



# MODEL TP-15

## 15,000 LB. CAPACITY TWO POST VEHICLE LIFT MANUAL

THANK YOU FOR SENDING IN YOUR WARRANTY REGISTRATION CARD

> **MOHAWK SERVICE** DEPARTMENT



**INSTALLATION** 



**OPERATION** 



**MAINTENANCE** 



**PARTS** 





## 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-MAIL: SERVICE@MOHAWKLIFTS.COM

TP-15-Master.doc Rev Date 4/23/2002 Part #601-800-068

## 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.
- 3. Do not let cord or hoses come in contact with hot manifolds or moving fan blades.
- 4. 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.
- 5. 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
- 6. 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.
- 7. Adequate ventilation should be provided when working on operating internal combustion engines.
- 8. Keep hair, loose clothing, fingers, and all parts of body away from moving parts.
- 9. To reduce the risk of electric shock, do not use on wet surfaces or expose to rain.
- 10. Use only as described in this manual. Use only manufacturer's recommended attachments.
- 11. ALWAYS WEAR SAFETY GLASSES. Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.

## SAVE THESE INSTRUCTIONS

**Rev** (8/3/98)

## **APPENDAGE:** Rev (8/3/98)

## **NOTE:**

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.

## **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.

## PROPER SELECTION OF POWER SUPPLY CORD:

Acceptable Cord Types: SO, SEO, STO, SOW, SEOO, SOW-A

Cord Size: 12/4

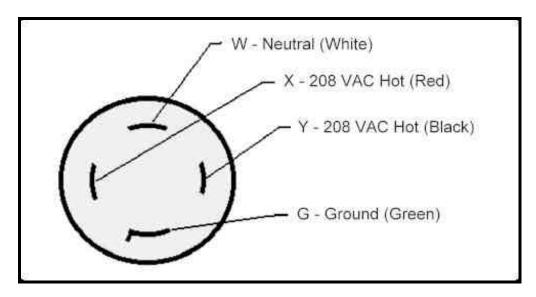
Cord Ampacity: 20 Amps

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:**



## 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: <a href="www.MOHAWKLIFTS.com">www.MOHAWKLIFTS.com</a>
E-Mail: Service@MOHAWKLIFTS.com





The Automotive Lift Institute (ALI) is a trade association comprised of US and Canadian manufacturers and certain national distributors of automotive lifts. For almost 50 years, the ALI in cooperation with the American National Standards Institute (ANSI) has continued to sponsor the national standard ANSI/ALI ALCTV-1998 "Safety Requirements for Construction, Testing, and validation for Automotive Lifts."

The new "ALI/ETL Automotive Lift Certification Program" is based on ALI developed methods and criteria for third party testing of automotive lifts to validate conformance with ANSI/ALI ALCTV- 1998.

For automotive lifts to be certified, manufacturers must execute an agreement with the ALI and ETL / Intertek Testing Services and must meet certain requirements:

- ♦ Must be structurally tested in accordance with the test requirements as outlined in ANSI/ALI ALCTV-1998.
- ♦ All motor operated units must be listed by a nationally recognized testing laboratory (NRTL) in accordance with ANSI/UL 73.
- ♦ The manufacturer's production facility must meet quality control requirements as set forth in the ANSI Z34.1-1987 and the ALI/ETL Automotive Lift Certification Program Procedural Guide.
- ♦ All manufacturer-provided instructions, manuals, and operator safety documents, must meet the requirements of the ANSI/ALI ALCTV-1998 and ANSI/UL73.

Lifts meeting these rigid requirements may be listed in the directory of certified lifts and be labeled with the "ALI/ETL certification mark" (Above on right), and, if applicable, the ETL listing mark to ANSI/UL-73.

Mohawk has been a long-standing member of ALI and most of Mohawk's popular models are currently listed and certified. Other Mohawk models are in various stages of testing. To obtain a complete and current certification listing, contact Mohawk Resources Ltd. To obtain a copy of the current automotive lift standard, contact ALI or ANSI.

Some people purchase quality products and others do not. You are assured of quality when you purchase a Mohawk product in compliance with the certification program.

## MOHAWK MODEL 1P-15

## **MOHAWK WARRANTIES**

EFFECTIVE DATE: 1/1/2002

## **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, WHICH PROVE UPON INSPECTION TO BE DEFECTIVE AND WHICH HAVE NOT BEEN MISUSED. DAMAGE OR FAILURE TO ANY PART DUE TO FREIGHT DAMAGE OR FAULTY MAINTENANCE IS NOT COVERED UNDER THIS WARRANTY. MOHAWK RESERVES THE RIGHT TO DECLINE RESPONSIBILITY WHEN REPAIRS HAVE BEEN MADE OR ATTEMPTED BY OTHERS. THIS WARRANTY DOES NOT COVER DOWNTIME EXPENSES INCURRED WHEN UNIT IS IN REPAIR. THE MODEL NAME 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 IS APPLICABLE TO UNITS LOCATED ONLY IN THE UNITED STATES OF AMERICA AND CANADA. CONTACT MOHAWK RESOURCES LTD. FOR SPECIFIC WARRANTY PROVISIONS FOR UNITS LOCATED OUTSIDE OF THESE COUNTRIES.

## **5-YEAR WARRANTY:**

THIS WARRANTY IS APPLICABLE TO THE FOLLOWING MOHAWK LIFTS ONLY: A-7, SYSTEM I, LMF-12, TP-15, TP-18, TP-20, TP-26, TP-30 AND STANDARD OPTIONS.

## **3-YEAR WARRANTY:**

THIS WARRANTY IS APPLICABLE TO THE FOLLOWING MOHAWK LIFTS ONLY: TSL-7, PL-6000, TR-19, TR-25, FL-25, TR-33, TR-35, TR-40, TR-50, TR-60, TR-75, TR-110, MP-SERIES AND RP-SERIES MOBILE COLUMN LIFTS, SL-SERIES SCISSOR LIFTS, FP-SERIES LIGHT DUTY FOUR POST LIFTS, TL-SERIES LIFTS AND STANDARD OPTIONS.

## 2-YEAR WARRANTY:

THIS WARRANTY IS APPLICABLE TO THE FOLLOWING MOHAWK LIFTS ONLY: USL-6000 AND STANDARD OPTIONS.

## 1-YEAR WARRANTY:

THIS WARRANTY IS APPLICABLE TO THE FOLLOWING MOHAWK LIFTS ONLY: HR-6, TOMAHAWK, TD-1000, CT-1000 AND STANDARD OPTIONS.

## **STRUCTURAL COMPONENTS:**

ALL STRUCTURAL AND MECHANICAL COMPONENTS OF THIS UNIT ARE GUARANTEED FOR THE ABOVE STATED TIME FRAME, SPECIFIC TO MODEL, FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

SEE MOHAWK'S "EXTENDED LIFETIME CYLINDER WARRANTY" FOR SPECIFIC WARRANTY PROVISIONS FOR HYDRAULIC CYLINDERS. THE "EXTENDED LIFETIME CYLINDER WARRANTY" IS APPLICABLE TO THE FOLLOWING MOHAWK LIFTS ONLY: A-7, SYSTEM I, LMF-12, TP-15, TP-18, TP-20, TP-26, TP-30, MP-SERIES AND TL-SERIES LIFTS.

## **POWER UNIT:**

ALL POWER UNIT COMPONENTS (MOTOR, PUMP AND RESERVOIR) ARE GUARANTEED FOR THE ABOVE STATED TIME FRAME, SPECIFIC TO MODEL, FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

## **ELECTRICAL COMPONENTS:**

ALL ELECTRICAL COMPONENTS (EXCLUDING MOTOR) ARE GUARANTEED FOR ONE YEAR FOR PARTS ONLY (EXCLUDING LABOR), FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

## PNEUMATIC (AIR) COMPONENTS:

ALL PNEUMATIC (AIR) COMPONENTS (I.E. AIR CYLINDERS AND POPPET AIR VALVES) ARE GUARANTEED FOR ONE YEAR FOR PARTS ONLY (EXCLUDING LABOR), FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

## **WARRANTY EXCEPTIONS:**

ALL "SPECIAL" LIFTS AND/OR "CUSTOMIZED" OPTIONS ON THIS UNIT ARE GUARANTEED FOR ONE YEAR FOR PARTS ONLY (EXCLUDING LABOR), FROM THE DATE OF INVOICE, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

THIS WARRANTY SUPERSEDES ALL OTHER WARRANTY POLICIES PREVIOUSLY STATED AND IN ALL OTHER MOHAWK PRODUCT SPECIFIC LITERATURE.

## **EXTENDED LIFETIME CYLINDER WARRANTY**

AS THE ORIGINAL PURCHASER OF A MOHAWK LIFT MANUFACTURED BY MOHAWK RESOURCES, LTD. YOU ARE ENTITLED TO AN EXTENDED CYLINDER SEAL KIT REPAIR WARRANTY. TO QUALIFY FOR THIS WARRANTY, THE FOLLOWING CONDITIONS MUST BE MET:

- ◆ ALL LIFTS MUST BE REGISTERED WITH MOHAWK RESOURCES, LTD., P.O. BOX 110, 65 VROOMAN AVENUE, AMSTERDAM, NY 12010, WITH THE ORIGINAL CUSTOMER NAME, ADDRESS AND PHONE NUMBER, WITHIN 30 DAYS OF INSTALLATION.
  (PLEASE USE THE POSTAGE PAID WARRANTY REGISTRATION CARD ATTACHED TO THE FRONT OF THIS MANUAL.)
- ◆ ANY CYLINDER THAT IS PAST ITS NORMAL 5-YEAR WARRANTY PERIOD MUST BE SHIPPED FREIGHT PRE-PAID TO THE MOHAWK PLANT.
- ◆ UPON COMPLETION OF INSTALLING A COMPLETE SEAL KIT, MOHAWK WILL SHIP THE CYLINDER TO YOU, FREIGHT COLLECT.
- ◆ MOHAWK'S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO REPAIRING ANY CYLINDER, WHICH UPON INSPECTION HAS NOT BEEN MISUSED. MOHAWK RESERVES THE RIGHT TO DECLINE RESPONSIBILITY WHEN THE REPAIRS HAVE BEEN MADE, OR ATTEMPTED BY OTHERS. THE FOREGOING CONTAINS THE ENTIRE AGREEMENT BETWEEN MOHAWK RESOURCES, LTD. AND THE PURCHASER, UNLESS SPECIFICALLY EXPRESSED IN WRITING. THIS WARRANTY IS NON-TRANSFERABLE AND RUNS TO THE ORIGINAL PURCHASER ONLY.

THIS IS NOT A "LEND A CYLINDER" POLICY. AS STATED ABOVE, YOUR ORIGINAL CYLINDER (WHEN OUT OF ITS ORIGINAL 5-YEAR WARRANTY) WILL HAVE ITS SEALS REPLACED, WITH ALL FREIGHT CHARGES THE RESPONSIBILITY OF YOU, THE CUSTOMER.

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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 6-1/2 INCHES 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 ANY SURFACE OTHER THAN CONCRETE CONFORMING TO THE MINIMUM SPECIFICATIONS STATED IN THE **PRE-EXISTING FLOOR REQUIREMENTS SECTION.** 

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.

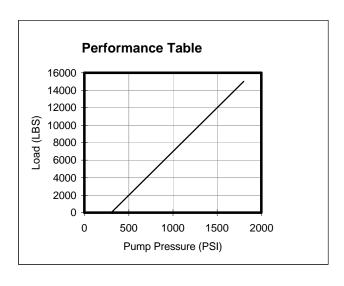
## **TP-15 SPECIFICATIONS**

## **TP-15 SPECIFICATIONS**

LIFT TYPE / TWO POST	ELECTRIC /
	HYDRAULIC
GROSS LIFTING CAPACITY	15,000 LBS.
PER ARM CAPACITY	3,750 LBS.
LIFTING SPEED APPROX.	120 SECONDS
LIFTING HEIGHT	72 INCHES
OVERALL WIDTH	151-1/2 INCHES
WIDTH BETWEEN POST	120 INCHES
WIDTH BETWEEN LIFTING	102 -7/8 INCHES
ARMS	
POST HEIGHT	104 INCHES
CYLINDER EXTENSION	162 INCHES
OVERHEAD HYDRAULIC LINES	180 INCHES
LIFTING PAD HEIGHT (MIN)	5 INCHES
LIFTING PAD HEIGHT (MAX)	87 INCHES
SHIPPING WEIGHT	3,100 LBS.

## POWER UNIT SPECIFICATIONS

BRAND NAME	MONARCH
MODEL	M-4509-0102
POWER UNIT TYPE	VERTICAL
MOTOR VOLTAGE	208 / 230
F.L.A. AT RATED CAPACITY	17.4 / 14.6
MOTOR HORSEPOWER	3
MOTOR PHASE	SINGLE
MOTOR CYCLE / HERTZ	60
MOTOR SPEED (R.P.M.)	3450
PUMP FLOW (G.P.M.)	2.39 @ 3450 R.P.M.
RELIEF VALVE SETTING	2050 P.S.I.
WORKING PRESSURE	1800 P.S.I.
RESERVOIR CAPACITY	5 GALLONS
HYDRAULIC FLUID MEDIUM	DEXRON III
MOTOR PHASE  MOTOR CYCLE / HERTZ  MOTOR SPEED (R.P.M.)  PUMP FLOW (G.P.M.)  RELIEF VALVE SETTING  WORKING PRESSURE  RESERVOIR CAPACITY	SINGLE  60  3450  2.39 @ 3450 R.P.M.  2050 P.S.I.  1800 P.S.I.  5 GALLONS



## SUGGESTED SITE SELECTION / BAY SIZE

WIDTH	DEPTH	HEIGHT
15 FEET	30 FEET	15 FEET

#### NOTE

THE PLACEMENT OF THE UNIT IS DETERMINED BY THE TYPE (LENGTH, WIDTH, HEIGHT) OF VEHICLE BEING SERVICED.

## WEJ-IT ANCHOR SPECIFICATIONS

LENGTH	DRILL	DRILL	DRILL SIZE	TORQUE
	DEPTH	SIZE	MIN. MAX.	
6 1/4 IN.	6 1/4 IN.	3/4 IN.	.775 IN787 IN.	80

## PRE-EXISTING FLOOR REQUIREMENTS

MINIMUM	MINIMUM COMPRESSIVE	MINIMUM
THICKNESS	STRENGTH	AGING
6 - 1/2 IN	4000 P.S.I.	28 DAYS

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

THICKNES	SLAB SIZE	CUBIC
S	WIDTH X LENGTH	YARDS
12 INCHES	6 FT X 15 FT	2.1

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.

 $\underline{\text{NEVER}}$  HAND MIX THE CONCRETE. REFER TO NEW SLAB RECOMMENDATIONS SECTION.

# <u>TP-15 PACKING LIST</u> \*\*\* ALSO SEE DRAWINGS MAN511, MAN462, & MAN513 IN PARTS MANUAL \*\*\*

ORDER NUMBER	PART NUMBER	PART DESCRIPTION	QTY
	015-000-014	PARTS BOX #1CONTENTS	1
623	007-007-075	SHIM BAG	1
040	012-012-047	LIFTING PAD	4
627	012-012-058	SMALL PARTS BAG	1
145	012-012-113	SWING ARM PIN	4
297	600-670-009	WEJ-IT ANCHOR (3/4 X 6 1/4)	16
482	600-690-008	LOCK NUT, 1-3/8-12 NF	8
460	601-170-008	HUBBLE CONNECTOR (FEMALE)	1
112	601-630-001	SPRAY PAINT (RED)	1
113	601-630-002	SPRAY PAINT (YELLOW)	1
	015-000-019	MANUAL (INSTALLATION)	1
627	012-012-058	SMALL PARTS BAG CONTENTS	
171	600-640-019	BOLT, 1/4-20 X 1-1/2	10
258	600-690-005	LOCK NUT, 1/4-20 NC	10
259	600-710-004	WASHER, 1/4 SAE FLAT	4
021	601-310-005	BREATHER CAP	1
094	601-420-011	FITTING, DOUBLE MALE UNION # 6 JIC	4
409	601-710-001	DOUBLE LINE CLIP	6
	600-710-006	WASHER, FLAT, FENDER, 5/16 ID X 1 ½ OD	6
(42)	007.007.07		
623	007-007-075	SHIM BAG CONTENTS	0
633	600-740-001	SHIM, 1/16 (BLUE)	8
634	600-740-002	SHIM, 1/8 (RED)	8
635	600-740-003	SHIM, 1/4 (BLACK)	8
	012-012-057	PARTS BOX #2 CONTENTS	
057	012-012-151	HEIGHT ADAPTER (7 1/2 INCH)	4
047	018-000-105	HEIGHT ADAPTER (10 INCH)	4
046	018-000-106	HEIGHT ADAPTER (5 INCH)	4

## **RECOMMENDED TOOL LIST**

SIZE / QTY	DESCRIPTION	USED IN
1 - 1/8 IN	WRENCH & SOCKET	WEJ-IT ANCHORS
15 / 16 IN	WRENCH & SOCKET	CARRIAGE STOPS
11/16 IN	WRENCH	HYDRAULIC LINES
5/8 IN	WRENCH	HYDRAULIC LINES
1/2 IN	WRENCH & SOCKET	BACK BOARD / CYLINDER RETAINER
7/16 IN	WRENCH	SWING ARM RESTRAINT ASSEMBLIES
1	RATCHET WRENCH	AS NEEDED
1	SNAP RING PLIERS	SWING ARM PINS
1	VICE GRIPS	AS NEEDED
1	CRESCENT WRENCH	AS NEEDED
1	4 FT BUBBLE LEVEL	VERIFY LEVEL ASSEMBLY
1	PRY BAR	MOVING HEAVY ITEMS
1	TIN SNIPS	PACKAGING BANDING
1	CHALK LINE	FLOOR LAYOUT
1	SOAP STONE	FLOOR LAYOUT
1	25 FT TAPE MEASURE	FLOOR LAYOUT / SQUARING POST
1	MEDIUM HAMMER	WEJ-IT ANCHORS
1	HAMMER DRILL	DRILLING CONCRETE
1	DRILL BIT (3/4 INCH)	DRILLING CONCRETE
1 TON	LIFTING DEVICE	LIFTING / MOVING HEAVY ITEMS
8 FT	STEP LADDER	ASSEMBLE ELEVATED ITEMS
100 FT	LEAD CORD	OPERATE ELECTRICAL TOOLS

## 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 & 8.

## 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.

LOCATE THE MAIN SIDE POST ON THE HIGH SIDE OF THE FLOOR IF A SLOPE IS NOTED. REFER TO FIGURE 9.

## 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 & 8.

REQUIREMENTS MAY VARY ON SPECIAL ORDERS.

#### **SPECIFICATIONS**

REFERENCE ALL SPECIFICATIONS PRIOR TO INSTALLING A LIFT.

## **WARNING**

## BEFORE DRILLING THE MOUNTING HOLES

- REFERENCE ALL FIGURES PERTAINING TO DRILLING, WEJ-IT WARNINGS, AND INSTALLATION INSTRUCTIONS. REFER TO FIGURES 3 & 4.
- CHECK THE INSIDE DIMENSIONS OF THE POST AT THE BOTTOM FROM THE FACE OF THE MAIN SIDE POST TO THE FACE OF THE OFF SIDE POST. THE INSIDE DIMENSION IS 120 INCHES.
- 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. TIGHTEN THE NUT 2 TO 3 FULL TURNS. (60 TO 80 FOOT POUNDS)
- 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.
- DRILL EIGHT 3/4-INCH HOLES ON THE OUTSIDE OF THE MAIN SIDE POST USING THE HOLES AT THE BASE OF THE POST AS A GUIDE. INSERT AND TIGHTEN THE WEJ-IT ANCHOR 2 TO 3 FULL TURNS. (60 TO 80 FOOT POUNDS)
- INSURE THE INSIDE DIMENSIONS BETWEEN THE MAIN AND OFF SIDE POST IS STILL CORRECT, 120 INCHES.
- DRILL EIGHT 3/4-INCH HOLES ON THE OUTSIDE OF THE OFF SIDE POST USING THE HOLES AT THE BASE OF THE POST AS A GUIDE. INSERT AND TIGHTEN THE WEJ-IT ANCHOR 2 TO 3 FULL TURNS. (60 TO 80 FOOT POUNDS)

## 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.

USING A CHALK LINE, LAYOUT THE FLOOR DIMENSIONS WHERE THE UNIT WILL BE LOCATED. REFER TO FIGURES 1 & 8.

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 2.

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.

USING THE 5/8-INCH PACKING BOLTS, NUTS AND WASHERS, ASSEMBLE THE CARRIAGE STOPS TO THE TOP OF THE OFF SIDE POST. TIGHTEN TO 150 FOOT POUNDS. REFER TO FIGURE 2.

ASSEMBLE THE TWO OVERHEAD HYDRAULIC LINES (FLAT ON THE FLOOR) USING THE FOUR DOUBLE MALE UNIONS. SEE MAN501.

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 11.

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 MAN502.

LIFTING UP ON THE SWING ARM RESTRAINT. INSERT THE FOUR SWING ARMS INTO THE CARRIAGES. REFER TO MAN506.

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 MAN506.

## 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 TWO MINUTES. (THIS WILL PURGE THE AIR FROM THE HYDRAULIC SYSTEM)

## NOTE

LISTEN FOR THE PRESSURE RELIEF VALVE. <u>A NOTICEABLE INCREASE IN POWER UNIT VOLUME</u> THIS MAY INDICATE THAT THE NUTS ON THE LIFTING RODS NEED TO BE ADJUSTED. ADJUST THE NUTS EVENLY ON BOTH SIDES OF THE CARRIAGE TO ALLOW THE CYLINDERS TO FULLY STOKE AT THE TOP.

ASSEMBLE THE TWO HEIGHT ADAPTERS BRACKETS TO THE BACK OF THE MAIN AND OFF SIDE POST USING THE FOUR 5/16 BOLT, WASHER & NYLON LOCK NUTS. REFER TO MAN505

PLACE THE FOUR 5 INCH., 7 ½ INCH AND 10 INCH 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. REFER TO FIGURES 5 & 6.

- 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.
- THE MEASUREMENT AT THE TOP OF THE POST MUST BE THE SAME AS THE MEASUREMENT AT THE BASE 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. REFER TO MAN504

 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

- UNOBSTRUCTED 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 UNOBSTRUCTED EXIT.

## 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**

## **OPERATION**

- PERFORM PRE-OPERATION CHECK LIST ITEM BY ITEM.
- POSITION THE SWING ARM TO THE OUTSIDE OF THE UNIT.
- POSITION THE VEHICLE AS INDICATED BY THE MFG'S RECOMMENDED LIFT POINTS. SEE ALI/LP-GUIDE.

## 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.

 PLACE THE LIFTING PADS PER MFG'S RECOMMENDED LIFT POINTS. SEE ALI/LP-GUIDE.

## 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.
- ALWAYS ENGAGE THE UP-BUTTON ON THE POWER UNIT AND RAISE UNIT UNTIL BOTH MECHANICAL SAFETIES RE-ENGAGE.
- LOWER THE UNIT ONTO THE MECHANICAL SAFETIES.
- IF WORK IS COMPLETE, CONTINUE LOWERING THE UNIT UNTIL BOTH CARRIAGES ARE FULLY LOWERED.

## **MAINTENANCE PROCEDURES**

## QUALIFIED MAINTENANCE PERSONNEL ONLY

## **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, SWING ARMS OR SWING ARM RESTRAINTS.) 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.
- LUBRICATE THE ARM RESTRAINT ASSEMBLIES AS NEEDED TO INSURE FREE, AND SMOOTH OPERATION.
   (DO NOT USE GREASE)
- CYCLE UNIT TO FULL HEIGHT, AND BLEED APPROXIMATELY 30 SECONDS.

## **MONTHLY**

- INSPECT LIFTING COMPONENTS FOR DEFORMATION, WEAR OR CORROSION.
- 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 <u>PIPE</u> 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 TRAINING**

 QUALIFY / RE-QUALIFY ALL PERSONNEL IN THE SAFE OPERATION OF THIS UNIT.

## **ANNUALLY**

- 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 SWING ARM RESTRAINTS. THOROUGHLY CLEAN. USE A LIGHT LUBRICANT (WD-40 OR EQUIVALENT) REINSTALL. DO NOT USE GREASE.
- REMOVE THE SWING ARMS. THOROUGHLY CLEAN. USE A LIGHT LUBRICANT (WD-40 OR EQUIVALENT) REINSTALL. DO NOT USE GREASE.
- PERFORM THE DAILY, WEEKLY, AND MONTHLY MAINTENANCE PROCEDURES.

## HYDRAULIC SAFETY CHECKS / 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.

**NOTE:** THE HYDRAULIC SAFETY CHECK IS TO BE PERFORMED WITH NO VEHICLE ON THE UNIT. THE HYDRAULIC SYSTEM CHECKS WILL DETECT INTERNAL HYDRAULIC LEAKS. CONTACT YOUR LOCAL MOHAWK DISTRIBUTOR OR THE MOHAWK FACTORY SERVICE DEPARTMENT IF A CHECK SHOULD FAIL.

## **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)

## OFFSIDE CYLINDER / DIVERTER VALVE CHECK: (TO BE PERFORMED WHEN OFFSIDE CYLINDER DRIFTS DOWN)

- 1. RAISE THE UNIT APPROXIMATELY 3 FEET
- 2. DISENGAGE BOTH MECHANICAL SAFETIES
- REMOVE THE BLEED LINE FROM THE TOP OF THE OFFSIDE CYLINDER AND CAP USING MOHAWK PN #601-420-001.
- 4. IF THE OFFSIDE CYLINDER NO LONGER DRIFTS DOWN, THEN THE OFFSIDE CYLINDER WILL NEED TO BE SERVICED
- 5. IF THE OFFSIDE CYLINDER CONTINUES TO DRIFT DOWN, THEN THE DIVERTER PULL VALVE WILL NEED TO BE SERVICED.

## MAINSIDE CYLINDER PISTON CHECK: (THIS CHECK IS TO BE PERFORMED AFTER ALL THE OTHER HYDRAULIC SAFETY CHECKS HAVE BEEN PERFORMED)

- RAISE A VEHICLE SO THAT ALL FOUR TIRES ARE OFF THE FLOOR.
- 2. MEASURE AND RECORD THE CARRIAGE HEIGHTS ON THE MAINSIDE AND OFFSIDE.
- CYCLE THE LIFT UP AND DOWN FOUR TIMES WITHOUT GOING TO FULL HEIGHT OR LETTING THE VEHICLE TIRES CONTACT THE FLOOR.
- 4. LOWER THE UNIT, STOPPING WHEN THE TIRES ARE AT THE APPROXIMATE HEIGHT AT THE BEGINNING.
- 5. MEASURE MAINSIDE AND OFFSIDE CARRIAGE HEIGHTS AGAIN.
- 6. THE CHECK HAS FAILED IF THE MEASUREMENTS CHANGE MORE THAN 1/4 INCH.

## **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.

SOLUTION
NOT RAISING LOAD
LOWER UNIT. REMOVE RESERVOIR BREATHER CAP. FILL UNIT TO WITHIN 1/2 INCH BELOW PORT. USE DEXRON III TRANSMISSION / HYDRAULIC FLUID.
REFER TO POWER UNIT SPECIFICATIONS. SEE FIGURE 12.
REFER TO POWER UNIT SPECIFICATIONS. REMOVE AND CLEAN DEBRIS FROM VALVE ASSEMBLY. SEE FIGURE 12.
REFER TO POWER UNIT SPECIFICATIONS. CONSULT AN ELECTRICIAN
VEHICLE IS TO HEAVY TO BE RAISED
NOT LOWERING
RAISE UNIT. DISENGAGE MECHANICAL LOCKS.
A ADD COATE DISEASON DE MAION DE LOCALIST
RAISE UNIT TO FULL HEIGHT TO EQUALIZE. THEN LOWER OR
USE DIVERTER VALVE TO EQUALIZE
VERIFY LEVEL ASSEMBLY. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. SEE FIGURE 5 & 6
CLEAN UNIT
REMOVE OBSTRUCTION.
RAISING UNEVEN
GH, RUN UNIT TO FULL HEIGHT. IF THE MAIN SIDE IS LOW, LOWER UNIT TO FOR THE OFF SIDE TO EQUALIZE.
BLEED UNIT. REFER TO BLEEDING PROCEDURES.
CARRIAGE BEARINGS ON THE MAIN SIDE MUST NOT CONTACT CARRIAGE STOPS. (RESULT OF INCORRECT ADJUSTMENT OF NUTS ON LIFTING RODS.) SEE FIGURE 7.
VERIFY LEVEL ASSEMBLY. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. SEE FIGURE 5 & 6.
VERIFY PROPER INSTALLATION OF MAIN SIDE POST. MAIN SIDE TO BE ON HIGH SIDE. SEE FIGURE 9.

## TROUBLE SHOOTING, CONTINUED

POSSIBLE CAUSE	SOLUTION
	RAISING UNEVEN, CONTINUED
GHOD ELOOD LINEVEN	LIGE ODECIAL LIFE DADO OFF FIGURE 10
SHOP FLOOR UNEVEN	USE SPECIAL LIFT PADS. SEE FIGURE 10.
DIVERTER VALVE	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.
BLEEDER VALVE	REMOVE BLEED LINE FROM THE TOP OF THE OFF SIDE CYLINDER AND CAP USING MOHAWK PART # 601-420-001. IF THE UNIT NO LONGER DRIFTS DOWN THE BLEEDER VALVE WILL NEED TO BE SERVICED OR REPLACED
MAIN SIDE CYLINDER	PERFORM HYDRAULIC SAFETY CHECKS. CHECK FOR INTERNAL HYDRAULIC LEAKS
	SLOW DRIFT DOWN
SAFETIES NOT ENGAGED	RAISE UNIT TO RE-ENGAGE SAFETIES. THEN LOWER UNIT ONTO SAFETIES.
POWER UNIT LOWERING VALVE CONTAMINATION	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
DIVERTER VALVE	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.
BLEEDER VALVE	REMOVE BLEED LINE FROM THE TOP OF THE OFF SIDE CYLINDER AND CAP USING MOHAWK PART # 601-420-001. IF THE UNIT NO LONGER DRIFTS DOWN THE BLEEDER VALVE WILL NEED TO BE SERVICED OR REPLACED
NOTE: TI	EXTERNAL HYDRAULIC LEAKS GHTEN ALL FITTINGS PER SPECIFICATIONS
MAIN SIDE CYLINDER	THOROUGHLY CLEAN THE CYLINDER. VERIFY LEAK ORIGIN. FITTINGS ARE TO BE TIGHTENED PER SPECIFICATIONS
OFF SIDE CYLINDER	THOROUGHLY CLEAN THE CYLINDER. VERIFY LEAK ORIGIN. FITTINGS ARE TO BE TIGHTENED PER SPECIFICATIONS.
BAD FLAIR OR FITTING	REMOVE THE HYDRAULIC LINE AND INSPECT FLAIR AND FITTING FOR DEFORMATION. REPLACE IF NEEDED.
BAD O-RING (O-RING TYPE FITTINGS)	CHANGE O-RING
LOOSE PIPE FITTING	REMOVE, RESEAL, AND RE-INSTALL FITTING. SEAL ALL PIPE FITTING CONNECTIONS WITH THREAD SEALANT MOHAWK PART # 601-610-002 NOTE: DO NOT USE TEFLON TAPE.
N	MECHANICAL LOCK HARD TO PULL
FLIPPER STICKING ONTO LOCK BAR	APPLY A SMALL AMOUNT OF LUBRICANT TO THE LOCK BAR WHERE THE FLIPPER RIDES. (DO NOT USE HEAVY GREASE)

## **SERVICE CHART**

MODEL TP-15	
SERIAL NUMBER:	
DATE OF INSTALLATION:	

DATE	PART REPLACED / SERVICED	SERVICE COMPANY	SERVICED BY

## MAINTENANCE CHART

DATE	MAINTENANCE PERFORMED	SERVICE COMPANY	SERVICED BY

# MOHAWK

# MODEL TP-15

## FIGURES & DIAGRAMS

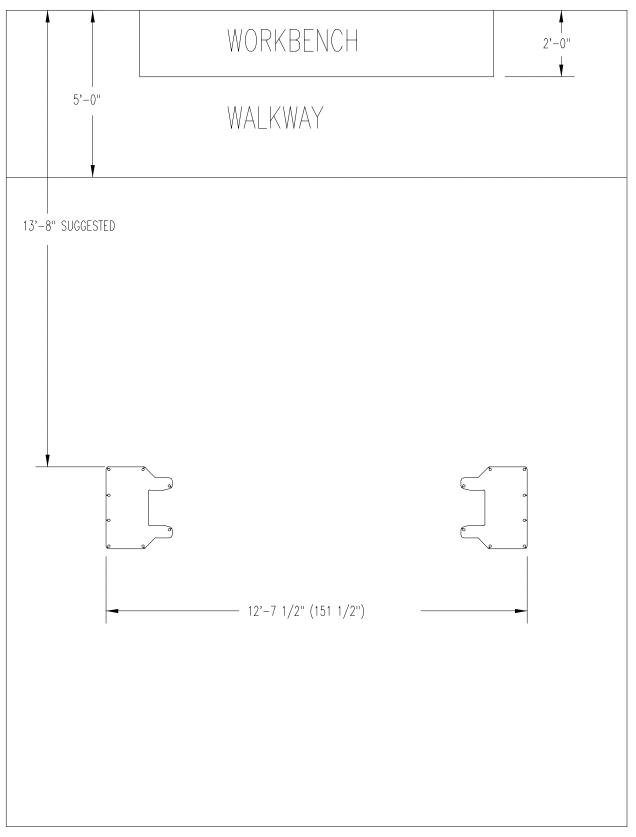


## MOHAWK RESOURCES LTD.

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



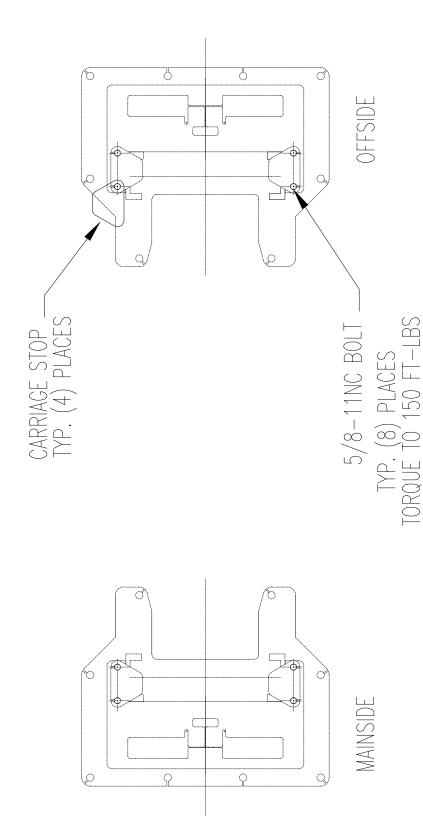
MAN514

BAY SIGHT LAYOUT

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.



MAN515

Figure 2

## **WEJ-IT INSTALLATION**



## **USE HAND WRENCH ONLY**

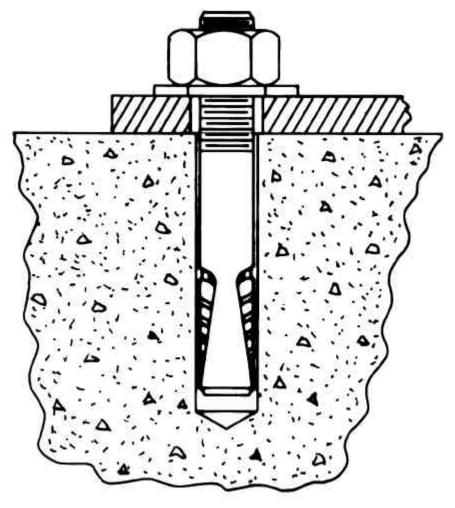
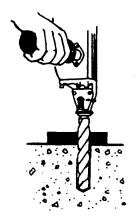
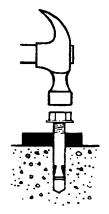


Figure 3

# **Quick, Easy Installation**



Drill hole to depth equal to length of Wej-it.



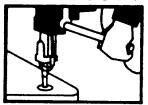
Insert Wej-it so that washer rests against fixture.



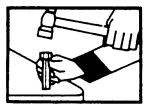
3. Tighten nut, two-to-three full turns.

## **Installation Procedure**

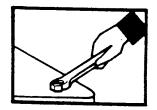
- 1. Wear safety glasses as a good practice.
- 2. Use solid, carbidetipped drill bits manufactured to ANSI B94 Standard tolerances on the tip ends as follows:



- 3. Don't use excessively worn bits.
- 4. Keep drill in a perpendicular line while drilling.
- 5. Let the drill do the work. Don't apply excessive pressure.
- Lift up and down several times, to remove dust and reduce binding.
- 7. Drill hole to depth equal to the full length of Wej-it.
- 8. Blow out dust from hole. Cleaning insures highest holding values.



9. Tap Wej-it into hole until washer rests against fixture.



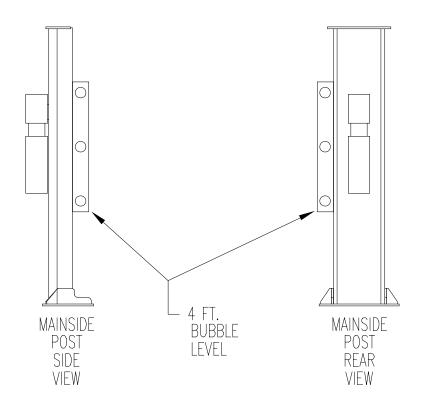
10. Choose whichever of the following methods is suitable:

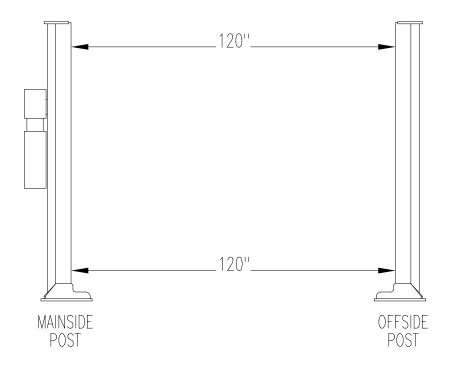
DIAMETER	MINIMUM INCHES	MAXIMUM INCHES	
3/4	0.775	0.787	

WEJ-IT	FULL TURNS	TORQUE
DIAMETER	OF NUT	FOOT POUNDS
3/4	2 – 3	60 – 80

EITHER METHOD SHOULD PRODUCE COMPARABLE RESULTS UNDER MOST FIELD CONDITIONS.

Figure 4





POST LEVELING

MAN234F

Figure 5

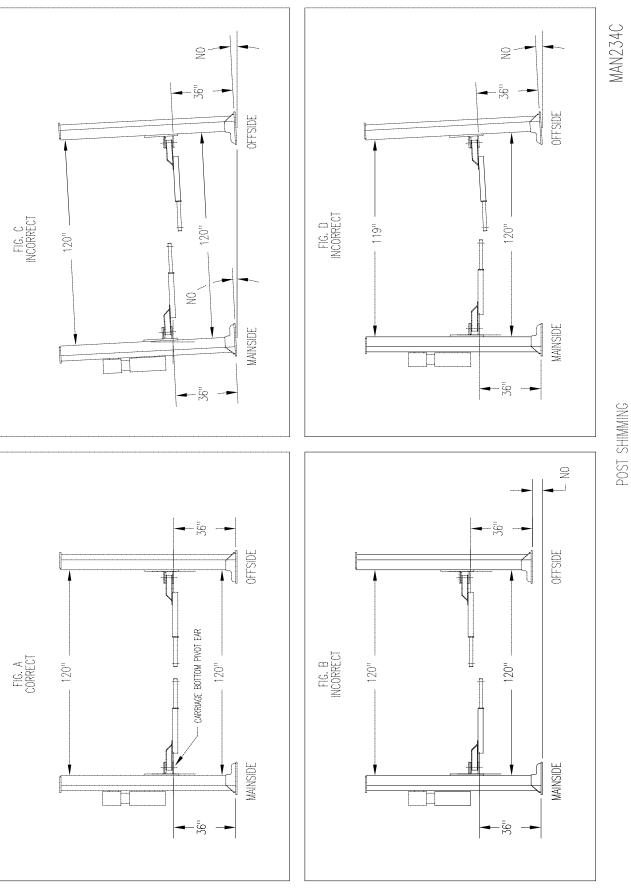


Figure 6

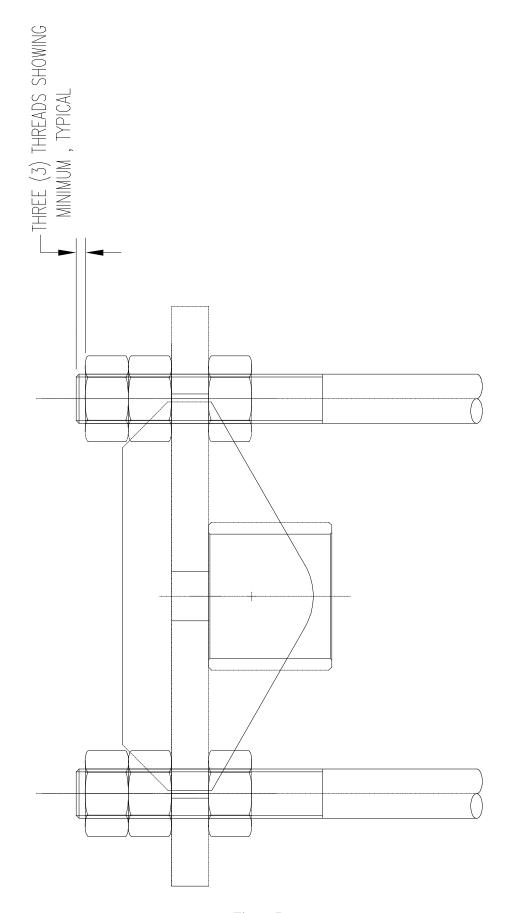
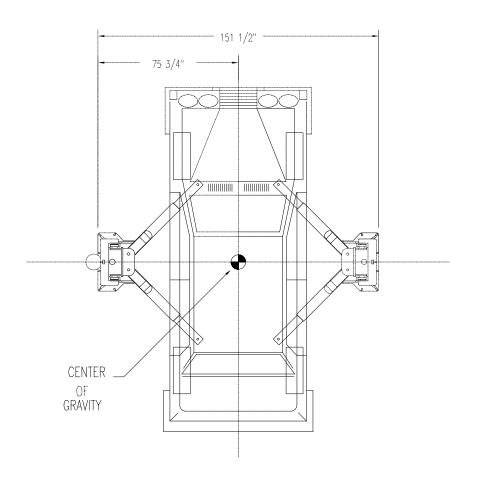
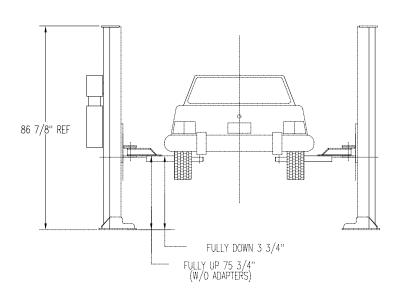


Figure 7





LMF-12 & TP-15 MAN516

Figure 8

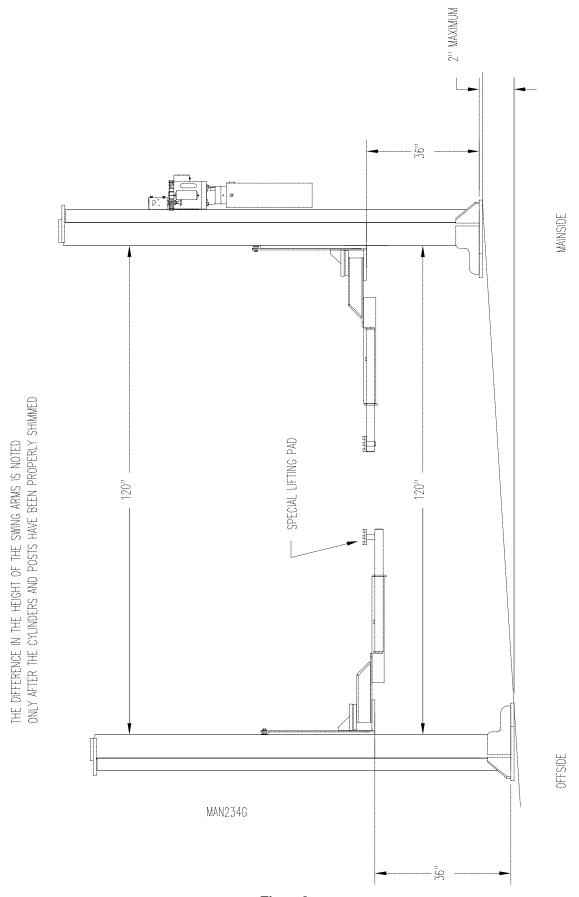


Figure 9

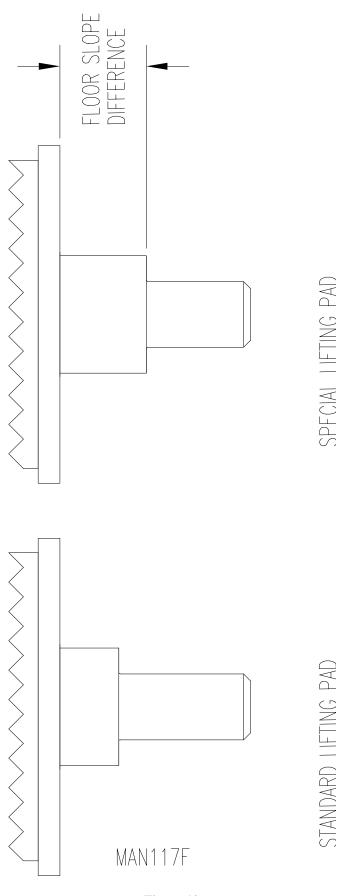


Figure 10



Dyna-Pack® **M-4509** MOHAWK: **601-300-047** 

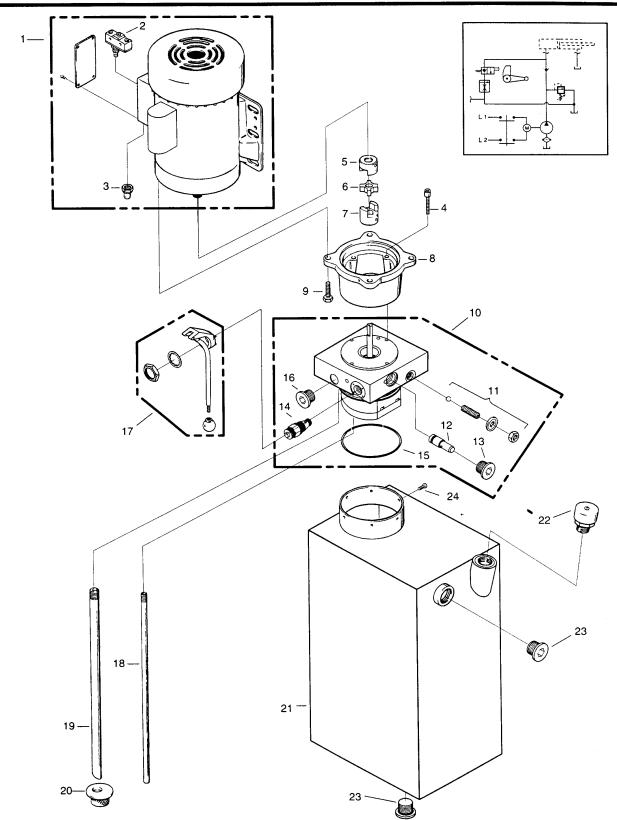


Figure 11

## M-4509 / 601-300-047

M-4509 / 601-300-04/				
Ref.	Part No.	Description	No. Req.	
No.	NO.	e door pro-		
1	08760	MOTOR, Electric, 5/8" Shaft, AC, 3 hp	1	
2	03529	SWITCH, Limit, 25 amps, 1 pole	1	
3	03230	BOOT, Rubber, weather proof, limit switch (used with 03529)	1	
4	07760	SCREW, Socket Head Cap 1/4-20 x 1" (used with 1605 permanent casting housing)	4	
5	01139	COUPLING, 5/8" Bore 3/16" Keyway (motor side)	1	
6	01603	COUPLING SPIDER, 33/64" Bore	1	
7	07588	COUPLING, 10mm	1	
8	01605	HOUSING, Pump/Motor Adapter (2-5/32" long)	1	
9	07817	SCREW, Hex Head Cap 3/8-16 x 7/8"	4	
10	12036	PUMPASSEMBLY	1	
11	07527	• PARTS KIT, Adjustable Relief Valve	1	
12	01723-2.75	• VALVE, PCFC	1	
13	03274	• PLUG	1	

Part No.	Description	No. Req.
10802	•VALVE, Manual	1
02352	• O-RING, Industrial (3-5/8" x 3-7/8" x 1/8")	1
03276	• PLUG, 9/16-18 (#6 SAE)	1
10803	HANDLE, Assembly	1
01479- 21.00	TUBE, Return 1/8 NPT Plastic	1
01459- 18.00	TUBE, Filter Suction 3/8 NPT Plastic	1
01134	SCREEN, Filter (suction)	1
04869	RESERVOIR, Vertical	1
01143	PLUG, Vent (plastic)	1
03276	PLUG, 9/16-18 (#6 SAE)	2
07703	SCREW, Thread Forming 10-24 x 3/8"	6
	No.  10802 02352 03276 10803 01479- 21.00 01459- 18.00 01134 04869 01143 03276	No.         Description           10802         • VALVE, Manual           02352         • O-RING, Industrial (3-5/8" x 3-7/8" x 1/8")           03276         • PLUG, 9/16-18 (#6 SAE)           10803         HANDLE, Assembly           01479- 21.00         TUBE, Return 1/8 NPT Plastic           01459- 18.00         TUBE, Filter Suction 3/8 NPT Plastic           01134         SCREEN, Filter (suction)           04869         RESERVOIR, Vertical           01143         PLUG, Vent (plastic)           03276         PLUG, 9/16-18 (#6 SAE)



U.S.A.
MONARCH HYDRAULICS, INC.
P.O. Box 1764, Grand Rapids, MI 49501-1764, U.S.A.
1363 Michigan St.NE. Grand Rapids, MI 49503, U.S.A.
Telephone: (616) 458-1306
Telefax: (616) 458-1616
http://www.monarchhyd.com

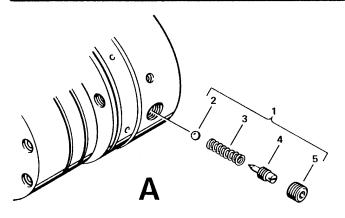
Form No. 2363-99

CANADA: FLUID-PACK INTERNATIONAL LIMITED A Part of the Monarch Hydraulics Group 460 Newbold St. London, Ontario, Canada N6E 1K3 Telephone: (519) 686-5900 Telefax: (519) 686-8976

Litho in U.S.A.



# RELIEF VALVE ADJUSTMENT PROCEDURE



RELIEF VALVE ADJUSTMENT PROCEDURE "A" FOR UNITS MADE BEFORE APRIL 1, 1991.

- 1. REMOVE FLUSH PLUG.
- 2. TURN SCREW CLOCKWISE TO INCREASE PRESSURE.
- 3. TURN SCREW COUNTER-CLOCKWISE TO DECREASE PRESSURE.

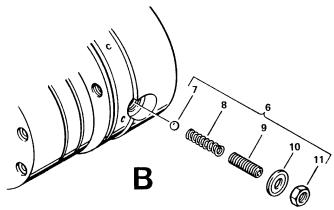
## NOTE

OUTLET PORT FLOW MUST BE BLOCKED TO MAKE RELIEF VALVE OPERATE WHILE ADJUSTING.

4. REINSTALL FLUSH PLUG.

Ref.	Part	Dossintian	No. Req.
No.	No.	Description	ney.
6	03766	PARTS KIT, Relief Valve	1
7	00012	• BALL, 1/4" DIA., chrome, steel	1
8	02221 00147	<ul> <li>SPRING, Relief Valve (Std.)</li> <li>SPRING, Relief Valve, 2,500</li> <li>PSI &amp; up (opt.)</li> </ul>	1
9	00387	<ul> <li>SCREW, Socket Set, 3/8-16, oval point</li> </ul>	1
10	03874	SEAL, Washer	1
11	07891	• NUT, Hex, jam, 3/8-16	1

Ref. No.	Part No.	Description	No. Req.
1	02222	PARTS KIT, Relief Valve	1
2	00012	• BALL, 1/4" DIA., chrome, steel	1
3	02221 00147	<ul> <li>SPRING, Relief Valve (Std.)</li> <li>SPRING, Relief Valve, 2,500</li> <li>PSI &amp; up (opt.)</li> </ul>	1 1
4	07640	• SCREW, Adjusting Relief, 3/8-16	1
5	02350	• PLUG, Pipe, Flush 1/4 NPTF	1



RELIEF VALVE ADJUSTMENT PROCEDURE "B" FOR UNITS MADE AFTER APRIL 1, 1991.

- 1. LOOSEN JAM NUT.
- 2. TURN SCREW CLOCKWISE TO INCREASE PRESSURE.
- 3. TURN SCREW COUNTER-CLOCKWISE TO DECREASE PRESSURE.

## NOTE

OUTLET PORT FLOW MUST BE BLOCKED TO MAKE RELIEF VALVE OPERATE WHILE ADJUSTING.

4. TIGHTEN JAM NUT.

3052

Figure 12

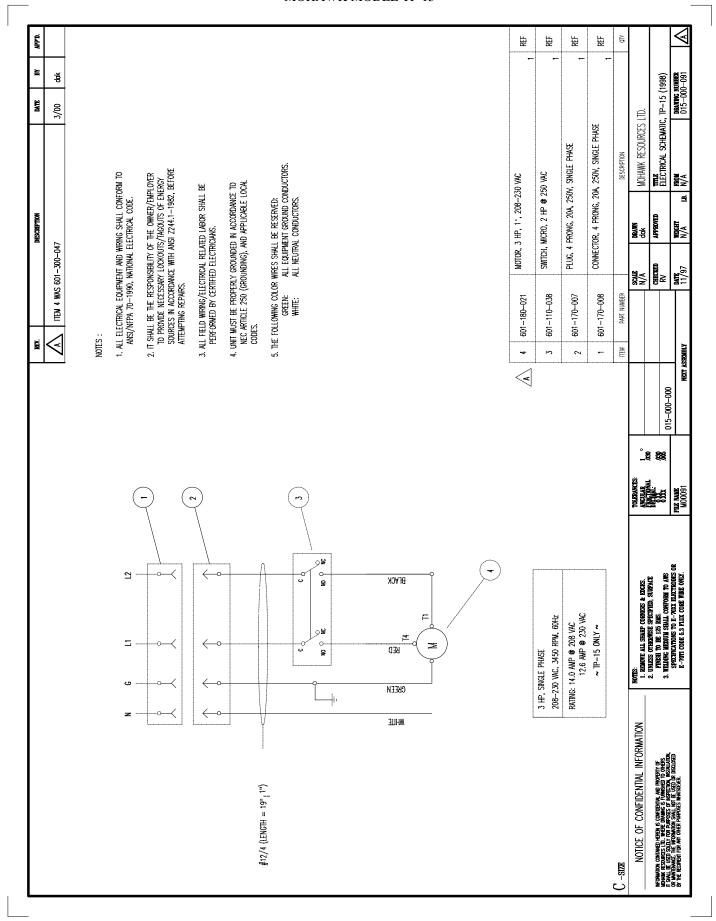


Figure 13

# **MOHAWK**

# MODEL TP-15

## PARTS MANUAL

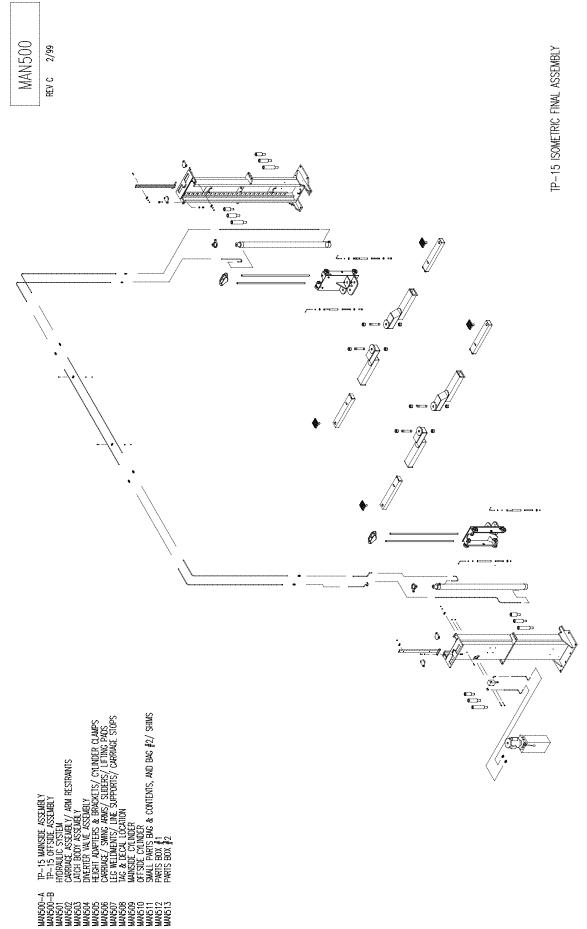


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**FAX:** 1-518-842-1289

INTERNET: WWW.MOHAWKLIFTS.COM E-MAIN: SERVICE@MOHAWKLIFTS.

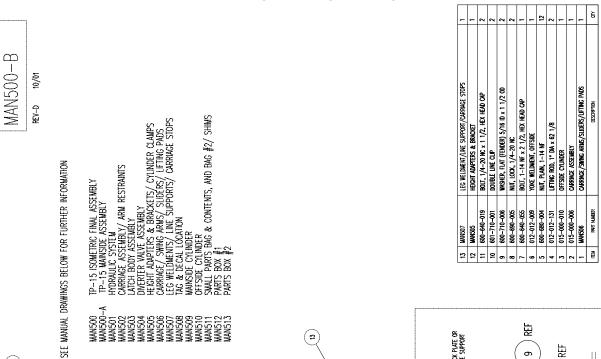


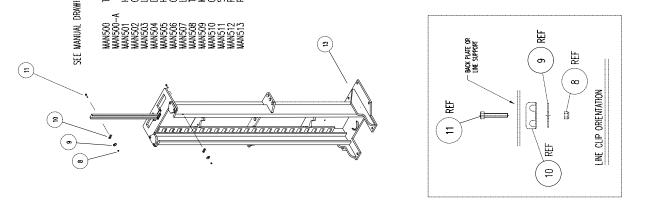
FILE: MAN500-A DATE: 5/96

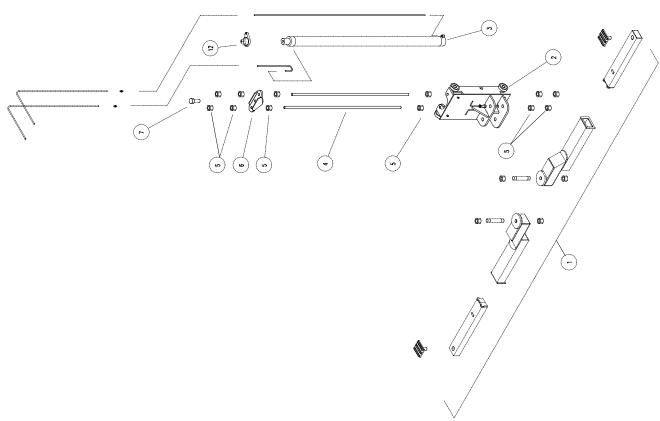
TP-15 MAINSIDE ASSEMBLY



TP-15 OFFSIDE ASSEMBLY





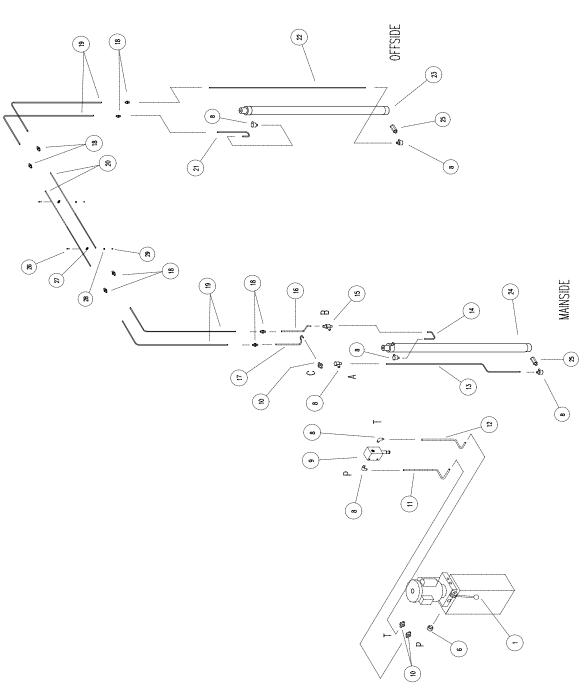


MAN501 REV E 10/01

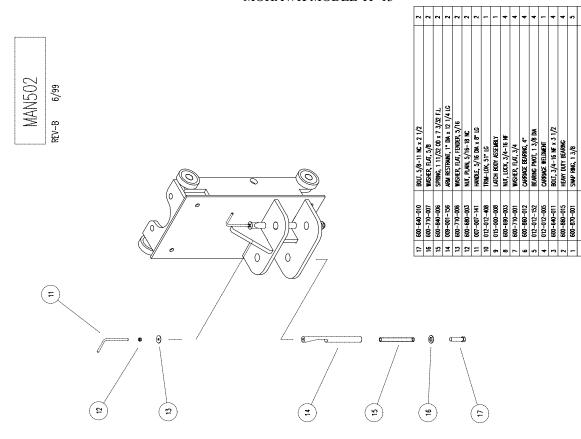
7	2	2	2	2	-	-	-	-	7	-	•	-	-	-	-	-	-	-	~	-	1		-					-	i
HUT, LOCK, 1/4-20 HC	斯SHER, FLAT (FEMSER) 5/16 B x 1 1/2 00	NUBBE LINE CLP	BGI, 1/4-20 KC x 1 1/2	MVE, VEICOTT FISE, 4 CPM	MANSIE CLINICE ASSIMBLY	CFFSUF, CYLINDER ASSEMBLY	TUBING ASSEMBLY, 91"	TUBING ASSEMBLY, 25"	TUBING ASSEMBLY, 100"	TUBING ASSEMBLY, 100"	STRAIGHT, #6 JIC TO #6 JIC	TUBING ASSEMBLY, 22 1/2"	TUBING ASSEMBLY, 18 1/2"	TEE, BRANCH, \$6 JIC TO \$6 JIC TO \$6 ORB	TUBING ASSEMBLY, 13"	TUBING ASSEMBLY, 80"	TUBING ASSEMBLY, 23 3/4"	TUBING ASSEMBLY, 28 15/16"	STRAIGHT, #6 ORB TO #6 JIC	DWERTER VALVE	ELBONI, 90  . #6 ORB TO #6 JIC		BREATHER CAP					POMER UNIT, 3 HP, 11, SQUARE TANK	
600-660-005	600-710-006	100-011-108	600-640-019	801-410-031	015-000-009	015-000-010	000-001-023	012-012-027	100-001	012-012-071	601-420-011	012-012-069	012-012-065	601-420-046	012-012-068	012-012-070	015-000-024	015-000-025	601-420-019	601-410-030	601-420-017		601-310-005					601-300-047	-
æ	80	22	28	×	75	3	8	7	ล	2	∞	2	مِو	2	<u>*</u>	2	21	=	2	6		7	9	2	7	3	2		

FILE: MAN501 DATE: 5/96

TP-15 HYDRAULIC SYSTEM



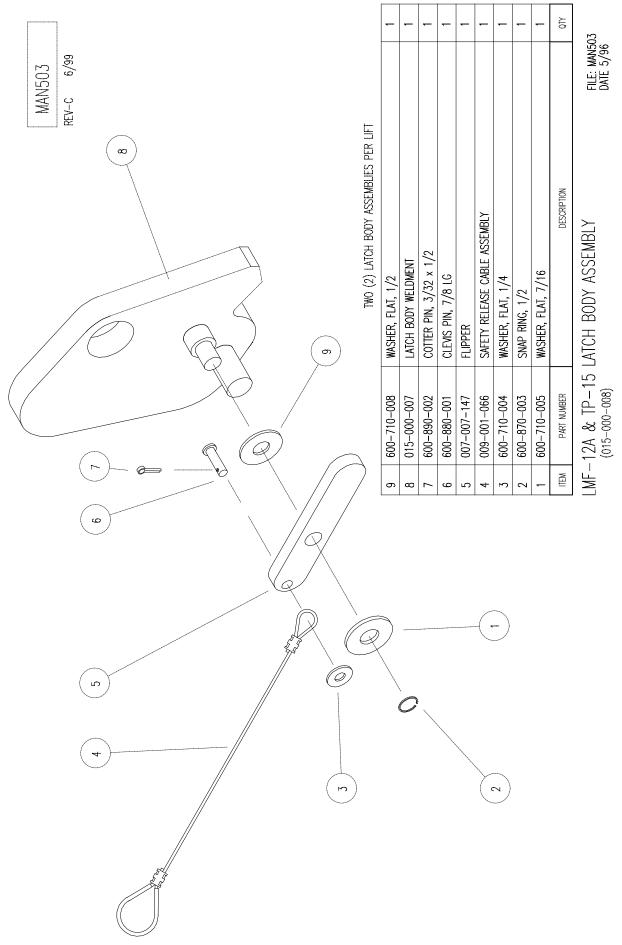
LMF-12A & TP-15 CARRIAGE ASSEMBLY/ARM LOCKS

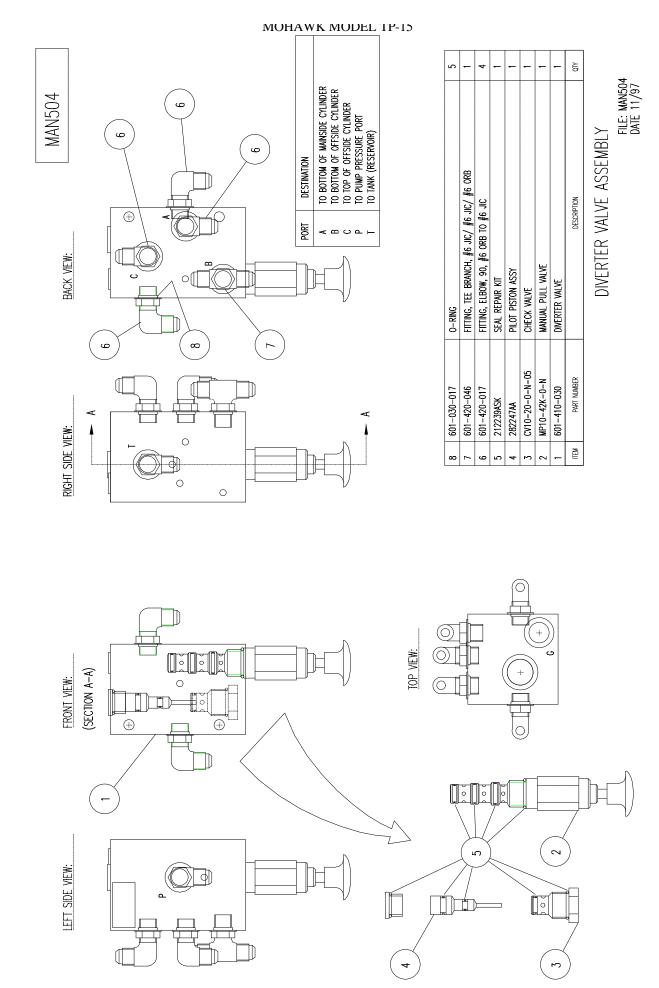


OFFSDE CHRNder ASSTUBLY SHOWN

WANSDIC QUANTITIES & PART THE SUME

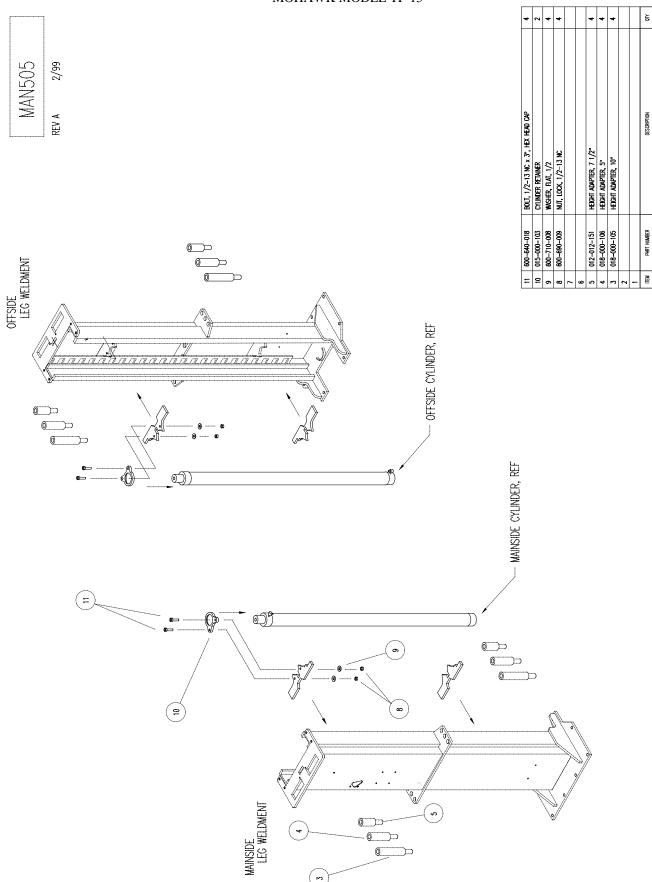
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LMF-12A & TP-15 HEIGHT ADAPTERS & BRACKET/CYLINDER CLAMPS

PART NUMBER

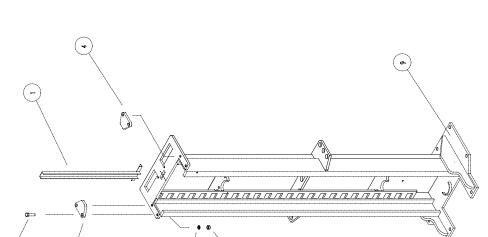


LMF-12A & TP-15 CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS

LMF-12A & TP-15 LEG WELDMENTS/LINE SUPPORTS/CARRIAGE STOPS

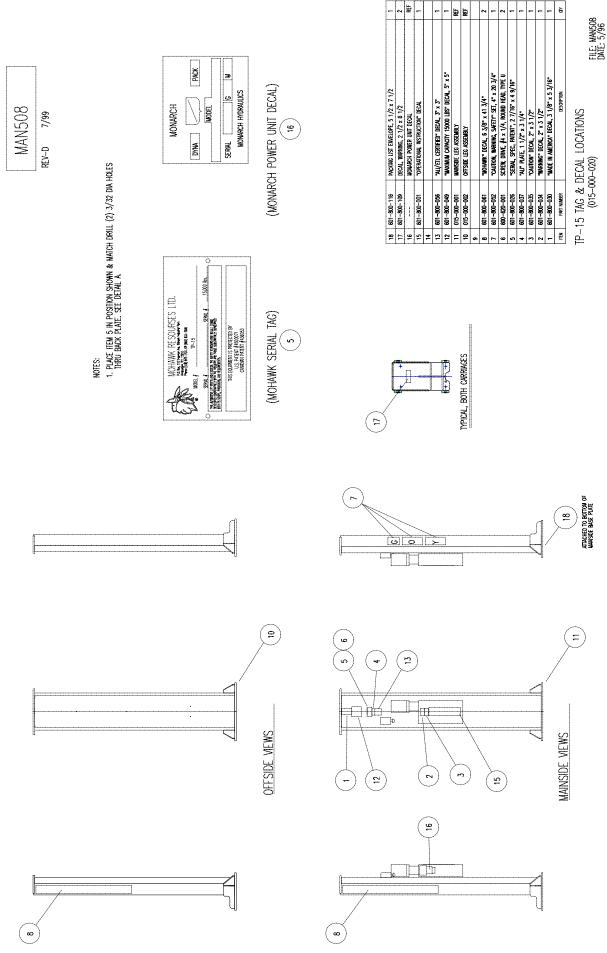
MAN507	

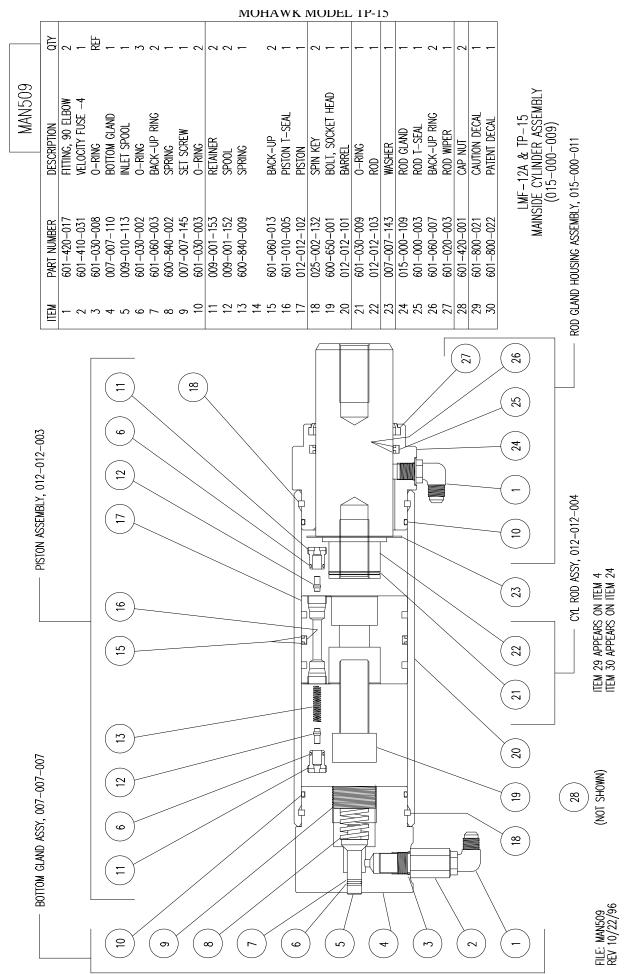
2/99 REV A



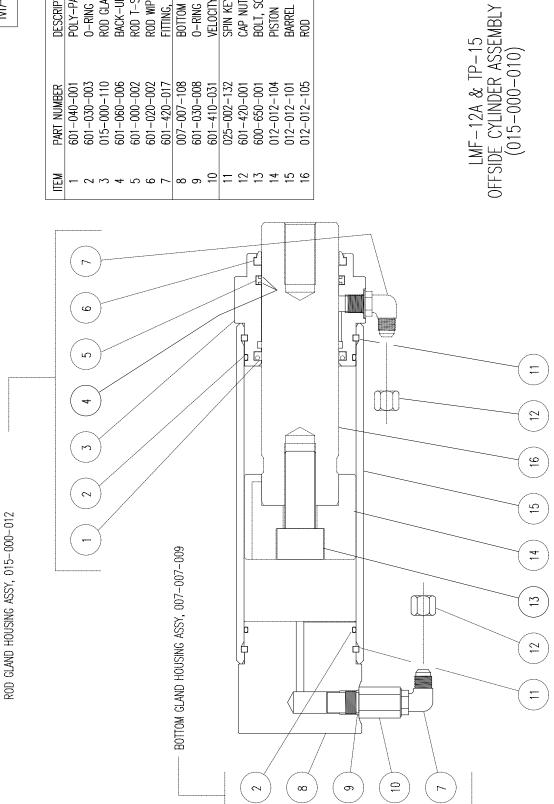
	OFFSIDE LEG WELDMENT	NUT, PLAN, 5/8-11 NC	WASHER, LOCK, 5/8	BOLT, 5/8-11 NC x 2 1/2	NUT, LOCK, 1/4-20 NC	CARRACE STOP	WASHER, FLAT, 1/4	BOLT, 1/4-20 NC x 1 1/2	LINE SUPPORT WELDMENT	NOLLAISOS 30
3	015-000-004	600-680-002	600-720-001	600-640-010	900-069-009	009-001-141	600-710-004	600-640-019	007-007-033	PART NUMBER
:	6	8	7	9	5	4	3	2	1	MEN
	5	∞	7	9	2	4	2	2	-	MELL

REF

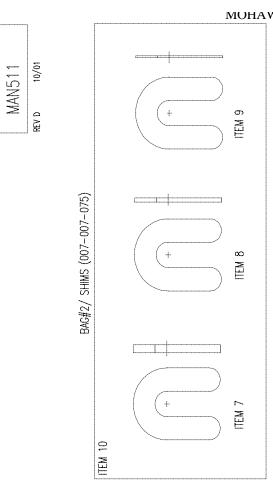




												M	JН	A١	٧K	M	UL
	QTY	-	2	_	2	_	_	2	-	_	_	2	2	_	_	_	-
MAN510	DESCRIPTION	POLY-PAK SEAL	0-RING	ROD GLAND	BACK-UP RING	ROD T-SEAL	ROD WIPER	FITTING, 90 ELBOW	BOTTOM GLAND	0-RING	VELOCITY FUSE4	SPIN KEY	CAP NUT	BOLT, SOCKET HEAD	PISTON	BARREL	ROD
	PART NUMBER	601-040-001	601-030-003	015-000-110	601-060-006	601-000-002	601-020-002	601-420-017	007-007-108	601-030-008	601-410-031	025-002-132	601-420-001	600-650-001	012-012-104	012-012-101	012-012-105
	ITEM	-	2	3	4	2	9	7	8	6	10	11	12	13	14	15	16



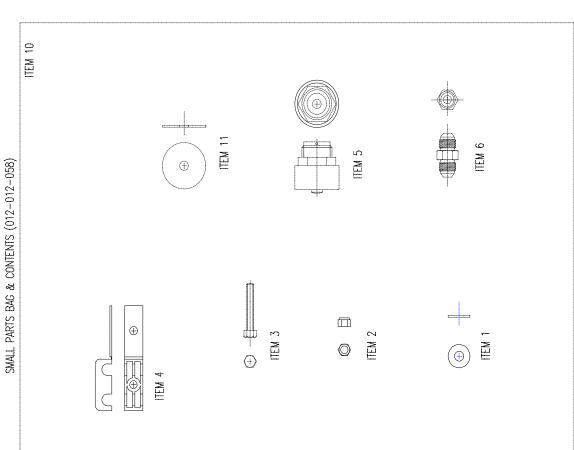
44

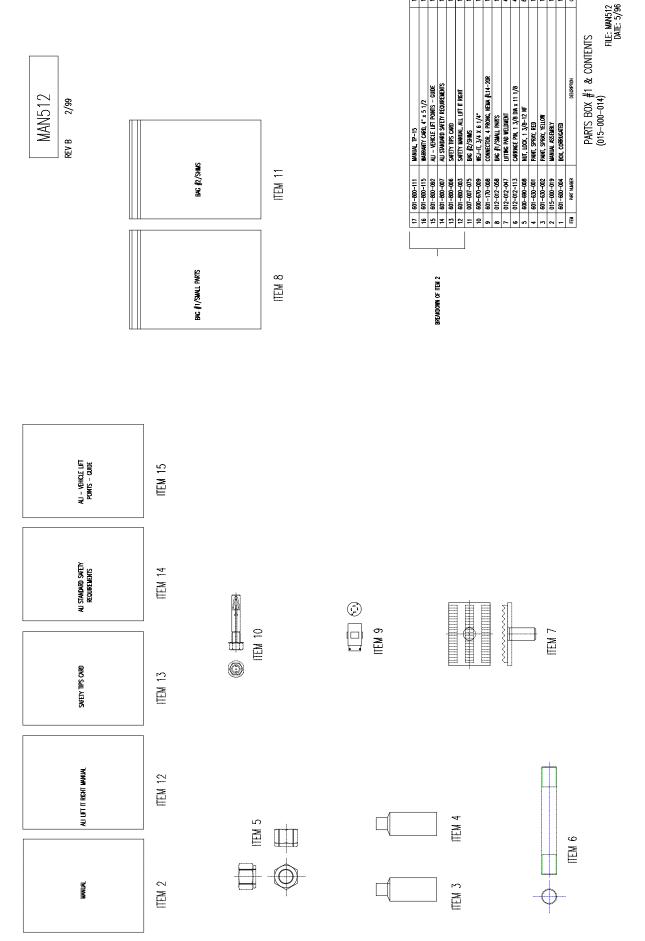


FILE: MAN511 DATE: 5/96

SMALL PARTS BAG & CONTENTS, AND BAG #2/SHIMS

ITEMS 1 THRU 9 = SMALL PARTS BAG & CONTENTS ITEMS 12 THRU 14 = BAG #2/ SHIMS

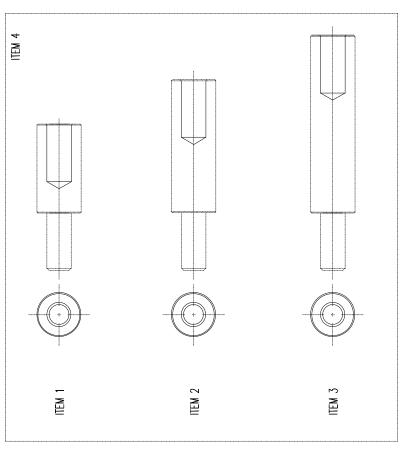




MAN513	96/5
H	DATF

FILE: DATE
PARTS BOX #2 (012-012-057)

Ĕ CARTON, CORRUGATED, 11" x 15" x 12 1/4
HEIGHT ADAPTER (10") 2 1/2 DIA x 13 3/8 LG
HEIGHT ADAPTER (7 1/2") 2 1/2 DIA x 10 7/8 LG
HEIGHT ADAPTER (5") 2 1/2 DIA x 8 3/8 LG DESCRIPTION 601-600-004 018-000-105 012-012-151 018-000-106 PART NUMBER HEM



MAN513

# **MOHAWK**

# NEW SLAB RECOMMEDATIONS



## 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.

Never, Never, hand mix your own concrete.

Rev: 2/20/98 File: New-Slab.doc

#### **New Slab Recommendations**

File: New-slab.xls

Rev Date: 10/12/01 NEW SLABS MUST BE 12" THICK MINIMUM !!

Lift Model	W Slab Width, (Feet)	L Slab Length, (Feet)	R Reinforcement Size, (Inch)	S Reinforcement Spacing, (Inch)	D Wej-it Dia, (Inch)	l Wej-it Length, (Inch)
A-7	4'	14'	#3 (3/8") *	8"	3/4"	5 1/2"
Tomahawk	4'	14'	#3 (3/8") *	8"	3/4"	5 1/2"
System IA	4'	14'	#3 (3/8") *	8"	3/4"	5 1/2"
LMF-12	6'	15'	#3 (3/8") *	8"	3/4"	6 1/4"
TP-15	6'	15'	#3 (3/8") *	8"	3/4"	6 1/4"
TP-18	6'	16'	#3 (3/8") *	8"	3/4"	6 1/4"
TP-20	6'	16'	#3 (3/8") *	8"	3/4"	6 1/4"
TP-26	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**
TP-30	N/A**	N/A**	N/A**	N/A**	N/A**	N/A**
TR-19***	2'	2'	N/A***	N/A***	3/4"	5 1/2"
FL-25****	2'	2'	N/A***	N/A***	3/4"	5 1/2"
TR-25***	2'	2'	N/A***	N/A***	3/4"	5 1/2"
TR-33****	6'	6'	N/A***	N/A***	3/4"	5 1/2"
TR-35****	6'	6'	N/A***	N/A***	3/4"	5 1/2"
TR-50***	6'	6'	N/A***	N/A***	3/4"	5 1/2"
TR-75****	6'	6'	N/A***	N/A***	3/4"	5 1/2"

<sup>\*</sup> An Acceptable Alternative is to use 4 x 4 Wire Mesh at same specified location.

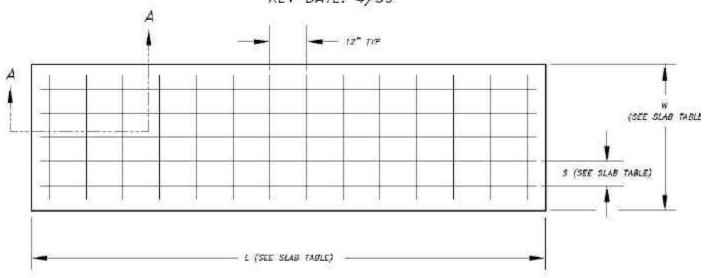
<sup>\*\*</sup> See Subframe Installation Instructions

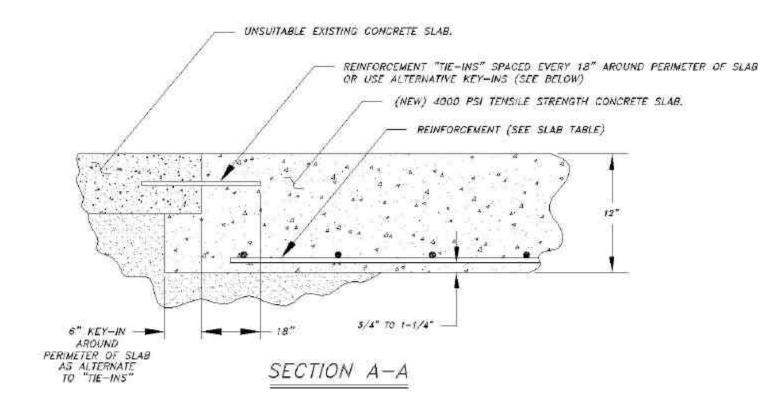
<sup>\*\*\*</sup> No Reinforcement Required (4 x 4 Wire Mesh Recommended)

<sup>\*\*\*\*</sup> Four Separate Slabs Formed at each Post.

### NEW RECOMMENDED SLAB DESIGN FOR 2-POST LIFTS

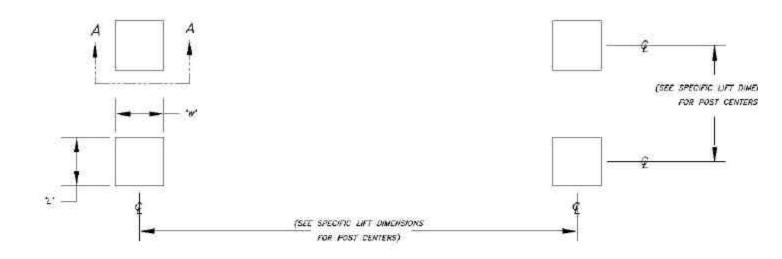
FILE: MANO66 DATE: 2/98 REV DATE: 4/99

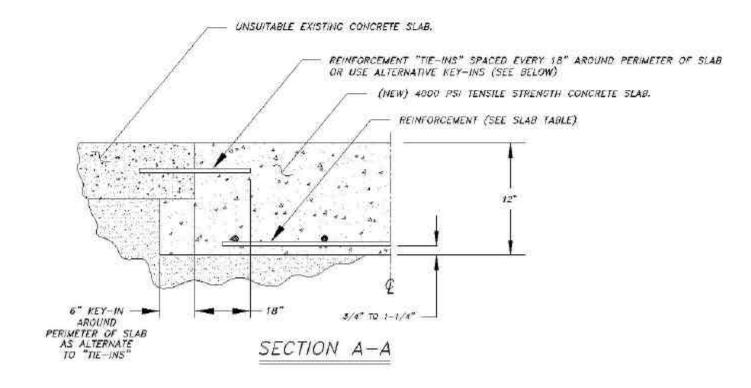




### NEW RECOMMENDED SLAB DESIGN FOR 4-POST LIFTS

FILE: MAN089 DATE: 10/00 REV DATE: 10/00













only.



A CAUTION

CAUTION

midway between adapters.





Use vehicle

lift points.

manufacturer's





Avoid excessive rocking of vehicle while on lift.

A CAUTION



Use height extenders when necessary to ensure good contact.

**A CAUTION** 



Auxiliary adapters may reduce load capacity.



Remain clear of lift when raising or lowering vehicle.

Do not override

self-closing

lift controls.

**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

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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.

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**Because Quality Lasts Forever.** 



#### Model USL-6000

Full rise, space-saving, no-post, portable scissors lift, offers full under-car access.

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" truck adapters.

#### **Model System I**

The 9,000 lb. capacity System I, like all Mohawk lifts, features Mohawk's patented hydraulic equalization system with adjustable overhead (or optional underground) hydraulic lines. Offers low 3 1/2" swing arms and comes standard with truck adapters.

#### Model LMF-12, TP-15, TP-18, TP-26 & TP-30

These 12,000 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 standard equipment.



**TR-Series Ramp Style Lifts** 

Standard models from 25,000 up to 125,000 lbs. for total under-vehicle access.

Ramp lengths from 20' to 50'. Completely operated by a single technician, and features fully interlocked, redundant safety systems,

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