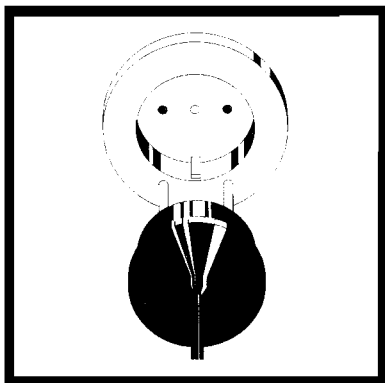


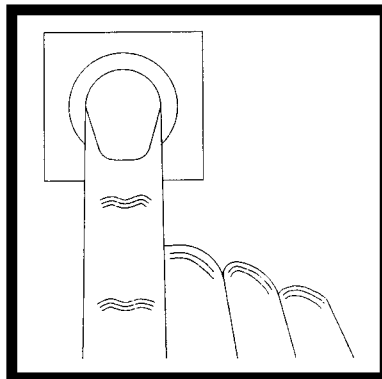


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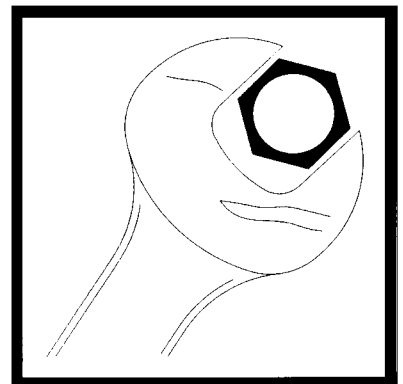
INSTALLATION



OPERATION



MAINTENANCE



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SAFETY INFORMATION.

The information in this manual has been prepared to assist the operator to understand, maintain and operate the N50 mixer. Before installation or operating for the first time, this manual must be studied to obtain a clear understanding of the mixer and its capabilities.

To prevent accidents, read, understand and follow all the precautions and warnings contained in this manual before operating or carrying out any of the cleaning/maintenance operations. For warning information see the section below, the section on 'commissioning and operation', and 'using attachments'. The procedures and precautions contained in this manual are understood to apply to the machinery only when it is used in the authorized manner. If the machinery is used other than in the authorized manner, the operator will be responsible for his/her own safety and for the safety of the other persons who may be involved.

- Ensure this manual is kept in an easily accessible place for future reference near the mixer.
- All operators must be trained in the safe operation of the mixer and attachments.
- Do not remove any covers or loosen any fittings while the mixer is operating.
- Ensure the electrical supply has been isolated before attempting to service or move the mixer.
- Rotating machinery and electricity are potentially hazardous and may cause injury if sufficient precautions are not taken prior to operating or servicing the machine.
- Always have your mixer and attachments regularly serviced at least twice a year, depending on the frequency of use.
- Do not hose or pressure clean this appliance. Follow the cleaning instructions detailed in this manual.

WARNING SYMBOLS.

To identify the safety messages in this manual, the following symbols have been used:



The "Warning" symbol is found primarily where the corresponding information is important for the safe use of the machinery.



The electrical hazard symbol is used when there are risks of an electrical nature. Prior to servicing the machinery, always disconnect the power cable from the mains supply.

LIABILITY.

Installations and repairs which are not carried out by **authorized technicians** or the use of non-original spare parts, or any **technical alterations** to the machine, **may affect the warranty set out in the standard conditions of sale.** This does not affect your statutory rights. Continued product improvement is a Hobart policy, therefore, specifications may change without notice.

HYGIENE.

It is the responsibility of the mixer operator to maintain the machine in a clean condition to the highest standards of hygiene to prevent the formation of harmful bacteria. Regular attention and cleaning will achieve this result.

A good standard of personal hygiene is important for mixer operators. Hair and clothing must be neat and clean. Hands and fingernails must be thoroughly washed before work commences. Jewellery should not be worn.

FOREWORD.

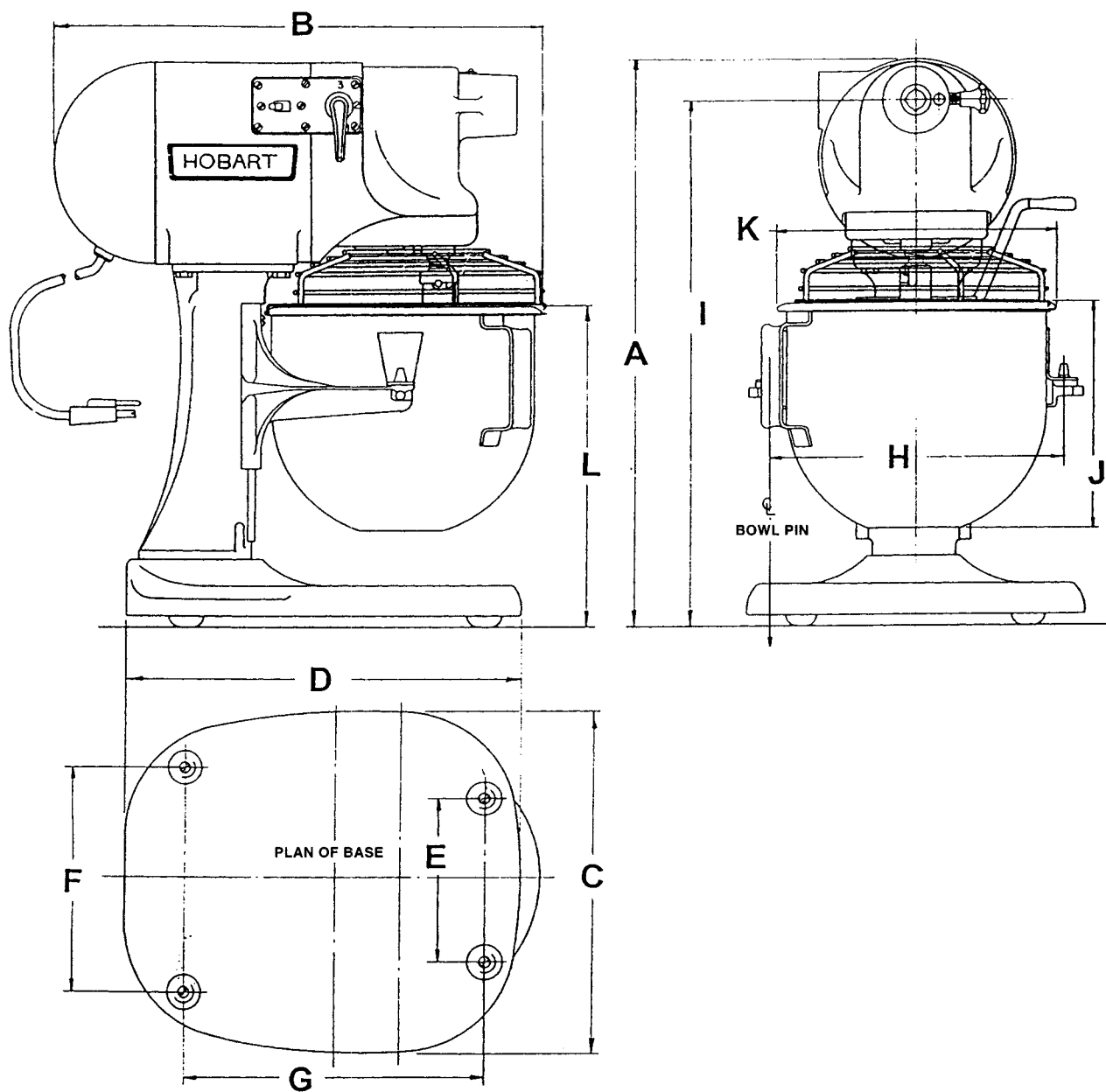
Hobart reserves the right to alter the design of its products without prior notice. While every effort is made to ensure this publication reflects the latest design, the Company cannot guarantee full compliance.

Take pride in your N50 mixer—keep it clean and in good mechanical and electrical condition.

The information and instructions contained in this manual may not cover all details or variations in the equipment, nor provide for every eventuality to arise with installation, operation, or maintenance. If additional information is required, please contact your local Hobart sales office.

GENERAL INFORMATION.

The N50 mixer is designed to mix food products as detailed on the specification charts (Tables 2 and 3), standing on a standard height work top. The mixer is generally manufactured from die cast zinc alloy components and a steel rear cover all finished with a standard Hobart paint. The machine is rated to operate on the electrical supplies shown in Table 1. The mixer is fitted with a 'no volt release' safety feature to prevent automatic re-starting after a supply failure or disconnection from the mains. The bowl support and guard are interlocked so that when either are not in their correct operating positions, the mixer will not work. The standard mixer is delivered with a guard, bowl and 'B' beater.



Position	Dimension	Position	Dimension	Position	Dimension
A	432	E	128.5	I	398.5
B	381	F	178	J	176
C	263.5	G	236.5	K	222
D	311	H	228.5	L	247.5

All dimensions in mm.

FIGURE 1. N50 MIXER DIMENSIONS.

TABLE 1. TECHNICAL INFORMATION.

Description	Units	Value
Electrical supply range		230 volts, 50 Hz, single phase
Motor power	kW (HP)	0.13 (1/6)
Maximum speed of rotating part	RPM	1425
Full load current	Amps	1.7
Locked rotor current	Amps	12.5
Maximum ambient temperature	°C	40
Attachment hub drive size		Number 10
Mixer weight including agitator and bowl (empty)	Kg (Lbs)	21.5 (46)
Bowl weight (empty)	Kg (Lbs)	0.74 (1.6)
Noise level	dB(A)	Less than 70
Shipping weight	Kg (Lbs)	25.7 (55)
Shipping dimensions (carton)	L x W x H mm	505 x 375 x 470
Storage conditions. Maximum temperature and humidity.	°C, % RH	38, 85

INSTALLATION.

There are no specific requirements for the installation of the mixer. The mixer is supplied with a mains electricity plug. Ensure the following sections are read before operation.

UNPACKING.

Carefully unpack the machine. Do not use a sharp knife to cut into the box as damage to the machine may occur. Check for possible shipping damage. If the unit is found to be damaged, save the packaging material and contact your nearest Hobart sales office. Refer to Table 1 for mixer weights prior to lifting.

LOCATION.

Select a suitable flat level counter top that can support the weight of the mixer and bowl contents when full (see Table 1 for mixer weights). The mixer stands on rubber feet and does not need to be secured to the work surface. Ensure there is sufficient space around the mixer to enable safe operation of the bowl lift handle, attachment hub and removal/replacement of the mixing bowl. Servicing may be more difficult because of reduced clearances and you should always check that equipment specifications permit the close proximity of other equipment. Refer to Figure 1 for the overall dimensions of the mixer.

ELECTRICAL SUPPLY AND CONNECTION.



The electrical installation of the mixer must be in accordance with the current edition of the IEE regulations for electrical equipment in buildings, Electricity at Work Act 1989 and must conform to the requirements of the Local Electricity Board.

The technical data shown in Table 1 details the electrical requirements for the mixer. Ensure that the electrical supply agrees with the machine specification, prior to connection.

It is recommended the mixer is connected to a suitable external electrical isolator (see Table 1 for electrical data) fitted with a residual current device (RCD) rated at 30mA, to provide short circuit and earth leakage protection.

The mixer is supplied with a cable and plug (which conforms to BS1363) and fitted with a 5A fuse (UK only).

COMMISSIONING AND OPERATING INSTRUCTIONS.

SAFETY INSTRUCTIONS.



THE ATTACHMENT AND/OR MIXER MUST ONLY BE USED BY A FULLY TRAINED AND COMPETENT PERSON.

The following instructions must be observed when using the mixer:

- Do not change speed while the mixer is operating.
- Do not wear loose clothing.
- Do not use the mixer or attachment if a fault develops or the machine is unsafe.
- Do not access rotating parts.
- Do not use excessive force when operating which could affect the stability of the mixer.
- Do not operate the mixer if parts are disassembled.
- Always use the attachment and/or mixer in a well lit area.
- Always ensure the bowl, bowl clamps, agitator, attachment and guard are correctly fitted to the machine.
- Always disconnect the mains electricity supply before cleaning.
- Always use the toggle switch 'O' to stop mixer.
- Always clean the bowl, agitators and attachments after use.
- Always clean mixer daily.
- Always service the mixer and attachments at least twice a year depending on the frequency of use.

MIXER OPERATION.



This machine is only for professional use by suitably trained persons. Ensure operators have read and understood this manual and have received adequate training.

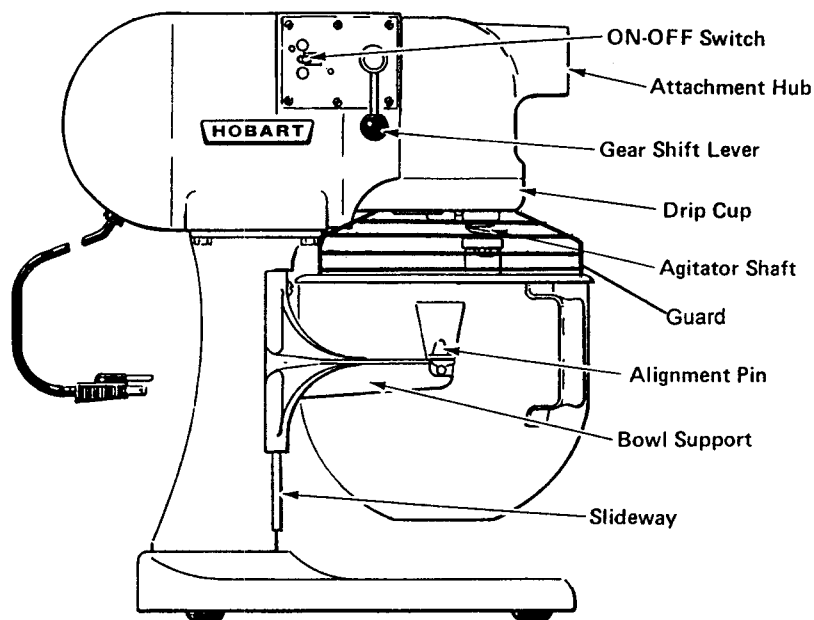


FIGURE 2. MIXER COMPONENT IDENTIFICATION.

Refer to Figure 2 for the mixer component identification.

- Thoroughly clean the bowl and agitator as described in the cleaning section.
- Ensure the mixer is switched off.
- Ensure the guard is fitted to the hub if an attachment is not in use.
- Lower bowl support by using the bowl lift handle.
- Place the required agitator in the bowl and lift bowl onto the bowl support.
- Position the bowl by aligning the pin on the back of the bowl with the retainer situated on the bowl support. Engage the alignment pins on the bowl support into the bowl 'ears', and secure in place with the hinged bowl clamps.
- Slide the agitators onto the agitator shaft turning clockwise to engage the drive pin in the "L" slot.
- Add ingredients to the bowl.
- Place the guard on top of the bowl and raise the bowl using the bowl lift handle.
(NOTE: An electrical interlock prevents the mixer starting if the bowl support and guard are not in the normal operating position.)

- Select the desired speed and start the machine by moving the switch to the start position 'I'. Note the mixer speed must not be changed while the machine is operating. Stop the mixer before changing speed.
- When mixing is complete:
 - Stop the mixer using the stop switch.
 - Lower the bowl support and remove the guard.
 - Remove the agitator from the agitator shaft.
 - Remove the bowl and agitator from the mixer to empty.

MIXING CHART.

The following charts (Tables 2 and 3) show the maximum recommended capacities for the mixer.

With high gluten flour reduce the dough batch size by 10%.

Ensure the correct agitator is selected.

Dough capacities are based on water at a temperature of 21°C and a 12% flour moisture content. If colder water is used, the mixing capacity will need to be reduced. Colder water temperatures result in a dough which is harder to mix.

Ensure the correct speed is selected.



DO NOT EXCEED THE SPECIFIED MIX QUANTITY.

Overloading the mixer can be detrimental to the quality of the finished product and affect the life expectancy of the machine. Always refer to the mixing chart.

TABLE 2. Kitchen Capacities - Single Batch

Type of Product	Quantity	Recommended Agitator	Recommended Speeds
Egg Whites	0.23 litres	'D' Whip	1 to 3
Mashed Potatoes	1.36 kg	'B' Beater	1 to 2
Mayonnaise (Oil)	1.36 litres	'D' Whip	1 to 3
Meringue (Water)	0.11 litres	'D' Whip	1 to 3
Waffle or Hot Cake Batter	1.82 litres	'D' Whip	1 to 2
Whipped Cream	1.36 litres	'D' Whip	1 to 3

TABLE 3. Bakery Capacity - Single Batch

Type of Product	Quantity	Recommended Agitator	Recommended Speeds
Cake, Box or Slab	1.82 kg	'B' Beater	1 to 2
Cake, Layer	1.36 kg	'B' Beater	1 to 2
Cake, Pound	1.36 kg	'B' Beater	1 to 2
Cake, Short (Sponge)	1.36 kg	'B' Beater	1 to 3
Dough (Light-Medium)	1.82 kg (60% A/R) (1.1 kg flour 0.72 litre water)	'E' Hook	1
Dough (Pizza)	0.91 kg (40% A/R) (0.65 kg flour 0.26 litre water)	'E' Hook	1
Pie Pastry	1.36 kg	'E' Hook	1
Egg & Sugar for Sponge Cake	0.91 kg	'D' Whip	1 to 3
Icing, Fondant	0.91 kg	'D' Whip	1 to 3
Icing, Marshmallow	0.23 kg	'D' Whip	1 to 3
Shortening & Sugar (Creamed)	1.36 kg	'D' Whip	1 to 3

A/R absorption ratio.

MIXER SPEED SETTINGS.

The selected mixer speeds will be determined by the mix type and quantity. As a general guide, the mixer speeds for some applications are as follows:

- Speed 1 (slow): For heavy mixtures such as bread dough, heavy batters and potatoes.
Speed 2 (medium): For light dough which must rise quickly, cake batters and some whipping operations.
Speed 3 (fast): For light work such as whipping cream, beating eggs and mixing thin batters.

MIXER AGITATORS.

The agitators available for the mixer are designed for the specific duties as follows:

The **'B' Beater** is a multi-purpose agitator for mashing potatoes and other cooked vegetables, mixing cakes, batters, and icings. Use first speed for starting most operations, increasing to speed 2 for finishing where applicable.

The **'D' Whip** is designed for maximum blending of air into light products. It can be used for whipping cream, beating egg whites, and mixing very light egg whites. The whip is commonly used on speeds two and three.

The '**E' Dough Hook** is used for mixing bread, roll and pizza dough which require a folding and stretching action for optimum development. The dough hook should be used predominantly on speed 1.

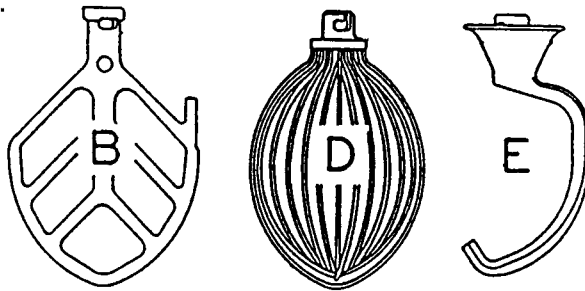


FIGURE 3. AGITATOR TYPES.

CLEANING PROCEDURE (MIXER AND ATTACHMENT).

- Do not hose or pressure clean this mixer.
- DO NOT USE ANY ABRASIVE CLEANERS.
- Ensure that the machine is disconnected from the mains electrical power supply prior to cleaning.
- Note: Do not clean aluminum agitators in a dishwasher.
- Refer to attachment manufacturer's specific cleaning instructions.

CLEANING BEFORE INITIAL USE.

Before using for the first time, thoroughly wash new mixer bowls, agitators and attachments. Wash in hot water and a mild detergent solution, rinse with either a mild soda or vinegar solution, and then rinse thoroughly with water. This procedure should also be followed for bowls and agitators before whipping egg whites or whole eggs.



CLEANING AFTER USE.

After each use, clean the mixing bowl, agitators and attachments with hot water, using a suitable non-abrasive detergent and soft bristle brush. (Flushing the bowl with hot water immediately after use will ease the cleaning of the bowl.)

The agitator spring is removable for cleaning as shown in Figure 4. Slip the lower end of the spring underneath the agitator pin on the planetary shaft and screw in an anti-clockwise direction until the spring can be removed. Following cleaning, replace the spring by reversing this procedure. All coils of the spring should be above the agitator pin. **DO NOT OPERATE AGITATORS WITHOUT THE SPRING FITTED.**

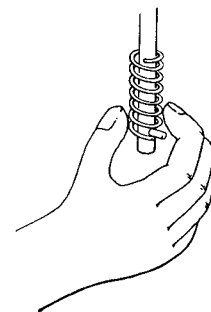


FIGURE 4. AGITATOR SPRING.

Clean the mixer with a hot damp cloth, thoroughly wipe the bowl arms and all exterior surfaces.

The drip cup should be removed and cleaned periodically (at least once per week depending on use) and wiped clean. Do not operate the mixer without the drip cup.

USING THE ATTACHMENT FACILITY.

SAFETY INSTRUCTIONS

The following instructions must be observed when using the mixer with attachments.



THE ATTACHMENT AND/OR MIXER SHOULD ONLY BE USED BY A FULLY TRAINED AND COMPETENT PERSON.

- Do not fit an attachment while the mixer is operating.
- Do not wear loose clothing.
- Do not use the mixer or attachment if a fault develops or the machine is unsafe.
- Do not access rotating parts.
- Do not use excessive force when operating the attachment which could affect the stability of the mixer.
- Do not operate the mixer if parts are disassembled.
- Always use the attachment and/or mixer in a well lit area.
- Always ensure the attachment is operating at the correct speed.
- Always ensure the bowl, bowl clamps, attachment and guard are correctly fitted to the machine.
- Always use the toggle switch 'O' to stop mixer.
- Always disconnect the mains electricity supply before cleaning.
- Always clean the attachments after use and refer to the attachment manufacturer's cleaning instructions.
- Always service your mixer and attachments regularly; at least twice a year depending on the frequency of use.
- Only use attachments approved by Hobart.

FITTING AN ATTACHMENT.

To install an attachment, ensure the electricity supply is isolated. Loosen the thumb screw situated on the attachment hub (see Figure 1). Swivel the hub guard to one side and insert the attachment into the hub. Ensure the square shank of the attachment locates in the square drive of the mixer. Secure the attachment by tightening the thumb screw.

The selected mixer speeds will be determined by the type of attachment fitted.

SPECIFIC ATTACHMENT SAFETY.



Hobart cannot control the use of different manufacturers' attachments on the N50 mixer, however, a range of manufacturers' attachments have been examined and the following general safety precautions are applicable. Please also refer to safety information provided elsewhere in this manual and the attachment manufacturer's safety information.

Juice extractors.

- Take extreme care of exposed rotating parts.
- Do not exert an excessive force on the rotating reamer which might affect the stability of the mixer.
- Ensure the attachment is operated at the correct speed.
- Follow the manufacturer's cleaning instructions.

Food grinders and mincers.

- Take extreme care of exposed rotating parts, particularly the worm and knife.
- Ensure the meat does not contain pieces of bone.
- Cut meat into strips for speed of feeding.
- Do not use excessive force when feeding meat into the mincer/grinder.
- Do not use fingers or implements other than the stomper provided to feed food into the hopper.
- Ensure the attachment is operated at the correct speed.
- Do not clear the grinding disc with fingers.
- Do not clear the grinding disc while the machine is operating.
- Do not overtighten the front grinding disc locking nut.
- Follow the manufacturer's cleaning instructions.

Can openers.

- Take extreme care of exposed rotating parts.
- Do not use to open pressurized containers.
- Do not use to open flammable liquid containers.
- Take care of sharp metal can parts.
- Ensure the attachment is operated at the correct speed.
- Follow the manufacturer's cleaning instructions.

Slicers and shredders.

- Take extreme care of exposed rotating parts.
- Do not use fingers or implements to feed food into the hopper.
- Use caution when fitting or removing the shredder or slicer blades to the drive shaft.
- Do not attempt to clear the rotating blades with fingers or implements.
- Do not fit blade while attachment drive is rotating.
- Only slice/shred vegetable and salad products.
- Follow the manufacturer's cleaning instructions.

Grain mills.

- Take extreme care of exposed rotating parts, particularly the worm and burs.
- Do not use fingers or implements to feed grain into the hopper.
- Ensure the attachment is operated at the correct speed.
- **Caution: External surfaces may be hot during and after use.**
- Do not look directly into the hopper while operating; grain kernels can pop out.
- Do not overload; allow the grain mill to cool between batches
- Do not operate the grain mill with the burs rubbing.
- Do not clear the grinding bur with fingers.
- Do not clear the worm or bur while the machine is operating.
- Do not overtighten the front adjusting nut.
- Follow the manufacturer's cleaning instructions.

Spaghetti makers.

- Take extreme care of exposed rotating parts.
- Do not use fingers or implements to feed dough into the hopper.
- Ensure the attachment is operated at the correct speed.
- Follow the manufacturer's cleaning instructions.

SERVICING AND REPLACEMENT OF COMPONENTS.



SERVICING SHOULD BE CARRIED OUT BY A HOBART TRAINED AND COMPETENT PERSON.

Do not remove any covers or loosen any fittings while the mixer is operating. Ensure the electrical supply has been isolated before attempting to service or move the mixer.

The motor and transmission are packed with a special grease which will last for several years. When replacement is needed, contact your local Hobart Service Centre (also see section for recommended spares).

The bowl slideways should be lubricated occasionally with a small amount of light food grade oil, applied with the finger tip, to prevent corrosion and ensure smooth operation.

It is recommended that the mixer is serviced regularly, depending on the frequency of use, but at least twice yearly.

The planetary must only be lubricated with food grade grease (part number: SU-E-4-14) available from your local Hobart Service Centre.

FAULT FINDING.

Fault	Possible cause	Remedy
Machine fails to start.	Blown fuse.	Check and replace faulty fuse.
	Bowl support is not in the correct operating position.	Place bowl in up position.
	Bowl guard is not in the correct operating position.	Place guard in position.
	Speed selection lever not in correct operating position.	Set to required speed position.
	Check gear level position. If not correctly engaged, mixer will not start.	Move gear lever to desired speed.
	Check that electrical supply is switched on.	Plug in and switch on.
	Machine still fails to operate.	Call local service centre.
Motor starts but shaft fails to turn.	Gear selection lever incorrectly positioned.	Move to the correct speed.
	If planetary shaft still fails to turn.	Call local service centre.

RECOMMENDED SPARE PARTS.

Item	Description	Part number	Qty
1	Bowl	S-78575-2	1
2	'E' dough hook	D-478548	1
3	'D' wire whip	P-77764	1
4	'B' flat beater (aluminum)	P-9033	1
5	'B' flat beater (stainless steel)	R-62458	1
6	Guard, wire cage	478114	1
7	Agitator shaft spring	V-111227	1
8	Drip cup	P-21625-3	1
9	Thumb screw, attachment hub	A-16951-4	1
10	End cover	R-120433-2	1
11	Rubber foot	271650	4
12	Bowl retaining pin	B-240185	2
13	Bowl clamp, LH	C-291444-1	1
14	Bowl clamp, RH	C-291444-2	1
15	Spring washer, bowl clamp	B-291263	6
16	Lubricating grease, planetary and gearbox	SU-E-4-14	0.6kg



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