MOHAWK MODEL TR-25 / 30' 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 25,000 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 EQUIPMENT BEING OFFERED **MUST BE A MODEL THAT HAS BEEN IN PRODUCTION FOR A MINIMUM OF 3 years.**

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

1.3 ALL MATERIAL THICKNESS AND STRUCTURAL DIMENSIONS ARE MINIMUM DIMENSIONAL TOLERANCES UNLESS NOTED ARE AS FOLLOWS; ± 0.25 INCHES FOR DIMENSIONS LESS THAN 10 INCHES; ± 1.0 INCHES FOR DIMENSIONS FROM 10 INCHES TO 5 FEET INCLUSIVE; ± 3.0 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 25,000 LBS. MINIMUM

2.3 LIFTING STROKE WILL BE 69 5/16" 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 31' 2 3/16" OF USEABLE TRACK SPACE.

2.5 APPROACH RAMPS WILL BE A MINIMUM OF 5' 11 9/16". 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 WITH IN 17" OFF THE GROUND AND LOCK EVERY 8" THERE AFTER 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 8".

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 SPECIALLY FORM SHAPED OF A-36 STEEL PLATE CONTAINING WELDED LOCK SUPPORTS EVERY 8".

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.***

2.9 **CROSS RAILS**

2.9.1 THE CROSS RAILS WILL BE CONSTRUCTED OF 5" X 7" X _" THICK STRUCTURAL TUBING AND BEARING SUPPORT PLATES. THE CROSS RAILS ALSO SERVE AS A BUSWAY FOR THE LOCK RELEASE MECHANISM AND SYNCHRONIZING CHAIN. ***SMALLER (MORE FLEXIBLE) DIAMETER OR LIGHTER DUTY TUBING IS NOT ACCEPTABLE***.

2.10 **TRACKS**

2.10.1 EACH TRACK WILL BE CONSTRUCTED OF (3) 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-BEAM BY A CONTINUES FILLET WELD.

2.10.3 USEABLE TRACK LENGTH WILL BE NO LESS THAN 231' 2 3/16".

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 37' 3 1/16".

2.11.2 OVERALL WIDTH WILL BE NO WIDER THAN 12' 6 3/16" WIDE. (ADJUSTABLE TO DESIRED WIDTHS).

2.11.3 INSIDE DRIVE THRU CLEARANCE WILL BE NO LESS THAN 11'. (ADJUSTABLE TO DESIRED WIDTHS).

2.11.4 COLUMN HEIGHT WILL BE NO MORE THAN 8' 5 7/16"

2.11.5 RUNWAY HEIGHT AT FULL STROKE WILL BE NO LESS THAN 5' 9 5/16"

2.11.6 APPROACH RAMPS WILL BE 5' 11 9/16" 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 (4) 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 EACH ROLLER WILL BE MADE OF CF-1018 ROUND STEEL THE MEASURE 3" IN DIAMETER X 5 3/8" IN LENGTH. EACH RAMP MUST HAVE A MINIMUM OF (4) ROLLERS EACH. ***LIFTS THAT ARE BUILT WITH-OUT RAMPS TIPS ARE NOT ACCEPTABLE.***

2.11.11 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 MOTOR IS AMERICAN MADE 2 H.P. 208V / 230V 1 PHASE 60hz MINIMUM. THE MOTOR WILL HAVE MAXIMUM FULL AMP LOADS OF 17.4 AMPS @ 208V AND 14.6 AMPS @ 230V.

3.2 POWER UNIT CAN BE MOUNTED ON EITHER DRIVER SIDE OR PASSENGER SIDE COLUMN, FRONT OR REAR 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 CONTROL SYSTEM

4.1 UNIT SHALL INCORPORATE TWO HANDED CONTROL SYSTEM TO PREVENT ACCIDENTAL INJURY TO PERSONNEL. "RAISE" SHALL REQUIRE OPERATOR TO HOLD TWO MOMENTARY CONTACT (DEADMAN) SWITCHES AND "LOWER" SHALL REQUIRE OPERATOR TO HOLD LOWERING VALVE AND MECHANICAL SAFETY SAFETY RELEASE SIMULTANEOUSLY. SINGLE BUTTON ACTUATORS OR NON-RETURNING SAFETY RELEASES SHALL BE UNACCEPTABLE

4.2 UNIT SHALL INCORPORATE INTERNAL VELOCITY FUSE AND PRESSURE COMPENSATED FLOW CONTROL VALVES.

4.3 VELOCITY FUSE SHALL COMPLETELY STOP DESCENT IN THE EVENT OF A HYDRAULIC FAILURE. FLOW RESTRICTOR TYPE HYDRAULIC SAFETIES SHALL NOT BE ACCEPTABLE

4.4 "UP" BUTTON SHALL BE AFFIXED TO COLUMN, REMOTE CONTROL DEVICES WHICH ALLOW OPERATORS TO WALK UNDER MOVING LIFTS SHALL NOT BE ACCEPTABLE.

4.5 MOTOR AND PUMP ASSEMBLE SHALL BE ALL STEEL TO PROTECT AGAINST DAMAGE. PLASTIC RESERVOIRS OR PLASTIC MAIN DISCONNECT SWITCHES SHALL NOT BE ACCEPTABLE.

4.6 CONTROL SYSTEM SHALL USE THERMAL PROTECTION AGAINST OVERHEATING CARTRIDGE FUSES OF ANY KIND ARE NOT PERMISSABLE.

5.0 HYDRAULICS

5.1 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

5.2 HYDRAULIC CYLINDERS WILL BE MADE OF 1 1/2" CHROME ROD. THE OVERSIZED CHROME ROD WILL BE PACKED IN A 5 1/2" WIDE X 5' 5" LONG BARREL, MINIMUM.

5.3 FULL LOAD WORKING PRESSURE WILL BE A MAXIMUM OF 2,600 PSI. ***HIGHER PRESSURE SYSTEMS WILL NOT BE ACCEPTED.***

5.4 CYLINDER PACKING CONSISTS OF:

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

5.5 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.

5.6 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.

5.7 THE RETURN LINE HOSE IS A PARKER # 301-4, NO-SKIVE _" O.D. WITH A 0.59 WALL THICKNESS. MAXIMUM WORKING PRESSURE IS 5,000 PSI. MAXIMUM BURST PRESSURE IS 20,000 PSI.

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

5.9 HYDRAULIC FLUID WILL BE DEXRON III, ATF.

6.0 LIFTING CHAIN

6.1 THE HYDRAULIC CYLINDER IS CONNECTED TO (4) BL-646 LEAF CHAINS. EACH LIFTING CHAIN HAS A CAPACITY OF 27,000 LBS. ***CABLE OR MECHANICAL LIFTING DEVICES ARE NOT ACCEPTABLE.***

6.2 EACH CHAIN RIDES OVER 2 _" HEAT TREATED CHAIN BEARINGS WITH INTEGRAL NEEDLE BEARINGS WITH DUAL LUBRI-DISC SEALS. ***NO MAINTENANCE REQUIRED.***

7.0 WARRANTY

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

7.2 HYDRAULIC CYLINDERS ARE COVERED BY AN "EXTENDED LIFETIME CYLINDER WARRANTY" AFTER THE INITIAL 3 YEAR WARRANTY HAS EXPIRED.

8.0 STANDARD EQUIPMENT

8.1 (4) WHEEL CHOCKS

8.2 (16) 3/4" X 5" WEJ-IT ANCHOR BOLTS.

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

8.4 DEXRON III ATF FOR HYDRAULIC PUMP AND RESERVOIR.

8.5 SHIMS TO LEVEL THE COLUMNS FOR PROPER INSTALLATION.

8.6 SAFETY AND OPERATIONS MANUAL.

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

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

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

8.10 ANSI/ALI SAFETY DECALS AFFIXED TO LIFT.

9.0 QUALIFICATION OF BIDDERS

9.1 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.

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

COMPANY NAME	CONTACT	PHONE #

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