Form No. 3364-476 Rev A

5 to 7 Conversion Kit

Reelmaster Transport Frame

Model No. 33452—Serial No. 310000001 and Up

Installation Instructions

Installation

Installing the Hydraulic Fittings

1. Park the machine on a level surface and lower the cutting units to the ground.
2. Block the wheels to assure the frame is secure to work on.
3. Disconnect the hydraulic hose couplers from the tractor.
4. Relieve the pressure in the Transport Frame hydraulic system, by slowly cracking the connections between the hydraulic couplers and the hydraulic hoses (Figure 1). Use extreme caution, when cracking the connections, so oil is not directed toward the skin or eyes. Wrap the connections with a rag to help catch any oil that may escape.

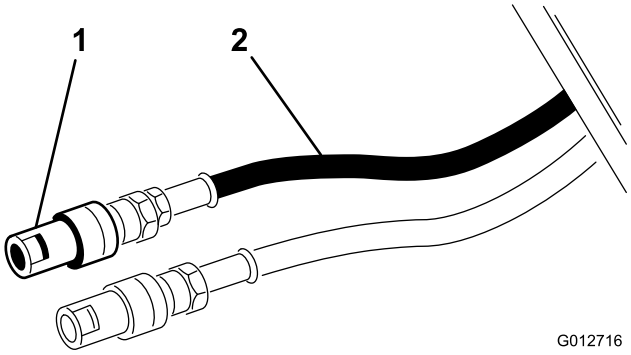


Figure 1

1. Hydraulic couplers
2. Hydraulic hoses

5. With the couplings loose, cycle each valve section to relieve any pressure between the valve section and the hydraulic cylinder.
6. Carefully remove the 4 plugs from the top of the two outboard valve sections (Figure 2).

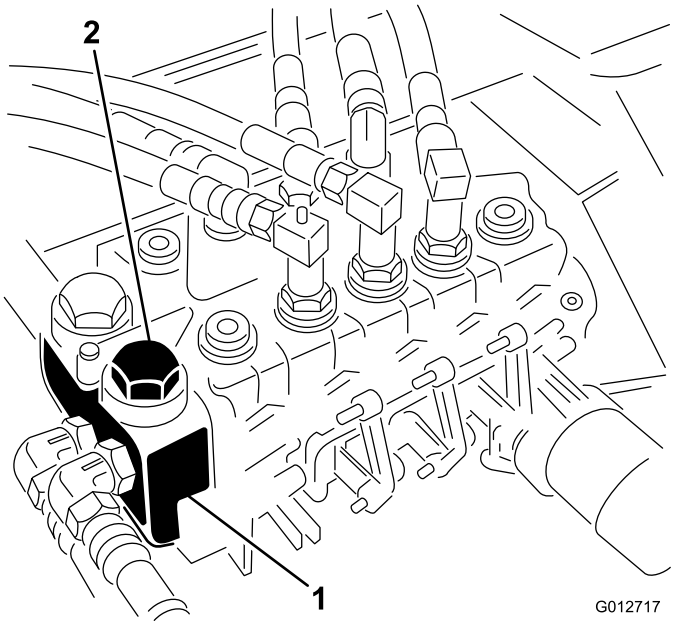


Figure 2

1. Valve section
2. Plug

7. On the new 90 degree fittings, lubricate the O-ring seals with oil and install the fittings into the valve sections. Position the fittings as shown in Figure 3.

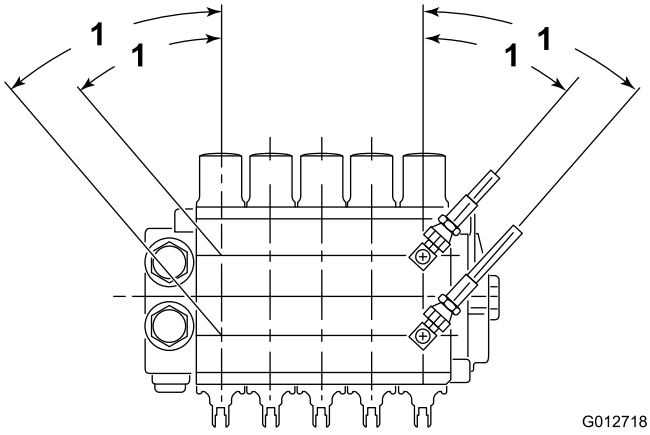


Figure 3

1. 40 degrees

Mounting the Hydraulic Cylinders

1. Mount a cylinder rest to the underside of the front cross channel with 2 bolts (1/2 x 1-1/2 inch), tapered washers, and locknuts as shown inFigure 5.

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CE

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2. Mount the butt cap end of the hydraulic cylinder to the front cross channels with a cylinder shaft, 2 tube spacers, and 2 cotter pins (3/16 x 1-3/4 inch) as shown in Figure 5.
3. Apply #2 Permatex to the threads of the new elbow fittings and install the fittings to the hydraulic cylinder. Position the fittings toward the center of the machine.
4. Connect the new short and long hydraulic hoses to the fittings on the control valve and cylinder as shown in Figure 4.

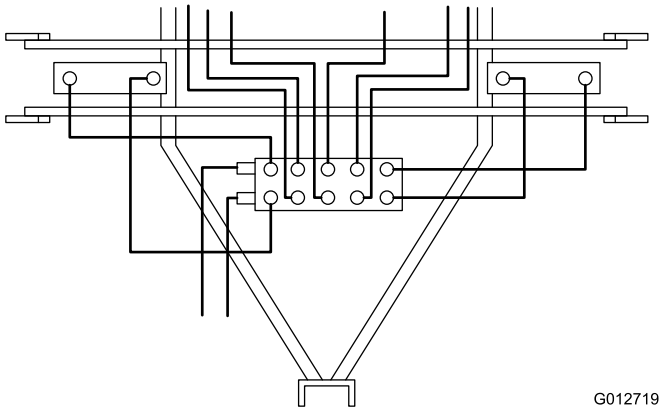


Figure 4

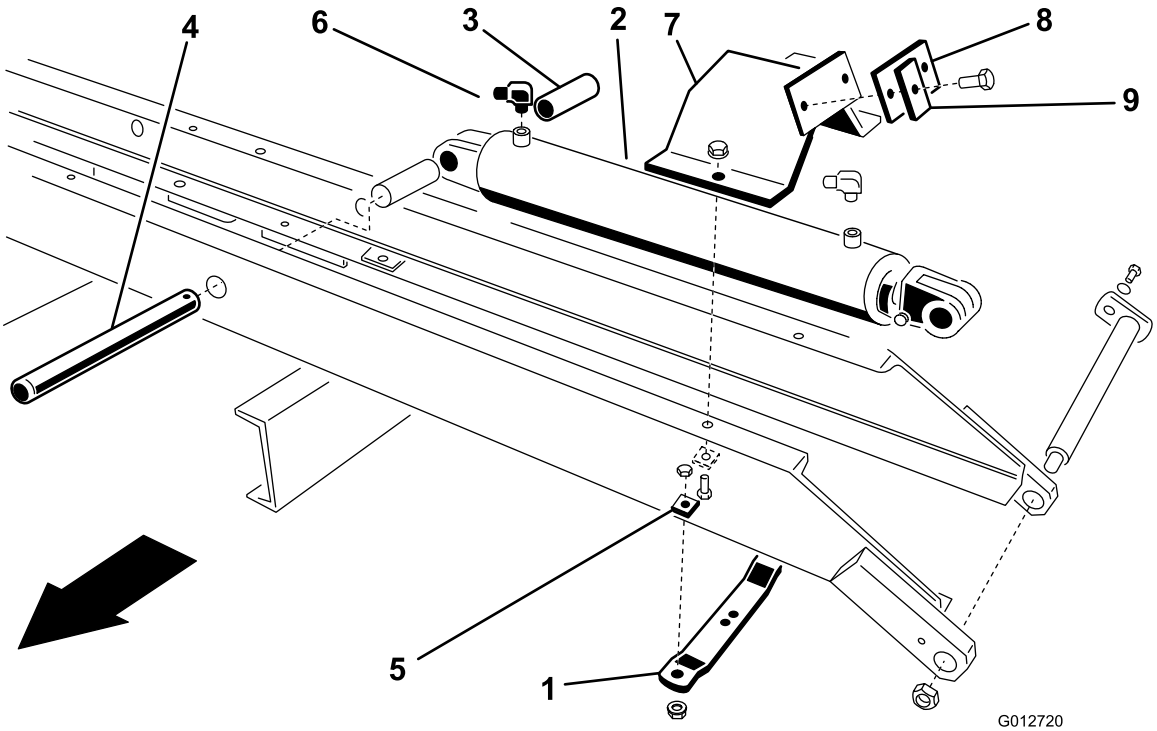


Figure 5

1. Cylinder rest
2. Hydraulic cylinder
3. Spacer tubes
4. Cylinder shaft
5. Tapered washer
6. Elbow fitting
7. Arm stop
8. Bumper pad
9. Bumper washers

Mounting the Lift Arms

1. Loosely mount the appropriate lift arm (right or left) to the front cross channel with the lift bail pin and a locknut (3/4 inch) as shown in Figure 6.
2. Secure the end of the lift bail pin to the side of the front cross channel with a bolt (3/16 x 3/4 inch) and lock washer (3/16 inch) as shown inFigure 6.
3. Mount an arm stop to the top of the front cross channel with 2 bolts (1/2 x 1-1/2 inch), tapered washers, and locknuts as shown in Figure 5.
4. Mount a bumper pad and 2 bumper washers to the arm stop with 2 bolts (3/16 x 1-1/4 inch) as shown in Figure 5.
5. Secure the end of the link to the bottom of the lift arm with a shaft, 2 flatwashers, 2 lock washers (3/8 inch), and 2 bolts (3/8 x 1 inch) as shown in Figure 6.

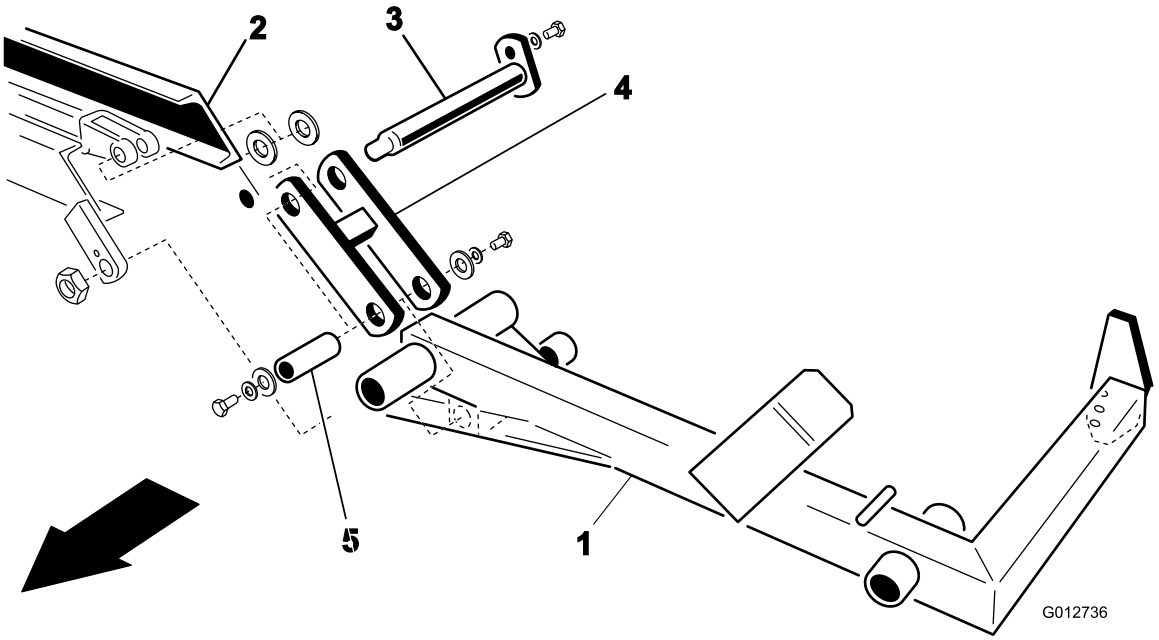


Figure 6

1. Lift arm
2. Front cross channel
3. Lift bail pin
4. Link
5. Shaft

6. Mount the other end of the link to the hydraulic cylinder with 2 larger flat washers, flat washers, lock washers (3/8 inch), and bolts (3/8 x 1 inch) as shown in Figure 6. Position the larger flat washers between the link and the hydraulic cylinder end.
7. If the Transport Frame is to be used on a public road, the overall width of the frame and the mowers may not exceed 8 feet. The clevis on the end of the hydraulic cylinders and the arm stops may be adjusted to attain the desired width shown in Figure 7.

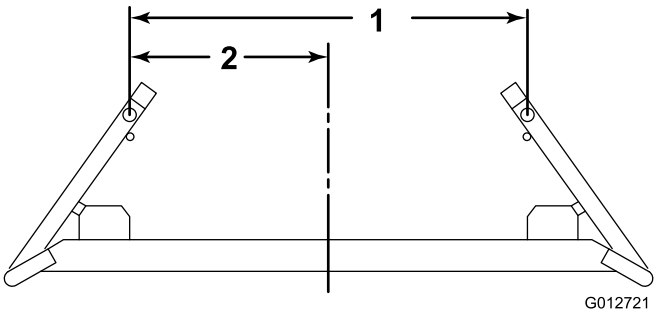


Figure 7

1. 48 to 51 inches (122 to 130 cm)
2. 24-3/4 ± 1-1/2 inches (63 ± 4 cm)

Installing the Lift Bail

1. Secure the lift bail housing to the lift bail with a thrust washer and locknut (3/4 inch). Position the lift bail as shown in Figure 8.

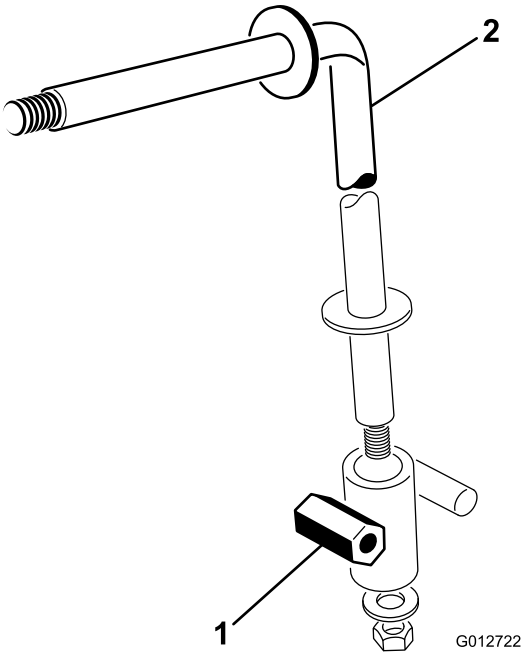


Figure 8

1. Lift bail housing
2. Lift bail

2. Insert the lift bail thru the holes in the lift arm and secure with a thrust washer and locknut (3/4 inch) (Figure 9).

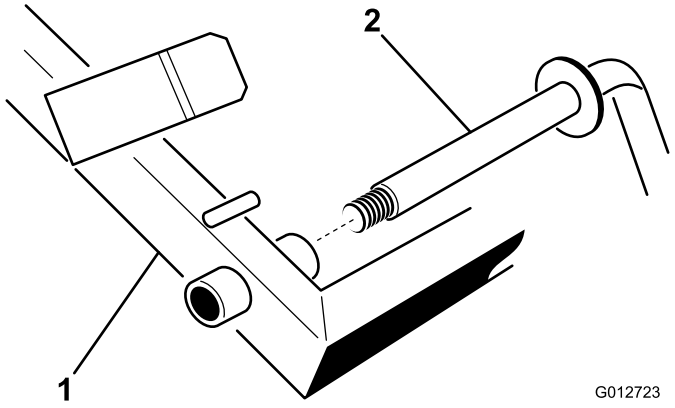


Figure 9

1. Lift arm
2. Lift bail

Installing the Drawbar

1. Align the mounting holes in the drawbar with the mounting hole in the lift bail housing. When installing the drawbar, the offset hole in the drawbar should be positioned up and the lift bail stop should be on the top of the drawbar (Figure 10 and inset).

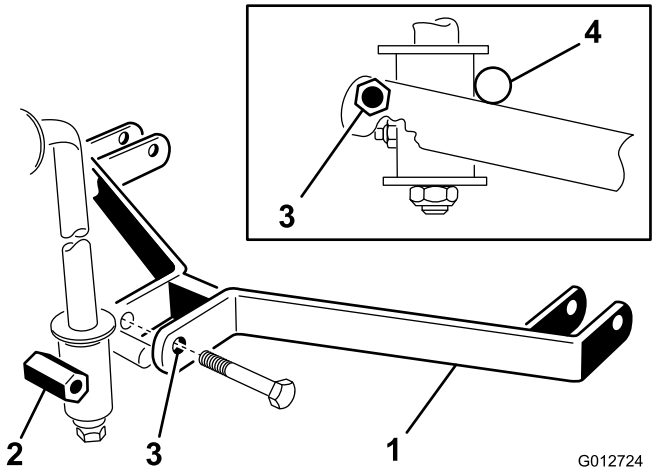


Figure 10

1. Drawbar
2. Lift bail housing
3. Offset hole in drawbar-UP
4. Lift bail stop

2. Secure the drawbar to the lift bail with a bolt (1/2 x 4 inch) and locknut (1/2 inch).

Installing the Reelmaster Mowers

1. Align the holes in the drawbar with the brackets on the mower cross-tubes. Secure each side with a bolt (1/2 x 3-1/2 inch), spacer tube, and locknut (1/2 inch) (Figure 11).

   Note: The head of the bolt to be positioned inboard.

   Note: If Spartan mowers are to be attached, drawbar clamps, Part No. 5-1090 and mounting fasteners will be required to mount the drawbar to the front cross tube of the mower. Contact your local Authorized Toro Distributor for assistance.

2. If 18 inch wheels are installed on the mowers, the Toro Conversion Kit, Part No. 51–3060 will be required to allow the mowers to be raised to the transport position. Contact your local Authorized Toro Distributor for assistance.

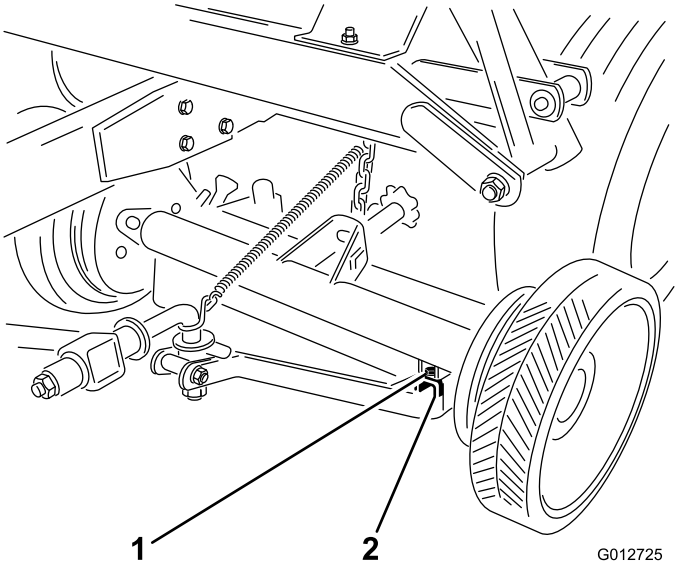


Figure 11

1. Bolt, spacer tube, and locknut
2. Mounting bracket

3. Secure the lift chain to the lift arm and the mower mounting bracket with the long shackles, clevis pins and cotter pins (Figure 12).

   Note: Make sure there are no kinks or twists in the chain.

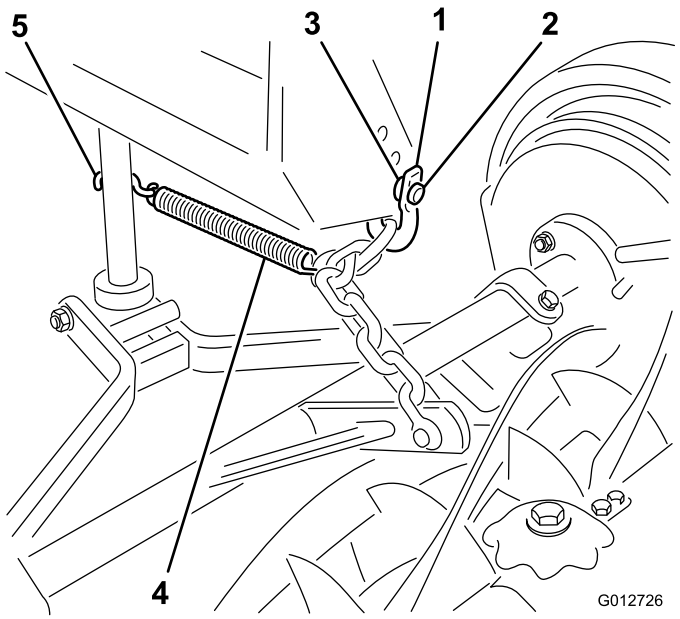


Figure 12

1. Long shackle
2. Clevis pin & cotter pin
3. Outer mounting hole
4. Spring
5. S-hook

4. Hook the spring to the fifth link in the chain from the mower and secure the other end of the spring to the lift bail with the S-hook (Figure 12).
5. Repeat the procedure on the opposite side of the machine.

Transport Strap Storage

Place the transport strap onto the pins, located on the center frame channel, and secure them with 2 hair pin cotters (Figure 13).

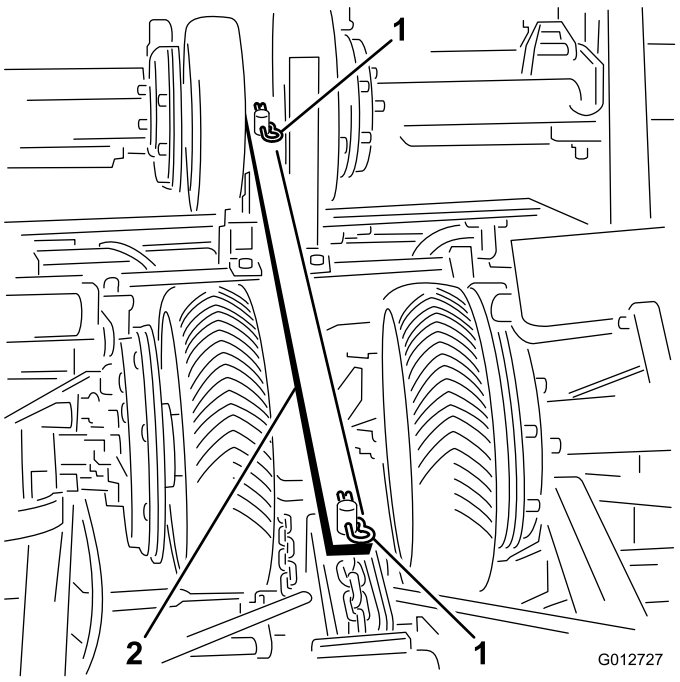


Figure 13

1. Hairpin cotters
2. Transport straps

Mounting the Control Linkage and Levers

1. Mount the valve control lever to the valve spool bracket with a link pin and connecting link as shown in Figure 14.

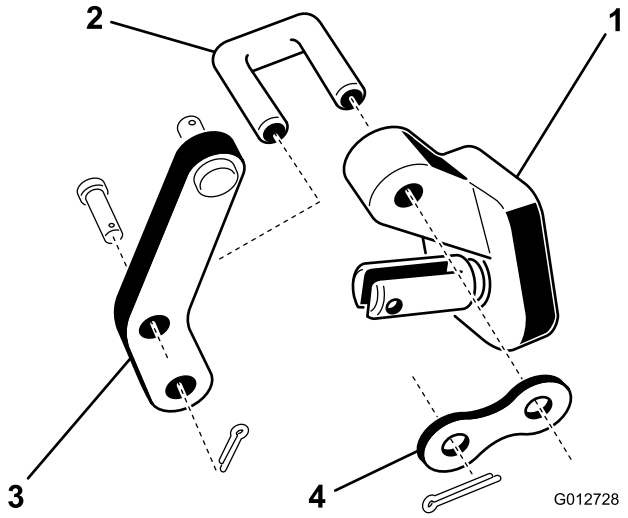


Figure 14

1. Valve spool bracket
2. Link pin
3. Control lever
4. Connecting link

2. Mount the bottom of the control valve lever to the valve spool with a clevis pin and cotter pin as shown in Figure 14. Repeat the procedure on the other valve section. Coat the pins with #2 grease.

3. Remove the 4 bolts securing the control panel cover to the control tower and remove the cover (Figure 15).

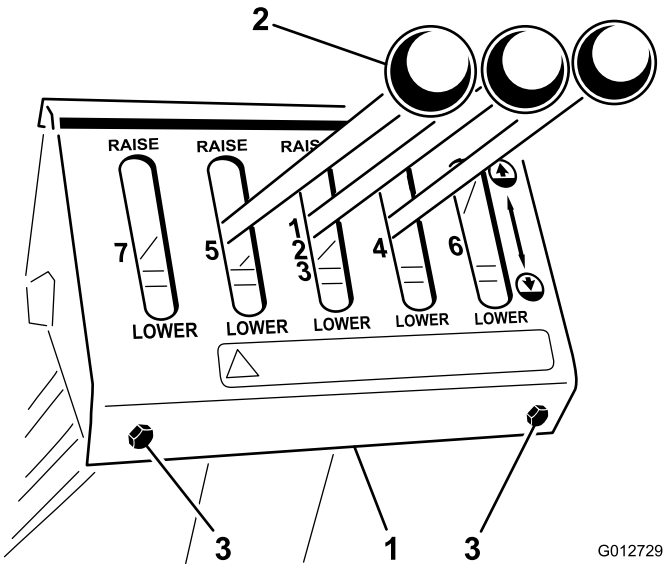


Figure 15

1. Control panel cover
2. Control levers
3. Mounting bolts

4. Remove the locknut and pivot securing the pivot block levers to the control tower (Figure 16).
5. Install the new pivot block levers onto the pivot pin while reinstalling the existing pin and the existing blocks into the control tower (Figure 16).
6. Secure the upper control linkage tubes to the pivot blocks with clevis pins and cotter pins (Figure 16). Coat the pins with #2 grease.

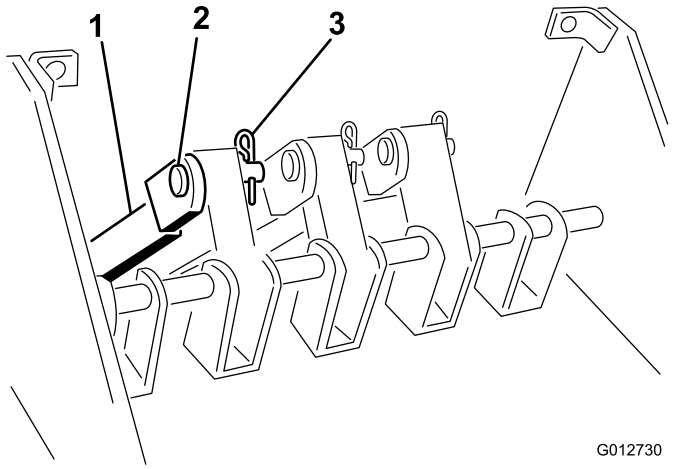


Figure 16

1. Upper control linkage levers
2. Clevis pins
3. Cotter pins

7. Reinstall the control panel cover to the control tower with 4 bolts (Figure 15).
8. Screw the control levers into the pivot blocks.
9. Check to make sure the valve spool levers (Figure 17) are in neutral (middle position) by pivoting the levers in toward the valve, or pulling them out to find the mid position.

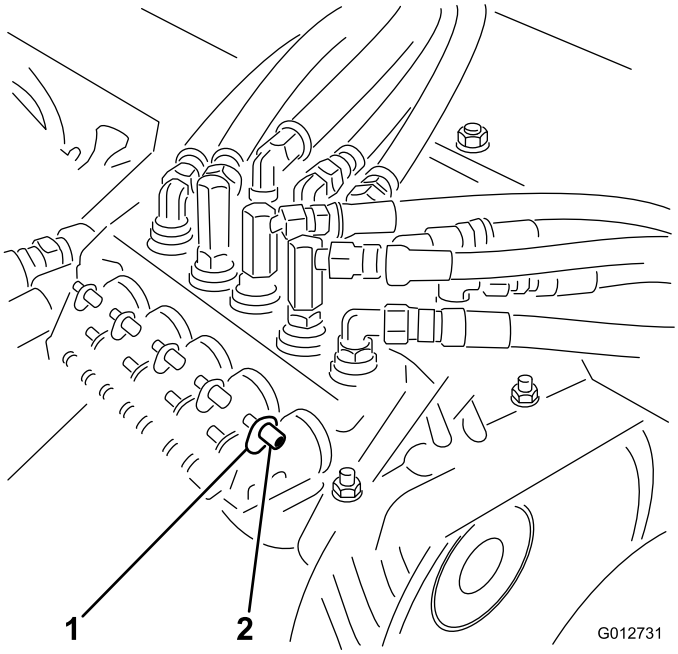


Figure 17

1. Spool valve levers
2. Mounting pin

10. Thread 7/16 inch hex nuts onto the lower control rods. Partially thread the lower control rods into the upper control tubes (Figure 18). Coat the threads with #2 gun grease.

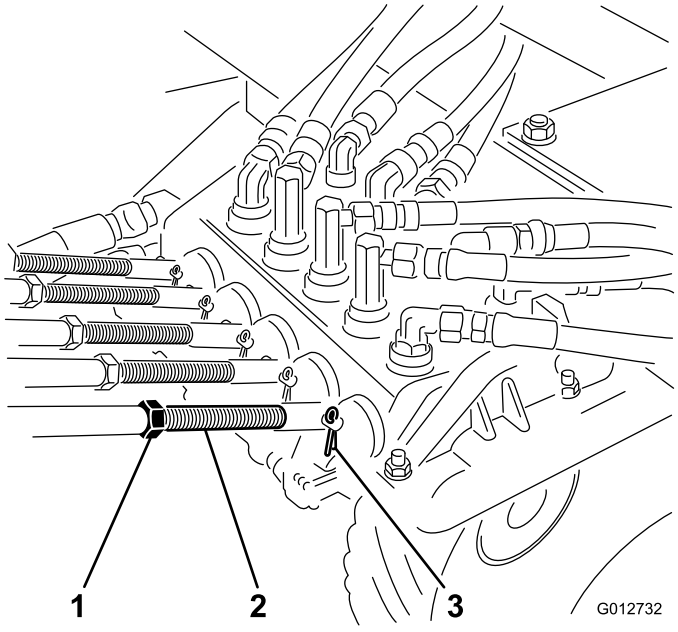


Figure 18

1. Hex nut
2. Lower control rod
3. Cotter pins

11. Align the hole on the end of the lower control rod Figure 18 with the mounting pin in the control valve lever (Figure 17). The lever on the control tower should be in the center of the slot (neutral position) if adjusted correctly (Figure 19). Thread the lower rod into or out of the upper control tube to adjust. After each lever is adjusted, check to make sure all levers are aligned with each other. Readjust if necessary.
12. Secure control rods to control valve levers with cotter pins (Figure 18).
13. Check the control lever operation by moving the levers to the raise and lower positions. Hold the lever(s) in respective position until the cycle is completed. All levers should operate freely with no binding and should be well lubricated. Readjust control tube linkages if necessary.
14. When adjusted correctly, tighten the jam nuts on the lower control rods (Figure 18).

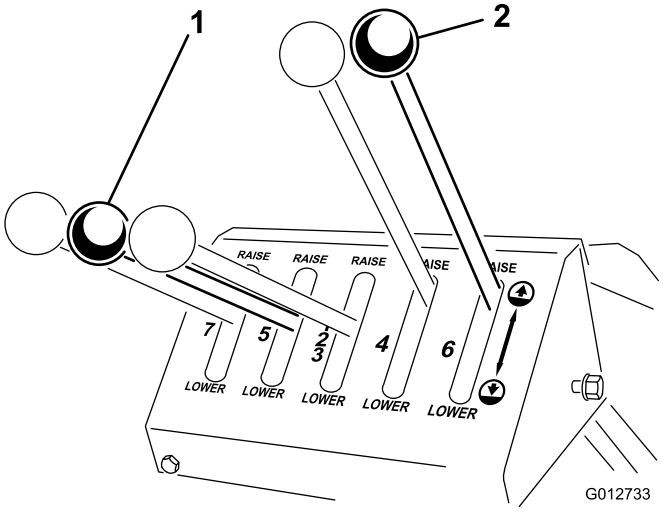


Figure 19

1. Lever in neutral position
2. Lever in raise position

15. Lubricate all the grease fittings.
16. Attach the hydraulic hose couplers to the tow vehicle and operate the hydraulic system. The Transport Frame will be removing oil from the tow vehicle hydraulic reservoir. Do not allow reservoir oil level to be depleted so that cavitation occurs. Refill reservoir with oil recommended for tow vehicle or use ISO 68 or oil that is similar to Mobil oil 424.

Transport Operation

1. Make sure that all mowers are in full transport position before moving to the next mowing area.
2. Remove the hairpin cotters securing the transport straps to the center frame channel and lift off the straps.
3. Mount the transport straps to the mounting pins on the lift arms and secure with the hair pin cotters.

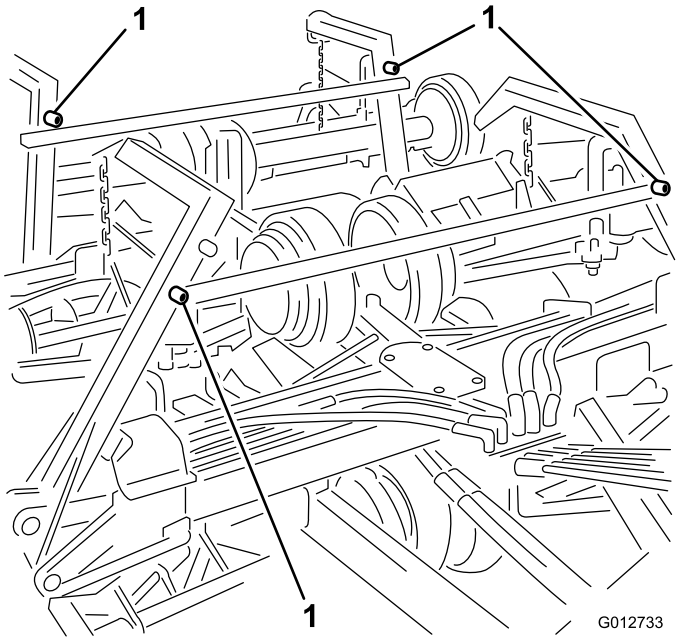
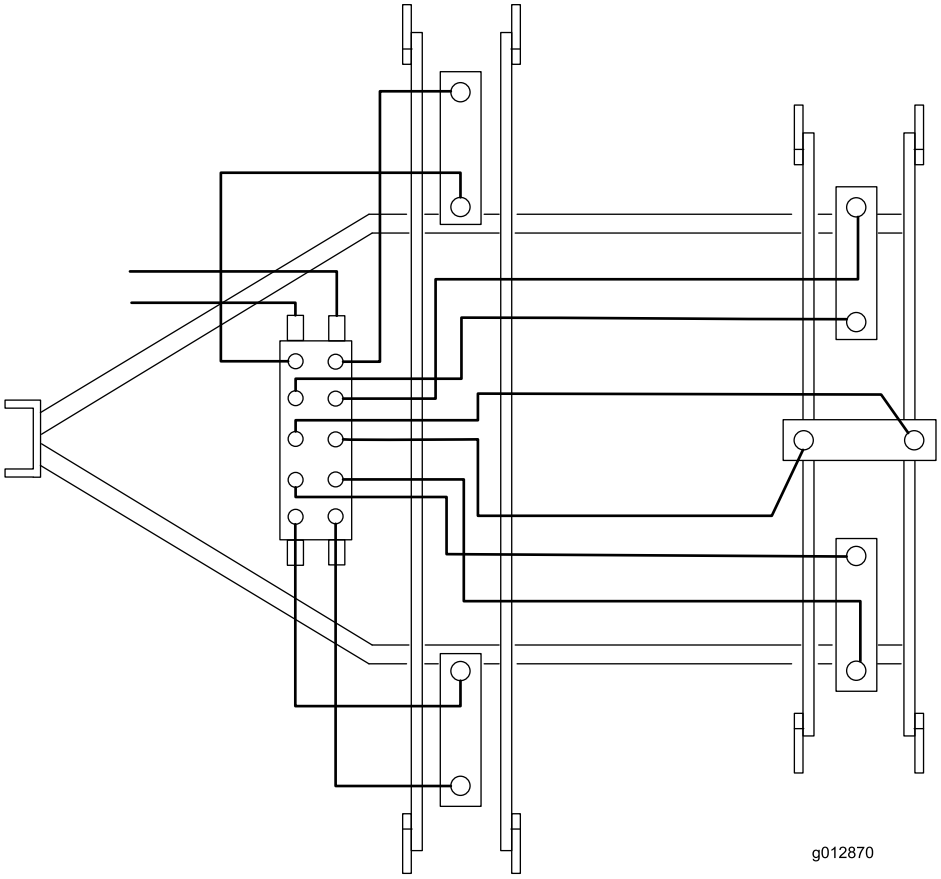


Figure 20

1. Mounting pins on lift arms

Schematics



Hydraulic Schematic (Rev. A)

Notes:

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The Toro Total Coverage Guarantee

A Limited Warranty

Conditions and Products Covered

The Toro® Company and its affiliate, Toro Warranty Company, pursuant to an agreement between them, jointly warrant your Toro Commercial product ("Product") to be free from defects in materials or workmanship for two years or 1500 operational hours*, whichever occurs first. This warranty is applicable to all products with the exception of Aerators (refer to separate warranty statements for these products). Where a warrantable condition exists, we will repair the Product at no cost to you including diagnostics, labor, parts, and transportation. This warranty begins on the date the Product is delivered to the original retail purchaser.
* Product equipped with an hour meter.

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:

Commercial Products Service Department
Toro Warranty Company
8111 Lyndale Avenue South
Bloomington, MN 55420-1196
E-mail: commercial.warranty@toro.com

Owner Responsibilities

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

Items and Conditions Not Covered

Not all product failures or malfunctions that occur during the warranty period are defects in materials or workmanship. This warranty does not cover the following:

- Product failures which result from the use of non-Toro replacement parts, or from installation and use of add-on, or modified non-Toro branded accessories and products. A separate warranty may be provided by the manufacturer of these items.
- Product failures which result from failure to perform recommended maintenance and/or adjustments. Failure to properly maintain your Toro product per the Recommended Maintenance listed in the *Operator's Manual* can result in claims for warranty being denied.
- Product failures which result from operating the Product in an abusive, negligent or reckless manner.
- 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, brakes pads and linings, clutch linings, blades, reels, bed knives, tines, spark plugs, castor wheels, tires, filters, belts, and certain sprayer components such as diaphragms, nozzles, and check valves, etc.
- 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, fertilizers, water, or chemicals, etc.
- Normal noise, vibration, wear and tear, and deterioration.
- 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.

Parts

Parts scheduled for replacement as required maintenance are warranted for the period of time up to the scheduled replacement time for that part. Parts replaced under this warranty are covered for the duration of the original product warranty and become the property of Toro. Toro will make the final decision whether to repair any existing part or assembly or replace it. Toro may use remanufactured parts for warranty repairs.

Note Regarding Deep Cycle Battery Warranty:

Deep cycle batteries have a specified total number of kilowatt-hours they can deliver during their lifetime. Operating, recharging, and maintenance techniques can extend or reduce total battery life. As the batteries in this product are consumed, the amount of useful work between charging intervals will slowly decrease until the battery is completely worn out. Replacement of worn out batteries, due to normal consumption, is the responsibility of the product owner. Battery replacement may be required during the normal product warranty period at owner's expense.

Maintenance is at Owner's Expense

Engine tune-up, lubrication cleaning and polishing, replacement of Items and Conditions Not Covered filters, coolant, and completing Recommended Maintenance are some of the normal services Toro products require that are at the owner's expense.

General Conditions

Repair by an Authorized Toro Distributor or Dealer is your sole remedy under this warranty.

Neither The Toro Company nor Toro Warranty Company is liable for indirect, incidental or consequential damages in connection with the use of the Toro Products covered by this warranty, including any cost or expense of providing substitute equipment or service during reasonable periods of malfunction or non-use pending completion of repairs under this warranty. 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 this express warranty. Some states do not allow exclusions of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Note regarding engine warranty:

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) and/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 Engine Emission Control Warranty Statement printed in your *Operator's Manual* or contained in the engine manufacturer's documentation for details

Countries Other than the United States or Canada

Customers who have purchased Toro products exported from the United States or Canada should contact their Toro Distributor (Dealer) to obtain guarantee policies for your country, province, or state. If for any reason you are dissatisfied with your Distributor's service or have difficulty obtaining guarantee information, contact the Toro importer. If all other remedies fail, you may contact us at Toro Warranty Company.