



# 操作指南 OPERATOR'S GUIDE

## G、D、E系列旋转器 G, D & E-Series Rotators



官方微信号 天猫旗舰店



服务热线 40088 57315  
Customer Service Hotline

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**警告:** 叉车属具综合承载能力是由叉车制造厂决定, 其值可能比属具铭牌上的小, 请参见叉车铭牌。

**注意:** 操作者必须是经过培训且授权的人员。  
**WARNING:** 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.  
**CAUTION:** Do not operate this attachment unless you are a trained and authorized lift truck driver.

**注意:** 本指南阐述对大多数货物工况的作业规则。特殊情况, 请向您的上级主管请教具体的正确操作规则。

**CAUTION:** This Guide shows recommended load handling procedures applicable to most products. Consult your company or organization for any special procedures applicable to loads you.

卡斯卡特保留对本指南进行修改的权力。如有改动, 恕不另行通知, 请留意相应的版本号。  
All right reserved, The contents are subject to change without notice. Please note the version No.

# 介绍 / INTRODUCTION

旋转器—卡斯卡特公司旋转器适用于对各种货物进行旋转倾倒作业。

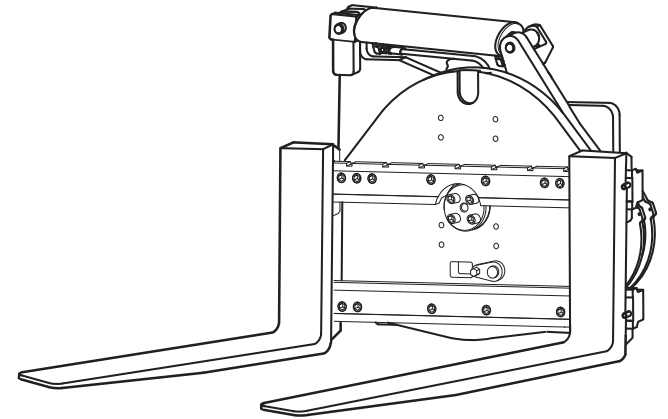
关于本指南—为了保证您能正确、安全、高效地使用纸箱夹，请在操作属具前仔细地阅读本指南中所有的操作规则和注意事项。若有疑问，请向您的上级主管请教。

安全第一！—大多数的事故都起因于操作或判断失误，请格外留心维护保养状况差和工况恶劣的属具并及时加以解决。

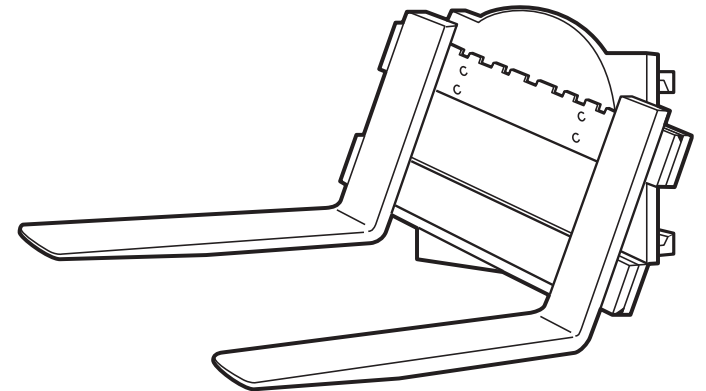
Rotators-Cascade Rotators are available in a wide variety of types designed to handle a wide variety of loads.

About this Guide-The information in this Guide is intended to simplify operator understanding about effective and safe carton Clamp use and operation. Read this guide thoroughly before operating the attachment . Be sure you know and understand all operating procedures and safety precautions. IF you have any questions, or don't understand a procedure, ask your supervisor.

Emphasize Safety!-Most accidents are caused by operator's carelessness or misjudgement. You must watch for hazardous situations and correct them.



30E旋转器  
30E Rotators



D系列旋转器  
D-Series Rotators



日常的维护保养对于保证叉车属具产品的正常功能及使用寿命至关重要，详细事项请参见卡斯卡特叉车属具《用户手册》或《维修手册》，或者请首先向售出该产品的叉车主机厂或其代理商咨询。

卡斯卡特（厦门）公司也非常乐意回答您在这方面任何感兴趣的问题。

请洽：

卡斯卡特（厦门）叉车属具有限公司

客户支持中心

电话：86-592-6512500

传真：86-592-6512531



The daily inspection and periodic maintenance is very important for ensuring the normal performance and durable service life of the forklift attachment. For details, please refer to Cascade Xiamen Forklift Attachment 《User Manual》 or 《Service Manual》.

You could also primarily consult with the forklift OEM or its Dealer from whom you purchased this equipment. Of course, Cascade Xiamen is willing to answer any questions of your interest, too.

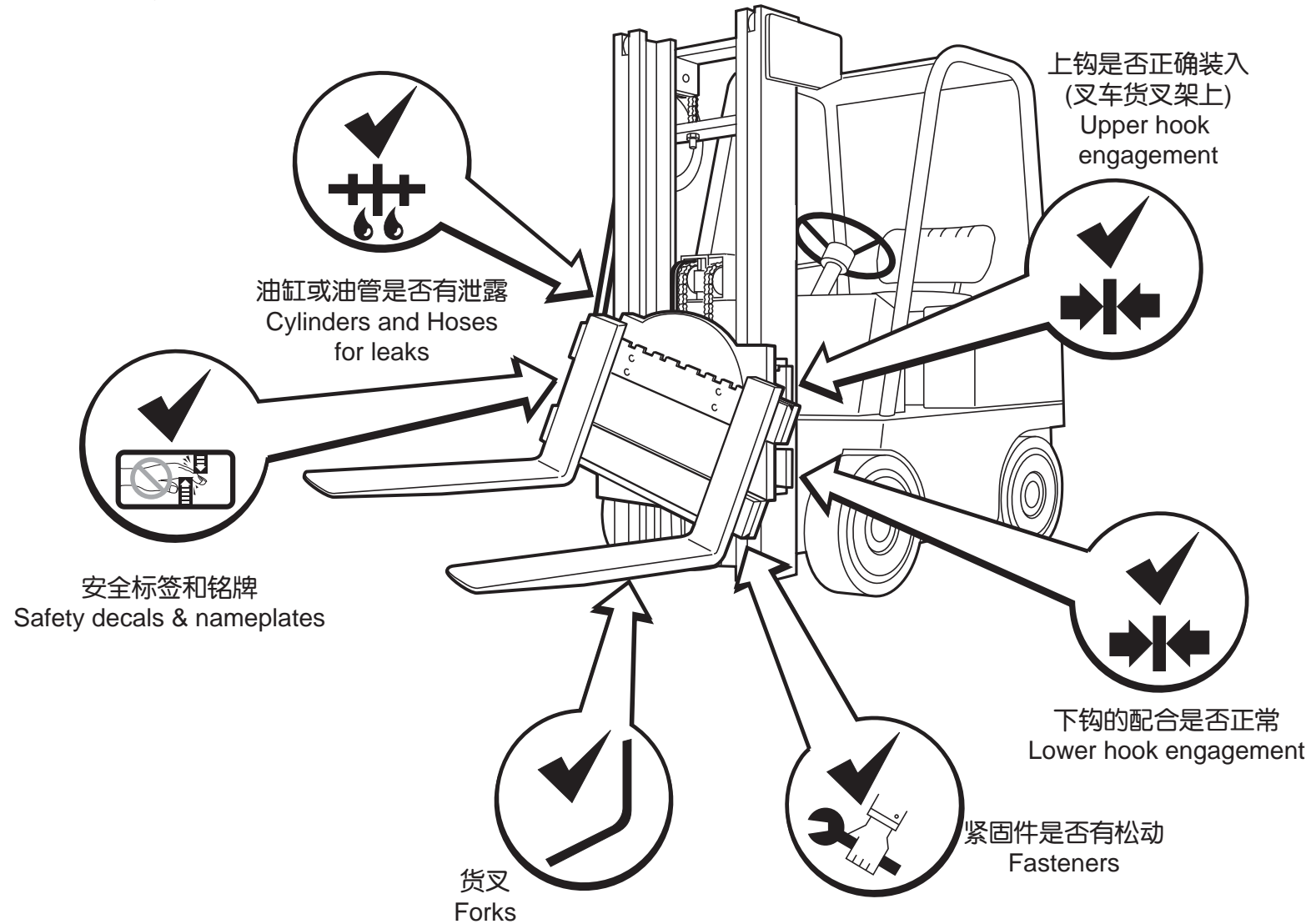
Please contact:

Customer Support Center,  
Cascade Xiamen Forklift Truck Attachment Co.,Ltd.  
Phone tel:86- 592 -6512500 Fax:86-592-6512531

# 日常检查 **D**AILY INSPECTION

每天必须检查途中所示项目,有问题请向您的上级主管报告, 维护与保修详见《维修手册》。

Check items each day. Report problems to your supervisor. See the Service Manual for maintenance and repair procedures.



# 货叉安装 FORK INSTALLATION

## 插销货叉的安装 POSITON, LOCK FORKS

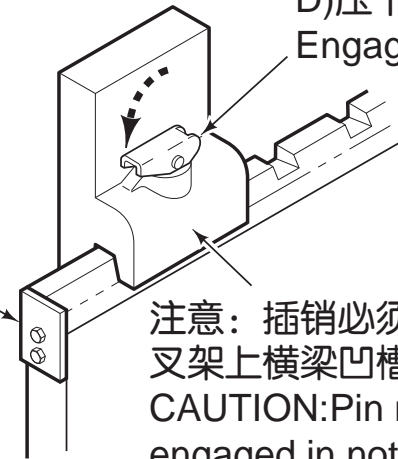
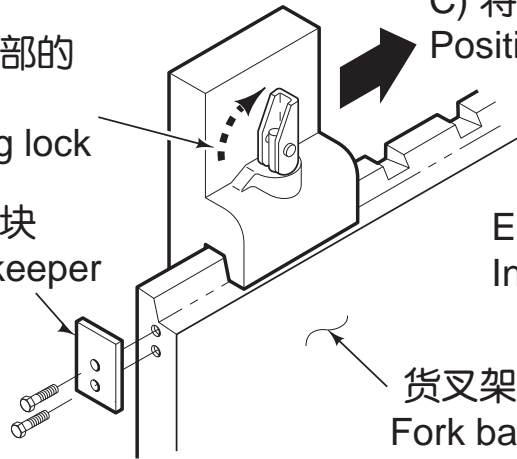
B) 提起货叉上部的  
弹簧插销  
Release spring lock

A) 卸下货叉挡块  
Remove fork keeper

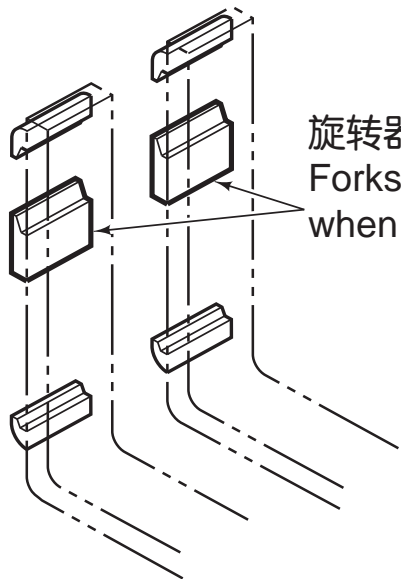
C) 将货叉滑动到适当位置  
Position fork

E) 装上货叉挡块  
Install fork keeper

D) 压下弹簧插销  
Engage spring lock



注意：插销必须嵌入到货叉架上横梁凹槽中  
CAUTION: Pin must be engaged in notch.

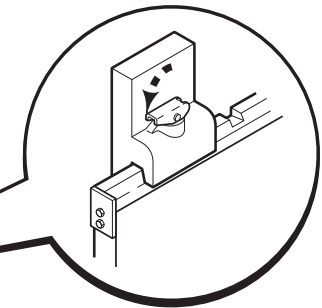
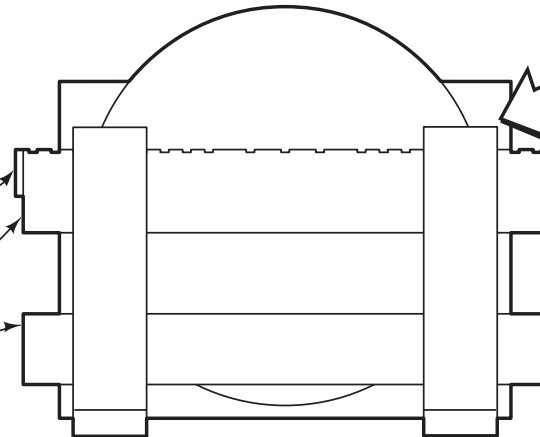


旋转器上的货叉必须有中钩  
Forks must have third hook  
when used on Rotators.

小心搬动货叉，以免碰伤手或脚  
WARNING: Handle fork with care to avoid  
pinching fingers or dropping on feet.

货叉挡块必须安装  
以确保安全  
Fork keepers  
must be in place  
and secure

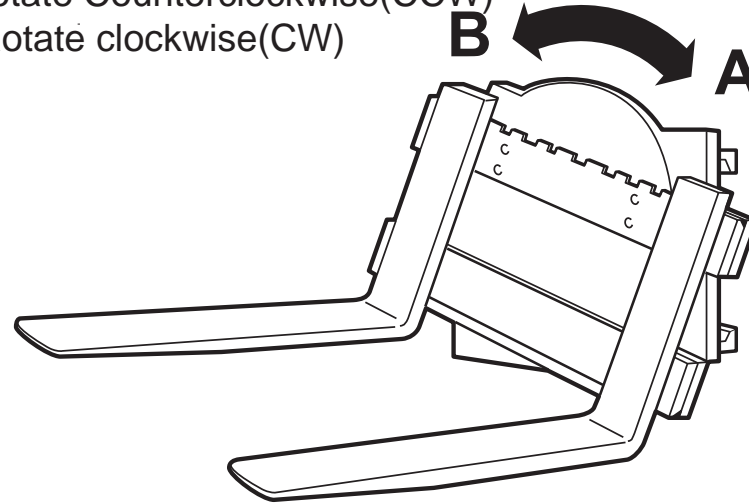
货叉架须在水平位置  
Fork bars must  
be horizontal



## 旋转器

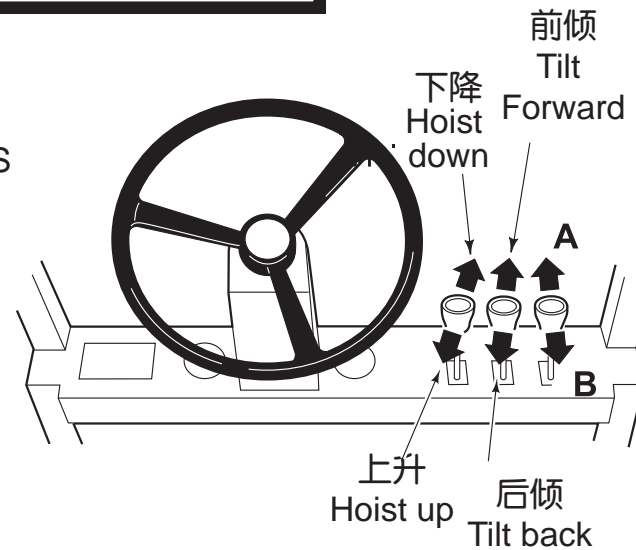
A 逆时针旋转 Rotate Counterclockwise(CCW)

B 顺时针旋转 Rotate clockwise(CW)



## 多路阀手柄功能

AUXILIARY VALVE FUNCTIONS





禁止载人行驶  
No rides



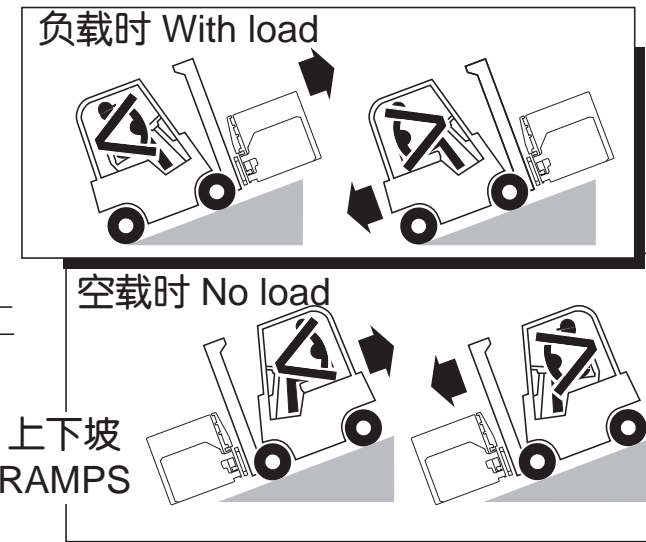
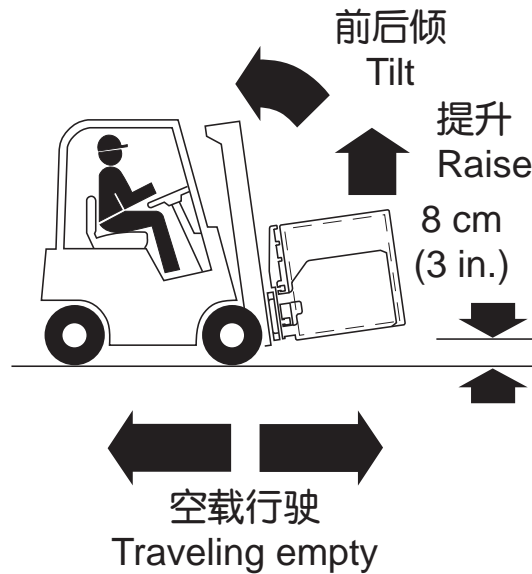
禁止伸手穿越门架  
No reaching through mast



禁止货物下站人  
No standing under load



叉车熄火、扳下手刹、降下货叉  
Motor off, park, lower load

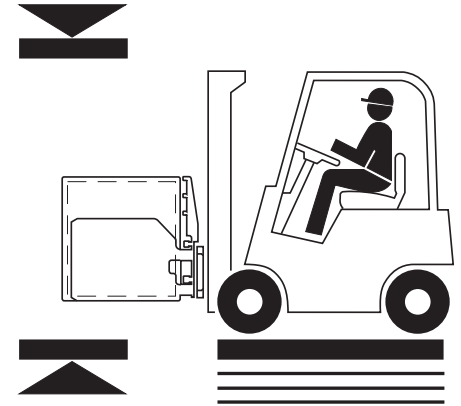




禁止坡上停车  
No parking on ramp



禁止坡上转弯  
No turning on ramp



注意行驶空间  
Watch clearances

交通标志  
TRAFFIC



观察 Observe



地滑  
Wet floors



工作人员  
Workers



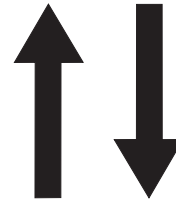
停止  
Stop



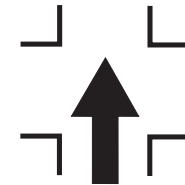
凸起  
Bumps



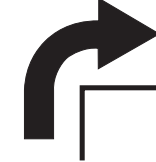
凹坑  
Dips



双向行驶时须慢行  
Slow for two-way  
traffic



十字路口须鸣笛慢行  
Sound horn,slow  
at intersection



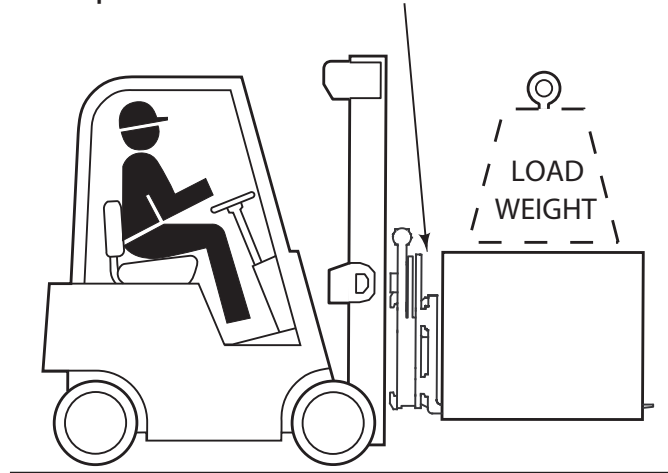
转弯时须鸣笛、慢行  
Sound horn,slow  
at corner

附近有人禁止立即旋转  
Do not rotate in immediate vicinity of other people



货物举高时应限速行驶  
Limit truck movement with raised load.

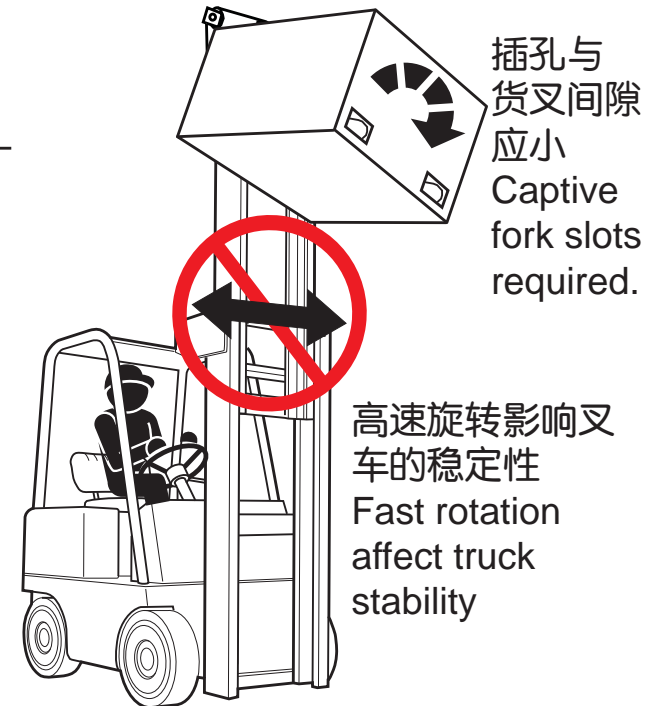
货物顶部不能超出框架顶部  
Top of load must not extend above frame.



货物重量不能超过叉车/属具综合承载能力的限值（参见叉车铭牌）  
Load weight must not exceed combined truck/attachment capacity(see truck nameplate).

货叉的承载能力必须大于货物重量（参加货叉上铭牌）  
Total fork capacity(LH+RH fork) must be greater than load weight.Check capacity stamp on forks.

货物升高后旋转要缓慢  
Rotate elevated loads slowly



插孔与货叉间隙应小  
Captive fork slots required.

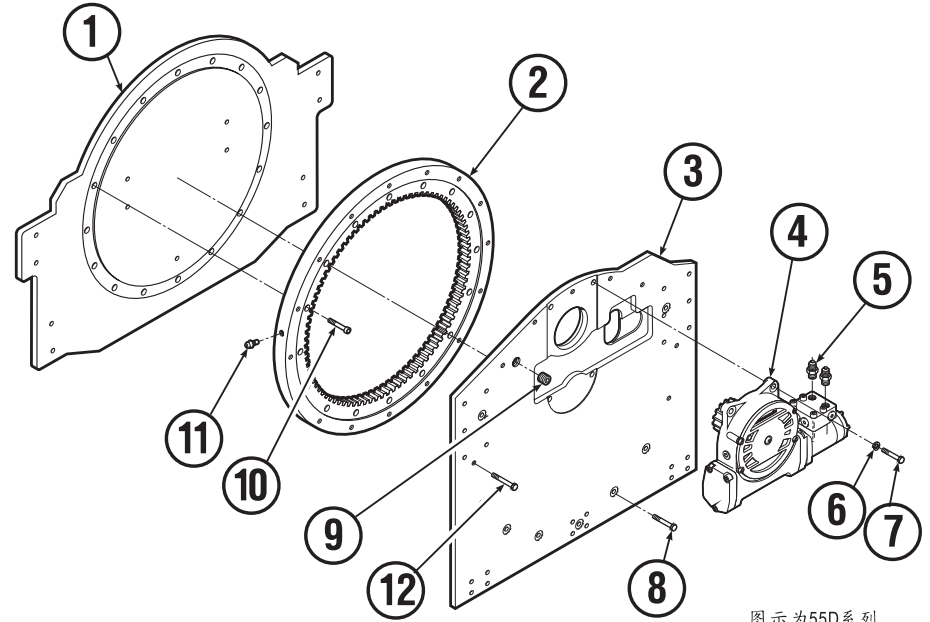
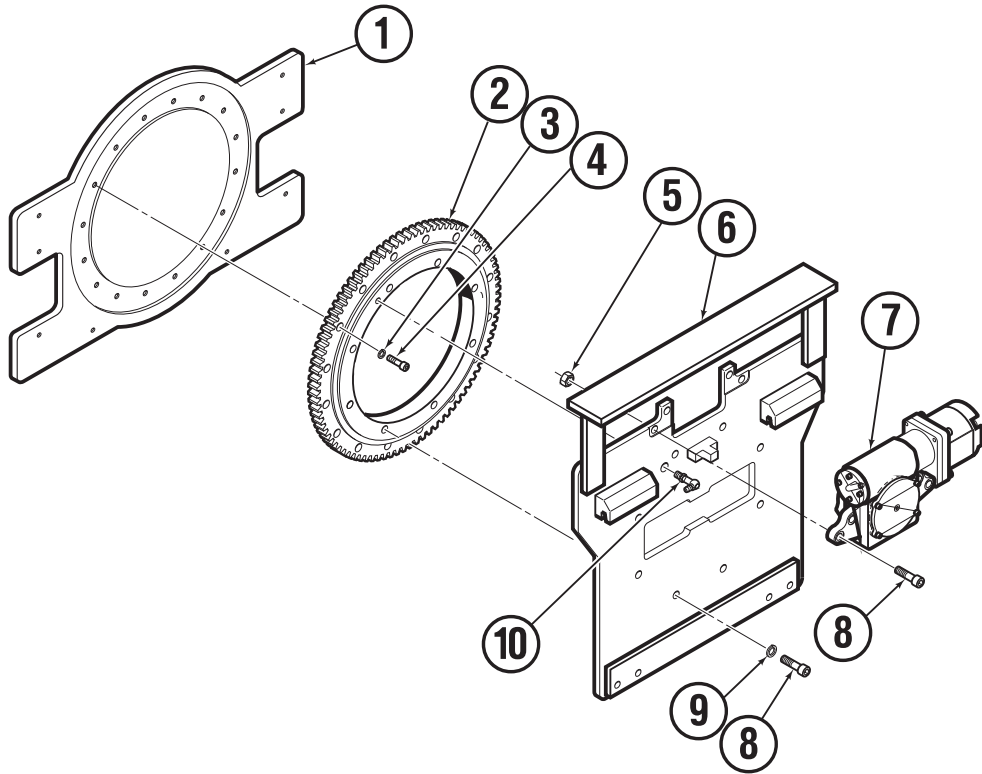
高速旋转影响叉车的稳定性  
Fast rotation affect truck stability

RR0089.eps

# 备件清单

# S PARE PARTS LIST

## 旋转总成 Rotator Group



图示为55D系列  
55D series illustration

30E							
序号	数量	零件号(注)	名称	序号	数量	零件号(注)	名称
REF	QTY	PART NO	DESCRIPTION	REF	QTY	PART NO	DESCRIPTION
1	1	-	面板 Faceplate	6	1	201099	基板 Baseplate
2	1	201082	回转支承总成 Bearing Assembly	7	1	679106	减速器总成 Drive Group
3	16	200153	弹簧垫圈 Lockwasher	8	12	200038	螺栓 Capscrew
4	16	200314	螺栓 Capscrew	9	8	200154	弹簧垫圈 Lockwasher
5	4	200005	螺母 Nut	10	1	201080	油咀 Grease Fitting

D系列 D Series											
序号	数量	零件号(见注) PART NO.			名称	序号	数量	零件号(见注) PART NO.			名称
REF	QTY	40/55/65D	100D	120D	DESCRIPTION	REF	QTY	40/55/65D	100D	120D	DESCRIPTION
1	1	-	670669	213144	面板 FacePlate	7	4	200048	661742	763021	六角头螺栓 Capscrew
2	1	672828	672830	214481	回转支承(包含零件11) Bearing Assy.(Include Item 11)	8	-	643538	643539	206174	六角头螺栓 Capscrew
						9	1	6605	6605	664071	堵头 Plug
3	1	-	682649	214555	基板 Base Plate	10	-	200314	4506	768828	内六角螺钉 Capscrew
4	1	795491	795492	795492	减速器总成 Drive Group	11	1	7401	7401	7401	油咀 Grease Fitting
5	-	100035	643538	601377	接头 Fitting	12	-	643539	643538	213633	六角头螺栓 Capscrew
6	4	200153	6290	6290	垫圈 Lock Washer						



注：不同型号夹类属具的上述零件具有不同的零件号，本清单所列零件号仅供参考。如需订购备件，请事先记录下属具铭牌上的属具型号、编号等信息后，联系卡斯卡特（厦门）公司。

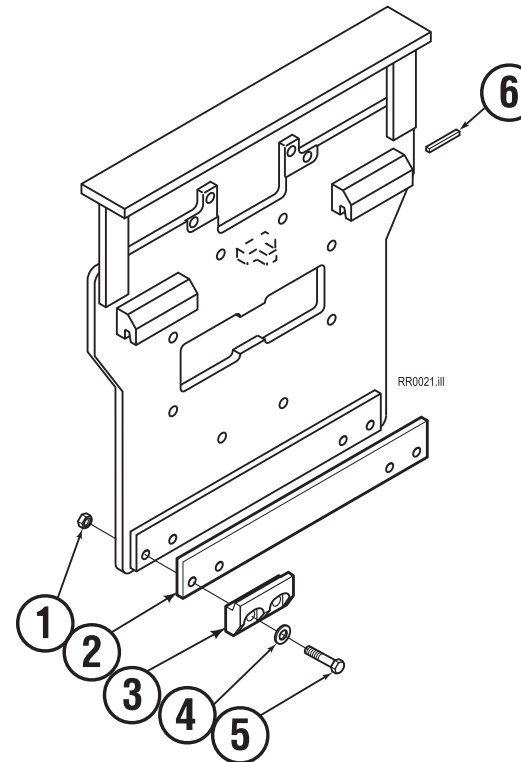
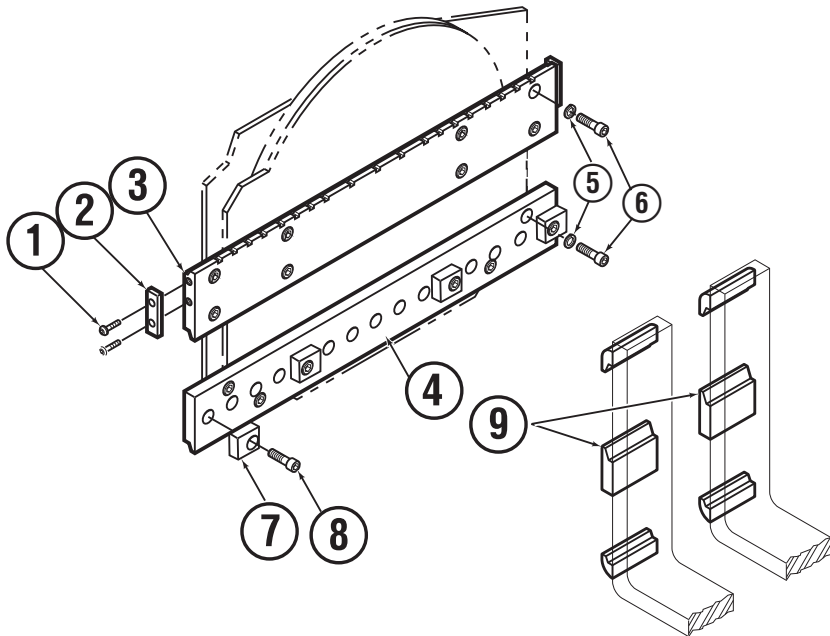
When Ordering replace parts, please consult us and provide the Attachment Model or Serial No.stamped on the nameplate.

# 备件清单

# S PARE PARTS LIST

## 横梁总成 Fork Bar Group

## 安装总成 Mounting Group



E&D 系列 E&D Series									
序号	数量	零件号(注)	PART NO.	名称	序号	数量	零件号(见注)	PART NO.	名称
REF	QTY	30E/40/55/65D	100D/120D	DESCRIPTION	REF	QTY	30E/40/55/65D	100D/120D	DESCRIPTION
1	4	200051	4880	螺栓 Capscrew	6	-	1250002	-	螺栓 Capscrew, M16
2	2	624394	-	挡块 Keeper	7	4	1260672	-	定位块 Stop Block
3	1	-	-	上横梁 Upper Fork Bar	8	4	200313	-	螺栓 Capscrew, M16
4	1	-	-	下横梁 Lower Fork Bar	9	2	-	-	中钩 Middle Hook
5	-	200154	6448	弹簧垫圈 Lockwasher					

30E 2级0°安装 Class II -0°			
序号	数量	零件号(见注)	名称
REF	QTY	PART NO	DESCRIPTION
	1	680024	后挂板安装总成 Mounting Group
1	4	781534	螺母 Nut
2	1	679148	垫板 Spacer
3	2	675968	下钩 Hook
4	4	200157	垫圈 Washer
5	4	200039	螺栓 Capscrew
6	1	669344	止动块 Stop Kit



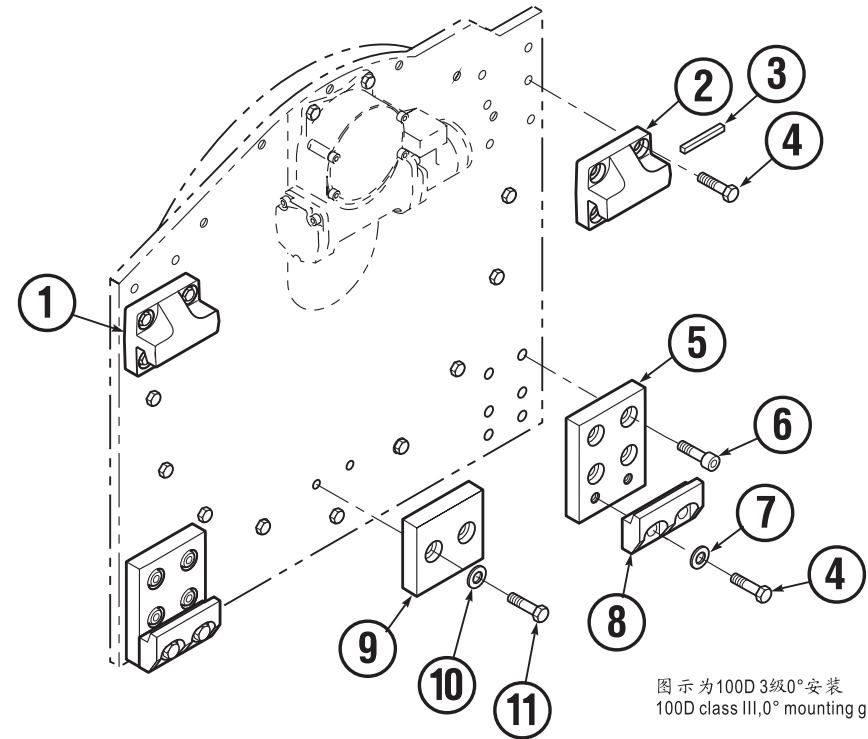
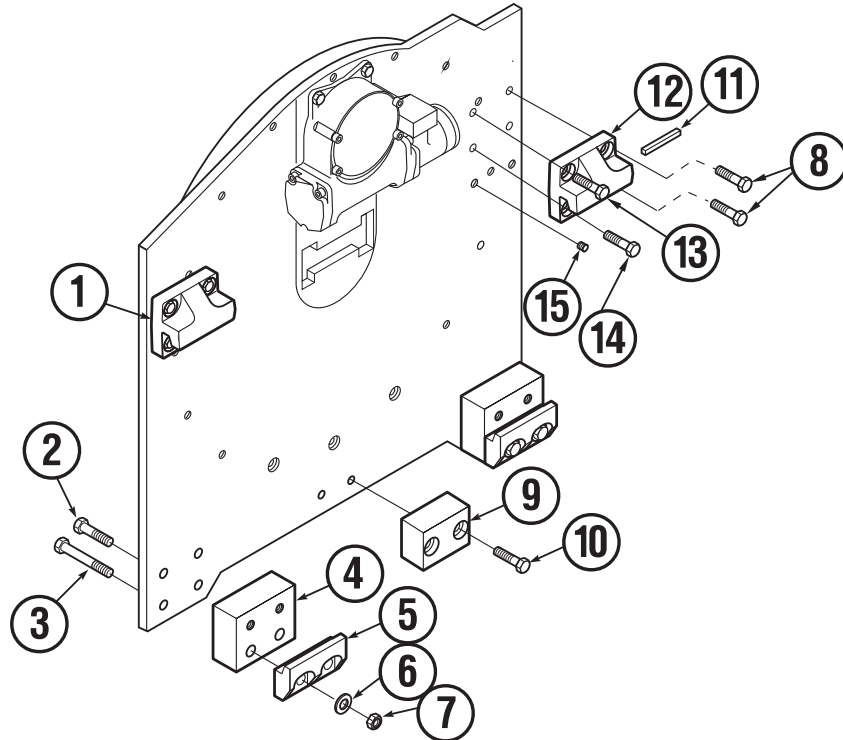
注：不同型号夹类属具的上述零件具有不同的零件号，本清单所列零件号仅供参考。如需订购备件，请事先记录下属具铭牌上的属具型号、编号等信息后，联系卡斯卡特（厦门）公司。

When Ordering replace parts, please consult us and provide the Attachment Model or Serial No. stamped on the nameplate.

# 备件清单

# S PARE PARTS LIST

## 安装总成 Mounting Group



图示为100D 3级0°安装  
100D class III, 0° mounting group illustration

### 40D/55D/65D

序号 Ref	数量 Qty	零件号 ITA II	零件号 ITA III	描述 Description	序号 Ref	数量 Qty	零件号 ITA II	零件号 ITA III	描述 Description
	1	680630	680632	安装总成 Mounting Group	8	4	200052	200305	螺栓 Capscrew
1	1	670523	670527	左上钩 Upper Hook - LH	9	1	680683	682067	中央垫块 Center Spacer
2	4	200305	200306	螺栓 Capscrew	10	2	200051	200051	螺栓 Capscrew
3	4	200053	200307	螺栓 Capscrew	11	1	669344	669344	止动块 Stop Kit
4	2	676037	682068	垫块 Spacer	12	1	670524	670528	右上钩 Upper Hook - RH
5	2	675968	675969	下钩 Lower Hook	13	2	200305	200305	螺栓 Capscrew
6	4	200157	200157	平垫 Washer	14	2	200052	200056	螺栓 Capscrew
7	4	781534	781534	螺母 Nut	15	2		1230167	堵头 Plug

### 100D/120D

序号 Ref	数量 Qty	零件号 ITA III	零件号 ITA IV	描述 Description	序号 Ref	数量 Qty	零件号 ITA III	零件号 ITA IV	描述 Description
	1	676274	-	Mounting Group	6	-	622467	-	螺栓 Capscrew
1	1	670684	-	左上钩 Upper Hook - LH	7	4	667225	670692	垫圈 Washer
2	1	670685	-	右上钩 Upper Hook - RH	8	2	675969	-	下钩 Lower Hook
3	1	670704	670704	止动块组件 Stop Kit	9	1	670687	-	垫块 Center Spacer
4	12	667369	-	螺栓 Capscrew	10	2	6372	-	弹簧垫圈 Lockwashe
5	2	670668	-	垫板 Spacer	11	2	3655	-	弹簧垫圈 Capscrew



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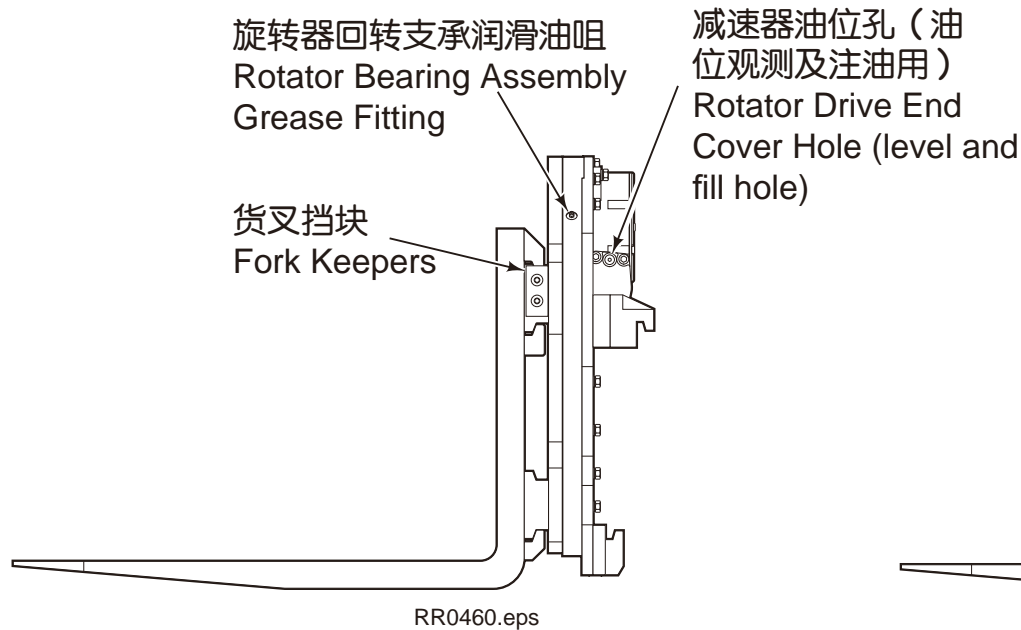
When Ordering replace parts, please consult us and provide the Attachment Model or Serial No. stamped on the nameplate.



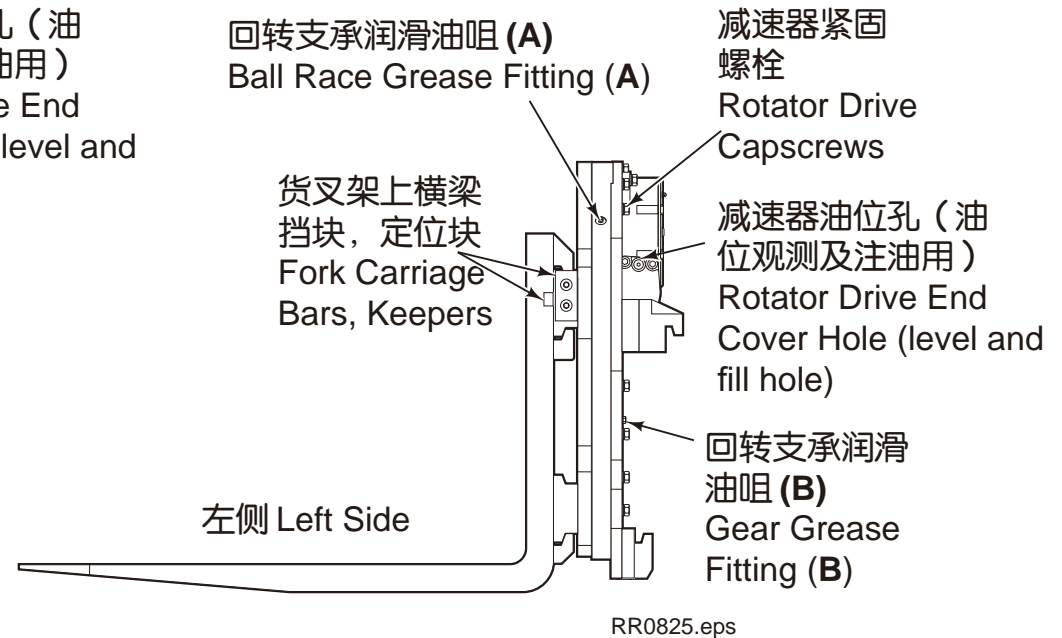
**警告：**在完成每一次维修程序后，必须对属具完整地进行5次循环测试。第一次时，属具处于空载状态，之后的测试都必须在负载状态下进行，以确保属具在正常工作前的操作性能保持正常。



**WARNING:** After completing any service procedure, always test the attachment through five complete cycles. First test empty, then test with a load to make sure the attachment operates correctly before returning it to the job.



100D, X100D, 120D  
150D



45G-100G





## 100小时保养

叉车每次维修或使用叉车100小时后（两者中先到为准），需完成如下保养事项：

- 检查螺母是否松动或丢失，软管是否老化或破损以及液压油是否泄漏。
- 检查货叉插销和上横梁两侧的货叉挡块是否安装并起作用。
- 若有配置180度止动装置或旋转控制装置，请向其止动触杆上添加润滑脂。
- 检查标签和铭牌字迹是否清晰。

## 500小时保养

叉车每使用500小时后，在进行100小时保养事项的基础上，还应再增加以下保养事项：



**警告：**在使用500小时后，需抽样检查面板与回转支承相连接处的螺栓是否有松动（参见技术说明TB183）。在使用2000小时后，需要对所有的螺栓进行检查。若螺栓松动而没有锁紧将会对属具造成损坏并危及人身安全。

- 抽样检查基板紧固螺栓有无松动。参照技术说明TB183, 维修手册684597 (30E), 维修手册672946 (100D, X100D, 120D, 150D), 或维修手册6089468 (45G-100G)等资料来检查和更换螺栓。

## 100-Hour Maintenance

Every time the lift truck is serviced or every 100 hours of truck operation, whichever comes first, complete the following maintenance procedures:

- Check for loose or missing bolts, worn or damaged hoses, and hydraulic leaks.
- Check that fork locking pins and end bar keepers are installed and functional.
- Lubricate plungers on hydraulic or electronic 180° stop valves (if fitted).
- Check decals and nameplate for legibility.

## 500-Hour Maintenance

After each 500 hours of truck operation, in addition to the 100-hour maintenance, perform the following procedures:



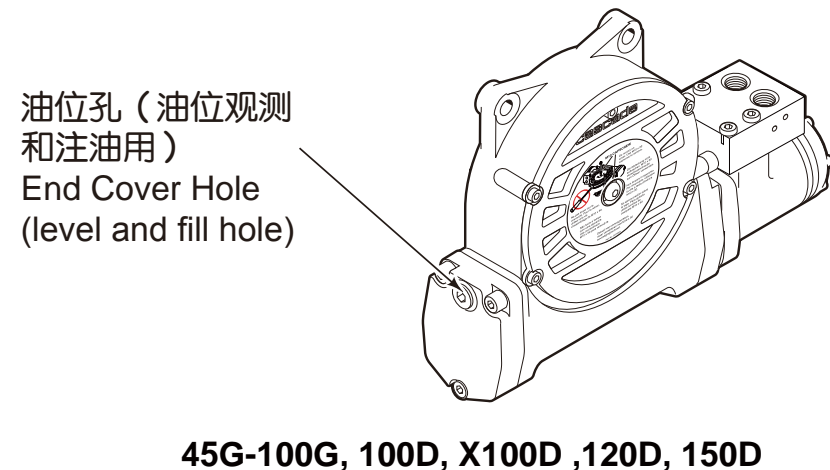
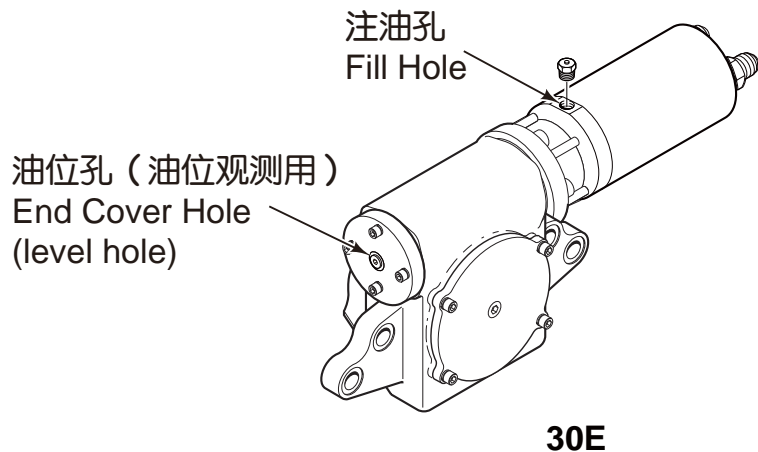
**WARNING:** A sampling of faceplate and baseplate bearing assembly capscrews must be checked for proper torque at 500 hours (see TB183). A complete inspection is required every 2000 hours. Failure to keep the capscrews tightened can result in attachment damage and serious injury.

- Check sample of baseplate capscrews for proper torque value. See Technical Bulletin TB183 or Service Manual 684597 (30E) or Service Manual 672946 (100D, X100D, 120D, 150D) or Service Manual 6073955 (45G-100G) for checking and replacement procedures.



- 抽样检查回转支承紧固螺栓有无松动。参照技术说明TB183, 维修手册684597 (30E), 维修手册672946 (100D, X100D, 120D, 150D), 或维修手册6089468 (45G-100G)等资料来检查和更换螺栓。
- 用以下扭矩锁紧下钩螺栓  
**ISO 2A/3A (30E, 45G-100G)** – 165 Nm (125ft.-lbs.)  
**100D, X100D** – 225 Nm (165ft.-lbs.)  
**ISO 4A (80G, 100G, 120D, 150D)** – 265 Nm (195ft.-lbs.)
- 用以下扭矩锁紧减速器总成紧固螺栓  
**30E** – 32 Nm (24 ft.-lbs.)  
**45G-100G, 100D, X100D, 120D, 150D** – 105 Nm (75 ft.-lbs.)
- 在回转支承润滑油咀上加注EP-2型润滑脂。(或性能相当的Whitmore'Omnitask'型润滑脂)再将属具旋转90度并继续加注润滑脂。
- 打开减速器油位孔, 检查减速器内齿轮油的油位。

- Check sample of bearing capscrews for proper torque value. See Technical Bulletin TB183 or Service Manual 684597 (30E) or Service Manual 672946 (100D, X100D, 120D, 150D) or Service Manual 6073955 (45G-100G) for checking and replacement procedures.
- Tighten lower mounting hook capscrews to a torque of:  
**ISO 2A/3A (30E, 45G-100G)** – 165 Nm (125ft.-lbs.)  
**100D, X100D** – 225 Nm (165ft.-lbs.)  
**ISO 4A (80G, 100G, 120D, 150D)** – 265 Nm (195ft.-lbs.)
- Tighten rotator drive capscrews to a torque of:  
**30E** – 32 Nm (24 ft.-lbs.)  
**45G-100G, 100D, X100D, 120D, 150D** – 105 Nm (75 ft.-lbs.)
- Lubricate rotation bearing assembly with EP-2 grease (Whitmore 'Omnitask' or equivalent). Rotate in 90-degree increments and grease.
- Check rotator drive gearcase lubricant level.

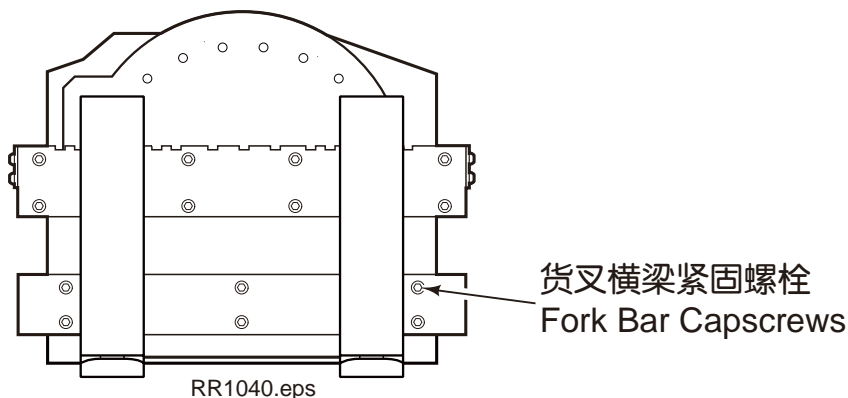


**30E** (仅限前500小时) - 齿轮油的油位必须达到油位观测孔的高度。齿轮油须从马达顶部的注油孔加注。

**45G-100G, 100D, X100D, 120D, 150D** - 润滑油的油位必须达到端盖油位观测孔的高度。润滑油时须从马达顶部的注油孔加注。

如果需要加注齿轮油，请用卡斯卡特旋转器减速器总成专用齿轮油（零件号656300）或 SAE 90 wt 齿轮油（AGMA ‘中性’ 6 EP 齿轮油），完成后再盖上螺塞。

- 检查货叉，横梁以及框架部分是否有裂纹或磨损。如有需要，请更换部件。
- 若旋转器是螺栓紧固式货叉（焊接）螺栓型号 - 如有需要，请用以下扭矩锁紧下钩螺栓  
**100D, X100D, 150D** - 385 Nm (285ft.-lbs.)
- 请用以下扭矩锁紧横梁紧固螺栓  
 ISO 2A - 145 Nm (150 ft.-lbs.)  
 ISO 3A - 185 Nm (135 ft.-lbs.)  
 ISO 4A - 255 Nm (190 ft.-lbs.)

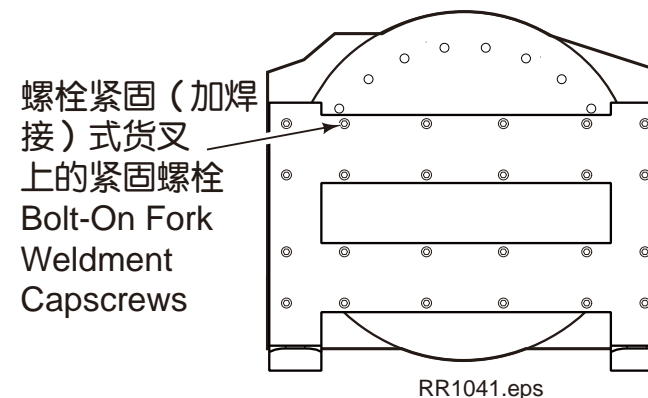


**30E** (Initial 500 Hours only) - Lubricant should be filled up to the end cover level hole. Add lubricant through the top fill hole.

**45G-100G, 100D, X100D, 120D, 150D** - Lubricant should be filled up to the end cover hole. Add lubricant through the end cover hole.

If necessary, fill with Cascade Rotator Drive Lubricant, Part No. 656300, or SAE 90 wt. gear lube (AGMA 'mild' 6 EP Gear Oil). Replace plug.

- Inspect forks, carriage bars and frame for cracks and wear. Replace components as required.
- **Bolt-On Fork Weldment** - If equipped, tighten capscrews to:  
**100D, X100D, 150D** - 385 Nm (285 ft.-lbs.)
- **Fork Bar** - If equipped, tighten capscrews to:  
 ISO 2A - 145 Nm (150 ft.-lbs.)  
 ISO 3A - 185 Nm (135 ft.-lbs.)  
 ISO 4A - 255 Nm (190 ft.-lbs.)



# 定期维护保养 **P**ERIODIC MAINTENANCE

## 1000小时保养

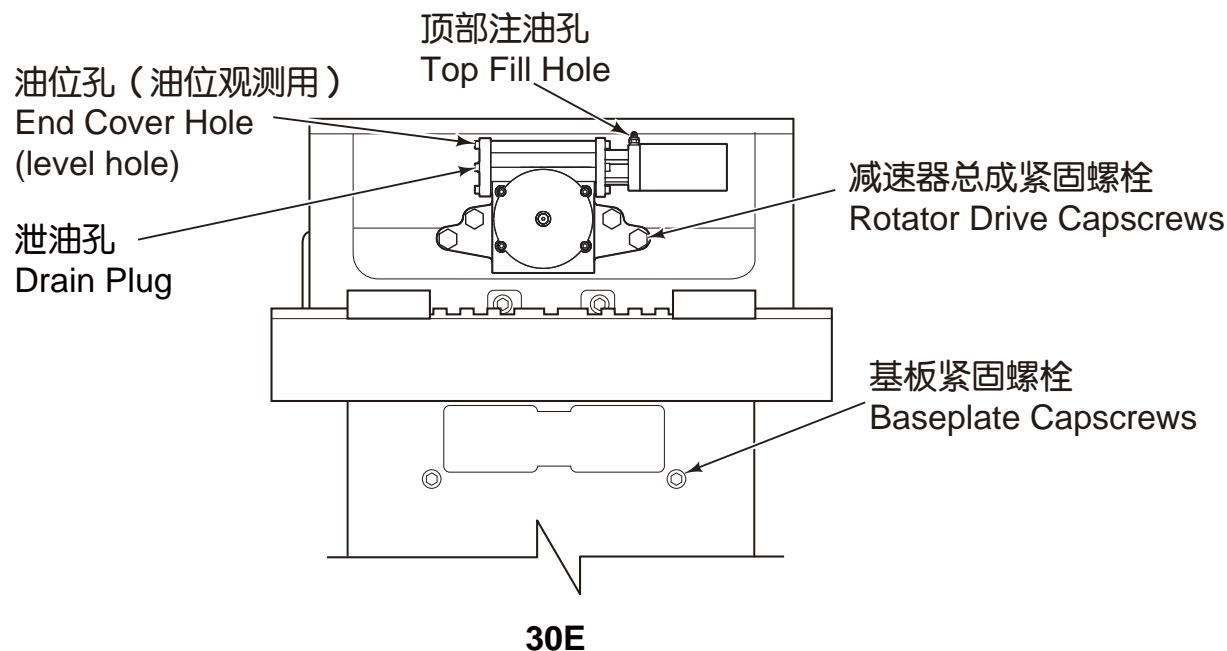
叉车每使用1000小时后，在进行100小时、500小时保养事项的基础上，还应增加以下保养事项：

- **30E** — 更换减速器总成齿轮油。将旧的齿轮油从泄油孔流出。从顶部注油孔将新的齿轮油注入，直到油位达到油位观测孔的位置。用卡斯卡特旋转器减速器总成专用齿轮油（零件号656300）或 SAE 90 wt 齿轮油（AGMA ‘中性’ 6 EP 齿轮油），完成后再盖上螺塞。

## 1000-Hour Maintenance

After each 1000 hours of truck operation, in addition to the 100 and 500-hour maintenance, perform the following procedures:

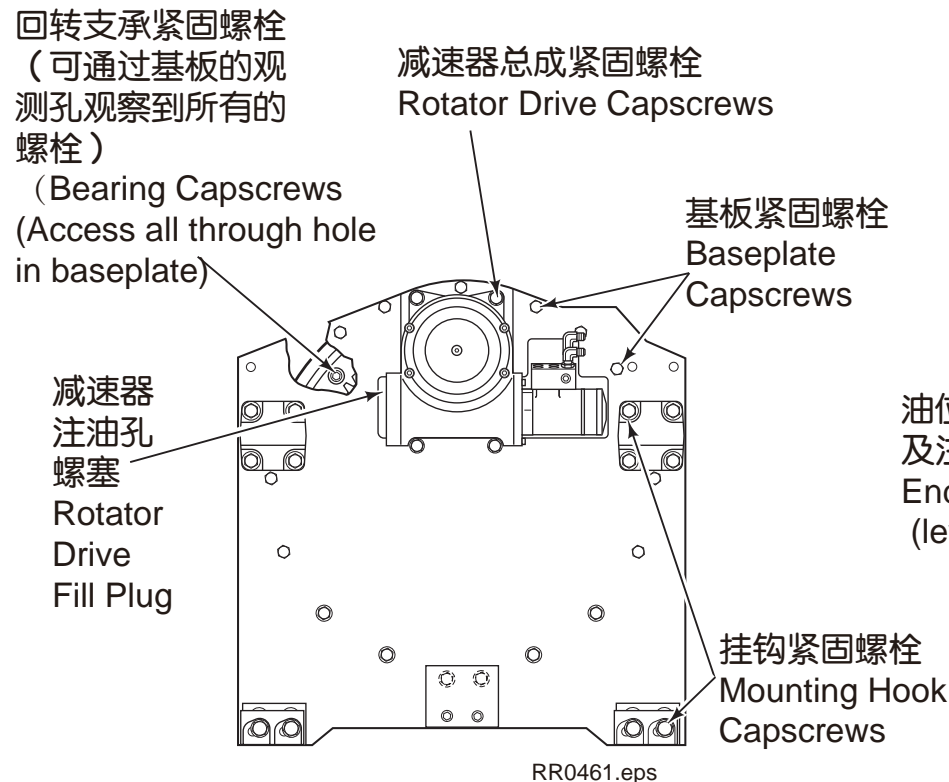
- **30E** – Change rotator drive gearbox lubricant. Drain oil out the bottom case hole. Refer to Service Manual 6089468 for service. Fill through top fill hole up to the end cover level hole. Use Cascade Rotator Drive Lubricant, Part No. 656300, or SAE 90 wt. gear lube (AGMA 'mild' 6 EP Gear Oil). Replace plug.



## 2000小时保养

叉车每使用2000小时后，在进行100小时、500小时、1000小时保养事项的基础上，还应增加以下保养事项：

- 检查所有回转支承紧固螺栓有无松动。参照技术说明TB183, 维修手册684597 (30E), 维修手册672946 (100D, X100D, 120D, 150D), 或维修手册6089468 (45G-100G)等资料来检查和更换螺栓。

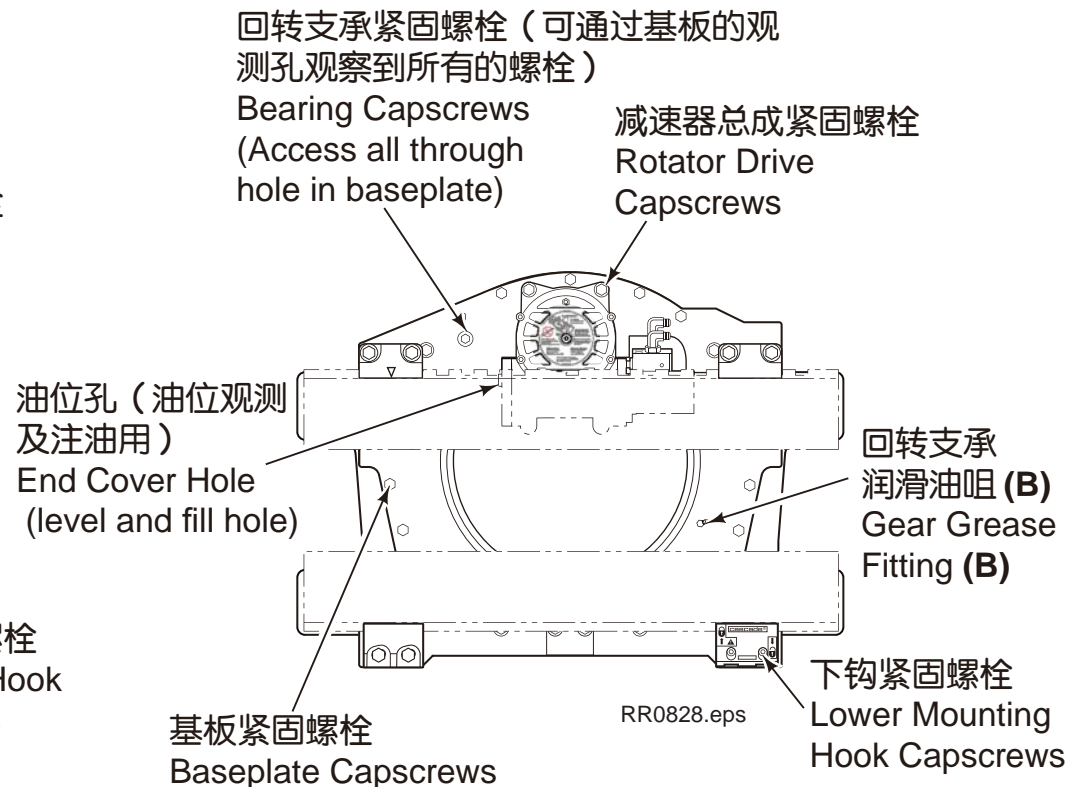


100D, X100D, 120D, 150D

## 2000-Hour Maintenance

After each 2000 hours of truck operation, in addition to the 100, 500 and 1000-hour maintenance, perform the following procedures:

- Check all rotation bearing capscrews for proper torque value. See Technical Bulletin TB183 or Service Manual 684597 (30E) or Service Manual 672946 (100D, X100D, 120D, 150D) or Service Manual 6073955 (45G-100G) for checking and replacement procedures.



45G-100G

- 货叉检查 – 在叉车使用超过2000小时后，应该对货叉进行检查且相邻两次检查的间隔时间不能超过12个月，无论何时，任何缺陷或永久性变形都必须被检测出来。在一些苛刻的工况下，检测的频率应更高。

货叉的检测人员应该经过专业的培训，在检测出货叉有任何破损后，相关人员须具备将其修复并可重新投入安全使用的能力。对货叉的任何检查都不属于维修项目。参考 ANSI B56.1-2005说明。

对货叉进行检测的项目如下：

- 表面裂纹
- 水平段和垂直段的平直度
- 货叉倾角
- 两个叉尖之间的高度差
- 货叉插销或提手完好情况
- 水平段和垂直段的磨损情况
- 挂钩的磨损情况
- 货叉上的标记是否清晰

注意：货叉安全维修包3014162包含磨损检测量规，检测单和安全告示。另外还有货叉挂钩和货叉架磨损检测仪209560 (ISO 2A), 209561 (ISO 3A), 6104118 (ISO 4A)。

- **Fork Inspection** – After 2000 hours of truck operation, forks in use shall be inspected at intervals of not more than 12 months (for single shift operations) or whenever any defect or permanent deformation is detected. Severe applications will require more frequent inspection. Fork inspection shall be carried out by trained personnel to detect any damage that might impair safe use. Any fork that is defective shall be removed from service. Reference ANSI B56.1-2005.

Inspect for the following defects:

- Surface cracks
- Straightness of blade and shank
- Fork angle
- Difference in height of fork tips
- Positioning lock
- Wear on fork blade and shank
- Wear on fork hooks
- Legibility of marking

**NOTE:** Fork Safety Kit 3014162 contains wear calipers, inspection sheets and safety poster. Also available is fork hook & carriage wear gauge 209560 (Class II), 209561 (Class III) and 6105257 (Class IV).



符合OSHA规则—工业车辆和属具(详见OSHA1910.178)



警告：本工业车辆安全操作和维护规则遵循OSHA1910.178和ANSI B56.1-1969工业车辆安全标准。当操作和维护安装有属具的叉车时您要特别注意这些规则的如下部分。您应熟悉这些规则的所有部分。不明之处请向您的上级询问。

## (a)常规要求

- (4)除非预先得到书面许可，用户无权擅自更改和添加影响作业能力和操作安全的操作。
- (5)如果用户自行在叉车上安装属具而不通过厂家安装，用户将被要求对叉车进行标注以区别于属具，并标明在货物载荷中心夹持并举升到最大高度时叉车 / 属具准确的综合载重量。
- (6)用户在维护时应能看到所有铭牌和标签清晰明了。

## (e)安全规则

- (2)如果货物堆放形式不合安全规范，用户应根据如下(a)(2)要求给叉车加装竖式挡货架。
- (a)(2)所有1972年2月15日以后用户购买的叉车的设计和结构必须符合由ANST制定ANSI B156.1-1969工业车辆部件 II 标准。

## (l)操作人员培训

只有经过培训和授权的操作者才可以驾驶叉车。在叉车安全培训时应为培训人员制订相关规程。

## (m)叉车驾驶

- (1)叉车不允许朝工作台或其他固定物体前的站立者行进。
- (2)叉车举升时无论空载还是载货时都不允许有人站在货叉下方或从货叉下方经过。
- (3)未经授权的人员不允许驾驶叉车，用于安全驾驶叉车的场地亦须得到许可。
- (4)不允许将手臂或脚伸到门架之间或行进着的叉车外。
- (5i)当叉车载着货停放时，货物应尽量完全放低。控制杆应挂空挡，关闭发动机并拉上制动刹车手柄。如果叉车停在斜坡上还应用块状物挡住车轮。
- (5ii)叉车在以下情况属无人看管状态：操作者远离叉车7.6米以上（即使在视野以内），或任何时候操作者离开叉车并不在视野范围内。
- (5iii)当操作者离开叉车并在7.6米的视野范围内时，应先完全降下货物，挂空挡，关闭发动机并拉上制动刹车手柄。
- (6)在任何装卸码头或载重卡车作业时都应使叉车与斜坡或平台保持一定的安全距离。叉车不能用于开闭门。

(10)无论是否需要都应加装挡货架，以尽可能减小货物或部分货物向后掉落的可能性。

## (n) 行进

(4)驾驶员经过十字路口或其他影响视野的障碍物时应慢速行驶并鸣笛。如果货物搬运时前方视线被挡，驾驶员应采用倒退搬运。

(7i)当斜坡坡度超过10°时，叉车装载行驶时须使货物相对叉车而言处于坡度上方（即上坡时叉车向前行驶，下坡时叉车倒退行驶。）

(7iii)在坡上行驶时，叉车门架尽可能后倾，并提升必要的高度以保证货物运输安全。

## (o) 装货

(1)只允许搬运包装稳定或安全的货物。在搬运载荷中心不对中的货物时须小心谨慎。

(2)只允许搬运叉车承载能力范围内的货物。

(3)当货物尺寸过长或过高（包括多层货物）而影响承载能力时，必须调整货物。

(4)操作安装上属具的叉车，即使不夹持货物，也应把它看成搬运了一定重量（非满载）货物。

(5)须小心地后倾门架以保证货物稳定性。

(6)货物前后倾时要格外小心，特别是高层堆垛时。货物提升时不能同时前倾，除非叉起货物时。提升货物至堆垛货物上方时再前倾。当堆垛多层货物时，应尽量后倾以保证稳定性。

## (p) 叉车操作

(1)任何时候发现叉车处于须维修、有缺陷或任何安全隐患的情况，叉车必须停下来维修直到可重新安全工作。

## (q) 叉车维护

(1)任何存在不安全操作隐患的叉车都应该返修。所有维修工作应由经授权的人员完成。

(5)叉车上所有待维修更换的部件都只能用标准更换件更换以确保叉车保持出厂时的安全使用状态。

(6)未经授权不得对叉车擅自改动以避免和出厂时众多部件原有位置不符。也不允许用即使制造商原先没提供的额外部件进行更换或减少任何配件。除非得到叉车制造商的许可，否则不得对叉车超载作业。

(7)叉车投入使用前应先检查，如果检查显示任何对叉车操作不安全的迹象时都不可投入使用。这样的检查至少应每日进行。如果叉车是24小时不间断工作，那么每次换班时需例行检查。发现毛病时应立即上报并更正。



**WARNING:**The safe operation and maintenance of industrial trucks is regulated by Occupational Safety and Health(OSHA) regulations 1910.178 and American National Standards Institute(ANSI)Safety Standard for Powered Industrial Trucks,ANSI B56.1-1969.When operating and maintaining industrial trucks equipped with attachments you should pay particular attention to the following sections of these regulations.You should be familiar with all sections of these regulations. **Ask your employer for the complete regulations.**

### (a) General Requirement

(4) Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without manufacturers prior written approval. Capacity,operation and maintenance instruction plates,tags or decals shall be changed accordingly.

(5) If the truck is equipped with front-end attachments other than factory installed attachments,the user shall request that the truck be marked to identify the attachments and show the appropriate weight of the truck and attachment combination at maximum elevation with load laterally centered.

(6) The user shall see that all nameplates and markings are in place and maintained in a legible condition.

### (e) Safety Guards

(2) If the type of load presents a hazard,the user shall equip fork trucks with a vertical load backrest extension in accordance with (a) (2)following. (a) (2)All new powered industrial trucks acquired and used by an employer after February 15,1972 shall meet the design and construction requirements for powered industrial trucks established in the "American National

Standard for Powered Industrial Trucks, Part II,ANSI B56.1-1969",except for vehicles intended primarily for earth moving or over -the-road hauling.

### (l) Operator Training

Only trained and authorized operators shall be permitted to operate a powered industrial truck. Methods shall be devised to train operators in the safe operation of powered industrial trucks.

### (m) Truck Operations

(1) Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.

(2) No person shall be allowed to stand or pass under the elevated portion of any truck,whether loaded or empty.

(3) Unauthorized personnel shall not be permitted to ride on powered industrial trucks.A safe place to ride shall be provided where riding of trucks is authorized.

(4) The employer shall prohibit arms or legs from being palced between the uprights of the mast or outside the running lines of the truck.

(5i) When a powered industrial truck is left unattended,load engaging means shall be fully lowered,controls shall be neutralized,power shall be shut off and brakes set.Wheels shall be blocked if the truck is parked on an incline.

(5ii) A powered industrial truck is unattended when the operator is 25 feet or more away from the vehicle which remains in his view, or whenever the operator leaves the vehicle and it is not in his view.

(5iii) withinWhen the operator of an industrial truck is dismounted and within 25 feet of the truck still in his view,the load engaging means shall be fully lowered,controls neutralized and the brakes set to prevent movement.



- (6) A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock or platform or freight car. Trucks shall not be used for opening or closing freight doors.
- (10) A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.

**(n)**

(4) The driver shall be required to slow down and sound the horn at cross isles and other locations where vision is obstructed. If the

load being carried obstructs forward view, the driver shall be required to travel with the load trailing.

(7i) When ascending or descending grades in excess of 10 percent, loaded trucks shall be driven with the load upgrade.

(7ii) On all grades the load and load engaging means shall be tilted back if applicable, and raised only as far as necessary to clear the road surface.

**(o) Loading**

(1) Only stable or safely arranged loads shall be handled. Caution shall be exercised when handling off-center loads which cannot be centered.

(2) Only loads within the rated capacity of the truck shall be handled.

(3) The long or high (including multiple-tiered) loads which may affect capacity shall be adjusted.

(4) Trucks equipped with attachments shall be operated as partially loaded trucks when not handling a load.

(5) A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.

(6) Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with

load engaging means elevated shall be prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

**(p) Operation of the Truck**

(1) If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition.

**(q) Maintenance of Industrial Trucks**

(1) Any power-operated industrial truck not in safe operating condition shall be removed from service. All repairs shall be made by authorized personnel.

(5) All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design.

(6) Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor shall they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counter-weighting of fork trucks shall not be done unless approved by the truck manufacturer.

(7) Industrial trucks shall be examined before being placed in service and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examinations shall be made at least daily. When industrial trucks are used on a round-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

# 质量保证政策

# WARRANTY

感谢您选用卡斯卡特（厦门）叉车属具有限公司产品。为了充分保障您的权益，请认真阅读本质量保证政策。

以下：“卡斯卡特（厦门）公司”指卡斯卡特（厦门）叉车属具有限公司；“购买商”指直接与卡斯卡特（厦门）公司签订产品购销合同的叉车主机厂或获得叉车主机厂授权的代理商。

卡斯卡特（厦门）公司：保证其产品符合卡斯卡特（厦门）公司所提供的有效的产品购销合同、报价单、产品手册中所列有关性能参数的要求。

卡斯卡特（厦门）公司全新产品：包括属具、货叉、卷管器和配件，质量保证期为卡斯卡特（厦门）公司货交第一承运人之日起24个月或该产品使用4000小时。以上两项中先到期限者为准。

卡斯卡特（厦门）公司绿萌系列再制造产品：质量保证期为卡斯卡特（厦门）公司货交第一承运人之日起6个月或该产品使用1000小时。以上两项中先到期限者为准。

本政策中，“质量保证”的含义是：卡斯卡特（厦门）公司将对于获得其书面授权人员检查后确认在材料或制造工艺方面存在缺陷的任何零部件进行修理或更换。

购买商、最终用户应做到：

1. 在对卡斯卡特产品进行安装、调试、使用和保养时，必须严格按照相关的卡斯卡特安装说明书、检测规范、操作指南和维修手册的规定进行操作。
2. 只有在获得卡斯卡特（厦门）公司的书面授权后，方可对所购的卡斯卡特公司产品进行修理，但不能拆除或更换产品上的零部件。任何在未经卡斯卡特（厦门）公司书面授权的情况下对卡斯卡特产品所作的修理、改动，或使用非卡斯卡特（厦门）公司原厂提供的零部件，或违反卡斯卡特安装说明书、检测规范、操作指南和维修手册中的有关规定，都将导致失去享受本质量保证政策的权利。

# 质量保证政策 **W**ARRANTY

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## 注意事项:

1. 卡斯卡特（厦门）公司对于使用其产品进行超出该产品适用工况的特殊作业导致的产品损坏或任何非正常状况不予保修。
2. 当购买商或最终用户已拥有或虽未拥有但已开始使用本公司产品后，发生的该产品丢失、该产品使用中的人身或财产造成损失或损害（包括间接损失或损害），卡斯卡特（厦门）公司均不承担责任。
3. 产品正常使用中的磨损、消耗、未按卡斯卡特（厦门）公司操作指南而进行非正常使用、以及正常或定期的维护保养工作，不享受本质量保证政策。
4. 超出本质量保证政策内容及卡斯卡特（厦门）公司购销合同上所述的产品相关条款外的情况，均不享受本质量保证政策。

最终用户如果需要进一步了解卡斯卡特（厦门）公司产品或安装及修理方面的事宜，请首先向售出该产品的叉车主机厂或其代理商咨询。

卡斯卡特（厦门）公司也非常乐意解答您在这方面的任何问题。

请洽：卡斯卡特（厦门）叉车属具有限公司 服务与配件处

电话：40088 57315

本质量保证政策自2013年9月24日起生效。在新的质量保证政策颁发前，本政策一直有效。卡斯卡特（厦门）公司保留对本政策进行修改的权利，届时恕不一一通知。请注意本政策页面下端的版本号。

Version No.: Cascade Xiamen 2013

# 质量保证政策 **WARRANTY**

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Thank you very much for your purchasing Cascade products, in order to fully guarantee your rights and interests, please read the content of this Warranty carefully.

In this article, hereafter, "Cascade Xiamen" means Cascade Xiamen Forklift Truck Attachment Co., Ltd.;"Buyer" means the forklift truck OEM (Original Equipment Manufacturer) or its authorized Dealer who signs purchasing contract with Cascade Xiamen directly for its product.

**Cascade Xiamen:** warrants its products to conform to published specifications as found in its valid sales contracts, quotations, brochures, price lists.

**Cascade Xiamen New Products: consisting of attachments, forks, hose reels and service parts** are warranted for 24 months following the date of delivery to the primary carrier, or 4000 hours of operation, whichever terminates first alternatively.

**Cascade Xiamen Remanufactured Products:** are warranted for 6 months following the date of delivery to the primary carrier, or 1000 hours of operation, whichever terminates first alternatively.

**Within the policy, "Warranty" means** Cascade Xiamen will repair or replace, at its option, any part that a Cascade Xiamen itself or .authorized inspection reveals to be defective in materials or workmanship.

## **What Buyers and Customers must do:**

1. To preserve Cascade Xiamen's Warranty, Buyers and Customers must carefully follow applicable Cascade Installation Instructions, Service Manuals and Operator Guides when installing, adjusting, maintaining and operating Cascade equipment.
2. Buyers, Customers must obtain Cascade Xiamen written authorization for repairs other than removal or replacement of defective parts.

Any unauthorized repairs or alterations, use of parts not provided by Cascade Xiamen, or failure to follow Cascade's Installation Instructions,.Service Manuals and Operator Guides will result in loss of Warranty.

# 质量保证政策 **W**ARRANTY

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## Notice:

1. Cascade Xiamen does not warrant that its products will perform any particular task which conditions are not suitable for the product.
2. Cascade Xiamen assumes no responsibility for loss, damage or injury to persons or property, or for consequential damages, resulting from the possession or use of its products.
3. Cascade Xiamen's Warranty does not cover wear, tear, abnormal applications which fail to follow Cascade Xiamen product Operator's Guide properly, normal or scheduled maintenance.
4. **THERE ARE NO WARRANTIES EITHER EXPRESS OR IMPLIED INCLUDING ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE WHICH EXTEND BEYOND THOSE STATED IN THIS WARRANTY AND THE PRODUCT DESCRIPTION ON THE FACE OF CASCADE XIAMEN'S ORDER ACKNOWLEDGEMENT.**

If the end user customer would like to know more about Cascade Xiamen product or the relevant aspects of installation and service, please firstly consult with the forklift truck OEM or its Dealer who sold the product.

Cascade Xiamen is also very happy to answer any of your questions on this. Please contact: Service and Spare Parts Department, Cascade Xiamen Forklift Truck Attachment Co., Ltd. Phone: 40088 57315

This Warranty's effective since September 24, 2013. Its validity remains until being superceded by a later version. Cascade Xiamen reserves all the rights of amendment without notice. Please note the Version No. at the bottom of this page.

卡斯卡特（厦门）叉车属具有限公司  
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**cascade corporation**

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Cascade Xiamen reserves the rights to make change without notice.

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