# MOHAWK MODEL TR-60 / 25' SPECIFICATIONS

# HEAVY DUTY FOUR POST DRIVE-ON VEHICLE LIFT

## 1.0 SCOPE

1.1 THIS SPECIFICATION SETS FORTH THE CUSTOMERS REQUIREMENTS FOR THE PURCHASE OF A HEAVY DUTY FOUR-POST, DRIVE-ON, TRACK TYPE, ABOVE GROUND VEHICLE LIFT DESIGNED FOR LIFTING VEHICLES WEIGHING UP TO 60,000 LBS. ***THIS IS THE ONLY TYPE OF LIFT THAT WILL BE ACCEPTED***. ***ABOVE GROUND PARALLELOGRAM, SCISSOR TYPE, MOBIL COLUMN OR IN GROUND LIFTS ARE NOT ACCEPTABLE.***

1.1.1 ALL EQUIPMENT SHALL BE NEW AND UNUSED. THE MODEL BEING BID MUST BE THE MANUFACTURER'S CURRENT PRODUCTION MODEL. USED, RECONDITIONED, LEFT OVER OR DISCONTINUED MODELS WILL NOT BE ACCEPTED.

1.1.2 EQUIPMENT MUST BE SUPPLIED WITH ALL ANSI, AUTOMOTIVE LIFT INSTITUTE SAFETY DATA, SAFETY BOOKLETS, ANSI/ALI OIM STANDARD # ALOIM-1994, AND LIFT POINT GUIDE. ANSI SAFETY DECALS MUST BE PERMANENTLY PLACED ON THE LIFT IN CLEAR VIEW OF THE OPERATOR.

1.2 THE MANUFACTURER MUST BE A FIRM REGULARLY ENGAGED IN THE DESIGN AND MANUFACTURING OF THE TYPE OF EQUIPMENT SPECIFIED HEREIN FOR A MINIMUM OF 3 YEARS.

1.2.1 ON REQUEST, THE BUYER MUST RECEIVE A CURRENT USERS LIST FOR THE SPECIFIED STYLE AND LIFT CAPACITY.

1.2 ALL MATERIAL THICKNESS AND STRUCTURAL DIMENSIONS ARE MINIMUM DIMENSIONAL TOLERANCES UNLESS NOTED ARE AS FOLLOWS; ± 0.18 INCHES FOR DIMENSIONS LESS THAN 10 INCHES; ± .0375 INCHES FOR DIMENSIONS FROM 10 INCHES TO 5 FEET INCLUSIVE; ± 0.50 INCHES FOR DIMENSIONS GREATER THAN 5 FEET.

## 2.0 EQUIPMENT

2.1 COMPLETE ASSEMBLY SHALL CONSIST OF AN ELECTRIC OVER HYDRAULIC LIFT UNIT, CONTROLS, AND ANY ACCESSORIES AS SPECIFIED HEREIN.

2.2 LIFTING CAPACITY WILL BE 60,000 LBS. MINIMUM

2.3 LIFTING STROKE WILL BE 68 3/4" MINIMUM. THIS DIMENSION IS MEASURED FROM THE FLOOR TO THE TOP OF THE TRACK WHEN THE LIFT IS AT FULL HEIGHT.

2.4 TRACK LENGTH WILL BE A MINIMUM OF 25' OF USEABLE TRACK SPACE.

2.5 APPROACH RAMPS WILL BE A MINIMUM OF 4' 6 3/4". THEY WILL HAVE A MAXIMUM APPROACH ANGLE OF 8°. RAMPS MUST HAVE A DIAMOND PLATE NON-SKID SURFACE. ***APPROACH RAMPS WITH STEEPER APPROACH ANGLES OR RAMPS WITH A SMOOTH FLAT SURFACE ARE NOT ACCEPTABLE.***

2.5.1 APPROACH RAMPS WILL BE ATTACHED TO THE LIFT AND RAISE UP WITH THE LIFT TO ACT AS A WHEEL CHOCK WHEN THE LIFT IS RAISED. ***STATIONARY OR FLOOR MOUNTED APPROACH RAMPS ARE NOT ACCEPTABLE.***

2.6 THE LIFT SHALL INCORPORATE MECHANICAL LOCKS IN ALL 4 POSTS. EACH LOCK MUST START WITHIN 6" OFF THE GROUND AND LOCK EVERY 3" THEREAFTER UNTIL THE LIFT REACHES FULL HEIGHT.

2.6.1 ALL (4) MECHANICAL LOCKS MUST ENGAGE AUTOMATICALLY WHEN THE LIFT IS RAISED. ALL LOCKS ENGAGE AUTOMATICALLY EVERY 3".

2.6.2 THE MECHANICAL LOCKS ARE RELEASED BY A SINGLE POINT LOCK RELEASE THAT IS LOCATED ON POWER SIDE COLUMN.

2.7 LIFTING SPEED WILL BE 120 SECONDS MINIMUM FROM THE FLOOR TO FULL HEIGHT.

## 2.8 LIFTING COLUMN

2.8.1 EACH COLUMN IS CONSTRUCTED OF _" FORMED CHANNEL CONTAINING AJUSTABLE LOCK SUPPORTS EVERY 3". AJUSTABLE LOCKS SHALL GUARANTEE ALL FOUR MECHANICAL SAFTIES CAN ENGAGE SIMULTANEOUSLY EVEN ON SLOPED FLOORS

2.8.2 EACH COLUMN WILL HAVE A BASE PLATE MADE FROM 1/2" STEEL PLATE, MINIMUM. THE BASE PLATE WILL BE 12" X 12" MINIMUM. ***THIS BASE PLATE IS DESIGNED TO HAVE LESS THAN 50 PSI OF PRESSURE ON THE CONCRETE FLOOR WITH A FULL LOAD.***

2.8.3 EACH COLUMN WILL CONTAIN (1) DIRECT DRIVE LIFTING SYSTEM EVENLY DISTRIBUTING LIFTING FORCE TO EACH OF THE (4) COLUMNS. **CABLE LIFTING SYTEMS WHICH REQUIRE REGULAR WEEKLY INSPECTION AND MAINTENANCE WILL NOT BE ACCEPTABLE.**

2.9 **CROSS RAILS**

2.9.1 THE CROSS RAILS WILL BE CONSTRUCTED OF 4" X 8" X _" THICK STRUCTURAL TUBING AND BEARING SUPPORT PLATES. THE CROSS RAILS ALSO SERVE AS A BUSWAY FOR THE LOCK RELEASE MECHANISM AND SYNCHRONIZING CABLE. ***SMALLER (MORE FLEXIBLE) DIAMETER OR LIGHTER DUTY TUBING IS NOT ACCEPTABLE***.

## 2.10 TRACKS

2.10.1 EACH TRACK WILL BE CONSTRUCTED OF (2) 8" X 4" STRUCTURAL I-BEAM WELDED TOGETHER BY 3 POINT FILLET WELDS. ***TRACKS THAT ARE CONSTRUCTED OF SMALLER , (MORE FLEXIBLE), LIGHTER DUTY I-BEAM OR FORMED TRACKS ARE NOT ACCEPTABLE***.

2.10.2 THE SURFACE OF EACH TRACK WILL BE COVER BY SKID RESISTANT _" DIAMOND PLATE WELDED TO THE TOP OF THE I-BEAMS BY A CONTINUOUS FILLET WELD.

2.10.3 USEABLE TRACK LENGTH WILL BE NO LESS THAN 300".

2.10.4 STANDARD TRACK WIDTH WILL BE A MINIMUM OF 24" WIDE, TO GIVE 4' BETWEEN TRACK UNDER-VEHICLE ACCESS. ***NARROWER TRACKS NOT ALLOWING DUAL WHEELS TO BE SAFELY POSITIONED ON THE TRACKS ARE NOT ACCEPTABLE.***

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## 2.11 LIFT DIMENSIONS

2.11.1 OVERALL LENGTH WILL BE NO MORE THAN 29' 6 3/4".

2.11.2 OVERALL WIDTH WILL BE NO WIDER THAN 11' 10" WIDE. (ADJUSTABLE TO DESIRED WIDTHS).

2.11.3 INSIDE DRIVE THRU CLEARANCE WILL BE NO LESS THAN 10' 6". (ADJUSTABLE TO DESIRED WIDTHS).

2.11.4 COLUMN HEIGHT WILL BE NO MORE THAN 148"

2.11.5 RUNWAY HEIGHT AT FULL STROKE WILL BE NO LESS THAN 5' 8 3/4"

2.11.6 APPROACH RAMPS WILL BE 4' 6 _" LONG.

2.11.7 APPROACH RAMPS WILL HAVE AN 8° APPROACH ANGLE. ***STEEPER APPROACH ANGLES WILL NOT BE ACCEPTED.***

2.11.8 APPROACH RAMPS WILL HAVE A DIAMOND PLATE NON-SKID SURFACE.

2.11.9 EACH RAMP WILL HAVE ROLLERS BUILT INTO THE RAMP TIP SO THAT THE END OF THE APPROACH RAMP DOES NOT DRAG ALONG GOUGING, DIGGING, AND SCRAPING THE CONCRETE FLOOR.

2.11.10 INSIDE TRACK CLEARANCE WILL BE 48" MINIMUM FOR FULL ACCESS TO VEHICLE UNDERCARRIAGE. ***LIFTS THAT HAVE LESS THAN 48" BETWEEN THE TRACKS ARE NOT ACCEPTABLE.***

## 3.0 POWER UNIT

3.1 ELECTRIC MOTORS SHALL BE NORTH AMERICAN MADE 2 H.P. 208V / 230V 3 PHASE ( 1 PHASE OPTIONAL) 60hz MINIMUM. THE MOTOR WILL HAVE MAXIMUM FULL AMP LOADS OF 17.4 AMPS @ 208V AND 14.6 AMPS @ 230V.

3.2 POWER UNITS CAN BE MOUNTED ON EITHER DRIVER SIDE OR PASSENGER SIDE OF THE LIFT.

3.3 POWER UNIT WILL CONSIST OF:

- ELECTRIC MOTOR
- HYDRAULIC PUMP
- STEEL OIL RESERVOIR, PLASTIC NOT ACCEPTABLE
- SUCTION STRAINER
- HYDRAULIC GEAR PUMP
- ALL HYDRAULIC VALVING MANIFOLD

## 4.0 HYDRAULICS

4.1 HYDRAULIC PUMP IS A PRESSURE BALANCED GEAR PUMP WITH FIXED DISPLACEMENT, EXTERNAL TOOTH, AND ALL STEEL GEARS. THE PUMP MUST BE EXTREMELY TOLERANT OF FLUID CONTAMINANTS AND RESISTANT TO GALLING CAUSED BY LOW VISCOSITY START-UP. HARDCOAT PROCESSED INTERNAL PUMP SURFACES FOR EXTENDED SERVICE LIFE

4.2 HYDRAULIC CYLINDERS WILL BE MADE OF 1" CHROME ROD. THE OVERSIZED CHROME ROD WILL BE PACKED IN A 2.5" WIDE X 5' 8" LONG BARREL, MINIMUM.

4.3 FULL LOAD WORKING PRESSURE WILL BE A MAXIMUM OF 2,900 PSI. ***HIGHER PRESSURE SYSTEMS WILL NOT BE ACCEPTED.***

4.4 CYLINDER PACKING CONSISTS OF:

- DYNAMIC PISTON T - SEALS
- 2 BACK-UP RINGS
- 2 STATIC O-RINGS
- ROD WIPER
- ROD T - SEALS

4.5 EXTERNAL HYDRAULIC SAFETIES SHALL CONSIST OF A VELOCITY FUSE MOUNTED ON THE CYLINDER TO PREVENT COLLAPSE IN THE EVENT OF A LEAK, PLUS A FACTORY SET PRESSURE COMPENSATED FLOW CONTROL VALVE TO LIMIT DESCENT SPEED.

4.6 THE HYDRAULIC PRESSURE HOSE IS A PARKER # 301-6, NO-SKIVE 3/8" O.D. WITH A 0.075 WALL THICKNESS. MAXIMUM WORKING PRESSURE IS 4,000 PSI. MAXIMUM BURST PRESSURE IS 20,000 PSI.

4.7 ALL HYDRAULIC FITTINGS WILL BE STANDARD JIC OR O-RING BOSS FITTINGS. ***SELF FLARING OR COMPRESSION FITTINGS ARE NOT ACCEPTABLE.***

4.8 HYDRAULIC FLUID WILL BE 32 WEIGHT HYDRAULIC OIL.

## 5.0 WARRANTY

5.1 STANDARD WARRANTY ON ALL STRUCTURAL COMPONENTS AND POWER UNIT WARRANTY IS A FULL 3 YEARS. PARTS, LABOR, SHIPPING, AND TRAVEL ARE ALL INCLUDED.

## 6.0 STANDARD EQUIPMENT

6.1 (4) FRONT AND REAR WHEEL STOP

6.2 (16) 3/4" X 5" WEJ-IT ANCHOR BOLTS.

6.3 TOUCH-UP PAINT, 1 CAN EACH OF RED & YELLOW.

6.4 32 WEIGHT HYDRAULIC OIL FOR HYDRAULIC PUMP AND RESERVOIR.

6.5 SHIMS TO LEVEL THE COLUMNS FOR PROPER INSTALLATION.

6.6 SAFETY AND OPERATIONS MANUAL.

6.7 ANSI/ALI OIM BOOKLET (ALI STANDARD # ALOIM-1994)

6.8 ANSI/ALI LIFTING IT RIGHT BOOKLET (ALI STANDARD # SM93-1)

6.9 ANSI/ALI LIFTING POINT GUIDE BOOKLET (ALI STANDARD # ALI/LP-GUIDE)

6.10 ANSI/ALI SAFETY DECALS AFFIXED TO LIFT.

## 7.0 QUALIFICATION OF BIDDERS

7.1 THIS BID WILL BE AWARDED ONLY TO A RESPONSIBLE BIDDER, QUALIFIED TO PROVIDE THE WORK SPECIFIED. THE BIDDER WILL SUBMIT THE FOLLOWING INFORMATION WITH THEIR PROPOSAL.

7.2 LIST 3 REFERENCES OF JOBS OF EQUAL VALUE WITH THE SAME SPECIFIED EQUIPMENT.

| COMPANY NAME | CONTACT | PHONE # |
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