

PDZ3050

Reversible Plate Compactor

Owner's Manual



SAVE THIS MANUAL FOR FUTURE REFERENCE

This manual provides information regarding the operation and maintenance of these products. We have made every effort to ensure the accuracy of the information in this manual. We reserve the right to change this product at any time without prior notice.

Please keep this manual available to all users during the entire life of the Vibratory.

This Manual introduces the information for Forward & Reverse Plate Compactor, also including the safe operation and maintenance. In order to protect yourself, please read and obey the safe statutes in this manual carefully. All the information in this manual bases on the finished machine when this manual published. We keep the rights to change any part in this manual and won't inform in advance.

If you lose the manual, please contact us. When producing the machine, we already considered the safety for the operator, but the wrong operation and maintenance will lead to danger. Please comply with the manual prudently! If you have any question on the operation and maintenance, please contact us. If you need to purchase spare parts, please lookup the spare parts number and name in the Parts List, and tell us the quantity.

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I. Safety Information

1、 General



 <p>READ MANUAL</p>	<p>Please read and understand this manual completely. The user shall be trained by the professional trainer before operating the machine.</p>
 <p>WARNING & CAUTION</p>	<p>Means the right operation, contravention to it may cause the set or spare parts damaged.</p>
 <p>FORBIDEN ACTION</p>	<p>Means the wrong operations that may induce casualty and is absolutely forbidden.</p>

2. Safety Details

2.1 Using Compactor safely

	<ul style="list-style-type: none"> ● The operator can not go away when the machine is running, while keeping a safety distance is necessary. ● Warning symbol should be showed besides the operating area. Irrelevant persons, especially for children are forbidden to enter within 2m of the working area. Stop operating immediately when they come close, to avoid injury. ● Use this plate compactor in the wrong working site is forbidden.
	<ul style="list-style-type: none"> ● Never operate the engine in a airless area or it may cause unconsciousness and death within a short time. Operate the machine in a well-ventilated area. ● Operate the machine in flammable environment is forbidden. ● Never operating the machine where necessary safety equipments are absent or the machine is not mounted in the right operating area.

2.2 Maintenance and repairing

	<ul style="list-style-type: none"> ● Maintain and repairing the machine according to the owner's manual. ● Please restore the safety and protecting equipment after maintaining or repairing the machine. ● Often clean air filter and radiator. ● Using the spare parts recommended by manufacturer. ● Do not juggle the parameter.
	<ul style="list-style-type: none"> ● Never cleaning or repairing the machine when it is running.

2.3 Personal protective equipment

When the plate compactor is working, it will bring noise, vibration and dust. In order to keep the operator far from injury, they must wear below protective equipment.


			
Earplug	Protective shoes	Glove	Respirator

II. Application

CP78 Hydraulic Forward and Reverse Vibratory Plate Compactor:

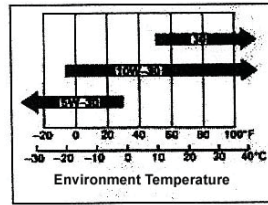
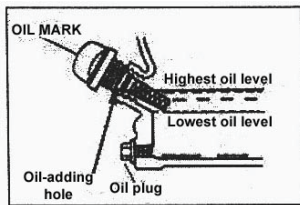
It has big impact force. It can forward, reverse and stay still with vibration. This machine is widely used for tamping clay, gravel, sandy soil, pitch and powder soil.

III. Check Before Start

	<ul style="list-style-type: none"> ● Be sure each part of the machine are ready before operation. ● Check all of the controlling system and safety device and make sure they are workable. Please inform the technician to repair immediately if any bug of safety equipment is found. ● Stopping operating immediately if any bug which may influence safety operating is found.
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1. Lubricating oil check

1.1 Engine lubricating oil: remove oil filler cap and clean the engine oil mark, then insert the oil mark to check the oil level. If oil level is below the lower level line, refill with suitable oil to upper level line. The capacity of the engine lubricating oil is 1.1L.



1.2 Recommended engine oil: SAE10W-30, it is suitable for normal temperature. If use single viscosity lubricating oil, choose the suitable viscosity.

2. Air cleaner checking :check if the filter net is blocked and if the sponge is broken. Dirty filter will block the air cleaner and make the engine with little power even cannot work.

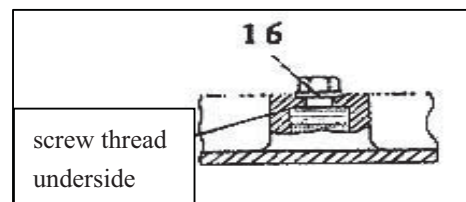
3. Check each bolts of the machine, make sure they are tight enough.

4. Make sure whether there is fuel in the oil box or not. Recommend Fuel—90# unleaded gasoline. Engine oil and gasoline mixer is not acceptable. Keep the fuel tank always clean without dust and water.

5. Fill lubricating oil for CP78 exciter part.

5.1. Eccentric lubricating oil (before the machine leave the factory, it is already with enough lubricating oil. When using the first time, no need to fill lubricating oil for eccentric part).

- 1). Keep the plate compactor flat.
- 2). Open the greaser hole which is beside the gear box. (16)
- 3). Fill 0.85L SAE15W40 lubricating oil through greaser hole (use tundish).
- 4). Screw the greaser bolt tightly.



5.2. Hydraulic control

A. Check the oil level:

- 1) Turn the handrail and make it upright.
- 2) Open the greaser bolt (14).
- 3) Fill SAE15W40 engine oil (or MR520 hydraulic oil), then turn the operating armrest (6), press the oil into the oil pipe.
- 4) Reinstall the greaser bolt.

B. Hydraulic control equipment deflation:

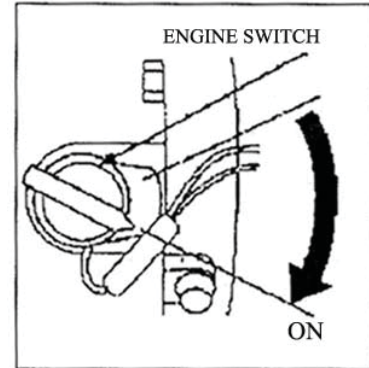
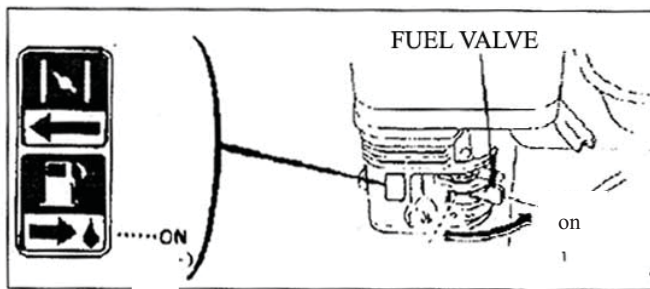
- 1) Turn the handrail(6) and make it upright.
- 2) Open the deflation screw (5).
- 3) Turn the handrail (6) forward slightly, until the deflation screw (5) area without air bubble shape hydraulic oil.
- 4) Make the screw tightly.

6. Tools and accessories

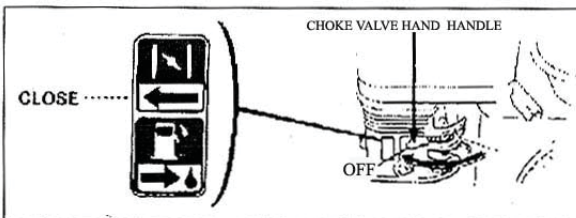
Spark plug wrench, it is used to replacement the spark plug.

IV. Operations

1. Power On

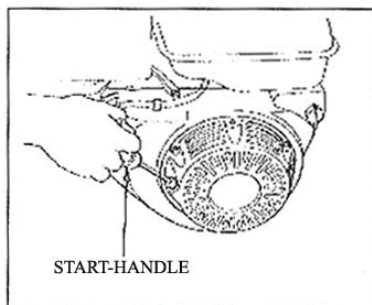


1.1 Turn the engine switch to "ON"

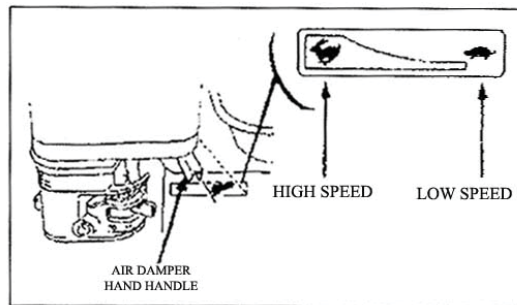


picture 1.5).

Picture 1.5



Picture 1.4



1.2 Screw the fuel valve to "ON"

1.3 Close the choke valve. If it is the hot machine or the hot weather, no need to close the choke valve.

1.4 Push the throttle lever right a little(see picture 1.4)




1.5 Pull the handle until feeling resistant, then pull the rope quickly and start the engine(see



Pull the rope handle slightly first, then jerk immediately when you feel resistant, this can protect the start ratchet wheel. Hold the handle and let it go step by step with the rope bouncing back.

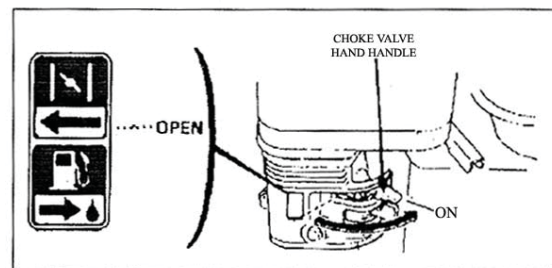
1.6 When the engine is refilling the fuel or is running, it is very dangerous. If not obey the safe

instruction, it will lead to the casualty.

	<ul style="list-style-type: none"> ● Never operate the engine in a flammable environment, especially do not replace fuel for the engine in such occasion.
	<ul style="list-style-type: none"> ● Do not touch any parts of the engine when it is working or within short time after it stops, for the temperature of these parts are very high when it works.
	<ul style="list-style-type: none"> ● Do not refill fuel while engine is running or hot ; ● Storage and transportation after it is cooled enough.

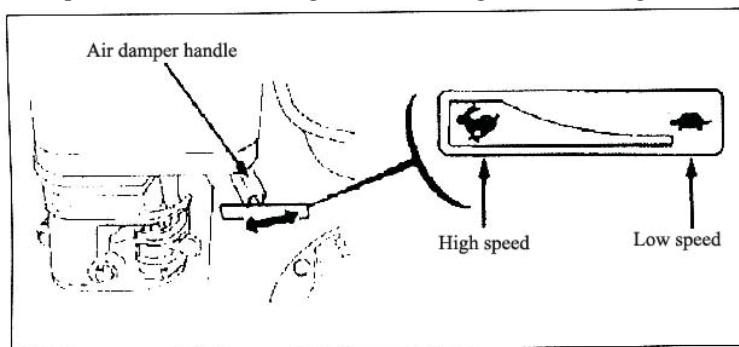
2. Using the Plate Compactor

2.1 Start the engine, warm up for 2~3 minutes, then open the choke on the carburetor(see the right picture).



After starting the engine, it must work slowly for 2~3 minutes first, then can work with high speed. If work with high speed soon after starting, as it is not lubricant enough, then it will fray the engine spare parts, reduce the life time of the engine.

2.2 Pull the air damper handle to the last right, machine begins to vibrating.



Do not pull the air damper handle (accelerograph handle) to middle. When they are in the middle, the clutch is in the half-startup situation, it will fray the clutch and damage the machine.

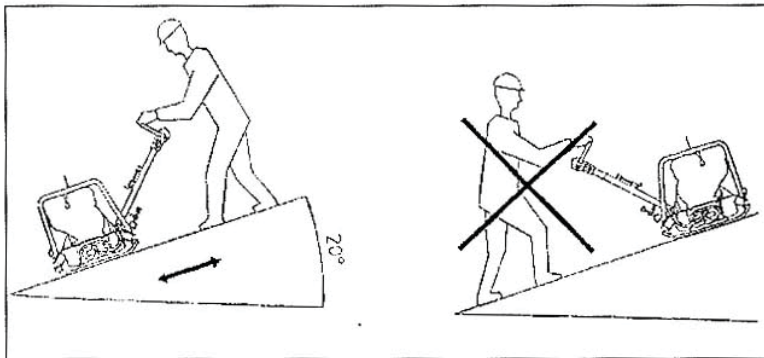
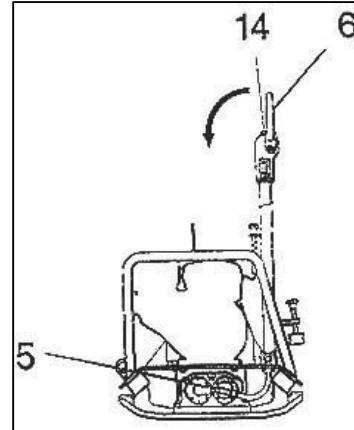
2.3 Operating the handrail (14),can make the plate compactor forward, reverse and stay still with

vibrating.

2.3.1 Push the handrail (14) onwards, the plate compactor will forward.

2.3.2 Pull the handrail (14) backwards, the plate compactor will reverse.

2.3.3 Pull the handrail (14) parallel with the handrail rod, see the right picture, the plate compactor will stay with vibrating.



- When the plate compactor is working, the gradient cannot over 20 degree. Or else it will damage the important parts of the engine.
- Never use the plate compactor at the flinty surface, such as cement surface, stone, or else it will damage the machine.
- Never run the machine without air cleaner, or else it will damage the engine badly.

V. Turn Off

Directly switch down the machine in emergency. In normal case, shut down it as follows:

1. Push the air damper handrail to the low speed place..
2. Turn the engine switch to OFF
3. Push the oil valve to OFF.



Do not stop the engine when it is run at a high speed or it will cause oil deterioration or the high temperature of the engine and the seizure of the parts.

VI. Inspection & Maintenance

- ◇ The plate compactor should be inspected and maintenance termly .
- ◇ After maintenance and repair, reinstall all safety device correctly.



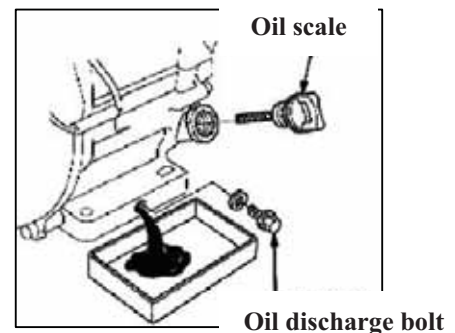
- Be sure to switch off the engine before examination and maintenance.
- Be sure to unbolt the spark plug cover before repair.

1. Maintenance periodic chart

maintenance content		period		Every time	20 hours	Every 3	Every 6	Every year
		Every time	before	operation	per	month	month or	month or
		operation	operation	operation	month	50 hours	100 hours	hours
Engine oil	Examine oil surface	●						
	Exchange						●	
Air cleaner	Examine	●						
	Clean			●				
Carburetor	Clean						●	
Spark plug	Examine and clean					●		
Oil for pulsator	Exchange							●

2. Engine oil

- 2.1 Exchanging the engine oil, it is better when the engine is warm to discharge the oil quickly and completely.
- 2.2 After unscrewing the oil scale, then unscrew the oil discharge plug to discharge the oil.
- 2.3 Screw the oil plug and screw it down
- 2.4 Fill up the oil and examine if the oil level is meeting the requirement.
- 2.5 Install and screw down the oil scale.



- There is danger of cancer in contacting the oil frequently, so wash up the hands with soap after work.
- Be sure to have a container when discharging oil. Do not spill oil on the ground and pollute the surrounding.

3. Maintenance of air cleaner

Dirt will keep air far from the carburetor. Be sure to clean the air cleaner periodically, especially in dirty and dusty places.

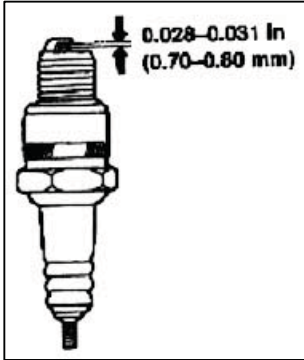


- Do not use the gasoline or low burning point impregnant to clean the air cleaner or it will cause fire or explosion.

4. Maintenance of spark plug

Recommended type: BPR6ES.(NGK)

4.1 Measure the plug gap with plug ruler and adjust it within normal scale: 0.7-0.8mm.



4.2 If the carbon is seriously accumulated, brush it out with metal brush and reinstall it.

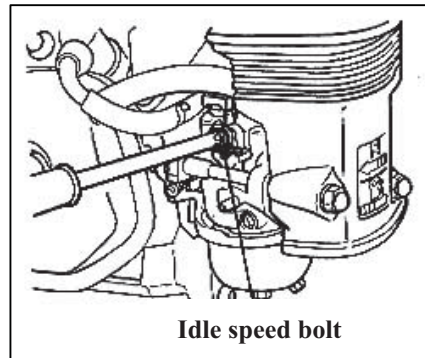
4.3 Examine if the spark plug washer is broken

5. Adjustment of the idle speed of carburetor

5.1 Start and warm up the engine.

5.2 Adjust the idle speed with adjustable screw to standard idle speed.

Standard idle speed: $1,500 \pm 150$ rpm



6. Inspection for the lubricating oil:

A. Exciter

6.1 Check if the exciter lubricating oil leaks or not everyday.

6.2 Check the oil scale every 150 hours, if the oil surface is to low, need to fill the oil.

6.3 Exchange the exciter oil every 250 hours.

B. Controlling handle inspection

6.1 Lubricate the movable locking setting and adjusting rod every week.

6.2 Check the oil position every month, filling when needed.

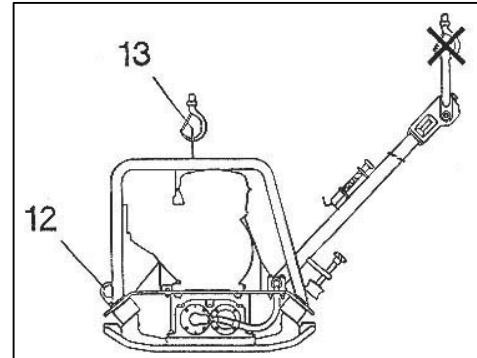
6.3 Exchange the oil every 250 hours.

VII. Transport

1. Be sure to switch off the machine in short transport and keep the engine in level to prevent the leaking of oil.
2. Be sure to discharge the oil in the gasoline tank and engine oil in long transport.

3. Transportation condition for CP78:

- 1).Transporting CP78 must use suitable equipment, carrying capacity should be over 180kg.
- 2).Turn off the engine.
- 3).There's a hook in the middle, see (13),please use this hook for transportation.
- 4).Bind fixation point (12) with the truck tightly.
- 5). Suspending the machine with handrail is forbidden.



- In order to avoid injury, non-operator (especially children) is not allowed to close the suspending working area within 5m.Please stop working when they come close.

VIII. Storage

- 1 Be sure to discharge all the oil in the gasoline tank and carburetor settling cup before storage and keep the storage.
2. Discharge all the lubricating oil in the engine.
3. Keep the storage place dry and clean.
4. Put a cover on the engine to prevent the dust.

IX. Malfunction List

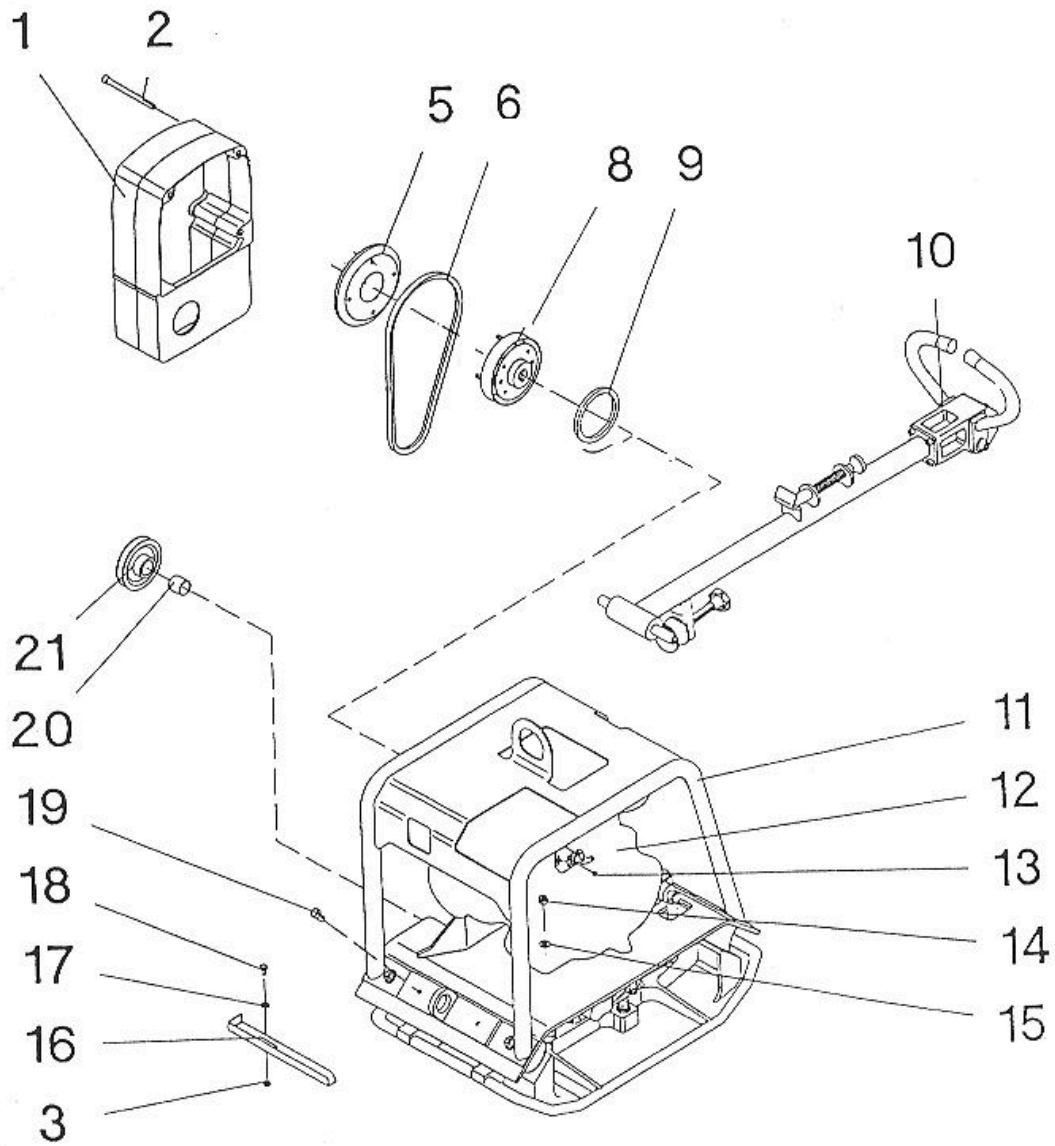
1.Unable to, hard to start the engine or disorderliness of the engine			
Reason	No oil in gas tank	Solve	Examine the oil level and fill in the oil
	Not switch on the engine		Switch on the engine
	Not open the oil valve		Open the oil valve
	Air cleaner is dirty and blocked		Clean the air cleaner
	No smooth oil supply of carburetor		Clean the carburetor
	See if it has fire in spark plug		Pull out the spark plug cap, clear up the dust and lay down spark plug. Connect its edge to the engine, pull the starter to see if there is fire in the gap, and exchange it if no fire.
2.Engine is working but trowel is not working			
Reason	Not open the oil valve	Solve	Open the oil valve
	Belt is too loose or broken		Adjust or exchange
	Rotate speed of engine is too slow		Examine the rotate speed of the engine
	Wear abrasion of the clutch		Repair or exchange
	Decentralize Mechanical malfunction		Repair
3.CP78 cannot forward			
Reason	No oil in hydraulic pipe	Solve	Fill in the hydraulic oil
	Leakage of the hydraulic pipe		Check the hydraulic system ,if the airproof is damaged, exchange it
	There's malfunction for drive parts		Check and repair the gear box
4.CP78 forwards very slowly			
Reason	The hydraulic oil on the end of control handrail is too little	Solve	Input some hydraulic oil
	There is some air in the hydraulic control set.		Compel the air out
5.CP78 reverses very slowly or not			
Reason	The hydraulic oil on the end of control Handrail is too much.	Solve	Adjust the oil level according to the correct graduation.
	Mechanical Malfunction		Contact us or some technologists

X. Technical Specifications

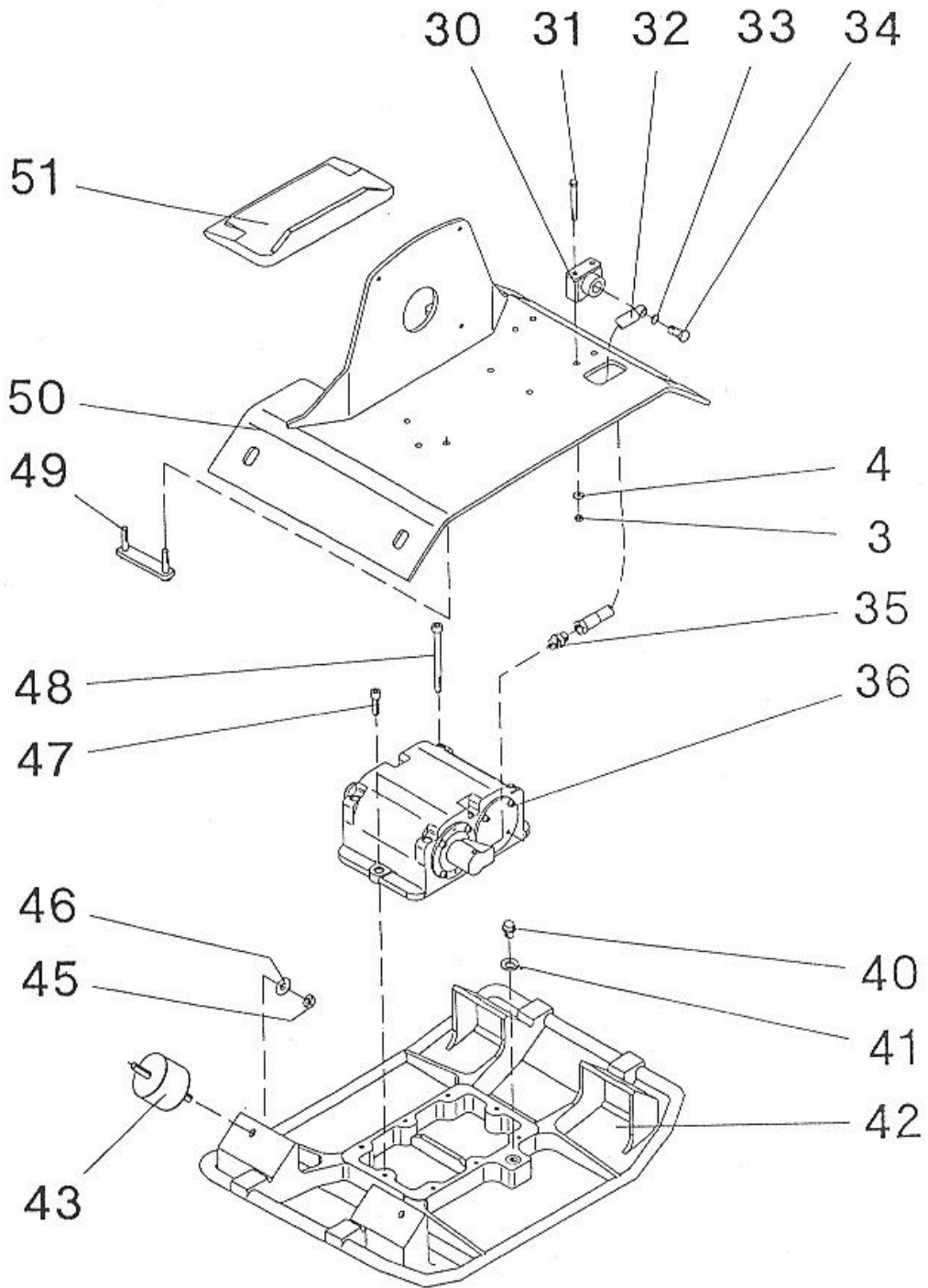
Length*Width*Height (mm)	1380X500X1020
Baseplate Size (L*W mm)	700*500
Vibration frequency	5400
Operation weight (kg)	165
Forward speed (m/min)	Max. up to 20
Hydraulic oil type	SAE15W40(or MR520)
Compacted area(m ² h)	Max. up to 640
Compaction Force(KN)	Max. up to 30
Engine	9.0HP
Engine Type	Four-Stroke, Air-Cooled, OHV Gasoline Engine
Eccentric machine oil/Volume	SAE15W40/1L
Rated output (KW)	6.6
Engine Speed Full Load(rpm)	3000 ± 100
Engine Idle Speed (rpm)	1400 ± 150
Fuel Tank Volume (L)	6.5
Fuel Consumption Rate (L/H)	2.7
Engine Fuel Type	90# or Above
Engine Lubrication Type	SAE10W-30
Sound	L _{PA} =100 dB、 L _{WA} =108dB
Vibration	a _{hw} =8.8m/s ²
Gradient	Below 20 degree
Handrail operation	150N

Selection Two: Parts List

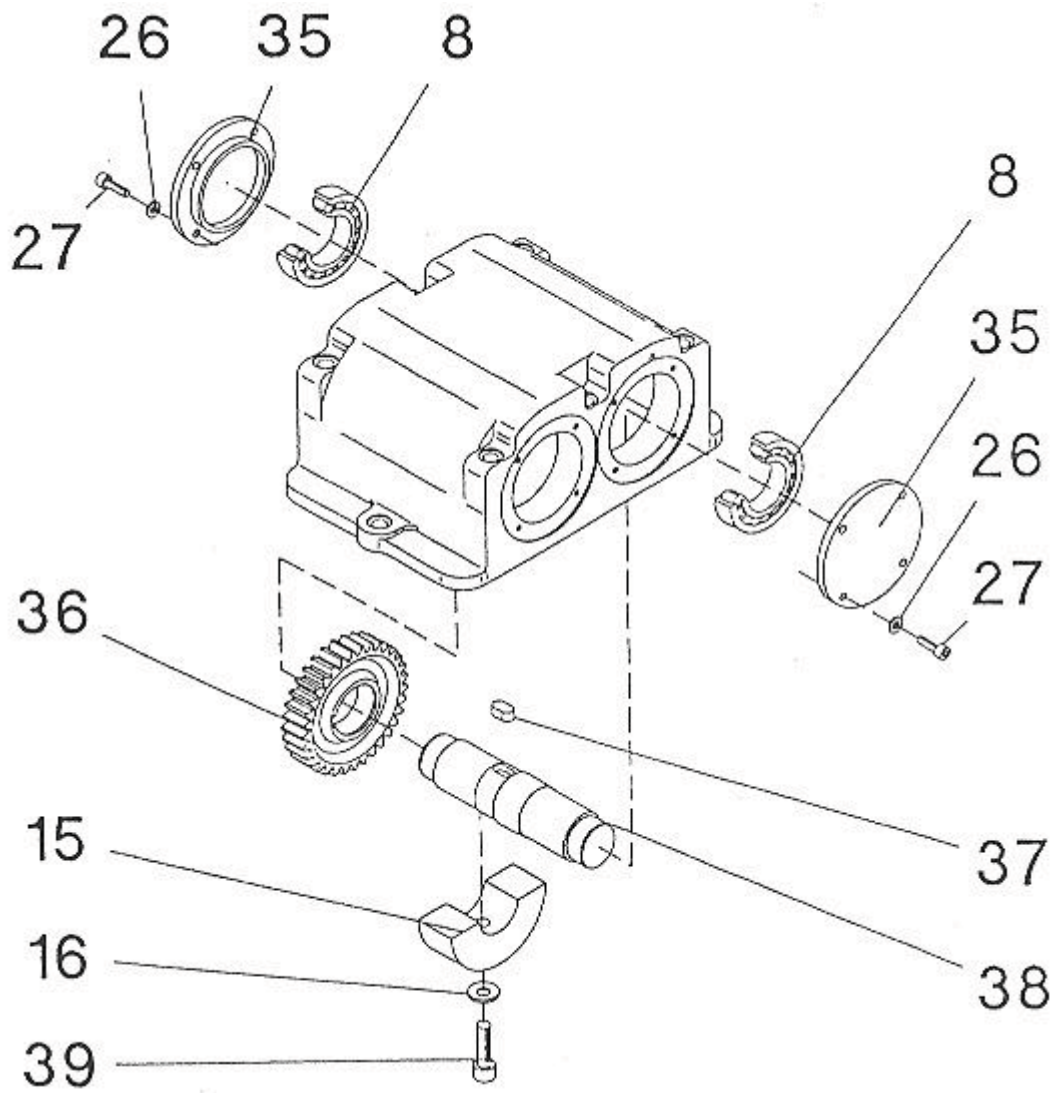
1	Bracket and Handrail Module.....	16
2	Baseplate Module.....	18
3	Eccentric Module.....	20
4.	Control Handle Module.....	23
5	Control Handrail Module.....	24
6	Centrifugal Clutch.....	25

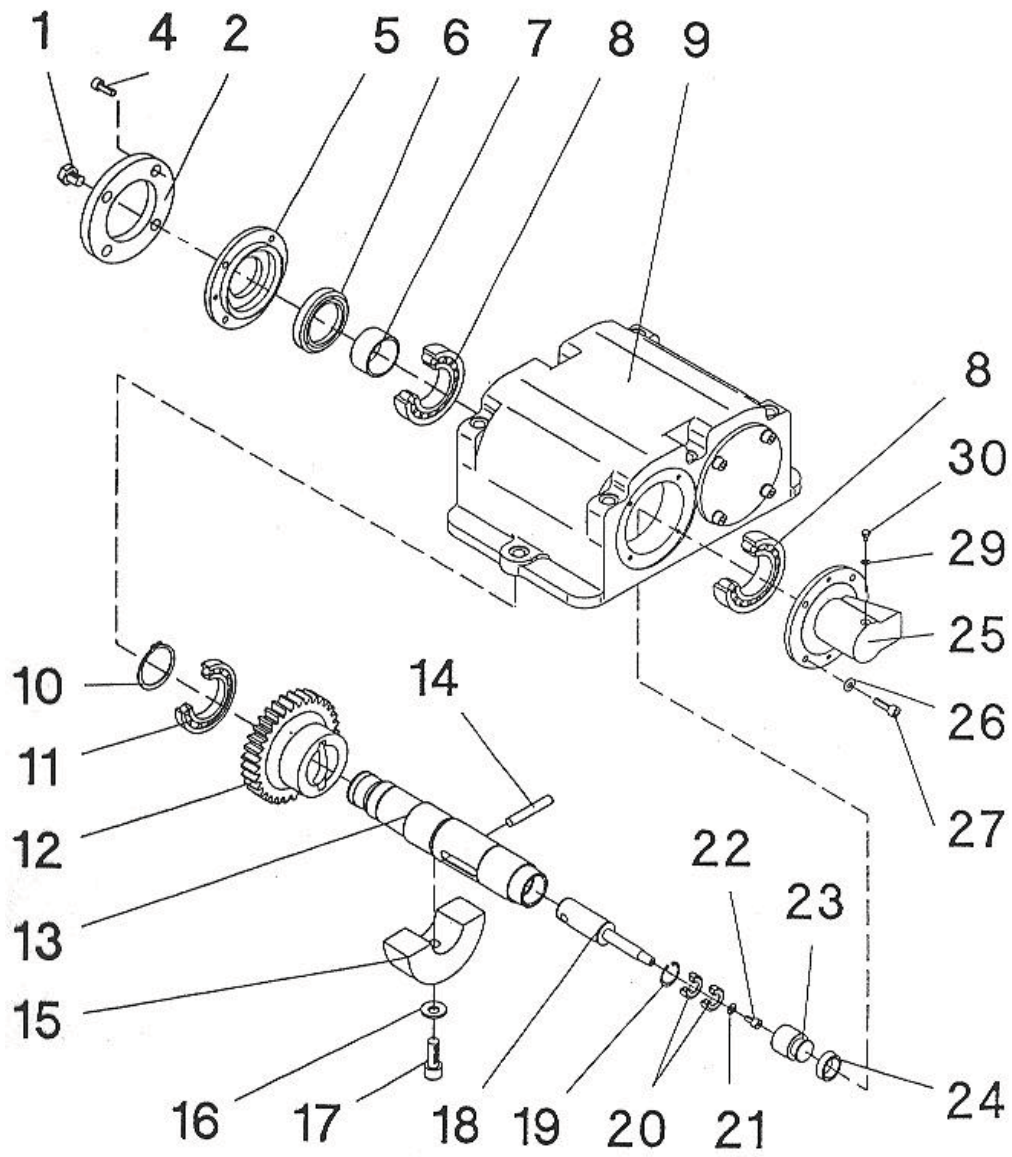


No	Item No	description	quantity	remark
1	31001	Belt Safeguard	1	
2		Bolt M10X130	3	
5	31005	Belt Wheel	1	
6	31006	V-belt	1	
8	35000	Centrifugal Clutch	1	
9	31009	Cushion	5	
10	34000	Control Handrail Module	1	
11	31011	Safeguard Lid	1	
12	31000	Engine Module	1	
16	31016	Oil Out Groove	1	
17		Cushion B8	1	
18		Bolt M8X20	1	
19		Bolt M12X16	2	
20	31020	Key	1	
21	31021	Belt wheel	1	
22	31022	Cushion	1	
23		Bolt M8X30	1	



NO.	Item No.	Description	Quantity	Remarks
3		Screw M8	1	
4		Spring Cushion R8	1	
30	32030	Fixing set Module	2	
31		Bolt M8X70	1	
32	32032	Hydraulic Soft Tube	1	
33	32033	Washer	2	
34	32034	Hollow Bolt	1	
35	32035	Whorl Joint	1	
36	33000	Eccentric Module	1	
40		Whorl block M6X1.5	1	
41	32041	Ring	1	
42	32042	Baseplate	1	
43	32043	Vibration absorption	4	
45		Screw M12	8	
46		Spring Cushion R12	8	
47		Bolt M10X35	2	
48		Bolt M10X12	6	
49	32049	Fixing Shank	2	
50	32050	Top Block	1	
51	32051	Insulated Washer	1	

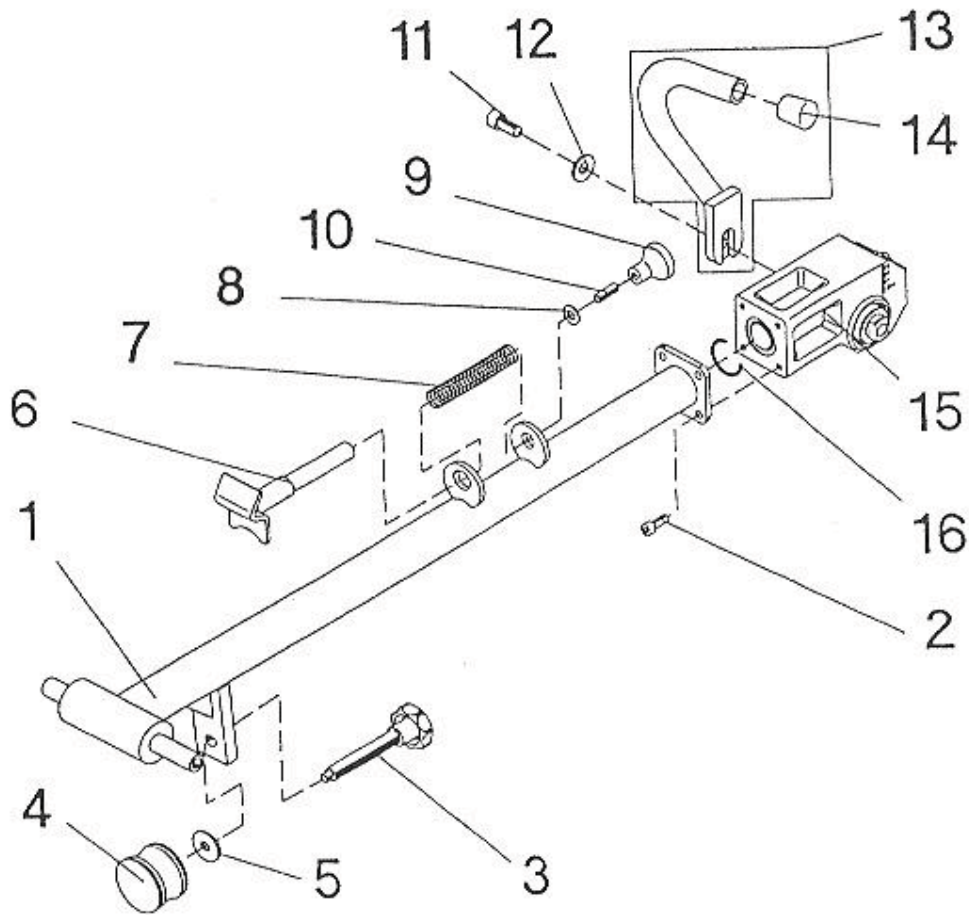




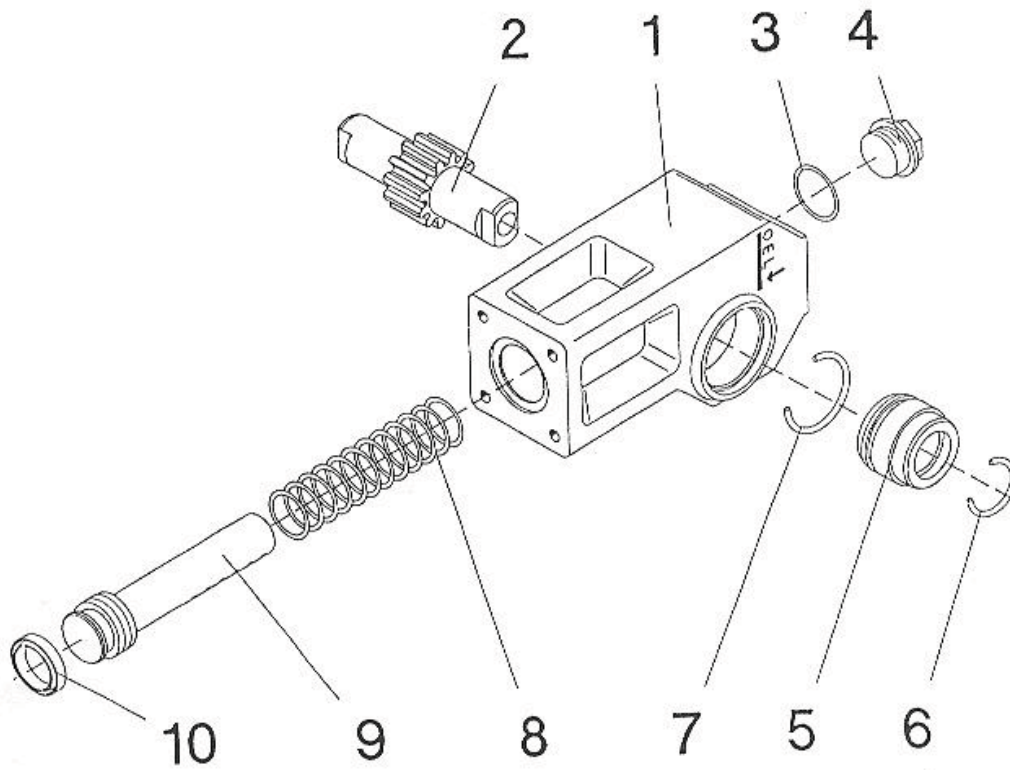
3. Eccentric Module

CP78

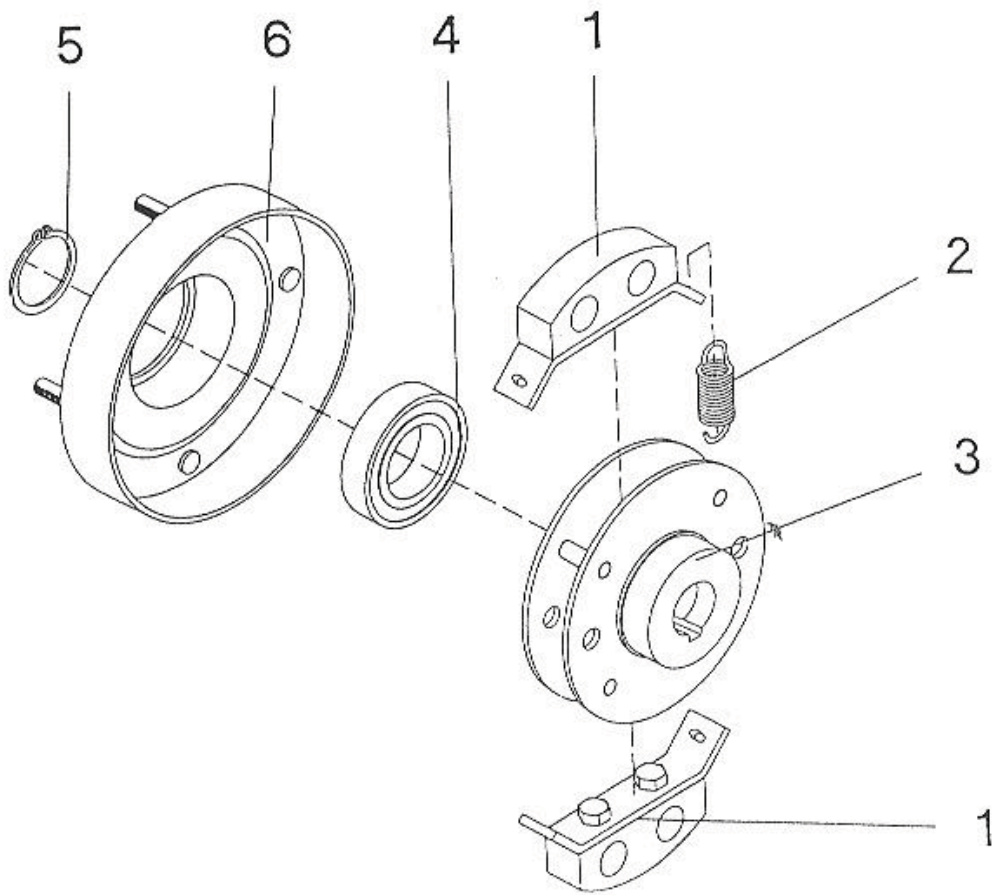
No.	Item No.	Description	Quantity	Remarks
1	33001	Aerating Screw	1	
2	33002	Sealing Loop	1	
4		Bolt M6X16	4	
5	33005	Lid	1	
6	33006	Revolving Axis Seal	1	
7	33007	Inside Loop	1	
8		Bearing	4	
9	33009	Eccentric Shell	1	
10		Ring 40X1.75	1	
11		Bearing	1	
12	33012	Main Gear Wheel	1	
13	33013	Axis	1	
14	33014	Pin	1	
15	33015	Eccentric Block	4	
16		Wave Cushion	4	
17		Bolt M10X25	2	
18	33108	Piston Shank	1	
19		Ring	1	
20		Bearing	2	
21		Cushion	1	
22		Bolt M5X10	1	
23	33023	Piston	1	
24	33024	Lib. Sealing Loop	1	
25	33025	Fuel Tank Cover	1	
26		Cushion B6	12	
27		Bolt M6X20	12	
29		Washer	1	
30		Bolt M4X6	1	
35	33035	Lid	2	
36	33036	Gear Wheel	1	
37	33037	Key 10X8X18	1	
38	33038	Axis	1	
39		Bolt M10X35	2	
	33000	Centrifugal Module	1	



No.	Item No.	Description	Quantity	Remarks
1	34001	Control Handrail	1	
2		Bolt M8X25	4	
3	34003	Whorl Axis Module	1	
4	34004	Vibration Absorption Bracket	1	
5	34005	Cushion	1	
6	34006	Orientation Pin	1	
7	34007	Constringent Spring	1	
8	34008	Cushion	1	
9	34009	Switch Handle	1	
11		Bolt M12X25	2	
12		Cushion	2	
13	34013	Bracket Module	2	
14	34014	Protecting Cap	1	
15	36000	ControlHandrail Module	1	
16	34016	O-Ring	1	
	34000	Control Handle	1	Including (1-16)



No.	Item No.	Description	quantity	Remarks
1	36001	Control Handrail	1	
2	36002	Gear Wheel	1	
3	36003	Cushion	1	
4		Bolt Cushion M26X1.5	1	
5	36005	Washer	1	
6		O-Ring	2	
7		O-Ring	2	
8	35008	Constringent Spring	1	
9	36009	Piston Pole	1	
10		Lib. Sealing Loop	1	
	36000	Control Handrail Module	1	Including (1-10)



No.	Item No.	Description	Quantity	Remarks
1	35001	Rubber	2	
2	35002	Drawing Spring	2	
3	35003	Hub Module	1	
4	35004	Bearing	1	
5	35005	Spring 35X1.5	1	
6	35006	Tub Wheel Module	1	
	35000	Centrifugal Clutch Module	1	Including (1-6)