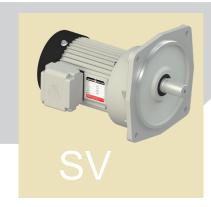


# 小型齒輪減速機 使用暨保養手冊

SMALL GEAR REDUCER INSTALLATION AND USAGE GUIDE













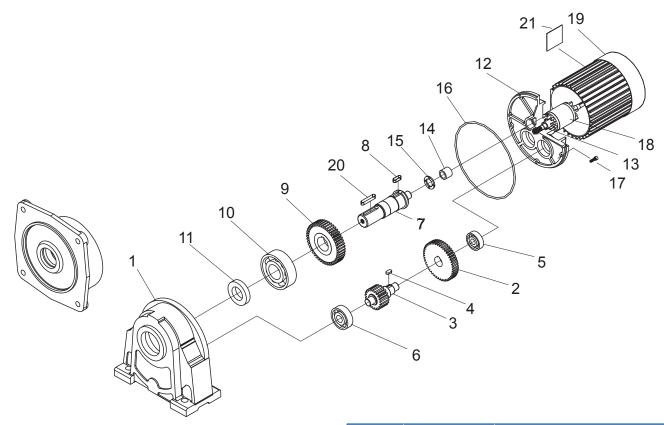




### ■二段式分解系統圖 2 Stage System Proving

2-Stage System Drawing

■ MODEL: SH(SV)



2



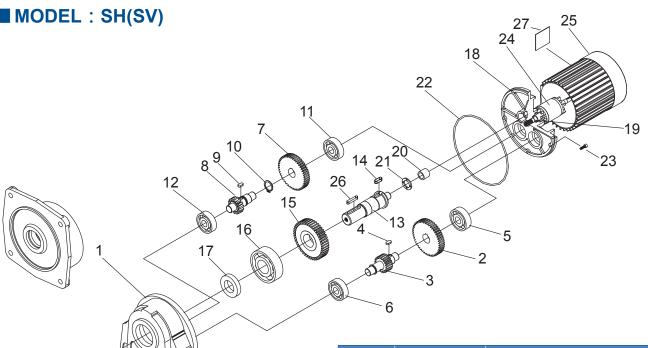
NO.	零件名稱	Name of Parts
1	本 體	Body
2	B齒輪	Gear B
3	C齒輪	Gear C
4	鍵	Key
5	軸 承	Bearing
6	軸 承	Bearing
7	出力軸	Output Shaft
8	鍵	Key
9	D齒輪	Gear D
10	軸 承	Bearing
11	油 封	Oil Seal
12	後 蓋	Rear Cover
13	油 封	Oil Seal
14	針狀軸承	Needle Bearing
15	止推墊片	Washer
16	〇型環	O-Ring
17	固定螺絲	Fixing Screw
18	A齒輪	Gear A
19	馬達	Motor
20	鍵	Key
21	銘 牌	Name Plate

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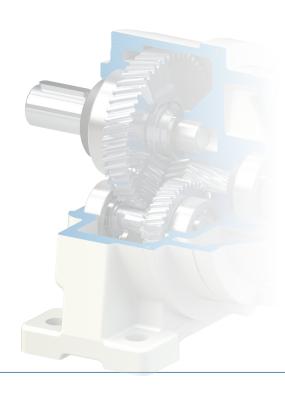
# ■三段式分解系統圖

**3-Stage System Drawing** 





3



日本 體 Gear B Gear B Gear E 经 Key Bearing Bearing Bearing F 齒輪 Gear F Bearing F 齒輪 Gear F Bearing F らぬ輪 Gear C Bear D Bearing Bear Cover Bear Cov	NO.	零件名稱	Name of Parts
Bearing Bearing Bearing Fi	1	本 體	Body
## 日本	2	B齒輪	Gear B
日本の 日本	3	E齒輪	Gear E
6 軸 承 Bearing 7 F 齒 輪 Gear F 8 C 齒 輪 Gear C 9 鍵 Key 10 扣 環 Snap ring 11 軸 承 Bearing 12 軸 承 Bearing 13 出力軸 Output shaft 14 鍵 Key 15 D 齒 輪 Gear D 16 軸 承 Bearing 17 油 封 Oil seal 18 後 蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A 齒 輪 Gear A 25 馬 達 Motor 26 鍵 Key	4	鍵	Key
F齒輪 Gear F C齒輪 Gear C 9 鍵 Key 10 扣 環 Snap ring 11 軸 承 Bearing 12 軸 承 Bearing 13 出力軸 Output shaft 14 鍵 Key 15 D齒輪 Gear D 16 軸 承 Bearing 17 油 封 Oil seal 18 後蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A齒輪 Gear A 25 馬達 Motor 26 鍵 Key	5	軸 承	Bearing
8 C 齒 輪 Gear C 9 鍵 Key 10 扣 環 Snap ring 11 軸 承 Bearing 12 軸 承 Bearing 13 出力軸 Output shaft 14 鍵 Key 15 D 齒 輪 Gear D 16 軸 承 Bearing 17 油 封 Oil seal 18 後 蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A 齒 輪 Gear A 25 馬 達 Motor 26 鍵	6	軸 承	Bearing
9 鍵 Key 10 扣 環 Snap ring 11 軸 承 Bearing 12 軸 承 Bearing 13 出力軸 Output shaft 14 鍵 Key 15 D齒輪 Gear D 16 軸 承 Bearing 17 油 封 Oil seal 18 後蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Gear A 25 馬 達 Motor 26 鍵 Key	7	F齒輪	Gear F
10 扣 環 Snap ring 11 軸 承 Bearing 12 軸 承 Bearing 13 出力軸 Output shaft 14 鍵 Key 15 D齒輪 Gear D 16 軸 承 Bearing 17 油 封 Oil seal 18 後蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A齒輪 Gear A 25 馬達 Motor 26 鍵	8	C齒輪	Gear C
11 軸 承 Bearing 12 軸 承 Bearing 13 出力軸 Output shaft 14 鍵 Key 15 D 齒輪 Gear D 16 軸 承 Bearing 17 油 封 Oil seal 18 後 蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A 齒輪 Gear A 25 馬 達 Motor 26 鍵 Key	9	鍵	Key
12 軸 承 Bearing 13 出力軸 Output shaft 14 鍵 Key 15 D齒輪 Gear D 16 軸 承 Bearing 17 油 封 Oil seal 18 後蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A齒輪 Gear A 25 馬達 Motor 26 鍵	10	扣 環	Snap ring
13 出力軸 Output shaft 14 鍵 Key 15 D齒輪 Gear D 16 軸承 Bearing 17 油封 Oil seal 18 後蓋 Rear Cover 19 油封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A齒輪 Gear A 25 馬達 Motor 26 鍵 Key	11	軸承	Bearing
14鍵Key15D 齒輪Gear D16軸承Bearing17油封Oil seal18後蓋Rear Cover19油封Oil seal20針狀軸承Needle Bearing21止推墊片Washer22O型環O-ring23固定螺絲Fixing screw24A齒輪Gear A25馬達Motor26鍵Key	12		Bearing
15 D 齒 輪 Gear D 16 軸 承 Bearing 17 油 封 Oil seal 18 後 蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A 齒 輪 Gear A 25 馬 達 Motor 26 鍵 Key	13	出力軸	Output shaft
16 軸 承 Bearing 17 油 封 Oil seal 18 後 蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A 齒 輪 Gear A 25 馬 達 Motor 26 鍵 Key	14	鍵	Key
17 油 封 Oil seal 18 後 蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A齒輪 Gear A 25 馬 達 Motor 26 鍵 Key	15	D齒輪	Gear D
18 後蓋 Rear Cover 19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A齒輪 Gear A 25 馬達 Motor 26 鍵 Key	16	軸 承	Bearing
19 油 封 Oil seal 20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A 齒 輪 Gear A 25 馬 達 Motor 26 鍵 Key	17	油 封	Oil seal
20 針狀軸承 Needle Bearing 21 止推墊片 Washer 22 O型環 O-ring 23 固定螺絲 Fixing screw 24 A齒輪 Gear A 25 馬達 Motor 26 鍵 Key	18	後 蓋	Rear Cover
21止推墊片Washer22O型環O-ring23固定螺絲Fixing screw24A齒輪Gear A25馬達Motor26鍵Key	19	油 封	Oil seal
22O型環O-ring23固定螺絲Fixing screw24A 齒輪Gear A25馬達Motor26鍵Key	20	針狀軸承	Needle Bearing
23固定螺絲Fixing screw24A 齒 輪Gear A25馬 達Motor26鍵Key	21	止推墊片	Washer
24       A 齒 輪       Gear A         25       馬 達       Motor         26       鍵       Key	22	〇型環	O-ring
25     馬     達     Motor       26     鍵     Key	23	固定螺絲	Fixing screw
26 鍵 Key	24	A齒輪	Gear A
	25	馬達	Motor
	26	鍵	Key
	27	銘 牌	

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# ■齒輪減速機的使用及安裝

# **Usage and Installtion of Reduction Gears**

安裝條件 (一般標準品 ) Installation Condition (For Standard Product)			
周圍溫度 Ambient Temperature	-5℃ ~ 40℃		
周圍濕度 Ambient Humidity	85% 以下 Below		
周圍環境 Ambient Condition	避免腐蝕性,爆發性氣體,水蒸氣之環境,應置於乾燥且通風良好之環境。 Please place in dry and well-ventilated location. Environment with corrosive gas, inflammable Gas and moisture should be avoided.		
場 所 Location	屋內 <sup>,</sup> 須裝置於平坦及堅固的底部 <sup>。</sup> Indoor; the product should be installed on flat and solid foundation.		
標 高 Elevation	1000m 以下 below		

減速機規格 Specifications of Reduction Gear				
The state of the s		S45C( 高週波 ) / SCM415( 滲碳 ) / SCM440( 氮化 ) S45C(High-frequency Wave) / SCM415(Carbonization) / SCM440(Nitrogen Hardening)		
潤 滑 方 式	Lubrication	Grease NO.0		
外  殼	Shell	鋁合金 (ADC12) / 鑄鐵 (FC20) / 鋁合金 (A380) Aluminum Alloy(ADC12) / Cast Iron(FC20)		

	馬達規格 Motor of Reduction Gear						
柞	1	數	Phase No	三相	3-phase	單相	Single-phase
外	卜被柞	構造	Enclosure Structure	全閉外扇 (0.1kW~2.2kW)	Closed with External-fan (0.1kW~2.2kW)	全閉外扇 (0.1kW~2.2kW)	Closed with External-fan (0.1kW~2.2kW)
彪	対動フ	方式	Start-up Method	直接啟動	Direct	電容運轉 電容啟動運轉	Capacitor Capacitor Motor (Variable Capacitor)
頻	Į	率	Frequency	50HZ / 60HZ		50HZ / 60HZ	
電	Ī	壓	Voltage	415V 460 220 / 380V 220	V 480V / 440V	110 / 220V	
瞙	間に	定格	Time Scale	連續	Continuous	連續	Continuous
極	<u>X</u>	數	Pole No	4 極	Four	4 極	Four
絕	3	緣	Insulation	E級	E Grade	E級	E Grade

## ■齒輪減速機一般故障原因及改善方法

# Solutions and Reasons for The Genral Faults of Reduction Gears

故障情況 Fault Description	故障原因 Reasons	解決方法 Solutions		
	★超負荷運轉 Overload.	★調整至適當負荷 Adjust to proper loading.		
減速機過熱	★油封過度磨擦 Over friction of oil seal.	★在油封處滴潤滑油 Drop lubricant at oil seal.		
Overheation	★出力軸與傳動裝置連接不當 Improper connection between driving shaft and the transmission device.	★調整至適當位置 Adjust to proper position.		
	★衝擊荷重大 Large impact loading.	★更換較大型號減速機 Use larger reduction gears.		
	★超負荷運轉 Overload.	★調整至適當負荷 Adjust to proper loading.		
	★軸承損傷或間隙過大 Bearing damaged or too large clearance.	★更換軸承 Replace bearing.		
減速機雜音	★潤滑油不足或劣化 Lubricant oil shortage or deterioration.	★依指示加入適量潤滑油 Fill in adequate lubricant oil as indication.		
Noise	★出力軸與傳動裝置連接不當 Improper connection between driving shaft and the transmission device.	★調整至適當位置 Adjust to proper position.		
	★螺栓鬆脫 Bolt loose.	★旋緊螺栓 Tighten bolt.		
	★傳動裝置固定不良 Improper installation of transmission device.	★傳動裝置固定 Fix transmission device properly.		
	★油封損傷 Oil seal damaged.	★更換油封 Replace oil seal.		
漏油	★油量過多 Too much oil.	★依指示加入適量潤滑油 Fill in adequate lubricant oil as indication.		
Oil Leakage	★螺絲鬆脫 Screw loose.	★旋緊螺栓 Tighten screw.		
	★外殼破裂 Outside shell fractured.	★更換外殼 Replace outer shell.		
	★超負荷運轉 Overload.	★調整至適當負荷 Adjust to proper loading.		
	★軸承損傷 Bearing damaged.	★更換軸承 Replace bearing.		
	★異物嵌入 Invasion by foreign objects.	★取出異物 Take out foreign objects.		
出力軸不轉 Driving Shaft Cannot Rotate	★齒輪磨損 Gear worn-out	★更換齒輪 Replace gear.		
	★馬達損壞 Motor out of order.	★修復馬達 Repair motor.		
	★配線錯誤 Incorrect wiring.	★依指示配線 Wiring as indication.		
注:	★衝撃荷重過大	★更換較大型號減速機 Use larger reduction gears.		

### 注:

- ... 1. 以上所列為一般故障原因,如有其它故障情形時,請與本公司聯絡,我們將會提供最正確之服務。
- 2. 產品如經自行拆裝或更改,產生異常本公司恕不負責。

### NOTES

- 1. The above items are general fault descriptions. In case of other kinds of faults, please contact with us to obtain most correct services.
- 2.If the product has been broken off or changed, the unusual matter the company won't be in charge of the case.