



M-6766-BW30
2023-2024 Bronco Raptor
Oil Separator Kit

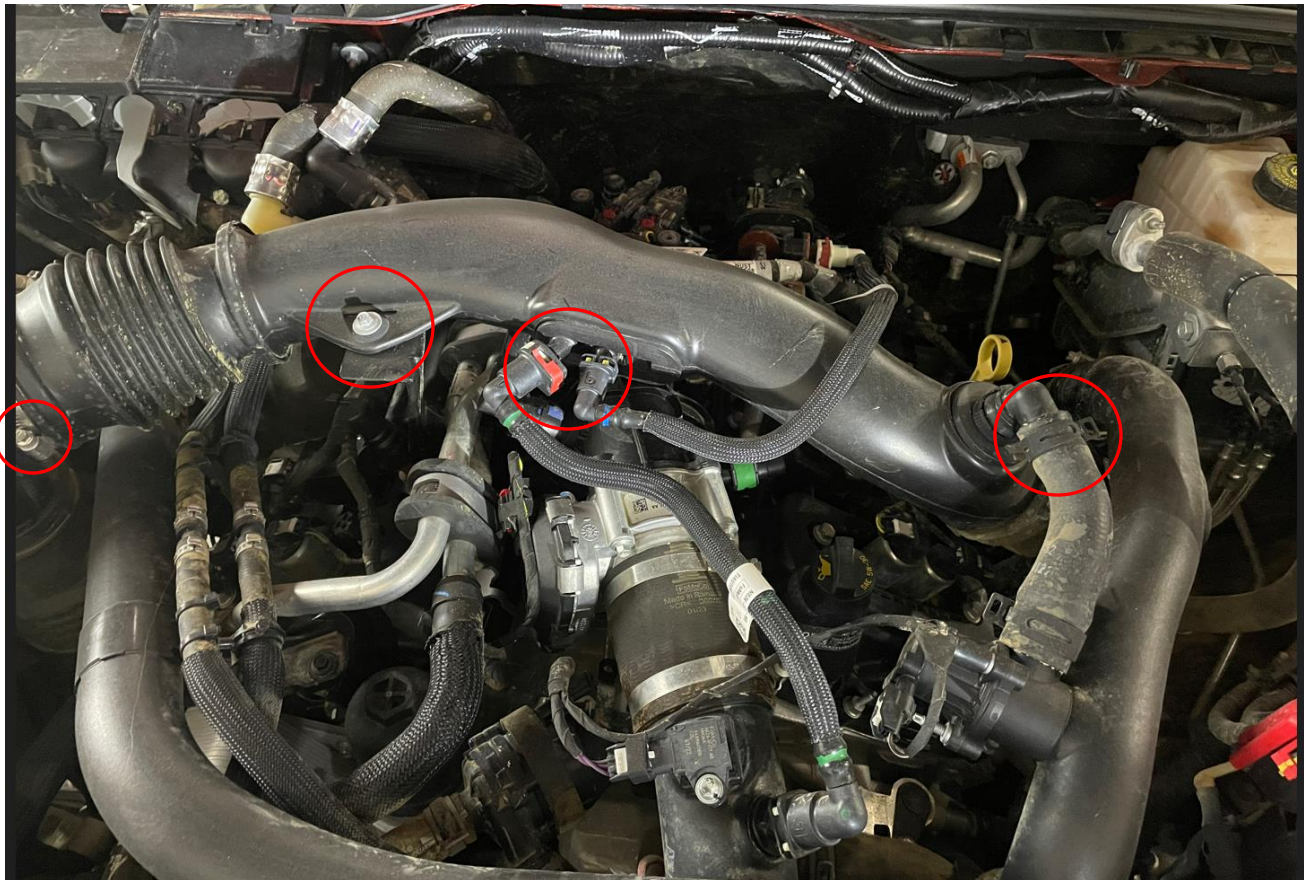
NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021

PRIOR TO INSTALLATION READ THESE INSTRUCTION COMPLETELY
For questions, Call the FORD PERFORMANCE Techline 1-800-367-3788

Please visit <https://www.performanceparts.ford.com> for warranty information

- [2] CM-6766-A23R oil separator
- [1] CM-6K817-B30LI LH inlet PCV tube
- [1] CM-6K817-B30LO LH outlet PCV tube
- [1] CM-6K817-B30RI RH inlet PCV tube
- [1] CM-6K817-B30RO RH outlet PCV tube
- [1] CM-BRKT-B30L LH oil separator bracket
- [1] CM-BRKT-B30R RH oil separator bracket
- [1] W520100-S437 M5 nut
- [1] W520412-S437 M6 nut
- [1] W709065-S437 M6 studbolt
- [2] W714962-S437 M6 bolt

Start by removing the crossover air induction tube. Loosen hose clamps on either end, release clamp on bypass tube, and release purge hoses/rotate out of the way.



Ford Factory Shop Manual purchase options www.motorcraftservice.com

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021

Remove orange retainer from connector then depress white clip to release. Depress yellow clip to release smaller tube.



Starting with the RH side, remove the PCV tube by releasing the tang on the connectors and pulling up, removing the connector from its spigot.



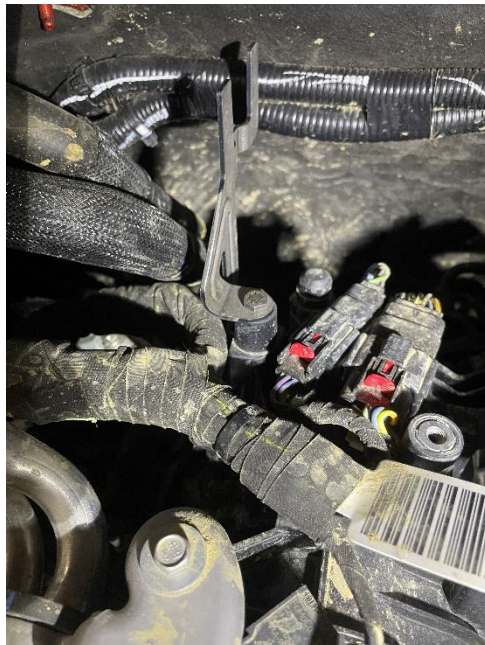


FORD PERFORMANCE

M-6766-BW30
2023-2024 Bronco Raptor
Oil Separator Kit

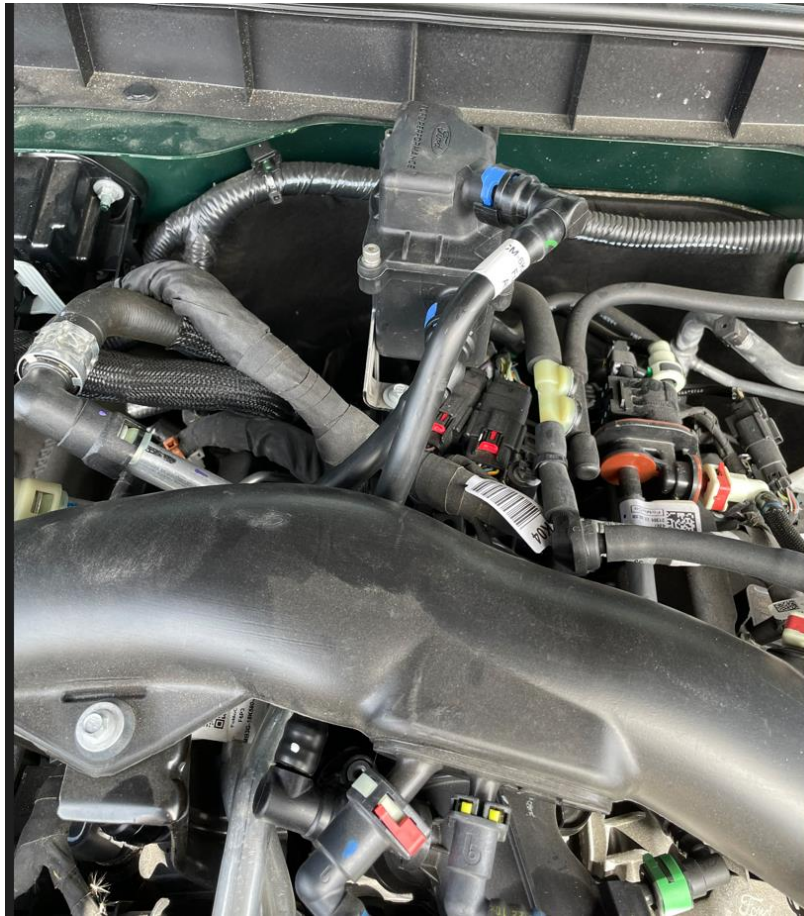
NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021

Locate these two mounting holes for the RH oil separator bracket. Attach the RH bracket using (2) W714962-S437 bolts and torque to 10Nm (88lbin).



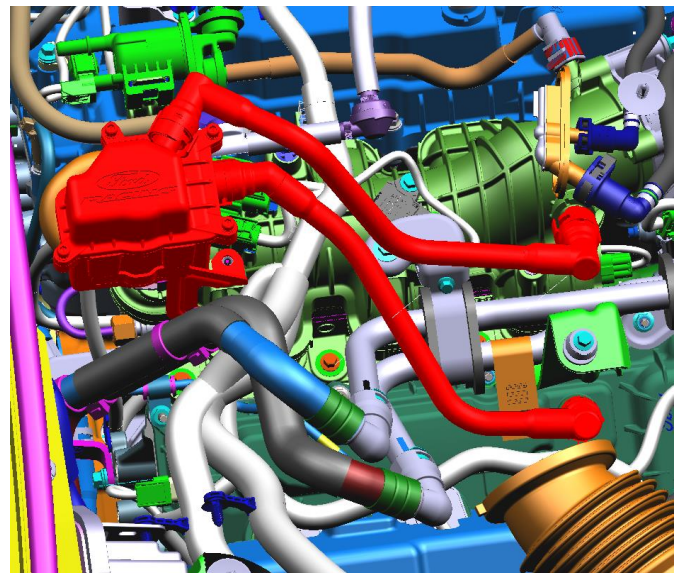
Ford Factory Shop Manual purchase options www.motorcraftservice.com

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021



Install the oil separator on the bracket and install the RH inlet and outlet PCV tubes according to this illustration. Inlet is from the camcover to the lower spigot on the oil separator.

NOTE: Lubricate the inner O-rings on the connectors with engine oil or silicone spray, to prevent O-ring rolling.



Ford Factory Shop Manual purchase options www.motorcraftservice.com



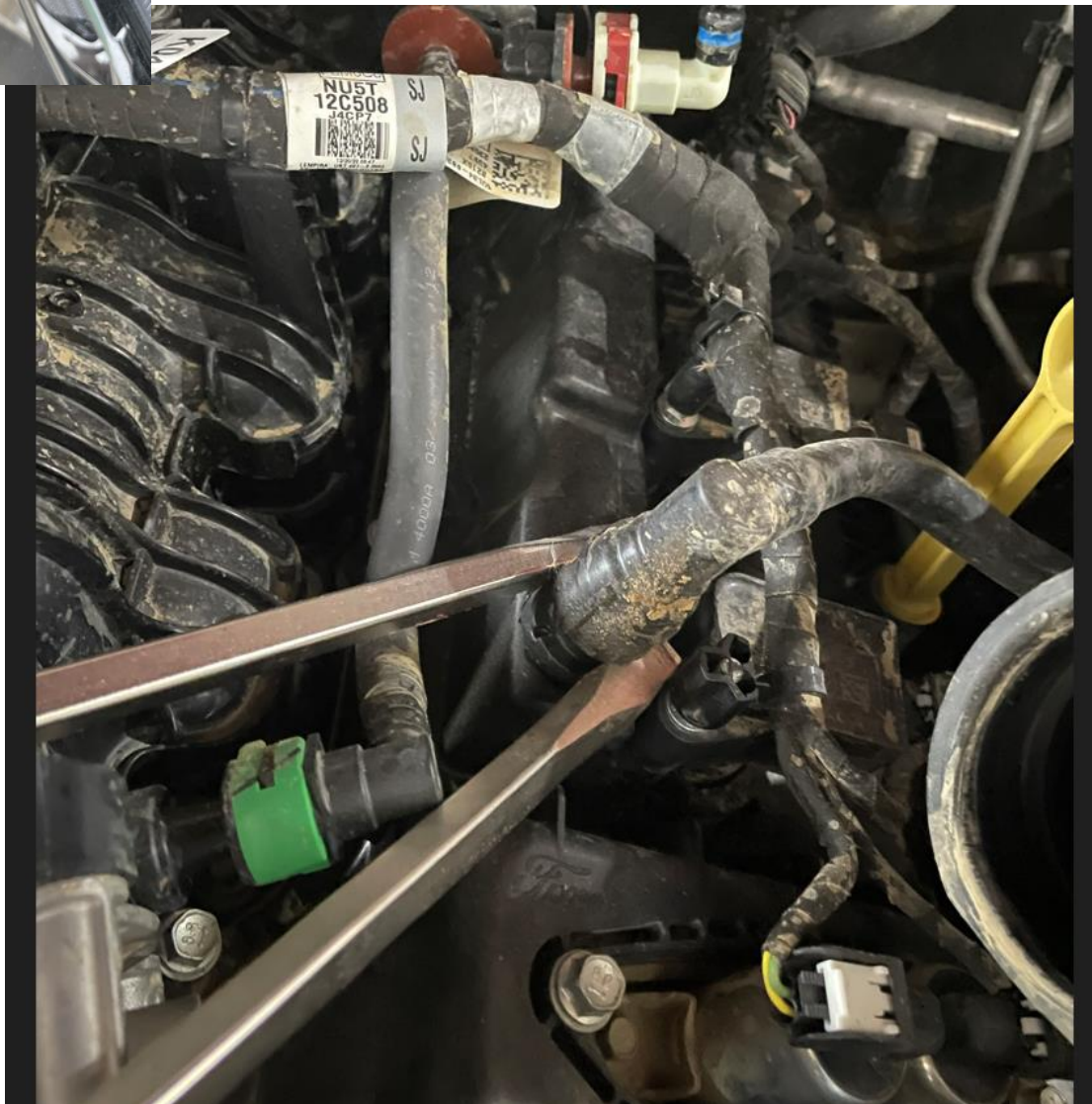
FORD PERFORMANCE

M-6766-BW30
2023-2024 Bronco Raptor
Oil Separator Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021



On the LH side, start by removing the tamper-proof PCV connectors. The orange inner retainer tangs will break during removal, this is normal.



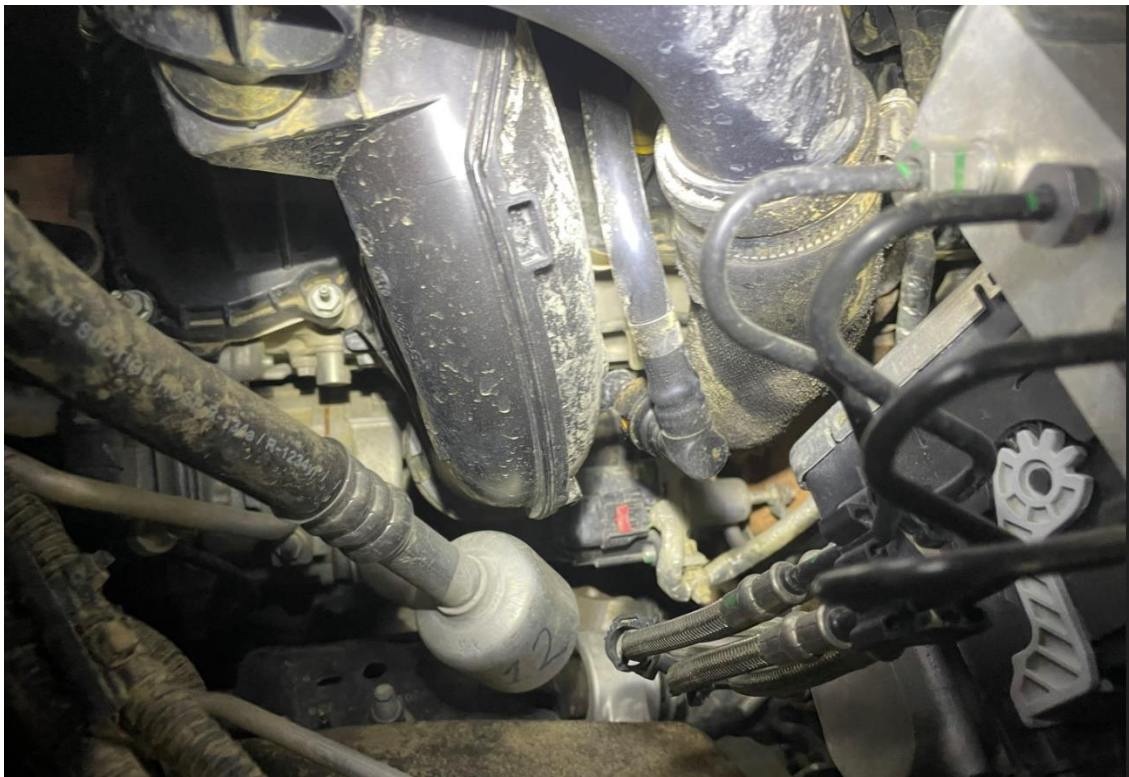
Ford Factory Shop Manual purchase options www.motorcraftservice.com



M-6766-BW30
2023-2024 Bronco Raptor
Oil Separator Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021

The other end of the PCV tube is accessible through the left front wheel well or by removing the air tube it's connected to.



Ford Factory Shop Manual purchase options www.motorcraftservice.com



FORD PERFORMANCE

M-6766-BW30 2023-2024 Bronco Raptor Oil Separator Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021



For tube removal, start with removing the upper tube with bypass valve, loosening 2 hose clamps and disconnecting the bypass valve.

To remove the turbo inlet tube, remove the bolt into the cyl head and loosen the hose clamp, accessing through left front wheel well.



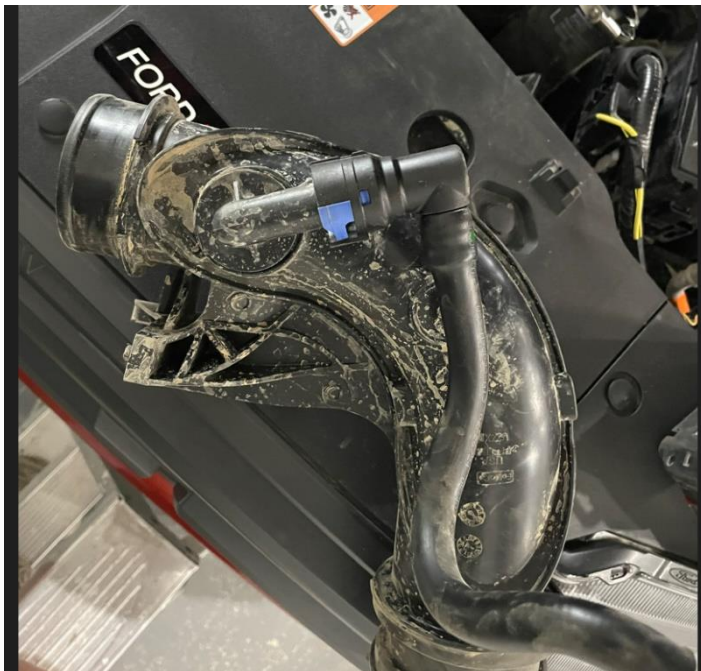
Ford Factory Shop Manual purchase options www.motorcraftservice.com



FORD PERFORMANCE

M-6766-BW30
2023-2024 Bronco Raptor
Oil Separator Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021



Remove PCV tube by prying loose from the spigot. The orange tangs will break, which is normal. Install new LH outlet PCV tube as shown and reinstall turbo inlet tube, torquing bolt into cyl head to 10Nm (88lbin).

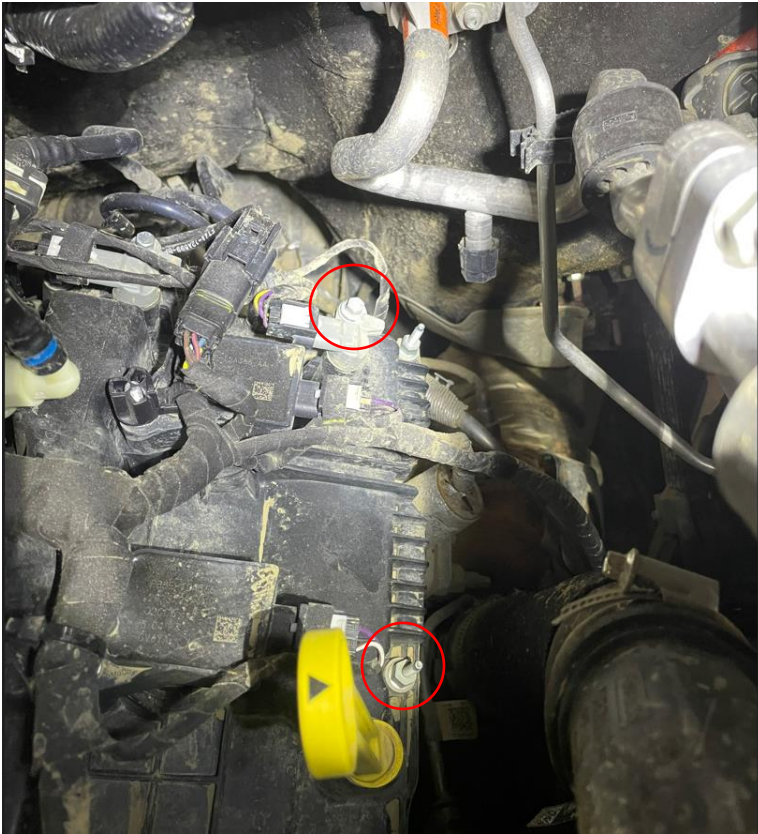
Ford Factory Shop Manual purchase options www.motorcraftservice.com



FORD PERFORMANCE

M-6766-BW30 2023-2024 Bronco Raptor Oil Separator Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021



Locate the 2 fasteners in the illustration. Replace the bolt for the cam sensor with studbolt W709065-S437 and torque to 7Nm (62lbin).

Install the LH bracket over the 2 studbolts and secure with M6 nut W520412-S437 and M5 nut W520100-S437, hand torque but do not overtighten.



Ford Factory Shop Manual purchase options www.motorcraftservice.com



FORD PERFORMANCE

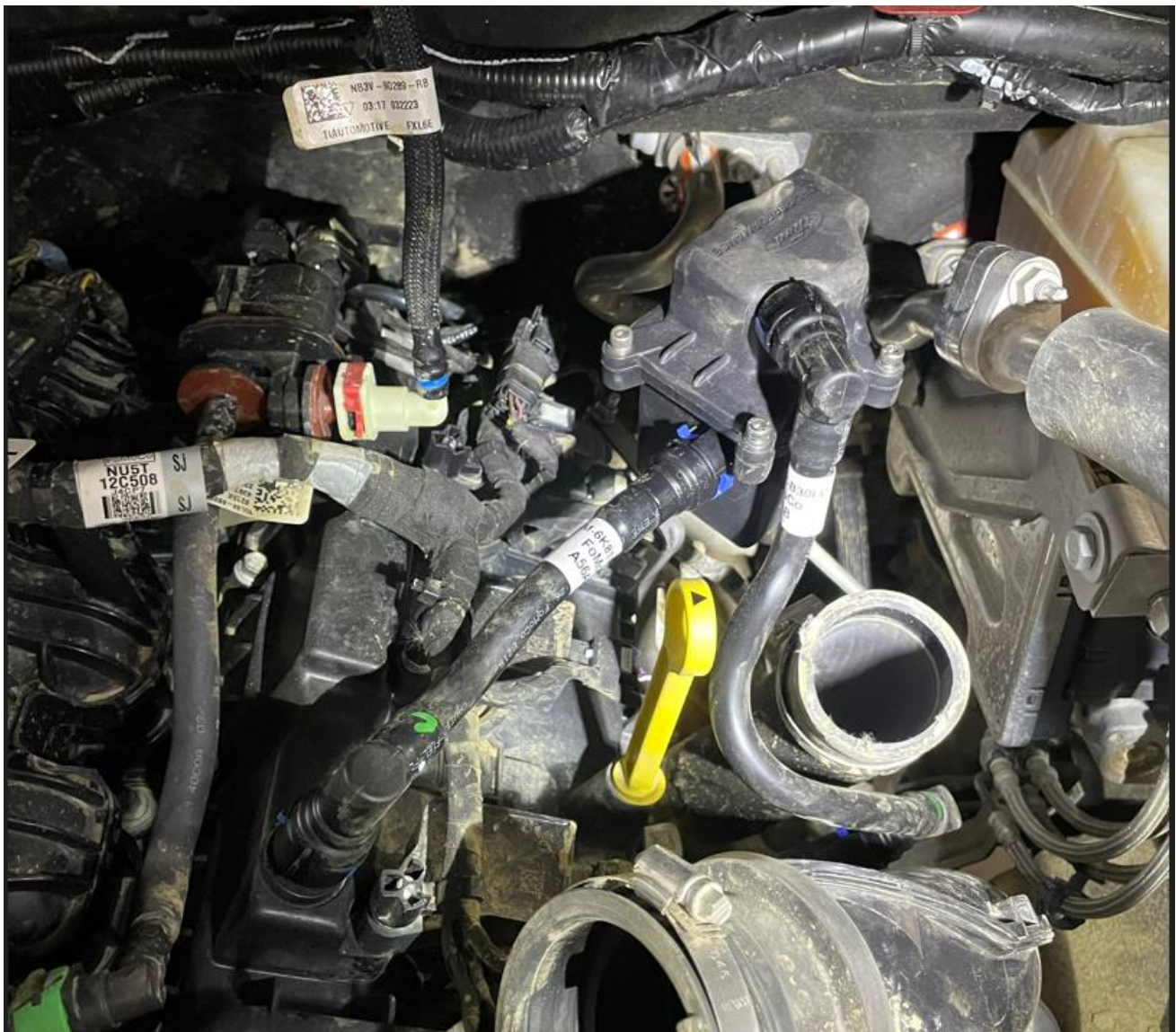
M-6766-BW30 2023-2024 Bronco Raptor Oil Separator Kit

NO PART OF THIS DOCUMENT MAY BE REPRODUCED WITHOUT PRIOR WRITTEN PERMISSION OF FORD PERFORMANCE PARTS
© Ford Motor Company 2021

Install the oil separator on the bracket and install the LH inlet and outlet PCV tubes according to this illustration. Inlet is from the camcover to the lower spigot on the oil separator.

NOTE: Lubricate the inner O-rings on the connectors with engine oil or silicone spray, to prevent O-ring rolling.

Reinstall all tubes and connections as removed.



Ford Factory Shop Manual purchase options www.motorcraftservice.com