

## Exhaust System Installation for the Ford F-150 PNs 140693, 140694, 140695, 140696 140697, 140698, 140699, 140700



**\*\*\*\*\* Please compare the parts in the box with the bill of materials provided \*\*\*\*\*  
to assure that you have all the parts necessary for this installation.**

These instructions have been written to help you with the installation of your Borla Performance Exhaust System. Please read this document completely before beginning the installation of your system.

To ensure this part number fits your specific model year, please visit our website for the latest model year listings at [www.BORLA.com](http://www.BORLA.com)

Thank you for purchasing a Borla Performance Cat-Back™ Exhaust System.

**Borla Performance Split Rear Cat-Back™ Exhaust Systems (PN's-140693,140694,140697,140698) are designed for the Ford F-150 Eco Boost equipped with a 3.5L V6 Twin Turbo engine, automatic transmission.**

**Borla Performance Dual Side Cat-Back™ Exhaust Systems (PN's-140695,140696,140699,140700) are designed for the Ford F-150 Eco Boost equipped with a 3.5L V6 Twin Turbo engine, automatic transmission.**

Borla Performance Industries recommends that an exhaust shop or professional after market parts installer, who has all the necessary equipment, tools and experienced personnel needed for proper installation, should perform the installation of this system. However, if you decide to perform the installation, we recommend someone should help you. Ensure the installer uses all under car safety precautions including eye protection.

*Please take time to read and understand the following...*

By installing your Borla Performance Exhaust System, you indicate that you have read this document and you agree with the terms stated below.

It is the responsibility of the purchaser to follow all installation instruction guidelines and safety procedures supplied with your Borla Performance Exhaust System.

Borla Performance Industries assumes no responsibility for damages occurring from misuse, abuse, improper installation, improper operation, lack of responsible care, or all previously stated reasons resulting from incompatibility with other manufacturer's products and/or systems.

Included with your Borla Performance Exhaust System is a warranty card. Please read it carefully before you begin any work on your vehicle. If you should have any questions regarding our warranty policy, installation, or any other matter pertaining to your new Borla Performance Exhaust System, please give us a call at the number provided on the warranty card.

### Minimum Required Tool List:

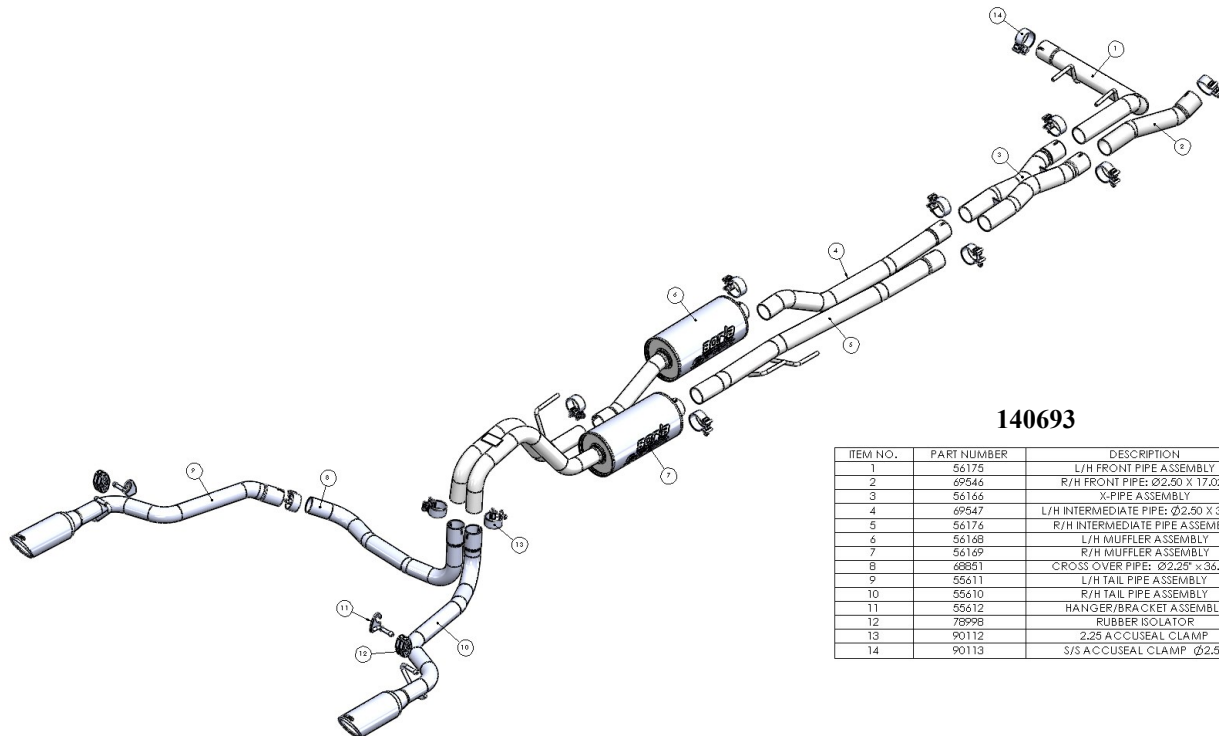
#### TOOLS:

1. 3/8" Drive Ratchet
2. 3/8" Drive Extension 6" & 12"
3. 3/8 Swivel
4. 7/8 Wrench
5. 15mm Deep Well Socket
6. 18mm socket
7. 13mm socket
8. Pry Bar

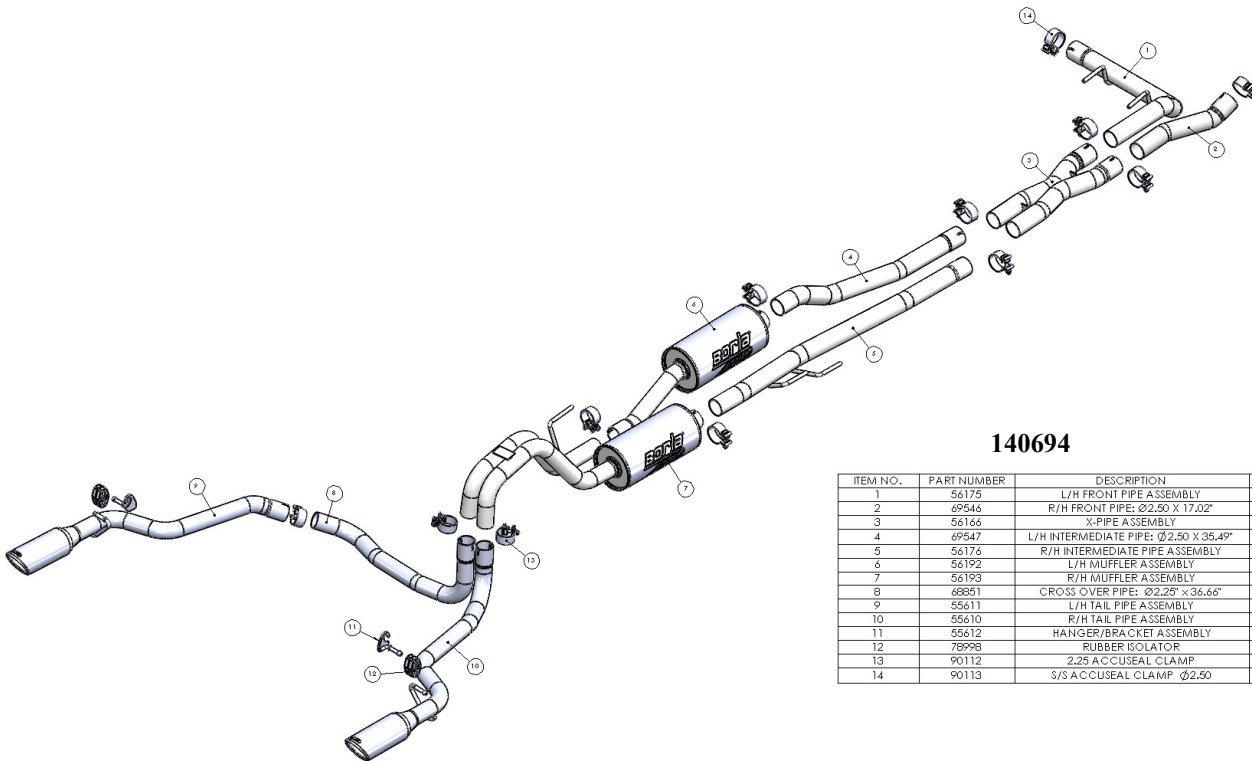
#### SHOP SUPPLIES:

- 1 Spray Lubricant

### Borla Performance - Bill of Materials

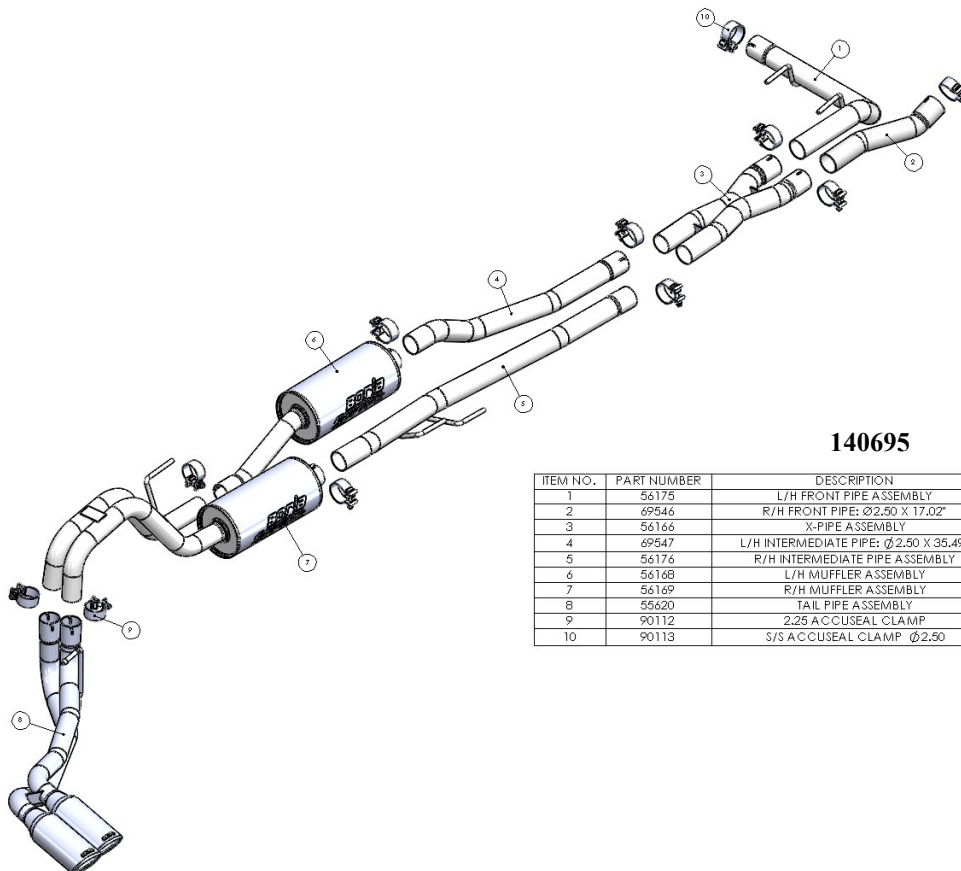

**140693**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	56175	L/H FRONT PIPE ASSEMBLY	1
2	69546	R/H FRONT PIPE: Ø2.50 X 17.02"	1
3	56166	X-PIPE ASSEMBLY	1
4	69547	L/H INTERMEDIATE PIPE: Ø2.50 X 35.49"	1
5	56176	R/H INTERMEDIATE PIPE ASSEMBLY	1
6	56168	L/H MUFFLER ASSEMBLY	1
7	56169	R/H MUFFLER ASSEMBLY	1
8	68851	CROSS OVER PIPE: Ø2.25" x 36.66"	1
9	55611	L/H TAIL PIPE ASSEMBLY	1
10	55610	R/H TAIL PIPE ASSEMBLY	1
11	55612	HANGER/BRACKET ASSEMBLY	2
12	78998	RUBBER ISOLATOR	2
13	90112	2.25 ACCUSEAL CLAMP	4
14	90113	S/S ACCUSEAL CLAMP Ø2.50	8



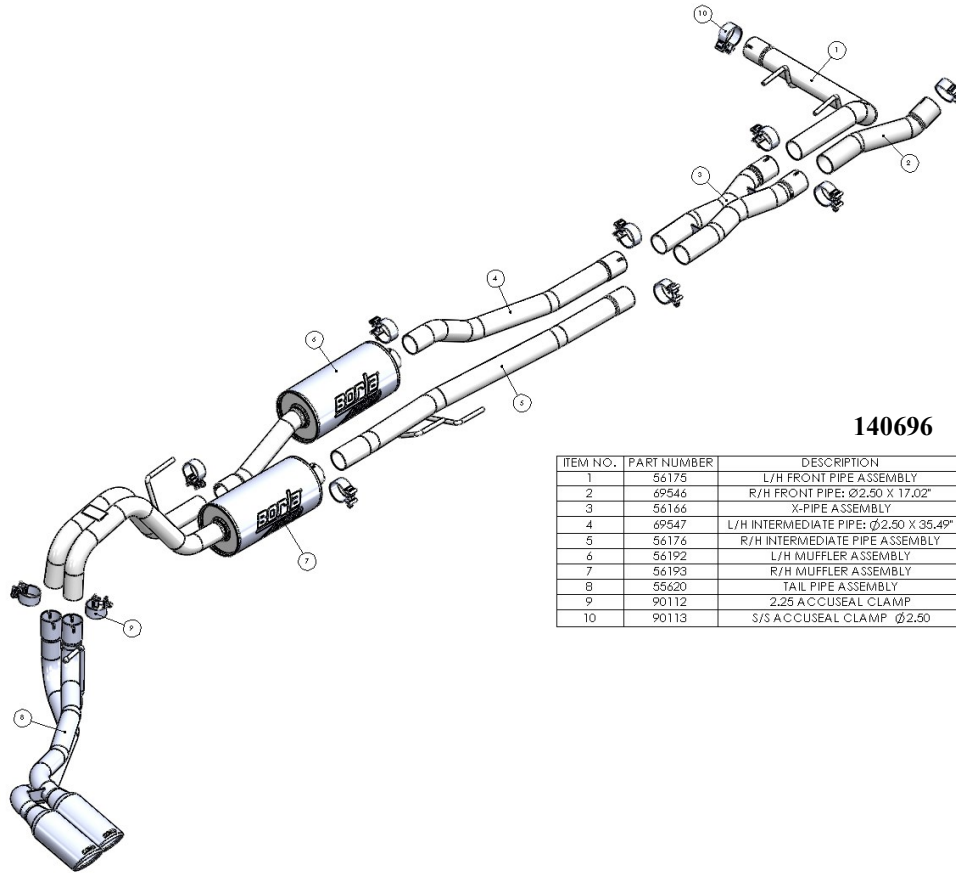
**140694**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	56175	L/H FRONT PIPE ASSEMBLY	1
2	69546	R/H FRONT PIPE; Ø2.50 X 17.02"	1
3	56166	X-PIPE ASSEMBLY	1
4	69547	L/H INTERMEDIATE PIPE; Ø2.50 X 35.49"	1
5	56176	R/H INTERMEDIATE PIPE ASSEMBLY	1
6	56192	L/H MUFFLER ASSEMBLY	1
7	56193	R/H MUFFLER ASSEMBLY	1
8	68851	CROSS OVER PIPE: Ø2.25" x 36.66"	1
9	55611	L/H TAIL PIPE ASSEMBLY	1
10	55610	R/H TAIL PIPE ASSEMBLY	1
11	55612	HANGER/BRACKET ASSEMBLY	2
12	78998	RUBBER ISOLATOR	2
13	90112	2.25" ACCUSEAL CLAMP	4
14	90113	S/S ACCUSEAL CLAMP Ø2.50	8



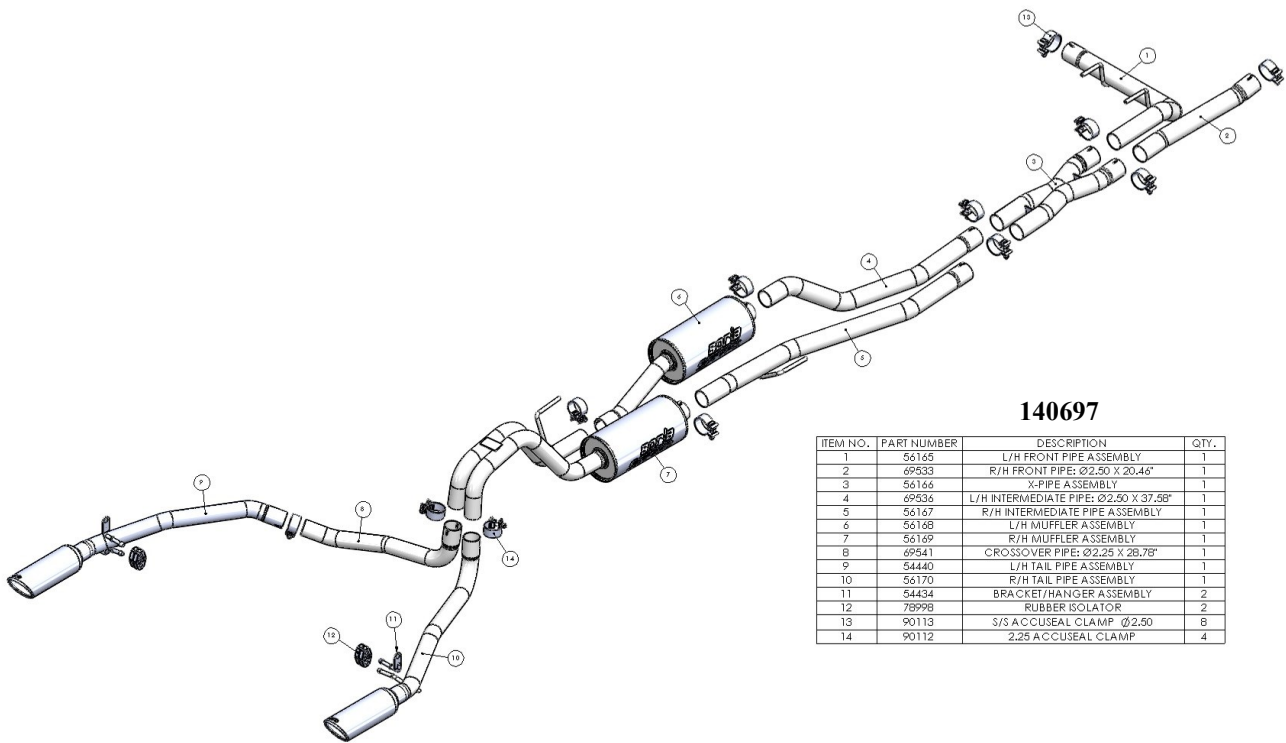
**140695**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	56175	L/H FRONT PIPE ASSEMBLY	1
2	69546	R/H FRONT PIPE; Ø2.50 X 17.02"	1
3	56166	X-PIPE ASSEMBLY	1
4	69547	L/H INTERMEDIATE PIPE; Ø 2.50 X 35.49"	1
5	56176	R/H INTERMEDIATE PIPE ASSEMBLY	1
6	56168	L/H MUFFLER ASSEMBLY	1
7	56169	R/H MUFFLER ASSEMBLY	1
8	55620	TAIL PIPE ASSEMBLY	1
9	90112	2.25" ACCUSEAL CLAMP	3
10	90113	S/S ACCUSEAL CLAMP Ø2.50	8



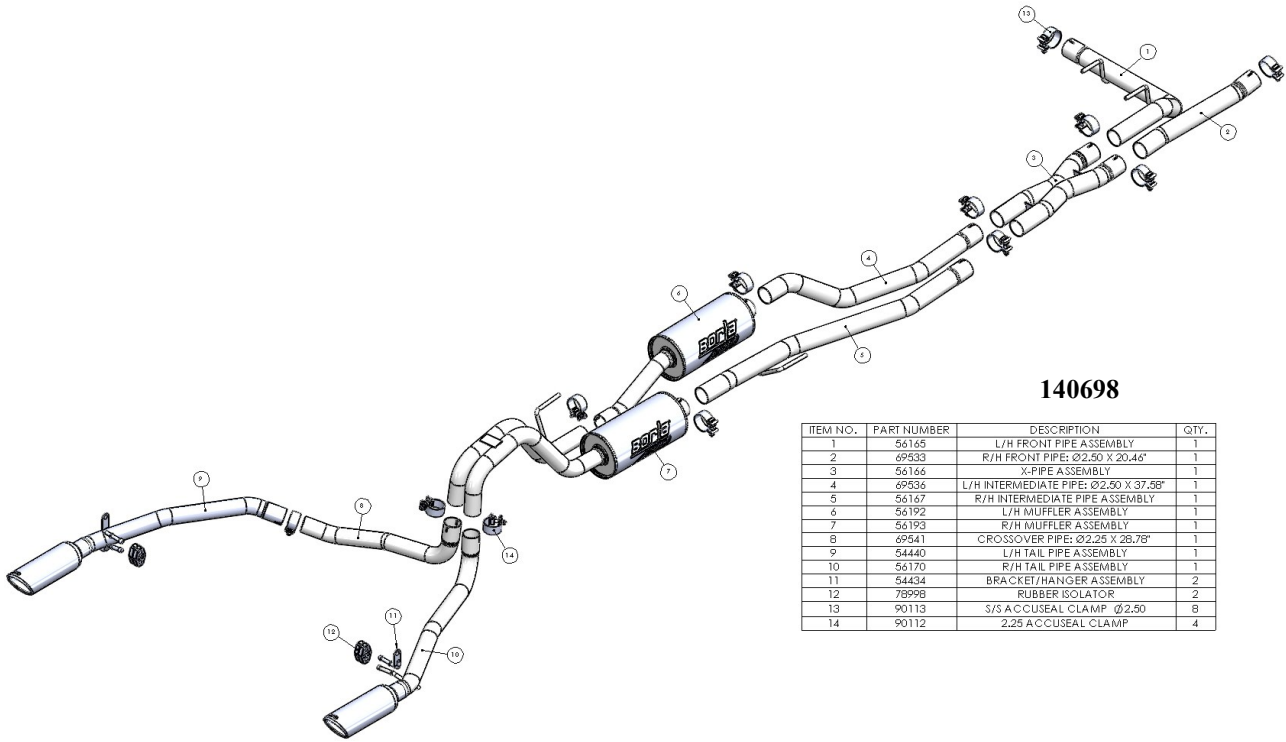
**140696**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	56175	L/H FRONT PIPE ASSEMBLY	1
2	69546	R/H FRONT PIPE; Ø2.50 X 17.02"	1
3	56166	X-PIPE ASSEMBLY	1
4	69547	L/H INTERMEDIATE PIPE; Ø2.50 X 35.49"	1
5	56176	R/H INTERMEDIATE PIPE ASSEMBLY	1
6	56192	L/H MUFFLER ASSEMBLY	1
7	56193	R/H MUFFLER ASSEMBLY	1
8	55620	TAIL PIPE ASSEMBLY	1
9	90112	2.25 ACCUSEAL CLAMP	3
10	90113	S/S ACCUSEAL CLAMP Ø2.50	8



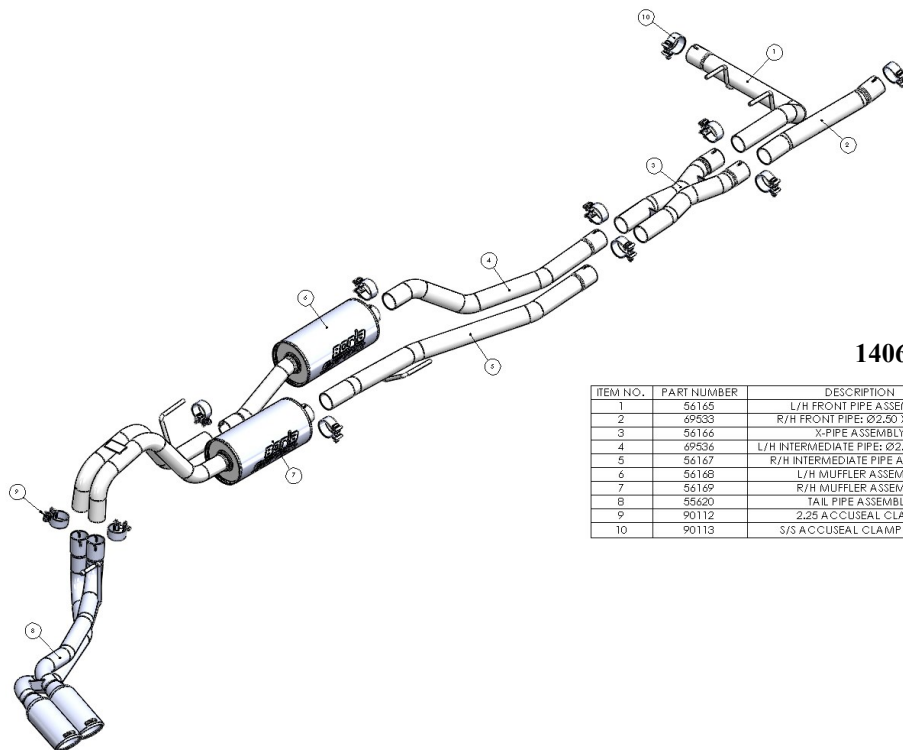
**140697**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	56165	L/H FRONT PIPE ASSEMBLY	1
2	69533	R/H FRONT PIPE; Ø2.50 X 20.46"	1
3	56166	X-PIPE ASSEMBLY	1
4	69535	L/H INTERMEDIATE PIPE; Ø2.50 X 37.58"	1
5	56167	R/H INTERMEDIATE PIPE ASSEMBLY	1
6	56168	L/H MUFFLER ASSEMBLY	1
7	56169	R/H MUFFLER ASSEMBLY	1
8	69541	CROSSOVER PIPE; Ø2.25 X 28.78"	1
9	54440	L/H TAIL PIPE ASSEMBLY	1
10	56170	R/H TAIL PIPE ASSEMBLY	1
11	54434	BRACKET/HANGER ASSEMBLY	2
12	78990	RUBBER ISOLATOR	2
13	90113	S/S ACCUSEAL CLAMP Ø2.50	8
14	90112	2.25 ACCUSEAL CLAMP	4



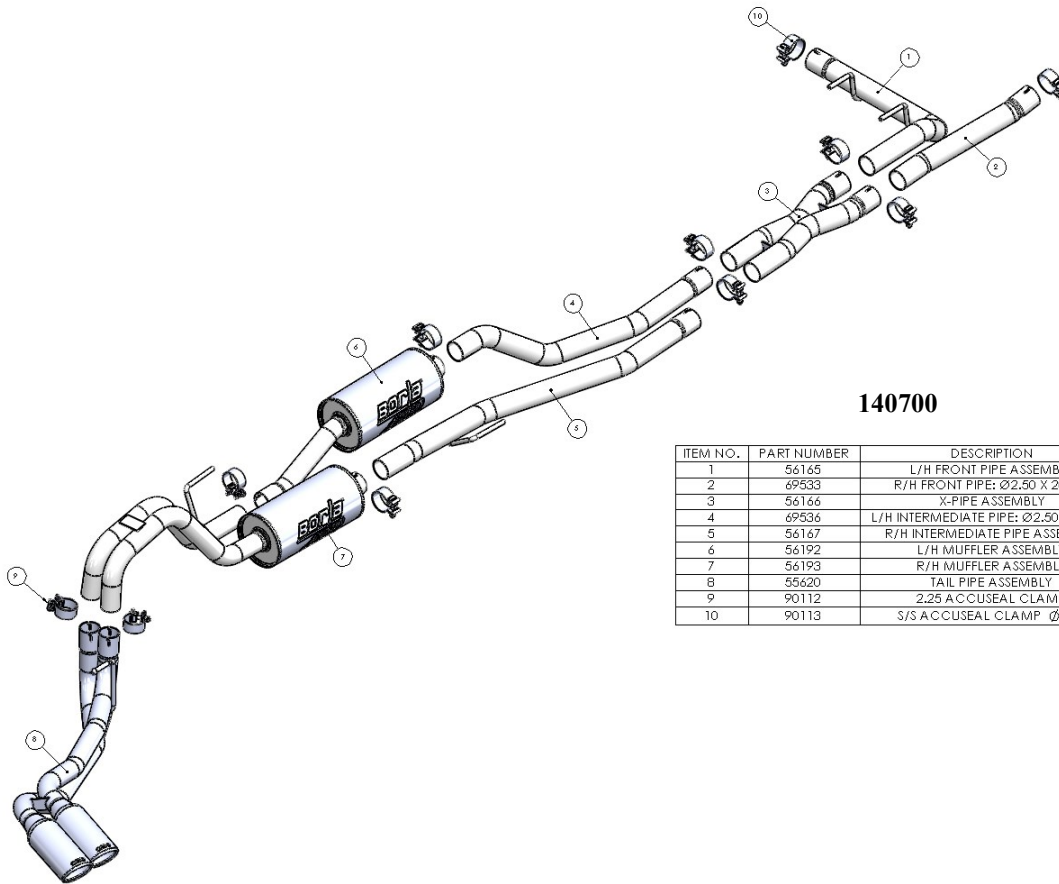
**140698**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	56165	L/H FRONT PIPE ASSEMBLY	1
2	69533	R/H FRONT PIPE: Ø2.50 X 20.46"	1
3	56166	X-PIPE ASSEMBLY	1
4	69536	L/H INTERMEDIATE PIPE: Ø2.50 X 37.58"	1
5	56167	R/H INTERMEDIATE PIPE ASSEMBLY	1
6	56192	L/H MUFFLER ASSEMBLY	1
7	56193	R/H MUFFLER ASSEMBLY	1
8	69541	CROSSOVER PIPE: Ø2.25 X 28.78"	1
9	54440	L/H TAIL PIPE ASSEMBLY	1
10	56170	R/H TAIL PIPE ASSEMBLY	1
11	54434	BRACKET/HANGER ASSEMBLY	2
12	79598	RUBBER ISOLATOR	2
13	90113	S/S ACCUSEAL CLAMP Ø2.50	8
14	90112	2.25 ACCUSEAL CLAMP	4



**140699**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	56165	L/H FRONT PIPE ASSEMBLY	1
2	69533	R/H FRONT PIPE: Ø2.50 X 20.46"	1
3	56166	X-PIPE ASSEMBLY	1
4	69536	L/H INTERMEDIATE PIPE: Ø2.50 X 37.58"	1
5	56167	R/H INTERMEDIATE PIPE ASSEMBLY	1
6	56168	L/H MUFFLER ASSEMBLY	1
7	56169	R/H MUFFLER ASSEMBLY	1
8	55620	TAIL PIPE ASSEMBLY	1
9	90112	2.25 ACCUSEAL CLAMP	3
10	90113	S/S ACCUSEAL CLAMP Ø2.50	6



**140700**

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	56165	L/H FRONT PIPE ASSEMBLY	1
2	69533	R/H FRONT PIPE: Ø2.50 X 20.46"	1
3	56166	X-PIPE ASSEMBLY	1
4	69536	L/H INTERMEDIATE PIPE: Ø2.50 X 37.58"	1
5	56167	R/H INTERMEDIATE PIPE ASSEMBLY	1
6	56192	L/H MUFFLER ASSEMBLY	1
7	56193	R/H MUFFLER ASSEMBLY	1
8	55620	TAIL PIPE ASSEMBLY	1
9	90112	2.25 ACCUSEAL CLAMP	3
10	90113	S/S ACCUSEAL CLAMP Ø2.50	8

**Caution!!!** *Never work on a hot exhaust system. Serious injury in the form of burns can result if the vehicle has been in use and the exhaust system is hot, allow vehicle to cool for at least 1 hour. Always wear eye protection when working under any vehicle.*

**Note:** *It is our recommendation that you use a hoist or hydraulic lift to facilitate the installation of your new Borla Performance Exhaust System.*

**Taking all under car safety precautions, lift the vehicle using a hoist or hydraulic lift. Once this has been done, you may begin the removal of your old exhaust system from your vehicle.**

**Note:** *Before removing the original exhaust system from your vehicle, please compare the parts you have received with the bill of materials provided on the previous page to assure that you have all the parts necessary for the installation of your new Borla Performance Exhaust System.*

**Note:** *With a used vehicle, we suggest a penetrating spray lubricant to be applied liberally to all exhaust fasteners and allowing a significant period of time for the chemical to lubricate the threads before attempting to disassemble.*

## Original Exhaust System Removal

1. Unbolt the clamp located in front of the muffler assembly and remove the hangers from rubber isolators. (See Fig. 1)
2. Using a muffler stand or an additional person to support the exhaust system, loosen and slide the clamp behind the OE muffler. Remove the hangers from the rubber isolators and remove the exhaust system from the vehicle. (See Figs. 2 & 3)
3. Remove the rear most rubber isolator bracket from the vehicle and transfer to your new Borla system. (See Fig. 4)



**WARNING:** *Use extreme caution during installation. Torque all fasteners according to manufacturer's torque values and tightening sequence. **DO NOT** use air impact tools to tighten fasteners on Borla Performance Exhaust Systems. Use of such tools may result in bent flanges or gasket contact areas leading to exhaust leaks.*

**NOTE:** *When you first start your vehicle after the installation of your new Borla Performance Exhaust System, there may be some smoke and fumes coming from the system. This is a protective oil based coating used in the manufacturing of mandrel bent performance exhaust tubing. This is not a problem and will disappear within a very short period of time after the exhaust has reached normal operating temperatures.*

**Caution!!!** *Never work on a hot exhaust system. Serious injury in the form of burns can result if the vehicle has been in use and the exhaust system is hot, allow vehicle to cool for at least 1 hour. Always wear eye protection when working under any vehicle.*

**Note:** *It is our recommendation that you use a hoist or hydraulic lift to facilitate the installation of your new Borla Performance Exhaust System.*

**Taking all under car safety precautions, lift the vehicle using a hoist or hydraulic lift. Once this has been done, you may begin the removal of your old exhaust system from your vehicle.**

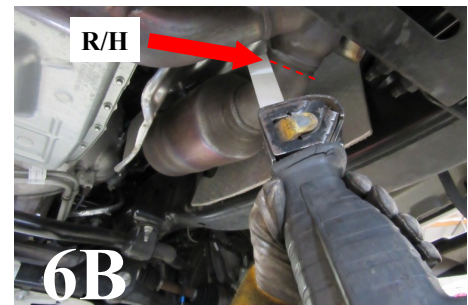
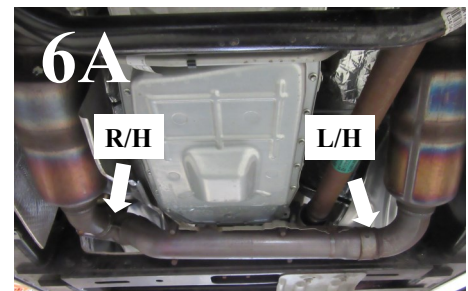
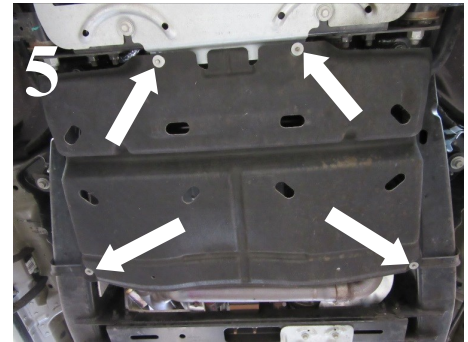
**Note:** *With a used vehicle, we suggest a penetrating spray lubricant to be applied liberally to all exhaust fasteners and allowing a significant period of time for the chemical to*

## Original Exhaust System Removal

5. Remove the exhaust cover and retaining hardware for re-installation. (See Fig. 5)
6. Loosen and remove clamp on L/H pipe behind catalytic converter (See Fig. 6A). Use a metal-cutting-bladed saw, cut the R/H catalytic converter close to the weld at the Y-pipe. (See Fig. 6B)
7. Loosen and remove (2) flange nuts from the R/H catalytic converter and remove from the vehicle. (See Fig. 7) Deburr the outlet side of the R/H converter.
8. Using a muffler stand or an additional person to support the L/H crossover pipe assembly, loosen and slide the converter down. Remove the hangers from the rubber isolators and remove the L/H crossover pipe assembly from the vehicle. (See Fig. 8)

**WARNING:** *Use extreme caution during installation. Torque all fasteners according to manufacturer's torque values and tightening sequence. **DO NOT** use air impact tools to tighten fasteners on Borla Performance Exhaust Systems. Use of such tools may result in bent flanges or*

**NOTE:** *When you first start your vehicle after the installation of your new Borla Performance Exhaust System, there may be some smoke and fumes coming from the system. This is a protective oil based coating used in the manufacturing of mandrel bent performance exhaust tubing. This is not a problem and will disappear within a very short period of time*



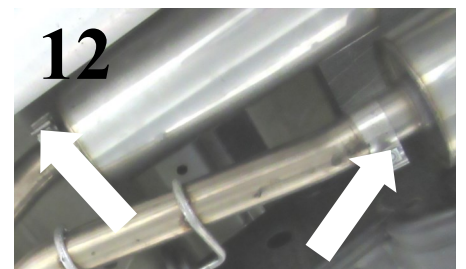
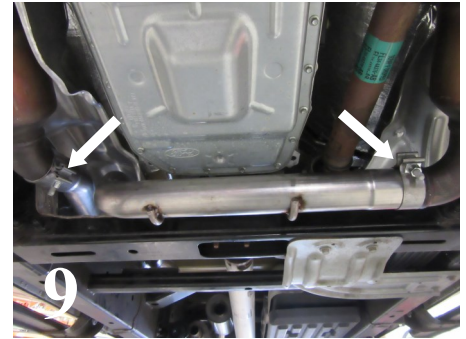


## Borla Performance Cat-Back™ Exhaust System Installation

1. Orient components on floor for your Part Number referencing drawings on pages 2-6.
2. Using the original hardware install the OE R/H & L/H catalytic converters to vehicle. Place a clamp over the expanded end of the **L/H Front Pipe Assembly** and install to L/H catalytic converter outlet. Insert hangers into the rubber isolator. (See Fig. 9)
3. Place a clamp over the expanded end of the **R/H Front Pipe Assembly** and install to R/H catalytic converter outlet. (See Fig. 9)
4. Place clamps over the expanded ends of the **X-pipe Assembly** and insert the inlet to the **L/H and R/H Front Pipe Assemblies**. (See Fig. 10) Do not tighten the clamps.
5. Place a clamp over the expanded end of both **Intermediate Pipe Assemblies** and insert the inlet into the outlet of the **X-Pipe Assembly**. Insert the hanger into the rubber isolator. (See Fig. 11) Do not tighten the clamp.
6. Place a clamp over the expanded end of the **L/H Muffler Assembly** and insert the inlet into the **L/H Intermediate Pipe**. (See Fig. 12) Do not tighten the clamp.
7. Place a clamp over the expanded end of the **R/H Muffler Assembly** and insert the inlet into the **R/H Intermediate Pipe**. Insert the hanger into the rubber isolator. Do not tighten the clamp. (See Fig. 12)

**WARNING:** Use extreme caution during installation. Torque all fasteners according to manufacturer's torque values and tightening sequence. **DO NOT** use air impact tools to tighten fasteners on Borla Performance Exhaust Systems. Use of such tools may result in bent flanges

**NOTE:** When you first start your vehicle after the installation of your new Borla Performance Exhaust System, there may be some smoke and fumes coming from the system. This is a protective oil based coating used in the manufacturing of mandrel bent performance exhaust tubing. This is not a problem and will disappear within a very short period of time

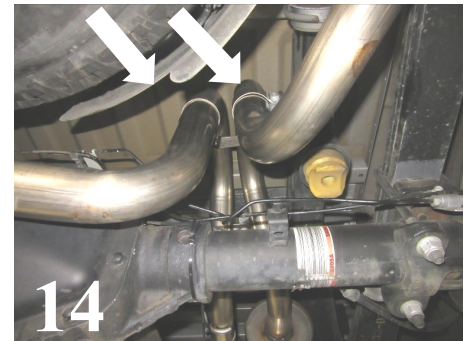


## Borla Performance Cat-Back™ Exhaust System Installation

**STEPS 5-8 are for Split Rear Exit Exhaust Only.**

**(Dual Side Exit: installation: See STEPS 9-10)**

5. Place rubber isolators to the hanger brackets included in your kit. Install hanger bracket assembly to the left-side and right-side lower spring mount bolts (See Fig. 13)
6. Place a clamp over the expanded end of the R/H tail pipe assembly and insert inlet into the right-side outlet of the muffler assembly. Insert hanger into installed right-side hanger bracket assembly. (See Fig. 14 & 15) Do not tighten the clamp.
7. Place a clamp over the expanded end of the crossover pipe assembly and insert inlet into the left-side outlet of the muffler assembly.
8. Place a clamp over the expanded end of the L/H tail pipe assembly and insert inlet on to the crossover pipe assembly. Insert hanger into installed left-side hanger bracket assembly. (See Fig. 16) Do not tighten the clamps.



**WARNING:** Use extreme caution during installation. Torque all fasteners according to manufacturer's torque values and tightening sequence. **DO NOT** use air impact tools to tighten fasteners on Borla Performance Exhaust Systems. Use of such tools may result in bent flange-

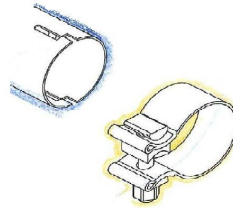
**NOTE:** When you first start your vehicle after the installation of your new Borla Performance Exhaust System, there may be some smoke and fumes coming from the system. This is a protective oil based coating used in the manufacturing of mandrel bent performance exhaust tubing. This is not a problem and will disappear within a very short period of time

## Borla Performance Cat-Back™ Exhaust System Installation

Steps 9-10 are for Dual Side Exit Exhaust Only.

**Split Rear Exit installation: Skip to STEP 11**

9. Place two clamps over the inlets of the dual **Tail Pipe Assembly** then insert inlets to the **R/H Muffler Assembly** outlets. (See Fig. 17)
10. Insert **Tail Pipe Assembly** hanger into OE hanger bracket. Bolt OE hanger bracket to frame of truck. (See Fig. 18)
11. Check your exhaust system for proper clearance under the vehicle and also for tip alignment. (See Figs. 19 & 20)
12. Begin tightening exhaust system at front of vehicle and move to the rear. Once position has been determined to be correct, tighten the Accuseal clamps to 32-35 ft. lbs. **IMPORTANT: Make sure the clamp bolt is positioned between the pipe notches NOT over the pipe notches.** (See inset)
13. Before starting your vehicle, make sure to check all wires, hoses, brake lines, body parts and tires for safe clearance from the exhaust system.
14. Start vehicle and check for any leaks. If any leaks are found, determine cause (such as loose or incorrectly positioned clamp) and repair as necessary.



**WARNING:** Use extreme caution during installation. Torque all fasteners according to manufacturer's torque values and tightening sequence. **DO NOT** use air impact tools to tighten fasteners on Borla Performance Exhaust Systems. Use of such tools may result in bent flang-

**NOTE:** When you first start your vehicle after the installation of your new Borla Performance Exhaust System, there may be some smoke and fumes coming from the system. This is a protective oil based coating used in the manufacturing of mandrel bent performance exhaust tubing. This is not a problem and will disappear within a very short period of time