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Special Notes

These voluntary guidelines contain recommendations from the IADC Rig Moving Committee and are established to give the drilling contractor and rig moving companies a basis on which to build and operate a Gin Pole Truck Guidance Program. Although these guidelines are voluntary, consideration should be given to developing an in-house program to meet the recommendations of these guidelines by April 1, 2023.

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Suggested revisions to this guidance are invited and will be considered along with future changes to these recommendations. Suggestions should be submitted to the Attention of the Rig Moving Committee, International Association of Drilling Contractors, 3657 Briarpark Dr, #200, Houston, TX 77042.

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Foreword

This guidance document is under the jurisdiction of the IADC Rig Moving Committee. It was developed with assistance from the Association of Energy Service Companies (AESC). The goal of this voluntary guidance document is to assist the oil and gas industry in promoting safety in the exploration and the development of oil and gas. *The publication does not, however, purport to be so comprehensive as to present all of the recommended gin pole truck operating practices that can affect safety in oil and gas drilling, well servicing, and production operations.*

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Introduction

Scope

This publication applies to oil field gin pole trucks that may be utilized to hoist and/or move a load.

Policy Statement

These guidelines are intended to assist in improving safety, design, inspection, and operations of oil field gin pole and stinger trucks.

Benefits of Oilfield Gin Pole Truck Guidelines

Improve operational safety by providing guidelines to assist in the manufacture, repair, operations, and inspection procedures for oilfield gin pole trucks.

References

The most recent editions of the following publications have been used as references in the development of this guidance document.

Industry-Recommended Practices and Standards

- 1) ASME International Standards: Three Park Avenue, New York, NY 10016-5990
 - a) ASME B-30.6 Derricks
 - b) ASME B-30.10 Hooks
 - c) ASME B-30.26 Rigging Hardware
 - d) ASME B30.30 ROPES
- 2) American Petroleum Institute (API): 1220 L Street, NW; Washington DC 20005; www.api.org
 - a) RP 9 B: Application, Care, and Use of Wire Rope for Oilfield Service
 - b) API SPEC 9A: Specification for Wire Rope
- 3) International Association of Drilling Contractors (IADC)
 - a) Safe Rigging Practices
 - b) Basic Rigging Concepts
 - c) Drums, Blocks, Sheaves, and Wire Rope Terminations
 - d) Rigging Gear and Inspection Criteria
 - e) Safe Rigging Practices and Procedures
 - f) Putting Slings to Work

Other References

- 29 CFR 1910.180 Crawler, Locomotive, and Truck Cranes
- 29 CFR 1910.184 Slings
- Current chassis manufacturers' guidelines
- Ancillary-equipment manufacturers' guidelines
- ASTM A 391-01 Grade 80 Alloy Chain
- ASTM A 973 01 Grade 100 Alloy Chain h) ASTM A 906 Alloy Chain Slings
- AWS D1.1 Structural Welding Code
- AWS D14.3
- American Institute of Steel Construction (AISC)
- Z49.1: (R1999) Safety in Welding and Cutting and Allied Processes (AWS Z49.1)
- Cordage Institute of America

Gin Pole Truck Terminology

For a full list of terms, definitions, and acronyms, see the *Glossary* section. The following diagram shows the gin pole truck components and terminology.



General Requirements

The ACT

Federal Motor Vehicle Safety Standards (FMVSS) Certification: The National Traffic Motor Vehicle Safety Act of 1966 (**The Act**), Title 49 U.S. Code Chapter 301, was passed by Congress in 1966 for the purpose of improving highway safety. To implement The Act, Congress empowered the National Safety Administration to enforce the FMVSS ("Safety Standards," or "Standards"), which is included in the Code of Federal Regulations (CFR). Title 49 CFR Part 571 provides specifications with which a manufacturer must comply for building cars, trucks, buses, multipurpose passenger vehicles, trailers, and motorcycles. The standard also includes various equipment and components related to the safe operation of the vehicle, such as lighting, brakes, fuel system, and cab or occupant safety.

The Act also imposes notification, recall, and remedy obligations on manufacturers of motor vehicles.

Who is the Manufacturer?

For the purposes of The Act, the "Manufacturer" is the dealer, truck equipment distributor, or body/accessory manufacturer who installs a body or other equipment on an incomplete vehicle or who alters a certified completed vehicle before the first purchase of the vehicle (doing so in good faith for the purposes other than resale). The Manufacturer must ensure the vehicle's conformance with applicable Standards.

Note: When the ultimate customer purchases an incomplete vehicle and installs additional equipment, the customer, in effect, becomes The Manufacturer and is subject to the certification requirements of The Act.

This broad definition of manufacturing, however, does not apply to all operations performed on a vehicle. For example, minor finishing operations, such as painting, are not considered manufacturing.

Every manufacturer is required by The National Highway Traffic Safety Administration (NHTSA, 49 CFR Part 566) to submit identifying information and a description of the items it produces. New manufacturers, or those who make significant changes in their product lines, must submit the information no later than 30 days after the product's alteration begins. This required information includes the following:

- 1. Full individual, partnership, or corporate name of the manufacturer
- 2. Address of the manufacturer and state of incorporation, if applicable
- 3. A description of each type of motor vehicle or equipment, including the approximate ranges of gross vehicle weight ratings (GVWR) for each type of vehicle

Duties and Obligations

Depending on the stage in the manufacturing sequence of the vehicle, manufacturers may be considered incomplete, intermediate, final-stage, or altering manufacturers. Each type of manufacturer has certain obligations under The Act. The Act imposes three major duties on manufacturers of a new vehicle to be introduced into interstate commerce:

- 1. They must build the vehicle in conformance with any applicable Safety Standards in effect on the date the vehicle is manufactured and exercise "due care" to ensure that, when certified, each vehicle is following applicable Safety Standards.
- 2. They must make available records, make reports when specified, and permit entry and inspection by authorized government officials.
- 3. They must notify each purchaser and NHTSA of any Standard with which a vehicle fails to comply or of any safety-related defect in a product when it comes to their attention, and they must remedy any such failure to comply or any safety-related defect and keep certain records.

Incomplete Vehicle Document (IVD)

All incomplete vehicle manufacturers must furnish subsequent stage manufacturers with an incomplete vehicle document (IVD) that contains the information required pursuant to 49 CVR Part 568.4. The IVD must remain with the incomplete vehicle through all intermediate manufacturing operations and is to be removed only by the final-stage manufacturer. If changes to the vehicle made by the intermediate manufacturer(s) affect the validity of the statements contained in the IVD, the intermediate-stage manufacturer must provide an addendum to the document that contains the intermediate-stage manufacturer's name, mailing address, and a list of all changes that should be made in the IVD to reflect the changes made to the vehicle.

Incomplete and intermediate-stage manufacturers of the chassis-cab (see definition below) are required under this part to affix to each chassis-cab an appropriate certification label upon completion of their manufacturing operation.

Chassis-cab is defined in 49 CFR Part 567.3 as "an incomplete vehicle, with a completed occupant compartment, that requires only the addition of cargo-carrying, work-performing, or load-bearing components to perform its intended function."

Complete Vehicles

Vehicles must have a final-stage certification that meets federal and state requirements.

Manufacturer's Requirements

Important: Manufacturer's requirements are expected to be followed.

Assembly Completion Sticker

When a gin pole truck is completed, the manufacturer should affix an Assembly Completion Date Sticker to the unit. The information to be provided on this sticker should include, but not be limited to, the following:

- Assembly completion date of gin pole
- Truck make
- Truck model
- Bed serial number
- VIN number
- Rated load
- Manufacturer

Structural Modifications to Gin Pole Trucks

When structural modifications are made to a gin pole (stinger) truck, a qualified person should establish the ratings, operating limitations, maintenance, testing, and inspection requirements that apply to the structurally modified truck.

A new Assembly Completion Sticker needs to be attached to the gin pole truck.

Design

The gin pole truck should be designed, and the construction overseen, by a qualified person. The qualified person should also guide development of the gin pole truck rating, which should be based on the following:

- The OEMs' (original equipment manufacturers') ratings of the purchased parts
- The qualified person's analysis of the built parts
- A lift test

Truck Chassis Specifications & Components

The truck chassis should be selected based on the working load limit that the end user anticipates. Components that need specifications are as follows:

- Manufacturers' Frame
- Manufacturers' Engine
- Manufacturers' Transmission
- Manufacturers' Axle(s)
- Manufacturers' Suspension
- Manufacturers' Tire(s)
- Manufacturers' Wheel(s)

A technical drawing of the truck should be included in the chassis documentation.

Winch Size, Mounting, & Rope

Winch Size

Winch selection should be made based on the working load limit of the truck. Winch ratings should be published for the winch-rated line pull and their design should conform to or exceed the requirements of SAE J706. Manufacturers' recommendations should also be followed to ensure that the appropriate winch is chosen.

Winch Mounting

The following guidelines should be used in mounting the winch:

- The mount should be flat to ensure proper alignment between the gearbox side, the drum, and the clutch.
- The winch should be mounted perpendicular to an imaginary line from the center of the rope drum to the first sheave or load to ensure proper fleet angle and even rope spooling.
- The winch mount should be securely mounted to the vehicle frame in a manner acceptable to the vehicle manufacturer.

- When selecting cap-screws to mount the winch, use the same size and number of cap-screws to fasten the winch to its mount as the manufacturer uses to fasten the gearbox and end bracket to the winch frames.
- Winches should never be fastened directly to the frame of the truck. Mounting brackets should be used.
- The mounting span should comply with the winch manufacturer's recommendation.

Winch Rope

The following guidelines should be used in regard to the winch rope and related equipment:

Winch Rope: Follow the winch and the rope manufacturers' recommendations.

Tail Chain: Follow the manufacturers' recommendations.

Gin Pole Guy System: Follow the manufacturers' recommendations.

Rope strength should be determined based on manufacturers' specifications considering reductions due to bending and attachments. Minimum design factors are most commonly outlined per the respective manufacturer of the rope.

Bed Mounting

Most truck manufacturers offer their own body builder's guide to aid the installer in mounting the allied equipment to the truck chassis. Professional organizations, such as the National Truck Equipment Association (NTEA), have also published basic guidelines for body mounts.

There are three basic types of body mounts: flexible, rigid, and combination. Rigid mounts should be used at the rear of the bed, and flexible mounts should be used at the front. Specific body-mount types include the following:

- Clamp/Bracket Type Rigid
- Shear Plate Type Rigid
- Spring Type Flexible
- Bolt/Bracket Type Semi-Flexible

U-bolt body mountings: Even though U-bolt body mountings are popular, they are among the least effective mounting systems. When U-bolts are used, proper frame spacers should be used. Problems associated with U-bolt mountings include loosening, not preventing forward movement of the body, and frame damage.

Gin Pole and Load-Bearing Components Design

Components may include header pin (sky pin), foot pin design, and pole design.

Gin pole and load-bearing components should be designed and constructed to withstand stresses imposed when properly installed and when handling loads not exceeding the manufacturer's load ratings under normal operating conditions. The structural

components should be designed in accordance with recognized codes for steel construction, such as American Institute of Steel Construction (AISC) codes. Welding of load-bearing members should conform to recommended practices of the American Welding Society as outlined in ANSI/AWS14.1 or ANSI/AWS D1.1.

Rigging Blocks

Rigging blocks should be selected according to the manufacturers' recommendations based on the anticipated Working Load Limit (WLL).

The WLL and manufacturer's identification must be permanently marked on blocks.

Angle Factor & Block Loading

The angle between the ropes passing around the blocks must be considered when rigging up a gin pole truck and in the operations of the truck.

Due to the *angle factor multiplier*, the total load on the block can be greatly different from the load on the lead line. For example, at 0 degrees (180 degrees wrap of rope), the multiplier is 2. As the angle increases, the angle factor decreases and, at 120 degrees, the multiplier is 1.



Angle Factor Multipliers								
Angle	Factor	Angle	Factor					
0°	2.00	100°	1.29					
10°	1.99	110°	1.15					
20°	1.97	120°	1.00					
30°	1.93	130°	0.84					
40°	1.87	135°	0.76					
45°	1.84	140°	0.68					
50°	1.81	150°	0.52					
60°	1.73	160°	0.35					
70°	1.64	170°	0.17					
80°	1.53	180°	0.00					
90°	1.41							

Special Precautions

Gin pole trucks have unique features that require special precautions when operating. It is important to remember to follow the manufacturers' recommendations (loading specifications) for winches, blocks, hook attachments, and rope.

Note: When raising the poles off the tailboard, it is imperative that the tailboard block be positioned and loaded in a manner that ensures the resultant force is applied in a direction that is above and behind the pivot point (rearward) of the pole pivot point. Otherwise, the poles will not raise, and severe overloading of hoisting system will result.

The Effect of Line Angles on the Blocks

Small winch-line angles create greater forces on the blocks.

As shown in the figure below, small angles "A" and "B"—between exit and entry of the wire rope—doubles the load on both block "A" and "B." Small angles "C" and "D" between winch line and gin pole creates extremely high forces and can severely overload the blocks.



As shown in the figure below, increasing the angle will decrease loads on the blocks and winching system.

The total load on Block "B" will be proportionally greater than the weight of the load when the gin pole is lowered and, therefore, distance "C" is greater than distance "B."



Altered from Source: http://www.gunnebojohnson.com/wp-content/uploads/Rigging-Combined1.pdf

Lowering the poles increases the load on the main hoisting block.

Inspection

General

Equipment safety and reliability cannot be ensured unless the equipment receives regular inspections. Inspection provides a means of detecting potential hazards that could contribute to accidents.

Assembly drawings, drawings identifying critical areas, and acceptance criteria should be available for inspections. In the absence of critical area drawings, areas of primary-load-carrying components should be considered critical and should be used by the inspector to adapt inspection procedures. In addition, the users / owners may provide the history of repair, if available.

Welds in critical areas need to be inspected.

New LHE should have manufacturers' documentation. Repaired, redesigned, or modified LHE should be proof-tested before being released into service. The proof load documents should be retained.

Additionally, depending upon the severity of use, periodic inspections, and if necessary, load tests, should be performed and documented according to the manufacturers' recommendations.

Inspection Types

The types of inspection are as follows:

- 1) Initial Inspection: Prior to initial use, a qualified person should inspect all new, reinstalled, altered, or modified trucks.
- 2) Prior-to-Use Inspections: The operator or other designated personnel should visually examine the truck before every use and should document the inspection and any findings. At a minimum, the following items should be visually checked:
 - a) Working Lights—In place, clean, and operational.
 - b) Back-up Alarm—In place and operating.
 - c) Suspension—Free of cracks and damage.
 - d) Tires & Wheel Assembly—Properly mounted, inflated, and free of damage.
 - e) Winch Mounts—Free of cracks and damage.
 - f) Bed—Free of cracks (fifth wheel and/or pin, headache, etc.).
 - g) Gin Poles—Free of cracks and excessive wear
 - h) Lower Gin Pole—Pins and securement devices free of cracks and excessive wear.
 - i) Sky Pin—Free of cracks and excessive wear.
 - j) Sky Bridal / Wishbone—Free of cracks and excessive wear.
 - k) Snatch Block(s)—Free of cracks and excessive wear.
 - I) Toggle Link(s)—Free of cracks and excessive wear.
 - m) Winch Line(s)—Free of damage (active portion).
 - n) Tail chain(s)—Free of cracks and excessive wear.
 - o) Winch Line Termination Device—Free of cracks and excessive wear.
 - p) All LHE—Tagged and free of excessive wear.
 - q) Winch Controls—In working order, properly mounted, and free of damage.
- 3) Monthly Inspections: A qualified person should conduct monthly inspections and record apparent external conditions to provide the basis for a continuing evaluation. If a bed/tandem truck is idle for six months or more, the monthly inspection should be completed prior to putting the truck back into service. See Appendix "A."
- Annual Inspections: This inspection needs to include disassembly of critical components to undergo non-destructive testing (NDT). NDT documentation is to be attached to the Annual Inspection form. See Appendix A.

5) Post-Incident / Severe Service Inspections: These inspections are encouraged whenever incidents occur that apply sudden and shock loads, unusual stress, or possible damage due to any cause.

Such incidents, which affect the safe operation of the unit, should be followed by a thorough inspection. This can include but is not limited to an annual inspection. Damage should be repaired before equipment is returned to service.

6) Fire and Heat Exposure: Following any exposure to excessive heat, the affected areas of the structure should be inspected for distortion. Exposure to heat that is above the critical temperature of the grade of steel warrants further examination of the affected area by a qualified person.

Components to be Inspected

Components that have a direct bearing on the safety of the gin pole truck and status can change from day to day with use, should be inspected, and when possible, observed during operation for any defects which could affect the safe operation of the unit. These components include the following:

- Control mechanisms
- Winches
- Winch drives
- Winch lines* (See guidance below.)
- Load block components** (See guidance below.)
- Gin poles, sky pins, toggle links, gin pole pins and feet, gin pole top attachment device
- Critical welds
- Axles, suspension, wheels, and tires

*Winch lines:

When determining the need to retire (replace) rope, the following guidelines need to be considered:

- Rope that makes up the active system should be retired if an inspection finds any of the following issues:
 - Crushing
 - Three broken wires in one strand in one lay length, or six random broken wires in one lay length (Lay length is the distance for the strand to go around the rope.)
 - Bird caging
 - ➤ Kinking

• Guidelines for inspecting rope on the winch drum are slightly different for inactive rope and active rope.

Inactive rope is rope that is retained on the drum and is never involved in hoisting the load. Inactive rope includes rope in the anchor to no less than five wraps from the line leaving the drum going to the hoisting or pulling system. Operators and riggers must understand that this point can move as the length of line from the winch to the load increase or decreases. Allowance for flattening and/or damages/wear in the inactive area can be made if the operator understands that at no time should the damaged rope be part of the active rope system.

Active rope includes rope from the chain (hook) end through the winch truck sheaving and including the first five wraps on the drum. Rope that has crushing or damage/wear has no known breaking strength, therefore no working load limit, and must not be utilized as part of the active rope system.

**Load block components, such as Blocks (e.g., snatch, sheave, cargo), should be inspected for the following:

- Corrosion
- Deformation
- Sheave and pin wear
- Misalignment or wobble in sheave and to ensure the sheave freely turns
- Snatch block retaining pins correctly retain the gate assembly
- Security of nuts, bolts, and other locking methods
- Excessive wear and clearance of fittings

Inspection Documentation

Inspections of the gin pole truck and components should be documented. See Appendix A: Sample Monthly / Annual Gin Pole Truck Inspection Form.

A list of the sheaves, pins, rope, and end fittings and their rated capacities should be available during the inspection.

Repair and Maintenance

Welding in critical areas (if allowed by the manufacturer) should be done in accordance with ANSI/AWS D1.1 *Structural Welding Code*.

Repairs should be carried out to the manufacturer's specifications or qualified person's recommendations.

Worn or damaged parts that cannot be repaired to original specifications should be replaced with parts at least equal to original manufacturer's specifications.

Repairs to critical areas should be documented.

Equipment components should be maintained as per the manufacturer's recommendations.

Physical Fitness and Training

Physical Fitness of Gin Pole Truck Operator

Gin pole truck operators should be physically fit to drive a commercial vehicle and to perform all required lifting operations. The following should be included in their physical exam:

- Vision test
- Ability to recognize and distinguish colors
- Normal depth perception, field of vision
- Negative results to a substance abuse exam
- Manual dexterity / coordination

Gin Pole Truck Operator Training

The gin pole truck operator should be trained in the aspects of inspection of the gin pole truck rigging, hoisting, and movement of the types of loads the gin pole truck is expected to handle. This training (classroom and practical) should be documented.

Swamper Training

Swampers should receive training in safety issues related to tasks they may be required to carry out on the job site. This training (classroom and practical) should be documented.

Rigger Training

Riggers should receive training in rigging loads. Training should also include safety issues related to working around hoisted loads as well as working around hoisted loads being moved. This training (classroom and practical) should be documented.

General Guidelines

Safety Hazards

The following is a general, but not all-inclusive, list of hazards that may be present in gin pole truck operations:

- Suspended loads can fall on personnel or equipment.
- Ropes, chains, or slings under tension can fail, striking personnel or equipment.
- The winch can be overloaded and fail.
- Gin poles / rope can touch overhead electrical power lines.

- Shock loading (sudden lifting and/or releasing of the load) can overload equipment, causing failure.
- Severe angle loading can result in over stressing of rigging gear or poles.
- Failure to use a spotter when backing can result in backing into personnel or equipment.
- Pins used to attach blocks can shear.
- Sheave pins can fail.
- The ground can be unstable and/or not level.
- Adverse weather conditions can affect a lift.
- Personnel can be positioned incorrectly.
- Pinch points can occur.

Operator Qualifications

Personnel authorized to operate gin pole and stinger trucks, along with winches and slings used to lift loads, include the following:

- Qualified Operator—A designated person in the operation of the tandem/bed truck.
- A trainee under the supervision of a designated person or Operator.
- Designated maintenance, test personnel and inspectors, while performing their duties.

Operational Guidelines

The following are general guidelines for all types of hoists, gin pole trucks, and slings:

- Personnel should stand clear of the load and should never be between the load and another object, or beneath the load.
- When loads are being lifted, all personnel should stand clear of the load-line path and be clear of the direct line from the block shafts.
- All personnel on location should be instructed as to the driver's visual area so that they do not walk into a blind area as the truck is moving.
- When placing the gin pole truck in position to tie onto a load, all personnel are to stay clear of the path of the truck and must not place themselves between the bed/tandem and load. (Stay out of pinch points.)
- Placing hands on loads should be avoided. Where loads must be physically guided or stabbed into place by hand, precautions shall be implemented to minimize exposure to personnel.
- Personnel should keep hands off lifting lines while the winch is engaged.
- A suspended load should never be moved above any personnel.

- Loads should be centered with the load line.
- Lift the load a few inches to observe the balance, if necessary. To reset the slings and balance the load, lower the load to the ground.
- Make sure the rigging controls the load.
- Ensure rigging is properly attached to the winch line.
- While utilizing gin pole trucks to hoist and move loads, refer to the required clearances indicated in the following chart. This clearance is from the gin pole truck poles, or any object protruding or suspended from it.

50kV or below	10 feet
>50kV to 200kV	15 feet
>200kV to 350 kV	20 feet
>350kV to 500 kV	25 feet
>500kV to 750 kV	35 feet
>750kV to 1,000 kV	45 feet

Safe Working Procedures

Safe working procedures include, but are not limited to, the following:

- Gloves should be used when working with rope.
- Hand signals should be discernable and consistent. (Refer to the following section.)
- Only one person should be designated as the signal person to the operator.
- Movement of the load should not occur until all personnel have moved out of the path of the load and the signal person is within sight of the driver.
- The operator should obey an emergency stop or stop signal issued by anyone.
- Use radio communication in addition to hand signals, if applicable.
- When a lift is in progress, the operator should neither perform any other work nor leave the controls until the load has been safely landed.
- Oil field gin pole trucks should not be used for raising or lowering personnel.
- No one should ride on the outside of trucks or on loads, buckets, or hooks suspended from gin poles.
- Evaluate safety considerations during lifting operations when wind speeds are excessive.

• When more than one tandem/bed truck and/or other equipment are needed to lift/move the same load, coordination between operators, swampers, and other personnel is essential, preferably using a job safety analysis (JSA).

Guidelines for Slings and Lifting Devices

The following guidelines relate specifically to slings and lifting devices:

- When lifting an object, proper lifting device(s) and rigging procedures should be followed.
- Visually inspect slings per B-30.9 or 1910.184 *Slings*.
- A documented sling and lifting device inspection should be conducted on an annually basis.
- Do not inspect a wire sling by passing bare hands over the sling.
- Provide suitable protection from sharp edges.
- Avoid kinks, loops, or twists in the legs of the sling.
- Keep hands, fingers, feet, and other body parts from between the load line or sling and the load.
- Start the lift slowly to avoid unnecessarily stressing or shocking the sling or lifting device.
- Block up the load to allow space to remove the sling. Do not pull slings from under a load when the load is resting on the sling.
- Do not shorten a sling by knotting or twisting.
- Eyes in slings should not be formed by wire rope clips or knots.
- Keep wire rope slings well lubricated to prevent corrosion. Use the manufacturers' recommended lubricants.
- Synthetic slings that do not meet standard requirements (29 CFR 1910.184) should not be used until repaired by a sling manufacturer or equivalent entity. If not repairable, destroy them.

Gin Pole Truck Guidelines

The following guidelines apply to gin pole trucks:

- Consider the dynamic effects of moving the truck with a suspended load.
- Ensure that poles are evenly anchored and positioned.
- Do not stretch winch lines across a road or street without roadblocks.
- Attach slings to load so that the horizontal angle between the sling and the load will not be less than 30°.

- Secure the load before moving the truck. Minimize the distance that suspended loads are carried.
- Stand clear and keep fingers clear whenever tension is being applied to a winch line.
- Slowly take up slack in the winch line.
- Never let the winch line pass or slide through your hands.
- Spool the line evenly on the winch line drum to prevent line tangles on the drum.
- Lift the load a few inches to observe the balance and reset slings to balance load.
- Loads should be powered up or down with the winch.
- Ratchet binders provide improved mechanical advantage over single cam type binders and are becoming more prevalent in the industry. If using cam type boomers for load binders, they must be released carefully. Stand clear of the binder handle when releasing the tension. Keep yourself out of the path of the moving handle and any loose chain laying on the handle. It is important to read and understand the manufacturer's application recommendations.
- Secure the winch line to the truck bed and disengage the winch line drum drive when not in use.
- Keep fingers clear of the tailboard when securing the winch line hook.

Signals Guidelines

A copy of the hoisting and truck movement signals should be available at the job site.

Hoisting Signals

See appendix B.



HOIST THE LOAD



LOWER THE LOAD

IADC Oilfield Gin Pole Truck Guidance



STOP

EMERGENCY STOP

Truck Movement Signals

See Appendix C.

Proceed Slowly – Straight Forward or Backward:

Both arms extended forward and slightly wider than the body, parallel to the ground. Palms facing the direction of desired travel. Together bend both arms repeatedly toward the head and chest then extend. To signal to stop truck movement - stop movement of the arms and grip the hands into fists [see "d") below].



FORWARD: Palms facing away from body. Move arms forward from raised position down to chest level and back to raised position.



BACKWARD: Palms facing toward the body. Move arms from chest level to raised position then back to chest level position.

Turn:

The direction arm is extended from the side of the body, parallel to the ground with fingers indicating the direction the vehicle or equipment is to travel. Motion with the arm moving slightly up and down bending at the elbow. To stop the truck turning movement grip the pointing hand into a fist.



TURN TOWARD DRIVERS RIGHT



TURN TOWARD DRIVERS LEFT



STOP TRUCK TURNING



STOP TRUCK TURNING

Distance to stopping point:

To give the driver a visual reference for the distance to the stopping point, with both arms extended sideways with elbows bent upward at 90 degrees. Palms facing forward. Keep hands above head and bring elbows forward as the distance narrows. As elbows reach the straightforward position, continue the hands coming together above the head to indicate the stop point is being reached. Upon reaching the stopping point, give the STOP signal.



Stop:

To stop all movement of the vehicle and await further instructions, grip the hands into a fist.



Vehicle is clear to leave the area:

To show the driver that it is clear to leave the area, point at the driver, then point to the direction the truck is to travel.



Glossary: Terms and Acronyms

AESC	Association of Energy Service Companies
AISC	American Institute of Steel Construction
CFR	Code of Federal Regulations
Critical area	Highly stressed region of a primary load-carrying component as defined by the manufacturer or a qualified person.
Critical equipment	Equipment and other systems determined to be essential in the load line of the truck hoisting equipment (winch, hoist line, hoist line accessories, hoist, hoist mounts, poles, pole mounts, pole lines, etc.).
Design Factor	The ratio between the minimum (nominal) breaking strength and the rated load of the device.
Designated Person	A person who is selected or assigned by the employer or employer's representative as being competent to perform specific duties.
FMVSS	Federal Motor Vehicle Safety Standards
Fitting	An accessory attached to a rope.
Gin Pole Truck	A tandem/bed truck equipped with a pair of poles OR stinger and hoisting equipment for use in lifting.
GVWR	Gross vehicle weight ratings
Hazard	Any act or condition that if not corrected or noticed could lead to personal injury, equipment damage, or environmental consequences.
Hazard analysis	The application of one or more methodologies that aid in identifying and evaluating hazards. Sources that may be helpful in performing hazards analysis include IADC HSE Reference Guide.
IVD	Incomplete Vehicle Document
Job Safety Analysis (JSA)	A documented process in which workers involved in or affected by the task systematically review the planned work, identify the hazards associated with that work, and implement safeguards to eliminate or mitigate those hazards prior to starting the work.
Lay Length	The distance measured parallel to the axis of the rope in which a strand makes one complete helical convolution about the core.
Lifting tackle	A sling, shackle, swivel, ring, hook, block or hardware used in connection with a gin pole truck.

Load Handling Equipment (LHE)	An appliance capable of being operated by mechanical, manual, or other means to raise or lower a load in a vertical or near vertical plane and includes any lifting tackle.
Location	The points at which a well is to be drilled, serviced, and/or produced from. Also referred to as "wellsite." It includes surrounding area used for storage and operation of ancillary equipment such as mud storage, tubing racks, erection of rigging equipment, maintenance areas, etc.
Mechanical splice	Formation of loops or eyes in a rope by means of mechanical attachments pressed onto the rope.
Minimum Breaking Force (MBF)	The minimum load at which a new and unused lifting component will break when loaded to destruction in direct tension.
MSDS	Material safety data sheet
NDT	Non-destructive testing
NHTSA	National Highway Traffic Safety Administration
NTEA	National Truck Equipment Association
Operator	A person qualified in the operation and use of the gin pole truck.
PPE	Personal Protective Equipment.
Qualified Person	A person who, by possession of a recognized degree, certificate, or profession standing, or who by knowledge, training, or experience, has
	the subject matter, the work, or the subject.
Rated Load	successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the subject. The maximum allowable working load established by the manufacturer. The terms rated capacity are commonly used to describe rated load, which the product is authorized to support in general service when the pull is applied in-line (unless otherwise noted by manufacturer) with respect to the centerline of the product.
Rated Load Rigger	successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the subject. The maximum allowable working load established by the manufacturer. The terms rated capacity are commonly used to describe rated load, which the product is authorized to support in general service when the pull is applied in- line (unless otherwise noted by manufacturer) with respect to the centerline of the product. A qualified person who attaches or detaches lifting equipment and who has been instructed in the proper selection of slings and the slinging of loads, and who understands the capabilities of the lifting equipment with which he is working.
Rated Load Rigger Rigging	 successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the subject. The maximum allowable working load established by the manufacturer. The terms rated capacity are commonly used to describe rated load, which the product is authorized to support in general service when the pull is applied inline (unless otherwise noted by manufacturer) with respect to the centerline of the product. A qualified person who attaches or detaches lifting equipment and who has been instructed in the proper selection of slings and the slinging of loads, and who understands the capabilities of the lifting equipment with which he is working. The use of mechanical load-positioning equipment and associated gear used most commonly to move, place, or secure a component, in a safe, stable, controlled fashion. These components include, but are not limited to, the following: plant equipment, members of a building or structure.
Rated Load Rigger Rigging Slings	 successfully demonstrated the ability to solve or resolve problems relating to the subject matter, the work, or the subject. The maximum allowable working load established by the manufacturer. The terms rated capacity are commonly used to describe rated load, which the product is authorized to support in general service when the pull is applied inline (unless otherwise noted by manufacturer) with respect to the centerline of the product. A qualified person who attaches or detaches lifting equipment and who has been instructed in the proper selection of slings and the slinging of loads, and who understands the capabilities of the lifting equipment with which he is working. The use of mechanical load-positioning equipment and associated gear used most commonly to move, place, or secure a component, in a safe, stable, controlled fashion. These components include, but are not limited to, the following: plant equipment, members of a building or structure. An assembly fabricated from steel chain, wire rope, metal mesh, and natural or synthetic fibers which connects the load to the gin pole truck.

Swage Fitting	Fitting into which rope can be inserted and then permanently attached by cold pressing (swaging) the shank that encloses the rope.
Swamper	A gin pole truck driver's assistant is primarily responsible for but not limited to spotting the truck, hooking-up/unhooking loads.
Tag line	A non-conductive rope of suitable strength, construction, and length attached to the load which is used to assist in control of the load during lifting, lowering, or positioning a load.
Tandem/Bed Truck	A truck with one or more winches used in, lowering or recovery of loads.
WLL	Working Load Limit

Appendix A: Sample Monthly/Annual Gin Pole Truck Inspection Form

D	ate: Time Truck	: #:					
G	in Truck Owner:	Make:					
F	Facility Name and Location: Vin:						
Ir	ispector:	Year:					
#	# Component(s)		UNS	N/A	CDI	Correction Date	Correction Confirmed
	Truck (Outside)						
1	Clearance, Tail and Headlights in place – clean and operational						
2	Stop and Turn lights in place - clean and operational						
3	Working Lights in place - clean and operational						
4	Wiring free of damage and installed to prevent damage from moving parts						
5	Reflectors and Reflective tape in place						
6	Windshields free of damage and wipers operational						
7	Exhaust free of leaks and in good condition						
8	Fuel Tanks free of leaks and steps in good condition						
9	Cab and Hood securement in place and free of damage						
10	Mirrors in place and free of damage						
11	Back-up Alarm in place and operating						
12	Steering linkage and Gear boxes secured and free of excessive wear						
13	Front Axle Tires: Wheels and fasteners free of damage and within tread depth guidelines 4/32"						
14	Front Brake Assembly free of damage and excessive wear						
15	Front Suspension Components free of damage and excessive wear						

16	Drive Axle Tires: Wheels and Fasteners free of damage and within tread depth guidelines 2/32"			
17	Drive Axle Brake Assembly free of damage and excessive wear			
18	Drive Axle Suspension Components free of damage and excessive			
	Truck (Inside)			
19	Horn in place and operational			
20	Low Air Warning device operating correctly			
21	Wiring free of damage and installed to prevent damage from moving parts			
22	Seats and Seatbelts secured and operational			
23	5 lb. ABC Fire Extinguisher mounted, charged and has annual inspection			
24	Triangle Warning Reflectors in place and in good shape			
25	Current paperwork for Truck and Trailer in place and legible			
26	Current Annual DOT Inspection Sticker			
27	Truck free of excessive air leaks			
27	Fully stocked First Aid / Body Fluid Clean-up Kit available			
29	Winch Controls in working order, properly mounted and free of damage			
	Truck (Bed)			
30	Bed and Winch mounts free of cracks and damage			
31	Bed free of cracks (fifth wheel and or pin, sheep's tail, headache, etc.)			
32	Gin Poles external welds and ends free of cracks and excessive wear*			
33	Lower Gin Pole pins and securement devices free of cracks and excessive wear*			
34	Sky Pin free of cracks and excessive wear*			
35	Sky Bridal / Wishbone free of cracks and excessive wear*			
36	Toggle Link(s) free of cracks and excessive wear *			

			1		1		1	1
37	Tailboard Block(s) free of cracks and excessive wear	Rating in tons:						
38	Sky Block(s) free cracks and excessive wear* of	Rating in tons:						
39	Bottom Guy Block(s) free of cracks and excessiv	ve wear* Rating in tons:						
40	Top Guy Block(s) free of cracks and excessive wear*	Rating in tons:						
41	# 1 Winch Line (active portion) free of damage	Line size:						
42	# 2 Winch Line (active portion) free of damage	Line size:						
43	# 3 Winch Line (active portion) free of damage	Line size:						
44	Tail chain(s) free of cracks and excessive wear							
45	Winch Line Termination Device free of cracks an	nd excessive wear						
46	All Lifting Slings and Bridles tagged and free of	excessive wear						
47	Chains and Binders free of excessive wear and	damage (ratchet binders only)						
48	Chart indicating the current rated load of the true	ck is posted on(in) the truck.						
* A and pro	* Annual Inspection includes all the above. In addition, items 32 – 36 are to be dissembled as necessary and non-destructive testing completed and documented. NDT documentation is to be attached to this form. Items 37 – 40 should be inspected as per the manufacturer's recommended procedures.							
Ins	pector's	Repairman's						
Sig	nature:	Signature:						
Co	mments:							

Appendix B: Hoisting Signals



HOIST THE LOAD



LOWER THE LOAD





EMERGENCY STOP

Appendix C: Truck Movement Signals



FORWARD: Palms facing away from body.



BACKWARD Palms facing toward body.



STOP TRUCK MOVEMENT



TURN TOWARD DRIVERS RIGHT



TURN TOWARD DRIVERS LEFT



STOP TRUCK TURNING



STOP TRUCK TURNING

IADC Oilfield Gin Pole Truck Guidance



DISTANCE TO STOPPING POINT





STOP

DRIVER TO LEAVE THE AREA IADC 3657 Briarpark Dr, #200 Houston, Texas 77042 USA