



International Bakery Equipment Pty. Ltd.

INSTRUCTION MANUAL



HYDRAULIC DOUGH DIVIDER

MODEL: BPD-20

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1. General Information:

1.1 Documentation supplied

- Instruction manual
 - Spare parts list
 - Wiring diagrams
 - Hydraulic control diagram
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1.2 Contact Details

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1.3 Use of this Manual

Please read carefully the information supplied in this manual before installing, operating or carrying out maintenance on this machine.

This manual must be kept in good condition and stored where it can be easily found when required.

1.4 Intellectual Property Rights

This manual contains copyright information. All rights are reserved. No part of this manual can be reproduced or photocopied without prior written permission of International Bakery Equipment Pty Ltd. Permission to use this documentation has only been given to the customer who this manual has been supplied as part of the machine's equipment and only for the purpose of installation, operation and maintenance of the machine to which the manual refers.

International Bakery Equipment Pty Ltd declares that the information contained herein is in accordance with the technical and safety specifications of the machine to which the manual refers. International Bakery Equipment Pty Ltd will not be held responsible for direct or indirect damage or injury to people or objects resulting from the misuse of this documentation or the machine for which it has been intended.

The manufacturer reserves the right to introduce technical modifications or improvements both to the documentation and to the machines without prior notice. The information contained herein refers in particular to the machine specified in section 1.7 "Machine identification details".

1.5 Warranty Terms and Conditions

- Warranty becomes effective from date of delivery.
- Warranty claims may be made by telephone, letter, email or fax. However, all verbal claims must be confirmed in writing. I.B.E. Pty Ltd Reserves the right to require return of all claimed defective parts.
- I.B.E. Pty Ltd will ship the part(s) in an expeditious manner as requested.
- Mechanical and Electrical parts are warranted for a period of 12 months from date of delivery.
- During the first 12 months, I.B.E. Pty Ltd will reimburse the Authorized Agent or Purchaser for the cost of reasonable labour during normal working hours, 8.00a.m. – 5.00p.m., to remove the failed part(s) and install the replacement(s). After 12 months all charges will be the Purchasers responsibility.
- After the initial 12 months warranty, any replacement parts are warranted for 3 months excluding labour.
- This Warranty may not be changed or modified and is not subject to any other Warranty expressed or implied by any other Agent, Dealer or Distributor unless approved in writing by I.B.E. Pty Ltd in advance of any claim being filed. This Warranty gives you specific legal rights which vary from State to State.

Note:

I.B.E. Pty Ltd reserves the right to make the final decision on all Warranty coverage questions. The decision of the Company is final.

What is covered under this Warranty:

- Parts that fail due to defects in material workmanship.
- Parts that fail due to faulty assembly by I.B.E. Pty Ltd
- Parts that fail due to improper set-up by I.B.E. Pty Ltd

What is not covered under this Warranty:

- Parts that fail due to improper usage or overloading of the machine.
- Parts that fail due to lack of maintenance.
- Parts that fail due to abuse, misuse or modification.
- Mixer attachments - Bowl, whisk, beater and/or hook.
- Normal wear parts, such as, Conveyor belts, 'v' belts, 'o' rings and scraper and slicer blades. The Warranty on these parts is, they will be in satisfactory operating condition at time of delivery and initial start-up. Claims in such parts must be made immediately.
- Loss of time, potential revenue and/or profits.
- Personal injury or property damage resulting from the operation of the machine.

1.6 Specifications

Crate Dimensions:

Length (cm)	Width (cm)	Height (cm)	Weight (Kg)
80	80	138	380

Machine Specifications

Model	Dough Capacity Kg Min - Max	Dough Dividing Weight g Min - Max	Motor H.P.	Dimensions			Weight Kg (Net)
				L cm	W cm	H cm	
BPD-20	3Kg - 16Kg	150g - 800g	2	63.8	66.4	120	325

Power Supply Details:

3 Phase, 10amp 4-pin plug top (supplied)

Note:

The Manufacturer will not be Liabile for electrical defects, breakdowns or malfunctioning of the machine for the non compliance with the power supply stated.

1.7 Machine Identification Details

Type: Hydraulic Dough Divider

Model: BPD-20

Position of Serial Number Identification Plate (Fig 1.1)



Fig 1.1

Note:

When requesting spare parts please state the serial number found on the serial number identification plate.

1.8 Main Machine Components



Fig1.2 Main Machine Components

1.9 Safeguards

This machine has been fitted with safeguards to ensure safe operation of this machine, in accordance please ensure the following;

- Do not place foreign objects in the dividing chamber during the dividing process.
- Ensure training in the safe operation of this machine is carried out with all operators.
- Do not wear loose clothing, ties, chains, or watches that could get caught into the moving parts of the machine.
- Ensure safeguards are in operable order before using the machine on a daily basis.
- Tampering with the safety devices creates hazards for the machine operator, for which International Bakery Equipment Pty Ltd or its agents will not be liable.

Note:

In the event that one or more of the safe guards do not operate or fail contact your supplier immediately. **DO NOT OPERATE THE MACHINE.**

Tampering with or modifying the machine will void warranty.

Emergency Stop Button.

The machine is equipped with a red emergency stop button located on the top right on the front panel and allows the operator to stop the machine in case of emergency (Fig 1.6)



Fig 1.6

Note:

If the emergency stop button is depressed do not try to pull it out this may result in damage to the button, to reset the button turn it clockwise and it will reset out on its own.

Limit switched front and rear access panels.

The front and rear panels of this machine have been fitted with a limit switch which will stop the machines operation when the panel is opened (Fig 1.7)



Fig1.7 Rear panel ajar.

Note:

When opening front or rear panel for cleaning or maintenance the machine should be switched off and unplugged from the wall.

2. Transport and Installation:

2.1 Transport

The instructions given in this section must be carefully followed when transporting the machine. This operation may include but is not limited to the following:

- Storage of the machine
- Installation of the machine
- The machine comes supplied in a secure packing crate which needs to be handled with care to protect the machine.
- When being transported the machine crate should be secure to the transporting vehicle using approved tie down straps to avoid the machine tipping over.
- The machine should not be placed on top of other items during transport.
- When lifting the machine ensure all persons are at a safe distance.
- The forklift operator is to hold the appropriate qualifications.
- Do not climb on or place body under machine crate when it is being lifted from the ground or transport vehicle.
- When lifting the machine crate ensure forks are spread to the maximum width of the crate and the crate is against the cradle of the forklift (Fig2.1).



Fig 2.1

2.2 Installation

- Ensure transport crate and all protective packaging is removed.
 - Carefully clean the machine using a damp clean cloth, removing dust on all surfaces.
 - When the machine has been unpacked, check the condition of the machine. Any visible damage indicates that the machine has been dropped or hit by something during transport. This could lead to malfunctioning. If damage has occurred during transport it should be attributed to the carrier and International Bakery Equipment Pty Ltd or its agent should be informed immediately of the situation.
 - Locate the divider in a level convenient position where the operation of the machine is safe and accessible.
 - When machine has been placed in its location ensure the front castors are locked to stop any movement of the machine during operation. (Fig 1.2, page 8)
 - Before making the electrical connections check the specifications found in section 1.6 of this manual and ensure they match those of your electrical service.
 - Make certain the electrical supply is correct and the correct breaker is in place to ensure protection from a short circuit.
 - Ensure the three-phase connection of the dough divider is correct. When the operation handle is lifted the pressure plate will raise.
 - A qualified person should correct electrical connection if required.
 - Train all operators in the safe operation of this machine.
-

2.3 Testing the safeguards

Before starting the machine, the safety devices should be checked according to the following procedure:

- Correct operation of the emergency stop button (Fig 1.6, page.9);
While the machine is operating, press the emergency stop button, the machine should stop immediately.
-

3. Machine Operation:

3.1 Intended Operation

This machine has been designed and manufactured for the safe dividing of dough's with the use of a hydraulic pump to drive the pressure plate and the dividing blades to ensure an even pressure and accurate dividing of the dough into 20 pieces of equal weight.

The raising and lowering of the pressure plate and blades is via the operating handle located on the left hand side front panel of the machine. (Fig 1.2, page 8)

This machine has been designed and built to operate indoors.

3.2 Control Components



Fig 3.1 BPD-20 Control Components

Location	Description	Operation Performed
a	Locking Handle	Locks the top cover into position when lowered.
b	Emergency Stop Button	When pressed it stops the machine completely.
c	On / Off Switch	When the green switch is pressed the power is turned on. When the red switch is pressed the power is turned off.
d	Power indicator	When lit the machine is switched on.
e	Operating Handle	When moved in the direction of the ↑ , the pressure plate will raise. When moved in the direction of the ↓ , the pressure plate will lower.

3.3 Dividing Operation

- Turn the power on using the green power switch (c).
- Open the top cover by releasing the locking handle (a).
- Lower the pressure plate using the operating handle (e”▼“).
- Place weighed dough into dividing chamber, and press down firmly with hands to evenly spread dough.
- Lower the top cover and lock into place with locking handle (a).
- Raise the pressure plate with the operating handle (e”▲“) when the dividing blades have reached the top cover the machine will make a slightly different sound indicating the dough has been divided.
- Lower the pressure plate down slightly with (e ”▼“) to remove pressure from the top cover.
- Release the top cover with handle (a) and open.
- Using the operating handle (e ”▲“) raise the pressure plate and divided dough to the top of the machine and remove dough pieces.

4. Cleaning & Maintenance:

4.1 Cleaning

- Always turn power off at the wall and unplug machine prior to any cleaning or maintenance procedures to be carried out.
- Keeping the machine cleaned helps to maintain the efficient hassle free operation of the machine.
- This machine should be cleaned at the end of every day, to prevent a build up of dough crumb and flour dust.
- Remove excess flour dust with a soft brush.
- Using a plastic scraper remove any dough remnants from dividing chamber.
- Wipe over the entire machine with a damp cloth with a neutral detergent, (Harsh chemicals will damage the machine).
- To assist cleaning of the dividing blades 4 round blocks have been supplied with this machine and should be placed in the dividing chamber equal distance apart and against the wall of the chamber. See fig 4.1
- Using the method described in 3.3 Dividing operation, to raise the blades which can then be cleaned using a plastic scraper and a damp cloth.
- Blades can then be lowered using the operating handle (e ” “) ↓



Fig 4.1

- Once a week the front and rear access panels should be opened. See Fig 4.2, 4.3
- Use a dry brush only to clean the inside of the machine.
- Any larger particles of crumb will be caught in the sieve located in the bottom of the machine this can then simply be removed and crumb disposed of.



Fig 4.2 Front panel open



Fig 4.3 Rear panel ajar

Note:

Do not use water jets or hoses to clean this machine as excess water can damage the machine, and the safe operation of the electrical components.

Note:

ONLY paraffin or white oil can be used to lubricate the dividing blades. The blades only need a very fine film of oil coating them and this can be done at the end of the cleaning process at the end of production daily.

4.2 Maintenance

It is recommended that this machine should be serviced once every 12 months by a qualified technician to maintain hassle free operation.

If in the event the machine does not operate correctly it is recommended that you contact your supplier to ensure a qualified technician services the machine for you.

It is not advisable to attempt any repairs without prior knowledge of the mechanical or electrical systems used in the manufacture of this machine, use only qualified technicians.

Note:

Any attempt to modify this machine in any way will result in the warranty being voided.

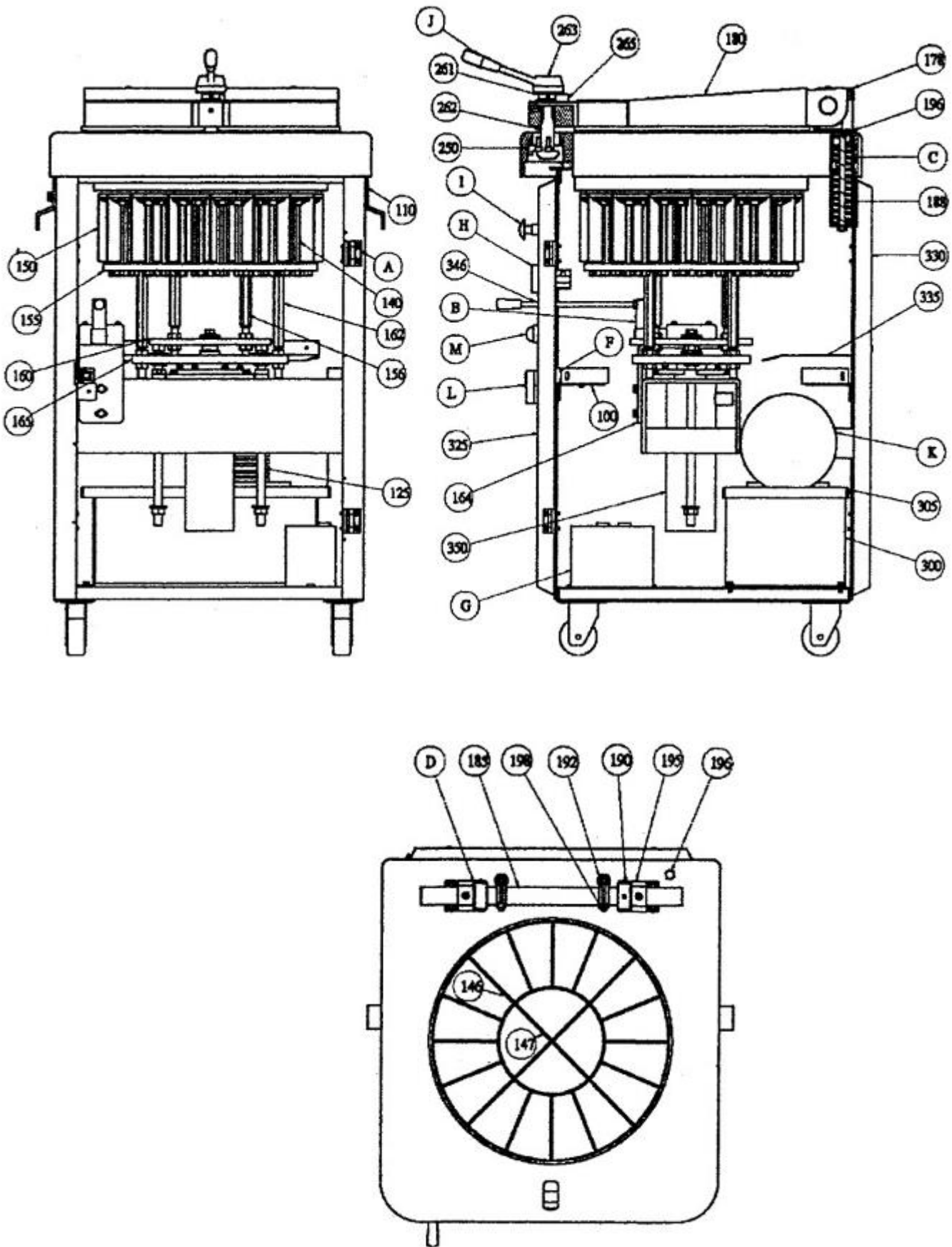
Tampering with the mechanical or electrical systems in this machine will void warranty.

4.3 Spare Parts List

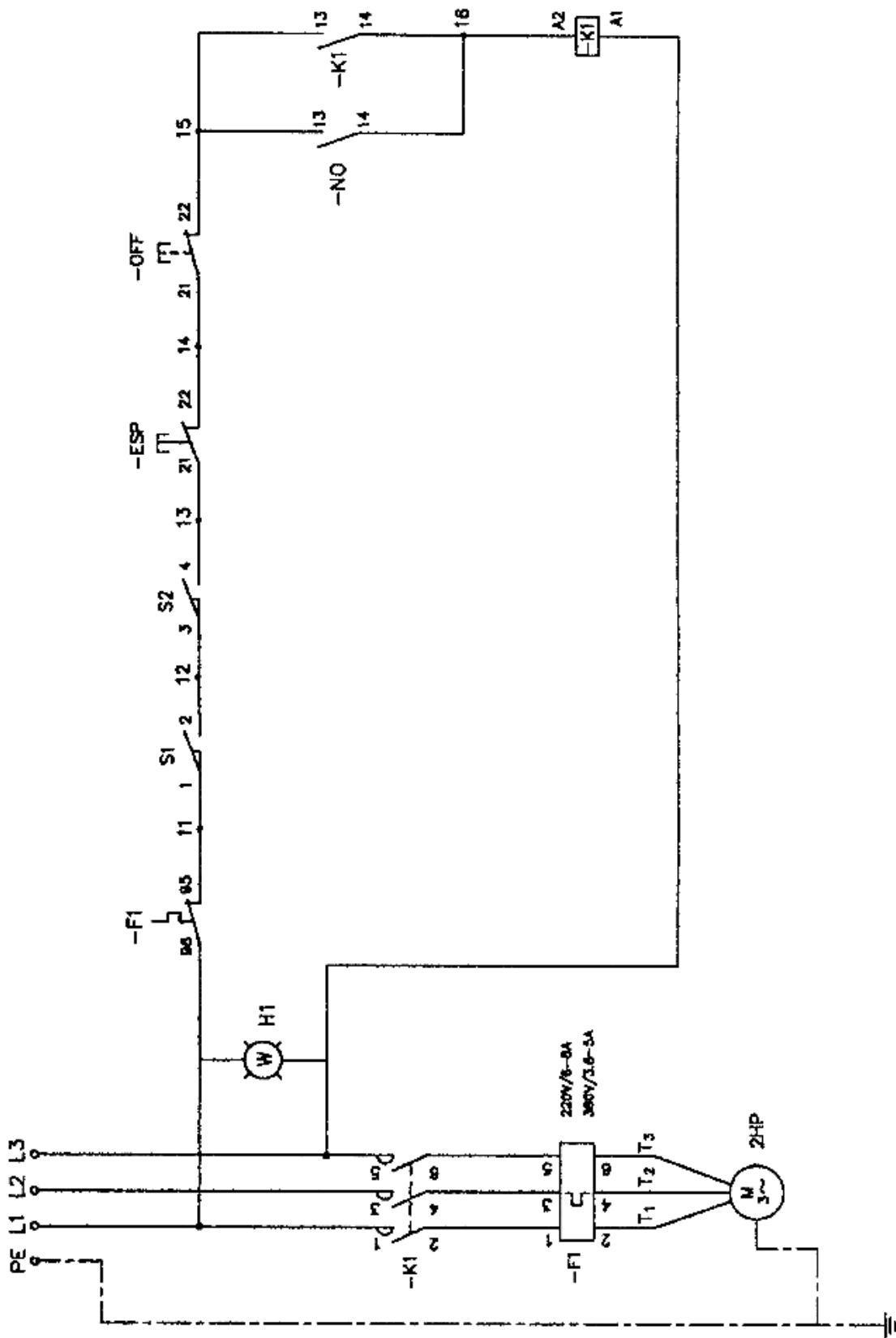
No.	Description
A	Hinge
B	Hydraulic Control Valve
C	Compression Spring
D	Dry Ball Bearing
F	Sensor
G	Start Switch
H	Push Button Switch
I	Emergency Stop Switch
J	Handle
K	Horizontal Motor
L	Main Power Switch
M	Power Indicator
100	Lower Machine Body
110	Hoisting Plate
140	Stopper Fastening Plate
146	1/20 Round Stopper 2
147	1/20 Round Stopper
150	Dividing Blade Assembly
155	Upper Holding Plate
156	Adjusting Screw (Middle Holding Plate + Dividing Blade)
160	Middle Holding Plate
162	Adjusting Screw (Upper and Lower Holding Plate)
164	Fastening Base of Hydraulic Valve

No.	Description
165	Lower Holding Plate
178	Safety Cover
180	Top Press Cover
185	Spring Washer
188	Turning shaft of Upper Press Cover
190	Chain Fastening Screw
192	Fastening Shaft Bushing
195	Chain Shaft Bushing
196	Screw
198	Chain Fastening Screw
250	Fastening Block
261	Handle Control Valve
262	Handle Fastener
263	Control Valve Switch
265	Switch Control Valve Stopper
300	Oil Tank
305	Oil Tank Cover
325	Front Machine Cover
330	Rear Machine Cover
335	Oil Tank Stopper
346	Handle of Hydraulic Control Valve
350	Dual Motion Hydraulic Cylinder

4.4 Exploded Parts Drawing



4.5 Electrical Wiring Diagrams



4.6 Hydraulic Control System

