

INSTALLATION, OPERATION AND MAINTENANCE MANUAL



MODEL NO(S). BI 60 & 72 PRECLEANER

**BEELER
INDUSTRIES**

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IMPORTANT SAFETY INFORMATION

Before installing, operating or maintaining this machine you must **read** and **understand** the contents of this manual. Failure to do so may result in equipment damage, injury or death.

Antes de la instalación, funcionamiento o mantenimiento de este equipo debe **leer y comprender** el contenido de este manual. El no hacerlo puede resultar en daño al equipo, lesiones o la muerte.

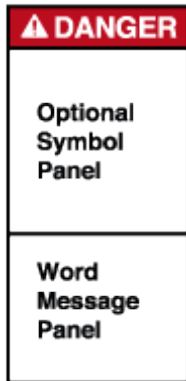
Safety Labels

Throughout this manual and on the machine, safety labels have been placed to bring attention to characteristics of this equipment that warrant particular awareness. There are potential hazards on any device and care should be exercised whenever installing, operating or maintaining any equipment.

Ensure that all original labels are maintained in good condition. In the event that labels are rendered illegible contact Beeler Industries for replacement labels.

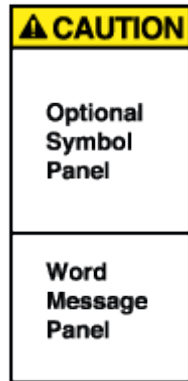
Lock Out / Tag Out

It is the user's responsibility to ensure that proper LOCK OUT / TAG OUT procedures are implemented throughout the facility. **Follow your facilities Lock Out/Tag Out procedures.** Prior to any maintenance, service or cleaning of any equipment it should be locked out and tagged out from all potential sources of energy (electrical, pneumatic, hydraulic, mechanical, etc.) Failure to do so will endanger the user and others and may lead to damage, severe injury or even death.



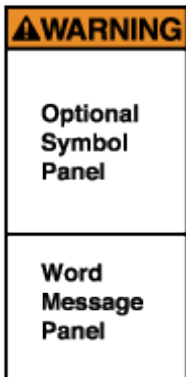
Danger:

Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations.



Caution:

Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



Warning:

Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.

**Take the time to
be safe!**

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SECTION 1

GENERAL INFORMATION

1-1 Introduction

Thank you for purchasing an LMC Precleaner. Your new precleaner is built to the highest industry standards. Great care has been taken to design and manufacture a high quality, low maintenance product that is economical to use and maintain.

This manual is intended to assist in the installation, operation and maintenance of your precleaner. The instructions in this manual are general in nature and apply to a variety of models. Each situation dictates the need for any special precautions, and it is the user's responsibility to ensure that adequate safety measures are employed in installation, operation and maintenance. As always, follow good safety practices around all equipment.

1-2 Contacting Beeler Industries

Beeler Industries, Incorporated

Mail: P.O. Box 380

Physical: 4664 Kiernan Court
Salida CA 95368

Main Office: (209) 545-0740

Sales: (209) 613-0407

Parts: (209) 545-0740

Service: (209) 613-0407

Fax: (209) 545-0768

email: customer@beelerindustries.com

Website: www.beelerindustries.com

1-3 Purpose and Scope

This manual provides installation, operation and maintenance procedures for standard precleaner. Due to variations in design and manufacture for unique customer needs, not all precleaners might be covered. For special assistance, please contact Beeler Industries Service for additional information.

1-4 Receipt of Product

All shipments should be immediately checked for proper product and quantity upon receipt and inspected for any visible defects or damage. Any discrepancies should immediately be reported to Beeler Industries and the freight provider. If installation is provided by Beeler Industries, this inspection may be performed by Beeler personnel.

1-5 Precautions of Use and Installation

1. Use only qualified personnel for installation and wiring of the precleaner. Personnel are required to be familiar with the general use of required tools for installation of this unit. Should you require assistance in the installation, Beeler Industries offers such a service. Please contact our Service Department for estimates and scheduling.
2. Lifting/moving/positioning: The precleaner may be lifted with a fork truck under the lower pulley support angles.. Secure precleaner to forks to prevent tipping. Move slowly and descend grades in reverse. When moving precleaner with crane use lifting straps and clevises passing straps under upper tube frame between leg and collection hopper.
3. The standard motor specifications provided are listed in table 1.1 unless otherwise specified in the purchase contract. All wiring must be run in conduit and installed per local and state code by a qualified electrician. A manual electrical lock-out for maintenance must be provided by the owner prior to operation. Installations may include a customer provided

MODEL	HP	V/F/PH	rpm
BI-60-PC	2	230/460/60/3	1750
BI-72-PC	3	230/460/60/3	1750

TABLE 1.1 MOTOR SPECIFICATIONS

variable frequency drive . Units for export will have motors ratings as specified by purchaser

SECTION 2

OPERATION & MAINTENANCE

2-1 Operation and Adjustment

The precleaner removes large foreign material (rocks, large stick, etc) from in-coming field products by scalping the foreign material off over a rotating sizing chain. Product smaller than the chain opening as well as smaller foreign material will pass through the chain. The precleaner is configured with one or two bumper bars that provide a bumping action to the chain to dislodge material caught in the chain opening.

Adjustment

There are three adjustable features on the precleaner, the chain speed and the chain tracking/tension as well as the bumper bar chain tension.

Speed

The drive sheave on the precleaner is a spring loaded variable pitch sheave. Rotating the turnbuckle on the gear box torque arm will change the distance between drive and driven sheaves allowing the v-belt to run at a different radius on the drive sheave. Lengthening the torque arm reduces the speed while shortening increases it. See figure 2.1

Tracking/tension

The drive pulley and tail pulleys bearing positions on the precleaner are fixed. The lower pulleys bearings are adjustable along slots in the lower mount angles. See figure 2.2. It is important to adjust the lower pulleys so that they are parallel to each other and the head and tail pulleys. It is also important to adjust the lower pulleys so that there is approximately 6" of sag in the chain at the midpoint measured from the bottom of the mount angle. Tracking rollers are provided along the sides of the chain to maintain position.

Tracking rollers are a consumable and need to be replaced from time to time depending on the severity of the application. Rubber support rollers are consumable as well. See figures 2-5 thru 2-7

Bumper Bar Chain

The bumper bar(s) are driven by a sprocket on the head pulley on opposite side from the motor drive. Bumper bar shaft bearings are attached to the side panels with bolts in slots allowing lateral adjustment. Adjustment is accomplished by loosening mount bolts and moving bearings along slots to achieve correct tension. It is important that the bumper bar is parallel to the head pulley to prevent premature wear of the drive chain and sprockets. Proper tension is achieved when the chain on the slack side sags about 1/4-1/2". Chain should not be taught on the slack side. On units with two bumper bars adjust the bar driven by the head pulley first. Note that new chain should be installed with slack side just taught as it will sag as the chain breaks in and stretches.

2-2 Lubrication

Ball bearings equipped with grease (zerk) fittings should be manually lubricated with one half (1/2) pump of Food Grade NLGI 2 grease every one hundred twenty (120) hours of operation. Bearings without fittings should be replaced after five thousand(5000) hours of operation.

2-3 Repair Parts

Necessary repair and maintenance parts can be obtained through Beeler Industries directly by contacting our Parts Department at (209) 545-0740 or through your Beeler Sales representative. When ordering, please supply the nameplate serial number information located on the Beeler red tag secured to the frame of the Precleaner near the drive..

Refer to section 3-2 for part identifying / locating and for common part listing and order identification number. Contact our service department for required parts not identified on those pages.

3.1 SERIAL NUMBER LOCATION

It is important to have the serial number

information when contacting Beeler industries regarding service information or parts ordering. The number is stamped on the identification plate located near drive

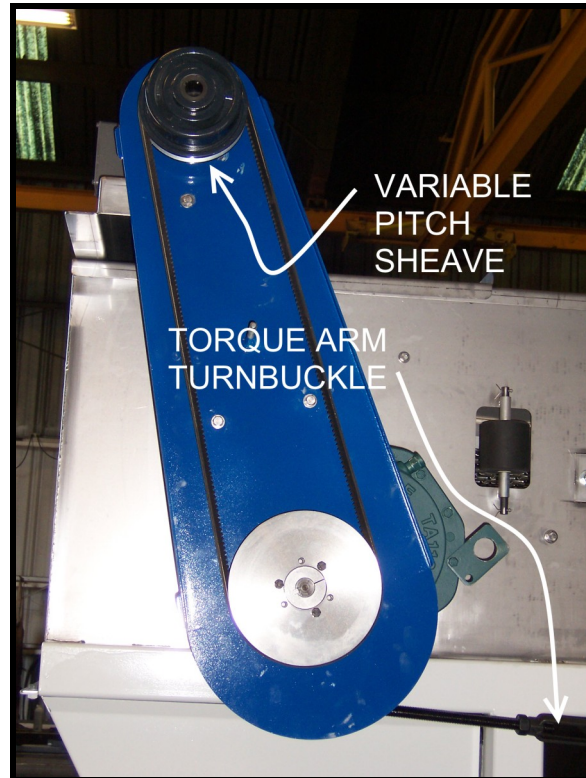


FIGURE 2.1 V-BELT DRIVE (SHOWN WITH GUARD REMOVED FOR CLARITY)

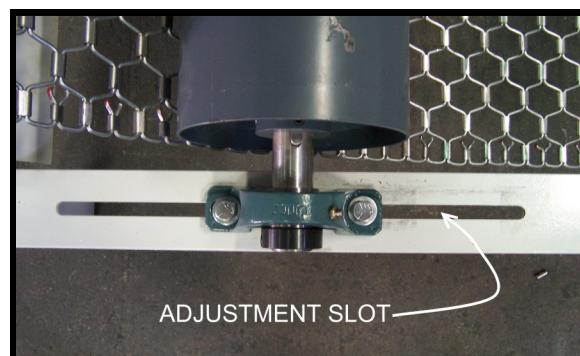


FIGURE 2.2 LOWER PULLEY ADJUSTMENT

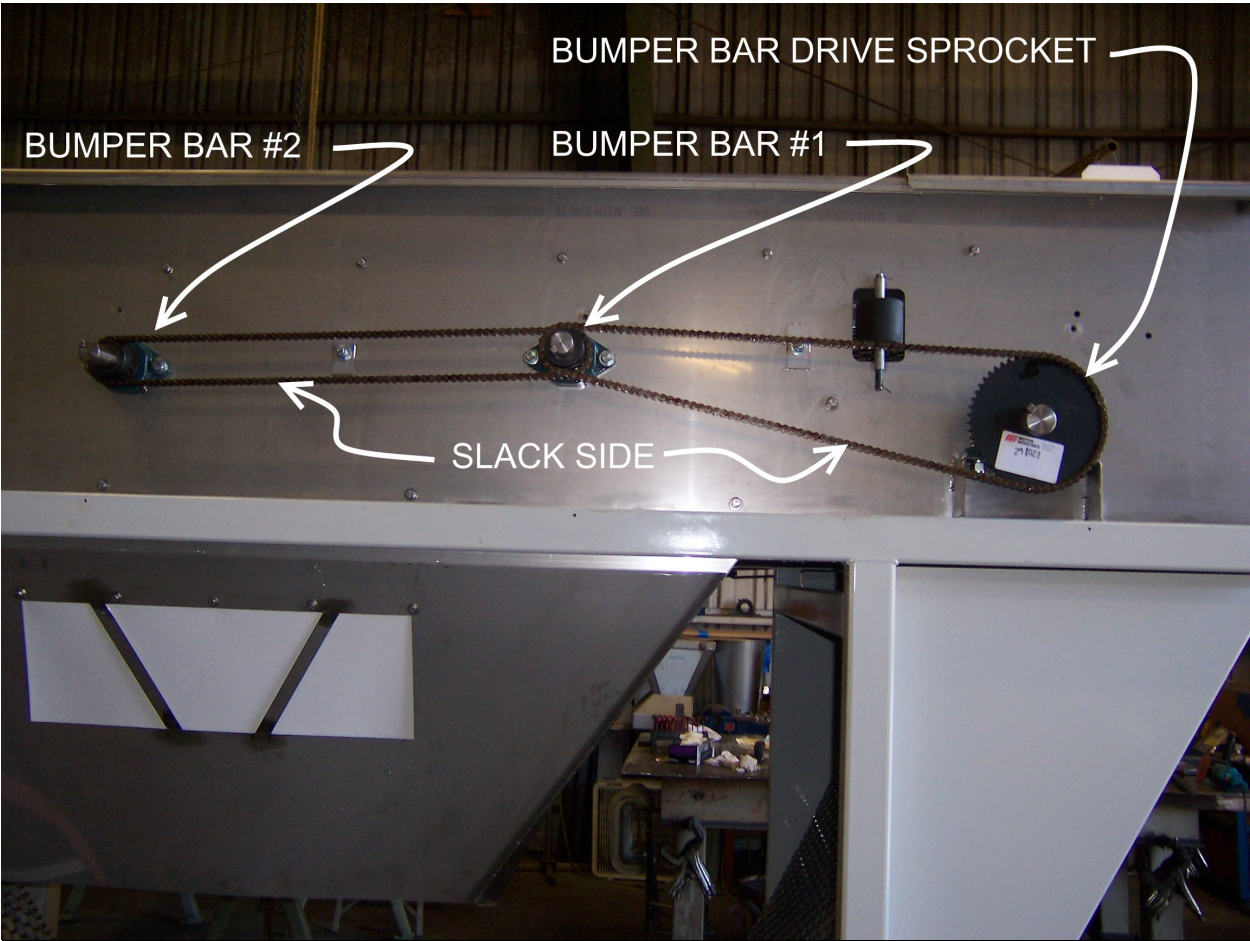


FIGURE 2.3 BUMPER BAR CHAIN (SHOWN WITH GUARD REMOVED FOR CLARITY)



FIGURE 2.4 SIZING CHAIN SAG

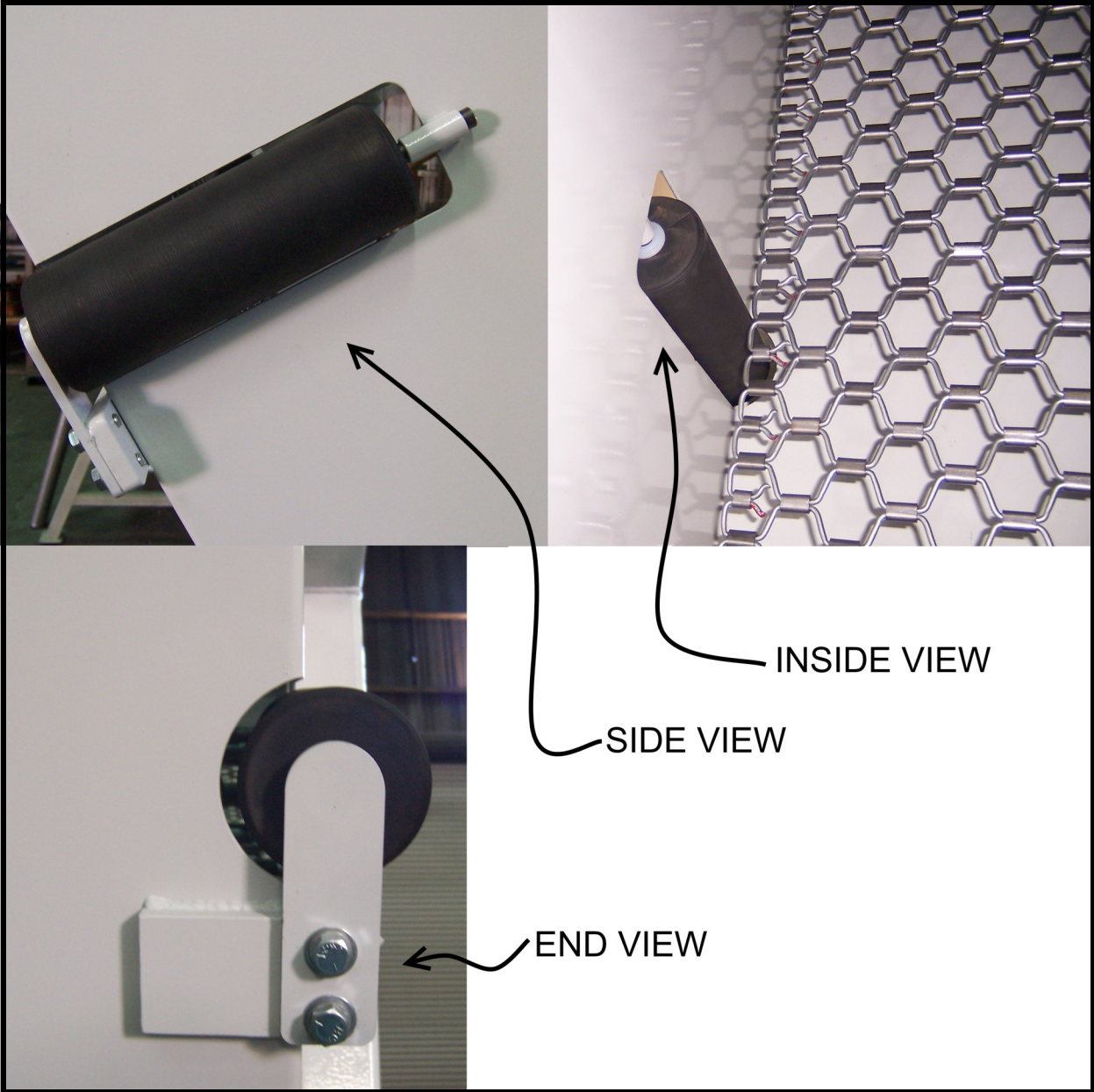


FIGURE 2.5 DIAGONAL SIDE GUIDE

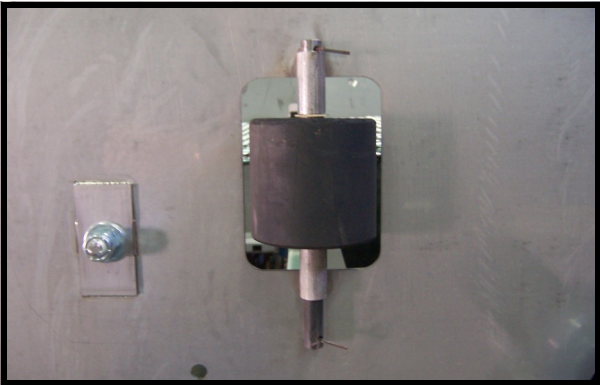


FIGURE 2.6 SIDE GUIDE

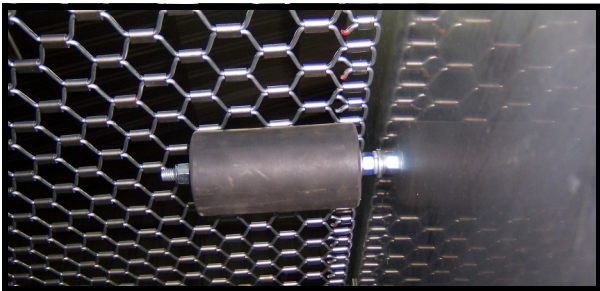


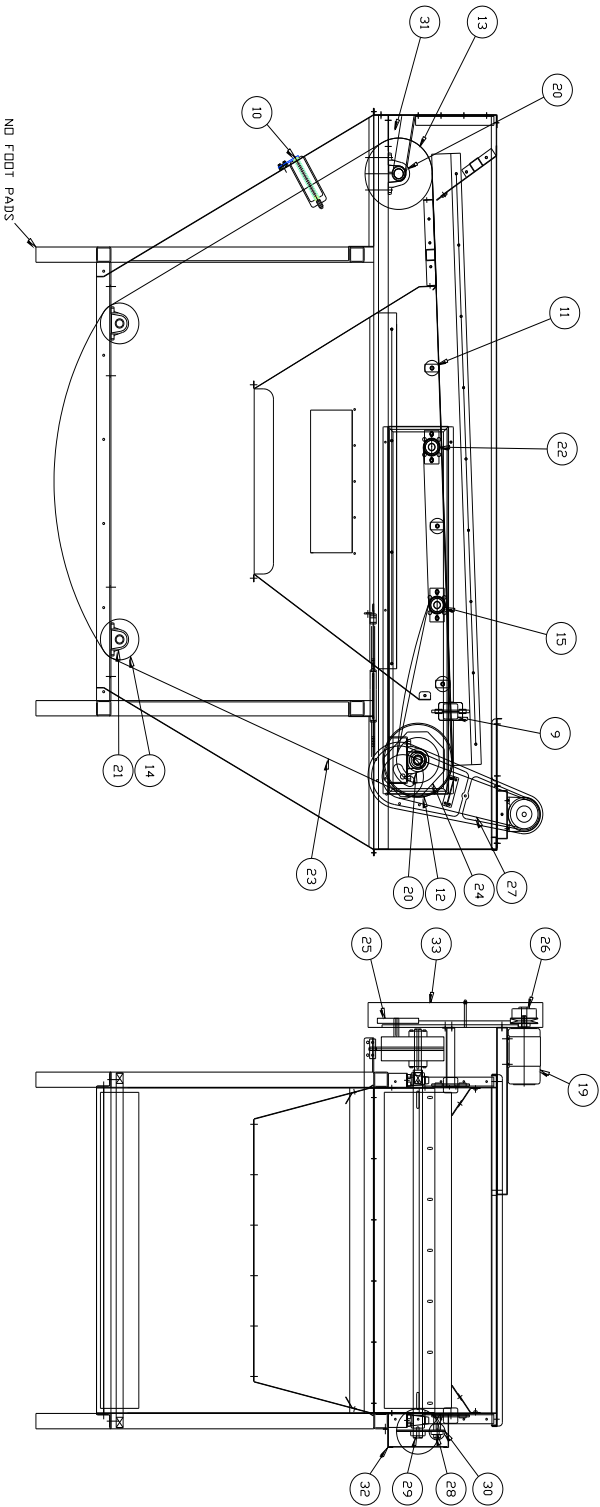
FIGURE 2.7 SUPPORT ROLLER



FIG. 3J SERIAL PLATE LOCATIONS

ITEM	60" BI P/N	UNIT	DESCRIPTION
30	16-007	1	40 ROLLER CHAIN x 15'-0"
29	16-010	1	40B54 SPROCKET 1 15/16" BORE
28	16-011	3	40B19 SPROCKET 1 7/16" BORE
27	15-056	1	DODGE B70 DYNA-COG V-BELT
26	18-047	1	571BR SHEAVE x 7/8" BORE
25	15-171	1	1A82B86 QD SDS SHEAVE w/ 1" BORE SDS BUSHING
25	15-057	1	1A70B74 QD SDS SHEAVE w/ 1" BORE SDS BUSHING
24	12-004	1	TA107H25 X 1 7/16" BUSH KIT REDUCER, TA107RA
23	32-011	1	60" x 32"-1" SIZING CHAIN w/ 1 7/8 OPENINGS
23	32-014	1	60" x 33"-7" SIZING CHAIN w/ 1 7/8 OPENINGS
22	20-015	4	DODGE 1 7/16" SXRB PULLOW BLOCK BEARINGS
21	20-004	4	DODGE 1 7/16" SXRB PULLOW BLOCK BEARINGS
20	20-005	4	DODGE 1 15/16" SXRB PULLOW BLOCK BEARINGS
19	10-003	1	2 HP 1750 RPM 145T TEFC 230/460V FOOT MOUNTED MOTOR
15	4604015	2	3" BEATER BARS 1 7/16" SHAFT
14	18-044	2	8" x 62" LG. IDLER PULLEY 1 7/16" BORE SD FF TYPE D
13	18-042	1	14" x 62" LG. PULLEY 1 15/16" BORE SD FF SK
12	18-043	1	14" x 62" LG. DRIVE PULLEY 1 15/16" BORE SD FF LAG SK
11	18-134	1	16" x 62" LG. DRIVE PULLEY 1 15/16" BORE SD FF LAG SK
11	4604054-3	6	CHAIN GUIDE ROLLERS
10	18-196	2	CHAIN GUIDE ROLLERS
9	4604054-1	2	CHAIN GUIDE ROLLERS

ITEM	72" BI P/N	UNIT	DESCRIPTION
30	16-007	1	40 ROLLER CHAIN x 15'-0"
29	16-010	1	40B54 SPROCKET 1 15/16" BORE
28	16-011	3	40B19 SPROCKET 1 7/16" BORE
27	15-056	1	DODGE B70 DYNA-COG V-BELT
26	18-047	1	571BR SHEAVE x 7/8" BORE
25	15-171	1	1A82B86 QD SDS SHEAVE w/ 1" BORE SDS BUSHING
24	12-004	1	TA107H31 X 1 7/16" BUSH KIT REDUCER, TA107RA
23	32-010	1	72" x 32"-1" SIZING CHAIN w/ 1 7/8 OPENINGS
22	20-015	4	DODGE 1 7/16" SXRB PULLOW BLOCK BEARINGS
21	20-004	4	DODGE 1 7/16" SXRB PULLOW BLOCK BEARINGS
20	20-005	4	DODGE 1 15/16" SXRB PULLOW BLOCK BEARINGS
19	10-003	1	3 HP 1750 RPM 145T TEFC 230/460V FOOT MOUNTED MOTOR
15	4603015	2	3" BEATER BARS 1 7/16" SHAFT
14	18-131	2	8" x 74" LG. IDLER PULLEY 1 7/16" BORE SD FF TYPE D
13	18-130	1	14" x 74" LG. PULLEY 1 15/16" BORE SD FF SK
12	18-129	1	16" x 74" LG. DRIVE PULLEY 1 15/16" BORE SD FF LAG SK
11	4604054-3	6	CHAIN GUIDE ROLLERS
10	18-196	2	CHAIN GUIDE ROLLERS
9	4604054-1	2	CHAIN GUIDE ROLLERS



DNE - PRECLEANER ASSEMBLY - 4601002
RH DRIVE SHOWN

PART# 4601002A

FIG. 32 PRECLEANER ASSEMBLY

NOTES

[illegible]

Non-Liability

The information contained in this manual has been compiled by Beeler Industries with high diligence to ensure correct information.

Beeler Industries does not assume liability for eventually wrong conclusions and results arising from this. The notes given in the manual describe the most common fault reasons. But often there are further reasons for existing faults, which cannot be listed here, or there are further sources of error, which are unknown yet. Beeler Industries does not assume liability for failed or unnecessary repair work. Beeler Industries does not assume liability for appliance of data and information, which either turn out as wrong, were incorrectly described or faults, which by mistake appeared during data compilation. Without restriction of the above mentioned facts, Beeler Industries does not assume liability for any loss regarding profits, company value or any other, also economic, loss arising from this.

No matter which legal justifications are present, Beeler Industries is liable for compensation only in case of intention, gross negligence and in warranty of assured quality. Warranties of assured qualities require the explicit written statement.

Liability according to product liability law shall remain unaffected. Beeler Industries reserves the right of user's contributory negligence argument. Beeler Industries is not liable to pay compensation for damages, which arise from misuse of the subject matter of the contract, even if Beeler Industries has been informed on the possibility of this damage. The liability of Beeler Industries is confined to the real price paid for the product. Beeler Industries takes no liability for damage or operating troubles arising from non-compliance of this user manual and the special safety precautions mentioned there. The burden of proof is on the user of the device, that he has paid attention to technical explanations, notes on operation, equipment care as well as maintenance and safety without exception. This non-liability does not hold, if any damage from

injuries of body or health is based on deliberate or careless delinquency of Beeler Industries.