POLICY

This policy applies to rigging and slings used in conjunction with other material handling equipment for the movement of material by hoisting. The types of rigging and slings covered are those made from alloy steel chain, wire rope, metal mesh, natural or synthetic fiber rope, and synthetic web.

REFERENCES

- §1926.251 – Rigging Equipment for Material Handling
- §1926.550 – Cranes and Derricks

RESPONSIBILITIES

E & B Oilfield Services, Inc. will enforce, the following work practices and procedures to assure that no employee will be exposed to hazards during rigging and hoisting operations.

Danny Abegglen is the Competent Person in authority over all rigging and hoisting operations. Danny Abegglen will ensure all safety measures and systems are in place, all safety procedures are adhered to, and ensure regular inspections of the operational site and rigging equipment are made.

Employees are responsible for: inspecting ropes, slings, and hoisting devices before each use and when necessary; removing damaged goods for inspection and permanent removal from service; perform pre-shift visual inspection of curves.

TRAINING

E & B Oilfield Services, Inc.'s qualified rigger training combines classroom and exams with hands-on training. The training program will include familiarization with rigging hardware, slings and the rigging basics, along with the procedures and precautions of lifting loads and lift planning safety.

E & B Oilfield Services, Inc. employees need to demonstrate proper inspection, use, selection and maintenance of loose gear such as slings, shackles and hooks. Rigging hardware can include: sheaves and blocks; hooks and latches; rings, links and swivels; shackles; turnbuckles; spreader and equalizer beams; cable drops; pad eyes, eyebolts, and other points of attachment.

Sling training includes the sling configuration, angle, and rated load. Types of slings can include: chain, wire rope, metal mesh, natural fiber rope, synthetic fiber rope, or synthetic web.

E & B Oilfield Services, Inc. employees need to know the procedures and precautions of: load control and taglines; lift planning including load weight and center of gravity; sling inspection and criteria for rejecting damaged slings; unbinding loads; proper personnel transfer and of course sling handling and storage.

Basic rigging aspects like pinch points and body position, PPE, signals and communication and load stability are also part of the training.

DEFINITIONS

Angle of loading – is the inclination of a leg or branch of a sling measured from the horizontal or vertical plane, provided that an angle of loading of five degrees or less from the vertical may be considered a vertical angle of loading.

Basket hitch – is a sling configuration whereby the sling is passed under the load and has both ends, end attachments, eyes or handles on the hook or a single master link.

Braided wire rope – is a wire rope formed by plaiting component wire ropes.

Bridle wire rope sling – is a sling composed of multiple wire rope legs with the top ends gathered in a fitting that goes over the lifting hook.

Cable laid endless sling-mechanical joint – is a wire rope sling made endless by joining the ends of a single length of cable laid rope with one or more metallic fittings.

Cable laid grommet-hand tucked – is an endless wire rope sling made from one length of rope wrapped six times around a core formed by hand tucking the ends of the rope inside the six wraps.

Cable laid rope –wire rope with six wire ropes wrapped around a fiber or wire rope core.

Cable laid rope sling-mechanical joint – is a wire rope sling made from a cable laid rope with eyes fabricated by pressing or swaging one or more metal sleeves over the rope junction.

Choker hitch – is a sling configuration with one end of the sling passing under the load and through an end attachment, handle or eye on the other end of the sling.

Coating – is an elastomer or other suitable material applied to a sling or to a sling component to impart desirable properties.

Cross rod – is a wire used to join spirals of metal mesh to form a complete fabric.

Female handle (choker) – handle with a handle eye and a slot that permits passage of a male handle thereby allowing the use of a metal mesh sling in a choker hitch.

Handle – is a terminal fitting to which metal mesh fabric is attached.

Handle eye — is an opening in a handle of a metal mesh sling shaped to accept a hook, shackle or other lifting device.

Hitch –The sling is fastened to an object or load, either directly to it or around it.

Link — is a single ring of a chain.

Male handle (triangle) – is a handle with a handle eye.

Master coupling link – is an alloy steel welded coupling link used as an intermediate link to join alloy steel chain to master links.

Master link or gathering ring – is a forged or welded steel link used to support all members (legs) of an alloy steel chain sling or wire rope sling.

Mechanical coupling link – is a non-welded, mechanically closed steel link used to attach master links, hooks, etc., to alloy steel chain.

Proof load – is the load applied in performance of a proof test.

Proof test – is a nondestructive tension test performed by the sling manufacturer or an equivalent entity to verify construction and workmanship of a sling.

Rated capacity or working load limit – is the maximum working load permitted by the provisions of this section.

Reach – is the effective length of an alloy steel chain sling measured from the top bearing surface of the upper terminal component to the bottom bearing surface of the lower terminal component.

Spiral –a single transverse coil that is the basic element from which metal mesh is fabricated.

Strand laid endless sling-mechanical joint – is a wire rope sling made endless from one length of rope with the ends joined by one or more metallic fittings.

Strand laid grommet-hand tucked – is an endless wire rope sling made from one length of strand wrapped six times around a core formed by hand tucking the ends of the strand inside the six wraps.

Strand laid rope – is a wire rope made with strands (usually six or eight) wrapped around a fiber core, wire strand core, or independent wire rope core (IWRC).

Vertical hitch – is a method of supporting a load by a single, vertical part or leg of the sling.

TYPES OF SLINGS

- Alloy Steel Chain Slings
- Wire Rope Slings
- Metal Mesh Slings
- Natural and Synthetic Fiber Rope Slings
- Synthetic Web Slings
- Synthetic Round Slings

SAFE PRACTICES

Improper rigging of a load or a rigging failure can expose riggers and other workers nearby to a variety of potential hazards. Riggers have been injured or killed when loads have slipped from the rigging, or when the rigging has failed. Therefore all loads must be safely rigged, including adequate welds on pad eyes (page C-8) prior to a lift.

The following are topics that should be discussed with workers prior to beginning rigging operations:

- Hazards associated with rigging operations
- Role and responsibility of each rigger’s assigned task
- Establishing a goal for the day
- Weight of material and equipment being hoisted
- Identifying the various shapes on the surface of equipment being hoisted
- Lifting limitations of gear and hoisting devices
- Communication used by all personnel
- Disconnecting techniques used to complete the task

Rigging Equipment

- Rigging equipment will not be loaded in excess of its recommended safe working load, as prescribed for the specific equipment and load rating identification will be attached to the rigging apparatus or equipment
- Rigging equipment, when not in use, will be removed from the immediate work area so as not to present a hazard to employees
- Tag lines will be used unless their use creates an unsafe condition
- Hooks with self-closing safety latches or their equivalent will be used to prevent components from slipping out of the hook

Working under Suspended Loads

All employees shall be kept clear of loads about to be lifted and of suspended loads. Routes for suspended loads will be pre-planned to ensure that no employee is required to work directly below a suspended load except for:

- Employees engaged in the initial connection of the steel
- Employees necessary for the hooking or unhooking of the load

When working under suspended loads, the following criteria will be met:

- Materials being hoisted will be rigged to prevent unintentional displacement
- Hooks with self-closing safety latches or their equivalent will be used to prevent components from slipping out of the hook
- All loads will be rigged by a qualified rigger

TRAINING RECORD

Trainer:	
Signature:	
Date:	
Content of Training:	
Attendees	
Print Name:	**Signature:**