POLE TRAILERS

ASSOCIATED EQUIPMENT

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1. GENERAL

- 1.01 This section describes equipment associated with pole trailers such as pole binders, king pole binders, and drawbars. This equipment is used to fasten poles to various types of pole trailers so the load can be safely transported to and from work locations.
- 1.02 This section is reissued to include an illustration showing the repair parts for the AT-8137 Drawbar, to delete the C, L, and H drawbars, and generally update the section. Since this is a general revision, arrows ordinarily used to indicate changes have been omitted.
- 1.03 The following sections are supplementary instructions: 649-210-100, Pole Trailers, General; 621-200-203, Loading and Binding Poles on Pole Trailers; and 649-310-011, Wire Rope, General.

2. SAFETY PRECAUTIONS

2.01 It is essential for safe operation that the equipment described in this section be inspected before using as covered in Part 6.

- 2.02 All safety systems of the pole trailer and towing vehicle are to be inspected and tested as covered in Section 649-210-100, Pole Trailers, General, and the applicable section for the towing vehicle.
- 2.03 The trailer shall be properly loaded and the binders placed as covered in Section 621-200-203, Loading and Binding Poles on Pole Trailers, and as required by existing State Laws.
- 2.04 Some of the equipment described in this section is heavy. It should be picked up and handled with care to avoid injury to personnel or damage to the equipment.
- 2.05 Before moving the loaded trailer, inspect to ensure that all binders and bolts are tightened, handles are properly stowed, and all safety devices are connected.
- 2.06 After traveling a short distance, the binders should be retightened to eliminate all slack in the wire rope caused by the load shifting and the steel calks working into the wood.
- 2.07 Do not use a chain hoist as a substitute for a load binder. Side loading, especially around a sharp corner, may fracture the chain hoist housing.

3. LOAD BINDERS

- 3.01 Load binders are used to bind a load of poles on a pole trailer so they can be transported safely. Pole trailers may be equipped with load binders permanently mounted on the rear bolster or frame of the trailer, as well as a rope knob, for binding the rear of the pole load.
- 3.02 Permanently mounted load binders vary in the construction of the base, drum length, and pawl release rods to make them compatible with various types of trailers. The load binder

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for attachment on the P3T Trailer (Fig. 1) uses a shorter drum than the binder used on the P8T Trailer (Fig. 2).

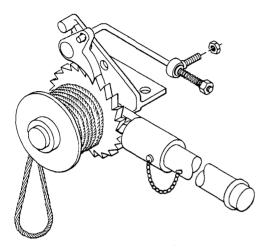


Fig. 1—Load Binding Winch Assembly (P3T Trailer)

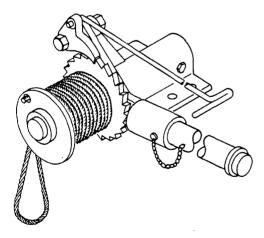


Fig. 2—Load Binding Winch Assembly (P8T Trailer)

3.03 Load binding winch assemblies consist of the base for mounting on the trailer rear framework, a ratchet-controlled hand-lever-operated winch, a removable handle, and a wire rope sling. One end of the wire rope is attached to the winch drum and the other end is provided with an eye for attaching to the rope knob. A spring-loaded pawl and release bar control the take-up and release of the drum. Parts for the permanently mounted, load binding winches are the same in name and form and are illustrated in Fig. 3.

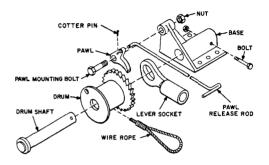


Fig. 3—Load Binding Winch Assembly Parts

AT-8139 Pole Binders

3.04 The pole load is bound at the front and, if required by existing state law, is also bound at the middle with the AT-8139 L2A Pole Binder. This pole binder may also be used to bind the rear of the pole load when the trailer is not equipped with a permanently mounted load binder.

3.05 The AT-8139 L2A Pole Binder is comprised of the base which has calks for seating in the pole, a rope knob, a ratchet-controlled hand-lever-operated winch, a removable handle, and a wire rope sling. The spring-loaded pawl controls the take-up and release of the drum (Fig. 4).

3.06 The AT-8139 L2A Pole Binder is portable and, when ordered for use as a load binder, should be equipped with 18 feet of wire rope to provide sufficient reach around the load. To order specify:

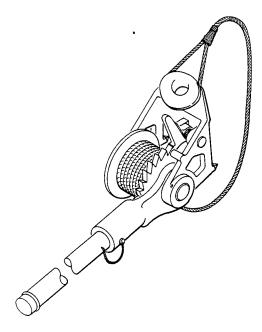


Fig. 4-AT-8139 L2A Pole Binder

Binder, Pole, AT-8139 L2A Sling, Rope, Wire, MV-3H599 18 feet long Assembly, Handle, Binder, Pole

Fig. 5 shows the AT-8139 L2A Pole Binder parts.

3.07 To use the permanently attached load binding winch, the wire rope is passed over the load and the wire rope eye is placed on the rope knob, which is attached to the bolster on the opposite side of the trailer from the winch. The winch is used to tighten the rope and bind the load.

3.08 When binding a load using the AT-8139 L2A Pole Binder, place the binder against the pole so that the calks will hold the binder in place. Pass the sling around the pole load and trailer frame. Attach the rope eye to the rope knob on the base of the binder (Fig. 4). The winch is used to tighten the wire rope. Since the wire rope sling will pass around sharp corners of the trailer, it

should be inspected for damage each time it is used.

4. KING POLE BINDERS

4.01 Chain-type king pole binders are used to bind a single pole to the trailer or to bind a king pole when the tongue is nonextendable and the king pole replaces the tongue. King pole binders may be supplied on the P3T- and P8T-type trailers and are permanently mounted on the front and rear of the trailer.

4.02 Front and rear chain-type king pole binders for the different types of trailers are similiar in construction and operation but mountings will vary for different trailer dimensions. Fig. 6 and 7 show typical front and rear chain-type king pole binder assemblies.

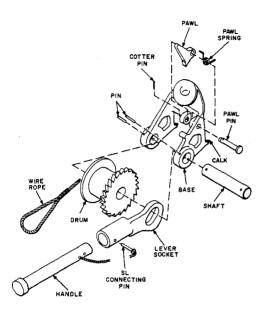


Fig. 5—AT-8139 Pole Binder Parts

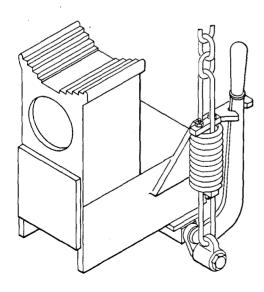


Fig. 6-Front King Pole Binder Assembly

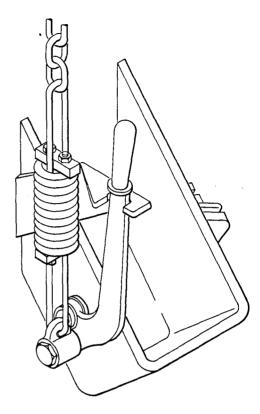


Fig. 7—Rear King Pole Binder Assembly

4.03 The front pole binder assembly consists of the pole seat, a pole binder lever, a latch to hold the lever in the operated position, and a spring-loaded chain to bind the pole. The rear binder is essentially the same, except the pole seat is not an integral part of the binder and must be attached to the trailer frame separately. Fig. 8 and 9 show front and rear king pole binder parts.

4.04 The king pole must be bound securely to the trailer by the king pole binder. To bind the pole, unlatch the pole binder lever; with the lever down, place the chain over the pole; and put a link of the chain in the chain socket. The chain does not have to be tight around the pole. Bring the pole binder lever up and lock the lever in the latch. The spring clamp will keep tension on the pole and keep it in place. Fig. 10 shows a pole bound to a P3T Trailer with king pole binders.

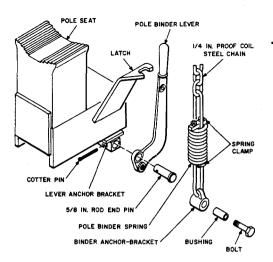


Fig. 8—Front King Pole Binder Parts

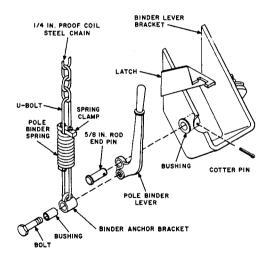
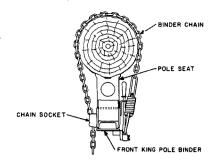


Fig. 9—Rear King Pole Binder Parts



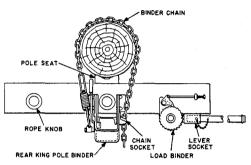


Fig. 10—Pole Bound to P3T Trailer With King Pole Binders

5. SLIDING STANCHIONS

- 5.01 Sliding stanchions are used to contain the pole load on the trailer.
- 5.02 Stanchions consist of an inverted V steel upright, stanchion brackets for gripping the flange on the bolster, a tightening lever, and an adjusting bolt and nut to adjust the clamps to compensate for variations in the channel width.
- 5.03 Adjust the stanchion so that it is just possible to manually force the tightening lever into the vertical position when the stanchion is on the bolster. If the tightening lever moves too easily, adjust the tightening nut so it is just possible to move the tightening lever from the horizontal to

the vertical position, then tighten the jam nut. Fig. 11 illustrates the sliding stanchion and identifies the parts.

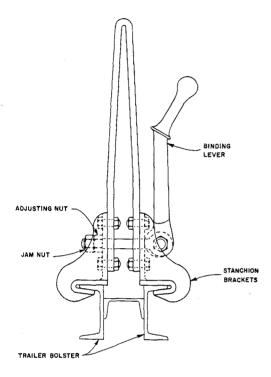


Fig. 11—Sliding Stanchion

6. DRAWBARS

- 6.01 The AT-8137 L1A Drawbar is used to couple a loaded pole trailer to the towing hook of a truck when the trailer is not equipped with an extendable tongue or when the poles are too long to permit the use of the extendable tongue. One of the poles in the load is used as a "king pole" (or reach) to replace the tongue.
- 6.02 The AT-8137 L1A Drawbar consists of a heat-treated, alloy steel channel, which is equipped with a towing eye at one end and a AT-8139 L1A Pole Binder near the other end. Retangular-shaped handles are provided near the center to facilitate handling and to serve as safety

rope guides. Steel calks and a bolt hole are provided for holding the drawbar on the pole. Fig. 12 shows the drawbar and identifies the parts. The drawbar weighs 60 pounds and will handle a properly loaded trailer with a gross trailer weight of 10 tons.

- 6.03 To use the AT-8137 L1A Drawbar, select the longest straight pole as the "king pole" and fasten securely using the king pole binders. Bolt the drawbar to the pole using a 5/8-inch crossarm bolt and two square washers. Align the drawbar with the pole so the calks of the drawbar will be centered and penetrate into the pole. Pass the wire rope of the AT-8139 L1A Pole Binder around the pole, fasten the eye on the rope knob, and bind the drawbar to the pole using the winch. Fig. 13 shows the drawbar bound to the king pole.
- 6.04 The AT-8139 L1A Pole Binder is equipped with 8 feet of wire rope for use with the AT-8137 L1A Drawbar and must be ordered separately as follows:

Drawbar, AT-8137 L1A

Binder, Pole, AT-8139 L1A w/8-foot wire

Assembly, Handle, Binder, Pole

7. INSPECTION AND MAINTENANCE

Inspection

- 7.01 To ensure safe moving of loaded pole trailers, it is essential that all binders and drawbars be inspected for defective or worn parts before using.
- 7.02 Inspect the pole and load binders for loose or missing pins, broken or worn parts, weak pawl springs, and faulty operation.
- 7.03 Inspect the drawbar for cracks, loose rivets, or worn towing eye.
- 7.04 Wire rope shall be inspected and handled as covered in Section 649-310-011, Wire Rope, General.
- 7.05 Do not use any equipment that is defective; report it in accordance with local procedure for repair or replacement.

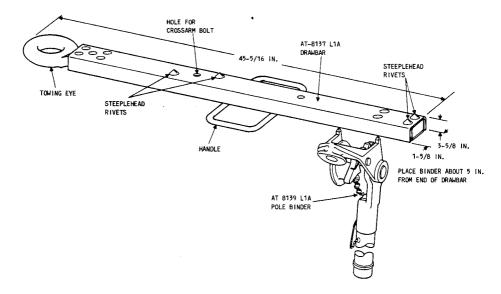


Fig. 12—AT-8137 L1A Drawbar Parts

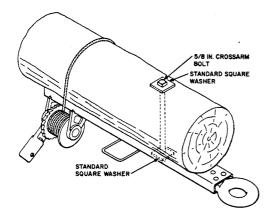


Fig. 13—Method of Attaching AT-8137 Drawbar to Pole

Maintenance

- 7.06 Lubricate moving surfaces such as shafts and pins with a few drops of engine oil.
- **7.07** Lubricate the wire rope as outlined in Section 649-310-011, Wire Rope, General.
- 7.08 Replace parts when worn or defective.