



SERVICE MANUAL

** Updated technical documentation is attached to the end of this manual.*



**MODEL N-50
MIXER**

- NOTICE -

This Manual is prepared for the use of trained Hobart Service Technicians and should not be used by those not properly qualified. If you have attended a Hobart Service School for this product, you may be qualified to perform all the procedures described in this manual.

This manual is not intended to be all encompassing. If you have not attended a Hobart Service School for this product, you should read, in its entirety, the repair procedure you wish to perform to determine if you have the necessary tools, instruments and skills required to perform the procedure. Procedures for which you do not have the necessary tools, instruments and skills should be performed by a trained Hobart Service Technician.

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SECTION 1 GENERAL

1. Introduction.

The Hobart N-50 mixer is adaptable for laboratory, developmental testing and small kitchen requirements. It has the same planetary action used on larger Hobart commercial mixers.

One 5 quart stainless steel bowl, "B" flat beater and "D" wire whip are standard equipment. The "E" dough arm is also available. Agitators are designed to suit the class of work to be performed.

- A. "B" flat beater is for mixing batters, mashing potatoes and general purpose creaming.
- B. "D" wire whip is for beating eggs, whipping cream and all light, fast work.
- C. "E" dough hook is for kneading coffee cake, roll dough and the heavier yeast raised work, use on number one speed.

The Model N-50 mixer is equipped with a No. 10 Taper Attachment Hub permitting use of the Meat and Food Chopper and Ice Jacket. For more information see the "Use and Applications Handbook for Hobart Mixer Agitators, Attachments and Accessories" Form 13370.

2. Specifications.

- A. Motor.
1/6 hp, Hobart-built, ventilated, sleeve bearing motor.

- B. Electrical Specifications.

115/60/1
230/60/1
115/50/1
220/50/1

Not available in 3 phase. The mixer is furnished with a three-wire cord and plug for grounding.

C. Operating Speeds.

Speed	Agitator R.P.M.	Attachment R.P.M.
1st	139	61
2nd	285	125
3rd	591	259

D. Over-all Dimensions with Standard Bowl.

Height	17"
Width	10-3/8"
Front to Back	15"

E. Net Weight.

44-1/2 lbs.

3. Operation and Care.

Detailed operation and care instructions are included in the "Instruction Manual ... with Replacement Parts" attached to each new machine.

4. Lubrication Chart.

Transmission Case:	Darina #2	20 Fluid ounce
Internal Gear:	Darina #2	Coat
Motor Bearings:	Emergol HLP-68	Soak
Wick for Motor Bears:	Emergol HLP-68	Soak
Thumb Screw:	Emergol HLP-68	Lightly Coat
Slideway:	Lubriplate 630AA	Lightly Coat 3 Sides

SECTION 2 PLANETARY

1. Removal.

**WARNING: TO AVOID ELECTRICAL SHOCK
UNPLUG UNIT BEFORE SERVICING.**

- A. Remove the drip cup (1, Fig. 2-1).



Fig. 2-1

- B. Drive out the (planetary shaft) taper pin (1, Fig. 2-2). The planetary can now be removed from the mixer.
- C. Remove the washer(s) located on the planetary shaft above the planetary.
- D. Install the planetary in the reverse order of removal.

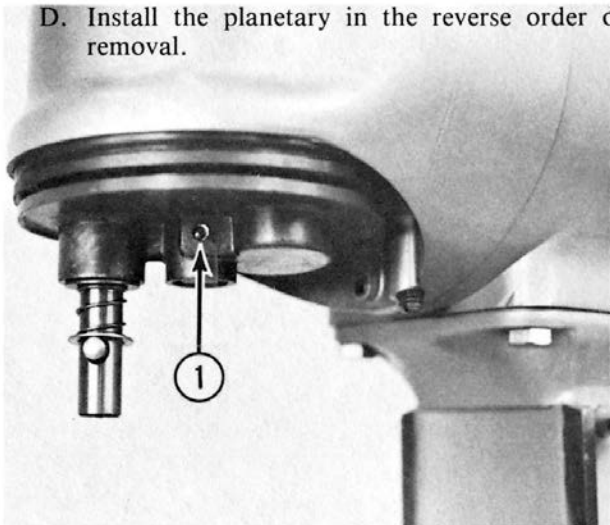


Fig. 2-2

2. Disassembly.

- A. Remove the planetary from the mixer as outlined in Step 1 "Removal".
- B. Remove the Groov-Pin (1, Fig. 2-3).
- C. Remove two washers (2, Fig. 2-3) and spring (3, Fig. 2-3).
- D. Remove the bearing retaining screw (4, Fig. 2-3).

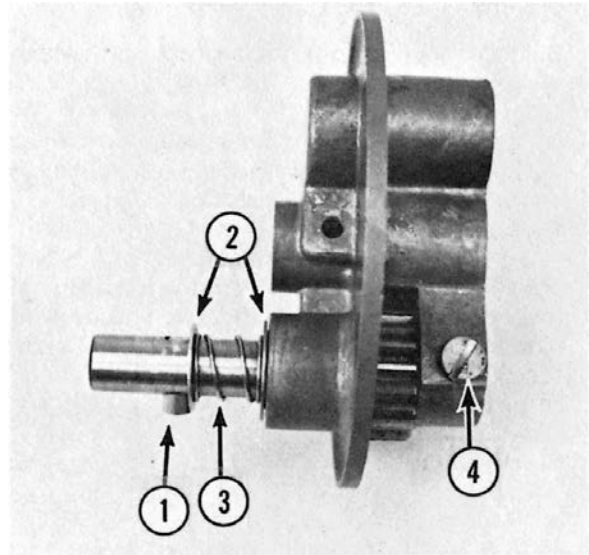


Fig. 2-3

- E. The agitator shaft (1, Fig. 2-4) can be pressed out of the planetary from the bottom side.
- F. The upper bearing (2, Fig. 2-4) and agitator shaft pin will come out with the agitator shaft.

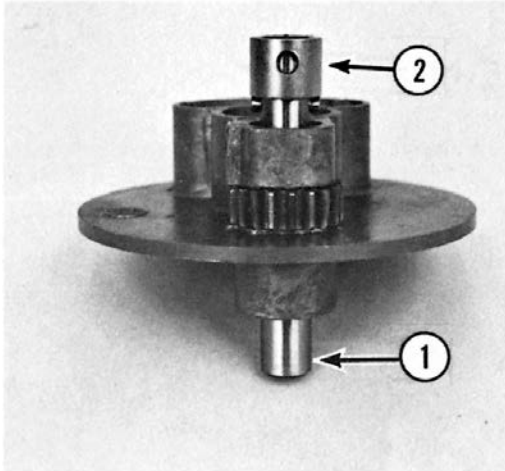


Fig. 2-4

- G. Remove the pinion (1, Fig. 2-5).
- H. The lower bearing (2, Fig. 2-5) can be pressed out of the planetary from the top side.
- I. Reassemble in reverse order of disassembly.

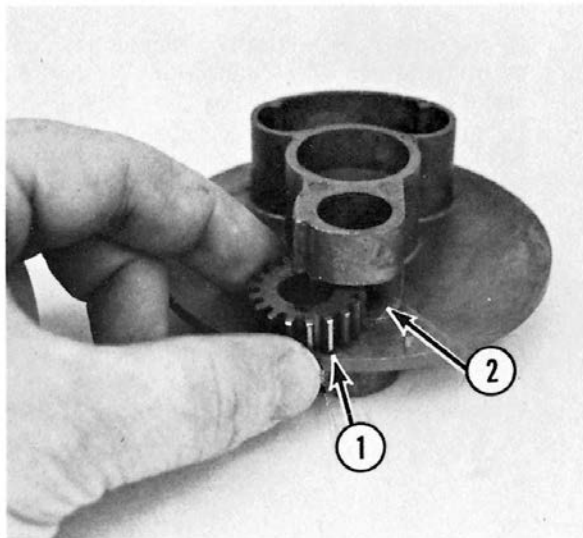


Fig. 2-5

3. Internal Gear.

- A. Remove the planetary from the mixer as outlined in Step 1 "Removal".
- B. To remove the internal gear (1, Fig. 2-6), take out the four screws (2, Fig. 2-6).
- C. Replace the internal gear in the reverse order of removal.

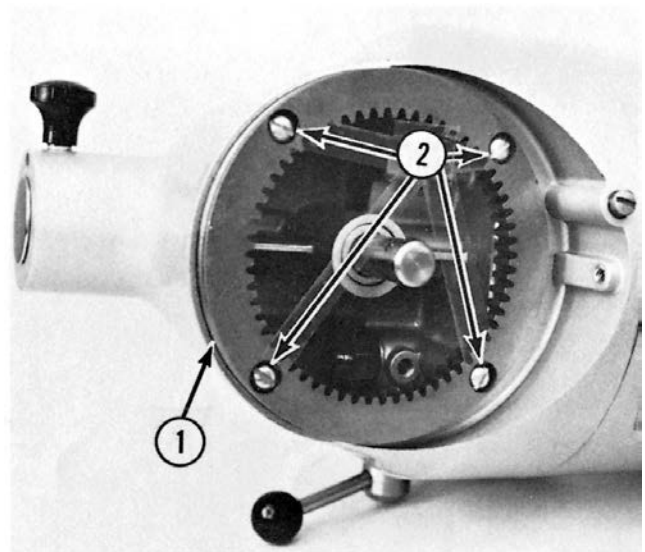


Fig. 2-6

SECTION 3 TRANSMISSION

1. Removing the Transmission Case.

**WARNING: TO AVOID ELECTRICAL SHOCK
UNPLUG UNIT BEFORE SERVICING.**

A. Remove the six switch plate mounting screws (1, Fig. 3-1) and take off the switch unit.

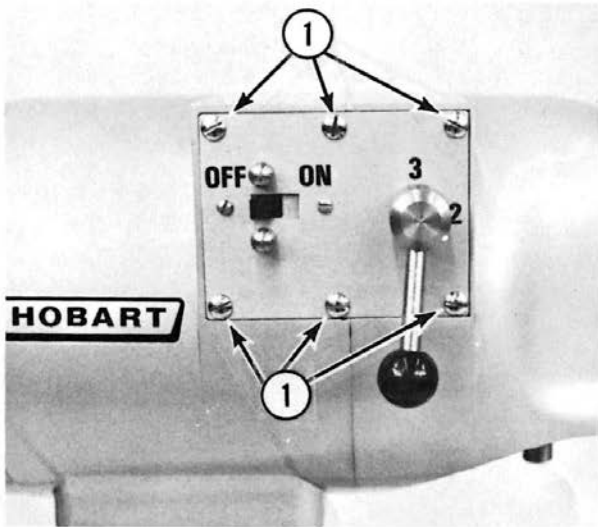


Fig. 3-1

B. Disconnect the two wires (1, Fig. 3-2) from the switch. Remove the switch unit.

C. Remove the insulating strip (2, Fig. 3-2).

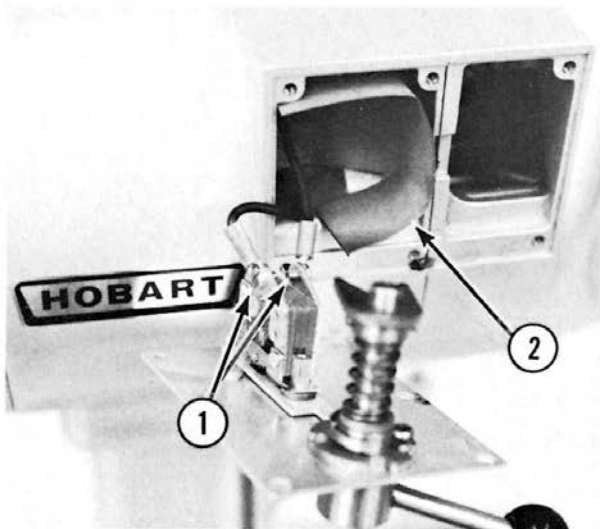


Fig. 3-2

D. Remove the end cover (two screws) (1, Fig. 3-3).

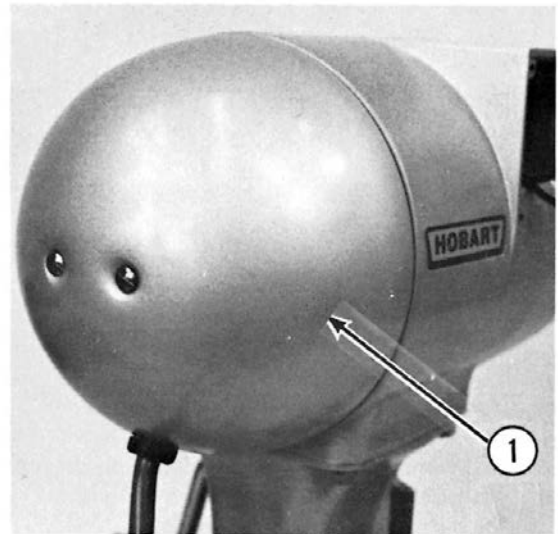


Fig. 3-3

E. If the mixer is a present production unit, remove the two wire connections (1, Fig. 3-4) and the ground wire (2, Fig. 3-4).

NOTE: On past production mixers the line cord enters the mixer at the base of the column. The stator leads do not have to be disconnected to remove the transmission case.

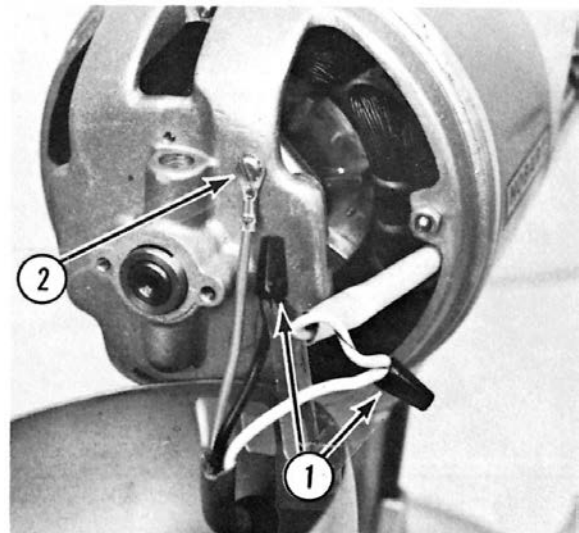
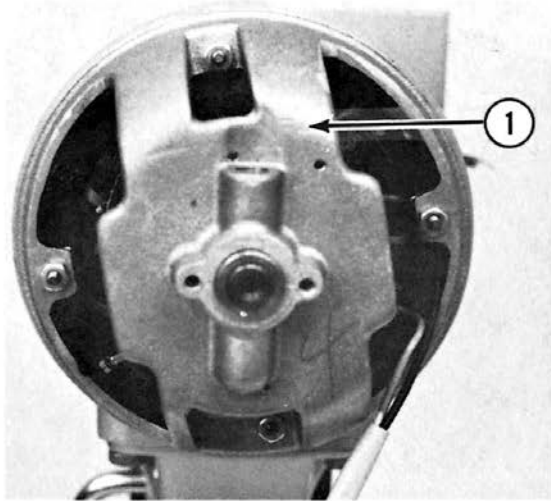
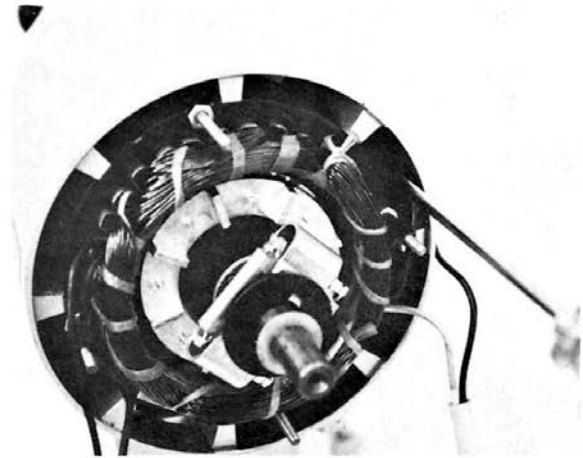


Fig. 3-4

- F. Remove the bearing bracket (4 nuts) (1, Fig. 3-5).



- H. Unscrew the seven screws (Fig. 3-7) which are located between the field ring and the stator. It is not necessary to remove them but be sure they are completely unscrewed.



- G. Disconnect the two leads (1, Fig. 3-6) to the start switch.

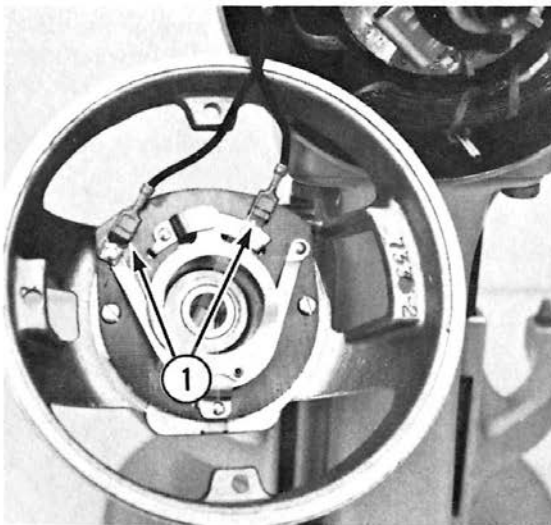


Fig. 3-6

- I. Remove the transmission case (Fig. 3-8). With protective padding on the hub, tap the attachment hub with a plastic hammer to separate the transmission case from the field ring.

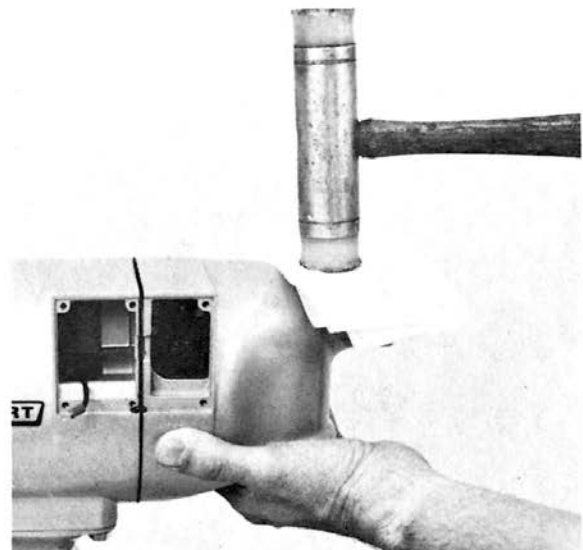


Fig. 3-8

2. Transmission Case Disassembly.

- A. Remove the planetary as outlined in Section 2 "Planetary".
- B. Remove the transmission case as outlined in Step 1 "Removing the Transmission Case".
- C. Remove the main drive gear (1, Fig. 3-9) by lifting it off the eccentric shaft.
- D. Disconnect the tumbler yoke spring (2, Fig. 3-9) from the screw on the transmission case.

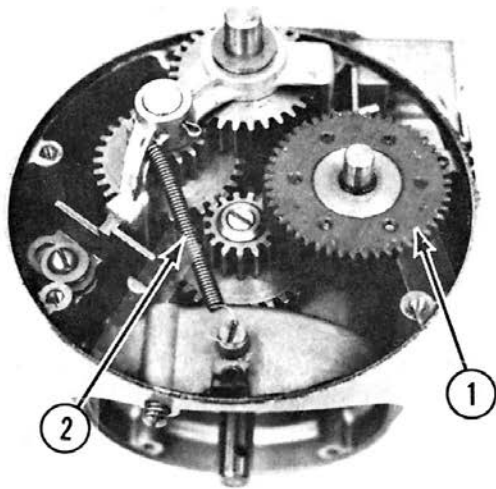


Fig. 3-9

- E. Remove the two cam plate retaining screws (1, Fig. 3-10).

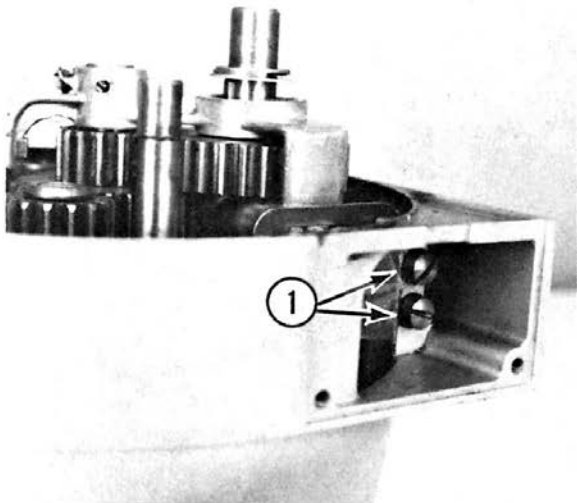


Fig. 3-10

- F. Remove the cam plate (1, Fig. 3-11).

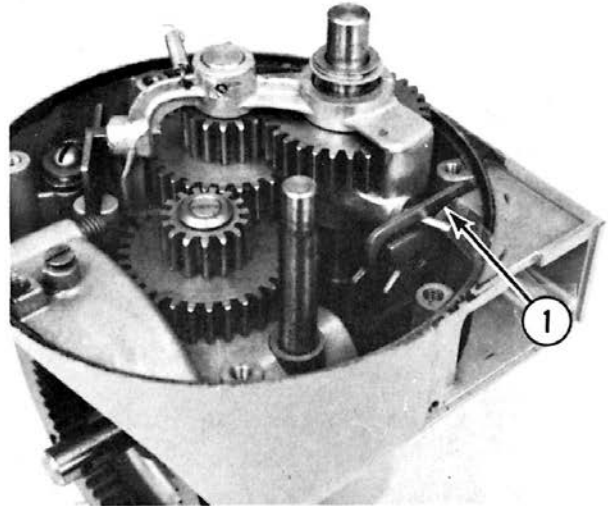


Fig. 3-11

- G. Remove the washer (1, Fig. 3-12) from the upper transmission shaft.
- H. Remove the retaining ring (2, Fig. 3-12) and washer from the upper transmission shaft.

NOTE: Mixers prior to serial number 1945005 do not have a retaining ring installed on the upper transmission shaft. See TSB 391.

- I. Remove the tumbler yoke and gear assembly (3, Fig. 3-12).

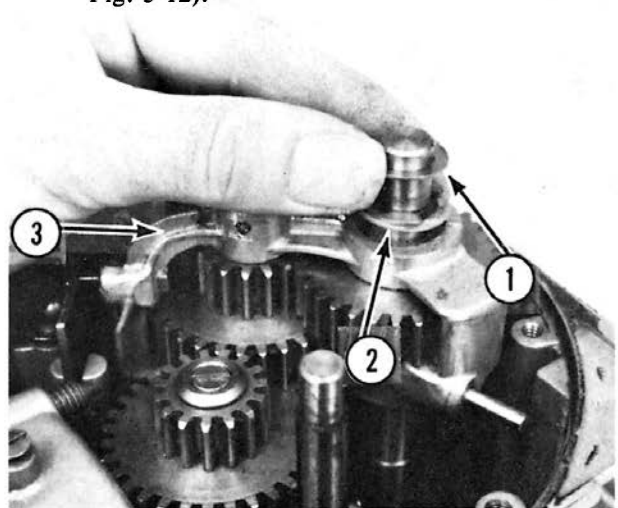


Fig. 3-12

- J. Loosen, but do not remove the set screw (1, Fig. 3-13) which secures the lower transmission shaft in place.

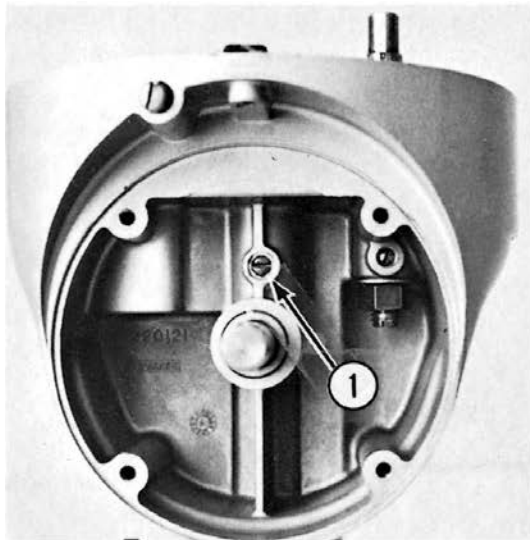


Fig. 3-13

- K. Remove the lower transmission shaft and gear assembly (15T and 31T) (Fig. 3-14).

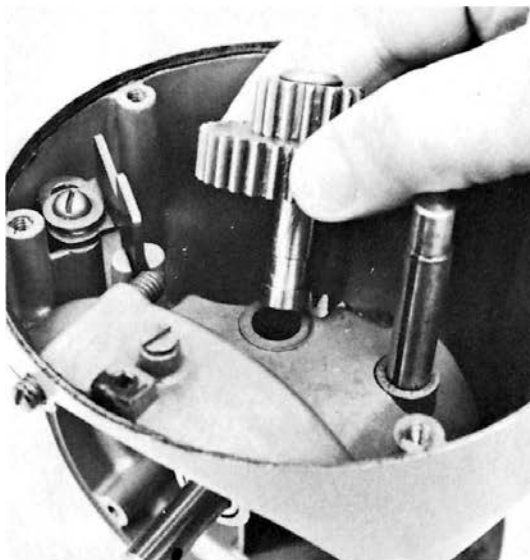


Fig. 3-14

- L. Drive out the taper pin (1, Fig. 3-15) and remove the planetary shaft through the planetary side of the gear case.
- M. Remove the bevel gear (23T) (2, Fig. 3-15) and the fiber washer(s).
- N. Lift out the attachment hub bevel gear (3, Fig. 3-15) and the fiber washer(s).

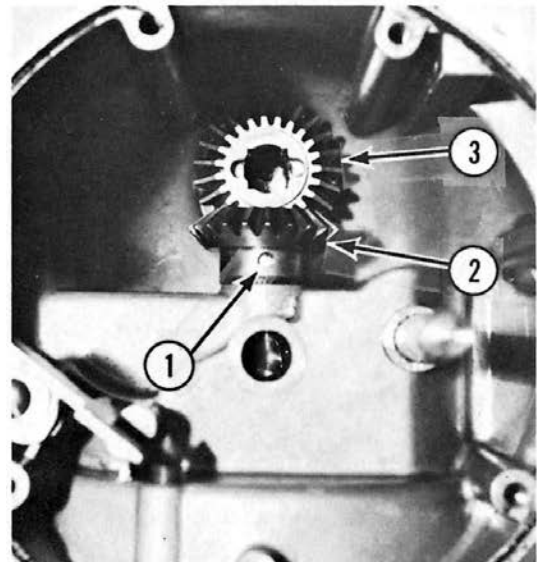


Fig. 3-15

- O. The planetary shaft bearing (Fig. 3-16) can now be removed if necessary.



Fig. 3-16

P. The eccentric shaft (1, Fig. 3-17) can be removed, if necessary by loosening the set screw (1, Fig. 3-18) and removing the nut and washer (2, Fig. 3-18).

Q. The tumbler yoke stop (2, Fig. 3-17) can be removed, if necessary, by removing the screw and washer (3, Fig. 3-17).

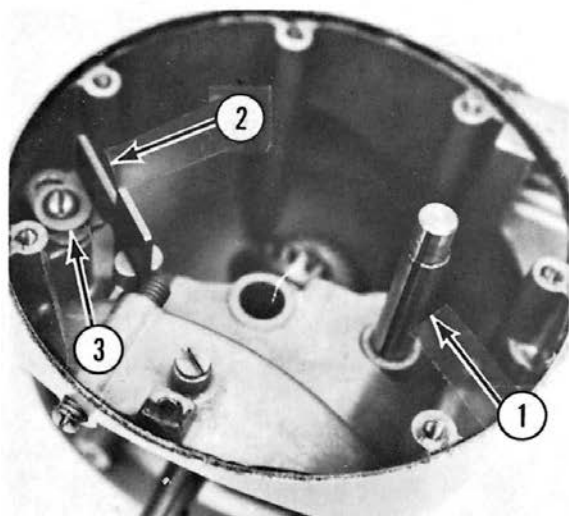


Fig. 3-17

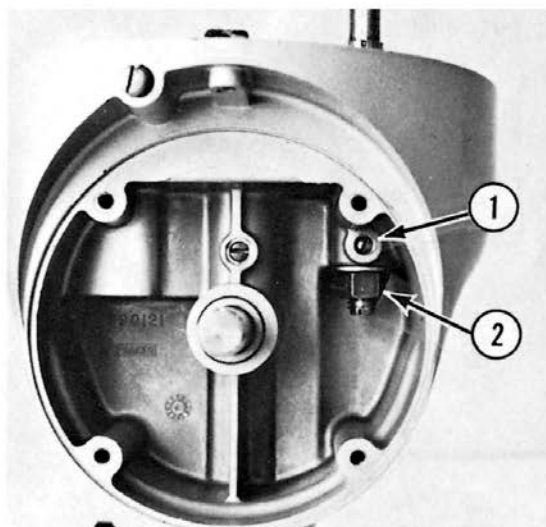


Fig. 3-18

3. Disassembling the Tumbler Yoke.

A. Remove the cotter pin (1, Fig. 3-19) from the tumbler shaft.

B. Remove the tumbler shaft (2, Fig. 3-19) and the transmission gear assembly (15T and 31T) (3, Fig. 3-19).

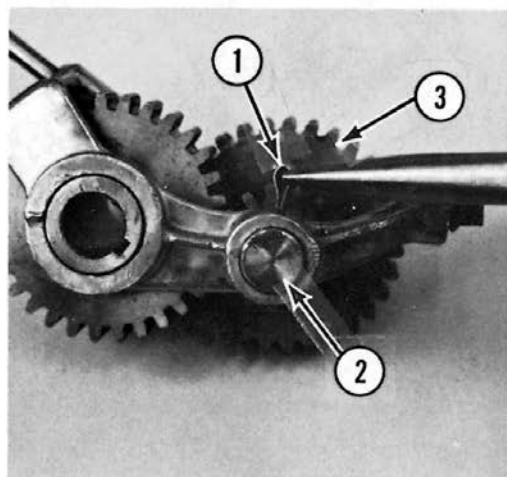


Fig. 3-19

C. Straighten the tongue (1, Fig. 3-20) on the shifter sleeve retainer.

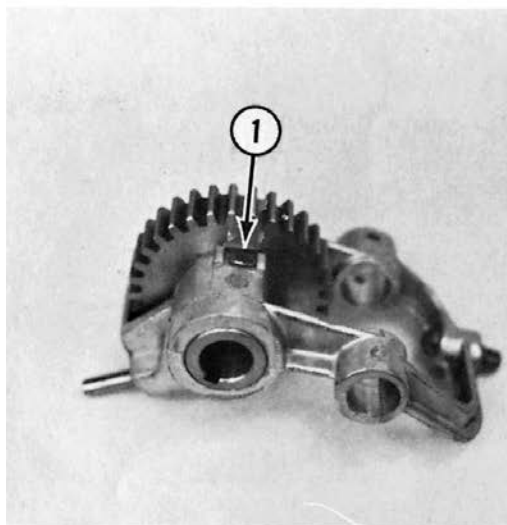


Fig. 3-20

- D. Turn the retainer until the retainer keyway is visible in the opening in the tumbler yoke.
- E. Rotate the gear until the key in the shifter sleeve is in line with the keyway in the retainer (Fig. 3-21).
- F. Press the shifter sleeve so that the key moves out of the gear.
- G. Remove the key (1, Fig. 3-21).
- H. Push the shifter sleeve out of the tumbler yoke.
- I. Remove the 31T gear (2, Fig. 3-21) and the retainer (3, Fig. 3-21).

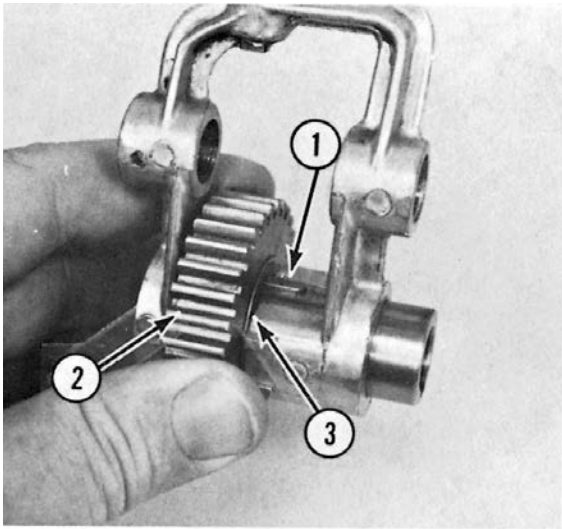


Fig. 3-21

4. Assembling the Tumbler Yoke.

- A. Place the 31T gear (1, Fig. 3-22) and retainer (2, Fig. 3-22) into the tumbler yoke.
- B. Push the shifter sleeve (3, Fig. 3-22) into the tumbler yoke.
- C. Rotate the shifter sleeve (3, Fig. 3-22), retainer (2, Fig. 3-22), and 31T gear (1, Fig. 3-22) to align the keyways in all three parts.
- D. Install the key (4, Fig. 3-22).
- E. Push the shifter sleeve into the tumbler yoke (5, Fig. 3-22).

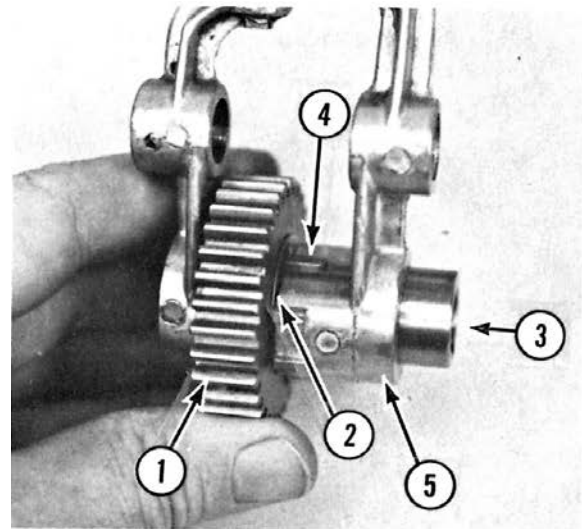


Fig. 3-22

- F. Rotate the retainer (1, Fig. 3-23) so that the tongue is aligned with the bracket (2, Fig. 3-23).

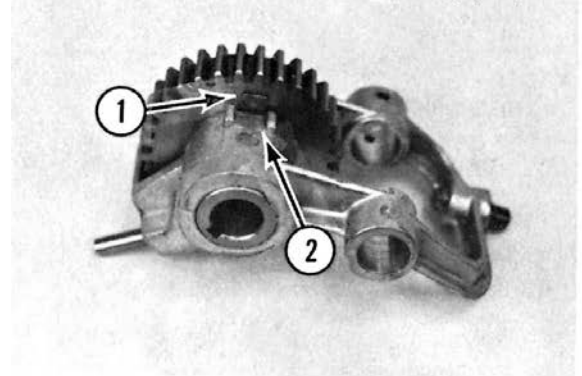


Fig. 3-23

- G. Bend the tongue (1, Fig. 3-24) into the bracket (2, Fig. 3-24).

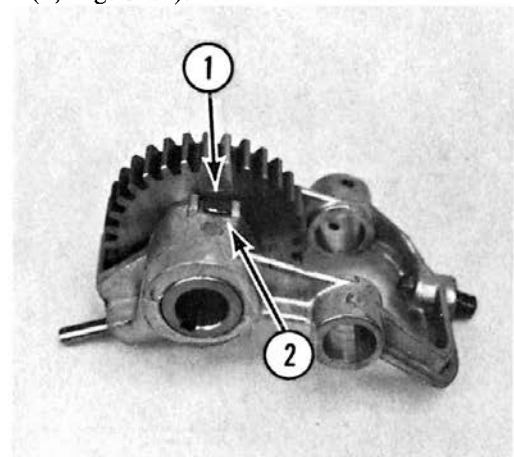


Fig. 3-24

- H. Install the transmission gear (15T and 31T) (1, Fig. 3-25) and the tumbler shaft (2, Fig. 3-25).
- I. Secure with the cotter pin.

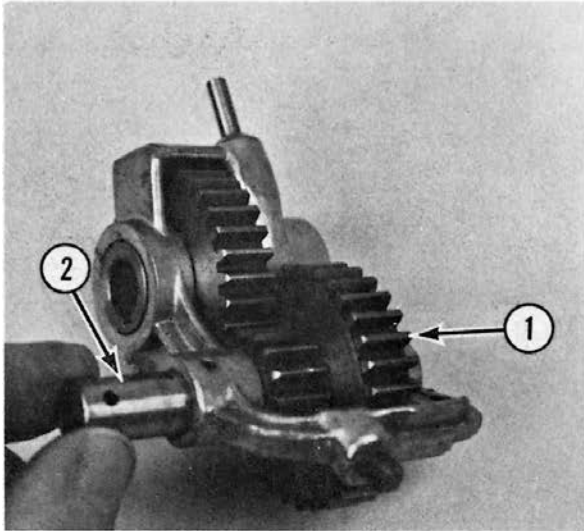


Fig. 3-25

- D. Install the attachment hub bevel gear (1, Fig. 3-27) and the fiber washer(s) (2, Fig. 3-27).

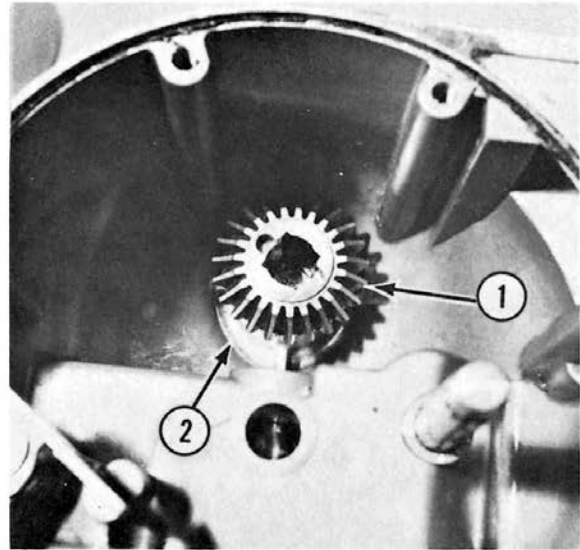


Fig. 3-27

5. Transmission Case Assembly.

- A. Install the tumbler yoke stop (1, Fig. 3-26) if it was removed.
- B. Install the eccentric shaft (2, Fig. 3-26) if it was removed.
- C. Install a new planetary shaft bearing if it was removed.

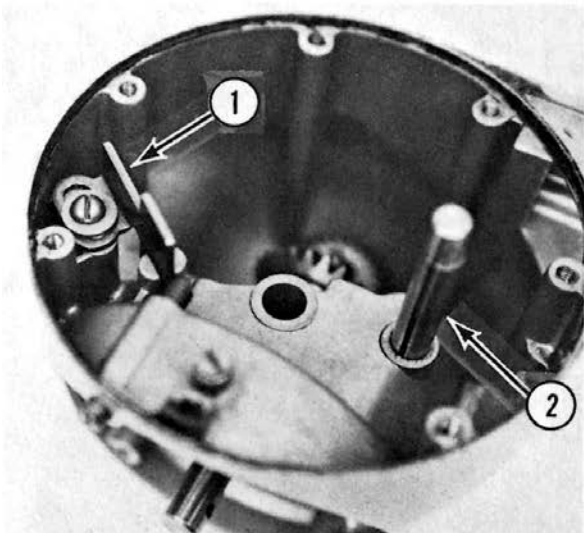


Fig. 3-26

- E. Install the planetary shaft (1, Fig. 3-28), fiber washer(s) (1, Fig. 3-29) and bevel gear (23T) (2, Fig. 3-29), with the large end of tapered holes **UP**.
- F. Push the shaft into the gear until the holes line up. Install the taper pin (3, Fig. 3-29).

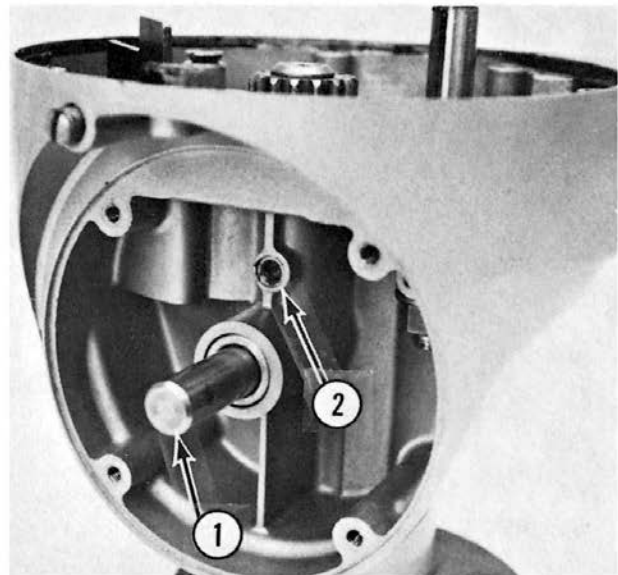


Fig. 3-28

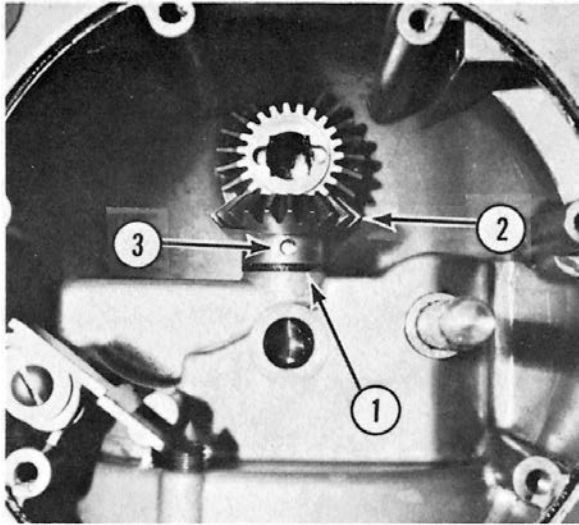


Fig. 3-29

- G. Check for proper gear mesh by moving the planetary shaft in and out. There should be approximately 1/64" of clearance between the teeth of the two gears. The two gears must also mesh correctly (Fig. 3-30).
- H. If there is too much or too little end play, or if the gear mesh is not correct, add or remove the fiber washers as necessary until the proper alignment exists between the gears.

Apply Downward Pressure When Installing Planetary.

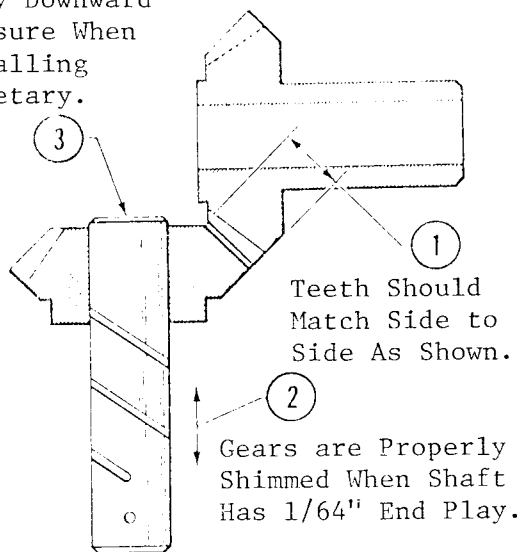


Fig. 3-30

- I. Install the lower transmission shaft and gear assembly (15T and 31T) (Fig. 3-31).
- J. Tighten the set screw (2, Fig. 3-28) which secures the lower transmission shaft.

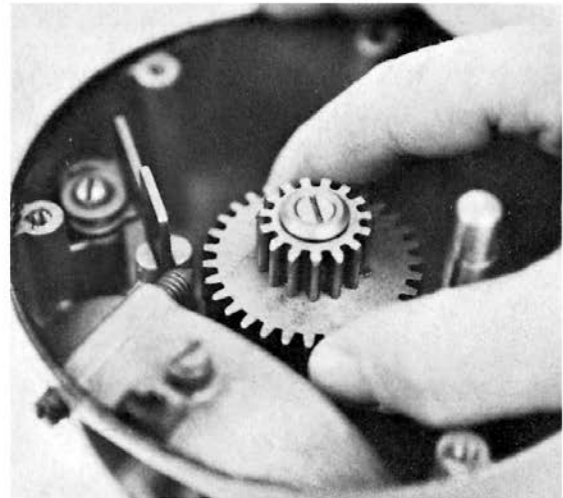


Fig. 3-31

- K. Install the upper transmission shaft. Be sure to engage the pin into the bevel gear.
- L. Install the tumbler yoke and gear assembly (1, Fig. 3-32).
- M. Install the washer and retaining ring (2, Fig. 3-32) on the upper transmission shaft.

NOTE: Early production mixers do not have a retaining ring.

- N. Install the washer (3, Fig. 3-32) on the upper transmission shaft.

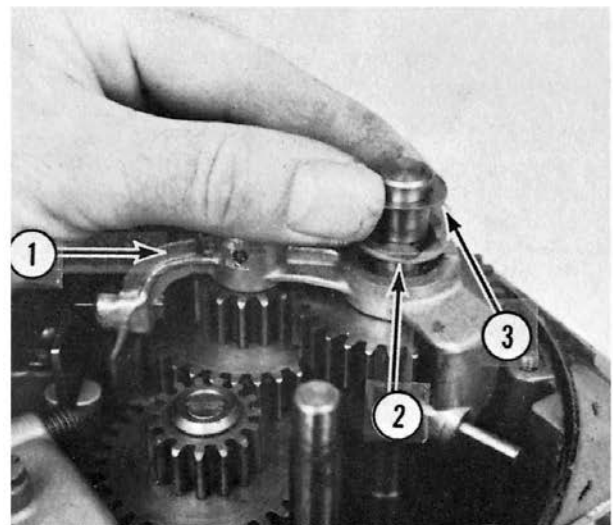


Fig. 3-32

- O. Install the cam plate (two screws) (1, Fig. 3-33).

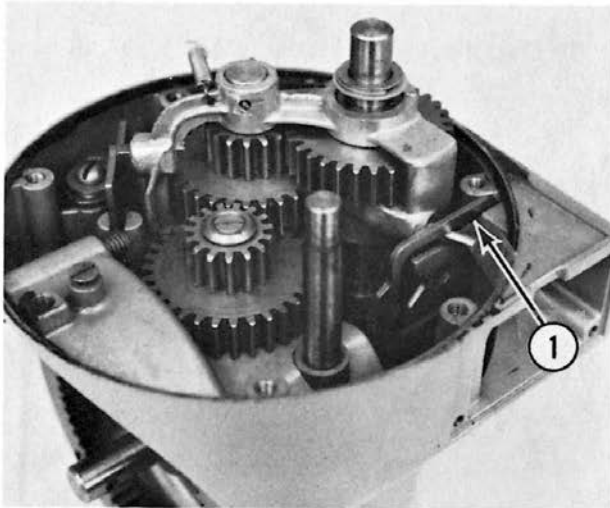


Fig. 3-33

- P. Connect the tumbler yoke spring (1, Fig. 3-34).
 Q. Install the main drive gear (2, Fig. 3-34) on the eccentric shaft.

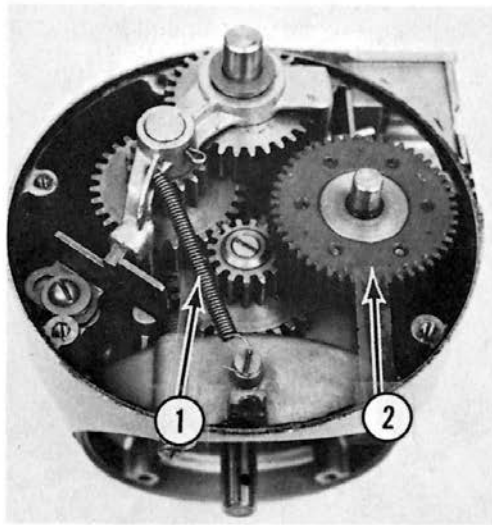


Fig. 3-34

6. Installing the Transmission Case.

- A. Pack the transmission case with grease. (20 oz. of Darina #2)
 B. Place the transmission case into position and secure it with the seven screws.
 C. Install the bearing bracket (4 nuts).
 D. Connect the start switch leads.

- E. Connect the two black leads together, and the two white leads together. Connect the green lead to ground.

NOTE: On past production mixers the cord enters the column rather than the end cover.

- F. Install the end cover.
 G. Install the insulating strip.
 H. Connect the switch leads to the switch.
 I. Install the switch unit. (6 screws)
 J. Adjust the transmission as outlined in paragraph 7 and 8.
 K. Install the planetary.

7. Adjusting the Tumbler Yoke Stop.

- A. Remove the locking set screw (1, Fig. 3-35).
 B. Place the shifter handle to 1st speed, and start the motor.
 C. Adjust the screw located under the locking set screw (1, Fig. 3-35) to attain a smooth, quiet operation. Back the screw out until noisy then turn in until smooth, quiet operation is attained. Do not turn the adjusting screw in too far as this affects gear mesh.
 D. Repeat Step C with the mixer in 2nd speed and 3rd speed.
 E. The set screw should be adjusted so that the mixer operates quietly in all three speeds.
 F. Turn off the mixer and install the locking set screw (1, Fig. 3-35).



Fig. 3-35

8. Adjusting the Eccentric Shaft.

- A. With the planetary and internal gear removed, loosen the lock nut (1, Fig. 3-36) on the eccentric shaft. Loosen the set screw (2, Fig. 3-36).
- B. Start the motor.
- C. Rotate the eccentric shaft to obtain the quietest operation.
- D. Turn the motor off and tighten the lock nut and set screw.
- E. Install the internal gear and planetary.

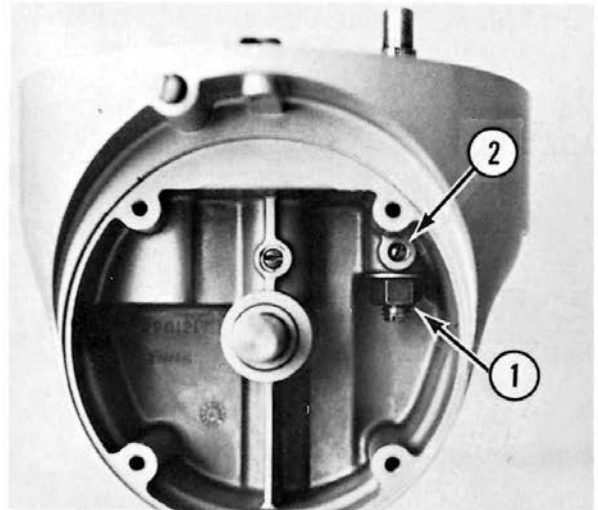


Fig. 3-36

SECTION 4 MOTOR

1. Removing the Rotor.

WARNING: TO AVOID ELECTRICAL SHOCK UNPLUG UNIT BEFORE SERVICING.

- A. To disassemble the motor, the gear case must be separated from the field ring. To prepare for motor repairs, follow the instructions in Section 3, Paragraph 1, "Removing the Transmission Case".
- B. Remove the pinion retaining screw (1, Fig. 4-1).

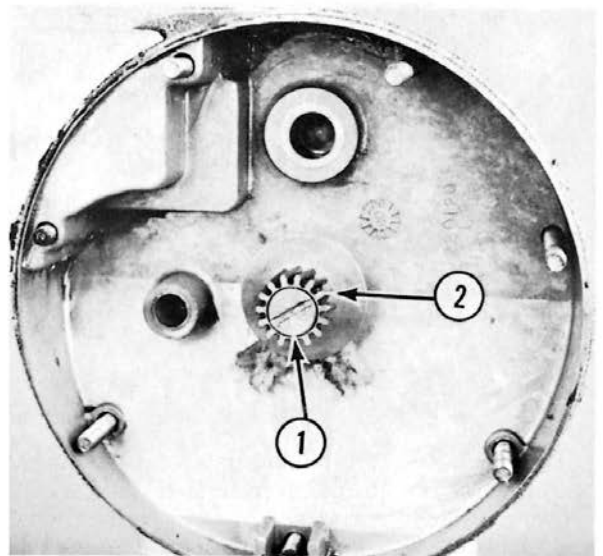


Fig. 4-1

- C. Remove the pinion (2, Fig. 4-1).
- D. Remove the pinion drive pin (1, Fig. 4-2) and the baffle plate (2, Fig. 4-2).

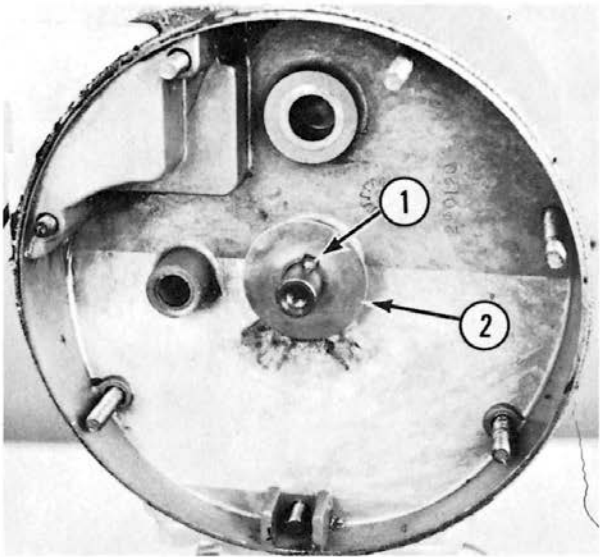


Fig. 4-2

- E. Remove the rotor (1, Fig. 4-3) from the rear of the field ring.

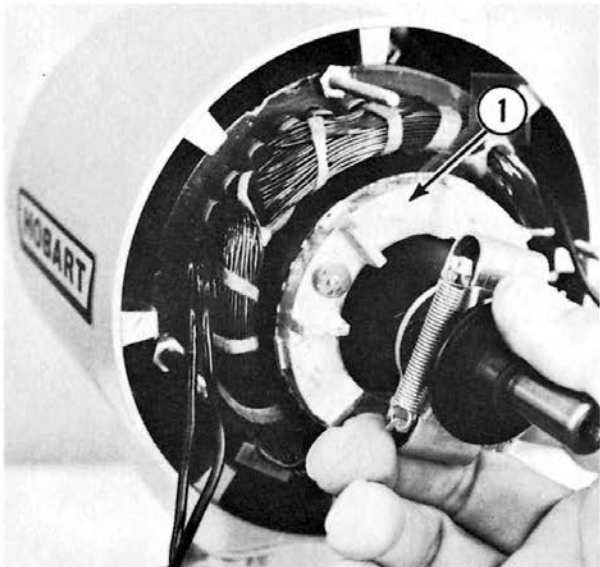


Fig. 4-3

2. Removing the Stator.

WARNING: TO AVOID ELECTRICAL SHOCK UNPLUG UNIT BEFORE SERVICING.

- A. Remove the rotor. (Refer to Section 4, Paragraph 1, "Removing the Rotor" for detailed instructions).
- B. If the line cord enters the mixer at the base of the column (Past Production), use the following procedure to disconnect the stator leads:
 - (1) Remove the base assembly (4 bolts) (1, Fig. 4-4).

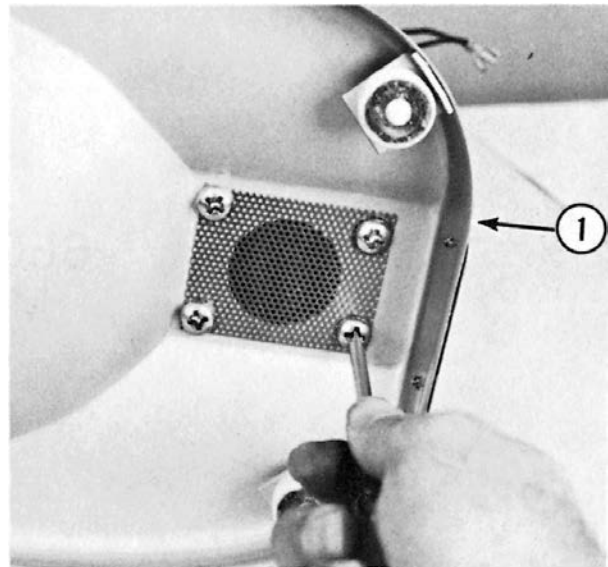


Fig. 4-4

- (2) Disconnect stator lead T4 from the white line cord lead.
- (3) Pull stator lead T1 (connected to the switch) and lead T4 (connected to the line cord in the column) out at the back of the stator.

C. Remove the four hex nuts (1, Fig. 4-5).

D. Pull the stator (2, Fig. 4-5) out of the field ring.

3. Installing the Stator.

A. Place the stator into the field ring.

(1) Looking at the rear of the mixer, the motor start switch leads (3, Fig. 4-5) (spade terminals) should be on the left side. The stator leads are located on the right side.

B. Secure the stator with the four hex nuts (1, Fig. 4-5).

C. If the line cord enters the mixer at the base of the column (Past Production) use the following procedure to connect the stator leads:

(1) Route lead T4 down through the column and connect it to the white line cord lead.

(2) Route lead T1 between the stator and the field ring and connect it to the ON-OFF switch.

(3) Install the base assembly if it was removed.

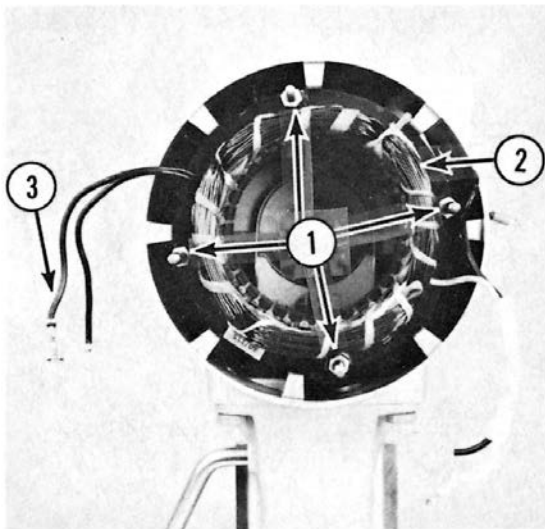


Fig. 4-5

4. Installing the Rotor.

A. Install the rotor.

B. Install the baffle plate (1, Fig. 4-6) and the pinion drive pin.

C. Install the pinion (2, Fig. 4-6) and the pinion retaining screw (3, Fig. 4-6).

D. Install the transmission case. Refer to Section 3, Paragraph 6, "Installing the Transmission Case" for detailed instructions.

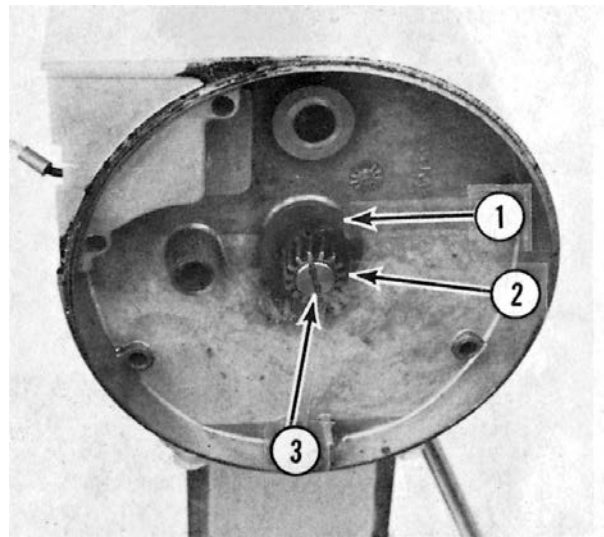


Fig. 4-6

5. Replacing the Starting Switch (Stationary Part).

WARNING: TO AVOID ELECTRICAL SHOCK UNPLUG UNIT BEFORE SERVICING.

A. Remove the end cover.

B. Disconnect the line leads (1, Fig. 4-7) on present production mixers.

C. Remove the four nuts (2, Fig. 4-7) and lockwashers and pull off the bearing bracket. Disconnect the two leads on the starting switch (3, Fig. 4-7).

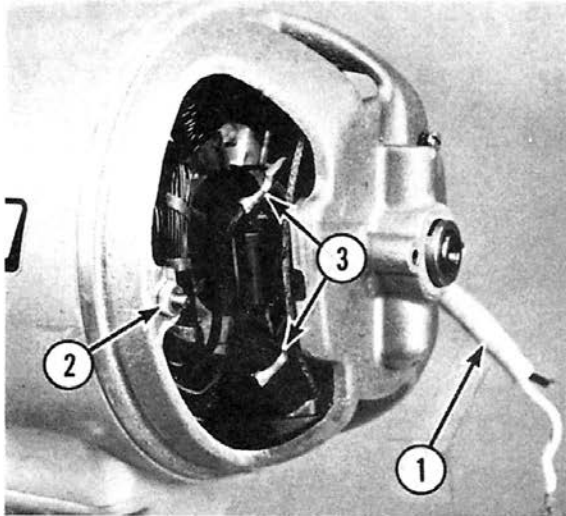


Fig. 4-7

- D. Remove the two screws (1, Fig. 4-8) and take off the switch (2, Fig. 4-8).

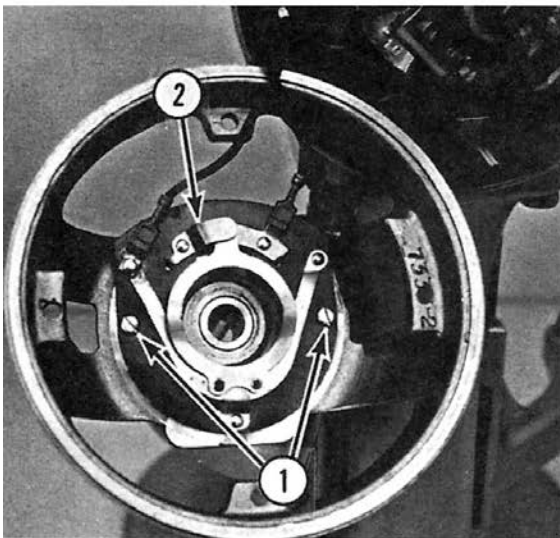


Fig. 4-8

- E. Install a new switch and reassemble in the reverse order of disassembly.

6. Testing the Motor Stator Windings.

WARNING: TO AVOID ELECTRICAL SHOCK UNPLUG UNIT BEFORE SERVICING.

- A. If the stator windings are to be checked while the stator is installed, disconnect all motor leads as outlined under steps A through G in Section 3, Paragraph 1, "Removing the Transmission Case".

NOTE: On past production mixers which the line cord enters the mixer at the base of the column, it is necessary to remove the air screen and disconnect the line leads in the column.

- B. With all motor leads disconnected and the ohmmeter set on the RX1 range, check each winding for the correct resistance. Refer to Fig. 4-9 for the correct resistance.

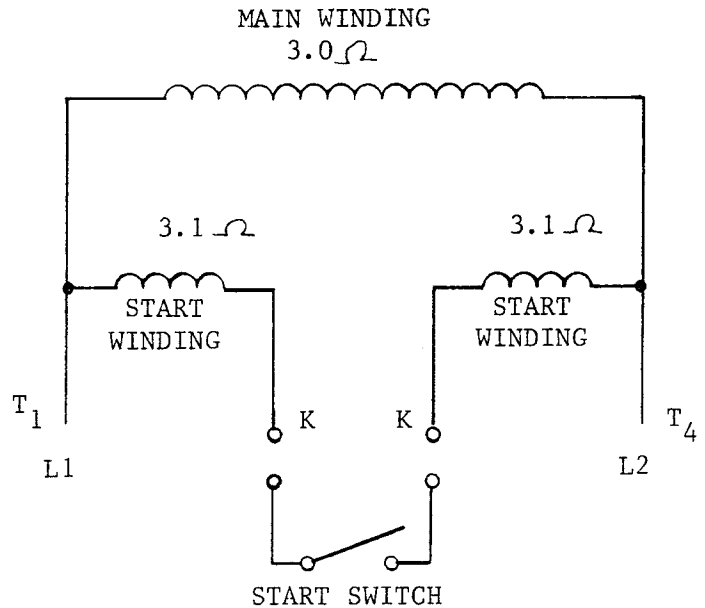


Fig. 4-9

- C. Set the ohmmeter on RX 100,000 and check for a grounded motor between leads:

T1 - Chassis
T4 - Chassis

Generally, if the motor is not grounded, the meter will indicate infinity. However, any reading above 500,000 ohms is acceptable.

- D. If the windings are shorted, open or grounded, replace the stator.

SECTION 5 BOWL SUPPORT AND LIFT UNIT

1. Bowl Support Removal.

- A. Remove the four screws (1, Fig. 5-1) and lockwashers. Take off the air screen (2, Fig. 5-1). The base can now be removed.

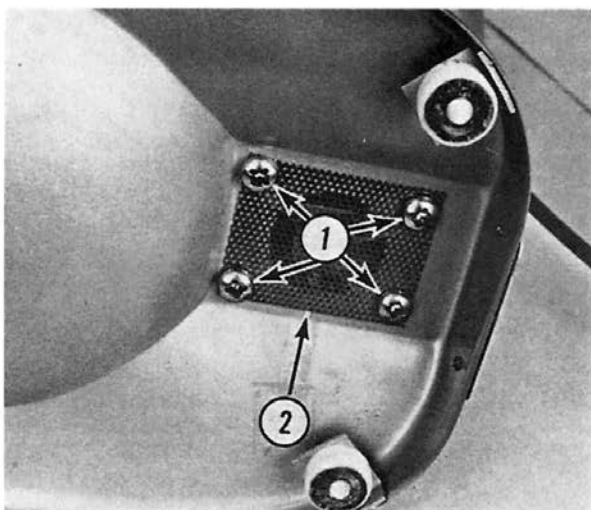


Fig. 5-1

- B. With a socket wrench, remove the elastic stop nut (1, Fig. 5-2), spring (2, Fig. 5-2), washer (3, Fig. 5-2) and "V" washer (4, Fig. 5-2).

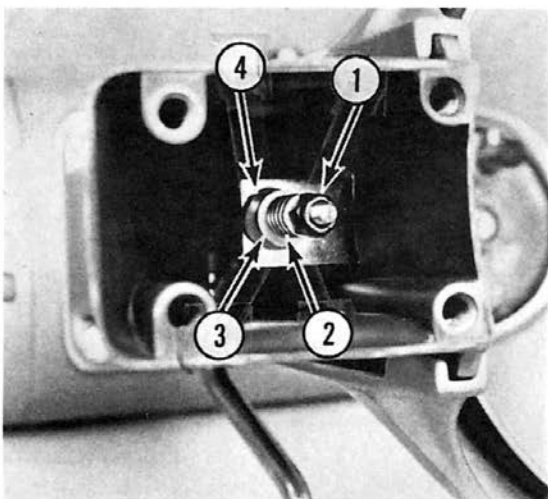


Fig. 5-2

- C. Remove the two flat head screws (1, Fig. 5-3).

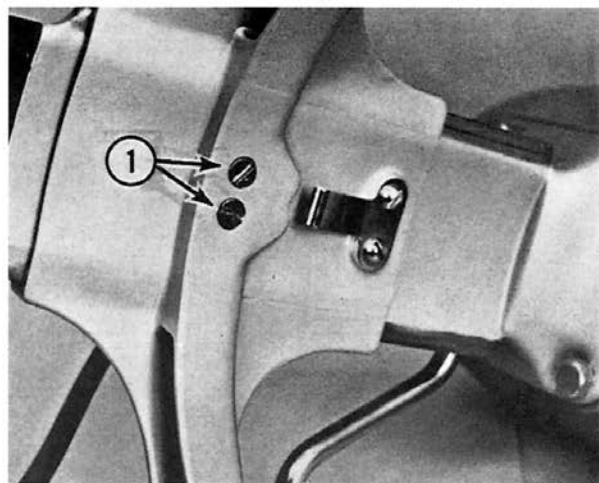


Fig. 5-3

- D. Let the bowl support drop down enough to allow the bowl lift rod to disengage itself from the bowl lift bracket (1, Fig. 5-4). Remove the bowl lift bracket. The bowl support can now be taken off the column.

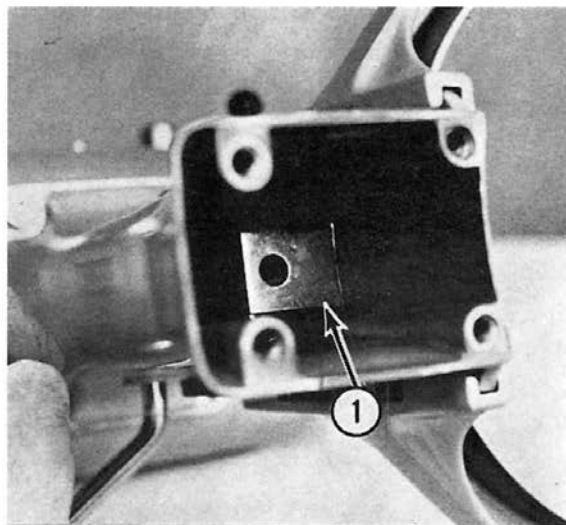


Fig. 5-4

2. Bowl Support Installation.

- A. Slide the bowl support on the slide-ways of the column.
- B. Place the bowl lift bracket (1, Fig. 5-4) through the bowl support and fasten it with the two flat head screws (1, Fig. 5-3).

C. With the bowl support (1, Fig. 5-5) at its bottom position, line up the bowl lift rod (2, Fig. 5-5) with the hole in the bracket (3, Fig. 5-5).

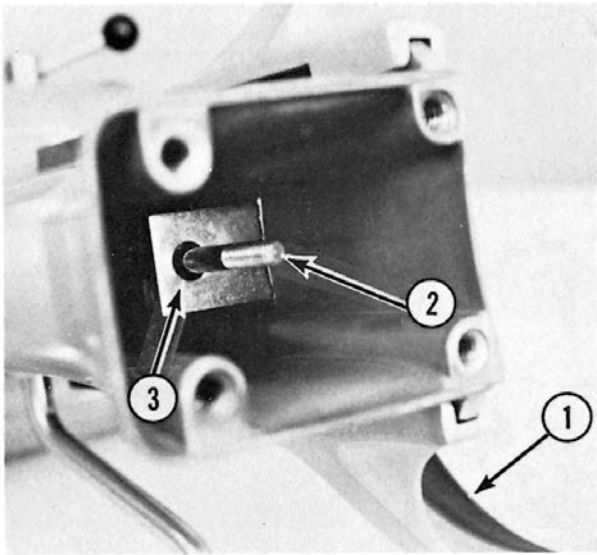


Fig. 5-5

F. Install the base (1, Fig. 5-7) and air screen (2, Fig. 5-7) (four screws).

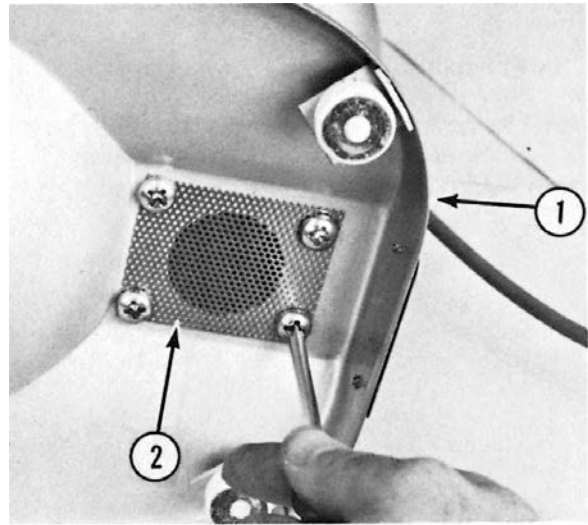


Fig. 5-7

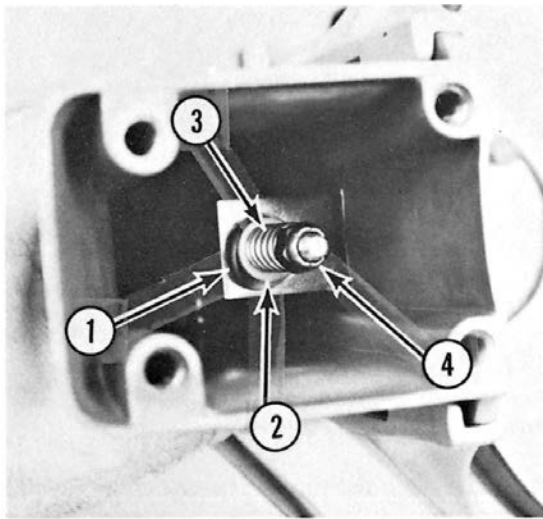


Fig. 5-6

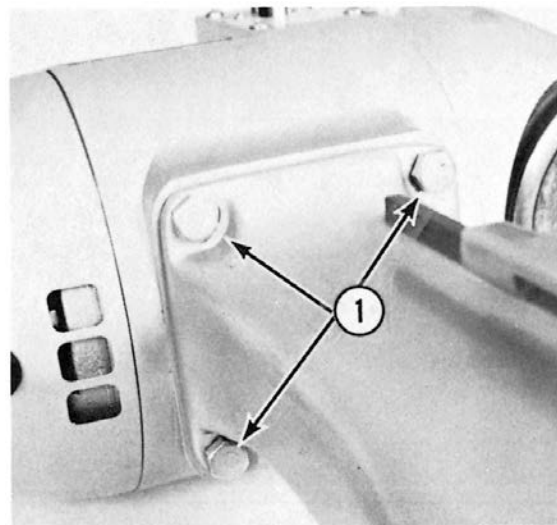


Fig. 5-8

- C. Remove the cotter pin (1, Fig. 5-9) and slide the bowl lift rod out of the bowl lift arm (2, Fig. 5-9).
- D. Turn the bowl lift handle so that the small end of the taper pin (3, Fig. 5-9) is in the UP position, then drive out the pin.
- E. Pull the bowl lift handle out of the arm and the machine.
- F. Reassemble in the reverse order of disassembly.

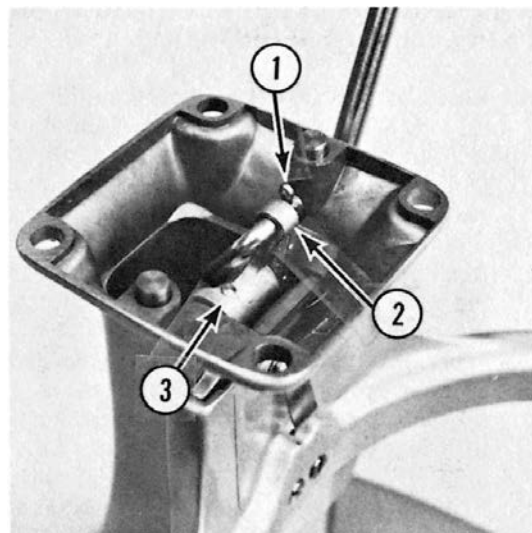


Fig. 5-9

SECTION 6 ELECTRICAL SERVICE

1. Operating Controls.

OFF-ON Switch (1, Fig. 6-1).

The OFF-ON switch is mounted on the control box plate behind the shifter handle. The switch is interlocked with the shifter handle which prevents the operator from shifting gears while the switch is ON.

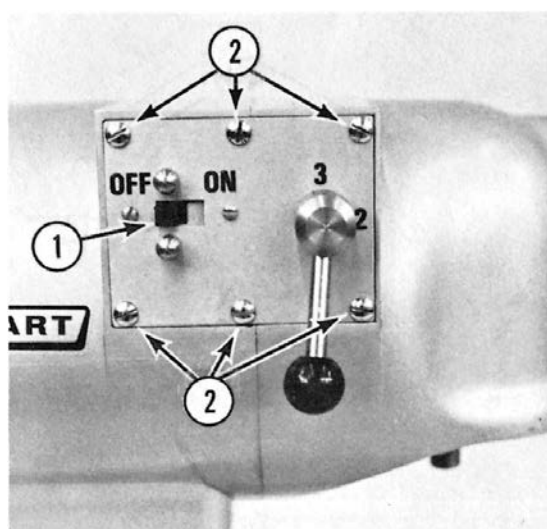


Fig. 6-1

2. Circuit Operation (Fig. 6-2).

- A. With the switch in the ON position, the motor is powered. Moving the switch to the OFF position removes power from the motor.

3. Replacing the Switch.

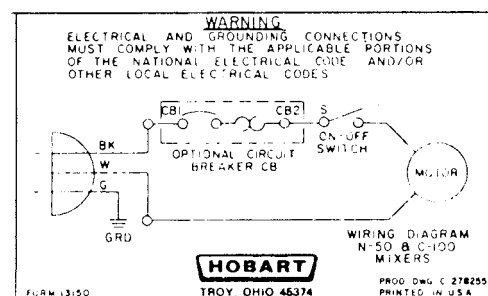


Fig. 6-2

**WARNING: TO AVOID ELECTRICAL SHOCK
UNPLUG UNIT BEFORE SERVICING.**

- A. Remove the six switch plate mounting screws (2, Fig. 6-1) and take off the switch unit.
- B. Disconnect the two leads (1, Fig. 6-3) from the switch.
- C. Remove the two switch mounting screws (3, Fig. 6-1) and remove the switch.
- D. When installing the new switch, place the interlock plunger (2, Fig. 6-3) disc guides (3, Fig. 6-3) and switch on the control box plate. Secure with the two switch mounting screws.
- E. Reinstall the switch plate in the reverse order of disassembly.

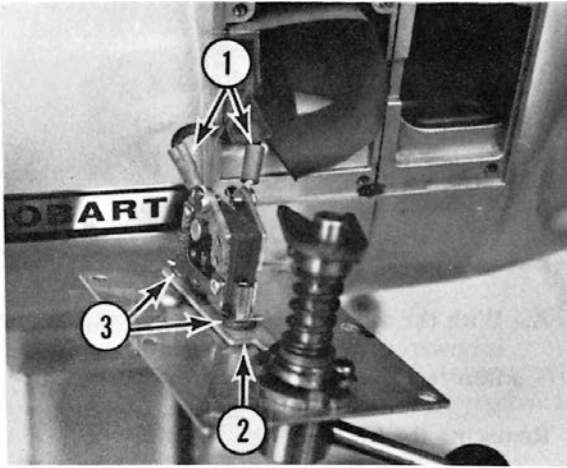


Fig. 6-3



S E R V I C E

TECHNICAL SERVICE BULLETIN

MISCELLANEOUS

VOL. 1 NO. 550B

August 2016

HOBART SERVICE

TROY, OHIO 45374-0001

MACHINE DATA CODE INFORMATION

INTRODUCTION

Since January 1, 2002, all Hobart equipment, except microwave ovens, have been marked with a three-letter date code to eliminate duplication at the end of the two-letter date code numbering cycle (i.e. 23 assigned letters for a 23 year date code numbering cycle). Microwave ovens are marked with the month and year as outlined under Manufacture Date (item 2).

Between January 1985 and January 2001 all Hobart equipment, *except* microwave ovens, were marked with a two letter date code.

Refer to manufacturing date code tables.

MANUFACTURE DATE

- All Hobart equipment is marked with a manufacturing date code in the CODE or MD section on the machine data plate with the exception of microwave ovens. If the CODE or MD section is not available, the manufacturing date code should be marked in the far right of the serial number section. The manufacturing date code will not become part of the serial number.

Exception: Refrigeration equipment is marked with the manufacturing date code directly following the serial number; or with the two-digit numerical date (Month & Year) in the DATE section.

- Microwave ovens are marked with a manufacturing date code in the section designated on the machine data label per UL 923. The month and year of manufacture are both marked without abbreviation, with the year shown as a four-digit number on the machine data label. Example: January 2005.

MANUFACTURING DATE CODES AFTER JANUARY 1, 2002					
*First Letter = Month	*Second and Third Letters = Year				
A = JAN	AA = 2001	AN = 2013	BB = 2025	BP = 2037	CC = 2049
E = FEB	AB = 2002	AP = 2014	BC = 2026	BR = 2038	CD = 2050
R = MAR	AC = 2003	AR = 2015	BD = 2027	BS = 2039	CE = 2051
P = APR	AD = 2004	AS = 2016	BE = 2028	BT = 2040	CF = 2052
Y = MAY	AE = 2005	AT = 2017	BF = 2029	BU = 2041	CG = 2053
U = JUN	AF = 2006	AU = 2018	BG = 2030	BV = 2042	CH = 2054
L = JUL	AG = 2007	AV = 2019	BH = 2031	BW = 2043	
G = AUG	AH = 2008	AW = 2020	BJ = 2032	BX = 2044	
T = SEP	AJ = 2009	AX = 2021	BK = 2033	BY = 2045	
C = OCT	AK = 2010	AY = 2022	BL = 2034	BZ = 2046	
N = NOV	AL = 2011	AZ = 2023	BM = 2035	CA = 2047	
M = DEC	AM = 2012	BA = 2024	BN = 2036	CB = 2048	

* The letters I, O, and Q have been omitted for clarity.

SERIAL NUMBER CODING BEFORE 1962 FOR GE OR CHICAGO HEIGHTS EQUIPMENT ONLY								
	1954	1955	1956	1957	1958	1959	1960	1961
REFRIGERATION								
Water Coolers	24600000 to 24999999	55400000 to 55807000	70060000 to 70099999	70190000 to 70199999	70230000 to 70239999	70300000 to 70335000	70335700 to 70359100	70359101 to 70386665
SANITATION		Sanitation serial numbers will vary prior to 1968.						

TECHNICAL SERVICE BULLETIN

PRODUCT SERVICE DEPARTMENT

TROY, OH. 45374-0001

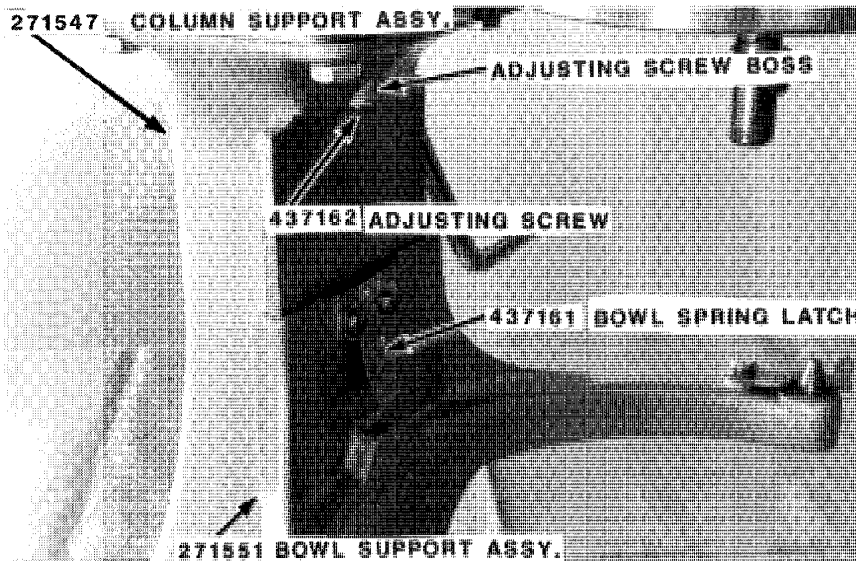
N50 - BOWL TO BEATER CLEARANCE ADJUSTMENT

Introduction

- A design has been developed to allow the bowl to beater clearance to be adjusted.
- Production units will be set for 1/16" clearance.
- Due to changes, the bowl rim diameter has been reduced for clearance.
- A unit with serial number 99-236-688 and higher is built to the new design.

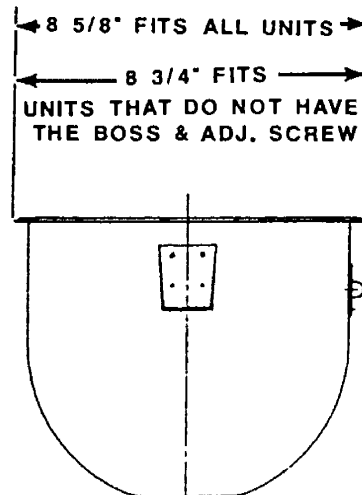
Parts Information

The new design part numbers are shown below:



The bowl part number remains the same 295576. An older bowl with a rim diameter of 8-3/4" will only fit on units that do not have the boss and adjusting screw. A new bowl with a rim diameter of 8-5/8" will fit on any N50.

NOTE: A bowl with a 8-3/4" rim diameter can be altered by grinding the rim to clear the adjusting screw and boss.



Adjustment

WARNING: UNPLUG UNIT BEFORE SERVICING.

NOTE: The clearance adjustment should be made using the "B" flat beater.

1. Lower bowl support assembly.
2. Remove bowl and agitator.
3. Turn adjusting screw to achieve $1/16" \pm 1/32"$ clearance between "B" flat beater and bowl.



4. Reinstall bowl, "B" flat beater and raise bowl support assembly.
 - A. Check for proper clearance.
 5. Continue steps 1 - 4A until clearance is present.
 6. Check for proper operation.
-



S E R V I C E

TECHNICAL SERVICE BULLETIN

HOBART SERVICE

TROY, OHIO 45374-0001

MODEL N50 - TAPER PIN TO PLANETARY FIT

Purpose

This Technical Service Bulletin provides information regarding the fit of the taper pin into the planetary. It covers how to identify and correct field issues concerning taper pins that are loose or have fallen out.

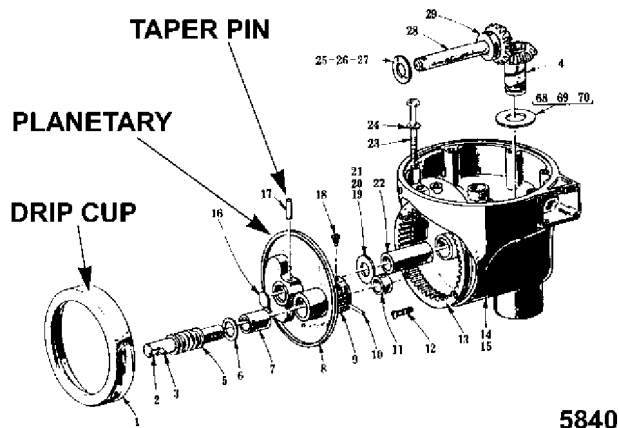
Reference Material

Use Model N50 Service Manual, Form 23340 (2/83), in addition to the contents of this Technical Service Bulletin.

Serial Number Cutoff

Exact serial number cutoffs are not known; although, the earliest reported N50 with the taper pin issue was serial number: 311-207-261. Ending serial number is approximately 311-223-146.

Parts Information



5840

Fig. 1

Item No.	Part No.	Description
17	PT-3-29	Taper Pin
8	113323	Planetary & Lower Bearing Assy.

Service Information

When servicing a N50 with a serial number near the cut-off numbers listed, check the fit of the taper pin in the planetary. If taper pin is loose or has fallen out, replace both taper pin and planetary.

NOTE: A properly fitting taper pin can be partially inserted into the planetary by hand, but then must be driven into its final position with a punch and hammer.



WARNING Disconnect the electrical power to the machine and follow lockout / tagout procedures.

1. Remove drip cup.

2. Check fit of taper pin.
 - A. Using hand pressure and a punch, try to dislodge the taper pin by pushing against the small end of taper pin.
 - 1) If taper pin moves, replace both taper pin and planetary.
 - 2) If taper pin does not move, ensure that taper pin is fully seated into planetary by tapping on large end of taper pin with punch and hammer

NOTE: If on initial inspection, or after seating taper pin, the large end of taper pin is recessed more than 1/16" inside the planetary, replace taper pin and planetary.

3. Seat new taper pin into new planetary using a punch and hammer.

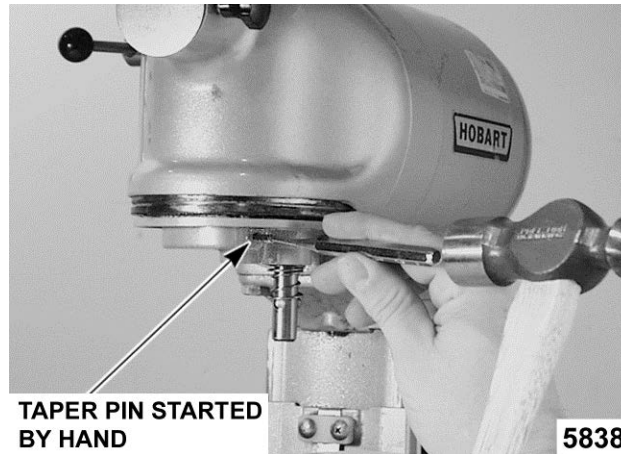


Fig. 2

NOTE: The taper pin must be seated firmly into the planetary to ensure proper operation.

4. Replace drip cup.
5. Check for proper operation.

TECHNICAL SERVICE BULLETIN

PRODUCT SERVICE DEPARTMENTTROY, OH. 45374-0001

**N50 - ASTM PART NUMBERS
AND BOWL-TO-BEATER HEIGHT ADJUSTMENT**

Introduction

The ASTM adjustment bracket assembly has changed to accept the larger special bolt being used on the left front motor housing assembly of production machines. This change was implemented for product simplification.

Production Start Date

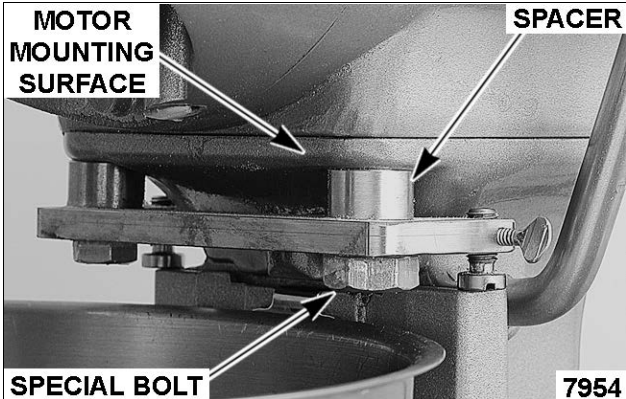
N50-ASTM mixers produced with the new style adjustment bracket and motor housing assemblies started on September 14, 2001.

Parts Information

Order replacement parts specific to the N50-ASTM mixer from the following table.

ASTM REPLACEMENT PARTS		
Part No.	Description	Qty.
435299	Bowl Support Assembly	1
478287	Adjustment Bracket (old style)	1
479505	Adjustment Bracket (new style)	1
479506	Spacer (new style)	1
070641-12	Thumb Screw	2
SC-040-71	Adjusting Screw (old style)	2
875151	Adjusting Screw (new style)	2
SC-036-40	Bolt (old style)	2
SC-062-21	Bolt (new style)	1
SC-036-84	Special Bolt (new style)	1
295579	Flat B Beater SST	1

NOTE: Both spacers are pressed into place on the old style adjustment bracket. Only the right side spacer is pressed onto the new style adjustment bracket. The left side spacer, which is larger to accommodate the special bolt, is loose and is installed between the adjustment bracket and the column motor mounting surface.



Bowl-to-Beater Height Adjustment

Reference Material

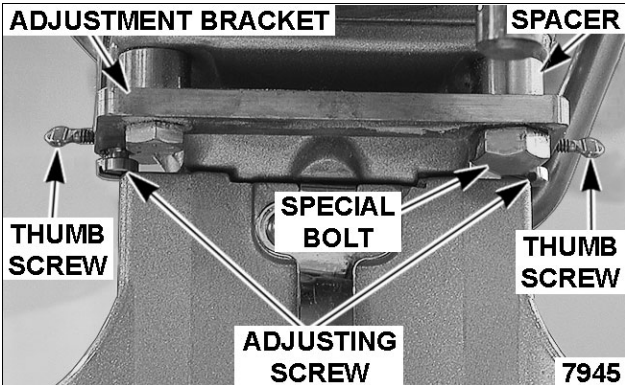
The ASTM (N50) mixer can be serviced using the N50 service manual F-23340 (2/83).

Special Tools

- Four teaspoons of flour.
- Pocket steel rule.
- Lubriplate 630AA or equivalent.

Check

1. Clean adjusting screw heads and top of bowl support.
2. Clean and dry beater and bowl thoroughly.
3. Lift bowl support into the locked position.
4. Verify that the bowl-to-beater adjustment screw used for N50 mixers does not interfere with bowl support travel.
 - A. If screw limits bowl support travel, turn screw in until it is completely recessed into column.
5. Verify that bowl support contacts both adjusting screw heads when bowl support is in locked position.



NEW STYLE SHOWN

- A. If bowl support is not contacting both adjusting screw heads, loosen thumb screw(s) and turn adjusting screw(s) so that screw head(s) contacts bowl support when bowl support is in locked position.

6. Lower bowl support.
7. Set mixer to operate in first speed.
8. Install bowl onto bowl support.

NOTE: Raised area in center of bowl does not have to be covered with flour.

9. Distribute four teaspoons of flour evenly into bowl.
10. Install SST flat B beater.



11. Raise bowl into locked position.
12. Run mixer on first speed for approximately one minute to allow beater to smooth flour around bottom of bowl forming a path under the beater.



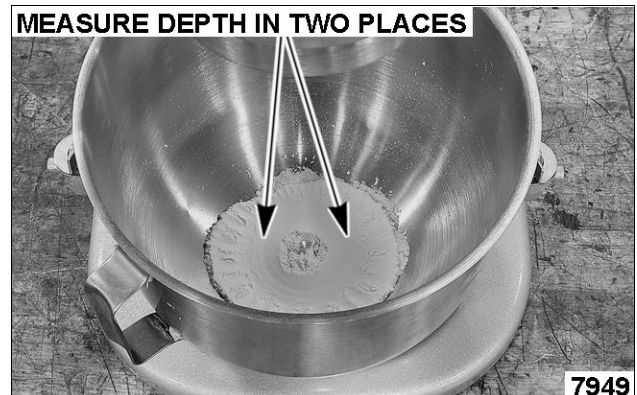
NOTE: Too much flour in bowl will not allow beater to form a path where bowl-to-beater height can be measured.

13. Without disturbing the formed flour, carefully lower the bowl and remove the SST flat B beater from mixer.
14. Locate path beater formed around bottom of the bowl.

NOTE: A thin coat of grease or oil applied to the steel rule will allow a small amount of flour to adhere to the rule so an accurate measurement can be made.

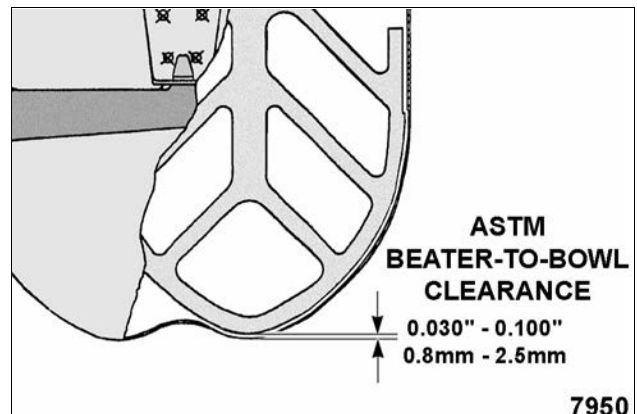
15. Apply a very thin coat of Lubriplate 630AA lubricant or equivalent to the measuring end of a steel pocket rule.

NOTE: Check bowl-to-beater clearance at two points that are in alignment with bowl retaining pins. Measure depth of flour at lowest section of bowl.



16. Measure depth of flour with a pocket rule.

- A. ASTM bowl-to-beater height is 0.030" - 0.100" (.8mm - 2.5mm).



17. Clean steel rule and repeat steps 10 thru 15 for a position 180° away from first measurement.
 - A. If either measured clearance is out of tolerance, adjustment is necessary.

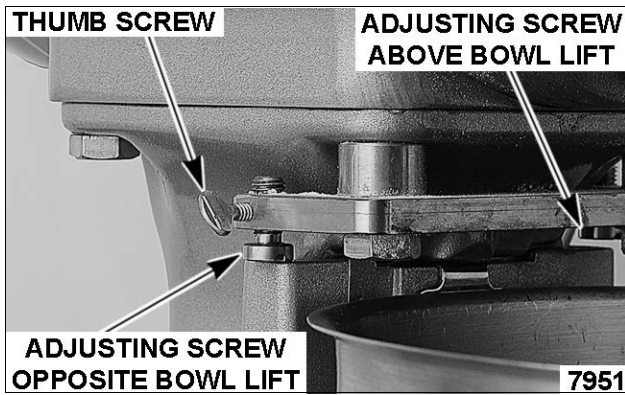
Adjustment

1. Loosen thumb screws.
2. Determine which direction adjusting screws need to travel to provide the correct bowl-to-beater height.
 - A. Screw in to decrease clearance.
 - B. Screw out to increase clearance.

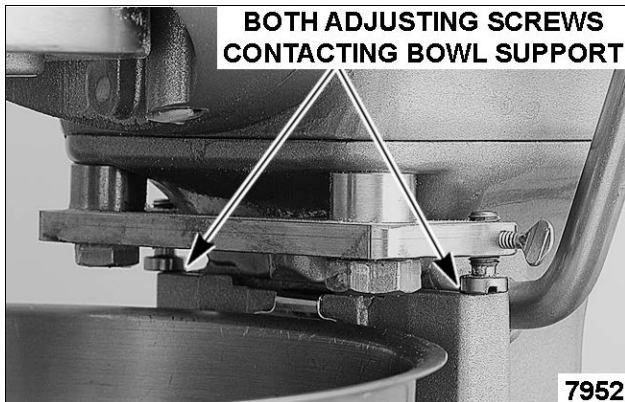
NOTE: Make bowl-to-beater adjustments with adjusting screw opposite the bowl lift handle.

3. If clearance is to be decreased, turn adjusting screw nearest bowl lift handle in until it is near adjustment bracket.
 - A. Turn adjusting screw opposite bowl lift handle in to decrease bowl-to-beater clearance.

4. Install SST flat B beater onto agitator shaft.
5. Raise bowl into locked position.



6. Turn adjusting screw nearest bowl lift handle so that its screw head contacts bowl support.



7. Perform bowl-to-beater height Check.
8. Repeat Adjustment until proper bowl-to-beater height is obtained.
 - A. If bowl-to-beater height cannot be achieved because clearance is greater than 0.100" (2.5mm) when bowl support is raised into the locked position and neither adjusting screw is contacting the back of bowl support, replace bowl support assembly with ASTM bowl support assembly, Part No. 435299.

NOTE: Refer to the service manual for removal and replacement procedures when replacing the bowl support assembly.



NOTE: If replacing bowl support assembly, lightly coat slideways with Lubriplate 630AA prior to installing bowl support onto column.

- B. If bowl support assembly was replaced, repeat the check and adjust bowl-to-beater height as necessary to achieve proper clearance.
9. Tighten thumb screws.
10. Remove flour from bowl. Clean bowl and beater.
11. Check for proper operation.