




Model No. 41185-90001 &amp; UP

OPERATOR'S, SET-UP,  
& PARTS MANUAL

## ROPS for the MULTI-PRO® 1100 Vehicle

To assure maximum safety, optimum performance, and to gain knowledge of the product, it is essential that you or any other operator of this Vehicle read and understand the contents of this manual before the engine is ever started. Pay particular attention to the **SAFETY INSTRUCTIONS** highlighted by the triangular safety alert symbol.

 The safety alert symbol means **CAUTION, WARNING** or **DANGER** - personal safety instruction. Failure to comply with the instruction may result in personal injury.

## SAFETY INSTRUCTIONS

Keep this Operator's Manual in the plastic tube behind the operator seat.

It is very important that all persons operating this equipment have easy access to these instructions at all times!

Carefully read and follow the "Set-Up" Instructions that are provided with this equipment and the Safety Instructions in the Multi-Pro™ 1100 Operator's Manual.

### RECOGNIZE SAFETY INFORMATION



This safety-alert symbol is used to call attention to a **dangerous** situation, which could result in serious injury or death to the operator or a bystander.

Safety, mechanical and some general information in this manual are emphasized. **DANGER, WARNING** and **CAUTION** identify safety messages. Whenever the triangular safety symbol appears, it is followed by a safety message that must be read and understood. For more details concerning safety, read the Safety Instructions on this page and page 2. **IMPORTANT** identifies special mechanical information and **NOTE** identifies general information worthy of special attention.

These instructions are provided as a guide for the safe operation and maintenance of this equipment. However, the operator's personal safety, as well as those persons in the work area, will depend on the careful actions and good judgement of the operator. **To reduce the potential for injury or death, comply with the following safety instructions.**

#### BEFORE OPERATING:

1. Operate this machine equipped with this ROPS only after reading and understanding the contents of this manual and the Multi-Pro™ 1100 Operators Manual. A replacement manual is available by sending complete model and serial number to: Hahn Inc., 1625 N. Garvin, Evansville, IN 47711.

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

3. It is mandatory to wear the seat belt at all times when operating the machine equipped with the ROPS system. (Always adjust and secure Seat Belt before operating the machine.)

#### WHILE OPERATING:

1. Since this attachment adds extra weight to the vehicle, drive safely and cautiously to prevent loss of control and possible upset.

2. Gross vehicle weight has a major impact on your ability to stop and/or turn. Heavier loads and heavier attachments make a vehicle harder to stop or turn. The heavier the load, the longer it takes to stop.

3. The ROPS is equipped with a roll bar, shoulder restraints and seat belt. The ROPS system used on the vehicle will reduce the risk of serious or fatal injury in the unlikely event of a tip over, although the system cannot protect the operator from all possible injuries.

4. Replace a damaged ROPS, do not repair or revise. Any alteration of ROPS must be approved by the manufacturer.

# SAFETY INSTRUCTIONS

## SEAT BELT OPERATION:

1. Pull the seat belt across lap and latch. Extend belt completely from retractor and adjust out slack.



### WARNING

**Non-locking retractor effective only when belt is fully extended.**

- **An improperly latched seat belt could result in the operator being thrown from the vehicle.**
- **Being thrown from vehicle can result in serious injury or death.**
- **Read and understand these instructions and charts, and all seat belt safety information presented here.**

## TORQUE SPECIFICATION CHART

BOLT SIZE	TORQUE VALUE
3/8"	30 FT. LB.
7/16"	50 FT. LB.
1/2"	75 FT LB.

3. 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 equipment in any manner may affect the machine's operation, performance, durability or its use may result in injury or death. Such use could void the product warranty of The TORO Company.

## MAINTENANCE:

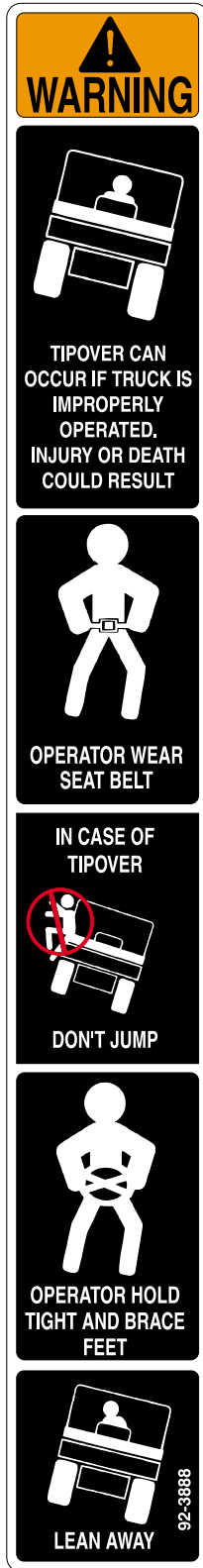
1. Before servicing or making any adjustments to the Sprayer:

- A. Stop the Vehicle and set the parking brake.
- B. Shut off the vehicle's engine and remove key from ignition.
- C. Disengage all power and wait until all moving parts have stopped.

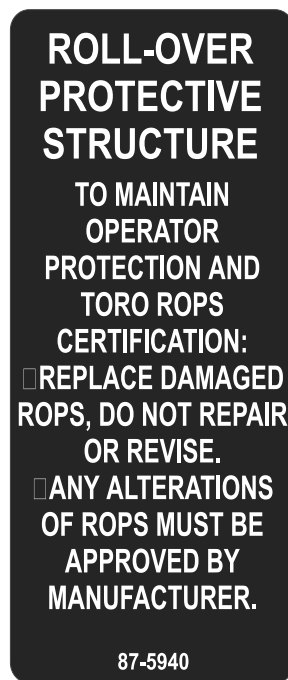
2. Keep all nuts, bolts and other fasteners tightened to torque. Replace any shields removed during servicing or adjustments.

# SAFETY AND INSTRUCTION DECALS

The following safety and instruction decals are installed on the Rops. If any become damaged or illegible, replace them. Decals and part numbers are listed below and in the parts catalog. Order replacements from your Authorized Toro Distributor.



Part No. 92-3888: Located on the front of Rear ROPS Bar - R.H.S.



Part No. 87-5940: Located below Decal No. 92-3888.

# SET-UP INSTRUCTIONS

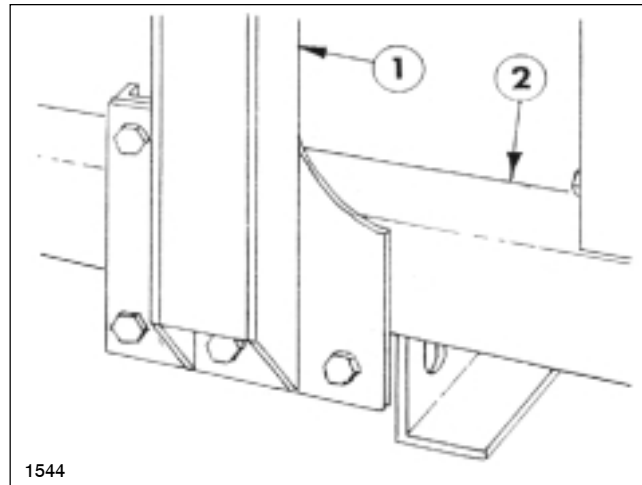
**IF INSTALLING OPERATOR ENCLOSURE AT THIS TIME, DELETE STEPS 6-8, AND REFER TO THE SET-UP INSTRUCTIONS PROVIDED WITH THAT KIT FOR THESE ASSEMBLY PROCEDURES.**

**IF MACHINE IS ALREADY EQUIPPED WITH A HOSE REEL KIT, REMOVE AND DISCARD EXISTING HOSE REEL MOUNT ANGLE ASSEMBLIES.**

AN ASSISTANT MAY BE NEEDED WHILE INSTALLING THE ROPS PACKAGE ON THE TORO MULTI-PRO™ 1100 AS OUTLINED IN THE FOLLOWING STEPS.

Refer to illustrated parts list for the details of parts used in assembling the ROPS.

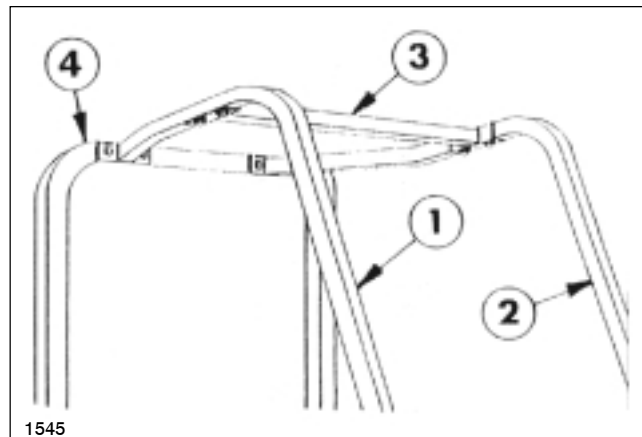
**NOTE: "RIGHT", "LEFT", "FRONT" AND "REAR" ARE REFERENCED WHILE SEATED IN THE OPERATORS POSITION.**



**FIG. 1**

- 1. Rear ROPS Bar
- 2. Vehicle Frame

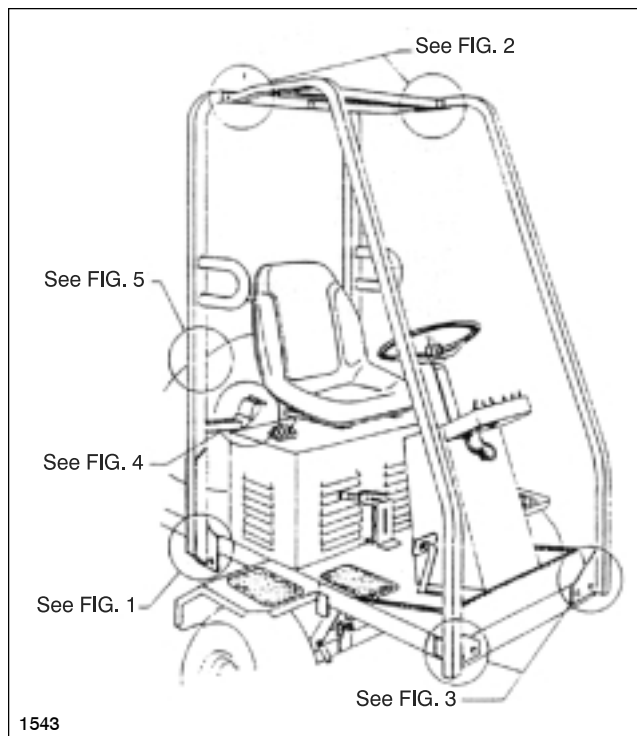
**2.** Loosely mount the left hand ROPS bar to the rear ROPS bar by screwing (2) 3/8" x 1" hex hd. cap screws with lockwashers, into the insert anchors located in the top of rear ROPS bar.



**FIG. 2**

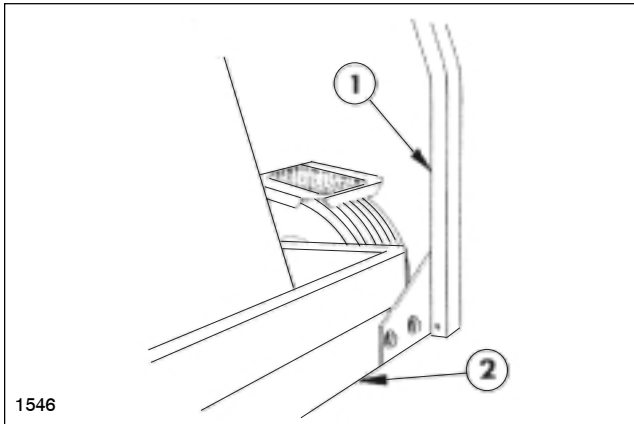
- 1. R.H.-ROPS Bar
- 2. L.H.-ROPS Bar
- 3. ROPS Cross Bar
- 4. Rear ROPS Bar

**3.** Loosely mount the lower end of the hand ROPS bar to the front vehicle frame using (2) 1/2" x 1-1/4" hex hd. cap screws, flatwashers, and lock nuts. Start nuts on bolts by hand. See FIG. 3.



**1.** Open shipping carton, remove the shipping clamps and rear ROPS bar. Mount the ROPS bar to the vehicle frame by inserting (8) 1/2" x 1-1/4" hex. hd. cap screws through the ROPS bar and the vehicle frame. Start nuts on bolts by hand. Use a torque wrench and torque nuts to 75 ft. lb. See FIG. 1.

# SET-UP INSTRUCTIONS



**FIG. 3**

1. L.H.-ROPS Bar      2. Left Front Vehicle Frame

4. Loosely mount the right hand ROPS bar to the rear ROPS bar by screwing (2) 3/8" x 1" hex hd. cap screws with lockwashers, into the insert anchors located in the top of the rear ROPS bar.

5. Loosely mount the lower end of the right ROPS bar to the right front vehicle frame using (2) 1/2" x 1-1/4" hex hd. cap screws, flatwashers, and lock nuts. Start nuts on bolts by hand. See FIG. 3.

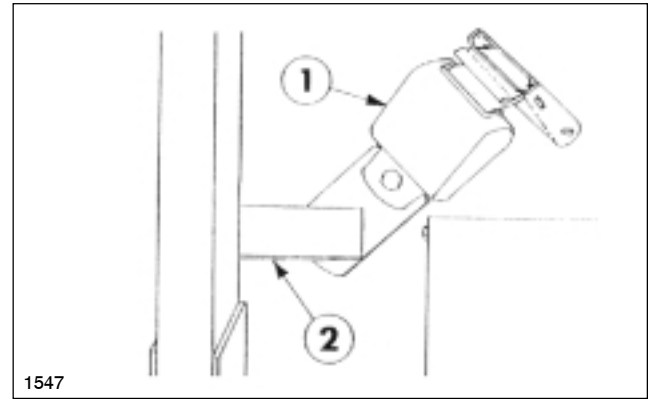
6. Loosely mount the ROPS cross bar to the right and left hand ROPS bars by screwing (4) 3/8" x 1" hex. hd. cap screw with flatwashers and lockwashers, into the insert anchors located in the ROPS bars. See FIG. 2.

7. Align the ROPS bars and using a torque wrench, tighten the mounting bolts to their proper torque specifications as outlined in the TORQUE SPECIFICATION CHART.

8. Mount the seat belt assembly to the rear ROPS bar at a 45° angle using (2) 7/16" x 1-1/4" hex. hd. cap screws, lockwashers, and hex nuts as shown in FIG. 4. Using a torque wrench, torque nuts to 50 ft. lb.

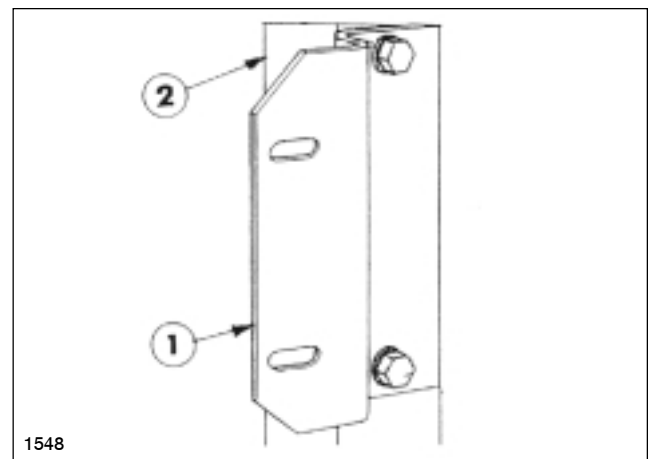
NOTE: THE FOLLOWING STEP APPLIES ONLY IF A HOSE REEL KIT IS TO BE INSTALLED ON THE MULTI-PRO™ VEHICLE.

9. Mount the hose reel mounting plates to the rear ROPS bar by screwing (4) 3/8" x 1" hex. hd. cap screws with lockwashers attached, into the insert anchors in the ROPS bar and tighten to 30 ft. lb. See FIG. 5.



**FIG. 4**

1. Seat Belt Assembly      2. Rear ROPS Bar



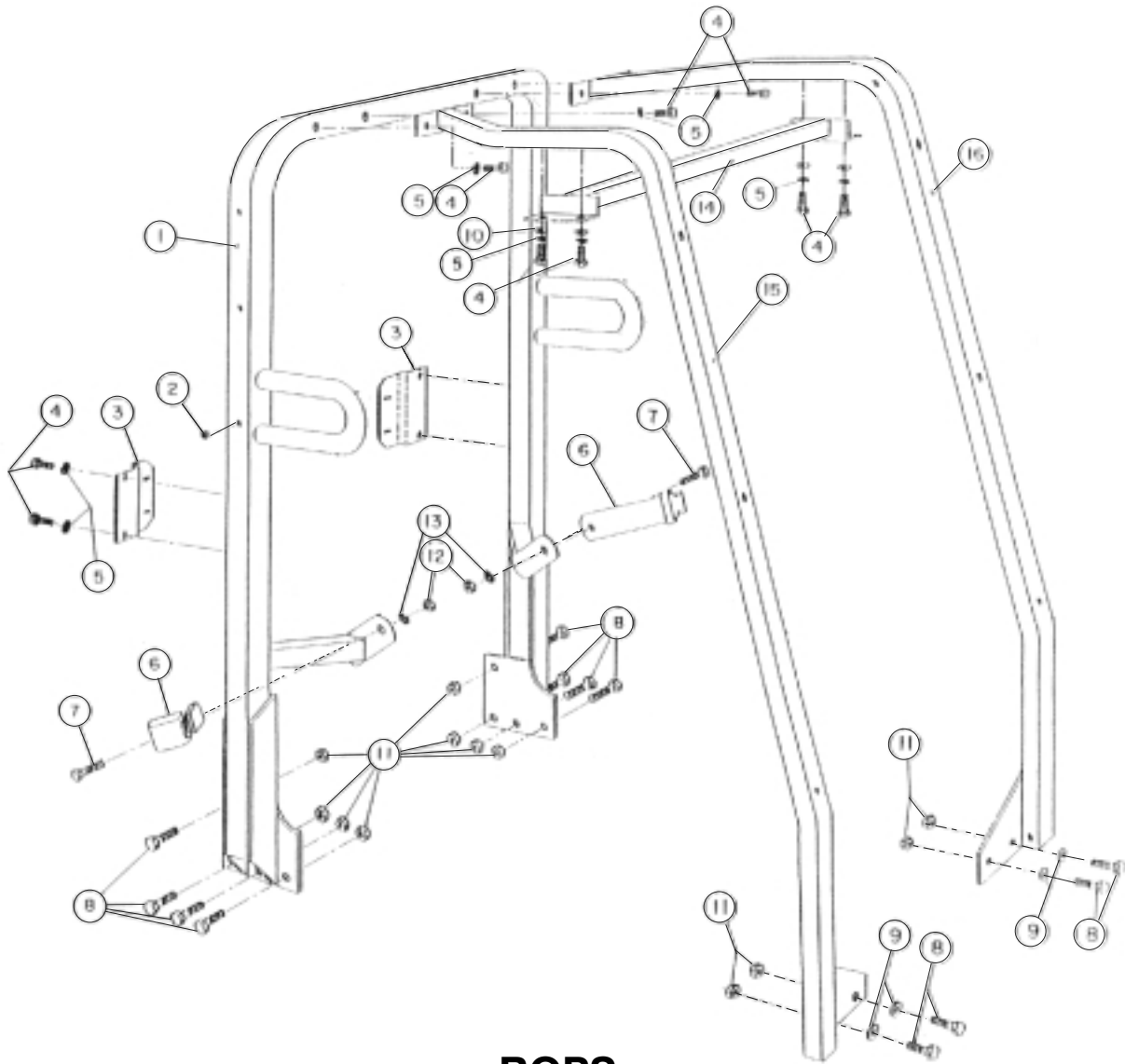
**FIG. 5**

1. Hose Reel Mounting Plate      2. Rear ROPS Bar

## TORQUE SPECIFICATION CHART

BOLT SIZE	TORQUE VALUE
3/8"	30 FT. LB.
7/16"	50 FT. LB.
1/2"	75 FT LB.

**NOTE: TO ENSURE THE STRUCTURAL RIGIDITY OF ROPS SYSTEM, MAINTAIN THE TORQUE VALUES ON THE ATTACHING HARDWARE AS OUTLINED ABOVE.**



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## ROPS

Ref.	Part No.	Description	Qty.
1	92-3793	Rear ROPS Bar	1
2	92-3983	Insert Anchor 1/4" (with setting tool) f/w 92-3793	23
3	92-3964	Hose Reel Mounting Plate	2
4	323-6	HHCS 3/8-16 UNC x 1"	12
5	3253-11	Lockwasher 3/8	8
6	21-4191	Seat Belt Assembly	1
7	324-5	HHCS 7/16-14 x 1-1/4"	2
8	325-5	HHCS 1/2-13 UNC x 1-14"	12
9	3256-6	Flatwasher 1/2	4
10	3256-4	Flatwasher 3/8	4
11	32153-5	Lock Nut 1/2 UNC	12
12	3217-8	Hex Nut 7/16 UNC	2
13	3253-6	Lockwasher 7/16	2
14	92-3801	ROPS Cross Bar	1
15	92-3795	Right Hand ROPS Bar	1
16	92-3799	Left Hand ROPS Bar	1



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