



巨輪興有限公司

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鋼筋校正器 操作說明

SAWS, SAWR



中文：C1~C4

中文
English
Ver.16

1. 安全預防措施



不遵守以下的注意事項和警告將引起設備損失及人員傷害。



重要事項：未滿18歲人員不得擅自操作。操作SUN RUN油壓設備前請先仔細閱讀並了解相關操作手冊、安全事項和警告事項。操作人員負有油壓設備週邊之人員及環境之安全責任。



警告事項：為確保避免人員傷害和設備作業損失，請確認所有油壓設備及週邊配件，使用最大壓力為 700 bar(10,000psi)。



警告事項：操作人員於使用期間為避免傷害，需全程配戴安全防護措施。



危險事項：為避免人員傷害，請於操作過程中手、腳遠離液(油)油壓缸和液壓設備。



警告事項：禁止超載使用。
超載使用易造成設備損害及人員損傷。液(油)壓缸設計最大使用壓力為 700 bar (10,000psi)。



警告事項：系統操作壓力絕不可超過最低壓力元件之值最低值。系統中應加裝壓力錶藉以監測系統中的壓力並了解使用狀態。



警告事項：液(油)壓缸只能在已連接好的液壓油路中使用；快速接頭尚未確實連接時禁止使用或加壓，否則高壓情況下接頭的油封及鋼珠會高速噴出造成人員傷亡。



警告事項：頂昇荷載前，請確保油壓裝置平穩。油壓缸必須放在平穩可支撐重物的基座上。若情況許可，可使用油壓缸基座來增加穩定性。千萬不可使用焊接或其他方法將油壓缸與所使用的基礎面(支撐座)連接一起。



警告事項：避免損壞油壓管。捲收油管時，避免油管強烈彎曲或打結。使用彎曲或打結油管易引起背壓。強烈彎曲或打結的油管亦易引起內部損壞或提早油管老化。



千萬不要重壓油管。劇烈的撞擊會造成油管內鋼絲網損壞。使用受損的油管可能導致油管破裂。



重要事項：千萬不要利用油管來提攜其他油壓設備(例如:小型油壓缸、泵浦..等)。



危險事項：液(油)壓設備應遠離火或熱源。高溫會軟化包裝和密封材料，導致液壓油洩漏；高溫同時也會造成油管材質與包裝變質。為確保最好狀態，不要將液(油)壓設備暴露於 65°C(150°F)高溫。在電焊場所時亦應注意防止電焊火花噴到油管。



危險事項：不要用手對油管施加壓力(包括拉或舉高)。高壓下洩漏的液壓油會穿透皮膚造成嚴重傷害。當液壓油侵入皮膚請立即就診。



警告事項：當零件出現裂痕或損壞時，應立即以SUN RUN 零件更換。正確標準的零件可防止人員或設備損傷。SUN RUN零件經特別設計可完全適用並適用產品標稱的額定荷載或壓力。



重要事項：液壓設備必需由合格的液壓技工進行維修。需要修理時，請聯繫就近的SUN RUN服務據點並使用SUN RUN 液壓油保固方為有效。

2. 規範

SAWS/R 鋼筋校正器

Steel bar alignment tool



SAWS 尖勾型
Hook type

SAWR 滾輪型
Wheel type

油缸硬鉻處理強化線性力
高度機動性
握把設計符合人體力學

Chrome plate cylinder provides linear force.
High maneuverability.
Ergonomics handle.

型號 Model	出力 Capacity (kN)	油缸型號 Cyl. Model	校直徑 Align Size (mm)	重量 Weight (kg)
SAWS-10	101	RSC-106	Φ32	8.35
SAWR-10				11.9
SAWR-15	142	RSC-154	Φ40	12.5
SAWR-25	232	RSC-254	Φ50	15.7

適用泵浦類型

Apply hydraulic pump



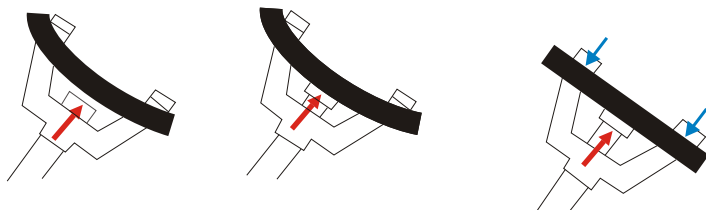
Hydraulic Electric Pump
SPE-3000 series



Hydraulic Manual Pump
SPH series

3. 操作

線材廠、冷鍛廠及螺栓(帽)廠必備的油壓線材直機
輕巧的機體、高機動性操作簡易
只需按下一顆按鈕即可輕鬆將線材扳直。



上 按住時主軸會往前

下 按住時主軸會回縮

4. 維修保養

4.1 油位確認

操作每隔40小時即需確認液壓油位是否正常。必要時加入液壓油至加油蓋下約1/2" (1cm) 處。
請使用由SUN RUN 所提供之液壓油。使用其他液壓油造成的設備損害，保固無效。

4.2 更換液壓油

操作每隔100小時即需更換新液壓油。假如操作環境較多污染則需更頻繁地更換液壓油。

- 1.將位於儲油箱右前方的加油/通氣栓(F)打開。
- 2.將儲油箱內所有舊油倒光。
- 3.加入新油至儲油箱。油箱容量分別為 0.93 gal.(3.5L) 或 2 gal.(8L) 型。
- 4.再鎖回加油/通氣栓。

4.3 清洗油箱

泵浦需定期拆下來清洗。假如泵浦經常在非常髒的環境內工作，則每年至少清洗一次。

- 1.將油箱內液壓油排除的方法請參照"更換液壓油"第1~2步驟。
 - 2.先將保護蓋與油箱間的六個螺栓鬆開。將保護蓋與油箱分離。內有發泡墊圍繞馬達週圍以分離電線與馬達。
在插座與電線間應有警告標示防止拔除電線時傷害。
 - 3.再將泵浦與油箱間八個螺栓鬆開。將泵浦與油箱和墊片分離。
 - 4.清洗油箱。
 - 5.重新安裝泵浦及油箱並更換墊片。接著安裝馬達及油箱，並注意握把面向閥門位置。將螺栓鎖上。
- 倘需要其他維修服務，請連絡就近液壓維修廠或SUN RUN 經銷服務中心。

5. 疑難排除

下列資訊可有助於解決使用疑問

問題	原因	解決
泵浦無法啟動	1.無動力 2.電壓錯誤	1.檢查動力來源 2.檢查電壓
液壓缸無法前進或回縮	1.流量過低 2.濾油網阻塞 3.閥門方向位置不對 4.控制閥損毀	1.添加液壓油 2.清洗或更換濾油網 3.切換閥門位置 4.請洽詢液壓維修部門
液壓缸無法順利前進或回縮	1.系統內含空氣 2.系統管路漏油 3.液壓內部漏油	1.藉由系統啟動-關閉來回操作直到空氣排出為止 2.將洩漏部份鎖緊或更換毀損的油管或配件 3.請洽詢液壓維修部門
泵浦無法持壓	1.外部漏油 2.內部漏油	1.將洩漏部份鎖緊或更換毀損的油管或配件 2.請洽詢液壓維修部門
輸出低流量	1.流量過低 2.泵浦零件洩漏 3.閥門功能故障 4.活塞吸入口濾網被阻塞	1.添加液壓油 2.單獨測試可能洩漏部份 3.請洽詢液壓維修部門 4.檢查濾油網。將阻塞髒污清除或是更換已毀損的零配件
泵浦操作上升下降狀態正常，但油缸無法上升	快速接頭A鬆脫或損毀	重新鎖好快速接頭A或測試接頭功能是否正常
安全閥漏/溢油	快速接頭B鬆脫或損毀	重新鎖好快速接頭B或測試接頭功能是否正常。安全閥液油為保護油缸超壓所設計，請勿任意調整安全閥壓力。

出廠證明暨保固書

產品名稱：

型 號：

序 號：

出廠日期： / /

保固期間： / / ~ / /

該產品經公司嚴格品質管制,並測試合格出廠,本產品自驗收合格日起保固一年,如非人為使用不當或天然不可抗拒之災害,本公司免費維修,如非以上之原因本公司將酌收材料成本負責維修。

公司：巨輪興有限公司

負責人：蘇明益

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OPERATING INSTRUCTIONS

Steel bar alignment tool

SAWS, SAWR



English : E1~E4

中文
English
Ver.16

1. SAFETY PRECAUTIONS



Fail to comply with the following cautions and warnings could cause equipment damage and personal injury.



IMPORTANT : Minimum age of the operator must be 18 years. The operator must have read and understood all instructions, safety issues, cautions and warnings before starting to operate the SUN RUN equipment. The operator is responsible for this activity towards other persons.



WARNING : To avoid personal injury and possible equipment damage, make sure all hydraulic components withstand the maximum pressure of 700 bar (10,000psi).



WARNING: Always wear safety glasses. The operator must take precaution against injury due to failure of the tool or workpiece.



DANGER: To avoid personal injury keep hands and feet away from cylinder and workpiece during operation.



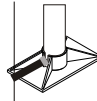
WARNING : Do not overload equipment. Overloading causes equipment failure and possible personal injury. The cylinders are designed for a max. Pressure of 700 bar (10,000psi).



WARNING : The system operating pressure must not exceed the pressure rating of the lowest rated component in the system. Install pressure gauges in the system to monitor operating pressure. It is your window to what is happening in the system.



WARNING: Never pressurize uncoupled couplers. Only use hydraulic equipment in a coupled system.



WARNING: BE SURE SETUP IS STABLE BEFORE LIFTING LOAD. Cylinders should be placed on a flat surface that can support the load. Where applicable, use a cylinder base for added stability. Do not weld or otherwise modify the cylinder to attach a base or other support.



CAUTION: Avoid sharp bends and kinks that will cause severe back-up pressure in hoses. Bends and kinks lead to premature hose failure.



DO NOT drop heavy objects on hose. A sharp impact may cause internal damage to hose wire strands. Applying pressure to a damaged hose may cause it to rupture.



IMPORTANT: Do not lift hydraulic equipment by the hoses or couplers. Use the carrying handle or other means of safe transport.



CAUTION : KEEP HYDRAULIC EQUIPMENT AWAY FROM FLAMES AND HEAT. Excessive heat will soften packings and seals, resulting in fluid leaks. Heat also weakens hose materials and packings. For optimum performance do not expose equipment to temperatures of 65°C (150°F) or higher. Protect hoses and cylinders from weld spatter.



DANGER: Do not handle pressurized hoses. Escaping oil under pressure can penetrate the skin causing serious injury. If oil is injected under the skin, see a doctor immediately.



WARNING: Immediately replace worn or damaged parts with genuine SUN RUN parts. SUN RUN parts are designed to fit properly and withstand rated loads.



IMPORTANT: Hydraulic equipment must only be serviced by a qualified hydraulic technician. For repair service, contact the SUN RUN Service Center in your area. To protect your warranty, use only SUN RUN oil.

2. SPECIFICATIONS

SAWS/R
Steel bar alignment tool



SAWS
Hook type

SAWR
Wheel type

Chrome plate cylinder provides linear force.
High maneuverability.
Ergonomics handle.

Model	Capacity (kN)	Cyl. Model	Align Size (mm)	Weight (kg)
SAWS-10	101	RSC-106	Φ32	8.35
SAWR-10				11.9
SAWR-15	142	RSC-154	Φ40	12.5
SAWR-25	232	RSC-254	Φ50	15.7

Apply hydraulic pump



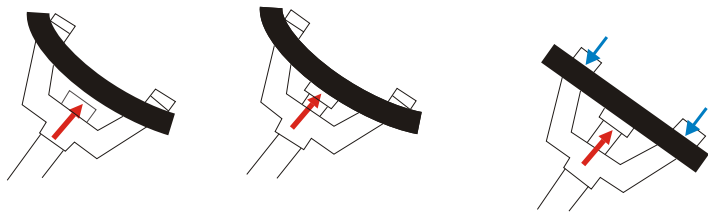
Hydraulic Electric Pump
SPE-3000 series



Hydraulic Manual Pump
SPH series

3. OPERATION

Steel bar alignment tool, also called coil steel bender, is a machine used to straighten wire rod.
Light weight , high mobility and easy to manipulate.
One touch, easy to bend or align the steel bar.



UP Continued press the button, rod advance.
DOWN Continued press the button, rod return.

4.MAINTENANCE

4.1 Checking the oil level

Check reservoir hydraulic oil level every 40 hours of operation. Add oil when necessary to bring the level to 1/2" (1cm) below the fill opening. Use only SUN RUN hydraulic oil. The use of other oils or fluids may damage your system, and will void your SUN RUN warranty.

4.2 Changing the oil level

Check the reservoir after every 100 hours of operation. Refill with new hydraulic oil. If pump is operated in very dusty areas or at high temperatures, drain and refill and refill more frequently.

- 1.To drain the reservoir, remove the vent/fill plug (F) from the top right hand corner of the reservoir.
- 2.Tip the pump until all old oil is drained.
- 3.Refill with new oil through the same opening. Reservoir capacity is 0.75 gal.(2.8L) or 2 gal.(8L) depending on model.
- 4.Replace fill plug (F).

4.3 Cleaning the Reservoir

The pump reservoir can be removed for cleaning. If the pump is constantly used in an extremely dusty environment, the reservoir should be cleaned once a year.

- 1.Drain the reservoir as described in steps 1 and 2 in "Changing the oil".
 - 2.Remove the six screws securing the shroud to the reservoir. Lift the shroud off the reservoir. A foam cushion wraps around the motor to keep electrical wires away from the motor. Use caution to avoid damaging or pulling wire connections off the terminals.
 - 3.Remove the eight screws holding the pump to the reservoir. Lift the pump off the reservoir and remove the gasket.
 - 4.Thoroughly clean the reservoir with a suitable solvent.
 - 5.Re-assemble the pump and reservoir, installing a new gasket. Position the shroud over the motor with the shroud handle facing the valve side of the pump. Install the six mounting screws and internal/external lock washers.
- If the pump requires repair work, contact a local Authorized SUN RUN.

5.TROUBLE-SHOOTING GUIDE

The following information is intended as an aid in determining if a problem exists.

PROBLEM	CAUSE	SOLUTION
Pump will not start.	1.No power. 2.Wrong voltage.	1.Check electrical power source. 2.Check voltage specifications.
Cylinder will not advance or retract.	1.Fluid level low. 2.Intake screen clogged. 3.Valve in wrong position. 4.Valve failure.	1.Fill reservoir to proper level. 2.Clean or replace intake screen. 3.Shift valve to the pressure position. 4.Have pump repaired by a qualified hydraulic technician.
Cylinder advances and retracts erratically.	1.Air in the system. 2.External leak in system. 3.Internal hydraulic leak.	1.Remove air from the system by opening and closing the tool until operation is smooth. 2.Tighten leak connections. Replace any damaged hoses and fittings. 3.Have pump repaired by a qualified hydraulic technician.
Pump fails to maintain pressure.	1.External hydraulic leak. 2.Internal hydraulic leak.	1.Tighten leaky connections. Replace any damaged hoses or fittings. 2.Have pump repaired by a qualified hydraulic technician.
Low Fluid output.	1.Fluid level low. 2.Pump component parts are leaking. 3.By-pass valve malfunction. 4.Fluid intake screens on piston blocks may be clogged with debris.	1.Fill reservoir to the proper level. 2.Test to isolate leaks. 3.Have pump repaired by a qualified hydraulic technician. 4.Inspect intake screens. Flush all components of contamination. Replace any damaged components.
Pump situation normally ,but cylinder can?t go advance.	Coupler A problem.	Please re-install coupler A or test it function.
Safety valve weep oil.	Coupler B problem.	Please re-install coupler B or test it function. Safety valve will protect cylinder to over pressure for B, please don?t adjust safety valve pressure arbitrarily.