

# MOHAWK



MADE IN THE USA

## MODEL TP-30A

### 30,000 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.

P.O. BOX 110  
65 VROOMAN AVENUE  
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:** TECHSUPPORT@MOHAWKLIFTS.COM

**READ MANUAL  
THOROUGHLY BEFORE  
INSTALLING, OPERATING  
OR PERFORMING MAINTENANCE  
ON THIS LIFT !!**

## **IMPORTANT SAFETY INSTRUCTIONS**

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

1. Read all instructions.
2. Care must be taken as burns can occur from touching hot parts.
3. Do not operate equipment with a damaged cord or if the equipment has been dropped or damaged - until it has been examined by a qualified serviceman.
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:**

### **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.

### **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:	Green -	Ground in Starter Box
	Red -	L1 on Starter
	Black -	L2 on Starter
	White -	L3 on Starter

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

## HAVE A QUESTION?

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

Distributor Place Card Here

Please have this unit's model and serial number when calling for service.

Model Number \_\_\_\_\_

Serial Number \_\_\_\_\_

**OR CONTACT:**

**MOHAWK RESOURCES LTD.**

65 Vrooman Ave.

P.O. Box 110

Amsterdam, NY 12010

Toll Free: 1-800-833-2006

Local: 1-518-842-1431

Fax: 1-518-842-1289

Internet: [www.MOHAWKLIFTS.com](http://www.MOHAWKLIFTS.com)

E-Mail: [Service@MOHAWKLIFTS.com](mailto:Service@MOHAWKLIFTS.com)

**MOHAWK MODEL TP-30A**  
**MOHAWK WARRANTIES**

EFFECTIVE DATE: 4/14/2003

**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. THIS WARRANTY DOES NOT COVER ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, LOST REVENUES OR BUSINESS HARM. THIS EQUIPMENT HAS BEEN DESIGNED FOR USE IN NORMAL COMMERCIAL VEHICLE MAINTENANCE APPLICATIONS. A SPECIFIC INDIVIDUAL WARRANTY MUST BE ISSUED FOR UNITS THAT DEVIATE FROM INTENDED USAGE, SUCH AS HIGH CYCLE USAGE IN INDUSTRIAL APPLICATIONS, OR USAGE IN EXTREMELY ABUSIVE ENVIRONMENTS, ETC.. 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 IA, SYSTEM IA-10, TOMAHAWK-9000, 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: PARALLELOGRAM SERIES AND USL-6000 AND STANDARD OPTIONS.

**1-YEAR WARRANTY:**

THIS WARRANTY IS APPLICABLE TO THE FOLLOWING MOHAWK LIFTS ONLY: HR-6, 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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## **NEW SLAB RECOMMENDATIONS**

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.

## MOHAWK MODEL TP-30A

### 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  
P.O. BOX 110  
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. SEE FIGURE 1. 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 12 IN 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 GENERAL FLOOR REQUIREMENTS.

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 LISTED IN THE, GENERAL FLOOR REQUIREMENTS

#### **CAUTION**

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

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

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

ALWAYS CONSULT THE VEHICLE LIFTING GUIDE FOR THE PROPER LIFTING POINTS ON ANY VEHICLE. THESE GUIDES ARE AVAILABLE FROM THE VEHICLE MANUFACTURERS.

AFTER LIFTING THE VEHICLE TO THE DESIRED HEIGHT, ALWAYS LOWER THE UNIT ONTO THE MECHANICAL SAFETIES. THE FORMING OF GOOD OPERATIONAL WORK HABITS WILL ELIMINATE OVERSIGHTS IN THE USE OF PROVIDED SAFETY DEVICES.

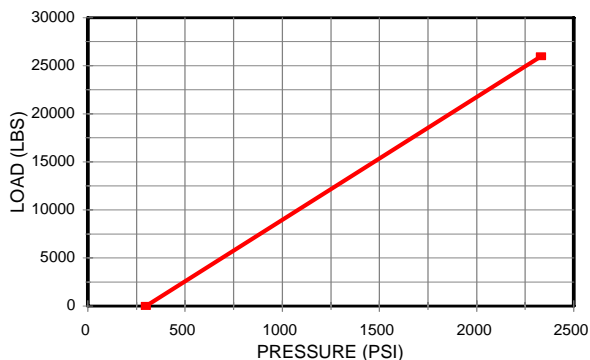


**TP-30A SPECIFICATIONS****TP-30A SPECIFICATIONS**

LIFT TYPE / TWO POST	ELECTRIC / HYDRAULIC
GROSS LIFTING CAPACITY	30,000 LBS.
PER ARM CAPACITY	7,500 LBS.
LIFTING SPEED APPROX.	130 SECONDS
LIFTING HEIGHT	72 INCHES
OVERALL WIDTH	180 INCHES
WIDTH BETWEEN POST	144 INCHES
WIDTH BETWEEN CARRIAGES	122 INCHES
CYLINDER EXTENSION	162-5/8 INCHES
POST HEIGHT	121-1/2 INCHES
OVERHEAD HYDRAULIC LINES	192 INCHES
LIFTING PAD HEIGHT ( MIN )	7-1/8 INCHES
LIFTING PAD HEIGHT ( MAX )	79-1/8 INCHES
SHIPPING WEIGHT	8,170 LBS.

**PERFORMANCE TABLE****PRESSURE VS. LOAD**

TP-26A

**PRE-EXISTING FLOOR REQUIREMENTS**

MINIMUM THICKNESS	MINIMUM COMPRESSIVE STRENGTH	MINIMUM AGING
12 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.

**POWER UNIT SPECIFICATIONS**

BRAND NAME	MONARCH
MODEL	T-09-08-0-18-02-1-05-07-0-1
POWER UNIT TYPE	VERTICAL
MOTOR VOLTAGE	208 / 230
F.L.A. AT RATED CAPACITY	15.0 / 13.2
MOTOR HORSEPOWER	FIVE
MOTOR PHASE	3
MOTOR CYCLE / HERTZ	60
MOTOR SPEED ( R.P.M. )	1,800
PUMP FLOW ( G.P.M. )	3.3 @ 1,800 R.P.M.
RELIEF VALVE SETTING	2,900 P.S.I.
WORKING PRESSURE	2,700 P.S.I.
RESERVOIR CAPACITY	8 GALLONS
HYDRAULIC FLUID MEDIUM	DEXRON III

**SUGGESTED SITE SELECTION / BAY SIZE**

WIDTH	DEPTH	HEIGHT
15 FEET	25 FEET	20 FEET

**NOTE**

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

**AIR VALVE TRIO**

FILTER / REGULATOR	LUBRICATOR / OIL TYPE
65 PSIG	SAE NO. 10

IT IS NOT RECOMMENDED TO OPERATE THE LIFT UNDER 33 deg. F. DUE TO AIR LINE FREEZING.

**FLOOR MODIFICATION DATA  
NEW FLOOR SECTION**

THICKNESS	SLAB SIZE WIDTH X LENGTH	CUBIC YARDS
12 INCHES	6 FT X 16 FT	3.6

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 WHICH IS STRUCTURALLY SOUND. CERTIFIED STRENGTH DOCUMENTATION SHOULD BE OBTAINED FROM THE FIRM WHO SUPPLIES THE CONCRETE MIXTURE AT THE TIME OF THE POUR. SEE THE TP-26A FLOOR MODIFICATION DRAWING.

**NEVER HAND MIX THE CONCRETE.**

**TP-30A PACKING LIST****\*\*\* ALSO SEE DRAWINGS MAN 862 / MAN 761 IN PARTS MANUAL \*\*\***

<b>ORDER NUMBER</b>	<b>PART NUMBER</b>	<b>PART DESCRIPTION</b>	<b>QTY.</b>
		<b>MAN 862 - PARTS BOX CONTENTS</b>	
<b>040</b>	<b>012-012-047</b>	<b>LIFTING PAD</b>	<b>4</b>
<b>891</b>	<b>601-800-092</b>	<b>MANUAL (ALI / LP-GUIDE)</b>	<b>1</b>
<b>612</b>	<b>601-800-003</b>	<b>MANUAL ( LIFTING IT RIGHT )</b>	<b>1</b>
<b>649</b>	<b>601-800-007</b>	<b>MANUAL ( ALI SAFETY REQUIREMENTS)</b>	<b>1</b>
	<b>601-800-014</b>	<b>MANUAL ( INSTALLATION )</b>	<b>1</b>
<b>613</b>	<b>601-800-006</b>	<b>SAFETY TIPS CARD</b>	<b>1</b>
	<b>MAN 761</b>	<b>SMALL PARTS BAG</b>	<b>1</b>
<b>112</b>	<b>601-630-001</b>	<b>SPRAY PAINT ( RED )</b>	<b>2</b>
<b>113</b>	<b>601-630-002</b>	<b>SPRAY PAINT ( YELLOW )</b>	<b>2</b>
	<b>601-420-084</b>	<b>FITTING ( STRAIGHT, INT PIPE, 1/4 NPT TO # 6 JIC MALE )</b>	<b>2</b>
	<b>020-000-408</b>	<b>AIR HOSE, 1/4 ID X 302 INCH</b>	<b>1</b>
	<b>600-670-006</b>	<b>WEJ-IT, 1" X 10"</b>	<b>14</b>
	<b>007-007-033</b>	<b>LINE SUPPORT WELDMENT</b>	<b>2</b>
<b>046</b>	<b>018-000-106</b>	<b>HEIGHT ADAPTER 5 INCH</b>	<b>4</b>
<b>057</b>	<b>012-012-151</b>	<b>HEIGHT ADAPTER 7-1/2 INCH</b>	<b>4</b>
<b>047</b>	<b>018-000-105</b>	<b>HEIGHT ADAPTER 10 INCH</b>	<b>4</b>
		<b>MAN 761 - SMALL PARTS BAG CONTENTS</b>	
<b>021</b>	<b>601-310-005</b>	<b>BREATHER CAP</b>	<b>1</b>
	<b>601-410-042</b>	<b>VALVE, ( PULL TYPE, DIVERTER VALVE )</b>	<b>1</b>
	<b>600-710-010</b>	<b>WASHER, 1 INCH SAE FLAT</b>	<b>14</b>

**RECOMMENDED TOOL LIST**

<b>SIZE / QTY</b>	<b>DESCRIPTION</b>	<b>USED IN</b>
2 - 1/4 IN	WRENCH & SOCKET	SWING ARM PINS
1 - 1/2 IN	SOCKET	POST MOUNTING BOLTS
1 - 1/8 IN	SOCKET	POWER UNIT MOUNTING BRACKET
1 - 1/6 IN	WRENCH	POWER UNIT MOUNTING BRACKET
11/16 IN	WRENCH	HYDRAULIC LINES
5/8 IN	WRENCH	HYDRAULIC LINES
1/2 IN	WRENCH & SOCKET	ACCESS PLATES
7/16 IN	WRENCH & SOCKET	STARTER BOX
1 8 FT. MIN.	CHAIN / NYLON STRAP	ERECTING POST / POWER UNIT
1	FLAT HEAD SCREW DRIVER	AIR REGULATOR
1	RATCHET WRENCH	AS NEEDED
1	VICE GRIPS	AS NEEDED
1	CRESCENT WRENCH	AS NEEDED
1	4 FT BUBBLE LEVEL	VERIFY LEVEL ASSEMBLY
1	PRY BAR	ADJUSTING / 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 2 TON MIN.	FORK TRUCK OVERHEAD CRANE	LIFTING / ERECTING / MOVING HEAVY ITEMS
8 FT	STEP LADDER	ASSEMBLE ELEVATED ITEMS

## **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 IN WHICH THE LIFT WILL BE LOCATED SHALL BE FREE OF OBSTRUCTIONS. HEATERS, BUILDING SUPPORTS, ELECTRICAL CONDUIT, ETC.

#### **FLOOR REQUIREMENTS**

THIS INFORMATION IS IN THE GENERAL FLOOR REQUIREMENTS. IF THE BAY FLOOR DOES NOT CONFORM TO THESE SPECIFICATIONS, REFER TO THE FLOOR MODIFICATION DATA SECTION IN THIS MANUAL.

LOCATE THE MAIN SIDE POST ON THE HIGH SIDE OF THE FLOOR IF A SLOPE IS NOTED.

#### **POWER SUPPLY**

THE STANDARD POWER UNIT IS 220 VOLT THREE PHASE. REFER TO THE POWER SUPPLY SPECIFICATIONS. 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.

#### **AIR SUPPLY**

THE MAIN SIDE POST WILL REQUIRE THE AIR SUPPLY FOR THE UNIT.

#### **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. REQUIREMENTS MAY VARY ON SPECIAL ORDERS.

#### **SPECIFICATIONS**

REFERENCE ALL SPECIFICATIONS PRIOR TO INSTALLING A LIFT.

### **IMPORTANT:**

- 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.
- ON SPECIAL UNIT ORDERS, ALWAYS REFER TO THE LAYOUT DIAGRAMS IN THE FIGURE/DIAGRAM SECTION OF THE MANUAL. SPECIFIC INFORMATION PERTAINING TO THIS LIFT (LENGTH, WIDTH, ETC.) ARE FOUND IN THIS SECTION.

## 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.

#### INSTALLING THE LIFT

USE THE PACKING LIST IN THIS MANUAL TO VERIFY ALL SUPPLIED PARTS.

#### **WARNING**

- EACH POST WEIGHS OVER 4,000 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.

ERECT THE MAIN AND OFF SIDE POSTS TO THE UP-RIGHT POSITION. ALIGN TO DIMENSIONS SHOWN IN SPECIFICATION DRAWING. OBSERVE ANCHOR BOLT INSTALLATION INSTRUCTIONS AS SHOWN IN BACK OF MANUAL.

#### 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.

- 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

SECURE THE MAIN AND OFF SIDE POSTS TO THE BAY FLOOR USING THE ( 14 ) 1 X 2 IN BOLTS LOCK & FLAT WASHERS. REMOVE THE TWO CARRIAGE STOP MOUNTING BOLTS USED TO SECURE THE POWER UNIT MOUNTING BRACKET. (THE TWO BOLTS AT THE TOP OF THE POST INSTALLED UPSIDE DOWN ) POSITION THE POWER UNIT MOUNTING BRACKET TO THE TOP SIDE OF THE POST. SECURE THE POWER UNIT TO THE MAIN SIDE POST.

REMOVE THE STARTER BOX COVER. USING THE THREE 1/4 X 1 INCH BOLTS, WASHERS & NYLON LOCK NUTS, SECURE THE STARTER BOX WITH AIR LINE TRIO TO THE MAIN SIDE POST. REPLACE STARTER BOX COVER.

REMOVE THE BREATHER PORT PLUG ON THE POWER UNITS RESERVOIR AND DISCARD. VERIFY FLUID LEVEL. (1/2 IN. BELOW BREATHER PORT WHEN BOTH CYLINDERS ARE FULLY RETRACTED) ADD DEXRON III AS NEEDED TO FILL. ALWAYS USE A CLEAN FUNNEL AND FILTER. INSTALL THE BREATHER CAP.

REMOVE THE PULL VALVE PORT PLUG ON THE DIVERTER VALVE. INSERT AND TIGHTEN THE PULL VALVE. TIGHTEN TO 10 FOOT POUNDS. REFER TO DIVERTER VALVE ASSEMBLY

REMOVE THE MAIN AND OFF SIDE ACCESS PANELS AT THE BASE OF THE POSTS. ROUTE THE THREE 14 FT 6 IN HYDRAULIC /

AIR HOSES THROUGH THE SUB-FRAME. ROUTE THE 90 deg. END OF THE 3/8 IN HYDRAULIC HOSE TO THE OFF SIDE.

CONNECT / SECURE THE TWO HYDRAULIC HOSES ( ONE 3/8 IN HOSE & ONE 1/4 IN HOSE ) TO THE HYDRAULIC SYSTEM. REFER TO THE TP-26A HYDRAULIC SYSTEM. USING THE STRAIGHT 1/4 NPT FEMALE TO # 6 JIC MALE FITTING, CONNECT / SECURE THE 1/4 IN AIR HOSE. REFER TO THE TP-26A PNEUMATIC SYSTEM.

USING THE 1/4 INCH AIR TUBING INSERT ONE END TO THE AIR LINE TRIO. ROUTE THE OPPOSITE END OVER AND THROUGH THE TOP OF THE MAIN SIDE POST. CONNECT THE AIR HOSE TO THE 1/4 INCH UNION TEE FITTING.

#### AIR LINE HOOKUP

**REGULATOR:** BEFORE TURNING ON AIR SUPPLY, DISENGAGE THE ADJUSTING KNOB ON THE REGULATOR BY PULLING UPWARD. TURN ADJUSTING KNOB COUNTERCLOCKWISE UNTIL COMPRESSION IS RELEASED FROM PRESSURE CONTROL SPRING. CONNECT SHOP AIR TO THE AIR LINE QUICK COUPLER PLUG. PROCEED TO ADJUST THE DOWNSTREAM PRESSURE BY TURNING ADJUSTING KNOB CLOCKWISE. ADJUST THE PRESSURE TO 65 PSIG.

TO DECREASE REGULATED PRESSURE SETTINGS, ALWAYS RESET FROM A PRESSURE LOWER THAN FINAL SETTING REQUIRED. WHEN DESIRED SECONDARY PRESSURE SETTINGS HAVE BEEN REACHED, PUSH THE ADJUSTING KNOB DOWN TO LOCK.

**LUBRICATOR:** INLET PRESSURE MUST BE ELIMINATED BEFORE FILL PLUG OR BOWL IS REMOVED. FILL TO FILL LINE ON THE BOWL. USE SAE NO. 10 PETROLEUM BASE HYDRAULIC OIL. REPLACE THE FILL PLUG AND/OR BOWL ASSEMBLY FIRMLY - EXCESSIVE TORQUE IS NOT NECESSARY.

DO NOT USE OILS WITH ADHESIVES OR TACKY ADDITIVES. COMPOUNDED OILS CONTAINING SOLVENTS, GRAPHITE, SOAPS OR DETERGENTS ARE NOT RECOMMENDED. ( AUTOMOTIVE OILS GENERALLY CONTAIN DETERGENT )

## INSTALLATION INSTRUCTIONS CONTINUED

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

REMOVE THE PACKING BRACKETS FROM THE MAIN AND OFF SIDE CARRIAGE.

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

LIFTING UP ON THE SWING ARM RESTRAINT. INSERT THE FOUR SWING ARMS INTO THE CARRIAGES. 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 AT THE END OF EACH SLIDER.

PLACE THE 12 HEIGHT ADAPTERS INTO PLACE ON THE SIDE OF THE MAIN AND OFF SIDE POST.

### **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.

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 THE DIVERTER VALVE PULL KNOB.

- 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.

ENGAGE THE DOWN BUTTON, 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.
- POSITIONING OF VEHICLE AND OPERATION OF THE LIFT SHOULD BE DONE ONLY BY TRAINED AND AUTHORIZED PERSONNEL.
- 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, 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.

**AIR PRESSURE TO LIFT**

- INSURE SUFFICIENT AIR IS AVAILABLE TO THE LIFT TO OPERATE THE PNEUMATIC LOCK SYSTEM.

**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 WERE 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 ARMS 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 FOUR CAM FOLLOWER BEARINGS ARE FREE TO SPIN.

- PLACE THE LIFTING PADS PER MFG'S RECOMMENDED LIFT POINTS.

**TO RAISE**

- ENGAGE THE UP-BUTTON ON THE POWER UNIT. STOP AND VERIFY LIFTING PAD POSITION WHEN THE LIFTING PADS HAVE MADE CONTACT WITH THE VEHICLE.
- RAISE VEHICLE TO THE DESIRED WORKING HEIGHT.

- DEPRESS THE DOWN BUTTON AND 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.
- DEPRESS THE UP-BUTTON ON THE POWER UNIT. RAISE UNIT APPROXIMATELY TWO INCHES.
- DEPRESS THE LOCK RELEASE AND DOWN BUTTON. LOWER UNIT TO THE DESIRED WORKING HEIGHT.
- ALWAYS RAISE UNIT UNTIL BOTH MECHANICAL SAFETIES RE-ENGAGE. DEPRESS THE DOWN-BUTTON LOWERING 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.
- PERFORM THE HYDRAULIC SAFETY CHECKS. ( SEE TROUBLE SHOOTING )
- 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.
- CHECK LUBRICATOR FLUID LEVEL. FILL IF NEEDED.
- DRAIN FILTER REGULATOR OF EXCESSIVE MOISTURE.

**MONTHLY**

- INSPECT ALL HYDRAULIC COMPONENTS FOR LEAKS, DEFORMATION, WEAR OR CORROSION.
- TIGHTEN ALL FASTENERS, HYDRAULIC / PNEUMATIC 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 ARE TO BE REMOVED, RE-SEALED, AND RE - INSTALLED. ( SELECT - UNITE THREAD SEALANT OR EQUIVALENT ON FITTING THREADS )
- INSPECT MOUNTING BOLT CONDITIONS FOR ANY POSSIBLE CORROSION AND INSPECT THE FLOOR FOR ANY SIGNS OF FATIGUE OR FRACTURES.

**SEMI- ANNUAL TRAINING**

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

**ANNUALLY**

- REPLACE AND RE-BLEED THE HYDRAULIC FLUID. ALWAYS USE A CLEAN FUNNEL AND FILTER. USE DEXRON III HYDRAULIC FLUID.
- INSPECT ALL BEARINGS FOR UNUSUAL OR EXCESSIVE WEAR. (REPLACE IF NEEDED)
- REMOVE THE SWING ARM RESTRAINTS. THOROUGHLY CLEAN. USE A LIGHT LUBRICANT (WD-40 OR EQUIVALENT) REINSTALL. **DO NOT USE GREASE.**
- REMOVE THE SWING ARMS. THOROUGHLY CLEAN. USE A LIGHT LUBRICANT (WD-40 OR EQUIVALENT) REINSTALL. **DO NOT USE GREASE.**
- PERFORM THE DAILY, WEEKLY, AND MONTHLY MAINTENANCE PROCEDURES.

## **TROUBLE SHOOTING**

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

**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 FAIL.

## **HYDRAULIC SAFETY CHECK**

**MAIN SIDE SAFETY CHECK:**

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

**OFF SIDE SAFETY CHECK:**

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

<b>NOT RAISING LOAD</b>	
<b>POSSIBLE CAUSE</b>	<b>SOLUTION</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.
PRESSURE RELIEF CONTAMINATION	REFER TO POWER UNIT SPECIFICATIONS. REMOVE AND CLEAN DEBRIS FROM VALVE ASSEMBLY.
VOLTAGE TO POWER UNIT	REFER TO POWER UNIT SPECIFICATIONS. CONSULT AN ELECTRICIAN
UNIT OVERLOADED	VEHICLE TO HEAVY TO BE RAISED
<b>NOT LOWERING</b>	
FLOW CONTROL VALVE	CLOSE FLOW CONTROL VALVE. OPEN TWO TURNS. RAISE UNIT THEN LOWER.
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.
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.
	THE CARRIAGE BEARINGS ON THE MAIN AND OFF SIDE MUST NOT CONTACT THE CARRIAGE STOPS. ( RESULT OF INCORRECT ROD ADJUSTMENT.)

**TROUBLE SHOOTING CONTINUED**

<b>RAISING UNEVEN CONTINUED</b>	
<b>POSSIBLE CAUSE</b>	<b>SOLUTION</b>
POSTS OUT OF SQUARE	VERIFY LEVEL ASSEMBLY. MAKE ANY AND ALL NECESSARY ADJUSTMENTS.
SHOP FLOOR UNEVEN	VERIFY PROPER INSTALLATION OF MAIN SIDE POST. MAIN SIDE TO BE ON HIGH SIDE.
	ALSO SEE SPECIAL LIFTING PADS.
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, THEN ENGAGE THE UP BUTTON AT THE SAME TIME. RUN UNIT APPROX. 10 SEC.
EMERGENCY LOWERING VALVE OPEN	FULLY CLOSE THE VALVE. TIGHTEN SET SCREW.
<b>POPPING NOISE WHEN RAISING</b>	
LOAD NOT CENTERED	VEHICLE IS TOO FAR FORWARD OR TOO FAR BACK. POSITION THE VEHICLE SO THAT THE TWO TOP CAM BEARINGS ( BEARINGS ON THE CARRIAGE WHICH RIDE ON THE EDGE OF THE POST CHANNEL ) ARE FREE TO SPIN WHEN ALL FOUR TIRES ARE OFF THE FLOOR.
<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 <b>NOTE: DO NOT USE TEFLON TAPE.</b>

MODEL:
SERIAL NUMBER:
DATE OF INSTALLATION:

### **SERVICE CHART**

DATE	PART REPLACED / SERVICED	SERVICE COMPANY	SERVICED BY

### **MAINTENANCE CHART**

DATE	MAINTENANCE PERFORMED	SERVICE COMPANY	SERVICED BY

MOHAWK MODEL TP-30A

# **MOHAWK**

**MADE IN THE U.S.A.**

## **MODEL TP-30A**

### **FIGURES & DIAGRAMS**



### **MOHAWK RESOURCES LTD.**

P.O. BOX 110

65 VROOMAN AVENUE

AMSTERDAM, NY 12010

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

# MODEL TP-30

SYMMETRICAL 2-POST LIFT  
CAPACITY: 30,000 LBS



THIS LIFT HAS BEEN TESTED AND CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) TO MEET THE REQUIREMENTS OF U.L. STANDARD 201 FOR GARAGE EQUIPMENT AND ANSI/ALI ALCVT-1998 FOR AUTOMOTIVE LIFT CONSTRUCTION.

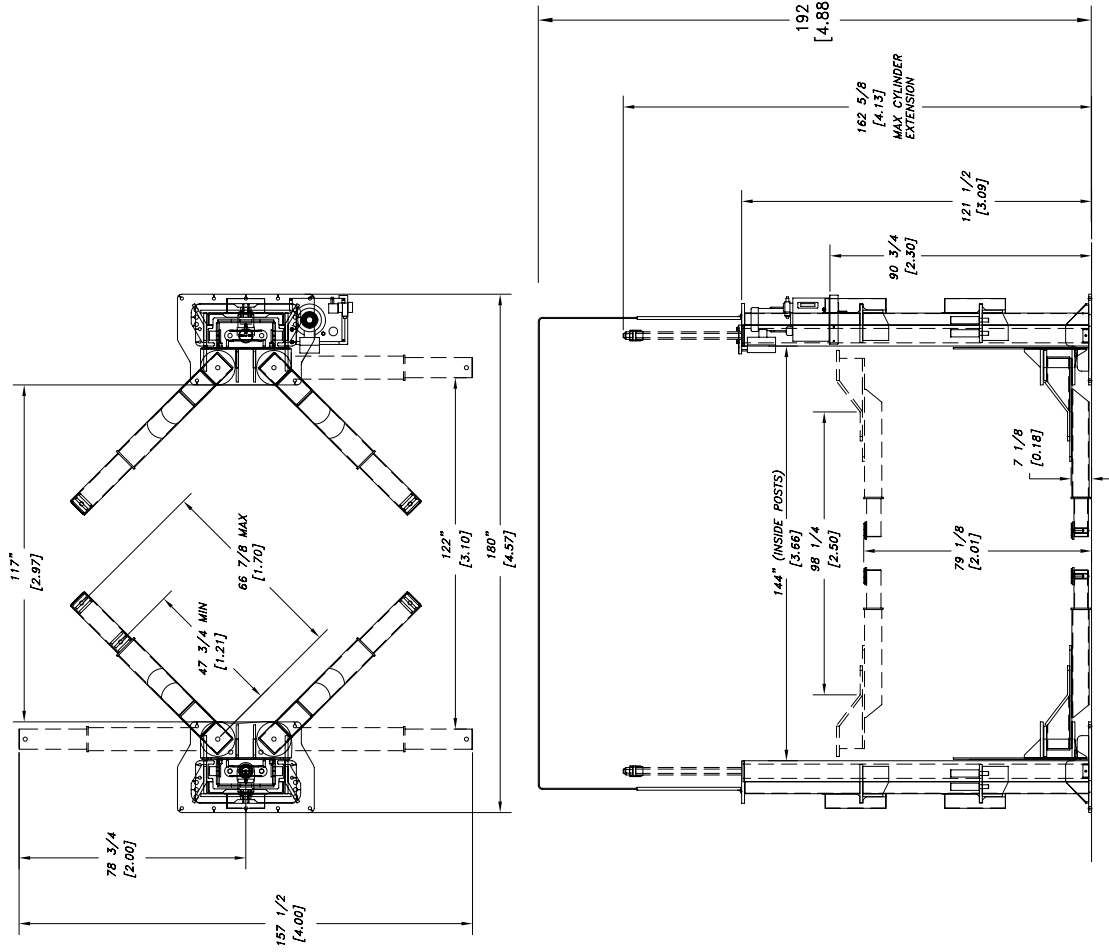
## SPECIFICATIONS:

CAPACITY.....30,000 LBS.  
LIFTING SPEED.....142 SECONDS  
MOTOR RATING.....5 HP, 220 VAC, 3 PHASE  
SYNCHRONIZATION.....HYDRAULIC FLUID DISPLACEMENT USING NO CHAINS, CABLES NOR OVERHEAD OBSTRUCTIONS  
MINIMUM LIFTING PAD HEIGHT.....7 1/8"  
LIFTING HEIGHT (STROKE).....6 FEET  
ARM HEIGHT • FULL RISE.....6'-7 1/8"  
MAX. PAD HEIGHT WITH ADAPTERS.....7'-5 5/8"  
OVERALL WIDTH.....15 FEET  
WIDTH BETWEEN POSTS.....12 FEET  
WIDTH BETWEEN CARRIAGE.....9'-9"  
COLUMN HEIGHT.....10'-1 1/2"  
MAX. CYLINDER HEIGHT.....13'-6 5/8"  
OVERHEAD HYDRAULIC LINE HEIGHT.....16 FEET  
SHIPPING WEIGHT.....8850 LBS. APPROX.  
ANCHORING SYSTEM.....1" DIA X 10" LG WELT-IT ANCHORS IN 4000 PSI CONCRETE  
MECHANICAL SAFETY LOCKS.....MULTI-POSITION EVERY 6"  
MECHANICAL SAFETY RELEASE.....SINGLE POINT LOCK RELEASE • CONTROL  
HYDRAULIC SAFETY SYSTEM.....AUTOMATIC: ALL POSITION  
SWING ARM LOCKS.....AUTOMATIC LOCKING UPON ASCENT  
CYLINDERS.....2 (1 PER COLUMN)  
5" FRAME ADAPTERS.....4 INCLUDED AS STANDARD EQUIPMENT (STACKABLE)  
7 1/2" FRAME ADAPTERS.....4 INCLUDED AS STANDARD EQUIPMENT (STACKABLE)  
10" FRAME ADAPTERS.....4 INCLUDED AS STANDARD EQUIPMENT (STACKABLE)  
CARRIAGE BEARINGS.....(16) 5" DIAMETER (8 PER CARRIAGE)  
DOUBLE SEALED SELF LUBRICATING  
THRUST BEARINGS.....(8) 4" DIAMETER (4 PER CARRIAGE)  
DOUBLE SEALED SELF LUBRICATING  
FLOOR ACCESS BETWEEN POSTS.....CLEAR AND UNOBSTRUCTED

## MOHAWK RESOURCES LTD.

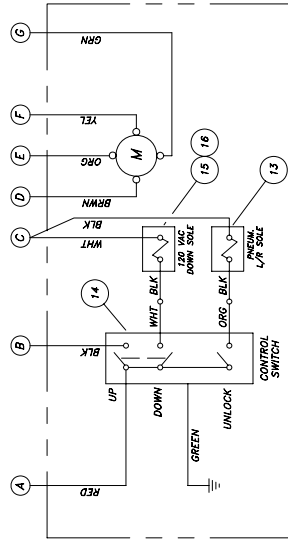
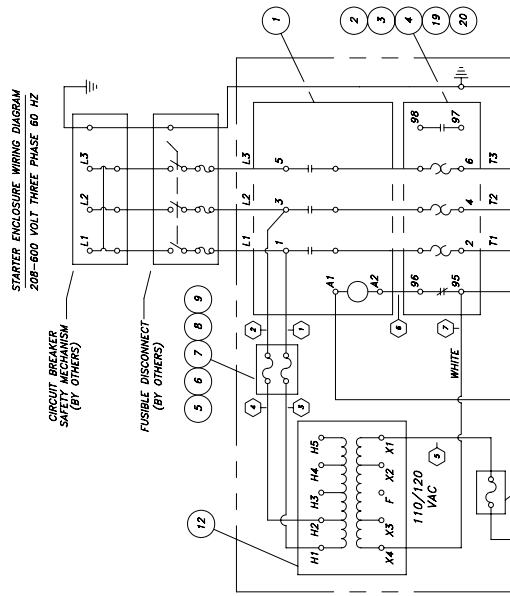
P.O. BOX 110  
65 VROOMAN AVENUE  
AMSTERDAM, NY 12010  
PHN: (800) 833-2006  
IN NY: (518) 842-1431  
FAX: (518) 842-1289

NOTE: MOHAWK RESOURCES, LTD. RESERVES THE RIGHT TO MAKE CHANGES WITHOUT NOTICE.



NOTICE OF CONFIDENTIAL INFORMATION  
INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND PROPERTY OF MOHAWK RESOURCES LTD. IT SHALL BE USED SOLELY FOR THE PURPOSES OF PURCHASING, INSTALLATION, MAINTENANCE, REPAIRS AND REPLACEMENT OF PARTS AND SHALL NOT BE REPRODUCED OR DISCLOSED BY THE RECIPIENT FOR ANY OTHER PURPOSES WHATSOEVER.

NOTES:	TOLERANCES:	SCALE	DRAWN	MOHAWK RESOURCES LTD.
1. REMOVE ALL SHARP CORNERS & EDGES.	1. ± .030	3/64	R.V.	
2. FINISH ALL EXPOSED SURFACES.	2. ± .030		APPROVED	
3. FINISH TO BE 1ST BARS.	3. ± .030		CHECKED	
4. FINISH TO BE 2ND BARS.	4. ± .030		DATE	
5. FINISH TO BE 3RD BARS.	5. ± .030		FROM	
6. FINISH TO BE 4TH BARS.	6. ± .030		WEIGHT	
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3 HP		TP-18, TP-20 ****							
MOTOR VOLTAGE:	PHASE	OVER-LOAD SETTING: <sup>a</sup>	PRIMARY CONNECT:	SECONDARY CONNECT:	PRIMARY FUSING: <sup>***</sup>	SECONDARY FUSING: <sup>***</sup>	MAIN FUSE MINIMUM:	MINIMUM CIRCUIT BREAKER: <sup>***</sup>	COMPONENT SELECTIONS: (ITEM #s)
208 VAC	3 $\phi$	13.0 (14)	H1-H2	X1-X4	2.0 AMP	1.6 AMP	#10/4	20 AMP	20, 8, 16
230 VAC	3 $\phi$	11.7 (14)	H1-H2	X1-X4	2.0 AMP	1.6 AMP	#10/4	20 AMP	20, 8, 16
440 VAC	3 $\phi$	6.1	H1-H4	X1-X4	1.0 AMP	1.6 AMP	#12/4	10 AMP	3, 6, 16
480 VAC	3 $\phi$	5.6	H1-H4	X1-X4	1.0 AMP	1.6 AMP	#12/4	10 AMP	3, 6, 16
575 VAC	3 $\phi$	4.7	H1-H5	X1-X4	0.8 AMP	1.6 AMP	#12/4	10 AMP	3, 6, 16

5 HP		7p-26, 7p-30 ****							
MOTOR VOLTAGE:	PHASE	OVER-LOAD SETTING:*	PRIMARY CONNECT:	SECONDARY CONNECT:	PRIMARY FUSING:**	SECONDARY FUSING:**	MAIN FEED MINIMUM:	MINIMUM CIRCUIT BREAKER:***	COMPONENT SELECTIONS: (ITEM #s)
208 VAC	3 $\phi$	11.0	H1-H2	X1-X4	2.0 AMP	1.6 AMP	#8/3	40 AMP	19, 7, 17
230 VAC	3 $\phi$	9.9	H1-H2	X1-X4	2.0 AMP	1.6 AMP	#8/3	35 AMP	19, 7, 17
440 VAC	3 $\phi$	5.2	H1-H4	X1-X4	1.0 AMP	1.6 AMP	#10/4	20 AMP	3, 6, 17
480 VAC	3 $\phi$	4.8	H1-H4	X1-X4	1.0 AMP	1.6 AMP	#10/4	20 AMP	3, 6, 17
575 VAC	3 $\phi$	4.0	H1-H5	X1-X4	0.8 AMP	1.6 AMP	#12/4	15 AMP	3, 6, 17

\* - EQUAL TO FULL LOAD AMPS (O/L RATED 125% OF SETTING)


**\*\* - USE CLASS CC. TIME DELAY FUSES ONLY.**

\*\*\* - BASED ON 250% OF FULL LOAD AMPS

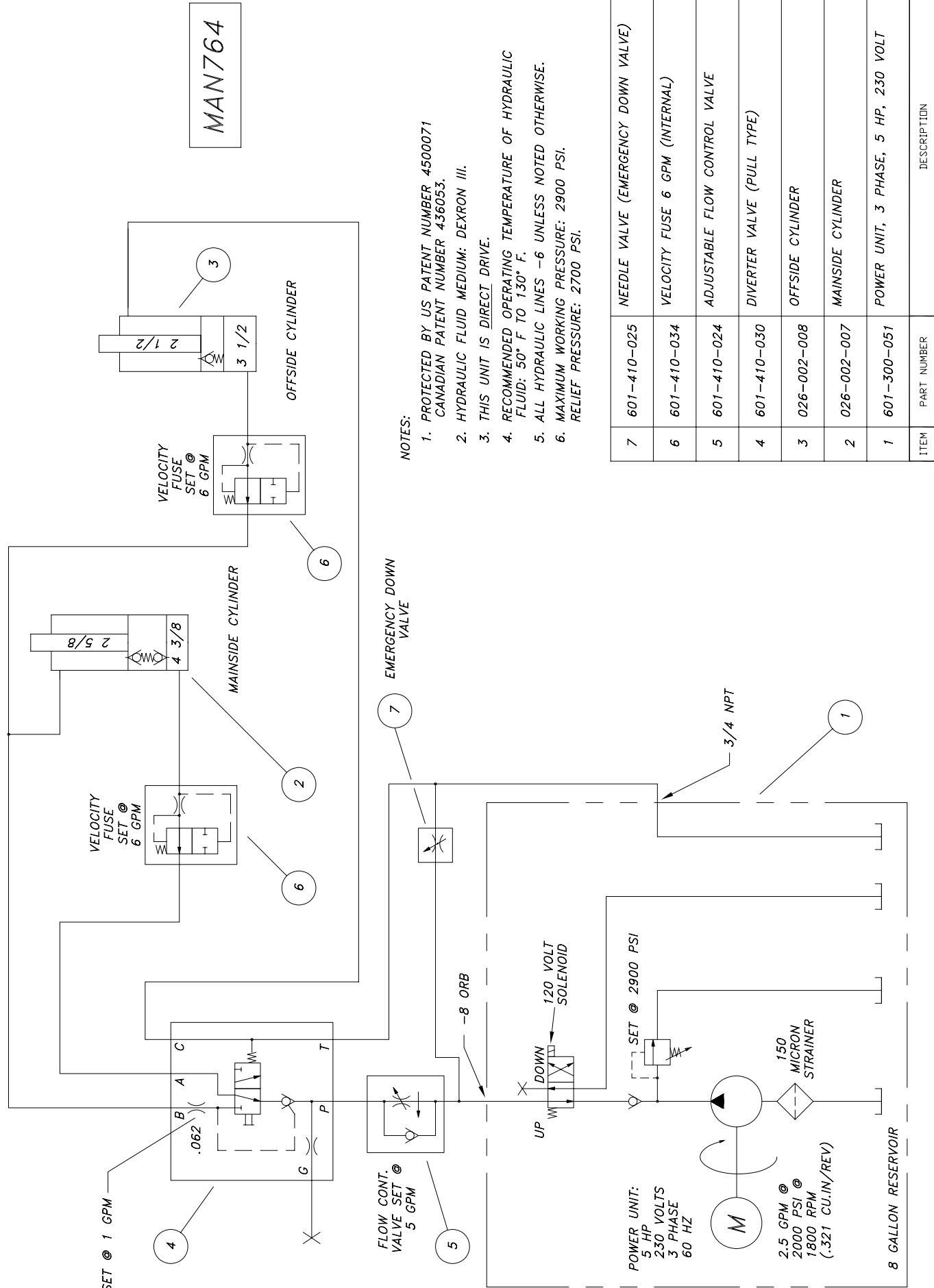
\*\*\* = VERIFIED BY I.T.S. TESTING IN 1998.

MAN765

REV-A 10/00

- NOTES:
1. ALL ELECTRICAL EQUIPMENT AND WIRING SHALL CONFORM TO ANSI/NFPA 70-1980, NATIONAL ELECTRICAL CODE.
2. IT SHALL BE THE RESPONSIBILITY OF THE OWNER/EMPLOYER TO PROVIDE NECESSARY LOCKOUTS/TAGOUTS OF ENERGY SOURCES IN ACCORDANCE WITH ANSI Z244.1-1982, BEFORE ATTEMPTING REPAIRS.
3. ALL FIELD WIRING/ELECTRICAL RELATED LABOR SHALL BE PERFORMED BY CERTIFIED ELECTRICIANS.
4. UNIT MUST BE PROPERLY GROUNDING IN ACCORDANCE TO NEC ARTICLE 250 (GROUNDING), AND APPLICABLE LOCAL CODES.
5.  DENOTES WIRE NUMBERS.
6. THE FOLLOWING COLOR WIRES SHALL BE RESERVED:
  - GREEN: ALL EQUIPMENT GROUNDING CONDUCTORS.
  - WHITE: ALL NEUTRAL CONDUCTORS.
7. VERIFY PROPER MOTOR ROTATION AT INITIAL START-UP.

ITEM	PART NUMBER	DESCRIPTION	QTY
16	601-310-019	SOLENOID VALVE, 120 VAC, W/ MANUAL OVERRIDE	REF
15	601-310-017	SOLENOID VALVE, 120 VAC	REF
14	601-110-039	SWITCH, HAND CONTROL, 3 BUTTON	REF
13	601-160-093	PNEUMATIC SOLENOID VALVE, 3 WAY, 2 POS, 120 V	REF
12	601-160-065	TRANSFORMER, 150 VA, GROUP G	REF
11	601-120-074	FUSE BLOCK, SINGLE, MIDGET	REF
10	601-120-072	FUSE, MIDGET, 1-6/10 AMP	REF
9	601-120-073	FUSE BLOCK, DOUBLE, CLASS CC	REF
8	601-120-045	FUSE, CLASS CC, 2 AMP	REF
7	601-120-075	FUSE, CLASS CC, 1.2 AMP	REF
6	601-120-041	FUSE, CLASS CC, 1 AMP	REF
5	601-120-040	FUSE, CLASS CC, 0.8 AMP	REF
4	601-120-070	OVERLOAD RELAY, ADJUSTABLE, 12.0-18.0 AMP	REF
3	601-120-069	OVERLOAD RELAY, ADJUSTABLE, 5.5-8.0 AMP	REF
2	601-120-068	OVERLOAD RELAY, ADJUSTABLE, 2.5-5.0 AMP	REF
1	601-100-057	CONTACTOR, 18 AMP, 110 VAC COIL	REF



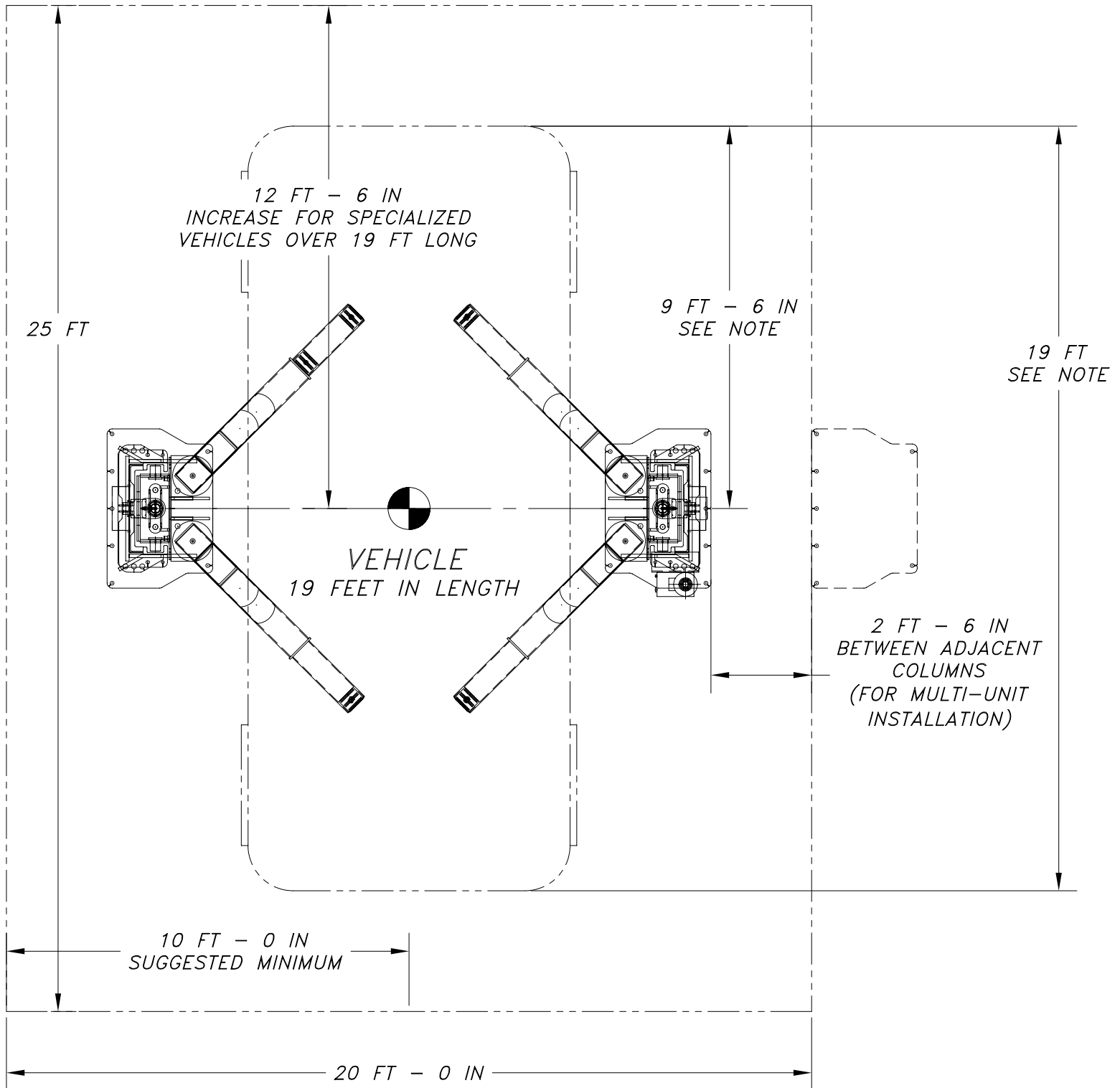
- NOTES:
1. PROTECTED BY US PATENT NUMBER 4500071  
CANADIAN PATENT NUMBER 436053.
  2. HYDRAULIC FLUID MEDIUM: DEXRON III.
  3. THIS UNIT IS DIRECT DRIVE.
  4. RECOMMENDED OPERATING TEMPERATURE OF HYDRAULIC FLUID: 50° F TO 130° F.
  5. ALL HYDRAULIC LINES -6 UNLESS NOTED OTHERWISE.
  6. MAXIMUM WORKING PRESSURE: 2900 PSI.  
RELIEF PRESSURE: 2700 PSI.

7	601-410-025	NEEDLE VALVE (EMERGENCY DOWN VALVE)	REF
6	601-410-034	VELOCITY FUSE 6 GPM (INTERNAL)	REF
5	601-410-024	ADJUSTABLE FLOW CONTROL VALVE	REF
4	601-410-030	DIVERTER VALVE (PULL TYPE)	REF
3	026-002-008	OFFSIDE CYLINDER	REF
2	026-002-007	MAINSIDE CYLINDER	REF
1	601-300-051	POWER UNIT, 3 PHASE, 5 HP, 230 VOLT	REF
ITEM	PART NUMBER	DESCRIPTION	QTY

TP-30A HYDRAULIC SCHEMATIC  
030-002-080  
FILE: MAN764



# BAY SIGHT LAYOUT



## IMPORTANT NOTE

MOST VEHICLES' CENTER OF GRAVITY (C.O.G.)  LIE BETWEEN WHEEL BASE CENTERS, HOWEVER, SOME VEHICLES C.O.G. MAY BE OFFSET. VERIFY THE CENTER OF GRAVITY ON THE VEHICLE FLEET TO INSURE REAR AND FRONT ACCESS OF THE VEHICLE.

FIG. A  
CORRECT

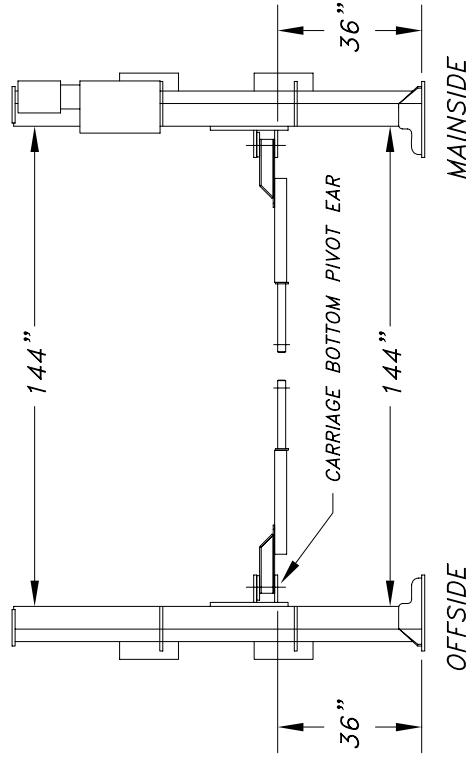


FIG. C  
INCORRECT

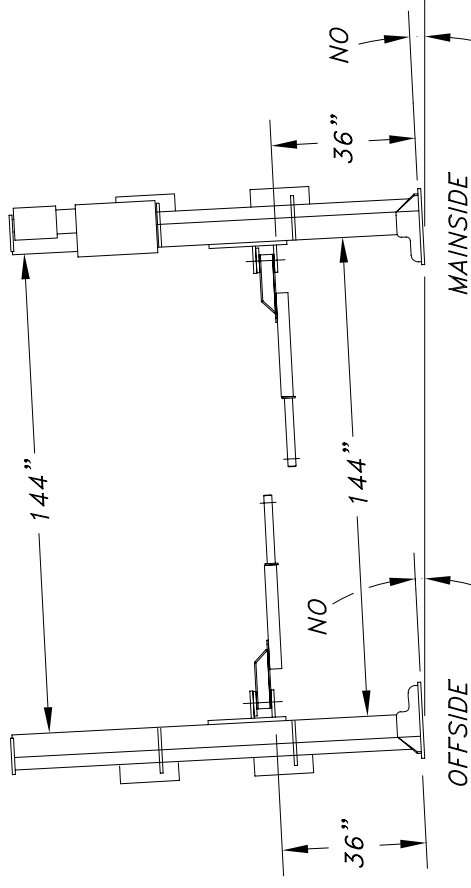


FIG. B  
INCORRECT

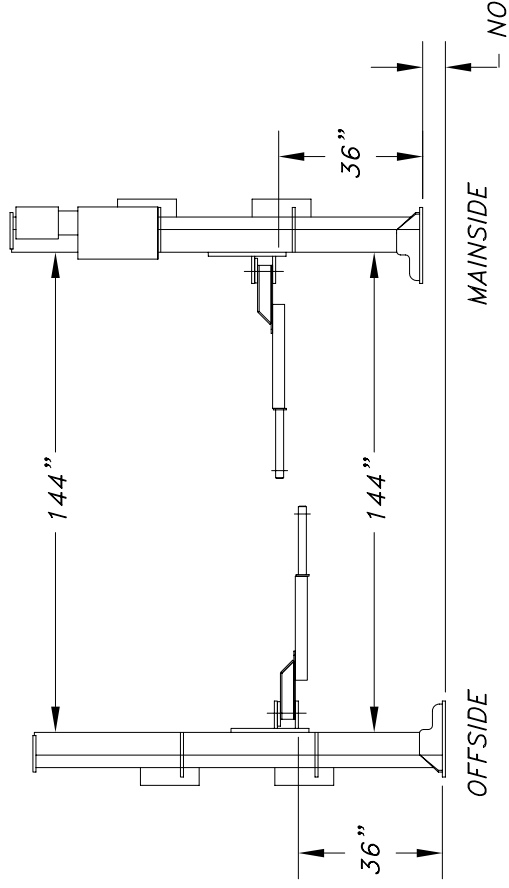
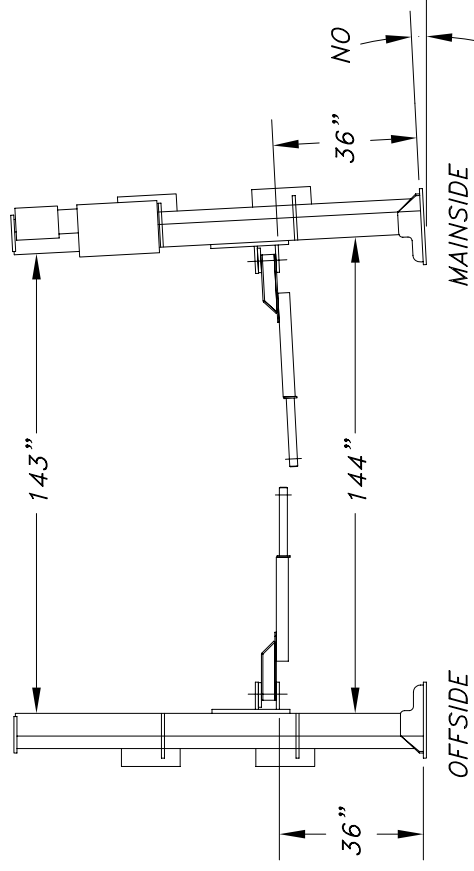
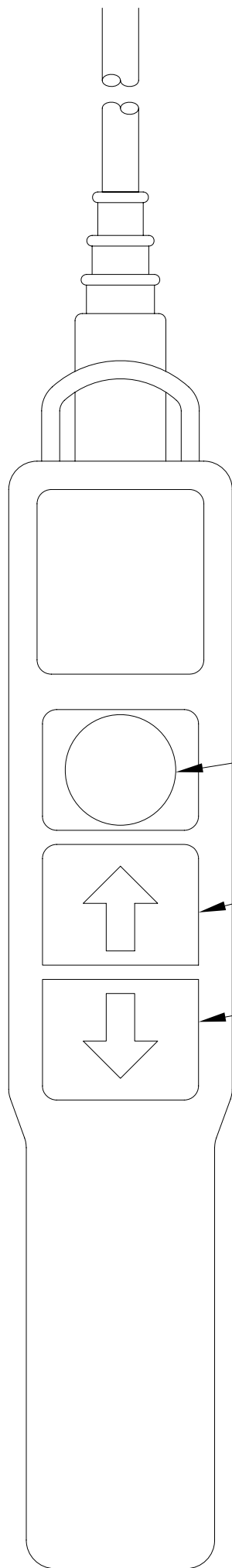


FIG. D  
INCORRECT





*PENDENT CONTROL*

*LOCK RELEASE*

*RAISE*

*LOWER*

MOHAWK MODEL TP-30A

# **MOHAWK**

**MADE IN THE U.S.A.**

## **MODEL TP-30A**

### **PARTS**



## **MOHAWK RESOURCES LTD.**

P.O. BOX 110

65 VROOMAN AVENUE

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)**

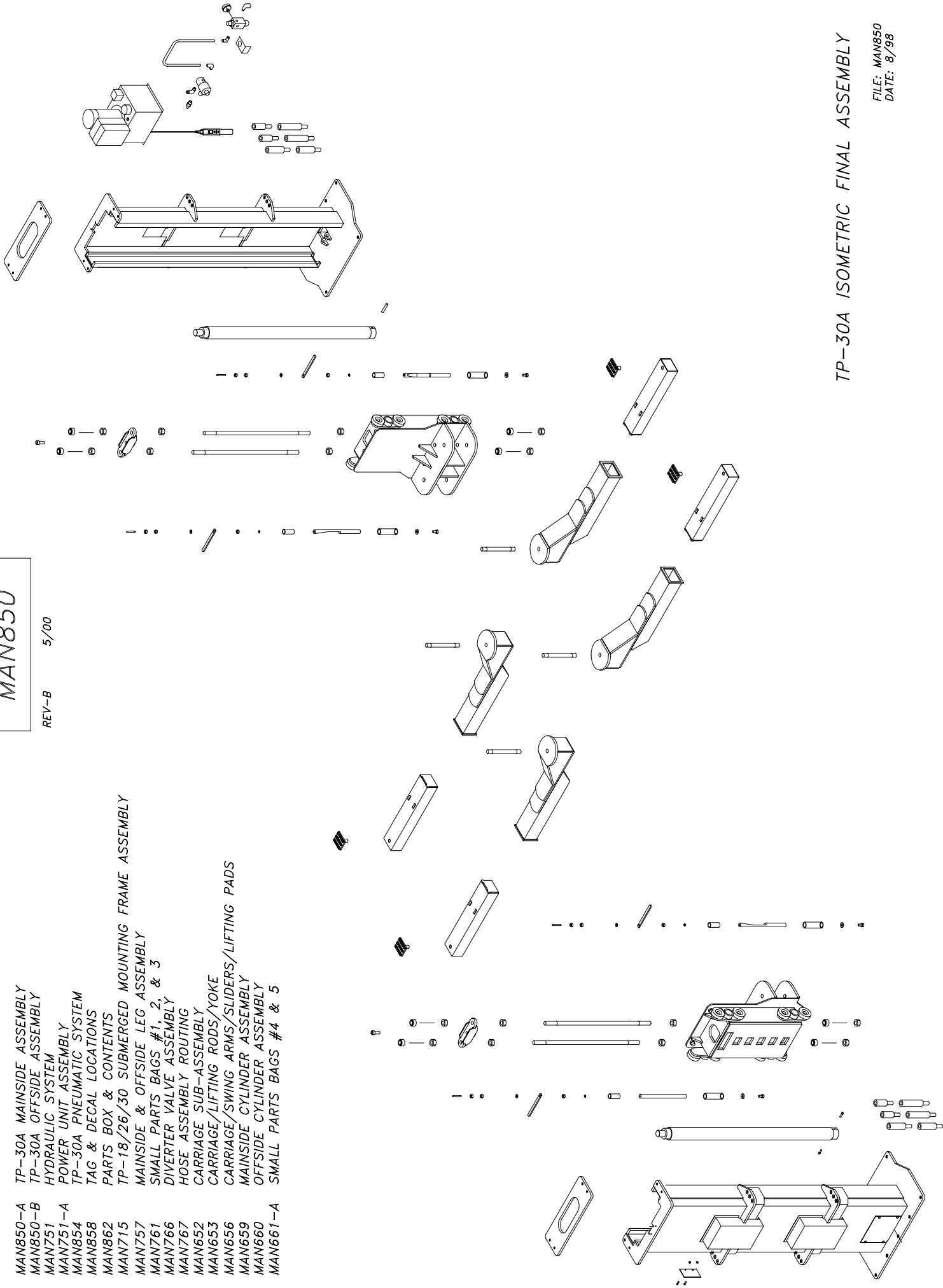
**E-MAIL: [SERVICE@MOHAWKLIFTS.COM](mailto:SERVICE@MOHAWKLIFTS.COM)**

SEE MANUAL DRAWINGS BELOW FOR FURTHER INFORMATION

- MAN850-A TP-30A MAINSIDE ASSEMBLY
- MAN850-B TP-30A OFFSIDE ASSEMBLY
- MAN751 HYDRAULIC SYSTEM
- MAN751-A POWER UNIT ASSEMBLY
- MAN854 TP-30A PNEUMATIC SYSTEM
- MAN858 TAG & DECAL LOCATIONS
- MAN862 PARTS BOX & CONTENTS
- MAN715 TP-18/26/30 SUBMERGED MOUNTING FRAME ASSEMBLY
- MAN757 MAINSIDE & OFFSIDE LEG ASSEMBLY
- MAN761 SMALL PARTS BAGS #1, 2, & 3
- MAN766 DIVERTER VALVE ASSEMBLY
- MAN767 HOSE ASSEMBLY ROUTING
- MAN652 CARRIAGE SUB-ASSEMBLY
- MAN653 CARRIAGE/LIFTING RODS/YOKE
- MAN656 CARRIAGE/SLING ARMS/SLIDERS/LIFTING PADS
- MAN659 MAINSIDE CYLINDER ASSEMBLY
- MAN660 OFFSIDE CYLINDER ASSEMBLY
- MAN661-A SMALL PARTS BAGS #4 & 5

MAN850

REV-B 5/00

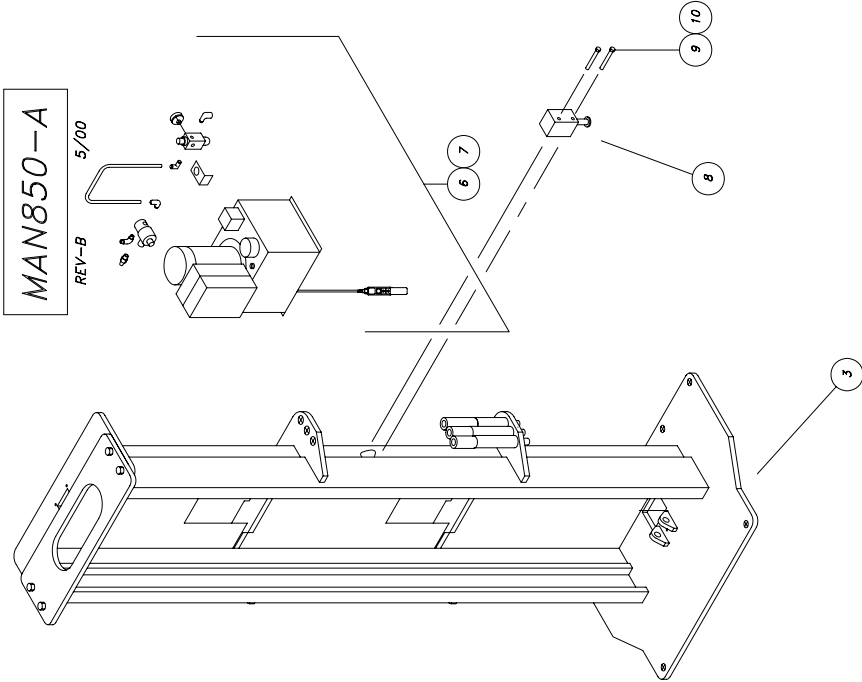


TP-30A ISOMETRIC FINAL ASSEMBLY

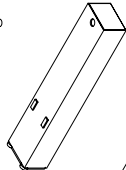
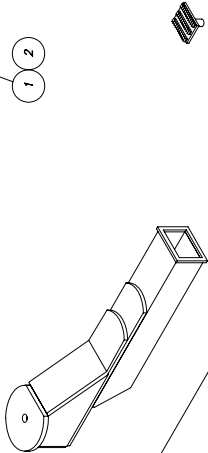
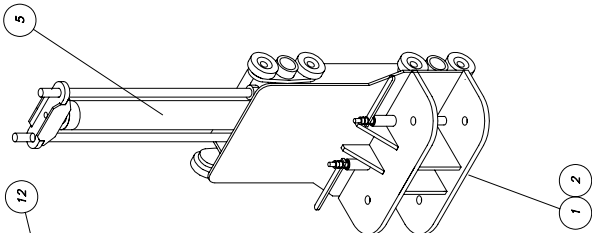
FILE: MAN850  
DATE: 8/98

SEE MANUAL DRAWINGS BELOW FOR FURTHER INFORMATION

- MAN850 TP-30A ISOMETRIC ASSEMBLY
- MAN850-B TP-30A OFFSIDE ASSEMBLY
- MAN751 HYDRAULIC SYSTEM
- MAN751-A POWER UNIT ASSEMBLY
- MAN854 TP-30A PNEUMATIC SYSTEM
- MAN858 TAG & DECAL LOCATIONS
- MAN862 PARTS BOX & CONTENTS
- MAN715 TP-18/26/30 SUBMERGED MOUNTING FRAME ASSEMBLY
- MAN757 MAINSIDE & OFFSIDE LEG ASSEMBLY
- MAN761 SMALL PARTS BAGS #1, 2, & 3
- MAN766 DIVERTER VALVE ASSEMBLY
- MAN767 HOSE ASSEMBLY ROUTING
- MAN652 CARRIAGE SUB-ASSEMBLY
- MAN653 CARRIAGE/LIFTING RODS/YOKE
- MAN656 CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS
- MAN659 MAINSIDE CYLINDER ASSEMBLY
- MAN660 OFFSIDE CYLINDER ASSEMBLY
- MAN661-A SMALL PARTS BAGS #4 & 5



CYLINDER, REF



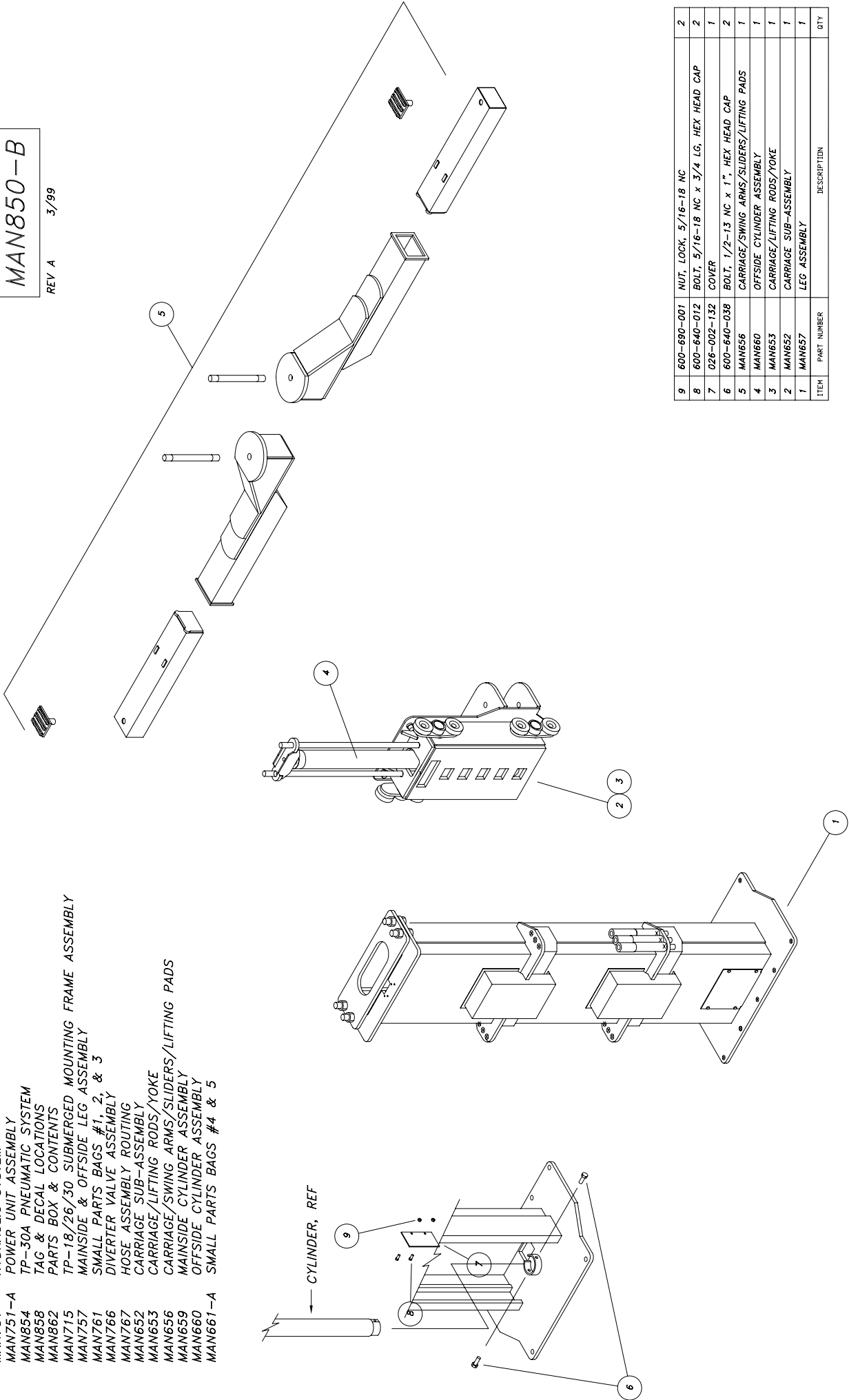
ITEM	PART NUMBER	DESCRIPTION	QTY
12	026-002-128	MAIN CYLINDER RETAINING PIN	1
11	600-B70-002	SNAP RING, 1"	2
10	600-590-001	NUT, LOCK, 5/16-18 NC	2
9	600-640-020	BOLT, 5/16-18 NC x 3 1/2 LG, HEX HEAD CAP	2
8	MAN663	DIVERTER VALVE, 3000 PSI MAX, 6 GPM	1
7	MAN851	HYDRAULIC SYSTEM	1
6	MAN851-A	POWER UNIT ASSEMBLY	1
5	MAN659	MAINSIDE CYLINDER ASSEMBLY	1
4	MAN656	CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS	1
3	MAN757	LEG ASSEMBLY	1
2	MAN653	CARRIAGE/LIFTING RODS/YOKE	1
1	MAN652	CARRIAGE SUB-ASSEMBLY	1

TP-30A MAINSIDE ASSEMBLY

SEE MANUAL DRAWINGS BELOW FOR FURTHER INFORMATION

- MAN850 TP-30A ISOMETRIC ASSEMBLY
- MAN850-B TP-30A OFFSIDE ASSEMBLY
- MAN751 HYDRAULIC SYSTEM
- MAN751-A POWER UNIT ASSEMBLY
- MAN854 TP-30A PNEUMATIC SYSTEM
- MAN858 TAG & DECAL LOCATIONS
- MAN862 PARTS BOX & CONTENTS
- MAN715 TP-18/26/30 SUBMERGED MOUNTING FRAME ASSEMBLY
- MAN757 MAINSIDE & OFFSIDE LEG ASSEMBLY
- MAN761 SMALL PARTS BAGS #1, 2, & 3
- MAN766 DIVERTER VALVE ASSEMBLY
- MAN767 HOSE ASSEMBLY ROUTING
- MAN652 CARRIAGE SUB-ASSEMBLY
- MAN653 CARRIAGE/LIFTING RODS/YOKE
- MAN656 CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS
- MAN659 MAINSIDE CYLINDER ASSEMBLY
- MAN660 OFFSIDE CYLINDER ASSEMBLY
- MAN661-A SMALL PARTS BAGS #4 & 5

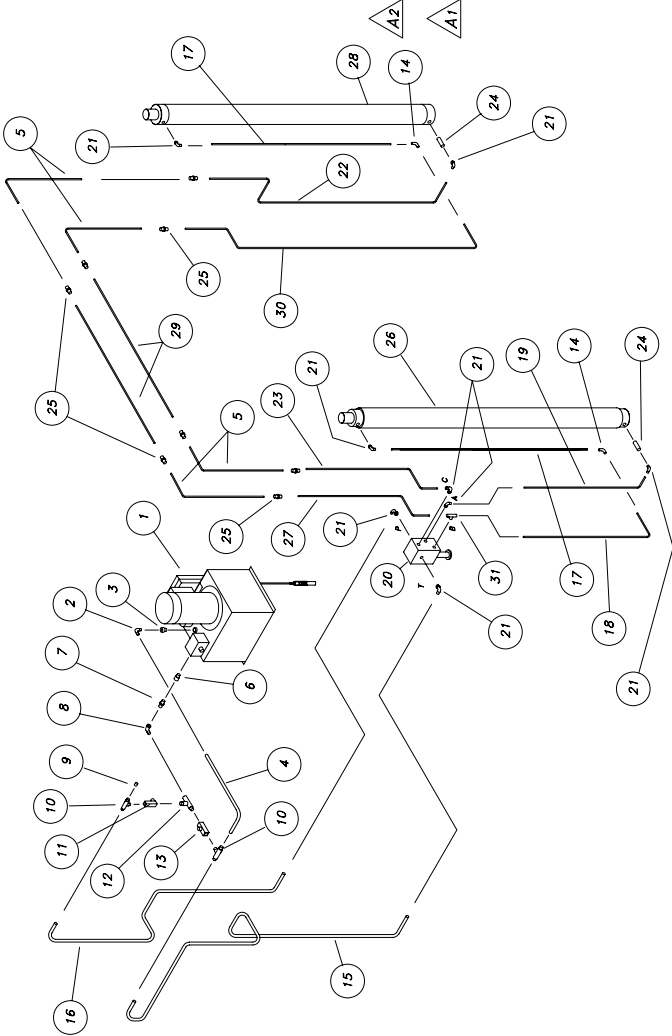
MAN850-B  
REV A 3/99



TP-30A OFFSIDE ASSEMBLY

FILE: MAN850-B  
DATE: 8/98

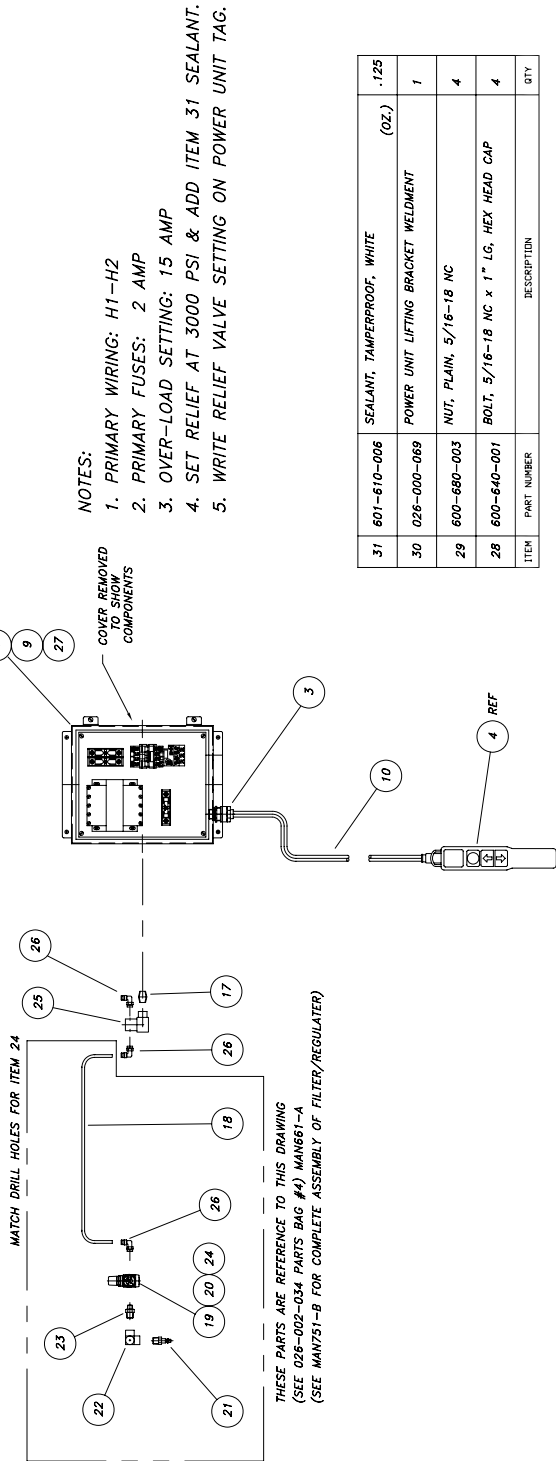
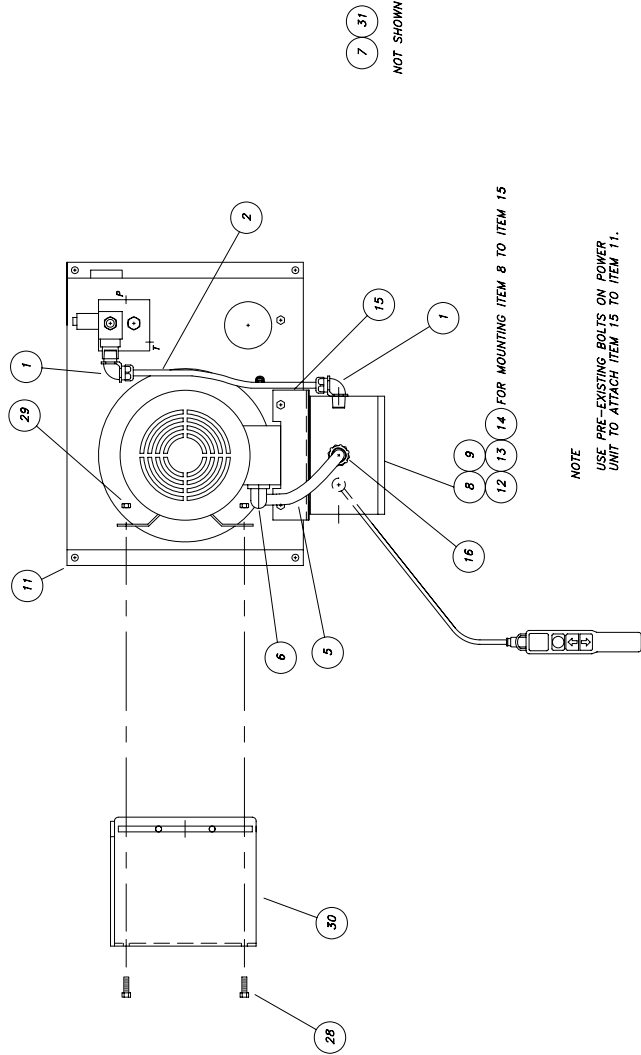
SEE DRAWING MAN767 (ITEM 29)  
FOR HOSE ROUTING AND ASSEMBLY



ITEM	PART NUMBER	DESCRIPTION	QTY
31	601-420-046	TEE (BRANCH), #6 ORB TO #6 JIC AEROQUIP #203003-6-6S	REF (1)
30	020-000-026	TUBING ASSEMBLY, 136 1/2"	REF (1)
29	000-001-079	TUBING ASSEMBLY, 120"	REF (2)
28	026-002-008	OFFSIDE CYLINDER ASSEMBLY	REF (1)
27	018-012-016	TUBING ASSEMBLY, 66 1/4"	REF (1)
26	026-002-007	MAINSIDE CYLINDER ASSEMBLY	REF (1)
25	601-420-011	UNION, #6 JIC TO #6 JIC AEROQUIP #2027-6-6S	REF (1)
24	601-410-034	VELOCITY FUSE, 6 GPM VONBERG #28135-6	REF (2)
23	018-012-015	TUBING ASSEMBLY, 63 1/4"	REF (8)
22	018-012-018	TUBING ASSEMBLY, 136 1/2"	REF (1)

ITEM	PART NUMBER	DESCRIPTION	QTY
21	601-420-017	ELBOW, 90°, #6 ORB TO #6 JIC AEROQUIP #2062-6-6S	REF (8)
20	601-410-030	DIVERTER VALVE, 3000 PSI MAX, 6 GPM FLUID POWER #242239AA	REF (1)
19	026-002-013	TUBING ASSEMBLY, 70 3/4"	REF (1)
18	026-002-014	TUBING ASSEMBLY, 68 1/2"	REF (1)
17	000-001-035	TUBING ASSEMBLY, 76"	REF (2)
16	026-002-059	HOSE ASSEMBLY, 69"	REF (1)
15	026-002-058	HOSE ASSEMBLY, 64"	REF (1)
14	601-420-052	ELBOW, 90°, #6 JIC MALE TO #6 JIC MALE AEROQUIP #2039-6-6S	REF (2)
13	601-410-025	NEEDLE VALVE, 8 GPM PARKER #N-600-S	REF (1)
12	601-420-057	TEE, 3/8 FEMALE PIPE TO 3/8 MALE PIPE AEROQUIP #2093-6-6S	REF (1)
11	601-410-024	FLOW CONTROL VALVE, 8 GPM PARKER #F-600-S	REF (1)
10	601-420-012	TEE, 3/8 MALE PIPE TO #6 JIC AEROQUIP #2030-6-6S	REF (2)
9	601-420-001	CAP PLUG, #6 JIC AEROQUIP #210292-6S	REF (1)
8	601-420-010	ELBOW, 90°, 3/8 FEMALE PIPE TO 3/8 MALE PIPE AEROQUIP #2089-6-6S	REF (1)
7	601-420-022	UNION, 3/8 MALE PIPE TO 3/8 MALE PIPE AEROQUIP #2083-6-6S	REF (1)
6	601-420-056	STRAIGHT, 3/8 FEMALE PIPE TO #8 ORB AEROQUIP #2216-6-8S	REF (1)
5	018-012-019	TUBING ASSEMBLY, 93 3/4"	REF (4)
4	026-002-048	TUBING ASSEMBLY, 20"	REF (1)
3	601-420-058	REDUCER, 3/4 MALE PIPE TO 1/4 FEMALE PIPE AEROQUIP #2081-12-4S	REF (1)
2	601-420-014	ELBOW, 90°, 1/4 MALE PIPE TO #6 JIC AEROQUIP #2024-4-6S	REF (1)
1	026-002-044	POWER UNIT SUB-ASSEMBLY	REF (1)



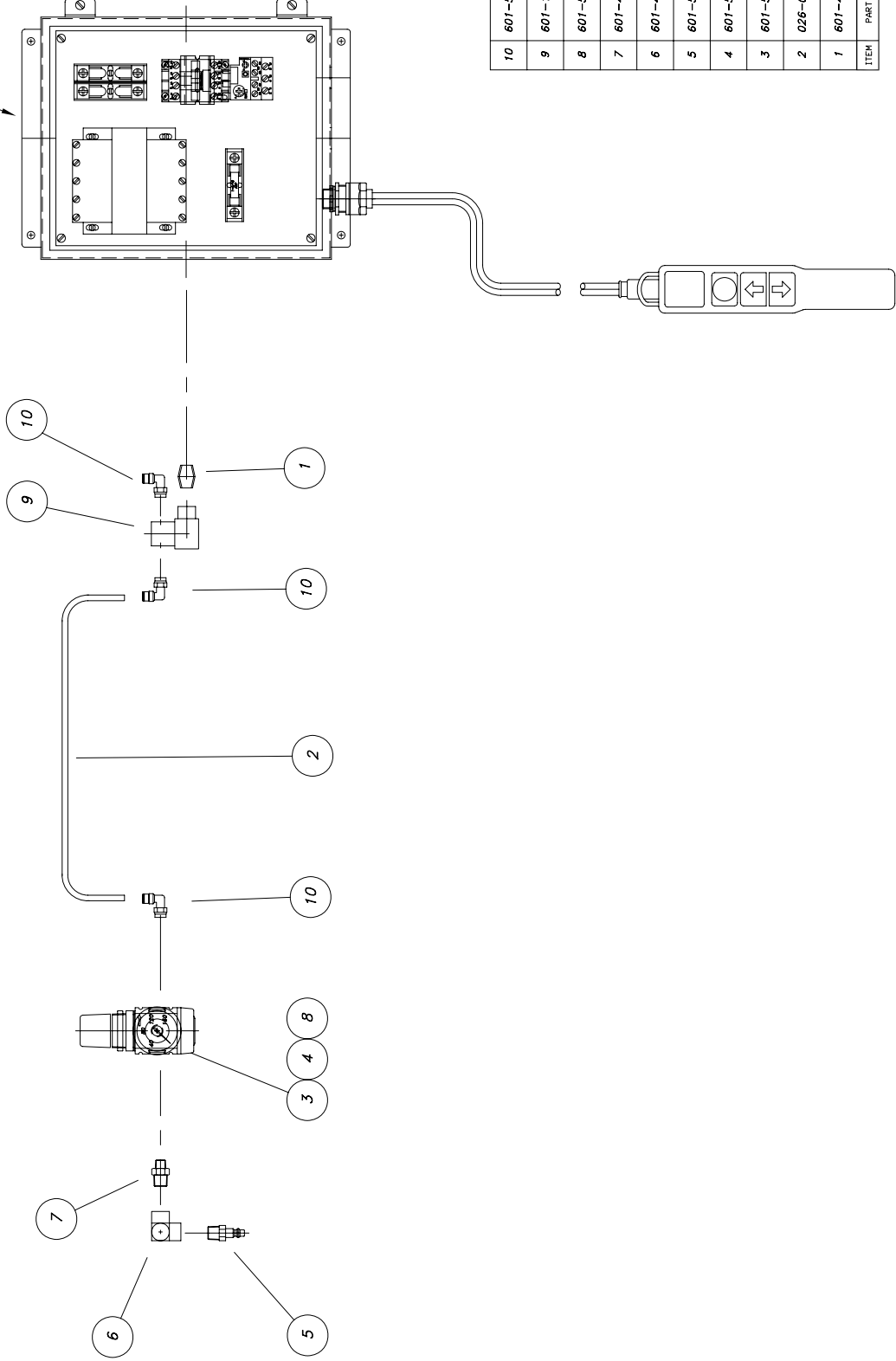


- NOTES:
1. PRIMARY WIRING: H1-H2
  2. PRIMARY FUSES: 2 AMP
  3. OVER-LOAD SETTING: 15 AMP
  4. SET RELIEF AT 3000 PSI & ADD ITEM 31 SEALANT.
  5. WRITE RELIEF VALVE SETTING ON POWER UNIT TAG.

ITEM	PART NUMBER	DESCRIPTION	QTY
31	601-610-006	SEALANT, TAMPERPROOF, WHITE	.125 (OZ.)
30	026-000-069	POWER UNIT LIFTING BRACKET WELDMENT	1
29	600-680-003	NUT, PLAIN, 5/16-18 NC	4
28	600-640-001	BOLT, 5/16-18 NC x 1" LG, HEX HEAD CAP	4

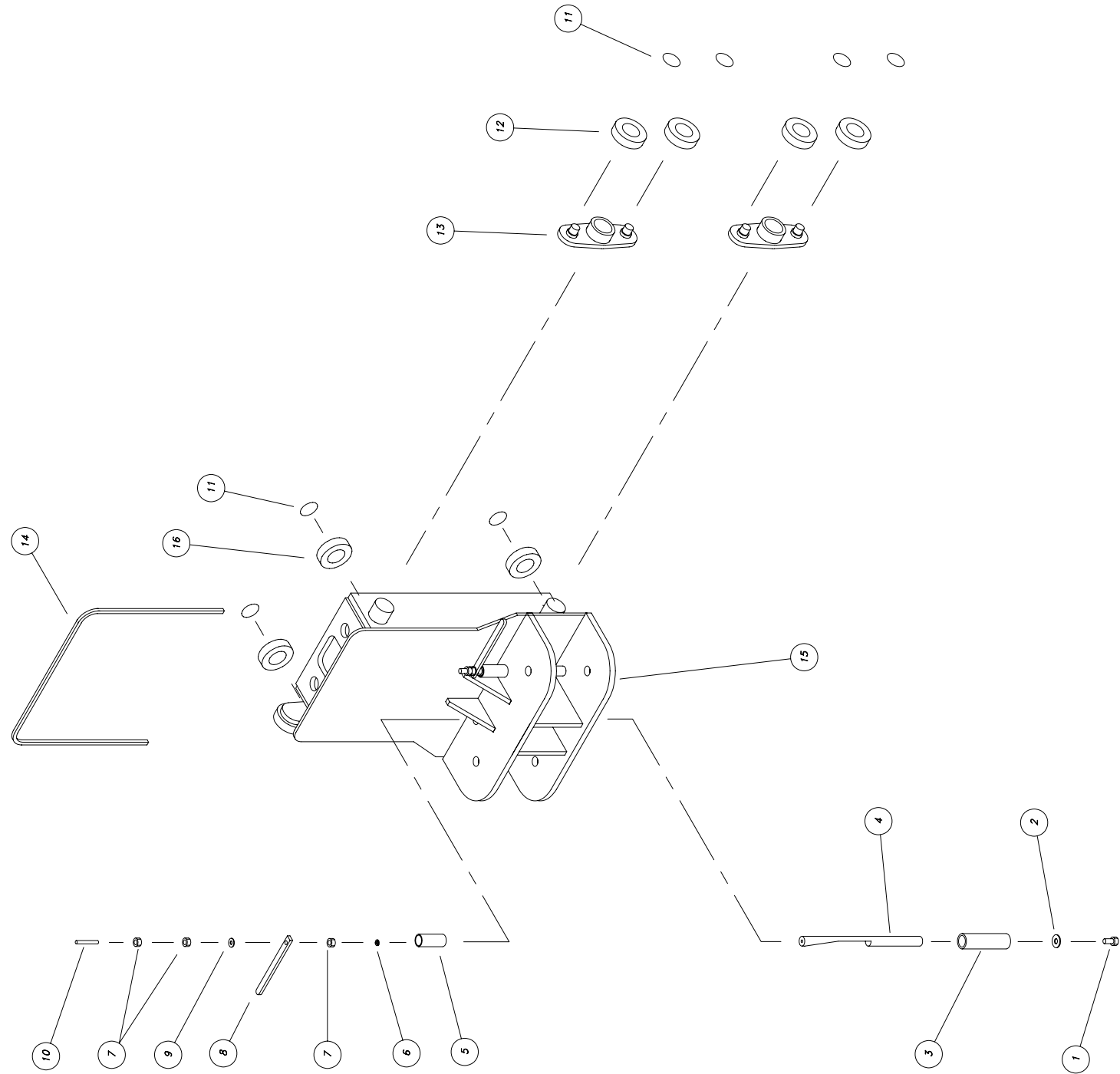
27	601-120-045	FUSE, CLASS CC, 2 AMP	2
26	601-520-003	ELBOW, 90°, SWIVEL, 1/4 NPT TO 1/4 TUBE	2
25	601-160-093	SOLENOID AIR VALVE, 3 WAY, NC, 1/4 NPT	1
24	601-510-026	AIR LINE REGULATOR	(1)
23	601-420-108	NIPPLE, PIPE, 3/8 MALE PIPE TO 1/4 MALE PIPE	REF (1)
22	601-420-063	ELBOW, 90°, 3/8 FMP TO 3/8 FMP	REF (1)
21	601-530-002	AIR LINE QUICK COUPLER PLUG, 3/8 NPT	REF (1)
20	601-510-025	L-BRACKET	REF (1)
19	601-510-024	GAUGE	REF (1)
18	026-002-412	TUBING, BLACK, 1/4" x 120"	REF (1)
17	601-450-012	NIPPLE, PIPE, 1/2 x 1 1/8, CLOSED LENGTH	1
16	601-140-006	FITTING, 1/2, CONDUIT, STRAIGHT	1
15	026-002-025	STARTER BOX MOUNTING BRACKET WELDMENT	1
14	600-690-005	NUT, LOCK, 1/4-20 NC	4
13	600-640-004	BOLT, 1/4-20 NC x 1" LG	4
12	600-710-004	WASHER, FLAT, 1/4	4
11	601-300-053	POWER UNIT, 5 HP, 3#, T-UNIT	1
10	026-002-418	CONDUCTOR, 16/5, 20 FEET LG	1
9	601-120-070	OVERLOAD RELAY, ADJUSTABLE, 12-18 AMP	1
8	000-000-002	STARTER BOX WIRING, 3 PHASE	1
7	601-610-001	HYDRAULIC FLUID	10.5 (GALLONS)
6	601-140-005	FITTING, ELBOW, 90°, 1/2 CONDUIT	1
5	026-002-413	CONDUIT, FLEX, LIQUID TIGHT, 1/2" x 10" LG	1
4	026-002-030	HAND CONTROL ASSEMBLY W/LOCK RELEASE	1
3	601-140-061	FITTING, CABLE CONNECTOR, STRAIGHT, 3/8"-1/2"	1
2	026-002-417	CONDUIT, LIQUID TIGHT, 3/8" x 15 1/4" LG	1
1	601-140-024	FITTING, 3/8 CONDUIT, 90° ELBOW	2

STARTER BOX, REF

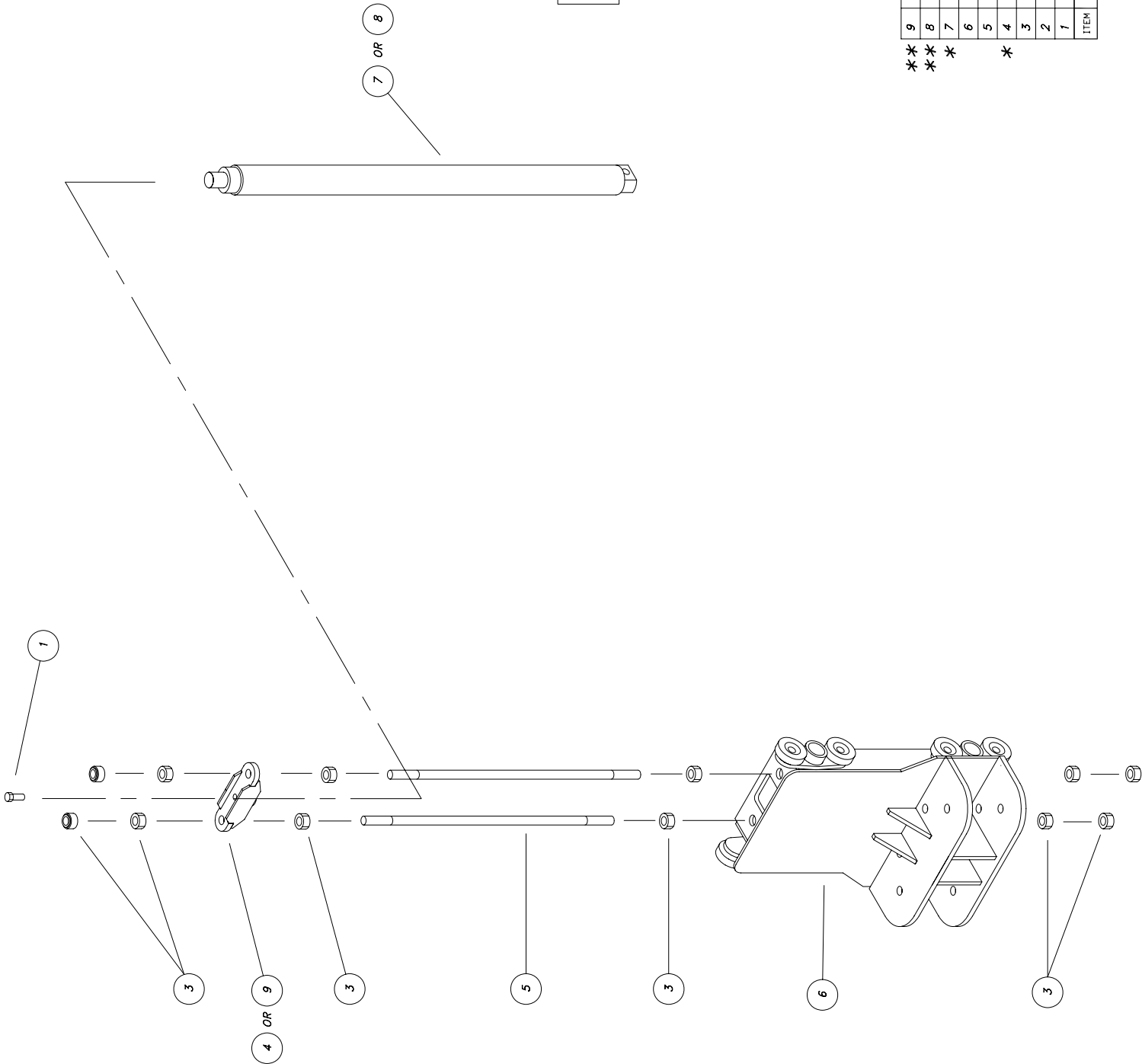


10	601-520-003	ELBOW, 90°, SWIVEL, 1/4 NPT TO 1/4 TUBE	REF
9	601-160-093	SOLENOID AIR VALVE, 3 WAY, NC, 1/4 NPT	REF
8	601-510-026	AIR LINE REGULATOR	REF
7	601-420-108	NIPPLE, PIPE, 3/8 MALE PIPE TO 1/4 MALE PIPE	REF
6	601-420-063	ELBOW, 90°, 3/8 FMP TO 3/8 FMP	REF
5	601-530-002	AIR LINE QUICK COUPLER PLUG, 3/8 NPT	REF
4	601-510-025	L-BRACKET	REF
3	601-510-024	GAUGE	REF
2	026-002-412	TUBING, BLACK, 1/4" x 120"	REF
1	601-450-012	NIPPLE, PIPE, 1/2 x 1 1/8, CLOSED LENGTH	REF
ITEM	PART NUMBER	DESCRIPTION	QTY

FILTR REGULATOR ASSEMBLY



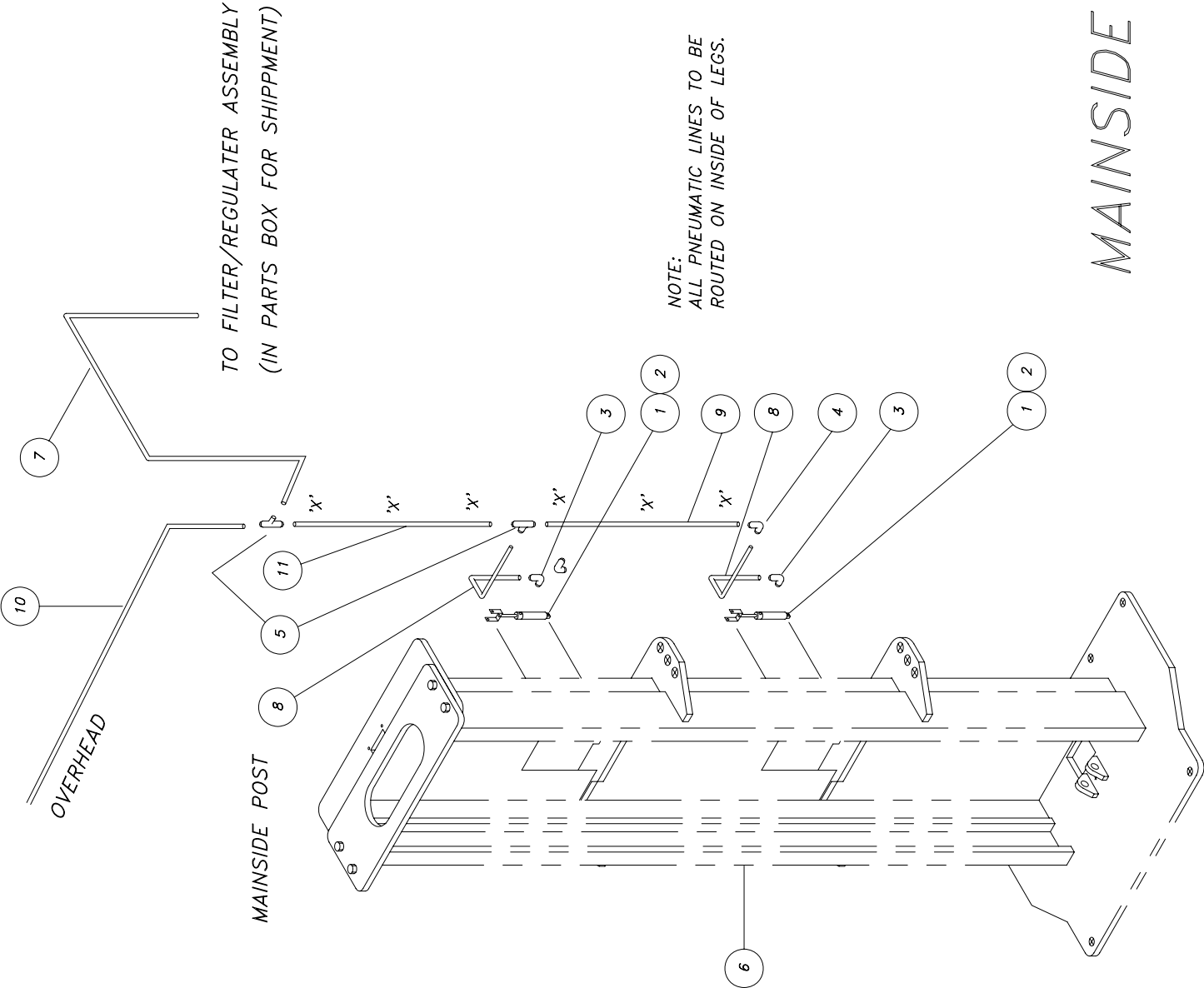
ITEM	PART NUMBER	DESCRIPTION	QTY
16	050-000-047	CARRIAGE ROLLER ASSEMBLY, 4"	4
15	026-002-003	CARRIAGE WELDMENT	1
14	026-000-404	TRIM-LOK, 68"	1
13	026-000-007	BEARING HOLDER	4
12	026-000-046	CARRIAGE ROLLER ASSEMBLY, 5"	8
11	600-870-001	SNAP RING, #5100-137	12
10	018-000-102	ALL THREAD ROD, 1/2-13 NC x 4"	2
9	600-710-008	WASHER, FLAT, 1/2	2
8	018-000-101	HANDLE	2
7	600-680-001	NUT, PLAIN, 1/2-13 NC	6
6	600-720-005	WASHER, LOCK, 1/2	2
5	018-000-103	SLEEVE	2
4	026-000-101	ARM RESTRAINT	2
3	600-840-016	SPRING, 8 1/4 LG	2
2	600-710-001	WASHER, FLAT, 3/4	2
1	600-640-031	BOLT, 3/4-16 NF x 1 1/2, HEX HEAD CAP	2
ITEM	PART NUMBER	DESCRIPTION	QTY



\* USED ON MAINSIDE  
\*\* USED ON OFFSIDE

**	9	026-000-013	YOKE WELDMENT (OFFSIDE)	1
**	8	MAN660	CYLINDER ASSEMBLY (OFFSIDE)	(REF)
*	7	MAN659	CYLINDER ASSEMBLY (MAINSIDE)	(REF)
	6	MAN652	CARRIAGE SUB-ASSEMBLY	(REF)
	5	026-002-126	LIFTING ROD, 1 1/2 DIA	2
*	4	026-000-010	YOKE WELDMENT (MAINSIDE)	1
	3	600-680-007	NUT, PLAIN, 1 1/2-12 NF	12
	2			
	1	600-640-055	BOLT, 1-14 NF x 2 1/2, HEX HEAD CAP	1
	ITEM	PART NUMBER	DESCRIPTION	QTY

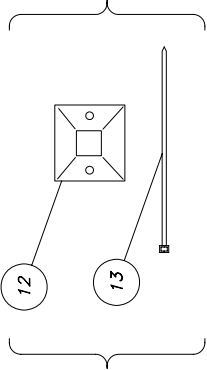
CARRIAGE/LIFTING RODS/YOKE



NOTE:  
ALL PNEUMATIC LINES TO BE  
ROUTED ON INSIDE OF LEGS.

MAINSIDE

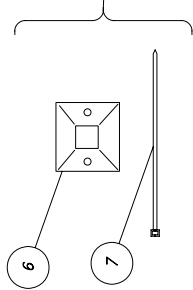
MAN863



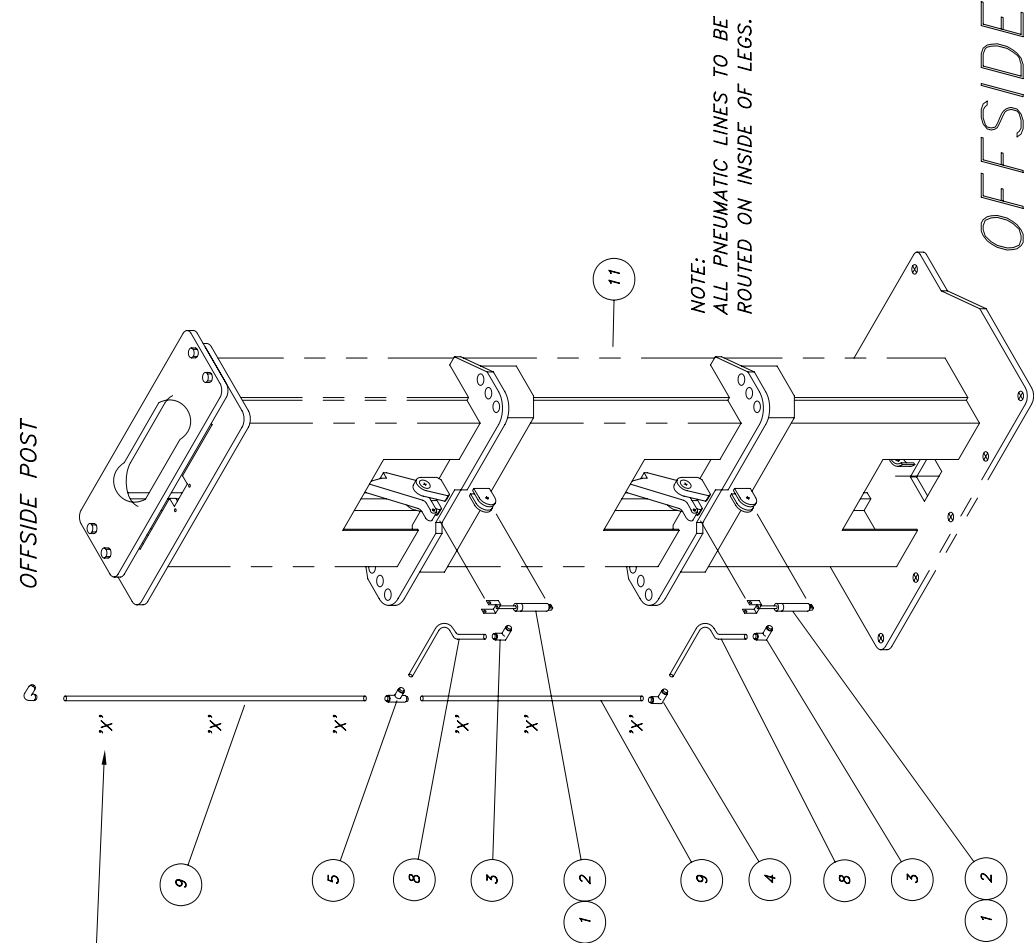
PLACE ITEMS 12 & 13 APPROX WHERE  
AN 'X' IS SHOWN, ON INSIDE OF  
LEG WELDMENT FOR SECURING  
AIR LINES TO LEG

13	601-600-021	PULL TIE, 15"	6
12	601-600-045	CABLE TIE HOLDER TYTON LELLERMAN #WB5AOC2	6
11	601-520-001	TUBING, 1/4" x FEET (41")	3.4'
10	601-520-001	TUBING, 1/4" x FEET (314")	26.2
9	601-520-001	TUBING, 1/4" xFEET (42")	3.5'
8	601-520-001	TUBING, 1/4" x FEET (11")	1.8'
7	601-520-001	TUBING, BLACK, 1/4 x FEET (36")	REF
6	026-002-055	MAINSIDE SECONDARY LEG ASSEMBLY (1)	REF
5	601-520-004	UNION TEE, 1/4" TUBE CAMOZZI #6540-04-00	2
4	601-520-003	90° ELBOW SWIVEL, 1/4 NPT TO 1/4 TUBE CAMOZZI #P6520-04-04	1
3	601-520-002	90° ELBOW SWIVEL, 1/8 NPT TO 1/4 TUBE CAMOZZI #P6520-04-02	2
2	026-002-106	LOCK CYLINDER CLEVIS, 1/4 x 3/4(FLAT) x 5 5/8 (2) 600-010-026	REF
1	601-510-006	AIR CYLINDER PARKER #1.06RPSR01.5 (2)	REF
ITEM	PART NUMBER	DESCRIPTION	QTY

TP-26A, 30A PNEUMATIC SYSTEM



PLACE ITEMS 6 & 7 APPROX WHERE AN 'X' IS SHOWN, ON INSIDE OF LEG WELDMENT FOR SECURING AIR LINES TO LEG



NOTE:  
ALL PNEUMATIC LINES TO BE  
ROUTED ON INSIDE OF LEGS.

OFFSIDE

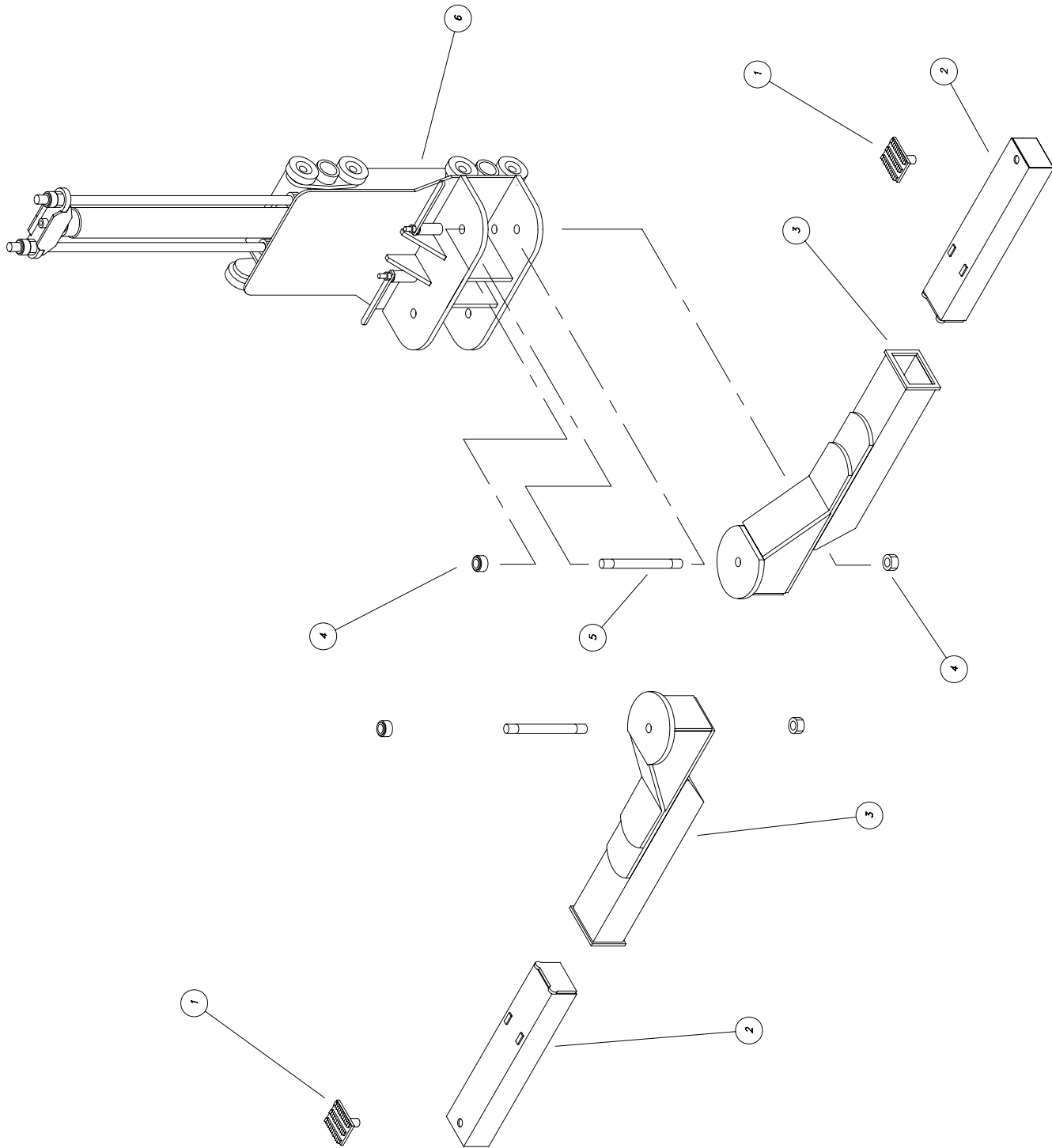
MAN864

ITEM	PART NUMBER	DESCRIPTION	QTY
11	026-002-027	OFFSIDE SECONDARY LEG ASSEMBLY (OFF)	REF
10			
9	026-002-407	TUBING, 1/4" x 42" LG	601-520-001
8	026-002-406	TUBING, 1/4" x 11" LG	601-520-001
7	601-600-045	CABLE TIE HOLDER TYTON HELLERMAN #MB5AOC2	6
6	601-600-021	PULL TIE, 15"	6
5	601-520-004	UNION TEE, 1/4" TUBE CAMOZZI #6540-04-00	1
4	601-520-003	90° ELBOW SWIVEL, 1/4 NPT TO 1/4 TUBE CAMOZZI #P6520-04-04	2
3	601-520-002	90° ELBOW SWIVEL, 1/8 NPT TO 1/4 TUBE CAMOZZI #P6520-04-02	2
2	026-002-024	CLEVIS WELDMENT	REF
1	601-510-006	AIR CYLINDER PARKER #1.06RPSRS01.5	REF

TP-26A, 30A PNEUMATIC SYSTEM

FILE: MAN864  
DATE: 8/05

MAN656

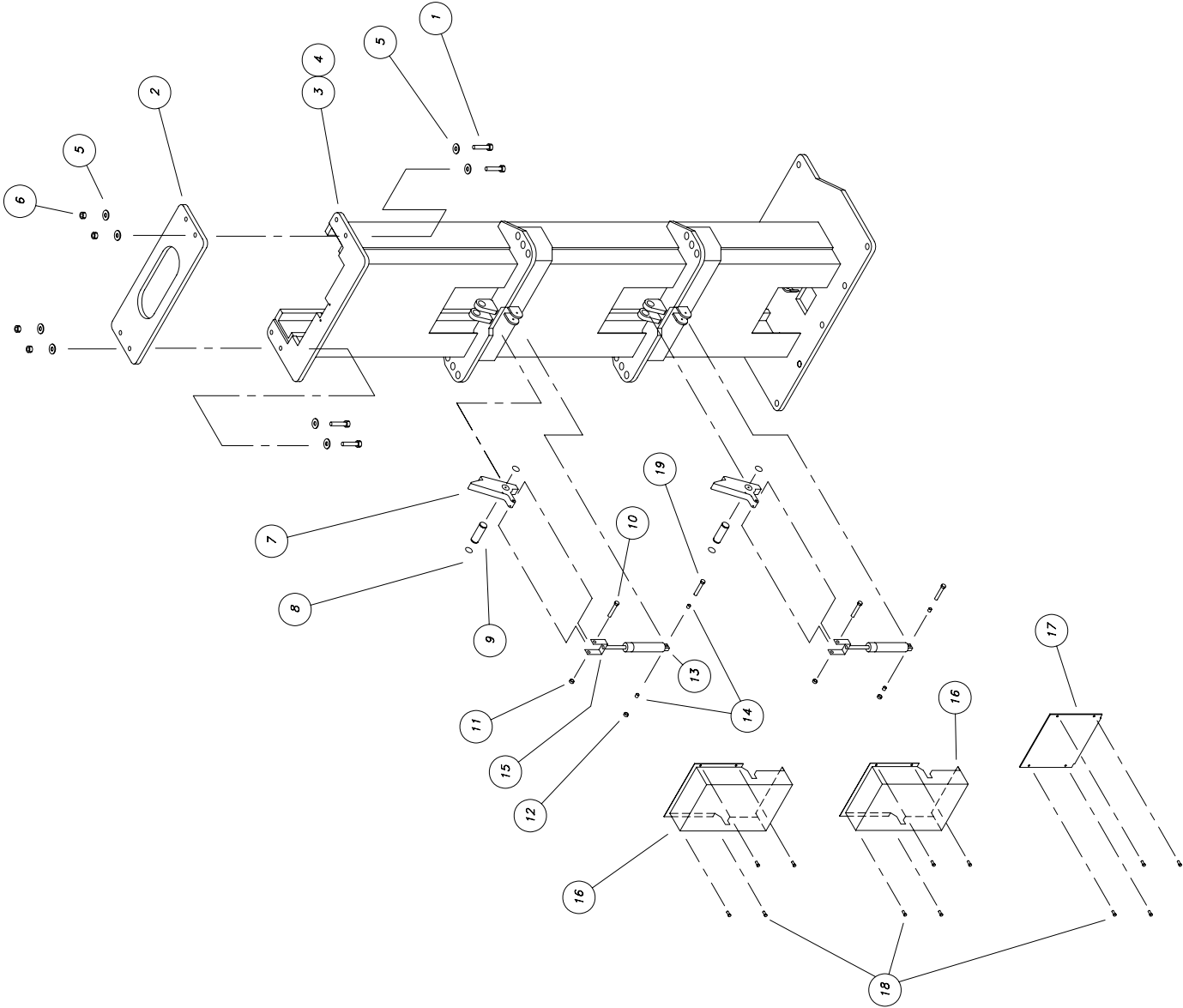


ITEM	PART NUMBER	DESCRIPTION	QTY
6	MAN653	CARRIAGE SUB-ASSEMBLY	1
5	026-000-153	SWING ARM PIN	2
4	600-690-013	NUT, LOCK, 1 1/2-12 NF	4
3	026-000-044	SWING ARM WELDMENT	2
2	018-001-002	SLIDER ARM WELDMENT	2
1	012-012-047	LIFTING PAD WELDMENT	2

CARRIAGE/SWING ARMS/SLIDERS/LIFTING PADS  
FILE: MAN656  
DATE: 11/97

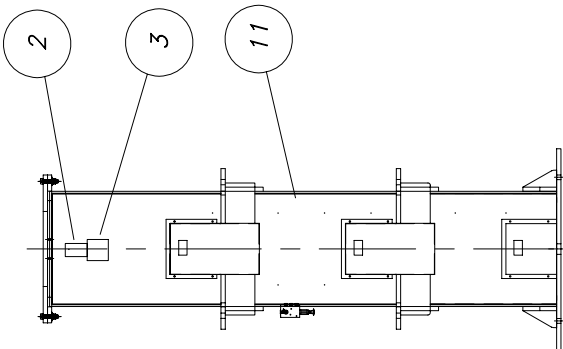
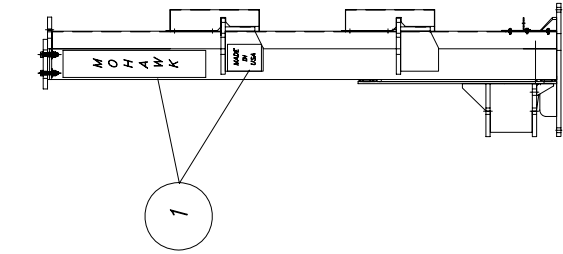
MAN757

REV-A 9/99

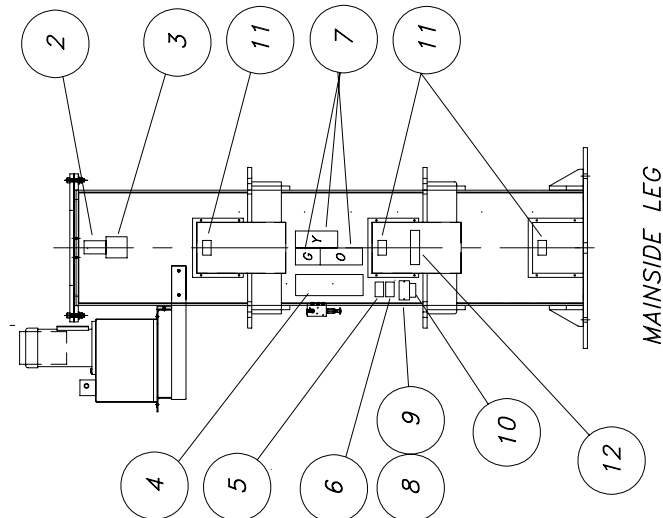
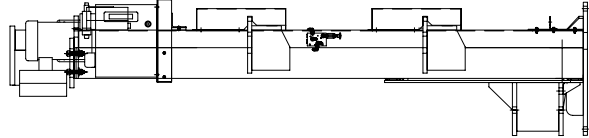


ITEM	PART NUMBER	DESCRIPTION	QTY
19	600-640-067	BOLT, 1/4-20 NC x 3" HEX HEAD CAP	2
18	600-640-053	BOLT, 5/16-18 NC x 1 1/2" HEX HEAD CAP	12
17	026-002-105	ACCESS HOLE COVER	1
16	026-002-104	LOCK COVER	2
15	026-002-106	LOCK CYLINDER CLEVIS	2
14	601-420-003	SLEEVE, 3/8 TUBE	4
13	601-510-006	AIR CYLINDER	2
12	600-690-005	NUT, LOCK, 1/4-20 NC	2
11	600-690-001	NUT, LOCK, 5/16-18 NC	2
10	600-640-068	BOLT, 5/16-18 NC x 3" HEX HEAD CAP	2
9	026-002-130	LOCK BODY PIN, 1 1/2 DIA	2
8	600-870-004	SNAP RING, #5100-150	4
7	026-002-107	LOCK BODY	2
6	600-690-003	NUT, LOCK, 3/4-16 NC	4
5	600-710-001	WASHER, FLAT, 3/4	8
4	026-002-002	OFFSIDE LEG WELDMENT	1
3	026-002-001	MAINSIDE LEG WELDMENT	1
2	026-002-114	CARRIAGE STOP	1
1	600-640-011	BOLT, 3/4-16 NC x 3 1/2" HEX HEAD CAP	4





OFFSIDE LEG



MAINSIDE LEG

MAN858

REV-A 3/99

CUT "MADE IN USA" FROM  
ITEM 1 AND PLACE IN  
POSITION SHOWN  
(3) PLACES

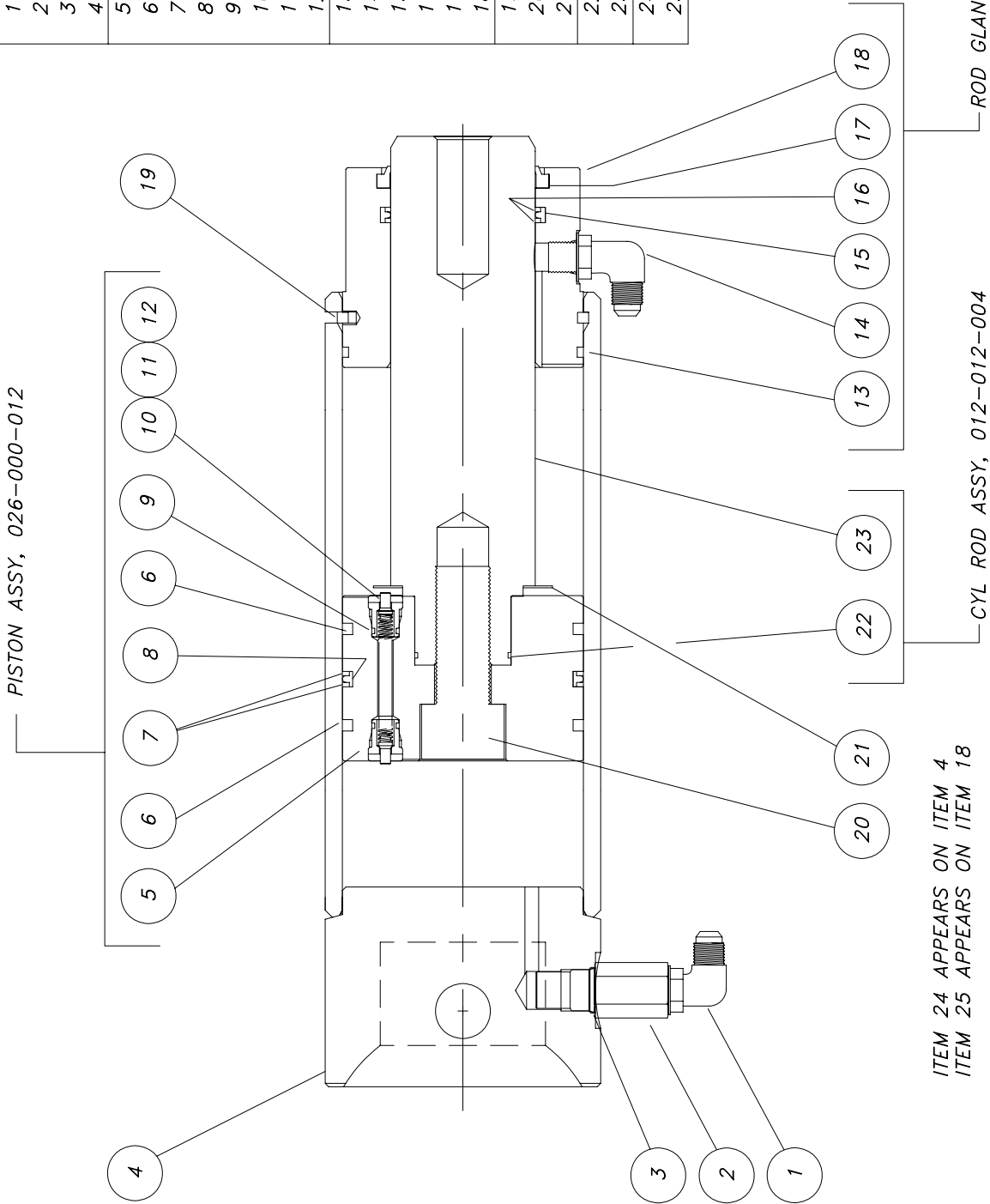
ITEM	PART NUMBER	DESCRIPTION	QTY
12	601-800-118	DECAL, WARNING, 2" x 6 1/2"	1
11	600-800-094	"GUARD & COVER" DECAL, 2" x 3 1/2"	6
10	601-800-037	"ALI" PLATE, 1 1/2 x 3 1/4"	1
9	601-800-026	SERIAL, SPEC, PATENT PLATE, 2 7/16 x 4 9/16"	1
8	600-620-001	SCREW, DRIVE, #4 x 1/4, ROUND HEAD, TYPE U	2
7	601-800-052	"CAUTION, WARNING, & SAFETY" DECAL SET (2 POST)	1
6	601-800-035	"CAUTION" DECAL, 2" x 3 1/2"	1
5	601-800-034	"WARNING" DECAL, 2" x 3 1/2"	1
4	601-800-001	OPERATIONAL INSTRUCTION DECAL, 5" x 16"	1
3	601-800-086	"MAXIMUM CAPACITY" DECAL, 5" x 5" (30000 LBS)	2
2	601-800-030	"MADE IN AMERICA" DECAL, 3 1/8 x 5 3/16"	2
1	601-800-061	"MOHAWK" DECAL, 6 3/8 x 41 3/4"	3

TP-30A TAG & DECAL LOCATION

ITEM	PART NUMBER	DESCRIPTION	QTY
1	601-420-017	FITTING	1
2	601-410-034	VELOCITY FUSE -6	1
3	601-030-008	O-RING	REF
4	026-002-010	BARREL WELDMENT	1
5	026-000-112	PISTON	1
6	601-050-003	SEAL POLYPACK	2
7	601-060-011	BACK-UP RING	2
8	601-010-001	PISTON T-SEAL	1
9	601-030-002	O-RING	2
10	009-001-152	SPOOL	2
11	600-840-009	SPRING	1
12	009-001-153	RETAINER	2
13	601-030-011	O-RING	1
14	601-420-017	FITTING	1
15	601-000-003	ROD T-SEAL	1
16	601-060-007	BACK-UP RING	2
17	601-020-003	WIPER	1
18	026-000-111	ROD GLAND	1
19	026-000-183	SPIN KEY	1
20	600-650-001	BOLT	1
21	007-007-143	WASHER	1
22	601-030-009	O-RING	1
23	012-012-103	ROD	1
24	601-800-021	DECAL, CAUTION	1
25	601-800-022	DECAL, PATENT	1

TP-18A, 20, 26A, & 30A  
MAINSIDE CYLINDER ASSEMBLY  
(026-002-007)

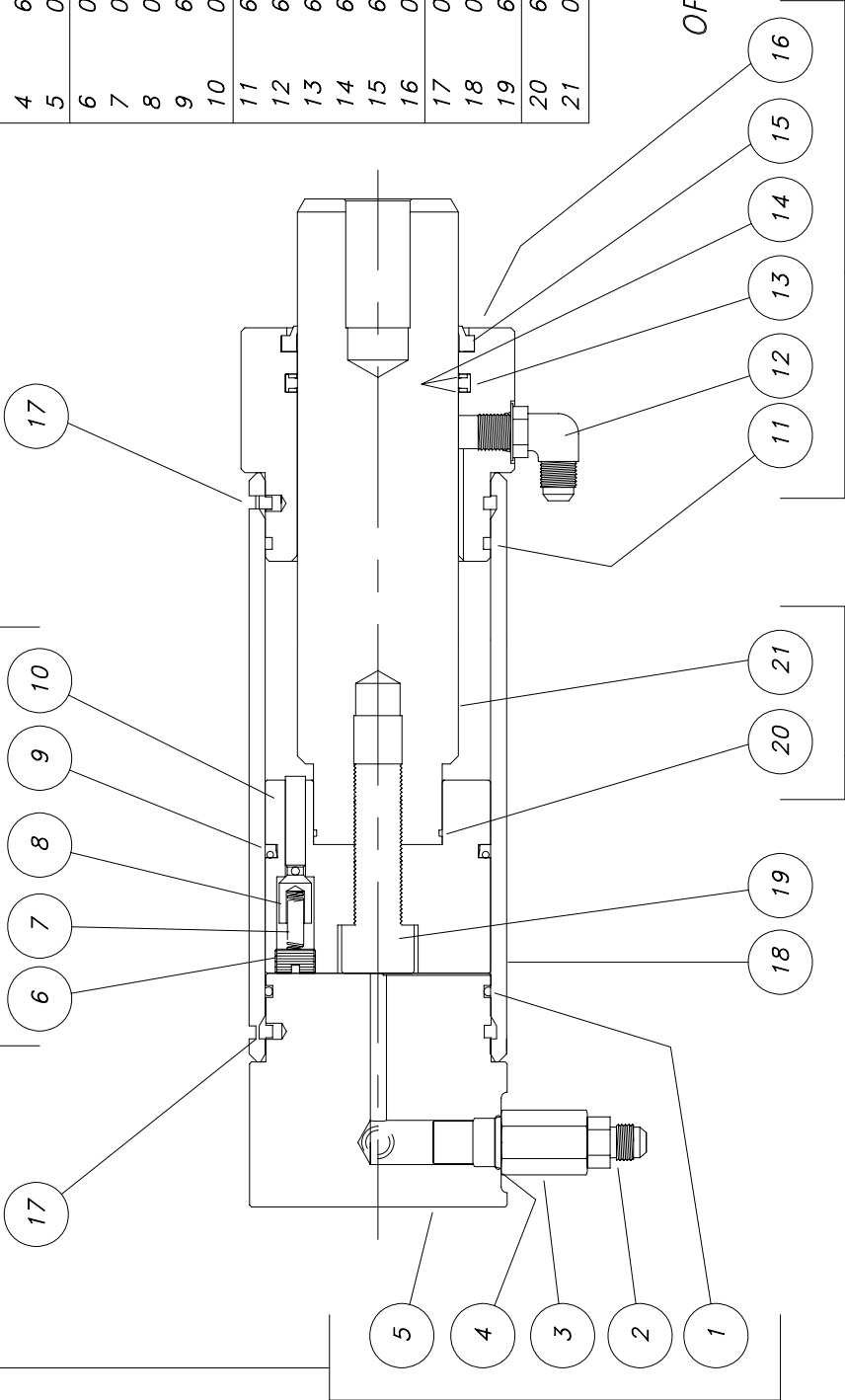
FILE: MAN659  
DATE: 11/97



ITEM 24 APPEARS ON ITEM 4  
ITEM 25 APPEARS ON ITEM 18

BOTTOM GLAND ASSY, 026-002-009

PISTON ASSY, 026-000-005




CYL ROD ASSY, 026-000-004

ROD GLAND ASSY, 026-000-002

ITEM	PART NUMBER	DESCRIPTION	QTY
1	601-030-005	O-RING	1
2	601-420-019	FITTING, STRAIGHT	1
3	601-410-034	VELOCITY FUSE -6	1
4	601-030-008	O-RING	REF
5	026-002-122	BOTTOM GLAND	1
6	026-000-107	SET SCREW	1
7	026-000-417	SPRING	1
8	026-000-106	CHECK VALVE	1
9	601-050-002	POLY-PAK SEAL	1
10	026-000-105	PISTON	1
11	601-030-005	O-RING	1
12	601-420-017	FITTING, 90° ELBOW	1
13	601-000-002	ROD T-SEAL	1
14	601-060-006	BACK-UP RING	2
15	601-020-002	ROD WIPER	1
16	026-000-102	ROD GLAND	1
17	026-000-184	SPIN KEY	2
18	026-000-108	BARREL	1
19	600-650-002	BOLT	1
20	601-030-010	O-RING	1
21	026-000-104	ROD	1


TP-18A, 20, 26A, & 30A  
OFFSIDE CYLINDER ASSEMBLY  
(026-002-008)

BAG #2 (026-002-032)




ITEM 6


ITEMS 4, 5, & 6, POWER UNIT MOUNTING HARDWARE




ITEM 4




ITEM 5



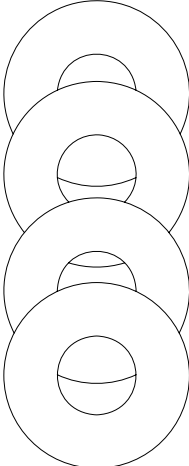
ITEM 9 (4)



ITEM 8



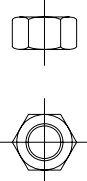
ITEM 7



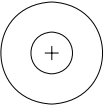
ITEM 3

ITEM 1

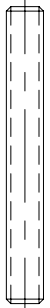
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ITEM 9 (12)



ITEM 10



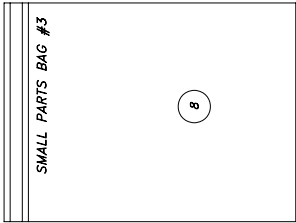
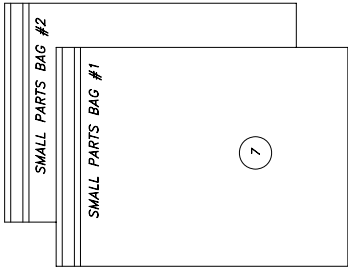
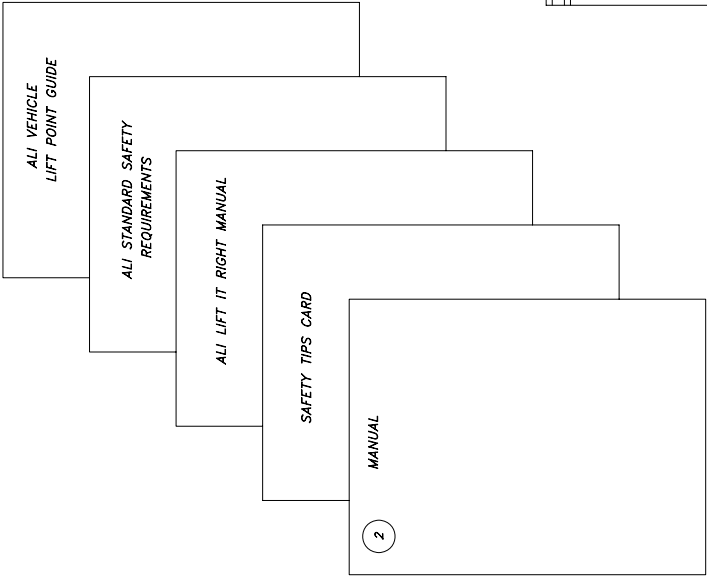
ITEM 11



ITEM 12

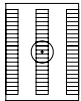
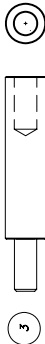
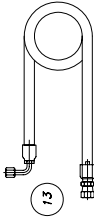
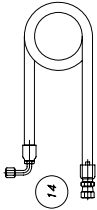
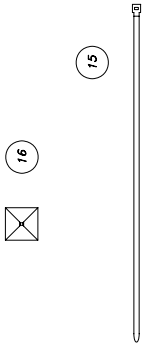
ITEM 1

12	018-000-101	HANDLE	4
11	018-000-102	ALL THREAD ROD, 1/2-13 NC x 5 1/2"	4
10	600-710-008	WASHER, FLAT, 1/2	4
9	600-680-001	NUT, PLAIN, 1/2-13 NC	16
8	600-720-005	WASHER, LOCK, 1/2	8
7	600-640-005	BOLT, 1/2-13 NC x 1 1/2 LG	4
6	600-640-001	BOLT, 5/16-18 NC x 1" LG	4
5	600-690-001	NUT, LOCK, 5/16-18 NC	4
4	600-710-003	WASHER, FLAT, 5/16	4
3	600-710-010	WASHER, FLAT, 1"	14
2	601-410-042	PULL VALVE	1
1	601-600-022	BAG, ZIP-LOK, 9" x 12"	3
ITEM	PART NUMBER	DESCRIPTION	QTY

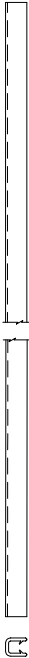
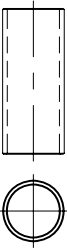


MAN865

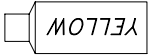
NOTE: PLACE ALL ITEMS IN ITEM 1.



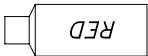
6



12



10



9

ABOVE GROUND LIFT

ITEM	PART NUMBER	DESCRIPTION	QTY
16	601-600-045	CABLE TIE HOLDER	4
15	601-600-021	PLASTIC WIRE TIE, 15"	4
14	026-002-059	HOSE ASSEMBLY, 69"	1
13	026-002-058	HOSE ASSEMBLY, 64"	1
12	026-000-404	TRIM-LOK, 68"	2
11	018-000-103	SLEEVE	4
10	601-630-002	PAINT, SPRAY, YELLOW	2
9	601-630-001	PAINT, SPRAY, RED	4
8	MAN661-A	SMALL PARTS BAG #3	1
7	MAN761	SMALL PARTS BAGS #1 & 2	1
6	012-012-047	LIFTING PAD WELDMENT	4
5	018-000-105	HEIGHT ADAPTER, 10"	4
4	012-012-151	HEIGHT ADAPTER, 7 1/2"	4
3	018-000-106	HEIGHT ADAPTER, 5"	4
2	030-002-024	TR-30A MANUAL ASSEMBLY	1
1	601-600-023	BOX, CORRUGATED	1

TP-26A, 30A PARTS BOX & CONTENTS

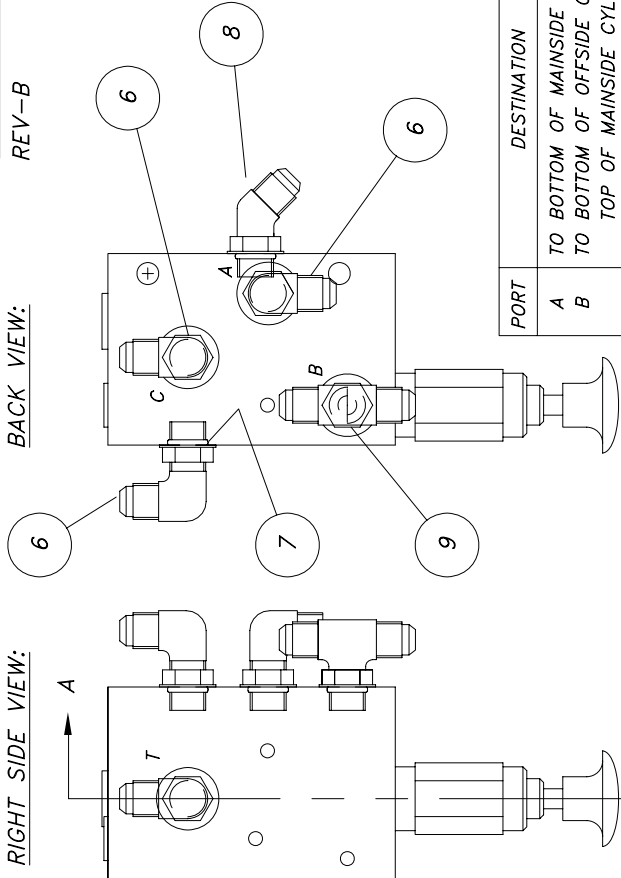
LEFT SIDE VIEW:

FRONT VIEW:

(SECTION A-A)

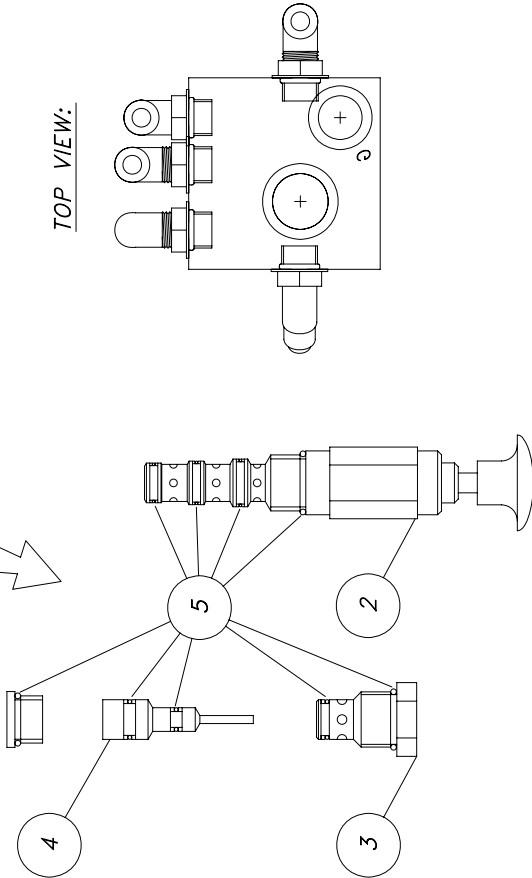
RIGHT SIDE VIEW:

BACK VIEW:



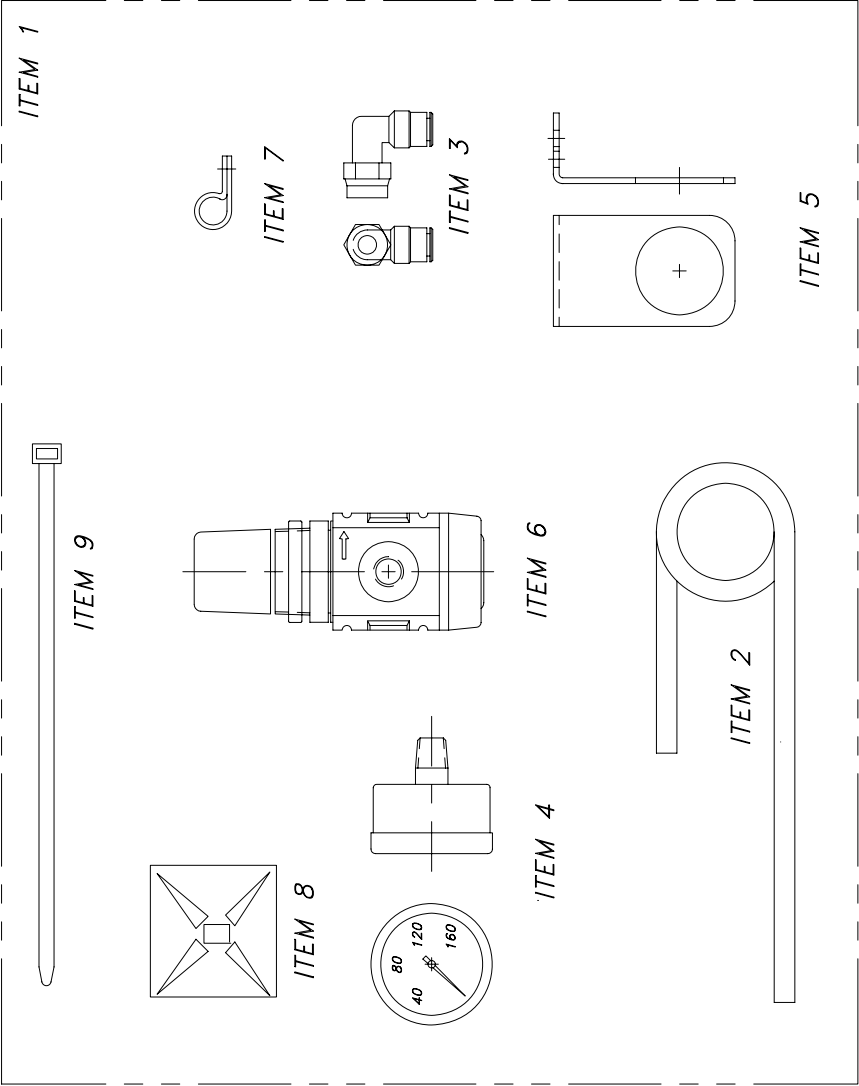
PORT	DESTINATION
A	TO BOTTOM OF MAINSIDE CYLINDER
B	TO BOTTOM OF OFFSIDE CYLINDER
C	TO TOP OF MAINSIDE CYLINDER
P	TO PUMP PRESSURE PORT
T	TO TANK (RESERVOIR)

TOP VIEW:



ITEM	PART NUMBER	DESCRIPTION	QTY
9	601-420-046	TEE, BRANCH, #6 ORB TO #6 JIC TO #6 JIC	1
8	601-420-061	ELBOW, 45°, #6 ORB TO #6 JIC	1
7	601-030-017	O-RING	5
6	601-420-017	ELBOW, 90°, #6 ORB TO #6 JIC	3
5	21239ASK	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

BAG #3 (026-002-034)



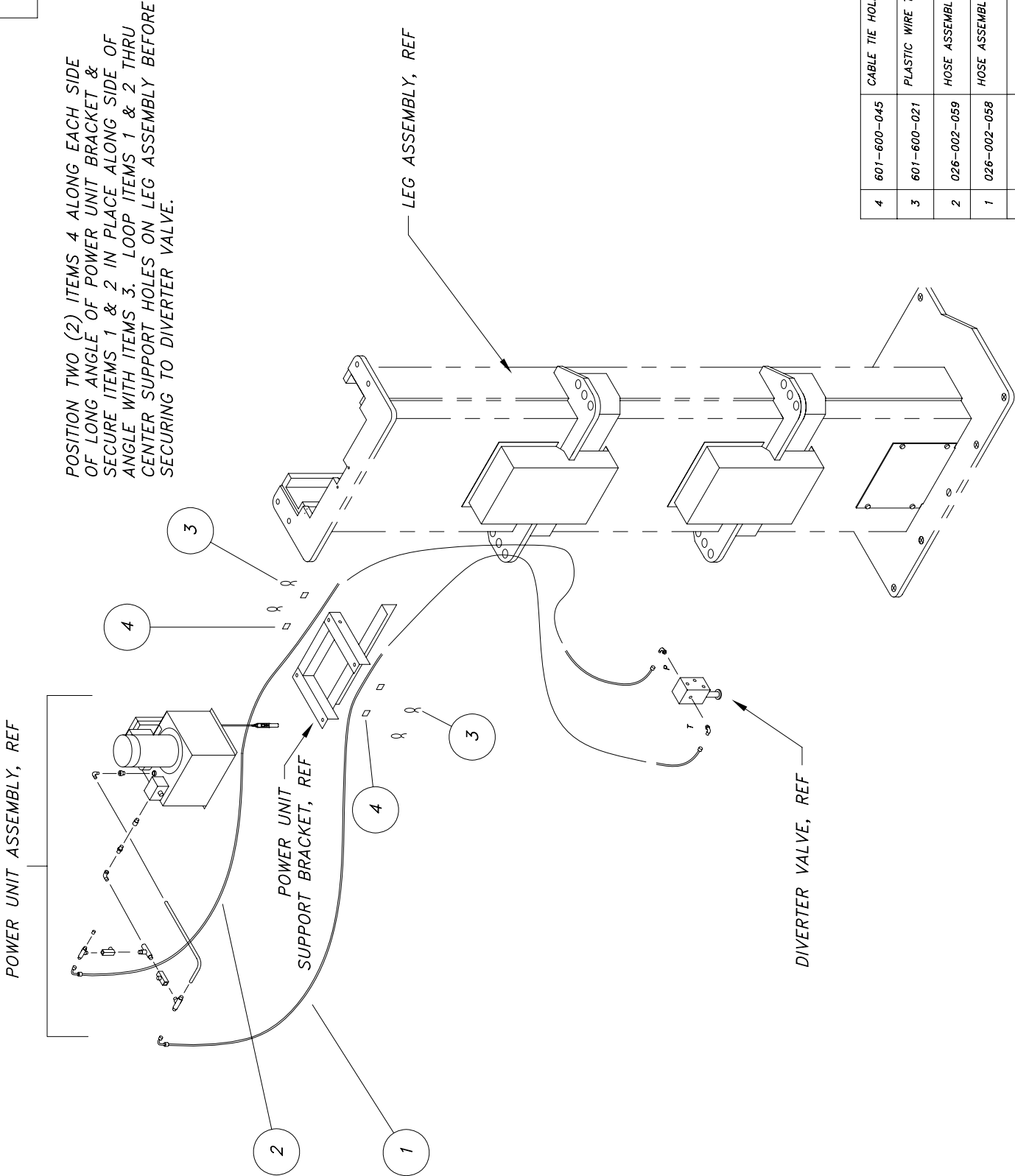
MAN661-A

REV-C

4/02

ITEM	PART NUMBER	DESCRIPTION	QTY
9	601-600-045	CABLE TIE HOLDER	10
8	601-600-036	PLASTIC PULL TIE, 8"	10
7	601-430-036	PLASTIC CLIPS	8
6	601-510-026	AIR LINE REGULATOR	1
5	601-510-025	L-BRACKET	1
4	601-510-024	GAUGE	1
3	601-520-003	ELBOW, 90°, SWIVEL, 1/4 NPT TO 1/4 TUBE	2
2	026-002-412	TUBING, BLACK, 1/4" x 120"	1
1	601-600-022	BAG, ZIP-LOK, 9" x 12"	1
			QTY

BAG #4/FILTER, REGULATOR & SMALL PARTS  
FILE: MAN661-A  
DATE: 9/98



ITEM	PART NUMBER	DESCRIPTION	QTY
4	601-600-045	CABLE TIE HOLDER	REF (4)
3	601-600-021	PLASTIC WIRE TIE, 15"	REF (4)
2	026-002-059	HOSE ASSEMBLY, 69" CUT LENGTH	REF (1)
1	026-002-058	HOSE ASSEMBLY, 64" CUT LENGTH	REF (1)

HOSE ASSEMBLY ROUTING



# **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.



## New Slab Recommendations

File: New-slab.xls

Rev Date: 3/18/2005

**NEW SLABS MUST BE 12" THICK MINIMUM !!**

Lift Model	W Slab Width, (Feet)	L Slab Length, (Feet)	R Reinforcement Size, (Inch) (See Note 1 & 2)	S1 & S2 Reinforcement Spacing, (Inch) (See Note 3)	D Wej-it Dia, (Inch)	I Wej-it Length, (Inch)
A-7	4 Ft	14 Ft	12 - #4 - Main Bars 21 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	3/4 in	5 in
Tomahawk-9000	4 Ft	14 Ft	12 - #4 - Main Bars 21 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	3/4 in	5 in
System IA	4 Ft	14 Ft	12 - #4 - Main Bars 21 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	3/4 in	5 in
System IA-10	4 Ft	14 Ft	12 - #4 - Main Bars 21 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	3/4 in	5 in
LMF-12	6 Ft	15 Ft	18 - #4 - Main Bars 23 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-15	6 Ft	15 Ft	18 - #4 - Main Bars 23 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-18	6 Ft	18 Ft	24 - #4 - Main Bars 24 - #4 - Temperature Bars	3 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-20	6 Ft	18 Ft	24 - #4 - Main Bars 24 - #4 - Temperature Bars	3 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-26	6 Ft	18 Ft	24 - #4 - Main Bars 24 - #4 - Temperature Bars	3 in - Long Bars 8 in - Short Bars	1 in	10 in
TP-30	6 Ft	18 Ft	24 - #4 - Main Bars 24 - #4 - Temperature Bars	3 in - Long Bars 8 in - Short Bars	1 in	10 in
TR-19*	2 Ft	2 Ft	4 - #4 Bars 8 Bars Total	6 in - Each Way	3/4 in	5 in
FL-25*	2 Ft	2 Ft	4 - #4 Bars 8 Bars Total	6 in - Each Way	3/4 in	5 in
TR-25*	2 Ft	2 Ft	4 - #4 Bars 8 Bars Total	6 in - Each Way	3/4 in	5 in
TR-33*	6 Ft	6 Ft	12 - #4 Bars 24 Bars Total	6 in - Each Way	3/4 in	5 in
TR-35*	6 Ft	6 Ft	12 - #4 Bars 24 Bars Total	6 in - Each Way	3/4 in	5 in
TR-50*	6 Ft	6 Ft	12 - #4 Bars 24 Bars Total	6 in - Each Way	3/4 in	5 in
TR-75*	6 Ft	6 Ft	12 - #4 Bars 24 Bars Total	6 in - Each Way	3/4 in	5 in

\* Four Separate Slabs Formed at each Post.

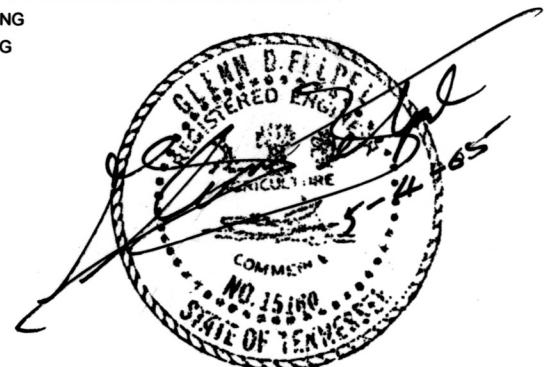
Note 1: An additional layer of 6 X 6 - 10/10 WWF at mid height of new slab would be advisable in any extremely hot or cold climate to control cracking due to temperature fluctuations and shrinkage.

At anchor bolt locations only keep WWF mesh below the elevation of the anchorage to avoid drilling interference with the wire.

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

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

Note 4: THE CONCRETE OUTLINE DIMENSIONS AND THE REINFORCING SHOWN ARE FOR A FOUNDATION BED ALLOWABLE BEARING CAPACITY OF NOT LESS THAN 2,000 LB/SQ FT (1 TON PER SQUARE FOOT). MANY CLAYS, AND MOST ALL FIRM CLAY, HARD CLAY, SAND & CLAY MIXES, DRY SANDS, COURSE DRY SANDS, DRY SAND AND SILT MIXES, SAND AND GRAVEL MIXES, AND GRAVEL TYPE SOILS MEET OR EXCEED THIS ALLOWABLE BEARING CAPACITY. IF THERE IS QUESTION REGARDING THE FOUNDATION BED ALLOWABLE BEARING CAPACITY A SOILS TESTING ENGINEER SHOULD BE CONSULTED. SITUATIONS WHERE THE ALLOWABLE BEARING CAPACITY IS LOWER THAN THIS VALUE WILL REQUIRE SPECIAL ATTENTION.

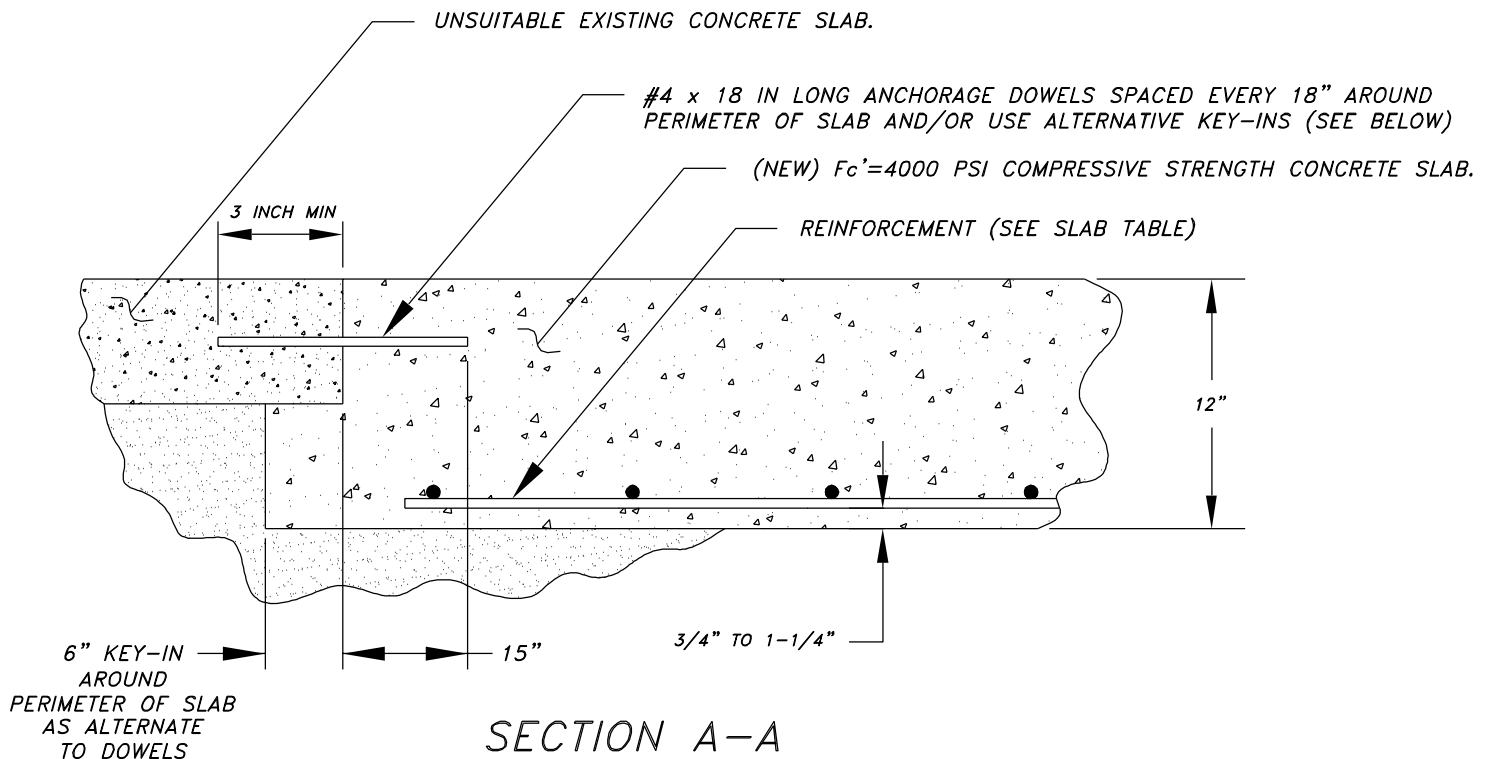
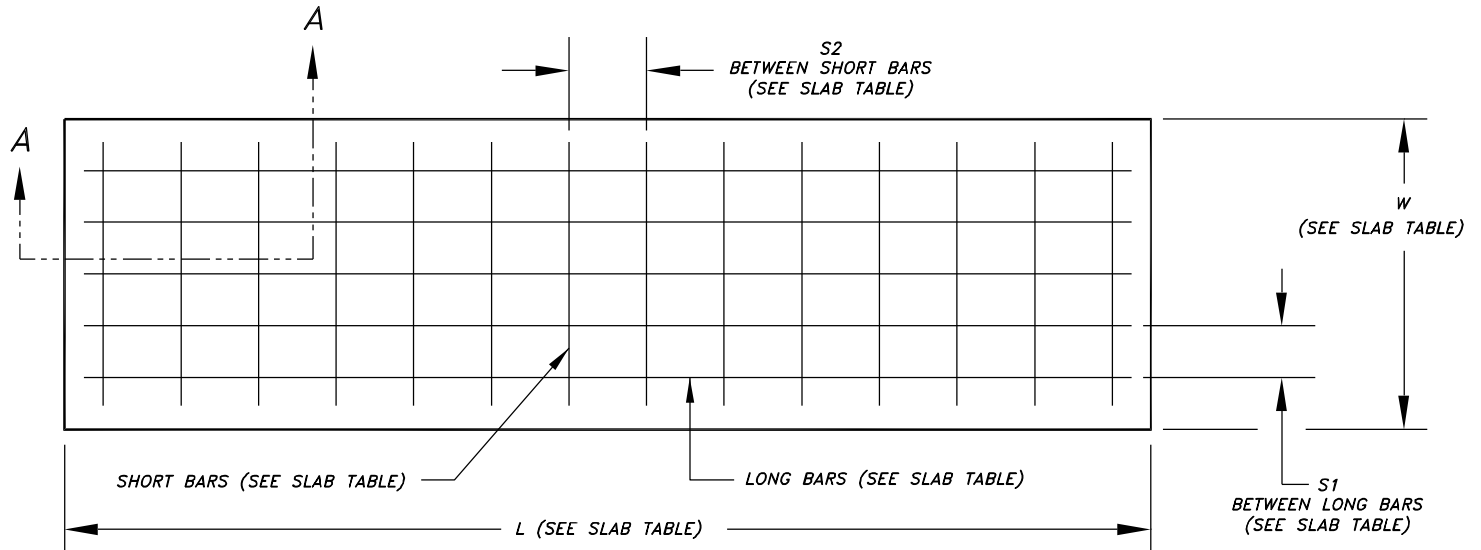


# NEW RECOMMENDED SLAB DESIGN FOR 2-POST LIFTS

FILE: MAN066

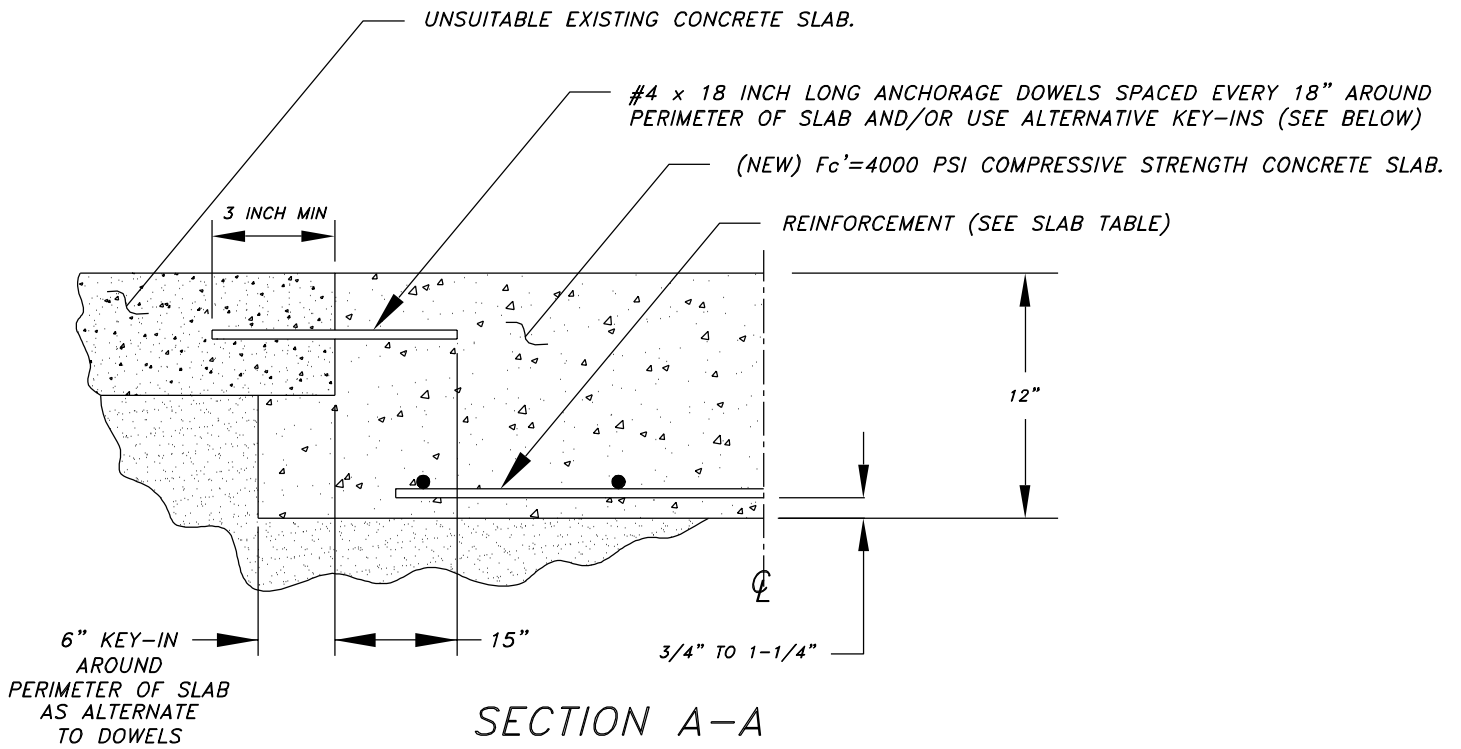
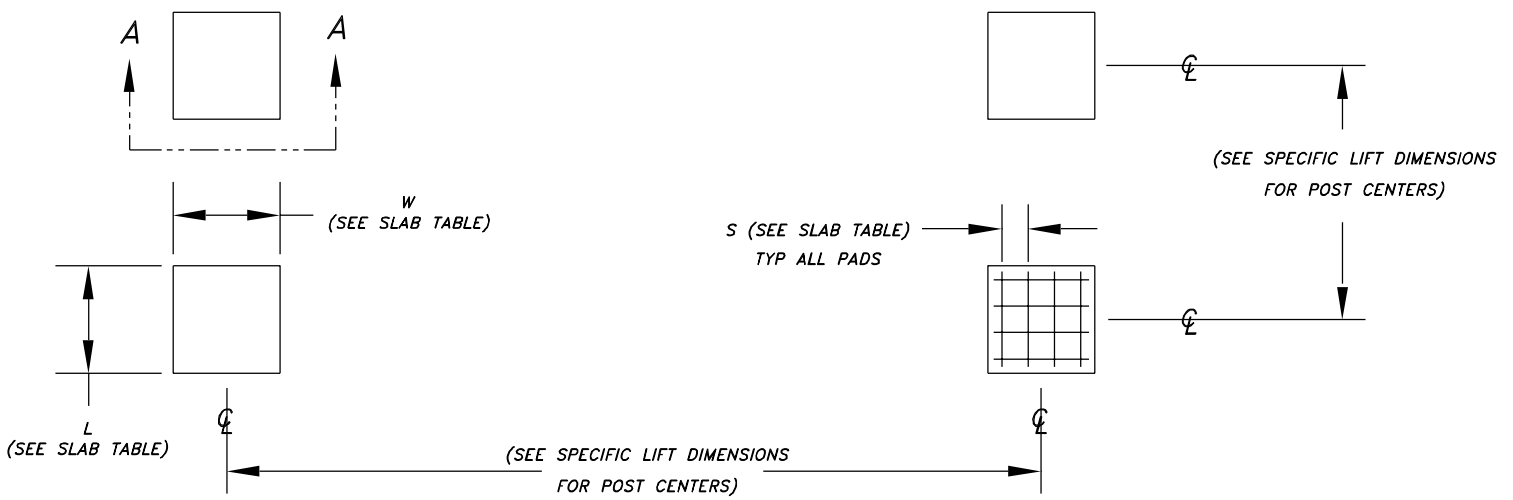
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REV DATE: 7/2003



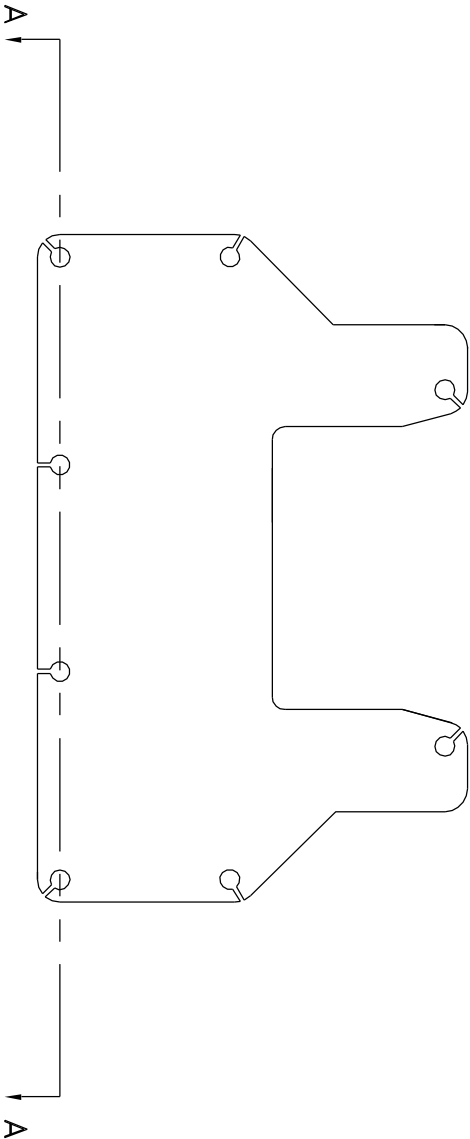
# NEW RECOMMENDED SLAB DESIGN FOR 4-POST LIFTS

FILE: MAN089  
DATE: 10/00  
REV DATE: 7/2003



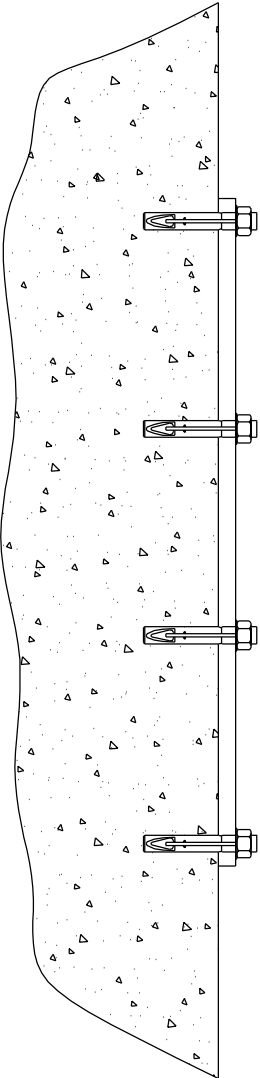
REV.	DESCRIPTION	DATE	BY	APP'D.
				

TYPICAL BASE PLATE DETAIL  
(SYSTEM 1A SHOWN BELOW – 8 ANCHORS PER BASE PLATE)



BASE PLATE ANCHORING  
INSTRUCTIONS:

1. LOCATE POSTS IN DESIRED LOCATION OF BAY, PER LIFT SETUP DIMENSIONS. REFER TO LIFT MANUAL FOR INSIDE DIMENSIONS OF COLUMNS, ETC. (FOR SYSTEM 1A-10, THE INSIDE POST DIMENSION IS 120")
2. MATCH DRILL ALL BASE PLATE HOLES. REFER TO ANCHOR BOLT INSTALLATION SPECIFICATIONS ATTACHED FOR DRILL SIZE. (3/4" DIAMETER ORIGINAL WEJ-IT STYLE EXPANSION ANCHOR BOLTS).
3. INSTALL ANCHORS PER ANCHOR BOLT INSTALLATION SPECIFICATIONS ATTACHED. SHIM UNDER BASE PLATE AS NEEDED TO ENSURE THAT POSTS ARE SQUARE AND PLUMB (MAXIMUM OF 1/4") WITH COLORED SHIMS PROVIDED (HORSESHOE SHAPED).



SECTION A-A:

C-SIZE

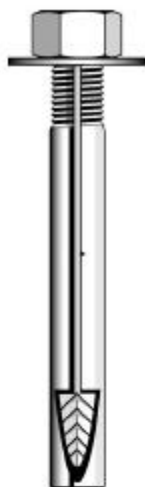
NOTICE OF CONFIDENTIAL INFORMATION

INFORMATION CONTAINED HEREIN IS CONFIDENTIAL AND PROPERTY OF MOHAWK RESOURCES LTD., WHERE DRAWING IS FURNISHED TO OTHERS. IT IS TO BE KEPT SECRET AND NOT DISCLOSED TO ANY OTHERS WITHOUT THE WRITTEN PERMISSION OF MOHAWK RESOURCES LTD. FOR MAINTENANCE. THE INFORMATION SHALL NOT BE USED OR DISCLOSED BY THE RECIPIENT FOR ANY OTHER PURPOSES WHATSOEVER.

NOTES: 1. REMOVE ALL SHARP CORNERS & EDGES. 2. UNLESS OTHERWISE SPECIFIED, SURFACE FINISH TO BE 125 RMS. 3. WELDING MEDIUM SHALL CONFORM TO AWS SPECIFICATIONS TO E-70XX ELECTRODES OR E-70TT CODE 5.3 FLUX CORE WIRE ONLY.		TOLERANCES: ANGULAR ± 1° FRACTIONAL ± .030 DECIMAL ± .030 XXX ± .005		SCALE 1/4		DRAWN rw7089		TITLE Base Plate Anchoring Detail	
FILE NAME ZZ912		009-010-006		CHECKED R.V.		APPROVED		FROM N/A	
		NEXT ASSEMBLY		DATE 2/05		WEIGHT N/A		DRAWING NUMBER ZZ912	
								▽	

MOHAWK RESOURCES LTD.





# The Original **wej-it**® Wedge Anchors

## KEY FEATURES/BENEFITS

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



## SPECIFICATIONS, APPROVALS AND LISTINGS

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

## MAXIMUM TENSILE AND SHEAR CAPACITY FOR STATIC LOADS

	LIMESTONE AGGREGATE			UNREINFORCED STONE AGGREGATE CONCRETE ZIN PLATED ARBON STEEL								UNREINFORCED LIGHTWEIGHT (IDEALITE)			
Anchor & Hole Size	Embed- ment (in)	2000 psi Tension (lbs)	2000 psi Shear (lbs)	Embed- ment (in)	3000 psi Tension (lbs)	3000 psi Shear (lbs)	5000 psi Tension (lbs)		5000 psi Shear (lbs)	7000 psi Tension (lbs)		7000 psi Shear (lbs)	Embed- ment (in)	5000 psi Tension (lbs)	5000 psi Shear (lbs)
1/4	1 1/8	1132	1211	1 1/8	1320	1751	1760	2316		2464	2494		1 1/2	1861	1947
1/4	1 3/4	1256	1211	1 1/2	1856	1751	2473	2316		3462	2494		•	•	•
5/16	1 1/4	1308	1210	1 1/4	2057	1839	2742	2530		3939	3439		1 1/2	2493	3064
5/16	2	1181	1210	1 3/4	2389	1839	3185	2530		4459	3439		•	•	•
3/8	1 1/4	994	1223	1 1/2	2876	4286	3834	5213		5368	5658		1 3/4	3125	4289
3/8	4	1728	1223	4	3488	4286	4650	5213		6510	5658		•	•	•
1/2	1 3/4	1542	3009	2 1/4	3473	7138	5789	10748		8105	11550		2 1/4	4778	9833
1/2	6	2695	3009	5	4809	7138	8015	10748		11221	11550		•	•	•
5/8	•	•	•	3 1/2	7582	10719	12636	15583		17690	16700		2 1/2	6455	12500
5/8	•	•	•	4 3/4	9179	10719	15299	15583		21419	16700		•	•	•
3/4	•	•	•	3	11579	15537	19299	21000		27019	23103		3 1/2	17293	19050
3/4	•	•	•	7	15444	15537	25740	21000		36036	23103		•	•	•
7/8	•	•	•	4 1/2	15266	•	25444	25099		33622	28718		•	•	•
7/8	•	•	•	7	16992	•	28320	25099		39648	28718		•	•	•
1	•	•	•	5 1/2	16351	•	27252	33083		38153	35700		4 1/2	21616	31666
1	•	•	•	7	17837	•	29728	33083		41619	35700		•	•	•
Source	1			2								2			

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

## EDGE DISTANCE AND SPACING REQUIREMENTS

Embedment (E) in Anchor Diameters (d)	Spacing	Edge Distance
$E < 6d$ (shallow)	3.50E	1.75E
$6d \leq E \leq 8d$ (standard)	2.00E	1.00E
$8d < E$ (deep)	1.50E	0.75E

### NOTES:

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

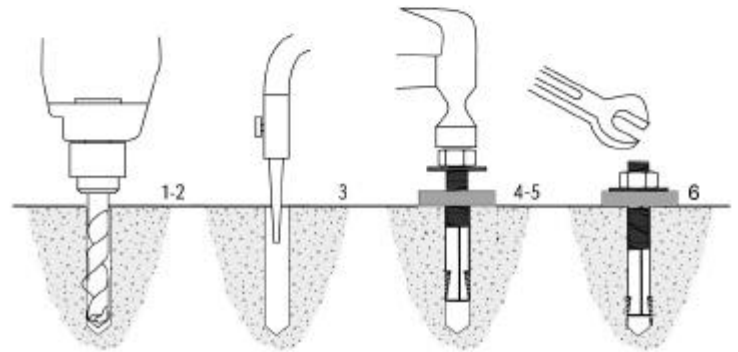


## ORDER INFORMATION

Catalog Number	Anchor Diameter & Length (in)	Minimum Embedment (in)	Thread Length (in)	Quantity Box/ Carto
1413	1/4 x 1 3/4	1	1/2	100/600
1423	1/4 x 2 3/4	1	1/2	100/600
1430	1/4 x 3	1	1/2	100/600
5620	5/16 x 2	1 1/4	5/8	100/600
5630	5/16 x 3	1 1/4	5/8	100/600
3820	3/8 x 2	1 1/2	3/4	100/600
3823	3/8 x 2 3/4	1 1/2	3/4	100/600
3832	3/8 x 3 1/2	1 1/2	3/4	50/300
3850	3/8 x 5	1 1/2	3/4	50/300
3860	3/8 x 6	1 1/2	3/4	50/300
1223	1/2 x 2 3/4	2	1	50/300
1232	1/2 x 3 1/2	2	1	50/300
1250	1/2 x 5	2	1	25/150
1260	1/2 x 6	2	1	25/150
1270	1/2 x 7	2	1	25/150
5832	5/8 x 3 1/2	3	1 1/4	25/150
5842	5/8 x 4 1/2	3	1 1/4	25/150
5850	5/8 x 5	3	1 1/4	20/120
5860	5/8 x 6	3	1 1/4	15/90
5870	5/8 x 7	3	1 1/4	15/90
3440	3/4 x 4	3	1 1/2	18/108
3450	3/4 x 5	3	1 1/2	12/72
3460	3/4 x 6	3	1 1/2	12/72
3470	3/4 x 7	3	1 1/2	10/60
3482	3/4 x 8 1/2	3	1 1/2	10/30
3410	3/4 x 10	3	1 1/2	10/30
7880	7/8 x 8	4 1/2	1 3/4	10/30
7810	7/8 x 10	4 1/2	1 3/4	10/30
7812	7/8 x 12	4 1/2	1 3/4	5/15
1080	1 x 8	5 1/2	2	10/30
1010	1 x 10	5 1/2	2	5/15
1012	1 x 12	5 1/2	2	5/15

## INSTALLATION INSTRUCTIONS - MOHAWK LIFTS

1. Drill the hole perpendicular to the work surface.\* To assure full holding power, do not ream the hole or allow the drill to wobble.
2. Drill the hole deeper than the intended embedment of the anchor, but not closer than two anchor diameters to the bottom (opposite) surface of the concrete.
3. Clean the hole using compressed air and a nylon brush. A clean hole is necessary for proper performance.
4. Turn the nut on to the anchor until contact is made with the top of the spears and the bottom of the washer. Insert anchor into hole.
5. Tap anchor into hole with a 2 1/2 lb. hammer until the washer rests solidly against fixture.
6. Tighten the nut to 175 Ft. Lbs. maximum torque and not less than 3 full turns, but not more than 5 turns past the hand tight position. (Use of an Impact wrench for Installation of anchor is not recommended)



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

## LENGTH SELECTION GUIDE

