



操作指南 OPERATOR'S GUIDE

H、F系列纸卷夹 H, 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: 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.

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本手册为F系列纸卷夹的用户操作指南，旨在简单明了地阐述纸卷夹使用、操作过程中有关注意事项，操作前请仔细阅读本手册，不明之处请向你的上级请教。

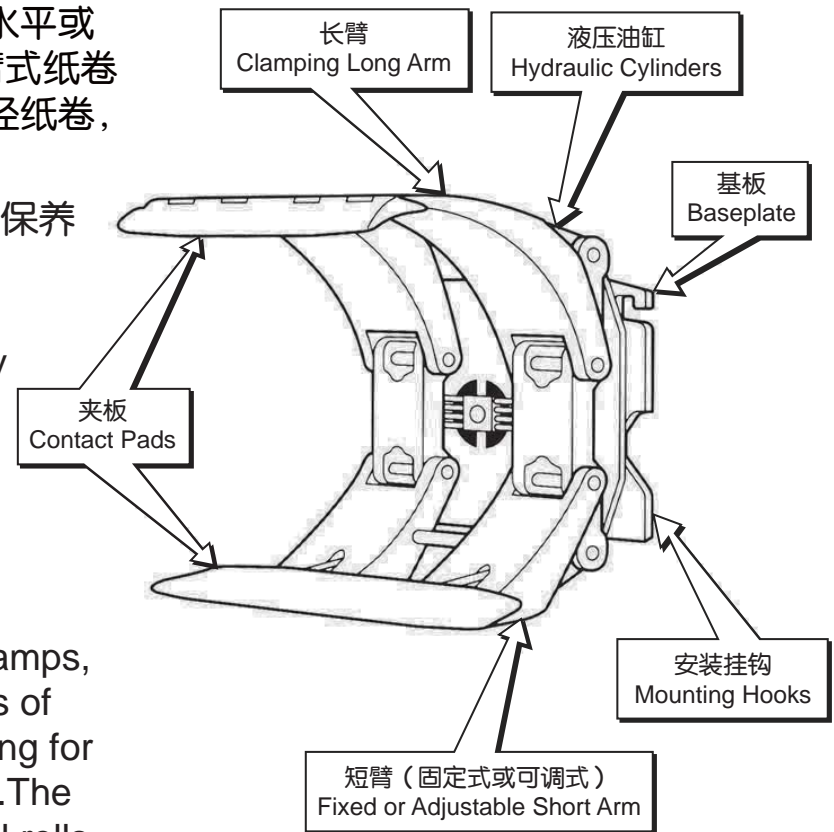
固定框架式纸卷夹 – 卡斯卡特H、F系列多功能纸卷夹用于搬运各类纸制品，夹臂设计适于运输、堆垛、抽取以及拖车和厢式运输车上装卸货作业中对水平或垂直放置纸卷的搬运操作。纸卷夹可360°旋转，根据作业情况，固定短臂式纸卷夹特别适用于夹持直径接近最大值的纸卷，可调短臂式纸卷夹可夹持小直径纸卷，此外还提供带分离式长臂的纸卷用于夹持两个叠放纸卷。

安全第一! 一大多数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。

About this Guide-The information in this Guide is intended to simplify operator understanding about effective and safe 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.

Fixed Frame Paper Roll Clamp-Cascade Fixed Frame Paper Roll Clamps, Models H,F-Series,are multiple-function attachments for handling all types of paper products.Clamps are designed for both bilge and vertical roll handling for transport,stacking, breakout, Van trailer and boxcar loading and unloading.The Clamp rotates through 360 degrees and can have a fixed short arm for full rolls or adjustable short arm for butt rolls, and a single or split long arm.

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





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

售后服务部门

电话：4008857315

传真：86-592-6512571



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

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

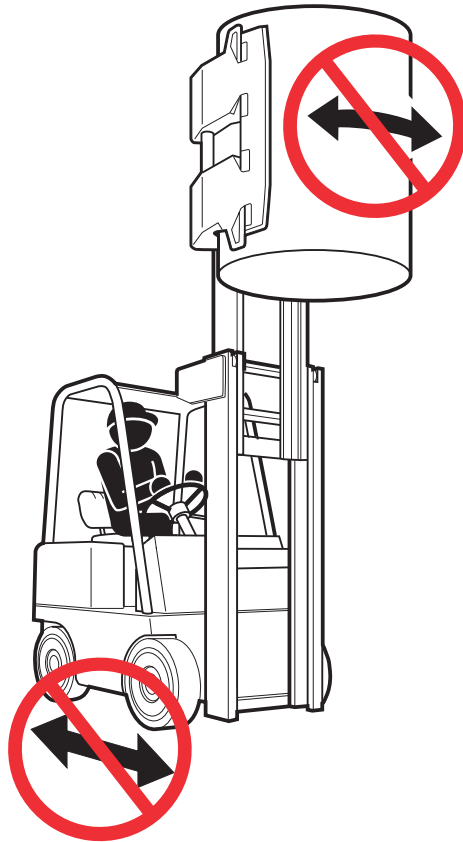
Please contact:

Customer Service Department,
Cascade Xiamen Forklift Truck Attachment Co. Ltd.
Phone tel:4008857315 Fax:86-592-6512571

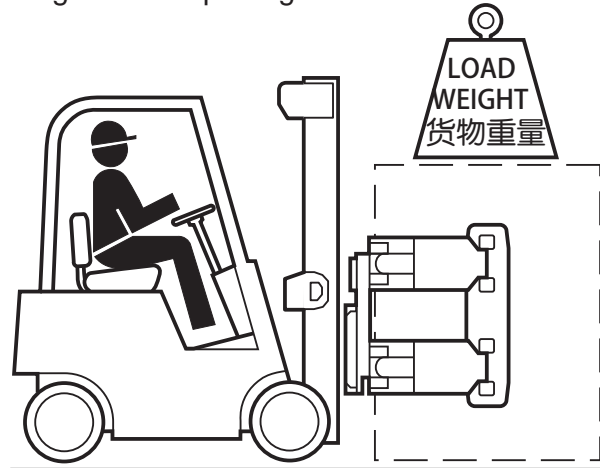
安全规则 SAFETY RULES

搬运纸卷：确保纸卷在举升或运输之前安全夹持。
 Handling Loads: Rolls must be secure prior to lifting and transporting.

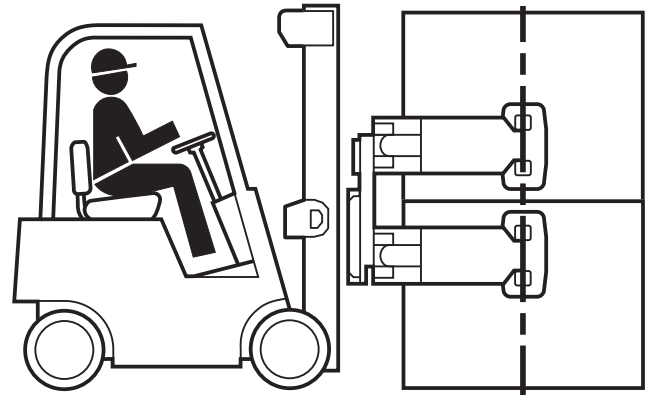
禁止提升货物时摆动夹臂
 Limit swinging clamp with raised load.



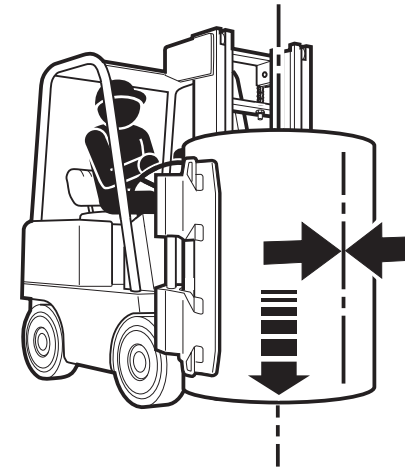
举升货物时叉车应限速行驶
 Limit truck movement with raised load.



货物重量不能大于叉车、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).



分离夹臂式纸卷夹推荐用于搬运两个纸卷，用单个整体夹臂的纸卷夹搬动两个纸卷时不安全并可能导致工伤事故。
 Split-Arm Clamp is recommended to handle two rolls (see pg.11). Handling two rolls with Single-Arm Clamp may be dangerous and lead to serious injury.



举升及搬运前确保货物已对中及稳固地夹持
 Make sure load is centered and secure prior to lifting and traveling.

避免货物滑落（请参见25页）
 Check for load slippage (see pg.25)



使用单个整体的夹臂搬运多个包装成一体纸卷时应倍加注意。
 Use caution when handling unitized (wrapped) multiple stacked rolls with Single-Arm Clamp.

确保底层纸卷已被安全夹持
 Make sure bottom roll is secure.

安全规则



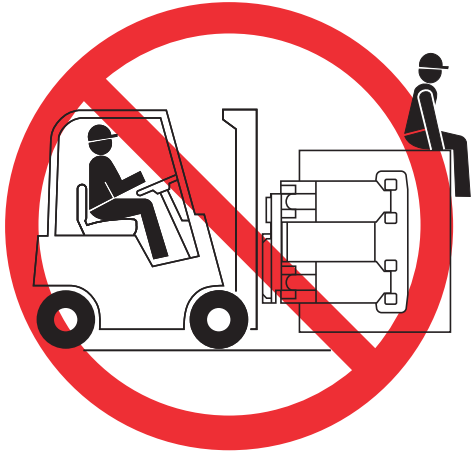
SAFETY RULES

工业车辆-叉车

Industrial Lift Trucks

禁止载人行驶

No riders



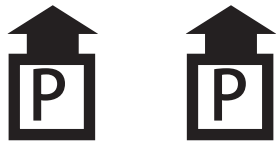
禁止伸手穿越门架

No reaching through mast



禁止货物下站人

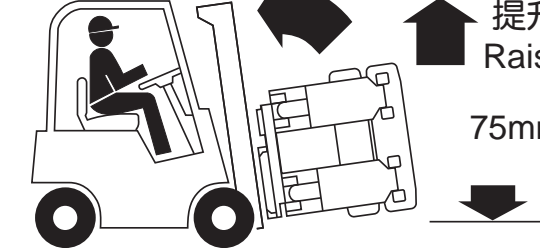
No standing under load



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

前后倾

Tilt



提升

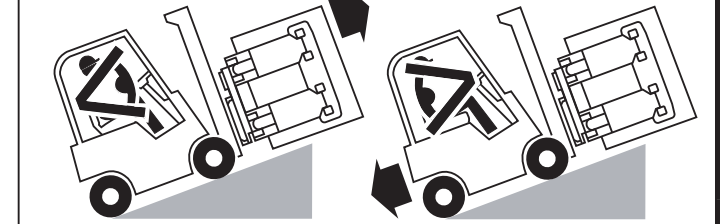
Raise

75mm



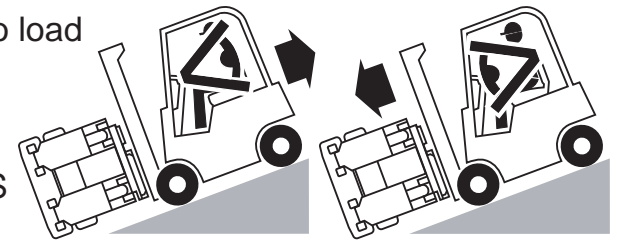
空载行驶
Traveling empty

负载时 With load



空载时 No load

上下坡
RAMPS



安全规则

SAFETY RULES

工业车辆-叉车

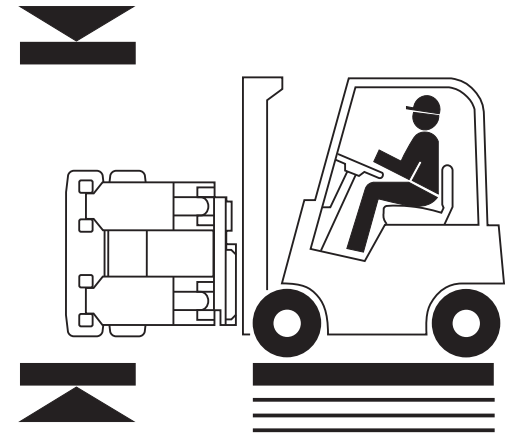
Industrial Lift Trucks



禁止坡上停车
No parking on ramp



禁止坡上转弯
No turning on ramp

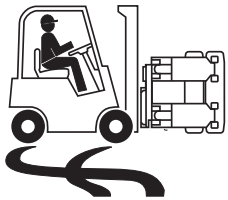


注意行驶空间
Watch clearances

交通标志 TRAFFIC



观察 Observe



地滑
Wet floors



工作人员
Workers



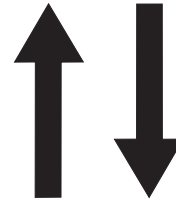
停止
Stop



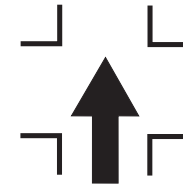
凸起
Bumps



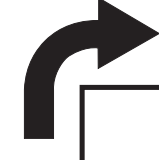
凹坑
Dips



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

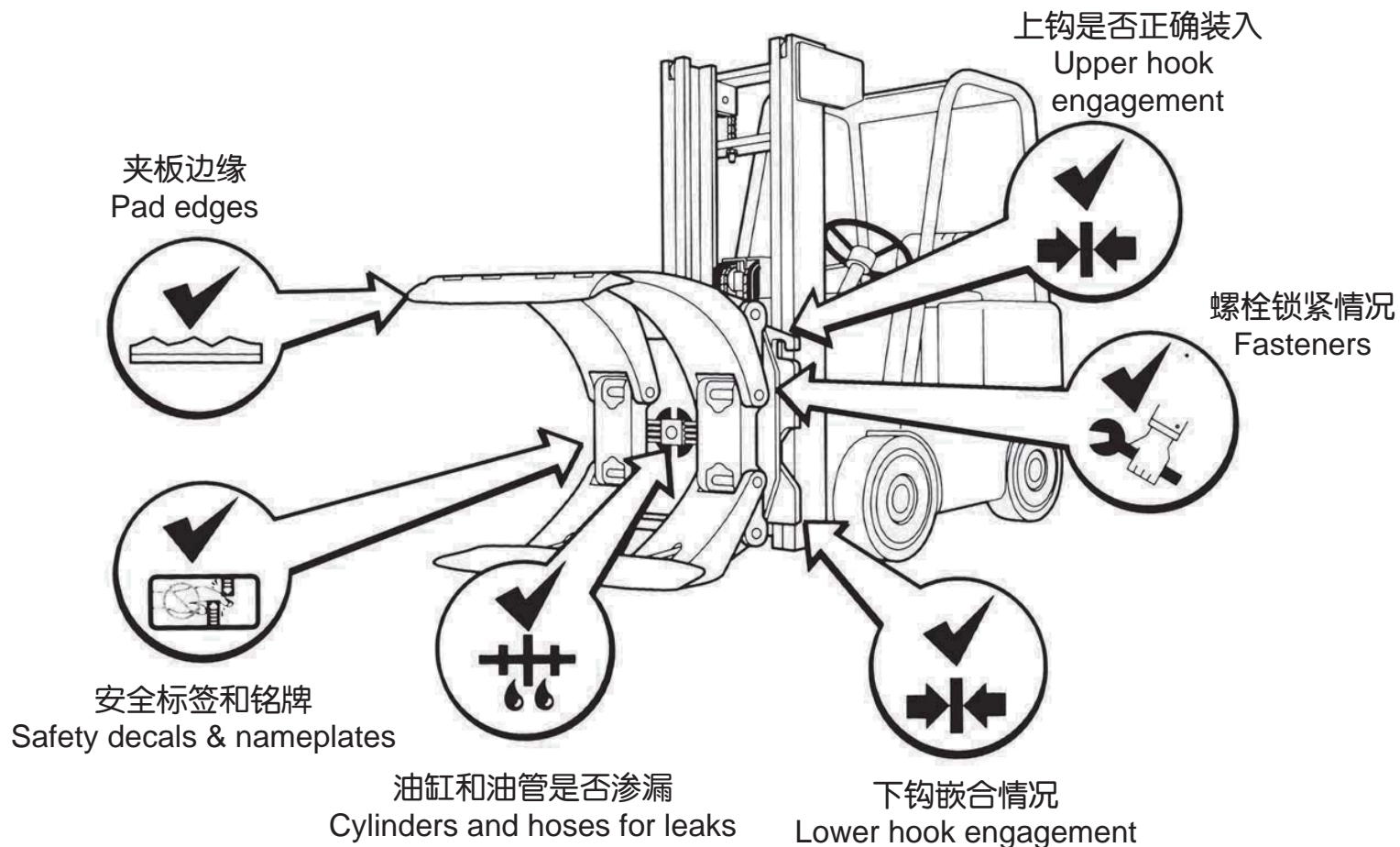


转弯时须鸣笛、慢行
Sound horn, slow
at corner

日常检查 DAILY INSPECTION

每天检查图示各项内容，发现问题及时向上级汇报。操作前请检查夹持力是否正常，故障排除、保养和维修事项请参考《维修手册》或《用户手册》。

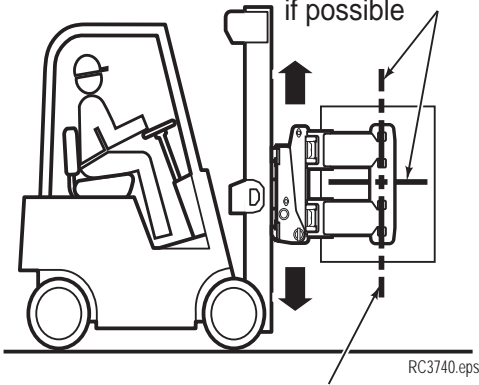
Check items shown each day. Report problems to your supervisor. Check clamp force prior to each operational shift. Consult Service Manual or Ender User's Manual for troubleshooting, maintenance and repair procedures.



前倾式纸卷夹搬运作业

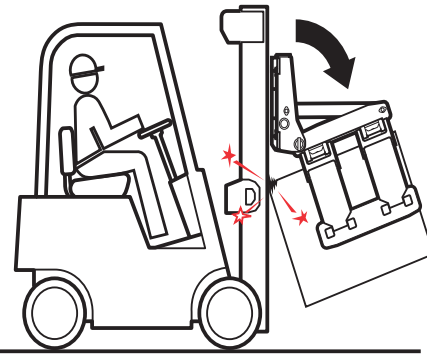
ROLL UPENDER HANDLING BASICS

夹板中心线应垂直于纸卷
Center clamp pads vertically on roll,
if possible



RC3740.eps

夹板应过纸卷的轴线
Clamp through roll centerline



RC3763.eps

警告：在进纸卷倾翻操作之前，要确保纸卷和门架前端面间留有间隙
CAUTION: Verify the clearance between the bottom of the roll and mast prior to tilting the roll forward.

纸卷前倾
Tilt roll forward



RC3742.eps

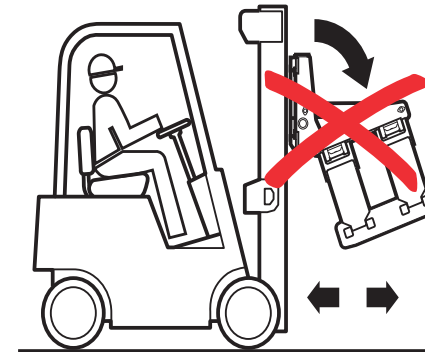
警告：确保货物的载荷中心不超过叉车的载荷中心。详细请咨询叉车制造厂。
CAUTION: Verify the center of gravity for the load does not exceed the capacity of the truck. Consult OEM as required.



要进行前倾作业时，需将纸卷进行提升作业以留有空间
Raise roll to clear ground when tilted

RC3741.eps

RC3743.eps



警告：叉车行走过程中不进行前后倾操作。
CAUTION: No tilting operation while truck traveling.

以上是针对前倾式纸卷夹在使用过程中已出现的问题所进行的规范操作说明，引导用户正确使用该产品

属具动作 C LAMP & OPERATION

长臂动作

(仅在垂直和水平位置时)

C 张开

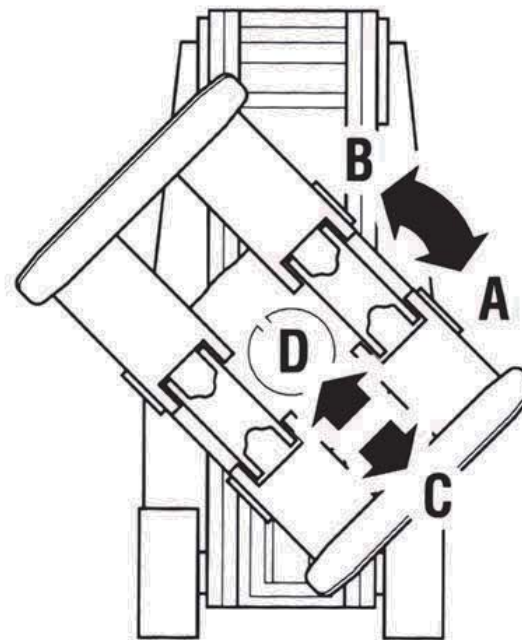
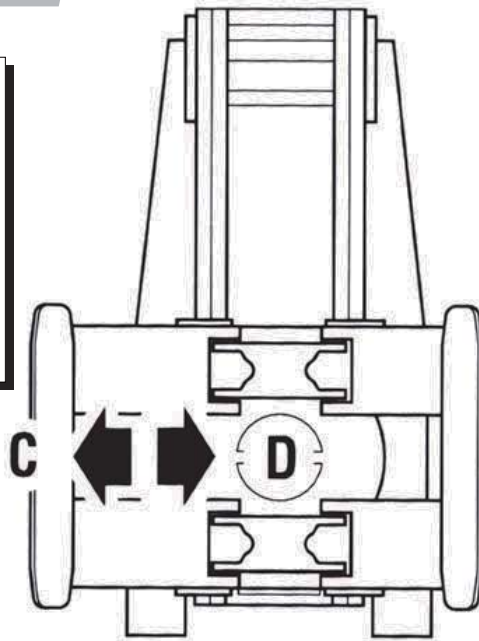
D 夹紧

LONG ARM

(Vert. & horiz. positions only)

C Release

D Clamp



旋转动作

(驾驶员角度)

A 逆时针旋转

B 顺时针旋转

ROTATE

(Driver's view)

A Counterclockwise (CCW)

B Clockwise (CW)

短臂动作

(驾驶员角度)

(45度角位置)

C 张开

D 闭合

SHORT ARM

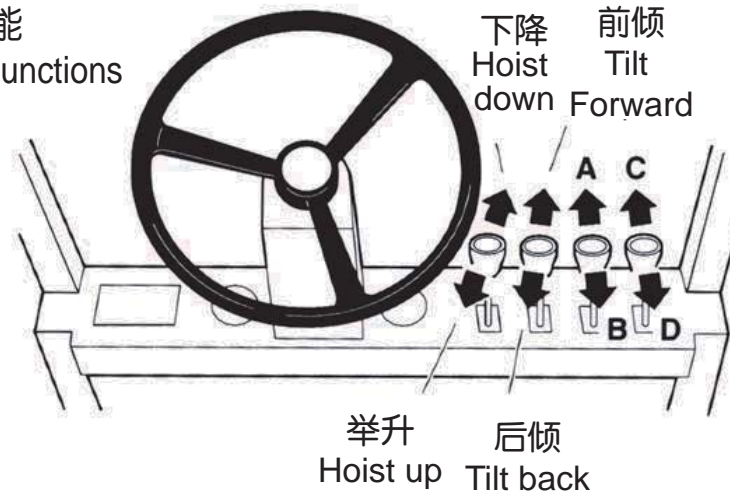
(Driver's view)

(45-degree position only)

C Open

D Close

多路阀功能
Auxiliary Valve Functions

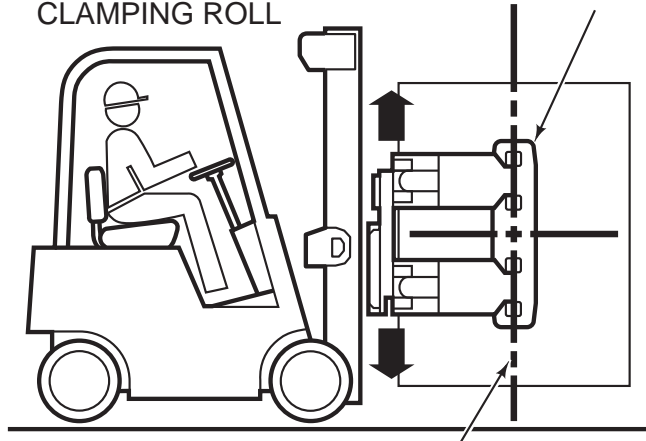


夹持与搬运纸卷

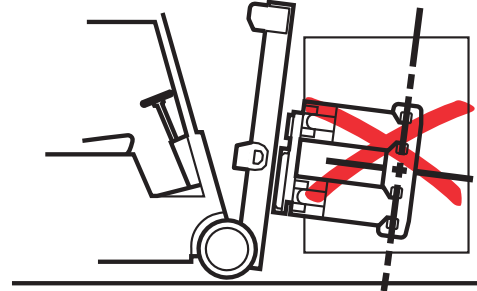
C LAMPING & CARRYING ROLL

纸卷夹持
CLAMPING ROLL

夹板与纸卷对中
Center Clamp pads on roll



RC0032.eps



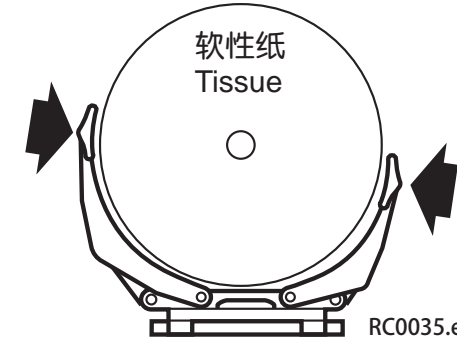
不同纸卷搬运时应采用对应的合适的夹持力
Use proper clamping force for load being handled

夹紧力大小的选择
CLAMP FORCE



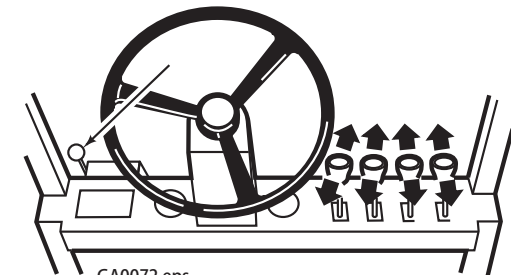
RC0034.eps

夹持在纸卷中心线上 Clamp through roll centerlines



RC0035.eps

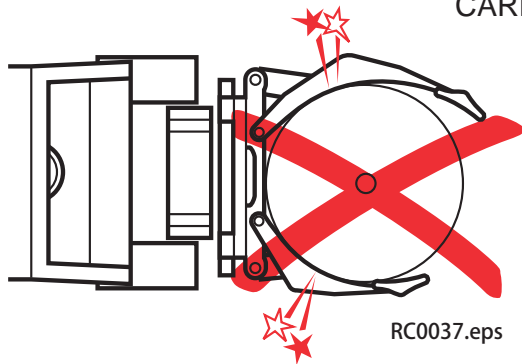
压力调节阀 Pressure Selection Valve



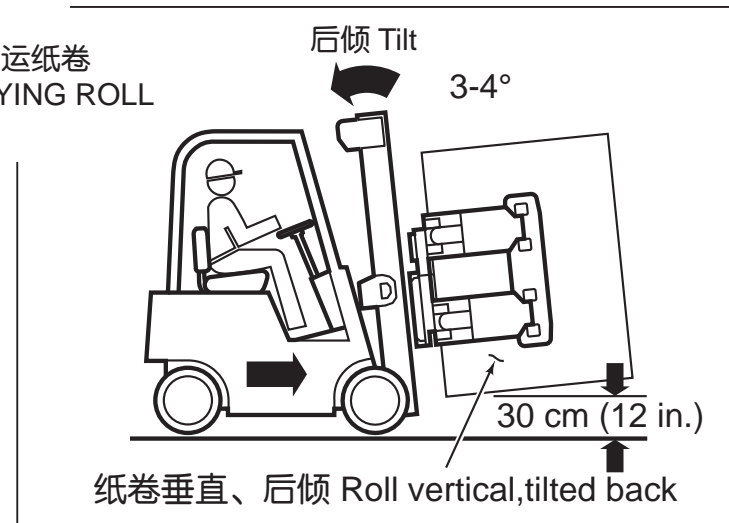
GA0072.eps

搬运纸卷
CARRYING ROLL

后倾 Tilt
3-4°



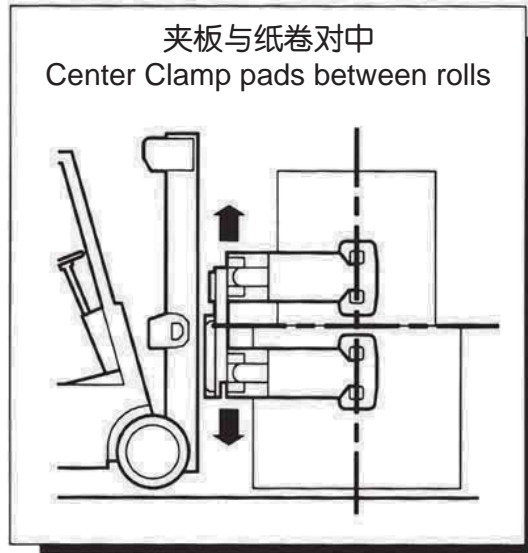
RC0037.eps



纸卷垂直、后倾 Roll vertical, tilted back

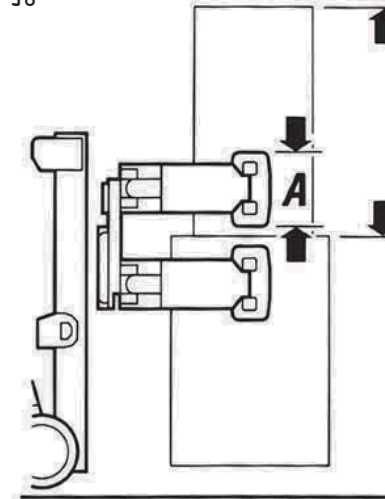
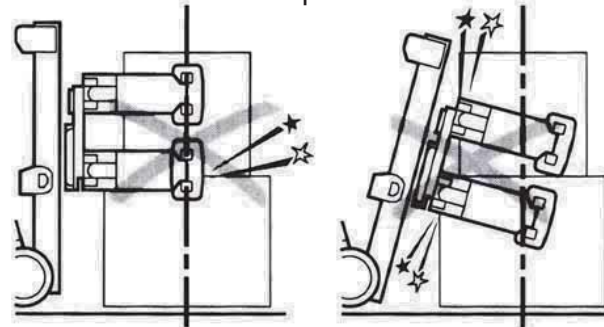
分离夹臂式纸卷夹搬运两个纸卷

HANDLING TWO ROLLS USING SPLIT-ARM CLAMP



警告：操作分离式夹臂纸卷夹执行夹持或张开动作时，必须加大叉车油门。

WARNING: Engine speed must be increased when clamping or releasing rolls with Split-Arm Clamps.

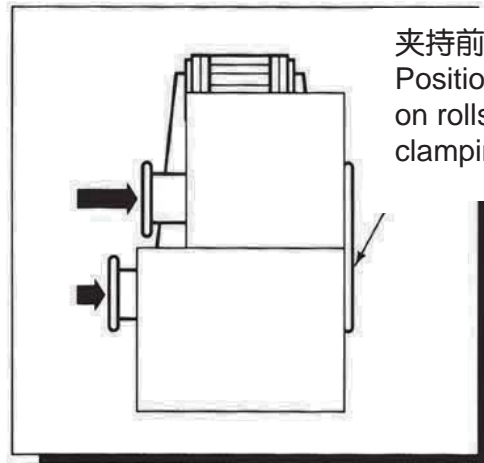


不作旋转时，夹持的最大纸卷高度不能超过分离式夹板高度A(如图示的3倍)
Maximum roll width 3X pad height A if not rotating

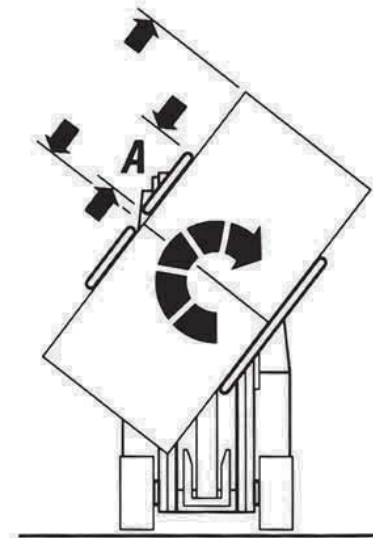
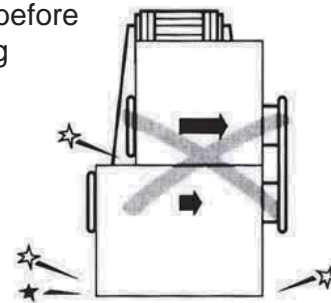


警告：叉车举升或行驶之前确保已被正确稳固地夹持。

CAUTION: Clamp multiple rolls securely and properly prior to lifting or traveling.

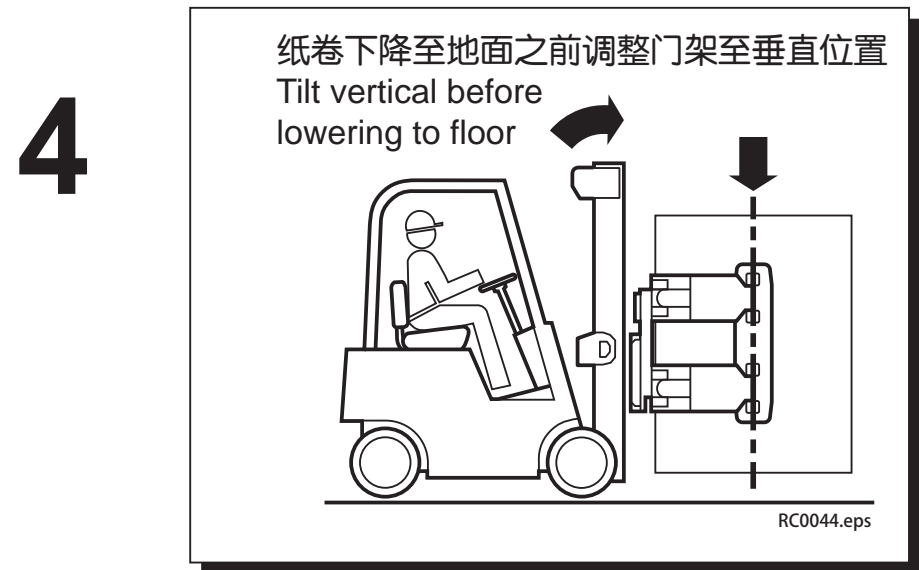
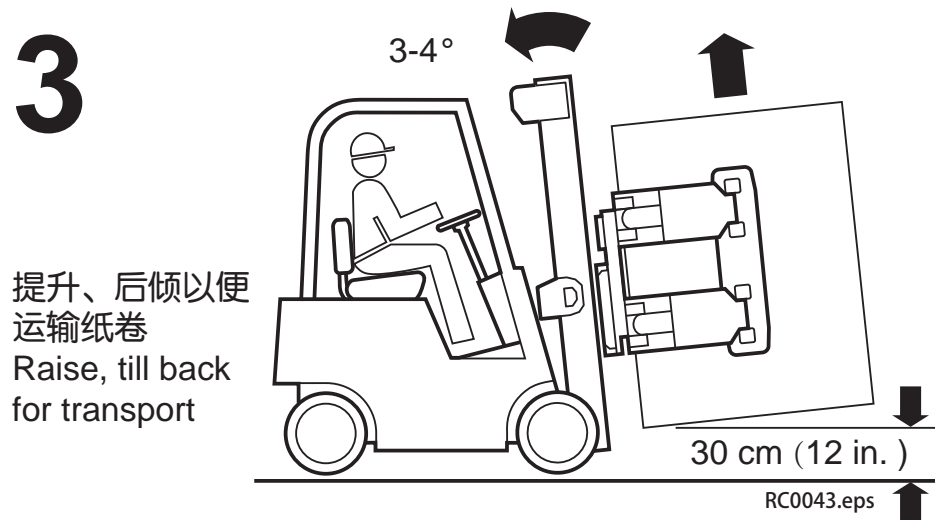
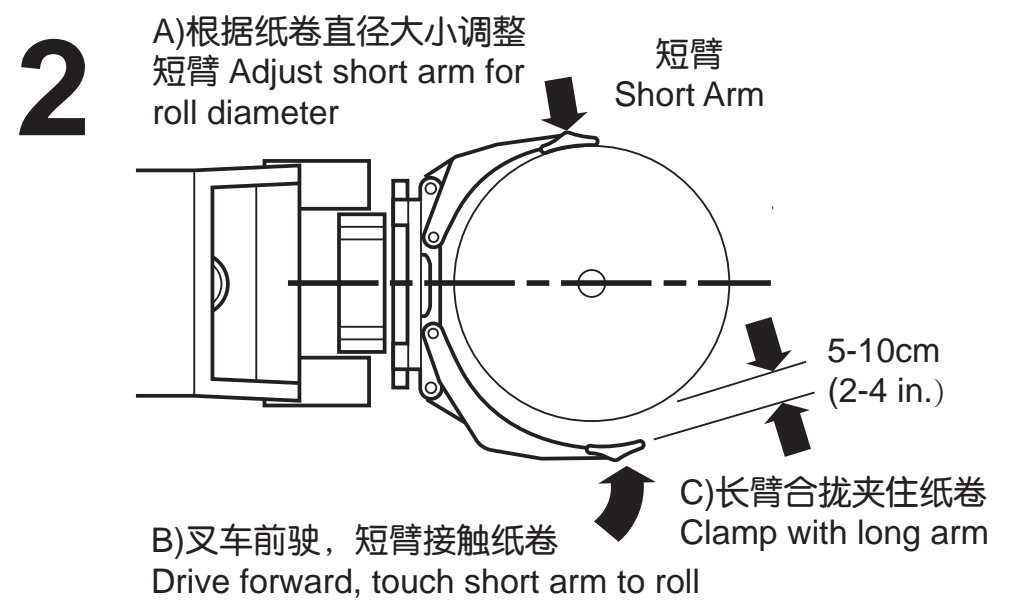
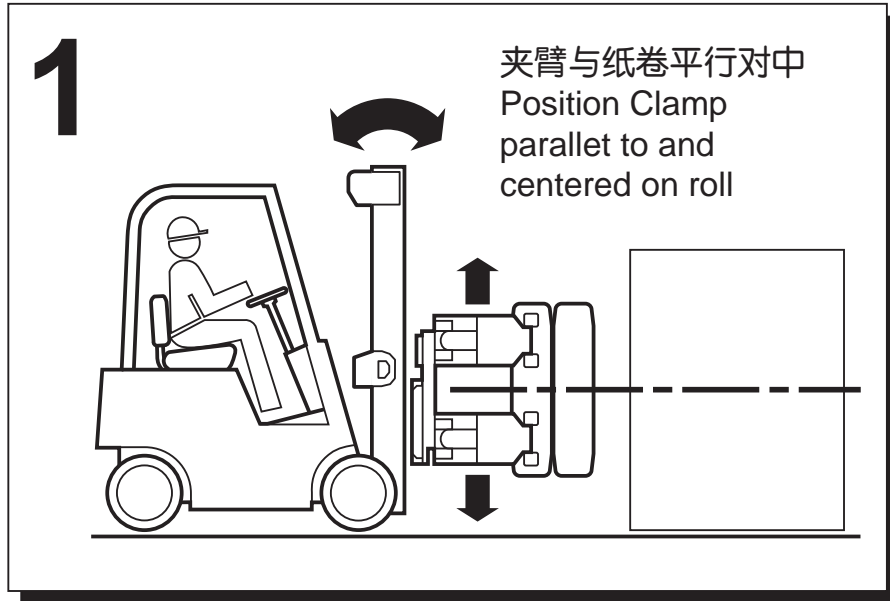


夹持前先将短臂定位在纸卷上
Position short arm on rolls before clamping



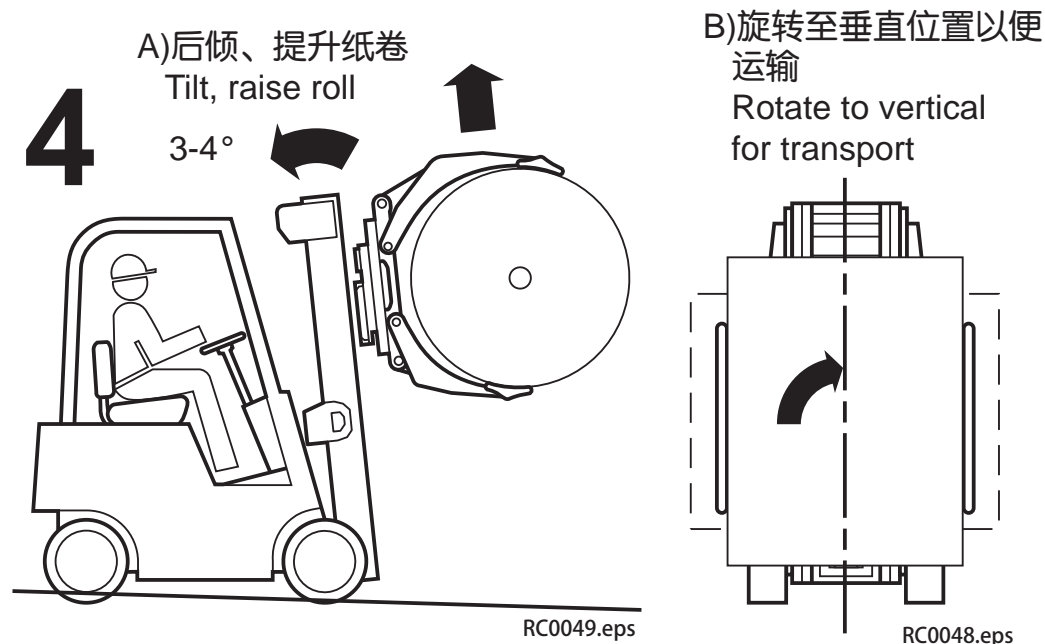
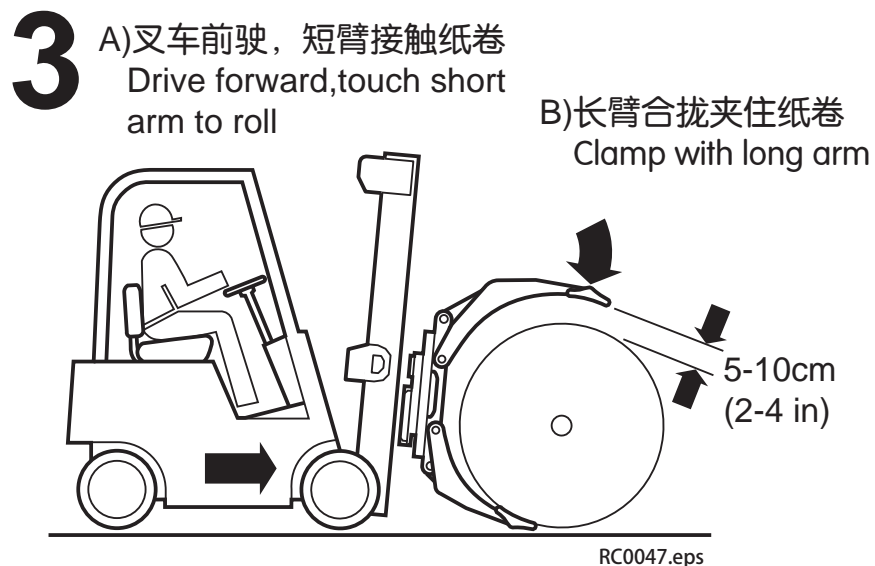
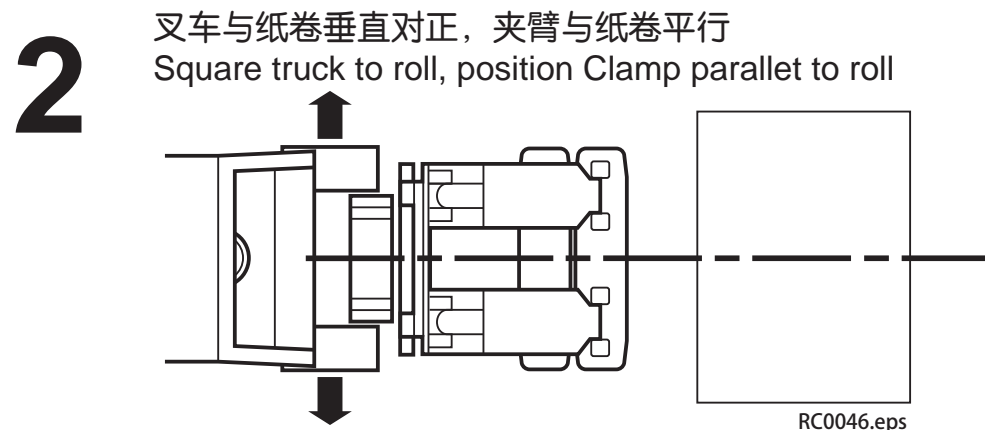
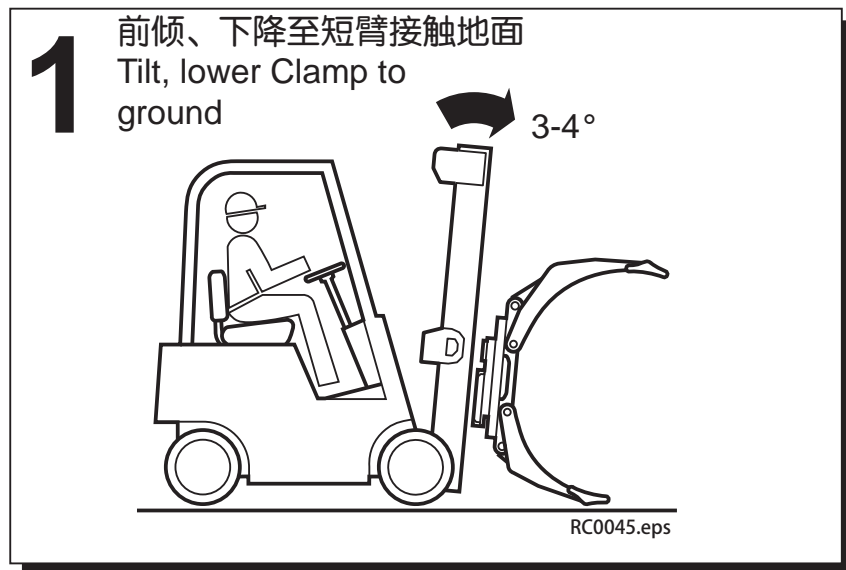
需作旋转时，纸卷高度推荐值不宜超过分离式夹板高度A的2倍，最大值不能超过3倍。

Recommended Roll width 2X pad height A if rotating, 3X Maximum



舱底（水平）夹取、运输

BILGE(HORIZONTAL)PICKUP, TRANSPORT



1

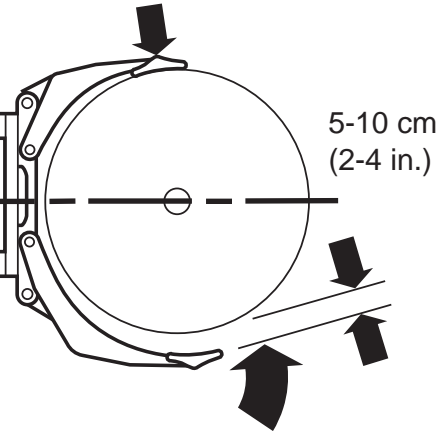
A) 根据纸卷直径大小调整短臂
Adjust short arm for roll diameter



RC2160.eps

C) 长臂合拢夹住纸卷
Clamp with long arm

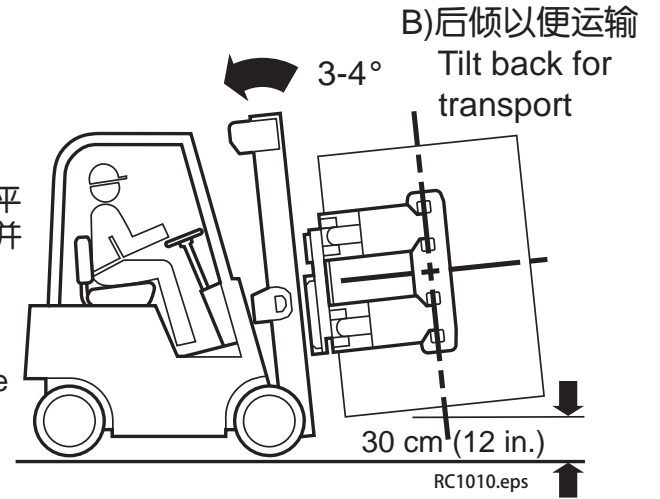
B) 叉车缓慢行驶，短臂接触纸卷
Drive slowly forward touching short arm to roll



5-10 cm
(2-4 in.)

2

A) 夹板与纸卷中心线平行对中，夹持纸卷并提升
Clamp with Pads centered and parallel to roll, raise for clearance



B) 后倾以便运输
Tilt back for transport

3-4°

30 cm (12 in.)

RC1010.eps

3

A) 靠近纸垛，停止
Approach stack, stop

B) 前倾门架使纸卷垂直，提升相应高度。
Tilt roll to vertical, raise for clearance



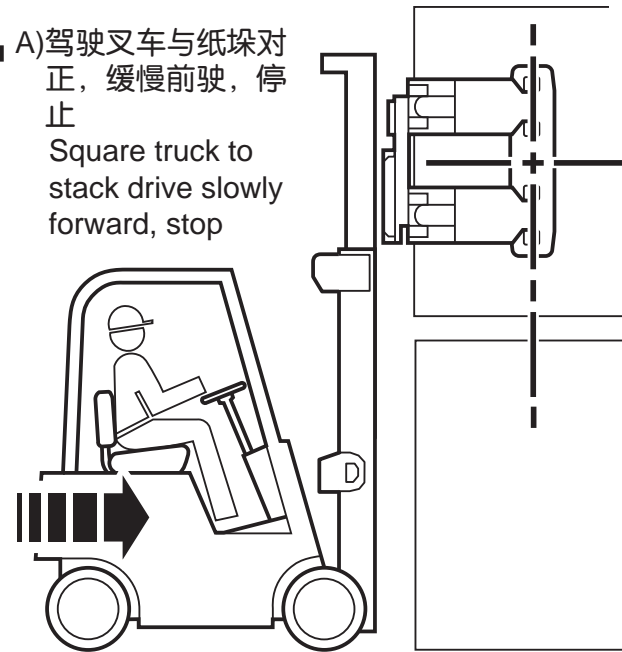
5-10 cm
(2-4 in.)

注意：属具非0°安装时，须后倾门架
NOTE: Back tilt required if angled clamp mount used

RC1020.eps

4

A) 驾驶叉车与纸垛对齐，缓慢前驶，停止
Square truck to stack drive slowly forward, stop



B) 端正纸卷，下降
Set roll down squarely

RC1009.eps

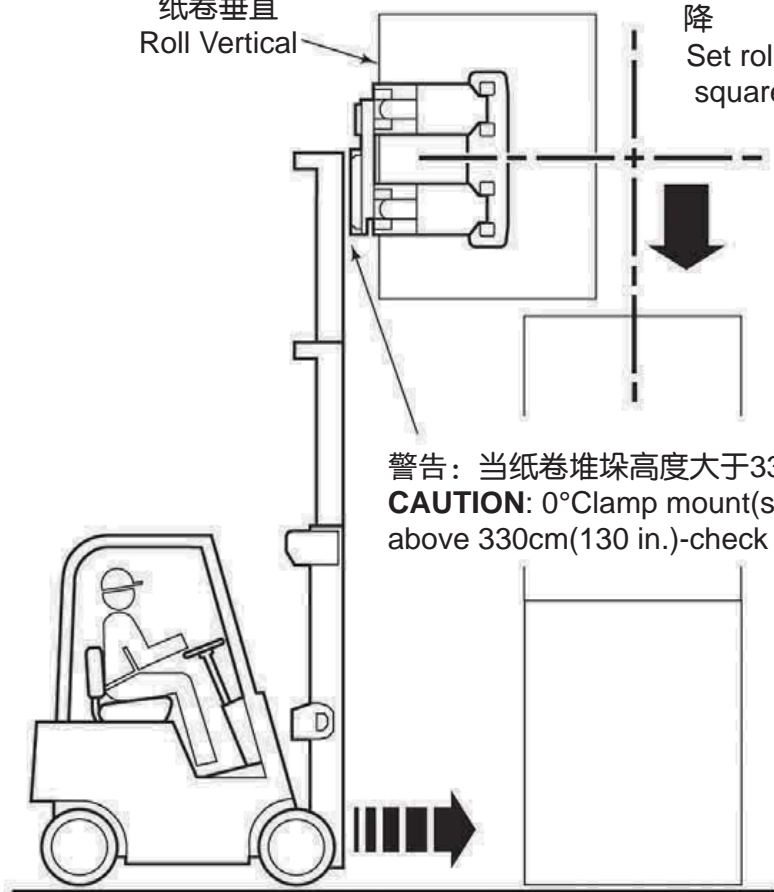
5

超过2个纸卷的堆高作业
HIGH STACKING ABOVE TWO ROLL:

A) 驾驶叉车与纸卷对正, 缓慢前驶, 停止
Squar truck to stack, drive slowly forward, stop

纸卷垂直
Roll Vertical

B) 端正纸卷, 下降
Set roll down squarely



警告: 当纸卷堆垛高度大于330cm时, 须采用0°安装
CAUTION: 0°Clamp mount (shown) may be required above 330cm (130 in.) - check Clamp model

6

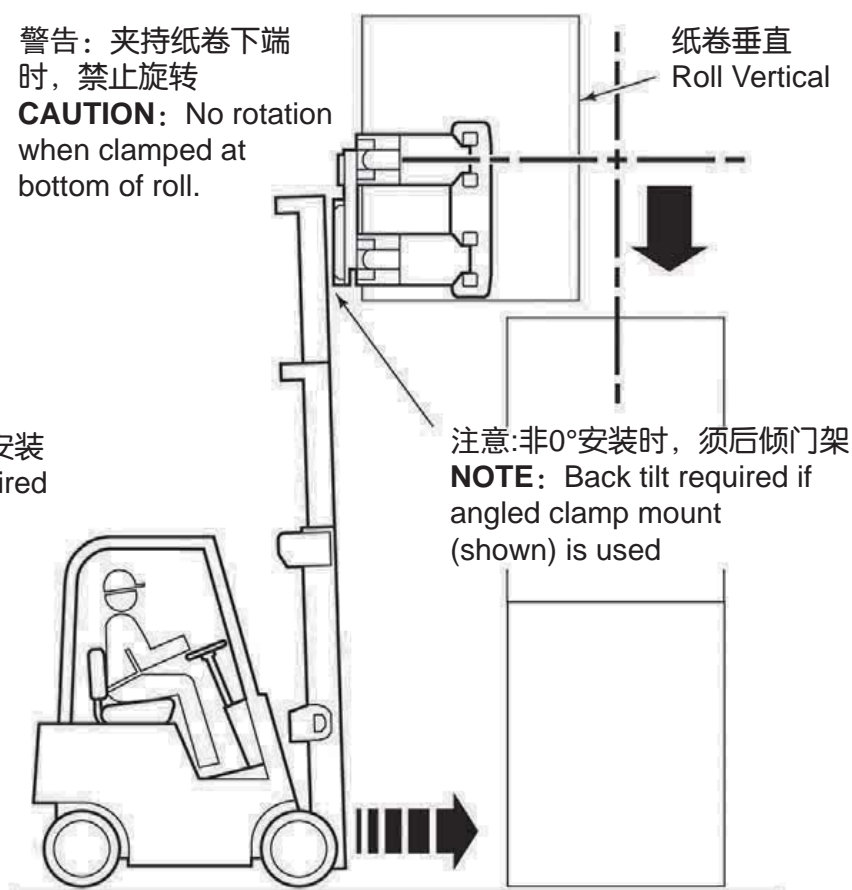
当夹板夹持纸卷下端时
PADS AT BOTTOM OF ROLL:

A) 请洽叉车主机厂确认叉车稳定性
Contact truck OEM to assure truck stability

B) 按照卡斯卡特技术通报TB258测试纸卷夹旋转飘移量
Perform rotation drift test per Cascade TB258

警告: 夹持纸卷下端时, 禁止旋转
CAUTION: No rotation when clamped at bottom of roll.

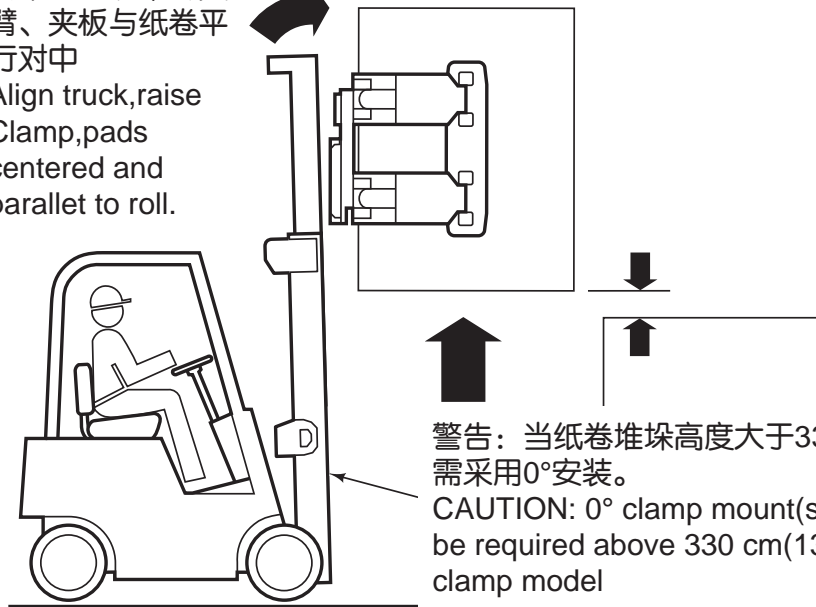
纸卷垂直
Roll Vertical



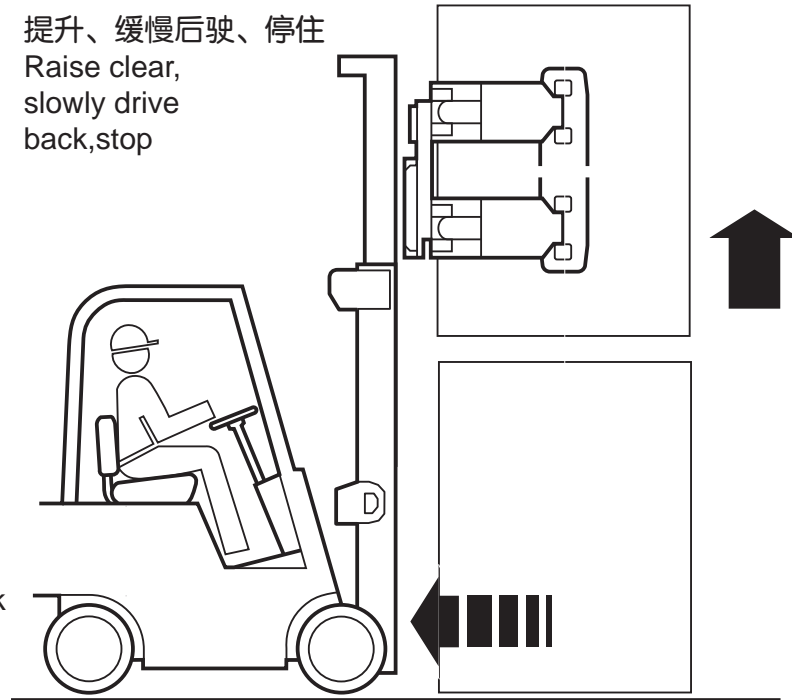
注意: 非0°安装时, 须后倾门架
NOTE: Back tilt required if angled clamp mount (shown) is used

从堆垛中取货 **UNSTACKING ROLLS**

1 门架垂直、举升夹臂、夹板与纸卷平行对中
Align truck, raise
Clamp, pads
centered and
parallel to roll.

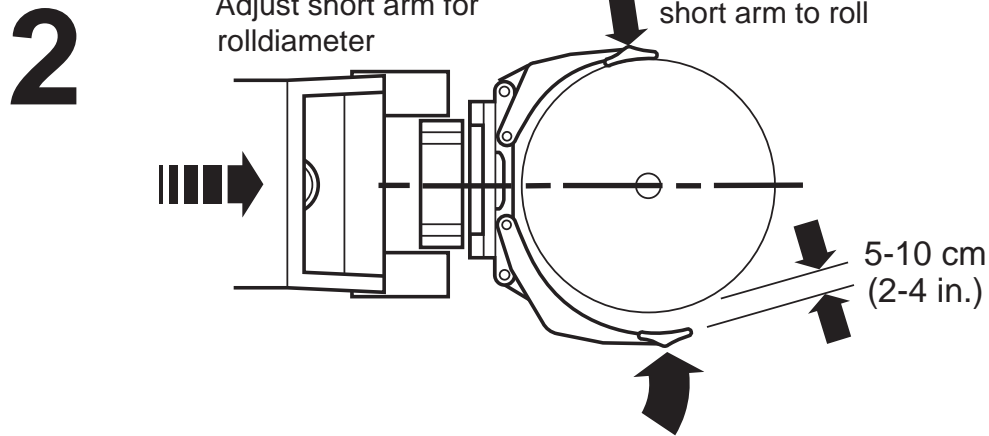


3 提升、缓慢后驶、停住
Raise clear,
slowly drive
back, stop



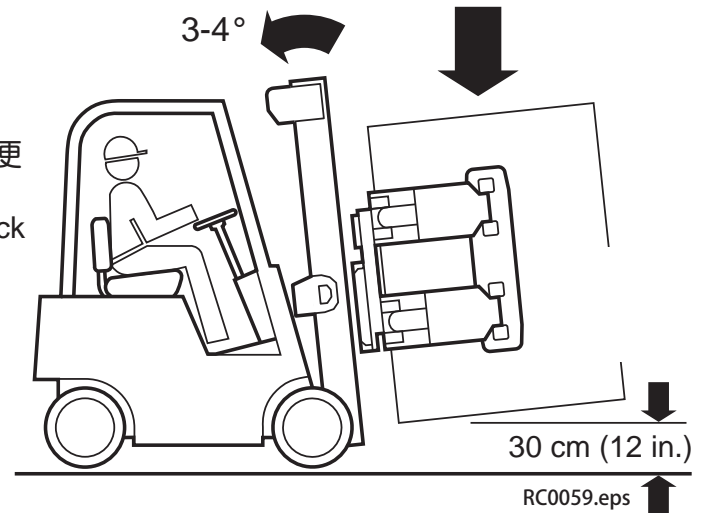
A) 根据纸卷直径大于调整短臂
Adjust short arm for
roll diameter

B) 叉车缓慢前驶，短臂接触纸卷
Drive slowly forward touching
short arm to roll



C) 长臂合拢夹住纸卷
Clamp with long arm

4 下降、后倾以便运输
Lower, tilt back
for transport

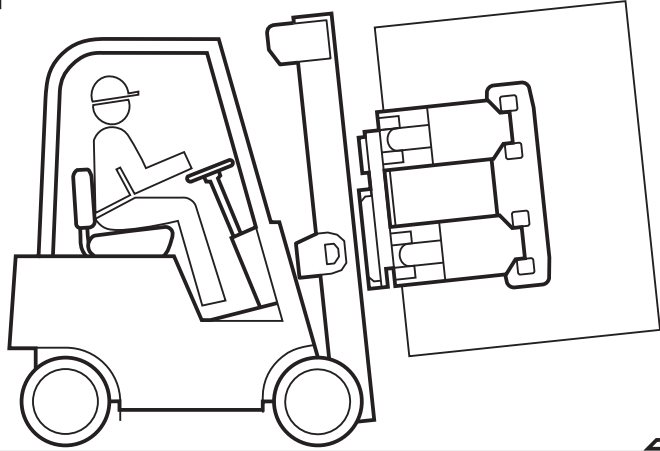


往拖车上装货

LOADING TRUCK TRAILERS

1

旋转纸卷使短臂朝向墙面
Rotate roll to position short arm toward wall

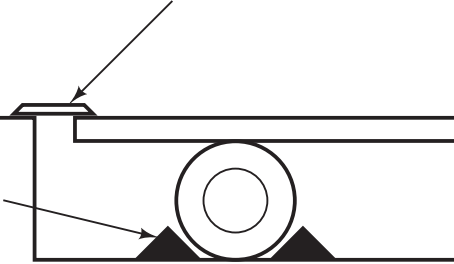


警告：装货前检查拖车以确保安全

CAUTION: Assure trailer is inspected for damage before loading

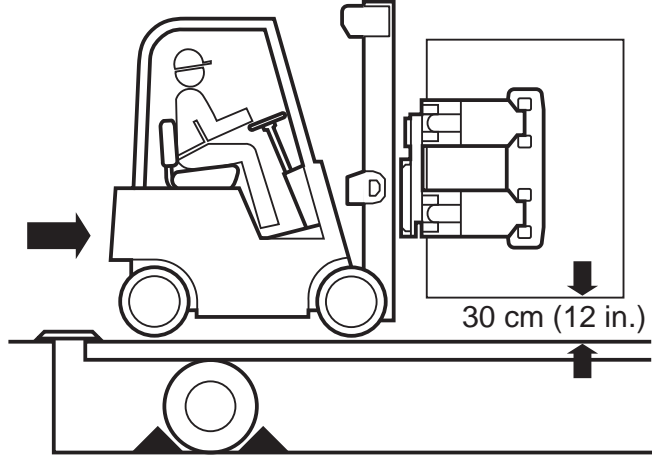
搭放桥板
Dockplate required

警告：固定住拖车车轮
CAUTION: Block trailer wheels



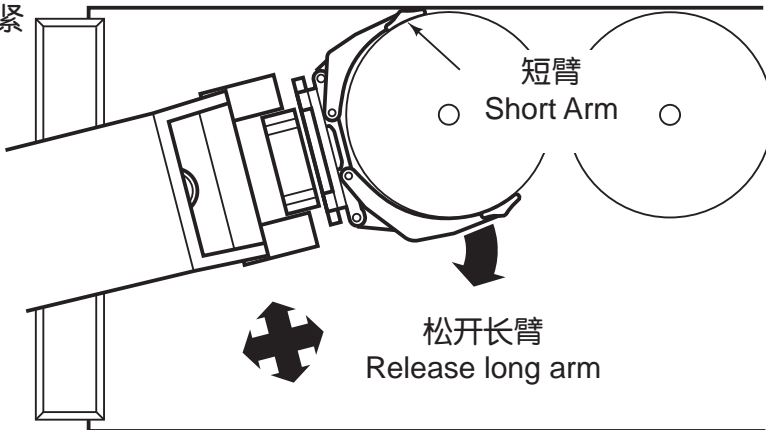
2

驶进拖车中央，前倾至垂直位置，缓慢刹车
Drive down center of trailer, tilt vertical, brake slowly



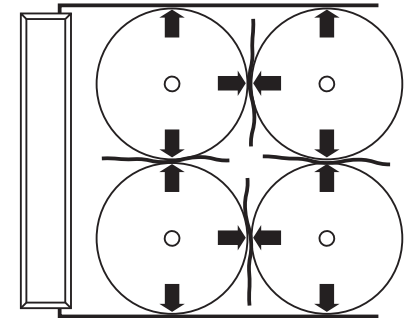
3

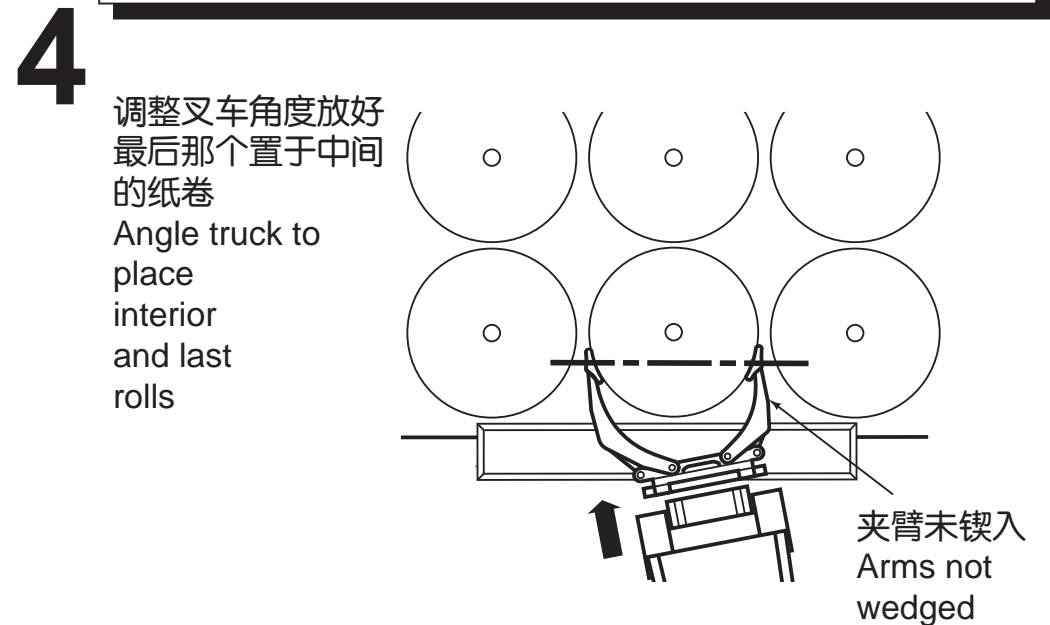
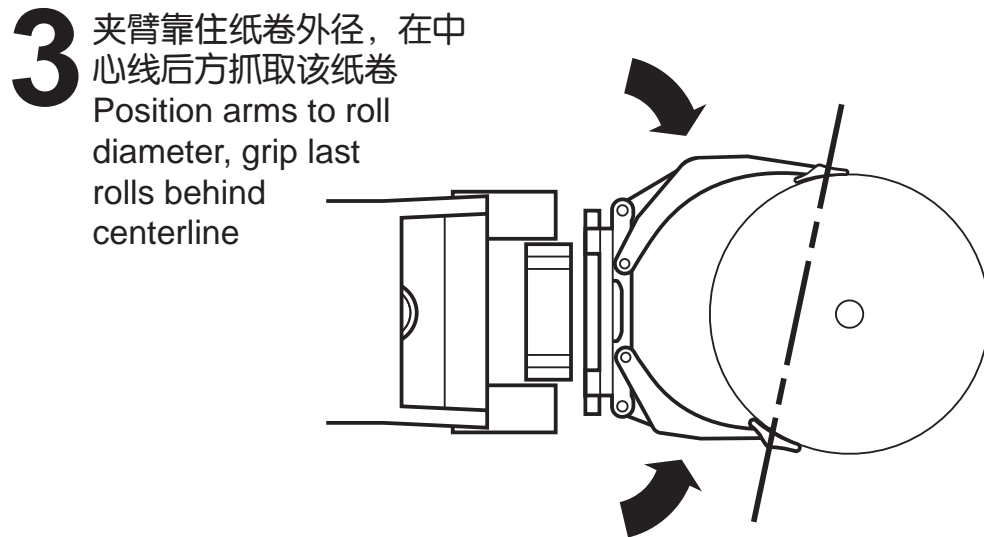
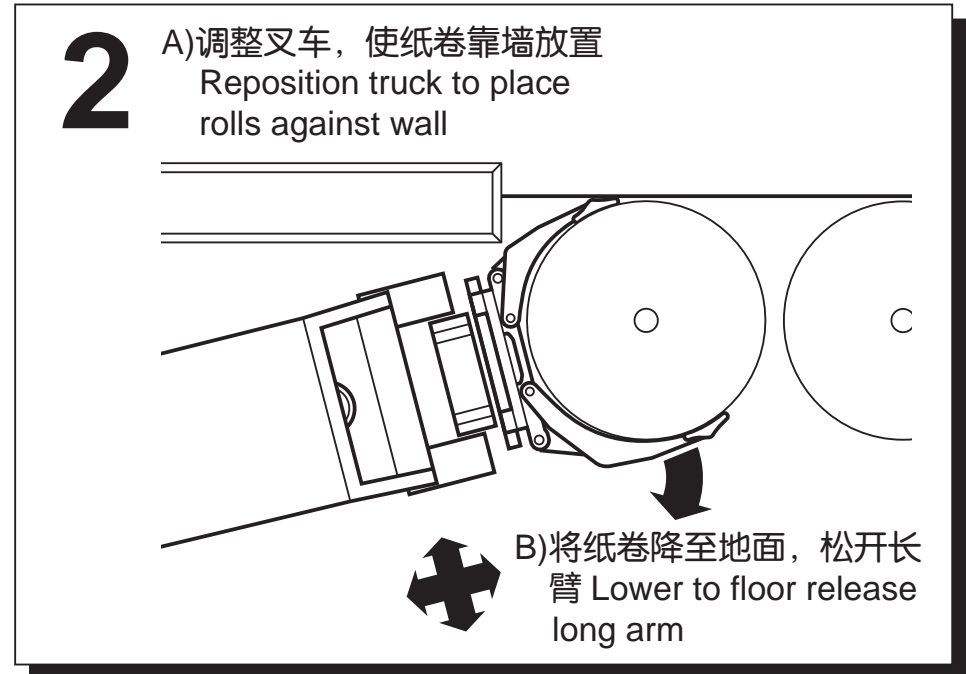
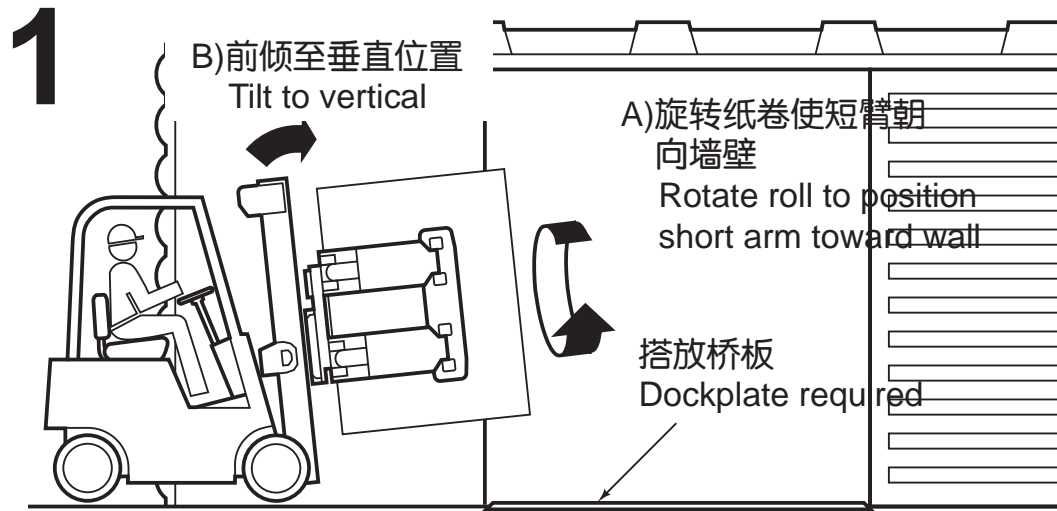
调整叉车使纸卷紧靠墙壁放置
Reposition truck to place roll against wall



4

将纸卷对放在一起并用隔板防止货物移动
Position rolls together, use spacers to prevent load shifting





使用带可调护挡板的纸卷装货



LOADING WITH ADJUST- ABLE BUMPER OPTION

垂直夹取 VERTICAL PICKUP

A) 合拢夹臂至接近纸卷直径

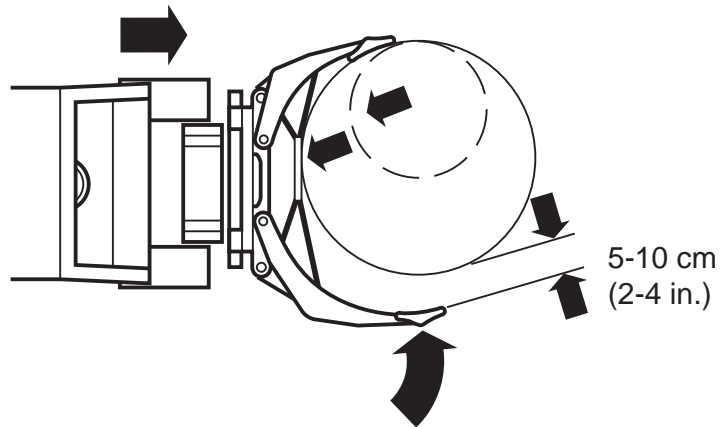
Close arms to approximate roll diameter

B) 叉车前驶至护挡板接触到纸卷

Drive forward touching bumper to roll

C) 合拢长臂，夹持纸卷

Clamp with long arm



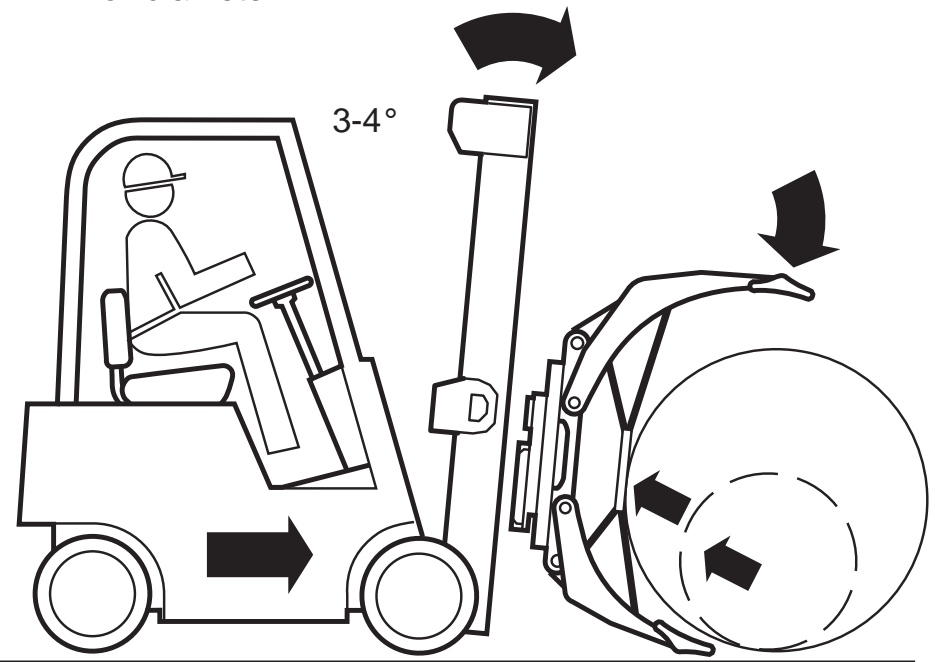
水平（舱底）夹取 BILGE PICKUP

A) 合拢长臂至接近纸卷直径

Close arms to approximate
roll diameter

C) 合拢长臂，夹持纸卷

Clamp with long arm



B) 前倾，叉车前驶至护挡板接触纸卷

Tilt, drive forward touching bumper to roll

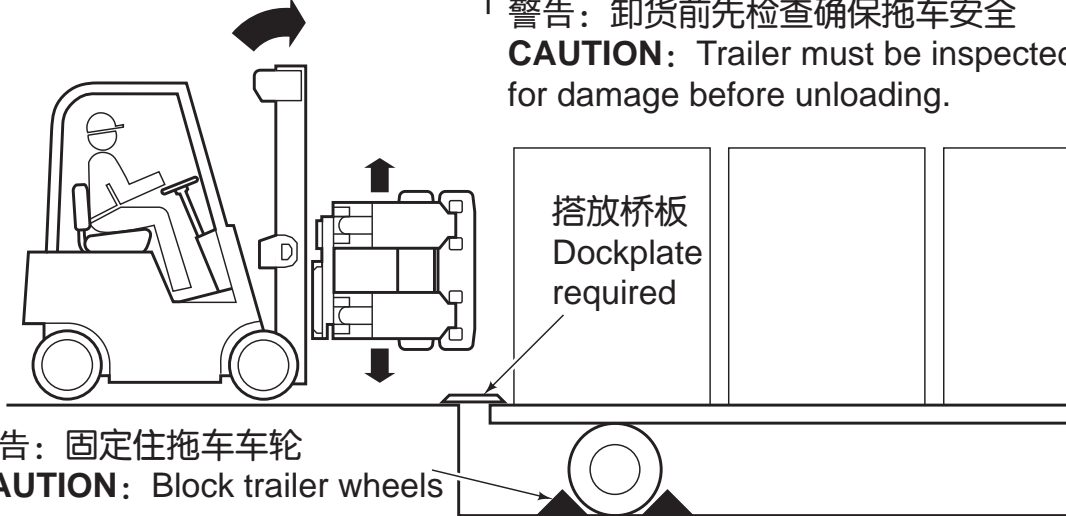
从拖车上卸货

UNLOADING TRUCK TRAILERS(BREAKOUT)

1

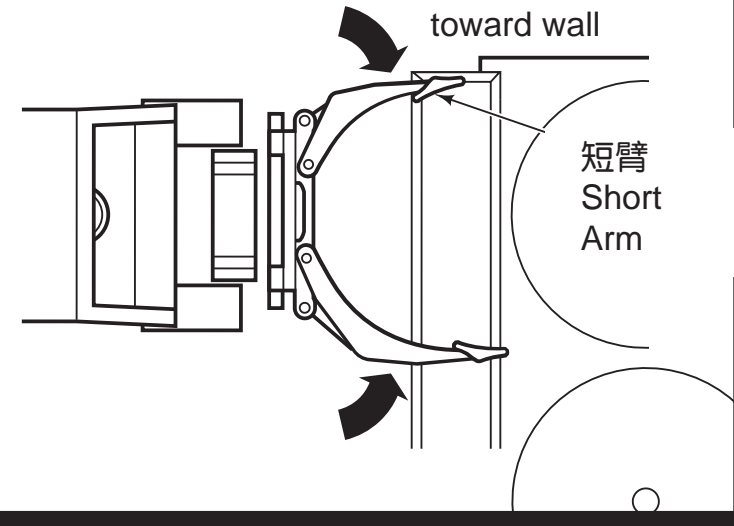
前倾、纸卷夹与第一个纸卷对中
Tilt, center Clamp to 1st roll

警告：卸货前先检查确保拖车安全
CAUTION: Trailer must be inspected for damage before unloading.



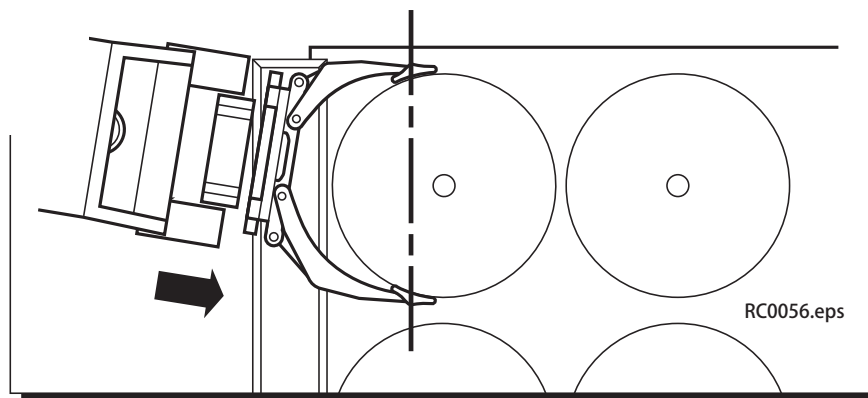
2

根据纸卷直径大小调整夹臂、短臂靠墙
Position arms to roll diameter short arm toward wall



3

叉车前驶，调整叉车角度并在第一个纸卷中心线前方抓取纸卷
Drive forward, angle truck to grip 1st roll behind centerline

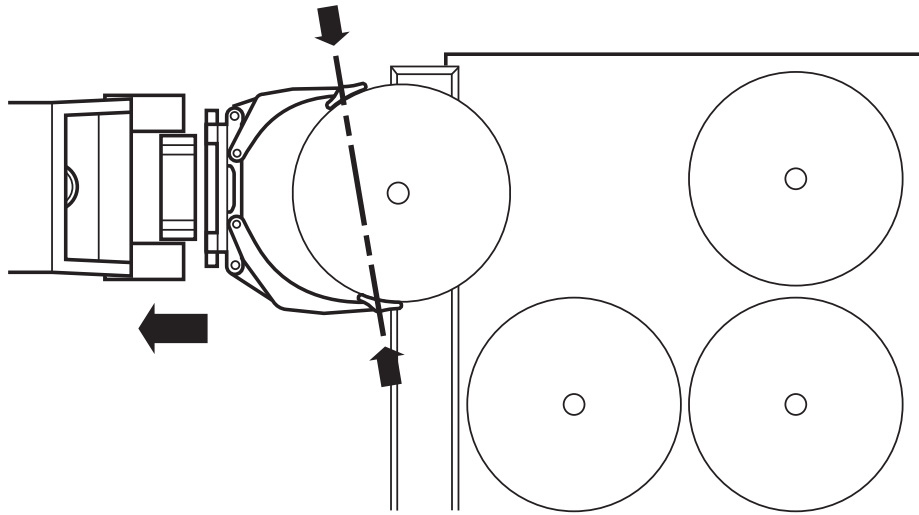


从拖车上卸货

UNLOADING TRUCK TRAILERS(BREAKOUT)

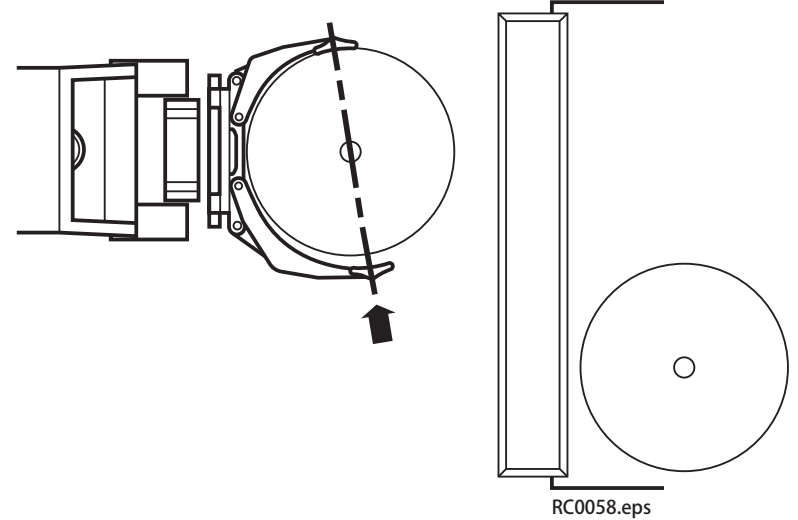
4

夹持第一个纸卷，后退以便重新夹持
Clamp 1st roll, move back for clearance to re-clamp



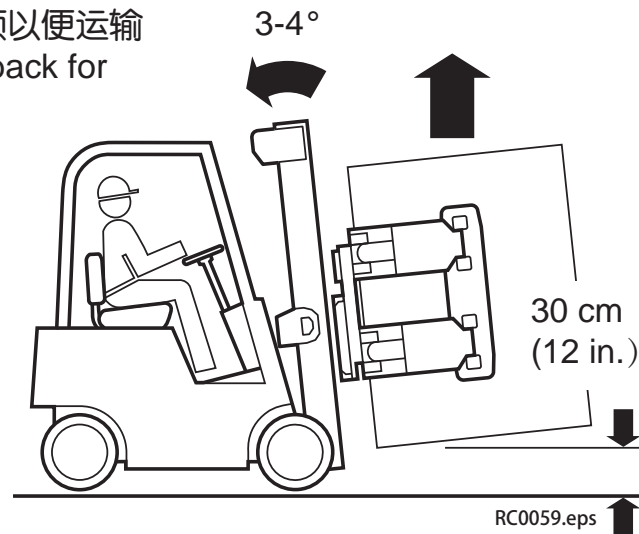
5

重新夹持时，长短臂连续须通过纸卷中心
Re-clamp through roll centerline with long arm



6

提升，后倾以便运输
Raise, tilt back for transport

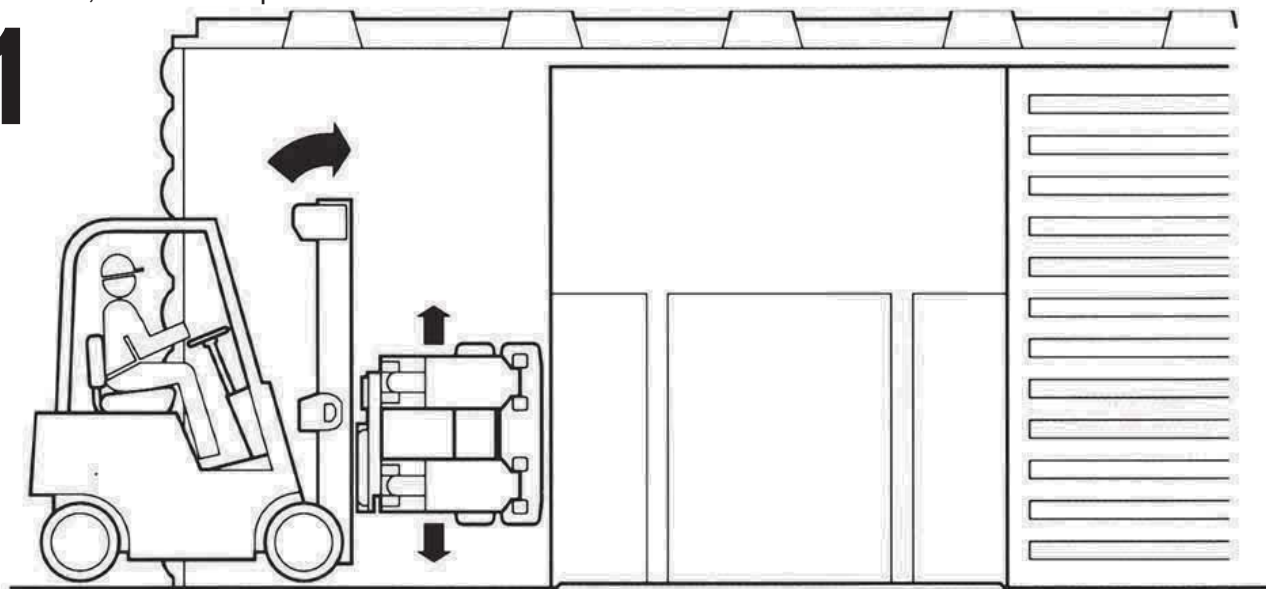


从厢式运输车上卸货

UNLOADING BOXCAORS(BREAKOUT)

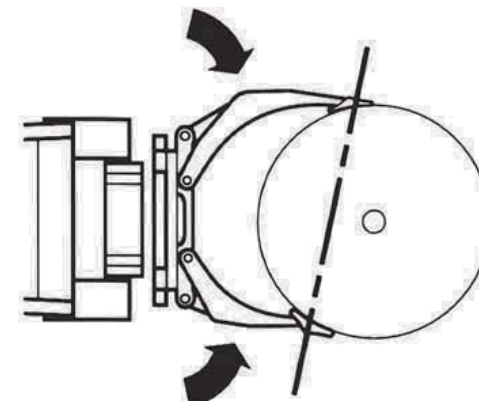
前倾，纸卷夹与第一个纸卷对中
Tilt, center clamp to 1st roll

1



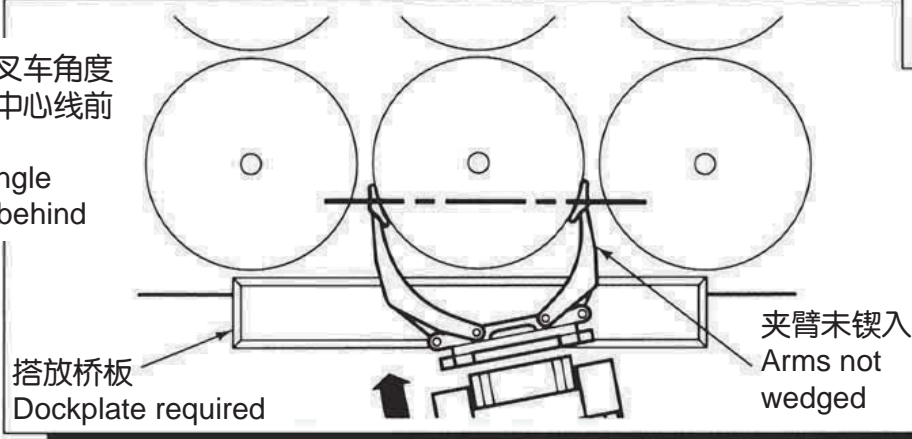
2

夹臂靠上纸卷
Position arms to roll diameter

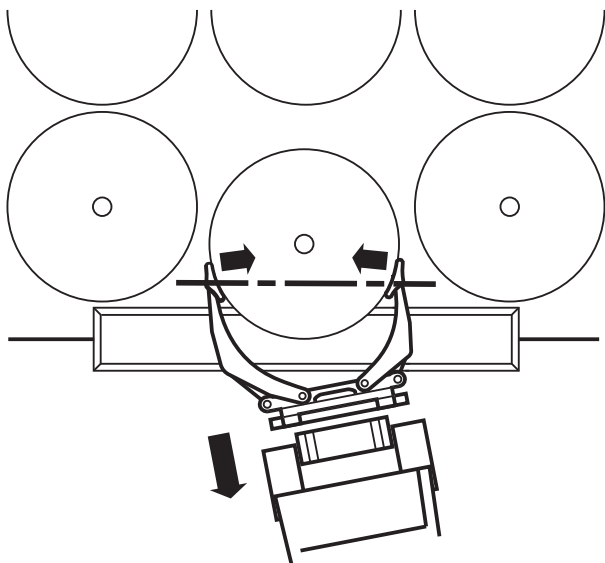


3

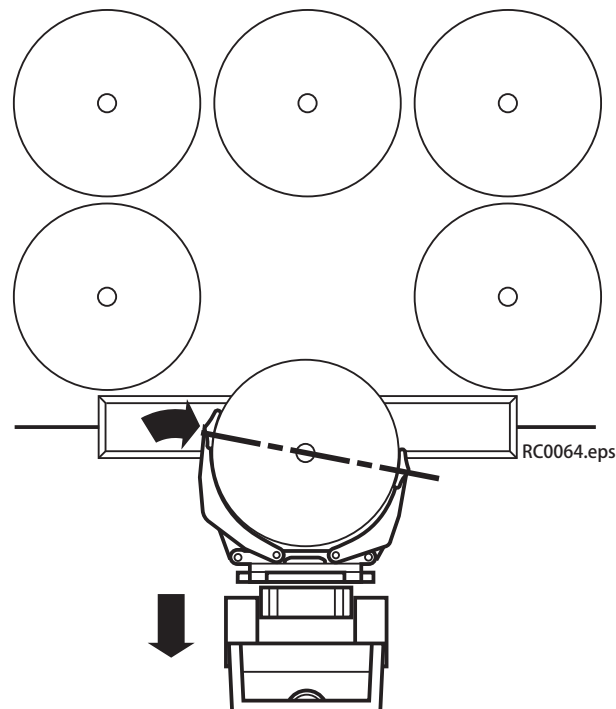
叉车前驶，调整叉车角度
并在第一个纸卷中心线前方
抓取纸卷
Drive forward, angle
truck to grip roll behind
centerline



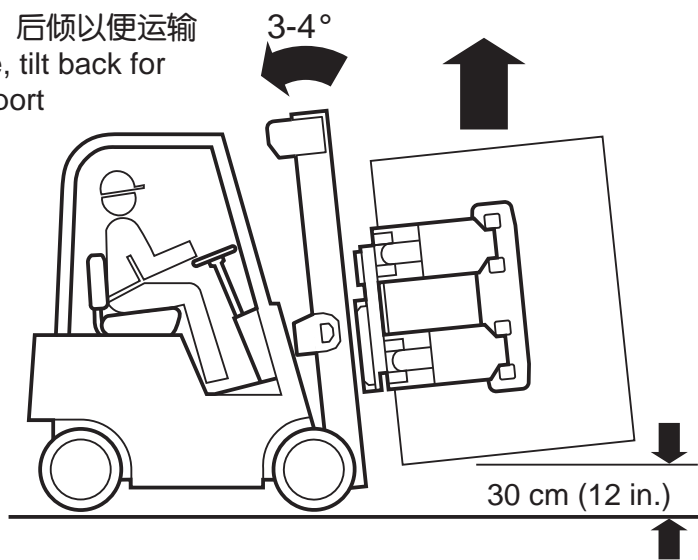
4 夹持第一个纸卷，后退以便重新夹持
Clamp 1st roll, move back for clearance to re-clamp



5 重新夹持时长短臂连线须通过纸卷中心，然后后拉纸卷
Re-clamp through roll centerline with long arm, withdraw roll



6 提升、后倾以便运输
Raise, tilt back for transport



100小时保养

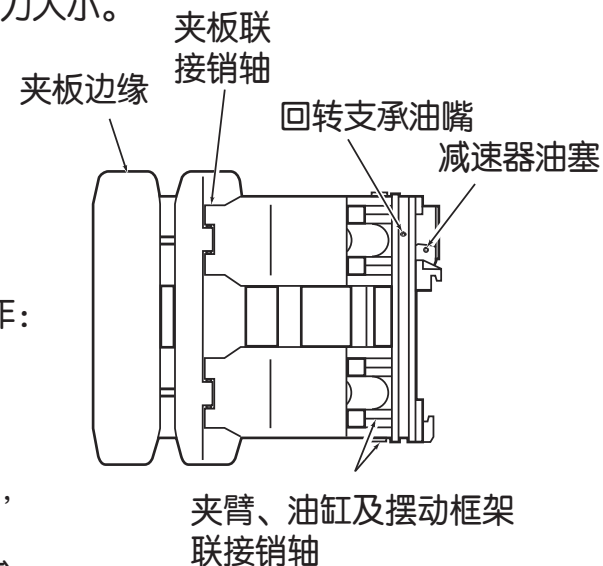
叉车每次维修或使用叉车100小时后（以先到达者为准），需完成如下保养内容：

- 1.检查夹板边缘是否光滑，避免尖锐部分撕毁纸卷，如需要则打磨修复。
- 2.检查夹板的销轴和连接杆，如果销轴已经变形或者损坏，必须更换。
- 3.检查液压系统功能是否正常，请用压力测试仪或压力表（接在油缸测试油口上）测试夹紧力大小。

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，还应再增加以下检测、保养工作：

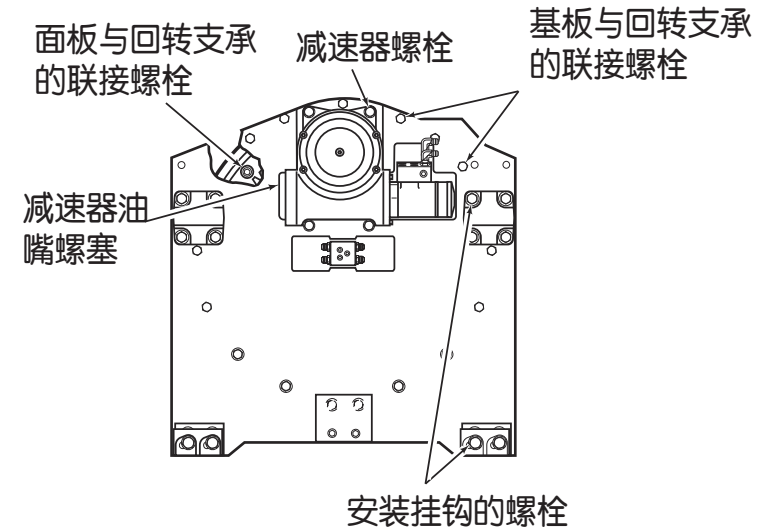
- 1.检查回转支承与面板、基板的联接螺栓是否松动，按扭矩值105N·m锁紧。
- 2.校验上下安装挂钩的螺栓，按扭矩值105N·m锁紧。
- 3.在回转支承注油咀上加注润滑脂（汽车轴承润滑脂），加油期间让回转支承旋转一周。
- 4.检查所有夹臂、框架、倾翻机构及油缸两端销轴空上的轴套及销轴，如果已经磨损或变形，请更换。
- 5.打开减速器上的油咀，检查减速器内齿轮油的油位，如果没有到达油嘴孔，请用656300或SAE #90齿轮油加满。
- 6.检查关键配合部位的焊缝，摆动框架上的销轴，倾翻机构上的销轴，夹臂销轴、油缸销轴以及夹臂支承座、油缸缸座等部位，看是否发生裂纹，如必要，请更换相应的备件。



1000小时保养

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

- 1.检查油缸液压系统保压情况，如出现不保压，请检查油缸维修包及单向阀芯，必要时进行更换。
- 2.检查回转配油阀密封情况，必要时更换密封件。
- 3.检查油管是否出现纹裂，必要时请更换。



2000小时保养

叉车每使用2000小时后，在进行100、500、1000小时保养事项的基础上，还应再增加以下检测、保养工作：

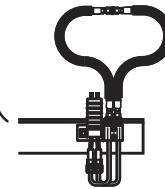
- 1.检查整体状态、关键配合部位、液压件、驱动件等是否正常，必要时进行更换。



每次进行叉车维护保养时候建议

*检查叉车提供给纸卷夹的液压油压力是否正常。

*凡是进行叉附件油路（即供油给纸卷夹的油路包括多路阀，门架油路等）的检修后，必须在接入纸卷夹之前把油路对接，冲油管中可能存在的杂质、碎屑，然后再接入纸卷夹油路。





100-Hour Maintenance

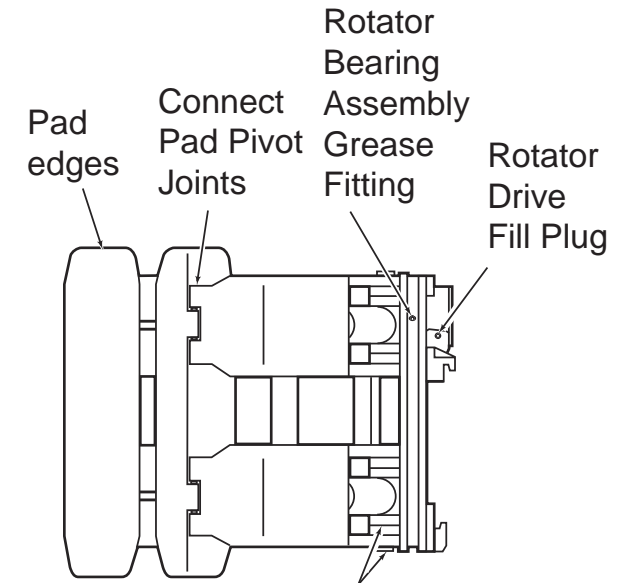
Every time the lift truck is serviced or every 100 hours of truck operation, whichever comes first, complete the following maintenance procedures:

1. Check the edges of the contact pads for wear or sharp nicks that could damage or tear paper rolls. Grind the edges smooth.
2. Check the contact pad pivot joints for wear and replace or repair as necessary.
3. Check that load-holding hydraulic system is functioning properly with Clamp Force Indicators or Pressure Gauge (connecting to Cylinder pressure check ports.)

500-Hour Maintenance

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

1. Tighten faceplate, baseplate-to-rotation bearing assembly capscrews to 105Nm (75 ft.-lbs).
2. Tighten mounting hook capscrews.
3. Lubricate rotator bearing assembly with wheel bearing grease. Rotate Clamp one full turn during procedure.
4. Inspect all arm, frame upender group and cylinder pivot bushings and pin for wear, replace if necessary.
5. Check rotator drive gearcase lubricant level. Lubricant should be up to bottom of fill plug 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.
6. Inspect all load-bearing structural welds on arms, swing frame pivots, upender group pivots, arm pivots and cylinder pivot areas for visual cracks. Replace components as required.



Arm, Cylinder and Swing Frame Pivot Joint



1000-Hour Maintenance

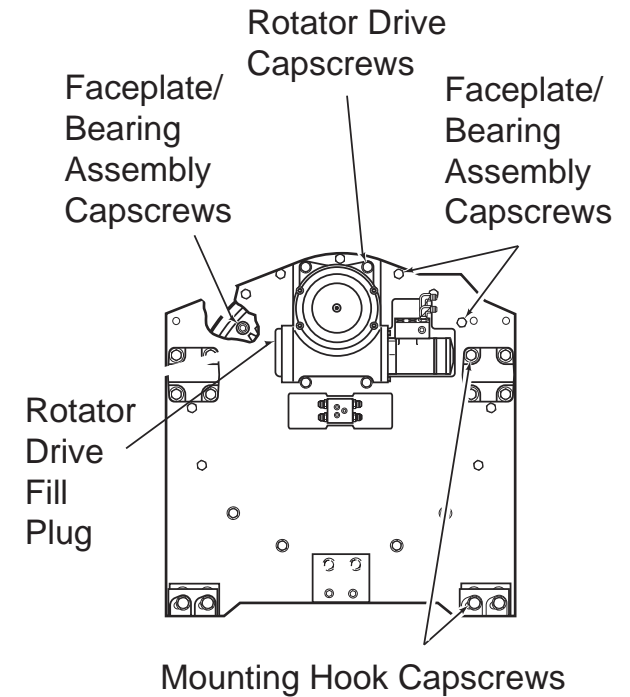
After each 1000 hours of truck operation, in addition to the 100 and 500-hour maintenance, perform the following procedures:

1. Check the cylinder hydraulic retention, if leaking, check the cylinder service kits and check valve, replace as necessary.
2. Check the Revolving Connection Group, replace the seal kits if necessary.
3. Check the hoses, replace if leaking.

2000-Hour Maintenance

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

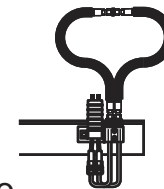
1. Check the Clamp system, all pivots, hydraulic components, rotator drive group, replace as necessary.



Every time the lift truck is serviced, we suggest:

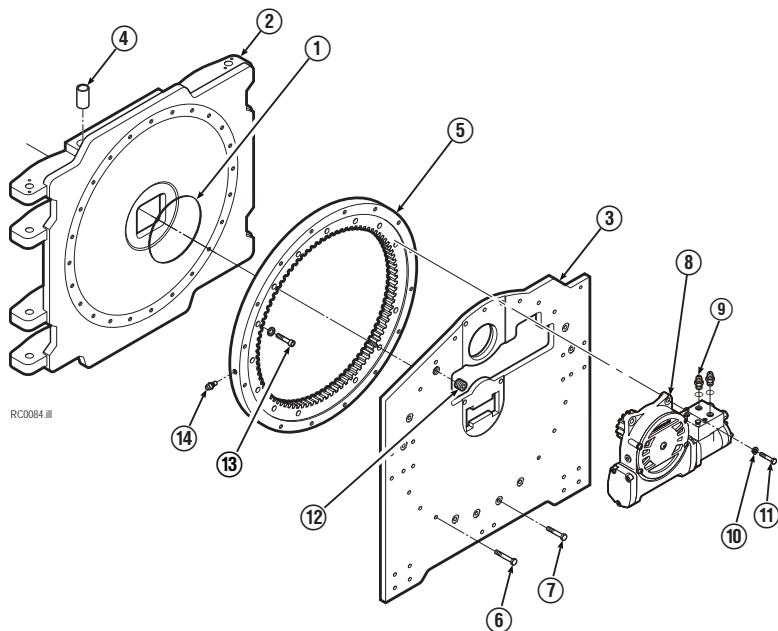
“Check the hydraulic pressure supplied from truck to attachment.

”If make inspection of the truck hydraulic hoses (supply for the attachment, including Auxiliary Auxiliary Valve Functions and mast hoses), connect the truck hoses terminal kits together to carry out any debris left in the truck hoses, and then connect to the attachment hoses.



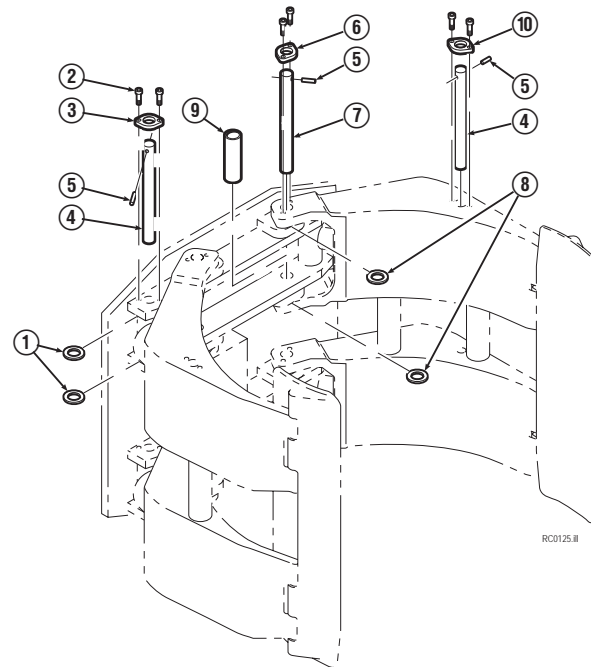
备件清单 SPARE PARTS LIST

面板总成 Frame Group



45F/60F					
序号	数量	名称	序号	数量	名称
REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION
		面板总成 Frame Group	8	1	减速器总成 Drive Group
1	1	密封圈 Seal	9	2	接头 Fitting
2	1	面板加工 Faceplate Machine	10	4	弹簧垫圈 M12, Lock Washer M12
3	1	基板加工 Baseplate Machine	11	4	外六角螺栓 M12×30 C/S-HH
4	8	轴套 Bushing	12	1	堵头 Plug
5	1	回转支承 Bearing Assembly	13	16	内六角螺栓 M12×35 C/S-HS
6	9	外六角螺栓 GR8 .500NC×1.75 C/S-HH	14	1	油咀 Grease Fitting
7	7	外六角螺栓 GR8 .500NC×1.50 C/S-HH			

通用件 Common Components Group



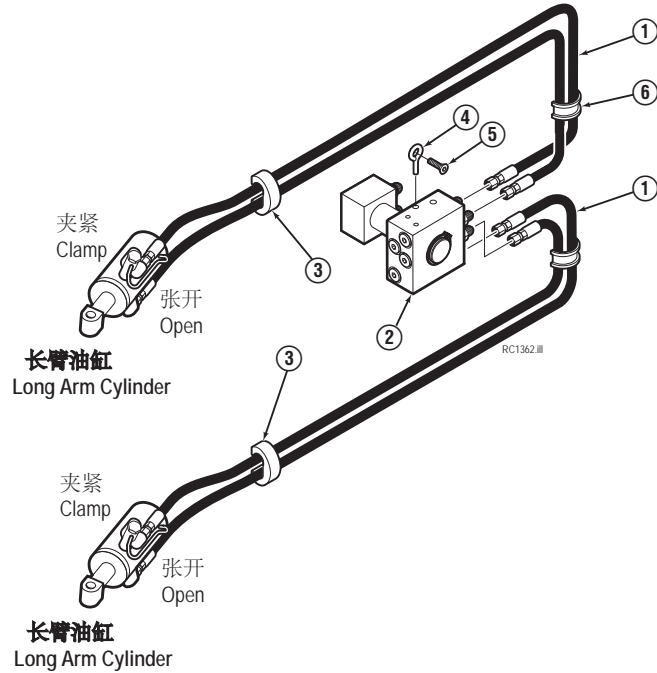
45F/60F					
序号	数量	名称	序号	数量	名称
REF	QTY	DESCRIPTION	REF	QTY	DESCRIPTION
		通用件 Common Components Group	6	4	轴挡板 φ 32 Retainer
1	16	垫片 Shim	7	4	销 φ 32×330 Pin
2	24	内六角螺栓 M10×16 C/S-HS	8	16	垫片 Shim
3	6	轴挡板 φ 28.5 Retainer	9	4	隔套 Spacer
4	8	销 φ 28.5×210 Pin	10	2	轴挡板 φ 28.5 Retainer
5	12	插销 B8×40 Drive Pin			



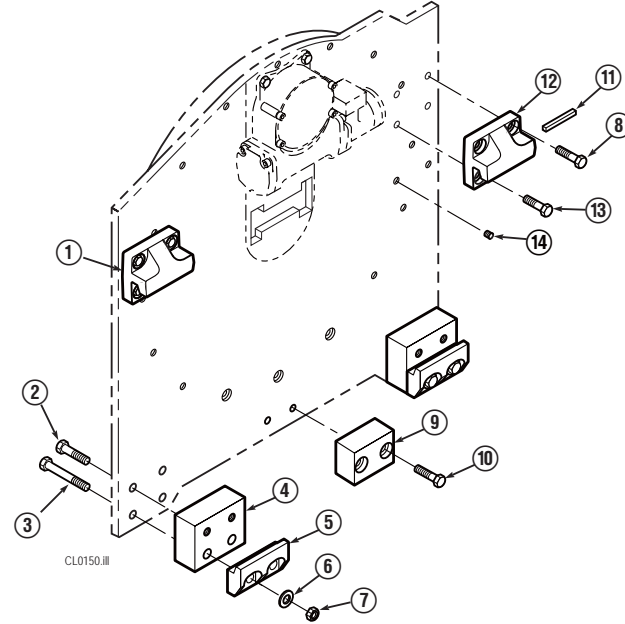
注：不同型号夹类属具的上述零件具有不同的零件号，本清单所列零件号仅供参考。如需订购备件，请事先记录下属具铭牌上的属具型号、编号等信息后，联系卡斯卡特（厦门）公司。

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

液压系统总成 Hydraulic System Group



安装总成 Mounting Group



45F/60F		
序号	数量	名称
REF	QTY	DESCRIPTION
		软管总成 Hosing Group
1	4	软管 L=1111mm Hose
2	1	回转配油阀 Revolving Connection
3	2	管夹 Segment
4	2	眼销 Eye Pin
5	2	沉头螺钉 0.375UNC×1.00LG C/S-HSFH
6	2	衬垫 Insert

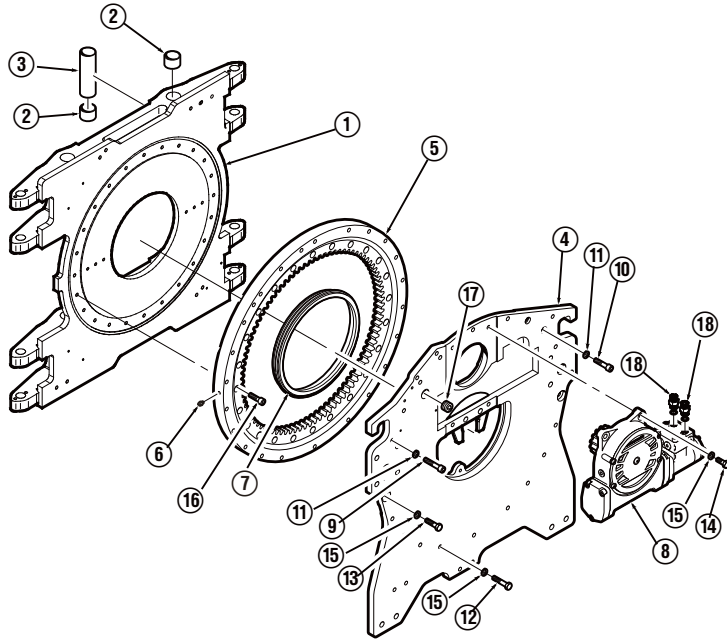
45F/60F					
序号	数量	名称	序号	数量	名称
Ref	Qty	DESCRIPTION	Ref	Qty	DESCRIPTION
		安装总成 Mounting Group, (ISO 3A)	8	6	外六角螺栓 C/S-HH, M16×40
1	1	左上钩 Upper Hook - LH, (ISO 3A)	9	1	中央垫块 Center Spacer
2	4	外六角螺栓 C/S-HH, M16×50	10	2	螺栓 Capscrew, M12×25
3	4	外六角螺栓 C/S-HH, M16×130	11	1	止动块 Stop Kit
4	2	垫块 Spacer	12	1	右上钩 Upper Hook - RH
5	2	下钩 Lower Hook, (ISO 3A)	13	2	外六角螺栓 C/S-HH, M16×35
6	4	平垫圈 Washer, M16	14	2	堵头 Plug
7	4	锁止螺母 Nut Self Locking, M16			



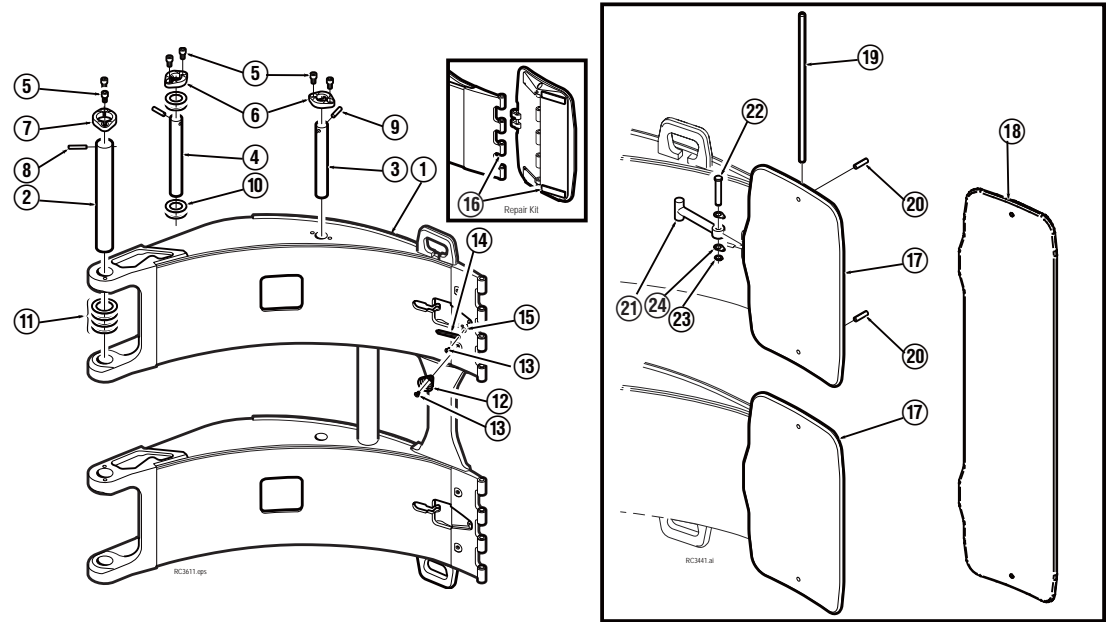
注：不同型号夹类属具的上述零件具有不同的零件号，本清单所列零件号仅供参考。如需订购备件，请事先记录下属具铭牌上的属具型号、编号等信息后，联系卡斯卡特（厦门）公司。

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

面板总成 Frame Group



通用件 Common Components Group



24H/30H			
序号	数量	名称	名称
REF	QTY	DESCRIPTION	DESCRIPTION
		面板总成 Frame Group	10 3 内六角螺栓M12×50 SHCS
		回转支承/基板组件 Rolator/Baseplate Group	11 9 弹簧垫圈M12 Lockwasher
1	1	面板加工 Frame Mach.	12 9 外六角螺栓M12×55 C/S-HH
2	8	复合轴套 Bearing Composite	13 4 外六角螺栓M12×45 C/S-HH
3	4	隔套 Spacer	14 4 外六角螺栓M12×30 C/S-HH
4	1	基板 Baseplate	15 17 弹簧垫圈M12 Lockwasher
5	1	回转支承 Bearing Assembly	16 24 内六角螺栓M12×40 SHCS
6	1	油咀 Grease Fitting	17 1 堵头 Plug
7	1	密封圈 Seal	18 2 接头 3/4" → M18 Fitting
8	1	减速器总成 Drive Group - 2.2 c.i. Motor	
9	6	内六角螺栓M12×60 SHCS	

24H/30H							
序号	数量	零件号	名称	序号	数量	零件号	名称
REF	QTY	PART NO.	DESCRIPTION	REF	QTY	PART NO.	DESCRIPTION
1	1	—	短臂 Short Arm	13	12	—	螺栓 Capscrews
	1	—	长臂 Long Arm	14	8	—	拉簧 Spring
2	4	—	销轴 Pin	15	4	—	弹簧座 Spring Anchor
3	4	—	销轴 Pin	16	1	—	臂尖维修组件 Tip Repair Kit
4	4	—	销轴 Pin	17	2	—	长臂夹板 Long Arm Contact Pad
5	24	—	外六角螺栓 C/S-HS	18	1	—	短臂夹板 Short Arm Contact Pad
6	8	—	轴挡板 Retainer	19	2	—	销轴 Pin
7	4	—	轴挡板 Retainer	20	4	—	插销 Drive Pin
8	4	—	插销 Drive Pin	21	2	—	连接杆 Link
9	8	—	插销 Drive Pin	22	2	—	销轴 Clevis Pin
10	8	—	垫片 Shim	23	2	—	卡圈 Retaining Ring
11	16	—	垫片 Shim	24	4	—	弹簧座 Spring Anchor
12	8	—	夹板压簧 Pad Spring				

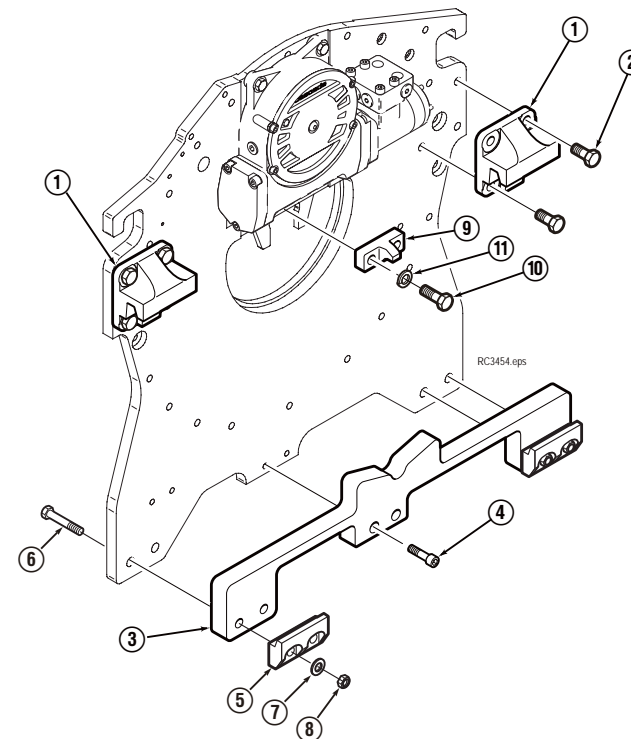
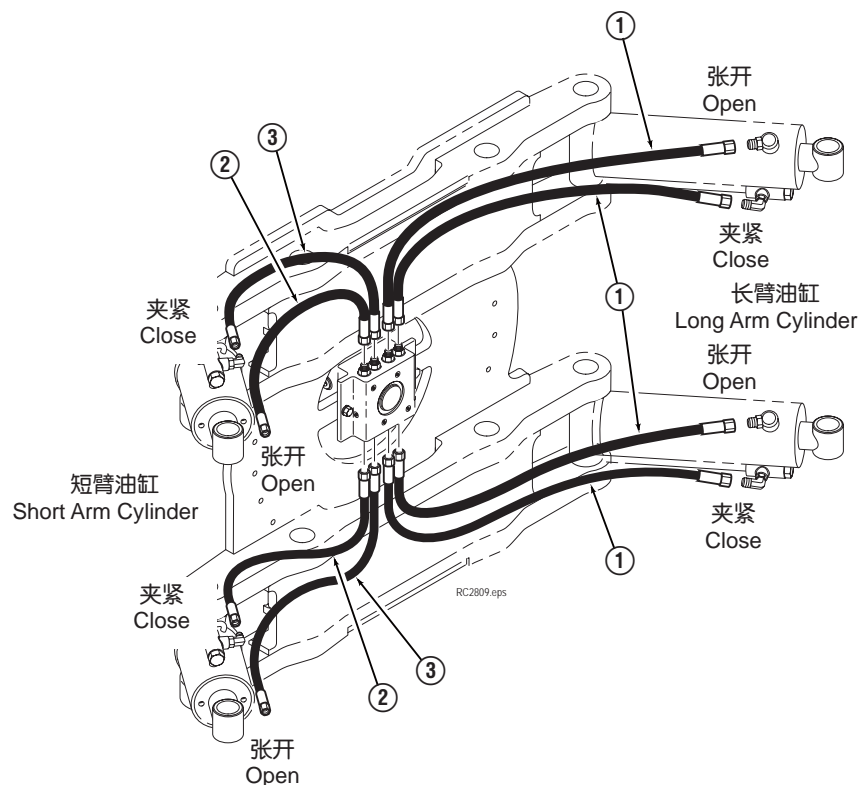


注：不同型号夹类属具的上述零件具有不同的零件号，本清单所列零件号仅供参考。如需订购备件，请事先记录下属具铭牌上的属具型号、编号等信息后，联系卡斯卡特（厦门）公司。

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

可调短臂式纸卷夹油管总成 Hosing Group Positioned Short Arm

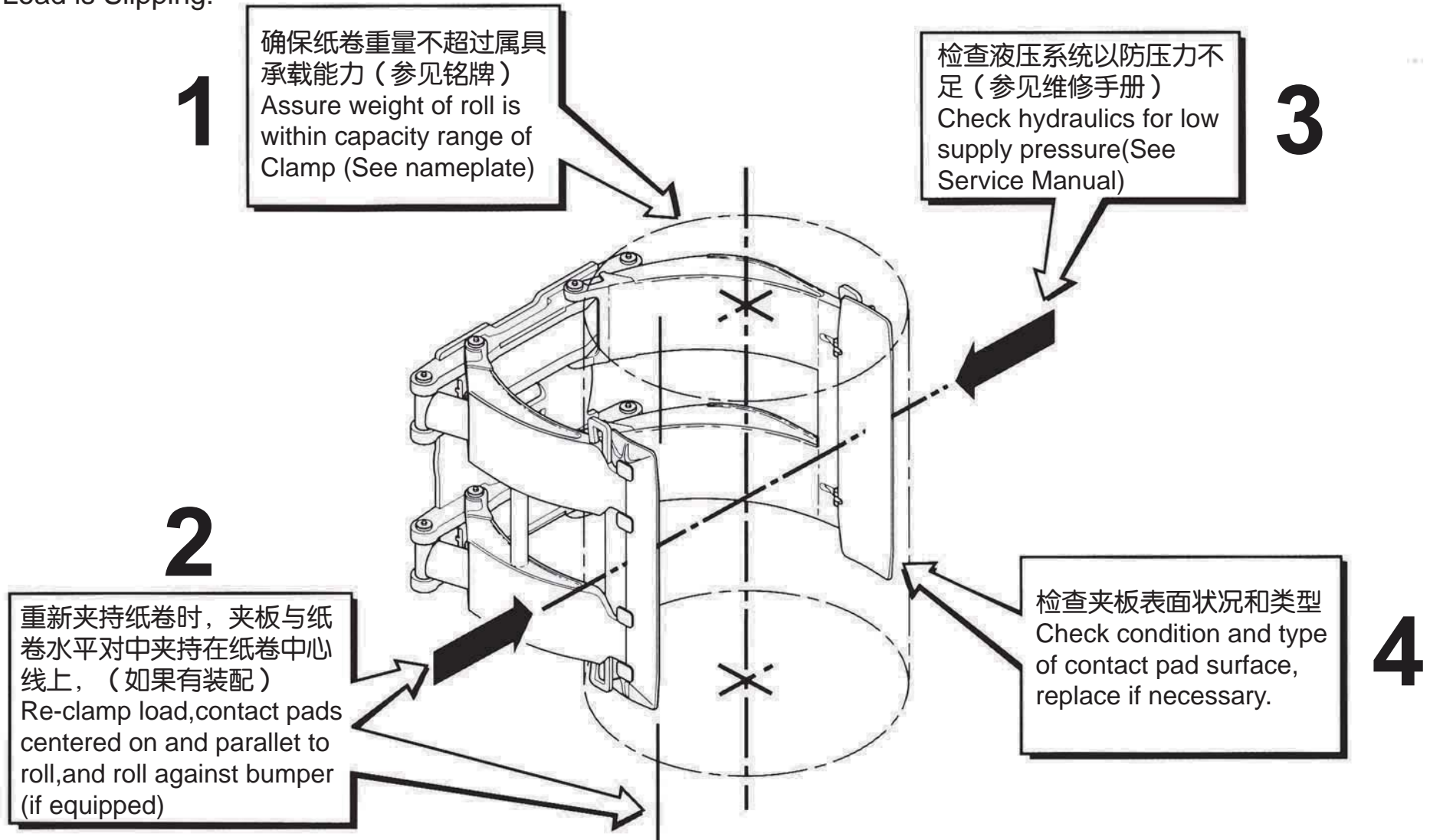
安装总成 Mounting Group



24H/30H		
序号	数量	名称
REF	QTY	DESCRIPTION
		油管总成 Hosing Group
1	4	油管 L1=890mm Hose
2	2	油管 L2=660mm Hose
3	2	油管 L3=720mm Hose

24H/30H					
序号	数量	描述	序号	数量	描述
Ref	Qty	Description	Ref	Qty	Description
		安装组件 Mounting Group	6	4	外六角螺栓 M16×90 C/S-HH
1	2	上钩(III) Upper Hook - LH(III)	7	4	平垫 Washer 5/8 High Strength
2	8	外六角螺栓 M16×35 C/S-HH	8	4	锁止螺母 M16 Nut Self Locking
3	1	下钩垫块 Spacer	9	1	固定块 Centering Key
4	2	外六角螺栓 M12×45 C/S-HH	10	2	外六角螺栓 M16×45 C/S-HH
5	2	下钩(III) Lower Hook(III)	11	2	弹簧垫圈 M16 Lockwasher M16

如果纸卷发生滑落:
If Load is Slipping:



符合OSHA规则一工业车辆和属具(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。

(I)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 manufacturer's 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) within When 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) Travelling

(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.



100小时保养

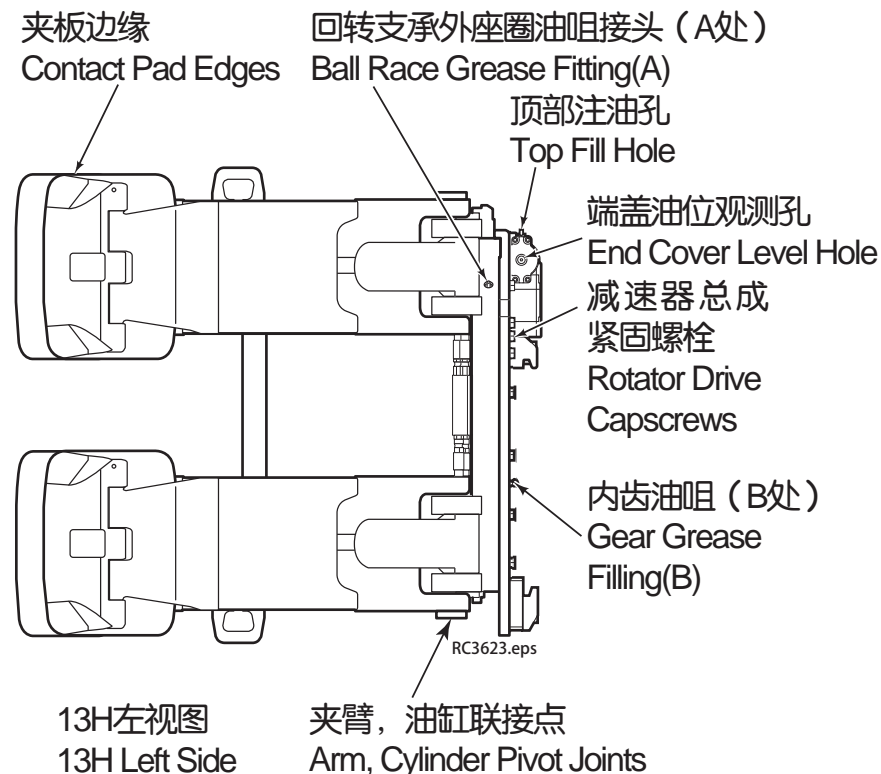
叉车每次维修或使用叉车100小时后（以先到达为准），需完成如下保养内容：

- 检查螺母是否松动或丢失，油管是否老化或破损以及液压油是否泄漏。
- 检查夹板边缘是否光滑，避免尖锐部分撕毁纸卷，如需要则打磨修复。
- 若合适，向180度止动阀的注射塞内添加润滑脂。
- 检查挡块螺栓的锁紧扭矩，如果需要用110Nm的扭矩锁紧。
- 检查压力系统功能是否正常。请用卡斯卡特夹紧力测试仪830141和832442可用于测试夹紧力大小。
- 检查标签和名牌的字迹是否清晰。

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，还应再增加以下检测，保养工作：

- 抽样检查基板回转支承上螺栓有无松动。参照技术说明TB183, 维修手册6839447(13H), 维修手册680568(18H), 或维修手册6078255(20H-33H)来进行检查和更换螺栓。
- 抽样检查面板回转支承上螺栓有无松动。参照技术说明TB183, 维修手册6839447(13H), 维修手册680568(18H), 或维修手册6078255(20H-33H)进行检查和更换螺栓。
- 用以下扭矩锁紧下钩的螺栓
 - Class II/III – 165 Nm
 - Class IV – 320 Nm
- 用以下扭矩锁紧液压马达的螺栓
 - 13H (及 18H) – 32 Nm
 - 24H, X24H, 30H (及 20H, 22H, 25H, 33H 等) – 88 Nm



定期维护保养



PERIODIC MAINTENANCE

H系列纸卷夹

H-Series Paper Roll Clamp

●在回转支承外座圈的油咀上(A处)和内齿油咀(B处)加注EP-2型润滑脂。(或同等的Whitmore‘Omnitask’型润滑脂)再将属具旋转90度,在每一边继续加注润滑脂。

●打开减速器的油咀,检查减速器内齿轮油的油位,13H(及18H)–前500小时后–加注润滑油,油位加到端盖的油位观测孔处。从顶部的注油孔加注润滑油。

24H, X24H, 30H(及20H, 22H, 25H, 33H等)–油位加到端盖的油位观测孔处。从端盖注油孔(油位观测孔)加注润滑油。如果没达到油咀孔,请用656300或SAE 90 wt齿轮油(AGMA‘中性’6 EP齿轮油),并盖上螺塞。

●检查所有夹臂,框架和油缸连接处轴套的磨损状况,如有磨损,请更换之。

●检查关键配合部位的焊缝,夹臂,夹臂联接处以及油缸联接等部位,看是否发生裂纹,如必要,请更换相应的备件。

●检查耐磨块,臂尖和夹板的磨损状况,如有磨损,请更换之。

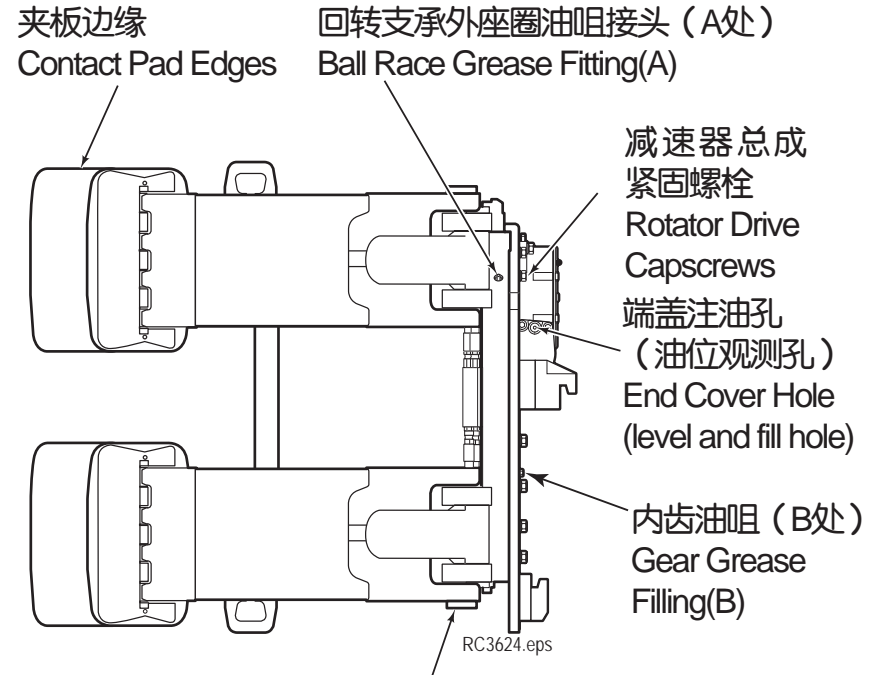
1000小时保养

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,还应增加以下检测、保养工作:

●13H(及18H)–更换减速器总成齿轮油。将旧的齿轮油从底部泄油孔流出。从顶部注油孔将新的齿轮油注入,直到油位达到端盖油位观测孔的位置。使用卡斯卡特减速器总成齿轮油,零件号656300,或SAE 90 wt齿轮油(AGMA‘中性’6 EP齿轮油),并盖上螺塞。

2000小时保养

叉车每使用2000小时后,在进行100小时、500小时保养事项的基



20H-33H左视图

20H-33H Left Side

夹臂,油缸联接点

Arm, Cylinder Pivot Joints



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，以确保属具在回到正常工作前，能正确的操作。在使用500小时后，需抽样检查面板、基板分别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造成属具的损坏以及危及人身安全。

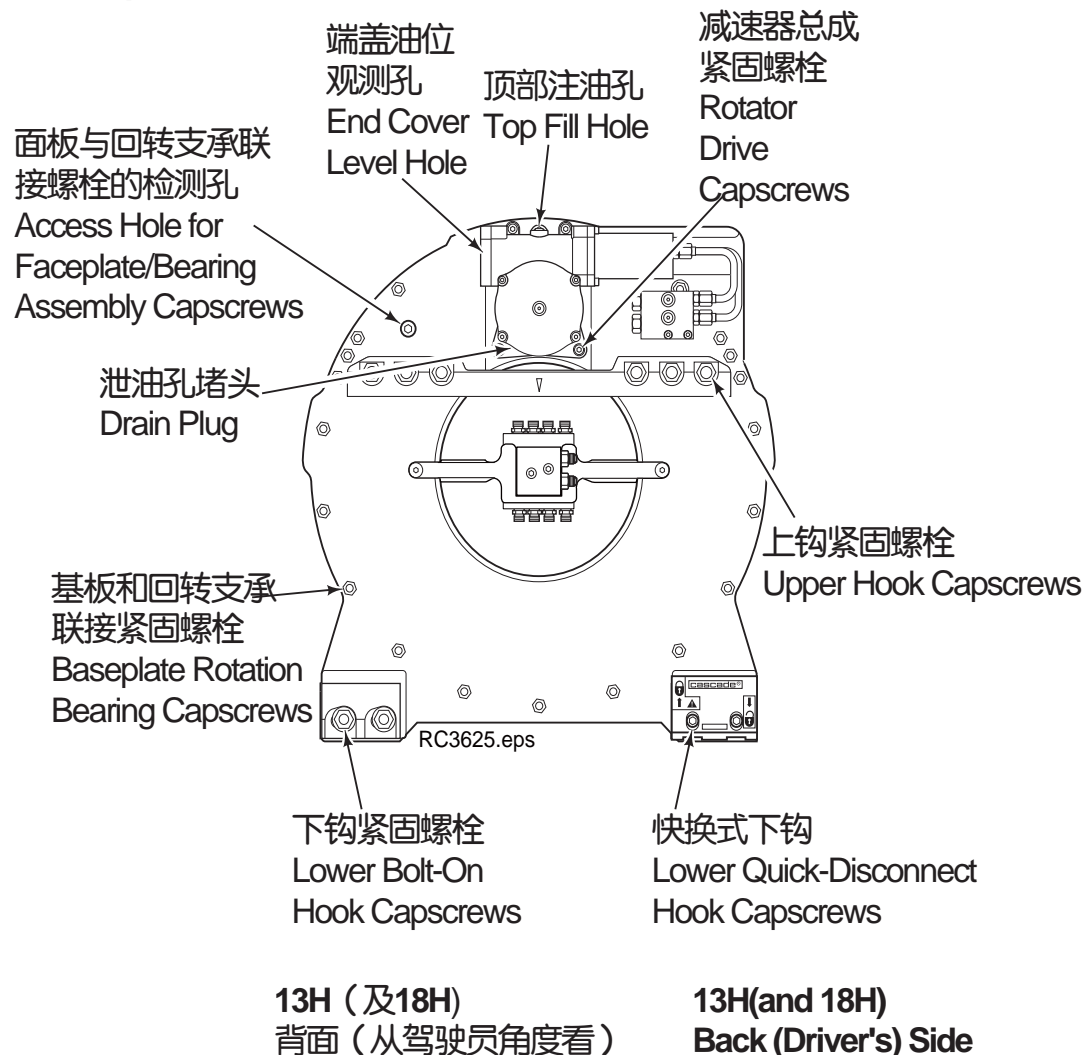
础上，还应再增加以下检测，保养工作：

- 检查回转支承所有螺栓有无松动，是否满足扭矩值。参照技术说明TB183，维修手册6839447(13H),维修手册680568(18H),或维修手册6078255(20H-33H)来检查和更换螺栓。
- 检查所有夹臂和油缸的连接轴的磨损状况，如有磨损，请更换相应的备件。

4000小时保养

叉车每使用4000小时后，在进行100小时、500小时、2000小时保养事项的基础上，还应增加以下检测、保养工作：

- 由于日常的机械磨损和零部件使用寿命，要更换油缸的密封件以确保属具的性能和安全操作性。



定期维护保养

H系列纸卷夹



PERIODIC MAINTENANCE

H-Series Paper Roll Clamp

100-Hour Maintenance

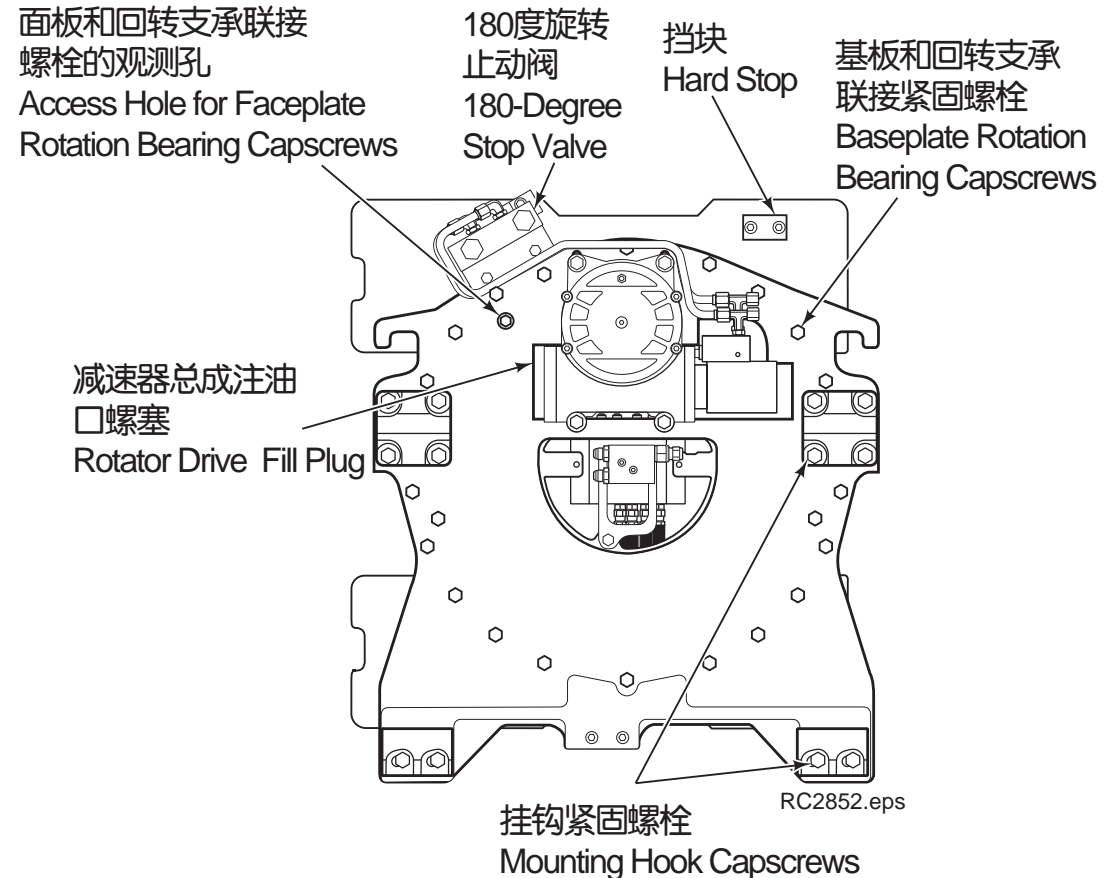
Every time the lift truck is serviced or every 100 hours of truck operation, whichever comes first, complete the following maintenance procedures:

- Check for loose or missing bolts, worn or damaged hoses and hydraulic leaks.
- Check edges of contact pads for wear or sharp nicks that could damage or tear paper rolls. Grind edges smooth.
- Check the torque on the stop block capscrews and tighten to 110 Nm (80 ft.-lbs.) if necessary.
- Check that load-holding hydraulic system is functioning properly. Cascade Clamp Force Indicators 830141 and 832442 are available for this test.
- 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:

- Check sample of baseplate rotation bearing capscrews for proper torque value. See Technical Bulletin TB183, Service Manual 6839447 (13H), Service Manual 680568(18H), or Service Manual 6078255 (20H-33H) for checking and replacement procedures.
- Check sample of faceplate rotation bearing capscrews for proper torque value. See Technical Bulletin TB183, Service Manual 6839447 (13H), Service Manual 680568(18H), or Service Manual 6078255 (20H-33H) for checking and replacement procedures.



24H, X24H, 30H (及 20H, 22H, 25H, 33H 等)
背面 (从驾驶员角度看)

24H, X24H, 30H (and 20H, 22H, 25H, 33H etc.)
Back (Driver's Side)



- Tighten lower mounting hook capscrews to:
 - Class II/III – 165 Nm (125 ft.-lbs.)
 - Class IV – 320 Nm (235 ft.-lbs.)
- Tighten rotator drive capscrews to:
 - 13H (and 18H) – 32 Nm (24 ft.-lbs.)
 - 24H, X24H, 30H (and 20H, 22H, 25H, 33H etc.) – 88 Nm (65 ft.-lbs.)
- Lubricate rotator bearing assembly ball race (A) and gear (B) with EP-2 grease. (Whitmore 'Omnitask' or equivalent). Rotate attachment in 90 degree increments and grease in each position.
- Check rotator drive gearcase lubricant level.
 - 13H (and 18H) – Initial 500 Hours – Lubricant should be filled up to the end cover level hole. Add lubricant through the top fill hole.
 - 24H, X24H, 30H (and 20H, 22H, 25H, 33H etc.) – Lubricant should be filled up to 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 the plug.
- Inspect all arm, frame and cylinder pivot bushings for wear. Replace if necessary.
- Inspect all load-bearing structural welds on arms, arm pivots and cylinder pivot areas for visual cracks.
 - Replace components as required.
- Inspect wear tile, arm tips and contact pads for wear and damage. Replace or repair, as needed.

1000-Hour Maintenance

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

- 13H (and 18H) – Change rotator drive gearcase lubricant. Drain oil out the bottom case hole. 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-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, Service Manual 6839447 (13H), Service Manual 6805681 (18H), or Service Manual 6078255 (20H-33H) for checking and replacement procedures.
- Inspect all arm and cylinder pivot pins for wear and replace if necessary.



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

4000-Hour Maintenance

After each 4000 hours of truck operation, in addition to the 100, 500 and 2000-hour maintenance, perform the following procedures:

- Due to normal mechanical wear and component service life, cylinder seals should be replaced to maintain performance and safe operation.

质量保证政策 **W**ARRANTY

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。以上述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。以上述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

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**

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

WARRANTY

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.

Version No.: Cascade Xiamen 2013

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cascade corporation

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