

MOHAWK

MADE IN THE USA



MODEL LMF-12

12,000 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

LMF-12-Master.doc

Rev Date 4/23/2002

Part #601-800-067

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

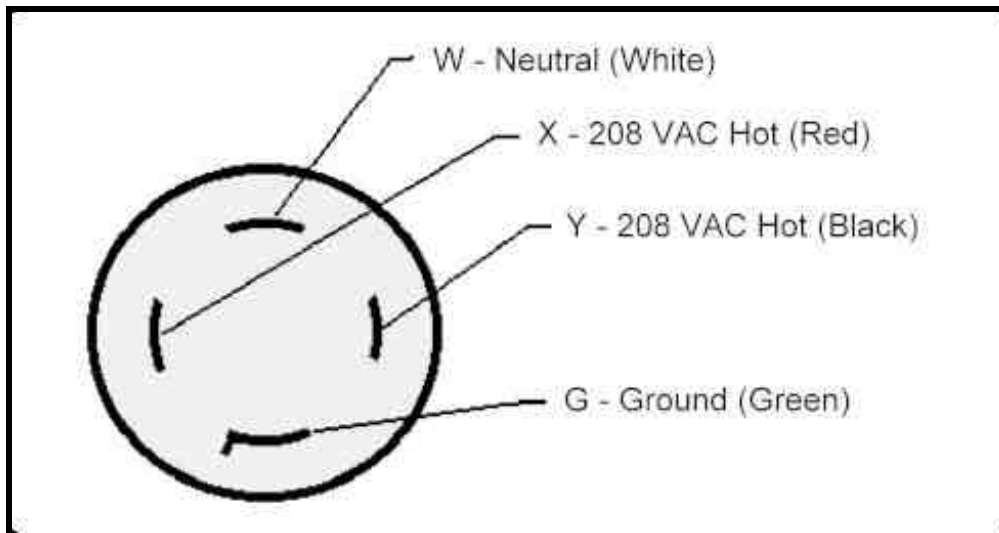
Cord Wiring: Use Female NEMA Plug supplied with lift and wire as follows (See Diagram Below),

G: Ground (green)

W: Neutral (white)

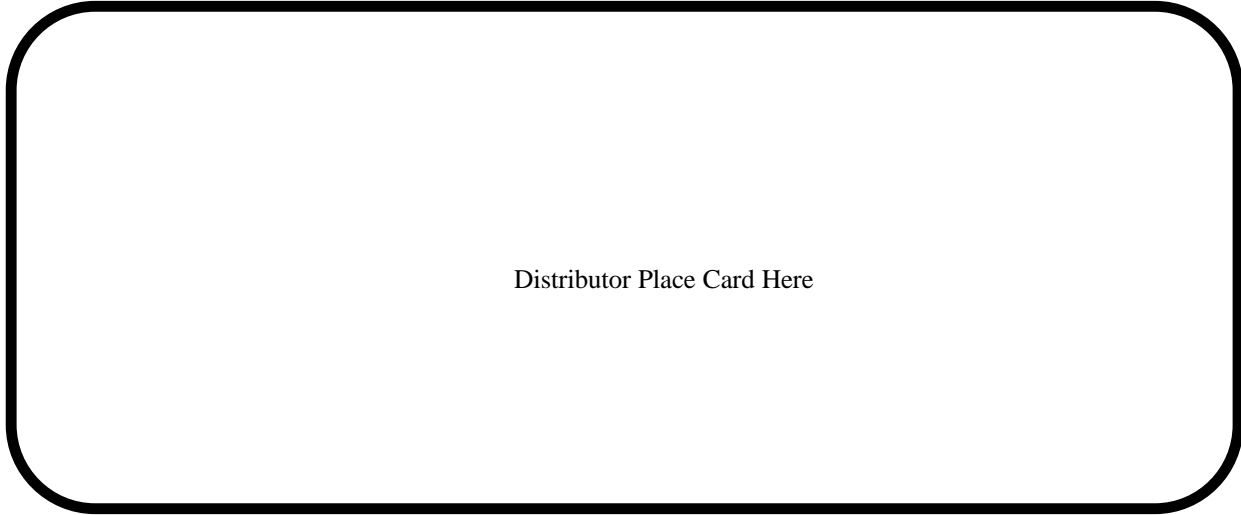
X: 208 VAC Hot, 110 VAC to ground (Red)

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.**



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.MOHAWKLIFTS.com

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 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.

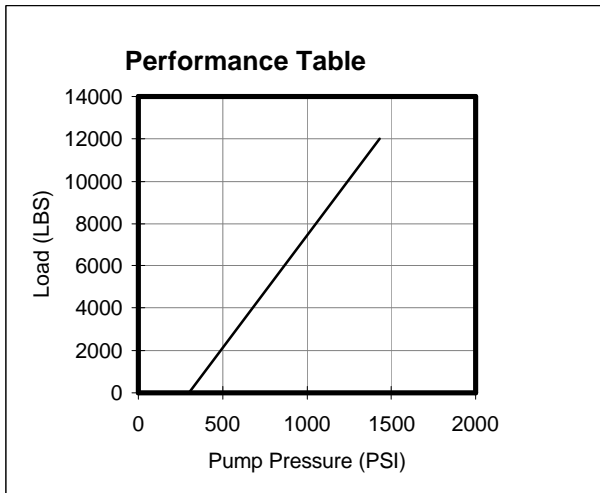
LMF-12 SPECIFICATIONS

LMF-12 SPECIFICATIONS

LIFT TYPE / TWO POST	ELECTRIC / HYDRAULIC
GROSS LIFTING CAPACITY	12,000 LBS.
PER ARM CAPACITY	3,000 LBS.
LIFTING SPEED APPROX.	120 SECONDS
LIFTING HEIGHT	72 INCHES
OVERALL WIDTH	151-1/2 INCHES
WIDTH BETWEEN POST	120 INCHES
WIDTH BETWEEN LIFTING ARMS	102 -7/8 INCHES
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-4509-0101
POWER UNIT TYPE	VERTICAL
MOTOR VOLTAGE	208 / 230
F.L.A. AT RATED CAPACITY	17.4 / 14.6
MOTOR HORSEPOWER	2
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	1650 P.S.I.
WORKING PRESSURE	1430 P.S.I.
RESERVOIR CAPACITY	5 GALLONS
HYDRAULIC FLUID MEDIUM	DEXRON III



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 DEPTH	DRILL SIZE	DRILL SIZE		TORQUE
			MIN.	MAX.	
6 1/4 IN.	6 1/4 IN.	3/4 IN.	.775 IN.	.787 IN.	80

PRE-EXISTING FLOOR REQUIREMENTS

MINIMUM THICKNESS	MINIMUM COMPRESSIVE STRENGTH	MINIMUM 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**

THICKNESS	SLAB SIZE WIDTH X LENGTH	CUBIC 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.

NEVER HAND MIX THE CONCRETE. REFER TO NEW SLAB RECOMMENDATIONS SECTION.

LMF-12 PACKING LIST***** ALSO SEE DRAWINGS MAN511, MAN512, & MAN513 IN PARTS MANUAL *****

ORDER NUMBER	PART NUMBER	PART DESCRIPTION	QTY.
	012-012-056	PARTS BOX #1 CONTENTS	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
	012-010-055	MANUAL ASSEMBLY (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 1/2 OD	6
623	007-007-075	SHIM BAG CONTENTS	
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. A NOTICEABLE INCREASE IN POWER UNIT VOLUME 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 STROKE 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.
- 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.

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.

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
3. 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)

1. RAISE A VEHICLE SO THAT ALL FOUR TIRES ARE OFF THE FLOOR.
2. MEASURE AND RECORD THE CARRIAGE HEIGHTS ON THE MAINSIDE AND OFFSIDE.
3. 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 ¼ 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.

POSSIBLE CAUSE	SOLUTION
NOT RAISING LOAD	
LOW HYDRAULIC FLUID LEVEL	LOWER UNIT. REMOVE RESERVOIR BREATHER CAP. FILL UNIT TO WITHIN 1/2 INCH BELOW PORT. USE DEXRON III TRANSMISSION / HYDRAULIC FLUID.
PRESSURE RELIEF ADJUSTMENT	REFER TO POWER UNIT SPECIFICATIONS. SEE FIGURE 12.
PRESSURE RELIEF CONTAMINATION	REFER TO POWER UNIT SPECIFICATIONS. REMOVE AND CLEAN DEBRIS FROM VALVE ASSEMBLY. SEE FIGURE 12.
VOLTAGE TO POWER UNIT	REFER TO POWER UNIT SPECIFICATIONS. CONSULT AN ELECTRICIAN
UNIT OVERLOADED	VEHICLE IS TO HEAVY TO BE RAISED
NOT LOWERING	
MECHANICAL LOCKS ENGAGED	RAISE UNIT. DISENGAGE MECHANICAL LOCKS.
UNIT UNEVEN (SIDE TO SIDE)	RAISE UNIT TO FULL HEIGHT TO EQUALIZE. THEN LOWER OR USE DIVERTER VALVE TO EQUALIZE
POSTS OUT OF SQUARE	VERIFY LEVEL ASSEMBLY. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. SEE FIGURE 5 & 6.
DEBRIS IN POSTS (TOOLS ETC.)	CLEAN UNIT
OBSTRUCTION UNDER VEHICLE OR LIFT	REMOVE OBSTRUCTION.
RAISING UNEVEN	
<u>RULE OF THUMB:</u> 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.	
AIR IN SYSTEM	BLEED UNIT. REFER TO BLEEDING PROCEDURES.
CARRIAGE BEARINGS CONTACTING CARRIAGE STOPS	CARRIAGE BEARINGS ON THE MAIN SIDE MUST NOT CONTACT CARRIAGE STOPS. (RESULT OF INCORRECT ADJUSTMENT OF NUTS ON LIFTING RODS.) SEE FIGURE 7.
POSTS OUT OF SQUARE	VERIFY LEVEL ASSEMBLY. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. SEE FIGURE 5 & 6.
SHOP FLOOR UNEVEN	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	
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..
EXTERNAL HYDRAULIC LEAKS	
NOTE: TIGHTEN 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.
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 LMF-12

SERIAL NUMBER: _____

DATE OF INSTALLATION: _____

DATE	PART REPLACED / SERVICED	SERVICE COMPANY	SERVICED BY

MAINTENANCE CHART

DATE	MAINTENANCE PERFORMED	SERVICE COMPANY	SERVICED BY

MOHAWK

MODEL LMF-12

FIGURES & DIAGRAMS



MOHAWK RESOURCES LTD.

65 VROOMAN AVE.

AMSTERDAM, NY 12010

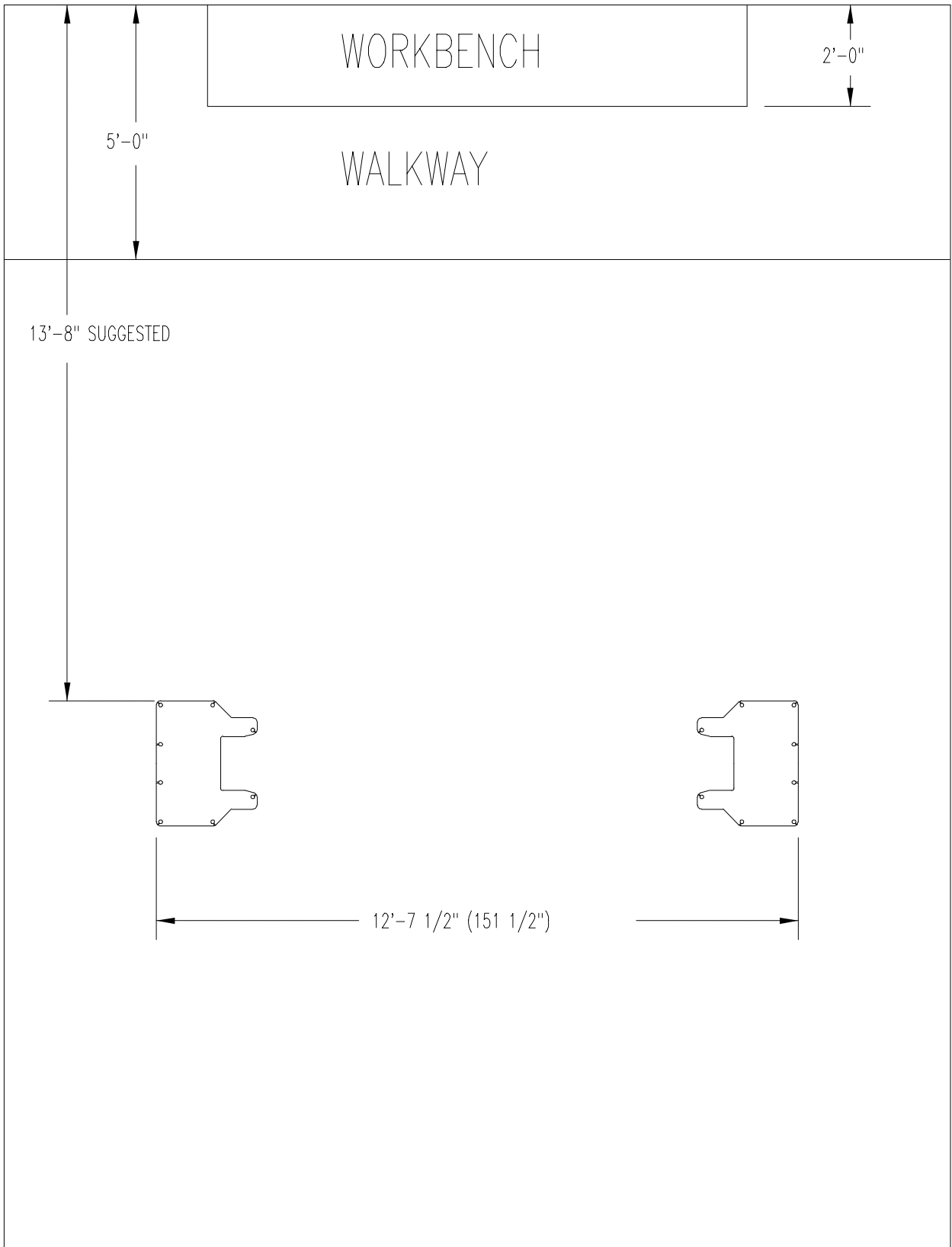
TOLL FREE: 1-800-833-2006

LOCAL: 1-518-842-1431

FAX: 1-518-842-1289

INTERNET: WWW.MOHAWKLIFTS.COM

E-MAIN: SERVICE@MOHAWKLIFTS.COM



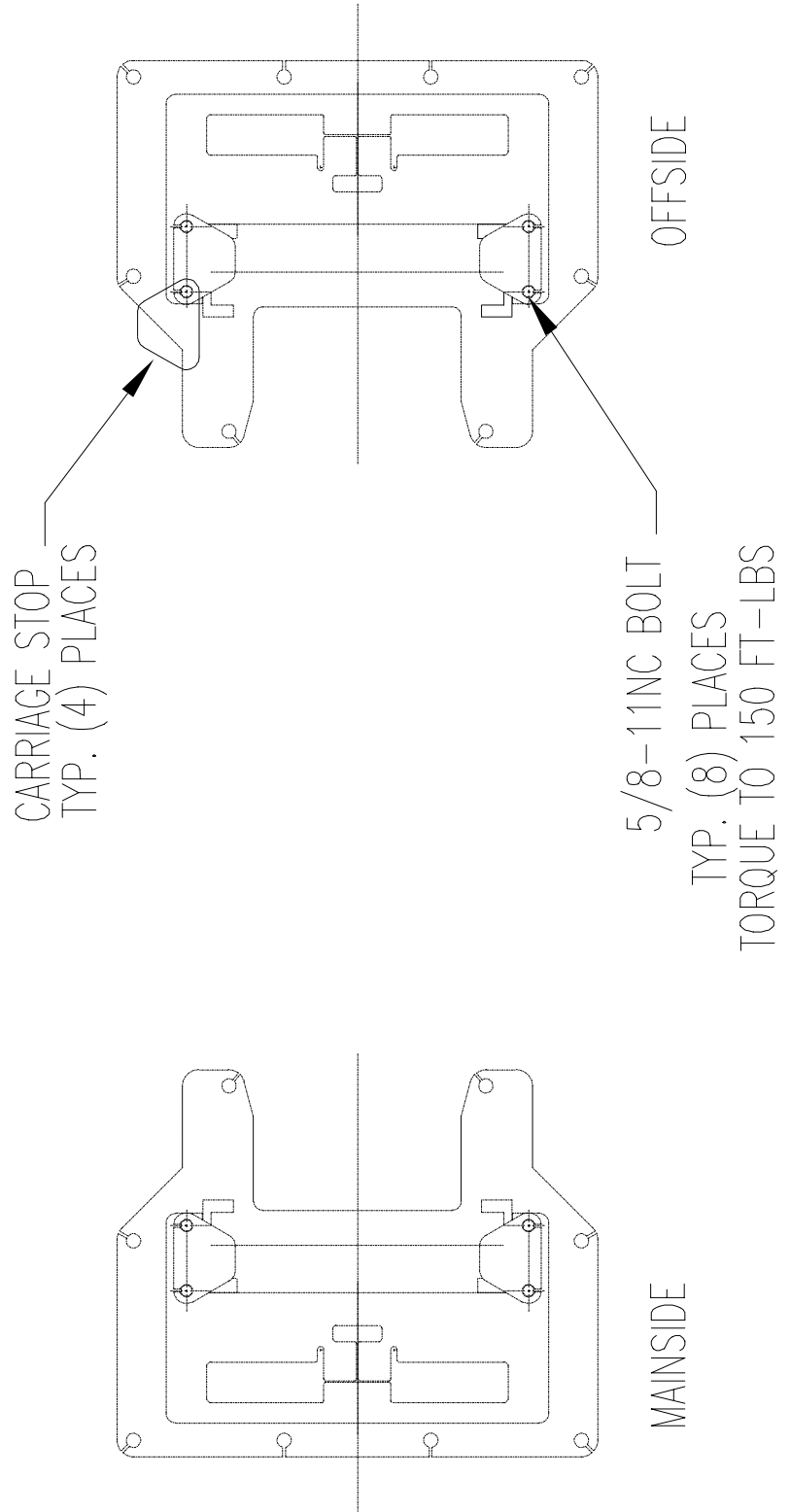
BAY SIGHT LAYOUT

Figure 1

MAN514

—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



**DO NOT USE
IMPACT WRENCH**

USE HAND WRENCH ONLY

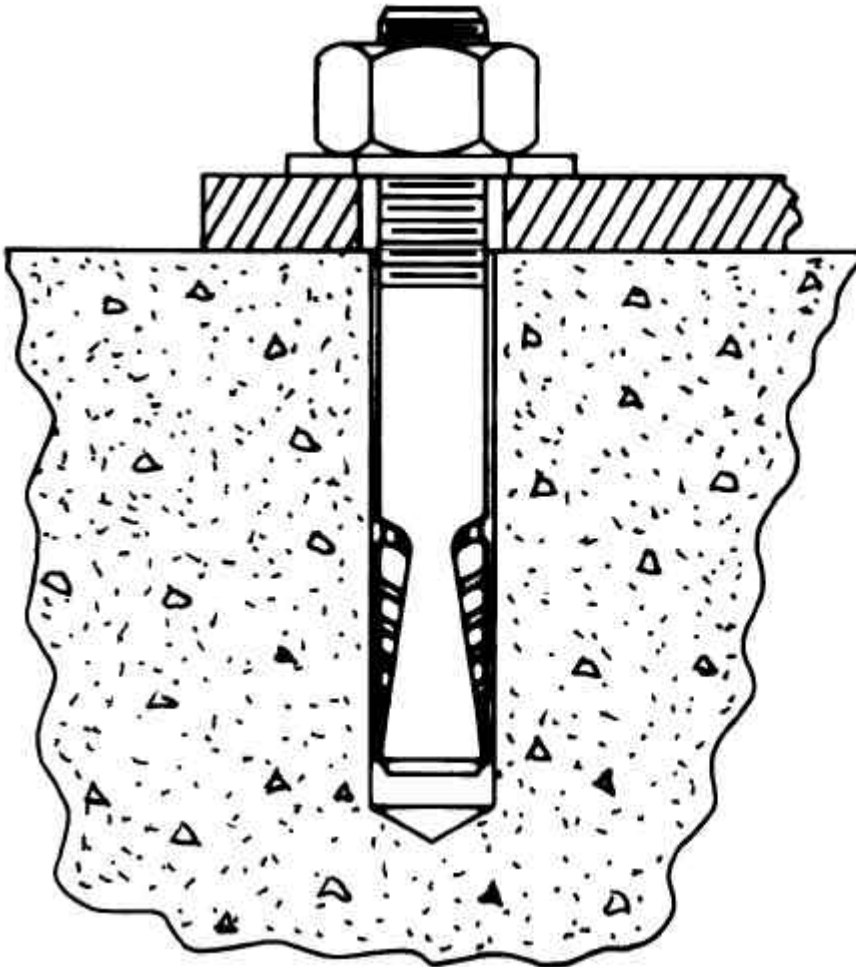
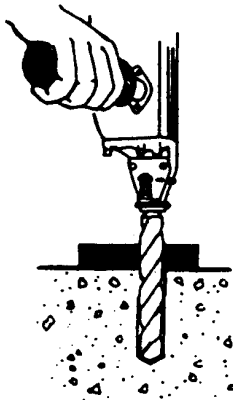
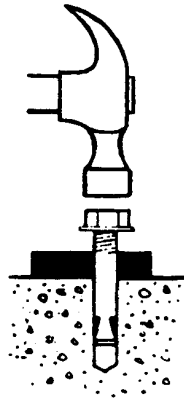


Figure 3

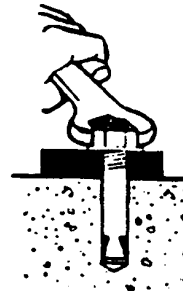
Quick, Easy Installation



1.
Drill hole to depth equal to length of Wej-it.



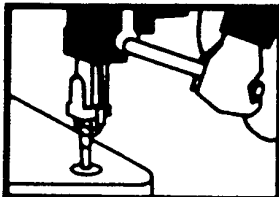
2.
Insert Wej-it so that washer rests against fixture.



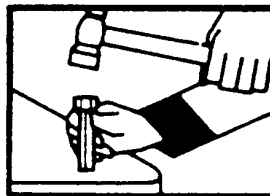
3.
Tighten nut, two-to-three full turns.

Installation Procedure

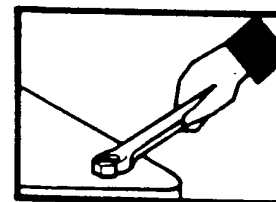
1. Wear safety glasses as a good practice.
2. Use solid, carbide-tipped drill bits manufactured to ANSI B94 Standard tolerances on the tip ends as follows:



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.
6. 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 DIAMETER	FULL TURNS OF NUT	TORQUE FOOT POUNDS
3/4	2 - 3	60 - 80

EITHER METHOD SHOULD PRODUCE COMPARABLE RESULTS UNDER MOST FIELD CONDITIONS.

Figure 4

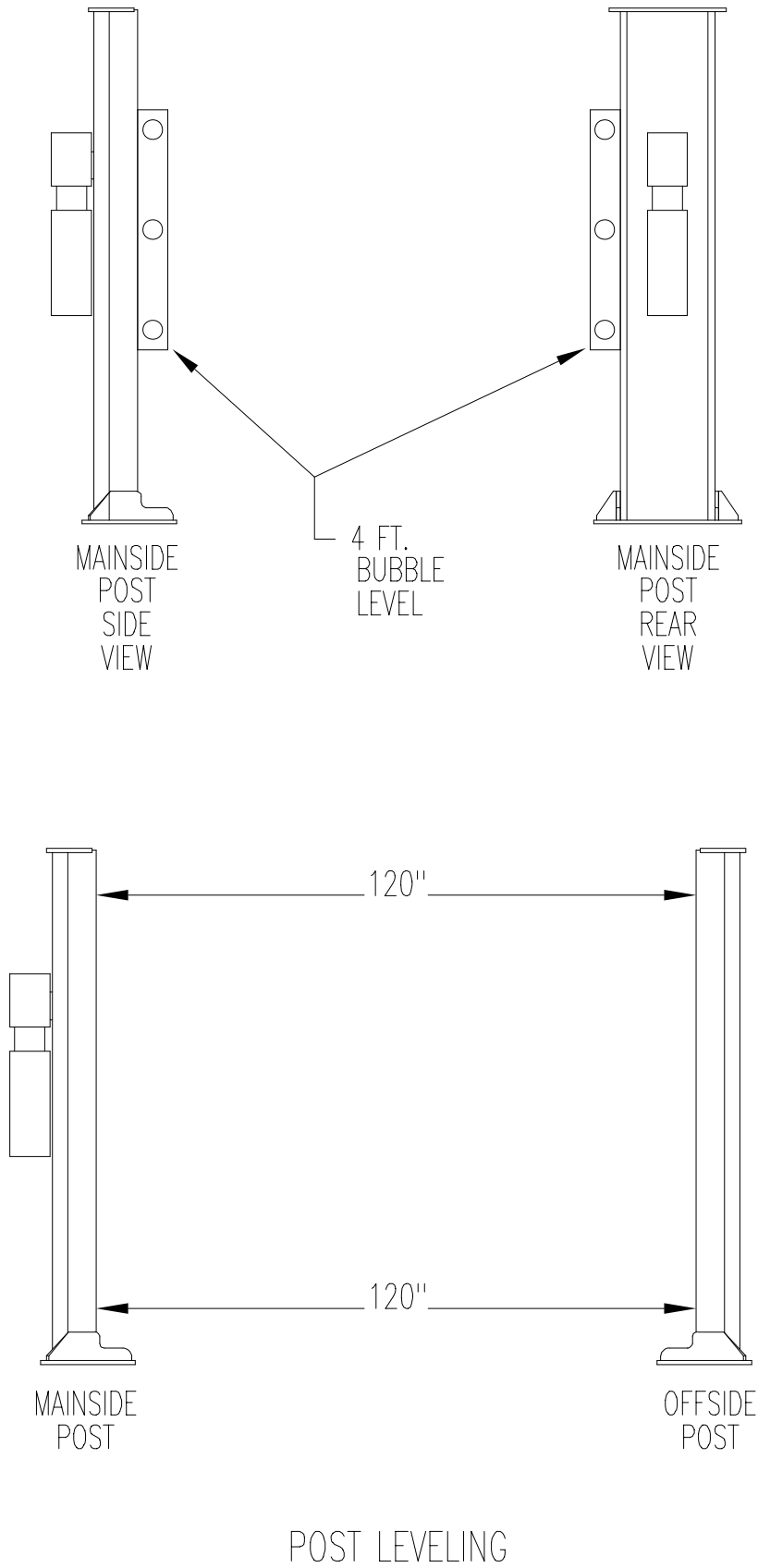


Figure 5

MAN234F

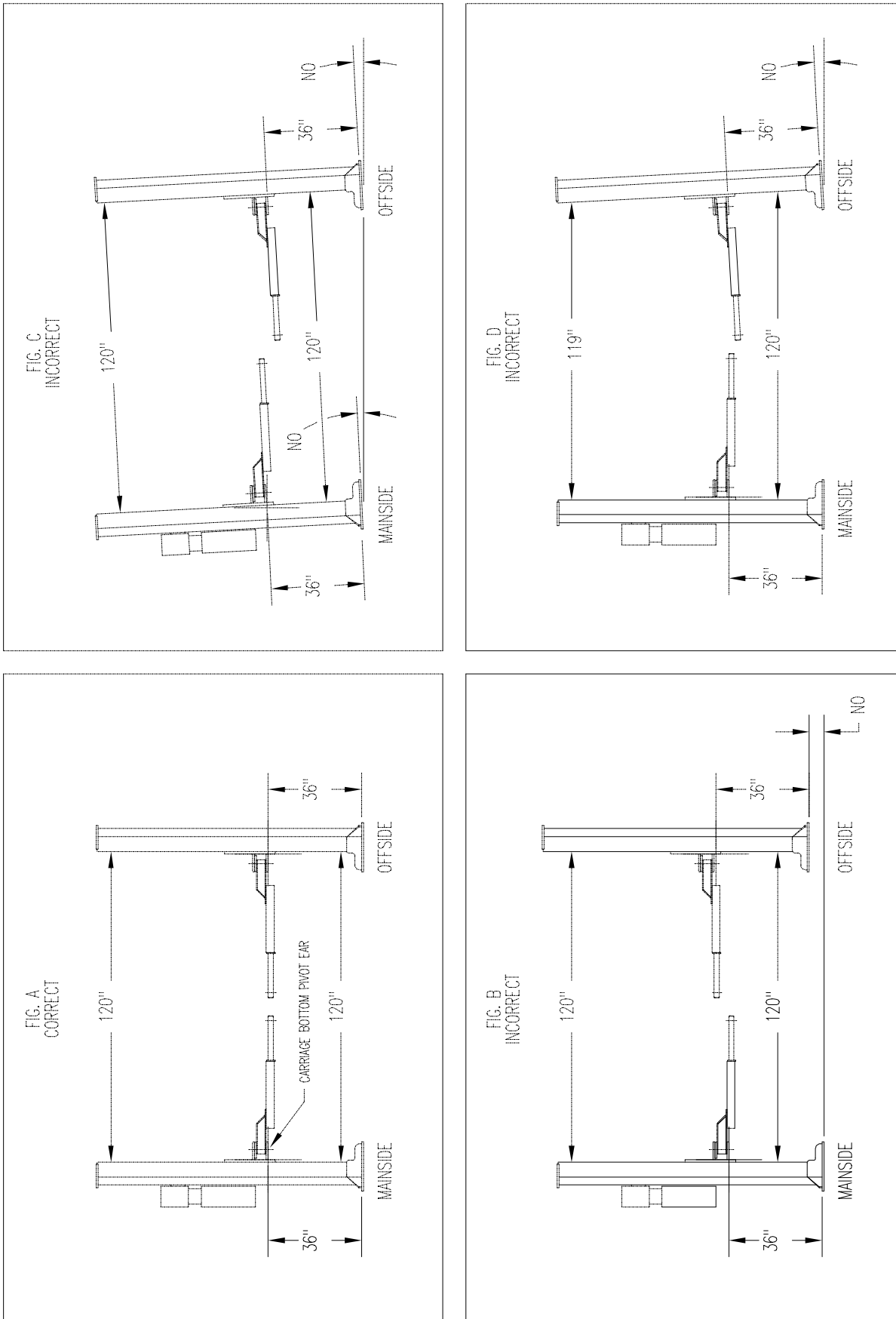
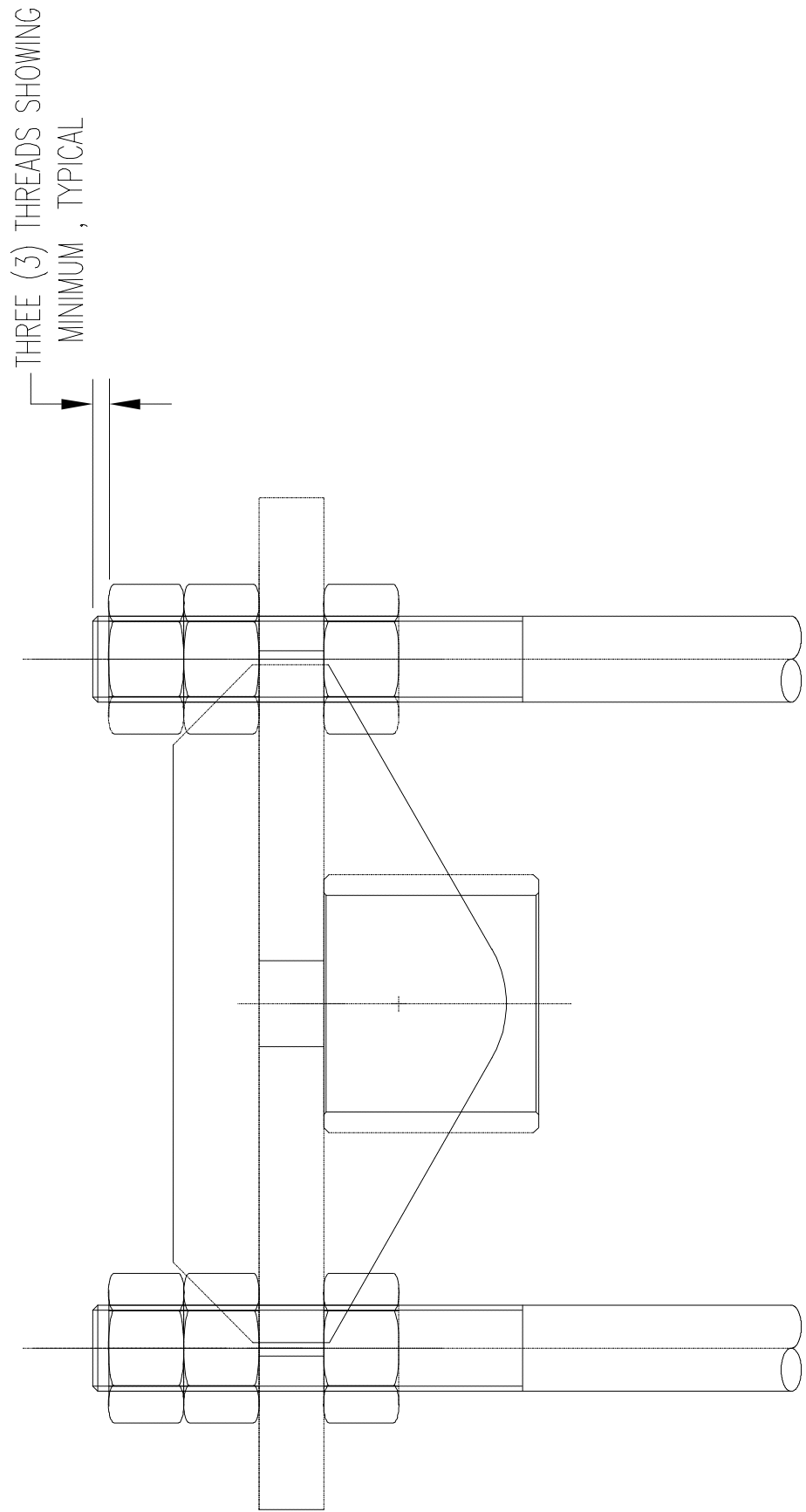


Figure 6

MAN234C

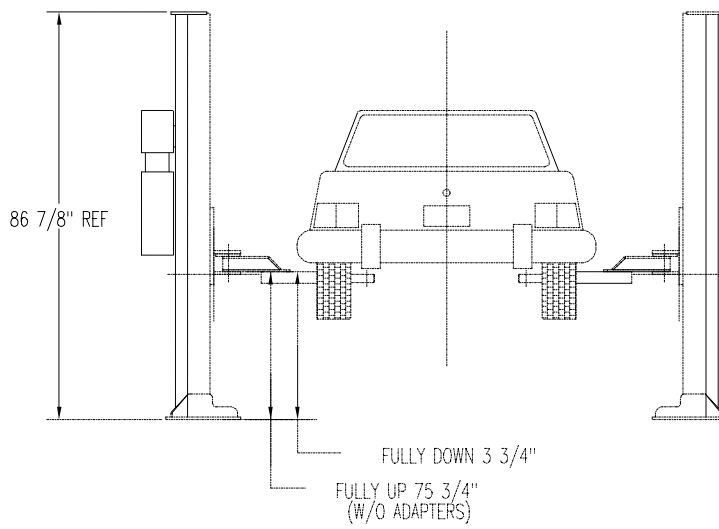
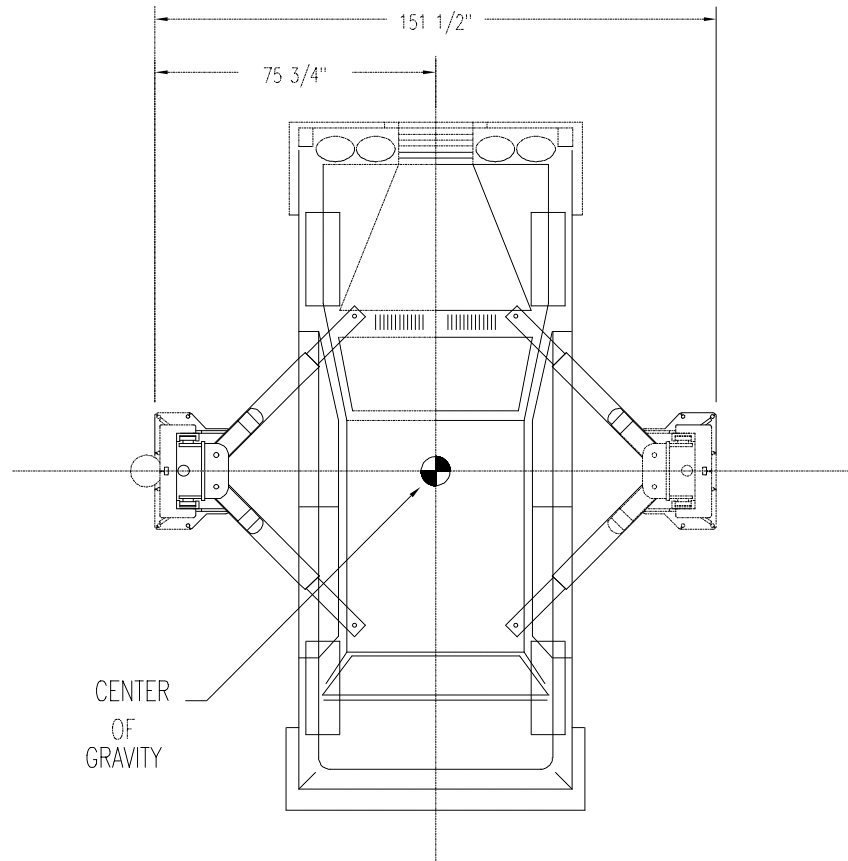
POST SHIMMING

ADJUSTING CARRIAGE NUTS



MAN517

Figure 7



LMF-12 & TP-15
MAN516

Figure 8

THE DIFFERENCE IN THE HEIGHT OF THE SWING ARMS IS NOTED
ONLY AFTER THE CYLINDERS AND POSTS HAVE BEEN PROPERLY SHIMMED

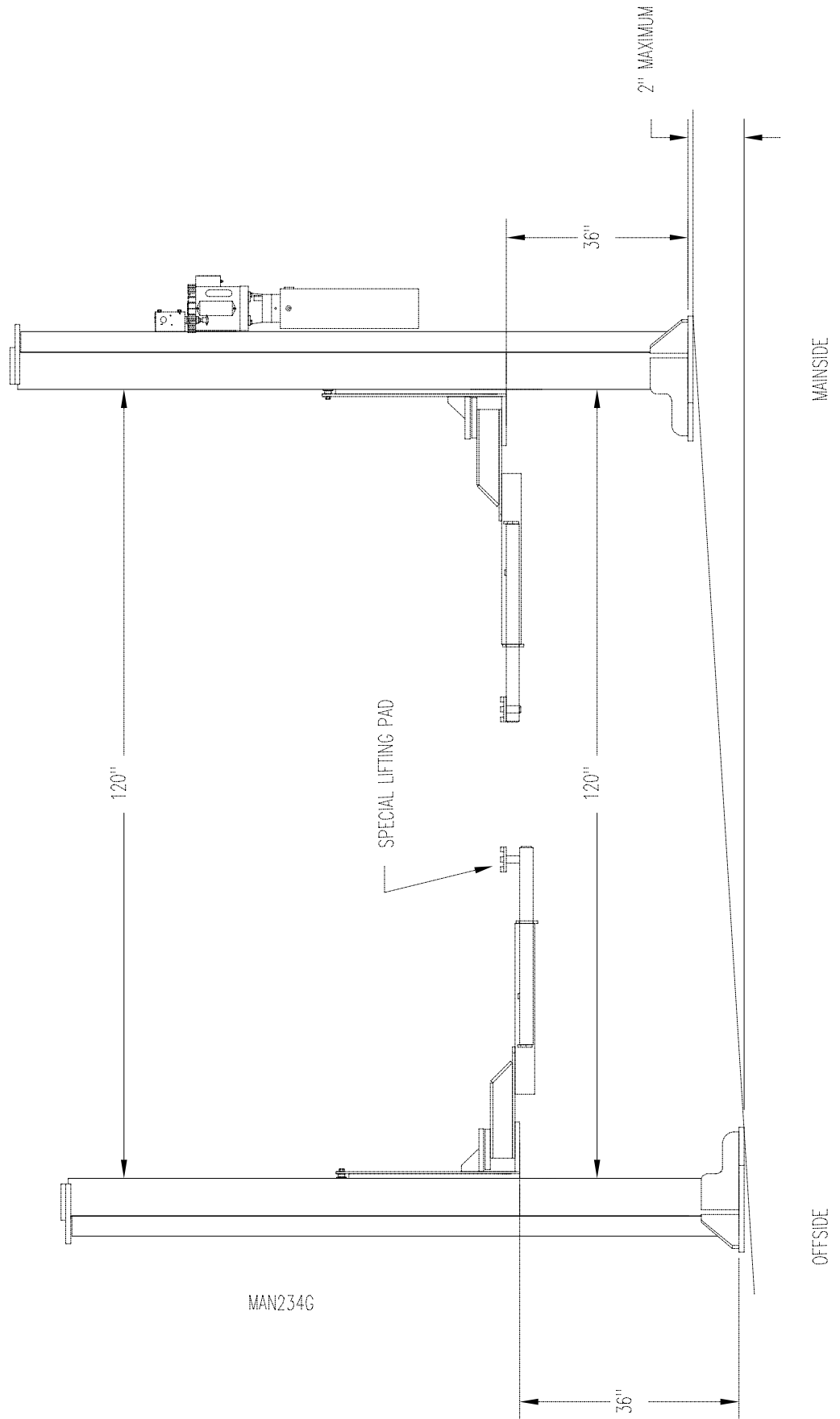
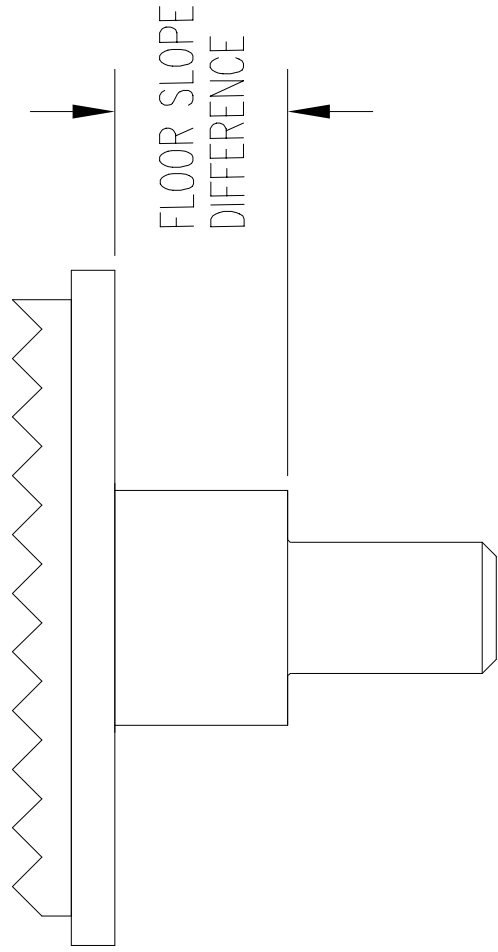
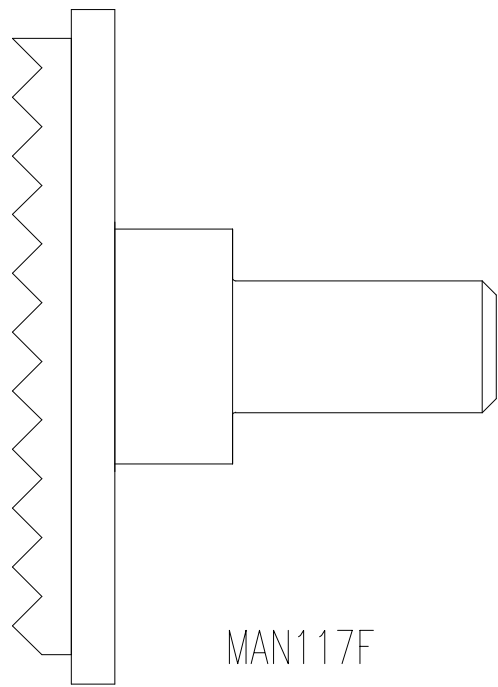


Figure 9



SPECIAL LIFTING PAD



STANDARD LIFTING PAD

MAN117F

Figure 10



MADE FOR
MOHAWK

Dyna-Pack® **M-4509**
MOHAWK: **601-300-046**

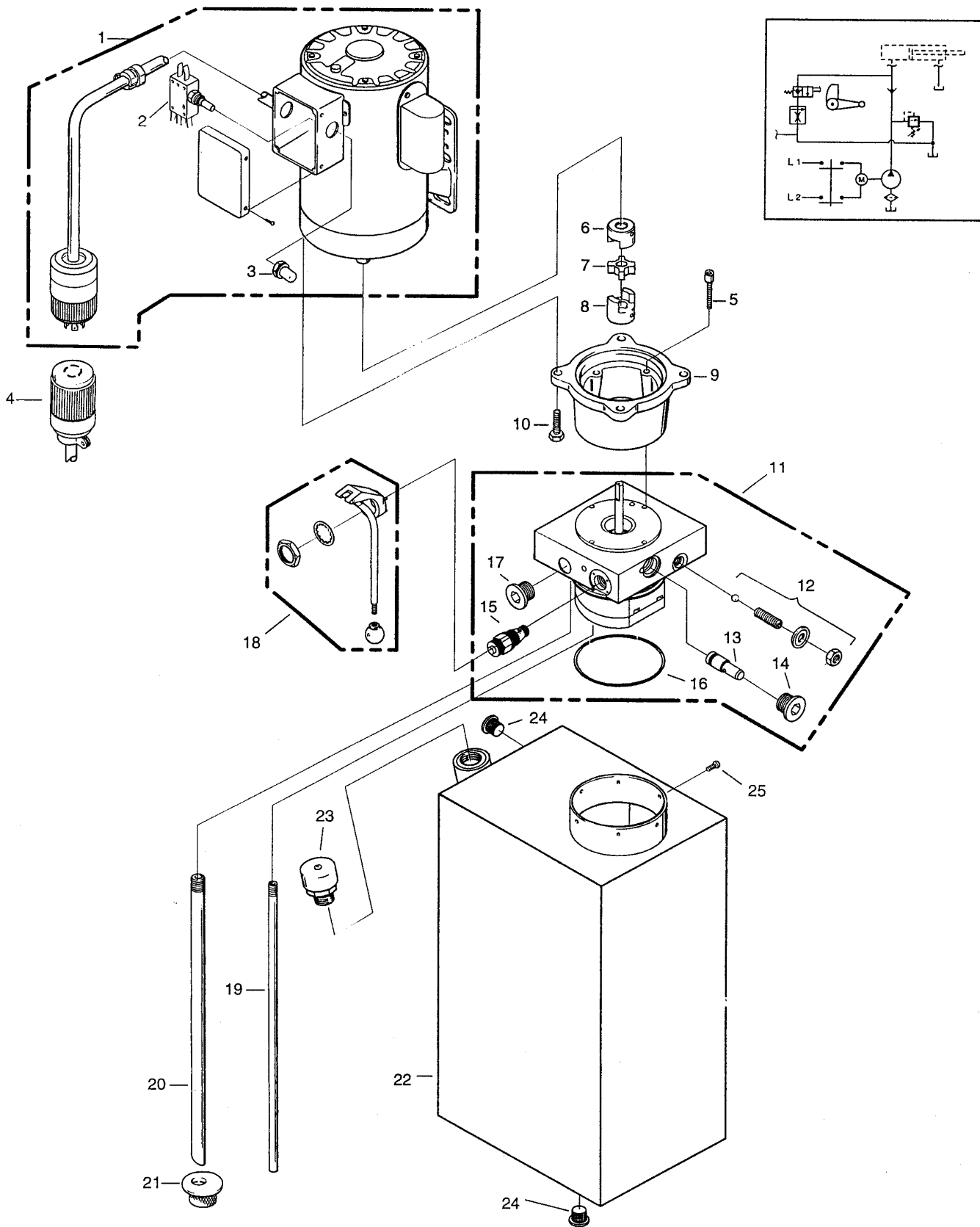


Figure 11

M-4509 / 601-300-046

Ref. No.	Part No.	Description	No. Req.	Ref. No.	Part No.	Description	No. Req.
1	08177	MOTOR, Electric, 5/8" Shaft, AC, 2 hp	1	14	03274	• PLUG	1
	13000	• SWITCH, Limit, 25 amps, 2 pole	1	15	10802	• VALVE, Manual	1
3	03230	• BOOT, Rubber, weather proof, limit switch (used with 13000)	1	16	02352	• O-RING, Industrial (3-5/8" x 3-7/8" x 1/8")	1
4	00694	PLUG, Turnlock, female	1	17	03276	• PLUG, 9/16-18 (#6 SAE)	1
5	07760	SCREW, Socket Head Cap 1/4-20 x 1" (used with 1605 permanent casting housing)	4	18	10803	HANDLE, Assembly	1
6	01139	COUPLING, 5/8" Bore 3/16" Keyway (motor side)	1	19	01479-21.00	TUBE, Return 1/8 NPT Plastic	1
7	01603	COUPLING SPIDER, 33/64" Bore	1	20	01459-18.00	TUBE, Filter Suction 3/8 NPT Plastic	1
8	01189	COUPLING, 1/2" Bore	1	21	01134	SCREEN, Filter (suction)	1
9	01605	HOUSING, Pump/Motor Adapter (2-5/32" long)	1	22	04869	RESERVOIR, Vertical	1
10	07817	SCREW, Hex Head Cap 3/8-16 x 7/8"	4	23	01143	PLUG, Vent (plastic)	1
11	12036	PUMP ASSEMBLY	1	24	03276	PLUG, 9/16-18 (#6 SAE)	2
12	07527	• PARTS KIT, Adjustable Relief Valve	1	25	07703	SCREW, Thread Forming 10-24 x 3/8"	6
13	01723-2.75	• VALVE, PCFC	1				



U.S.A.:
MONARCH HYDRAULICS, INC.
 P.O. Box 1764, Grand Rapids, MI 49501-1764, U.S.A.
 1303 Michigan St NE, Grand Rapids, MI 49503, U.S.A.
 Telephone: (616) 458-1306
 Telefax: (616) 458-1616
<http://www.monarchhyd.com>

Form No. 2362-98

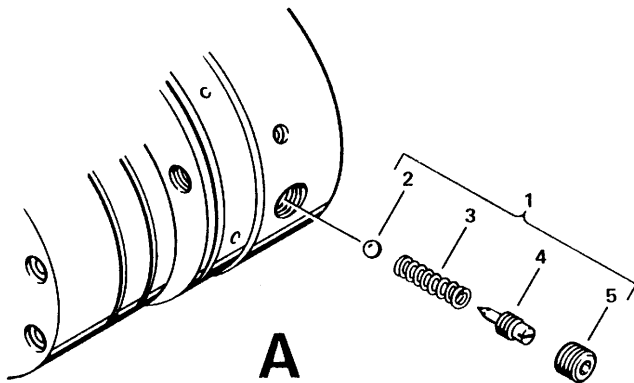
CANADA:
FLUID-PACK INTERNATIONAL LIMITED
 A Part of the Monarch Hydraulics Group
 460 Newbold St., London, Ontario, Canada N6E 1K3
 Telephone: (519) 686-5900
 Telefax: (519) 686-8976

Litho in U.S.A.

Figure 11A



RELIEF VALVE ADJUSTMENT PROCEDURE



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

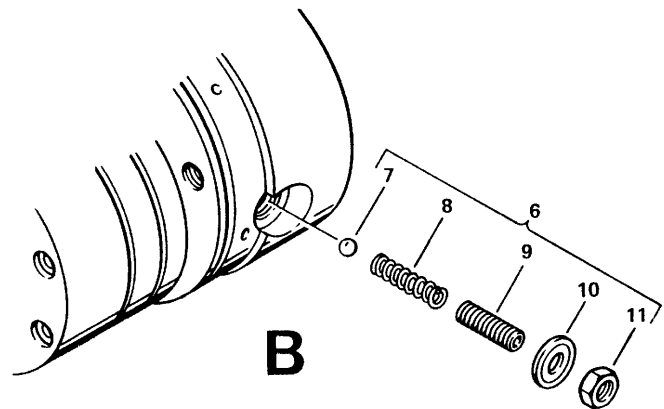
1. REMOVE FLUSH PLUG.
2. TURN SCREW CLOCKWISE TO INCREASE PRESSURE.
3. TURN SCREW COUNTER-CLOCKWISE TO DECREASE PRESSURE.

NOTE

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

4. REINSTALL FLUSH PLUG.

Ref. No.	Part No.	Description	No. Req.
1	02222	PARTS KIT, Relief Valve	1
2	00012	• BALL, 1/4" DIA., chrome, steel	1
3	02221	• SPRING, Relief Valve (Std.)	1
	00147	• SPRING, Relief Valve, 2,500 PSI & up (opt.)	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.

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

Figure 12

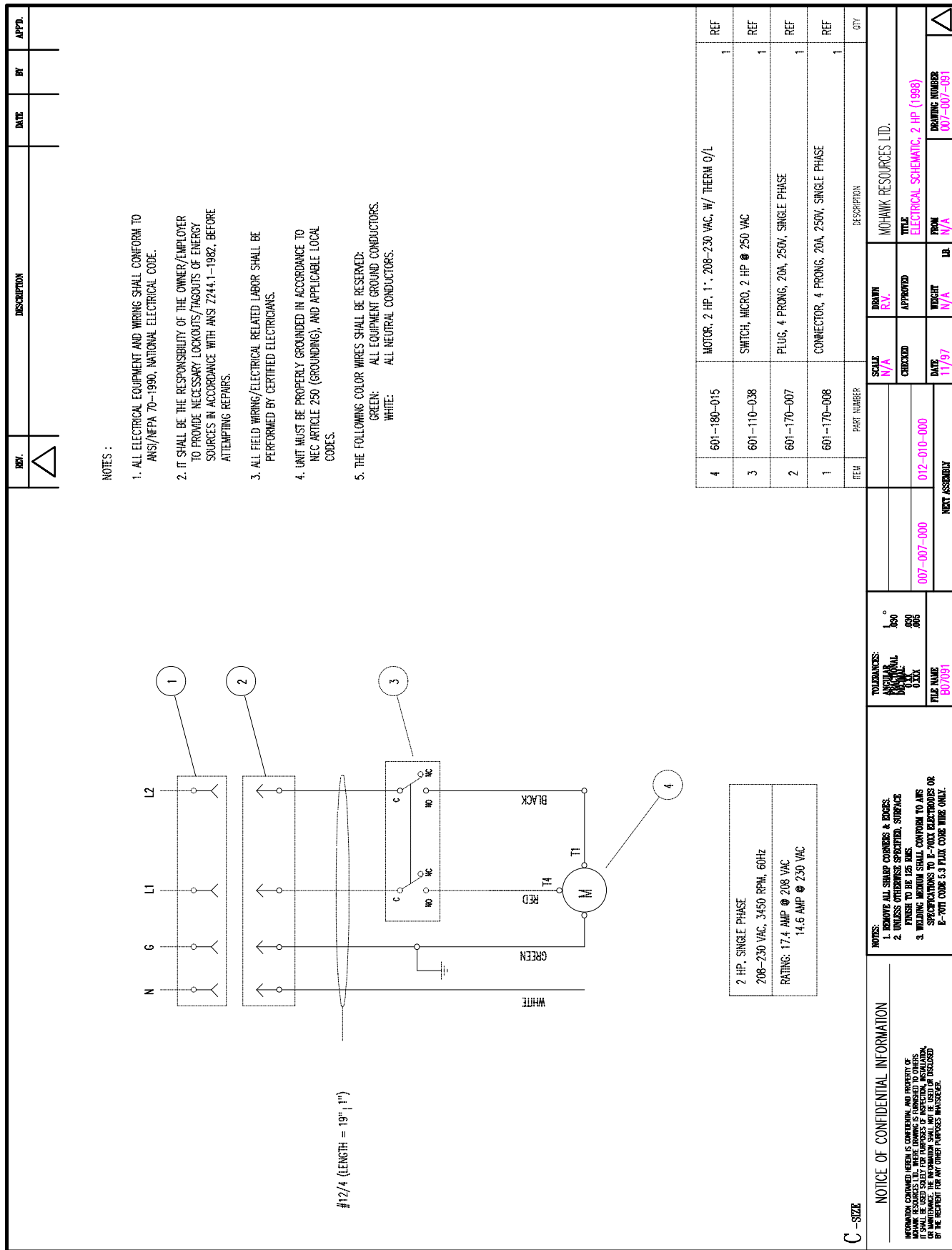


Figure 13

MOHAWK

MODEL LMF-12

PARTS MANUAL



MOHAWK RESOURCES LTD.

65 VROOMAN AVE.

AMSTERDAM, NY 12010

TOLL FREE: 1-800-833-2006

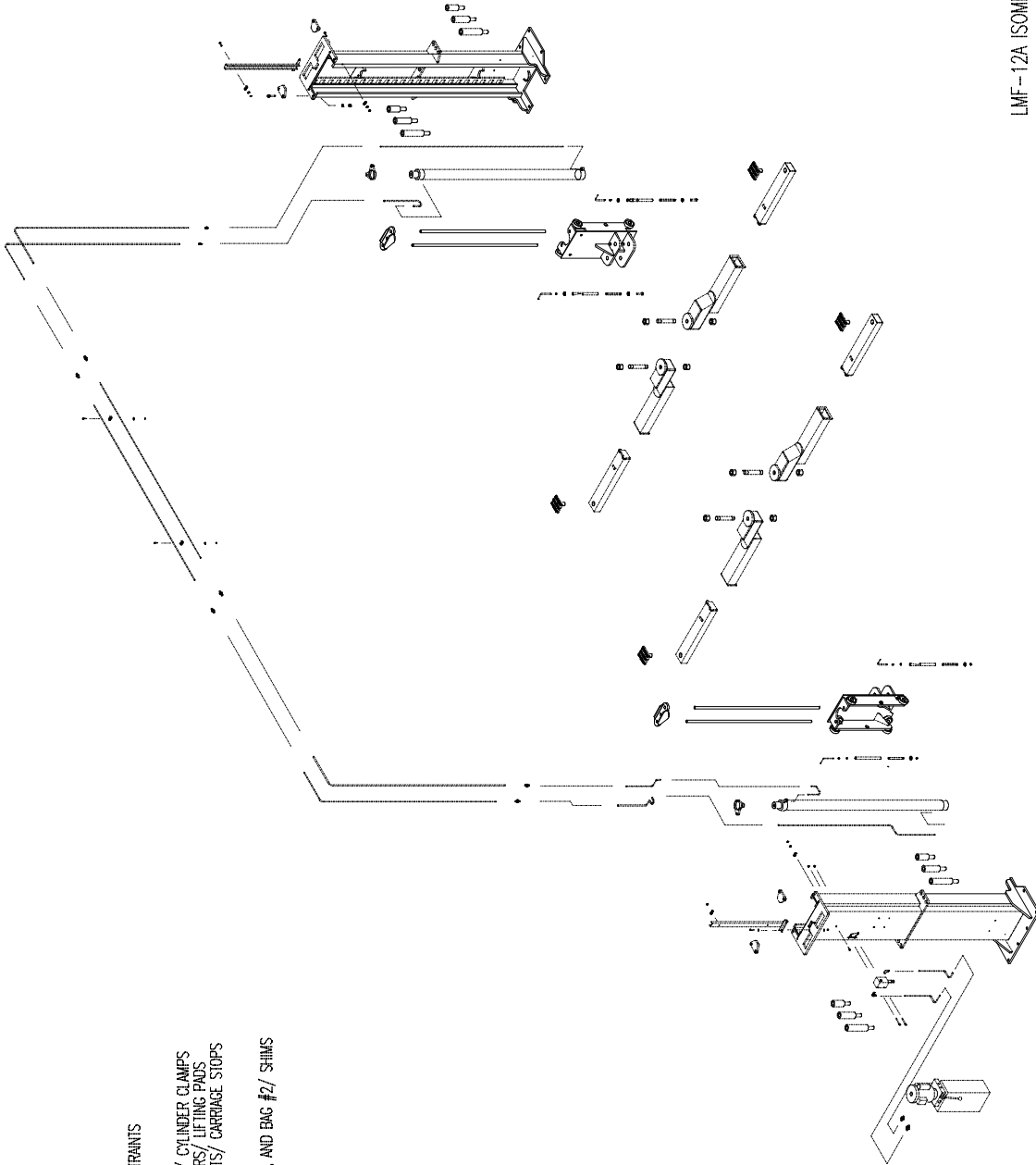
LOCAL: 1-518-842-1431

FAX: 1-518-842-1289

INTERNET: WWW.MOHAWKLIFTS.COM

E-MAIN: SERVICE@MOHAWKLIFTS.

MAN450
REV A 2/99



- MAN450-A LMF-12A MANSIDE ASSEMBLY
- MAN450-B LMF-12A OFFSIDE ASSEMBLY
- MAN451 HYDRAULIC SYSTEM
- MAN458 TAG & DECAL LOCATION
- MAN462 PARTS BOX #1
- MAN502 CARRIAGE ASSEMBLY/ ARM RESTRAINTS
- MAN503 LATCH BODY ASSEMBLY
- MAN504 DIVERTER VALVE ASSEMBLY
- MAN505 HEIGHT ADAPTERS & BRACKETS/ CYLINDER CLAMPS
- MAN506 CARRIAGE/ SWING ARMS/ SLIDERS/ LIFTING PADS
- MAN507 LEG WELDMENTS/ LINE SUPPORTS/ CARRIAGE STOPS
- MAN509 MANSIDE CYLINDER
- MAN510 OFFSIDE CYLINDER
- MAN511 SMALL PARTS BOX & CONTENTS, AND BAG #2/ SHIMS
- MAN513 PARTS BOX #2

LMF-12A ISOMETRIC FINAL ASSEMBLY

FILE: MAN450
DATE: 8/98

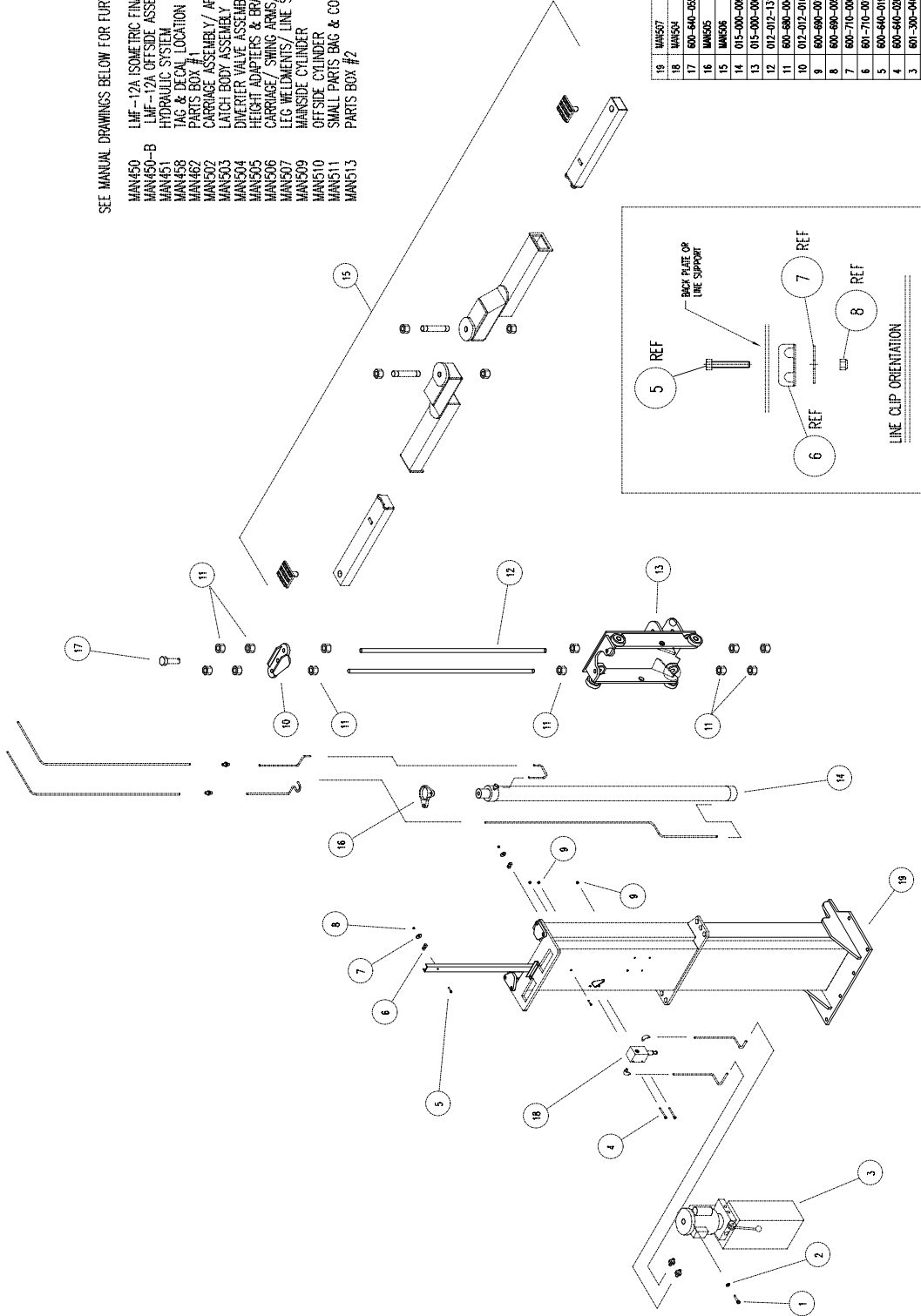
MAN450-A

REV-C 10/01

MOHAWK MODEL LMF-12

SEE MANUAL DRAWINGS BELOW FOR FURTHER INFORMATION

- MAN450 LMF-12A ISOMETRIC FINAL ASSEMBLY
- MAN450-B LMF-12A OFFSIDE ASSEMBLY
- MAN451 HYDRAULIC SYSTEM
- MAN458 TAG & OSCAL LOCATION
- MAN462 PARTS BOX #1
- MAN502 CARRIAGE ASSEMBLY/ ARM RESTRAINTS
- MAN503 LATCH BODY ASSEMBLY
- MAN504 DIVERTER VALVE ASSEMBLY
- MAN505 HEIGHT ADAPTERS & BRACKETS/ CYLINDER CLAMPS
- MAN506 CARRIAGE / SWING ARMS/ SLIDERS/ LIFTING PADS
- MAN507 LEG WELDMENTS/ LINE SUPPORTS/ CARRIAGE STOPS
- MAN509 MAINSIDE CYLINDER
- MAN510 OFFSIDE CYLINDER
- MAN511 SMALL PARTS BAG & CONTENTS, AND BAG #2/ SHIMS
- MAN513 PARTS BOX #2



QTY	PART NUMBER	DESCRIPTION
1	MAN507	LEG WELDMENTS/ LINE SUPPORTS/ CARRIAGE STOPS
1	MAN504	DIVERTER VALVE ASSEMBLY
1	600-640-055	BOLT, 1-1/4 NF x 2 1/2, HEX HEAD CAP
1	MAN505	HEIGHT ADAPTERS & BRACKET/ CYLINDER CLAMPS
1	MAN506	CARRIAGE / SWING ARMS/ SLIDERS/ LIFTING PADS
1	015-000-009	MAINSIDE CYLINDER
1	015-000-006	MAINSIDE CYLINDER
2	012-012-131	LIFTING ROD, 1" DIA x 62 1/8
1	600-680-004	NUT, PLAIN, 1-1/4 NF
12	012-012-016	YONE WELDMENT, MAINSIDE
1	600-680-001	NUT, LOCK, 5/16-18 NC
6	600-680-005	NUT, LOCK, 1/4-20 NC
2	600-710-006	WASHER, FLAT (FENDER) 5/16 DIA x 1 1/2 OD
2	600-710-001	DOUBLE LINE CLIP
2	600-640-019	BOLT, 1/4-20 NC x 1 1/2, HEX HEAD CAP
2	600-640-020	BOLT, 5/16-18 NC x 3 1/2, HEX HEAD CAP
1	600-300-046	POWER UNIT, 2 HP, SINGLE PHASE, SQ WINK
4	600-710-003	WASHER, DIA. 5/16
4	600-640-001	BOLT, 5/16-18 NC x 1", HEX HEAD CAP
QTY		

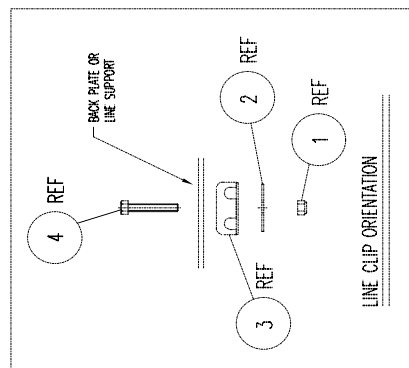
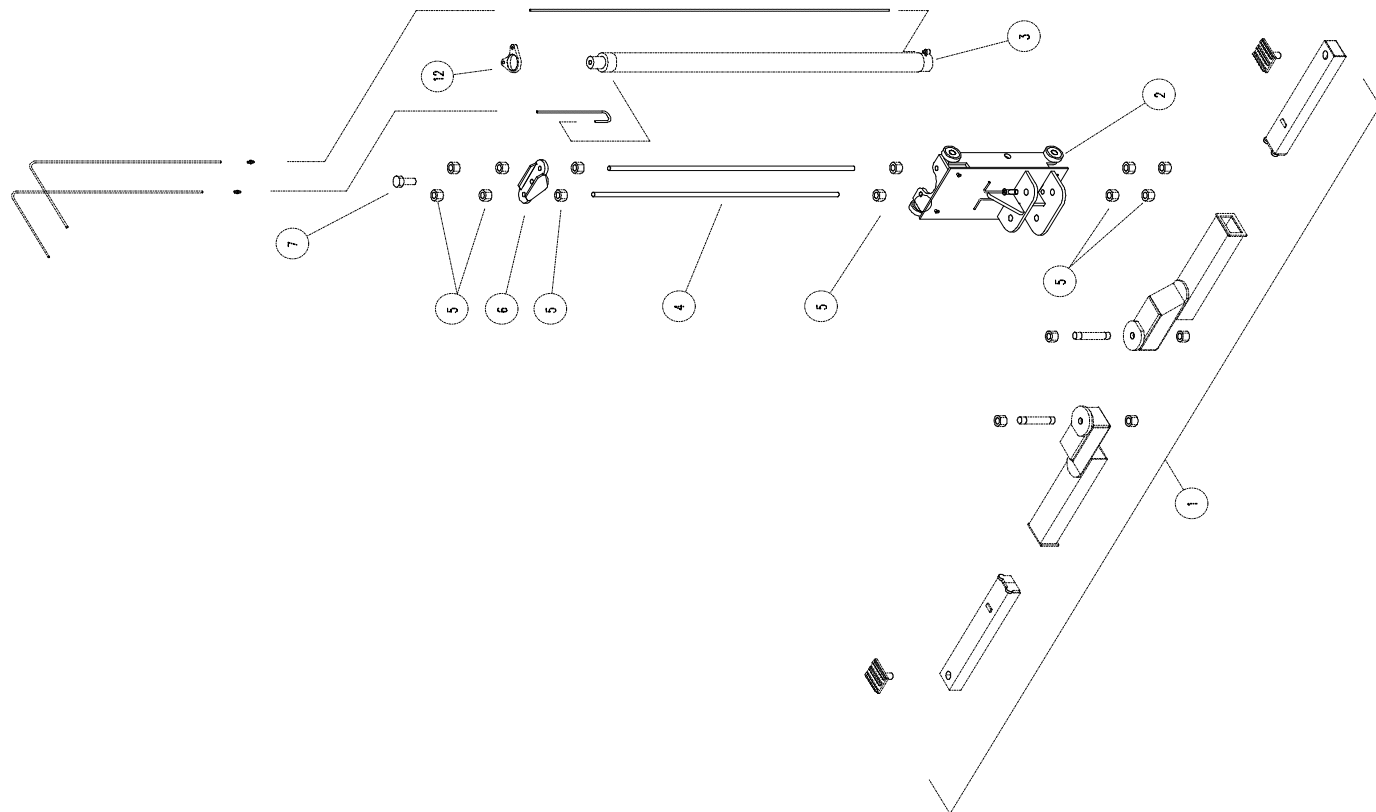
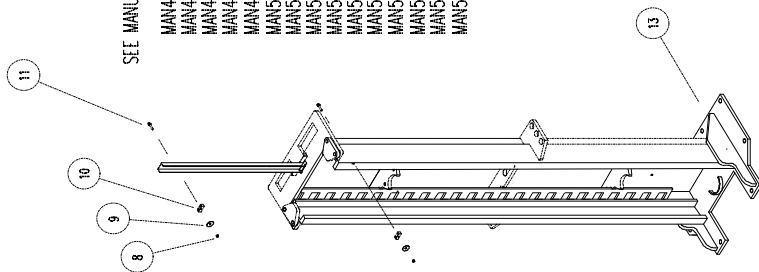
FILE: MAN450-A
DATE: 8/98

LMF-12A MAINSIDE ASSEMBLY

MAN450-B
REV-C 10/01

SEE MANUAL DRAWINGS BELOW FOR FURTHER INFORMATION

- MAN450 LMF-12A ISOMETRIC FINAL ASSEMBLY
- MAN450-A LMF-12A MAINSIDE ASSEMBLY
- MAN451 HYDRAULIC SYSTEM
- MAN458 TAG & DECAL LOCATION
- MAN462 PARTS BOX #1
- MAN502 CARRIAGE ASSEMBLY/ ARM RESTRAINTS
- MAN503 LATCH BODY ASSEMBLY
- MAN504 DIVERTER VALVE ASSEMBLY
- MAN505 HEIGHT ADAPTERS & BRACKETS/ CYLINDER CLAMPS
- MAN506 CARRIAGE/ SWING ARMS/ SLIDERS/ LIFTING PADS
- MAN507 CARRIAGE/ SWING ARMS/ LINE SUPPORTS/ CARRIAGE STOPS
- MAN509 MAINSIDE CYLINDER
- MAN510 OFFSIDE CYLINDER
- MAN511 SMALL PARTS BAG & CONTENTS, AND BAG #2/ SHIMS
- MAN513 PARTS BOX #2

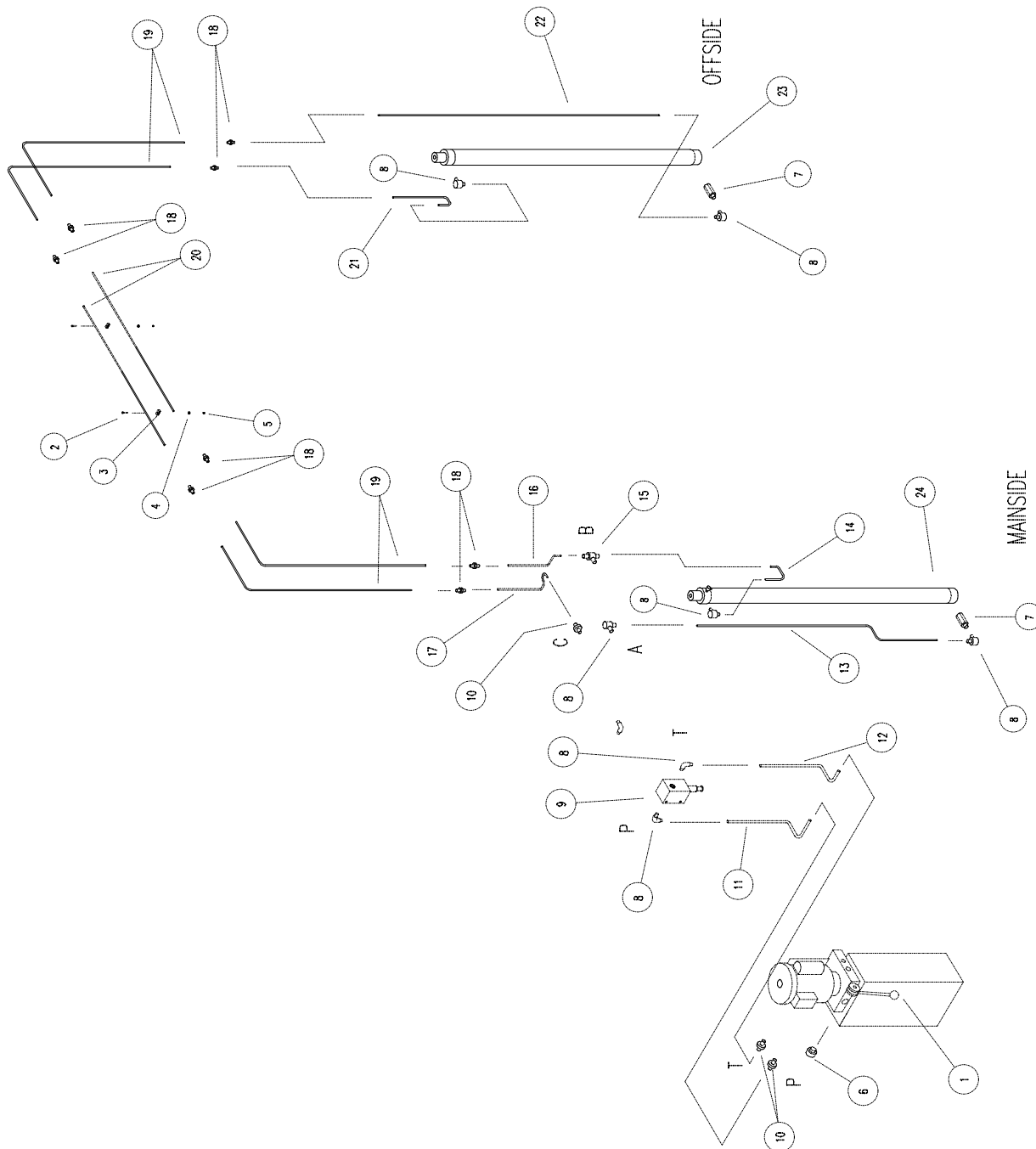


ITEM	PART NUMBER	DESCRIPTION	QTY
13	MAN507	LEG WELDMENT/LINE SUPPORT/CARRIAGE STOPS	1
12	MAN506	HEIGHT ADAPTERS & BRACKET	1
11	600-640-019	BOLT, 1/4"-20 NC x 1 1/2, HEX HEAD CAP	2
10	601-710-001	DOUBLE LINE CLIP	2
9	600-710-006	WASHER, FLAT (FENDER) 5/16 ID x 1 1/2 OD	2
8	600-680-005	MIT. LOCK, 1/4"-20 NC	2
7	600-640-055	BOLT, 1-1/4 NF x 2 1/2, HEX HEAD CAP	1
6	012-012-009	YOKE WELDMENT, OFFSIDE	1
5	600-680-004	MIT. PLAIN, 1-1/4 NF	12
4	012-012-131	LIFTING ROD, 1" DIA x 62 1/8	2
3	015-000-010	OFFSIDE CYLINDER	1
2	015-000-006	CARRIAGE ASSEMBLY	1
1	MAN506	CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS	1

LMF-12A OFFSIDE ASSEMBLY

MAN451

REV C 10/01



QTY	PART NUMBER	DESCRIPTION
1	601-300-046	POWER UNIT, 2 HP, 1", SQUARE IMK
2	600-600-019	HOSE, 1/4-20 NC x 1 1/2'
3	600-710-001	DOUBLE END CLIP
4	600-710-006	WASHER, FLAT (FENDER) 5/16 B x 1 1/2 OD
5	600-694-005	WHT. LOCK, 1/4-20 NC
6	601-310-005	BROKHER CAP
7	601-410-031	VALVE, VELOCITY ROSE, 4 GPH
8	601-420-017	ELBOW, 90°, 1/2 ORB TO 1/2 JC
9	601-410-030	DIVERTER VALVE
10	601-420-019	STRAIGHT, 1/2 ORB TO 1/2 JC
11	015-000-025	TUBING ASSEMBLY, 23 3/4"
12	015-000-024	TUBING ASSEMBLY, 23 3/4"
13	012-012-070	TUBING ASSEMBLY, 80"
14	012-012-068	TUBING ASSEMBLY, 13"
15	601-420-046	TEE, BRANCH, 1/2 JC TO 1/2 JC TO 1/2 ORB
16	012-012-065	TUBING ASSEMBLY, 18 1/2"
17	012-012-069	TUBING ASSEMBLY, 22 1/2"
18	601-420-011	STRAIGHT, 1/2 JC TO 1/2 JC
19	012-012-071	TUBING ASSEMBLY, 100"
20	000-001-001	TUBING ASSEMBLY, 100"
21	012-012-027	TUBING ASSEMBLY, 24 3/4"
22	000-001-023	TUBING ASSEMBLY, 91"
23	015-000-010	OFFSIDE CYLINDER ASSEMBLY
24	015-000-009	MANSIDE CYLINDER ASSEMBLY

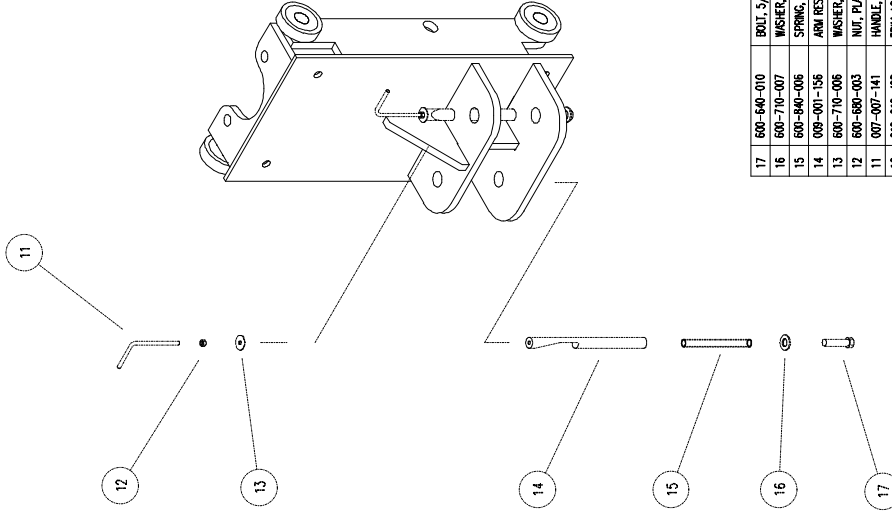
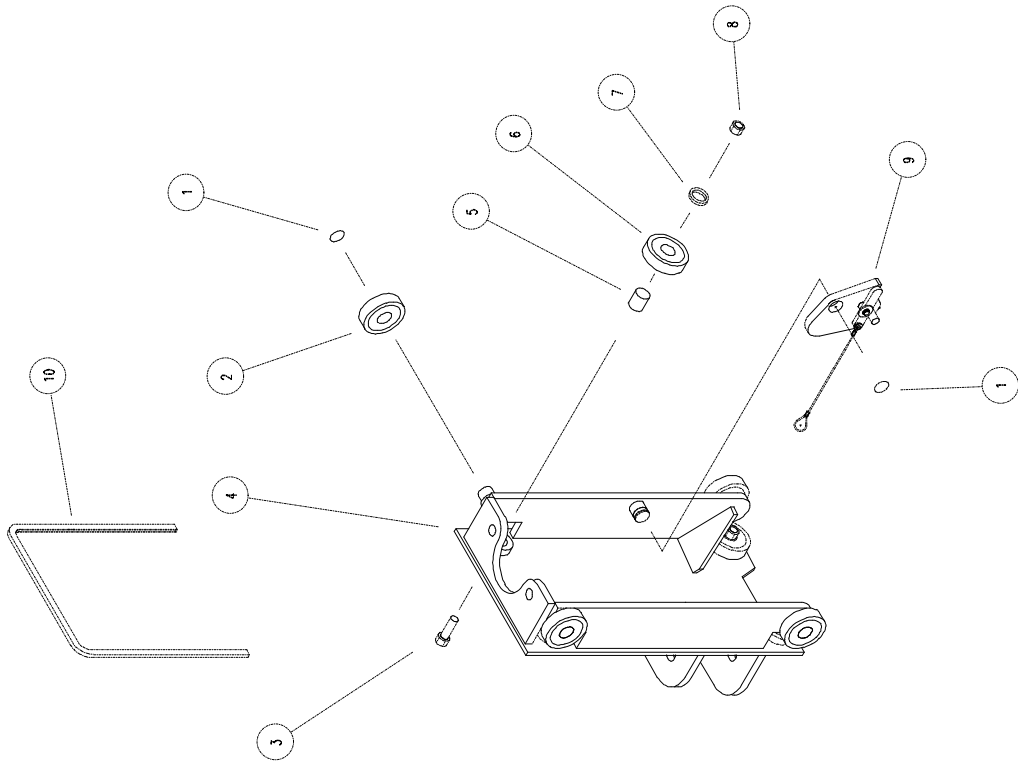
LMF-12A HYDRAULIC SYSTEM

FILE: MAN451
DATE: 8/98

MAN502

REV-B 6/99

OFFSIDE CARRIAGE ASSEMBLY SHOWN
 MAINSIDE QUANTITIES & PART NUMBERS ARE THE SAME



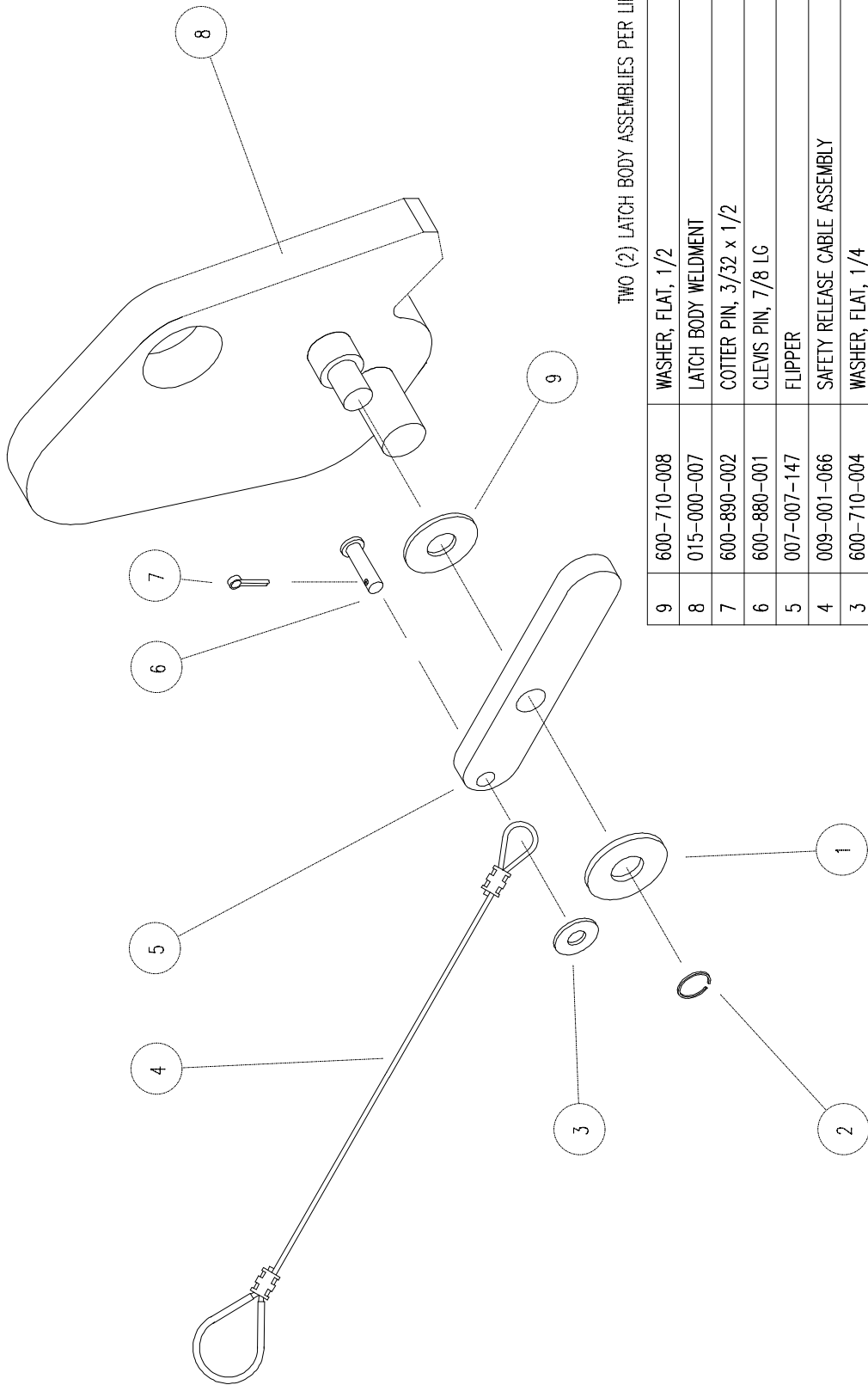
ITEM	PART NUMBER	DESCRIPTION	QTY
17	600-640-010	BOLT, 5/8"-11 NC x 2 1/2"	2
16	600-710-007	WASHER, FLAT, 5/8"	2
15	600-640-006	SPRING, 1 11/32 OD x 7 3/32 FL	2
14	009-001-156	ARM RESTRAINT, 1" DIA x 12 1/4 LG	2
13	600-710-006	WASHER, FLAT, FENDER, 5/16"	2
12	600-880-003	NUT, PLAIN, 5/16"-18 NC	2
11	007-007-141	HANDLE, 5/16 DIA x 8" LG	2
10	012-012-408	TRIM-LOCK, 5/16 LG	1
9	015-000-008	LATCH BODY ASSEMBLY	1
8	600-680-003	NUT, LOCK, 3/4"-16 NF	4
7	600-710-001	WASHER, FLAT, 3/4"	4
6	600-880-012	CARRIAGE BEARING, 4"	4
5	012-012-152	BEARING PROT, 1 5/8 DIA	4
4	012-012-005	CARRIAGE WELDMENT	1
3	600-640-011	BOLT, 3/4"-16 NF x 3 1/2"	4
2	600-880-015	HEAVY DUTY BEARING	4
1	600-870-001	SWAP RING, 1 3/8"	5

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

FILE: MAN502
 DATE: 5/96

MAN503

REV-C 6/99



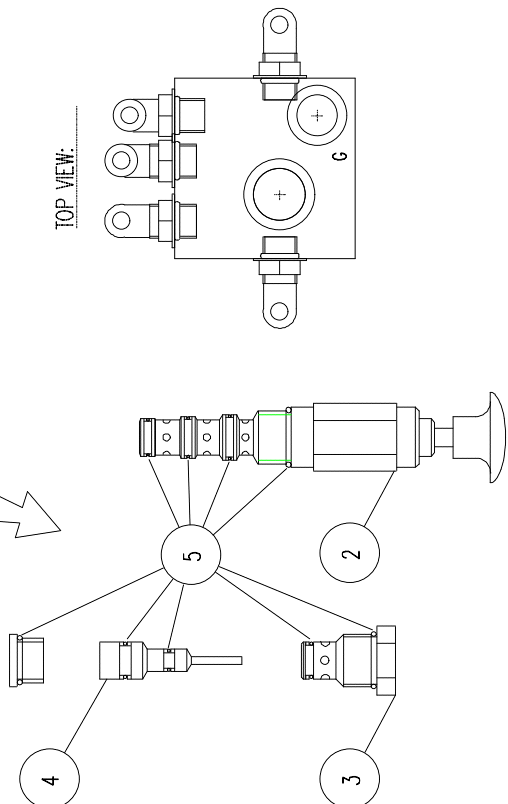
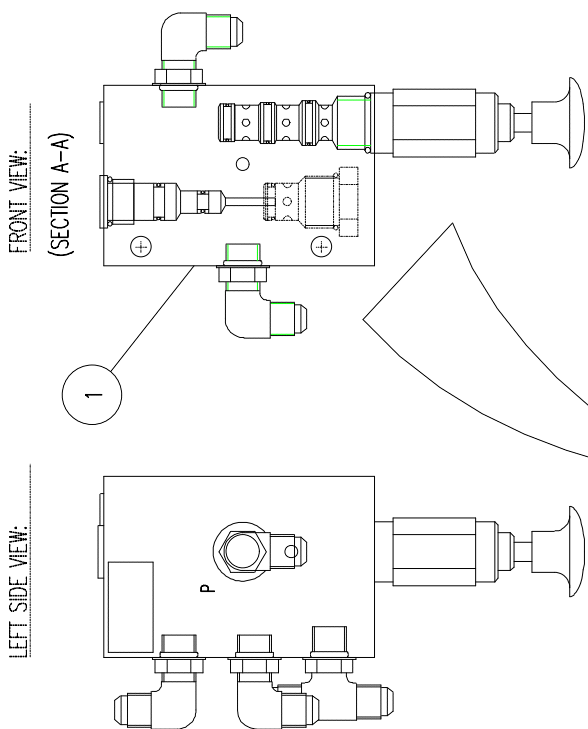
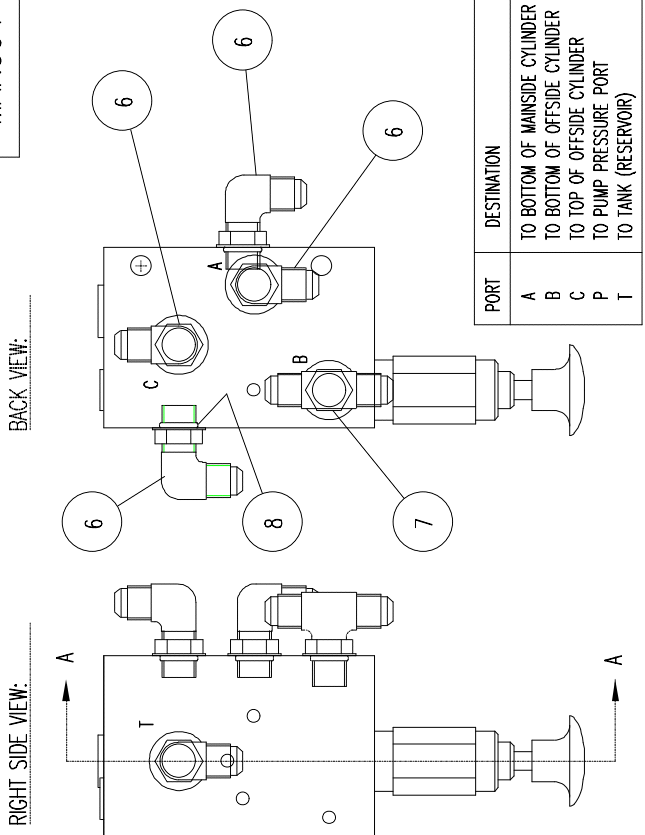
TWO (2) LATCH BODY ASSEMBLIES PER LIFT

ITEM	PART NUMBER	DESCRIPTION	QTY
9	600-710-008	WASHER, FLAT, 1/2	1
8	015-000-007	LATCH BODY WELDMENT	1
7	600-890-002	COTTER PIN, 3/32 x 1/2	1
6	600-880-001	CLEVIS PIN, 7/8 LG	1
5	007-007-147	FLIPPER	1
4	009-001-066	SAFETY RELEASE CABLE ASSEMBLY	1
3	600-710-004	WASHER, FLAT, 1/4	1
2	600-870-003	SNAP RING, 1/2	1
1	600-710-005	WASHER, FLAT, 7/16	1

LMF-12A & TP-15 LATCH BODY ASSEMBLY
(015-000-008)

FILE: MAN503
DATE: 5/96

MAN504

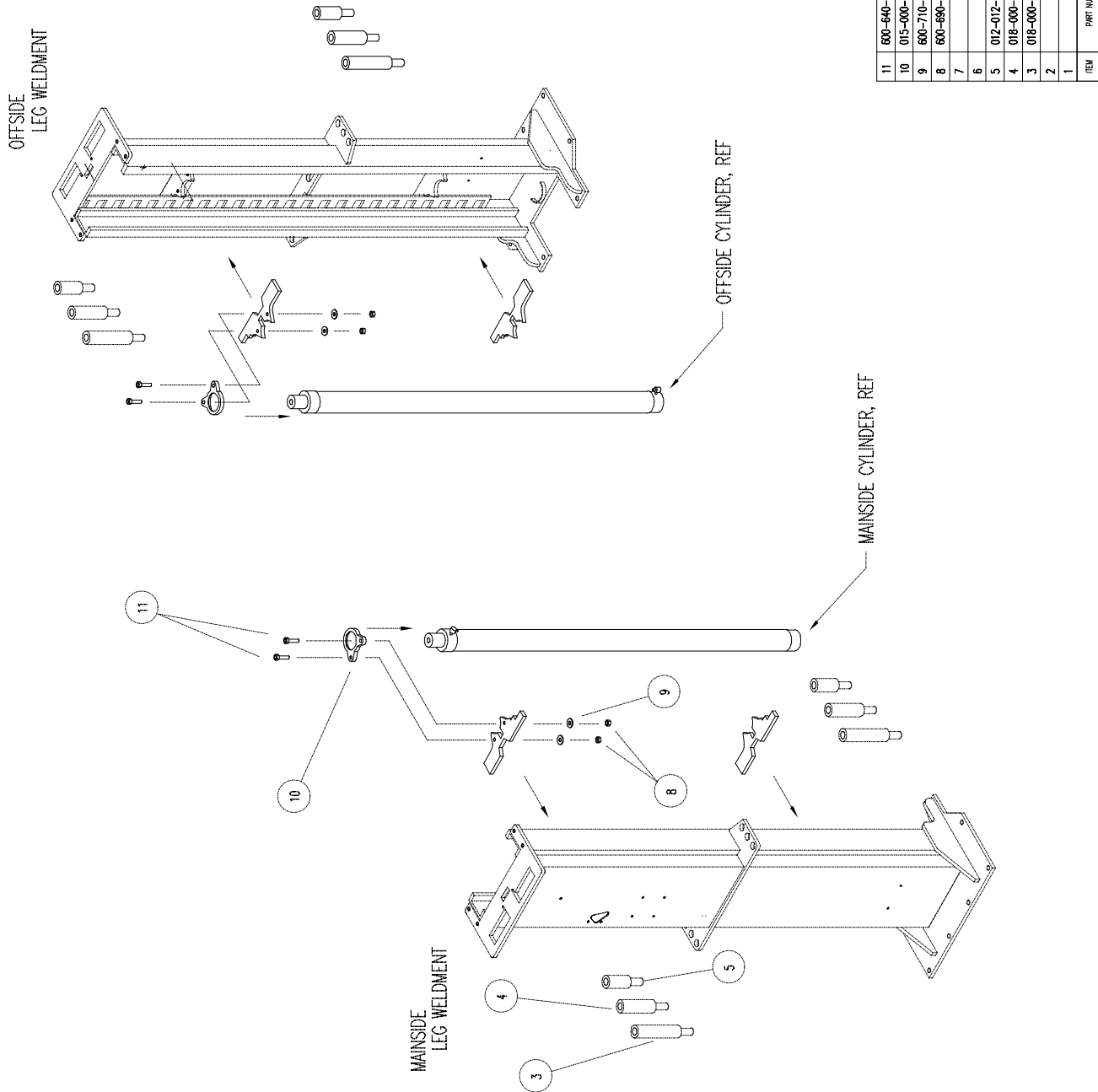


ITEM	PART NUMBER	DESCRIPTION	QTY
8	601-030-017	O-RING	5
7	601-420-046	FITTING, TEE BRANCH, #6 JIC/ #6 ORB	1
6	601-420-017	FITTING, ELBOW, 90, #6 ORB TO #6 JIC	4
5	212239ASK	SEAL REPAIR KIT	1
4	282247AA	PILOT PISTON ASSY	1
3	CV10-20-0-N-05	CHECK VALVE	1
2	MP10-42K-0-N	MANUAL PULL VALVE	1
1	601-410-030	DIVERTER VALVE	1

DIVERTER VALVE ASSEMBLY

FILE: MAN504
DATE: 11/97

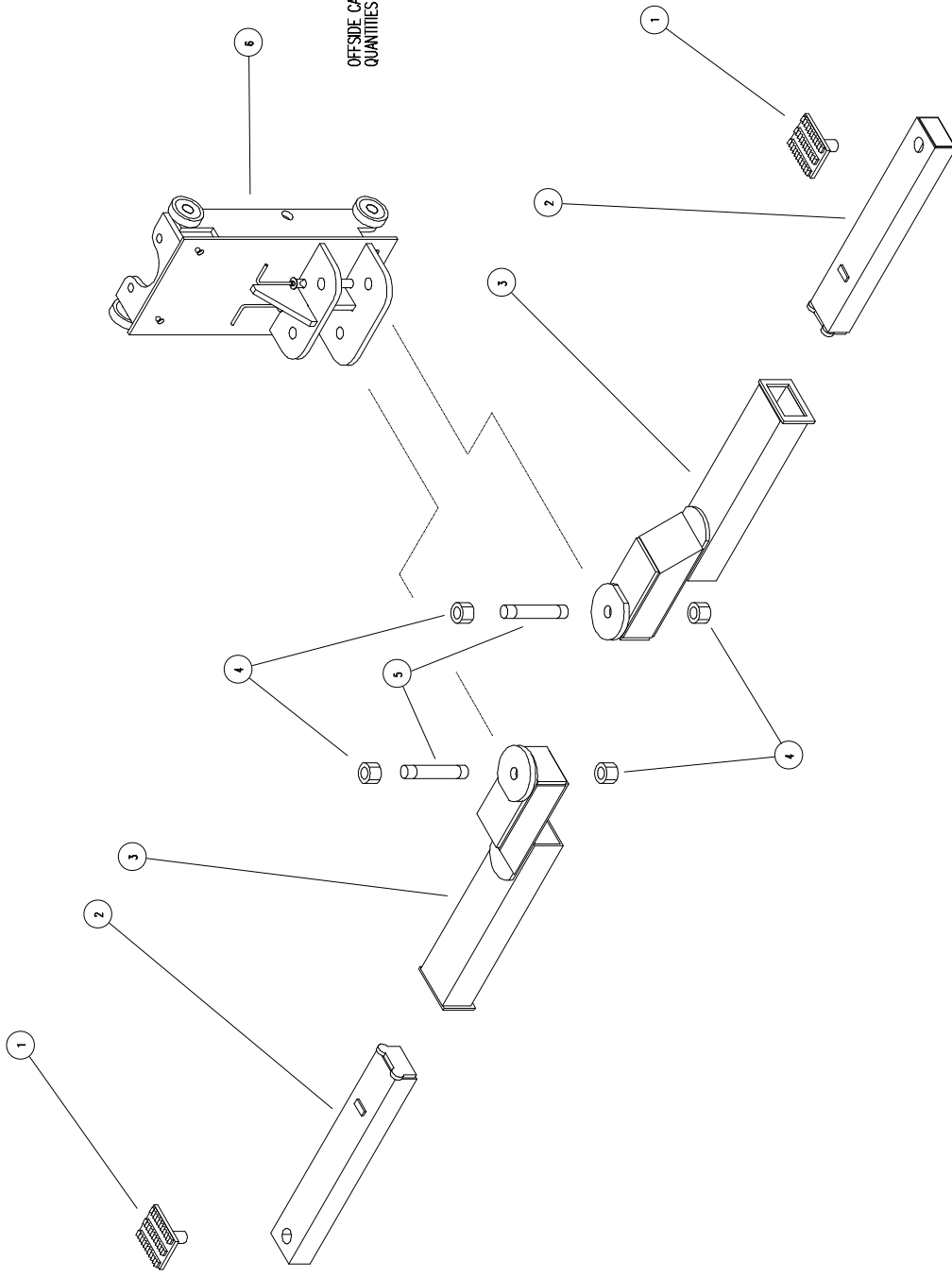
MAN505
REV A 2/99



ITEM	PART NUMBER	DESCRIPTION	QTY
11	600-640-018	BOLT, 1/2-13 NC x 3", HEX HEAD CAP	4
10	015-000-103	CYLINDER RETAINER	2
9	600-710-008	WASHER, FLAT, 1/2	4
8	600-690-009	NUT, LOCK, 1/2-13 NC	4
7			
6	012-012-151	HEIGHT ADAPTER, 7, 1/2"	4
4	018-000-106	HEIGHT ADAPTER, 5"	4
3	018-000-105	HEIGHT ADAPTER, 10"	4
2			
1			

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

MAN506



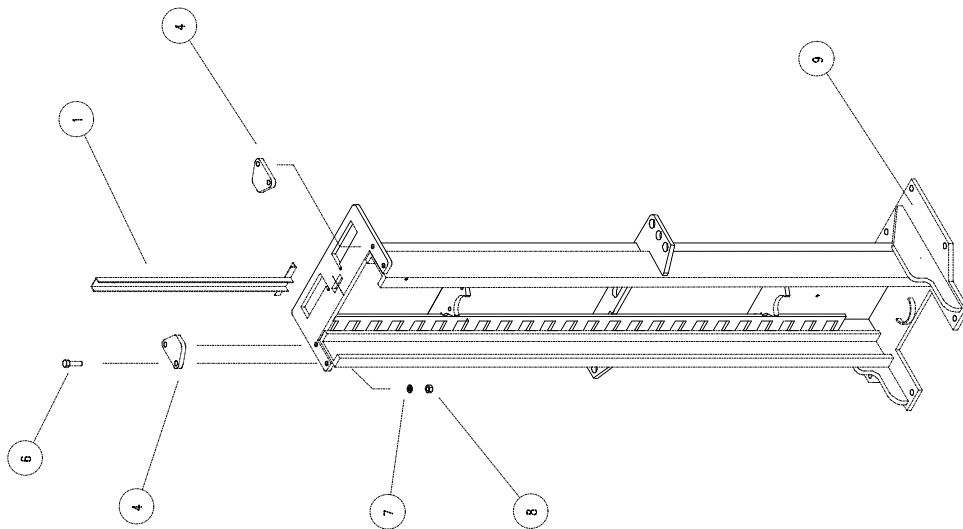
QTY	REF NUMBER	DESCRIPTION
1	015-000-006	CARRIAGE ASSEMBLY
2	012-012-113	CARRIAGE PIN, 1 3/8 DIA x 11" LG
4	600-800-008	NUT LOCK, 1 3/8-12 NF
2	012-012-013	SWING ARM WELDMENT ASSEMBLY
2	012-012-015	SLIDER WELDMENT
2	012-012-047	LIFTING PAD WELDMENT

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

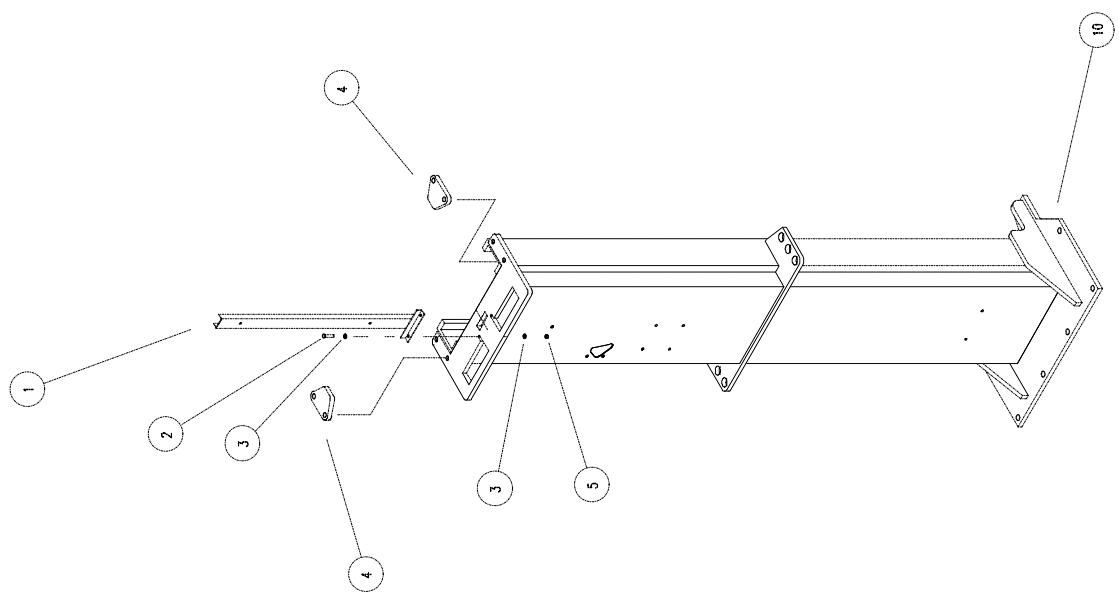
FILE: MAN506
DATE: 5/96

MAN507

REV A 2/99



ITEM	PART NUMBER	DESCRIPTION	QTY
1	015-000-003	MANSIDE LEG WELDMENT	1
1	015-000-004	OFFSIDE LEG WELDMENT	1
8	600-680-002	NUT, PLAIN, 5/8-11 NC	8
7	600-720-001	WASHER, LOCK, 5/8	8
6	600-640-010	BOLT, 5/8-11 NC x 2 1/2	8
5	600-680-005	NUT, LOCK, 1/4-20 NC	4
4	009-001-141	CARRIAGE STOP	4
3	600-710-004	WASHER, FLAT, 1/4	8
2	600-640-019	BOLT, 1/4-20 NC x 1 1/2	4
1	007-007-033	LINE SUPPORT WELDMENT	2

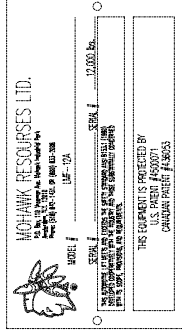


LMF-12A & TP-15 LEG WELDMENTS/LINE SUPPORTS/CARRIAGE STOPS

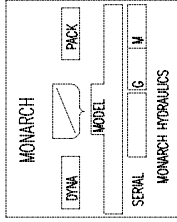
MAN458

REV-B 7/99

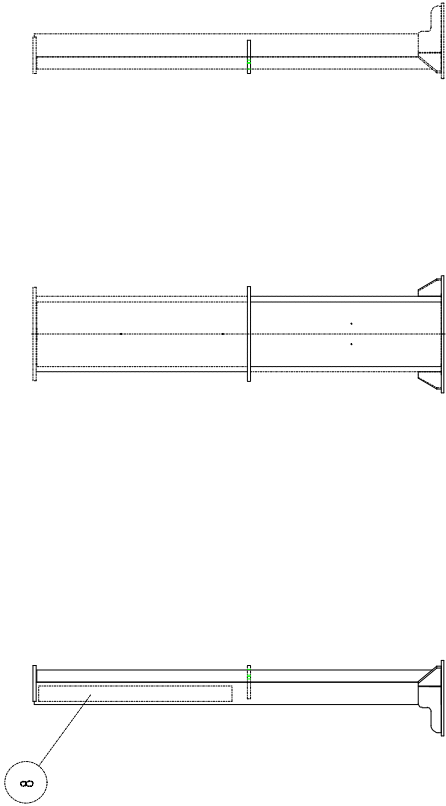
- NOTES:
 1. PLACE ITEM 5 IN POSITION SHOWN & MATCH DRILL (2) 3/32 DIA HOLES THRU BACK PLATE. SEE DETAIL A.



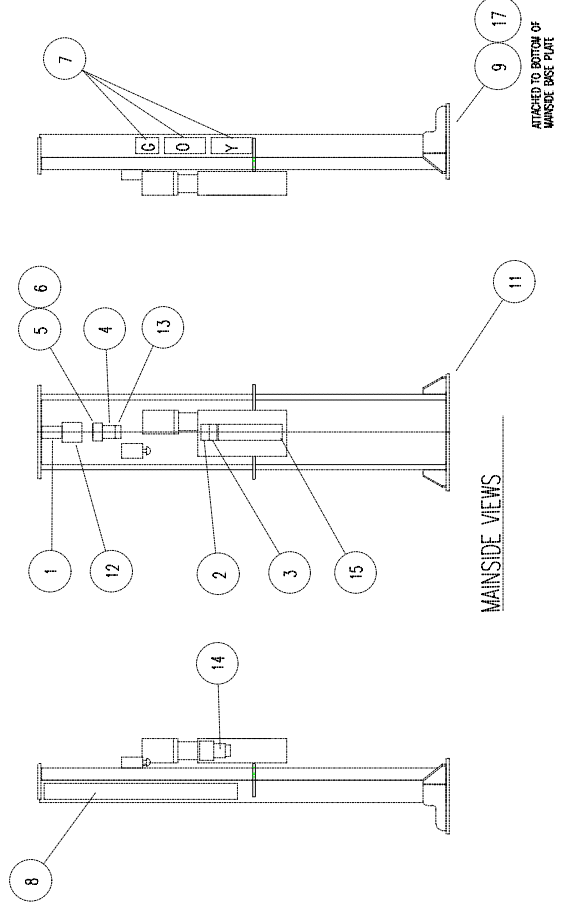
(MOHAWK SERIAL TAG) 5



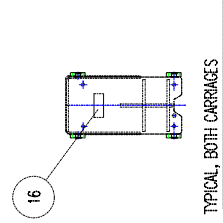
(MONARCH POWER UNIT DECAL) 16



OFFSIDE VIEWS 10



MAINSIDE VIEWS 11



TYPICAL, BOTH CARRIAGES

ITEM	PART NUMBER	DESCRIPTION	QTY
17	601-800-116	PACKING LIST ENVELOPE, 5 1/2 x 7 1/2	1
16	601-800-109	DECAL, WARNING, 2 7/2 x 6 1/2	2
15	601-800-001	"OPERATIONAL INSTRUCTION" DECAL	1
14	---	MONARCH POWER UNIT DECAL	REF
13	601-800-056	"ALI/ETL CERTIFIED" DECAL, 3" x 3"	1
12	601-800-043	"MAXIMUM CAPACITY 12000 LBS" DECAL, 5" x 5"	1
11	015-000-001	WARDSIDE LEG WELDMENT	REF
10	015-000-002	OFFSIDE LEG WELDMENT	REF
9	---	---	---
8	601-800-061	"MOHAWK" DECAL, 6 3/8" x 4 1/3 1/4"	2
7	601-800-052	"CAUTION, WARNING, SAFETY" SET, 4" x 20 3/4"	1
6	600-820-001	SCREW, DRILL, #4 x 1/4, ROUND HEAD, TYPE U	2
5	601-800-110	"SERIAL, SPEC, MODEL" 2 7/16" x 4 9/16"	1
4	601-800-037	"ALI" PLATE, 1 1/2" x 3 1/4"	1
3	601-800-035	"CAUTION" DECAL, 2" x 3 1/2"	1
2	601-800-034	"WARNING" DECAL, 2" x 3 1/2"	1
1	601-800-030	"MADE IN AMERICA" DECAL, 3 1/8" x 5 3/16"	1

LMF-12A TAG & DECAL LOCATIONS
 (012-010-020)

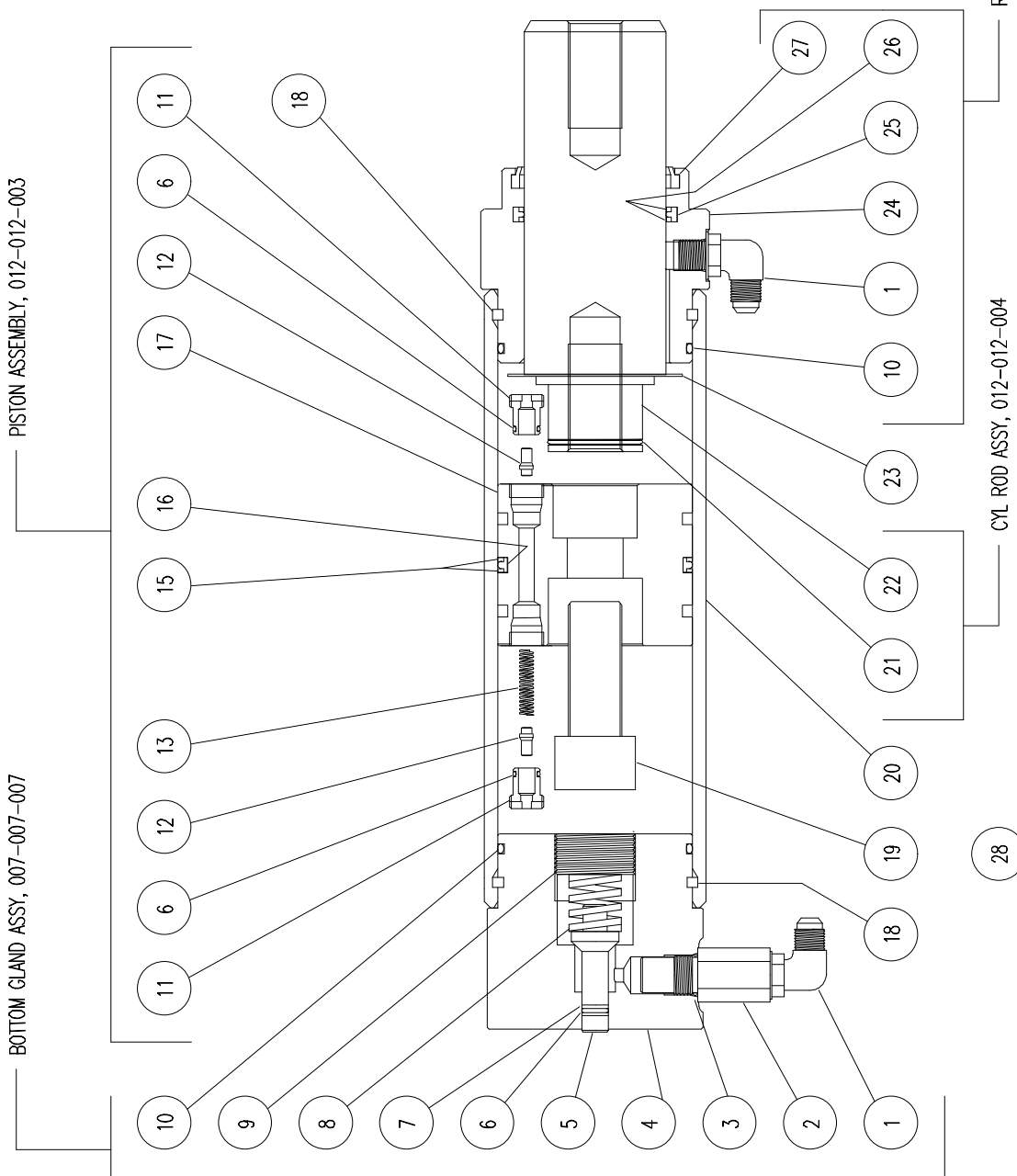
FILE: MAN458
 DATE: 8/98

MAN509

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	2
12	009-001-152	SPOOL	2
13	600-840-009	SPRING	1
14			
15	601-060-013	BACK-UP	2
16	601-010-005	PISTON T-SEAL	1
17	012-012-102	PISTON	1
18	025-002-132	SPIN KEY	2
19	600-650-001	BOLT, SOCKET HEAD	1
20	012-012-101	BARREL	1
21	601-030-009	O-RING	1
22	012-012-103	ROD	1
23	007-007-143	WASHER	1
24	015-000-109	ROD GLAND	1
25	601-000-003	ROD T-SEAL	1
26	601-060-007	BACK-UP RING	2
27	601-020-003	ROD WIPER	1
28	601-420-001	CAP NUT	2
29	601-800-021	CAUTION DECAL	1
30	601-800-022	PATENT DECAL	1

LMF-12A & TP-15
 MAINSIDE CYLINDER ASSEMBLY
 (015-000-009)

ROD GLAND HOUSING ASSEMBLY, 015-000-011



ITEM 29 APPEARS ON ITEM 4
 ITEM 30 APPEARS ON ITEM 24

(NOT SHOWN)

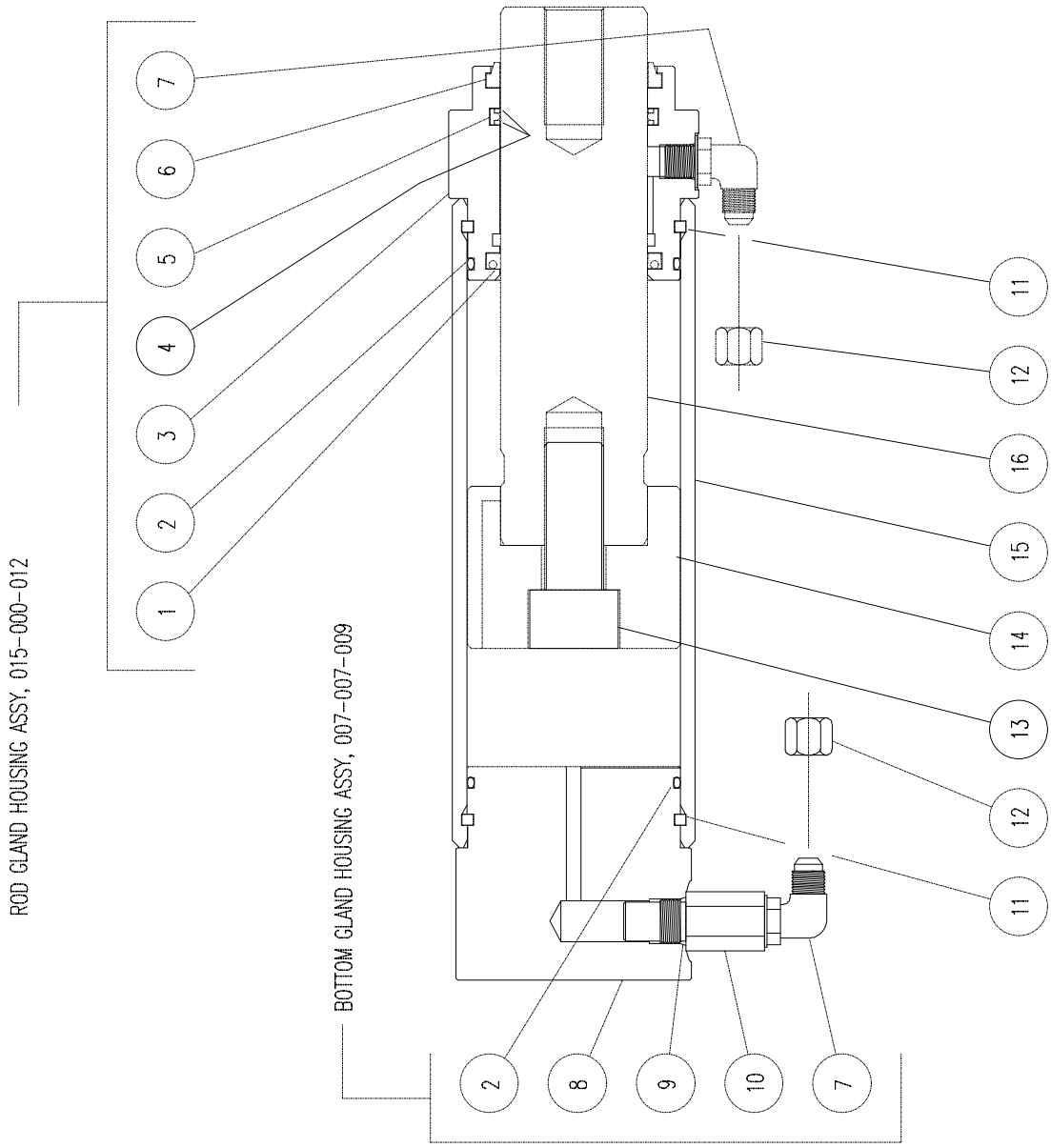
FILE: MAN509
 REV 10/22/96

MAN510

MOHAWK MODEL LMF-12

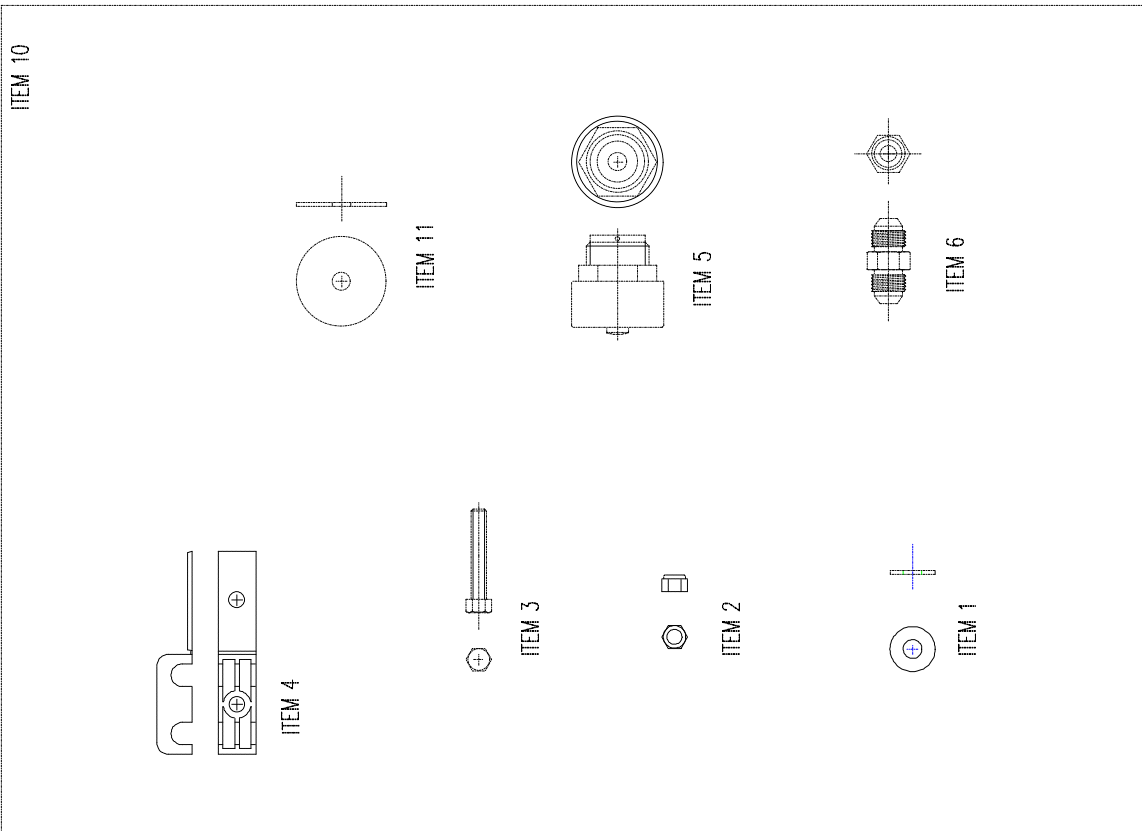
ITEM	PART NUMBER	DESCRIPTION	QTY
1	601-040-001	POLY-PAK SEAL	1
2	601-030-003	O-RING	2
3	015-000-110	ROD GLAND	1
4	601-060-006	BACK-UP RING	2
5	601-000-002	ROD T-SEAL	1
6	601-020-002	ROD WIPER	1
7	601-420-017	FITTING, 90 ELBOW	2
8	007-007-108	BOTTOM GLAND	1
9	601-030-008	O-RING	1
10	601-410-031	VELOCITY FUSE -4	1
11	025-002-132	SPIN KEY	2
12	601-420-001	CAP NUT	2
13	600-650-001	BOLT, SOCKET HEAD	1
14	012-012-104	PISTON	1
15	012-012-101	BARREL	1
16	012-012-105	ROD	1

LMF-12A & TP-15
OFFSIDE CYLINDER ASSEMBLY
(015-000-010)



FILE: MAN510
DATE: 5/96

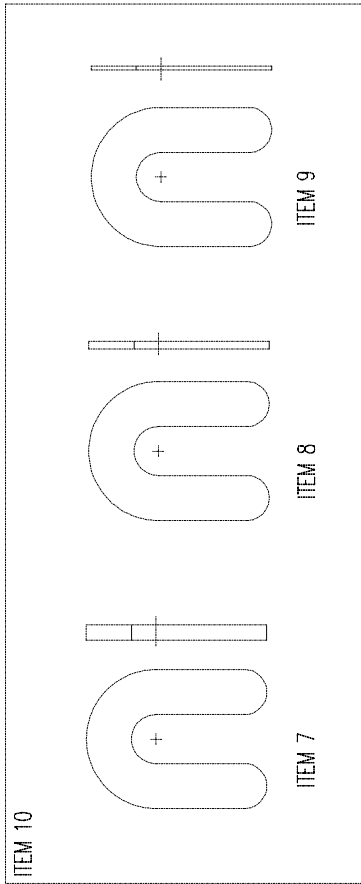
SMALL PARTS BAG & CONTENTS (012-012-058)



MAN511

REV D 10/01

BAG #2 / SHIMS (007-007-075)



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

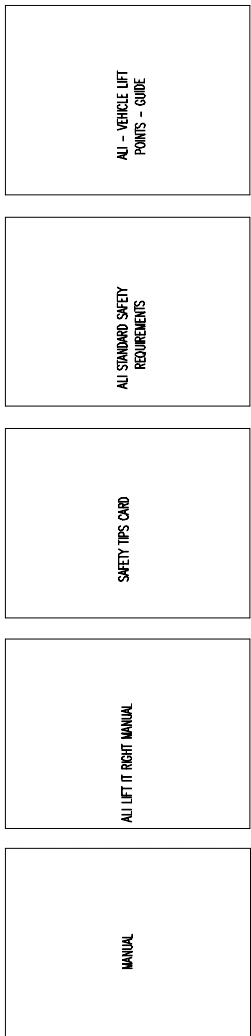
ITEM	PART NUMBER	DESCRIPTION
11	600-710-006	WASHER, FLAT (FEMUR) 5/16 IN X 1 1/2 IN
10	601-600-022	BAG, ZIP-LOCK, TRANSPARENT, 9" X 12"
9	600-740-001	SHIM, HORSESHOE, PLASTIC, BLUE, 1/16" THK
8	600-740-002	SHIM, HORSESHOE, PLASTIC, RED, 1/8" THK
7	600-740-003	SHIM, HORSESHOE, PLASTIC, BLACK, 1/4" THK
6	601-402-011	UNION, #6 JIC TO #6 JIC
5	601-310-005	BREATHER CAP
4	601-710-001	DOUBLE LINE CLIP
3	600-660-019	BOLT, 1/4"-20 NC X 1 1/2, HEX HEAD CAP
2	600-660-005	NUT, LOCK, 1/4"-20 NC
1	600-710-004	WASHER, FLAT, 1/4"

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

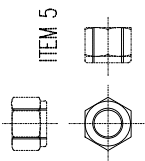
FILE: MAN511
 DATE: 5/96

MAN462

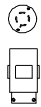
REV A 2/99



ITEM 2 ITEM 12 ITEM 13 ITEM 14 ITEM 15



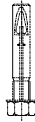
ITEM 5



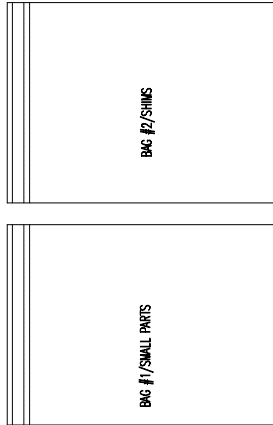
ITEM 9



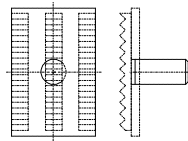
ITEM 10



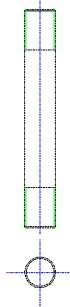
ITEM 11



ITEM 8



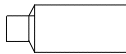
ITEM 7



ITEM 6



ITEM 4



ITEM 3

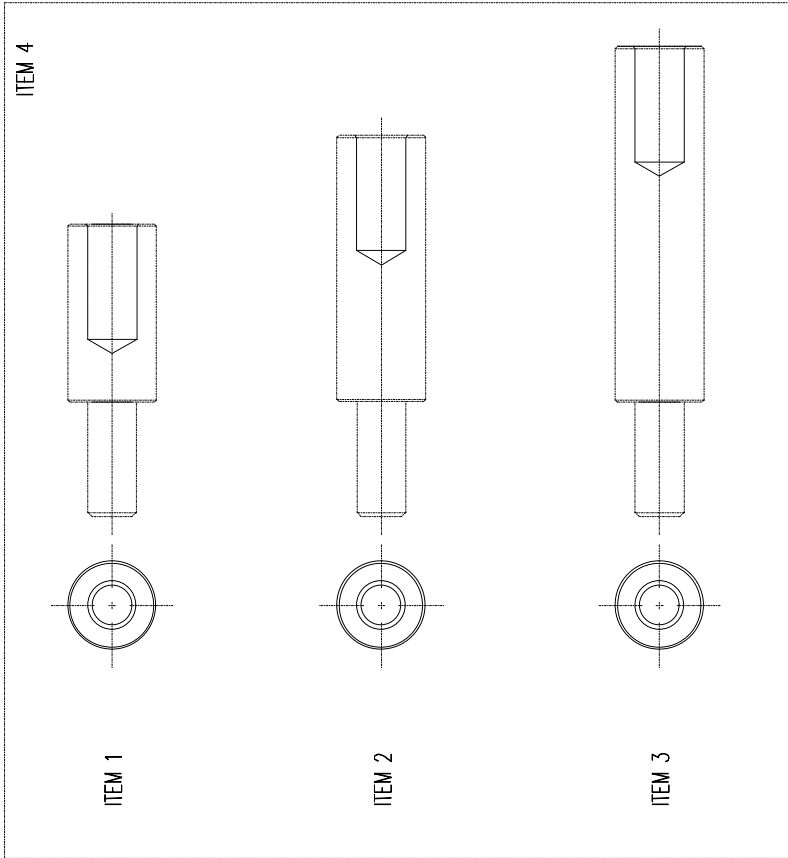
QTY	PART NUMBER	DESCRIPTION
1	601-600-111	MANUAL, LMF-12A
1	601-600-115	WARRANTY CARD, 4" x 5 1/2"
1	601-600-092	ALL-VEHICLE LIFT POINTS-GUIDE
1	601-600-007	ALL STANDARD SAFETY REQUIREMENTS
1	601-600-006	SAFETY TIPS CARD
1	601-600-003	SAFETY MANUAL, ALL LIFT IT RIGHT
1	007-007-075	BAG #2/SHIMS
16	601-600-009	WEG-IT, 3/4" x 6 1/4"
1	601-170-008	CONNECTOR, 4 PRONG, ITEM #114-20R
1	012-012-058	BAG #1/SMALL PARTS
4	012-012-047	LIFTING PAD, WELDMENT
4	012-012-113	CARRIAGE PIN, 1 3/8 DIA x 11 1/8"
8	600-600-008	NUT, LOCK, 1 3/8-12 HF
1	601-630-001	PAINT, SPRAY, RED
1	601-630-002	PAINT, SPRAY, YELLOW
1	012-010-055	MANUAL ASSEMBLY
1	601-600-004	BOX, CORRUGATED
		DESCRIPTION
		QTY

BREAKDOWN OF ITEM 2

PARTS BOX #1 & CONTENTS
(012-010-056)

FILE: MAN462
DATE: 8/98

MAN513



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

PARTS BOX #2
(012-012-057)

FILE: MAN513
DATE 5/96

MOHAWK

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.

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)	I 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"

* An Acceptable Alternative is to use 4 x 4 Wire Mesh at same specified location.

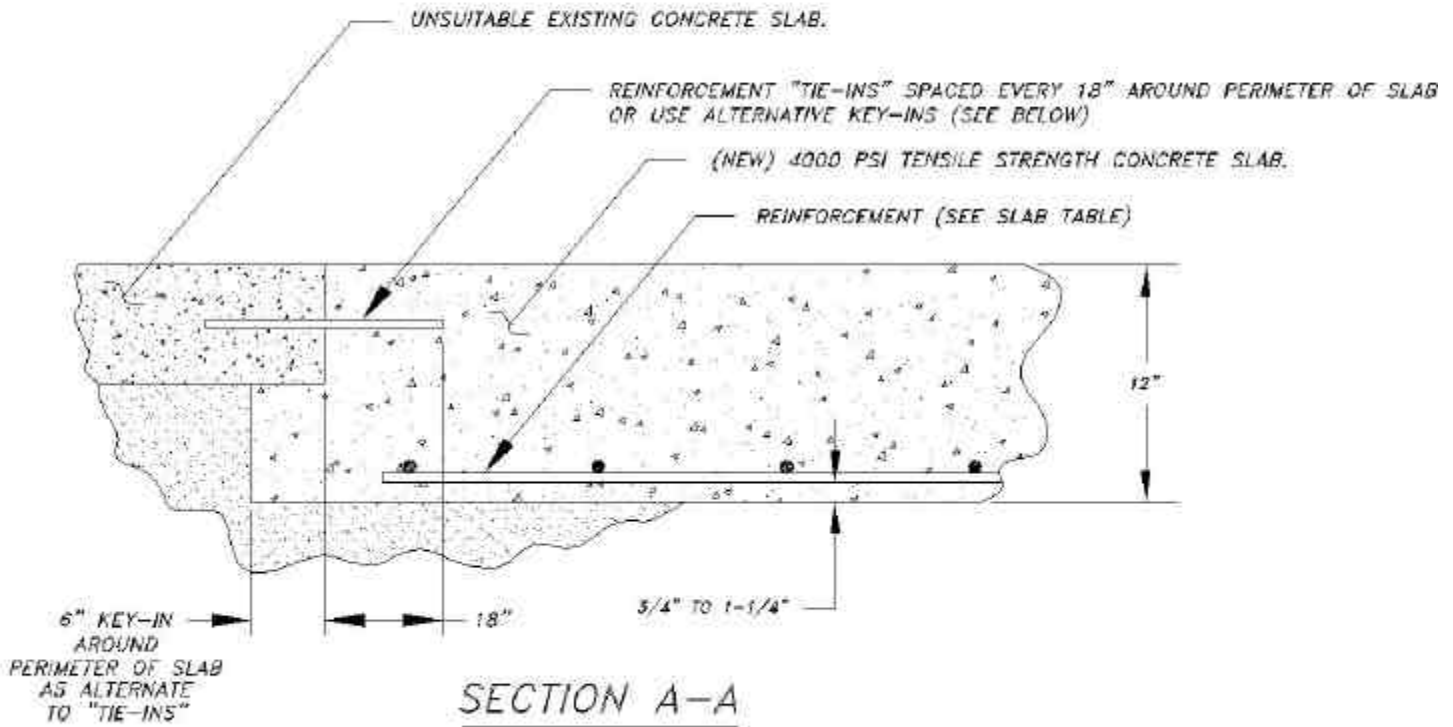
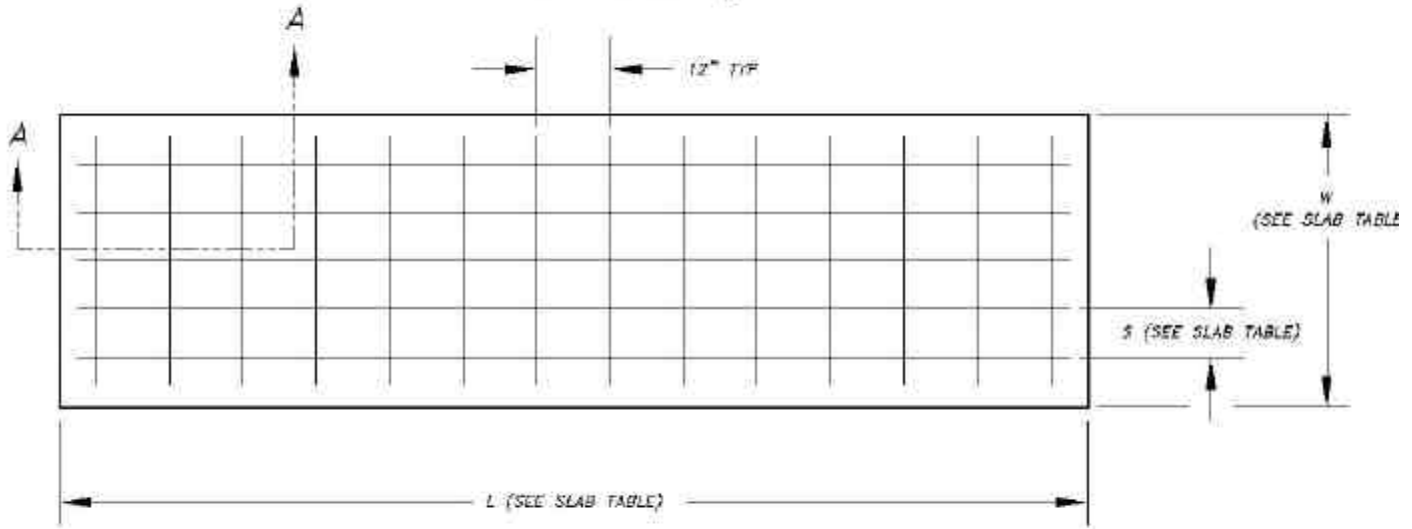
** See Subframe Installation Instructions

*** No Reinforcement Required (4 x 4 Wire Mesh Recommended)

**** Four Separate Slabs Formed at each Post.

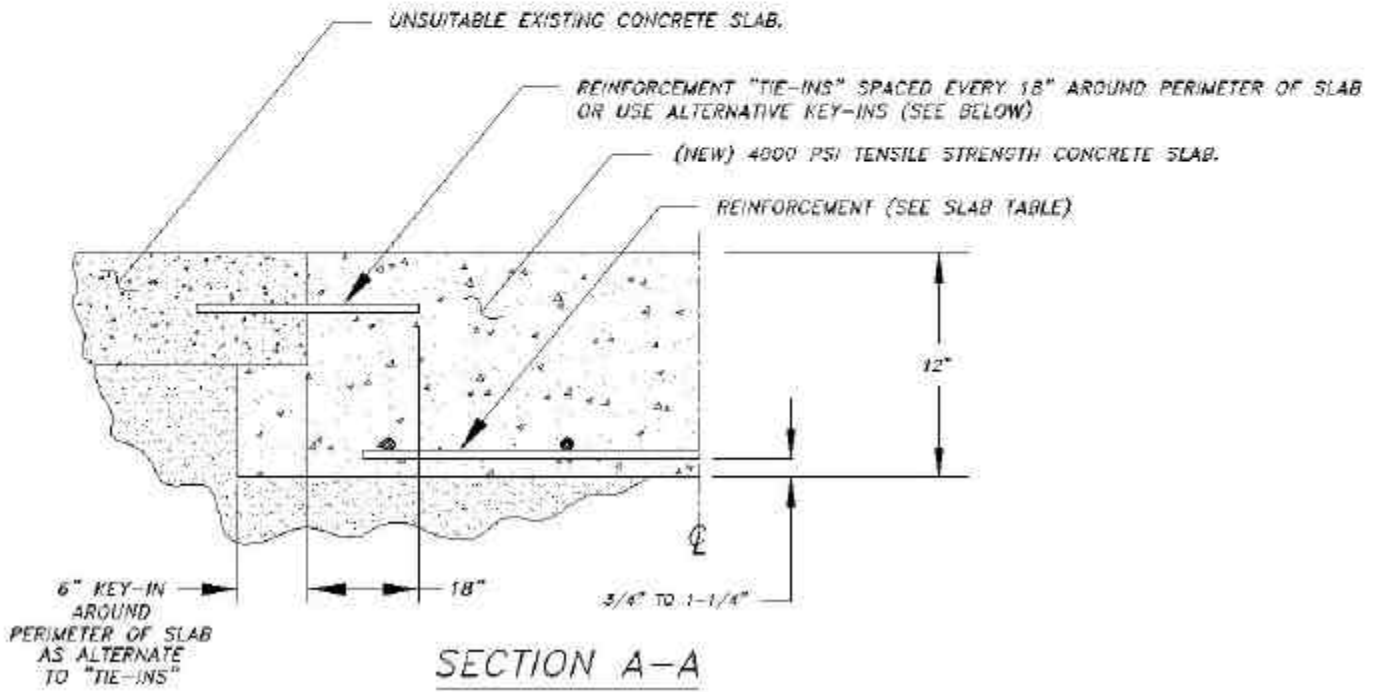
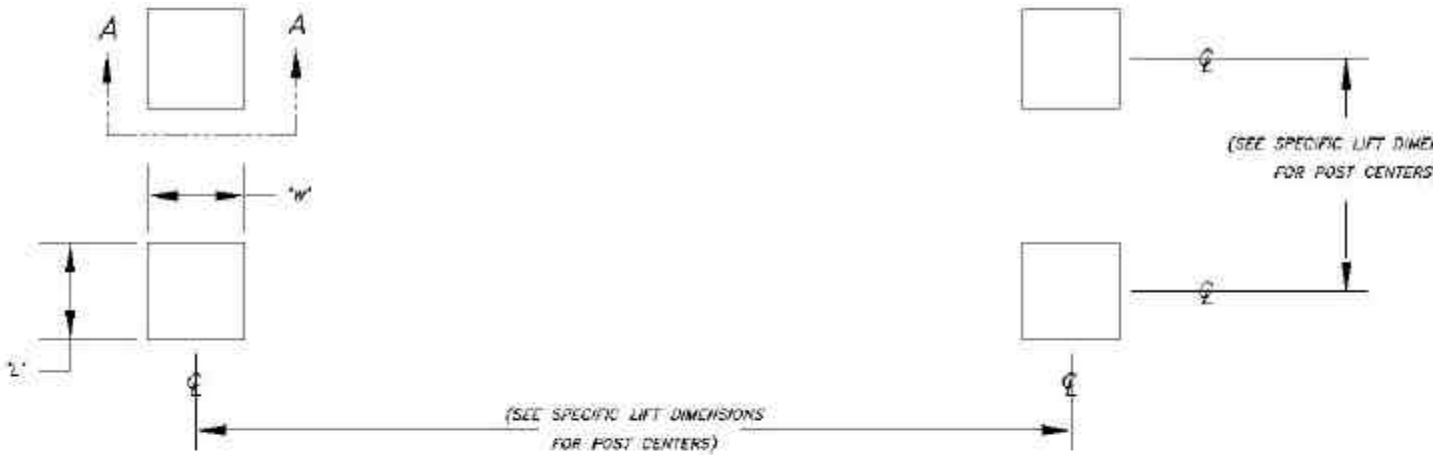
NEW RECOMMENDED SLAB DESIGN FOR 2-POST LIFTS







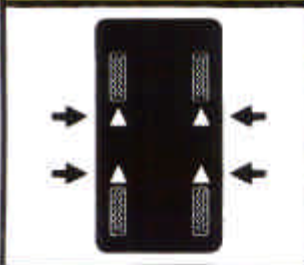





FILE: MAN066
DATE: 2/98
REV DATE: 4/99



NEW RECOMMENDED SLAB DESIGN FOR 4-POST LIFTS

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



<p>⚠ WARNING</p>  <p>Clear area if vehicle is in danger of falling.</p>	<p>⚠ WARNING</p>  <p>Position vehicle with center of gravity midway between adapters.</p>	<p>⚠ CAUTION</p>  <p>Lift to be used by trained operator only.</p>	<p>⚠ CAUTION</p>  <p>Authorized personnel only in lift area.</p>
<p>⚠ WARNING</p>  <p>Remain clear of lift when raising or lowering vehicle.</p>	<p>⚠ WARNING</p>  <p>Avoid excessive rocking of vehicle while on lift.</p>	<p>⚠ CAUTION</p>  <p>Use vehicle manufacturer's lift points.</p>	<p>⚠ CAUTION</p>  <p>Always use safety stands when removing or installing heavy components.</p>
<p>⚠ WARNING</p>  <p>Do not override self-closing lift controls.</p>	<p>⚠ WARNING</p>  <p>Keep feet clear of lift while lowering.</p>	<p>⚠ CAUTION</p>  <p>Use height extenders when necessary to ensure good contact.</p>	<p>⚠ CAUTION</p>  <p>Auxiliary adapters may reduce load capacity.</p>
<p>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.</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 33116 Indianantic, FL. 32903.</p> <p>They are protected by copyright. Set of labels may be obtained from ALI or its member companies.</p> <p>© 1992 by ALI, Inc. ALI/WL101w</p>		<p>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.</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 33116 Indianantic, FL. 32903.</p> <p>They are protected by copyright. Set of labels may be obtained from ALI or its member companies.</p> <p>© 1992 by ALI, Inc. ALI/WL101c</p>	

<p>SAFETY INSTRUCTIONS</p>  <p>Read operating and safety manuals before using lift.</p> <p>©</p>	<p>SAFETY INSTRUCTIONS</p>  <p>Proper maintenance and inspection is necessary for safe operation.</p> <p>©</p>
<p>SAFETY INSTRUCTIONS</p>  <p>Do not operate a damaged lift.</p> <p>©</p>	<p>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</p> <p>Funding for the development and validation of these labels was provided by the Automotive Lift Institute, PO Box 33116 Indialantic, FL 32903</p> <p>They are protected by copyright Set of labels may be obtained from ALI or its member companies</p> <p>© 1992 by ALI, Inc ALI/WL101a</p>

MOHAWK.

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.



Model LMF-12



Model TR-50

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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Mohawk Industrial Park • P.O. Box 110
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www.mohawklifts.com