



## COMMERCIAL MIXERS



MODEL: GEM110, GEM120, GEM130

# INSTRUCTION MANUAL

**THE LEGACY COMPANIES** 

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**PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE USING YOUR MIXER**

## 1. General Description

This is a kind of three-speed gear mixer. With its planetary stirring design, it has a compact structure, high efficiency, power saving and easy operation. It will be provided to you as an ideal assistant for bread and cake making.

## 2. Technical parameters

Name	Barrel Volume (L)	Power (KW)	Weight (Kg)	Speed Of Stirring Shaft -110V(r/min)			Overall Dimensions (mm)
				1 <sup>st</sup> Speed	2 <sup>nd</sup> Speed	3 <sup>rd</sup> Speed	
GEM110	10	0.5	40	115	254	420	460 × 370 × 620

## 3. Main External Parts of Mixer



## 4. Operation Instruction

- ① Standard power supply 110V/60Hz AC.(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.

Starting procedure: Pull the gear change hand lever 1 to position 1 before starting, Safe hood is in closed state. Then turn on the power switch 5, after the mixer is in normal operation ,set the speed required.

Speed transformation: If you want to change the speed, please pull the bent lever 6 to the lowest point ,after pull the gear change hand lever 1 to the position required, then pull the bent lever 6 to the highest point and lift the support 7 to the highest position. The machine can be in normal operation at this time.

Installation procedures for meat Mincer head : stop operation first ,loose stud bolt and lift the top cover of its head. Then put on the mincer and tighten the stud bolt.1<sup>st</sup> speed should be used for mincing meat.

Shutting down: When the operation is completed, turn off the power switch 5 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.

## **5. Accessories and Functions**

Spherical mixer: Used for stirring of liquid materials, such as cream and egg.

Plate mixer: Used for stirring of paste, powder, and fragmental materials, such as stuffing.

Hook mixer: Used for stirring of more sticky materials, such as dough .

## **6. Notes**

The power socket must be provided with a good ground wire to guarantee the mixer's good grounding through it. There will be a electric shock if no ground wire or an improper grounding mounted. The ground wire can never be connected with gas pipe, water pipe, lightning rod or telephone line. Electric leakage should be checked after installation.

Don't put your hand into the stirring barrel during operation. Power supply should be disconnected before the mixer is going to be installed.

Don't operate the mixer beyond the time limit to prevent reduction of its service life.

The mixer should be mounted on a stable and clean place. Keep it away from overheated or overwet places and away from equipment which has strong electromagnet or can produce strong electromagnet.

Keep the machine clean constantly. Disconnect power supply before

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maintenance. Clean it with a piece of soft and a bit wet cloth. Don't clean it with liquid or spraying detergent

**\*\*\* Warning: Do not use medium or high speed for kneading dough.**

## 7. Maintenances

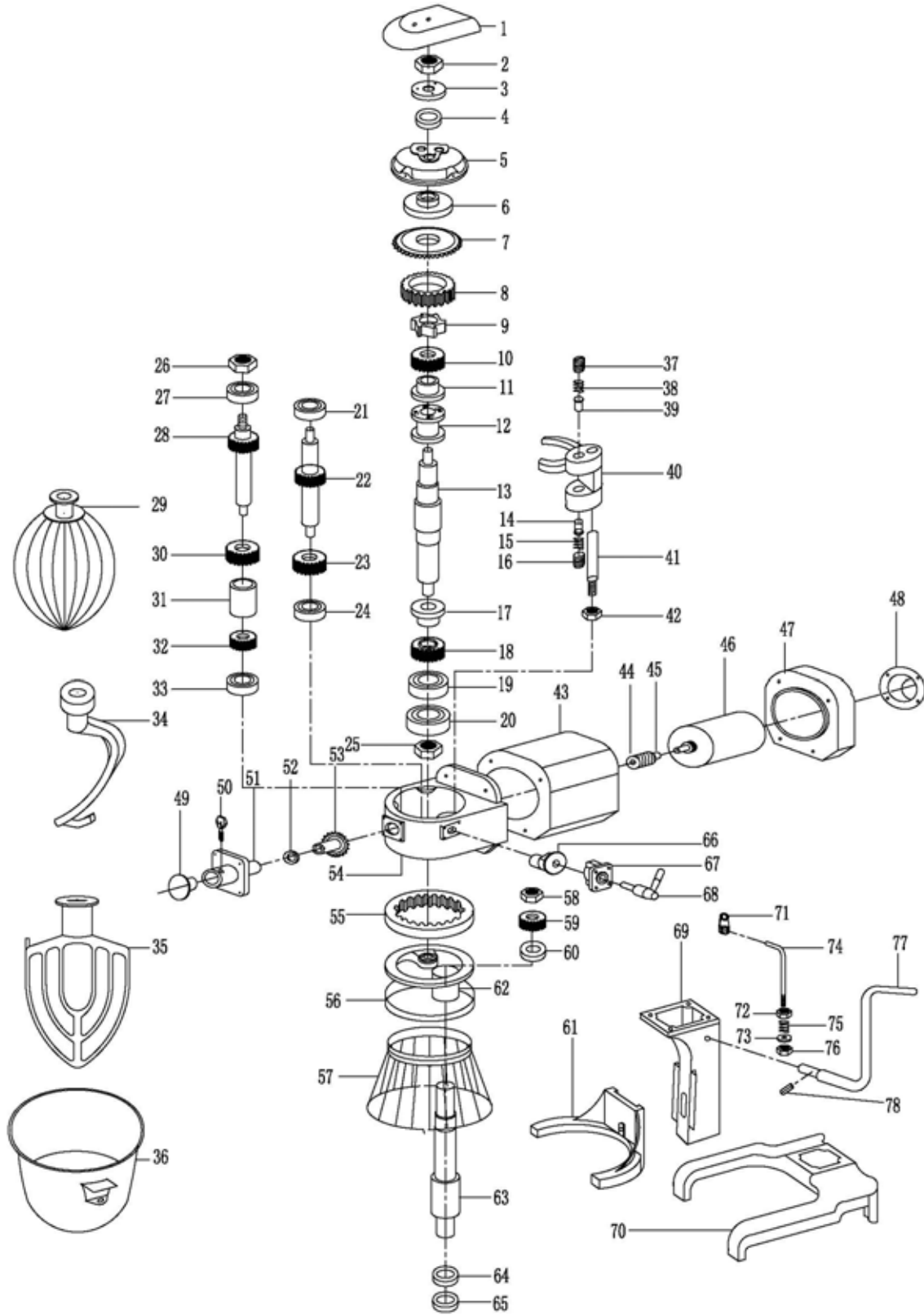
- a. After using, you should clean the bowl and agitator ect, make sure to keep the machine clean.
- b. The transmission gear box is packed with special grease, it could be used for six mouths in normal condition. If it need to add or replace the grease, please open the top cover ,then pour the grease from aperture or replace the grease directly.

## 8. Problems and Solutions

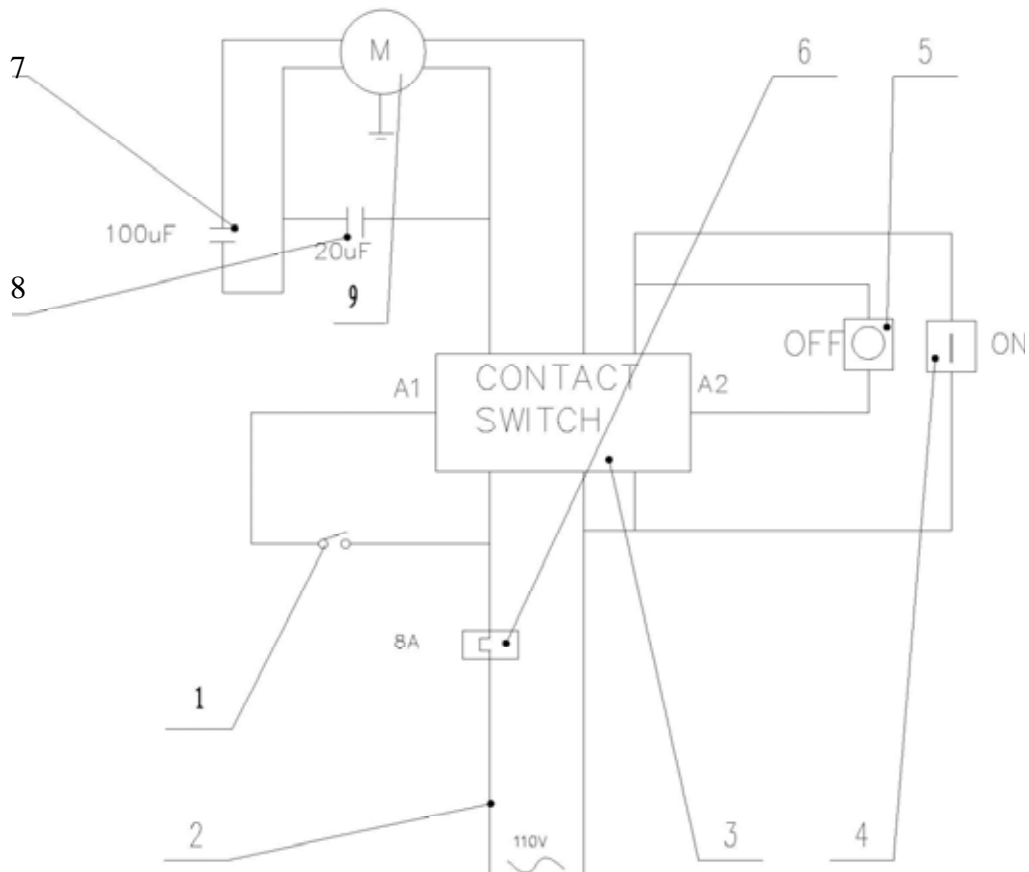
Problems	Causes	Solutions
The mixing shaft doesn't rotate after starting the machine	Electric connectors are loose	Check the electric circuit, tighten those loose connects
Oil leakage	The oil seals are worn out	Replace those oil seals
The temperature of the motor becomes higher and the rotating speed becomes lower	Too low voltage	Check the power supply
	Over-load	Lessen the quantity of the mixture
	The speed of mixing is too high or the mixing is not suitable	Select a suitable speed and mixing
The mixing knocks with the bowl	The mixing or the bowl is deformed	repair or replace the mixing or bowl
The noise of the gearbox is serious, its temperature is too high	Lubrication is insufficient	Add or replace the grease

## 9. Exploded assembly Drawing

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## 10. Electrical Diagram



SER.NO.	PART.NO.	PART NAME
1	SM10-DQ-01	Distance switch
2	SM10-DQ-02	Power cord
3	SM10-DQ-03	Contact switch
4	SM10-DQ-04	Green button
5	SM10-DQ-05	Red Button
6	SM10-DQ-06	Overload switch
7	SM10-DQ-07	Capacitor100uf
8	SM10-DQ-08	Capacitor 20 uf
9	SM10-DQ-09	motor

## 11. List of Part Number

## SM-10 Mixer Spare Parts List

SER.NO.	PART.NO.	PART NAME	Remark	SER.N O.	PART.NO.	PART NAME	Remark
1	SM10-01-06	Top cover		44	SM10-01-19	Worm wheel	
2	GB6171-M14x1.5	Nut		45	GB879-6x30	Pin	
3	GB9385-14	Clamp plate		46	SM10-DQ-09	Motor	
4	6003	Bearing		47	SM10-01-01	Back housing	
5	SM10-01-07	Transmission shaft support		48	SM20-01-01	Back Cover	
6	SM10-01-05-01	Spacer-lower		49	SM10-01-25	Plug	
7	SM10-01-05-03	Taper gear wheel		50	SM20-01-38	Locking bolt	
8	SM10-01-05-02	Tooth gear		51	SM10-01-11	Attachment hub	
9	SM10-01-05-11	Gear		52	SM10-01-08	Ring	
10	SM10-01-05-04	Gear		53	SM10-01-09	Taper gear wheel 2	
11	SM10-01-05-06	Bushing		54	SM10-01-13	Front Housing	
12	SM10-01-05-05	Sleeve		55	SM10-01-14	Internal gear	
13	SM10-01-05-09	Main shaft		56	SM15-02-15	Hood ring	
14	SM10-01-18-03	Plunger-sgifter yoke		57	SM15-03-00	Safety guard	
15	SM10-01-18-04	Spring		58	GB894.1-15	Circlips for shaft	
16	SM10-01-18-02	Retainer-spring		59	SM10-01-15-03	Gear	
17	SM10-01-05-06	Bushing		60	6202	Bearing	
18	SM10-01-05-07	Gear		61	SM10-04-03	Support	
19	6204	Bearing		62	SM10-01-15-02	Operating shelf	
20	HG692-25x47x7	Oil seal		63	SM10-01-15-01	Working shaft	
21	6001	Bearing		64	6203	Bearing	
22	SM10-01-03-01	Shaft worm gear		65	HG692-20x40x7	Oil seal	
23	SM10-01-03-02	Gear		66	SM10-01-16-01	Cam-gear shifter	
24	6001	Bearing		67	SM10-01-16-02	Plate-shifter index	
25	GB6171-M14x1.5	Nut		68	SM10-01-16-06	Handle-shifter	
26	GB6171-M10x1	Nut		69	SM10-04-01	Stud	
27	6001	Bearing		70	SM10-04-04	Base	
28	SM10-01-04-01	Gear shaft		71	SM10-04-12	Crank lever	
29	SM10-06-03-00	Wire whip		72	GB848-14	Ring	
30	SM10-01-04-02	Gear		73	GB848-10	Ring	
31	SM10-01-04-05	Bushing		74	SM10-04-10	Connecting rod	
32	SM10-01-04-03	Gear		75	SM10-04-08	Spring	
33	6001	Bearing		76	GB6170-M10	Nut	
34	SM10-06-02	Spiral dough hook		77	SM10-04-13	Lift handle	
35	SM10-06-01	Flat Beater		78	GB879-5x30	Pin	
36	SM10-05-00	Bowl assembly		79	SM10-03-02-00Z	Bowl hold kits	
37	SM10-01-18-03	Plunger-shifter yoke		80	SM10-03-02-00Y	Bowl hold kits	
38	SM10-01-18-04	Spring		101	SM10-DQ-01	Distance switch	
39	SM10-01-18-02	Retainer-spring		102	SM10-DQ-02	Power cord	
40	SM10-01-18-01	Shifting yoke		103	SM10-DQ-03	Contact switch	
41	SM10-01-17	Declutch shift shaft		104	SM10-DQ-04	Green button	
42	GB6170-M8	Nut		105	SM10-DQ-05	Red Button	
43	SM10-01-02	Case		106	SM10-DQ-06	Overload switch	
				107	SM10-DQ-07	Capacitor 100uf	
				108	SM10-DQ-08	Capacitor 20 uf	

## **1. General Description**

This is a kind of three-speed gear mixer. With its planetary stirring design, it has a compact structure, high efficiency, power saving and easy operation. It will be provided to you as an ideal assistant for bread and cake making.

## **2. Technical Parameters**

Name	Barrel Volume (L)	Power (KW)	Weight (Kg)	Speed Of Stirring Shaft -110V(r/min)			Overall Dimensions (mm)
				1 <sup>st</sup> Speed	2 <sup>nd</sup> Speed	3 <sup>rd</sup> Speed	
GEM120	20	1.1	85	120	282	404	555 × 505 × 764

## **Main External Parts of Mixer**



## **4. Operation Instruction**

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- ① Standard power supply 110V/60Hz AC.(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 procedure: Pull the gear change hand lever 1 to position 1 before starting, Safe hood is in closed state. Then turn on the power switch 5, after the mixer is in normal operation, set the speed required.
- ④ Speed transformation: If you want to change the speed, please pull the bent lever 6 to the lowest point ,after pull the gear change hand lever 1 to the position required, then pull the bent lever 6 to the highest point and lift the support 7 to the highest position. The machine can be in normal operation at this time.
- ⑤ Installation procedures for meat Mincer head: stop operation first ,loose stud bolt and lift the top cover of its head. Then put on the mincer and tighten the stud bolt.1<sup>st</sup> speed should be used for mincing meat.
- ⑥ Shutting down: When the operation is completed, turn off the power switch 5 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.

## **5. Accessories and Functions**

- ① Spherical mixer: Used for stirring of liquid materials, such as cream and egg.
  - ② Plate mixer: Used for stirring of paste, powder, and fragmental materials,
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such as stuffing.

③ Hook mixer: Used for stirring of more sticky materials, such as dough .

## **6. Notes**

① The power socket must be provided with a good ground wire to guarantee the mixer's good grounding through it. There will be a electric shock if no ground wire or an improper grounding mounted. The ground wire can never be connected with gas pipe, water pipe, lightning rod or telephone line. Electric leakage should be checked after installation.

② Don't put your hand into the stirring barrel during operation. Power supply should be disconnected before the mixer is going to be installed.

③ Don't operate the mixer beyond the time limit to prevent reduction of its service life.

④ The mixer should be mounted on a stable and clean place. Keep it away from overheated or over wet places and away from equipment which has strong electromagnet or can produce strong electromagnet.

⑤ Keep the machine clean constantly. Disconnect power supply before maintenance. Clean it with a piece of soft and a bit wet cloth. Don't clean it with liquid or spraying detergent.

**\*\*\* Warning:** Do not use medium or high speed for kneading dough.

## **7. Maintenance**

a. After using, you should clean the bowl and agitator ect, make sure to keep the

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machine clean.

- b. The transmission gear box is packed with special grease, it could be used for six mouths in normal condition. If it need to add or replace the grease, please open the top cover , then pour the grease from aperture or replace the grease directly.

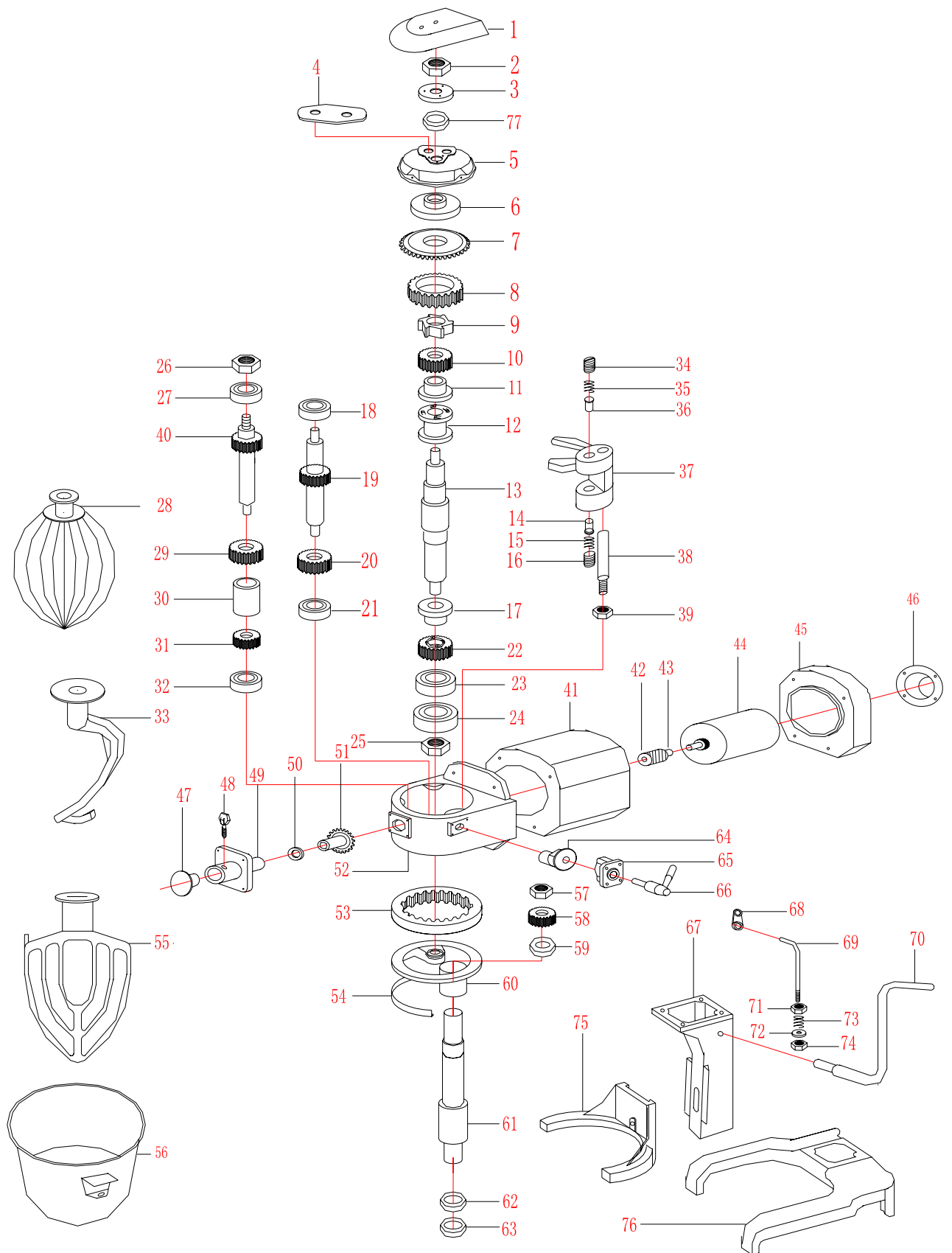
8、 Problems and solutions

Problems	Causes	Solutions
The mixing shaft doesn't rotate after starting the machine	Electric connectors are loose	Check the electric circuit, tighten those loose connects
Oil leakage	The oil seals are worn out	Replace those oil seals
The temperature of the motor becomes higher and the rotating speed becomes lower	Too low voltage	Check the power supply
	Over-load	Lessen the quantity of the mixture
	The speed of mixing is too high or the mixing is not suitable	Select a suitable speed and mixing
The mixing knocks with the bowl	The mixing or the bowl is deformed	repair or replace the mixing or bowl
The noise of the gearbox is serious, its temperature is too high	Lubrication is insufficient	Add or replace the grease

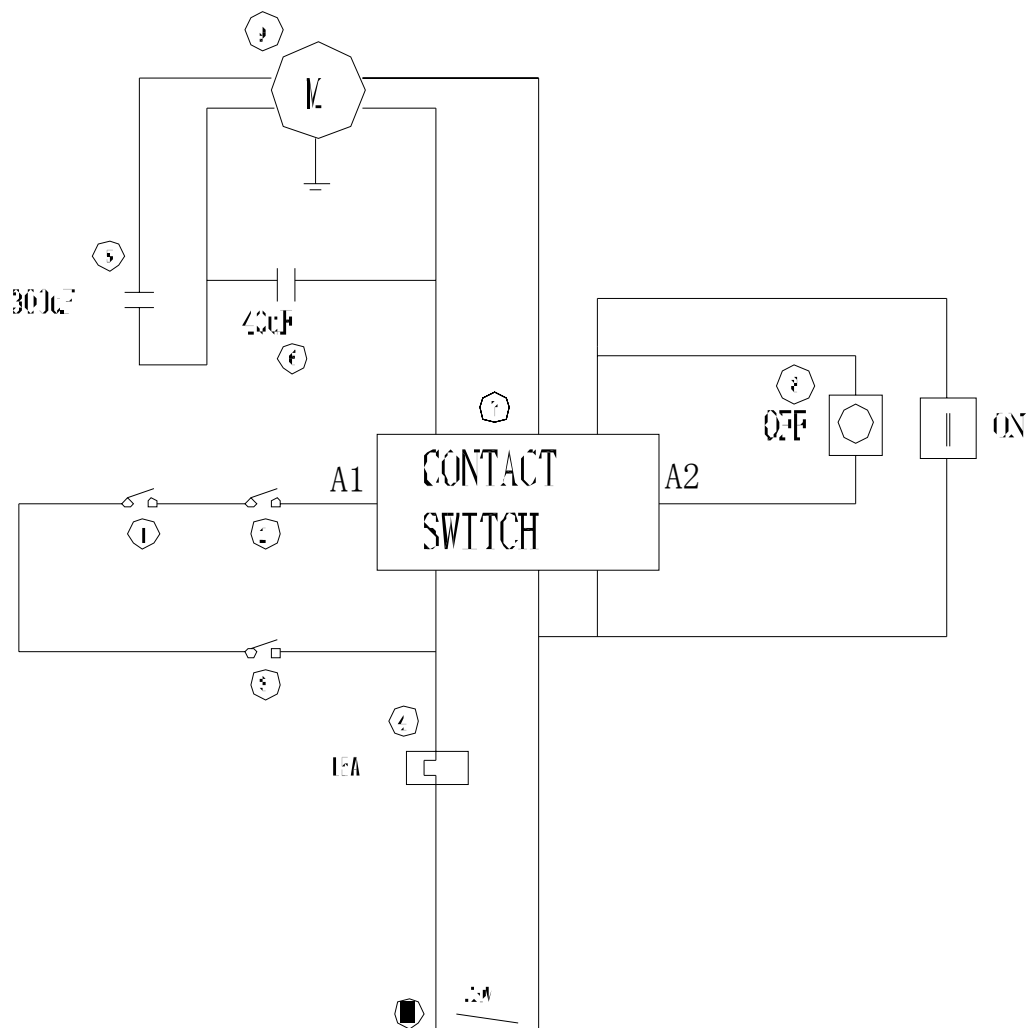
9. exploded assembly drawing

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# GEM120 Mixer Operation Instruction



10. Electrical Diagram



1. DISTANCE SWITCH
2. DISTANCE SWITCH
3. DISTANCE SWITCH
4. OVER LOADING SWITCH
5. CAPACITANCE
6. CAPACITANCE
7. CONTACT SWITCH
8. RED AND GREEN SWITCH
9. MOTOR
10. PLUG LINE

## 11. List of Part Numbers

### GEM120 Planetary Mixer Spare Parts List

#	PART #	DESCRIPTION	REMARK	#	Part #	DESCRIPTION	REMARK
1	SM20-01-19	COVER		42	SM20-01-06	WORM WHEEL	
2	GB54	NUT		43	GB119	SPRING	
3	GB97.1	CLAMP PLATE		44	SM20-DQ-09	MOTOR	
4	SM20-01-15	Pressing plate		45	SM20-01-02	BACK CASING	
5	SM20-01-07	TRANSMISSION SUPPORT		46	SM20-01-01	BACK COVER	
6	SM20-01-14	SPACER-LOWER		47	SM20-01-25	PLUG ATTACHMENT HUB	
7	SM20-01-13	Taper gear wheel 1		48	SM20-01-38	PLUG	
8	SM20-01-18 -01	tooth GEAR		49	SM20-01-24	ATTACHMENT HUB	
9	SM20-01-18 -02	GEAR		50	SM20-01-26	RING	
10	SM20-01-20	GEAR		51	SM20-01-23	PINION	
11	SM20-01-21	BUSHING		52	SM20-01-30	GEAR BOX	
12	SM20-01-22	SLEEVE		53	SM20-01-32	INTERNAL GEAR	
13	SM20-01-16	MAIN SHAFT		54	SM20-01-34	DRIP RING	
14	SM20-01-44	PLUNGER-SHIFTER YOKE		55	SM20-06-01	BEATER	
15	SM20-01-43	SPRING		56	SM20-04-00	BOWL	
16	SM20-01-42	RETAINER-SPRING		57	GB591.1	WASHER	
17	SM20-01-21	BUSHING		58	SM20-01-33	GEAR	
18	201	BEARING		59	203	BEARING	
19	SM20-01-09	SHAFT WORM GEAR		60	SM20-01-35	PLANETARY	
20	SM20-01-08	GEAR		61	SM20-01-36	WORKING SHAFT	
21	201	BEARING		62	204	BUSHING	
22	SM20-01-27	Claw type gear wheel		63	HG4-692	OIL SEAL	
23	205	BEARING		64	SM20-01-39- 01	CAM-GEAR SHIFTER	
24	HG-692	OIL SEAL		65	SM20-01-39- 02	PLATE-SHIFTER INDEX	
25	GB54	NUT		66	SM20-01-39- 04	HANDLE-SHIFTER	
26	GB54	NUT		67	SM20-05-01	PEDESTAL	
27	201	BEARING		68	SM20-05-12	ARM-BOWL LIFT	
28	SM20-06-02	Wire Whip		69	SM20-05-11	ROD-BOWL LIFT	
29	SM20-01-11	GEAR		70	SM20-05-13	LIFT HANDLE	
30	SM20-01-05	BUSHING		71	GB97.1	SPRING	
31	SM20-01-04	GEAR		72	GB97.1	WASHER	
32	201	BEARING		73	SM20-05-10	WASHER	

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## GEM120 Mixer Operation Instruction

33	SM20-06-03	HOOK		74	GB6171	RING	
34	SM20-01-44	PLUNGER-SHIFTER YOKE		75	SM20-05-05	BOWL SUPPORT	
35	SM20-01-43	SPRING		76	SM20-05-06	BASE	
36	SM20-01-42	RETAINER-SPRING		77	203	BEARING	
37	SM20-01-41	SHIFTING YOKE		78	SM20-03-00	SAFETY GUARD	
38	SM20-01-40	DECLUTCH SHIFT SHAFT		79	SM20-3-05-07Z	Bowl locker, left	
39	GB6171	NUT		80	SM20-3-05-07Z Y	Bowl locker, right	
40	SM20-01-12	GEAR SHAFT		81		Back cover, electrical	
41	SM20-01-03	CASE					
			electrical	101(1\2\3)	SM20-DQ-01	Distance switch	
				102(10)	SM20-DQ-02	Power cord	
				103(7)	SM20-DQ-03	Contact switch	
				104(8)	SM20-DQ-04	Green button	
				105(8)	SM20-DQ-05	Red button	
				106(4)	SM20-DQ-06	Overload switch	
				107(5)	SM20-DQ-07	Capacitor 300uf	
				108(6)	SM20-DQ-08	Capacitor 40 uf	

# GEM 130 Food Mixer Operation Instruction

## General Description

This is a kind of changing speed gear mixer. With its planetary stirring design, it has a compact structure, high efficiency, power saving and easy operation. It will be provided to you as an ideal assistant for bread and cake making.

## Technical parameters

Name	Barrel Volume (L)	Power (KW)	Weight (Kg)	Speed of stirring shaft (r/min)			Overall Dimensions(mm)
				1st speed	2nd speed	3rd speed	
GEM 110	10	0.5	40	115	254	420	460×370×620
GEM 120	20	1.1	85	120	282	404	555×505×764
GEM 130	30	1.5	170	118	214	364	617×584×1136

## Main External Parts of Mixer



- ① Gear change hand lever
- ② Stirring shaft
- ③ Mixer
- ④ Stainless bowl
- ⑤ Power switch
- ⑥ Bent lever
- ⑦ Support



## Operation Instruction for the GEM130

Standard power supply 110V 60Hz AC. (Please use a plug with 3 wide contacts and good grounding.)

Installation of Mixer: Put the stirring shaft 2 in Mixer 3 and rotate it in clockwise direction.

Starting procedure: 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.

Speed transformation: if you want to change the speed, please turn off the power switch 5 first, and then pull the gear change hand lever 1 to the position required.

Shutting down: when the operation is completed, turn off the power switch 5 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

- ⊖ Spherical mixer: Used for stirring of liquid materials, such as cream and egg. Recommended speed: mid or high speed.
- ⊖ Plate mixer: Used for stirring of paste, powder, and fragmental materials, such as stuffing, cake dough. Recommended speed: Start with low speed, end with mid speed.
- ⊕ Hook mixer: Used for stirring of more sticky materials, such as dough. Recommended speed: low speed.

## Notes

- ⊖ The power socket must be provided with a good ground wire to guarantee the mixer's good grounding through it. There will be an electric shock if no ground wire or an improper grounding is mounted. The ground wire can never be connected with gas pipe, water pipe, lightning rod or telephone line. Electric leakage should be checked after installation. Once the power line is damaged, the user must replace them in the special maintenance Service Company.
- ⊖ Don't put your hand into the stirring barrel during operation. Power supply should be disconnected before the mixer is going to be installed.
- ⊕ Don't operate the mixer beyond the time limit to prevent reduction of its service life.
- ④ The mixer should be mounted on a stable and clean place. Keep it away from overheated or over wet places and away from equipment which has a strong electromagnet or can produce a strong electromagnet.
- ⊖ Keep the machine clean constantly. Disconnect power supply before maintenance. Clean it with a piece of soft and a bit wet cloth. Don't clean it with liquid or spraying detergent.

## Maintenance

Clean the bowl and stirrer daily or after use to maintain hygiene standard. Clean the mixer with wet soft cloth. Do not use liquid or corrosive spraying detergent to clean the mixer.

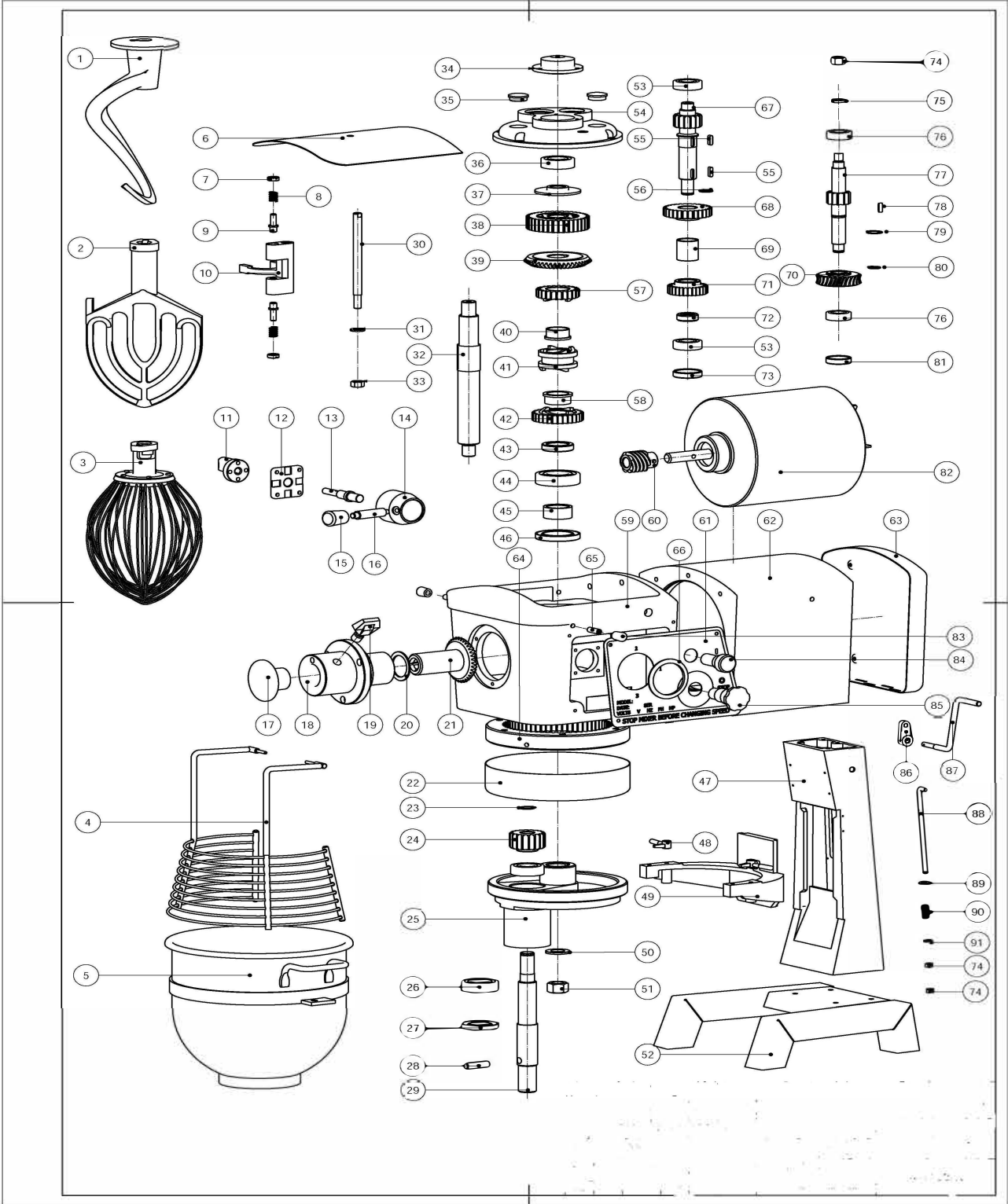
The transmission gear box is greased in factory. Check the greasing each 6 months. To add or refill grease, open the top cover, then fill grease from aperture or replace the grease directly.

## TROUBLE SHOOTING

Problems	Causes	Solutions
Tool shaft does not rotate after starting the machine	Loosen electric wiring	Check electric wiring tighten those loose connects
Oil leakage	The seal rings are worn out	Replace seal rings
Motor temperature raises while reduced output speed	Too low voltage	Check the power supply
	Over-loaded	Reduce load
	The speed of mixing is too high or use a wrong stirrer	Select a suitable speed and stirrer
The mixing knocks with the bowl	The stirrer or bowl is deformed	Repair or replace the stirrer or bow
Abnormal noise and high temperature from gearbox	Insufficient lubrication	Add or replace the grease

## Warning!

If the equipments out of function, please make sure be serviced by professional person of please turn to special service point!



## PARTS OF GEM130 L MIXERS

SER.NO.	PART.NO	PART NAME	SER.NO	PART.NO	PART NAME
1	40705900	Hook	47	40704000	Body housing
2	40705800	Beater	48	40704200	Bowl hold kits
3	40706000	Wire Whip	49	40705100	Support
4	40708200	Safety guard	50	50307009	Clamp plate 18
5	50401008	Bowl	51	50304012	Nut M8*1.5
6	40707300	Top cover	52	50405038	Base
7	50405064	Screw	53	50301005	Bearing 6203
8	50406021	Spring	54	40700500	Transmission shaft support
9	50405029	Pin shaft	55	50313016	Key 5*16
10	40703400	Shifting yoke	56	50312005	Circlips for shaft 17
11	40502900	Cam-gear shifter	57	40701700	Gear
12	40503100	Plate-shifter index	58	50405042	Bushing
13	40700200	Handle-shifter	59	40701400	Gear box
14	40700300	Handle set	60	50405025	Worm pole
15	50405044	Turn set M6	61	50402037	Brand
16	40700100	Speed handle	62	40700400	Motor
17	50405015	Plug attachment hub	63	50405037	Back housing
18	40701900	Attachment hub	64	40702400	Internal gear
19	50405065	Spring	65	50305075	Tighten yoke M8x25
20	50405026	Circlips	66	50405049	Crank lever
21	40701800	Gear	67	40700900	Handle-shifter
22	50405033	Hood ring	68	40700800	Gear
23	50312007	Circlips for shaft 19	69	40703200	Bushing
24	40702600	Planet gear	70	40700700	Worm wheel
25	40702700	Operating shelf	71	40702900	Mid-gear wheel gear
26	50301007	Bearing 6205	72	40703100	Washer

27	50310009	Oil seal	73	40703000	Plug cover 1
28	50306036	Pin 10*38	74	50304007	Nut M12
29	40702800	Working shaft	75	50308007	Spring washer 12
30	40703600	Declutch shift shaft	76	50301004	Bearing 6202
31	50307006	Plate 10	77	40700600	Gear wheel
32	40701300	Main shaft	78	50313016	Key 5x15
33	50304006	Nut M10	79	50312008	Circlips for shaft 20
34	40701100	Top batter valve cap	80	50312003	Circlips for shaft 15
35	50405032	Flat valve cap	81	40703300	Plug cover 2
36	50301006	Bearing 6204	82	50501031	Motor
37	40701200	Main shaft plug cover	83	50405050	Rubber set
38	40701500	Super machine parts	84	50506026	Green button
39	40701000	Gear	85	50506030	Red button
40	50405041	Bushing	86	40705500	Crank lever
41	40702000	Sleeve	87	40705700	Handle-shifter
42	40702100	Gear	88	40705300	Connecting rod
43	40702200	Clamp plate	89	50307008	Clamp plate 14
44	50301008	Bearing 6206	90	50406022	Spring
45	40702300	Bushing	91	50307007	Clamp plate 12
46	50310015	Oil seal 40*62*8			



**FOR SERVICE CALL**  
**1 877 368 2797**

24 HOURS, 7 DAYS A WEEK  
U.S. AND CANADA