Forward this manual to all operators. Failure to operate this equipment as directed in this manual may cause injury.
CONTENTS (2 POST HOIST)

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   Hydraulic cylinder
   Control Box
   Platform support cross beam
   Wire & hydraulic line layout
   Hydraulic line diagram
   Electrical diagram

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   Caution during operation
   Checklists before operation
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   Circumstance
   Preparation before lowering lift
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maintenance
Product Warranty

This lift is warranted by Maker to be of satisfactory quality, fit for its purpose and comply with applicable Maker specifications for the period of sixty months from the date of installation (Verified by reference to your proof of purchase).

Exclusion of Warranty

This warranty does not apply if the lift has:
1 been mishandled, misused, willfully damaged, neglected, improperly tested, repaired, altered or defaced in anyway
2 a defect arising as a result of any failure to follow instructions either in the manual or product specification
3 a defect arising from the use of non- Maker approved parts or ancillary items attached to or in connection with the lift.
4 Malfunctioning or damage arisen out of natural disaster such as earthquake, flood and so on.
5 Installation by unauthorized personnel

Warranty does not affect your statutory rights as a consumer.

Warranty conditions may vary depending on the country in which you bought the lift.

CAUTION!!!

This lift is unfit for outdoor exposure, hence any problems or accident occurs resulting from outdoor application will not be covered under warranty

How to claim

(Please make sure you have your address details, lift serial number, purchase date and problem details at hand before contacting nearest agent.)

Contact the person or agent whom you have purchased the lift from.
SAFETY INSTRUCTION

Designated use of lift
This lift is built for servicing or repairing vehicles only. Do not use the lift other than the designated purpose.

Danger and Caution
Please read the following content carefully to use the lift safely

General Warning
1. Please read users manual thoroughly
2. Operator of the lift should have a through understanding of dangers which any arise due to improper use.
3. Regular inspection and maintenance must be observed according to manual.
4. When abnormalities found in using the lift, refrain from using the lift until the problem is inspected and rectified.
5. Use lift only for servicing and repairing vehicle.

WARNING SIGNS ON LIFT

- **CAUTION**
  - Lift to be used by trained operator only.
- **CAUTION**
  - Authorized personnel only in lift area.
- **CAUTION**
  - Use vehicle manufacturer's lift points.
- **CAUTION**
  - Always use safety stands when removing or installing heavy components.
- **CAUTION**
  - Use height extenders when necessary to ensure good contact.
- **CAUTION**
  - Auxiliary adapters may reduce load capacity.
- **WARNING**
  - Do not override self-closing lift controls.
- **WARNING**
  - Keep feet clear of lift while lowering.
## INSTRUCTION OF WARNING SIGNS

<table>
<thead>
<tr>
<th>WARNING</th>
<th>CAUTION</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Warning" /></td>
<td><img src="image2" alt="Caution" /></td>
<td>Only trained personnel should operate the lift. If not, it may cause danger to the inexperienced operator or the inexperienced operator may cause damage to the lift under improper manner.</td>
</tr>
<tr>
<td><img src="image3" alt="Warning" /></td>
<td><img src="image4" alt="Caution" /></td>
<td>Only Authorized personnel should operate the lift. Persons that not be allowed should be away from the lift in case of danger appears.</td>
</tr>
<tr>
<td><img src="image5" alt="Warning" /></td>
<td><img src="image6" alt="Caution" /></td>
<td>Make sure where the four points of the vehicle are to let the lift arms touch the four points properly.</td>
</tr>
<tr>
<td><img src="image6" alt="Warning" /></td>
<td><img src="image7" alt="Caution" /></td>
<td>Safety stands shall be used under front and back end of the vehicle when removing or installing heavy components. Vehicle might incline or fall and cause injury if there are no safety stands under.</td>
</tr>
<tr>
<td><img src="image7" alt="Warning" /></td>
<td><img src="image8" alt="Caution" /></td>
<td>If lifting arms can not touch the lifting points of the vehicle, select proper height extenders to the arm to reach the lifting points of the vehicle.</td>
</tr>
<tr>
<td><strong>CAUTION</strong></td>
<td>Auxiliary tools, shelf for example, may reduce the load capacity of the lift.</td>
<td></td>
</tr>
<tr>
<td>-------------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>WARNING</strong></td>
<td>Should not lift the vehicle over the limited lifting height, which means the lift should stop the lifting activity when the vehicle touches the limit switch. If not, the vehicle will burst the crossbeam overhead.</td>
<td></td>
</tr>
<tr>
<td><strong>WARNING</strong></td>
<td>Keep feet clear of lift while the lift is lowering as it may injure the feet.</td>
<td></td>
</tr>
<tr>
<td><strong>WARNING</strong></td>
<td>There should be adequate space for personnel’s escaping in case the vehicle is in danger of falling.</td>
<td></td>
</tr>
<tr>
<td><strong>WARNING</strong></td>
<td>Position vehicle with center of gravity midway between adapters. Otherwise the vehicle may lose its balance and fall.</td>
<td></td>
</tr>
<tr>
<td><strong>WARNING</strong></td>
<td>Personnel should be away from lift when it is raising and lowering to avoid possible injury.</td>
<td></td>
</tr>
<tr>
<td><strong>WARNING</strong></td>
<td>Do not rock the vehicle excessively while it is on lift. Vehicle may fall under violent rocking condition.</td>
<td></td>
</tr>
</tbody>
</table>
INTRODUCTION OF LIFT

CHARACTERISTICS OF LIFT

DOUBLE CYLINDER SEAL PACK USED FOR MAXIMUM POWER AND DURABILITY.

UTILISATION OF 2 CYLINDERS AND TWIN ROPES DISTRIBUTE BALANCED PRESSURE ON EACH POST THUS, ALONG WITH DOUBLE POST SAFETY LOCK, MAKES THIS PRODUCT ACCIDENT PROOF HOIST.

LIFT MAINTAINS APPROPRIATE LOWERING SPEED DEPENDING ON THE WEIGHT OF VEHICLE FOR SAFE USE.

CABLE REMOTE CONTROL PROVIDE USER CONVENIENCE.

SMART AND ADVANCED DESIGN ALONG WITH DURABLE POWDER COATING FINISHED PAINT ENHANCES THE CLASS OF LIFT AND ITS APPEARANCE FOR LONG TIME.

MODULAR PARTS CHANGE MINIMISE DOWN TIME

1. AUTOMATIC ANTI ARM SWING LOCK IS ADAPTED TO PREVENT VEHICLE FALLING FROM THE LIFT IN CASE OF SUPPORT ARM SWINGS OUT DUE TO MISPLACEMENT OF VEHICLE ON LIFT.

2. FRICTION RESISTING ENGINEERED PLASTIC BEARING ON CARRIER REDUCES NOISE AND WEAR ON THE POST.

3. TELESCOPIC SADDLE PAD FOR VANS AND LIGHT TRUCK WILL ENHANCE THE APPLICATION OF THE LIFT TO THOSE LIGHT TRUCKS AND VANS.

4. ROOF HEIGHT LIMIT SWITCH PROTECT VEHICLE ROOF TOP.

5. ITALIAN POWER PACK IS PROVIDED FOR RELIABLE OPERATION

6. CARRIAGE LIMIT SWITCH PRESERVES LONGER LIFE OF CYLINDER

7. POST STEEL FORMY PROVIDE INCREDIBLE STRENGTH FOR LONG LASTING OPERATION.

8. 3 BUTTON CONTROL BOX PROVIDES MORE OPTIONS IN OPERATING HOIST

9. 3 STAGE FRONT ARM, SHORT FRONT ARM AND 2 STAGE LONG REAR ARM ALLOW VEHICLE DOOR TO BE OPENED WIDE.

DOUBLE THE THICKNESS OF LOAD ARMS ENSURE PIECE OF MIND & EXTRA SAFETY
**SPECIFICATION**

<table>
<thead>
<tr>
<th>MAX CAPACITY</th>
<th>11,000 lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>POWER &amp; MOTOR</td>
<td>2.2kw x 220v x 60hz, Single phase</td>
</tr>
<tr>
<td>LIFTING TIME</td>
<td>Approx 50 second</td>
</tr>
<tr>
<td>LOWERING TIME</td>
<td>Approx 30 second</td>
</tr>
</tbody>
</table>
INSTALLATION:
Here we list the criteria and the prescription for a proper installation of the lift and the preliminary operation to perform a safe first use of the machine.

1. PACKING TYPE, SHIPPING, HANDLING, HOISTING POINTS
The machine is supplied conveniently packed.
Check that all the content corresponds to what agreed when ordering and that the packing has not been damaged during the transport. In the event an anomaly was found, do not proceed with the assembly and immediately contact the authorized National Auto Tools, Inc. Triumph Lift Dealer.

The standard package content is the following:
- Control Post (1 unit)
- Long Arms (4 units)
- Hydraulic Power Unit (1 unit)
- Slave Post (1 unit)
- Accessory Pack (1 unit)
- Base Cover Plate (1 unit)

Pay particular attention to the handling of the packed lift and use a lifting device whose capacity is greater to the weight to be moved and/or raised. The posts should only handled with a hoist & appropriate sling, and must be accompanied by a second person to prevent dangerous swinging. The equipment chosen must be suitable for safe lifting & moving, taking into consideration the dimensions & weight.

⚠️ DANGER
Always load, unload and handle the lift package paying the utmost attention to possible hazards, in particular make sure that there are no persons or things in the range of the lifting device.

2. STORAGE
If the machine, before being unpacked, needs a temporary storage, keep it in a covered dry place.

3. UNPACKING
Once positioned the load close to the point in which the machine shall be installed, remove the eventual packing.

⚠️ DANGER
Execute any maintenance, installation and assembly operation on the lift wearing proper protective devices (gloves, shoes...).

⚠️ ATTENTION
All the packing material shall be properly scrapped in respect of the enforced norms in matter of scrapping of refusals.

4. FOUNDATAIONS
DANGER
Before proceeding with the assembly and installation of the machine, verify that the floor is of a suitable type to stand the load consequence of the use of the lift. Only install the lift on a horizontal floor, free from obstacles.

The floor where the machine is to be installed shall be constituted from un-fissured concrete, leveled, at least 20 cm of thickness, built with a resistance of 25 Nm/mm², allowing the fixing to the ground of the lift with the aid of M19x160 dowels given with the machine. If these conditions are not satisfied, proper foundations will have to be prepared with a gravel floor with a minimum thickness of at least 50 millimeter; on the gravel floor the user shall lay a steel electro-welded mesh with quadrant of 10 cm and with a wire diameter equal or greater to 8 millimeter. On top of the mesh a concrete layer with a thickness of at least 180 millimeters shall be placed.

DANGER
Verify that all around the machine there is sufficient space in order to guarantee the correct and safe use of the machine.

ASSEMBLY
In order to guarantee an easy and correct installation and a safe use of the machine, the lift is delivery pre-assembled. There are however some detached parts that need to be assembled in the final location.

1. AUTHORISED PERSONNEL
Only a person qualified, competent and acquainted to all the enforced norms in safety matter shall be allowed to install the lift.

DANGER
In order to properly install NT11 lift, read carefully this manual first and refer only to somebody qualified by National Auto Tools, Inc. for the help.

2. NEEDED TOOLS
Beyond the common workshop equipment, the following tools will be necessary:
1) A drill with φ19-L=160 mm (minimum) widia tap and dynamometric wrench
2) A lifting device, such as a crane or fork lift, with a minimum admissible load of 1500 kg
3) Hydraulic Oil with a viscosity of 46 Cst at 40°C according to ISO3448-ISO VG46 norms

3. POSITION OF THE WORKSTATION
After having positioned the lift in proximity of the chosen place for a installation, lift the column with raising device, as shown in the following pictures.
Carefully remove transit plates from base of posts & all packaging.

**DANGER**

Make sure that while raising the column, the load is always properly held. To install the lift is preferable to use a crane; using a fork lift is acceptable, but in this case oversized forks shall be installed, positioning them as close as possible to the load.

Before moving posts ensure cables are not trapped below base plate. Fit top plate to both posts prior to moving.

Position & align 1st post into position and raise carriage to engage on ratchet and locate safety block to ensure it can’t drop.

Drill holes (3/4” x 6”) & remove any dust & debris before inserting bolts. It is permissible to use “packing” washers if necessary - Max. 10mm. Fix post into position using bolts & tighten to specified torque (163-165Nm). Align 2nd post with 1st post using a “chalk line” & position as specified and then repeat previous steps.
Fix the lift to the ground using the M19 bolts supplied with the machine. Lock the bolts with the dynamometric wrench, verifying that the tightening torque is equal to 80Nm.

**DANGER**

Verify that all the bolts are properly tightened before proceeding with the installation of the machine. It is prohibited to use or even test the lift if only one of the dowels has not been correctly positioned or if the tightening torque of all of them has not been verified.

### 4. CONNECTION OF THE SYNCHRONISATION SYSTEM

In order to synchronize the position of the load supporting devices during the vertical movement, avoiding dangerous losses of balance of the load, the two carriages are mechanically connect by two steel ropes.

Install the synchronization cables as per the following instructions:

- Position the adjusting nut on cable to approximately halfway along thread, it must be ensured that the locking nut is also tightened to prevent the adjusting nut becoming loose in use.
- Pass cable around pulley at the bottom of post.
- Run the cable along floor between the posts & pass cable around pulley at the bottom on the opposite post. Run cable over the top pulley. Adjust nut to tension cable and make sure that the locking nut is also tightened to prevent the adjusting nut becoming loose in use. Pass cable around pulley at the bottom of post, run the cable along floor between the posts & pass cable around pulley at the bottom on the opposite post and run cable over the top pulley.

- Verify that the cable tension switch, installed on the top of each post, is operative and that it is forces open by the sensor device if the cable is not fully pulled.
- Adjust nut to tension cable and make sure that the locking nut is also tightened to prevent the adjusting nut becoming loose in use.
- Check that cable is fully tensioned and install the plastic cap.
- Repeat previous steps for second cable.

**DANGER**
Verify that the synchronization system and the safety device controlling the tightness of the steel cables operate correctly before using the lift. It is absolutely forbidden to modify or to by-pass the synchronization system and/or any safety device.

**DANGER**
Only use original replacement parts approved by National Auto Tools, Inc. for the specific use with the NT11 lift.

**5. CONNECTION OF THE HYDRAULIC CIRCUIT:**
Before using the lift, it is necessary to fill up the tank of the oil, verify the correct assembly of the hoses connecting the hydraulic power unit to the master cylinder and the master cylinder to the slave.
Connect hydraulic pipe between posts, taking care to ensure the elbow connection is positioned to prevent damage when fitting the base cover plate later.
6. CARRIAGE & COVER ASSEMBLY

- Assemble long & short arm to the carriage on each post as shown, it must be ensured that each arm is securely located using the Arm Pivot Pins & locked in position using the provided circlips.

- Securely affix full length post covers to posts, ensuring that wiring & hydraulic pipes are not trapped during assembly. Position base cover plate between posts ensuring that wiring & hydraulic pipes are not trapped during assembly.

⚠️ ATTENTION

Ease of routine maintenance & servicing the base cover plate is designed to be positioned between the posts & located in the cutouts of the post base plate, without fixing to floor.
WIRE ROPE DIAGRAM
HYDRAULIC LINE DIAGRAM
HOW TO OPERATE LIFT

CHECK LIST BEFORE OR DURING OPERATION

UP & DOWN SWITCH IS WELL OPERATING?

ANY ABNORMAL NOISE IS HEARD DURING OPERATION?

IS THERE ANY LEAKAGE FROM HYDRAULIC CONNECTION LINE?

DOES SAFETY DEVICE MAKE CLICKING SOUND WHILE RAISING LIFT?

IS THERE ANY LOOSE BOLT OR NUTS?

IS ELECTRICAL FITTINGS ARE SAFELY SECURED?

IS MOVING PART OF LIFT CLEAR FROM ANY EXCESSIVE DIRT OR OTHER SUBSTANCE?

PLACING VEHICLE ON LIFT

MAKE SURE THAT LIFT IS FULLY LOWERED

TRY TO PLACE THE WEIGHT CENTRE OF VEHICLE CLOSE TO THE CENTER OF LIFT

MAKE SURE THAT THE HAND BRAKE IS ON BEFORE GETTING OUT OF VEHICLE

IF OPTIONAL ADAPTER KIT IS TO BE USED, MAKE SURE THE SADDLE PAD IS SECURELY CONTACING VEHICLE’S RAISING POINT
CIRCUMSTANCES
ELECTRICAL FAILURE OR HYDRAULIC LINE LEAKAGE

PREPARATION BEFORE PROCEEDING
1) CLEAR OBSTACLES FROM UNDERNEATH OF THE LIFT
2) TURN THE POWER SWITCH OFF
3) NEVER ENTER UNDER THE LIFT DURING THE PROCEDURE
4) MAKE SURE BOTH POST SAFETY LOCK IS DISABLED
5) IF THE SAFETY DEVICE IS ON LOCKED POSITION, USE GARAGE JACT TO LIFT THE ARM CARRIER AND DISABLE THE DEVICE

PROCEDURE
IF YOU HAVE ANY DOUBT FOR PERFORMING THIS OPERATION, YOU MUST CONTACT TRAINED PERSONNEL.

1) USE 19MM SPANNER TO UNDO HEXAGON BOLT ON THE SIDE OF HYDRAULIC MOTOR UNIT
2) TURN THE EMERGENCY CORK TO COUNTER CLOCK WISE SLOWLY UNTIL THE LIFT IS FULLY LOWERED.

**Quick release of valve may cause sudden drop of vehicle from lift.**

AFTER COMPLETION
REPOSITION EMERGENCY CORK TO ITS ORIGINAL POSITION.
If following symptoms appear, inspect checkpoint to rectify problems. If it is not rectifiable by the operator, call service from the authorized repairer.

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Check point</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier is not level when lift is ascending</td>
<td>1. Wire rope is loose</td>
<td>1. Adjust bolt holding wire rope to tighten them</td>
</tr>
<tr>
<td>Carrier is not level when lowered on to safety lock position</td>
<td>1. Loosened lock rail bolt 2. Post locking device is not engaging on carrier (cancelled)</td>
<td>1. Tighten bolts after readjusting level 2. Make sure post lock is freely moving and it make clicking sound</td>
</tr>
<tr>
<td>Carrier is inclined during lowering</td>
<td>1. Some locking device still locked 2. Eccentric brake is on 3. Limit switch is on 4. Bad grease supply</td>
<td>1. Adjust level of carrier and lock rails. 2. Re-raise lift then lower it. 3. Move limit switch 20mm upwards 4. Adjust timer setting (2 seconds up)</td>
</tr>
<tr>
<td>Locking device is not operating during ascending and lowering</td>
<td>1. Wire or wire connector is not good 2. Solenoid malfunctioning 3. Foreign substance is hindering operation 4. Grease condition is not good</td>
<td>1. Connect them temporarily and call service 2. Replace 3. Clear the substance 4. Regular greasing (monthly)</td>
</tr>
<tr>
<td>Motor noise</td>
<td>1. Lifting over weight limit 2. Relief pressure adjustment is low 3. Shortage of hydraulic oil</td>
<td>1. Lift within rated capacity 2. Adjust outputs of valve to 140kg/cm² square. 3. Add up hydraulic oil and relieve air in hose line</td>
</tr>
<tr>
<td>Contaminated hydraulic oil</td>
<td>1. Moist and other substance</td>
<td>1. Regular change of oil (1 every year) First oil change After 2 months of initial operation</td>
</tr>
<tr>
<td>Ascending malfunction</td>
<td>1. Oil leakage &amp; defective motor or pump, 2. Erratic movement 3. Pressure relief valve on</td>
<td>1. Contact A/S 2. Release air out of hydraulic system 3. Check pressure of valve (140kg/cm²)</td>
</tr>
<tr>
<td>Circuit breaker is clicking</td>
<td>1. Bad contact on solenoid wire 2. Bad contact on timer PCB 3. Low Amp circuit breaker used 4. Damaged wire</td>
<td>1. Replace 2. Replace 3. Check capacity of circuit breaker and change 4. Check damaged area and replace wire</td>
</tr>
<tr>
<td>Motor is turning but lift is not raising</td>
<td>1. Motor is turning wrong direction 2. Hydraulic hose is not connected properly</td>
<td>1. Change the phase of wire and re operate 2. Check hose connection from motor and other connection area</td>
</tr>
</tbody>
</table>