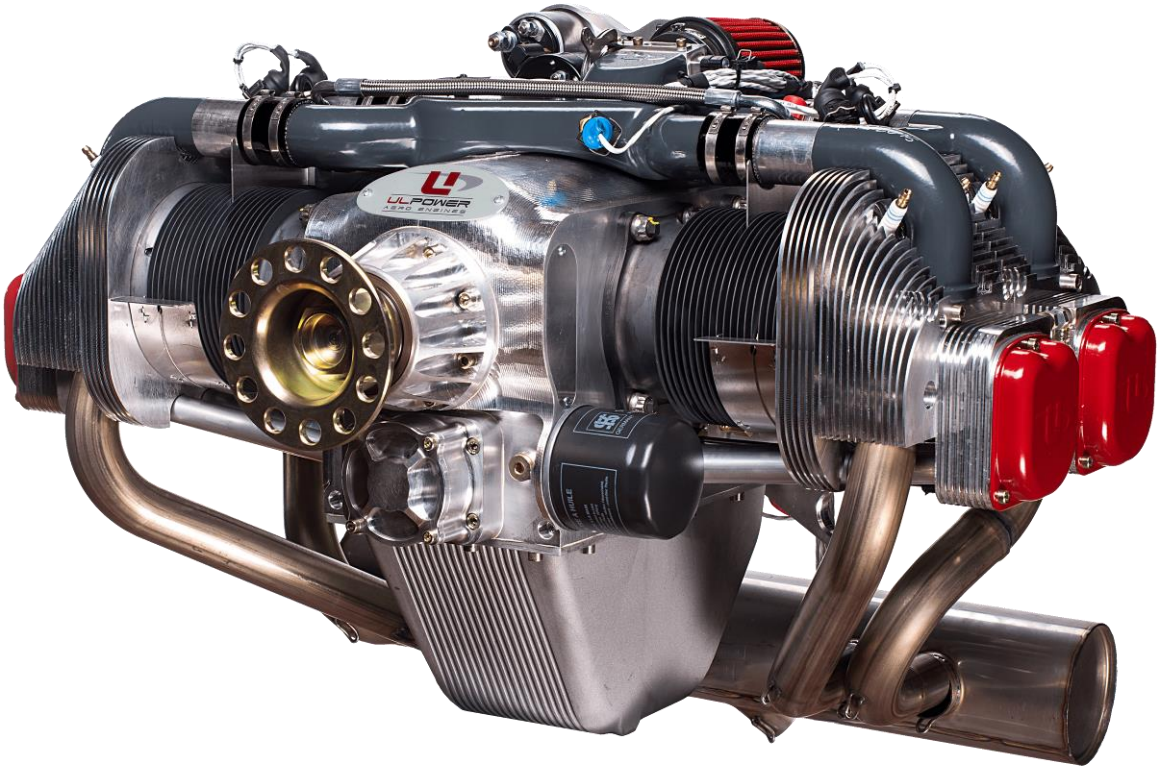
ULPOWER
AERO ENGINES

Illustrated Parts Catalogue



UL350ISA
AERO ENGINE

M0111: IPC 350 aerobatic Revision No : 11

Date: 2025-04-30

Please fill in your engine and aircraft details for further reference:

Engine Serial No. : .....

Aircraft type : .....

Model : .....

Serial No. : .....

Registration : .....

Introduction

Remarks

The illustrations in this Illustrated Parts Catalogue show the typical construction. They may not represent in full detail or the exact shape of the parts which have the same or similar function.

Modifications

All efforts are made to ensure the accuracy of this Illustrated Parts Catalogue at the time of publication. ULPower, however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on its products previously manufactured.

ULPower reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

Engine serial number

On all enquiries or spare parts orders, always indicate the engine serial number, as the manufacturer makes modifications to the engine for further development.

The engine serial number is located at the front left side of the crankcase (above oil filter).

Structure

Each section of this Illustrated Parts Catalogue starts with an exploded view or assembly drawing on the left side. The corresponding heading and the listing of the parts is on the right side and the following pages.

For each assembly drawing the right number of parts is listed in the relevant column. Because an engine can contain multiple times the illustrated assembly or a part can be used in several different applications, the total number of parts per engine is also given.

Generally all fasteners are tightened with a torque wrench. The "Notes" column indicates the appropriate torque or refers to extra information at the end of the section.

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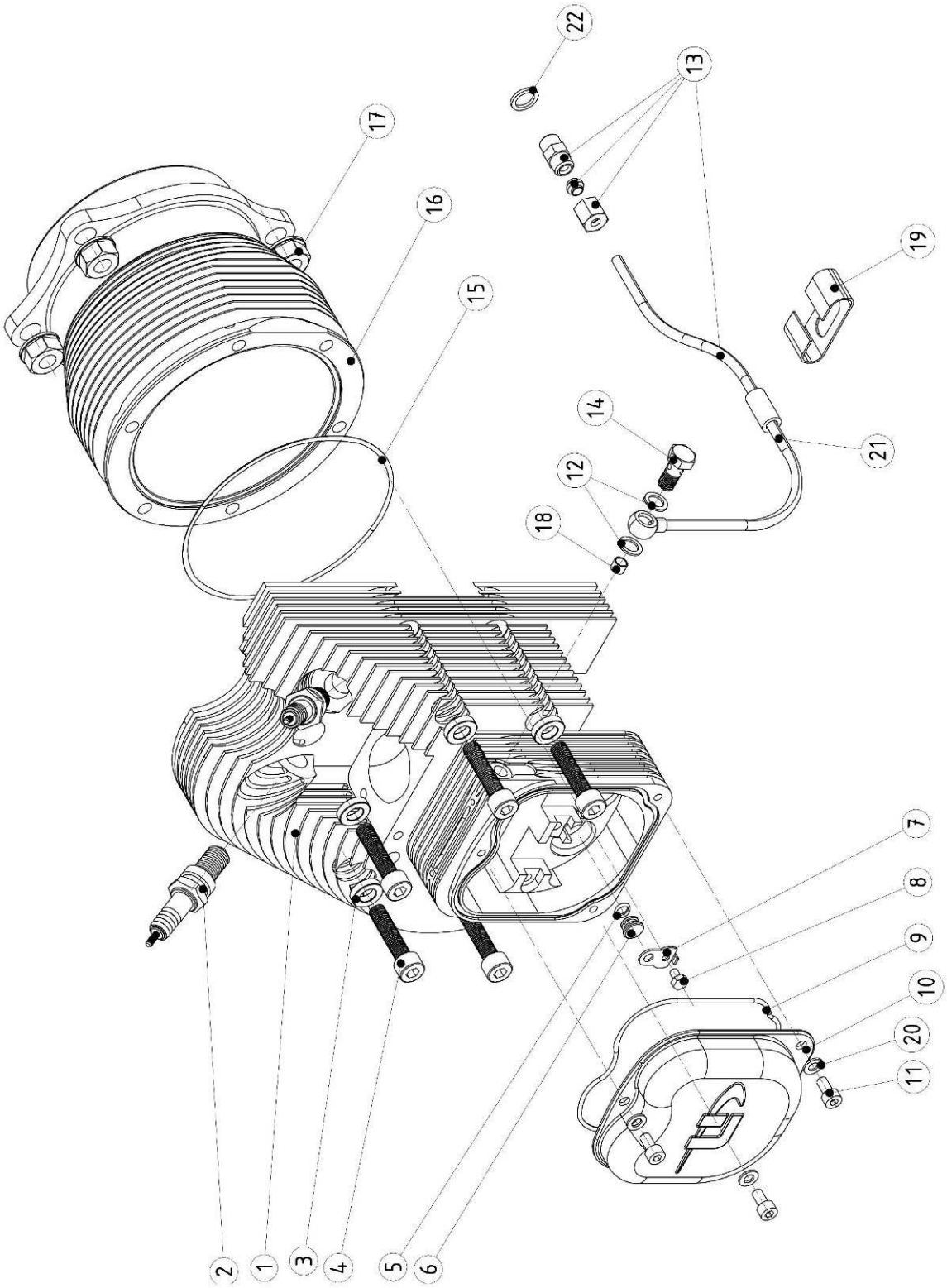
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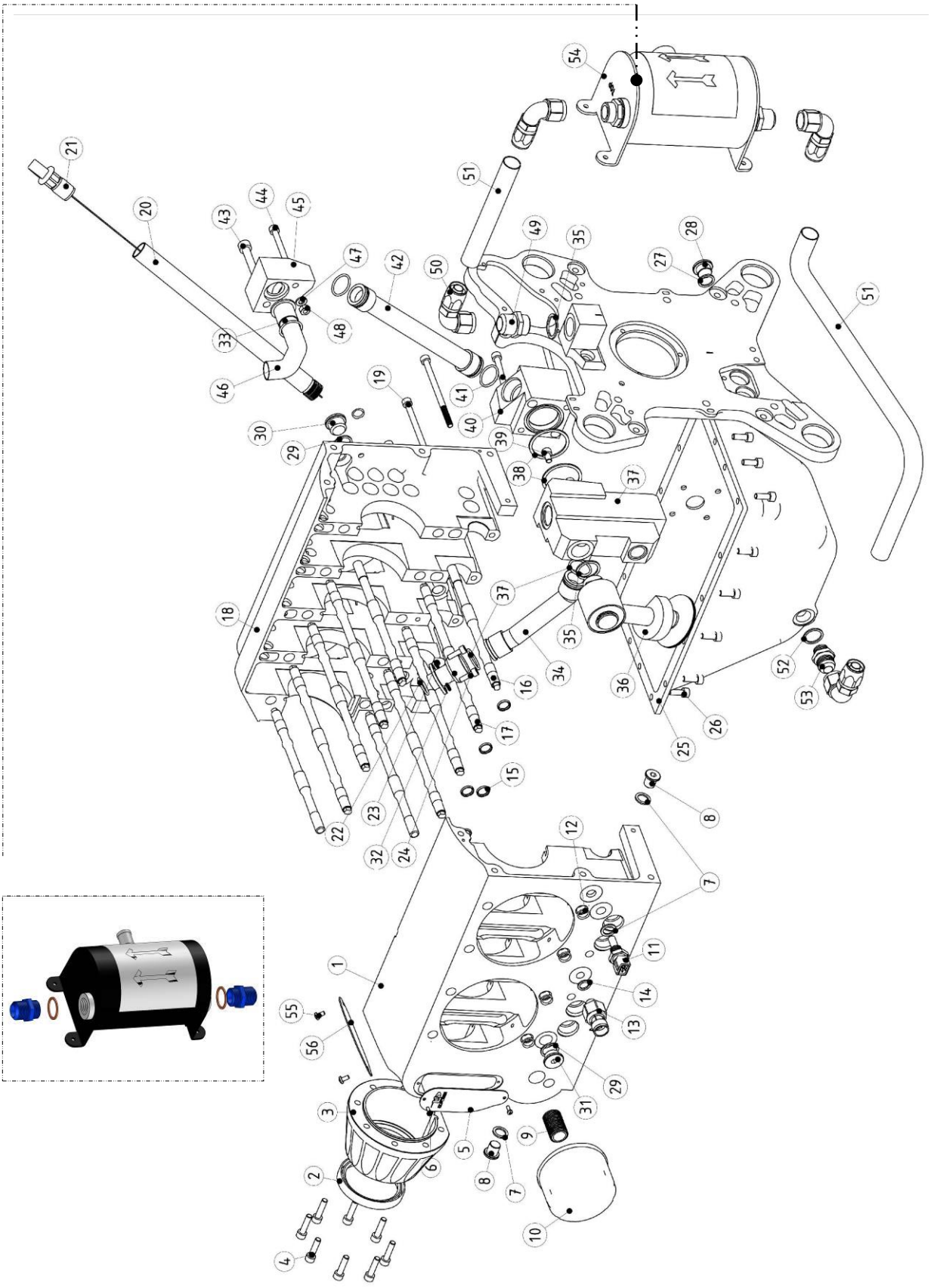
Cylinder Head and Cylinder

Item	Part No.	Description	Parts in assembly	Note
1		Cylinder Head Assembly	1	
	BE012512	Cylinder Head Right	0	
	BE012513	Cylinder Head Left	1	
	E035001	Valve Guide	2	
	E034501	Exhaust Valve Seat	1	
	E034502	Inlet Valve Seat	1	
2	E070502	Spark Plug	2	21 Nm (1)
3	E012504	Cylinder Head Washer	6	
4	F0408035	Socket Cap Screw - M8x1x35 - 12.9 Steel	6	36 Nm (1)
5	S1006015	O-Ring Viton 6x1.5	1	
6	E012505	Cylinder Head Plug	1	
7	E012503	Locking plate M4 bolt	1	
8	F1004006	Hexagon head screw M4x6 - 8.8 Steel - Zinc Plated	1	1.5 Nm
9	S1100020	O-Ring Viton 99x2	1	
10	E012506	Valve Cover	1	
11	F0105016	Socket Cap Screw - M5x16 - 8.8 Steel - Yellow Passivated	3	6 Nm
12	S3081210	Copper Sealing Ring ø8x12x1	2	
13	BE041505	Cylinder Head Oil Line Left Assembly	1	6 Nm
	BE041506	Cylinder Head Oil Line Right Assembly	0	
14	F2520800	Banjo Bolt M8x1	1	8 Nm
15	E013001	Cylinder Gasket	1	(4)
16	BE012004	Cylinder	1	(5)
17	E011003	Flanged Nut M10x1	4	36 Nm
18	E012511	Cylinder Head Oil Filter	1	
19	E012530	Bracket oil line	1	
20	F2110050	Nordlock washer M5	3	
21	F2550013	Cloth braided hose Ø5,5 x Ø10,5	1	
22	S3101415	Copper ring Ø10x14x15	1	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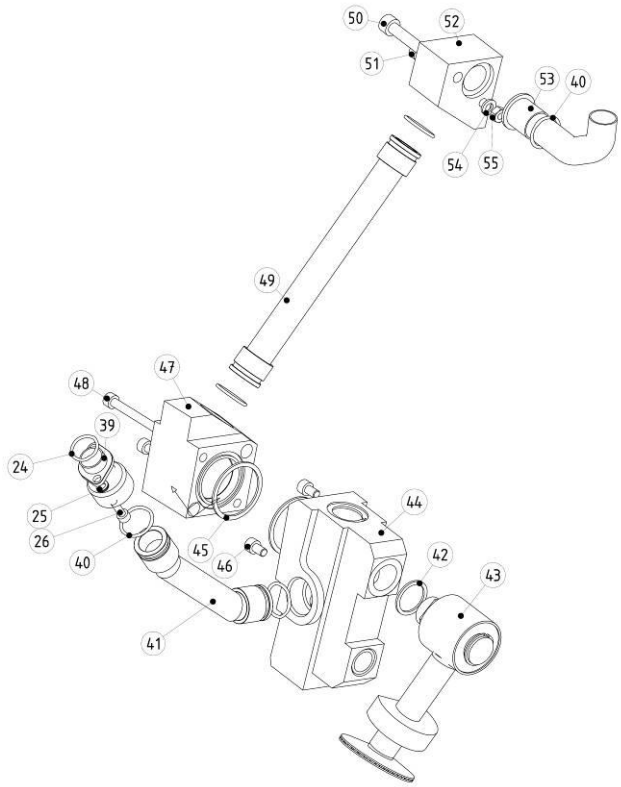
Crankcase, Oil Sump & Dipstick, Oil air breather

Item	Part No.	Description	Parts in assembly	Note
1	ABE010502	Crankcase Left	1	(7)
2	S2607510	Oil Seal Viton 60x75x10 GR	1	(5)
3	BE010509	Thrust Bearing Mount	1	(7)
4	F0106025	Socket Cap Screw - M6x25 - 8.8 Steel - Yellow Passivated	8	10 Nm
5	E010508	Engine Model Number Plate	1	
6	F3503008	Button Head Socket Cap Screw - M3x8 - 10.9 Steel - Zinc Plated	2	1.5 Nm
7	S3121715	Copper Sealing Ring ø12x17x1.5	3	
8	F4621215	Hexagon Socket Screw Plug - M12x1.5	2	25 Nm (2)
9	E042006	Oil Filter Screw M20x1.5	1	
10	E042010	Oil Filter	1	15 Nm (3)
11	E081516	Oil Temperature Sensor	1	20 Nm
12	S1011015	O-Ring Viton ø11x1.5	8	
13	E081507	Oil Pressure sensor	1	12Nm
14	S3101415	Copper Sealing Ring ø10x14x1.5	3	
15	S1012020	O-Ring Viton ø12x2	7	(3)
16	E011002	Stud Short	4	(1)
17	E011001	Stud Long	6	
18	ABE010501	Crankcase Right	1	
19	F0206100	Socket Cap Screw - M6x100 - 8.8 Steel - Zinc Plated	4	10 Nm
20	AE043003	Dipstick Tube	1	(6)
21	AE043005	Dipstick UL2,6 – 3,5 Acro	1	
22	S1018010	O-Ring Viton ø18x1	1	
23	F2110050	NordLock Washer M5	2	
24	F0105016	Socket Cap Screw - M5x16 - 8.8 Steel - Yellow Passivated	2	6 Nm
25	AE041002	Oil Sump	1	(7)
26	F0106016	Socket Cap Screw - M6x16 - 8.8 Steel - Yellow Passivated	16	10 Nm
27	S3142015	Copper Sealing Ring ø14x20x1.5	1	
28	E041020	Carter plug magnet M14x1,5	1	25 Nm
29	S3162215	Copper sealing ring ø16x22x1.5	3	
30	F2521615	Banjo bolt M16x1.5	1	25Nm
31	E041015	Plug 5/8 -18UNF	1	
32	AE044512	Connection crankcase	1	
33	S1022020	O-ring Viton	5	
34	SUAE044507	Subass Connection casing valve	1	
35	S3222715	Copper ring Ø22x27x1,5	2	
36	SUAE044520	Subass oil pick-up tube acro	1	
37	SUAE044530	Subass Gravity valve 4cyl		
38	S1039020	O-ring Viton Ø39x2	2	
39	F0106010	Socket cap screw M6x10 – 8,8 yellow	2	
40	SUAE044535	Subass Oilsump connection	1	
41	F0106060	Socket cap screw M6x60 – 8,8 yellow	2	
42	SUAE044506	Subass connection oilsump – casing top	1	
43	F0108040	Socket cap screw M8x40 – 8,8 yellow	1	

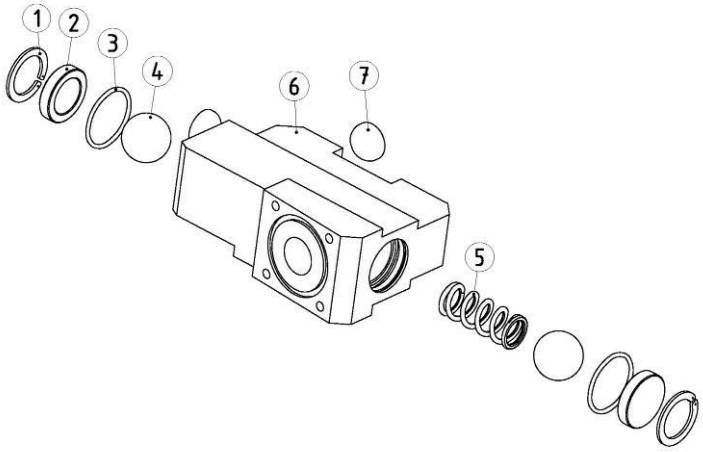
Item	Part No.	Description	Parts in assembly	Note
44	F0106050	Socket cap screw M6x50 - 8,8 yellow	1	
45	ASE044540	Connection suction line	1	
46	SUASE044508	Subass Oil suction tube top	1	
47	F2110060	Nordlock washer M6	1	
48	F5103060	All metal prevailing torque hex nut - M6 Zinc plated	1	
49	F2560016	Adapter M22x1,5 - 10JIC	1	
50	F3010090	90° reusable - 10JIC swivel	4	
51	F2550011	Reusable hose FC333 - 10AN		
52	S3182415	Copper ring d18xD24x1.5	1	
53	AE010525	Adapter Short M18x1,5 - 10JIC	1	
54	AE043530	Oil air breather acro	1	
55	F0904008	Hex socket button head cap screw M4x8 - 10.9 Zn	2	
56	M900016	Logoplaatje	1	

Acro system detailed



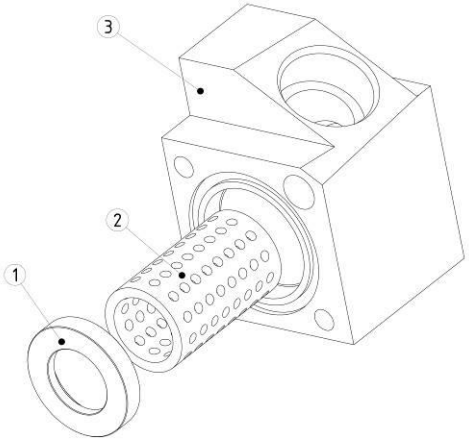
Item	Part No.	Description	Parts in assembly	Note
43	SUAE044520	Subass oil pickup tube acro	1	
42	S3222715	Copper ring Ø22x27x1,5	1	
44	SUAE044530	Subass gravity valve 4 cyl	1	(7)
41	SUAE044507	Connection casing - valve	1	
40	S1022020	O-ring Viton Ø22x2	5	
26	F0105016	Socket cap screw - M5x16 -8,8 - yellow	2	6Nm
25	F2110050	Nordlock washer M5	2	
39	AE044512	Connection crankcase	1	
24	S1018010	O-ring Viton Ø18x1	1	
45	S1039020	O-ring Viton Ø39x2	2	
46	F0106010	Socket cap screw - M6x10 -8,8 - yellow	2	10 Nm
47	SUAE044535	Subass oil sump connection	1	(7)
48	F0106060	Socket cap screw M6x60 - 8,8- yellow	2	10Nm
49	SUAE044506	Subass connection oilsump - casing top	1	
50	F0108040	Socket cap screw M8x40 - 8,8 - yellow	1	25Nm
51	F0106050	Socket cap screw M6x50 - 8,8 - yellow	1	10Nm
52	ASE044540	Connection suction line	1	(7)
53	SUASE044508	Subass oil suction tube top	1	
54	F2110060	Nordlockwasher M6	1	
55	F5103060	All metal prevailing torque hex nut - M6 - Zinc plate	1	

SUAE044530 (N°44) (Subass gravity valve 4cyl)



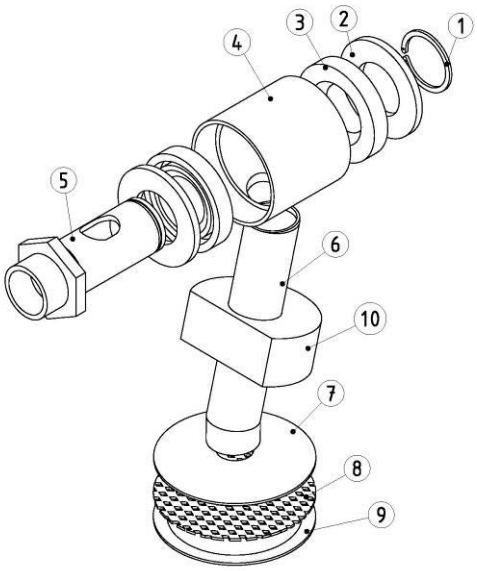
Item	Part No.	Description	Parts in assembly	Note
1	F1600030	Retaining ring bore Ø30	2	
2	AE045020	Endstop valve	2	
3	S1030020	O-ring Viton Ø30x2	2	
4	F1920140	Ball Ø25,4	2	
5	AE044532	Spring Ø19 - l45	1	
6	AE044530	Oil valve housing	1	
7	F5302207	Plug 22mm	2	

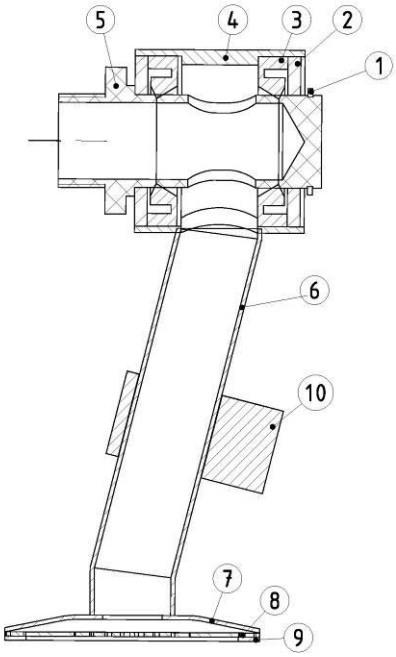
SUAE044535 (N°47) (Subass oilsump connection)



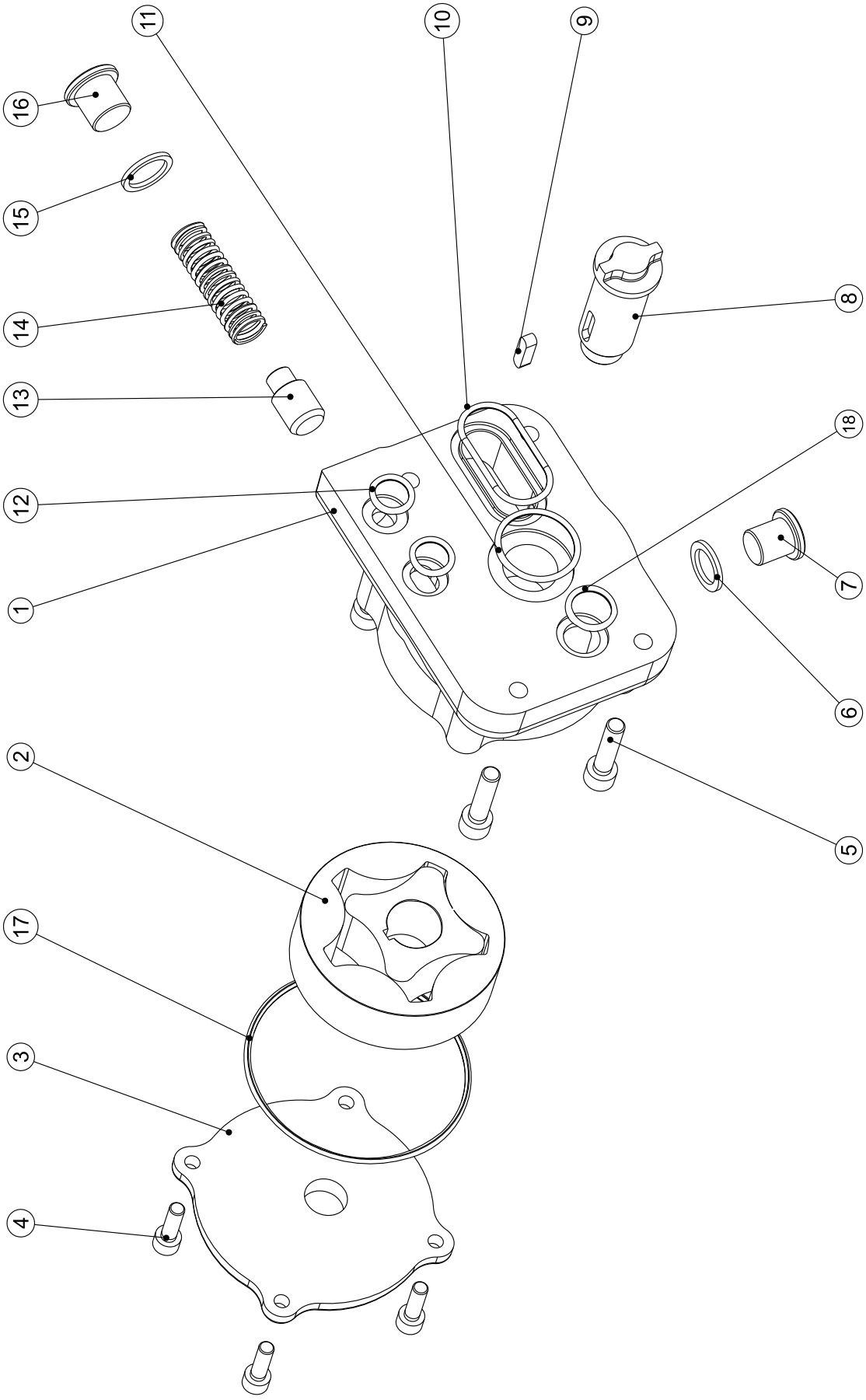
Item	Part No.	Description	Parts in assembly	Note
1	ASE044537	Holder filter	1	
2	AE042012	Filter	1	
3	AE044535	Connection gravity valve	1	

SUAE044520 (N°43) Subass Oil pick-up tube acro)





Item	Part No.	Description	Parts in assembly	Note
1	F1500022	Retaining ring shaft 22	1	
2	ASE044510	Centering flange	2	
3	S2224007	Oil seal Viton Ø22x40x7	2	
4	ASE044505	Tube oil pick-up	1	
5	ASE044500	Axe oil pick-up	1	
6	ASE044502	Oil pick-up tube Ø20	1	
7	E044504	Oil pick-up filter plate top	1	
8	E044505	Oil pick-up filter	1	
9	E044506	Oil pick-up filter plate bottom	1	
10	ASE044503	Ballast	1	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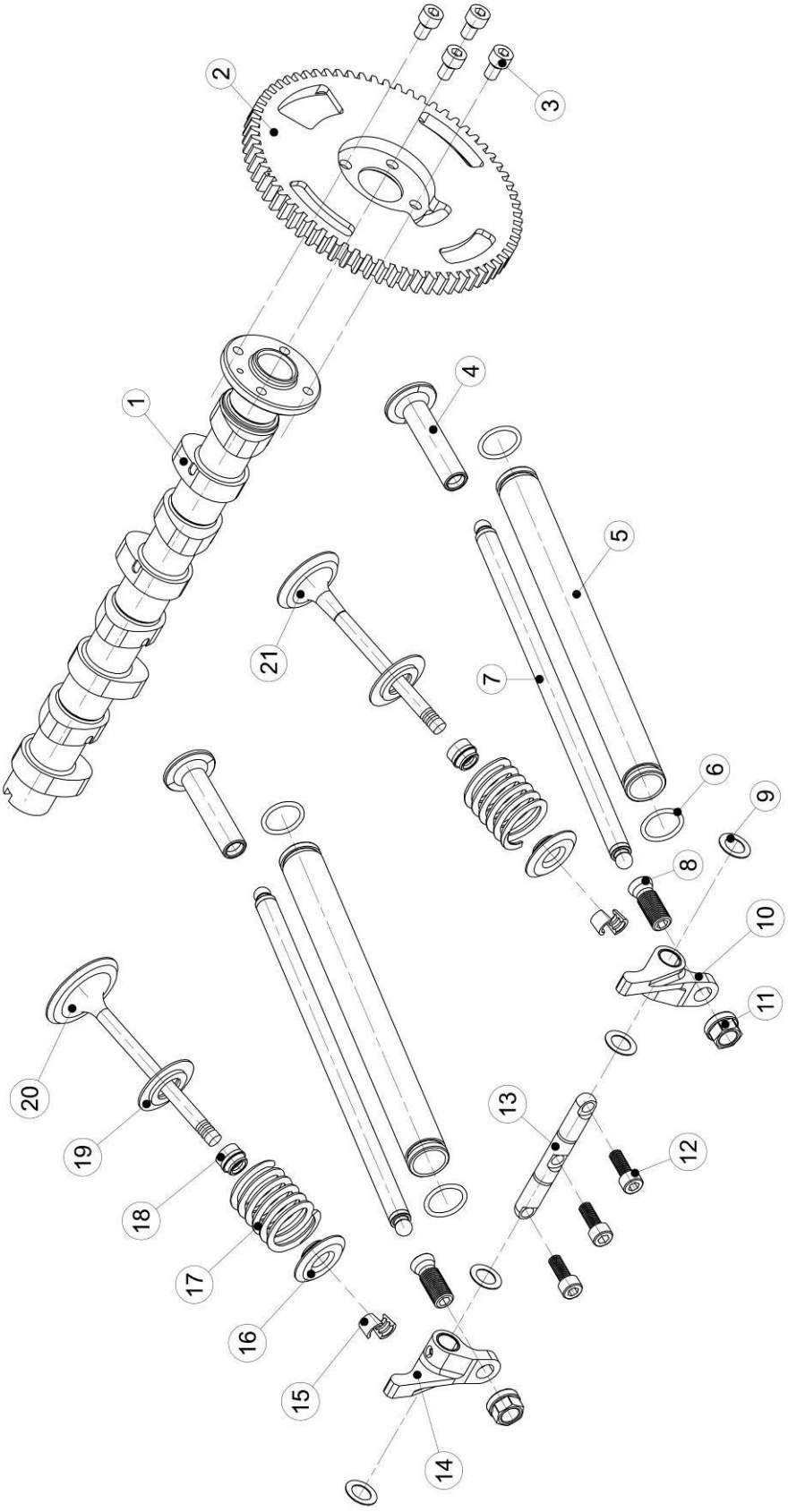
Oil Pump Assembly: BE040515

Item	Part No.	Description	Parts in assembly	Note
1	BE040510	Oil Pump Housing	1	(7)
2	BE040514	Oil Pump Rotor Set	1	
3	E040509	Oil Pump Cover	1	
4	F0105016	Socket Cap Screw - M5x16 - 8.8 Steel - Yellow Passivated	4	6 Nm
5	F0106025	Socket Cap Screw – M6x25 - 8.8 Steel - Yellow Passivated	4	10 Nm
6	S3121715	Copper Sealing Ring ø12x17x1.5	1	
7	F4621215	Hexagon Socket Screw Plug - M12x1.5	1	25 Nm
8	BE040513	Oil Pump Shaft	1	
9	F1704020	Parallel Key 4x4x20	1	
10	S1030020	O-Ring Viton ø30x2	1	
11	S1024020	O-Ring Viton ø24x2	1	
12	S1011020	O-Ring Viton ø11x2	2	
13	BE040516	Plunjer oil pump B25	1	
14	E040506	Pressure Relief Spring	1	
15	S3162015	Copper Sealing Ring ø16x20x1.5	1	
16	F4621615	Hexagon Socket Screw Plug - M16x1.5	1	25 Nm
17	S1070020	O-ring Viton 70x2	1	
18	S1013020	O-ring Viton 13x2	1	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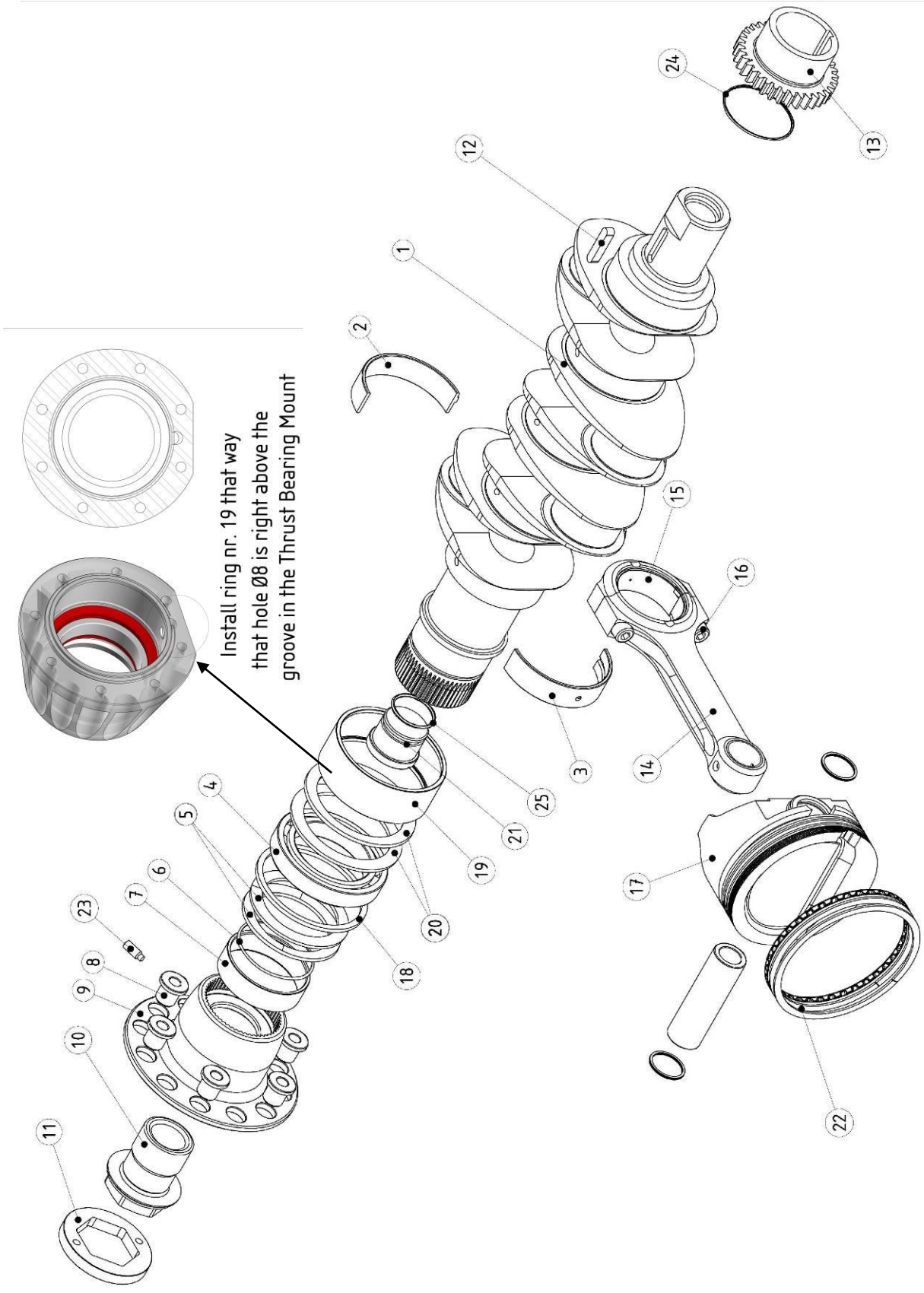
Camshaft and Valve Train

Item	Part No.	Description	Parts in assembly	Note
1	E030502	Camshaft 350i	1	
2	E031001	Camshaft Gear	1	
3	F0306010	Socket Cap Screw - M6x10 - 12.9 Steel	4	18 Nm (2)
4	E031501	Cam Follower	2	
5	BE041501	Oil Return Tube	2	
6	S1017020	O-Ring Viton ø17x2	4	(3)
7	BE032005	Push Rod	2	
8	E032505	Tappet Adjusting Screw	2	
9	F2311016	Shim Ring 0.5mm - ø10x16	4	
10	E032506	Rocker Tappet Right	1	
11	E011003	Flanged Nut M10x1	2	20 Nm
12	F0306016	Socket Cap Screw - M6x16 - 12.9 Steel	3	12 Nm (2)
13	E032504	Rocker Shaft	1	
14	E032507	Rocker Tappet Left	1	
15	E034003	Collet Valve Spring Lock	4	
16	E034002	Valve Spring Retainer Top	2	
17	E033501	Valve Spring	2	
18	E035501	Valve Stem Seal	2	
19	E034001	Valve Spring Retainer Bottom	2	
20	E033002	Inlet Valve	1	
21	E033001	Exhaust Valve	1	


Install ring nr. 19 that way
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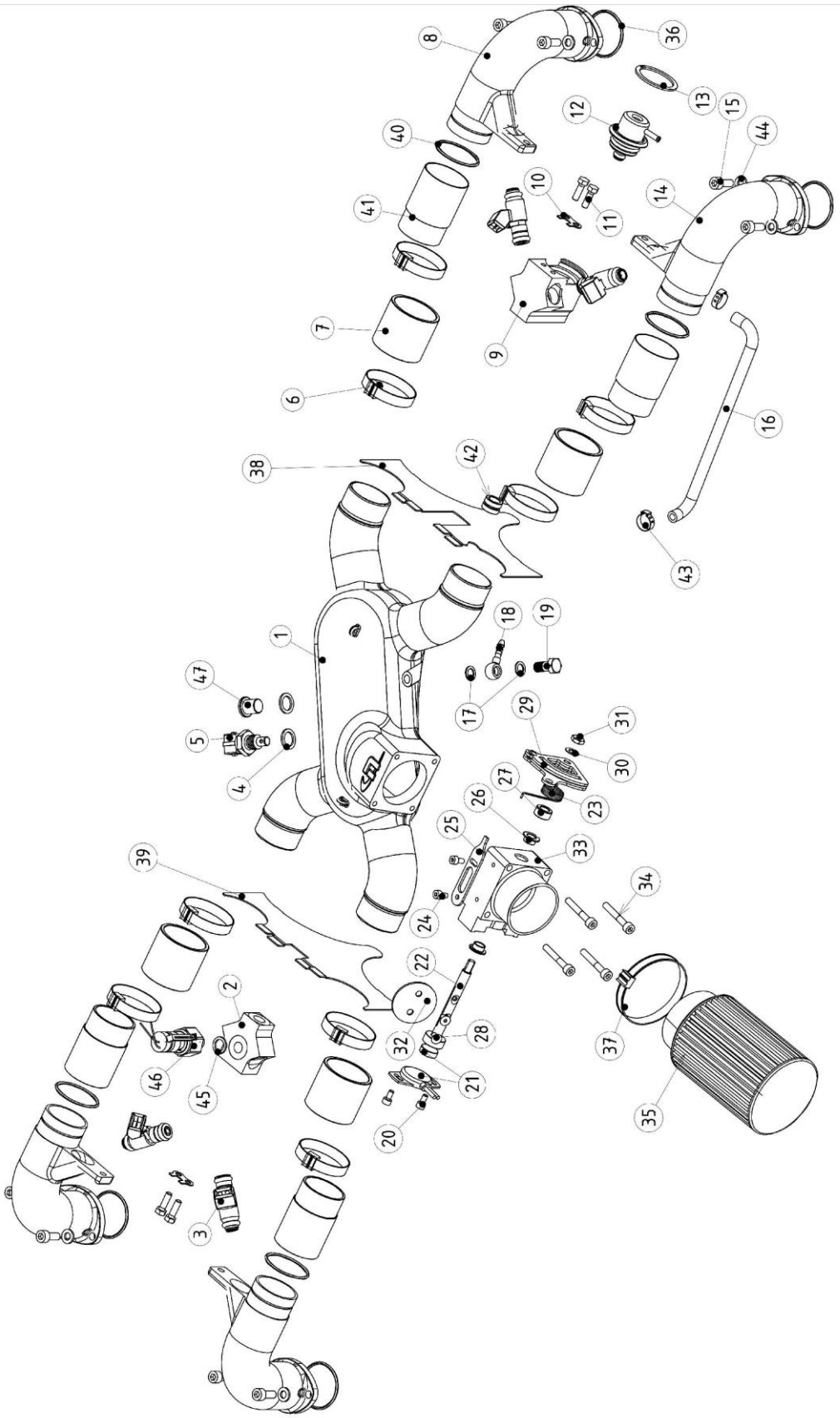
Crankshaft, Conrod and Piston

Item	Part No.	Description	Parts in assembly	Note
1	BE020502	Crankshaft	1	
 2 3	BE022005	Crankshaft Bearing Set (contains piece 2, 3) Crankshaft Bearing Half 1 Crankshaft Bearing Half 1	5	
4	E022001	Thrust Bearing	1	
5	E021502	Thrust Bearing Disc Spring	2	
6	S1052020	O-Ring Viton ø50x1.78	1	
7	E021504	Thrust Bearing Retention Ring	1	
8	E023004	Prop Flange Drive Lug ø14	6	
9	E022501 E022505 E022506 E022504	Propeller Flange L = 55 (Standard) Propeller Flange L = 90 Propeller Flange L = 35 Propeller Flange L = 110	1	
10	E023001	Prop Flange Bolt	1	300Nm (1)
11	E022510	Locking propellor flange bolt	1	
12	F1706030	Parallel Key 6x6x30	1	
13	E021001	Crankshaft Gear	1	
14	BE023506	Connecting Rod Assembly	4	
15	E022004	Connecting rod bearing set (2)	4	
16	F0408035	Socket Cap Screw - M8x1x35 - 12.9 Steel	8	36 Nm (2+4)
17	E024009 E024008	Piston -18cc (“I”engines) Piston -7cc (“iS” engines)	 1	
18	E021506	Thrust Bearing Disc	1	
19	E021515	Thrust Bearing Retention Ring Outer	1	
20	E021510	Thrust Bearing Disc Spring Outer	2	
21	E020512	Oil Stop Crankshaft Front	1	(9)
22	E024010	Piston ring set	4	
23	F1306012	hexagon socket set screw M6x12	1	10 Nm
24	S1047017	O-ring Viton 47.35 x 1.78	1	
25	S1028020	O-ring Viton Ø28x2	1	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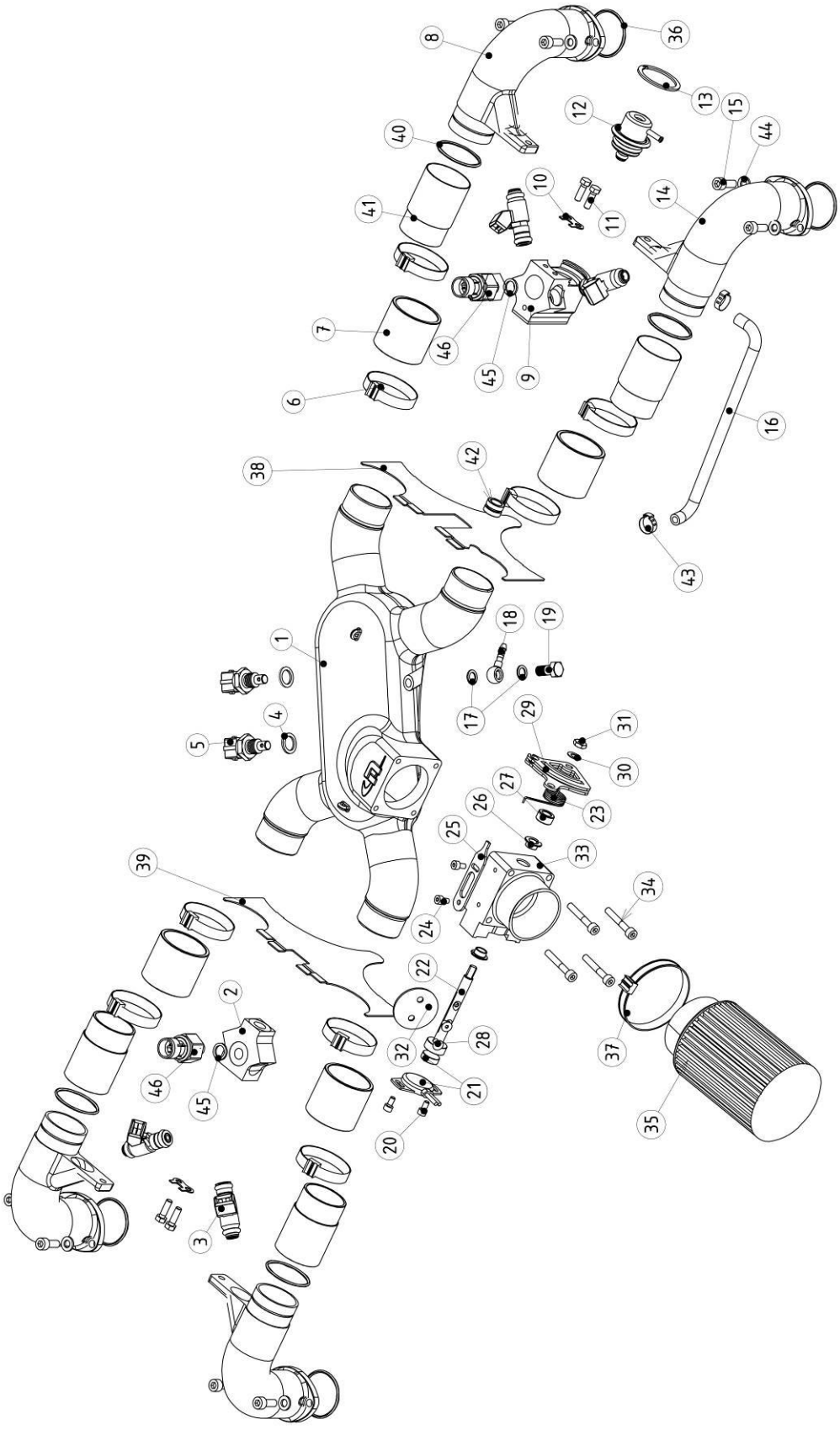
Inlet Manifold, Injectors and Throttle (Single ECU)

Item	Part No.	Description	Parts in assembly	Note
1	E061510	Inlet Collector	1	
2	E061504	Injector + Sensor Holder	1	
3	E062501	Injector	4	(3)
4	S3121715	Copper Sealing Ring ø12x17x1.5	1	
5	E081515	Air Temperature Sensor	1	20 Nm
6	F2580001	Hose Clamp single use ø47	8	
7	E06151	Rubber Hose 38x3x38	4	
8	E061509	Inlet Tube Right	2	(7)
9	E061513	Injector + Fuel Pressure Regulator Holder / Bypass (Single ECU)	1	
10	E061512	Injector Holder Lock Plate	2	
11	F1005016	Hex Head Screw - M5x16 - 8.8 Steel - Yellow Passivated	4	6 Nm
12	E064501	Fuel Pressure Regulator - 3bar	1	(3)
13	F1600036	Retaining Ring - bore 36mm	1	
14	E061508	Inlet Tube Left	2	
15	F0106016	Socket Cap Screw - M6x16 - 8.8 Steel - Yellow Passivated	8	10 Nm (2)
16	F2550006	Fuel Pressure Regulator Hose (ø4.5x9.5 x 16cm)	0,3	
17	S3081210	Copper Sealing Ring ø8x12x1	2	
18	F2510708	Banjo Eye M8/Ø5	1	
19	F2520800	Banjo Bolt M8x1	1	6 Nm
	SUE060520	Throttle assy *hall (Contains piece 20 - 33)*		
20	*F3604010*	*Flanged Button Head Socket Cap Screw - M4x10 - Zinc Plated*	2	
21	*E081519*	*Double TPS Hall*	1	
22	*E060541*	*Throttle shaft D38 Hall Sensor*	1	
23	*E060542*	*Throttle bushing Hall Sensor*	1	
24	*F0104008*	*Socket Cap Screw - M4x8 - 8.8 Steel - Yellow Passivated*	2	2 Nm
25	*E060506*	*Throttle Lever Stop*	1	
26	*B2200001*	*Flanged Bushing 8x10x5.5*	2	
27	*E060511*	*Throttle lever spring*	1	
28	*F3503008*	*Button head socket cap screw - M3x8 - 10.9 Steel - Zinc Plated*	2	3 Nm
29	*E060543*	*Throttle lever out plate hall sensor*	1	
29	*E060544*	*Lever middle plate hall Sensor*	1	
29	*E060545*	*Lever inner plate hall sensor*	1	
30	*SE061513*	*Locking plate throttle shaft*	1	
31	*F5001060*	*Hex nut M6 -Zn*	1	
32	*E060505*	*Throttle Plate D38*	1	
33	*E060546*	*Throttle Housing D38 Hall Sensor*	1	(7)
34	F0105035	Socket Cap Screw - M5x35 - 8.8 Steel - Yellow Passivated	4	6 Nm
35	E062001	Inlet Air Filter	1	
36	S1036020	O – Ring Viton 36 x 2	4	
37	F2580005	Hose clamp single use ø 63,5	1	
38	E012510	Baffle right	1	
39	E012509	Baffle left	1	
40	S1035012	O – Ring 35 x 1,2	4	

Item	Part No.	Description	Parts in assembly	Note
41	BE061515	Inlet extension tube	4	
42	E012517	Protection hose Fp-regulator	1	
43	F2580002	Hose clamp single use Ø10	2	
44	F2110060	Nordlock washer M6	8	
45	S3101415	Copper sealing ring d10xD14x1.5	1	
46	E081507	Fuel pressure sensor	1	12 Nm
47	F4621215	Hexagon Socket Cap Screw Plug – M12x1.5	1	20Nm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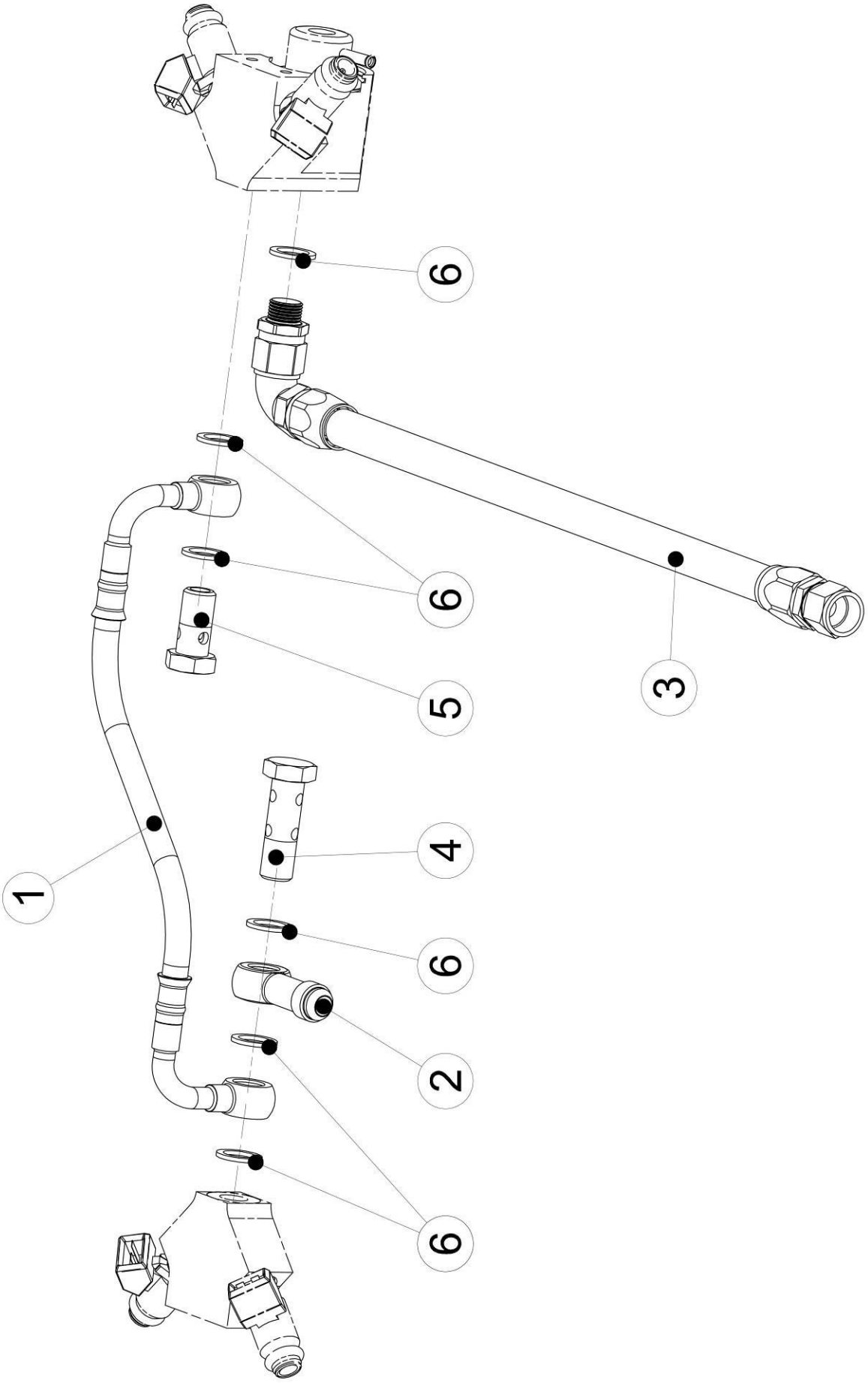
Inlet Manifold, Injectors and Throttle (Double ECU)

Item	Part No.	Description	Parts in assembly	Note
1	E061510	Inlet Collector	1	
2	E061504	Injector + Sensor Holder	1	
3	E062501	Injector	4	(3)
4	S3121715	Copper Sealing Ring ø12x17x1.5	2	
5	E081515	Air Temperature Sensor	2	20 Nm
6	F2580001	Hose Clamp single use ø47	8	
7	E061511	Rubber Hose 38x3x38	4	
8	E061509	Inlet Tube Right	2	(7)
9	E061505	Injector + Fuel Pressure Regulator + sensor Holder / Bypass (Dual ECU)	1	
10	E061512	Injector Holder Lock Plate	2	
11	F1005016	Hex Head Screw - M5x16 - 8.8 Steel - Yellow Passivated	4	6 Nm
12	E064501	Fuel Pressure Regulator - 3bar	1	(3)
13	F1600036	Retaining Ring - bore 36mm	1	
14	E061508	Inlet Tube Left	2	
15	F0106016	Socket Cap Screw - M6x16 - 8.8 Steel - Yellow Passivated	8	10 Nm (2)
16	F2550006	Fuel Pressure Regulator Hose (ø4.5x9.5 x 16cm)	0,3	
17	S3081210	Copper Sealing Ring ø8x12x1	2	
18	F2510708	Banjo Eye M8/Ø5	1	
19	F2520800	Banjo Bolt M8x1	1	6 Nm
	SUE060520	Throttle assy *hall (Contains piece 20 - 33)*		
20	*F3604010*	*Flanged Button Head Socket Cap Screw - M4x10 - Zinc Plated*	2	
21	*E081519*	*Double TPS Hall*	1	
22	*E060541*	*Throttle shaft D38 Hall Sensor*	1	
23	*E060542*	*Throttle bushing Hall Sensor*	1	
24	*F0104008*	*Socket Cap Screw - M4x8 - 8.8 Steel - Yellow Passivated*	2	2 Nm
25	*E060506*	*Throttle Lever Stop*	1	
26	*B2200001*	*Flanged Bushing 8x10x5.5*	2	
27	*E060511*	*Throttle lever spring*	1	
28	*F3503008*	*Button head socket cap screw - M3x8 - 10.9 Steel - Zinc Plated*	2	3 Nm
29	*E060543*	*Throttle lever out plate hall sensor*	1	
29	*E060544*	*Lever middle plate hall Sensor*	1	
29	*E060545*	*Lever inner plate hall sensor*	1	
30	*SE061513*	*Locking plate throttle shaft*	1	
31	*F5001060*	*Hex nut M6 -Zn*	1	
32	*E060505*	*Throttle Plate D38*	1	
33	*E060546*	*Throttle Housing D38 Hall Sensor*	1	(7)
34	F0105035	Socket Cap Screw - M5x35 - 8.8 Steel - Yellow Passivated	4	6 Nm
35	E062001	Inlet Air Filter	1	
36	S1036020	O – Ring Viton 36 x 2	4	
37	F2580005	Hose clamp single use ø 63,5	1	
38	E012510	Baffle right	1	
39	E012509	Baffle left	1	
40	S1035012	O – Ring 35 x 1,2	4	

Item	Part No.	Description	Parts in assembly	Note
41	BE061515	Inlet extension tube	4	
42	E012517	Protection hose Fp-regulator	1	
43	F2580002	Hose clamp single use Ø10	2	
44	F2110060	Nordlock washer M6	8	
45	S3101415	Copper sealing ring d10xD14x1.5	2	
46	E081507	Fuel pressure sensor	2	12 Nm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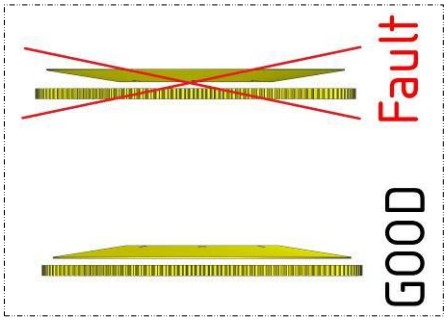
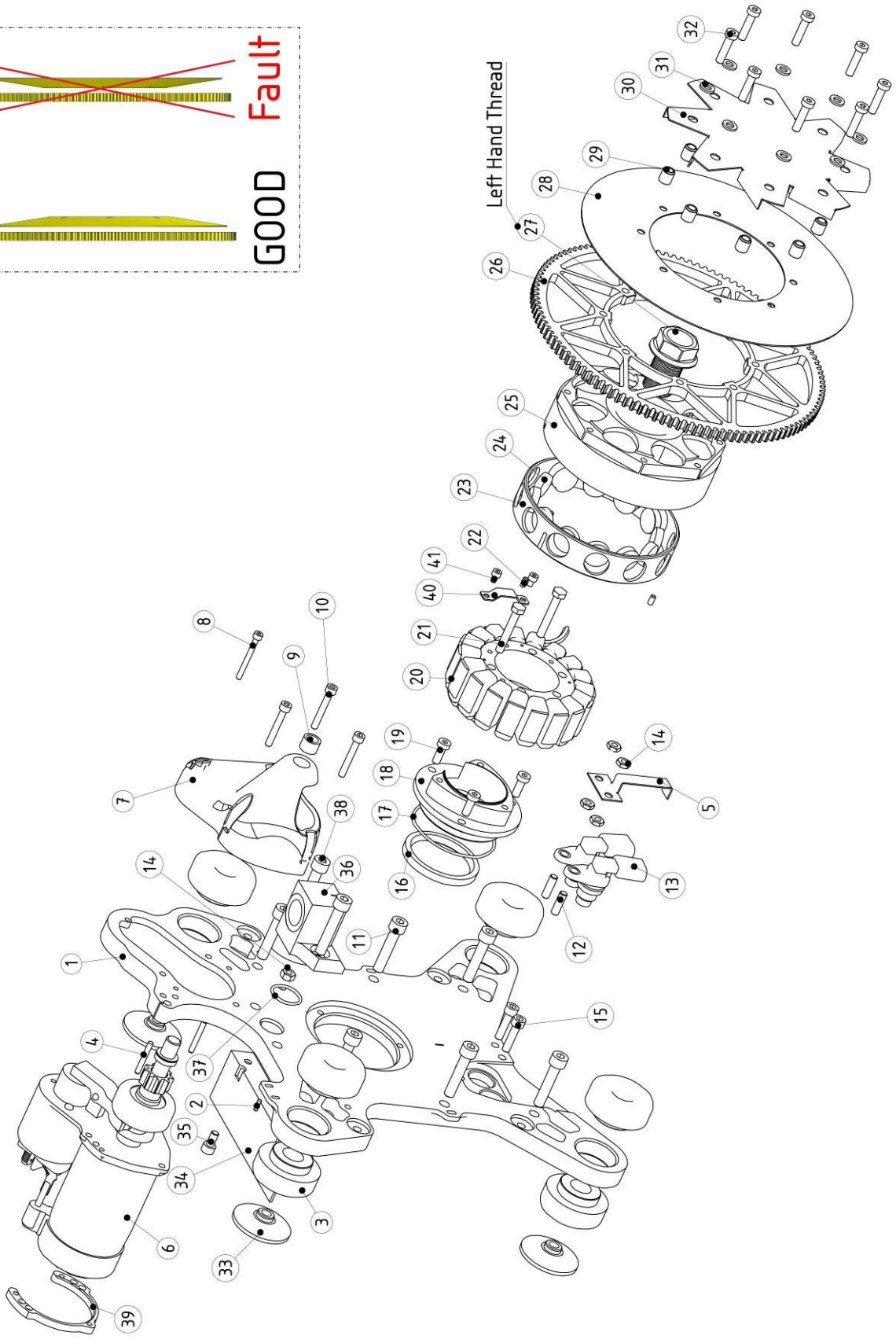
Fuel lines

Item	Part No.	Description	Parts in assembly	Note
1	E063013	Fuel line cross long	1	
2	F2510312	Banjo Eye M12 / 6JIC	1	
3	E063015	Fuel return line 3.5 – 5.2	1	
4	F2521210	Banjo bolt M12x1.5 Long	1	18 Nm
5	F2521200	Banjo bolt M12x1.5	2	18 Nm
6	S3121715	Copper sealing ring d12xD17x1.5	7	

Assemble 26 & 28

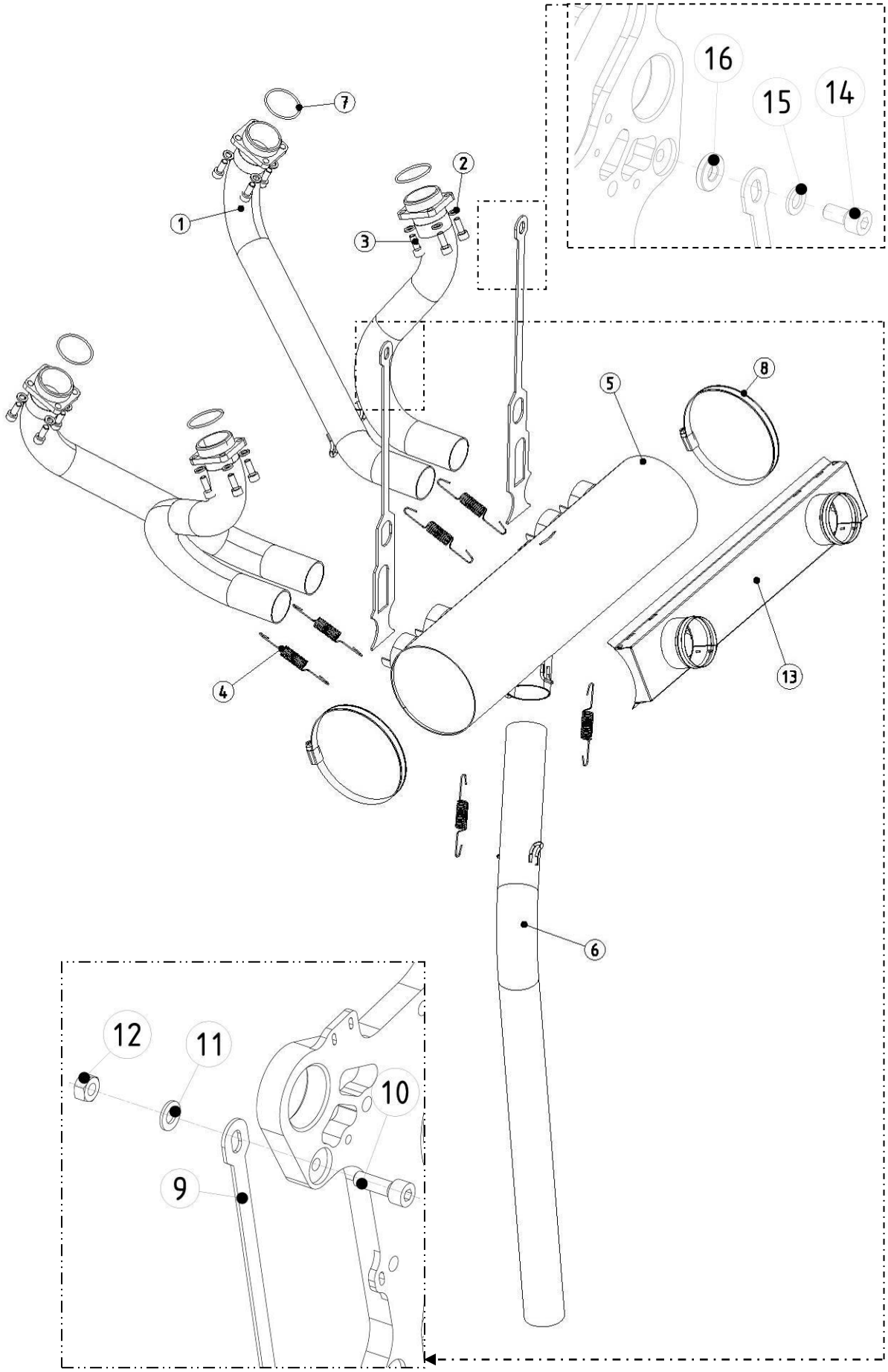




Engine Mount Plate, Starter and Alternator

Item	Part No.	Description	Parts in assembly	Note
1	AE013530 AE013535	Engine Mount Plate Engine Mount Plate double sensor	1	(7)
2	F1803010	Parallel Pin 3x10	2	
3	E014002	Rubber Engine Mount	8	
4	F1804020	Parallel Pin 4x20	2	
5	E072001	Locking plate hall sensor	1	
6	E050501	Starter Engine	1	
7	E050503	Starter Cap	1	
8	F0104035	Socket Cap Screw - M4x35 - 8.8 Steel - Zinc Plated	1	3 Nm
9	B2100001	Bushing 12x14x10	1	
10	F0105030	Socket Cap Screw - M5x30 - 8.8 Steel - Yellow Passivated	3	6 Nm (2)
11	F0108040	Socket Cap Screw - M8x40 - 8.8 Steel - Yellow Passivated	6	25 Nm
12	F4106020	Stud - M6x20 - Yellow Passivated	2	(2)
13	E081503	Hall Sensor	2	(3)
14	F5103060	Prevailing torque type hexagon nut - M6 - Zinc plated	6	6 Nm
15	F0106025	Socket Cap Screw - M6x25 - 8.8 Steel - Yellow Passivated	2	10 Nm
16	S2506207	Oil Seal Viton 50x62x7 GR	1	
17	S1066020	O-Ring Viton ø66x2	1	
18	E051505	Alternator Stator Spacer	1	(7)
19	F0506016	Socket cap screw thin - M6x16 - 8.8 Steel - Zinc plated	3	10 Nm (7)
20	E052001	Alternator Stator + connector	1	
21	F0706040	Hexagon head screw - M6x40 - 8.8 Steel - Zinc plated	3	10 Nm
 22 *23* *24* *25*	SUE052000 *F4510408* *E051502* *E052002* *E052501*	Alternator rotor flange assembly *(Contains piece 22, 23, 24, 25)* *Hexagon Socket Set Screw (Flat Point) - M4* *Alternator Magnet Spacer Ring* *Alternator Magnet* *Alternator Rotor Flange*	1 2 1 12 1	(8)
26	E051001	Starter Ring Gear	1	
27	E023002	Alternator Rotor Flange Bolt / Socket size 30mm	1	280 Nm (2)
 28 *29* *30*	E052507 *E052503* *E052504* *E052506*	Alternator Fan Assembly *(Contains piece 28, 29 , 30)* *Alternator fan base* *Spacer alternator fan* *Alternator fan top*	1 1 8 1	
31	F2110060	NordLock Washer M6	8	
32	F0206028	Socket Cap Screw - M6x28 - 8.8 Steel - Zn	8	10 Nm
33	E013505	Engine Mount Washer	4	
34	AE013540	Drainer	1	
35	F0106010	Socket Cap Screw - M6x10 - 8.8 Steel - Yellow Passivated	2	
36	ASE045001	Oil distributor	1	
37	S1020025	O-ring Viton Ø20x2,5	1	
38	F0108045	Socket Cap Screw - M8x45 - 12.9 Steel - Yellow Passivated	2	25 Nm

Item	Part No.	Description	Parts in assembly	Note
39	E050504	Starter Fixing Ring	1	
40	E013030	Bracket Alternator Guide	1	
41	F0104006	Socket Cap Screw M4x6 – 8,8 yellow	2	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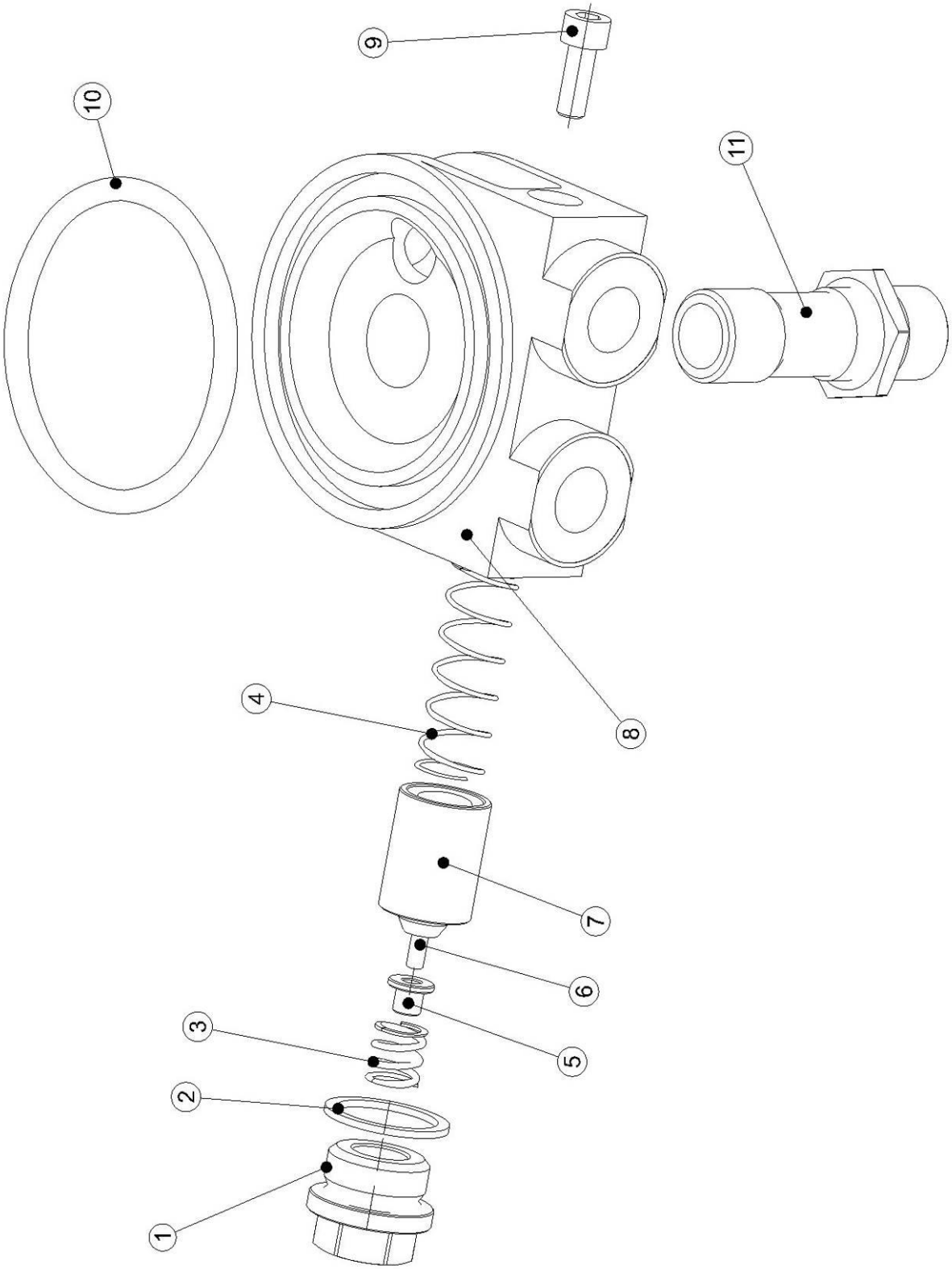
Exhaust System

Item	Part No.	Description	Parts in assembly	Note
1	BE091010	Stainless Steel Exhaust Tubes (set)	1	
2	F2110060	NordLock Washer M6	16	
3	F0106016	Socket Cap Screw - M6x16 - 8.8 Steel - Yellow Passivated	16	10 Nm (1)
4	E093001	Exhaust Spring	4	
5	BE091516 BE091515	Stainless Steel Muffler L=600 Stainless Steel Muffler L=480	1	
6	BE093506	Exhaust Tube	1	
7	E092002	Exhaust gasket ring Inox d32xD38x2.5	4	
8	F2580008	Hose clamp ø 90 – 110 / Stainless steel	2	
9	BE093005	Muffler bracket 3.5 – 5.2	2	
10	F0108025	Socket Cap Screw M8x25 -8,8 Steel Yellow Passivated	2	20 Nm
11	F2710008	Flat washer M8	2	
12	F5103080	Prevailing Hexagon nut all metal M8	2	
13	E092509	Muffler heating box (Optional)	1	
14	F0108016	Socket Cap Screw M8x16 – 8,8Steel Yellow passivated		
15	F2110080	Nordlock Washer M8		
16	E093008	Muffler Bracket Washer		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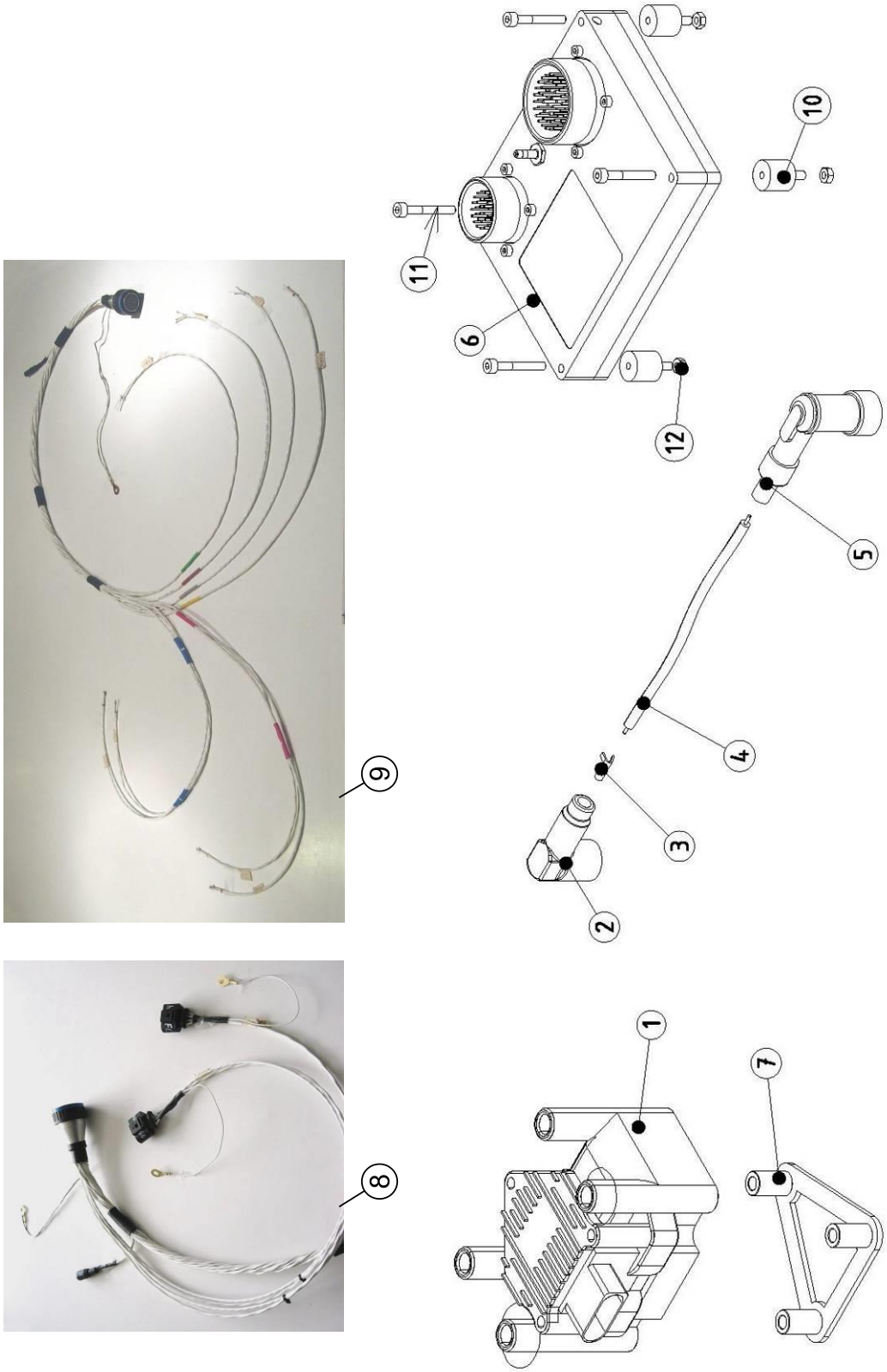
Oil Thermostat : E042515

Item	Part No.	Description	Parts in assembly	Note
1	E42520	Plug M22x1,5	1	20 Nm
2	S3222715	Copper sealing 22x27x1,5	1	(4)
3	F2010010	Spring VDSiCr Ø1,60x8,00x14.50 mm	1	
4	F2010020	Spring VDSiCr Ø1,4x14,00x46,50 mm	1	
5	E042540	Spring Holder	1	
6	E042501	Bimetal	1	
7	E042530	Bimetal Cover	1	
8	SE042510	Thermostat housing	1	
9	F0206025	Socket Cap Screw - M6x25 - 8.8 Steel	1	10 Nm
10	S1062050	O-Ring Viton Ø 62x5	1	
11	E042007	Oil filter adapter screw M20 x 1.5	1	20Nm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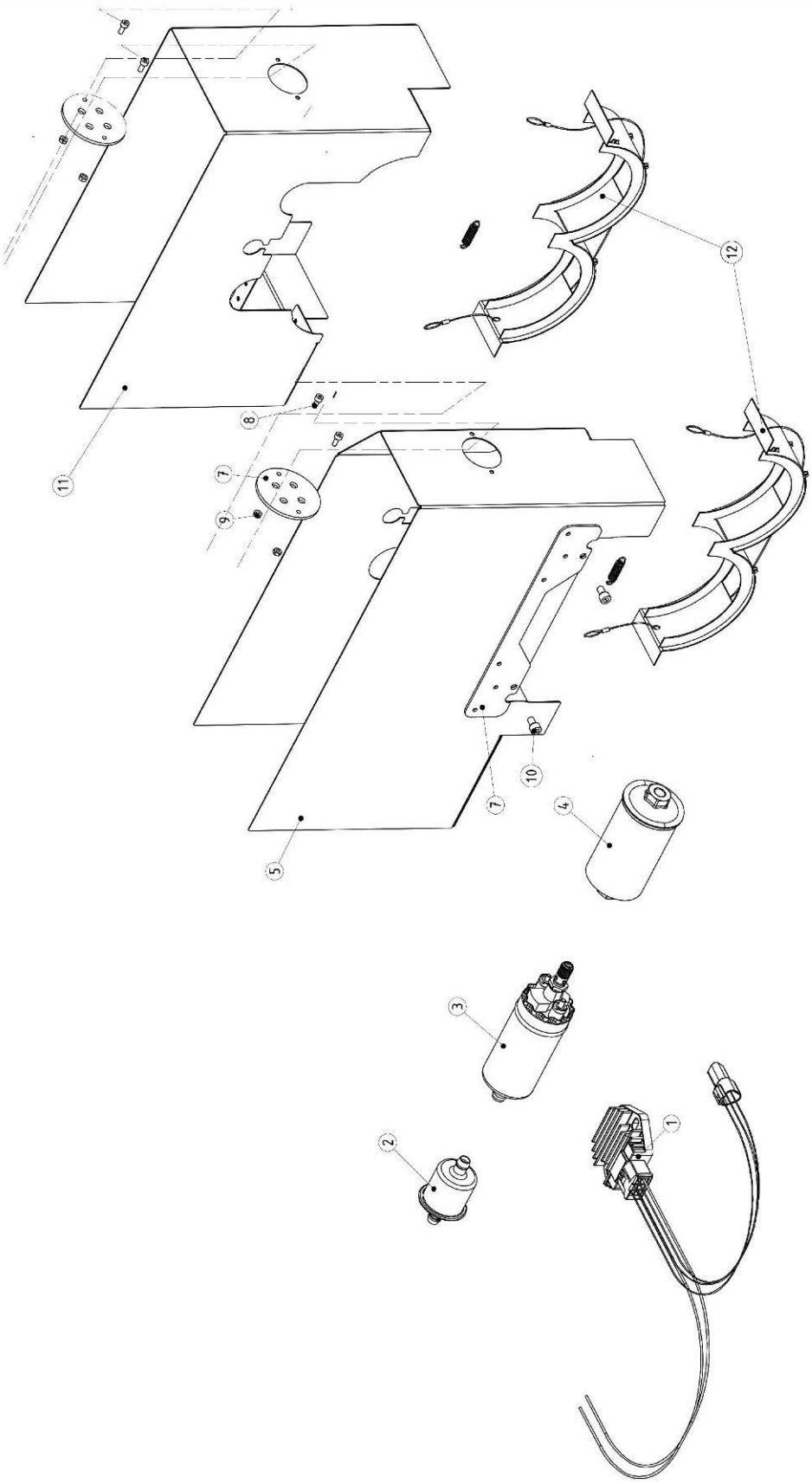
Ignition and Engine Control Unit

Item	Part No.	Description	Parts in assembly	Note
1	E071001	Ignition Coil	1	
2	E071501	Ignition Coil Cover	1	
3	E071505	Copper Clamp (for Ignition Coil Cover)	1	
4	E071503	Ignition Lead Cable	1	
5	E071504	Spark Plug Cover	1	
6	E080612 E080613 E080617 E080607	Engine Control Unit 3.5i Engine Control Unit 3.5iS Engine Control Unit 3.5iF Engine Control Unit 3.5iHPS	1	
7	E071002	Ignition coil bracket	1	
8	E081006 E081007	ECU Wiring loom engine L = 1000 (Single ECU) ECU Wiring loom engine L = 1100 (Double ECU)	1	
9	SE081007 SE081009	ECU Wiring loom cockpit (4 + 6 cylinder) L =1000 (Single ECU) ECU Wiring loom cockpit (4 + 6 cylinder) L =1000 (Double ECU)	1	
10	F2641515	Silent bloc M4 type B - hoogte 15	4	
11	F0204030	Socket Cap screw M4x30-8,8 Steel Yellow Passivated	4	4Nm
12	F5102040	Prevailing hexagon nut M4	4	4Nm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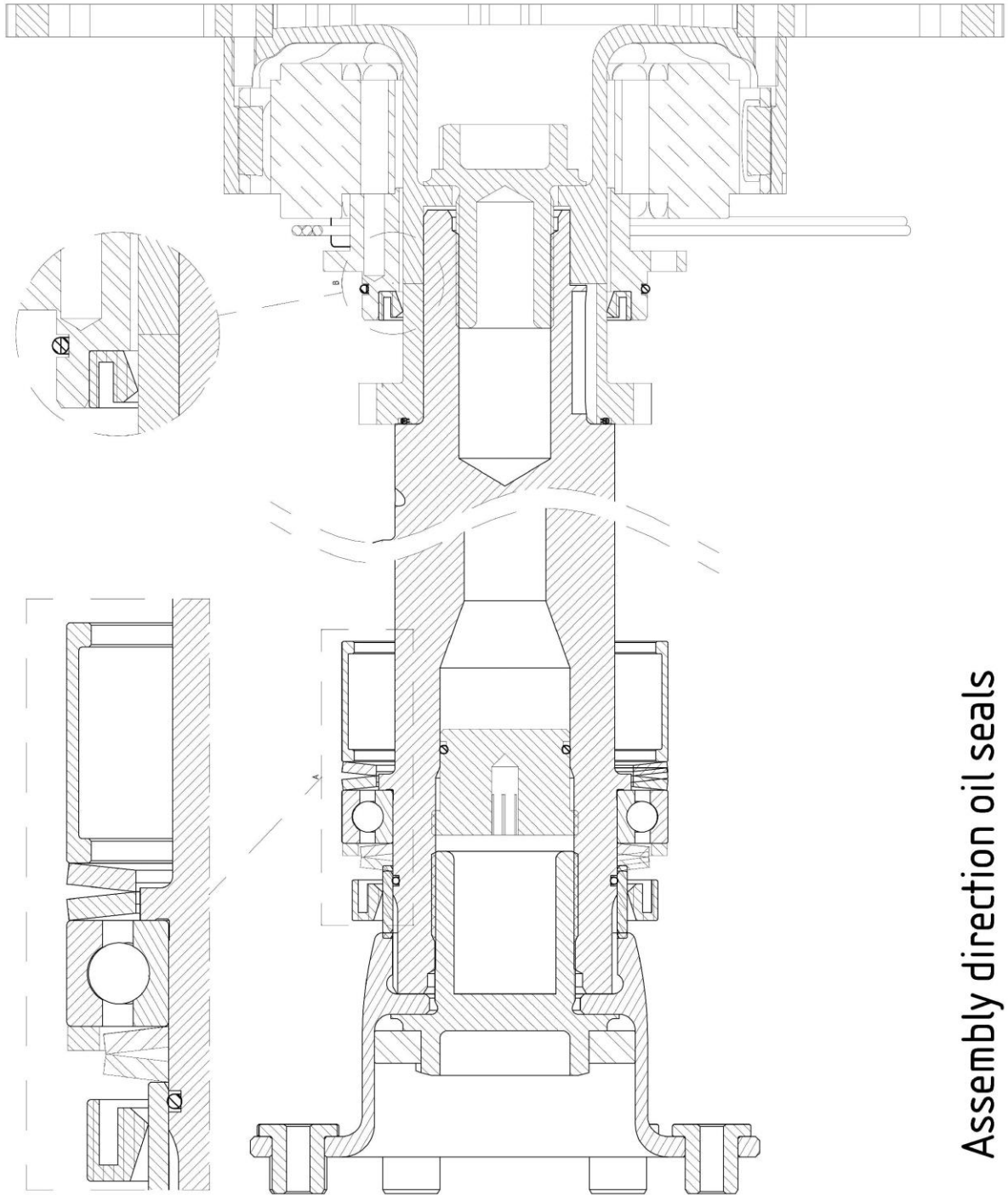
Accessories

Item	Part No.	Description	Parts in assembly	Note
1	E053005	Regulator + Wires Assembly	1	
2	E064003	Fuel Filter (Pre-filter)	1	
3	E063502	Fuel Pump	1	
4	E064001	Fuel Filter (Fine)	1	
		Assembly Cylinder Head Ram Air Box (Left)		
5	E012507	Cylinder Head Ram Air Box (Left)	1	
6	E012524	Reinforcing Rib	1	
7	E011503	Ignition Cable Grommet	2	
8	F0204010	Socket Cap screw M4x10 – 8.8 Zn	4	
9	F5102040	Prevailing Hexagon nut M4	4	
10	F0106016	Cap Screw M6x16-8-8 Steel Yellow Passivated	4	
		Assembly Cylinder Head Ram Air Box (Right)		
11	E012508	Cylinder Head Ram Air Box (Right)	1	
6	E012524	Reinforcing rib	1	
7	E011503	Ignition Cable Grommet	2	
8	F0204010	Cap screw M4x10 – 8.8 Zn	4	
9	F5102040	Prevailing Hexagon nut M4	4	
12	E013002	Cylinder baffle (E013005A + E013015A)	2	
		Cylinder baffle forced cooling (E013005A + E013010A)		
		Spring 1.0x8x35	2	
		Steel Cable	1	

Section of drawings



Notes

(1) Loctite 8009 (High Temperature Resistant Grease)
(2) Loctite 266 (Thread Locker)
(3) Engine Oil
(4) Replace When Removed
(5) Loctite 5910 (Quick Gasket)
(6) Loctite 577 (Thread Sealant)
(7) Elring No. 030.792 (Sealing Silicone)
(8) Loctite 573 (Flange Sealant)
(9) Loctite 542 (Thread Sealant)

Revision

Revision 1: (19-10-2017)

- **Pg 34 and pg 35:** Accessoires: nr 17: (E013025: Steel Cable)

Revision 2: (2018-06-01)

- **Pg 4-5:** Nr. 22
- **Pg 6-7:** E081507 (oil/Fuel pressure sensor) (hose is deleted) / E081516 was E081501 Nr 59 en 60.
- **Pg 13:** nr 16: E041040 was F4621615
- **Pg 16-17:** Nr 22.
- **Pg 18-24:** nr 2 Injector + sensor holder / Nr 46: sensor E081507 / E081515 was E081504
- **Pg 26:** Detail Montage E052503
- **Pg 27:** Nr 28: E052503 was E052505
- **Pg 28-29:** Nr19: Apply Sealing silicone / Nr22: Apply Loctite 527
- **Pg 35:** E081002 => E081006 / E081005 => E081007 / SE081002 => SE081006 / SE081005 => SE081009
- **Pg 36 - 37:** Nr 9: Cilps deleted

Revision 3: (2018-12-01)

- **Pg 18-19:** Nr 20: SUE060510 was SUE060500
- **Pg 35:** Nr 6: (E080604 => E080612; E080605 => E080613; E080606 => E080617)
- Silicone 030.792 was 030.790

Revision 4 (2019-10-01)

- **Pg 16 en 17:** Nr 24 F1305016 was F1306016
- **Pg 18 en 19:** Nr 9 E0615013 was E061507
- **Pg 22 en 24:** Nr 9 E061505 was E061507 / nr 43 & 44: 2 parts
- **Pg 28 en 29:** Nr 8 F0104035 was F0104045 en Nr10 F0105030 was F0105035
- **Pg 36 en 37:** Nr 3 E053003 was E053002 (Rectifier / regulator connector and pins)

Revision 5 (2020-02-10)

Pg 6, 7 en 8: Nr 27 – Nr 30 verwijderd (Nylon Cable Tie)

Nr 27: S3142015 was 3141815

Nr 29: S3162215 was S3162015

Pg 16 en 17: Nr25: O-ring Viton

Pg 18 en 19: Throttle assy SUE060520 was SUE060510 / E081819 was E081506 / E060546 was E060540

Pg 22 en 23: Throttle assy SUE060520 was SUE060510 / E081819 was E081506 / E060546 was E060540
E060540

Pg 28 en 30: Nr 39: E050504: Starter fixing Ring / (2) bij Nr 10
Nr 40-41: Bracket Alternator Guide

Pg 34 en 35: Nr 3: F2010010 was F2010002

Nr 4: F2010020 was F2010002

Pg 38 en 39: Nr 14: Spring 1.0x8x35 (F2010003) en Steel Cable (E013025) zit in assembly E013002

Revision 6 (2020-07-01)

Pg 16 en 17: Nr 17: E024009 was E024001 / E024008 was E024005

Revision 7 (2021-06-01)

Pg 7 -8 : Nr 53 AE010525 was F2560011
Pg 16 -17 : Nr 19 Deatail
Pg 28 -29 : Nr 14 (F5103060) 8Nm was 10Nm
Pg 32 -33 : Nr 14, 15 en 16 toe gevoegd
Pg 38 -39 : Nr 2 was Nr 2 en 3 (Regulator + Wires assembly was Regulator + prewired connector)
E052003 verwijderd (Alternator Stator Connector & Pins)
Pg 41 : Detail bij Section of drawings

Revision 8 (2022 – 04 -01)

Pg 16 en 17: Nr 21 was E020510
Nr 24 F1306012 was F13005016
Nr 26: S1028020 (O-ring viton 28x2) toegevoegd
Oil Stop M24x1,5 verwijderd
Pg 28 en 29: Nr 36 ASE045001 was AE045001

Revision 9 (2023 – 06 -01)

Pg 4-5: O-ring Viton 105x2 (S1105020) verwijderd / Nr 22 Copper ring toegevoegd
Pg 6 -7: Nr 21:AE041005 was E041004
Pg 6 -7: Nr 15 S1012020 (O-Ring Viton ø12x2) was S1011020 (O-Ring Viton ø11x2)
Pg 41: Notes toegevoegd

Revision 10 (2024 – 02 -01)

Pg 18- 20: nr 40: S1035012 was S103510 (O-ring 35x1 word O-ring 35x1,2

Pg 22- 24: nr 40: S1035012 was S103510 (O-ring 35x1 word O-ring 35x1,2)

Pg 28-29: Nr 14: 6Nm was 8Nm

Pg 32-33: Nr 13: E092509 was E092502

Revision 11 (2025-04-30)

Pg 32-33: Nr 7: E092002 was E092001 (Exhaust gasket ring **Inox** d32xD38x2.5)