# MOHAWK

MADE IN THE USA

# MODEL TR-25A, FL-25,TR-19

# 25,000/19,000 LB. CAPACITY FOUR POST TRUCK LIFTS 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 LIFTS, LLC.

MOHAWK INDUSTRIAL PARK 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: TECHSUPPORT@MOHAWKLIFTS.COM

FILE: FL25 TR25 TR19 SERIES 12-1-2015.doc

REVISION DATE: 12-1-2015

P/N: 601-800-358





### **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 Lifts, LLC.

65 Vrooman Ave.

P.O. Box 110

Amsterdam, NY 12010

Toll Free: 1-800-833-2006

Local: 1-518-842-1431 Fax: 1-518-842-1289

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

#### MOHAWK MODEL TR-25A, FL-25, TR-19

#### MOHAWK WARRANTIES EFFECTIVE DATE: 12/1/2015\* READ THIS WARRANTY IN ITS ENTIRETY

#### **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 BY CUSTOMER WITH AUTHORIZED RETURN (RGA), WHICH PROVE UPON INSPECTION TO BE DEFECTIVE AND WHICH HAVE NOT BEEN MISUSED. DAMAGE OR FAILURE TO ANY PART DUE TO FREIGHT DAMAGE OR LACK OF REQUIRED REGULAR DOCUMENTED MAINTENANCE IS NOT COVERED UNDER THIS WARRANTY. ALL WARRANTY CLAIMS MUST BE PERFORMED IN ACCORDANCE TO MOHAWK'S WARRANTY PARTS RETURN POLICY (CONTACT MOHAWK'S SERVICE DEPARTMENT FOR MORE INFORMATION).

THIS WARRANTY DOES NOT COVER MIS-DIAGNOSING OF UNIT OR PARTS RETURNED THAT ARE NON-DEFECTIVE. 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 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. MOHAWK RESERVES THE RIGHT TO DECLINE RESPONSIBILITY WHEN REPAIRS OR MODIFICATIONS HAVE BEEN MADE OR ATTEMPTED BY OTHERS WITHOUT WRITTEN AUTHORIZATION FROM Mohawk Lifts, LLC.. THIS WARRANTY DOES NOT COVER LABOR OR TRANSPORTATION. THIS WARRANTY DOES NOT COVER DOWNTIME EXPENSES INCURRED WHEN UNIT IS IN REPAIR. THE LIFT MUST BE REGISTERED WITHIN 30 DAYS OF INSTALLATION BY MAILING SUPPLIED WARRANTY REGISTRATION CARD TO MOHAWK AND MUST BE SIGNED BY A LICENSED ELECTRICIAN. THE MODEL NUMBER AND SERIAL NUMBER OF THE EQUIPMENT MUST BE FURNISHED WITH ALL WARRANTY CLAIMS. THIS WARRANTY STATEMENT CONTAINS THE ENTIRE AGREEMENT BETWEEN Mohawk Lifts, LLC. AND THE PURCHASER UNLESS OTHERWISE SPECIFICALLY EXPRESSED IN WRITING. THIS NON-TRANSFERABLE WARRANTY APPLIES TO THE ORIGINAL PURCHASER ONLY.

THIS WARRANTY DOES NOT COVER NORMAL SURFACE WEAR ITEMS, ITEMS SUBJECT TO ABRASION, OR ITEMS USED IN A CORROSIVE ENVIRONMENT. SOME ITEMS ON LIFT ARE SUBJECT TO NORMAL "WEAR AND TEAR" AND ARE NOT COVERED UNDER THIS WARRANTY.

#### STRUCTURAL AND MECHANICAL COMPONENTS (ALL LIFTS):

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

25-YEARS STRUCTURAL / 10 YEARS MECHANICAL: TWO-POST MODELS A-7, SYSTEM IA-10, LC-12, LMF-12, TP-16, TP-18, TP-20, TP-26, TP-30. STRUCTURAL ITEMS COVERED INCLUDE LEG, CARRIAGE, SWING ARM AND SLIDER WELDMENTS (EXCLUDING NORMAL WEAR AREAS AS STATED ABOVE). MECHANICAL ITEMS COVERED INCLUDE ROLLER BEARINGS AND LIFTING CHAIN.

5-YEAR: MODELS TL-7.

3-YEAR: MODELS TR-19, TR-25, FL-25, TR-30, TR-33, TR-35, TR-50, TR-75, TR-110, TR-120, MP-SERIES LIFTS.

2-YEAR: MODELS PARALLELOGRAM SERIES LIFTS.

1-YEAR: MODELS TD-1000, TD-2000, CT-1000, USL-6000.

#### **POWER UNIT (ALL LIFTS):**

ALL POWER UNIT COMPONENTS (MOTOR, PUMP AND RESERVOIR) ARE GUARANTEED FOR TWO YEARS FOR PARTS, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED, WIRED BY A LICENSED ELECTRICIAN AND USED ACCORDING TO SPECIFICATIONS.

#### **ELECTRICAL COMPONENTS (ALL LIFTS):**

ALL ELECTRICAL COMPONENTS (EXCLUDING MOTOR) ARE GUARANTEED FOR ONE YEAR FOR PARTS, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS. SEE WARRANTY EXCEPTIONS SECTION FOR BATTERIES.

#### PNEUMATIC-AIR COMPONENTS (ALL LIFTS):

ALL PNEUMATIC (AIR) COMPONENTS (I.E. AIR CYLINDERS AND POPPET AIR VALVES) ARE GUARANTEED FOR ONE YEAR FOR PARTS, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS. COMPONENTS IN A PNEUMATIC SYSTEM THAT ARE NOT PROPERLY REGULATED, LUBRICATED AND CONDITIONED WITH AN AIR DRYING SYSTEM ARE NOT COVERED UNDER WARRANTY.

#### **HYDRAULIC COMPONENTS (ALL LIFTS):**

EXCLUDING CYLINDERS AND PUMPS (COVERED IN OTHER SECTIONS), ALL HYDRAULIC COMPONENTS (I.E. VALVES AND FITTINGS) ARE GUARANTEED FOR ONE YEAR FOR PARTS, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

#### **HYDRAULIC CYLINDERS (MODEL SPECIFIC LIFTS):**

THE FOLLOWING MODELS ARE GUARANTEED FOR 5 YEARS (PARTS ONLY), FROM DATE OF SHIPMENT FROM FACTORY, FOR HYDRAULIC CYLINDERS, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS: TWO-POST MODELS A-7, SYSTEM IA-10, LC-12, LMF-12, TP-16, TP-18, TP-20, TP-26, TP-30.

ALL OTHER MODELS ARE GUARANTEED FOR TWO YEARS (PARTS ONLY), FROM THE DATE OF SHIPMENT FROM FACTORY, FOR HYDRAULIC CYLINDERS, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN THE LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS (EXCLUDING USL-6000, WHICH IS ONE YEAR).

THE "EXTENDED LIFETIME CYLINDER SEAL WARRANTY" (BELOW) IS APPLICABLE TO THE FOLLOWING MOHAWK LIFTS ONLY: TWO-POST MODELS A-7, SYSTEM IA-10, LC-12, LMF-12, TP-16, TP-18, TP-20, TP-26, TP-30. SEE MOHAWK'S "EXTENDED LIFETIME CYLINDER SEAL WARRANTY" FOR SPECIFIC WARRANTY PROVISIONS FOR HYDRAULIC CYLINDERS.

#### THE "EXTENDED LIFETIME CYLINDER SEAL WARRANTY" IS AS FOLLOWS:

AS THE ORIGINAL PURCHASER OF A MOHAWK LIFT MANUFACTURED BY Mohawk Lifts, LLC. YOU ARE ENTITLED TO AN EXTENDED CYLINDER SEAL WARRANTY.

MOHAWK'S OBLIGATION UNDER THIS WARRANTY IS LIMITED TO SUPPLYING MODEL SPECIFIC CYLINDER SEALS. THE CUSTOMER IS RESPONSIBLE FOR SHIPPING AND HANDLING OF THE SEALS. MOHAWK IS NOT RESPONSIBLE/LIABLE FOR THE REBUILD OF CYLINDERS BY OTHERS. THIS WARRANTY IS NON-TRANSFERABLE AND RUNS TO THE ORIGINAL PURCHASER ONLY.

#### STANDARD OPTIONS (ALL LIFTS):

ALL STANDARD OPTIONS OF THIS UNIT ARE GUARANTEED FOR ONE YEAR FOR PARTS, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

#### **CUSTOM LIFTS AND CUSTOM OPTIONS:**

ALL "CUSTOM" LIFTS AND/OR "CUSTOM" OPTIONS ARE GUARANTEED FOR ONE YEAR FOR PARTS, FROM THE DATE OF SHIPMENT FROM FACTORY, AGAINST DEFECTS IN WORKMANSHIP AND/OR MATERIALS WHEN LIFT IS INSTALLED AND USED ACCORDING TO SPECIFICATIONS.

#### **WARRANTY EXCEPTIONS (ALL LIFTS):**

**ADJUSTMENTS:** THIS WARRANTY DOES NOT COVER CASUAL AND ROUTINE ADJUSTMENTS SUCH AS, BUT NOT LIMITED TO: FITTINGS, SENSORS AND SWITCHES, ANCHOR BOLT RE-TIGHTENING, OR ANY SHIMMING OR ADJUSTMENTS REQUIRED DURING A PROPER AND PROFESSIONAL INSTALLATION BY A QUALIFIED INSTALLER.

MAINTENANCE AND INSPECTIONS: IF THIS UNIT IS NOT MAINTAINED AND INSPECTED IN ACCORDANCE TO THE RELEVANT SECTIONS IN THE USERS MANUAL FOR THIS SPECIFIC MODEL, WARRANTY IS VOID. OSHA, ANSI AND MOHAWK REQUIRE THAT RECORDS MUST BE MAINTAINED TO PROVE THAT INSPECTIONS AND MAINTENANCE OF THIS UNIT HAVE BEEN ROUTINELY PERFORMED BY QUALIFIED INDIVIDUALS.

**ABUSE:** IF THIS UNIT IS FOUND TO BE OVERLOADED (PURPOSELY OR UNKNOWINGLY), USED IN A SITUATION BEYOND ITS INTENDED FUNCTION, NOT MAINTAINED & INSPECTED REGULARLY, USED IN AN ABUSIVE ENVIRONMENT OR BEYOND NORMAL SHOP USAGE, THIS WARRANTY IS VOID IN ITS ENTIRETY.

**NON-EXISTENT PROBLEMS:** FOR SERVICE VISITS, PART REPLACEMENTS, LABOR, ETC. FOR PARTS FOUND TO BE NON-DEFECTIVE, OR FOR A UNIT DIS-FUNCTION THAT DOES NOT EXIST, IT IS THE LIFT OWNER THAT REQUESTED THE SERVICE VISIT WHO BEARS THE RESPONSIBILITY OF ALL RELATED EXPENSES.

**BATTERIES:** ALL BATTERIES CARRY THE BATTERY MANUFACTURER'S WARRANTY. MAINTENANCE REQUIREMENTS AND ABUSE PROVISIONS ARE AS STATED BY THE BATTERY MANUFACTURER. REFER TO BATTERY MANUFACTURER'S WARRANTY.

**SPECIAL/MODIFIED INSTALLATIONS:** THIS WARRANTY DOES NOT COVER "NON-TRADITIONAL" INSTALLATIONS. INSTALLATIONS ARE TO BE DONE ACCORDING TO SPECIFICATIONS, OR THE WARRANTY IS VOID.

WEARABLE COMPONENTS: SOME ITEMS ON LIFTS ARE SUBJECT TO NORMAL "WEAR AND TEAR" AND ARE NOT COVERED UNDER THIS WARRANTY.

NON-VEHICLE / RE-PURPOSED LIFTS: THIS WARRANTY DOES NOT COVER LIFTS THAT ARE "RE-PURPOSED" TO RAISE AND LOWER EQUIPMENT THAT ARE NOT CONSIDERED VEHICLES.

\* THIS WARRANTY SUPERSEDES ALL OTHER WARRANTY POLICIES PREVIOUSLY STATED AND IN ALL OTHER MOHAWK PRODUCT SPECIFIC LITERATURE (MANUALS, BROCHURES, ETC.).

Rev 12/1/2015

# **CONTENTS**

<u>TEXT</u>	<u>Page</u>
APPENDAGES SPECIFICATIONS PACKING LIST RECOMMENDED TOOL LIST BEFORE INSTALLING A LIFT / WEJ-IT INSTALLATION INSTALLATION INSTRUCTIONS SAFETY TIPS PRE - OPERATION CHECK LIST / LIFTING PROCEDURES MAINTENANCE PROCEDURES TROUBLE SHOOTING SERVICE CHART MAINTENANCE CHART	7 8 9-10 11 12 13-14 15 16 17 18
FIGURES & DIAGRAMS	<u>Figure</u>
FLOOR LAYOUT FLOOR SLOPE AND SHIMMING RESTRICTIONS BAY LAYOUT, STANDARD BAY LAYOUT, STANDARD WITH RACK EXTENSIONS TOP RAIL INSTALLATION CROSSRAIL INSTALLATION MAINSIDE TRACK INSTALLATION OFFSIDE TRACK INSTALLATION AIR LOCK RELEASE INSTALLATION CHAIN ASSEMBLY DIAGRAMS HYDRAULIC SYSTEM CONNECTIONS CHAIN/POST SHIMMING ANCHOR BOLT SPECS (SPADE TYPE) CHAIN INSPECTION/MAINTENANCE PROCEDURE	1 2 3 4 5 6 7 8 9 10 11 12 13
(TR-25, FL-25, TR-19 w/ 13' 20' ,25', 30' Tracks)	<u>Figure</u>
ISOMETRIC FINAL ASSEMBLY HYDRAULIC SYSTEM TOP RAIL ASSEMBLY CYLINDER ASSEMBLY CROSSRAIL ASSEMBLY, FORE CROSSRAIL ASSEMBLY, AFT CHAIN ROUTING	MAN920 MAN901 MAN904 MAN910 025-020-027 025-020-029 MAN906

#### **New Slab Recommendations**

PARTS BOX # 1 CONTENTS

PARTS BOX # 2 CONTENTS

PARTS BAG # 1 CONTENTS

PARTS BAG # 2 CONTENTS

PARTS BAG # 3 CONTENTS

TAG & DECAL LOCATIONS

End of Manual

MAN906

MAN950

MAN908

MAN930

025-020-030

025-012-083

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 Lifts, LLC. 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 Lifts, LLC. 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 M o h a w k L ifts, L L C. CERTAIN ALLOY OR HEAT-TREATED COMPONENTS MAY BE DISTORTED OR WEAKENED, RESULTING IN AN UNSAFE CONDITION.

Mohawk Lifts, LLC. 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.

#### **SPECIFICATIONS**

#### TR-25A, FL-25, TR-19 SPECIFICATIONS

LIFT TYPE / FOUR POST	ELECTRIC /
LIFT TIPE / FOUR POST	
A VERRY CO. C. A. D. A. CVETA	HYDRAULIC
LIFTING CAPACITY	25,000 LBS.
TR-25A & FL-25	
LIFTING CAPACITY	19,000 LBS
TR-19	
LIFTING SPEED APPROX.	120 SECONDS
LIFTING HEIGHT	69 - 5/16 INCHES
STROKE	60 INCHES
OVERALL LENGTH	232 - 5/8 INCHES
FL-25 (13' TRACKS)	
OVERALL LENGTH	316 – 5/8 INCHES
TR-25A & TR-19 (20' TRACKS)	
OVERALL LENGTH	376 – 5/8 UNCHES
TR-25A (25' TRACKS)	
OVERALL LENGTH	436 5/8 INCHES
TR-25A (30' TRACKS)	
OVERALL WIDTH	150 - 3/16 INCHES
OVERALL HEIGHT	101 - 1/2 INCHES
WIDTH BETWEEN POST	132 INCHES
TRACK WIDTH	24 INCHES
TRACK ADJUSTMENT	4 FT TO 8 FT.
SHIPPING WEIGHT (13'	4,725 LBS.
TRACK)	,
SHIPPING WEIGHT (20'	5516 LBS
TRACK)	
SHIPPING WEIGHT (25'	5914 LBS
TRACK)	
SHIPPING WEIGHT (30'	6903 LBS
TRACK)	
/	I .

#### 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	2400 P.S.I.
TR-19	
RELIEF VALVE SETTING	3000 P.S.I.
FL-25 &TR-25A	
WORKING PRESSURE	2064 P.S.I.
TR-19	
WORKING PRESSURE	2591 P.S.I.
FL-25 & TR-25A	
RESERVOIR CAPACITY	3 GALLONS
HYDRAULIC FLUID MEDIUM	DEXRON III

#### SUGGESTED SITE SELECTION / BAY SIZE

TRACK	WIDTH	DEPTH	HEIGHT
13'	19 FEET	29 FEET	19 FEET
20'	19 FEET	36 FEET	19 FEET
25'	19 FEET	41 FEET	19 FEET
30'	19 FEET	46 FEET	19 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	DRILI MIN.	L SIZE MAX.	TORQUE (N/A)
5 INCH	5 ½ INCH	3/4 INCH	.775 INCH	.787 INCH	SEE ANCHOR SPECS*

<sup>\*</sup>REFER TO ANCHOR BOLT SPECIFICATION IN BACK OF MANUAL

#### PRE-EXISTING FLOOR REQUIREMENTS

MINIMUM	MINIMUM COMPRESSIVE	MINIMUM
THICKNESS	STRENGTH	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 - 25A, FL-25, TR-19 PACKING LIST

### \*\*\* ALSO SEE DRAWINGS MAN 906 - 908 - 929 - 967 IN PARTS MANUAL \*\*\*

IR-19/IR-25A	VFL-25 (AIR) PARTS BOX CONTENTS:	
File: QC-TR-25s.xls	Rev: 10/30/2012	
NAME	DESCRIPTION	QTY
025-002-025	PARTS BOX #1 & CONTENTS	1
601-300-055	Power Unit, 2 HP, 230 V, 1 Phase, 5 Gal, Sq. Tank	1
601-410-003	Flow Control, 2.75 GPM	1
601-420-007	Elbow, 90 Deg, 3/8 Male Pipe To #6 JIC	1
601-420-017	Elbow, 90 Deg, #6 ORB To #6 JIC	1
025-002-030	Power Unit Handle Assembly	1
601-610-002	Thread Sealing Compound, Select Unyte TF2 (Tube)	1
025-020-031	PARTS BOX #2 & CONTENTS 13 FT	1
025-020-032	PARTS BOX #2 & CONTENTS 20 FT	1
025-020-033	PARTS BOX #2 & CONTENTS 25 FT	1
025-020-034	PARTS BOX #2 & CONTENTS 30 FT	1
601-600-023	Carton, #1011 Top, #1012 Bottom	1
601-600-009	Staple, A-58	20
025-020-035	Manual Assembly	1
025-002-052	Hose Assembly, 1/4 ID x 168"	1
025-002-053	Hose Assembly, 3/8 ID x 168"	1
600-670-008	· · · · · · · · · · · · · · · · · · ·	
025-000-107		
600-710-012	Washer, Flat, 7/8 ID	6 12
600-680-021		12
601-800-061	Nut, Plain, 7/8-14 NF Decal, Mohawk	
601-800-035	Decal, Monawk  Decal, Caution	
601-800-033	Decal, Warning	1
601-800-045	Decal, Warning  Decal Capacity (25,000) FOR TR-25/FL-25 ONLY	2
		2
601-800-121	Decal Capacity (19,000) FOR TR-19 ONLY	
601-800-030	Decal, Made In America	4
601-800-118	Label, Warning (P.S.I. Pressure)	1
600-830-018	Chain, BL-646, 246 3/4" (13 Foot Track)	2
600-830-014	Chain, BL-646, 330 3/4" (20 Foot Track)	2
600-830-016	Chain, BL-646, 390 3/4" (25 Foot Track)	2
600-830-017	Chain, BL-646, 450 3/4" (30 Foot Track)	2
600-830-015	Chain, BL-646, 213 3/4"	2
600-830-012	Chain, BL-646, 98 1/4"	2
600-930-001	Wheel Chocks	4
025-002-050	Parts Bag #1 (Shims)	1
025-020-030	Parts Bag #2 (Small Parts)	1
025-012-083	Parts Bag #3 (Small Parts)	1
601-520-001	Hose, Black, 1/4" x 19 Feet (13 Ft Tracks)	1
601-520-001	Hose, Black, 1/4" x 26 Feet (20 Ft Tracks)	1
601-520-001	Hose, Black, 1/4" x 31 Feet (25 Ft Tracks)	1
601-520-001	Hose, Black, 1/4" x 36 Feet (30 Ft Tracks)	1

File: QC-TR-25s.xls	VFL-25 (AIR) PARTS BOX CONTENTS: (CON'T) Rev: 9/20/2012	
Tile. QC-111-253.XIS	1164. 9/20/2012	
NAME	DESCRIPTION	QTY
025-002-050	Parts Bag #1 (Shims)	
601-600-022	Bag, 9" x 12"	1
600-740-001	Shim, Plastic, Blue, 1/16"	16
600-740-002	Shim, Plastic, Red, 1/8"	16
600-740-003	Shim, Plastic, Black, 1/4"	16
025-020-030	Parts Bag #2 (Small Parts)	
601-600-022	Bag, 9" x 12"	1
601-140-022	Hose Clamps	3
600-600-004	Screw, 5/16-24 NF x 5/8, Self Tap	3
600-640-001	Bolt, 5/16-18 NC x 1"	4
600-710-003	Washer, 5/16, Flat	4
600-690-001	Nut, Lock, 5/16-18 NC	4
600-640-014	Bolt, 1/2-13 NC x 2"	4
600-710-008	Washer, 1/2, Flat	8
600-690-009	Nut, Lock, 1/2-13 NC	4
601-170-008	Connector, 4 Prong, NEMA #L14-20R	1
601-310-005	Breather Cap	1
600-830-026	Master Chain Link Assembly	12
601-600-050	Plastic Pull Tie, 8" Lg	27
601-600-045	Cable Tie Holder	15
600-690-003	Nut, Lock, Nylon, 3/4-16 NF	16
025-012-083	Parts Bag #3 (Small Parts)	
601-600-022	Bag, 9" x 12"	1
601-510-024	Gauge	1
601-510-025	L-Bracket	1
601-510-026	Regulator	1
600-600-001	Screw, #10-32 x 1/2 Thread Cutting, Pan Head	2
025-012-101	Top Rail Bracket, 1/4 x 2"(Flat) x 5"	1
601-520-009	Connector, Female, 1/4 Hose To 1/4 Fem Pipe	1
601-420-095	Fitting, Coupling, 3/8 NPT Int To 1/4 NPT Ext	1
601-420-010	Elbow, 90 Deg, 3/8 Male Pipe To 3/8 Fem Pipe	1
601-520-002	Elbow, 90 Deg, Swiv, 1/8 NPT To 1/4 Tube	1
601-420-098	Elbow, 90 Deg, 1/4 Male Pipe To 1/8 Male Pipe	1
601-510-004	Poppet Valve, 3 Way	1
601-510-005	Poppet Valve Push Button	1
600-690-003	Nut, Lock, Nylon, 3/4-16 NF	1
601-430-035	Coil Hose Assembly	1
	Checked By:	
	Torrotton by.	

### 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 / 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		
	1			
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 FORK 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  $5/16~\rm X$  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

REEFER 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

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  $24^{\circ}$  DUNNAGE.

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 AFT 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.

INSTALL THE PNEUMATIC LOCK RELEASE COMPONENTS PER THE INSTRUCTIONS AND DIAGRAMS ON DWG. 025-012-128.

INSTALL A CLEAN DRY SHOP AIR SUPPLY TO THE REGULATOR. SET REGULATOR TO 80 P.S.I.

CYCLE THE LOCK RELEASE AND ENSURE THAT ALL FOUR LOCKS ARE RELEASING PROPERPLY.

CHECK FOR ANY AIR LEAKS, CORRECT AS REQUIRED BEFORE PROCEDING TO THE NEXT STEP.

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

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.

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.

 ALL O - RING BOSS FITTINGS JAM NUTS ARE TO BE TIGHTENED TO 15 FOOT POUNDS TORQUE. 2. ALL <u>PIPE</u> 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**

CHECK YOUR HYDRAULIC FLUID ANNUALLY.
EVERY FIVE YEARS 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 TO 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		
	AISING 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 1	INSTALLATION:		
	SERVICE C	HART	
DATE	PART REPLACED / SERVICED	SERVICE COMPANY	SERVICED BY
		ECHART	
D / mp	MAINTENANC		GERLIGER DI
DATE	MAINTENANCE PERFORMED	SERVICE COMPANY	SERVICED BY

# MOHAWK

MADE IN THE USA

# MODELS TR-25A, FL-25, TR-19

# FIGURES & DIAGRAMS

# MOHAWK LIFTS, LLC.

#### MOHAWK INDUSTRIAL PARK

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: TECHSUPPORT@MOHAWKLIFTS. COM

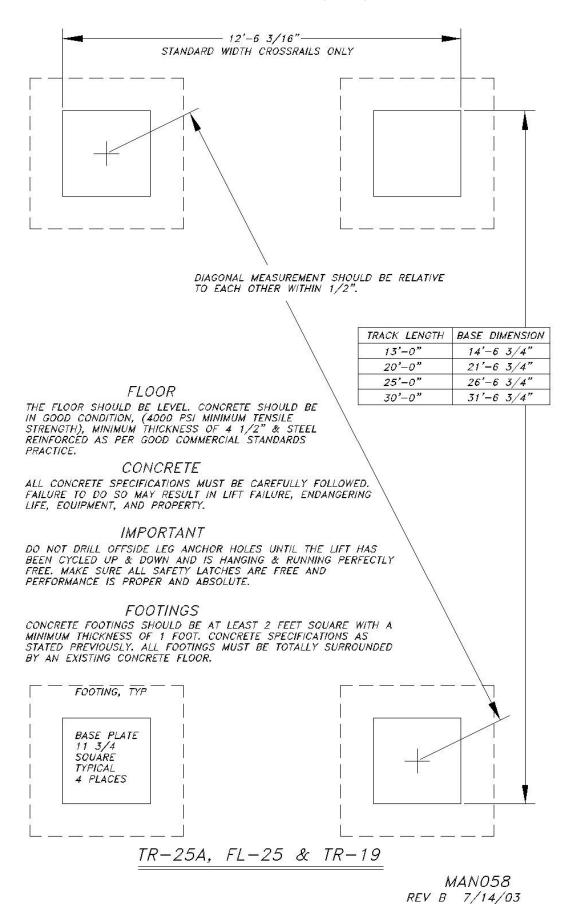


Figure 1

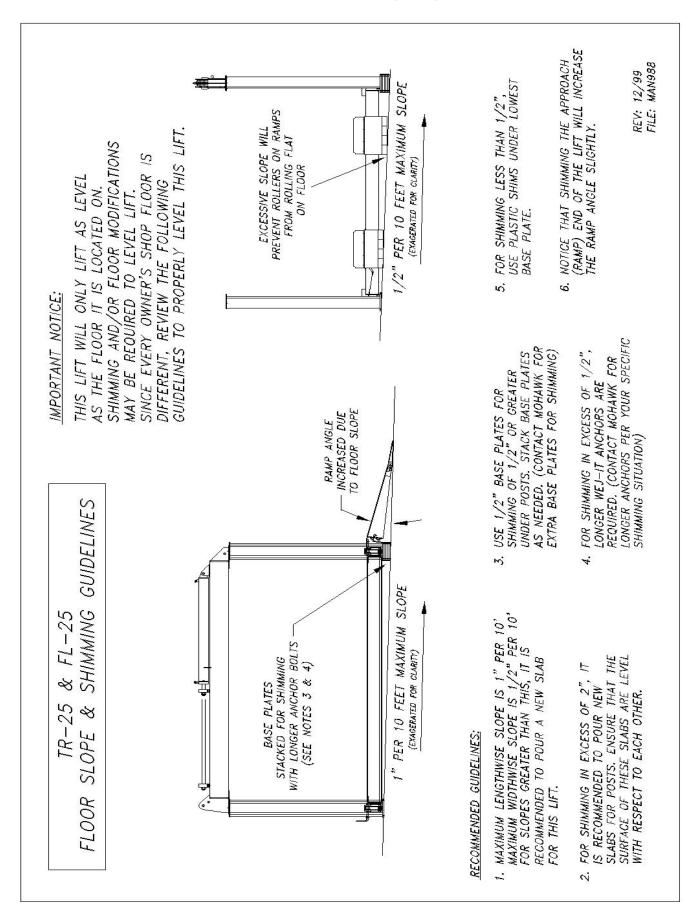


Figure 2

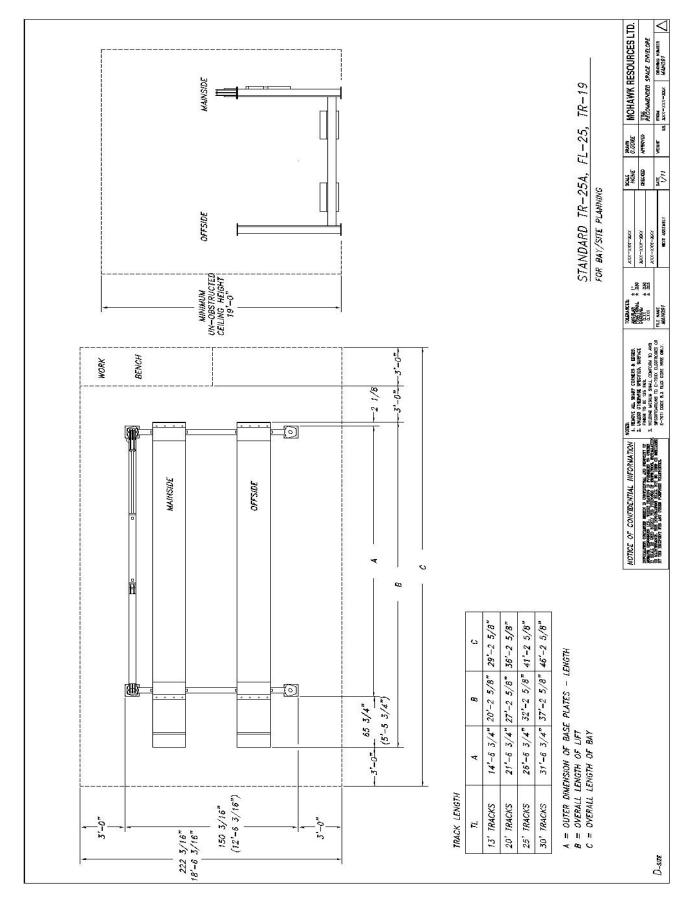


Figure 3

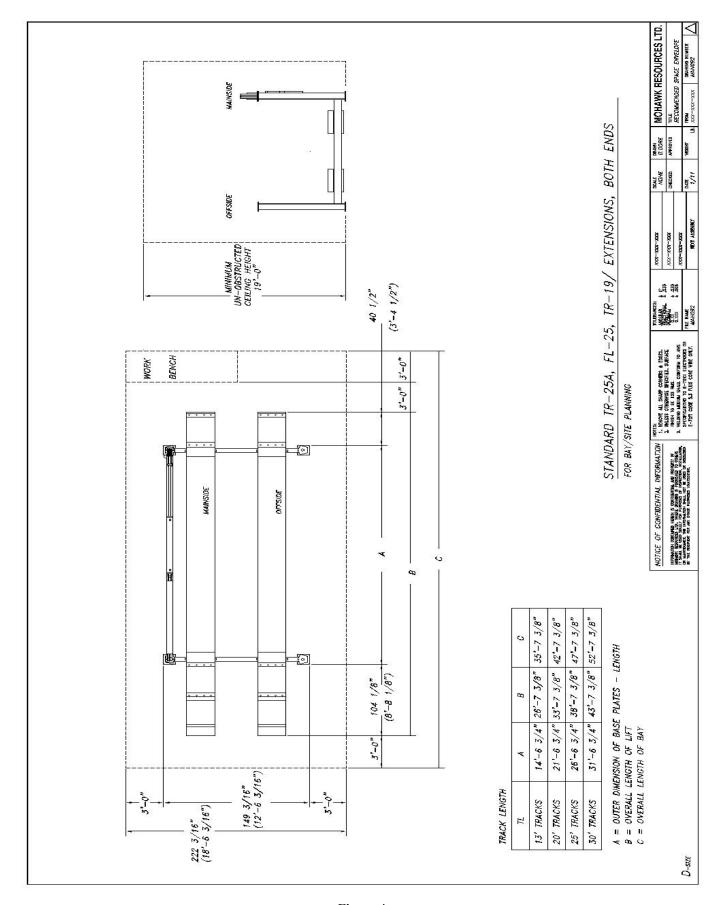


Figure 4

# TOP RAIL INSTALLATION

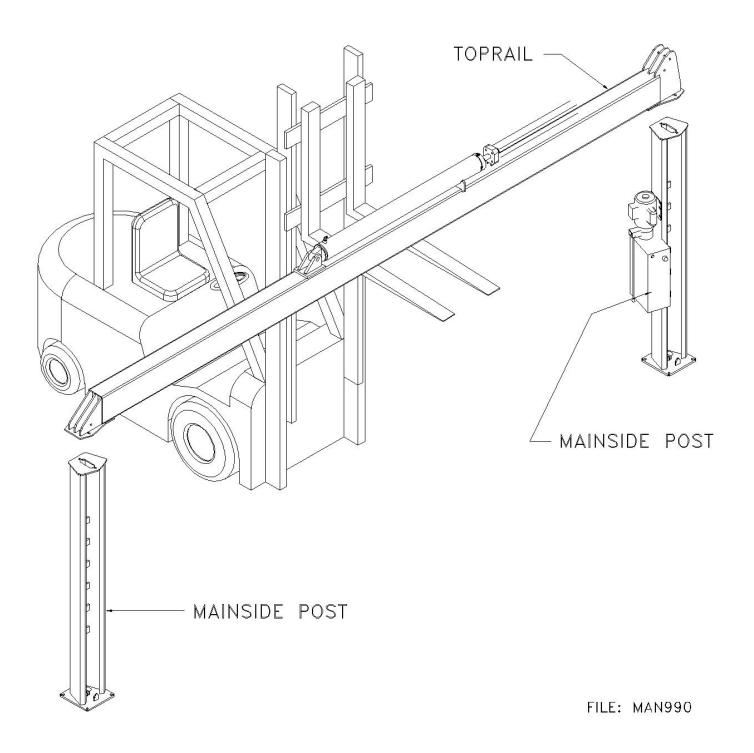
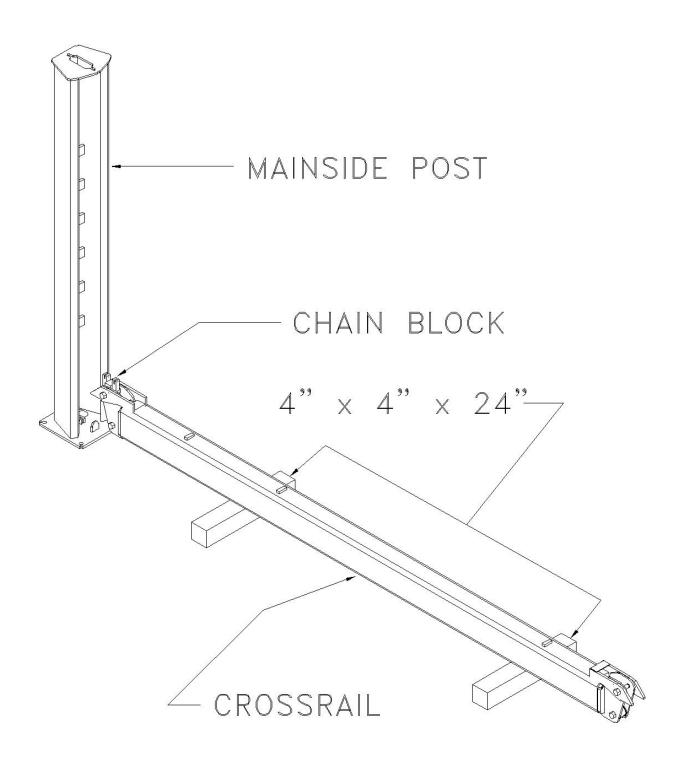


Figure 5

# CROSSRAIL INSTALLATION



FILE: MAN991

Figure 6

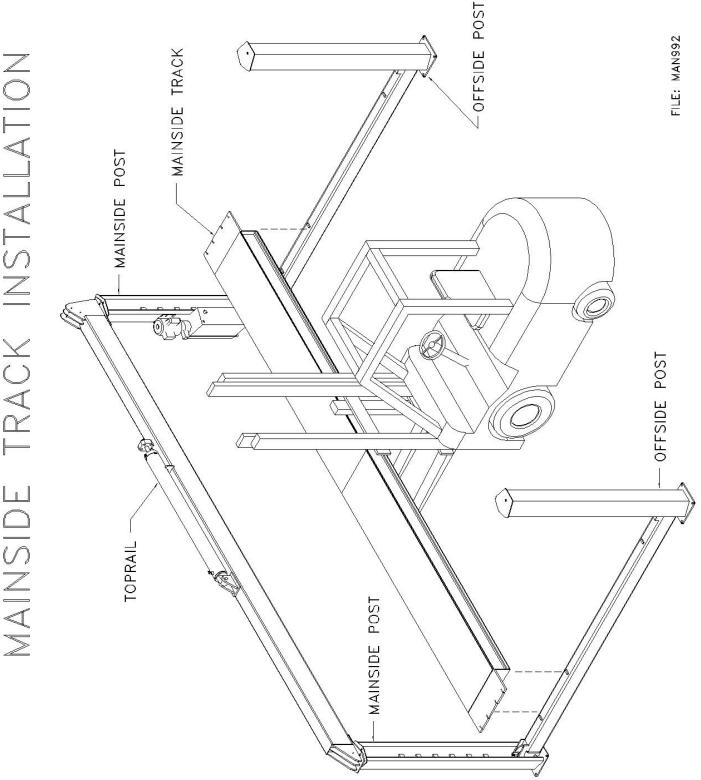


Figure 7

# - OFFSIDE POST FILE: MAN993 OFFSIDE TRACK OFFSIDE TRACK INSTALLATION MAINSIDE TRACK MAINSIDE POST OFFSIDE POST TOPRAIL MAINSIDE POST 96" STANDARD

Figure 8

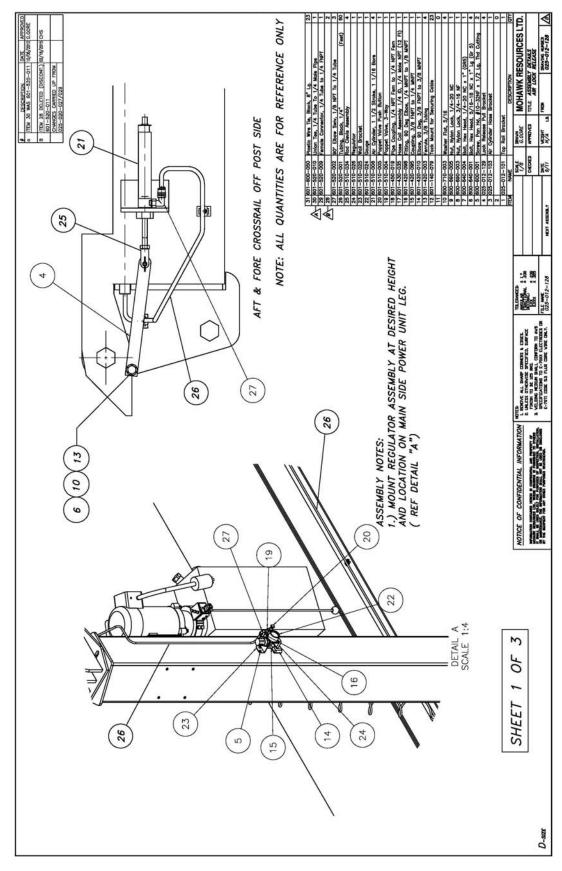


Figure 9A

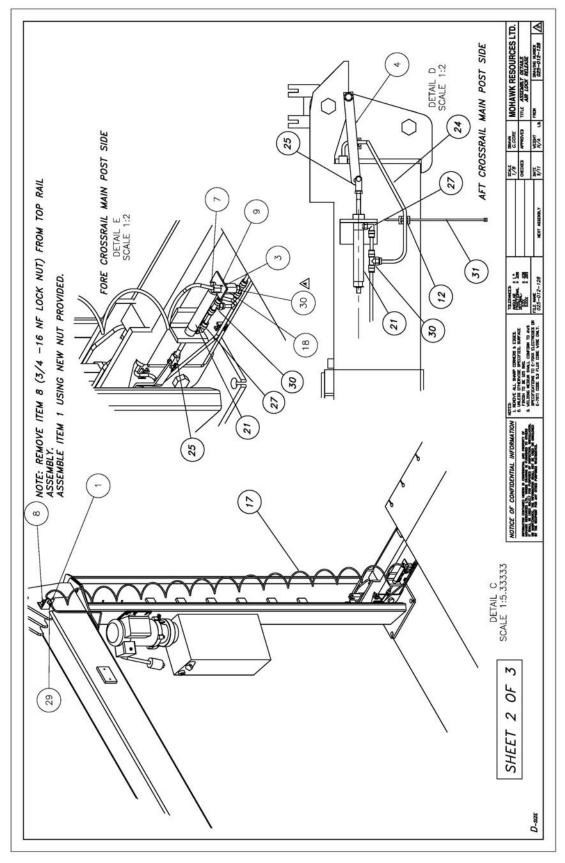


Figure 9B

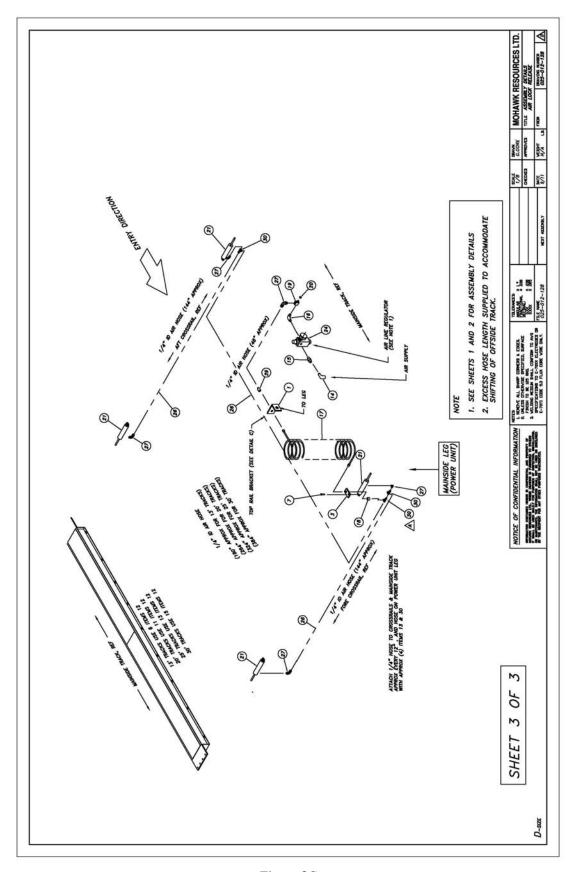


Figure 9C

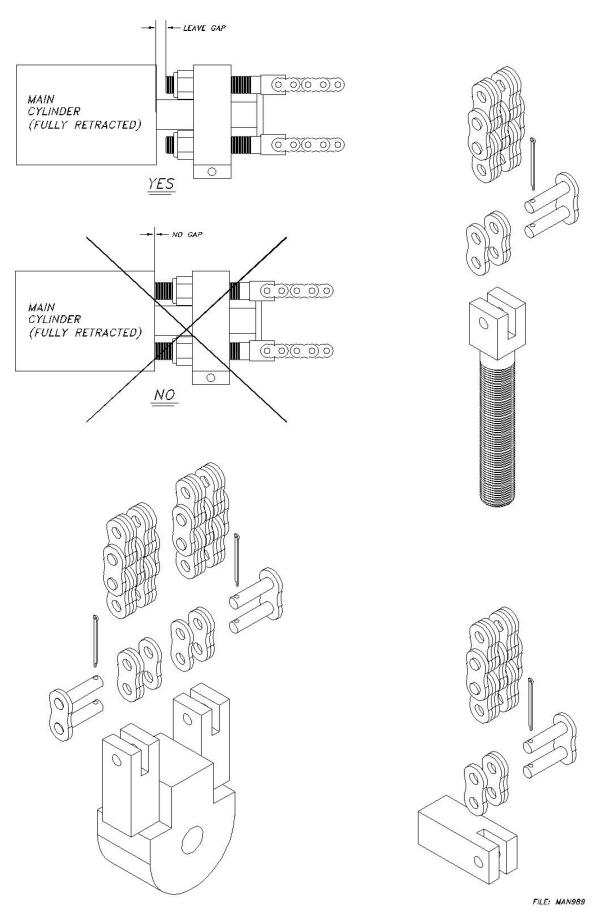


Figure 10

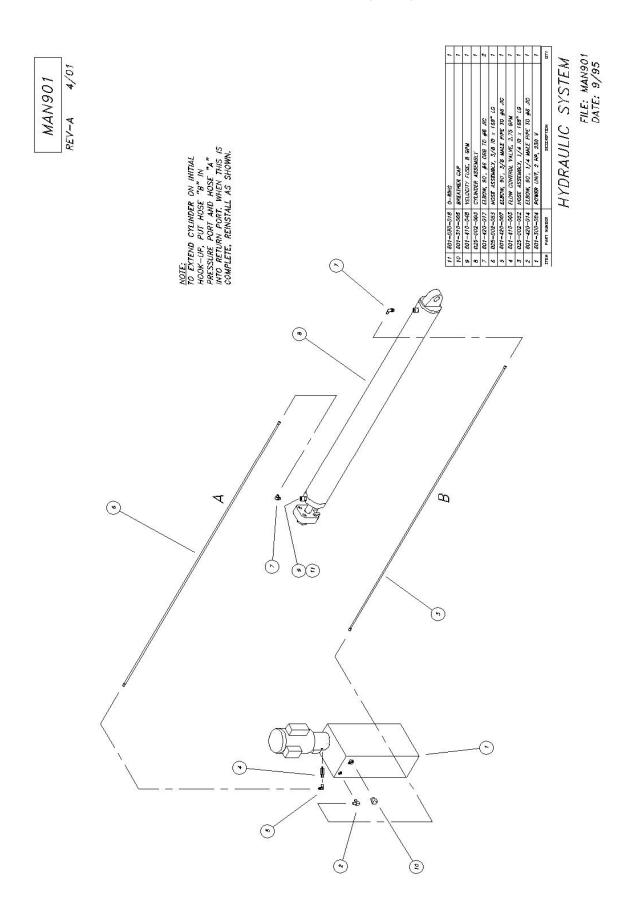
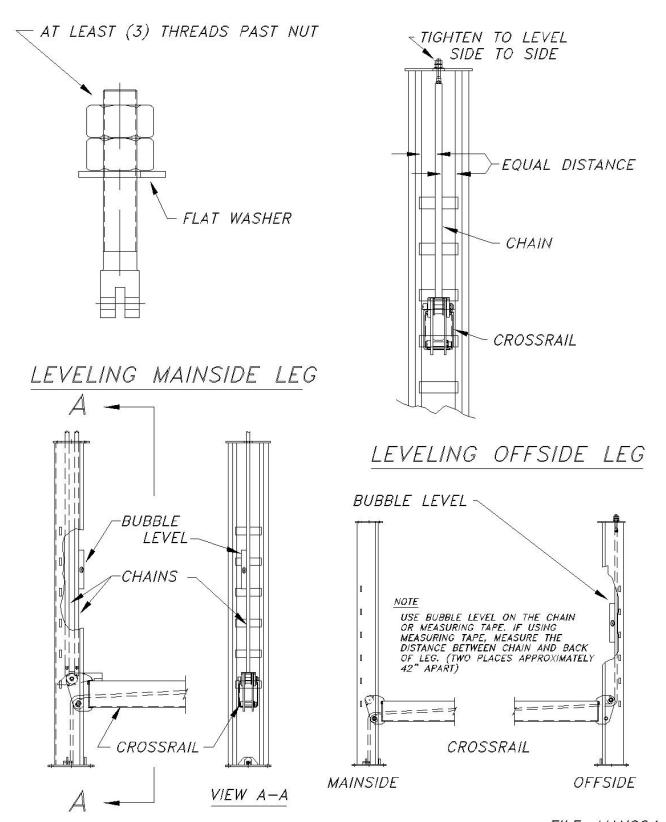


Figure 11

# LEVELING OFFSIDE LEG



FILE: MAN994

Figure 12



# The Original wej-it Wedge Anchors

### KEY FEATURES/BENEFITS

■ Time-Tested, Pr ven 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

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

#### MAXIMUM TENSILE AND SHEAR CAPACITY FOR STATIC LOADS

	LIMESTONE				Unreinforced Stone Aggregate oncrete					Unreinforced			
		AGGREGAT	E	ZIN PLATED ARBON STEEL			LIGHTWEIGHT (IDEALITE)						
Anchor	Embed-	2000	0 psi	Embed-	300	0 psi	500	00 psi	7000	) psi	Embed-	5000	) psi
& Hole	ment	Tension	Shear	ment	Tension	Shear	Tension	Shear	Tension	Shear	ment	Tension	Shear
Size	(in)	(lbs)	(lbs)	(in)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(lbs)	(in)	(lbs)	(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, O; 1981.

#### **EDGE DISTANCE AND SPACING REQUIREMENTS**

Embedment (E) in	Spacing	Edge Distance
Anchor Diameters (d)	P 75	
E < 6d (shallow)	3.50E	1.75E
$6d \le E \le 8d \text{ (standard)}$	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.

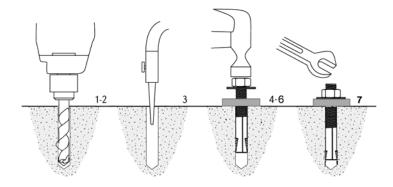


#### **ORDER INFORMATION**

	Anchor	Minimum	Thread	Quantity
Catalog	Diameter &	Embed-	Length	Box/
Number	Length (in)	ment (in)	(in)	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

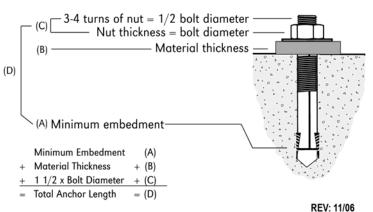
- Drill the hole perpendicular to the work surface.\* To assure full holding power, do not ream the hole or allow the drill to wobble.
- Drill the hole deeper than the intended embedment of the anchor, but not closer than two anchor diameters to the bottom (opposite) surface of the concrete.
- Clean the hole using compressed air and a nylon brush. A clean hole is necessary for proper performance.
- For ease of installation, make certain that the spear heads are located up against the wedge pockets.
- 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.
- Tap anchor into hole with a 2 ½ lb. hammer until the washer rests solidly against fixture.
- Tighten the nut to 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 the anchor is NOT recommended.



#### INSPECTION & MAINTENANCE INSTRUCTIONS

- 1. Verify torque on anchors to 85 Ft. Lbs. for future/annual inspections.
- \* 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**



#### **CHAIN INSPECTION - MAINTENANCE PROCEDURES:**

#### The following checks to be performed MONTHLY:

#### Inspect for contamination.

Visually inspect chain for areas of dirt/debris and any areas showing evidence of rust/corrosion. If dirty, clean chain using a light lubricant (WD-40) - 0.5 oz. per foot by spraying.

#### Inspect for corrosion.

If excessive rust or corrosion is witnessed, replace chain.

#### Inspect chain link pins.

Visually inpect link pins for wear on both ends, ensuring that pins retain links. If any links are loose or worn, replace chain.

#### Inspect chain links.

Inspect links for wear on surfaces in contact with yoke rollers. Inspect yoke rollers as well. If excessive wear is found, replace both chain and rollers.

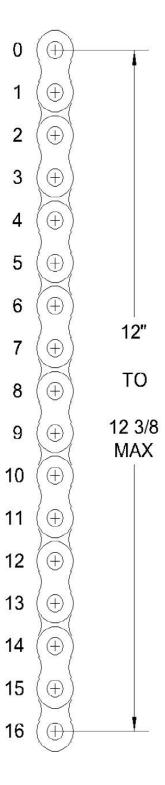
#### Inspect for excessive chain stretch.

Measure 16 pitches of chain while taut (see picture to right). Dimension should be no more than 12 3/8. If longer, replace chain.

**Note:** It is a rule-of-thumb that when the chain is replaced, the yoke rollers are replaced as well.

File: Man133.dwg

RevA - Chain Acceptabliity Limit Changed to Match ALI Inspection criteria. (Was 12 1/4)



# MOHAWK

MADE IN THE USA

## MODELS TR-25A, FL-25, TR-19

## PARTS DRAWINGS

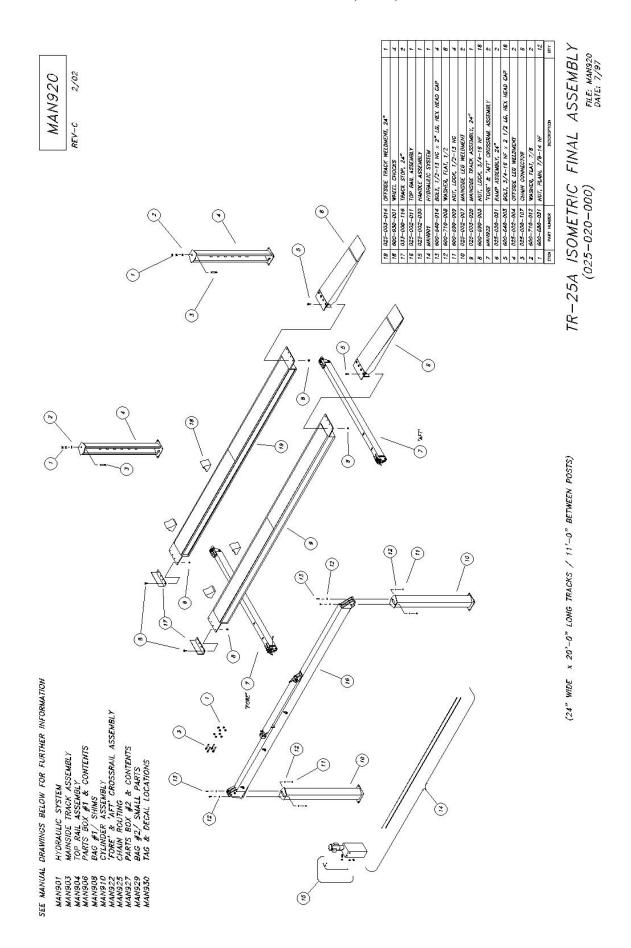
## MOHAWK LIFTS, LLC.

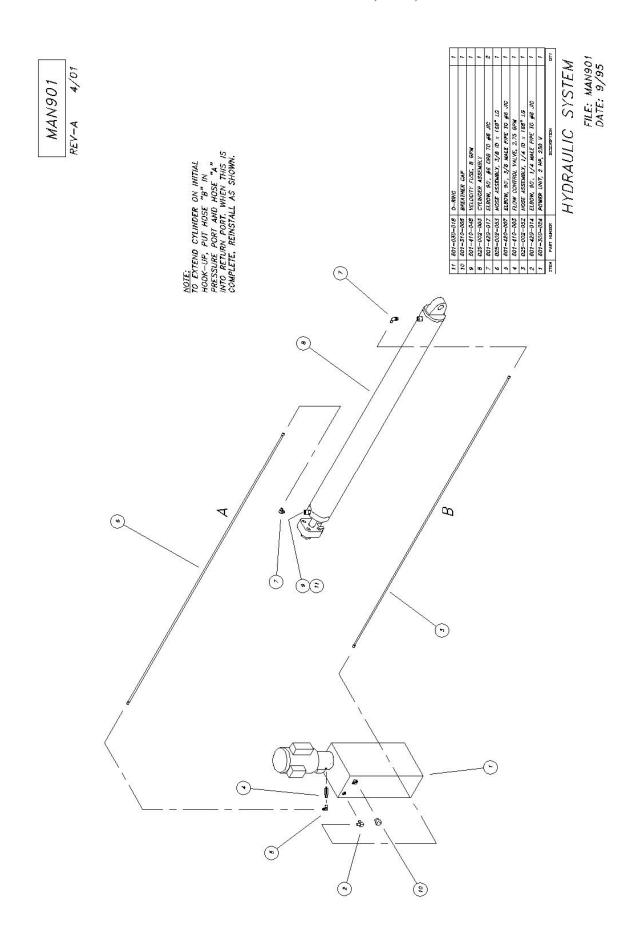
MOHAWK INDUSTRIAL PARK

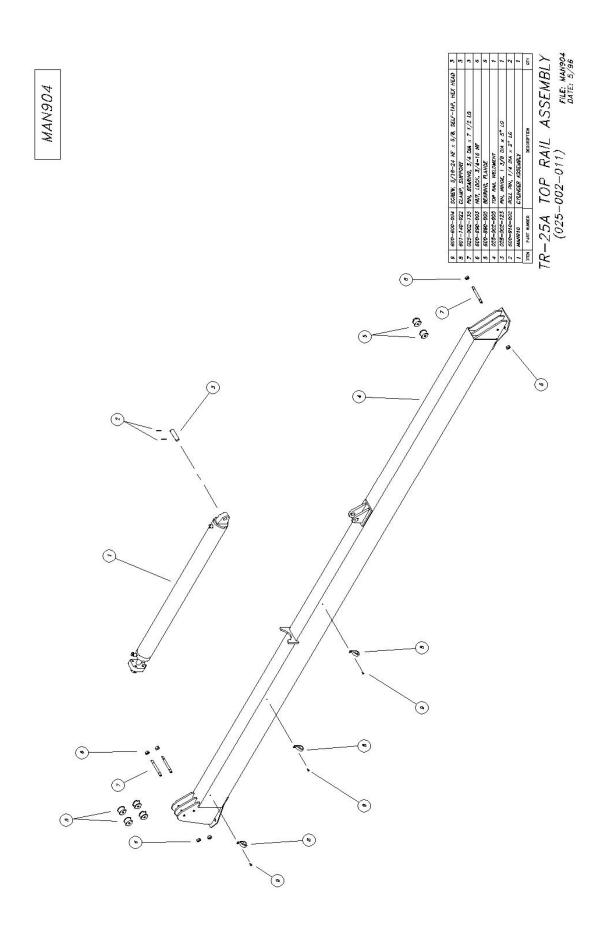
65 VROOMAN AVE. P.O. BOX 110 AMSTERDAM, NY 12010 TOLL FREE: 1-800-833-2006 LOCAL: 1-518-842-1431

FAX: 1-518-842-1289

INTERNET: WWW.MOHAWKLIFTS.COM E-MAIL: TECHSUPPORT@MOHAWKLIFTS. COM

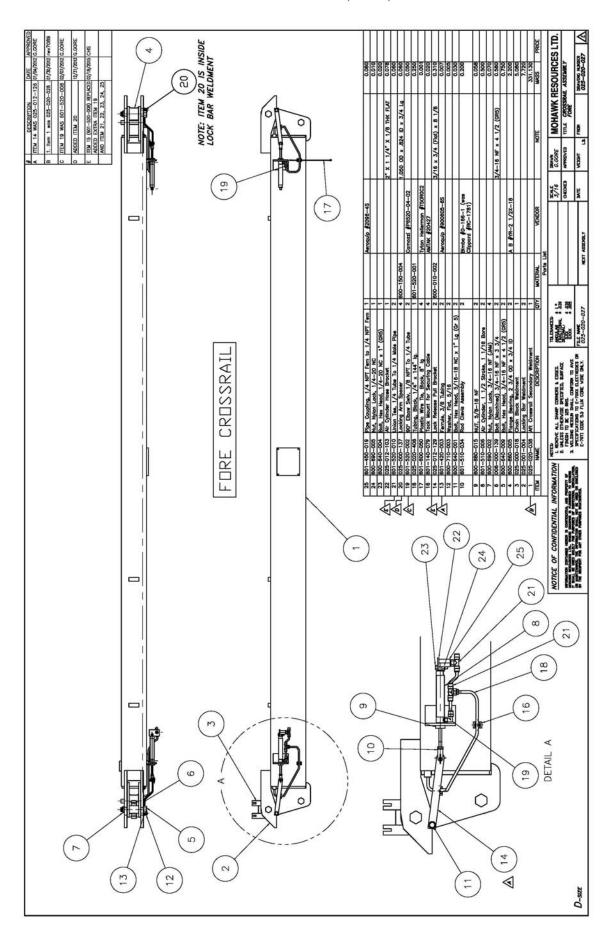


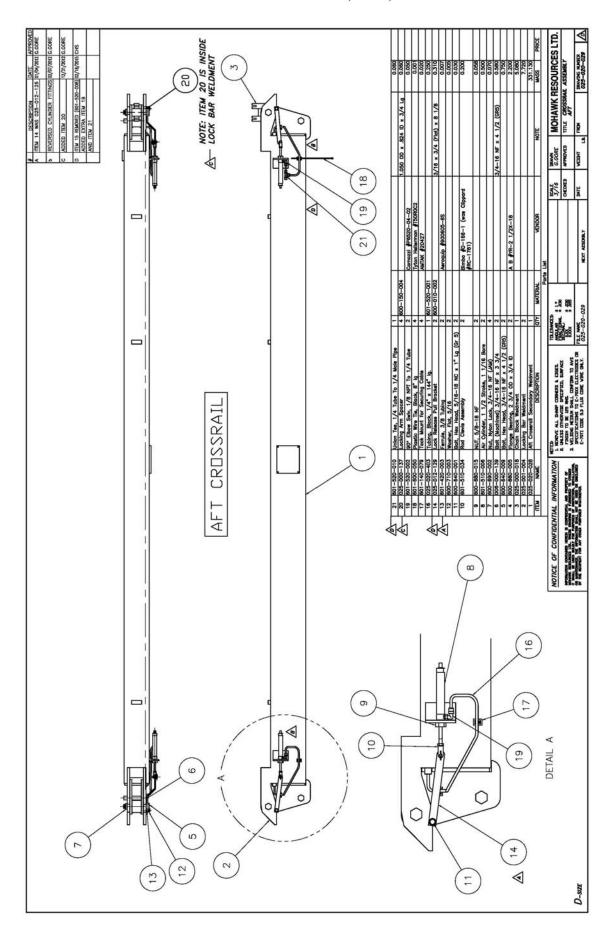


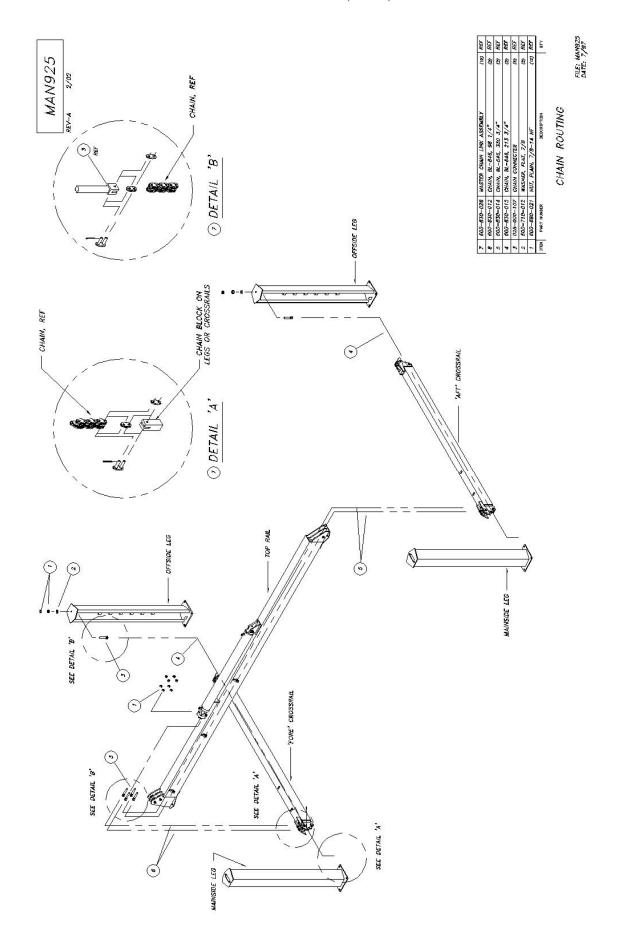


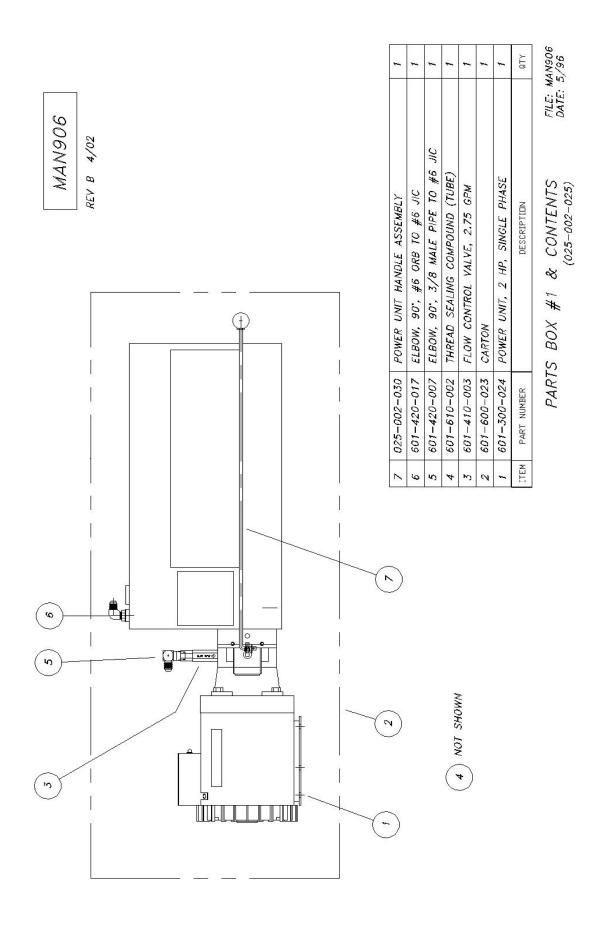
MAN910

FILE: MAN910 DATE 4/15

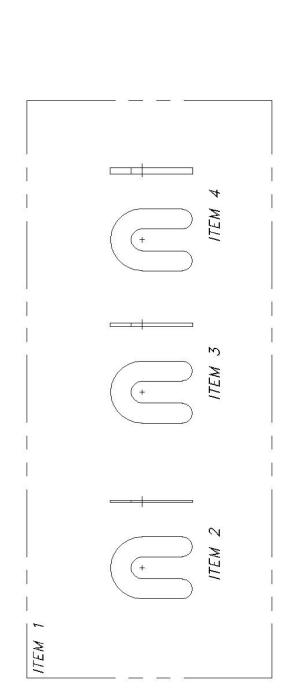






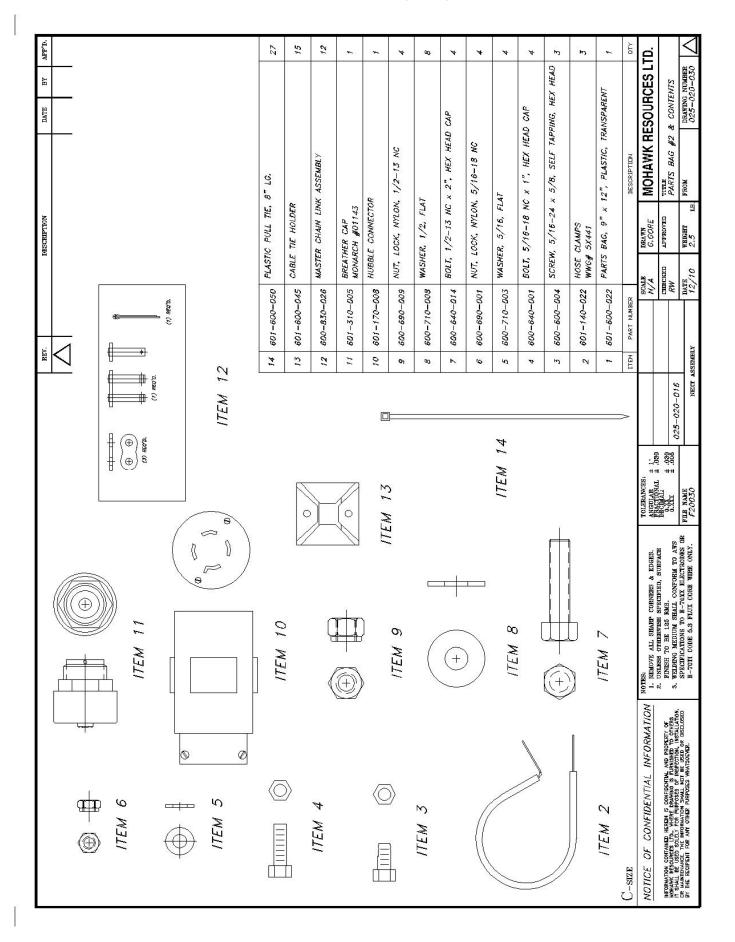


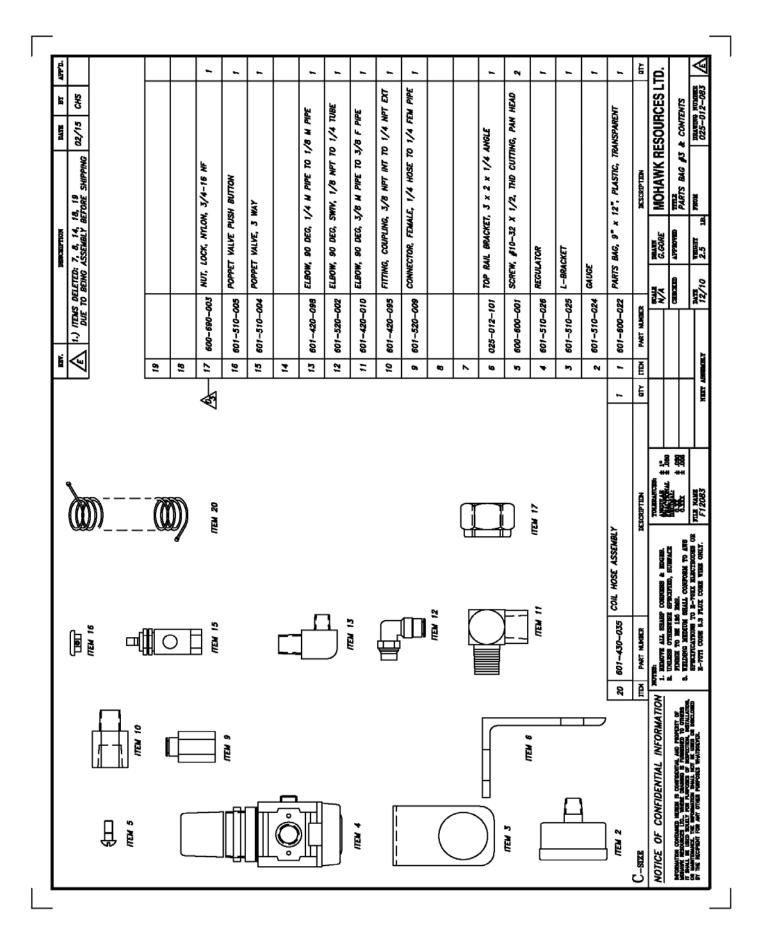
FILE: MAN950 DATE: 1/11 PARTS BOX #2 & CONTENTS 28 800-4500-403 NUT, LUDA, 3/4-16 NF READ CAP
28 800-4500-403 ROLT, 5/4-16 NF X 2 LY, HEY HEAD CAP
28 800-4500-403 ROLT, 5/4-16 NF X 2 LY, HEY HEAD CAP
28 800-4500-403 ROLT, 5/4-16 NF X 2 LY, HEY HEAD CAP
29 800-4500-403 ROLT, 5/4-16 NF X 2 LY, HEY HEAD CAP
20 800-4500-403 ROLT, 5/4-16 NF X 2 LY
21 800-4500-406 ALTHAUMY SAFETY THE CARD
21 800-4500-401 CARM, BL-64A, 200 ALTHAUMY
21 800-4500-417 CARM, BL-64A, 200 ALTHAUMY
22 800-4500-417 CARM, BL-64A, 200 ALTHAUMY
23 800-4500-417 CARM, BL-64A, 200 ALTHAUMY
24 800-4500-418 CARM, BL-64A, 200 ALTHAUMY
25 800-4500-401 CARM, BL-64A, 200 ALTHAUMY
26 800-4500-401 CARM, BL-64A, 200 ALTHAUMY
27 800-4500-401 CARM, BL-64A, 200 ALTHAUMY
28 800-4500-401 CARM, BL-64A, 200 ALTHAUMY
29 800-4500-401 CARM, BL-64A, 200 ALTHAUMY
20 800-4500-4501 CARM, BL-64A, 200 ALTHAUMY
20 800-4500-4 MAN950 REV-4 10/30/12 BAG #3/PNEUMATIC PARTS TEM ITEM 27 ф (©) BAG #2/SHALL PARTS 16 ITEM ITEM 23 ITEM 21 ITEM 26 0 BAG #1/SHIMS 15 ITEM ITEM 13B CAPACITY
25000
POUNDS ITEM 18A,B,C,D ALI STANDARD SAFETY REQUIREMENTS 25 00d/2000 (Day | | 00d/p000 TEM 13A ITEM 14 ITEM ALL LIFT IT RIGHT MANUAL ITEM 24 ITEM 11 多のエイヌ 木 CAUTION SAFETY TIPS CARD TEM 22 ITEM 3 ITEM 4 ITEM 5 ITEM 7 0 ITEM 2 ITEM 6 MANUAL (0)



MAN908

FILE: MAN908 DATE: 5/96 91 16 QTY BAG #1/ SHIMS (025-002-050) SHIM, HORSESHOE, 1/16" THK DESCRIPTION SHIM, HORSESHOE, 1/4" THK SHIM, HORSESHOE, 1/8" THK PARTS BAG, 9" x 12" 600-740-003 600-740-002 601-600-022 600-740-001 PART NUMBER JTEM





& DECAL LOCATIONS
FILE: MAN930
DATE: 9/97 10/99 MAN930 TAG TEMS 1 & 2 TYP AT FRONT OF LIFT TYP LOCATION ON OPPOSITE SIDE OF OTHER TRACK



MADE IN THE USA

## NEW SLAB RECOMMEDATIONS

## MOHAWK LIFTS, LLC.

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.

All ¾ inch diameter anchors must be a minimum of 6 inches away from any expansion seams, control joints or other inconsistencies in the concrete. All 1 inch diameter anchors must be a minimum of 7 ½ inches away from any expansion seams, control joints or other inconsistencies in the concrete. Refer to anchor manufacturer specifications for specific information concerning edge distances and bolt to bolt distance requirements.

NEVER, NEVER, hand mix your own concrete.

Rev: 4/2011

File: New-Slab.doc

#### **New Slab Recommendations**

File: New-slab.xls Rev Date: 5/16/2012

#### NEW SLABS MUST BE 12" THICK MINIMUM !! (See Notes Below)

Lift Model	W Slab Width, (Inches)	L Slab Length, (Inches)	R Reinforcement Size, (Inch) (See Note 1 & 2)	S1 & S2 Reinforcement Spacing, (Inch) (See Note 3)	D Wej-it Dia, (Inch)	l Wej-it Length, (Inch)
A-7	48" Min	144" Min	8 - #4 - Main Bars 21 - #4 - Temperature Bars	6 in - Long Bars 8 in - Short Bars	3/4 in	5 in
System IA	48" Min	161" Min	8 - #4 - Main Bars 21 - #4 - Temperature Bars	6 in - Long Bars 8 in - Short Bars	3/4 in	5 in
System IA-10	48" Min	161" Min	8 - #4 - Main Bars 21 - #4 - Temperature Bars	6 in - Long Bars 8 in - Short Bars	3/4 in	5 in
LC-12	72" Min	168" Min	12 - #4 - Main Bars 23 - #4 - Temperature Bars	6 in - Long Bars 8 in - Short Bars	3/4 in	6 in
LMF-12	72" Min	168" Min	12 - #4 - Main Bars 23 - #4 - Temperature Bars	6 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-15	72" Min	168" Min	12 - #4 - Main Bars 23 - #4 - Temperature Bars	6 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-16	72" Min	168" Min	12 - #4 - Main Bars 23 - #4 - Temperature Bars	6 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-18 (2012)	72" Min	168" Min	12 - #4 - Main Bars 23 - #4 - Temperature Bars	6 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-20	72" Min	186" Min	18 - #4 - Main Bars 24 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-20-WB	72" Min	186" Min	18 - #4 - Main Bars 24 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	3/4 in	6 in
TP-26	72" Min	198" Min	18 - #4 - Main Bars 24 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	1 in	10 in
TP-26-WB	72" Min	220" Min	18 - #4 - Main Bars 24 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	1 in	8 in
TP-30	72" Min	198" Min	18 - #4 - Main Bars 24 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	1 in	10 in
TP-30-WB	72" Min	220" Min	18 - #4 - Main Bars 24 - #4 - Temperature Bars	4 in - Long Bars 8 in - Short Bars	1 in	8 in
TR-19 *	24" Min	24" Min	4 - #4 Bars 8 Bars Total	6 in - Each Way	3/4 in	5 in
FL-25 *	24" Min	24" Min	4 - #4 Bars 8 Bars Total	6 in - Each Way	3/4 in	5 in
TR-25 *	24" Min	24" Min	4 - #4 Bars 8 Bars Total	6 in - Each Way	3/4 in	5 in
TR-30 *	48" Min	48" Min	4 - #4 Bars 8 Bars Total	6 in - Each Way	3/4 in	5 in
TR-33 *	72" Min	72" Min	12 - #4 Bars 24 Bars Total	6 in - Each Way	3/4 in	5 in
TR-35 *	72" Min	72" Min	12 - #4 Bars 24 Bars Total	6 in - Each Way	3/4 in	5 in
TR-50 *	72" Min	72" Min	12 - #4 Bars 24 Bars Total	6 in - Each Way	3/4 in	5 in
TR-75 *	72" Min	72" Min	12 - #4 Bars 24 Bars Total	6 in - Each Way	3/4 in	5 in

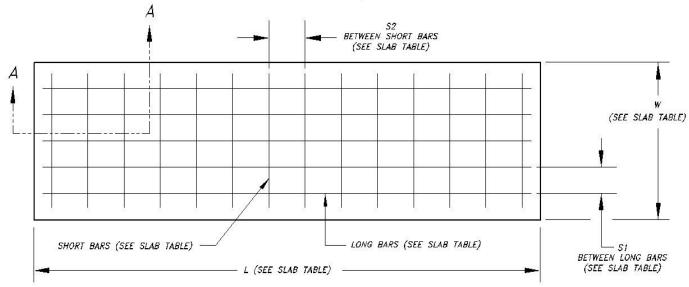
<sup>\*</sup> Four Separate Slabs Formed at each Post.

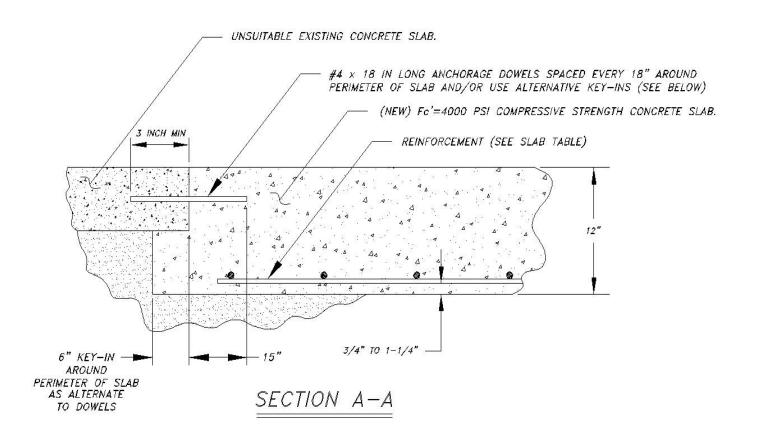
- Note 1: An additional layer of 6 x 6 10/10 WWF at mid height of new slab would be advisable in any extremely hot or cold climate to control cracking due to temperature fluctuations and shrinkage.

  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

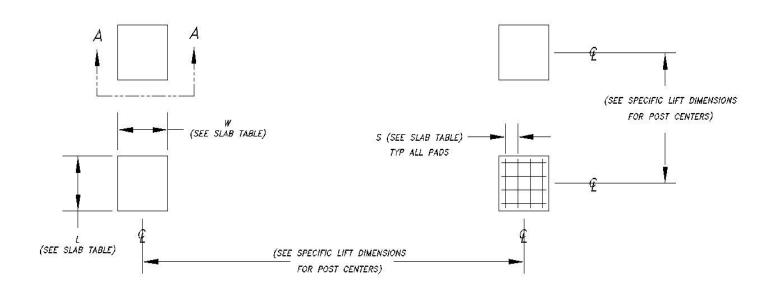
FILE: MANO66 DATE: 2/98 REV DATE: 7/2003

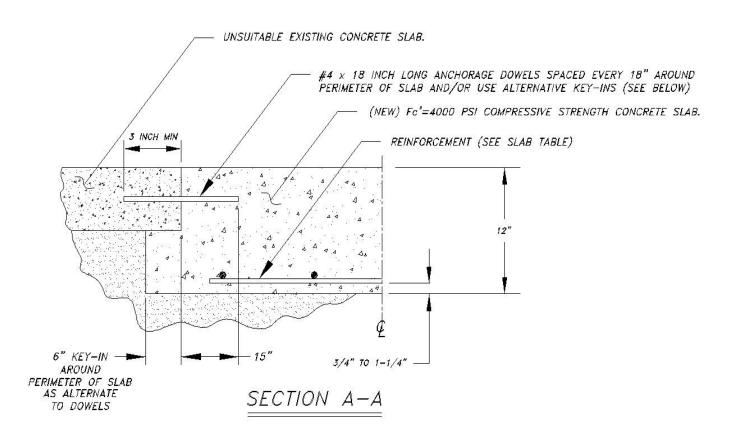




### NEW RECOMMENDED SLAB DESIGN FOR 4-POST LIFTS

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





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