TECHNICAL SERVICE BULLETIN No. 19/2025
03.09.2025

Heavy Commercial Vehicles

Persons to be contacted for bulletin:	Service Manager	Warranty Manager	Spare Part Manager	Chief Technician	Service Advisor	BMIS
	✓	✓	✓	✓	✓	✓

Subject	Gen 2.0 OFCA Removal and Installation
Model	All Gen 2.0 Vehicles
Summary	The oil cooler (OFCA) in Gen 2.0 vehicles is longer in the Y direction compared to Gen 1,5 and Gen 1.0. Thus, removing or installing the oil cooler requires extra effort and time. The service instructions and labor codes are provided in the TSB.

Labor Codes

Labor Code	Labor	Time (h)
F4V44 6C732GEN2	Gen 2.0 Engine Oil Cooler R/I	1
F4V45 M97B44	Coolant Drain & Fill (Radiator Drain Tap R/I Included.)	0,4
F4V44 6744GEN2	Gen2 Engine Oil Filter Replacement (Engine Oil Change NOT Inc.)	0,2
F4V44 6K682GEN2	Gen2 Turbocharger R/I (Heat Shield & Oil and Coolant Pipes TC Side R/I Included)	2,25
F4V44 9K640	TC Casting Air Pipe R/I	0,25
F4V44 CCVHOSES	CCV Hoses R/I	0,15
F4V44 6K770	Intercooler Air Hose (Hot Side) R/I	0,2
F4V53 9F464GEN2	Gen2 EGR Cooler R/I (Air & Coolant Line EGR Cooler Side Dismantle Inc.)	1
F4V44 9M449GEN2	Gen2 EGR Heat Shield R/I	0,2
F4V44 9T540	7th Injector R/I (Injector Side Fuel Line Included.)	0,4
F4V44 2K169	Exhaust Back Pressure Valve R/I	0,4
F2V86 CABTILT	Cab Tilting	0,1
TOTAL		**6,55**

Affected Parts

SC46	**6C732**	**A***
SC46	**6C732**	**B***

Required Parts

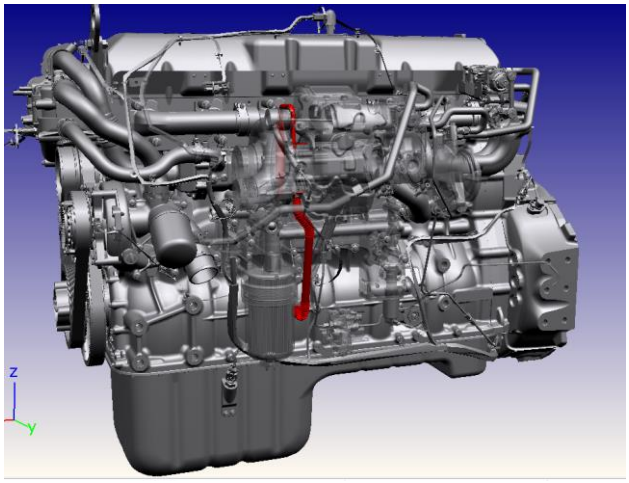
Part Name	Part Number	Quantity
Oil Fill Plug	SC46-6B607-A	1
Oil Fill Plug Washer	SC46-4999-A	1
Turbo Oil Drain Pipe Gasket	GC46-6N652-B	2
Turbo Oil Feed Pipe	SC46-6K679-A*	1
Turbocharger- Manifold Gasket	SC46-9L461-A*	1
Turbocharger – EBPV Gasket	SC46-9L462-A*	2
EBPV Clamp	SC46-6C840-A	2
Turbochager-Manifold Bolt	GC46-9454-B*	4
OFCA Gasket	GC46-6N782-A	1
EGR Cooler Strap	SC46 -9J496-AA	2

Subject

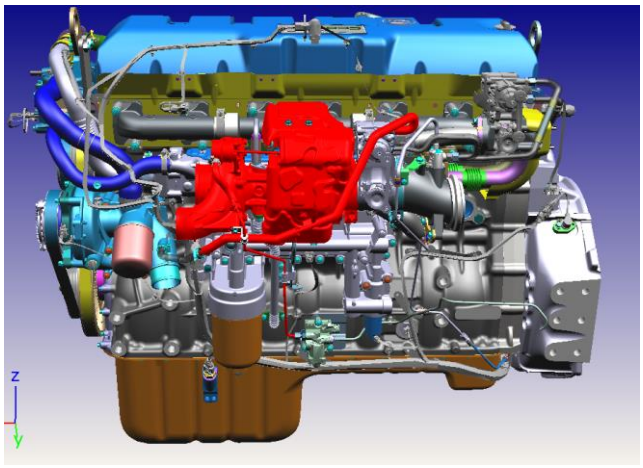
Due to narrow space between the chasis and the oil filter housing in Gen 2.0 vehicles, the OFCA removal requires extra steps compared to the previous engines. On Gen 1,5 and Gen 1.0, Turbo unit removal was sufficient for OFCA removal. For Gen 2.0 vehicles, the EGR Cooler and the Exhaust Downpipe including Exhaust Back Pressure Valve has to be removed in order to service the oil cooler. You can use the Gen 2.0 specific labor code F4V44 6C732GEN2 with the complete recipe provided above fort he labor expenses. The steps to follow for Gen 2.0 OFCA R/I are described below:

Service Instructions

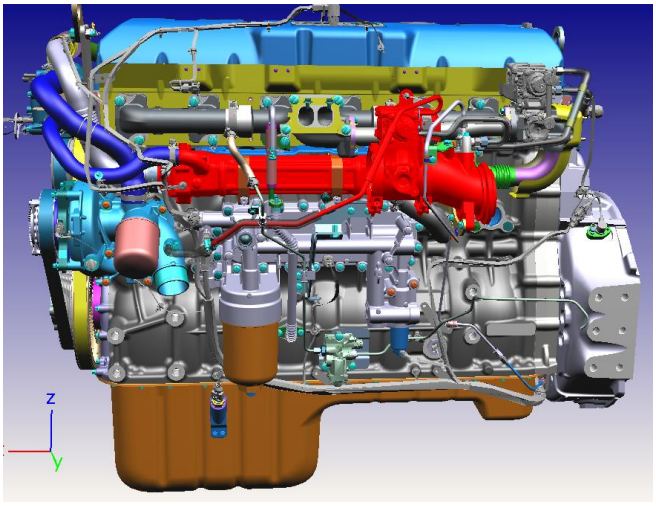
1. Drain the coolant from the vehicle and tilt the cabin
2. Remove the Turbo Oil Feed Pipe (SC46-6K679-A*) and Engine Charge Oil Drain Pipe (SC46-6K677-A*)



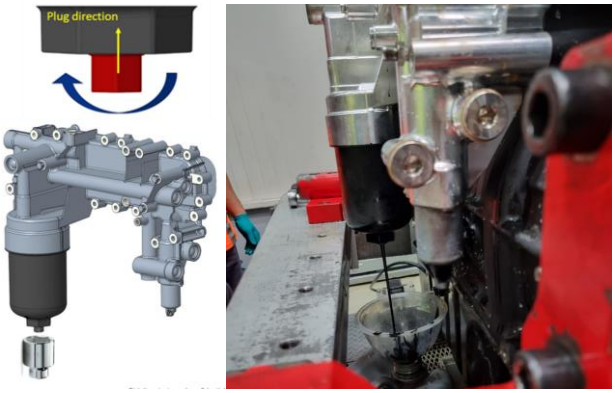
3. Disconnect the Turbo connections and remove the Turbo Unit



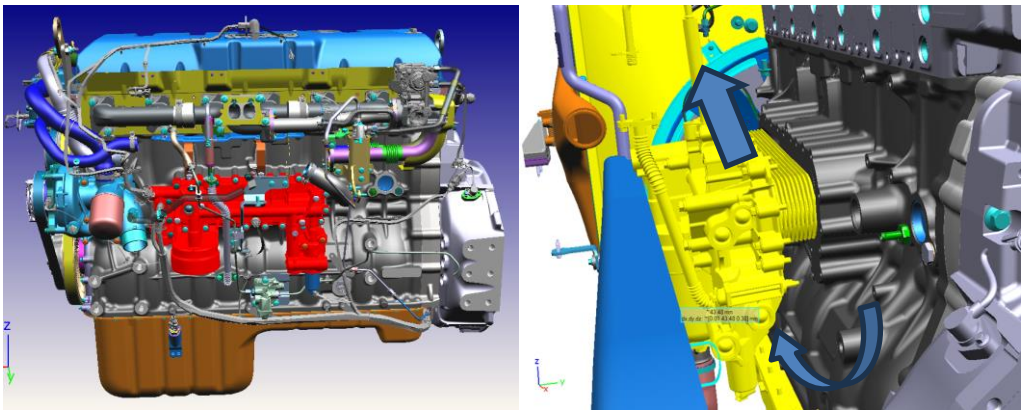
4. Disconnect and remove the EGR cooler and the Exhaust Downpipe including the Exhaust Back Pressure Valve which is positioned on the downpipe.



5. Loosen the oil fiter plug until oil starts to drain beneath the filter. Wait for the oil drain to be complete (approximately 1,5 L) and remove the filter.



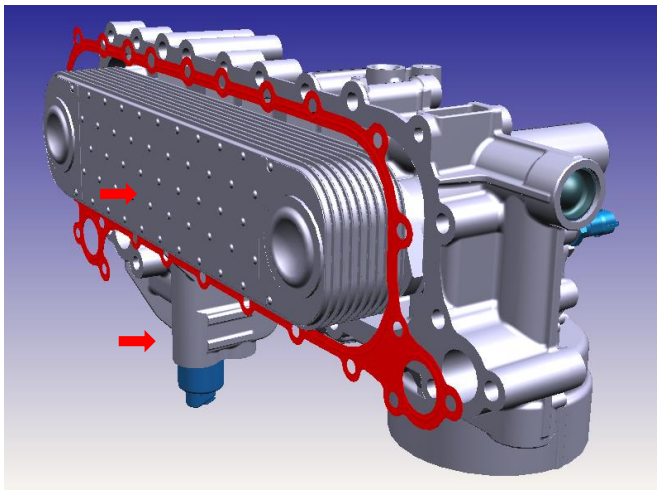
6. Remove the oil cooler using the space created via Turbo, EGR Cooler and Downpipe removal.



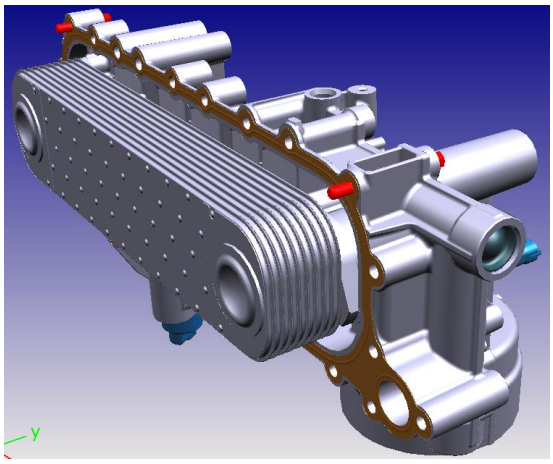
Note: Please see Attachement 1 – Gen 2.0 OFCA Removal for video illustration of the oil cooler removal.

Re-Assembly

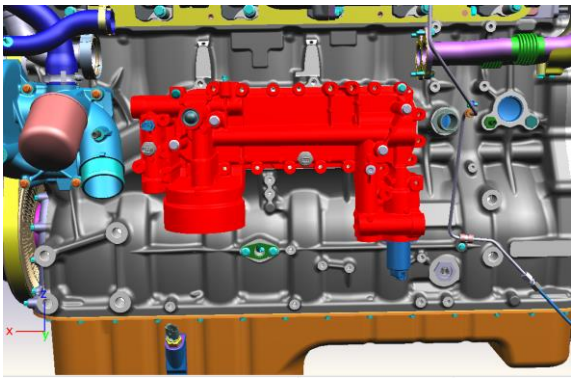
1. Place the OFCA Gasqet (6N782) on the back surface of the oil cooler



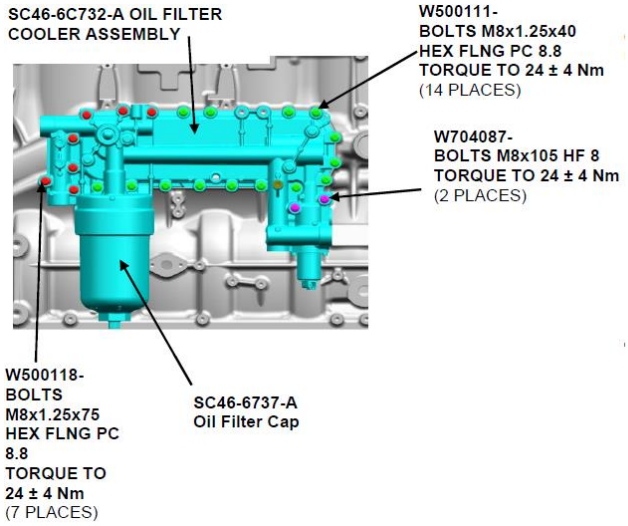
2. Place two bolts on the corners.



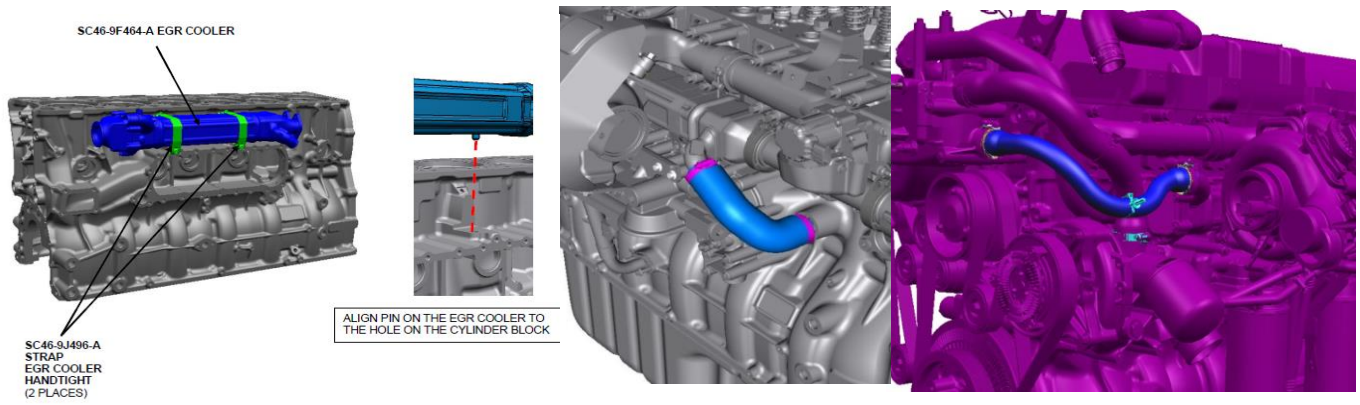
3. Place the OFCA on the correct position with the bolts corresponsing to their seats on the block



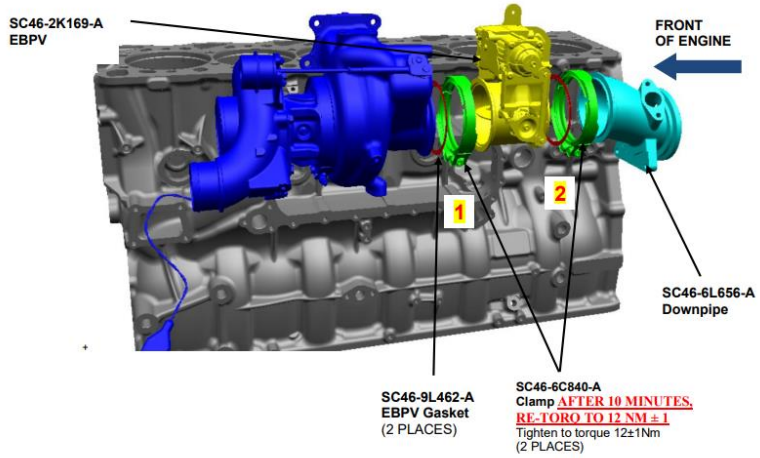
4. Place the remaining bolts and torque according to the instructions below:



5. Install the EGR Cooler and EGR Cooler inlet & outlet pipes

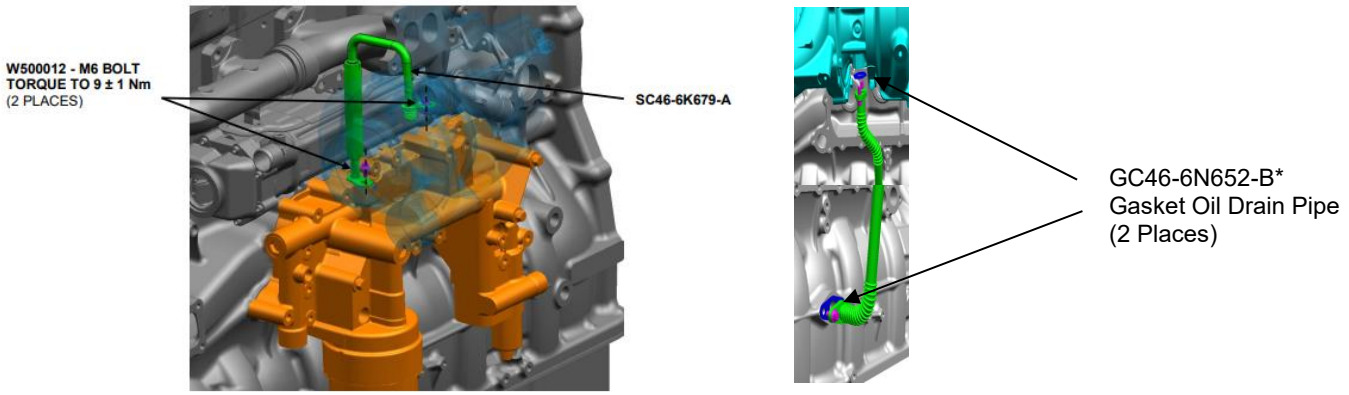


6. Install the Turbo Unit, the EBPV and the Exhaust Downpipe



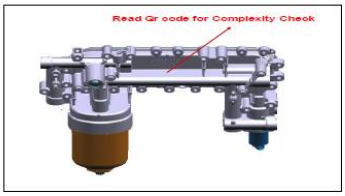
ASSEMBLY PROCEDURE
1- EBPV IS FITTED TO THE TURBO WITH THE GASKET AND CLAMP. ENSURE ALIGNMENT PIN ON THE EBPV MATCHES THE HOLE ON THE TURBO FLANGE AND THE GASKET
2- EBPV CLAMP BOLT IS TORQUED TO **12 ± 1 Nm**.
3- THEN DOWNPIPE IS FITTED TO THE EBPV WITH THE GASKET AND CLAMP.**AFTER 10 MINUTES, RE-TORQ TO 12 NM ± 1**
4-DOWNPIPE CLAMP BOLT IS TORQUED TO **12 ± 1 Nm**.

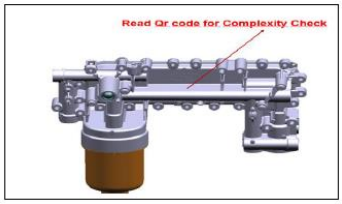
7. Install the Turbo Oil Feed Pipe and Oil Drain Pipe



Below is the OFCA Complexity Table for Gen 2.0 Vehicles

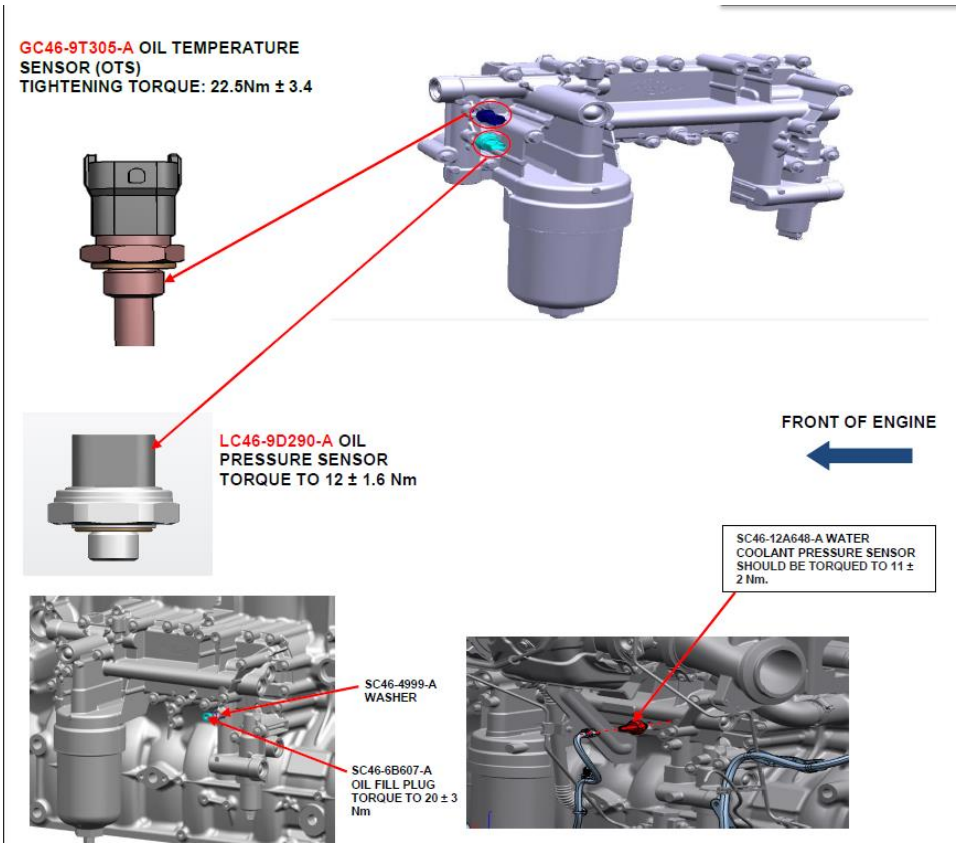
GEN2 OFCA Complexity Table							
OFCA w OTCV - SC46-6C732-A				OFCA w/o OTCV - SC46-6C732-B			
12.7L 510PS	SC46	6007	AA	12.7L 510PS - 450PS E6	SC46	6007	ALA
12.7L 510PS PTO	SC46	6007	CA	12.7L 450PS E6 PTO	SC46	6007	AMA
12.7L 510PS INT	SC46	6007	EA	12.7L 510PS - 450PS E6 INT	SC46	6007	ANA
12.7L 510PS PTO INT	SC46	6007	GA	12.7L 450PS E6 PTO INT	SC46	6007	APA
12.7L 510PS CP	SC46	6007	JA	12.7L 510PS - 450PS E6 CP	SC46	6007	CLA
12.7L 510PS PTO CP	SC46	6007	LA	12.7L 450PS E6 PTO CP	SC46	6007	CMA
12.7L 510PS INT CP	SC46	6007	NA	12.7L 510PS - 450PS E6 INT CP	SC46	6007	CNA
12.7L 510PS PTO INT CP	SC46	6007	RA	12.7L 450PS E6 PTO INT CP	SC46	6007	CPA
12.7L 420PS - 450PS	SC46	6007	ATA	12.7L 450PS E6 AC	SC46	6007	AGA
12.7L 420PS - 450PS INT	SC46	6007	AVA	12.7L 450PS E6 AC PTO	SC46	6007	AHA
12.7L 420PS - 450PS INT PTO	SC46	6007	AYA	12.7L 450PS E6 AC INT	SC46	6007	AJA
12.7L 420PS -450PS CP	SC46	6007	CTA	12.7L 450PS E6 AC PTO INT	SC46	6007	AKA
12.7L 420PS - 450PS INT CP	SC46	6007	CVA	12.7L 450PS E6 AC CP	SC46	6007	CGA
12.7L 420PS- 450PS INT PTO CP	SC46	6007	CYA	12.7L 450PS E6 AC PTO CP	SC46	6007	CHA
12.7L 420PS PTO	SC46	6007	ACA	12.7L 450PS E6 AC INT CP	SC46	6007	CJA
12.7L 420PS PTO CP	SC46	6007	CCA	12.7L 450PS E6 AC PTO INT CP	SC46	6007	CKA





During Re-Assembly:

- The parts in the “Required Parts” list at the beginning of this bullettin should be replaced with new ones.
- Check the bolts before re-assembly. Replace damaged bolts.
- In case of OFCA replacement, LC46-9D290-A* Oil Pressure Sensor & GC46-9T305-A* Oil Temperature Sensor and SC46-12A648-A* Coolant Pressure Sensor can be carried from the used OFCA, avoid damaging the sensors during repair.



Best Regards
Ford Trucks Service Engineering