



THE PROFESSIONAL RIGGER

Volume 16 Number 1

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TECHNICAL NEWS

Load Skidding *

Using portions of the Journeyman Rigger's Reference Card, determine the total force required to slide the steel based load across the concrete floor to its landing spot. Identify the amount of tension which will be applied to the following items:

Point 1, shackle deadend
= _____ lbs.

Point 2, snatch block
= _____ lbs.

Point 3, snatch block
= _____ lbs.

Point 4, snatch block
= _____ lbs.

Points 2 + 4 at column
= _____ lbs

Point 5, snatch block
= _____ lbs.

Point 6, snatch block
= _____ lbs.

Point 7, snatch block
= _____ lbs.

Point 8, floor winch
= _____ lbs.

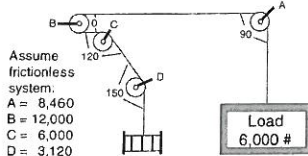
Coefficients of Friction

Concrete on concrete	.65	Manila rope on wood	.40	Continuous lubricated surface	.15
Metal on concrete	.60	Leather on metal	.40	Steel on steel	.10
Wood on wood	.50	Wood on metal	.30	Load on wheels	.05
Wood on concrete	.45	Cast iron on steel	.25		

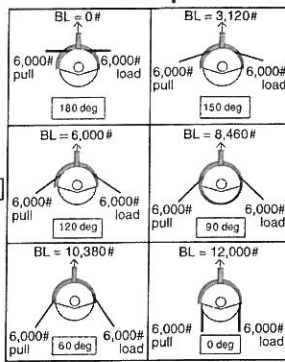
Block & Fairlead Loading

Angle full included	Block Factor	Line Pull in lbs.	Block Load in lbs.
180	0.00	6,000	0
150	0.52	6,000	3,120
120	1.00	6,000	6,000
90	1.41	6,000	8,460
60	1.73	6,000	10,380
0	2.00	6,000	12,000

Formula: Block Factor x Line Pull = Block Load



Example

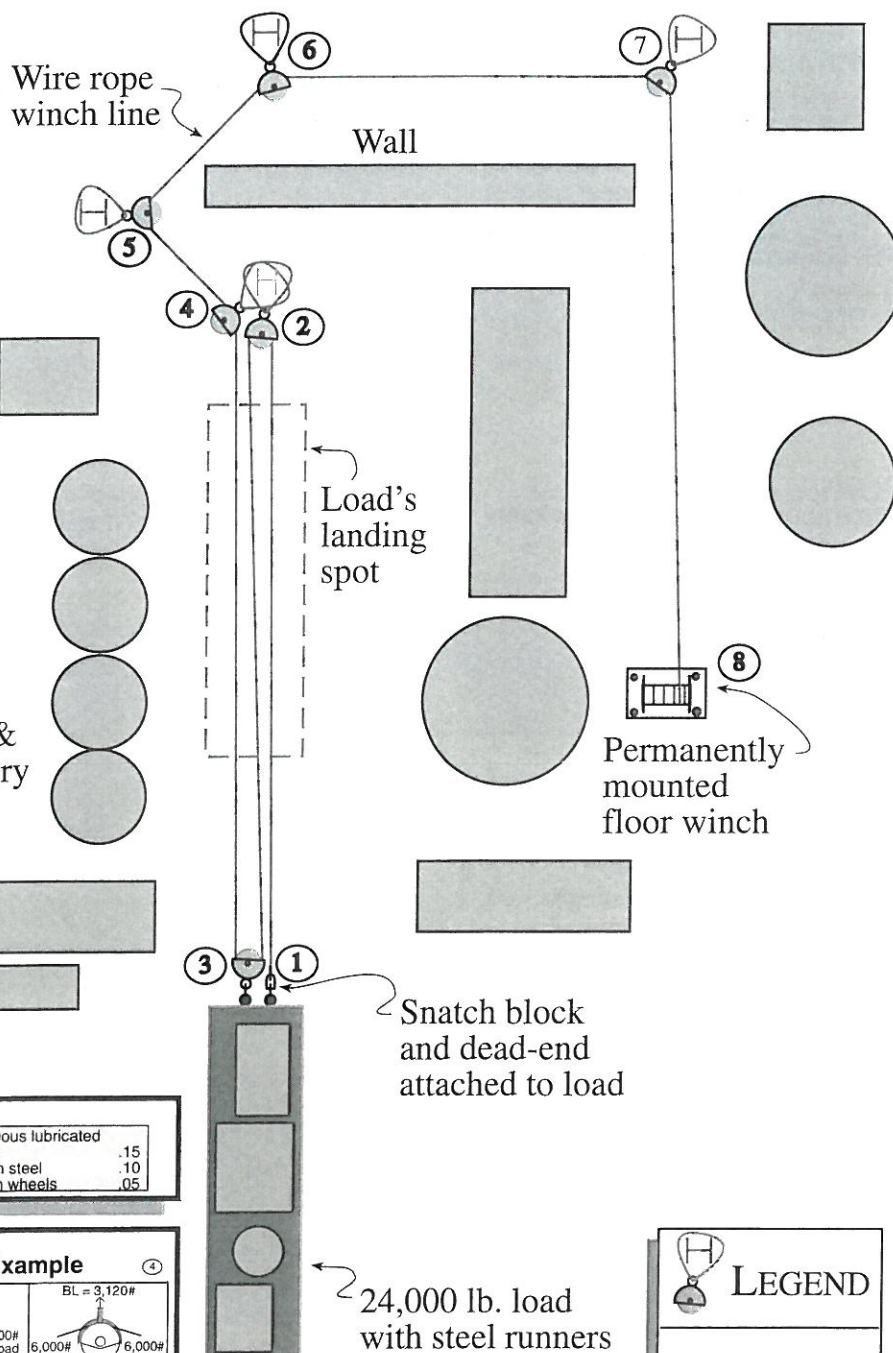


24,000 lb. load with steel runners underneath, to skid across concrete floor

*NOTE: For the purpose of this exercise, assume frictionless sheaves

See Page 3, Column 3 for Answer Key

LEGEND
 Sling
 Snatch Block



CLIENT NEWS

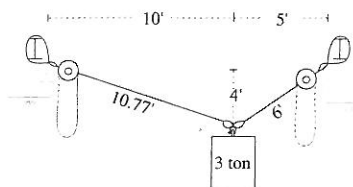
BHP

ITI's Instructor Russ Donaldson was asked to present Crane Operator & Rigging Training Programs for BHP employees in order to increase skill level and safety awareness at their Navajo and San Juan Mines.

BHP Planners & Supervisors attended 50 hours of Crane & Rigging Management training which covered all phases of crane operations, including rigging techniques, and critical lifts.

Operators of small cranes (under 100 ton) received 40 hours of training on hydraulic and rough terrain type cranes. Attendees who successfully complete this program advance to the large crane (over 100 ton) training consisting of advanced operations with emphasis on lattice boom cranes.

Six weeks of rigging training is planned for individuals involved moving loads using both mobile and overhead hoists.



The Professional Rigger is a publication of Industrial Training International, Inc. It is distributed to those whose occupations require the safe and proper use of lifting and rigging equipment. For more information contact **The Professional Rigger** PO Box 1660 Woodland WA 98674 (360) 225-1100 or visit our web site: www.wrrc.com

Mason & Hanger

Amarillo, TX was the location was the site of a 3-day Certified Rigging Gear Inspection Program for 15 individuals.

Attendees completed written tests and performed hands-on inspections of wire rope, wire rope slings, synthetic web slings, alloy chain slings, and rigging hardware.



CIANBRO

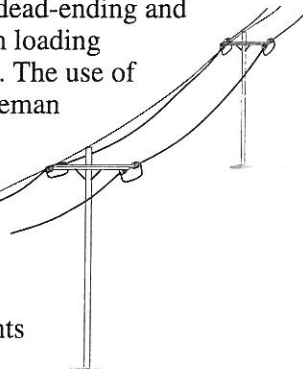
ITI Instructor Devon Beasley presented a 4-day Master Rigger Program for 12 individuals at their Bloomfield, CT location. Drifting loads, jacking and rolling and finding the CG were just a few of the numerous hands-on workshops presented during the program.

Montana Power

A total of 50 individuals attended one of two 2-day Lineman Rigging Programs at their Helena and Bozeman sites.

The classroom instruction included load weight estimation, determining center of gravity and rigging gear capacities.

During the hands-on session, a pole a cross-arm structure was used for dead-ending and cross-arm loading exercises. The use of ITI's Lineman Rigger's Reference Card as a field tool assisted participants in determining the tension in span lines and guys and tension. Dynamometers were connected to various attachment points to help reinforce crew members calculated loads and tension when securing guys and anchors.



Falkirk Mining

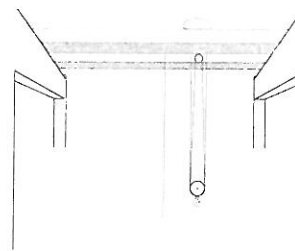
ITI was contracted to present five 1-day Rigging Refresher Programs for 57 riggers in Underwood, ND.

The courses consisted of short classroom sessions followed by a series of "live-load" field rigging exercises. The use of dynamometers during the hands-on sessions helped to reinforce or correct the estimation method used to calculate the weight of the loads being lifted.

BPA

ITI Instructor Devon Beasley presented a 3-day Overhead Crane Inspector Program for 8 individuals at their facility in The Dalles, OR

Participants were instructed on the inspection criteria as outlined in OSHA & ASME Standards. Additional requirements for successful completion of the course included, completing a written test and performing a hands-on inspection of an overhead crane.

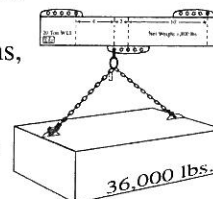


J.F. White Contracting Co.

ITI Instructor Devon Beasley presented a 1-day Crane & Rigging Management Program for 10 individuals at their Boston, MA location.

Subjects addressed in the program included Accident Investigation, Crane Operations, Management Responsibilities and Critical Lift Planning. The hands-on

portions of the training were greatly enhanced with the use of ITI's "Mill Models" for use in the Critical Lift Planning segment of the program.



ITI NEWS

Certified Rigging Gear Inspection

Find out the latest inspection criteria for:

- Wire Rope
- Wire Rope Slings
- Synthetic Web Slings
- Alloy Chain Slings
- Below-the-Hook Lifting Devices
- Rigging Hardware

This in-depth 4-day program begins with tours of a Forging Facility and Rigging Shop to help attendees become familiar with terminology and the process involved in fabricating slings and rigging hardware.

Participant will complete written tests and perform numerous hands-on inspections of various types of rigging gear throughout the program.



The instructional format of this program is based on the following regulations:

- Federal OSHA - 29 CFR 1910
- ASME B30 series
- ASTM A-391
- ASTM E-4

Dates for the remaining programs are

June 5 - 8

September 11 - 14

December 4 - 7

To reserve your seat, fill out the enclosed registration form or call **1-800-727-6355**

OPEN ENROLLMENT TRAINING PROGRAMS

Attend one of the following courses at our Training Center:

- *Journeyman Rigger*
- *Master Rigger*
- *Rigging Gear Inspector-Levels I, II & III*
- *Rigging Rodeo*
- *Crane & Rigging Management*
- *Mobile Crane Operator*
- *Mobile Crane Inspector*
- *Boom Truck Operator*

All of the programs consist of written workshops followed by hands-on exercises which help put into practice the concepts and techniques taught in the classroom.

Please see the enclosed Training Schedule for dates and times.



INDUSTRY NEWS

ASME B30.9 -2.5.1 Marking Requirements

The "C" Addenda was published and available in Nov. 2000. This voluntary standard which helps serve to establish industry practices included a new section covering the marking of wire rope slings. Within 12 months of publication we anticipate most rigging suppliers and employers will ensure that their wire rope slings are marked with a minimum of the following:

- Name or trademark of mfg.
- Rated load for the type of hitch(es), and the angle upon which it is based.
- Diameter or size

ACRP

The National Assembly Meeting of the Association of Crane & Rigging Professionals will take place May 30 - June 2nd at the Rosen Center in Orlando, FL.

Scheduled events include a field trip to the Kennedy Space Center, and a Sling Fabrication Tour & Literature Fair at Certified Slings.

Mr. Gene M. Romagna of The Learning Group of Orlando, will present a "train-the-trainer" session on "Developing Effective Training Sessions."

ACRP

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WORKSHOP

ANSWER KEY for Page 1

Point 1, shackle deadend	<u>4,800</u>
Point 2, snatch block	<u>9,600</u>
Point 3, snatch block	<u>9,600</u>
Point 4, snatch block	<u>4,800</u>
Points 2 + 4 at column	<u>14,400</u>
Point 5, snatch block	<u>6,768</u>
Point 6, snatch block	<u>4,800</u>
Point 7, snatch block	<u>6,768</u>
Point 8, floor winch	<u>4,800</u>



WANTED

Rigging Teams to compete in ITI's **Rigging Rodeo**

Sept. 25 - 27, 2001



This 3-day event will consist of
4-person teams competing in
workshops & load moving events.

Composite teams will be made for companies who only
send 1 - 3 people.

Workshop Competition Subjects Include:

- Accident Investigation
- Rigging Gear Inspection
- Knot Tying & Slicing
- Load Weight Estimation
- Critical Lift Planning
- Sling Tension Calculations

**ALL-AROUND
GRAND
CHAMPION
TEAM
AWARD**

Load Moving Competition Events Include:

- Load Turning
- Jacking & Rolling
- Load Drifting with Chain Falls
- Load Leveling
- Rigging with Gantry Cranes
- Rigging with Mobile Cranes

**PRIZES ALSO
FOR
2ND & 3RD
PLACE TEAMS**

To reserve your seat, see Registration & Information on ITI's
Training Schedule or call 1-800-727-6355