

WULI



物理農業機械股份有限公司

WULI AGRICULTURE MACHINE CO., LTD.

動力噴霧機、高壓洗淨機、微霧降溫系統專業設計製造

MISTING PUMP OPERATION MANUAL

微霧幫浦操作手冊

M O D E L

WM-1001B-5

WM-1001B-6

WM-10005B-5

WM-10005B-6



感謝您購買物理產品，使用前請詳閱本說明。

Thank You For Choosing Our Product.

Please Read The Operation Manual Before Use.

安全須知 General Safety Information



微霧機請放置於乾燥的地方，避免電線短路。

To reduce the risk of short circuit, please place the pump in a dry area.



微霧機運轉後溫度會上升，請勿直接碰觸機械表面。

To reduce the risk of burns, do not touch the surface of the pump while operating.



請做好微霧機防護措施，避免運轉時人員誤觸受傷。

Please keep off the machine while operating. Do not handle the pump or motor with wet hands.



使用前請檢查進水管與微霧機機油，以避免吸入空氣。

Check the hose for weak or worn areas and the oil level before each use.



任何檢修、保養請先關閉電源，避免危險。

Always completely shut down the unit before performing maintenance.



使用前請確認使用自來水源已經開啓，避免機器空轉造成損壞。

The unit must not be run without water. Please ensure the tap is turned on before operation; running without water will cause serious damage to the pump.



請勿讓兒童使用本機器，使用時請注意兒童安全。

Do not operate the machine near children or animals.

使用說明 Instructions

一、操作說明 **Operating Instructions**

1. 每一個接頭都要鎖緊，以防止洩漏。
Please tighten every connector securely to prevent leaking.
2. 啟動馬達前，先接好進水管。打開水源並啟動馬達，將幫浦內空氣排出後，關閉馬達，鎖緊出水管即可正常使用。
Please make sure the inlet hose is well-connected and the faucet is turned on before starting the motor.
3. 使用工作壓力請勿超過本產品所設定之工作壓力(70 kgf/cm² (1,000 p.s.i.))。
Working pressure should not exceed 70 kgf/cm² (1,000 p.s.i.)
4. 請直接用水龍頭進水，水量不得低於4 L/Min.。
Please connect the inlet hose to a faucet and note that the flow rate of the faucet should not be less than 4 liters per minute.
5. 進水管口徑不得小於 5/8 英吋。
Make sure the suction hose diameter is larger than 5/8 inch.

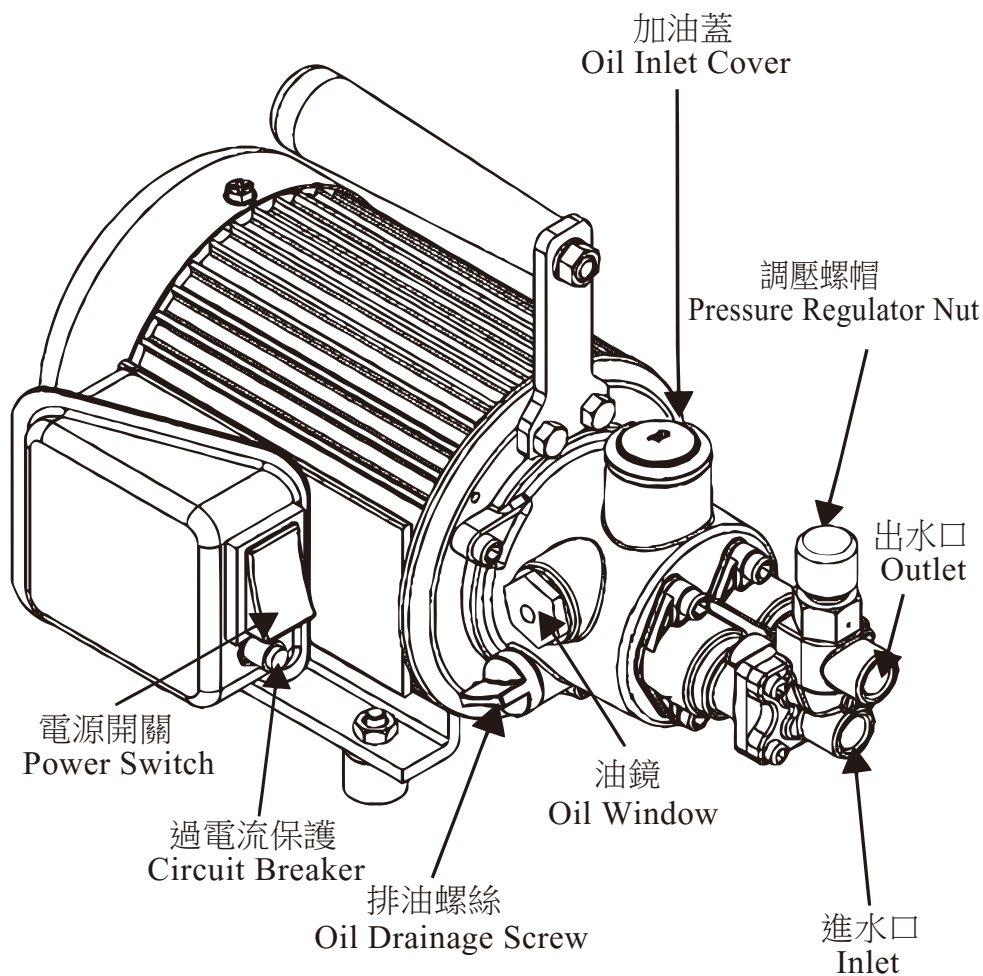
二、幫浦的潤滑 **Oil Change**

1. 幫浦在使用最初之 30~50 小時應更換機油，以後每隔 100~200 小時應更換一次(使用前應檢查機油是否足量或變質)。
Replace the oil in the pump after the first 30~50 hours of use. After this, the oil should be changed after every 100~200 hours of use. Make sure the oil is in good condition before use.
2. 更換機油時，請旋開洩油螺絲排出骯髒的機油。
Unscrew the drainage screw and drain all oil and residue from the pump.
3. 將洩油螺絲鎖緊後，打開加油蓋注入#30~#40 或二行程之乾淨機油，油量約 80cc。
Tighten the drainage screw before refilling with clean #30~#40 oil or two stroke oil; the oil amount is approximately 80 cc.

特別注意事項 **Reminders**

1. 使用自來水作為幫浦的水源。
Use tap water as inlet water source.
2. 馬達電源線請勿超過10公尺。
The motor power cord should not exceed 10 meters.
3. 馬達延長線線徑需大於1.25mm²。
Make sure the extension cord diameter for the motor is larger than 1.25mm².
4. 確實的更換機油以保持幫浦的潤滑，降低機械損耗。
Be sure to change the oil according to the Oil Change section or the pump may be damaged.
5. 水溫請勿超過攝氏60度。
The water temperature into the pump should not exceed 60°C.
6. 若要移動馬達，請注意馬達表面溫度。
Be careful of the motor's surface temperature when moving it.
7. 若過電流保護開關經常性跳脫，請注意是否電壓不穩、延長線未依規定設置或環境溫度過高。
If the circuit breaker is frequently turned on, please check if the voltage is unstable, if the extension cord is too long or if the surrounding temperature is too high.

部位名稱 Pump Overview

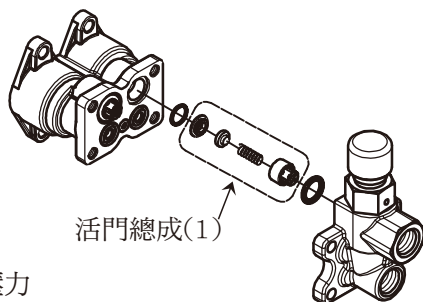


故障排除與診斷

⚠ 注意:排除故障與診斷時，請關閉電源及水源，並將插頭拔除。

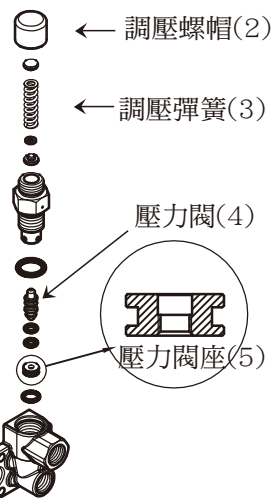
一、無法吸水及壓力不穩

- 1.檢查進水管是否洩漏或阻塞。
- 2.檢查進水壓力是否足夠。
- 3.打開內六角螺絲，取出活門總成(1)，確認是否阻塞或損壞。



二、壓力不足

- 1.調整調壓彈簧(3)，調整壓力。
- 2.打開調壓螺帽(2)，檢查壓力閥(4)、壓力閥座(5)(須注意正反面)及調壓彈簧(3)是否磨損、彈性疲乏或異物阻塞。(注意壓力閥座牙部面朝下)
- 3.檢查活門總成(1)是否阻塞。
- 4.檢查柱塞油封(6)、U型迫緊(7)是否磨損。



三、汽缸洩漏

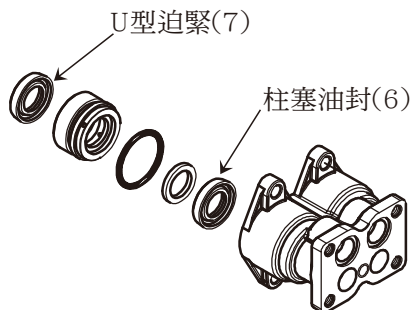
- 1.檢查柱塞油封(6)、U型迫緊(7)是否損壞。
- 2.檢查柱塞，若磨損嚴重則更換柱塞。

四、軸箱噪音、脈動過大

- 1.檢查水龍頭的水是否正常。
- 2.檢查噴嘴是否阻塞。
- 3.檢查是否定期更換潤滑油。
- 4.檢查柱塞是否因潤滑油不足，導致卡死。
- 5.取出柱塞，重新組裝。
- 6.注入新潤滑油。

五、馬達無法啟動

- 1.檢查過電流保護器是否跳脫。(按壓前請先關閉電源開關)
- 2.檢查延長線是否過長及電壓是否正確。
- 3.檢查周圍溫度是否過高導致跳脫。



六、汽缸或出水管溫度過高

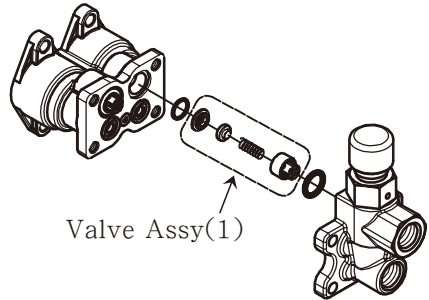
- 1.檢查出水管路或噴嘴是否阻塞。
- 2.檢查出水量是否為額定值的70%以上。

Troubleshooting

⚠ Attention: Always unplug the power and stop the water supply before maintenance.

A. Suction failure & unstable pressure

1. Check if the inlet hose is blocked or leaking.
2. Check if the inlet pressure is sufficient.
3. Unscrew and check if Valve Assy (1) is blocked or leaking.



B. Insufficient pressure

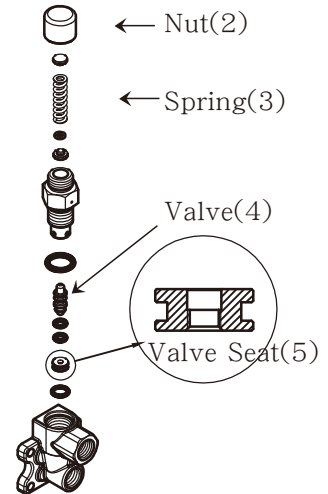
1. Adjust Spring (3) to regulate the pressure.
2. Open Nut (2) to check if the valve (4), Valve Seat (5) or Spring (3) is worn out, elastic fatigue or blocked.
3. Check if Valve Assy(1) is blocked.
4. Check if Piston Oil Seal(6) or U-Packing(7) is worn out.

C. Leaking cylinder

1. Check if Piston Oil Seal(6) or U-Packing(7) is damaged.
2. Check if pistons are worn out.

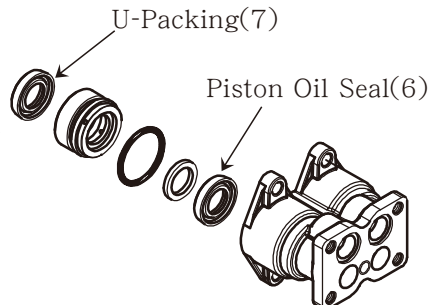
D. Noisy crankcase, strong vibration

1. Check if the water supply is sufficient.
2. Check if the nozzles are blocked.
3. Check if the oil is changed regularly. Drain the oil and check for leaks.
4. Check if pistons are stuck because of insufficient oil.
5. Take out pistons and reassemble them.
6. Change oil.



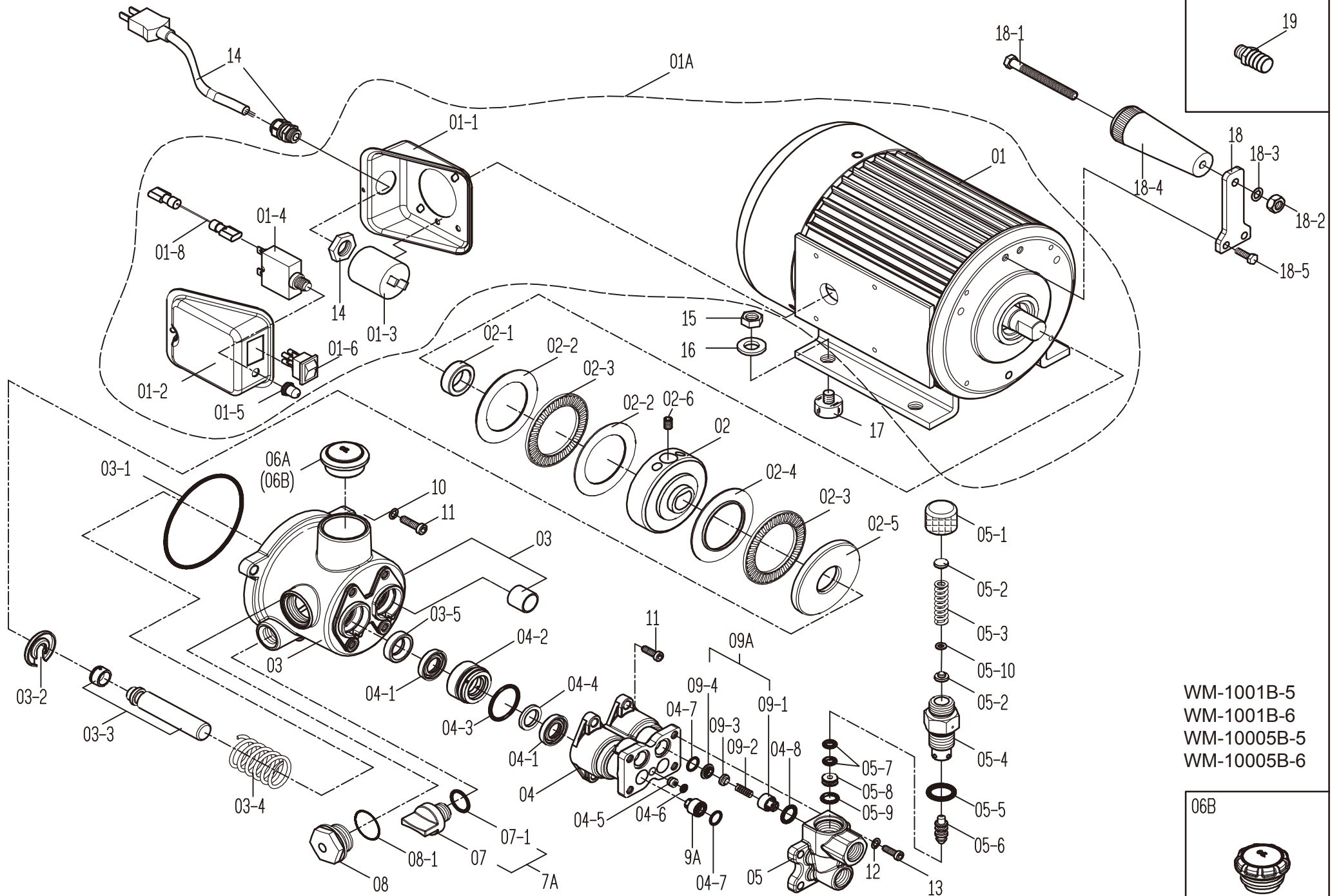
E. Cannot start motor

1. Check if the circuit breaker is on. (Turn off the power before pressing the button.)
2. Check if the extension cord is too long or the voltage is correct.
3. Check if the surrounding temperature is too high.

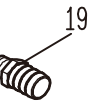


F. Cylinder or outlet hose is too hot

1. Check if the outlet hose or nozzles are blocked.
2. Check if the outlet volume reaches 70% or above of the suction volume.



配件



WM-1001B-5
WM-1001B-6
WM-10005B-5
WM-10005B-6

06B



零件表 PARTS LIST WM-1001B-5/WM-1001B-6/WM-10005B-5/WM-10005B-6

圖號No.	編號CODE	名 稱	DESCRIPTION	Q'TY
01	BA21400316000	馬達 (WM-1001B-5 230V)	Motor 50HZ 230V 4P 200W	1
	BA20400316000	馬達 (WM-1001B-6 110V)	Motor 60HZ 110V 4P 200W	
	BA20400316020	馬達 (WM-1001B-6 220V)	Motor 60HZ 220V 4P 200W	
	BA21400216030	馬達 (WM-10005B-5 230V)	Motor 50HZ 230V 4P 125W	
	BA20400216010	馬達 (WM-10005B-6 110V)	Motor 60HZ 110V 4P 125W	
	BA20400216030	馬達 (WM-10005B-6 220V)	Motor 60HZ 220V 4P 125W	
01-1	N/A	電器盒下蓋	Lower Cover	1
01-2	D020203003	電器盒上蓋	Upper Cover	1
01-3	D020201104	電容器 (WM-1001B-5 230V)	50HZ 230V	1
	D020201103	電容器 (WM-1001B-6 110V)	60HZ 110V	
		電容器 (WM-1001B-6 220V)	60HZ 220V	
	D020201112	電容器 (WM-10005B-5 230V)	50HZ 230V	
	D020201111	電容器 (WM-10005B-6 110V)	60HZ 110V	
	D020201112	電容器 (WM-10005B-6 220V)	60HZ 220V	
01-4	B130963111	過電流斷路器 (50HZ)	50HZ 230V	1
	B130963110	過電流斷路器 (60HZ)	60HZ 110V/220V	
01-5	B100750000	遙控開關防水套	Waterproof Cover	1
01-6	B130563021	電源開關	Power Switch	1
01-8	N/A	連接線	Connected Wire	1
02	B019219000	偏心盤 (WM-1001B)	Wobble Plate	1
	B019401000	偏心盤 (WM-10005B)		
02-1	B019221010	軸承油封	Bearing Oil Seal	1
02-2	B019220000	推力墊圈	Gasket	2
02-3	B019217000	滾針軸承	Ball Bearing	2
02-4	B019218000	培林支撐套	Bearing Spacer	1
02-5	B019216010	平面軸承上片	Bearing Plate (Upper)	1
02-6	BS17108010500	無頭內六角螺絲	Screw	1
03	1019203000	柱塞軸套	Axie Housing	1
	B019248000	引擎培林	Bearing	2

零件表 PARTS LIST WM-1001B-5/WM-1001B-6/WM-10005B-5/WM-10005B-6

圖號No.	編號CODE	名 稱	DESCRIPTION	Q'TY
03-1	BG10636068410	O形環	O-Ring	1
03-2	B019215010	止逆彈簧固定座	Spring Disk	2
03-3	B019214012	陶瓷柱塞滑靴組 (WM-1001B)	Piston Washer Assy	2
	B019214013	陶瓷柱塞滑靴組 (WM-10005B)		
03-4	BJ00106272	柱塞彈簧	Piston Spring	2
03-5	B019213000	柱塞油封	Piston Oil Seal	2
04	B019202020	汽缸	Cylinder	1
04-1	B019211000	U形迫緊	U-Packing	4
04-2	B019210000	防水油封套	Waterproof Seal Collar	2
04-3	BG10212025500	O形環	O-Ring	2
04-4	B019212000	墊圈	Spacer	2
04-5	B019209010	O型環固定環	Set Ring	1
04-6	BG10025005	O形環	O-Ring	1
04-7	BG10080010400	O形環	O-Ring	4
04-8	BG10088012600	O形環	O-Ring	2
05	B019201020	進出水室	Manifold	1
05-1	B019205010	調壓螺帽	Pressure Regulating Nut	1
05-2	B019206000	彈簧上座	Spring Seat (Upper)	2
05-3	BJ00106253	調壓彈簧	Pressure Regulating Spring	1
05-4	B019204000	安全弁接頭	Connector	1
05-5	BG10130018040	O形環	O-Ring	1
05-6	B019207013	壓力閥	Pressure Valve	1
05-7	BG10048008600	O形環	O-Ring	2
05-8	B019208001	壓力閥座	Pressure Valve Seat	1
05-9	BG10088012600	O形環	O-Ring	1
05-10	BS31204300	平面華司 *(選配)	Washer *(Optional)	*1
06A	B029400036	加油蓋組	Oil Inlet Cover	1
07A	B011801001	排油螺絲組	Drainage Screw Assy	1
07	B011801000	排油螺絲	Drainage Screw	1

零件表 PARTS LIST WM-1001B-5/WM-1001B-6/WM-10005B-5/WM-10005B-6

圖號No.	編號CODE	名 稱	DESCRIPTION	Q'TY
07-1	BG10110015	O形環	O-Ring	1
08A	B019229003	油鏡組	Oil Window Assy	1
08	B019229020	油鏡	Oil Window	1
08-1	BG10158020600	O形環	O-Ring	1
09A	B040063043	活門組	Valve Assy	4
09-1	B040363110	活門帽	Valve Cage	4
09-2	BJ00106290	活門彈簧	Spring	4
09-3	B040163111	活門塞	Valve Plug	4
09-4	B040263110	活門座	Valve Seat	4
10	BS32108300	彈簧華司	Spring Washer	3
11	BS16206020300	內六角螺絲	Hex Screw	7
12	BS32205300	彈簧華司	Spring Washer	4
13	BS16205015300	內六角螺絲	Hex Screw	4
14	B090563010	電源線	Cord	1
	B110563010	電源線固定夾 & 螺帽	Cord Binder & Nut	1
15	BS21206200	六角螺帽	Nut M6	4
16	BS31108200	平面華司	Washer	4
17	B100563140	腳墊	Cushion	4
18	B019110000	把手片	Handle Plate	1
18-1	BS11110089200	六角螺絲	Set Bolt	1
18-2	BS21110100	六角螺帽	Nut	1
18-3	BS31110503	平面華司	Washer	1
18-4	B019113000	活動把手	Handle	1
18-5	BS11206012300	六角螺絲	Set Bolt	2
19	BK31402030	管牙插心	Adapter	1
			2019.03V.	

故障的診斷之對策

若是發生不良狀況時，多半可以用下面的對策來解決，使機器恢復正常運作。

萬一無法解決或是有不清楚的地方，請向購買的販售商詢問。在詢問的時候，不要忘記告知您所購買的產品型號及流水號。

不良事項	原因	對策
●無法啟動馬達	●電源失效 ●電壓過低 ●檢查進水是否充足	●確認有無電壓 ●檢查電壓 ●檢查進水壓力
●運轉聲音過大	●電源受損 ●滲入空氣 ●迫緊受損	●檢查電壓 ●清潔進水過濾器 ●更換迫緊
●馬達停止運轉	●過載保護跳脫 ●電壓不足	●檢查電壓 ●檢查進水 ●按壓馬達上的過電流保護開關 ●向零售商詢問
●不進水 ●不出水	●幫浦、管路有空氣 ●過濾器或噴嘴堵塞 ●活門沾黏	●排除幫浦空氣 ●清潔過濾器和噴嘴 ●向零售商詢問
●未達標示之壓力	●噴嘴磨耗，出水量過大 ●幫浦、洩放閥不良	●更換噴嘴 ●向零售商詢問
●出水量不穩定	●噴嘴堵塞 ●滲入空氣 ●進水過濾器堵塞	●清潔噴嘴及過濾器 ●檢查進水系統 ●向零售商詢問

Problem & Action

Please consult the list below for common problems and their symptoms. If the advised solution does not solve the problem, please contact your sales agent.

Problem	Cause	Action
● Motor does not start	● No power supply ● Low voltage ● Insufficient water pressure	● Check power cables and power supply ● Confirm voltage ● Check water inlet for obstructions
● Loud noise	● Unsteady power supply ● Air in pumps ● Damaged seals	● Check power supply ● Check the inlet hose and filter ● Replace the seals
● Motor stops	● Water supply interrupted ● Motor overload	● Check water supply ● Confirm voltage ● Press Circuit Breaker reset button on motor
● No suction ● No output	● Air in the pump or hose ● Clogged nozzles or filter ● Damaged pump	● Unfasten pump outlet, let water run 2 to 3 minutes ● Clean nozzles and filter ● Return pump for repair
● Insufficient pressure	● Nozzles worn out ● Damage to pump or pressure release valve	● Replace nozzles ● Return pump for repair
● Unstable water output	● Clogged nozzles or filter ● Air in pump ● Damage to pump or pressure release valve	● Unfasten pump outlet, let water run 2 to 3 minutes ● Clean nozzles and filter ● Check the inlet connections