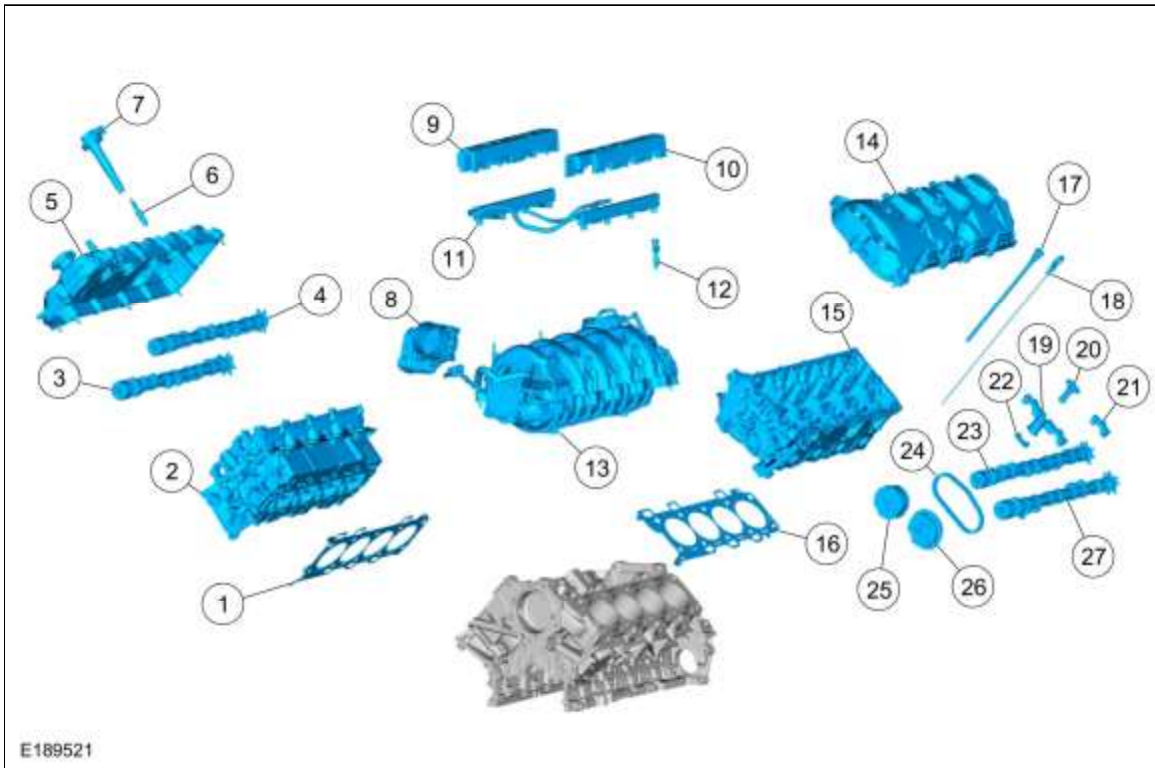


### Engine Component View

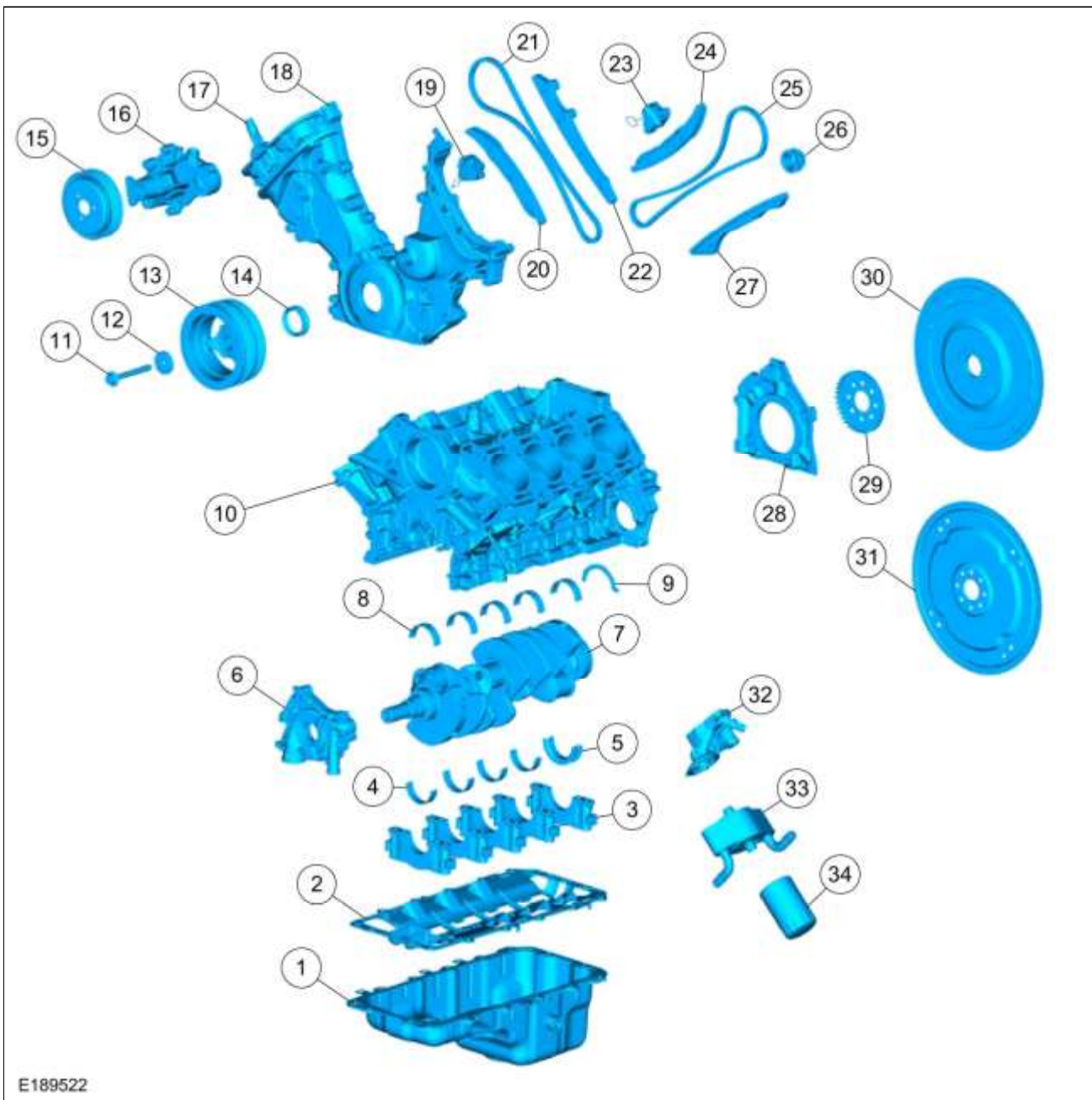
#### Engine — Upper Components



Item	Part Number	Description
1	6051	RH cylinder head gasket
2	6049	RH cylinder head
3	6250	RH exhaust camshaft
4	6250	RH intake camshaft
5	6582	RH valve cover
6	12405	Spark plug (8 required)
7	12029	Ignition coil on plug (8 required)
8	9F991	Throttle body
9	6P013	RH fuel injector insulator shield
10	6P013	LH fuel injector insulator shield
11	9F792	Fuel rail
12	9F593	Fuel injector (8 required)
13	9424	Intake manifold
14	6582	LH valve cover
15	6049	LH cylinder head
16	6051	LH cylinder head gasket
17	6754	Oil indicator tube
18	6750	Oil indicator
19	—	Camshaft bearing cap (part of 6049) (2 required)

20	6K254	Secondary tensioner (2 required)
21	—	Camshaft bearing cap (part of 6049) (16 required)
22	6K297	Secondary tensioner shoe (2 required)
23	6250	LH intake camshaft
24	6268	Secondary timing chain (2 required)
25	6256	Intake camshaft Variable Camshaft Timing (VCT) (2 required)
26	6256	Exhaust camshaft Variable Camshaft Timing (VCT) (2 required)
27	6250	LH exhaust camshaft

**Engine — Lower Components**



E189522

Item	Part Number	Description
1	6675	Oil pan
2	6C878	Oil pan baffle and gasket

3	—	Crankshaft main bearing cap (part of 6010) (5 required)
4	6A338	Crankshaft lower main bearing (4 required)
5	6A339	Crankshaft lower thrust main bearing
6	6600	Oil pump
7	6303	Crankshaft
8	6333	Crankshaft upper main bearing (5 required)
9	6A341	Thrust washer
10	6010	Cylinder block
11	6A340	Crankshaft pulley bolt
12	N807033	Crankshaft pulley washer
13	6316	Crankshaft pulley
14	6700	Crankshaft front oil seal
15	8509	Coolant pump pulley
16	8501	Coolant pump
17	6B297	Variable Camshaft Timing (VCT) variable force solenoid (4 required)
18	6019	Engine front cover
19	6L266	RH primary timing chain tensioner
20	6K255	RH timing chain tensioner arm
21	6268	RH primary timing chain
22	6M256	RH timing chain guide
23	6L266	LH primary timing chain tensioner
24	6K255	LH timing chain tensioner arm
25	6268	LH primary timing chain
26	6306	Crankshaft sprocket
27	6B274	LH timing chain guide
28	6K318	Crankshaft rear seal retainer plate
29	12A227	Crankshaft sensor ring
30	6375	Flywheel (manual transmission)
31	6375	Flexplate (automatic transmission)
32	6881	Oil filter adapter
33	6A642	Oil cooler
34	6731	Oil filter

