



# 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.

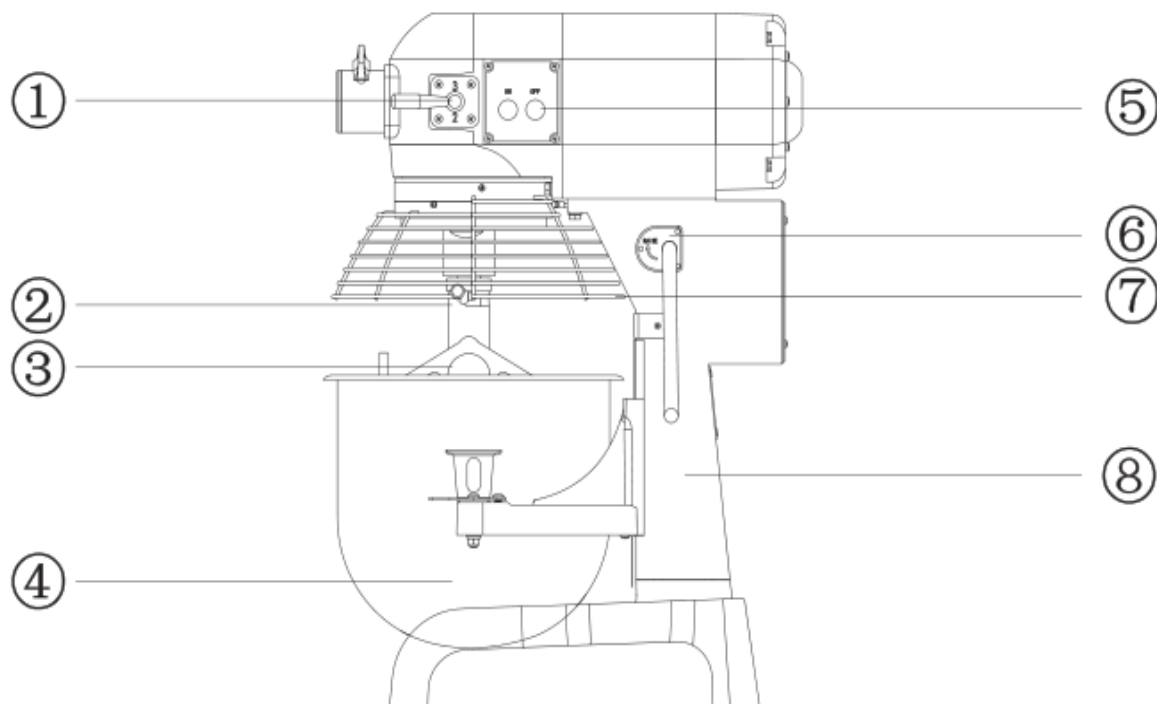
Planetary mixers are an excellent choice for general purpose kitchens, bakeries and pizzerias.

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!

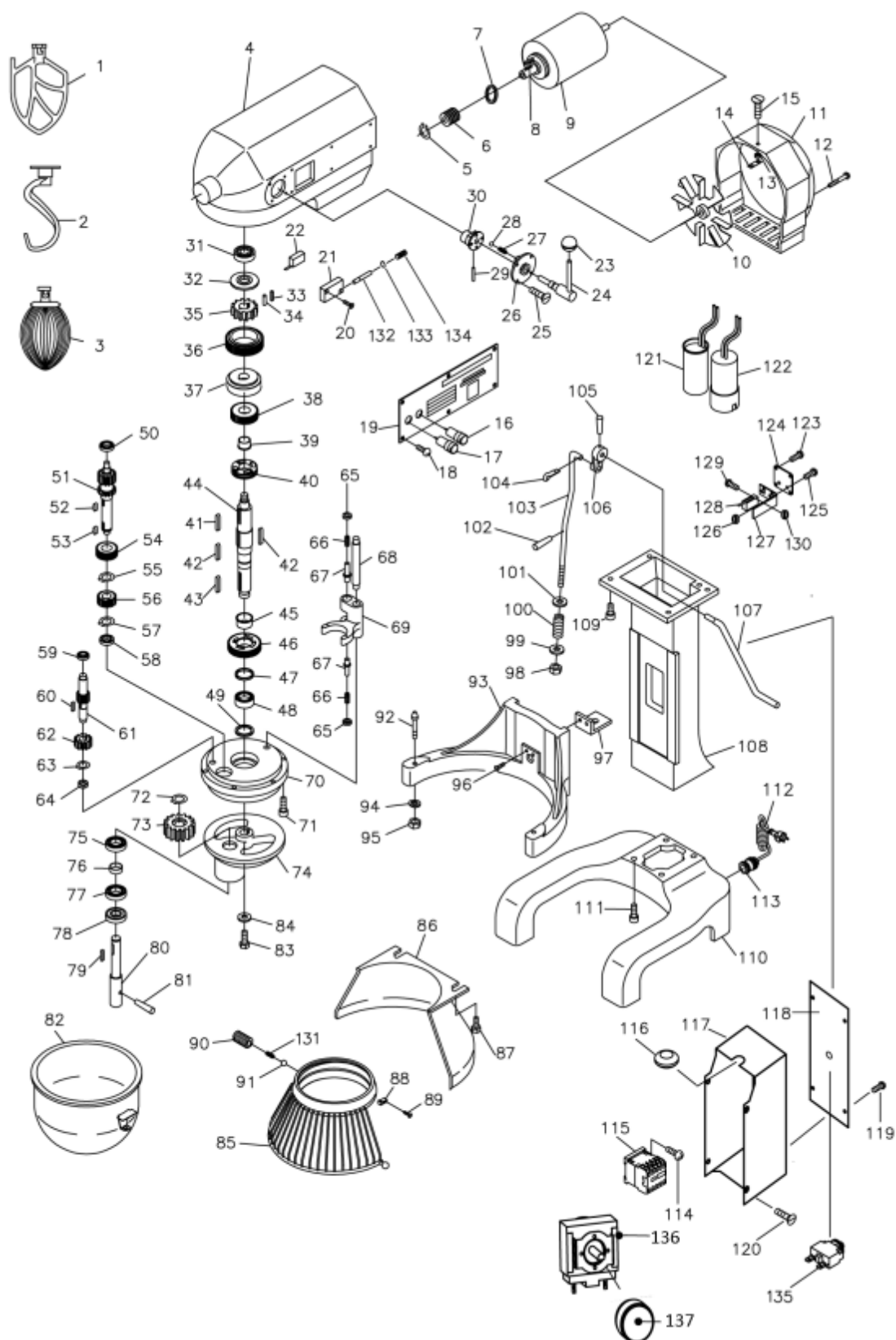
- If the equipment is not functioning properly, it should be serviced by an authorized service agent only.
- Persons under 18 years of age are not permitted to operate
- Read all instructions and safety warnings prior to operating
- Keep hands and fingers away from the bowl while in operation
- Do not 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                   |         |          |  |

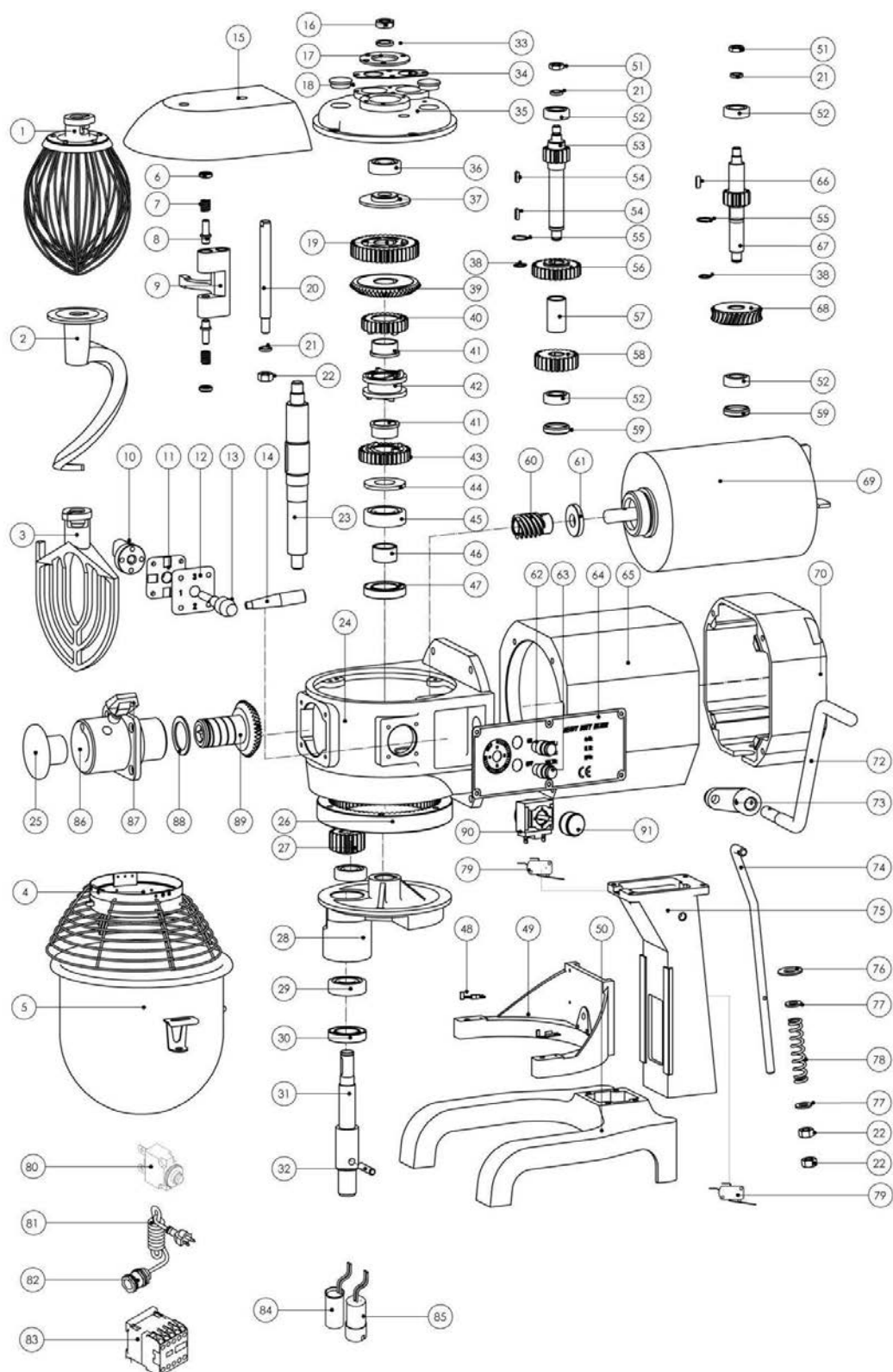
## Parts List for SHLM-10A



## 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                    |         |          |                                       |

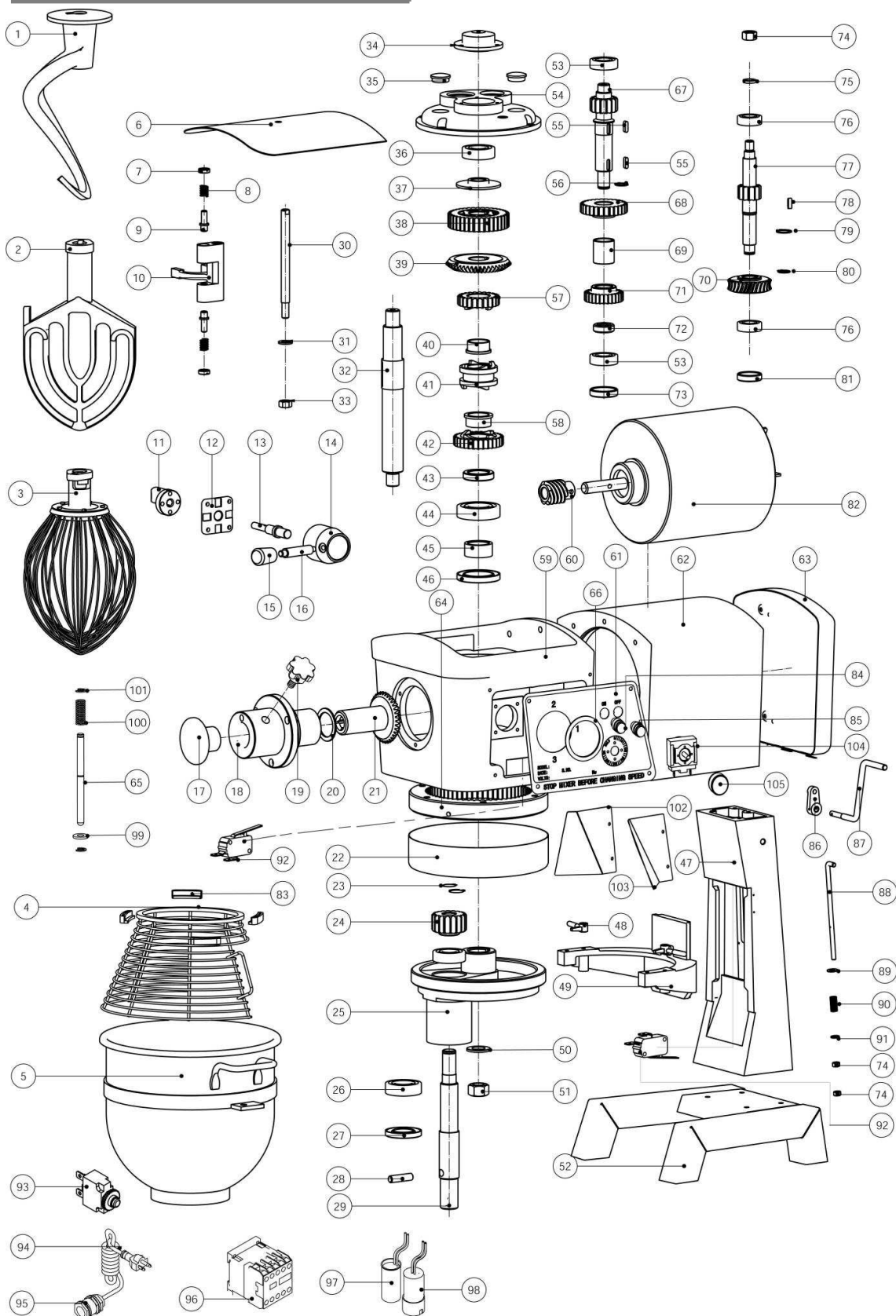
## Parts List for SHLM-20B



## 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      |          | 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                  |         |          |                                       |

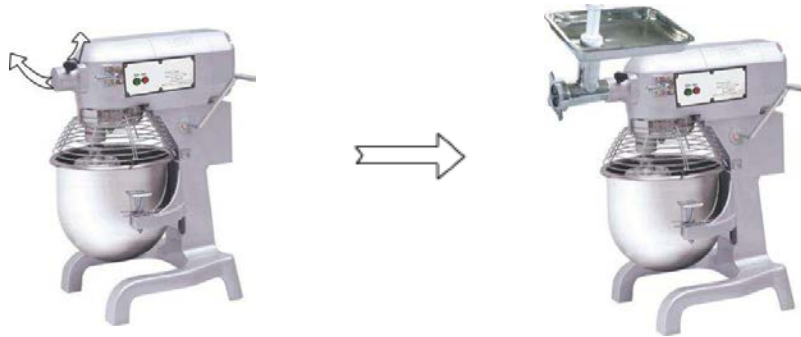
# Parts List for SHLM-30B



## 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.

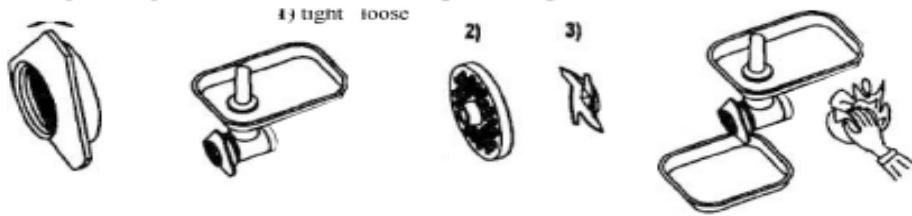


5. Feed the food into the grinding cavity with the feeding rod. Do not replace the rod with other tools.
6. Upon completion, detach and clean the meat-grinding component immediately to prevent bacteria growth.



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