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

引擎高壓洗淨機操作手冊

HIGH PRESSURE CLEANER OPERATION MANUAL (ENGINE SERIES)

MODEL

WH-2012E3
WH-2915E3
WH-3020E3
WH-4016E3

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.

2023.11V

引擎洗淨機使用之注意事項

一、 危險注意事項:

1. 嚴禁噴槍對人或動物噴射。
2. 引擎運轉時會產生高溫，須小心使用。
3. 請勿在使用本機器時吸菸、點火或覆蓋本體，以免發生火災。
4. 請勿在封閉空間使用本機器，以免窒息或一氧化碳中毒。
5. 為避免水花噴濺及噪音傷害，操作時請配戴護目鏡及耳罩。

二、 使用前注意事項:

1. 檢查引擎及高壓泵浦是否加油，並注意使用之燃料是否正確。
2. 檢查引擎啟動開關及化油器開關是否開啟。
3. 檢查每個扣件，確定高壓泵浦與引擎都穩固的裝在架子上。
4. 水溫請勿超過攝氏 60 度。

※ 使用引擎前請閱讀引擎使用說明書，確保使用上的安全。

請特別注意以上所述的事項，以確保您的安全。

Attention

A. Warning:

1. Never use the Spray Gun to spray people or animals.
2. Be careful of the high temperature of the engine during operation.
3. Do not smoke, light a fire or cover the machine when using it.
4. Do not use the machine in an enclosed space to avoid suffocation or carbon monoxide poisoning.
5. To avoid injury from spraying water and noise, wear goggles and earplugs during operation.

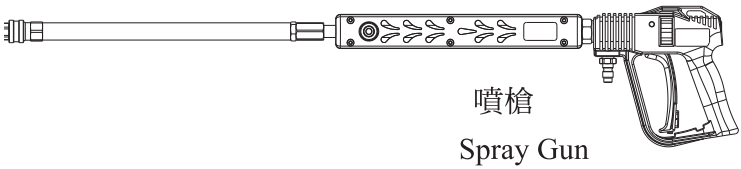
B. Precautions before use:

1. Make sure the oil in the pump and engine is sufficient and in good condition. Make sure the fuel used for the engine is correct.
2. Make sure that the engine start switch and carburetor switch are on.
3. Check each fastener to ensure that the pump and engine are securely mounted to the frame.
4. The water temperature should not exceed 60℃.

※ **Please read the engine instruction manual before use .**

For your safety, please pay attention to the instructions above!

配件介紹及安裝說明 Accessories & Installation



噴槍

Spray Gun

高壓管

High Pressure Hose

迴水管

Overflow Hose

吸水管

Suction Hose

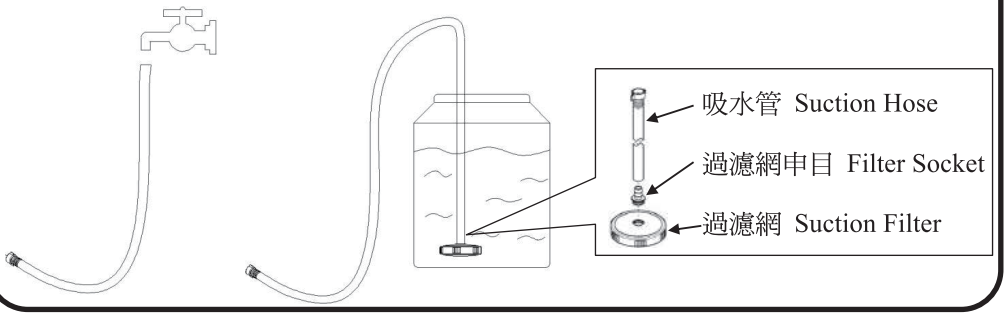
過濾網 & 過濾網申目

Suction Filter & Filter Socket

水龍頭進水 Faucet

或 or

水塔/蓄水槽進水 Water Tank



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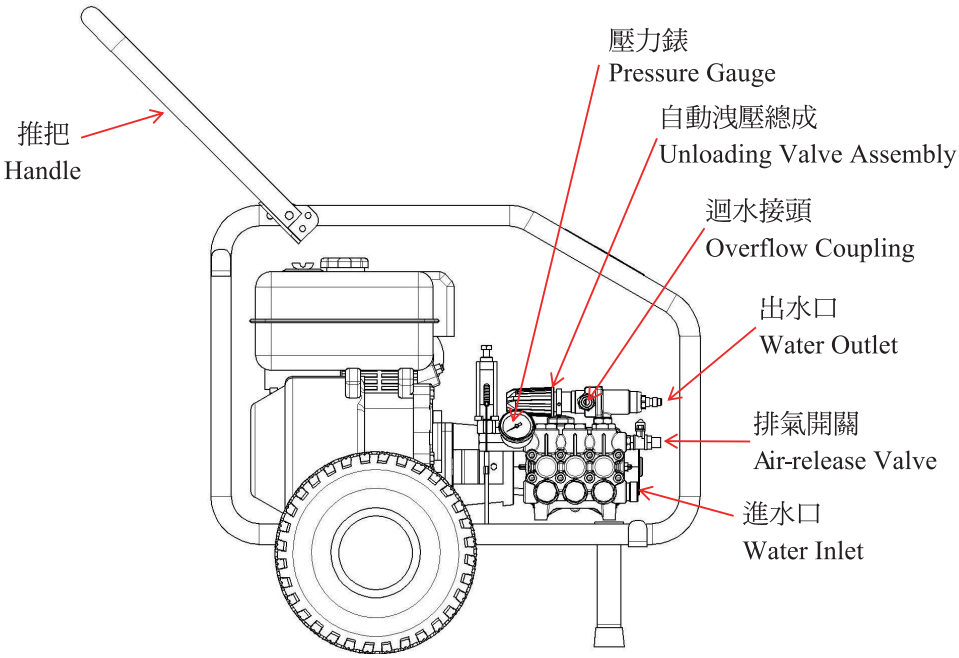

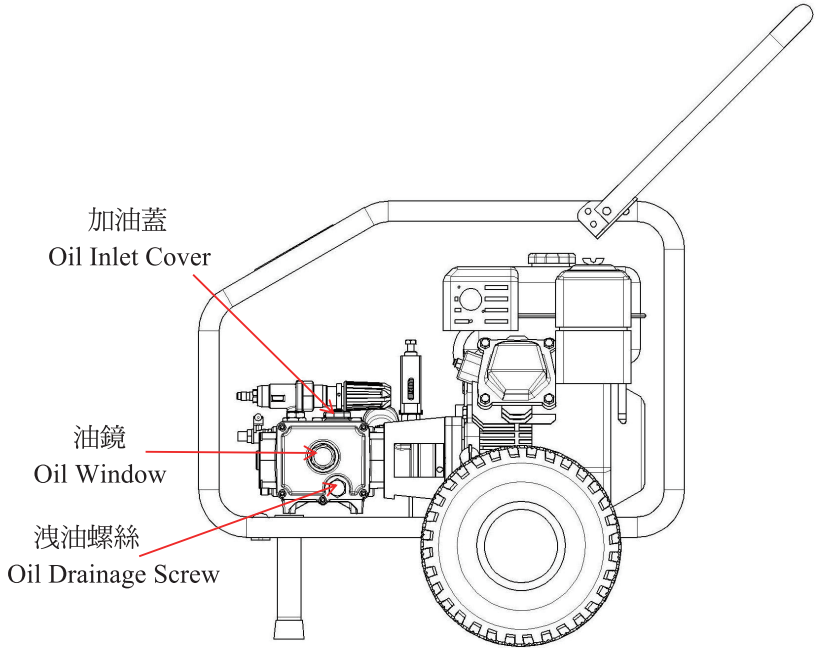

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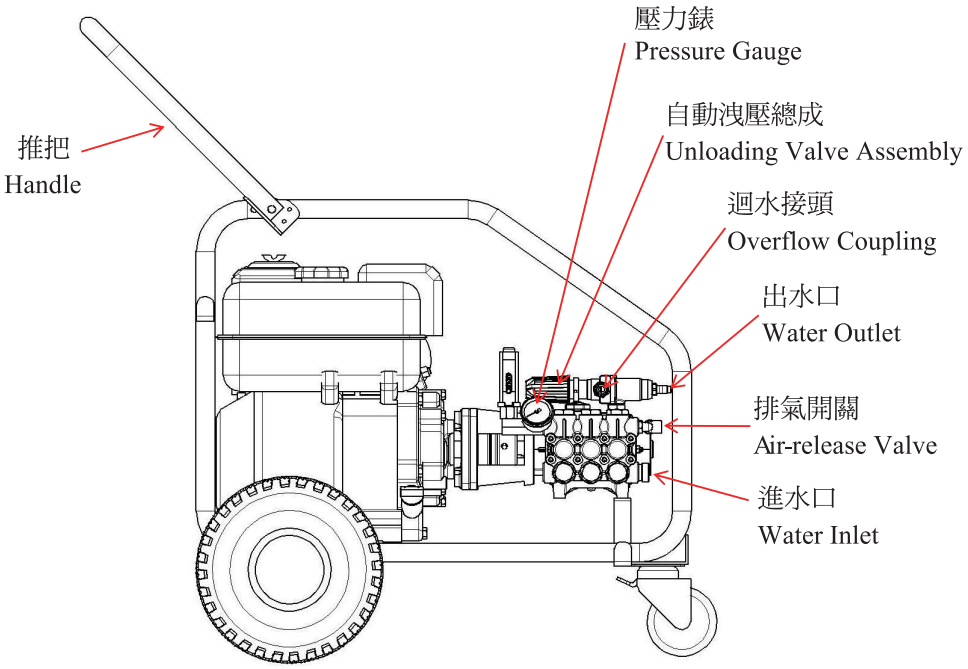

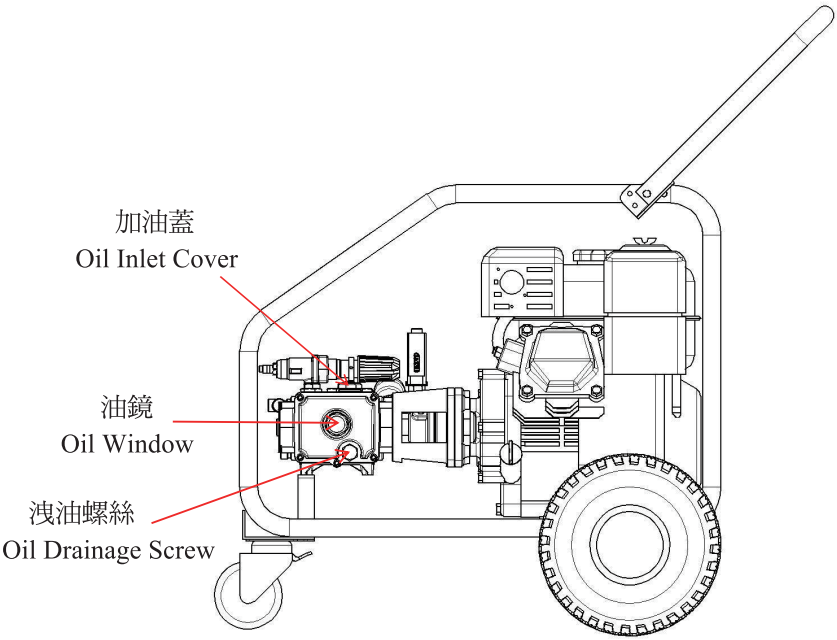

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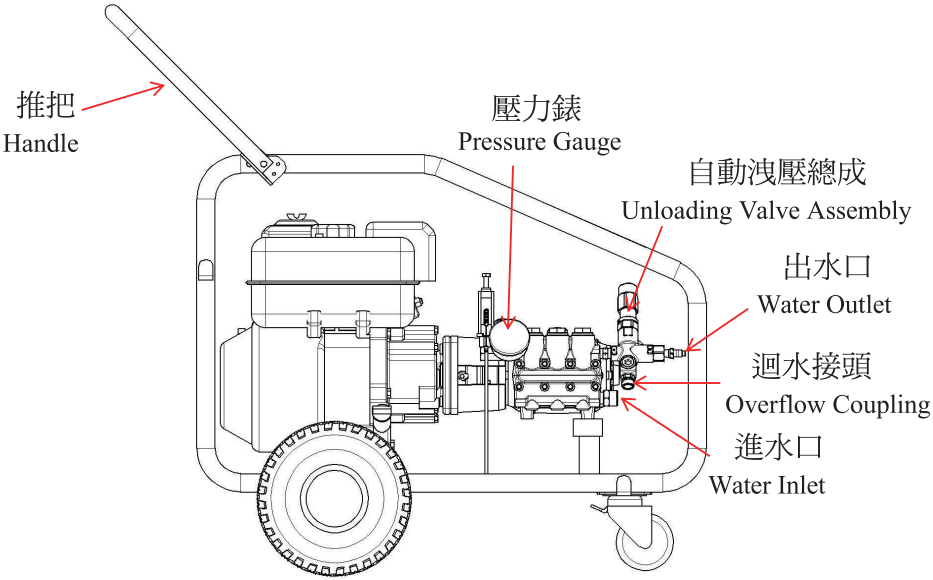

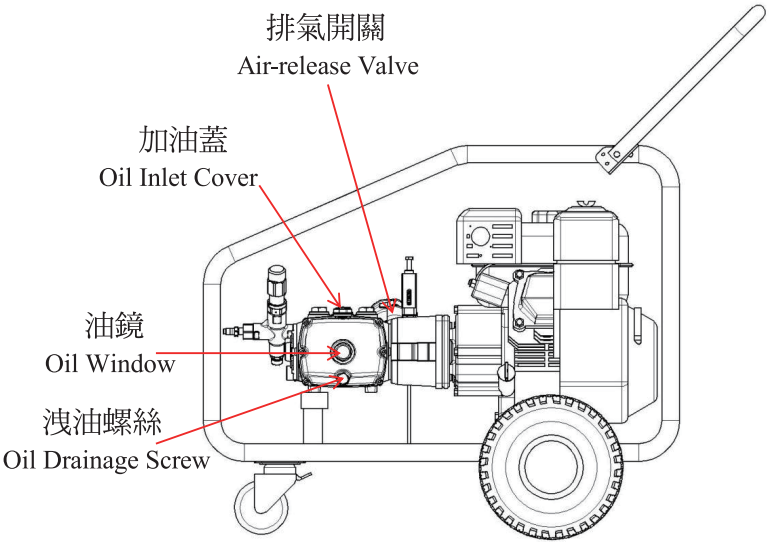

使用說明

一、操作說明

1. 購買有前置剎車輪機型，推至固定處時請固定剎車，以避免運轉時移動。
2. 請勿在超過 5° 斜坡上使用，以避免引擎損壞、移動造成危險。
3. 將吸水管接於洗淨機的進水口鎖緊；並將高壓管接於出水口鎖緊。
4. 將吸水管(網) 連接水龍頭保持水管暢通或放入蓄水槽內，吸水過濾網需放置水槽底部上方20 公分處，預防吸進底部泥沙，確保泵浦壽命，吸水管給水量需大於泵浦使用水量，如此才能達到使用壓力。
5. 啟動引擎後，打開泵浦之排氣開關，排出泵浦內之空氣。待正常出水後，關閉排氣開關，即可使用噴槍做清潔工作。
6. 壓力調整:調整時請依照壓力錶顯示之壓力為參考值，壓力調整弁加壓以順時針方向調整;反之，以逆時針方向調整。調整壓力時需要打開噴槍;最高壓力不得高於泵浦設定之壓力，以維護機器壽命。
7. 使用完時，請先關閉洗淨機再作動噴槍一次，以避免壓力蓄存於高壓管中。

二、泵浦的潤滑

1. 初次使用 100小時應更換機油，以後每使用300小時應更換一次。
2. 更換機油時，請旋開洩油螺絲排出使用過之機油。
3. 將洩油螺絲鎖緊後，打開加油蓋注入SAE#30~#40車輛用重型機油，機油應保持在油鏡2/3的位置。

三、引擎的潤滑

1. 一般建議使用 SAE 10W-30。
2. 各機型引擎機油容量：
   引擎機油容量 0.6L: WH-2012E3
   引擎機油容量 1.1L: WH-2915E3 / WH-3020E3 / WH-4016E3
3. 請在引擎熄火且位於水平位置時檢查引擎機油液面，機油加至油尺的上限標記處(注入口的下緣)。

四、特別注意事項

1. 更換機油時，請將泵浦停止作動，並注意油溫，請冷卻後再進行更換。
2. 使用自來水作為洗淨機的水源。
3. 確實的更換機油以保持泵浦的潤滑，降低機械損耗。
4. 洗淨機與吸水網之高度差(揚程)請勿超過 1.3公尺。
5. 暫停使用機器或無水空轉不宜超過 5分鐘，以確保迫緊不受水溫升高而降低使用壽命。
6. 若使用的水源中加入藥劑、肥皂或其他物質，請在使用完畢後以清水操作洗淨機 1分鐘，以延長使用壽命。
7. 請將洗淨機存放於乾燥的地方。

簡易的故障排除

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
無法啟動引擎或引擎異常停止	◎檢查機油是否足夠、過髒或漏油 ◎檢查化油器及火星塞	◎加機油或換機油 ◎清除或更換火星塞及化油器
引擎轉速不穩定	◎柱塞活門體組毀損	◎更換零件
運轉聲音異常	◎引擎有問題 ◎泵浦中有空氣 ◎活門總成異物阻塞 ◎吸水量不足（缺水）	◎清潔或維修引擎 ◎拔掉噴槍，待出水正常後再接上 ◎清潔活門總成 ◎檢查吸水管是否破裂，或扭曲無法進水 ◎清潔吸水過濾網
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，洗淨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

簡易的故障排除

故障的現象	原　　因	解決方式
調壓問題或	◎壓力閥或閥座磨損	◎更換零件
壓力無法上升	◎迫緊磨損	◎更換零件
	◎活門塞與活門座沾黏	◎拆解後清洗活門總成或更換零件
	◎閥座上有異物	◎清潔閥座
	◎活門總成磨損	◎更換零件
	◎活門總成異物阻塞	◎清潔活門總成
	◎噴嘴磨損導致壓力下降	◎更換噴嘴
	◎泵浦吸入空氣	◎檢查吸水管接頭鎖合，或吸水管破裂
	◎自動洩壓總成損壞	◎送回經銷商更換

※ 詳細零件位置請詳閱官網，高壓泵浦操作手冊內泵浦展開圖與零件表

官網 :www.wulipump.com

Operation Instructions

A. Operating Instructions

1. Set the front break before starting the cleaner to avoid the machine moving during operation.
2. Do not place the machine on slopes over 5° to avoid engine damage and movement.
3. Connect the Suction Hose to the Water Inlet of the cleaner and secure the hose; connect the High Pressure Hose to the Water Outlet.
4. Put the Suction Hose (with Filter) into the water tank or connect the Suction Hose to a faucet. When using the faucet, make sure that faucet flow rate is higher than the cleaner's suction volume and that the water flows smoothly. When using a water tank, suspend the Suction Filter around 20cm above the bottom of the water tank to avoid suctioning residue which might reduce the product's life.
5. After starting the engine, open the pump's Air-release Valve to release the air. After the outlet is normal, close the Air-release Valve and start operating.
6. Pressure adjustment:
   ◇Check the pressure displayed on Pressure Gauge for reference when adjusting it.
   ◇The maximum pressure should not exceed the pump's working pressure.
   ◇Hold the Spray Gun trigger when adjusting the pressure.
   ◇Turn the knob clockwise to increase pressure; counterclockwise decrease.
7. When finished using the cleaner, turn off the cleaner and squeeze the Spray Gun trigger again to release the pressure stored in the High Pressure Hose.

B. Pump Oil Change

1. Replace the oil in the pump after the first 100 hours of use. After this, the oil should be changed after every 300 hours of use.
2. Unscrew the Oil Drainage Screw and drain the oil from the pump.
3. Tighten the Oil Drainage Screw before refilling with clean motor oil SAE #30~#40 up to the level of 2/3 of the Oil Window.

※Attention: When replacing the oil, please turn off the cleaner and make sure that the oil temperature has cooled before replacing.

C. Engine Oil Change

1. SAE 10W-30 is generally recommended.
2. Engine oil capacity of each model:
   Engine oil capacity 0.6 L : WH-2012E3
   Engine oil capacity 1.1 L : WH-2915E3, WH-3020E3, WH-4016E3
3. Check the engine oil level when it is off and in a horizontal position. The oil is added to the upper mark of the dipstick (lower edge of the inlet port).

D. Reminders

1. Always use clean water with the cleaner.
2. Be sure to change the oil according to the Pump Oil Change section or the pump might be damaged.
3. The cleaner's location should be no more than 1.3 meters higher than the Suction Filter.
4. The machine should not run without water or idle for more than 5 minutes or the packings may be damaged by rising water temperature and reduce their service life.
5. If using water containing chemicals, detergents or other substances, please run the cleaner with clean water for one minute after use to prolong its life.
6. Store the cleaner in a dry place.

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 cleaner you purchased.

Problem	Cause	Solution
Engine does not start; or stops abnormally	◎ Check if the oil is enough, dirty or leaking oil ◎ Check carburetor and spark plug.	◎ Add or replace the oil. ◎ Clean or replace the carburetor or spark plug.
Unstable engine revolution	◎ The piston valve body is damaged.	◎ Replace the piston valve body.
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.
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/faucet 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.

**** Continues on page 14 ****

Troubleshooting

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

※ For detailed parts information, please refer to the part list and diagram in the high pressure pump operation manual on our website.

Website: www.wulipump.com/webls-en-us/index.html