

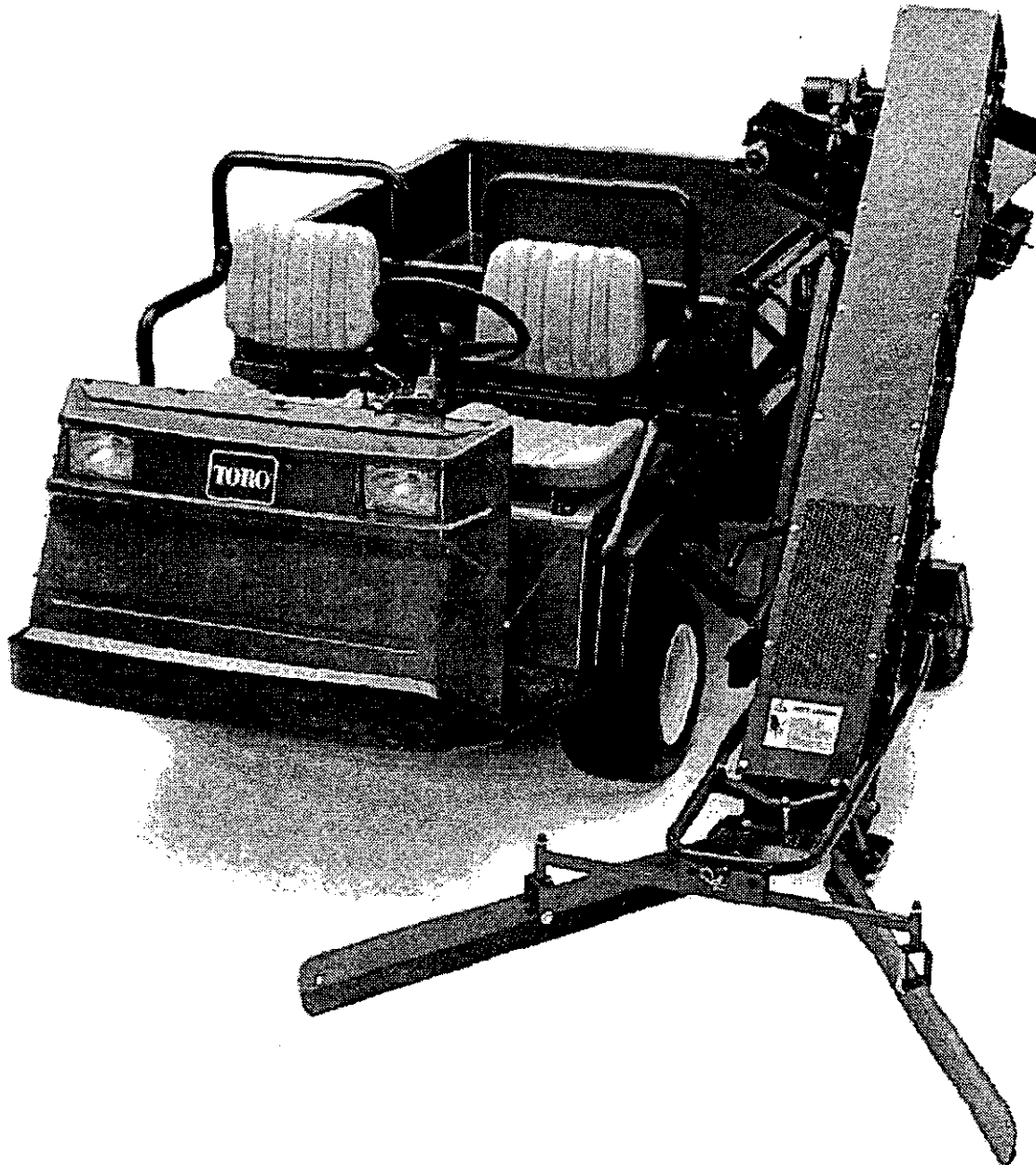


MODEL NO. 44242

OPERATOR'S
MANUAL

CORE HARVESTER ADAPTER KIT

Retrofits Cushman® Core Harvester™ To Toro Workman™



FOREWORD

Thank you for buying a high quality Toro turf care product. To get the best performance from this machine, operate and maintain it according to the instructions in this manual.

Toro also wants to stress the importance of safety. You and anyone else using or maintaining this machine are strongly urged to read this manual, especially all the safety instructions.


DANGER, WARNING and CAUTION, used with the triangular safety alert symbol, highlight safety messages. Always read and understand these messages because they relate to personal injury and your safety.

If you ever need help or have questions about your new Toro turf care product, contact your local Authorized Toro Distributor. The Toro Distributor has a complete supply of replacement parts, a full line of accessories and a professional service staff to support you. Keep your Toro all Toro. Buy genuine Toro parts and accessories.

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SAFETY INSTRUCTIONS



The safety alert symbol means **CAUTION, WARNING or DANGER** - "personal safety instruction". Read and understand the instruction because it has to do with safety. Failure to comply with the instruction may result in personal injury.

BEFORE OPERATING

1. Read and understand all operating and safety instructions. Before operating this unit, become familiar with all controls and know how to stop quickly. A replacement manual is available by sending complete Model and Serial Number to:

The Toro Company
8111 Lyndale Ave. So.
Minneapolis, MN 55420

2. Read and understand all operating and safety instructions in the Operator's Manual for the Toro Workman™ and the Cushman® Core Harvester™.

3. Before each use, be sure all bolts and nuts are tight.

4. Do not modify this equipment in any manner.

5. Keep all shields, safety devices and decals in place. If a shield, safety device or decal is malfunctioning, illegible or damaged, repair or replace before operating the machine.

6. This vehicle is designed to carry Only You, the operator, and One Passenger in the seat provided by the manufacturer. **NEVER** carry passengers on the machine, and keep everyone away from the areas of operation.

7. **NEVER** allow children to operate the machine. Do not allow adults to operate the machine without proper instructions. Only trained and authorized persons should operate this vehicle. Anyone who operates the vehicle should have a motor vehicle license.

8. Make sure all hydraulic fittings are tight and all hydraulic hoses are in good condition before operating this unit.

WHILE OPERATING

9. Operator and passenger should remain seated whenever the vehicle is in motion.

SAFETY INSTRUCTIONS (Continued)

10. Using the machine demands attention. Failure to operate vehicle safely may result in a accident, tipover of vehicle and serious injury or death. Drive carefully. To prevent tipping or loss of control:

A. Use extreme caution, reduce speed and maintain a safe distance around sand traps, ditches, creeks, ramps, any unfamiliar areas or other hazards.

B. Watch for holes or other hidden hazards.

C. Use caution when operating vehicle on a steep slope. Normally travel straight up and down slopes. Reduce speed when making sharp turns or when turning on hillsides. Avoid turning on hillsides whenever possible.

D. Use extra caution when operating vehicle on wet surfaces, at higher speeds or with a full load. Stopping time will increase with a full load. Shift into a lower gear before starting up or down a hill.

E. Avoid sudden stops and starts. Do not go from reverse to forward or forward to reverse without coming to a complete stop.

F. Do not attempt sharp turns or abrupt maneuvers or other unsafe driving actions that may cause a loss of vehicle control.

G. Before backing up, look to the rear and assure no one is behind you. Back up slowly.

H. Watch out for traffic when near or crossing roads. Always yield the right of way to pedestrians and other vehicles. This vehicle is not designed for use on streets or highways. Always signal your turns or stop early enough so other persons know what you plan to do. Obey all traffic rules and regulations.

I. Always watch out for and avoid low overhangs such as tree limbs, door jambs, overhead walkways, etc. Make sure there is enough room over head to easily clear the vehicle and your head.

J. If ever unsure about safe operation, STOP WORK and ask your supervisor.

MAINTENANCE

11. Before servicing or making adjustments to the Core Harvester, stop engine of Workman, set parking brake and remove key from ignition to prevent accidental starting of the engine.

12. Make sure all hydraulic line connectors are tight and all hydraulic hoses and lines are in good condition before applying pressure to the system.

13. Keep body and hands away from pin hole leaks or nozzles that eject hydraulic fluid under pressure. Use paper or cardboard, not hands to search for leaks. Hydraulic fluid escaping under pressure can have sufficient force to penetrate skin and do serious damage. If fluid is injected into skin it must be surgically removed within a few hours by a doctor familiar with this form of injury or gangrene may result.

14. To make sure entire machine is in good condition, keep all nuts, bolts and screws properly tightened.

15. To reduce potential fire hazard, keep the engine of the Workman free of excessive grease, grass, leaves and accumulation of dirt.

16. If the engine must be running to perform a maintenance adjustment, keep hands, feet, clothing, and any parts of the body away from the engine and any moving parts. Keep everyone away.

17. If major repairs are ever needed or assistance is required, contact an Authorized TORO Distributor.

18. To be sure of optimum performance and safety, always purchase genuine TORO replacement parts and accessories. Replacement parts and accessories made by other manufacturers could be dangerous. Altering this vehicle in any manner may affect the vehicle's operation, performance, durability or its use may result in injury or death. Such use could void the product warranty of The Toro Company.

19. Always purchase genuine Cushman replacement parts for the Core Harvester.

SET UP INSTRUCTIONS

IMPORTANT: The Remote Hydraulic Control Kit (Model 07415) must be installed on the Workman before installation of the Core Harvester.

The 2/3 or Full Truck Bed must be installed on the Toro Workman before using the Core Harvester.

1. Assemble the Core Harvester using the Core Harvester Operator's Manual as a guide.

! WARNING

Some parts such as the elevator are very heavy. Two or more persons are required to lift and support this assembly when attaching to the vehicle or removing from the vehicle.

A number of holes must be drilled or cut:
WEAR EYE PROTECTION!!

If hydraulic oil must be drained, catch the oil and dispose of it properly. Clean area as required.

Use care when cutting banding straps, straps may snap back when cut and cause injury.

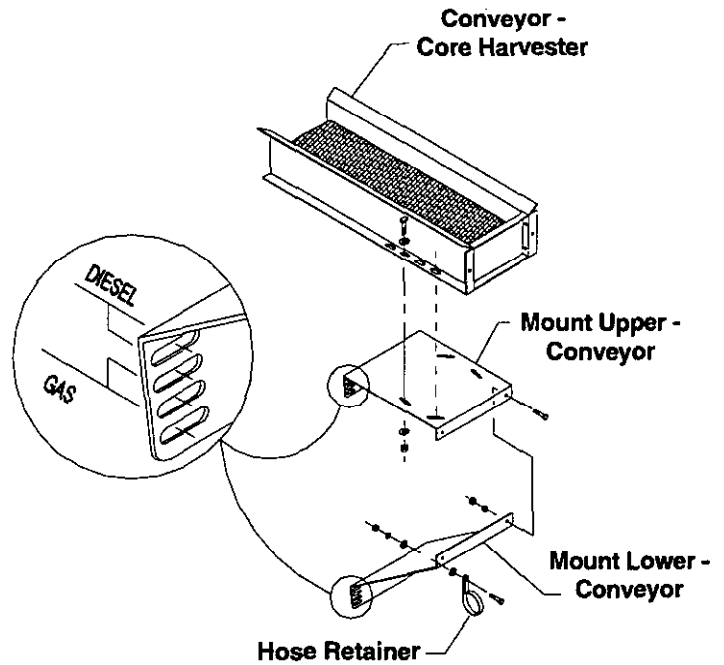


Figure 1

4. Attach Bracket Mount to the main frame of the Core Harvester using 3/8 x 3 1/2" bolts. For installation on older Core Harvesters, serial numbers 888670 and below, the Spacer Adapter and the Lower Spacer Adapter must be added. Secure to the Main Frame of the Core Harvester and to the Bracket Mount as shown in Fig. 2.

5. If the Core Harvester has a serial number 890009 and up, omit the two spacers and install the Bracket Mount directly to the Main Frame of the Core Harvester.

ATTACHING ADAPTER KIT TO CORE HARVESTER (Fig. 1 & 2)

1. Remove the existing conveyor hydraulic motor (832401) from the Core Harvester. Replace with the hydraulic motor (92-4240) provided with the Adapter Kit. The motor must be replaced because it cannot handle the Workman power steering back pressure.

2. Add the hydraulic fittings to the motor as shown in the hydraulic schematic, page 15.

3. Attach the Mount Upper-Conveyor to the undersides of the conveyor as shown in Fig. 1 using existing bolts and nuts. Secure fasteners.

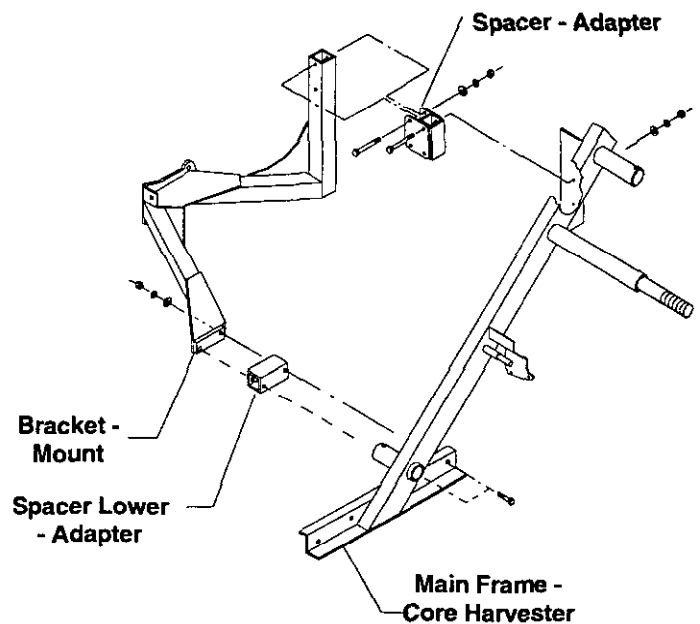


Figure 2

SET UP INSTRUCTIONS (Continued)

ATTACHING CORE HARVESTER TO TORO WORKMAN (Fig. 3 - 8)

WARNING

Some parts such as the elevator are very heavy. Two or more persons are required to lift and support this assembly when attaching to the vehicle or removing from the vehicle.

6. Attach the Plate Mount to the Toro Workman as shown in Fig. 3 using 1/2 x 4" bolts and nuts. Secure all fasteners. The Plate Mount is designed to remain on the Toro Workman at all times. Use two existing bolts and two new longer bolts. The Plate Mount attaches to the ROPS post in two locations. Secure all fasteners.

7. Attach the Core Harvester to the Workman using 1/2 x 1 1/4" as shown in Fig. 4.

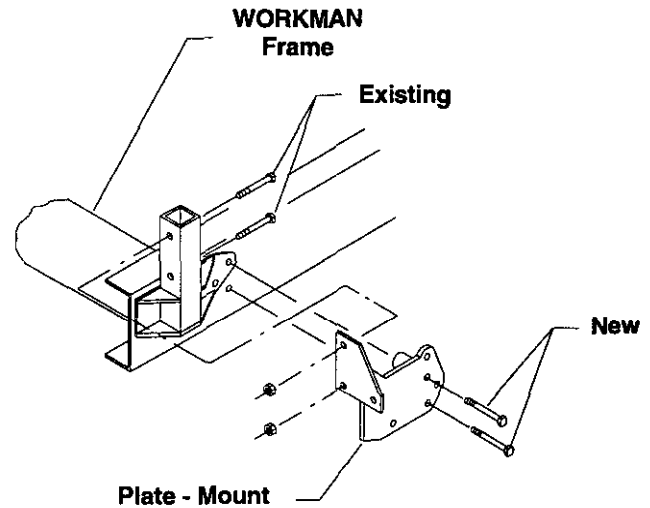


Figure 3

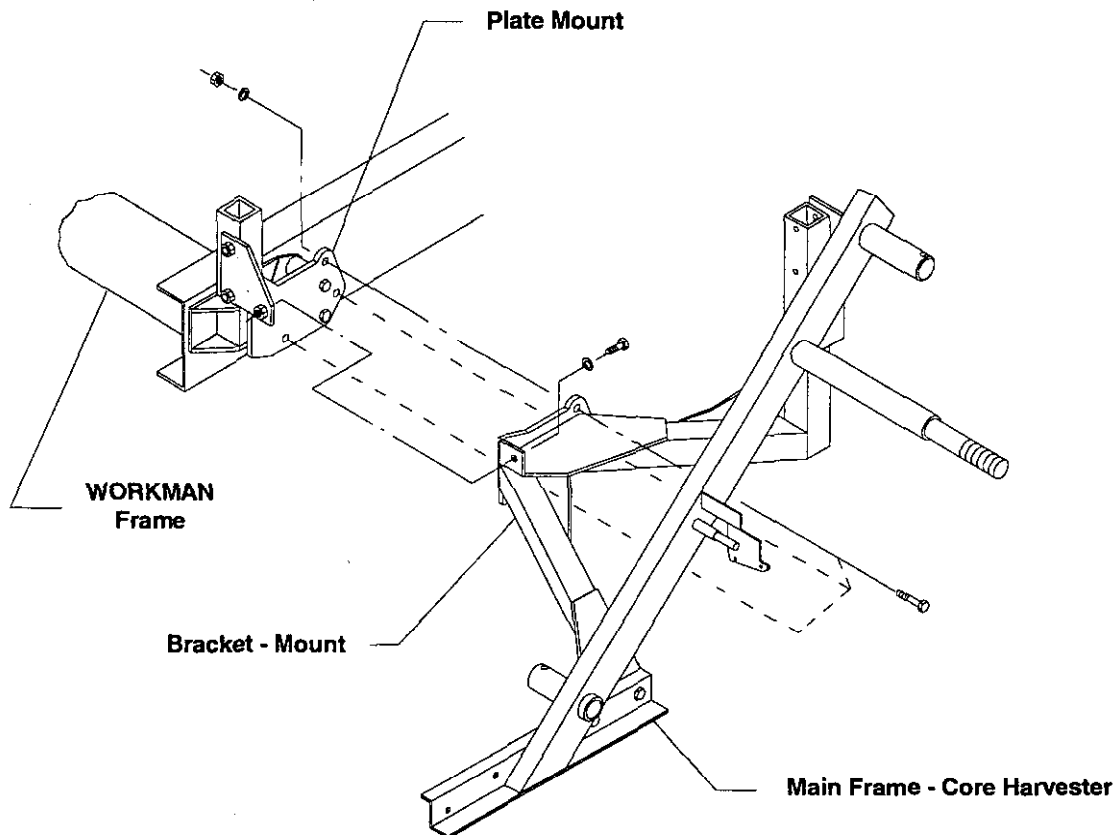


Figure 4

SET UP INSTRUCTIONS (Continued)

8. Attach the Mount Lower-Conveyor to the Upper Conveyor as shown in Fig. 1 using 3/8 x 1 bolts and nuts.

9. Attach the conveyor assembly to the Workman bed. Use the top slots for the diesel vehicles and the bottom slots for liquid cooled gas engine vehicles.

Secure fasteners. In some cases the holes for the Mount Lower-Conveyor are not pre-drilled in the truck. Drill .406 diameter holes as shown in Fig. 5.

10. Cover the existing hose from the Elevator motor with a 48" hose cover (92-4613) and attach to the Conveyor Motor as shown in the hydraulic schematic, page 15.

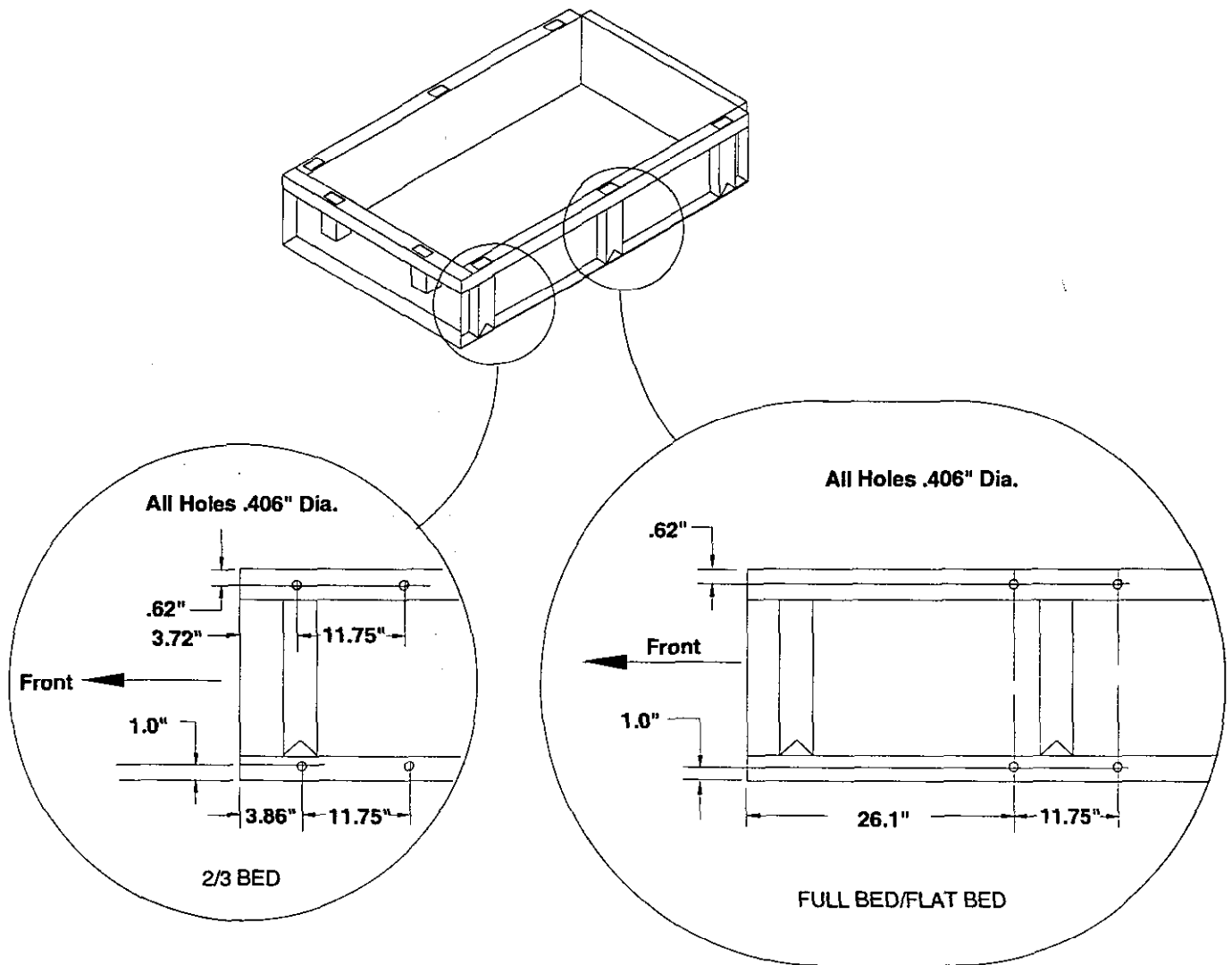


Figure 5

SET UP INSTRUCTIONS (Continued)

11. Turn the front tires of the Workman right and left to assure tire clearance with the bottom of the Core Harvester. If the tire does not clear, a section of the Core Harvester main frame must be cut off. See Fig. 6 for details.

16. Inflate air shock of Core Harvester until Workman bed is level. Do not exceed 150 PSI (1034 kPa) air pressure.

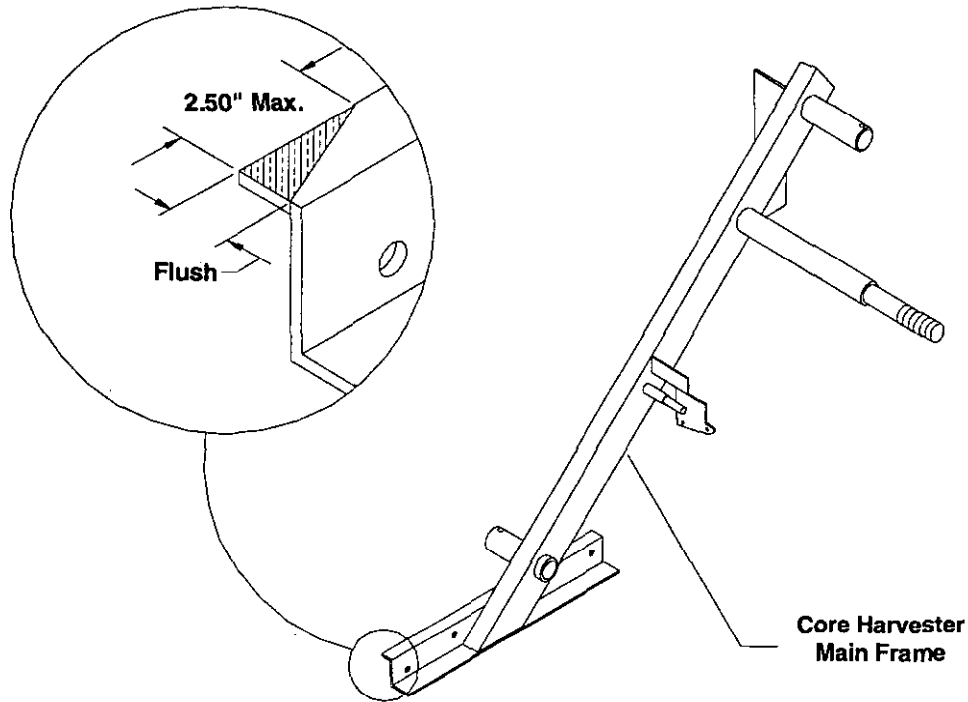


Figure 6

12. Remove the Grip from the handle on the Core Harvester.

13. Drill a .281 diameter (7.14mm), 1" from the end of the Handle as shown in Fig. 7.

14. Mount and attach the Handle Extension to the Handle. Secure all bolts.

15. Inflate the castor wheel tire of Core Harvester to 10-12PSI(69-82 kPa).

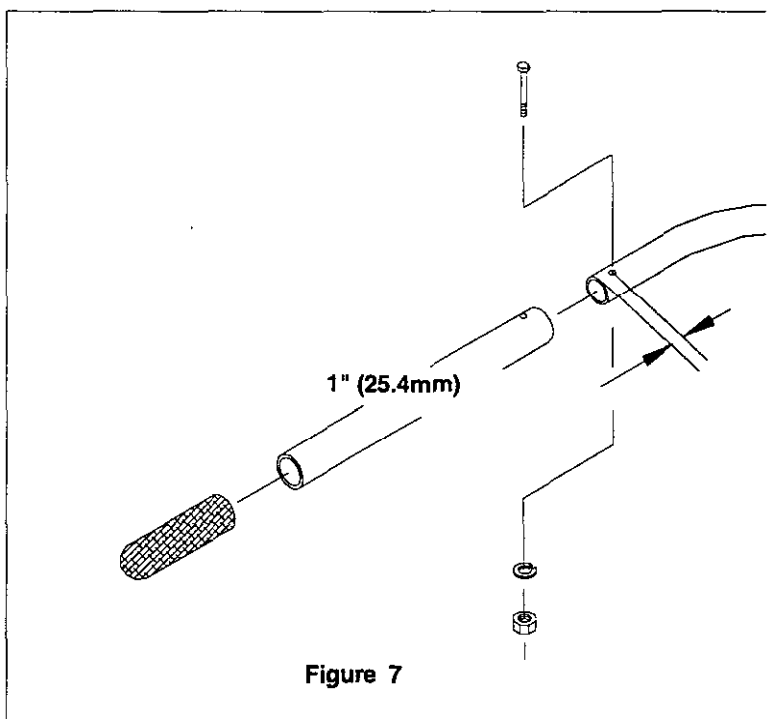


Figure 7

SET UP INSTRUCTIONS (Continued)

17. Replace the hydraulic hose from the Elevator Motor to the quick coupler with the 130" hose that has been tagged with a "B" on the end. Cover the hose with the 88" hose cover (92-4612). The cover should be attached to the end of the hose that connects to the elevator motor and run to its extent. Affix both ends with plastic ties. (See Hydraulic Schematic, page 15)

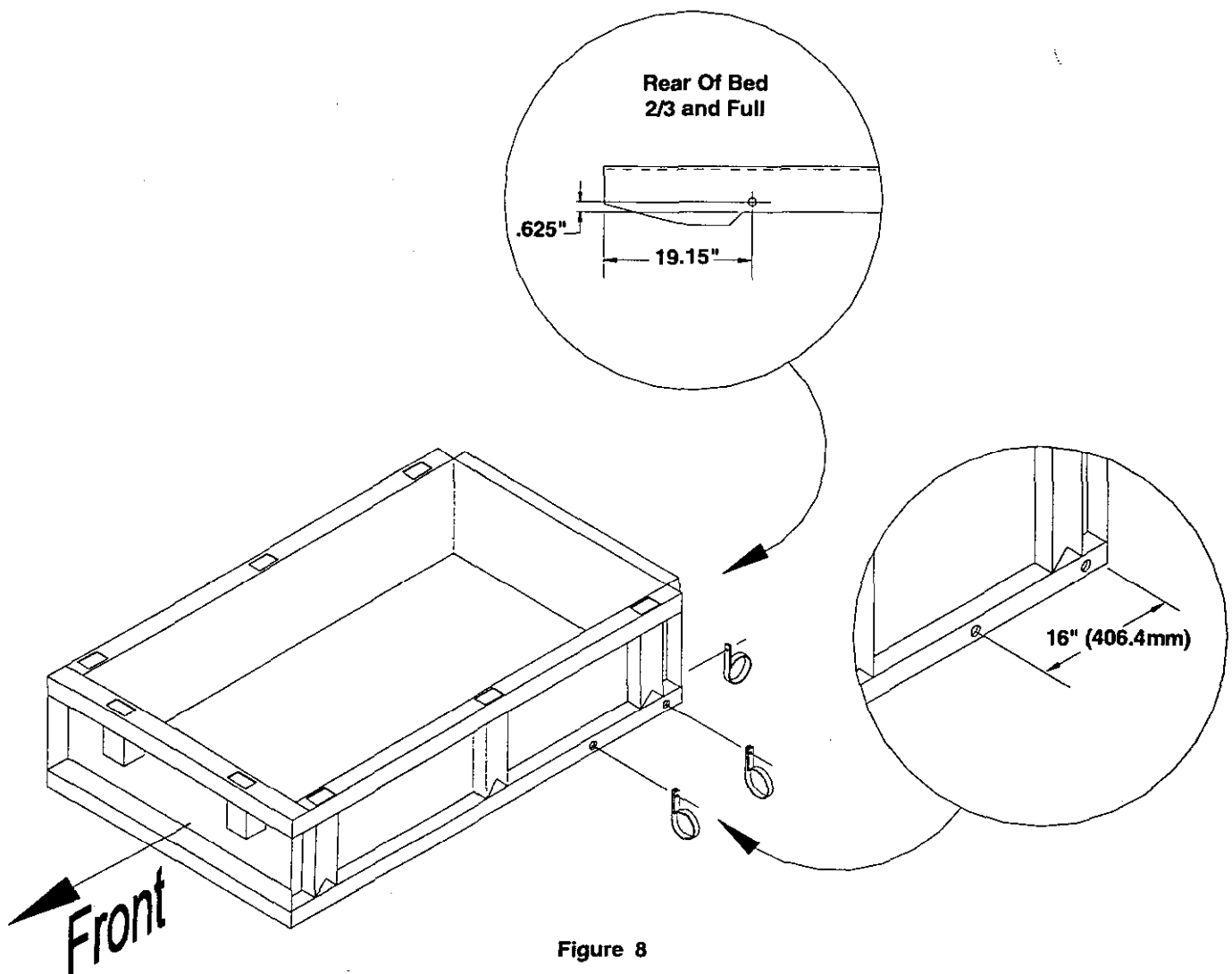
18. Attach the 100" long hose to the Conveyor hydraulic motor and to the "A" tagged quick coupler. Cover the hose with a 58" hose cover (92-4611). The cover should be started at the conveyor motor end and run to its extent. Affix both ends with plastic ties. (See Hydraulic Schematic, page 15)

IMPORTANT: Clean dirt from quick couplers before connecting. Dirty couplers can introduce contamination to the system. After cleaning, attach both quick couplers on the Core Harvester to the Workman.

19. Remove the 90 degree fitting on the return line of the Transmission of the Workman. The fitting may have to be destroyed upon removal. Replace the fitting with the Tee fitting as shown in the hydraulic schematic, page 15. Add the hose barb and secure to return line with hose clamp. Attach the 100" hydraulic hose coming from the hydraulic motor to the other port of the Tee fitting. Cover the hose with a 58" hose cover(92-4611). The cover should be started at the conveyor motor end and run to its extent. Affix both ends with plastic ties.

20. Route the hoses through hose clamps. The rear hole may need to be drilled on some units. See Fig. 8. Route the hoses below the automatic tailgate release hook if that option is installed.

IMPORTANT: Always plug the tee fitting with a cap after removal of the Core Harvester from the Workman.



SET UP INSTRUCTIONS (Continued)

21. Aim the Conveyor toward the center of the bed. Using the Workman's hydraulics raise and lower the truck bed to assure clearance of the Conveyor while dumping.

IMPORTANT: the Core Harvester elevator must **ALWAYS BE LOWERED** before raising the truck bed or damage to the core harvester could occur.

22. Lower the elevator and assure clearance when dumping the bed. Check the hydraulic hoses while dumping for clearance; no stretching or pinching of the hoses.

23. Mount the manual tube and clamps on second set of bolts from the top of the elevator. See Fig. 9.

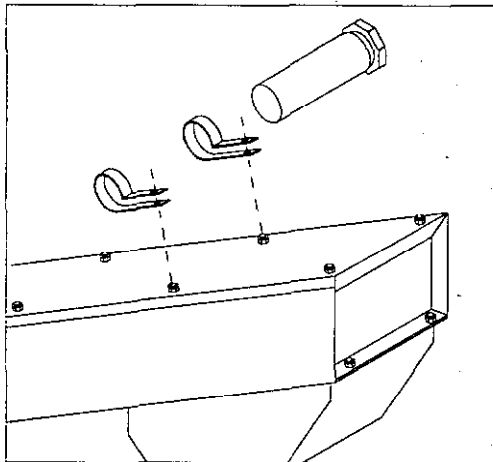


Figure 9

The Workman's hydraulic system operates on Dexron II automatic transmission fluid. This fluid provides gear and bearing lubrication as well as fluid for operating the hydraulic system.

When the remote hydraulic system quick couplers are connected to a remote attachment, hydraulic fluid flows from the attachment to the vehicle. If the hydraulic fluid in the Core Harvester is not the same or equivalent to vehicle's, component damage to transaxle or hydraulic system may result.

While small amounts of different fluid should not affect the vehicle's systems, it is recommended that initially, as much fluid as possible be drained from the Core Harvester before the remote hydraulic system quick couplers are connected.

Fluid compatibility should be checked and appropriate action taken, if attachment is subsequently used in conjunction with any other product using fluids other than Dexron II ATF.

IMPORTANT: Check hydraulic oil level after installation of Core Harvester. Check operation of Core Harvester, then recheck hydraulic oil level.

Operation of vehicle with low oil level can damage pump, remote hydraulics, power steering and vehicle transaxle. Use Dexron II automatic transmission fluid if needed.

CAUTION

Hydraulic fluid escaping under pressure can have sufficient force to penetrate skin and do serious damage. Care must be used when connecting or disconnecting hydraulic couplers. Stop engine, apply parking brake and place remote hydraulic valve in float detent position to relieve hydraulic pressure before connecting or disconnecting quick couplers.

TROUBLESHOOTING

A. Difficulty in connecting or disconnecting quick couplers:

1. Pressure not relieved (Quick coupler under pressure).
2. Engine running.
3. Remote hydraulic valve not placed in float.

SET UP INSTRUCTIONS (Continued)

B. Power Steering Hard:

1. Remote valve in run float position, and quick couplers not engaged.
2. Remote hydraulic valve linkage out of adjustment.
3. Hydraulic oil level low.
4. Hydraulic oil hot.

C. Hydraulic leaks:

1. Fittings loose.
2. Fitting missing o-ring.

D. Attachment does not function:

1. Quick couplers not fully engaged.
2. Quick couplers are interchanged.

INSTALL OPTIONAL EXTENSION BOARDS TO TRUCK BED (Fig. 10)

1. See Fig. 4 to get a general idea of assembly. Cut the extension boards to length required, depending on the truck bed used (2/3 or full).
2. Install vertical boards in stake pocket brackets.
3. Nail or screw together.

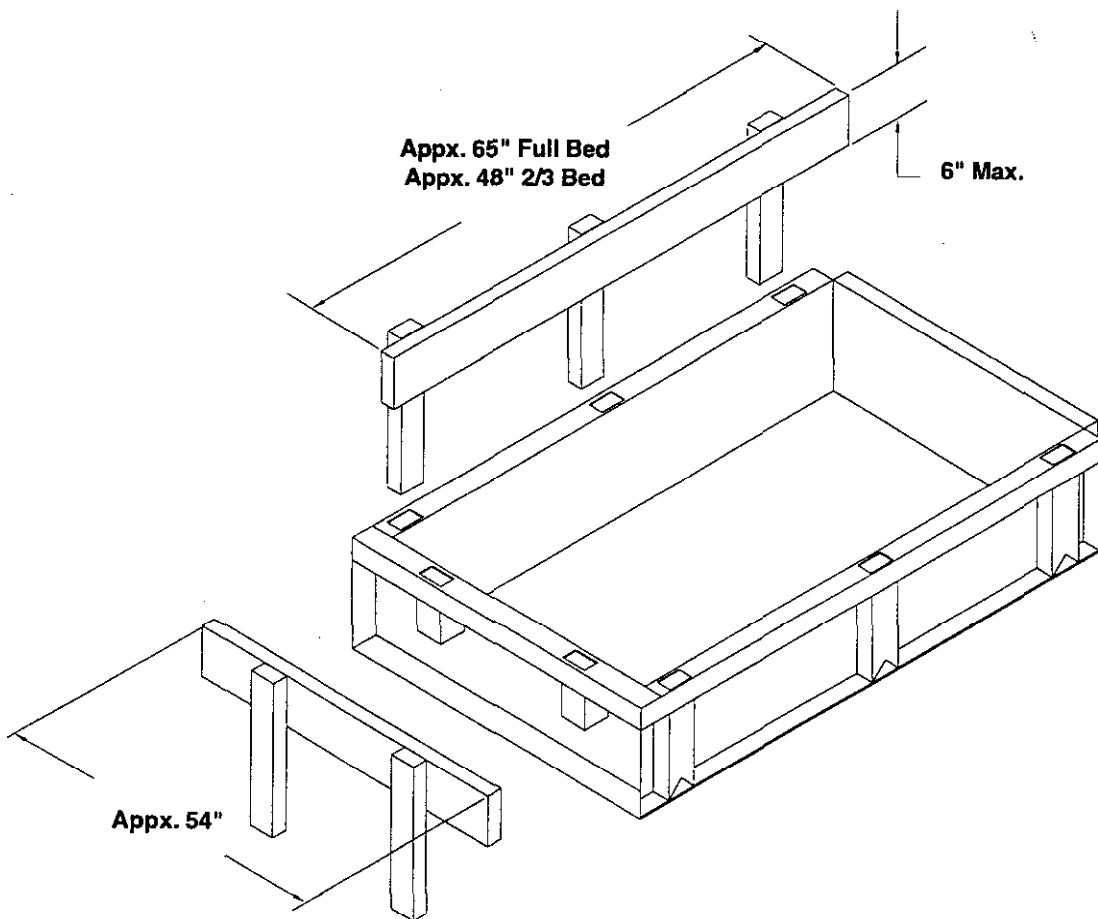


Figure 10

BEFORE OPERATING

CHECK AIR PRESSURE IN TIRES

1. Inflate the castor wheel tire to 10 - 12 PSI (69 - 82 kPa).

CHECK AIR PRESSURE IN AIR SHOCK

1. Inflate air shock until rear of Workman bed is parallel to ground. DO NOT exceed 150 PSI.

OPERATING INSTRUCTIONS

Safe operation begins before taking the vehicle out for a day's work. Read and understand the operating instructions in the Toro Workman operator's manuals before using the Core Harvester.

CAUTION

The interlock switches are for the operator's protection, so do not bypass them. Check operation of the switches daily to assure interlock system is operating on the Workman. If a switch is malfunctioning replace it before operating. Regardless whether switches are operating properly or not, replace them every two years to assure maximum safety. Do not rely entirely on safety switches - use common sense!

1. Read and understand the Operator's Manual for the Toro Workman before operating this machine.
2. Read and understand the Operator's Manual for the Core Harvester before operating this machine.
3. Refer to the Operator's Manual for the Core Harvester and level the unit before operating.

WARNING

Inflate air shock enough to level the vehicle with operator in seat and Core Harvester attached. **MAXIMUM** is 150 PSI(1034kPa) air pressure. Bodily injury can occur when 150 PSI is exceeded.

4. Place the Remote Hydraulic Valve Handle of the Workman in the RUN position, to turn on the Core Harvester. Place in the OFF position, to stop it. Use the float position when connecting or disconnecting the quick couplers.
5. The operation instruction decal is located on the side of the elevator next to the operator. Use the information while using the vehicle and attachment.
6. Aim the conveyor of the Core Harvester toward the center of the truck bed.
7. Place the drive transmission in LO range. Never use other gears. Elevator may clog.
8. Raise the elevator to overcenter position and move remote hydraulic control lever to neutral to stop elevator while making turns after each pass.

OPERATING INSTRUCTIONS

9. ALWAYS stop elevator rotation, set parking brake, and shut off vehicle engine before leaving operator's seat.

10. To assure clearance while dumping ALWAYS lower the conveyor to operating position before dumping the cores from the truck bed or conveyor or Elevator damage could occur. DO NOT dump cores while Core Harvester is running.

11. The remote hydraulic lever can be temporarily placed in "Lower" position to run elevator backwards to unplug it.



WARNING

As a general rule, position the weight of the load evenly from front to rear and evenly from side to side.

Shifting of a load may occur during transport. This shifting happens most often while turning, going up or down hills, suddenly changing speeds or while driving over rough surfaces. Shifting of heavy loads can lead to tipovers. Use caution when transporting or topdressing with a full load.

Heavy loads increase stopping distance and reduce your ability to turn quickly without tipping over.



DANGER

Tipping or rolling the vehicle on a hill will cause serious injury or death.

If engine stalls or you lose headway on a hill, never attempt to turn vehicle around. Always back straight down a hill in reverse gear. Never back down in neutral or with the clutch depressed, using only the brakes. Never drive across a steep hill, always drive straight up or down. Avoid turning on a hill. Don't "drop the clutch" or slam on the brakes. Sudden speed change can initiate tipover.

MAINTENANCE

1. Follow all maintenance procedures outlined in the Toro Workman Operator's Manual for the vehicle. Follow all maintenance procedures outlined in the Core Harvester Operator's Manual.

2. Use a lithium base pressure gun grease at all grease fittings every 20 hours of operation.

* Castor wheel pivot.

* Two fittings in lower link suspension.

REMOVAL OF CORE HARVESTER FROM WORKMAN

1. Disconnect the hydraulic lines from the quick couplers.

2. Disconnect the return line from the PTO or the transmission. ALWAYS use the cap and plug the tee fitting.

3. Remove the hydraulic hoses from the hose clamps.

4. Remove the Mount Upper Conveyor and the Mount Lower Conveyor from the Workman.

5. Remove the bolts that attach the Bracket-Mount to the Plate Mount. Remove the Core Harvester from the Workman.

6. Refer to the Cushman Core Harvester Operators Manual for seasonal storage tips.



CAUTION

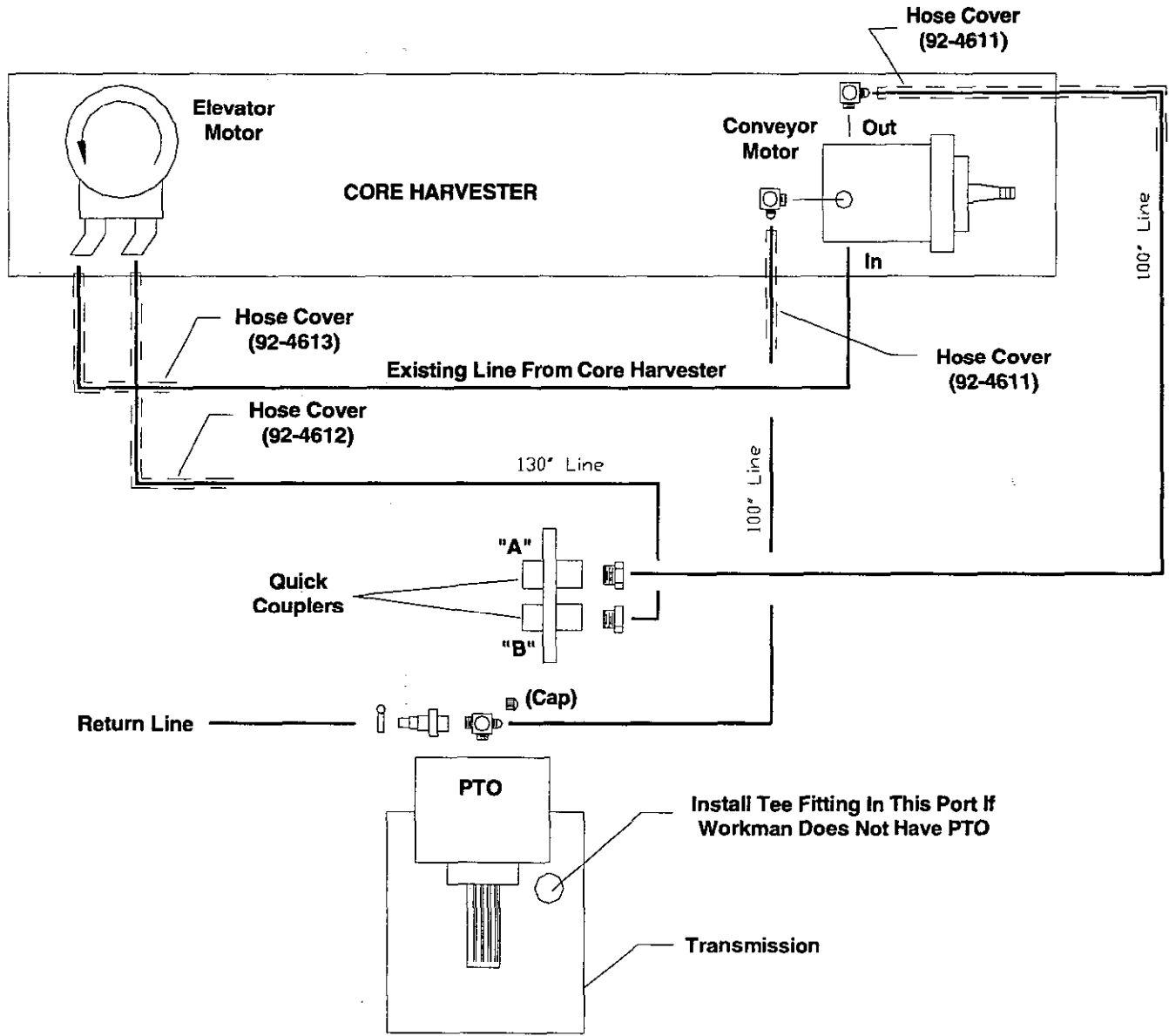
Hydraulic fluid escaping under pressure can have sufficient force to penetrate skin and do serious damage. Care must be used when connecting or disconnecting hydraulic couplers. Stop engine, apply parking brake and place remote hydraulic valve in float detent position to relieve hydraulic pressure before connecting or disconnecting quick couplers.



WARNING

Some parts such as the elevator are very heavy. Two or more persons are required to lift and support this assembly when attaching to the vehicle or removing from the vehicle.

HYDRAULIC SCHEMATIC



SEASONAL STORAGE

1. Thoroughly clean the Core Harvester and the Toro Workman. Follow all the guidelines for storage in the respective Operator's Manual.
2. Tighten all fasteners.
3. Lubricate all grease fittings and bearings. Wipe off excess lubricant.

IDENTIFICATION AND ORDERING

To order replacement parts from an authorized TORO Distributor, supply the following information:

1. Part number, description and quantity of parts desired.

Note: Do not order by reference number. If a parts catalog is being used, use the part number.


2. Cushman Core Harvester parts should be obtained from an authorized parts supplier.

NOTES

NOTES



MAINTENANCE RECORD



The Toro Commercial Products Two Year Limited Warranty

The Toro Company warrants your 1996 or newer Toro Commercial Product ("Product") purchased after January 1, 1997, to be free from defects in materials or workmanship for the period of time listed below*. Where a warrantable condition exists, Toro will repair the Product at no cost to you including diagnosis, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.

Warranty Duration: Two years or 1500 operational hours*, whichever occurs first.

*** Product equipped with hour meter.**

Owner Responsibilities:

As the Product owner, you are responsible for required maintenance and adjustments stated in your Owner's Manual. Failure to perform required maintenance and adjustments can be grounds for disallowing a warranty claim.

Instructions For Obtaining Warranty Service:

You are responsible for notifying the Commercial Products Distributor or Authorized Commercial Products Dealer from whom you purchased the Product as soon as you believe a warrantable condition exists.

If you need help locating a Commercial Products Distributor or Authorized Dealer, or if you have questions regarding your warranty rights or responsibilities, you may contact us at:

Toro Commercial Products Service Department
8111 Lyndale Avenue South
Minneapolis, MN, 55420-1196
Telephone: (612) 888-8801
Facsimile: (612) 887-8258
E-Mail: Commercial.Service@Toro.Com

Maintenance Parts:

Parts scheduled for replacement as required maintenance ("Maintenance Parts"), are warranted for the period of time up to the scheduled replacement time for that part.

Items/Conditions Not Covered:

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. The items/conditions listed below are not covered by this warranty:

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, modified, or unapproved accessories are not covered.
- Product failures which result from failure to perform required maintenance and/or adjustments are not covered.
- Product failures which result from operating the Product in an abusive, negligent or reckless manner are not covered.

- This warranty does not apply to parts subject to consumption through use unless found to be defective. Examples of parts which are consumed, or used up, during normal Product operation include, but are not limited to, blades, reels, bedknives, tines, spark plugs, castor wheels, tires, filters, belts, etc.
- This warranty does not apply to failures caused by outside influence. Items considered to be outside influence include, but are not limited to, weather, storage practices, contamination, use of unapproved coolants, lubricants, additives, or chemicals, etc.
- This warranty does not apply to normal "wear and tear" items. Normal "Wear and Tear" includes, but is not limited to, damage to seats due to wear or abrasion, worn painted surfaces, scratched decals or windows, etc.

Other Legal Disclaimers:

The above remedy of product defects through repair by an authorized distributor or dealer is the purchaser's sole remedy for any defect. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Except for the Emissions warranty referenced below, if applicable, there is no other express warranty. All implied warranties of merchantability and fitness for use are limited to the duration of the express warranty.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

The Toro Company is not liable for indirect, incidental or consequential damages in connection with the use of the Product, including any cost or expense of providing substitute Product or service during periods of malfunction or non-use.

Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you.

Note to California residents: The Emissions Control System on your Product may be covered by a separate warranty meeting requirements established by the U.S. Environmental Protection Agency (EPA), or the California Air Resources Board (CARB). The hour limitations set forth above do not apply to the Emissions Control System Warranty. Refer to the California Emission Control Warranty Statement printed in your Owner's Manual or contained in the engine manufacturer's documentation for details.