



# SENTINEL™

## Planetary Mixer Instruction Manual



**SHLM-10A,SHLM-20B,SHLM-30B**

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## Pack Contents

The following is included:

- Food Mixer
- Spiral Dough Hook
- Whisk
- Mixing Bowl
- Beater
- Instruction Manual

## General Description

Your new SHLM-10A, SHLM-20B, SHLM-30B Planetary Mixer is a changing speed gear mixer with a three speed motor and a non-rotation bowl.

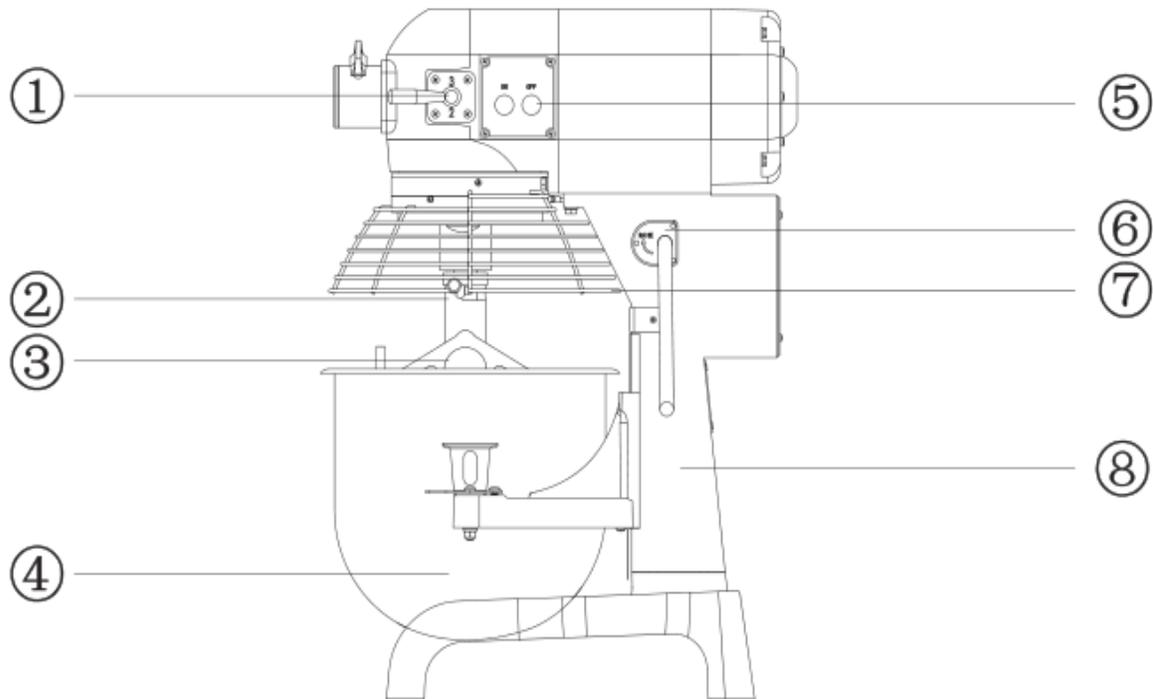
Planetary mixers are an excellent choice for general purpose kitchens, bakeries and pizzerias.

This type of mixer is great for blending ingredients and kneading dough, and with the addition of appropriate attachments is capable of chopping meat, grating cheese and whipping light meringues.

## Technical Parameters

Name	Power (KW)	Weight (lbs)	Speed of Stirring Shaft (r/min)			Overall Dimensions (inch)
			1st Speed	2nd Speed	3rd Speed	
SHLM-10A	0.75	99	108	195	355	20" x 19" x 30½"
SHLM-20B	1.1	234	108	195	355	25" x 23" x 37"
SHLM-30B	1.5	392	91	166	282	28" x 26½" x 51"

## Main External Parts of Mixer



- ① Gear change hand lever
- ② Stirring shaft
- ③ Mixer
- ④ Stainless bowl
- ⑤ Power switch
- ⑥ Bowl Lift Handle
- ⑦ Safety guard
- ⑧ Support

## Operating Instructions

- ① Standard power supply - 110 v/ 60 HzAc. (Please use a plug with 3 wide contacts and good grounding.)
- ② Installation of mixer: Put the stirring shaft 2 in Mixer 3 and rotate it in clockwise direction.
- ③ Starting procedures: Pull the gear change hand lever 1 to position 1 before starting, then turn on the power switch 5 and set the speed required. After the mixer is in normal operation, pull the hand lever 6 to the highest point and lift the support 7 to the highest position.
- ④ Speed transformation: If you want to change speed, please turn off the power switch first, and then pull the gear change hand lever 1 to the position required.
- ⑤ Shutting down: when the operation is complete, turn off the power switch first, then pull the gear change hand lever 1 to position 1, and pull back the hand lever 6 to the lowest point and finally disconnect power supply.

## Accessories and Functions

- ① Whisk: Used for stirring of liquids, such as cream and egg. Recommended speed: mid or high speed.
- ② Beater: Used for stirring batters, such as stuffing and cake dough. Recommended speed: start with low speed, end with mid speed.
- ③ Spiral dough hook: Used for making dough. Recommended speed: low speed.
- ④ Mixing Bowl

## Operating Instructions

- ① The outlet must be provided with a ground wire to guarantee the mixer's grounding through it. Electric shock could occur if the ground wire is improperly mounted.
- ② Never put your hands or fingers into the bowl during operation, serious injury could occur. Power supply should be disconnected before working with the bowl.
- ③ Don't operate the mixer beyond the time limit to prevent reduction of its service life.
- ④ The mixer should be mounted in a stable and clean place. Keep it away from hot or wet environments.
- ⑤ Clean mixer after each use. Disconnect power supply before cleaning. Clean it with a piece of soft, damp cloth. Don't clean it with liquid or spraying detergent.

## Maintenance

The entire mixer, including removable parts, must be thoroughly cleaned and sanitized using the procedures identified by your local health department.

Clean the bowl and attachments after each use to keep mixer functioning properly. Never use a scrubber pad, steel wool, or abrasive material to clean the mixer.

Hand wash using mild soap and water, rinse, dry and sanitize. The bowl can also be placed in the dishwasher.

The transmission gear box is lubricated in the factory. Check the gearbox lubrication every 6 months. To add or refill grease, open the top cover, then fill grease from aperture or replace the grease directly.

## Troubleshooting

<b>Problems</b>	<b>Causes</b>	<b>Solutions</b>
Tool shaft does not rotate after starting the machine	Loose electric wiring	Check electric wiring, plug and cord
Oil leakage	The seal rings are worn out	Replace seal rings
Motor temperature raised while reduced output speed	Too low voltage	Check the power supply
	Overloaded	Reduce load
	The speed of mixing is too high or you may be using the wrong attachment.	Select a suitable speed and attachment
The attachments hit the bowl	The attachment or bowl may be damaged	Repair or replace the attachment or bowl
Noise or high temperature from gearbox	Insufficient lubrication	Add or replace the grease

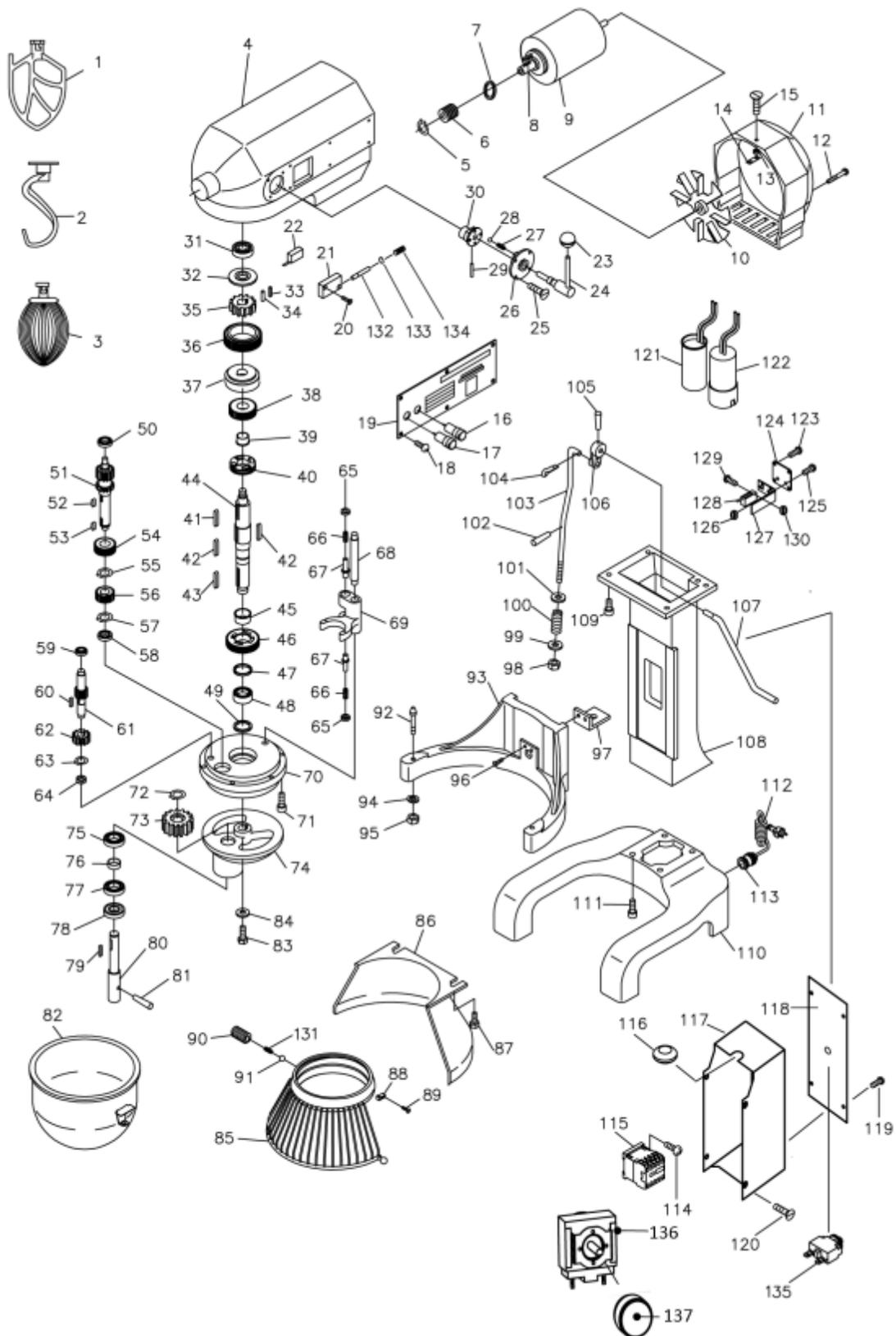
## Warning!

- If the equipment is not functioning properly, it should be serviced by an authorized service agent only.
- Persons under 18 years of age are not permitted to operate
- Read all instructions and safety warnings prior to operating
- Keep hands and fingers away from the bowl while in operation
- Do not attempt to clear/clean or adjust attachments without shutting off the power and disconnecting the power cord.
- Do not operate without the bowl in place.

# Parts List for SHLM-10A

SER.NO.	PART.NO.	PART NAME	SER.NO.	PART.NO.	PART NAME
1	10-1	Flat Beater	70	10-70	Inner gear
2	10-2	Hook	71	10-71	hexagon socket cap screws
3	10-3	Wire whip	72	10-72	Circlips for shaft
4	10-4	Gear box	73	10-73	Planet gear
5	10-5	Circlips for shaft	74	10-74	Operating shelf
6	10-6	Worm pole	75	30-76	Bearing
7	10-7	Oil seal	76	10-76	Running shaft support
8	10-8	Key	77	30-76	Bearing
9	10-9	Motor(110v 60Hz with the tools)	78	10-78	Oil seal
10	10-10	fan	79	10-79	Key : 5X20
11	10-11	Back cover	80	10-80	running spindle
12	10-12	Nut:M5X60	81	10-81	Retainer-spring
13	10-13	Spring washer	82	10-82	Bowl
14	10-14	Connector	83	10-83	cross recess pan head screw
15	10-15	Nut:M4X8	84	10-84	Moving frame clamp
16	10-16	Red button	85	10-85	front shield
17	10-17	Green button	86	10-86	back shield
18	10-18	Nut:M4X8	87	10-87	hexagonal head bolt
19	10-19	Brand	88	10-88	Bump pin block
20	10-20	Nut:M4X20	89	10-89	cross recessed countersunk head screw
21	10-21	The micro switch installation	90	10-90	Allen flat end set screws
22	10-22	Distance switch	91	10-91	steel ball
23	10-23	Nob	92	10-92	Taper pin column
24	10-24	Speed handle	93	10-93	Support
25	10-25	Nut:M4X8	94	10-94	Spring washer
26	10-26	fix seat	95	10-95	Type 1 hexagonal nut
27	10-27	Spring	96	10-96	cross recessed countersunk head screw
28	10-28	steel ball	97	10-97	Support lifting climbing
29	10-29	Retainer-spring	98	10-98	hexagon lock nut
30	10-30	nob	99	10-99	flat washer
31	10-31	deep groove ball bearing	100	10-100	compression spring
32	10-32	Plug	101	10-101	flat washer
33	10-33	Spring	102	10-102	elastic cylindrical pin
34	10-34	Roller: 6X10	103	10-103	Connecting rod
35	10-35	Gear	104	10-104	cotter
36	10-36	Super machine parts	105	10-105	Retainer-spring
37	10-37	ring gasket	106	10-106	Crank lever
38	10-38	Combination of gear	107	10-107	Handle
39	10-39	Gear shaft sleeve	108	10-108	Stud
40	10-40	Claw-type clutch	109	10-109	hexagonal head bolt
41	10-41	Key : 5X25	110	10-110	foundation
42	10-42	Key : 5X30	111	10-111	hexagonal head bolt
43	10-43	Key : 5X30	112	10-112	Power cord
44	10-44	Main shaft	113	10-113	Power supply is waterproof connectors
45	10-45	Gear shaft sleeve	114	10-114	cross recess pan head screw
46	10-46	Gear	115	10-115	Contact switch
47	10-47	Spring washer	116	10-116	Channeling coil
48	30-36	Bearing	117	10-117	electricity box
49	10-49	Oil seal	118	10-118	Electrical box cover plate
50	10-50	Bearing	119	10-119	M4X8 Stainless steel cross trough pan head
51	10-51	Gear shaft	120	10-120	M4X8 cross recessed countersunk head screw
52	10-52	Key : 5X10	121	10-121	Capacitor
53	10-53	Key : 5X10	122	10-122	Capacitor
54	10-54	Combination of gear	123	10-123	cross recess pan head screw
55	10-55	Circlips for shaft: 55	124	10-124	Travel switch fixed plate
56	10-56	Gear	125	10-125	cross recess pan head screw
57	10-57	Circlips for shaft	126	10-126	Type 1 hexagonal nut
58	10-58	Bearing	127	10-127	Travel switch bracket
59	10-59	Bearing	128	10-128	Distance switch
60	10-60	Key : 5X14	129	10-129	cross recess pan head screw
61	10-61	Shaft worm gear	130	10-130	Type 1 hexagonal nut
62	10-62	Worm gear	131	10-131	Shield compression spring
63	10-63	Circlips for shaft	132	10-132	Switch shaft pin
64	10-64	Bearing	133	10-133	split washer
65	30-7	Control nut	134	10-134	Switch shaft pin compression spring
66	10-66	Spring	135	10-135	Overload switch
67	10-67	Fork pin	136	10-136	Timer(with four screws)
68	10-68	declutch shift shaft	137	10-137	Timer knob
69	10-69	Shifting yoke			

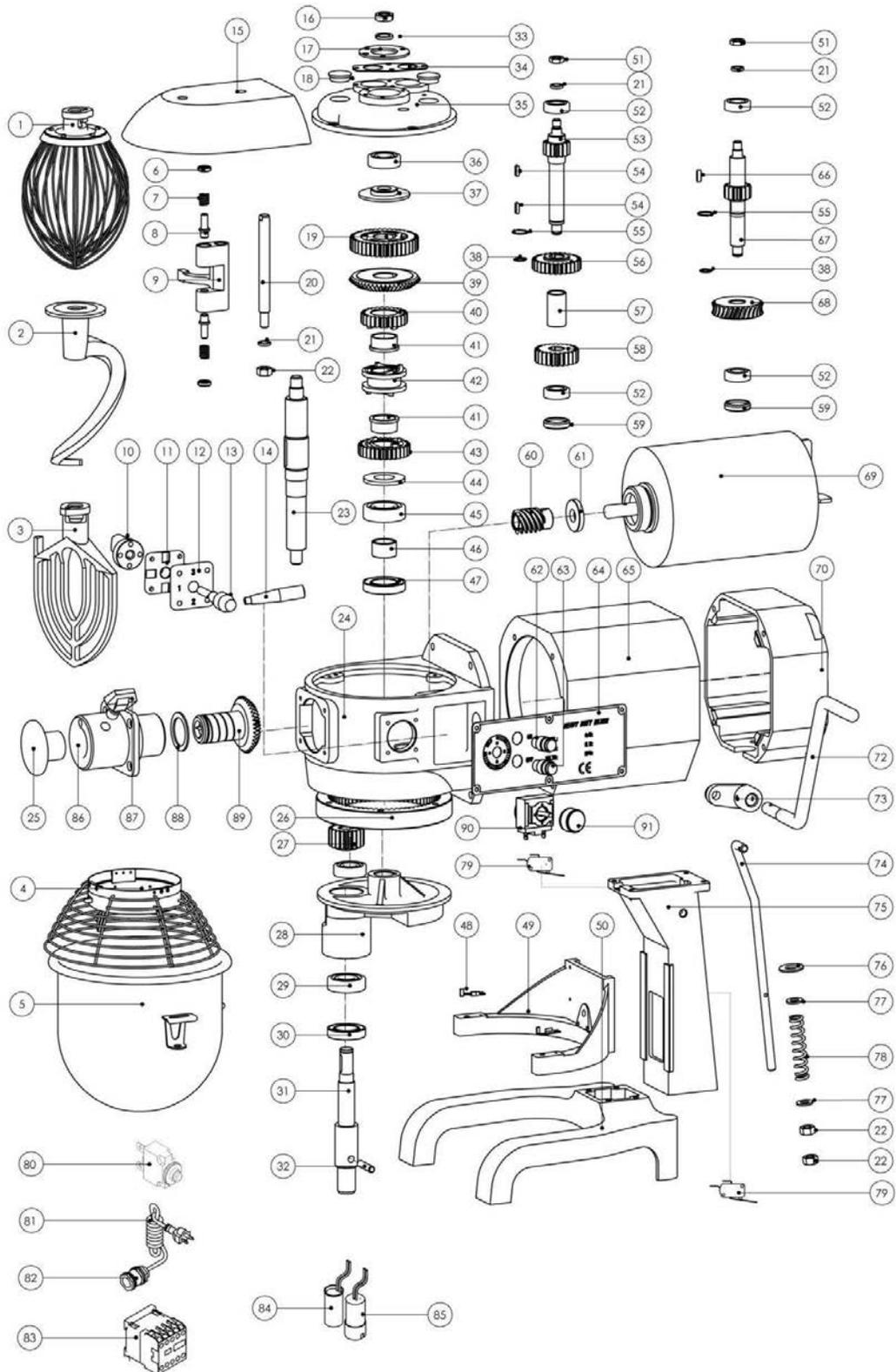
# Parts List for SHLM-10A



## Parts List for SHLM-20B

SER.NO.	PART.NO.	PART NAME	SER.NO.	PART.NO.	PART NAME
1	20-1	Wire whip	47	20-47	Oil seal
2	20-2	Spiral dough hook	48	20-48	Fore lump
3	20-3	Flat Beater	49	20-49	Support
4	20-4	Safety guard	50	20-50	Case
5	20-5	Bowl assembly	51	20-51	Nut
6	30-7	Plunger-shifter yoke	52	20-52	Bearing
7	30-8	Spring	53	20-53	Mid-gear wheel
8	30-9	Pin shaft	54	20-54	Key
9	20-9	Shifting yoke	55	20-55	Circlips for shaft
10	30-11	Cam-gear shifter	56	20-56	Gear
11	30-12	Plate-shifter index	57	20-57	Bushing
12	20-12	Handle-shifter cover	58	20-58	Gear
13	20-13	Handle-shifter	59	20-59	Plug cover
14	20-14	Speed handle	60	20-60	Worm wheel
15	20-15	Gear case gland	61	20-61	Oil seal
16	20-16	Nut	62	30-62	Green button
17	20-17	Pressing plate	63	20-63	Red button
18	30-35	Plug cover	64	20-64	Brand
19	20-19	Super machine parts	65	20-65	Motor box
20	20-20	Declutch shift shaft	66	20-66	Key
21	20-21	Ring	67	20-67	Shaft worm gear
22	20-22	Nut	68	20-68	Gear
23	20-23	Main shaft	69	20-69	110V/60HZ Motor(with tool)
24	20-24	Gear box	70	20-70	Back housing
25	20-25	Plug attachment hub	71	N/A	N/A
26	20-26	Internal gear	72	20-72	Handle-shifter
27	20-27	Gear	73	20-73	Crank lever
28	20-28	Operating shalf	74	20-74	Connecting rod
29	30-36	Bearing	75	20-75	Stud
30	20-30	Oil seal	76	20-76	Clamp plate
31	20-31	Working shaft	77	20-77	Clamp plate
32	20-32	Retainer-pin	78	20-78	Spring
33	20-33	Spring	79	30-92	Distance switch
34	20-34	Pressing plate	80	20-80	Overload switch
35	20-35	Transmission shaft support	81	20-81	Power cord
36	30-53	Bearing	82	20-82	Power supply is waterproof connectors
37	20-37	Spacer-lower		20-83	Contact switch
38	20-38	Circlips for shaft	83	20-84	Capacitor
39	20-39	Ring gasket	84	20-85	Capacitor
40	20-40	Gear	85	20-86	Attachment hub
41	30-40	Bushing	87	20-87	Spring
42	20-42	Sleeve	88	20-88	Circlips
43	20-43	Claw type gear wheel	89	20-89	Gear
44	20-44	Ring	90	20-90	Timer
45	30-26	Bearing	91	20-91	Timer knob
46	20-46	Bushing			

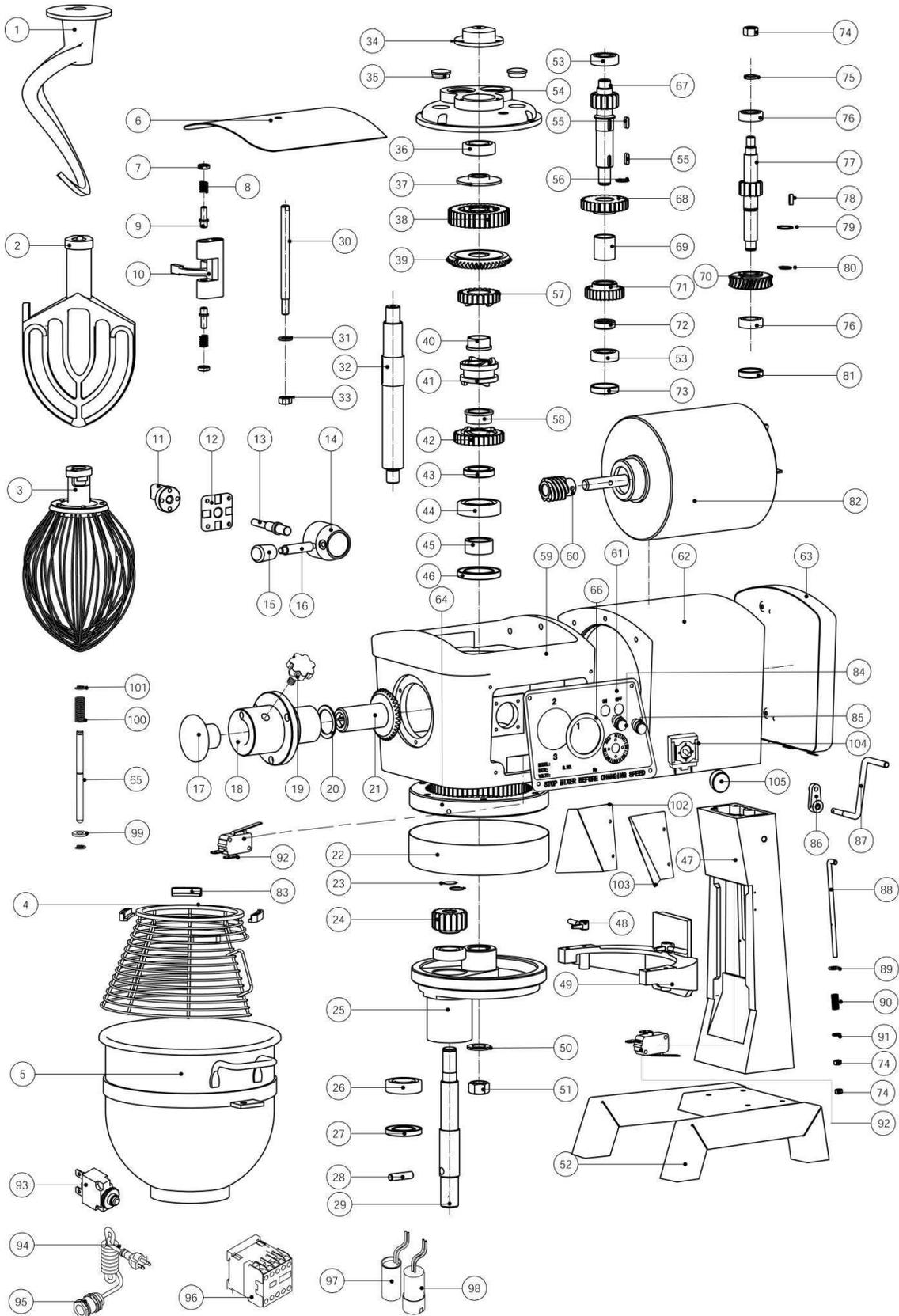
# Parts List for SHLM-20B



# Parts List for SHLM-30B

SER.NO.	PART.NO.	PART NAME	SER.NO.	PART.NO.	PART NAME
1	30-1	Hook	52	30-52	Base
2	30-2	Beater	53	30-53	Bearing
3	30-3	Wire Whip	54	30-54	Transmission shaft support
4	30-4	Safety guard	55	30-55	Key
5	30-5	Bowl	56	30-56	Circlips for shaft
6	30-6	Top cover	57	30-57	Gear
7	30-7	Screw	58	30-58	Bushing
8	30-8	Spring	59	30-59	Front housing
9	30-9	Pin shaft	60	30-60	Worm wheel
10	30-10	Shifting yoke	61	30-61	MARK
11	30-11	Cam-gear shifter	62	30-62	Case
12	30-12	Plate-shifter index	63	30-63	Back cover
13	30-13	Handle-shifter	64	30-64	Internal gear
14	30-14	Handle set	65	30-65	switch axle
15	30-15	Turnset	66	30-66	Seal up ring
16	30-16	Speed handle	67	30-67	Gear shaft
17	30-17	Plug attachment hub	68	30-68	Gear
18	30-18	Attachment hub	69	30-69	Bushing
19	30-19	Spring	70	30-70	Gear
20	30-20	Circlips	71	30-71	Gear
21	30-21	Gear	72	30-72	Plate
22	30-22	Hood ring	73	30-73	Plug 1
23	30-23	Circlips for shaft	74	30-74	Nut
24	30-24	Planet gear	75	30-75	Spring plate
25	30-25	Operating shelf	76	30-76	Bearing
26	30-26	Bearing	77	30-77	Shaft worm gear
27	30-27	Oil seal	78	30-78	Key
28	30-28	Pin	79	30-79	Circlips for shaft
29	30-29	Working shaft	80	30-80	Circlips for shaft
30	30-30	Declutch shift shaft	81	30-81	Plug 2
31	30-31	Plate	82	30-82	110V/60HZ Motor(with tool)
32	30-32	Main shaft	83	30-83	stop block
33	30-33	Nut	84	30-84	Green button
34	30-34	Top batter valve cap	85	30-85	Red button
35	30-35	Flat valve cap	86	30-86	Crank lever
36	30-36	Bearing	87	30-87	Handle-shifter
37	30-37	Spacer-lower	88	30-88	Connecting rod
38	30-38	Super machine parts	89	30-89	Spring
38-1	30-38-1	Super machine parts	90	30-90	Spring plate
38-2	30-38-2	Gear	91	30-91	Clamp plate
38-3	30-38-3	Roller	92	30-92	Distance switch
38-4	30-38-4	Spring	93	93	overload switch
39	30-39	Gear	94	94	Power cord
40	30-40	Bushing	95	95	Power supply is waterproof connectors
41	30-41	Sleeve	96	96	Contact switch
42	30-42	Gear	97	97	Capacitor
43	30-43	Clamp plate	98	98	Capacitor
44	30-44	Bearing	99	99	switch mounting collar
45	30-45	Bushing	100	100	Switch compression spring
46	30-46	Oil seal	101	101	split washer
47	30-47	Body housing	102	102	The left guard
48	30-48	Bowl hold kits	103	103	The right guard
49	30-49	Support	104	104	Timer
50	30-50	Clamp plate	105	105	Timer knob
51	30-51	Nut			

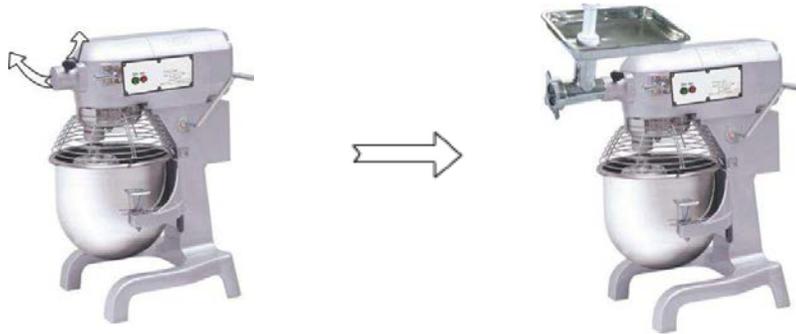
# Parts List for SHLM-30B



## Grinder Attachment

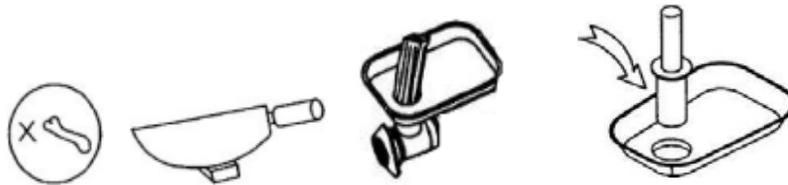
### I . Operations

1. Unplug the mixer and turn the unit off.
2. Detach and clean the meat-grinding components with clear water, then assemble them sequentially. Lock the handle.
3. Take off the cover and locking bolt, and then fit on the meat grinder (attachment hub) to the mixer. Tight up the locking bolt.



**⚠ WHEN UNIT IS ON, THE ROTATING BLADE IS A HAZARD! KEEP FINGERS OUT OF OPENINGS!**

4. Remove all bones. Cut food into pieces small enough to fit the feeding inlet.

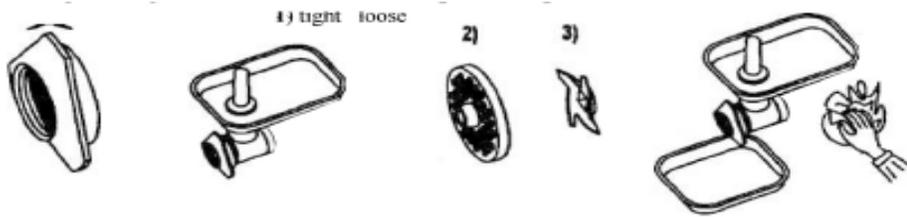


5. Feed the food into the grinding cavity with the feeding rod. Do not replace the rod with other tools.
6. Upon completion, detach and clean the meat-grinding component immediately to prevent bacteria growth.



7. If the grounded product is not smooth or if it is pasty, please check the following

1. The locking of the front nut is not tight enough, resulting in poor contact between the grinding blade and the discharge plate. Readjust the nut.
2. The grinding plate may be blocked. Clean it.
3. The grinding blade may be blunt. Sharpen or replace it.



## II. Maintenance

1. Clean the machine thoroughly after every operation. Wipe the body and clean the attachments in warm, soapy water.
2. Oil the gear cavity on a regular basis. Lubricate the gear and shaft bearing every half a year.
3. Protect the grinding blade from damage. If necessary, sharpen or replace it.

**⚠ DO NOT IMMERSE MACHINE INTO WATER!**

To help prevent possible harm to human health and/or the environment, the product must be disposed of in an approved and environmentally safe recycling process. For further information on how to dispose of this product correctly, contact the product supplier, or the local authority responsible for waste disposal in your area.



Parts have undergone strict product testing in order to comply with regulatory standards and specifications set by international, independent, and federal authorities

## Certifications



## Warranty

The Sentinel SHLM-10A, SHLM-20B & SHLM-30B carries a 1-year parts & labor warranty against manufacturer's defects. This period begins on the date of purchase by the end user. The limited liability warranty will remain in full effect provided the product is used in accordance with the instructions for use.

Warranty work must be performed by an authorized agent under normal business hours. Sentinel is not responsible nor will they cover overtime charges. The warranty is not transferrable. Damages from transit/installation error, alteration or misuse are not covered.

Sentinel is not liable for any consequential, compensatory, incidental or special damages.  
1-800-235-3325