Miller
The Power of Blue.

OM-659 029 715E

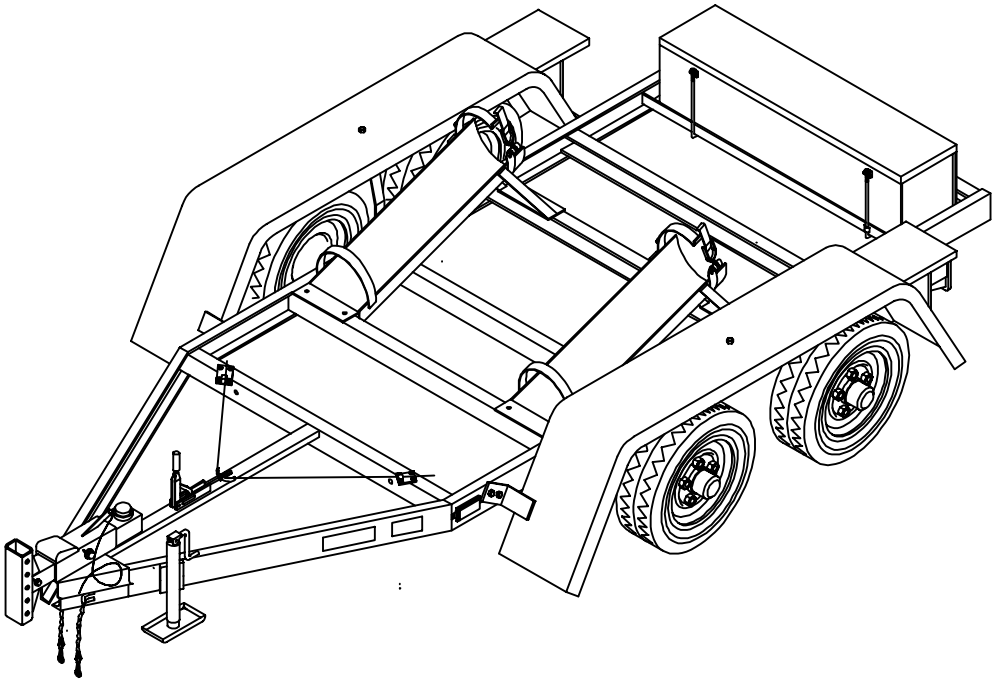
October 1994

Description

Four-Wheel, Tandem Axle, Heavy-Duty Trailer With Adjustable Hitch For Large Engine-Driven Welding Generators

2750 lb (1247 kg) Net Payload Capacity

3000-4AH



OWNER'S MANUAL

Visit our website at

www.MillerWelds.com

From Miller to You

Thank you and *congratulations* on choosing Miller. Now you can get the job done and get it done right. We know you don't have time to do it any other way.

That's why when Niels Miller first started building arc welders in 1929, he made sure his products offered long-lasting value and superior quality. Like you, his customers couldn't afford anything less. Miller products had to be more than the best they could be. They had to be the best you could buy.

Today, the people that build and sell Miller products continue the tradition. They're just as committed to providing equipment and service that meets the high standards of quality and value established in 1929.

This Owner's Manual is designed to help you get the most out of your Miller products. Please take time to read the Safety precautions. They will help you protect yourself against potential hazards on the worksite. We've made installation and operation quick and easy. With Miller you can count on years of reliable service with proper maintenance. And if for some reason the unit needs repair, there's a Troubleshooting section that will help you figure out what the problem is. The parts list will then help you to decide which exact part you may need to fix the problem. Warranty and service information for your particular model are also provided.

ISO 9001 REGISTERED QUALITY SYSTEM

Miller is the first welding equipment manufacturer in the U.S.A. to be registered to the ISO 9001 Quality System Standard.

Miller Electric manufactures a full line of welders and welding related equipment. For information on other quality Miller products, contact your local Miller distributor to receive the latest full line catalog or individual catalog sheets. **To locate your nearest distributor or service agency call 1-800-4-A-Miller, or visit us at www.MillerWelds.com on the web.**

TRUE BLUE® WARRANTY

Working as hard as you do – every power source from Miller is backed by the most hassle-free warranty in the business.

Miller offers a Technical Manual which provides more detailed service and parts information for your unit. To obtain a Technical Manual, contact your local distributor. Your distributor can also supply you with Welding Process Manuals such as SMAW, GTAW, GMAW, and GMAW-P.

Miller® *The Power of Blue.*

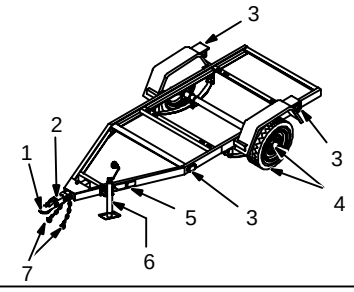
TRAILER TOWING SAFETY PRECAUTIONS

⚠ WARNING

TRAILER TOWING can be hazardous.

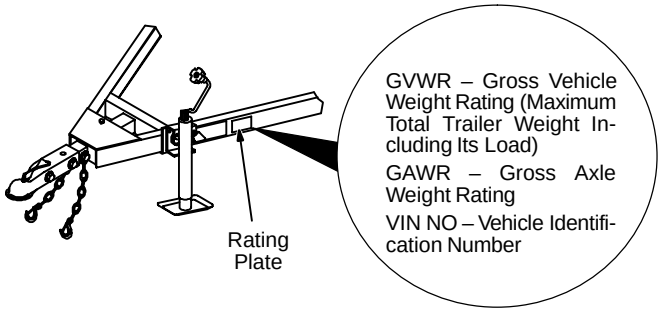
In trailer towing, as in most driving situations, exposure to certain hazards occurs. Trailer towing is safe when precautions are taken. The following safety information is only a summary of the more complete information found in the Safety Standards listed at the end of these precautions. Read and follow all Safety Standards. In addition, the end user must check and comply with all federal, state, and local laws before use.

HAVE ALL INSTALLATION, OPERATION, MAINTENANCE, AND REPAIR WORK PERFORMED ONLY BY QUALIFIED PEOPLE.



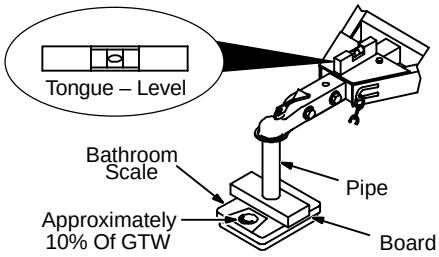
1 Coupler
Hitch is on towing vehicle.
2 Tongue
3 Lights
4 Wheels And Bearings
5 Rating Plate
6 Jack Stand
7 Safety Chains

1. Use a towing vehicle prepared and capable of handling the load.
2. Towing any trailer requires special awareness because of the changed driving situation.
3. When towing, it takes longer to start, stop, and pass – use training and practice to avoid accidents.
4. Turning and backing up present new problems – plan ahead.
5. Require each driver to be fully trained and experienced in trailer towing before going out on the road.
6. Holes are provided for mounting weld/power generator.
7. Be sure trailer is fully prepared and connected to towing vehicle.
8. Observe maximum speed of 45 mph (72 kph) when towing.
9. Do not modify or change the trailer in any way – changes void the warranty. Read Owner's Manual.
10. Use only genuine factory parts as replacements.
11. Adjust load on trailer so tongue weight is approximately 10% of the gross trailer weight and center load side-to-side to reduce fishtailing.
12. Tighten all parts, bolts, nuts, and mounting hardware.



OVERLOADING can cause serious injury or equipment damage.

1. Do not overload the trailer.
2. The Gross Vehicle Weight Rating (GVWR) is the maximum total trailer weight with the engine driven welding generator and all equipment, such as tools, cables, and shielding gas cylinder, installed.
3. The Gross Axle Weight Rating (GAWR) is the maximum load-bearing capacity of the axle(s).
4. Weigh trailer – adjust weight by removing accessory equipment if necessary – call local authorities for nearest scale location.
5. Use gross trailer weight to select a proper towing vehicle.



Trailer And Coupler Class[1]	Gross Vehicle Weight Rating GVWR lb (kg)	Gross Trailer Weight GTW[2] lb (kg)	Maximum Tongue Weight[3] lb (kg)
1	Up to 2000 (Up to 910)	1000 (455) 2000 (910)	100 (45) 200 (90)
2	2000 to 3500 (910 to 1590)	2000 (910) 3500 (1590)	200 (90) 350 (158)
3	3500 to 5000 (1590 to 2270)	3500 (1590)	350 (158)

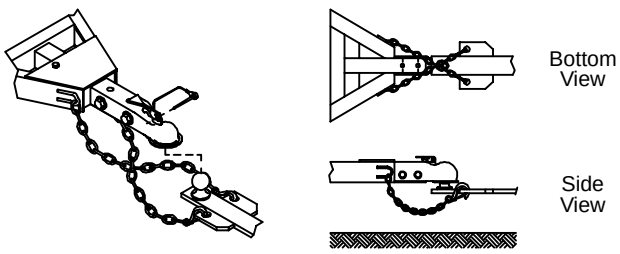
[1] Information From SAE J684 May 1987
[2] Gross Trailer Weight (Actual Loaded Weight)
[3] 10% Of GTW Recommended

UNCONTROLLED TILTING OF TRAILER can result in personal injury or equipment damage.

1. Install generator according to Owner's Manual with engine end toward hitch end of trailer.
2. Distribute weight so that trailer tongue weight is approximately 10% of the gross trailer weight.

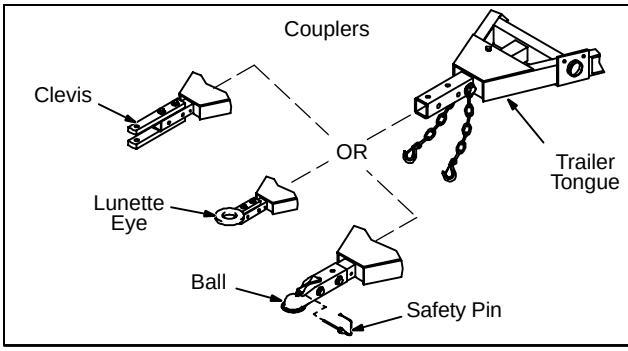
INCORRECT TONGUE WEIGHT can cause fishtailing and loss of control of towing vehicle resulting in serious injury and equipment damage.

3. Tongue weight is the amount of trailer weight that rests on the towing vehicle hitch – that is, the downward pressure on the coupler.
4. Remove or adjust trailer load to get correct tongue weight.
5. Do not let tongue weight exceed coupler and hitch rating.
6. Use slower speeds when towing a trailer – never above 45 mph (72 km/h) – to prevent fishtailing.



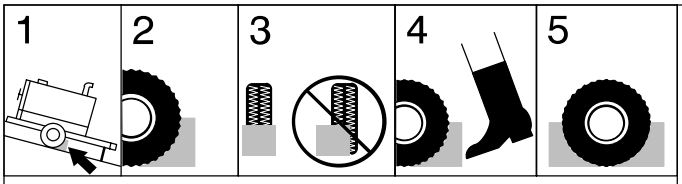
SAFETY CHAINS CAN PREVENT RUNAWAY TRAILER in case hitch/coupler fails.

1. Always use safety chains when towing.
2. Cross safety chains under coupling to prevent tongue from dropping to ground.
3. Allow only enough slack for tight turns.
4. Do not let safety chains drag on 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.



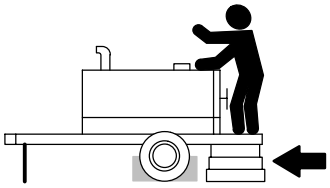
INCORRECT SIZE OR RATING OF HITCH can cause trailer to break loose from towing vehicle.

1. Be sure towing vehicle hitch is correct type, size, and 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.



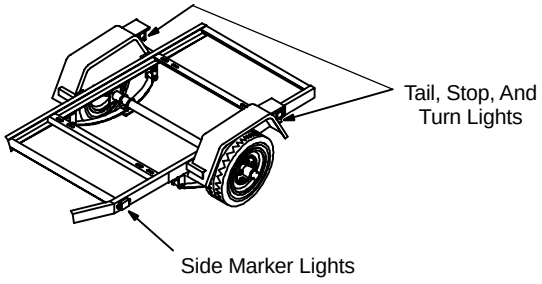
WHEELS MUST BE CHOCKED when trailer is uncoupled from vehicle.

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.



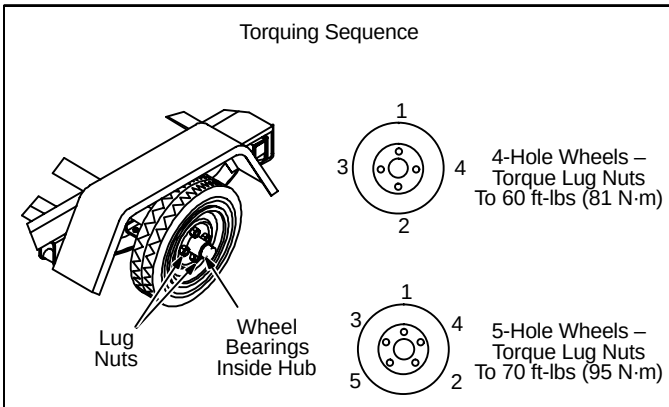
UNEXPECTED TILTING OF TRAILER can cause injury and damage.

1. When trailer is uncoupled from towing vehicle, use jack on front and block rear to prevent tilting.
2. Use proper blocks that are large enough and able to support the necessary weight.
3. Always chock the wheels when uncoupled.



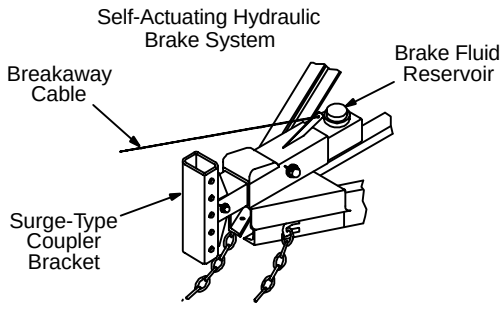
INCORRECTLY WORKING LIGHTS can cause accidents.

1. State and Federal regulations require trailers used on highways to have tail, stop, turn, and side marker lights.
2. Lights are not required for trailers designed for off-road use only.
3. Check all lights and connectors for proper installation and operation before using the trailer.
4. Check condition of wiring harness leads, plugs, and connections regularly. Repair or replace damaged parts or wires.
5. Replace any broken lenses, reflectors, or bulbs.



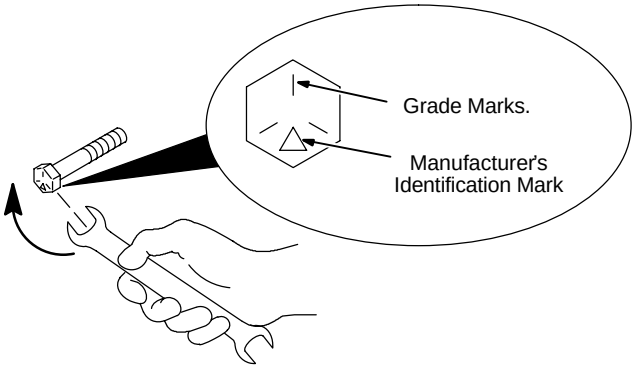
INCORRECT TORQUE on lug nuts or INCORRECT TIRE PRESSURE or BEARING MAINTENANCE can cause loss of control resulting in serious injury and equipment damage.

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 unlubricated.
3. Check and repack wheel bearings once each year or every 12,000 miles (19,500 km), whichever comes first.
4. Maintain correct tire pressure according to sidewall data on tire – underinflation is the most common cause of tire trouble.
5. Check tires for wear every six months.
6. Use only replacement tires of the same size, rating, and capacity.



INOPERATIVE SURGE-TYPE BRAKES OR WRONG BREAKAWAY CABLE CONNECTION can cause accidents.

1. Check brake fluid level before use.
2. Do not use sway control devices – keep coupler free to telescope during braking.
3. Always connect breakaway cable to towing vehicle – be sure it has a direct free pull.
4. Do not wrap cable around safety chains, tongue, wiring, or any other parts.
5. The breakaway cable automatically applies the trailer brakes if separation occurs.



LOOSE OR INCORRECT HARDWARE AND FASTENERS can cause injury and damage.

1. Periodically double-check all nuts and bolts for tightness and condition.
2. If necessary, always replace any fastener with one of equal size, grade, and type.
3. Be sure the grade marks on replacement fastener match the original bolt. The manufacture's identification mark is not critical and does not matter for the replacement fastener.

PRE-TOWING CHECKLIST

- ☐ Check gross trailer weight, tongue weight, and total weight distribution – do not overload this trailer.
- ☐ Check that the correct hitch is properly installed on towing vehicle.
- ☐ When coupling, check that coupler locking device (safety pin), safety chains, and breakaway cable (if applicable) are properly connected.
- ☐ Check that tires are properly inflated and that wheel nuts are properly torqued.
- ☐ If applicable, check that all lights are working properly.

PRINCIPAL SAFETY STANDARDS

Trailer & Camper Safety, Publication # DOT HS-802586, from U.S. Department of Transportation, National Highway Traffic Safety Administration, Washington, D.C. 20590

Safety and Health Standards, OSHA 49 CFR 200 to 999, from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

SAE Handbook. 1996. Volume 4. *On-Highway Vehicles and Off-Highway Machinery,* from Society of Automotive Engineers, Inc., 400 Commonwealth Drive, Warrendale, PA 15096-0001.

REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying MILLER Electric Mfg. Co.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or MILLER Electric Mfg. Co.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

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SECTION 1 – SAFETY INFORMATION

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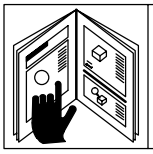
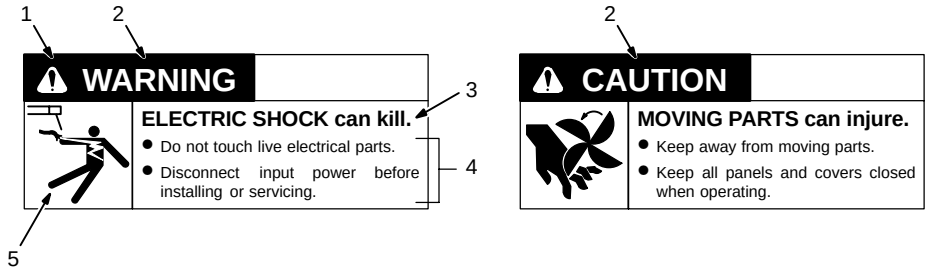


- Read all safety messages throughout this manual.
- Obey all safety messages to avoid injury.
- Learn the meaning of WARNING and CAUTION.



1 Safety Alert Symbol

2 Signal Word

WARNING means possible death or serious injury can happen.

CAUTION means possible minor injury or equipment damage can happen.

3 Statement Of Hazard And Result

4 Safety Instructions To Avoid Hazard

5 Hazard Symbol (If Available)

6 Safety Banner

Read safety blocks for each symbol shown.

7 NOTE

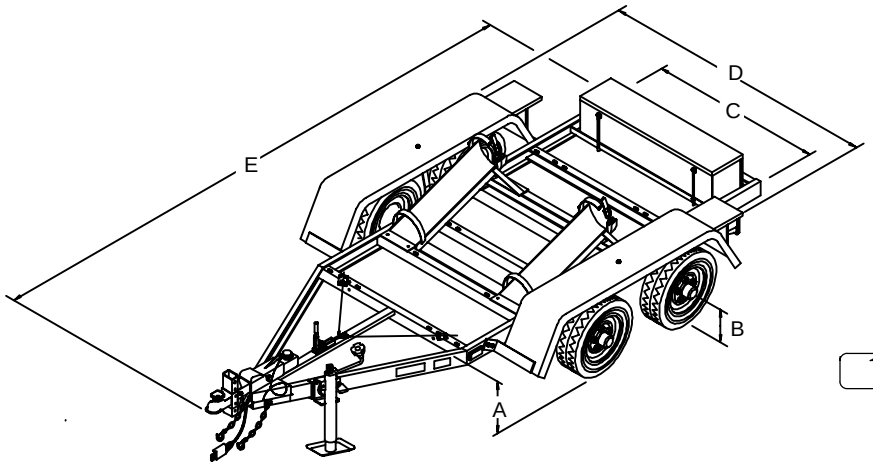
Special instructions for best operation – not related to safety.

Figure 1-1. Safety Information

SECTION 2 – SPECIFICATIONS

Table 2-1. Trailer

Specification	Description
Gross Axle Weight Rating (Each Axle)	2000 lb (900 kg)
Gross Vehicle Weight Rating	3500 lb (1587 kg)
Net Payload	2750 lb (1247 kg)
Track (Center To Center Of Tires)	63 in (1600 mm)
Road Clearance	11-1/2 in (292 mm)
Height Of Bed	20 in (508 mm)
Standard Tires	F78-14 Or P205/75 D14
Overall Dimensions	See Figure 2-1
Weight	725 lb (329 kg)
Options	Cylinder Rack, Tool Box, Ball And Lunette Eye Hitches



	Inches	Millimeters
A	20	508
B	13	330
C	48-1/2	1232
D	74	1879
E*	158-1/2	4026

*150 in (3810 mm) Without Optional Hitch

Dimensions A and B will decrease when weight is added to trailer.

ST-148 258

Figure 2-1. Overall Dimensions

SECTION 3 – INSTALLATION & OPERATION

NOTE *All directions are given as facing the towing vehicle. The word "front" means the hitch end of the trailer.*

3-1. Operating Parking Brake And Jack

⚠ WARNING

TILTING OF TRAILER can result in personal injury or equipment damage.

- Use adequate blocks or lifting device to support hitch end while pivoting trailer jack into position.
- Use trailer jack to obtain desired height and to support tongue weight.

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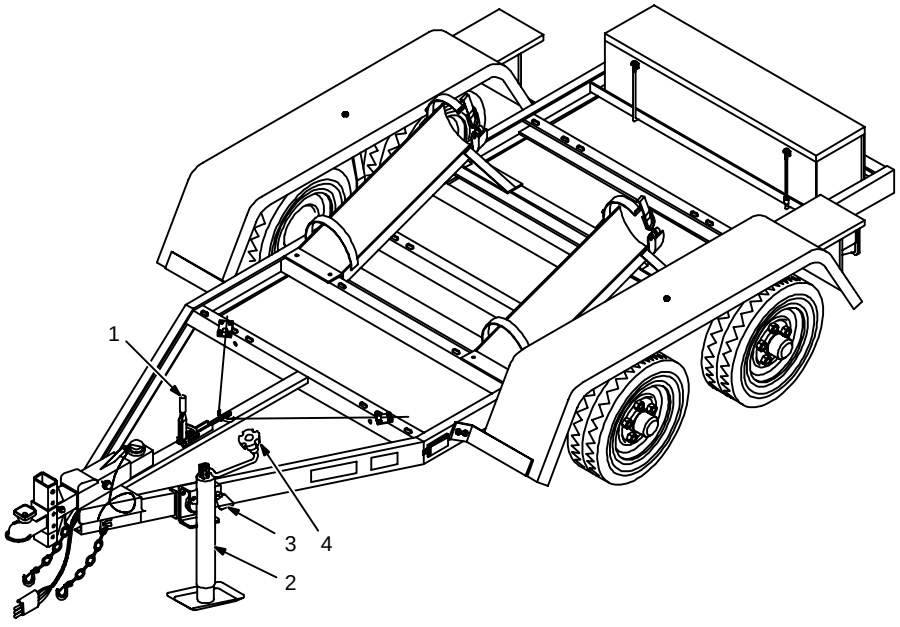

1 Parking Brake

Use brake to manually apply trailer brakes when trailer is parked.

To use brake, push handle forward until handle is nearly horizontal.

To release brake, pull handle back to vertical position.

See Section 3-7 for parking brake adjustment procedure.

2 Jack

3 Securing Pin

Pull pin and rotate jack to vertical position. Insert pin to lock jack in place.

4 Handle

Turn handle to raise or lower trailer.

When jack is not needed, pull pin and rotate jack to horizontal position. Use pin to lock jack in place.

Ref. ST-148 258

Figure 3-1. Operating Parking Brake And Jack

3-2. Installing Fenders And Lights

⚠ WARNING

TILTING OF TRAILER can result in personal injury or equipment damage.

- Use adequate blocks or lifting device to support hitch end while pivoting trailer jack into position (see Section 3-1).
- Use trailer jack to obtain desired height and to support tongue weight while installing fenders and lights.

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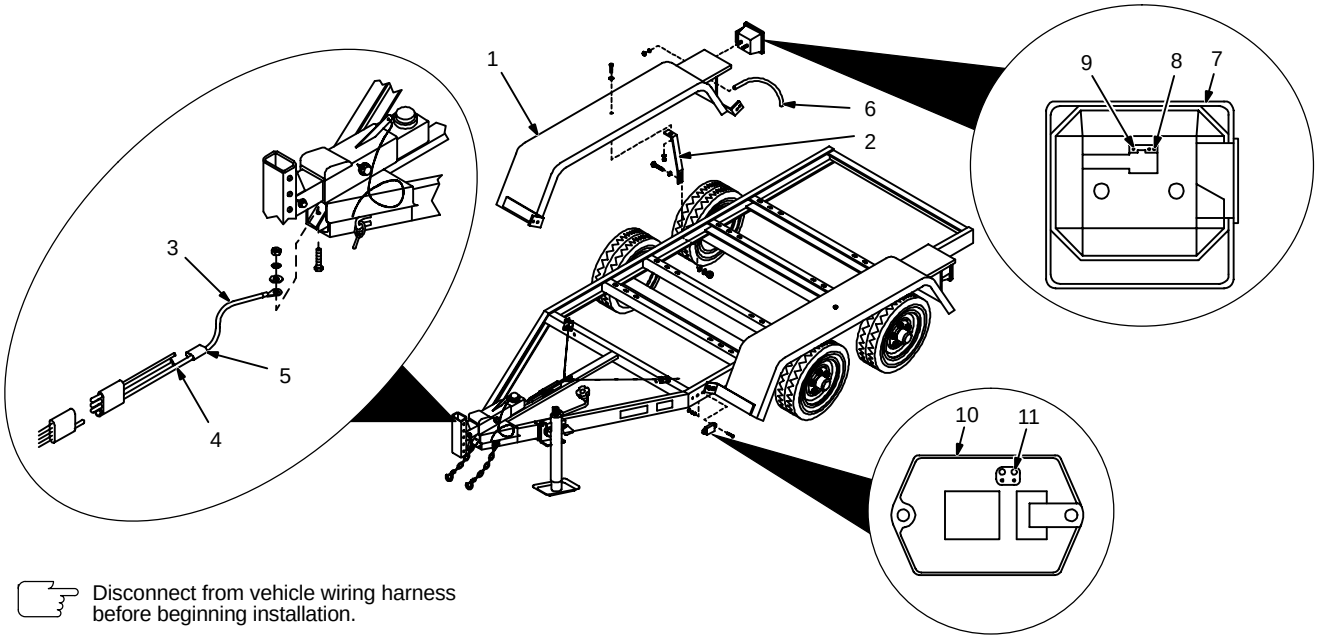
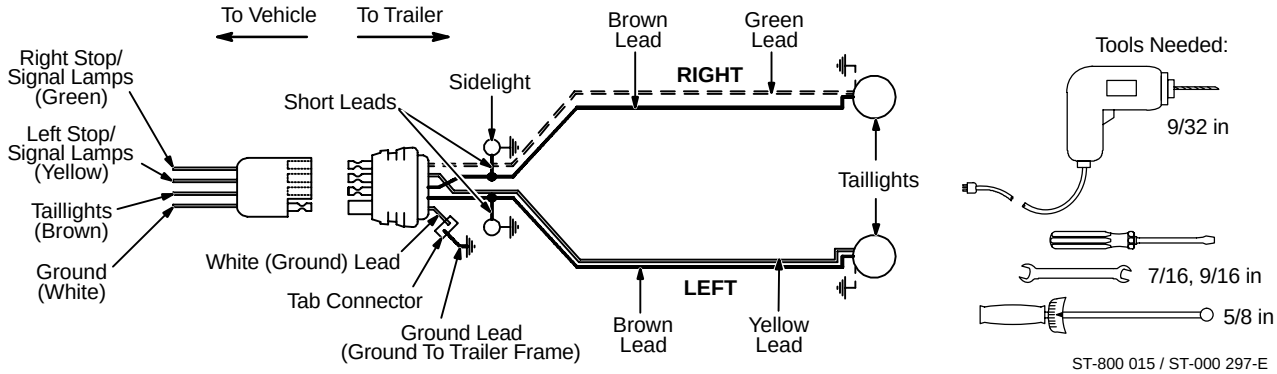


Disconnect from vehicle wiring harness before beginning installation.



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Support trailer with jack. Apply parking brake.

1 Fender

2 Support Bracket

Attach fenders and brackets to frame with 3/8-16 x 1-1/4 in hardware. Tighten hardware to 30 ft lb (40 N·m).

3 Ring Terminal Lead

4 Wiring Harness White Ground Lead

5 Tab Connector

Splice ring terminal lead to white lead with supplied connector (see Figure 3-3).

Secure ring terminal to side rail using 1/4-20 hardware. If hole is not present, drill a 9/32 in (7 mm) hole in side rail as shown.

Route brown and green leads through clamps on right inside of frame and out end of channel.

6 Sleeving

Slip sleeving over leads. Route leads through back of right taillight bracket.

7 Taillight

8 Tail Hole

9 Stop Hole

Insert stripped end of brown lead into Tail hole in rear of right taillight. Insert green lead into taillight Stop hole. Attach taillight to bracket with 1/4 in hardware.

10 Sidelight

11 Marker Brown Hole

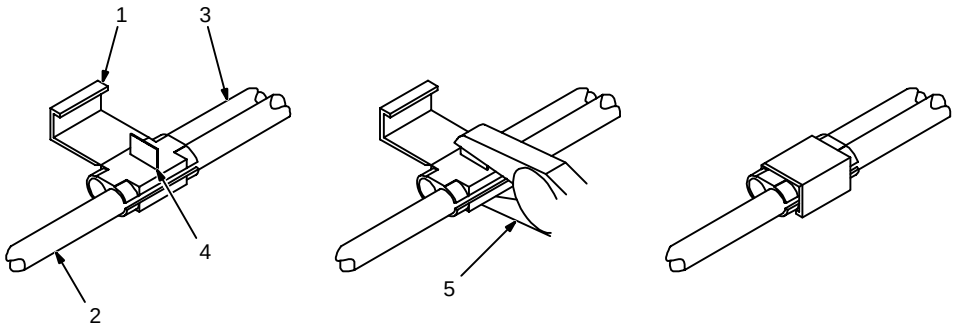
Route stripped end of either supplied short lead through hole in right trailer frame channel. Insert lead into top Marker Brown hole.

Splice remaining end of short lead to brown lead from wiring harness.

Secure sidelight with 10 - 24 hardware.

Install left side taillight and sidelight using wiring harness brown and yellow leads.

Figure 3-2. Installing Fenders And Lights



1 Connector

2 Run Wire

3 Tap Wire

Place unstripped run wire in slotted channel.

Insert unstripped tap wire into other channel until it hits internal stop.

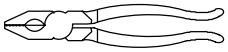
4 Contact

5 9 Inch Linemans Pliers

Use pliers to push contact down flush with top of connector.

Close top cover.

Tools Needed:



Use tab connector only with insulated wires.

Ref. S-0448

Figure 3-3. Installing Wiring Harness Connectors

3-3. Installing Optional Tool Box

⚠ WARNING

TILTING OF TRAILER can result in personal injury or equipment damage.

- Use adequate blocks or lifting device to support hitch end while pivoting trailer jack into position (see Section 3-1).
- Use trailer jack to obtain desired height and to support tongue weight while installing tool box.

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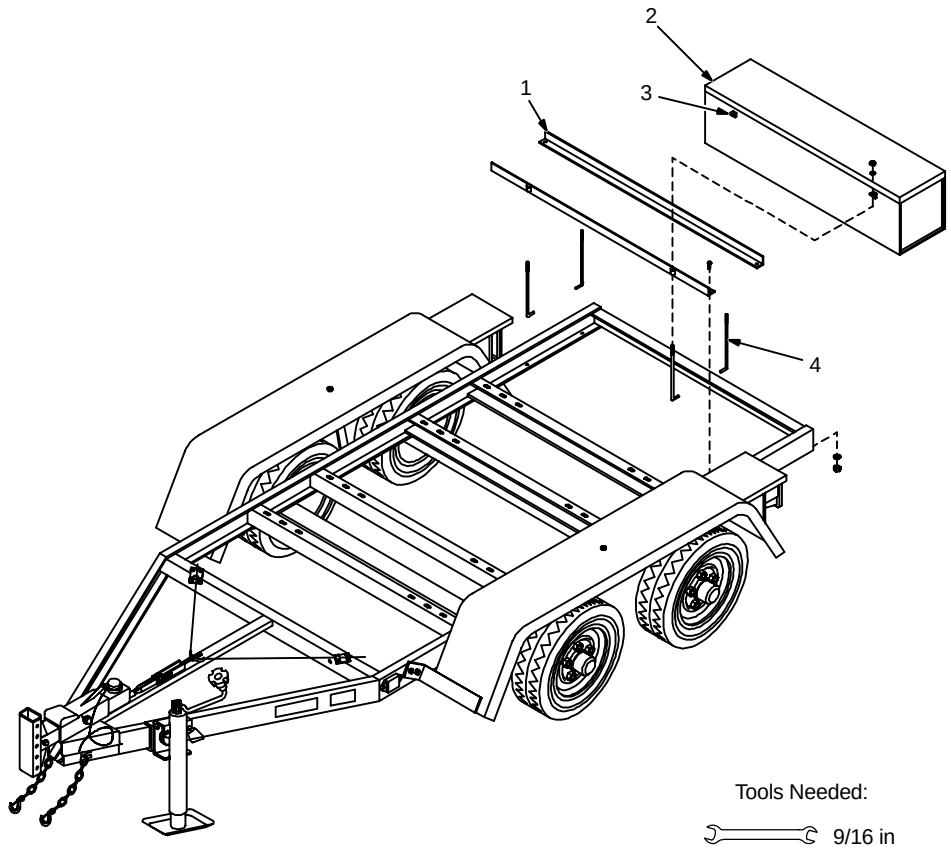


Support trailer with jack. Apply parking brake.

1 Bracket

Attach brackets to frame using 3/8-16 x 1 hardware. Tighten hardware to 31 ft lb (40 N·m).

2 Tool Box

3 Mounting Tab

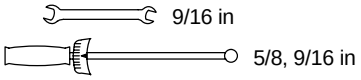
Place box on brackets and align mounting tabs on box with those on brackets.

4 Hook Bolt

Slide bolt through each mounting tab on bracket and up through mounting tab on tool box. Be sure "L" of bolts follows angle of mounting brackets.

Install 5/16 in flat washer, lock washer, and hex nut on hook bolt. Tighten to 31 ft lb (40 N·m).

Tools Needed:



9/16 in

5/8, 9/16 in

ST-800 014

Figure 3-4. Installing Tool Box

3-4. Installing Optional Cylinder Rack And Shielding Gas Cylinders

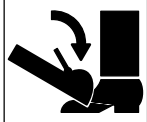
⚠ WARNING

CYLINDERS can explode if damaged.

- Keep cylinders away from welding and other electrical circuits.
- Never touch cylinder with welding electrode.
- Always secure cylinder to running gear, wall, or other stationary support.

BUILDUP OF SHIELDING GAS can harm health or kill.

- Shut off shielding gas supply when not in use.



TILTING OF TRAILER can result in personal injury or equipment damage.

- Use adequate blocks or lifting device to support hitch end while pivoting trailer jack into position (see Section 3-1).
- Use trailer jack to obtain desired height and to support tongue weight while installing cylinder rack and cylinders.

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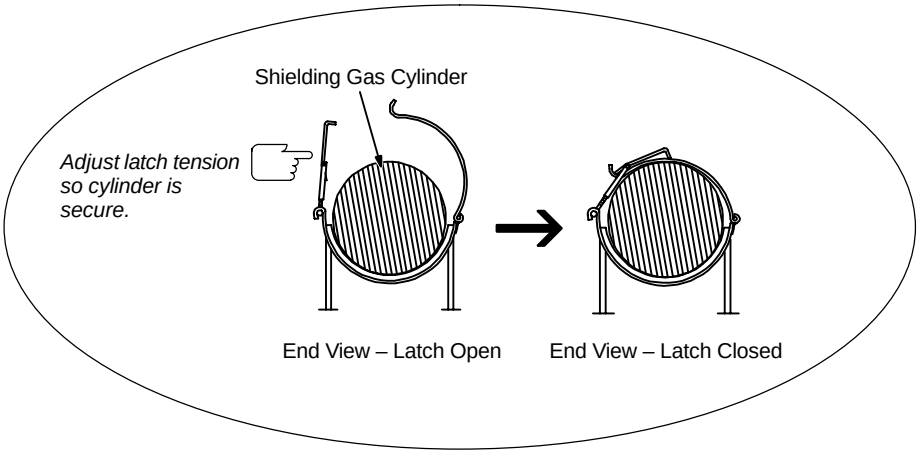


Support trailer with jack. Apply parking brake.

1 Cylinder Rack

Install rack on frame as shown. Secure rack with 1/2-13 x 1-1/2 in hardware. Tighten hardware to 75 ft lb (100 N·m).

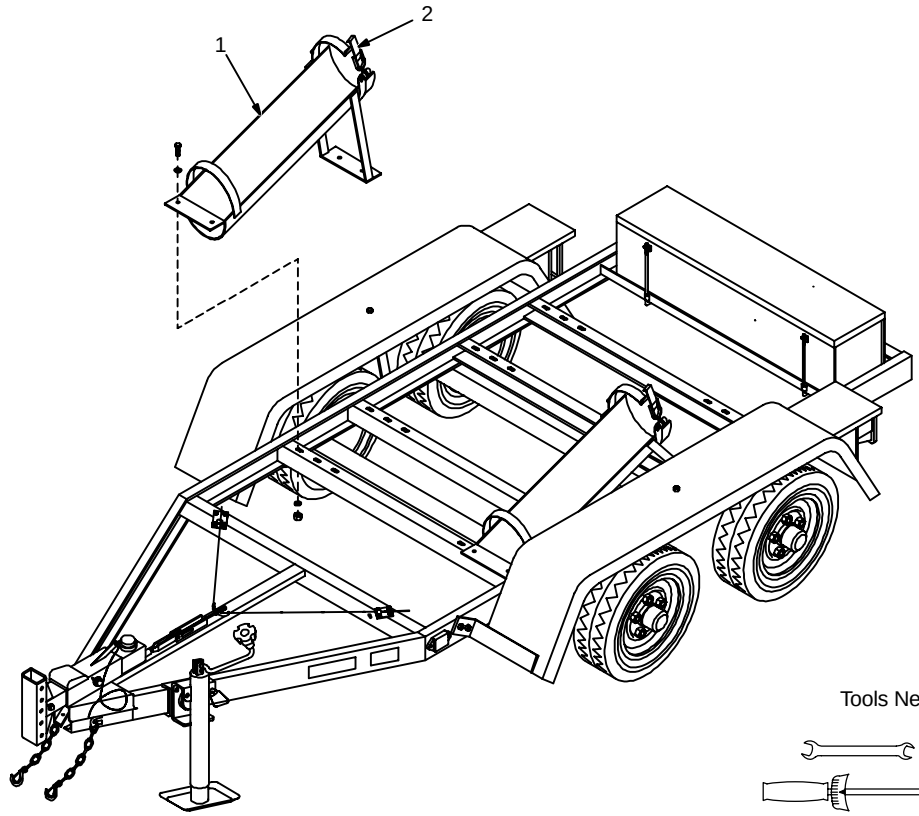
Install shielding gas cylinder as follows:

2 Clamp

Pull back clamp to release. Install cylinder in rack.

Adjust clamp by turning clamp clockwise to tighten or counterclockwise to loosen.

Close clamp to secure cylinder. If necessary, readjust clamp so cylinder is secure.



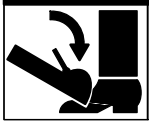
Tools Needed:

ST-800 013-C

Figure 3-5. Installing Cylinder Rack And Shielding Gas Cylinders

3-5. Installing Optional Trailer Hitch And Connecting To Towing Vehicle

⚠ WARNING

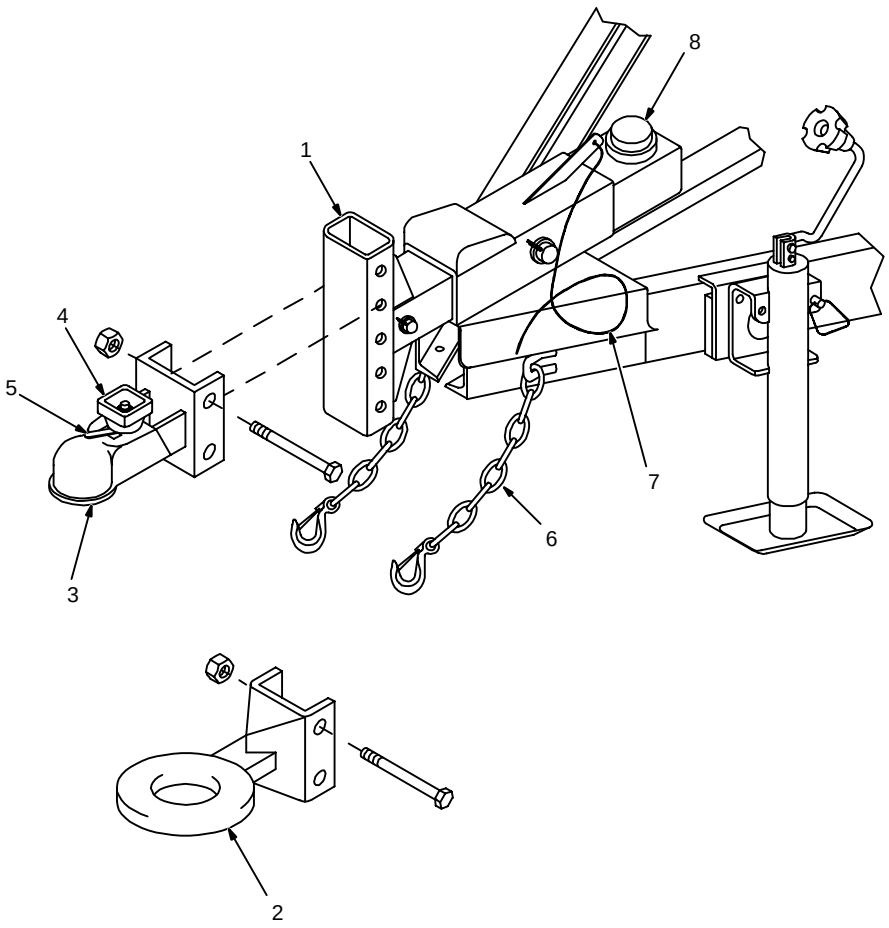


TILTING OF TRAILER can result in personal injury or equipment damage.

- Use adequate blocks or lifting device to support hitch end while pivoting trailer jack into position (see Section 3-1).
- Use trailer jack to obtain desired height and to support tongue weight while installing hitch.

rwarn1.1* 3/93

NOTE ☞ *The self-actuating hydraulic brake system engages trailer brakes when pressure is applied to trailer hitch while stopping.*



Support trailer with jack. Apply parking brake.

1 Mounting Channel

Hitch may be mounted in four different positions on channel. Use position that provides level connection between trailer and towing vehicle.

2 Lunette Eye Hitch (Optional)

3 Ball Hitch (Optional)

Attach hitch to channel using 1/2-20 x 4-1/2 in hardware. Tighten hardware to 75 ft lb (102 N·m).

Secure hitch to towing vehicle.

4 Knob

5 Lever

If using ball hitch, set trailer onto towing ball and turn knob clockwise until tight.

To release hitch, hold lever down while turning knob counterclockwise.

6 Safety Chain

Cross safety chains under hitch and attach to towing vehicle.

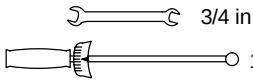
7 Breakaway Cable

Attach cable to towing vehicle above hitch. Cable applies trailer brakes if trailer is separated from towing vehicle.

8 Brake Fluid Reservoir

Check fluid level in reservoir. Add fluid if not up to full mark (see Section 3-7). See brake actuator Owner's Manual.

Tools Needed:

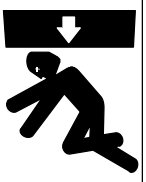


ST-800 012-A

Figure 3-6. Installing Hitch And Connecting To Towing Vehicle

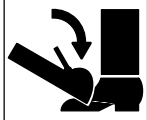
3-6. Installing Welding Generator

⚠ WARNING



FALLING EQUIPMENT can cause serious personal injury and equipment damage.

- Use lifting eye to lift unit only, NOT running gear, gas cylinders, trailer, or any other heavy options, accessories, or devices.
- Use equipment of adequate capacity to lift the unit.



TILTING OF TRAILER can result in personal injury or equipment damage.

- Install welding generator onto trailer with engine end toward hitch end of trailer.
- Distribute weight so trailer tongue weight is approximately 10% of the gross trailer weight.
- Use adequate blocks or lifting device to support hitch end while pivoting trailer jack into position (see Section 3-1).
- Use trailer jack to obtain desired height and to support tongue weight while installing welding generator.

rwarn1.1* 3/93

Model	Generator Mounting Dimensions	
	A	B
All Big 20, Big 40, Big 50 Models	9-1/2 in (241 mm)	46-1/4 in (1175 mm)
Big 30A, Big Blue 251D	4-1/2 in (114 mm)	41-1/4 in (1048 mm)
Big Blue 400D	10-1/2 in (267 mm)	47-1/4 in (1200 mm)
Miller Air Pak, Big Blue 600D	13-3/4 in (349 mm)	50-1/2 in (1283 mm)
Trailblazer 44 & 55G* (Continental)	15 in (381 mm)	51-3/4 in (1315 mm)
All Other Trailblazer Models*	17 in (432 mm)	53-3/4 in (1365 mm)

*All Trailblazer models use the same base rails. Be sure to install the D and G models using the correct mounting holes.

Use correct size SAE grade 5 locking-type hardware to mount equipment on trailer.

Support trailer with jack. Apply parking brake.

1 Crossmember

2 Mounting Holes

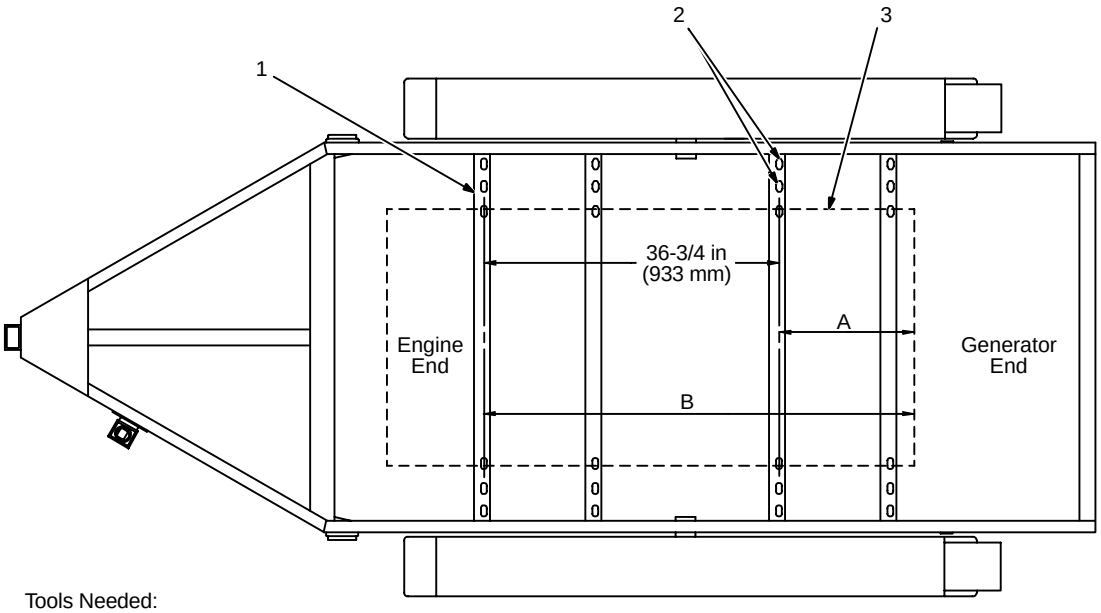
3 Welding Generator

Align proper holes in generator base with holes in crossmembers (see table).

Install generators not listed in table so unit is centered over crossmembers.

If mounting accessories or generator not listed in table, adjust generator position so tongue weight is 10 - 15% of gross trailer weight.

Secure generator with supplied 5/8 in grade 5 hardware. Tighten mounting hardware to 150 ft lb (200 N·m).



Tools Needed:

15/16 in

1 in

ST-800 016-A

Figure 3-7. Installing Welding Generator

3-7. Maintenance

⚠ WARNING

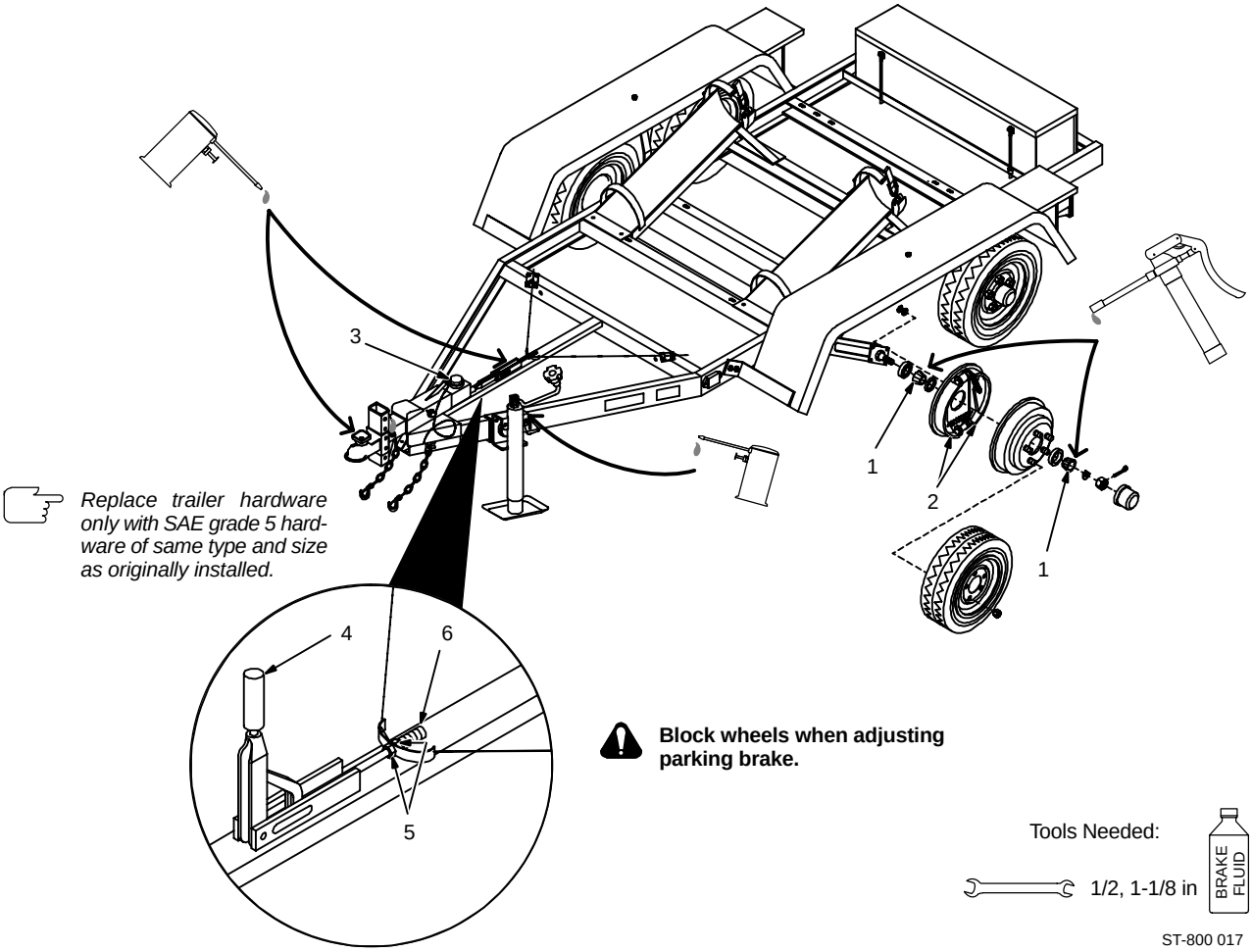
FALLING EQUIPMENT can cause serious personal injury and equipment damage.

- Apply parking brake while performing maintenance (see Section 3-1).
- Support trailer with jack, or use proper equipment to lift trailer.
- Do not put any body part under trailer while lifting or performing maintenance.

rwarn1.1* 3/93

NOTE ☞

Do not use trailer if any part is damaged or not working properly. When performing maintenance, check trailer for worn, damaged, or non-working parts. Check for free rotation of assemblies mounted on bushings or bearings.



ST-800 017

Support trailer with jack. Apply parking brake.

Once a year, lubricate all moving parts on trailer with SAE 20W oil. Lubricate more often if trailer is exposed to elements or subject to frequent off-road use.

1 Wheel Bearings

Every 12,000 miles, check wheel bearings. Repack bearings if necessary using a good quality lithium-based extreme pressure grease.

2 Brake Linings

Check linings every 20,000 miles and replace if necessary.

When reinstalling wheels, be sure wheel nuts are properly tightened (see Trailer Towing Safety Precautions).

3 Brake Fluid Reservoir

Check fluid level in reservoir at least 3 times yearly. Add fluid if not up to full mark. Use DOT Series 3 brake fluid from a sealed container. See brake actuator Owner's Manual.

4 Parking Brake Handle

To adjust parking brake, release brake and turn handle. Turn clockwise to increase brake pressure or counterclockwise to decrease brake pressure.

Adjust brake so less than 30 ft lb (41 N·m) of force is required to apply or release brake handle.

If parking brake cannot be adjusted by turning handle, proceed as follows:

Release parking brake. Turn parking brake handle counterclockwise as far as possible.

5 Lock Nuts

6 Adjustment Rod

Loosen lock nuts on rod. Slide rod slightly forward. Tighten nuts.

Turn handle clockwise until parking brake is properly adjusted.

Figure 3-8. Trailer Maintenance

3-8. Torquing Wheel Bearings

⚠ WARNING

FALLING EQUIPMENT can cause serious personal injury and equipment damage.

- Use equipment of adequate capacity to lift unit.
- Do not put any body part under unit while lifting or working on bearings.

INCORRECT BEARING MAINTENANCE can cause loss of control resulting in serious injury and equipment damage.

- Check and repack wheel bearings once a year or every 12,000 miles (19,500 km), whichever comes first.

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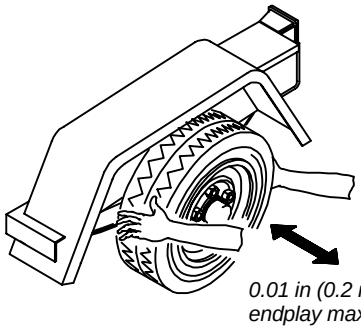
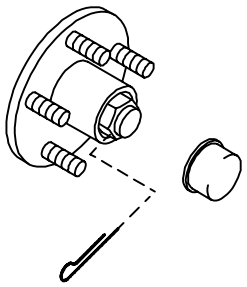


Check hub endplay. If loose, remove wheel and go to next step.

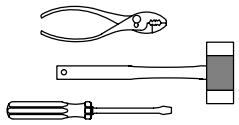


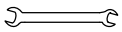
Remove cap and cotter pin.

Torque wheel bearings whenever hub nut is removed or hub is too loose.

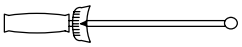
Repack bearings according to Section 3-7.

Tools Needed:

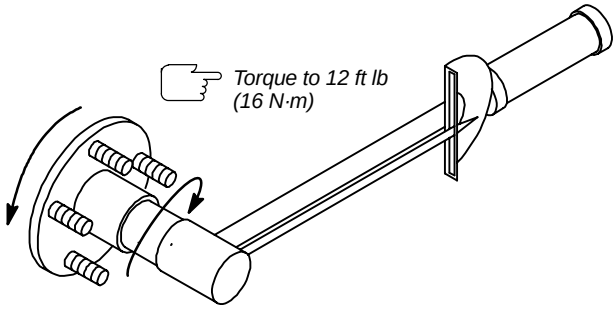




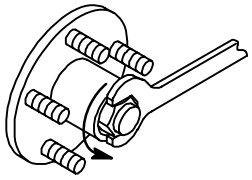
13/16, 1-1/8 in



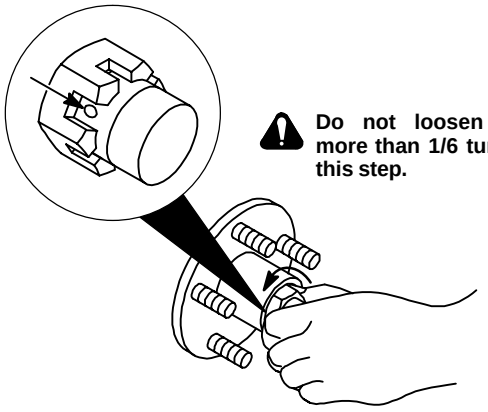
13/16, 1-1/8 in



Torque nut while turning hub forward.

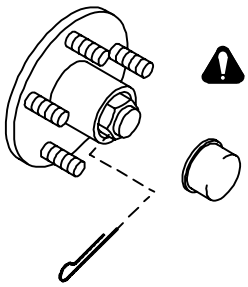


Turn nut until “just loose.”



⚠ Do not loosen nut more than 1/6 turn in this step.

Loosen nut further until first slot in nut aligns with hole in spindle.



⚠ Pin must not rub on cap.

Install new cotter pin and bend ends around nut. Install cap. Install wheel (See Trailer Towing Safety Precautions) and recheck endplay.

Ref. ST-800 441-A

Figure 3-9. Torquing Wheel Bearings

SECTION 4 – PARTS LIST

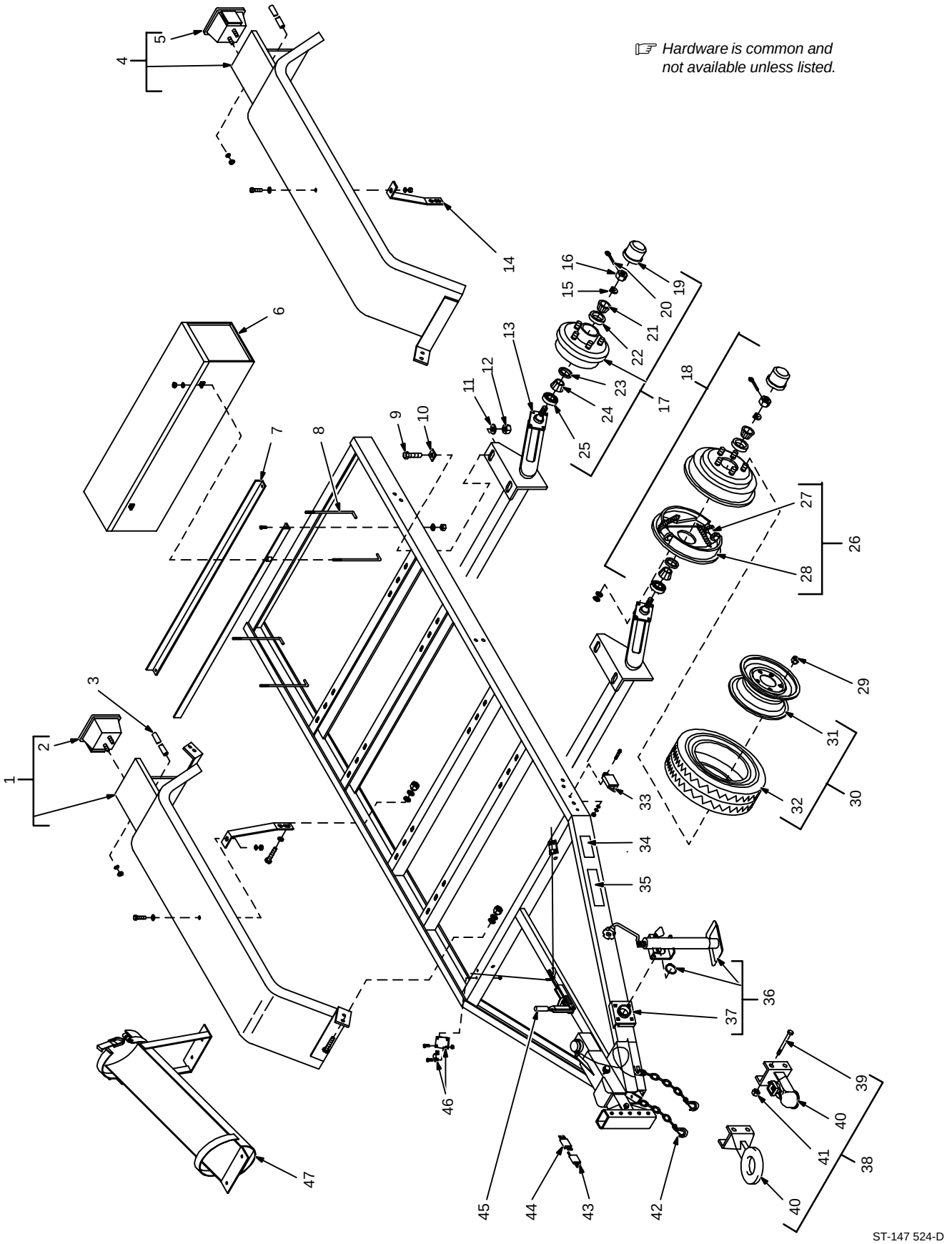


Figure 4-1. Complete Assembly

Item No.	Part No.	Description	Quantity
		Figure 4-1. Complete Assembly	
1	003 764	FENDER, RH w/light (consisting of)	1
2	034 136	LAMP, 12V	1
3	070 587	TUBING, gl acrylic .229-.249 ID No. 4 (order by ft)	3ft
4	003 765	FENDER, LH w/light (consisting of)	1
5	034 137	LAMP, 12V w/license light	1
	♦040 638	TOOL BOX, 44in (consisting of)	1
6	018 955	TOOL BOX	1
7	015 963	ANGLE, support-tool box	2
8	030 475	BOLT, hook stl .312-18	4
	604 538	WASHER, flat stl SAE .312	4
	602 211	WASHER, lock stl split .312	4
	604 537	NUT, stl hex full fnsh .312-18	4
	601 966	SCREW, cap stl hexhd .375-16 x 1.250	4
	602 213	WASHER, lock stl split .375	4
	601 872	NUT, stl hex full fnsh .375-16	4
9	605 783	SCREW, cap stl hexhd .625-18 x 2.000 (qty of 4 used for mounting unit)	12
10	034 121	WASHER, beveled .625 hole	8
11	602 249	WASHER, flat stl SAE .625 (qty of 4 used for mounting unit)	16
12	601 851	NUT, stl slflkg hex reg .625-18 (qty of 4 used for mounting unit)	12
13	030 487	AXLE, 2000lbs	2
14	028 808	BRACKET, support fender	2
	601 966	SCREW, cap stl hexhd .375-16 x 1.250	14
	602 243	WASHER, flat stl .375	14
	602 213	WASHER, lock stl split .375	14
	601 871	NUT, stl hex jam .375-16	14
15	010 182	WASHER, flat stl keyed .750	4
16	010 181	NUT, hex slotted .750-16	4
17	028 492	HUB ASSEMBLY (consisting of)	2
18	028 931	HUB & DRUM, wheel 10in (consisting of)	2
	167 787	KIT, bearing 1-3/8 & 1-1/16 tapered axle (consisting of)	1
19		GREASE CAP, 1 in	1
20		PIN, cotter .125 x 1.500	1
21		BEARING, L44649	1
22		CUP, L44610	1
23		CUP, L68111	1
24		BEARING, L68149	1
25		OIL SEAL, 1-3/8	1
26	028 929	CLUSTER, brake 10 in RH (consisting of)	1
26	028 930	CLUSTER, brake 10 in LH (consisting of)	1
27	028 927	CYLINDER, brake wheel RH (Dico 9776)	1
27	028 928	CYLINDER, brake wheel LH (Dico 9777)	1
28	028 926	BRAKE SHOE SET, wheel 10in (Dico 10952 front 10953 rear)	1
29	088 879	WHEEL NUTS	20
30	110 876	WHEEL, w/tire & rim (consisting of)	4
31	110 803	RIM, 14.000in x 5.500 wide	1
32	022 675	TIRE, tubeless F78-14	1
33	034 479	LIGHT & REFLECTOR, amber	2
	602 110	SCREW, mach stl rdh 10-24 x .750	4
	602 203	WASHER, lock stl split 10-24	4
	601 861	NUT, stl hex mscr 10-24	4
34		NAMEPLATE (order by model and serial number)	1
35	095 555	LABEL, warning lifting trailer	2
36	163 049	JACK, swivel w/mtg plate (consisting of)	1
37	136 037	BRACKET, swivel jack	1
38	♦042 153	2” BALL HITCH (consisting of)	1
38	♦042 152	3” LUNNETTE EYE (consisting of)	1
39	003 835	SCREW, cap stl hex hd .500-20 x 4.500	2
40	114 184	COUPLER ASSEMBLY, hitch 2 in ball	1
40	114 183	EYE, lunnette 3 in	1
41	604 450	NUT, slflkg hex full .500-20	2

Item No.	Part No.	Description	Quantity

Figure 4-1. Complete Assembly (Continued)

42	130 228	.. CHAIN, safety	2
43	605 710	.. CONNECTOR, trailer lights	1
44	605 709	.. WIRING HARNESS, 15ft	1
45	028 932	.. BRAKE KIT, hand parking	1
	010 423	.. CONNECTOR, tab	4
	010 091	.. CLAMP, cable wire rope .125 x .750	2
	108 940	.. SCREW, cap stl hexhd .250-20 (ground)	1
46	141 216	.. STRIP, mtg brake line	2
	601 948	.. SCREW, cap stl hexhd .312-18 x 1.000	8
	604 433	.. NUT, stl slflkg hex hvy .312	8
	♦040 543	.. CRT CYLINDER RACK, (consisting of)	1
47	124 298	.... HOLDER, cylinder	2
	604 467	.... SCREW, cap stl hexhd .500-13 x 1.500	8
	602 246	.... WASHER, flat stl .500	8
	602 216	.... WASHER, lock stl split .500	8
	601 879	.... NUT, stl hex full fnsh .500-13	8

♦OPTIONAL

To maintain the factory original performance of your equipment, use only Manufacturer's Suggested Replacement Parts. Model and serial number required when ordering parts from your local distributor.

Warranty Questions?

Call
1-800-4-A-MILLER
for your local
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Your distributor also gives you ...

Service
You always get the fast, reliable response you need. Most replacement parts can be in your hands in 24 hours.

Support
Need fast answers to the tough welding questions? Contact your distributor. The expertise of the distributor and Miller is there to help you, every step of the way.

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The Power of Blue.

TRUE BLUE® WARRANTY

Effective January 1, 2000
(Equipment with a serial number preface of "LA" or newer)

This limited warranty supersedes all previous Miller warranties and is exclusive with no other guarantees or warranties expressed or implied.

LIMITED WARRANTY – Subject to the terms and conditions below, Miller Electric Mfg. Co., Appleton, Wisconsin, warrants to its original retail purchaser that new Miller equipment sold after the effective date of this limited warranty is free of defects in material and workmanship at the time it is shipped by Miller. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

Within the warranty periods listed below, Miller will repair or replace any warranted parts or components that fail due to such defects in material or workmanship. Miller must be notified in writing within thirty (30) days of such defect or failure, at which time Miller will provide instructions on the warranty claim procedures to be followed.

Miller shall honor warranty claims on warranted equipment listed below in the event of such a failure within the warranty time periods. All warranty time periods start on the date that the equipment was delivered to the original retail purchaser, or one year after the equipment is sent to a North American distributor or eighteen months after the equipment is sent to an International distributor.

1. 5 Years Parts – 3 Years Labor
   * Original main power rectifiers
   * Inverters (input and output rectifiers only)
2. 3 Years — Parts and Labor
   * Transformer/Rectifier Power Sources
   * Plasma Arc Cutting Power Sources
   * Semi-Automatic and Automatic Wire Feeders
   * Inverter Power Supplies
   * Intellitig
   * Engine Driven Welding Generators **(NOTE: Engines are warranted separately by the engine manufacturer.)**
3. 1 Year — Parts and Labor
   * DS-2 Wire Feeder
   * Motor Driven Guns (w/exception of Spoolmate 185 & Spoolmate 250)
   * Process Controllers
   * Positioners and Controllers
   * Automatic Motion Devices
   * RFCS Foot Controls
   * Induction Heating Power Sources
   * Water Coolant Systems
   * HF Units
   * Grids
   * Maxstar 140
   * Spot Welders
   * Load Banks
   * Miller Cyclomatic Equipment
   * Running Gear/Trailers
   * Plasma Cutting Torches (except APT & SAF Models)
   * Field Options
     (NOTE: Field options are covered under True Blue® for the remaining warranty period of the product they are installed in, or for a minimum of one year — whichever is greater.)
4. 6 Months — Batteries
5. 90 Days — Parts
   * MIG Guns/TIG Torches
   * Induction Heating Coils and Blankets
   * APT, ZIPCUT & PLAZCUT Model Plasma Cutting Torches
   * Remote Controls
   * Accessory Kits
   * Replacement Parts (No labor)
   * Spoolmate 185 & Spoolmate 250
   * Canvas Covers

Miller's True Blue® Limited Warranty shall not apply to:

1. **Consumable components; such as contact tips, cutting nozzles, contactors, brushes, slip rings, relays or parts that fail due to normal wear.**
2. Items furnished by Miller, but manufactured by others, such as engines or trade accessories. These items are covered by the manufacturer's warranty, if any.
3. Equipment that has been modified by any party other than Miller, or equipment that has been improperly installed, improperly operated or misused based upon industry standards, or equipment which has not had reasonable and necessary maintenance, or equipment which has been used for operation outside of the specifications for the equipment.

MILLER PRODUCTS ARE INTENDED FOR PURCHASE AND USE BY COMMERCIAL/INDUSTRIAL USERS AND PERSONS TRAINED AND EXPERIENCED IN THE USE AND MAINTENANCE OF WELDING EQUIPMENT.

In the event of a warranty claim covered by this warranty, the exclusive remedies shall be, at Miller's option: (1) repair; or (2) replacement; or, where authorized in writing by Miller in appropriate cases, (3) the reasonable cost of repair or replacement at an authorized Miller service station; or (4) payment of or credit for the purchase price (less reasonable depreciation based upon actual use) upon return of the goods at customer's risk and expense. Miller's option of repair or replacement will be F.O.B., Factory at Appleton, Wisconsin, or F.O.B. at a Miller authorized service facility as determined by Miller. Therefore no compensation or reimbursement for transportation costs of any kind will be allowed.

TO THE EXTENT PERMITTED BY LAW, THE REMEDIES PROVIDED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES. IN NO EVENT SHALL MILLER BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES (INCLUDING LOSS OF PROFIT), WHETHER BASED ON CONTRACT, TORT OR ANY OTHER LEGAL THEORY.

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Owner's Record

Please complete and retain with your personal records.

Model Name Serial/Style Number

Purchase Date (Date which equipment was delivered to original customer.)

Distributor

Address

City

State Zip

For Service

Call 1-800-4-A-Miller or see our website at www.MillerWelds.com to locate a DISTRIBUTOR or SERVICE AGENCY near you.

Always provide Model Name and Serial/Style Number.

Contact your Distributor for:	Welding Supplies and Consumables
	Options and Accessories
	Personal Safety Equipment
	Service and Repair
	Replacement Parts
	Training (Schools, Videos, Books)
	Technical Manuals (Servicing Information and Parts)
	Circuit Diagrams
	Welding Process Handbooks
Contact the Delivering Carrier for:	File a claim for loss or damage during shipment.
For assistance in filing or settling claims, contact your distributor and/or equipment manufacturer's Transportation Department.	

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