



LIPPERT
COMPONENTS®

Formerly  Atwood Mobile Products

LITERATURE NUMBER MPD 87984

YOKE STYLE & FLIP LATCH COUPLERS

ENGLISH

•Installation •Operation •Maintenance

Effective 1/22/08 REV 01/19

SAFETY ALERT SYMBOLS

Safety Symbols alerting you to potential personal safety hazards. Obey all safety messages following these symbols.



WARNING

avoid possible
injury or death



CAUTION

avoid possible
injury and/or property damage

FOR YOUR SAFETY READ ALL INSTRUCTIONS BEFORE INSTALLATION AND OPERATION

Installer: Provide these instructions to the consumer.

Consumer: Read and keep documents available for future reference.

TRAILER & COUPLER CLASSIFICATION

	TRAILERS WITH A GVWR OVER (MINIMUM)	TRAILERS WITH A GVWR NOT TO EXCEED (MAXIMUM)
Class 1	0	2000 lb. (910 kg)
Class 2	2000 lb. - (910 kg)	3500 lb. (1590 kg)
Class 3	3500 lb. - (1590 kg)	5000 lb. (2270 kg)
Class 4	5000 lb. - (2270 kg)	10,000 lb. (4540 kg)

Trailer GROSS VEHICLE WEIGHT RATING (GVWR) = Maximum trailer weight with load

INSTALLATION



CAUTION HAZARDOUS FUMES

- Adequate ventilation must be provided when welding.

WELDING INSTRUCTION

- **M.I.G. OR STICK** - Class 2 & 3 coupler-Attach with 1/8" fillet weld min. Class 4 coupler-Attach with 5/32" fillet weld minimum.
- **M.I.G. WELDING** - Use A.W.S. ER 70S-3 or 6 wire or equivalent with a diameter of .035 - .045. The recommended shielding gas mixture is 75% - 95% Argon & 25% - 5% CO₂.
- **STICK WELDING** - Use E6011 A.W.S. welding rod or equivalent with a diameter are as follows: 1/8" electrode set power between 115-130 Amps DC or 5/32" electrode set power between 140-160 Amps DC.



CAUTION PRODUCT DAMAGE

- Coupler latching mechanism must operate freely after welding installation.
- Do not attach ground strap to latch during welding.

STRAIGHT TONGUE COUPLERS

SAE/CSA Class 2 Part # 80051, 80055, 80056

BOLT APPLICATION

1. Coupler must overlap frame 4-7/8" minimum (FIG 1-A.)
2. Fasten with two 1/2" diameter bolts S.A.E. grade 5 and lock nuts or nuts and lock washers (FIG 1-D) (hardware not included).
3. To prevent collapse of coupler sides during bolt tightening, use spacers (1/2" pipe or equivalent) placed between the inside surface of coupler frame (FIG 1-E) (hardware not included).
4. Torque bolts to 74-78 ft. lbs. (dry).
5. Retorque bolts after first two hours of service, then continue to follow maintenance schedule.

WELD APPLICATION

1. Coupler must overlap frame 4-7/8" minimum (FIG 1-A.)
2. Follow **WELDING INSTRUCTION**.
3. Weld along top, back and sides specifically under flange where coupler meets the trailer frame (FIG 1-B.)

STRAIGHT TONGUE COUPLERS

SAE/CSA Class 3 Part # 80060, 80082, 80083

WELD ONLY:

1. Front edge of frame must contact internal frame stop on coupler (FIG 2-D.)
2. Coupler must overlap frame (FIG 2-A.)
80082, 80083 5-1/16" minimum
80060 4-7/8" minimum
3. Follow **WELDING INSTRUCTION**.
4. Weld along top, back and sides specifically under flange where coupler meets the trailer frame (FIG 2-B.)
80082, 80083 5-1/6" minimum horizontal weld length
80060 4-7/8" minimum horizontal weld length

SAE/CSA Class 4 (8500 lbs. cap.) Part # 80131

WELD ONLY:

1. Frame to penetrate coupler 7-5/8" minimum (FIG 3-A.)
2. Follow **WELDING INSTRUCTION**.
3. Weld along top, back and sides specifically under flange where coupler meets the trailer frame FIG (3-B.)
80131 7-5/8" minimum horizontal weld length

WELD BETWEEN COUPLERS

SAE/CSA Class 2 Part # 82311, 82315

SAE/CSA Class 3 Part # 80082, 80083



CAUTION COUPLER OR FRAME DAMAGE

- A bottom support plate must be used with all Atwood Weld Between Couplers.
- Do not attach ground strap to latch during welding.
- Weld completely around bottom plate using **WELDING INSTRUCTION**.

WELD ONLY:

1. Front edge of frame must butt against side flanges of coupler FIG 4-A. Weld full length both sides as indicated in FIG 4-B. Weld around coupler and frame as shown.
2. Follow **WELDING INSTRUCTION**.
3. Bottom rear of coupler and frame must be enclosed by a plate welded to the frame to prevent flexing of frame and coupler. (FIG 4-E)

A-FRAME COUPLERS

SAE/CSA Class 3 Part # 80072, 80075, 84035, 84176

SAE/CSA Class 4 Part # 80101, 88007, 88555, 88010, 88600



CAUTION COUPLER OR FRAME DAMAGE

- Atwood Class 3 & 4 couplers are designed for use on 50° A-Frames only.
- A bottom support plate must be used with all Atwood A-Frame couplers (FIG 5/6/7-D.)
- Weld completely around bottom plate follow **WELDING INSTRUCTION**.
- Do not attach ground strap to latch during welding.

WELD ONLY:

- Measuring along sides, penetration of frame into coupler must be :
Class 3 Couplers: 7" minimum FIG 6-A
Class 4 Couplers: 8" minimum FIG 5-A & 7-A
- Follow **WELDING INSTRUCTION**. Weld full length on both sides, from rear of coupler past front edge of frame to inside of coupler under flange (FIG 5/6/7-B.)

SAE/CSA Class 3 Part No. 80073

BOLT APPLICATION ONLY

- Coupler must overlap frame 7" minimum (FIG 8-A.)
- Bottom rear of coupler and frame must be enclosed by a plate (MPD #87286) bolted to the frame to prevent flexing of frame and coupler (FIG 8-D.)
- Fasten with four (4) 1/2" diameter bolts S.A.E. grade 5 and lock nuts with flatwashers, or nuts and lock washers with flatwashers (FIG 8-E) (not supplied).
- To prevent collapse of frame during bolt tightening, use spacers (1/2" tubing or equivalent) placed between the inside surface of coupler frame (FIG 8-F) (not supplied).
- Torque bolts to 74-78 ft. lbs. (dry).
- Retorque bolts after first two hours of service, then continue to follow maintenance schedule.

OPERATION



WARNING **PERSONAL INJURY**

- Safe towing practice requires the proper use of safety chains used in accordance with instructions provided by the trailer manufacturer.
- BEFORE TOWING:** The ball must be completely inserted into the coupler ball socket. The ball clamp (inside the coupler) must be closed around the underside of the tow ball. The handle must be in the closed position.
- The loaded weight of the trailer must never exceed the maximum capacity marked for each component (coupler, tow ball, hitch) of the trailer or vehicle.
- Check coupler, hitch and ball for damage or wear before each use. Assure all parts operate freely. Replace any component if worn or damaged.
- Failure to follow warnings and instructions could result in separation of tow vehicle and trailer which can result in death, personal injury and property damage.



WARNING **PERSONAL INJURY**

- For proper tow vehicle and trailer hookup, towing performance and to prevent damage to hitch and trailer coupling, the tow vehicle and trailer are to be level with respect to flat ground after hitching up. If your trailer is not level, equipment is available to raise or lower the hitch ball.



CAUTION **PRODUCT DAMAGE**

- Use caution when backing or towing vehicle for hook-up, damage to coupler may result.
- Avoid sharp turns when towing or backing. Jack-knifing could bend coupler or create extreme stress or fracture.

LATCHING INSTRUCTIONS



WARNING **PERSONAL INJURY**

- Always open latch handle before inserting ball.

YOKE STYLE COUPLERS

PART # 70643, 80051, 80055, 80060, 80072, 80073, 80075, 80082, 80101, 82311, 82315, 84035, 84176

- To open, lift the latch and pull backward, raising the yoke and resting it on the nose of the coupler (FIG 9-A.)
- Place coupler on ball of same diameter as coupler and of same or greater capacity.
- When ball is completely nested in ball socket, push latch handle forward until yoke drops over nose of coupler and the latch handle locking tips freely enter slots on top of coupler (FIG 9-B.)
- Extend jack to ground and lift car/trailer combination 2"-4" to insure coupler is securely attached to tow ball. Retract jack completely before towing.

Note: These are non-locking couplers.

Note: These couplers are not adjustable for ball size.

FLIP LATCH COUPLERS

PART # 88555, 88600

8,000 lb. Capacity

PART # 88007, 88010

10,000 lb. Capacity

- To open, slide forward and pull up open latch before inserting ball (FIG 10-A.)
- Place coupler on ball of same diameter as coupler ball socket size and of same or greater capacity than trailer GVW.
88555/886002" 88007/880102-5/16"
- When ball is completely nested in socket, push top of latch handle rearward until handle snaps into closed position.(FIG 10-B.)
- Extend jack to ground and lift car/trailer combination 2"-4" to insure coupler is securely attached to tow ball. Retract jack completely before towing.
- Insert padlock through hole in handle (FIG 7-C) .

Note: These couplers are not adjustable for ball size.

STRAIGHT TONGUE COUPLERS

PART # 80131

- Insert finger in latch hole. Pull out and up on latch (FIG 11-A.) Rotate latch 90° from original position. (FIG 11-B.)
- Place coupler on 2-5/16" ball of same or greater capacity than trailer GVW.
- When ball is completely nested in ball socket, push forward on latch (FIG 11-B.) Be sure that the nib (FIG 11-A1) on the latch is secured in slot (FIG 11-A2.)
- Extend jack to ground and lift car/trailer combination 2"-4" to insure coupler is securely attached to tow ball. Retract jack completely before towing.
- Insert padlock or bolt through lock hole (FIG 3-C) in latch.

Note: These couplers are not adjustable for ball size.

MAINTENANCE

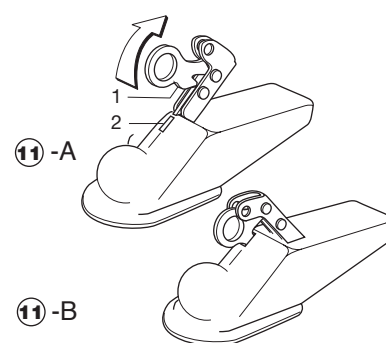
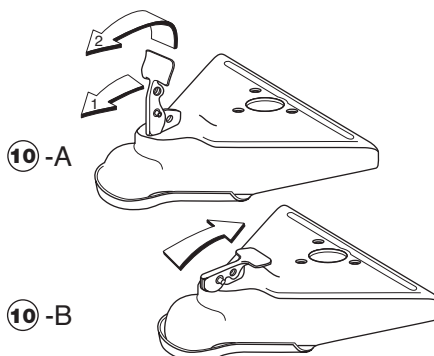
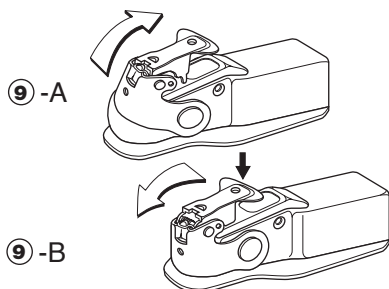
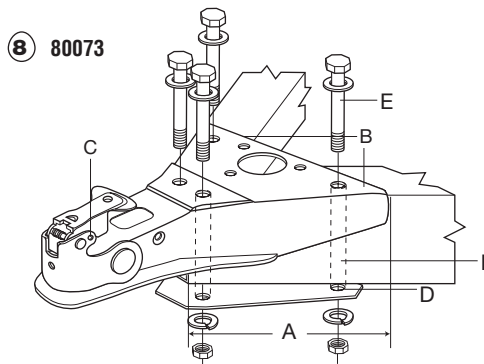
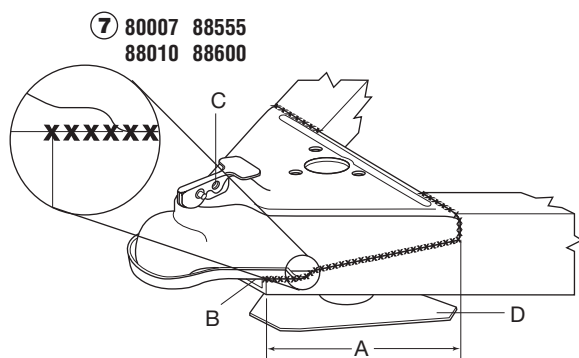
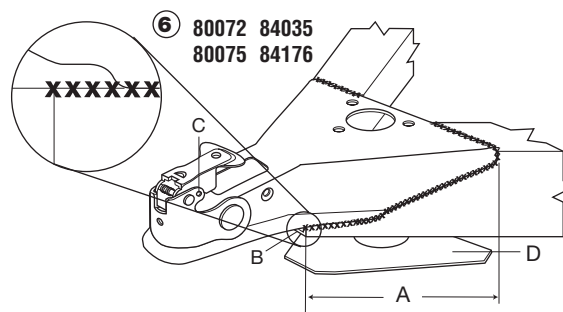
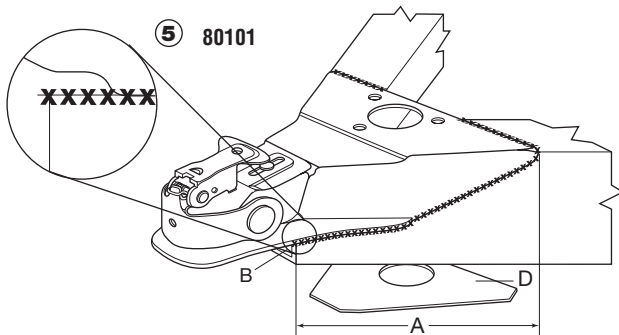
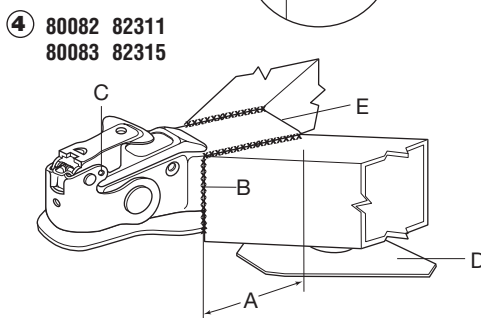
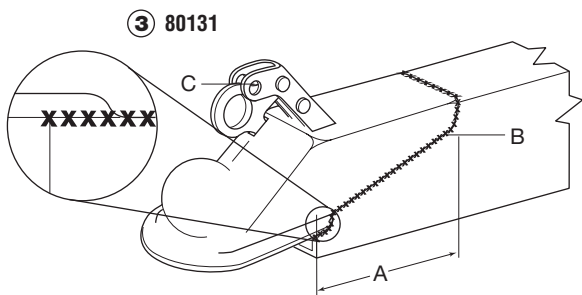
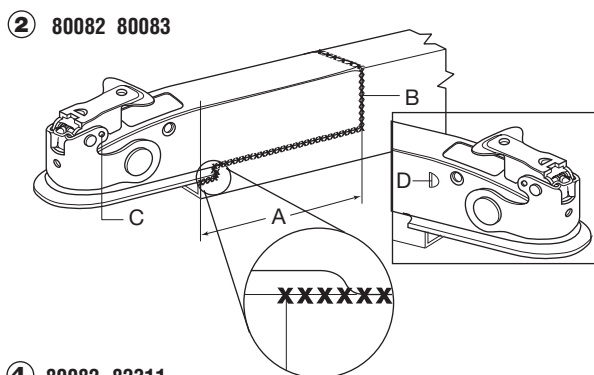
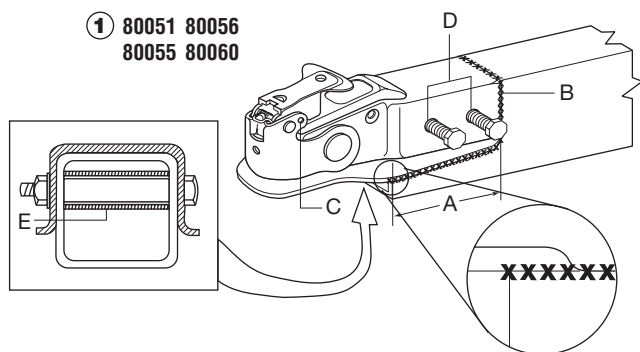
- Lubricate ball socket and ball clamp with wheel bearing grease. Clean and lubricate monthly.
- Check towing hitch, ball and coupler for signs of wear before each trip. Replace coupler if damaged or worn.
- Lubricate moving or sliding parts monthly with S.A.E. 30 weight oil.

FIG 1-11 are located following page

A = minimum/maximum coupler/tongue overlap

B = weld areas (XXXXXXXXXX)

C = lock hole





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Follow proper safety practices. If in doubt, consult a professional RV technician.