



BULLETPROOFDIESEL
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BULLETPROOF COLD WEATHER KIT

Neal Technologies, Inc.
[Patent pending]

Updated 8/26/2020



The purpose of the cold weather kit is to allow operation of 6.0L Powerstroke diesel engines in cold climates where ambient air temperatures are low enough to cause concern when using an air-to-liquid cooler.

The kit consists of an oil thermostat and the necessary hardware and hoses to install the thermostat.

THE COLD WEATHER KIT FUNCTIONS AS FOLLOWS:

Oil from the engine is pumped through the BulletProof Oil Cooler System by the OEM low pressure oil pump. After being filtered the oil then heads to the cooler. If the oil has not reached the desired operating temperature, it is allowed to bypass the engine oil cooler and return to the engine. Once the desired engine oil temperature has been reached, the thermostat closes and eliminates the path by which oil can circumvent the oil cooler. Oil will follow the path of least resistance. When cold, the oil cooler offers greater resistance to flow than the oil cooler thermostatic bypass circuit. At no time is the oil cooler blocked or made to be static. A path of less resistance is opened or blocked depending on oil temperature.

A pressure bypass valve is also incorporated into the thermostat assembly. This will allow a portion of the oil to bypass the oil cooler in the event a pressure differential greater than 18PSI exists between the inlet and outlet of the engine oil cooler. This ensures a constant flow of oil to the engine under extreme operating conditions such as racing or subfreezing climates.

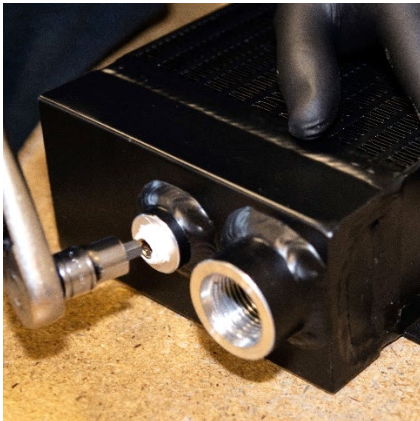


TO INSTALL THE COLD WEATHER KIT:

1. Make sure all components are CLEAN.
2. Remove the A/C condenser. Be sure to follow the Factory guidelines for this procedure.
3. *If you are retrofitting the cold weather kit to an existing installation of the BulletProof Oil Cooler Kit, you will need to remove the oil cooler from the condenser mount and remove the oil cooler mount from the condenser.*
4. Install the 90° fitting to the cooler.



5. Wrap the 1/4" brass pipe plug with sealing tape and install.



6. Install the thermostat to the cooler.



7. Set the assembly onto the bracket, then remove the plastic plug and install the 45° fitting to the thermostat hand tight.



8. Line up hard line and hand tighten nuts. *Be sure to align the fittings as shown in the first image.

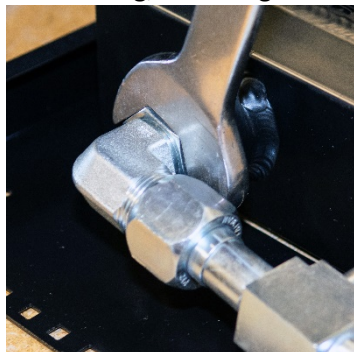
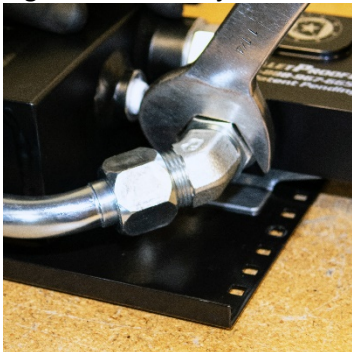


↓ HOW **NOT** TO LINE UP THE HARD LINE ↓

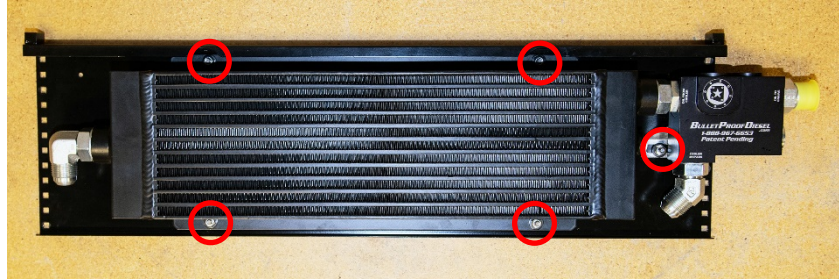
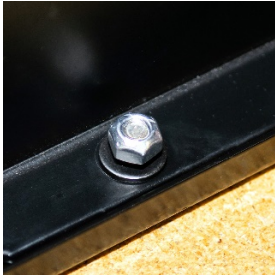


NOTE: If the tube does not line up properly, the 90° fitting can be turned out to increase the distance between the two fittings.

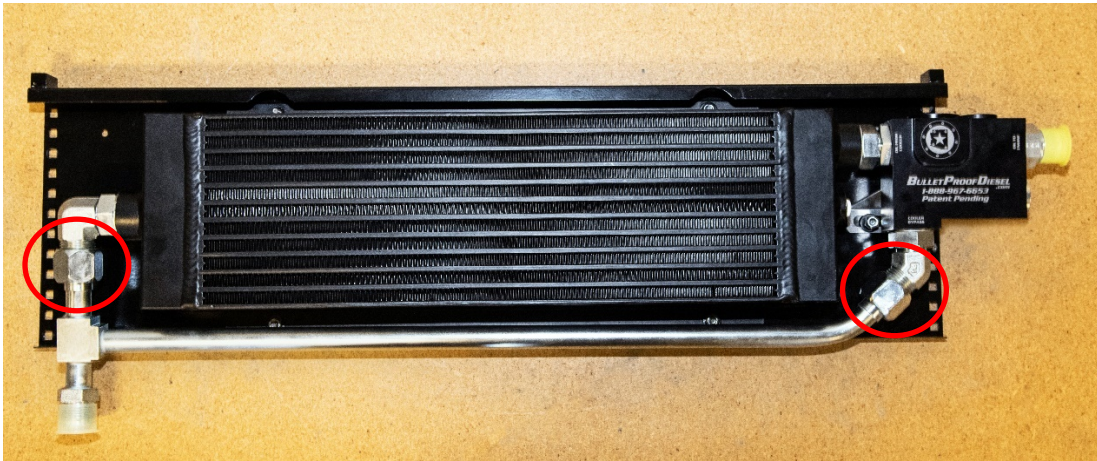
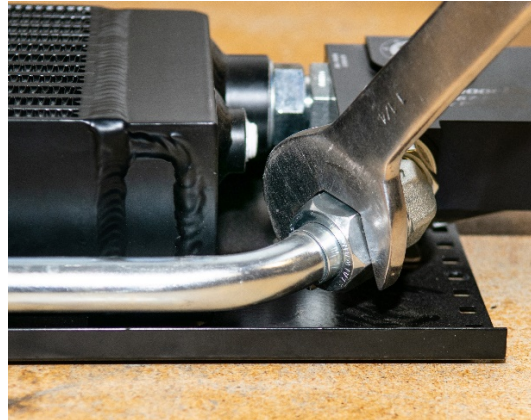
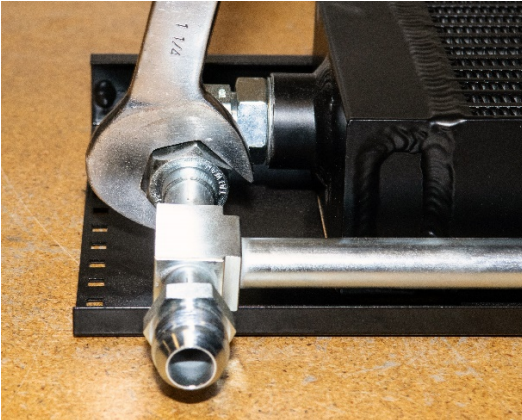
9. Tighten the three jam nuts on the 45° fitting, 90° fitting and the thermostat.



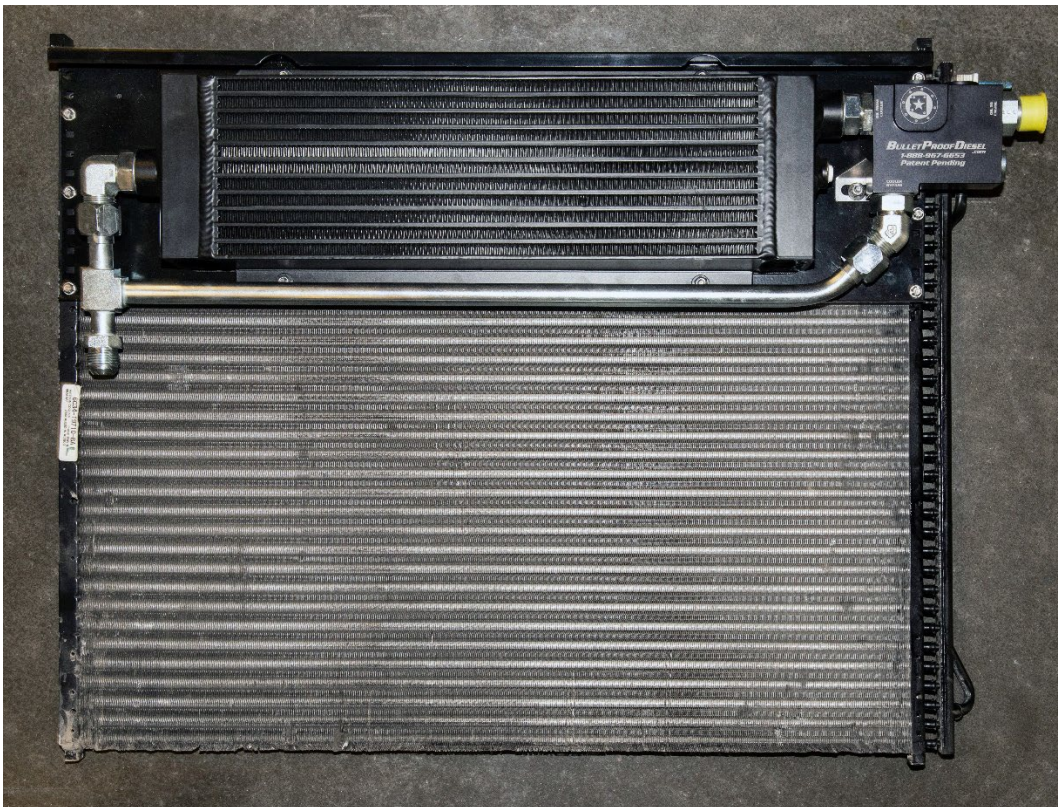
10. Remove the hard line, install all 5 washers and tighten all 5 nuts onto the bracket.



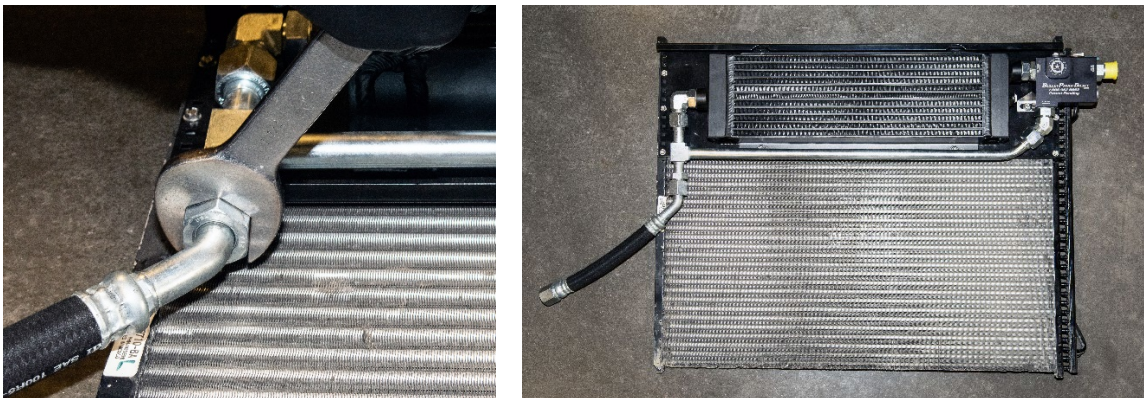
11. Put the hardline back into position and tighten into place.



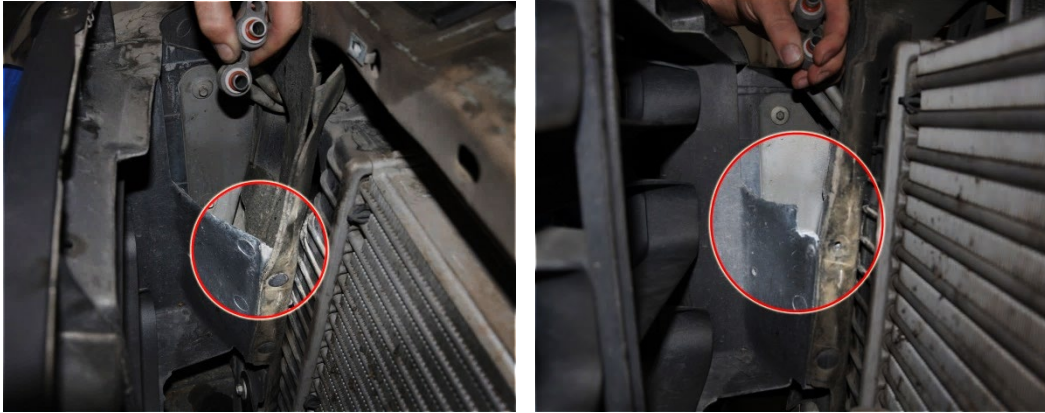
12. Install the oil cooler assembly onto the condenser as shown using the supplied hardware.



13. Install the short hose onto the hardline as shown below.

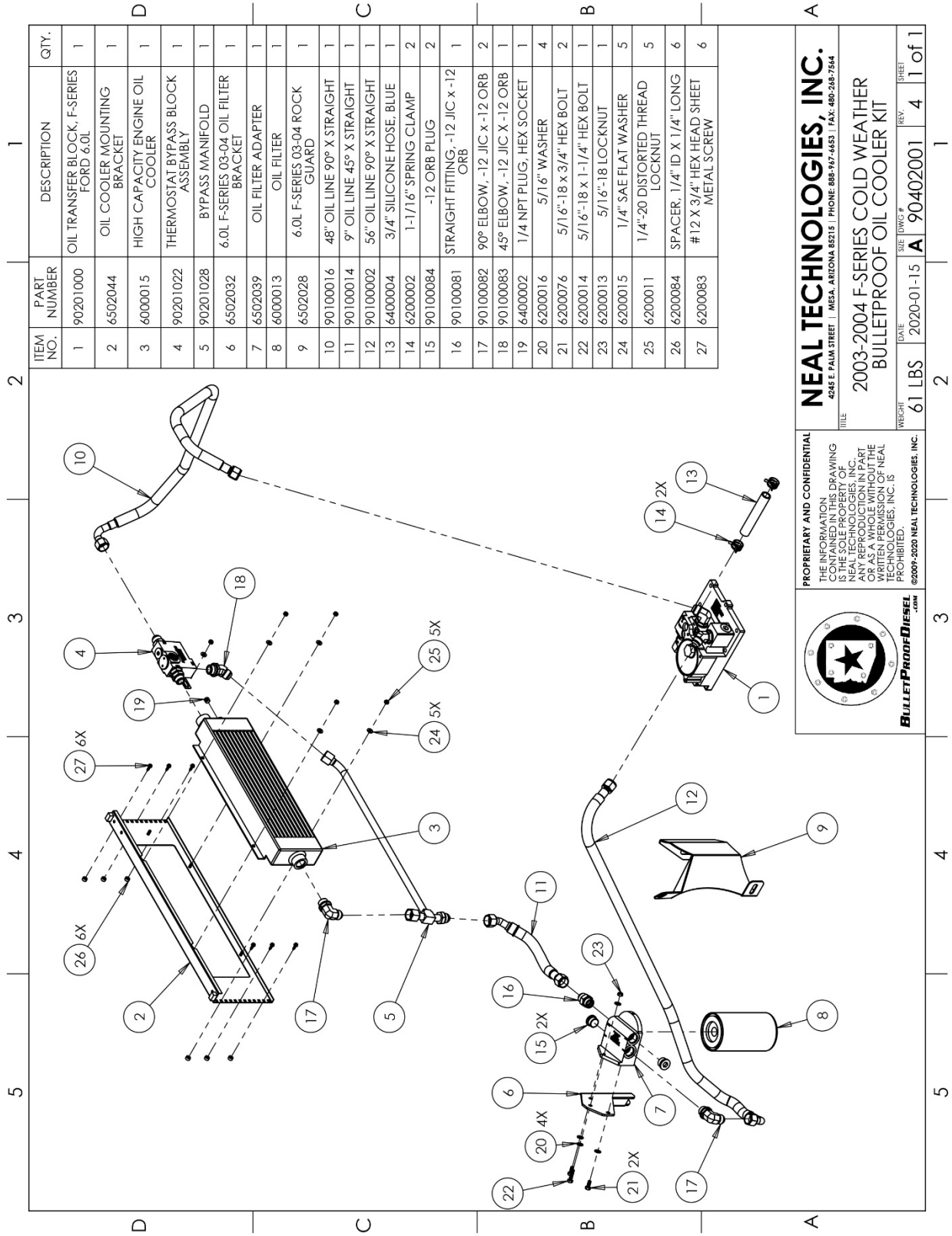


14. With the condenser removed cut out the marked area with a hacksaw or other suitable tool.



15. Re-install the condenser and ensure adequate clearance of both the transmission cooler and the headlamp support bracket.
16. Refer back the Bullet Proof Diesel Engine Oil Cooler installation manual for additional instructions if you need to continue installing the Oil Cooler Kit.

NOTE: REMEMBER TO PRIME TO OIL SYSTEM BEFORE STARTING THE ENGINE. FAILURE TO DO SO CAN RESULT IN SEVERE ENGINE DAMAGE.

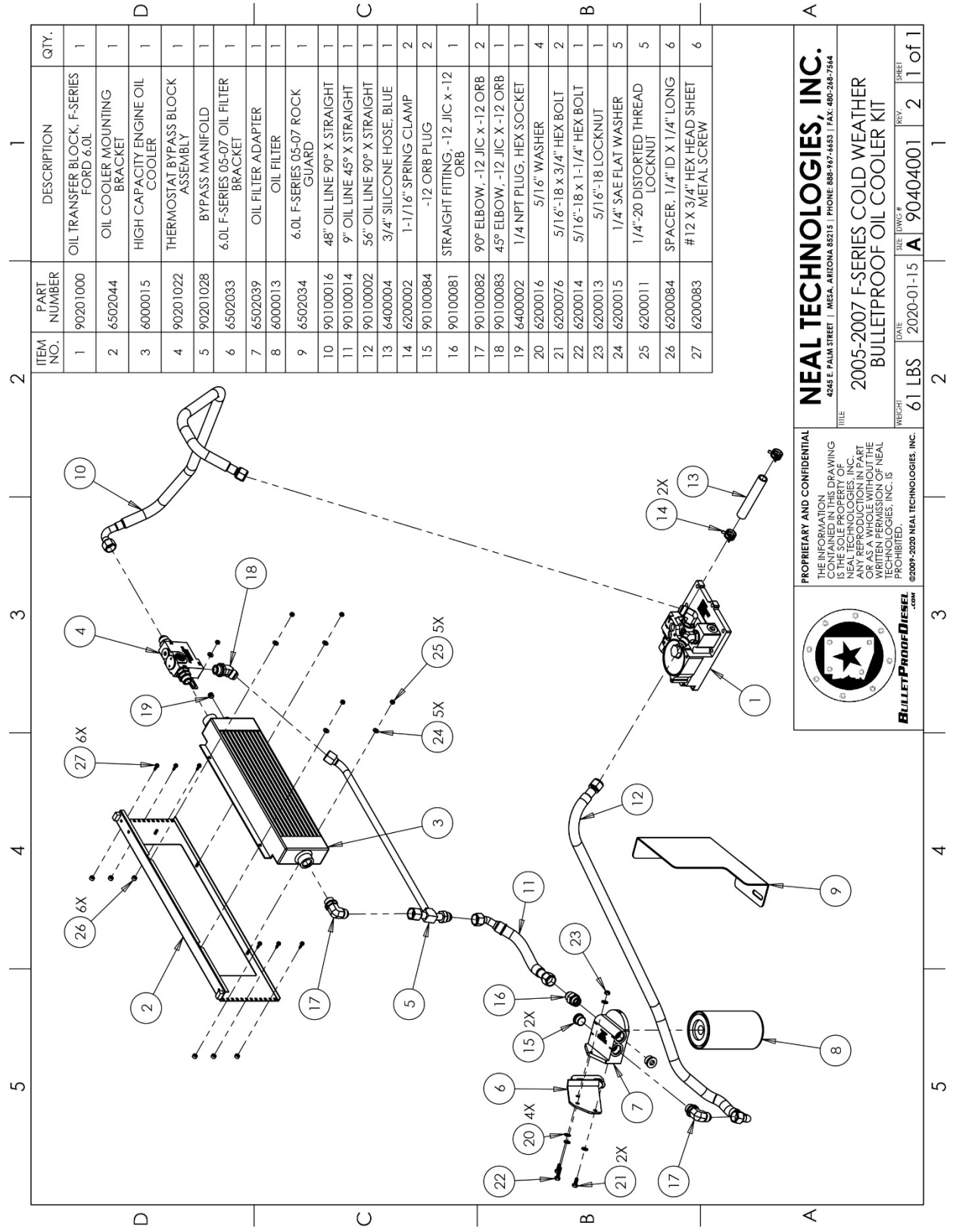


NEAL TECHNOLOGIES, INC.
4245 E. PALM STREET | MESA, ARIZONA 85715 | PHONE: 888-947-4453 | FAX: 480-248-7544

2003-2004 F-SERIES COLD WEATHER
BULLETPROOF OIL COOLER KIT

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	90201000	OIL TRANSFER BLOCK, F-SERIES FORD 6.0L	1
2	6502044	OIL COOLER MOUNTING BRACKET	1
3	6000015	HIGH CAPACITY ENGINE OIL COOLER	1
4	90201022	THERMOSTAT BYPASS BLOCK ASSEMBLY	1
5	90201028	BYPASS MANIFOLD	1
6	6502033	6.0L F-SERIES 05-07 OIL FILTER BRACKET	1
7	6502039	OIL FILTER ADAPTER	1
8	6000013	OIL FILTER	1
9	6502034	6.0L F-SERIES 05-07 ROCK GUARD	1
10	90100016	48" OIL LINE 90° X STRAIGHT	1
11	90100014	9" OIL LINE 45° X STRAIGHT	1
12	90100002	56" OIL LINE 90° X STRAIGHT	1
13	6400004	3/4" SILICONE HOSE, BLUE	1
14	6200002	1-1/16" SPRING CLAMP	2
15	90100084	-12 ORB PLUG	2
16	90100081	STRAIGHT FITTING, -12 JIC x -12 ORB	1
17	90100082	90° ELBOW, -12 JIC x -12 ORB	2
18	90100083	45° ELBOW, -12 JIC x -12 ORB	1
19	6400002	1/4 NPT PLUG, HEX SOCKET	1
20	6200016	5/16" WASHER	4
21	6200076	5/16"-18 x 3/4" HEX BOLT	2
22	6200014	5/16"-18 x 1-1/4" HEX BOLT	1
23	6200013	5/16"-18 LOCKNUT	1
24	6200015	1/4" SAE FLAT WASHER	5
25	6200011	1/4"-20 DISTORTED THREAD LOCKNUT	5
26	6200084	SPACER, 1/4" ID X 1/4" LONG	6
27	6200083	#12 X 3/4" HEX HEAD SHEET METAL SCREW	6

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2005-2007 F-SERIES COLD WEATHER BULLETPROOF OIL COOLER KIT

WEIGHT	DATE	SUPP. DWG. #	REV.	SHEET
61 LBS	2020-01-15	A	90404001	2

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