

Published Manual Number/ECN: H25 0004V/2004364A

- Publishing System: TPAS
- Access date: 09/01/04
- Document ECN's: Latest Available

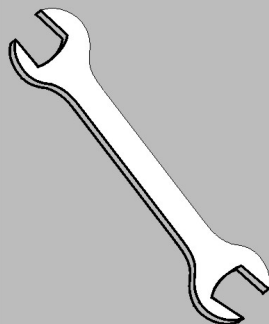


Kit Instruction—

K25 0005R

K25 0005DR

K25 0005VR



Please Read

About the Manual Identifying Information on the Cover

The front cover displays pertinent identifying information for this manual. Most important, are the published manual number (part number) /ECN (date code). Generally, when a replacement manual is furnished, it will have the same published manual number, but the latest available ECN. This provides the user with the latest information applicable to his machine. Similarly all documents comprising the manual will be the latest available as of the date the manual was printed, **even though older ECN dates for those documents may be listed in the table of contents.**

When communicating with the Milnor factory regarding this manual, please also provide the other identifying information shown on the cover, including the publishing system, access date, and whether the document ECN's are the latest available or exact.

References to Yellow Troubleshooting Pages

This manual may contain references to "yellow pages." Although the pages containing troubleshooting procedures are no longer printed on yellow paper, troubleshooting instructions, if any, will be contained in the easily located "Troubleshooting" chapter or section. See the table of contents.

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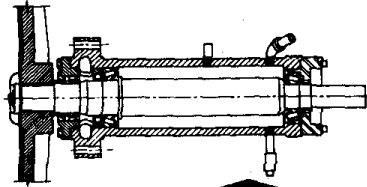
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Maintenance Bulletin

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MAINTENANCE BULLETIN B22MB84006
October 21, 1983

RE: PROPER BELT TENSIONING

Gentlemen:

Proper belt tensioning is important not only to the service life of the belts themselves but also motor and bearing life. Of course, the service life of V belts depends on other normal maintenance functions.

Upon installation, the pulleys should be checked for alignment and that the pulleys are not cocked, chipped or damaged in any way. Also, be sure there is no foreign matter build up inside the grooves.

New V belts will stretch their most during their first 6 to 8 weeks of operation. Therefore, after proper installation, tension should be checked after the first 6 to 8 weeks of operation and at least once a year thereafter. And most certainly if a squeal is detected.

Finally, V belts must be kept relatively clean. This means a periodic check and cleaning by blower, vacuum, etc. of the belts dust, lint, etc. which settle from the air. Liquids of any type (water or oil) should be kept away from belts.

In this regard we are pleased to provide the attached instructions for checking and adjusting V belt tension on MILNOR washer-extractors. These instructions are provided in four different sections, each containing tension tables for various size machines. Only one copy of each is attached but we will provide more upon request at no charge. It is suggested that you order one complete set for each mechanic.

The belt tension tester, mentioned in the instructions, is available from MILNOR under our part number 30T001. Please check with our Parts Department for price.

We are happy to offer these instructions and if there are any questions, please contact anyone in our Service Engineering Department.

Very truly yours,

PELLERIN MILNOR CORPORATION


Leroy J. Leveigne
Supervisor, Service Engineering

LJT/kf

Attachment

V-BELT TENSION ADJUSTMENTS FOR 30" AND 36" B-TYPE MACHINES AND 42" Q-TYPE MACHINES

This instruction is to be used for adjusting the belt tension on the following machine codes:

30016BWE	42026QHE
36021BWE	42026QTG
360326QWE	42026QTH
42026QWE	

A belt tension testing device (Milnor® part number 30T001) and a straight edge are required when using these instructions.

Tension Settings

Set the o-rings on the tension testing device (see FIGURE 1) as follows:

1. Move the upper o-ring to the topmost position, resting against the bottom edge of the cap.
2. Find the proper belt deflection setting (by machine model and belt function) in the appropriate table below.
3. Move the lower o-ring on the tension tester to this deflection setting on the inches scale.

NOTE 1: The tension testing device is marked on the one side in inches and pounds and on the other side in centimeters and kilograms. All values in the tables are marked.

NOTE 2: The instruction sheet provided with the tension testing device should not be used. Use only the instructions provided herein.

NOTE 3: The reference (ref.) codes shown in the tables are for factory use only.

Belt Tension Measurements

1. Place a straight edge along the top edge of the belt to be tested so that it spans both pulleys. Place the tension tester in the center of the belt and press and down on the cap until the lower o-ring is in line with the straight edge, as shown.
2. Read the setting of the upper o-ring on the LBS scale of the tension tester.
3. Compare this value with the acceptable range in the appropriate table. If the belt is brand new (has never been run), use the range in the Initial Tension column. If the belt is not brand new, locate the acceptable range in the Final Tension column.

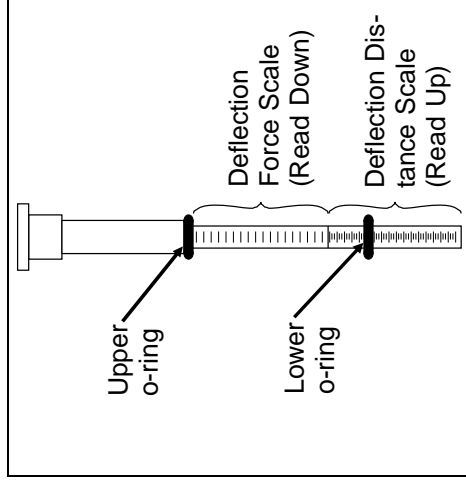


FIGURE 1 (MSSM0204AE)
Tension Tester Scales

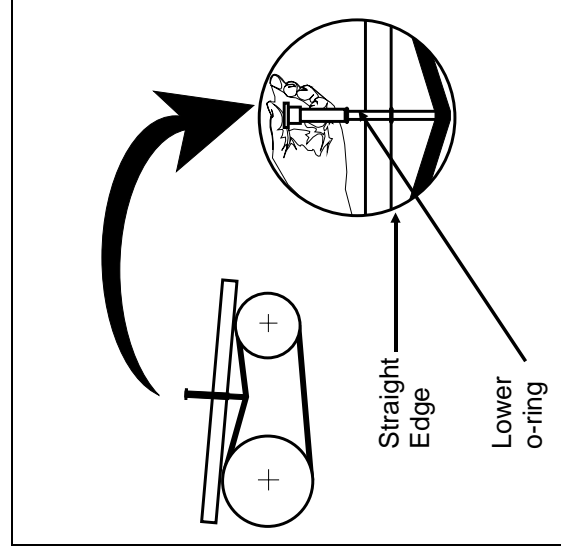


FIGURE 2 (MSSM0204AE)
Taking Measurements with the Tension Tester

4. If the reading on the tension tester is less than the range shown in the table, the belt is too loose and must be tightened. If the reading is greater than the range shown in the table, the belt is too tight and must be loosened. Adjust the belt until the reading falls within the acceptable range in the table.

30016BWE

36021BWE

	Belt Deflect. (inches)	Initial Tension (lbs.)		Belt Deflect (IN)	Initial Tension (lbs.)		Initial Tension (ref.)			
		(lbs.)	(ref.)		(lbs.)	(ref.)				
WASH/2 SPEED WASH	5/16	6.6 – 9.2	KP3	13/32	5.1 – 7.1	KN	2.4 – 2.8	DP2	2 – 2.4	DN
	11/32	2.4 – 2.84	DP2	13/32	2.0 – 2.4	DN	2.4 – 2.8	DP2	2 – 2.4	DN
DRAIN	5/16	9.6 – 13.0	MP3	25/64	7.4 – 10.0	MN	9.6 – 13.0	MP3	7.4 – 10.0	MN
	11/32	2.8 – 4.0	EP2	13/32	2.4 – 3.37	EN	2.8 – 4.0	EP2	2.4 – 3.4	EN
HIGH SPEED EXTRACT	25/64	10.5 – 14.3	NP3	27/64	8.1 – 11.0	NN	10.5 – 14.3	NP3	8.1 – 11.0	NN
	25/64	8.0 – 11.0	LP3	27/64	6.2 – 8.5	LN	9.6 – 13.0	MP3	7.4 – 10.0	MN
LOW SPEED EXTRACT	11/64	9.0 – 13.0	MP3	11/64	7.4 – 10.0	MN	6.6 – 9.2	KP3	5.1 – 7.1	KN
	5/32			11/64						

36026QWE

42026QWE

	Belt Deflect. (inches)	Initial Tension (lbs.)		Belt Deflect (IN)	Initial Tension (lbs.)		Initial Tension (ref.)			
		(lbs.)	(ref.)		(lbs.)	(ref.)				
WASH/2 SPEED WASH	13/32	2.4 – 2.84	DP2	11/32	2.0 – 2.4	DN	9.6 – 13.0	MP3	7.4 – 10.0	MN
	13/32	9.6 – 13.0	MP3	23/64	7.4 – 10.0	MN	2.8 – 4.0	EP2	2.4 – 3.4	EN
DRAIN	25/64	2.8 – 4.0	EP2	23/64	2.4 – 3.34	EN	10.5 – 14.3	MP3	7.4 – 10.0	MN
	13/32	9.6 – 13.0	MP3	7/16	7.4 – 10.0	MN	9.6 – 13.0	NP3	8.1 – 11.0	NN
HIGH SPEED EXTRACT	7/16	8.0 – 11.0	LP3	7/16	6.2 – 8.5	LN	9.6 – 13.0	MP3	7.4 – 10.0	MN
	3/16	9.6 – 13.0	MP3	1/4	7.4 – 10.0	MN	6.6 – 9.2	MP3	7.4 – 10.0	MN
LOW SPEED EXTRACT	3/16			1/4				KP3	5.1 – 7.1	KN

42026QHE, QTG, QTH

	Belt Defl. (inches)	Initial Tension (lbs.)		Belt Deflect (IN)	Final Tension (lbs.)	
		(lbs.)	(ref.)		(lbs.)	(ref.)
WASH/2 SPEED WASH	19/64	9.62 – 13.0	MP3	7.4 – 10.0		MN
	5/32	10.5 – 14.3		8.1 – 11.0		NN
DRAIN	31/64	10.5 – 14.3	NP3	8.1 – 11.0		NN
	15/32			6.2 – 8.5		LN
OPTIONAL LOW SPEED EXTRACT	19/64	8.0 – 11.0	LP3			

V-BELT TENSION ADJUSTMENTS

This instruction is to be used for adjusting the belt tension on the following machine models:

42031WE2	42031SG2	42031WE3	42031SG3
42044WE2	42044SG2	42044WE3	42044SG3

A belt tension testing device (Milnor[®] part number 30T001) and a straight edge are required when using these instructions.

Tension Settings

Set the o-rings on the tension testing device (FIGURE 1) as follows:

1. Move the upper o-ring to the topmost position, resting against the bottom edge of the cap.
2. Find the proper Belt Deflection setting (by machine model and belt function) in the appropriate table in this section.
3. Move the lower o-ring on the tension tester to this deflection setting on the inches scale.

NOTE 1: The tension testing device is marked on one side in inches and pounds and on the other side in centimeters and kilograms. All values in the tables are in inches (in) and pounds (lbs).

NOTE 2: The instruction sheet provided with the tension testing device should not be used. Use only the instructions provided herein.

NOTE 3: The reference (ref) codes shown in the tables are for factory use only.

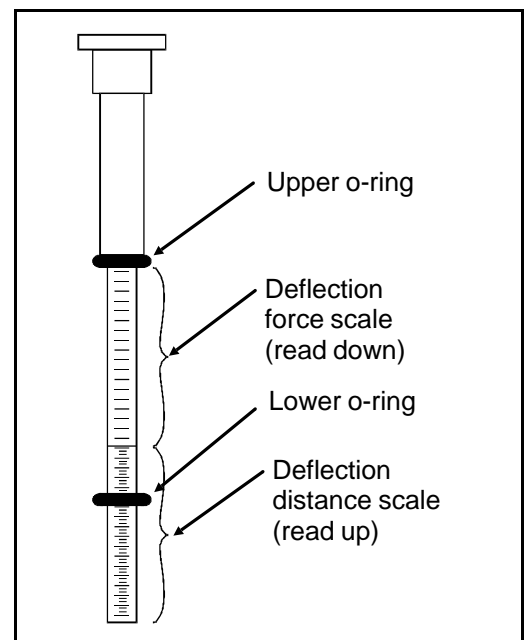


FIGURE 1 (MSSM0301AE)
Tension Tester Scales

Belt Tension Measurements

1. Place a straight edge along the top edge of the belt to be tested so that it spans both pulleys. Place the tension tester in the center of the belt and press down on the cap until the lower o-ring is in line with the straight edge, as shown.
2. Read the setting of the upper o-ring on the lbs scale of the tension tester.
3. Compare this value with the acceptable range in the appropriate table. If the belt is brand new (has never been run), use the range in the Initial Tension column. If the belt is not brand new, locate the acceptable range in the Final Tension column.
4. If the reading on the tension tester is *less* than the range shown in the table, the belt is *too loose* and must be tightened. If the reading is *greater* than the range shown in the table, the belt is *too tight* and must be loosened. Adjust the belt until the reading falls within the acceptable range in the table.

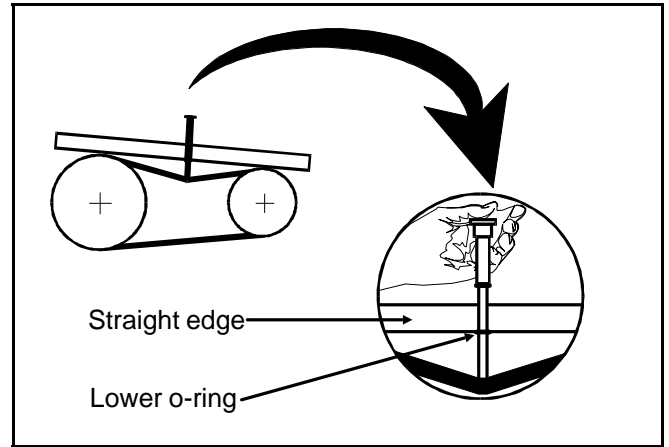


FIGURE 2 (MSSM0301AE)
Taking Measurements with
the Tension Tester

42031WE2/WE3 and 42044WE2/WE3 Belt Tension Measurements

	Belt Deflection (inches)	Initial Tension		Final Tension	
		(LBS)	(REF)	(LBS)	(REF)
Wash/2-Speed Wash	11/64	9.6-13.0	MP3	7.4-10.0	MN
Drain	3/8	8.0-11.0	LP3	6.2-8.5	LN
Main	50Hz	10.5-14.3	NP3	8.1-11.0	NN
	60Hz				

42031SG2/SG3 and 42044SG2/SG3 Belt Tension Measurements

	Belt Deflection (inches)	Initial Tension		Final Tension	
		(LBS)	(REF)	(LBS)	(REF)
Wash/2-Speed Wash	11/64	9.6-13.0	MP3	7.4-10.0	MN
Drain	3/8	8.0-11.0	LP3	6.2-8.5	LN
E1 (optional)	11/32	9.6-13.0	MP3	7.4-10.0	MN
Upper Jackshaft to Lower Jackshaft	50Hz	10.5-14.3	NP3	8.1-11.0	NN
	60Hz				

V-BELT TENSION ADJUSTMENTS FOR 48", 52", 60" AND 72" WASHER-EXTRACTORS

This instruction is to be used for adjusting the belt tension on the following machine models:

48032BHE	48032BTG	48032BTH	48036QHE	48036QTG	48036QTH		
52038WE1	52038WTF	52038WTB	52038WTG	52038WTH			
60036WE2	60036WE3	60036SG2	60036SG3	60044WE2	60044WE3	60044SG2	60044SG3
72044SG2	72044SG3	72044WE2	72044WE3	72044WTB	72044WTG	72044WTH	

A belt tension testing device (Milnor[®] part number 30T001) and a straight edge are required when tensioning unbanded belts.

Tension Settings—Unbanded Belts

Set the o-rings on the tension testing device (see FIGURE 1) as follows:

1. Move the upper o-ring to the topmost position, resting against the bottom edge of the cap.
2. Find the proper belt deflection setting (by machine model and belt function) in the appropriate table below.
3. Move the lower o-ring on the tension tester to this deflection setting on the inches scale.

NOTE 1: The tension testing device is marked on one side in inches and pounds and on the other side in centimeters and kilograms. All values in the tables are in inches (in.) and pounds (lbs.).

NOTE 2: The instruction sheet provided with the tension testing device should not be used. Use only the instructions provided herein.

NOTE 3: The reference (ref.) code shown in the tables are for factory use only.

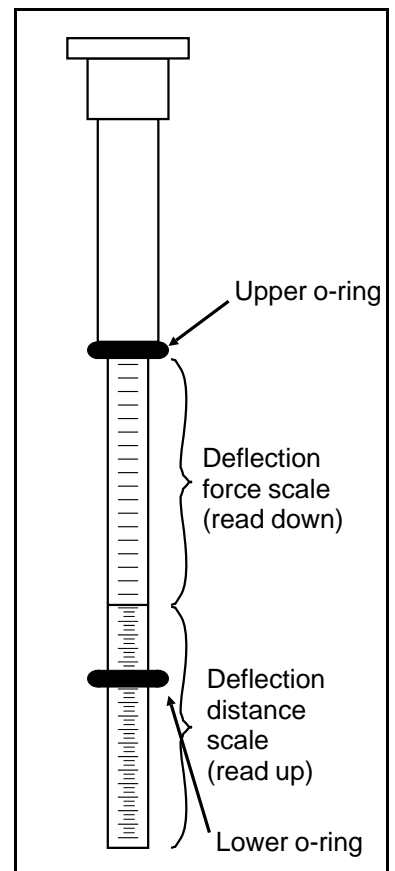


FIGURE 1 (MSSMA405AE)
Tension Settings

Belt Tension Measurements

Unbanded Belts

1. Place a straight edge along the top edge of the belt to be tested so that it spans both pulleys. Place the tension tester in the center of the belt and press down on the cap until the lower o-ring is in line with the straight edge, as shown.
2. Read the setting of the upper o-ring on the lbs scale of the tension tester.
3. Compare this value with the acceptable range in the appropriate table. If the belt is brand new (has never been run), use the range in the Initial Tension column. If the belt is not brand new, locate the acceptable range in the Final Tension column.
4. If the reading on the tension tester is *less* than the range shown in the table, the belt is *too loose* and must be tightened. If the reading is *greater* than the range shown in the table, the belt is *too tight* and must be loosened. Adjust the belt until the reading falls within the acceptable range in the table.

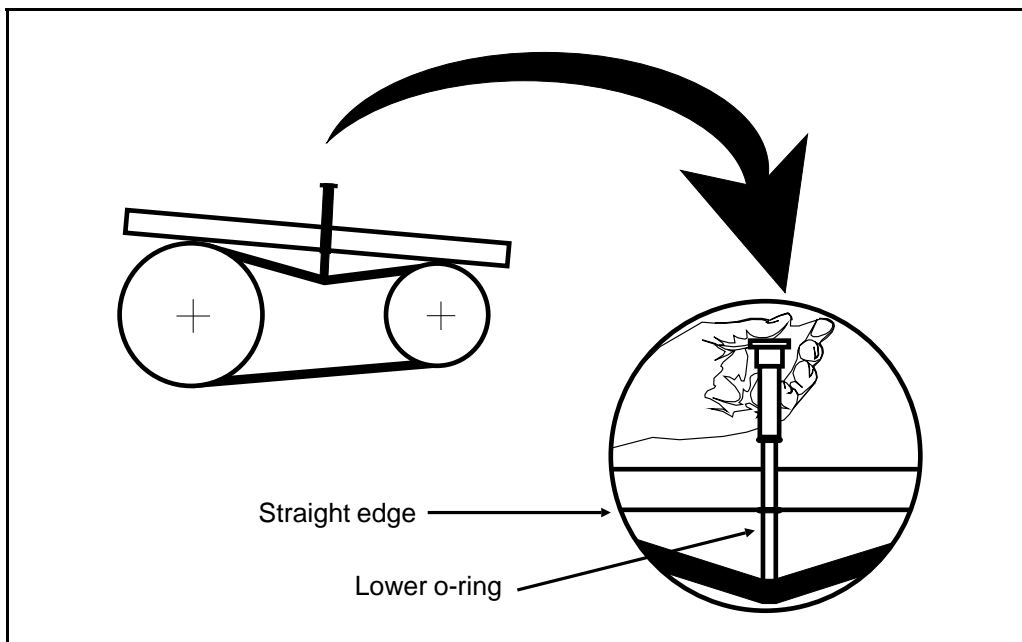


FIGURE 2 (MSSMA405AE)
Measuring Belt Tension

Tensioning Banded Belts

48032BHE, BTG, BTH

48036QHE, QTG, QT

	Belt Deflect. (inches)	Initial Tension		Initial Tension		Belt Deflect (in.)	Initial Tension		Initial Tension	
		(lbs.)	(ref.)	(lbs.)	(ref.)		(lbs.)	(ref.)	(lbs.)	(ref.)
WASH/ 2 SPEED WASH	9/32	6.6 - 9.2	KP3	5.1 - 7.1	KN	5/16	5.7 - 7.6	JP3	4.4 - 5.9	JN
DRAIN	5/32	5.7 - 7.6	JP3	4.4 - 5.9	JN	5/32	6.6 - 9.2	KP3	5.1 - 7.1	KN
MAIN	50C 35/64	10.5 - 14.3	NP3	8.1 - 11.0	NN	17/32	10.5 - 14.3	NP3	8.1 - 11.0	NN
	60C 17/32									
LOW SPEED EXTRACT	13/64	6.6 - 9.2	KP3	5.1 - 7.1	KN	3/16	9.62 - 13.0	MP3	7.4 - 10.0	MN

52038WE1, WTF, WTB, WTG, WTH

60036 + 60044WE2 + WE3

	Belt Deflect. (inches)	Initial Tension		Initial Tension		Belt Deflect (in.)	Initial Tension		Initial Tension	
		(lbs.)	(ref.)	(lbs.)	(ref.)		(lbs.)	(ref.)	(lbs.)	(ref.)
WASH/ 2 SPEED WASH	25/64	10.5 - 14.3	NP3	8.1 - 11.0	NN	3/16	5.7 - 7.6	JP3	4.4 - 5.9	JN
DRAIN	5/32	10.5 - 14.3	NP3	8.1 - 11.0	NN	13/32	6.6 - 9.2	KP3	5.1 - 7.1	KN
E1	1/4	6.6 - 9.2	KP3	5.1 - 7.1	KN	17/64	6.6 - 9.2	KP3	5.1 - 7.1	KN
E2	1/2	6.6 - 9.2	KP3	5.1 - 7.1	KN	11/32	6.6 - 9.2	KP3	5.1 - 7.1	KN
MAIN	50C 11/16	18.2 - 26.0	SP3	14.0 - 20.0	SN	43/64	16.9 - 20.8	RP3	13.0 - 16.0	RN
	60C 23/32	16.9 - 20.8	RP3	13.0 - 16.0	RN	45/64				

48032BHE, BTG, BTH

48036QHE, QTG, QT

	Belt Deflect. (inches)	Initial Tension		Initial Tension		Belt Deflect (in.)	Initial Tension		Initial Tension	
		(lbs.)	(ref.)	(lbs.)	(ref.)		(lbs.)	(ref.)	(lbs.)	(ref.)
WASH/ 2 SPEED WASH	1/4	5.7 - 7.6	JP3	4.4 - 5.9	JN	17/64	5.7 - 7.6	JP3	4.4 - 5.9	JN
DRAIN	3/64	6.6 - 9.2	KP3	5.1 - 7.1	KN	33/64	6.6 - 9.2	KP3	5.1 - 7.1	KN
E-1	9/32	6.6 - 9.2	KP3	5.1 - 7.1	KN	17/64	6.6 - 9.2	KP3	5.1 - 7.1	KN
E-2	39/64	6.6 - 9.2	KP3	5.1 - 7.1	KN	5/8	6.6 - 9.2	KP3	5.1 - 7.1	KN
UPPER JACK TO LOWER JACK LOWER JACK TO UPPER JACK	BANDED BELTS NEED SPECIAL INSTRUCTIONS					BANDED BELTS NEED SPECIAL INSTRUCTIONS				

52038WE1, WTF, WTB, WTG, WTH

60036 + 60044WE2 + WE3

	Belt Deflect. (inches)	Initial Tension		Initial Tension		Belt Deflect (in.)	Initial Tension		Initial Tension		
		(lbs.)	(ref.)	(lbs.)	(ref.)		(lbs.)	(ref.)	(lbs.)	(ref.)	
WASH/ 2 SPEED WASH	15/64	5.7 - 7.6	JP3	4.4 - 5.9	JN	15/64	5.7 - 7.6	JP3	4.4 - 5.9	JN	
DRAIN	13/32	6.6 - 9.2	KP3	5.1 - 7.1	KN	25/64	6.6 - 9.2	KP3	5.1 - 7.1	KN	
E1	17/64	6.6 - 9.2	KP3	5.1 - 7.1	KN	17/64	6.6 - 9.2	KP3	5.1 - 7.1	KN	
E2	5/16	6.6 - 9.2	KP3	5.1 - 7.1	KN	5/16	6.6 - 9.2	KP3	5.1 - 7.1	KN	
MAIN	50C	45/64	16.9 - 20.8	RP3	13.0 - 16.0	RN	3/4	16.9 - 20.8	RP3	13.0 - 16.0	RN
	60C	11/16	16.9 - 20.8	RP3	13.0 - 16.0	RN	23/32	16.9 - 20.8	RP3	13.0 - 16.0	RN

May 18, 1994

IMPORTANT INFORMATION ON BEARING HOUSING REPLACEMENTS

The following information is provided to customers requesting a quotation or placing an order for a replacement bearing housing in the washer/extractor size ranges from 48036 to 72058.

These bearing assemblies are covered under an extended/prorated warranty. The end cost of a bearing replacement in a machine is substantially reduced due to a full credit for the shaft and housing (if reusable) and this extended/prorated warranty. If the bearing housing fails within 5 years, the extended/prorated warranty is applied.

Attached is the warranty policy for these bearing housings. It details the percentage of the extended/prorated warranty and also indicates the shaft and housing number for each particular machine. The value of these shafts and housings should then be deducted from the price of the complete replacement housing (assuming of course that the shaft and housing coming from the machine are in usable condition).

Further questions can be answered by our Warranty Department at 504-467-9591, Ext.324.

Your MILNOR Customer Service Department

GLL/das

Attachment: BWARR0013 & BWARR0014

EXTENDED/PRO-RATED WARRANTY FOR BEARING ASSEMBLIES ON OPEN POCKET MACHINES - 48" AND LARGER

Pellerin MILNOR offers an extended warranty on bearing assemblies in accordance with the following schedule:

BEARING HSG SERVICE LIFE	MILNOR PAYS			
	PARTS ("P" below)	LABOR (see NOTE 2 below)		
2 years or less	100%	100%	up to	\$2,000.00
2 - 3 years	75%	75%	"	1,500.00
3 - 4 years	50%	50%	"	1,000.00
4 - 5 years	25%	25%	"	500.00
5 years +	0%	0%		

Pro-rated warranty is calculated in the following manner:

$(X-[S+H]) \times P = \text{Customer Cost}$

- Where: X = Invoiced price of the housing
- S = Core credit for the shaft. Credit for a usable shaft (see NOTE 1) returned to MILNOR.
- H = Core credit for the housing. Credit for a usable housing (see NOTE 1) returned to MILNOR.
- P = Warranty percentage from above.

ALL PARTS WHICH FAIL UNDER WARRANTY MUST BE RETURNED TO PELLERIN MILNOR, FREIGHT PREPAID

NOTE 1: MILNOR inspects all returned bearing shafts and housings for usability in a remanufactured assembly. If these components meet the specifications of "factory new" components, a credit will be issued. If not, components will be scrapped at MILNOR.

NOTE 2: A labor payment may be requested by any service provider, be it a MILNOR authorized dealer, a qualified end user or qualified mechanic contracted by the end user.

NOTE 3: If the machine is repaired with a replacement bearing housing, utilizing an air inject kit, MILNOR will provide up to \$300.00 for installation labor on this air inject kit. The air supply to this new style housing pushes air under the excluder seal preventing contamination of the seal cavity. This \$300.00 payment is pro-rated over the 5 year term as the other warranty labor payment above.

HANDLING PROCEDURES FOR REPLACEMENT OF MAIN BEARING ASSEMBLIES FOR WASHER/EXTRACTORS SIZES 48032 THRU 72058 (OPEN-POCKET WASHER/EXTRACTORS)

Upon an order for any of the above mentioned bearing assemblies, MILNOR will provide a replacement bearing assembly in the following priority:

1. A remanufactured bearing assembly utilizing a remanufactured shaft and housing.
2. A remanufactured bearing assembly utilizing a remanufactured shaft.
3. A remanufactured bearing assembly utilizing a remanufactured outer housing.
4. A new bearing assembly with new shaft and outer bearing housing.

A remanufactured bearing assembly provided by MILNOR carries a manufacturers warranty identical to a new bearing assembly manufactured by MILNOR. (See warranty policy elsewhere.)

The customer reserves the right to return a used bearing assembly for warranty consideration. Both the shaft and housing are carefully inspected and must meet all new component requirements. Based on these results, the customer is issued a credit equal to that of a new component. Below is the list of component part numbers which can be used for credit calculations.

All parts returned to MILNOR must be sent freight prepaid. MILNOR will not accept collect shipments for warranty return items. All freight is the responsibility of the end user.

<u>MACHINE TYPE</u>	<u>SHAFT NO.</u>	<u>HOUSING NO.</u>
48032/48036	X3 48203	X3 48202
64042	X3 64055	X3 64047
52038/72044	X3 25010A	X3 25106H
64046	X3 65057	X3 25106S
72046/72058	X3 65057A	Y3 25106T

SHIP TO ADDRESS FOR ALL RETURNED PARTS:

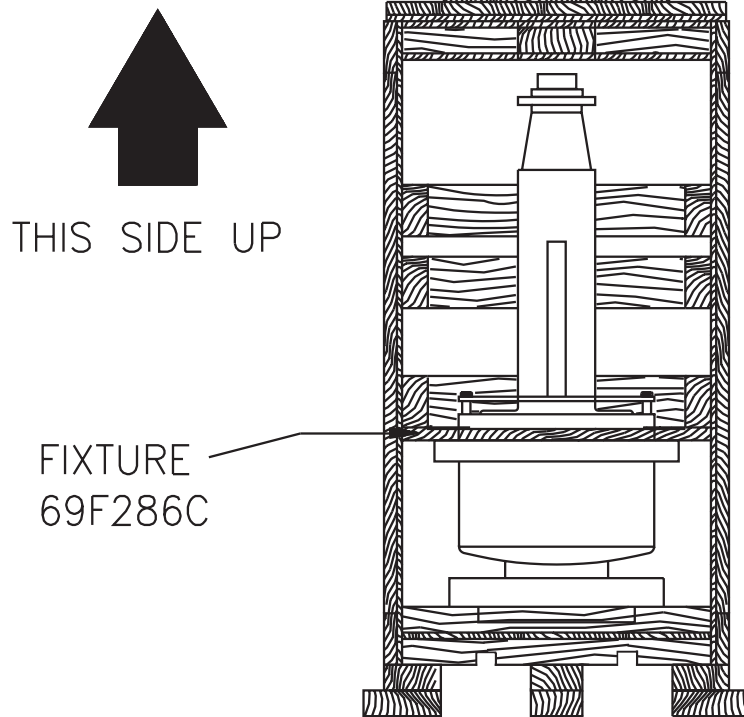
PELLERIN MILNOR CORPORATION
 ATTN: Warranty Department
 700 Jackson Street
 Kenner, LA 70062
 504-467-9591

ATTENTION:

WHEN RETURNING BEARING HOUSING TO PELLERIN MILNOR CORPORATION, PLEASE INSURE THAT IT IS PACKED ACCORDING TO THIS ILLUSTRATION.

DO NOT NAIL SHUT – USE CLIPS PROVIDED.

BE SURE ARROWS ON BOX WALLS ARE POINTING UP WHEN BOX IS REASSEMBLED (ALL 4 SIDES).



BEARING HOUSING RETURN KIT
FOR 52" AND 72" BEARINGS

B2TAG92020/96203A