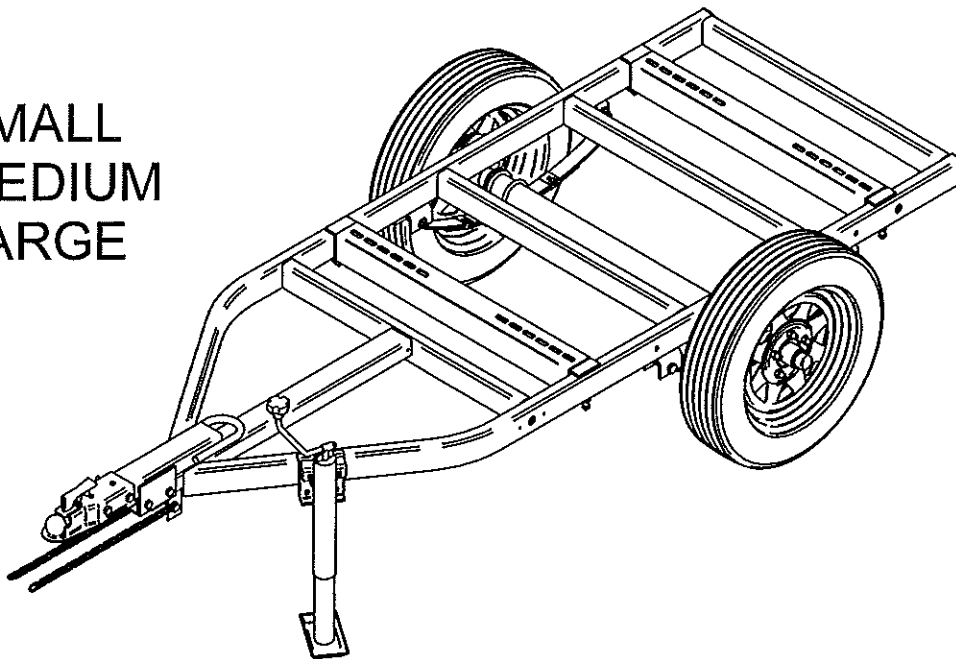


TWO WHEEL TRAILER ASSEMBLY INSTRUCTIONS

K2635-1, SMALL
K2636-1, MEDIUM
K2637-2, LARGE



The K2635-1* trailer is designed to be used at highway speeds only with the following engine driven Lincoln welders: Ranger 225 / 250GXT / Eagle 10,000 Plus / 305D / 305G / Red-D-Arc GX300.

The K2636-1* trailer is designed to be used at highway speeds only with the following engine driven Lincoln welders: Classic 300D / Pipeliner 200D / SAE 300; Vantage 300 / 400 / 500 Perkins / 500CE / Air Vantage 500/ Vantage 500 Deutz.

The K2637-2* trailer is designed to be used at highway speeds only with the following engine driven Lincoln welders: SAE 400; SAE 500; SAE 500 Severe Duty. Air Vantage 650 / 700

*Includes a DUO-HITCH™ (Patent Pending) 2" Ball / Lunette Eye combination hitch.

DUO-HITCH™ is the property of the Lincoln Electric Company.
Trailer design is the property of Tri State Industries.

IMPORTANT SAFETY NOTES:

HAVE ALL INSTALLATION, OPERATION, REPAIR, AND MAINTENANCE DONE BY QUALIFIED PERSONNEL.

The mounted welder may be equipped with the light and fender kit and the cable rack.

The trailer is designed for road, off road, in-plant and yard towing. If this trailer is to be used on public highways, check applicable county, state, and local laws regarding specific requirements which may include fenders, lights, reflectors, safety chains, brakes, etc.

Tow only with vehicles equipped for the weight and hitch type. Limit towing speeds to those at which the unit is stable. When towing, stop periodically and inspect hitch connections and trailer.

LIMITED WARRANTY

Effective JANUARY 1, 2007

This warranty supersedes all previous Tri-State Industries warranties and is exclusive, with no other guarantees or warranties expressed or implied.

LIMITED WARRANTY – Tri-State Industries, Hammond Indiana warrants that all new and unused equipment furnished by Tri-State Industries is of merchantable quality, fit for the purpose intended, free from defect in workmanship, material and seller's design as of the time and place of delivery. Except as a result of the seller's own acts or recommendations, the foregoing warranties will not apply to any defect which has been solely caused by another's misuse, neglect, improper installation, improper operation, improper maintenance, repair or alteration, accident or unusual deterioration of the Products or parts thereof due to physical environment beyond the requirements of the Product specifications. No warranty is made by Tri-State Industries with respect to trade accessories or other items manufactured by others. Such trade accessories and other items are sold subject to the warranties of their respective manufacturers, if any.

In the case of Tri-State Industries breach of warranty or any other duty with respect to the quality of any goods, the exclusive remedies therefore shall be at Tri-State Industries: (1) repair (2) replacement (3) payment of or credit for the purchase price upon authorized return of the goods at Tri-State Industries risk and expense. Upon receipt of notice of apparent defect or failure, Tri-State Industries shall instruct the claimant on the warranty claim procedures to be followed. As a matter of general policy only, Tri-State Industries may honor an original end user's warranty claims with proof of purchase on warranted equipment in the event of failure resulting from a defect within one year of the purchase date by the end user.

Notification of any failure must be made in writing within 30 days of such failure. A copy of the invoice showing the date of sale must accompany products returned for authorized warranty repair or replacement. All equipment returned to Tri-State Industries for service must be properly packaged to guard against damage from shipping. Tri-State Industries will not be responsible for any damages resulting from negligent shipping practices/methods.

Normal surface transportation charges (both ways) for products returned for warranty repair or replacement will be borne by Tri-State Industries, except for products sold to foreign markets.

ANY EXPRESS WARRANTY NOT PROVIDED HEREIN AND ANY IMPLIED WARRANTY, GUARANTY, OR REPRESENTATION AS TO PERFORMANCE, AND ANY REMEDY FOR BREACH OF CONTRACT WHICH, BUT FOR THIS PROVISION, MIGHT ARISE BY IMPLICATION, OPERATION OF LAW, CUSTOM OF TRADE, OR COURSE OF DEALING, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR PARTICULAR PURPOSE, WITH RESPECT TO ANY AND ALL EQUIPMENT FURNISHED BY TRI-STATE INDUSTRIES, IS EXCLUDED AND DISCLAIMED INCLUDING ANY AND ALL CONSEQUENTIAL DAMAGES BY TRI-STATE INDUSTRIES EXCEPT AS EXPRESSLY PROVIDED BY TRI-STATE INDUSTRIES IN WRITING.

TRI-STATE INDUSTRIES PRODUCTS ARE INTENDED FOR ULTIMATE PURCHASE BY END-USERS TRAINED AND EXPERIENCED IN THE USE AND MAINTENANCE OF TRAILER EQUIPMENT. TRI-STATE INDUSTRIES WILL NOT BE RESPONSIBLE FOR ANY DAMAGES RESULTING FROM THE END USERS NEGLIGENCE OR INEXPERIENCE IN USING THE EQUIPMENT FOR THE PURPOSE INTENDED

TRI-STATE INDUSTRIES, INC
4923 Columbia Avenue
Hammond, IN 46327
(219) 933-1710
(219) 933-1719

TRAILER OPERATING INFORMATION

TOWING

1. Towing any trailer requires special awareness because of the changed driving situation.
2. When towing, it takes longer to start, stop and pass – use training and practice to avoid accidents.
3. Turning and backing up present new problems – plan ahead.
4. Require each driver to be fully trained and experienced in trailer towing before going out on the road.
5. Insure that the vehicle used for towing is capable of handling the load.
6. Insure the towing vehicle hitch is the correct type, size, and rating to match coupler.
7. Be sure that the trailer is fully prepared and connected to the towing vehicle.
8. Drive at moderate speeds. Trailer instability/sway is more likely to occur as speed increases.
9. State and Federal regulations require trailers used on highways to have tail, stop, turn and side marker lights. Lights are not required for trailers designed for off-road use.

Trailer wheels must be chocked when the trailer is uncoupled from vehicle. Use the following procedures to properly chock trailer wheels:

1. Chock in direction of grade.
2. Position chock snugly behind tire.
3. Place chock square to the tire.
4. Tap chock into place.
5. For added protection, chock both sides of tire.

Unexpected lifting of trailer can cause injury or damage. When the trailer is uncoupled from the towing vehicle, use the trailer jack to support the front and chock the tires to prevent tilting. Use blocks that are large enough and able to support the necessary weight when chocking tires. Always chock the wheels when uncoupled.

SAFETY CHAIN PLACEMENT

Safety chains can prevent a runaway trailer in case of a hitch/coupler failure. Use the following tips to insure this does not occur:

1. Always use safety chains when towing.
2. Cross safety chains under the coupling to prevent the trailer tongue from dropping to the ground.
3. Allow only enough slack for tight turns.
4. Do not let safety chains drag on the ground.
5. Twist safety chains equally from hook ends to take up slack.
6. Use safety chains rated equal to or greater than twice the maximum gross trailer weight rating.

TRAILER HITCH

The use of an incorrect size or rating of trailer hitches can cause a trailer to break loose from the tow vehicle. Use the following tips to insure this does not occur:

1. Be sure the towing vehicle hitch is correct type, size and trailer rating to match coupler.
2. Be sure the hitch is properly installed onto towing vehicle.
3. On optional ball couplers, always insert hitch safety pin before towing.
4. Make sure hitch and ball are properly sized and match each other.

TRAILER OPERATING INFORMATION CONTINUED

TIRES

Incorrect torque on lug nuts or incorrect tire pressure or improper bearing maintenance can cause loss of control resulting in serious injury and equipment damage. Use the following maintenance tips to insure proper trailer function:

1. Recheck lug nut torque after first 50 miles (80 km) and once each year or every 12,000 miles (19,500 km) thereafter, whichever comes first.
2. When checking lug nuts, keep them clean, dry and free from lubrication.
3. Check and repack wheel bearings once a year or every 12,000 miles (19,500 km), whichever comes first.
4. Maintain correct tire pressure according to sidewall data on tire. Under inflation is the most common cause to tire trouble.
5. Check tires for wear every six months.
6. Use only replacement tires of the same size, rating and capacity.

WHEEL BEARINGS

Every 12,000 miles (19,500 km), check wheel bearings. Repack if necessary using a quality lithium based extreme pressure grease.

To prevent injury and damage, check and repack wheel bearings once a year or every 12,000 miles (19,500 km), which ever comes first.

Use proper equipment to lift and support unit.

Do not put any body part under trailer while lifting or performing maintenance.

NOTE: TORQUE WHEEL BEARINGS WHENEVER HUB NUT IS REMOVED OR HUB IS TOO LOOSE. TORQUE HUB NUT TO 25 ft-lb, THEN BACK OFF NUT 1/8 TO 1/4 TURN TO LINE UP COTTER KEY HOLE IN SPINDLE WITH SLOT IN CASTLE NUT.

OVERLOADING

Do not overload the trailer; overloading can cause serious injury or equipment damage. Use the following tips to insure this does not occur;

1. Gross Vehicle Weight Rating (GVWR) is the maximum total trailer weight with the engine driven welder and equipment, such as tools, cables, shielding and gas cylinder installed.
2. Gross Axle Weight Rating (GAWR) is the maximum load-bearing capacity of the axle.
3. Weigh trailer – adjust weight by removing accessory equipment if necessary – call local authorities for the nearest location.
4. Use gross trailer weight to select a proper towing vehicle.

Incorrect tongue weight can cause fishtailing and loss of control of towing vehicle resulting in serious injury and equipment damage. Use the following tips to insure this does not occur:

1. Adjust the load on the trailer so tongue weight is approximately 10% of the gross trailer weight and center the load side-to-side to reduce fishtailing.
2. Tongue weight is the amount of the trailer weight that rests on the towing vehicle hitch (that is the downward pressure on the coupler).
3. Remove and adjust the trailer load to get correct tongue weight.
4. Do not let tongue weight exceed coupler and hitch rating.

LIGHTS (Optional)

Incorrectly working lights can cause accidents. Use the following maintenance tips to insure proper trailer function:

1. Check all lights and connectors for proper installation and operation before using the trailer.
2. Check condition of wiring harness leads, plugs, and connections regularly. Repair or Replace damaged parts or wires. Replace any broken lenses, reflectors, and bulbs.

TRAILER SPECIFICATIONS

TRAILER MODEL K2635-1 (SMALL, 63" DECK)	
SPECIFICATION	DESCRIPTION
AXLE RATING	2200 lbs.
SPRING RATING (750 lbs. ea.)	1500 lbs.
TIRE LOAD RATING "B" (1100 lbs. ea.)	2200 lbs.
GROSS AXLE WEIGHT RATING	1500 lbs.
GROSS VEHICLE WEIGHT RATING	1665 lbs.
NET PAYLOAD	1350 lbs.
ROAD CLEARANCE	7-1/2"
HEIGHT OF BED	18-1/2"
STANDARD TIRES	B78-13B
WEIGHT	NET 315 lbs.

TRAILER MODEL K2636-1 (MEDIUM, 63" DECK)	
SPECIFICATION	DESCRIPTION
AXLE RATING	3500 lbs.
SPRING RATING (1750 lbs. ea.)	3500 lbs.
TIRE LOAD RATING "C" (1360 lbs. ea.)	2720 lbs.
GROSS AXLE WEIGHT RATING	2720 lbs.
GROSS VEHICLE WEIGHT RATING	2925 lbs.
NET PAYLOAD	2600 lbs.
ROAD CLEARANCE	7-1/2"
HEIGHT OF BED	18-1/2"
STANDARD TIRES	B78-13C
WEIGHT	NET 325 lbs.

TRAILER MODEL K2637-2 (LARGE, 80" DECK)	
SPECIFICATION	DESCRIPTION
AXLE RATING	3500 lbs.
SPRING RATING (1750 lbs. ea.)	3500 lbs.
TIRE LOAD RATING "C" (1760 lbs. ea.)	3520 lbs.
GROSS AXLE WEIGHT RATING	3500 lbs.
GROSS VEHICLE WEIGHT RATING	3888 lbs.
NET PAYLOAD	3534 lbs.
ROAD CLEARANCE	8-1/4"
HEIGHT OF BED	19-1/4"
STANDARD TIRES	B78-14C
WEIGHT	NET 355 lbs.

ASSEMBLY PRECAUTIONS

When assembling the trailer insure that you wear approved safety glasses with side shields. Flying metal or dirt can injure eyes. Do not modify or change the trailer in any way, changes will void the warranty.

The following is a list of safety precautions that must be followed when assembling the trailer:

1. Read and follow instructions and safety precautions in this Owner's Manual. Use only genuine factory parts as replacements.
2. Tighten all parts, bolts, nuts and mounting hardware.

TOOLS REQUIRED

1. 1/2" (13mm) Socket (4 point)
2. 9/16" (14mm) Socket & Socket Wrench
3. 9/16" (14mm) Wrench
4. 3/4" (19mm) Socket & Socket Wrench
5. 3/4" (19mm) Wrench
6. 7/8" (23mm) Socket & Socket Wrench
7. 13/16" (21mm) Wrench
8. Torque Wrench with 0-100 ft-lb span

K2635-1, SMALL TRAILER PARTS LIST		
COMPONENT	DESCRIPTION	QTY.
A-9TO-13B	13B TIRE	2
B-BAG-LIN-1	YELLOW MACHINE MTG. HARDWARE	1
B-BAG-HC1	CLEAR HITCH MTG. HARDWARE	1
B-BAG-TL1A	RED TRAILER PART BAG	1
B-BAG-TP1	ORANGE TIE PLATE BAG, 2200	1
Z-9TO-SFC2	BLUE SAFETY CHAIN BAG	1
Z-9DK-063	63" DECK	1
Z-8TO-SXM	DECK CROSSMEMBER	2
Z-9TO-APR	ADJUSTABLE PARKING LEG w/PAD	1
Z-9AX-S01	1500 lb AXLE SPRING	2
Z-9AX-T01	2200 lb AXLE	1
Z-9HC-BLN-02	DUO-HITCH™ ASSEMBLY	1

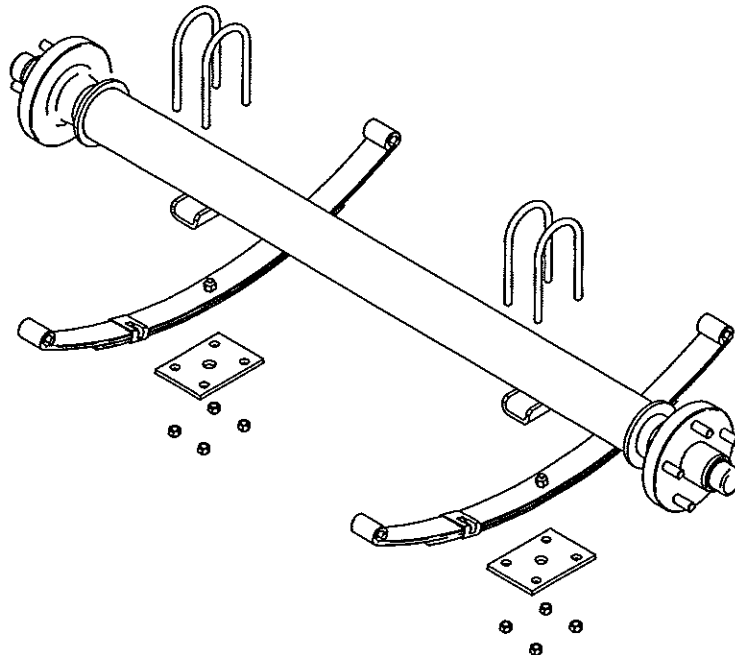
K2636-1, MEDIUM TRAILER PARTS LIST		
COMPONENT	DESCRIPTION	QTY.
A-9TO-13C	13C TIRE	2
B-BAG-LIN-2	BLACK MACHINE MTG. HARDWARE	1
B-BAG-LIN-4	NAVY MACHINE MTG. HARDWARE	1
B-BAG-HC1	CLEAR HITCH MTG. HARDWARE	1
B-BAG-TL1A	RED TRAILER PART BAG	1
B-BAG-TP2	ORANGE TIE PLATE BAG, 3500	1
Z-9TO-SFC2	BLUE SAFETY CHAIN BAG	1
Z-9DK-063	63" DECK	1
Z-8TO-SXM	DECK CROSSMEMBER	2
Z-9TO-APR	ADJUSTABLE PARKING LEG w/PAD	1
Z-9AX-S04B	3500 lb AXLE SPRING	2
Z-9AX-T06	3500 lb AXLE	1
Z-9HC-BLN-02	DUO-HITCH™ ASSEMBLY	1
Z-8TO-FXM - R	FIXED CROSSMEMBER, RIGHT	1
Z-8TO-FXM - L	FIXED CROSSMEMBER, LEFT	1

K2637-2, LARGE TRAILER PARTS LIST		
COMPONENT	DESCRIPTION	QTY.
A-9TO-14C	14C TIRE	2
B-BAG-LIN-4	NAVY MACHINE MTG. HARDWARE	1
B-BAG-HC1	CLEAR HITCH MTG. HARDWARE	1
B-BAG-TL1A	RED TRAILER PART BAG	1
B-BAG-TP2	ORANGE TIE PLATE BAG, 3500	1
Z-9TO-SFC2	BLUE SAFETY CHAIN BAG	1
Z-9DK-080	80" DECK	1
Z-8TO-SXM	DECK CROSSMEMBER	2
Z-9TO-APR	ADJUSTABLE PARKING LEG w/PAD	1
Z-9AX-S04B	3500 lb AXLE SPRING	2
Z-9AX-T06	3500 lb AXLE	1
Z-9HC-BLN-02	DUO-HITCH™ ASSEMBLY	1
Z-8TO-FXM - R	FIXED CROSSMEMBER, RIGHT	1
Z-8TO-FXM - L	FIXED CROSSMEMBER, LEFT	1

AXLE ASSEMBLY

Use the following steps to assemble the axle. The axle is built with a slight camber (arch) to help the tires wear properly when the trailer is loaded. With no load on the trailer the tires will appear to tilt outward due to the axle camber.

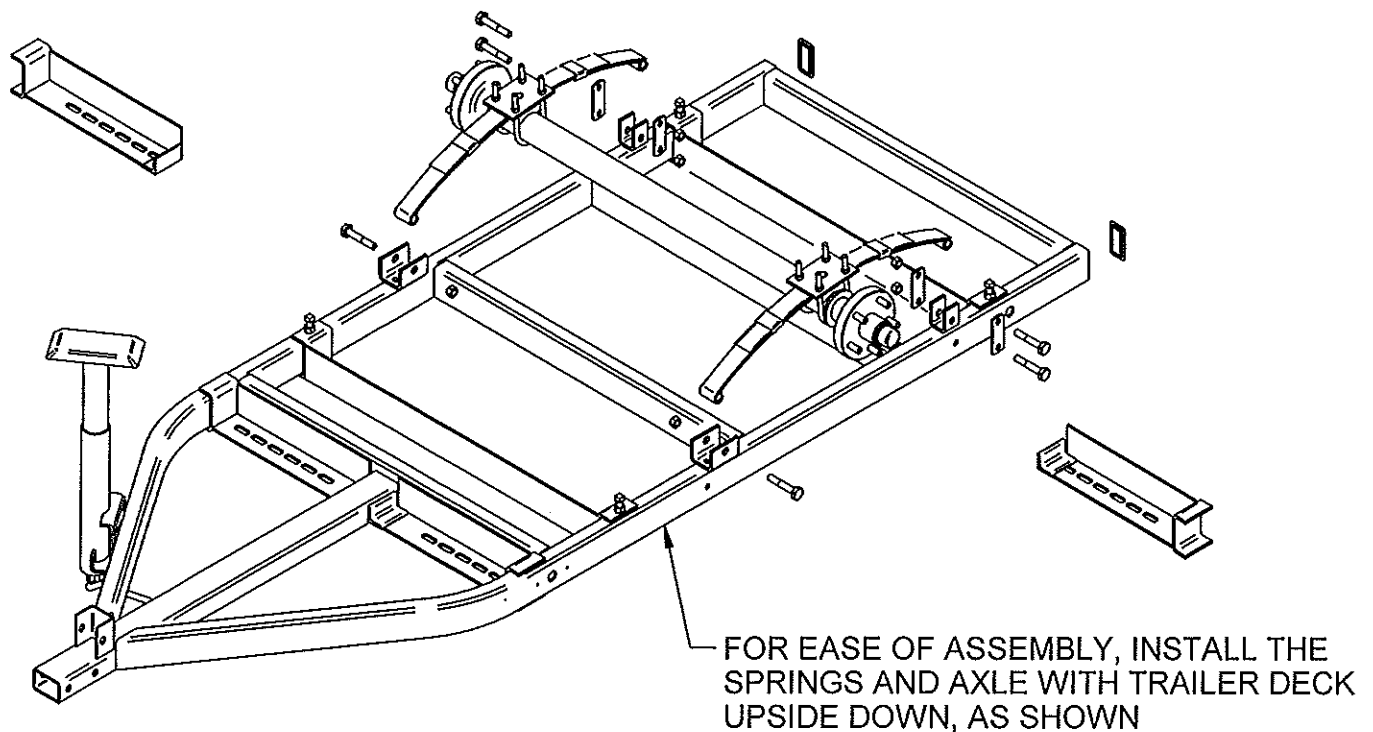
TRAILER MODEL	HARDWARE PARTS BAG
K2635-1	B-BAG-TP1 (ORANGE)
K2636-1, K2637-2	B-BAG-TP2 (ORANGE)



1. Assemble the axle as shown using the hardware found in the orange bag. Be sure the spring eyes point up and the spring center bolt is in the hole of the axle spring plate.
2. Place nuts on to u-bolts so that each nut starts freely and then binds before passing over the end of the u-bolt. The binding of the nut when fully threaded upon the u-bolt will create a locking feature for the hardware. The u-bolt and nuts are single use hardware and both must be replaced after being disassembled.
3. Cross-tighten hardware so the tie plate is installed evenly. Torque hardware to 55 ft-lb.

DECK AND AXLE ASSEMBLY

DESCRIPTION	PART NO.
AXLE	SPRING / AXLE SUB-ASSEMBLY
DECK	Z-9DK-063 (K2635-1, K2636-1) or Z-9DK-080 (K2637-2)
SCHACKLES	B-SHK-2WH
RED TRAILER PARTS BAG	B-BAG-TL1A
SLIDING CROSS MEMBER	Z-8TO-SXM (Supplied installed)
FIXED CROSS MEMBER	Z-8TO-FXM - R
	Z-8TO-FXM - L
END CAP	Z-7TO-CAP

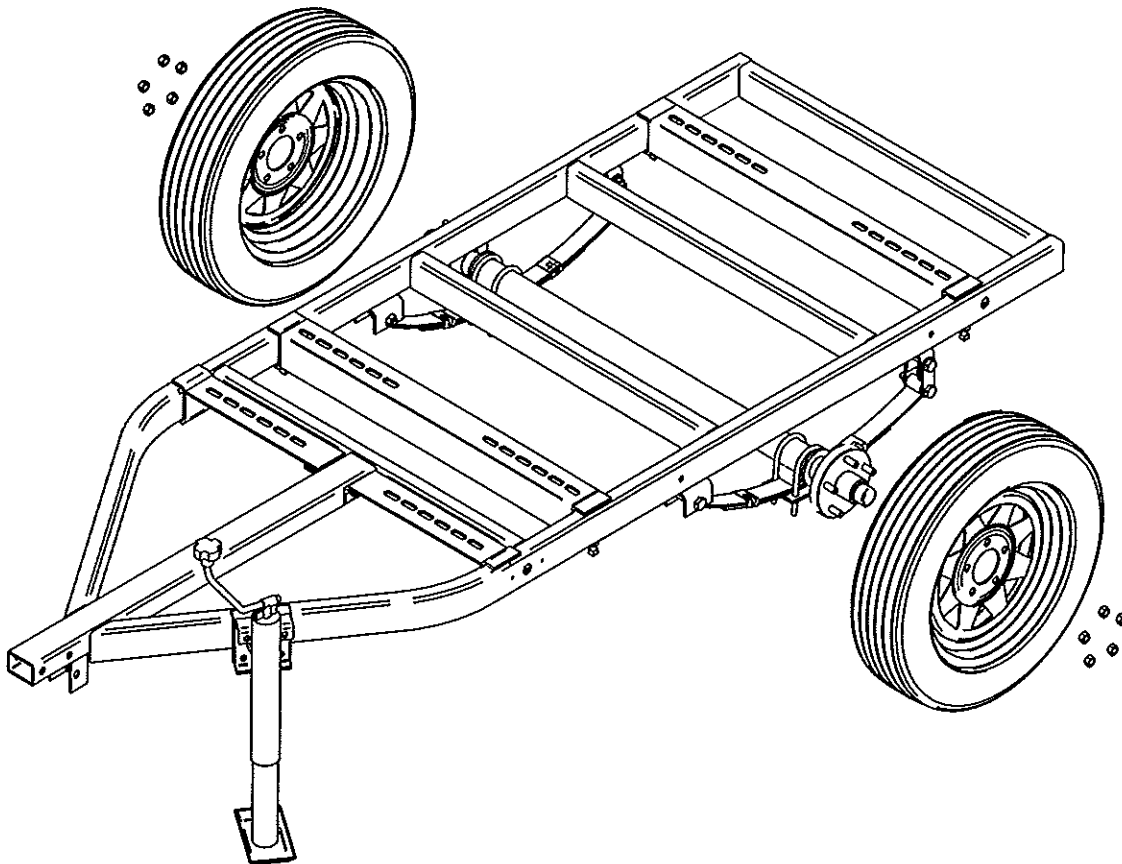


1. Assemble the four shackles to the deck brackets with the red bag hardware. Nuts are self-locking and may be hard to start. Be sure not to start the crushed "locking" end. Shackle bolt may require tapping with a hammer to fully seat in shackle before tightening nuts.
2. Tighten hardware to a maximum of 50 ft-lb, do not over tighten. Spring parts must rotate freely between the shackles.
3. Attach axle assembly to shackles with red bag hardware. Tighten hardware to 50 ft-lb do not over tighten. Parts must rotate freely.
4. Install the end caps into ends of tube at back of trailer.

TIRE INSTALLATION

Use the following procedure to install the tires to the axle/deck assembly:

TRAILER MODEL	ITEM	TIRE SIZE	PART NO.
K2635-1	WHEEL / TIRE ASSEMBLY	13B	A-9TO-13B
K2636-1		13C	A-9TO-13C
K2637-2		14C	A-9TO-14C
	LUG NUT		B-NUT-LUG



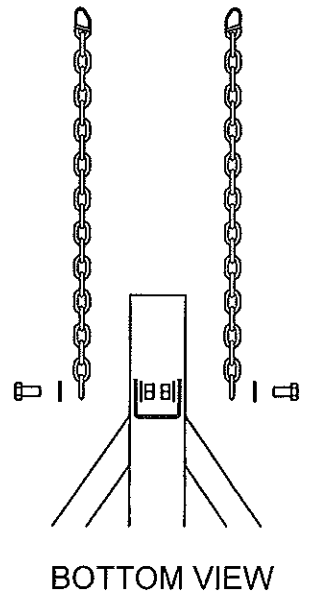
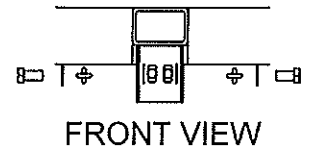
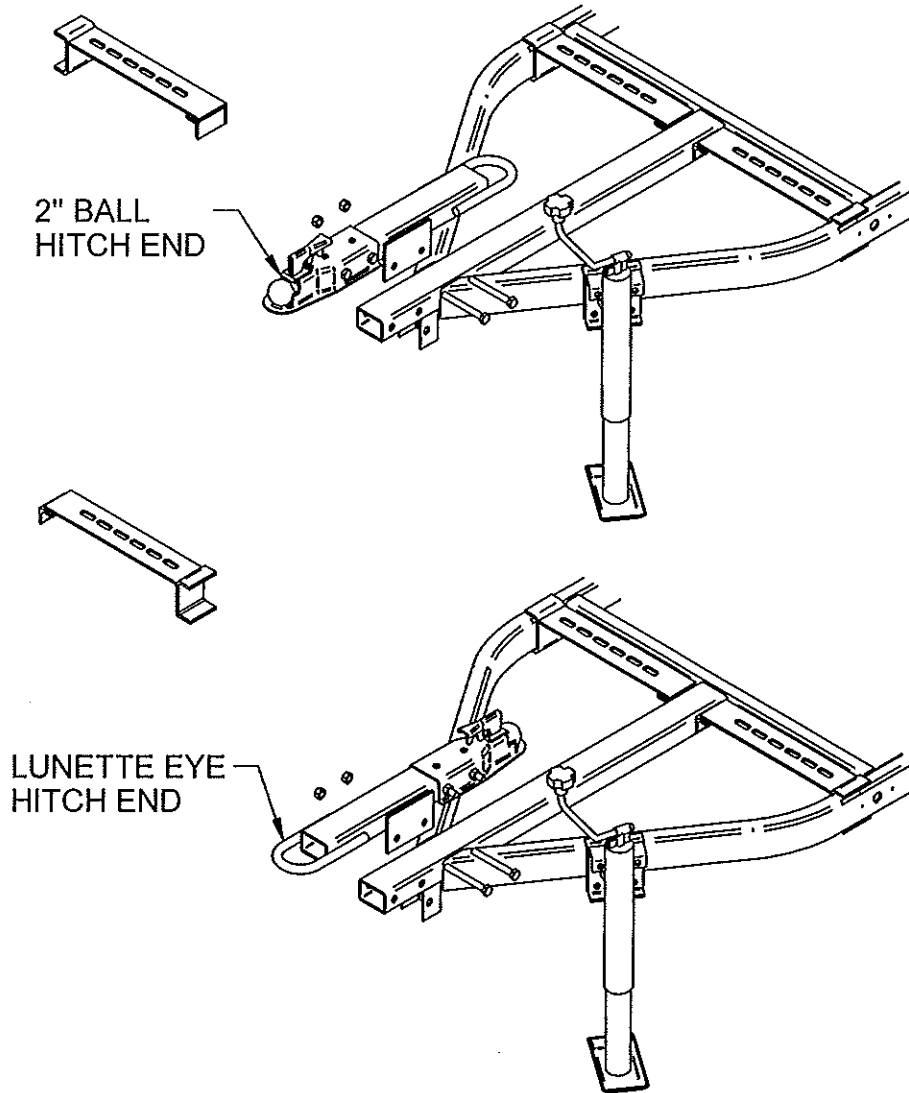
1. Attach wheels to axle hubs as shown.
2. Tighten all lug nuts to 70 ft-lb.
3. Rotate jack to support trailer, when jack is not needed or being transported, pull pin and rotate jack so the jack is parallel to the trailer deck frame.

SAFETY NOTE: Recheck lug nut torque after the first 50 miles and once a year or every 12,000 miles thereafter.

INSTALLING DUO-HITCH™ AND SAFETY CHAINS

Use the following procedure to install the hitch and safety chains to the deck assembly:

ITEM	PART NO.
SAFETY CHAIN KIT	Z-9TO-SFC2
HITCH MOUNTING BAGS	B-BAG-HC1

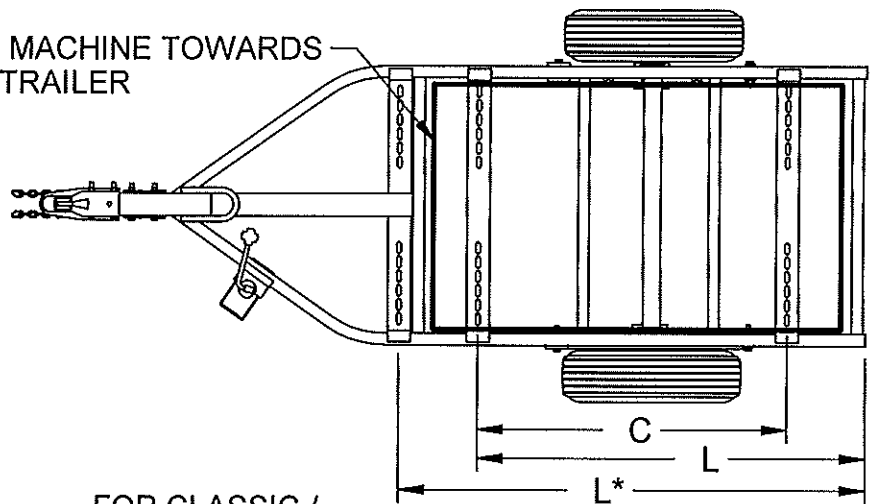


1. Support trailer with jack and block wheels to prevent movement.
2. Attach safety chains to trailer as shown with hardware kit supplied
3. Bolt the DUO-HITCH™ to trailer as shown using hardware supplied in B-BAG-HC1 and torque the bolts to 85 ft-lb. The DUO-HITCH™ assembly is mounted on top of the trailer drawtube and bolted through the side of the hitch.

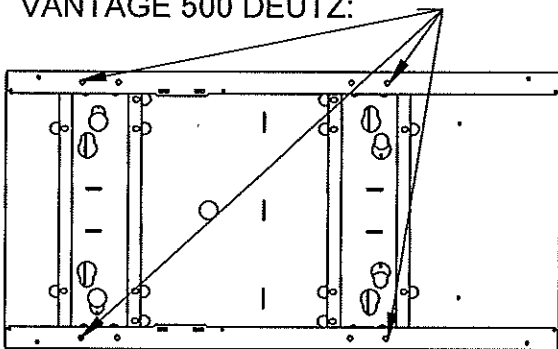
Welder Installation

Trailer	Description	A	C	L	Bag Color
k2635-1 Small	Eagle 10,000 Plus	Engine	41.2	54.0	Yellow
	Ranger 225 / 250GXT / 305G				
	Red-D-Arc GX300				
	Ranger 305D		51.2	57.5	
K2636-1 Medium	Big Red 500 / 600	Control Panel	59.5	63.0*	Black
	Classic 300D /SAE 300		46.0	56.0	
	Pipeliners 200D				
	Vantage 300 /400 / 500 Perkins / 500CE	Engine	55.5	63.0*	
	Air Vantage 500	Engine	35.0	57.5	
	Vantage 500 Deutz				
K2637-2 Large	SAE 400 /SAE 500 / 500 Severe Duty	Control Panel	44.5	64.0	Navy
	Air Vantage 650 / 700	Control Panel	71.5	80.0*	Black

"A" END OF MACHINE TOWARDS FRONT OF TRAILER

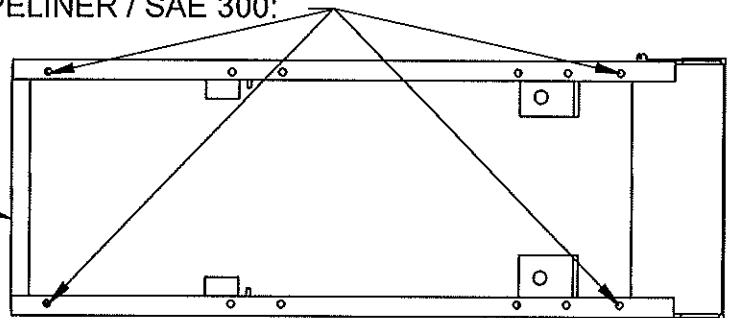


FOR AIR VANTAGE 500 / VANTAGE 500 DEUTZ:



FOR CLASSIC / PIPELINER / SAE 300:

CONTROL PANEL END



BOTTOM VIEW OF WELDERS

WELDER MOUNTING INSTRUCTIONS

1. Chock both wheels, front & back. Adjust the parking leg to level the trailer.
2. Loosen the sliding cross member bolts and position according to dimensions of applicable model shown above. (Note: In some cases the sliding cross member may need to be removed & replaced in another location.)
3. Using a suitable lifting device, position the welder about 1/4" - 1/2" above the top of the sliding cross members.
4. Ensure the welder is centered laterally on trailer.
5. With mounting hardware in place and started, lower welder into place and fully tighten all mounting hardware and sliding cross member bolts and torque to 28-32 ft-lb.

REPLACEMENT PARTS LIST		K2635-1	K2636-1	K2637-2
Component	Description	SMALL	MEDIUM	LARGE
Z-9DK-063	Deck	●	●	
Z-9DK-080	Deck			●
A-9TO-LGT	Light Kit	●	●	●
Z-8FK-201	63"/80" Fender Bracket	●	●	●
Z-8FK-206	Light Guard	●	●	●
Z-8FK-005	63"/80" Fender Only	●	●	●
B-BAG-FK1	Fender Kit Parts Bag	●	●	●
B-BAG-LIN-1	Yellow Mach. Mtg. Bag	●		
B-BAG-LIN-2	Black Mach. Mtg. Bag		●	
B-BAG-LIN-4	Navy Mach. Mtg. Bag			●
B-BAG-TP1	Orange Tie Plate Bag, 2200	●	●	●
B-BAG-TP2	Orange Tie Plate Bag, 3500	●	●	●
Z-9TO-SFC2	Blue Safety Chain Bag	●	●	●
B-BAG-HC1	Clear Hitch Kit Parts Bag	●	●	●
B-BAG-TL1A	Red Trailer Parts Bag	●	●	●
Z-9HC-BLN-02	DUO-HITCH™ (Patent Pending) Assembly	●	●	●
Z-8TO-SXM	63"/80" Sliding Crossmember	●	●	●
Z-8TO-PLR	Snap Ring for Adj. Pkg. Leg	●	●	●
Z9TO-APR	Adj. Parking Leg w/Pad	●	●	●
A-9TO-13B	13B Tire	●		
A-9TO-13C	13C Tire		●	
A-9TO-14C	14C Tire			●
Z-8HC-BAL	Ball Coupler Only	●	●	●
Z-9AX-T01	2200 lb Axle	●		
Z-9AX-S01	1500 lb Axle Spring	●		
Z-9AX-T06	3500 lb Axle		●	●
Z-9AX-S04B	3500 lb Axle Spring		●	●
Z8TO-DHWL	Warning Decal	●	●	●
Z-8TO-FXM-R	FIXED CROSS MEMBER (RIGHT)	●	●	●
Z-8TO-FXM-L	FIXED CROSS MEMBER (LEFT)	●	●	●

GENERAL MAINTENANCE

Do not use the trailer if any part is damaged or not working properly. When performing maintenance, check trailer for worn, damaged, or non-working parts. Perform maintenance according to this manual.

If necessary, always replace any fastener with one of equal size, grade and type.

Be sure the grade marks on the replacement fastener match the original bolt.

The manufacturer's identification mark is not critical and does not matter for the replacement fastener.

Once a year, lubricate all moving parts on trailer with SAE20W oil. Lubricate more often if trailer is exposed to elements or subject to frequent off-road use.

Periodically double-check all nuts and bolts for tightness and condition.



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