

MOHAWK

MADE IN THE USA



MODEL TR - 19

19,000 LB. CAPACITY FOUR POST TRUCK LIFT MANUAL

Thank you for sending in your
warranty registration card.

- Mohawk Service Dept.

- INSTALLATION
- OPERATION
- MAINTENANCE
- PARTS

**READ MANUAL
THOROUGHLY
BEFORE INSTALLING,
OPERATING OR
MAINTAINING LIFT !!**

MOHAWK RESOURCES LTD.

MOHAWK INDUSTRIAL PARK

VROOMAN AVE. P.O. BOX 110

AMSTERDAM, NY 12010

TOLL FREE : 1-800-833-2006

LOCAL : 1-518-842-1431

FAX : 1-518-842-1289

INTERNET: WWW.MOHAWKLIFTS.COM

E-MAIL: TECHSUPPORT@MOHAWKLIFTS.COM



IMPORTANT SAFETY INSTRUCTIONS

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

1. Read this manual and review all illustrations of this manual thoroughly before attempting to install, operate or maintain this lift.
2. Deliver these operation, inspection, and maintenance instructions to the lift owner/user/employer along with the other instructional materials furnished with this lift.
3. Maintenance on this equipment is to be performed only by trained lift service personnel, and worn or broken parts are to be replaced only with genuine Mohawk brand supplied parts.
4. Care must be taken as burns can occur from touching hot parts.
5. 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.
6. Do not let cord or hoses hang over edge of table, bench or counter or 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 (Mohawk) recommended attachments.
11. **ALWAYS WEAR SAFETY GLASSES.** Everyday eyeglasses only have impact resistant lenses, they are NOT safety glasses.

SAVE THESE INSTRUCTIONS

Rev (10/22/99)

APPENDAGE:

WARNING:

All accessories (i.e. Lifting Pads, Height Adapters, Wheel Adapters, Turf Adapters, Jacking Beams) 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:

Loading of the jacking beams or combination of jacking beams above the rated capacity of the lift itself could result in personal injury to the operator and/or damage to the lift and/or vehicle. The load rating of any jacking beam or combination of jacking beams on this unit must not exceed the rated capacity of the lift.

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

E-Mail: Service@MOHAWKLIFTS.com

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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End of Manual

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
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 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 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, **NEW SLAB RECOMMENDATIONS** SECTION IN THE BACK OF THIS MANUAL.

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.

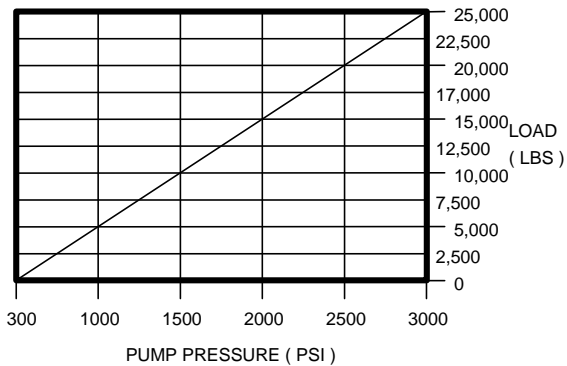
AFTER LIFTING THE VEHICLE TO THE DESIRED HEIGHT, ALWAYS LOWER THE UNIT ONTO THE MECHANICAL SAFETIES. THE FORMING OF GOOD OPERATIONAL WORK HABITS WILL ELIMINATE OVERSIGHTS IN THE USE OF PROVIDED SAFETY DEVICES.

TR - 19 SPECIFICATIONS**TR-19 SPECIFICATIONS (20' TRACKS)**

LIFT TYPE / FOUR POST	ELECTRIC / HYDRAULIC
LIFTING CAPACITY	19,000 LBS.
LIFTING SPEED APPROX.	120 SECONDS
LIFTING HEIGHT	69 - 5/16 INCHES
STROKE	60 INCHES
OVERALL LENGTH	316 - 5/8 INCHES
OVERALL WIDTH	150 - 3/16 INCHES
OVERALL HEIGHT	101 - 1/2 INCHES
WIDTH BETWEEN POST	132 INCHES
TRACK LENGTH	20 FEET
TRACK WIDTH	24 INCHES
TRACK ADJUSTMENT	4 FT TO 8 FT.
SHIPPING WEIGHT	4,725 LBS.

POWER UNIT SPECIFICATIONS

BRAND NAME	MONARCH
MODEL	M-413-0118
POWER UNIT TYPE	VERTICAL
MOTOR VOLTAGE	208 / 230
F.L.A. AT RATED CAPACITY	13.3 / 12.2
MOTOR HORSEPOWER	2
MOTOR PHASE	SINGLE
MOTOR CYCLE / HERTZ	60
MOTOR SPEED (R.P.M.)	3450
PUMP FLOW (G.P.M.)	1.8 @ 3450 R.P.M.
RELIEF VALVE SETTING	2980 P.S.I.
WORKING PRESSURE	2591 P.S.I.
RESERVOIR CAPACITY	3 GALLONS
HYDRAULIC FLUID MEDIUM	DEXRON III

PERFORMANCE TABLE**SUGGESTED SITE SELECTION / BAY SIZE**

WIDTH	DEPTH	HEIGHT
15 FEET	30 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 (N/A)
5 INCH	5 1/2 INCH	3/4 INCH	.775 INCH	.787 INCH	3-5 TURNS PAST HAND TIGHT*

*REFER TO ANCHOR BOLT SPECIFICATION IN BACK OF MANUAL

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 PROVIDED IN THE **NEW SLAB RECOMMENDATION** SECTION IN THE BACK OF THIS MANUAL.

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.

NEVER HAND MIX THE CONCRETE.

TR - 19 PACKING LIST***** ALSO SEE DRAWINGS MAN 906 - 908 - 929 - 967 IN PARTS MANUAL *****

ORDER NUMBER	PART NUMBER	PART DESCRIPTION	QTY.
	025-002-025	PARTS BOX # 1 CONTENTS	1
192	601-300-024	POWER UNIT ASSEMBLY	1
	025-002-030	POWER UNIT HANDLE ASSEMBLY	1
	MAN929	PARTS BOX #2 CONTENTS	1
587	600-640-003	BOLT, 3/4 X 2-1/2 IN	16
475	025-000-107	CHAIN CONNECTOR	6
	600-830-017	CHAIN, LONG (450-3/4 IN)	2
	600-830-015	CHAIN, MEDIUM (213-3/4 IN)	2
	600-830-012	CHAIN, SHORT (98-1/4 IN)	2
640	601-800-045	DECAL, CAPACITY (25,000)	2
618	601-800-035	DECAL, CAUTION	1
124	601-800-061	DECAL, MOHAWK	4
616	601-800-030	DECAL, MADE IN AMERICA	4
617	601-800-034	DECAL, WARNING	1
637	025-002-052	HOSE ASSEMBLY (1/4 IN)	1
646	025-002-053	HOSE ASSEMBLY (3/8 IN)	1
647	025-002-067	LOCK RELEASE HANDLE ASSEMBLY	4
649	601-800-007	MANUAL, (ALI / SAFETY REQUIREMENTS)	1
613	601-800-006	MANUAL, (ALI / SAFETY TIPS CARD)	1
612	601-800-003	MANUAL, (ALI / LIFTING IT RIGHT)	1
305	601-800-010	MANUAL, (INSTALLATION)	1
118	600-690-003	NUT, 3/4 NLN	16
759	600-690-010	NUT, 7/8 NLN	6
112	601-630-001	SPRAY PAINT (RED)	1
113	601-630-002	SPRAY PAINT (YELLOW)	1
624	025-002-050	SMALL PARTS BAG # 1 (SHIM BAG)	1
	025-020-017	SMALL PARTS BAG # 2	1
	600-710-012	WASHER, 7/8 FLAT	2
042	600-670-002	WEJ-IT ANCHOR (3/4 X 5)	16
311	600-930-001	WHEEL CHOCKS	4
	025-020-017	SMALL PARTS BAG # 2 CONTENTS	1
641	600-640-014	BOLT, 1/2 X 2 IN	4
585	600-640-001	BOLT, 5/16 X 1 IN	8
021	601-310-005	BREATHING CAP	1
137	600-830-026	CHAIN, MASTER LINK ASSY.	12
092	601-420-003	FITTING, FERRULE # 6 JIC	4
645	601-430-022	HYDRAULIC HOSE CLAMPS	3
460	601-170-008	HUBBLE CONNECTOR (FEMALE)	1
593	600-690-001	NUT, 5/16 NLN	4
642	600-690-009	NUT, 1/2 NLN	4
	025-020-014	SAFETY RELEASE CABLE ASSY. (19-1/2 IN	2
249	600-600-004	SCREW, 5/16 SELF TAP	3
595	600-710-003	WASHER, 5/16 SAE FLAT	8
597	600-710-008	WASHER 1/2 IN FLAT	4
624	025-002-050	SHIM BAG CONTENTS	1
633	600-740-001	SHIM, 1/16 (BLUE)	16
634	600-740-002	SHIM, 1/8 (RED)	16
635	600-740-003	SHIM, 1/4 (BLACK)	16

RECOMMENDED TOOL LIST

SIZE / QTY	DESCRIPTION	USED IN
1 - 1/4 IN	WRENCH & SOCKET	RAMP FASTENERS NUTS / CHAIN CONNECTOR NUTS
1 - 1/8 IN	WRENCH & SOCKET	WEJ-IT ANCHORS
1 - 1/16 IN	WRENCH & SOCKET	RAMP FASTENER BOLTS
1 IN	WRENCH	CHAIN CONNECTORS
11/16 IN	WRENCH	HYDRAULIC HOSES
5/8 IN	WRENCH	HYDRAULIC HOSES
1/2 IN	WRENCH & SOCKET	POWER UNIT MOUNTING / 19-1/2" RELEASE CABLE / HOSE CLAMP SELF TAPING SCREWS
1	RATCHET WRENCH	AS NEEDED
1	SNAP RING PLIERS	RAMP ROLLER ASSEMBLIES
1	VICE GRIPS	AS NEEDED
1	CRESCENT WRENCH	AS NEEDED
1	50 FT FISH TAPE	PULL CHAIN
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	50 FT TAPE MEASURE	FLOOR LAYOUT / SQUARING POST
1	MEDIUM HAMMER	WEJ-IT ANCHORS
8 FT	STEP LADDER	ASSEMBLE ELEVATED ITEMS
100 FT	LEAD CORD	OPERATE ELECTRICAL TOOLS
4	4 X 4 X 12 IN DUNNAGE	SUPPORT CROSSRAILS
4	8 X 8 X 24 IN DUNNAGE	SUPPORT TRACKS
POSSIBLE RENTAL EQUIPMENT REQUIRED		
1	FORK TRUCK	LIFTING / MOVING HEAVY ITEMS
1	HAMMER DRILL	DRILLING CONCRETE
1	DRILL BIT (3/4 INCH)	DRILLING CONCRETE

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; ALL OF THESE ITEMS ARE TO BE NINETEEN FEET MINIMUM ABOVE THE BAY FLOOR. SEE **FIGURE 3**.

DEFECTIVE CONCRETE

VISUALLY INSPECT THE BAY FLOOR AREA. THE UNIT CAN NOT BE INSTALLED ON EXPANSION SEAMS, OR CONCRETE WHICH 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 THE BACK OF THIS MANUAL.

ALWAYS USE SHIM PLATES TO LEVEL POST. INSPECT BAY FOR EXCESSIVE SLOPE AND DETERMINE WHAT IS NEEDED FOR SHIMMING BEFORE INSTALLING LIFT. SEE **FIGURE 2**.

POWER SUPPLY

THE STANDARD POWER UNIT IS 220 VOLT SINGLE PHASE. REFER TO THE LIFT VERIFICATION SHEET FOR SPECIFICATIONS ON SPECIAL ORDERS.

THE POWER SUPPLY SHOULD BE AVAILABLE PRIOR TO INSTALLATION. IT IS ADVISED TO HAVE A LICENSED ELECTRICIAN PERFORM ALL ELECTRICAL.

BAY SIZE

NOTE WALKWAYS, OVERHEAD OBSTRUCTIONS, AND ABILITY TO MOVE EQUIPMENT IN THE BAY AREA.

REFER TO THE LIFT SPECIFICATIONS. REFER TO THE LIFT VERIFICATION SHEET FOR SPECIFICATIONS 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
- ALWAYS VERIFY SQUARE AND LEVEL STRUCTURE BEFORE DRILLING.
- 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 3 TO 5 FULL TURNS PAST HAND TIGHT. (175 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.

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.

NOTE

- ALWAYS VERIFY A TRUE SQUARE BY MEASURING FROM CORNER TO OPPOSITE CORNER.

USING A TRANSIT OR WATER LEVEL, VERIFY LEVEL FLOOR AT EACH POST LOCATION. REFERENCING THE HIGHEST POINT, USE SHIM PLATES TO INSURE A LEVEL ASSEMBLY. (MOHAWK PART # 025-000-110)

CUT ALL BANDING AND DISCARD. USE THE PACKING LIST TO VERIFY PARTS COUNT. PLEASE NOTIFY THE MOHAWK SERVICE DEPARTMENT TO ORDER ANY MISSING PARTS (1-800-833-2006).

NOTE

- SAVE ALL PACKING BOLTS AS THEY ARE USED IN THE ASSEMBLY. DO NOT RE-USE THE NYLON LOCK NUTS.

ALIGN THE MAINSIDE POSTS BASE PLATES TO THE CHALK LINE LAYOUT.

USING A FOR LIFT TRUCK, ALIGN THE TOP RAIL TO THE MAIN SIDE POSTS.

SECURE THE TOP RAIL TO THE MAIN SIDE POST USING THE FOUR 1/2 X 2 " BOLTS, WASHERS AND NYLON LOCK NUTS.

NOTE

- ALL BOLTS USING NYLON LOCK NUTS. ALL BOLTS MUST EXTEND PAST THE NYLON BY THREE THREADS. THIS INCLUDES THE ADJUSTABLE CHAIN CONNECTORS.

WARNING

- DO NOT REMOVE THE FORK LIFT TRUCK FROM BENEATH THE TOP RAIL UNTIL THE POST HAVE BEEN SECURELY MOUNTED TO THE TOP RAIL AND SHOP FLOOR.

INSURE THE MAIN POSTS ARE SQUARE AND LEVEL TO EACH OTHER, AND ARE IN PROPER ALIGNMENT TO THE FLOOR LAYOUT. DRILL THE MOUNTING HOLES IN THE CONCRETE USING THE HOLES IN THE BASE PLATE AS A DRILL GUIDE. SECURE THE MAIN SIDE POSTS TO THE SHOP FLOOR USING THE EIGHT 3/4 X 5" WEJ-IT ANCHORS.

MOUNT THE POWER UNIT ON THE APPROPRIATE MAIN SIDE POST USING THE FOUR 5/16 X 1" BOLT, WASHER, AND NYLON LOCK NUTS.

REMOVE THE BREATHER CAP PORT PLUG AND DISCARD. INSERT AND HAND TIGHTEN THE BREATHER CAP.

ASSEMBLE THE POWER UNIT LOWERING HANDLE TO THE EYE BOLT ON THE LOWERING VALVE ASSEMBLY USING THE WASHER AND COTTER PIN.

ASSEMBLE THE TWO HYDRAULIC HOSES TO THE HYDRAULIC CYLINDER. CONNECT THE HOSE FROM THE ROD END OF THE CYLINDER TO THE POWER UNIT RESERVOIR. CONNECT THE HOSE FROM THE BLIND END OF THE CYLINDER TO THE PRESSURE PORT ON THE POWER UNIT.

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

ENGAGE THE UP BUTTON ON THE POWER UNIT. FULLY EXTEND THE HYDRAULIC CYLINDER.

NOTE

- KEEP THE CHAIN CONNECTOR AT THE END OF THE CYLINDER IN PROPER ALIGNMENT (CAM BEARING ON BOTTOM) AS THE CYLINDER IS BEING EXTENDED.

TURN OFF THE ELECTRIC CIRCUIT BREAKER TO THE UNIT AFTER EXTENDING THE HYDRAULIC CYLINDER.

PULL DOWN ON THE POWER UNIT LOWERING HANDLE TO RELIEVE FLUID PRESSURE. REVERSE THE TWO HYDRAULIC HOSES AT THE POWER UNIT.

WARNING / DANGER

DO NOT TWIST OR CROSS THE LIFTING CHAINS WHEN ROUTING. THIS WILL CAUSE THE CHAIN TO FAIL UNDER LOAD.

ALL LEAVES MUST BE USED IN THE ASSEMBLY OF ALL MASTER LINKS. NOTE CHAIN CONNECTING DIAGRAMS.

ALWAYS USE A FLASH LIGHT TO VERIFY CHAIN CONDITION.

NOTE

- REFER TO CHAIN ROUTING DRAWINGS

ASSEMBLE THE TWO CHAIN CONNECTORS TO THE MEDIUM LENGTH CHAINS. ASSEMBLE THE OPPOSITE END TO THE CHAIN CONNECTOR AT THE BASE OF THE MAIN SIDE POST.

ROUTE THE TWO LONG CHAINS THROUGH THE TOP RAIL AND BOTTOM BEARINGS ON THE TOP RAIL. ASSEMBLE THE TWO CHAIN CONNECTORS TO THE CYLINDER END OF THE CHAINS. ASSEMBLE THE CHAIN CONNECTORS TO THE CHAIN BLOCK AT THE END OF THE CYLINDER. TIGHTEN THE CHAIN CONNECTORS SO THAT THE CONNECTOR IS PAST / INTO THE NYLON.

ASSEMBLE THE TWO CHAIN CONNECTOR TO THE TWO SHORT CHAINS. ASSEMBLE THE CHAIN CONNECTORS TO THE CHAIN BLOCK AT THE END OF THE CYLINDER. TIGHTEN THE CHAIN CONNECTORS SO THAT THE CONNECTOR IS PAST / INTO THE NYLON. ROUTE THE TWO SHORT CHAINS OVER THE TOP BEARINGS ON THE TOP RAIL.

ROUTE THE OPPOSITE END OF THE TWO SHORT AND TWO LONG CHAINS THROUGH THE TOP OF THE MAIN SIDE POSTS.

INSTALLATION INSTRUCTIONS

ASSEMBLE THE 19-1/2" RELEASE CABLE TO THE MECHANICAL LOCK ON THE INSIDE OF THE MAIN SIDE CROSSRAIL. (THE MAIN SIDE OF THE CROSSRAIL IS THE END WITH THE CHAIN BLOCK).

SET THE MAIN SIDE OF THE FORE CROSSRAIL INTO PLACE AT THE BASE OF THE MAIN SIDE POSTS. BLOCK UP USING THE 4 X 4 X 12" DUNNAGE.

ROUTE THE FORE CROSSRAIL CHAIN THROUGH THE FORE CROSSRAIL.

SET THE MAIN SIDE TRACK INTO PLACE. BLOCK UP USING THE 8 X 8 X 24" DUNNAGE. THE LOCK RELEASE ASSEMBLY ON THE MAIN SIDE TRACK IS TO FACE THE MAIN SIDE OF THE UNIT.

SET THE OFF SIDE TRACK INTO PLACE. BLOCK UP USING THE 8 X 8 X 24" DUNNAGE. NOTE THAT THE RACE FOR THE RJ-25 IS TO BE TO THE INSIDE OF THE TRACKS.

SET THE MAIN SIDE OF THE FORE CROSSRAIL INTO PLACE AT THE BASE OF THE MAIN SIDE POSTS. BLOCK UP USING THE 4 X 4 X 12" DUNNAGE.

ROUTE THE AFT CROSSRAIL CHAIN THROUGH THE AFT CROSSRAIL.

ASSEMBLE THE FOUR LIFTING CHAINS (TWO SHORT & TWO LONG) FROM THE HYDRAULIC CYLINDER TO THE CHAIN BLOCKS ON THE CROSSRAILS.

SET THE TWO OFF SIDE POST INTO PLACE ON THE FLOOR LAYOUT. ASSEMBLE THE CHAIN CONNECTORS AT THE THROUGH HOLES AT THE TOP OF THE OFF SIDE POSTS. TIGHTEN THE CHAIN CONNECTORS SO THAT THE CONNECTOR IS PAST / INTO THE NYLON.

NOTE

- DO NOT DRILL THE ANCHOR HOLES FOR THE OFF SIDE POST. THIS WILL BE PERFORMED AS A FINAL PART OF THE INSTALLATION.

ASSEMBLE THE TWO TRACK STOPS TO THE FORE END OF THE TRACKS USING THE EIGHT 3/4 X 2-1/2" BOLTS, AND NYLON LOCK NUTS.

ASSEMBLE THE RAMPS TO THE AFT END OF THE TRACKS USING THE EIGHT 3/4 X 2-1/2" BOLTS, AND NYLON LOCK NUTS.

TURN THE ELECTRIC CIRCUIT BREAKER FOR THE UNIT ON.

NOTE THE POSITION OF THE MAIN SIDE TRACK. ALIGN THE TABS ON THE CROSSRAILS TO THE MAIN SIDE TRACKS. ALSO SET THE OFF SIDE TRACK AT EIGHT FEET FROM THE OUTSIDE OF THE MAIN SIDE TRACK.

ENGAGE THE UP BUTTON RAISING THE UNIT APPROXIMATELY THREE FEET.

ASSEMBLE THE 19-1/2 " RELEASE CABLE FROM THE MECHANICAL LOCK ON THE INSIDE OF THE MAIN SIDE CROSSRAIL TO THE LOCK RELEASE CAM ON THE MAIN SIDE TRACK.

ASSEMBLE THE LOCK RELEASE ARM TO THE LOCK RELEASE ASSEMBLY.

CYCLE THE UNIT 2 TIMES NOTING THE POSITION OF THE CROSSRAILS INSIDE THE POSTS.

LOWER THE UNIT ONTO THE MECHANICAL LOCKS. VERIFY A POSITIVE LOCK SEAT ON THE MAIN AND OFF SIDE POSTS. (MECHANICAL LOCK TO LATCH RACK IN POST) ADJUST THE OFF SIDE POST AS NEEDED TO ACHIEVE A GOOD SEAT.

NOTE

- ENSURE LEVEL POSTS AND A GOOD LOCK SEAT ON THE MAIN AND OFF SIDE POST BEFORE DRILLING THE MOUNTING HOLES.

DRILL THE MOUNTING HOLES IN THE CONCRETE USING THE HOLES IN THE BASE PLATE AS A DRILL GUIDE.. SECURE THE OFF SIDE POSTS TO THE SHOP FLOOR USING THE EIGHT 3/4 X 5" WEJ-IT ANCHORS.

LEVELING THE TRACKS

LEVEL THE TRACKS FRONT TO REAR BY ADJUSTING THE CHAIN CONNECTORS AT THE END OF THE HYDRAULIC CYLINDER.

LEVEL THE TRACKS SIDE TO SIDE BY ADJUSTING THE CHAIN CONNECTORS AT THE TOP OF THE OFF SIDE POSTS.

NOTE

- ALL BOLTS USING NYLON LOCK NUTS. ALL BOLTS MUST EXTEND PAST THE NYLON BY THREE THREADS. THIS INCLUDES THE ADJUSTABLE CHAIN CONNECTORS.

SECURE THE TWO HYDRAULIC HOSES TO THE TOP RAIL USING THE THREE HOSE CLAMPS AND 5/16 SELF TAPING SCREWS.

REFERENCE DIAGRAM IN BACK OF MANUAL. APPLY ALL DECAL IN APPROPRIATE LOCATIONS.

NOTE

- APPLY DECALS TO A CLEAN, OIL & DIRT FREE SURFACE.

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.

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.

ENSURE UNIT IS COMPLETELY LOWERED.

POSITION THE VEHICLE ONTO THE UNIT.

CAUTION

- AVOID SUDDEN STARTS AND STOPS DURING LOADING AND UNLOADING OF VEHICLE.

POSITION THE VEHICLE AS INDICATED BY THE MFG'S RECOMMENDED LIFT POINTS.

NOTE

- ALIGN THE CENTER OF GRAVITY (C.G.) OF THE VEHICLE WITH THE CENTERLINE OF THE TRACKS.

POSITION THE WHEEL CHOCKS AS INDICATED BY THE MFG'S RECOMMENDED LIFTING INSTRUCTIONS.

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 THREE TO FOUR 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 TO FLOOR.

MAINTENANCE PROCEDURES

QUALIFIED MAINTENANCE PERSONNEL ONLY

DAILY

- PERFORM THE PRE-OPERATION CHECK LIST.
- REPORT ANY AND ALL EQUIPMENT MALFUNCTIONS IMMEDIATELY.
- CLEAN ALL MOVING PARTS. 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 SEAL. 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 SAFETY RELEASE ROD PILLOW BLOCKS WITH OIL. (DO NOT USE GREASE)

CYCLE UNIT TO FULL HEIGHT, NOTE ANY UNUSUAL NOISES, INSPECT UNIT FOR WORN OR BENT PARTS.

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 ARE 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.

INSPECT ALL BEARINGS FOR UNUSUAL OR EXCESSIVE WEAR.(REPLACE IF NEEDED)

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 EQUALIZING CHAINS. (MEDIUM LENGTH CROSSRAIL CHAINS) THOROUGHLY CLEAN, LUBRICATE AND RE-INSTALL. (REPLACE IF UNUSUAL OR EXCESSIVE WEAR IS NOTED)

REMOVE THE LIFTING CHAINS, (THE FOUR CHAINS CONNECTED TO THE HYDRAULIC CYLINDER) THOROUGHLY CLEAN, LUBRICATE AND RE-INSTALL. (REPLACE IF UNUSUAL OR EXCESSIVE WEAR IS NOTED)

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.

NOT RAISING LOAD	
POSSIBLE CAUSE	SOLUTION
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 TOO HEAVY TO BE RAISED
NOT LOWERING	
MECHANICAL LOCKS ENGAGED	RAISE UNIT. DISENGAGE MECHANICAL LOCKS.
DEBRIS IN POSTS (TOOLS ETC.)	CLEAN UNIT
OBSTRUCTION UNDER VEHICLE OR LIFT	REMOVE OBSTRUCTION.
RAISING UNEVEN	
POSTS OUT OF SQUARE	VERIFY LEVEL. MAKE ANY AND ALL NECESSARY ADJUSTMENTS.
SHOP FLOOR UNEVEN	VERIFY PROPER INSTALLATION
RAISING UNEVEN CONT.	
POST NOT SHIMED CORRECTLY	SHIM POST
CHAIN OUT OF ADJUSTMENT	ADJUST CHAINS
SLOW DRIFT DOWN	
POSSIBLE CAUSE	SOLUTION
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.
EXTERNAL HYDRAULIC LEAKS NOTE: TIGHTEN ALL FITTINGS PER SPECIFICATIONS.	
POSSIBLE CAUSE	SOLUTION
CYLINDER SEAL	THOROUGHLY CLEAN THE CYLINDER. VERIFY LEAK ORIGIN. FITTINGS ARE TO BE TIGHTENED PER SPECIFICATIONS
BAD FLAIR OR FITTING	REMOVE THE HYDRAULIC HOSE AND INSPECT FLAIR AND FITTING FOR DEFORMATION. REPLACE IF NEEDED.
BAD O-RING (O-RING TYPE FITTINGS)	CHANGE O-RING
LOOSE PIPE FITTING	REMOVE, RESEAL, AND RE-INSTALL FITTING. SEAL ALL PIPE FITTING CONNECTIONS WITH THREAD SEALANT MOHAWK PART # 601-610-002 NOTE: DO NOT USE TEFLON TAPE.

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 TR - 19

FIGURES & DIAGRAMS



MOHAWK RESOURCES LTD.

MOHAWK INDUSTRIAL PARK

VROOMAN AVE. P.O. BOX 110

AMSTERDAM, NY 12010

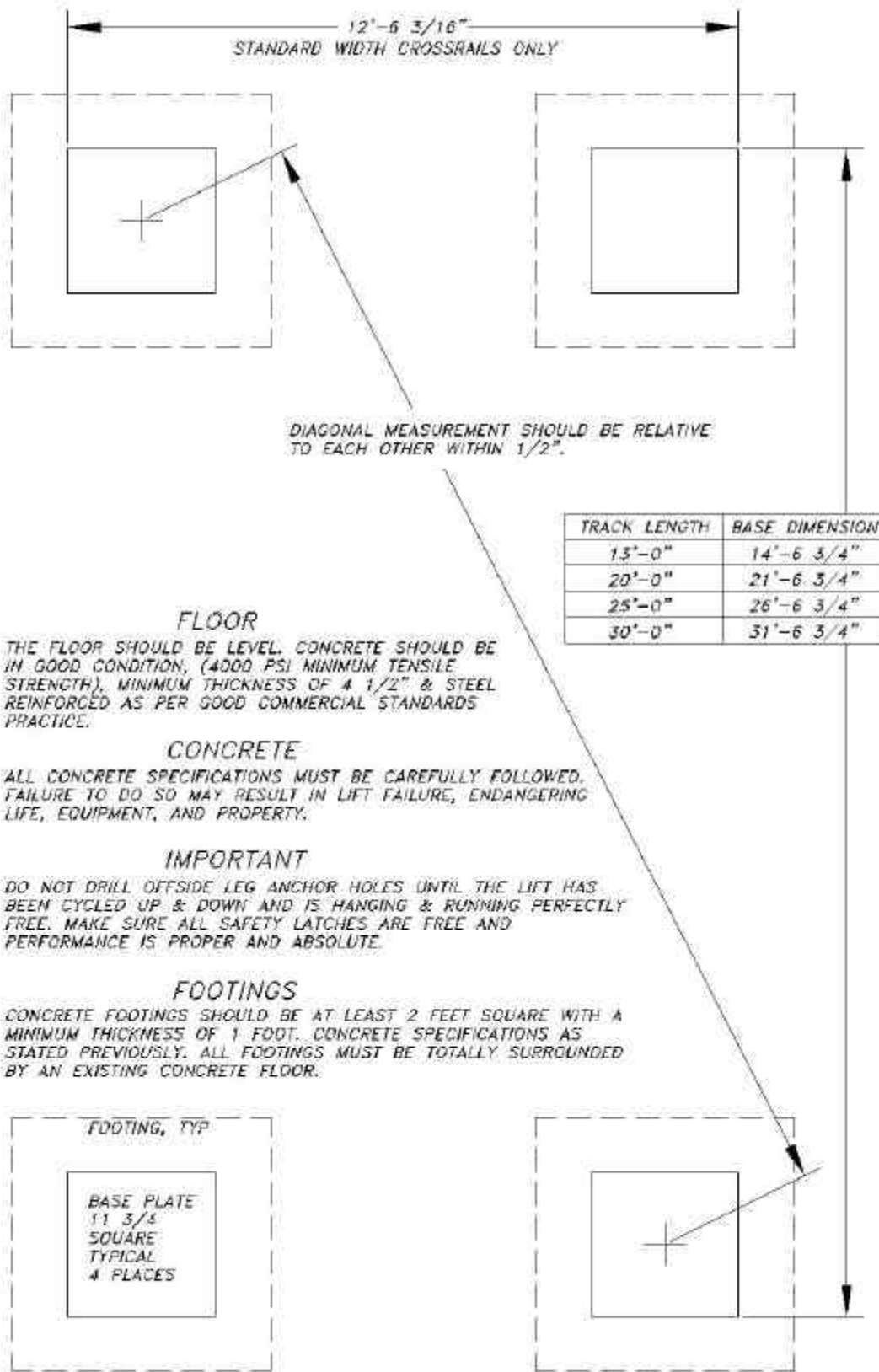
TOLL FREE : 1-800-833-2006

LOCAL : 1-518-842-1431

FAX : 1-518-842-1289

INTERNET: WWW.MOHAWKLIFTS.COM

E-MAIL: TECHSUPPORT@MOHAWKLIFTS.COM



TR-25A, FL-25 & TR-19

MAN058
REV B 7/14/03

Figure 1

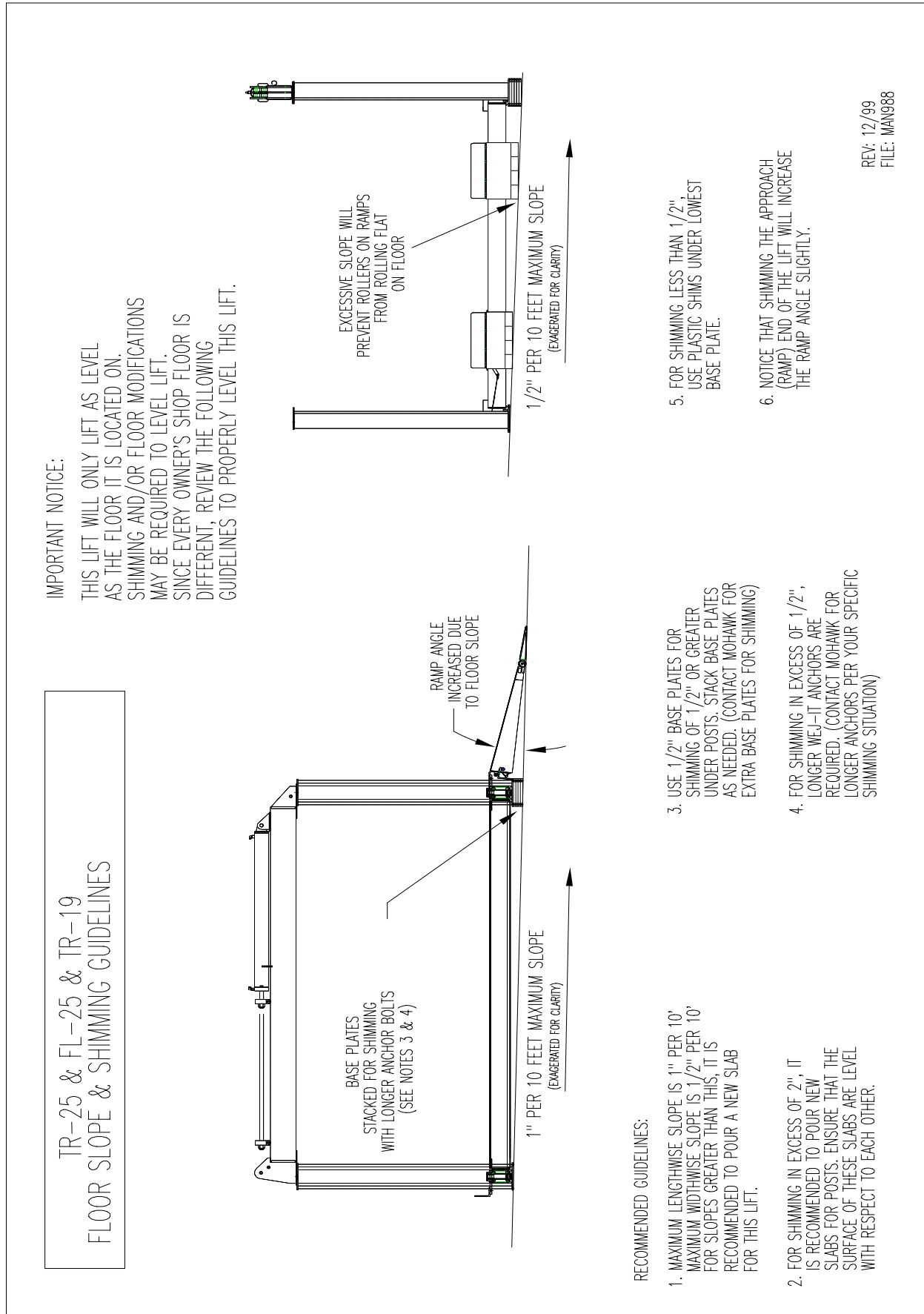
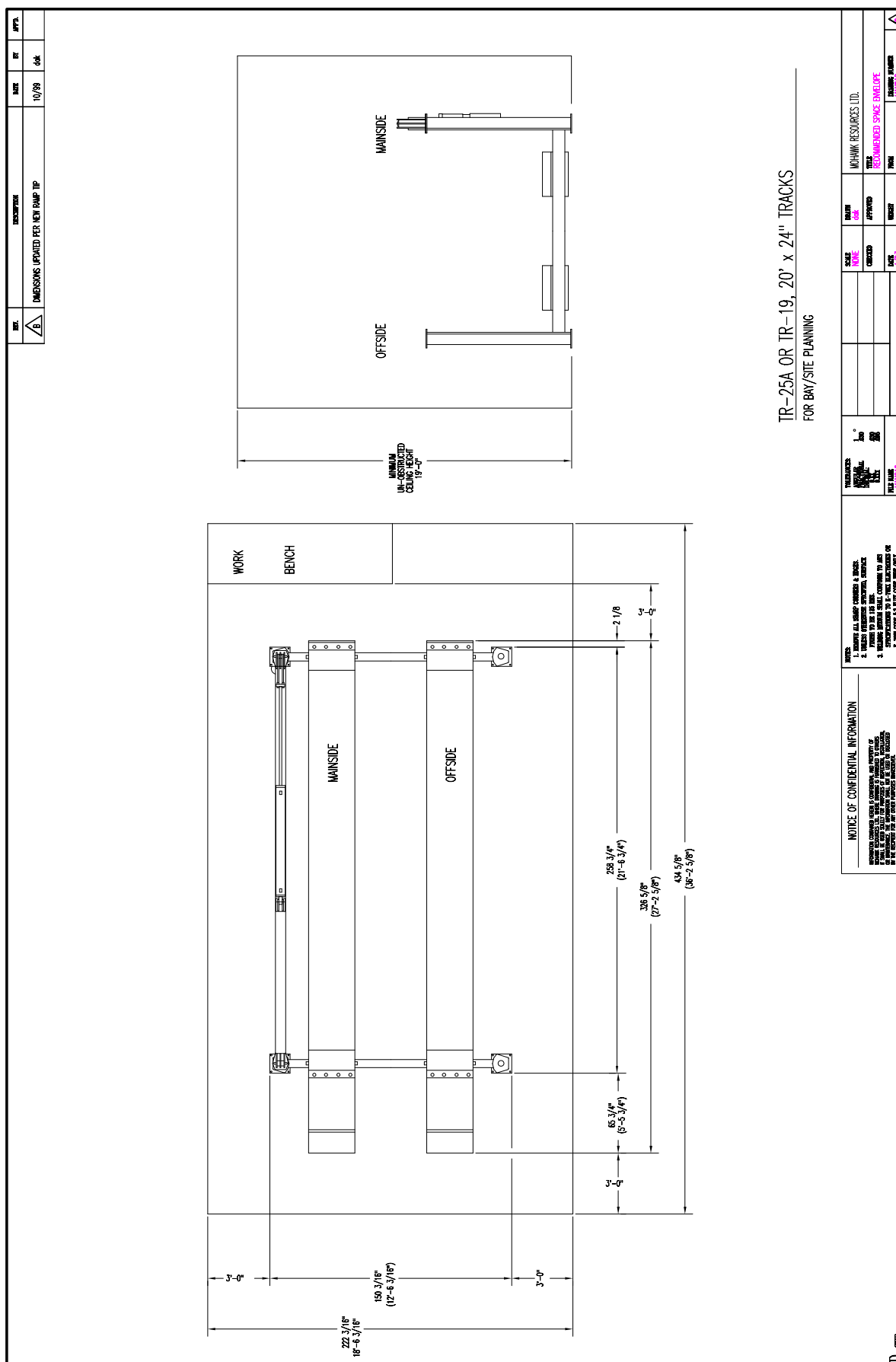
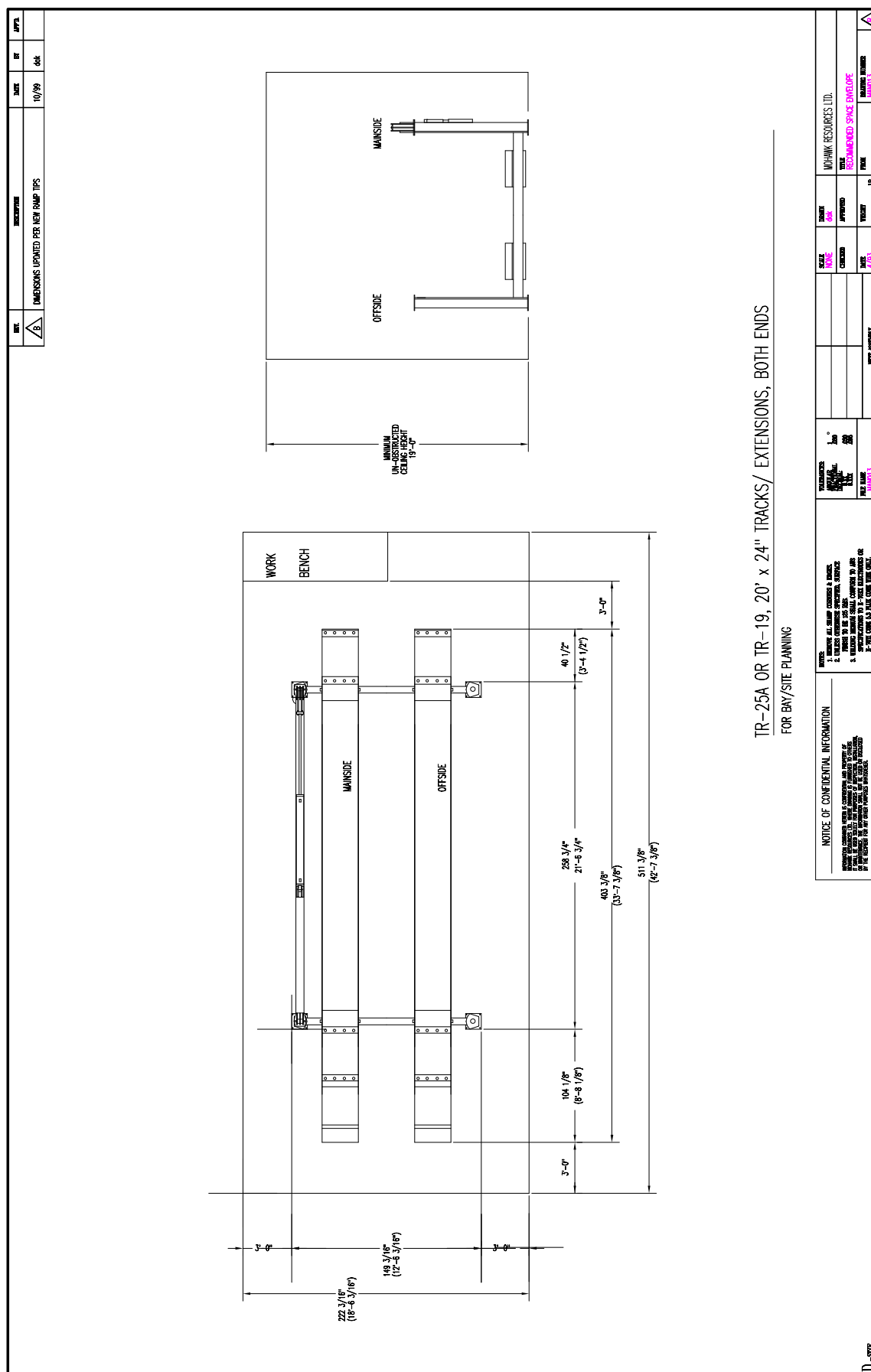


Figure 2





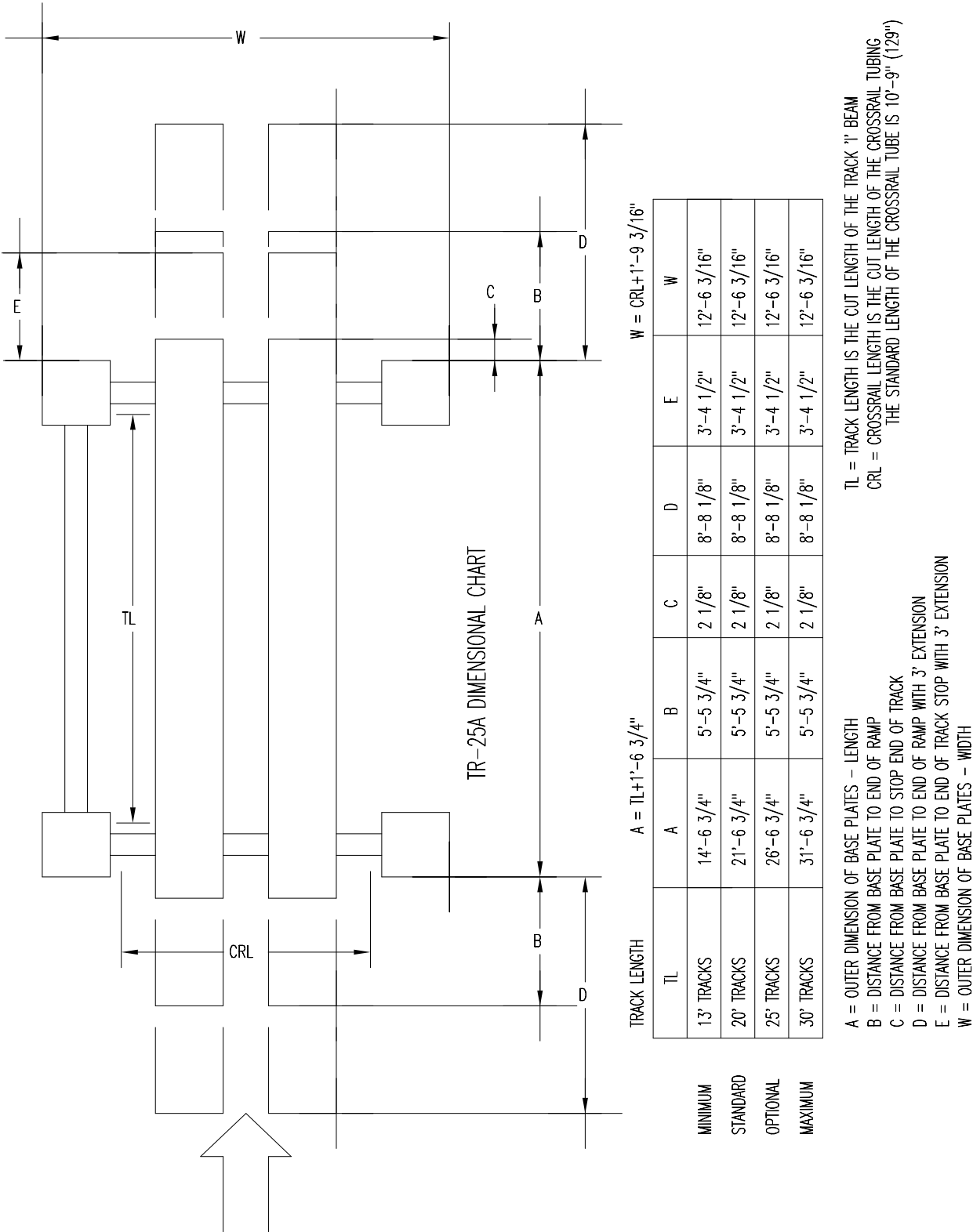
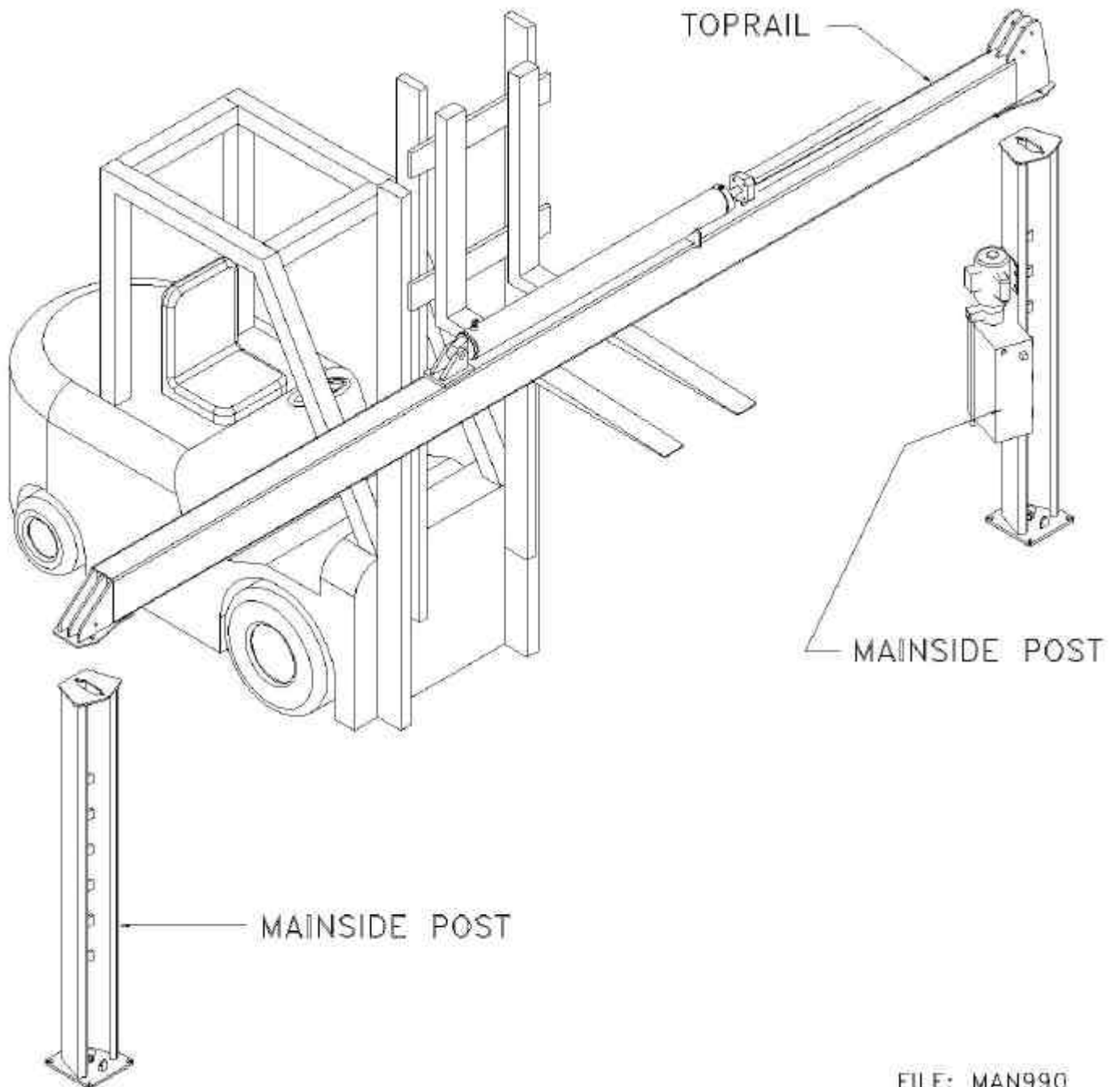


Figure 5

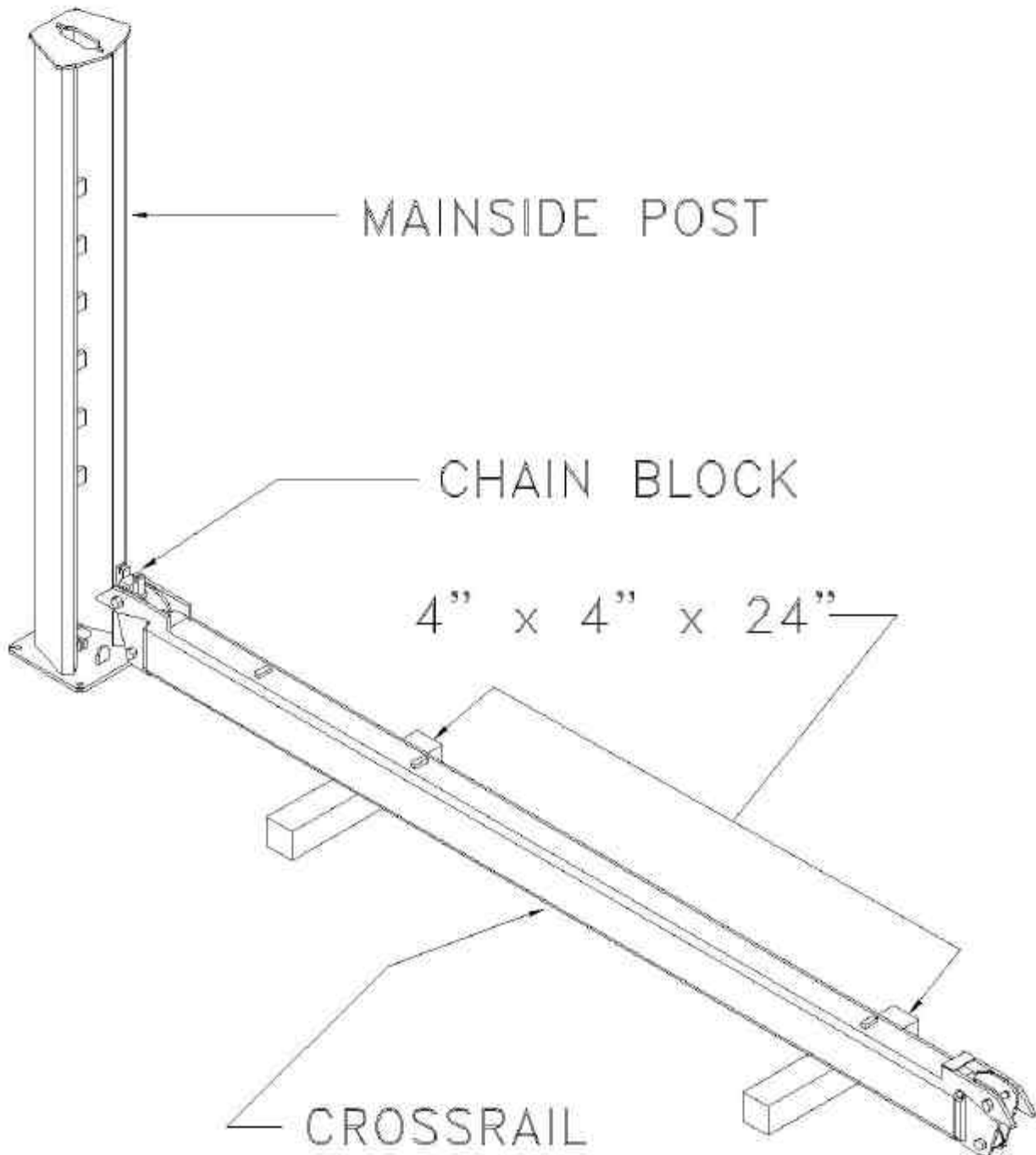
TOP RAIL INSTALLATION



FILE: MAN990

Figure 6

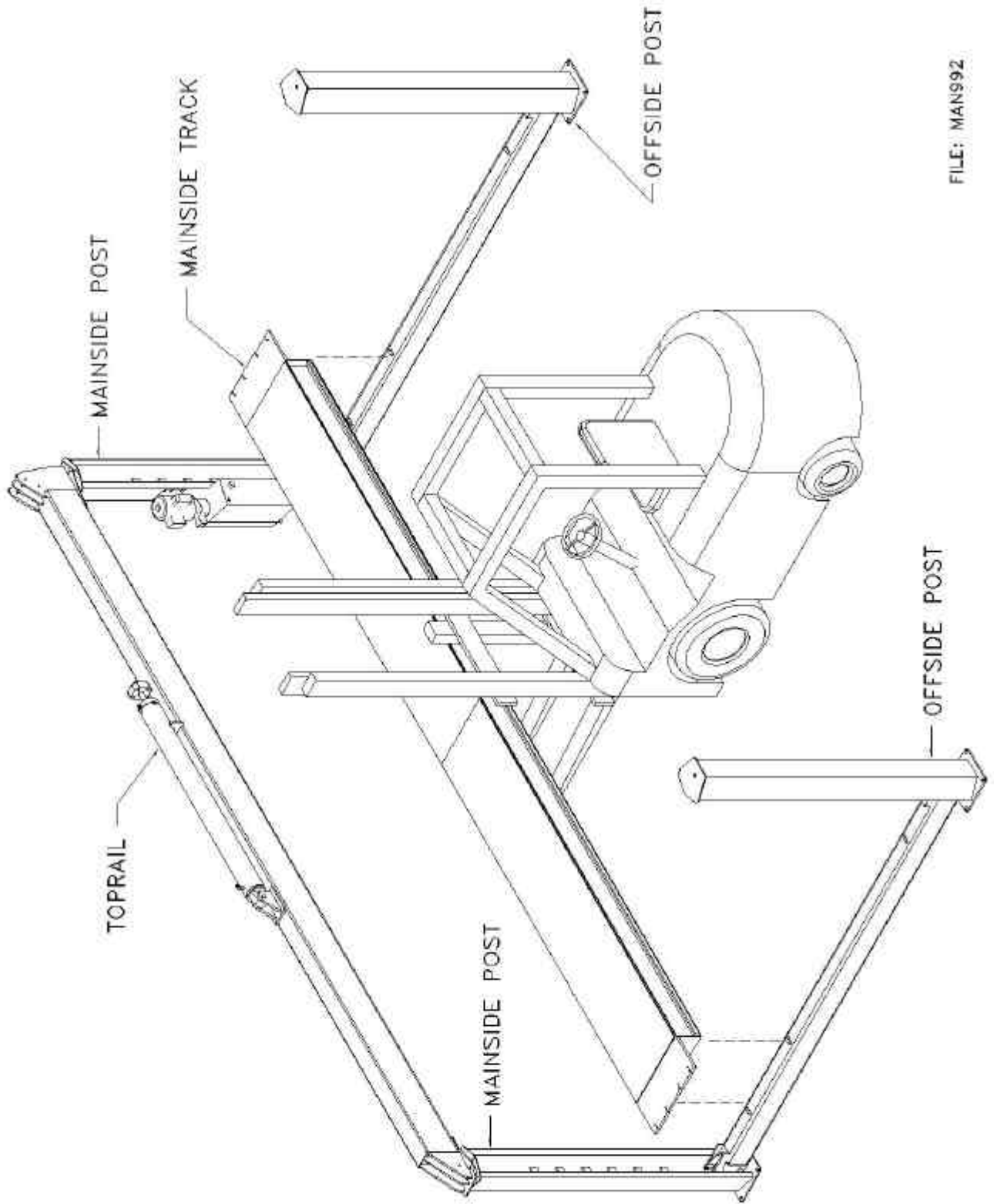
CROSSRAIL INSTALLATION



FILE: MAN991

Figure 7

MAINSIDE TRACK INSTALLATION



FILE: MAN992

Figure 8

OFFSIDE TRACK INSTALLATION

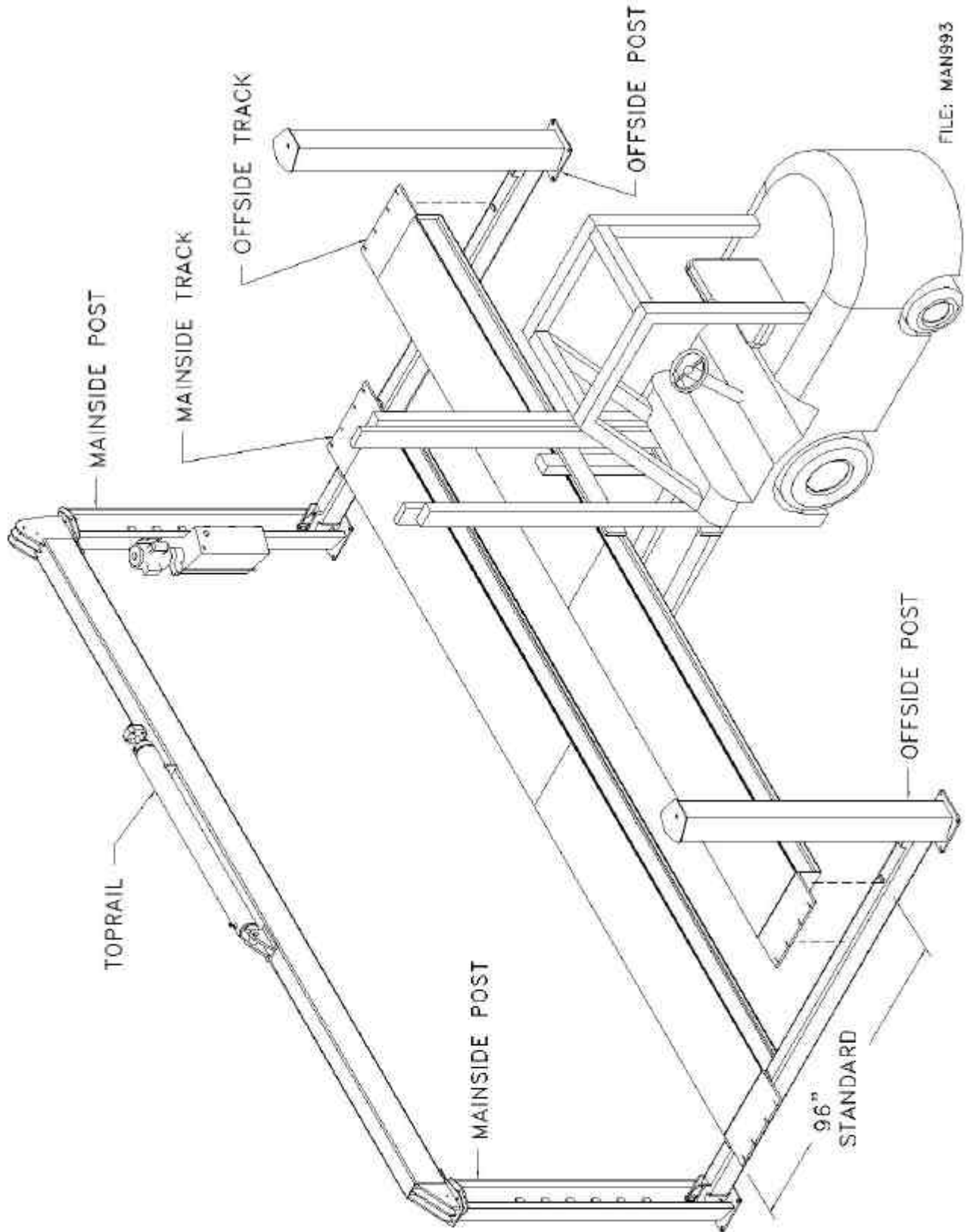


Figure 9

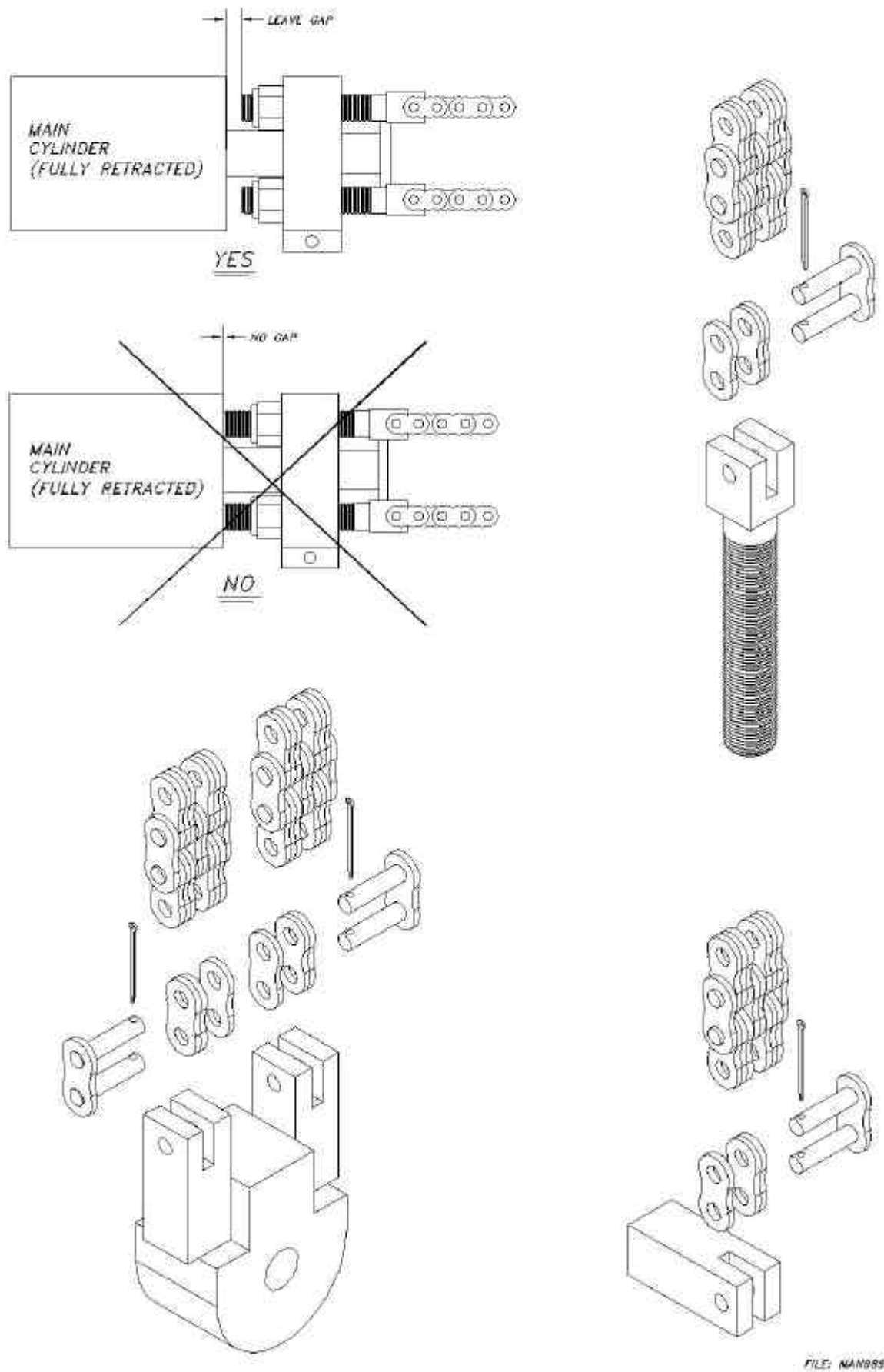
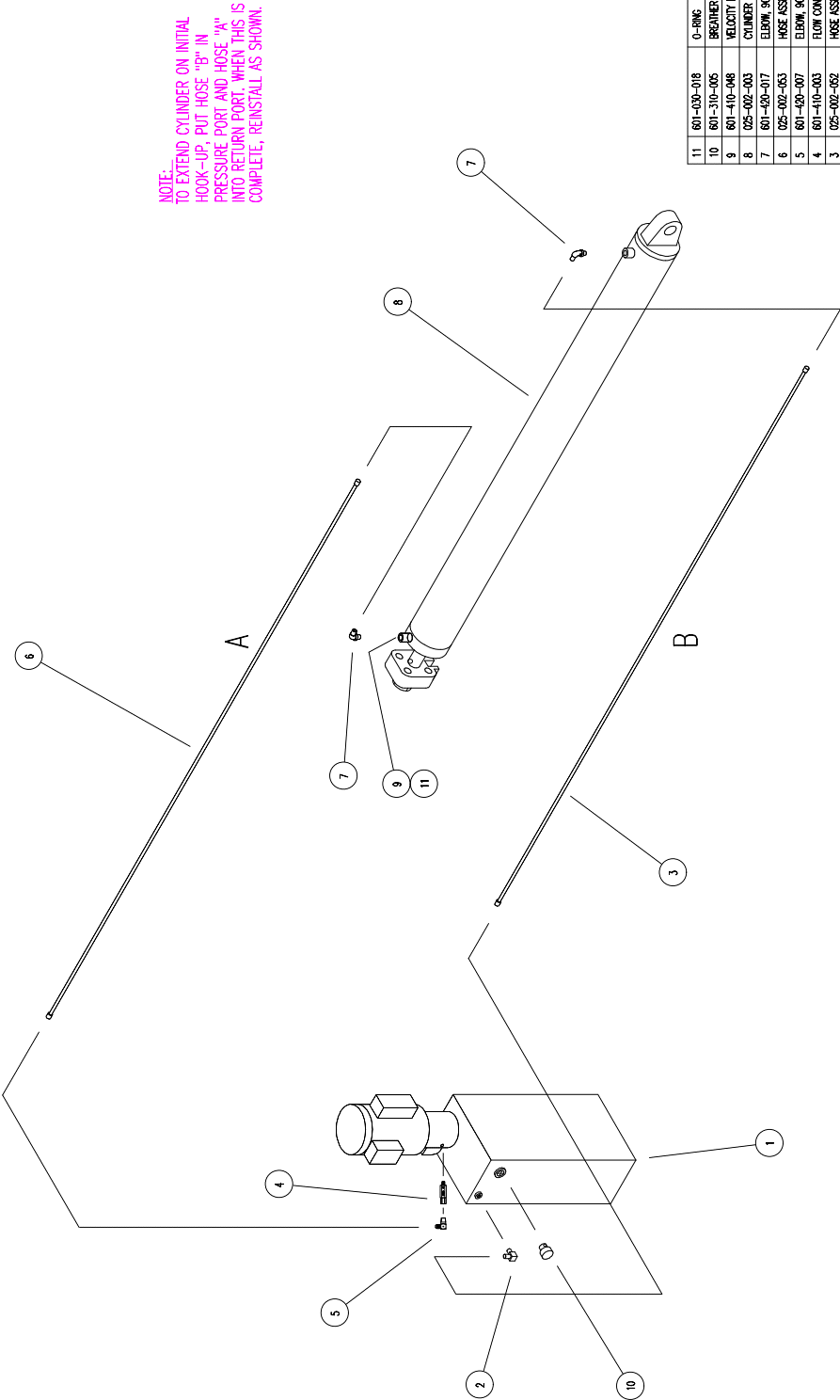


Figure 10

MAN901

REV-A 4/01



ITEM	PART NUMBER	DESCRIPTION	QTY
11	601-030-018	O-RING	1
10	601-310-005	BREATHER CAP	1
9	601-410-048	VELOCITY ROSE, 8 GPM	1
8	025-002-003	CYLINDER ASSEMBLY	1
7	601-420-017	ELBOW, 90°, #8 ORB TO #6 JIC	2
6	025-002-053	HOSE ASSEMBLY, 3/8" ID x 168" LG	1
5	601-420-007	ELBOW, 90°, 3/8" MALE PIPE TO #6 JIC	1
4	601-410-003	FLOW CONTROL VALVE, 2.75 GPM	1
3	025-002-022	HOSE ASSEMBLY, 1/4" ID x 168" LG	1
2	601-420-014	ELBOW, 90°, 1/4" MALE PIPE TO #6 JIC	1
1	601-300-024	POWER UNIT, 2 HP, 230 V	1
			001

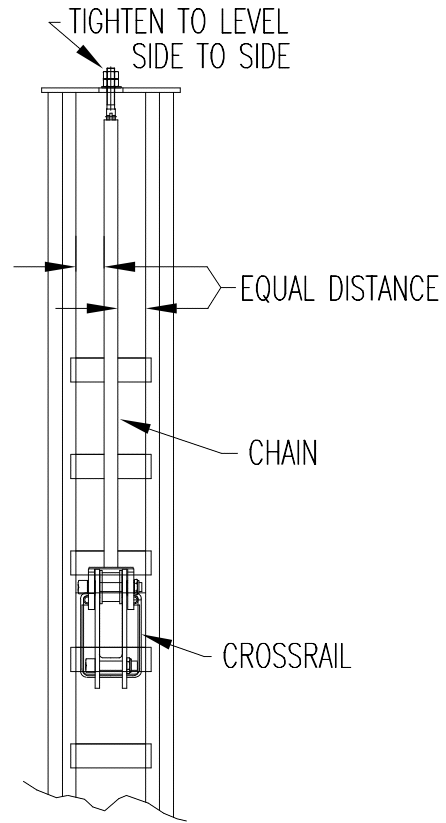
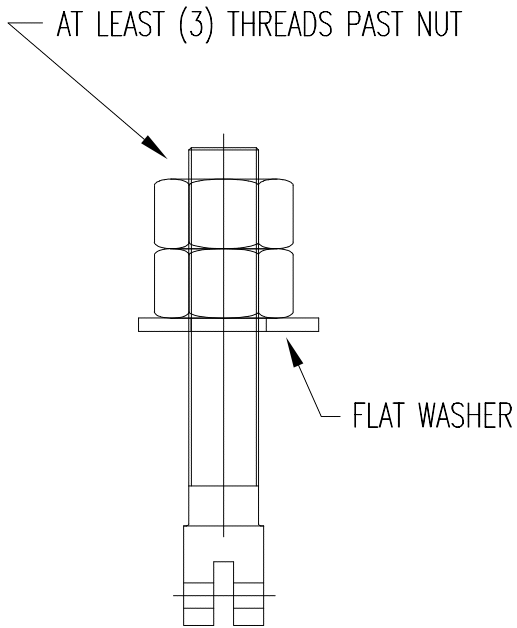
HYDRAULIC SYSTEM

FILE: MAN901
DATE: 9/95

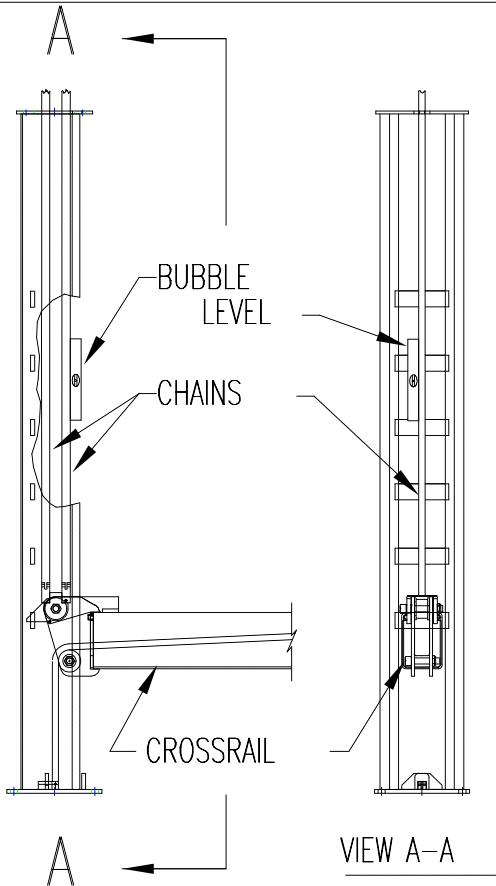
Figure 11

31

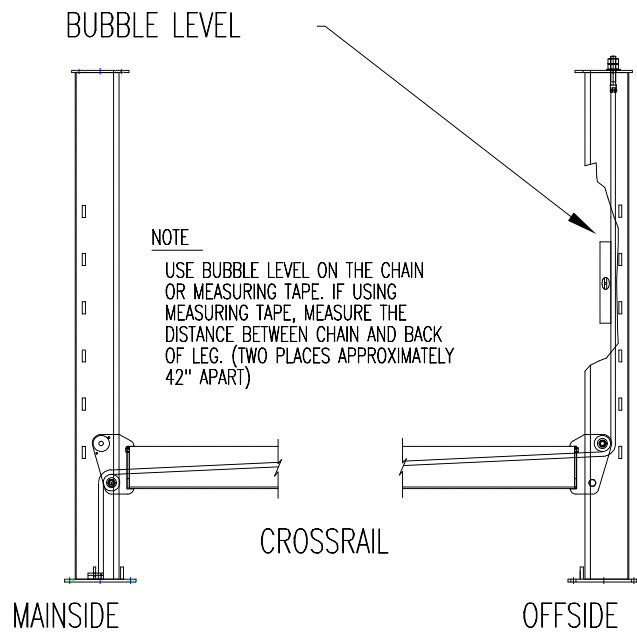
LEVELING OFFSIDE LEG



LEVELING MAINSIDE LEG



LEVELING OFFSIDE LEG



FILE: MAN994

Figure 12



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.

Figure 13A

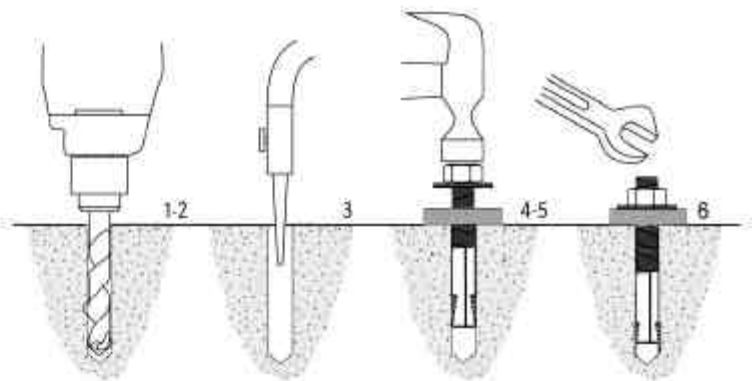


ORDER INFORMATION

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

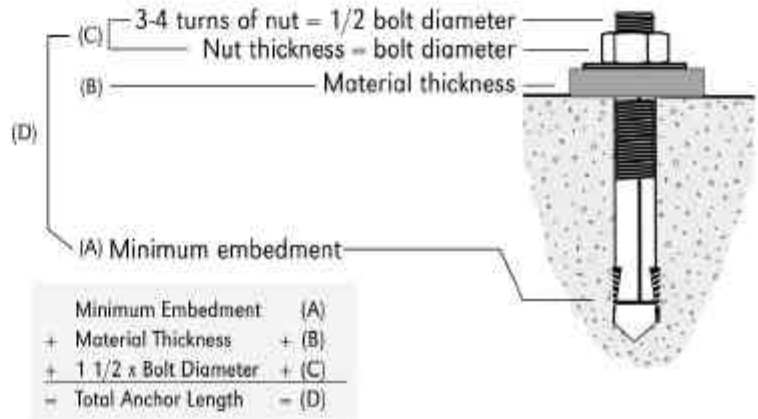
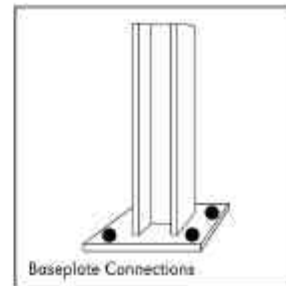
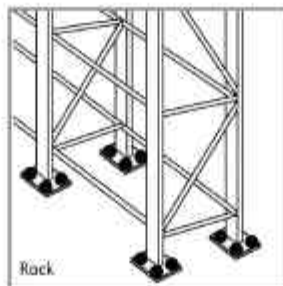
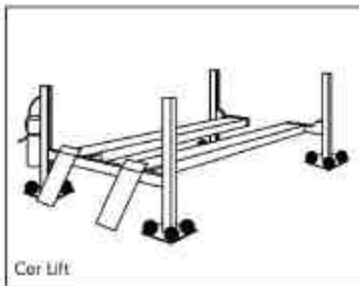


Figure 13B

TYPICAL APPLICATIONS



ORDER INFORMATION

Catalog Number				Anchor Diameter & Length (in)	Minimum Embedment (in)	Thread Length (in)	Quantity Box/Case
Carbon Steel	Stainless Steel	303/302HQ	316				
AT1413	ATG1413*	ATS1413	•	1/4 x 1 3/4	1 1/4	5/8	100/800
AT1421	ATG1421*	ATS1421	ATSS1421	1/4 x 2 1/4	1 1/4	1	100/800
AT1431	ATG1431*	ATS1431	ATSS1431	1/4 x 3 1/4	1 1/4	1	100/800
AT3821	ATG3821	ATS3821	ATSS3821	3/8 x 2 1/4	1 3/4	1	50/400
AT3823	ATG3823	ATS3823	ATSS3823	3/8 x 2 3/4	1 3/4	1 1/4	50/400
AT3830	ATG3830	ATS3830	ATSS3830	3/8 x 3	1 3/4	1 1/4	50/400
AT3833	ATG3833	ATS3833	ATSS3833	3/8 x 3 3/4	1 3/4	1 1/4	50/400
AT3850	ATG3850	ATS3850	•	3/8 x 5	1 3/4	1 1/4	50/300
AT1223	ATG1223	ATS1223	ATSS1223	1/2 x 2 3/4	2 1/8	1 1/8	25/200
AT1233	ATG1233	ATS1233	ATSS1233	1/2 x 3 3/4	2 1/8	1 1/2	25/200
AT1241	ATG1241	ATS1241	ATSS1241	1/2 x 4 1/4	2 1/8	2	25/200
AT1252	ATG1252	ATS1252	ATSS1252	1/2 x 5 1/2	2 1/8	3 1/4	25/150
AT1270	ATG1270	ATS1270	•	1/2 x 7	2 1/8	3 1/2	25/150
AT5832	ATG5832	ATS5832	•	5/8 x 3 1/2	2 5/8	1 5/16	10/80
AT5841	ATG5841	ATS5841	ATSS5841	5/8 x 4 1/4	2 5/8	2	10/80
AT5850	ATG5850	ATS5850	ATSS5850	5/8 x 5	2 5/8	2 3/4	10/80
AT5860	ATG5860	ATS5860	ATSS5860	5/8 x 6	2 5/8	3 1/2	10/80
AT5870	ATG5870	ATS5870	•	5/8 x 7	2 5/8	3 1/2	10/80
AT5882	ATG5882	ATS5882	•	5/8 x 8 1/2	2 5/8	3 1/2	10/40
AT5810	•	•	•	5/8 x 10	2 5/8	3 1/2	10/40
AT3441	ATG3441	ATS3441	•	3/4 x 4 1/4	3 1/4	1 1/2	10/80
AT3443	ATG3443	ATS3443	ATSS3443	3/4 x 4 3/4	3 1/4	2	10/80
AT3452	ATG3452	ATS3452	ATSS3452	3/4 x 5 1/2	3 1/4	2 3/4	10/60
AT3461	ATG3461	ATS3461	•	3/4 x 6 1/4	3 1/4	3 1/2	10/60
AT3470	ATG3470	ATS3470	ATSS3470	3/4 x 7	3 1/4	3 1/2	10/60
AT3482	ATG3482	ATS3482	•	3/4 x 8 1/2	3 1/4	3 1/2	10/40
AT3410	ATG3410	ATS3410	•	3/4 x 10	3 1/4	3 1/2	10/40
AT3412	ATG3412*	•	•	3/4 x 12	3 1/4	3 1/2	5/20
AT7860	ATG7860*	•	•	7/8 x 6	3 7/8	2 5/8	5/30
AT7880	ATG7880*	•	•	7/8 x 8	3 7/8	3	5/20
AT7810	ATG7810*	•	•	7/8 x 10	3 7/8	3	5/20
AT1060	ATG1060*	ATS1060	•	1 x 6	4 1/2	2 1/4	5/30
AT1090	ATG1090*	ATS1090	•	1 x 9	4 1/2	3	5/20
AT1012	ATG1012*	ATS1012	•	1 x 12	4 1/2	3	5/20

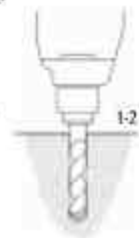
TORQUE VALUES

Anchor Diameter (in)	Recommended Setting Torque (ft lb)	W/O Inspection Tension To Set
1/4	6-8	3-5
3/8	20-25	3-5
1/2	50-55	3-5
5/8	90-95	3-5
3/4	165-175	3-5
7/8	240-250	3-5
1	290-300	3-5



INSTALLATION INSTRUCTIONS

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. Assemble the washer and nut on the anchor so that the nut protrudes slightly beyond the fixture. Insert anchor into the hole making sure the nut rests solidly against the fixture.
5. Tighten the nut 3 to 5 turns past the hand tight position. For torque settings refer to table at bottom left of page.



* Call Customer Service for box/case ton quantities.

** 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.

Figure 14B

MOHAWK

MODEL TR - 19

PARTS DRAWINGS (TR-19 WITH 20' TRACKS)



MOHAWK RESOURCES LTD.

MOHAWK INDUSTRIAL PARK

VROOMAN AVE. P.O. BOX 110

AMSTERDAM, NY 12010

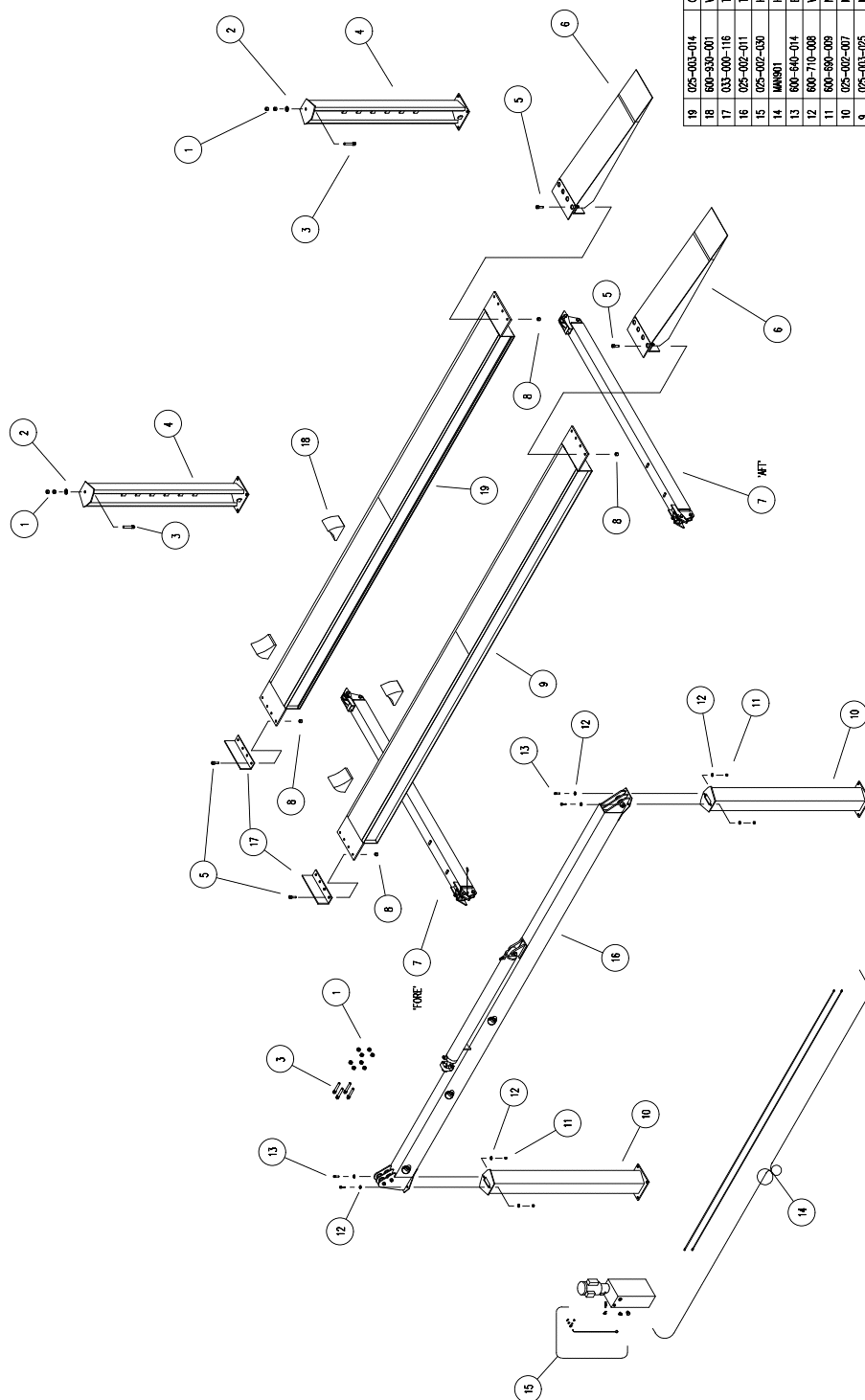
TOLL FREE : 1-800-833-2006

LOCAL : 1-518-842-1431

FAX : 1-518-842-1289

INTERNET: WWW.MOHAWKLIFTS.COM

E-MAIL: TECHSUPPORT@MOHAWKLIFTS.COM



19	025-003-014	OFFSIDE TRACK WELDMENT, 24"	1
18	600-630-401	WHEEL CHOICES	4
17	033-000-118	TRACK STOP, 24"	2
16	025-002-011	TOP RAIL ASSEMBLY	1
15	025-002-030	HANDLE ASSEMBLY	1
14	MAN91	HYDRAULIC SYSTEM	1
13	600-640-014	BOLT, 1/2-13 NC, 2" LG, HEX HEAD CAP	4
12	600-710-008	WASHER, FLAT, 1/2	8
11	600-600-009	NUT, LOCK, 1/2-13 NC	4
10	025-002-007	WASHERS TRACK WELDMENT	2
9	025-003-025	WASHERS TRACK ASSEMBLY, 24"	1
8	600-600-003	NUT, LOCK, 3/4-16 NF	16
7	MAN92Z	POUR & NIT CROSSMILL ASSEMBLY	2
6	025-002-021	RAMP ASSEMBLY, 24"	2
5	600-640-003	BOLT, 3/4-16 NF x 2 1/2 LG, HEX HEAD CAP	16
4	025-002-004	OFFSIDE TRACK WELDMENT	2
3	025-000-107	CHAIN CONNECTOR	6
2	600-710-012	WASHER, FLAT, 7/8	2
1	600-680-021	NUT, PLAIN, 7/8-14 NF	12
00		DESCRIPTION	00"

(24" WIDE x 20'-0" LONG TRACKS / 11'-0" BETWEEN POSTS)

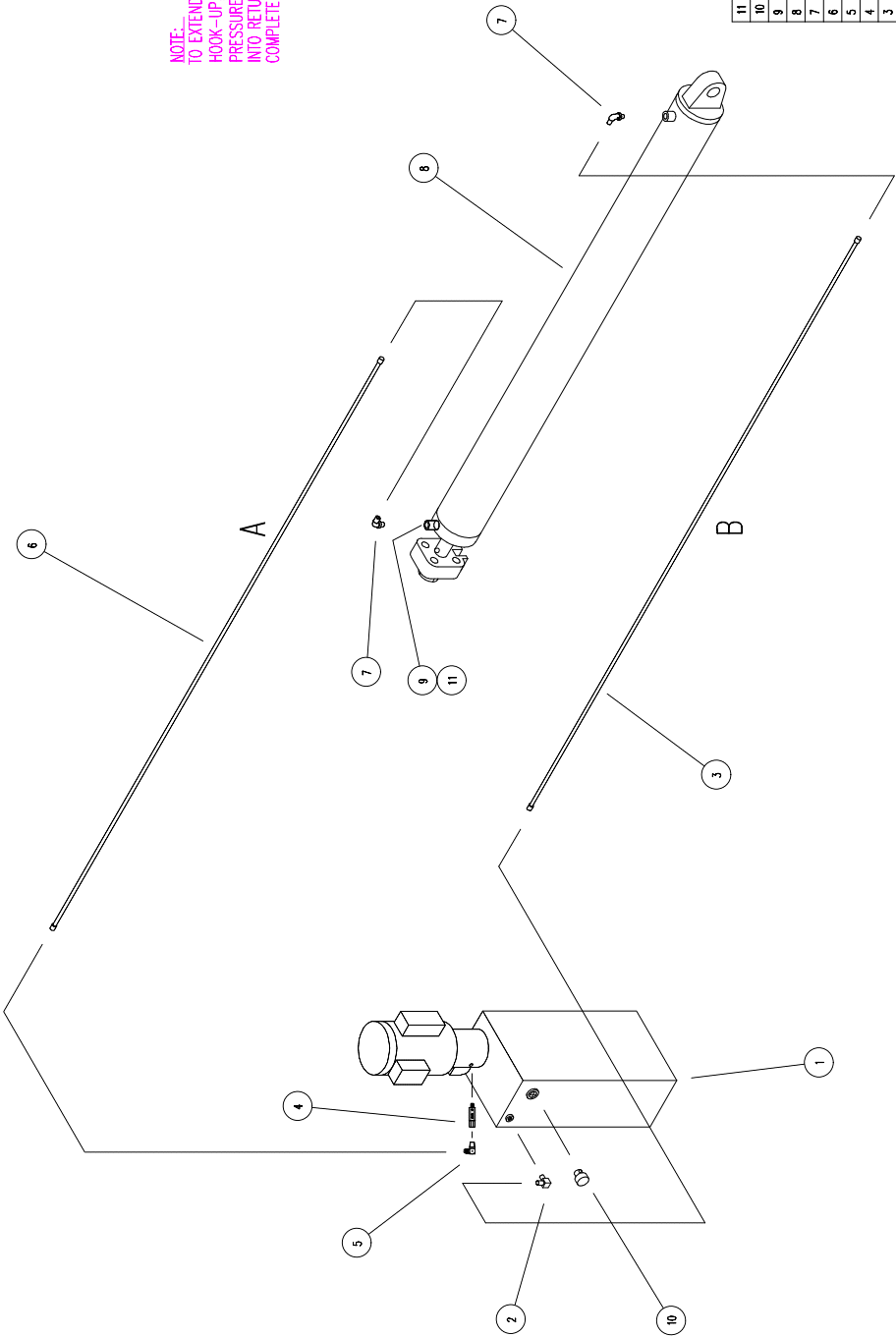
TR-25A ISOMETRIC FINAL ASSEMBLY
(025-020-000)

FILE: MAN920
DATE: 7/97

MAN901

REV-A 4/01

NOTE:
TO EXTEND CYLINDER ON INITIAL
HOOK-UP, PUT HOSE "B" IN
PRESSURE PORT AND HOSE "A"
INTO RETURN PORT. WHEN THIS IS
COMPLETE, REINSTALL AS SHOWN.

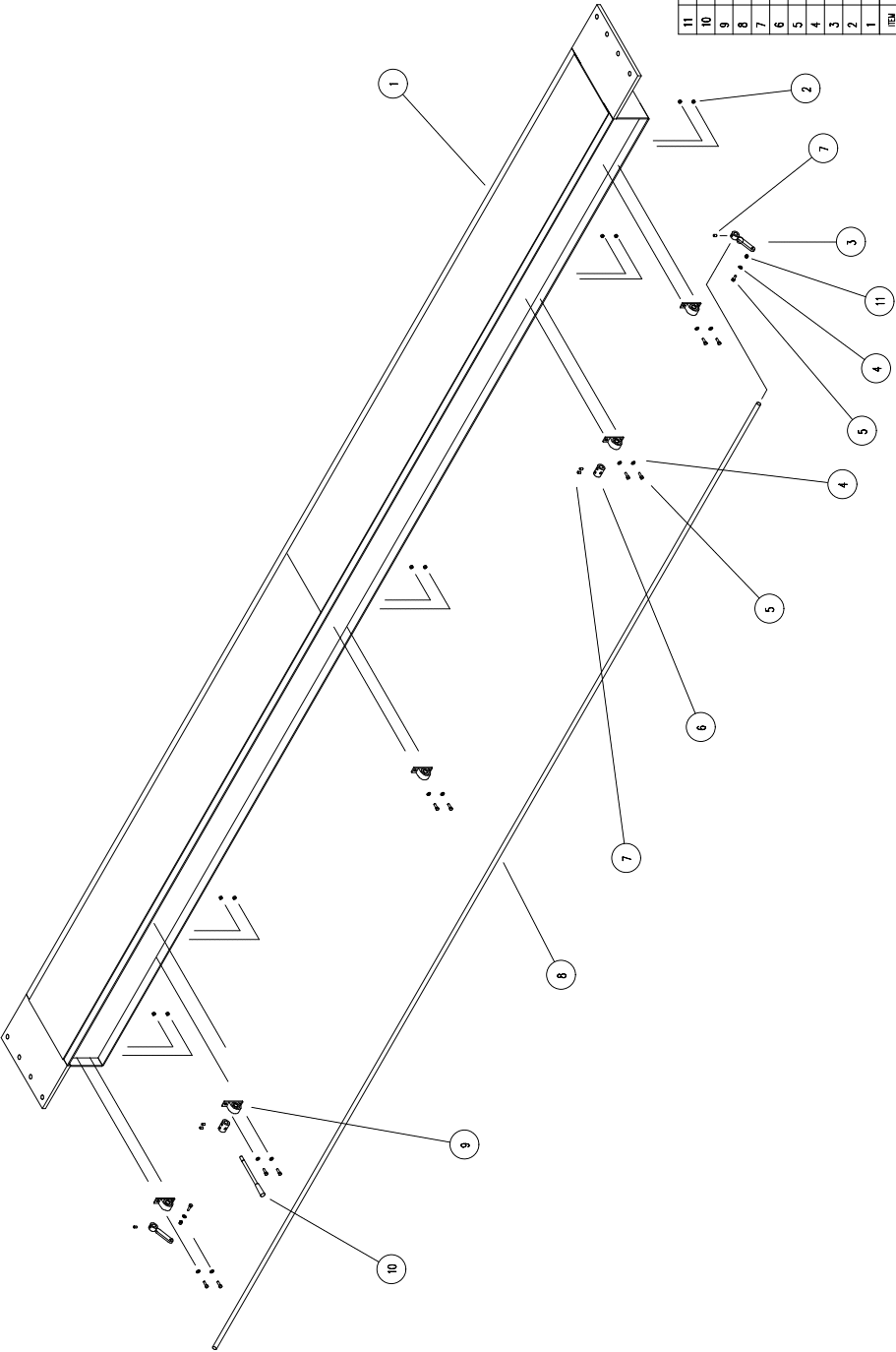


ITEM	PART NUMBER	DESCRIPTION	QTY
11	601-000-018	O-RING	1
10	601-310-005	BREATHER CAP	1
9	601-410-048	VELOCITY FUSE, 8 GPM	1
8	005-002-003	CYLINDER ASSEMBLY	1
7	601-400-017	ELBOW, 90°, 1/4" ODS TO #6 IJC	2
6	005-002-053	HOSE ASSEMBLY, 3/8" ID x 168" LG	1
5	601-400-007	ELBOW, 90°, 3/8" MALE PRT TO #6 IJC	1
4	601-410-003	FLOW CONTROL VALVE, 2.75 GPM	1
3	005-002-052	HOSE ASSEMBLY, 1/4" ID x 168" LG	1
2	601-400-014	ELBOW, 90°, 1/4" MALE PRT TO #6 IJC	1
1	601-300-024	POWER UNIT, 2 HP, 230 V	1

HYDRAULIC SYSTEM

FILE: MAN901
DATE: 9/95

MAN903

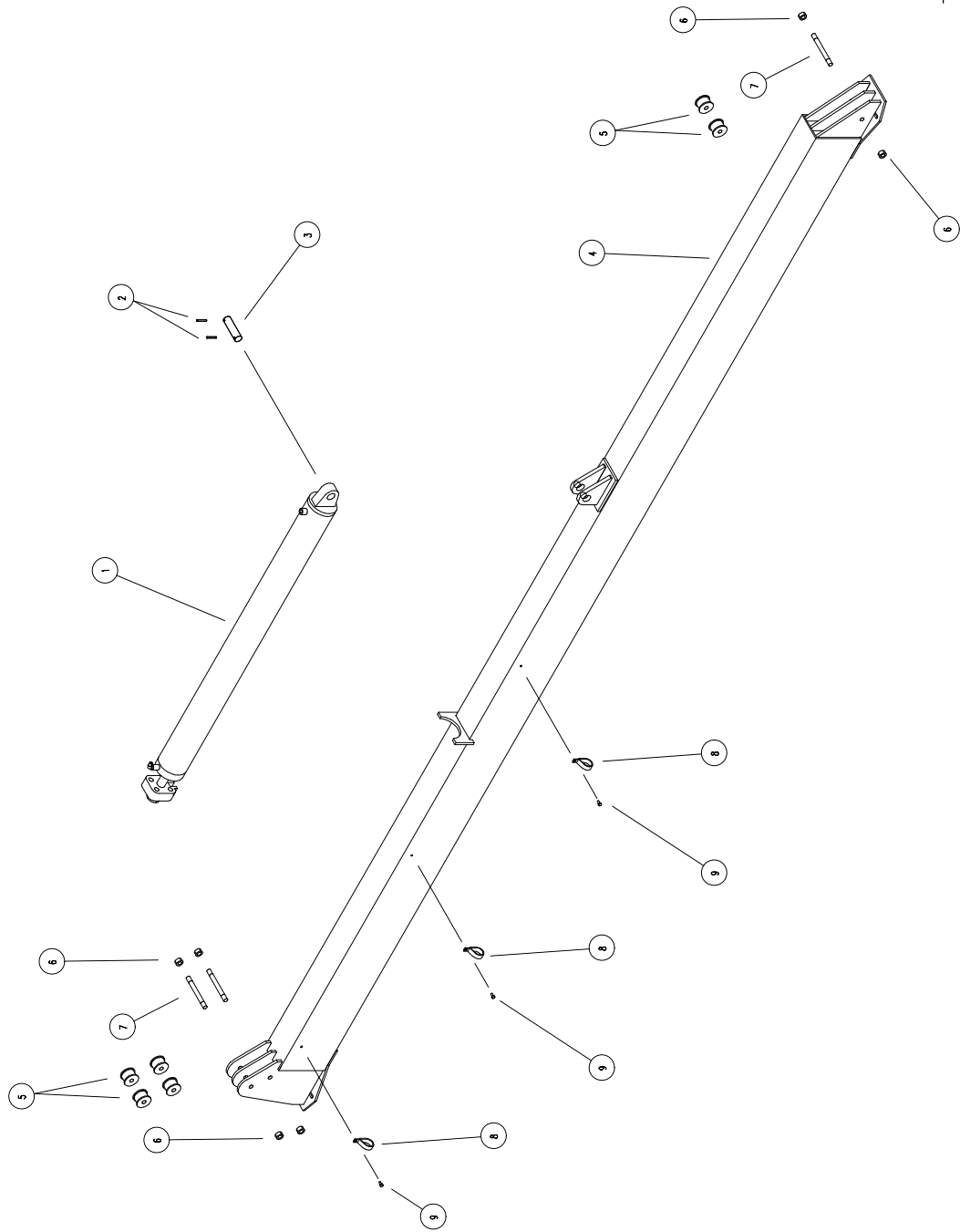


ITEM	PART NUMBER	DESCRIPTION	QTY
11	601-400-003	SLEEVE, 3/8" TUBE	2
10	025-002-067	LOCK RELEASE HANDLE ASSEMBLY	1
9	600-900-008	PILLOW BLOCK	5
8	025-002-139	ROD, 3/4" DIA x 239 5/8" LG	1
7	600-630-001	SCREW, SET, SOCKET, 3/8"-16 NC x 1 1/2"	6
6	025-002-141	SLEEVE, HANDLE, 1 3/8" OD x 3/4" ID x 2" LG	2
5	600-640-001	BOLT, 5/16"-18 NC x 1" LG, HEX HEAD CAP	12
4	600-710-003	WASHER, FLAT, 5/16"	12
3	025-002-068	RELEASE ARM WELDMENT	2
2	601-690-001	NUT, LOCK, 5/16"-18 NC	10
1	025-003-014	TRACK WELDMENT	1

TR-25A MAINSIDE TRACK ASSEMBLY
(025-003-025)

FILE: MAN903
DATE: 5/96

MAN904



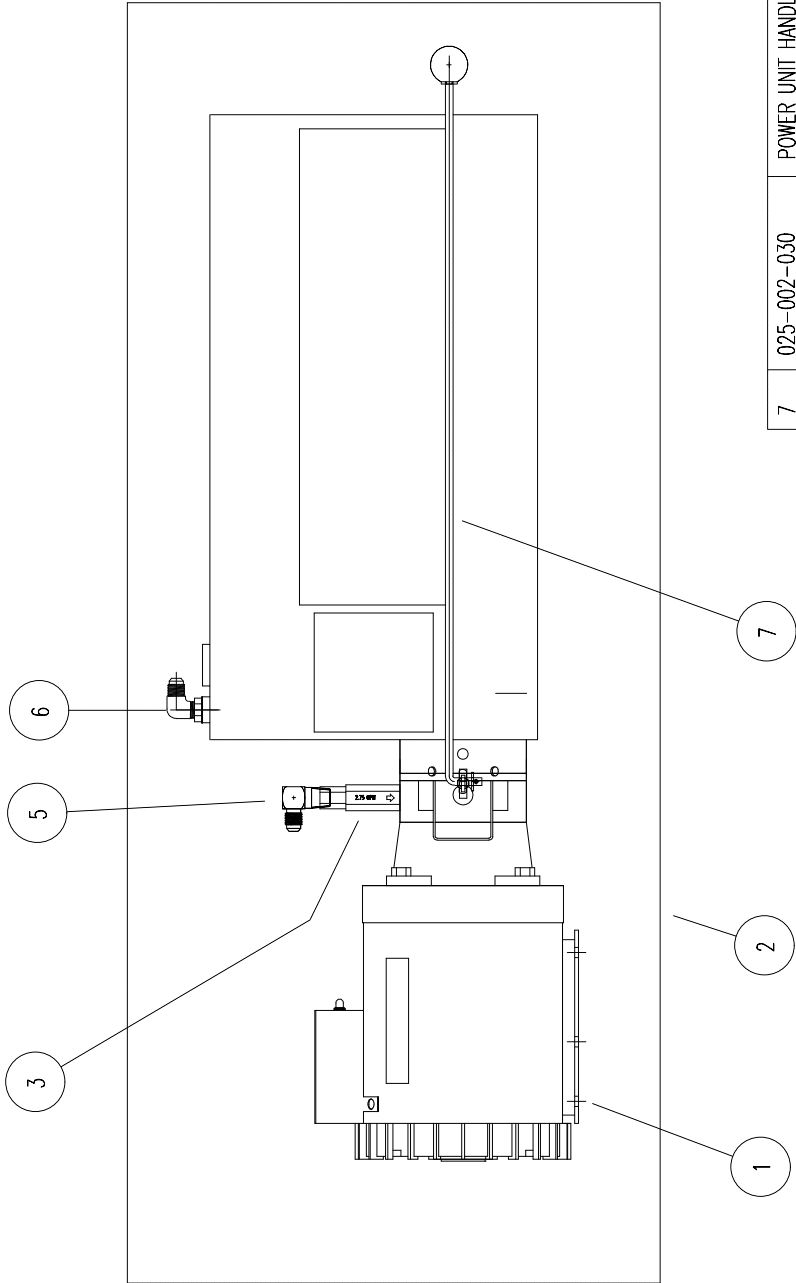
ITEM	PART NUMBER	DESCRIPTION	QTY
9	600-800-004	SCREW, 5/16-24 NF x 5/8, SELF-IMP, HEX HEAD	3
8	601-140-022	CLAMP, SUPPORT	3
7	025-002-135	PNL BEARING, 3/4 DIA x 7 1/2 LG	3
6	600-800-003	NUT, LOCK, 3/4-16 NF	6
5	600-860-005	BEARING, FLANGE	6
4	025-002-005	TOP RAIL WELDING KIT	1
3	025-002-133	PNL PIN, 1 3/8 DIA x 5" LG	1
2	600-910-002	ROLL PNL, 1/4 DIA x 2" LG	2
1	MAN904	TR-25A TOP RAIL ASSEMBLY	1

TR-25A TOP RAIL ASSEMBLY
(025-002-011)

FILE: MAN904
DATE: 5/96

MAN906

REV B 4/02



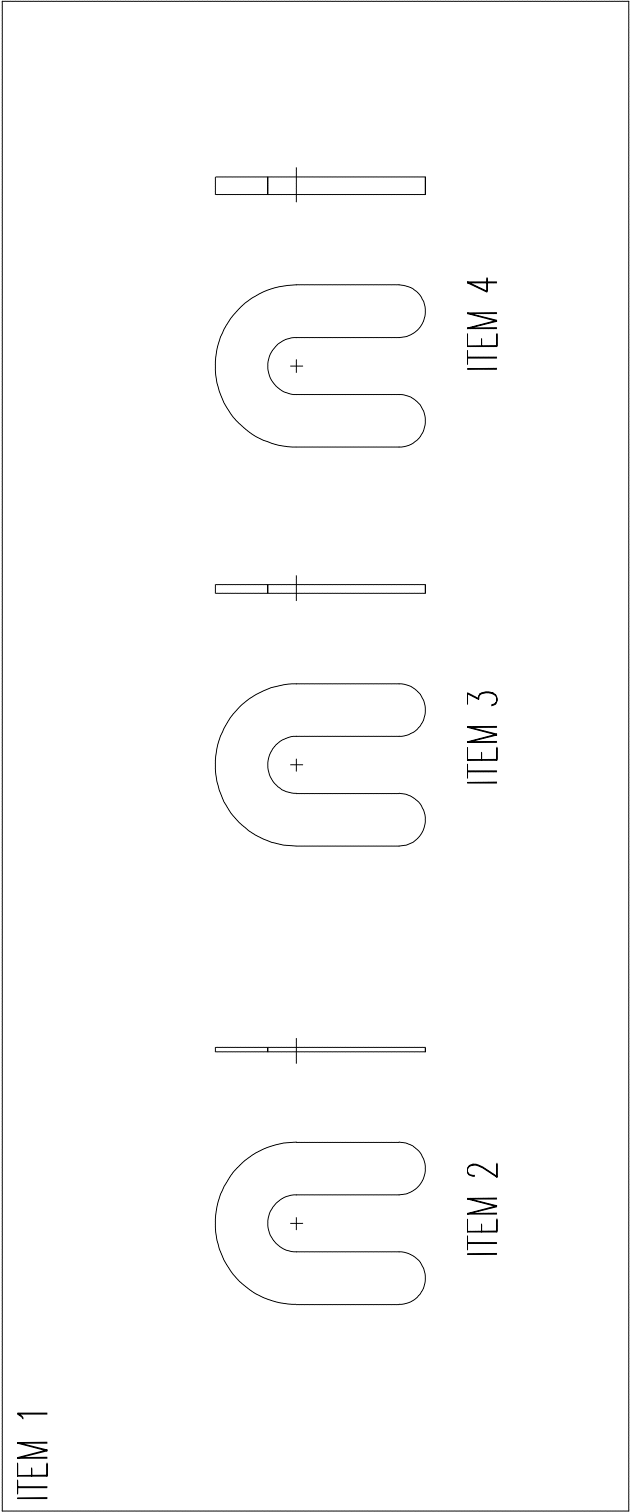
NOT SHOWN

ITEM	PART NUMBER	DESCRIPTION	QTY
7	025-002-030	POWER UNIT HANDLE ASSEMBLY	1
6	601-420-017	ELBOW, 90, #6 ORB TO #6 JIC	1
5	601-420-007	ELBOW, 90, 3/8 MALE PIPE TO #6 JIC	1
4	601-610-002	THREAD SEALING COMPOUND (TUBE)	1
3	601-410-003	FLOW CONTROL VALVE, 2.75 GPM	1
2	601-600-023	CARTON	1
1	601-300-024	POWER UNIT, 2 HP, SINGLE PHASE	1

FILE: MAN906
DATE: 5/96

PARTS BOX #1 & CONTENTS
(025-002-025)

MAN908

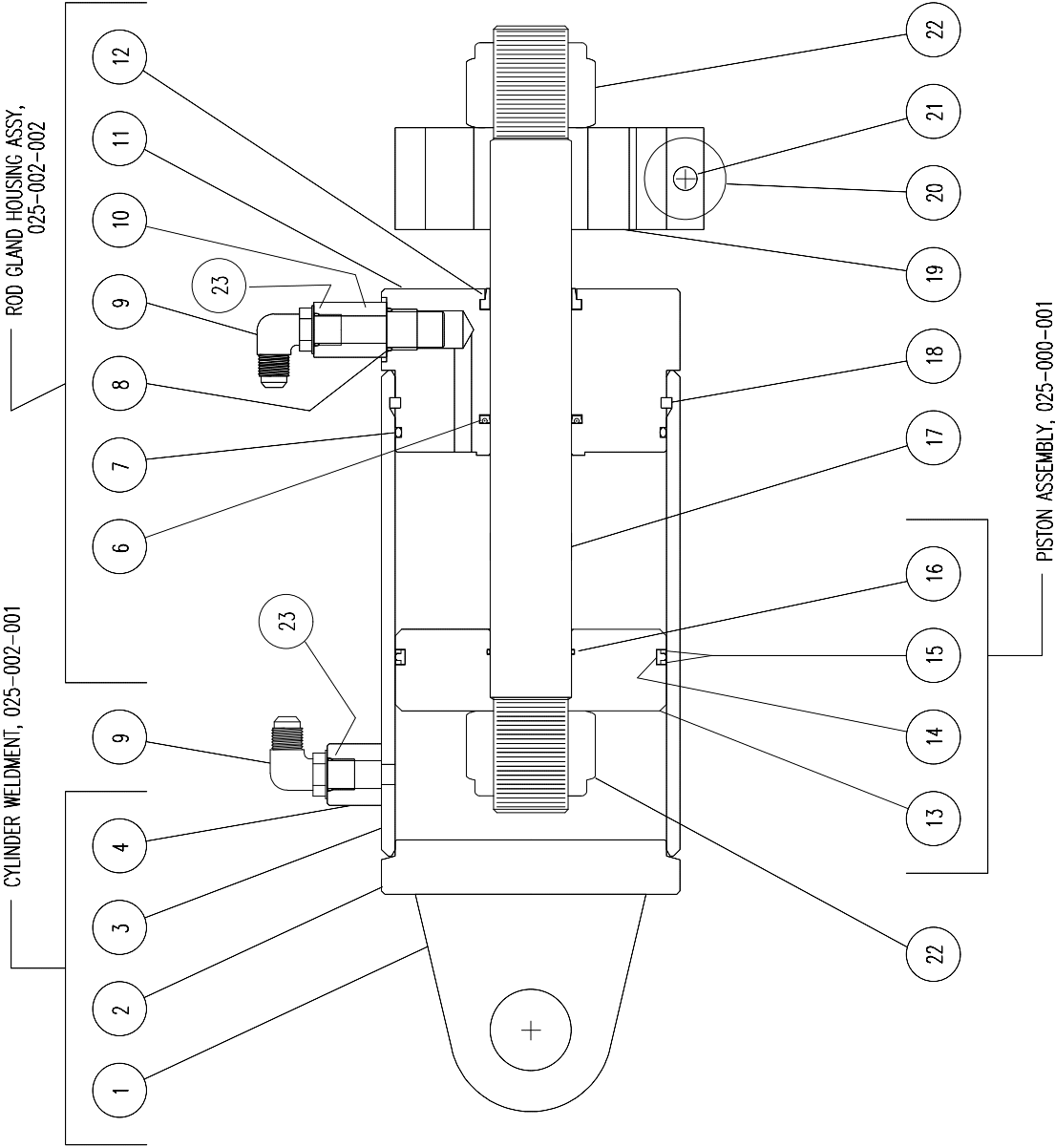


4	600-740-003	SHIM, HORSESHOE, 1/4" THK	16
3	600-740-002	SHIM, HORSESHOE, 1/8" THK	16
2	600-740-001	SHIM, HORSESHOE, 1/16" THK	16
1	601-600-022	PARTS BAG, 9" x 12"	1
ITEM	PART NUMBER	DESCRIPTION	QTY

FILE: MAN908
DATE: 5/96

BAG #1/ SHIMS
(025-002-050)

MAN910



ITEM	PART NUMBER	DESCRIPTION	QTY
1	025-000-121	CYLINDER LUG	1
2	025-000-105	END CAP	1
3	025-000-103	BARREL	1
4	025-000-122	HALF COUPLING	1
5			
6	601-040-002	POLYPAK	1
7	601-030-007	O-RING	1
8	601-030-018	O-RING	REF
9	601-420-017	FITTING, 90 ELBOW	2
10	601-410-048	VELOCITY FUSE -8	1
11	025-002-101	ROD GLAND	1
12	601-020-004	ROD WIPER	1
13	025-000-101	PISTON	1
14	601-010-003	PISTON T-SEAL	1
15	601-060-012	BACK-UP RING	2
16	601-030-006	O-RING	1
17	025-002-102	ROD	1
18	025-002-133	SPIN KEY	1
19	025-000-135	CHAIN BLOCK	1
20	600-860-002	CAM ROLLER	1
21	600-910-001	ROLL PIN	1
22	600-690-008	NUT, NYLON LOCK	2
23	601-030-017	O-RING	REF

REV-A 4/01

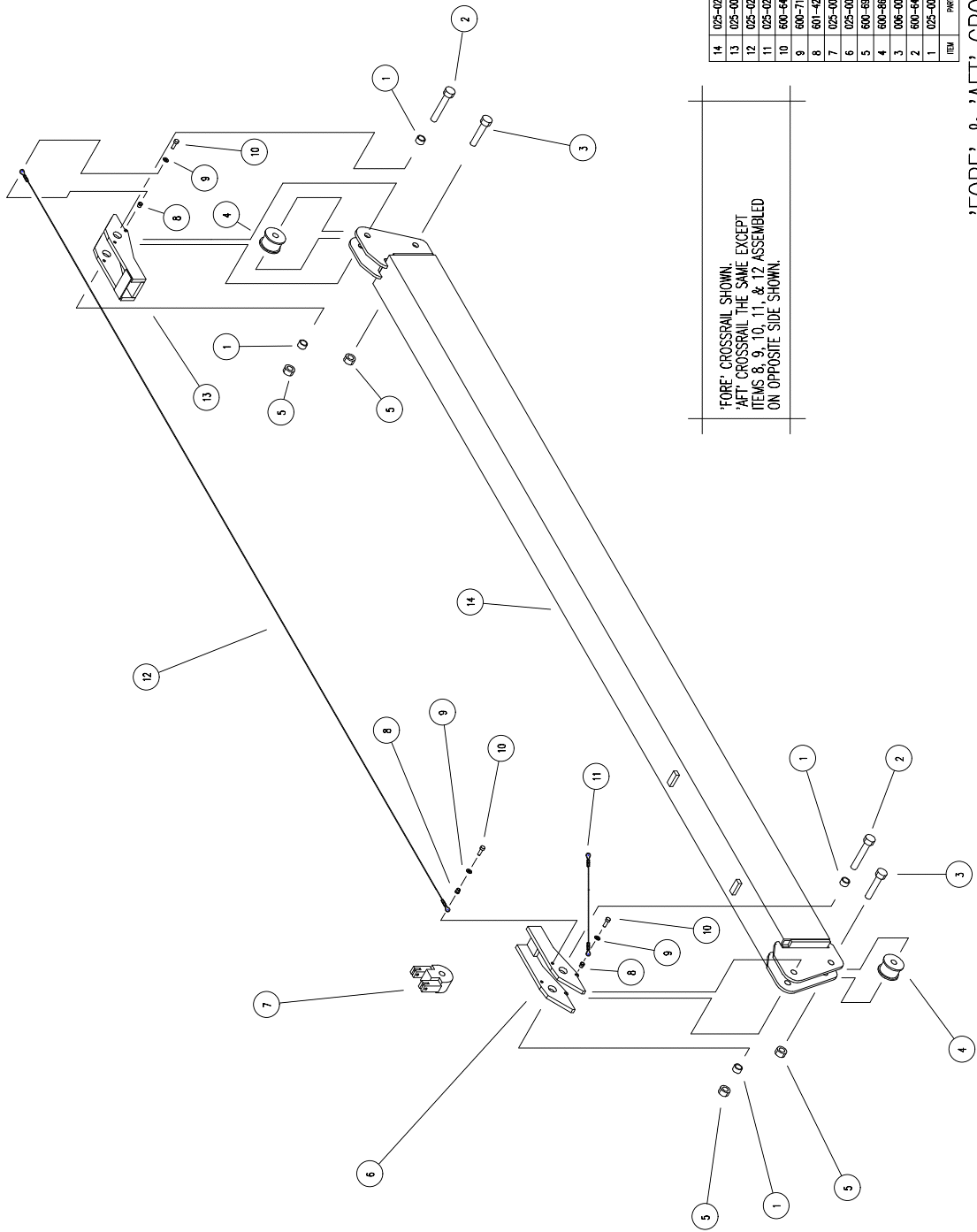
CYLINDER ASSEMBLY
(025-002-003)

ROD GLAND WITH POLYPAK

PISTON ASSEMBLY, 025-000-001

FILE: MAN910
DATE 8/96

MAN922

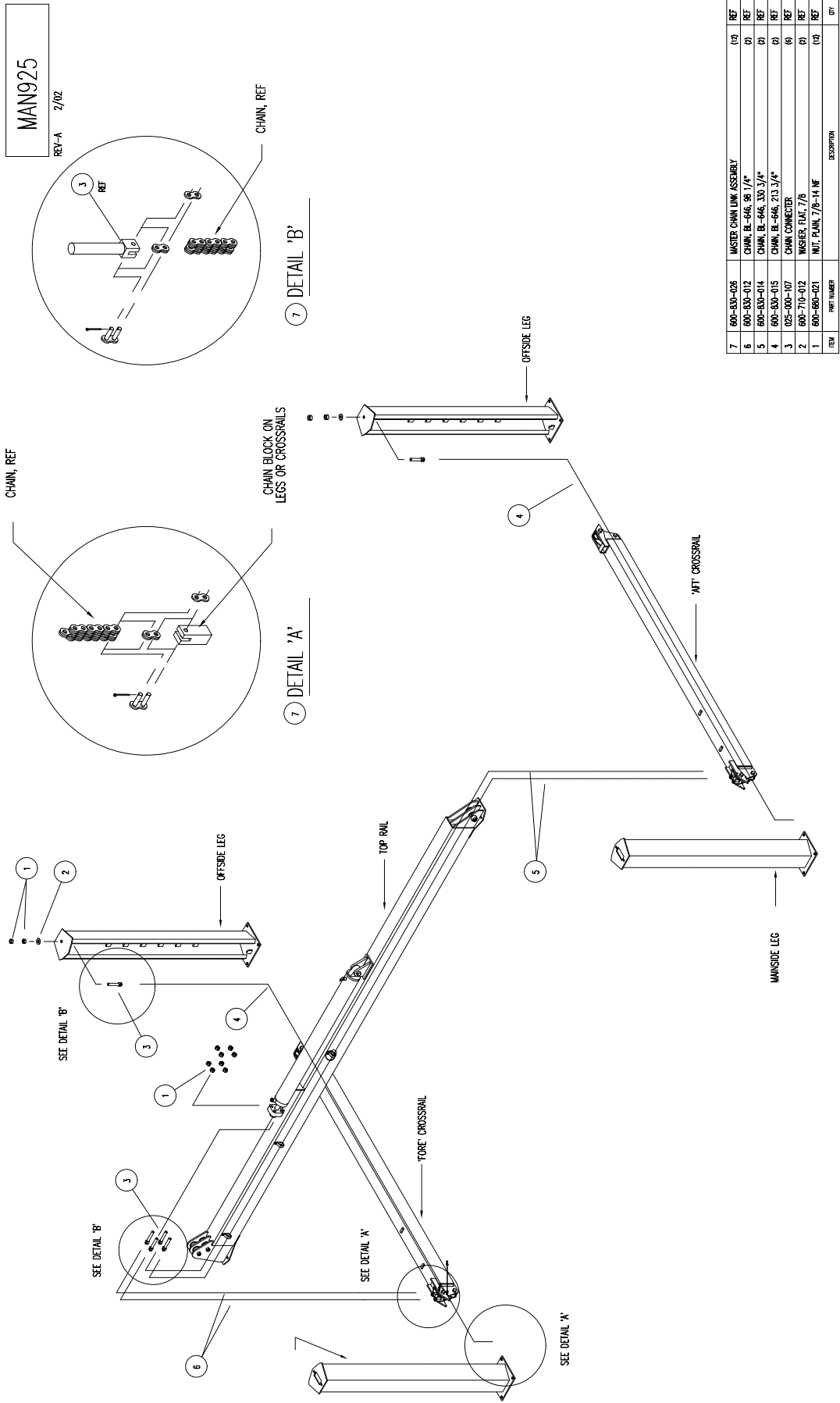


'FORE' CROSSRAIL SHOWN.
'AFT' CROSSRAIL THE SAME EXCEPT
ITEMS 8, 9, 10, 11, & 12 ASSEMBLED
ON OPPOSITE SIDE SHOWN.

ITEM	PART NUMBER	DESCRIPTION	QTY
14	025-020-010	CROSSRAIL WELDMENT	1
13	025-002-018	LOCKING BAR WELDMENT	1
12	025-020-015	SAFETY RELEASE CABLE ASSEMBLY, 138 1/2"	1
11	025-020-014	SAFETY RELEASE CABLE ASSEMBLY, 19 1/2"	1
10	600-640-001	BOLT, 5/16-18 NC x 1" LG, HEX HEAD CAP	3
9	600-710-003	WASHER, FLAT, 5/16	3
8	601-400-003	SLEEVE, 3/8 TUBE	3
7	025-000-018	CHAIN BLOCK WELDMENT	1
6	025-001-004	LOCKING BAR WELDMENT (MANSIDE)	1
5	600-680-002	NUT, INTCON, LOCK, 3/4-16 NF	4
4	600-680-005	FLANGE BEARING	2
3	006-000-138	BOLT, 3/4-16 NF x 3 3/4 LG, HEX HEAD CAP	2
2	600-640-009	BOLT, 3/4-16 NF x 4 1/2 LG, HEX HEAD CAP	2
1	025-000-137	LOCKING ARM SPACER	4

'FORE' & 'AFT' CROSSRAIL ASSEMBLY

FILE: MAN922
DATE: 7/97

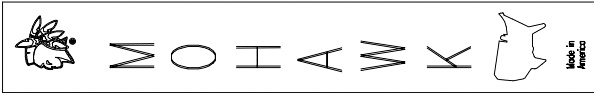
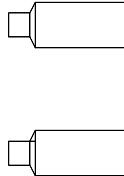
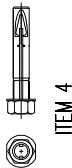
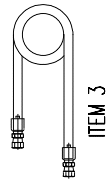
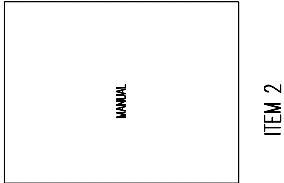
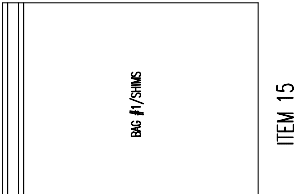
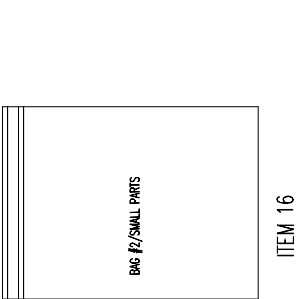


CHAIN ROUTING

FILE: MAN925
DATE: 7/97

MAN927

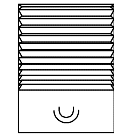
REV-D 5/02



ITEM 10



ITEM 11



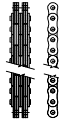
ITEM 12



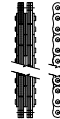
ITEM 13



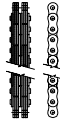
ITEM 14



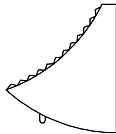
ITEM 17



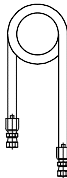
ITEM 18



ITEM 19



ITEM 20



ITEM 21



ITEM 22

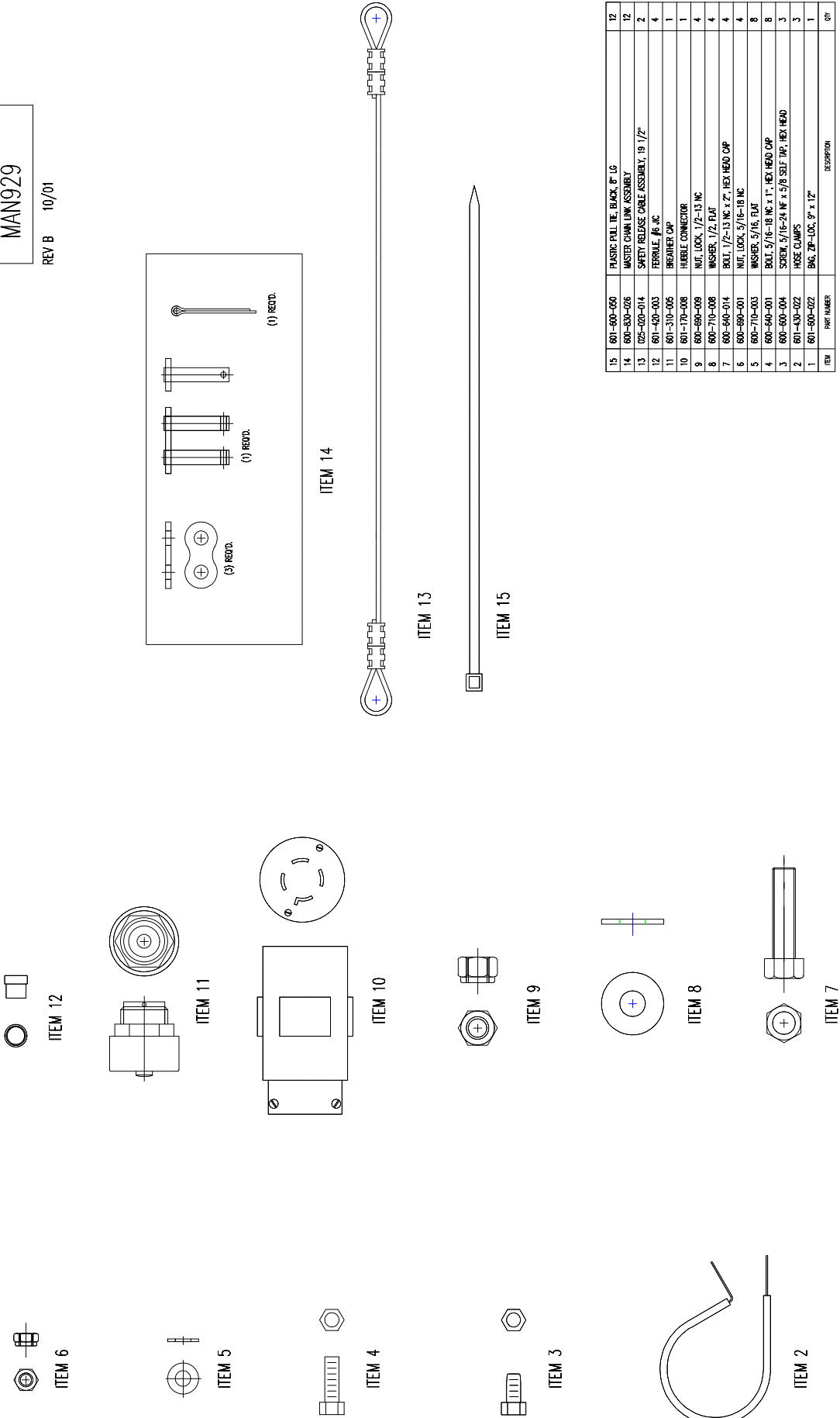
22	025-002-067	LOCK RELEASE HANDLE	1
21	025-002-063	HOSE ASSEMBLY, 3/8" ID	1
20	600-530-001	WHEEL CHOCKS	4
19	600-530-012	CHAIN, BL-546, 98 1/4"	2
18	600-530-015	CHAIN, BL-546, 213 3/4"	2
17	600-530-014	CHAIN, BL-546, 130 3/4"	2
16	025-002-017	BAG #2/SMALL PARTS	1
15	025-002-030	BAG #1/SHIMS	1
14	601-800-030	DECAL, MADE IN AMERICA	4
13	601-800-046	DECAL, CAPACITY, (25000)	2
12	601-800-034	DECAL, WARNING	1
11	601-800-035	DECAL, CAUTION	1
10	601-800-061	DECAL, MOHAWK	4
9	601-530-002	PAINT, SPRAY, YELLOW	2
8	601-530-001	PAINT, SPRAY, RED	2
7	600-580-021	NUT, FLANK, 7/8-14 NF	12
6	600-710-012	WASHER, FLAT, 7/8" ID	2
5	025-002-107	CHAIN CONNECTOR	6
4	600-670-002	ANCHOR BOLT, WCF-IT, 3/4 x 5"	16
3	025-002-062	HOSE ASSEMBLY, 1/4" ID	1
2	025-002-000	TR-25A MANUAL ASSEMBLY	1
1	601-800-023	BOX, CORRUGATED	1
ITEM	PART NUMBER	DESCRIPTION	QTY

PARTS BOX #2 & CONTENTS

FILE: MAN927
DATE: 7/97

MAN929

REV B 10/01



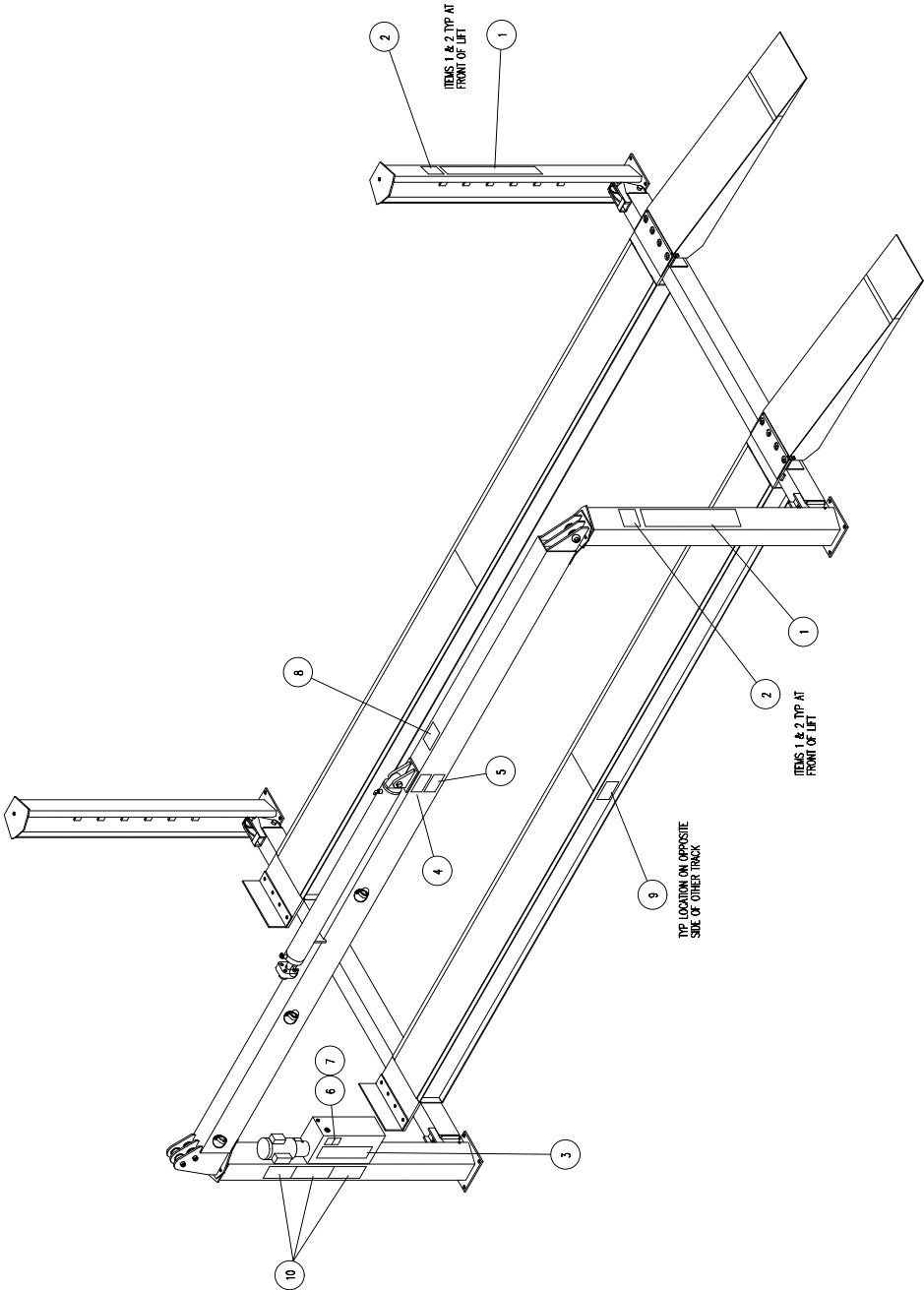
ITEM	PART NUMBER	DESCRIPTION	QTY
15	601-600-060	PLASTIC FULL TIE, BLACK, 8' LG	12
14	600-600-006	MASTER CHAIN LINK ASSEMBLY	12
13	005-000-014	SAFETY RELEASE CABLE ASSEMBLY, 19 1/2"	2
12	601-600-003	FERRULE, #6, JC	4
11	601-310-005	BREATHING CAP	1
10	601-170-008	HUBBLE CONNECTOR	1
9	600-600-009	NUT, LOCK, 1/2-13 NC	4
8	600-710-008	WASHER, 1/2, FLAT	4
7	600-640-014	BOLT, 1/2-13 NC x 2", HEX HEAD CAP	4
6	600-600-001	NUT, LOCK, 5/16-18 NC	4
5	600-710-003	WASHER, 5/16, FLAT	8
4	600-640-001	BOLT, 5/16-18 NC x 1", HEX HEAD CAP	8
3	600-600-004	SCREW, 5/16-24 NF x 5/8 SELF TAP, HEX HEAD	3
2	601-430-022	HOSE CLAMPS	3
1	601-600-022	BAG, ZIP-LOC, 9" x 12"	1

BAG#2 & CONTENTS

FILE: MAN929
DATE: 7/97

MAN930

REV-A 10/99



ITEM	PART NUMBER	DESCRIPTION	QTY
10	601-800-052	DECALS, CAUTION, WARNING, SAFETY	1
9	601-800-045	DECAL, CAPACITY 25000 LBS	2
8	601-800-070	PACKAGE, WARRANTY REGISTRATION CARD	1
7	601-800-034	DECAL, WARNING, TRAINED OPERATORS ONLY	1
6	601-800-035	DECAL, CAUTION, LOWER ONTO SAFETIES	1
5	601-800-037	TAG, AMERICAN LIFT INSTITUTE	1
4	601-800-026	PLATE, PATENT, SERIAL, SPEC	1
3	601-800-001	DECAL, OPERATION INSTRUCTIONS	1
2	601-800-030	DECAL, MADE IN AMERICA	4
1	601-800-061	DECAL, MOHAWK	4

TAG & DECAL LOCATIONS

FILE: MAN930
DATE: 9/97

MOHAWK

NEW SLAB RECOMMENDATIONS



MOHAWK RESOURCES LTD.

65 VROOMAN AVE.

AMSTERDAM, NY 12010

TOLL FREE : 1-800-833-2006

LOCAL : 1-518-842-1431

FAX : 1-518-842-1289

INTERNET: www.MOHAWKLIFTS.com

E-MAIN: Service@MOHAWKLIFTS.com

New Slab Recommendations:

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

Basic Concrete Requirements:

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

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

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

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

Never, Never, hand mix your own concrete.

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

New Slab Recommendations

File: New-slab.xls

Rev Date: 10/12/01

NEW SLABS MUST BE 12" THICK MINIMUM !!

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

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

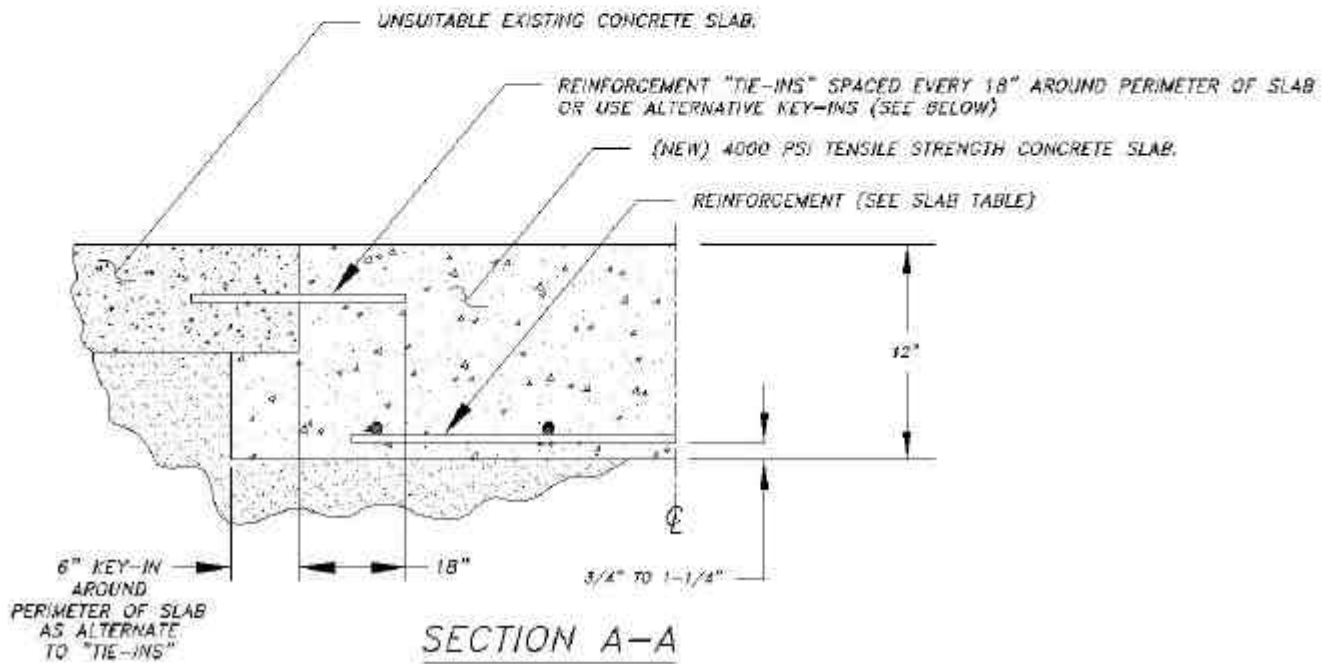
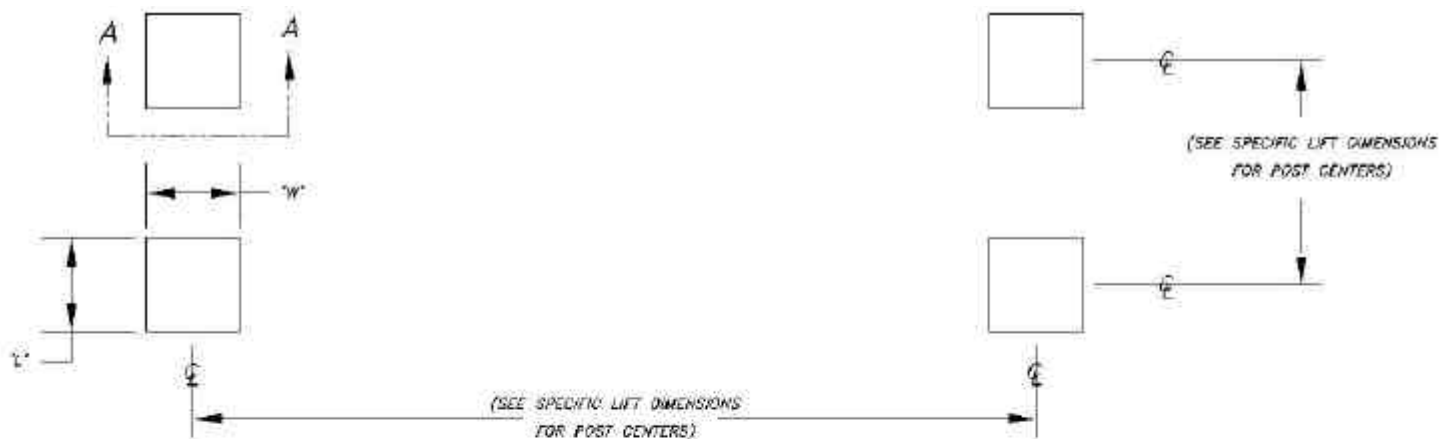
** See Subframe Installation Instructions

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

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

NEW RECOMMENDED SLAB DESIGN FOR 4-POST LIFTS

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



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