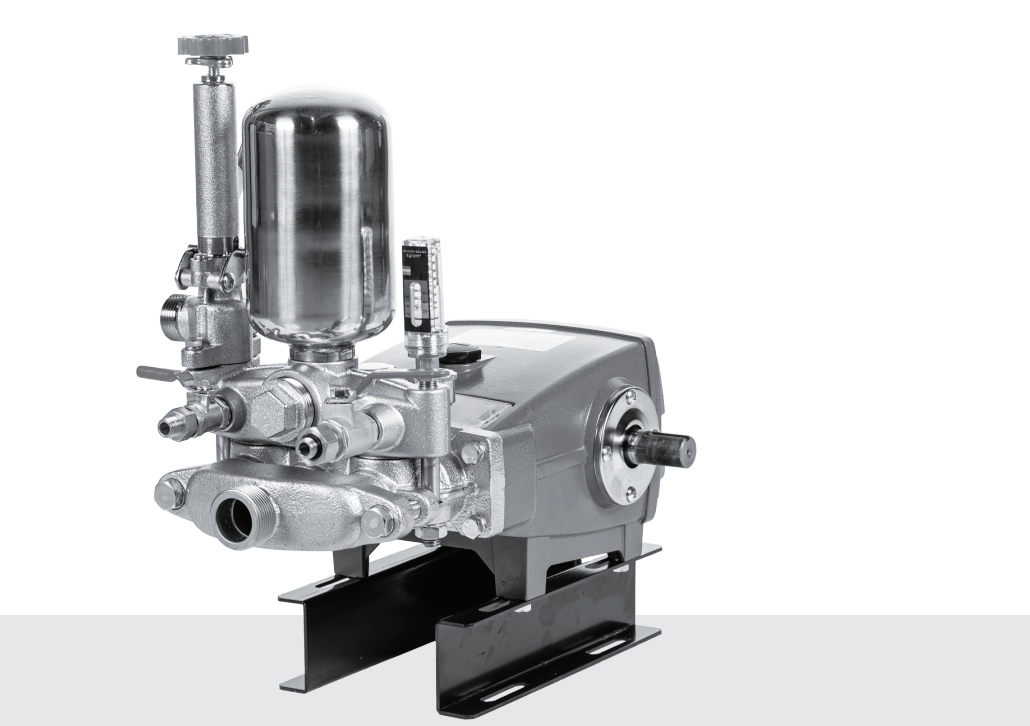


物理農業機械股份有限公司
WULI AGRICULTURE MACHINE CO., LTD.
動力噴霧機、高壓洗淨機、專業設計製造

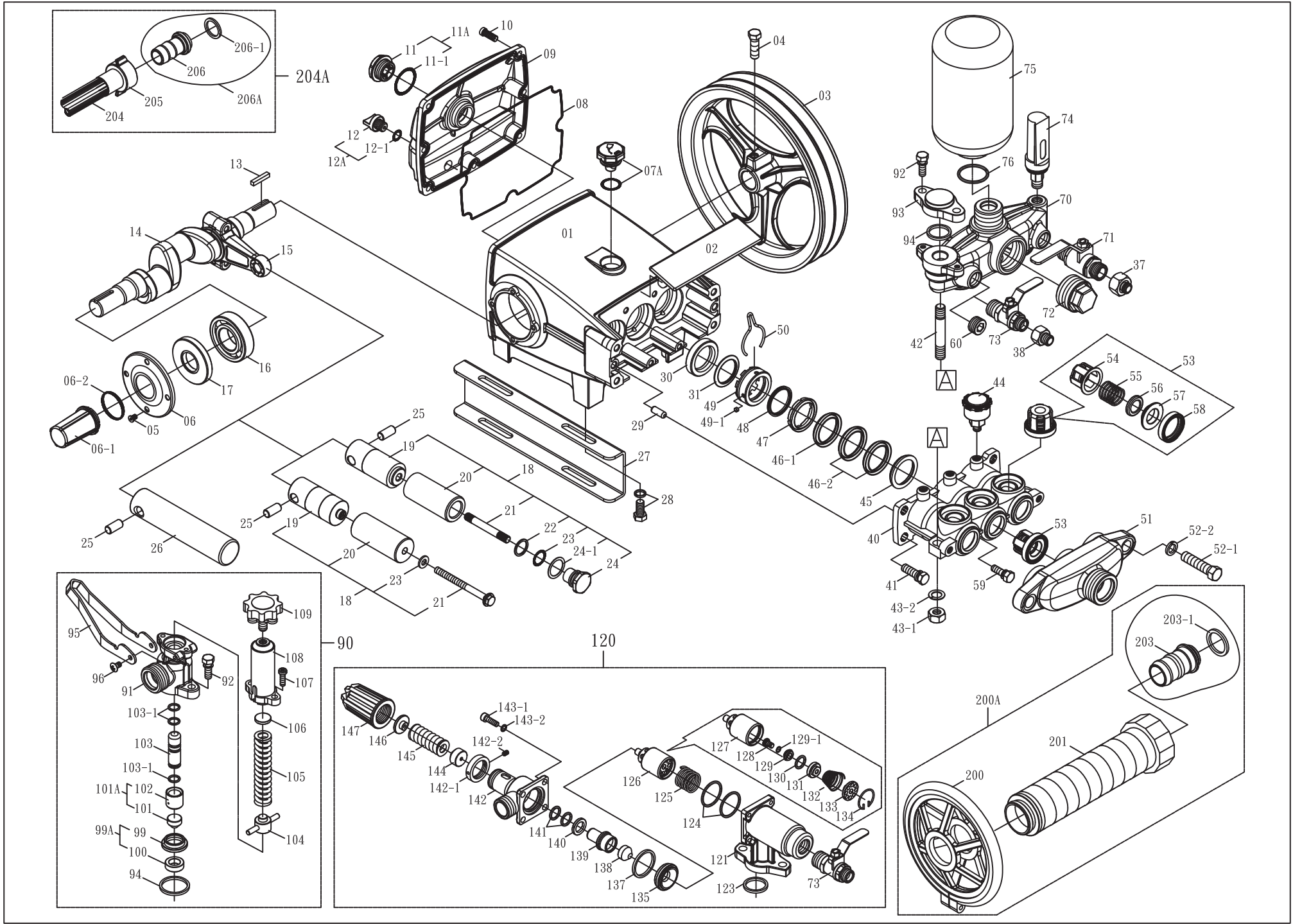
51B2/160 SERIES USER’S MANUAL
51B2/160 系列操作手冊



感謝您購買物理產品，使用前請詳閱本說明。
Thank You For Buying Our Product.
Please Read The Manual Before Use.

2021.04V

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 .



- 1 -

- 2 -

圖號 No.	零件名稱 (51B2/160系列) Description (51B2/160 Series)		數量 Q'TY
01	曲軸箱	Crankcase	1
02	防塵蓋	Dustproof Cover	1
03	皮帶輪	Pulley	1
04	皮帶輪螺絲	Pulley Set Bolt	1
05	大扁頭螺絲	Set Bolt	8
06	曲軸油封蓋	Crankshaft Oil Seal Cover	2
06-1	曲軸油封蓋 B	Crankshaft Oil Seal Cover (Cone)	1
06-2	O形環	O-Ring	1
07A	加油蓋組	Oil Inlet Cover Assy.	1
08	後蓋迫緊	Rear Cover Packing	1
09	曲軸箱後蓋	Rear Cover	1
10	大扁頭螺絲	Set Bolt	7
11A	油鏡組	Oil Window Assy.	1
11	油鏡	Oil Window	1
11-1	O形環	O-Ring	1
12A	排油螺絲組	Drainage Screw Assy.	1
12	排油螺絲	Drainage Screw	1
12-1	O形環	O-Ring	1
13	曲軸鍵	Crankshaft Key	1
14	曲軸	Crankshaft	1
15	連桿組	Connecting Rod Assy.	3
16	軸承	Bearing	2
17	曲軸油封	Crankshaft Oil Seal	2
18	陶瓷柱塞組	Ceramic Piston Assy.	3
19	柱塞桿	Piston Rod	3
20	柱塞套	Ceramic Piston Sleeve	3
21	柱塞套固定螺絲	Screw	3
22	O形環	O-Ring	3

- 3 -

圖號 No.	零件名稱 (51B2/160系列) Description (51B2/160 Series)		數量 Q'TY
23	止水墊片	Gasket	3
24	柱塞套固定螺帽	Set Nut	3
24-1	背托環	Back-Up Ring	3
25	柱塞銷	Piston Pin	3
26	不鏽鋼柱塞	Stainless Steel Piston	3
27	腳座	Crankcase Stand	2
28	六角螺絲附華司	Set Bolt, Washer	4
29	汽缸銷	Set Pin	2
30	柱塞油封	Piston Oil Seal	3
31	柱塞中間皮	Waterproof Ring	3
37	接頭由令	Connector	1
38	接頭由令	Connector	1
40	汽缸	Cylinder	1
41	六角螺絲附華司	Set Bolt, Washer	4
42	雙頭牙螺絲	Double-End Screw	2
43-1	六角螺帽	Nut	2
43-2	彈簧華司	Spring Washer	2
44	黃油杯	Grease Cup	3
45	V迫緊底座	V-Packing Seat	3
46-1	V迫緊 (乙烯隆)	V-Packing (UCL)	3
46-2	V迫緊 (氟素)	V-Packing (F.P.M)	6
	V迫緊 (NBR)	V-Packing (NBR)	
	V迫緊 (A120)	V-Packing (A120)	
47	黃油環	Grease Ring	3
48	V型油環	V-Type O-Ring	3
49	調整環	Adjusting Ring	3
49-1	止滑片	Plater	6
50	調整環固定夾	Set Clip	3

- 4 -

圖號 No.	零件名稱 (51B2/160系列) Description (51B2/160 Series)		數量 Q'TY
51	進水室	Suction Chamber	1
52-1	六角螺絲	Screw	2
52-2	彈簧華司	Spring Washer	2
53	活門組	Valve Assy.	6
54	活門帽	Valve Cage	6
55	活門彈簧	Valve Spring	6
56	活門塞	Valve Plug	6
57	活門座	Valve Seat	6
58	活門皮	Valve Packing	6
59	六角螺絲附華司	Set Bolt, Washer	2
60	內六角塞頭	Plug	1
70	出水室	Outlet Chamber	1
71	球形閥	Ball Valve	1
72	出水塞頭	Plug	1
73	球形閥	Ball Valve	1
74	壓力錶	Pressure Gauge	1
75	空氣室	Air Chamber	1
76	O形環	O-Ring	1
90	安全弁組	Safety Valve Assy.	1
91	迴水座	Overflow Chamber	1
92	六角螺絲附華司	Set Bolt, Washer	2
93	迴水桿底座	Overflow Rod Seat	1
94	方形環	Square Ring	1
95	調壓把手	Pressure Regulating Handle	1
96	大扁頭螺絲	Set Bolt	2
99A	壓力閥座組	Valve Seat Assy.	1
99	壓力閥座	Valve Seat	1
100	壓力閥座套	Valve Seat Sleeve	1

圖號 No.	零件名稱 (51B2/160系列) Description (51B2/160 Series)		數量 Q'TY
101A	壓力閥組	Pressure Valve Assy.	1
101	壓力閥	Pressure Valve	1
102	壓力閥套	Pressure Valve Sleeve	1
103	壓力閥桿	Valve Rod	1
103-1	O形環	O-Ring	3
104	彈簧下座組	Spring Seat	1
105	調壓彈簧	Pressure Regulating Spring	1
106	彈簧上座	Spring Seat (Upper)	1
107	圓頭螺絲	Screw	2
108	調壓彈簧套	Pressure Regulating Pipe	1
109	調壓螺絲組	Pressure Regulating Knob Assy.	1
120	自動洩壓總成	Unloading Valve Assy.	1
121	洩壓汽缸套	Unloading Valve Cylinder	1
123	方形環	Square Ring	1
124	O形環	O-Ring	2
125	洩壓輔助彈簧	Auxiliary Spring	1
126	柱塞活門組	Piston Valve Assy.	1
127	柱塞活門體	Piston Valve Body	1
128	圓頭螺絲	Screw	1
129	閥塞頭	Valve Plug	1
129-1	O形環	O-Ring	1
130	O形環	O-Ring	1
131	閥塞座	Valve Plug Seat	1
132	球閥固定彈簧	Spring	1
133	彈簧底座	Spring Seat	1
134	C扣環	C-Clip	1
135	壓力閥座	Valve Seat	1
137	方形環	Square Ring	1

圖號 No.	零件名稱 (51B2/160系列) Description (51B2/160 Series)		數量 Q'TY
138	壓力閥	Pressure Valve	1
139	壓力閥桿	Valve Rod	1
140	消音片	Damper Plate	1
141	O形環	O-Ring	2
142	迴水座	Overflow Chamber	1
142-1	固定環	Set Ring	1
142-2	無頭內六角螺絲	Hex Screw	2
143-1	內六角螺絲	Hex Screw	4
143-2	彈簧華司	Spring Washer	4
144	彈簧下座	Spring Seat	1
145	調壓彈簧	Pressure Regulating Spring	1
146	彈簧上座	Spring Seat (Upper)	1
147	調壓螺帽	Pressure Regulating Knob	1
200A	吸水管組	Suction Hose Assy.	1
200	過濾網	Filter	1
201	吸水管	Suction Hose	1
202	吸水管蝶頭	Suction Hose Wing Nut	1
203	吸水管申目	Suction Hose Socket	1
203-1	方形環	Square Ring	1
204A	迴水管組	Overflow Hose Assy.	1
204	迴水管	Overflow Hose	1
205	迴水管蝶頭	Overflow Hose Wing Nut	1
206A	吸水管申目組	Overflow Hose Socket Assy.	1
206	迴水管申目	Overflow Hose Socket	1
206-1	方形環	Square Ring	1

ATTENTION!
<div>1. Check every fastener to make sure that the sprayer and engine are installed firmly onto the frame.</div> <div>2. Set both pulleys in a straight line and set the belt to an appropriate tightness.</div> <div>3. Check whether there is sufficient engine oil and use the appropriate fuel.</div> <div>4. Before starting the engine, check both ON/OFF switches on the engine and the carburetor.</div> <div>5. Connect the suction hose to the inlet of the sprayer. Leave the suction hose filter 20 cm above the bottom of the water tank in order to prolong the life of the sprayer.</div> <div>6. Make sure the water supply is sufficient to allow the pump to reach its working pressure.</div> <div>7. Connect the spray hose to the spray gun.</div> <div>8. Open the exhaust cock before starting the engine in order to release air from the pump. Before using the spray gun for spraying, confirm the circulation of water in the pump is flowing properly.</div> <div>9. The maximum pressure should not exceed the set pressure of the pump. When adjusting the pressure, the spray gun must be opened. Turn pressure regulating knob in a clockwise direction to increase the pressure and counter-clockwise to reduce the pressure. Please use the pressure regulating knob value or the pressure gauge as the pressure reference when adjusting.</div> <div>10. In order to avoid any damage to the packings and the pump, shut off the engine /motor when stopping the unit for more than 5 minutes.</div> <div>11. Replace the oil in the pump after the first 10 to 15 hours of use. After this, the oil should be changed after every 70 hours of use. Make sure the oil is in good condition before each use.</div> <div>12. Drain any sludge before changing the oil.</div> <div>13. Replace and tighten the nut before refilling with #30~40 oil, then refill the oil level up to 2/3 of the oil window.</div> <div>14. Always keep the grease cup filled with grease. Twist the grease cup twice for every 2 hours of spraying.</div> <div>15. After finishing spraying, loosen the pressure regulating knob and operate the sprayer with fresh water to clean out any remaining chemicals.</div> <div>16. Never aim the sprayer output directly at people or animals.</div> <div>17. Operate carefully, as the engine's working temperature is very hot.</div> <div>18. Do not touch the pulleys or belts when the sprayer is running.</div>
<div>TROUBLESHOOTING</div> <div>1. Instability of working pressure and water supply:<div>A. Check whether the suction hose (#201) is leaks or sticks.</div><div>B. Open the ball cock to release any air from the system.</div><div>C. Remove the suction chamber and outlet chamber to check if the valve assemblies are stuck or damaged.</div><div>D. Check whether the suction filter (#200) is obstructed.</div></div> <div>2. Insufficient pressure:<div>A. Check whether the pressure is properly adjusted.</div><div>B. Check whether the belt is too loose.</div><div>C. Check whether the spray hose and the coupling are damaged.</div><div>D. Check whether the valve or valve sheath is worn down.</div></div> <div>3. Cylinder leakage:<div>A. Remove the dustproof cover (#02) and then fasten the adjusting ring (#49).</div><div>B. If the problem persists, replace the v-packing in the cylinder.</div><div>C. Check whether the Piston is damaged. A scraped Piston can lead to sprayer leakage and low pressure.</div></div>

泵浦與引擎之使用說明
<div>1. 檢查每個扣件，確定噴霧機與引擎都穩固的裝在架子上。</div> <div>2. 兩個皮帶輪應裝於一直線上，皮帶應鬆緊適中。</div> <div>3. 檢查引擎齒輪箱是否加機油，使用燃料是否正確。</div> <div>4. 起動引擎前開關是否打開；化油器開關是否打開。</div> <div>5. 把吸水管鎖緊泵浦吸水口，同時將吸水管過濾網(#200)放入水槽，不宜放於底部，最佳位置為底部上方20公分處，預防吸進底部泥沙，確保泵浦壽命。</div> <div>6. 吸水管給水，應使用原廠尺寸的吸水管，以避免吸水量不足，達不到使用壓力。</div> <div>7. 鎖好輸出水管、噴槍。</div> <div>8. 打開泵浦排氣球閥後啟動引擎，排洩泵浦內之空氣，確認正常出水，然後將排氣球閥關閉，即可使用噴槍做噴霧工作。</div> <div>9. 壓力調整：壓力調整弁加壓以順時針方向調整，調整壓力同時須打開噴槍，最高壓力不得高於泵浦規格壓力以上，以維護機械壽命，並可依工作物實際壓力需求，逆時針降壓以確保於工作物的最佳使用壓力。</div> <div>10. 暫停使用引擎、泵浦時，空轉不宜超過5分鐘，以確保V迫緊不受水溫升高而壽命受損，及浪費燃料，關掉引擎。</div> <div>11. 泵浦與引擎初使用10-15小時應更換機油，以後每隔70小時再更換一次。(使用前應注意機油是否變質)</div> <div>12. 更換機油時，請打開排油螺絲排出骯髒之機油。</div> <div>13. 加機油時把排油螺絲鎖緊，打開加油蓋，注入#30-40之清潔機油，正確加油量在油鏡2/3位置。</div> <div>14. 黃油杯應隨時注滿黃油，每使用2小時應將黃油杯旋轉2至3圈。</div> <div>15. 噴霧完畢，將調壓把手拉至頂端，並以清水操作噴霧機以清除內部殘留之化學品。</div> <div>16. 嚴禁噴槍對人噴射。</div> <div>17. 引擎運轉時會產生高溫，須小心使用。</div> <div>18. 噴霧機在高速運轉下，須注意皮帶及普利部分，不可碰觸。</div>
<div>泵浦之簡易維修操作說明</div> <div>一、無法供水及壓力不穩<div>1. 檢查吸水管(#201)是否洩漏(破損或未鎖緊)。</div><div>2. 打開出水開關排掉多餘的空氣。</div><div>3. 取下進水室及出水室檢查活門組是否阻塞或損壞。</div><div>4. 檢查過濾網(#200)是否阻塞。</div></div> <div>二、壓力不足<div>1. 檢查壓力是否調整適當。</div><div>2. 檢查皮帶是否太鬆。</div><div>3. 檢查噴霧管與接頭是否洩漏或損壞。</div><div>4. 噴嘴磨損導致壓力下降。</div></div> <div>三、汽缸洩漏<div>1. 取下防塵蓋(#02)鎖緊調整環(#49)。</div><div>2. 如仍無效，則為汽缸內V迫緊損壞。</div><div>3. 柱塞磨損(柱塞縱方向刮痕是為壓力下降及漏水的原因之一)。</div></div>