



4X4 ACCESSORIES



DATE:

December 2014

DESCRIPTION:

Old Man Emu Suspension System

APPLICATION:

Ford F250/350 2011+
Ford F250/350 2008 to 2010

PART NO. :

Refer to Application

AVAILABILITY DATE:

January 2015



PRODUCT SPECIFICATION

OME SUSPENSION SYSTEMS:

Aftermarket 4WD suspension is extremely complex. Determining the right solution for your vehicle and your requirements demands special attention to many factors. Unlike numerous aftermarket suspension systems, which are only available in a single configuration targeting lift height, OME offers a range of tuned and matched integrated suspension systems to ensure the right suspension is available to suit how the vehicle is outfitted and the conditions it will encounter. Kit numbers have been created for the 2011+ trucks, allowing for easy ordering of all the components needed to reach 3 unique heights. Individual components are also available for purchase in the traditional Old Man Emu fitment style.

DESIGN & DEVELOPMENT:

The OME Engineers objective was to develop an integrated suspension system for the later model Ford F250 and F350 Super Duty models. Areas considered when developing the suspension system for the F250/350 were lift and load carrying, but particular attention was paid to improving the ride quality. The Ford F250/350 runs a traditional full size truck suspension set up consisting of front and rear live axles. The individual components consist of coil spring, shock absorber, radius arms and track bar (panhard rod). The rear suspension set up consists of leaf spring and shock absorber. When lifting this type of suspension geometry consideration was needed to be given to caster, lateral position of front axle and steering geometry. Once ride height was determined it was also important to consider any potential areas that need to be addressed by increasing travel.

FRONT SPRINGS AND SHOCK ABSORBERS:

3 spring options were developed to cater for front ride height increases of 2" (50mm), 3" (75mm) and 4" (100mm) with a spring rate increase of approximate of 15%. Matching shock absorbers were developed and tuned to the spring rate; open and closed lengths were developed to maximize travel. A 10mm trim packer was developed for fine-tuning ride heights.



CASTER CORRECTION KIT:

P/No. FK81

2 inch (50mm)

A caster correction kit was developed to provide approximately 3.5 to 4.0 degrees of extra caster. It is advisable to have a front-end alignment carried out to determine if a FK81 kit is required.



REAR SPRINGS AND SHOCK ABSORBERS:

A replacement rear spring and extra leaf combination was designed to improve ride characteristics, achieve 3" (75mm) ride height increase and to cater for 2 different load ratings being medium load and constant 450kg (1000lbs). For very heavy applications a second extra leaf can be fitted to increase the leaf spring to a constant 900kg (2000lbs). A matching shock absorber was tuned to cater for the new spring design.

Replacement spring bushes and U-bolts were also developed, noting that the F250 and F350 have different length U-bolts and has been catered for in the OME selection.



RADIUS ARM DROP BRACKET KIT:

P/No. FK70 & FK80

3”(75mm) and 4” (100mm) lift only:

2 different kits were developed; FK70 suits 2011+ models and FK80 suits 2008 to 2010 models. The Radius Arm Drop bracket was developed from 8mm pressed formed metal to ensure maximum strength and durability.

To optimize the strength of the bracket, the OME engineers designed this bracket to mount on the original mounting points, but it also triangulates the load back to a third mounting point on the chassis.

The primary function of the Radius arm drop bracket is to restore castor angle when fitting a larger lift.



TRACK BAR (PANHARD ROD) RELOCATION KIT:

P/No. FK69

3”(75mm) and 4” (100mm) lift only

A track bar relocation bracket was developed to re-center the axle, as any lift will pull the axle to one side. The relocation bracket also improves bump steer by realigning steering geometry. This change in steering geometry also improves the ball joint angle, which in turns allows further down travel.



BRAKELINE BRACKET KIT:

P/No. FK71

3" (75mm) and 4" (100mm) lift only

Brake line and ABS extension brackets were developed to relocate the position of the brake line so at full extension when OME shocks and Radius Arm Drop Bracket have been fitted, brake lines and ABS wires do not become overstretched.



SWAYBAR BRACKET KIT:

P/No. FK72

3" (75mm) and 4" (100mm) lift only

With fitting of OME shocks, down travel has been increased. To ensure the sway bar does not limit travel a Sway Bar Bracket kit was developed and spaces down the fixed end on the chassis.



BUMP STOP SPACER KIT:

P/No. FK73

3" (75mm) and 4" (100mm) lift only

By installing taller front coil springs and longer travel shocks, it becomes necessary to install a Front Bump Stop Spacer to ensure bump contact is achieved before coil bind occurs.



2008+ AND 2008-2010 FORD F250/350 SUPER DUTY

| KIT NUMBER | | DESCRIPTION |
|-----------------|----------|------------------------------------|
| OMEF25008LVL2K | | OME F250/350 2008+ Leveling Kit 2" |
| Component Parts | Quantity | Component Description |
| 2768 | 1 | Coil Ford 2005 On |
| 60123 | 2 | Sport Shock Superduty Front |
| 60122 | 2 | Sport Shock Superduty Rear |
| FK81 | 1 | F250/350 Caster Kit |
| 217195 | 1 | OME Hat |
| 215507 | 2 | OME Sticker |
| OMEF25008LFT3K | | OME F250/350 2008-2010 3" Lift Kit |
| Component Parts | Quantity | Component Description |
| 3075 | 1 | Coil Ford 75mm |
| 60121 | 2 | Sport Shock Superduty Front |
| FK69 | 1 | F250/350 Panhard Brkt |
| FK80 | 1 | F250/350 Rad Arm Brkt |
| FK71 | 1 | F250/350 Brake Line Brkt Kit |
| FK72 | 1 | F250/350 Sway Bar Brkt Kit |
| FK73 | 1 | F250/350 Bump Stop Spacer Kit |
| EL077R | 2 | Spring Ford F250/350 |
| 60122 | 2 | Sport Shock Superduty Rear |
| OMESB109 | 2 | OME Spring Bush Kit |
| OMEU79 | 4 | OME U Bolt Washer & Nut |
| 217195 | 1 | OME Hat |
| 215507 | 2 | OME Sticker |
| OMEF25008LFT4K | | OME F250/350 2008-2010 4" Lift Kit |
| Component Parts | Quantity | Component Description |
| 3076 | 1 | Coil Ford 100mm |
| 60121 | 2 | Sport Shock Superduty Front |
| FK69 | 1 | F250/350 Panhard Brkt |
| FK80 | 1 | F250/350 Rad Arm Brkt |
| FK71 | 1 | F250/350 Brake Line Brkt Kit |
| FK72 | 1 | F250/350 Sway Bar Brkt Kit |
| FK73 | 1 | F250/350 Bump Stop Spacer Kit |
| EL077R | 2 | Spring Ford F250/350 |
| EL40XL | 2 | XL Leaf Suit EL077R |
| 60122 | 2 | Sport Shock Superduty Rear |
| OMESB109 | 2 | OME Spring Bush Kit |
| OMEU80 | 4 | OME U Bolt Washer & Nut |
| UCB21 | 2 | OME Centre Bolt & Nut |
| 217195 | 1 | OME Hat |

2011+ FORD F250/350 SUPER DUTY KITS

| KIT NUMBER | DESCRIPTION | |
|-----------------|--------------------------------|-------------------------------|
| OMEF25011LFT3K | OME F250/350 2011+ 3" LIFT KIT | |
| Component Parts | Quantity | Component Description |
| 3075 | 1 | Coil Ford 75mm |
| 60121 | 2 | Sport Shock Superduty Front |
| FK69 | 1 | F250/350 Panhard Brkt |
| FK70 | 1 | F250/350 Rad Arm Brkt |
| FK71 | 1 | F250/350 Brake Line Brkt Kit |
| FK72 | 1 | F250/350 Sway Bar Brkt Kit |
| FK73 | 1 | F250/350 Bump Stop Spacer Kit |
| EL077R | 2 | Spring Ford F250/350 |
| 60122 | 2 | Sport Shock Superduty Rear |
| OMESB109 | 2 | OME Spring Bush Kit |
| OMEU77 | 4 | OME U Bolt Washer & Nut |
| 217195 | 1 | OME Hat |
| 215507 | 2 | OME Sticker |
| OMEF25011LFT4K | OME F250/350 2011+ 4" LIFT KIT | |
| Component Parts | Quantity | Component Description |
| 3076 | 1 | Coil Ford 100mm |
| 60121 | 2 | Sport Shock Superduty Front |
| FK69 | 1 | F250/350 Panhard Brkt |
| FK70 | 1 | F250/350 Rad Arm Brkt |
| FK71 | 1 | F250/350 Brake Line Brkt Kit |
| FK72 | 1 | F250/350 Sway Bar Brkt Kit |
| FK73 | 1 | F250/350 Bump Stop Spacer Kit |
| EL077R | 2 | Spring Ford F250/350 |
| EL40XL | 2 | XL Leaf Suit EL077r |
| 60122 | 2 | Sport Shock Superduty Rear |
| OMESB109 | 2 | OME Spring Bush Kit |
| OMEU78 | 4 | OME U Bolt Washer & Nut |
| UCB21 | 2 | OME Centre Bolt & Nut |
| 217195 | 1 | OME Hat |
| 215507 | 2 | OME Sticker |

SHOCK ABSORBER SPECIFICATIONS:

| Part Number | Open Length (mm) | Closed Length (mm) | Upper Mount Bush Kit | Lower Mount Bush Kit |
|-------------|------------------|--------------------|----------------------|----------------------|
| 60121 | 620 | 370 | SMP493 | 110-110-103 |
| 60122 | 785 | 460 | SMP657 | 110-A42-124 |
| 60123 | 560 | 340 | SMP493 | 110-110-103 |

SPRING SPECIFICATIONS:

| Part Number | Bar Dia/ mm | Free Height mm | | No. of Turns | Coil Weight kg | Spring Rate | | OE Spring Rate lbs |
|-------------|-------------|----------------|-----|--------------|----------------|-------------|------|--------------------|
| | | A | B | | | Lbf/in | N/mm | |
| 2768 | 20 | 560 | 560 | 11 | 10.3 | 450 | 79 | 220 |
| 3075 | 21.5 | 580 | 580 | 11.95 | 13.1 | 520 | 91 | 220 |
| 3076 | 21.5 | 605 | 605 | 11.95 | 13.1 | 520 | 91 | 220 |

COMPONENTS:

| PART NUMBER | DESCRIPTION |
|-------------|-------------------------------|
| 2768 | Coil Ford 2005 On |
| 3075 | Coil Ford 75mm |
| 3076 | Coil Ford 100mm |
| 60121 | Sport Shock Superduty Front |
| 60122 | Sport Shock Superduty Rear |
| 60123 | Sport Shock Superduty Front |
| EL077R | Spring Ford F250/350 |
| EL40XL | XL Leaf Suit EL077R |
| FK69 | F250/350 Panhard Brkt |
| FK70 | F250/350 Rad Arm Brkt |
| FK71 | F250/350 Brake Line Brkt Kit |
| FK72 | F250/350 Sway Bar Brkt Kit |
| FK73 | F250/350 Bump Stop Spacer Kit |
| FK74 | F250/350 Trim Packer Front |
| FK80 | F250/350 Rad Arm Brkt |
| FK81 | F250/350 Caster Kit |
| OMESB109 | OME Spring Bush Kit |
| OMEU77 | OME U Bolt Washer & Nut |
| OMEU78 | OME U Bolt Washer & Nut |
| OMEU79 | OME U Bolt Washer & Nut |
| OMEU80 | OME U Bolt Washer & Nut |
| UCB21 | OME Centre Bolt & Nut |

FORD

FORD F250 & F350 2008 - 2010

| FRONT <i>Estimated Lift: 45mm</i> | DIESEL ENGINE | | |
|--------------------------------------|---------------------|-----|--|
| | PART NUMBER | QTY | |
| SPRING: 45MM | 2768 | 1 | |
| NITROCHARGER SPORT | 60123 | 2 | |
| CASTER CORRECTION KIT | FK81 ^[6] | 1 | |

| FRONT <i>Estimated Lift: 75 - 100mm</i> | DIESEL ENGINE | | |
|--|----------------------------|-----|--|
| | PART NUMBER | QTY | |
| SPRING: 75MM | 3075 ^[1] | 1 | |
| NITROCHARGER SPORT | 60121 ^[2] | 2 | |
| SPRING: 100MM | 3076 ^[1] | 1 | |
| NITROCHARGER SPORT | 60121 ^[2] | 2 | |
| PANHARD BRACKET | FK69 | 1 | |
| RADIUS ARM DROP BRACKET KIT | FK80 | | |
| BRAKELINE BRACKET KIT | FK71 | | |
| SWAYBAR BRACKET KIT | FK72 | | |
| BUMP SPACER KIT | FK73 | | |
| TRIM PACKET (10mm) | FK74 ^[3] | | |

| REAR <i>Estimated Lift: 75mm</i> | ALL MODELS | | |
|-------------------------------------|------------------------------|-------|--|
| | PART NUMBER | QTY | |
| SPRING: MEDIUM LOAD | EL077R ^[4] | 2 | |
| SPRING: CONSTANT 450 KGS | EL077R + EL40XL | 2 + 2 | |
| NITROCHARGER SPORT | 60122 | 2 | |
| SPRING BUSH KIT | OMESB109 | 2 | |
| U BOLTS - NO OVERLOAD LEAF | OMEU79 ^[5] | 4 | |
| U BOLTS - WITH OVERLOAD LEAF | OMEU80 | 2 | |
| EXTRA LEAF | EL40XL | | |
| CENTRE BOLT | UCB21 ^[4] | | |

REMARKS:

- 1** When fitting either 3075 or 3076 it is **mandatory** to fit Bump Spacer Kit FK73 to prevent the coil from being over stressed.
- 2** OME front shock 60121 is not suitable as an OE replacement. When fitting our longer OME shock 60121 you must fit:
 - FK71 Brakeline Kit to extend / drop the brakelines
 - FK72 Swaybar Kit to lower the front swaybar
 - FK80 Radius Arm Drop Bracket Kit, if not fitted you may over stretch the front brakelines
- 3** When bull bar and / or winch are fitted use FK74 on both coils to restore nominal lift height.
- 4** Where the OE rear leaf spring has an overload leaf fitted, this overload leaf is to be fitted to the OME leaf, EL077R is to have its centre bolt replaced with a longer bolt UCB21 and OE spacer blocks are to be reused.
- 5** Use OMEU79 when fitting to a vehicle without an overload leaf.
Use OMEU80 when fitting to a vehicle with an overload leaf.
- 6** Fitment of a FK81 Caster Correction Kit will provide approximately 3.5 to 4.0 degrees of extra caster. It is advisable to have a front end alignment carried out to determine if a FK81 kit is required.

FORD

FORD F250 & F350 2011 ON

| FRONT <i>Estimated Lift: 45mm</i> | DIESEL ENGINE | | |
|--------------------------------------|---------------|-----|---|
| | PART NUMBER | QTY | |
| SPRING: 45MM | 2768 | 1 | |
| NITROCHARGER SPORT | 60123 | 2 | |
| CASTER CORRECTION KIT | FK81 | 1 | 6 |

REMARKS:

1 When fitting either 3075 or 3076 it is **mandatory** to fit Bump Spacer Kit FK73 to prevent the coil from being over stressed.

| FRONT <i>Estimated Lift: 75 - 100mm</i> | DIESEL ENGINE | | |
|--|---------------|-----|---|
| | PART NUMBER | QTY | |
| SPRING: 75MM | 3075 | 1 | 1 |
| NITROCHARGER SPORT | 60121 | 2 | 2 |
| SPRING: 100MM | 3076 | 1 | 1 |
| NITROCHARGER SPORT | 60121 | 2 | 2 |
| PANHARD BRACKET | FK69 | 1 | |
| RADIUS ARM DROP BRACKET KIT | FK70 | | |
| BRAKELINE BRACKET KIT | FK71 | | |
| SWAYBAR BRACKET KIT | FK72 | | |
| BUMP SPACER KIT | FK73 | | |
| TRIM PACKET (10mm) | FK74 | | 3 |

2 OME front shock 60121 is not suitable as an OE replacement. When fitting our longer OME shock 60121 you must fit:

- FK71 Brakeline Kit to extend / drop the brakelines
- FK72 Swaybar Kit to lower the front swaybar
- FK70 Radius Arm Drop Bracket Kit, if not fitted you may over stretch the front brakelines

3 When bull bar and / or winch are fitted use FK74 on both coils to restore nominal lift height.

| REAR <i>Estimated Lift: 75mm</i> | ALL MODELS | | |
|-------------------------------------|------------------------|-------|---|
| | PART NUMBER | QTY | |
| SPRING: MEDIUM LOAD | EL077R | 2 | |
| SPRING: CONSTANT 450 KGS | EL077R + EL40XL | 2 + 2 | 4 |
| NITROCHARGER SPORT | 60122 | 2 | |
| SPRING BUSH KIT | OMESB109 | 2 | |
| U BOLTS - NO OVERLOAD LEAF | OMEU77 | 4 | 5 |
| U BOLTS - WITH OVERLOAD LEAF | OMEU78 | | |
| EXTRA LEAF | EL40XL | 2 | 6 |
| CENTRE BOLT- OVERLOAD ONLY | UCB21 | | |

4 Where the OE rear leaf spring has an overload leaf fitted, this overload leaf is to be fitted to the OME leaf, EL077R is to have its centre bolt replaced with a longer bolt UCB21 and OE spacer blocks are to be reused.

5 Use OMEU77 when fitting to a vehicle without an overload leaf.
Use OMEU78 when fitting to a vehicle with an overload leaf.

6 Fitment of a FK81 Caster Correction Kit will provide approximately 3.5 to 4.0 degrees of extra caster. It is advisable to have a front end alignment carried out to determine if a FK81 kit is required.