

OPERATOR'S GUIDE

D, F, G & H-Series

Fixed Frame Paper Roll Clamps

Manual Number 210135-R9

**cascade[®]
corporation**

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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.

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

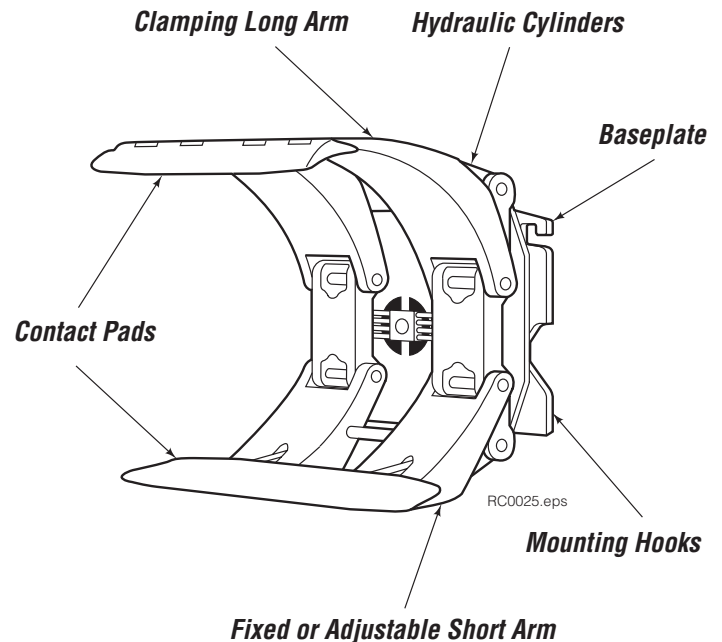
CAUTION: This guide shows load handling procedures for most products. Ask your company or organization about any special procedures for the loads you may be handling.

INTRODUCTION

Fixed Frame Paper Roll Clamp – Cascade Fixed Frame Paper Roll Clamps, Models D, F, G & H-Series are multiple-function attachments for handling all types of paper roll products. Clamps are designed for both bilge and vertical roll handling for transport, stacking, breakout, van trailer, boxcar and ship loading and unloading. Clamps can rotate 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. Tower clamp versions provide bulk roll handling in many configurations.

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.

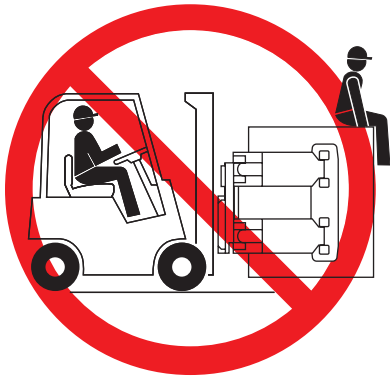
Emphasize Safety! Most accidents are caused by operator carelessness or misjudgment. You must watch for poorly maintained equipment and hazardous situations and correct them.



S SAFETY RULES

Industrial Lift Trucks

No riders



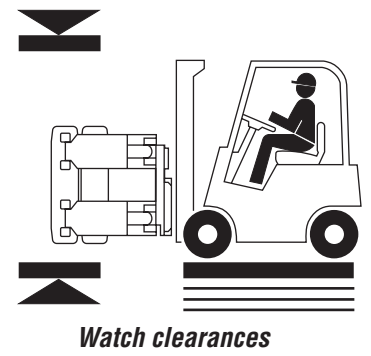
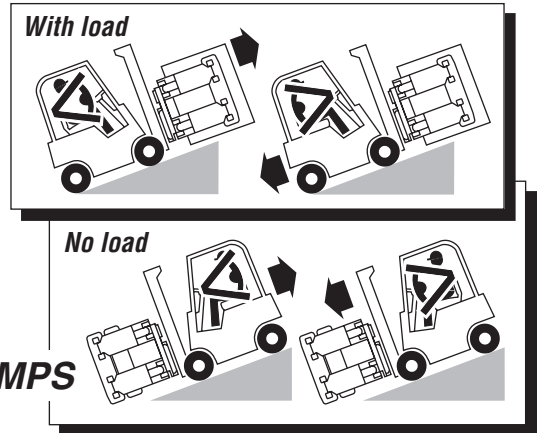
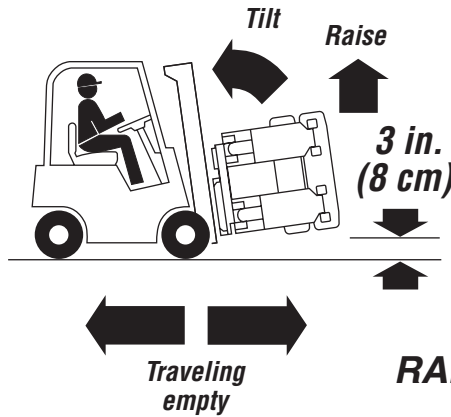
No reaching through mast



No standing under load



RC0026.eps



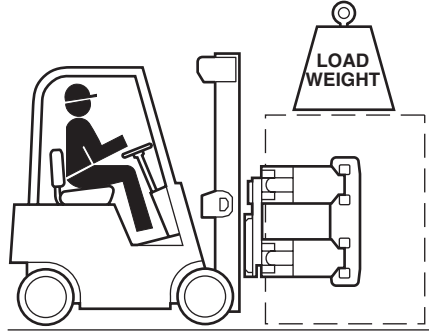
RC0027.eps

<p>TRAFFIC</p> <p>Observe</p> <p>Wet floors</p> <p>Workers</p> <p>Bumps</p> <p>Stops</p> <p>Dips</p>			<p>Slow for two-way traffic</p>	<p>Sound horn, slow at intersection</p>	<p>Sound horn, slow at corner</p>
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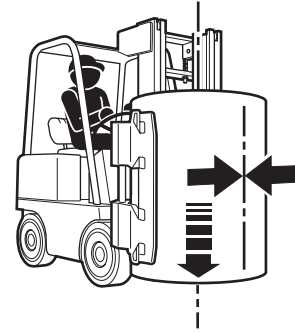
S SAFETY RULES

Handling Loads: Rolls must be secure prior to lifting and transporting.

Limit swinging clamp with raised load.



Load weight must not exceed combined truck/attachment capacity (see truck nameplate).

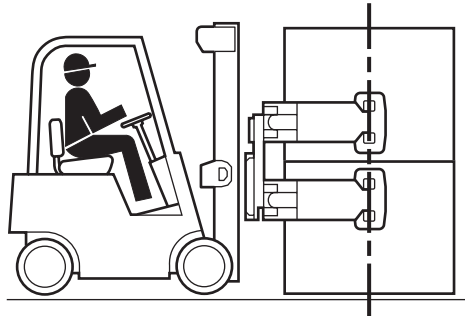


Make sure load is centered and secure prior to lifting and traveling.

Check for load slippage (see Load Troubleshooting).



Limit truck movement with raised load.



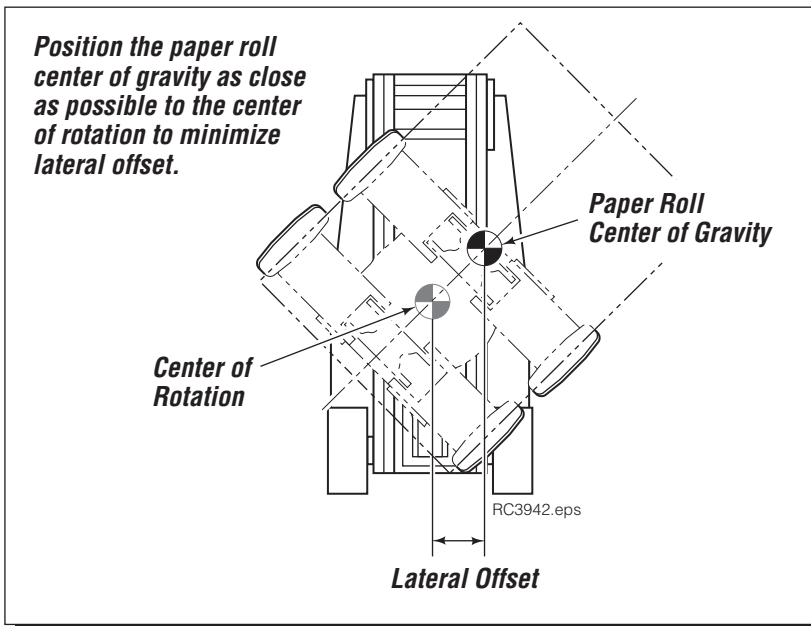
Split-Arm Clamp is recommended to handle two rolls (see Roll Handling Basics). Handling two rolls with Single-Arm Clamp may be dangerous and lead to serious injury.



Use caution when handling unitized (wrapped) multiple stacked rolls with Single-Arm Clamp.

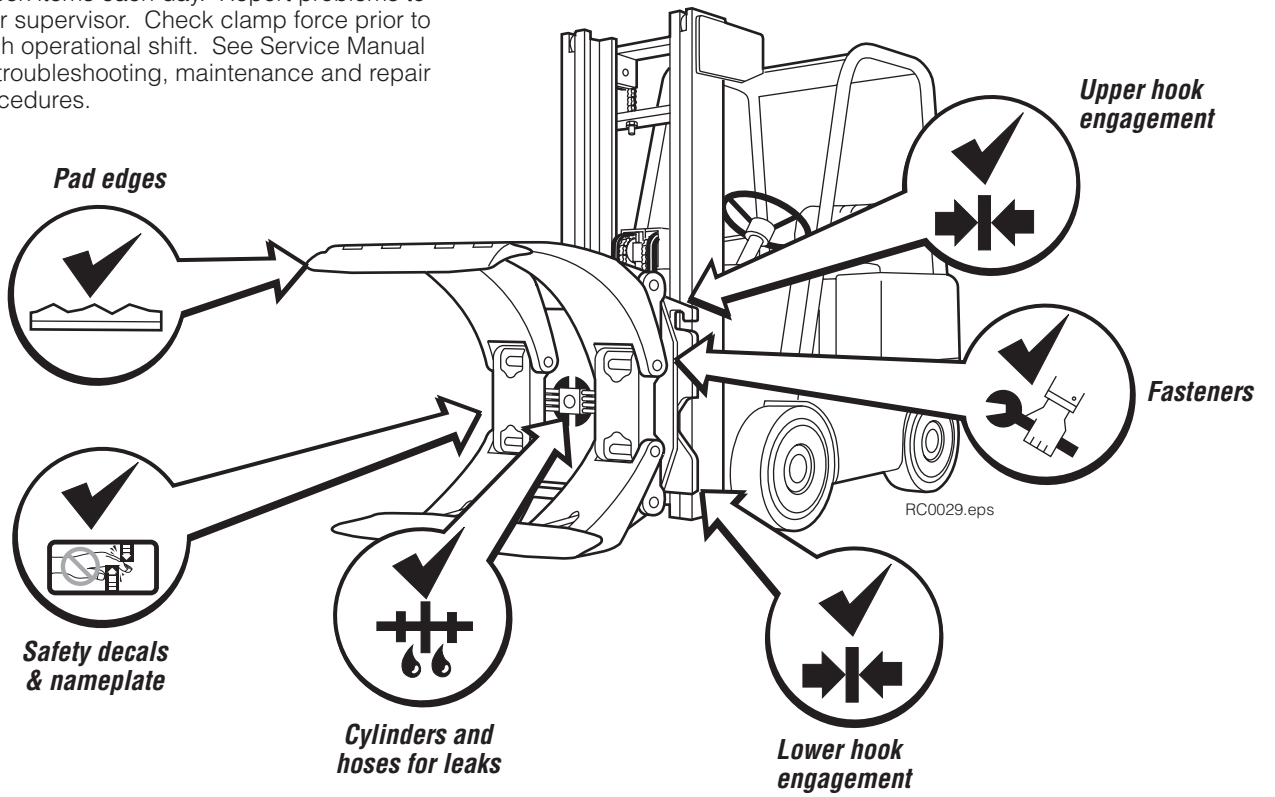
RC0721.eps

Make sure bottom roll is secure.



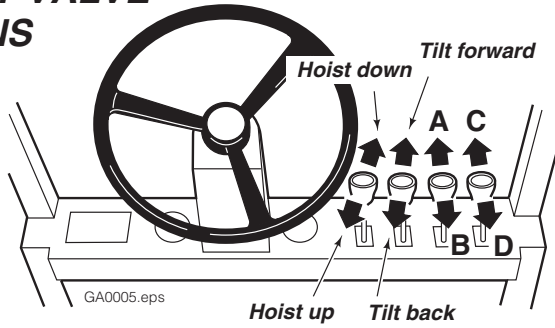
DAILY INSPECTION

Check items each day. Report problems to your supervisor. Check clamp force prior to each operational shift. See Service Manual for troubleshooting, maintenance and repair procedures.



C LAMP OPERATION

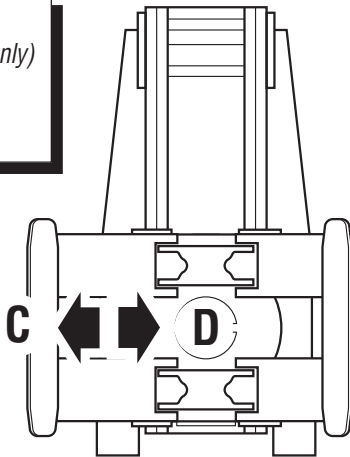
AUXILIARY VALVE FUNCTIONS



WARNING: Truck control handle and attachment function activation shown here conforms to ASME/ANSI B56.1 recommended practices. Failure to follow these practices may lead to serious bodily injury or property damage. End user, dealer and OEMs should review any deviation from the practices for safe operation.

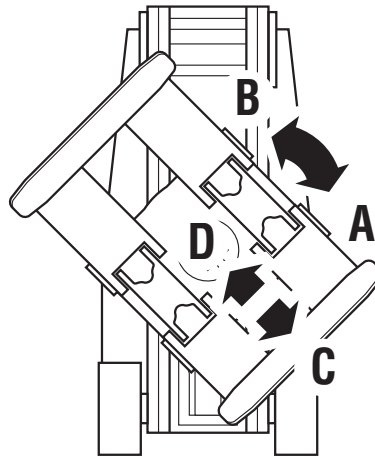
LONG ARM (Vert. & horiz. positions only)

- C** Release
- D** Clamp



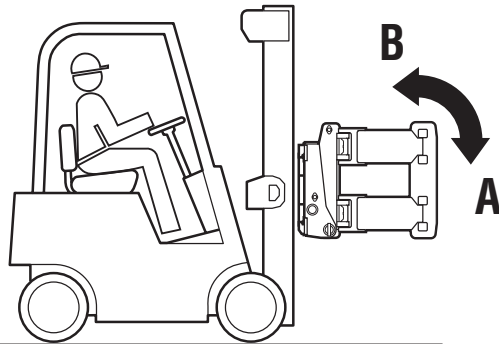
ROTATE (Driver's view)

- A** Counterclockwise (CCW)
- B** Clockwise (CW)



SHORT ARM (45-degree position only)

- C** Open
- D** Close



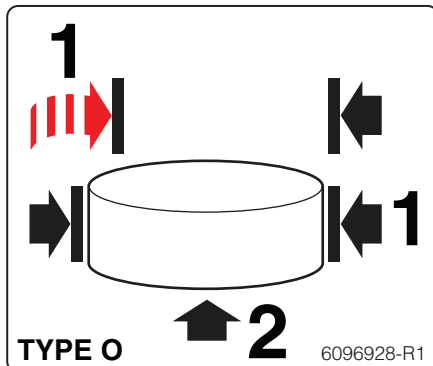
UPENDING TILT (Non-Solenoid)

- A** Tilt Forward
- B** Tilt Backward

UPENDING TILT (Solenoid Equipped)

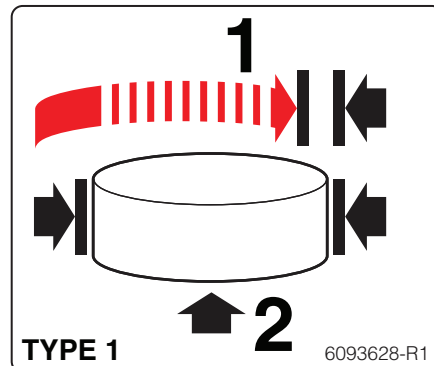
- A** Rotate Counterclockwise
- A** Tilt Forward (Press Button)
- B** Rotate Clockwise
- B** Tilt Backward (Press Button)

The following identification decal (located on the baseplate), shows how the split-arm roll clamp functions:



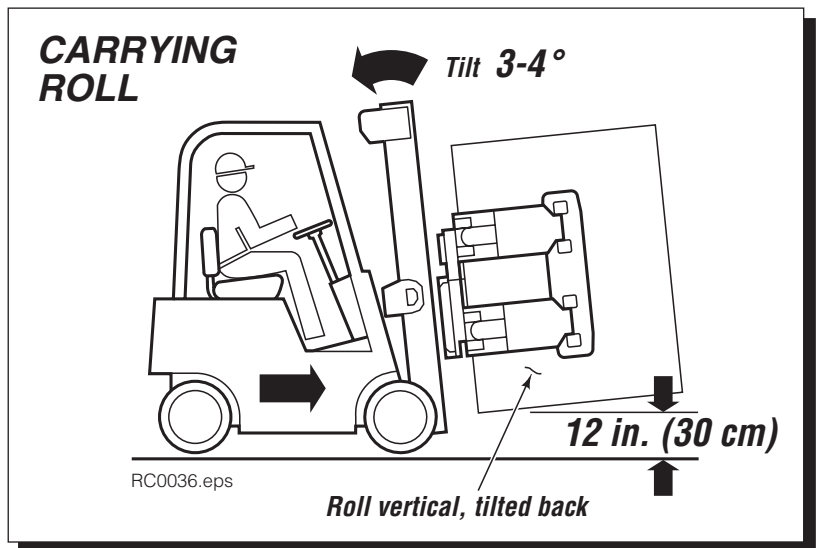
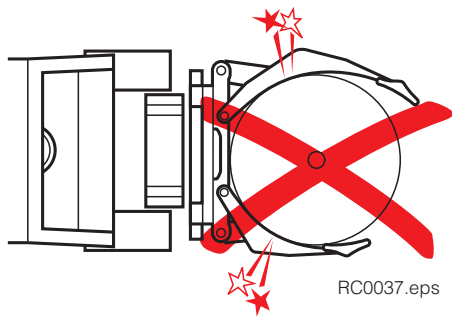
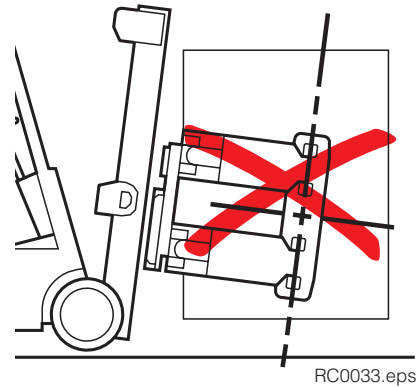
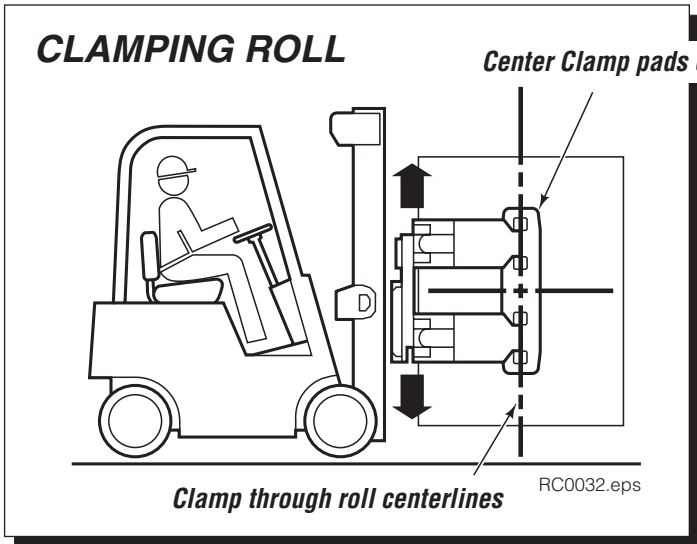
Clamp force is developed without the need for the top arm to fully close.

OR

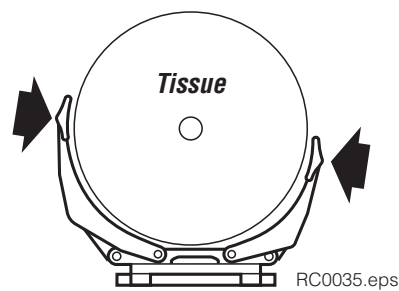
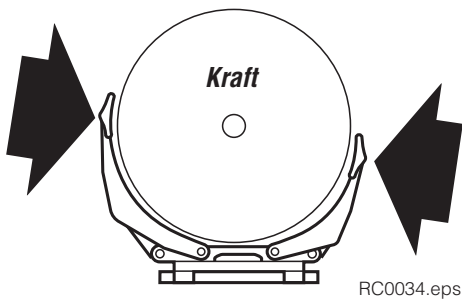


The top arm must fully close before clamp pressure is developed.

ROLL-HANDLING BASICS

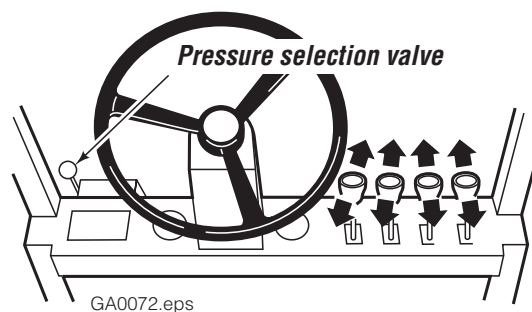


CLAMP FORCE



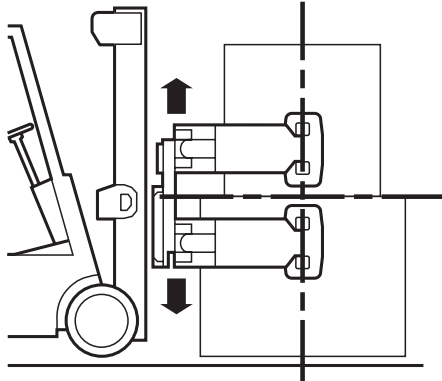
Use proper clamping force for load being handled

- Also, see the following:
- Clamp Force Indicator Operator Guide 214750
 - Establishing Clamp Force TB 284

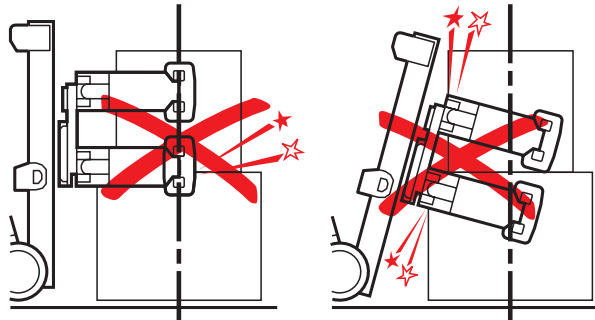


Center Clamp pads between rolls

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

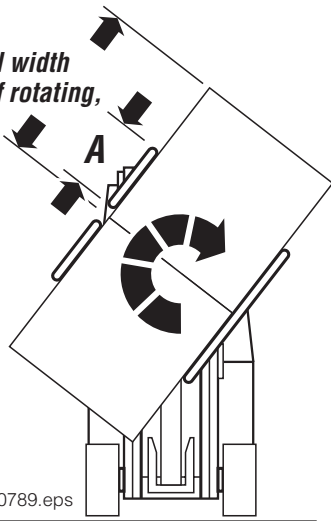


WARNING: Engine speed MUST be increased when clamping or releasing rolls with Split-Arm Clamps.



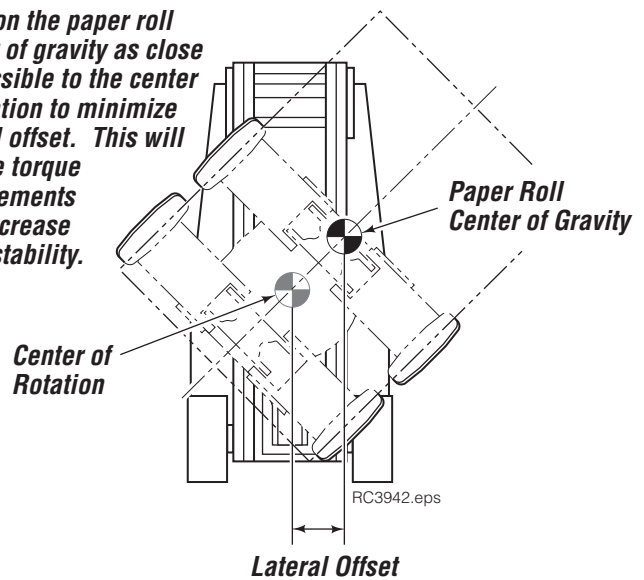
RC0038.eps

Recommended roll width
2X pad height 'A' if rotating,
3X maximum



RC0789.eps

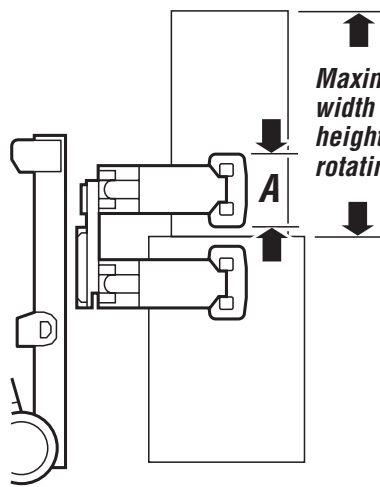
Position the paper roll center of gravity as close as possible to the center of rotation to minimize lateral offset. This will reduce torque requirements and increase truck stability.



RC3942.eps

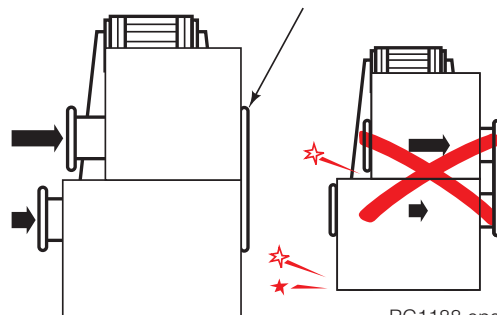
Lateral Offset

Maximum roll width
3X pad height 'A' if not rotating



RC0039.eps

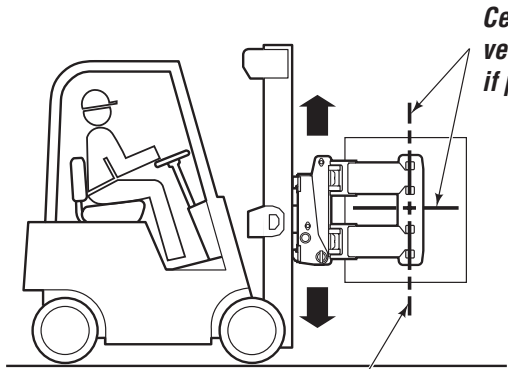
Position short arm on rolls before clamping



RC1188.eps

ROLL-HANDLING BASICS

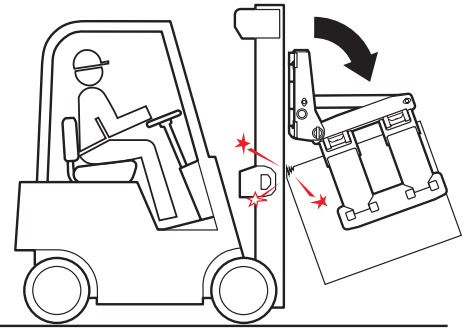
Upending



Center clamp pads vertically on roll, if possible

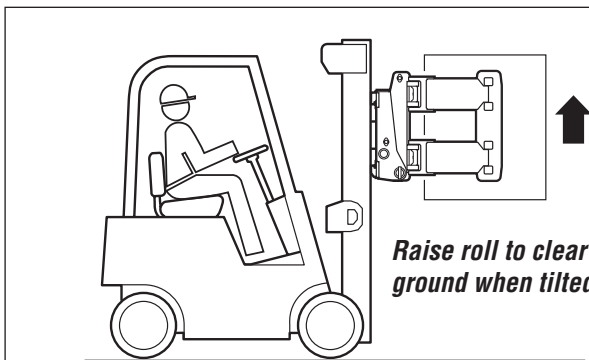
RC3740.eps

Clamp through roll centerline



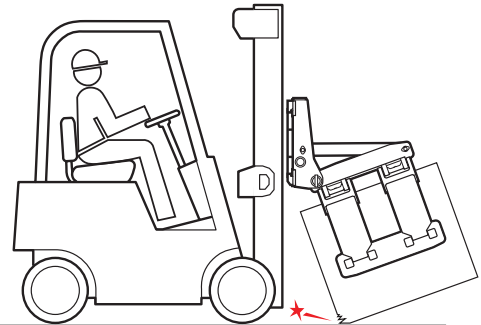
RC3763.eps

CAUTION: Verify the clearance between the bottom of the roll and mast prior to tilting the roll forward.

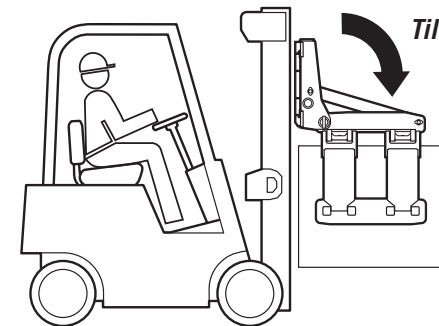


Raise roll to clear ground when tilted

RC3741.eps



RC3743.eps



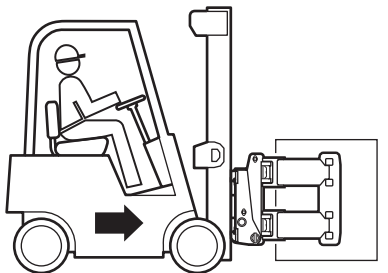
Tilt roll forward

RC3742.eps

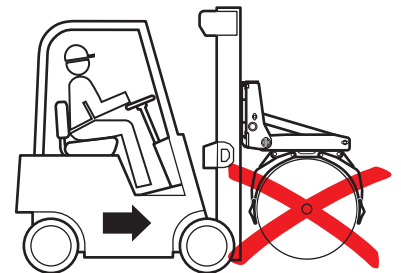
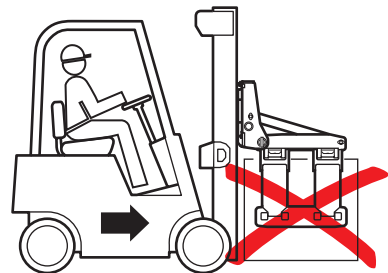
CAUTION: Verify the center of gravity for the load does not exceed the capacity of the truck. Consult OEM as required.

Transporting

CAUTION: Transporting in any position other than vertical is not acceptable unless attachment is specifically designed for that application.



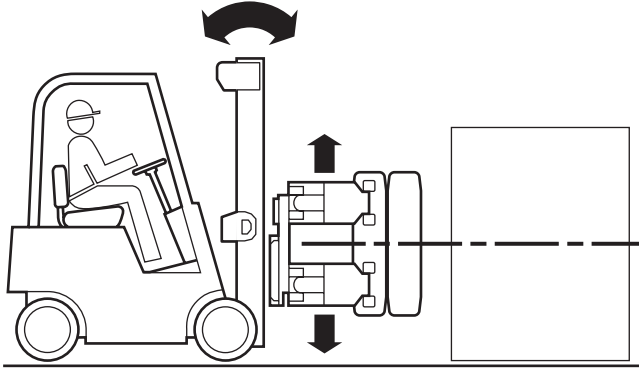
Vertical transport position



RC4141.eps

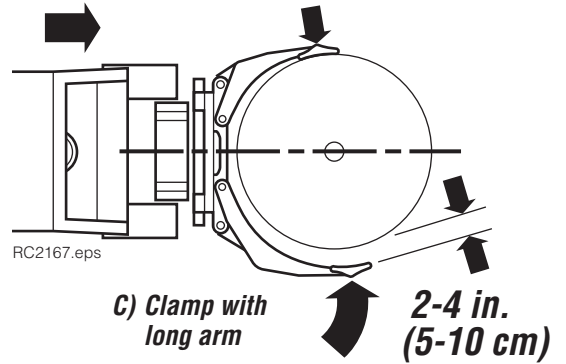
VERTICAL PICKUP, TRANSPORT, UNLOADING

1 Position Clamp parallel to and centered on roll

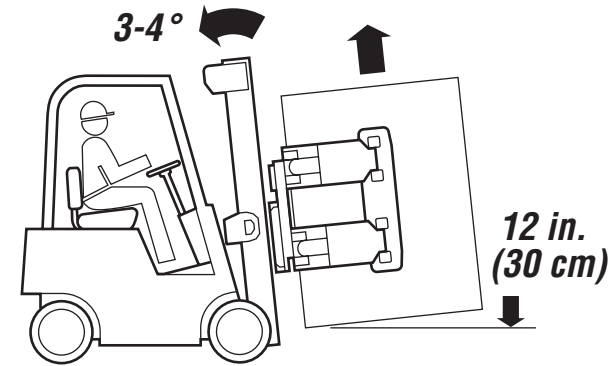


RC0041.eps

2 A) Adjust short arm for roll diameter
B) Drive forward, touch short arm to roll
C) Clamp with long arm

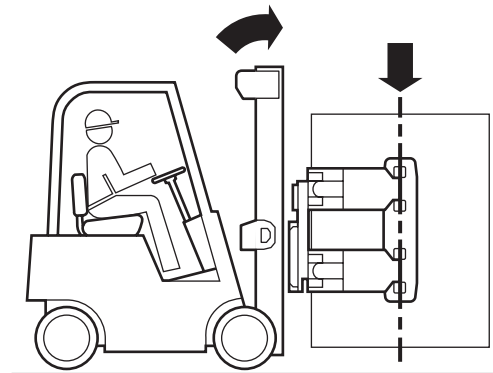


3 Raise, tilt back for transport



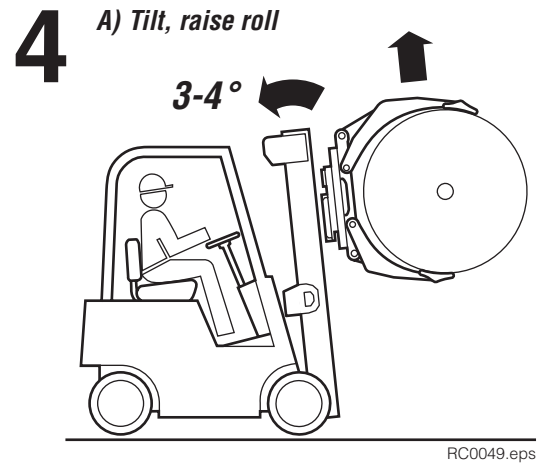
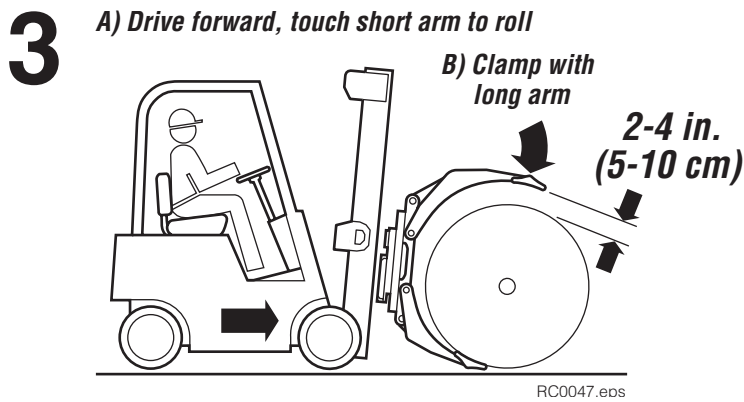
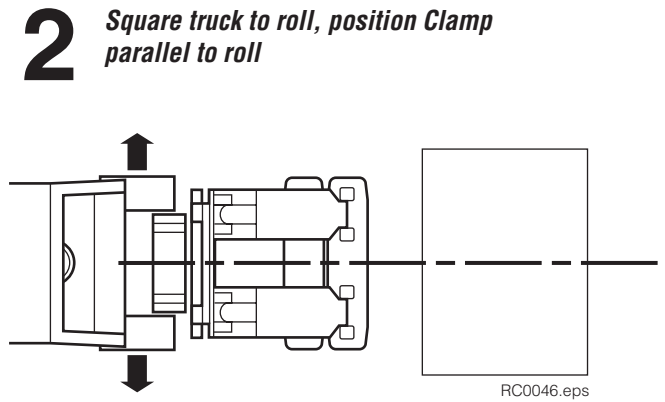
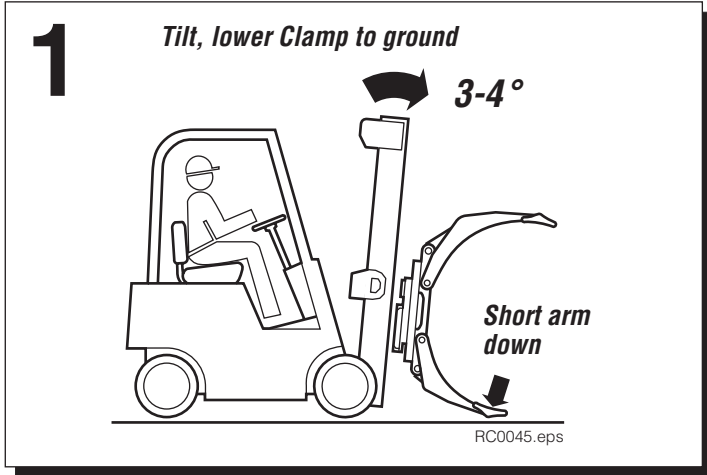
RC0043.eps

4 Tilt vertical before lowering to floor

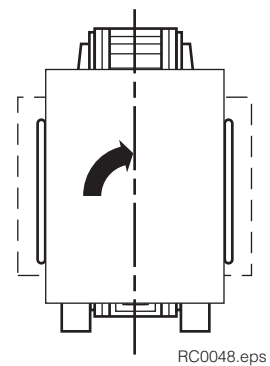


RC0044.eps

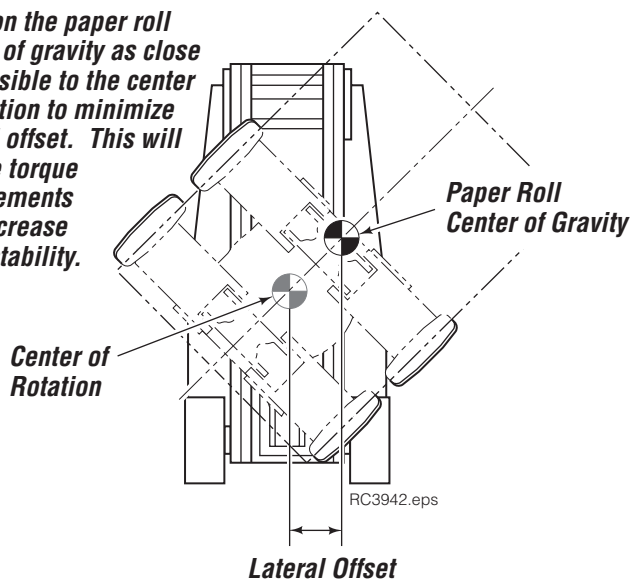
B ILGE (HORIZONTAL) PICKUP



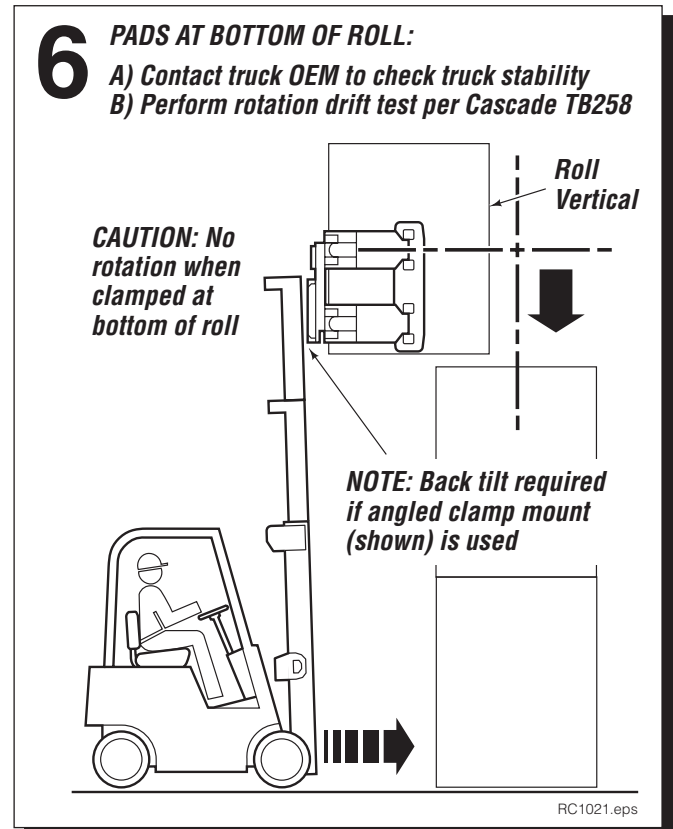
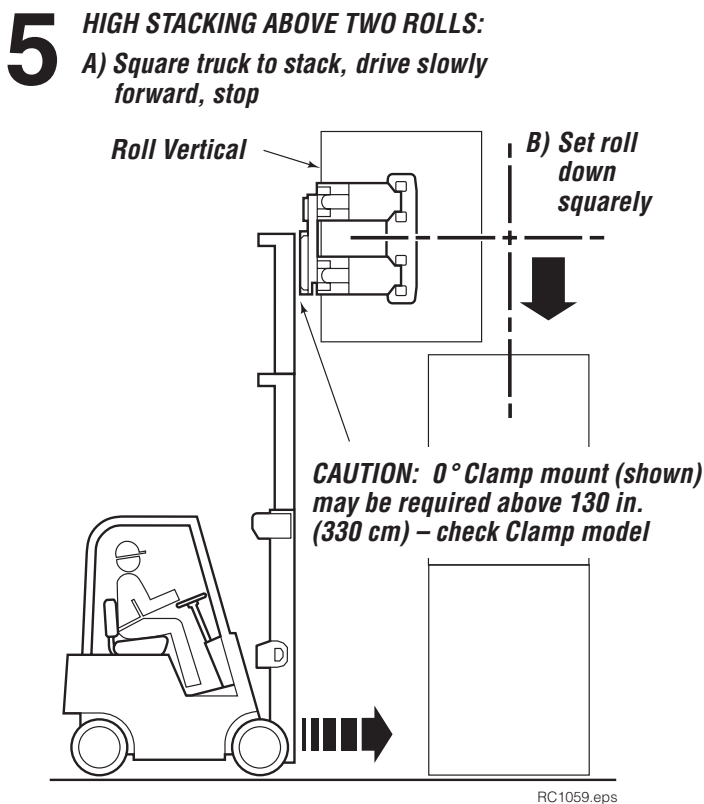
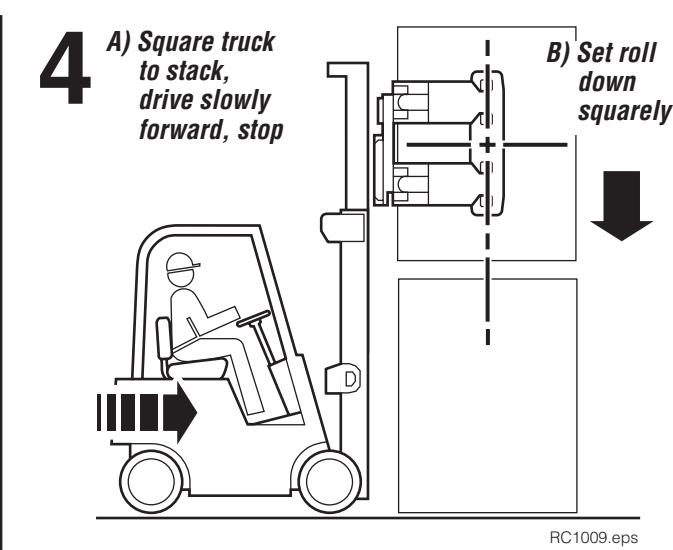
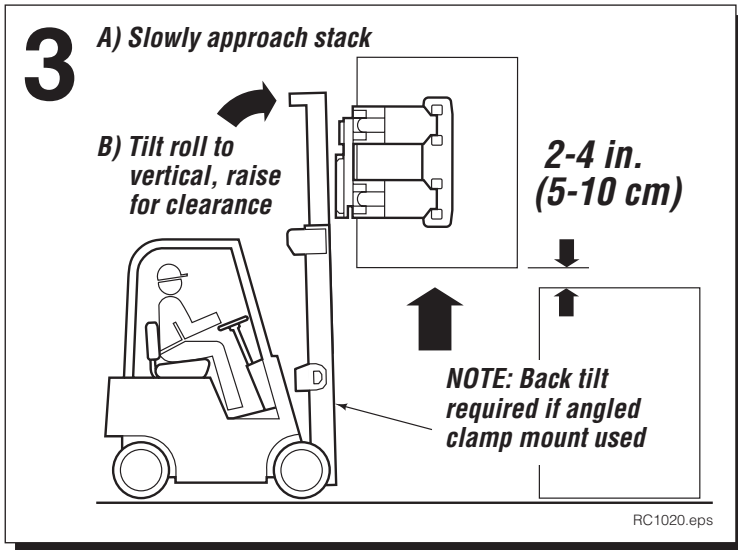
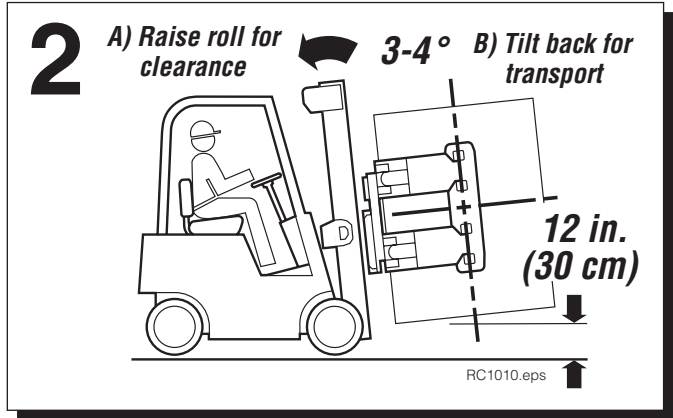
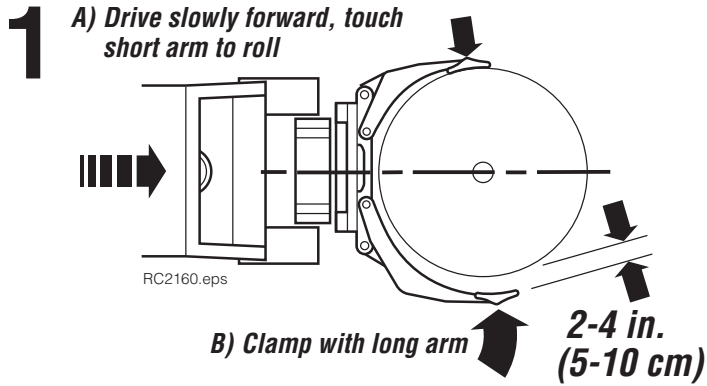
B) Rotate to vertical for transport



Position the paper roll center of gravity as close as possible to the center of rotation to minimize lateral offset. This will reduce torque requirements and increase truck stability.



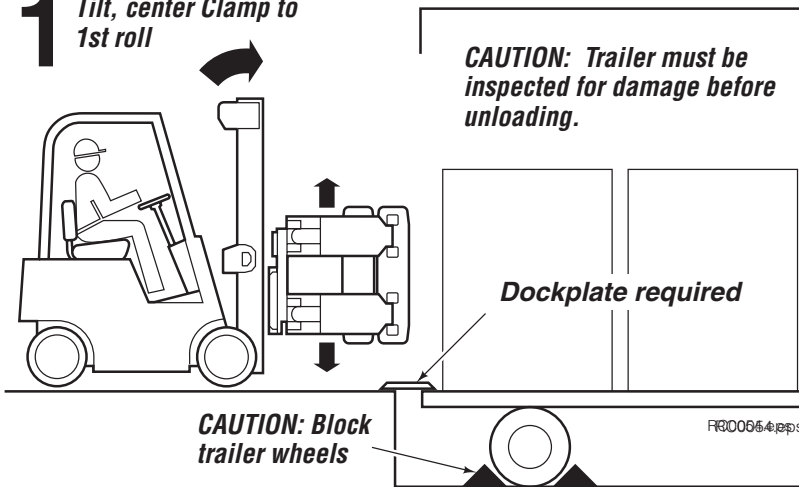
S TACKING, UNSTACKING



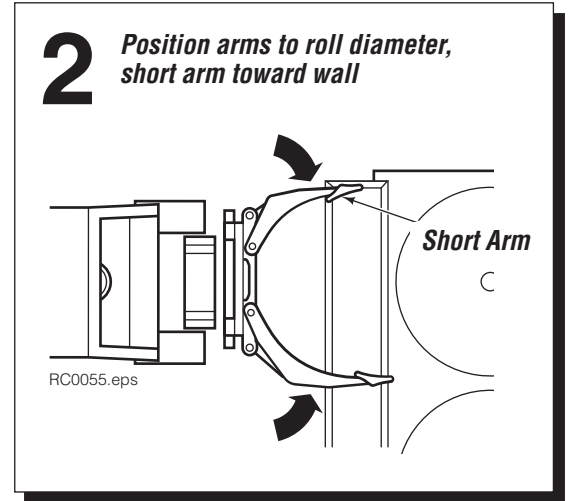
UNLOADING TRUCK TRAILERS (BREAKOUT)

Fixed-Frame Clamp

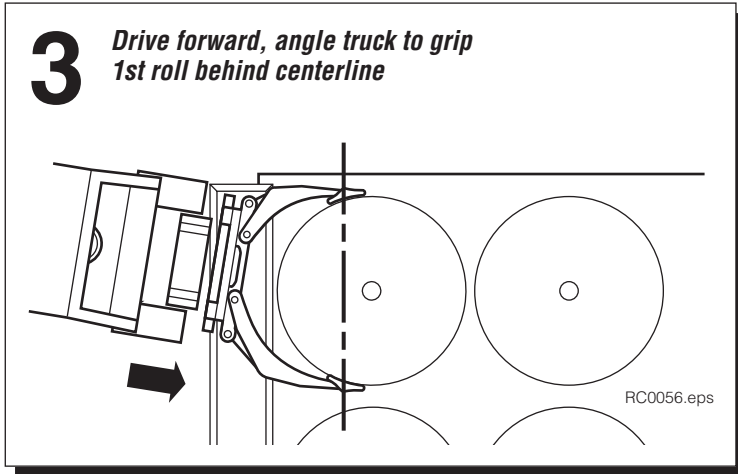
1 Tilt, center Clamp to 1st roll



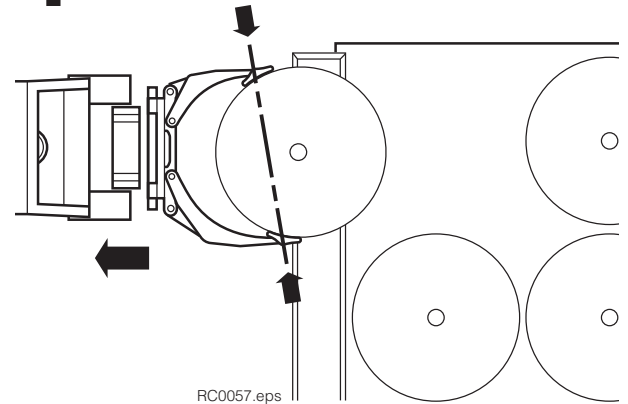
2 Position arms to roll diameter, short arm toward wall



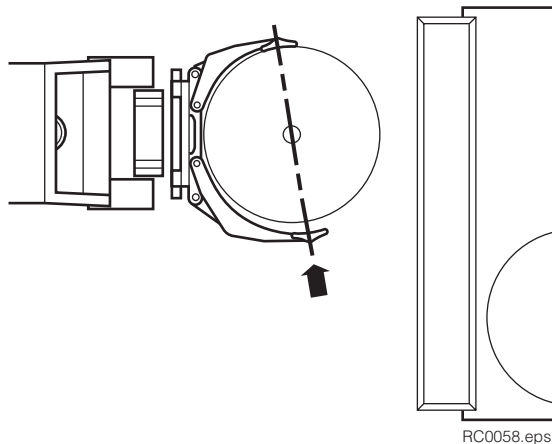
3 Drive forward, angle truck to grip 1st roll behind centerline



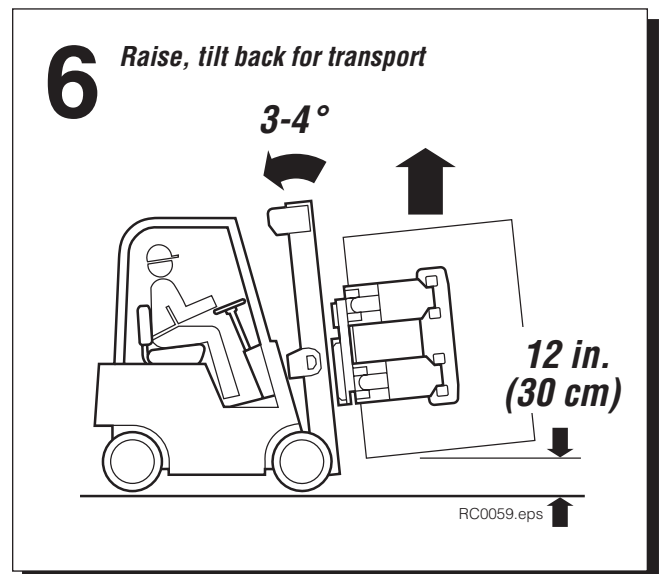
4 Clamp 1st roll, move back for clearance to re-clamp



5 Re-clamp through roll centerline with long arm, withdraw roll



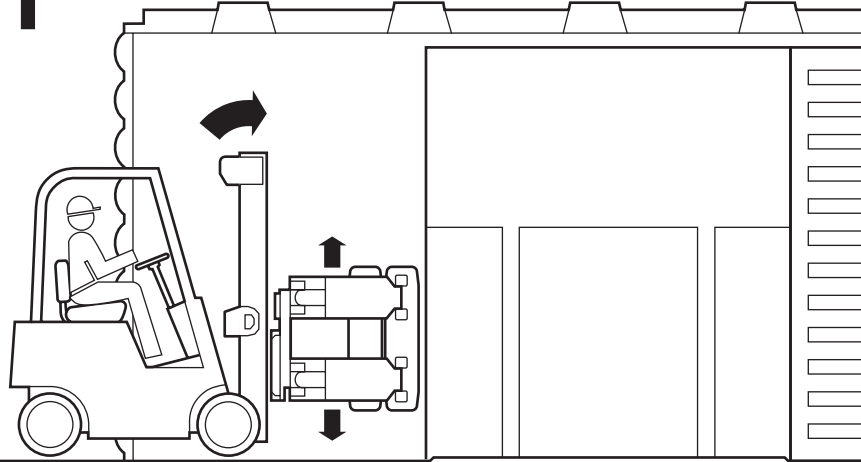
6 Raise, tilt back for transport



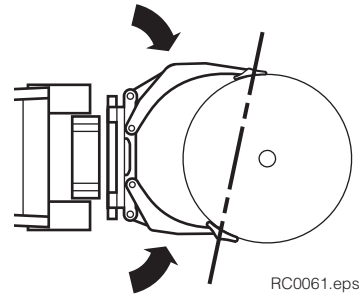
UNLOADING BOXCARS (BREAKOUT)

Fixed-Frame Clamp

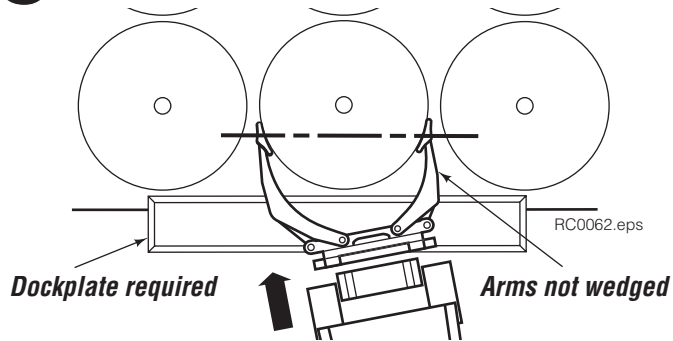
1 Tilt, center Clamp to 1st roll



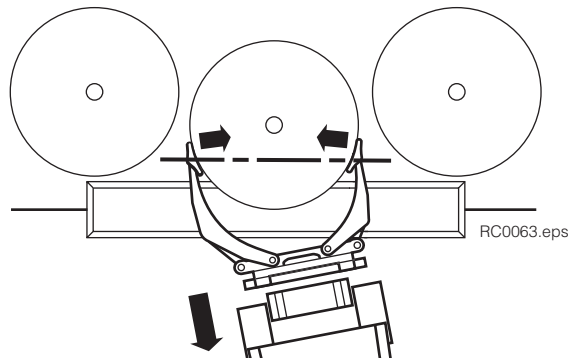
2 Position arms to roll diameter



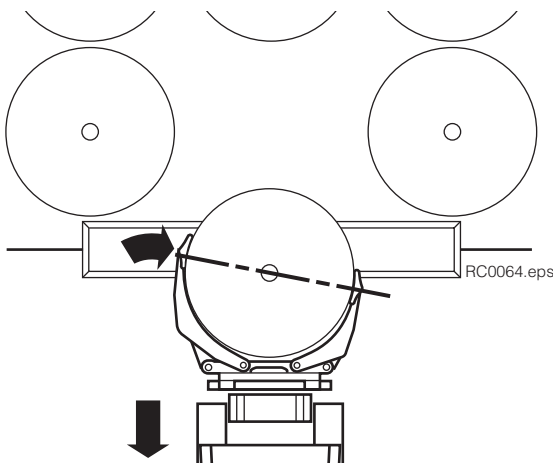
3 Drive forward, angle truck to grip roll behind centerline



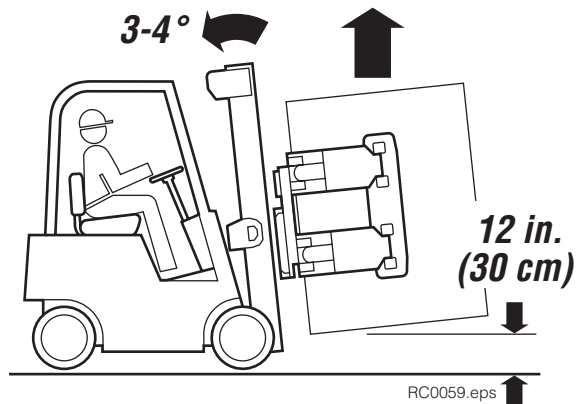
4 Clamp 1st roll, move back for clearance to re-clamp



5 Re-clamp through roll centerline with long arm, withdraw roll

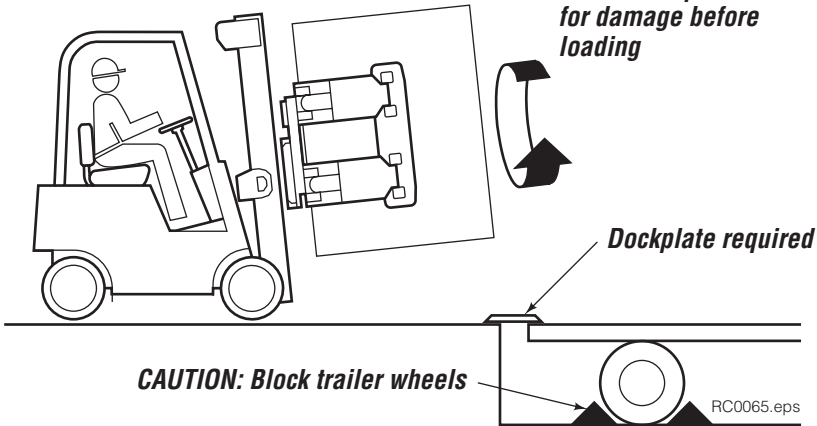


6 Raise, tilt back for transport

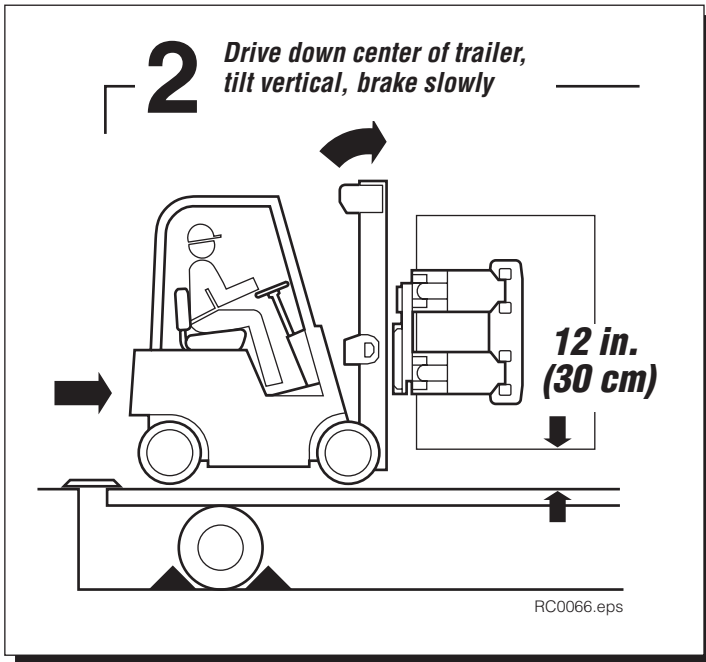


L OADING TRUCK TRAILERS

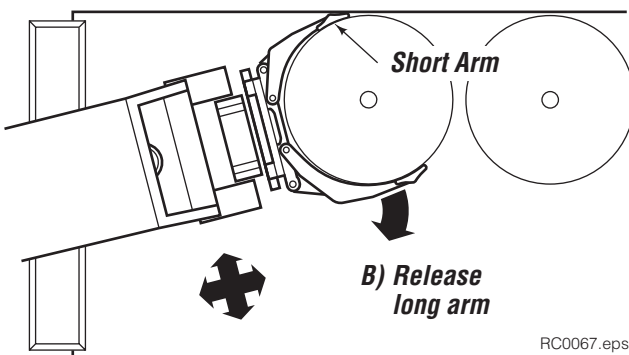
1 Rotate roll to position short arm toward wall



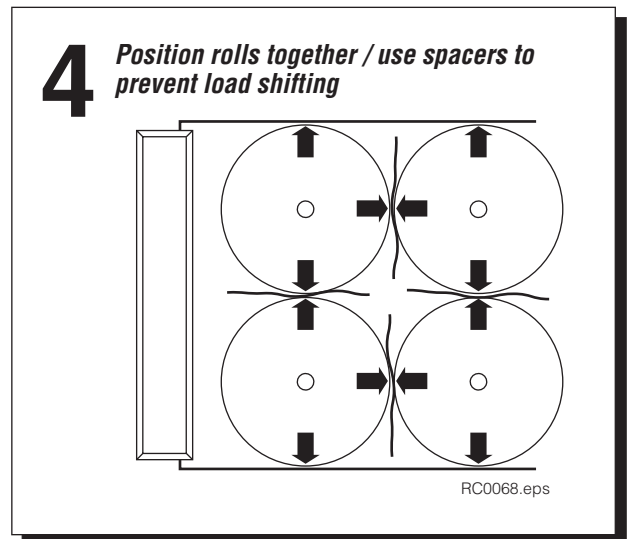
2 Drive down center of trailer, tilt vertical, brake slowly



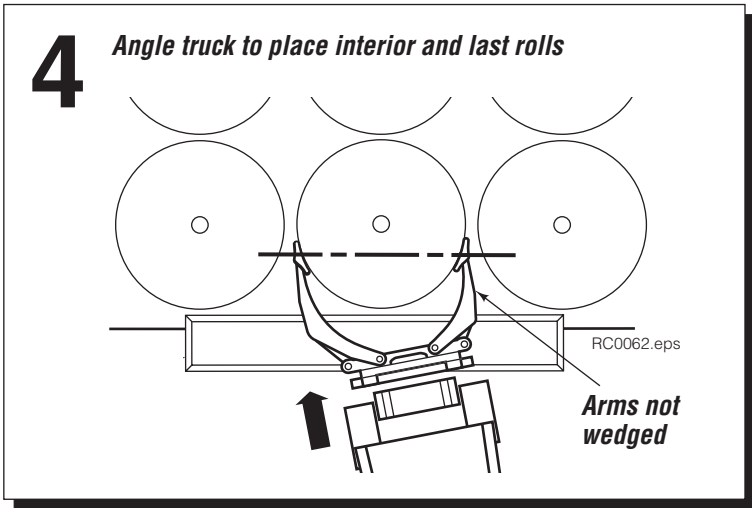
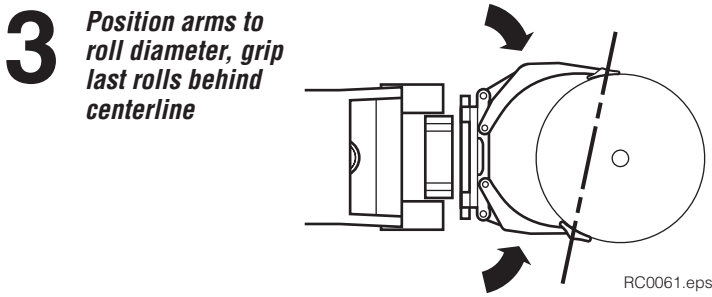
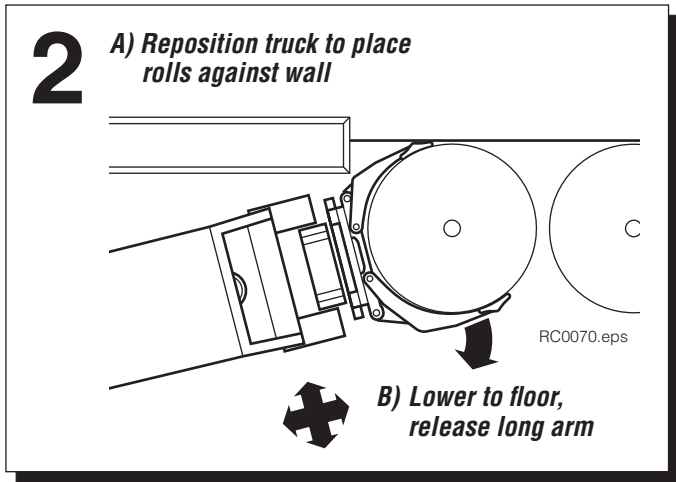
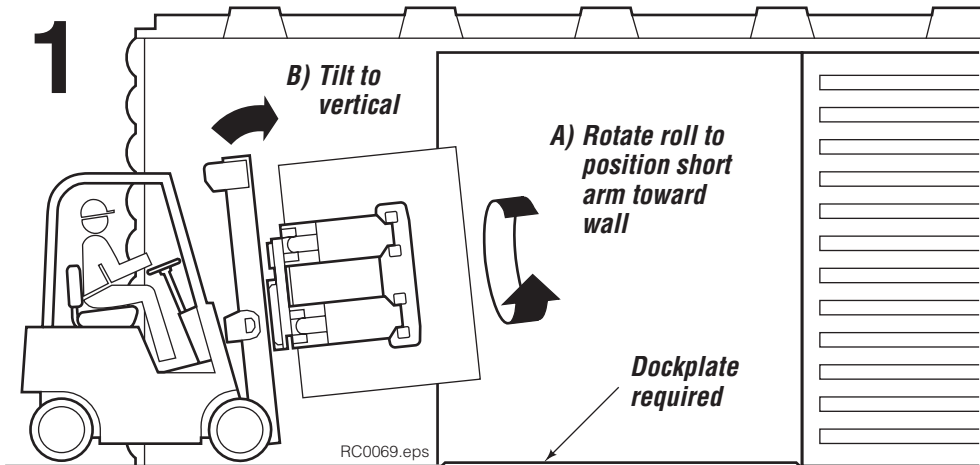
3 A) Reposition truck to place rolls against wall



4 Position rolls together / use spacers to prevent load shifting



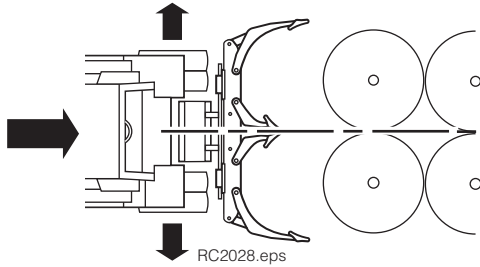
LOADING BOXCARS



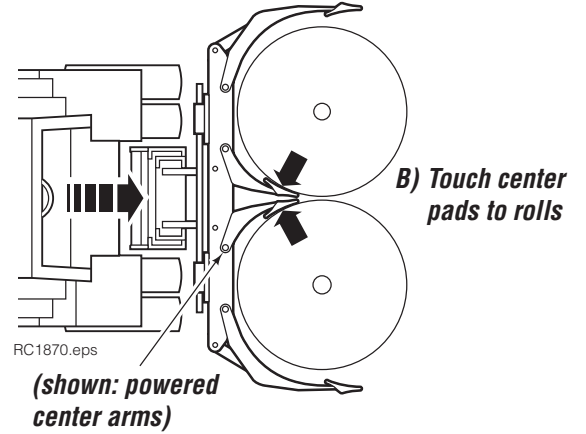
TOWER CLAMP

Loading, Transport, Unloading, Stacking

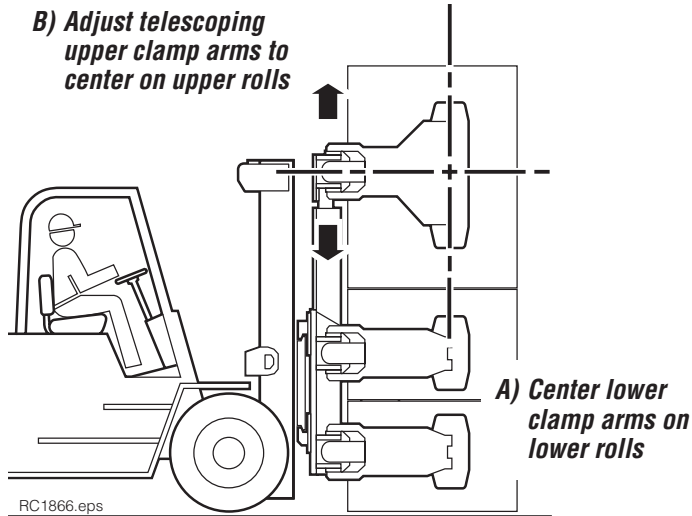
- 1** A) Align truck with rolls
B) Fully open arms



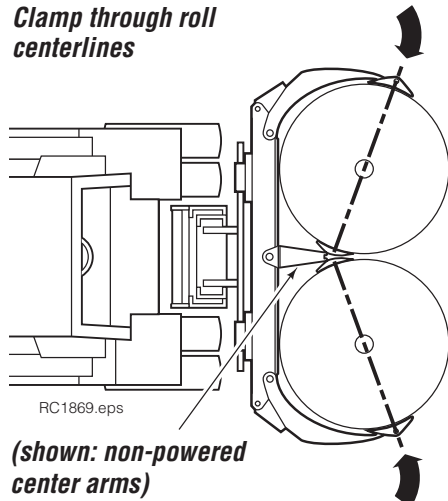
- 2** A) Approach rolls slowly
B) Touch center pads to rolls



- 3** B) Adjust telescoping upper clamp arms to center on upper rolls



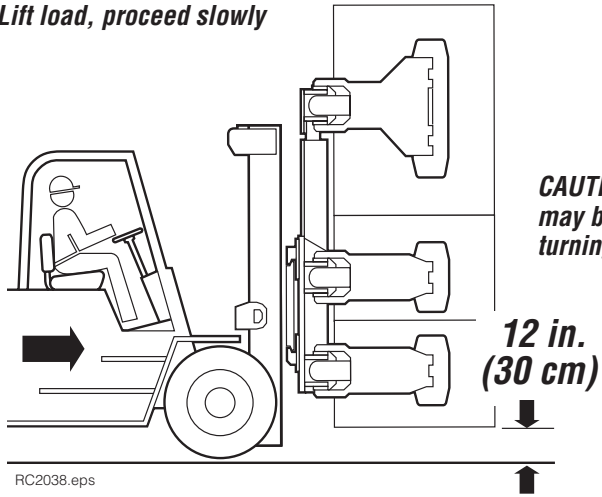
- 4** Clamp through roll centerlines



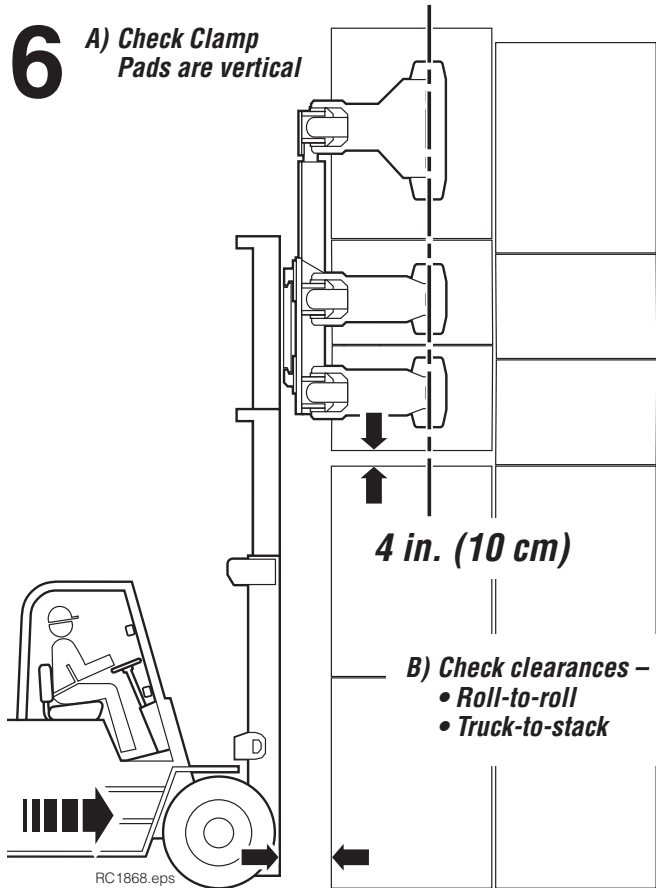
TOWER CLAMP

Loading, Transport, Unloading, Stacking

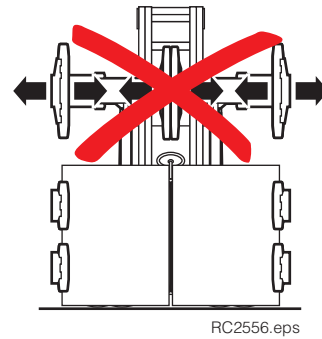
5 Lift load, proceed slowly



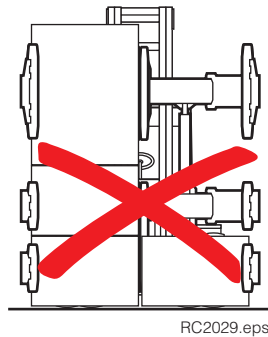
6 A) Check Clamp Pads are vertical



Shut Off Unused Arms



No L-shaped loads



L OADING WITH ADJUSTABLE BUMPER OPTION

VERTICAL PICKUP

A) Close arms to approximate roll diameter

B) Drive forward touching bumper to roll

2-4 in. (5-10 cm)

C) Clamp with long arm

RC2169.eps

BILGE PICKUP

A) Close arms to approximate roll diameter

3-4°

C) Clamp with long arm

B) Tilt, drive forward touching bumper to roll

D) When clamping with the long arm, allow the truck to move in neutral or with clutch disengaged. The bumper may have a tendency to move the truck forward or backward when adjusting to the roll size.

RC0074.eps

L OAD TROUBLESHOOTING

IF LOAD IS SLIPPING:

1 Check weight of roll is within capacity range of Clamp (See nameplate)

2 Re-clamp load, contact pads centered on and parallel to roll, roll against bumper (if equipped)

3 Check hydraulic supply pressure and clamp force, see following:

- Appropriate Clamp Service Manual
- Clamp Force Indicator Operator Guide 214750
- Establish Clamp Force TB 284

4 Check condition and type of contact pad surface, change or replace if necessary

RC2166.eps



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. When operating and maintaining industrial trucks equipped with attachments you should pay particular attention to the following sections of these regulations. You should be familiar with **all** sections of these regulations. **Ask your employer for the complete regulations.**

(a) General Requirement

- (4) Modifications and additions which affect capacity and safe operation shall not be performed by the customer or user without manufacturers prior written approval. Capacity, operation and maintenance instruction plates, tags or decals shall be changed accordingly.
- (5) If the truck is equipped with front-end attachments other than factory installed attachments, the user shall request that the truck be marked to identify the attachments and show the appropriate weight of the truck and attachment combination at maximum elevation with load laterally centered.
- (6) The user shall see that all nameplates and markings are in place and maintained in a legible condition.

(e) Safety Guards

- (2) If the type of load presents a hazard, the user shall equip fork trucks with a vertical load backrest extension in accordance with (a)(2) following.
 - (a)(2) All new powered industrial trucks acquired and used by an employer after February 15, 1972 shall meet the design and construction requirements for powered industrial trucks established in the "American National Standard for Powered Industrial Trucks, Part II, ANSI B56.1", 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 placed 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.

- (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) Traveling

- (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.
- (7iii) 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.

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