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# 電動液壓泵浦-扭力扳手專用 操作手冊

## SPE-554TQ



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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。



**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。



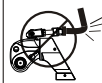
**警告事項：**只能在已連接好的液壓油路中使用；快速接頭尚未確實連接時禁止使用或加壓，否則高壓情況下接頭的油封及鋼珠會高速噴出造成人員傷亡。



**警告事項：**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。



**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



**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。



**危險事項：**為避免人員及設備傷害，請不要任意移除扳手上的保護蓋。也請不要任意改裝扳手。千萬不可更改旋轉接頭內的釋放閥。



**注意事項：**不正確的系統安裝會造成錯誤訊息及危險。安裝前請確認旋轉接頭已完全清除雜物。使用完畢後，旋轉接頭請務必蓋上防塵蓋。



**注意事項：**千萬不要搭配不相符的套筒和驅動頭。



**注意事項：**使用時請配合套筒。

## 2. 規範

電泵型號選擇：Custom build your Electric Pump:

**SPE-554TQ 1 5 1 8 2 O**

0 1 2 3 4 5 6

0.樣式 TQ=扭力扳手專用 TQJ=一般舉升適用	0.Type TQ= just use in Torque Wrench TQJ= using in lift applications
1.電壓 1=115V 2=230V	1.Voltage 1=115V 2=230V
2.Hz 5=50Hz 6=60Hz	2.Hz 5=50Hz 6=60Hz
3.相數 1=單相	3.Phase 1=single phase
4.油箱 (Lx0.26=gal) 8=8L(2.1gal) 20=20L(5.2gal) ★亦可依客戶訂製	4.Reservoir (Lx0.26=gal) 8=8L(2.1gal) 20=20L(5.2gal) ★User can order suitable reservoir.
5.多通閥(含1/4"公-母快速接頭) 1=1座及1公-1母快速接頭 2=1座及2公-2母快速接頭(標準件) 3=1座及3公-3母快速接頭 4=1座及4公-4母快速接頭	5.Manifold (include 1/4" male-female coupler) 1=1 manifold with 1 male and 1 female coupler 2=1 manifold with 2 male and 2 female couplers (standard) 3=1 manifold with 3 male and 3 female couplers 4=1 manifold with 4 male and 4 female couplers
6.選配 W=輪子 O=冷卻系統	6.Optional W=Wheel O=Cool system

Model Number 型 號	Rpm 轉速	DBa at Idle and 700bar 噪音值	KW (Hp) 馬力	Amp at 700bar 安培	Flow rate @115VAC(L/min) 流量				Oil tank 油箱 (L)	Usable oil 可用油量 (L)	Weight (with oil) 重量 (含油) (kg)
					0 (bar)	50 (bar)	350 (bar)	700 (bar)			
SPE-554	12000	80	0.84 (1-1/8)	25 /110V	11.3	7.1	1.2	0.9	8	7	32
				13 /230V							

注意: 使用前請注意伏特數和其他電力資訊。錯誤的電源可能造成設備損壞。

## 3. 操作

- 3.1 將油管的一端連接泵浦端 (H或A) 而油管的另一端連接扳手(H或A). 泵浦端的 H或A 千萬不可連接扳手端的 L 或 B 油孔。
- 3.2 確認所使用伏特是否合用。
- 3.3 確認是否有足夠的液壓油 (Aw32)。
- 3.4 確認油桶裏的液壓油。液壓油液面應該在自油桶頂往下 1" ~ 2" 的位置。

**警告: 千萬不可在無油或不正確油品下操作設備！**

扭力設定壓力

★ 警告 ★

務必於扳手放置至螺栓前做此調整動作。泵浦的壓力可能會設定的比建議的高出一些。超扭力使用可能使設備和人員產生危險。

★視扭力扳手操作說明書所建議扭力值找出對應的壓力。

★鬆開洩壓閥避免非預期性的壓力產生。

★打開泵浦開關。持續按壓"UP" 鍵，並且隨時注意壓力錶讀值。

★當持續按壓按鈕，順時針旋轉洩壓閥來增加壓力或是逆時針旋轉洩壓閥來減少壓力。重覆旋轉動作來設定所需的壓力。

★反覆操作泵浦數來測試壓力值。

### 3. 操作(續)

#### 空轉測試 & 扳手操作

1. 將扳手置於空地上。
2. 打開泵浦電源開關，啟動泵浦，檢查泵浦是否運轉正常。
3. 啟動線控開關上的 "啟動鈕" 接著輕按 "ON"。  
持壓 "ON" 鍵壓力上升 0~700bar 或到達任何已設定的壓力值，但中途放開 "ON" 鍵則壓力會立即退回 50~100bar，且扳手主軸回縮。  
當壓力到達設定值並確認扳手是否呈轉動狀態後，即可放開 "ON" 鍵，然後按下紅色的 "OFF" 鍵停止泵浦。
4. 將扳手平穩放在欲工作的螺栓上，按下 "啟動鈕" 接著按下 "ON" 上升壓力。  
當到達壓力設定值而扳手仍轉動，請放開 "ON" 鍵讓扳手主軸回縮後再重新按下 "ON" 鍵。
5. 重覆操作步驟 4 的 "ON" 鍵數次直到扳手上的套筒不再轉動即表示已到達鎖緊狀態，即可放開 "ON" 鍵然後按下紅色 "OFF" 鍵，使泵浦回到歸零狀態。



**警告：扳手工作完畢，務必關閉泵浦動力系統！**

### 4. 液面維持

★操作每 30 小時即需確認液面是否正常。必要時加入 SUN RUN 提供之液壓油。

液面至少要維持在自油桶頂下 2" 位置。每年至少全面更換液壓油一次。

下列情況時請常更換液壓油：

1. 油溫到達 140 F (60°C) 時。
2. 潮溼和溫度變化大的環境。
3. 沙塵多的環境也可能污染液壓油，所以要每年定期清洗過濾網。
4. 鬆開油桶面板上的螺栓。將泵浦單元自油桶上拿起，注意小油封或零件不要損壞或遺失。
5. 鬆開泵浦底座並用不易燃溶劑清洗。
6. 吹乾後重新組裝。安放泵浦的週圍保持空氣流通，儘可能保持馬達和泵浦乾淨。

### 5. 泵浦沖洗

假如你認為你的泵浦有污染物或底部有雜質沈澱，你都可以用下列方法沖洗泵浦：

1. 先將舊液壓油完全倒出，然後清洗油桶後再倒入乾淨無污染的新液壓油。
2. 重新安裝泵浦和馬達。
3. 現在開啟泵浦空車無壓力 1 ~ 2 分鐘。
4. 拔掉插頭並且再次移除馬達和泵浦組。現在再次倒光沖洗的液壓油及清洗油桶。(當組合時要確保沖洗殘餘要完全倒淨)

**最後一定要記得再加滿 SUN RUN 所確認的液壓油。**

#### 4.疑難排除

問題	原因 / 解決方法
馬達無法啟動	先確認電源線是否正確。確認斷路器運行迴路是否正常。檢查所有線路是否正常。確認馬達電容器是否正常。確認電源是否相符，延長線的使用是否荷載。
操作時有雜音	1.系統內有空氣 2.檢查液壓油是否超過正常液面 3.檢查所有空氣可能進入的接觸點
泵浦內的液壓油過熱	1.液壓油黏性過高 2.檢查上壓板在高壓時的洩漏量。 (軸心有洩漏) 3.液面太低。將液壓油加到正常液面或是更換較大的油桶滿足使用油量。
泵浦在運轉但無法輸出液壓油	1.泵浦不是第一次使用。暖機幾分鐘後，然後稍微左右搖晃一下。 2.確認外部調壓閥是否正確，再確認內部釋放閥是否正常。 3.O型環損壞。請尋找就近的油壓服務中心維修。 4.控制閥損壞 (逐步檢修)。

# 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 ELECTRIC PUMP

### **SPE-554TQ**



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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.



**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.



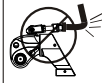
**WARNING:** Never pressurize uncoupled couplers. Only use hydraulic equipment in a coupled system.



**WARNING:** 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.



**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.



**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:** To avoid personal injuries and equipment damage, do not remove the shroud of the wrench. Do not modify any component of the wrench. Do not change the relief valve which is inside the swivel couplings.



**CAUTION:** The incorrect system connection will cause failure and danger. Before connection, make sure the swivel couplings are clean. After application, the swivel couplings must be put on the dust caps.



**CAUTION:** Do not use worn socket and square drive.



**CAUTION:** Please use the socket of good performance.



## 2.SPECIFICATION

電泵型號選擇：Custom build your Electric Pump:

**SPE-554TQ**

**1 5 1 8 2 0**

0 1 2 3 4 5 6

0.樣式

TQ=扭力扳手專用

TQJ=一般舉升適用

0.Type

TQ= just use in Torque Wrench

TQJ= using in lift applications

1.電壓

1=115V

2=230V

1.Voltage

1=115V

2=230V

2.Hz

5=50Hz

6=60Hz

2.Hz

5=50Hz

6=60Hz

3.相數

1=單相

3.Phase

1=single phase

4.油箱 (Lx0.26=gal)

8=8L(2.1gal)

20=20L(5.2gal)

★亦可依客戶訂製

4.Reservoir (Lx0.26=gal)

8=8L(2.1gal)

20=20L(5.2gal)

★User can order suitable reservoir.

5.多通閥(含1/4"公-母快速接頭)

1=1座及1公-1母快速接頭

2=1座及2公-2母快速接頭(標準件)

3=1座及3公-3母快速接頭

4=1座及4公-4母快速接頭

5.Manifold (include 1/4" male-female coupler)

1=1 manifold with 1 male and 1 female coupler

2=1 manifold with 2 male and 2 female couplers (standard)

3=1 manifold with 3 male and 3 female couplers

4=1 manifold with 4 male and 4 female couplers

6.選配

W=輪子

O=冷卻系統

6.Optional

W=Wheel

O=Cool system

Model Number	Rpm	DBa at Idle and 700bar	Hp	Amp at 700bar	Flow rate @115VAC(L/min)				Oil tank (L)	Usable oil (L)	Weight (with oil) (kg)
					0 (bar)	50 (bar)	350 (bar)	700 (bar)			
SPE-554TQ	12000	80	1-1/8	25 /110V	11.3	7.1	1.2	0.9	8	7	32
				13 /230V							

**NOTE: Take care about voltage or other power detail before using. Wrong electric power will make equipment and user serious damage.**

## 3.OPERATION

3.1 Connect the one end of hose at pump coupler (HorA) and hose the other end connect to wrench (HorA). Pump H or A end can't be connected to wrench L or B end.

3.2 Check volt.

3.3 Check enough hydraulic oil (Aw32).

3.4 Check oil level in reservoir. Oil level should be 1" to 2" from the top of the reservoir plate.

**WARNING: CAN'T BE USE IN NO OIL OR FAIL OIL !**

### Pressure torque setting

#### ★ WARNING ★

Make these adjustments BEFORE putting torque wrench on nut or bolt head. The pump pressure setting may be above the pressure needed to provide the required torque for your application.

Exceeding required torque will cause equipment damage and may lead to serious personal injury.

★See torque wrench instructions for amount of pressure required to produce desired torque.

★Loosen lock unit and back out relief valve to prevent unintended pressure build-up.

★Turn pump on. Press and hold the "UP" button, and read pressure gauge.

★While holding the button, turn relief valve in (clockwise) to increase pressure or out (counter-clockwise) to decrease maximum pressure. Repeat unit correct pressure is obtained.

★Run pump several times to test this setting.

## RUNING TEST

- 1.Place wrench on space.
- 2.Turn on the pump and check the motor is running correctly.
- 3.Press the "Start Button" and then press "ON" button lightly for test.  
Continually press the "ON" button, the pressure will go from 0 to 700bar or what you setting pressure ,but if you release the button the pressure will back to 50~100bar immediately and wrench piston go back.  
As the pressure reaches to limited and check if wrench turning then release the "ON" button and press red "OFF" button to stop the pump.
- 4.Put the wrench on working stud/ bolt then press the "Start Button" and then press "ON" to go up. As reach limited pressure and wrench still turning please release "ON" button to go back wrench piston and press "ON" again.
- 5.Operat step 4 "ON" button several times till wrench socket can't move that mean nut tightly then release "ON" and press red "OFF" to let pump goes to zero pressure.



**WARNING: As finish wrench, must turn off pump power !**

### 4. Maintain oil level

- ★Check hydraulic oil level every 30 hours of operation. Add SUN RUN approved oil when necessary.  
Oil level should be more than 2" from top of reservoir plate. Completely change oil at least twice a year. The following conditions require more frequent oil changes:
- 1. Rigorous duty, where oil temperature may reach 140 F(60°C).
- 2. High humidity environment and extreme changes in temperature that can result in condensation inside the reservoir.
- 3. Dirty or dusty environments that may contaminate the oil. Clean oil Filter Screen Once a Year.
- 4. Loosen and remove reservoir plate bolts. Lift pump unit off the reservoir, being careful not to damage the gasket.
- 5. Unscrew screen from the bottom of pump unit and clean with nonflammable solvent.
- 6. Blow dry and reassemble. Keep areas around pump unobstructed to provide good airflow around the motor and pump. Keep the motor and pump as clean as possible.

### 5. Flushing the Pump

If you suspect your pump has been contaminated or discover sludge or other deposits on internal components, you should thoroughly flush the pump.

1. Remove the old oil from the reservoir, then thoroughly clean the reservoir and refill with clean, non-flammable flushing oil.
2. Reassemble the pump and motor to the reservoir.
3. Now run the pump in no pressure for 1 or 2 minutes maximum.
4. Unplug the pump and remove the motor and pump assembly again. Now drain the flushing oil and reclean the inside of the reservoir. (Make sure flushing is also drained from pump assembly.)

REFILL THE RESERVOIR WITH SUN RUN APPROVED HYDRAULIC OIL AND REASSEMBLE THE PUMP.

## 6.TROUBLESHOOTING

Problem	Cause/ Solution
Motor will not start	Be sure power cord is not damaged. Check for tripped circuit breaker-- be sure breaker is of adequate size. Have qualified electrician inspect for loose or faulty wiring. Have motor checked for defective motor capacitor. Be sure electrical supply and extension cords are adequate.
Noisy Operation	1.Air in system. 2.Be sure the oil reservoir is filled to normal level. 3.Check all points where air might leak into system.
Pump oil is over heating	1.Oil viscosity too high. 2.Check for high-pressure leakage on upper pressure plate.( Leaking at plug.) 3.Oil level is low. Fill reservoir to normal level , or refit the pump with larger reservoir.
Pump runs but will not pump oil	1.Pump is not primed. Run pump a few minutes tipping from side to side. 2.Check to make sure that externally adjustable relief valve set properly. Check internal relief valve. 3.Damaged O-ring. Take to nearest authorized service center for repair. 4.Defective control valve. (Troubleshoot separately).