



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、微霧系統專業設計製造

高壓泵浦操作手冊

HIGH PRESSURE PUMP OPERATION MANUAL

MODEL

WB-1228F1

WB-1035F1

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 manual before use.

2026.07V

W U L I A G R I C U L T U R E M A C H I N E C O . , L T D .

安全須知 Safety Instructions



使用前請檢查機油。

Check the pump oil level before each use.



請放置於乾燥之場所，避免機器銹蝕，影響產品使用壽命。

To reduce the risk of rust and prolong the life of product, please place the pump in a dry area.



泵浦運轉後溫度會上升，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.



請做好安全防護措施，避免操作運轉時，人員誤觸受傷。

For safety concerns, please keep off the machine while operating.



勿將噴水口直接對準機器、電器、人員或動物。

Do not aim the spray gun at people, animals or any electrical device.



泵浦搭配引擎/馬達運轉時，在任何檢修保養時，請先關閉，避免危險。

Please completely shut down the unit during maintenance.



本機器必須配合水一同操作使用，缺水將造成機器嚴重損壞。

The unit must not be run without water. Lack of 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.



勿在雨天及雷雨中操作。使用時，勿覆蓋物體以避免危險。

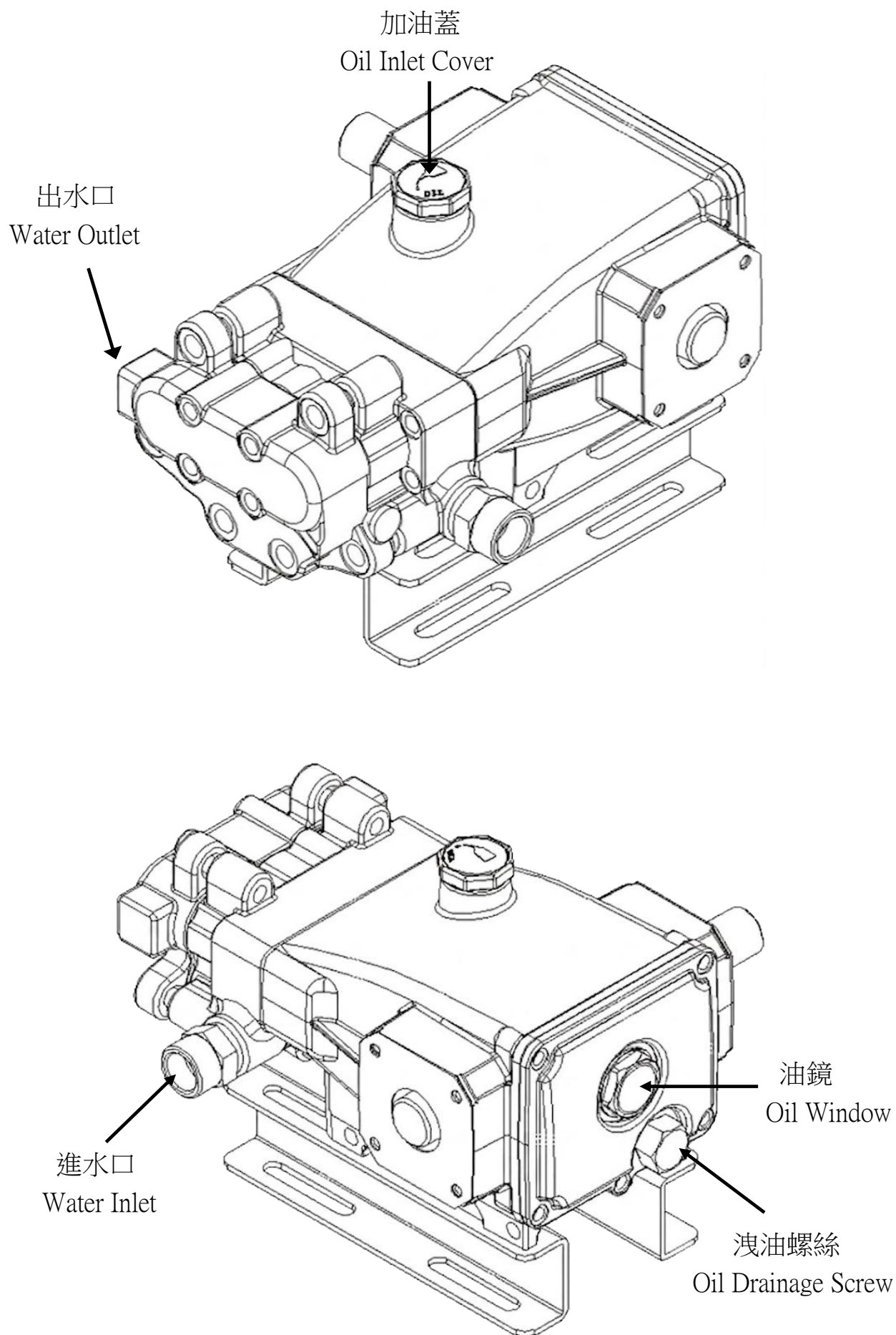
Do not operate the unit in the rain or during thunderstorms. When the unit is working, do not cover it or place it in a closed space with poor ventilation.



泵浦搭配馬達運轉，須注意電壓是否正確，並使用獨立電源，並加裝漏電開關。

Please check whether the voltage is correct and use GFCI plug.

外觀結構 Pump Overview



使用說明

一、 操作說明

1. **設備檢查：**確認泵浦與馬達/引擎的各個扣件，均已穩固鎖緊於底座架上。
2. **安裝吸水管：**將吸水管鎖緊於泵浦進水口。
3. **設置吸水槽：**
 - 將吸水管（含濾網）放入蓄水槽並保持管路暢通。
 - 濾網應懸空於槽底上方至少 20 公分，避免吸入泥沙，以延長泵浦壽命。
 - 確保進水供水量大於泵浦耗水量，以達到預定工作壓力。
4. **電源與動力確認：**
 - 馬達：確認電源電壓符合規格。
 - 引擎：確認油量充足且燃料正確，運轉時請務必保持現場通風良好。
5. **排氣與接管：**初次啟動泵浦時，請先將泵浦內空氣排淨後關機，再將高壓管連接至出水口。
6. **壓力調整（需有選配調壓總成）：**
 - 調整壓力時，請參照壓力錶讀數。順時針旋轉為加壓，逆時針旋轉為減壓。
 - 調整過程中須保持噴槍開啟。
 - 最高調整壓力切勿超過泵浦原廠設定值。
7. **關機與洩壓：**使用完畢後，請先關閉動力源（馬達/引擎），並扣動噴槍洩壓一次，避免高壓殘留於管路中。

二、 泵浦潤滑與保養

（一） 機油更換規範

1. **安全換油步驟：**
 - 換油前請先停機，待機油冷卻後再操作，避免燙傷。
 - 旋開洩油螺絲，徹底排出舊機油。
 - 鎖緊洩油螺絲後，打開加油蓋注入 **SAE #30~#40** 車用重機油。
 - 油量請補充至油鏡 **2/3** 位置即可（切勿過多或過少）。

使用說明

(二) 定期保養週期表

保養週期	保養項目	操作內容 / 注意事項
每次使用前	1. 檢查機油量 2. 清潔進水過濾網	• 確認油位位於油鏡 2/3 處 • 清除濾網上的雜物，確保進水順暢
每 50 小時	檢查密封件與管路	• 檢查泵浦有無漏水、漏油或異常震動
每 100 小時	初次更換機油	• 新機運轉滿 100 小時，須進行第一次換油
每 500 小時	定期更換機油	• 初次換油後，每運轉 500 小時或每年更換一次
每 1000 小時	耗材檢檢與更換	• 建議檢查或更換水封、止回閥（進出水閥）等橡膠消耗品

三、特別注意事項

⚠ 操作前請務必仔細閱讀以下安全與維護規範：

1. 水質要求：必須使用潔淨水源。若水中有加入藥劑或清潔劑，使用完畢後請以清水運轉清洗內部 1 分鐘。
2. 水溫限制：進水溫度請勿超過 60°C。
3. 揚程限制：泵浦與吸水網之垂直高度差（揚程）請勿超過 1.3 公尺。
4. 極限規格：運轉轉速不得超過建議值，工作壓力切勿超過原廠設計最高壓力。
5. 電力延伸：馬達電源線如需延長，請嚴格依據馬力負載規範選用相符規格之電線。
6. 定期保養：請確實依規定更換機油，保持良好潤滑以降低機器磨耗。

Operation Instructions

I. Operating Instructions

1. **Equipment Inspection:** Check all fasteners on the pump and motor/engine to ensure they are securely tightened to the base frame.
2. **Suction Hose Installation:** Securely attach the suction hose to the pump inlet.
3. **Suction Tank Setup:**
 - Submerge the suction hose (with strainer) into the water tank, ensuring the hose remains unobstructed.
 - **Keep the strainer suspended at least 20 cm above the tank bottom** to prevent sediment intake and extend pump lifespan.
 - **Ensure the water supply rate exceeds the pump's required displacement** to achieve designated working pressure.
4. **Power and Engine Checks:**
 - **Electric Motor:** Verify that the power supply matches the rated voltage.
 - **Engine:** Ensure sufficient and correct fuel. **Always operate in a well-ventilated area.**
5. **Air Bleeding and Outlet Connection:** Upon initial startup, **bleed all trapped air from the pump first**, stop the unit, and then connect the high-pressure hose to the outlet.
6. **Pressure Adjustment (Optional Safety Valve Assembly Required):**
 - Refer to the pressure gauge while adjusting. **Turn clockwise to increase pressure; turn counterclockwise to decrease pressure.**
 - **Keep the spray gun open** during pressure adjustment.
 - Do not exceed the pump's maximum pressure rating specified by the manufacturer.
7. **Shutdown and Pressure Relief:** After use, turn off the power source (motor/engine) first, then **trigger the spray gun once** to release residual pressure in the line.

II. Pump Lubrication and Maintenance

1. Oil Change Procedure

- Stop the pump and **allow the oil to cool completely before servicing** to avoid severe burns.
- Unscrew the drain plug to completely drain the used oil.
- Tighten the drain plug, open the oil filler cap, and refill with **SAE #30–#40 heavy-duty engine oil**.
- Maintain the oil level at **2/3 of the sight glass** (do not overfill or underfill).

Operation Instructions

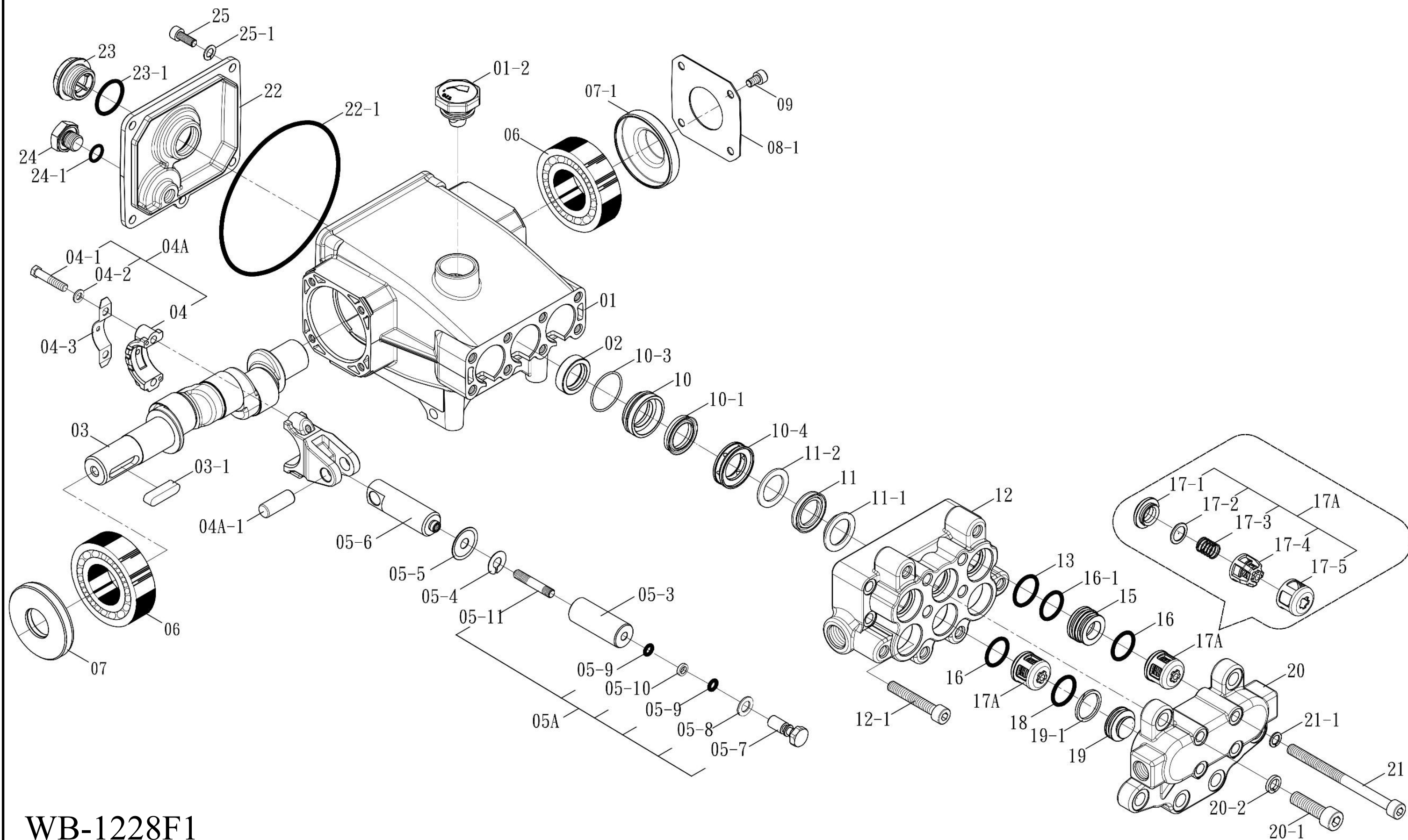
2. Routine Maintenance Schedule

Maintenance Interval	Service Item	Instructions / Precautions
Before Each Use	1. Check oil level 2. Clean suction strainer	• Ensure oil level is at 2/3 of the sight glass. • Remove debris from the strainer to ensure unobstructed intake.
Every 50 Hours	Inspect seals & hose connections	• Check for water/oil leaks or abnormal vibration.
First 100 Hours	Initial Oil Change	• Perform the first oil change after the initial 100 operating hours.
Every 500 Hours	Regular Oil Change	• After the initial change, replace oil every 500 hours or annually.
Every 1000 Hours	Wear-and-tear parts inspection	• Inspect or replace water seals, check valves, and rubber consumables.

III. Special Precautions

⚠ CAUTION: Read all safety and maintenance guidelines carefully before operation.

- Water Quality Requirements:** Always use clean water. If chemicals or detergents are added, **flush the internal pump components with clean water for at least 1 minute** immediately after use.
- Temperature Limit:** Water inlet temperature must not exceed **60°C (140°F)**.
- Suction Lift Limit:** The vertical distance (suction lift) between the pump and the suction strainer must not exceed **1.3 meters**.
- Operating Limits:** Do not exceed the maximum recommended RPM or operating pressure limits specified in the design.
- Extension Cords:** If extending the motor power cord, use wiring that complies with electrical safety regulations and meets the motor's horsepower rating.
- Regular Maintenance:** Ensure timely oil changes to maintain proper lubrication and minimize mechanical wear.



WB-1228F1
WB-1035F1

零件表 Parts List

圖號 NO.	編號 CODE	名 稱	DESCRIPTION	Q'TY
01	B010123000	曲軸箱	CRANKCASE	1
01-2	B011901014	加油蓋組	OIL INLET COVER ASSY	1
02	B010210000	柱塞油封	PISTON OIL SEAL	3
03	B010823001	曲軸 (WB-1228F1)	CRANKSHAFT (WB-1228F1)	1
	B010823400	曲軸 (WB-1035F1)	CRANKSHAFT (WB-1035F1)	
03-1	B012109000	曲軸鍵	CRANKSHAFT KEY	1
04A	B010623001	連桿組	CONNECTING ROD ASSY	3
04	N/A	連桿	CONNECTING ROD	3
04-1	BS11206030500	六角螺絲	SET BOLT	6
04-2	BS31206501	平面華司	WASHER	6
04-3	B014311000	螺絲防鬆片	LOCK WASHER	3
04A-1	B010523000	柱塞銷	PISTON PIN	3
05-3	B013223410	柱塞套	PISTON SLEEVE	3
05-4	B013511110	柱塞套透氣墊圈	GASKET	3
05-5	B013510020	柱塞套平墊圈	GASKET	3
05-6	B013123002	柱塞桿	PISTON ROD	3
05A	B015223001	柱塞螺絲組	PISTON SCREW ASSY	3
05-7	B013410020	柱塞套固定螺帽	PISTON SET NUT	3
05-8	B013510002	柱塞套平墊圈	GASKET	3
05-9	BG10050009060	O 形環	O-RING	6
05-10	BG30053008200	背托環	BACK-UP RING	3
05-11	B013323010	柱塞套固定螺絲	SET SCREW	3
06	B010710010	軸承	BEARING	2
07	B010910040	曲軸油封	CRANKSHAFT OIL SEAL	1
07-1	B010923100	全密曲軸油封	END COVER OIL SEAL	1
08-1	B011023100	全密曲軸油封蓋	END COVER OIL SEAL COVER	1

零件表 Parts List

圖號 NO.	編號 CODE	名 稱	DESCRIPTION	Q'TY
09	BS16206016501	內六角螺絲	HEX SCREW	4
10	B021123403	迫緊上環	PACKING UPPER RING	3
10-1	B021023412	防水油封	WATERPROOF OIL SEAL	3
10-3	BG10314035040	O 形環	O-RING	3
10-4	B021223401	迫緊中間環	SPACER RING	3
11	B020313210	U 迫緊	U-PACKING	3
11-1	B020313230	U 迫緊底座	U-PACKING SEAT	3
11-2	B020313220	U 迫緊墊片	U-PACKING SPACER	3
12	B031423802	汽缸後座	INLET CHAMBER	1
12-1	BS16208050300	內六角螺絲	HEX SCREW	4
13	BG10220027011	O 形環	O-RING	3
15	B021323810	出水活門固定座	OUTLET VALVE SEAT	3
16	BG10200025010	O 形環	O-RING	6
16-1	BG10200025010	O 形環	O-RING	3
17A	B040008032	活門組	VALVE ASSY	6
17-1	B040223801	活門座	VALVE SEAT	6
17-2	B040123800	活門塞	VALVE PLUG	6
17-3	BJ20202010	活門彈簧	VALVE SPRING	6
17-4	B040313000	活門帽	VALVE CAGE	6
17-5	B040813001	活門套	VALVE CAGE	6
18	BG10210026010	O 形環	O-RING	3
19	B021323811	進水活門固定座	INLET VALVE SEAT	3
19-1	BG30217026	背托環	BACK-UP RING	3
20	B020123801	汽缸前座	MANIFOLD	1
20-1	BS16210035300	內六角螺絲	HEX SCREW	6
20-2	BS32210300	彈簧華司	SPRING WASHER	6

零件表 Parts List

圖號 NO.	編號 CODE	名 稱	DESCRIPTION	Q'TY
21	BS16208110300	內六角螺絲	HEX SCREW	4
21-1	BS32208300	彈簧華司	SPRING WASHER	4
22	B011623000	曲軸箱後蓋	REAR COVER	1
22-1	BG11012106500	O 形環	REAR COVER PACKING	1
23	B012201020	油鏡	OIL WINDOW	1
23-1	BG10234028700	O 形環	O-RING	1
24	B011823000	排油螺絲	DRAINAGE SCREW	1
24-1	BG10130019	O 形環	O-RING	1
25	BS16206016501	內六角螺絲	HEX SCREW	5
25-1	BS32206300	彈簧華司	SPRING WASHER	5
ACC.	B120158000	法蘭盤	FLANGE	1
ACC.	BS16206020300	內六角螺絲 M6	SCREW M6	4
ACC.	BS33206400	安全華司 M6	SAFETY WASHER M6	4
ACC.	BS16208025300	內六角螺絲 M8	SCREW M8	4
ACC.	BS33208400	安全華司 M8	SAFETY WASHER M8	4
ACC.	B120553020	聯軸器 (泵浦)	FLEXIBLE COUPLING (PUMP)	1
ACC.	B120353000	聯軸器內襯	BUSHING	6
ACC.	B120453060	聯軸器 (馬達)	FLEXIBLE COUPLING (MOTOR)	1
ACC.	BS17112013500	無頭內六角螺絲	SCREW	4

故障診斷與排除

以下提供簡易的故障排除方式，若有任何問題，請您向當地之經銷商洽詢，同時記得提供您所購買的**機器型號與製造編號**。

故障的現象	原 因	解決方式
無法吸水/出水	◎泵浦內部損壞或阻塞 ◎噴槍或噴嘴阻塞 ◎活門總成異物阻塞或磨損 ◎泵浦與水槽距離與高度超出範圍 ◎泵浦吸入空氣	◎清潔或維修泵浦，及清潔吸水過濾網 ◎清潔或維修噴槍/噴嘴 ◎清潔活門總成或更換零件 ◎改善水槽或泵浦位置，清洗機與吸水網之高度差(揚程)請勿超過 1.3 公尺 ◎拔掉噴槍，待出水正常後再接上
運轉聲音異常	◎引擎有問題 ◎泵浦吸入空氣 ◎活門總成異物阻塞 ◎吸水量不足	◎清潔或維修引擎 ◎打開出水管排氣 ◎清潔活門總成 ◎檢查吸水管是否有細縫，或者扭曲進氣及清潔吸水管過濾網
調壓問題或壓力無法上升	◎壓力閥或閥座磨損 ◎迫緊磨損 ◎活門塞與活門座沾黏 ◎閥座上有異物 ◎活門總成磨損 ◎活門總成異物阻塞 ◎噴嘴磨損導致壓力下降 ◎泵浦吸入空氣 ◎自動洩壓總成損壞	◎更換零件 ◎更換零件 ◎拆解後清洗活門總成或更換零件 ◎清潔閥座 ◎更換零件 ◎清潔活門總成 ◎更換噴嘴 ◎檢查吸水管接頭鎖合或吸水管破裂 ◎送回經銷商更換

Troubleshooting

The following are simple troubleshooting methods. If you have any questions, please contact your local dealer and remember to provide the model and serial number of the product you purchased.

Problem	Cause	Solution
The pump fails to deliver water	⊙ The pump is blocked or damaged. ⊙ The spray gun or nozzle is blocked. ⊙ The valve assemblies are stuck or worn out. ⊙ The distance or height between the pump and the water tank exceeds the limit. ⊙ Air in the pump.	⊙ Clean or maintain the pump and suction filter. ⊙ Check and clean the spray gun and nozzle. ⊙ Clean or replace the valve assemblies. ⊙ Make sure the pump's location is no more than 1.3m higher than the suction filter. ⊙ Disconnect the spray gun until the water flow is stable.
Unusual noise	⊙ Engine problems ⊙ There is air in the pump. ⊙ The valve assemblies are blocked. ⊙ The water supply is not enough.	⊙ Clean or maintain the engine. ⊙ Disconnect the spray gun until the water flow is stable. ⊙ Clean the valve assemblies. ⊙ Check the suction hose and fittings; make sure they are well connected and in good condition. ⊙ Clean the suction filter.

** Continues on page 15 **

Troubleshooting

Problem	Cause	Solution
Pressure adjustment problem	⊙ The pressure valve or the pressure valve seat is worn out, damaged or blocked. ⊙ The packings are worn out. ⊙ The valve assemblies are worn out or blocked. ⊙ The pressure decreases due to nozzle wear. ⊙ Air in the pump. ⊙ The Unloading Valve Assembly is damaged.	⊙ Clean the pressure valve or replace the worn out or damaged spare parts. ⊙ Replace the packings. ⊙ Clean or replace the valve assemblies. ⊙ Replace the nozzle. ⊙ Check the Suction Hose and fittings; make sure they are well connected and in good condition. ⊙ Return the product to your local dealer to repair or replace the Unloading Valve Assembly.