



巨輪興有限公司

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液(油)壓 法蘭撐開器 操作說明

WSR-1



中文 : C1~C3

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：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：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)。



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。



警告事項：請勿操作未潤滑的滑塊及4支滑動插銷。並使用較好的潤滑油。



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。



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，請連繫就近的SUN RUN服務據點並使用SUN RUN 液壓油保固方為有效。



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：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。



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)



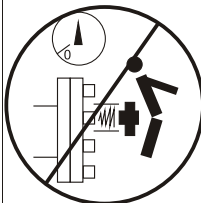
警告事項：除了墊塊，千萬不可以手指置於動作中的撐開器。



警告事項：撐開器的把手是用來當撐開器回縮時使使用者不直接握住撐開器。可使手指免於卡在二片夾片中。

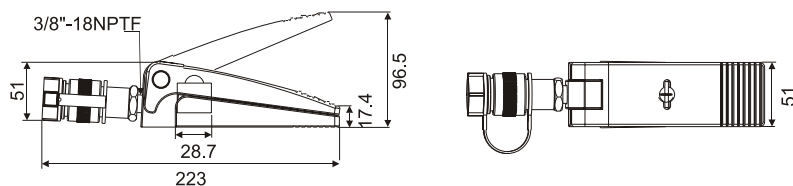


危險事項：千萬不要使用榔頭或其他楔型斧撐開夾縫。



切勿在拉伸或拆卸過程中站立於螺栓同軸位置。如果螺栓出現問題、鬆脫或損壞的零件可能會射出，如此可能會導致嚴重的人員傷亡。非必要或壓力穩定情況下，才允許操作者到加壓拉伸器附近持續觀察壓力計。

2. 規範



Cylinder Capacity	Model Number	Tip clearance	Maximum Spread	Cylinder Eff. Area 油缸受壓面積	Oil Capacity	Weight
油壓缸荷重 (ton)kN	型號	尖端空隙 (mm)	最大撐開 (mm)	(cm ²)	總油量 (cm ³)	重量 (kg)
1(8.9)	WSR-1	17.4	96.5	6.5	10	2.3

3. 操作

請依循你所使用的泵浦操作手冊來安裝及操作所搭配使用的泵浦。

1. 確認泵浦油位。
2. 確認所有連接都已鎖緊且無洩漏之虞。
3. 藉由低於泵浦的操作方位，來回操作數次，得以排除空氣直到可平順的操作撐開器。

重要事項:

請勿超壓使用撐開器。

危險:

超壓使用可能造成人員傷亡及撐開器損壞。

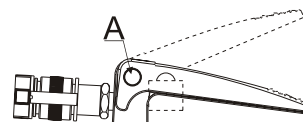
警告:

撐開器爪全開時加壓會造成撐開器及內部零件損壞。

4. 藉由操作泵浦來撐開前爪。當泵浦洩壓時爪即自動關合。回縮速度則由油管長度和管路上的其他限制條件所控制。

警告:

操作時手指遠離軸心點 (A)。



警告:

撐開荷載時，手部應遠離撐開爪及撐開器。

4. 維修及保養

當油缸與油管分離後請儘速蓋上防塵蓋，以防止異物由此進入系統內。
使用前及操作後均需再次檢查所有零件是否磨損及通順。

5. 疑難排除

問題	原因	解決
液壓缸無法前進, 前進緩慢或是突然前進	1. 泵浦液壓油太低 2. 洩壓閥呈打開狀態 3. 快速接頭未妥善連接 4. 荷重過重 5. 系統內空氣阻塞 6. 液壓缸主軸遭阻礙	1. 如前說明方式添加液壓油 2. 關閉洩壓閥 3. 確認所有接頭是否已鎖緊 4. 請勿超載使用 5. 請依說明排出空氣 6. 確認液壓缸損害情況。請連絡液壓技術人員
液壓缸前進但無法持壓	1. 漏油或是連接不完全 2. 油封漏油 3. 泵浦內部洩漏	1. 確認所有連接接頭是否鎖緊無洩漏 2. 確認洩漏位置，連絡液壓技術人員 3. 連絡液壓技術人員
液壓缸無法回縮、部份回縮或是回縮緩慢	1. 洩壓閥呈關閉狀態 2. 快速接頭鬆動 3. 系統內有空氣阻塞 4. 油管內徑太小 5. 液壓缸回縮彈簧毀損或是其他零件損壞	1. 打開洩壓閥 2. 請確認所有接頭都已完全鎖緊 3. 如4.1 所示將空氣排出 4. 改換內徑較大的油管 5. 請連絡液壓技術人員

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

HYDRAULIC WEDGIE SPREADER

WSR-1



English : E1~E3

中文
English
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1. SAFETY PRECAUTIONS



Failure 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.



WARNIGN : 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 the tool or workpiece.



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



IMPORTANT : Minimize the risk of overloading. Use hydraulic gauges in each hydraulic system to indicate safe operating loads. It is your window to what is happening in the system.



WARNING : Do not overload equipment. Overloading cause equipment failure and possible personal injury.



CAUTION : Make sure that all system components are protected from external sources of damage, such as excessive heat, flame, moving machine parts, sharp edges and corrosive chemicals.



CAUTION: Don't operate the equipment without lubricating the wedge and the 4 slide pins. Use high quality grease.



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



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



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



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



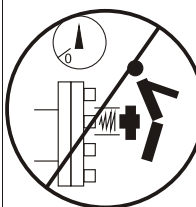
WARNING: Never place fingers in a joint held by activated wedge unless a safety block is located into the joint.



CAUTION: The handle of the wedge is there to stop operators holding spread plates as the wedge is retracted. This will stop fingers becoming jammed between plates.

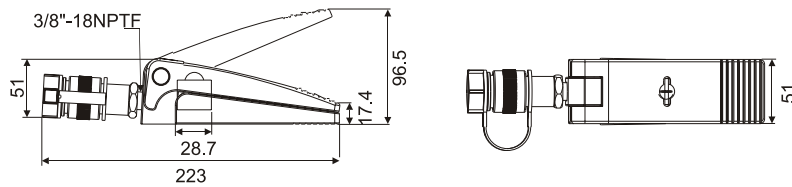


CAUTION: Never hammer or force wedge to access gap.



Never stand in-line with the bolt axis while tensioning or de-tensioning is in progress. If the bolt should fail, serious personal injury or death could result if loose or broken parts become projectiles. All personnel must be aware of this potential hazard at all times.

2. PRODUCT DESCRIPTION



Cylinder Capacity	Model Number	Tip clearance	Maximum Spread	Cylinder Eff. Area	Oil Capacity	Weight
(ton)kN		(mm)	(mm)	(cm ²)	(cm ³)	(kg)
1(8.9)	WSR-1	17.4	96.5	6.5	10	2.3

3. OPERATING INSTRUCTIONS

Refer to the instruction sheet supplied with your pump for information on installing and operating your pump.

1. Check the oil level in the pump.
2. Make sure all connections are tight and leak free.
3. Remove air from the system by placing the cylinder at a lower level than the pump and cycling the cylinder several times until the motion is smooth.

IMPORTANT:

Do not exceed the maximum system pressure for the spreader model being used.

WARNING:

Failure to observe pressure limits may result in serious personal injury and/or damage to spreader.

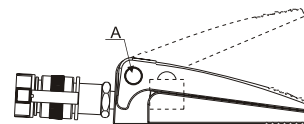
CAUTION:

Pressurizing the spreader with the jaws in the fully open position can damage the spreader and may result in failure of spreader components.

4. Operate the pump to spread the cylinder jaws. The jaws will close automatically when the pressure is released. The speed of retraction is dependent on the length of the hose and other restrictions in the line.

CAUTION:

Keep hands away from the pivot point (A) of spreader jaws.



CAUTION:

Keep hands clear of the load, away from the jaws of the spreader.

4. Maintain oil level

Use dust caps on couplers when cylinder are disconnected to prevent dirt from entering the system.
Keep parts clean. Inspect all components for damage or wear before and after use.

5.TROUBLESHOOTING GUIDE

PROBLEM	CAUSE	SOLUTION
Cylinder does not advance, advances slowly, or advances in spurts.	1.Oil level in pump reservoir is low 2.Release valve open 3.Loose hydraulic coupler 4.Load is too heavy 5.Air trapped in system 6.Cylinder plunger binding	1.Add oil according to the pump in structions. 2.Close the release valve. 3.Check that all couplers are fully tightened. 4.Do not attempt to lift more than rated tonnage. 5.Remove air according to the instructions. 6.Check for damage to cylinder. Have cylinder serviced by a qualified hydraulic technician.
Cylinder advances, but does not hold pressure.	1.Leaking connection 2.Leaking seals 3.Internal leakage in pump	1.Check that all connects are tight and leak free. 2.Locate leak(s) and have equipment serviced by a qualified hydraulic technician. 3.Have pump serviced by a qualified hydraulic technician.
Cylinder does not retract, retracts part way, or retracts more slowly than normal	1.Release valve closed 2.Loose hydraulic coupler 3.Air trapped in system 4.Hose I.D too narrow 5.Cylinder retraction spring broken or other cylinder damage	1.Open release valve. 2.Check that all couplers are fully tightened. 3.Remove air according to the instructions. 4.Use larger diameter hydraulic hose. 5.Have cylinder serviced by a qualified hydraulic technician.