

BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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TOWING HOOKS

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1. GENERAL

1.01 Towing hooks are available in two types: BU and LB.

The BU towing hook is larger and of heavier construction than the LB towing hook. It is suitable for installation on a 1-1/2 to 5-ton truck. The smaller and lighter LB towing hook is suitable for installation on a lighter truck or a passenger car.

1.02 Primarily these hooks are intended for use in attaching the towing eye of a trailer or other similar equipment to the towing vehicle so that it may be trailed behind the vehicle when moving it over the highway.

2. SAFETY PRECAUTIONS

2.01 Before connecting a trailer to a towing hook be sure that the towing hook latch is in proper working condition.

2.02 After the trailer is coupled to the towing hook be sure the latch is closed and properly locked in position before starting the towing vehicle.

2.03 In connecting a trailer to the towing vehicle exercise care to avoid pinching the hand or fingers between the trailer eye and the towing hook.

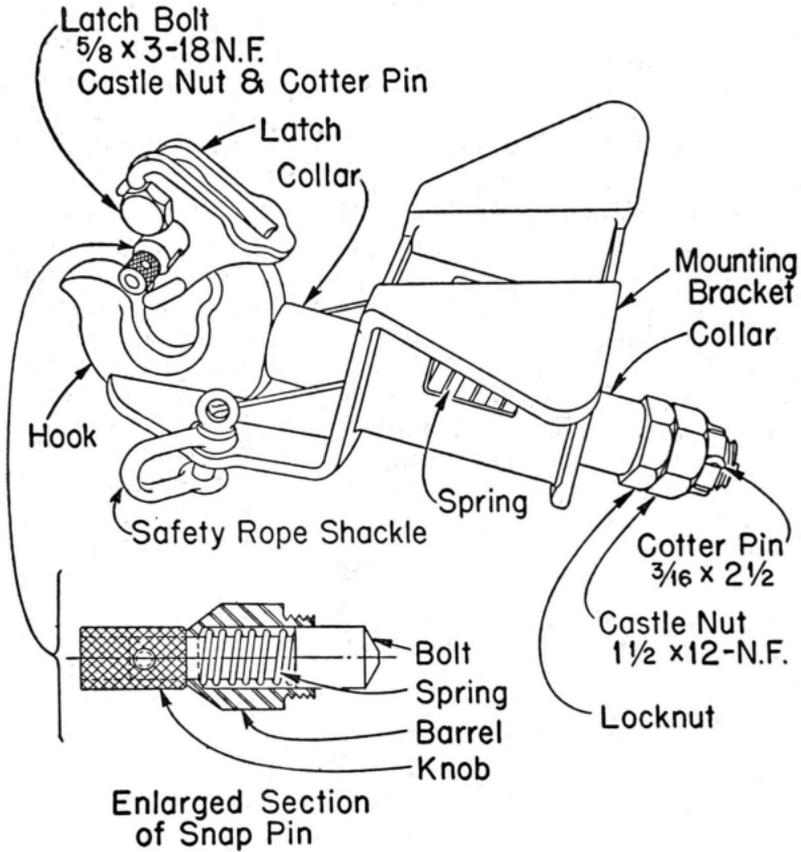
2.04 When connecting a trailer to a towing hook, the person or persons making the connection should under no circumstances be between the trailer drawbar eye and the

towing hook. A sudden forward movement of the trailer or a sudden rearward movement of the towing vehicle when backing on uneven ground could result in his being caught between the towing hook and the drawbar with resultant personal injury.

2.05 A towing hook which is defective in its operation, loose in its mounting or excessively worn either in the hook or latch should immediately be reported in accordance with local procedure in order that the necessary repairs may be made.

3. DESCRIPTION

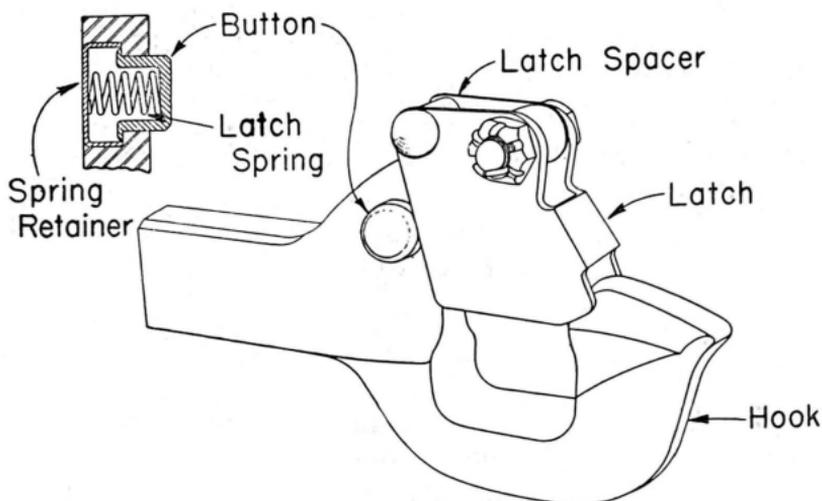
3.01 Essentially the BU towing hook consists of a forged steel shank with a hook formed at one end, mounted in a steel bracket provided for attaching the hook assembly to a truck chassis frame. The hook on the end of the shaft is provided with a latch which can be swung into place to close the throat opening of the hook when the towing hook is in use. A spring actuated locking pin holds the latch in either the open or closed position. A spring installed in the steel bracket and through which the shank of the hook passes acts in either direction to cushion the forces of starting, driving, braking and stopping. To a limited extent the hook is free to rotate in the bracket to provide for the twisting motion which occurs when one wheel of the trailer rises over an obstruction or falls into a depression. This rotation is limited to about 30 degrees by a forked extension of the mounting bracket. The forked extension holds the hook practically vertical and the trailer drawbar practically horizontal as is necessary in order to make the trailer operate satisfactorily when turning corners.



BU TOWING HOOK

3.02 The LB towing hook is of lighter design than the BU towing hook and is not equipped with a towing load reaction spring or the swiveling feature of the BU towing hook as the forces to be controlled are smaller. However the throat opening is sufficiently large to permit the entrance of an eye of the same dimensions as that accommodated by the BU towing hook. This permits towing all standard trailers with small loads which are within the towing capacity of the towing vehicle. The LB towing hook is also equipped with a

latch which covers the throat opening and may be locked in either the open or closed position by means of a spring actuated pushbutton located on the left-hand side of the hook at the rear of the latch.



L B TOWING HOOK

4. OPERATION

4.01 The movement of the latch of the BU towing hook is controlled by a snap pin which holds it in either the open or closed position. The snap pin is located on the right-hand side of the hook latch. To open the latch and the hook throat of the BU hook pull out on the snap pin and pull the rear portion of the latch up to its fully open position then allow snap pin to return to its original position. The latch will now be locked open. After attaching the trailer the latch may be closed by reversing the method previously described.

4.02 The latch on the LB towing hook operates in a similar manner except that the locking mechanism consists of a spring loaded button which in the closed position projects out of the hook on the left-hand side behind the latch side plate. To open the hook throat press the button in and push back on the latch until the crossbar on the front of the latch rests against the rear of the hook throat. The latch will be retained in this position by the spring button. To close the

latch push down on the top until the spring button snaps out behind the latch side plate and locks it in place, thus closing the hook throat.

5. SAFETY ROPE ATTACHMENT

5.01 On the BU towing hook a screw pin shackle is provided on the right-hand side of the forked extension of the mounting bracket to permit attachment of a trailer safety rope where the use of one safety rope attached in that location meets the legal requirements for safety ropes.

6. INSPECTION

6.01 Various types of mountings are used for attaching a towing hook to a truck chassis frame. In some cases the main bracket used to support the BU towing hook is riveted to its mounting members and in others bolted. Generally the LB towing hook is attached to the mounting members by means of bolts equipped with nuts and lock washers.

6.02 Before using a towing hook it should be examined to determine that it is securely attached to the chassis frame and operating properly and that:

- (a) All bolts and rivets are in place and tight.
- (b) The assembly is not deformed and that where a plate has been used for mounting the BU towing hook it is not bent or cracked.
- (c) The hook is not badly worn on the inside to the extent that the cross-sectional area is considerably reduced.
- (d) The latch is in proper operating condition and not excessively worn on the underside where it closes the hook throat opening. Also that the latch pin operates properly to lock the latch closed.
- (e) The hook is not bent.
- (f) The forked extension of the mounting bracket on the BU towing hook is intact.
- (g) The nuts retaining the shank of the hook in the mounting bracket of the BU hook are in place and secured by the cotter pin.

6.03 If inspection discloses that the towing hook is damaged or badly worn the condition should be reported in accordance with local procedures.