

# MOHAWK

MADE IN THE USA



## MODEL SYSTEM IA

### 9,000 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

System IA-Master.doc

Rev Date 4/23/2002

Part #601-800-066

## 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),

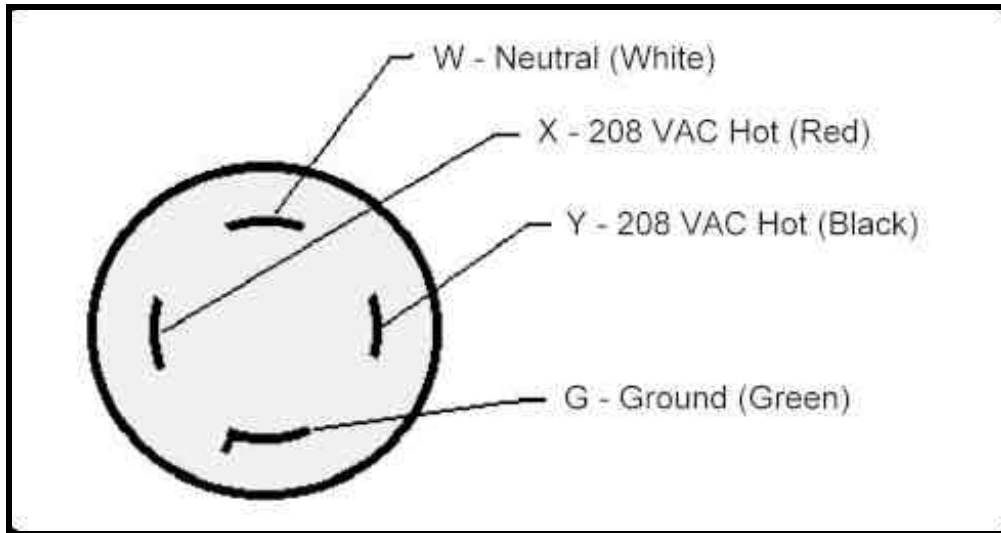
G: Ground (green)

W: Neutral (white)

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

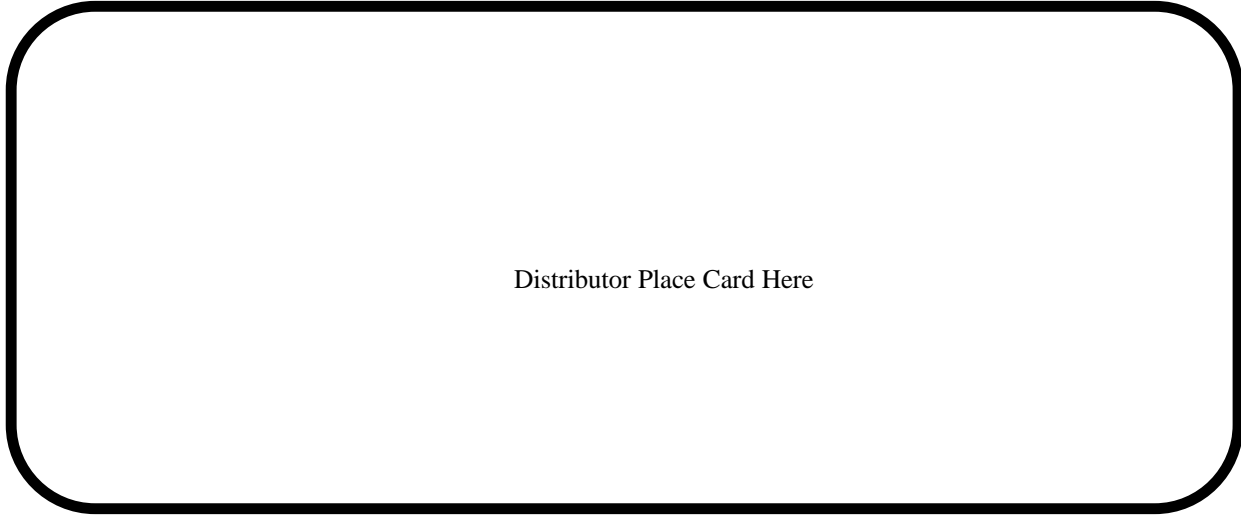
Y: 208 VAC Hot, 110 VAC to ground (Black)

### 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](http://www.MOHAWKLIFTS.com)

E-Mail: [Service@MOHAWKLIFTS.com](mailto: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 4-1/2 " THE CONCRETE MUST BE AGED AT LEAST (28) TWENTY EIGHT DAYS PRIOR TO INSTALLATION AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 P.S.I.

DO NOT INSTALL THIS UNIT ON ANY ASPHALT SURFACE.

DO NOT INSTALL THIS UNIT ON 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.

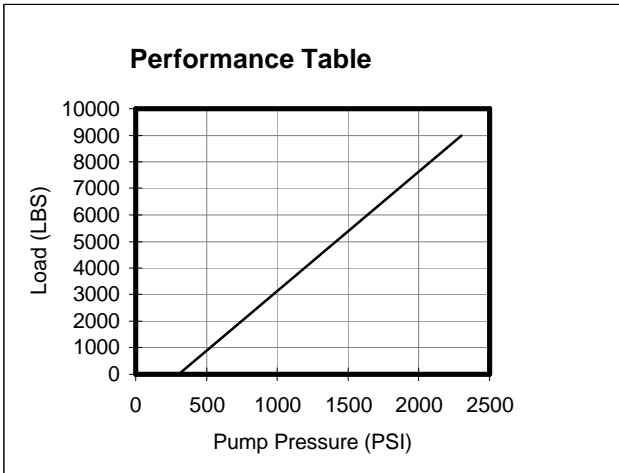
**SYSTEM IA SPECIFICATIONS**

**SYSTEM IA SPECIFICATIONS**

LIFT TYPE / TWO POST	ELECTRIC / HYDRAULIC
GROSS LIFTING CAPACITY	9,000 LBS.
PER ARM CAPACITY	2,250 LBS.
LIFTING SPEED APPROX.	45 SECONDS
LIFTING HEIGHT	72 INCHES
OVERALL WIDTH	142-3/8 INCHES
WIDTH BETWEEN POST	120 INCHES
WIDTH BETWEEN LIFTING ARMS	102 -7/8 INCHES
POST HEIGHT	104 INCHES
OVERHEAD HYDRAULIC LINES	144 INCHES
LIFTING PAD HEIGHT (MIN)	3-1/2 INCHES
LIFTING PAD HEIGHT (MAX)	75-1/2 INCHES
SHIPPING WEIGHT	2,400 LBS.

**POWER UNIT SPECIFICATIONS**

BRAND NAME	MONARCH
MODEL	M-4509-0100
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	2650 P.S.I.
WORKING PRESSURE	2300 P.S.I.
RESERVOIR CAPACITY	2.5 GALLONS
HYDRAULIC FLUID MEDIUM	DEXRON III



**SUGGESTED SITE SELECTION / BAY SIZE**

WIDTH	DEPTH	HEIGHT
15 FEET	20 FEET	12 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 MIN.	DRILL SIZE MAX.	TORQUE
5 1/2 IN.	5 1/2 IN.	3/4 IN.	.775 IN.	.787 IN.	80

**PRE-EXISTING FLOOR REQUIREMENTS**

MINIMUM THICKNESS	MINIMUM COMPRESSIVE STRENGTH	MINIMUM AGING
4 - 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	4 FT X 14 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.**

**SYSTEM IA PACKING LIST****\*\*\* ALSO SEE DRAWINGS MAN231 / MAN232 IN PARTS MANUAL \*\*\***

<b>ORDER NUMBER</b>	<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>QTY.</b>
	<b>009-010-015</b>	<b>PARTS BOX CONTENTS</b>	1
423	009-010-009	BLEED VALVE ASSEMBLY	1
559	009-010-115	CARRIAGE STOP (DRILLED)	1
064	025-002-126	HEIGHT ADAPTER BRACKET	2
045	025-002-128	HEIGHT ADAPTER (6 INCH)	4
044	025-002-127	HEIGHT ADAPTER (3 INCH)	4
460	601-170-008	HUBBLE CONNECTOR (FEMALE)	1
035	025-002-035	LIFTING PAD	4
	009-010-045	MANUAL (INSTALLATION)	1
622	009-010-059	TUBING ASSEMBLY, 13-3/4 LG	1
482	600-690-008	LOCK NUT, 1-3/8-12 NF	8
623	007-007-075	SHIM BAG	1
284	009-010-071	SMALL PARTS BAG	1
112	601-630-001	SPRAY PAINT (RED)	1
113	601-630-002	SPRAY PAINT (YELLOW)	1
281	009-010-114	SWING ARM PIN	4
076	600-670-008	WEJ-IT ANCHOR (3/4 X 5 1/2)	16
<b>284</b>	<b>009-010-071</b>	<b>SMALL PARTS BAG CONTENTS</b>	
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	8
621	600-710-014	WASHER, 1-3/8 SAE FLAT	8
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
658	600-710-010	WASHER, FLAT, 1" (ARM RESTRAINT)	4
595	600-710-003	WASHER, FLAT, 5/16	4
593	600-690-001	LOCK NUT, 5/16-18 NC	4
585	600-640-001	BOLT, 5/16-18 NC x 1" LG	4
608	601-420-052	ELBOW, 90 DEG, #6 JIC TO #6 JIC	1
	600-710-006	WASHER, FLAT, FENDER, 5/16 ID X 1 1/2 OD	6
<b>623</b>	<b>007-007-075</b>	<b>SHIM BAG CONTENTS</b>	
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

**RECOMMENDED TOOL LIST**

<b>SIZE / QTY</b>	<b>DESCRIPTION</b>	<b>USED IN</b>
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 2 & 10.**

#### 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. **REFER TO FIGURE 1.**

LOCATE THE MAIN SIDE POST ON THE HIGH SIDE OF THE FLOOR IF A SLOPE IS NOTED. **REFER TO FIGURE 11.**

#### 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 2 & 10.**

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 4 & 5.**
- 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 2 & 10.**

CUT THE SWING ARM BANDING AND REMOVE THE SWING ARMS.

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

### WARNING

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

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

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

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

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

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 3.**

### NOTE

- ◆ **REFER TO FIGURE 8** FOR PLACEMENT AND BLEED VALVE ASSEMBLY.

ASSEMBLE THE HYDRAULIC LINES TO THE BLEED VALVE. ASSEMBLE THE TWO OVERHEAD HYDRAULIC LINES (FLAT ON THE FLOOR) USING THE FOUR DOUBLE MALE UNIONS. **SEE FIGURE 8 & MAN201.**

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 13.**

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 MAN222.**

LIFTING UP ON THE SWING ARM RESTRAINT. INSERT THE FOUR SWING ARMS INTO THE CARRIAGES. **REFER TO MAN226.**

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 MAN226.**

### SHIMMING FOR CHAIN TENSION

LIFT UP ON THE YOKE, MEASURE THE SPACE BETWEEN THE TOP OF THE CHROME ROD AND THE BASE OF THE YOKE. THIS WILL BE THE AMOUNT OF SHIMS REQUIRED. **REFER TO FIGURE 9.**

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

### WARNING

- VISUALLY VERIFY SAFETY ENGAGEMENT BEFORE PROCEEDING.

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

## INSTALLATION INSTRUCTIONS

### BLEEDING PROCEDURE

ENGAGE THE UP BUTTON ON THE POWER UNIT. OBSERVE THE CARRIAGE. WHEN THE MAIN AND OFF SIDE CARRIAGES HAVE REACHED FULL HEIGHT CONTINUE TO RUN THE UNIT FOR 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 WILL INDICATE AN EXCESS OF SHIMS BENEATH THE YOKE ASSEMBLIES RESTRICTING THE MAIN OR OFF SIDE CYLINDERS FROM REACHING FULL STROKE. IF THIS OCCURS, REMOVE ONE SHIM FROM BENEATH THE YOKE.

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 MAN205**

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

### SHIMMING THE POST

LEVEL THE POST BY INSERTING THE SUPPLIED SHIMS UNDER THE POST FOOTING AROUND THE WEJ-IT ANCHOR. THE LIFT MUST BE LEVEL BOTH FRONT TO REAR AND SIDE TO SIDE. A LEVELING DEVICE AND A MEASURING TAPE MUST BE USED. **REFER TO FIGURES 6 & 7.**

- 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 MAN235**

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

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

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

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

## **SAFETY TIPS**

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

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| <ul style="list-style-type: none"> <li>• 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.</li> <li>• OPERATING CONTROLS ARE DESIGNED TO CLOSE WHEN RELEASED. DO NOT BLOCK OPEN OR OVERRIDE THEM.</li> <li>• NEVER OVERLOAD YOUR LIFT BEYOND STATED LIFTING CAPACITY. RATED CAPACITY IS SHOWN ON NAMEPLATE AFFIXED TO THE LIFT.</li> <li>• ONLY TRAINED AND AUTHORIZED PERSONNEL SHOULD DO POSITIONING OF VEHICLE AND OPERATION OF THE LIFT.</li> <li>• 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.</li> <li>• NEVER RAISE A VEHICLE WITH PERSONS INSIDE.</li> <li>• ALWAYS KEEP LIFT AREA FREE OF OBSTRUCTIONS, DEBRIS, GREASE, AND OIL.</li> <li>• PERFORM THE PRE-OPERATION CHECK LIST, PER INSTRUCTIONS, BEFORE RAISING VEHICLE TO DESIRED HEIGHT.</li> <li>• BEFORE DRIVING VEHICLE INTO THE BAY, POSITION ARMS AND SUPPORTS TO PROVIDE</li> </ul> | <p>UNOBSTRUCTED CLEARANCE. DO NOT HIT OR RUN OVER LIFT ARMS, ADAPTERS, OR AXLE SUPPORTS. THIS COULD DAMAGE LIFT OR VEHICLE.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• BEFORE LOWERING LIFT, BE SURE TOOL TRAY'S, STANDS, ETC. ARE REMOVED FROM UNDER VEHICLE. RELEASE LOCKING DEVICES BEFORE ATTEMPTING TO LOWER LIFT.</li> <li>• BEFORE REMOVING VEHICLE FROM THE LIFT AREA, POSITION LIFT ARMS AND SUPPORTS TO PROVIDE AN UNOBSTRUCTED EXIT.</li> </ul> |
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**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 CHAINS AND 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 PIPE FITTINGS, IF LEAKING IS TO BE REMOVED, RE-SEALED, AND RE - INSTALLED. (SELECT - UNITE THREAD SEALANT OR EQUIVALENT ON FITTING THREADS)
- INSPECT ANCHOR CONDITIONS FOR ANY POSSIBLE CORROSION AND INSPECT THE FLOOR FOR ANY SIGNS OF FATIGUE OR FRACTURES.

**SEMI- ANNUAL 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.**
- REMOVE THE LIFTING CHAINS, THOROUGHLY CLEAN, LUBRICATE AND RE-INSTALL. (REPLACE IF UNUSUAL OR EXCESSIVE WEAR IS NOTED)
- PERFORM THE DAILY, WEEKLY, AND MONTHLY MAINTENANCE PROCEDURES.

**NOTES:**


**TROUBLE SHOOTING**

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

**HYDRAULIC SAFETY CHECK**

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

**MAINSIDE SAFETY CHECK:**

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

**OFFSIDE SAFETY CHECK:**

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

POSSIBLE CAUSE	SOLUTION
<b>NOT RAISING LOAD</b>	
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. <b>SEE FIGURE 14.</b>
PRESSURE RELIEF CONTAMINATION	REFER TO POWER UNIT SPECIFICATIONS. REMOVE AND CLEAN DEBRIS FROM VALVE ASSEMBLY. <b>SEE FIGURE 14.</b>
VOLTAGE TO POWER UNIT	REFER TO POWER UNIT SPECIFICATIONS. CONSULT AN ELECTRICIAN
UNIT OVERLOADED	VEHICLE IS TO HEAVY TO BE RAISED
<b>NOT LOWERING</b>	
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. <b>SEE FIGURE 6 &amp; 7.</b>
DEBRIS IN POSTS (TOOLS ETC.)	CLEAN UNIT
OBSTRUCTION UNDER VEHICLE OR LIFT	REMOVE OBSTRUCTION.
<b>RAISING UNEVEN</b>	
<b><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.</b>	
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 CYLINDER SHIMS.) SEE "SHIMMING FOR CHAIN TENSION" SECTION. <b>SEE FIGURE 9.</b>
POSTS OUT OF SQUARE	VERIFY LEVEL ASSEMBLY. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. <b>SEE FIGURE 6 &amp; 7.</b>
CYLINDER SHIMS	VERIFY CYLINDER SHIMS. MAKE ANY AND ALL NECESSARY ADJUSTMENTS. SEE "SHIMMING FOR CHAIN TENSION" SECTION. <b>SEE FIGURE 9.</b>
SHOP FLOOR UNEVEN	VERIFY PROPER INSTALLATION OF MAIN SIDE POST. MAIN SIDE TO BE ON HIGH SIDE. <b>SEE FIGURE 11.</b>

**TROUBLE SHOOTING, CONTINUED**

<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
<b>RAISING UNEVEN, CONTINUED</b>	
SHOP FLOOR UNEVEN	USE SPECIAL LIFT PADS. <b>SEE FIGURE 12.</b>
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
<b>SLOW DRIFT DOWN</b>	
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..
<b>EXTERNAL HYDRAULIC LEAKS</b>	
<b>NOTE: TIGHTEN ALL FITTINGS PER SPECIFICATIONS</b>	
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: <b>DO NOT USE TEFLON TAPE.</b>
<b>MECHANICAL LOCK RE-ENGAGES</b>	
J-BAR OUT OF ADJUSTMENT	ADJUST THE J-BAR SO THAT THE CORD END OF THE FLIPPER IS LOWER THAN THE BLIND END WHEN THE LOCK IS DISENGAGED. MAKE THIS ADJUSTMENT WITH A VEHICLE ON THE UNIT. <b>SEE FIGURE 15.</b>
<b>MECHANICAL LOCK HARD TO PULL</b>	
SPRING PLUNGER OUT OF ADJUSTMENT	ADJUST ALLEN SET SCREW TWO THREADS INTO PLUNGER HOUSING.
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 SYSTEM IA

SERIAL NUMBER: \_\_\_\_\_

DATE OF INSTALLATION: \_\_\_\_\_

DATE	PART REPLACED / SERVICED	SERVICE COMPANY	SERVICED BY

### MAINTENANCE CHART

DATE	MAINTENANCE PERFORMED	SERVICE COMPANY	SERVICED BY

# MOHAWK

## MODEL SYSTEM IA

### 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](http://WWW.MOHAWKLIFTS.COM)

**E-MAIN:** [SERVICE@MOHAWKLIFTS.COM](mailto:SERVICE@MOHAWKLIFTS.COM)

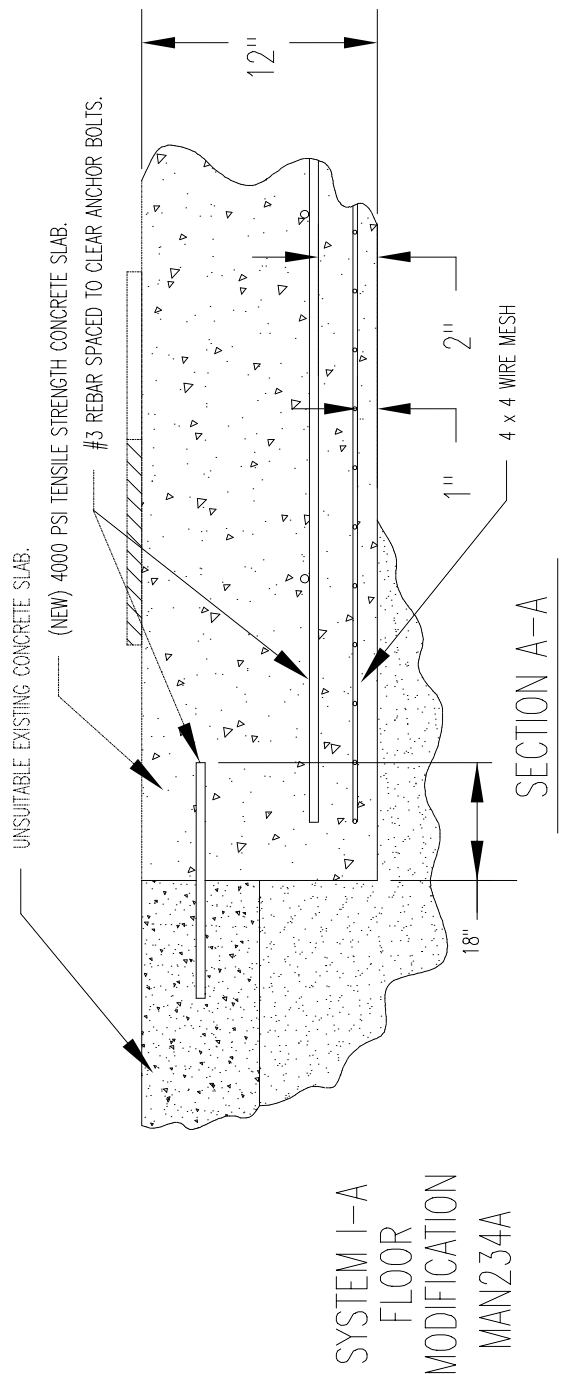
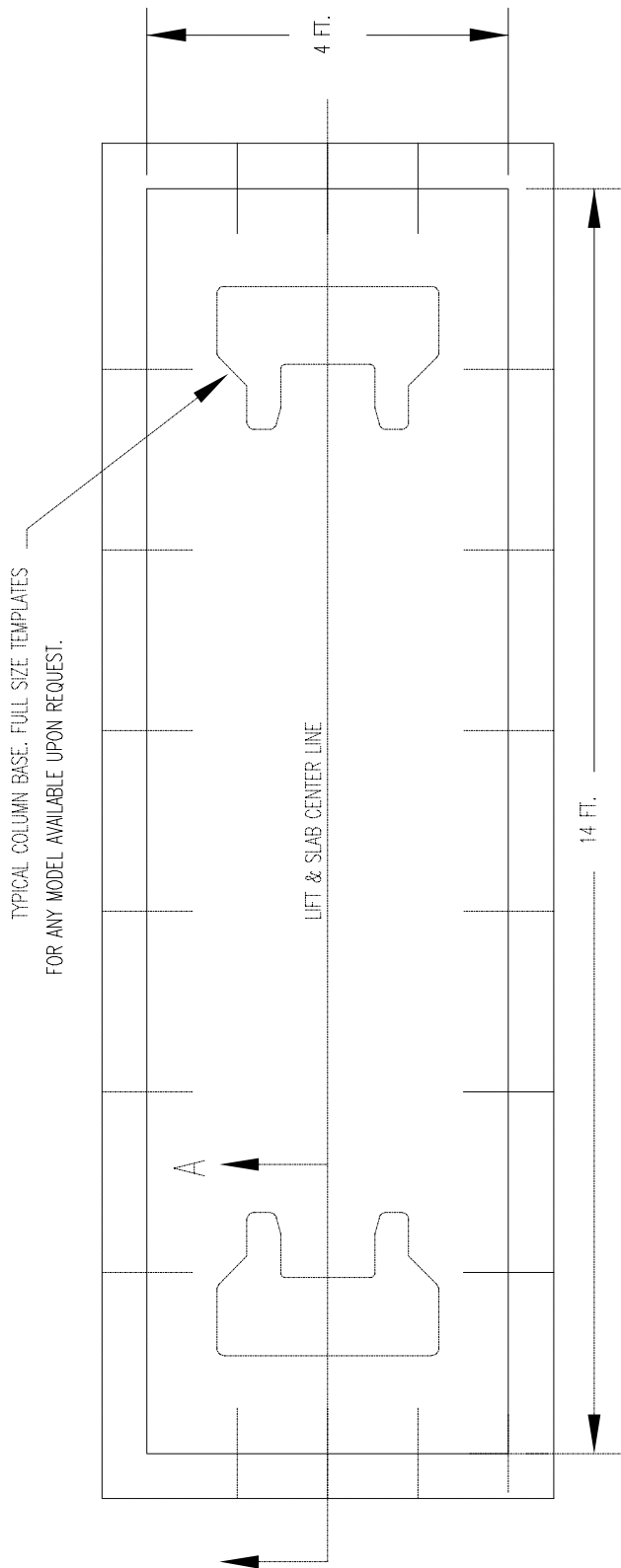
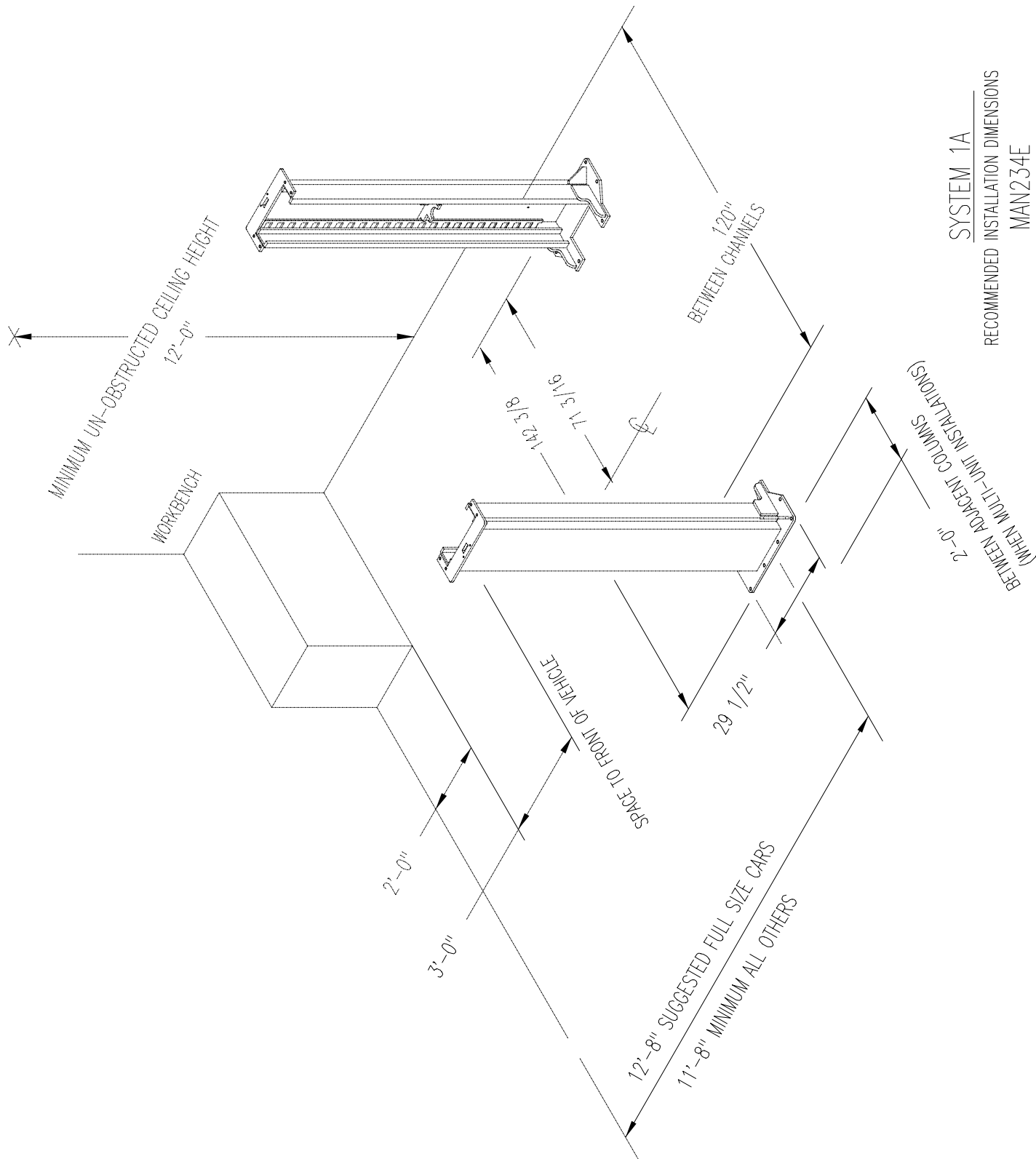


Figure 1



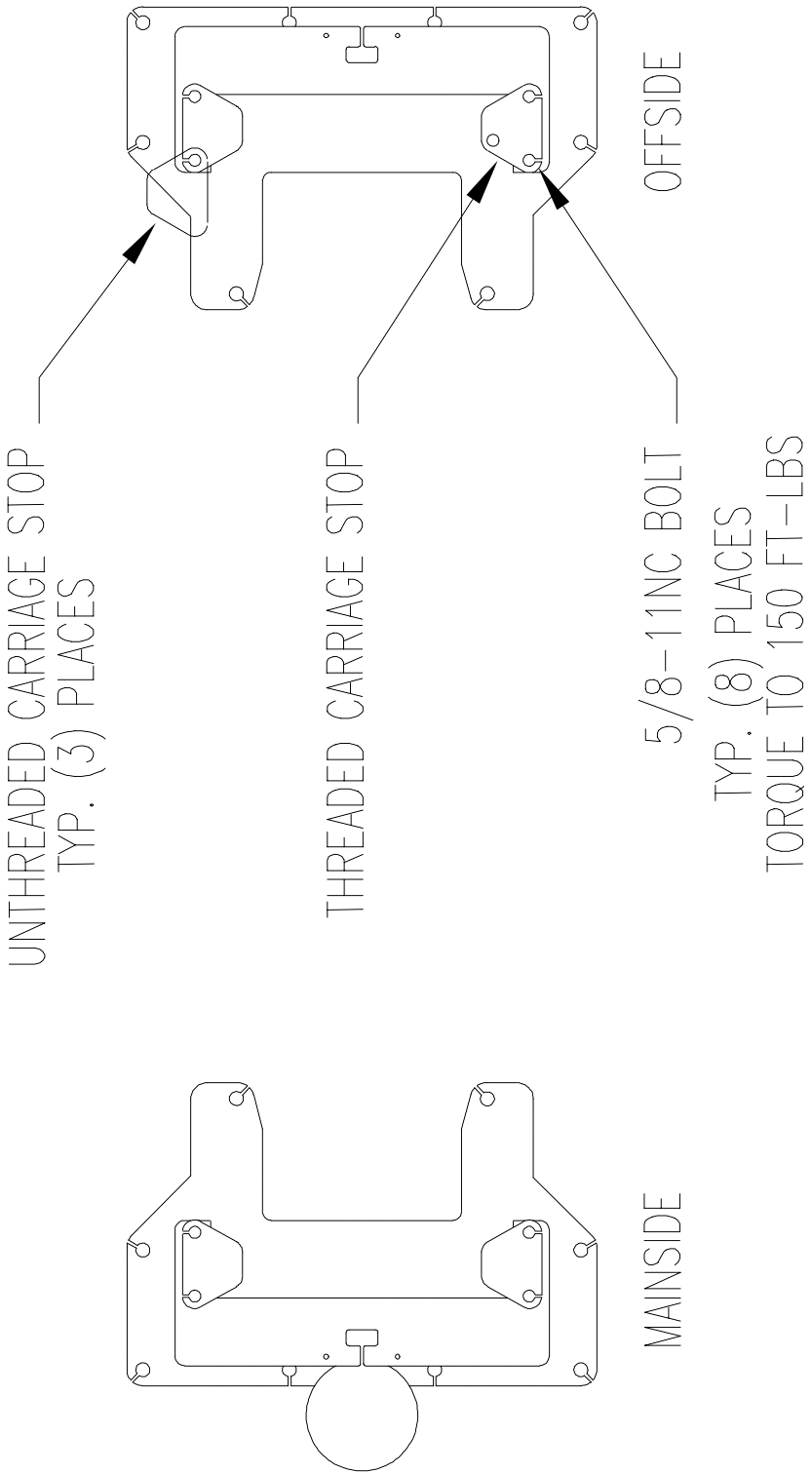


SYSTEM 1A  
RECOMMENDED INSTALLATION DIMENSIONS  
MAN234E

Figure 2

—CAUTION—

THESE CARRIAGE STOP THESE ARE TO BE USED IN THE ASSEMBLY OF THIS LIFT. IT IS EXTREMELY IMPORTANT OF THIS LIFT. IT IS TO PLACE THESE IN THEIR DESIGNATED POSITION WHICH IS SHOWN BELOW.



MAN234B

Figure 3

# WEJ-IT INSTALLATION



**DO NOT USE  
IMPACT WRENCH**

**USE HAND WRENCH ONLY**

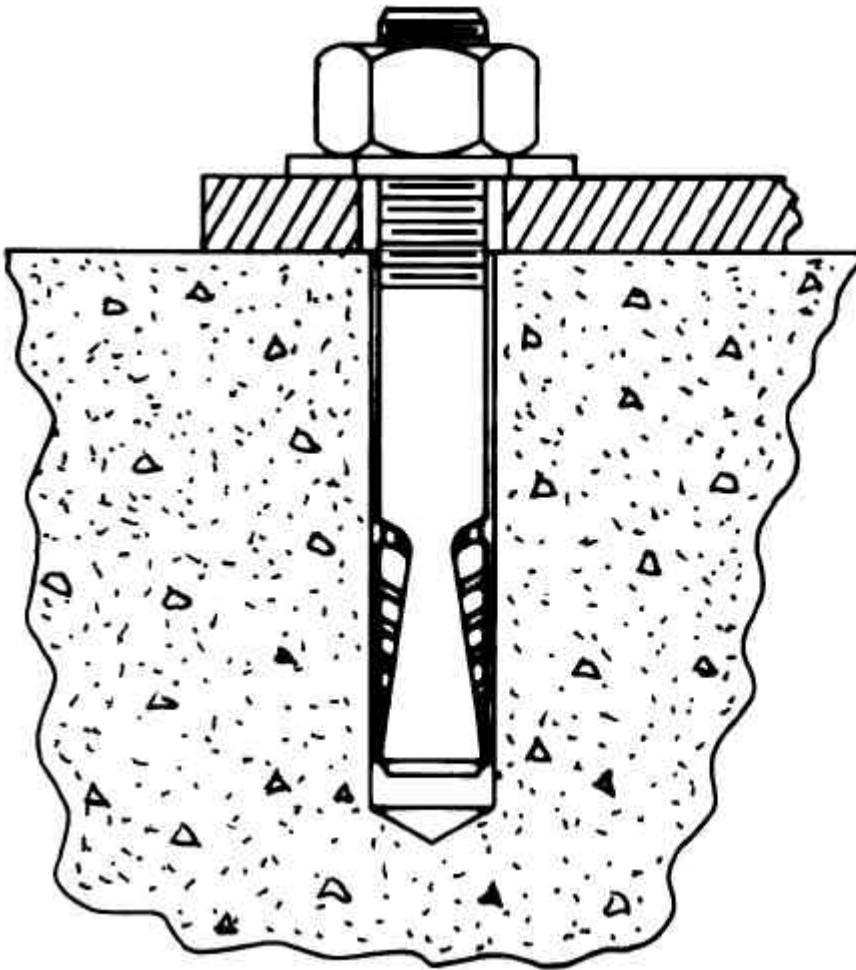
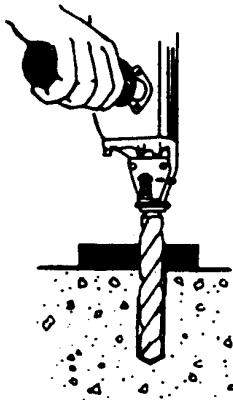
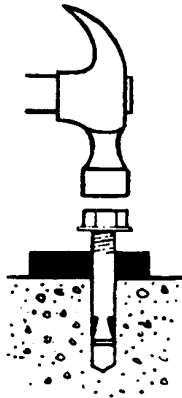


Figure 4

# Quick, Easy Installation



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



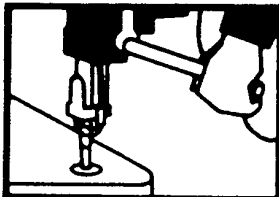
**2.**  
Insert Wej-it so that washer rests against fixture.



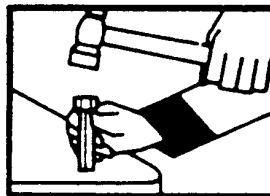
**3.**  
Tighten nut, two-to-three full turns.

## Installation Procedure

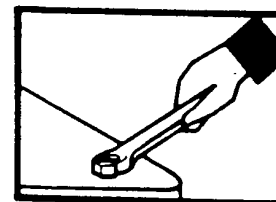
1. Wear safety glasses as a good practice.
2. Use solid, carbide-tipped drill bits manufactured to ANSI B94 Standard tolerances on the tip ends as follows:



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.



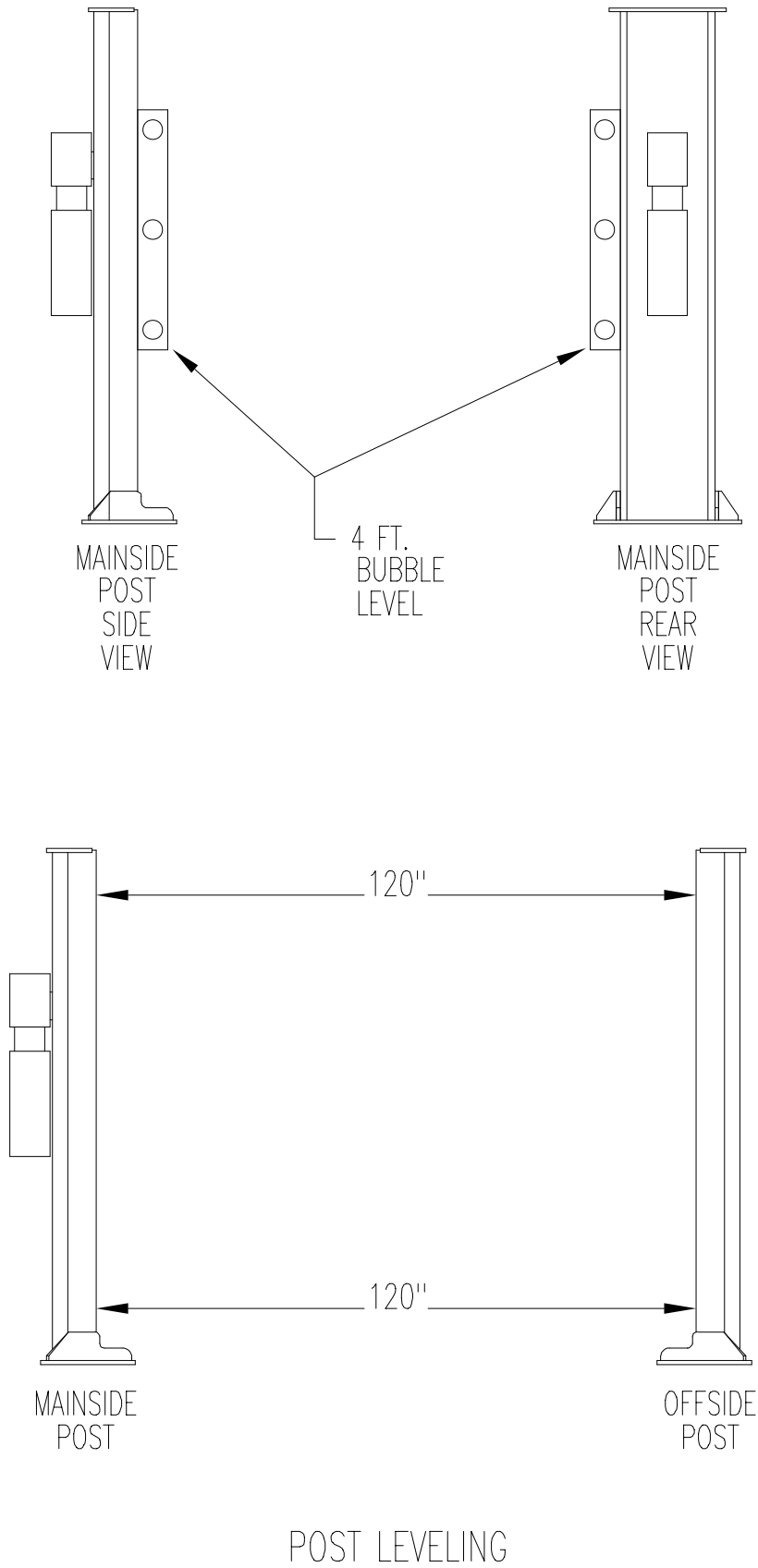
10. Choose whichever of the following methods is suitable:

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.

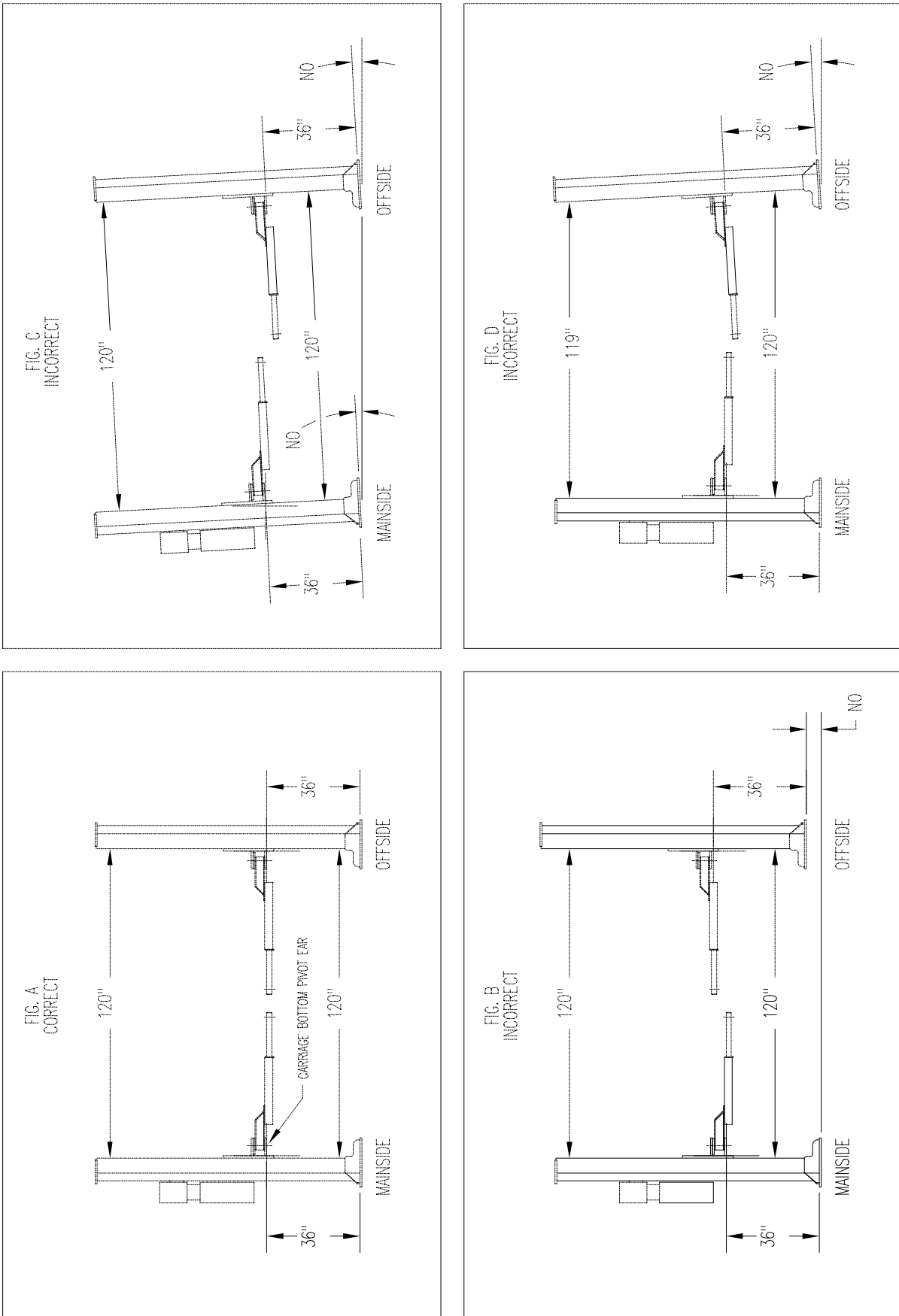
Figure 5



POST LEVELING

MAN234F

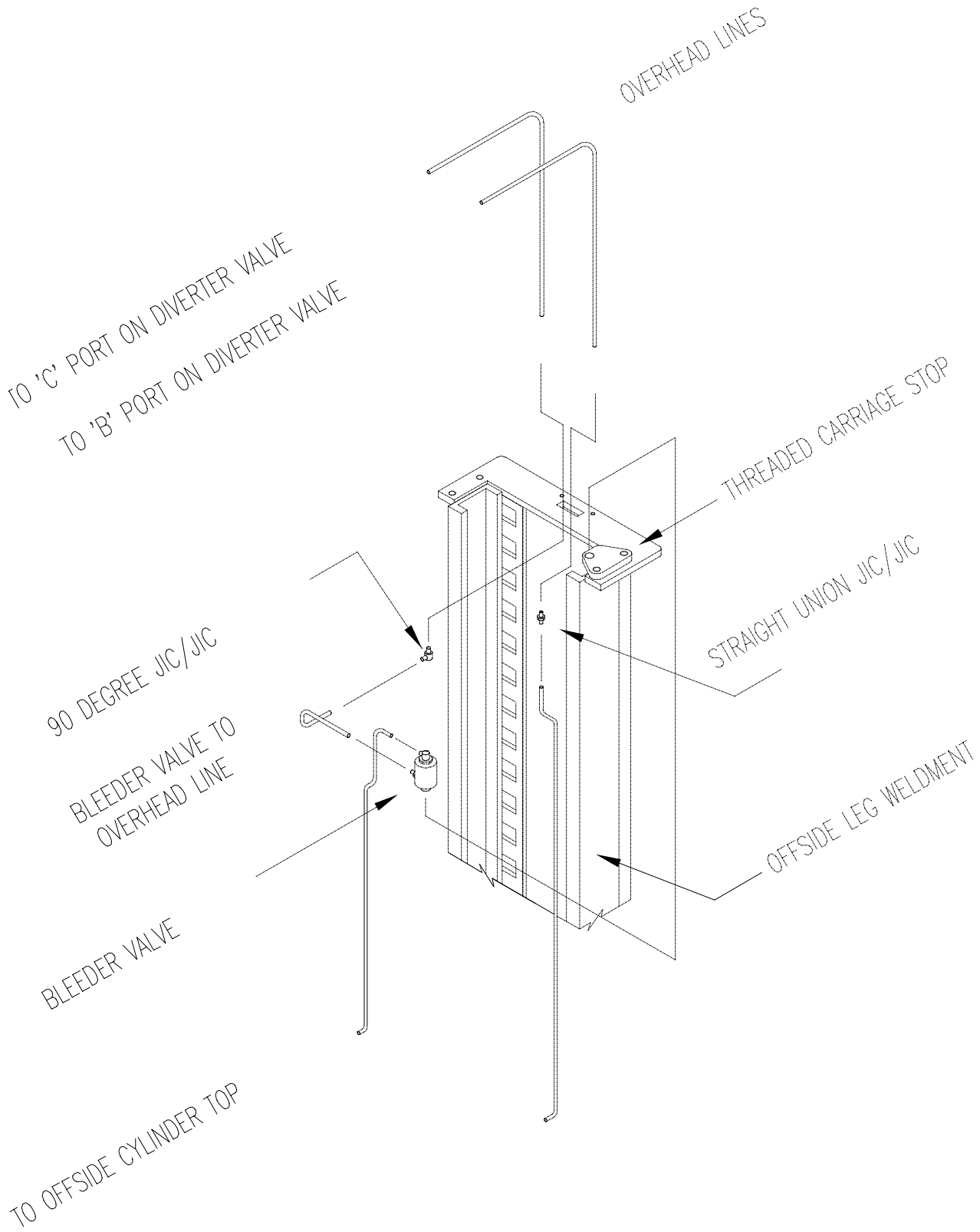
Figure 6



MAN234C

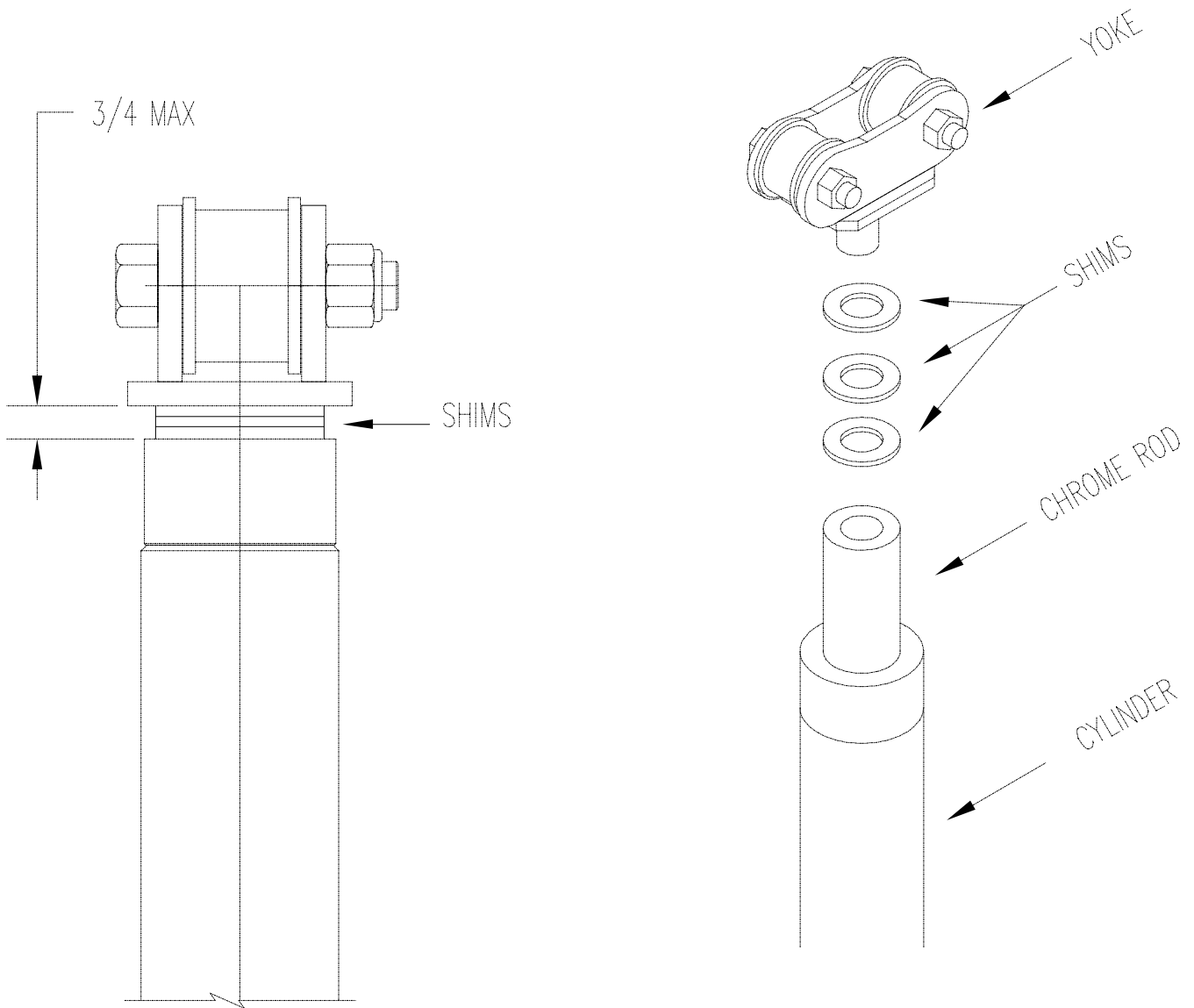
POST SHIMMING

Figure 7



MAN234H

Figure 8



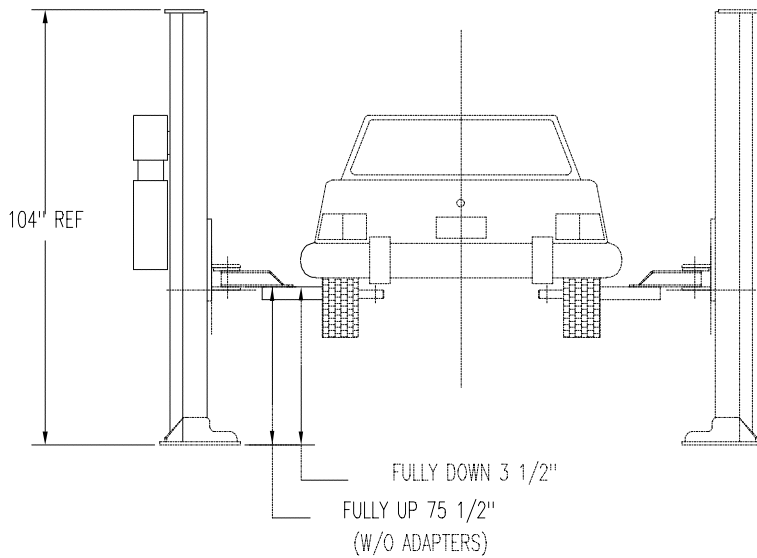
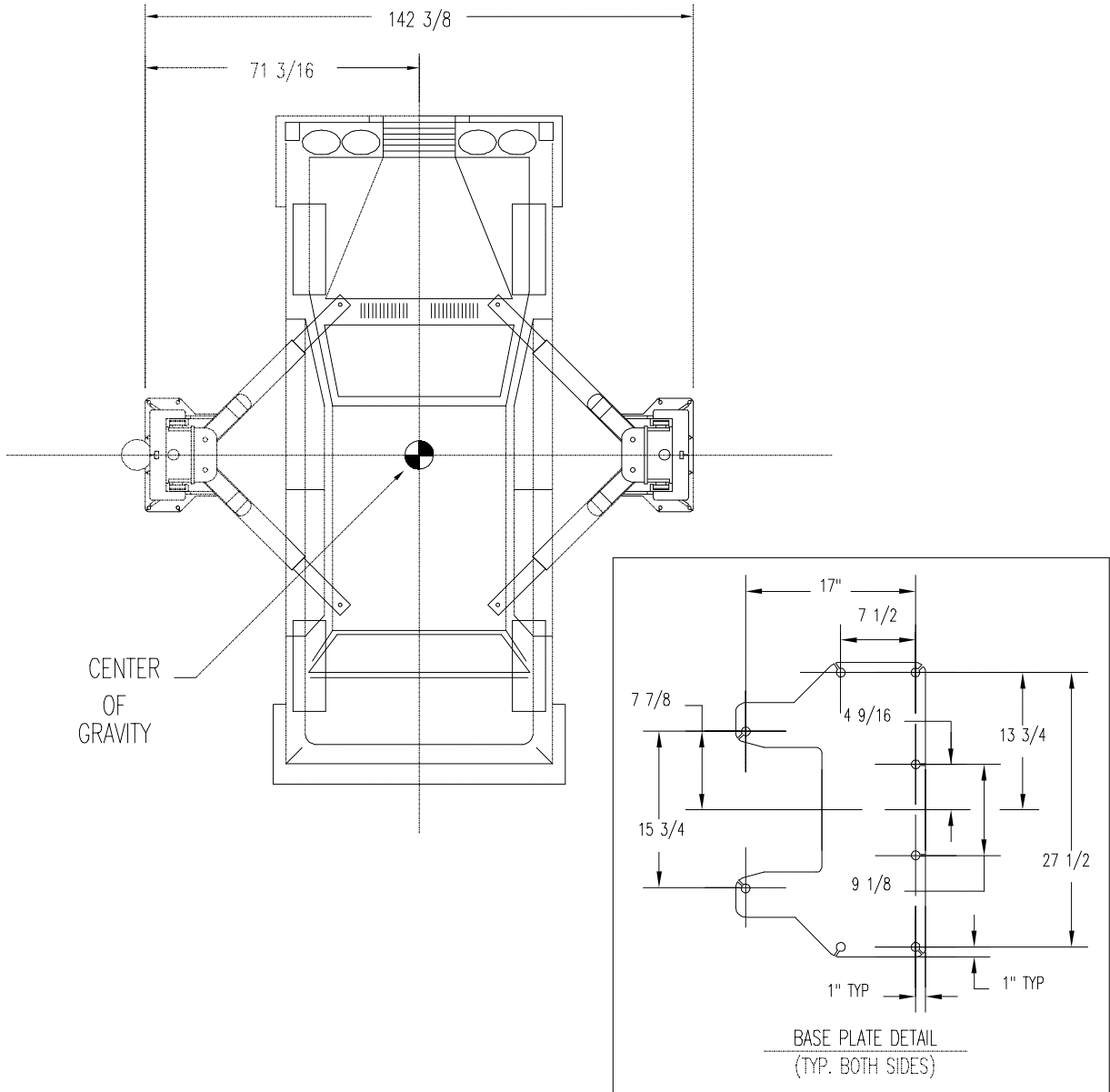
# CYLINDER SHIMS

MAN117D

**Figure 9**



MOHAWK MODEL SYSTEM IA



MAN234I

Figure 10

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

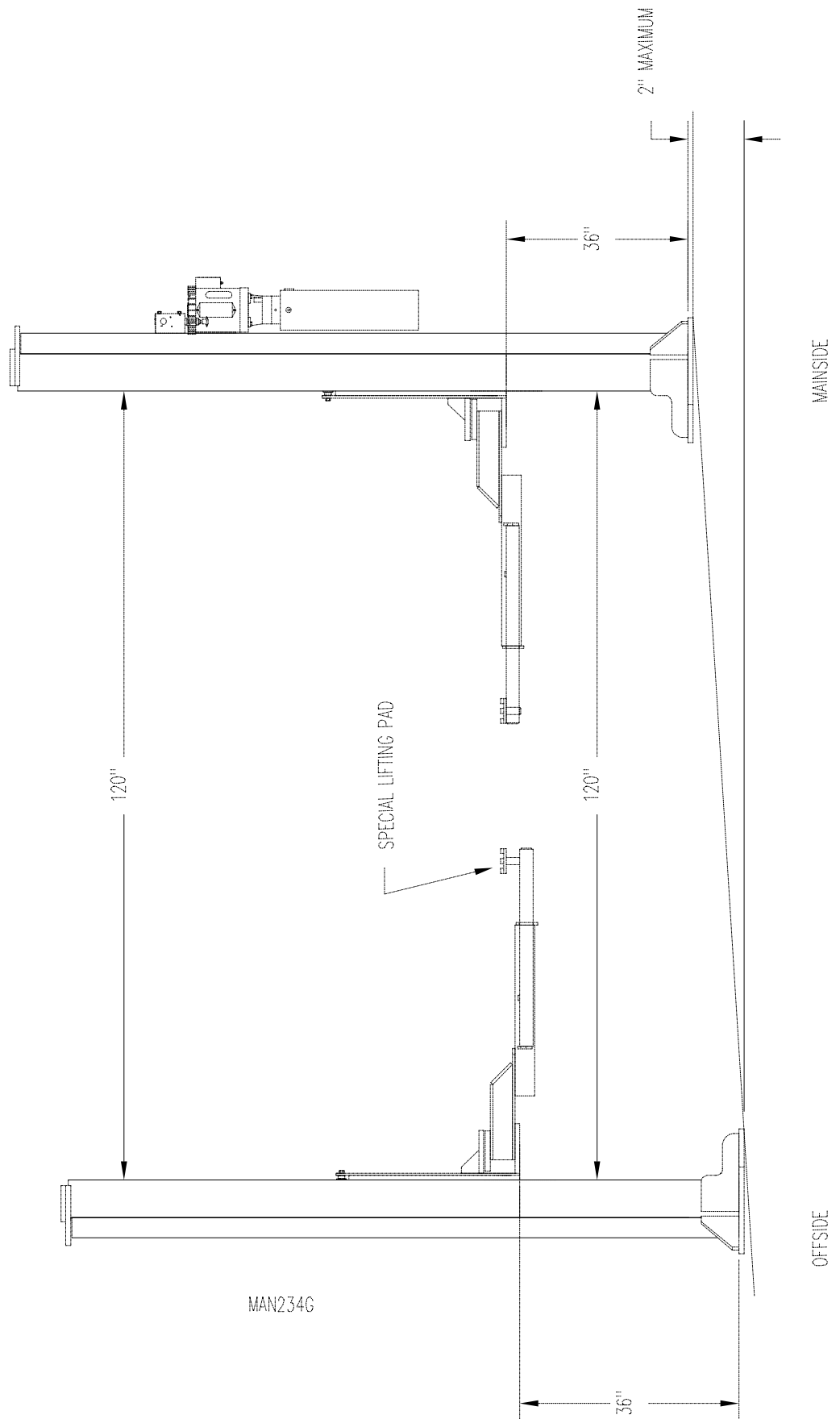
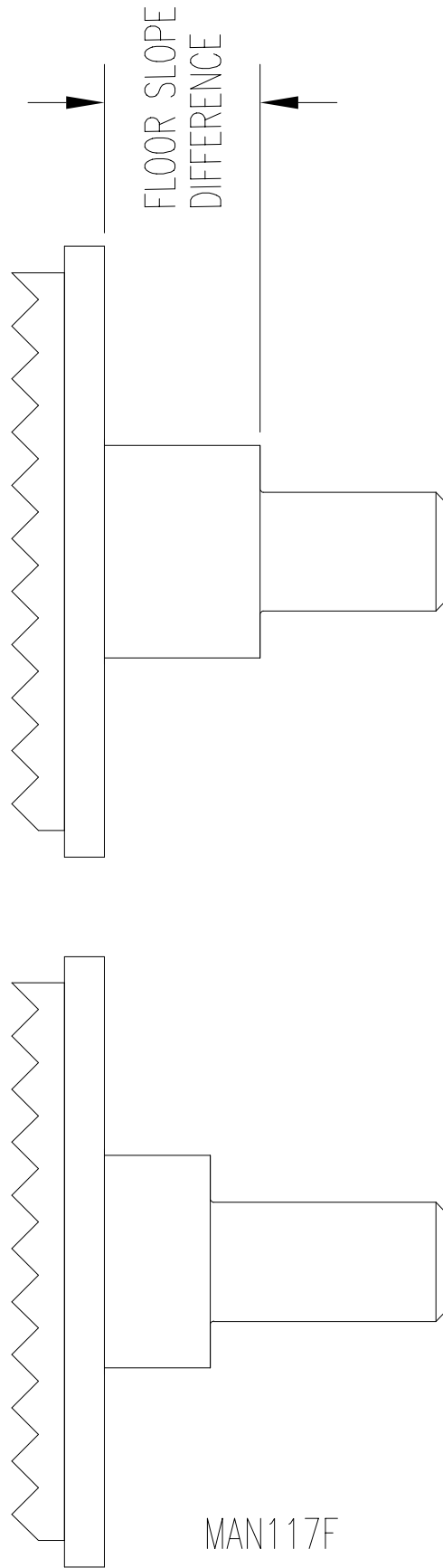


Figure 11



MAN117F

Figure 12



MADE FOR  
**MOHAWK**

Dyna-Pack® **M-4509**  
MOHAWK: **601-300-045**

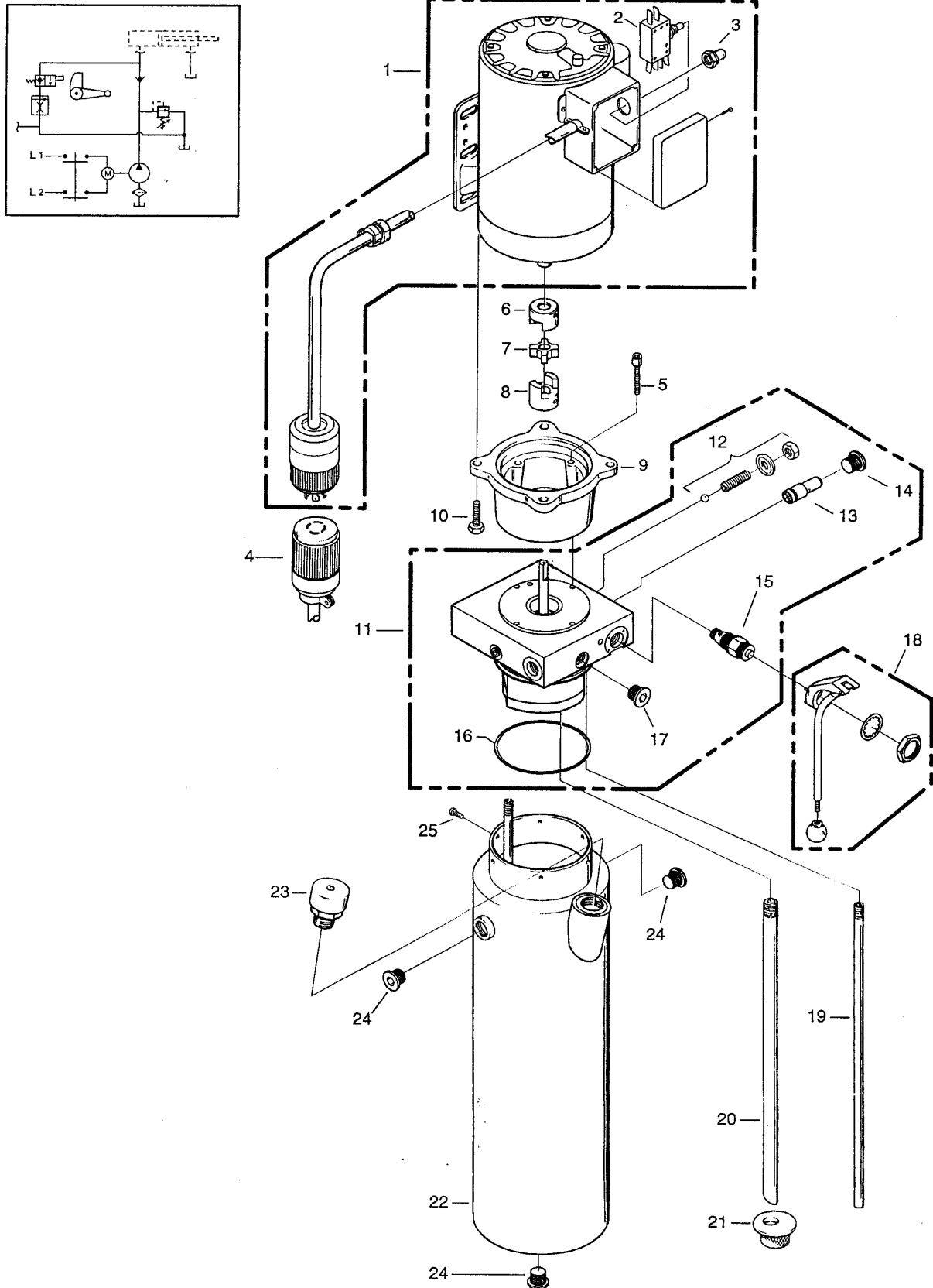


Figure 13

MOHAWK MODEL SYSTEM IA

M-4509/601-300-045

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	04882	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)	3
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.  
 1363 Michigan St NE, Grand Rapids, MI 49503, U.S.A.  
 Telephone: (616) 458-1306  
 Telefax: (616) 458-1816  
<http://www.monarchhyd.com>

Form No. 2361-98

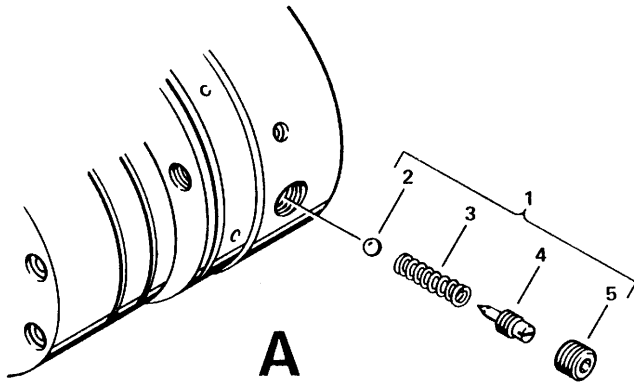
CANADA:  
**FLUID-PACK INTERNATIONAL LIMITED**  
 A Part of the Monarch Hydraulics Group  
 460 Newbold St., London, Ontario, Canada N6E 1K3  
 Telephone: (519) 686-5900  
 Telefax: (519) 686-8976

Litho in U.S.A.

Figure 13A



# RELIEF VALVE ADJUSTMENT PROCEDURE



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

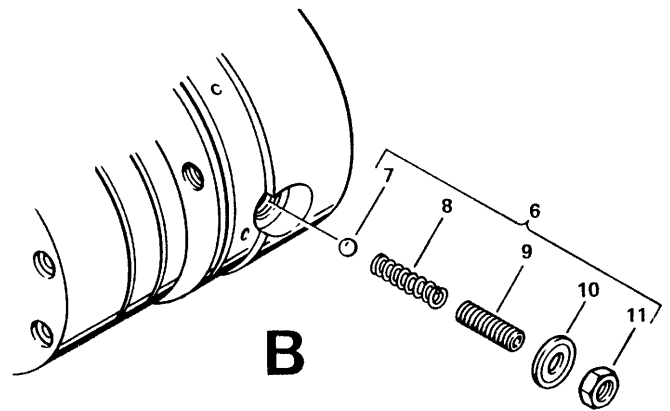
1. REMOVE FLUSH PLUG.
2. TURN SCREW CLOCKWISE TO INCREASE PRESSURE.
3. TURN SCREW COUNTER-CLOCKWISE TO DECREASE PRESSURE.

**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.

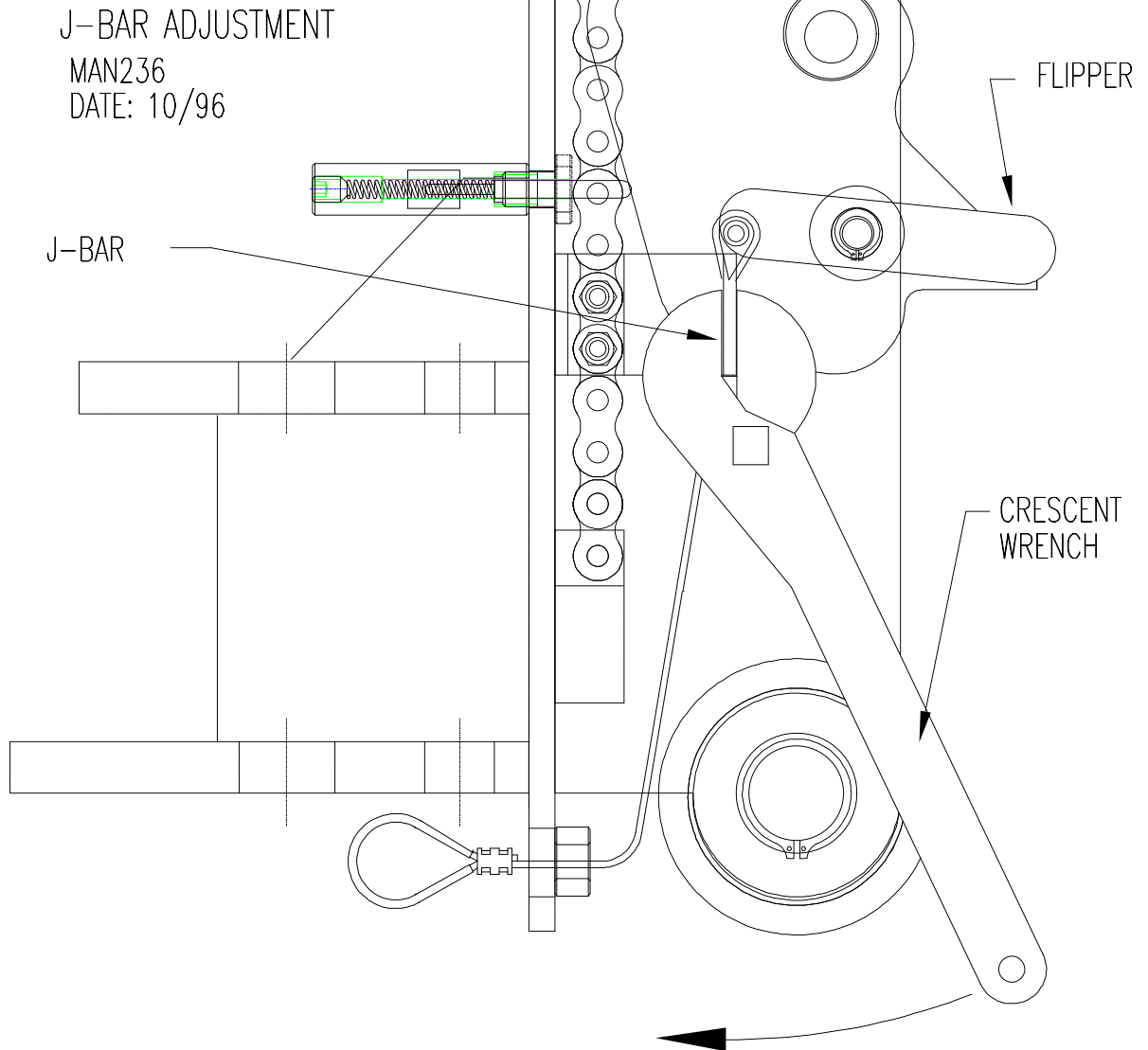
**NOTE**

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 14



IF LOCK SHOULD RE-ENGAGE DURING DESCENT,  
PERFORM THE FOLLOWING:

- 1) LOCATE CRESCENT WRENCH AS SHOWN.
- 2) PULL WRENCH TOWARD YOU TO ADJUST J-BAR INTO PROPER POSITION.
- 3) THE CABLE END OF THE FLIPPER IS TO BE SLIGHTLY LOWER THAN THE OPPOSITE END.
- 4) THIS PROCEDURE TO BE PERFORMED WITH A VEHICLE ON THE UNIT.

**Figure 15**

# **MOHAWK**

## **MODEL SYSTEM IA**

### **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](http://WWW.MOHAWKLIFTS.COM)

**E-MAIN:** [SERVICE@MOHAWKLIFTS](mailto:SERVICE@MOHAWKLIFTS)

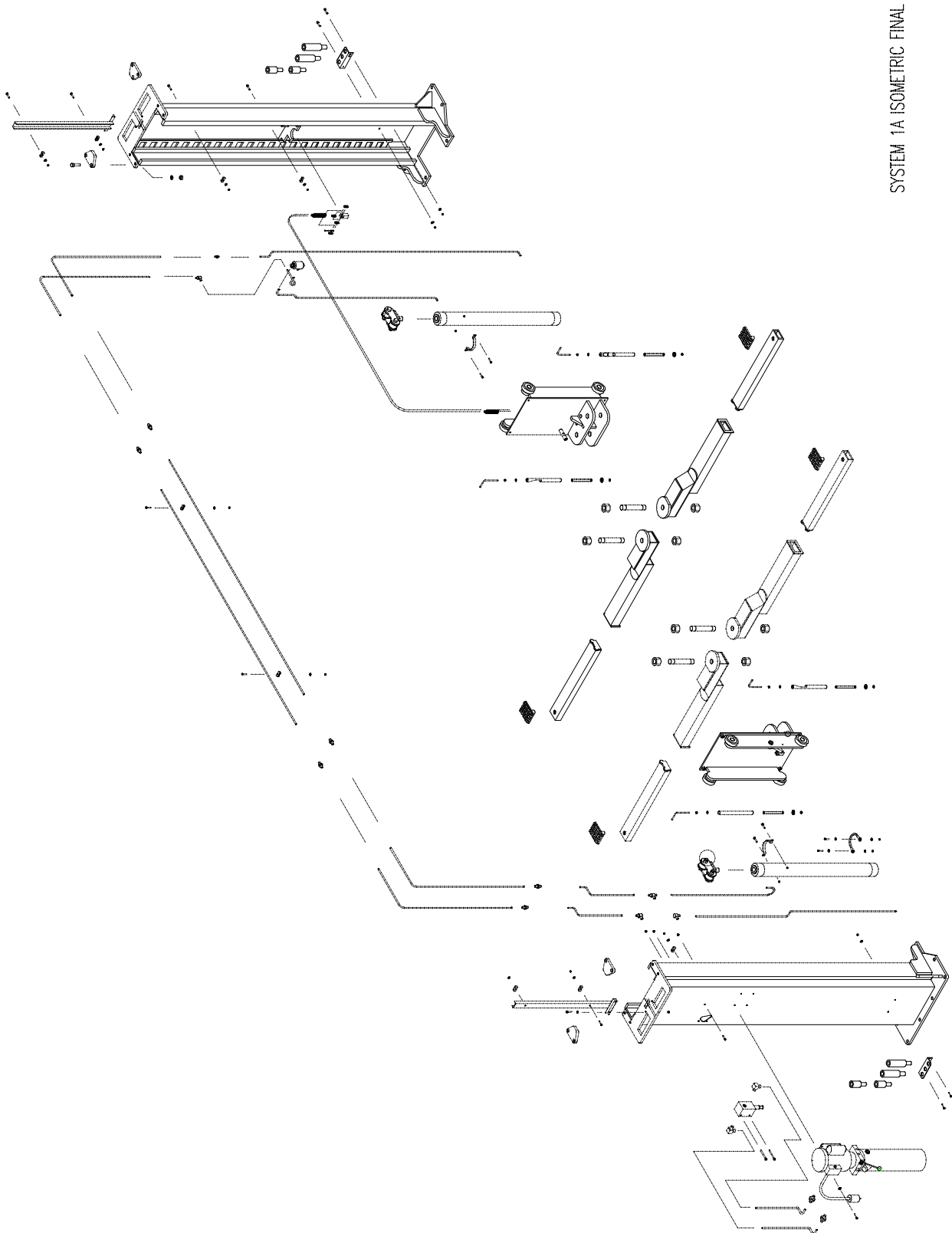


MAN220

REV B 2/99

FILE: MAN220  
DATE: 4/96

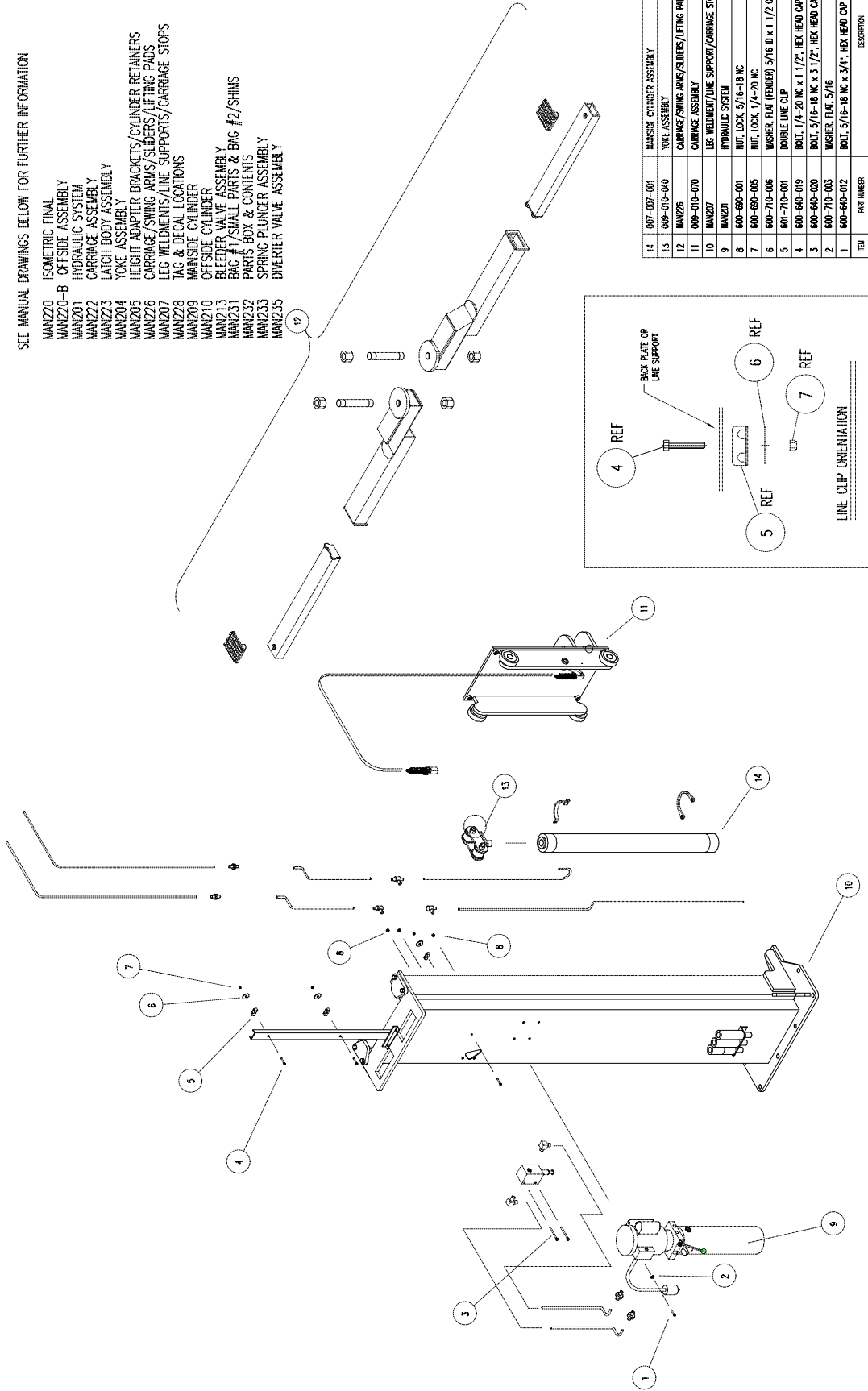
SYSTEM IA ISOMETRIC FINAL ASSEMBLY



MAN220-A

REV C 10/01

- SEE MANUAL DRAWINGS BELOW FOR FURTHER INFORMATION
- MAN220 ISOMETRIC FINAL
  - MAN220-B OFFSIDE ASSEMBLY
  - MAN201 HYDRAULIC SYSTEM
  - MAN222 CARRIAGE ASSEMBLY
  - MAN223 LATCH BODY ASSEMBLY
  - MAN204 YOKE ASSEMBLY
  - MAN205 HEIGHT ADAPTER BRACKETS/CYLINDER RETAINERS
  - MAN226 CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS
  - MAN207 LEG WELDMENTS/LINE SUPPORTS/CARRIAGE STOPS
  - MAN228 JAG & DECAL LOCATIONS
  - MAN209 MAINSIDE CYLINDER
  - MAN210 OFFSIDE CYLINDER
  - MAN213 BLEEDER VALVE ASSEMBLY
  - MAN231 BAG #1/SMALL PARTS & BAG #2/SHIMS
  - MAN232 PARTS BOX & CONTENTS
  - MAN233 SPRING PLUNGER ASSEMBLY
  - MAN235 DIVERTER VALVE ASSEMBLY



ITEM	PART NUMBER	DESCRIPTION	QTY
14	007-007-001	MAINSIDE CYLINDER ASSEMBLY	1
13	008-010-010	YOKE ASSEMBLY	1
12	MAN226	CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS	1
11	009-010-070	CARRIAGE ASSEMBLY	1
10	MAN207	LEG WELDMENT/LINE SUPPORT/CARRIAGE STOPS	1
9	MAN201	HYDRAULIC SYSTEM	1
8	600-680-001	NUT LOCK 5/16-18 NC	6
7	600-680-006	NUT LOCK 1/4-20 NC	3
6	600-710-006	WASHER FLAT (FENDER) 5/16 D x 1 1/2 OD	3
5	601-710-001	DOUBLE LINE CLIP	3
4	600-640-019	BOLT 1/4-20 NC x 1 1/2", HEX HEAD CAP	3
3	600-640-020	BOLT 5/16-18 NC x 3 1/2", HEX HEAD CAP	2
2	600-710-003	WASHER FLAT, 5/16	4
1	600-640-012	BOLT 5/16-18 NC x 3/4", HEX HEAD CAP	4

SYSTEM 1A MAINSIDE ASSEMBLY

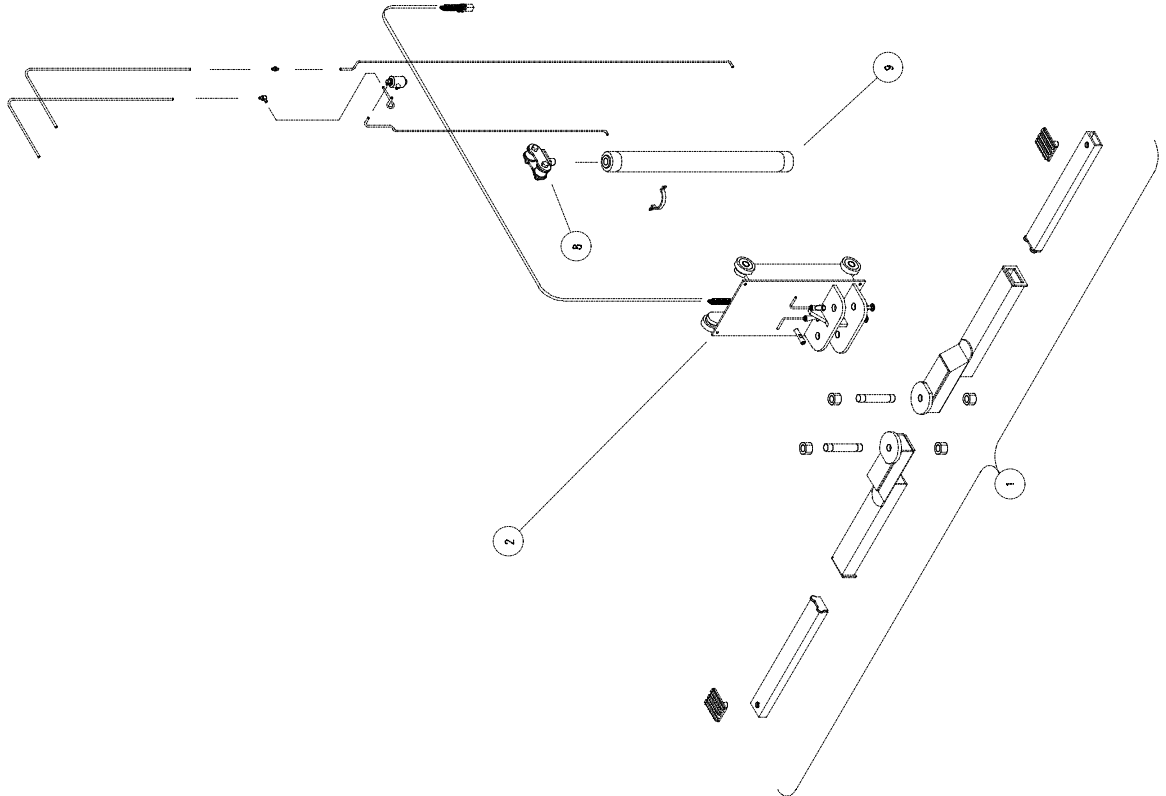
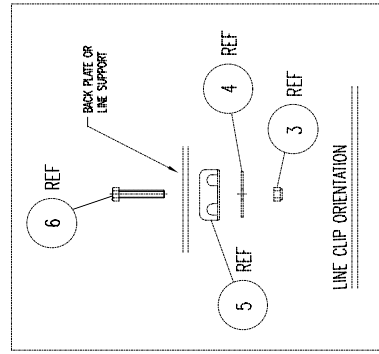
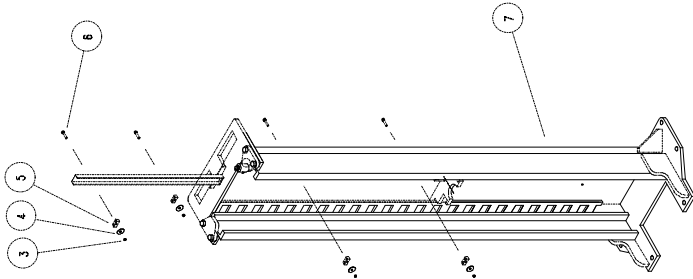
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DATE: 4/96

MAN220-B

REV B 10/01

SEE MANUAL DRAWINGS BELOW FOR FURTHER INFORMATION

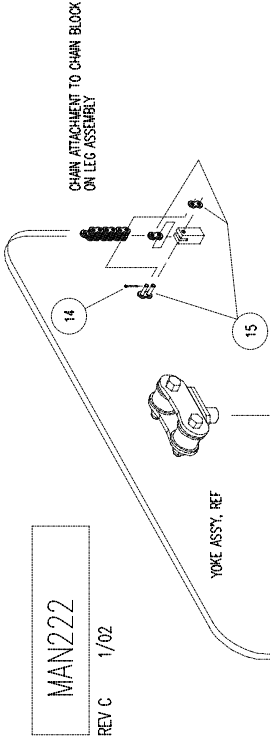
- MAN220 ISOMETRIC FINAL
- MAN220-A MAINSIDE ASSEMBLY
- MAN201 HYDRAULIC SYSTEM
- MAN222 CARRIAGE ASSEMBLY
- MAN223 LATCH BODY ASSEMBLY
- MAN204 YOKE ASSEMBLY
- MAN205 HEIGHT ADAPTER BRACKETS/CYLINDER RETAINERS
- MAN226 CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS
- MAN207 LEG WELDMENTS/LINE SUPPORTS/CARRIAGE STOPS
- MAN228 TAG & DECAL LOCATIONS
- MAN209 MAINSIDE CYLINDER
- MAN210 OFFSIDE CYLINDER
- MAN213 BLEEDER VALVE ASSEMBLY
- MAN231 BAG #1/SMALL PARTS & BAG #2/SHIMS
- MAN232 PARTS BOX & CONTENTS
- MAN233 SPRING PLUNGER ASSEMBLY
- MAN235 DIVERTER VALVE ASSEMBLY



ITEM	PART NUMBER	DESCRIPTION	QTY
1	MAN226	CARRIAGE/SLIDERS/LIFTING PADS	1
2	005-010-070	CARRIAGE ASSEMBLY	1
3	800-800-005	NUT, LOCK, 1/4-20 NC	4
4	800-710-008	WASHER, FLAT (FEMER) 5/16 ID x 1 1/2 OD	4
5	801-710-001	DOUBLE LINE CLIP	4
6	800-800-019	BOLT, 1/4-20 NC x 1 1/2 LG, HEX HEAD COP	4
7	MAN207	LEG WELDMENT/LINE SUPPORT/CARRIAGE STOPS	1
8	005-010-060	YOKE ASSEMBLY	1
9	801-600-001	OFFSIDE CYLINDER	1

SYSTEM 1A OFFSIDE ASSEMBLY

FILE: MAN220-B  
DATE: 4/96

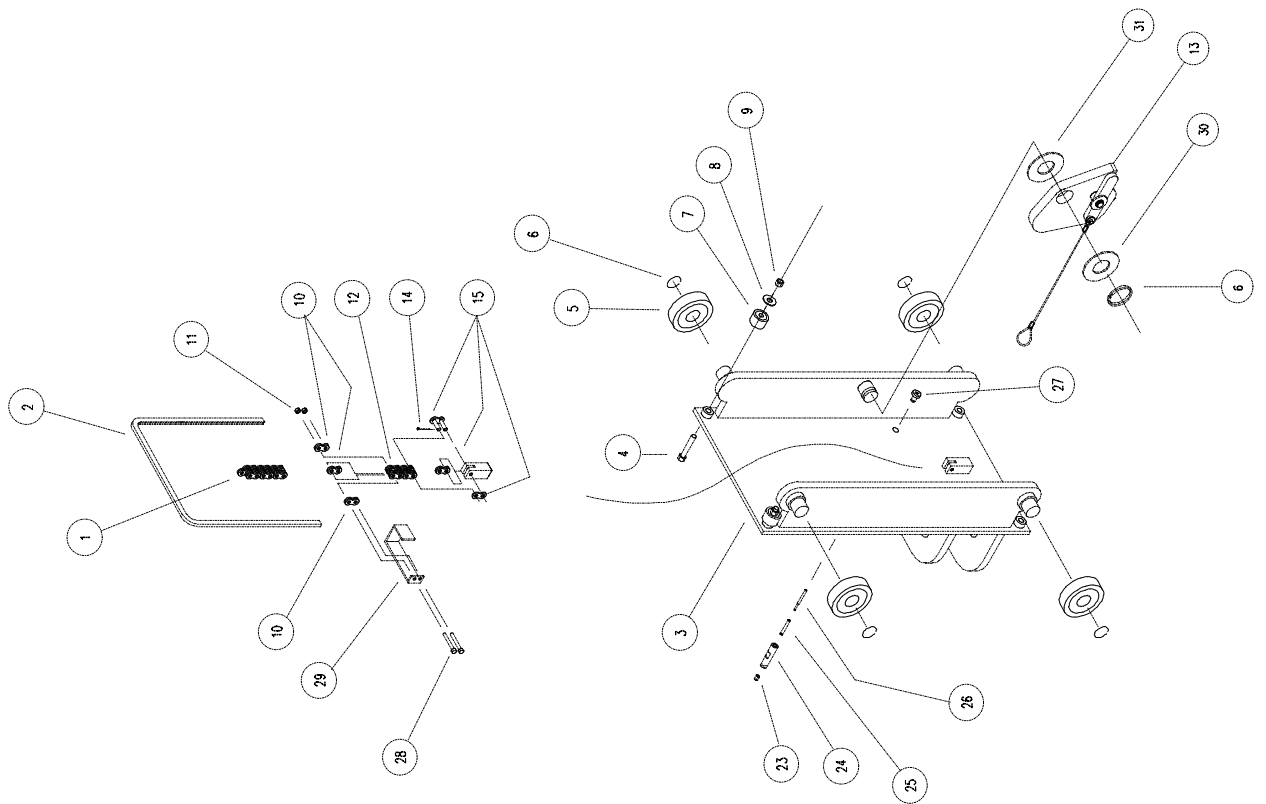


QUANTITIES SHOWN ARE FOR (1) CARRIAGE

ITEM	PART NUMBER	DESCRIPTION	QTY
1	600-710-014	WASHER, FLAT, 1 3/8 SEE	1
2	007-007-178	WASHER (LOCK/FLIPPER)	1
3	009-010-127	J-BAR	1
4	600-840-050	ROTL, 5/16-18 NC x 2 1/2", HEX HEAD CAP	2
5	009-010-125	PLUNGER HOUSING CAP	1
6	009-010-124	PLUNGER	1
7	600-840-019	SPRING	1
8	009-010-126	PLUNGER HOUSING	1
9	600-530-001	SET SCREW, 3/8-16 NC x 1/2"	1
10	600-870-002	SMP RING, #5100-100	2
11	600-710-010	WASHER, FLAT, 1"	2
12	600-840-006	SPRING, 1.64, 0.01 x 1.03 D x 7 3/32" LG	2
13	009-001-156	ARM RESTRAINT, 1" DIA x 13 3/8" LG	2
14	600-710-006	WASHER, FLAT, FENDER, 5/16	2
15	600-880-003	NUT, PLUM, 5/16-18 NC	2
16	007-007-141	HANDLE, 5/16 DIA x 8"	2
17	600-530-006	MASTER CHAIN LINK ASSEMBLY	2
18	600-890-001	COTTER PIN, 3/32 DIA x 1 1/2" LG	2
19	009-010-068	LATCH BODY ASSEMBLY	1
20	009-010-457	CHAIN, 3 PITCHES, BL-646	1
21	600-890-001	NUT LOCK, 5/16-18 NC	2
22	600-530-027	CHAIN LINK, BL-546	6
23	600-890-006	NUT LOCK, 7/16-14 NC	4
24	600-710-005	WASHER, FLAT, 7/16	4
25	600-880-002	CAM YOKE ROLLER, 1 1/2 DIA	4
26	600-870-001	SMP RING, #5100-137	5
27	600-860-012	CARRIAGE ROLLER ASSEMBLY	4
28	600-840-006	ROTL, 7/16-14 NC x 2 1/2", HEX HEAD CAP	4
29	009-010-069	CARRIAGE WELDMENT	1
30	009-001-418	TRM-LINK, 8P LG	1
31	600-530-001	CHAIN, BL-646, 77 PITCHES	1
			87

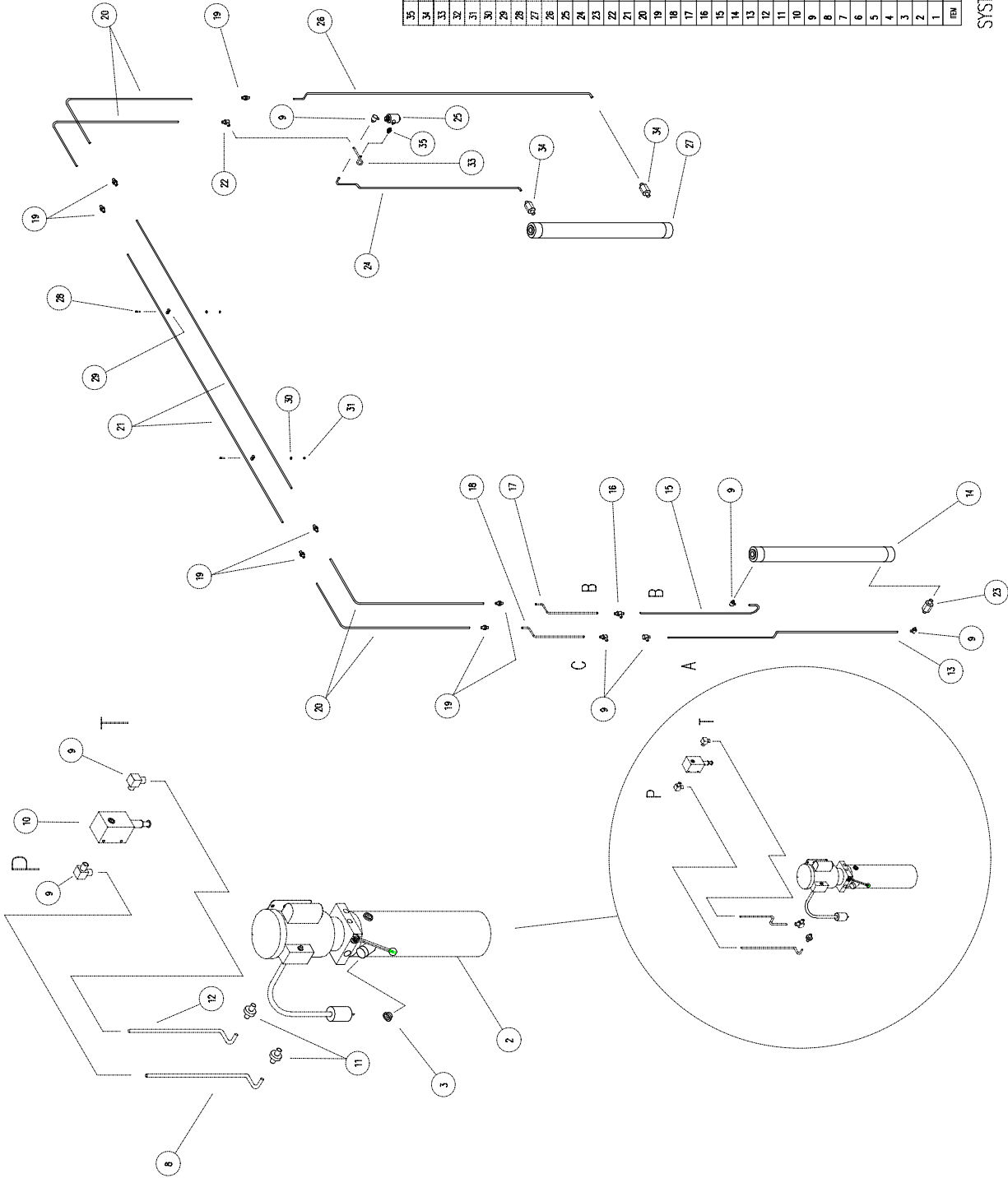
SYSTEM 1A CARRIAGE, CHAIN, & ARM LOCK  
(009-010-070)

FILE: MAN222  
DATE: 4/96



MAN201

REV AB 2/99



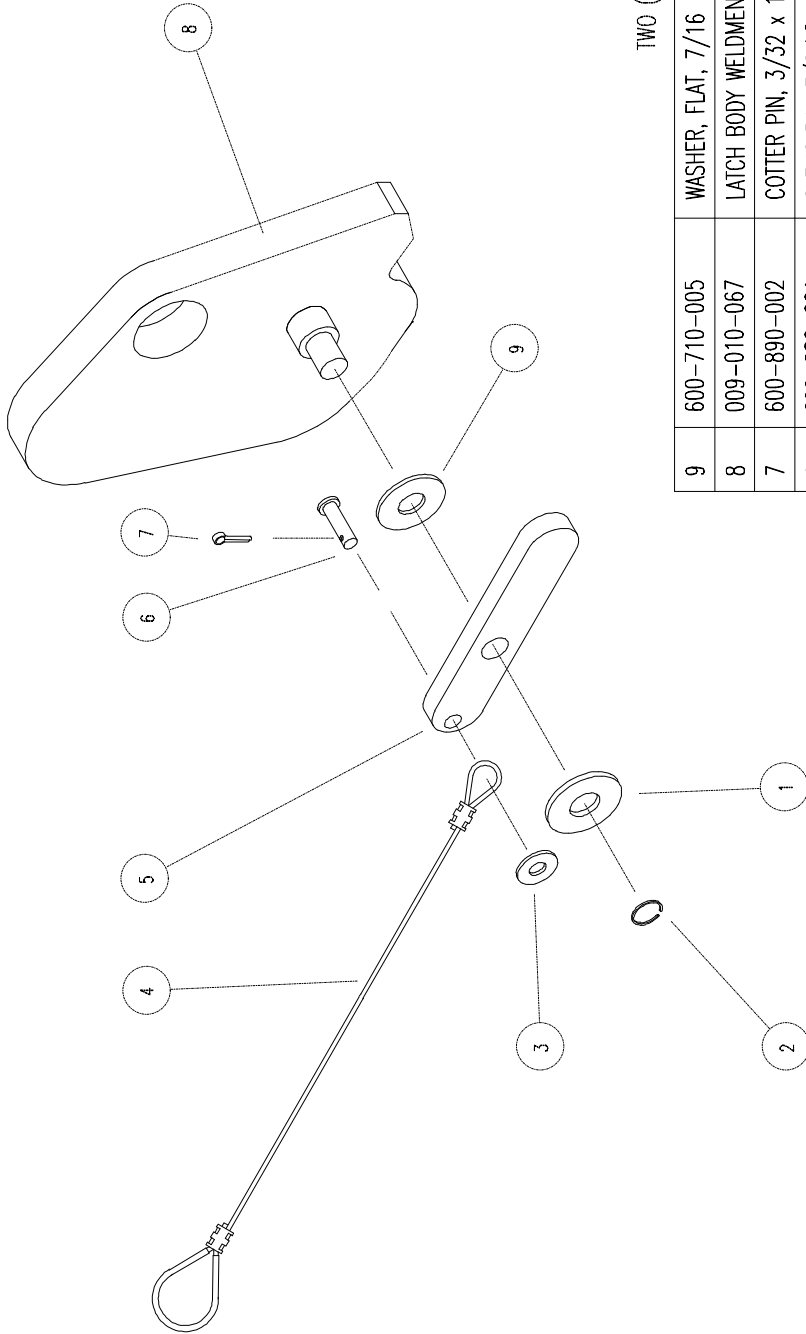
ITEM	PART NUMBER	DESCRIPTION	QTY
1			
2			
3	601-310-005	BREATHER CAP	1
4			
5			
6			
7			
8	015-000-005	TUBING ASSEMBLY, 28 15/16"	1
9	601-420-017	ELBOW, 90 DEG, 1/2 OBD TO 1/2 JC	3
10	601-410-030	INVERTER VALVE	1
11	601-420-019	STRAIGHT, 1/2 O-RING BOSS TO 1/2 JC	1
12	015-000-024	TUBING ASSEMBLY, 23 3/4"	1
13	009-010-026	TUBING ASSEMBLY, 78"	1
14	007-007-001	MANIFOLD CYLINDER	1
15	009-010-027	TUBING ASSEMBLY, 43"	1
16	601-420-046	TEE, BRANCH, 1/2 OBD TO 1/2 JC TO 1/2 JC	1
17	009-010-029	TUBING ASSEMBLY, 25 1/4"	1
18	009-010-028	TUBING ASSEMBLY, 23 1/4"	1
19	601-420-011	STRAIGHT, 1/2 JC TO 1/2 JC	7
20	009-010-018	TUBING ASSEMBLY, 59 1/4"	4
21	000-001-001	TUBING ASSEMBLY, 100"	2
22	601-420-062	ELBOW, 90°, 1/2 JC TO 1/2 JC	1
23	601-410-031	VALVE, VELOCITY FUSE, 4 GPM	1
24	009-010-033	TUBING ASSEMBLY, 68 3/4"	1
25	009-010-009	VALVE ASSEMBLY, BLEEDER	1
26	009-010-032	TUBING ASSEMBLY, 102 1/2"	1
27	601-490-001	OFFSIDE CYLINDER	1
28	601-840-019	BOIL, 1/2-20 NC x 1 1/2"	2
29	601-710-001	DOUBLE LINE CIP	2
30	600-710-004	WASHER, FLAT, 1/4"	2
31	600-860-005	NUT, LOCK, 1/4-20 NC	2
32			
33	009-010-059	TUBING ASSEMBLY, 13 3/4"	1
34	601-410-026	VALVE, VELOCITY FUSE, 4 GPM	2
35	601-420-025	STRAIGHT, 1/2 OBD TO 1/2 JC	1

SYSTEM 1A HYDRAULIC SYSTEM

FILE: MAN201  
DATE: 4/96

MAN223

REV-C 6/99



TWO (2) LATCH BODY ASSEMBLIES PER LIFT

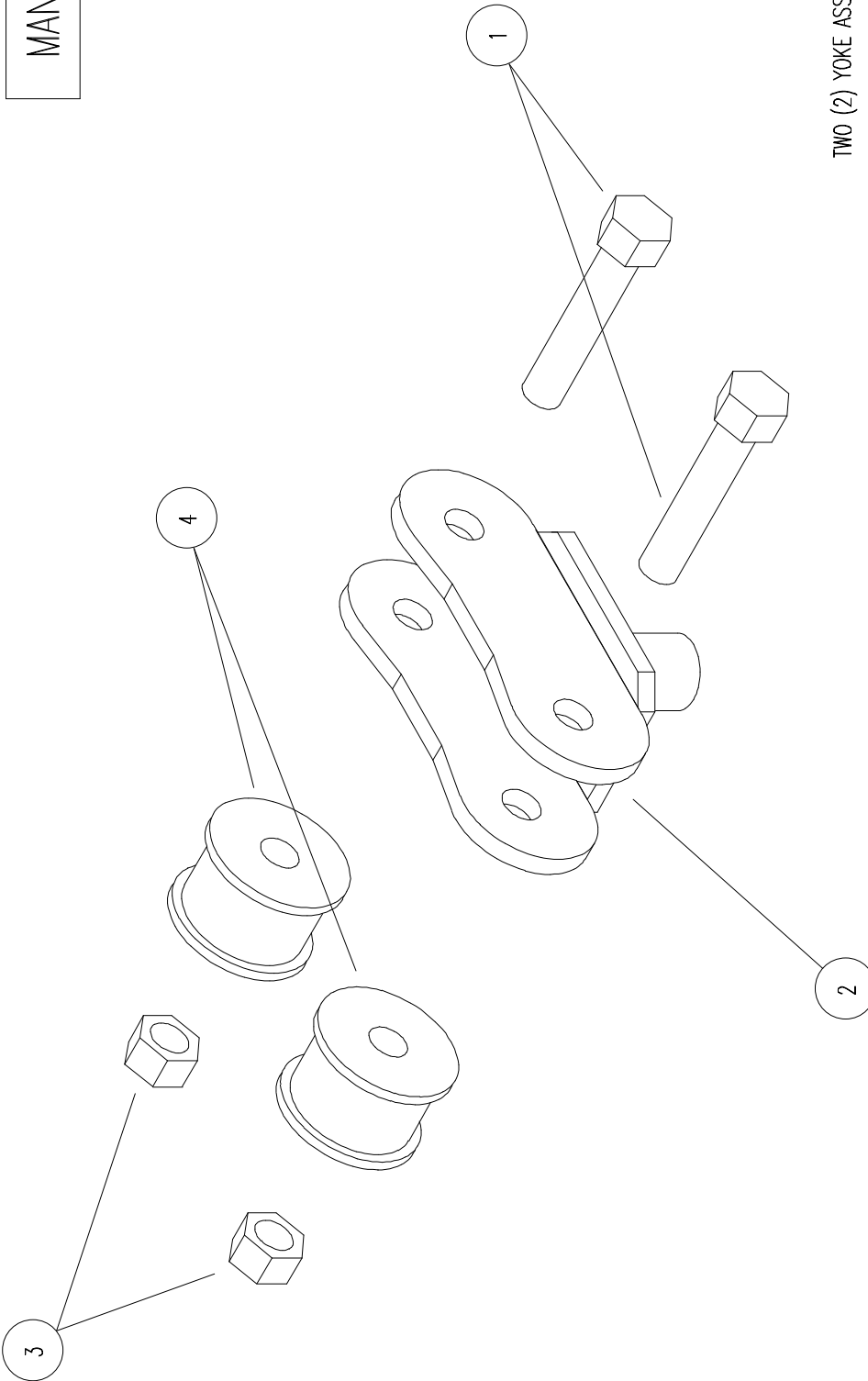
ITEM	PART NUMBER	DESCRIPTION	QTY
9	600-710-005	WASHER, FLAT, 7/16	1
8	009-010-067	LATCH BODY WELDMENT	1
7	600-890-002	COTTER PIN, 3/32 x 1/2	1
6	600-880-001	CLEVIS PIN, 7/8 LG	1
5	007-007-147	FLIPPER	1
4	009-001-066	SAFETY RELEASE CABLE ASSEMBLY	1
3	600-710-004	WASHER, FLAT, 1/4	1
2	600-870-003	SNAP RING, 1/2	1
1	600-710-008	WASHER, FLAT, 1/2	1

SYSTEM 1A LATCH BODY ASSEMBLY

(009-010-068)

FILE: MAN223  
DATE 4/96

MAN204



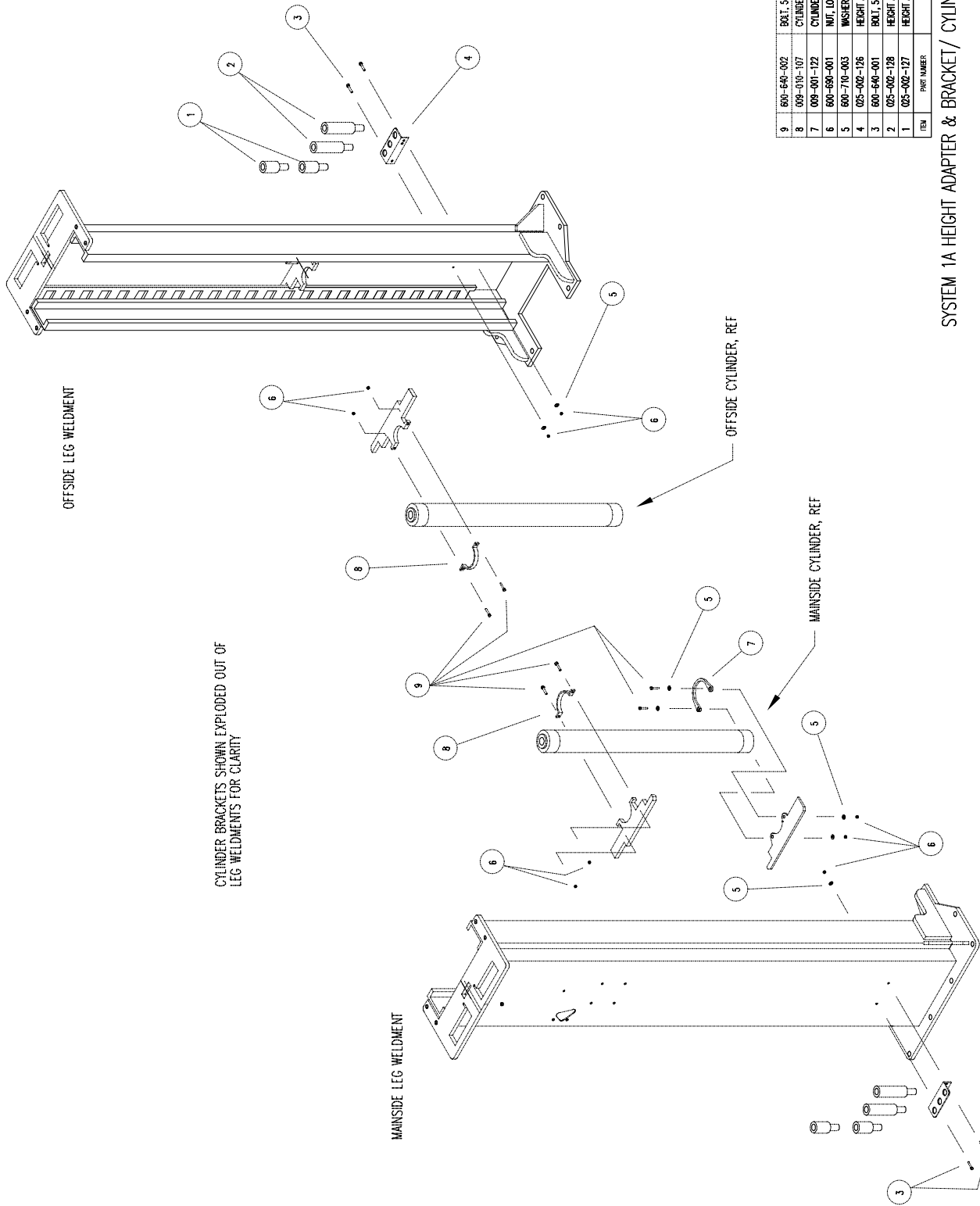
TWO (2) YOKE ASSEMBLIES PER LIFT

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

SYSTEM 1A YOKE ASSEMBLY  
(009-010-040)

FILE: MAN204  
DATE: 4/96

MAN205  
REV A 2/99



CYLINDER BRACKETS SHOWN EXPLODED OUT OF LEG WELDMENTS FOR CLARITY

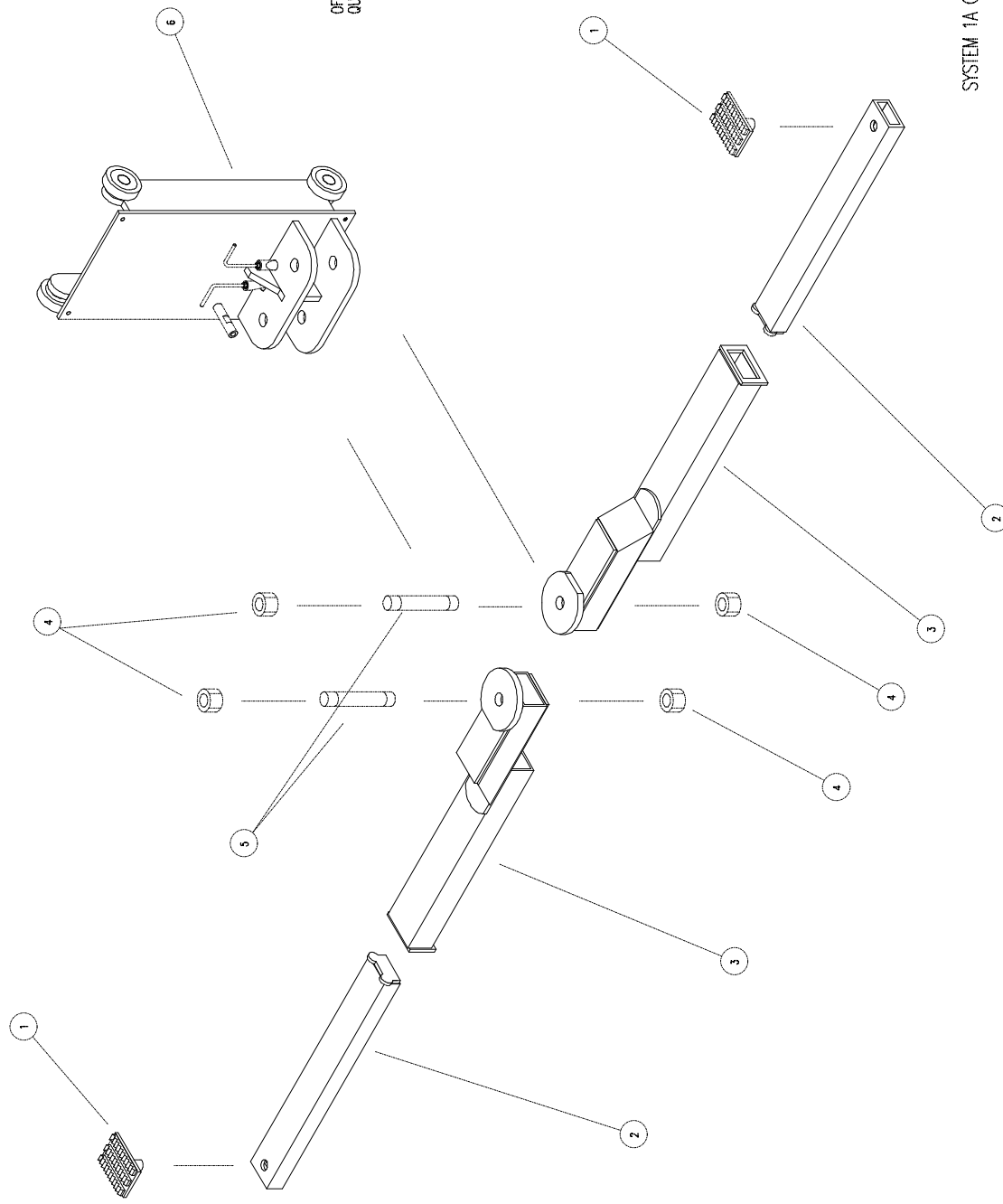
ITEM	PART NUMBER	DESCRIPTION	QTY
9	600-640-002	BOLT, 5/16-18 NC x 1 1/2	6
8	009-010-107	CYLINDER BRACKET	2
7	009-001-172	CYLINDER CLAMP	1
6	600-600-001	NUT, LOCK, 5/16-18 NC	10
5	600-710-003	WASHER, FLAT, 5/16	8
4	005-002-176	HEIGHT ADAPTER BRACKET	2
3	600-640-001	BOLT, 5/16-18 NC x 1"	4
2	005-002-178	HEIGHT ADAPTER, 6"	4
1	005-002-177	HEIGHT ADAPTER, 3"	4

SYSTEM 1A HEIGHT ADAPTER & BRACKET/ CYLINDER CLAMPS

FILE: MAN205  
DATE: 4/96



MAN226



OFFSIDE CARRIAGE SHOWN  
QUANTITIES ARE THE SAME FOR THE MAINSIDE

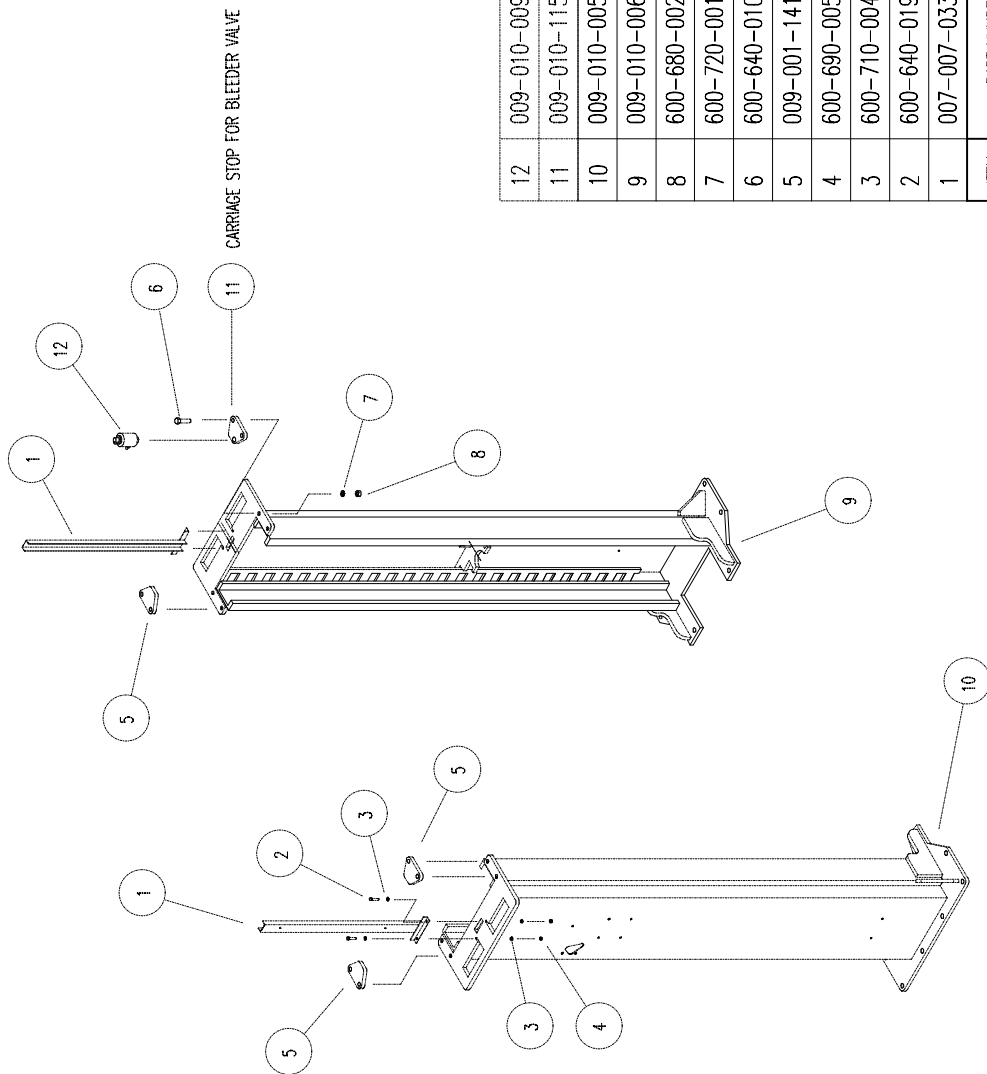
ITEM	PART NUMBER	DESCRIPTION	QTY
1	009-010-070	CARRIAGE ASSEMBLY	1
2	009-010-114	CARRIAGE PIN, 1 3/8 DIA.	2
3	600-660-008	INT. LOCK, NYLON, 1 3/8-12 NF	4
4	009-010-012	SWING ARM WELDMENT	2
5	009-001-019	SLIDER WELDMENT	2
6	025-002-035	LIFTING PAD	2

SYSTEM 1A CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS

FILE: MAN226  
DATE: 4/96

MAN207

REV A 2/99



ITEM	PART NUMBER	DESCRIPTION	QTY
12	009-010-009	VALVE ASSEMBLY (BLEEDER VALVE)	1
11	009-010-115	CARRIAGE STOP	1
10	009-010-005	MAINSIDE LEG WELDMENT	1
9	009-010-006	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	009-001-141	CARRIAGE STOP	3
4	600-690-005	NUT, LOCK, 1/4-20 NC	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	2

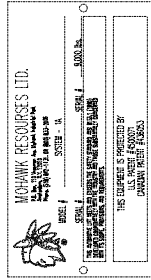
LEG WELDMENT/LINE SUPPORTS/CARRIAGE STOPS  
SYSTEM 1A

FILE: MAN207  
DATE: 4/96

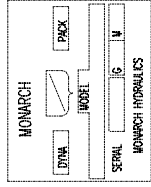
MAN228

REV-C 7/99

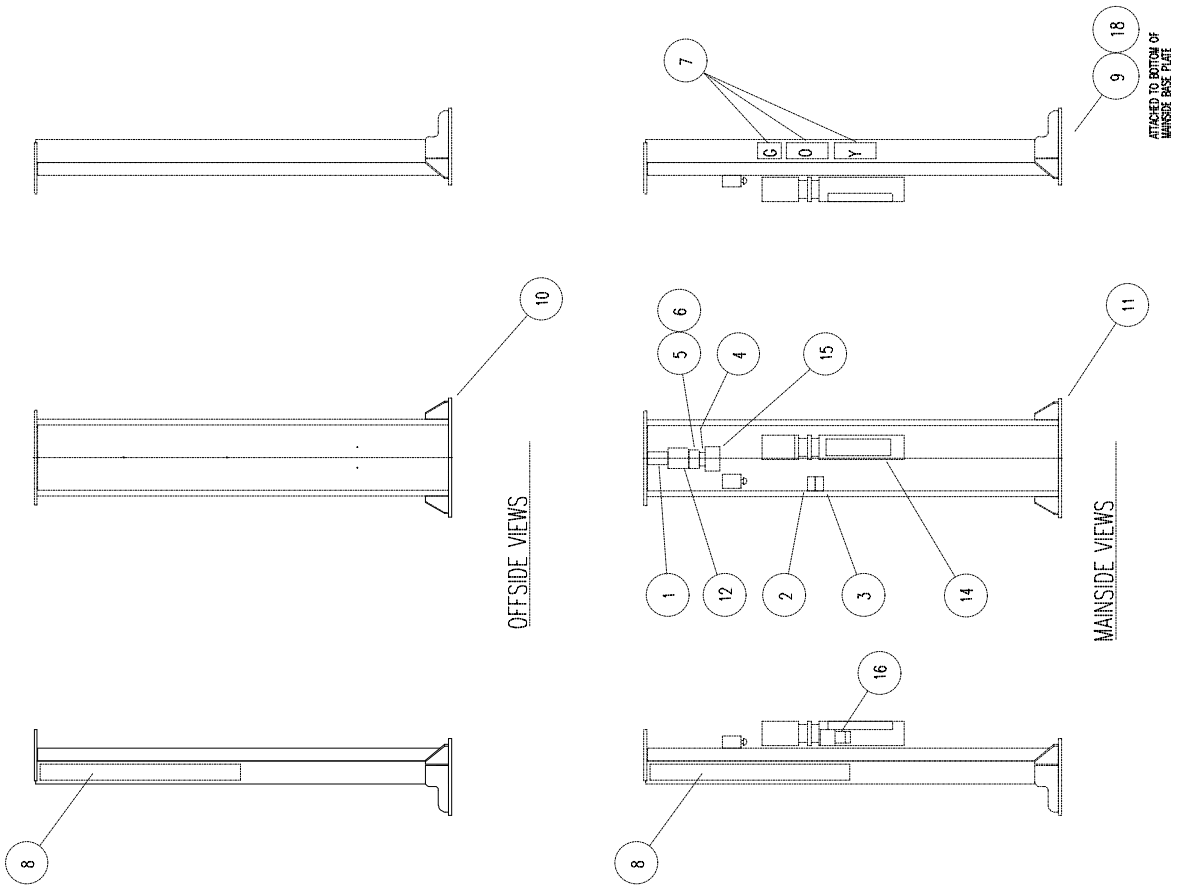
- NOTES:  
 1. PLACE ITEM 5 IN POSITION SHOWN & MATCH DRILL (2) 3/32 DIA HOLES THRU BACK PLATE.



(MOHAWK SERIAL TAG) 5



(MONARCH POWER UNIT DECAL) 16



TYPICAL BOTH CARRIAGES

ITEM	PART NUMBER	DESCRIPTION	QTY
18	601-800-116	PACKING LIST ENVELOPE, 5 1/2 x 7 1/2	1
17	601-800-109	DECAL, WARNINGS, 2 1/2 x 6 1/2	2
16	----	DECAL, MONARCH POWER UNIT	REF
15	601-800-056	DECAL, AUI/EFL CERTIFIED	1
14	601-800-001	OPERATIONAL INSTRUCTION DECAL	1
13	----	----	----
12	601-800-042	"MAXIMUM CAPACITY 8000 LBS" DECAL, 5" x 5"	1
11	009-010-001	WARDSIDE LEG ASSEMBLY	REF
10	009-010-002	OFFSIDE LEG ASSEMBLY	REF
9	601-800-115	WARRANTY CARD, 4" x 5 1/2	1
8	601-800-061	"MOHAWK" DECAL, 6 3/8 x 4 1/4	2
7	601-800-052	CAUTION, WARNINGS, SAFETY DECAL, 4" x 20 3/4	1
6	600-620-001	SCREW, DRIVE, #4 x 1/4	2
5	601-800-020	SERIAL SPEC. PLATE, 2 7/16 x 4 9/16	1
4	601-800-037	"AUI" 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", 3 1/8 x 5 3/16	1

TAG & DECAL LOCATIONS SYSTEM 1A

FILE: MAN228  
 DATE: 4/96

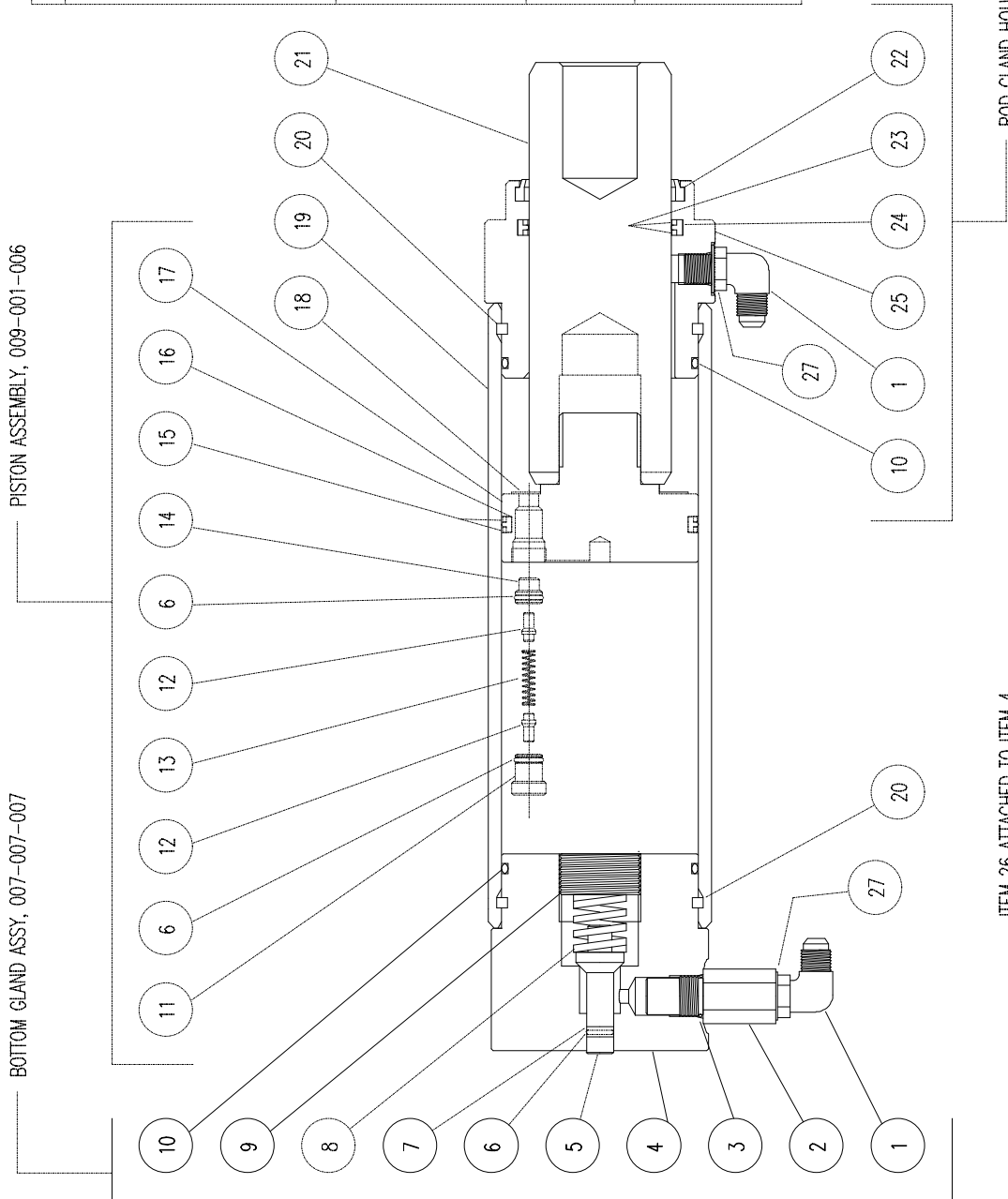
MOHAWK MODEL SYSTEM IA

MAN209

REV A 7/25/01

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

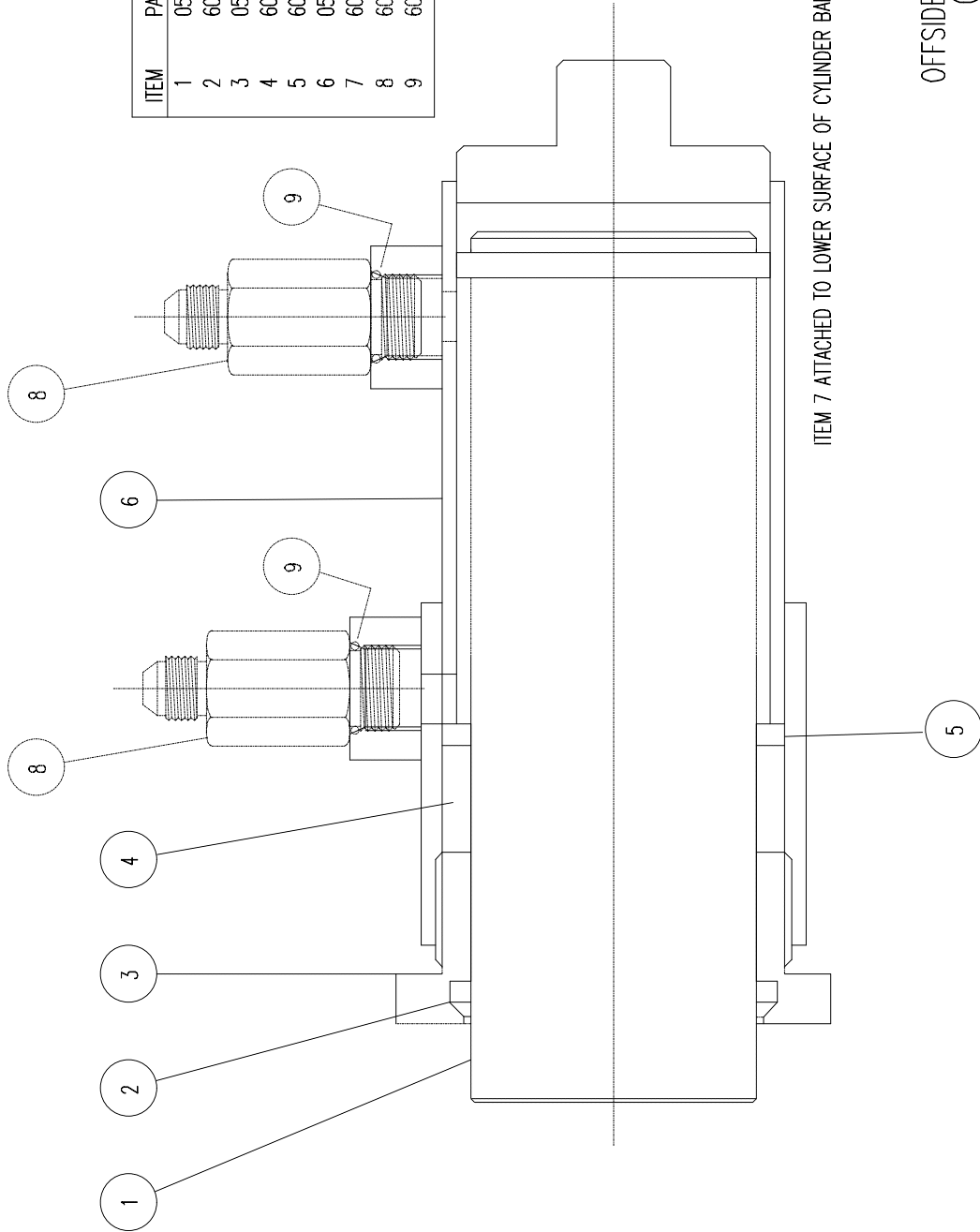
SYSTEM IA  
MAINSIDE CYLINDER ASSEMBLY  
(007-007-001)



FILE: MAN209  
DATE: 4/96

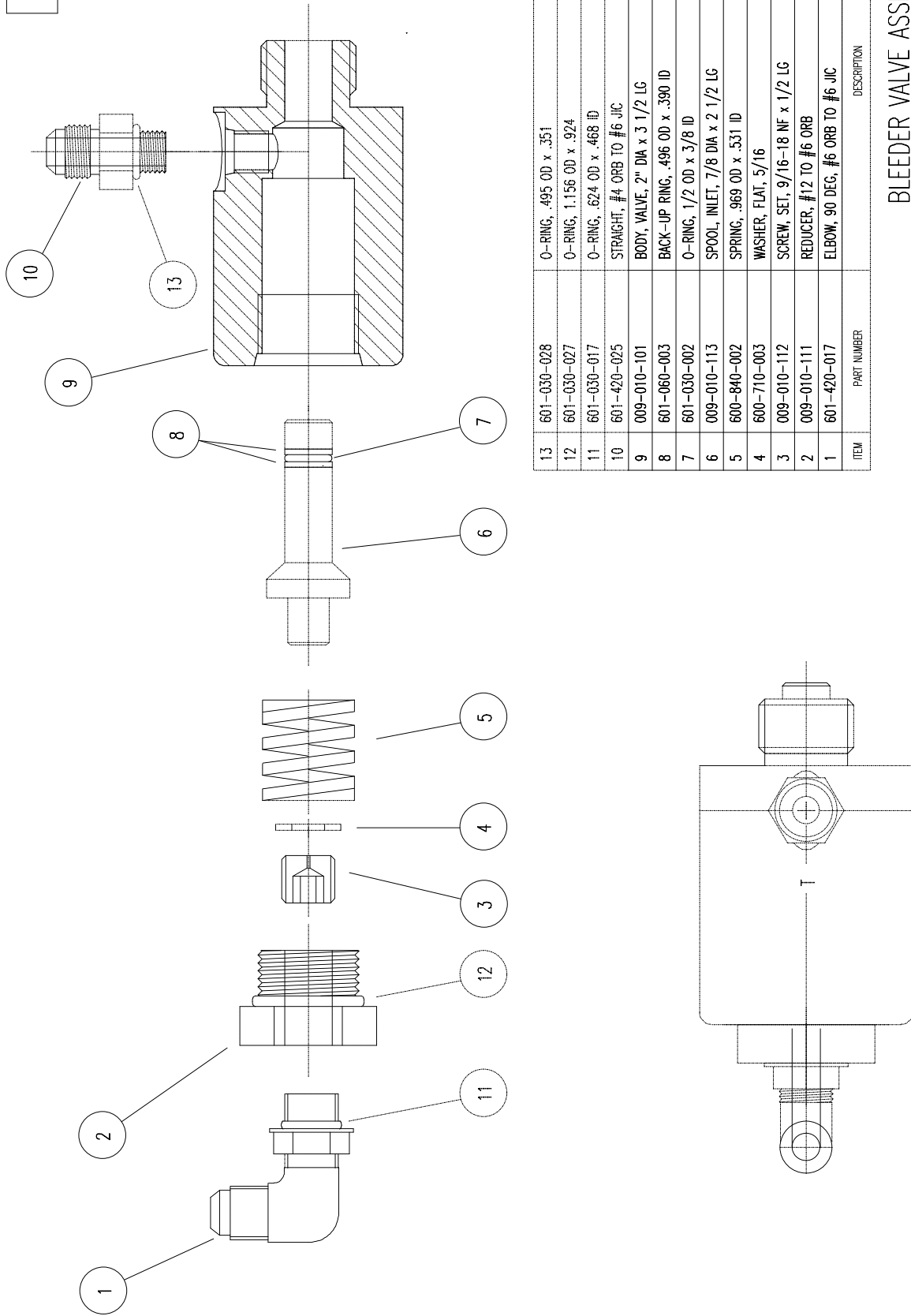
MAN210

ITEM	PART NUMBER	DESCRIPTION	QTY
1	05469-44.50	ROD ASSY	REF
2	601-490-010	ROD WIPER	REF
3	05132	NUT	REF
4	601-490-011	PACKING SET	REF
5	601-490-012	RING	REF
6	05464-44.50	TUBE ASSY	REF
7	601-800-021	DECAL, CAUTION	1
8	601-410-026	VELOCITY FUSE	2
9	601-030-018	O-RING	REF



SYSTEM IA  
 OFFSIDE CYLINDER ASSEMBLY  
 (601-490-001)

MAN213

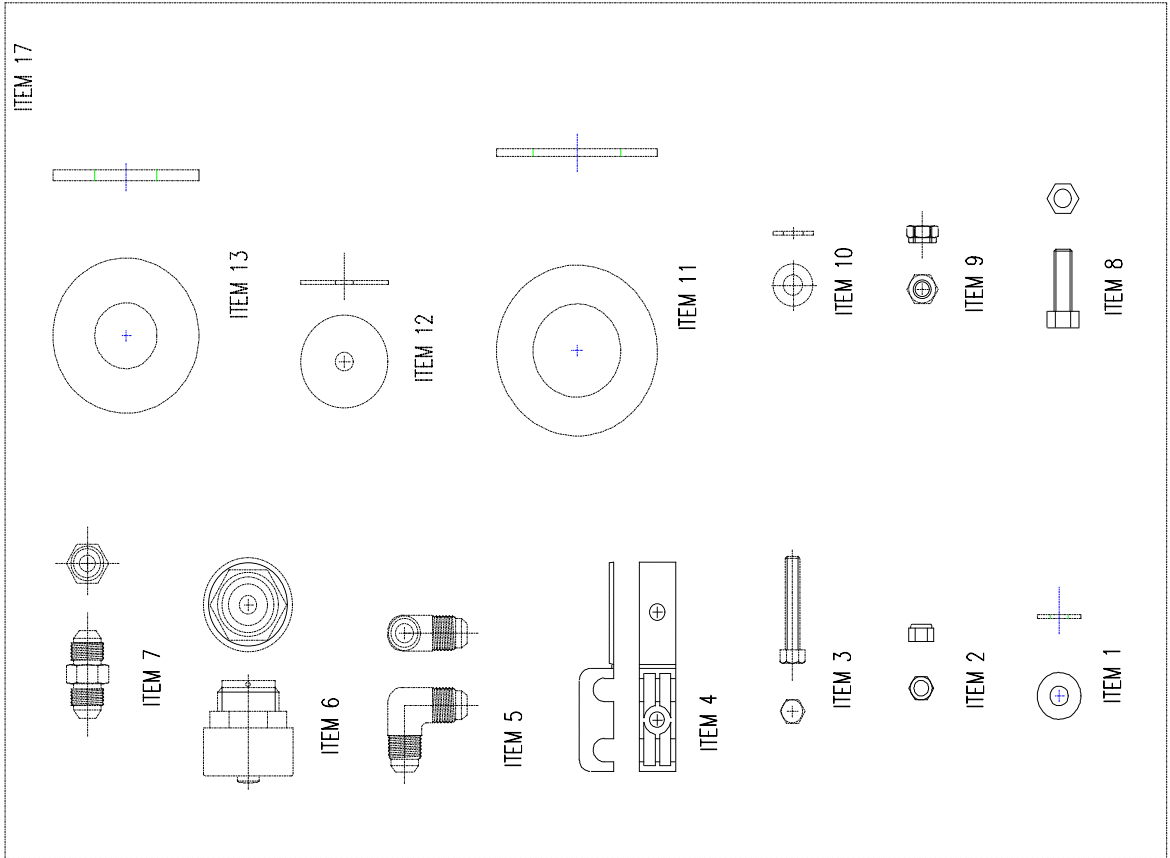


ITEM	PART NUMBER	DESCRIPTION	QTY
13	601-030-028	O-RING, .495 OD x .351	REF
12	601-030-027	O-RING, 1.156 OD x .924	REF
11	601-030-017	O-RING, .624 OD x .468 ID	REF
10	601-420-025	STRAIGHT, #4 ORB TO #6 JIC	1
9	009-010-101	BODY, VALVE, 2" DIA x 3 1/2 LG	1
8	601-060-003	BACK-UP RING, .496 OD x .390 ID	2
7	601-030-002	O-RING, 1/2 OD x 3/8 ID	1
6	009-010-113	SPOOL, INLET, 7/8 DIA x 2 1/2 LG	1
5	600-840-002	SPRING, .969 OD x .531 ID	1
4	600-710-003	WASHER, FLAT, 5/16	A/R
3	009-010-112	SCREW, SET, 9/16-18 NF x 1/2 LG	1
2	009-010-111	REDUCER, #12 TO #6 ORB	1
1	601-420-017	ELBOW, 90 DEG, #6 ORB TO #6 JIC	1

BLEEDER VALVE ASSEMBLY

FILE: MAN213  
DATE: 6/96

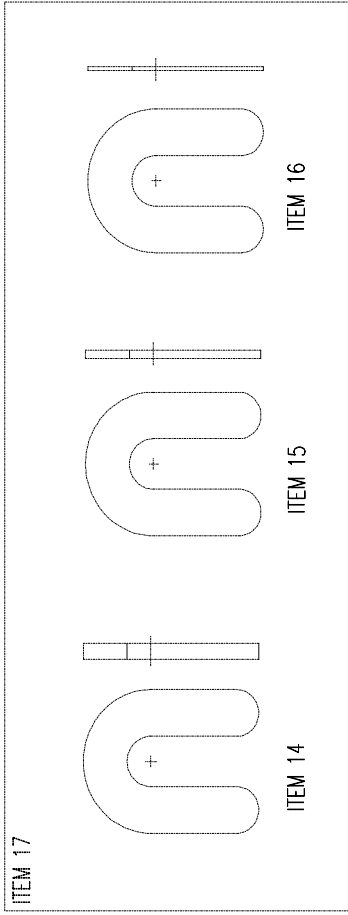
BAG #1 (009-010-071)



MAN231

REV C 10/01

BAG#2 (007-007-075)



ITEMS 1 THRU 13 = BAG #1/SMALL PARTS  
ITEMS 14 THRU 16 = BAG #2/SHIMS

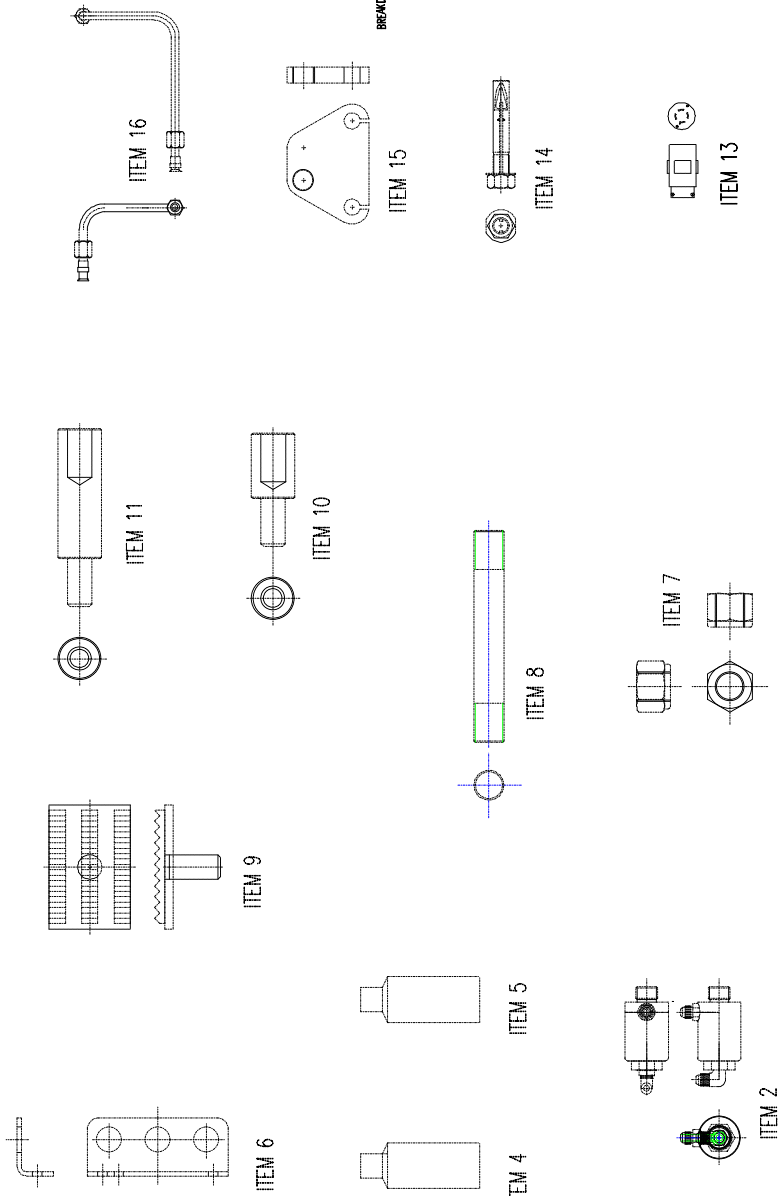
ITEM	PART NUMBER	DESCRIPTION	QTY
17	601-600-022	BAG, ZIP-LOK, TRANSPARENT, 9" x 12"	3
16	600-740-001	SHIM, HORSESHOE, PLASTIC, BLUE, 1/16" THK	8
15	600-740-002	SHIM, HORSESHOE, PLASTIC, RED, 1/8" THK	8
14	600-740-003	SHIM, HORSESHOE, PLASTIC, BLACK, 1/4" THK	8
13	600-710-010	WASHER, FLAT, 1" (JAW RESTRAINT)	4
12	600-710-006	WASHER, FLAT (FENDER) 5/16 ID x 1 1/2 OD	6
11	600-710-014	WASHER, FLAT, 1 3/8 SAE	6
10	600-710-003	WASHER, FLAT, 5/16	4
9	600-680-001	NUT, LOCK, 5/16-18 NC	4
8	600-640-001	BOLT, 5/16-18 NC x 1", HEX HEAD CAP	4
7	601-420-011	UNION, #6 JC TO #6 JC	4
6	601-310-005	BREATHER CAP	1
5	601-620-062	ELBOW, 90°, #6 JC TO #6 JC	1
4	601-710-001	DOUBLE LINE CLIP	6
3	600-640-019	BOLT, 1/4-20 NC x 1 1/2, HEX HEAD CAP	10
2	600-680-005	NUT, LOCK, 1/4-20 NC	10
1	600-710-004	WASHER, FLAT, 1/4	8

BAG #1 /SMALL PARTS & BAG #2/SHIMS

FILE: MAN231  
DATE: 4/96

MANUAL	MAN232
MANUAL SYSTEM 1A	REV B 2/99
MANUAL LIFT IT RIGHT MANUAL	
SAFETY TIPS CARD	
AU STANDARD SAFETY REQUIREMENTS	
AU VEHICLE LIFT POINT GUIDE	
BAG #1/SMALL PARTS	
BAG #2/SHIMS	

ITEM 3      ITEM 17      ITEM 18      ITEM 20      ITEM 21      ITEM 12      ITEM 19



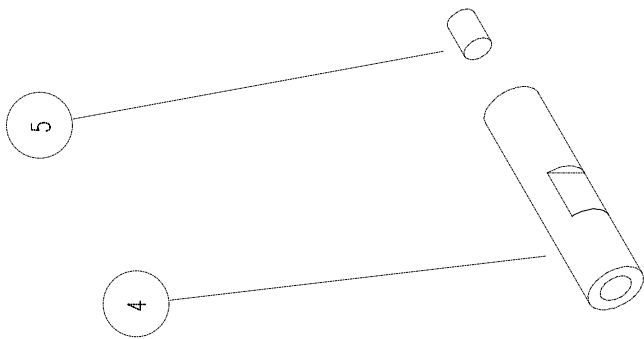
ITEM	PART NUMBER	DESCRIPTION	QTY
23	601-001-069	MANUAL SYSTEM 1A	1
22	601-001-115	WARRANTY CARD, 4" x 5 1/2"	1
21	601-001-092	AU VEHICLE LIFT POINT GUIDE	1
20	601-001-007	AU STANDARD SAFETY REQUIREMENTS	1
19	007-007-075	BAG #2/SHIMS	1
18	601-001-006	SAFETY TIPS CARD	1
17	601-001-003	SAFETY MANUAL, ALL LIFT IT RIGHT	1
16	009-010-069	TUBING ASSEMBLY, 1.3/4"	1
15	009-010-115	CARRIAGE STOP, DRILLED	1
14	600-670-008	WEL-IT, 3/4 x 5 1/4"	16
13	601-170-008	CONNECTOR, 4 PRONG, NEW, #14-20R	1
12	009-010-071	BAG #1/SMALL PARTS	1
11	025-002-128	HEIGHT ADAPTER, 6"	4
10	025-002-127	HEIGHT ADAPTER, 3"	4
9	025-002-035	LIFTING PAD WEARMENT	4
8	009-010-114	CARRIAGE PIN, 1 3/8 DIA x 6 13/16	4
7	600-690-008	NUT, LOCK, 1 3/8-12 NF	8
6	025-002-126	HEIGHT ADAPTER BRACKET	2
5	601-630-001	PAINT, SPRAY, RED	1
4	601-630-002	PAINT, SPRAY, YELLOW	1
3	009-010-045	MANUAL ASSEMBLY	1
2	009-010-009	VALVE ASSEMBLY	1
1	601-001-004	BOX, CORRUGATED	1
ITEM	PART NUMBER	DESCRIPTION	QTY

PARTS BOX & CONTENTS

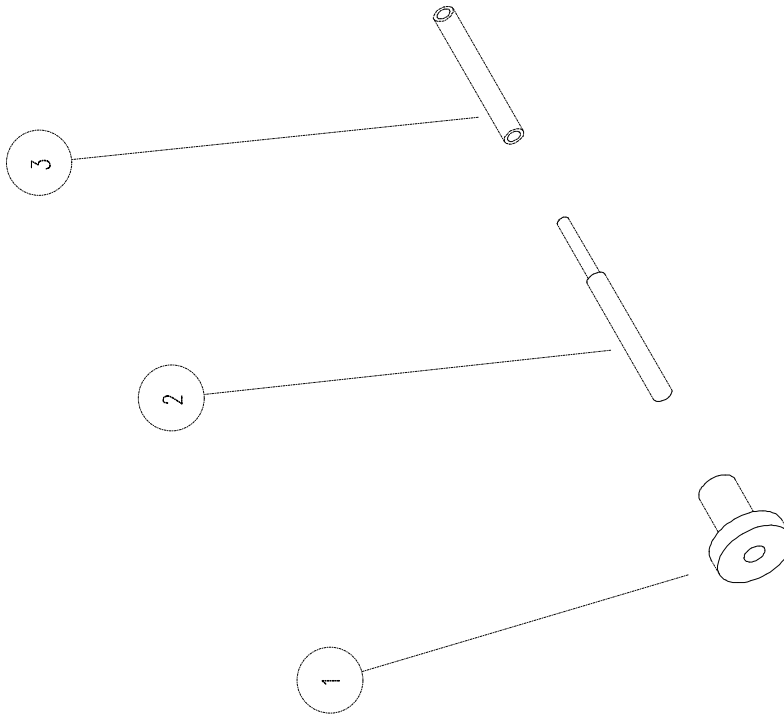
FILE: MAN232  
DATE: 4/96



MAN233



ONE (1) PLUNGER ASSEMBLY PER CARRIAGE  
 FOR SYSTEM 1A, SEE MAN222 FOR ASSEMBLY  
 FOR A-7A, SEE MAN122 FOR ASSEMBLY



50

ITEM	PART NUMBER	DESCRIPTION	QTY
5	600-630-001	SET SCREW, 3/8-16 NC x 1/2"	(1)
4	009-010-126	PLUNGER HOUSING	(1)
3	600-840-019	SPRING	(1)
2	009-010-124	PLUNGER	(1)
1	009-010-125	PLUNGER HOUSING CAP	(1)
ITEM	PART NUMBER	DESCRIPTION	QTY

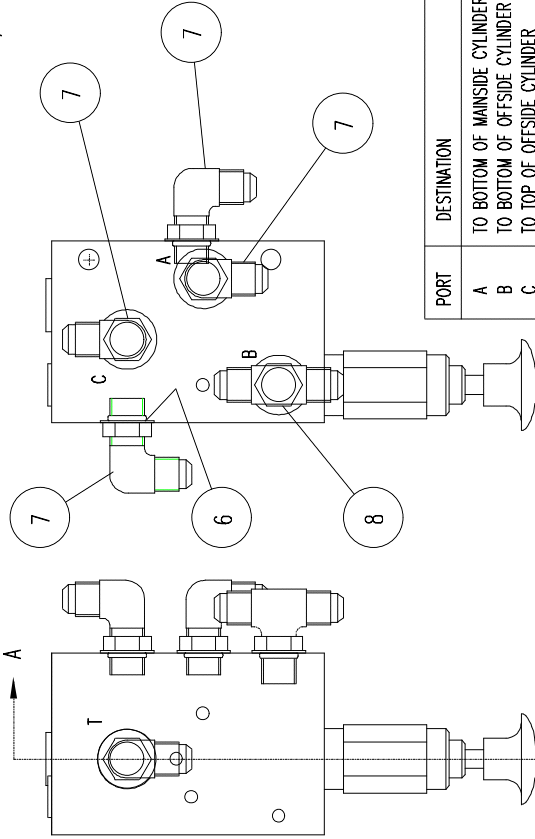
SPRING PLUNGER ASSEMBLY  
 (009-010-066)

FILE: MAN233  
 DATE 4/96

MAN235

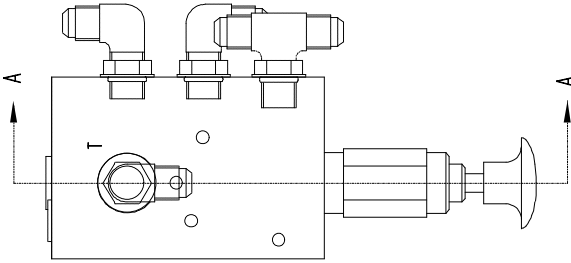
REV A 1/98

BACK VIEW:



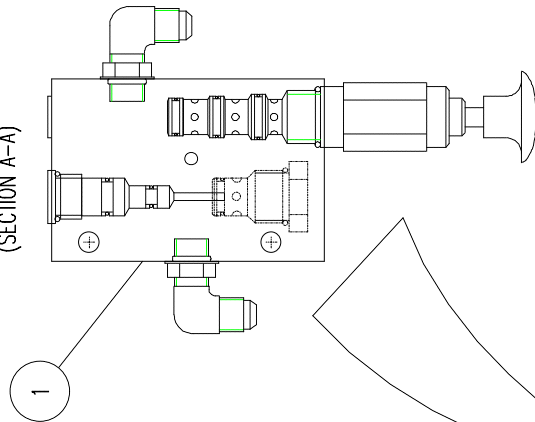
PORT	DESTINATION
A	TO BOTTOM OF MAINSIDE CYLINDER
B	TO BOTTOM OF OFFSIDE CYLINDER
C	TO TOP OF OFFSIDE CYLINDER
P	TO PUMP PRESSURE PORT
T	TO TANK (RESERVOIR)

RIGHT SIDE VIEW:

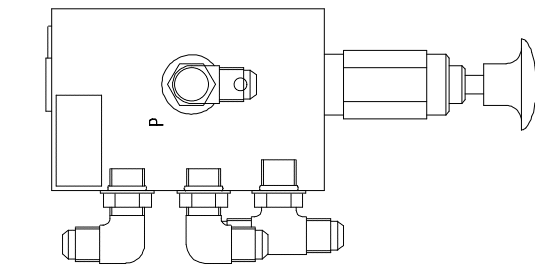


FRONT VIEW:

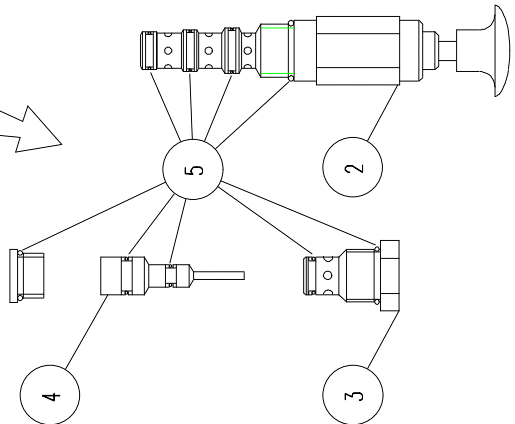
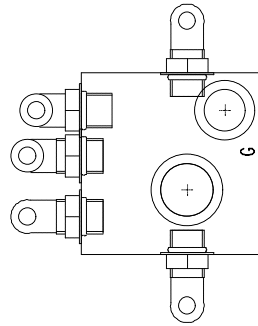
(SECTION A-A)



LEFT SIDE VIEW:



TOP VIEW:



ITEM	PART NUMBER	DESCRIPTION	QTY
8	601-420-046	FITTING, TEE BRANCH, #6 JIC/ #6 ORB	1
7	601-420-017	FITTING, ELBOW, 90, #6 ORB TO #6 JIC	4
6	601-030-017	O-RING	5
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: MAN235  
DATE 4/96

# **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](http://www.MOHAWKLIFTS.com)

**E-MAIN:** [Service@MOHAWKLIFTS.com](mailto: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.

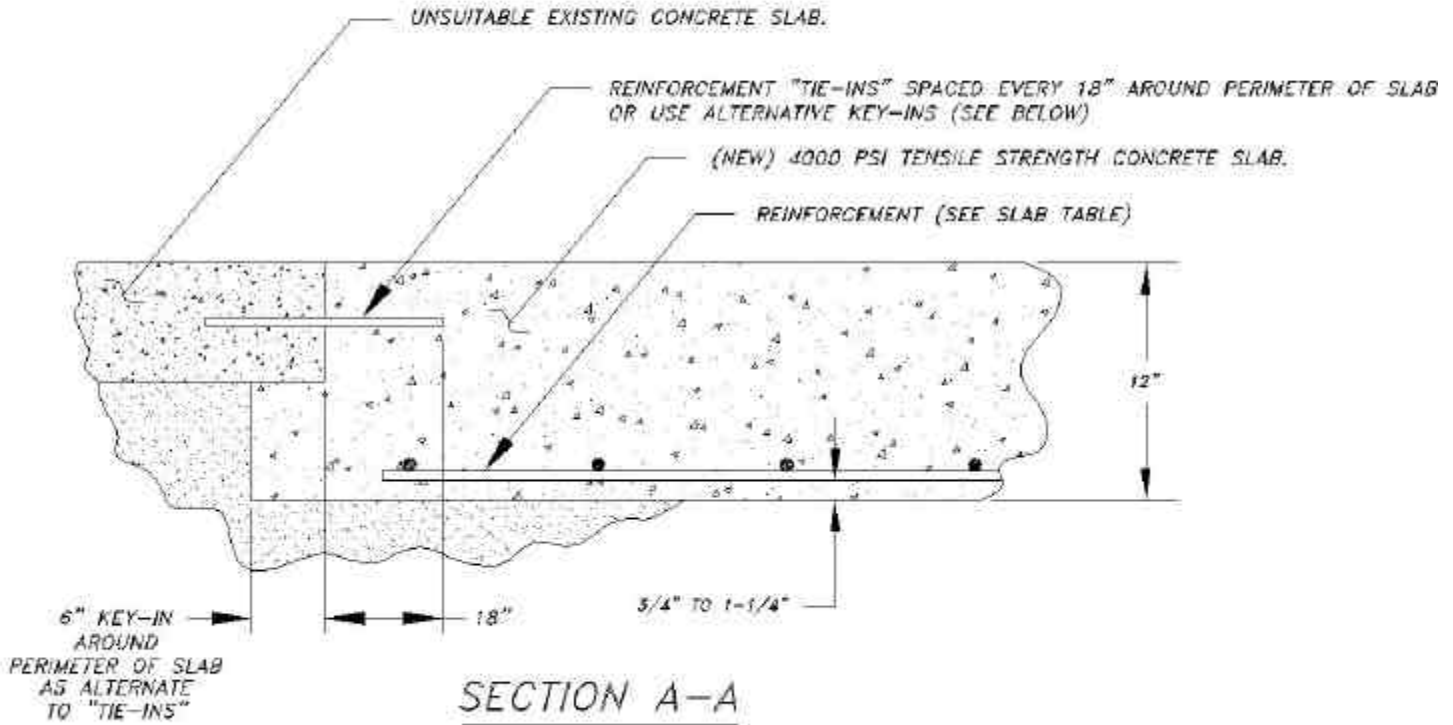
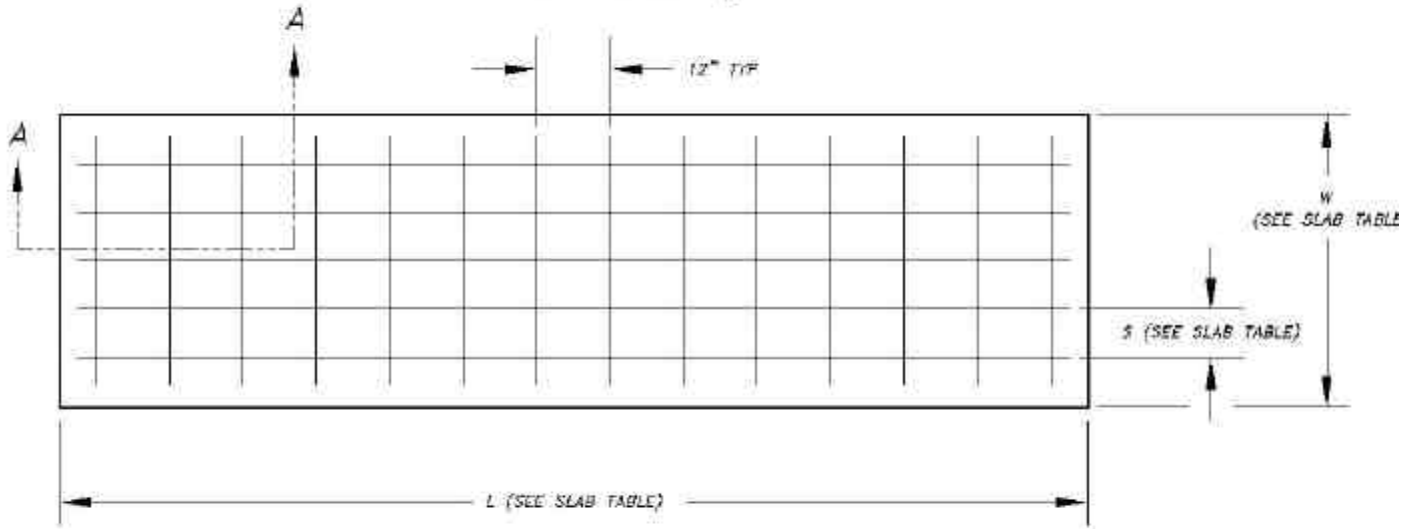
\*\* See Subframe Installation Instructions

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

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

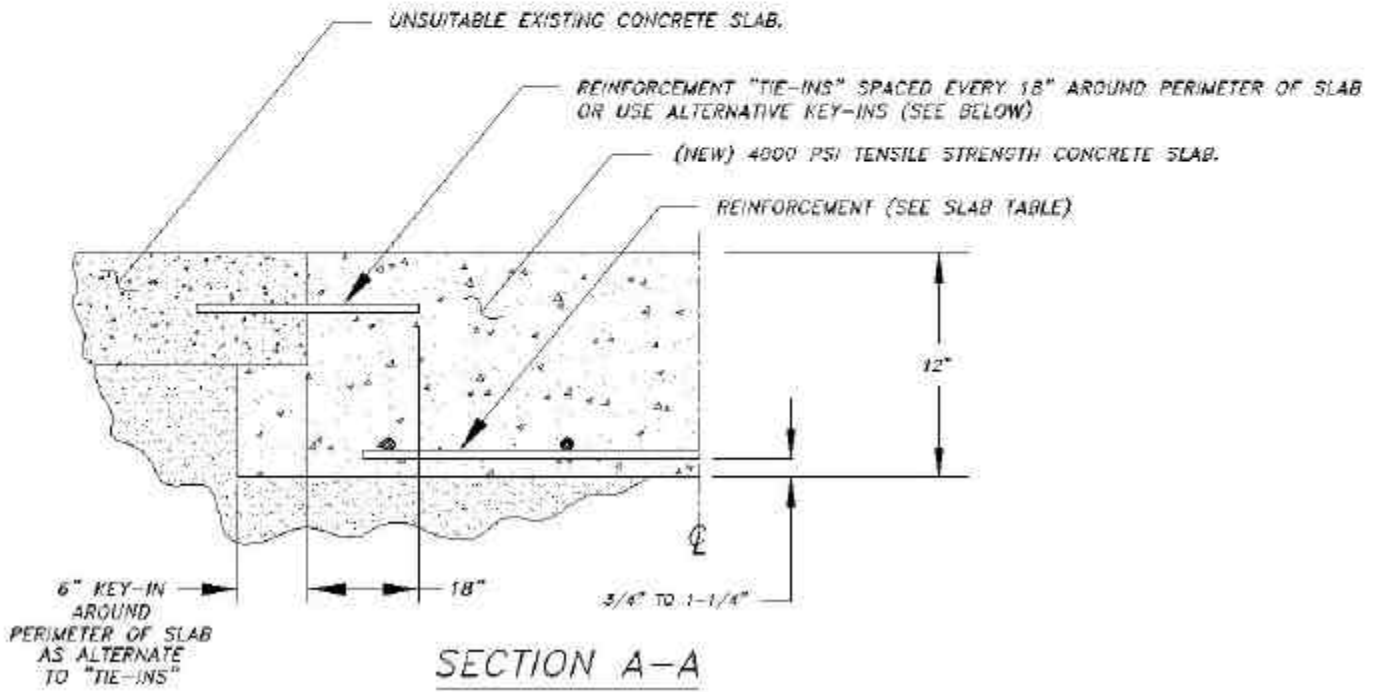
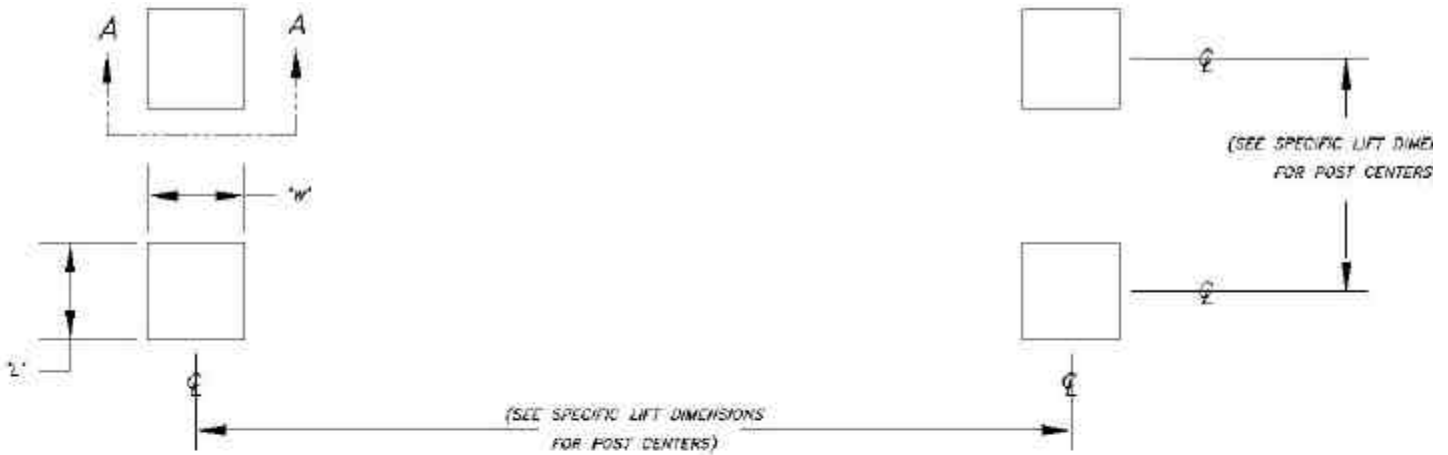
# NEW RECOMMENDED SLAB DESIGN FOR 2-POST LIFTS

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



# NEW RECOMMENDED SLAB DESIGN FOR 4-POST LIFTS

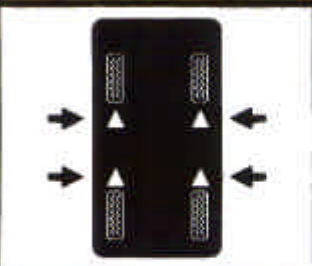

FILE: MAN089  
DATE: 10/00  
REV DATE: 10/00





<b>⚠ WARNING</b>	<b>⚠ WARNING</b>
	
Clear area if vehicle is in danger of falling. ©	Position vehicle with center of gravity midway between adapters. ©

<b>⚠ CAUTION</b>	<b>⚠ CAUTION</b>
	
Lift to be used by trained operator only. ©	Authorized personnel only in lift area. ©

<b>⚠ WARNING</b>	<b>⚠ WARNING</b>
	
Remain clear of lift when raising or lowering vehicle. ©	Avoid excessive rocking of vehicle while on lift. ©

<b>⚠ CAUTION</b>	<b>⚠ CAUTION</b>
	
Use vehicle manufacturer's lift points. ©	Always use safety stands when removing or installing heavy components. ©

<b>⚠ WARNING</b>	<b>⚠ WARNING</b>
	
Do not override self-closing lift controls. ©	Keep feet clear of lift while lowering. ©

<b>⚠ CAUTION</b>	<b>⚠ CAUTION</b>
	
Use height extenders when necessary to ensure good contact. ©	Auxiliary adapters may reduce load capacity. ©

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

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

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<p><b>SAFETY INSTRUCTIONS</b></p> 	<p><b>SAFETY INSTRUCTIONS</b></p> 
<p>Read operating and safety manuals before using lift.</p> <p>©</p>	<p>Proper maintenance and inspection is necessary for safe operation.</p> <p>©</p>
<p><b>SAFETY INSTRUCTIONS</b></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/WL101e</p>
<p>Do not operate a damaged lift.</p> <p>©</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.

# MOHAWK



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FAX 518-842-1289

[www.mohawklifts.com](http://www.mohawklifts.com)