



INSTALLATION INSTRUCTIONS

Overslung/Underslung Conversion Kits

K71-384-00: Over/Underslung Conversion Kit for 2-3/8" Dia. Tube

K71-385-00: Over/Underslung Conversion Kit for 3" Dia. Tube

Wheel/Tire and Axle Removal

1. Jack up trailer and secure on adequate capacity jack stands under the trailer frame, at least one pair of stands in the front of the work area and another pair at the rear of the work area. Follow the trailer manufacturers recommendations for lifting and supporting the unit.

Note: If converting the unit from underslung to overslung, the unit will need to be jacked up the additional amount of height required for the overslung spring/axle installation.

CAUTION

Do not lift or support the trailer on any part of the axle or suspension system. Never go under any trailer unless it is properly supported on jack stands which have been rated for the load. Improperly supported vehicles can fall unexpectedly and cause serious injury or death.

2. Remove wheels from the axle hubs and set them aside.
3. Mark top of axle with paint or chalk for future reference to ensure the axle is right side up during reinstallation.
4. Disconnect brake wires from the trailer wiring harness at the connectors or brake lines at the wheel ends or axle tee. Temporarily cap the hydraulic brake line ends to minimize leaks and make bleeding the lines of air easier later.
5. Support axle with a jack. Remove U-bolt nuts, U-bolts and tie plates. Discard original U-bolt nuts and U-bolts.
6. Remove spring eye bolts from front and rear hangers. Drop ends of springs from the hangers enough to get the axle out to convert to overslung or the axle inside to convert to underslung as appropriate. **Note:** Only the front spring eye bolts need to be removed on single axle units.
7. Inspect hangers, spring seats, under side of trailer frame and all welds for wear or cracks. Correct if necessary.
8. Place axle on jacks under or over springs as appropriate at approximate new vertical height, with top of axle (previously marked) still facing upwards. Proper axle placement is important for brake operation and vehicle stability.

Installation of Underslung or Overslung Spring Seat

Note: The following steps 1-4 may be easier with axle out of trailer before performing the previous step 8.

1. If switching from underslung to overslung, place top mount spring pad from kit on top of axle, centered right over the existing spring pad. Adjust the jam nuts on the new pad so that top of pad is

parallel with bottom of original welded spring pad (within 1/32" front/rear height). Ensure both adjusting nuts are in contact with the original spring pad and that the radius of the new spring pad is in full contact with the round axle tube. When finished, double check that the front/rear measurements from the top of the new pad to the bottom of the original pad are within 1/32" or 0.030" if using a caliper (see Figures 1 and 2).

Note: The adjusting nuts serve two purposes:

- Aids in establishing and keeping new spring pad parallel with original spring pad.
- Transfers road shock and brake torque from new unwelded spring pad to original welded spring pad.



Figure 1

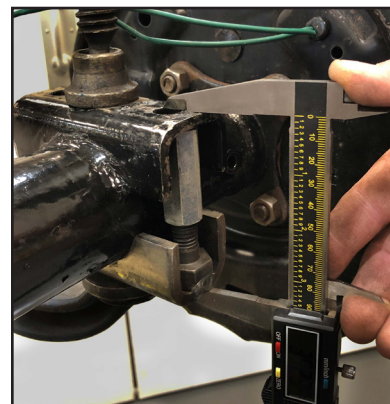


Figure 2

2. If changing an overslung axle to underslung, step 1 and the note above apply, with the exception that the new spring pad will be placed underneath the axle tube and that a c-clamp or similar device will be needed to hold the new pad in place while adjusting the nuts for proper parallelism and fit (see Figure 2).

Note: Properly installed and with proper U-bolt torque, the special spring pads in this kit can be used without welding them directly

to the axle as might be required in a roadside axle installation. However, to minimize the possibility of future axle slippage after correct positioning, it is highly recommended that the new spring pads be tack welded in place with welds about 1/4" long on each side of the pad radius to the axle tube after installation. Tack weld pads to axle where accessible (see arrows in Figures 3 and 4).

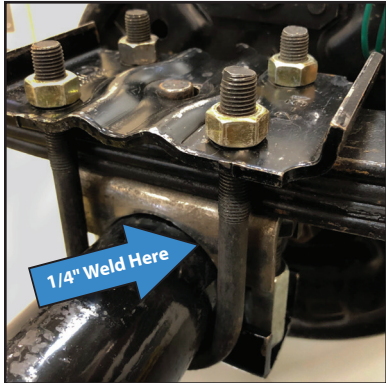


Figure 3 - Overslung

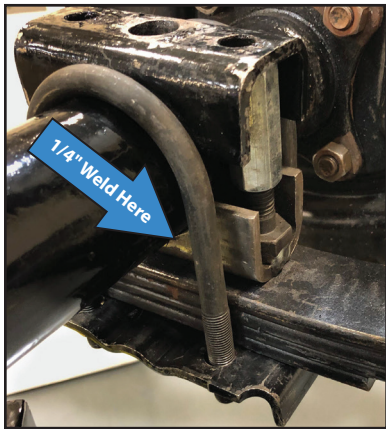


Figure 4 - Underslung

3. Position the axle to locate spring center bolts in center hole of spring pads. The spring bolt bottom will go in the top of the new overslung spring pad or the spring bolt top will go in the bottom of the new underslung spring pad as appropriate.
4. Reattach springs to axle using NEW U-bolts, nuts and tie plates provided in the kit. Keep U-bolts vertical and parallel when tightening. Torque U-bolt nuts evenly in a cross pattern to **45-70 Ft. Lbs.** If the tie plates (five hole plates) were made with stiffening flanges on them (ends bent upward), the flat bottom of the tie plates are to be placed in contact with the spring (flanges away from the spring).

Re-Install Axle and Wheel-Tire

1. Reattach axle and spring assembly to trailer frame with original spring eye bolts. If these had locking type nuts, replace the nuts with new ones when reinstalling. Torque nuts on shoulder type spring eye bolts to **30-50 Ft. Lbs.** On non-shoulder bolts, tighten 9/16" spring eye bolt lock nuts to "snug fit only" so the suspension can pivot when done.

Note: When converting from underslung to overslung, the installation of bump stops is highly recommended to prevent suspension over travel that will result in spring damage or breakage. Overslung axle vertical travel should be limited via bump stops to the original underslung amount of vertical travel available.

When converting from overslung to underslung, adequate suspension travel must be available to prevent the axles(s) from bottoming out on the trailer frame prematurely, resulting in axle bending. Limited additional underslung travel may be possible using longer or shorter suspension link straps as required.

Note: Reattach brake lines or brake wires using connections comparable to the original equipment. Make sure the lines are lengthened as necessary to ensure proper brake function at the limits of the axles' articulation from fully unloaded to full spring compression. Failure to do so may cause the brakes to become disconnected with subsequent loss of braking.

2. For electric brakes wiring, Dexter recommends using crimp type, corrosion resistant heat-shrink connectors available in kit K71-399-00. Verify connections by proper brake current draw at each wheel (typically 3.0 amps per wheel).
3. For hydraulic brake trailers, bleed the air out of the brake system by the trailer manufacturer's or hydraulic brake actuator manufacturer's instructions.
4. Reinstall wheels making sure to properly secure the lug nuts in place as referenced in the Wheel Torque Requirements section of Dexter's current Light Duty Service Manual, LIT-001-00.
5. Safely remove jack stands and lower the unit to the ground.
6. Recheck U-bolt nut torque and spring pad jam nut contact with the original spring pads with the unit on the ground and full weight of the trailer on the wheels. If the spring pads were unable to be welded to the axle tube at the time of installation, recheck U-bolt torque and jam nut contact once again after first 10 miles of use.
7. Road test in a safe area and check for proper braking function. Recheck wheel nut torque after first 10 miles, 25 miles, 50 miles and periodically thereafter.

CAUTION

Wheel nuts or bolts must be tightened and maintained at the proper torque levels to prevent loose wheels, broken studs, and possible dangerous separation of wheels from your axle, which can lead to an accident, personal injuries or death.

Note: Before towing, remember to reassess the overall unit height to ensure your unit can safely retain ground and/or overall height clearance. Secondly, verify your hitch height when reattaching to your tow vehicle to ensure the unit is being towed level (see Figure 5).



Figure 5

Note: Download the current Dexter Operation Maintenance Service Manual at www.dexteraxle.com.