# RECEIVER BOX TRAILER OPERATOR'S MANUAL

DO NOT OPERATE THIS EQUIPMENT UNTIL THIS MANUAL HAS BEEN READ AND UNDERSTOOD.



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12.10687D 3/06

# **GENERAL INFORMATION**

The purpose of this manual is to assist the operator in maintaining and operating the Receiver Box Trailer. Read it carefully; it furnishes information and instructions that will help you achieve years of dependable service.

Each section of this manual is clearly identified and is divided into smaller sections.

All replacement parts should be obtained from, or ordered through your Miller dealer. Give complete information when ordering service parts including the model number and serial number. Record numbers in the space provided as a handy record for quick reference.

Model No	Serial No
Date Purchased	

The serial number for this unit is located on the Left Side of the hitch near the jack.

Miller reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.

#### **IDENTIFYING TERMS**

"LEFT" and "RIGHT" are determined from a position standing at the rear of the unit looking toward the direction of travel. "FRONT" is the leading end and "REAR" is the trailing end when the tractor is traveling forward.

#### **WARRANTY REGISTRATION**

The <u>DELIVERY AND WARRANTY REGISTRATION CARD</u> found in this manual must be completed and signed to validate your warranty protection. You must read and understand the places where you attest to having received instructions as to care, adjustments, safe operation and applicable warranty policy. The terms and conditions of the warranty are specified on the inside back cover of this manual.

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# **MILLER RECEIVER BOX TRAILER**

**DELIVERY CHECK LIST** 

to the customer.

The following check list is an important

reminder of valuable information that MUST be passed on to the customer at the time the unit is

delivered. Check off each item as you explain it

#### PRE-DELIVERY CHECK LIST

After the Miller Receiver Box Trailer has been completely set-up, check to be certain it is in correct running order before delivering it to the customer. The following is a list of points to inspect. Check off each item as you have made the proper adjustments and found the item operating satisfactorily. Any adjustment must be made according to specifications

tem operating satisfactorily. Any adjustment must be made according to specifications defined in this manual.	[] Give the customer his Operator's Manual. Instruct them to be sure to read and completely understand its contents BEFORE attempting to operate the unit.
All grease fittings have been lubricated. See 'Lubrication" section in this manual.  All mechanisms are operating trouble free.  All bolts and other fasteners are tight and orqued per torque specifications.	[] Explain the warranty.  [] Explain and review with the customer the Safety Precautions section of this manual.  [] Explain and review with the customer the Operating and Safety Equipment section of this manual.  [] Explain that regular lubrication and proper adjustments are required for continued proper operation and long life. Review with the customer the Maintenance and Adjustments sections of this manual.  [] Complete the Delivery Registration Card and
Dealer's Name	have customer sign it and return it to Miller-St. Nazianz, Inc.  I acknowledge that above points were reviewed with me at the time of delivery.
Signature of Pre-Delivery Inspector	Customer's Signature
Date of Inspection	Date Delivered
Model No.	
Serial No.	(Customer Copy)

#### MILLER RECEIVER BOX TRAILER

#### PRE-DELIVERY CHECK LIST **DELIVERY CHECK LIST** After the Miller Receiver Box Trailer has The following check list is an important been completely set-up, check to be certain it reminder of valuable information that MUST be is in correct running order before delivering it to passed on to the customer at the time the unit is the customer. The following is a list of points to delivered. Check off each item as you explain it to the customer. inspect. Check off each item as you have made the proper adjustments and found the item operating satisfactorily. Any adjustment [] Give the customer his Operator's Manual. must be made according to specifications Instruct them to be sure to read and completely defined in this manual. understand its contents BEFORE attempting to operate the unit. [] All grease fittings have been lubricated. See [] Explain the warranty. "Lubrication" section in this manual. [] Explain and review with the customer the Safety Precautions section of this manual. [] All mechanisms are operating trouble free. [] Explain and review with the customer the Operating and Safety Equipment section of this [] All bolts and other fasteners are tight and manual. torqued per torque specifications. [] Explain that regular lubrication and proper adjustments are required for continued proper operation and long life. Review with the customer the Maintenance and Adjustments sections of this manual. [] Complete the Delivery Registration Card and have customer sign it and return it to Miller-St. Nazianz, Inc. I acknowledge that above points were reviewed with me at the time of delivery. Dealer's Name Signature of Pre-Delivery Inspector Customer's Signature Date of Inspection Date Delivered

(Dealer Copy)

Model No.

Serial No.

# SAFETY PRECAUTIONS



This symbol is used to call your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions. Take time to be careful.

#### **WARNING**

Before you attempt to operate this receiver box trailer, read and study the following safety information. In addition, make sure that every individual who operates or works with this equipment, whether family member or employee, is familiar with these safety precautions. The Operator's Manual warns you of dangers and should be read and observed closely.

The towed implement and its load must not exceed one-and-one half (1-1/2) times the weight of the towing vehicle. Be sure that the towing vehicle is heavy enough and designed to handle the total (loaded) weight of the towed implement(s).

**<u>DO NOT</u>** travel on public highways unless adequate warning devices are used to alert other drivers.

**<u>DO NOT</u>** drive too close to ditches or creeks; be sure surrounding ground has adequate strength to support the weight of the loaded receiver box trailer.

**DO NOT** attempt to ride on the pole of the receiver box trailer.

**DO NOT** tow receiver box trailer faster that 20 mph (32 kph)

**DO NOT** tow receiver box trailers in tandem on public roads.

**ALWAYS** use a safety or locking hitch pin.

**ALWAYS** keep the towing vehicle in gear when descending steep grades.

**ALWAYS** travel slowly around curves and along sidehills to prevent tipping.

**BE SURE** the tires are properly and evenly inflated at all times.

**BE SURE** the wheel lug nuts and other fasteners are kept securely tightened at all times.

# **SAFETY PRECAUTIONS** (continued)

#### **CONNECTING TRAILER TO TOW VEHICLE - Standard Hitch**

<u>ALWAYS</u> use a draw pin with a safety clip heavy enough to handle the anticipated weight.

ALWAYS use a S.M.V. sign and/or lights when using on public roads.

<u>ALWAYS</u> follow state and local regulations regarding a safety chain and auxiliary lighting when towing farm equipment on a public highway. Be sure to check with local law enforcement agencies for your own particular regulations. Only a safety <u>chain</u> (not an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines in the event of separation of the primary attaching system.

#### **CONNECTING TRAILER TO TOW VEHICLE - Pintle Style Hitch**

<u>ALWAYS</u> connect to the pintle style receiver on the tow vehicle and lock securely in place.

<u>ALWAYS</u> properly attach safety chains between tow vehicle and towed implement when traveling on public roads.

ALWAYS use a S.M.V. sign and/or lights when using on public roads.

<u>ALWAYS</u> follow state and local regulations regarding a safety chain and auxiliary lighting when towing farm equipment on a public highway. Be sure to check with local law enforcement agencies for your own particular regulations. Only a safety <u>chain</u> (not an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines in the event of separation of the primary attaching system.

#### DISCONNECTING TRAILER FROM TOW VEHICLE

ALWAYS park on level solid service.

<u>ALWAYS</u> block the tires, front and back, so that the trailer will not roll when disconnecting from towing vehicle.

ALWAYS have jack stand secured properly to trailer and place on a solid surface.

NEVER disconnect when trailer is loaded.

#### **LOADING TRAILER**

<u>ALWAYS</u> be sure to start loading the trailer from the front to put some load on the drawbar before filling behind the axles. Failure to do so could cause the towing vehicle (tractor) to become light on the drive axle and you could loose control of the vehicle.

#### SAFETY PRECAUTIONS



#### **WARNING**

To ensure continued safe operation, replace damaged or worn-out parts with genuine Miller service parts, before attempting to operate equipment.

#### **DECAL LOCATION**



16.20178

Decal is located on the hitch right behind the hitch clevis.



17.01155

Decal is located on the side of the hitch next to the jackstand mount.

#### LUBRICATION

#### **GREASING**

It is well to remember that a sufficient amount of oil or grease will prevent excessive part wear and early failure. Grease fittings are provided on the receiver box trailer at several important pivot points. Fittings should be lubricated at least four times a year. Use a good grade of lithium base grease. Wipe dirt from the fittings before greasing to prevent any dirt from being forced into the bearings or pivots. Replace any missing fittings. To minimize dirt build-up, avoid excessive greasing.

NOTE: In addition to the fittings, inspect and repack the wheel bearings at least twice a year.

#### **Grease Fitting Locations:**

- 1. Left side tandem pivot (one grease fitting on tandem pivot tube).
- 2. Right side tandem pivot (one grease fitting on tandem pivot tube).

# TORQUE SPECIFICATIONS

**NOTE:** Use these torque values when tightening hardware (excluding: Locknuts and Self-tapping, Thread Forming and Sheet Metal Screws) unless specified otherwise.

All torque values are in Lb-Ft except those marked with an \* which are Lb-In (for metric torque value Nm, multiply Lb-Ft value by 1.355 or Lb-In value by 0.113)

Unified	Grade 2		Grade 5		Grade 8	
National Thread	Dry	Lubed	Dry	Lubed	Dry	Lubed
8-32	19*	14*	30*	22*	41*	31*
8-36	20*	15*	31*	23*	43*	32*
10-24	27*	21*	43*	32*	60*	45*
10-32	31*	23*	49*	36*	68*	51*
1/4-20	66*	50*	9	75*	12	9
1/4-28	76*	56*	10	86*	14	10
5/16-18 5/16-24	11 12	9	17 19	13 14	25	18 20
3/8-16	20	15	30	23	45	35
3/8-24	23	17	35	25	50	
7/16-14	32	24	50	35	70	55
7/16-20	36	27	55	40	80	60
1/2-13	50	35	75	55	110	80
1/2-20	55	40	90	65	120	90
9/16-12	70	55	110	80	150	110
9/16-18	80	60	120	90	170	130
5/8-11	100	75	150	110	220	170
5/8-18	110	85	180	130	240	180
3/4-10	175	130	260	200	380	280
3/4-16	200	150	300	220	420	320
7/8-9	170	125	430	320	600	460
7/8-14	180	140	470	360	660	500
1-8	250	190	640	480	900	680
1-14	270	210	710	530	1000	740
Metric	Grade 8	.8 🕡	Grade 10.9 (10.9)		Grade 12.9 (12.9)	
Course Thread	Dry	Lubed	Dry	Lubed	Dry	Lubed
M6-1	8	6	11	8	13.5	10
M8-1.25	19	14	27	20	32.5	24
M10-1.5	37.5	28	53	39	64	47
<sup>-</sup> M12-1.75	65	48	91.5	67.5	111.5	82
M14-2	103.5	76.5	145.5	108	176.5	131
M16-2	158.5	117.5	223.5	165.5	271	200

#### SET-UP & ASSEMBLY



#### **CAUTION**

Handle the component assemblies carefully to avoid injury; they are very heavy and awkward.

NOTE: Use a lift truck or overhead hoist to aid in the handling the heavy components. Before proceeding, have the tires mounted on the wheels and know what the bolster settings should be.



#### **CAUTION**

If receiver box trailer is ordered without mounted tires, it is recommended that tire mounting only be attempted by a qualified tire manufacturer's installer or properly trained personnel according to the manufacturer's instructions.

#### 1. INSTALLING TANDEM AXLES

Support the trailer frame above the floor approximately two feet using support stands. BE CERTAIN it is securely in place.

The tandem axles must be mounted correctly for proper performance. The tandem when mounted should have the leg with the longer distance between the tandem pivot and the spindle towards the front. Using a hoist, set the tandems in place and slide the shaft through the pivot holes in the frame and the bushings in the tandem. The flat plate on the end of the shaft should point up. Insert the cap screw through the flat plate and turn the cap screw into the threaded hole in the pivot leg, tighten and grease each tandem pivot (one grease fitting per tandem).

NOTE: Tandems are the same for the left and right side.

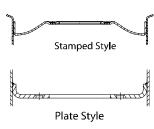
#### 2. **INSTALLING WHEELS AND TIRES**

When installing the wheels to the hubs be **certain** 

- a. There is ample clearance in all directions.
- b. If the rim is Stamped Style use tapered lug nuts. See Figure.
  If the rim is Plate Style use flanged lug nuts. See Figure.
- c. The centering ring on the hub matches the center hole in the rim.
- d. The rim is tight against the hub flange.
- e. To tighten lug nuts evenly and torque lug nuts to 150 ft/lbs.



The stake pockets can be mounted in different locations to adapt to your needs. When mounting a forage box it is recommended to install the front set of stake pockets in the front set of the holes.



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# **SET-UP & ASSEMBLY** (continued)

The following is a chart of recommended spacings: The distance is measured from the inside of stake pocket to inside of stake pocket.

Box Length	Stake Pockets	Box Saddle		
Std. (270") Trailer:	(Inside to inside)	(Inside to inside)		
16' Front Unload	124 1/2"	124"		
18' Front Unload	147"	146 ½"		
18' Front/Rear	147"	146 ½"		
18' Rear Unload	139½"	139"		
20' Rear Unload	147"	146 ½"		
XL Trailer (293") Required:				
20' Front	169 1/2"	169"		
20' Front/Rear	169 1/2"	169"		

Note: See Forage Box Owner's Manual for saddle adjustment. Note: Box saddle dimensions <u>DOES NOT</u> center forage box saddles on trailer bolster but are biased to prevent movement.

#### 4. INSTALLING SAFETY CHAIN

It is recommended that the safety chain option is purchased (part no. 12.00040). Install the safety chain using the 3/4" bolt, nut and washer provided to the lower clevis plate, in the 3/4" hole closest to the pull tube for standard hitch. For pintle style hitch, mount the safety chains in one of the unsed holes in the end of the hitch where the pintle is mounted to. The chain should be under the lower clevis plate or the pintle.

#### 5. TIEING DOWN THE FORAGE BOX

When tieing down the forage box, use the chains supplied with the forage box. Secure chains tightly between the forage box saddle and the trailer frame. DO NOT leave any slack in the chains.

#### 6. **BALANCING THE TRAILER**

It is very important to balance the trailer properly after securing the forage box to the trailer. Load the trailer and forage box to your desired full load. DO NOT EXCEED a gross vehicle weight of 30,000 or 32,000 lbs depending on spindle diameter as shown in the "Specifications" on page 14. (trailer, box, and load). Weigh the trailer hitch by lowering the jack stand onto a scale. **DO NOT** remove the draw pin. Raise the clevis just high enough to clear the tractor draw bar or receiver pintle. The maximum weight should not exceed 2,000 lbs. The minimum should be 1,000 lbs. If this is not obtained, unload the forage box, relocate the forage box on the trailer by moving the stake pockets and/or the saddles and reweigh.

# **ADJUSTMENTS**

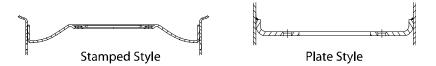
#### **WHEELS**



#### **WARNING**

Always order and install tires and wheels with appropriate capacity to meet or exceed the anticipated weight to be placed on the receiver box trailer.

Be sure the wheel lug nuts are the appropriate style to match the style of your wheel. Stamped style wheels require tapered lug nuts. See Figure below. Plate style wheels require flanged lug nuts. See Figure below.



The pressure should be frequently checked and maintained at the appropriate values.



#### **WARNING**

Frequently check the wheel lug nuts to make sure they are securely fastened. Nuts should be torqued to 150 ft/lbs.

#### WHEEL BEARINGS

To adjust the wheel bearings, remove the grease cap and cotter pin. Tighten the slotted nut until there is a slight drag on the wheel. Then, back the nut off one notch and lock its position with the cotter pin. Replace the grease cap after the adjustment is made.

# **SPECIFICATIONS**

# GENERAL TABLE OF SPECIFICATIONS & DIMENSIONS for standard length and extra long models

	Std.	XL
Rated Capacity (GVW) with 2 3/4" spindle Shipping weight less tires	30,000 lbs. 2,360 lbs.	30,000 lbs. 2,430 lbs.
Rated Capacity (GVW) with 3" spindle Shipping weight less tires	32,000 lbs. 2,400 lbs.	·
Approximate Height with 16.5 x 16.1 Tires Approximate Clearance with 16.5 x 16.1 Tires	32 3/4" s 16"	32 3/4" 16"
Approximate Height with 16.5 x 22.5 Tires Approximate Clearance with 16.5 x 22.5 Tires	33" s 16 1/4"	33" 16 1/4"
Overall Length Length from pin or pintle hole to oscillation	270" 213"	293" 231"
Overall Width Less Tires & Rims Tread Width	90" 81 3/4"	90" 81 3/4"
Spindle Diameter Spindle Diameter Hubs	2 3/4" 3" 8 bolt	2 3/4" 3" 8 bolt
Bolster Stake width Bolster Stake Adjustment For and Aft	42"	42"
	1/2" to 154 1/2" 1	35 1/2" to 184 1/2"

Boister Stakes Adjust at 3 3/4" intervals

# OPTIONAL FEATURES & ACCESSORIES

#### SAFETY CHAIN (Part No. 12.00040)

If receiver box trailer is going to be transported on a public highway, a safety chain should be obtained from your MILLER dealer and installed. Always follow state and local regulations regarding a safety chain and auxiliary lighting when towing farm equipment on a public highway. Be sure to check with local law enforcement agencies for your own particular regulations. Only a safety chain (not an elastic or nylon/plastic tow strap) should be used to retain the connection between the towing and towed machines in the event of separation of the primary attaching system.

#### 38" BOLSTER STAKES ARE NOT AVAILABLE

#### **BRAKES**

For those applications where brakes are needed, Miller offers brakes for this trailer – contact your MILLER dealer.

# **OPTIONAL FEATURES & ACCESSORIES** (continued)

#### **WHEELS & TIRES**



#### **WARNING**

Always order and install tires and wheels with appropriate capacity to meet or exceed the anticipated speed and weight to be placed on the receiver box trailer.

Be sure the wheel lug nuts are the appropriate style to match the style of your wheel. Stamped style wheels require tapered lug nuts. See Figure below. Plate style wheels require flanged lug nuts. See Figure below.





# **CAUTION**

Tire mounting, repair and replacements should only be attempted by a qualified tire manufacturer's representative or by properly trained personnel following the tire manufacturer's instruction. If you do not have such instructions, contact your tire dealer or Miller-St. Nazianz.



#### WARNING

Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires. In any event, to avoid possible fatal or serious injury, follow the safety precautions below:

Be sure the rim is free of rust. Lubricate both the tire beads and rim flanges with a soap solution. Do not use oil or grease. Use a clip-on tire chuck with remote hose and gauge that allows you to stand clear of the tire while inflating it.

Never inflate beyond 35 psi to seat the beads. If the beads have not seated by the time the pressure reaches 35 psi, deflate the assembly, reposition the tire on the rim, relubricate both the tire and rim and reinflate it. Inflation pressure beyond 35 psi with unseated beads may break the bead or rim with explosive force sufficient to cause fatal or serious injury. After seating the beads, adjust the inflation pressure to the recommended operating pressure listed. Do not weld, braze or otherwise attempt to repair and use a damaged rim.

# NOTES

# WARRANTY

Miller-St. Nazianz, Inc. ("Miller") warrants each new Miller receiver box trailer to be free from defects in material and workmanship under recommended use and service, as stated in the Operator's Manual, as follows:

Miller will replace, F.O.B. St. Nazianz, Wisconsin, or repair, as Miller elects, any part of a new Miller receiver box trailer which is defective in material or workmanship without charge for either parts or labor during the first year following delivery to the original retail customer and without charge for parts only (not labor) during the second year.

All warranties on the new Miller receiver box trailer shall apply only to the original retail purchaser from an authorized Miller dealer.

Miller warrants that it will replace, F.O.B. St. Nazianz, Wisconsin, or repair, as Miller elects, without charge, any genuine Miller spare part purchased after the expiration of the new receiver box trailer warranty that are defective in material or workmanship within ninety (90) days of the installation date.

The provisions of this warranty shall not apply to any Miller receiver box trailer which has been subject to misuse, negligence, alteration or accident, or which shall have been repaired with parts other than those obtainable through Miller.

Repairs eligible for labor warranty must be made by an authorized Miller dealer. The purchaser is responsible for transportation of the equipment to the dealership for warranty service or for any service call expense.

Except as set forth above, Miller shall not be liable for injuries or damages of any kind or nature, direct, consequential, to person or property. This warranty does not extend to loss of crops, loss because of machinery rental or for any other reasons. No person is authorized to give any other warranties or, to assume any other obligation on Miller's behalf unless made or, assumed in writing by Miller.

THERE ARE NO WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR PARTICULAR PURPOSE INTENDED OR FITNESS FOR ANY OTHER PURPOSE.



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