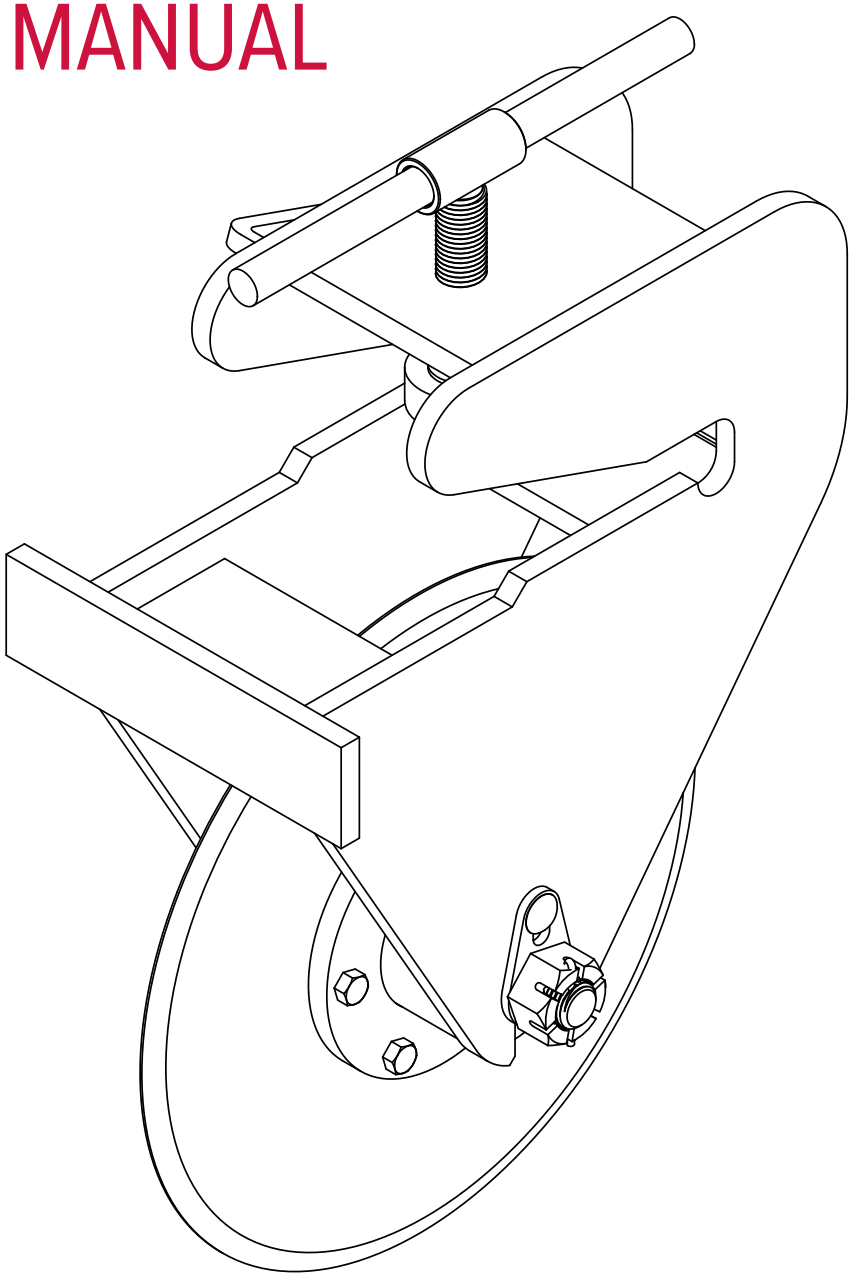
ARROW®
MATERIAL HANDLING PRODUCTS

ASPHALT CUTTER

OWNER'S MANUAL



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MODEL: _____

SERIAL NUMBER: _____
(Located on data plate attached to the unit frame)

DATE PURCHASED: _____

APPLICATION

For a wide range of road and utility projects associated with repair, resurfacing, trenching, scoring, edging and installation of sewer drains, water, and power lines.

This unit is designed for rotary cutting with a maximum applied vertical down pressure of 20,000 lbs. It should not be utilized on machines that will exceed this force. Note that the vertical load carrying capacity is reduced if the cutter is also subjected to a side load. The down pressure available is generally a function of the size of the machine. The down pressure actually required on the job is dependent on the force required to penetrate the surface of the roadway. In the case of asphaltic type surfaces, this force varies with the age and composition of the material, but is particularly dependent on the temperature of the asphalt (generally above 60 degrees F). The higher the temperature (over a period of time), the lower the force required to penetrate and cut.

During operation, the bucket should be tipped forward (see sketch on page 4). Maintaining this bucket position allows the cutting forces to push the cutter frame onto the bucket lip, minimizing the loads applied to the clamping mechanism. The bucket positioned in this way also provides the best overall visibility of the asphalt cutter. Correct cutting direction for loader buckets is to push the cutter wheel and on backhoe buckets to pull the cutter wheel toward you thereby keeping the bucket cutting edge tight against the cutter. Operation of cutter in other than recommended direction could potentially damage frame or clamping mechanism. CTI Asphalt Cutters are not recommended for installation on excavators.

FEATURES

Depth of cut: up to 5-1/2 inches (14 cm)

Weight: 210 lbs.

Wheel Diameter: 19 Inches

Welded steel construction

Heat treated, alloy, abrasion resistant, steel cutting wheel

High capacity roller bearings

Simple, reliable, clamping device

Fits between the teeth on larger size buckets and over the teeth on smaller sizes

Adaptable to both front-end loader or backhoe buckets

Readily removable cutting wheel for sharpening or replacement

Wide spread mounting to minimize rocking on bucket

Grease zerk guard prevents breakage

Grease chamber to extend periods between greasing

Side handles provide a convenient means to handle unit

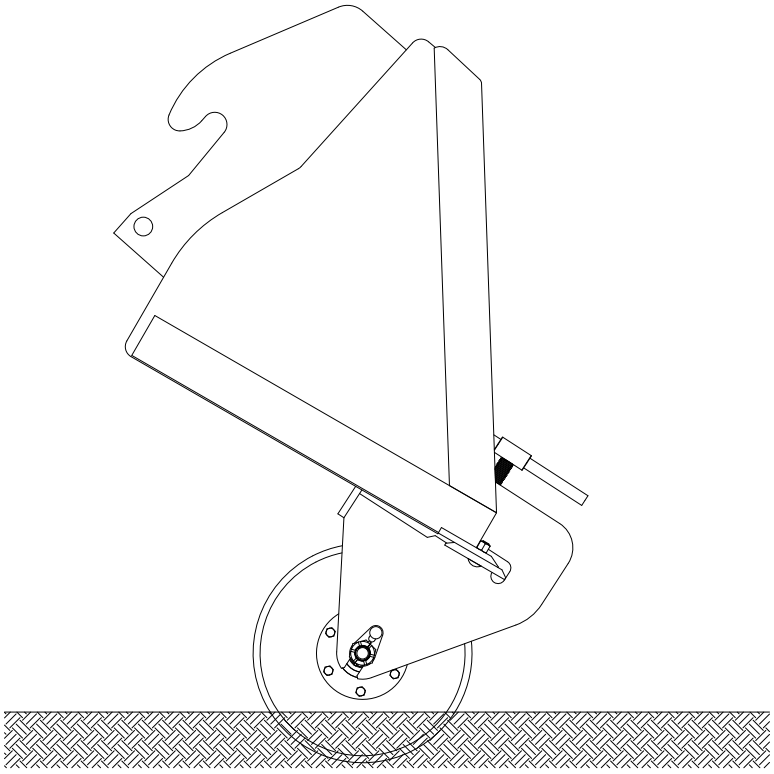
Clean design with minimum number of parts and related adjustments

No tools, adapters, or alterations required for installation

Quality manufactured

Readily transferable between machines

Can be used in pairs, if desired



INSTALLATION

1. Position bucket approximately 2 feet above the ground with bottom edge roughly horizontal.
2. Clean any excess dirt from the top and bottom of the bucket in the area the asphalt cutter is to be mounted. It is important that there be metal to metal contact between the bucket and the clamping mechanism.
3. Center the asphalt cutter on the bucket to distribute the loads uniformly over the bucket linkage and minimize the tendency to tip the bucket and asphalt cutter. If two asphalt cutters are mounted, they should be equally spaced on either side of the machine centerline.
4. While holding the asphalt cutter by the side handles, slip it over the cutting edge of the bucket and seat it firmly so that the cutting edge of the bucket rests against the bottom of mounting slot.
5. Tighten the clamp securely by rotating the clamp handle. (No additional leverage is required). Now the asphalt cutter should be firmly attached to the bucket. If there is any tendency to rock because of dents or distortion in the bucket, reposition the asphalt cutter.
   Note: If the bucket is equipped with teeth, the asphalt cutter can be mounted between or over the teeth, depending on their size.
6. The bucket is then rotated forward as indicated earlier for actual operation.

OPERATIONAL PRACTICES

1. Do not attempt sharp turns while cutting. To do so will introduce high side loading on the asphalt cutting blade, and may result in bearing or blade failure.
2. Avoid applying the maximum down pressure on the asphalt cutter and lifting the front wheels of the machine off the ground.
3. Do not cut to an excessive depth. Limit the depth of cut so that the hub, axle nuts, or frame do not contact the road surface.
4. Periodically check tightness and fit of asphalt cutter on bucket.

SAFETY CONSIDERATIONS

1. No one should be close to the asphalt cutter when under load.
2. Be sure at all times that asphalt cutter is firmly fitted on the bucket and clamped securely.
3. Machine operator must have good visibility of asphalt cutter and any obstacles, equipment, power cables, or people in the path of travel.
4. If forward visibility is limited, an observer should walk ahead (and to the side) of the machine to signal the operator concerning any potential hazards.
5. While the cut is relatively shallow, care must be exercised to be sure that no power lines or other utilities may be contacted during operation.
6. Travel speed must be appropriate for the congestion in the area and the number of interacting activities at the site.
7. While installing the asphalt cutter, care must be taken not to hold the asphalt cutter by placing hands in the mounting slots. This is a pinch point and fingers could get caught between the asphalt cutter frame and the bucket, causing severe injury. The asphalt cutter should be held only by it side handles.
8. Handle with extreme care; requires two people to lift and position. Keep feet clear of asphalt cutting wheel.
9. Note in handling, that the clamping handle is not locked in position and that the cutting wheel may rotate if the weight of the asphalt cutter is resting on the cutting wheel.

SERVICE PROCEDURES

Removal of Asphalt Cutting Wheel for Sharpening or Replacement

1. Remove cotter pin from nut and shaft on one end. Remove nut.
2. Slide shaft out of hub and mounting frame.
3. Remove hub and cutting wheel assembly from mounting frame.
4. Remove the six hex head bolts securing cutting wheel to the hub and slide cutting wheel off hub.
5. To reassemble cutting wheel on hub, refer to #5 of the Assembly Instructions.

Replacement of Shaft Bearings

1. Remove hub and cutting wheel assembly from mounting frame.
   (Refer to removal of Cutting Wheel Instructions.)
2. Slide both short spacers out of seals at either end of hub.
3. Seals are a medium press into the hub and can be removed with a bearing puller.
4. Remove snap rings on either end of hub, then remove bearing retainer rings.
5. A standard 2-jaw internal bearing puller is required for the removal of the bearings. Once the bearing started to move, the puller may need to be rotated to correct any tendency for the bearing to cock in the hub. The second bearing can be removed in the same manner.
6. To replace the bearings refer to steps #1 through #6 of Assembly Instructions.

LUBRICATION

Because of the relatively low speeds involved, greasing is normally required infrequently. If there is any evidence that moisture and /or dirt is getting past the seals, or that a significant amount of grease is being lost by passing through the seals, then additional grease should be added. However since grease can deteriorate with age, it is recommended that the grease chamber be cleaned out and recharged once each year.

HUB ASSEMBLY

Be sure all parts are clean before assembly

1. Press one bearing into hub until it bottoms against shoulder in hub. Apply force to the outer ring of the bearing only.
2. Turn hub assembly over and press in second bearing in until it bottoms against shoulder.
3. Push short spacer through seal. Press seal and short spacer into hub until outer surface of seal is flush with hub. (Make sure that the lip on the seal is facing out)
4. Turn hub assembly over and install second seal and short spacer, repeating step #3.

CUTTING WHEEL ASSEMBLY

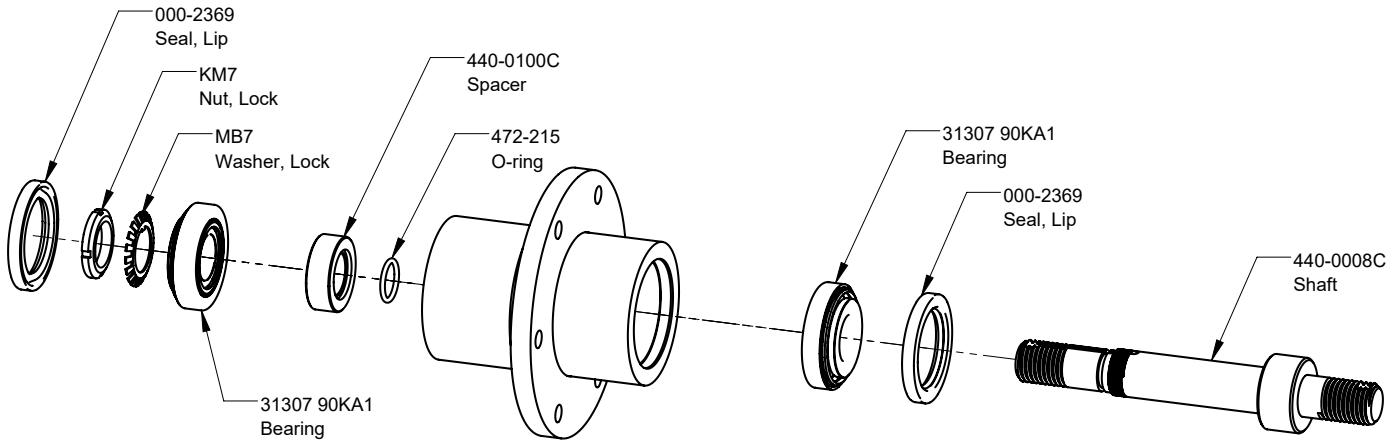
1. Slide cutting wheel over hub assembly onto the machined support ring. Cutting wheel loads must be carried directly by the hub, not the bolts. Align holes and insert the six hex head bolts thru the hub assembly then thru the cutting wheel. Place the washers on hex bolt next to the cutting wheel, apply the hex lock nuts. Bolts and nuts should be tightened to 1000 inch-pounds.

CUTTING WHEEL AND HUB INTO MOUNTING FRAME ASSEMBLY

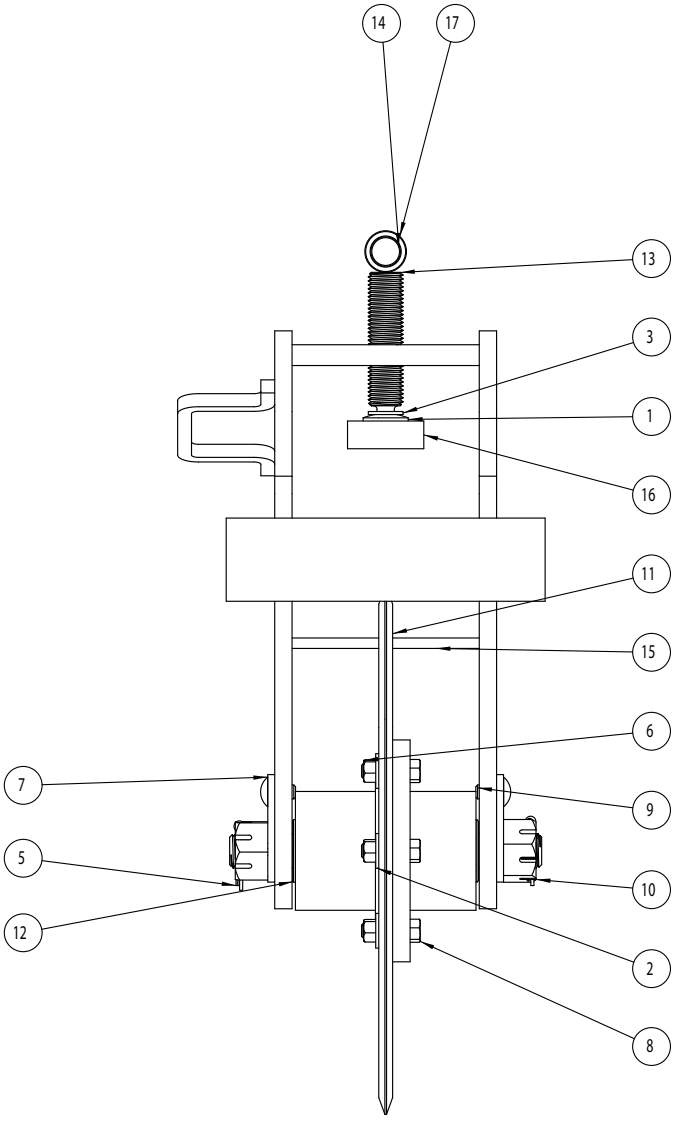
1. Position cutting wheel and hub assembly between mounting frame side plates and slide through mounting frame and cutting wheel and hub assembly.
2. Center shaft in mounting frame and install a flat washer and castle nut on one end. Place cotter pin through nut and shaft and bend cotter pin around castle nut to prevent nut from coming loose.
3. Install a flat washer and castle nut on the other end of shaft. Tighten second nut until the frame side plates contact the short spacers so that they do not rotate when the cutting wheel is turned. The cutting wheel should turn easily and smoothly without any noise. Install cotter pin through nut and shaft and bend cotter pin around castle nut.
   Note: Cotter pins must be installed in both ends of the shaft.
4. Using the grease fitting, fill hub grease chamber with appropriate bearing grease. When the chamber is full, the grease will start to appear around the shaft under the seal. Avoid excessive pressure; overfilling the grease chamber will push the seals out of the hub.

DIAGRAMS

THE HUB



ASPHALT CUTTER SIDE VIEW



NUMBER	DESCRIPTION	PART NUMBER	QTY	UOM
1	Washer, Spherical	000-2373	1	ea
2	Washer, Flat	000-6045	6	ea
3	Washer, Flat	000-6046	1	ea
4	Washer, Flat	000-6047	1	ea
5	Pin, Cotter	000-6066-021	2	ea
6	Nut, Hex	000-6070-016	6	ea
7	Retainer, Pin	1000684-125	2	ea
8	Bolt, Hex	15210	6	ea
9	Bolt, Button Head	24109	2	ea
10	Nut, Hex Castle	36823	2	ea
11	Wheel, Cutting Finished	440-0004	1	ea
12	Assembly, Asphalt Cutter Hub	440-0016C	1	ea
13	Screw, Clamp	440-0024	1	ea
14	Handle, Clamp	440-0027A	1	ea
15	Weldment, Frame	440-0100FRAME	1	ea
16	Pad, Clamp	640-0019	1	ea
17	Eye	EYE-103	1	ea

Arrow Material Handling Products Warranty

For full Terms and Conditions please visit www,arrowmhp.com/contact/customer-support/ or scan the QR code at the bottom of this page.

WARRANTY:
(a) Unless a separate written warranty applies to a product that is the subject of a transaction governed by these terms and conditions, the following provisions of this paragraph 10(a) shall apply. Seller warrants products delivered hereunder against faulty workmanship and use of defective materials from the date of shipment in normal use and service when properly maintained for the period as indicated: Forklift Forks, are warranted for thrity-six (36) months. Attachments such as Sideshifters, Fork Positioners, Auger Gearboxes, Motors, Bits, Frames and Cradles, Booms, Buckets, Grapples, Shears, Pullers and Saws are warranted for a period of twelve (12) months. The Warranty for all products listed above and delivered hereunder to Rental users is for a period of six (6) months from the date of shipment to the original purchaser. Miscellaneous, spare, replacement, after-warranty parts and components such as adaptors, cylinders, extensions, hydraulic hoses, switches, valves and wiring, three (3) months. This warranty does not include and hereby excludes maintenance parts, wear and tear parts and consumables, including but not limited to blades, belts, cutting edges, filters, hydraulic fluid, oil, pilots, teeth and similar items. This warranty does not apply when non-original spare parts have been used or when modifications or repairs have been carried out without our advance written permission.

Refer to the Product Manual for proper maintenance procedures. Auger Teeth and Pilots are manufactured with a patented design to interface with Seller's Auger attachments, extensions and adapters. The use of attachments other than Seller's Auger Teeth, Pilots, attachments, extensions and/or adaptors will void all warranty on Auger Drives and Bits. The use of Seller's adapters on unapproved attachments is not sanctioned. A "home-made" or non-standard attachment outside the specifications for the machine will void this warranty.. Disassembly, modification or welding of products without Seller's written authorization voids the warranty. Improper installation, ripping or cutting due to unauthorized modifications of Seller's installation procedures is not warranted. An Authorized Dealer or Seller representative must install hydraulic kits and components for failures to be given warranty consideration. No warranties are expressed or implied as to the fitness of the equipment on which the attachment or accessory is installed. The purchaser is responsible for promptly informing Customer Service of any suspected operational deficiencies or failures. Seller is the sole party responsible for analysis of reported deficiencies or failures. Repair or replacement will be at the sole discretion of Seller.

Faulty workmanship and/or use of defective materials shall be hereinafter referred to as a "deficiency." The foregoing warranty shall not be enlarged, or affected by, and (except as expressly provided below in this paragraph 10) no obligation or liability shall arise or grow out of, Seller's rendering of product or systems design, drawings, technical advice, services or instructions in connection with the goods furnished hereunder. Such warranty is the only warranty made by Seller and it can be amended only by a written instrument signed by a duly authorized officer of Seller. If the goods furnished by Seller hereunder are determined to contain a deficiency, Buyer's exclusive remedy shall be to have Seller repair such goods or supply replacement goods or credit Buyer's account for such goods and accept their return, whichever Seller may elect in its sole discretion. Without limiting the generality of paragraph 11, below, Seller shall not, under any circumstances, have any liability or obligation for or with respect to expenses, liabilities or losses associated with product downtime or inability to operate, the installation or removal of any goods or the installation of replacement goods or any inspection, testing or redesign occasioned by any deficiency or by the repair or replacement of goods. Seller's obligations are subject to the further condition that Seller shall have no liability whatsoever for any deficiency unless (i) Seller is notified, in writing, promptly (and in no event later than ten (10) business days) after discovery by Buyer of the alleged deficiency, which notice shall include a detailed explanation of the alleged deficiency, (ii) the goods containing the alleged deficiency are promptly returned to Seller at Seller's plant, and (iii) Seller's examination of such goods discloses to Seller's satisfaction that such alleged deficiency actually exists and occurred in the course of proper and normal use and was not caused by accident, misuse, neglect, alteration or improper use, installation, repair or testing, or use of any non-original spare parts. If any goods so prove to contain a deficiency and Seller elects to repair or replace them, Seller shall have a reasonable time to make such repairs or replacement. If the contract calls for design, drawings, technical advice, services or instructions (collectively "Design Services") by Seller in connection with the goods, Seller further warrants for the above stated warranty period solely that the Design Services will be undertaken in accordance with Seller's reasonable technical judgment based on Seller's understanding of the pertinent technical data as of the date of performance of the Design Services.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT, AND OF ANY OTHER OBLIGATION ON THE PART OF SELLER.

(b) It shall be the responsibility of Buyer to determine, on the basis of the most current written technical data, the suitability of the goods and of any product design or drawings for the intended use and their compliance with applicable laws, regulations, codes and standards, and the Buyer assumes all risks pertaining thereto.

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MATERIAL HANDLING PRODUCTS

SCAN ME for contact information

The following manual should answer any questions you may have about our Asphalt Cutter.
However, if you need additional information, please feel free to contact your local dealer.