

**OM20174** Rev. A 08/04/2005

Only those technicians who have been properly trained in the usage and care of the lift should be allowed to operate the lift.

Local regulations MAY require that the trained operator be at least 18 years of age or be supervised by a trained operator while:

- A. Positioning the vehicle in the service bay
- B. Positioning the lift adapters at the vehicle manufacturer's recommended lift points
- **C.** Actuating the lift controls

# *Display this manual in a conspicuous location in the lift area convenient to the operator.*

## The lift is to be used for raising unoccupied motor vehicles ONLY!

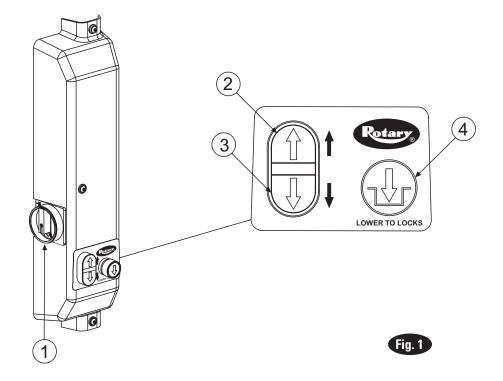
ALWAYS lift the vehicle using all four (4) adapters.

NEVER raise just one end, one corner, or one side of the vehicle.

ONLY lift vehicles which have an individual axle weight that does not exceed one-half the lift capacity. See load capacity table below.

MODEL	DEL LOAD CAPACITY	
SPOA3TE	3000 kg	
Series Lifts	(6600 lbs.)	

## **Lift Controls**



1	<b>E-Stop Switch</b> (In the OFF position, slot can accomodate a lock to prevent lift operation.)
2	Raise Lift
3	Lower Lift
4	Lower to Locks

## **OPERATING INSTRUCTIONS**

### **Surface Mounted Frame Engaging Lifts**

**AWARNING** To avoid personal injury and/or property damage, permit only trained personnel to operate lift. After reviewing these instructions, get familiar with lift controls by running the lift through a few cycles before loading vehicle on lift.

**IMPORTANT** Always lift the vehicle using all four adapters. NEVER raise just one end, one corner, or one side of vehicle.

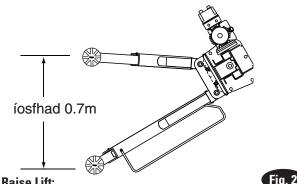
For Truck Frame Vehicles: Assure vehicle frame can support it's weight & overhead bar will contact highest point on the vehicle.

#### 1. Before Loading:

- Inspect Lift to assure it is in good operating condition.
- Assure lift is fully lowered and service bay clear of all objects, grease, oil & personnel.
- Swing arms, with grease & oil free adapters, out to full drivethru position.
- Turn E-Stop switch to "ON" position.
- Do Not allow unauthorized persons in shop area while lift is in use.
- Do Not use any part of the lift as a crane or as a support for another lifting mechanism (i.e.: block & tackle, etc.).

#### 2. Loading:

- Do Not allow unauthorized or untrained persons to position vehicle or operate lift.
- Do Not drive over arms.
- Do Not overload lift. See capacity label on lift.
- Use Only adapter extenders provided by the manufacturer. Do Not use wood, concrete blocks, or other improvised extenders.
- Spot vehicle over lift with left front wheel in proper spotting dish position as shown in Fig. 3. (Position vehicle according to the center of gravity, not for door opening clearance.)
- Check the condition of the pickup points of the vehicle.
- Swing arms under vehicle and position adapters at vehicle manufacturer's recommended pick up points, Fig. 4. Adjust adapters to the required height to keep the vehicle level and in secure contact with adapters.
- Use optional adapters for under body clearance when required.
- Minimum distance between fore & aft pickup points is 0.7m (27-1/2"), See Fig. 2.



- 3. To Raise Lift:
- Do Not permit anyone on lift or inside vehicle when it is in motion.
- Maintain visual contact with arms, pickup points, & vehicle throughout the motion of the lift while remaining clear of lift.
- Actuate switch, Fig. 1. Stop before making contact with vehicle. Check arm restraint pins for engagement. If required, slightly move arm to allow restraint gear and pawl to mesh. DO NOT hammer pin down as this will damage the restraint gear teeth.
- Note: Allow (2) seconds between motor starts. Failure to comply may cause motor burnout.
- Raise vehicle until tires clear the floor.
- Shake vehicle at front or rear bumper to check stability.
- Stop: Check adapters for secure contact at vehicle manufacturer's recommended pick up points.
- Continue to raise to desired height **only** if vehicle is stable on lift.
- Actuate switch, Fig. 1, to lower lift onto latches after desired height is reached.

- DO NOT go under vehicle if all four adapters are not in stable contact at vehicle manufacturer's recommended lift points.
- Repeat complete spotting, loading, and raising procedures if vehicle is unstable.

#### 4. While Using Lift:

- Avoid excessive rocking of vehicle while on lift.
- Always use safety stands as needed for stability when removing or installing heavy components. (engines, transmissions, etc.) Use (4) safety stands.
- Raise safety stands to meet vehicle, do not lower vehicle onto stands.
- Avoid accidental touching of exposed exhaust system on raised vehicles. Watch for air hoses and electrical cords which may be tripped over.
- Wear safety glasses while working under vehicle.
- No one shall climb onto vehicle or arms when elevated.

#### 5. Before Lowering Lift:

- Remove all tools or other objects from lift area.
- Assure personnel are not in lift area.

#### 6. To Lower Lift:

- Remain clear of lift and actuate switch to raise lift off of safety latches.
- Actuate switch to lower lift while keeping feet clear!

#### 7. Unloading:

- Assure lift is fully lowered.
- Remove adapters from under vehicle and swing arms to full drive-thru position before moving vehicle from lift area.
- Assure exit area is clear of objects and personnel before removing vehicle from lift.

#### 8. Power Off:

• Turn E-stop switch to "OFF" position while lift is not in use.

#### 9. Trouble Shooting:

• See page 8.

#### 10. Maintenance:

• See page 7.

## **Typical Wheel Spotting Positions**

#### Less than 2.7m (106") wheelbase: position LIFT FRONT left front wheel on ap-POINTS proach side of wheel dish. **Perimeter Frame** 2.7-3.2m (106"-126") wheelbase: position FRONT LIFT left front wheel in POINTS wheel dish. **Pickup Truck** Larger than 3.2m (126") wheelbase: position LIFT left front wheel just FRONT POINTS forward of wheel dish. **Unitized Body** Fig. 3 WARNING 7 Most specialty or modified vehicles FRONT LIFT cannot be raised on a frame engaging lift. Contact vehicle POINTS manufacturer for raising or jacking details. 77 Fig. 4 **Stub Frame**

**Typical Lift Points** 

## **RESIDUAL RISKS**

- Check the condition of the pickup points of the vehicle. Assure these points are not weakened due to rust, corrosion, damage, or modification.
- Vehicles with heavy material in the trunk or modified to carry equipment or tools, will have a changed center of gravity. Use stands when working on such vehicles.
- Assure cargo does not cause either individual axle weight to exceed one half lift capacity.

## **OPERATOR INSPECTION & MAINTENANCE**

(MAINTENANCE AUTHORIZED BY OPERATOR)

- Always keep bolts tight. Check periodically.
- Always assure arm stop bolts are in place.
- Always keep lift components clean.
- **Always**, if oil leakage is observed, call local service representative.
- **Daily:** Check cables and sheaves for wear. If parts are worn, call local service representative.
- **Daily:** Inspect adapters for damage or excessive wear. If parts are worn, call local service representative.
- **Daily:** Check for permanent deformation to the latches. If present, call local service representative to replace parts.

- **Monthly:** Check equalizer cable tension. If parts are worn, call local service representative.
- Monthly: Check overhead sensor for function.
- **Monthly:** Clean and check base of lift. Remove any rust and touch-up with paint.
- Every 3 Months: Check anchor bolts for tightness. Anchors should be torqued to 200Nm (12.4kg-m).
- Every 6 Months: Check fluid level of lift power unit and refill to proper level in level indicator with lift fully lowered.
- Replace all decals on the lift if unable to read or missing. Reorder labels from Rotary Lift.

## **TROUBLE SHOOTING FOR OPERATORS**

## Up button **()** pressed but lift doesn't raise

Trouble	Cause	Cause Remedy	
Press button but nothing happens.	1. Controls not functioning.	<ol> <li>Contact service representative for further assistance.</li> </ol>	
Motor won't run from either column.	1. Incorrect voltage to power unit.	<ol> <li>Contact service representative for further assistance.</li> </ol>	
Motor runs but will not raise lift.	1. Overloading lift.	<ol> <li>Check vehicle weight and/or balance vehicle weight on lift.</li> <li>Contact service representative for further assistance</li> </ol>	

Down button 🕕	pressed but lift doesn't lower
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Trouble	Cause	Remedy
Press button but nothing happens.	1. Controls not functioning.	<ol> <li>Contact service representative for further assistance.</li> </ol>
Locking latches do not engage.	1. Broken latch spring.	<ol> <li>Contact service representative for further assistance.</li> </ol>

## Down button pressed but lift doesn't lower

Trouble	Cause	Remedy
Press button but nothing happens.	1. Controls not functioning.	<ol> <li>Contact service representative for further assistance.</li> </ol>

## **REPAIR MAINTENANCE**

## (MAINTENANCE AUTHORIZED BY QUALIFIED SERVICE REPRESENTATIVE ONLY)

- Lockout all energy sources before beginning any repairs.
- D0 N0T modify the lift in any manner without the prior written consent of the manufacturer.
- If electrical problems develop, make repairs according to local electrical codes. Use genuine Rotary Lift parts when replacement is necessary.
- Replace worn parts as required with genuine Rotary parts.

- Adjust equalizer cable tension per lift installation instructions.
- **Monthly:** Lubricate locking latch shafts. Push latch handle several times for oil to penetrate joints.

## ANNUAL INSPECTION (PERFORMED BY AUTHORIZED PERSONNEL)

Aside from the routine checks that are stated under "Operator Maintenance", the following annual inspection is to be performed and a record of this inspection permanently retained on site. All deficiencies are to be corrected by the proper authorized personnel.

## **INSPECTION POINTS**

- Check accessibility of the operating procedures.
- Check accessibility and readability of all labels.
- Check the rated load capacity of the lift.
- Examine all structural components including welds.
- Check electrical cords for insulation damage.
- Check fluid level.
- Check the lift controls for function.
- Check for proper function of swing arm restraints.
- · Check all fastening devices for tightness including floor anchor bolts.
- Check exposed surfaces and edges.
- Operate the lift and check the operation of the positive stop and the lift safety latches.
- Check for proper operation of adapters.
- With a representative vehicle on the lift, check the lowering speed (not to exceed 0.15m/s).
- Check the operation of the synchronization or equalization system so that both sides raise and lower equally.
- \*Check the function of overhead switch.
- Check all accessible piping, tubing, hose, valves and fittings. Review lift oil consumption records.
- \*Operate lift through full excursion and observe.
- With lift loaded, stop the lift at midpoint of travel and observe for drifting down and hydraulic leaks.
- Check with operator to ascertain any unusual operating characteristics.

\*Perform check with and without a vehicle representative load.

## **TROUBLE SHOOTING FOR AUTHORIZED MAINTENANCE PERSONNEL**

Trouble	Cause	Remedy
Motor does not run.	<ol> <li>Incorrect voltage to motor.</li> <li>Bad wiring connections.</li> <li>Motor up switch burned out.</li> <li>Overhead limit switch burned out.</li> <li>Motor windings burned out.</li> </ol>	<ol> <li>Supply correct voltage to motor.</li> <li>Repair and insulate all connections.</li> <li>Replace switch/controls.</li> <li>Replace overhead limit switch.</li> <li>Replace motor.</li> </ol>
Motor runs but will not raise lift	<ol> <li>Overloading lift</li> <li>Motor running on low voltage</li> <li>Debris in lowering valve</li> <li>Pump sucking air</li> <li>Suction stub off pump</li> <li>Low oil level</li> <li>Improper relief valve adjustment</li> </ol>	<ol> <li>Check vehicle weight and/or balance vehicle weight on lift</li> <li>Supply correct voltage to motor</li> <li>Clean lowering valve</li> <li>Tighten all suction line fittings</li> <li>Replace suction stub</li> <li>Fill tank to proper level with ISOVG32 hydraulic oil or Dexron III ATF</li> <li>Replace relief valve cartridge.</li> </ol>
Lift slowly settles down.	<ol> <li>Debris in check valve seat.</li> <li>Debris in lowering valve seat.</li> <li>External oil leaks.</li> </ol>	<ol> <li>Clean check valve.</li> <li>Clean lowering valve.</li> <li>Repair external leaks.</li> </ol>
Slow lifting speed or oil blowing out filler breather cap.	<ol> <li>Air mixed with oil.</li> <li>Air mixed with oil suction.</li> <li>Oil return tube loose.</li> </ol>	<ol> <li>Change oil to Dexron III ATF or ISOVG32.</li> <li>Tighten all suction line fittings.</li> <li>Reinstall oil return tube.</li> </ol>
Lift going up unlevel.	<ol> <li>Equalizer cables out of adjustment.</li> <li>Lift installed on unlevel floor.</li> </ol>	<ol> <li>Adjust equalizer cables to correct tension.</li> <li>Shim lift to level columns (Not to exceed 13mm). If over 13mm, break out floor and level per lift installation instructions.</li> </ol>
Anchors will not stay tight.	<ol> <li>Holes drilled oversize.</li> <li>Concrete floor thickness or holding strength not sufficient.</li> </ol>	<ol> <li>Relocate lift using new bit to drill holes. Reference installation instructions for proper anchoring method and minimum spacing requirements.</li> <li>Break out old concrete and re-pour new pads for lift per lift installation instruction.</li> </ol>
Lift stops short of full rise or chatters.	<ol> <li>Low oil level</li> <li>Air in hydraulic lines/cylinder</li> </ol>	<ol> <li>Fill tank to MIN mark with ISOVG32 hydraulic oil or DexronIII ATF.</li> <li>Start unit, raise lift about 610mm. Open cylinder bleeders approximately 2 turns. Close bleeders when fluid streams. Lower lift and fill tank.</li> </ol>
Locking latch solenoids get extremely hot when lift is being lowered.	1. None	1. None, this is normal.

Note: Shim thickness of 51mm is possible by using optional shim kit #FC5393. Contact your authorized Rotary repair person.

## **TROUBLE SHOOTING FOR AUTHORIZED MAINTENANCE PERSONNEL**

## Up button pressed but lift doesn't raise

Trouble	Cause	Remedy
Press button but nothing happens.	1. Controls not functioning.	1. Replace controls.
Motor won't run from either column.	1. Incorrect voltage to power unit.	1. Supply correct voltage to motor.

## Down button **U** pressed but lift doesn't lower

Trouble	Cause	Remedy
Press button but nothing happens.	1. Controls not functioning.	1. Replace controls.
Locking latches do not engage.	1. Broken latch spring.	1. Replace latch spring.

Down button pressed but lift doesn't lower
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Trouble	Cause	Remedy
Press button but nothing happens.	1. Controls not functioning.	1. Replace controls.

## LATCH CABLE ADJUSTMENT

### **Equalizer Cable Adjustment:**

Press and raise lift to check equalizer cable tension. Below carriage, grasp adjacent cables between thumb and forefinger, with about 15 lbs., Fig. 5, effort you should just pull the cables together. Adjust at upper tie-offs, Fig. 6.

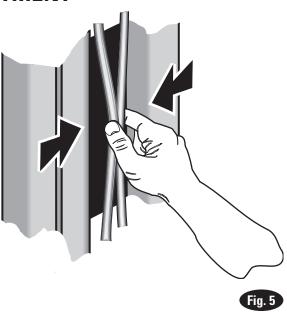
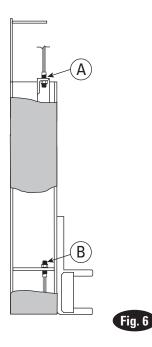


	Fig. 6 Detail
А	Upper cable tie off plate and 1/2" nylon insert lock nut
В	Lower cable tie off plate and 1/2" nylon insert lock nut

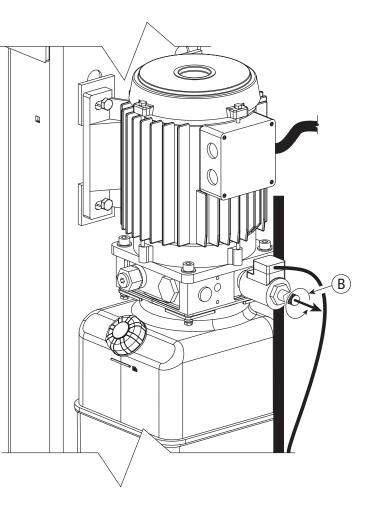


## **MANUAL LOWERING OF LIFT**

### **MANUAL LOWERING OF LIFT**

If your lift is in a raised position and you lose power it is important to know how to lower the lift manually. Make sure nothing is under the lift and all unauthorized personnel are away from the lift area.

- Place a hydraulic jack and pipe under the carriage on the master control side. Jack should be rated to lift the capacity of the vehicle.
- Raise lift off of the locking latch. You should only have to raise lift approximately 2mm to disengage the lock.
- 3.) Remove master control cover and slave cover. Push down on the latch where it connects to the solenoid (A), Fig. 7. If you can't push it down with your fingers then you don't have the latch off of the lock. Repeat step #2 until lock is disengaged.
- 4.) Wire tie latch down to keep it from locking temporarily.
- 5.) Slowly lower hydraulic jack and pipe out from under the arm carriage.
- 6.) Repeat procedures 1 through 5 on slave control panel column.
- 7.) The lift is now being held up by hydraulics at this point.
- Remove cap from lowering valve and twist and pull to lower lift (B), Fig. 7. <u>The lift will</u> lower at a slow speed.
- **IMPORTANT** Unwire locks from step 4. Replace cap on lowering valve after lift has been lowered.
- 9.) If your facility lost power your lift will operate when you regain power.
- 10.) If your facility power was not lost have a certified electrican check wiring to lift or call an authorized service representative.



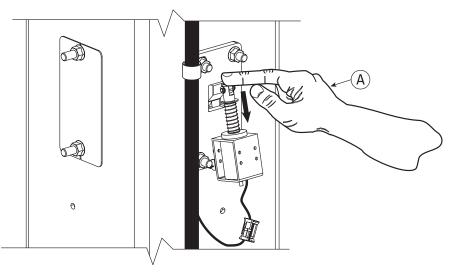


Fig. 7

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### EG-Konformitätserklärung EC Declaration of Conformity

im Sinne der EG-Richtlinie 2006/42/EG über Maschinen (Anhang II A) according to EC directive 2006/42/EC on machinery (Annex II A)

#### Name und Anschrift des Herstellers /

Name and address of the manufacturer :

#### **BlitzRotary GmbH**

Hüfinger Str.55 78199 Bräunlingen, Germany

Diese Erklärung bezieht sich nur auf die Maschine in dem Zustand, in dem sie in Verkehr gebracht wurde; vom Endnutzer nachträglich angebrachte Teile und/oder nachträglich vorgenommene Eingriffe bleiben unberücksichtigt. Die Erklärung verliert ihre Gültigkeit, wenn das Produkt ohne Zustimmung umgebaut oder verändert wird. *This declaration relates exclusively to the machinery in the state in which it was placed on the market, and excludes components which are added and/or operations carried out subsequently by the final user. The declaration is no more valid, if the product is modified without agreement.* 

Hiermit erklären wir, dass die nachstehend beschriebene Maschine Herewith we declare, that the machinery described below

<b>Produktbezeichnung / product denomination:</b> Serien- / Typenbezeichnung / model / type:	<b>2-Säulen-Hebebühne / 2-post vehicle lift SPOA3T</b> Tragfähigkeit 3000 kg / capacity 3000 kg
Maschinen-/Seriennummer / machinery / serial number:	

Baujahr / Year of manufacture:

**20**...

allen einschlägigen Bestimmungen der Maschinenrichtlinie 2006/42/EG entspricht. Die Maschine entspricht zusätzlich den Bestimmungen der Richtlinien 2004/108/EG über elektromagnetische Verträglichkeit 2006/95/EG über elektrische Betriebsmittel EG (Schutzziele wurden gemäß Anhang I, Nr. 1.5.1 der Maschinenrichtlinie 2006/42/EG eingehalten).

is complying with all essential requirements of the Machinery Directive2006/42/EC. In addition the partly completed machinery is in conformity with the EC Directives 2004/108/EC relating to electromagnetic compatibility and 2006/95/EC relating to electrical equipment (Protection objectives have been met in accordance with Annex I No. 1.5.1 of the Machinery Directive 2006/42/EC).

#### Angewandte harmonisierte Normen / Harmonised Standards used

EN 1493:1998+A1:2008	Fahrzeug-Hebebühnen / Vehicle lifts
EN ISO 12100-1 : 2003	Sicherheit von Maschinen - Grundbegriffe / Safety of Machinery- Basic concepts
EN ISO 12100-2 : 2003	Sicherheit von Maschinen - Grundbegriffe / Safety of Machinery- Basic concepts
EN 60204-1:2006+7/2007	Elektrische Ausrüstung von Maschinen / Electrical equipment of machines
EN 349:1993+A1:2008	Sicherheit von Maschinen-Mindestabstände / Safety of machinery - Minimum gaps
EN ISO 13850:2008	Sicherheit von Maschinen-Not-Halt / Safety of machinery – Emergency stop
EN ISO 14121-1:2007	Sicherheit von Maschinen-Risikobeurteilung / Safety of machinery - Risk assessment

#### Angewandte sonstige technische Normen und Spezifikationen Other technical standards and specifications used:

BGG 945 Prüfung von Hebebühnen / inspection of vehicle lifts

BGR 500 Betreiben von Arbeitsmitteln / management of working appliances

BGV A3 Unfallverhütungsvorschrift elektrische Anlagen und Betriebsmittel / law accident prevention regulation of electric facilities and equipment

Bevollmächtigter für die Zusammenstellung der relevanten technischen Unterlagen: *The person authorised to compile the relevant technical documentation:* Herr Pohl; Hüfinger Str. 55; 78199 Bräunlingen

Ort / *Place :* Bräunlingen Datum / *Date :* 21.12.2009

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Carsten Rohde Geschäftsführer / Managing Director

Trained Operators and Regular Maintenance Ensures Satisfactory Performance of Your Rotary Lift.

Replacement parts: See installers package for parts breakdown sheet. Order Genuine Rotary replacement parts from your nearest Authorized Parts Distributor.

Maintenance Assistance: Contact your local Rotary distributor. Should further assistance be required, contact Rotary Lift, at one of the phone numbers listed below.

World Headquarters: **Rotary Lift** 

2700 Lanier Drive Madison, Indiana USA Phone: 1.800.445.5438 Phone: 1.812.273.1622 Fax: 1.800.578.5438 Fax: 1.812.273.6502 userlink@rotarylift.com www.rotarylift.com

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Canada: (Regional Sales Office)

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