Operator’s Manual

MACHINE NAME：

Work Ejector Device

(12 Type Hydraulic)(X asix servo)

MODEL：

KCG-12S-NC1

Date：2025.07.10

Version：R00

Original Instructions

CONTENTS

1. SAFETY TIPS

This Work Ejector Device is used in conjunction with a centerless grinder for automatic workpiece grinding. Please make sure to thoroughly read the safety instructions in the centerless grinder's operation manual to ensure safe operation of this machine.

2. MACHINE SPECIFICATION

2.1 Specification

Form 2.1 Specification

Item	KCG-12S-NC1
Model	12 Type X asix servo
Size(mm)	1350 X 1600 X 1100

3. MACHINE LAYOUT

3.1 Front view

Unit：mm

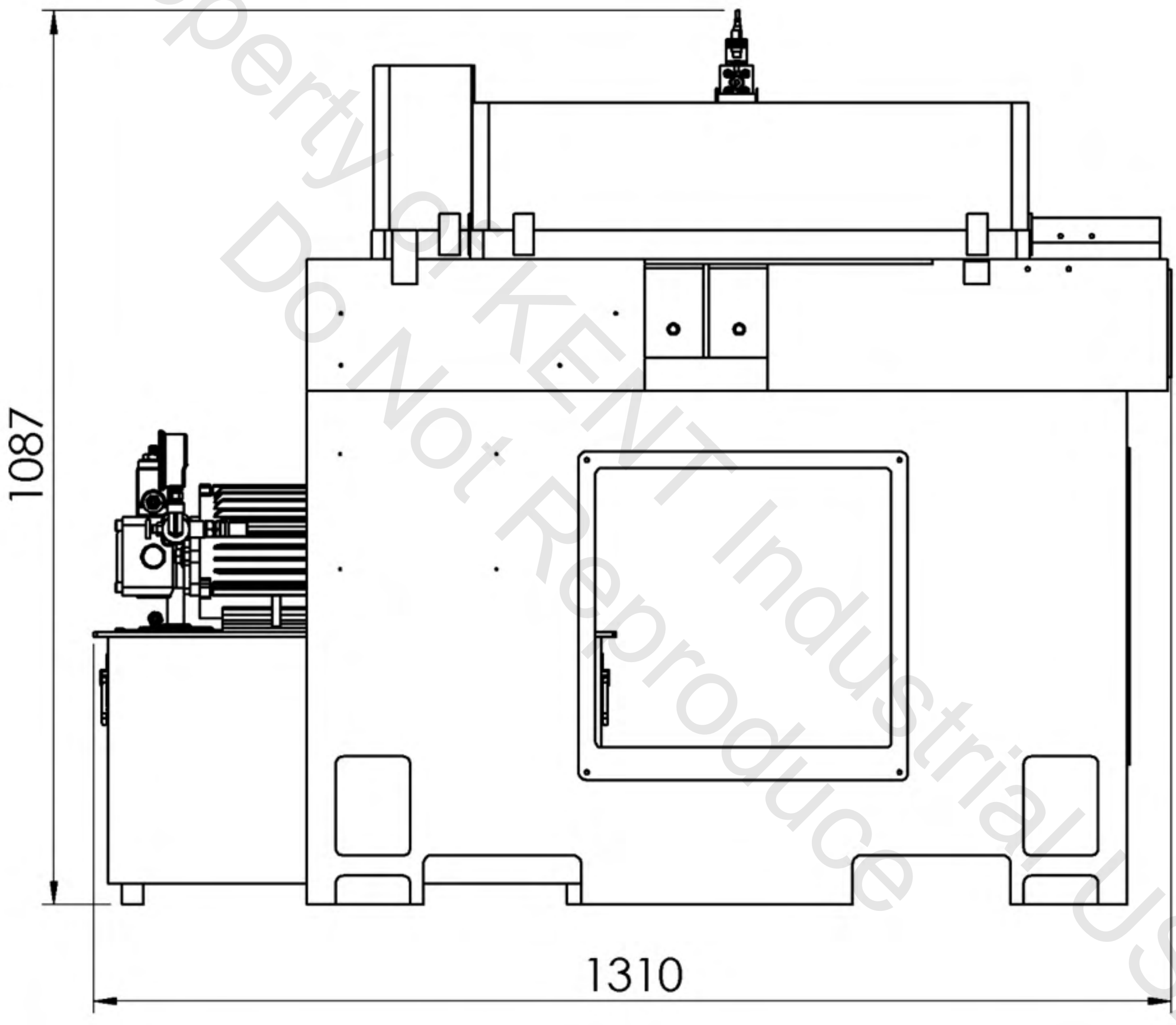

Figure 3.1 Front view

3.2 Top view

unit：mm

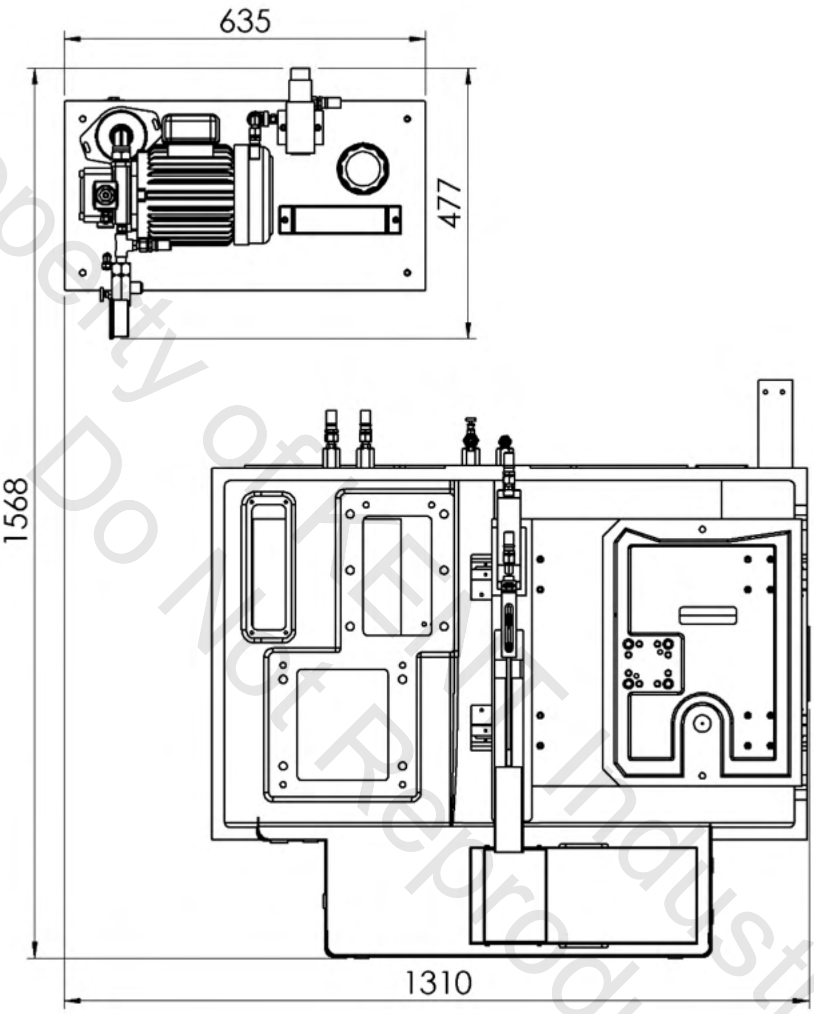

Figure 3.2 Top view

3.3 Right view

unint：mm

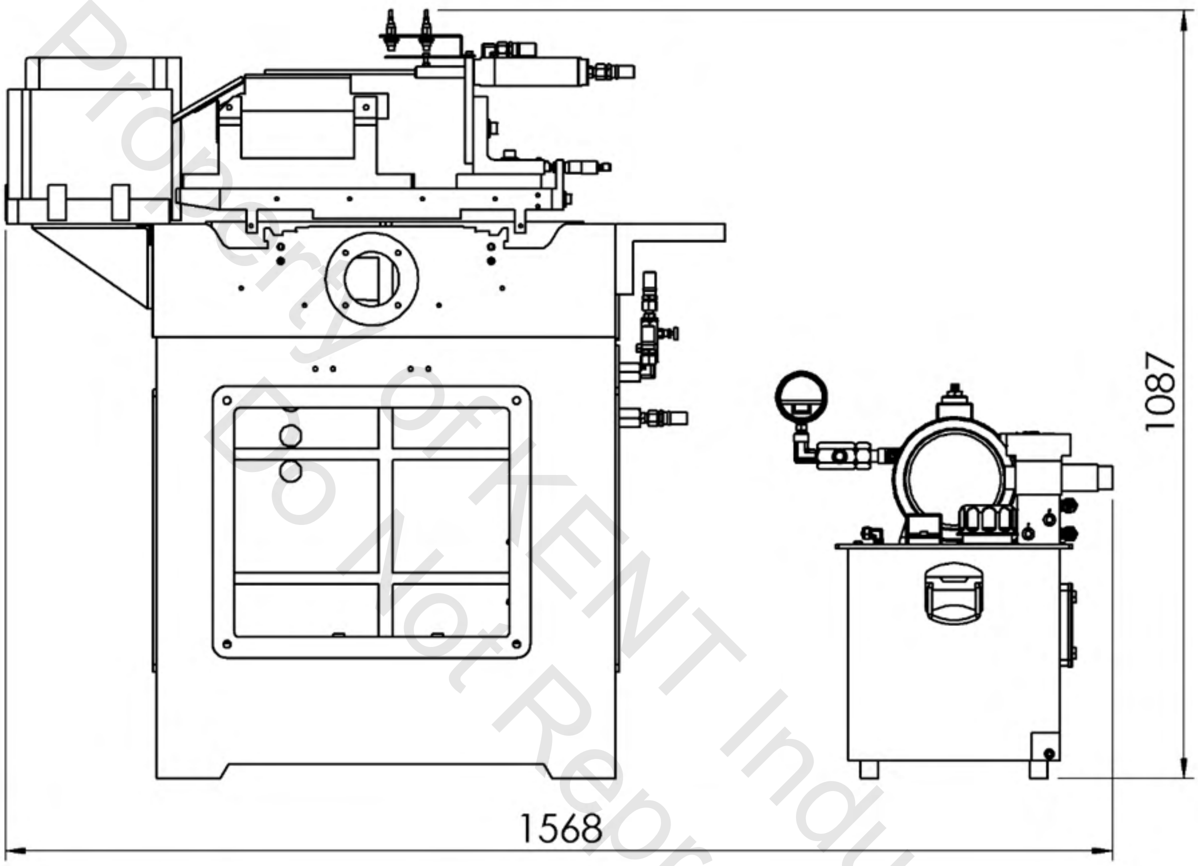

Figure 3.3 Right view

4. TRANSPORTATION & INSTALLATION

4.1 Transportaion and Installation

Assemble this device onto the centerless grinder.

4.2 Cleaning

The sliding parts of the machine are coated with rust preventive oil at the factory, so do not operate the machine until cleaning and oiling are completed. Use a clean, soft cotton cloth and stain remover oil for cleaning, and never use gasoline.

5. MECHANISM AND ADJUSTING

5.1 Part list

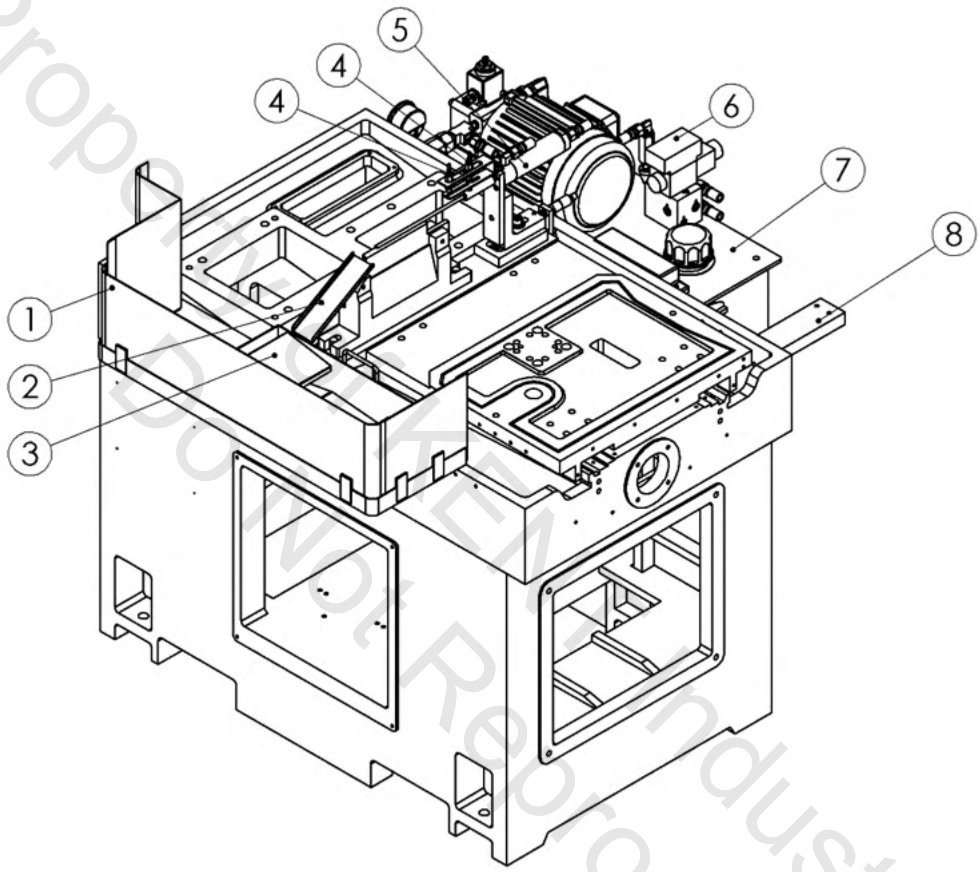

Figure 5.1 Diagram of the machine's parts positions

Form 5.1 Parts list

No	Item	No	Item
01	Splash guard	06	Hydraulic solenoid valve
02	Finished parts receiving plate	07	Oil tank
03	Parts storage	08	Spare base
04	Proximity sensor	09	
05	Ejector hydraulic cylinder	10	

5.2 Steps for adjusting the ejection device based on the workpiece's outer diameter

1. Since the outer diameter affects the center position of the workpiece, the center position of the ejection rod must also be adjusted accordingly.
2. Remove fixing bolts (1) and (2) and related accessories.
3. Loosen two fixing bolts (3), adjust the ejection rod center to the left and right position of the workpiece center, and tighten two fixing bolts (3) after completion.
4. Reinstall fixing bolts (1) and (2) and related accessories.
5. Loosen fixing bolt (5), adjust the ejection rod center height (4) to the workpiece center height, and tighten fixing bolt (5).

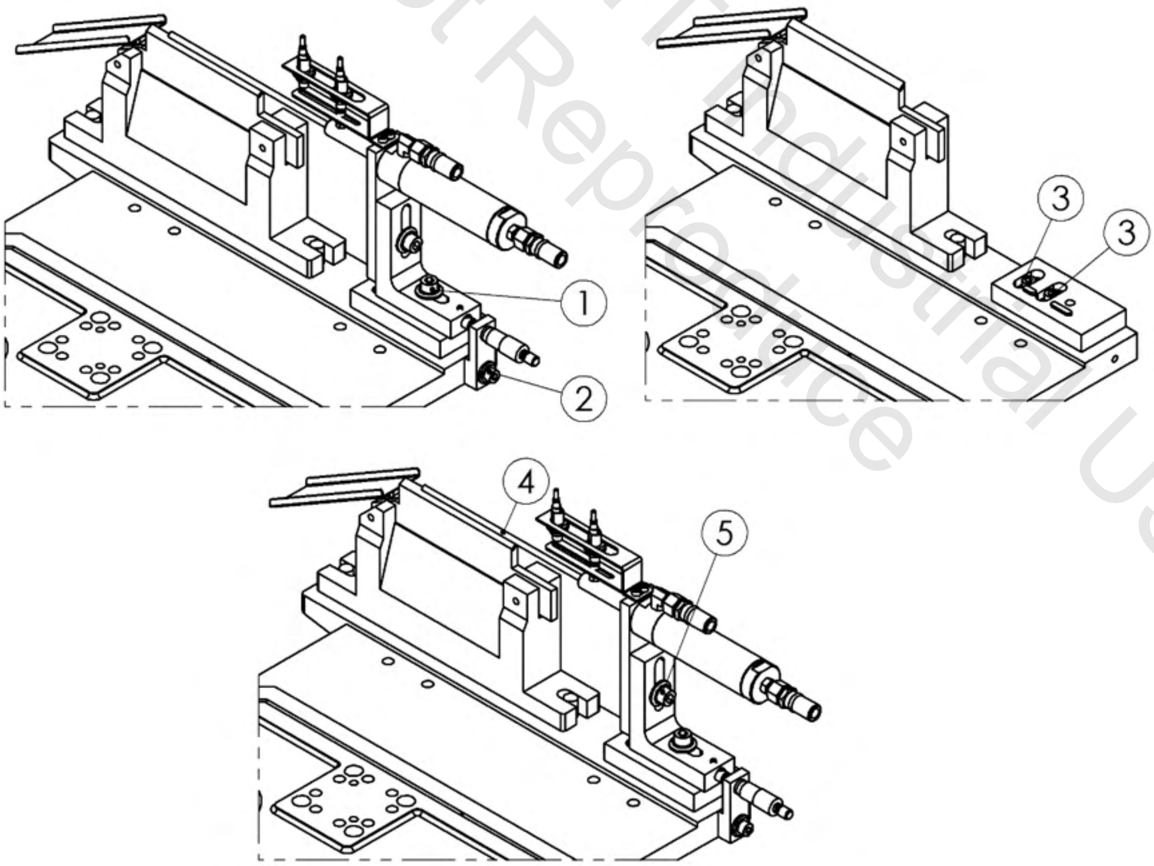

Figure 5.2 Ejection device adjustment based on workpiece outer diameter

5.3 Steps for adjusting the ejection device based on the workpiece's length

1. Loosen fixing bolt (1).
2. Adjust the front and rear position of the ejection rod (2).
3. Tighten fixing bolt (1).
4. Loosen fixing bolt (3).
5. Rotate the micrometer head (4) for fine adjustment of the front and rear position of the ejection rod (2).
6. Tighten fixing bolt (3).

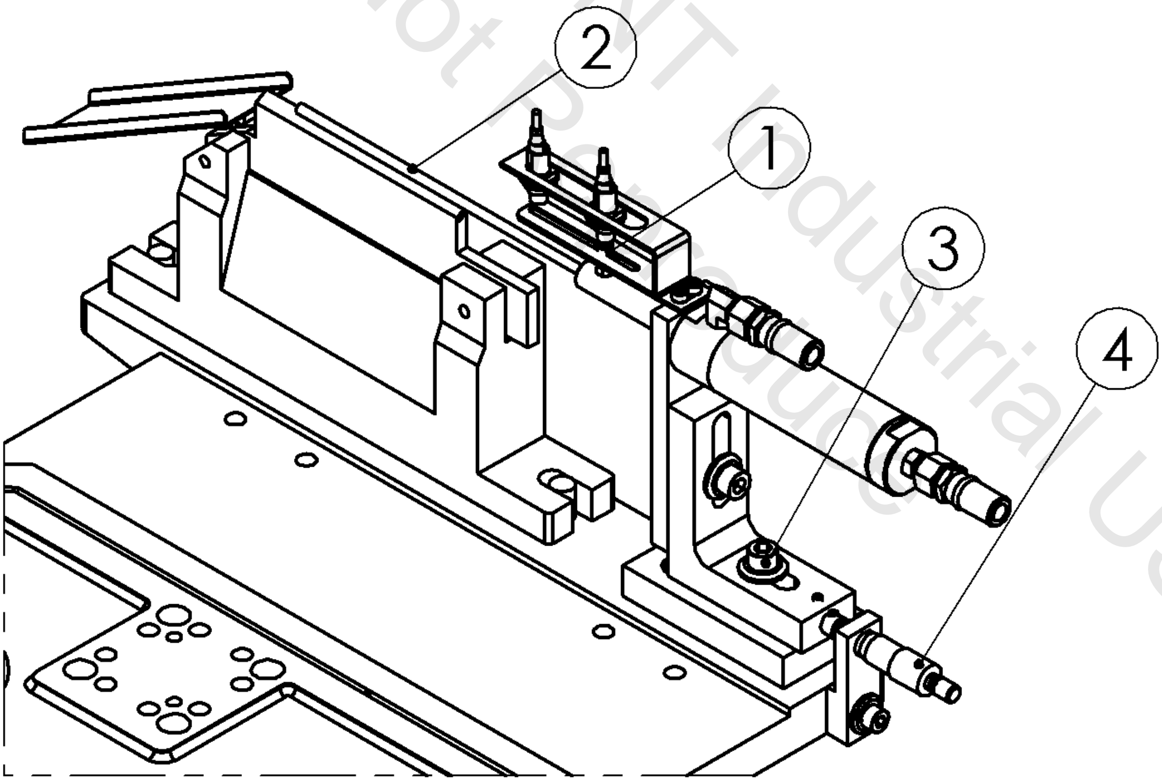

Figure 5.3 Ejection device adjustment based on workpiece length

6. OPERATION

6.1 Operating procedures

1. Place the workpiece on the blade and start the automatic cycle.
2. The workpiece begins grinding, and the ejection device operates after grinding.
3. Eject the workpiece from the blade.

7. MAINTENANCE & REPAIRMENT

7.1 Notes on Maintenance & Repairment

1. Prevent using non-appointed, unknown quality and source oil.
2. Turn off machine power (power switch on electric box door) to clean andmaintain machine and after duty off
3. Maintain machine after machine stops completely or power is shutdown toprevent danger happening.

7.2 Lubrication Standard

Form 7.1 Oil recommendation table

No	Position	Oil Amount	Specification	Cycle
01	Oil tank	Fill to 25 mm from the surface of the barrel About 15 gallons	**CPC** Special grade oil R12 Castrol Hyspin AWS 10 **Mobil** Velocite 6 **Shell** Morlina S2 BL 10	New machinery: First time after three months. Second time after six months After the third time, change once every year.

Note:

1. If the oil specifications listed in the above table are not available, oils of the same grade from other brands can also be used.
2. The oil change interval is based on 8 hours of daily operation.

7.3 Hydraulic Circuit

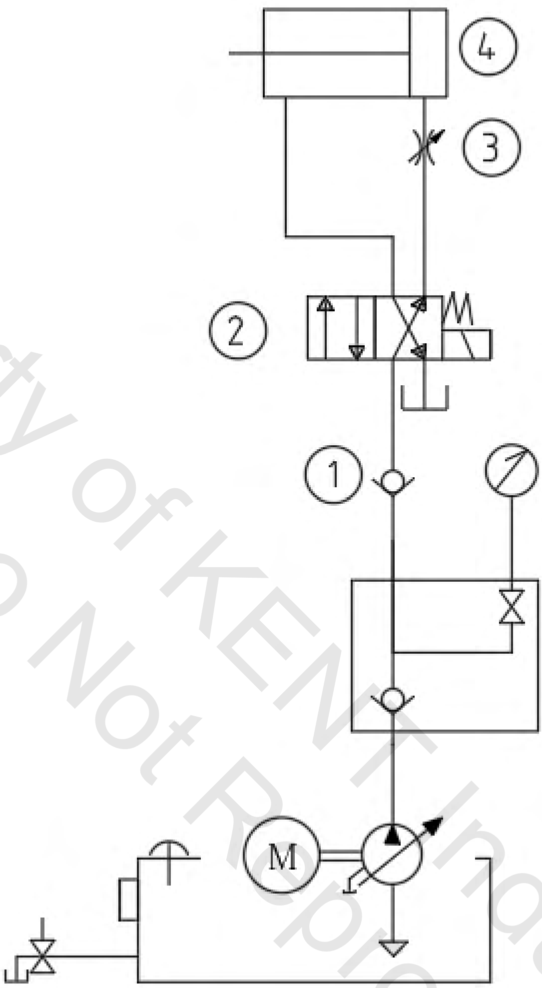

Figure 7.1 Hydraulic circuit diagram

Form 7.2 Hydraulic parts list

No	Item	Specification	Q'ty	Brand
01	Check valve	3/8"	1	HER YIH
02	Single-head Hydraulic solenoid valve	SWH-G02-B2-DC24	1	Hidraman
03	Speed control valve	CS-2002S1/4"	1	HER YIH
04	Ejection Hydraulic cylinder		1	JAINNHER

7.4 Purchased parts location diagram

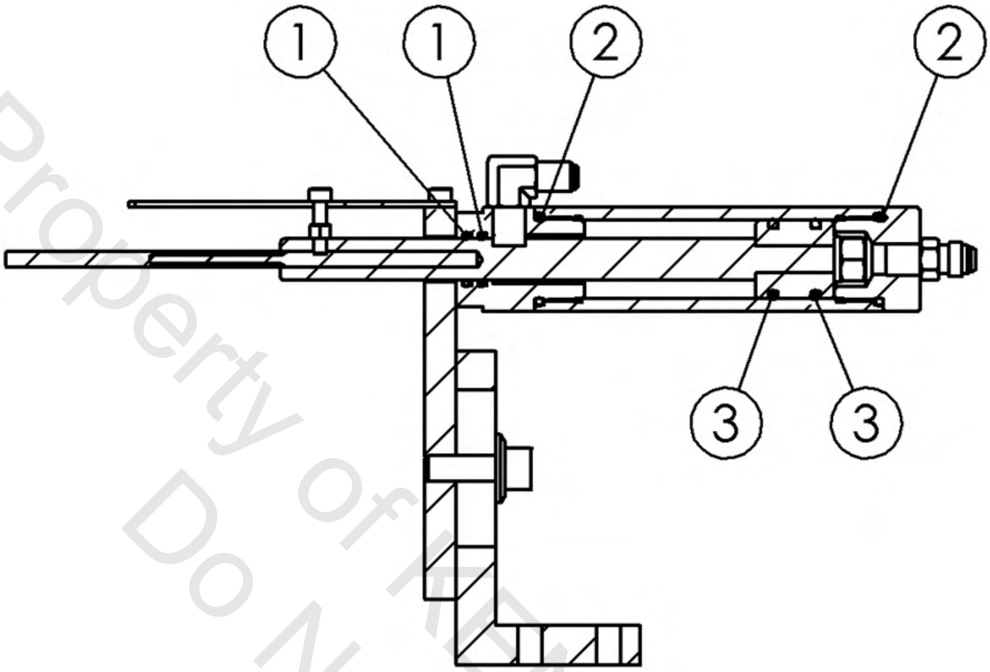

Figure 7.2 Purchased parts location diagram-1

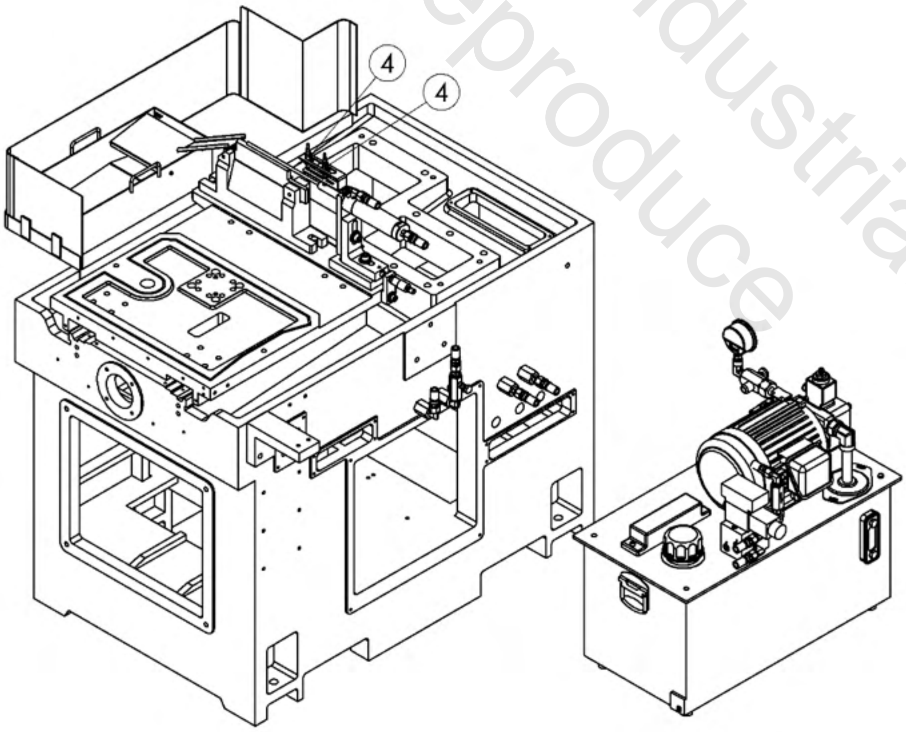

Figure 7.3 Purchased parts location diagram-2

Form 7.3 Purchased parts table

No	Item	Specification	Q'ty	Brand
01	O-ring	P16 VITON	2	NOK
02	O-ring	G30	2	NOK
03	O-ring	P24V	2	NOK
04	Proximity sensor	E2E-X8MD1	2	OMRON

8. TROUBLE SHOOTING

8.1 Common Cause & Remedy

Form 8.1 Common Cause & Remedy Chart

ABNORMAL	CAUSE	REMEDY
Hydraulic pump does not output	1. The oil in the tank is too low	Add specified or similar oil
	2. The oil pump inlet pipe is blocked	Check for obstructions in the oil filter and oil pipe
	3. The oil viscosity is too high	Verify that the oil matches the specifications
	4. The oil pump components are damaged	Have maintenance personnel replace components according to standards
Noise from the oil pump	1. Air has entered the inlet pipe	Ensure the inlet pipe is fully submerged in the oil tank
	2. Air is present in the system	Completely remove air from the system
	3. The filter is blocked with impurities	Maintain according to the maintenance schedule
	4. The oil pipe is blocked	Thoroughly clear obstructions in the oil pipe
	5. The oil pump components are damaged	Have maintenance personnel replace components according to standards
	6. The oil viscosity is too thick	Follow oil specifications Reinstall
	7.The pump shaft and motor shaft are misaligned	Reinstall