Lever Lock

Operating Instructions

THIS NOTICE MUST BE AFFIXED
ON DASH IN VIEW OF OPERATOR

ATTENTION

These operating instructions must be placed in cab of vehicle in a place available to operator to ensure proper operation of lever lock.

The self-adhesive warning label, accompanying each lever lock, must be affixed in cab in view of operator.

Principles of Operation

The lever lock is a **SUPPLEMENTAL** safety device and is **NOT** to be used in place of the original equipment parking brake. When used with existing vehicle parking brake, the brake lock uses a portion of the vehicle's hydraulic service brake system to provide additional brake holding action.

When the lever lock is activated and hydraulic service brakes applied, hydraulic pressure is locked in the service brake system. In this way, the hydraulic service brakes continue to be applied after the operator removes their foot from brake pedal.

The lever lock does not increase brake pressure, it only locks in pressure generated by pushing on the brake pedal. The harder the operator pushes on the brake pedal, the higher the pressure in the brake system.

Because the lever lock is locking hydraulic brake pressure, any leak in the hydraulic brake system will allow pressure to decrease and release brakes. The hydraulic service brake system must be kept in good operating condition to ensure that pressure locked by the lever lock will be maintained.

The lever lock has a Low Pressure Warning Switch. This switch is to be used with a visual or audible alarm which will alert operator(s) in or around the vehicle of a possible unsafe reduction in brake system pressure and holding capability.

When the lever of the lever lock is moved to the full lock position, alarm will sound, indicating insufficient brake holding pressure. The operator then pushes on the brake pedal until sufficient brake pressure has been reached, causing alarm to stop. If a loss of pressure occurs in the locked brake system, the alarm will sound again indicating insufficient brake holding pressure.

Changes in the outside temperature may cause locked up pressure to increase or decrease. Higher temperatures may cause increased pressure which may cause brake system damage and failure. Lower temperatures may cause decreased pressure which can reduce holding level of brakes. For these reasons, the lever lock must not be used for overnight or prolonged parking. To minimize these pressure changes, the lever lock must be released and reapplied every hour.

In applications where there is no horn or other audible device on the vehicle, one should be installed. A visual pressure gauge can also be used to indicate to the operator when there is adequate hydraulic pressure locked up or when there has been a pressure loss in the system after lock-up.

ZF Off-Highway Solutions Minnesota Inc.
1911 Lee Boulevard / North Mankato, MN U.S.A. 56003
Tel: +1 507 625 6426 **Fax:** +1 507 625 3212

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OPERATING INSTRUCTIONS

To activate Lever Lock

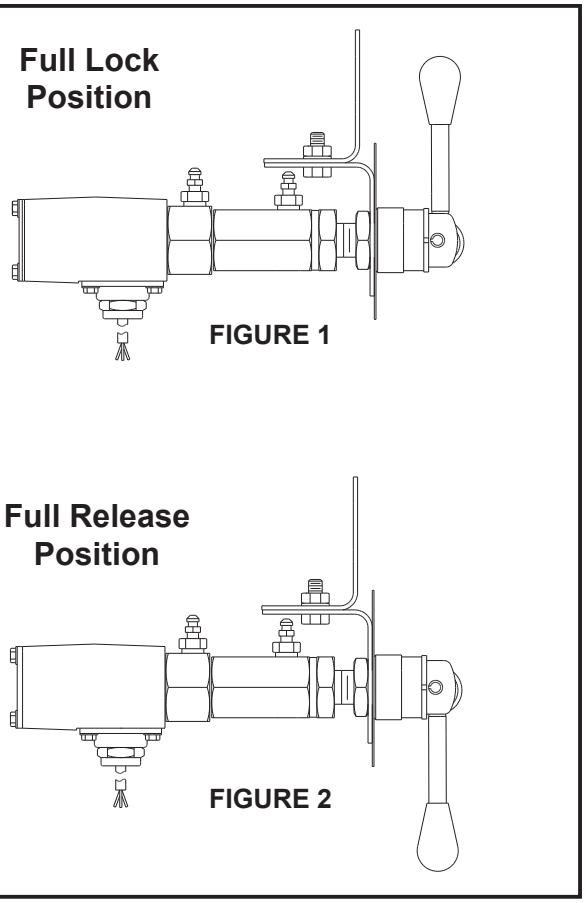
1. Bring vehicle to complete stop.
2. Set mechanical parking brake.
3. Remove foot from brake pedal and observe if the vehicle remains stationary.
4. Move lever of brake lock to full lock position as indicated on dash plate (Figure 1). Alarm will start. If alarm does not start, discontinue use of lock, determine cause and correct problem before using lock.
5. Apply service brakes firmly until alarm stops.
6. Use wheel chocks, outriggers and any other means to keep all wheels that are in contact with the ground from moving as required by manufacturer recommendations.

If alarm starts while Lever Lock is in use

This indicates unsafe brake system pressure. Discontinue use of lock, determine cause and correct problem before using lock.

To release Lever Lock

1. Retract outriggers and remove wheel chocks. Remove any other means used to keep all wheels that are in contact with ground from moving.
2. Move lever of brake lock to full release position as indicated on dash plate (Figure 2).
3. Release mechanical parking brake.



INSPECTIONS AND TESTS

Federal regulations require that the parking brakes are capable of holding vehicles on a 20% grade with rated capacity load, until intentionally released.

It is recommended that parking brake and lever lock be tested daily, along with other safety equipment such as lights, horn, etc.

Testing Procedure

1. The vehicle must be fully loaded and driven on a 20% grade.
2. Parking brake and lever lock must be fully applied with engine running and transmission in neutral.
3. To test lever lock, operator must release parking brake, leaving lever lock applied, and remain in the driver's seat. Vehicle must remain parked, without movement, for at least one minute.
4. To test parking brake, operator must apply parking brake, release lever lock, and remain in the driver's seat. Vehicle must remain parked, without movement.

If vehicle moves while parking brake is applied, parking brake must be inspected and adjusted or replaced and tested again.

If vehicle moves while lever lock is applied, all hydraulic brake fittings, hoses, lines, and wheel cylinders must be inspected for leaks. Fittings which leak must be tightened or replaced. Hoses, lines, or wheel cylinders which leak must be replaced or serviced. Vehicle must be tested again and if it fails to remain parked with the lever lock applied, lever lock must be replaced and original lock should be returned
to returned to ZF Off-Highway Solutions Minnesota Inc. for inspection and tests.