Proudly built in the USA

Owner’s Manual TC-510, TC-520, TC-530 & TC-540 with

Reversed Hoist, Sub-Frame, Deck, & Hitch Mount

TruckCraft Corporation
Chambersburg, PA
1-800-755-3867

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Preface
Read and understand all sections of this manual prior to installing or operating the TruckCraft hoist. This manual contains information for the installation, operation, and maintenance of a TC-520 Reversed Hoist, Subframe, Deck and Ball Mount. Proper care and operation of the unit will assure years of dependable service. Your local TruckCraft Dealer will instruct you in its general operation. TruckCraft Corporation will be glad to answer any questions that may arise regarding the operation of your unit.

Ordering Repair Parts
When service is necessary, your local TruckCraft dealer can provide assistance. Always obtain original TruckCraft replacement parts from your dealer. Substitute items could affect the performance and warranty of the unit. Dealers in your area can be found at www.TruckCraft.com.
When ordering parts the hoist assembly serial number, pump serial number and description or part number of parts needed are required. The hoist assembly serial number is located on the front rub rail-drivers side-of the deck. On units without a deck, the serial number will be on the drivers side subframe long sill near the decal. The pump serial number is located on the top of the valve block.

Hoist Serial Number: ___________________________

Pump Serial Number: ___________________________

Date of Purchase: _____________________________

Purchased From: _______________________________

TruckCraft Telephone #800.375.3867 or 717.375.2900
TruckCraft Fax #717.375.2975
Method of shipping parts to be specified such as customer pickup, UPS, Common Carrier, Parcel Post or Air Freight. All orders to be confirmed in writing, or faxed, to insure proper understanding of request.
Having preventative maintenance parts on hand could save valuable time.

Improvements and Changes
Because TruckCraft strives to continually improve our products, we reserve the right to make changes and improvements wherever practical, without obligation to make those same changes or improvements to the equipment already sold. Photographs used in this manual may not be up-to-date with current design changes.
Safety Information

Observe the following safety procedures during the use of the hoist and dump body: Before operating read and understand all information furnished with your hoist and in this manual.

- Keep hands, feet and clothing away from moving parts.
- Keep hinge pins and bushings well greased-inspect regularly for proper operation during rotation.
- Never exceed the rating of the hoist, truck, axles, or tires. Make certain the load is evenly distributed.
- Never work under a raised body unless the body is supported by blocking or propped in the raised position. Always unload the body prior to using the prop.
- Operate the hoist only when the truck is on a firm, level surface.
- Always inspect the area around the truck for safe dumping prior to operating the hoist.
- Do not move the truck with the body in a raised position.
- Always release the tailgate pins prior to raising the dump body when it is loaded. The tailgate pins should not be released with a load against the tailgate.
- Store the remote control in a location that assures that no object can come in contact with the raise button unintentionally.
- Before raising the dumper, check for adequate overhead clearance. Be alert for overhead electrical wires.
- Always ensure that the red warning light is off, indicating that the body is all the way down, before operating the truck.
- Regularly check and tighten all fasteners to the recommended torque values in the Torque Chart shown below.
- Maximum hydraulic pressure is factory set at 3200 PSI. Tampering with this setting can damage hydraulic components and result in system failure.
- Use automatic transmission fluid in the hydraulic reservoir. Check regularly and keep clean.

<table>
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<th>Torque Chart - Steel Fasteners</th>
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<tr>
<td>3/4-10</td>
<td>220-230</td>
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</table>
**Mounting Instructions**

CAUTION: Verify lifting and support devices can support the hoist, sub frame, and dump body combined weight before picking up the assembly.

The hoist, sub-frame and dump body are normally shipped assembled and ready to install on a truck frame—see Figure 4. If the truck manufacturer recommends that the sub-frame does not contact the top of the frame, a gap can be established by attaching 1/4” thick wooden strips on top of the frame or installing a spacer layer of adhesive backed, high strength neoprene rubber on top of the frame. However, solid contact between the truck frame and the sub-frame is required at the two locations shown in Figure 4. When mounting with a 1/4” gap, use steel bar stock as spacers to transfer the load between the truck frame and the sub-frame at the locations shown in Figure 4.

1. Set the assembly on top of the frame or spacer and position it a minimum of 3.5” from the cab as shown above in Figure 4. The after-frame will need to be cut off if it exceeds 52”. When the after-frame is 47-49” the pivot may extend beyond the end of the frame. The sub-frame is designed to support the overhang and a frame extension is not required as long as it has a solid connection at the end of the frame.

2. Position the sub-frame mounting brackets along the sides of the frame in the holes provided. The brackets can be flipped to eliminate interfere with existing frame bolts or hardware. If necessary, additional holes can be drilled in the sub-frame to relocated any brackets interfering with frame hardware. Use shims supplied to fill any gaps between the mounting brackets and the frame or sub-frame—see Figure 5. Mark the location for mounting holes in the frame and drill 16 holes 21/32” diameter for 5/8” grade 8 bolts supplied.

Caution: Be careful of wiring, brake lines, etc. inside frame when drilling. Install bolts, nuts and 2 washers per hole and torque to 180 FT-LBS.
3. Route control cable into cab and install remote control box in an area where the up button will not be unintentionally bumped.

4. Route power supply cable to battery and hook up leads to battery.

5. Make sure all blocking and tie-downs used for shipping are removed. Activated the remote control up button and carefully raise the body. Do not reach under or place any body parts under the dump body. Raise the body up about half way to about 30 degrees from horizontal. Rotate the safety prop counterclockwise until it rests on the angle stop on the hoist—see figure 6. Carefully lower the hoist until the cross shaft of the hoist rests on the prop. Do not power down the hoist after the shaft rests on the prop. With the prop in this position it is now safe to work under the dump body.

CAUTION:
- The TruckCraft assembly is designed to bolt to the truck frame. No welding is required. **Do not weld any part of this assembly to the truck frame.**
- Openings have been provided in the side of the sub-frame for fuel tank fill spouts. If additional holes are required in the sub-frame, the holes must be a maximum of 2.5” in diameter and centered in the web. Never cut the top or bottom flanges of the sub-frame.

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![Image 5](image5.png)

**Figure 5**

- Flip or move bracket to alternate holes to clear frame obstructions.
- Position Shims to fill gaps with frame or sub-frame.
- 5/8-11 UNC Gr. 8
- Torque to 180 LB-FT
- All Mount Bolts

![Image 6](image6.png)

**Figure 6**

- Safety prop shown resting on hoist cross shaft - proper position for prop when working under flatbed.
6. With the safety prop supporting the dump body and the truck level, check the depth of the oil in the hydraulic reservoir. The depth of the fluid in the tank at this position should be 3”. Use automatic transmission fluid only to fill the reservoir to this level.

**Warning:**

Never use the safety prop to support a loaded deck. Never position yourself under a loaded deck.

7. Apply grease at nine grease zerks:
- One on rod end of cylinder
- One on barrel end of cylinder
- Two on the cross shaft at the deck
- Two on the hoist cross shaft at the sub-frame mount
- One on each deck pivot hinge at rear of sub-frame
- One on the hoist link arm cross shaft

8. Install the light, mount bracket and decal shown in figure 7 on the dash inside the cab of the truck. Using the fuse holder, wire the light to the dump switch mounted on the front of the sub-frame across from the hydraulic reservoir. Use the schematic shown in figure 8 to connect the wiring. **Note:** Wire not supplied by TruckCraft.

9. Place the two decals A4-04684 and A4-04685 inside the cab on the dash in an easy to read location.

10. Connect the marker light wiring harness to the truck wiring.

11. Push the remote control up button. Raise the hoist high enough to drop the safety prop back into its storage position. Cycle the hoist through the complete stroke of the telescope cylinder a couple times to make sure everything works properly.
Maintenance

1. Depending on frequency of use, check hydraulic reservoir level and add oil. Periodically drain system and replace with clean oil. Use automatic transmission fluid only.
2. Depending on frequency of use, apply grease to all rotating parts at nine grease zerks.
3. Check to make sure that the bed up warning light illuminates when the bed begins to raise. Adjust switch or replace bulb as required.
4. Depending on frequency of use, check all bolts for proper tightness and torque.
Adjust lock nuts to open switch contacts when deck begins to rise off subframe.

Connecting wiring by installer.

Dash Pilot Lamp

Hot Wire From Truck Electrical System

Dump Bed Raised Lamp Wiring Diagram

Fuse

Ground

None

TC-510/Gooseneck Ball Mount/Rev. Hoist 1015.912 lbm

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5751 Molly Pitcher Highway
Chambersburg, PA 17201
717-375-2900
FAX 717-375-2975
Install foam insulator beneath magnet.

Connect wiring by installer.

Dash Pilot Lamp

Dump Switch

Hot Wire

From Truck Electrical System

Connecting wiring

Dump Bed Raised Lamp

Wiring Diagram

Adjust lock nuts to open switch contacts when deck begins to rise off subframe.
Mount decals except for item #27 on both sides of deck or dump body approx. in area shown.

Installer to mount items shown in Detail H inside cab of truck.

Mount decals shipped loose in truck cab.

Installer to hook power supply cable to battery.

Note: Subframe must be firmly supported on truck frame between these two mounts.

Ship mount plates and hardware loose.
Slide Spacer between hoist and flatbed stringer.

Install foam insulator beneath magnet.

Adjust lock nuts to open switch contacts when deck begins to rise off subframe.

Connect wiring by installer.
Mount decals except for item #26 on both sides of deck or dump body approx. in area shown.

Bars to ship loose. Installer to cut bars as required and weld to underside of deck to reinforce planks in area of door opening.

Installer to mount items shown in Detail H inside cab of truck.

Installer to hook power supply cable to battery.
Drill .78 Dia (25/32) holes in frame to align with holes in hitch plate for 3/4 GR 8 Bolts. Shim to eliminate any gap between hitch plate and frame. Torque bolts to 315-330 Lb-Ft torque.
WARRANTY

TRUCKCRAFT CORPORATION WARRANTS EACH **STARLIFTER** TO BE FREE FROM DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF **TWO YEARS** FROM THE DATE OF INITIAL SALE, LEASE, RENTAL, OR OTHER DISPOSITION OF SUCH PRODUCT, AND AGREES ONLY TO REPAIR OR REPLACE AT ITS OWN EXPENSE, F.O.B. THE PLACE OR PLACES OF MANUFACTURE, AT MANUFACTURER’S OPTION, ANY PART OR PARTS OF THE PRODUCT FOUND TO BE DEFECTIVE IN MATERIAL OR WORKMANSHIP, PROVIDED MANUFACTURER IS NOTIFIED OF SUCH DEFECT OR DEFECTS WITHIN THE **TWO YEAR** WARRANTY PERIOD AND GIVEN A REASONABLE TIME TO CORRECT THE DEFECT. DEFECTS FOLLOWING OPERATION BEYOND RATED CAPACITY OR THE IMPROPER USE OR APPLICATION OF ANY PRODUCTS SHALL NOT BE CONSIDERED DEFECTS WITHIN THE SCOPE OF THE FOREGOING WARRANTY. NO CLAIMS FOR LABOR SHALL BE CONSIDERED UNLESS AUTHORIZED BY THE MANUFACTURER.

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