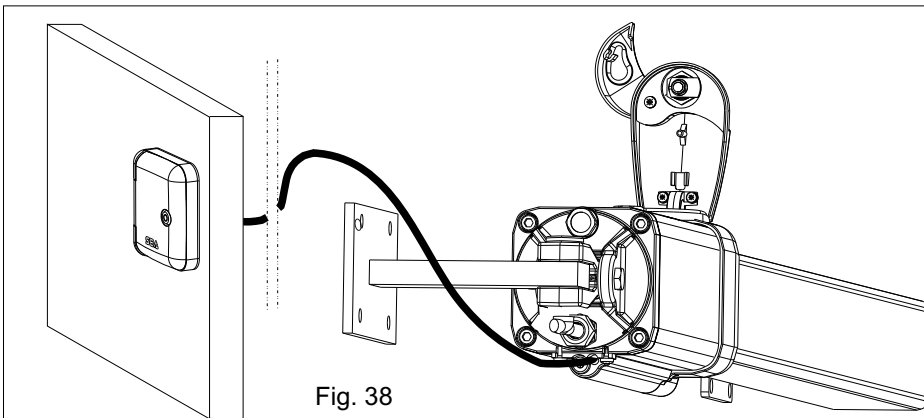


Fig. 38

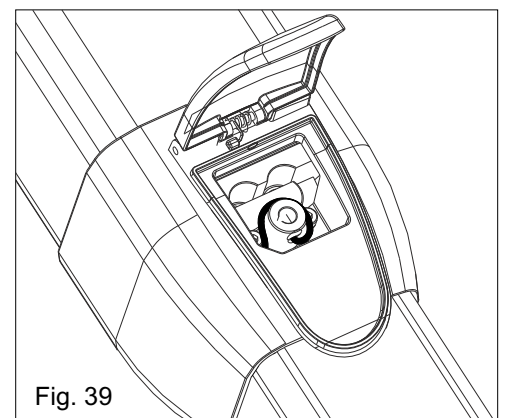


Fig. 39



MECHANICAL INSTALLATION

RELEASE MOUNTING (FULL TANK)

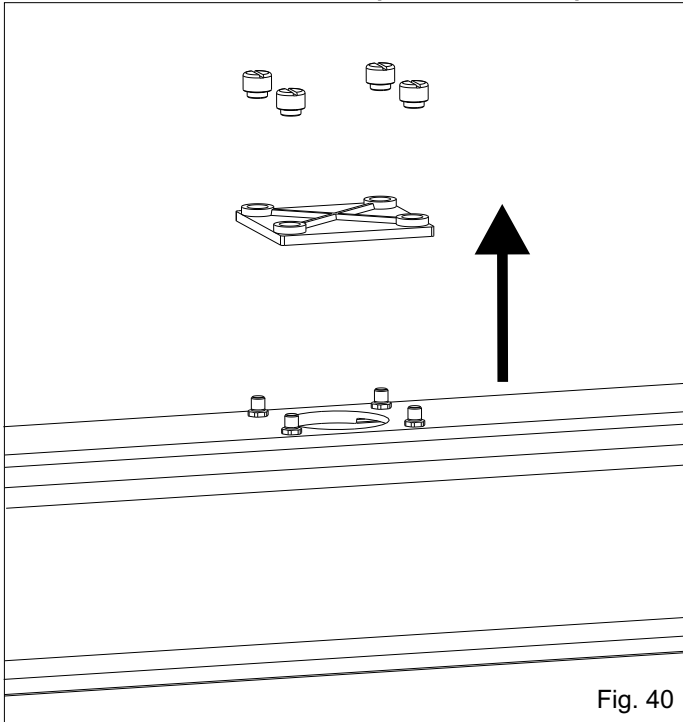


Fig. 40

Remove the transporting plate as shown in Fig. 40.

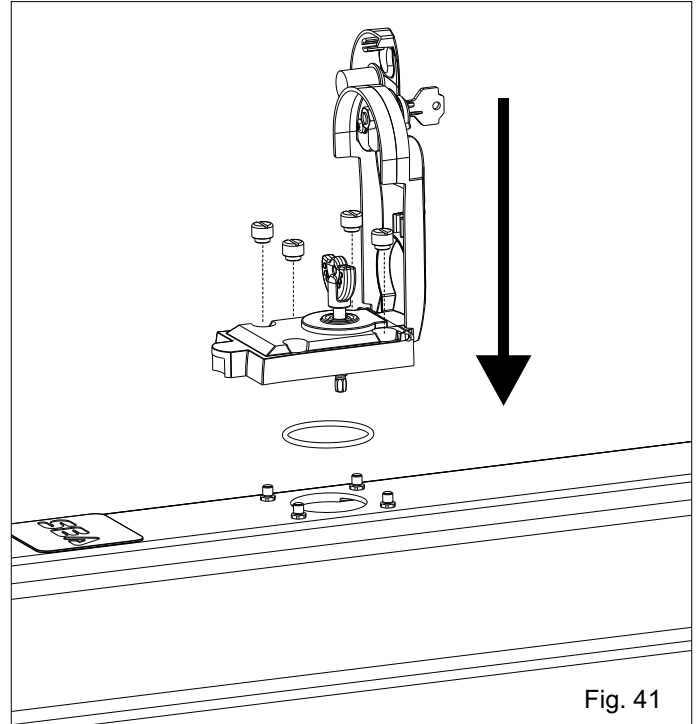
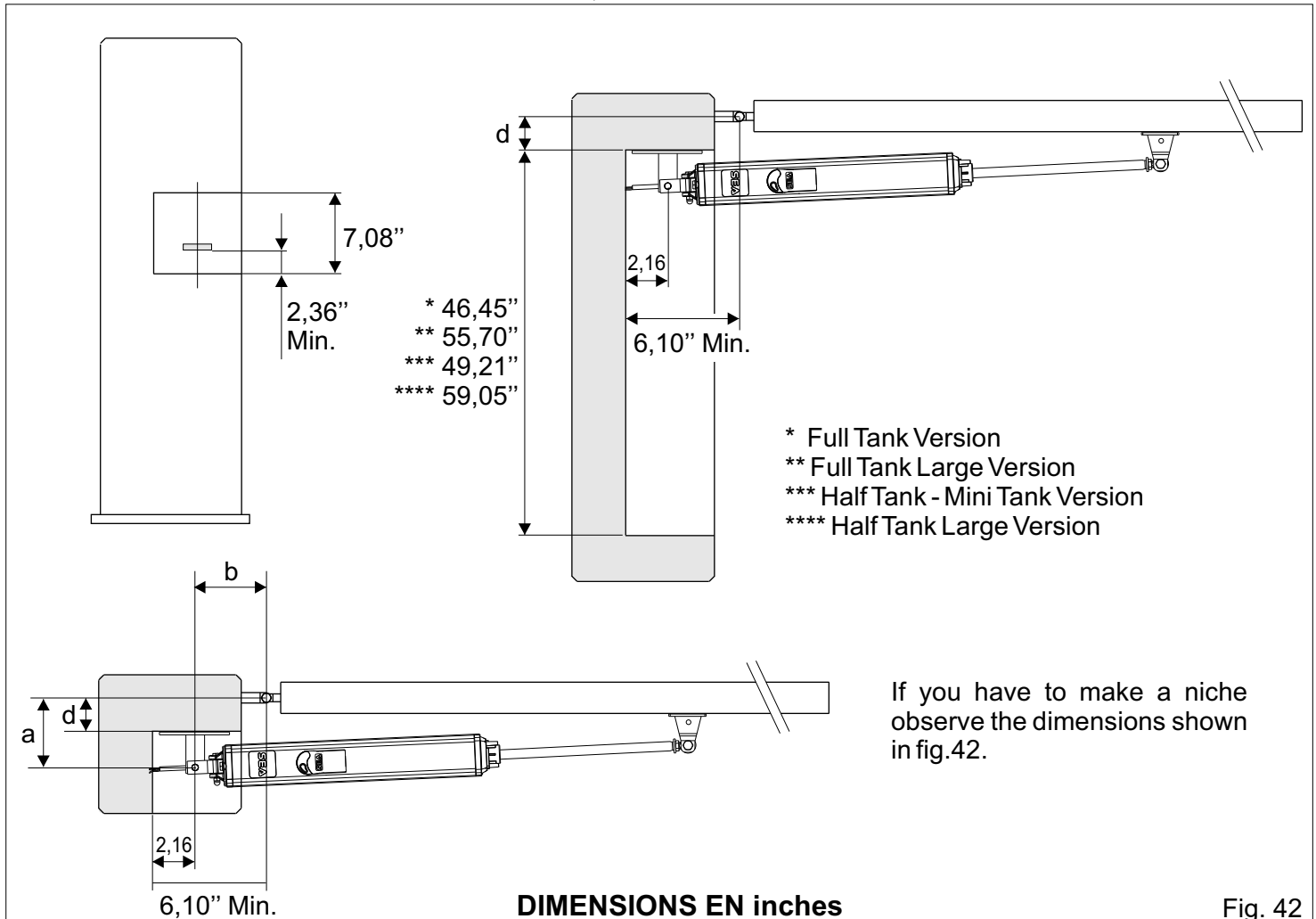


Fig. 41

Mount the release as shown in Fig. 41.

INSTALLATION ON MASONRY PILLARS, MAKING A NICHE



DIMENSIONS EN inches

Fig. 42



MECHANICAL INSTALLATION

HYDRAULIC SLOW-DOWN ADJUSTMENT (ONLY LIBRA FULL TANK STANDARD)

The hydraulic slow-down will take effect in the last 10 - 15 degrees of the closing process.

Slow Down Adjustment:

Take out manual release as in Fig. 43

The slow-down is adjustable by rotating the screw for the brake regulation

Rotating clockwise: Increase the effect of the slow-down

Rotating Anti'clockwise: Decrease the the effect of the slow-down.

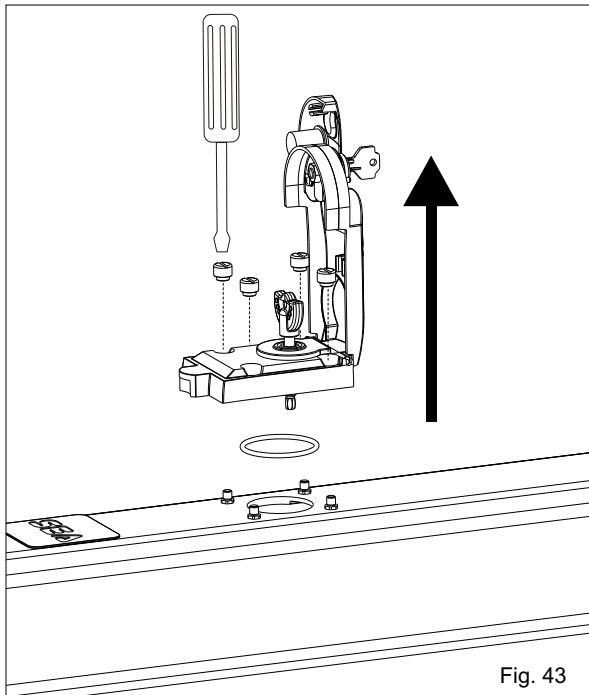
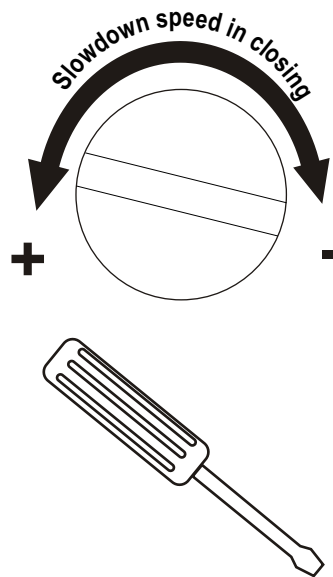


Fig. 43



Screw for brake
Regulation
(Only version Full Tank
with adjustable brake)

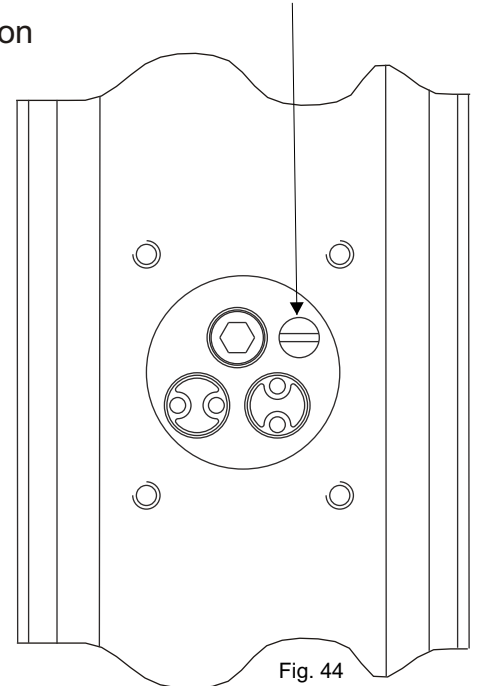


Fig. 44

INSTALLATION OF THE CHROMIUM-PLATED ROD PROTECTION

Make sure to have inserted the antivibration plastic frame (A) before inserting the rod cover extrusion (Fig. 45)

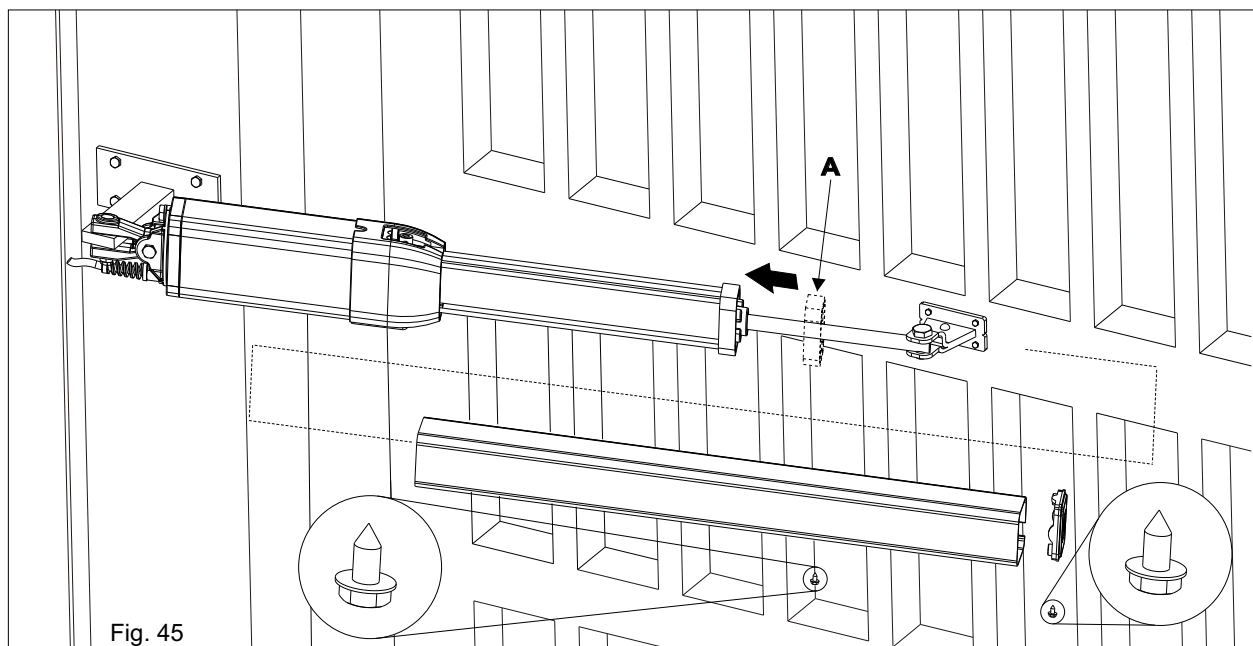
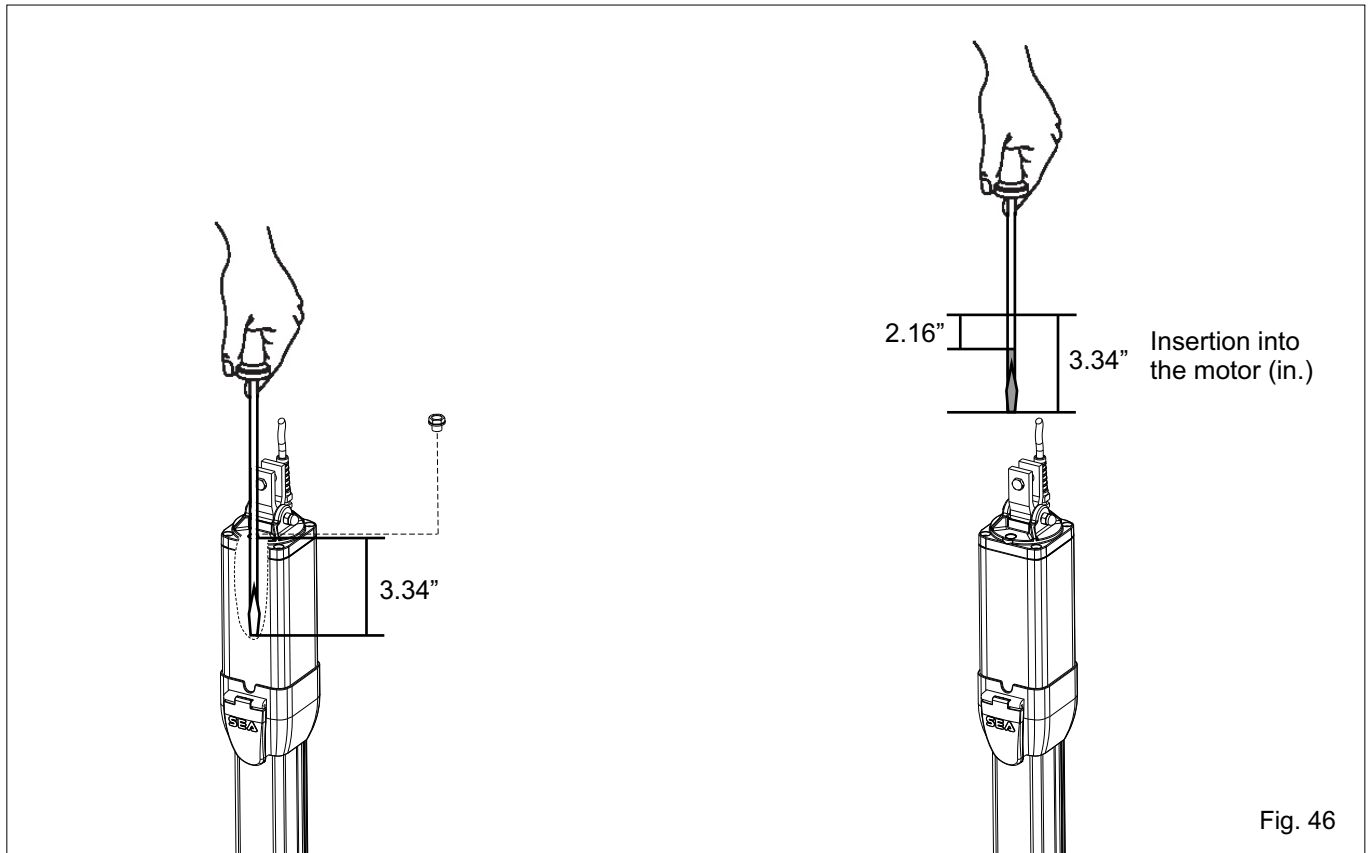


Fig. 45

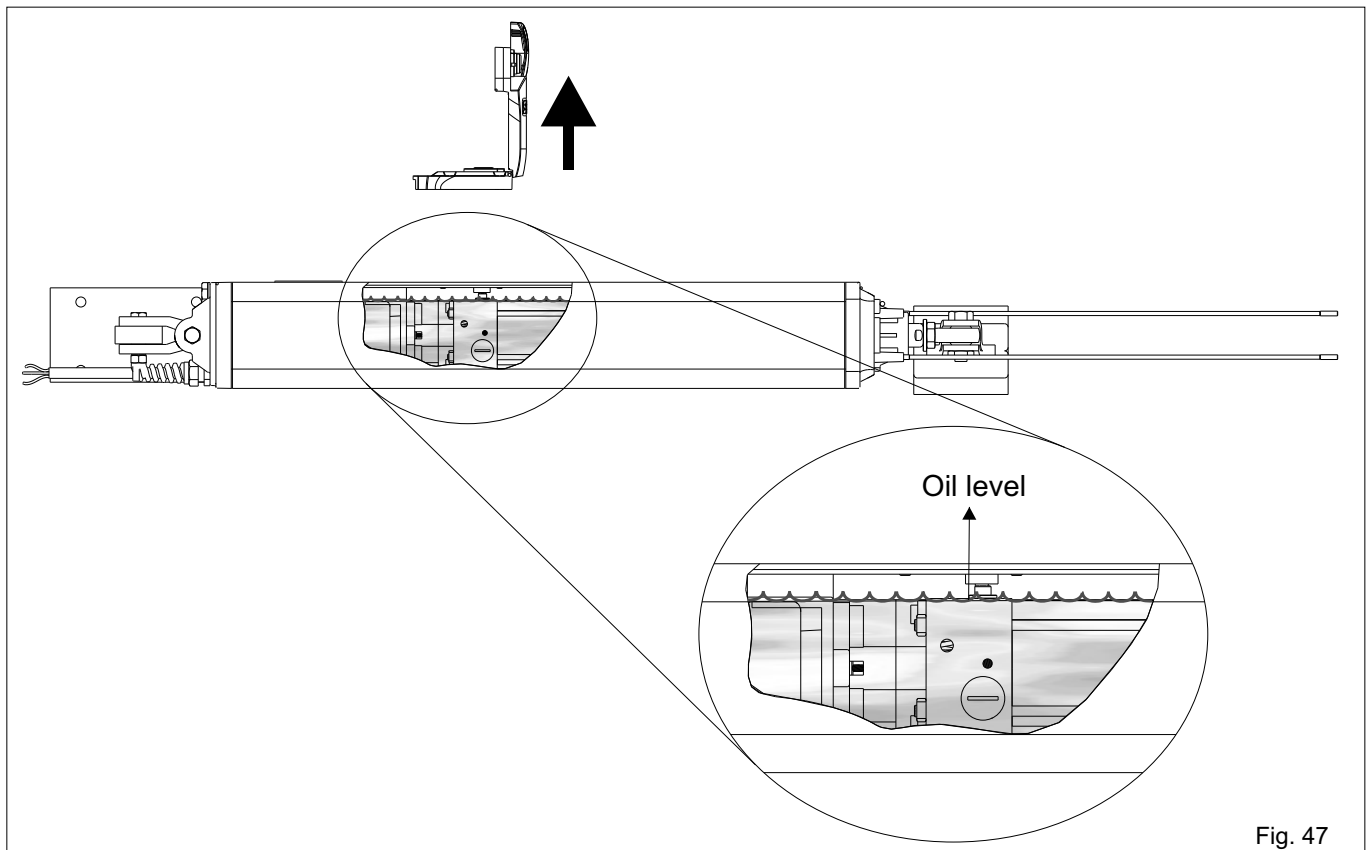


MECHANICAL INSTALLATION

OIL LEVEL MEASUREMENT (HALF TANK - NEW MINI TANK)



OIL LEVEL MEASUREMENT (FULL TANK)





PERIODICAL MAINTENANCE

1) Check the oil level in the hydraulic/oil-bath operators (cap placed in the products for Mini Tank, below release system for HT - FT)
2) Change the oil in case of low level
3) Check the release function
4) Check the by pass valve function
5) Check the fixing pin
6) Check the integrity of the connection cables
7) Check the function and the positive stops condition in opening and closing
8) Clean the hinge of the leaf and lubricate it with recommended lubricant
9) Verify, if installed, the battery back up systems by disconnecting the power source (115V or 230V). REMEMBER to turn on the power source after check.
10) Check for all corroded parts and replace them
11) Check the tight of the hardware of the gate
12) Check the operating of all accessories. Especially the functioning of all safety devices and Safety Gate (if installed).
13) Lubricate the shaft with SEA grease (GREASE GL 00 65000009)



All the above described operations **MUST** be made exclusively by an authorized installer.

RISK EXAMINATION

The points pointed by arrows in fig. 48 are potentially dangerous. The installer must take a thorough risk examination to prevent crushing, conveying, cutting, grappling, trapping so as to guarantee a safe installation for people, things and animals. (Re. Laws in force in the country where installation has been made). As for misunderstandings that may arise refer to your area distributor or call our help desk. These instructions are

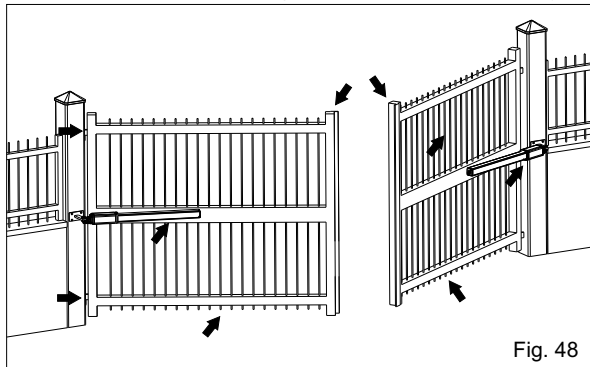


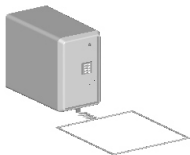
Fig. 48

part of the device and must be kept in a well known place. The installer shall follow the provided instructions thoroughly. SEA USA Inc. products must only be used to automatise doors, gates and livings. Any initiative taken without SEA USA Inc. explicit authorization will preserve the manufacturer from whatsoever responsibility. The installer shall provide warning notices on not assessable further risks. SEA USA Inc. in its relentless aim to improve the products, is allowed to make whatsoever adjustment without giving notice. This doesn't oblige SEA USA Inc. to up-grade the past production. SEA USA Inc. can not be deemed responsible for any damage or accident caused by product breaking, being damages or accidents due to a failure to comply with the instructions herein. The guarantee will be void and the manufacturer responsibility will be nullified if SEA USA Inc. original spare parts are not being used. The electrical installation shall be carried out by a professional technician who will release documentation as requested by the laws in force. Packaging materials such as plastic bags, foam polystyrene, nails etc must be kept out of children's reach as dangers may arise.

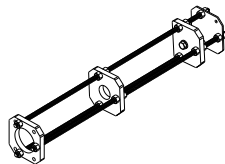
LIBRA ACCESSORIES



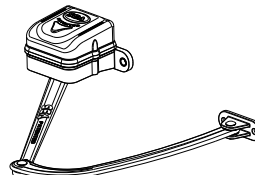
KEY SWITCH



EXTERNAL LOOP DETECTORS



POSITIVE STOPS



SAFETY GATE



PHOTOCELLS



RADIO RECEIVER



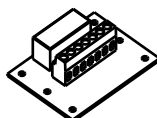
TRANSMITTER



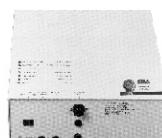
PALM



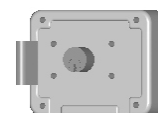
FLASHING LAMP



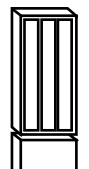
MAGNETIC LOCK CARD



BATTERY BACK-UP



ELECTRIC LOCK



MAGNETIC LOCK



To the attention of users and technicians

MANUAL RELEASE SYSTEM

WARNING: Always switch off the main power (110V or 230V) before servicing the operator.

RELEASE SYSTEM VERSION 1

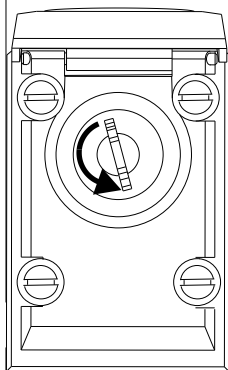


Fig. 49

To release operate as follows:
open the lid, insert the key, rotate starting from the stop of departure from ½ turn to a maximum of 1 turn (360°) in anti-clockwise direction (see fig.49).

To relock the operator do as follows:
turn the key into clockwise direction to the maximum, afterwards bring back the key into the position 0, turn it again in anti-clockwise direction (see fig.50), remove the key and close the little door again.

Attention: Turning the key over 1 turn (360°) could damage the release.

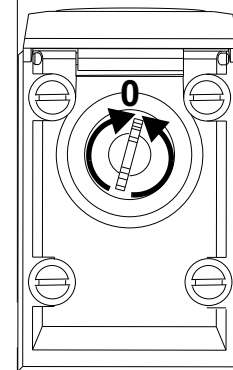


Fig. 50

RELEASE SYSTEM VERSION 2

To release operate as follows:
open the lock cover, insert the key, turn it about 90° clockwise (see fig.51) and open the lid. Take the red key located under the lid, insert it and turn it about 90° anti-clockwise (see fig.52).

To relock the operator do as follows:
turn the red key clockwise until it stops (see fig.52), remove it, put it under the lid and close the lid again.

Attention: Turning the key over 1 turn (360°) could damage the release.
Turn the key anti-clockwise to tighten the lid, remove the key and close the lock cover.

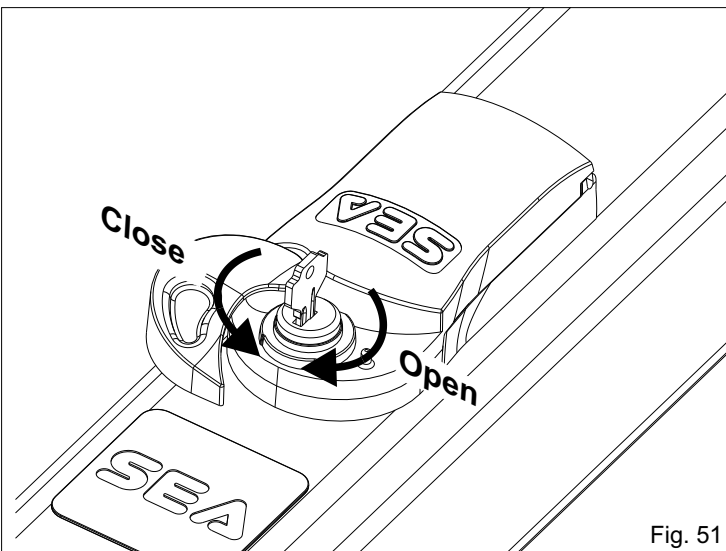


Fig. 51

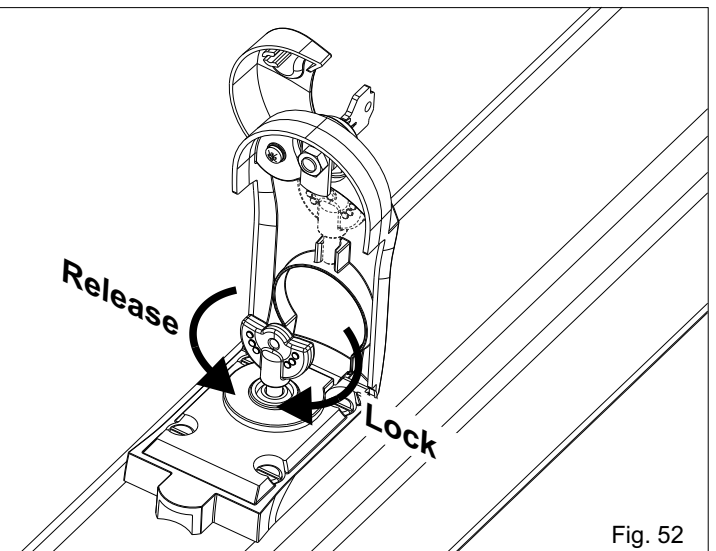


Fig. 52

! SEA recommend to the end user to release the operator only in case of power failure. Always contact the professional installer in case of not correct working of the operators.



To the attention of users and technicians

RELEASE SYSTEM OF THE HALF TANK - NEW MINI TANK

To release operate as follows:




-Insert the key and turn it about 180° anti-clockwise (Fig.53).

To relock the operator do as follows:

-Insert the key and turn it clockwise until it stops (Fig.53).

Attention: To release cut current supply

PLASTIC RELEASE SYSTEM (HALF TANK - NEW MINI TANK)

Lock    **Release**

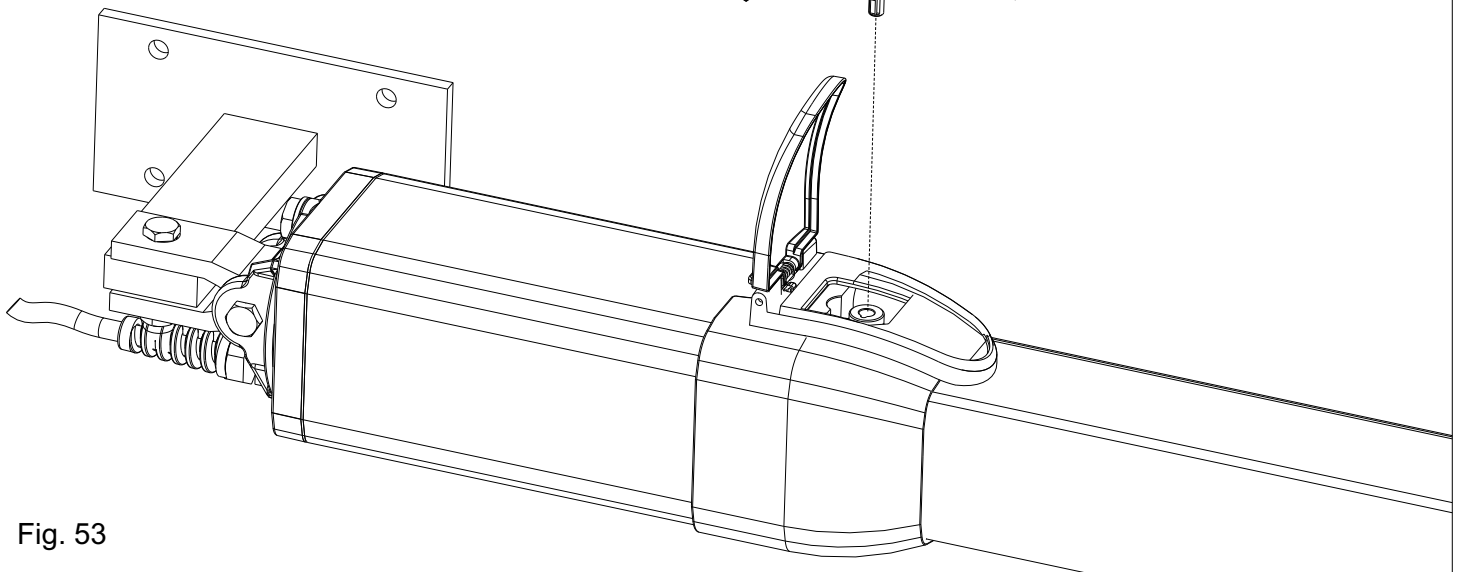





Fig. 53

ALUMINIUM PLUS RELEASE SYSTEM (HALF TANK)

Lock    **Release**

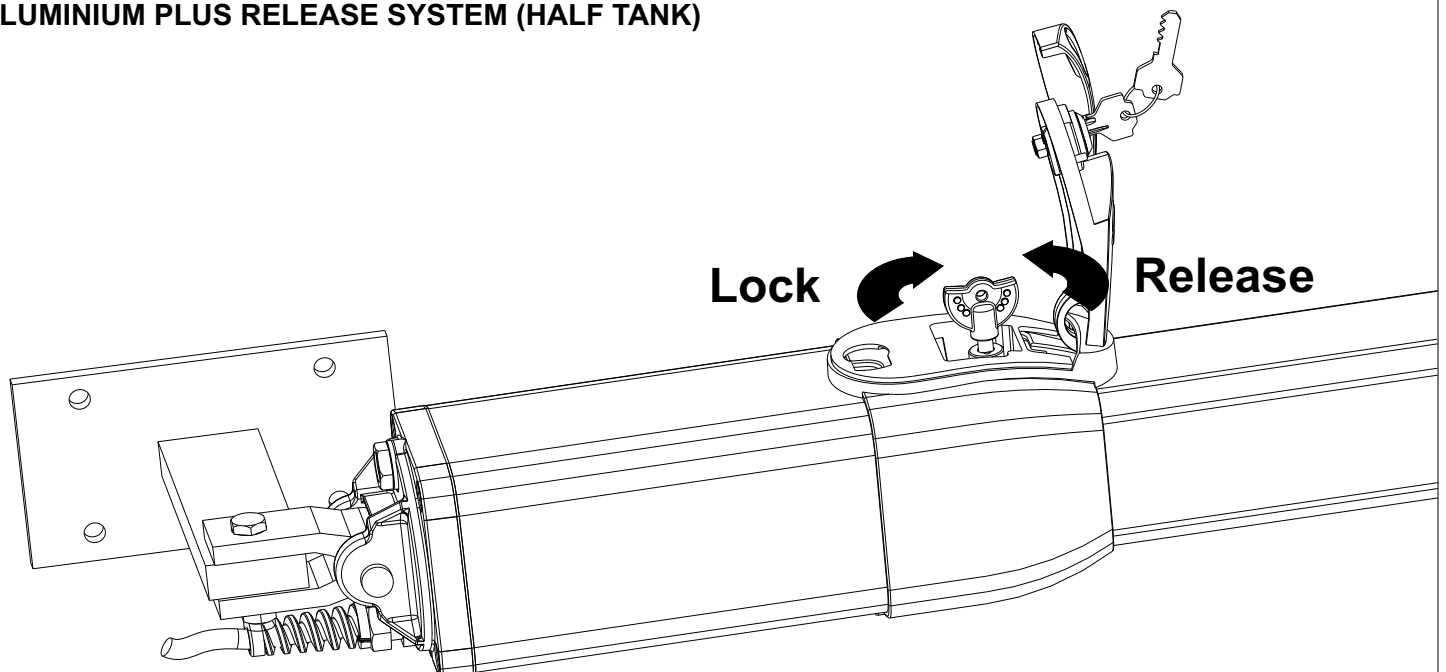


Fig. 54



SALES CONDITIONS and WARRANTY

GENERAL WARNING: Installation must be realized using parts and accessories approved by SEA. SEA is not responsible for incorrect installations and/or non-compliance with safety standards according to the law in-force. SEA is in no way liable for any damages and/or malfunctioning due to using parts and accessories non-compliant with the UL325 safety standards.

ORDERS: Orders are processed upon approval by SEA. Buyers must confirm orders by sending a written Purchase Orders to SEA. Purchase Orders are intended as confirmation of orders and binding for the buyer, which accepts SEA sales condition.

QUOTATION: Quotation and special offers with a non-specified duration expires automatically after 30 days.

PRICES: Prices are based on the Price List in force. Discounts and quotation from Sales Rep. and other selling branches must be approved by SEA. Prices are F.O.B SEA Warehouse in Miami and do not include shipments costs. SEA reserves the right to modify the price list at any time and provide notice to its sales network.

PAYMENT: Method of payments and terms are notified by SEA and displayed on the commercial invoice.

DELIVERY: The delivery time on the invoice is not binding and represents an estimated delivery. Shipments costs will be charged to the buyer and SEA is not responsible for delays and/or damages occurred to the products during shipment.

COMPLAINS: Complains and/or claims must be notified to SEA within 7 business days after receiving the products. Claims and complains must be supported by original documents. Customer must contact the factory for instructions and authorization. Merchandise returned for credit must be current, uninstalled and unused and returned in its original packaging. Freight must be pre-paid on all authorized returns.

REPAIRS: Repairs and parts are subject to the availability in stock. Shipment of products for repairs must be pre-paid by the customer. Products shipped without authorization, sender's details and description of the problems will be refused. Customers must contact SEA for instructions.

WARRANTY: for the original buyer only:

Hydraulic and oil-bath motors: 36 months warranty from the date of invoice on manufacturing, assembling and workmanship defects.

Electro-mechanic motors and electronic control systems: 24 months warranty from the date of invoice on manufacturing, assembling and workmanship defects.

Lepus and Full Tank Standard model: 60 months warranty from the date of invoice on manufacturing, assembling and workmanship defects.

No warranty will be recognized for damages due to incorrect installation and/or improper use for which the product was intended. SEA warranty obligations shall be limited to repair or replace the defective product/parts at SEA option, upon examination of the products by SEA technical Staff. All replaced parts must remain property of SEA. The warranty status of the product remains an unquestionable assessment of SEA. Buyer must ship pre-paid defective products. Products under warranty will be returned pre-paid by SEA. Recognized defects, whatever their nature, will not produce any responsibility and/or damage claims to SEA USA Inc and SEA s.r.l. Warranty shall not cover any required labor activities. Warranty will in no case be recognized if alterations and any other changes will be found on products. Warranty will not cover damages caused by carriers, expendable materials and faults due to improper use with the products specifications. No indemnities are recognized during repairing and/or replacing of the products under warranty. SEA USA Inc. and SEA s.r.l. decline any responsibility for damages to person and objects deriving from non-compliance with safety standards, installation instructions or use of the products sold. It is intended that warranty will be recognized only on products bought through the SEA authorized network. Products must be installed by professionals. No warranty will be recognized if products are installed directly by the final user. Warranty does not apply in case of unexpected events such as fire, flood, electrical power surge, lightning, vandalism and others.

SEA USA Inc. is not responsible for errors in technical information printed in catalogs and installation manuals.



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