# COLORADO – D-MAX LDV T60 DIY SUSPENSION FITING GUIDE

BY BRENDAN O'KEEFE ROM SELECT 4WD PRODUCTS

Note: This fitting guide covers the Holden Colorado RG (05/2012 onwards), the Isuzu D-MAX (05/2012 onwards) and the LDV T60 (2016 onwards).

clearance or would just like a better driving and handling 4X4, then you'll be wanting to upgrade its suspension, sooner rather than later, and there are plenty of aftermarket options available for the popular 4X4 makes and models. But what about fitting it yourself and saving a few dollars, dollars that could be better spent on buying a better quality suspension kit in the first place? In this DIY series, we're going to take a look at fitting new suspension to popular late-model 4X4s at home, on the ground and with a minimum of fuss. Or in other words, we're going to pass on some of our model specific fitting tricks, to save you time and keep your frustration levels in check.

#### Legal note:

This suspension fitment guide is based on what I consider to be an ideal way to fit suspension to the specific vehicle model this article is covering. It's not necessarily the only way, nor should it be considered gospel. Suspension components are safety-critical items which must be fitted correctly, and they must be fitted by a person with an acceptable level of competence when it comes to working with vehicles and the tools used. If that isn't you, then please have your vehicle's new suspension fitted by a professional. No liability for issues arising from the incorrect installation of suspension components will be accepted by myself or the publishers of this magazine.

f you plan on touring, towing, need more

So, let's get the fine print out of the way!

## CETTING STARTO

#### PATIENCE GRASSHOPPER

A suspension upgrade should be one of the last modifications that you make to your 4X4. You only want to select spring rates after you have all of the major accessories fitted and have a solid idea of the weight the new springs will need to deal with. If you do this arse about, you'll end up having to upgrade the springs, again, after they've sagged. If you try getting tricky with it and fit higher rate springs than you need now, knowing that you'll be adding a lot of accessories later, then you'll end up with a high riding bag of poo, and compromise wheel alignment, ride quality and handling. So, fit all of your major (heavy) accessories and then work out what spring rates you need.

#### BUY SMART

Purchase a suspension kit that includes pre-assembled struts. Coils to suit modern IFS vehicles can have spring rates exceeding 1,000lb/in, and that is far too high for

common DIY coil spring compressors, and that makes assembling them at home extremely dangerous. The struts should be assembled using either a hydraulic or Branick style coil spring compressor.



#### PREPARE AND WORK SMART Mark the position of all wheel

alignment eccentric bolts. This will help stop the alignment from moving too far out of spec if you loosen or remove the bolts during the assembly process.



Measure your trim heights before you start! It is recommended that trim height measurements are done from the centre of the wheel to the lip of the guard or factory flare. This keeps the measurement in line with the records kept by transport authorities and eliminates variance between wheel sizes. If the supplier requires the measurement from the bottom of the wheel, keep both on record.

Make sure you fill out all of the necessary paperwork for warranty! Many suppliers require you to record all measurements and part numbers for warranty purposes.

Do not fully tighten any pivoting bolts (e.g. control arm, lower strut bolt, shackle and fixed end pins) in the air. These must be fully tensioned to the manufacturer's specs when the vehicle is lowered back down onto the ground.

### CHECK THAT YOU HAVE ALL PARTS NEEDED

2 x Pre-assembled front struts and coils

- 2 x Rear Shocks Absorbers
- 2 x Rear Leaf Springs
- 2 x Greaseable Shackles
- 2 x Greaseable Pins

1 x Leaf Spring Bush Kit

4 x High tensile U-bolts

1 x Centre bearing spacer kit

### **STEP BY STEP GUIDE**

#### FRONT SUSPENSION FITTED ON THE GROUND

This is the process that most people attempting to fit their own suspension would use at home, and it assumes that you aren't lucky enough to have a hoist in the shed.

#### 1 Measure trim heights.



2 Chock the rear wheels.



**3** Jack the front suspension up until front wheels are clear of the ground.





5 Lower the vehicle back down allowing the front suspension to be at full droop.



#### 6 Remove wheel.



#### 7 Undo brake line bolt from upper control arm.



### 8 Undo ABS line from upper control arm. 12 Undo lower strut bolt.



9 Undo lower sway bar link.



**10** Undo upper control arm bolts.



4 Place jack stands under the chassis.

**11** Remove upper control arm and move out of the way.

#### 13 Undo top strut nuts.



**14** Remove old strut and fit new one. Hold strut in place with one top strut nut done up finger tight.



**15** Fit lower strut bolt. Leave this bolt loose for now. It must never be tensioned in the air.



**16** Tighten top strut nuts.



17 Refit lower sway bar link. Jacking up the upper control arm will help make this easier.



18 Refit upper control arm ensuring the ABS is routed correctly. Leave control arm bolts loose for now. They must never be fully tensioned in the air. Remove jack stands and lower vehicle back down on to the ground.



19 We recommend bouncing on the vehicle or moving it back and forth to help the suspension settle before tightening remaining bolts.



**20** Tighten lower strut bolts.



21 Tighten upper control arm bolts.



## **STEP BY STEP GUIDE**

#### REAR SUSPENSION FITTED ON GROUND

(We recommend working on one side at a time)



2 Jacking off the diff, raise the rear of the vehicle as high as possible.



3 Place jack stands under the chassis and lower the vehicle down onto the jack stands. Ensure the diff is supported by the jack.



4 Remove rear wheel.

5 Remove handbrake line from leaf spring.







#### DIY SUSPENSION GUIDE

13 Lever leaf spring off shackles.

8 Remove handbrake cables from rear diff.



9 Remove shock absorber.



10 Remove U-bolts and plate on one side.



11 Undo fixed end bolts.



12 Undo shackle nuts.





14 Remove leaf spring.



15 Grease new shackle bushes, shackles and fixed end bolts.



**16** Fit new bushes into leaf springs and chassis mount. Multigrips can be used to help fit bushes into the chassis mount.



17 Slightly bend the fixed end brackets outwards to help make fitting the new springs easier.



**18** Fit new leaf springs into place.



**19** Fit fixed end bolt (do not fully tighten).



**20** Fit new shackles (do not fully tighten).



21 Jack diff up so that the centre bolt head locates into the centre of the diff. It may be necessary to move the wheel/diff forward and back to help

22 Fit new U-bolts with the original



24 Refit wheels, jack up to remove the jack stands and then lower the vehicle to the ground before tightening the fixed end and shackle nuts. Test drive and check achieved heights.

25 Adjust centre bearing spacer kit if required.

## **STEP BY STEP GUIDE**

#### FRONT SUSPENSION FITTED ON A FOUR-POST HOIST

If you are lucky enough to have a four-post hoist in the garage, there is another method for doing the front suspension that is easier and will save you some time. This method is completed from underneath the vehicle without needing to remove the wheel or undo the upper ball joint.

- **1** Measure trim heights.
- 2 Chock the rear wheels.
- 3 Raise hoist to access underneath the vehicle.
- 4 Remove front bash plates to allow access to wheel alignment nuts.
- 5 Mark wheel alignment eccentric bolts showing their current setting/position.
- **6** Jack front suspension.
- 7 Undo lower control arm eccentric alignment bolts and place bolts down in the direction that they face to help remember where they go.
- 8 Undo lower shock bolt.
- 9 Allow lower control arm to drop and move it out of the way.
- 10 Lower the hoist back down so you can access the top strut nuts. Undo the three top nuts while holding onto the strut. Carefully remove the strut.

- **11** Fit new strut and hold in place with one top strut nut.
- 12 Raise hoist again to access lower control bolts.
- **13** With the aid of a bottle jack, lift and position the lower control arm so the lower strut bolt and lower control arm eccentric bolts can be refitted.
- 14 Fit lower strut bolt and lower control arm eccentric bolts-leave loose for now.
- **15** Lower front suspension so all weight is on the ground.
- 16 Tension lower strut bolt and lower control arm bolts to factory specification.
- 17 Refit bash plate.
- **18** Lower hoist to access top strut nuts.
- 19 Refit and tighten all top strut nuts.

#### POST FITMENT NOTES

A wheel alignment and headlight adjustment must be completed after the suspension is fitted. Many modern vehicles also require the steering angle sensor to be reset to suit the new height and alignment. All of this can be done by your local tyre shop.

Aftermarket control arms or offset/eccentric control arms bushes may be required to perfect the wheel alignment. Re-tension and inspect all suspension components after 1,000km. Components like U-bolts will loosen as the spring pack settles in. It is also important to inspect the shock absorbers for any signs of leaking. If there is an issue with the seal on a shock absorber, it will normally be present after 1,000km of use. Special notes: The LDV T60 requires a raised headlight sensor bracket to be fitted with longer than



standard shock absorbers. >> BACK TO MAIN MENU

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