INSTALLATION, OPERATION, AND MAINTENANCE MANUAL
FOR
THE SHEARPRO LINE OF
BATCH ROTOR STATOR HEAVY DUTY LIFT STAND (HDLS)

Congratulations on your purchase of a ShearPro Batch Rotor Stator Heavy Duty Lift Stand from MXD Process. This manual will help with installation, set-up, operation, maintenance, repair, and provide general information about your unit. Read this manual in its entirety before setup or use.

READ BEFORE UNPACKING

Your mixer stand has been tested for quality and functionality prior to shipment. Proper handling and care should be taken when the unit is moved, uncrated, and installed. Failure to abide by the following criteria may result in damage to the equipment or serious injury to those operating the product.

WARNINGS

- The equipment should only be used for the purposes and parameters discussed within this document. Any deviations above the design parameters are not recommended nor covered under factory warranty. Contact MXD Process prior to using the equipment for any applications outside of this scope.
- Improperly tightened hardware can damage components and/or system components and can result in reduced operational life. Check all hardware to ensure nothing loosened during shipping. Refer to Appendix 1 for fastener torque values.
- When working with equipment with high voltage or rotating components, the potential to inflict severe or even fatal injury is present. Only qualified personnel should attempt installation, operation, or maintenance on the equipment. Never service without first ensuring that all power to the equipment is de-energized and the equipment has been properly locked-out. Any installer should be aware of relevant electrical codes and safety standards.
- MXD Process is not responsible for damage or injury due to inadequate structure mounting or improper use of its equipment.
- Any modification or alteration done to the equipment that is not authorized by MXD Process may damage products, void product warranty, or cause serious injury.

MXD Process
4650 New Middle Road
Jeffersonville, IN 47130 USA
Office: (812) 202-4047
Serial Number:

Contents

1.0 Initial Inspection, Receiving, and Storage

1.1 Inspection and Receiving

Upon receiving the equipment, inspect for accuracy and possible shipping damage. Take note of any missing components. If damage is observed or items are missing, please report this error to the shipping carrier and MXD Process immediately. Do not discard provided packaging until all items are accounted for.

1.2 Storage

When storing the equipment, choose a location where the equipment is not subjected to elements of nature, moisture, and/or excessive mechanical vibrations. If the unit was in storage for greater than a year, a visual inspection shall be performed before placing the unit into service. Exposed carbon steel surfaces should be inspected for corrosion that may have occurred during storage. Refer to maintenance section (Section 6) for corrective actions or contact MXD Process if needed. Please follow these steps to help prepare the equipment for long term storage:

- Store at ambient temperature, approximately 32°F to 104°F (0°C to 40°C) and avoid relative humidity conditions in excess of 60%
- Cover unit to prevent excessive dust build-up

2.0 Customer Support

2.1 Contact information

Have an issue? Contact us.

Name	Number	Email	Business Hours
MXD Process Technical Support	(812) 202-4047 x2	support@mxdprocess.com	8am - 5:30pm EDT
MXD Process Technical Sales	(812) 202-4047 x1	sales@mxdprocess.com	8am - 5:30pm EDT

2.2 Warranty

MXD Process is not accountable for any alteration, customization, misuse, or improper assembly of its products or components. Warranties may also be voided by unauthorized disassembly of equipment. MXD Process shall not be liable for any other damages, whether consequential, indirect, or incidental, arising from the sale or use of its products.

Products are guaranteed against defective materials and workmanship. If such defects arise, MXD Process will repair or replace these items at the convenience of the customer. For items manufactured by MXD Process, the warranty period is one year. On items not manufactured by MXD Process, the manufacturer's warranty applies. All component parts are covered by these warranties, except for normal wear items such as belts, bearings, seals, set screws, etc.

For warranty repairs, equipment is to be returned to MXD Process at the customer's expense with an authorized RMA number issued from MXD Process. The product(s) will be evaluated, restored to original equipment standards, then returned to the customer at the expense of MXD Process. This warranty is exclusive and is in lieu of all other warranties, whether expressed or implied.

2.3 Return Policy

All sales are final with Mixer Direct and MXD Process due to the level of complexity and customization of our industrial products.

All returns must be approved in advance by a Technical Support Lead, reference a valid Mixer Direct or MXD Process RMA number, and will be subject to a 50% restock fee.

Please contact Technical Support for all returns. When you call, please have the following available for reference:

- Unit Serial Number, Sales Order Number, or Purchase Order number
- Part number and description of the purchased product
- Reason for returning the product

3.0 General Information

3.1 Product Details

The ShearPro HDLS is a portable heavy duty mixer stand designed to support up to 750LB Batch Rotor Stator mixers, or other mixers that mount using the same methodology. The stand has 2 locking swivel casters in the back and two fixed wheels in front. The stand has a 50” advertised lift stroke and a maximum usable lift height of 127”.

3.2 Options

The stand includes a cord hanger, and provisions for mounting the optional variable speed controllers for the ShearPro Batch Rotor Stators. A 9” drop arms is available for use with shorter OAH mixers or smaller containers, additional drop amounts may be requested.

4.0 Assembly and Operation

4.1 Assembly

For ease of shipping, the ShearPro Heavy Duty Lift Stand will ship partially disassembled. It may be necessary to assemble the tower to the portable base, and the arm to the shuttle.

- Assemble tower to base using provided (4) ½” bolts and lock nuts (3/4” wrench size). Torque bolts (see appendix 1 for torque values)
- Install arm to shuttle using provided (2) 3/8” bolts and flat washers (9/16” wrench size) and (1) ½” Bolt and flat washer (3/4” wrench size). Torque Bolts

4.2 Mixer Installation

The Heavy Duty Lift Stands use a hanger rod to hold the Batch Rotor Stator. The hanger rod is specific to the frame size of the mixer and is included with new Batch Rotor Stator mixers. The rod threads through the mounting hole at the end of the stand arm and the mixer hangs from the rod. See figure 4.2.0

4.3 Mixer Wiring Installation

When the optional variable speed controller is used, the mounting plate for the VFD is secured using the included hardware to the threaded holes on side of the tower, just above the push handle. See Figure 4.2.1. Incorrect hardware could cause contact the lift shuttle and inhibit operation, check to ensure the bolts do not cause interference. Any wiring secured to the mixer stand should use a suitable locking connector to allow removal of the mixer for service or if multiple mixers are used with one stand. Mixer wiring should be done in a manner to allow the full stroke of the lift without putting unnecessary tension on the wire/cord.

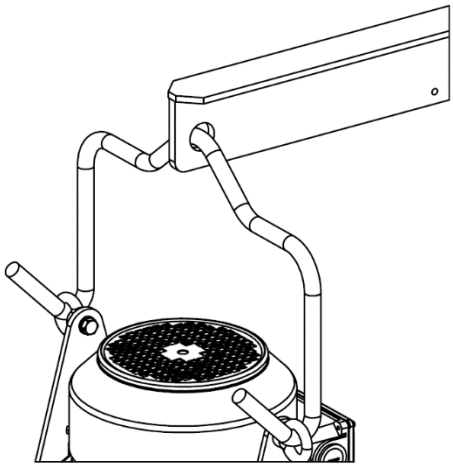

Figure 4.2.0 Hanger Rod

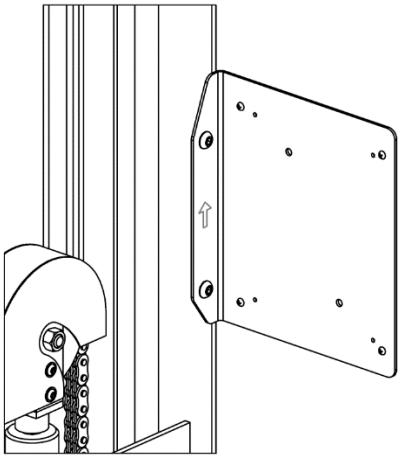

Figure 4.2.1 VFD Mount (VFD Not Shown)

4.4 Lift Operation

Raising the lift

- Ensure release/lowering lever is not depressed
- Unfold the lift pedal
- Pump the lift pedal to raise the lift. One full pump should raise the lift approximately 1”
- Fold the lift pedal once lift is in the desired position to prevent accidental actuation

Lowering the lift

- Unfold the release pedal
- Depress the release pedal slowly to lower the lift
- Once lift is in desired position, lift and fold up the release pedal to prevent accidental actuation

5.0 Maintenance

To ensure the life and longevity of the equipment, regular inspection and maintenance is suggested. The equipment should be inspected at regular intervals as part of your standard maintenance program. How often various components should be inspected and serviced will depend on operating environment and process

conditions. When performing maintenance on any moving or electrical equipment, de-energize all power and lock-out the equipment before beginning. Remove mixer (if installed) before servicing.

5.1 Lubricating

The leaf chain, pully and shuttle rollers should be kept coated in a quality grease to ensure a long service life and prevent rust. Lightly coat all the running surfaces and cycle the lift through its full operating range a few times to ensure the grease is well distributed. Remove any excess grease. If the grease becomes contaminated performance of the unit will degrade and it could become damaged, dirty grease should be cleaned off and replaced.

5.2 Cleaning

It is important to ensure a long service life to keep the equipment clean. Using a mild cleaning solution to wipe down the stand and cylinder and keep dirt, grime and contaminates out of the cylinder and off moving surfaces. If the grease on the leaf chain, pulley and rollers becomes dirty it should be cleaned off and re-greased.

5.3 Hydraulic Cylinder

To purge any air from the cylinder

- Depress and hold the Release Pedal in the down position.
- While holding the release pedal down, cycle the Pump Lever eight to twelve times at a moderate cycle speed.
- Allow the release pedal to return to its normal position

6.0 Troubleshooting Guide

PROBLEM	POSSIBLE CAUSE	SUGGESTED SOLUTION
Stand will not raise	Release pedal is depressed	Raise release pedal
	Air is trapped in cylinder	Perform air purge procedure
	Foreign object obstruction	Clear obstructions
	Low oil level	Add oil
	Pump is damaged	Replace cylinder
Stand will not stay in position	Release pedal is depressed	Raise release pedal
	Low oil level	Add oil
	Leaking cylinder seals	Replace cylinder
Stand will not lower	Overfull oil reservoir	Drain extra oil
	Lift is bound	Inspect for damage
	Foreign object obstruction	Clear lowering path
Stand will not raise fully	Low oil level	Add oil
Stand hard to move	Flat spots on caster(s)	Inspect and replace caster(s)
	Worn bearing(s) on caster(s)	
	Damaged caster(s)	
	Foreign object obstruction	Clear pathway

7.0 HDLS Diagrams

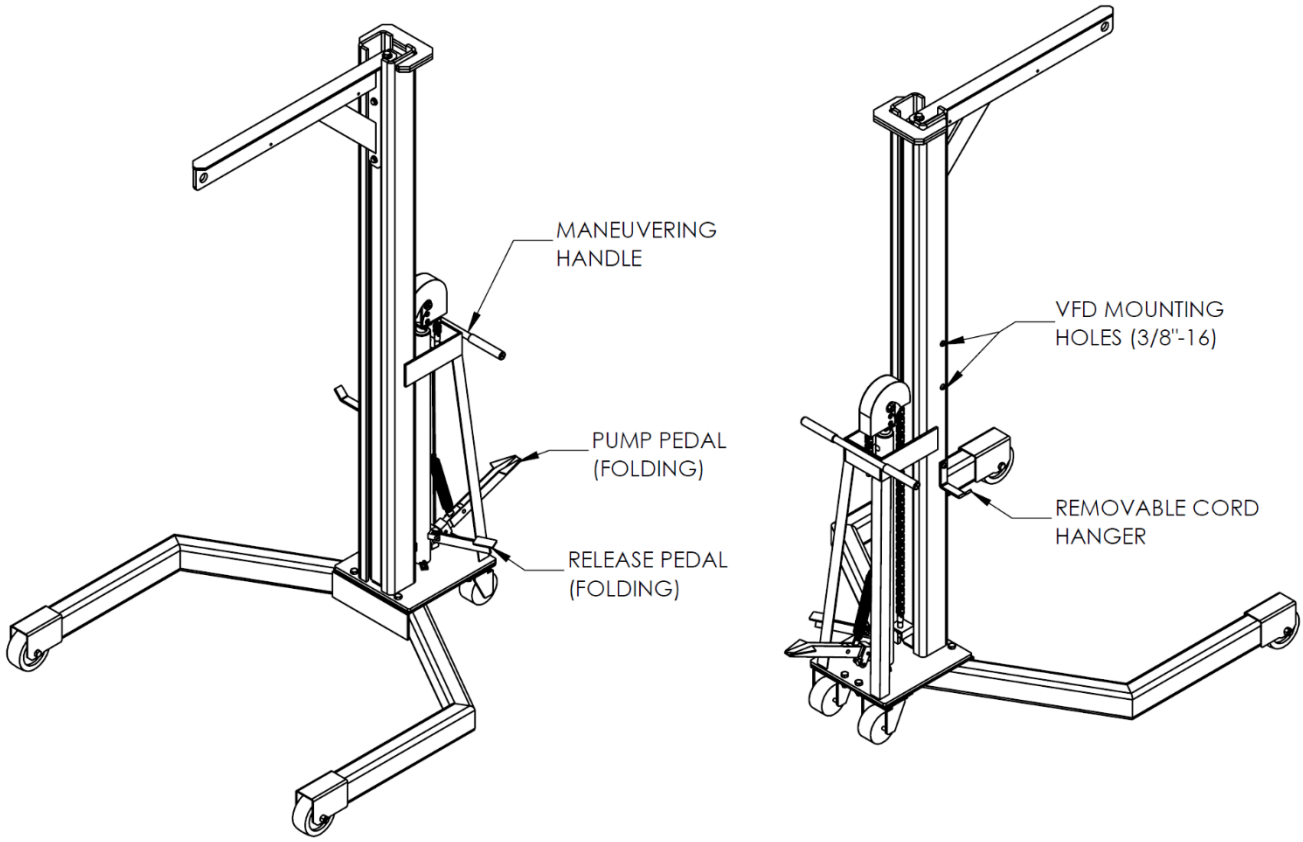

Figure 8.0.0 – HDLS Stand features

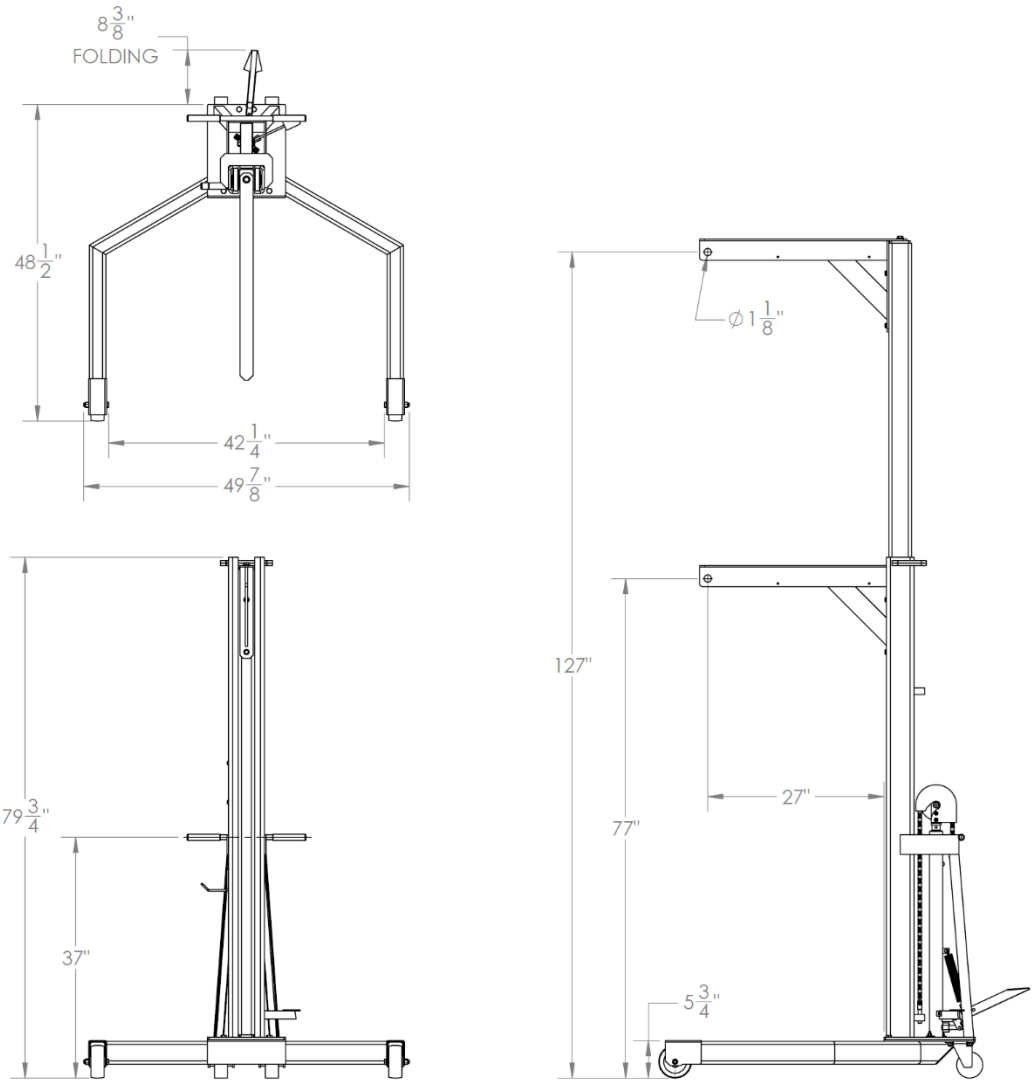

Figure 8.0.1– HDLS Dimensions w/Standard Arm

Appendix 1 – Fastener Torque Values

Table A4.1 – Screw & Bolt Torque Values					
		SAE J429	SAE J429	ASTM A574	ASTM F593
	Nominal Size	**Grade 5**	**Grade 8**	**SHCS**	**304/316 SS**
INCH LBS	**#10**	31	44	50	20
	#12	49	70	79	29
	1/4	76	107	120	62
	5/16	156	221	249	128
FOOT LBS	**3/8**	23	32	36	19
	7/16	36	52	58	30
	1/2	57	80	90	46
	5/8	113	159	179	92
	3/4	200	283	318	113
	7/8	322	455	512	182
	1	483	682	767	273
	1-1/8	684	966	1086	346
	1-1/4	965	1363	1533	545

All values are for coarse thread lubricated fasteners

Table A4.2 - Set Screw Torque Values				
	Nominal Size	**Alloy Steel**	**Stainless**	**Hex Size**
INCH LBS	**#8**	20	13	5/64
	#10	36	23	3/32
	1/4	87	57	1/8
	5/16	165	107	5/32
FOOT LBS	**3/8**	24	16	3/16
	7/16	35	23	7/32
	1/2	52	34	1/4
	9/16	52	34	1/4
	5/8	110	72	5/16
	3/4	200	130	3/8
	7/8	300	195	1/2
	1	417	271	9/16

All values are for coarse thread lubricated fasteners