

MIKI PULLEY

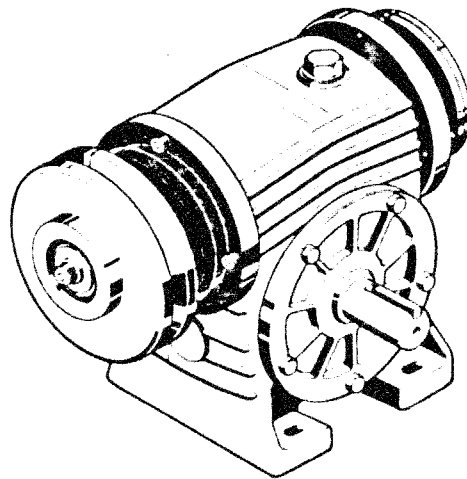
Electro magnetic Clutch and Brake

Simplatroll

Type CBW

INSTRUCTION MANUAL

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Please hand this Instruction Manual to the person in charge of maintenance and inspection so that the person can do the job correctly in accordance with the contents.

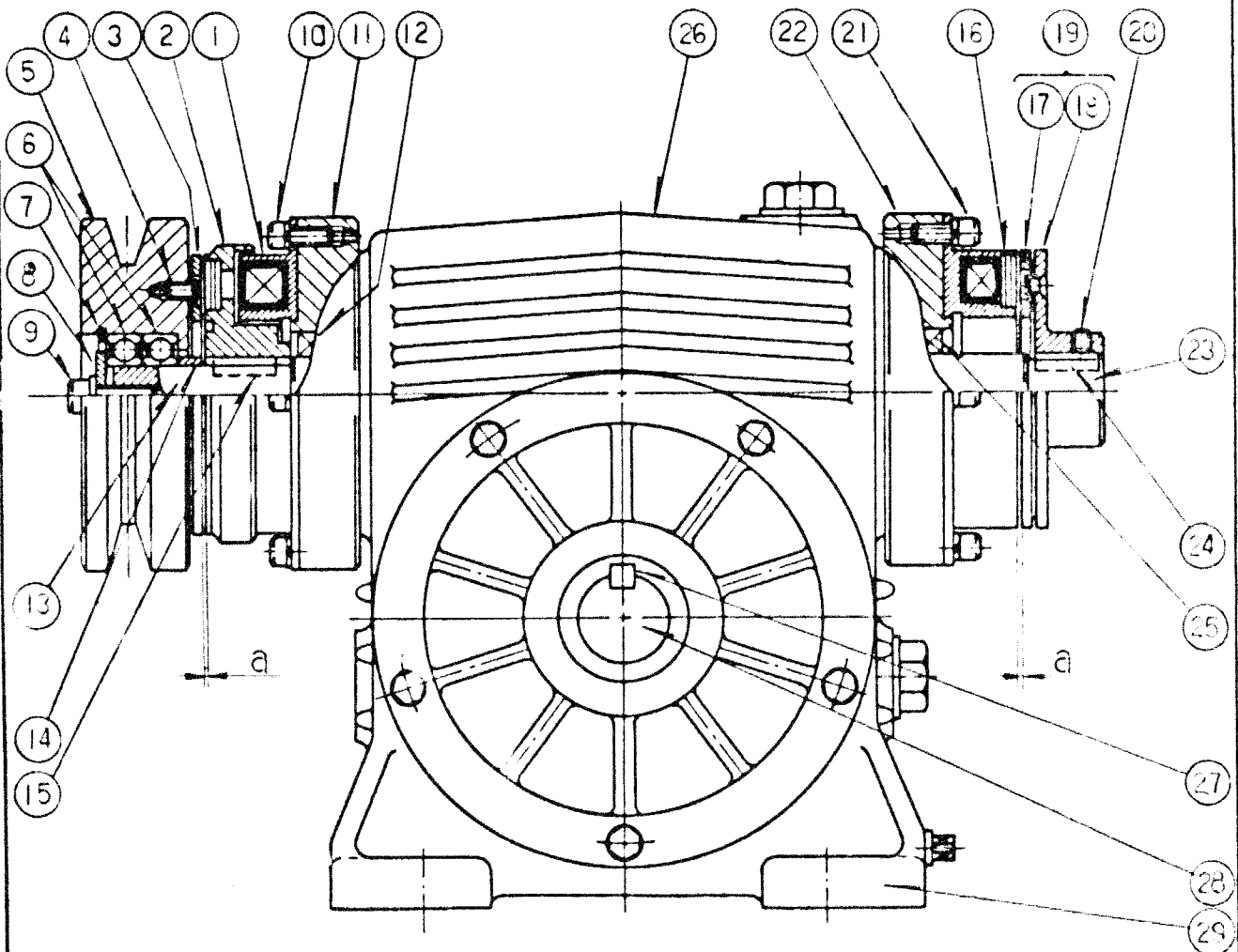
 **MIKI PULLEY**

1. Inspection

- :Please check if this is the CBW you ordered and if there is no lack of parts.
- :Make sure that the unit has not been damaged by accidents in transit.
- :Turn the shaft by hand to make sure that it revolve smoothly.

2. Construction

This type CBW is a clutch & brake unit with reducer. Clutch & brake are installed at the worm shaft of the worm reducer. A V-pulley is equipped to the input shaft of the clutch.



** Parts

1.Clutch Stator	13.Input Shaft	24.Key
2.Rotor	14.Collar	25.Oil Seal
3.Armature(type 3)	15.Key	26.Gear Reducer
4.Special Hexagon Socket Screws		27.Key
5.V-Pulley	16.Brake Stator	28.Output Shaft
6.Ball Bearing	17.Armature(type 3)	29.Base
7.Snap Ring	18.Armature hub	a.Airgap
8.Washer	19.Armature(type 1)	
9.Hexagon Socket Screw	20.Set Screw	
10.Hexagon Socket Screws	21.Hexagon Socket Screw	
11.Flange	22.Flange	
12.Oil Seal	23.Input shaft	

3. Installation

- :Fasten securely to a flat and sturdy base with bolts.
- :Install the Type CBW and the machine so that the line through the center of both pulleys will be on the identical line.
- :Install the Type CBW and the machine driven so that their shafts will both be correctly on straight line.
- :Prevent the friction surface from oil,grease,water and metallic dust.
- :Make sure that the lubricant is filled until the line marked on the oil-gauge.

4. Wiring

:Wire the clutch and brake as Fig.

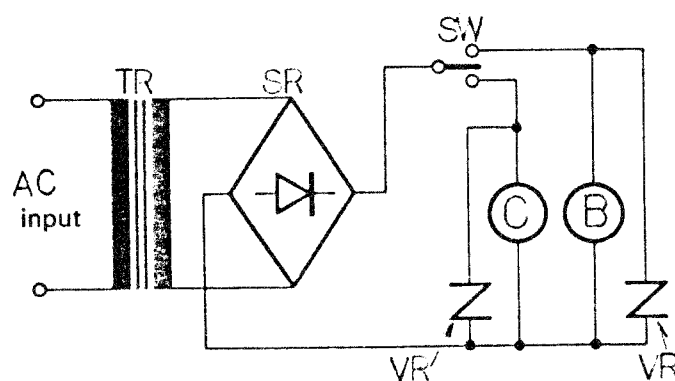
:The standard operating voltage is 24V-DC.

Keep within $\pm 10\%$.

:Put discharge resistance (Varistor) in the place shown in Fig.

:Capacity of the power source must be more than 125% of that of the clutch & brake.

:The ON-OFF of the clutch & brake must be done at the D-C side.



TR=transformer C=clutch
 SR=rectifier B=brake
 SW=switch
 VR=varistor

5. Specification

Size	Voltage (DC-V)	Torque (kg-m)	Input power (W)	Resistance (Ω)	Current (A)
CBW-06	24	0.5	11	52	0.46
CBW-08		1.0	15	38	0.63
CBW-10		2.0	20	29	0.83
CBW-12		4.0	25	23	1.09
CBW-16		8.0	35	16	1.46

The specification can be applied for both clutch and brake.

6. Maintenance

Inspect at regular interval this unit so that this unit can run well and enjoy long life.

***Check points

:ON-OFF action :Unusual noise :Over-heat

:Oil,water or dust on the surface of the friction material

:Excitation voltage value :Airgap

7. Airgap

When you adjust the airgap(a), please keep the airgap within the value given in the table

Size	mm				
	06	08	10	12	16
Width of the Airgap	0.2			0.3	
Tolerance	+0.05 -0.05			+0.05 -0.1	

8. Reducer

Replace the old oil with new regularly.

9. Inspection at troubles

- a) If the unit does not operate at all, the reasons are...
- 1: no power to the unit ----check the wiring
 - 2: low voltage -----adjust the voltage
 - 3: wide airgap -----adjust the airgap
 - 4: damage in the coil -----replace the coil
- b) If the unit operate irregularly, the reasons are...
- 1: damage in the wiring ----adjust or replace
 - 2: wide airgap -----adjust the airgap
 - 3: unstable connection ----check the wire and circuit
- c) If the output-side does not operate correctly, the reasons are
- 1: low voltage -----correct the voltage
 - 2: grease or oil on the friction surface ----remove them
 - 3: over-load -----adjust the load or select the bigger size.
- d) If the time of braking or engaging of clutch is too long....
- 1: low voltage -----correct the voltage
 - 2: wide airgap -----adjust the airgap
 - 3: short of trial run -----longer trial run
 - 4: high load-torque or high load-inertia(GD2)-----adjustment
 - 5: grease or oil on the friction surface ----remove them
- e) If the temperature is too high, the reasons are...
- 1: high voltage -----lower the voltage
 - 2: intervention of clutch and brake ----check the excitation circuit.
 - 3: frequent use -----adjust the frequency
 - 4: enviromental temperature -----check the temperature
 - 5: high load-torque or high load inertia(GD2)-----adjustment
 - 6: inferior lubricant -----exchange to the new one
 - 7: rejected bearing -----exchange to the new one
- f) If there is unusual noise, the reasons are...
- 1: dust in the unit -----remove it
 - 2: rejected bearing -----exchange to the new one
 - 3: high load-inertia(GD2)---adjust the load-inertia
 - 4: short of lubricant in the reducer ----fill with lubricant
- g) If the brake slips, the reasons are...
- 1: unstable voltage -----check the peak torque and select
 - 2: high torque -----the best size.
- h) If the release is not smooth, the reasons are...
- 1: switch at A-C side -----switch for ON-OFF must be at D-C side
 - 2: inadequate discharge resistance----replace it with varistor

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