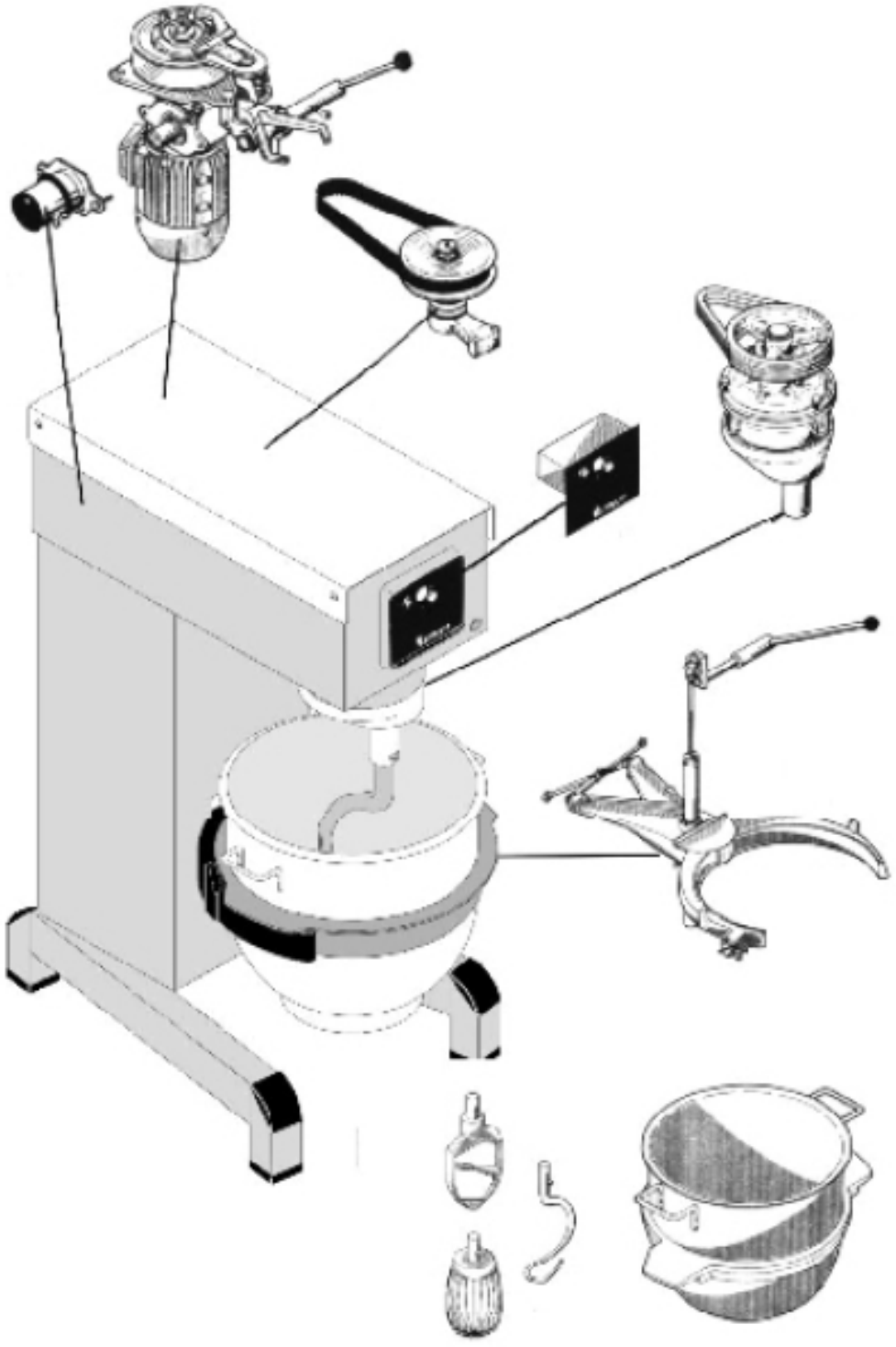
Varimixer

Service Manual



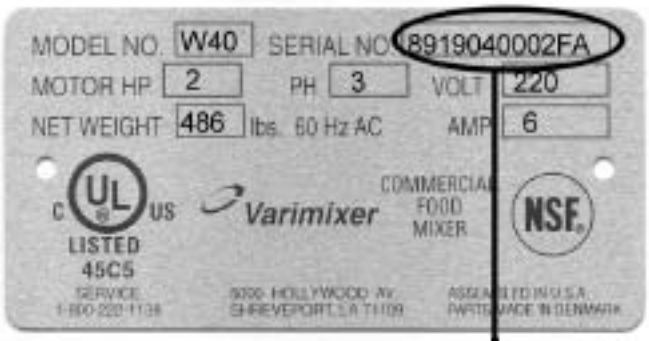
Jan 2011

Varimixer

Planetary Mixer Parts Schematics and Manuals

Models and Year

How to read the Serial Number to determine the model year.



8919040002FA

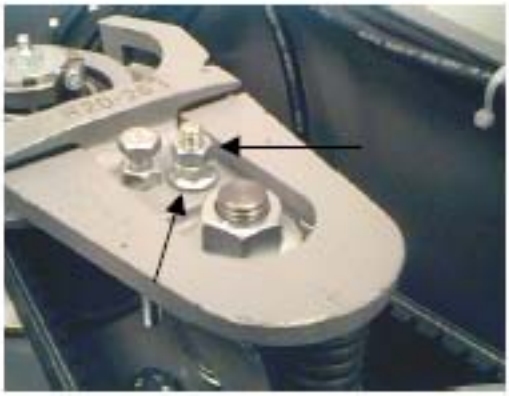
Model Year Reversed	Day of the month	Month of the year
1998	19TH	April

April 19 1998

Monthly
Maintenance Check

VARIMIXER
Model W30-W150

Remove lid from mixer.
Start the mixer and and lower to minimum speed.
EXTREME CAUTION SHOULD BE EXERSIZED WHEN OPERATING THE MIXER WITH THE LID REMOVED.DISCONNECT POWER WHEN WORKING INSIDE THE MIXER.
The main drive belt should be running 1/8" from the edge of the front pulley.(Arrow)



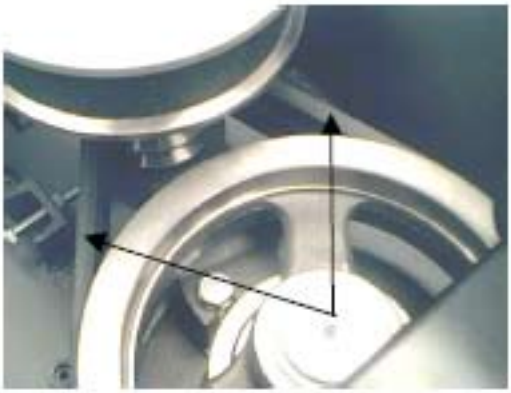
If it is not,loosen the jamnuts (Arrow) counter-clockwise,this will allow the speed lever to decrease the speed farther than before.With the mixer running lower the speed handle until the belt is 1/8" from the edge of the front pulley.Stop mixer and tighten the jamnuts against the fork assembly.(Arrow 2)

Start the mixer and increase the speed to maximum.
The main drive belt should be 1/8" from the edge of the rear pulley.

If it is overrunning the pulley,decrease the speed until the belt is 1/8" from the edge of the rear pulley.
Tighten bolt (Arrow) until it bottoms out on the motor plate.

With the belt adjustments made,start the mixer and set the speed to "2".Turn the mixer off.

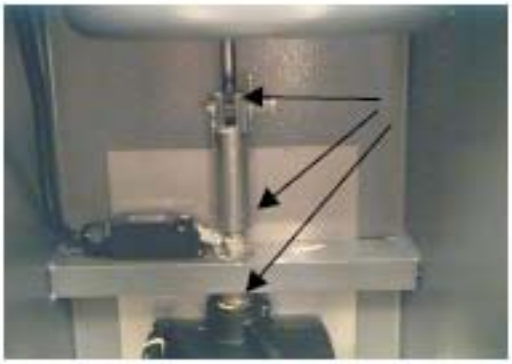
Apply 3 to 4 shots of white lithium grease to the grease nipples shown.(Arrows)



Inspect the 3 front V-belts for cracks,splits and breakage.Replace if needed.

Clean the exterior of the mixer with hot.soapy water and also the inside of the bayonet shaft with a wire brush (shown).

Remove the eight slotted head screws from the rear panel.



Using white lithium grease,apply to friction points shown (Arrow).

Replace rear access cover.

Varimixer

Vari-Belt Exchange
Models W30 thru W150

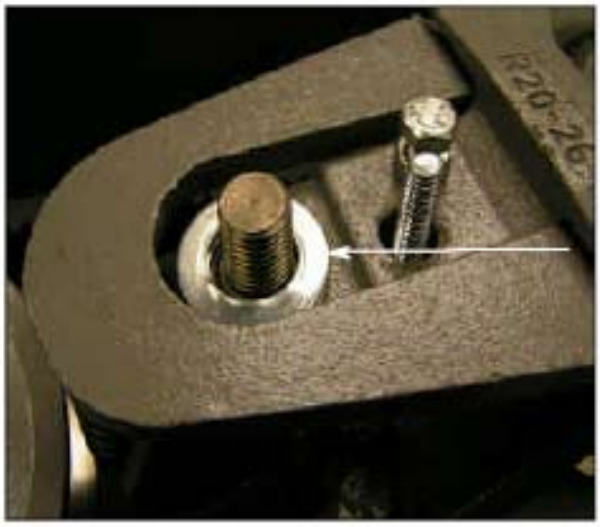
1. Remove the (4) slotted screws on each corner of the top lid.
2. Remove the top lid.

3. Remove the (2) 13 mm nuts.

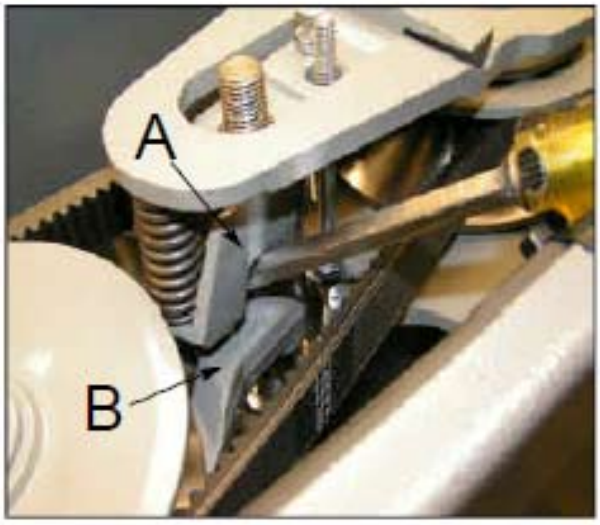
4. Remove the 24 mm nut.

Varimixer

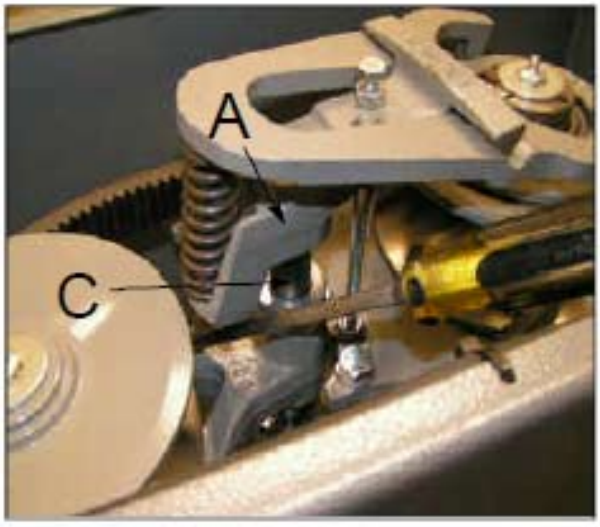
Vari-Belt Exchange
Models W30 thru W150



5. Remove the washers.



6. Using a screwdriver, pry between the upper (A) and lower (B) forks.



7. The upper spring fork assembly (A) will come off of the toothed rack (C) .

Varimixer

Vari-Belt Exchange
Models W30 thru W150

8. With the spring fork removed, roll the belt off of the pulleys.

9. Remove the (4) slotted head screws in the front pulley.

10. Pull out the complete control panel and let it hang by the cables.

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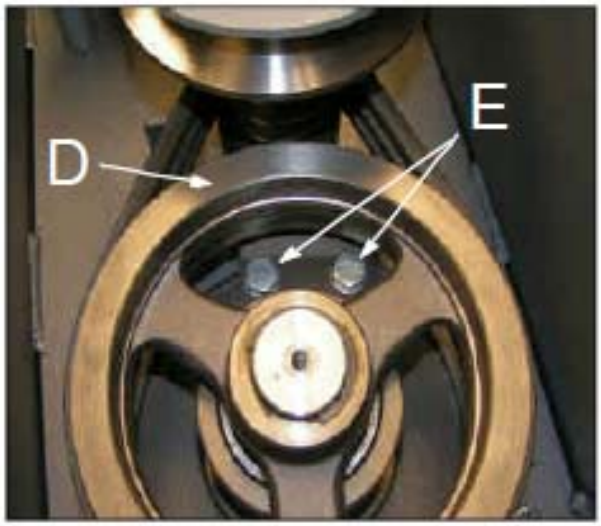
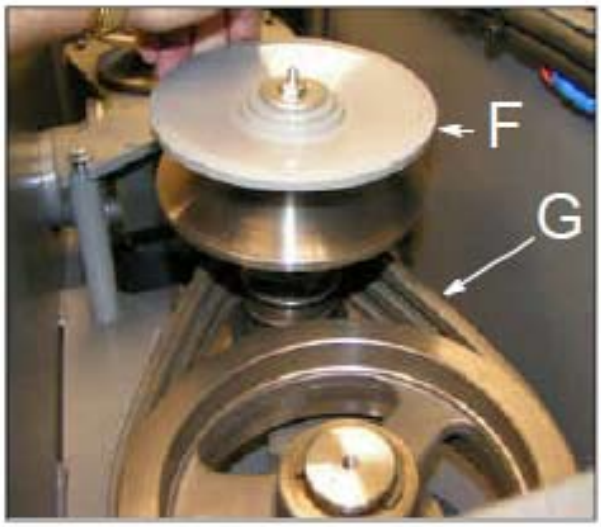
Vari-Belt Exchange
Models W30 thru W150



11. Rotate the front pulley (D) so the (2) 17 mm bolts (E) are visible.

12. Loosen the (2) 17 mm bolts.
For Models W30, W40, W40P, W80, W100 and W150, you can use a 17 mm socket with extension. A crowsfoot wrench will be needed on Model 60.



13. Tilt the center pulley assembly (F) forward. This will loosen the 3 front belts (G).

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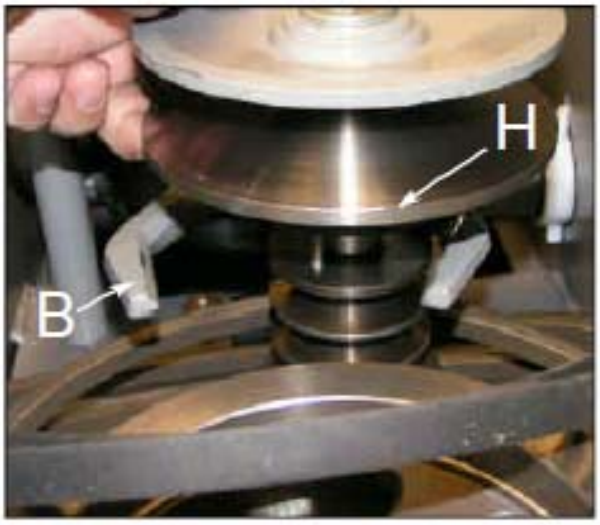
Vari-Belt Exchange
Models W30 thru W150

14. Slowly roll the belts off of the front pulley one at a time.



15. Lift the lower movable pulley (H)to expose the front fork (B).

16. Feed the 3 front belts between the lower pulley (H) and the lower fork (B).

Varimixer

Vari-Belt Exchange
Models W30 thru W150

17. Pull the belts around the center pulley assembly and out.

18. Put the 3 new belts between the lower fork and upper pulley.

19. Pull the belts back around the center pulley assembly.

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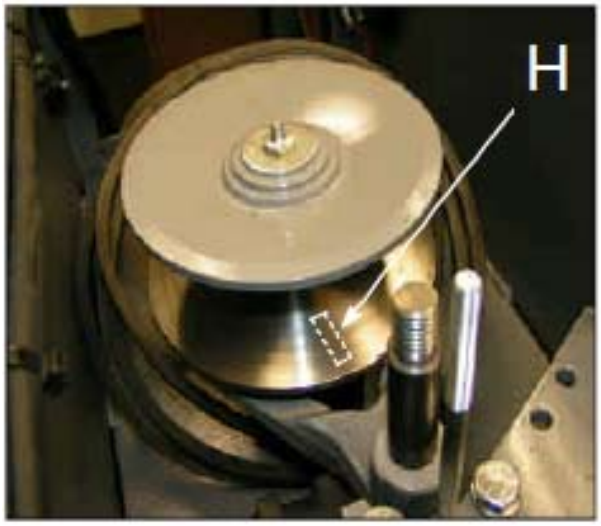
Vari-Belt Exchange
Models W30 thru W150



20. Insure the notch underneath of the lower pulley is between the lower front fork.

21. Install the 3 belts , one at a time.

21. Tighten the left 17 mm bolt .

Varimixer

Vari-Belt Exchange
Models W30 thru W150

22. Insert a large screwdriver into the gap between the planetery and the center pulley assembly arm.

23. Pry the center pulley assembly arm until the belts are as tight as possible. Tighten the right 17 mm bolt.

24. Double check the belts.

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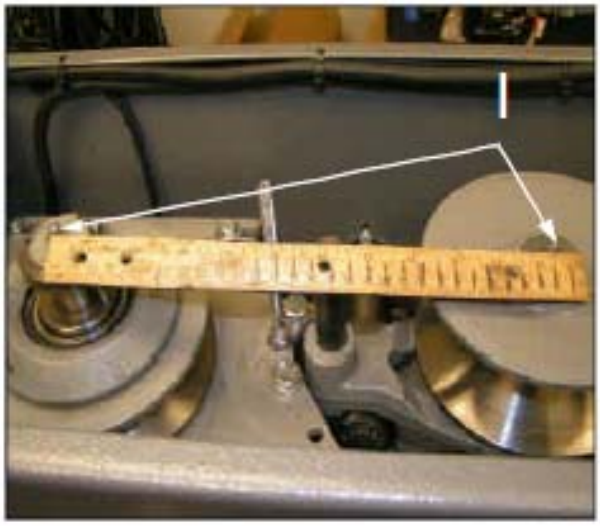
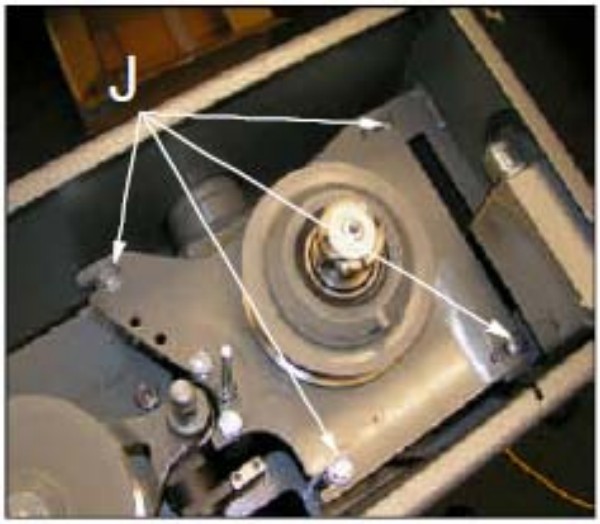
Vari-Belt Exchange
Models W30 thru W150



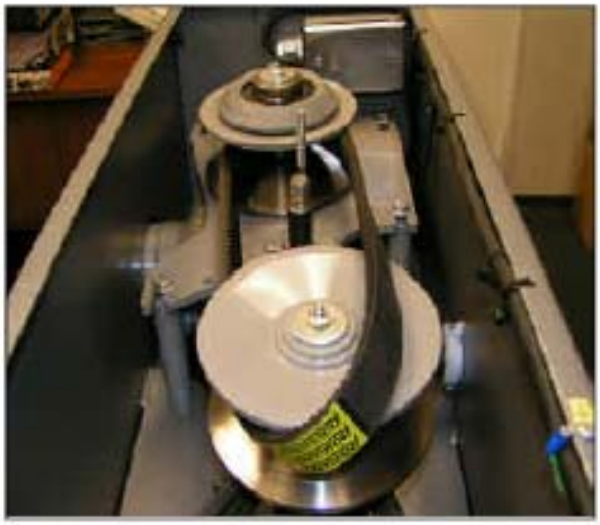
25. Measure the distance between the grease fitting on the motor pulley and the center pulley assemblies. The measurement should be:

Model:

W30 = 11 1/2 inches
W40 = 11 1/2 inches
W40P = 11 1/2 inches
W60 = 12 1/4 inches
W80 = 12 1/4 inches
W100 = 12 1/4 inches
W150 = 12 1/4 inches



26. If the measurement on your mixer is out of specification, loosen the (4) 13 mm bolts (J) on the motor mount plate and slide the motor assembly forward or backward until the measurement meets the specification above. Tighten the (4) 13 mm (J) bolts.



27. Reinstall the main drive belt.

Varimixer

Vari-Belt Exchange
Models W30 thru W150

28. At this time the belt will be very loose with a large bow. This should be corrected.

29. Pinch the belt together between the pulleys to allow the movable pulleys to settle in.

30. Belt will now be tighter with no pronounced bow. This will make it much easier to install the spring fork assembly.

31. Install 6 washers on the toothed rack.

32. Insure the tab (K) is facing toward the back of the mixer.

33. Install the spring fork assembly.

Varimixer

Vari-Belt Exchange
Models W30 thru W150

34. Insure the 2 fingers (L) on the fork rest on the tapered ring correctly.

35. Push the spring fork assembly down on the tooth rack ONLY FAR ENOUGH TO INSTALL THE WASHERS AND THE 24 MM NUT. DO NOT TIGHTEN THE NUT.

CAUTION

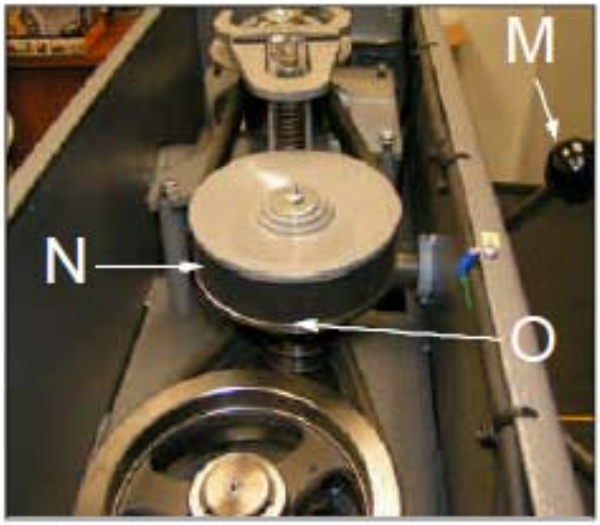
BEFORE GOING ANY FURTHER, INSURE THE BELT DRIVE SYSTEM IS FREE OF OBJECTS.
BE EXTEMELY CAREFUL WHEN PERFORMING THE FOLLOWING STEPS.

Varimixer

Vari-Belt Exchange
Models W30 thru W150

36. Start the mixer.

37. With the mixer running and using a 24 mm socket with extension, slowly tighten the 24 mm nut until tight.



38. Lower the speed lever (M) until the belt (N) is flush with the outside edge of the center pulley assembly (O). Turn the mixer off. THIS IS THE LOW SPEED SETTING.

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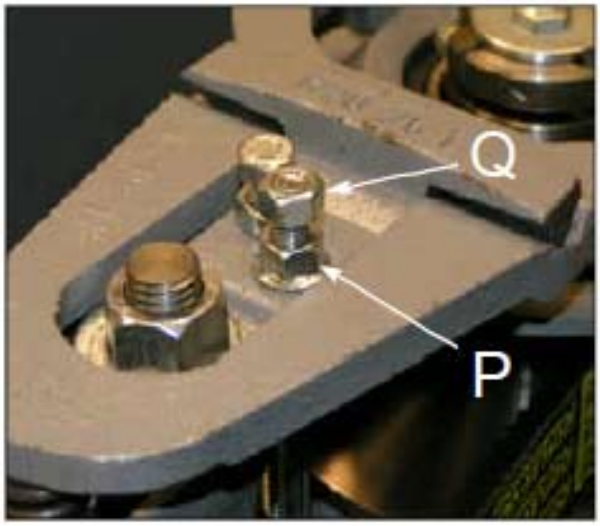
Vari-Belt Exchange
Models W30 thru W150



39. Install the (2) 13 mm jam nuts. Turn the lower nut (P) until it bottoms out on the spring fork assembly, and then turn the upper nut (Q) down against the lower nut, lightly tighten.

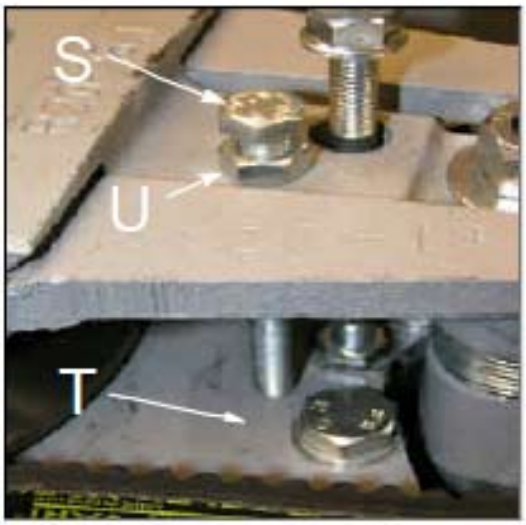
40. Start the mixer and slowly increase the speed to 150 R.P.M. Stop the mixer.

41. Tighten the (2) 13 mm jamnuts together.

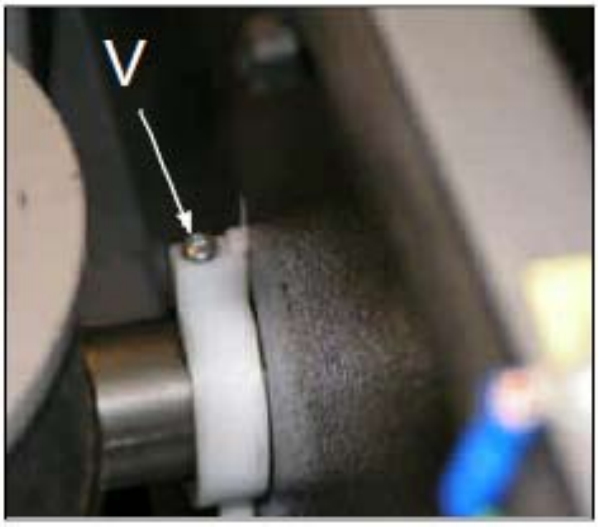
Varimixer

Vari-Belt Exchange
Models W30 thru W150

41. Start the mixer and increase the speed until the belt is flush with the outside edge of the motor pulley. Stop the mixer. THIS IS HIGH SPEED. (R)



42. Tighten the bolt (S) until it hits the motor mount plate (T). Tighten the jam nut (U). Start the mixer and bring it down to low speed.



43. Loosen the screw in the white collar. Do not remove.

Varimixer

Vari-Belt Exchange
Models W30 thru W150

44. Rotate the arrow (W) until it lines up with shaft on the speed lever. This is 70 R.P.M. Tighten the screw (V) on the white collar.

45. Install the control panel.

46. Insure the electrical cables are clear of the pulley system. Grease the movable pulleys and slowly run the mixer up and down through its speed range. Insure the belts are running true. Install the top lid.

PLANETARY REMOVAL W30-150N

1 REMOVE 4 SCREWS (T) FROM CONTROL PANEL.

2 REMOVE FRONT CONTROL (U) FROM MIXER AND LET HANG FROM CABLES FROM THE FRONT OF THE MIXER.

3 OPEN LID

4 REMOVE NUT (J) AND WASHERS (H).

5 REMOVE FORK ASSEMBLY (X).

6 ROLL BELT (A) OFF OF THE PULLEYS AND REMOVE FROM THE MIXER.

7 LOOSEN JAM NUT (E) AND TENSION BOLT (F).

8 LOOSEN BOLTS (D).

9 REMOVE 3 V-BELTS (C) FROM PLANETARY PULLEY AND PEDESTAL ASSEMBLY (S).

10 REMOVE C-CLIP (W) FROM PLANETARY SHAFT.

11 INSTALL A 3 ARM PULLEY PULLER ONTO PULLEY (Y).APPLY TENSION WITH PULLER. PULLEY MUST BE HEATED WITH A PROPANE TORCH AROUND THE SHAFT AREA TO BREAK THE LOCTITE SEAL FROM THE SHAFT.

12 REMOVE PULLEY FROM MIXER.

13 REMOVE BOLTS (D) AND PEDESTAL ASSEMBLY (S).

14 REMOVE BOLTS (V). (*SUPPORT PLANETARY BEFORE REMOVING)*

15 REMOVE PLANETARY FROM MIXER BODY.

INSTALLING PLANETARY

1 LIFT PLANETARY INTO MIXER BODY AND INSTALL 3 BOLTS (V)

2 INSTALL PEDESTAL PULLEY ASSEMBLY AND BOLTS. DO NOT TIGHTEN BOLTS COMPLETELY.

3 APPLY LOCTITE 271 TO PULLEY AND INSTALL ON PLANETARY SHAFT.

4 INSTALL C-CLIP(W) ONTO SHAFT.

5 INSTALL THE 3 V-BELTS (C) ON THE PEDESTAL PULLEY AND PLANETARY PULLEY (Y).

6 TIGHTEN THE 2 BOLTS (D) ON THE PEDESTAL ASSEMBLY.

7 TIGHTEN BOLT (F) AGAINST PEDESTAL ARM UNTIL BELTS (C) ARE TIGHT. TIGHTEN JAMNUT (E). (*DO NOT TIGHTEN IF MACHINE IS EQUIPPED WITH TOOTH BELT INSTEAD OF 3 V-BELTS).*

8 INSTALL SPECIAL V-BELT (A).

9 INSTALL FORK ASSEMBLY (X).

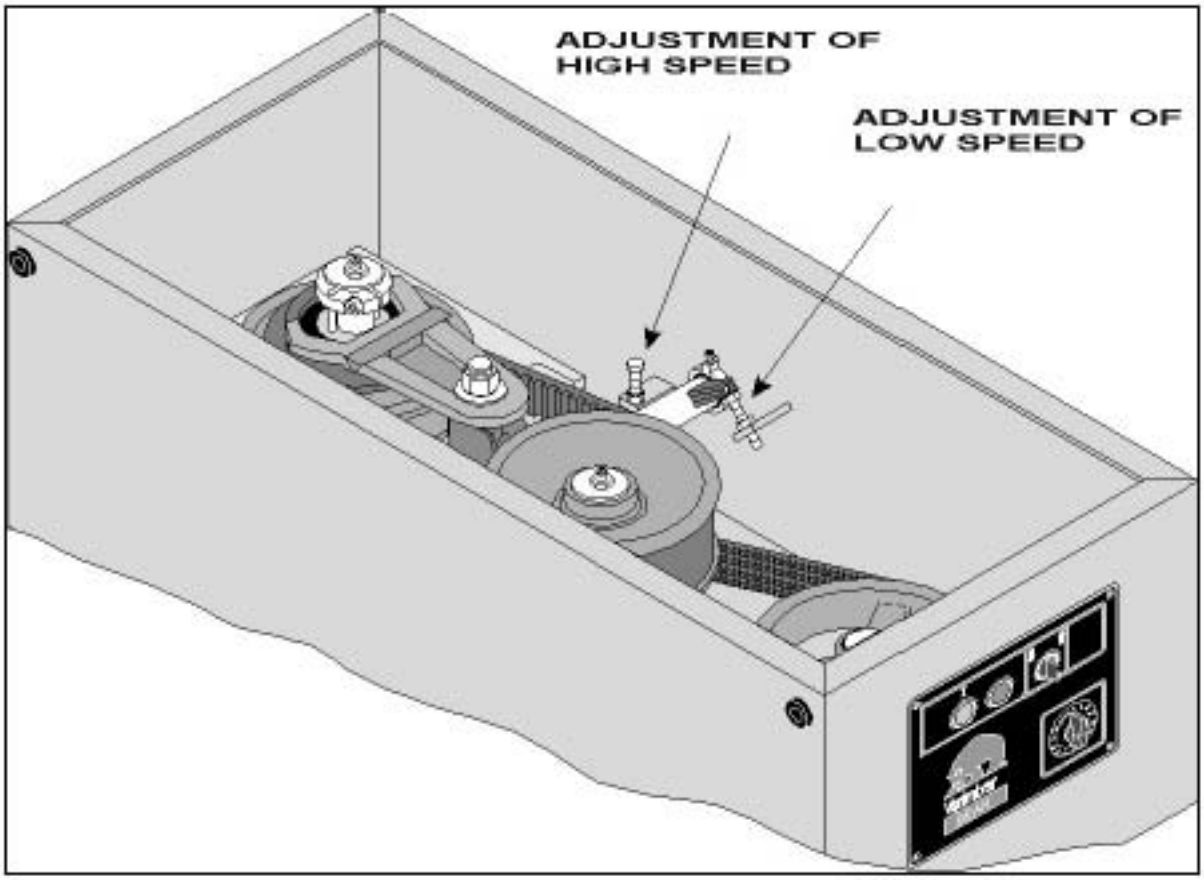
10 INSTALL WASHERS (G) (H) AND NUT (J).*DO NOT TIGHTEN NUT.*

11 START THE MIXER AND TIGHTEN THE NUT (J).
DO NOT OVERTIGHTEN!

12 ON THE FRONT PULLEY SET,THE STUD (K) ON THE VARISPEED COLLAR (L) MUST BE PLACED INSIDE THE LOWER FORK (M),AND ON THE REAR PULLEY SET OUTSIDE THE FORK (N).

13 ADJUST THE SPEED BY TURNING THE THE STOP SCREWS (O) IN OR OUT.

14 THE STOP SCREWS (O) ON THE SPEED LEVER SHOULD BE ADJUSTED SO THAT THE MEASUREMENT (P) IS 1-2MM ON THE FRONT AND REAR PULLEY,AT HIGH AND LOW SPEED, RESPECTIVELY.TIGHTEN THE JAM NUTS (R) WHEN THE SPEED IS CORRECTLY ADJUSTED.



PLANETARY LOWER
HALF REMOVAL

A slide hammer with a hook on the end will aid in removing stainless steel cover.

Pry off rubber ring from bayonet shaft.

Position slide hammer between stainless cover and grey plastic ring,rotate so hook on the slide hammer contacts upper edge of stainless cover. Use the tool to remove cover.

With the cover removed,3 hex head bolts will be exposed.Remove these three bolts.

Note:
When reinstalling lower half,tighten the rear bolt first before the other two.

Fig 4

PLANETARY LOWER
HALF REMOVAL

With the bolts removed the lower half will drop out.

Lower half assembly with outside case,bayonet shaft,upper and lower pinion gears,needle bearing and sealed ball bearing.

To install lower half,align bayonet shaft with the needle bearing in the upper head and the main shaft with the needle bearing in the lower head. With lower half installed,insert bolts.
Note:Always tighten the rear bolt first.(See Fig.4)

Install Stainless cover,this will required a plastic coated or rubber hammer.

PLANETARY LOWER
HALF REMOVAL

Hit the cover on each side of the bayonet shaft several times and check for fit.

PLANETARY LOWER
HALF DISASSEMBLY
AND ASSEMBLY

Disassemble

Remove snap ring from bearing carrier.

Turn assembly over and remove snap ring from bayonet shaft.

Press bayonet shaft through bearing race,spacer,upper pinion gear and lower pinion gear.

Sealed ball bearing and (2) spacers should press out with the bayonet shaft,if it doesn't,press the bearing out.

Remove the upper and lower pinion gear,spacer (if applicable) and bearing race.

PLANETARY LOWER HALF DISASSEMBLY AND ASSEMBLY

Remove the key from the shaft.

Press the shaft through the ball bearing.

Press the needle bearing and seal out .

Disassembled lower planetary head.

PLANETARY LOWER
HALF DISASSEMBLY
AND ASSEMBLY

Assembly

Install nylon spacer ring **(flat side up)**

Put sealed ball bearing onto bayonet shaft.

Press shaft onto ball bearing until it snugs up against the spacer.

Add second nylon spacer **(flat side against the bearing)**

PLANETARY LOWER
HALF DISASSEMBLY
AND ASSEMBLY

Install key(s) into bayonet shaft.

Press the shaft assembly into the lower head casting.

Install the snap ring for the bearing.

Install the needle bearing seal……

PLANETARY LOWER
HALF DISASSEMBLY
AND ASSEMBLY

and press the needle bearing into the lower half casting until it is flush.
(Pack needle bearing with white lithium grease)

Submerge the upper and lower pinion gears into boiling water for 15 minutes.This must be done to avoid excess noise after head is complete and running.

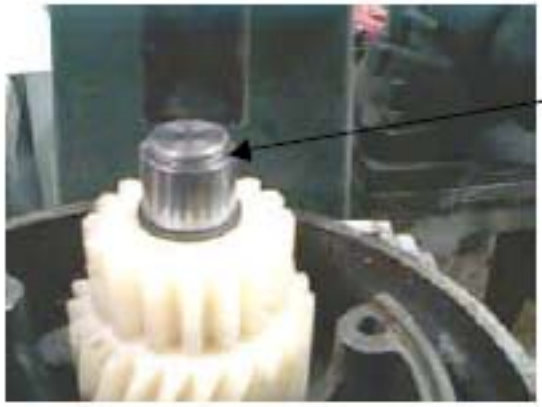
Install lower gear.*Do not use the press to install,heating the gears in water will cause them to expand and technician will be able to push them into place by hand.*

Install upper gear.

PLANETARY LOWER
HALF DISASSEMBLY
AND ASSEMBLY

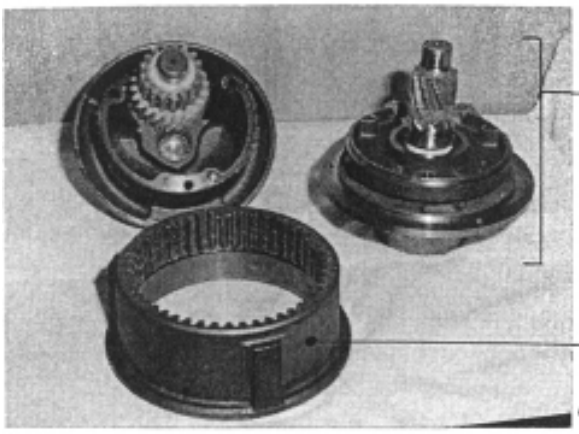
Install spacer (Except Model W40/ not applicable)

Press needle bearing race into place.



Press race far enough down on the shaft so the snap ring groove is visible.

Install snap ring onto shaft.Lubricate pinion gears, with Varimixer planetary head grease.(P.N. GREASE)



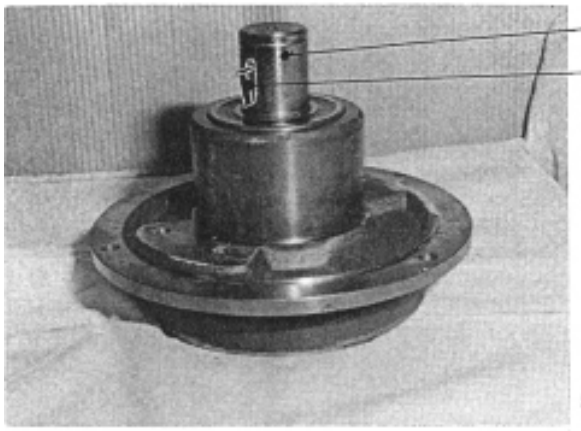
4

DISMANTLING OF THE UPPER PART OF THE PLANETARY HEAD.

Take off the gear wheel rim (E) from the upper part of the planetary head (F).

If the gear wheel rim cannot be loosened by knocking gently on the side of the upper part, you might put in a couple of screw-drivers between the gear wheel rim and the upper part pressing loose the gear wheel rim.

(photo 4)

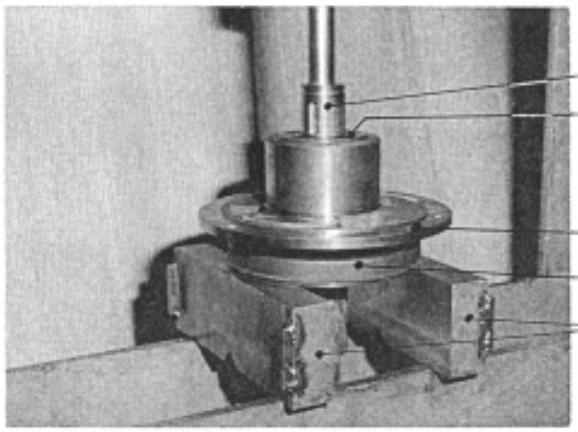


5

The key (G) shall be taken out from the main shaft (H).

(photo 5)

The upper part of the planetary head (F) is to be placed on a couple of plane iron blocks (I), so that the blocks are supporting the eccentric disc (J).



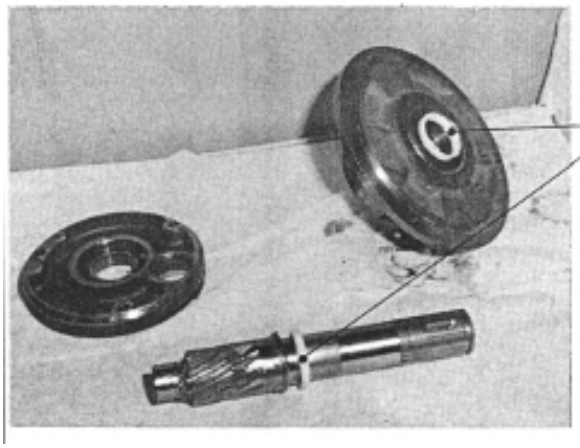
6

Then the main shaft (H) is pressed out at the ball bearings (K) and the eccentric disc (J) in one operation.

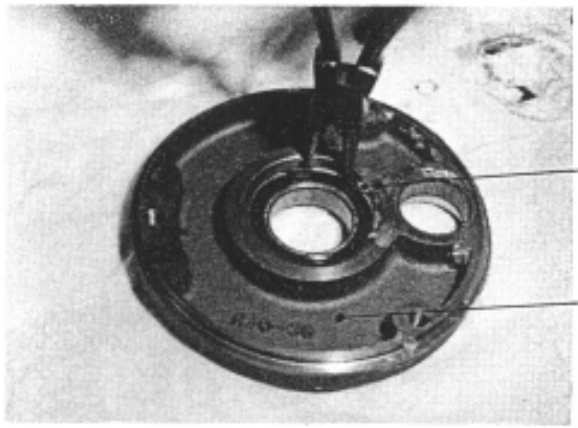
(photo 6

Keep the distance pieces (P), as normally they are not damaged and can be used again.

(photo 7)



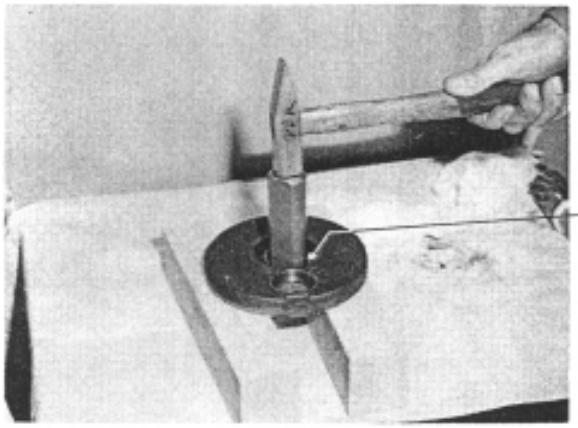
7



8

The circlip (L) is taken out of the eccentric disc (J).

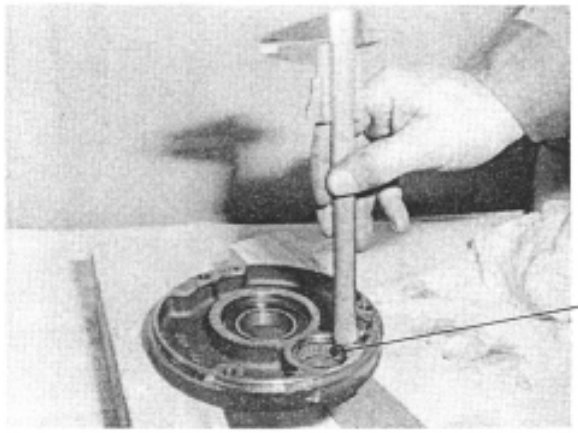
(photo 8)



9

The ball bearing (M) is pressed out with a punch.

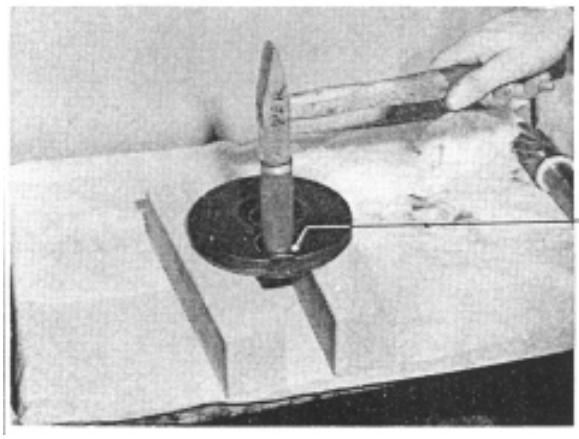
(photo 9)



10

Before the needle bearing is pressed out, the distance from the machined top rim of the eccentric disc to the needle bearing shall be measured with a slide caliper, as it is important that the new bearing is put in the same place.

(photo 10)



11

The needle bearing (N) is pressed out with a punch.

(photo 11)

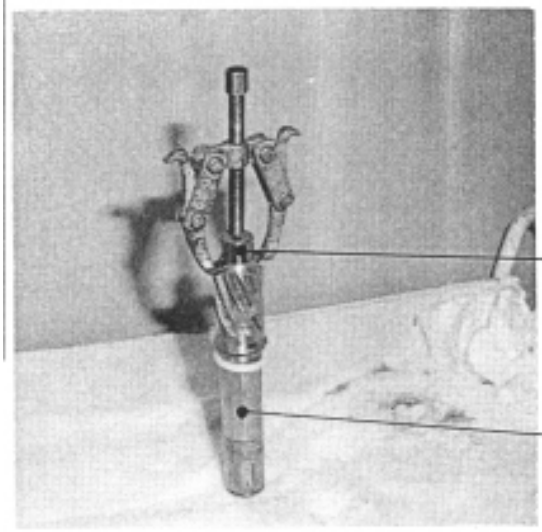
The 2 ball bearings (K) in the main bearing (O), are pressed out with a punch, by inserting the punch through the top ball bearing and pressing the bottom ball bearing out first. Then turn the main bearing (O) around and press out the other ball bearing.

(photo 12)

12

The old innerring from the needle bearing (N), is pulled out of the main bearing (H) with an extractor.

(photo 13)

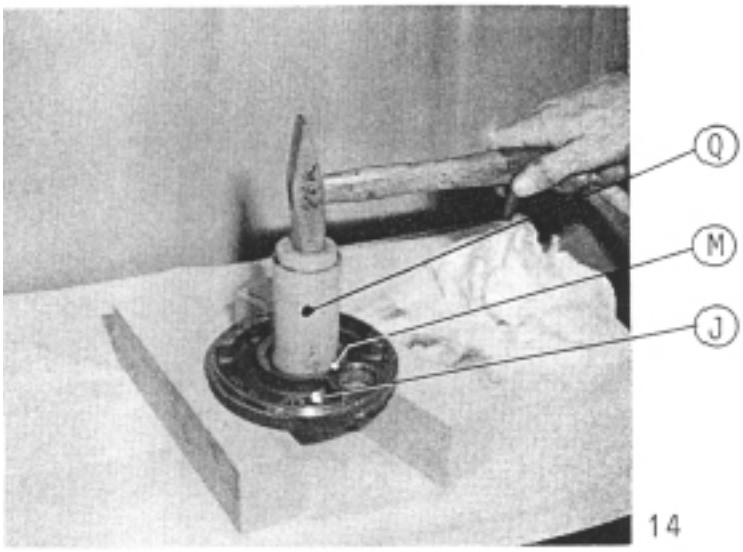


13

All parts from the upper part of the planetary head have now been taken apart and can be cleaned. The parts shall be examined for wear and tear and defects, and if necessary, they shall be exchanged.

Ball bearings and needle bearings should always be exchanged.

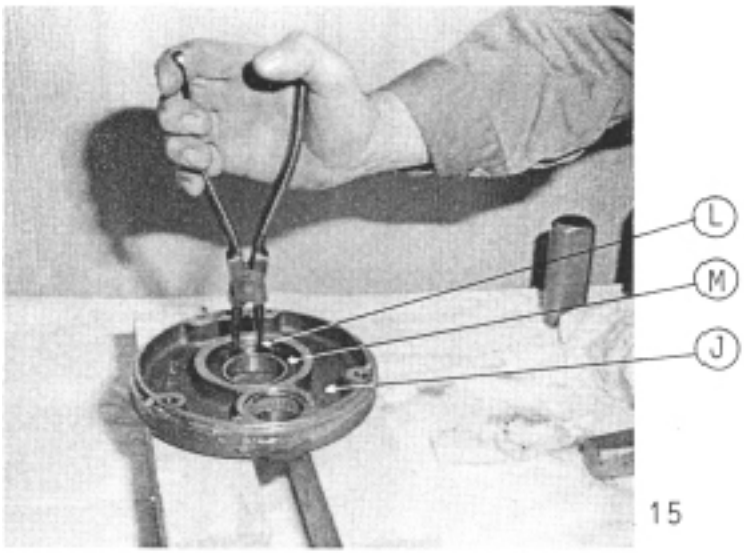
MOUNTING OF THE UPPER PART OF THE PLANETARY HEAD.



14

Place the eccentric disc (J) on a plane base and press in the ball bearing (M) with a punch (Q) pressing on the outerring of the ball bearing.

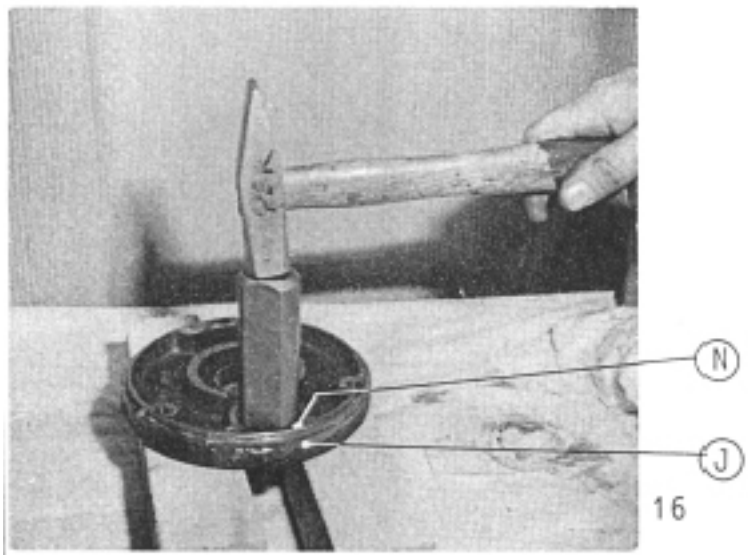
(photo 14)



15

Place the circlip (L) in the eccentric disc (J) above the ball bearing (M).

(photo 15)

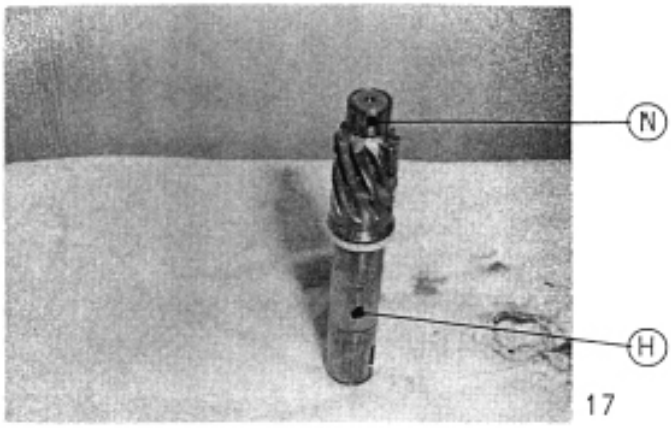


16

The needle bearing (N) shall be lubricatéd with grease on the needles and pressed into the eccentric disc (J).

The distance from the machined top rim of the eccentric disc to the needle bearing shall be the same as before the old needle bearing was taken out.

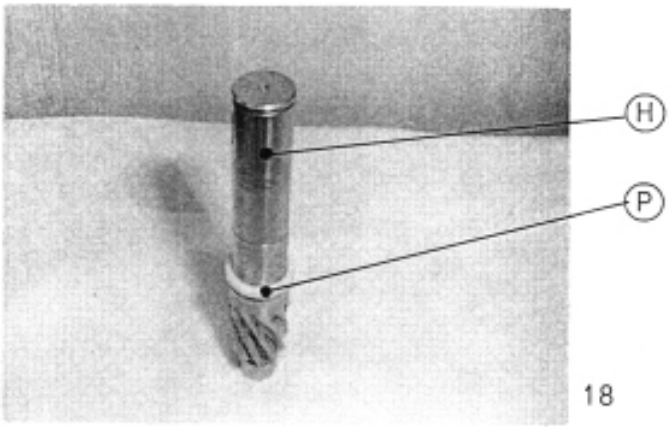
(photo 16)



17

Press the innerring (N) of the needle bearing on the main shaft (H), so that it is on a level with the end of the shaft.

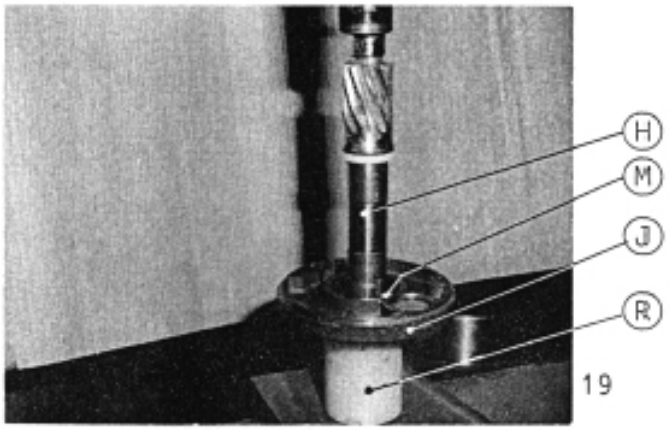
(photo 17)



18

The distance piece (P) shall be placed on the main shaft (H), the inclined plane against the shoulder of the shaft.

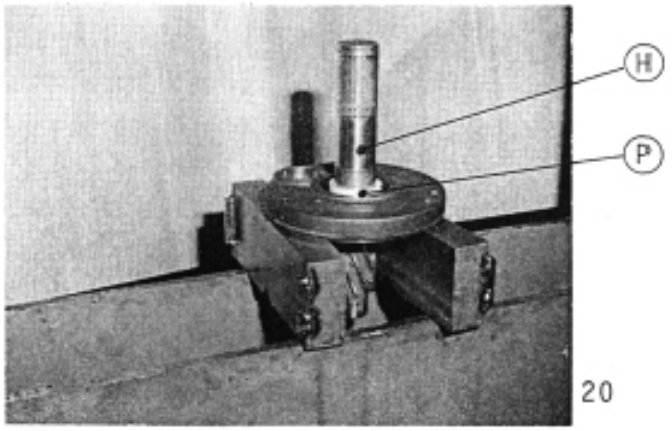
(photo 18)



19

The main shaft (H) is pressed down into the ball bearing (M). The ball bearing and the eccentric disc (J) shall be supported by a tube (R), supporting the innerring of the ball bearing.

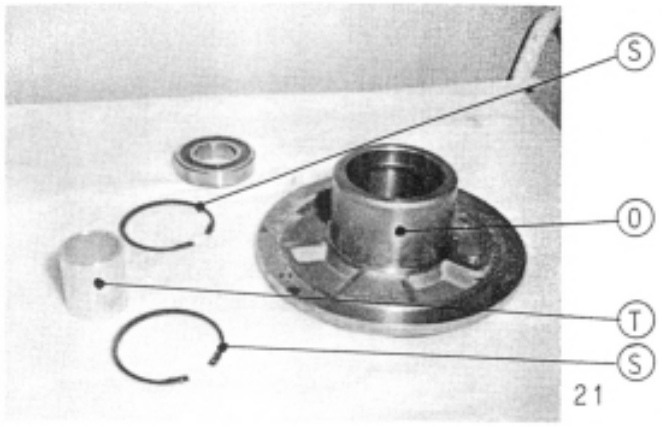
(photo 19)



20

The distance ring (P) is placed on the main shaft (H), the inclined plane away from the ball bearing.

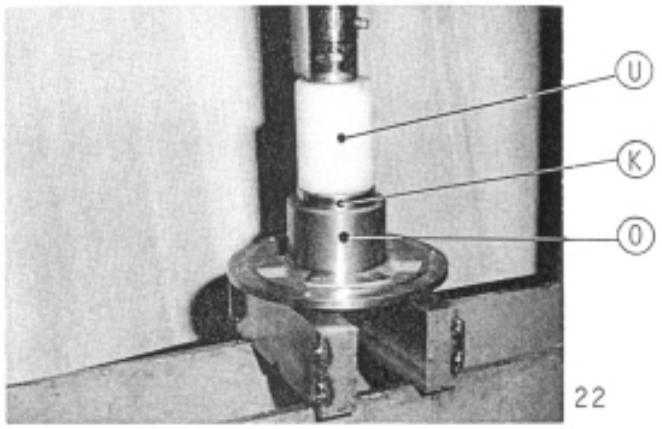
(photo 20)



21

If the circlips (S) have been removed from the ball bearing (O) insert them again.

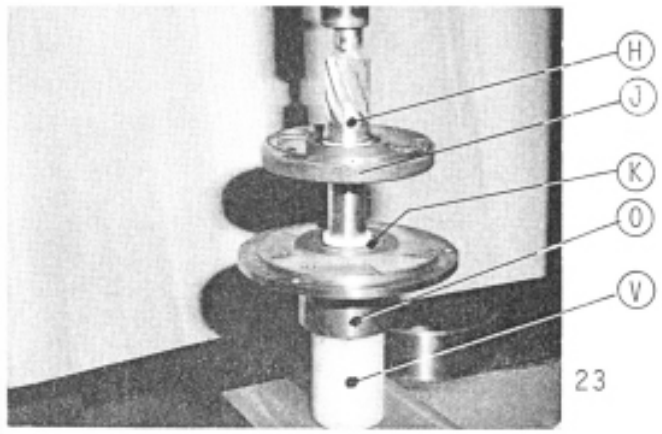
(photo 21)



22

The ball bearings (K) are pressed into the main bearing (O) with a punch (U), pressing on the outerring of the ball bearing. Remember the distance piece (T) between the ball bearings.

(photos 21 + 22)

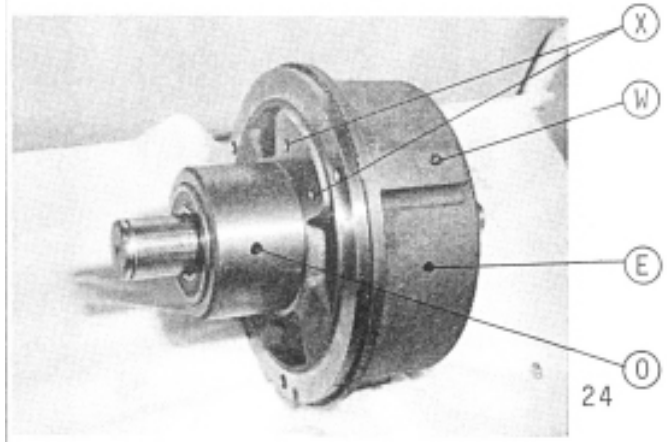


23

The main shaft (H) with the eccentric disc (J) is pressed through the ball bearings (K) in the main bearing (O).

The ball bearings in the main bearing shall be supported by a tube (V) supporting the inner-ring of the ball bearing.

(photo 23)



24

The gear wheel rim (E) is placed on the main bearing (O) and knocked cautiously in position with a plastic hammer.

Control that the threaded hole (W) for the grease nipple is placed correctly in relation to the bolt holes (X) for the arm for bearing. See photo.

(photo 24)

Varimixer

Motor Pulley Removal Instructions
Models W30-W100

Remove 24 MM nut

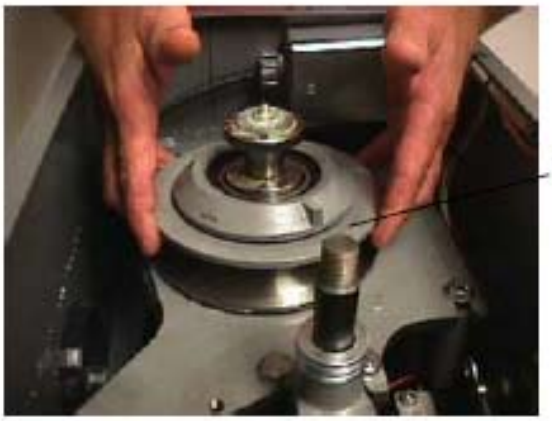
Insert screwdriver as shown, and pry up the spring fork assembly.

Remove the spring fork assembly.

Remove the vari drive belt.

Varimixer

Motor Pulley Removal Instructions
Models W30-W100



Using both hands, grasp the upper movable pulley…

and repeatably "slam" the pulley UP into the clamping ring.

This action will eventually cause the motor pulley to come up and off the keyed motor shaft.

Remove motor pulley.

Varimixer

Motor Pulley Removal Instructions
Models W30-W100

The motor shaft and key.

With the new pulley in hand, align the motor key with the key slot in the motor pulley.

Under no circumstances should you attempt to pry the pulley using crowbars, screwdrivers or a pulley puller device. Doing this will result in a destroyed main drive motor and/or the-attachment drive PTO gearbox shaft.

Motor pulley on shaft.

Now, using the upper movable pulley,repeatably "slam" down against the lower pulley. This action will "push" the pulley into place. Continue until the pulley bottoms out on the shoulder of the motor shaft.

Varimixer

Motor Pulley Removal Instructions
Models W30-W100

The motor pulley installed.

Install the vari drive belt.

Remove the belt slack .

Varimixer

Motor Pulley Removal Instructions
Models W30-W100

Install the spring fork assembly. Insure the tab on the motor pulley is pointing toward the rear of the mixer.

Push fork down……

only far enough to expose the threads on the shaft.

Install the washers and the 24 mm nut.
DO NOT TIGHTEN

Tighten the 24 MM nut WHILE THE MIXER IS RUNNING. Tighten until the nut bottoms out.
Adjust the low and high speed stops. Job is complete.

Varimixer

Motor Removal Instructions
Models W30-W100

Remove 24 MM nut

Insert screwdriver as shown, and pry up the spring fork assembly.

Remove the spring fork assembly.

Remove the vari drive belt.

Varimixer

Motor Removal Instructions
Models W30-W100

If the motor pulley, mounting plate and attachment drive are going to be transferred to a new motor, remove the motor pulley, if not, jump to the next page. To remove the motor pulley, using both hands, grasp the upper movable pulley…

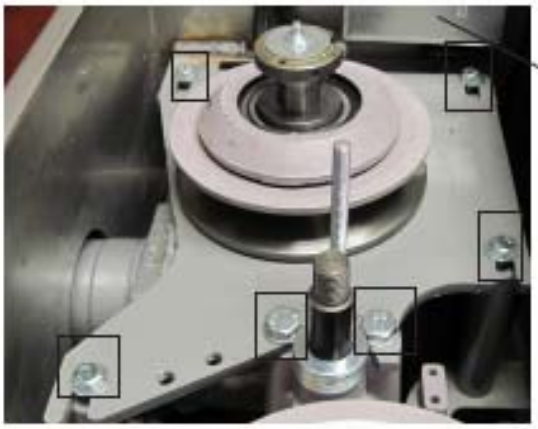
and repeatably "slam" the pulley UP into the clamping ring.

This action will eventually cause the motor pulley to come up and off the keyed motor shaft.

Remove motor pulley.

Varimixer

Motor Removal Instructions
Models W30-W100



Remove the electrical box.

Remove the four 13mm bolts in the slotted holes of the motor plate.

Remove two 17mm bolt from the speed mechanism.

Remove the two 13mm bolts from the hub, slide the hub away from the motor as far as possible.

Place a board on top of the mixer and lift the motor assembly up and put of the mixer frame. Now you can disconnect the electrical connections.

For further instructions on transferring the attachment drive assembly, go to "Attachment Drive Exchange" instructions in this manual.

Once everything has been transferred to the new motor, install the motor assembly back into the unit. Reinstall and tighten the two 13mm bolts that attach the hub (above) to theattachment drive. Install but do not tighten the four 13mm motor plate bolts and two 17mm speed mechanism bolts (above).

Go to "Belt Exchange Instructions" in this manual and continue at step 25. It is important to follow these instructions step by step.

ATTACHMENT DRIVE REMOVAL AND REASSEMBLY

Remove the two slotted head screws with an impact screwdriver.

Tap on the flange with a plastic or rubber hammer.

Pry out attachment drive shaft assembly from gearbox by using two prybars.

Assembly will normally come out with nylon gear and bearing.These two parts must be removed from the shaft before reassembly.

ATTACHMENT DRIVE REMOVAL AND REASSEMBLY

Remove the four 13MM Hex head bolts.

Tap on the motor mount plate with a plastic or rubber The motor plate,gearbox and upper shaft assembly will separate from the motor.....

.....leaving the worm gear on the motor shaft.To remove,pry off with prybars.In some cases the gear may have to be heated to break it loose from the shaft.

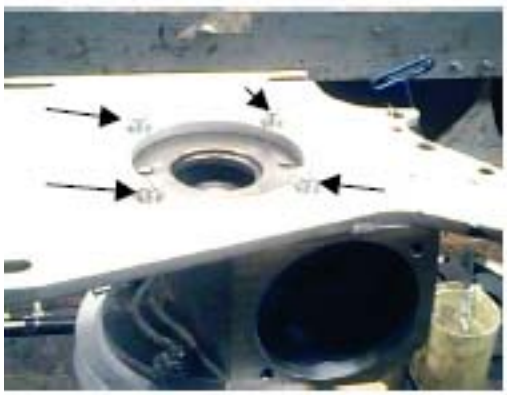
Install the long key into the keyway on the new motor shaft.

ATTACHMENT DRIVE REMOVAL AND REASSEMBLY

Align the key on the motor shaft with the keyway in the worm gear.Tap the gear with plastic hammer until gear bottoms out on the shoulder of the shaft.

Apply a liberal amount of R.T.V silicone around the mating surface of the motor.

Install the gearbox on motor,align the holes and install four bolts.
Note:Pay attention to the location of the conduit box in relation to the output shaft on the gearbox.
3 Phase-Conduit box should face towards the rear of the mixer.
1 Phase-Start and run capacitors should face toward the rear of the mixer.



Install the motor plate and the four slotted head screws.
These screws should be impacted in place.

ATTACHMENT DRIVE
REMOVAL AND
REASSEMBLY

Align the key on the motor shaft with the keyway in the upper shaft assembly.Tap the shaft in with a plastic hammer.

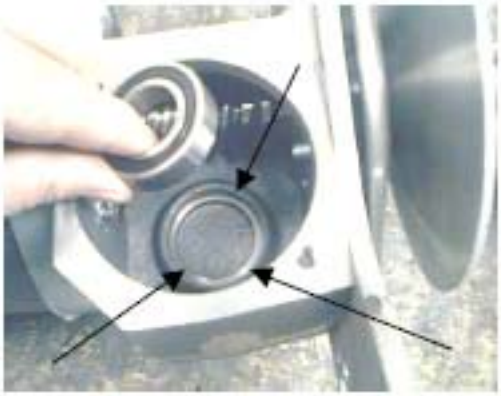
Using an impact screwdriver install, the two slotted head screws to secure the upper shaft assembly.

Install the key into the keyway of the upper shaft……..

……and install the motor pulley assembly.Line up the key with the keyway and push down.
Using the upper sliding pulley,bang down against the lower pulley,this will force the pulley down onto the shaft.

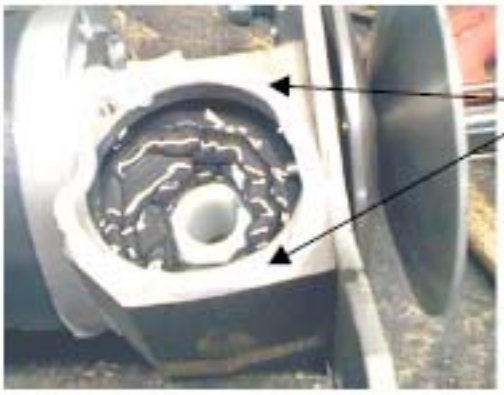
ATTACHMENT DRIVE REMOVAL AND REASSEMBLY

Using a grease gun,grease the pulley with white lithium grease.



Install the bearing into the gearbox,tap in wth a plastic hammer.

Lay the nylon gear into place on top of the bearing, tapered side up.



Apply 1 pint of special grease (PN 860/150-0) into the gearbox.
Apply RTV silicone around the surface of the gearbox.

ATTACHMENT DRIVE REMOVAL AND REASSEMBLY

Align the key on the attach shaft with the keyway in the nylon gear.

Tap the shaft in first, then tap the surrounding flange.

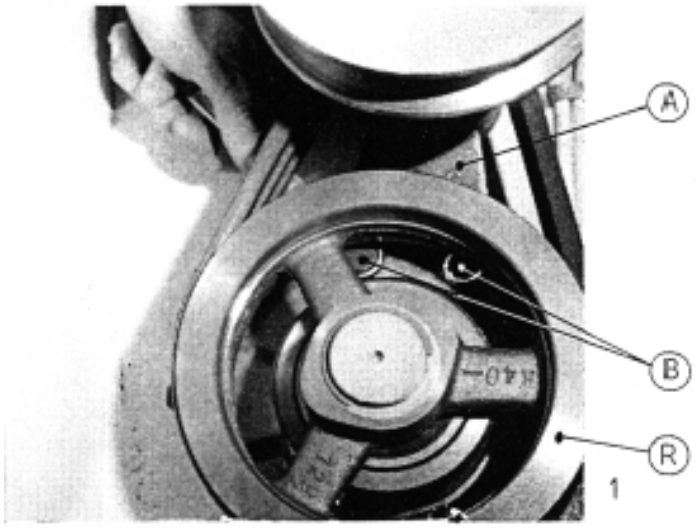
Install the two slotted head screws.
Use an impact screwdriver.

Motor and gearbox assembly ready to be installed.

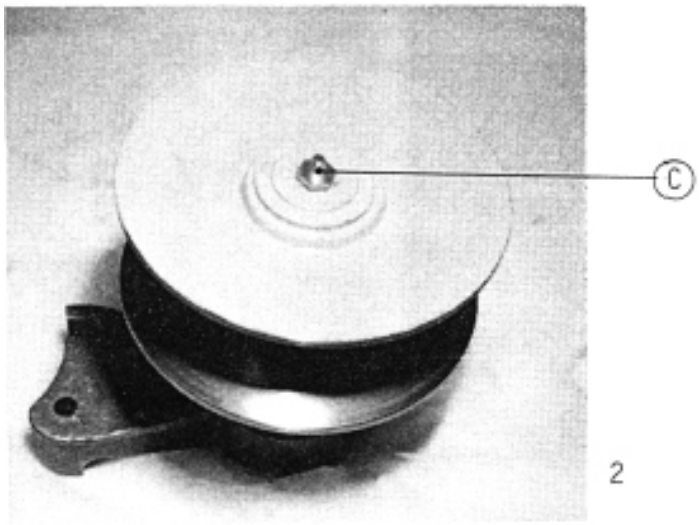
REPAIR OF ARM FOR BEARING.

RN30-R40-R60-R100
W30-W40-W60-W100

R40 pizza - W40 pizza



1



2

It is necessary to remove the V-belt pulley (R) before the arm for bearing (A) can be dismantled from the machine.

3

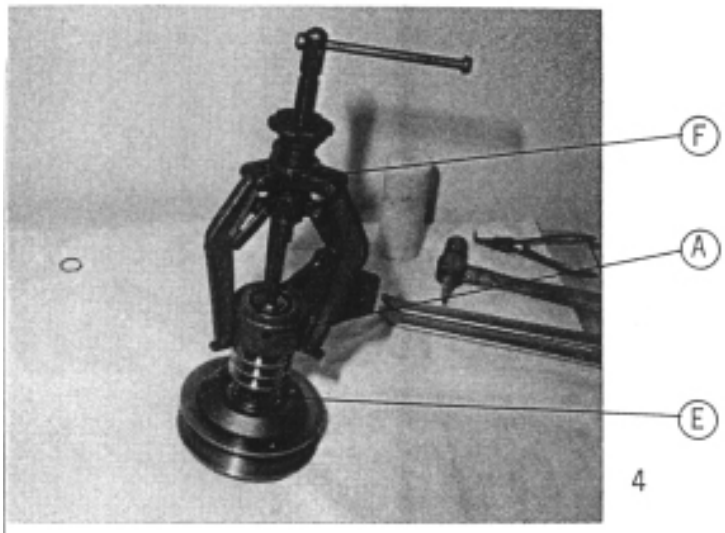
The arm for bearing (A) is removed by screwing out the bolts (B) with an open-end spanner No. 17.
(photo 1)

The grease nipple (C) is removed with an open-end spanner No. 14.
(photo 2)

The circlip (D) is removed.
(photo 3)

The arm for bearing (A) is pulled off the shaft (E) with a extractor (F).

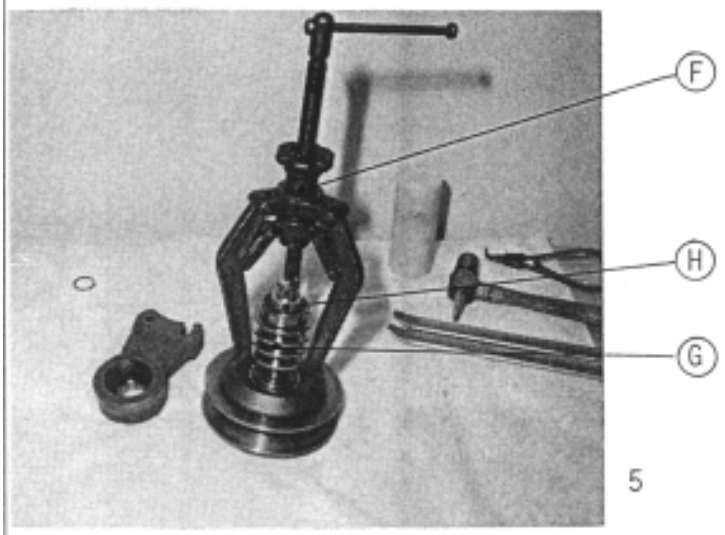
(photo 4)



4

The V-belt pulley (G) and the distance piece (H) is pulled of the shaft with an extractor (F)

(photo 5)



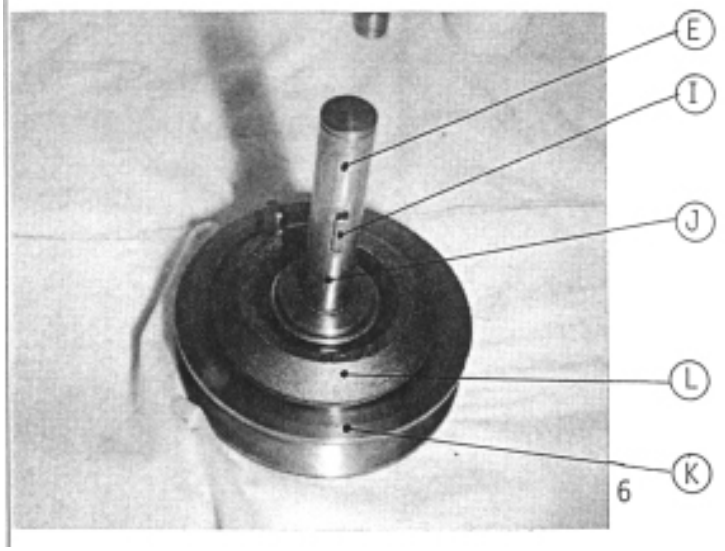
5

The key (I) is taken out of the shaft (E), and the circlip (J) is removed.

(photo 6)

The pulley (K) with the Varispeed collar (L) can now be removed.

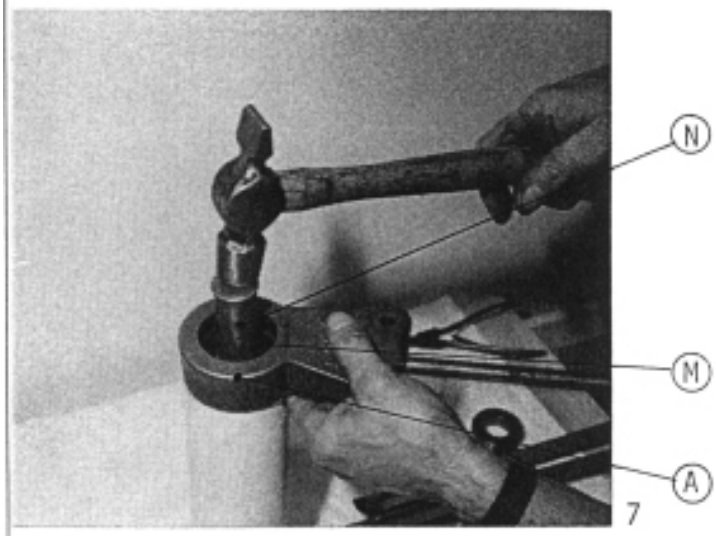
(photo 6)



6

The ball bearing (M) is knocked out of the arm for bearing (A) with a punch (N).

(photo 7)

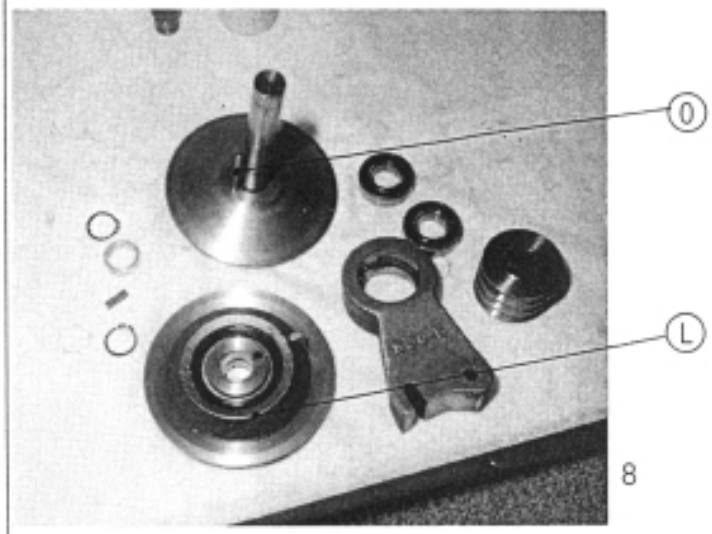


7

Exchange of ball bearing in the Varispeed collar (L) and exchange of dowel (O), is described in the paragraph:

REPAIR OF PULLEY.
6-019.

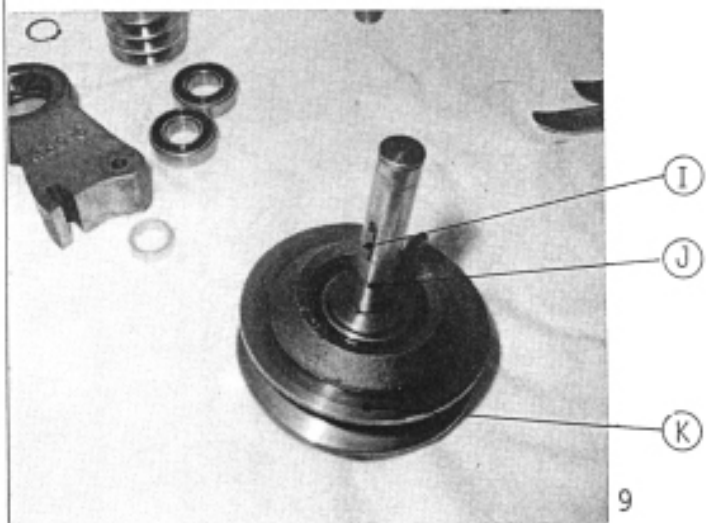
(photo 8)



8

The complete arm for bearing is assembled by placing the pulley (K) on the shaft. After that the circlip (J) and the key (I) are put on the shaft.

(photo 9)



9

Before the V-belt pulley (G) is put on the shaft, it must be secured that it is placed correctly.

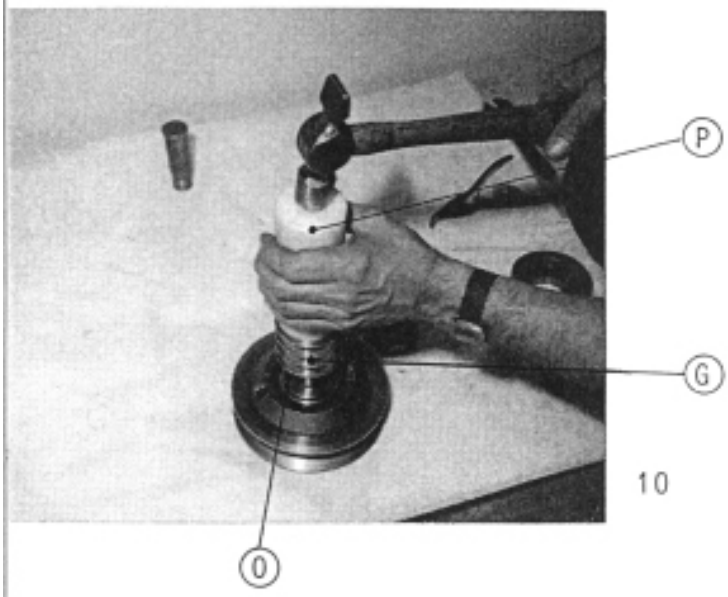
The side of the V-belt pulley facing the pulley is equipped with a hole in which the dowel (O) is to be placed.

The side facing the punch (P) has a recess.

When it has been controlled that the V-belt pulley is placed correctly, it can be cautiously knocked in position with a bored plastic punch (P).

Be sure that the key of the shaft is placed on level with the keyway in the V-belt pulley before the V-belt pulley is knocked in position.

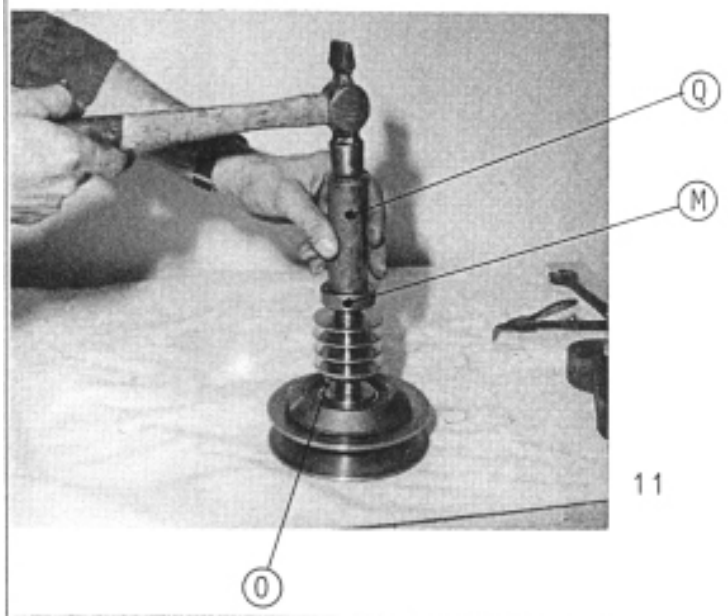
(photo 10)



10

The ball bearing (M) is placed on the shaft. For this a bored punche (Q) is used. The punch shall be pressing the innerring of the ball bearing.

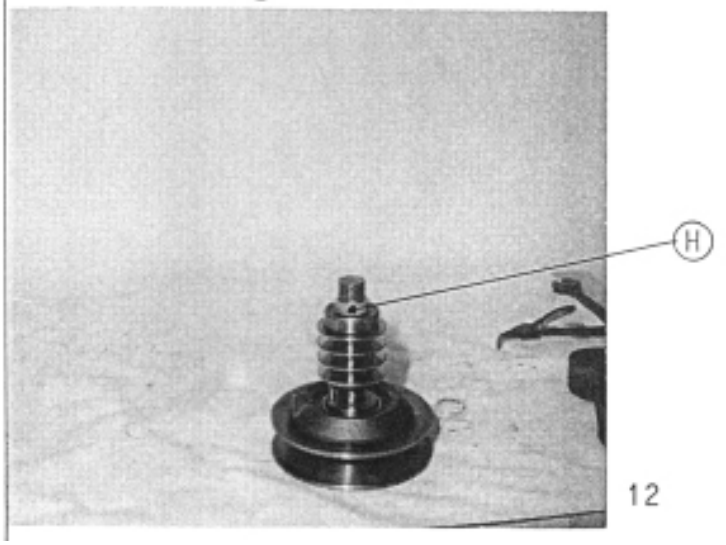
(photo 11)



11

The distance piece (H) is placed on the shaft.

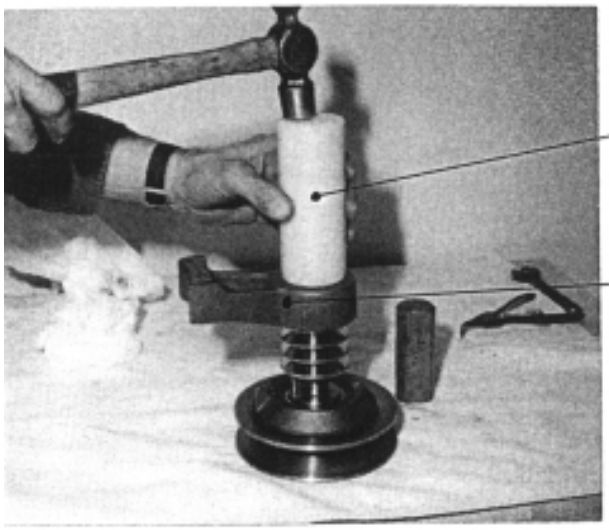
(photo 12)



12

The arm for bearing (A) is knocked down over the ball bearing with a bored plastic punch (P).

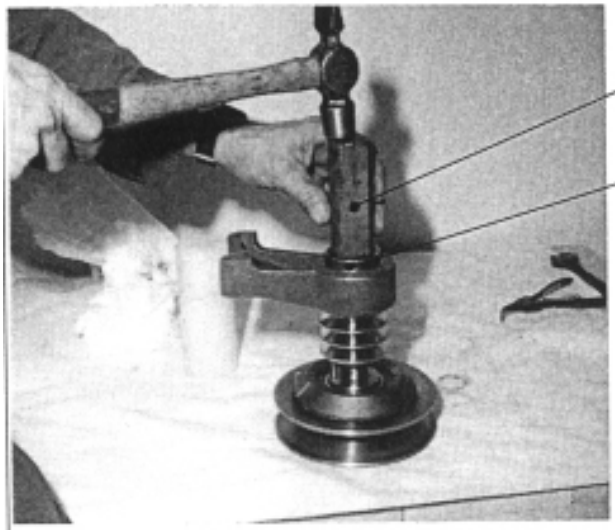
(photo 13)



13

The remaining ball bearing (M) is knocked down over the shaft with a bored punch (Q) pressing the innerring of the ball bearing.

(photo 14)

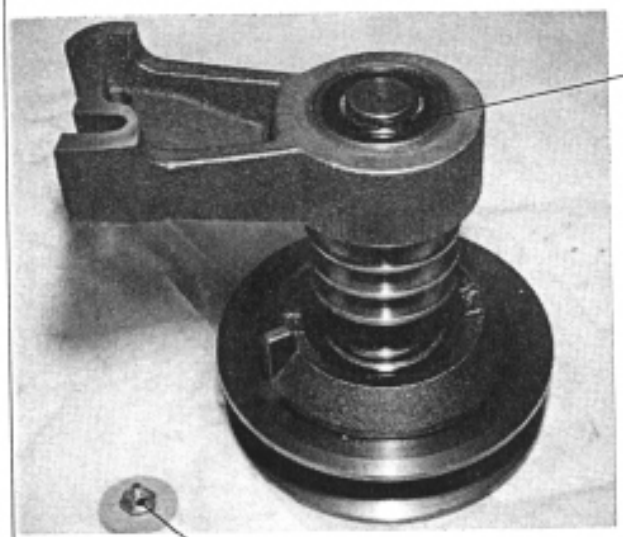


14

Mount the circlip (D) and the grease nipple (C).

(photo 15)

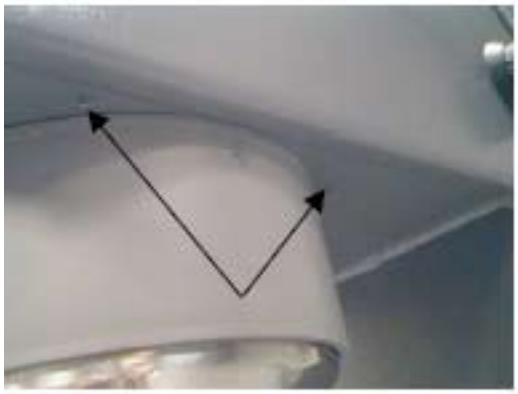
The arm for bearing can now be placed in position in the machine.



15

Bowl Screen
Installation
MK-1

Remove the (4) slotted head screws , (1) in each corner. Remove top cover.

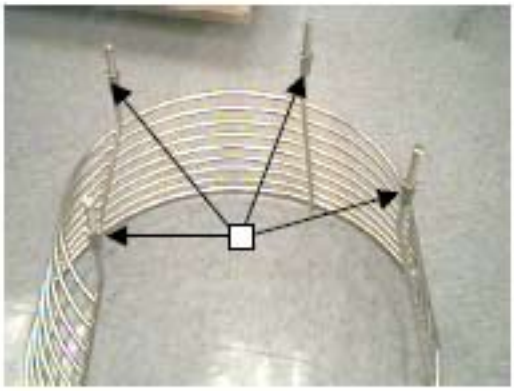


Remove (2) plug buttons from the mixer column (Right side)

Remove (2) plug buttons from the mixer column (Left side)

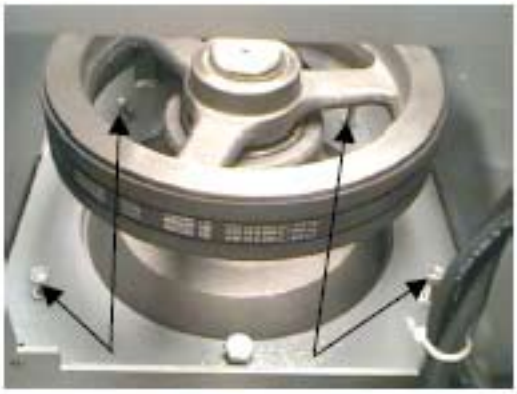
Remove the (4) slotted head screws. Remove front panel and let hang by the cables.

Bowl Screen Installation MK-1



Prepare rear bowl screen by installing (4) spacer nuts on each threaded rod.

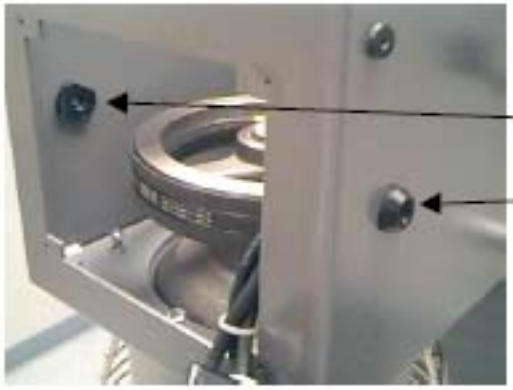
Install rear screen by inserting the (4) threaded rods into the (4) holes in the mixer column.



Install rear screen portion by inserting threaded rods through holes in mixer column.
Install (4) lockwashers and 13MM nuts. Leave loose at this time.

Remove (2) black plug buttons from left and right side of mixer column.

Bowl Screen
Installation
MK-1



Install (2) bushings(A) and (2) threaded nuts(B).

Install front screen through the (2) bushings.

Install round keeper on right side of the front screen. Tighten 3 MM set screw making sure it threads into the dimple on the screen.

On the left side , install microswith bracket onto screen…..

Bowl Screen
Installation
MK-1

Then install cam onto screen , tighten the 3 MM set screw into dimple on screen.

Adjust bracket so the microswitch roller is in the notch of the cam. Then tighten the (2) screws until they contact the body , keeping the bracket from rotating . Tighten the (2) jamnuts.

Jamnuts

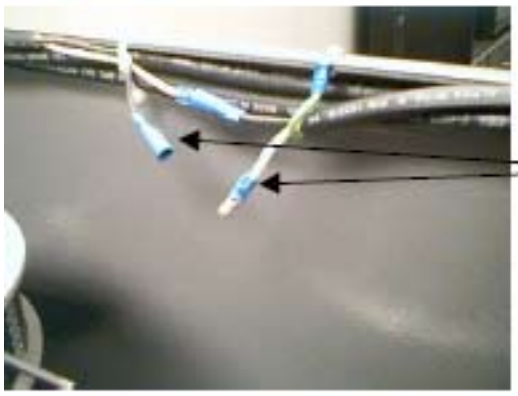
Align the rear screen with the front by adjust the (4) spacer bolts , rear screen should be level with the gray cover.

Gray Cover

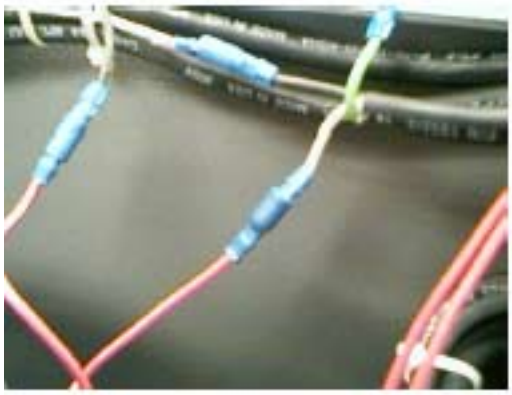
Tighten the (4) 13MM nuts

Bowl Screen
Installation
MK-1

Install red wire harness onto microswitch (2 push-ons)



On the wire harness on the upper right side interior disconnect one of the white/black wire connections (pull apart connections)



Plug red harness into these.

Wire-tie red harness to the mixer column.

Bowl Screen
Installation
MK-1

Wire-tie red harness to the mixer column.

Install electrical control

Start mixer and open front screen , mixer should turn off before the gap is no larger than 2"
If not , readjust microswitch bracket.

Install top cover