
SLING SELECTION

The hitch chooses the sling. The leftover in the truck does not.

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PURPOSE

Pick a sling that can take the tension at this angle, in this hitch, on this edge, in this environment.

SCOPE

Wire rope, chain and synthetic slings used by riggers.

This document is the method - the steps. Hazards and residual risk for the same work are in the JHA library. A procedure is not a hazard analysis.

PROCEDURE

01 LOAD

Weight and COG. If unknown, stop.

02 HITCH

Vertical, choker or basket. Capacity changes. Do not mix them in your head.

03 ANGLE

theta from the horizontal. Tension = share / sin theta for a two-leg bridle. Below 30 deg is not a hitch this program allows unless an engineer owns it. Desk: sin.ae.org/sling

04 ENVIRONMENT

Heat, chemicals, sharp edges, basket in a choke - pick the material that survives that, or change the method.

05 CHECK WLL

After hitch and angle, the sling still has capacity. If it does not, change the sling or the hitch - do not hope.

RESPONSIBILITIES

THIS PROGRAM

The published method for the work. Stop-work is named in it. It does not own the site.

SUPERVISOR

Confirms the plan, the crew, the zone and the stop criteria. Owns whether the hook moves.

CRANE OPERATOR

Runs only the machine they are competent on, to the chart, after inspection. Stops on an unclear signal or a broken plan.

RIGGER

Selects, inspects and applies the hitch. Does not guess weight, centre of gravity or angle.

SIGNALPERSON

One set of hands on the crane. Holds the zone. STOP means stop.

WORKER

Works to this program and to site rules - whichever is stricter. Uses the three rights. Reports damaged gear.

REQUIRED COMPETENCY

Can calculate tension for the hitch
Knows WLL, angle and environmental limits

EQUIPMENT

Identified slings
WLL tags
Softeners

PPE

Hard hat
CSA-grade footwear
High-visibility clothing
Eye protection
Task-rated gloves
Hearing protection where required
Fall protection where the work exposes a fall

PROHIBITED PRACTICES

Selecting by colour or habit
Knots in slings
Synthetics on hot work they are not rated for

EMERGENCY RESPONSE

Stop the lift. Make people safe. Land or hold the load if it can be done without a second incident. First aid. Notify the site and the employer. Hold the scene.

DOCUMENTATION

FLHA
Pre-use / inspection record
This SWP number and revision

REFERENCES

Workers Compensation Act s. 21 - known or reasonably foreseeable hazards; instruction and supervision
OHS Regulation (B.C. Reg. 296/97, in force 15 Apr 1998) Part 3 - OHS program, instruction, inspections
OHS Regulation Part 4 s. 4.13 - risk assessment where rescue or evacuation may arise
OHS Regulation Part 8 - PPE; headwear CSA Z94.1-05 or Z94.1-15
OHS Regulation Part 11 - fall protection
OHS Regulation Part 14 - Cranes and Hoists
14.2(5) - CSA Z150-1998, or ASME B30.5-2004, or ASME B30.22-2005 (articulating boom)
14.2(6) - CSA Z248-2004 for tower, hammerhead and self-erecting tower cranes
14.35 pre-use inspection 14.36 load weight 14.42.1 critical lift 14.44 loads over work areas 14.45 unattended loads
14.47-14.49 signals
OHS Regulation Part 15 - Rigging
Manufacturer load chart, manual and configuration limits
Site lift plan, FLHA and site rules where stricter