

LP20354

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	LOAD CAPACITY
SPOA30 Series Lifts	3100kg
SPOA40 Series Lifts	4000kg
SPO40 Series Lifts	4000kg
SP054 Series Lifts	5400kg

LIFT CONTROLS M SERIES LIFTS

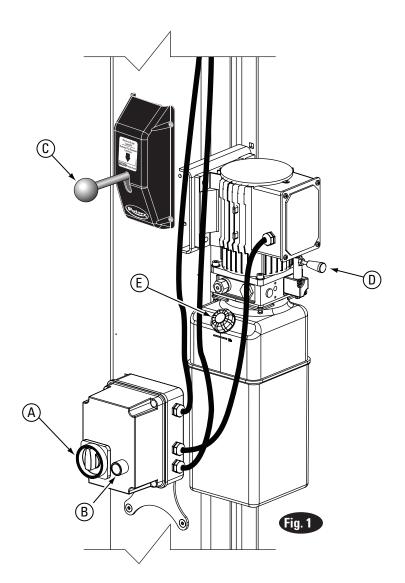
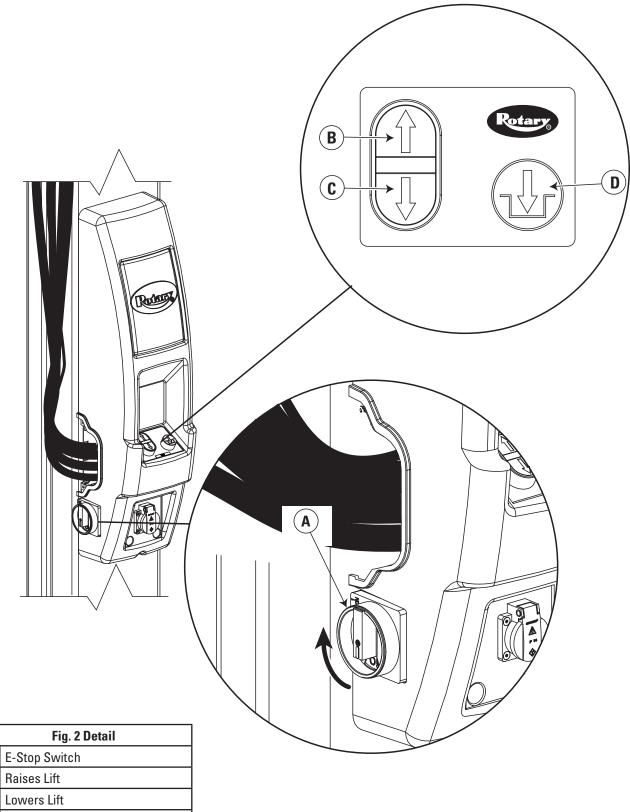


	Fig. 1 Detail	
Α	E-Stop Switch	
В	Raise Switch	
С	Safety Latch Release	
D	Lowering Valve Handle	
E	Fill-Breather Cap	

LIFT CONTROLS E SERIES LIFTS



D Lowers Lift To Locking Latches

A B

С

Fig. 2

OPERATING INSTRUCTIONS SURFACE MOUNTED FRAME ENGAGING LIFTS

WARNING 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.

Assure vehicle frame can support it's weight & overhead bar or sensor will contact highest point on the vehicle.

1. Before Loading:

- Inspect Lift See "Operator Inspection And Maintenance" on page 8. Never operate if lift malfunctions or has broken or damaged parts.
- Lift must be fully lowered and service bay clear of all personnel before the vehicle is positioned onto lift.
- Swing arms out to full drive-thru position.
- Assure area around lift is free of tools, debris, grease, and oil.
- Assure Adapter Pads are free from grease and oil.
- **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.).
- Turn E-Stop switch to "ON" Position, Fig. 1. For E series lifts turn both E-Stop switches "ON", Fig. 2.
- 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, 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 lift points, Fig. 4. Adjust adapters to the required height to keep the vehicle level and properly balanced.
- Use optional adapters for under body clearance when required.
- On SP054 Series Lifts adapters are supplied in 102mm and 204mm increments. Stack-up height should not exceed 306mm. No adapters are supplied with special SP054 Sprinter Lift.
- Use adapter extension combination to keep lift as level as possible.

3. To Raise Lift:

- **Do Not** permit anyone on lift or inside vehicle when it is being raised or lowered.
- Maintain visual contact with arms, pickup points, & vehicle throughout the motion of the lift while remaining clear of lift.
- For M Series Lifts: Actuate RAISE Switch on Control Box to raise lift, Fig. 1.
- For E Series Lifts: Push n control panel, Fig. 2.

Note: Allow 2 seconds between motor starts. Failure to comply may cause motor burnout.

• 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.

- Raise vehicle until tires clear the floor.
- Stop and check adapters for secure contact at vehicle manufacturer's recommended lift points.
- Continue to raise to desired height only if vehicle is stable on lift.
- Lower lift onto safety latches after desired height is reached. (Lift is to be raised high enough for locking latches to engage.)
- For M Series Lifts: Actuate LOWERING VALVE handle to lower lift onto locking latches.
- For E Series Lifts: Actuate control panel to lower lift onto locking latches.
- **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. (i.e..: 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.

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 when lowering vehicle. Keep Feet Clear!
- For M Series Lifts:
 - Actuate RAISE switch to raise lift off locking latches.
 - Actuate SAFETY LATCH RELEASE handle fully and hold.
 - Actuate LOWERING VALVE handle to lower, Fig. 1.
- Note: Both LATCH release and LOWERING VALVE handles are deadman-type design. Each must be held down to lower lift. **Do not** override these self-closing lift controls.
- For E, Series Lifts:
- Push (1) on control panel to raise lift off of locking latches.
- Push 🕕 on control panel to lower lift.

7. Unloading:

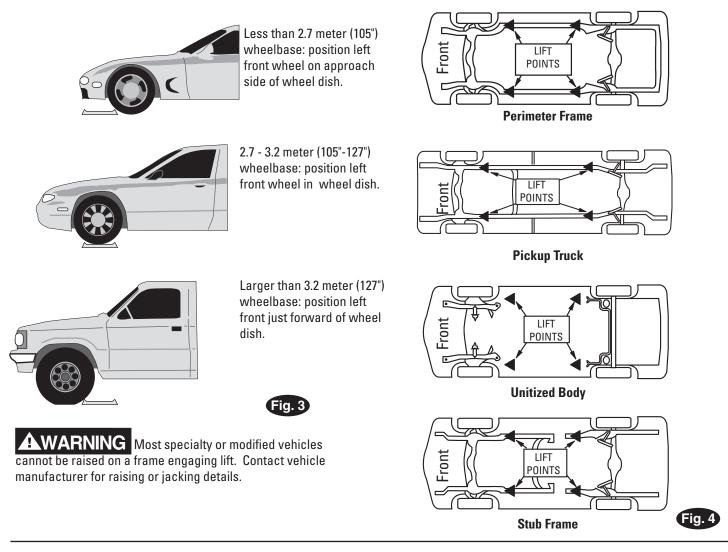
- Remove adapters from under vehicle and swing arms to full drive-thru position before moving vehicle.
- Assure Exit area is clear of objects and personnel before removing vehicle from lift.

8. Power Off:

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

Typical Wheel Spotting Positions

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.
- 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.
- **Monthly:** Clean and check base of lift. Remove any rust and touch-up with paint.

TROUBLE SHOOTING FOR OPERATORS FOR M SERIES LIFTS

Trouble	Cause	Remedy
Motor does not run.	1. Blown fuse or circuit breaker.	 Replace blown fuse or reset circuit breaker. Contact service representative for further assistance.
Motor runs but will not raise lift.	1. Low oil level.	 Fill tank to MIN mark with ISOVG32 hydraulic oil or Dexron III ATF. Contact service representative for further assistance.
Motor runs—raises unloaded lift but will not raise vehicle.	1. Overloading lift.	 Check vehicle weight and/or balance vehicle weight on lift. Contact service representative for further assistance.
Lift slowly settles down.	See Remedy	1. Contact service representative for further assistance.
Slow lifting speed or oil blowing out filler breather cap.	See Remedy	1. Contact service representative for further assistance.
Lift going up unlevel.	See Remedy	1. Contact service representative for further assistance.
Anchors will not stay tight.	See Remedy	1. Contact service representative for further assistance.
Locking latches do not engage.	See Remedy	1. Contact service representative for further assistance.
Locking latches do not disengage.	See Remedy	1. Contact service representative for further assistance.
	8	I

TROUBLE SHOOTING FOR OPERATORS FOR E SERIES LIFTS

h button actuated but lift doesn't raise

Trouble	Cause	Remedy
Motor won't run.	 Overhead Sensor Actuated. Up button not functioning. 	 Check sensor for contact with vehicle. Check UP button on opposite column if neither UP button is functioning contact service representative for further assistance.
	3. Incorrect voltage to power unit.	 Contact service representative for further assistance.
Motor runs but will not raise lift.	1. Overloading lift.	 Check vehicle weight and/or balance vehicle weight on lift. Contact service representative for further assistance
Locking latches do not engage.	1. Broken latch spring.	 Contact service representative for further assistance.

🚺 button actuated but lift doesn't lower

TroubleCauseRemedyLift won't lower.1. Down button not functioning.
2. Safety Latches won't release.
3. Lowering Valve not functioning.1. Contact service representative for further
assistance.
3. Contact service representative for further
assistance.3. Lowering Valve not functioning.3. Contact service representative for further
assistance.

🕁 button actuated but lift doesn't lower

Trouble

Lift won't lower.

Cause

- 1. Down button not functioning.
- 2. Lowering Valve not functioning.

Remedy

- 1. Contact service representative for further assistance.
- 2. Contact service representative for further assistance.

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

ANNUAL INSPECTION PERFORMED BY AUTHORIZED PERSONNEL ONLY

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. Perform check with and without a vehicle representative load.
- Check the function of overhead sensor.
- Check all accessible piping, tubing, hose, valves and fittings. Review lift oil consumption records.
- Operate lift through full excursion and observe. Perform check with and without a vehicle representative load.
- 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.

TROUBLE SHOOTING FOR AUTHORIZED MAINTENANCE PERSONNEL FOR ALL LIFTS

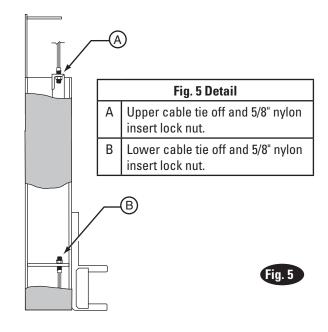
Trouble Motor does not run.	Cause1. Blown fuse/circuit breaker.2. Incorrect voltage to motor.3. Bad wiring connections.4. Motor up switch burned out.5. Overhead limit switch burned out.6. Motor windings burned out.	Remedy1. Replace fuse or reset breaker.2. Supply correct voltage to motor.3. Repair and insulate all connections.4. Replace switch/control buttons.5. Replace overhead limit switch.6. Replace motor.
Motor runs but will not raise lift.	 Overloading lift. Motor running on low voltage. Debris in lowering valve. Pump sucking air. Suction stub off pump. Low oil level. Improper relief valve adjustment. Open lowering valve. 	 Check vehicle weight and/or balance vehicle weight on lift. Supply correct voltage to motor. Clean lowering valve. Tighten all suction line fittings. Replace suction stub. Fill tank to proper level with ISOVG32 hydraulic oil or Dexron III ATF Replace relief valve. Repair/replace lowering valve.
Lift slowly settles down.	 Debris in check valve seat. Debris in lowering valve seat. External oil leaks. 	 Clean check valve. Clean lowering valve. Repair external leaks.
Slow lifting speed or oil blowing out filler breather cap.	 Air mixed with oil. Air mixed with oil suction. Oil return tube loose. 	 Change oil to Dexron III ATF or ISOVG32 Hydraulic Oil. Tighten all suction line fittings. Reinstall oil return tube.
Lift going up unlevel.	 Equalizer cables out of adjustment. Lift installed on unlevel floor. 	 Adjust equalizer cables to correct tension. Shim lift to level columns (Not to exceed 13mm).*
Anchors will not stay tight.	 Holes drilled oversize. Concrete floor thickness or holding strength not sufficient. 	 Relocate lift using new bit to drill holes. Reference installation instructions for proper anchoring method and minimum spacing requirements. Break out old concrete and re-pour new pads for lift per lift installation instruction.
Lift stops short of full rise or chatters.	 Air in hydraulic lines or cylinder. Low oil level. 	 Start unit, raise lift about 610mm. Open cylinder bleeders approximately 2 turns. Close bleeders when fluid streams. Fully lower lift and refill power unit per Step 2 below. Fully lower lift. Fill tank to MIN mark with IS)VG32 Hydraulic Oil or Dexron III ATF.
Locking latches do not engage. (M Series lifts only.)	 Latch shafts rusted. (Usually occurs on outside installations or in high humidity areas such as wash bays.) 	 Remove covers, oil latch mechanism. Depress latch release handle several times to allow oil to coat shaft.
Locking latches do not disengage. (M Series lifts only.)	 Latch cable is broken. Cable is off sheaves. Latch cable is loose. 	 Replace cable. Check position of upper sheaves. Replace cable.

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

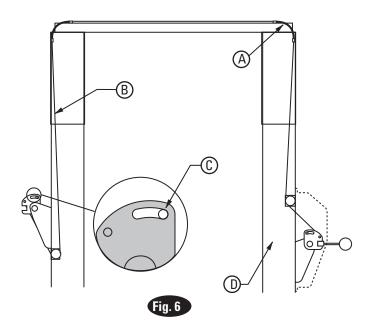
EQUALIZER CABLE ADJUSTMENT

Checking and Adjusting Equalizer Cables:

Raise lift to check equalizer cable tension. Below carriage, grasp adjacent cables between thumb and forefinger, with about 67N effort you should just pull the cables together. Adjust at upper tie-offs (Fig. 5).



LATCH CABLE ADJUSTMENT FOR M SERIES LIFTS



Checking and Adjusting Locking Latch Cable:

- 1. Raise carriages past the first latch position and then lower onto latches.
- 2. Check that the latches have fully engaged when the latch handle is released. Be sure carriage is resting on latch dog.
- 3. Raise carriages fully off latches, actuate latch handle and check that the latches have fully disengaged.
- 4. Make necessary adjustments if required, see Fig. 7, recheck latch function. Latch handle must be positioned at the top of the latch control slot, Fig. 8.

Pull Control Plate down, making sure the Latch Dog itself does not move, to eliminate clearance between Control Plate slot and Latch Dog pin (Fig. 6). Loosen clamp and remove slack in the cable. Tighten the clamp.

	Fig. 6 Detail	
А	Latch Cable Conduit Guide	
В	Latch Cable	
С	Notice the clearance removed between the control plate slot and the latch dog pin.	
D	Right Column	

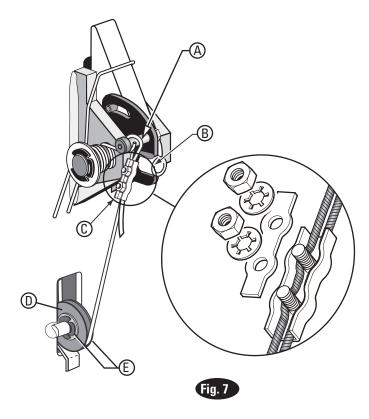
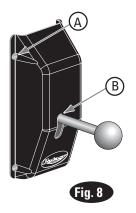


	Fig. 7 Detail
А	Shoulder Bolt
В	Feed cable up though cable clamp, loop over end of shoulder bolt and feed back down through cable clamp.
С	Cable Clamp
D	Latch Cable Sheave
E	(2) 3/8" Retaining Rings



6-18NCx3/8" Lg. BHMS
ch handle MUST be positioned at the top of the h control cover slot.

MANUAL LOWERING OF LIFT FOR E SERIES LIFTS ONLY

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 lifting structure of vehicle and all unauthorized personnel are away from the lift area.

- 1. 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.
- 2. Raise lift off of the locking latch. You should only have to raise lift approximately 1/4" to disengage the lock.
- 3. Remove access panel from the control panel and pull locking latch back, Fig. 9. If you can not pull it back with your fingers then you don't have the latch off of the lock. Repeat Step 2 until lock is disengaged.
- 4. Place a flat piece of steel behind latch dog and back of column to keep it off of the lock.
- 5. Slowly lower hydraulic jack and pipe out from under the arm carriage.
- 6. Repeat step 1 thru 5 on slave control panel column.
- 7. The lift is now being held up by hydraulics at this point.

- 8. Remove cap from lowering valve on power unit and twist and pull to lower lift, Fig. 10. The lift will lower at a slow speed. Replace cap on lowering valve after the 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 electrician check wiring to lift or call an authorized Rotary repair person.

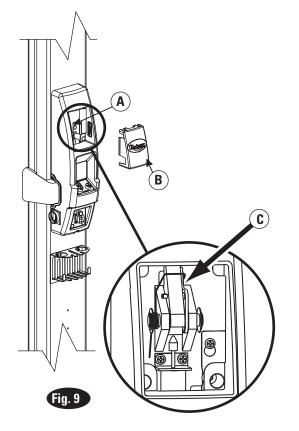
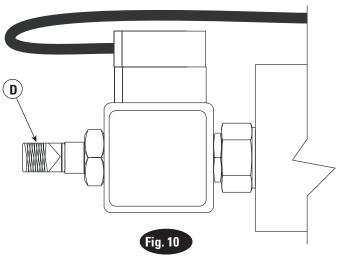


	Fig. 9/Fig. 10 Detail
А	Pull back locking latch
В	Access Panel
С	Locking Latch
D	Twist and pull to manually lower lift



Side view of lowering valve located on power unit.

EC DECLARATION OF CONFORMITY TO TYPE

Manufacturer's Name

Manufacturer's Address

Representative's Name

Representative's Address

Type of Equipment

Relevant Directives

Approval Body

Model Numbers Certificate Number

Model Numbers Certificate Number **Rotary Lift/Dover Corporation**

2700 Lanier Drive Madison, Indiana 47250 USA

John Uhl

Rotary Lift 2700 Lanier Drive Madison, Indiana 47250 USA

Hydraulic Automotive Lift

98/37/EC

TÜV Rheinland

SPOA30 Series, SPOA40 Series, SPO40 Series BM 60002500

SP054 Series BM 60005636

> I, the undersigned, hereby declare that the equipment specified above conforms with the type-tested sample certified by the Approval Body stated above.

Place: Madison, Indiana, USA

bhr Uk

(Signature)

ENGINEERING MANAGER

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.

European Headquarter BlitzRotary GmbH Hüfinger Straße 5 D-78199 Bräunlin

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