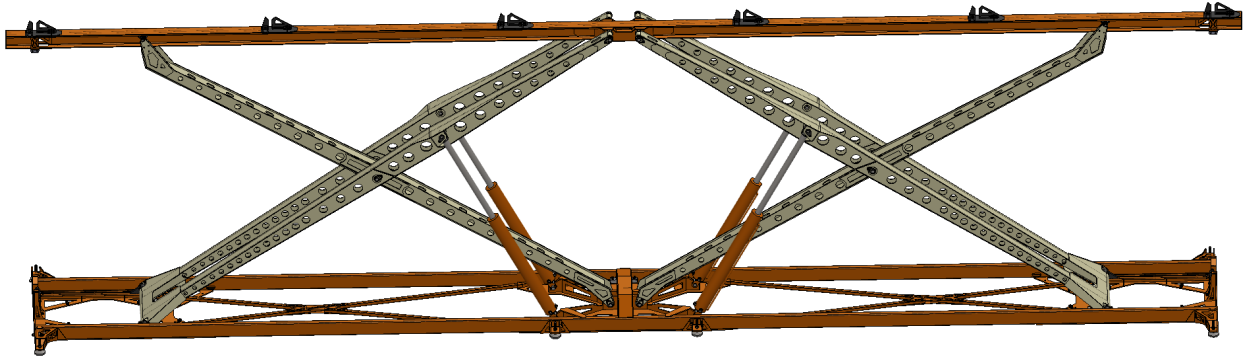


InnovaTech MegaJacks

OPERATION & SAFETY

MJ-2015



INNOVATECH
ENGINEERED TO DO MORE.

Innovatech Manufacturing
4360 N WECCO Rd
Cedar City, UT 84721
<https://innova.tech>

MJ-2015

MJ2015-ML01-R00

Manual Revision Log

Produced by: InnovaTech Manufacturing
Product: MegaJacks Operation and Safety
Manual Product Code: MJ2015-MNL01-R00
Version: First Production
Production Date: July 12, 2023

Document Information

This manual is intended as a basic source of information on the safe operation and maintenance of InnovaTech Manufacturing's MegaJacks. This manual provides general information as well as specific warnings, instructions, and information that workers using this machine must read, understand, and follow.

This manual is not intended as an all-encompassing "rule-book" on operation safety. Instead, InnovaTech Manufacturing presents this information as a reference and guide only. It is the purchaser's and operator's responsibility to identify specific safety hazards and determine proper procedures to prevent those hazards from inflicting injury.

InnovaTech Manufacturing believes that safety is paramount in the operation of its machines. A copy of this manual should be made available to all persons using this machine. InnovaTech Manufacturing grants you, the purchaser, the right to reproduce this manual for that purpose. Copies of this manual are also available online at <https://innova.tech>.

All information in this manual is based on the latest product information at the time of publication. However, there may be design improvements from time to time so that photographs, text, and sketches within the body of this manual may not exactly match your machine. InnovaTech Manufacturing's responsibility, financial or otherwise, for any consequences arising out of the use of this manual or its machine is limited by our product warranty. The information contained herein is subject to change, and revisions may be issued to advise of such changes. InnovaTech reserves the right to make product changes at any time without obligation.

This manual contains subject matter to which InnovaTech Manufacturing has proprietary rights. Recipients of this document shall not duplicate, use, or disclose information contained herein, in whole or in part, for any use other than training personnel and safe operation and maintenance of this machine.

If you have any questions or concerns about the content of this service and maintenance guide or, if you would like to request updated information, we want to hear from you.

Please contact us:

<https://innova.tech>

support@innova.tech

INNOVATECH MANUFACTURING
TECHNICAL PUBLICATIONS
4360 N WECCO RD
CEDAR CITY, UT, USA 84721

The InnovaTech MegaJacks is protected under US Patent Pending

©2023 InnovaTech Manufacturing. All Rights Reserved.

Table of Contents

Manual Revision Log	II
Document Information	II
1. Safety	2
Safety Alerts	2
A. Safety Concerns	2
B. Overhead Power Lines	2
C. Crush/Pinch Points	3
D. Hydraulics	3
E. Ventilation	3
F. Noise	3
2. Overview	4
2.1 Description	4
2.1 Nomenclature	5
3. Operation	6
3.1 General	6
3.2 Hydraulic Function	6
3.3 Operating MegaJack(s)	6
4. Specifications	7
4.1 General	7
Dimensions	7
Weight and Capacity	7
4.2 Hydraulic System	7
5. Maintenance	7
5.1 General	7
5.2 Periodic Inspection	7
5.3 Routine Maintenance	7
Appendix: Labels and Decals	8

Document Information

1. Safety

2. Overview

3. Operation

4. Specifications

5. Maintenance








Appendix

1. Safety

Safety Alerts

Follow all State and Federal health and safety laws and/or local regulations

Before operating the MegaJacks, read this manual completely and carefully to understand the safety instructions. Comply with all DANGER, WARNING, and CAUTION notices.

Hazard Level	Signal Word	Signal Color	Signal Symbol	Signal Example	Signal Meaning
Extreme	DANGER	RED			DANGER indicates a hazardous situation which, if not avoided, WILL result in death or serious injury.
High	WARNING	ORANGE			WARNING indicates a hazardous situation which, if not avoided, COULD result in death or serious injury.
Medium	CAUTION	YELLOW			CAUTION indicates a hazardous situation which, if not avoided, MAY result in moderate injury.
Low	CAUTION	YELLOW	no symbol		CAUTION (without a symbol) indicates a hazard or practice not related to personal injury.

1.1 General


A. Safety Concerns

The MegaJacks function on a hydraulic system powered by a hydraulic pump. They also have multiple moving parts. Be aware of the following: lifted load, falling objects, hydraulic leaks.

Ensure MegaJacks are set up on an even, flat and firm surface. Use the equipment on approved surfaces and slope. Maximum slope for the InnovaTech MegaJacks work area set-up is 1%.

 **WARNING** **DAMAGE OR MALFUNCTION!**

The potential for an accident increases when operating an machine that is damaged or malfunctioning. Death or severe injury could result from such accidents. Do not operate a Megajack if it is damaged or malfunctioning.

 **WARNING** **SAFETY DEVICES!** The potential for accident increases when safety devices do not function properly. Death or serious injury could result from such accidents. Do not alter, disable, or override any safety device.

B. Overhead Power Lines

In areas where power lines are present, operators must maintain awareness of Minimum Safe Approach Distance (MAD) Keep machine away from high voltage conductors. The machine is not electrically insulated and is not intended to be used near high-voltage power lines.

- Assume wires are energized unless known otherwise.
- Do not operate the equipment during lightning or thunderstorms.



Requirements of the MAD Table apply except where employer, local, or governmental regulations are more stringent.

Minimum Safe Approach Distance (MAD)	
Voltage Range (Phase to Phase)	Minimum Safe Approach Distance
0-300V	Avoid Contact
Over 300V to 50 kV	10 feet
Over 50 kV to 200 kV	15 feet
Over 200 kV to 350 kV	20 feet
Over 350 kV to 500 kV	25 feet
Over 500 kV to 750 kV	35 feet
Over 750 kV to 1000 kV	45 feet

C. Crush/Pinch Points

The MegaJacks have multiple moving parts that lift large heavy loads high into the air. Keep clear of all moving parts and stay out from under the load while the MegaJacks are being raised. Never allow personnel to be on the MegaJacks load while it is being raised. Stay clear of the MegaJacks while they are being lowered. Do not use the MegaJacks for anything other than their intended purpose.

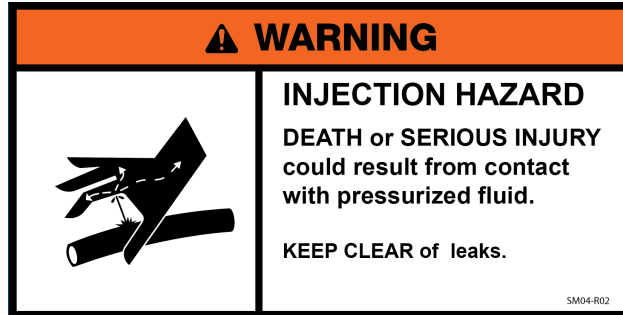
WARNING **PINCH OR CRUSH HAZARD!**
Do not place any part of the body near the Sliding Scissor Arms, Pivot Bolts, or Hydraulic Cylinders of the MegaJacks while they are being raised or lowered. Anything caught in the moving parts of the MegaJacks will result in injury or damage.

- Keep bystanders away during operations.
- Consider location of personnel.



D. Hydraulics

The MegaJacks are hydraulically powered. High pressure hydraulic leaks are an injection hazard. Hydraulic oil can be injected into the skin even through a glove. Check for hydraulic leaks with something extended from the hand. It can be a piece of cardboard or a stick. If hydraulic oil is injected into the skin, seek medical attention immediately.



E. Ventilation

The MegaJacks are positioned near the HPU which uses a diesel engine which produces exhaust that could be harmful. Ensure adequate ventilation is provided.

F. Noise

The MegaJacks themselves make no noise. The diesel engine of the HPU operates below 75 dB. Other work processes in the area may be greater. Use hearing protection. The combined noise rating generated at the work location has the potential of being over 85 dB.

2. Overview

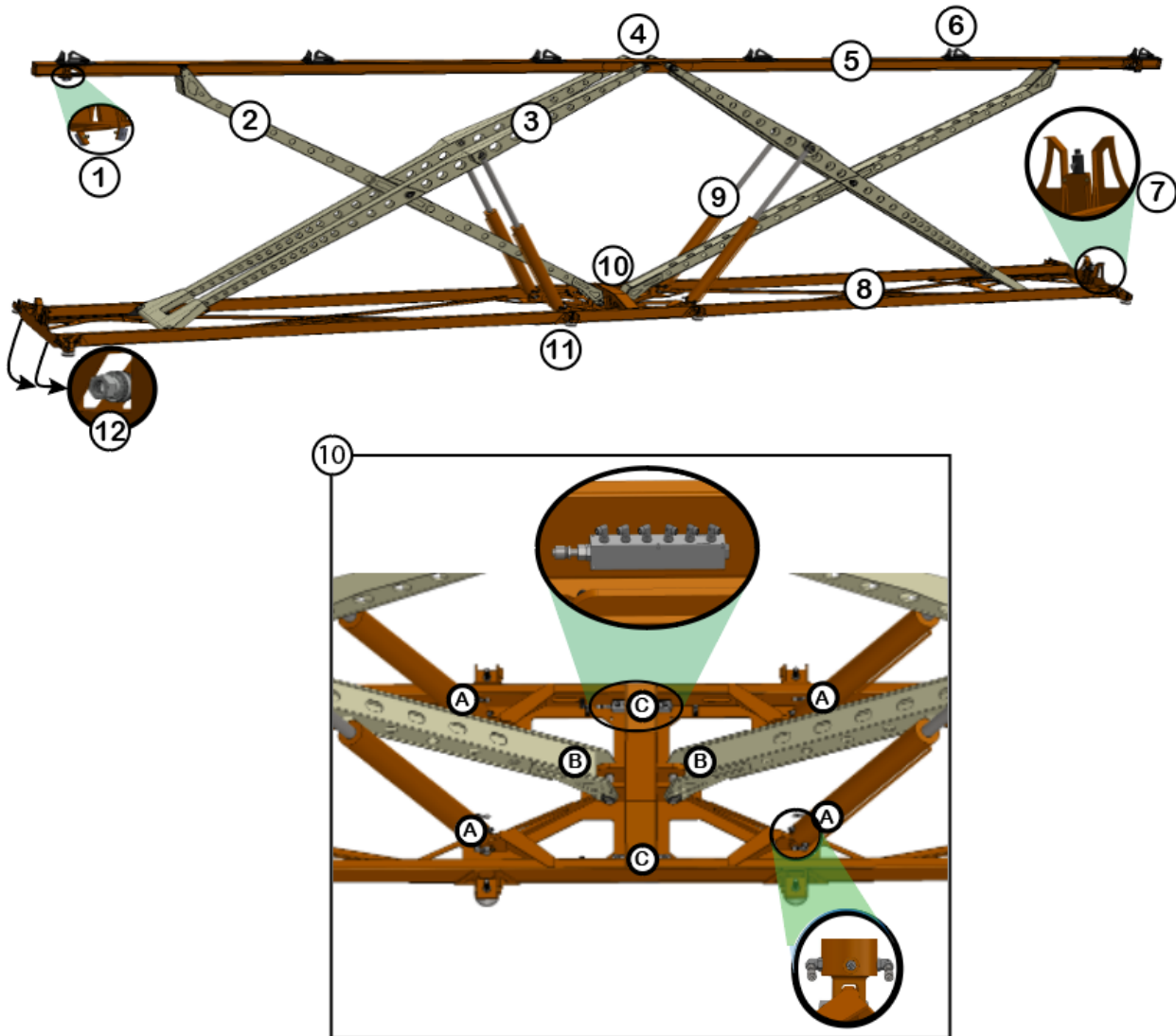
2.1 Description

The structure of the MegaJacks consists of a BaseFrame, Single Scissor Arms, Double Scissor Arms, and a Top Beam. Pivot Bolts anchor the Single Scissor Arms to the center of the Base Frame and the Double Scissor Arms to the center of the Top Beam. The opposite ends of the Scissor arms slide along runners from the ends of the Base Frame and Top Beam. A row of perlin pockets are positioned evenly across the Top Beam.

The MegaJacks run on hydraulics. Two hydraulic connections at one end of each MegaJack connect it to the hoses of an HPU. Controls on the HPU activate the hydraulic function of the MegaJacks.



2.1 Nomenclature



- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Centering Guides (qty 4) 2. Single Sliding Arms (qty 2) 3. Double Sliding Arms (qty 2) 4. Top Beam Scissor Pivots 5. Top Beam 6. Perlin Pockets (qty 6) 7. Lift Assist Cylinders (qty 2) 8. Base Frame 9. Hydraulic Lift Cylinders (4) | <ul style="list-style-type: none"> 10. FunctionCenter <ul style="list-style-type: none"> A. Hydraulic Connection Points B. Base Frame Scissor Pivots C. Hydraulic Manifold 11. Leveling Feet 12. HPU Hose Connectors (qty 2) |
|---|---|



3. Operation

3.1 General

The MegaJacks do not have their own hydraulic source. They are powered by a separate hydraulic pump. They only have two functions: raise and lower. Hydraulic pressure raises the MegaJacks. Hydraulic pressure lowers the MegaJacks.

CAUTION IMPORTANT! If a MegaJack does not operate safely, Tag it "Out of Service." Do not operate a MegaJack unless it is safe to operate.

3.2 Hydraulic Function

Each MegaJack uses only one hydraulic circuit represented by two hydraulic connections, one for Hydraulic hose A and one for hydraulic hose B. Applying pressure to hydraulic connection A raises a MegaJack. Applying pressure to hydraulic connection B lowers it.

It takes a little more than 14 gallons of hydraulic oil to raise a MegaJack.

1. Ensure hydraulic oil levels are adequate.
2. Ensure hoses have no leaks, kinks, or damage.
3. Ensure all hydraulic connections are snug.
4. Ensure hydraulic cylinders are greased.

3.3 Operating MegaJack(s)

1. Properly connect all hydraulic hoses to a hydraulic pump (HPU)
2. Follow starting procedures of the connected HPU. If hydraulic system is cold, let the HPU run for a few minutes before engaging hydraulics.
3. Actuate hydraulic valve(s) to raise MegaJack(s) to desired height.
4. Lower MegaJack(s) by reversing hydraulic flow.

Due to a counterbalance valve installed on the base of lift cylinders, MegaJack(s) cannot be lowered without hydraulic pressure.



4. Specifications

4.1 General

Dimensions

Length.....	57 ft.
Width.....	84 in.
Height.....	36 in.

Weight and Capacity

Weight.....	2,132 lbs
Capacity.....	17,000 lbs

4.2 Hydraulic System

Source.....	HPU
Hydraulic Fluid Recommended.....	AW46

5. Maintenance

5.1 General

The equipment should be maintained in a safe operating condition to be in service on the job. It should be taken out of service, locked, and tagged “Out of Service” when damaged or weakened from any cause. It must not be used until repairs are completed.

5.2 Periodic Inspection

Examine for possible defects

- Cracks or dents in main frame, scissor sliders, and runners
- Hydraulic cylinders
- Damaged or missing pivot bolts and washers
- Damaged hydraulic connections

Each MegaJack shall be thoroughly inspected at times which depend upon the service conditions. Inspections shall be not less frequent than the following:

- For constant or intermittent use at one locality, once every 6 months
- Immediately before and immediately after a MegaJack has been subjected to abnormal load or shock.

5.3 Routine Maintenance


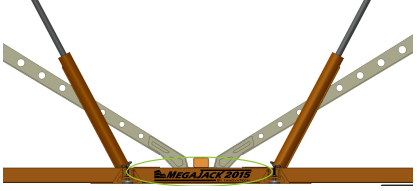

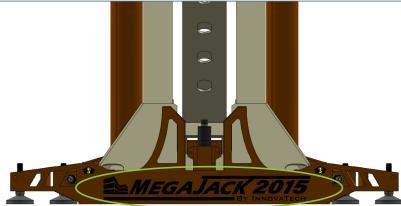
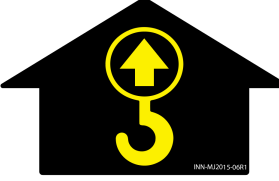
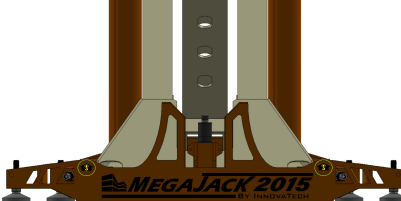

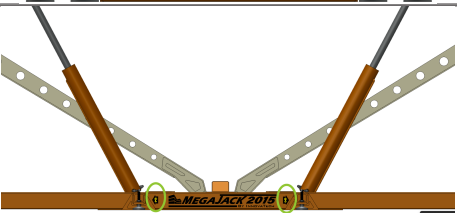
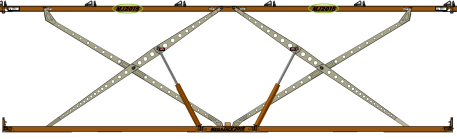

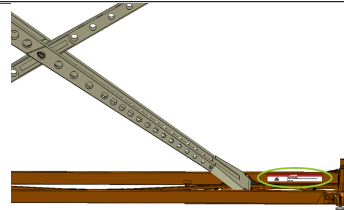
The Hydraulic Pump powering the MegaJacks requires hydraulic and engine maintenance. Refer to the HPU manual for maintenance specifications.

The MegaJacks are engineered with oil impregnated bushings so the only grease points on them are the hydraulic cylinder pivots.


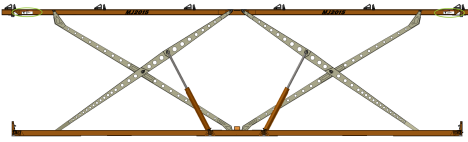

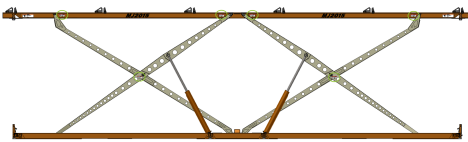
Apply grease to the grease zerks on the hydraulic cylinders weekly.



Appendix: Labels and Decals

Decal and Label Chart				
Decal ID#	Qty	Decal Purpose	Decal Visual	Decal Application
INN-MJ2015-01R1	2	Logo /Name		
INN-MJ2015-09R1	2	Logo /Name		
INN-MJ2015-06R1	4	Safety Label Lift Point		
INN-MJ2015-08R1	4	Safety Label Lift Point		
INN-MJ2015-02R1	4	Model Number	MJ2015	
INN-MJ2015-03R1	4	Safety Label Pinch Point		



INN-MJ2015-04R1	4	Safety Label Crush Hazard	 <p>WARNING CRUSH HAZARD DEATH or SERIOUS INJURY could occur if caught under lowering jibs. KEEP CLEAR</p>	
INN-MJ2015-05R1	12	Safety Label Pinch Point	 <p>DANGER PINCH POINT HAZARD DEATH or SERIOUS INJURY could occur from contact with pinch points. KEEP CLEAR</p>	





INNOVATECH

ENGINEERED TO DO MORE.

Innovatech Manufacturing
4360 N WECCO Rd
Cedar City, UT 84721
<https://support.innova.tech>

