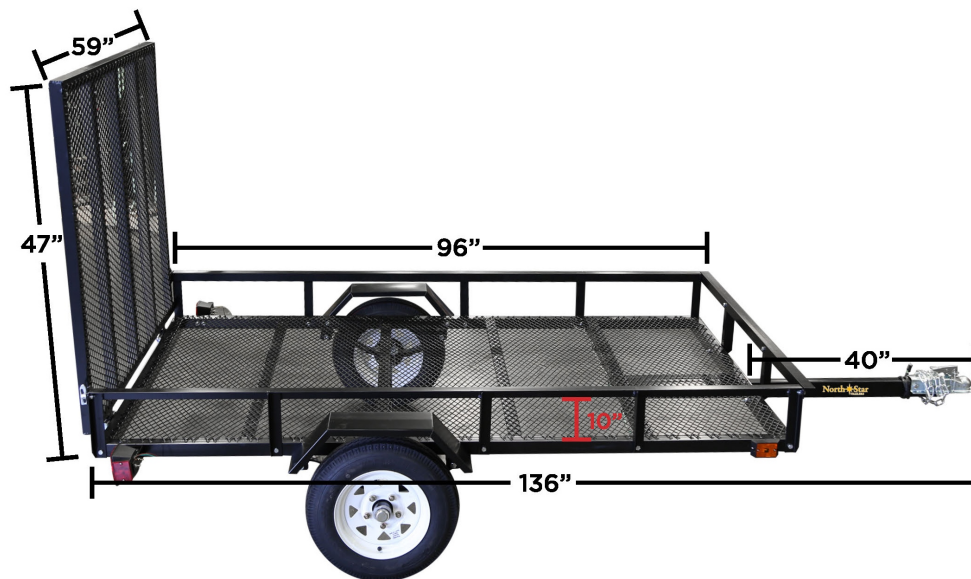


North Star TRAILER

Assembly Guide for Allstar/NN58 Trailer



Congratulations!

You are the proud owner of a NORTHSTAR trailer. Please follow the instructions and steps in this manual for proper assembly.

Routine maintenance and safety instructions can be found in the Owner's Manual.

STOP! Do Not Return to Store!

We are here to help!

If you have any questions about your assembly, including missing or damaged parts, please contact us at **1-801-375-3088**, or by email at info@northstartrailer.com.

TRAILER PARTS LIST

Your Northstar NN58 Trailer should have arrived with three separate boxes, the Trailer Box, the Wheel Assembly Box, and the Hardware Box.

If you are missing any of the parts listed below or if any parts are damaged, please

contact NorthStar trailers directly at **1-801-375-3088**, or by email at

info@northstartrailer.com.

Trailer Box (Carton A)			Hardware Box (NN58)		
Part #	Part Description	Qty	Part #	Part Description	Qty
1	Trailer frame (Trailer Deck) with integrated wiring	1	A	U-bolt	4
2	Rear gate	1	B	Spring plates	2
3	Side rail	2	C	Rear gate pin	2
4	Front rail	1	D	Cotter pin	4
5	Front rail supports	2	E	Spare tire lug nut	2
6	Axle	1	F	Taillight/Brake light	2
7	Leaf-spring	2	G	Running light	2
8	Tongue	1	H	Taillight L-bracket	2
9	Wheel and hub assembly	2	I	License plate bracket	1
10	Fender	2	J	Self tapping screws	4
11	Bearing Washer*	2	K	End caps	4
12	Cotter pin*	2	L	Coupler (hitch)	1
13	Hub bearing*	2	M	Coupler safety chain	1
			N	3 inch bolt (19mm)	4
			O	3 ½ inch bolt (19mm)	4
			P	2 ¾ inch bolt (17mm)	16
			Q	1 inch bolt (17mm)	8
			R	19 mm lock nut	8
			S	17 mm lock nut	32
			T	19 mm washer	20
			U	17 mm washer	50

* packed inside the hub of each wheel

Tools needed for assembly:	
<input type="checkbox"/> 10 mm wrench or socket*	<input type="checkbox"/> Needle Nosed Pliers
<input type="checkbox"/> 17 mm wrench or socket* (x2)	<input type="checkbox"/> Grease gun with bearing grease
<input type="checkbox"/> 19 mm wrench or socket* (x2)	<input type="checkbox"/> Hammer with wood scrap or rubber mallet
<input type="checkbox"/> 22 mm wrench or socket*	<input type="checkbox"/> Flat head screwdriver or dust cap remover
<input type="checkbox"/> 32 mm wrench or socket*	<input type="checkbox"/> Phillips head screwdriver
	<input type="checkbox"/> Electric impact wrench (recommended)
	<input type="checkbox"/> Ratchet (if using sockets)

*Medium/Deep Sockets

IMAGES OF PARTS AND HARDWARE

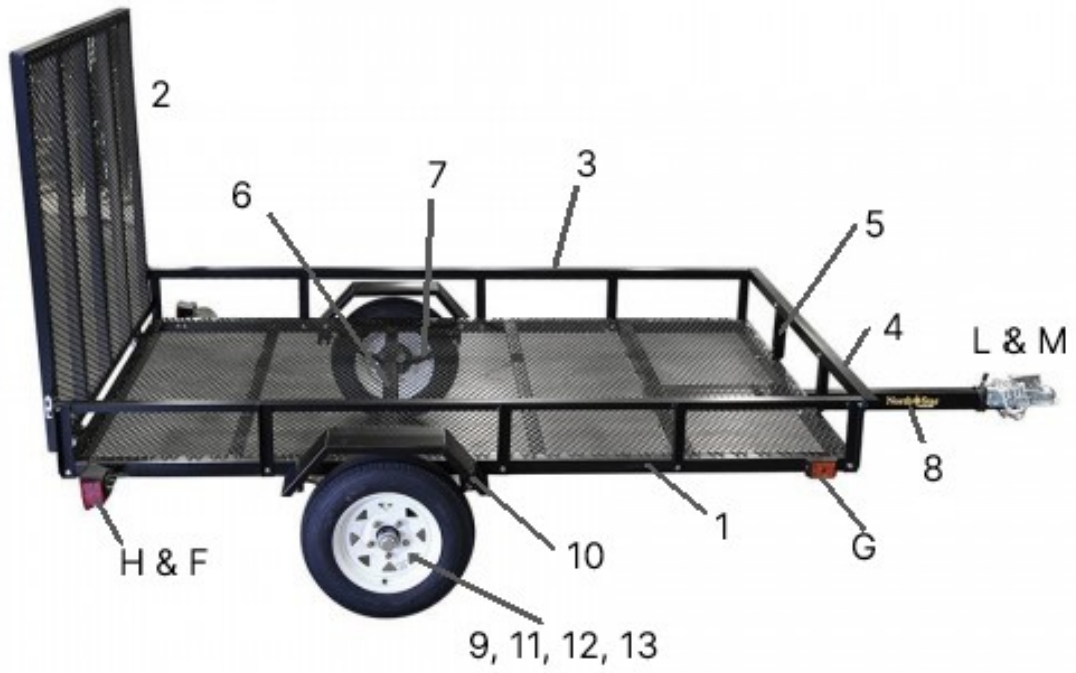


Figure 1. Trailer Box (Carton A)



Figure 2. Hardware Box (NN58)



Note -- Bolts should have one lock nut and two flat washers; one washer for each end of the bolt.

Figure 3. Bolt, Washer, and Lock nut Diagram

ASSEMBLY INSTRUCTIONS

Note -- The first half of this trailer assembly is completed with the trailer upside down. Begin *Step 1* with the Trailer Frame upside-down, so the deck of the trailer is facing the ground.
 If possible, use a table, saw horses, buckets, or scraps of lumber to elevate the trailer frame off the ground. This is not required, but will make the process easier.

CAUTION! This trailer is heavy. More than one person is required to flip the trailer frame and assemble this trailer. Personal injury may occur if you attempt to assemble this trailer alone.

STEP 1: LEAF SPRING ASSEMBLY

- a. Flip the trailer frame (1) upside-down, and place the frame on a waist-high table or other elevated supports in order to facilitate assembly (Note: it is possible to assemble the trailer on the ground, but the process is made easier if the trailer can be elevated).
- b. Position the leaf-spring (7) on the frame's spring casing (welded to the frame) so the eye in the leaf-spring is positioned toward the front of the trailer and aligns with the bolt eyehole in the spring casing.
- c. Fasten the driver side leaf-spring to the casing with 3 ½-inch bolt (O), two 19mm washers (T), and a 19mm locknut (R) by inserting the bolt through the leaf-spring and through the eyeholes in the casing. (Leave tension loose to allow play when aligning the axle; you will securely tighten bolts in step "1-h".) Note - the nut should be located on the inside of the trailer, with the bolt head facing the outside.
Repeat with the passenger side leaf-spring, leaving the tension loose to allow play in the leaf spring.
- d. Secure the hooked end (rear of the trailer) of the leaf-spring to the casing by running a 3 ½-inch bolt (O) with 19mm washer (T) through the eyeholes of the leaf-spring casing and over the flat side of the leaf-spring. Fasten the bolt with a 19mm locknut (R) and 19mm washer.
Repeat with the passenger side leaf-spring, leaving the tension loose to allow play in the leaf spring.
- e. Lay the axle (6) on top of the leaf-springs, and align the holes in the axle knobs with the posts on the leaf-springs. The axle will lie snug on top of the springs.

STEP 2: AXLE ASSEMBLY

- f. Take two U-bolts (A) and slide them over the axle on either side of the drivers side leaf-spring, so the bolts hang over the axle and on both sides of the leaf-spring. Attach the spring-plate (B) to the U-bolts on the underside of the leaf-spring using four 17mm locknuts (S), and four 17mm washers (U), and tighten the locknuts to finger-tightness. Repeat with the passenger side, securing the axle to the passenger side leaf-spring using the remaining two U-bolts, spring-plate, and four 17mm locknuts and washers. Again, tighten the locknuts to finger-tightness.
- g. Beginning on the drivers side, use a ratchet with a 17mm socket, or a 17mm wrench to tighten the locknuts in a star pattern (front outside nut, back inside nut, front inside nut, back outside nut, etc.) in order to ensure an even, level plate pressure when tightening.
Continue to tighten the locknuts until the spring-plate just begins to bend and conform to the shape of the leaf-spring. (Approximately 35 ft-lbs of torque).
Repeat this process with the passengers side spring plate until the axle is

secured to the spring

- h. Securely tighten the leaf-spring locknuts from step "c" and "d" using two 19mm wrenches or sockets. Tighten until the trailer frame deforms slightly - but does not make contact with the leaf spring.

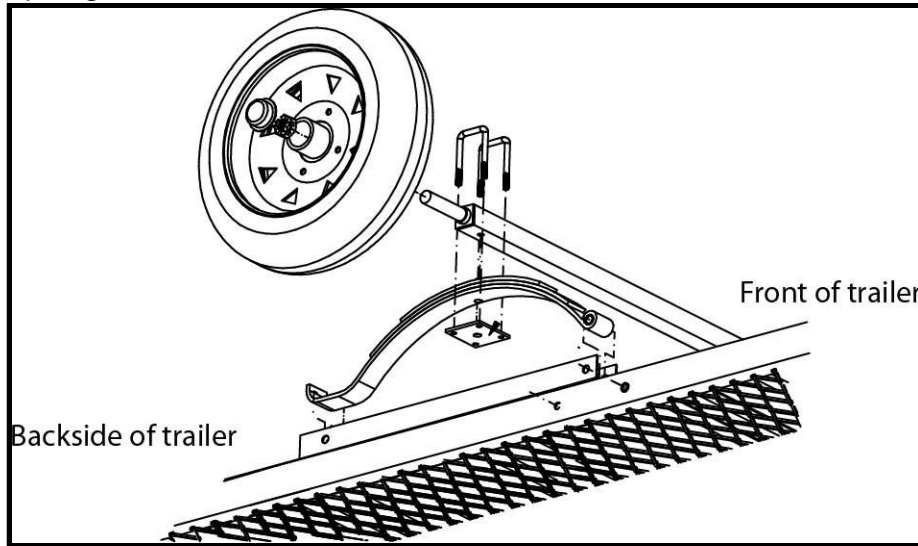


Figure 4: A diagram of the leaf-spring, trailer frame, axle, two u bolts, spring-plate, and wheel/hub assembly

STEP 3: ATTACH WHEELS TO AXLE

Note: the wheel assembly comes with the mounting hardware stored inside the dust-cap. You will need to remove the contents of the dust-cap on each wheel assembly before attaching the wheel assemblies to the axle.

- a. Using a 32mm wrench or socket, remove the castle nut from the end of the drivers side of the axle, and carefully slide the wheel onto the end of the axle, ensuring the wheel is oriented correctly (with the lug nuts facing out).
- b. Carefully remove the dust-cap from each wheel (9) by gently prying around the edges of the cap with a flathead screwdriver, or by using a long bolt to gently drive through the backside of the hub and into the cap.
- c. Remove the cotter pin (12) and Bearing Washer (11) from the interior of each hub, and then set aside. Pack the Hub bearing (13) and replace inside the hub before sliding both fully onto the axle spindle with lugs facing away from the trailer.
- d. Using a 32mm wrench or socket, fully tighten the castle-nut on the axle (6), securing the wheel assembly on the axle to the point that the nut applies enough pressure against the bearings to lock them into place. Then, loosen the castle nut approximately $\frac{1}{4}$ turn, or to the point where the wheel can spin; the castle nut should be loose enough that the wheel freely spins, yet tight enough that the wheel does not have horizontal play or wiggle. The final castle-nut tension will be approximately 35 ft-lbs. (Proper tension is critical to the longevity of the bearings).

- e. Align a slot of the castle nut with the hole in the axle, then insert the cotter pin (12) through the slot in the castle nut, through the axle, and out the slot on the opposite side of the castle nut.
- f. Use pliers to bend the cotter pin around the castle nut, securing the nut in place. This is very important to ensure the integrity of the hub assembly, failure to properly secure the castle nut could lead to serious failure of the wheel assembly.
- g. Repeat steps c, d, and e with the passenger side wheel assembly, attaching and securing the passenger side wheel assembly to the axle.
- h. Attach a grease gun to each hub's Zirk fitting—located on the inside of each hub, near the axle, and apply approximately 8-10 pumps of grease with a grease gun.
- i. Replace the dust-cap by tapping it into place with a dust cap driver, rubber mallet, or a hammer and scrap of wood. RTV sealant or silicon may be applied to the circumference of the dust-cap before installation to ensure that the cap will not fall off while in tow. Let the sealant completely dry before towing.

Note: if the dust cap is loose, a screw driver or scratch awl like tool can be used to hammer bumps along the outside of the dust cap lip to hold it in place.

Grease the wheel bearings a minimum of 1x per year for normal use, and up to 3x per year for frequent use in order to ensure the longevity of the bearings.

Adjust and re-grease the bearings after the first 100 miles.

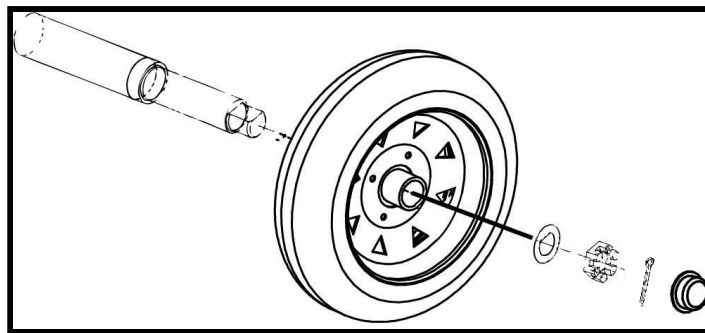


Figure 5: The wheel assembly illustrating the axle, wheel assembly, washer, castle nut, cotter pin, and dust cap.

STEP 4: ATTACH TONGUE TO FRAME

Remember: the trailer is still upside-down, so all components must be installed upside-down.

- a. Thread 22mm Spare tire lug nuts (E) onto spare tire mount on tongue (8).
- b. *Make sure that the tongue's wiring harness extends through both the backside and the front of the tongue.
- c. Align the tongue's two eyeholes with the eyeholes on the frame tongue casing, ensuring that the tongue is oriented so that the top of the tongue is oriented with the top of the trailer.
- d. Use two 3" bolts (N) and 19mm locknuts (R) and 19mm washers (T) to fasten the tongue to the frame. Tighten the bolts and locknuts using two ⁷

19mm sockets or wrenches until the tongue casing deforms slightly, and is in contact with the tongue.

Note: Be careful not to pinch or cut the tongue's wiring harness when inserting and tightening the bolts.

- d. Attach the 4 prong electrical connection, inside the end of the tongue to the corresponding electrical connection on the trailer frame (located at the end of the tongue casing on the frame).
- e. At the front of the tongue, pull the wiring harness to take up the slack in the wiring harness. You want to gently pull the wiring to the point that the unshielded wires at the rear of the tongue are housed inside the tongue.

STEP 5: COUPLER ASSEMBLY

- a. Slip the coupler (hitch) (L) over the tongue (8), making sure to align the holes on the coupler with the corresponding holes on the hitch. Thread a 19mm 3" bolt (N) through the rear hole of the coupler, ensuring the tongue wiring harness is not pinched by the bolt. Finger tighten a 19mm washer (T) and locknut (R) to the rear bolt of the coupler.

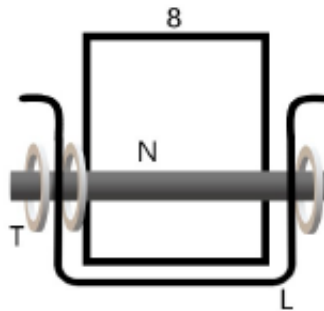


Figure 6: To prevent pinching the coupler while tightening, use an extra 19mm flat washer (T) threaded onto the 3-inch bolt (N), between the tongue (8) and the coupler (L).

- b. When attaching the front bolt of the coupler to the tongue you will need to secure the coupler safety chain. The coupler safety chain is secured using the 3" bolt (N). Thread the 3" bolt (N) halfway through the coupler and hitch, then, from the bottom of the coupler, attach the center link of the coupler safety chain to the bolt, and thread the bolt through the rest of the tongue and coupler. Secure the bolt using a 19mm washer and locknut. Ensure that the coupler safety chain is securely attached to the trailer through the front coupler bolt, and that the tongue wiring harness is not pinched by any of the coupler mounting hardware.
- c. Securely tighten the bolts in an alternating pattern until the coupler is in contact with the tongue using two 19mm wrenches or sockets.
- d. Push the tongue's wiring harness back inside the tongue, leaving only the shielded portion exposed. This will ensure longevity of the trailer wires.

TIGHTEN AND SECURE ALL BOLTS!

After the tongue is installed in its proper position, you are almost ready to flip your trailer over to the correct orientation (upside up). Before you flip the trailer over, ensure that all bolts on the leaf-springs, axle, wheel assembly, tongue, and coupler are secure and tight.

ROTATE THE TRAILER TO AN UPRIGHT POSITION.

- j. Position the trailer so the tires are on the ground. More than one person is required to rotate the trailer; DO NOT ATTEMPT TO ROTATE THE TRAILER TO THIS POSITION ALONE.

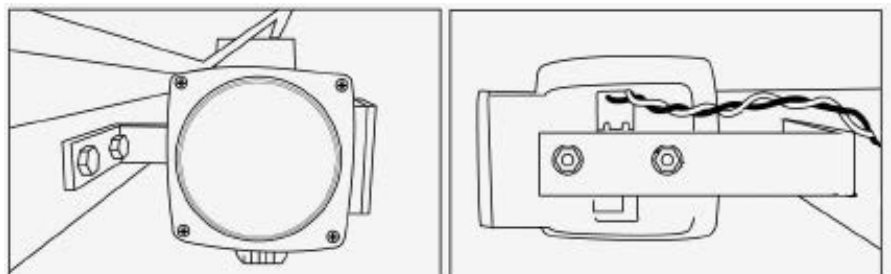
STEP 6: ASSEMBLE AND INSTALL LIGHTS

Part One: Tail lights

- a. Locate the drivers side tail light connection point (located on the side of the frame, toward the rear). There should be brown, white, and yellow wires sticking out the side of the trailer frame.
- b. Fasten the tail light/brake light L-bracket (H) to the frame using two, 17mm 2¾-inch bolts (P), two 17mm washers (U) and 17mm locknuts (S). Tighten the bolts using two 17mm sockets or wrenches.
- c. Remove the 12mm nuts from the back of the tail light assembly (F), and slide the tail light assembly through the holes the L bracket.
- d. Slide the license plate bracket (I) onto the tail light assembly bolts
- e. Secure the license plate bracket (I), and tail light (F) to the L bracket (H) using the the two 12mm nuts, and a 12mm wrench or socket.
- f. Connect the wires from the taillight with the corresponding wires from the trailer wiring by pushing the wire connectors together. Push any excess wire back into the frame. (Driver Wiring: Brown-Brown, White-White, and Yellow-Yellow. Passenger Wiring: Brown-Brown, White-White, and Green-Green.)
- g. Repeat steps a-f above on the passenger side taillight assembly, without attaching the license plate bracket (the license plate bracket is only attached to the driver side L bracket).

Note: follow the same sequence for the passenger-side taillight, but without the license plate bracket.

Figure 7. Tail light diagram



STEP 6: ASSEMBLE AND INSTALL LIGHTS

Part Two: Side Running/Marker Lights

- a. Locate the drivers side running light connection point (located on the side of the frame, toward the front). There should be a brown and a white wire sticking out the side of the trailer frame.
- b. Connect the brown wire from the running light (G) with the brown wire from the trailer wiring by pushing the wire connectors together.
- c. Connect the white wire from the running light (G) with the white wire from the trailer wiring by pushing the wire connectors together.
- d. Feed the running light wire back into the frame.
- e. Attach the running light to the frame using two self-tapping screws (J). Be careful not to over-tighten the screws. Over-tightening the screws could crack the plastic housing of the running light assembly.
- f. Repeat steps a-e on the passenger side to install the passenger side running light.

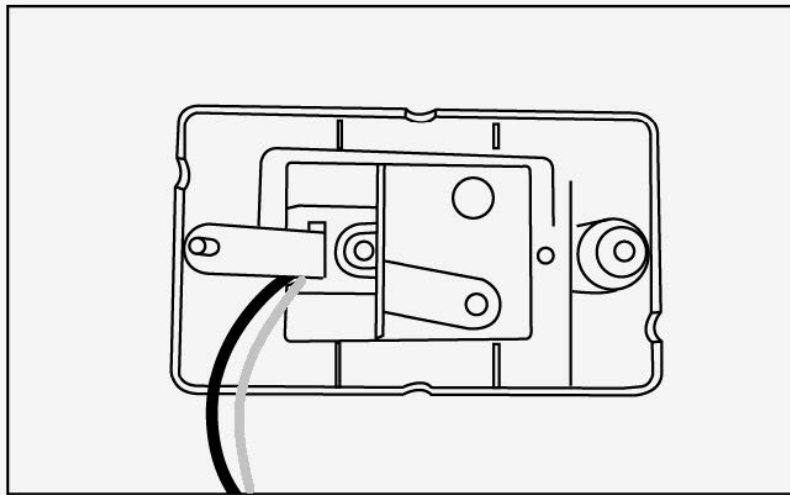


Figure 8. Running Light Diagram

STEP 7: ATTACH FENDERS

- a. Align the fender (10) bolt-holes with the bolt-holes in the frame.
- b. Use two 17mm 2¾-inch bolts (P), two 17mm locknuts (S), and washers (U) to attach each fender to the frame.
- c. Tighten bolts with two 17mm sockets or wrenches.

STEP 8: INSTALL RAILS

Part One: Side Rails

Note: fasten bolts to finger-tightness until the side braces, brackets and side-rails are all in place—this will allow you to make alignment adjustments if needed. Once all parts are aligned and secured, securely tighten all bolts.

- a. Attach the passenger side rail (3) using 17mm 1-inch bolts (Q), washers (U), lock nuts in the first and last attachment points on the frame, loosely threading a 17mm locknut and washer inside the tube of the frame. Ensure that the side rail is oriented correctly, with the rear gate attachment tab at the back of the trailer.
- b. Attach 17mm 2¾-inch bolts (P) and 17mm washers (U) through the remaining three attachment points on the side rail, loosely threading 17mm lock nuts (S) on the inside of the frame for each bolt.
- c. Repeat steps a, b for the driver side rail, using two 17mm 1-inch bolts (Q) and three 2¾-inch bolts (P), five 17mm lock nuts (S), and 10 17mm washers (U).

STEP 8: INSTALL RAILS

Part Two: Front Rail and Supports

- d. Attach the two front rail supports (5) to the front of the trailer, halfway between the outside of the trailer, and the tongue, using two 17mm 2¾-inch bolts (P), 17mm washers (U), and two 17mm lock nuts (S). While positioning the front rail supports, ensure that the angled side of the rail is facing the bottom of the trailer, with the smooth sides facing toward the center. As with the side rails, keep the front rail supports loose and able to rotate -this will make alignment of all railings easier.
- e. Attach the front top rail (4) to the driver side and passenger side side-rails, and the front rail supports using the remaining four 17mm 1-inch bolts (Q), eighty 17mm washers (U), and four 17mm lock nuts (S), keeping the connections loose. Ensure that the top rail is facing out, matching the side rails.
- f. Beginning with the drivers side, tighten the front side rail/frame bolt and locknut to the trailer frame using two 17mm sockets or wrenches. This should begin to align the side rails and front rail.

- g. Next, tighten the drivers side, top rail/side rail bolt and locknut to the trailer.
- h. Proceed to tighten the passenger side, again beginning with the front side rail/frame bolt and lock nut, and then the top rail/side rail bolt and locknut.
- i. Finish securing all remaining side rail bolts and lock nuts, as well as the front rail supports.
- j. With the side rails installed, you can now attach the four end caps (K) to the open trailer frame, two on the front, and two on the back of the trailer, using a rubber mallet or a hammer and scrap of wood.

TIGHTEN AND SECURE ALL BOLTS! After all the rails and supports are in their proper positions, make sure all bolts are tightened and secured.

STEP 9: INSTALL REAR GATE

- a. Attach the rear gate (2) to the trailers rear gate pin-slots using the two gate-pins (C).
- b. Secure the gate-pins with the cotter-pins (D), and then use pliers to secure the cotter pins by bending at least one leg of the cotter pin to 90 degrees.
- c. Lift the rear gate and secure it to the trailer frame using the rear gate attachment latch.
- d. If the rear gate does not match up to the attachment tabs, loosen the side rail frame bolts, align the rear gate with the attachment tabs, and re-tighten the side rail frame bolts. This should properly align the trailer.

CONGRATULATIONS!

You have completed your Allstar, ATV/Utility trailer!

We hope you enjoy your NORTHSTAR TRAILER.

Please contact us at 1-801-375-3088 or email info@northstartrailer.com if you have any questions. Our business hours are Monday-Friday 8:00 a.m. to 4:30 p.m. Mountain Standard Time.

TRAILER SPECIFICATIONS

Trailer Weight: 440 lb.s GVWR: 2000 lbs
Cargo Weight: 1560 lbs Length (w/ tongue): 148" Width: 60"
Tire Size: 5.30-12

Note: The dealer that sold you this trailer will ship you the trailer's Certificate of Origin. The certificate will arrive approximately two weeks after the trailer is delivered.

Need Parts?

Northstar Trailer has a Parts Department! We will help you find the right parts to replace or repair on your trailer.

Phone: 801-375-3088

Ask about our other Accessories!

Big Red Earth Anchor

Gas Can Mount

Jack-stand

Motorcycle Tire Rail



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info@northstartrailer.com

Monday - Friday 8:00 AM - 4:30 PM MST