READ MANUAL THOROUGHLY BEFORE INSTALLING, OPERATING OR SERVICING THIS LIFT!!

Deliver these instructions to lift owner/user/employer along with other instructional materials furnished with this lift.
IMPORTANT SAFETY INSTRUCTIONS

When using your garage equipment, basic safety precautions should always be followed, including the following:

1. Read all instructions.

2. Care must be taken as burns can occur from touching hot parts.

3. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged - until it has been examined by a qualified serviceman.

4. Do not let cord or hoses come in contact with hot manifolds or moving fan blades.

5. If an extension cord is necessary, a cord with a current rating equal to or more than that of the equipment should be used. Cords rated for less current than the equipment may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.

6. Always unplug equipment from electrical outlet when not in use. Never use the cord to pull the plug from the outlet. Grasp plug and pull to disconnect.

7. To reduce the risk of fire, do not operate equipment in the vicinity of open containers of flammable liquids (gasoline). WARNING: Risk of Explosion: This equipment has internal arcing and sparking parts which should not be exposed to flammable vapors. This equipment is only suitable for installation in a garage having sufficient air circulation to be considered a non-hazardous location.

8. Adequate ventilation should be provided when working on operating internal combustion engines.

9. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.

10. To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.

11. Use only as described in this manual. Use only manufacturer’s recommended attachments.

SAVE THESE INSTRUCTIONS
Rev (8/3/98)
LIFT ENVIRONMENT:
All standard lifts are designed for indoor usage in a normal garage type environment. Any concerns in applications that expose the lift to additional environmental effects, such as paint booths, wash bays, outdoors, high or low temperatures, etc. must be addressed to our engineering department, where provisions may be made to the lift to accommodate the area of use. Our engineering department must be made aware in advance of these conditions and any additional code requirements that must be met.

Also, the foundation for which this lift must be installed on must comply to the minimum specifications as set forth in this manual. Any drainage slopes in the bay where the lift is to be installed must be directed away from the posts to prevent water accumulation at the post bases.

ACCESSORIES:
All accessories (i.e. Lifting Pads, Height Adapters, Wheel Adapters, Turf Adapters) supplied with this lift are to be used on this lift only. Accessories from other lifts are not acceptable and could result in injury to the user.

LOCK WARNING:
Latches do not automatically reset after disengagement. After the latches have been manually disengaged, this lift must be raised approximately 2 inches to reactivate the latches.

LOCKOUT/TAGOUT REQUIREMENTS:
The start switch provided with this unit must not be used as a primary disconnecting means. A separate disconnecting means must be provided in accordance with all applicable codes. It is the responsibility of the owner/user of this unit to provide a proper lockout/tagout device for this unit before or during installation in conformance to ANSI Z244.1 and any local/state/national electrical codes and any OSHA regulations.

PROPER SELECTION OF POWER SUPPLY CORD:
Acceptable Cord Types:  SO, SEO, STO, SOW, SEOO, SOW-A
Cord Size:  12/4
Cord Ampacity:  20 Amps
Cord Wiring: Use Female NEMA Plug supplied with lift and wire as follows (See Diagram Below),
G: Ground (green)
W: Neutral (white)
X: 208 VAC Hot, 110 VAC to ground (Red)
Y: 208 VAC Hot, 110 VAC to ground (Black)

Face of Plug Represented:
MOHAWK MODEL TL-7

HAVE A QUESTION?

Call your local
Mohawk distributor
For parts, service and technical support.

Distributor Place Card Here

Please have this unit’s model and serial number when calling for service.
Model Number ______________________
Serial Number ______________________

OR CONTACT:

MOHAWK RESOURCES LTD.
65 Vrooman Ave.
P.O. Box 110
Amsterdam, NY 12010
Toll Free: 1-800-833-2006
Local: 1-518-842-1431
Fax: 1-518-842-1289
Internet: www.MOHAWKLIIFTS.com
E-Mail: Service@MOHAWKLIIFTS.com
MOHAWK MODEL TL-7

MOHAWK WARRANTIES
EFFECTIVE DATE: 12/1/2015*
READ THIS WARRANTY IN ITS ENTIRETY

GENERAL WARRANTY INFORMATION:
MOHAWK’S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPAIRING OR REPLACING ANY PART OR PARTS
RETURNED TO THIS FACTORY, TRANSPORTATION CHARGES PREPAID BY CUSTOMER WITH AUTHORIZED RETURN (RGA),
WHICH PROVE UPON INSPECTION TO BE DEFECTIVE AND WHICH HAVE NOT BEEN MISUSED. DAMAGE OR FAILURE TO ANY
PART DUE TO FREIGHT DAMAGE OR LACK OF REQUIRED REGULAR DOCUMENTED MAINTENANCE IS NOT COVERED UNDER
THIS WARRANTY. ALL WARRANTY CLAIMS MUST BE PERFORMED IN ACCORDANCE TO MOHAWK’S WARRANTY PARTS
RETURN POLICY (CONTACT MOHAWK’S SERVICE DEPARTMENT FOR MORE INFORMATION).

THIS WARRANTY DOES NOT COVER MIS-DIAGNOSING OF UNIT OR PARTS RETURNED THAT ARE NON-DEFECTIVE. THIS
WARRANTY DOES NOT COVER ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOST
REVENUES OR BUSINESS HARM. THIS EQUIPMENT HAS BEEN DESIGNED FOR USE IN NORMAL VEHICLE MAINTENANCE
APPLICATIONS. A SPECIFIC INDIVIDUAL WARRANTY MUST BE ISSUED FOR UNITS THAT DEVIATE FROM INTENDED USAGE,
SUCH AS HIGH CYCLE USAGE IN INDUSTRIAL APPLICATIONS, OR USAGE IN EXTREMELY ABUSIVE ENVIRONMENTS.
MOHAWK RESERVES THE RIGHT TO DECLINE RESPONSIBILITY WHEN REPAIRS OR MODIFICATIONS HAVE BEEN MADE OR
ATTEMPTED BY OTHERS WITHOUT WRITTEN AUTHORIZATION FROM MOHAWK RESOURCES LTD.. THIS WARRANTY DOES
NOT COVER LabOR OR TRANSPORTATION. THIS WARRANTY DOES NOT COVER DOWNTIME EXPENSES INCURRED WHEN
UNIT IS IN REPAIR. THE LIFT MUST BE REGISTERED WITHIN 30 DAYS OF INSTALLATION BY MAILING SUPPLIED
WARRANTY REGISTRATION CARD TO MOHAWK AND MUST BE SIGNED BY A LICENSED ELECTRICIAN
THE MODEL
NUMBER AND SERIAL NUMBER OF THE EQUIPMENT MUST BE FURNISHED WITH ALL WARRANTY CLAIMS. THIS WARRANTY
STATEMENT CONTAINS THE ENTIRE AGREEMENT BETWEEN MOHAWK RESOURCES LTD. AND THE PURCHASER UNLESS
OTHERWISE SPECIFICALLY EXPRESSED IN WRITING. THIS NON-TRANSFERABLE WARRANTY APPLIES TO THE ORIGINAL
PURCHASER ONLY.

THIS WARRANTY DOES NOT COVER NORMAL SURFACE WEAR ITEMS, ITEMS SUBJECT TO ABRASION, OR ITEMS USED IN A
CORROSIVE ENVIRONMENT. SOME ITEMS ON LIFT ARE SUBJECT TO NORMAL “WEAR AND TEAR” AND ARE NOT COVERED
UNDER THIS WARRANTY.

STRUCTURAL AND MECHANICAL COMPONENTS (ALL LIFTS):
STRUCTURAL AND MECHANICAL COMPONENTS OF THIS UNIT ARE GUARANTEED FOR THE BELOW STATED TIME FRAME,
SPECIFIC TO MODEL LISTED, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP
AND/OR MATERIALS WHEN LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

**25-YEARS STRUCTURAL / 10 YEARS MECHANICAL:** TWO-POST MODELS A-7, SYSTEM IA-10, LC-12, LMF-12, TP-
16, TP-18, TP-20, TP-26, TP-30. STRUCTURAL ITEMS COVERED INCLUDE LEG, CARRIAGE, SWING ARM AND
SLIDER WELDMENTS (EXCLUDING NORMAL WEAR AREAS AS STATED ABOVE). MECHANICAL ITEMS COVERED
INCLUDE ROLLER BEARINGS AND LIFTING CHAIN.

5-YEAR: MODELS TL-7.
2-YEAR: MODELS PARALLELOGRAM SERIES LIFTS.
1-YEAR: MODELS TD-1000, TD-2000, CT-1000, USL-6000.

POWER UNIT (ALL LIFTS):
ALL POWER UNIT COMPONENTS (MOTOR, PUMP AND RESERVOIR) ARE GUARANTEED FOR TWO YEARS FOR PARTS,
FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE
LIFT IS INSTALLED, WIRED BY A LICENSED ELECTRICIAN AND USED ACCORDING TO SPECIFICATIONS.

ELECTRICAL COMPONENTS (ALL LIFTS):
ALL ELECTRICAL COMPONENTS (EXCLUDING MOTOR) ARE GUARANTEED FOR ONE YEAR FOR PARTS, FROM THE DATE
OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS
INSTALLED AND USED ACCORDING TO SPECIFICATIONS. SEE WARRANTY EXCEPTIONS SECTION FOR BATTERIES.

PNEUMATIC-AIR COMPONENTS (ALL LIFTS):
ALL PNEUMATIC (AIR) COMPONENTS (I.E. AIR CYLINDERS AND POPPET AIR VALVES) ARE GUARANTEED FOR ONE YEAR
FOR PARTS, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR
MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS. COMPONENTS IN A PNEUMATIC
SYSTEM THAT ARE NOT PROPERLY REGULATED, LUBRICATED AND CONDITIONED WITH AN AIR DRYING SYSTEM ARE
NOT COVERED UNDER WARRANTY.

HYDRAULIC COMPONENTS (ALL LIFTS):
EXCLUDING CYLINDERS AND PUMPS (COVERED IN OTHER SECTIONS), ALL HYDRAULIC COMPONENTS (I.E. VALVES AND
FITTINGS) ARE GUARANTEED FOR ONE YEAR FOR PARTS, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST
DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

HYDRAULIC CYLINDERS (MODEL SPECIFIC LIFTS):
The following models are guaranteed for 5 years (parts only), from date of shipment from factory, for hydraulic cylinders, against defects in workmanship and/or materials when the lift is installed and used according to specifications: Two-post models A-7, System IA-10, LC-12, LMF-12, TP-16, TP-18, TP-20, TP-26, TP-30.

All other models are guaranteed for two years (parts only), from the date of shipment from factory, for hydraulic cylinders, against defects in workmanship and/or materials when the lift is installed and used according to specifications (excluding USL-6000, which is one year).

The “EXTENDED LIFETIME CYLINDER SEAL WARRANTY” (below) is applicable to the following Mohawk lifts only: Two-post models A-7, System IA-10, LC-12, LMF-12, TP-16, TP-18, TP-20, TP-26, TP-30. See Mohawk’s “EXTENDED LIFETIME CYLINDER SEAL WARRANTY” for specific warranty provisions for hydraulic cylinders.

The “EXTENDED LIFETIME CYLINDER SEAL WARRANTY” is as follows:

As the original purchaser of a Mohawk lift manufactured by Mohawk Resources, Ltd. you are entitled to an extended cylinder seal warranty.

Mohawk’s obligation under this warranty is limited to supplying model specific cylinder seals. The customer is responsible for shipping and handling of the seals. Mohawk is not responsible/liable for the rebuild of cylinders by others. This warranty is non-transferable and runs to the original purchaser only.

STANDARD OPTIONS (ALL LIFTS):
All standard options of this unit are guaranteed for one year for parts, from the date of shipment from factory, against defects in workmanship and/or materials when lift is installed and used according to specifications.

CUSTOM LIFTS AND CUSTOM OPTIONS:
All “custom” lifts and/or “custom” options are guaranteed for one year for parts, from the date of shipment from factory, against defects in workmanship and/or materials when lift is installed and used according to specifications.

WARRANTY EXCEPTIONS (ALL LIFTS):
ADJUSTMENTS: This warranty does not cover casual and routine adjustments such as, but not limited to: fittings, sensors and switches, anchor bolt re-tightening, or any shimming or adjustments required during a proper and professional installation by a qualified installer.
MAINTENANCE AND INSPECTIONS: If this unit is not maintained and inspected in accordance to the relevant sections in the user’s manual for this specific model, warranty is void. OSHA, ANSI and Mohawk require that records must be maintained to prove that inspections and maintenance of this unit have been routinely performed by qualified individuals.
ABUSE: If this unit is found to be overloaded (purposely or unknowingly), used in a situation beyond its intended function, not maintained & inspected regularly, used in an abusive environment or beyond normal shop usage, this warranty is void in its entirety.
NON-EXISTENT PROBLEMS: For service visits, part replacements, labor, etc. for parts found to be non-defective, or for a unit dis-function that does not exist, it is the lift owner that requested the service visit who bears the responsibility of all related expenses.
BATTERIES: All batteries carry the battery manufacturer’s warranty. Maintenance requirements and abuse provisions are as stated by the battery manufacturer. Refer to battery manufacturer’s warranty.
SPECIAL/MODIFIED INSTALLATIONS: This warranty does not cover “non-traditional” installations. Installations are to be done according to specifications, or the warranty is void.
WEARABLE COMPONENTS: Some items on lifts are subject to normal “wear and tear” and are not covered under this warranty.
NON-VEHICLE / RE-PURPOSED LIFTS: This warranty does not cover lifts that are “re-purposed” to raise and lower equipment that are not considered vehicles.

* This warranty supersedes all other warranty policies previously stated and in all other Mohawk product specific literature (manuals, brochures, etc.).

Rev 12/1/2015
MOHAWK MODEL TL-7

CONTENTS

TEXT

APPENDAGES ................................................................. 6
SPECIFICATIONS ............................................................. 7
PACKING LIST ................................................................. 8
RECOMMENDED TOOL LIST ................................................... 9
BEFORE INSTALLING A LIFT / WEJ-IT INSTALLATION ...................... 10
INSTALLATION INSTRUCTIONS ............................................... 11,12
SAFETY TIPS ................................................................. 13
2-POST LIMITATIONS AND ADAPTER USAGE ................................ 14
PRE-OPERATION CHECKS AND LIFT PROCEDURES ........................ 15
MAINTENANCE PROCEDURES ............................................... 17
CHAIN INSPECTION AND MAINTENANCE ................................ 18
CABLE INSPECTION AND MAINTENANCE ................................ 19,20
TROUBLE SHOOTING .......................................................... 21,22
ELECTRICAL RATINGS CHART ............................................... 23
SERVICE CHART ............................................................... 24
MAINTENANCE CHART ........................................................ 24

FIGURES / DIAGRAMS

FIGURE PAGE
TL-7 DIMENSIONS .............................................................. 1 26
FLOOR MODIFICATION ....................................................... 2 27
BAY SIGHT LAYOUT / INSTALLATION DIMENSIONS ....................... 3 28
CARRIAGE STOP ASSEMBLY .................................................. 4 29
WEJ-IT INSTALLATION ........................................................ 5,6,7 30,31,32
POST-LEVELING .............................................................. 8 33
POST-SHIMMING .................................................................. 9,9A 34,35
CYLINDER SHIMS .................................................................. 10 36
UNEVEN FLOORS .................................................................. 11 37
POWER UNIT ......................................................................... 12 38
CHAIN BREAK SAFETY CABLE ............................................... 13 39
SWING ARM BOLT CAP PLACEMENT ...................................... 14 40
HYDRAULIC SCHEMATIC ....................................................... 15 41
ELECTRICAL SCHEMATIC ..................................................... 16 42

PARTS

FIGURE PAGE
TL-7 ASSEMBLY ................................................................. ZZ645-B 44
FORK ASSEMBLY ............................................................... ZZ645-C 45
GOLF/TURF PARTS PACKING ................................................. 007-012-003 46
MAIN SIDE ASSEMBLY ....................................................... MAN275 47
OFF SIDE ASSEMBLY ........................................................ MAN276 48
HYDRAULIC SYSTEM ........................................................ MAN201-1 49
CARRIAGE ASSEMBLY ........................................................ 009-030-005 50
LOCK BODY ASSEMBLY ....................................................... 009-030-006 51
YOKES ASSEMBLY .............................................................. MAN204 52
CYLINDER CLAMPS ............................................................ MAN278 53
LEG WELDMENT / LINE SUPPORTS / CARRIAGE STOPS .............. MAN207-1 54
TAG & DECAL LOCATIONS ................................................... 007-012-006 55
MAIN SIDE CYLINDER ASSEMBLY ........................................ MAN209 56
OFF SIDE CYLINDER ASSEMBLY .......................................... MAN280 57
SMALL PARTS BAG .............................................................. MAN231 58
PARTS BOX .......................................................................... MAN279 59
PARTS BOX #2 ................................................................. 007-012-005 60
CHAIN COVER ASSEMBLY .................................................. 009-010-062 61
DIVERTER VALVE ASSEMBLY .............................................. MAN235 62

NEW SLAB RECOMMENDATIONS

SLAB REQUIREMENTS & NEW SLAB RECOMMENDATIONS ............... 62-70
ALI WARNING, CAUTION AND SAFETY MESSAGES .................... 71-74

ALL INFORMATION, ILLUSTRATIONS, AND SPECIFICATIONS IN THIS MANUAL ARE BASED ON THE LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF PRINTING. WE RESERVE THE RIGHT TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE.
APPENDAGES

RECOMMENDATIONS BY THE INDIVIDUAL USER OR USING ORGANIZATION FOR IMPROVING THIS PUBLICATION OR ANY ASPECT OF THE PRODUCT ARE ENCOURAGED AND SHOULD BE FORWARDED IN WRITING TO:

MOHAWK RESOURCES LTD.
PRODUCT IMPROVEMENTS
65 VROOMAN AVE.
AMSTERDAM, NY, 12010

THIS IS NOT A VEHICLE LIFTING PROCEDURE MANUAL AND NO ATTEMPT IS MADE OR IMPLIED HEREIN TO INSTRUCT THE USER IN LIFTING METHODS PARTICULARLY TO THE INDIVIDUAL APPLICATION OF THE EQUIPMENT DESCRIBED IN THIS MANUAL. RATHER, THE CONTENTS OF THIS MANUAL ARE INTENDED AS A BASE LINE FOR OPERATION, MAINTENANCE, TROUBLE SHOOTING, AND PARTS LISTING OF THE UNIT AS IT STANDS ALONE AND AS IT IS INTENDED AND ANTICIPATED TO BE USED IN CONJUNCTION WITH OTHER EQUIPMENT.

PROPER APPLICATION OF THE EQUIPMENT DESCRIBED HEREIN IS LIMITED TO THE PARAMETERS DETAILED IN THE SPECIFICATIONS AND THE USES SET FORTH IN THE DESCRIPTIVE Passages. ANY OTHER PROPOSED APPLICATION OF THIS EQUIPMENT SHOULD BE DOCUMENTED AND SUBMITTED IN WRITING TO MOHAWK RESOURCES LTD. FOR EXAMINATION. THE USER ASSUMES FULL RESPONSIBILITY FOR ANY EQUIPMENT DAMAGE, PERSONAL INJURY, OR ALTERATION OF THE EQUIPMENT DESCRIBED IN THIS MANUAL OR ANY SUBSEQUENT DAMAGES.

DO NOT WELD, APPLY HEAT, OR MODIFY THIS EQUIPMENT IN ANY MANNER WITHOUT WRITTEN AUTHORIZATION FROM MOHAWK RESOURCES LTD. CERTAIN ALLOY OR HEAT-TREATED COMPONENTS MAY BE DISTORTED OR WEAKENED, RESULTING IN AN UNSAFE CONDITION.

MOHAWK RESOURCES LTD. IS NOT RESPONSIBLE FOR DISTORTIONS, WHICH RESULT FROM WELDING ON THIS EQUIPMENT AFTER MANUFACTURING IS COMPLETED. UNAUTHORIZED WELDING, APPLICATION OF HEAT, OR MODIFICATION OF THIS EQUIPMENT voids ANY AND / OR ALL APPLICABLE WARRANTIES COVERING THIS EQUIPMENT.

ALL WARRANTIES APPLICABLE TO THIS EQUIPMENT ARE CONTINGENT ON STRICT ADHERENCE TO THE MAINTENANCE SCHEDULES AND PROCEDURES IN THIS MANUAL.

KEEP ALL SHIELDS AND GUARDS IN PLACE. INSURE ALL SAFETY MECHANISMS ARE OPERABLE. KEEP HANDS, FEET, AND CLOTHING AWAY FROM POWER-DRIVEN AND MOVING PARTS.

WARNING
• DO NOT INSTALL THIS UNIT IN A PIT OR DEPRESSION DUE TO FIRE OR EXPLOSION RISK

IMPORTANT NOTE

A LEVEL FLOOR IS SUGGESTED FOR A PROPER INSTALLATION SITE AND WILL ENSURE LEVEL LIFTING. SMALL DIFFERENCES IN FLOOR SLOPES MAY BE COMPENSATED FOR WITH SPECIAL LIFTING PADS. ANY MAJOR SLOPE CHANGES WILL AFFECT THE LOW PROFILE HEIGHT OF THE LIFTING PADS AND / OR THE UNITS LEVEL LIFTING PERFORMANCE. IF A FLOOR IS OF QUESTIONABLE SLOPE, CONSIDER A SURVEY OF THE SIGHT AND / OR THE POSSIBILITY OF POURING A NEW LEVEL CONCRETE SLAB SECTION. SIMPLY STATED, FOR optimum LEVEL LIFTING, THE EQUIPMENT, AT BEST, CAN LIFT ONLY AS LEVEL AS THE FLOOR ON WHICH IT IS LOCATED... AND SHOULD NOT BE EXPECTED TO COMPENSATE FOR DRASTIC FLOOR SLOPE DIFFERENCES.

THIS EQUIPMENT MUST BE INSTALLED ON A LEVEL CONCRETE FLOOR WITH A MINIMUM THICKNESS OF 4-1/2" THE CONCRETE MUST BE AGED AT LEAST (28) TWENTY EIGHT DAYS PRIOR TO INSTALLATION AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 P.S.I.

DO NOT INSTALL THIS UNIT ON ANY ASPHALT SURFACE.

DO NOT INSTALL THIS UNIT ON EXPANSION SEAMS OR ON CRACKED, DEFECTIVE CONCRETE. CHECK WITH BUILDING ARCHITECT.

DO NOT INSTALL THIS UNIT ON A SECOND FLOOR OR ANY GROUND FLOOR WITH A BASEMENT BENEATH WITHOUT WRITTEN AUTHORIZATION FROM THE BUILDING ARCHITECT.

INSTALL THIS EQUIPMENT ON CONCRETE ONLY

IF, FOR ANY REASON, A NEW CONCRETE SLAB SECTION IS REQUIRED, THE MINIMUM THICKNESS, COMPRESSIVE STRENGTH, AND AGING ARE MANDATORY. FOR YOUR PROTECTION, CERTIFIED STRENGTH DOCUMENTATION SHOULD BE OBTAINED FROM THE FIRM WHO SUPPLIES THE CONCRETE MIXTURE AT THE TIME OF THE POUR. SPECIAL CONSIDERATION SHOULD BE MADE TO THE JOINING OF THE EXISTING FLOOR AND THE NEW SECTION BEING ADDED. CHECK WITH BUILDING ARCHITECT. THE SUGGESTED SIZE OF THE NEW CONCRETE SLAB SECTION IS SHOWN IN THE NEW SLAB RECOMMENDATIONS SECTION.

CAUTION

THE EQUIPMENT DESCRIBED IN THIS MANUAL COULD BE POTENTIALLY DANGEROUS IF IMPROPERLY OR CARELESSLY OPERATED. FOR THE PROTECTION OF ALL PERSONS AND EQUIPMENT, ONLY COMPETENTLY TRAINED OPERATORS WHO ARE CRITICALLY AWARE OF THE PROPER OPERATING PROCEDURES, POTENTIAL DANGERS, AND SPECIFIC APPLICATION OF THIS EQUIPMENT SHOULD BE ALLOWED TO TOUCH THE CONTROLS AT ANY TIME.

SAFE OPERATION OF THIS EQUIPMENT IS DEPENDENT ON USE, IN COMPLIANCE WITH THE OPERATION PROCEDURES OUTLINED IN THIS MANUAL ALONG WITH THE MAINTENANCE AND INSPECTION PROCEDURES WITH CONSIDERATION OF PREVAILING CONDITIONS.

THE EQUIPMENT DESCRIBED IN THIS MANUAL IS NEITHER DESIGNED NOR INTENDED FOR ANY APPLICATION ALONE OR IN CONJUNCTION WITH ANY OTHER EQUIPMENT THAT INVOLVES THE LIFTING OR MOVING OF PERSONS.

ALWAYS CONSULT THE VEHICLE LIFTING GUIDE FOR THE PROPER LIFTING POINTS ON ANY VEHICLE. THESE GUIDES ARE AVAILABLE FROM THE VEHICLE MANUFACTURERS. AFTER LIFTING THE VEHICLE TO THE DESIRED HEIGHT, ALWAYS LOWER THE UNIT ONTO THE MECHANICAL SAFETIES. THE FORMING OF GOOD OPERATIONAL WORK HABITS WILL ELIMINATE OVERSIGHTS IN THE USE OF PROVIDED SAFETY DEVICES.
LIFT SPECIFICATIONS

TL-7 SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lift Type / Two Post</td>
<td>Electric/Hydraulic</td>
</tr>
<tr>
<td>Lifting Capacity</td>
<td>7,000 LBS.</td>
</tr>
<tr>
<td>Capacity Per Fork Arm</td>
<td>1,750 LBS.</td>
</tr>
<tr>
<td>Trough Capacity</td>
<td>3,000 LBS.</td>
</tr>
<tr>
<td>Lifting Speed Approx.</td>
<td>45 Seconds</td>
</tr>
<tr>
<td>Lifting Height</td>
<td>72 INCHES</td>
</tr>
<tr>
<td>Overall Width</td>
<td>142-3/8 INCHES</td>
</tr>
<tr>
<td>Width Between Post</td>
<td>120 INCHES</td>
</tr>
<tr>
<td>Post Height</td>
<td>104 INCHES</td>
</tr>
<tr>
<td>Overhead Hydraulic Lines</td>
<td>144 INCHES</td>
</tr>
<tr>
<td>Shipping Weight</td>
<td>3,000 LBS.</td>
</tr>
</tbody>
</table>

SUGGESTED SITE SELECTION / BAY SIZE

<table>
<thead>
<tr>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 FT</td>
<td>20 FT</td>
<td>12 FT</td>
</tr>
</tbody>
</table>

NOTE

The placement of the unit is determined by the type (length, width, height) of vehicle being serviced.

WEJ-IT ANCHOR SPECIFICATIONS

<table>
<thead>
<tr>
<th>Length</th>
<th>Drill Depth</th>
<th>Drill Size Min</th>
<th>Drill Size Max</th>
<th>Torque</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 IN.</td>
<td>3/4 IN.</td>
<td>.775 IN.</td>
<td>.787 IN.</td>
<td>SEE ANCHOR SPECS</td>
</tr>
</tbody>
</table>

POWER UNIT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Name</td>
<td>Monarch</td>
</tr>
<tr>
<td>Model</td>
<td>M-4509-0100</td>
</tr>
<tr>
<td>Power Unit Type</td>
<td>Vertical</td>
</tr>
<tr>
<td>Motor Voltage</td>
<td>208 / 230</td>
</tr>
<tr>
<td>F.L.A. At Rated Capacity</td>
<td>13.9 / 13</td>
</tr>
<tr>
<td>Motor Horsepower</td>
<td>2 1/2</td>
</tr>
<tr>
<td>Motor Cycle / Hertz</td>
<td>60</td>
</tr>
<tr>
<td>Motor Speed (R.P.M.)</td>
<td>3450</td>
</tr>
<tr>
<td>Pump Flow (G.P.M.)</td>
<td>2.39 @ 3450 R.P.M.</td>
</tr>
<tr>
<td>Relief Valve Setting</td>
<td>2800 P.S.I.</td>
</tr>
<tr>
<td>Working Pressure</td>
<td>2500 P.S.I.</td>
</tr>
<tr>
<td>Reservoir Capacity</td>
<td>2.5 Gallons</td>
</tr>
<tr>
<td>Hydraulic Fluid Medium</td>
<td>DEXRON III</td>
</tr>
</tbody>
</table>

PRE-EXISTING FLOOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Minimum Thickness</th>
<th>Minimum Compressive Strength</th>
<th>Minimum Aging</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 - 1/2 IN.</td>
<td>4000 P.S.I.</td>
<td>28 DAYS</td>
</tr>
</tbody>
</table>

Do not install any Mohawk lift on any surface other than concrete conforming to the minimum compressive strength, minimum aging, and the minimum thickness stated above.

Do not install any Mohawk lift on expansion seams or on cracked, or defective concrete.

Do not install any Mohawk lift on secondary floor levels or any surface with a basement beneath without written authorization from the building architect. Never hand mix your own concrete.

If for any reason a new concrete slab section is required, follow the instructions for the floor modification data.

FLOOR MODIFICATION DATA

NEW FLOOR SECTION

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Slab Size Width x Length</th>
<th>Cubic Yards</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 INCHES</td>
<td>48 INCH x 161 INCH</td>
<td>2.1</td>
</tr>
</tbody>
</table>

If, for any reason, a new concrete slab section is required, minimum thickness, compressive strength, and proper aging is mandatory.

The new slab section must be totally surrounded by an existing concrete floor that is structurally sound. Certified strength documentation should be obtained from the firm who supplies the concrete mixture at the time of the pour.

Never hand mix the concrete. Refer to new slab recommendations section (use system 1A information).
### TL-7 PACKING LIST

*** ALSO SEE DRAWINGS MAN231 / MAN232 IN PARTS MANUAL ***

<table>
<thead>
<tr>
<th>ORDER NUMBER</th>
<th>PART NUMBER</th>
<th>PART DESCRIPTION</th>
<th>QTY.</th>
</tr>
</thead>
<tbody>
<tr>
<td>009-010-015</td>
<td></td>
<td>PARTS BOX CONTENTS</td>
<td>1</td>
</tr>
<tr>
<td>559</td>
<td>009-010-115</td>
<td>CARRIAGE STOP (DRILLED)</td>
<td>1</td>
</tr>
<tr>
<td>460</td>
<td>601-170-008</td>
<td>HUBBLE CONNECTOR (FEMALE)</td>
<td>1</td>
</tr>
<tr>
<td>007-012-010</td>
<td></td>
<td>MANUAL, TL-7</td>
<td>1</td>
</tr>
<tr>
<td>622</td>
<td>009-010-059</td>
<td>TUBING ASSEMBLY, 13-3/4 LG</td>
<td>1</td>
</tr>
<tr>
<td>482</td>
<td>600-690-008</td>
<td>LOCK NUT, 1-3/8-12 NF</td>
<td>4</td>
</tr>
<tr>
<td>623</td>
<td>007-007-075</td>
<td>SHIM BAG</td>
<td>1</td>
</tr>
<tr>
<td>600-690-017</td>
<td></td>
<td>LOCK NUT, JAM 1-3/8-12 NF</td>
<td>4</td>
</tr>
<tr>
<td>284</td>
<td>009-010-071</td>
<td>SMALL PARTS BAG</td>
<td>1</td>
</tr>
<tr>
<td>281</td>
<td>009-010-114</td>
<td>SWING ARM PIN</td>
<td>4</td>
</tr>
<tr>
<td>600-670-002</td>
<td></td>
<td>WEJ-IT ANCHOR (3/4 x 5)</td>
<td>16</td>
</tr>
<tr>
<td>284</td>
<td>009-010-071</td>
<td>SMALL PARTS BAG CONTENTS</td>
<td></td>
</tr>
<tr>
<td>171</td>
<td>600-640-019</td>
<td>BOLT, 1/4-20 X 1-1/2</td>
<td>10</td>
</tr>
<tr>
<td>258</td>
<td>600-690-005</td>
<td>LOCK NUT, 1/4-20 NC</td>
<td>10</td>
</tr>
<tr>
<td>259</td>
<td>600-710-004</td>
<td>WASHER, 1/4 SAE FLAT</td>
<td>8</td>
</tr>
<tr>
<td>621</td>
<td>600-710-014</td>
<td>WASHER, 1-3/8 SAE FLAT</td>
<td>8</td>
</tr>
<tr>
<td>021</td>
<td>601-310-005</td>
<td>BREATHER CAP</td>
<td>1</td>
</tr>
<tr>
<td>094</td>
<td>601-420-011</td>
<td>FITTING, DOUBLE MALE UNION #6 JIC</td>
<td>4</td>
</tr>
<tr>
<td>409</td>
<td>601-710-001</td>
<td>DOUBLE LINE CLIP</td>
<td>6</td>
</tr>
<tr>
<td>658</td>
<td>600-710-010</td>
<td>WASHER, FLAT, 1” (ARM RESTRAINT)</td>
<td>4</td>
</tr>
<tr>
<td>595</td>
<td>600-710-003</td>
<td>WASHER, FLAT, 5/16</td>
<td>4</td>
</tr>
<tr>
<td>593</td>
<td>600-690-001</td>
<td>LOCK NUT, 5/16-18 NC</td>
<td>4</td>
</tr>
<tr>
<td>585</td>
<td>600-640-001</td>
<td>BOLT, 5/16-18 NC x 1” LG</td>
<td>4</td>
</tr>
<tr>
<td>608</td>
<td>601-420-052</td>
<td>ELBOW, 90 DEG, #6 JIC TO #6 JIC</td>
<td>1</td>
</tr>
<tr>
<td>600-710-006</td>
<td></td>
<td>WASHER, FLAT, FENDER, 5/16 ID X 1 ½ OD</td>
<td>6</td>
</tr>
<tr>
<td>623</td>
<td>007-007-075</td>
<td>SHIM BAG CONTENTS</td>
<td></td>
</tr>
<tr>
<td>633</td>
<td>600-740-001</td>
<td>SHIM, 1/16 (BLUE)</td>
<td>8</td>
</tr>
<tr>
<td>634</td>
<td>600-740-002</td>
<td>SHIM, 1/8 (RED)</td>
<td>8</td>
</tr>
<tr>
<td>635</td>
<td>600-740-003</td>
<td>SHIM, 1/4 (BLACK)</td>
<td>8</td>
</tr>
</tbody>
</table>
## RECOMMENDED TOOL LIST

<table>
<thead>
<tr>
<th>SIZE / QTY</th>
<th>DESCRIPTION</th>
<th>USED IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 1/8 IN</td>
<td>WRENCH &amp; SOCKET</td>
<td>WEJ-IT ANCHORS</td>
</tr>
<tr>
<td>15 / 16 IN</td>
<td>WRENCH &amp; SOCKET</td>
<td>CARRIAGE STOPS</td>
</tr>
<tr>
<td>11/16 IN</td>
<td>WRENCH</td>
<td>HYDRAULIC LINES</td>
</tr>
<tr>
<td>5/8 IN</td>
<td>WRENCH</td>
<td>HYDRAULIC LINES</td>
</tr>
<tr>
<td>1/2 IN</td>
<td>WRENCH &amp; SOCKET</td>
<td>BACK BOARD / CYLINDER RETAINER</td>
</tr>
<tr>
<td>7/16 IN</td>
<td>WRENCH</td>
<td>SWING ARM RESTRAINT ASSEMBLIES</td>
</tr>
<tr>
<td>1</td>
<td>RATCHET WRENCH</td>
<td>AS NEEDED</td>
</tr>
<tr>
<td>1</td>
<td>VICE GRIPS</td>
<td>AS NEEDED</td>
</tr>
<tr>
<td>1</td>
<td>CRESCEANT WRENCH</td>
<td>AS NEEDED</td>
</tr>
<tr>
<td>1</td>
<td>4 FT BUBBLE LEVEL</td>
<td>VERIFY LEVEL ASSEMBLY</td>
</tr>
<tr>
<td>1</td>
<td>PRY BAR</td>
<td>MOVING HEAVY ITEMS</td>
</tr>
<tr>
<td>1</td>
<td>TIN SNIPS</td>
<td>PACKAGING BANDING</td>
</tr>
<tr>
<td>1</td>
<td>CHALK LINE</td>
<td>FLOOR LAYOUT</td>
</tr>
<tr>
<td>1</td>
<td>SOAP STONE</td>
<td>FLOOR LAYOUT</td>
</tr>
<tr>
<td>1</td>
<td>25 FT TAPE MEASURE</td>
<td>FLOOR LAYOUT / SQAURING POST</td>
</tr>
<tr>
<td>1</td>
<td>MEDIUM HAMMER</td>
<td>WEJ-IT ANCHORS</td>
</tr>
<tr>
<td>1</td>
<td>HAMMER DRILL</td>
<td>DRILLING CONCRETE</td>
</tr>
<tr>
<td>1</td>
<td>DRILL BIT (3/4 INCH)</td>
<td>DRILLING CONCRETE</td>
</tr>
<tr>
<td>1 TON</td>
<td>LIFTING DEVICE</td>
<td>LIFTING / MOVING HEAVY ITEMS</td>
</tr>
<tr>
<td>8 FT</td>
<td>STEP LADDER</td>
<td>ASSEMBLE ELEVATED ITEMS</td>
</tr>
<tr>
<td>100 FT</td>
<td>LEAD CORD</td>
<td>OPERATE ELECTRICAL TOOLS</td>
</tr>
</tbody>
</table>
BEFORE INSTALLING A LIFT

IMPORTANT

BEFORE INSTALLING A MOHAWK LIFT THERE ARE A FEW ITEMS THAT MUST BE INSPECTED. EACH REPAIR SHOP BAY IS DIFFERENT. IN AN ATTEMPT TO PREVENT OVERSIGHTS, ALL OF THE FOLLOWING INFORMATION IS TO BE VERIFIED.

OVERHEAD OBSTRUCTIONS

THE AREA WHERE THE LIFT WILL BE LOCATED SHALL BE FREE OF OBSTRUCTIONS. HEATERS, BUILDING SUPPORTS, ELECTRICAL CONDUIT; ALL OF THESE ITEMS ARE TO BE TWELVE FEET ABOVE THE BAY FLOOR. SEE FIGURE 1 & 3.

DEFECTIVE CONCRETE

VISUALLY INSPECT THE BAY FLOOR AREA. THE UNIT CANNOT BE INSTALLED ON EXPANSION SEAMS, OR CONCRETE THAT IS CRACKED. THE UNIT IS ONLY AS STRONG AS THE FLOOR IT IS INSTALLED ON.

FLOOR REQUIREMENTS

THIS INFORMATION IS IN THE GENERAL FLOOR REQUIREMENTS. IF THE BAY FLOOR DOES NOT CONFORM TO THESE SPECIFICATIONS, REFER TO THE “NEW SLAB RECOMMENDATIONS” SECTION IN THIS MANUAL. (USE SYSTEM IA INFORMATION IN TABLES).

LOCATE THE MAIN SIDE POST ON THE HIGH SIDE OF THE FLOOR IF A SLOPE IS NOTED. REFER TO FIGURE 12.

POWER SUPPLY

THE STANDARD POWER UNIT IS 220-VOLT SINGLE PHASE. REFER TO THE POWER UNIT SPECIFICATIONS SECTION. REQUIREMENTS MAY VARY ON SPECIAL ORDERS.

THE MAIN SIDE POST WILL REQUIRE THE POWER SUPPLY FOR THE UNIT. NOTE THE LOCATION OF THE POWER SUPPLY.

BAY SIZE

TO OPTIMIZE SHOP SPACE, IT IS ADVISED TO LOCATE A VEHICLE IN THE BAY PRIOR TO LAYOUT. NOTE WALKWAY’S OVERHEAD OBSTRUCTIONS, AND ABILITY TO MOVE EQUIPMENT IN THE BAY AREA. REFER TO FIGURE 1 & 3.

REQUIREMENTS MAY VARY ON SPECIAL ORDERS.

SPECIFICATIONS

REFERENCE ALL SPECIFICATIONS PRIOR TO INSTALLING A LIFT.

WARNING

BEFORE DRILLING THE MOUNTING HOLES

- ALL ANCHORS MUST BE A MINIMUM OF 6 INCHES AWAY FROM ANY EXPANSION SEAMS, CONTROL JOINTS, OR OTHER INCONSISTENCIES IN THE CONCRETE. REFER TO ANCHOR MANUFACTURER SPECIFICATIONS FOR SPECIFIC INFORMATION CONCERNING EDGE DISTANCES AND BOLT TO BOLT DISTANCE REQUIREMENTS. REFER TO FIGURES 5, 6, & 7.

- REFERENCE ALL FIGURES PERTAINING TO DRILLING, WEJ-IT WARNINGS, AND INSTALLATION INSTRUCTIONS. REFER TO FIGURES 5, 6, & 7.


- USE A SHARP DRILL BIT TO PREVENT DRILLING AN UNDERSIZED HOLE. DRILL THE HOLE EQUAL TO THE LENGTH OF THE WEJ-IT ANCHOR. BLOW OUT THE HOLE WITH SHOP AIR, OR VACUUM. INSERT THE WEJ-IT ANCHOR SO THAT THE WASHER RESTS AGAINST THE POST FOOTING.

- NEVER USE AN IMPACT TOOL TO TIGHTEN THE WEJ-IT ANCHORS. USE A TORQUE WRENCH ONLY.

- MAKE SURE THE CONCRETE IS SOLID WHEN DRILLING. CRACKS AND EXPANSION SEAMS REDUCE THE EFFECTIVENESS OF THE WEJ-IT ANCHOR. NEVER INSTALL THE ANCHOR UNDER THESE CONDITIONS.


- INSURE THE INSIDE DIMENSIONS BETWEEN THE MAIN AND OFF SIDE POST IS STILL CORRECT. 120 INCHES.

INSTALLATION INSTRUCTIONS

IMPORTANT

READ THIS MANUAL IN ITS ENTIRETY. BE FAMILIAR WITH PART NAMES AND HAVE A GOOD UNDERSTANDING OF HOW THIS UNIT IS TO BE ASSEMBLED AND OF HOW INDIVIDUAL PARTS OPERATE, BEFORE ASSEMBLING THE UNIT. REFER TO ANSI/ALI ALIS, SAFETY REQUIREMENTS FOR INSTALLATION AND SERVICE OF AUTOMOTIVE LIFTS.

USING A CHALK LINE, LAYOUT THE FLOOR DIMENSIONS WHERE THE UNIT WILL BE LOCATED. REFER TO FIGURES 2 & 11.

CUT THE SWING ARM BANDING AND REMOVE THE SWING ARMS.

SECURE THE OVERHEAD LIFTING DEVICE TO THE MAIN SIDE POST USING STRAPS OR CHAINS.

WARNING

• EACH POST WEIGHS OVER 900 LBS. ERECT THE POSTS WITH CHAINS AND STRAPS ATTACHED TO THE TOP OF THE POST. DO NOT REMOVE THE CHAINS AND STRAPS UNTIL THE POST HAS BEEN SECURED.

SEPARATE THE POSTS. REMOVE THE PARTS BOX, HYDRAULIC LINES AND SUPPORTS. VERIFY PARTS BOX CONTENTS. IF MISSING PARTS ARE NOTED, THEY CAN BE OBTAINED BY CALLING 1-800-833-2006 OR BY CONTACTING YOUR LOCAL MOHAWK DISTRIBUTOR.

USING THE 5/8-INCH PACKING BOLTS, NUTS AND WASHERS, ASSEMBLE THE CARRIAGE STOPS TO THE TOP OF THE MAIN SIDE POST. TIGHTEN TO 150 FOOT POUNDS. REFER TO FIGURE 3.

ERECT THE MAIN AND OFF SIDE POSTS TO THE UP-RIGHT POSITION. ALIGN THE POST FOOTINGS TO THE CHALK LINE LAYOUTS.

SECURE THE MAIN AND OFF SIDE POSTS TO THE BAY FLOOR USING THE (16) 3/4 X 5 1/2 INCH WEJ-IT ANCHORS. REFER TO “BEFORE DRILLING THE MOUNTING HOLES” SECTION.

ASSEMBLE THE TWO OVERHEAD HYDRAULIC LINES (FLAT ON THE FLOOR) USING THE FOUR DOUBLE MALE UNIONS. SEE FIGURE MAN201-1.

ASSEMBLE TWO OF THE DOUBLE LINE CLIPS TO THE CENTER SPAN OF THE OVERHEAD LINES APPROXIMATELY 3 INCHES FROM THE DOUBLE UNIONS.

ASSEMBLE THE TWO OVERHEAD LINE SUPPORT BRACKETS TO THE TOP OF THE MAIN AND OFF SIDE POST.

ERECT THE OVERHEAD HYDRAULIC LINE ASSEMBLIES. ROUTE THE LINES THROUGH THE TOP OF EACH POST. ASSEMBLE THE LINES TO THE HYDRAULIC CONNECTIONS AT THE TOP OF EACH POST.

SECURE THE LINES TO THE OVERHEAD LINE SUPPORTS USING THE TWO DOUBLE LINE CLIPS.

REMOVE THE BREATHER PORT PLUG ON THE POWER UNITS RESERVOIR AND DISCARD. REFER TO FIGURE 14.

VERIFY FLUID LEVEL. (1/2 IN. BELOW BREATHER PORT IN THE POWER UNIT RESERVOIR WHEN BOTH CYLINDERS ARE FULLY RETRACTED) INSTALL THE BREATHER CAP.

AT THIS TIME HAVE A QUALIFIED ELECTRICIAN CONNECT THE POWER SUPPLY TO THE UNIT

ENGAGE THE UP BUTTON ON THE POWER UNIT AND RAISE THE CARRIAGES APPROX. 3 FEET, OR TO A HEIGHT SUITABLE FOR INSTALLING THE SWING ARMS.

REMOVE & REASSEMBLE THE FOUR SWING ARM RESTRAINTS ONTO THE MAIN AND OFF SIDE CARRIAGES. REFER TO MAN222A.

LIFTING UP ON THE SWING ARM RESTRAINT. INSERT THE FOUR SWING ARMS INTO THE CARRIAGES. REFER TO MAN253.

ALIGN THE THROUGH HOLES IN THE CARRIAGES WITH THE THROUGH HOLES IN THE SWING ARMS. SECURE THE SWING ARMS TO THE CARRIAGES USING THE FOUR SWING ARM PINS AND EIGHT NYLON LOCK NUTS.

PLACE THE FOUR LIFTING PADS INTO PLACE IN THE MOUNTING HOLE AT THE END OF EACH SLIDER. REFER TO MAN253.

SHIMMING FOR CHAIN TENSION


TO SHIM, MANUALLY LIFT THE CARRIAGE ONE-FOOT APPROX. AND LOWER THE CARRIAGE ONTO THE MECHANICAL SAFETY.

WARNING

• VISUALLY VERIFY SAFETY ENGAGEMENT BEFORE PROCEEDING.

PLACE THE CORRECT NUMBER OF SHIMS ON THE TOP OF THE CHROME ROD AND RE-INSTALL THE YOKE.
INSTALLATION INSTRUCTIONS

BLEEDING PROCEDURE

ENGAGE THE UP BUTTON ON THE POWER UNIT. OBSERVE THE CARRIAGE. WHEN THE MAIN AND OFF SIDE CARRIAGES HAVE REACHED FULL HEIGHT CONTINUE TO RUN THE UNIT FOR TEN SECONDS.

RELEASE THE UP BUTTON AND WAIT ONE MINUTE, THEN HOLD THE UP BUTTON AGAIN FOR TEN SECONDS. REPEAT THIS PROCEDURE THREE TIMES. (THIS WILL PURGE THE AIR FROM THE HYDRAULIC SYSTEM)

NOTE

- LISTEN FOR THE PRESSURE RELIEF VALVE. A NOTICEABLE INCREASE IN POWER UNIT VOLUME. THIS WILL INDICATE AN EXCESS OF SHIMS BENEATH THE YOKE ASSEMBLIES RESTRICTING THE MAIN OR OFF SIDE CYLINDERS FROM REACHING FULL STROKE. IF THIS OCCURS, REMOVE ONE SHIM FROM BENEATH THE YOKE.


PLACE THE FOUR 3 IN. AND FOUR 6 IN. HEIGHT ADAPTERS INTO PLACE INTO THE HEIGHT ADAPTER BRACKETS.

SHIMMING THE POST

LEVEL THE POST BY INSERTING THE SUPPLIED SHIMS UNDER THE POST FOOTING AROUND THE WEJ-IT ANCHOR. THE LIFT MUST BE LEVEL BOTH FRONT TO REAR AND SIDE TO SIDE. A LEVELING DEVICE AND A MEASURING TAPE MUST BE USED. REFERENCE FIGURES 7, 8,9.

- LEVEL THE MAIN SIDE POST FRONT TO REAR AND SIDE-TO-SIDE USING A BUBBLE LEVEL.

- LEVEL THE OFF SIDE POST FRONT TO REAR USING A BUBBLE LEVEL. SET THE POST PARALLEL TO THE MAIN SIDE POST USING A MEASURING TAPE, MEASURING FROM THE EDGE OF THE MAIN SIDE CHANNEL TO THE EDGE OF THE OFF SIDE CHANNEL AT THE BASE AND AT THE TOP OF THE POST.


AT THIS TIME PERFORM THE PRE-OPERATION CHECK LIST AND MAINTENANCE PROCEDURES (DAILY - WEEKLY - MONTHLY) MAKE ALL ADJUSTMENTS PERTAINING TO THESE PROCEDURES.

DIVERTER VALVE OPERATION

WARNING

AS WITH ALL FUNCTIONS OF THE LIFT UNIT, NEVER OPERATE THE DIVERTER VALVE UNLESS YOU HAVE FIRST PERFORMED THIS OPERATION WITH NO VEHICLE, AND FULLY UNDERSTAND ITS FUNCTIONS.

BOTH MECHANICAL SAFETIES MUST BE ENGAGED BEFORE OPERATING THE DIVERTER VALVE.

PURPOSE

- THE PURPOSE OF THE DIVERTER VALVE IS TO ENABLE THE OPERATOR TO RAISE OR LOWER THE OFF SIDE CARRIAGE INDEPENDENTLY OF THE MAIN SIDE CARRIAGE.

TO OPERATE THE DIVERTER VALVE

ENGAGE THE DIVERTER VALVE BY PULLING DOWN ON THE DIVERTER VALVE PULL KNOB. REFERENCE MAN235

- THIS WILL DIVERT ALL FUNCTIONS OF THE POWER UNIT TO THE OFF SIDE CYLINDER.

WITH THE VALVE ENGAGED, ENERGIZE THE POWER UNIT BY PUSHING THE UP BUTTON.

WHEN THE DESIRED HEIGHT HAS BEEN ACHIEVED, RELEASE THE DIVERTER VALVE PULL KNOB AND THE UP BUTTON.

PULLING DOWN ON THE LOWERING HANDLE, LOWER THE UNIT ONTO BOTH MECHANICAL SAFETIES ENDING THIS PROCEDURE.
SAFETY TIPS

PLEASE POST THE AUTOMOTIVE LIFT SAFETY TIPS CARD, (A COPY IS INCLUDED IN THE PARTS BOX) WHERE THEY WILL BE CONSTANTLY REMINDED TO YOUR LIFT OPERATOR. FOR INFORMATION SPECIFIC TO THE LIFT, ALWAYS REFER TO THE MOHAWK MANUAL.

• INSPECT YOUR LIFT DAILY. NEVER OPERATE IT IF IT MALFUNCTIONS OR IF IT HAS BROKEN OR DAMAGED PARTS. REPAIRS SHOULD BE MADE WITH ORIGINAL MOHAWK PARTS.

• OPERATING CONTROLS ARE DESIGNED TO CLOSE WHEN RELEASED. DO NOT BLOCK OPEN OR OVERRIDE THEM.

• NEVER OVERLOAD YOUR LIFT BEYOND STATED LIFTING CAPACITY. RATED CAPACITY IS SHOWN ON NAMEPLATE AFFIXED TO THE LIFT.

• ONLY TRAINED AND AUTHORIZED PERSONNEL SHOULD DO POSITIONING OF VEHICLE AND OPERATION OF THE LIFT.

• DO NOT ALLOW CUSTOMERS OR BY-STANDERS TO OPERATE THE LIFT OR TO BE IN A LIFTING AREA DURING ITS OPERATION. ONLY PROPERLY TRAINED PERSONNEL SHOULD BE ALLOWED TO OPERATE LIFT.

• NEVER RAISE A VEHICLE WITH PERSONS INSIDE.

• ALWAYS KEEP LIFT AREA FREE OF OBSTRUCTIONS, DEBRIS, GREASE, AND OIL.

• PERFORM THE PRE-OPERATION CHECK LIST, PER INSTRUCTIONS, BEFORE RAISING VEHICLE TO DESIRED HEIGHT.

• BEFORE DRIVING VEHICLE INTO THE BAY, POSITION ARMS AND SUPPORTS TO PROVIDE UNOBSSTRUCTED CLEARANCE. DO NOT HIT OR RUN OVER LIFT ARMS, ADAPTERS, OR AXLE SUPPORTS. THIS COULD DAMAGE LIFT OR VEHICLE.

• LOAD VEHICLE ON LIFT CAREFULLY. POSITION LIFT SUPPORTS TO CONTACT AT THE VEHICLE MANUFACTURER’S RECOMMENDED LIFTING POINTS. RAISE LIFT UNTIL SUPPORTS CONTACT VEHICLE. CHECK SUPPORTS FOR SECURE CONTACT WITH VEHICLE. RAISE LIFT TO DESIRED WORKING HEIGHT. CAUTION: IF YOU ARE WORKING UNDER VEHICLE, LIFT SHOULD BE RAISED HIGH ENOUGH FOR LOCKING DEVICE TO BE ENGAGED.

• NOTE THAT WITH SOME VEHICLES, THE REMOVAL OR INSTALLATION OF COMPONENTS MAY CAUSE A CRITICAL SHIFT IN THE CENTER OF GRAVITY, AND RESULT IN RAISED VEHICLE INSTABILITY. REFER TO THE VEHICLE MANUFACTURER’S SERVICE MANUAL FOR RECOMMENDED PROCEDURES WHEN VEHICLE COMPONENTS ARE REMOVED.

• BEFORE LOWERING LIFT, BE SURE TOOL TRAY’S, STANDS, ETC. ARE REMOVED FROM UNDER VEHICLE. RELEASE LOCKING DEVICES BEFORE ATTEMPTING TO LOWER LIFT.

• BEFORE REMOVING VEHICLE FROM THE LIFT AREA, POSITION LIFT ARMS AND SUPPORTS TO PROVIDE AN UNOBSSTRUCTED EXIT.
LIFT FINAL CHECKOUT (AFTER INSTALLATION):
REV (2/9/2006)

THIS PROCEDURE OUTLINES THE FINAL CHECKS TO MAKE AFTER INITIAL INSTALLATION OF THE LIFT UNIT. REPEAT THIS PROCEDURE IF THE LIFT IS RELOCATED.

AFTER THE LIFT IS FULLY ASSEMBLED, RAISE THE LIFT EMPTY A FEW TIMES TO VERIFY:
- PROPER SYNCHRONIZATION OF LIFT ARMS
- UNIT IS RAISING SMOOTHLY (AIR IS BLEED FROM HYDRAULIC SYSTEM - SEE BLEEDING PROCEDURE FOR MORE DETAILS)
- NO LEAKS PRESENT AT ANY FITTING JUNCTIONS
- LOCKS ARE ENGAGING ON BOTH POSTS AS LIFT IS RAISING
- LOCKS ARE DIS-ENGAGING ON BOTH POSTS WHEN RELEASE CABLE PULLED (SEE J-BAR ADJUSTMENT PROCEDURE)
- LOCKS ARE RE-ENGAGING AFTER DIS-ENGAGED WHEN LIFT IS RAISED
- LIFT IS NOT DRIFTING DOWN WHEN RAISED (RAISE LIFT, THEN STOP, AND VERIFY DRIFT DOWN OF CYLINDERS)
- NO VIBRATIONS FROM LOOSE CLAMPING, ETC.
- SWING ARMS ROTATE SMOOTHLY WHEN LIFT FULLY LOWERED AND LOCK IN PLACE WHEN LIFT RAISED

ONCE THIS IS COMPLETE, LOCATE A REPRESENTATIVE VEHICLE INTO THE LIFTING AREA. USE A VEHICLE THAT WEIGHS AT LEAST 75 PERCENT OF THE CAPACITY OF THE LIFT. OBSERVING LIFTING PROCEDURES CONTAINED IN THIS MANUAL TO LOCATE VEHICLE IN LIFTING AREA, AND TO LOCATE LIFTING PADS AT LIFTING POINTS FOR VEHICLE, AND WHILE RAISING AND LOWERING.

RAISE LIFT APPROXIMATELY 1 FOOT. VERIFY THE FOLLOWING:
- PROPER SYNCHRONIZATION OF LIFT ARMS
- NO EXCESSIVE DEFLECTION OF POSTS OR ARMS
- NO LOOSENING OF REAR ANCHOR BOLTS IN BASE PLATES AT FLOOR (LOOK FOR GAP BETWEEN FLOOR AND BASES)
- UNIT IS RAISING SMOOTHLY (AIR IS BLEED FROM HYDRAULIC SYSTEM - SEE BLEEDING PROCEDURE FOR MORE DETAILS)
- NO LEAKS PRESENT AT ANY FITTING JUNCTIONS
- LOCKS ARE ENGAGING ON BOTH POSTS AS LIFT IS RAISING
- LIFT IS NOT DRIFTING DOWN WHEN RAISED (RAISE LIFT, THEN STOP, AND VERIFY DRIFT DOWN OF CYLINDERS)
- NO VIBRATIONS FROM LOOSE CLAMPING, ETC.

RELEASE LOCKS AND LOWER UNIT. VERIFY THE FOLLOWING:
- PROPER SYNCHRONIZATION OF LIFT ARMS
- UNIT IS LOWERING SMOOTHLY (AIR IS BLEED FROM HYDRAULIC SYSTEM - SEE BLEEDING PROCEDURE FOR MORE DETAILS)
- NO LEAKS PRESENT AT ANY FITTING JUNCTIONS
- NO VIBRATIONS FROM LOOSE CLAMPING, ETC.
- LOCKS ARE NOT RE-ENGAGING WHILE LOWERING

ENSURE THAT ALL MANUALS AND OTHER INSTRUCTIONAL MATERIALS ARE DELIVERED TO OWNER/USER/EMPLOYER. ENSURE THAT USERS ARE INSTRUCTED IN THE SAFE AND PROPER USE OF THE LIFT.

FINAL CHECKOUT OF LIFT IS COMPLETE.
TL-7 USAGE LIMITATIONS:

ALL MOHAWK TL-7 LIFTS ARE FOR INDOOR USE UNLESS SPECIFICALLY QUALIFIED AND MODIFIED FOR A CUSTOM ENVIRONMENT.

ALL MOHAWK TL-7 LIFTS MUST ACCOMPLISH THREE MAIN CRITERIA IN ORDER TO LIFT A VEHICLE SAFELY:

1. **PROPER ENGAGEMENT WITH WHEELS.** The TL-7 is designed to lift various turf equipment within the rated capacity of the lift by the vehicle tires. If suitable tire contact cannot be reached or achieved, the vehicle must not be raised with the lift.

2. **PLACEMENT OF VEHICLE ON LIFT** Ensure that the center of gravity of the vehicle lies centered between the posts. Shifting of the fork arms and trough may be necessary to achieve this.

3. **PROPER LOADING OF ARMS AND TROUGH** Individual arm capacities must not be exceeded. The trough capacity must not be exceeded either.

This lift is specifically designed to be used to raise various types of turf equipment within its rated capacity. Do not attempt to raise other types of vehicles without first reviewing the three main criteria above.

This lift is not intended, nor designed, to lift vehicle front or back ends using only two arms.

**THE FORKS ON THIS LIFT ARE INTENDED TO LIFT THE VEHICLE BY THE WHEELS ONLY! DO NOT USE THEM TO LIFT VEHICLE BY THE FRAME!**

Care must be observed when removing any heavy components from a vehicle and thereby drastically shifting the vehicle center of gravity (i.e. engine removal, transmission removal, etc.). The use of jack stands at the front and rear ends of the vehicle is highly recommended when performing this type of work.
PRE - OPERATION CHECK LIST

TRAINED OPERATOR

- THE OPERATOR MUST BE FULLY TRAINED AND QUALIFIED TO SAFELY AND EFFECTIVELY OPERATE THIS EQUIPMENT OF THIS SPECIFIC MAKE AND MODEL.

ABSENCE OF OBSTRUCTIONS

- THE TOTAL WORK AREA MUST BE FREE OF ANY AND ALL OBSTRUCTIONS AND BE GENERALLY CLEAN. (FREE OF OIL AND DEBRIS)

VISUAL INSPECTION

- THOROUGHLY INSPECT THE UNIT WITH A TRAINED EYE, NOTING ANY PROBLEM AREAS. INSPECT THE FLOOR AND THE ANCHORING FASTENERS AS WELL. REPORT ANY QUESTIONABLE ITEMS.

NO LOAD PERFORMANCE CHECK

- ALL MECHANICAL SAFETIES OPERATE PROPERLY AND CONSISTENTLY.
- NO EXTERNAL FLUID LEAKS.
- NO BLEED DOWN.
- EFFORTLESS AND SIMULTANEOUS MOVEMENT.
- LEVEL LIFTING.
- CONTROLS FUNCTION PROPERLY.
- ALL SAFETY MECHANISMS FULLY FUNCTIONAL.

PREVIOUS DAY’ S OPERATION REPORT

- VERIFY WITH SUPERVISOR THAT THERE WAS NO PROBLEMS EXPERIENCED THE PREVIOUS DAY. IF THERE WERE ANY PROBLEMS, VERIFY THAT ALL NECESSARY REPAIRS HAVE BEEN COMPLETED.

LIFTING PROCEDURES

LIFT PREPARATION AND VEHICLE POSITIONING

- PERFORM PRE-OPERATION CHECK LIST ITEM BY ITEM.
- POSITION THE ARMS TO THE OUTSIDE OF THE UNIT.
- POSITION THE VEHICLE CENTERED BETWEEN THE POSTS. POSITION THE TROUGH AS NEEDED TO ALIGN THE VEHICLE COG (CENTER OF GRAVITY) BETWEEN THE POST.

NOTE:
ALIGN THE VEHICLE’S CENTER OF GRAVITY WITH THE CENTERLINE OF THE POSTS. THIS CAN BE VERIFIED BY VIEWING THE CAM FOLLOWER BEARINGS ON THE CARRIAGE. THESE BEARINGS ARE LOCATED AT EACH CORNER OF THE CARRIAGE. CENTERING OF VEHICLE IS ACHIEVED WHEN ALL 4 CAM FOLLOWER BEARINGS ARE FREE TO SPIN.

CAUTION:
IF SUITABLE TIRE CONTACT CANNOT BE REACHED OR ACHIEVED, THE VEHICLE MUST NOT BE RAISED WITH THE LIFT.

TO RAISE

- ENGAGE THE UP-BUTTON ON THE POWER UNIT.
- RAISE VEHICLE TO THE DESIRED WORKING HEIGHT.
- LOWER THE UNIT ONTO THE MECHANICAL SAFETIES.

TO LOWER

- INSPECT THE LIFTING AREA TO INSURE THAT ALL PERSONNEL AND DEBRIS HAVE BEEN CLEARED FROM THE LIFTING AREA.
- ENGAGE THE UP-BUTTON ON THE POWER UNIT.
- RAISE UNIT APPROXIMATELY TWO INCHES.
- DISENGAGE THE MECHANICAL SAFETIES.
- LOWER UNIT TO THE DESIRED WORKING HEIGHT.
- IF WORK IS COMPLETE, CONTINUE LOWERING THE UNIT UNTIL BOTH CARRIAGES ARE FULLY LOWERED.
MAINTENANCE PROCEDURES

-- TRAINED LIFT SERVICE PERSONNEL ONLY --

REFER TO ANSI/ALI ALIS, SAFETY REQUIREMENTS FOR INSTALLATION AND SERVICE OF AUTOMOTIVE LIFTS.

**DAILY**

- PERFORM THE PRE-OPERATION CHECK LIST.
- REPORT ANY AND ALL EQUIPMENT MALFUNCTIONS IMMEDIATELY.
- CLEAN ALL MOVING PARTS. (IT IS NOT RECOMMENDED TO GREASE THE INSIDE OF THE CHANNEL ON THE POST.) IF OXIDIZATION IS OCCURRING USE A LIGHT LUBRICANT. (WD - 40 OR EQUIVALENT)
- KEEP AREA AROUND THIS EQUIPMENT FREE OF DIRT, SAND, WATER, ETC.

**WEEKLY**

- PERFORM THE DAILY OPERATION CHECK LIST.
- WIPE CLEAN, THE CYLINDERS’ WIPER SEALS AND THE BASE OF EACH POST TO REMOVE ANY WEEPING OIL AND DUST.
- VERIFY FLUID LEVEL. WITH THE UNIT FULLY LOWERED, THE FLUID LEVEL WILL BE 1/2 INCH BELOW THE BREATHER CAP PORT. USE DEXRON III AS REPLACEMENT FLUID.
- CYCLE UNIT TO FULL HEIGHT, AND BLEED APPROXIMATELY 30 SECONDS.

**MONTHLY**

- INSPECT LIFTING CHAINS AND COMPONENTS FOR DEFORMATION, WEAR OR CORROSION. SEE CHAIN INSPECTION AND MAINTENANCE PROCEDURE ON FOLLOWING PAGE.
- INSPECT SAFETY CABLES AND COMPONENTS FOR DEFORMATION, WEAR OR CORROSION. SEE CABLE INSPECTION AND MAINTENANCE PROCEDURE ON FOLLOWING PAGE.
- INSPECT ALL HYDRAULIC COMPONENTS FOR LEAKS, DEFORMATION, WEAR OR CORROSION.
- TIGHTEN ALL FASTENERS AND HYDRAULIC FITTINGS AS REQUIRED.
  1. ALL O - RING BOSS FITTINGS JAM NUTS ARE TO BE TIGHTENED TO 15-FOOT POUNDS TORQUE.
  2. ALL PIPE FITTINGS, IF LEAKING IS TO BE REMOVED, RE-SEALED, AND RE - INSTALLED. (SELECT - UNITE THREAD SEALANT OR EQUIVALENT ON FITTING THREADS)
- INSPECT ANCHOR CONDITIONS FOR ANY POSSIBLE CORROSION AND INSPECT THE FLOOR FOR ANY SIGNS OF FATIGUE OR FRACTURES.

**SEMI-ANNUAL**

- QUALIFY / RE-QUALIFY ALL PERSONNEL IN THE SAFE OPERATION OF THIS UNIT.
- VERIFY ALL FASTENERS TO PROPER TORQUE: ARM NUTS TIGHTEN TO 1000 FT-LB, THEN BACK OFF UNTIL ARMS MOVE FREELY CARRIAGE STOP FASTENERS TO 150 FT-LB CARRIAGE SIDE ROLLER NUTS TO 50 FT-LB ANCHORS (SEE ANCHOR SPECIFICATION SECTION)
- LUBRICATE LOCK BODY MAIN PIVOT PINS. REMOVE WITH SNAP RING PLIERS WHEN FULLY LOWERED AND CLEAN LOCK PIVOT PIN AND LOCK BODY HOLE. SPRAY PIN WITH A LIGHT LUBRICANT (WD-40 OR EQUIVALENT), THEN RE-ASSEMBLE, ENSURING SMOOTH MOTION.
- THE CHANNEL SECTIONS WHERE THE CARRIAGE BEARINGS RIDE AGAINST SHOULD BE CLEANED AND LUBRICATED USING SLIP PLATE OR A LIGHT LUBRICANT (WD-40).
- THE MAIN CARRIAGE BEARINGS ARE FACTORY LUBRICATED AND SEALED. THEY DO NOT REQUIRE ANY ADDITIONAL PERIODIC LUBRICATION. HOWEVER, IF ADDITIONAL LUBRICATION IS DESIRED ON THESE UNDER THE CUSTOMER’S OWN INSPECTION AND MAINTENANCE PROGRAM, IT IS RECOMMENDED TO USE CAM2 – MULTIPURPOSE #2 GREASE (PART NO. 86035) OR EQUIVALENT. USE APPROXIMATELY 2 OZ. PER BEARING.

**ANNUALLY**

- CHECK YOUR HYDRAULIC FLUID ANNUALLY. EVERY FIVE YEARS REPLACE AND RE-BLEED THE HYDRAULIC FLUID. ALWAYS USE A CLEAN FUNNEL AND FILTER. USE DEXRON III HYDRAULIC FLUID.
- INSPECT ALL BEARINGS FOR UNUSUAL OR EXCESSIVE WEAR. (REPLACE IF NEEDED)
- REMOVE THE LIFTING CHAINS, THOROUGHLY CLEAN, LUBRICATE AND RE-INSTALL. (REPLACE IF UNUSUAL OR EXCESSIVE WEAR IS NOTED) SEE CHAIN INSPECTION AND MAINTENANCE PROCEDURE ON FOLLOWING PAGE.
- PERFORM THE DAILY, WEEKLY, AND MONTHLY MAINTENANCE PROCEDURES.

**PART REPLACEMENT NOTES**

- REPLACE ALL WORN OR BROKEN PARTS WITH GENUINE LIFT MANUFACTURER SUPPLIED PARTS (FROM MOHAWK RESOURCES LTD. ONLY)
- ALL REPLACEMENTS OF PARTS ARE TO BE PERFORMED BY TRAINED LIFT SERVICE PERSONNEL ONLY.
- UPON PART REPLACEMENT, LIFT MUST PASS A FULL LIFT INSPECTION AS DEEMED SUITABLE BY TRAINED LIFT SERVICE PERSONNEL.
CHAIN INSPECTION - MAINTENANCE PROCEDURES:

The following checks to be performed MONTHLY:

Inspect for contamination.
Visually inspect chain for areas of dirt/debris and any areas showing evidence of rust/corrosion. If dirty, clean chain using a light lubricant (WD-40) - 0.5 oz. per foot by spraying.

Inspect for corrosion.
If excessive rust or corrosion is witnessed, replace chain.

Inspect chain link pins.
Visually inspect link pins for wear on both ends, ensuring that pins retain links. If any links are loose or worn, replace chain.

Inspect chain links.
Inspect links for wear on surfaces in contact with yoke rollers. Inspect yoke rollers as well. If excessive wear is found, replace both chain and rollers.

Inspect for excessive chain stretch.
Measure 16 pitches of chain while taut (see picture to right). Dimension should be no more than 12 3/8. If longer, replace chain.

Note: It is a rule-of-thumb that when the chain is replaced, the yoke rollers are replaced as well.

File: Man133.dwg
RevA - Chain Acceptability Limit Changed to Match ALI Inspection criteria. (Was 12 1/4)
Cable Care & Maintenance

This lift incorporates a high strength synthetic cable which is used to prevent lift collapse in the unlikely event of a chain break. A few guidelines about its general use will help you to increase the life of the cable and assist you in achieving the best performance from our product.

**Abrasion and Sharp Edges:** Abrasion and sharp edges are a cable’s worst enemies. Check all equipment prior to use to make sure there are no burrs or sharp edges.

**Cleaning:** Dirt on a cable can penetrate the cover strands resulting in abrasion in the core as well as on the cover. Water facilitates the introduction of dirt particles into the cable. When cable subjected to wet conditions, particularly where dirt is an issue, wash cable with fresh water and allow to air dry out of direct sunlight. For a thorough cleaning, soak your cables in warm water with a mild detergent (not bleach). When possible, use a front loading washer; otherwise, wash your cable in a mesh bag or pillowcase to avoid tangling. Rinse thoroughly and then hang them up to dry out of direct sunlight.

**Eliminating Twist:** Twist increases the likelihood of the cable kinking and jamming in equipment. Severe twist can cause the cable to get out of round, resulting in higher wear rates and reduced strength. Eliminating twist from a cable will make the cable easier to handle and increase its life.

**Chemicals:** Synthetic fibers have good chemical resistance. However, exposure to harsh chemicals, such as acids and alkalis, should be avoided.

**Damage:** Inspect all cables frequently for signs of wear or damage, especially at eyebolt areas. Retire any cable that is cut, worn or abraded.

**Sunlight:** With time, all synthetic fibers will undergo degradation when exposed to sunlight.

**Tensile Strength:** The tensile strength is the load at which a new cable, tested under laboratory conditions, can be expected to break. Age, use and the type of termination used, such as knots, will lower tensile strengths significantly. A cable should always be taken care of. This is important to ensure that you get the most out of it and enhance your performance. Here is a list of the many things that you can do in taking care of your cables:

- Check your cable regularly. Just like the rest of your equipment, ocular inspection is very important. Check your cable for signs of wear and tear such as damaged sheath, fraying, and abrasion during each inspection
- Make sure that your cable is clean. Wash it with water and non-detergent soap. Avoid using bleach and other chemicals that can weaken the nylon cable. Air dry your cable away from direct sunlight.
- Keep your cable away from direct sunlight, acids, and oxidizing agents that can weaken your cable and shorten cable life.
It does not necessarily mean that if your cable does not have any signs of wear and tear, you can still use it. The cable should be changed every 5 years, regardless of condition. If there is any doubt during inspection of the condition of the cable, replace it with a new one. If in the unlikely event, a chain break occurs, a new cable must be used as well as a new chain.

**Internal Wear:** Internal wear can be detected by the tell tale signs of a loosening of strands and the presence of powdered fiber. It is most often caused when grit becomes trapped in a cable which is repeatedly flexed in wet conditions. If signs of this are detected, replace cable.

**Attack by heat:** This may be revealed by glazing of the cable surface. In extreme cases local fused sections indicate heat through friction and a considerable loss of strength can be expected. If, after careful visual examination, doubts still exist, discard the cable or consult the cable manufacturer.

**Maintenance after Inspection:** Any cable which has broken through any of above criteria should be discarded and replaced.

I.E. Chain Break Safety Cable

Rope Care.doc
MOHAWK MODEL TL-7

TROUBLE SHOOTING

WARNING: NEVER ATTEMPT TO LOOSEN HYDRAULIC FITTINGS, OR OVERRIDE SAFETY DEVICES IN AN ATTEMPT TO CORRECT A PROBLEM. ALL TESTS ARE TO BE PERFORMED WITH NO VEHICLE.

HYDRAULIC SAFETY CHECK

NOTE: THE HYDRAULIC SAFETY CHECK IS TO BE PERFORMED WITH NO VEHICLE ON THE UNIT. CONTACT YOUR LOCAL MOHAWK DISTRIBUTOR OR THE MOHAWK FACTORY IF EITHER TEST FAILS.

MAINSIDE SAFETY CHECK:

1. RAISE THE UNIT APPROXIMATELY 3 FEET
2. DISENGAGE THE OFFSIDE MECHANICAL SAFETY
3. LOWER THE UNIT ONTO THE MAINSIDE MECHANICAL SAFETY
4. WHILE CONTINUING TO HOLD DOWN THE POWER UNIT LOWERING HANDLE, OBSERVE THE OFFSIDE CARRIAGE FOR MOVEMENT. THE UNIT HAS CHECK OUT OK IF THERE IS NO MOVEMENT (OFFSIDE CARRIAGE DOES NOT CONTINUE TO LOWER)

OFFSIDE SAFETY CHECK:

1. RAISE THE UNIT APPROXIMATELY 3 FEET
2. DISENGAGE THE MAINSIDE MECHANICAL SAFETY
3. LOWER THE UNIT ONTO THE OFFSIDE MECHANICAL SAFETY
4. WHILE CONTINUING TO HOLD DOWN THE POWER UNIT LOWERING HANDLE, OBSERVE THE MAINSIDE CARRIAGE FOR MOVEMENT. THE UNIT HAS CHECK OUT OK IF THERE IS NO MOVEMENT (MAINSIDE CARRIAGE DOES NOT CONTINUE TO LOWER)

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOT RAISING LOAD</td>
<td></td>
</tr>
<tr>
<td>LOW HYDRAULIC FLUID LEVEL</td>
<td>LOWER UNIT. REMOVE RESERVOIR BREATHER CAP. FILL UNIT TO WITHIN 1/2 INCH BELOW PORT. USE DEXRON III TRANSMISSION / HYDRAULIC FLUID.</td>
</tr>
<tr>
<td>PRESSURE RELIEF ADJUSTMENT</td>
<td>CONSULT MOHAWK SERVICE DEPARTMENT</td>
</tr>
<tr>
<td>PRESSURE RELIEF CONTAMINATION</td>
<td>REFER TO POWER UNIT SPECIFICATIONS. REMOVE AND CLEAN DEBRIS FROM VALVE ASSEMBLY.</td>
</tr>
<tr>
<td>VOLTAGE TO POWER UNIT</td>
<td>REFER TO POWER UNIT SPECIFICATIONS. CONSULT AN ELECTRICIAN</td>
</tr>
<tr>
<td>UNIT OVERLOADED</td>
<td>VEHICLE IS TO HEAVY TO BE RAISED</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NOT LOWERING</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MECHANICAL LOCKS ENGAGED</td>
<td>RAISE UNIT. DISENGAGE MECHANICAL LOCKS.</td>
</tr>
<tr>
<td>UNIT UNEVEN (SIDE TO SIDE)</td>
<td>RAISE UNIT TO FULL HEIGHT TO EQUALIZE. THEN LOWER OR USE DIVERTER VALVE TO EQUALIZE</td>
</tr>
<tr>
<td>POSTS OUT OF SQUARE</td>
<td>VERIFY LEVEL ASSEMBLY. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. SEE FIGURE 8 &amp; 9.</td>
</tr>
<tr>
<td>DEBRIS IN POSTS (TOOLS ETC.)</td>
<td>CLEAN UNIT</td>
</tr>
<tr>
<td>OBSTRUCTION UNDER VEHICLE OR LIFT</td>
<td>REMOVE OBSTRUCTION.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RAISING UNEVEN</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RULE OF THUMB: IF THE MAIN SIDE IS HIGH, RUN UNIT TO FULL HEIGHT. IF THE MAIN SIDE IS LOW, LOWER UNIT TO FLOOR. ALLOW TIME FOR THE OFF SIDE TO EQUALIZE.</td>
<td></td>
</tr>
<tr>
<td>AIR IN SYSTEM</td>
<td>BLEED UNIT. REFER TO BLEEDING PROCEDURES.</td>
</tr>
<tr>
<td>CARRIAGE BEARINGS CONTACTING CARRIAGE STOPS</td>
<td>CARRIAGE BEARINGS ON THE MAIN SIDE MUST NOT CONTACT CARRIAGE STOPS. (RESULT OF INCORRECT CYLINDER SHIMS.) SEE “SHIMMING FOR CHAIN TENSION” SECTION. SEE FIGURE 11.</td>
</tr>
<tr>
<td>POSTS OUT OF SQUARE</td>
<td>VERIFY LEVEL ASSEMBLY. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. SEE FIGURE 8 &amp; 9.</td>
</tr>
<tr>
<td>CYLINDER SHIMS</td>
<td>VERIFY CYLINDER SHIMS. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. SEE “SHIMMING FOR CHAIN TENSION” SECTION. SEE FIGURE 11.</td>
</tr>
<tr>
<td>SHOP FLOOR UNEVEN</td>
<td>VERIFY PROPER INSTALLATION OF MAIN SIDE POST. MAIN SIDE TO BE ON HIGH SIDE. SEE FIGURE 12.</td>
</tr>
</tbody>
</table>
# TROUBLE SHOOTING, CONTINUED

<table>
<thead>
<tr>
<th>POSSIBLE CAUSE</th>
<th>SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RAISING UNEVEN, CONTINUED</strong></td>
<td></td>
</tr>
<tr>
<td>DIVERTER VALVE</td>
<td>REMOVE BLEED LINE FROM THE TOP OF THE OFF SIDE CYLINDER AND CAP USING MOHAWK PART # 601-420-001. IF THE UNIT CONTINUES TO DRIFT DOWN THE DIVERTER PULL VALVE WILL NEED TO BE CLEANED OR REPLACED.</td>
</tr>
<tr>
<td>MAIN SIDE CYLINDER</td>
<td>PERFORM HYDRAULIC SAFETY CHECKS. CHECK FOR INTERNAL HYDRAULIC LEAKS</td>
</tr>
<tr>
<td><strong>SLOW DRIFT DOWN</strong></td>
<td></td>
</tr>
<tr>
<td>SAFETIES NOT ENGAGED</td>
<td>RAISE UNIT TO RE-ENGAGE SAFETIES. THEN LOWER UNIT ONTO SAFETIES.</td>
</tr>
<tr>
<td>POWER UNIT LOWERING VALVE CONTAMINATION</td>
<td>BACK FLUSH POWER UNIT: PULL DOWN ON THE LOWERING HANDLE, AND THEN ENGAGE THE UP BUTTON AT THE SAME TIME. RUN UNIT APPROX. 10 SECONDS</td>
</tr>
<tr>
<td>DIVERTER VALVE</td>
<td>REMOVE BLEED LINE FROM THE TOP OF THE OFF SIDE CYLINDER AND CAP USING MOHAWK PART # 601-420-001. IF THE UNIT CONTINUES TO DRIFT DOWN THE DIVERTER PULL VALVE WILL NEED TO BE CLEANED OR REPLACED.</td>
</tr>
<tr>
<td><strong>EXTERNAL HYDRAULIC LEAKS</strong></td>
<td></td>
</tr>
<tr>
<td>NOTE: TIGHTEN ALL FITTINGS PER SPECIFICATIONS</td>
<td></td>
</tr>
<tr>
<td>MAIN SIDE CYLINDER</td>
<td>THOROUGHLY CLEAN THE CYLINDER. VERIFY LEAK ORIGIN. FITTINGS ARE TO BE TIGHTENED PER SPECIFICATIONS</td>
</tr>
<tr>
<td>OFF SIDE CYLINDER</td>
<td>THOROUGHLY CLEAN THE CYLINDER. VERIFY LEAK ORIGIN. FITTINGS ARE TO BE TIGHTENED PER SPECIFICATIONS.</td>
</tr>
<tr>
<td>BAD FLAIR OR FITTING</td>
<td>REMOVE THE HYDRAULIC LINE AND INSPECT FLAIR AND FITTING FOR DEFORMATION. REPLACE IF NEEDED.</td>
</tr>
<tr>
<td>BAD O-RING (O-RING TYPE FITTINGS)</td>
<td>CHANGE O-RING</td>
</tr>
<tr>
<td>LOOSE PIPE FITTING</td>
<td>REMOVE, RESEAL, AND RE-INSTALL FITTING. SEAL ALL PIPE FITTING CONNECTIONS WITH THREAD SEALANT MOHAWK PART # 601-610-002 NOTE: DO NOT USE TEFILON TAPE.</td>
</tr>
<tr>
<td><strong>MECHANICAL LOCK RE-ENGAGES</strong></td>
<td></td>
</tr>
<tr>
<td>CHAIN BREAK SAFETY CABLE NEEDS ADJUSTMENT</td>
<td>TENSION IN CABLE MAY BE TO TIGHT. REFER TO FIGURE 14.</td>
</tr>
<tr>
<td><strong>MECHANICAL LOCK HARD TO PULL</strong></td>
<td></td>
</tr>
<tr>
<td>CHAIN BREAK SAFETY CABLE NEEDS ADJUSTMENT</td>
<td>TENSION IN CABLE MAY BE TO TIGHT. REFER TO FIGURE 14.</td>
</tr>
<tr>
<td>FLIPPER STICKING ONTO LOCK BAR</td>
<td>APPLY A SMALL AMOUNT OF LUBRICANT TO THE LOCK BAR WHERE THE FLIPPER RIDES. (DO NOT USE HEAVY GREASE)</td>
</tr>
</tbody>
</table>
TO BE USED IN CONJUNCTION WITH ELECTRICAL SCHEMATIC

2-POST ELECTRICAL RATINGS:
Models A-7, System IA, LC-12, TL-7 – 2 HP, 60 Hz

<table>
<thead>
<tr>
<th>VOLTS (VAC)</th>
<th>Ph (Ø)</th>
<th>FULL LOAD AMPS</th>
<th>MAXIMUM CIRCUIT BREAKER</th>
<th>MINIMUM SUPPLY WIRE AMPLIY</th>
</tr>
</thead>
<tbody>
<tr>
<td>208-230</td>
<td>1</td>
<td>13.9-13</td>
<td>35</td>
<td>25 (14 GA)</td>
</tr>
<tr>
<td>208-230</td>
<td>3</td>
<td>6</td>
<td>15</td>
<td>25 (14 GA)</td>
</tr>
<tr>
<td>440-480</td>
<td>3</td>
<td>3</td>
<td>7.5</td>
<td>25 (14 GA)</td>
</tr>
</tbody>
</table>

Models LMF-12 & TP-16: (4HP/1Ph/60Hz) (5HP/3PH/60Hz)

<table>
<thead>
<tr>
<th>VOLTS (VAC)</th>
<th>Ph (Ø)</th>
<th>FULL LOAD AMPS</th>
<th>MAXIMUM CIRCUIT BREAKER</th>
<th>MINIMUM SUPPLY WIRE AMPLIY</th>
</tr>
</thead>
<tbody>
<tr>
<td>208-230</td>
<td>1</td>
<td>19.7-17.8</td>
<td>45</td>
<td>30 (12 GA)</td>
</tr>
<tr>
<td>208-230</td>
<td>3</td>
<td>13.7-12.4</td>
<td>20</td>
<td>25 (14 GA)</td>
</tr>
<tr>
<td>440-480</td>
<td>3</td>
<td>6.5-5.9</td>
<td>10</td>
<td>25 (14 GA)</td>
</tr>
</tbody>
</table>

Models TP-18 & TP-20: (4HP/1Ph/60Hz) (5HP/3PH/60Hz)

<table>
<thead>
<tr>
<th>VOLTS (VAC)</th>
<th>Ph (Ø)</th>
<th>FULL LOAD AMPS</th>
<th>MAXIMUM CIRCUIT BREAKER</th>
<th>MINIMUM SUPPLY WIRE AMPLIY</th>
</tr>
</thead>
<tbody>
<tr>
<td>208-230</td>
<td>1</td>
<td>18.5-16.7</td>
<td>45</td>
<td>30 (12 GA)</td>
</tr>
<tr>
<td>208-230</td>
<td>3</td>
<td>13.7-12.4</td>
<td>20</td>
<td>25 (14 GA)</td>
</tr>
<tr>
<td>440-480</td>
<td>3</td>
<td>6.5-5.9</td>
<td>10</td>
<td>25 (14 GA)</td>
</tr>
</tbody>
</table>

1. CIRCUIT BREAKER TO BE THERMAL MAGNETIC.
2. WIRE TO BE COPPER STRANDED, TYPE THHN, 90°C.
3. DO NOT USE BELOW GARAGE FLOOR OR GRADE LEVEL.
NE PAS UTILISER À UN NIVEAU INFÉRIEUR ÀCELUI DU PLANCHER DU GARAGE OU DU SOL.

1. ALL ELECTRICAL EQUIPMENT AND WIRING SHALL CONFORM TO ANSI/NFPA 70, NATIONAL ELECTRICAL CODE.
2. IT SHALL BE THE RESPONSIBILITY OF THE OWNER / EMPLOYER TO PROVIDE NECESSARY LOCKOUTS / TAGOUTS OF ENERGY SOURCES IN ACCORDANCE WITH ANSI Z244.1, BEFORE ATTEMPTING REPAIRS.
3. ALL FIELD WIRING / ELECTRICAL RELATED LABOR SHALL BE PERFORMED BY CERTIFIED ELECTRICIANS.
4. UNIT MUST BE PROPERLY GROUNDED IN ACCORDANCE TO NEC ARTICLE 250 (GROUNDING), AND APPLICABLE LOCAL CODES.
5. ## DENOTE WIRE NUMBERS. (WHERE APPLICABLE)
6. LABEL MARKERS SHALL BE PLACED ON ALL WIRES (BOTH ENDS), SWITCHES, RELAYS, LAMPS, ETC., ALL WIRES TO BE INSTALLED WITH TERMINAL LUGS. ALL CONNECTIONS SHALL BE WRENCH TIGHT. (WHERE APPLICABLE)
7. THE FOLLOWING COLOR WIRES SHALL BE RESERVED.
   GREEN: ALL EQUIPMENT GROUNDING CONDUCTORS.
   WHITE: ALL NEUTRAL CONDUCTORS.
8. VERIFY PROPER MOTOR WIRING FOR PROPER VOLTAGE & ROTATION AT INITIAL START-UP.
9. TRANSFORMER TERMINALS TO BE WIRED AND FUSED ACCORDING TO CUSTOMER'S POWER SUPPLY. SEE TABLES ABOVE FOR FUSE SIZES, HEATER ELEMENT SIZES, & TRANSFORMER WIRING. (WHERE APPLICABLE)
10. ALL FUSES TO BE CLASS CC TIME DELAY TYPE. (WHERE APPLICABLE)
**SERVICE CHART**

<table>
<thead>
<tr>
<th>DATE</th>
<th>PART REPLACED / SERVICED</th>
<th>SERVICE COMPANY</th>
<th>SERVICED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MAINTENANCE CHART**

<table>
<thead>
<tr>
<th>DATE</th>
<th>MAINTENANCE PERFORMED</th>
<th>SERVICE COMPANY</th>
<th>SERVICED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MOHAWK

MODEL TL-7
Golf-Turf Lift

FIGURES & DIAGRAMS

MOHAWK RESOURCES LTD.

65 VROOMAN AVE.
AMSTERDAM, NY 12010
TOLL FREE: 1-800-833-2006
LOCAL: 1-518-842-1431
FAX: 1-518-842-1289
INTERNET: WWW.MOHAWKLIFTS.COM
E-MAIN: SERVICE@MOHAWKLIFTS.COM
MOHAWK MODEL TL-7

Figure 1

TL-7 GOLF-MOWER LIFT
(CONVERTED SYSTEM-IA)

Figure 1
CAUTION

These carriage stops are to be used in the assembly of this lift. It is extremely important to place these in their designated position which is shown below.

Figure 4

Rotate carriage stop typ. (4) places

5/8-11NC bolt typ. (8) places
Torque to 150 ft-lbs

Mainside

Offside
WEJ-IT INSTALLATION

DO NOT USE IMPACT WRENCH

USE HAND WRENCH ONLY

Figure 5
The Original wej-it® Wedge Anchors

**KEY FEATURES/BENEFITS**

- **Time-Tested, Proven Reliability.** An industry standard for over 45 years.
- **Fully Assembled and Ready to Use.** Unparalleled job-site convenience.
- **BOLT SIZE IS HOLE SIZE®.** Allows precision placement of equipment through pre-drilled holes.
- **Exclusive “Positive Wedge Connections.”** Minimizes wedge loosening due to vibratory loads.

**SPECIFICATIONS, APPROVALS AND LISTINGS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Zinc Plating</th>
<th>ASTM B-633, Type III, SCI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ICBO-ES</td>
<td>Report #1821</td>
</tr>
<tr>
<td></td>
<td>City of Los Angeles</td>
<td>#RR 24939</td>
</tr>
<tr>
<td></td>
<td>DOT</td>
<td>Please call Customer Service for specific information by state.</td>
</tr>
<tr>
<td></td>
<td>Federal</td>
<td>QQZ-325C, Type II, Class 3</td>
</tr>
<tr>
<td>Specifications</td>
<td>(Clear Chromate added)</td>
<td>FFS-325, Group II, Type 4, Class 1</td>
</tr>
</tbody>
</table>

**MAXIMUM TENSILE AND SHEAR CAPACITY FOR STATIC LOADS**

<table>
<thead>
<tr>
<th>Anchor &amp; Hole Size</th>
<th>LIMESTONE AGGREGATE 2000 psi Embedment Tension (in)</th>
<th>LIMESTONE Shear (lbs)</th>
<th>UNREINFORCED AGGREGATE 3000 psi Embedment Tension (in)</th>
<th>UNREINFORCED Shear (lbs)</th>
<th>UNREINFORCED CONCRETE 5000 psi Shear (lbs)</th>
<th>LIGHTWEIGHT IDEALITE 5000 psi Embedment Tension (in)</th>
<th>LIGHTWEIGHT Shear (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>1 1/8 1132 1211</td>
<td>1 1/8 1320 1751</td>
<td>1 1/8 1450 1751</td>
<td>1 1/8 1500 1751</td>
<td>1 1/8 1570 1751</td>
<td>1 1/8 1480 1751</td>
<td>1 1/8 1610 1947</td>
</tr>
<tr>
<td>1/4</td>
<td>1 3/4 1256 1211</td>
<td>1 1/2 1856 1751</td>
<td>1 1/2 1820 1751</td>
<td>1 1/2 1870 1751</td>
<td>1 1/2 1800 1751</td>
<td>1 1/2 1800 1947</td>
<td>1 1/2 1893 2064</td>
</tr>
<tr>
<td>5/16</td>
<td>1 1/4 1308 1210</td>
<td>1 1/4 2057 1839</td>
<td>1 1/4 2057 1839</td>
<td>1 1/4 2057 1839</td>
<td>1 1/4 2057 1839</td>
<td>1 1/4 2057 1839</td>
<td>1 1/4 2193 2064</td>
</tr>
<tr>
<td>3/8</td>
<td>1 1/4 994 1223</td>
<td>1 1/2 2376 4286</td>
<td>1 1/2 2376 4286</td>
<td>1 1/2 2376 4286</td>
<td>1 1/2 2376 4286</td>
<td>1 1/2 2376 4286</td>
<td>1 1/2 2193 2064</td>
</tr>
<tr>
<td>3/8</td>
<td>4 1728 1223</td>
<td>4 3488 4286</td>
<td>4 3488 4286</td>
<td>4 3488 4286</td>
<td>4 3488 4286</td>
<td>4 3488 4286</td>
<td>4 3488 4286</td>
</tr>
<tr>
<td>1/2</td>
<td>1 3/4 1542 3009</td>
<td>2 1/4 3473 7138</td>
<td>2 1/4 3473 7138</td>
<td>2 1/4 3473 7138</td>
<td>2 1/4 3473 7138</td>
<td>2 1/4 3473 7138</td>
<td>2 1/4 3473 7138</td>
</tr>
<tr>
<td>1/2</td>
<td>6 2695 3009</td>
<td>5 4809 7138</td>
<td>5 4809 7138</td>
<td>5 4809 7138</td>
<td>5 4809 7138</td>
<td>5 4809 7138</td>
<td>5 4809 7138</td>
</tr>
<tr>
<td>5/8</td>
<td>3 1/2 7582 10719</td>
<td>15299 15583</td>
<td>15299 15583</td>
<td>15299 15583</td>
<td>15299 15583</td>
<td>15299 15583</td>
<td>15299 15583</td>
</tr>
<tr>
<td>5/8</td>
<td>4 3/4 9179 10719</td>
<td>19299 21000</td>
<td>19299 21000</td>
<td>19299 21000</td>
<td>19299 21000</td>
<td>19299 21000</td>
<td>19299 21000</td>
</tr>
<tr>
<td>3/4</td>
<td>3 11579 15537</td>
<td>25740 21000</td>
<td>25740 21000</td>
<td>25740 21000</td>
<td>25740 21000</td>
<td>25740 21000</td>
<td>25740 21000</td>
</tr>
<tr>
<td>3/4</td>
<td>7 15444 15537</td>
<td>30636 23103</td>
<td>30636 23103</td>
<td>30636 23103</td>
<td>30636 23103</td>
<td>30636 23103</td>
<td>30636 23103</td>
</tr>
<tr>
<td>7/8</td>
<td>4 1/2 15266</td>
<td>33622 28718</td>
<td>33622 28718</td>
<td>33622 28718</td>
<td>33622 28718</td>
<td>33622 28718</td>
<td>33622 28718</td>
</tr>
<tr>
<td>7/8</td>
<td>7 16892</td>
<td>28468 28718</td>
<td>28468 28718</td>
<td>28468 28718</td>
<td>28468 28718</td>
<td>28468 28718</td>
<td>28468 28718</td>
</tr>
<tr>
<td>1</td>
<td>5 1/2 16351</td>
<td>27252 33083</td>
<td>27252 33083</td>
<td>27252 33083</td>
<td>27252 33083</td>
<td>27252 33083</td>
<td>27252 33083</td>
</tr>
<tr>
<td>1</td>
<td>7 17837</td>
<td>29728 33083</td>
<td>29728 33083</td>
<td>29728 33083</td>
<td>29728 33083</td>
<td>29728 33083</td>
<td>29728 33083</td>
</tr>
</tbody>
</table>

*Source (available upon request): 1) University of Texas, Austin, TX (using new ICBO-ES testing criteria); 1993. 2) AA Engineers & Associates, Inc., Denver, CO, 1981.*

**EDGE DISTANCE AND SPACING REQUIREMENTS**

<table>
<thead>
<tr>
<th>Embedment (E) in Anchor Diameter (d)</th>
<th>Spacing</th>
<th>Edge Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>E &lt; 6d (shallow)</td>
<td>3.50E</td>
<td>1.75E</td>
</tr>
<tr>
<td>6d ≤ E ≤ 8d (standard)</td>
<td>2.00E</td>
<td>1.00E</td>
</tr>
<tr>
<td>8d &lt; E (deep)</td>
<td>1.50E</td>
<td>0.75E</td>
</tr>
</tbody>
</table>

**NOTES:**

- Information provided only for the use of a qualified design engineer. Use of technical data by persons not qualified could cause serious damage, injury, or even death.
- Ultimate values shown. For static loads, use one-fourth of the maximum tensile and shear capacities for the recommended 4:1 safety factor.

*Figure 6*
**INSTALLATION INSTRUCTIONS – MOHAWK LIFTS**

1. Drill the hole perpendicular to the work surface.* To assure full holding power, do not ream the hole or allow the drill to wobble.

2. Drill the hole deeper than the intended embedment of the anchor, but not closer than two anchor diameters to the bottom (opposite) surface of the concrete.

3. Clean the hole using compressed air and a nylon brush. A clean hole is necessary for proper performance.

4. For ease of installation, make certain that the spear heads are located up against the wedge pockets.

5. Turn the nut on to the anchor until contact is made with the top of the spears and the bottom of the washer. Insert anchor into hole.

6. Tap anchor into hole with a 2 ½ lb. hammer until the washer rests solidly against fixture.

7. Tighten the nut to not less than 3 full turns but not more than 5 turns past the hand tight position. Use of an Impact wrench for Installation of the anchor is NOT recommended.

**INSPECTION & MAINTENANCE INSTRUCTIONS**

1. Verify torque on anchors to 85 Ft. Lbs. for future/annual inspections.

* Always wear safety glasses. Follow the drill manufacturer’s safety instructions. Use only solid carbide-tipped drill bits meeting ANSI B212.15 diameter standards as listed on back cover.

REV: 11/06
Figure 8
Figure 9
GENERAL POST SHIMMING GUIDELINES:

1. High strength plastic shims are supplied with all lifts to accommodate slight slopes in floors for proper leveling of posts. These are not intended to compensate for larger slopes.

2. Post shimming should not exceed base plate thickness. If it does, it is recommended to use an additional base(s) as shims (ordered separately).

3. Any shimming, be it plastic shims or base plates, over 1/2 inch in total thickness, will require longer anchor bolts (ordered separately) to maintain proper anchor embedment depth in concrete.

4. For any gap filling in up to 1/2 inch, it is recommended to use high compression 2-part epoxy grouting under the base plate to spread the compressive load of the base plate onto the flooring. For filling gaps in excess of 1/2 inch, it is recommended to use high compression concrete grouting. Refer to Mohawk’s recommendations on preferred grout types and methods.
Figure 10

3/4 MAX.

SHIMS

YOKE

SHIMS

CHROME ROD

CYLINDER

CYLINDER SHIMS

MAN117D
The difference in the height of the swing arms is noted only after the cylinders and posts have been properly shimmed.
Figure 12
CHAIN BREAK SAFETY SYSTEM:

FOR SERVICING, INSPECTING AND REPLACING CHAIN BREAK SAFETY CABLE:

1. ROUTE CHAIN BREAK SAFETY CABLE AS SHOWN.
2. PULL LOCK RELEASE CABLE AND ALLOW THREADED ROD TO HANG UNDER ITS OWN WEIGHT TO TENSION CHAIN BREAK CABLE.
3. TIGHTEN NUT AND JAM NUT ON END OF THREADED ROD UNTIL IT IS 1/16 INCH FROM LEG BRACKET (SEE DETAIL BELOW).
4. RAISE AND LOWER TO ENSURE THAT TENSION OF CABLE DOES NOT RE-ENGAGE LOCKS. ADJUST NUTS ON THREADED ROD IN BACK OF POST AS REQUIRED.
5. REFER TO CABLE INSPECTION AND MAINTENANCE PROCEDURES. REPLACE ANY CABLE THAT DOES NOT MEET INSPECTION CRITERIA IMMEDIATELY.

WARNING: DO NOT OPERATE THIS LIFT UNLESS THE CHAIN BREAK SAFETY CABLE IS PRESENT AND PERIODICALLY INSPECTED. FAILURE TO DO SO MAY COMPROMISE THE CHAIN BREAK SAFETY SYSTEM.
PROTECTIVE PLASTIC CAPS HERE (TYP 4 PLCS)
NOTES:
1. PROTECTED BY US PATENT NUMBER 4500071 CANADIAN PATENT NUMBER 436053.
2. RECOMMENDED OPERATING TEMPERATURE OF HYDRAULIC FLUID: 50°F TO 130°F.
3. ALL HYDRAULIC LINES -6 UNLESS NOTED OTHERWISE.
4. PERFORMANCE:
A-7: WORKING PRESSURE @ 7000 LBS = 1800 PSI. RELIEF SET @ 2050 PSI.
B-7: WORKING PRESSURE @ 7000 LBS = 1500 PSI. RELIEF SET @ 2200 PSI.
C-7A: WORKING PRESSURE @ 10000 LBS = 2500 PSI. RELIEF SET @ 2650 PSI.
LC12: WORKING PRESSURE @ 12000 LBS = 2950 PSI. RELIEF SET @ 3200 PSI.

- DIVERTER VALVE, LIFT-LOWER MANIFOLD
- VELOCITY FUSE, 4 GPM
- HYDRAULIC FLUID
- POWER UNIT, 2 HP, 180-230 VAC
- MAINSIDE CYLINDER, MASTER
- OFFSIDE CYLINDER, SLAVE, SELF-BLEEDING

C-SIZE

NOTICE OF CONFIDENTIAL INFORMATION

INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND THE PROPERTY OF MOHAWK INDUSTRIES LTD. IT IS NOT TO BE SHARED WITH OTHERS OR DISCLOSED BY THE RECIPIENT FOR ANY OTHER PURPOSES WHATSOEVER.
NOTES:

1. ALL ELECTRICAL EQUIPMENT AND WIRING SHALL CONFORM TO ANSI/NFPA 70-1990, NATIONAL ELECTRICAL CODE.

2. IT SHALL BE THE RESPONSIBILITY OF THE OWNER/EMPLOYER TO PROVIDE NECESSARY LOCKOUTS/TAGOUTS OF ENERGY SOURCES IN ACCORDANCE WITH ANSI Z244.1-1982, BEFORE ATTEMPTING REPAIRS.

3. ALL FIELD WIRING/ELECTRICAL RELATED LABOR SHALL BE PERFORMED BY CERTIFIED ELECTRICIANS.

4. UNIT MUST BE PROPERLY GROUNDED IN ACCORDANCE TO NEC ARTICLE 250 (GROUNDING), AND APPLICABLE LOCAL CODES.

5. THE FOLLOWING COLOR WIRES SHALL BE RESERVED:
   GREEN: ALL EQUIPMENT GROUND CONDUCTORS,
   WHITE: ALL NEUTRAL CONDUCTORS.

NOTICE OF CONFIDENTIAL INFORMATION

1. REMOVE ALL SHARP CORNERS & EDGES.
2. UNLESS OTHERWISE SPECIFIED, SURFACE FINISH TO BE 120 BRIGHT.
3. WELDING MEDIUM SHALL CONFORM TO ANSI SPECIFICATIONS TO E-70XX ELECTRODES OR K-70XX FLUX CORE WIRE ONLY.

TOLERANCES:
   PLUS OR MINUS 0.010
   = 1.000
   = 0.100
   = 0.006

FILE NAME:
   610-001-090

NEXT ASSEMBLY
   4/2011

MOHAWK MODEL TL-7

REV. DESCRIPTION

6 601-310-128 CONTACTOR
   1 REF
5 601-180-040 MOTOR, 2 HP, 1PH, 208-230 VAC,
   1 REF
4 601-180-041 MOTOR, 4 HP, 1PH, 208-230 VAC,
   1 REF
3 601-310-106 SWITCH, SPST
   1 REF
2 601-170-007 PLUG, 4 PRONG, 20A, 250V, SINGLE PHASE
   1 REF
1 601-170-008 CONNECTOR, 4 PRONG, 20A, 250V, SINGLE PHASE
   1 REF

SCAL D R.V. CHECKED APPROVED TITLE ELECTRICAL SCHEMATIC

(2011)

N/A N/A N/A N/A

MOHAWK RESOURCES LTD.

DRAWING NUMBER 610-001-090
MOHAWK MODEL TL-7

MAXIMUM CAPACITY 3500 LB

ONE DECAL TO BE PLACED ON EVERY END TRAVEL

MAXIMUM CAPACITY PER ARM 1750 LB

ONE DECAL TO BE PLACED ON EACH FORK ARM SET

FOR SYSTEM IA ONLY
MOHAWK MODEL TL-7

MAN275

TL-7 MAINSIDE ASSEMBLY

FILE: MAN275
DATE: 8/06
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Item 1</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Item 2</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Item 3</td>
<td>20</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MOHAWK MODEL TL-7**
## System IA & System IA-10 Yoke Assembly

**Part Numbers and Descriptions**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>600-860-005</td>
<td>BEARING, CAM YOKE ROLLER</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>600-690-003</td>
<td>NUT, LOCK, 3/4-16 NF</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>009-001-061</td>
<td>YOKE WELDMENT</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>006-000-139</td>
<td>BOLT, 3/4-16 NF x 3 3/4 (MACHINED)</td>
<td>2</td>
</tr>
</tbody>
</table>

Two (2) yoke assemblies per lift.

**File:** MAN204  
**Date:** 4/96
### MOHAWK MODEL TL-7

#### SYSTEM IA & SYSTEM IA-10

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>009-030-021</td>
<td>LEG WELDMENT, MAINSIDE</td>
</tr>
<tr>
<td>2</td>
<td>009-030-021</td>
<td>LEG WELDMENT, OFFSIDE</td>
</tr>
<tr>
<td>3</td>
<td>600-680-002</td>
<td>NUT, PLAIN, 5/8-11 NC</td>
</tr>
<tr>
<td>4</td>
<td>600-640-010</td>
<td>BOLT, 5/8-11 NC x 2 1/2</td>
</tr>
<tr>
<td>5</td>
<td>600-690-005</td>
<td>NUT, LOCK, 1/4-20 NC</td>
</tr>
<tr>
<td>6</td>
<td>600-710-004</td>
<td>WASHER, FLAT, 1/4</td>
</tr>
<tr>
<td>7</td>
<td>600-640-019</td>
<td>BOLT, 1/4-20 NC x 1 1/2</td>
</tr>
<tr>
<td>8</td>
<td>009-001-141</td>
<td>CARRIAGE STOP</td>
</tr>
<tr>
<td>9</td>
<td>007-007-033</td>
<td>LINE SUPPORT</td>
</tr>
</tbody>
</table>

**Leg Weldment/Line Supports/Carrriage Stops**

---

**File:** MAN207-1  
**Date:** 10/2014

---

![Diagram of MOHAWK MODEL TL-7](image-url)
NOTES:
1. PLACE ITEM 5 IN POSITION SHOWN & MATCH DRILL (2) 3/32 DIA HOLES THRU BACK PLATE.
**System IA & System IA-10**

*Main Side Cylinder Assembly (007-007-001)*

FILE: MAN209

DATE: 4/96

Item 26 attached to Item 4

Rod Gland Housing Assembly, 009-001-002

---

**ITEM** | **PART NUMBER** | **DESCRIPTION** | **QTY**
--- | --- | --- | ---
1 | 601-420-017 | FITTING, 90° ELBOW | 2
2 | 601-410-031 | VELOCITY FUSE -4 | 1
3 | 601-030-008 | O-RING | REF
4 | 007-007-110 | BOTTOM GLAND | 1
5 | 009-010-113 | INLET SPOOL | 1
6 | 601-030-002 | O-RING | 3
7 | 601-060-003 | BACK-UP RING | 2
8 | 600-840-002 | SPRING | 1
9 | 007-007-145 | SET SCREW | 1
10 | 601-030-003 | O-RING | 2
11 | 009-001-153 | RETAINER | 1
12 | 009-001-152 | SPOOL | 2
13 | 600-840-008 | SPRING | 1
14 | 009-001-151 | INSERT | 1
15 | 601-060-013 | BACK-UP RING | 2
16 | 601-010-005 | PISTON T-SEAL | 1
17 | 009-001-108 | PISTON | 1
18 | 007-007-143 | WASHER | 1
19 | 009-001-104 | BARREL | 1
20 | 025-002-132 | SPIN KEY | 2
21 | 009-001-105 | ROD | 1
22 | 601-020-003 | WIPER | 1
23 | 601-060-007 | BACK-UP RING | 2
24 | 601-000-003 | ROD T-SEAL | 1
25 | 015-000-109 | ROD GLAND | 1
26 | 601-800-022 | DECAL, PATENT | 1
27 | 601-030-017 | O-RING | REF
ROD GLAND HOUSING ASSY, 007-007-008

BOTTOM GLAND HOUSING ASSY, 007-007-009

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
<th>QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>601-020-002</td>
<td>ROD WIPER</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>601-030-003</td>
<td>O-RING</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>015-000-110</td>
<td>ROD GLAND</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>601-060-006</td>
<td>BACK-UP RING</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>601-000-002</td>
<td>ROD T-SEAL</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>007-007-108</td>
<td>BOTTOM GLAND</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>601-030-008</td>
<td>O-RING</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>601-410-031</td>
<td>VELOCITY FUSE 4</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>601-420-017</td>
<td>FITTING, 90° ELBOW</td>
<td>2</td>
</tr>
<tr>
<td>12</td>
<td>025-002-132</td>
<td>SPIN KEY</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>601-420-001</td>
<td>CAP NUT</td>
<td>2</td>
</tr>
<tr>
<td>14</td>
<td>007-007-101</td>
<td>PISTON</td>
<td>1</td>
</tr>
<tr>
<td>15</td>
<td>009-001-104</td>
<td>BARREL</td>
<td>1</td>
</tr>
<tr>
<td>16</td>
<td>007-007-128</td>
<td>ROD</td>
<td>1</td>
</tr>
</tbody>
</table>

SYSTEM IA-10 / LC-12
OFFSIDE CYLINDER ASSEMBLY
(009-030-012)

FILE: MAN280
DATE 10/2014
ITEMS 1 THRU 13 = BAG #1/SMALL PARTS
ITEMS 14 THRU 16 = BAG #2/SHIMS
## TL-7 Parts Box & Contents

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-800-269</td>
<td>OLM Manual, TL-7</td>
<td>1</td>
</tr>
<tr>
<td>801-800-118</td>
<td>Warranty Card, 4&quot; x 5 1/2</td>
<td>1</td>
</tr>
<tr>
<td>801-800-067</td>
<td>All Standard Safety Requirements</td>
<td>1</td>
</tr>
<tr>
<td>801-800-003</td>
<td>Safety Manual, All Lift It Right</td>
<td>1</td>
</tr>
<tr>
<td>801-800-006</td>
<td>Safety Tips Card</td>
<td>1</td>
</tr>
<tr>
<td>007-007-070</td>
<td>Bag #1/Small Parts</td>
<td>1</td>
</tr>
<tr>
<td>800-870-013</td>
<td>Box, Corrugated</td>
<td>1</td>
</tr>
</tbody>
</table>

**Breakdown of Item 3**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>801-800-114</td>
<td>Carriage Pin, 1 3/8 OD x 13/16</td>
<td>4</td>
</tr>
<tr>
<td>800-880-008</td>
<td>Nut, Lock, 1 3/8-12 NF</td>
<td>8</td>
</tr>
</tbody>
</table>

**Revision Information**

*MAN279*

**File:** MAN279  
**Date:** 6/06

**Rev-B, 02/15**
NOTES:
PLACE ITEMS 2 & 3 INTO ITEM 1, AND STAPLE CARTON SHUT.
MOHAWK

PRE-EXISTING

SLAB REQUIREMENTS

&

NEW SLAB RECOMMENDATIONS

MOHAWK RESOURCES LTD.

65 VROOMAN AVE.
AMSTERDAM, NY 12010
TOLL FREE : 1-800-833-2006
LOCAL : 1-518-842-1431
FAX : 1-518-842-1289
INTERNET: www.MOHAWKLIFTS.com
E-MAIN: Service@MOHAWKLIFTS.com
New Slab Recommendations:

The information contained in this appendage supercedes any other information given in the accompanied manual. This information is presented for design recommendations for a new concrete slab in the event that the pre-existing floor does not meet minimum requirements of the applicable lift type. Please read all instructions below carefully before producing new slab.

**Basic Concrete Requirements:**

- **Minimum Tensile Strength of Concrete:** 4,000 P.S.I.
- **Minimum Aging of New Concrete Slab:** 28 days (cure time)
- **Minimum Thickness of Concrete Slab:** See New Slab Table & Figure Attached
- **Minimum Width and Length of Slab:** See New Slab Table & Figure Attached

All properties of the new concrete slab are mandatory and must conform to the above stated properties before installation of the lift is deemed acceptable. The new slab must be totally surrounded by an existing concrete floor. Certified strength documentation should be obtained from the firm who supplies the concrete mixture at the time of the pour.

The slab above is designed as “stand alone” and does not take into account the contribution of strength from surrounding concrete. It may be desirable to reinforce the new slab to the pre-existing surrounding floor. Care should be taken to locate these specific reinforcement bars away from any anchor positions of the specific lift.

This new slab design does not account for second floor installations or installations in a ground floor with a basement beneath. For this case, the lift should not be installed without written authorization from the building architect.

All ¾ inch diameter anchors must be a minimum of 6 inches away from any expansion seams, control joints or other inconsistencies in the concrete. All 1 inch diameter anchors must be a minimum of 7 ½ inches away from any expansion seams, control joints or other inconsistencies in the concrete. Refer to anchor manufacturer specifications for specific information concerning edge distances and bolt to bolt distance requirements.

NEVER, NEVER, hand mix your own concrete.
New Slab Recommendations

File: New-slab.xls
Rev Date: 5/16/2012

NEW SLABS MUST BE 12" THICK MINIMUM !! (See Notes Below)

<table>
<thead>
<tr>
<th>Lift Model</th>
<th>W Slab Width, (Inches)</th>
<th>L Slab Length, (Inches)</th>
<th>R Reinforcement Size, (Inch) (See Note 1 &amp; 2)</th>
<th>S1 &amp; S2 Reinforcement Spacing, (Inch) (See Note 3)</th>
<th>D Wej-it Dia, (Inch)</th>
<th>I Wej-it Length, (Inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-7</td>
<td>48&quot; Min</td>
<td>144&quot; Min</td>
<td>8 - #4 - Main Bars 21 - #4 - Temperature Bars</td>
<td>6 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>5 in</td>
</tr>
<tr>
<td>System IA</td>
<td>48&quot; Min</td>
<td>161&quot; Min</td>
<td>8 - #4 - Main Bars 21 - #4 - Temperature Bars</td>
<td>6 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>5 in</td>
</tr>
<tr>
<td>System IA-10</td>
<td>48&quot; Min</td>
<td>161&quot; Min</td>
<td>12 - #4 - Main Bars 23 - #4 - Temperature Bars</td>
<td>6 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>6 in</td>
</tr>
<tr>
<td>LC-12</td>
<td>72&quot; Min</td>
<td>168&quot; Min</td>
<td>12 - #4 - Main Bars 23 - #4 - Temperature Bars</td>
<td>6 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>6 in</td>
</tr>
<tr>
<td>LMF-12</td>
<td>72&quot; Min</td>
<td>168&quot; Min</td>
<td>12 - #4 - Main Bars 23 - #4 - Temperature Bars</td>
<td>6 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>6 in</td>
</tr>
<tr>
<td>TP-15</td>
<td>72&quot; Min</td>
<td>168&quot; Min</td>
<td>12 - #4 - Main Bars 23 - #4 - Temperature Bars</td>
<td>6 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>6 in</td>
</tr>
<tr>
<td>TP-16</td>
<td>72&quot; Min</td>
<td>168&quot; Min</td>
<td>12 - #4 - Main Bars 23 - #4 - Temperature Bars</td>
<td>6 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>6 in</td>
</tr>
<tr>
<td>TP-18 (2012)</td>
<td>72&quot; Min</td>
<td>168&quot; Min</td>
<td>12 - #4 - Main Bars 23 - #4 - Temperature Bars</td>
<td>6 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>6 in</td>
</tr>
<tr>
<td>TP-20</td>
<td>72&quot; Min</td>
<td>186&quot; Min</td>
<td>18 - #4 - Main Bars 24 - #4 - Temperature Bars</td>
<td>4 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>6 in</td>
</tr>
<tr>
<td>TP-20-WB</td>
<td>72&quot; Min</td>
<td>186&quot; Min</td>
<td>18 - #4 - Main Bars 24 - #4 - Temperature Bars</td>
<td>4 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>6 in</td>
</tr>
<tr>
<td>TP-26</td>
<td>72&quot; Min</td>
<td>198&quot; Min</td>
<td>18 - #4 - Main Bars 24 - #4 - Temperature Bars</td>
<td>4 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>10 in</td>
</tr>
<tr>
<td>TP-26-WB</td>
<td>72&quot; Min</td>
<td>220&quot; Min</td>
<td>18 - #4 - Main Bars 24 - #4 - Temperature Bars</td>
<td>4 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>8 in</td>
</tr>
<tr>
<td>TP-30</td>
<td>72&quot; Min</td>
<td>198&quot; Min</td>
<td>18 - #4 - Main Bars 24 - #4 - Temperature Bars</td>
<td>4 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>10 in</td>
</tr>
<tr>
<td>TP-30-WB</td>
<td>72&quot; Min</td>
<td>220&quot; Min</td>
<td>18 - #4 - Main Bars 24 - #4 - Temperature Bars</td>
<td>4 in - Long Bars 8 in - Short Bars</td>
<td>3/4 in</td>
<td>8 in</td>
</tr>
<tr>
<td>TR-19 *</td>
<td>24&quot; Min</td>
<td>24&quot; Min</td>
<td>4 - #4 Bars 8 Bars Total</td>
<td>6 in - Each Way 3/4 in</td>
<td>5 in</td>
<td></td>
</tr>
<tr>
<td>FL-25 *</td>
<td>24&quot; Min</td>
<td>24&quot; Min</td>
<td>4 - #4 Bars 8 Bars Total</td>
<td>6 in - Each Way 3/4 in</td>
<td>5 in</td>
<td></td>
</tr>
<tr>
<td>TR-25 *</td>
<td>24&quot; Min</td>
<td>24&quot; Min</td>
<td>4 - #4 Bars 8 Bars Total</td>
<td>6 in - Each Way 3/4 in</td>
<td>5 in</td>
<td></td>
</tr>
<tr>
<td>TR-30 *</td>
<td>48&quot; Min</td>
<td>48&quot; Min</td>
<td>12 - #4 Bars 24 Bars Total</td>
<td>6 in - Each Way 3/4 in</td>
<td>5 in</td>
<td></td>
</tr>
<tr>
<td>TR-33 *</td>
<td>72&quot; Min</td>
<td>72&quot; Min</td>
<td>12 - #4 Bars 24 Bars Total</td>
<td>6 in - Each Way 3/4 in</td>
<td>5 in</td>
<td></td>
</tr>
<tr>
<td>TR-35 *</td>
<td>72&quot; Min</td>
<td>72&quot; Min</td>
<td>12 - #4 Bars 24 Bars Total</td>
<td>6 in - Each Way 3/4 in</td>
<td>5 in</td>
<td></td>
</tr>
<tr>
<td>TR-50 *</td>
<td>72&quot; Min</td>
<td>72&quot; Min</td>
<td>12 - #4 Bars 24 Bars Total</td>
<td>6 in - Each Way 3/4 in</td>
<td>5 in</td>
<td></td>
</tr>
<tr>
<td>TR-75 *</td>
<td>72&quot; Min</td>
<td>72&quot; Min</td>
<td>24 Bars Total</td>
<td>6 in - Each Way 3/4 in</td>
<td>5 in</td>
<td></td>
</tr>
</tbody>
</table>

* Four Separate Slabs Formed at each Post.

Note 1: An additional layer of 6 x 6 - 10/10 WWF at mid height of new slab would be advisable in any extremely hot or cold climate to control cracking due to temperature fluctuations and shrinkage. At anchor bolt locations only keep WWF mesh below the elevation of the anchorage to avoid drilling interference with the wire.

Note 2: The main reinforcing and lower temperature steel shall be Grade 60 deformed bars.

Note 3: The tolerance on spacing of the bars in each direction shall be the value shown, plus or minus 1 inch. In addition, the number of bars specified in the table must be used.

Note 4: The concrete outline dimensions and the reinforcing shown are for a foundation bed allowable bearing capacity of not less than 2,000 lb/sq ft (1 ton per square foot). Many clays, and most all firm clay, hard clay, sand & clay mixes, dry sands, course dry sands, dry sand and silt mixes, sand and gravel mixes, and gravel type soils meet or exceed this allowable bearing capacity. If there is question regarding the foundation bed allowable bearing capacity, a soils testing engineer should be consulted. Situations where the allowable bearing capacity is lower than this value will require special attention.
NEW RECOMMENDED SLAB DESIGN
FOR 2-POST LIFTS

FILE: MAN066
DATE: 2/98
REV DATE: 7/2003

MOHAWK MODEL TL-7

UNSUITABLE EXISTING CONCRETE SLAB.

#4 x 18 IN LONG ANCHORAGE DOWELS SPACED EVERY 18" AROUND PERIMETER OF SLAB AND/OR USE ALTERNATIVE KEY-INS (SEE BELOW)

(NEW) Fc'=4000 PSI COMpressive STRENGTH CONCRETE SLAB.

SECTION A-A

6" KEY-IN AROUND PERIMETER OF SLAB AS ALTERNATE TO DOWELS

3 INCH MIN

15"

3/4" TO 1-1/4"
MOHAWK MODEL TL-7

NEW RECOMMENDED SLAB DESIGN
FOR 4-POST LIFTS

FILE: MA089
DATE: 10/00
REV DATE: 7/2003

UNSUITABLE EXISTING CONCRETE SLAB.

#4 x 18 INCH LONG ANCHORAGE DOWELS SPACED EVERY 18" AROUND PERIMETER OF SLAB AND/OR USE ALTERNATIVE KEY-INS (SEE BELOW)

(NEW) Fc' = 4000 PSI COMPRESSIVE STRENGTH CONCRETE SLAB.

REINFORCEMENT (SEE SLAB TABLE)

SECTION A-A
TYPICAL BASE PLATE DETAIL
(SYSTEM IA SHOWN BELOW – 8 ANCHORS PER BASE PLATE)

BASE PLATE ANCHORING INSTRUCTIONS:

1. LOCATE POSTS IN DESIRED LOCATION OF BAY, PER LIFT SETUP
   DIMENSIONS. REFER TO LIFT MANUAL FOR INSIDE DIMENSIONS OF
   COLUMNS, ETC.
   (FOR SYSTEM IA-10, THE INSIDE POST DIMENSION IS 120")

2. MATCH DRILL ALL BASE PLATE HOLES. REFER TO ANCHOR BOLT
   INSTALLATION SPECIFICATIONS ATTACHED FOR DRILL SIZE. (3/4"
   DIAMETER ORIGINAL WE-JIT STYLE EXPANSION ANCHOR BOLTS).

3. INSTALL ANCHORS PER ANCHOR BOLT INSTALLATION SPECIFICATIONS
   ATTACHED. SHIMS UNDER BASE PLATE AS NEEDED TO ENSURE THAT
   POSTS ARE SQUARE AND PLUMB (MAXIMUM OF 1/4") WITH COLORED
   SHIMS PROVIDED (HORSESHOE SHAPED).

4. ALL ANCHORS MUST BE A MINIMUM OF 6" AWAY FROM ANY
   EXPANSION SEAM, CONTROL JOINT, OR OTHER FLOOR INCONSISTENCIES.

5. DRILLING THRU ENTIRE SLAB THICKNESS IS PREFERRED WHEN
   POSSIBLE. THIS ALLOWS ANCHORS TO BE HAMMERED FLUSH TO
   CONCRETE IF LIFT IS RE-LOCATED.
MOHAWK MODEL TL-7

The Original wej-it® Wedge Anchors

**KEY FEATURES/BENEFITS**

- **Time-Tested, Proven Reliability.** An industry standard for over 45 years.
- **Fully Assembled and Ready to Use.** Unparalleled job-site convenience.
- **BOLT SIZE IS HOLE SIZE.** Allows precision placement of equipment through pre-drilled holes.
- **Exclusive "Positive Wedge Connections."** Minimizes wedge loosening due to vibratory loads.

**SPECIFICATIONS, APPROVALS AND LISTINGS**

<table>
<thead>
<tr>
<th>Type</th>
<th>Zinc Plating</th>
<th>ASTM B-633, Type III, SCI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ICBO-ES</td>
<td>Report #1821</td>
</tr>
<tr>
<td></td>
<td>City of Los Angeles</td>
<td>#RR 24939</td>
</tr>
<tr>
<td></td>
<td>DOT</td>
<td>Please call Customer Service for specific information by state.</td>
</tr>
<tr>
<td></td>
<td>Federal</td>
<td>QQZ-325C, Type II, Class 3</td>
</tr>
<tr>
<td></td>
<td>Specifications</td>
<td>(Clear Chromate added)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FFS-325, Group II, Type 4, Class 1</td>
</tr>
</tbody>
</table>

**MAXIMUM TENSILE AND SHEAR CAPACITY FOR STATIC LOADS**

<table>
<thead>
<tr>
<th>Anchor &amp; Hole Size</th>
<th>2000 psi Embedment</th>
<th>3000 psi Embedment</th>
<th>5000 psi Embedment</th>
<th>7000 psi Embedment</th>
<th>5000 psi Embedment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tension (lbs)</td>
<td>Shear (lbs)</td>
<td>Tension (lbs)</td>
<td>Shear (lbs)</td>
<td>Tension (lbs)</td>
</tr>
<tr>
<td>1/4</td>
<td>1 1/8 1132 1211</td>
<td>1 1/8 1320 1751</td>
<td>1 1/8 1760 2316</td>
<td>2464 2494</td>
<td>1 1/2 1661 1947</td>
</tr>
<tr>
<td>1/4</td>
<td>1 3/4 1256 1211</td>
<td>1 1/2 1856 1751</td>
<td>2473 2316</td>
<td>3462 2494</td>
<td>• • •</td>
</tr>
<tr>
<td>5/16</td>
<td>1 1/4 1308 1210</td>
<td>1 1/4 2057 1839</td>
<td>2742 2530</td>
<td>3939 3439</td>
<td>1 1/2 2493 3064</td>
</tr>
<tr>
<td>5/16</td>
<td>2 1181 1210</td>
<td>1 3/4 2389 1839</td>
<td>3185 2530</td>
<td>4459 3439</td>
<td>• • •</td>
</tr>
<tr>
<td>3/8</td>
<td>1 1/4 994 1223</td>
<td>1 1/2 2876 4268</td>
<td>3834 5213</td>
<td>5368 5658</td>
<td>1 3/4 3125 4289</td>
</tr>
<tr>
<td>3/8</td>
<td>4 1728 1223</td>
<td>4 3488 4268</td>
<td>4650 5213</td>
<td>6510 5568</td>
<td>• • •</td>
</tr>
<tr>
<td>1/2</td>
<td>1 3/4 1542 3009</td>
<td>2 1/4 3473 7138</td>
<td>5789 10748</td>
<td>8105 11550</td>
<td>2 1/4 4778 9833</td>
</tr>
<tr>
<td>1/2</td>
<td>6 2695 3009</td>
<td>5 4809 7138</td>
<td>8015 10748</td>
<td>11221 11550</td>
<td>2 1/2 6455 12500</td>
</tr>
<tr>
<td>5/8</td>
<td>• • •</td>
<td>3 1/2 7582 10719</td>
<td>12636 15583</td>
<td>17690 16700</td>
<td>2 1/2 6455 12500</td>
</tr>
<tr>
<td>5/8</td>
<td>• • •</td>
<td>4 3/4 9179 10719</td>
<td>15299 15583</td>
<td>2149 16700</td>
<td>• • •</td>
</tr>
<tr>
<td>3/4</td>
<td>• • •</td>
<td>3 11579 15537</td>
<td>19299 21000</td>
<td>27019 23103</td>
<td>3 1/2 17293 19050</td>
</tr>
<tr>
<td>3/4</td>
<td>• • •</td>
<td>7 15444 15537</td>
<td>25740 21000</td>
<td>36036 23103</td>
<td>• • •</td>
</tr>
<tr>
<td>7/8</td>
<td>• • •</td>
<td>4 1/2 15266 •</td>
<td>25444 25099</td>
<td>33622 28718</td>
<td>• • •</td>
</tr>
<tr>
<td>7/8</td>
<td>• • •</td>
<td>7 16992 •</td>
<td>28320 25099</td>
<td>39648 28718</td>
<td>• • •</td>
</tr>
<tr>
<td>1</td>
<td>• • •</td>
<td>5 1/2 16351 •</td>
<td>27252 33083</td>
<td>38153 35700</td>
<td>4 1/2 21616 31666</td>
</tr>
<tr>
<td>1</td>
<td>• • •</td>
<td>7 17837 •</td>
<td>29728 33083</td>
<td>41619 35700</td>
<td>• • •</td>
</tr>
</tbody>
</table>

Sources (available upon request): 1) University of Texas, Austin, TX (using new ICBO-ES testing criteria); 1993. 2) AA Engineers & Associates, Inc., Denver, CO; 1981.

**EDGE DISTANCE AND SPACING REQUIREMENTS**

<table>
<thead>
<tr>
<th>Embedment (E) in Anchor Diameters (d)</th>
<th>Spacing</th>
<th>Edge Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>E &lt; 6d (shallow)</td>
<td>3.50E</td>
<td>1.75E</td>
</tr>
<tr>
<td>6d ≤ E ≤ 8d (standard)</td>
<td>2.00E</td>
<td>1.00E</td>
</tr>
<tr>
<td>8d &lt; E (deep)</td>
<td>1.50E</td>
<td>0.75E</td>
</tr>
</tbody>
</table>

**NOTES:**

- Information provided only for the use of a qualified design engineer. Use of technical data by persons not qualified could cause serious damage, injury, or even death.

- Ultimate values shown. For static loads, use one-fourth of the maximum tensile and shear capacities for the recommended 4:1 safety factor.
**Installation Instructions – Mohawk Lifts**

1. Drill the hole perpendicular to the work surface. *To assure full holding power, do not ream the hole or allow the drill to wobble.*

2. Drill the hole deeper than the intended embedment of the anchor, but not closer than two anchor diameters to the bottom (opposite) surface of the concrete.

3. Clean the hole using compressed air and a nylon brush. A clean hole is necessary for proper performance.

4. For ease of installation, make certain that the spear heads are located up against the wedge pockets.

5. Turn the nut on to the anchor until contact is made with the top of the spears and the bottom of the washer. Insert anchor into hole.

6. Tap anchor into hole with a 2 ½ lb. hammer until the washer rests solidly against fixture.

7. Tighten the nut to not less than 3 full turns but not more than 5 turns past the hand tight position. Use of an impact wrench for Installation of the anchor is NOT recommended.

---

**Inspection & Maintenance Instructions**

1. Verify torque on anchors to 85 Ft. Lbs. for future/annual inspections.

*Always wear safety glasses. Follow the drill manufacturer’s safety instructions. Use only solid carbide-tipped drill bits meeting ANSI B212.15 diameter standards as listed on back cover.*

---

**Length Selection Guide**

- (A) Minimum embedment
- (B) Material thickness
- (C) 3-4 turns of nut = 1/2 bolt diameter
- (D) Total Anchor Length = (A) + (B) + 1 1/2 x Bolt Diameter + (C)

---

REV: 11/06
MOHAWK MODEL TL-7

**CAUTION**
Lift to be used by trained operator only.

**CAUTION**
Authorized personnel only in lift area.

**WARNING**
Clear area if vehicle is in danger of falling.

**CAUTION**
Always use safety stands when removing or installing heavy components.

**WARNING**
Position vehicle with center of gravity midway between adapters.

**CAUTION**
Use height extenders when necessary to ensure good contact.

**WARNING**
Remain clear of lift when raising or lowering vehicle.

**WARNING**
Avoid excessive rocking of vehicle while on lift.

**WARNING**
Do not override self-closing lift controls.

**CAUTION**
Use vehicle manufacturer’s lift points.

**WARNING**
Keep feet clear of lift while lowering.

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 33116 Indianapolis, FL 32203.

They are protected by copyright. Set of labels may be obtained from ALI or its member companies.

© 1992 by ALI, Inc.
SAFETY INSTRUCTIONS
Read operating and safety manuals before using lift.

SAFETY INSTRUCTIONS
Proper maintenance and inspection is necessary for safe operation.

SAFETY INSTRUCTIONS
Do not operate a damaged lift.

The messages and pictographs shown are generic in nature and are meant to generally represent hazards common to all automotive lifts regardless of specific style.

Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 33116 Indialantic, FL 32903.

They are protected by copyright. Set of labels may be obtained from ALLI or its member companies.

© 1992 by ALLI, Inc.
MOHAWK MODEL TL-7

Because Quality Lasts Forever

Model A-7
The A-7 is a 7,000 lb. capacity asymmetric lift that allows full opening of all vehicle doors as well as total undercar/underdash access, thanks to Mohawk’s unique “clear floor” design. Low 4” arms accommodate all imports and low-riding sports cars. Includes both 3” and 6” adapters.

Parallelogram Lifts
Standard models from 36,000 to 100,000 lb. capacities with track lengths from 26’-48’. Available in surface or flush mount with full under-vehicle access for all trucks, buses and heavy equipment.

Models System I, LC-12, LMF-12, TP-16, TP-18, TP-26 & TP-30
These 10,000 to 30,000 lb. capacity models are the ideal heavy-duty lifts for up to Class VI trucks. Mohawk’s unique “clear floor” design makes these the perfect lifts for all fleet applications. Truck adapters are also standard equipment.

MP-Series Mobile Column
Mohawk’s mobile columns are capable of lifting 32,000 to 240,000 lbs. All columns operate together, individually or can be divided into separate pairs. Adjustable lifting forks accommodate the widest range of vehicles. No wheel reducer sleeves needed.

TR-Series Ramp Style Lifts
Standard models from 19,000 to 120,000 lbs. for total under-vehicle access. Available in 20’, 25’, and 30’ long runways. Completely operated by a single technician and feature fully interlocked, redundant safety systems.

Mohawk Resources, LTD. • P.O. Box 110
65 Vrooman Ave • Amsterdam, NY 12010
(800) 833-2006 or (518) 842-1431
www.mohawklifts.com
SEND US YOUR PHOTOS!

MOHAWK IS ALWAYS INTERESTED IS SEEING HOW YOUR LIFTS ARE USED. WE HAVE CREATED AN ON-LINE PHOTO DATABASE FOR CUSTOMERS TO VIEW OUR LIFTS IN USE.

VISIT WWW.MOHAWKLIFTS.COM/PR/ AND MAYBE WE CAN ADD YOUR PHOTOS TO OUR COLLECTION. (JPG FORMATS PREFERED)

E-MAIL YOUR PHOTOS AND COMMENTS TO: PHOTOS@MOHAWKLIFTS.COM

BEST REGARDS & HAPPY LIFTING!

YOUR FRIENDS AT MOHAWK LIFTS