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| **Department:** | **Eng. & Public Works**  | **Area:** | **Roads**  |  |
| **Subject:** | **Unit # 413 – Multi-Purpose Truck** |

**UNIT #413 – MULTI-PURPOSE TRUCK**

**PURPOSE:**

413 is a multi- purpose truck with six different functions:

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| --- | --- | --- |
| * Dump truck
 | * Water tank truck
 | * Crane truck
 |
| * Sander and plough truck
 | * Anti- icing truck
 | * Flat bed truck
 |

**HAZARDS:**

|  |  |  |
| --- | --- | --- |
| * Overhead lines and objects
 | * Being crushed
 | * Working around traffic
 |
| * Weather (wind / rain)
 | * loads
 | * Falling
 |

**PPE:**

|  |  |  |
| --- | --- | --- |
| * Safety Hi-Vis vest
 | * Hard hat
 | * Gloves
 |
| * Eye protection
 | * Safety boots
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**Pre-Setup:**

The operator of this truck when it is used as a crane truck must be a Fulford Crane Safe certified operator under the WorkSafe BC, successfully completed rigging safety course and have a Dangerous Goods ticket and a Class 3 Drivers Licence with Air Brake endorsement.

* When it is used for another purpose, the operator must be trained by a competent operator before the use of each component and understand the operation of such component. Must have a Class 3 Drivers Licence with Air Brake endorsement.
* A complete pre-trip must be done on the truck and component being used and any damage reported to the shop and Foreman.

**Procedure**

Crane:

* Turn on power switch and HiAb
* pull out and put down both stabilizers with pads under them
* Unfold crane using instructions
* HiAb will not work if hooks are not secured to front of deck
* Be aware of all hazards above and around the truck before using the crane

Folding Crane:

* Fold and position crane until it is 1’ – 2’ from final position at the point
* Walk around to the right side of the truck and place pin in hole to store crane

**Daily Pre-Shift Inspection Checklist:**

Crane Visual Inspection:

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| --- | --- | --- |
| 01 | Crane Operators Manual present |  |
| 02 | Is Annual Certification within 60 days |  |
| 03 | Certified Stability Chart present |  |
| 04 | Wheel chocks / outrigger pads |  |
| 05 | Hard hat and vest |  |
| 06 | Spill kit |  |
| 07 | Bubble levels |  |
| 08 | Posted crane load charts and safety placards |  |
| 09 | Inspect hydraulic oil levels |  |
| 10 | Slew oil level |  |
| 11 | Mounting bolts |  |
| 12 | Free of leaks around the hydraulic system |  |
| 13 | Inspect boom sections for damage (cracks, dents, etc.) |  |
| 14 | Outriggers function properly (latches and locks) |  |
| 15 | Inspect all boom pins and keepers |  |
| 16 | Inspect all crane components for proper lubrication |  |
| 17 | Oil cooler clear of blockage |  |
| 18 | Rust / pitting on hydraulic cylinder rods |  |
| 19 | Boom angle indicator (if applicable) |  |
| 20 | Inspect load hook for wear, deformation and safety latch pin |  |
| 21 | Inspect load line cable for kinking, fraying and splitting |  |
| 22 | Inspect load line drum for wear |  |
| 23 | Inspect slings and below the hook lifting devises for wear |  |
|  | **Crane Operational Checks** |  |
| 01 | Anti two block functions properly (if applicable) |  |
| 02 | Throttle idle up/down and engine start/stop function ok |  |
| 03 | Ensure control linkage moves freely |  |

Water Tank:

Unloading tank:

* Unlatch hooks at front of tank, take cinches off rear of tank
* Raise ladder and secure in up position
* Unlock multi-lift latch “open”
* Move tank “back” at least halfway between forward and back to ensure rear dogs are cleared and large dump valve does not scrape the ground
* Remove tank using “up” function
* Release parking brake and let truck roll freely

Loading tank:

* Hook onto tank, lift tank 4’ – 5’ using “down” function
* Multi-lift arm should be “back” at least half way between forward and back to ensure rear dogs are cleared and large dump valve does not scrape the ground
* Continue lifting tank using “down” function
* When tank is on truck, move “forward” all the way
* “Close” multi-lift latch
* Secure hooks at front of tank, do up rear cinches

Sander:

Unloading sander:

* Unhook three hydraulic lines at rear
* Raise chute and secure
* Unplug electrical at front of sander
* Unlatch hooks at front of sander
* Unlock multi-lift latch “open”
* Take “back” arm to rearmost position
* Take off sander using “up” function
* Be careful not to bind front of sander and multi-lift saddle
* Release brakes and let truck roll freely

Loading sander:

* Hook onto sander, lift sander 4’ – 5’ using “down” function
* Multi-lift arms should be “back” as far as it can go
* Continue lifting sander using “down” function
* Watch front of sander does not bind on multi-lift saddle – move “forward” as necessary
* When sander is on truck, move “forward” all the way
* “Close” multi-lift latch
* Secure hooks at front of sander
* Connect electrical plug at front of sander
* Lower chute a rear of sander and secure
* Hook up three hydraulic lines
* Close gate on sander to 1”

Dump Box:

Unloading box:

* Unhook and store two air lines
* Unhook and store electrical plug
* Unlock multi-lift latch “open”
* Take box “back” 12” – 18” to clear rear dogs
* Unload box using “up” function
* Release parking brake and let truck roll freely

Loading box:

* Hook onto box, lift box onto truck using “down” function
* Ensure box is “back” 12”-18” to clear rear dogs
* When box is on truck, move “forward” all the way
* “close” multi-lift latches
* Hook up electrical plug at rear
* Hook up two air lines at rear

Loading full box:

* Hook onto box, lift box in “down” direction 4’-5’
* Multi-lift arm should be “back” as far as it can go
* Watch front of box does not bind on multi-lift saddle; move “forward” if necessary
* Continue lifting box using “down” function
* When box is on truck, move “forward” all the way
* “close” multi-lift latch
* Hook up electrical plug at rear
* Hook up two air lines at rear

Flat Deck:

Unloading deck:

* Unlatch hooks at front of deck
* Raise ladders and secure in up position
* Disconnect two electrical plugs at back
* Disconnect two hydraulic lines at back
* If belly plough is on truck, pull out stabilizer on right side to clear plough
* Unlock multi-lift latch “open”
* Take deck “back” 12”-18” to clear rear dogs
* Raise deck about 3’ using “up” function
* Bring deck “forward” all the way so stabilizers can clear back of truck
* Unload deck using “up” function
* Release parking brake and let truck roll freely

Loading deck:

* Hook onto deck
* Move deck in most “forward” position in order that stabilizers can clear back of truck
* Raise deck using “down” function
* When deck has 3’ left to go, “back” deck up 12”-18” to clear rear dogs
* Bring deck “down” onto truck
* Move deck “forward” all the way
* “close” multi-lift latch
* Secure hooks at front of deck
* Lower ladder
* Connect two electrical plugs and two hydraulic lines in back
* If belly plough on, push in stabilizer on right side and secure

Anti-icing Tank

Unloading tank:

* Unhook two hydraulic lines at rear
* Unhook wires running into rear of cab
* Unlock multi-lift latch “open”
* Take tank “back” 12” to clear rear dogs
* IMPORTANT: moving tank back too far could take off radar unit by hitting front of rear fender
* Raise tank 3’-4’ using “up” function
* Bring tank “forward” all the way so that step will clear saddle on multi-lift
* Unload tank using “up” function
* Release parking brake and let truck roll freely
* IMPORTANT: tank will sit with front legs raised only if ground is level and clear, otherwise radar unit could be damaged

Loading tank:

* Hook onto tank
* IMPORTANT: raise front legs on tank as they will not clear rear of truck otherwise
* Move tank in most “forward” position
* Raise tank using “down” function
* When tank has 3’-4’ left to go, “back” tank up 12” to clear rear dogs
* Bring tank “down” onto truck
* IMPORTANT: check that radar unit clears front of rear fender
* Move tank “forward” all the way
* “close” multi-lift dogs
* Hook up two hydraulic hoses at rear of truck
* Hook up wires at back of cab
* Single wire goes out before others go in

**SUMMARY:**

* Operate crane within specified load limits while watching for and maintaining required clearances from overhead and surrounding hazards.
* Fill out log book for crane daily when used.
* Set up safe work zone or use traffic control when required.
* Park truck to allow safe and easy operation of crane.
* Operator of crane must be a Certified Crane Truck Operator.
* Operator of crane should have clear communication though voice or standard hand signals with co-worker on truck when loading/unloading of material.
* For operation of truck other than a crane truck the operator must be trained by a competent operator.

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| Date written: Revision Date | Written by: David Brisley Manager’s Approval: Brian Denbigh  |