

Mary Haugen Enterprises 1851 Heartland Ave. Casselton, ND 58012

Toll Free 877-580-6218

Phone: 701-347-4827 Fax: 701-347-4830

Industrial Jib

Model # MIJ

Operator's Installation and Safety Manual



DOC# MIJ2017



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Thank you for choosing a Haugen Industrial Jib

Before you use this Jib you must read and understand the Operator's Manual

Keep a copy of this manual on the Industrial Jib at all times If you have questions call us at 1-877-580-6218

MIJ - Industrial Jib

Haugen Industrial Jibs are designed for use on rough terrain extendable or straight mast forklifts, tele-handlers and industrial lift trucks. The MIJ has been engineered and rated for the Load Capacities as shown on the load chart decal on the Jib and in the load chart in our Manual. Haugen Attachments has been building this Model of Industrial Jib for many years, these units have proven themselves durable and extremely safe throughout the United States and Canada.

Engineering Certification

The Haugen Indistrial Jibs have been designed and built with a minimum of a 2 to 1 safety factor. The MIJ has been tested and certified by a third party Certified Professional Engineer. A copy of the certification letter is included in this manual. If required a copy of the full engineering report is available upon request.

Installation Safety Pins

The MIJ is very easily installed by inserting your forklift tines fully into the pockets so the ears extend behind the Forks. Then install the safety retainer pin behind the fork and insert the security clip. (As Shown on the diagram) The safety retainer pins are chained to the Jib to prevent loss of the pins. These must be properly installed and secured before using the Jib. Note Jib, Hook and retainer pins should be fully inspected before every use.



- Operating Rules for Industrial Jibs -

Inspection

- 1. Check the lift hook, Latch and Shackle making sure that it is properly installed and in good working condition.
- 2. Safety pins must be installed and secured with the cotter pin.
- 3. Check the Industrial Jib for any excessive wear, cracked or broken welds.
- 4. Check each of the lifting holes for any elongation.
- 5. The Industrial Jibs load chart must be present and legable.



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- Operating Rules for Industrial Jibs continued -

Installing on a Lift Truck

- 1. Secure the safety pins behind the heel of each fork.
- 2. Optional Safety chains when used are only to be used in addition to the safety retainer pins, not in lieu of.
- 3. Disable any hydraulic functions to the Forklift Carriage. Such as tilting or swinging functions.
- 4. Position the fork tines so that the Industrial Jib will hold the load centered on the Forklift.

General Operating Rules

- 1. Inspections as stated above must be made prior to each use of the Industrial Jib
- 2. Before each use make sure the Jib is properly installed and the hook and shackle are secured to the Jib and the screw pin is tight.
- 3. Check extension adjustment pin to make sure it is functioning properly and secured in the desired position.
- 4. Determine that the load your lifting is within the capabilities of the Industrial Jib and the capacity of the Lift Truck. Never exceed the capacities on either the Forklift or the attachment, Remember that capacity of the Forklift decreases when the load is raised and especially with Telehandlers when the load is extended.
- 5. Forks should always be level or slightly tilted back, never tilted forward when using the Jib.
- 6. The Forklift operator must remain in the seat at the controls with the engine running whenever there is a load on the Jib.
- 7. Only qualified and trained personal should operate the forklift. Operators should know and follow all local, state and federal safety regulations
- 8 All safety regulations must be followed at all times.
- 9. Any personal working around the Jib must wear hard hats and steel toed boots
- 10. When lifting loads there should be no personel within a minimum of ten feet in all directions of the fall zone, never put yourself or any part of your body under a suspened load.
- 11. Operator must not be under the influence of any alcohol or drugs.
- 12. Do not pull loads. The Jib is designed for vertical lifting ONLY.
- 13. Carry all loads low and use tag lines to keep loads from swinging.
- 14. Be sure forklift is on a level /firm surface before raising the load.
- 15. Do not use the Jib in anyway to lift personal.
- 16. Never exceed the Forklift Manufacturers lifting capacity. Note: Forklift Manufacturers "New down rated load capacity" applies when using a Jib or any other attachments. A down rated load chart must be obtained from the manuafacturer of your Forklift.
- 17. Refer to the Forklift's operators manual for more information on handling elevated loads and additional safety tips.



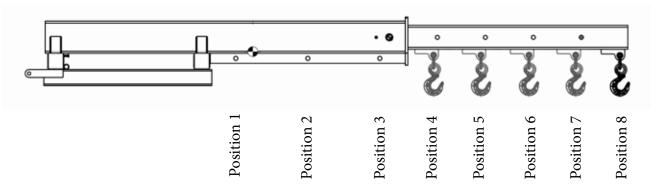
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Lift Truck Capacity

Official "New Down -Rated Capacity" for any lift truck must be obtained from the Lift Truck Manufacturer whenever an attachment is added to a lift truck. Our load chart reflects only the capacity of our MIJ Industrial Jib and in no way reflects the actual capacity of the Forklift/Attachment combination. The information in the chart below can be used by the Lift Truck Manufacturer to create a down rated load chart.



Model # MIJ
8 Hook Positons ranging from 48" to 144"
Empty Weight = 525 LBS
Vertical Center of Gravity = 8.43"
Horizontal Center of Gravity - See chart below

Hook Position	Horizontal Center Of Gravity	Distance
1	39.00"	48.00"
2	39.19"	66.00"
3	39.38"	84.00"
4	39.51"	96.00"
5	42.60"	108.00"
6	45.70"	120.00"
7	48.79"	132.00"
8	51.88"	144.00"



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Multiple Hooks

The MIJ is furnished with a hook and shackle system that can be moved easily to various positions on the Jib as needed. The Hook is rated for a 6000 lbs capacity. More than one hook can be used but the lift capacity would be limited by most extended hook. For example if the most extended hook is in the eight position then the load must not exceed 2050 lbs.

Jib Load Capacity

The lift capacities for the various positions shown in the table below are for our Model (MIJ) Industrial Jib. Note: This chart reflects the capacity of the Jib only and does not reflect the capacity of the forklift nor the maximum load that can be safely handled by a particular forklift

(Copy of the Load Chart Decal)

WARNING

*Lift Capacity Rating

Jib Position	Length	*Max Lift Capacity
1	48.00 inches	6000 LBS
2	66.00 inches	6000 LBS
3	84.00 inches	4700 LBS
4	96.00 inches	3500 LBS
5	108.00 inches	3100 LBS
6	120.00 inches	2650 LBS
7	132.00 inches	2450 LBS
8	144.00 inches	2050 LBS

Empty Weight - 525 lbs

Note:

The information, load charts and illustrations contained in this manual about the Haugen Industrial Jib were current at the time of publication. Haugen Attachments is continuely updating and improving our products. Therefore Haugen reserves the right to redesign this attachment and update the operators manual at any time without notice.

^{*} These lift capacity ratings are for the Industrial Jib only. The lifting capacity is ultimately determined by the host machine. Never lift more than the operating capacities of this Industrial Jib or the capacities stated by the Manufacturer of the host machine.



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HEYER ENGINEERING, PC

Structural Consultant 1020 36th Street SW Fargo, ND 58103 701-280-0949 612-238-3806 Fax www.heyerengineering.com

March 6, 2017

Jeff Haugen Haugen Attachments - Marv Haugen Enterprises 1851 Heartland Ave. Casselton, ND 58012

RE:

MIJ 2000 Industrial Jib Capacity/Structural Analysis

Mr. Haugen:

Copy of the Industrial Jibs engineering certification report. A full detailed report is available upon request.

Heyer Engineering has completed an analysis of the MIJ 2000 Industrial Jib attachment. The jib structure was analyzed using IBC 2012 and AISC 14th Ed code requirements. The allowable loading, which maintains a 2 to 1 safety factor against full section yielding, at each connection point is shown in the table below. The jib structure was analyzed with the loading plus an additional 20% impact in the gravity direction and 10% impact in both lateral directions. Documents given to Heyer Engineering from Haugen Attachments include the weldment drawings for the above listed Swivel Jib which are attached to this report.

The above referenced Industrial Jib is understood to be built out of rectangular HSS sections and steel plates. All HSS sections have been analyzed using A500 Gr. B structural steel. All other components have been analyzed using A36 structural steel. It is also understood that all components will be fully welded with a minimum of a 3/8" fillet weld.

The results of the analysis are shown in the attached calculations and are summarized below:

Distance from Back of Jib to Pick Point	Capacity
48"	6000 lbs
66"	6000 lbs
84"	4700 lbs
96"	3500 lbs
108"	3100 lbs
120"	2650 lbs
132"	2450 lbs
144"	2050 lbs

In conclusion, the MIJ 2000 Industrial Jib is structurally sufficient to support the loads as given in the allowable load chart **ONLY** when following the "Operator's Installation and Safety Manual" as stated by Haugen Attachments – Marv Haugen Enterprises. If there are any questions or comments with the above listed report, please feel free to contact Heyer Engineering at any time.

Sincerely, Heyer Engineering, PC JIM HEYER 2324
DATE S. G. 17 ST

Jim Heyer, PE Principal

Andrew Wellumson
Andrew Wellumson
Structural Designer



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Warranty Statement

Mary Haugen Enterprises warrants it's products, under normal use and maintenance, to be free from defects in material and workmanship for a period of one year from the purchase date from an authorized Haugen Dealer. The limited warranty is extended only to the original purchaser of Haugen ProductsWarranty Statement

- 1. During the applicable warranty period, Haugen at it's option, will repair or replace any part determined by Haugen to be defective. Such repair or replacement shall take place at Haugen's factory or a location designated by Haugen. Under no circumstances shall Haugen be obligated for the cost of any repair or replacement by anyone other than Haugen without its express written consent.
- 2. Parts may not be returned without the express written authorization from Haugen.
- 3. Some purchased components including but not limited to hooks, cylinders, and hydraulic motors are subject to inspection and warranty of the respective manufacturers.
- 4. This warranty is void if any attempt is made to make field repairs. Make sure to leave the product in its original failed condition.
- 5. To make a claim under this warranty first contact your authorized Haugen dealer. The Haugen dealer shall complete the warranty claim form and obtain written authorization from Haugen to return parts. All warranty claims must include detailed information regarding make and model of the vehicle on which the Haugen product was mounted, hours of use, description of events that led up to the failure, and any other information helpful in reviewing this claim. All warranty returns must be prepaid. Shipments arriving at our factory on a freight collect basis will be refused by our recieving department. The freight charges will be credited if the parts are determined by haugen to be defective, and the associated freight costs in returning those parts will be prepaid by Haugen.
- 6. Products or parts thereof which, as determined by Haugen's examination, show wear from normal use, been improperly operated, damaged by accident or negligence, field repaired, altered or modified are not considered defective in material or workmanship and are not covvered by this warranty. This warranty does not obligate Haugen to bear any cost of labor for field repair, replacement, testing, or adjustment nor damaged caused by accident, abuse, misuse, or environmental elements.
- 7. Any parts or labor required to repair or replace parts not covered under this warranty will be charged to the customer. Parts repaired or replaced by Haugen are then covered by this warranty only for the remainder of the original warranty as if such parts were original parts.
- 8.. Haugen reserves the right to change its specifications and designs at any time.

This warranty is exclusive and in lieu of all other express warranties, if any including implied warranties of merchantability and fitness for a particular purpose. It shall not extend beyond the duration of the expressed warranty provided herein and the remedy for violations of any implied warranty shall be limited to repair or replacement of the defective part pursuant to the terms contained herein. No employee, dealer, salesman,or representative is authorized to change this warranty in any way or grant any other warranty. Haugen shall not be liable for any consequential, incidental, or punitive damages, losses or expenses, including those resulting from or caused by any defects.

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