



安装说明



INSTALLATION INSTRUCTIONS

# F系列纸卷夹安装说明书

## F-Series Paper Roll Clamps



官方微信号 天猫旗舰店









服务热线

Customer Service Hotline

40088 57315



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-  **警告：** 安装不当是导致属具故障的第一要素，请在安装前认真阅读本《安装说明书》。
-  **重要提示：** 现场改动将减弱属具的性能和承载能力，并导致失去保修资格。任何需要对属具进行的改动，请事先与卡斯卡特（厦门）公司协商。
-  **注意：** 叉车/属具组合承载能力系由叉车主机厂确定，其值可能比属具铭牌上所示数值小，请参见叉车铭牌。
-  **WARNING:** Incorrect installation is the main cause of attachment malfunctioning. Please read this INSTALLATION INSTRUCTION comprehensively before installation.
-  **IMPORTANT:** Field alterations may impair performance or capability and could result in loss of warranty. Consult Cascade for any required modifications. Operating at pressures over 2300 psi(160 bar) will void warranty.
-  **CAUTION:** Rated capacity of the truck/attachment combination is a responsibility of the original truck manufacturer and may be less than shown on the attachment nameplate. Consult the truck nameplate.

# 安装前对叉车的要求



# TRUCK REQUIREMENTS

## 叉车安全阀压力的调定/Truck Relief Valve Setting

推荐值/Recommended	最大值/Maximum
140Bar(2000psi)	160Bar(2300psi)

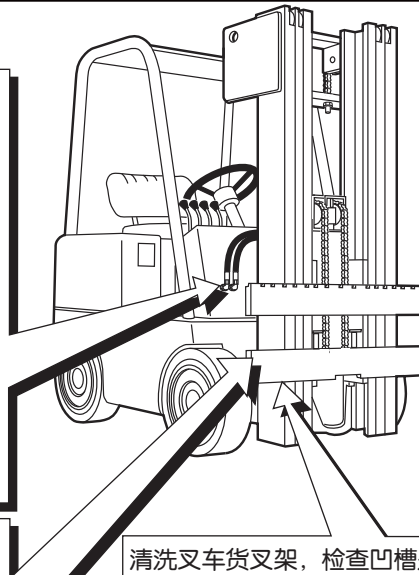
## 液压流量/Truck Flow Volume

型号/Model	最小/Min. <sup>①</sup>	推荐值/Rec.	最大/Max. <sup>②</sup>
25F	18LPM/5GPM	30LPM/8GPM	37LPM/10GPM
45F,X45F,X50F,60F,X60F	18LPM/5GPM	37LPM/10GPM	56LPM/15GPM
77F,90F,100F,120F	37LPM/10GPM	56LPM/15GPM	76LPM/20GPM
130F,150F,160F	56LPM/15GPM	75LPM/20GPM	95LPM/25GPM

- ① 流量值低于最小值会导致属具动作失常。  
Flow less than minimum will result in attachment improper motion.
- ② 流量值高于最大值会导致过热，从而降低系统性能并缩短液压系统寿命。  
Flow greater than maximum can result in excessive heating, reducing system performance and shortening hydraulic system life.



安装等级 Mounting	A(ISO标准)/A-ITA(ISO)	
	最小/Min.	最大/Max.
2级/Class II	380.0mm/14.96in.	381.0mm/15.00in.
3级/Class III	474.5mm/18.68in.	476.0mm/18.74in.
4级/Class IV	595.5mm/23.44in.	597.0mm/23.50in.



清洗叉车货叉架，检查凹槽是否损伤  
Clean Carriage bars and inspect for damaged notches.

说明：叉车属具的液压系统是按一定范围的压力和流量来设计的，属具能否正常工作取决于叉车供油系统是否符合要求。

Note: Attachment hydraulic system is designed on the basis of certain pressure and volumn value range. Excellent performance of attachment depends on a qualified truck supply system.

# 叉车的准备工作



# TRUCK PREPARATION

- 推荐的胶管和管接头规格:

Recommended hose and fitting size:

a. 夹持油路/CLAMP

ALL MODELS -6#管接头, 通径 $\geq\phi 7\text{mm}$ .

-No.6 with minimum fitting orifices of 9/32 in.

b. 旋转油路/ROTATE

25F-6#管接头, 通径 $\geq\phi 7\text{mm}$ .

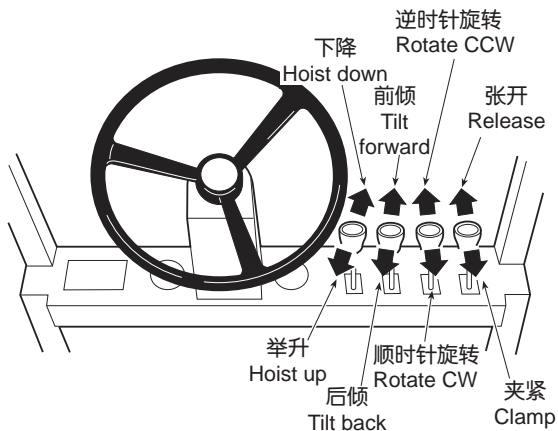
-No.6 with minimum fitting orifices of 9/32 in.

45F,X45F,X50F,60F,X60F,77F,90F-8#管接头, 通径 $\geq\phi 10\text{mm}$

-No.8 with minimum fitting orifices of 13/32

- 为了符合有关标准, 在属具管路 with 叉车多路换向阀联接时, 应符合右图所列动作方向的规定。

In order to conform to industry standard practice, the hoses should be connected to the truck auxiliary valve as indicated on the opposite side.



# 叉车的准备工作



# TRUCK PREPARATION

装上属具前应做下列准备工作:

The following Preparation should be performed prior to attachment installation.

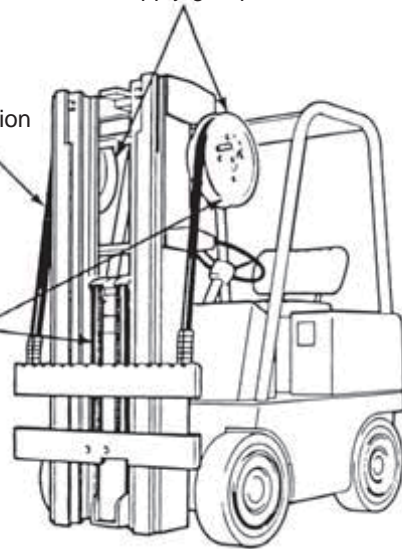
F系列纸卷夹要求门架上有两对液压供油管路。如门架上未配备与油缸起重链同步的供油装置（称为内系同步油路），则需要再叉车的门外架上左右各安装一个二路式卷管器。如门架配有一对内系同步油路，则需加装一个右卷管器。请参阅《细管卷管器安装说明书》673835。

The F-Series Fixed Frame Paper Roll Clamps require two hydraulic supply circuits over the mast. Trucks not equipped with mast internal reeving will require a L.H. and R.H. 2-Port THINLINE™ Hose Reel. Trucks equipped with mast internal reeving will require a R.H. 2-Port THINLINE™ Hose Reel. Refer to Form 673835 for THINLINE™ Hose Reel installation.

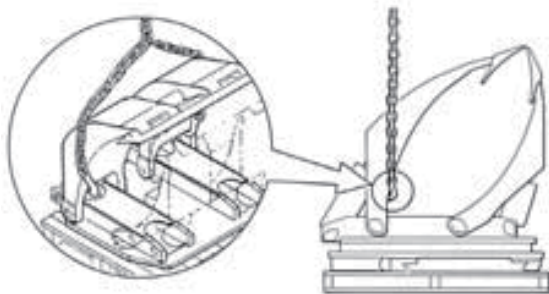
卡斯卡特细管卷管器以及门架安装附件  
Cascade Thinline Hose Reels and mast supply groups

旋转功能  
Rotate Function

有内系同步油路或卷管器供油的夹紧功能  
Internal Reeving or Hose Reel for Clamp function.



- 1 在图示长臂处挂上吊钩，将属具吊起，垂直放置于托盘上。如装有下列钩，应卸掉下钩。  
 Attach overhead hoist hooks to the long arm in the location shown. Lift the attachment and position upright. Remove the bolt-on lower hooks(if equipped).



卸掉下钩  
 Remove Bolt-On  
 Lower Mounting  
 Hooks



警告：吊钩的额定起重量至少为1600Kg。  
 WARNING: Make sure your overhead hoist  
 has rated capacity of at least 3500 pounds.

## 2

配备快换式下钩的纸卷夹:

Clamps with Quick Change Lower Hooks:

a. 在基板的安装孔处装上导向块, 使导向块的中心孔向上偏, 即从导向块顶部至孔中心的距离为16mm, 锁紧螺栓。

扭矩:

2/3级安装 142-155N·m

4级安装 257-271N·m

Install the guides to the baseplate mounting holes with the guide hole offset in the upward position-16mm(5/8 in.) from top of guide to hole center.

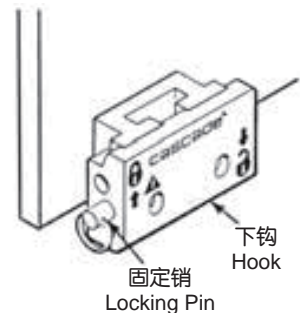
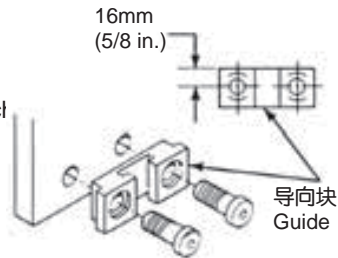
Tighten the capscrews to a torque of:

Class II/III - 105-115 ft.-lbs.

Class IV - 190-200 ft.-lbs.

b. 将下钩从导向块上方滑下, 插上固定销。

Slide the hooks over the top of the guides. Install each locking pin through the hook lower hole.

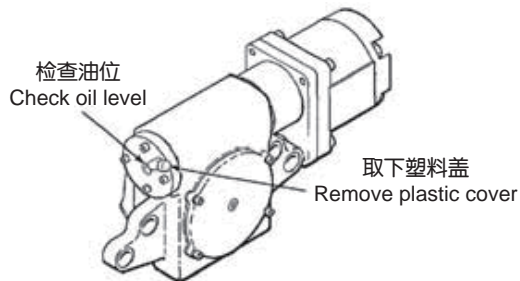




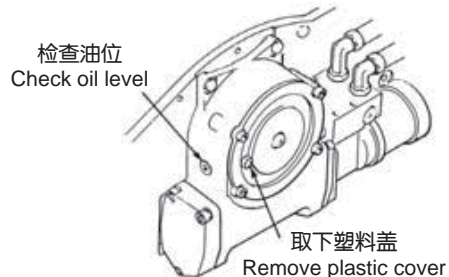
**3** 从减速器箱体上的排气孔接头上取下塑料盖，检查减速器的油位，从注油口应可见到油的水平面，需要的话请注入卡斯卡特齿轮润滑油（AGMA“中性”6EP）

Remove the plastic cover from the drive assembly relief fitting. Check the oil level in the drive assembly. Oil level must be visible in the fill hole. Fill if necessary with Cascade Gear Lube 656300 or equivalent SAE 90 wt. lube (AGMA mild 6 EP Gear oil).

**25F Models**



**45F,X45F,X50F,60F,X60F,77F,90F Models**



## 4

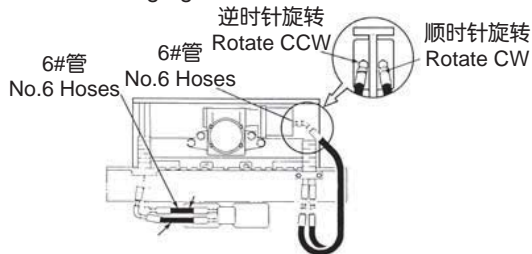
使用安装组件675158或图示的胶管和管接头把液压管接到属具接头上。把叉车货叉架定位于属具后面，根据各接头位置来确定所需的高压胶管的长度。

Connect hydraulic hoses to the attachment fittings using Installation Kit 681061(25F), 675158(45F,X45F,X50F,X60F,77F,90F) OR use hoses and fittings as shown. Position the truck carriage behind the attachment to determine hose length required to connect hoses to the hose terminal kits or internal reeving fittings. Remove the hoses and cut to length as required.

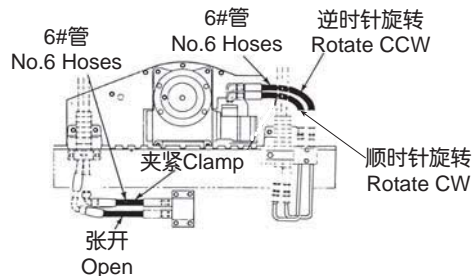
### 25F Models

使用左右二路式细管卷管器安装

Installation using right and left hand 2-Port THINLINE™ Hose Reels.

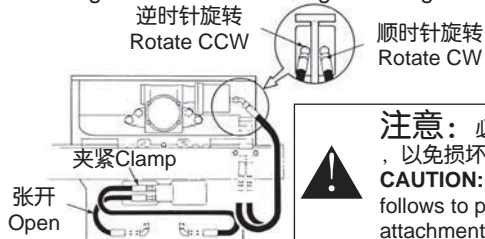


### 45F,X45F,X50F,60F,X60F,77F,90F Models



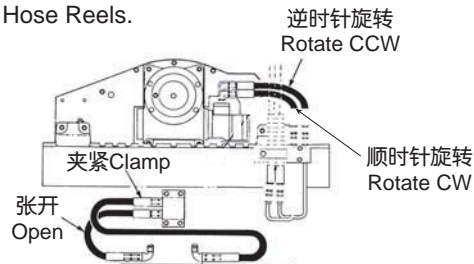
使用二路式细管卷管器安装

Installation using mast internal reeving with a right hand 2-Port THINLINE™ Hose Reels.

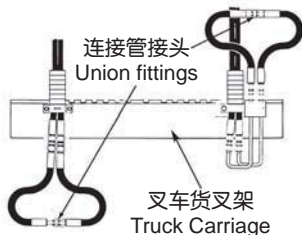


**注意：** 必须按以下方法冲洗胶管，以免损坏液压件。

**CAUTION:** Flush the hoses as follows to prevent damage to the attachment hydraulic components.



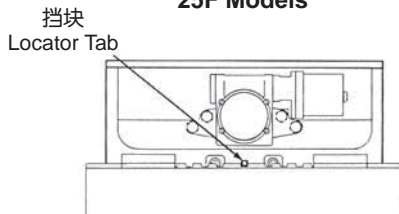
- 5** 将胶管一端与多路换向阀连接，另一端按图示管接头相连，启动叉车并操纵叉车多路换向阀手柄在两个方向个30秒，以便把留在管内的脏物冲到叉车液压油箱的滤油器中。  
Connect hoses to the truck hose terminal kits or internal reeving fittings. Connect the hoses together using union fittings. Start the truck and actuate the truck control valves in both directions for about 30 seconds to carry any debris left in the hoses to the truck hydraulic tank and filter.



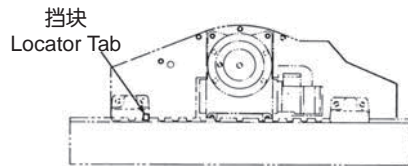
- 6** 卸下连接管接头，将胶管接于属具进油接头上。  
Remove the union fittings and disconnect hoses from the hose terminal kits, connect hoses to the attachment fittings.

- 7** 使属具与货叉架对中，把属具上钩的挡块嵌入叉车货叉架横梁上与之最近的槽口，升起货叉架使之靠上属具背面，把属具提升5cm，使之脱离托盘。  
Center the attachment to the upper carriage bar and engage the upper mounting hooks and locator tab with the closet upper carriage bar notch. Raise the truck carriage into position behind the attachment. Lift the attachment 5 cm(2 in.) off the pallet.

### 25F Models



### 45F,X45F,X50F,60F,X60F,77F,90F Models



**警告：**上钩应与货叉架上横梁接合适当，其中一个上钩所具的挡块应嵌入货叉架上横梁相应的槽口中。  
**WARNING:**The mounting hooks must be properly engaged with the upper carriage bar. The locator tab must be engaged in the mating notch on the upper carriage bar.

## 8

把下钩嵌入叉车货叉架的下横梁。

Engage the lower hooks with the truck lower carriage bar.

**螺栓紧固型：**安装下钩和螺栓，用手拧紧螺栓，然后按箭头所示方向，用锤子轻击下钩，使之与货叉架完全嵌合，然后锁紧螺栓，扭矩：

2/3级安装 142-155 N·m

4级安装 255-270 N·m

**Bolt On Hooks-**Install the hooks and capscrews. Tighten the capscrews finger tight. Tap the end of the hooks with a hammer in the direction of the adjust arrow for maximum engagement with the carriage bar. Tighten the capscrews to a torque of:

**Class II/III** -105-115 ft.-lbs.

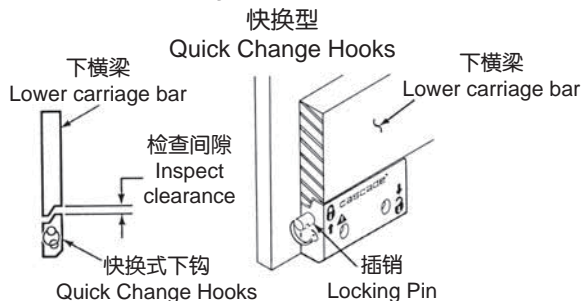
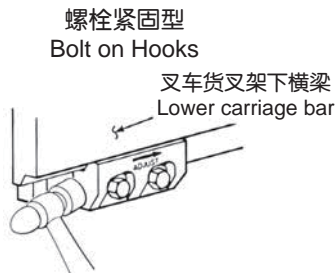
**Class IV** -190-200 ft.-lbs.

**快换型：**去除固定销，向上滑动下钩使之与货叉架下横梁相吻合，把插销插入上孔。

**Quick Change Hooks-**Remove the locking pins. Slide the hooks up to engage with the carriage bar. Install the locking pins through the upper holes.

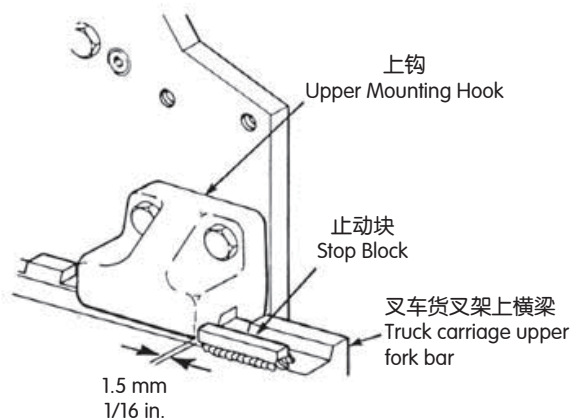
注意：如果货叉架下横梁和下钩间的间隙超过6mm，则导向块应倒装，是导向块孔中心向下偏移，即从导块底部到孔中心距离为16mm，以减少间隙。

CAUTION:If the clearance between the carriage bar and the hooks exceeds 6 mm(3/16 in.), the guides(refer to step 2) should be inverted and installed with the hole offset downward-16 mm(5/8 in.) from bottom of guide to hole center to minimize the gap.



9 焊接止动块669344 (25F,45F,X45F,X50F,60F,X60F) 或670704 (77F,90F) 以防属具在叉车货叉架上滑移。焊接位置在叉车货叉架上横梁距上钩外侧约1.5mm处。如果货叉架不够宽, 请把止动块焊于上钩的内侧。焊接前货叉架上横梁焊接区及止动块应预热到200°C。

Install stop block kit 669344(25F,45F,X45F,X50F,60F,X60F), or 670704(77F,90F) to prevent the attachment from shifting or sliding on the truck carriage. Position each stop block on the truck carriage upper crossbar approximately 1.5 mm(1/16 in.) from the outward side of each upper mounting hook. If the carriage bar is not wide enough, place the stop blocks on the inward side of the hooks. Preheat the carriage upper crossbar weld area and stop block to 400°F(200°C)



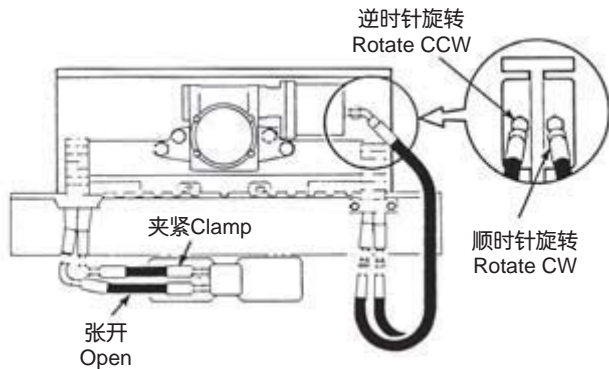
**注意:** ①防止液压胶管和元件受热或被焊接火花溅伤。  
②使用AWS E7018号低氢焊条, 如图示施焊, 焊缝高度6.5mm, 焊后缓慢冷却。

**CAUTION:** Protect all hydraulic hoses and components from excess heat and weld splatter. Use AWS E7018 low hydrogen rod and weld a 1/4 in.(6.5 mm) fillet as shown. Let the weld slow cool.

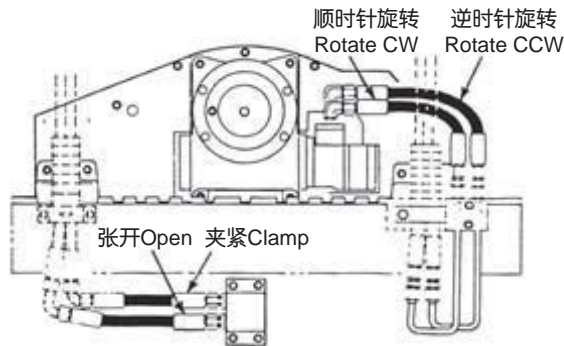
## 10

把液压胶管与管子终端接头或内系供油管路的接头连接，多路阀操作对应的属具功能参见“对叉车的要求”一节的图表。  
 Connect the hydraulic hoses to the hose terminal fittings or internal reeving fittings. See the chart in Requirements Section for correct auxiliary valve and attachment function operation.

**25F Models**



**45F,X45F,X50F,60F,X60F,77F,90F Models**

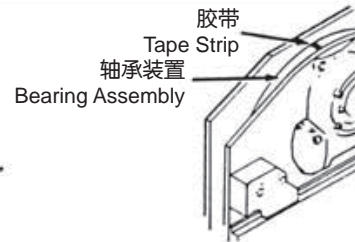
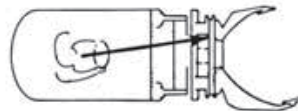
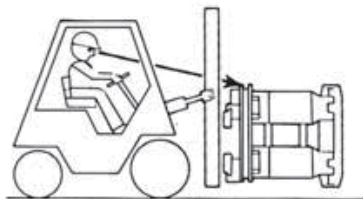
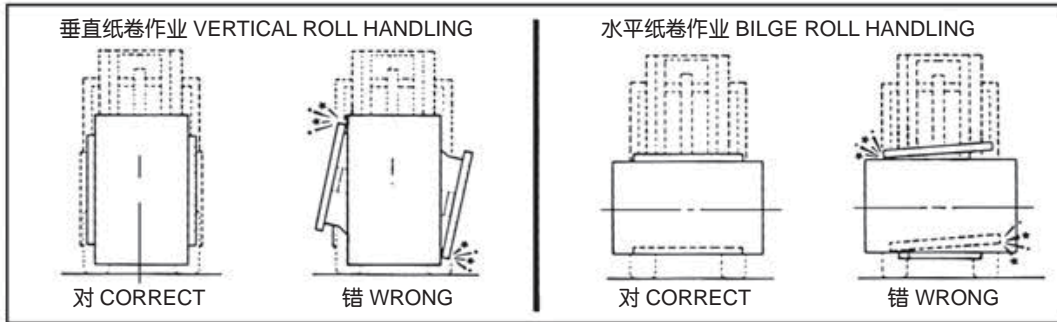


# 指示胶带的粘法

# INDICATOR TAPE INSTALLATION

指示胶带组675353可以帮助驾驶正确、方便地观察数据的转动与定位，从而减少纸卷和属具的破损。

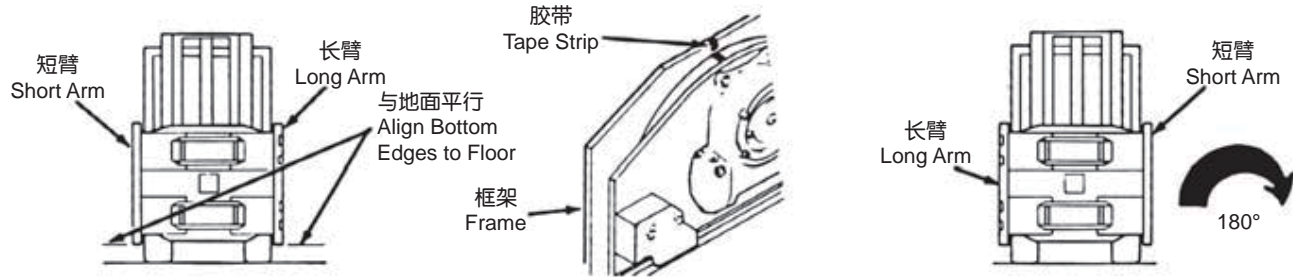
Installation of Indicator Tape Group 675353 provides correct,easy visual rotation alignment which reduces roll and clamps damage.



# 指示胶带的粘法

# INDICATOR TAPE INSTALLATION

- 1** 在回转支承上选择一处便于驾驶员观察的位置，清洁表面后，贴上胶带。  
Select a location on the bearing assembly that is easy for the driver to see. Clean the bearing assembly, then apply a tape strip.
- 2** 把属具转到垂直作业位置，两夹板底边与地面平行，粘贴胶带于框架上，使它与回转支承上的胶带对齐。旋转属具180°，再贴一条胶带于框架上，且与回转支承上的胶带对齐。  
Rotate the attachment to the vertical loading position. Align pad bottoms to floor. Apply tape strip to frame so it aligns with bearing assembly tape. Rotate attachment 180°, align pads to floor, then install another tape strip to frame.





# 指示胶带的粘法

# INDICATOR TAPE INSTALLATION

- 3 旋转属具90°，使短臂在下方，把剩下的胶带贴于框架上。  
Rotate attachment 90° to position the short arm down. Install remaining tape strip to frame.



1

检查管接头和油缸活塞杆端是否有外漏。

Check for external leaks at the fittings and cylinder rod ends.



**警告：** 在提起载荷时应保证没有人站在属具的近旁。  
**WARNING:** Make sure there are no people in the vicinity of the attachment when picking up loads.

2

负载之前，应使属具空转几个循环，把油路中的空气排到叉车液压油箱中去。

Before picking up a load, operate the clamp through several cycles to force any air from the system to the truck hydraulic tank.

- 两个方向转动纸卷夹。

Rotate the clamp in both directions.

- 把纸卷夹至于水平与垂直位置，长臂张合数次。

Position the clamp arms in the horizontal and vertical positions. Cycle the long arm in and out several times.

- 短臂可调式纸卷夹：如图将夹臂旋至任意45°位置，短臂张合数次。

Clamps with positionable short arm: Position the clamp in any 45° Position. Cycle the short arm in and out several times.

3

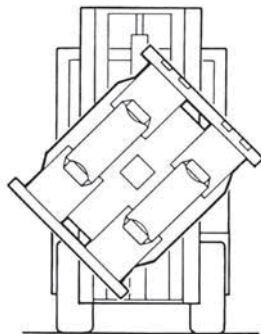
夹起并转动最大负载，如果属具转不动或者转的不平稳，应重新检查液压系统的管路。

Clamp rotate a maximum load. If the attachment is sluggish or does not rotate smoothly, recheck the plumbing.

4

多路阀应符合“对叉车的要求”一节中图表所示功能，如果功能与要求相反，则调换卷管器连接块上或多路阀上的胶管。

The auxiliary valve must actuate the clamp function as shown in the chart in the Requirements Section. If the functions are backwards from the requirements, switch the hoses at the reel mounting block or auxiliary valve fittings.



旋至任意45°位置已调整短臂

Clamp positioned at 45° for short arm positioning.



**注意：** 属具处于45°位置时仅短臂动作。

**CAUTION:** Short Arm moves only when in the 45° position.



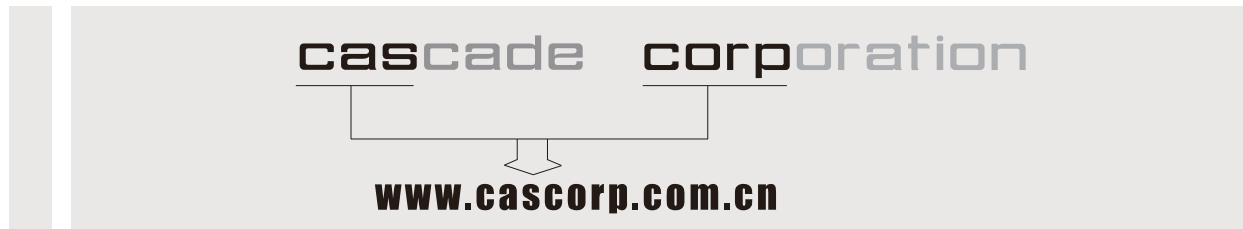
卡斯卡特（厦门）叉车属具有限公司

Cascade Xiamen Forklift Truck Attachment Co.Ltd

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