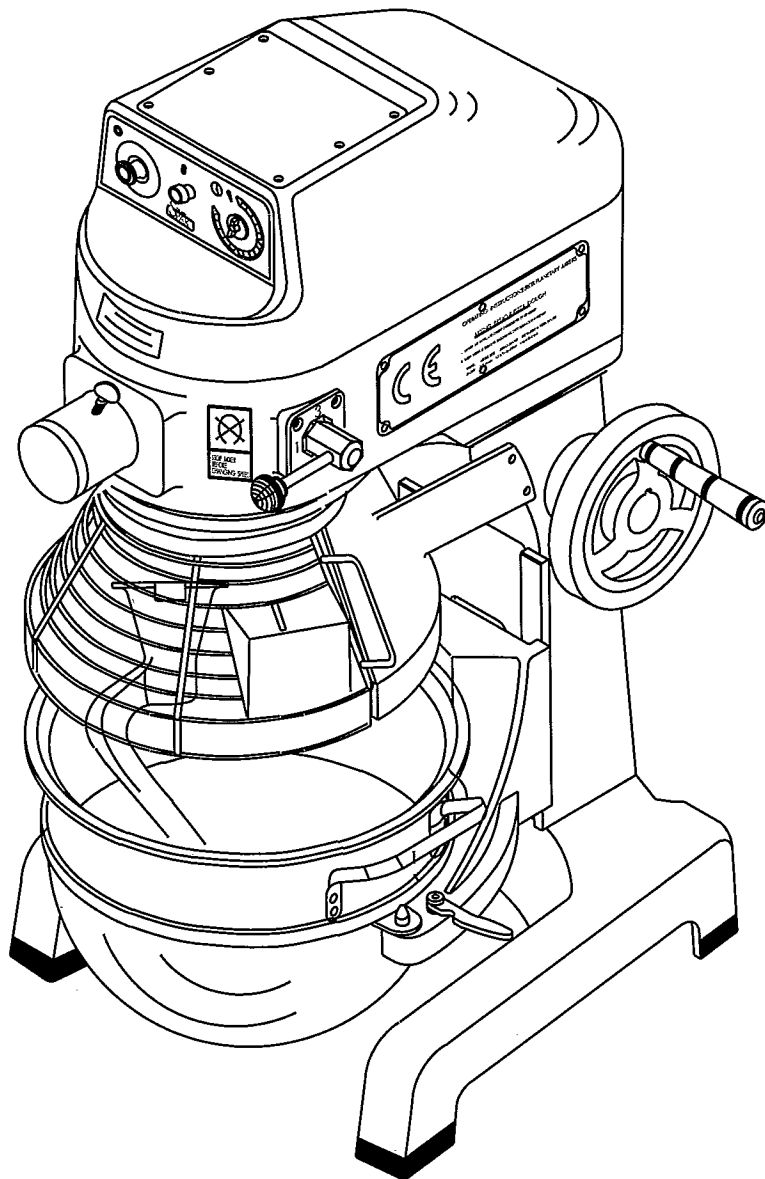




GELDPRÜFGERÄTE, GELDZÄHLMASCHINEN, BACKSTATIONEN, KOMBIDÄMPFER, GRILLER, HEISSE THEKEN, ELEKTRONISCHE PREISRECHENWAAGEN, SYSTEMWAAGEN, SB-WAAGEN, INDUSTRIEWAAGEN, PREISAUSZEICHNUNGSSYSTEME, ETIKETTENDRUCKER, ELEKTRONISCHE REGALETIKETTEN, SOFTWARELÖSUNGEN, AUFSCHNITTMASCHINEN, FLEISCHWÖLFE, FLEISCHMÜRBER, GEMÜSESCHNEIDER, PLANETENRÜHR- UND SCHLAGWERKE, WURSTFÜLLER, FLEISCH- UND KNOCHENSÄGEN, OBST- UND GEMÜSESAFTPRESSEN, CUTTER, KAFFEE-, MOHN- UND NUSSMÜHLEN, LEERGUTRETOURNAHMESYSTEME

VERKAUF, KUNDENDIENST u. EICHDIENST
IN ALLEN BUNDESLÄNDERN

SP-40HI Planetary Mixer



Installation, Operation and Maintenance Instructions



NOV.1998



**TÜV
Rheinland**

CERTIFICATE

of Conformity

EC Council Directive 89/336/EEC
as last amended by EC Directive 93/68/EEC
Electromagnetic Compatibility

Registration No.: AM 9853928 01

Report No.: E 9863961 E 01

Holder: Spar Food Machinery Mfg. Co., Ltd.
No. 321, Peng-Yi Rd.
Taiping Hsiang
Taichung Hsien 411
TAIWAN

Product: MIXER
(Mixer)

Identification: Type Designation: SP-100
SP-200
SP-22HI
SP-30HI
SP-40HI
SP-50HI
SP-60HI

Tested acc. to: EN 50081-2:1993
EN 50082-2:1995



This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex III of Council Directive 89/336/EEC, in its latest amended version, referred to as the EMC Directive. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Article 10.1 of the Directive.

Certification Body

Cologne, 22.07.98

Dipl.-Ing. A. Kazmierczak

TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln

CERTIFICATE



of Conformity

Low Voltage Directive 73/23/EEC
as last amended by EEC Directive 93/68/EEC

Registration No.: AN 9956068 01

Report No.: E 9864284 Z 02

Holder: Spar Food Machinery Mfg. Co., Ltd.
No. 321, Peng-Yi Rd.
Taiping Hsiang
Taichung Hsien 411
TAIWAN

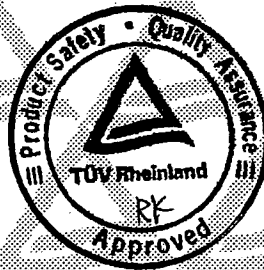
Product: MIXER
(Electric Mixer)

Identification: SP-100, SP-200, SP-22HI, SP-30HI
SP-40HI, SP-50HI, SP-60HI

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. Technical Report and documentation are at the Licence Holder's disposal. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive 73/23/EEC, in its latest amended version, referred to as the Low Voltage Directive. This certificate does not imply assessment of the series-production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex III of the Directive.

Certification Body

Cologne, 24.02.99



Dipl.-Ing. R. Kazmierczak

TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln

Ⓒ The CE marking may only be used if all relevant and effective EC Directives are complied with. Ⓒ



CERTIFICATE

of Conformity

EC Council Directive 98/37/EC
Machinery

Registration No.: AM 9956067 01

Report No.: E 9864284 E 01

Holder: Spar Food Machinery Mfg. Co., Ltd.
No. 321, Peng-Yi Rd.
Taiping Hsiang
Taichung Hsien 411
TAIWAN

Product: MIXER
(Electric Mixer)

Identification: SP-100, SP-200, SP-22HI, SP-30HI
SP-40HI, SP-50HI, SP-60HI

This certificate of conformity is based on an evaluation of a sample of the above mentioned product. This is to certify that the tested sample is in conformity with all provisions of Annex I of Council Directive 98/37/EC, referred to as the Machinery Directive. This certificate does not imply assessment of the production of the product and does not permit the use of a TÜV Rheinland mark of conformity. The holder of the certificate is authorized to use this certificate in connection with the EC declaration of conformity according to Annex II of the Directive.

Certification Body

Cologne, 24.02.99



Dipl.-Ing. R. Kazmierczak

TÜV Rheinland Product Safety GmbH - Am Grauen Stein - D-51105 Köln

Ⓒ The CE marking may be used if all relevant and effective EC Directives are complied with. Ⓒ

Certificate of TCF Adequacy

N° 2195/0190

CIAT, Centro de Inspección y Asistencia Técnica

Notified Body, Number 0092, for issue of certificates of Technical Construction File (TCF) adequacy to the *EC Directive for Machinery 89/392/EEC and its amendments 91/368/EEC, 93/44/EEC and 93/68/EEC.*

CERTIFY that the TCF of the product

Description of machinery: MIXER

Trade Mark: SPAR


Model: SP-22HI

is in conformity with the established in the *EC Directive for Machinery. 89/392/EEC and its amendments 91/368/EEC, 93/44/EEC and 93/68/EEC.*

This product is NOT INCLUDED in ANNEX IV of EC Directive for Machinery.

The manufacturer representative in the European Union shall keep the TCF, for possible checking of the competents national authorities, during, at least, ten years since the manufacturing of the last unit of the product.

Madrid, 31 July 1995

 **SGS** Grupo SGS Ciat
CIAT Centro de Inspección y Asistencia Técnica, S. A.

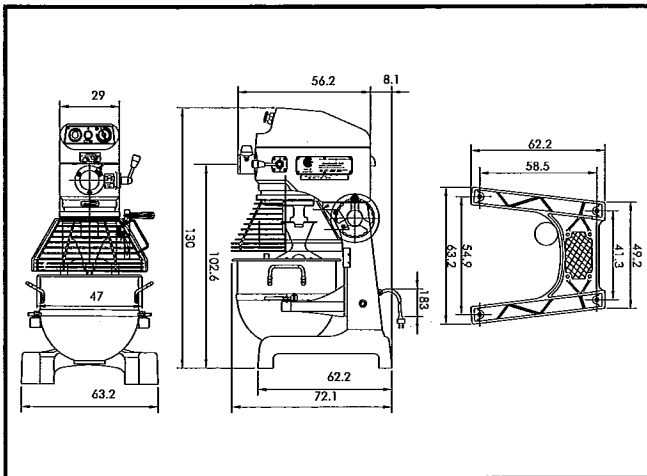
Fdo.: FERNANDO MONTES CLAVER

This Certificate applies only to the checking of TCF and the verifying of correct application of harmonized standards.

This Certificate does not indicate any measure of Approval, Testing, Certification, Supervision, Control or Surveillance by CIAT to this or any related product,

SP40HI PLANETARY MIXER

SPECIFICATION	
Model	SP40HI
Bowl Size	40 Quarts
Motor	1-1/2 HP (1200W)
Electrics	230v/50Hz/1ph 220v/380v/3ph
Speeds	1st gear 99 rpm 2nd gear 176 rpm 3rd gear 320 rpm
Dimensions (cm) (LxWxH)	73X64X130 100X92X146 (packed)
Weight	Gross 290kg Net 250kg
Standard Equipment Stainless steel bowl with Beater, Whisk and Spiral Dough hook. Attachment Hub. Fully interlocked bowl guard and bowl lift.	



Because of continual improvements, strict accuracy of description cannot be guaranteed.

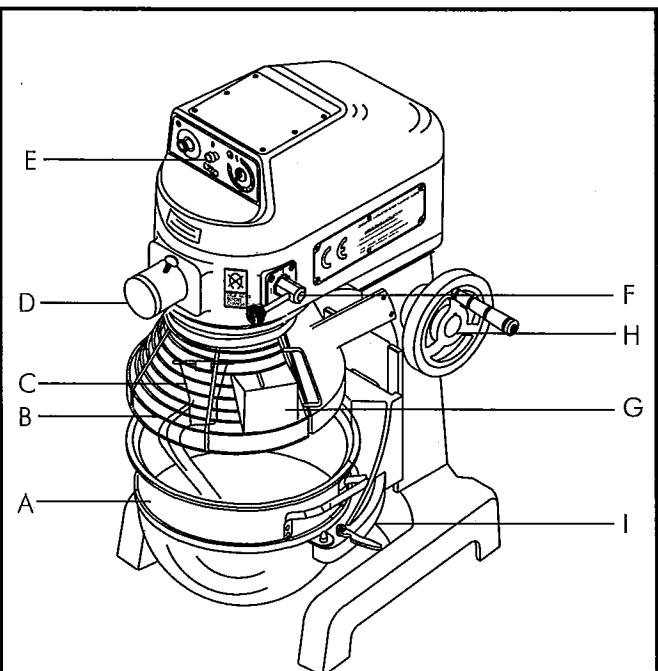
GUARANTEE

SPAR guarantees that, for a period of 1 years from the date of dispatch from our factory or the date of sale by one of our approved distributors, it will replace any parts that are defective as a result of faulty design, material or workmanship, provided that no alteration, addition or repair has been carried out except by an authorised Service Agent and provided that such defective part(s) be returned to the Company's nearest authorised representative, postage paid.

The SP40HI is a floor type planetary mixer designed for commercial use by the professional caterer. It has a total bowl capacity of 40 Quart, combined with a 3 speed gearbox to ensure that all mixing scenarios can be met.

CONTENTS

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- a) Bowl
b) Bowl Guard
c) Planetary
d) Attachment Hub
e) Control Panel
f) Gear Lever
g) Additions Chute
h) Bowl Lift Handle
i) Bowl Cradle

Figure 1

SP40HI PLANETARY MIXER

INSTALLATION

The machine is supplied factory lubricated and ready to run. It can be positioned on any substantial work surface which is capable of supporting a load of 250kg.

ELECTRICAL CONNECTION

Before connecting this machine the electrical supply, check that the details on the rating plate (located on the rear of the machine) correspond to the details of your electrical connection.

The mixer is supplied with a trailing lead fitted with a moulded plug. If the style of plug is unsuitable for the socket you plan to use, the plug must be cut off and replaced with an appropriate plug.

Machines are fitted with a colour coded three core cable as follows:

Brown: Live, Blue: Neutral, Green/Yellow: Earth

As the colour of the wires may not correspond to the coloured markings identifying the terminals in your plug, you should proceed as follows: The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red. The wire which is coloured green/yellow must be connected to the terminal which is marked with the letter E or coloured green.

The mixer should be plugged into a switched socket which isolates all poles and has a minimum contact clearance of 3mm and located close to the mixer for use in an emergency and to facilitate servicing.

The machine must be incorporated into a potential equalization system.

The leakage current for this appliance is no greater than 1 mA/KW.

If the electrical supply cable to the machine becomes damaged, it must be replaced by a qualified electrician using cable to the HO5-RNF specification or higher and suitable for a 1-1/2 HP motor load.

The ground wire is fixed to the machine and this connection must be kept intact.

The mixer **MUST** be grounded.

BEFORE USING THE MIXER

Before using the mixer ensure that all users are familiar with the correct operation of the machine. In particular, care should be taken to ensure that the bowl and mixing tools are correctly fitted and that the bowl guard is in position prior to starting the machine.

SAFETY AT WORK

Never place your hand or any kitchen utensil in the bowl whilst the mixer is in operation.

Isolate the machine from the electrical supply by removing the plug from the socket before cleaning or dismantling.

Do not use the machine with any cover or guard removed.

A notice advising operators of the safe use of this mixer is attached to the machine.

OFFICE, SHOPS AND RAILWAY PREMISES ACT, 1963

The above Act requires that this machine and attachments shall be operated only by a properly instructed person or by an employee who is under the supervision of a properly instructed person. The instruction shall include indication of the possible dangers arising and the precautions to be observed. The Act also requires that no person under the age of 18 shall clean a machine if this exposes him to risk of injury from a moving part of that machine or any adjacent machine.

CORRECT USE OF THE MIXER

It is the responsibility of the users to use the mixer correctly within the recommended limitations. Always follow the instructions on the side of the machine when changing gear. If the motor labours or the belt slips, stop the machine and reduce the size of the mix immediately. Damage resulting from improper use is not covered by the SPAR warranty.

For operator safety, the machine is fitted with a bowl guard which is electrically interlocked to ensure that the mixer cannot operate unless the guard is correctly positioned and the bowl is raised. For additional safety the mixer has a no volt release feature which means that in the event of a power failure, the machine will only restart after the control button has been pressed again. This arrangement ensures that when the supply is restored, the machine cannot restart on its own.

SP40HI PLANETARY MIXER

BOWL LIFT & BOWL GUARD

The bowl cradle and guard are electrically interlocked so that the machine will only operate with the bowl cradle in the raised position. In addition to this, the bowl guard must be locked into place by sliding it into position across the top of the bowl to the point where it will slide no further. Only once the bowl is raised and the guard locked will the machine operate, thus ensuring total user safety at all times.

Once the guard has been opened or the bowl lowered, the machine can only be restarted by pressing the start button.

During the mixing process additional ingredients can be added by means of the chute located on the right hand side of the bowl guard.

TOOL SELECTION

The beater, whisk and dough hook are meant for the work implied by their names. Do not use the beater for dough making or the whisk for anything other than whisking, aerating or mixing light mixtures. Figure 2 shows the typical uses for each of the tools.

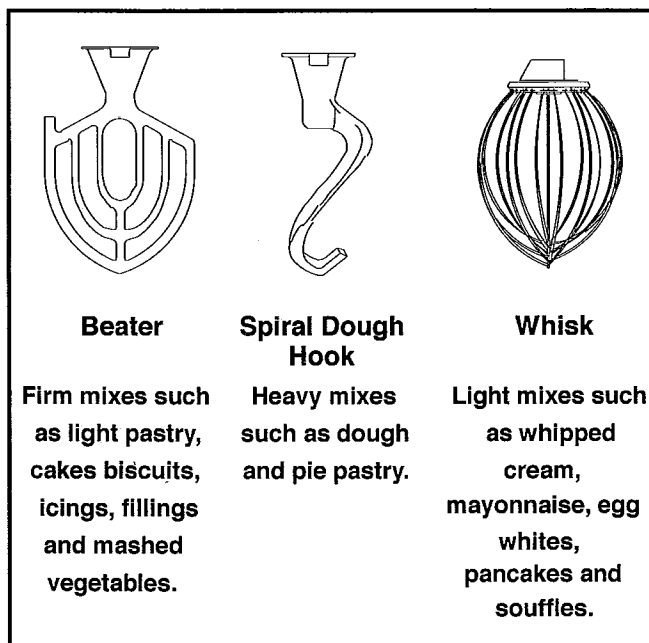


Figure 2

FITTING THE BOWL

With the bowl cradle lowered, place the chosen mixing tool in the bowl and position the bowl on the cradle. There are three location points for the bowl: a) the locking pin at the rear of the bowl locates in the hole in the cradle b) the two holes in the bowl handles which engage on the pins located on the cradle and c) the bowl locking latches. Ensure that the bowl is seated correctly on the cradle before securing the bowl locking latches prior to use.

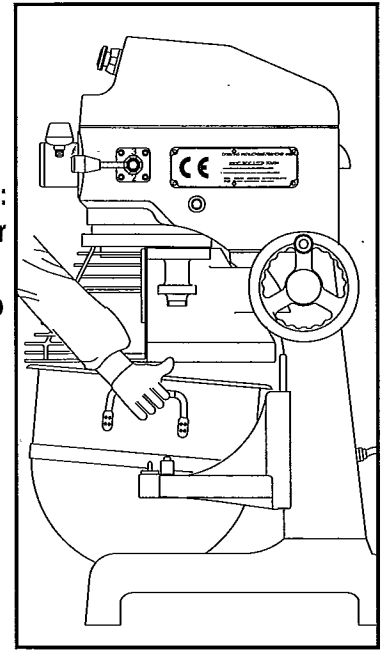


Figure 3

FITTING THE MIXING TOOL

Slide the bayonet fitting of the tool onto the drive shaft and twist clockwise to secure it in position. To remove the mixing tool, slide the tool up the shaft slightly and twist clockwise.

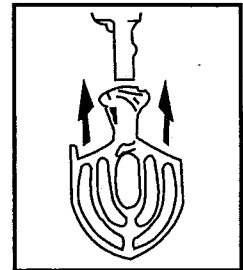


Figure 4

SPEED SELECTION

Before changing speeds, the mixer must always be stopped. The necessary speed can then be selected before restarting the machine by pressing the green start button. The speed selected depends largely on the quantity and consistency of the product. It is recommended that mixing is always started at the lowest speed and progressively increased to the desired setting. In an emergency situation always use the red emergency stop button to stop the machine. Table 1 shows the recommended speeds for the range of tools.

Table 1

	Recommended speed		
	1 st gear	2nd gear	3rd gear
Whisk	→		
Beater	→		
Hook	→		

SP-40HI PLANETARY MIXER

CAPACITY

The following table lists the recommended capacities of finished weights of regular mixes. Although the machine may be capable of mixing larger quantities, it will lead to excessive and premature wear and possible failure. Overloading also results in lengthy processes and unsatisfactory results.

Product	Maximum regular mix (Kg)	Whisk	Beater	Hook
Kitchen Single Batches				
Waffle or Hot Cake Batter	16Qts (15.2L)	*	*	
Whipped Cream	9Qts (8.6L)	*		
Mashed Potatoes	30lbs (13.6kg)		*	
Egg White	1.75Qts (1.6L)	*		
Meringue (Qty. of Water)	1.25Qts (1.2L)	*		
Bakery Single Batches				
Raised Donut Dough 65%AR	25lbs (11.4kg)			*
Heavy Bread Dough 55%AR	35lbs (15.9kg)			*
Bread & Roll Dough 60%AR	60lbs (27.3kg)			*
Pizza Dough, Thin 40%AR	30lbs (13.6kg)			*
Pizza Dough, Medium 50%AR	35lbs (15.9kg)			*
Pizza Dough, Thick 60%AR	50lbs (22.7kg)			*
Fondant Icing	25lbs (11.4kg)		*	
Cake	40lbs (18.2kg)	*	*	
Pie Dough	35lbs (15.9kg)		*	
Pasta, Basic Egg Noodle	15lbs (6.8kg)			*

1. Recommended weight for a finished mix unless otherwise stated.
 2. Water content e.g. 25# flour/12.5# water = 50% moisture.
 3. For pizza dough with lower moisture content consult SPAR
 4. For higher gluten flour reduce dough batch by 25%.

Table 2

CONTROLS

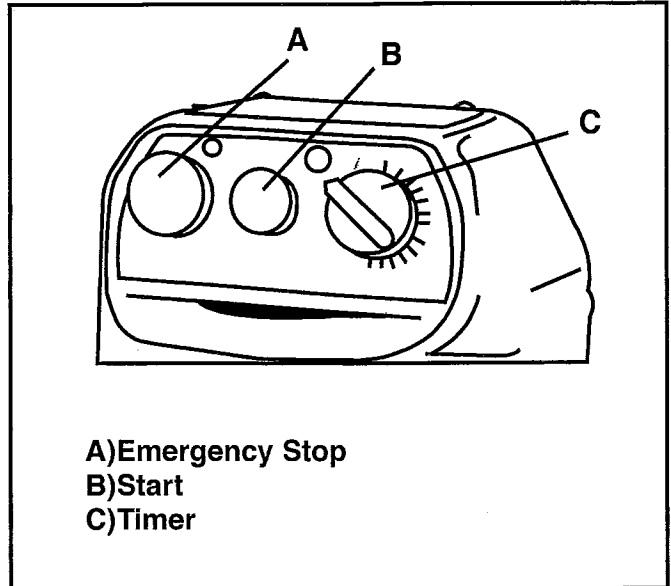


Figure 5

The control panel is shown in Figure 5. The timer is arranged to automatically stop the machine after the selected interval. An untimed position is provided for manually controlled mixing cycles.

Before starting the mixer it is necessary to set the mixing duration or select the manual position - the mixer will not operate in the 0 position.

Timed operation

For timed operation turn the timer knob to the desired time (duration is marked from 1 to 15 in graduations of one minute) and start the mixer by pressing the green start button. After the preset interval the mixer will stop. If it is necessary to stop the mixer before the end of the timed period, press the red stop button.

Untimed Operation

If you wish to manually control a mix, select the untimed mode by moving the timer knob anti-clockwise until it stops.

CARE OF YOUR MIXER

The mixer is designed for minimum owner maintenance. It may be necessary from time to time to apply a little oil to the rods on which the bowl cradle slides. If so, use a little food quality lubricant, ensuring that there is no excess oil that could contaminate the food mix.

Clean the mixer thoroughly after use. The body should be wiped down with a damp cloth after first isolating the machine from the electricity supply. Do not spray the machine with or immerse it in water. Do not forget to clean the rear of the machine and do not allow the rear vents to become blocked as this may result in overheating.

Pay particular attention to the bowl pins and any surrounding areas of the cradle to prevent a build up of mix as this could prevent correct location of the bowl. For the same reason ensure that the beater shaft and each of the sockets on the tools are cleaned thoroughly.

The bowl and tools should be washed in hot soapy water, rinsed and dried before being put into storage. Do not wash the tools in a dishwasher as the polished finish will be adversely affected by the dishwashing chemicals.

ATTACHMENTS

The range of attachments that can be operated from the attachment hub are listed below. When using an attachment, lubricate the drive stud (D) using a food quality grease or oil. To fix to the mixer refer to figure 6.

Release the thumbscrew (G) and slide the shaft of the attachment into the hub ensuring that the drive stud (D) engages in the socket within the hub. Rotate the attachment to line up the location peg (E) with its mating hole in the hub and push firmly home. Tighten thumbscrew to secure.

Only fit attachments when the mixer is stationary and never when it is operating. Do not use attachments when mixing.

The recommended speed range for some of the attachments available is shown in table 3

Recommended speed			
	1 st gear	2nd gear	3rd gear
V99S Veg. Prep.	→→→		
VH-12 Mincer	→→→		

Table 3

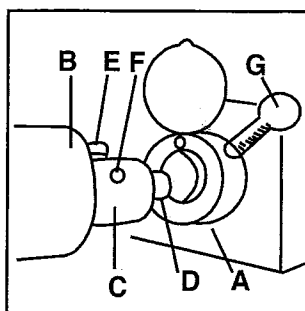
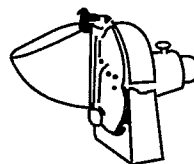
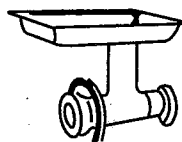


Figure 6



V99S
Vegetable Preparation
With a range of 7 plates to slice, grate or shred all types of vegetable and fruit from nuts and cabbage to carrots and cheese.



VH-12 Mincer
A no. 12 mincing attachment which works wonders with meat, fish and vegetables alike.

Figure 7 Range of attachments for use with attachment hub.

MAINTENANCE

Regular maintenance is necessary on all machines if they are to remain in good working order. It is strongly recommended that this be carried out by trained technicians from a SPAR appointed distributor.

ON A REGULAR BASIS

Clean the machine thoroughly after use and lubricate the rods on which the bowl cradle slides (See CARE OF YOUR MIXER).

ON AN ANNUAL BASIS*

Check that all bolts are tight and bowl guard secure. Check the transmission belt and replace if necessary.

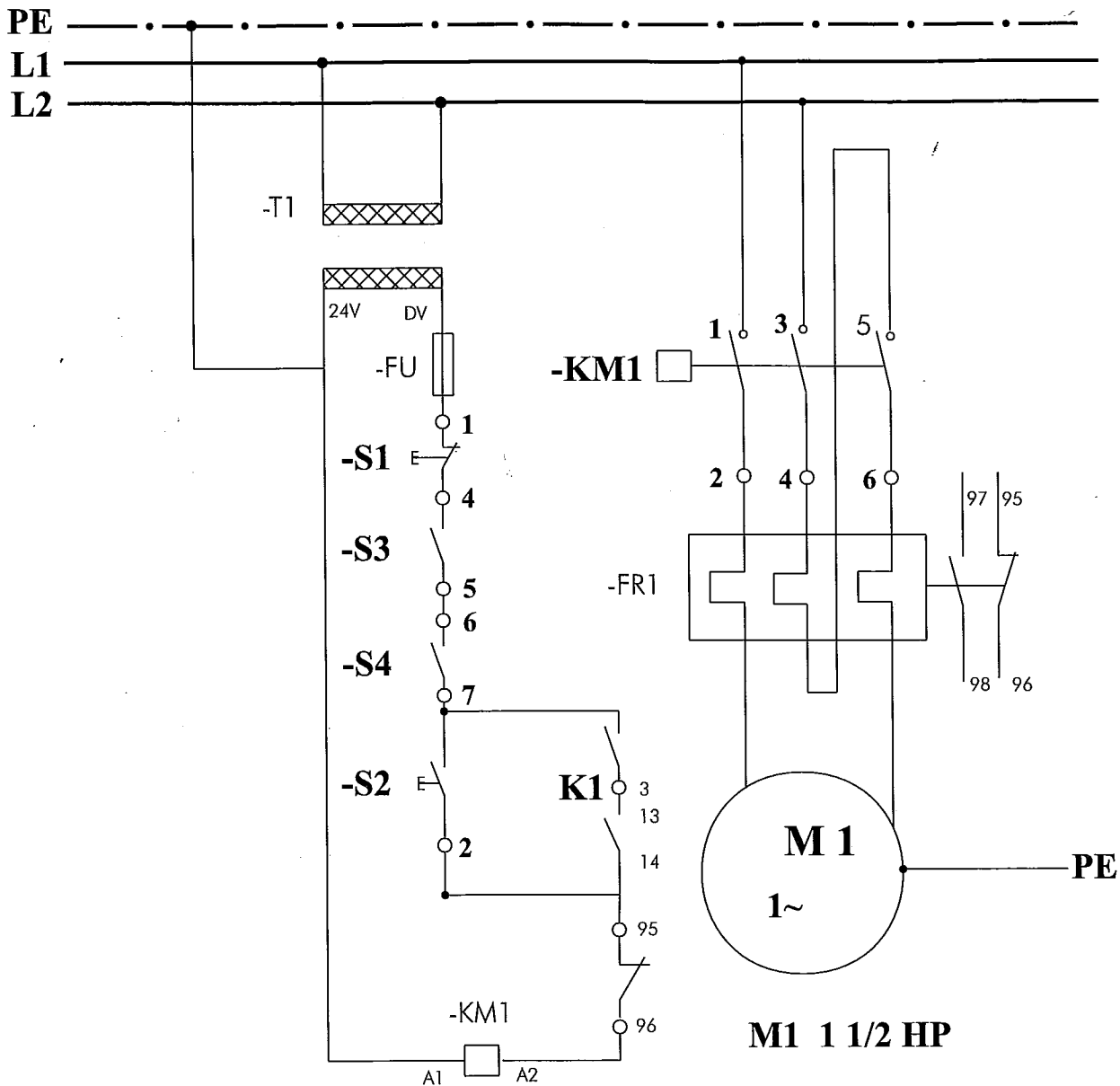
IT IS RECOMMENDED THAT ANY SERVICING OR MAINTENANCE WORK IS CARRIED OUT BY A TRAINED TECHNICIAN OR ELECTRICIAN.

ISOLATE THE MIXER FROM THE ELECTRICITY SUPPLY BY REMOVING THE PLUG FROM THE SOCKET BEFORE CLEANING OR SERVICING

*Carry out on a more frequent basis if machine is arduously used.

Refer to parts list and exploded view diagrams on pages 9-13

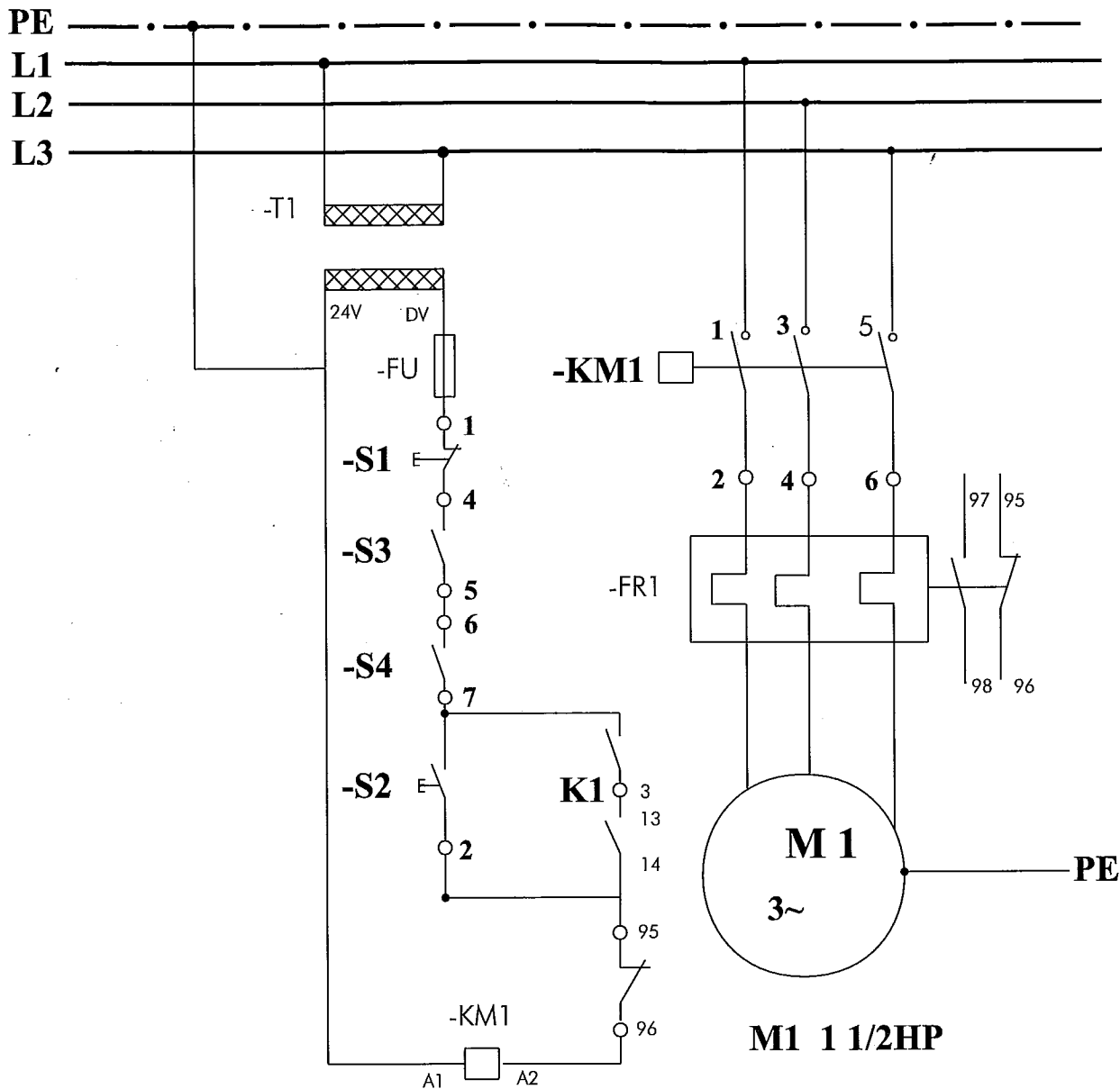
Electrical Diagram-SP40HI PLANETARY MIXER 220V Single Phase supply



Item Description	Maker	Part number	Qty	Rem.
S1 EMERGENCY STOP BUTTON	Telemecanique	XB2-BS542	1	
S2 START BUTTON	Telemecanique	XB2-BW3361B	1	
S3 MICROSWITCH (interlock guard)	Crouzet	F83161.3	1	
S4 MICROSWITCH (height adjuster)	Omron	Z-15GQ22-B	1	
KM1 CONTACTOR COIL OF 220V 50Hz 24V	Allen-Brodley	100-A12NJ3	1	
K1 TIMER	Ann yih	AT-615	1	
FR1 OVELOAD RELAY	Allen-Brodley	193-A4H1	1	
M1 MOTOR 1-1/2 HP SINGLE PHASE 220V	Shiuh jiann	1-1/2 HP 220V	1	
T1 TRANSFORMER AC 24V	Sung chuan	220V 24V 24VA	1	
FU FUSE FIXTURE + FUSE 1A(5x20)	Conquer	HTB-32	1	

APPROVED:
DRAW:
MECH NO: SP-40HI
ITEM NO: 40MM07
DATE: NOV.1998

Electrical Diagram-SP40HI THREE PHASE MIXER 220/380V



Item Description	Maker	Part number	Qty	Rem.
S1 EMERGENCY STOP BUTTON	Telemecanique	XB2-BS542	1	
S2 START BUTTON	Telemecanique	XB2-BW3361B	1	
S3 MICROSWITCH (interlock guard)	Crouzet	F83161.3	1	
S4 MICROSWITCH (height adjuster)	Omron	Z-15GQ22-B	1	
KM1 CONTACTOR COIL OF 220V 50Hz 24V	Allen-Brodley	100-A09NJ3	1	
K1 TIMER	Ann yih	AT-615	1	
FR1 OVELOAD RELAY	Ann yih	193-A4F1	1	
M1 MOTOR 1-1/2 HP THREE PHASE 380V	Shiuh jiann	1-1/2HP 220/380V	1	
T1 TRANSFORMER AC 24V	Sung chuan	220V/380V 24V 24VA	1	
FU FUSE FIXTURE + FUSE 1A(5x20)	Conquer	HTB-32	1	

APPROVED:

DRAW:

MECH NO: SP-40HI

ITEM NO: 40MM07-N

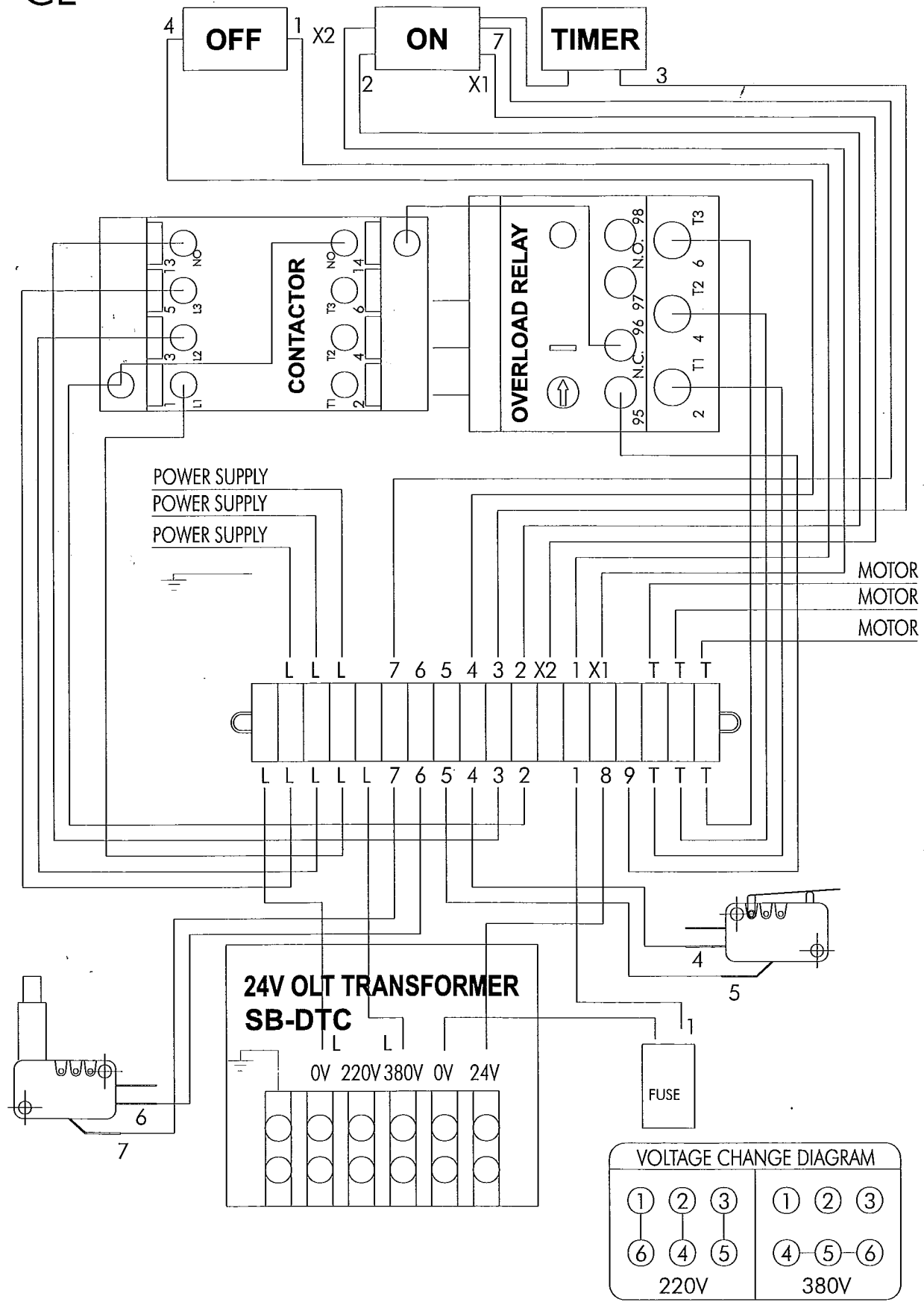
DATE: NOV.1998

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SP-40HI

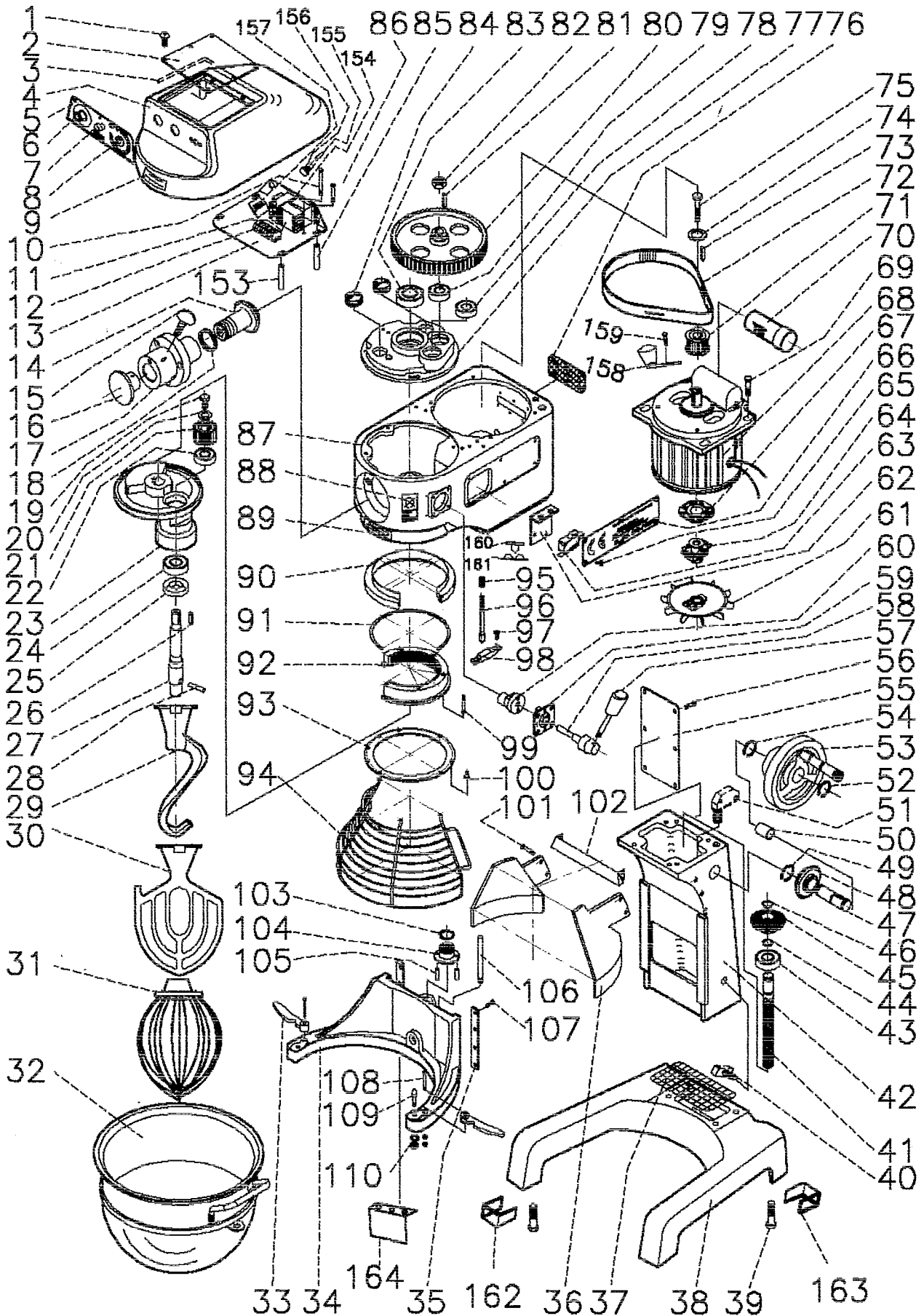
THREE PHASE TYPE

3/MAR'99



VOLTAGE CHANGE DIAGRAM					
①	②	③	①	②	③
⑥	④	⑤	④	⑤	⑥
220V			380V		

Main Body Assembly SP-40HI PLANETARY MIXER

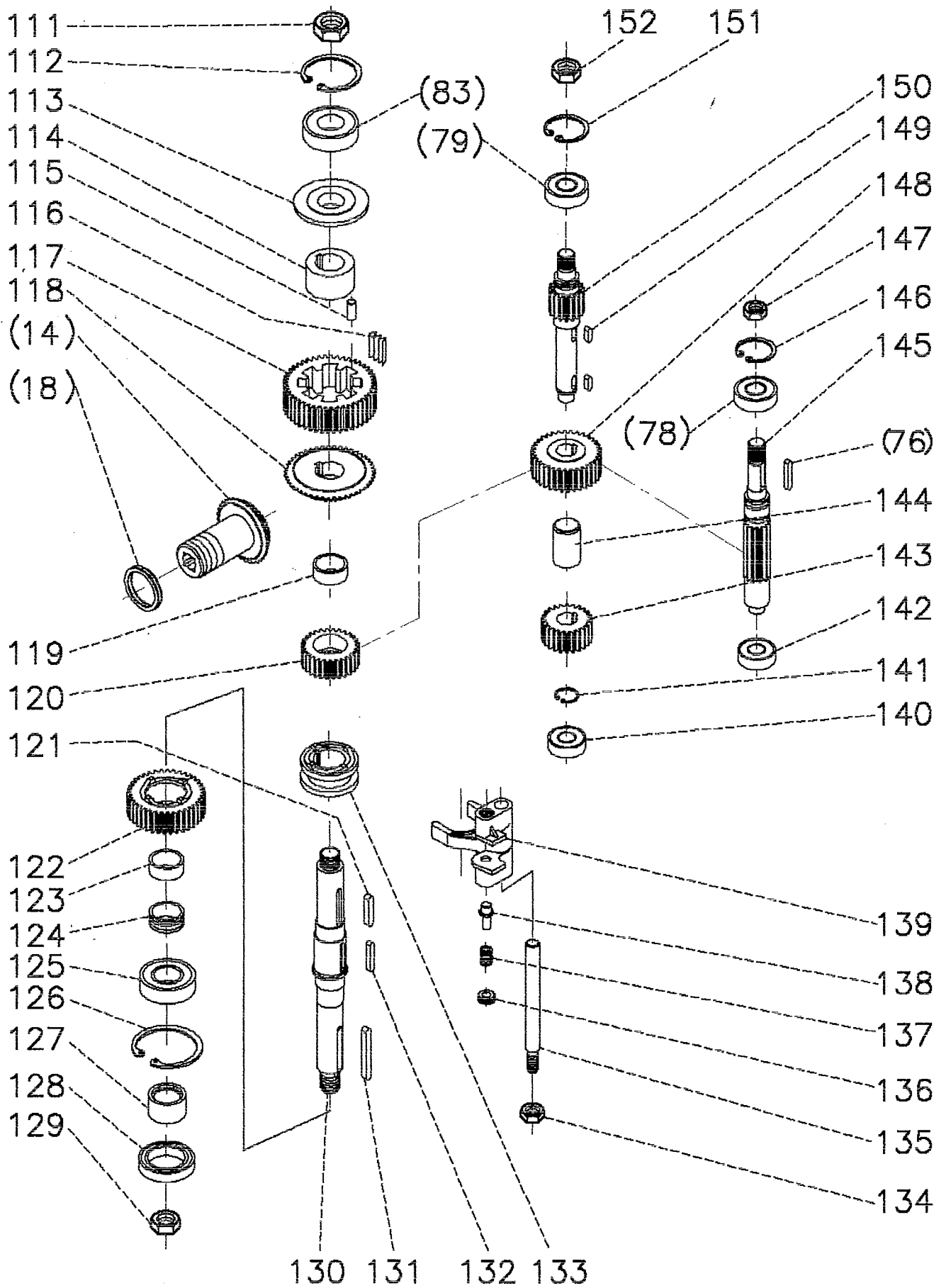


MAINTENANCE MANUAL

SP-40HI

ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION
1.	6	SCREWS (M5x0.8)	41.	1	SCREW SHAFT
2.	1	COVER	42.	1	PILLAR MIDDLE
3.	1	RING	43.	1	BALL BEARING #6005zz
4.	1	COVER-TRANSMISSION	44.	1	C-RING (STW25)
5.	1	OPERATE PLATE	45.	1	OBLIQUE GEAR (30T)
6.	1	EMERGENCY STOP BUTTON	46.	1	C-RING (STW25)
7.	1	START BUTTON	47.	1	SHAFT
8.	1	TIMER	48.	1	OBLIQUE GEAR (30T)
9.	1	VISUAL MARKS	49.	1	C-RING (STW25)
10.	2	SCREWS (M8x1.25)	50.	1	OILLESS BEARING
11.	1	CONTACTOR	51.	1	MICROSWITCH
12.	16	CONNECTING BLOCK	52.	1	C-RING (STW25)
13.	1	BASE ELECTRIC	53.	1	HAND WHEEL
14.	1	LEVEL DRIVE GEAR (35T)	54.	1	C-RING (STW25)
15.	1	THUMB SCREW	55.	1	BEHIND PLATE
16.	1	PLUG-ATTACHMENT HOLE	56.	6	SCREWS (M5x0.8)
17.	1	HUB-ATTACHMENT	57.	1	ARM WRENCH
18.	1	OIL(35x45x8) BEARING(TA3530)	58.	1	SHAFT WRENCH
19.	1	SCREWS (M8x1.25)	59.	1	COVER
20.	1	WASHER	60.	1	SHAFT BIAS
21.	1	PINION-BEATER (21T)	61.	1	FAN COOLING
22.	1	BALL BEARING #6205zz	62.	1	FIXED SEAT
23.	1	PLANETARY HOLE	63.	1	MICROSWITCH
24.	1	BALL BEARING #6206zz	64.	1	CLUTCH
25.	1	SEAL OIL (TC40x62x12)	65.	6	SCREWS (M4x0.7)
26.	1	LEVEL KEY	66.	1	ENGRAVE PLATE
27.	1	SHAFT PLANETARY	67.	1	PLATINUM SWITCH
28.	1	PIN	68.	1	1-1/2 HP MOTOR
29.	1	KNEADER	69.	4	SCREWS (M8x1.25)
30.	1	PADDLE(LEAF-TYPE)	70.	1	CAPACITOR
31.	1	WHISK	71.	1	WHEEL BELT (20T)
32.	1	BOWL (40 QUART)	72.	1	BELT (S8M-896)
33.	2	STEADY HOOK	73.	1	LEVEL KEY
34.	1	CRADLE	74.	1	WASHER
35.	2	ESCORT PLANK	75.	1	SCREWS (M8x1.25)
36.	2	BEHIND INTERLOCK GUARING	76.	1	VENTILATION PLATE
37.	1	NET	77.	1	ABOVE COVER
38.	1	BASE	78.	1	BALL BEARING #6204z
39.	4	L 45mm - W 3/8" SCREWS	79.	1	BALL BEARING #6204z
40.	1	CIRCUIT BREAKER	80.	1	BELT TRANSMISSION PULLY (97T)

GearBox Assembly SP-40HI PLANETARY MIXER



INTENANCE MANUAL

		SP-40HI	
M QTY.	DESCRIPTION	ITEM QTY.	DESCRIPTION
1	LEVEL KEY	123. 1	BUSK CLUTCH
1	NUT STOP	124. 1	HEET
1	BALL BEARING #6205z	125. 1	BALL BEARING #6307z
2	OIL PLUG	126. 1	C-RING (STW80)
2	SUPPORT TUBE (∅8x80)	127. 1	GUARD OIL BUSK
4	SCREWS (M8x1.25)	128. 1	SEAL OIL (TC50x80x13)
1	CASE TRANSMISSION	129. 2	NUT STOP
1	VISUAL MARKS	130. 1	SHAFT DRIVEN
1	VISUAL MARKS	131. 1	LEVEL KEY
1	SLIDE SHEATH	132. 1	LEVEL KEY
1	MAT	133. 1	SLEEVE CLUTCH
1	PLANETARY INTERNAL GEAR (67T)	134. 2	NUT STOP
1	FIXED SLICE	135. 1	ROD-SHIFTER GUIDE
1	FRONT INTERLOCK GUARDING	136. 2	RETAINER SPRING
1	SPRING	137. 2	SPRING-SHIFTER YOKE
1	TOUCH SHAFT	138. 2	PLUNGER-SHIFTER YOKE
2	SCREWS (M4x0.7)	139. 1	YOKE-SHIFTER
1	TOUCH MASS	140. 1	BALL BEARING #6204
6	SCREWS (M8x1.25)	141. 1	C-RING (STW24)
6	SCREWS(M5x0.8)	142. 1	BALL BEARING #6204
4	SCREWS (M8x1.25)	143. 1	GEAR (20T)
1	FRONT GUARD SLAB	144. 1	SPACER BUSK
1	C-RING (STW35)	145. 1	SHAFT MASTER (15T)
1	SCREW SLEEVE	146. 1	C-RING (STW42)
2	PIN	147. 1	NUT STOP
1	TOUCH SHAFT	148. 1	GEAR (29T)
8	SCREWS (M8x1.25)	149. 1	LEVEL
2	SCREWS (M10x1.5)	150. 1	SHAFT TRANSMISSION (13T)
2	DOWEL SCREW	151. 1	C-RING (STW47)
8	NUT STOP	152. 1	NUT STOP
1	NUT STOP	153. 2	SUPPORT TUBE (∅ 8x61)
1	C-RING (STW52)	154. 1	OVERLOAD RELAY
1	LEAD-IN OIL PAD	155. 1	FUSE 1A (5x20)
1	TO GUARD AGAINST BUSK	156. 1	FUSE FIXTUER
8	ROLL PILLAR	157. 1	24V OLT TRANSFORMER
8	SPRING SLICE	158. 1	BELT SUPPORT WHEEL
1	GEAR SLOW SPEED (52T)	159. 2	SCREWS(M8x1.25)
1	GEAR BEVEL (52T)	160. 1	SAFETY GUARD SPRING LOCK

SP40HI PLANETARY MIXER

FAULT FINDING		
FAULT	CHECK	POSSIBLE REASON AND ACTION REQUIRED
No power to mixer	Check plug socket Check wiring in plug Check fuse in plug Check or change cable Check microswitch	Mixer not plugged into a live socket or not switched on Plug incorrectly wired-rewire correctly Possible faulty fuse - replace fuse Cable damaged or split - replace cable Limit switch damaged or faulty - replace switch
Mixer falls to operate	Check bowl guard/ lift Check timer position Check transmission belt Check gear change lever	Machine will not operate with guards open Mixer will operate on timer or manual position only. Belt damaged or broken - replace belt Machine will not operate if out of gear - put in gear
Mixer becomes noisy	Check bowl and tools Check work surface Check bearing for wear Check gearbox	Ensure that bowl and tool are correctly seated. Uneven surfaces create excessive resonance Worn bearings - replace bearings Damaged or faulty gearbox - replace gearbox
Mixer loses power	Check capacity Check transmission gear Check shaft bias	Overloading of bowl - reduce load Gear damaged or worn - replace belt Damaged shaft bias - replace shaft bias
Motor overheating	Check capacity/speed Check supply voltage	Refer to Tables 2 and 3 for details Voltage should correspond to rating plate.
Oil on planetary shaft	Check oil seal	Worn oil seal - change oil seal
WE RECOMMEND THAT THE ABOVE ACTIONS BE CARRIED OUT BY A TRAINED TECHNICIAN		
ISOLATE THE MIXER FROM THE ELECTRICAL SUPPLY BY REMOVING THE PLUG FROM THE SOCKET BEFORE CLEANING OR SERVICING		