



355 Clow Lane Birmingham, AL 35217  
Ph: 205-849-0178 / Toll Free: 1-888-733-8248

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Jordan Reduction Solutions – Hog Mill Grinder Manual

## **DO NOT REMOVE THIS NOTICE**

**WARNING: This machine is potentially dangerous and could cause serious injury or death.**

- Read, obey and understand all operating instructions.
- Wear eye protection and other appropriate safety items.
- Never climb, walk or stand on machine.
- Inspect machine before operating, making sure all guards are in place and in good condition.
- Operate within rated machine capacity.
- Do not remove hopper or guards while machine is in operation.
- Keep clear of all moving parts.
- Never try to clear hopper with stick or other tools while machine is on.
- Do not put hands or other body parts inside machine or any moving part or pinch point.
- Use extreme caution when around machine and controls.
- Keep machine clean and properly maintained.
- Stop machine immediately at any sign of malfunction or danger.
- Use electrical lockouts when servicing and/or when machine is not in use.
- Only authorized personnel should operate this machine.

**WARNING: This machine is potentially dangerous and could cause serious injury or death.**

*O.E.M SUCCESSORS TO MITTS AND MERRILL  
MATERIAL PROCESSING AND SIZE REDUCTION EQUIPMENT*

The logo for Mitts & Merrill. It features a stylized graphic of a building or structure above the company name. The name 'Mitts & Merrill' is written in a bold, black, sans-serif font. Below the name, the tagline 'Quality Since 1854' is written in a smaller, italicized, black, sans-serif font.

**Mitts & Merrill**  
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## DO NOT REMOVE THIS NOTICE ADDITIONAL WARNINGS

**NEVER** OPERATE HOG MILL SYSTEM WITHOUT ALL ACCESS PANELS AND GUARDS IN PLACE.

**NEVER** OPERATE HOG MILL SYSTEM WITHOUT INFEED CHUTE BOLTED INTO PLACE.

**NEVER** OPERATE HOG MILL SYSTEM WITHOUT CLEAN OUT DOORS IN PLACE AND SECURED

**NEVER** REACH INTO INFEED CHUTE OR USE AN OBJECT TO REACH INTO THE CHUTE WHILE HOG MILL SYSTEM IS RUNNING. IF “BRIDGING” OCCURS, , SHUT DOWN THE HOG MILL SYSTEM COMPLETELY AND REMOVE THE BRIDGE.

**BRIDGE/BRIDGING:** OCCURS WHEN MATERIAL BLOCKS ITS OWN FLOW AND DOES NOT FALL INTO THE CUTTING CHAMBER.

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## **OPERATION AND MAINTENANCE OF YOUR JORDAN REDUCTION SOLUTIONS MITTS AND MERRILL HOG MILL GRINDER**

**WARNING: THIS HOG MILL IS DESIGNED FOR A MAXIMUM SPEED OF 1200 RPM.  
OPERATION SPEED MUST NOT EXCEED 1200 RPM**

A complete and thorough maintenance check should be made at least once a week concerning the following:

1. All moving parts should be inspected for defects and possible fatigue caused by hard or extreme processing usage.
2. Check all bearings and other hold down bolts for tightness.
3. Check all bearing for proper lubrication according to bearing manufacturers specifications.
4. For peak performance and optimum production, of your JRS-Mitts & Merrill Hog, keep all knives and throat bars sharp. See instructions for sharpening knives and throat bars.
5. Knife bolts and knives should be inspected for tightness and proper bolt torque. Please refer to the appropriate torque chart contained in this manual for proper torque settings.
6. Direct Drive Units Only: Inspect the direct drive coupling per coupling manufacturers specifications.
7. V-Belt Drive Units: Inspect belts and sheaves for proper tightness. Properly tightened belts should not be able to be deflected by hand more than one thickness of the belt.

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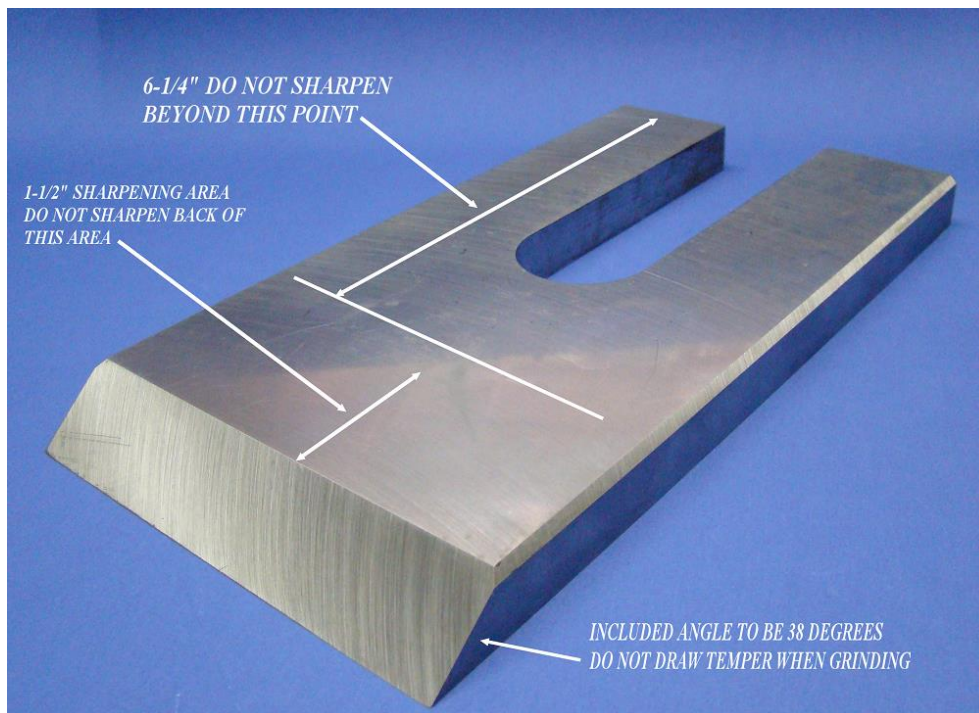
The logo for Mitts & Merrill. It features a stylized graphic of a building or structure with horizontal lines above the text. The text 'Mitts & Merrill' is in a bold, black, sans-serif font. Below it, the tagline 'Quality Since 1854' is written in a smaller, italicized, black, sans-serif font.

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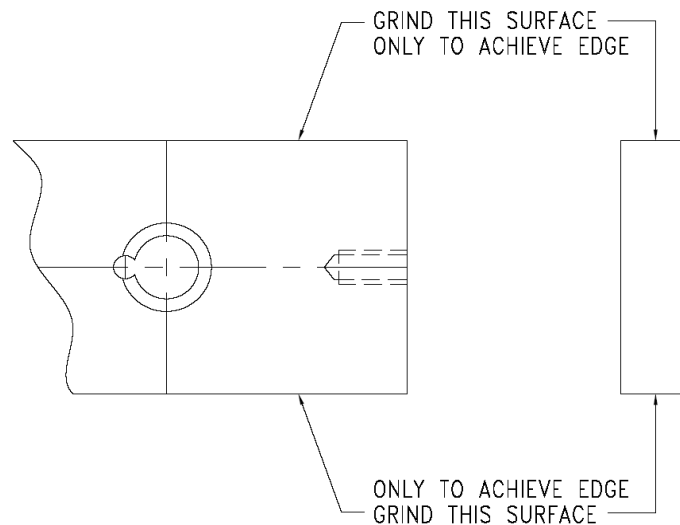
## INSTRUCTIONS FOR GRINDING, REPLACING AND SETTING KNIVES AND THROAT BARS

### GRINDING:

1. To sharpen knives and throat bars, grind as shown in figure 1 and 2 below:



**FIGURE 1 – KNIFE SHARPENING**

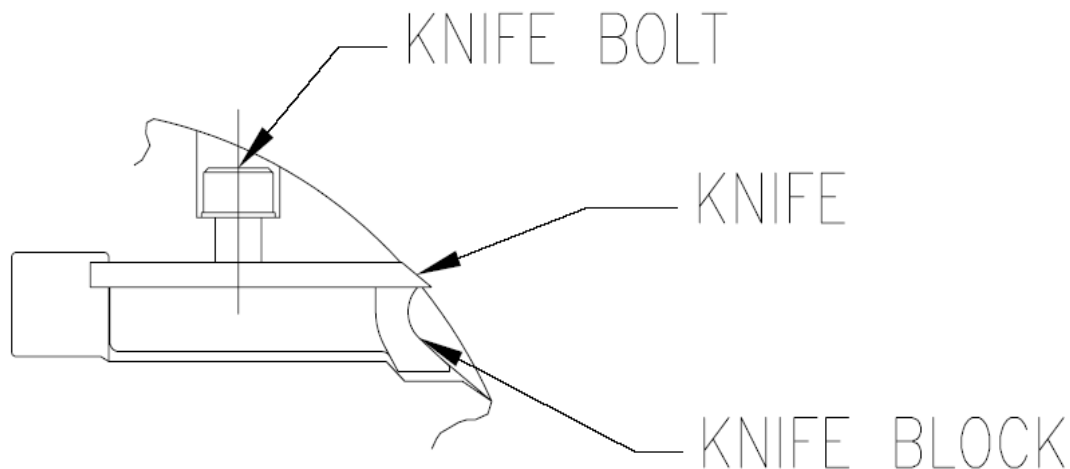


**FIGURE 2 – THROAT BAR SHARPENING**

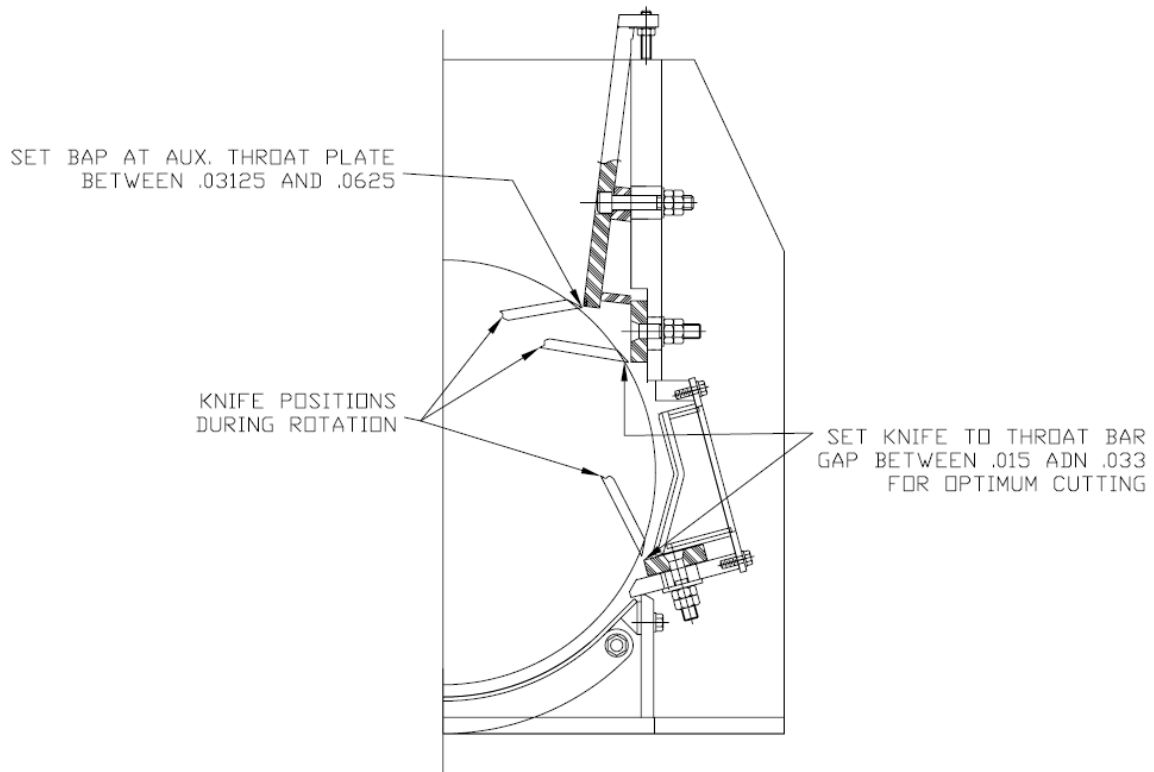
**RELACING AND SETTING:**

1. Before attempting to replace knives, clean knives, knife blocks and knife slots in cylinder thoroughly. An accumulation of grease and dirt could cause the knives to work loose, possibly causing serious damage.
2. Insert the knife into the knife slot, leaving the cutting edge projected about 1/32 over the knife gauge. Tighten knife bolt slightly.
3. Using a Babbitt or lead hammer, drive the knife back until the cutting edge coincides with the edge of the knife gauge as shown in figure 3 on page 4.
4. After setting the knife, use a torque wrench to tighten knife screw. Please reference the torque chart (figure 5) on page 6 and 7 for proper torque settings. **WARNING:** Use the proper torque wrench and/or multiplier for setting knife torque – **DO NOT** use cheater bars or other apparatus to tighten the knives. All knife bolts must be at their recommended installation torque. Failure to properly torque knives could result in catastrophic damage to your hog mill.

5. Repeat the previous procedure for all knives.
6. The throat bars are adjustable and should be set up to the knives as close as possible without striking the knife. For best results, the space should not exceed 1/64” as shown in figure 4 on page 5. Please note that all stationary throat bars are reversible and flappable for use of all four cutting edges.
7. IF the knife setting in the cylinder is the same as it was when it left the factory, throat bars may be set against throat bar stops and secured in place. This will yield the proper clearance required between the knives and throat bars.



**FIGURE 3 – KNIFE INSTALLATION**



**FIGURE 4 – THROAT BAR SETTINGS**

**FASTENER TORQUE TABLE**

FASTENER IDENTIFICATION		TORQUE FT-LBS
A	KNIFE BLOCK SCREW	1400-1500
B	THROAT BAR	200-225
C	AUXILIARY THROAT PLATE	Std for Bolt Dia. & Type
D	SCREEN SUPPORT	60-70
E	SCREEN STOP	60-70
F	CLEANOUT DOOR	40-50
G	SCREEN REMOVAL DOOR	60-70

**FIGURE 5 – GENERAL TORQUE SETTINGS**

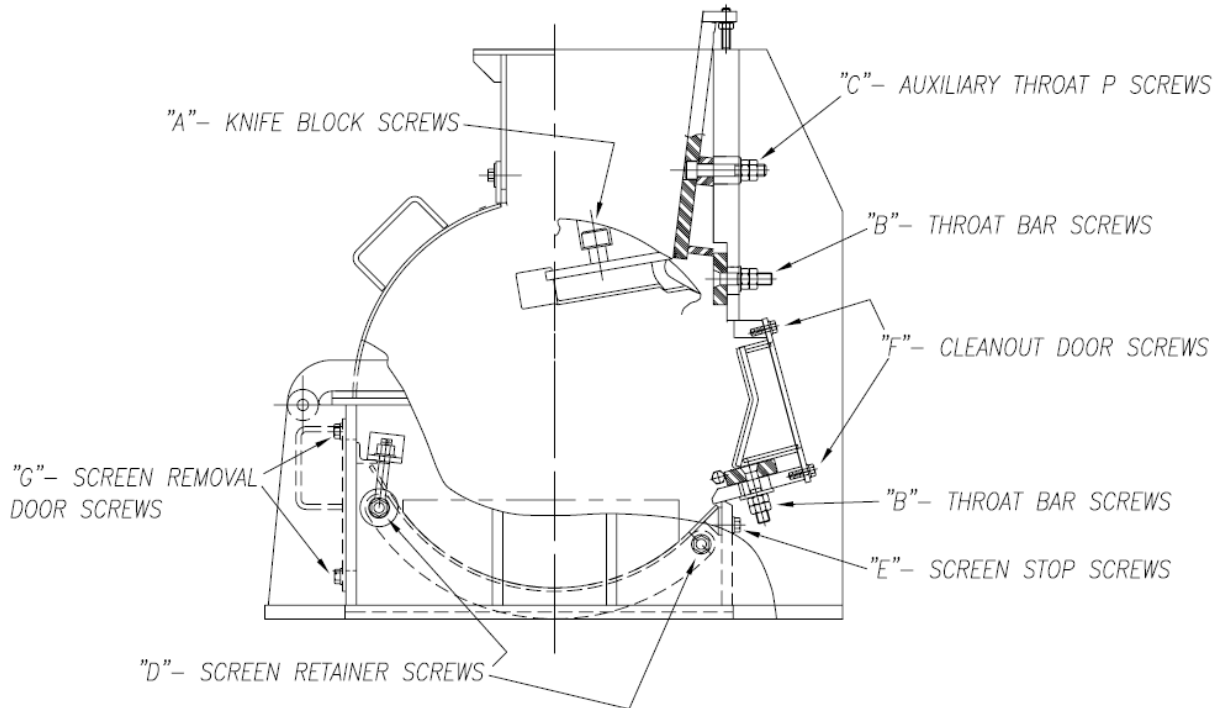
**NOTE: SEE SHEET 7 FOR MACHINE SPECIFIC SETTINGS AND GUIDELINES, THE ABOVE CHART IS FOR GENERAL REFERENCE ONLY.**



**MACHINE SPECIFIC TORQUE GUIDELINES**

1. JRS, Mitts and Merrill Hog Mills should never exceed the R.P.M. shown in the chart below.
2. Knife bolts should be tightened within the minimum and maximum torque values indicated in the chart below.
3. It is recommended that a torque wrench be used to achieve the above mentioned torque ratings. The chart below has recommended torque wrenches for these applications.
4. All moving parts should be checked each week for defects and possible fatigue that may arise due to heavy or severe operation.
5. Knives, knife blocks and knife bolts should be kept clean of all grease, oil and dirt when replacing in the cylinder.

Hog Model	RPM	Cap Screw	Torque Rating	Wrench A	Socket A
BDHS	1800	1"-8 x 3" Lg	800-900 Ft-Lbs	Torqometer Model TQ-1003L	3/4" Hex Model IM-243
13 Series	1200	1 1/4" -7 x 3 1/2 Lg	1400-1500 Ft-Lbs	Torqometer Model TQ-1503AL	7/8" Hex Model IM-283
14 Series	1200	1 1/4" -7 x 3 1/2 Lg	1400-1500 Ft-Lbs	Torqometer Model TQ-1503AL	7/8" Hex Model IM-283
15 Series	1200	1 1/4" -7 x 3 1/2 Lg	1400-1500 Ft-Lbs	Torqometer Model TQ-1503AL	7/8" Hex Model IM-283



**FIGURE 6 – GENERAL INTERNAL HOG ARRANGEMENT**

## REPAIR PARTS (HOW TO ORDER)

Repair parts can be ordered from:

**O.E.M SUCCESSORS TO MITTS AND MERRILL**  
**MATERIAL PROCESSING AND SIZE REDUCTION EQUIPMENT**



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**JORDAN REDUCTION SOLUTION**  
**PO BOX 170339**  
**355 CLOW LANE**  
**BIRMINGHAM, AL 35217**

**Telephone: (205) 849-5050**

**Fax: (205) 849-5075**

**E-Mail: [parts@jordanreductionsolutions.com](mailto:parts@jordanreductionsolutions.com)**

**When ordering parts, please furnish:**

- 1. Serial number of machine.**
- 2. Model number of machine.**
- 3. Item number as well as name and part number.**
- 4. Quantity of each part.**
- 5. Shipping instructions.**

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