SAFE WORK PROCEDURE

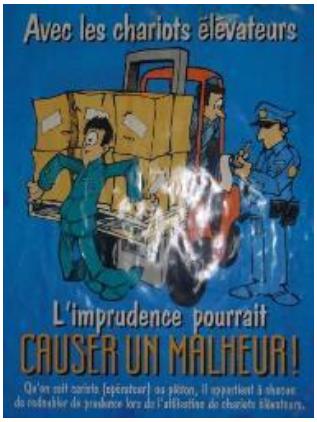
LOAD HANDLING WITH LIFTING EQUIPMENT

REV4

résolu
Produits forestiers

LIFTING EQUIPMENT for ANY LOAD

A) FORKLIFT TRUCKS
B) FIXED OR HYDRAULIC ARM LIFT TRUCK AND SMALL CRANE (DROTT)
C) OVERHEAD CRANES & ELECTRIC / MANUAL HOISTS (chain block)



A) FORKLIFT TRUCKS

Operator

- **Have the required training**
- **Complete a risk analysis**
- **Inspect lift truck**
- **Know load capacity of truck and never exceed it**
- **If unknown, estimate weight of load to be moved**
- **Examine work area for any obstacles, and to confirm available clearance is sufficient**
- **Put on his seatbelt**
- **Place load as close to the mast as possible**
- **Ensure load is balanced**
- **Secure load to the mast**
- **Check if any parts could break away**
- **If visibility is reduced or field of view obstructed by load, *driving backward is required*; use of a Signalman may be necessary**
- **When climbing up or down a >5° slope with a lift truck carrying a load, truck must be driven with load facing uphill**

MAIN TYPES OF INCIDENTS

- **WORKER GETTING PINCHED/CRUSHED**
- **LOAD TIPPING OVER**
- **TRUCK OVERTURNING**

EXAMPLES

LOAD TOO FAR FROM MAST

LOAD PROPERLY PRESSED
AGAINST AND SECURED TO MAST

LOAD NOT SECURED

B) LIFT TRUCK AND SMALL CRANE (DROTT) with FIXED OR HYDRAULIC ARM

Crew (Operator, Signalman & Slinger)

1. Check if a work procedure is available
2. Inquire about weight of load to be lifted; if unknown, estimate it
3. Select slings to be used
4. Assess center of gravity of the load (for load to be stable, hook must be right above its center of gravity)
5. Delimit work area
6. Determine each worker's function (Operator, Signalman, Slinger)

Operator

1. Must have the required training
2. Complete a risk analysis
3. Check lifting equipment
4. Communicate with Slinger
5. Examine work area for any obstacles: pay attention to electric wires
6. Put on his seatbelt
7. Lift load in 4 moves:
   a) Tension the slings without lifting load
   b) Allow Slinger to move far enough away OR move away himself if he is doing the slinging
   c) Gently lift load to check correct fastening and balance, and ensure brake is functioning properly
   d) Lift load at transport height

Operator (cont.)

8. **Move load safely**
9. **If a Signalman is in charge of moves, follow his signals**
10. **Only take signals from one Signalman at a time**
11. **If unsure about a signal, make no move**
12. **Always obey a STOP signal, no matter who gives it**
13. **During the lift, always remain vigilant to make sure no one is ever in danger of being pinched between the load and an obstacle**

- **<u>DROTT CRANE</u>**

  If the Drott crane is being used, Operator must ensure it is properly stabilized on its outriggers before rotating or extending the boom to move a load

Slinger

1. **Must have the required training**
2. **Complete a risk analysis**
3. **Confirm lifting accessories are in good condition**
4. **Ensure all necessary means are in place to keep load stable during its movement (guiding rope or pole)**
5. **Put protectors on sharp edges that are in contact with the slings (so as not to cut them)**
6. **Have in hand Resolute's technical/mechanical data booklet (with all technical data to select slings or other lifting accessories, metal weights, roll weights, etc.)**

Slinger (cont.)

7. When starting a lift with a steel sling (basket hitch), never close his hand on the sling as it may start to spin very rapidly when tensioned and hand could get pinched between the two sling legs
8. Check load balance while tensioning the slings
9. Make sure no parts could break away from the load during the lift (bearing housing, bearings, bolts, couplings, etc.)
10. Direct moving load using a guiding rope or pole
11. Ensure his own safety (struck by load, pinched between load and an obstacle, etc.) – ***ALWAYS KEEP A MINIMUM DISTANCE OF 4' BETWEEN YOUR BODY AND ANY MOVING LOAD***

12. If you BELIEVE that IT IS IMPOSSIBLE NOT TO USE HANDS DIRECTLY IN CONTACT WITH A LOAD:

- **WORK MUST BE STOPPED AND SUPERVISION OF THE JOB MUST BE ADVISED IN ORDER TO DEFINE EFFICIENT CONTROL MEASURES AND SITE'S MANAGEMENT MUST APPROVE THESE RISK CONTROL MEASURES FOR THE PARTICULAR TASK**

Signalman

1. Must have the training required for this job
2. Complete a risk analysis
3. Ensure there is only ONE Signalman at a time
4. Position himself so as to have an unobstructed view of the load
5. Remain in Operator's line of sight or use a unique frequency radio for his verbal signals (cf. RFP Clermont Radio Signaling Policy)
6. Direct load so it never passes over anyone

MAIN TYPES OF INCIDENTS

- **WORKER GETTING PINCHED/CRUSHED BY MOVING LOAD**
- **SLINGING FAILURE**
- **UNHOOKING OF LOAD (DEFECTIVE SNAP HOOK)**

EXAMPLES

IMPROPER HAND POSITION – PINCH HAZARD BETWEEN THE 2 PARTS IN CASE OF SUDDEN MOVEMENT

EXAMPLES (cont.)

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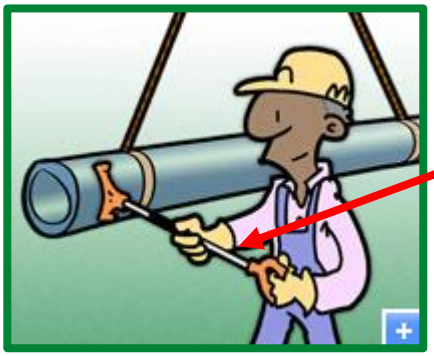
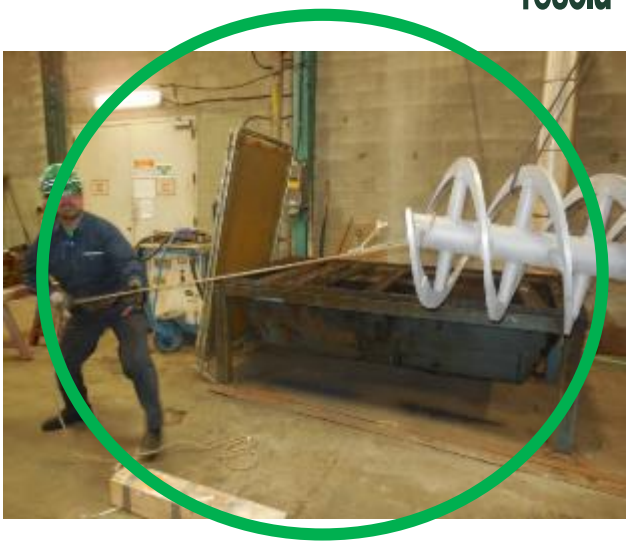
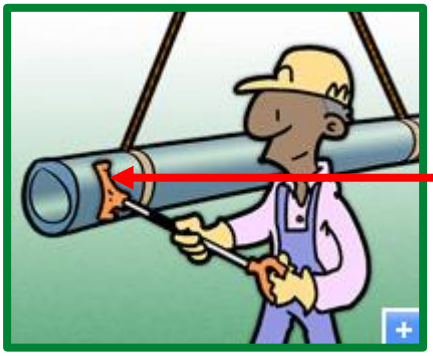
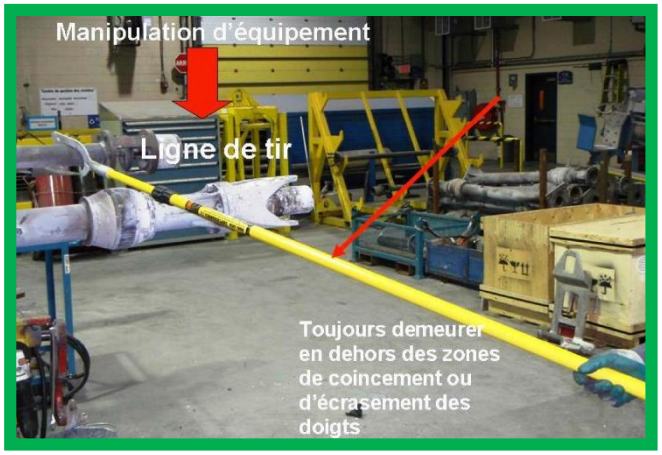


GOOD EXAMPLES OF SAFELY GUIDING A PART USING A
GUIDING ROPE, POLE OR STRAP FOR SCREW/PUMP/PIPING/MOTOR ADJUSTMENT OR TRANSPORTATION

EXAMPLES (cont.)







GOOD EXAMPLES OF SAFELY GUIDING A PART USING A **GUIDING ROPE, POLE OR STRAP FOR SCREW/PUMP/PIPING/MOTOR ADJUSTMENT OR TRANSPORTATION**

C) OVERHEAD CRANES & ELECTRIC / MANUAL HOISTS (chain block)

Crew (Operator, Signalman & Slinger)

1. **Check if a work procedure is available**
2. **Inquire about weight of load to be lifted: if unknown, estimate it**
3. **Select slings to be used**
4. **Assess center of gravity of the load (for load to be stable, hook must be right above its center of gravity)**
5. **Ensure there are no moving parts that could rotate while moving the main slinging *(e.g. bearing housing that could rotate when unbolted from the machine structure)***
6. **Delimit work area**
7. **Decide on each worker's function (Operator, Signalman, Slinger)**
8. **Select a means of communication (visual signals or unique frequency radio)**
9. **In case of radio communication, perform a pre-use test**
10. **Review RFP Clermont Radio Signaling Policy**

Operator

1. **Must have the required training**
2. **Complete a risk analysis**
3. **Check lifting equipment**
4. ***Review communication signals with the S*linger**
5. **Examine work area for any obstacles**

Operator (cont.)

6. Lift load in 4 moves:
   a) Tension the slings without lifting load
   b) Allow Slinger to move far enough away OR move away himself if he is doing the slinging
   c) Gently lift load to check correct fastening and balance, and ensure brake is functioning properly
   d) Lift load at transport height
8. Move load safely
9. Is Signalman is in charge of moves, follow his signals
10. Only take signals from one Signalman at a time
11. If unsure about a signal, make no move
12. Always obey a STOP signal, no matter who gives it
13. During the lift, always remain vigilant to make sure so one is ever in danger of being pinched between the load and an obstacle

Slinger

1. Must have the required training
2. Complete a risk analysis
3. Confirm lifting accessories are in good condition
4. Ensure all necessary means are in place to keep load stable during its movement (guiding rope or pole)
5. Put protectors on sharp edges that are in contact with the slings (so as not to cut them)

Slinger (cont.)

6. **Have in hand Resolute's technical/mechanical data booklet (with all technical data to select slings or other lifting accessories, metal weights, roll weights, slinging angle (60° max), sling capacities, etc.)**
7. **When starting a lift with a steel sling (basket hitch), never close his hand on the sling as it may start to spin very rapidly when tensioned and hand could get pinched between the two sling legs**
8. **Check load balance while tensioning the slings**
9. **Make sure no parts could break away from the load during the lift (bearing housing, bearings, bolts, couplings, etc.)**
10. **Direct moving load using a guiding rope**
11. **Ensure his own safety (struck by load, pinched between load and an obstacle, etc.) – *ALWAYS KEEP A MINIMUM DISTANCE OF 4' BETWEEN YOUR BODY AND ANY MOVING LOAD***

12. If you BELIEVE that IT IS IMPOSSIBLE NOT TO USE HANDS DIRECTLY IN CONTACT WITH A LOAD:

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Signalman

1. **Must have the required training**
2. **Complete a risk analysis**
3. **Ensure there is only ONE Signalman at a time**
4. **Position himself so as to have an unobstructed view of the load**
5. **Remain in Operator's line of sight or use a unique frequency radio for his verbal signals (cf. RFP Clermont Radio Signaling Policy)**
6. **Direct load so it never passes over anyone**
7. **Ensure his own safety (struck by load, pinched between load and an obstacle, etc.) – *ALWAYS KEEP A MINIMUM DISTANCE OF 4' BETWEEN YOUR BODY AND ANY MOVING LOAD***

MAIN TYPE OF INCIDENTS

1. **WORKER GETTING PINCHED/CRUSHED BY MOVING LOAD**
2. **SLINGING FAILURE**
3. **UNHOOKING OF LOAD (DEFECTIVE SNAP HOOK)**
4. **LOAD TIPPING OVER DUE TO INCORRECT ASSESSMENT OF CENTER OF GRAVITY**

EXAMPLES

PROPER SLINGING TO KEEP BEARING HOUSING FROM ROTATING WHEN RELEASED FROM ROLLER (HOIST)

NOT WITH HANDS

USE A GUIDING ROPE OR POLE TO DIRECT LOAD