Link Suspensions of Canada 601 18th Ave Nisku, AB T9E 7T7 Canada www.linkmfg.com

Chassis Suspensions

QUESTIONS? CALL CUSTOMER SERVICE 1-888-472-9326

INSTALLATION INSTRUCTIONS

85K AIR LINK® TANDEM DRIVE SUSPENSION



| լ Եղկ լ | |
|---------|--|

| Contents | | |
|-------------|--|----|
| SECTION 1: | EXPLODED VIEW | 6 |
| SECTION 2: | INTRODUCTION | 6 |
| Descriptio | n | 6 |
| Compone | nts | 7 |
| Features . | | 7 |
| SECTION 3: | FRAME PREPARATION | 8 |
| SECTION 4: | ASSEMBLY | 9 |
| Assemble | the Axles to the Walking Beams | 9 |
| Require | d Components | 9 |
| Require | d Tools | 10 |
| Procedu | ıre | 10 |
| Install Fra | ne mounted components | 15 |
| Require | d Components | 15 |
| Require | d Tools | 15 |
| Procedu | ıre | 15 |
| Install the | Trailing Arms (for reference only trailing arms installed) | 16 |
| Require | d Components | 16 |
| Require | d Tools | 16 |
| Procedu | ıre | 16 |
| Install Air | spring (for reference air springs currently assembled) | 20 |
| Require | d Components | 20 |
| Require | d Tools | 20 |
| Procedu | ıre | 21 |
| Install the | Shock Kit (upper bracket requires mounting to frame) | 22 |
| Require | d Components | 22 |
| Require | d Tools | 23 |
| Procedu | ıre | 23 |
| Install the | Height Control Valves | 24 |
| Require | d Components | 24 |
| Require | d Tools | 24 |
| Procedu | ıre | 25 |
| Setting an | d Adjusting the Suspension Ride Height | 27 |



| Suspension | Ride Height | 27 |
|-------------|----------------------------|----|
| Adjusting | the suspension ride height | 27 |
| Required | Tools | |
| Procedure | 2 | 28 |
| Alignment | | 29 |
| Required | Tools | 30 |
| Procedure | 2 | |
| APPENDIX A: | TORQUE SPECIFICATIONS | 33 |



SECTION 1: EXPLODED VIEW



SECTION 2: INTRODUCTION

Description

The Link Suspensions of Canada ("LSC") AL-850 suspension is a walking beam design with 4 air springs and two links. The suspension has two walking beams supported by two trailing arms with two air springs per arm to create the force required to achieve the desired suspension capacity.

Link's Air LinkTM air suspension system combines the best of air suspension technology and walking beam suspension precision for an extremely smooth, stable and dependable ride. The excellent ride quality reduces the potential for impact damage to the trailer and cargo, minimizing costly downtime and cargo damage. The Air LinkTM robust construction is able to handle a nominal suspension capacity of 85,000lbs (ground weight) in its stipulated operating environment. Utilizing greaseless polyurethane and composite filament wound bushings at all suspension pivot points, the Air LinkTM is virtually maintenance free. Because impact loads are directed through the air springs, bushing replacement is decreased dramatically.



Components

- Trailing arm hangers (11.875" height)
- Trailing arms
- Walking beams (64" spacing)
- Air spring hangers
- Air springs
- Air system (interface with chassis)
- Shock absorbers
- Panhard rods (axle connection to chassis not supplied)

Features

- 85,000lbs [38,555 kg] capacity
- 64" [1524mm] nominal tandem axle spread
- 12" [304.8mm] expected cross articulation (axle end to axle end)
- 8" [203.2mm] of vertical axle travel (total articulation)
- Equal weight distribution between axles
- Low suspension maintenance with polyurethane & composite bushings
- Minimized impact damage to trailer and cargo
- Suspension operable in the event of air pressure loss
- Heavy duty shock absorbers tuned for optimized ride characteristics



SECTION 3: FRAME PREPARATION

It will be necessary to drill holes in the frame before suspension assembly can begin. The Main hanger and upper shock bracket holes are 13/16'' to accommodate 3/4'' hardware. the air spring hanger holes are 11/16'' to accommodate 5/8'' hardware. Use to the dimensions below to layout the drill holes on each side of the frame.





SECTION 4: ASSEMBLY

Assemble the Axles to the Walking Beams

Pre-assemble the walking beam and axles.

Required Components

| Description | Quantity | Image |
|--|----------|-------------|
| Assembled front and rear axles (Meritor Supplied, contact them for details) | 1 each | Stand Stand |
| Eccentric adapter pin (Ø 3", Link P/N: 346-50- 010 R01)* | 2 | |
| Eccentric adapter end cap (Link P/N: 346-50- 012 R00)* | 4 | |
| Eccentric adapter set screw (Ø 3/8" x ¾" Link P/N: 201-00-606 R00)* | 8 | |
| Eccentric adapter nut (Ø1" UNF Stover, Link P/N: 201-02-275)* | 4 | |
| Through pin (Ø 3" x 9.750")** | 2 | |
| Through pin slotted nut (Ø 3")** | 4 | |
| Cotter pin | 4 | |
| (Link P/N: 201-04-208 R00) | | |
| Walking beam end bushing (Link P/N: 206-00-007 R02) | 4 | |



| Walking beam center sleeve (Link P/N: 206-00- 003 R00) | 2 | |
|---|---|---|
| Walking beam center composite bearing (Link | 4 | |
| P/N: 206-00-115 R00)*** | | |
| Trunnion tube | 1 | \sim |
| (Link P/N: 846-51-191 R00) | | |
| | | 0 |
| Walking beam (full assembly, Link P/N: 885-80- | 2 | |
| 000 R00)**** | | C S S S S S S S S S S S S S S S S S S S |

*The eccentric adapter is only sold as complete kit.

**Through pin is only available as a complete unit under Link P/N: 206-00-008 R00

*** Centre sleeve and center bearings sold together

**** The walking beam is not available without bushings.

Required Tools

- Hammer (Mallet)
- Allen key (3/16")
- Wrench (1 ½")
- Torque wrench 700lb.ft. minimum
- Socket (1 ½")
- Wrench (4") or Link P/N: 385-80-100 P00
- Air impact
- All tools as required by Axle manufacturer to remove brake system

Procedure

Dress each walking beam with the bushings and end connections needed.

Note: Each beam will have an eccentric adapter bushing and a through pin bushing. Replacement beams will be fully dressed with the bushings installed.





| Position the two walking beams together but far enough apart to insert the trunnion tube. | |
|---|-----------------------|
| Remove the pins from each end of the walking beams and keep them at hand for assembly. | |
| Prepare the axles to be able to connect them to the walking beams. | |
| 5. Remove the drums on one axle. | Spring Roller Drum |
| Disconnect the brake shoes and remove the dust shields on both wheel end of one axle to gain access for the install of the axle connector pins. | Roller |
| Align the bore of the walking beam bushings with the hangers on the axle. | |







| 13. Use the 1 ½" wrench to align the end caps so that the pin is biased towards the bottom of the hole and the set screws are vertical. | |
|--|--|
| 14. Thread on the slotted nuts onto the through pin, both inner and outer. | |
| 15. Position the axle to the required driveline angle as per the chassis manufacturer instructions to avoid preloading the bushings. Note: Use a digital level and this can be done in reference to the bottom of the walking beam which will be parallel to the frame. | |
| 16. Tighten eccentric adapter stover nuts. Torque specification: 490 lb. ft. [665 | |
| Nm] 17. Tighten the set screws on the end caps. Torque specification: 20 lb. ft. [27 Nm] | |



| 18. Tighten the slotted nuts on the through pin. Note: Torque must be achieved and then tighten passed to align a slot with the either of the holes in the pin to secure the nut with a cotter pin. Torque specification: 1200-1250 lb. ft. [1627-1695 Nm] | |
|--|--|
| 19. Insert a cotter pin for each nut. | |
| 20. Re-assemble the axle brakes and drums (both sides) following the requirements of the axle manufacturer. | |
| 21. Repeat steps 5 through 20 for the second axle to complete the assembly of the axles to the walking beams. | |
| 22. Remove the cap from one of the center bushings to insert the trunnion tube using a ½" drive socket directly. Note: apply Loctite 242 blue when reinstalling the cap. Torque specification: 100 lb. ft. [136 Nm] | |
| 23. Insert the trunnion tube into the center pin of one walking beam then slide the second beam over and insert the trunnion tube into it. Note: The trunnion tube should not bind or prevent the walking beams from achieving their proper spacing requirement. | |



Install Frame mounted components

Required Components

| Description | Quantity |
|---|----------|
| Trailing arm hangers Driver's side (Link P/N: 885-80-010 R00) Passenger's side (Link P/N: 885-80-011 R00) | 1 each |
| Forward air spring hangers (Link P/N: 860-80-555 R00) | 4 |

Required Tools

• None specific to Link.

Note: Reference the chassis manufacturer's tool requirements for the hardware to secure the hangers to the frame and to plump the air system.

Procedure

- 1. Mount the trailing arm hanger to the frame.
- **Note:** use 10 bolts to secure the hanger to the web of the frame rail and 4 bolts vertically into the cross member.

Caution: Ensure that there is a spacer between the hanger and the cross member to create a proper clamping joint without pulling the plates.





 Mount the air spring hangers to the frame rail with the chassis manufacturer's required hardware.

Note: Each air spring hanger requires two bolts to properly secure them to the frame.



Install the Trailing Arms (for reference only... trailing arms installed)

| Required Components | | |
|--|----------|-------|
| Description | Quantity | Image |
| Trailing arms with bushing and hardware (Driver's side: Link P/N: 885-80-070) (Passenger side: Link P/N: 885-80-071) | 2 | |
| Trailing arm socket head cap screw (Ø1" UNF x 4", Link P/N: 201-00-652) | 2 | |

Required Tools

- Torque wrench 700lb.ft. minimum
- Allen key socket, (3/4")
- Ratchet wrench or Air impact gun
- Thread-locker compound (Loctite 242)
- 3/16" spacer shim

| 1. Ensure that all the air is drained | |
|---------------------------------------|--|
| from the suspension. | |
| | |



| 2. | Mark each of the trailing arm retaining caps (upper and lower, both sides) with a unique mark to show where they go and the orientation. Caution: The orientation and position of each retaining cap is critical for proper fitment. | CONFIGURATION |
|----|--|---------------|
| 3. | Remove the socket head cap screws to release the retaining caps. | |
| 4. | Hook the trailing arm onto the trailing arm hanger bushing. | |
| 5. | Install the correct retaining caps, ensuring to match up the marks done in step 2, with the two socket head cap screws. | |
| 6. | Loosely seat the trailing arm with the retaining caps. | |
| 7. | Raise the end of the trailing arm to ensure that it is parallel to the frame rail. | |



| 8. Set the trailing arm so that there is only a 1/2" gap between the inside face of the outer retaining cap and the outer face of the trailing arm bushing outer cylinder. | |
|--|--|
| Tighten the upper retaining caps to an initial 150 ft-lb [203 Nm] once the trailing arm is parallel to the frame and at the correct inset. | |
| Note: Keep checking with the shim that the gap is maintained while the trailing arm is clamped. | |
| Removed one socket head cap screw from the upper retaining caps at a time, apply Locktite 242 to the thread and retighten to 150 ft-lb [203 Nm]. | |
| 11. Repeat the thread locker application for the remaining 3 socket head cap screws which secure the upper retaining blocks. | |
| 12. Torque the 4 socket head cap screws <i>Torque specification: 675-700 lb. ft.</i> [915-949 Nm] | |



| | <u> </u> |
|---|----------|
| 13. Secure the air springs to the trailing arm. Caution: the air springs must be secured to the trailing arm prior to installing the walking beam. | |
| 14. Remove the lower retaining caps and associated socket head cap screws. | |
| 15. Raise the walking beams or drop the trailing arms over the walking beam to seat the center pin of the walking beam. Note: The trailing arm must be dropped | |
| squarely over the walking beam or they will not fit because there is minimal side to side clearance. | |
| 16. Return the retaining caps to their designated place and orientation. | |
| 17. Apply Loctite 242 to the socket head cap screw threads and run them in to secure the two retaining caps. | |
| 18. Torque the lower retaining cap socket head cap screws. | |
| Torque spec.: 675-700lbft [915-949 Nm] | |
| 19. Connect lower shock to its designated mount on the trailing arm. | |
| Note: see shock install procedure below. | |
| 20. Connect the height control valve rod to the designated trailing arm bracket. | |
| Note: see height control valve installation below. | |
| 21. Repeat procedure for the second trailing arm. | |



Install Air spring (for reference... air springs currently assembled)

| Required Components | | |
|--|----------|------------|
| Description | Quantity | Image |
| Air Spring (Link P/N: 211-00-026) | 4 | |
| Air spring lower mounting bolt (Ø1/2″ UNC x 1 ½″, Link P/N: 201-00-045) | 8 | |
| Lock washer (Ø1/2", Link P/N: 201-01-100) | 12 | \bigcirc |
| Flat Washer (Ø 1/2" USS, Link P/N: 201-01-025) | 4 | 0 |
| Internal tooth washer (Ø3/4", Link P/N: 201-01- 160) | 4 | (mar |
| Jam nut (Ø3/4" UNF, Link P/N: 201-02-185) | 4 | \bigcirc |
| Flat Washer (Ø1/2" SAE, Link P/N: 201-01-020) | 8 | \bigcirc |
| Hex nut (Ø1/2" UNC, Link P/N: 201-02-110) | 8 | 9 |

Required Tools

- Torque wrench 50lb.ft. minimum
- Socket (3/4")
- Ratchet
- Wrench (1 1/4")
- Wrench (3/4")



| Orient the air spring with the combo air fitting valve on the outside of the frame. | |
|--|--|
| Secure the combo fitting to the air spring hangers with the internal tooth washer and the Ø3/4" jam nut Torque specification: 30 lb. ft. [41 Nm] | |
| Secure the air spring top stud to the air spring hangers also, using the ½" SAE washer, a lock washer and a ½" hex nut. Torque specification: 30 lb. ft. [41 Nm] | |
| 4. Secure the bottom of the air spring to the trailing arms using the ½" bolt, the ½" lock washer and ½" flat washer. Caution: The flat washer is left off of the forward bolt on the forward air spring for both sides as this extra height creates a clearance issue with the walking beam. The other three lower mounting bolts will have the lock washer and flat washer combination. Torque specification: 30 lb. ft. [41 Nm] | |
| 5. Repeat steps 1 through 4 to install | |



| each of the air springs. | |
|--------------------------------------|--|
| Caution: The air springs must be | |
| installed prior to the trailing arm | |
| being installed to the walking beam. | |

Install the Shock Kit (upper bracket requires mounting to frame)

| Required Components | | |
|---|----------|-------|
| Description | Quantity | Image |
| Upper shock mounting bracket (Link P/N: 801- 30-005) | 2 | |
| Shock (Link P/N: 446-51-211) | 2 | |
| Lower shock mount bolt (Ø3/4" UNC X 3 ½", Link P/N: 201-00-230) | 2 | |
| Lower shock mount nut (Ø3/4" UNF Nylok, Link P/N: 201-02-250) | 2 | |
| Lower shock mount spacer tube (Link P/N: 311- 80-136) | 2 | |
| Upper shock mount bolt (Ø1" UNC X 3 ½", Link P/N: 201-00-096) | 2 | |
| Upper shock mount washer (Ø1" USS flat washer, Link P/N: 201-01-015) | 2 | |



Required Tools

- Torque wrench 250 ft-lb. [339 Nm] minimum
- Socket (1 ½")
- Socket (1 1/8")
- Wrench (1 1/8")

| 1. | Orient the shock so that the dust cover is towards the top. | |
|----|---|--|
| 2. | Confirm that the upper shock mount bracket is still securely fastened to the frame. | |
| 3. | Place an Ø 1"washer onto the Ø 1" bolt so that it is on the outside of the shock. Note: The washers are placed on the outside of the bracket | |
| 4. | Loosely assemble upper bolt through the shock eye and into the mounting bracket. Note: Use Loctite 242 blue to secure this bolt. | |
| 5. | Insert the shock spacer into the lower shock eye. | |
| 6. | Insert bolt from the outside of the U shaped lower bracket through the lower shock eye. | |
| 7. | Place Ø 3/4" nut on bolt. | |





Install the Height Control Valves

Required Components

| Description | Quantity | Image |
|--|----------|--------------|
| Height Control Valve (Link P/N: 203-02- 025) | 2 | |
| HCV Linkage Rod (Link P/N: 201-04-001) | 2 | |
| BOLT, HEX HEAD, GR5, UNC (Ø1/4" X 3", Link P/N: 201-00-040) | 4 | 0 |
| WASHER, FLAT, SAE, NARROW, GR8 | 8 | |
| (Ø1/4",Link P/N: 201-01-030) | | \heartsuit |
| NUT, HEX, UNC, NYLOCK (Ø1/4",Link | 4 | 67 |
| P/N: 201-02-195) | | (L) |

Required Tools

- Torque wrench 250 ft-lb. [339 Nm] maximum
- Socket (7/16")
- Wrench (7/16")
- Screwdriver (Flathead)



| Mount height control valves to each trailing arm hanger with the ¼" diameter hardware supplied. Torque specification: 80 - 100 in lbs [9 – 11.3 Nm] | |
|--|--|
| Install pin assemblies to the end of the HCV rod and the L bracket mount on each trailing arm. Note: Pin ends face inward for both mounts and on both sides of the suspension. Torque specification: 40-50 in. lbs. [4.5 – 5.6 Nm] | |
| Adjust the height of the HCV linkage rod P boot and press the linkage into place onto the pins. | |
| While ensuring that the trailing arm is parallel to the frame, Set the linkage rod such that the HCV arm is parallel to the frame as well and snug the clamp on the P boot to keep the linkage in place. Note: This should be very close to achieving the design ride height. | |
| 5. Snug the P boot clamp to keep it in | |



| | position. Note: The P boot is loosened to make height adjustments. | |
|----|--|--------------------------------------|
| 6. | Trim excess linkage sticking out past the bottom of the boot leaving 1.5" of excess to allow for Ride height adjustment. | |
| 7. | Repeat steps 1-5 for HCV on second side of the suspension. Note: Ensure that the HVC is positioned in the same orientation on both sides. It is not flipped or rotated. | |
| 8. | Use appropriate fittings and lines to plumb the two air springs. Note: All ports are ¼" NPT. Note: if a dump valve is not planned, the dump port would remain open to atmosphere. Do not plug. | SUPPLY DUMP DUMP SUSPENSION |
| 9. | Plumb the suspension port from the HCV to the two air springs on the same side of the suspension. Note: Ports on the air springs are 1/4" NPT. Note: The routing should be planned to avoid clearances with all other chassis components. Note: The two HCVs control each side of the suspension independently and the air spring must be plumbed accordingly. (no cross over of lines between air springs) | |



Setting and Adjusting the Suspension Ride Height

Suspension Ride Height

Suspension ride height is the distance from the bottom of the frame rail to the centerline of the axle. The suspension is at correct ride height when the trailing arm is parallel with the bottom flange of the chassis frame rails.

The suspension is designed to operate at a specific ride height, which must be maintained during the life of the suspension. Otherwise, incorrect loading can occur which can affect suspension performance, shorten component life and void the warranty of the suspension.

Operating the vehicle at a ride height that is lower or higher than specified can reduce vehicle stability, affect the alignment of the axles and therefore the tracking truck which can result in decreased tire life.

Adjusting the suspension ride height

Note: Due to the high capacity of this suspension, significant weight must be applied to the vehicle in order to set the ride height correctly and notice the effects of any setting changes. Do not attempt any ride height adjustments with the vehicle unloaded.



Note: This can also be accomplished by measuring from the bottom of the frame rail to the air spring mounting face of the trailing arm at the front and rear to ensure that the two measurements are matching (+/- 1/8" [3.1mm]). Nominal dimension is 11.875" [302 mm].



Required Tools

Screwdriver (Flathead)

| 1. | Ensure the vehicle is parked on a level surface. | |
|----|---|----------------------------------|
| 2. | Verify that the vehicle's air system is fully charged or that an external air supply is plumbed into the system to avoid running the truck (as required). | |
| 3. | Use a level, preferably digital, to measure the angle of the frame. | J <u>OHNSON</u> .«« 1155-0000 |
| 4. | With the frame angle noted, place the level on the spring mounting surface of the trailing arm. | |
| 5. | Adjust the height of the rod at the P boot on one side of the suspension until the frame angle and trailing arm angle are within +/2 degrees of one another. Note: Adjust in small increments | |
| | to avoid overshooting target angle. | |
| 6. | Dump the air in the rear suspension then reinflate to have the suspension adjust to the new linkage setting. | |
| 7. | Remeasure and adjust as needed to achieve desired ride height setting on the one side. | |





Alignment

Alignment of the suspension is done through the eccentric bushings located on diagonally opposite ends of the suspension. Neutral setting should be the default until the suspension is completely setup.

Note: Prior to any alignment measurements and adjustments, ensure that the ride height is set correctly as this will have a direct effect on the alignment settings.

During the alignment process the transverse panhard rods should be adjusted first to ensure that the axles are centered on the frame rail. This is typically done at the frame rail by adding or removing washers on straddle mount. Once the axles are centered on the frame the alignment should be measured to determine if any additional adjustments are required.

Should some adjustment be required, the Link Air Link[™] suspension is equipped with two walking beam end connectors specifically for this purpose.



The eccentric adapters located on diagonally opposite corners allow for a maximum adjustment of ¼" forwards and ¼" backwards per bushing. By rotating both caps on each alignment adapter from the default 0 degree setting, it will shift that corner of the axle by a corresponding amount based on the chart below.



| Cap angle of | Axle hanger movement |
|-----------------|-------------------------|
| rotation (degs) | |
| -90 | ¼" [6.4 mm] forward |
| -67.5 | 3/16" [4.8 mm] forward |
| -45 | 1/8" [3.2 mm] forward |
| -22.5 | 1/16" [1.6 mm] forward |
| 0 | 0 |
| 22.5 | 1/16" [1.6 mm] rearward |
| 45 | 1/8" [3.2 mm] rearward |
| 67.5 | 3/16" [4.8 mm] rearward |
| 90 | ¼" [6.35 mm] rearward |

The once an estimate of the adjustment is required, adjust the eccentric as follows:

Required Tools

- Wrench (1½")
- Torque wrench 500lb.ft. minimum
- Socket (1 ½")
- Extensions and swivel connections to access walking beam end connections
- Air Impact
- Allen key (3/16")
- All additional tools required by the Axle manufacturer to properly remove the brakes.



| 1. | Support the truck and the walking beam at the corner where the eccentric is deemed to require adjustment. | |
|-----------|---|--------|
| 2. | Remove the tires, drum and disconnect the shoes to get access to the eccentric bushing nut on the outside. Note: This is expected due to the proximity to the wheel end and the lack of clearances for tools. | Roller |
| 3. | Loosen the two (2) stover nuts (P/N: 201-02-275) just enough to rotate the end caps. Note: Some friction is desired to keep everything in place during alignment. | |
| 4. | Using the box wrench on the caps, rotate them both (inner and outer caps on the same bushing) to the same angle as required to achieve proper alignment. | |
| 5. Tor | Re-tighten the stover nut while holding the end cap in place with the box wrench. Ensure set screws are backed off prior to tightening. <i>rque specification: 490 lb. ft. [665 Nm]</i> | |



| Once the stover nuts are tight, tighten the set screws (P/N: 201-00-606) using the Allen key. Torque specification: 20 lb. ft.[27 Nm] | 0 |
|--|--------|
| Reinstall the brakes, drum and tires following recommended procedures by the axle manufacturer. | Roller |
| Repeat the process on the diagonally opposite corner to complete the adjustment. | |
| Move the chassis and allow for everything to settle into the new position, then measure the alignment again. | |
| 10. Readjust as necessary. | |



APPENDIX A: TORQUE SPECIFICATIONS

| | | Torque, lb.ft. |
|----------------------------------|---|----------------|
| Location Description | Size | [Nm] DRY |
| Trailing Arm blocks* | Ø1" UNF Socket head cap screw | 900-950 |
| | | [1220-1288] |
| Walking beam end bushing | Ø1" LINE Stover put | 400 [665] |
| alignment adapter | | 490 [005] |
| Walking beam end bushing | Ø3/8" LINC set screw | 20 [27] |
| alignment adapter set screws | Ø378 DINE SET SCIEW | 20 [27] |
| Walking beam end bushing | Ø 3" UNF Slotted Hex nut | 1200-1250 |
| through pin slotted nut ** | | [1627-1695] |
| Shock upper bolt | Ø 1" UNC x 3 $\%$ " Hex head bolt (Locktite coated) | 250 [389] |
| Shock lower mount | Ø3/4" UNF X 3 $\frac{1}{2}$ " Hex head bolt | 190 [257] |
| Air spring lower bolts | Ø1/2" UNC X 1 $\frac{1}{2}$ " Hex head bolt | 30 [41] |
| Air spring top stud mount nut | Ø1/2" UNC Hex nut | 30 [41] |
| Air spring top combo fitting jam | $d^2/4$ " LINE In put | 20 [41] |
| nut | | 50 [41] |
| HCV mounting holts | | 80-100 IN LBS |
| | | [9–11.3] |
| HCV linkage pips | $d_1/4$ " LINC Hay put | 40-50 IN LBS |
| | | [4.5-5.6] |

* Coat threads with thread locker and tighten to a 'wet' torque of 675 – 700 lb.ft [915 -949 Nm].

****** Alternative tightening method can be used done by starting with an initial torque of 200 lb.ft and the turning the nut an additional 120 degrees (1/3 turn). This will result in an equivalent clamping force.



V. REVISION HISTORY

| Revision | Date | Details |
|----------|------------|------------------|
| 00 | 09/18/2017 | Initial release. |