



# 操作指南 **O**PERATOR'S GUIDE

## E系列推拉器、软包推出器和旋转推出器 E-Series Push/Pull, Bag Load Push & Inverta™ Push



服务热线 **40088 57315**  
Customer Service Hotline

# 目录 CONTENTS

概述	Introduction	3
用户注意事项	End User Please Notice	4
日常检查	Daily Inspection	6
安全规则	Safety Rules	7
操作功能	Attachment Operation	9
旋转推出器操作功能	Attachment Operation-Inverta Push	13
软包推出器操作功能	Attachement Operation-Bag Load Push	14
滑板操作	Slipsheet Loads(Loads with Torn Slipsheet Tabs)	15
取货	Loading	17
从地面上取货	Loading from Floor	18
从托盘上取货	Loading from Pallets	19
从货堆上取货	Loading from Stacks	20
从拖车上取货	Loading from Truck Trailers	
卸货	UnLoading	
卸货于货堆	Unloading on Stacks	21
卸货于托	Unloading on Pallets	22

警告：叉车/属具组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。

警告：操作者必须是经过培训或授权的人员。



**WARNING:**Plated capacity of the truck/attachment combination is a responsibility of the original truck manufacturer and may be less than shown on the attachment nameplate.

**WARNING:**Do not operate this attachment unless you are a trained and authorized lift truck driver.

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.

# 目录 CONTENTS

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卸货于车厢	Unloading into Truck Trailers	24
滑板保留机构操作	Sheet-Sav® Operation	25
旋转推出器操作	Inverta Push Operation	26
软包推出器操作	Bag Load Push Operation	27
快装型推拉器拆卸	Attachement Removal-QFM	28
快装型推拉器安装	Attachment Installation-QFM	29
叉板调节	Platen Adjustment	30
面板止动阀调节	Faceplate Stop Adjustment	31
定期维护保养	Inspection and maintenance	32
零件拆分与示意图	Parts Breakdown	47
安全操作与维护	Safe Operation and Maintenance	51
	(OSHA Regulations)	
质量保证政策	Warranty	55

# 概述 INTRODUCTION

本手册为卡斯卡特E系列推拉器的操作指南，旨在帮助你在操作中避免属具及货物的损伤。

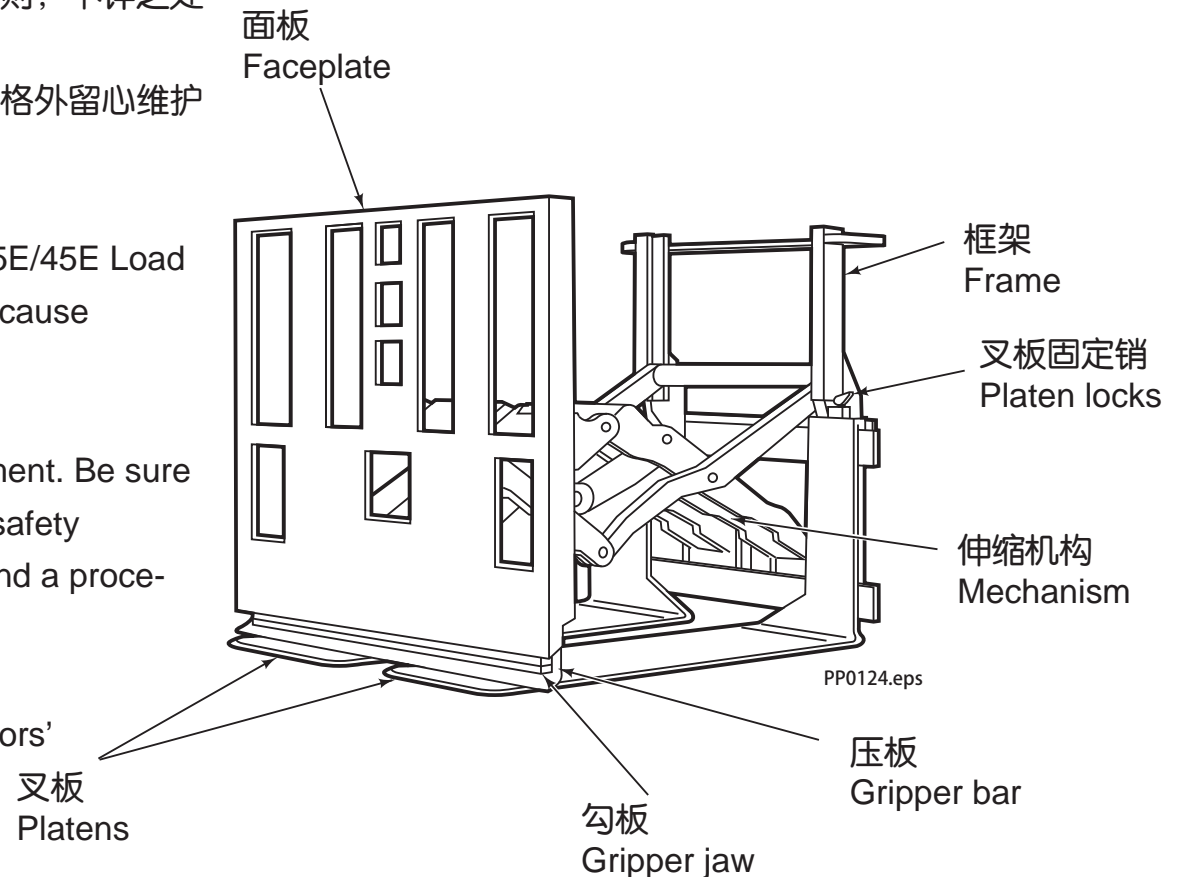
操作前请仔细阅读本手册，掌握所有的操作步骤及安全规则，不详之处请向您的上级主管请教。

安全第一！—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。

This guide contains operating instructions for cascade 35E/45E Load Push/Pulls. It will help avoid common errors which often cause damage to the equipment or loads being handled.

Read this manual 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 operators' carelessness or misjudgement. You must watch for hazardous situations and correct them.



# 用户注意事项 END USER PLEASE NOTICE

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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

# 用户注意事项 **E**ND USER PLEASE NOTICE

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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

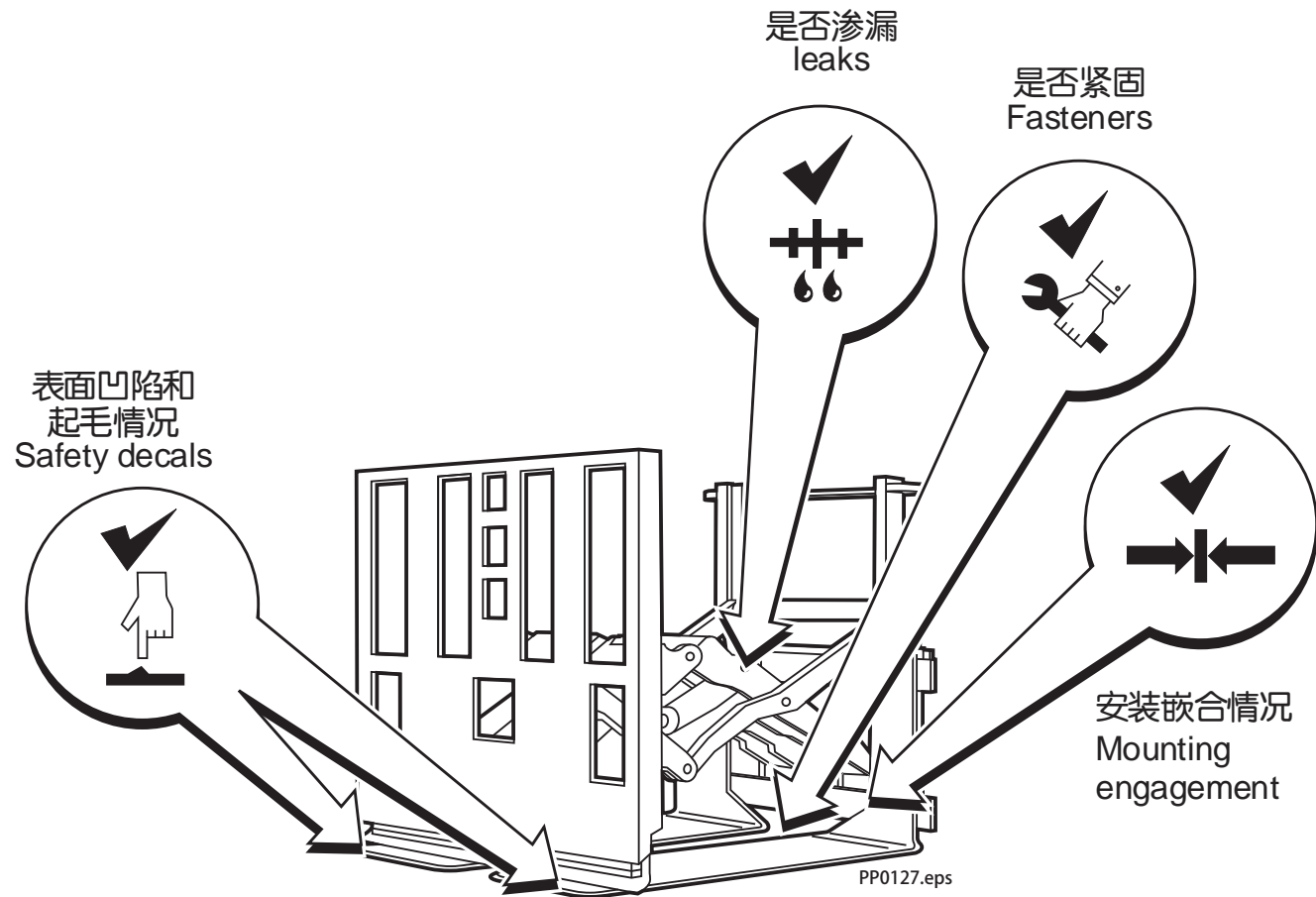
# 日常检查 **D**AILY INSPECTION

每天检查图示项目，发现问题，及时向上级汇报、保养和维修情况，请参考《维修手册》。

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

注意：应立即更换磨损超过1毫米的滑动支撑。

WARNING: Change the bearings while wear away its 1mm.



禁止载人行驶  
No rides



禁止穿越门架  
No reaching through mast



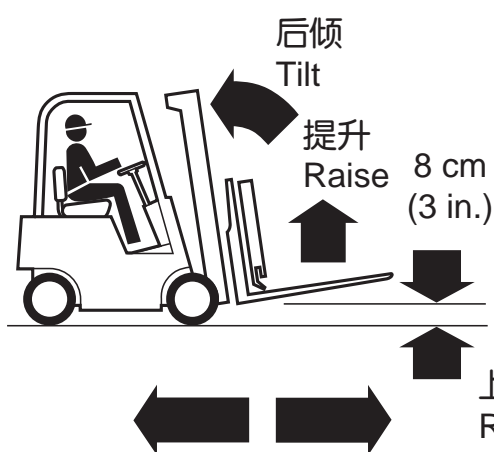
禁止货物下站人  
No standing under load



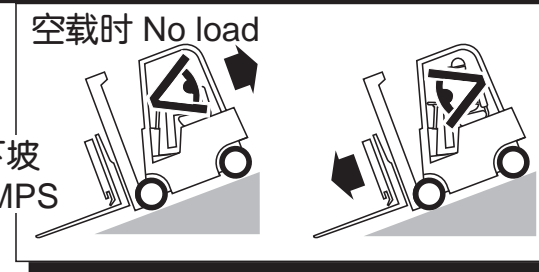
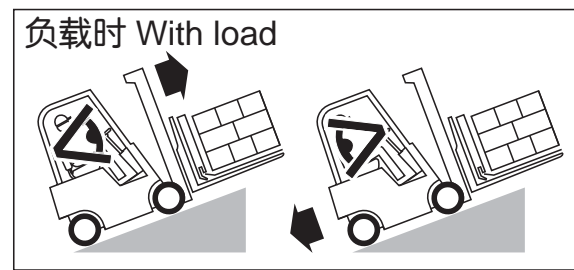
PP0125.eps



关闭发动机，制动，降下货叉  
Motor off, park, lower load



空载行驶  
Traveling empty



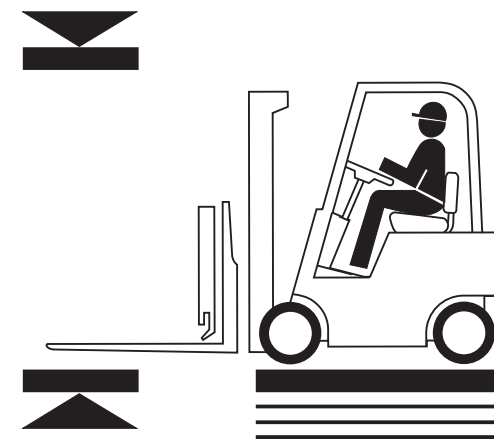




禁止坡上停车  
No parking on ramp



禁止坡上转弯  
No turning on ramp



注意行驶空间  
Watch clearances

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交通标志  
TRAFFIC



观察  
Observe



地滑  
Wet floors



工作人员  
Workers



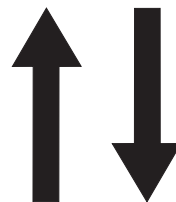
停止  
Workers



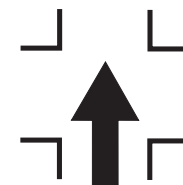
凸起  
Bumps



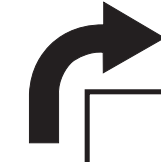
凹坑  
Dips



双向行驶时须慢行  
Slow for tow 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

电磁阀安装

SOLENOID EQUIPPED ATTACHMENTS

推/拉

PUSH/PULL

推出

LOAD PUSH

A 左侧移

A Sideshift left

A Faceplate push (press button 1)

A Position platens-out (press button 2)

A 面板前推压下手柄按钮

B Sideshift right

B Faceplate retract/pull (press button 1)

A 叉板张开压下手柄按钮

B Position platens-in (press button 2)

B 右侧移

C Not used

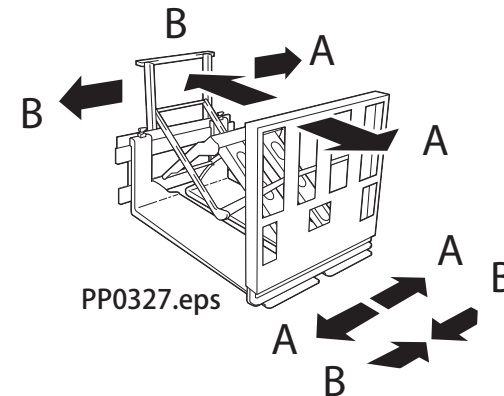
D Not used

B 面板回缩后拉按下手柄按钮

B 叉板合拢按下手柄按钮

C 空置

D 空置



# 操作功能 ATTACHMENT OPERATION

侧移式推拉器

PUSH/PULL WITH

侧移式推出器

SIDESHIFT LOAD

A 左侧移

PUSH WITH SIDESHIFT

B 右侧移

A Sideshift left

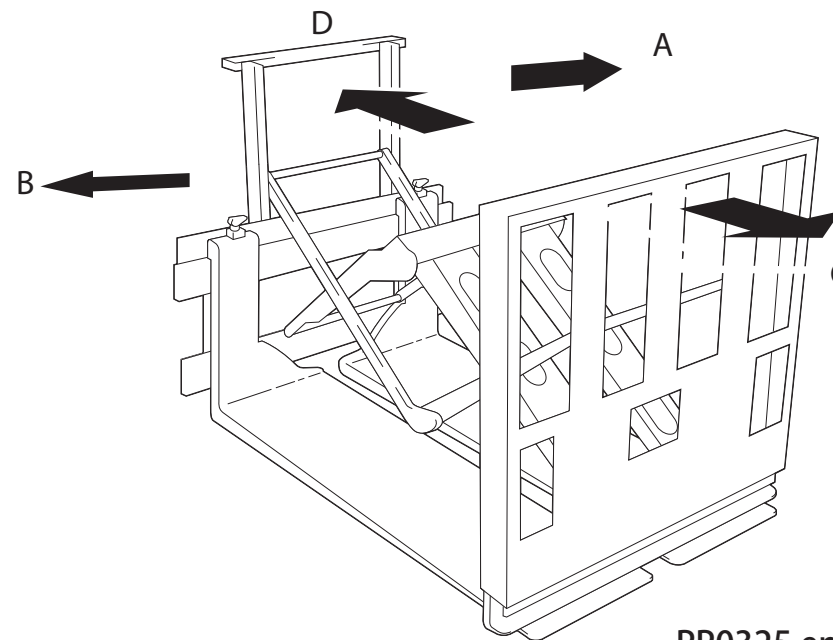
C 面板前推

B Sideshift right

D 面板后拉

C Faceplate push

D Faceplate retract/pull



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# A ATTACHMENT OPERATION

滑板可留式推拉器

PUSH/PULL WITH SHEET-SAV®

A 左侧移

A Sideshift left

B 右侧移

B Sideshift right

C 面板前推

C Faceplate push

C 滑板保留机构提升  
(按下手柄按钮)

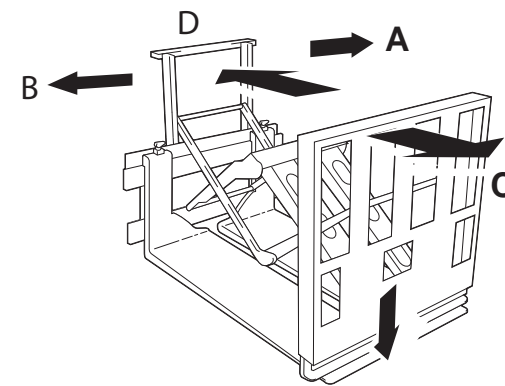
C Sheet-Sav®-lift  
(press button)

D 面板回缩后拉

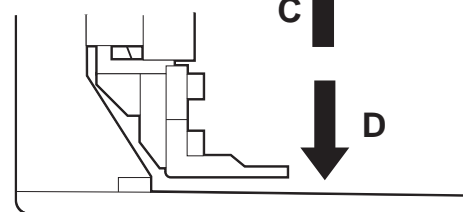
D Faceplate retract/pull

D 滑板保留机构压下  
(按下手柄按钮)

D Sheet-Sav®-retain  
(press button)



滑板保留机构  
SHEET-SAV®



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# 操作功能 ATTACHMENT OPERATION

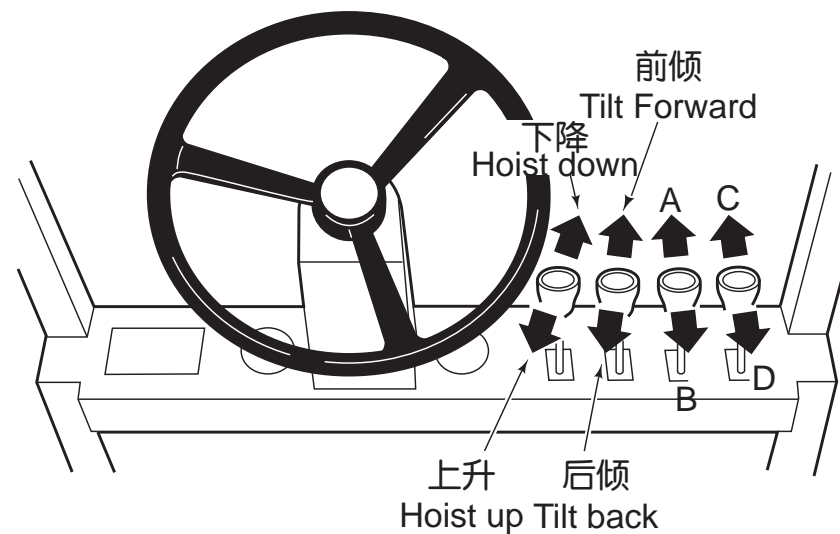
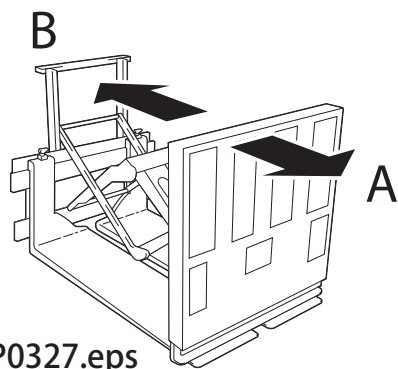
推/拉 PUSH/PULL LOAD PUSH

A 面板前推 A Faceplate push

B 面板后拉 B Faceplate retract/pull

C 空置 C Not use

D 空置 D Not use



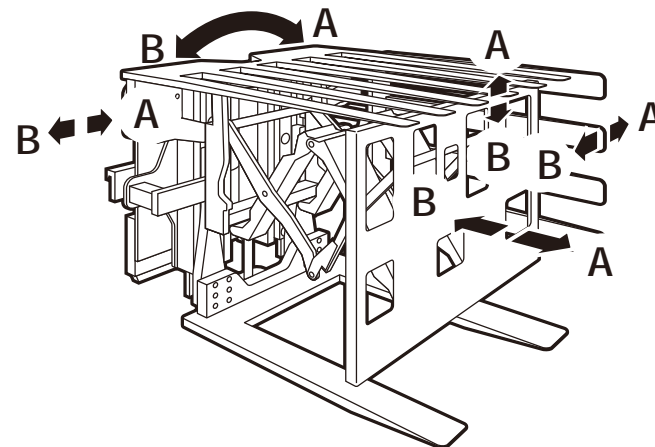
旋转推出器 Inverta™ Push

旋转推出器  
电磁阀（两种功能），共 2 个

Solenoid (2 Function), 2 pcs  
Invertapush

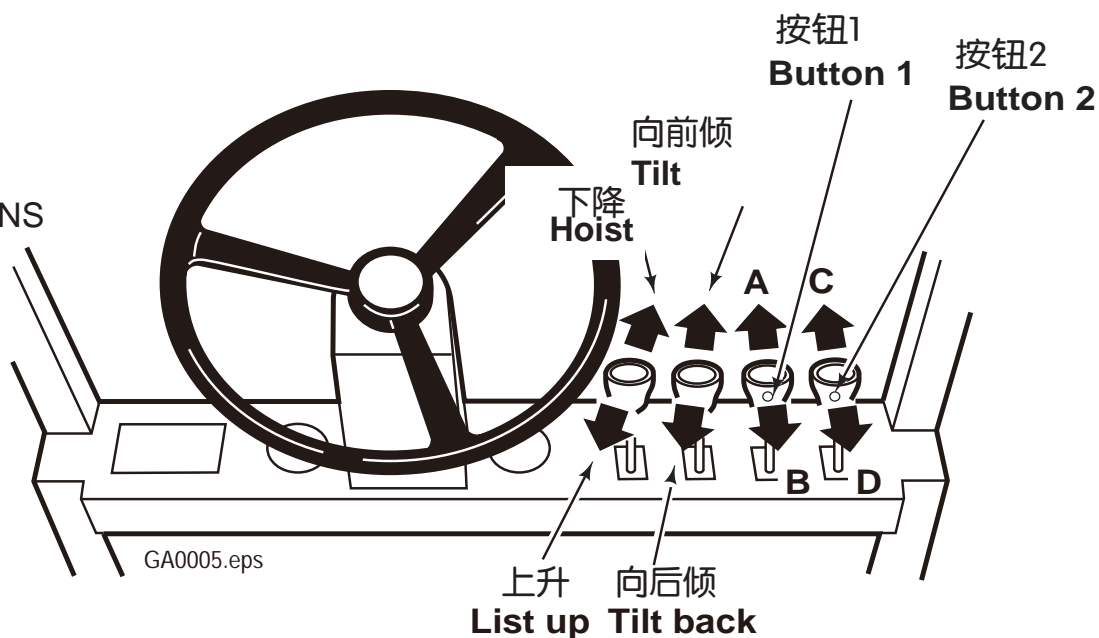
- A 面板推出
- A 左侧移（按按钮 1）
- B 面板收缩
- B 右侧移（按按钮 1）
- C 逆时针旋转（按按钮 2）
- C 夹紧或闭合侧挡板
- D 顺时针旋转（按按钮 2）
- D 松开或张开侧挡板

- A Faceplate Push
- A Sideshift Left (Press Button 1)
- B Faceplate Retract
- B Sideshift Right (Press Button 1)
- C Rotate CCW (Press Button 2)
- C Clamp & Close Stabilizer
- D Rotate CW (Press Button 2)
- D Release & Open Stabilizer



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多路阀手柄功能  
AUXILIARY VALVE FUNCTIONS



软包推出器

Bag Load Push

A 面板推出

A Faceplate Push

B 面板收缩

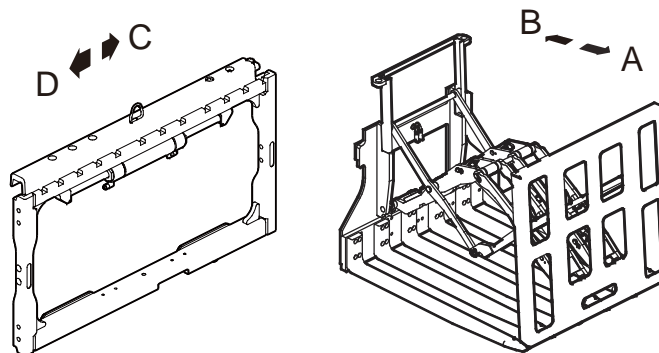
B Faceplate Retract

C 左侧移 (如配置侧移器)

C Sideshift Left (If equipped Sideshifter)

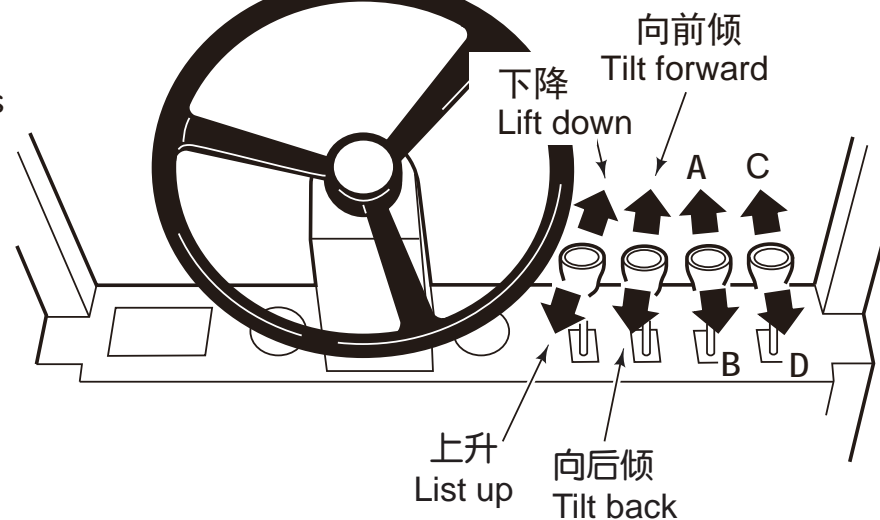
D 右侧移 (如配置侧移器)

D Sideshift Right (If equipped Sideshifter)

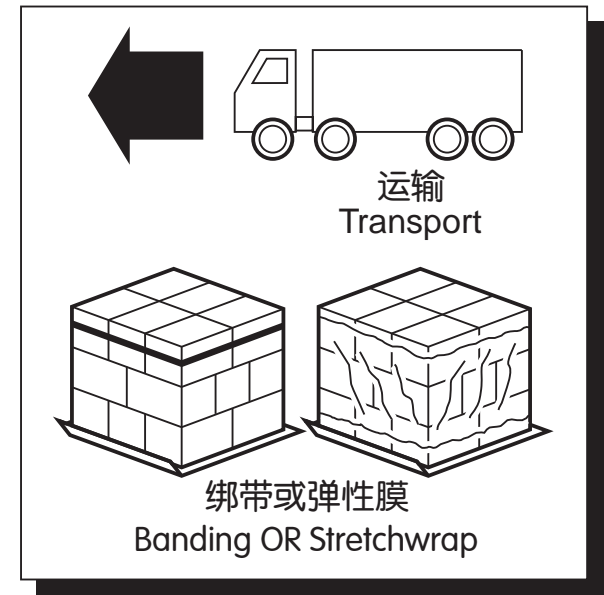
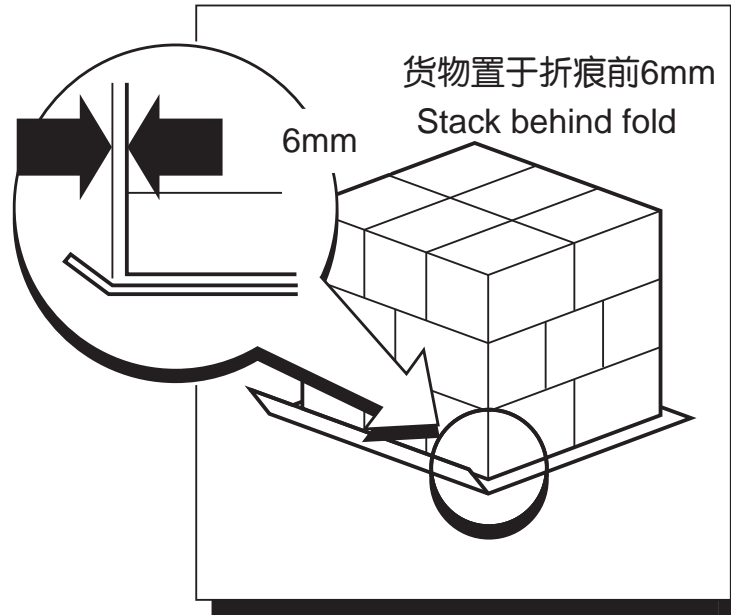


多路阀功能

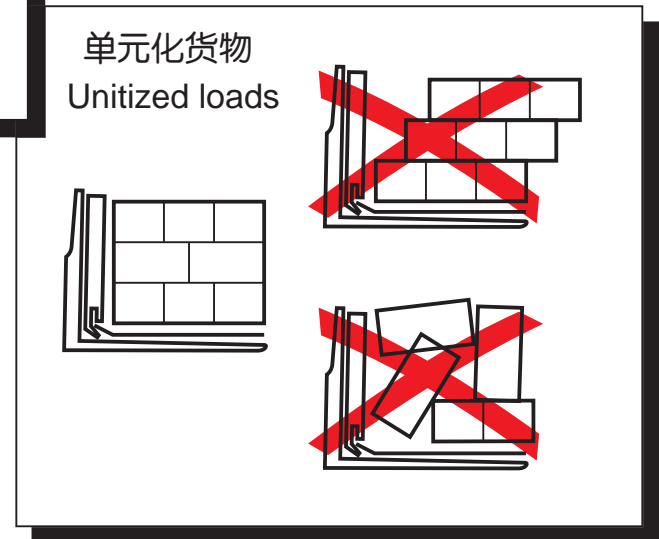
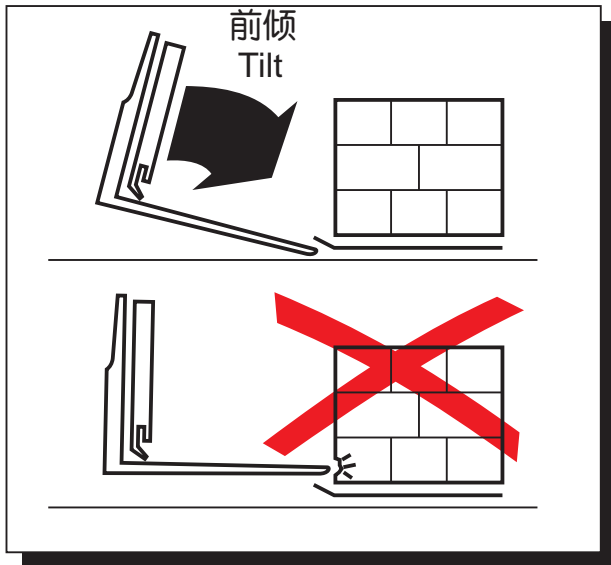
Auxiliary Valve Functions



# 滑板搬运 **S** LIPSHEET LOADS

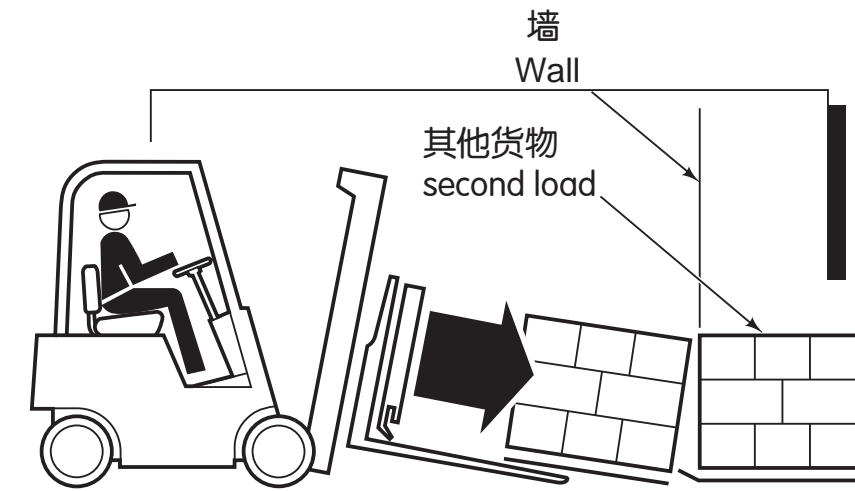
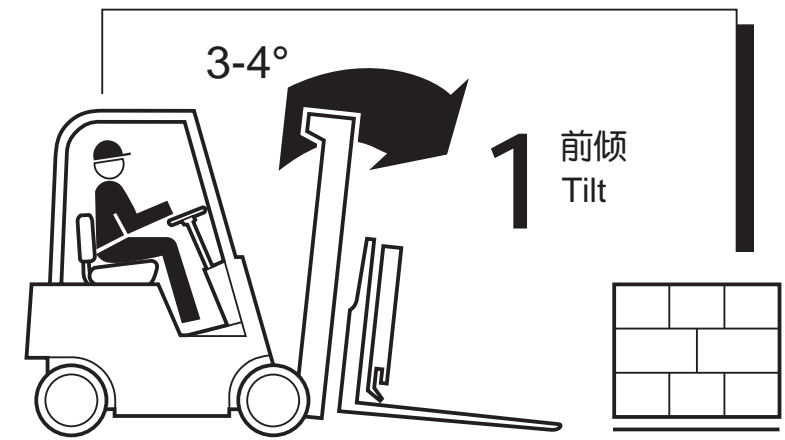


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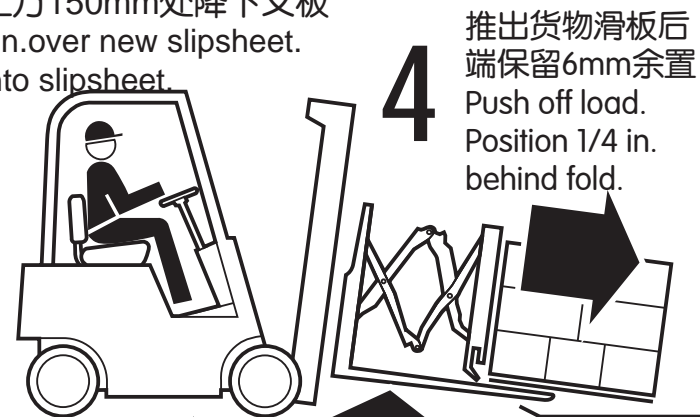
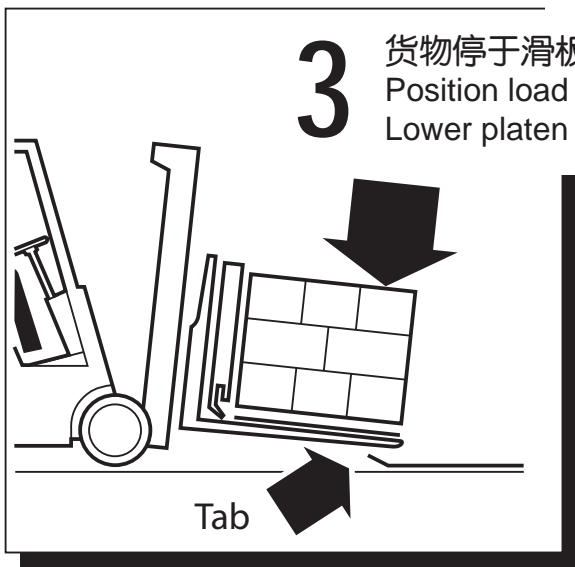




滑板尾端被撕毁时的搬运  
Loads with Torn Slipsheet Tab

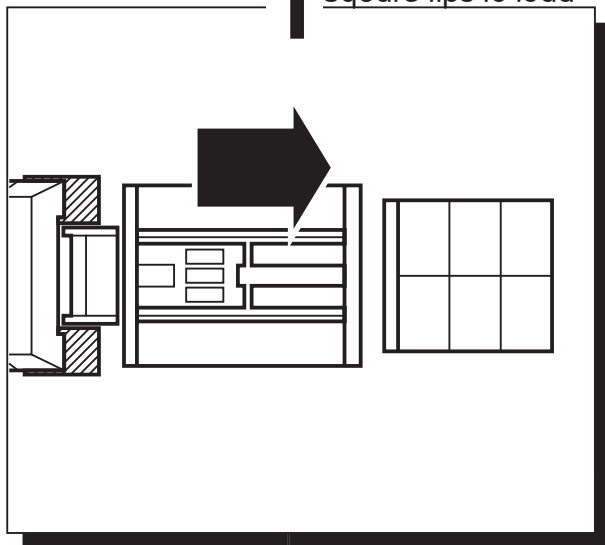


2 叉板尖端插入滑板底部开进叉车  
Wedge both tips under slipsheet,  
Drive forward.

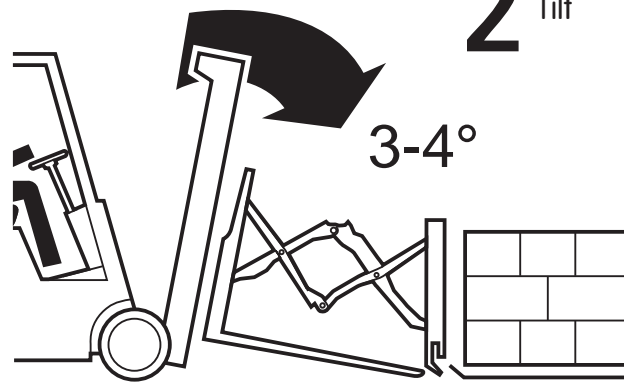


# 从地面上取货 **L** OADING FROM FLOOR

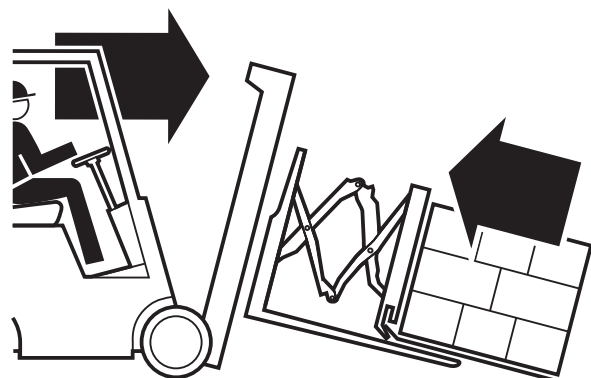
**1** 对中, 叉车前驶  
Square tips to load



**2** 前倾  
Tilt

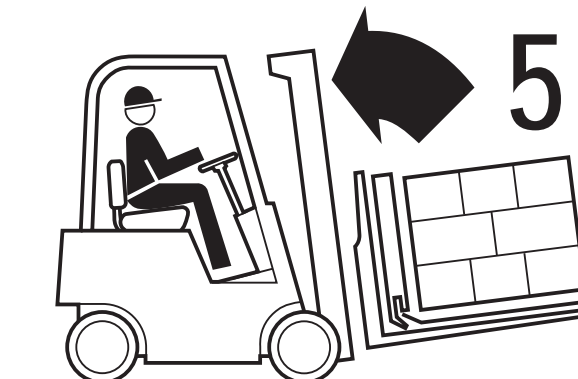


**3** 压住滑板末端  
Sheet tab in gripper



**4** 拉回货物  
注: 拉回货物时叉车前倾  
Pull load  
OPTIONAL: Pull and drive forward

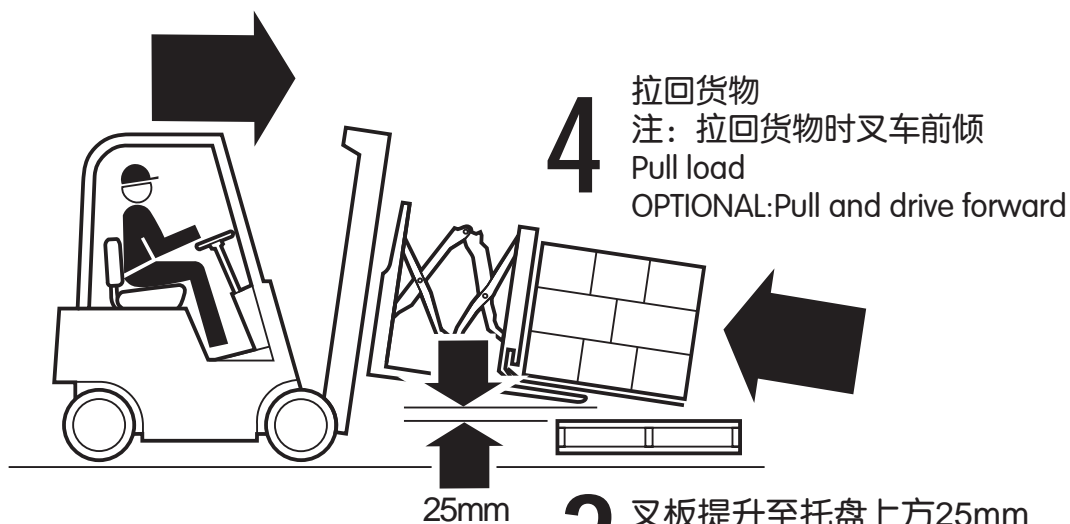
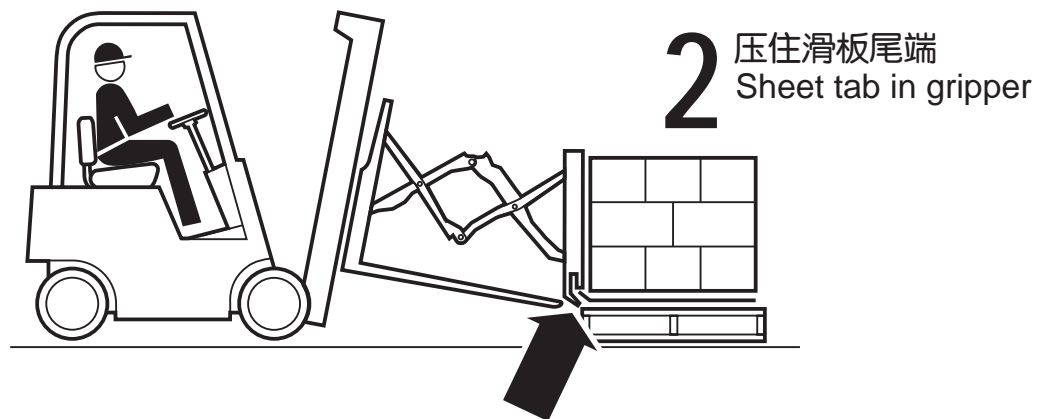
**5** 后倾  
Tilt



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# 从托盘上取货

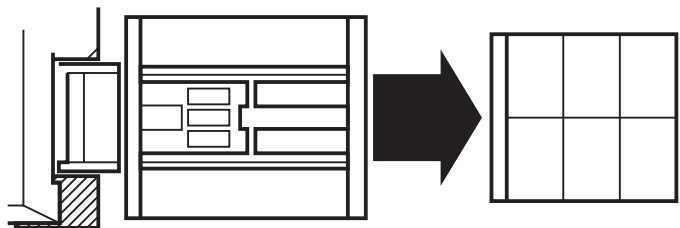
# LOADING FROM PALLETS



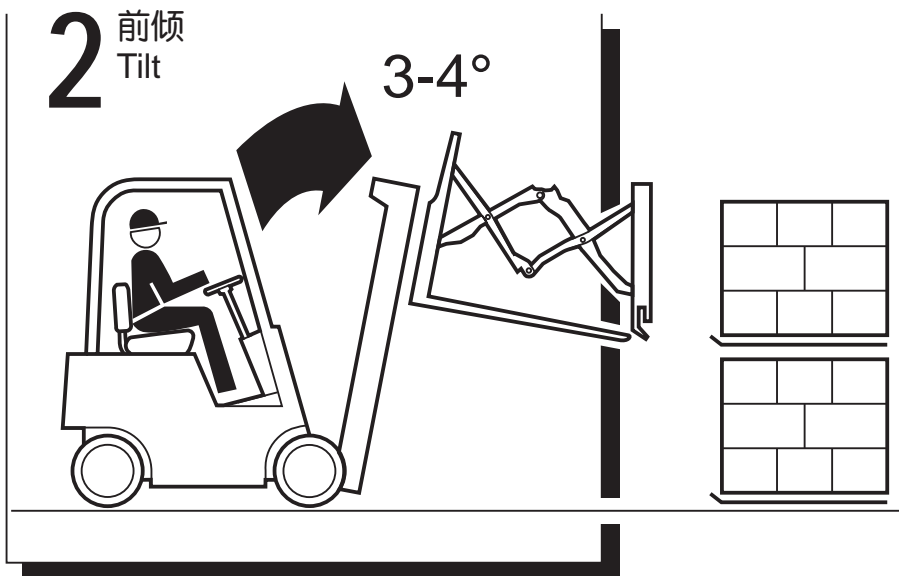
684945-R5

# 从货堆上取货

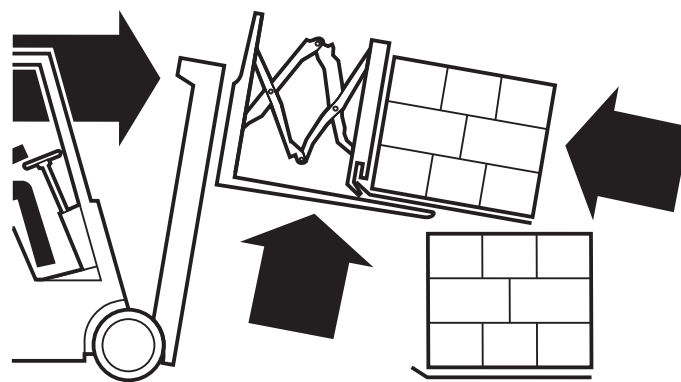
# LOADING FROM STACKS



**1** 对中, 叉车前驶  
Square tips to load



叉板尖部位于滑板尾端正下方  
platen tip just below tab



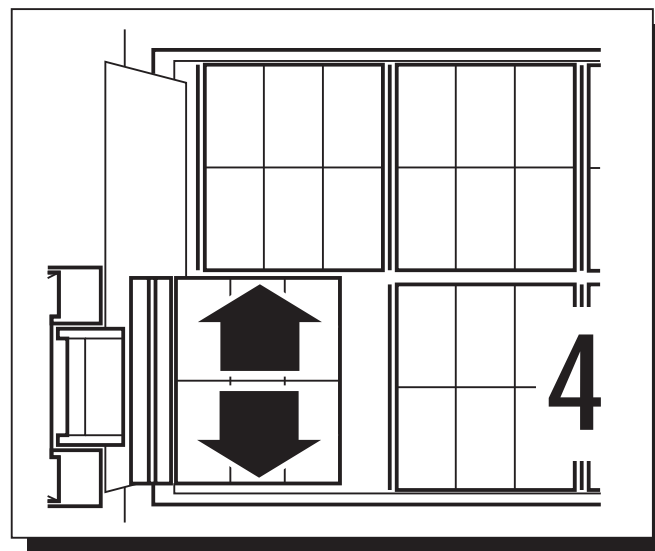
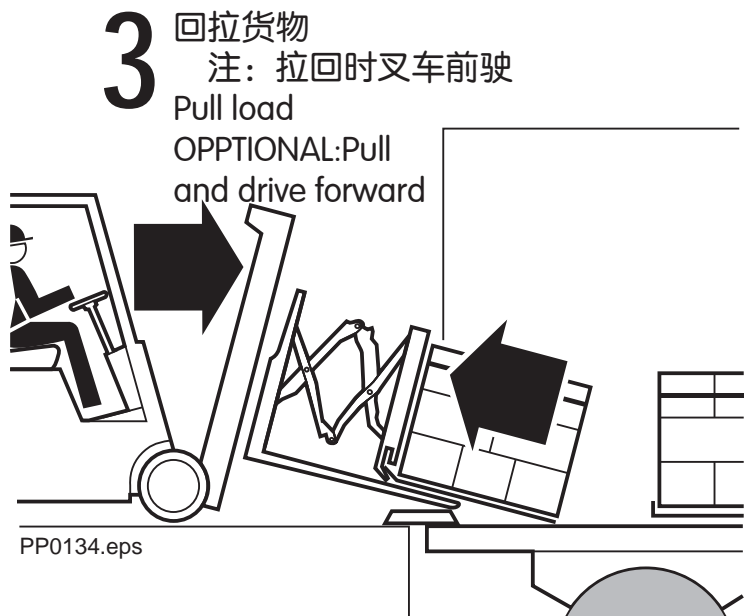
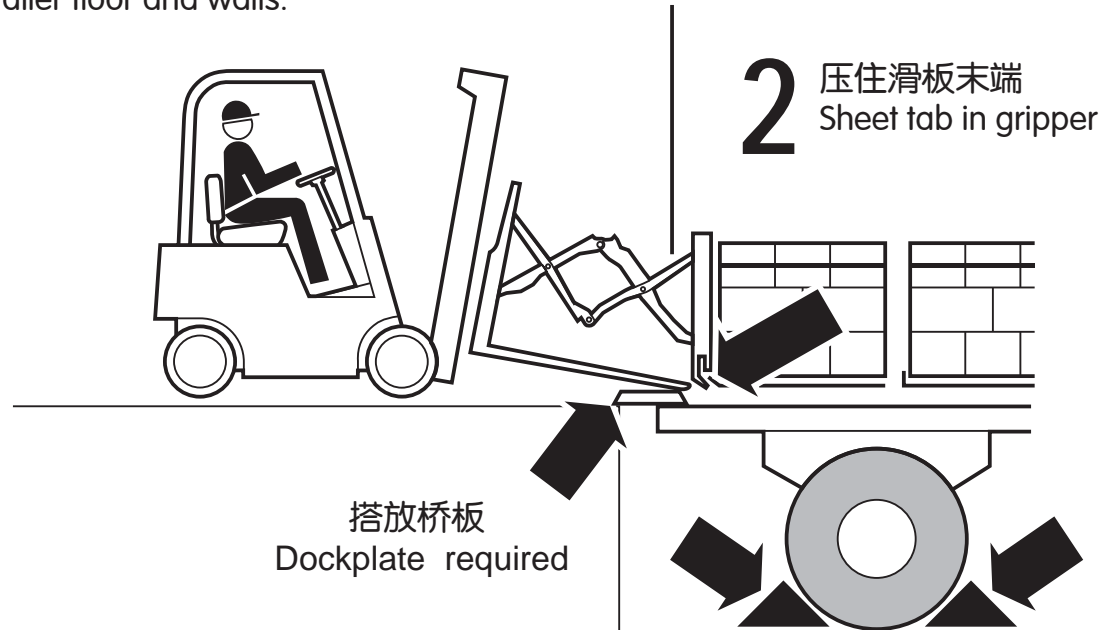
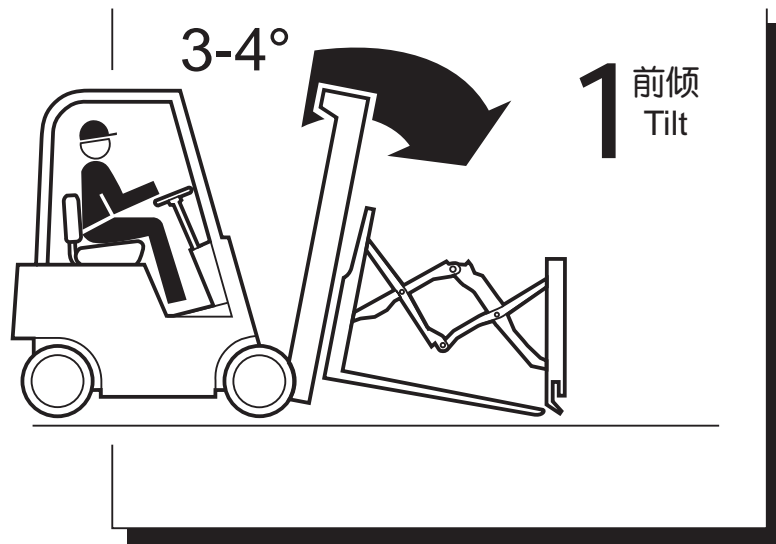
**4** 回拉货物  
注: 拉回货物时叉车前驶,  
当货物拉回到叉板上后提升  
Pull load  
OPTIONAL: Pull and drive forward.  
Raise platens as load is pulled on.



# 从拖车上取货 **L** OADING FROM TRUCK TRAILERS

提示：搭放水平桥板，注意拖车地面或墙上的铁钉。

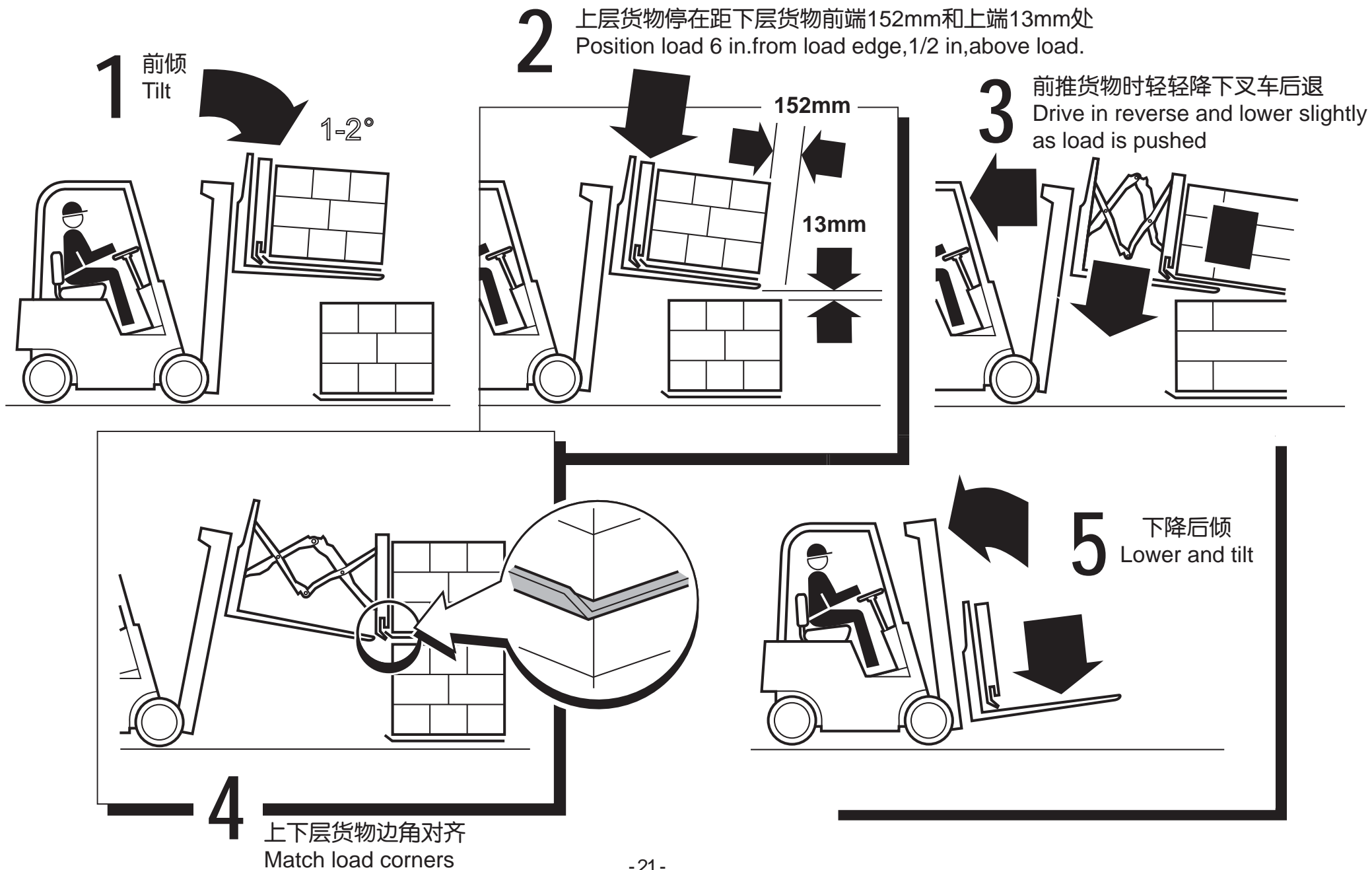
CAUTION: Level trailer with dock. Watch for nails or screws on trailer floor and walls.



注：车轮须固定  
CAUTION: Trailer wheels  
must be locked

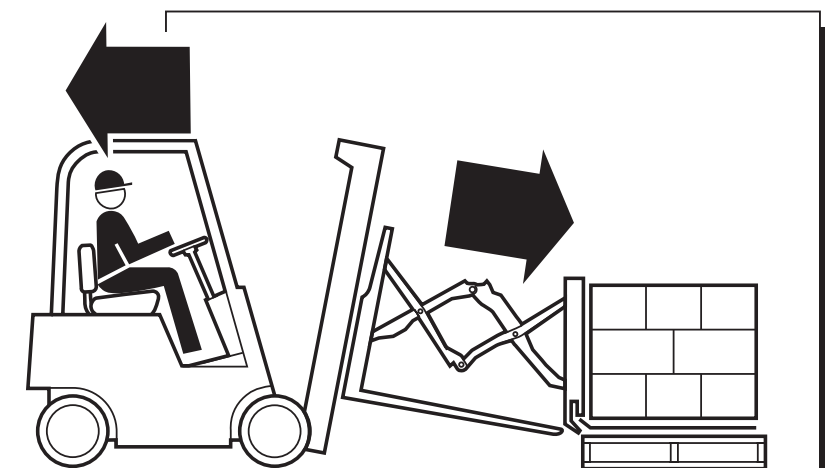
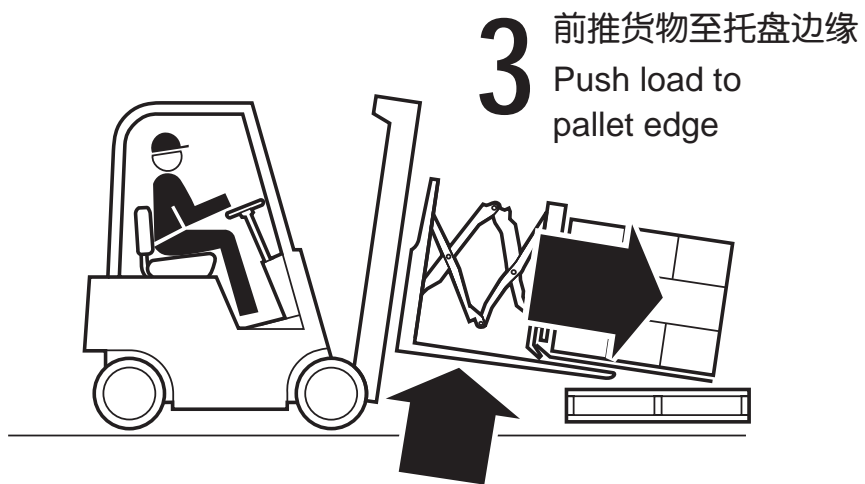
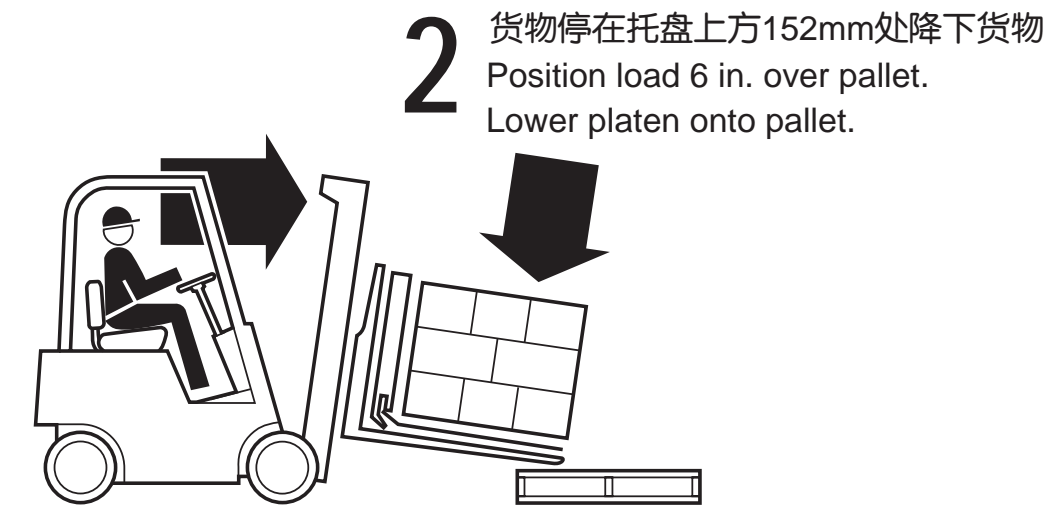
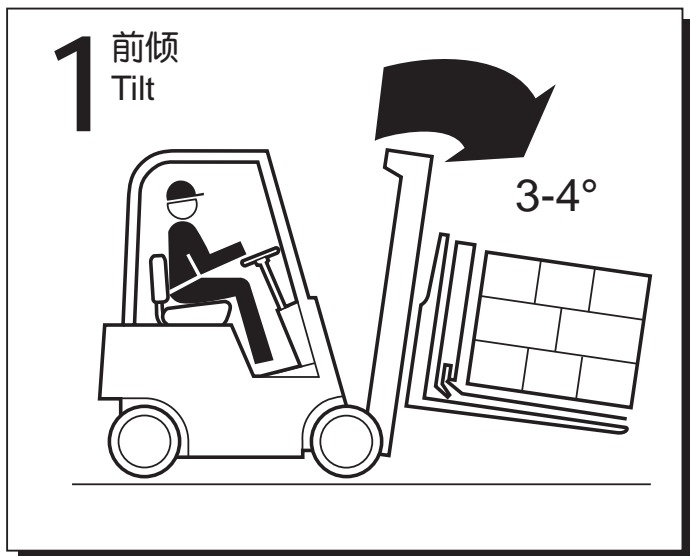
侧移对位，预留适当搬运空间  
Sideshift to square load and make  
room for removal

# 卸货于货堆 UNLOADING ON STACKS



# 卸货于托盘 UNLOADING ON PALLETS

托盘板与推出方向一致  
Pallet Boards in Line with Push Direction



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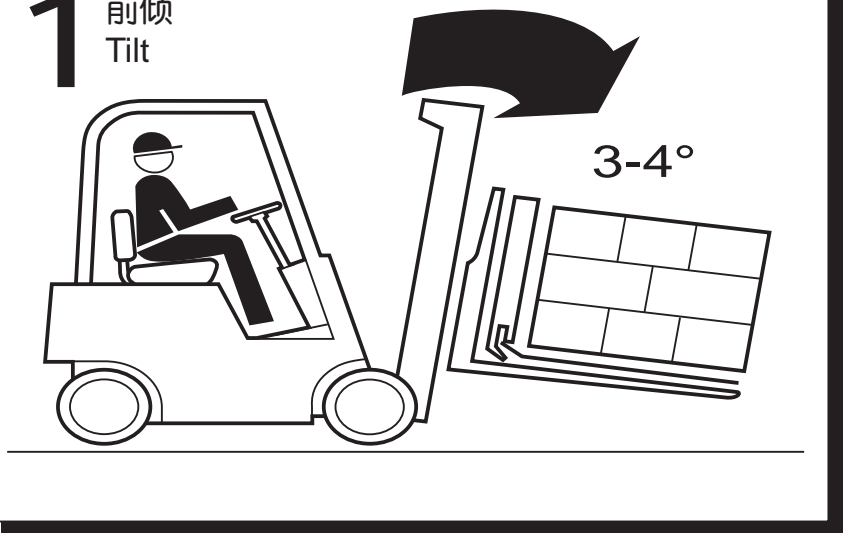
# 卸货于托盘

# UNLOADING ON PALLETS

托盘板与推出方向相反

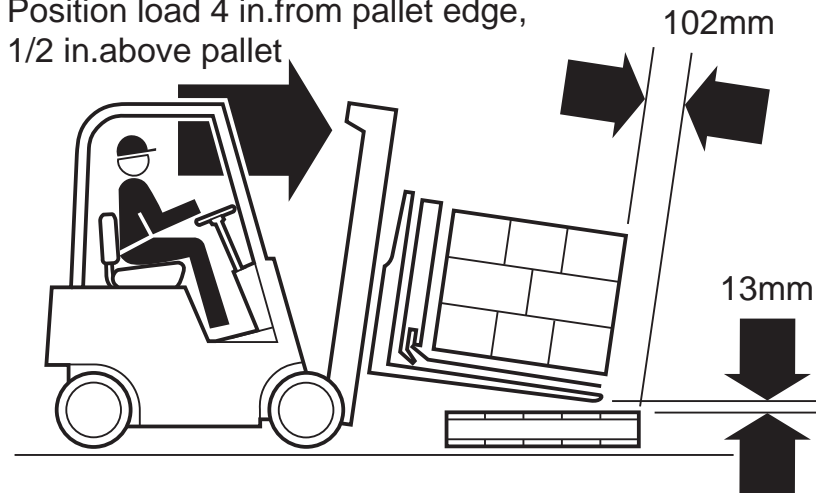
Pallet Boards Opposite Push Direction

1 前倾  
Tilt

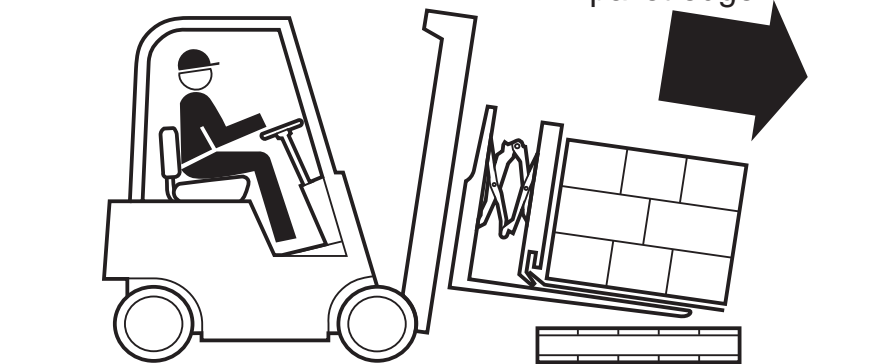


2

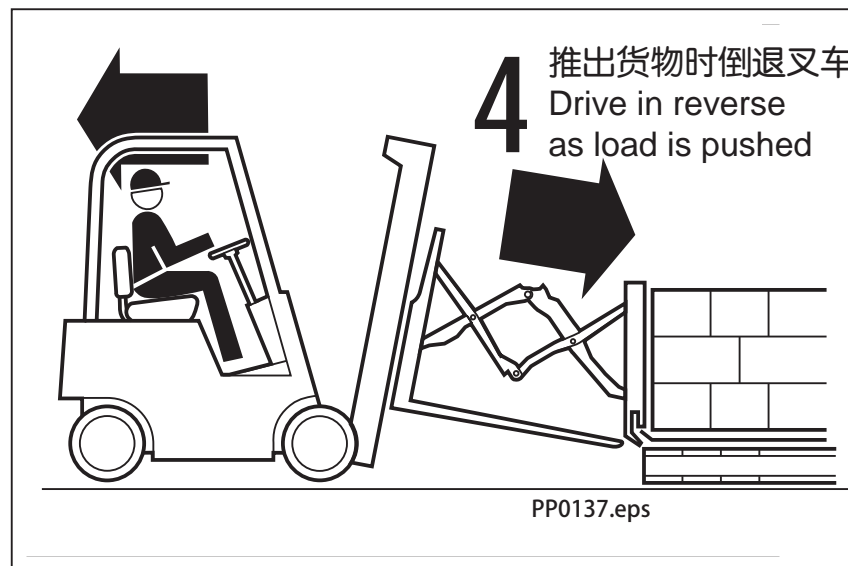
货物停在距托盘前端102mm，托盘上端13mm处  
Position load 4 in. from pallet edge,  
1/2 in. above pallet



3 前推货物至托盘边缘  
Push load to  
pallet edge



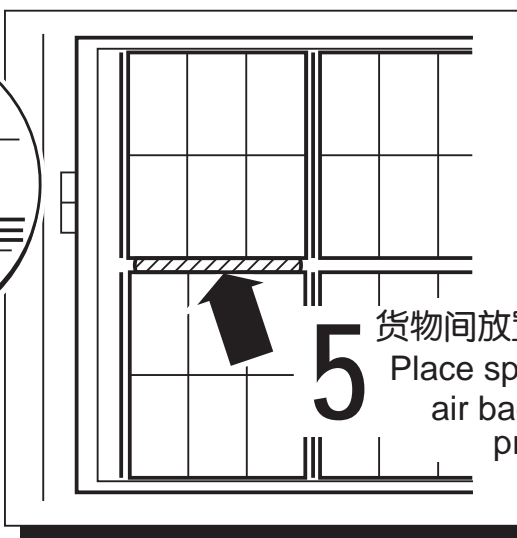
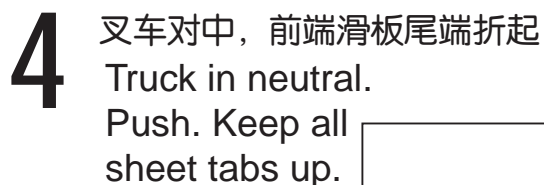
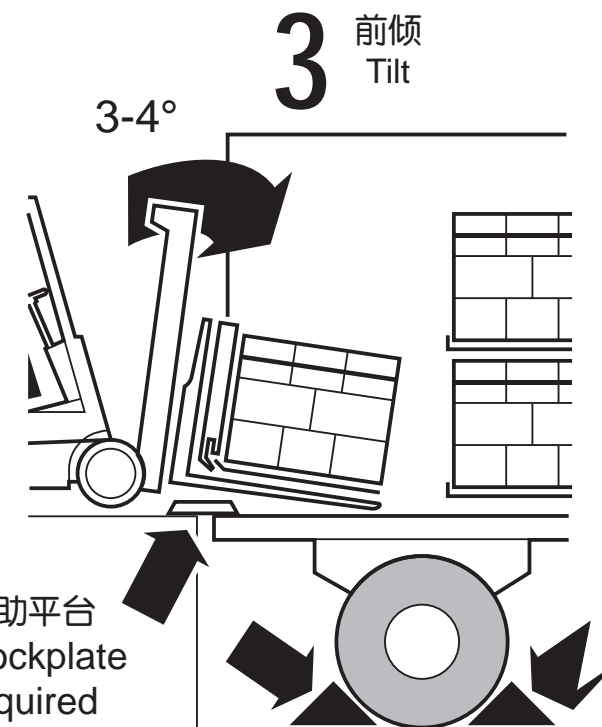
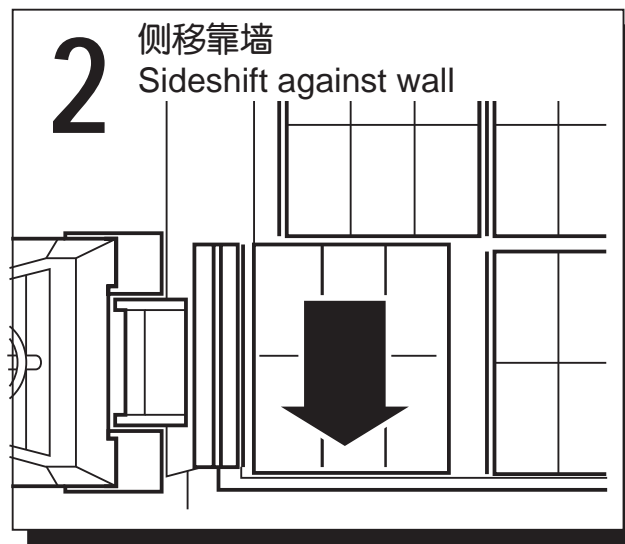
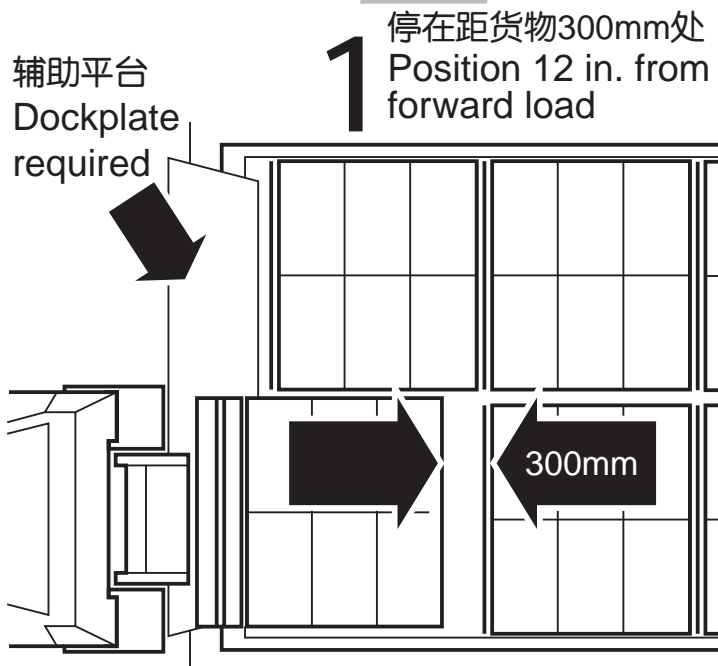
4 推出货物的时候倒退叉车  
Drive in reverse  
as load is pushed





# 卸货于车厢

# UNLOADING INTO TRUCK TRAILERS



注：车轮需固定  
CAUTION: Trailer wheels must be blocked

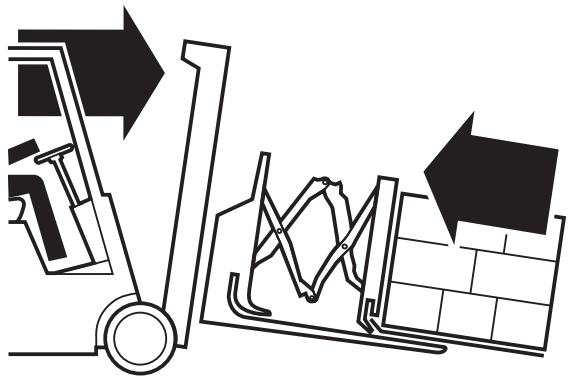
## 1

拉回货物

注：拉回时叉车前驶

Pull load

OPTIONAL: Pull and drive forward

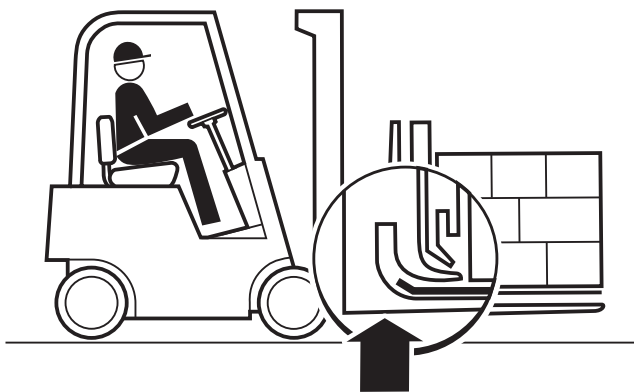


## 2

提升滑板保留机构，滑板  
尾端处于压脚下。

Raise Sheet-Sav™ foot.

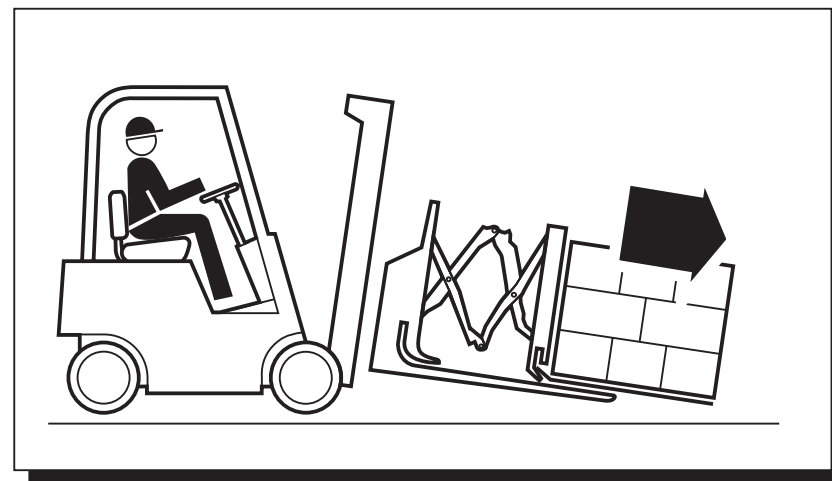
Sheet tab positions  
under foot



## 3

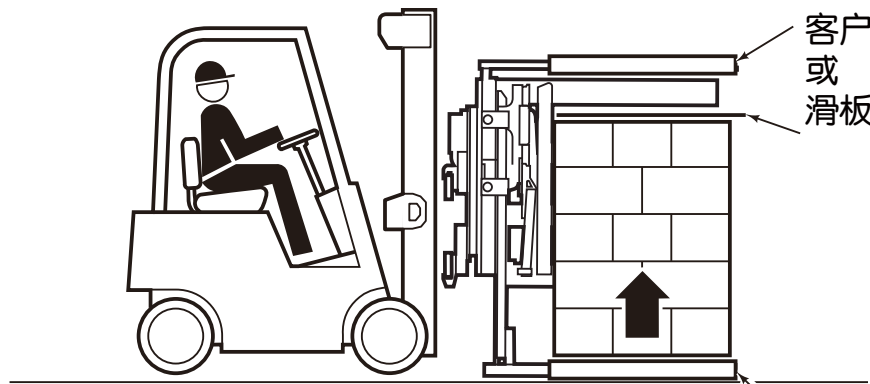
压住滑板。

Lower Sheet-Sav™ foot.



PP0139.eps

# 旋转推出器操作 / INVERTA PUSH OPERATION



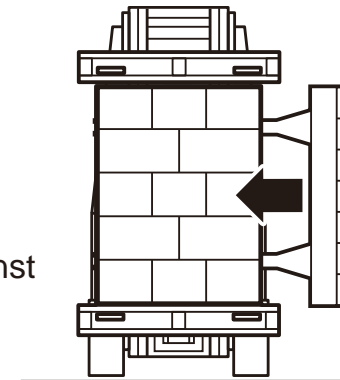
PP1906.eps

**1** 叉车向行驶，叉持货物  
Drive forward, pick up load

客户方托盘  
或  
滑板  
Customer Pallet  
OR  
Slipsheet

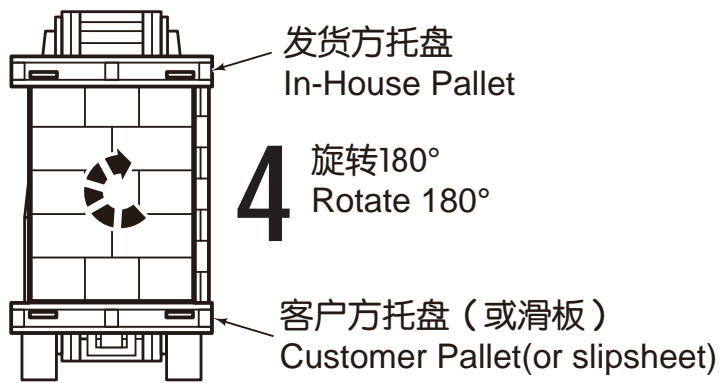
**2** 提升货物直至货物顶部被  
上方的托盘或滑板压紧  
Raise load to clamp against  
top pallet or slipsheet

发货方托盘  
In-House Pallet



PP1907.eps

**3** 用侧挡板紧固货物  
Secure load  
with side stabilizer

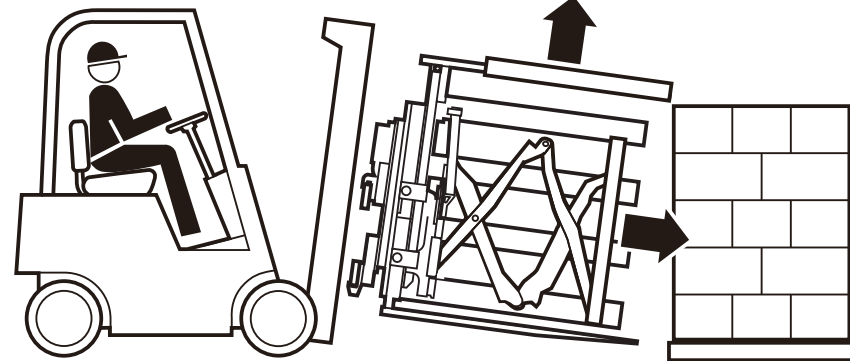


PP1908.eps

**4** 旋转180°  
Rotate 180°

发货方托盘  
In-House Pallet

客户方托盘 (或滑板)  
Customer Pallet (or slipsheet)

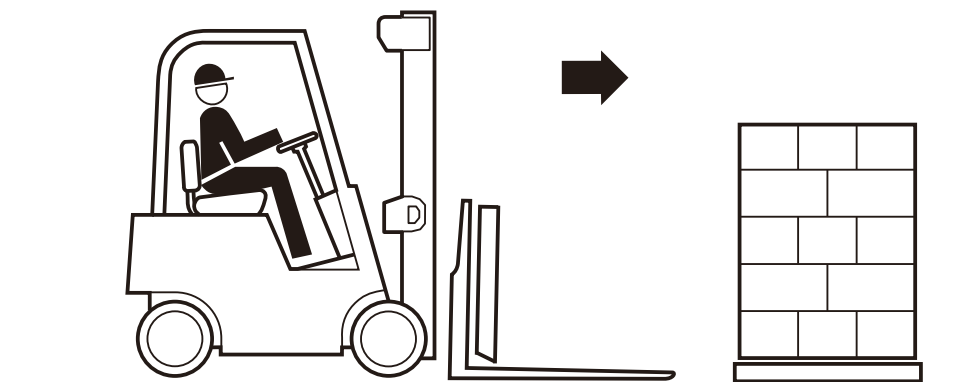


PP1909.eps

**5** 提升，将发货方托盘从货物上移走  
Lift in-house pallet off load

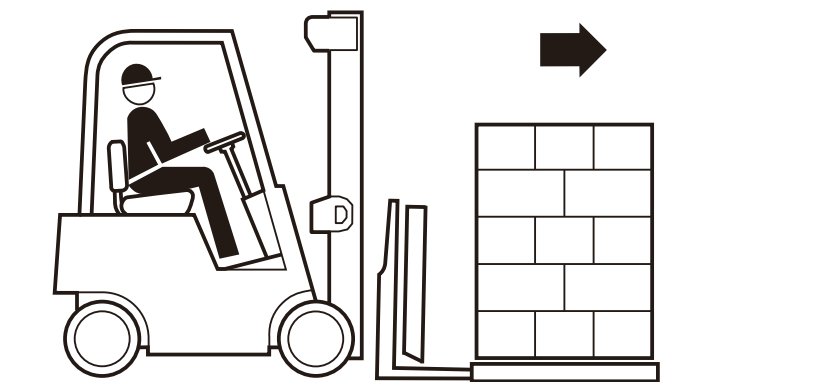
**6** 将货物推出，并倒退叉车  
Push load off and back away

# 软包推出器操作 **B**AG LOAD PUSH OPERATION

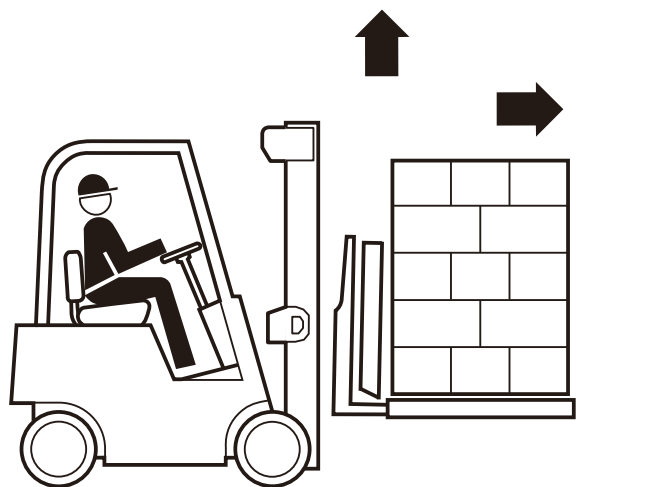


PP1906.eps

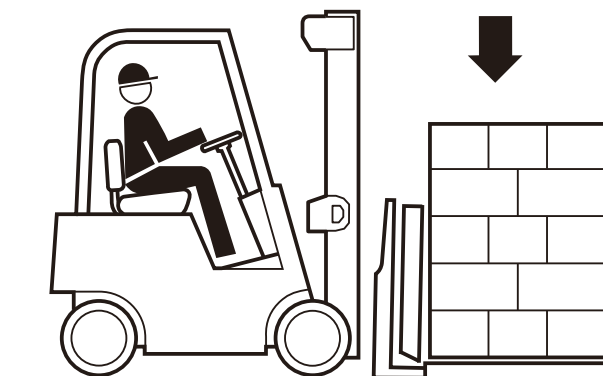
**1** 向前行驶，叉起货物  
Drive forward, pick up load



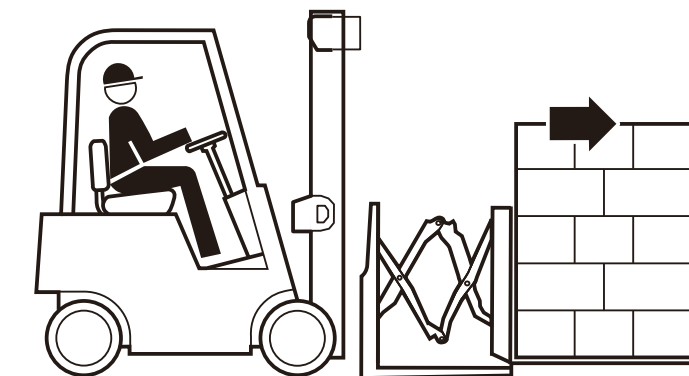
**2** 叉起货物  
Pick up load



**3** 提升，叉车向前行驶  
Lift up, drive forward

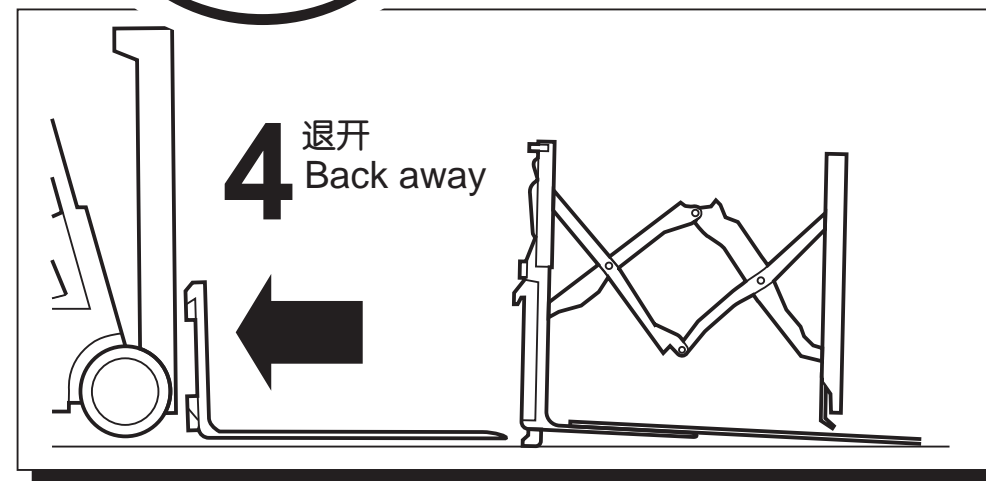
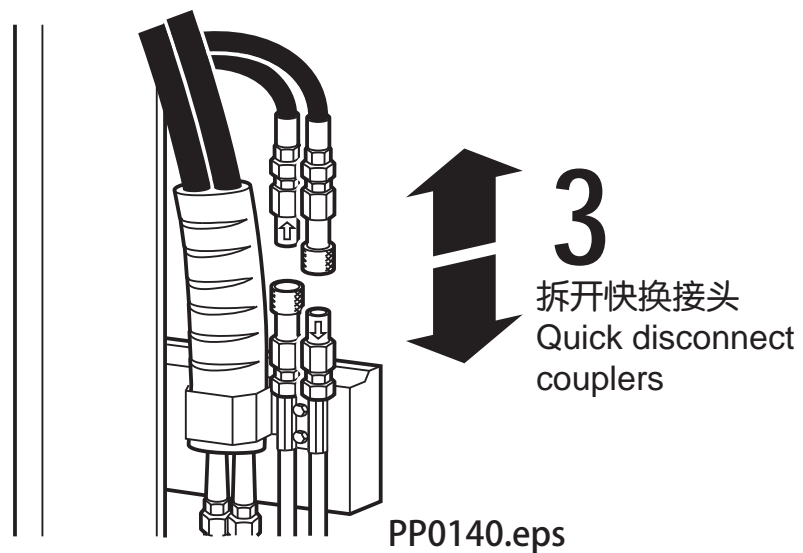
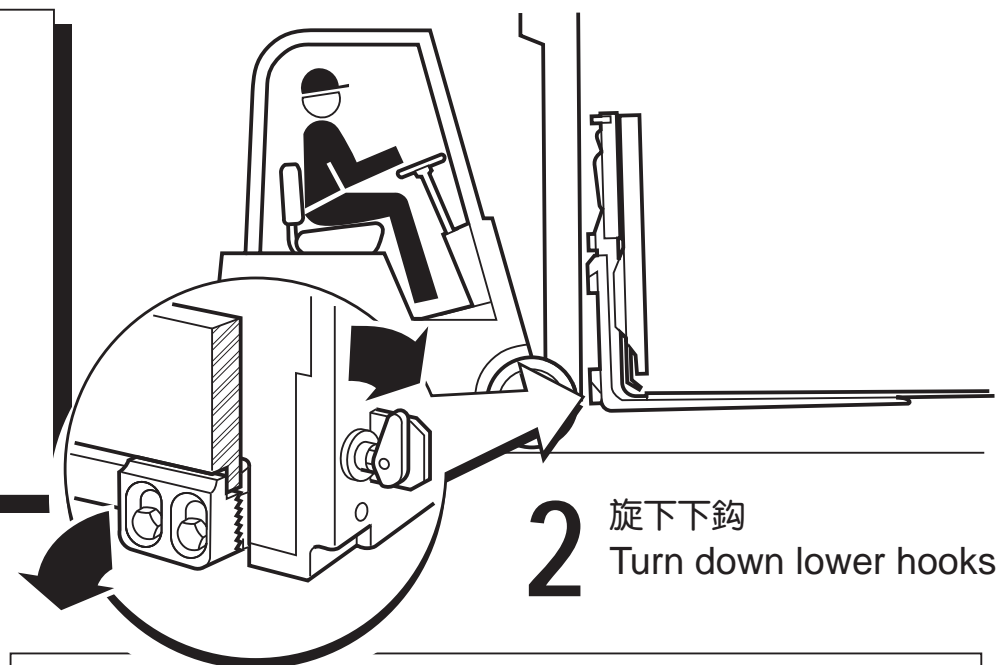
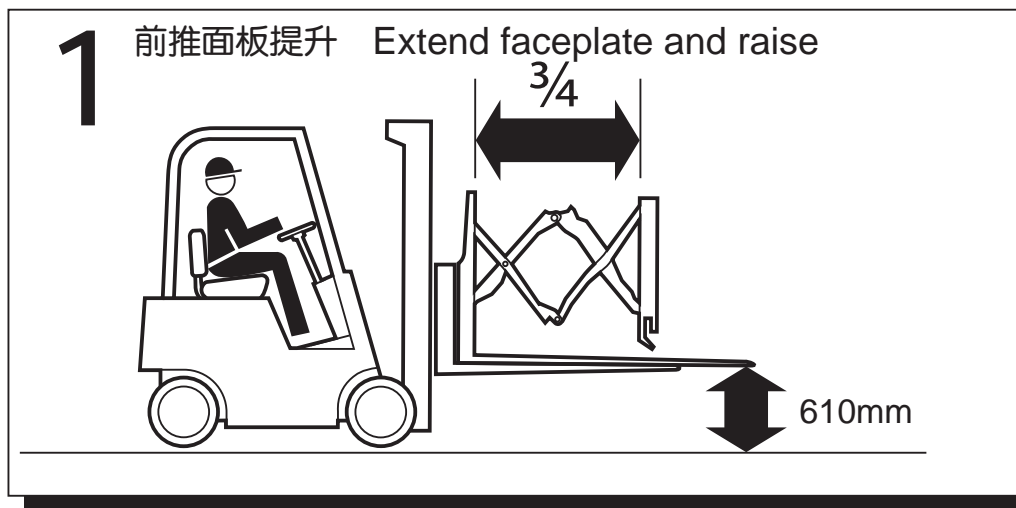


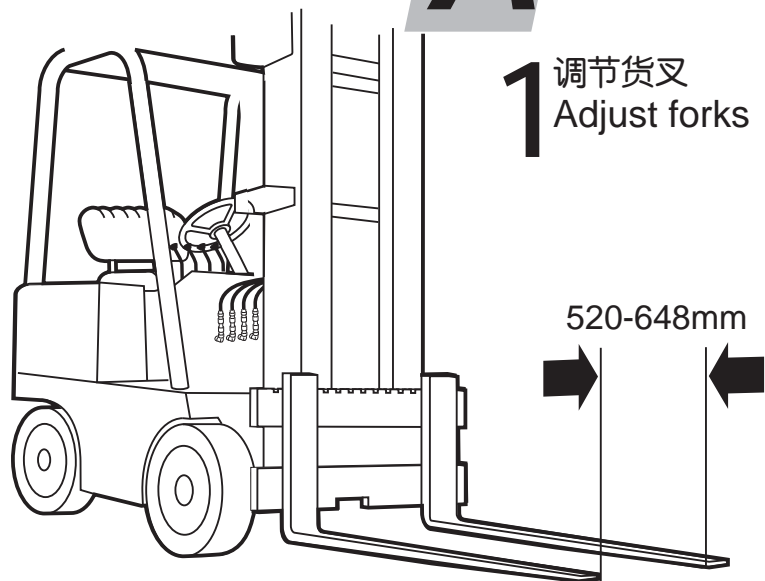
**4** 下降  
Lift down



**5** 将货物推出，并倒退叉车  
Push load off and back away

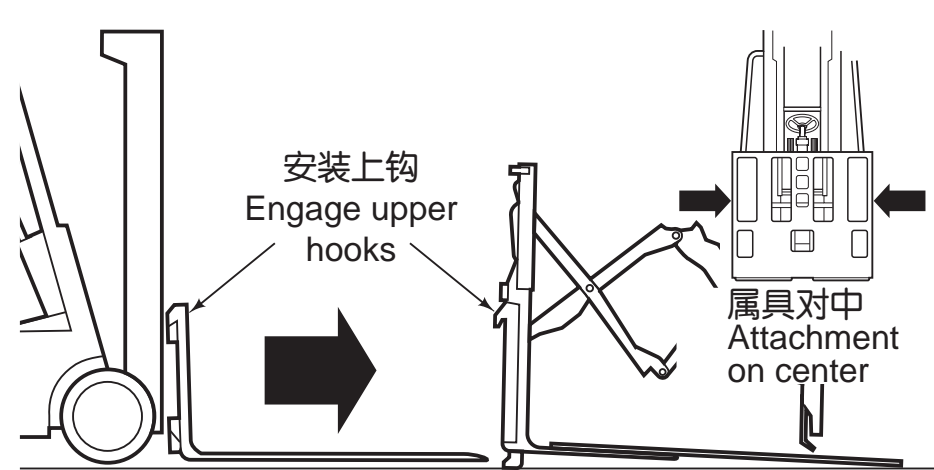
# 快装型推拉器拆卸 ATTACHMENT REMOVAL





**1** 调节货叉  
Adjust forks

520-648mm

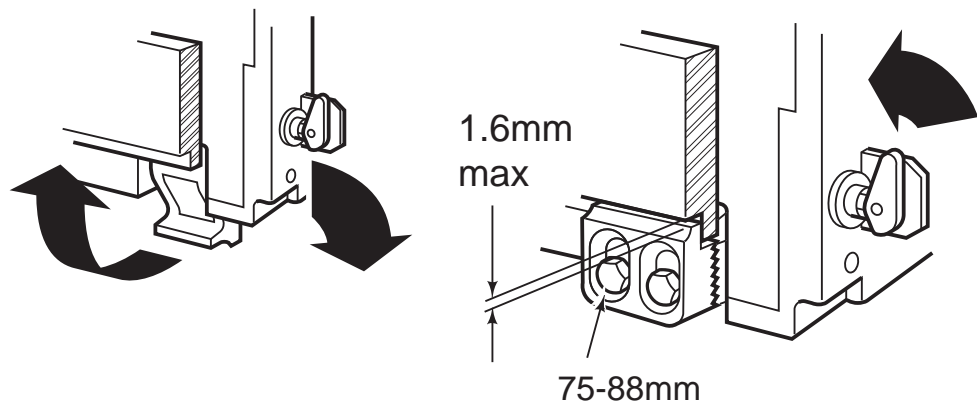


安装上钩  
Engage upper hooks

属具对中  
Attachment on center

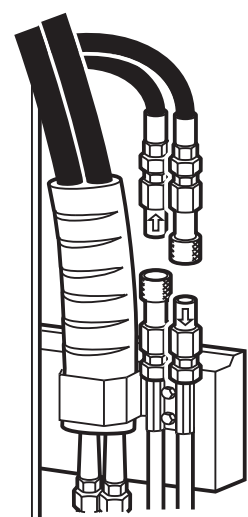
**2** A 货叉开到推拉器下方 B 安装上钩  
A Drive forks under attachment  
B Engage upper forks

**3** A 旋上下钩 B 准确调整下钩并锁紧  
A Turn up lower hooks  
B Adjust hook clearance and tighten



1.6mm max

75-88mm

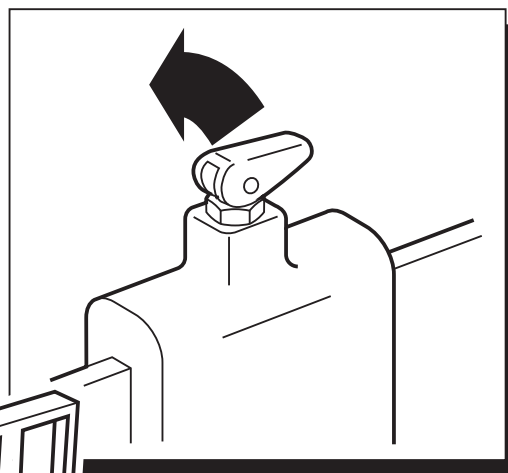
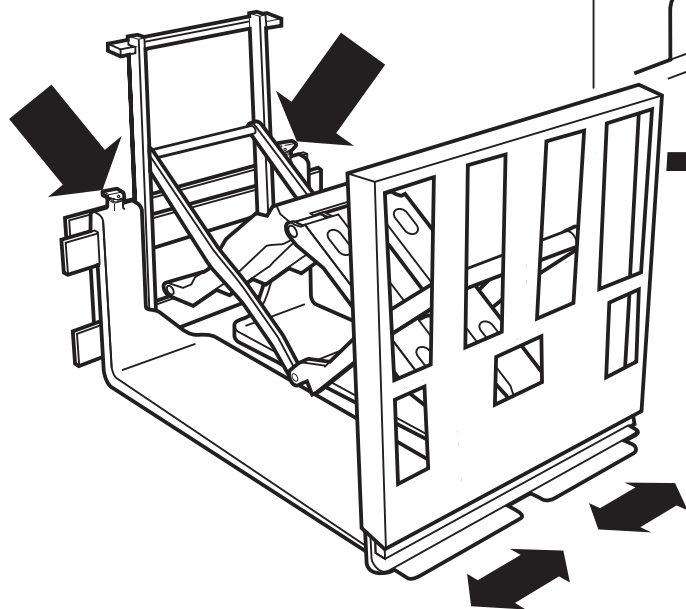


**4** 接上快换接头  
Quick disconnect couplers

PP0141.eps

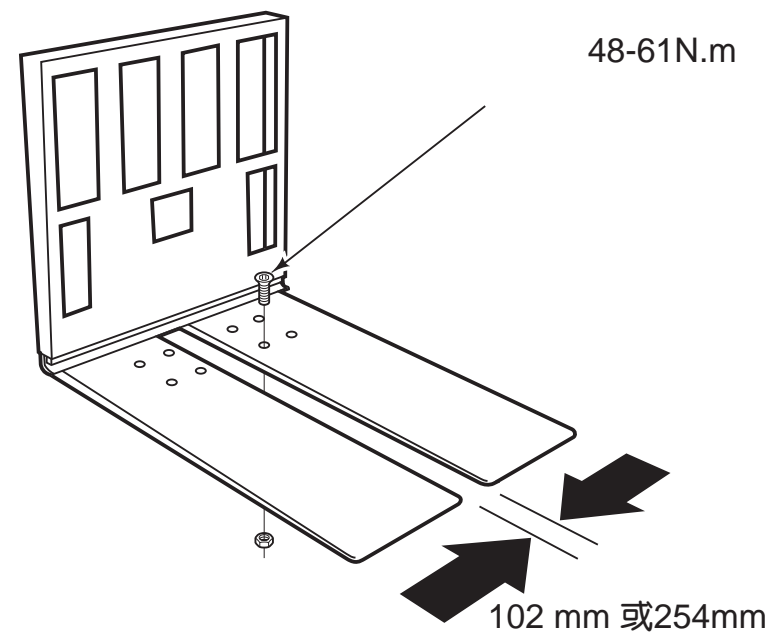
# 叉板调节 **P** LATEN ADJUSTMENT

标准型属具  
Dedicated Attachments



PP0142.eps

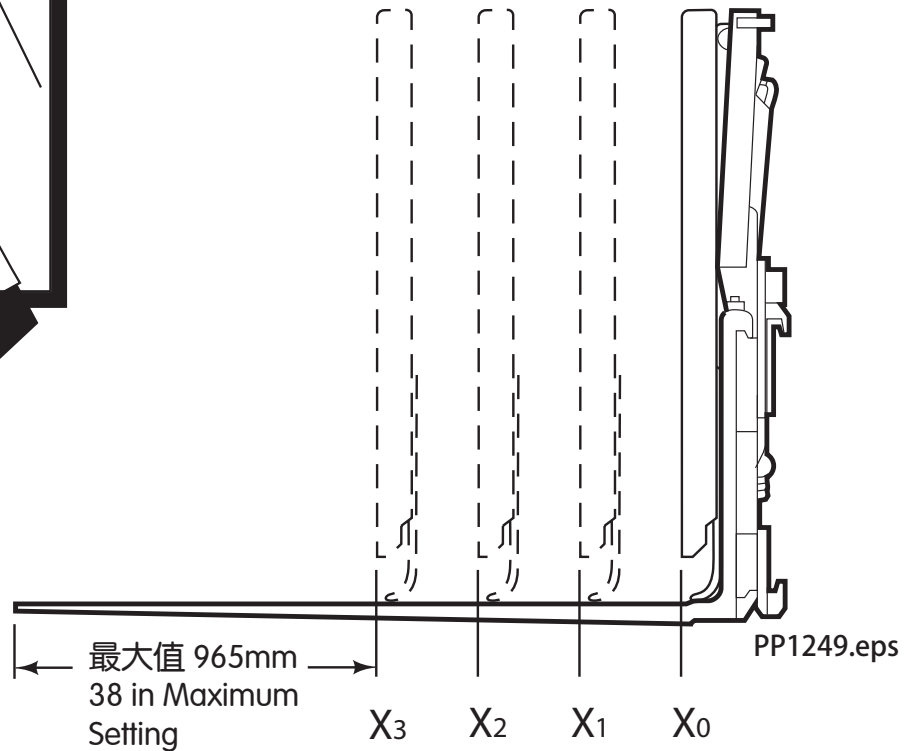
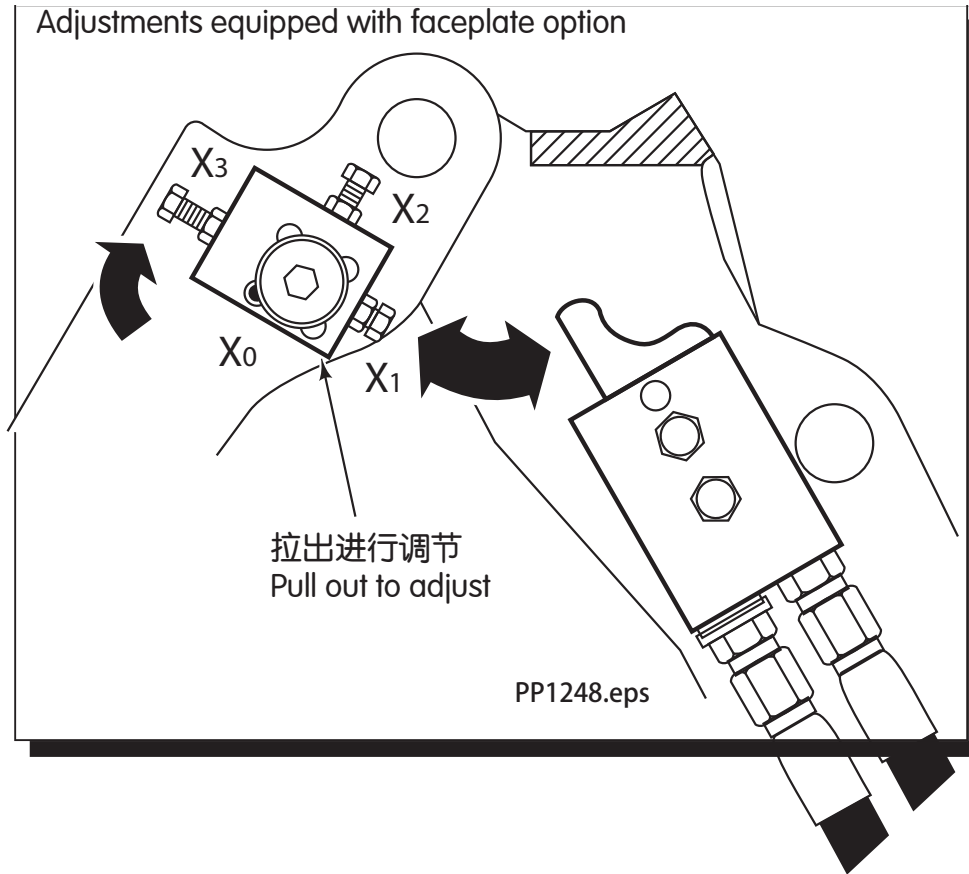
快装型属具  
QFM™(Quick Fork Mount)  
Attachments



# 面板止动阀调节 **F**ACEPLATE STOP ADJUSTMENT

安装有面板止动阀的属具

Adjustments equipped with faceplate option





### 100小时保养


叉车每次维修或使用100小时后(以先到达者为准)。需完成如下检测、保养工作:

- ①检查面板和框架上的滑动支承是否润滑充分。如有必要, 使用食品工业级润滑脂润滑。
- ②检查螺栓是否松动或丢失。
- ③检查推拉机构各铰接点的联接是否正常, 是否存在间隙。
- ④油管是否磨损, 液压件有无泄漏, 必要时请更换。  
备注: 尼龙保护套可有效地保护油管免受磨损(卡斯卡特零件号6086044和6088062)。
- ⑤面板、叉板前端面及钩板等有无变形或严重磨损。
- ⑥左右叉板是否存在高度差, 如有, 请按技术告示TB-205要求调整。(仅限快装型推拉器)。

### 500小时保养

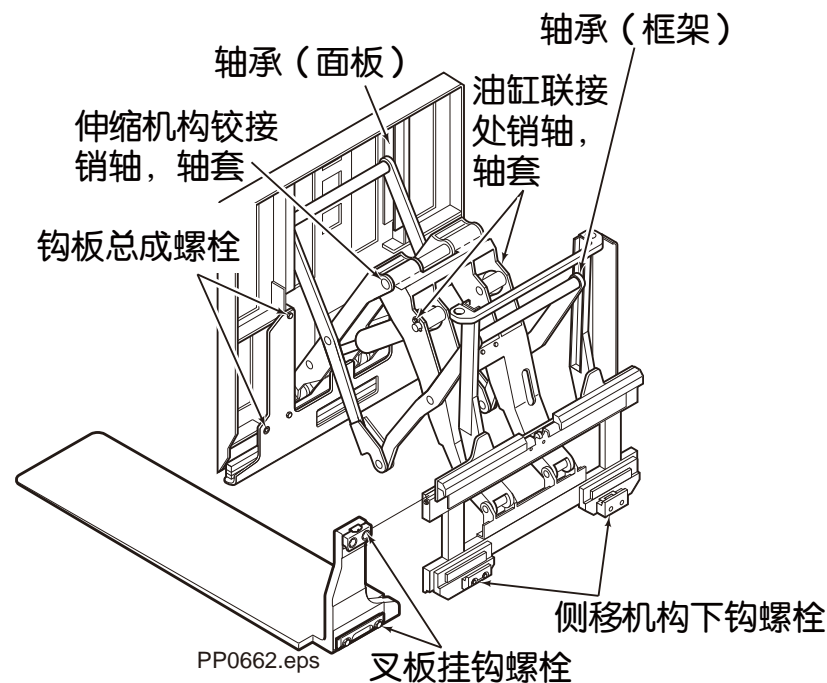
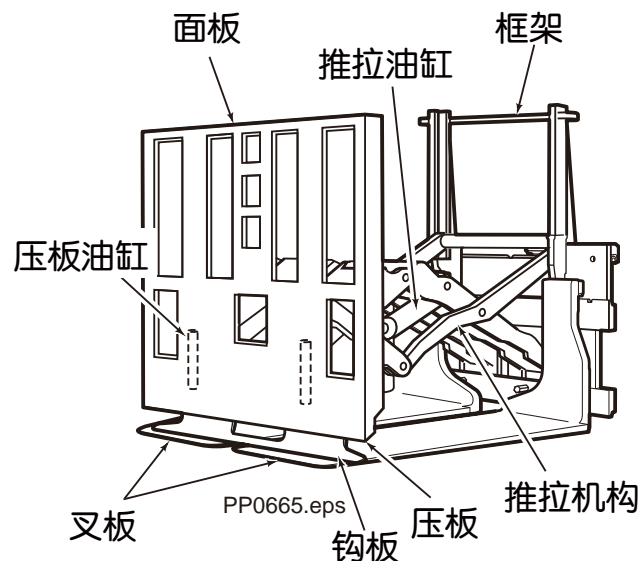
叉车每使用500小时后, 在进行100小时保养事项的基础上, 还应增加以下检测、保养工作:

- ⑦检查所有铰接处的轴套和销轴是否磨损过大, 必要时请更换。
- ⑧用13Nm的力矩锁紧铰接处的轴挡板螺栓。
- ⑨用165Nm的力矩锁紧钩板总成的螺栓。
- ⑩用165Nm的力矩锁紧叉板处的紧固螺栓。(标准型推拉器)  
用60Nm的力矩锁紧叉板处的紧固螺栓。(快装型推拉器)



**警告:** 叉板螺栓必需进行例行的锁紧以防设备损坏或伤人。

- ⑪检查下钩与叉车货叉架下横梁之间的间隙(仅限标准型推拉器):  
快换式下钩 - 最大间隙不超过5mm。  
螺栓紧固式下钩 - 如果属具是非侧移式的或者当属具是侧移式时最大间隙超过5mm时, 将下钩锁紧到货叉架的下横梁上。
- ⑫如有必要, 用165Nm的力矩锁紧下钩。(仅限标准型推拉器)



- ⑬检查下钩与叉车货叉架下横梁之间的间隙，最大不能超过3.2mm，如有必要，按要求调整。（仅限快装型推拉器）
- ⑭检查上钩定位调节螺栓与叉车货叉夹上横梁之间的间隙，最大不能超过1.6mm，如有必要，按要求调整。（仅限快装型推拉器）
- ⑮用80Nm的力矩锁紧下钩。（仅限快装型推拉器）

### 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：

- ⑯检查所有液压件是否泄漏，必要时请更换密封件或维修。
- ⑰检查左右叉板的高度是否平整，如有高度差，请按技术告示TB-205要求调整。（仅限快装型推拉器）
- ⑱检查叉板前端面是否变形或磨损，必要时请更换。

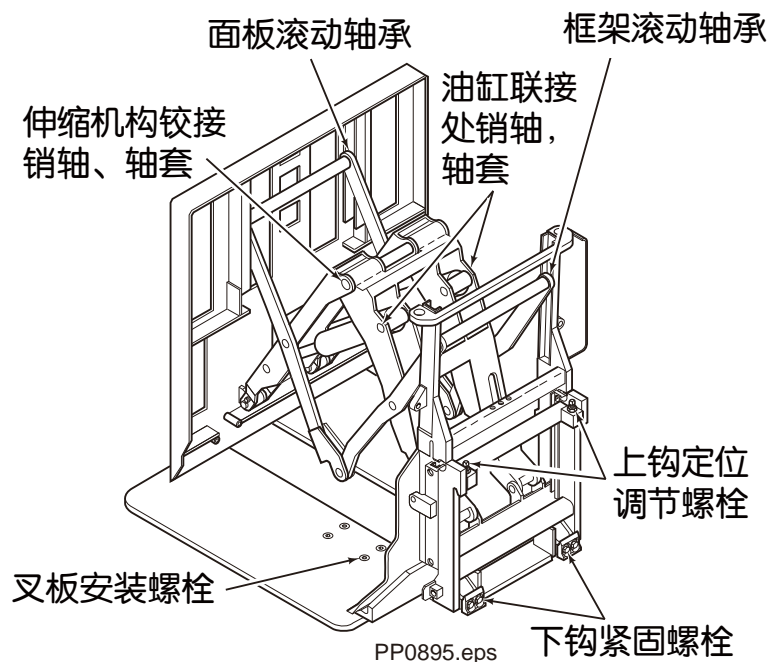
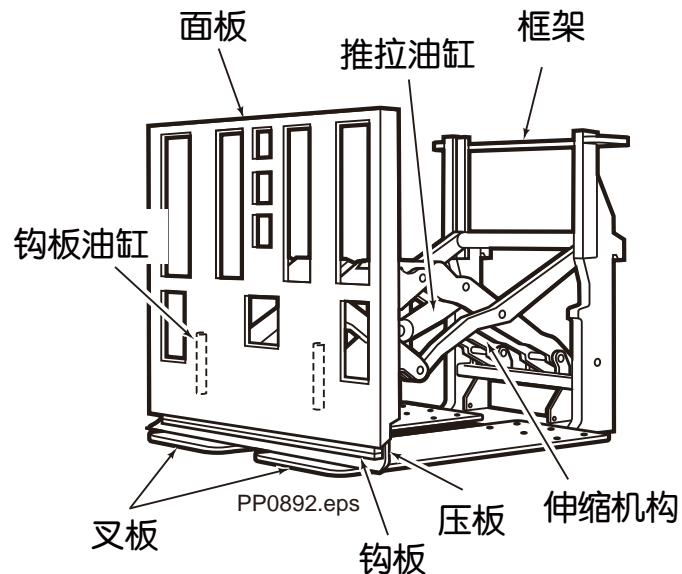
### 2000小时保养

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，还应增加以下检测、保养工作，对叉板或货叉进行检查，且相邻两次检查的间隔时间不能超过12个月，无论何时，任何缺陷和永久性变形都应该被检测出来。在一些恶劣的工况下，检测的频率应更高。叉板或货叉的检测人员应该经过专业的培训，具有检测出任何损坏故障并将其修复后，可安全使用的能力。任何叉板或货叉在检测前，必须将其从属具上拆卸下来。

需要对叉板或货叉进行检测的项目如下：

- |              |               |
|--------------|---------------|
| ⑲表面裂纹。       | ⑳定位销          |
| ㉑水平段和垂直段的平直度 | ㉒水平段和垂直段的磨损情况 |
| ㉓叉板或货叉的倾角    | ㉔挂钩的磨损情况      |
| ㉕两个叉尖之间的高度差。 | ㉖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 II），209561（ISO III），6104118（ISO IV）。



### 100小时保养

叉车每次维修或使用100小时后(以先到达者为准)。需完成如下检测、保养工作:

- ①检查面板和框架上的滑动支承是否润滑充分。如有必要,使用食品工业级润滑脂润滑。
- ②检查螺栓是否松动或丢失。
- ③检查推拉机构各铰接点的联接是否正常,是否存在间隙。
- ④油管是否磨损,液压件有无泄漏,必要时请更换。  
备注:尼龙保护套可有效地保护油管免受磨损(卡斯卡特零件号6086044和6088062)。
- ⑤面板、叉板前端面等有无变形或严重磨损。

### 500小时保养

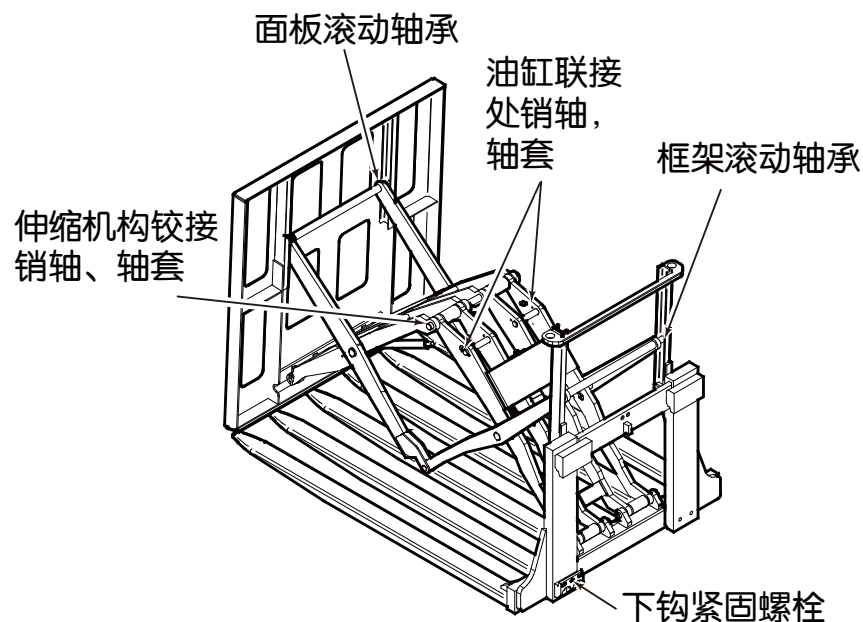
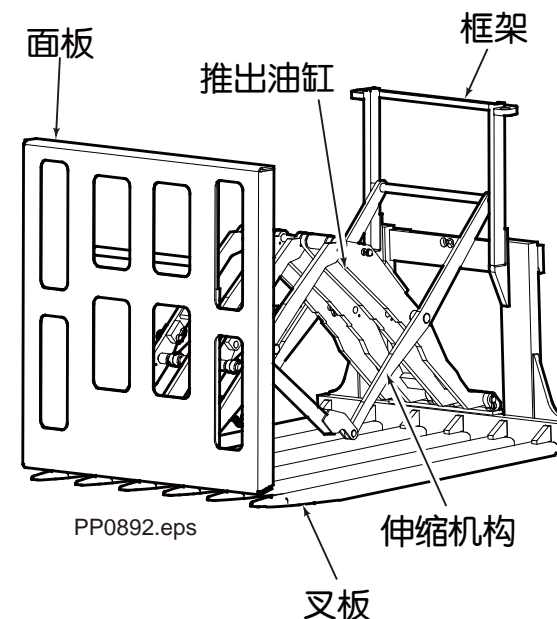
叉车每使用500小时后,在进行100小时保养事项的基础上,还应增加以下检测、保养工作:

- ⑥检查所有铰接处的轴套和销轴是否磨损过大,必要时请更换。
- ⑦用13Nm的力矩锁紧铰接处的轴挡板螺栓。
- ⑧检查下钩与叉车货叉架下横梁之间的间隙,最大不能超过3.2mm,如有必要,按要求调整。
- ⑨用80Nm的力矩锁紧下钩。

### 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:

- ⑩检查所有液压件是否泄漏,必要时请更换密封件或进行维修。
- ⑪检查货叉前端面是否变形或磨损,必要时请更换。



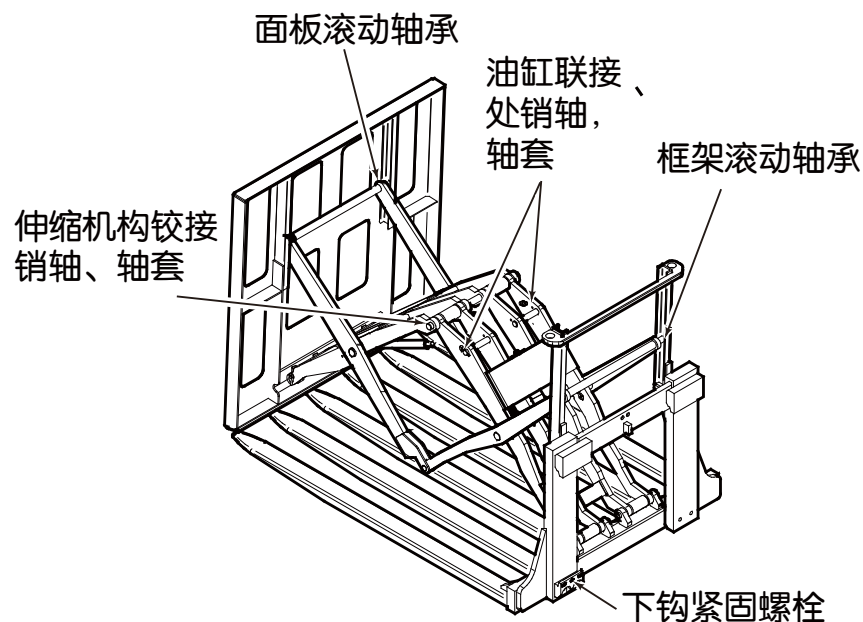
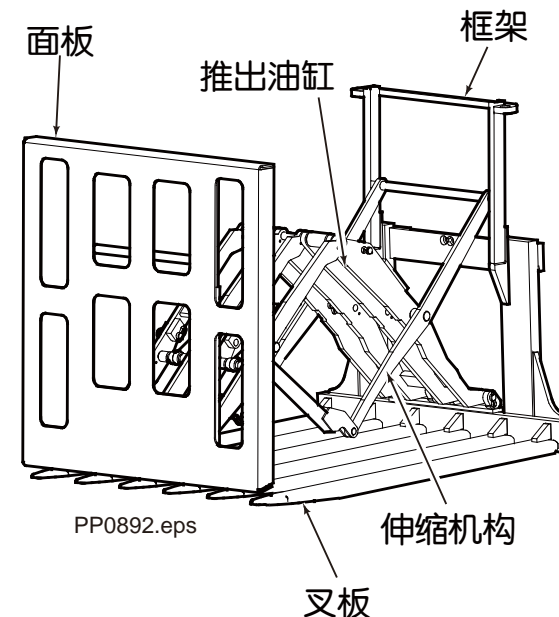
### 2000小时保养

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，还应增加以下检测、保养工作，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，任何缺陷和永久性变形都应该被检测出来。在一些恶劣的工况下，检测的频率应更高。货叉的检测人员应该经过专业的培训，具有检测出任何损坏故障并将其修复后，可安全使用的能力。

需要对货叉进行检测的项目如下：

- ⑫表面裂纹。
- ⑬水平段和垂直段的平直度
- ⑭水平段和垂直段的磨损情况
- ⑮挂钩的磨损情况
- ⑯两个叉尖之间的高度差。
- ⑰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 II), 209561(ISOIII), 6104118 (ISO IV)。



### 100小时保养

叉车每次维修或使用100小时后(以先到达者为准)。需完成如下检测、保养工作：

#### 推出机构及面板

- ①检查面板和框架上的滑动支承是否润滑充分。如有必要，使用食品工业级润滑脂润滑。
- ②检查螺栓是否松动或丢失。
- ③检查推拉机构各铰接点的联接是否正常，是否存在间隙。
- ④油管是否磨损，液压件有无泄漏，必要时请更换。  
备注：尼龙保护套可有效地保护油管免受磨损（卡斯卡特零件号6086044和6088062）。
- ⑤面板、叉板前端面等有无变形或严重磨损。

#### 导槽、夹臂和侧挡板

- ⑥检查所有螺栓是否松动或丢失，油管是否磨损或损坏，油缸是否泄漏。
- ⑦采用润滑脂对油缸两端的球形螺母进行润滑，并确保正确安装。
- ⑧必要时，对导槽内各滑动支承进行定期润滑有助于延长其寿命。

#### 侧移器

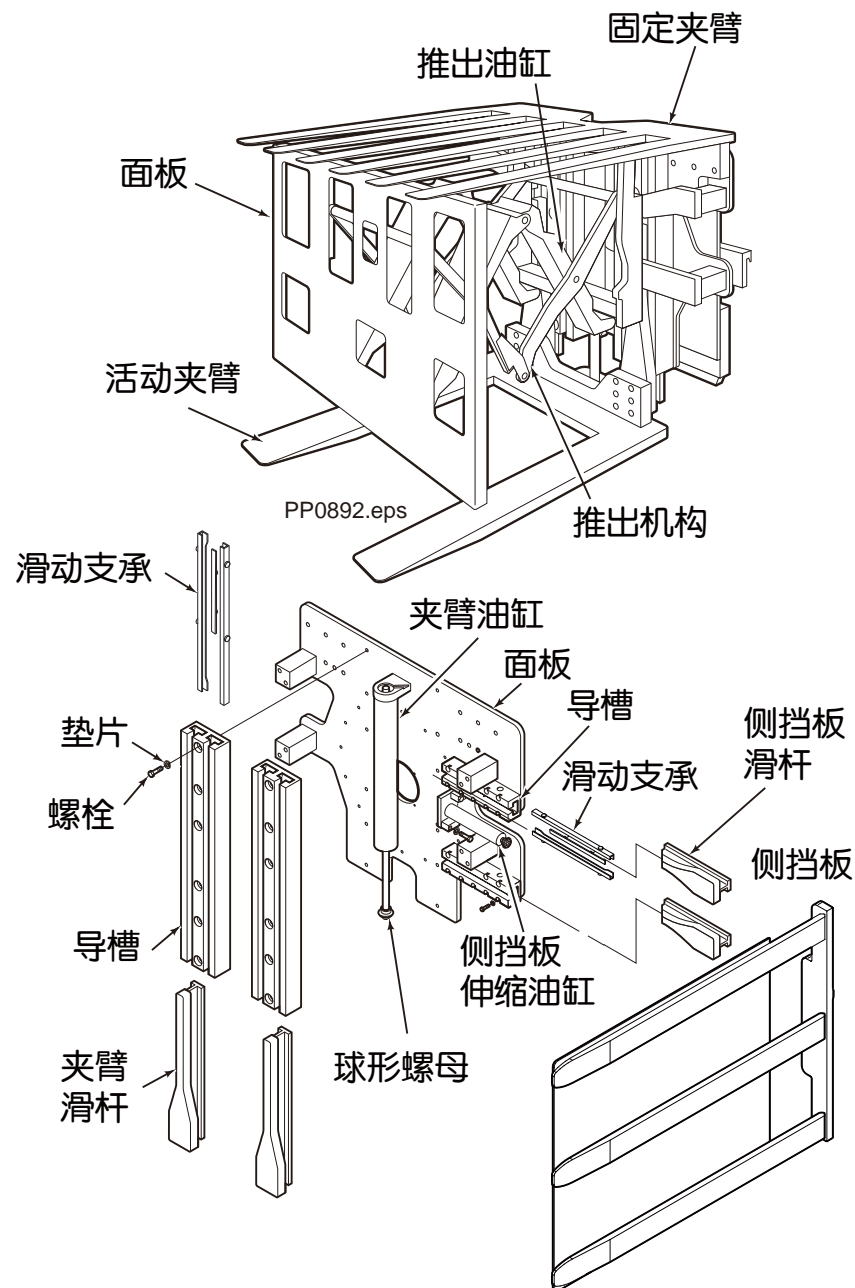
- ⑨检查下钩的磨损以及合适的间距（间隙1.5-3.0mm）。用165Nm的力矩锁紧下钩。

### 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，还应增加以下检测、保养工作：

#### 推拉机构及面板

- ⑩检查所有铰接处的轴套和销轴是否磨损过大，必要时请更换。
- ⑪用13Nm的力矩锁紧铰接处的轴挡板螺栓。



### 回转支承、基板和减速器总成

- ⑫用105Nm的扭矩将回转支承与面板、基板的联接螺栓重新锁紧。
- ⑬在回转支承注油咀上加注NLGI 2型润滑脂（或同等的Withmore'Omni-task'型润滑脂），加油期间让回转支承旋转一周。
- ⑭打开减速器上的油咀，检查减速器内齿轮油的油位，如果没有达到油咀孔，请用656300或SAE #90齿轮油加满。

### 夹臂

- ⑮检测夹臂的夹紧力大小。卡斯卡特35G-DFI-8RF和35G-CFI-8RF夹紧力测试仪可用于测试夹紧力。

### 侧移器

- ⑯用通用的锂基润滑脂对侧移器的上支承和下支承进行润滑。

### 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：

### 推出机构

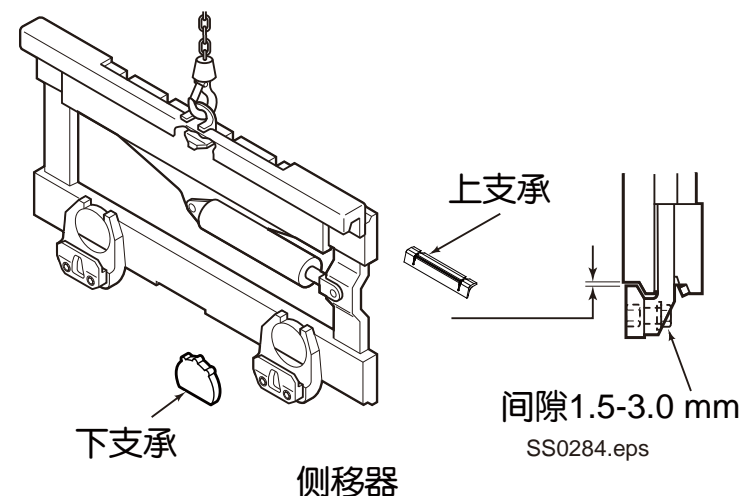
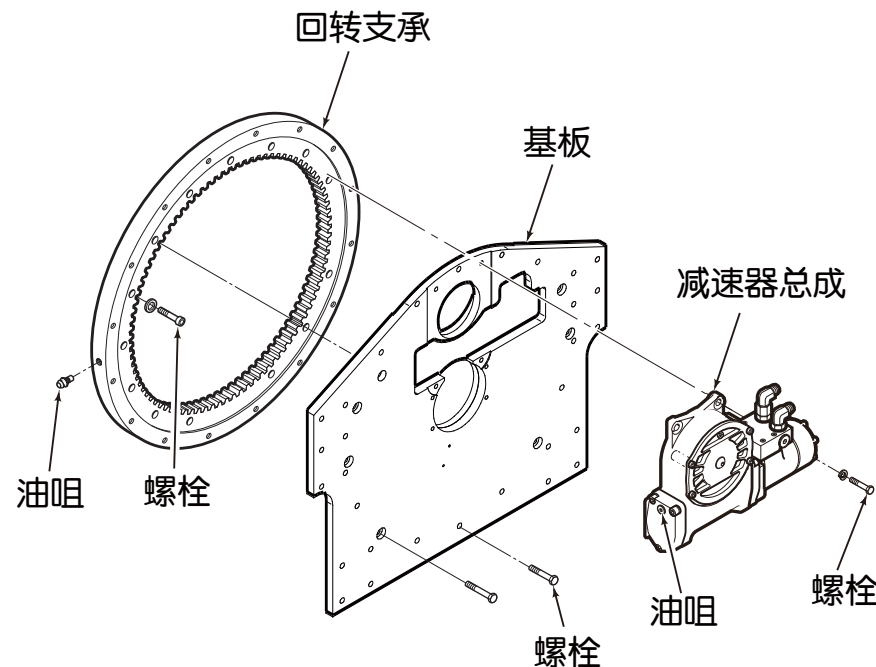
- ⑰检查所有液压件是否泄漏，必要时请更换密封件或维修。

### 导槽、夹臂和侧挡板

- ⑱检查夹臂、侧挡板前端面是否变形或磨损，必要时请更换。
- ⑲检查导槽内的滑动支承，如果已经磨损，且剩余厚度小于1mm时，请更换。

### 侧移器

- ⑳检查上、下滑动支承，如果已经磨损，且剩余厚度小于2.5mm时，请更换。



### 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，还应增加以下检测、保养工作，

#### 导槽、夹臂和侧挡板

②①对夹臂和侧挡板进行检查，且相邻两次检查的间隔时间不能超过12个月，无论何时，任何缺陷和永久性变形都应该被检测出来。在一些恶劣的工况下，检测的频率应更高。夹臂和侧挡板的检测人员应该经过专业的培训，具有检测出任何损坏故障并将其修复后，可安全使用的能力。需要对夹臂和侧挡板进行检测的项目如下：

- a. 表面裂纹。
- b. 平直度
- c. 磨损情况
- d. 前端面之间的高度差。

②②更换导槽内所有的滑动支承

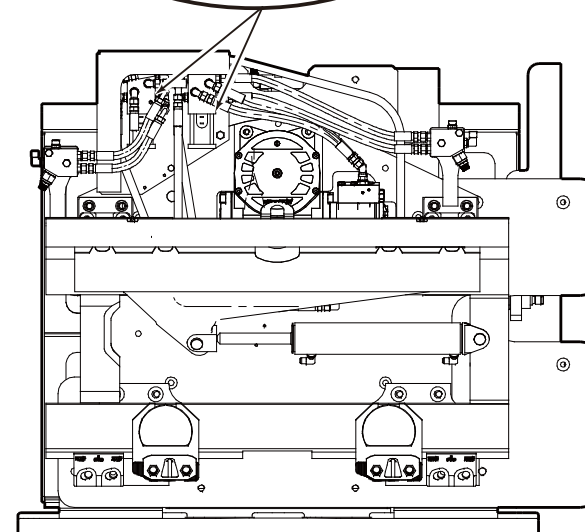
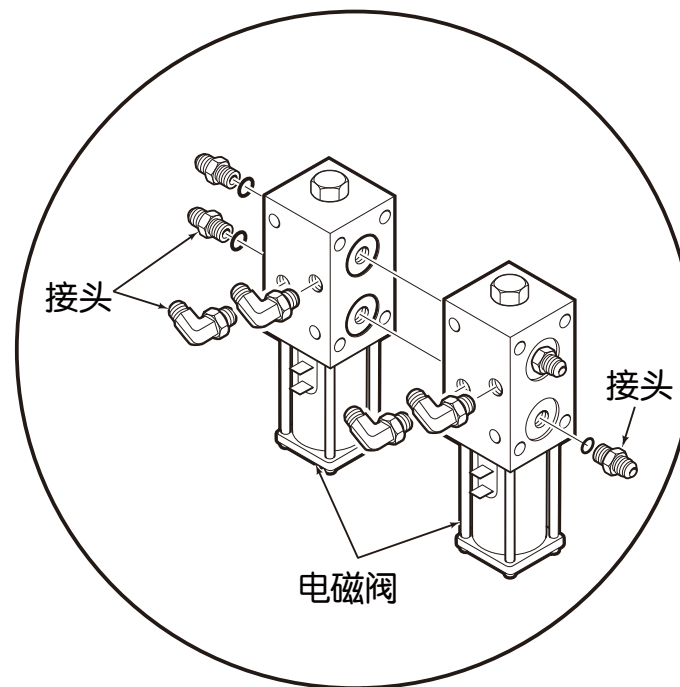
#### 回转支承、基板和减速器总成

②③用105Nm的力矩锁紧回转支承上所有的螺栓，并检查螺栓有无损坏，必要时请更换。

②④检查液压件、减速器等是否正常，必要时请更换。

#### 电磁阀组件

②⑤检查电磁阀是否正常，连接油管是否破损，必要时请更换。



# P PERIODIC MAINTENANCE

## Push & Pull

### 100-Hour Maintenance

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

- ① Inspect faceplate and frame sliding bearing blocks for lubrication.  
Lubricate as necessary with food industry grease.
- ② Check for loose or missing bolts.
- ③ Check all mechanism pivot point for link or clearance.
- ④ Check for worn or damaged hoses and hydraulic leaks, replace the seals or repair as necessary.  
NOTE: Nylon protection sleeves are available to prevent hoses from rubbing (Cascade part number 6086044 and 6088062).
- ⑤ Check the front face of faceplate, platen tips and gripper bar for damage or wear and replace as necessary.
- ⑥ Check the difference in height of platens, adjust as necessary. Refer to TB-205. (Only for QFM™ model)

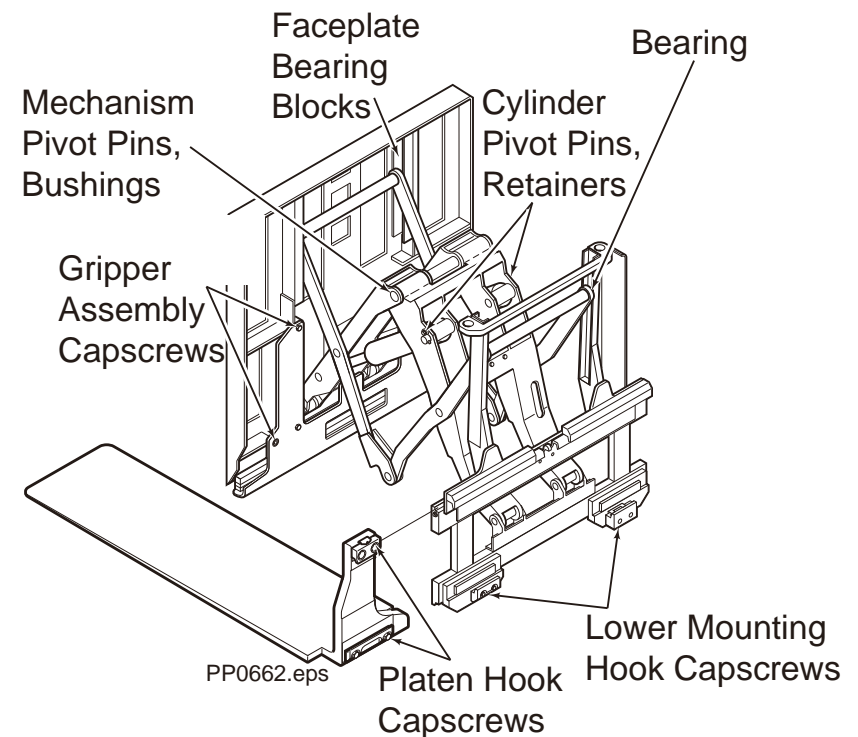
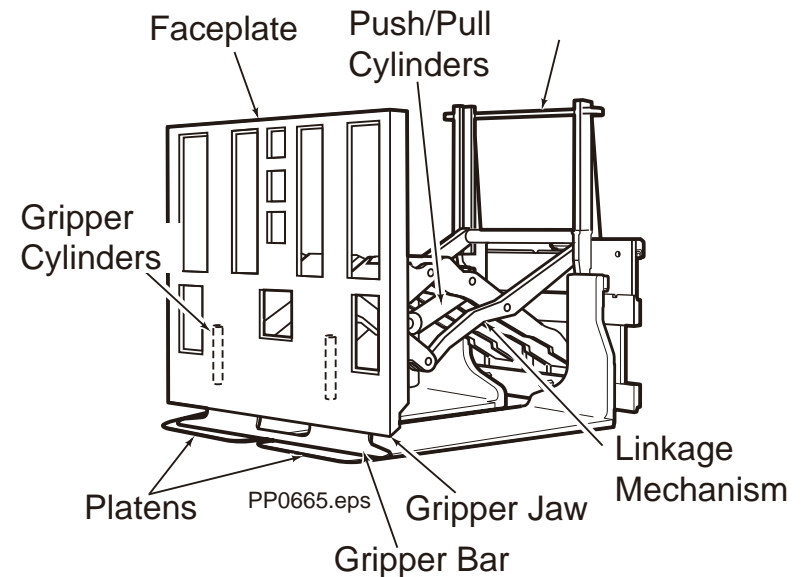
### 500-Hour Maintenance

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

- ⑦ Inspect all mechanism pivot point bushings and pins for excessive wear and replace as necessary.
- ⑧ Tighten the mechanism pivot pin retainer capscrews to 13 Nm.
- ⑨ Tighten the gripper assembly capscrews to 165 Nm.
- ⑩ Tighten the platen hook capscrews to 165 Nm (Standard)  
Tighten the platen hook capscrews to 60 Nm (QFM™)



**WARNING:** Platen capscrews must be tightened regularly to prevent equipment damage or personnel injury.





# P PERIODIC MAINTENANCE

## Push & Pull

- ⑪ Check the clearance between the lower mounting hooks and the truck carriage bar (Only for standard model):  
Quick-Change Hooks – 5 mm maximum.  
Bolt-on Hooks – Tight against lower carriage bar if non-sideshifting or 5 mm maximum if sideshifting.
- ⑫ Tighten the lower hook mounting capscrews to 165 Nm . ( Only for standard model )
- ⑬ Check for 3.2 mm maximum clearance between lower mounting hooks and truck carriage bar. (Only for QFM™ model)
- ⑭ Check for 1.6mm maximum clearance between upper hook setscrews and truck carriage bar. (Only for QFM™ model)
- ⑮ Tighten lower hook capscrews to 80 Nm.

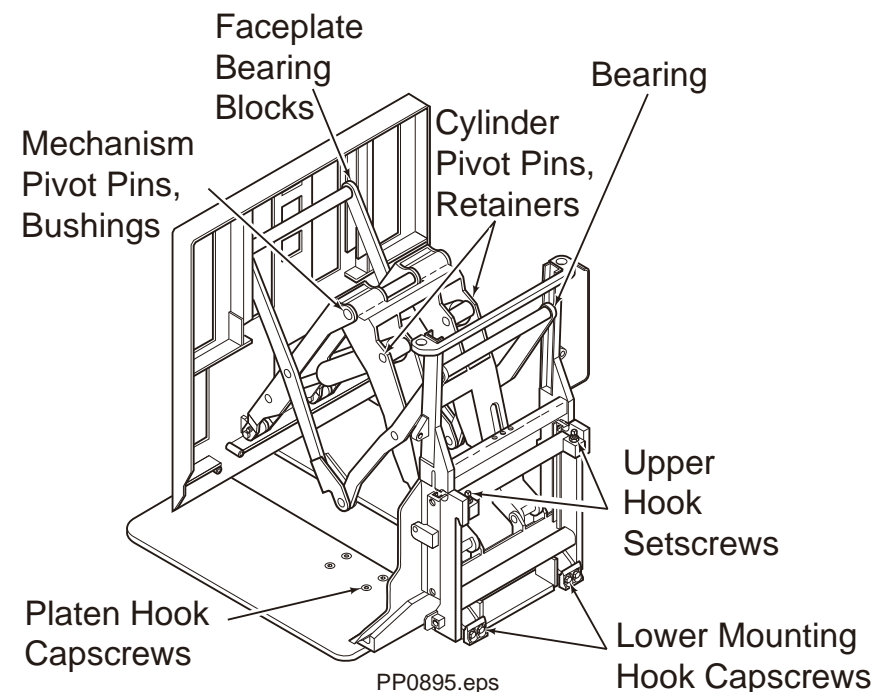
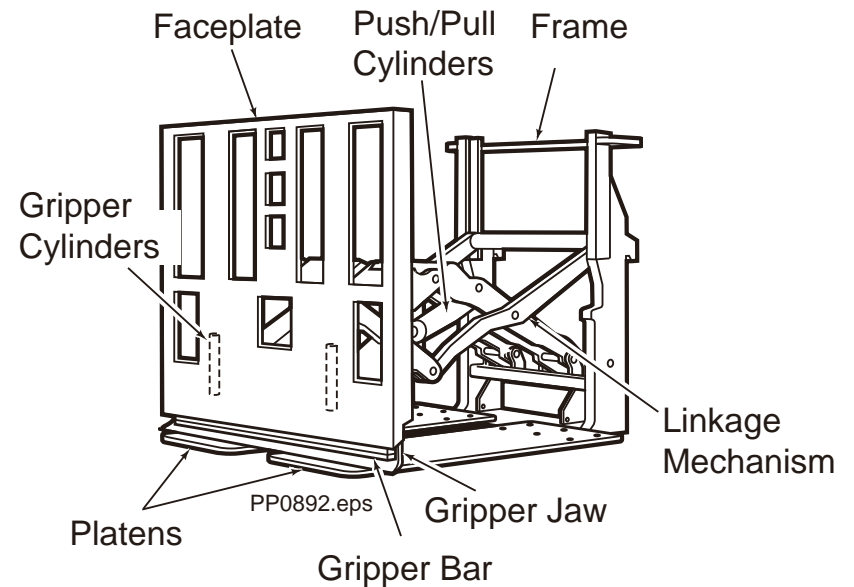
### 1000-Hour Maintenance

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

- ⑯ Check the hydraulic leaks, replace the seals or repair as necessary.
- ⑰ Check the difference in height of platens , adjust as necessary. Refer to TB-205. (Only for QFM™ model)
- ⑱ Check the platen tips for damage or wear and replace as necessary.

### 2000-Hour Maintenance

After 2000 hours of truck operation, in addition to the 100, 500 and 1000-hour maintenance, platens or 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. Platen or fork inspection shall be carried out by trained personnel to detect any damage that might impair safe use. Any platen or fork that is defective



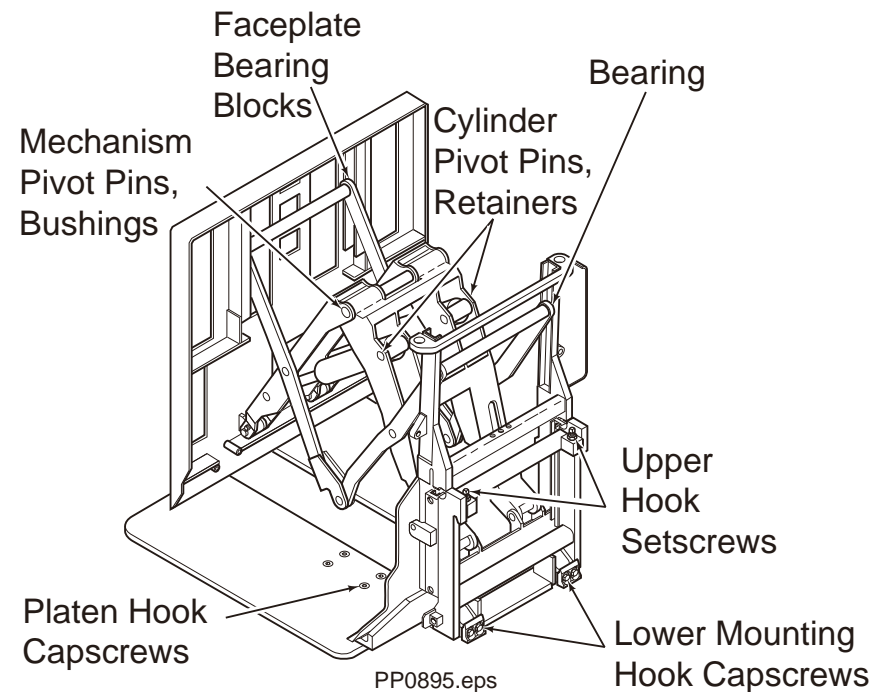
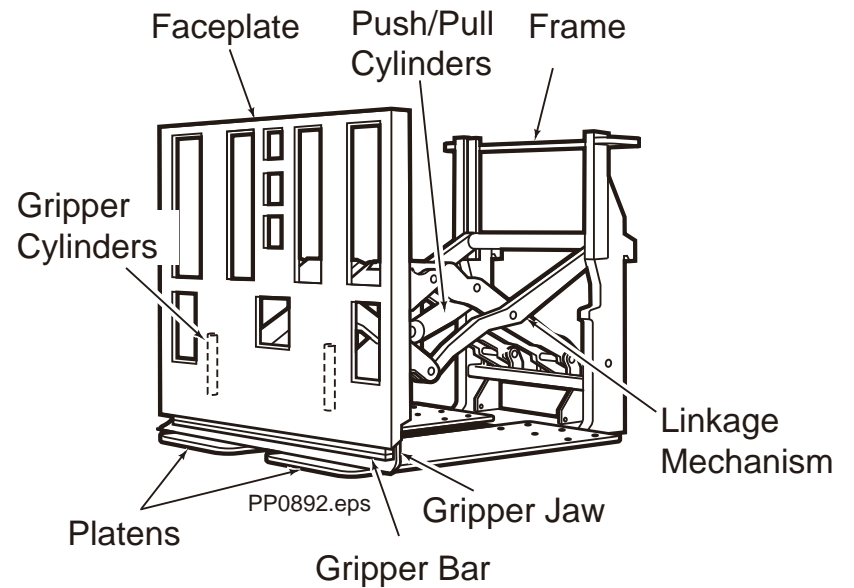
# P PERIODIC MAINTENANCE

## Push & Pull

shall be removed from service.  
Inspect for the following defects:

- |                                     |                                |
|-------------------------------------|--------------------------------|
| ⑲ Surface cracks                    | ⑳ Positioning lock             |
| ㉑ Straightness of blade and shank   | ㉒ Wear on fork blade and shank |
| ㉓ Platen or Fork angle              | ㉔ Wear on fork hooks           |
| ㉕ Difference in height of fork tips | ㉖ 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 6104118 (Class IV).



# **P**ERIODIC MAINTENANCE

## Bag Load Push

### 100-Hour Maintenance

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

- ① Inspect faceplate and frame sliding bearing blocks for lubrication.  
Lubricate as necessary with food industry grease.
- ② Check for loose or missing bolts.
- ③ Check all mechanism pivot point for link or clearance.
- ④ Check for worn or damaged hoses and hydraulic leaks, replace the seals or repair as necessary.

NOTE: Nylon protection sleeves are available to prevent hoses from rubbing (Cascade part number 6086044 and 6088062).

- ⑤ Check the front face of faceplate, platen tips for damage or wear and replace as necessary.

### 500-Hour Maintenance

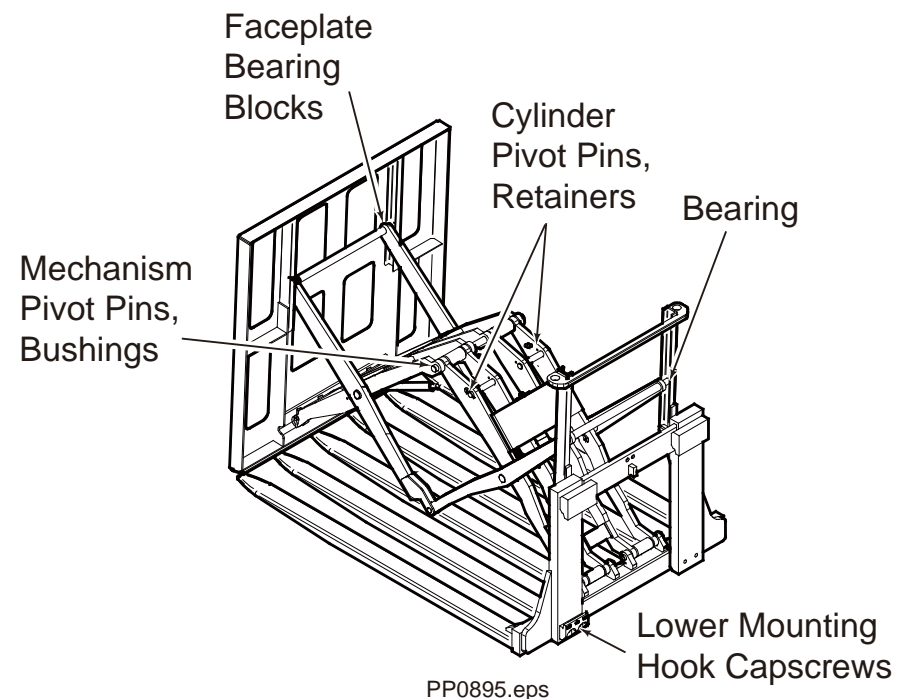
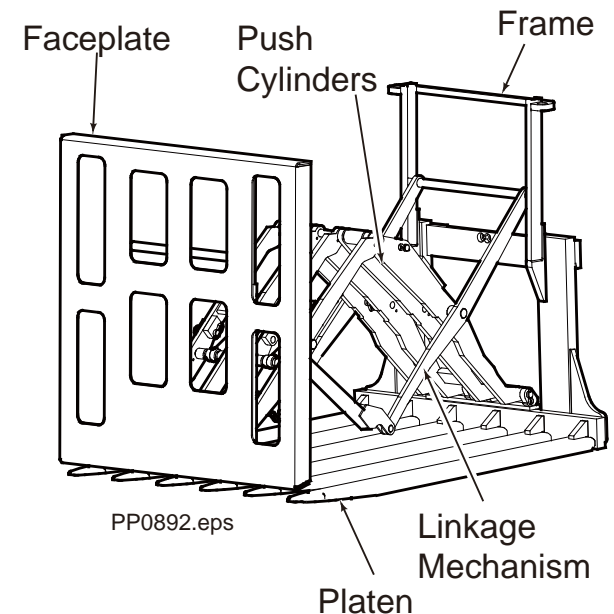
After each 500 hours of truck operation, in addition to the 100-hour maintenance, perform the following procedures.

- ⑥ Inspect all mechanism pivot point bushings and pins for excessive wear and replace as necessary.
- ⑦ Tighten the mechanism pivot pin retainer capscrews to 13 Nm.
- ⑧ Check for 3.2 mm maximum clearance between lower mounting hooks and truck carriage bar.
- ⑨ Tighten the lower hook capscrews to 80 Nm

### 1000-Hour Maintenance

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

- ⑩ Check the hydraulic leaks, replace the seals or repair as necessary.
- ⑪ Check the fork tips for damage or wear and replace as necessary.



# P ERIODIC MAINTENANCE

## Bag Load Push

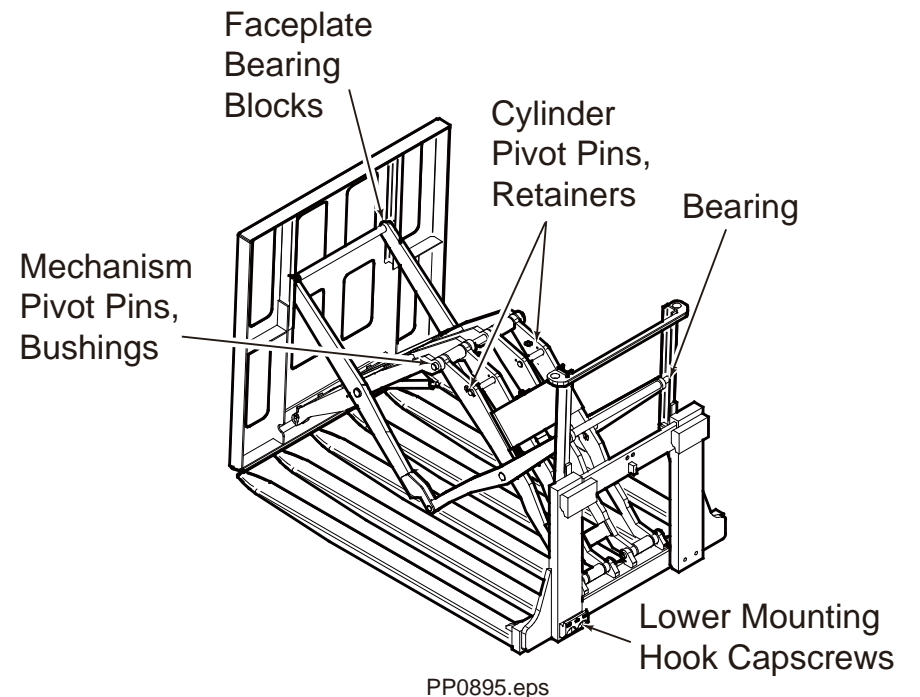
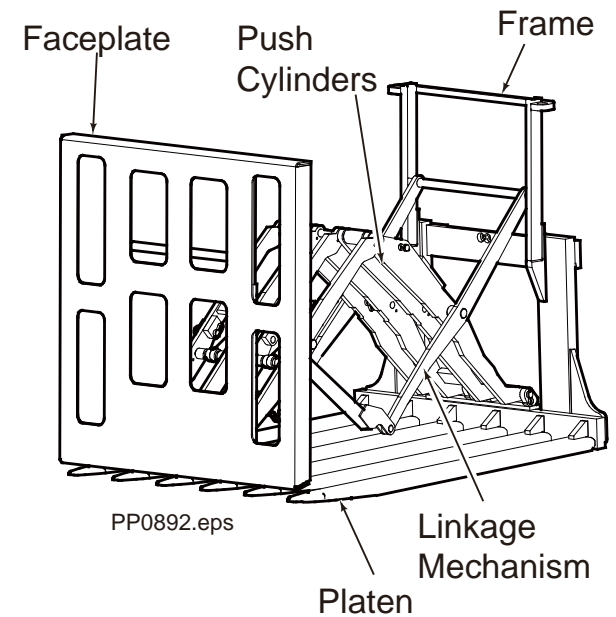
### 2000-Hour Maintenance

After 2000 hours of truck operation, in addition to the 100, 500 and 1000-hour maintenance, 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.

Inspect for the following defects:

- |                                     |                                   |
|-------------------------------------|-----------------------------------|
| ⑫ Surface cracks                    | ⑬ Straightness of blade and shank |
| ⑭ Wear on fork blade and shank      | ⑮ Wear on fork hooks              |
| ⑯ Difference in height of fork tips | ⑰ 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 6104118 (Class IV).



# P ERIODIC MAINTENANCE

## Inverta™ Push

### 100-Hour Maintenance

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

#### Linkage Mechanism & Faceplate

- ① Inspect faceplate and frame sliding bearing blocks for lubrication. Lubricate as necessary with food industry grease.
- ② Check for loose or missing bolts.
- ③ Check all mechanism pivot point for link or clearance.
- ④ Check for worn or damaged hoses and hydraulic leaks, replace the seals or repair as necessary.

NOTE: Nylon protection sleeves are available to prevent hoses from rubbing (Cascade part number 6086044 and 6088062).

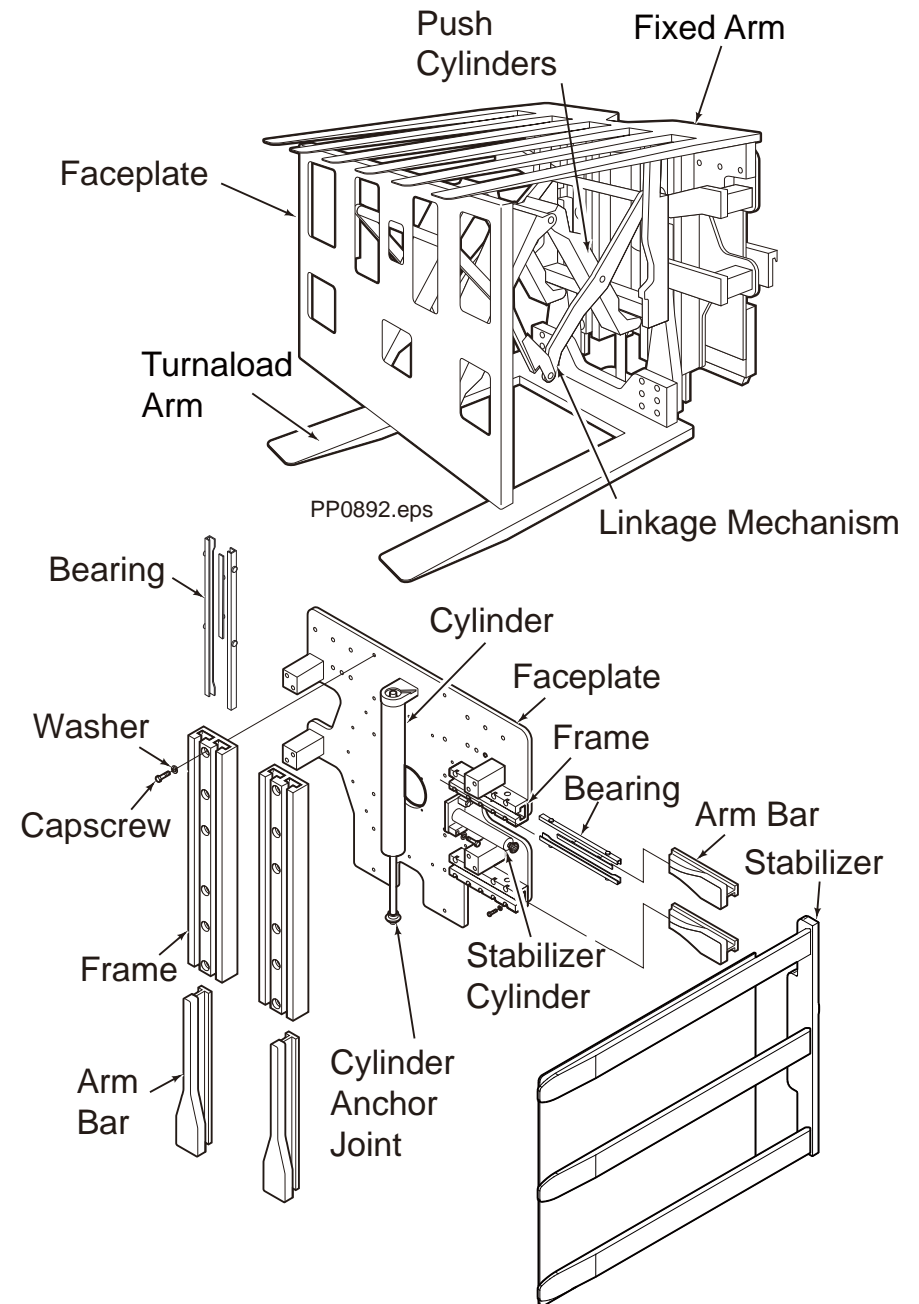
- ⑤ Check the front face of faceplate, platen tips for damage or wear and replace as necessary.

#### Frame, Arm & Stabilizer

- ⑥ Check for loose or missing bolts, worn or damaged hoses and hydraulic leaks.
- ⑦ Inspect the cylinder anchor joint for lubrication and correct hold.
- ⑧ Arm bearing life can be extended by a light application of chassis grease, if permitted by your application.

#### Sideshifter

- ⑨ Inspect lower hooks for wear and proper clearance(1.5-3.0mm). Adjust if necessary. Tighten lower hook capscrews to 165 Nm



# **P**ERIODIC MAINTENANCE

## Inverta™ Push

### 500-Hour Maintenance

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

#### Linkage Mechanism & Faceplate

- ⑩ Inspect all mechanism pivot point bushings and pins for excessive wear and replace as necessary.
- ⑪ Tighten the mechanism pivot pin retainer capscrews to 13 Nm.

#### Bearing, Baseplate & Drive Group

- ⑫ Tighten faceplate, baseplate-to-rotation bearing assembly capscrews 105 Nm.
- ⑬ Lubricate rotator bearing assembly with multi-purpose extreme-pressure NLGI 2 grease (Whitmore 'OmniTask' or equivalent). Rotate Clamp one full turn during procedure.
- ⑭ 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.

#### Arm

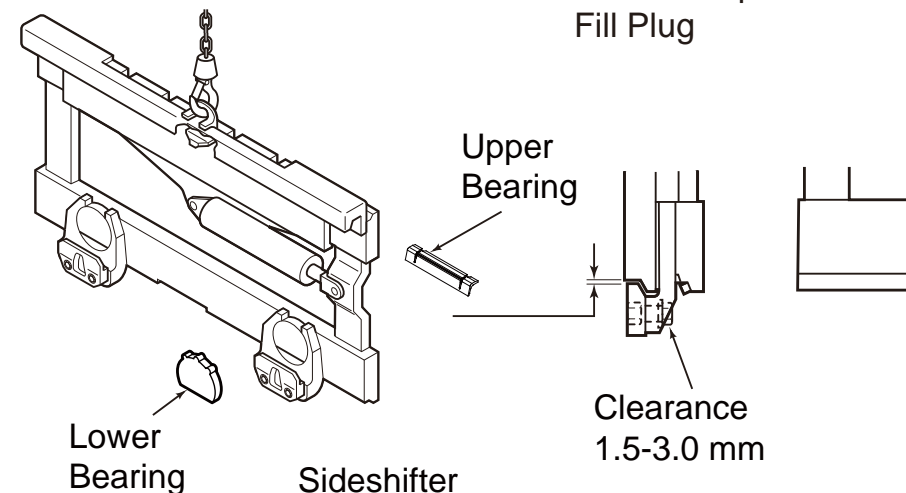
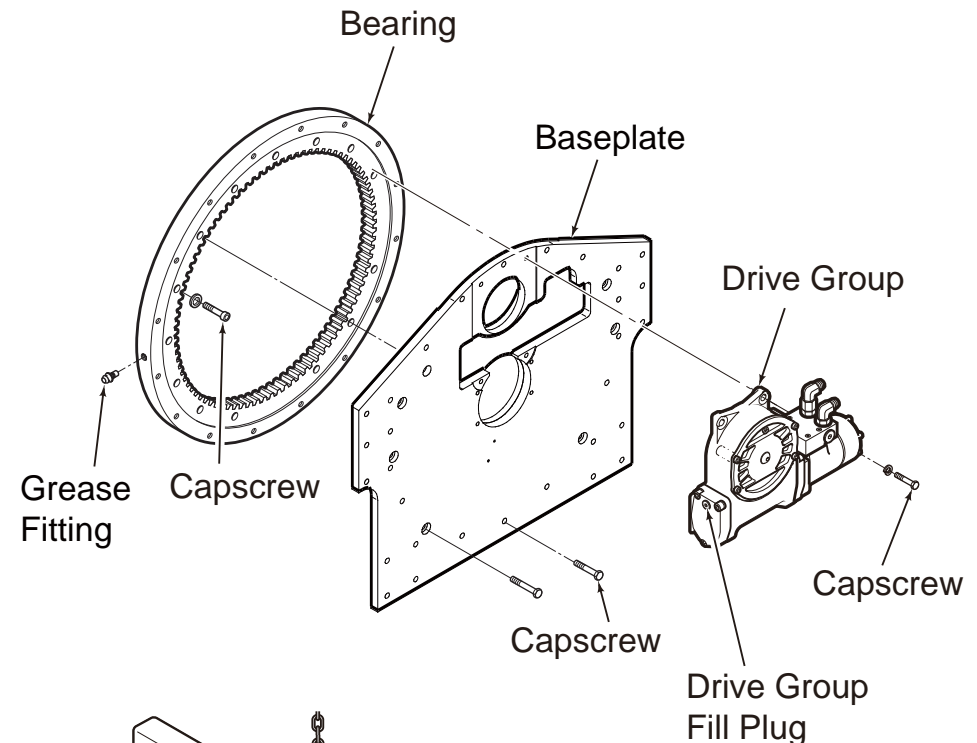
- ⑮ Check clamp force. Cascade Clamp Force Indicators 35G-DFI-8RF and 35G-CFI-8RF are available for this test.

#### Sideshifter

- ⑯ Apply general-purpose lithium-based chassis grease to Sideshifter upper and lower bearings.

### 1000-Hour Maintenance

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



SS0284.eps

# **P**ERIODIC MAINTENANCE

## Inverta™ Push

### Linkage Mechanism

⑰ Check the hydraulic leaks, replace the seals or repair as necessary.

### Frame, Arm & Stabilizer

⑱ Check the arm & stabilizer tips for damage or wear and replace as necessary.

⑲ Inspect the arm bearings for wear. If any bearing is worn to less than 1 mm thickness, replace all bearings.

### Sideshifter

⑳ Inspect upper and lower bearings for wear. If any bearing is worn to less than 2.5 mm thickness, replace the entire bearing set.

### 2000-Hour Maintenance

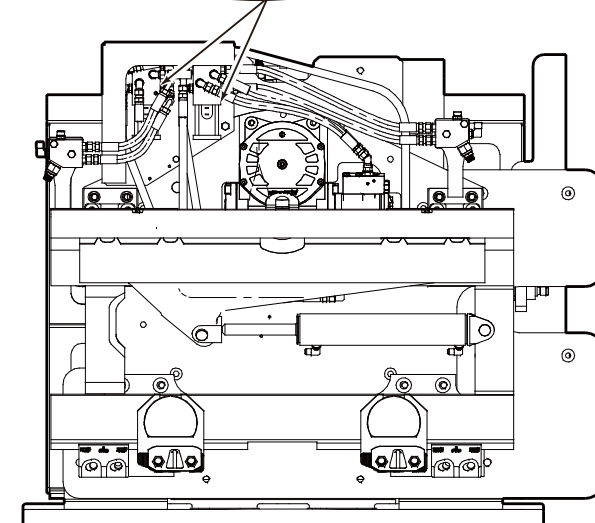
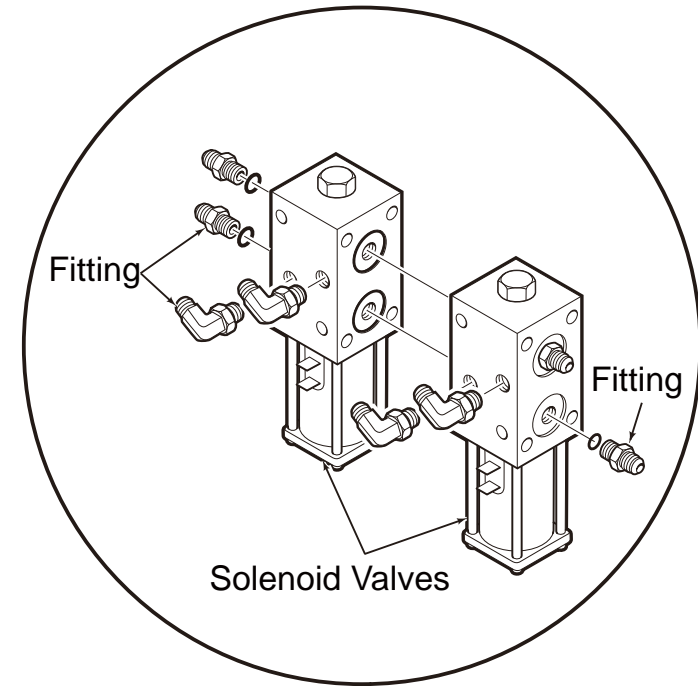
After 2000 hours of truck operation, in addition to the 100, 500 and 1000-hour maintenance, perform the following procedures.

### Frame, Arm & Stabilizer

㉑ Arm & stabilizer 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. Arm & stabilizer inspection shall be carried out by trained personnel to detect any damage that might impair safe use. Any Arm & stabilizer that is defective shall be removed from service. Inspect for the following defects:

- a. Surface cracks
- b. Straightness
- c. Wear
- d. Difference in height of tips

㉒ Replace all arm bearings.



Inverta™ Push

# **P**ERIODIC MAINTENANCE

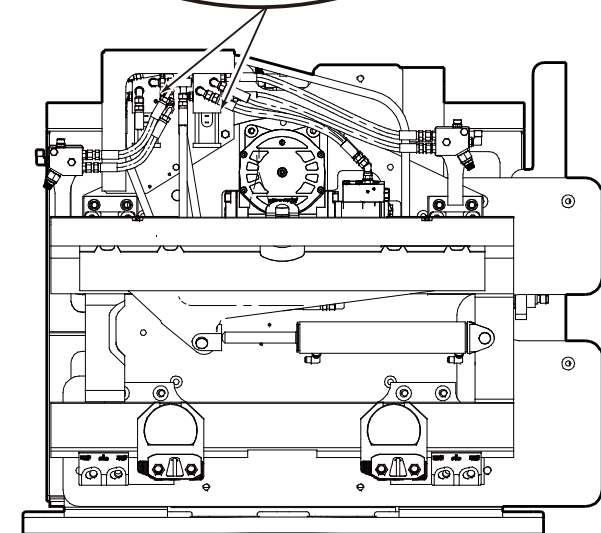
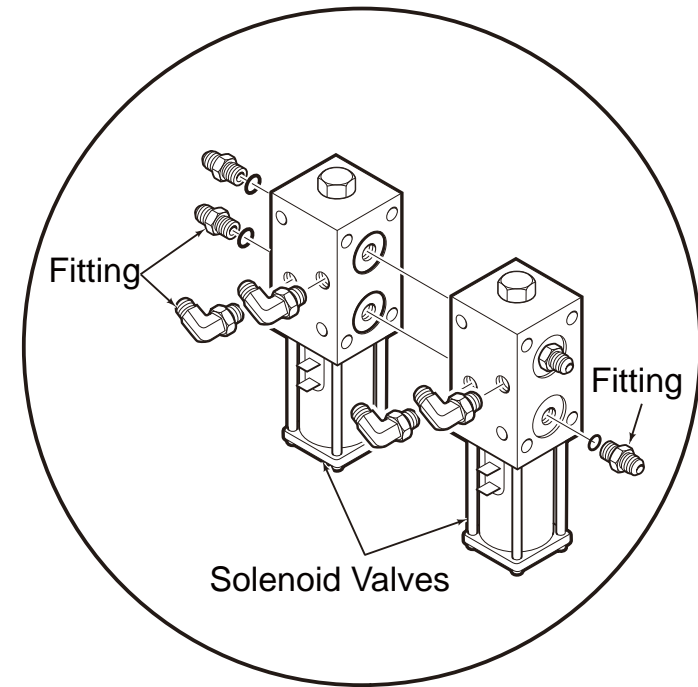
## Inverta™ Push

### **Bearing, Baseplate & Drive Group**

- ②③ Check all rotation bearing capscrews for 105 Nm torque value, and inspect all the capscrews, if any capscrews rotate broken, replace as necessary.
- ②④ Check the hydraulic leaks and drive group, replace the seals or repair as necessary.

### **Solenoid Valve**

- ②⑤ Check the solenoid valves and hoses, replace or repair as necessary.



Inverta™ Push

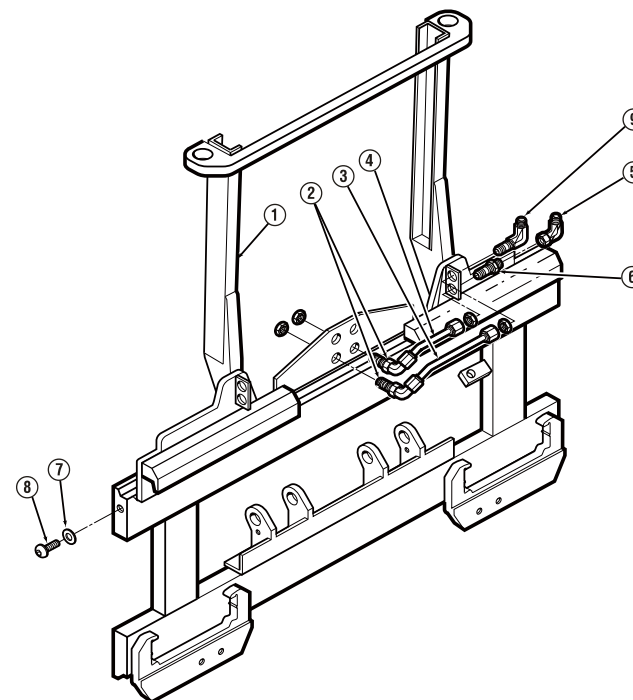
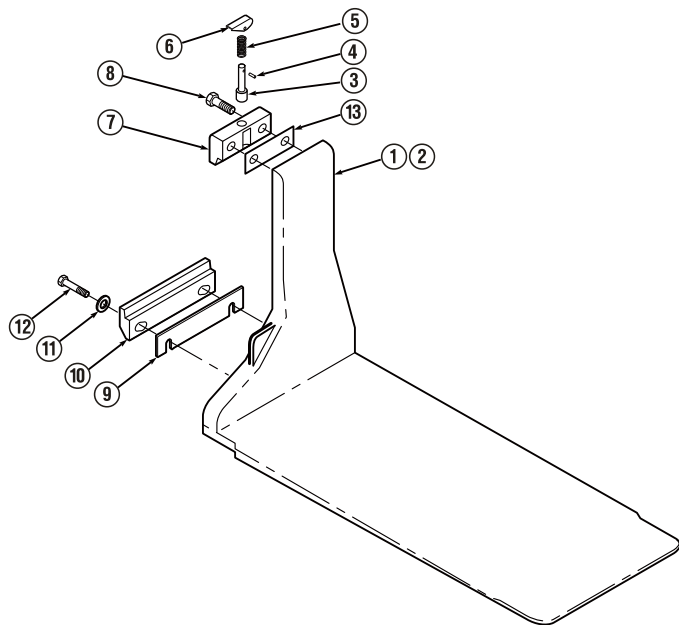


# 零部件拆分示意图

# PARTS BREAKDOWN

叉板 Platens

框架总成 Frame Group



35E/45E

序号 REF	数量 QTY	零件号 (注) PARTNO	名称 DESCRIPTION	序号 REF	数量 QTY	零件号 (注) PARTNO	名称 DESCRIPTION
1	1	-	左叉板 Platen L. H.	8	4	-	螺栓 Capscrew
2	1	-	右叉板 Platen R. H.	9	-	-	垫片 Shim
3	2	622907	销轴 Pin	10	2	682851	下钩 Lower Hook
4	2	8007	铆钉 Rivet	11	4	667225	垫圈 Washer
5	2	622908	弹簧 Spring	12	4	-	螺栓 Capscrew
6	2	622897	手柄 Handle	13	-	688379	垫片 Shim
7	2	685533	上钩 Upper Hook				

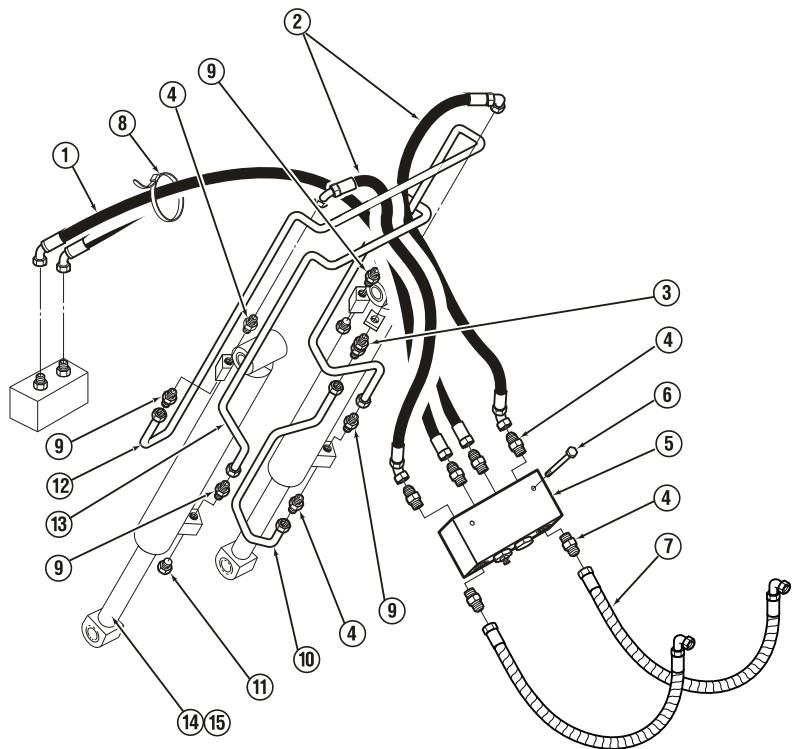
35E/45E

序号 REF	数量 QTY	零件号 (注) PARTNO	名称 DESCRIPTION	序号 REF	数量 QTY	零件号 (注) PARTNO	名称 DESCRIPTION
1	1	-	框架 Frame	6	1	2375	接头 Fitting, 6-6
2	2	-	接头 Fitting	7	2	683001	垫圈 Washer
3	1	-	硬管 Tube	8	2	683142	螺栓 Capscrew
4	1	-	硬管 Tube	9	1	2453	接头 Fitting, 6-6
5	1	2680	接头 Fitting, 6-6				

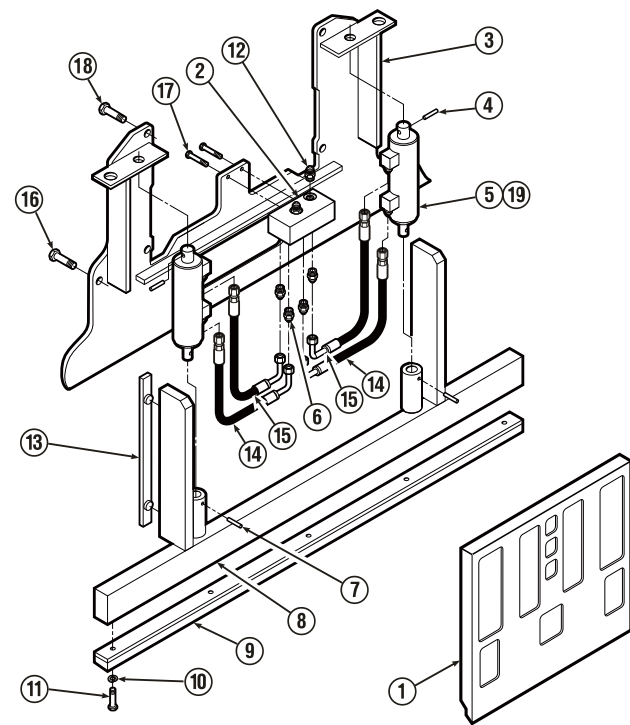
# 零部件拆分示意图

# PARTS BREAKDOWN

液压机构总成 Hydraulic Group



面板总成 Faceplate Group



## 35E/45E

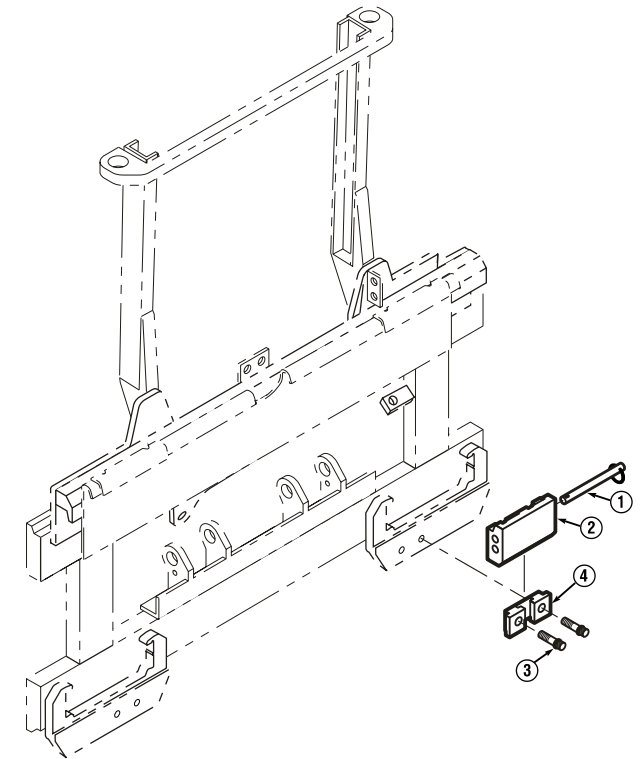
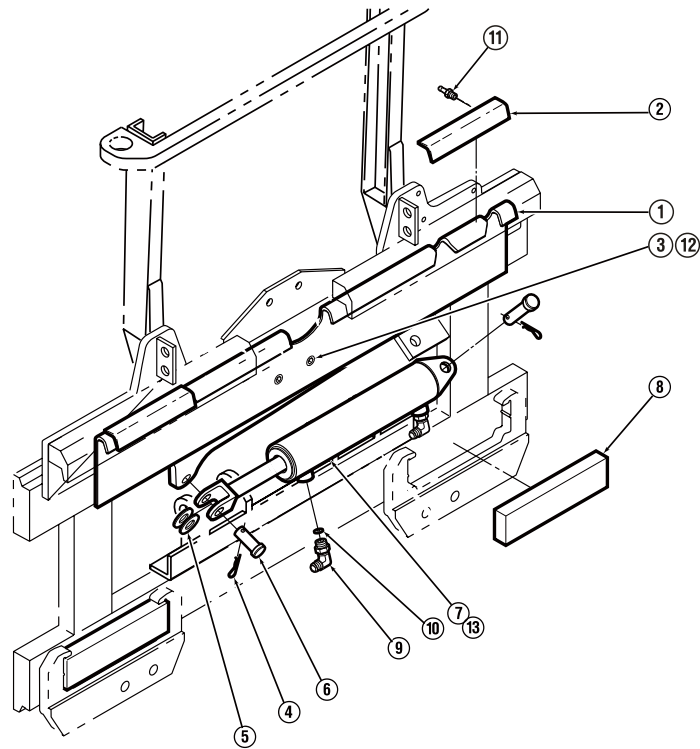
序号 REF	数量 QTY	零件号(注) PART NO	名称 DESCRIPTION	序号 REF	数量 QTY	零件号(注) PART NO	名称 DESCRIPTION
1	1	-	固定支架 Anchor Bracket	8	2	682814	下支承 Bearing
2	2	-	上滑块 Bearing Segment	9	2	666984	接头 Fitting, 4-6
3	2	768759	紧固螺钉 Setscrew	10	2	675550	垫圈 Washer
4	2	6517	发夹型插销 Cotter Pin	11	4	7403	油咀 Grease Fitting
5	2	6234	垫圈 Washer	12	2	688387	锁紧螺母 Jam Nut
6	2	678525	销轴 Clevis Pin	13		553861	油缸维修包 Cylinder Service Kit
7	1	675548	油缸 Cylinder				

## 35E/45E

序号 REF	数量 QTY	零件号(注) ITA II	PART NO ITA III	名称 DESCRIPTION
	1	683179	683181	下钩总成 Lower Hook Group
1	2	678832	678832	销轴 Pin
2	2	675514	675957	下钩 Hook
3	4	683182	779019	螺栓 Capscrew
4	2	675515	675958	支承块 Guide

# 零部件拆分示意图

# PARTS BREAKDOWN



35E/45E							
序号 REF	数量 QTY	零件号 (注) PART NO.	名称 DESCRIPTION	序号 REF	数量 QTY	零件号 (注) PART NO.	名称 DESCRIPTION
1	1	685831	油管 Hose	9	4	604511	接头 Fitting 6-6
2	2	683173	油管 Hose	10	1	200647	硬管 Tube
3	1	2375	接头 Fitting 6-6	11	2	604510	螺塞 Plug,6
4	8	604511	接头 Fitting 6-6	12	1	200649	硬管 Tube
5	1	682812	阀体 Valve	13	1	200648	硬管 Tube
6	2	765329	螺栓 Capscrew, M8	14	2	—	油缸 Cylinder 油缸维修包 Kit
7	2	—	油管 Hose ITA II	15	—	—	油缸维修包 Cylinder Service Kit
8	2	684956	塑料袋 Cable tie				

35E/45E							
序号 REF	数量 QTY	零件号 (注) PART NO.	名称 DESCRIPTION	序号 REF	数量 QTY	零件号 (注) PART NO.	名称 DESCRIPTION
1	1	—	面板 Faceplate	11	5	768794	螺栓 Capscrew
2	1	—	阀 Junction Block	12	2	604511	接头 Fitting
3	1	—	压板滑架 Gripper Jaw	13	2	686573	滑动支承 Bearing
4	2	—	圆柱销 Drive Pin	14	2	—	油管 Hose
5	2	—	压板油缸 Gripper Cylinder	15	2	—	油管 Hose
6	8	—	接头 Fitting	16	2	—	螺栓 Capscrew
7	2	—	圆柱销 Drive Pin	17	2	—	螺栓 Capscrew
8	1	—	压板杆 Gripper Bar	18	4	—	螺栓 Capscrew
9	1	672712	压板 Gripper Pad	19	—	—	油缸维修包 Cylinder Service Kit
10	5	6444	弹簧垫圈 Lockwasher				

## (OSHA REGULATIONS)

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。

### (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。

## (OSHA REGULATIONS)

(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) 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.

# 安全操作与维护 **S**AFE OPERATION AND MAINTENANCE (OSHA REGULATIONS)

(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 **W**ARRANTY

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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

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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 **W**ARRANTY

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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 **WARRANTY**

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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  
cascade xiamen forklift truck attachment co,ltd

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