



**POWER SOLUTIONS
INTERNATIONAL**

22L ENGINE PARTS BOOK

Engine Model: NGE 22L TC, CAC
Engine Family: PSI
Parts Book Revision: July, 2018



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22L PM AND SERVICE KITS

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
1	661022	STANDARD PM KIT	1	
2	661023	STANDARD PM KIT WITH SPARK PLUGS	1	
3	661024	PM KIT-GENERAL GCP	1	
3	664024	PM KIT-GENERAL 4G	1	
4	661038	PM KIT- TOP END GCP	1	
4	664038	PM KIT-TOP END 4G	1	
5	661039	PM KIT-OVERHAUL GCP	1	
5	664039	PM KIT-OVERHAUL 4G	1	

SVC KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
A	600222	COMPLETE GASKET KIT	1	PER ENG.
B	660012	LINER KIT	1	PER CYL.
C	660022	TOP GASKET KIT	1	PER ENG.
D	660010	CYLINDER HEAD KIT	1	PER HEAD

PM KIT 1 STANDARD KIT 661022

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
2	610882	OIL FILTER	2	
2	610789	VALVE COVER GASKET	12	

PM KIT 2 STANDARD WITH SPARK PLUGS KIT 661023

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
2	610882	OIL FILTER	2	
2	610789	VALVE COVER GASKET	12	
2	610344	SPARK PLUGS	12	

PM KIT 3 GENERAL GCP (YEARLY)
KIT 661024

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
3	610882	OIL FILTER	2	
3	610344	SPARK PLUGS	12	
3	53000008	IGNITION COIL BOOT	12	
3	32500662	THROTTLE BODY	2	
3	32500715	GASKET,MFLD APT	2	
3	53000021	BELT, ALTERNATOR-GCP	1	
3	107127	CCV FILTER	1	
3	610789	VALVE COVER GASKET	12	
3	32501267	O2 SENSOR	4	

PM KIT 3 GENERAL 4G (YEARLY)
KIT 664024

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
3	610882	OIL FILTER	2	
3	610344	SPARK PLUGS	12	
3	53000008	IGNITION COIL BOOT	12	
3	32500662	THROTTLE BODY	2	
3	32500715	GASKET,MFLD APT	2	
3	53000152	BELT, ALTERNATOR-4G	1	
3	107127	CCV FILTER	1	
3	610789	VALVE COVER GASKET	12	
3	53000058	O2 SENSOR (Pre)	2	
3	32501267	O2 SENSOR (Post)	2	

**PM KIT 4 TOP END GCP
KIT 661038**

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
4	610882	OIL FILTER	2	
4	610344	SPARK PLUGS	12	
4	53000041	IGNITION COIL WITH BOOTS	12	
4	32500662	BODY, THROTTLE	2	
4	32500715	THROTTLE BODY GASKET	2	
4	53000021	BELT, ALTERNATOR-GCP	1	
4	107127	CCV FILTER	1	
4	32501267	O2 SENSOR-GCP	4	
4	612897	WATER PUMP	1	
4	610960	WATER PUMP GASKET	1	
4	612500	THERMOSTAT	3	181F 83C
4	610262	THERMOSTAT GASKET	3	
4	610261	THERMOSTAT O-RING	3	
4	660010	CYLINDER HEAD KIT	12	
4	660022	TOP END KIT	1	
4	610964	GASKET, WTR PIPE	1	
4	611214	GASKET	1	

ADDITIONAL PARTS SOLD SEPERATELY

PAGE #	PART NUMBER	DESCRIPTION	QTY	NOTES
54	53000017	ALTERNATOR (STANDARD)	1	
54	53000158	ALTERNATOR (BRUSHLESS)	1	
59	58050803	TURBOCHARGER (MASTER)	1	
59	58050804	TURBOCHARGER (SLAVE)	1	
58	38080463	EPR AND MIXER KIT	2	
58	610886	OIL COOLER	2	
50	33500774	AIR FILTER	2	
25	610853	OIL PUMP (PRE 2015)	1	
25	612909	OIL PUMP (2015-CURRENT)	1	

**PM KIT 4 TOP END 4G
KIT 664038**

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
4	610882	OIL FILTER	2	
4	610344	SPARK PLUGS	12	
4	53000041	IGNITION COIL WITH BOOTS	12	
4	32500662	BODY, THROTTLE	2	
4	32500715	THROTTLE BODY GASKET	2	
4	53000152	BELT, ALTERNATOR-4G	1	
4	107127	CCV FILTER	1	
4	53000058	O2 SENSOR (Pre)	2	IN KIT 4
4	612897	WATER PUMP	1	
4	610960	WATER PUMP GASKET	1	
4	612500	THERMOSTAT	3	181F 83C
4	610262	THERMOSTAT GASKET	3	
4	610261	THERMOSTAT O-RING	3	
4	660010	CYLINDER HEAD KIT	12	
4	660022	TOP END KIT	1	
4	610964	GASKET, WTR PIPE	1	
4	611214	GASKET	1	
4	32501267	O2 SENSOR (Post)	2	

ADDITIONAL PARTS SOLD SEPERATELY

PAGE #	PART NUMBER	DESCRIPTION	QTY	NOTES
54	53000017	ALTERNATOR (STANDARD)	1	
54	53000158	ALTERNATOR (BRUSHLESS)	1	
59	58050803	TURBOCHARGER (MASTER)	1	
59	58050804	TURBOCHARGER (SLAVE)	1	
58	38080463	EPR AND MIXER KIT	2	
58	610886	OIL COOLER	2	
50	33500774	AIR FILTER	2	
25	610853	OIL PUMP (PRE 2015)	1	
25	612909	OIL PUMP (2015-CURRENT)	1	

PM KIT 5 OVERHAUL GCP
KIT 661039

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
5	610882	OIL FILTER	2	
5	610344	SPARK PLUGS	12	
5	53000041	IGNITION COIL WITH BOOTS	12	
5	32500662	THROTTLE BODY	2	
5	53000021	BELT, ALTERNATOR-GCP	1	
5	32501267	O2 SENSOR	4	
5	612897	WATER PUMP	1	
5	660012	LINER KIT	12	
5	660010	CYLINDER HEAD KIT	12	
5	612500	THERMOSTAT	3	181F 83C
5	600222	GASKET KIT	1	
5	107127	FILTER, CCV	1	

ADDITIONAL PARTS SOLD SEPERATELY

PAGE #	PART NUMBER	DESCRIPTION	QTY	NOTES
54	53000017	ALTERNATOR (STANDARD)	1	
54	53000158	ALTERNATOR (BRUSHLESS)	1	
59	58050803	TURBOCHARGER (MASTER)	1	
59	58050804	TURBOCHARGER (SLAVE)	1	
58	38080463	EPR AND MIXER KIT	2	
29	610886	OIL COOLER	2	
50	33500774	AIR FILTER	2	
25	610853	OIL PUMP (PRE 2015)	1	
25	612909	OIL PUMP (2015-CURRENT)	1	

**PM KIT 5 OVERHAUL 4G
KIT 664039**

PM KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
5	610882	OIL FILTER	2	
5	610344	SPARK PLUGS	12	
5	53000041	IGNITION COIL WITH BOOTS	12	
5	32500662	THROTTLE BODY	2	
5	53000152	BELT, ALTERNATOR-4G	1	
5	32501267	O2 SENSOR (Post)	2	
5	612897	WATER PUMP	1	
5	660012	LINER KIT	12	
5	660010	CYLINDER HEAD KIT	12	
5	612500	THERMOSTAT	3	
5	600222	GASKET KIT	1	
5	53000058	O2 SENSOR (Pre)	2	
5	107127	FILTER, CCV	1	

ADDITIONAL PARTS SOLD SEPERATELY

PAGE #	PART NUMBER	DESCRIPTION	QTY	NOTES
54	53000017	ALTERNATOR (STANDARD)	1	
54	53000158	ALTERNATOR (BRUSHLESS)	1	
59	58050803	TURBOCHARGER (MASTER)	1	
59	58050804	TURBOCHARGER (SLAVE)	1	
58	38080463	EPR AND MIXER KIT	2	
29	610886	OIL COOLER	2	
50	33500774	AIR FILTER	2	
25	610853	OIL PUMP (PRE 2015)	1	
25	612909	OIL PUMP (2015-CURRENT)	1	

**SVC KIT A COMPLETE GASKET
KIT 600222**

SVC KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
A	611138	GASKET	12	
A	610705	OIL SEAL	1	
A	610718	FLYWHEEL HOUSING GASKET	1	
A	610719	FLYWHEEL HOUSING GASKET	1	
A	610715	FLYWHEEL HOUSING COVER GASKET	1	
A	611031	GASKET	2	
A	610706	OIL SEAL	1	
A	610721	GASKET	1	
A	610535	HEAD GASKET	12	
A	610789	VALVE COVER GASKET	12	
A	610917	GASKET	1	
A	610912	OIL FILTER GASKET	1	
A	610911	OIL COOLER GASKET	1	
A	611137	FLANGE GASKET	2	
A	610914	OIL COOLER GASKET	1	
A	610920	OIL PAN GASKET	1	
A	611136	GASKET	2	
A	610965	GASKET	1	
A	611135	GASKET	1	
A	610526	WATER PIPE GASKET	2	
A	610964	WATER PIPE GASKET	1	
A	610261	THERMOSTAT O-RING	3	
A	610262	THERMOSTAT GASKET	3	
A	610960	WATER PUMP GASKET	1	
A	610987	EXHAUST MANIFOLD GASKET	12	
A	610557	EXHAUST MANIFOLD GASKET	6	
A	610479BLK	O-RING	24	
A	610916	GASKET, OIL PIPE	1	
A	53500035	GASKET, TURBO.	2	

SVC KIT A COMPLETE GASKET CONT.
KIT 600222

SVC KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
A	610992	INTAKE MANIFOLD GASKET	12	
A	610993	INTAKE MANIFOLD GASKET	2	
A	32500715	GASKET, MFLD APT	2	
A	53500035	GASKET	2	
A	611214	GASKET	1	
A	33500282	OIL DRAIN GASKET	2	
A	106614	TURBO EXHAUST GASKET	2	
A	33500805	CATALYST GASKET	4	
A	610538	PUMP DRIVE HOUSING O-RING	1	
A	610537	OIL FEED O-RING	1	
A	612890	GASKET (2017-CURRENT)	1	
A	610851	SEAL, VALVE STEM	24	
A	610926G	PIPE, WATER	12	
A	53500108	GASKET, TURBO OIL DRAIN	2	
A	53500113	GASKET, TURBO	2	
A	611194	Gasket, Oil Pipe	2	
A	611198	Gasket	2	
A	611206	O-Ring	2	

SVC KIT B LINER (PER CYLINDER)
KIT 660012

SVC KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
B	610691	CYLINDER LINER	1	
B	610746	CONNECTING ROD BEARING	1	
B	610747	CONNECTING ROD BEARING	1	
B	610751	PISTON	1	
B	610760	TOP RING	1	NSS
B	610758	2ND RING	1	NSS
B	610763	OIL RING	1	NSS
B	610757	PISTON PIN	1	
B	611095	SNAP RING	2	
B	611127	O-RING, C/LINER	2	
B	611132	O-RING, C/LINER	2	

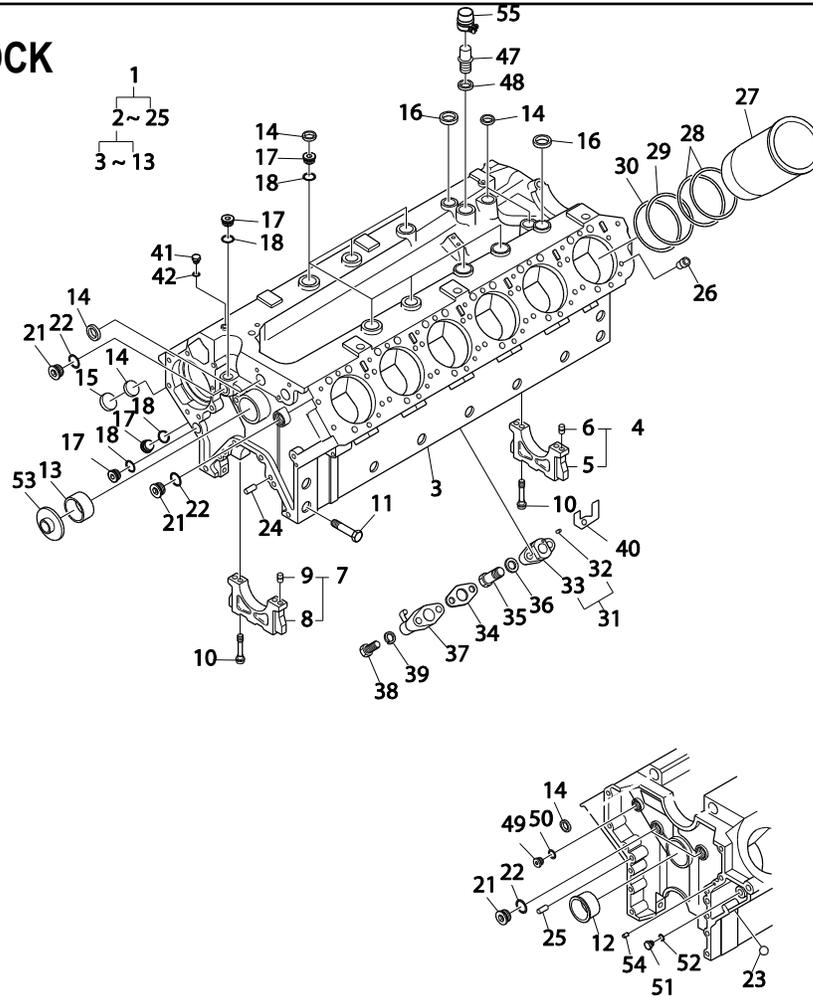
SVC KIT C TOP GASKET (PER ENGINE)
KIT 660022

SVC KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
C	610535	CYLINDER HEAD GASKET	12	
C	610789	VALVE COVER GASKET	12	
C	610992	INTAKE MANIFOLD GASKET	12	
C	610987	EXHAUST MANIFOLD GASKET	12	
C	610526	WATER PIPE GASKET	2	

SVC KIT D CYLINDER HEAD (PER HEAD)
KIT 660010

SVC KIT #	PART NUMBER	DESCRIPTION	QTY	NOTES
D	610773	VALVE GUIDE	2	
D	610776	VALVE SEAT	1	
D	610777	VALVE SEAT	1	
D	610793	INTAKE VALVE	1	
D	610794	EXHAUST VALVE	1	
D	610807	VALVE SPRING KIT	2	
D	610813	VALVE PLATE SPRING	2	
D	611087	WASHER	2	
D	611088	WASHER	2	
D	611177	KEEPER	4	
D	610851	VALVE STEM SEAL	2	

CYLINDER BLOCK

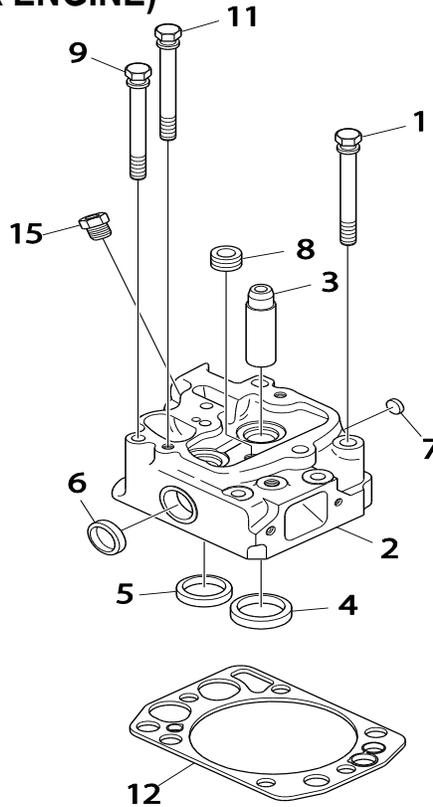


POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	NSS	CYLINDER BLOCK ASSEMBLY	1	
3	NSS	BLOC K, ASSEMBLY	1	
4	NSS	BEARING CAP ASSEMBLY	1	
5	NSS	CAP, BEARING	1	
6	611097	PIN, DOWELL	2	
7	NSS	BEARING CAP ASSEMBLY	6	
8	NSS	CAP, BEARING	1	
9	610461	PIN, DOWELL	2	
10	611052	BOLT, BEARING CAP	14	
	NSS =	NOT SOLD SEPERATELY		

CYLINDER BLOCK CONT.

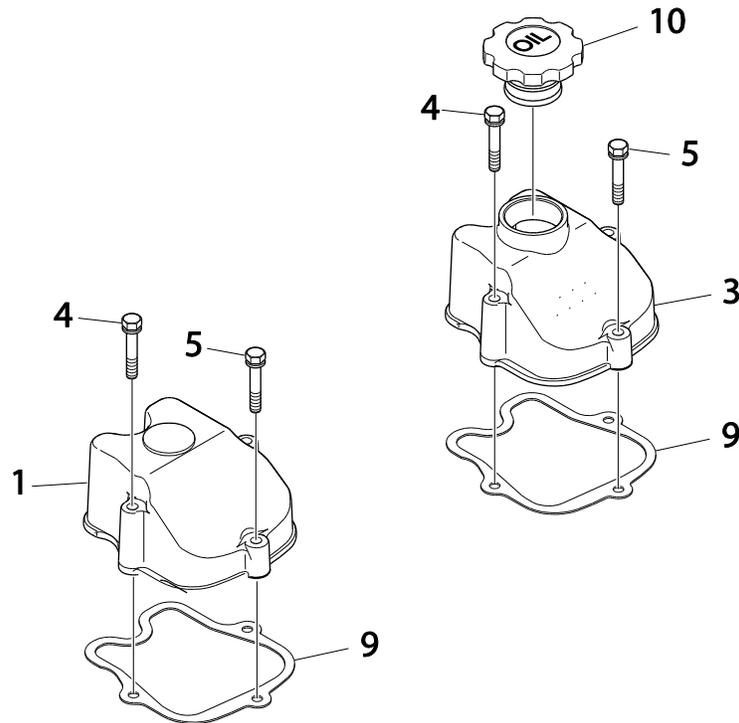
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
11	610380	BOLT, HEX	14	
12	610840	BUSHING, CAMSHAFT	1	
13	610841	BUSHING, CAMSHAFT	6	
14	611103	PLUG, CORE	16	
15	610000	PLUG, CORE	4	
16	610447	PLUG, CORE	2	
17	610285	PLUG, SCREW	10	
18	610194	SEAL, RING	10	
21	611077	PLUG, SCREW	4	
22	610484	SEAL, RING	4	
23	610474	VALVE, BY-PASS	1	
24	610460	PIN, DOWELL	2	
25	610463	PIN, DOWELL	2	
26	611110	PIN, LOCATING	24	
27	610691	LINER, CYLINDER	12	IN KIT B
28	611127	O-RING, C/LINER	24	IN KIT B
29	611132	O-RING, C/LINER	12	IN KIT B
30	611132	O-RING, C/LINER	12	IN KIT B
31	610710	FLANGE, OIL SPRAY NOZZLE	12	
32	610464	PIN, SPRING	1	
33	610708	NOZZLE, O/SPRAY	1	
34	611138	GASKET	12	IN KIT A
35	611157	SCREW, HOLLOW	12	
36	610267	SEAL, RING	12	
37	610711	NOZZLE, O/SPRAY	12	
38	611035	BOLT, HEX	24	
39	610449	WASHER, SPRING	24	
40	610714	PLATE, BAFFLE	1	
41	610438	PLUG, SCREW	1	
42	610482	RING, SEAL	1	
47	610893	PIPE, OIL	1	
48	610485	SEAL, RING	1	
49	611074	PLUG, SCREW	1	
50	610223	SEAL, RING	1	
51	611078	PLUG, SCREW	1	
52	610267	SEAL, RING	1	
53	611102	COVER	1	
54	611066	PLUG, CORE	1	
55	610713	PIPE, BLIND	1	

CYLINDER HEAD (PER ENGINE)



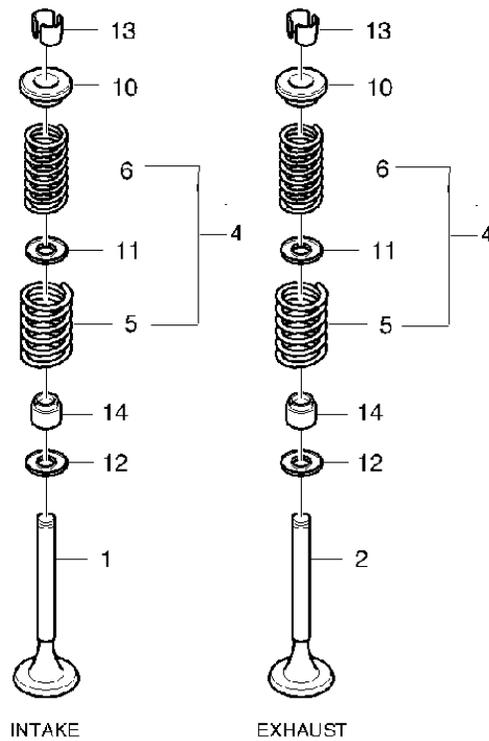
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
2	612504	HEAD, CYLINDER ASSY	12	COMPLETE
3	610773	GUIDE, VALVE	24	IN KIT D
4	610776	VALVE, SEAT INTAKE	12	IN KIT D
5	610777	VALVE, SEAT EXHAUST	12	IN KIT D
6	610000	PLUG, CORE	12	
7	610004	PLUG, CORE	12	
8	610435	PLUG, SCREW	12	
9	611049	BOLT, CYL HEAD	24	
10	611050	BOLT, CYL HEAD	36	
11	611051	BOLT, CYL HEAD	12	
12	610535	GASKET, CYL HEAD	12	IN KIT A,C
15	611073	PLUG, SCREW	12	

CYLINDER HEAD COVER



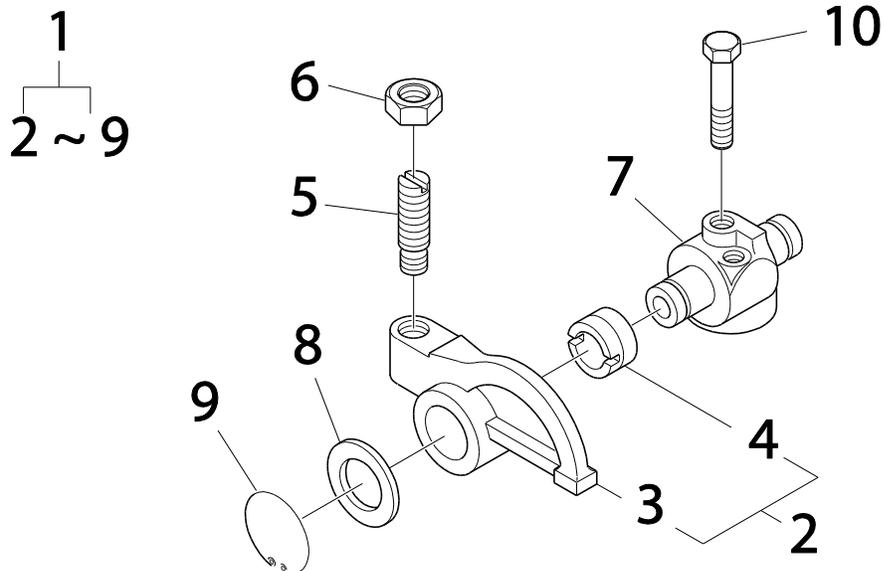
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	58900001	COVER, CYLINDER HEAD	1	
3	58900003	COVER, CYLINDER HEAD	1	
4	610410	BOLT	24	
5	610408	BOLT	12	
9	610789	GASKET, V/COVER	12	IN KIT A,C,1,2,3
10	610120	CAP, OIL	1	

VALVES (PRE 2018) DUAL SPRING



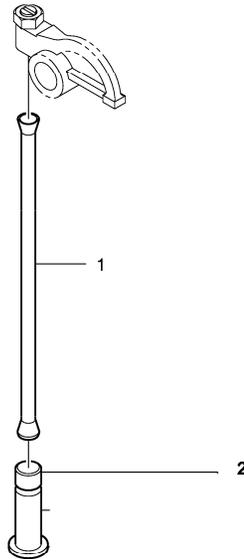
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610793	VALVE, INTAKE	12	IN KIT D
2	610794	VALVE, EXHAUST	12	IN KIT D
4	610807	SPRING, VALVE	24	IN KIT D
5	NSS	SPRING, VALVE OUTER	12	PART OF 4
6	NSS	SPRING, VALVE INNER	12	PART OF 4
10	610813	CAP, VALVE SPRING	24	IN KIT D
11	611087	WASHER	24	IN KIT D
12	611088	WASHER	24	IN KIT D
13	611177	KEEPER	48	IN KIT D
14	610851	SEAL, VALVE STEM	24	IN KIT D,A
	NSS =	NOT SOLD SEPERATELY		

ROCKER ARM



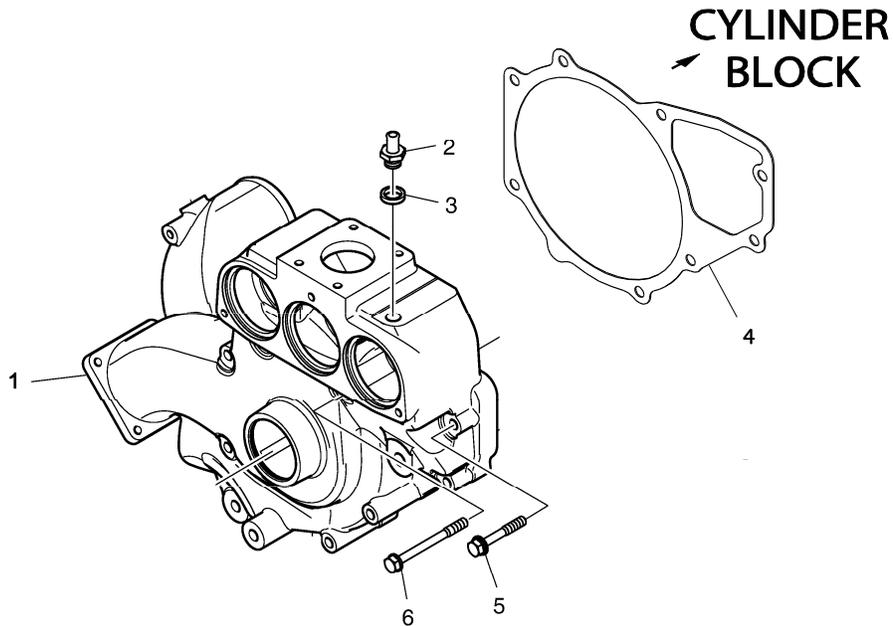
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610819	ARM, ROCKER (ASSY)	12	
2	NSS	ARM, ROCKER W/ BUSHING	2	
3	NSS	ROCKER ARM	1	SEE 610819
4	611115	BUSHING	1	
5	610827	SCREW	2	
6	611084	NUT	2	
7	NSS	BRACKET	1	
8	611090	WASHER	2	
9	610143	RING, SNAP	2	
10	611036	BOLT	24	
	NSS =	NOT SOLD SEPERATELY		

VALVE TAPPET



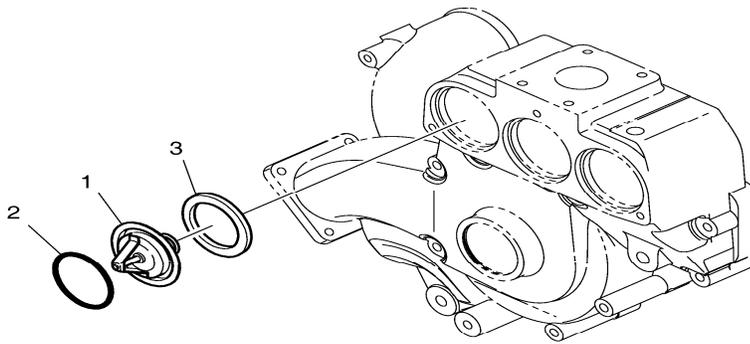
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610830	PUSH ROD	24	
2	612886	TAPPET	24	

WATER PUMP



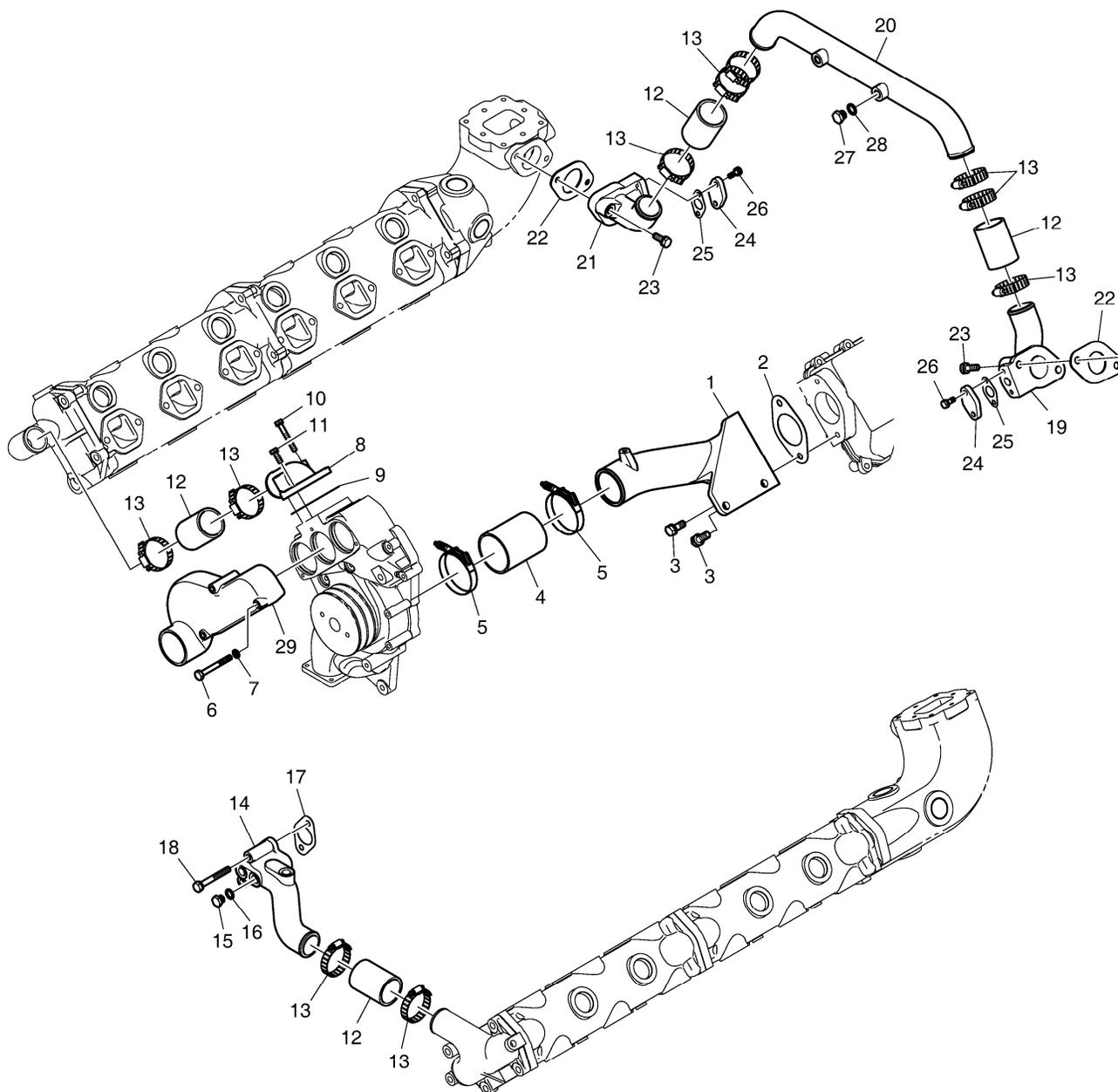
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	612897	PUMP, WATER	1	IN KIT 4,5
2	611155	SCREW	1	
3	610482	RING, SEAL	1	
4	610960	GASKET, WATER PUMP	1	IN KIT A,4,5
5	610225	BOLT	3	
6	610293	BOLT	3	
*	661832	KIT, WATER PUMP GASKET	1	
*		INCLS W/PUMP GSKT, W/PIPE GSKT, THERM		

THERMOSTAT



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610260	THERMOSTAT	3	160F 71C
1	610937	THERMOSTAT	3	174F 79C
1	612500	THERMOSTAT (STD)	3	181F 83C IN KIT 4,5
2	610261	O-RING	3	IN KIT A,4,5
3	610262	GASKET	3	IN KIT A,4,5

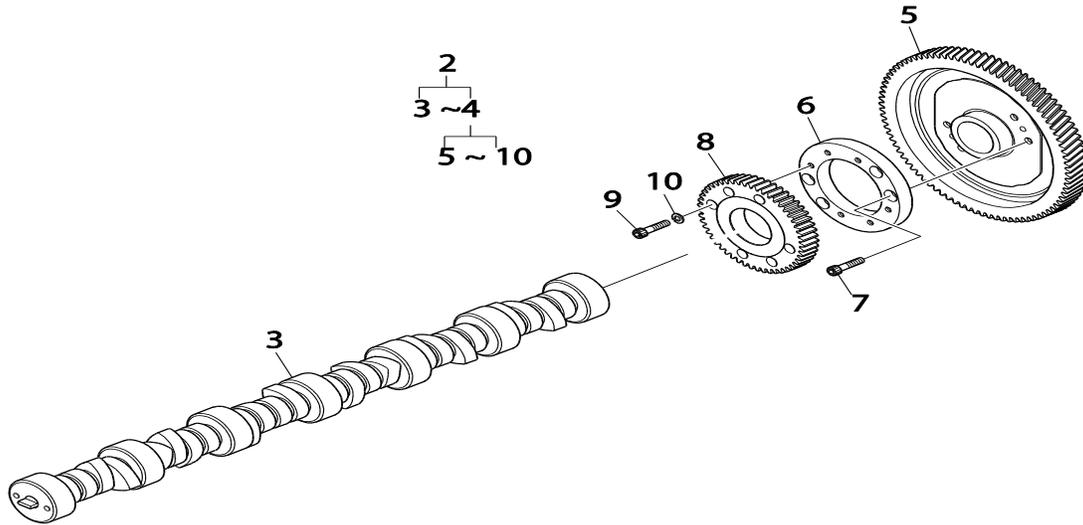
COOLING WATER PIPE



COOLING WATER PIPE CONT.

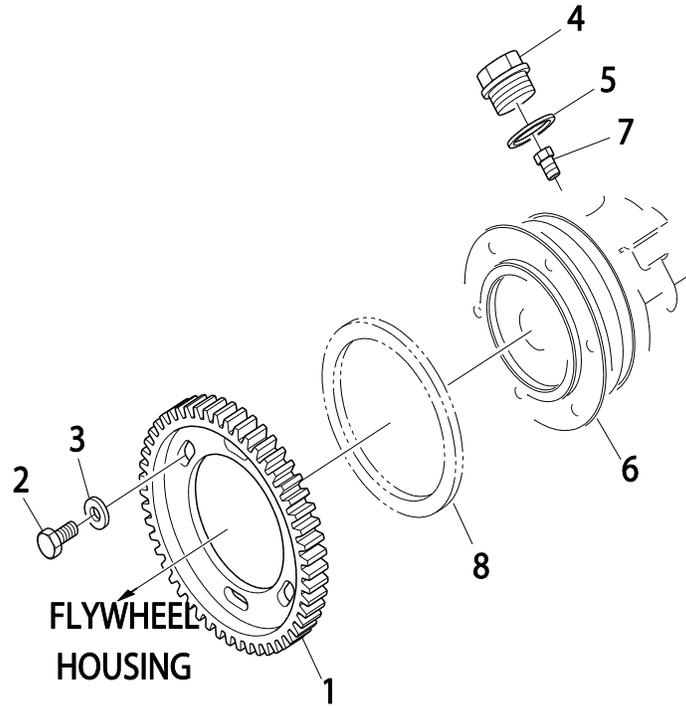
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610935	PIPE, WTR COOL	1	
2	610965	GASKET	1	IN KIT A
3	610398	BOLT, HEX	2	
4	610527	HOSE, COOLANT	2	
5	35200802	CLAMP, HOSE	1	
6	610293	BOLT	3	
7	610556	COVER, E/MNFLD	3	
8	610934	PIPE, WTR COOL	1	
9	610964	GASKET, WTR PIPE	1	IN KIT A,4,5
10	610392	BOLT	2	
11	610389	BOLT	2	
12	610247	HOSE, COOLANT	2	
13	32500867	CLAMP	4	
14	610924	PIPE, WTR COOL	1	
15	610438	PLUG, SCREW	2	
16	610267	SEAL, RING	2	
17	611135	GASKET	1	IN KIT A
18	610336	BOLT	2	
19	610927	PIPE, WTR COOL	1	
20	610935	PIPE, WTR COOL	1	
21	610928	PIPE, WRT COOL	1	
22	610526	GASKET, WTR PIPE	2	IN KIT A,C
23	610418	BOLT	4	
24	611099	COVER, END	2	
25	610916	GASKET, OIL PIPE	2	
26	610014	BOLT	4	
27	610052	SCREW, PLUG	2	
28	610019	SEAL, RING	2	
29	610554	OUTLET, WATER	1	

CAMSHAFT



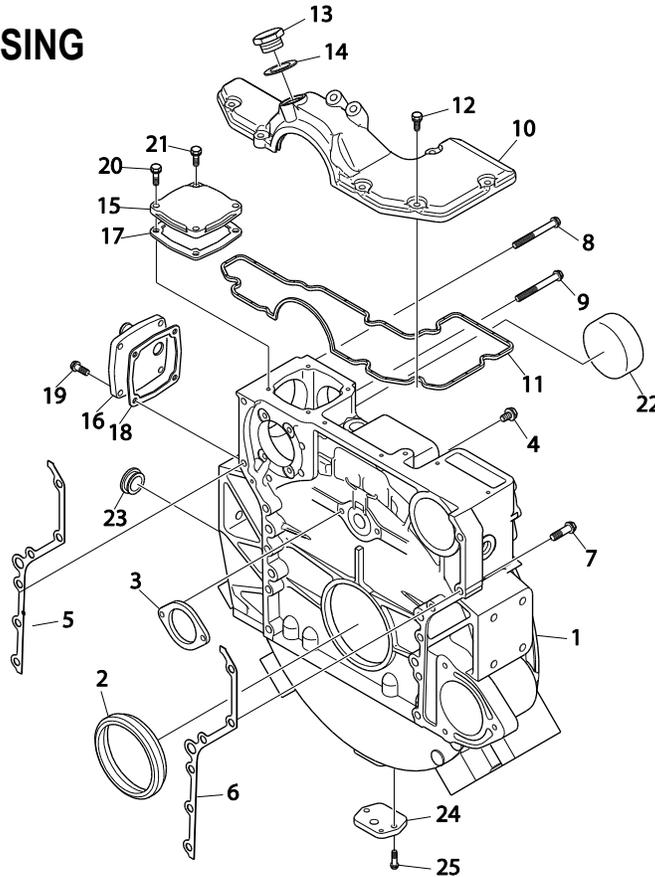
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
2	50100041	CAMSHAFT ASSEMBLY	1	
3	NSS	CAMSHAFT	1	
4	NSS	DRIVE GEAR ASSEMBLY	1	
5	610844	GEAR, CAMSHAFT	1	
6	610994	SPACER	1	
7	611056	BOLT	4	
8	610996	GEAR	1	
9	610427	BOLT	6	
10	610209	WASHER	6	
	NSS =	NOT SOLD SEPERATELY		

CAMSHAFT TIMING WHEEL



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	612302	GEAR, CAMSHAFT TIMING	1	
2	612008	BOLT, HEX	4	
3	612371	WASHER	4	
4	612444	ADAPTOR	1	
5	610206	SEAL, RING	1	
6	612303	GEAR, CAMSHAFT TIMING	1	
7	107012	SENSOR	1	
8	610537	O-RING	1	
9	610538	O-RING	1	NOT SHOWN

FLYWHEEL HOUSING

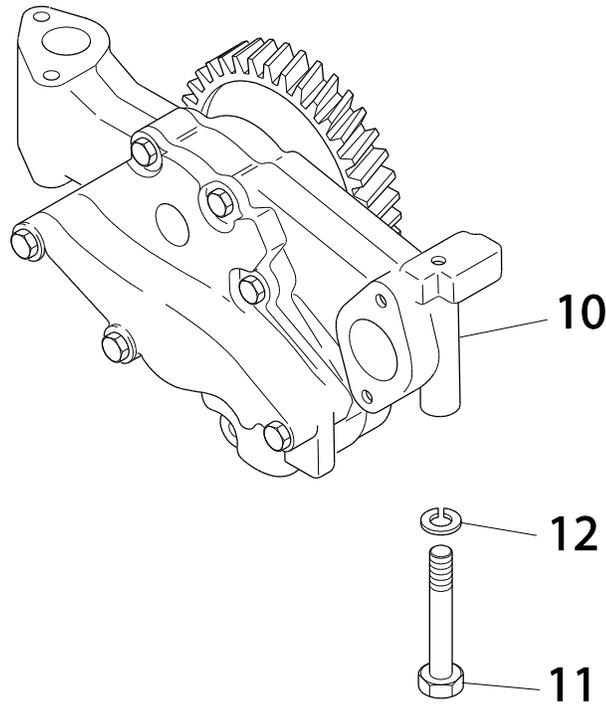


POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610697	HOUSING, FLYWHEEL	1	
2	610705	SEAL, OIL (REAR)	1	IN KIT A
3	611094	WASHER, THRUST	1	
4	611042	BOLT, HEX	2	
5	610718	GASKET, F/W HOUSING	1	IN KIT A
6	610719	GASKET, F/W HOUSING	1	IN KIT A
7	611048	BOLT	10	
8	611047	BOLT	1	
9	611041	BOLT	1	
10	610699	COVER, F/W HSG	1	

FLYWHEEL HOUSING CONT.

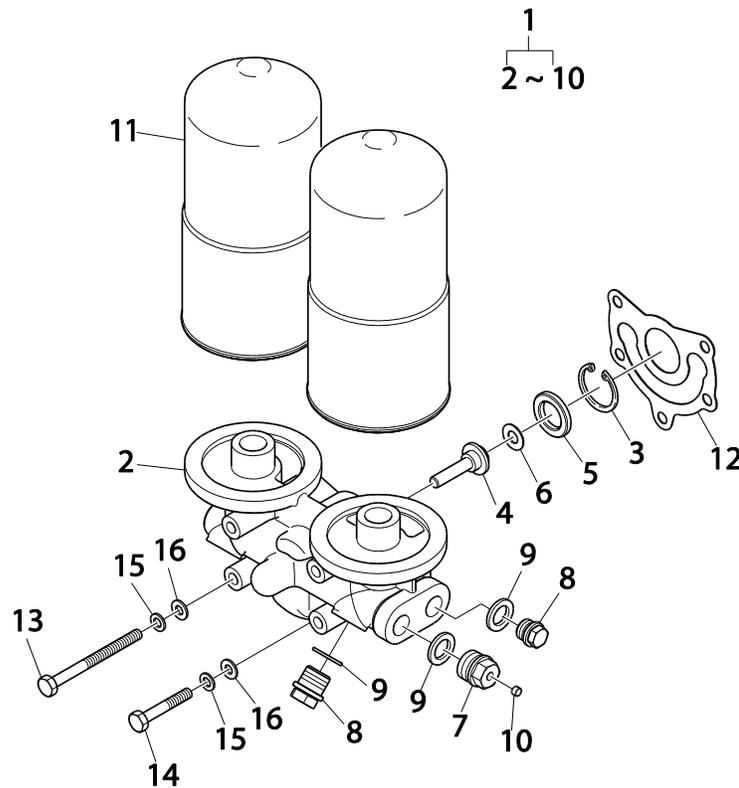
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
11	610715	COVER, F/W HSG	1	IN KIT A
12	610406	BOLT	8	
13	611076	PLUG, SCREW	1	
14	611133	SEAL, RING	1	
15	610698	COVER, F/W HSG	1	
16	610700	COVER, F/W HSG	1	
17	611031	GASKET	1	IN KIT A
18	611031	GASKET	1	IN KIT A
19	610406	BOLT	4	
20	610406	BOLT	3	
21	610057	BOLT	1	
22	611104	PLUG, CORE	1	
23	611126	CAP, RUBBER	1	
24	611151	ADAPTOR	1	
25	610057	BOLT	2	

OIL PUMP



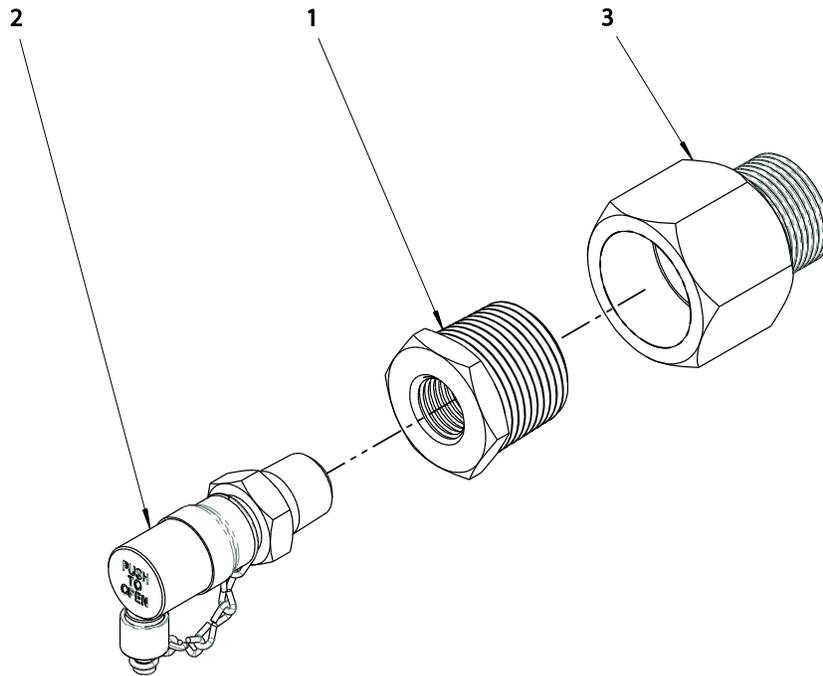
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
10	610853	PUMP, OIL (PRE 2015)	1	
11	610352	BOLT	1	
12	610016	WASHER	1	
NO IMAGE	612909	PUMP, OIL W/DOWELL (2015-CURRENT)	1	

OIL FILTER



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610878	FILTER, OIL ASSY	1	
2	610880	FILTER, OIL HEAD	1	
3	610466	RING, SNAP	1	
4	610884	VALVE, PLUNGER	1	
5	610885	SEAT, VALVE	1	
6	610883	PLATE	1	
7	611153	ADAPTOR	1	
8	610437	PLUG, SCREW	3	
9	610726	SEAL, RING	4	
10	613006	SCREW	1	
11	610882	FILTER, OIL	2	IN KIT 1,2,3,4,5
12	610912	GASKET, O/FILTER	1	IN KIT A
13	610355	BOLT, HEX	4	
14	610373	BOLT, HEX	1	
15	610146	WASHER, SPRING	5	
16	610254	WASHER	5	

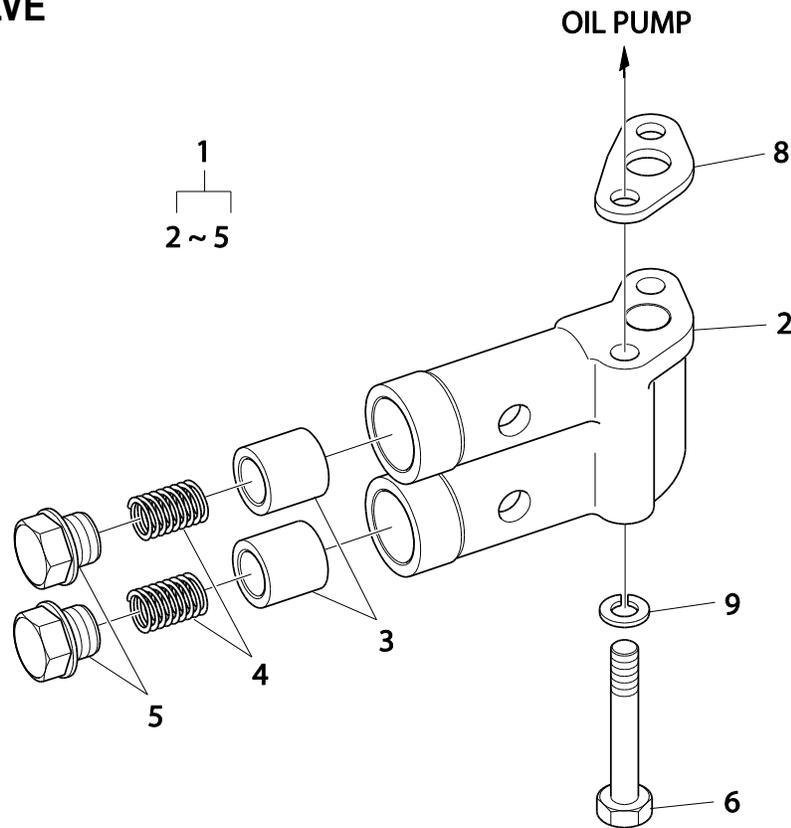
OIL SAMPLE VALVE



58020409-01

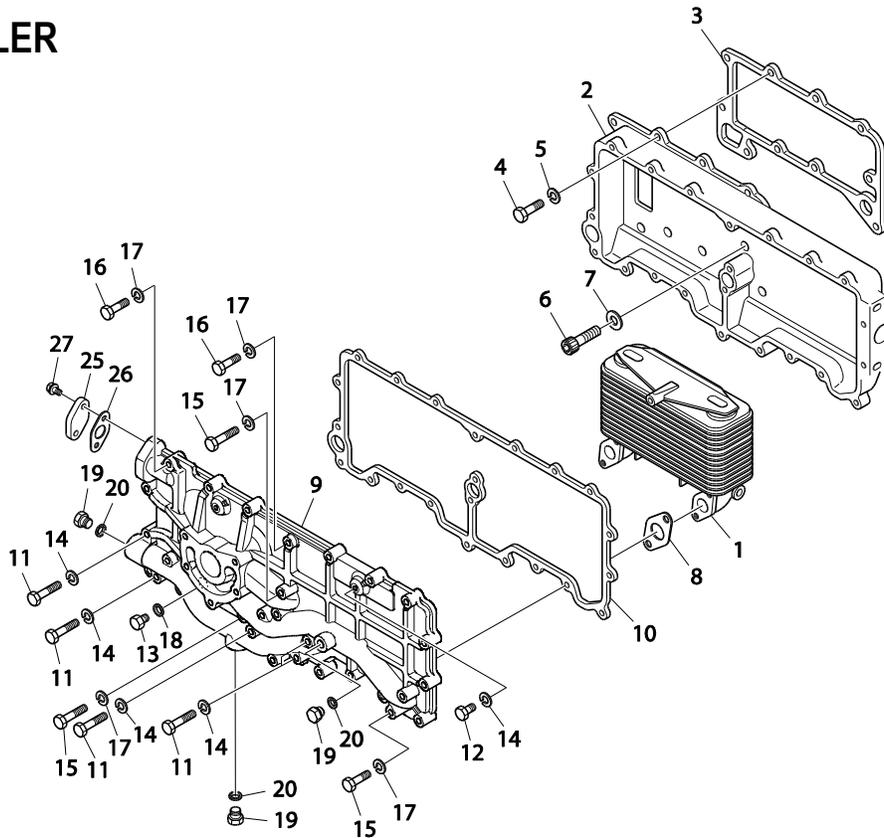
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32502279	BUSHING	1	
2	52500168	VALVE,OIL SAMPLE	1	
3	52500170	BUSHING	1	

RELIEF VALVE

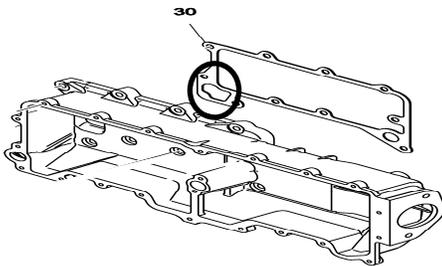


POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610870	VALVE, RELIEF	1	
2	NSS	HOUSING	1	
3	NSS	VALVE PLUNGER	2	
4	NSS	SPRING	2	
5	NSS	SCREW	2	
6	610282	BOLT	2	
8	610917	GASKET	1	IN KIT A
9	610016	WASHER	2	
	NSS =	NOT SOLD SEPERATELY		

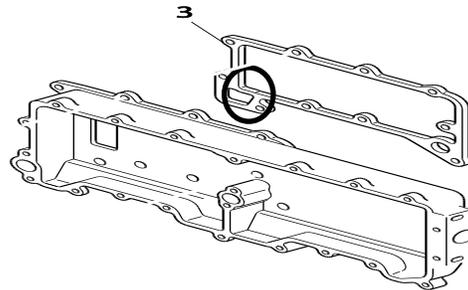
OIL COOLER



GASKET OPTIONS



2017-CURRENT
GASKET NEEDED W/NEW HOUSING
KIT 612915 INCLS HOUSING, BOLT AND GASKET

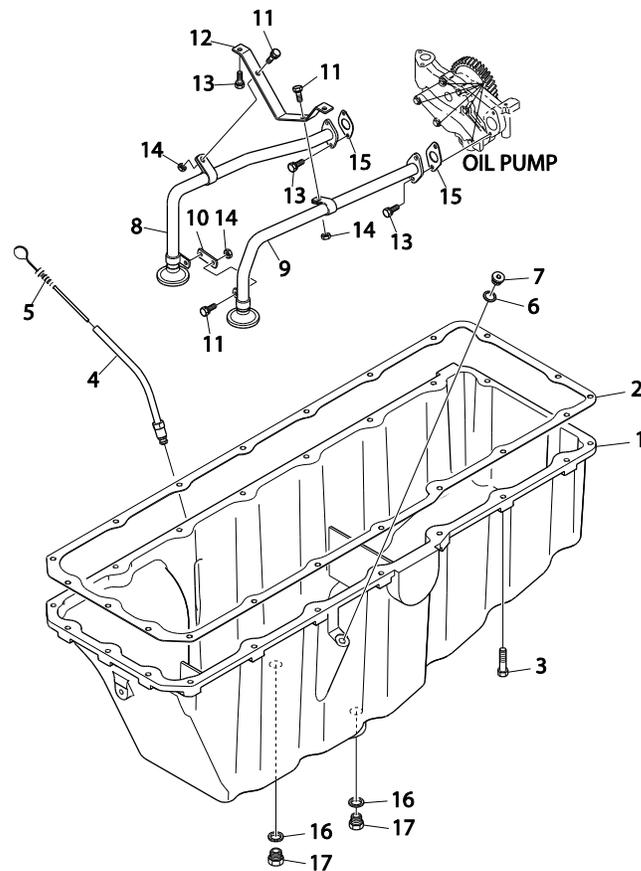


PRE-2017
GASKET ONLY SOLD SEPERATELY
HOUSING IS NLA

OIL COOLER CONT.

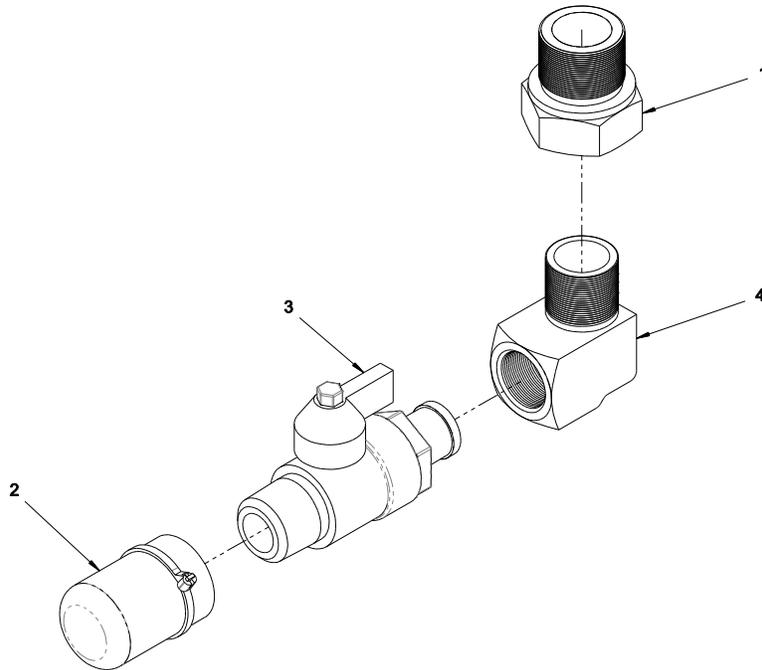
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610886	COOLER, OIL	2	
2	612915	KIT, HOUSING (INCLS GASKET AND BOLT)	1	2017-CURRENT
3	610911	GASKET, O/COOLER (PRE-2017)	1	IN KIT A
30	612890	GASKET, OIL COOLER (2017-CURRENT)	1	IN KIT 612915,A
4	610372	BOLT, HEX	5	
5	610451	SPRING WASHER	5	
6	611054	BOLT	5	
7	611086	WASHER	5	
8	611137	GASKET, FLANGE	4	IN KIT A
9	610891	OIL COOLER CVR	1	
10	610914	GASKET, O/COOLER	1	IN KIT A
11	610350	BOLT, HEX	8	
12	610362	BOLT, HEX	2	
13	610438	PLUG, SCREW	1	
14	610450	WASHER, SPRING	10	
15	610392	BOLT	5	
16	610366	BOLT, HEX	27	
17	610450	WASHER, SPRING	22	
18	610267	SEAL, RING	1	
19	611076	PLUG, SCREW	3	
20	610194	SEAL, RING	3	
25	611099	COVER, END	1	
26	610916	GASKET, OIL PIPE	1	IN KIT A
27	610404	BOLT	2	
NO IMAGE	611156	SCREW	1	NOT SHOWN
NO IMAGE	610206	SEAL	1	NOT SHOWN

OIL PAN



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610907	PAN, OIL	1	
2	610920	GASKET, OIL PAN	1	IN KIT A
3	610407	BOLT	20	
4	610910	TUBE, DIPSTICK	1	
5	612171	DIPSTICK	1	
6	610223	SEAL, RING	1	
7	611074	PLUG, SCREW	1	
8	610895	OIL PIPE	1	
9	610898	PIPE, OIL	1	
10	611143	HOLDER	1	
11	610389	BOLT	4	
12	610902	BRACKET	1	
13	610026	BRACKET	6	
14	610017	NUT, HEX	4	
15	611136	GASKET, OIL PUMP TUBE	2	IN KIT A
16	610484	SEAL, RING	2	
17	610285	PLUG, SCREW	2	

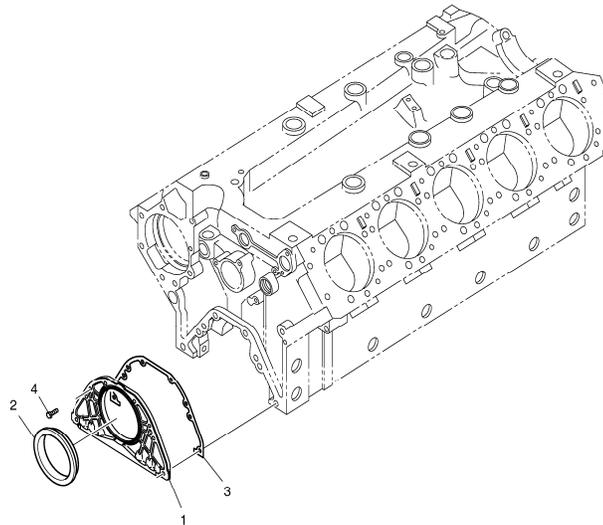
OIL DRAIN VALVE W/ ADAPTER



58040400-02

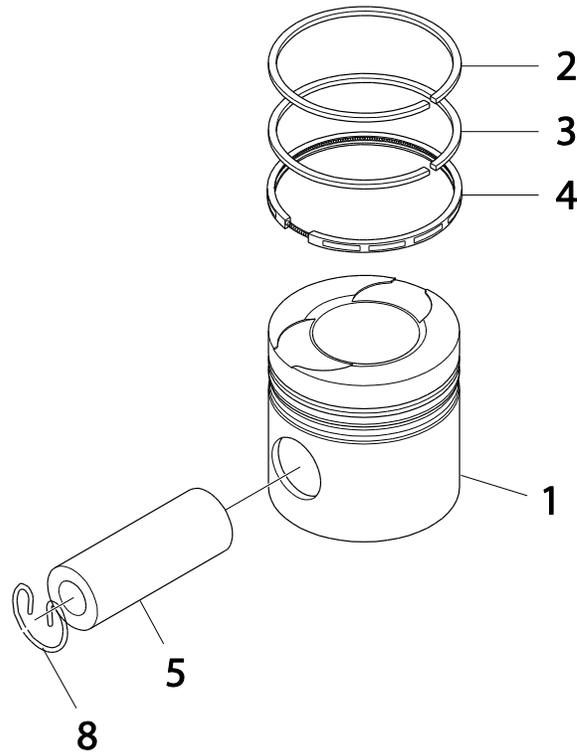
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	12000502	ADAPTER, CONVERSION	1	
2	104773	CAP, RUBBER	1	
3	52500089	VALVE, OIL DRAIN	1	
4	52500091	ELBOW, STREET	1	

OIL SEAL



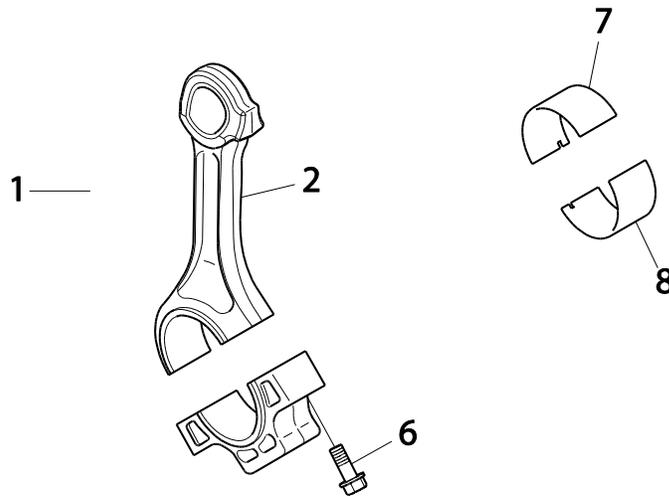
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610701	HOUSING, O/SEAL	1	
2	610706	SEAL, OIL FRONT	1	IN KIT A
3	610721	GASKET	1	IN KIT A
4	610405	BOLT	6	

PISTON



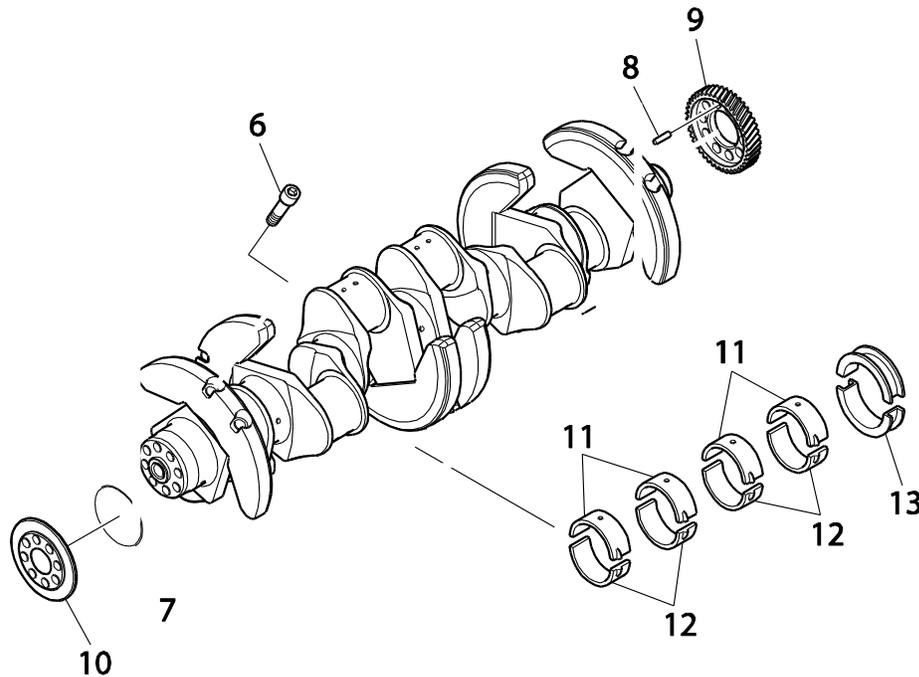
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610751	PISTON	12	IN KIT B
2	NSS	RING, TOP PISTON *	12	IN KIT B
3	NSS	RING, 2ND PISTON *	12	IN KIT B
4	NSS	RING, OIL *	12	IN KIT B
5	610757	PIN, PISTON	12	IN KIT B
8	611095	RING, SNAP	24	IN KIT B
*	612111	COMPLETE ENGINE RING KIT	1	INCLUDES 2,3,4
	NSS =	NOT SOLD SEPERATELY		

CONNECTING ROD



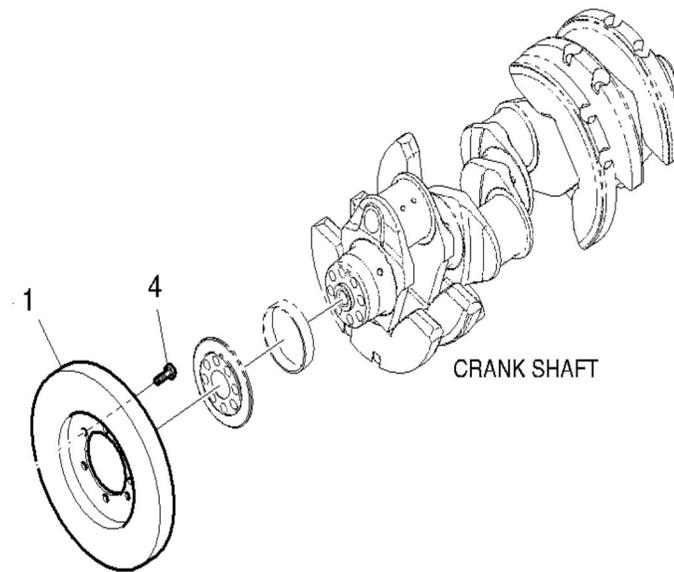
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610516	ROD , CONNECTING (ASSY)	12	
2	NSS	ROD, CONNECTING	1	
6	610749	BOLT	2	
7	610746	BEARING, C/ROD (TOP)	12	IN KIT B
8	610747	BEARING, C/ROD (BOTTOM)	12	IN KIT B
NO IMAGE	612103	BUSHING, C/ROD	12	NOT SHOWN
	NSS =	NOT SOLD SEPERATELY		

CRANKSHAFT



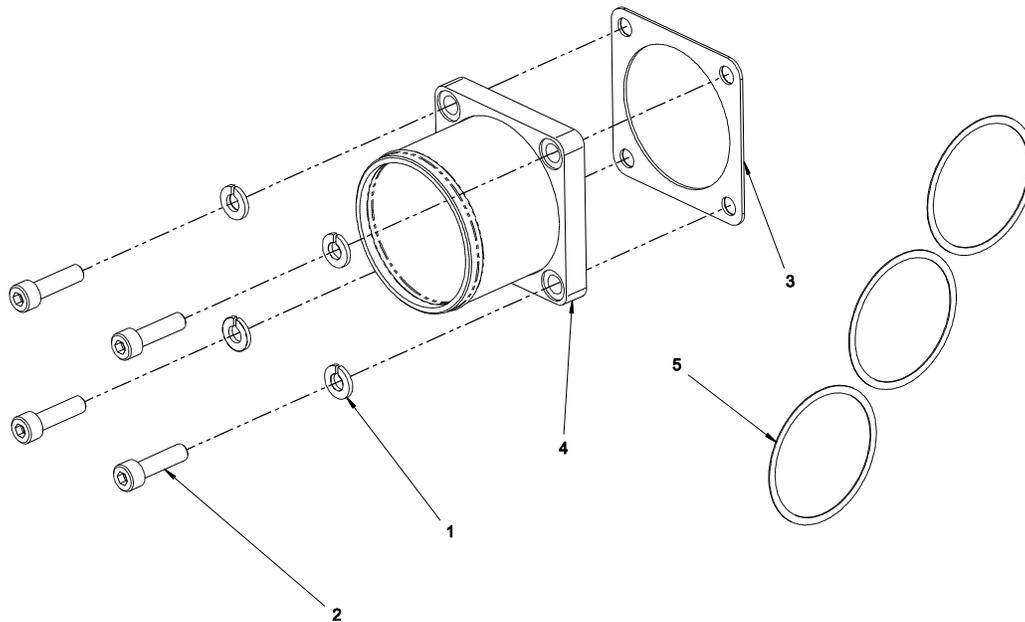
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610506	CRANKSHAFT	1	
6	611057	BOLT	12	
7	610730	RING, WEAR - FRT	1	
8	610462	PIN, DOWELL	1	
9	610729	GEAR, CRANKSHAFT	1	
10	610702	RING, OIL	1	
11	610672	BEARING, MAIN (TOP)	6	
12	610673	BEARING, MAIN (BOTTOM)	6	
13	610679	WASHER, THRUST	1	

VIBRATION DAMPER



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610077	DAMPER	1	
4	610080	BOLT	6	

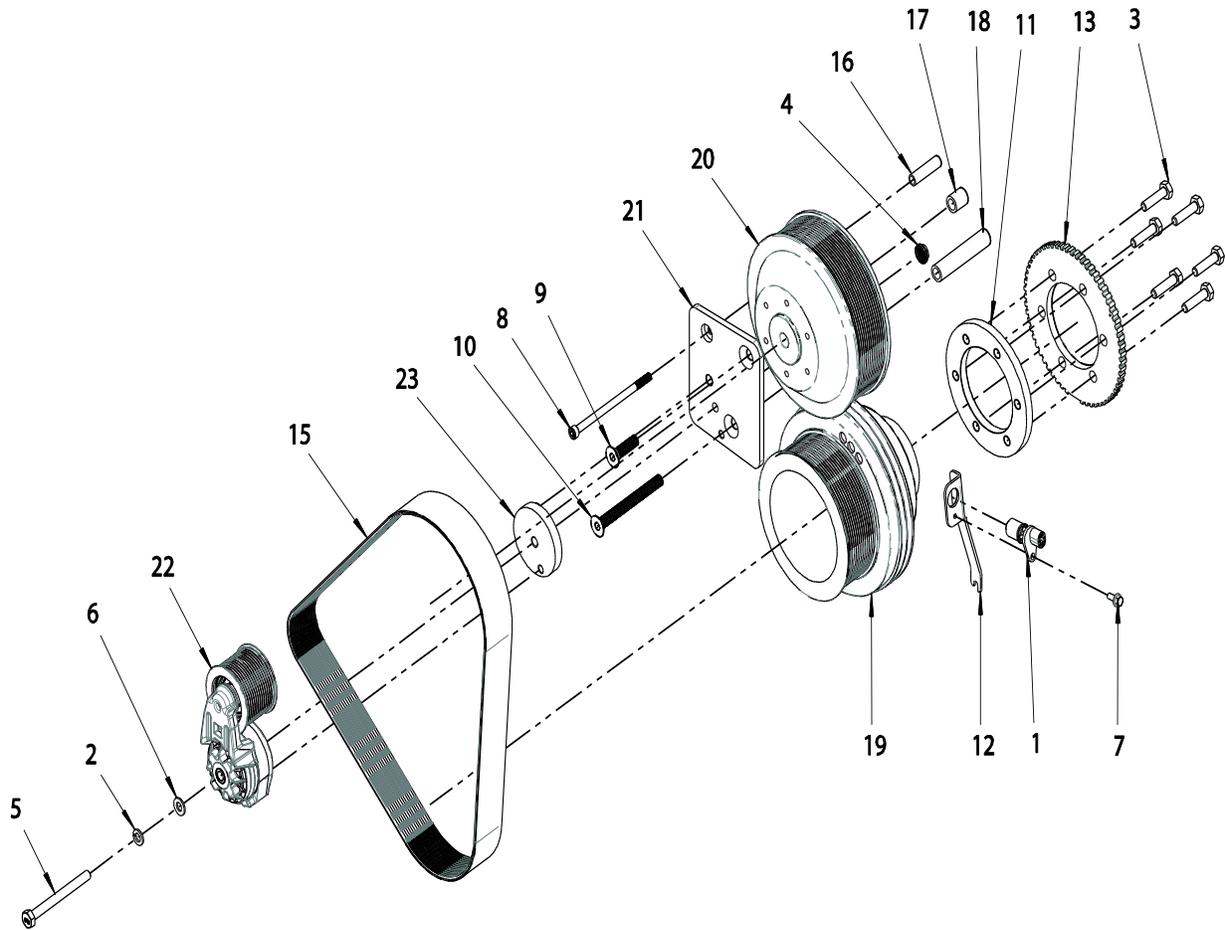
COOLANT



58030601-03

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000939	BOLT	4	
2	35000361	WASHER, LOCK	4	
3	611214	GASKET	1	IN KIT A,4,5
4	52000087	CONNECTION, WATER INLET	1	
5	610262	GASKET, THERMOSTAT	3	IN KIT A,4,5

FRONT END DRIVE SERPENTINE BELT (2014-CURRENT) CRANKSHAFT AND FAN PULLEY

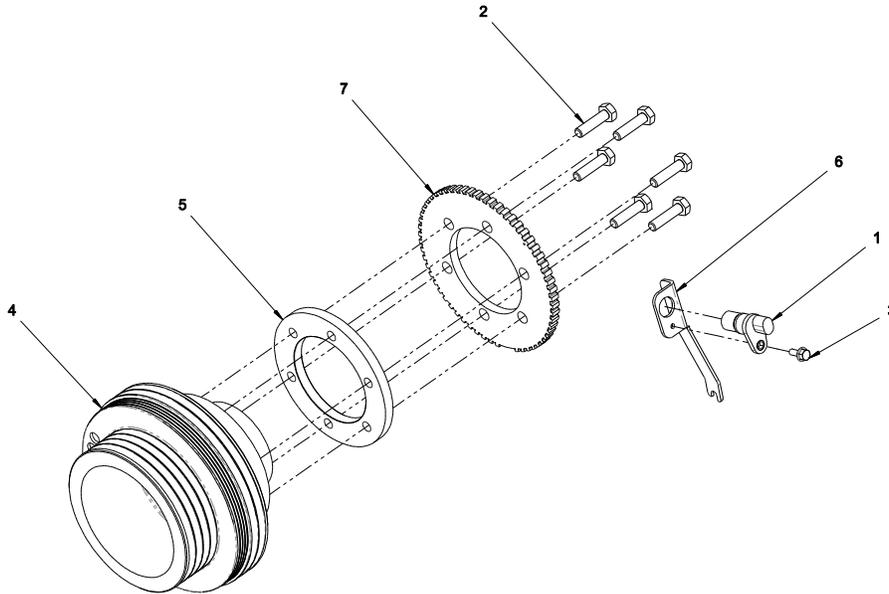


58050608-02

**FRONT END DRIVE SERPENTINE BELT
(2014-CURRENT) CRANKSHAFT AND FAN PULLEY CONT.**

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	33002062	SENSOR, CRK/SHAFT	1	
2	35000046	WASHER, LOCK	1	
3	35000151	BOLT	6	
4	35000196	NUT	1	
5	35000386	BOLT	1	
6	35000402	WASHER, FLAT	1	
7	35000530	BOLT	1	
8	35000948	BOLT	1	
9	35000983	BOLT	1	
10	35000988	BOLT	1	
11	50100020	SPACER	1	
12	50100021	BRACKET	1	
13	52500135	TIMING WHEEL-CRK	1	
NO IMAGE	53000021	BELT, ALTERNATOR	1	NOT SHOWN; IN KIT 3,4,5,
15	53000044	BELT, FAN	1	
16	53000045	SPACER	1	
17	53000046	SPACER	1	
18	53000047	SPACER	1	
19	53000048	PULLEY, CRANK	1	
20	53000049	PULLEY,FAN V SER	1	
21	53000051	BRKT, TENSIONER	1	
22	53000053	TENSIONER	1	
23	53000054	SPACER,	1	

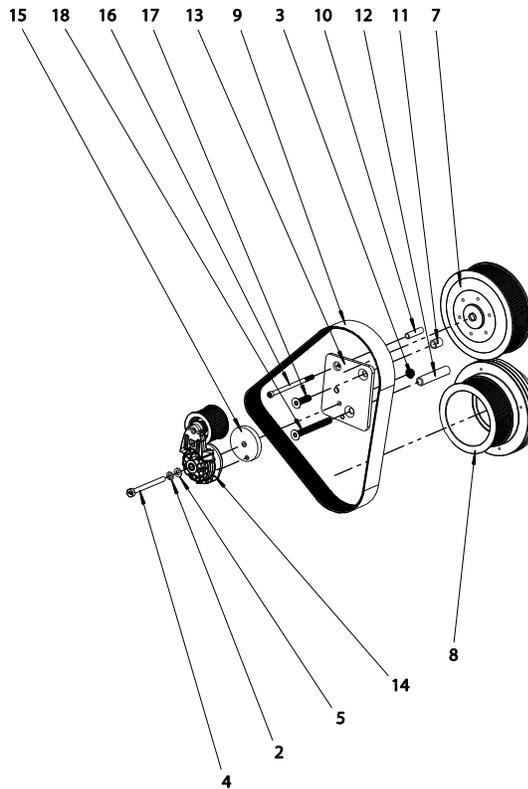
**FRONT END DRIVE V-BELT
CRANKSHAFT PULLEY (PRE 2014)**



58030613-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	33002062	SENSOR, CRK/SHAFT	1	
2	35000151	BOLT	6	
3	35000530	BOLT	1	
4	50100018	PULLEY, CRK/SHFT	1	
5	50100020	SPACER	1	
6	50100021	BRACKET	1	
7	52500135	TIMING WHEEL-CRK	1	
8	53000021	BELT, ALTERNATOR	1	NOT SHOWN; IN KIT 3,4,5
9	53000039	BELT SET	4	NOT SHOWN

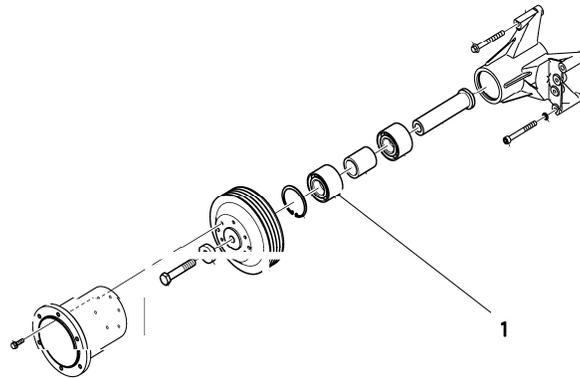
FRONT END DRIVE CONVERSION KIT V-BELT TO SERPENTINE BELT (PRE 2014)



59300070-01

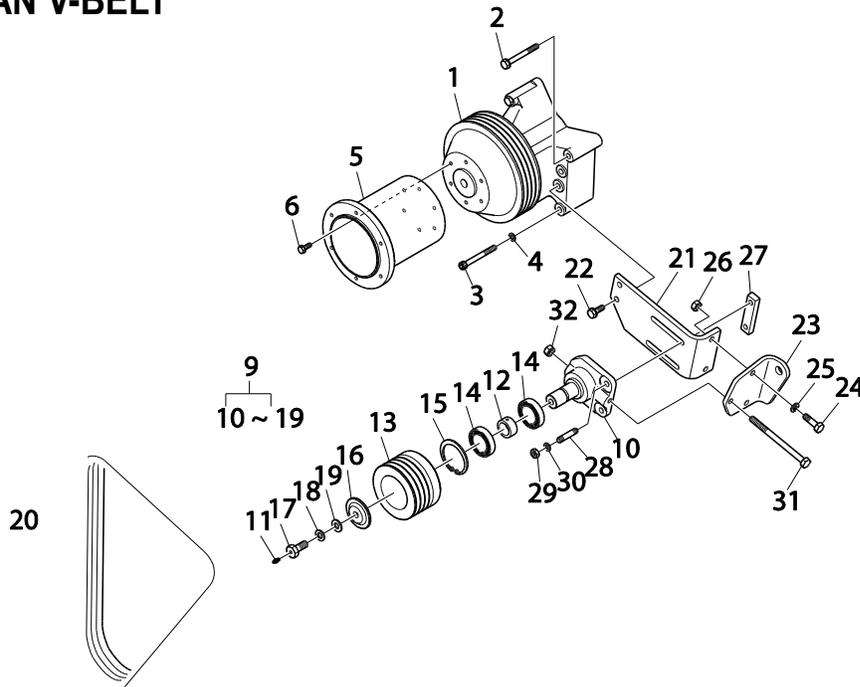
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	59300070	KIT,SERP BELT DR	1	
2	35000046	WASHER, LOCK	1	
3	35000196	NUT	1	
4	35000386	BOLT	1	
5	35000402	WASHER, FLAT	1	
7	53000049	PULLEY,FAN V SER	1	
8	53000048	PULLEY, CRANK	1	
9	53000044	BELT, FAN	1	
10	53000045	SPACER	1	
11	53000046	SPACER	1	
12	53000047	SPACER	1	
13	53000051	BRKT, TENSIONER	1	
14	53000053	TENSIONER	1	
15	53000054	SPACER,	1	
16	35000948	BOLT	1	
17	35000972	BOLT	1	
18	35000988	BOLT	1	

**FRONT END DRIVE (2014-CURRENT)
COOLING FAN PULLEY**



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	612916	ASSY, COOLING FAN PULLEY	1	

**FRONT END DRIVE (PRE 2014)
COOLING FAN V-BELT**

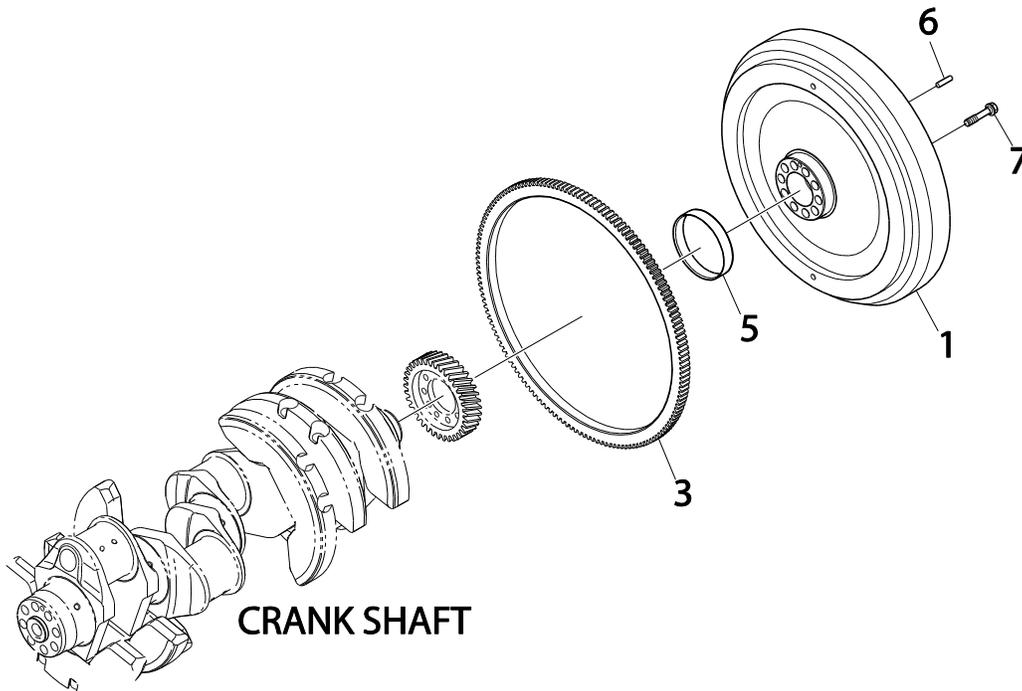


POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610952	MOUNT, FAN	1	
2	610396	BOLT	1	
3	610426	BOLT	1	
4	610452	WASHER, SPRING	1	
5	610958	FAN FLANGE	1	
6	610390	BOLT	6	
9	611117	PULLEY, IDLER	1	
10	611122	BRACKET, I/PULLEY	1	
11	613005	NIPPLE	1	
12	611107	SPACER	1	
13	NSS	PULLEY, IDLER	1	PART OF 9
14	610472	BEARING, BALL	2	
	NSS =	NOT SOLD SEPERATELY		

COOLING FAN V BELT SYSTEM (PRE 2014) CONT.

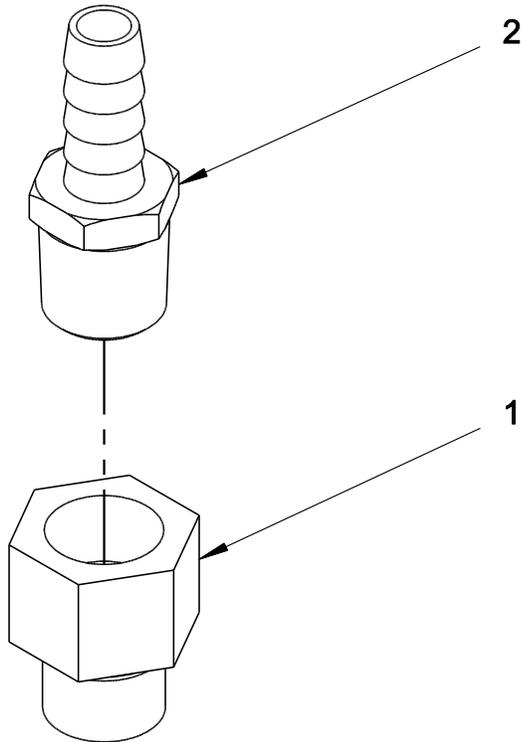
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
15	610469	RING, SNAP	1	
16	611108	SPACER	1	
17	611154	ADAPTOR	1	
18	610047	WASHER, SPRING	1	
19	610525	WASHER, SPRING	1	
20	53000039	BELT SET	4	
21	611119	BRACKET, I/PULLEY	1	
22	610402	BOLT	2	
23	611120	BRACKET, I/PULLEY	1	
24	610372	BOLT, HEX	2	
25	610146	WASHER, SPRING	2	
26	610304	NUT, HEX	2	
27	611121	BRACKET, I/PULLEY	1	
28	610029	BOLT, STUD	2	
29	610304	NUT, HEX	2	
30	610146	WASHER, SPRING	2	
31	610367	BOLT, HEX	1	
32	610444	NUT, HEX	1	

FLYWHEEL



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610738	FLYWHEEL	1	
3	610741	GEAR, RING	1	
5	610731	RING, WEAR	1	
6	611098	PIN, TAPER	1	
7	611046	BOLT	10	

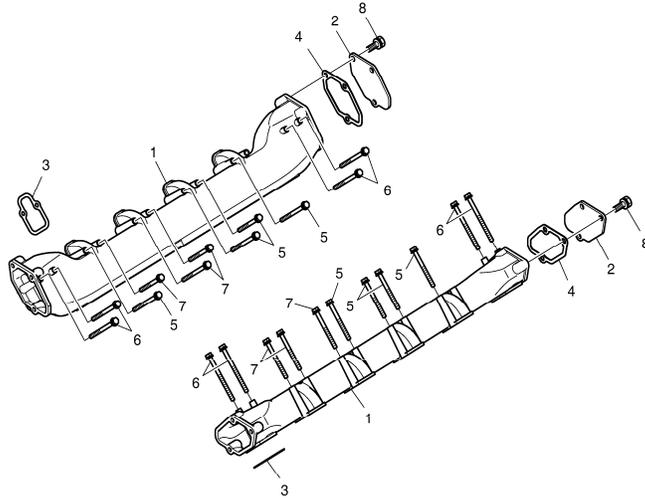
AIR BLEED



58030606-02

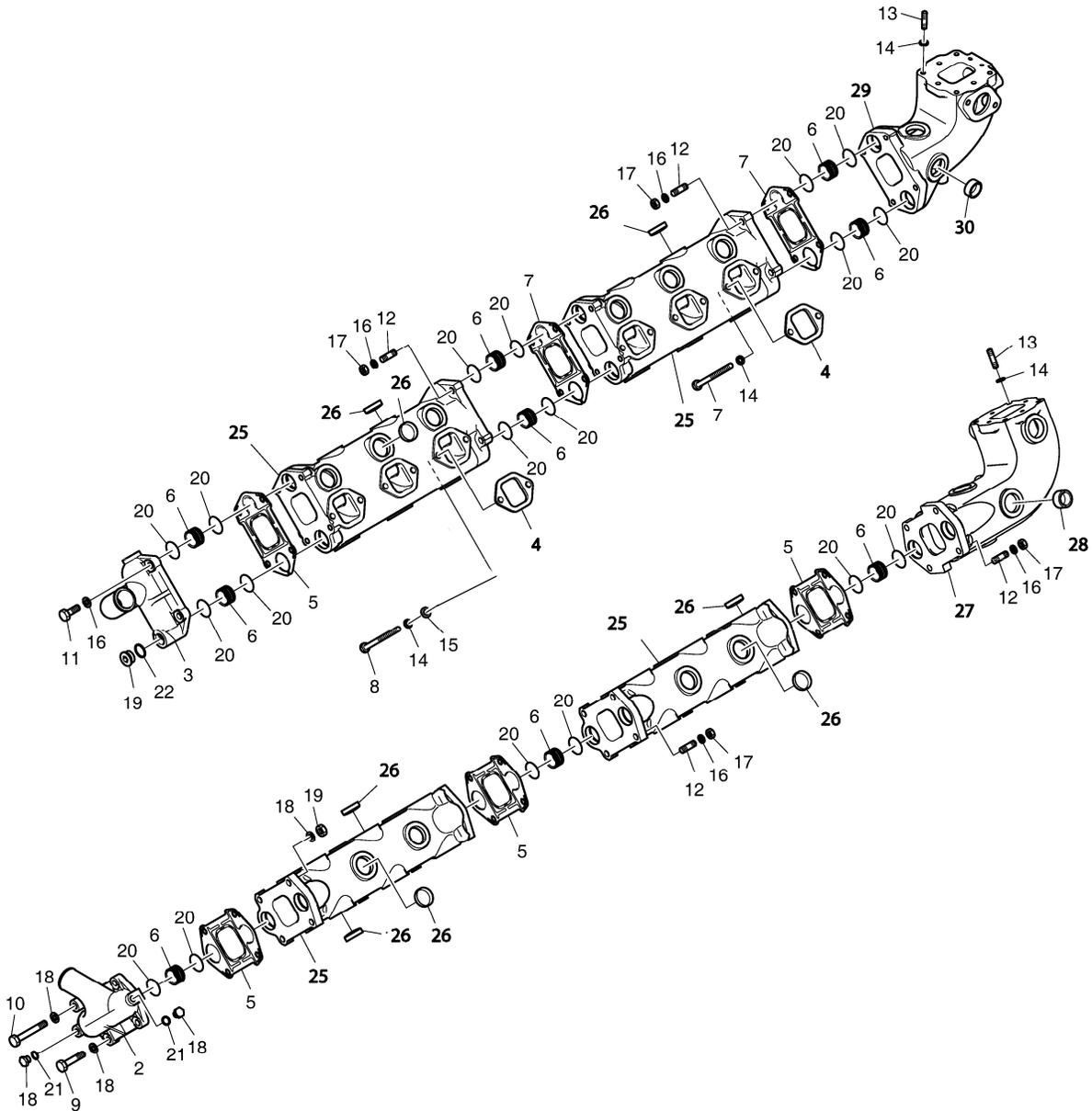
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	13000398	ADAPTER	1	
2	32500733	FITTING	1	

INTAKE MANIFOLD



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610983	INTAKE MANIFOLD ASSEMBLY	2	
2	610986	COVER, INTAKE MANIFOLD	2	
3	610992	GASKET, INTAKE MANIFOLD	12	IN KIT A,C
4	610993	GASKET	2	IN KIT A
5	610411	BOLT	8	
6	610412	BOLT	8	
7	612921	BOLT	6	
8	610297	BOLT	6	

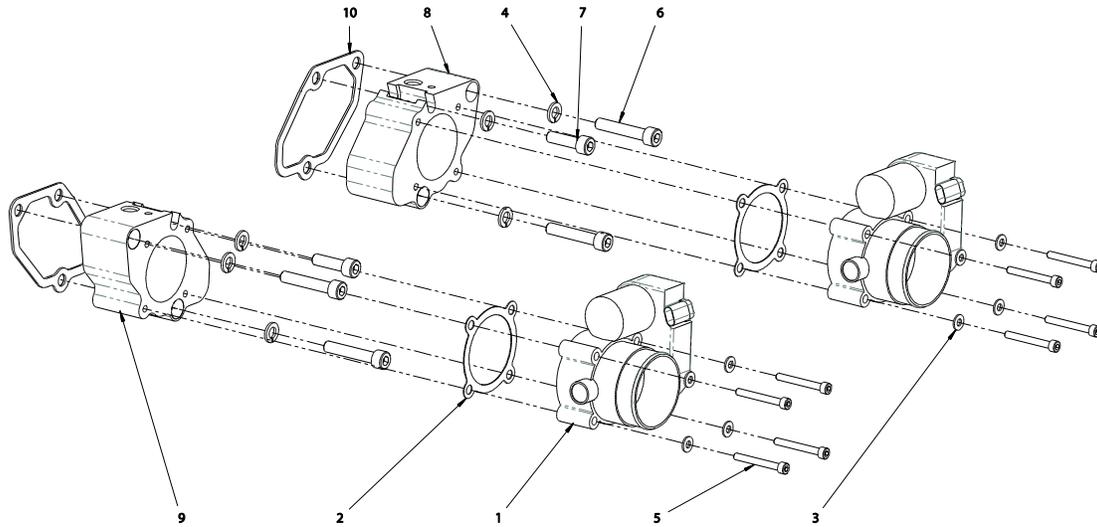
EXHAUST MANIFOLD



EXHAUST MANIFOLD CONT.

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	612771	MANIFOLD, EXHAUST ASSY	4	INC 25,26
2	610556	COVER, E/MNFLD (LH)	1	
3	610980	COVER, E/MNFLD (RH)	1	
4	610987	GASKET, EXHAUST MANIFOLD	12	IN KIT A,C
5	610557	GASKET, EXHAUST MANIFOLD	6	IN KIT A
6	610926G	PIPE, WATER	12	IN KIT A
7	610359	BOLT, HEX	19	
8	610360	BOLT, HEX	5	
9	610376	BOLT, HEX	3	
10	610378	BOLT, HEX	1	
11	610375	BOLT, HEX	4	
12	612362	STUD/BOLT F/W	16	
13	611060	BOLT, STUD	8	
14	610146	WASHER, SPRINT	32	
15	610254	WASHER	5	
16	610047	WASHER, SPRING	32	
17	610048	NUT	28	
18	610438	PLUG, SCREW	2	
19	610285	PLUG, SCREW	1	
20	610479BLK	O-RING	24	IN KIT A
21	610267	SEAL, RING	2	
22	610194	SEAL, RING	1	
25	NSS	MANIFOLD, EXHAUST	4	
26	610448	PLUG, CORE	52	
27	612913	MANIFOLD, EXHAUST (LH)	1	
28	610448	PLUG, CORE	5	
29	613002	EXHAUST MANIFOLD (RH)	1	
30	610448	PLUG, CORE	4	

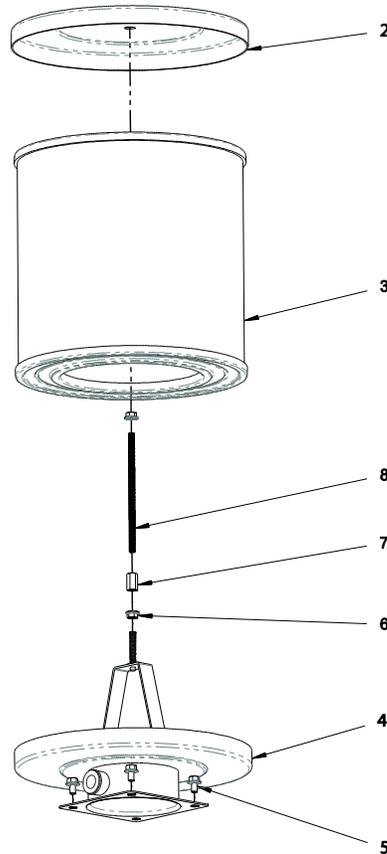
THROTTLE BODY



58030800-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32500662	BODY, THROTTLE	2	IN KIT 3,4,5
2	32500715	GASKET, MFLD APT	2	IN KIT A,3,4,5
3	32501417	WASHER	8	
4	35000046	WASHER, LOCK	6	
5	35000335	SCREW	8	
6	35000493	BOLT	2	
7	35001125	SCREW	4	
8	52500019	PLATE, THROTTLE	1	
9	52500020	PLATE, THROTTLE	1	
10	610993	GASKET, INTAKE MANIFOLD	2	IN KIT A

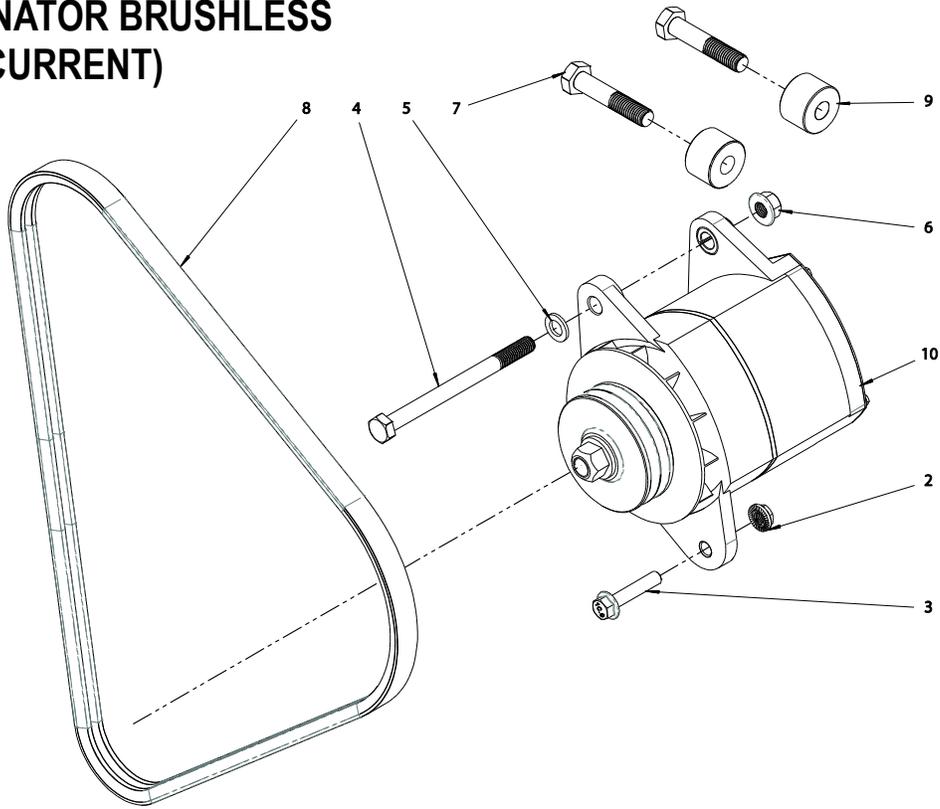
AIR FILTER



38080719-03

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
2	33500771	TOP, OPEN FILTER	2	
3	33500774	ELEMENT	2	
4	33500916	BASE, AIR CLEANER	2	
5	35000449	BOLT	8	
6	35000699	NUT	4	
7	35001007	EXTENDER, TH ROD	2	
8	35001008	ROD, THREADED	2	

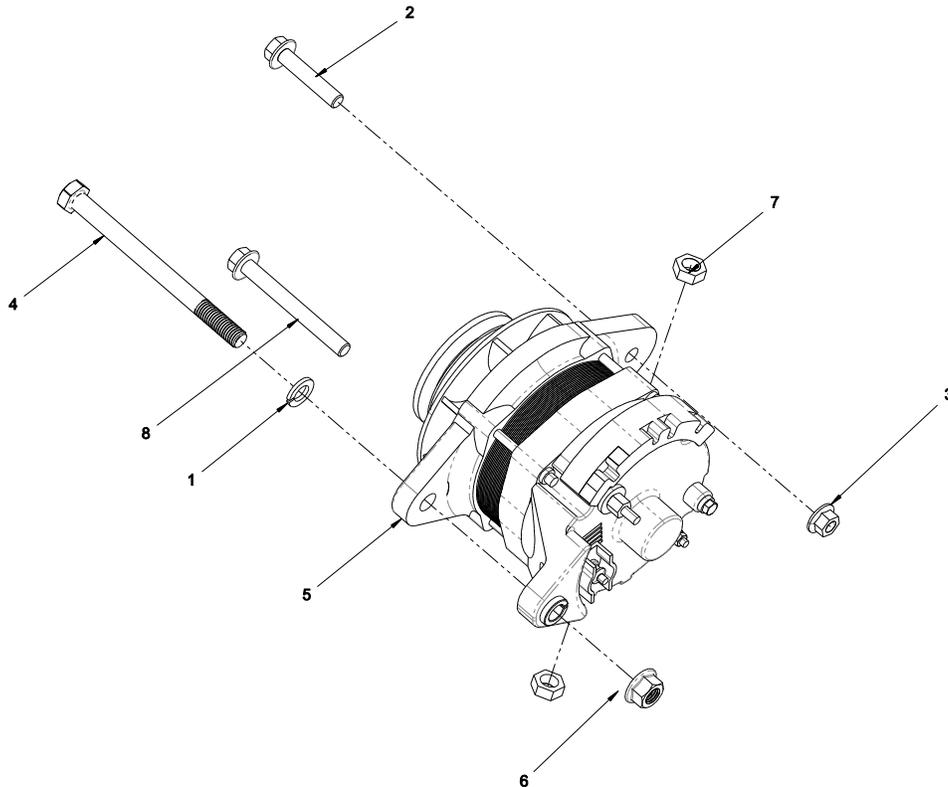
**ALTERNATOR BRUSHLESS
(2017-CURRENT)**



58030313-04

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	69000156	HARNES, JUMPER	1	NOT SHOWN
2	35000196	NUT	1	
3	35000436	SCREW	1	
4	55000025	BOLT	1	
5	35000732	WASHER	1	
6	35000973	NUT	1	
7	35001152	SCREW	2	
8	53000152	BELT, ALTERNATOR	1	IN KIT 3,4,5
9	53000157	SPACER	2	
10	53000158	ALTERNATOR, BRUSHLESS	1	

ALTERNATOR STANDARD (PRE 2017)



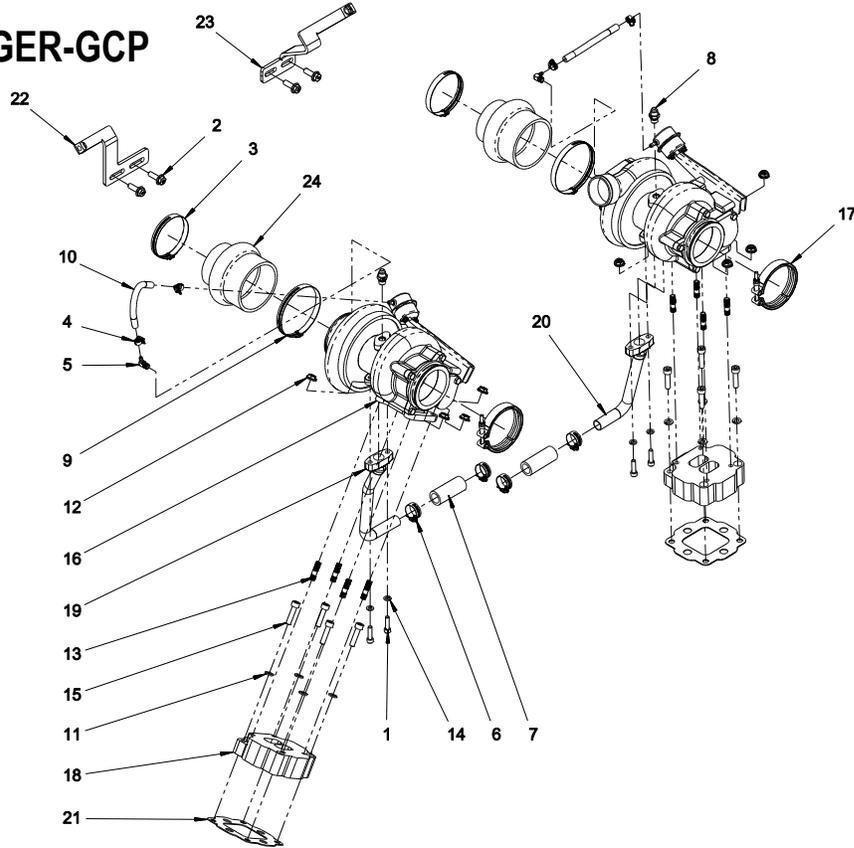
58040302-03

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000079	WASHER, LOCK	1	
2	35000436	BOLT	1	
3	35000548	NUT	1	
4	35000690	BOLT	1	
5	53000017	ALTERNATOR	1	
6	55000010	NUT	1	
7	35000045	NUT	2	
8	35000989	BOLT	1	

ALTERNATOR (BRUSHLESS) RETROFIT

9	53000158	ALTERNATOR, BRUSHLESS (RETROFIT)	1	NOT SHOWN
10	53000152	BELT, BRUSHLESS (RETROFIT)	1	NOT SHOWN
11	69000156	JUMPER, ALTERNATOR (RETROFIT)	1	NOT SHOWN

TURBOCHARGER-GCP



58050802-07

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000939	BOLT	4	
2	35000949	BOLT	4	
3	32000138	CLAMP	2	
4	32500208	CLAMP	4	
5	32500247	FITTING	2	
6	32500318	CLAMP	4	
7	32500595-8	OIL DRAIN HOSE (8 IN)	1	
8	32500597	FITTING	2	
9	32500622	CLAMP	2	
10	32500623-12	HOSE (12 IN)	2	

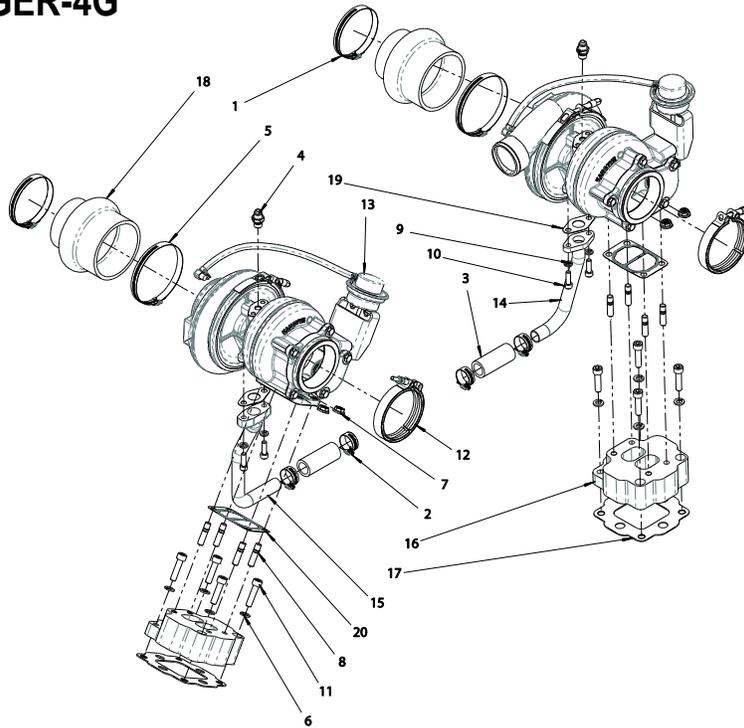
TURBOCHARGER CONT.

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
11	35000046	WASHER	8	
12	35000196	NUT	8	
13	35000302	STUD	8	
14	35000361	WASHER	4	
15	35000692	BOLT	8	
16	58050803	TURBOCHARGER (MASTER)	1	
16	58050804	TURBOCHARGER (SLAVE)	1	
17	52500074	CLAMP	2	
18	53500017	ADAPTER	2	
19	53500022	TUBE	1	
20	53500023	TUBE	1	
21	53500035	GASKET	2	IN KIT A
22	53500067	ADAPTER, BRACKET	1	
23	53500068	ADAPTER, BRACKET	1	
24	53500075	HOSE	2	
25	106588	PIN, WASTEGATE	1	NOT SHOWN
26	106614	GASKET, TURBO	2	NOT SHOWN; IN KIT A
27	109870	KIT, MTG GASKETS	1	NOT SHOWN
28	106565	WASTEGATE	1	NOT SHOWN
29	33500282	GASKET, OIL DRAIN	2	NOT SHOWN; IN KIT A

TURBOCHARGER RETROFIT

30	59300105	KIT, TURBO RETROFIT	1	NOT SHOWN
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TURBOCHARGER-4G



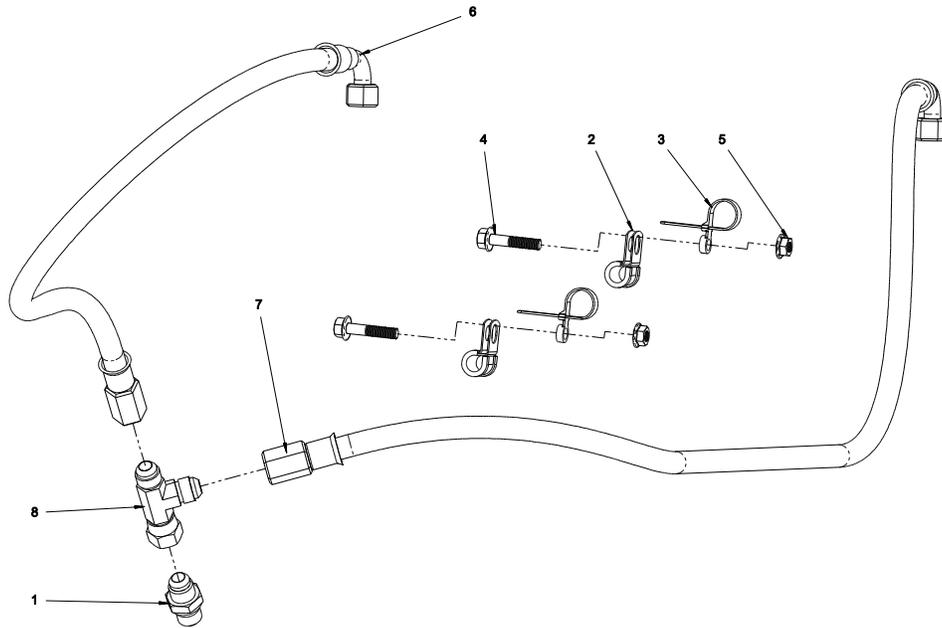
58050808-03

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32000138	CLAMP, HOSE	2	
2	32500318	CLAMP, HOSE	4	
3	32500595-7	HOSE, OIL DRAIN (7 IN)	1	
4	32500597	FITTING,OIL SPLY	2	
5	32500622	CLAMP	2	
6	35000046	WASHER, LOCK	8	
7	35000196	NUT	8	
8	35000302	STUD	8	
9	35000361	WASHER, LOCK	4	
10	35000754	BOLT	4	

TURBOCHARGER 4G CONT.

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
11	35000692	BOLT	8	
12	52500074	CLAMP	2	
13	58900104	TURBOCHARGER (MASTER)	1	
13	58900105	TURBOCHARGER (SLAVE)	1	
14	52500186	TUBE, OIL FRAIN	1	
15	53500005	OIL DRAIN TUBE	1	
16	53500013	ADAPTOR, ELBOW	2	
17	53500035	GASKET, TURBO.	2	IN KIT A
18	53500075	HOSE, HUMP REDUCER	2	
19	53500108	GASKET, TURBO OIL DRAIN	2	IN KIT A
20	53500113	GASKET, T3 TURBO INLET	2	IN KIT A
21	32500597	FITTING, OIL SPLY	1	NOT SHOWN
22	108823	WASTEGATE	1	NOT SHOWN
23	108826	ASSY, ACTUATOR	1	NOT SHOWN
24	108824	DRIVE ARM AND PIN ASSY	1	NOT SHOWN
25	108825	BUSHING	1	NOT SHOWN
26	108827	HOSE, ACTUATOR	1	NOT SHOWN
27	108828	BRACKET, ACTUATOR	1	NOT SHOWN

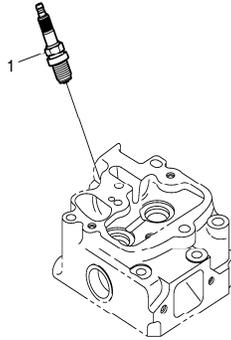
TURBO OIL FEED LINES



58030802-01

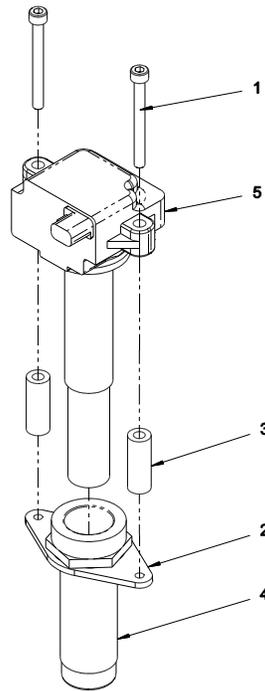
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32500597	FITTING, OIL SPLY	1	
2	32501432	CLAMP	2	
3	33000773	CLAMP	2	
4	35000578	BOLT	2	
5	35000699	NUT	2	
6	53500007	HOSE, LH V SERIES	1	
7	53500008	HOSE, RH V SERIES	1	
8	53500021	FITTING, SWIVEL	1	

SPARK PLUG



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	610344	PLUG, SPARK	12	IN KIT 1,2,3, 4,

IGNITION COIL



58030306-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000685	BOLT	2	
2	53000002	FLANGE, IGN COIL	1	
3	53000003	SPACER	2	
4	53000006	MOUNT	1	
5	53000041	COIL, IGN W/BOOT	1	IN KIT 4,5
6	53000008	BOOT, IGN COIL	1	IN KIT 3

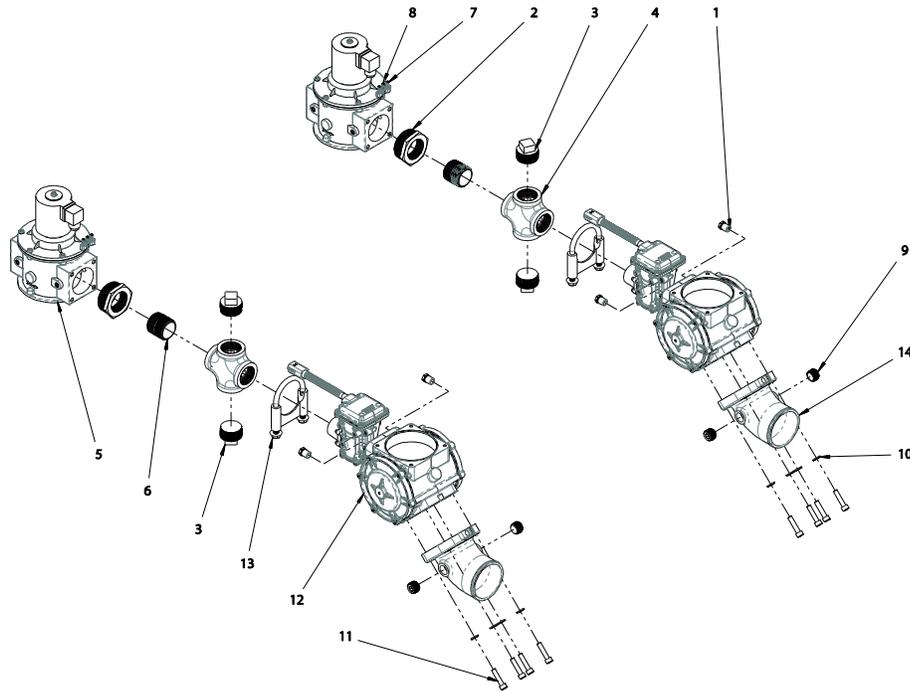
IGNITION HARNESS

NO IMAGE AVAILABLE

58050300-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	52500157	HARNESS, IGNITION	2	

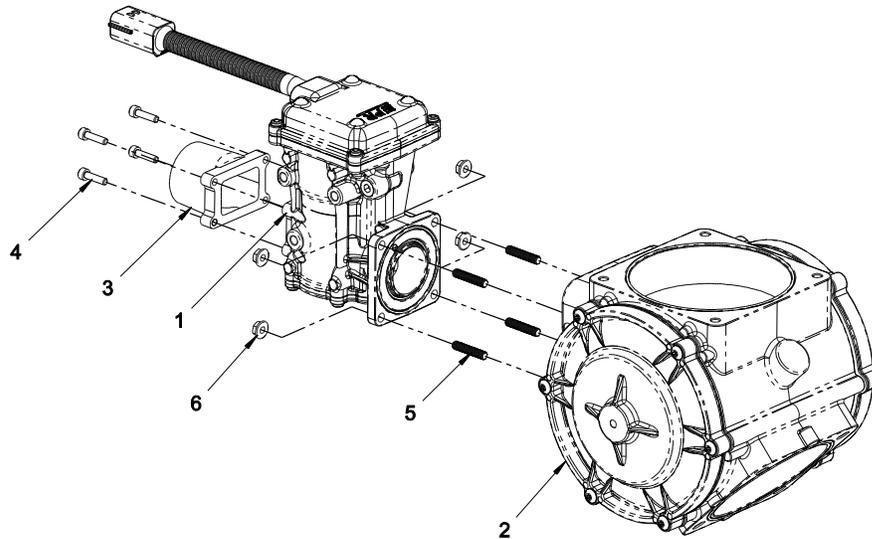
FUEL



58040402-07

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32500233	PLUG	4	
2	32501753	BUSHING, REDUCER	2	
3	32502077	FITTING	4	
4	32502078	FITTING	2	
5	32502220	VALVE L/O	2	
6	32502769	NIPPLE	2	
7	33001072	TERMINAL	4	
8	33001073	TERMINAL	2	
9	33500486	PLUG, PIPE	4	
10	35000361	WASHER, LOCK	8	
11	35000405	BOLT	8	
12	38080463	EPR & MIXER KIT	2	
13	52500030	CLAMP, U BOLT	2	
14	53500066	ADAPTOR, MIXER	2	

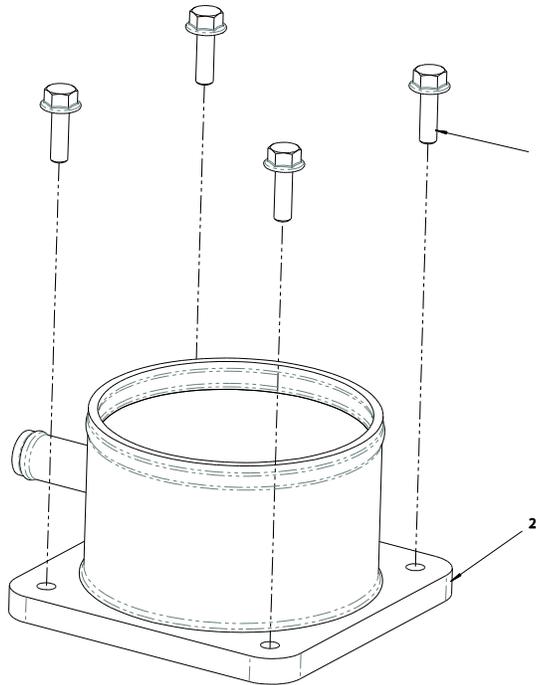
EPR AND MIXER (PER ENGINE)



38080463-01

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32501671	EPR	2	
2	32501690	MIXER *	2	SEE BELOW
3	32501779	ADAPTER	2	
4	35000674	BOLT	8	
5	35000680	STUD	8	
6	35000681	NUT	8	
*	106823	MIXER REPAIR KIT	2	

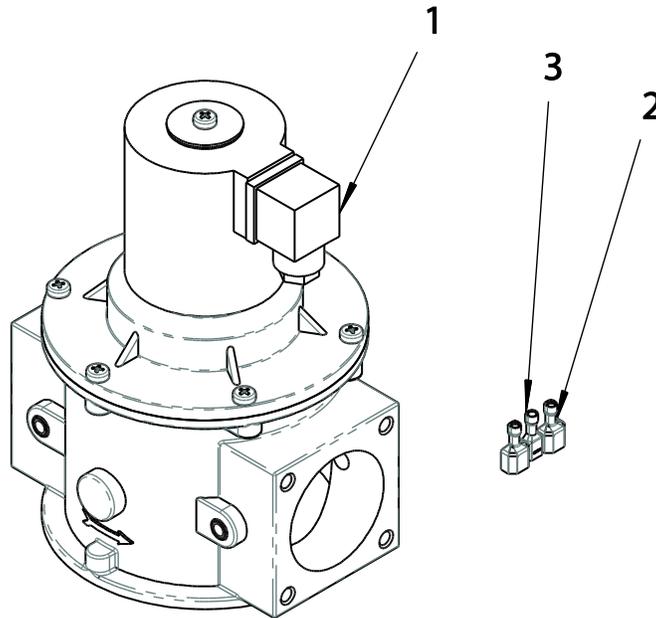
MIXER TO AIR FILTER ADAPTER



58050406-01

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000696	SCREW	4	
2	53000027	ADAPTER, MIXER INLET	1	

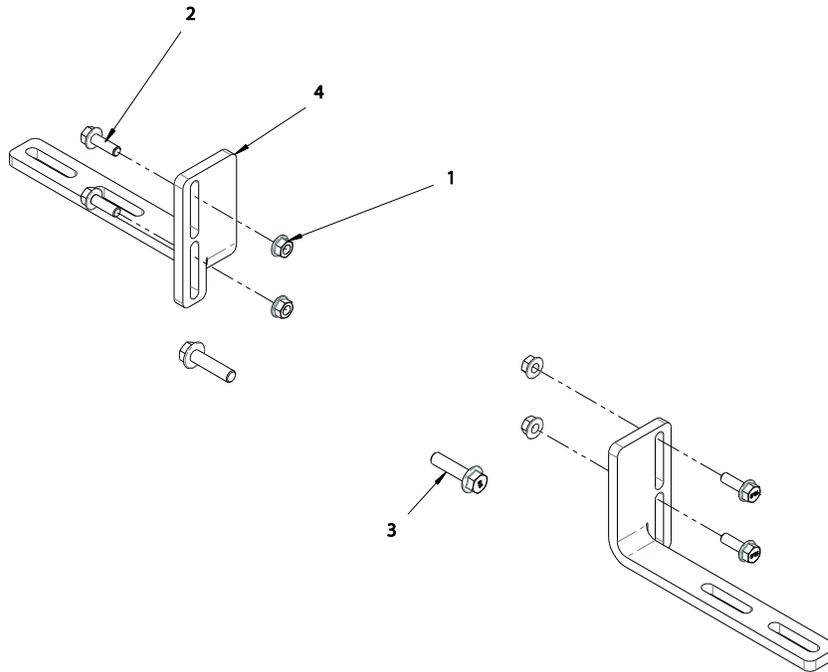
LOCK OFF VALVE



58040406-01

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32502220	VALVE, LOCK OFF	2	
2	33001072	TERMINAL	4	
3	33001073	TERMINAL	2	

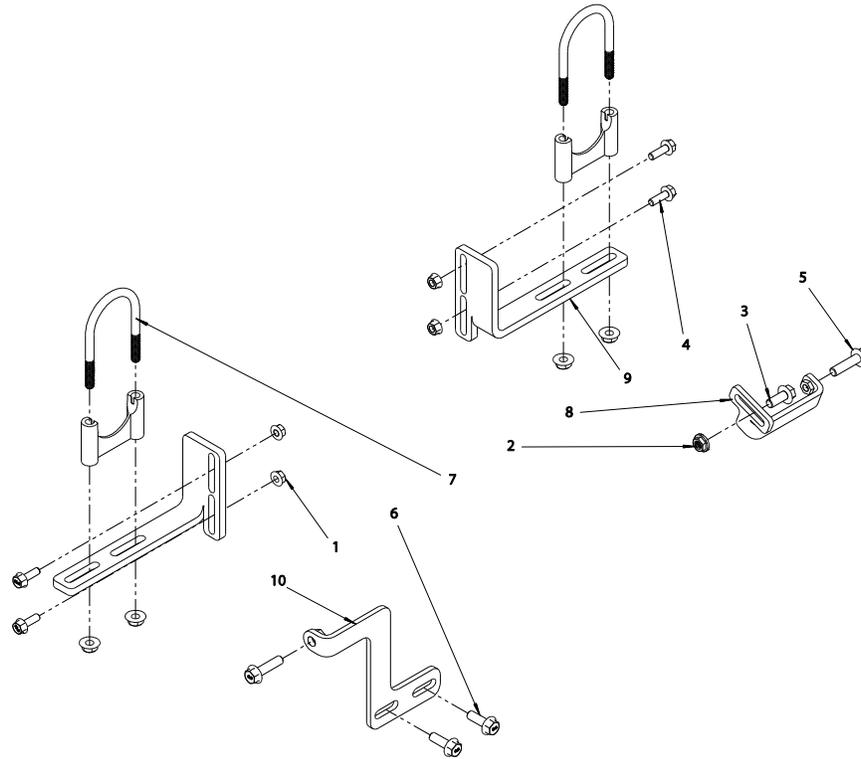
FUEL SYSTEM MOUNT



58030406-04

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000021	NUT, FLANGE	7	
2	35000452	BOLT	7	
3	35000949	BOLT	2	
4	52500182	BRACKET, FUEL SUPPORT	2	
5	35000426	WASHER	4	NOT SHOWN

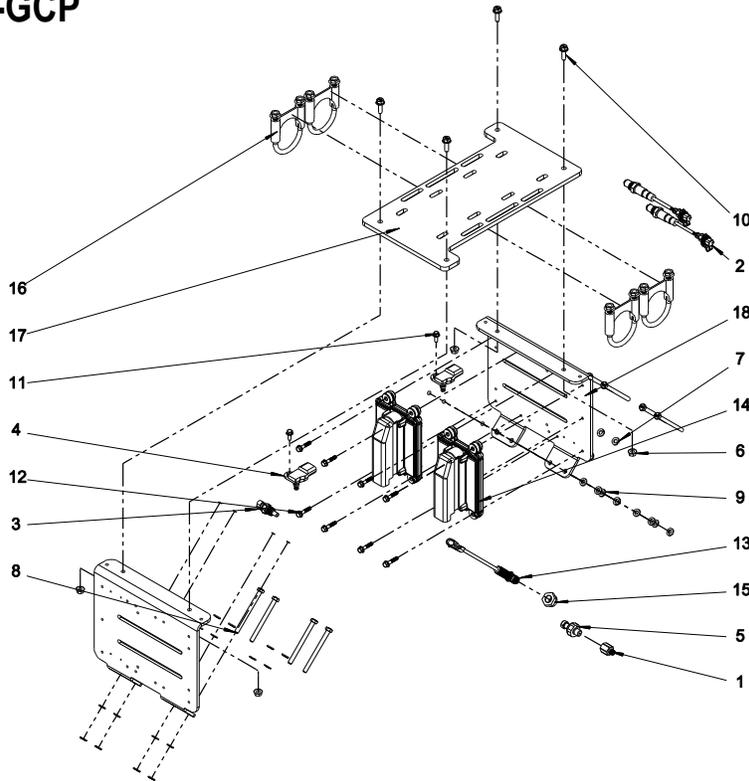
FUEL SYSTEM MOUNT-4G



58050402-01

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000021	NUT, FLANGE	4	
2	35000196	NUT	1	
3	35000368	BOLT	1	
4	35000452	BOLT	4	
5	35000707	BOLT	2	
6	35000949	BOLT	2	
7	52500030	CLAMP, U BOLT	2	
8	52500174	BRACKET, FUEL ELBOW SUPPORT	1	
9	52500182	BRACKET, FUEL SUPPORT	2	
10	52500185	BRACKET, LEFT MIXER SUPPORT	1	

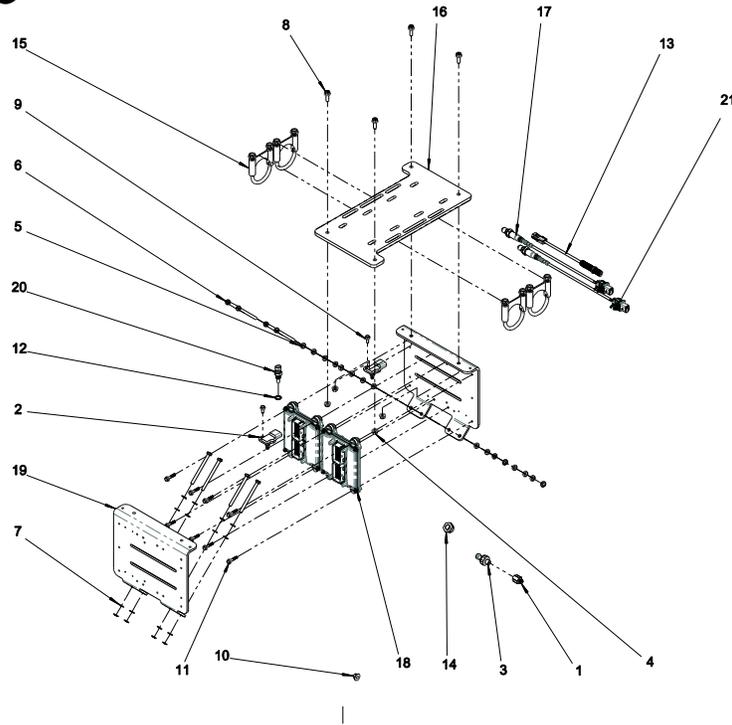
ELECTRICAL-GCP



58030309-09

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32501149	ADAPTOR, PIPE	1	
2	32501267	SENSOR, O2 (Post)	4	IN KIT 3,4,5
3	33000376	SENSOR, COOLANT	1	
4	33000841	SENSOR, T MAP	4	
5	33001415	SENDER, O/PRESS	1	
6	35000021	NUT, FLANGE	6	
7	35000361	WASHER, LOCK	8	
8	35000377	BOLT	8	
9	35000426	WASHER, FLAT	24	
10	35000452	BOLT	4	
11	35000530	BOLT	4	
12	35000578	BOLT	8	
13	38030359	MAG PICK UP	1	
14	CALL FOR INFO	CONTROLLER, GCP	2	
15	52500022	FITTING	1	
16	52500030	CLAMP, U BOLT	4	
17	52500055	BRACKET	1	
18	53000093	BRACKET, ECM	2	

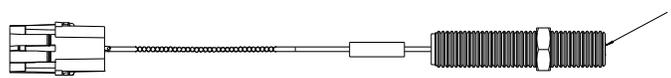
ELECTRICAL-4G



58030312-01

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32501149	ADAPTOR, PIPE	1	
2	33000841	SENSOR, T MAP	4	
3	33001415	SENDER, O/PRESS	1	
4	35000021	NUT, FLANGE	6	
5	35000361	WASHER, LOCK	8	
6	35000377	BOLT	8	
7	35000426	WASHER, FLAT	24	
8	35000452	BOLT	4	
9	35000530	BOLT	4	
10	35000548	NUT	1	
11	35000578	BOLT	8	
12	35001153	WASHER	1	
13	38030359	KIT, MAG PICK UP	1	
14	52500022	FITTING	1	
15	52500030	CLAMP, U BOLT	4	
16	52500055	BRACKET	1	
17	53000058	SENSOR, O2	1	
18	CALL FOR INFO	CONTROLLER, 4G HD	2	
19	53000093	BRACKET, ECM	2	
20	53000155	SENSOR, COOLANT	1	
21	32501267	SENSOR, O2	1	IN KIT 3,4,5

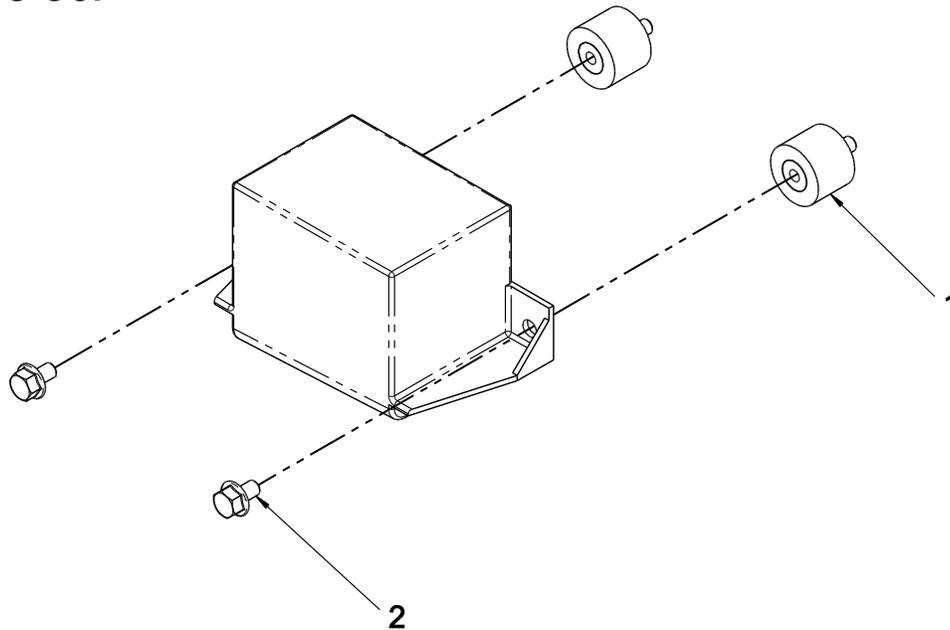
MAGNETIC PICK



38030359-04

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	38030359	PICK UP, MAGNETIC W/CONNECTOR	1	

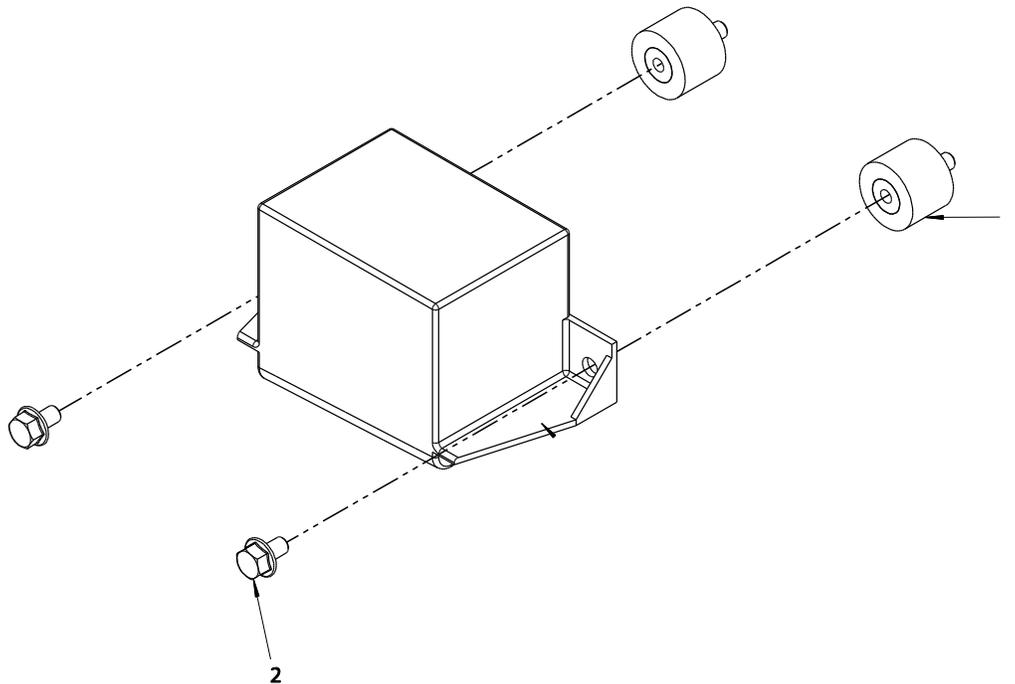
HARNESS-GCP



58030307-03

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32500899	ISOLATOR	2	
2	35000449	BOLT	2	
NO IMAGE	52500163	HARNESS, MASTER (RH)	1	NOT SHOWN
NO IMAGE	52500164	HARNESS, SLAVE (LH)	1	NOT SHOWN
		HARNESS PARTS		
	107095	24V RELAY-RECTANGLE	1	
	107096	24V RELAY-SQUARE	1	
	46243	50 AMP MAXI FUSE	1	
	46253	5 AMP MINI FUSE	1	
	46257	20 AMP MINI FUSE	2	
	46240	20 AMP MAXI FUSE	1	
		MISC. PARTS		
	101554	DIAGNOSTIC ECOM CABLE	1	

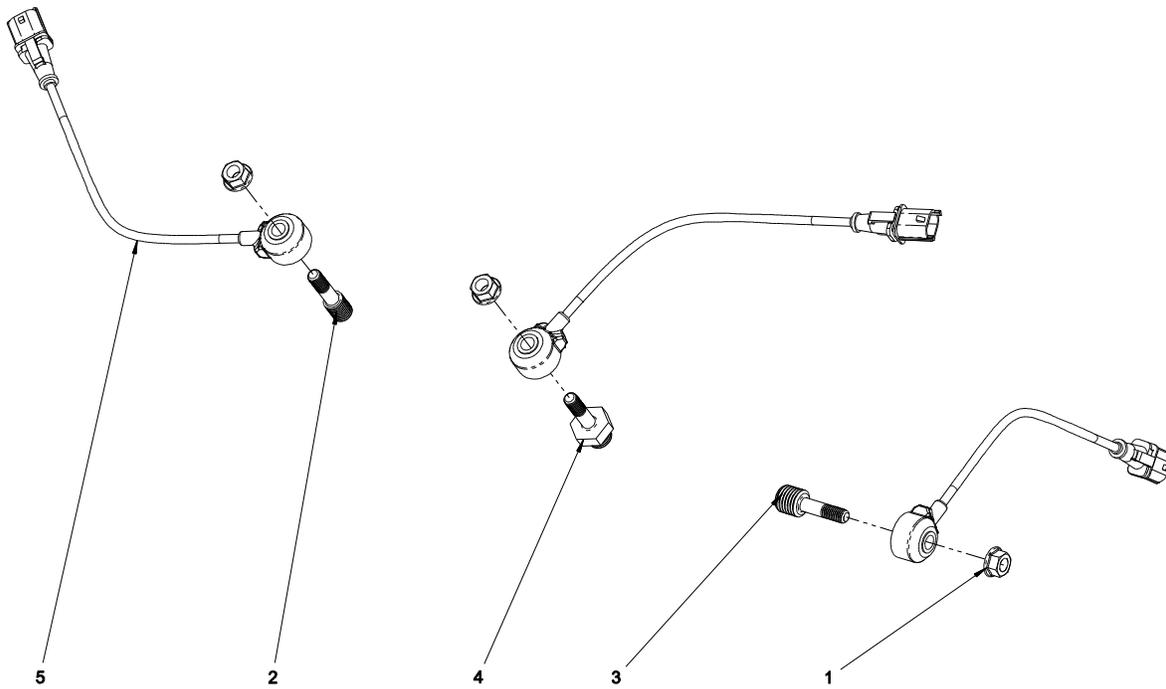
HARNESS-4G



58030315-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32500899	ISOLATOR, METRIC	2	
2	35000449	SCREW	2	
NO IMAGE	53000206	HARNESS, MASTER	1	NOT SHOWN
NO IMAGE	53000203	HARNESS, SLAVE	1	NOT SHOWN
NO IMAGE	35000694	SCREW	1	NOT SHOWN

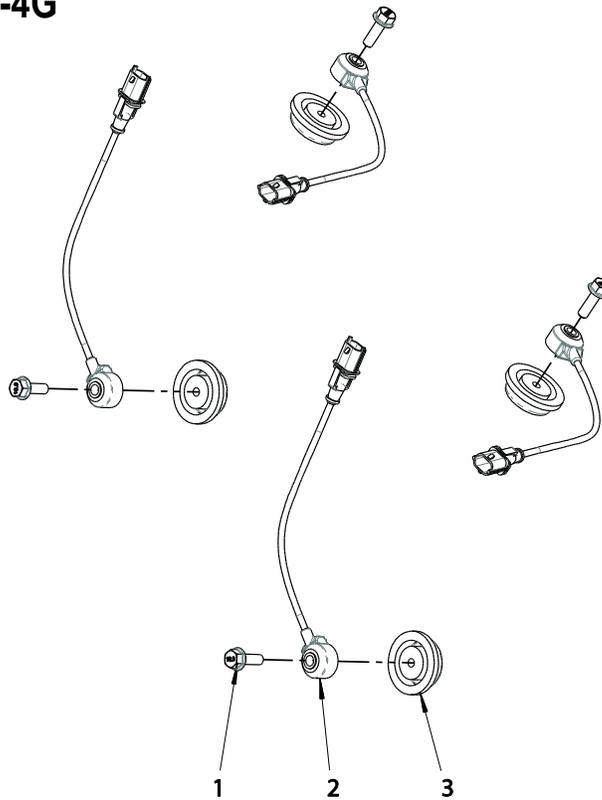
KNOCK SENSOR-GCP



58040300-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000021	NUT, FLANGE	3	
2	52500075	STUD	1	
3	52500077	STUD	1	
4	52500078	KNOCKSTUD	1	
5	53000011	SENSOR. KNOCK	3	

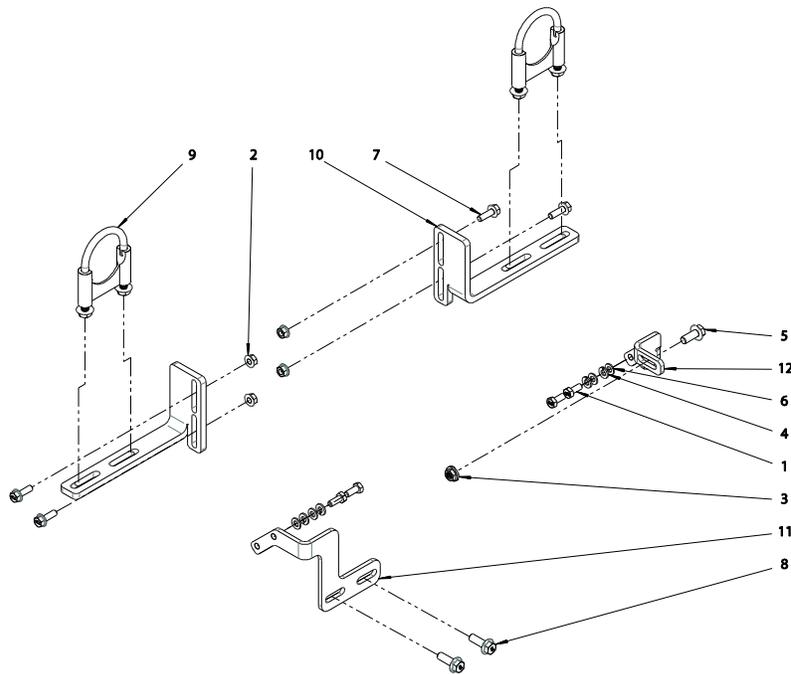
KNOCK SENSOR-4G



58030314-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000452	SCREW	4	
2	53000011	SENSOR, KNOCK	4	
3	53000204	ADAPTER, FREEZE PLUG	4	

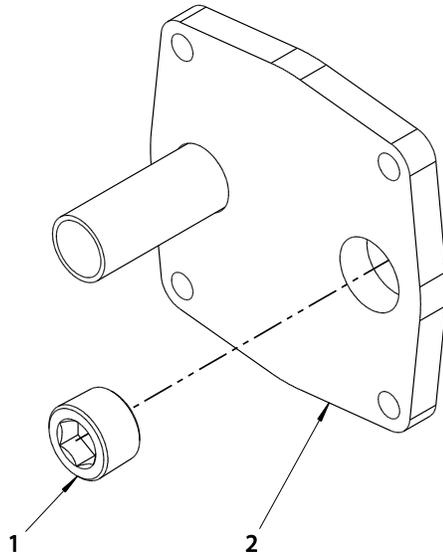
MIXER SUPPORT



58030415-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000018	BOLT	4	
2	35000021	NUT, FLANGE	4	
3	35000196	NUT	1	
4	35000361	WASHER, LOCK	4	
5	35000368	BOLT	1	
6	35000426	WASHER, FLAT	4	
7	35000452	BOLT	4	
8	35000949	BOLT	2	
9	52500030	CLAMP, U BOLT	2	
10	52500182	BRACKET, FUEL SUPPORT	2	
11	53500203	BRACKET, LEFT MIXER SUPPT	1	
12	53500204	BRACKET, RIGHT MIXER SUPPT	1	

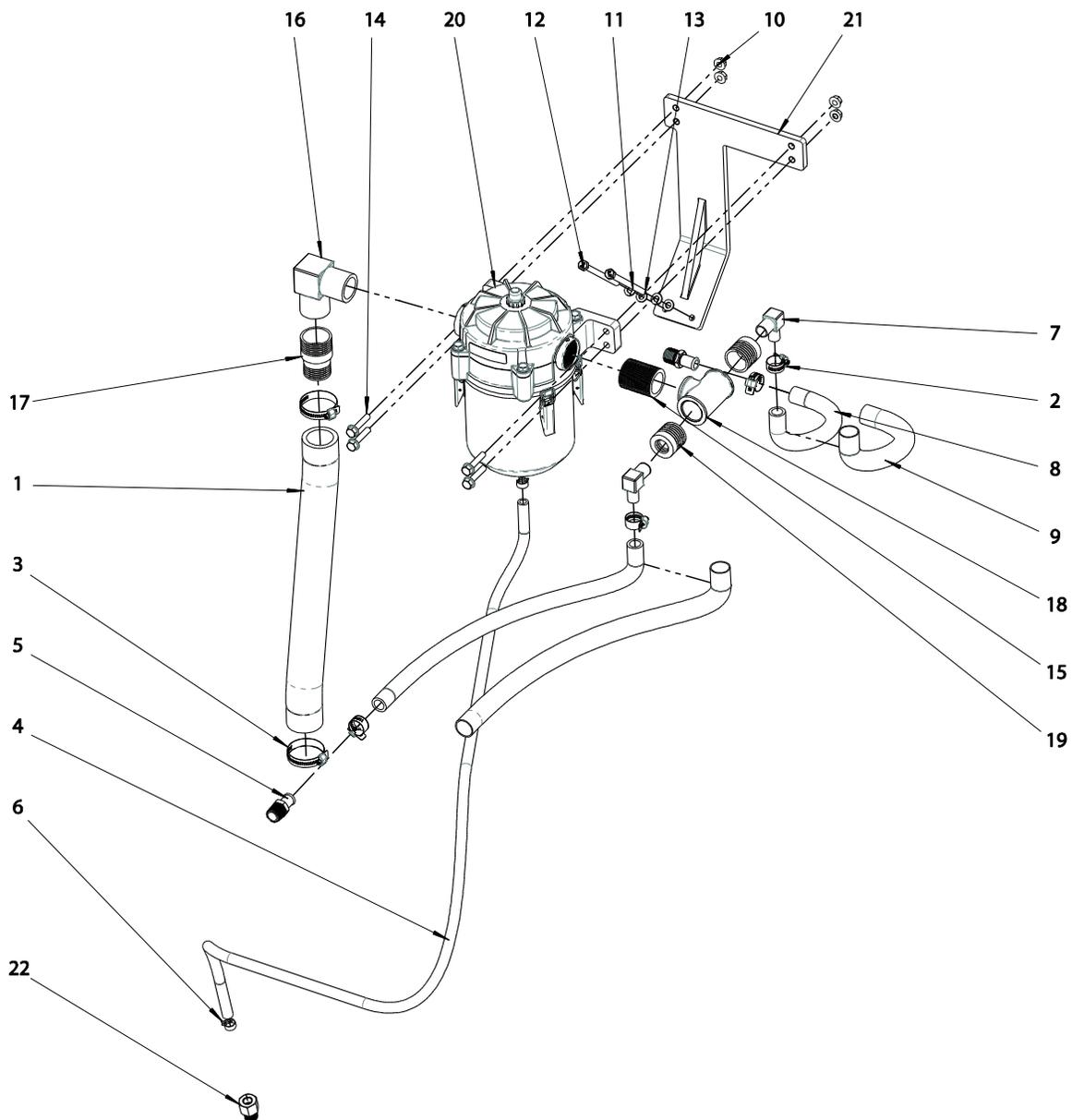
OIL DRAIN PLATE



58010421-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32501766	PLUG	1	
2	52500218	PLATE, TURBO OIL DRAIN	1	

CRANKCASE VENT-CCV

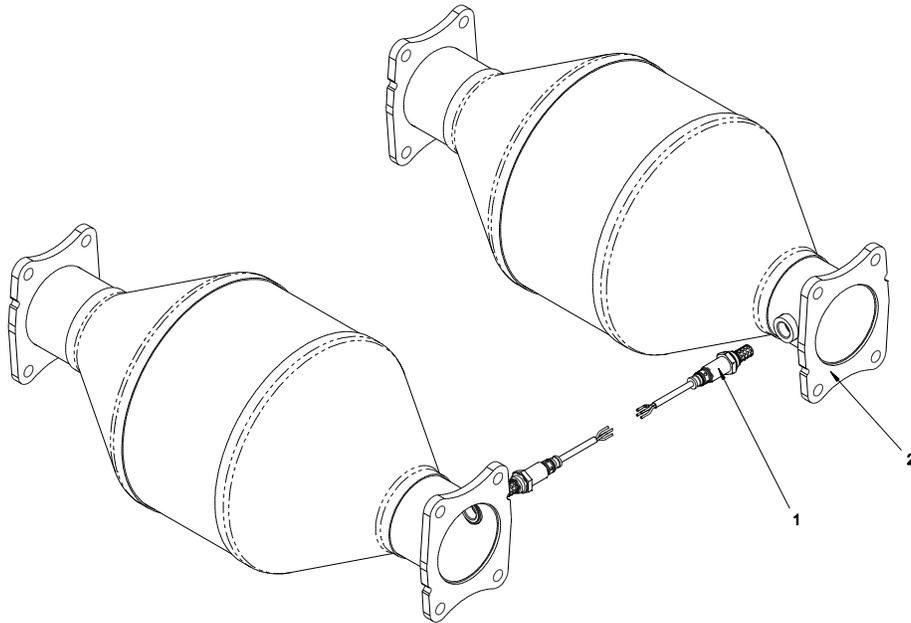


58030806-14

CRANKCASE VENT-CCV CONT.

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	12000469-16	HOSE, COOLANT (16 IN)	1	
2	32000148	CLAMP, HOSE	4	
3	32000626	CLAMP	2	
4	32500135-62	HOSE, CARB-PCV (62IN)	1	
5	F4-16	FITTING	2	
6	32501134	CLAMP	2	
7	32501182	FITTING	2	
8	32501647-35	HOSE, VAPOR (35 IN)	1	
9	32502451-41	INSULATION, JACK (41 IN)	1	
10	35000021	NUT, FLANGE	4	
11	35000361	WASHER, LOCK	2	
12	35000400	BOLT	2	
13	35000426	WASHER, FLAT	2	
14	35000712	BOLT	4	
15	52500122	NIPPLE	1	
16	52500123	ELBOW STREET	1	
17	52500124	ADAPTOR	1	
18	52500125	TEE	1	
19	52500126	BUSHING	2	
20	53500061	CANISTER	1	
21	53500063	BRACKET, CCV MNT	1	
22	53500121	BUSHING, REDUCER	1	
NO IMAGE	107127	FILTER, CCV	1	IN KIT 3,4,5

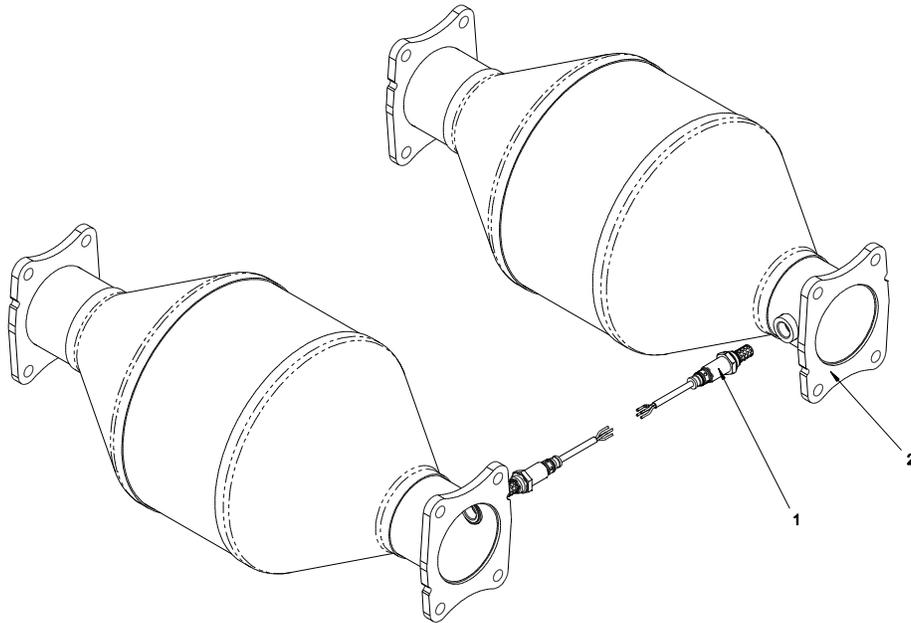
CATALYTIC CONVERTER-4G



58050801-07

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32501267	SENSOR, O2 (Post)	2	IN KIT 3,4,5
2	38901309	CATALYST, INLINE	2	
3	33500805	GASKET	4	Not Shown: IN KIT A
4	53000058	SENSOR, O2 (PRE)	2	Not Shown; IN KIT 3,4,5

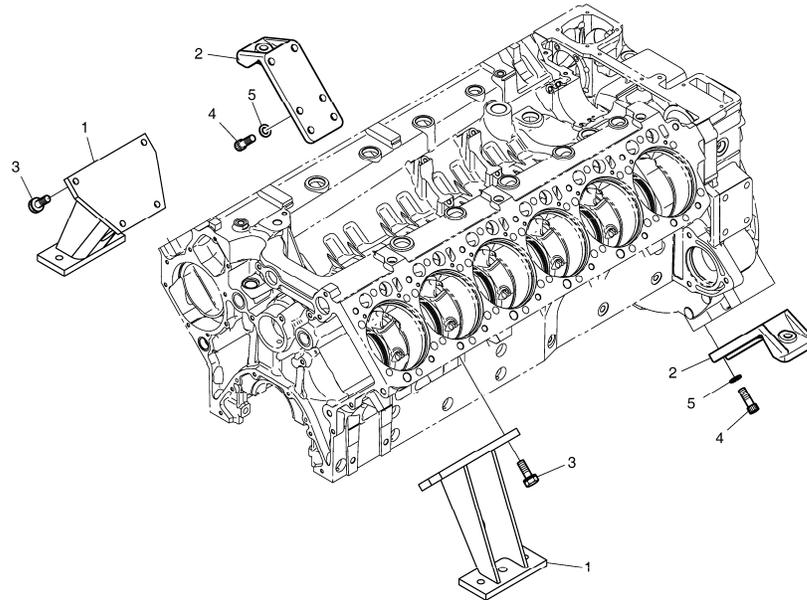
CATALYTIC CONVERTER-GCP



58050801-07

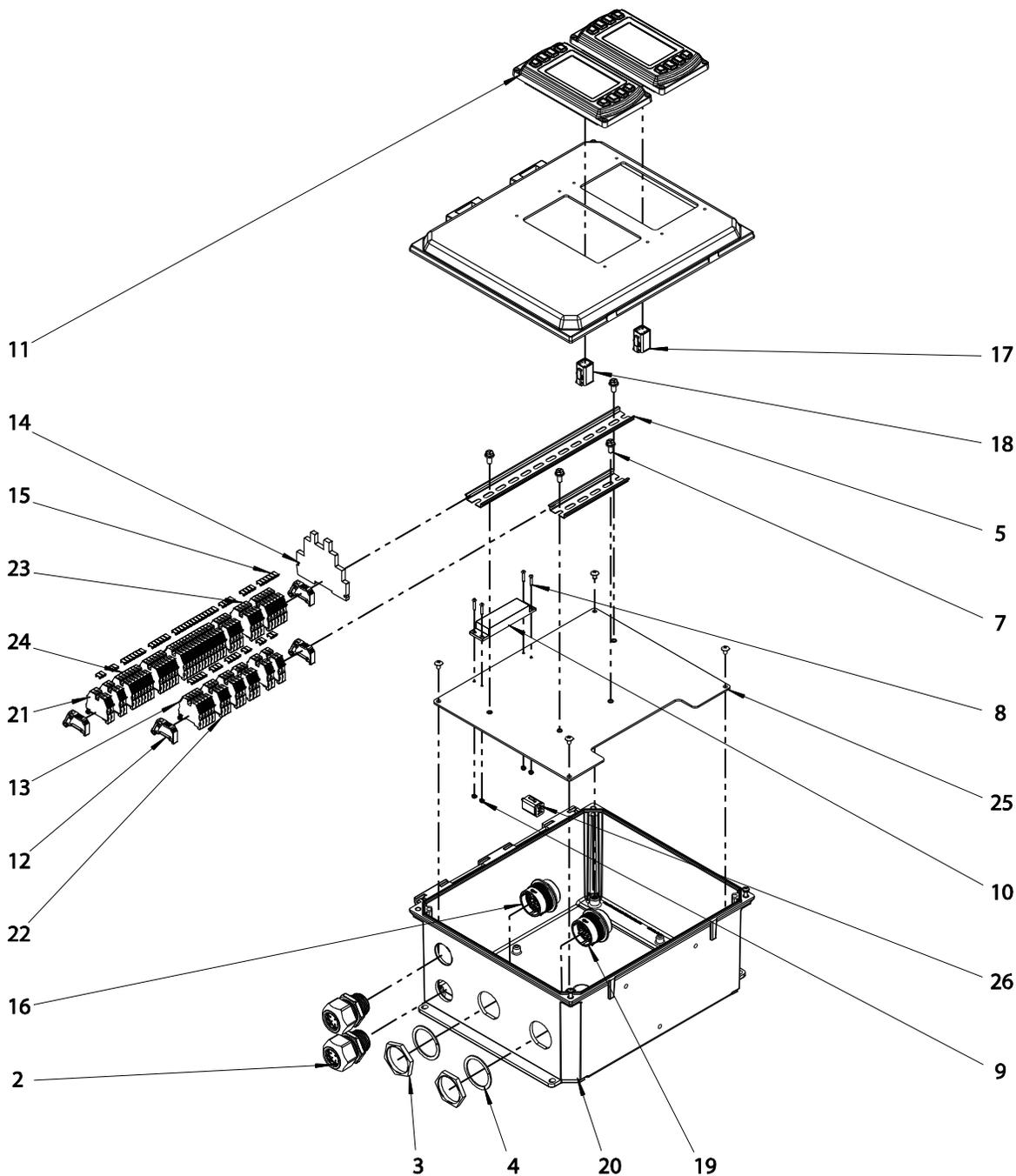
POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32501267	SENSOR, O2	4	IN KIT 3,4,5
2	38901309	CATALYST, INLINE	2	
3	33500805	GASKET	4	Not Shown: IN KIT A

ENGINE MOUNT



POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	611029	BRACKET, FRT MNT	2	
2	611028	BRACKET, FRT MNT	2	
3	610398	BOLT, HEX	8	
4	610429	BOLT	12	
5	610454	WASHER, SPRING	12	

DISPLAY-ACES

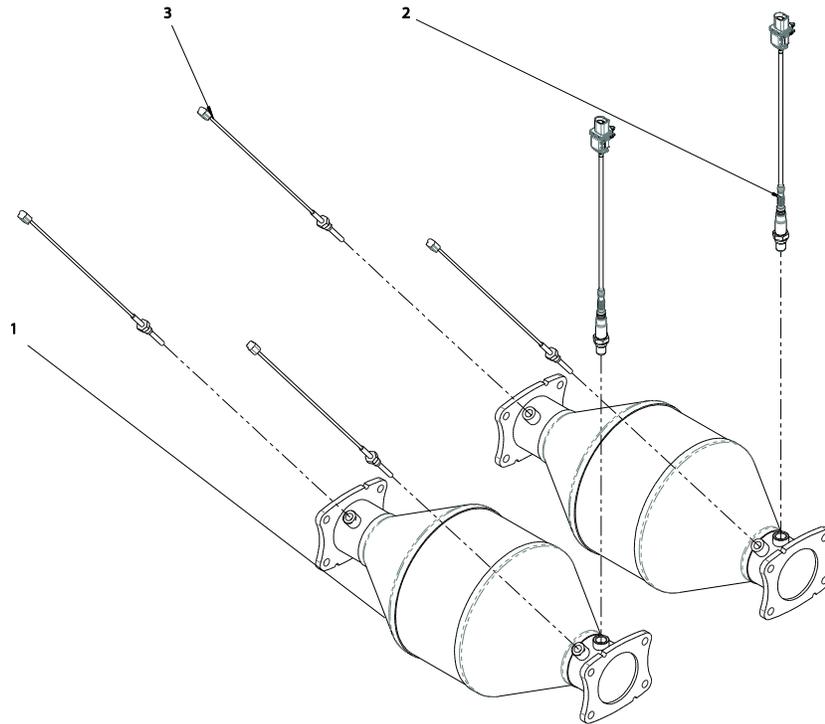


58050302-02

DISPLAY CONT.

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	14000232	NUT	4	NOT SHOWN
2	33001590	CONNECTOR, CORD GRIP	2	
3	33001605	NUT, HDP CONNECTOR	2	
4	33001606	WASHER, LOCK	2	
5	33001626-17	RAIL, MOUNTING	1	
6	33001633	MOUNT, CABLE TIE BASE	11	NOT SHOWN
7	35000541	BOLT	4	
8	35001037	SCREW, BUTTON HEAD	4	
9	35001038	NUT	4	
10	52500153	KEY, EMISSIONS	1	
11	53000061	DISPLAY, ACES	2	
12	53000068	STOP, TERMINAL BLOCK END	4	
13	53000069	BLOCK, TERMINAL	21	
14	53000080	RELAY, SLIM LINE	1	
15	53000081	MARKER TAG, TERMINAL BLOCK	64	
16	69000164	HARNESS, ENCLOSURE MASTER	1	
17	69000165	HARNESS, ENCLOSURE DISPLAY SLAVE	1	
18	69000166	HARNESS, ENCLOSURE DISPLAY MASTER	1	
19	69000167	HARNESS, ENCLOSURE SLAVE	1	
20	53000119	ENCLOSURE, ACES CONTROL PNL	1	
21	53000120	BLOCK, 2 POSITION DISTRIBUTION	5	
22	53000121	BLOCK, 3 POSITION DISTRIBUTION	2	
23	53000122	BLOCK, 4 POSITION DISTRIBUTION	2	
24	53000123	BLOCK, 6 POSITION DISTRIBUTION	3	
25	53000124	BACKPLATE	1	
26	69000169	HARNESS, M-TRACK ADAPTER	1	

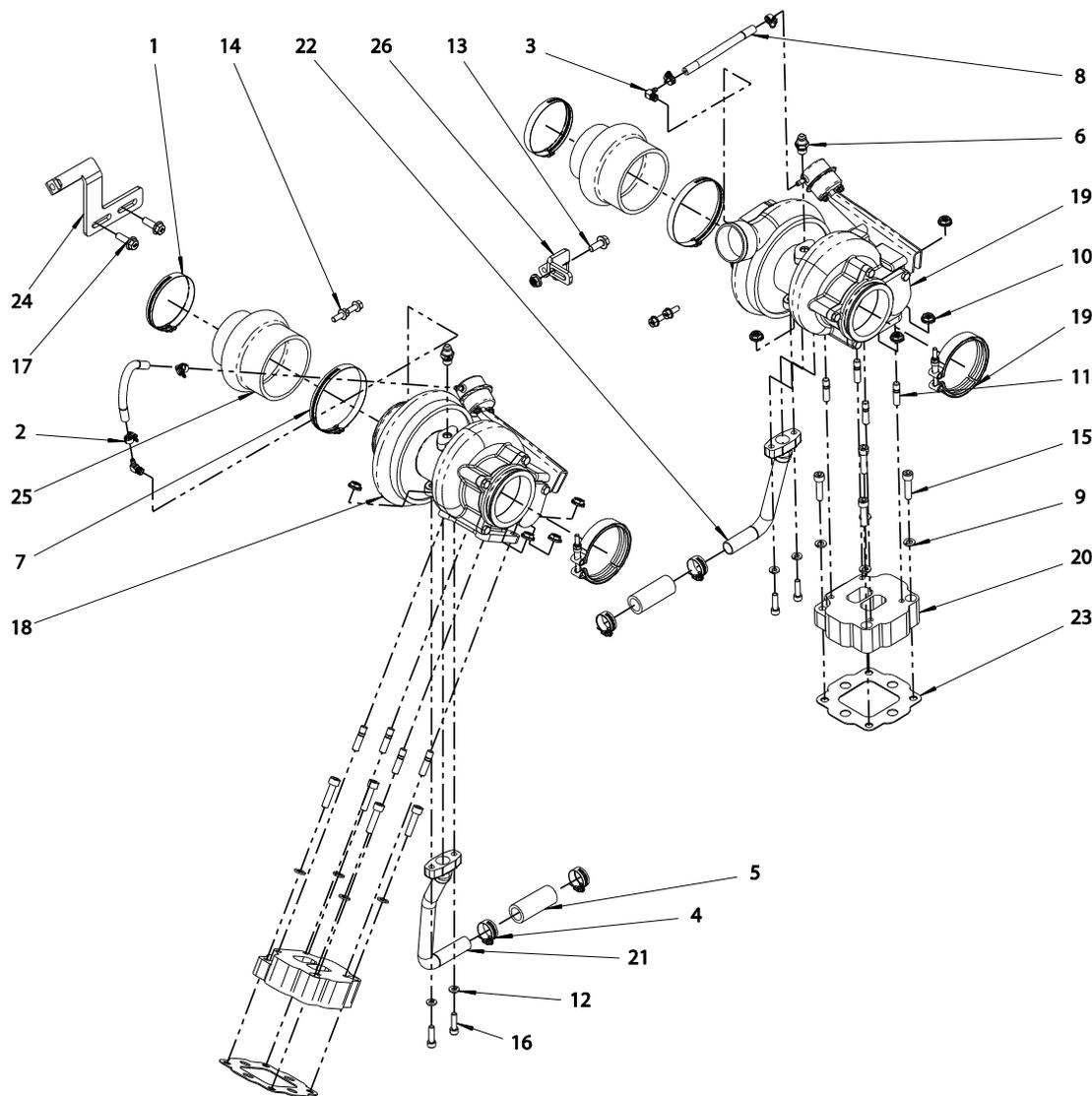
CERTIFIED-ACES



58050805-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	58900068	MUFFLER, CATALYST	2	
2	53000058	SENSOR, O2	2	IN KIT 3, 4, 5
3	53000059	SENSOR, GAS TEMP	4	
4	58200010	CONTROLLER, MASTER	1	NOT SHOWN
5	58200011	CONTROLLER, SLAVE	1	NOT SHOWN

TURBOCHARGER-ACES

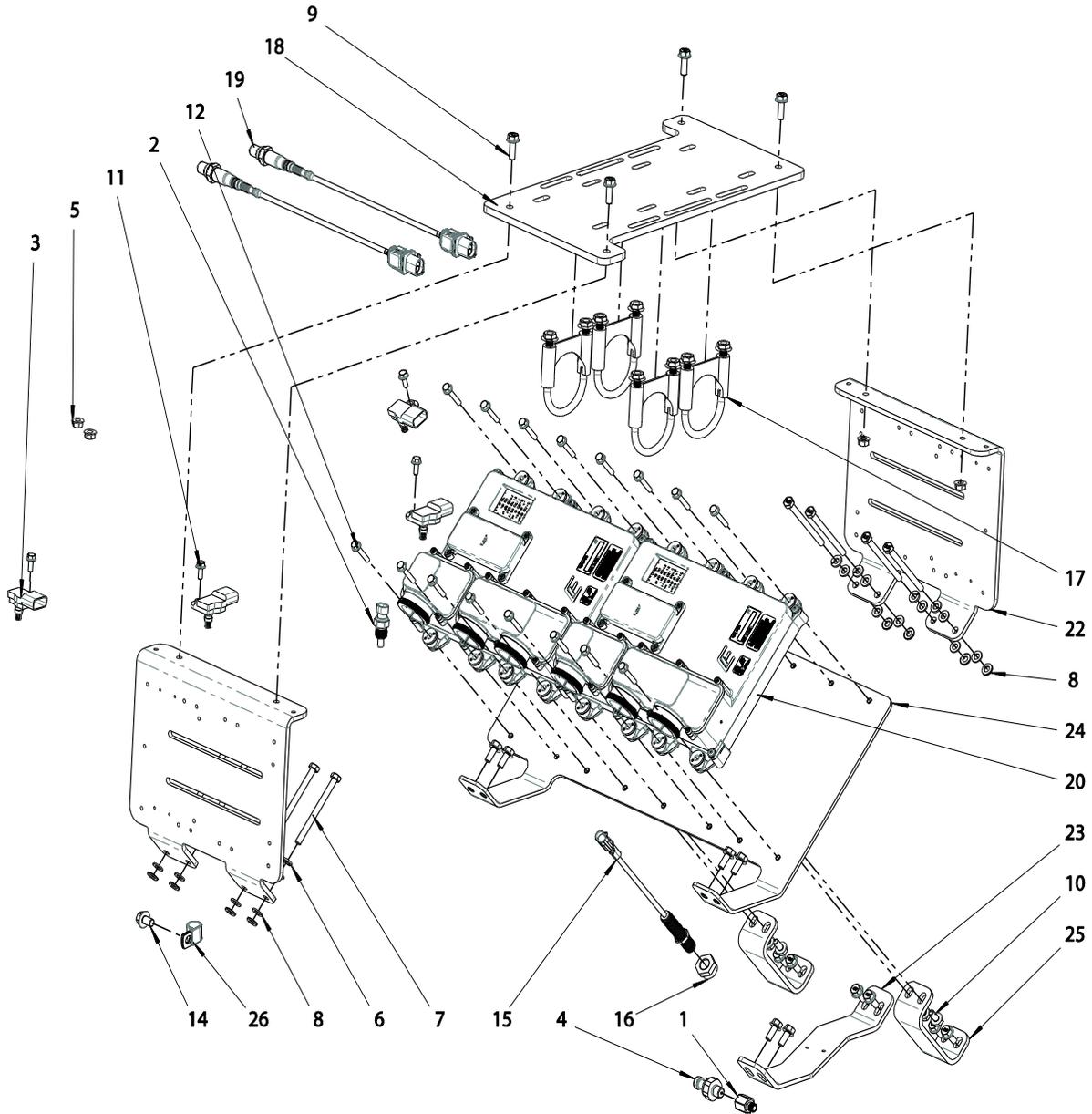


58050806-02

TURBOCHARGER-ACES CONT.

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32000138	CLAMP, HOSE	2	
2	32500208	CLAMP	4	
3	32500247	FITTING	2	
4	32500318	CLAMP, HOSE	4	
5	32500595-8	HOSE, OIL DRAIN (8 IN)	1	
6	32500597	FITTING,OIL SPLY	2	
7	32500622	CLAMP	2	
8	32500623-12	HOSE (12 IN)	2	
9	35000046	WASHER, LOCK	8	
10	35000196	NUT	9	
11	35000302	STUD	8	
12	35000361	WASHER, LOCK	4	
13	35000368	BOLT	1	
14	35000532	BOLT	4	
15	35000692	BOLT	8	
16	35000939	BOLT	4	
17	35000949	BOLT	2	
18	58050803	TURBOCHARGER (MASTER)	1	
18	58050804	TURBOCHARGER (SLAVE)	1	
19	52500074	CLAMP	2	
20	53500017	ADAPTOR	2	
21	53500022	TUBE, OIL DRAIN	1	
22	53500023	TUBE, OIL DRAIN	1	
23	53500035	GASKET, TURBO.	2	IN KIT A
24	53500067	BRKT, APTR MNT-L	1	
25	53500075	HOSE, HUMP REDUCER	2	
26	53500204	BRACKET, MIXER	1	
27	106588	PIN, WASTEGATE	1	NOT SHOWN
28	106614	GASKET, TURBO	2	NOT SHOWN; IN KIT A
29	109870	KIT, MTG GASKETS	1	NOT SHOWN
30	106565	WASTEGATE	1	NOT SHOWN
31	33500282	GASKET, OIL DRAIN	2	NOT SHOWN; IN KIT A

ELECTRICAL-ACES

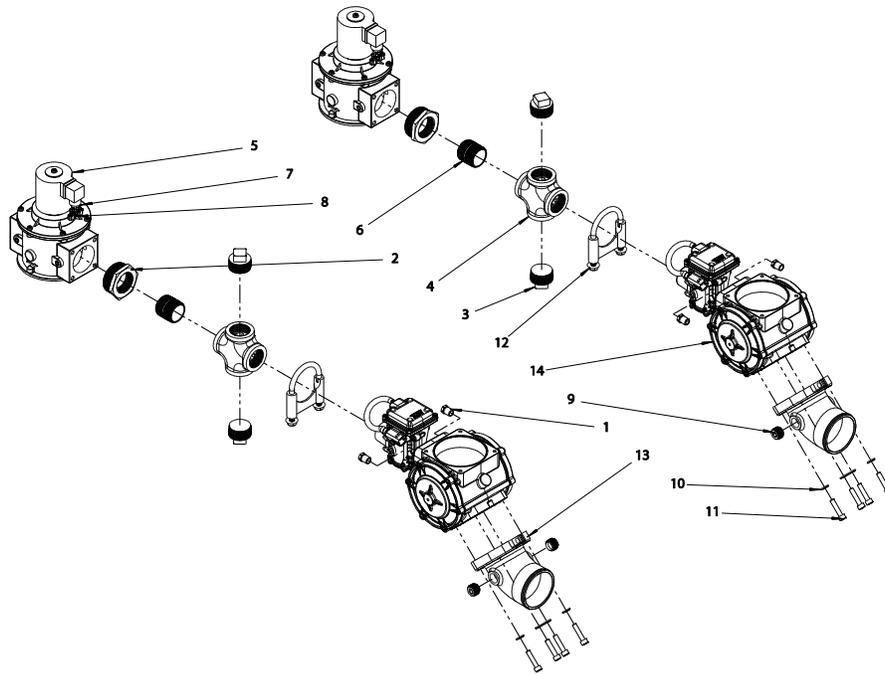


58050305-05

ELECTRICAL-ACES CONT.

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32501149	ADAPTOR, PIPE	1	
2	33000376	SENSOR, COOLANT	1	
3	33000841	SENSOR, T MAP	4	
4	33001415	SENDER, O/PRESS	1	
5	35000021	NUT, FLANGE	6	
6	35000361	WASHER, LOCK	8	
7	35000377	BOLT	8	
8	35000426	WASHER, FLAT	24	
9	35000452	BOLT	4	
10	35000526	SCREW	4	
11	35000530	BOLT	4	
12	35000531	BOLT	16	
13	35000532	BOLT	12	NOT SHOWN
14	35000694	BOLT	1	
15	38030359	KIT, MAG PICK UP	1	
16	52500022	FITTING	1	
17	52500030	CLAMP, U BOLT	4	
18	52500055	BRACKET	1	
19	53000058	SENSOR, O2	2	IN KIT 3,4,5
20	CALL FOR INFO	CONTROLLER, ECM	2	
21	69000161	CABLE, ALTERNATOR	1	NOT SHOWN
22	53000093	BRACKET, ECM	2	
23	53000107	BRACE, COIL SUPPORT	1	
24	53000108	BRACKET, ECM	1	
25	53000109	BRACE, ECM BRACKET	2	
26	62500072	CLAMP	1	

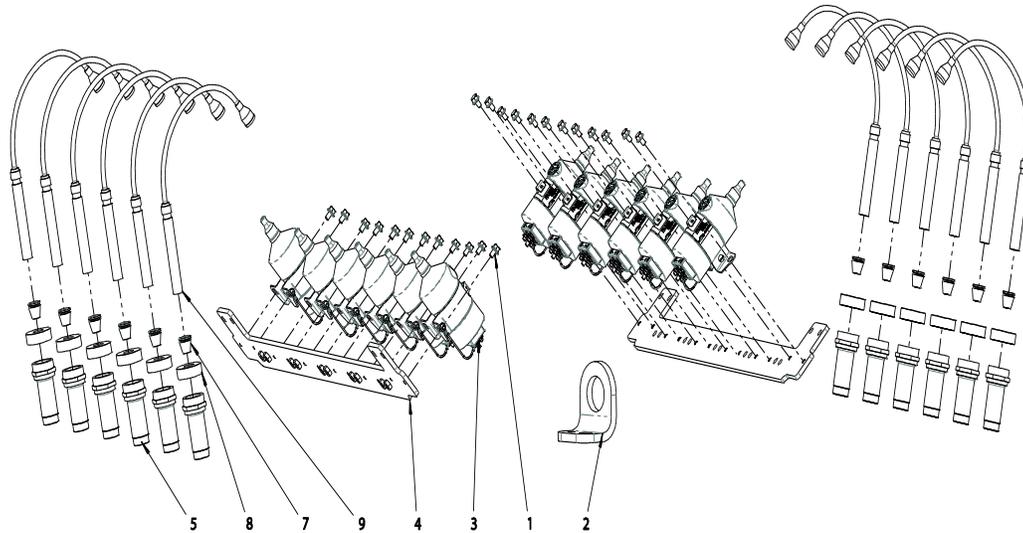
FUEL-ACES



58050400-04

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32500233	PLUG	4	
2	32501753	BUSHING, REDUCER	2	
3	32502077	FITTING	4	
4	32502078	FITTING	2	
5	32502220	VALVE L/O	2	
6	32502769	NIPPLE	2	
7	33001072	TERMINAL	4	
8	33001073	TERMINAL	2	
9	33500486	PLUG, PIPE	4	
10	35000361	WASHER, LOCK	8	
11	35000405	BOLT	8	
12	52500030	CLAMP, U BOLT	2	
13	53500066	ADAPTOR, MIXER	2	
14	58020406	KIT, MIXER & EPR	2	

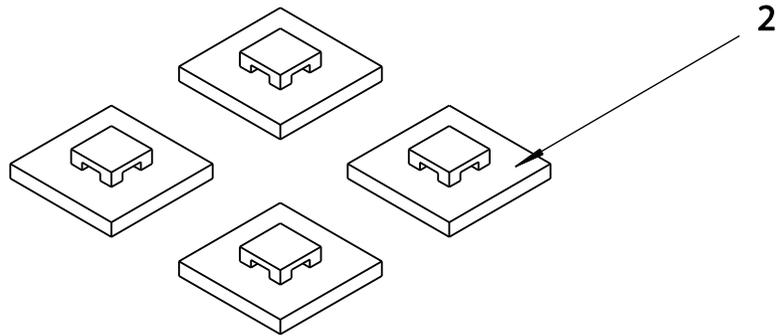
IGNITION-ACES



58050303-02

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	35000449	BOLT	24	
2	52500172	LIFTING EYE, FRONT	1	
3	53000062	COIL, IGNITION	12	
4	53000106	BRACKET, COIL SUPPORT	2	
5	53000110	TUBE, SPARK PLUG	12	
6	69000168	HARNESS, IGNITION	2	NOT SHOWN
7	53000126	GROMMET, PUSH HOLE	12	
8	53000127	CAP, SPARK PLUG TUBE	12	
9	53000128	WIRE, SPARK PLUG	12	

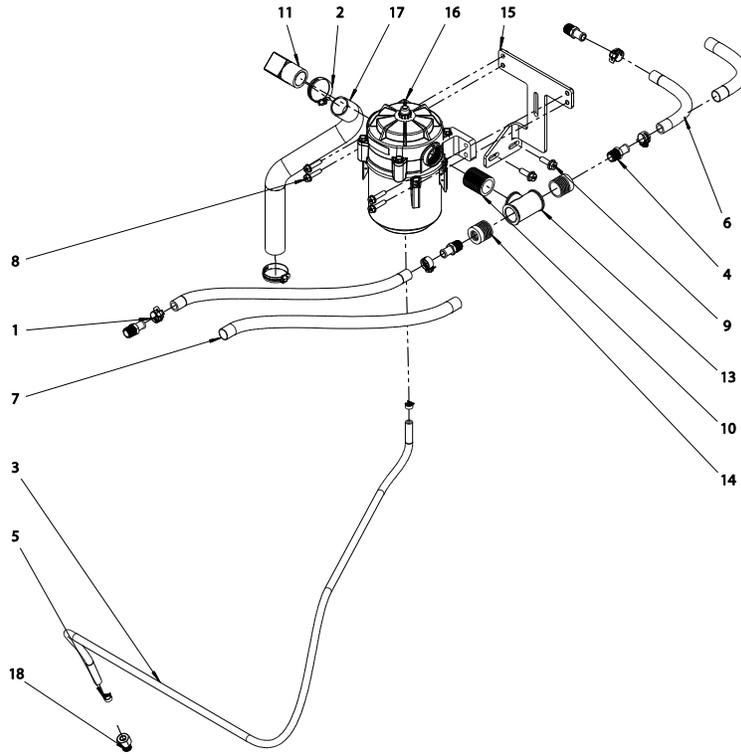
WIRE HARNESS-ACES



58050304-01

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	33001562	TIE, ZIP	20	NOT SHOWN
2	33001633	MOUNT, CABLE TIE	4	
3	53000112	HARNESS, MAIN (RH)	1	NOT SHOWN
4	53000113	HARNESS, SLAVE (LH)	1	NOT SHOWN

CRANKCASE VENT (CCV)-ACES



58050807-05

POS.	PART NUMBER	DESCRIPTION	QTY	NOTES
1	32000148	CLAMP, HOSE	4	
2	32000626	CLAMP	2	
3	32500135-60	HOSE, CARB-PCV (60 IN)	1	
4	F4-16	FITTING	4	
5	32501134	CLAMP	2	
6	32501647-35	HOSE, VAPOR (35 IN)	1	
7	32502451-37	INSULATION, JACK (37 IN)	1	
8	35000712	BOLT	4	
9	35000949	BOLT	2	
10	52500122	NIPPLE	1	
11	52500123	ELBOW STREET	1	
12	52500124	ADAPTOR	1	NOT SHOWN
13	52500125	TEE	1	
14	52500126	BUSHING	2	
15	52500173	BRACKET, RACOR SUPPORT V-SERIES	1	
16	53500061	CANISTER	1	
17	53500103	HOSE, MOLDED CCV	1	
18	53500121	BUSHING	1	
19	107127	FILTER,CCV	1	NOT SHOWN; IN KIT 3,4,5