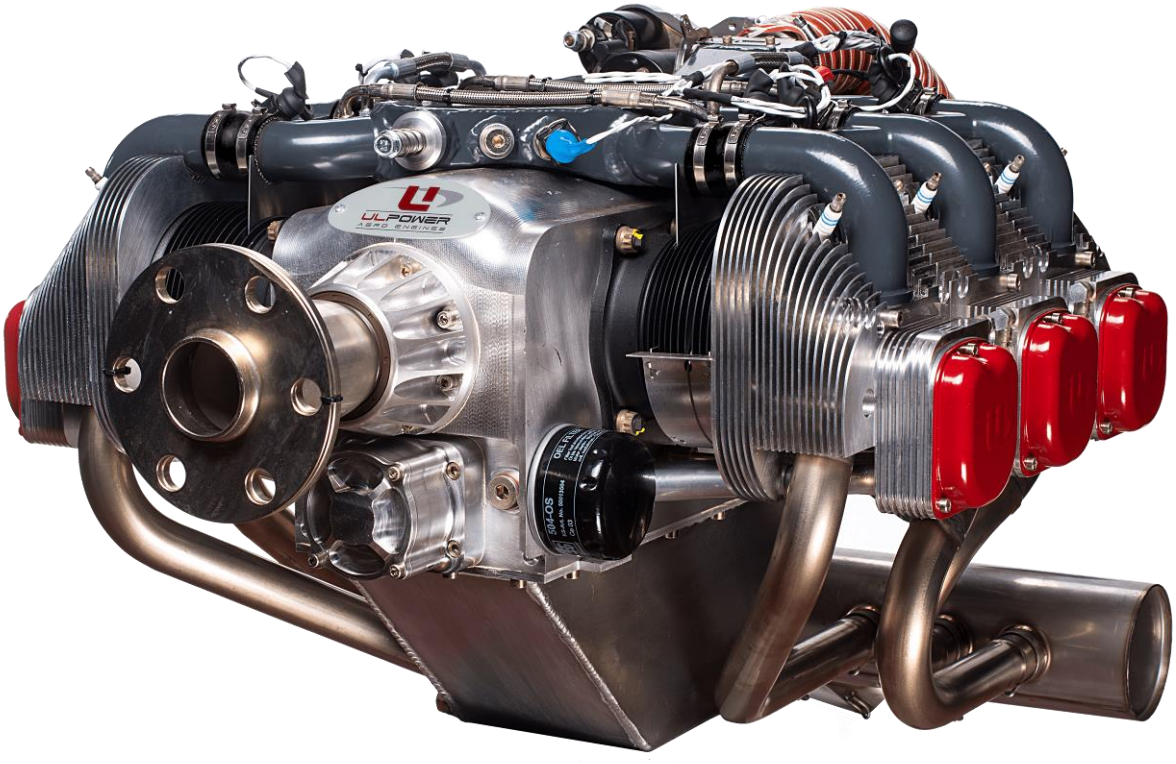
ULPOWER
AERO ENGINES

Illustrated Parts Catalogue



UL520iSA
AERO ENGINE

M0151: IPC 520 aerobatic Revision No : 10

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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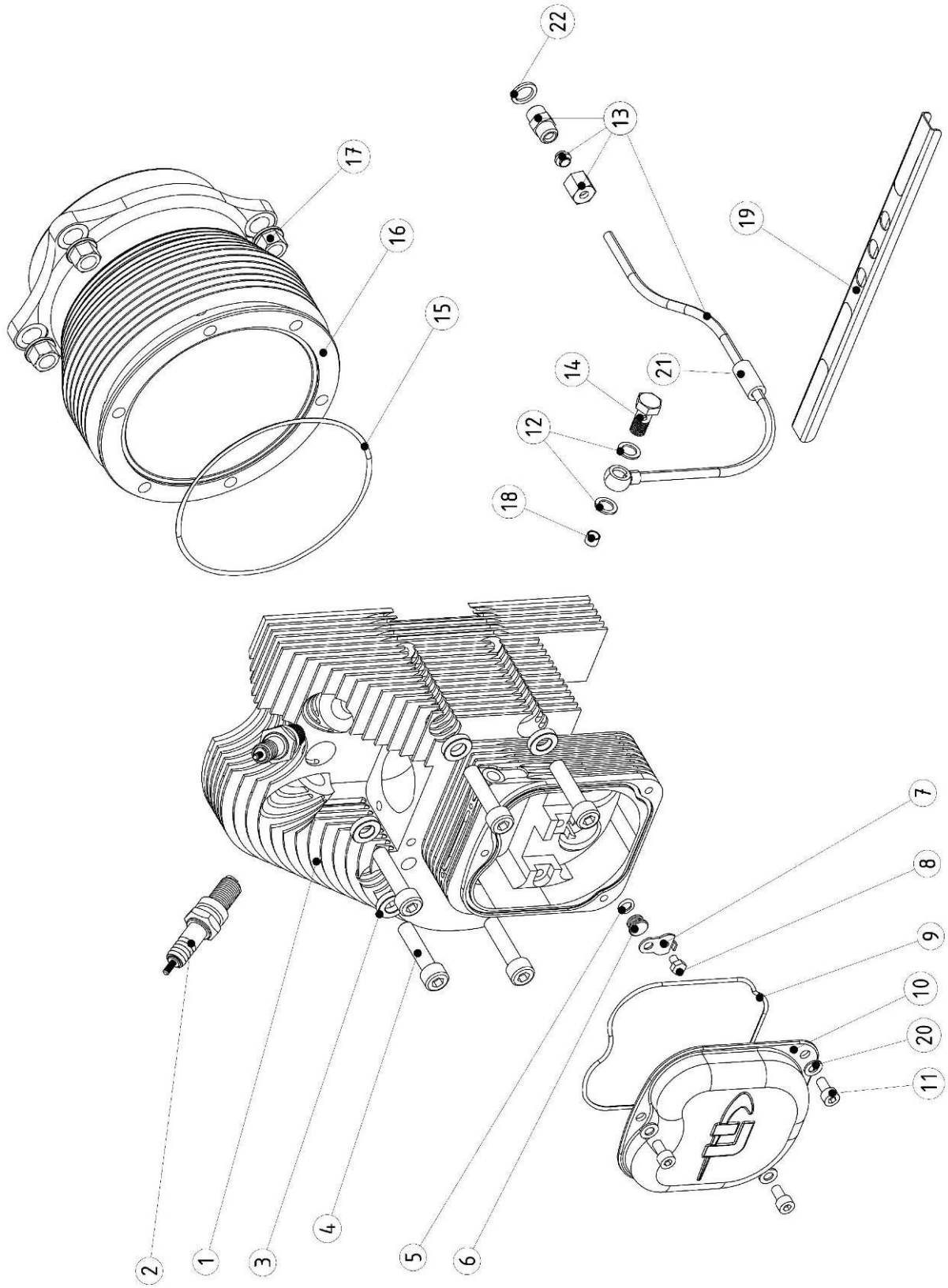
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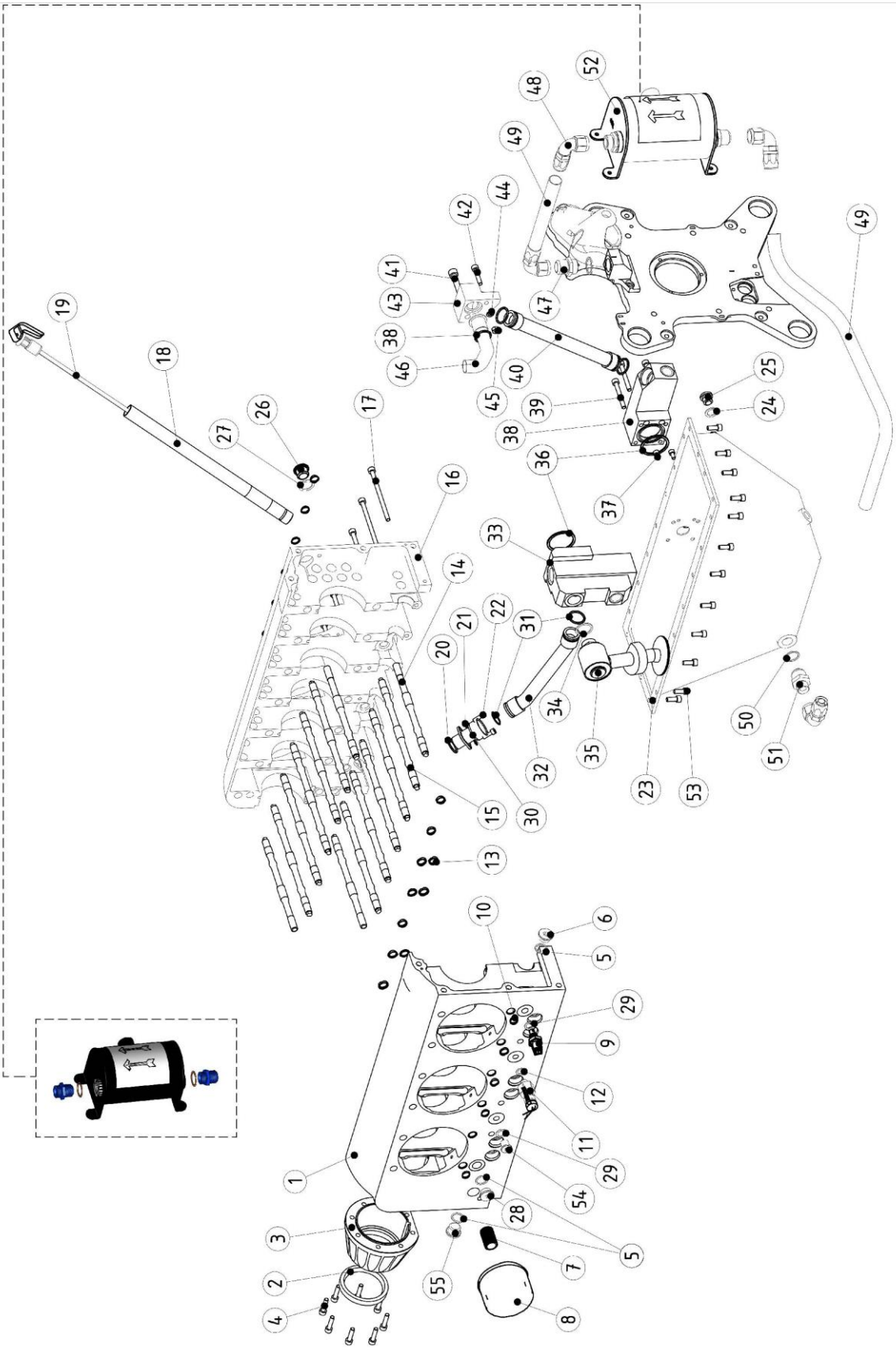
Cylinder Head and Cylinder

Item	Part No.	Description	Parts in assembly	Note
1		Cylinder Head Assembly	1	
	BE012512	Cylinder Head Right	0	
	BE012513	Cylinder Head Left	1	
	SBE012512	Cylinder head middle	0	
	E035001	Valve Guide	2	
	E034501	Exhaust Valve Seat	1	
	E034502	Inlet Valve Seat	1	
2	E070502	Spark Plug	2	21Nm (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	SBE012004	Cylinder	1	(5)
17	E011003	Flanged Nut M10x1	4	36 Nm
18	E012511	Cylinder Head Oil Filter	1	
19	SE012530	Bracket oil line	1	
20	F2110050	Nord lock washer	3	
21	F2550013	Cloth braided hose Ø5,5 x Ø10,5	1	
22	S3101415	Copper Ring Ø10x14x15	1	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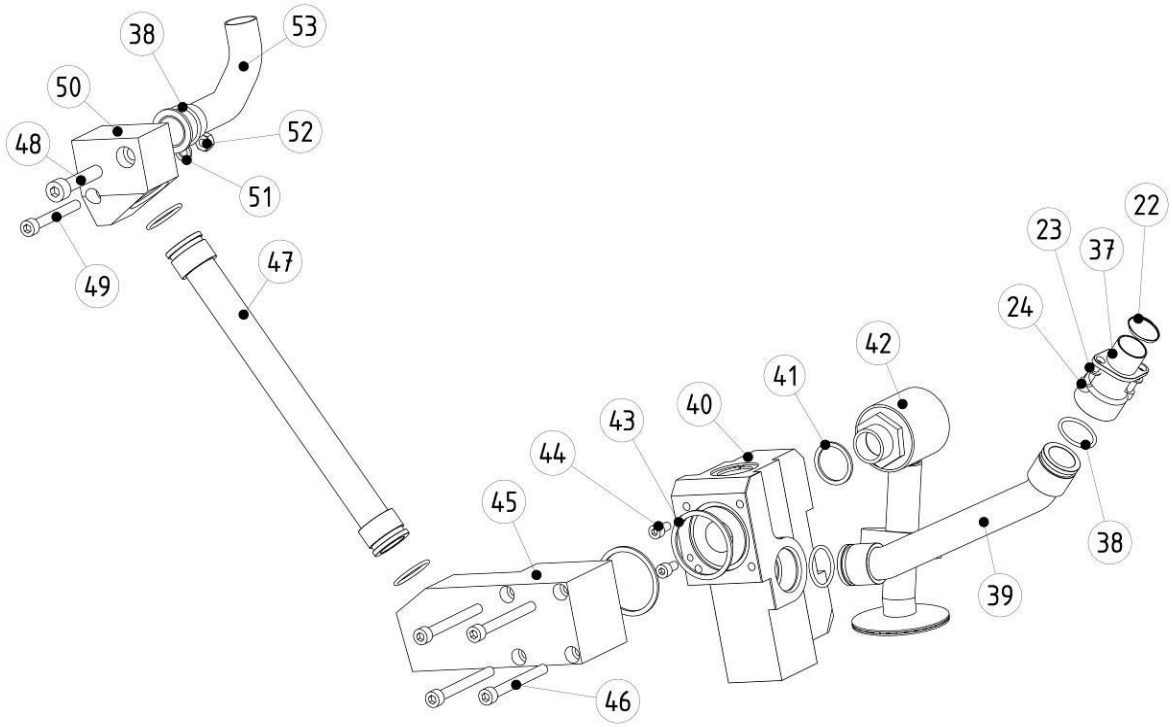
Crankcase, Oil Sump & Dipstick, Oil air breather

Item	Part No.	Description	Parts in assembly	Note
1	ASE010502	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	S3162015	Copper Sealing Ring ø16x20x1.5	3	
6	SE041045	Hexagon Socket Screw Plug - M16x1.5 / 45°	2	25 Nm (2)
7	E042006	Oil Filter Screw M20x1.5	1	
8	E042005	Oil Filter	1	15 Nm (3)
9	E081516	Oil Temperature Sensor	1	20 Nm
10	S1011015	O-Ring Viton ø11x1.5	12	
11	E081507	Oil Pressure Sensor	1	
12	S3101415	Copper Sealing Ring ø10x14x1.5	4	
13	S1012020	O-Ring Viton ø12x2	10	(3)
14	E011002	Stud Short	4	(1)
15	E011001	Stud Long	10	
16	ASE010501	Crankcase Right	1	
17	F0206100	Socket Cap Screw - M6x100 - 8.8 Steel - Zinc Plated	6	10 Nm
18	E043003	Dipstick Tube	1	(6)
19	ASE043005	Dipstick Acro 6 cyl	1	
20	S1020010	O-Ring Viton ø20x1	1	
21	F2110050	NordLock Washer M5	2	
22	F0105016	Socket Cap Screw - M5x16 - 8.8 Steel - Yellow Passivated	2	6 Nm
23	ASE041002	Oil Sump	1	(7)
24	S3142015	Copper Sealing Ring ø14x20x1.5	1	
25	E041020	Carter plug magnet M14x1,5	1	25 Nm
26	F4621815	Hexagon Socket Screw Plug M18x1.5	1	
27	S3182415	Copper seailing ring Ø18x24x1,5	1	
28	E041015	Plug 5/8 - 18UNF	1	
29	S3121715	Copper sealing ring d12xD17x1.5	2	
30	ASE044512	Connection crankcase	1	
31	S1022020	O-ring Viton Ø20x2	5	
32	SUASE044507	Subass Connection casing - valve	1	
33	SUASE044530	Subass Gravity valve 6 cyl	1	
34	S3222715	Copper ring Ø22x27x1,5	2	
35	SUAE044520	Subass Oil pick-up tube acro	1	
36	S1039020	O-ring Viton 39x2	2	
37	F0105010	Socket cap screw - M5x10 - 8,8 yellow	2	10 Nm
38	SUASE044535	Subass oilsump connection	1	
39	F0106050	Socket cap screw M6x50 - 8,8 Yellow	2	12 Nm
40	SUASE044506	Subass connection oilsump - casing top	1	
41	F0108040	Socket cap screw M8x40 - 8,8 Yellow	4	20 Nm
42	F0106050	Socket cap screw M6x50 - 8,8 yellow	1	12 Nm
43	ASE044540	Connection suction line	1	

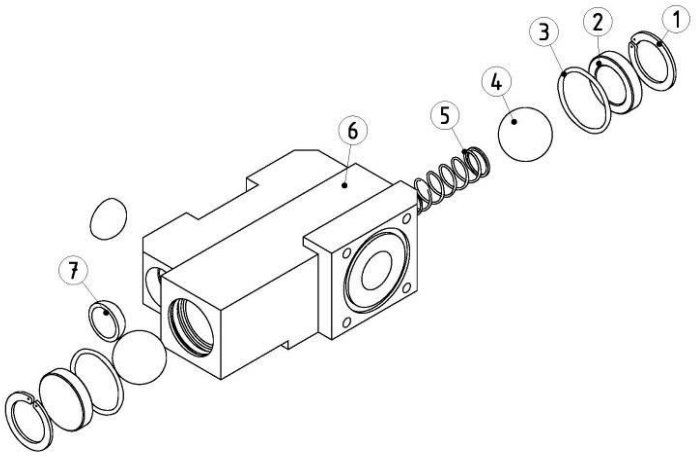
Item	Part No.	Description	Parts in assembly	Note
44	F2110060	Nordlock washer M6	1	
45	F5103060	All metal prevailing torque hex nut - M6 Zinc plated	1	
46	SUASE044508	Subass oil suction tube top	1	
47	F2560016	Adapter M22x1,5 -10JIC	1	
48	F3010090	90° reusable - 10jic swivel	4	
49	F2550011	Reusable hose FC33-10An		
50	S3182415	Copper ring d18xD24x1,5	1	
51	F2560011	Adapter M18x1,5 -10 JIC	1	
52	AE043530	Oil air breather acro	1	
53	F0106016	Socket cap screw M6 x16 -8,8 Steel - Yellow passivated	22	10 Nm
54	F4621215 E081518	Hexagon socket screw plug M12x1.5 (Single ECU) Oil Pressure sensor (double ECU)	1 1	25Nm (2) 12Nm
55	F4621615	Hexagon Socket Screw Plug - M16x1,5 Zn	1	25Nm (2)

Acro system detailed



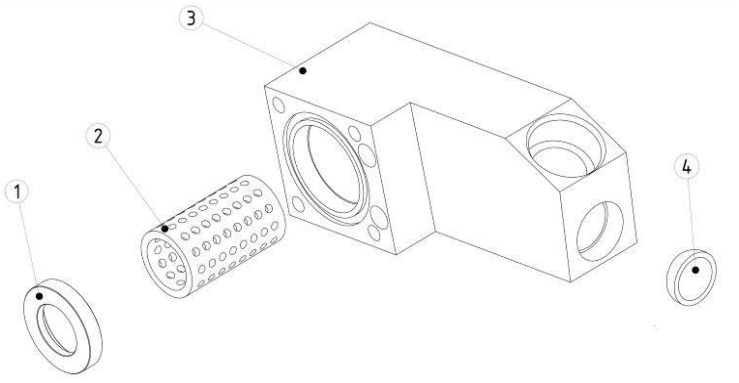
Item	Part No.	Description	Parts in assembly	Note
22	S1018010	O-ring Viton Ø18x1	1	
23	F2110050	Nordlock washer M5	2	
24	F0105016	Socket cap screw - M5x16 -8,8 - yellow	2	6 Nm
37	ASE044512	Connection crankcase	1	
38	S1022020	O-ring Viton Ø22x2	5	
39	SUASE044507	Subass Connection casing - valve	1	
40	SUASE044530	Assembly gravity valve 6cyl	1	(7)
41	S3222715	Washer Ø22x27x1,5	1	
42	SUAE044520	Subass Oil pick-up tube acro	1	
43	S1039020	O-ring Viton Ø39x2	2	
44	F0106010	Socket cap screw - M6x10 -8,8 - Yellow	2	10 Nm
45	SUASE044535	Subass oil sump connection	1	(7)
46	F0106050	Socket cap screw - M6x50 - 8,8 - yellow	4	12 Nm
47	SUASE044506	Subass connection oil sump - casing top	1	
48	F0108040	Socket cap screw - M8x40 - 8,8 yellow	1	20 Nm
49	F0106050	Socket cap screw - M6x50 - 8,8 yellow	1	10 Nm
50	ASE044540	Connection suction line	1	
51	F2110060	Nordlock washer M6	1	
52	F5103060	All metal prevailing torque hex nut - M6 Zinc plated	1	
53	SUASE044508	Subass oil suction tube top	1	

SUASE044530 (N°40) (Subass Gravity Valve 6 cyl)



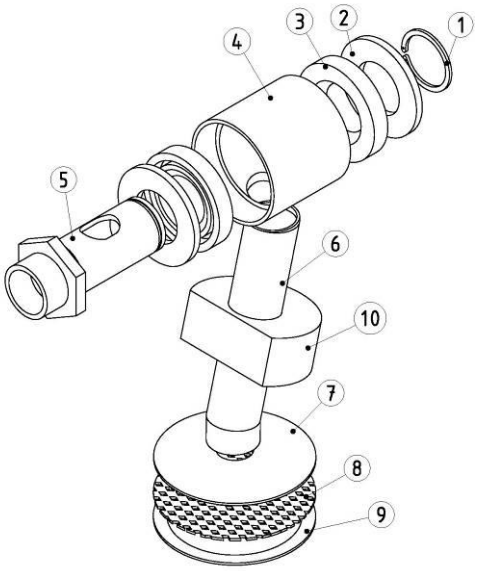
Item	Part No.	Description	Parts in assembly	Note
1	F1600030	Retaining ring bore Ø30	2	
2	AE045020	Endstop valve	2	
3	S1030020	O-ring Viton Ø30x2	2	
4	F1920140	Ball Ø25,4	2	
5	AE044532	Spring Ø19 - l45	1	
6	ASE044530	Oil valve housing	1	
7	F5302207	Plug 22mm	2	

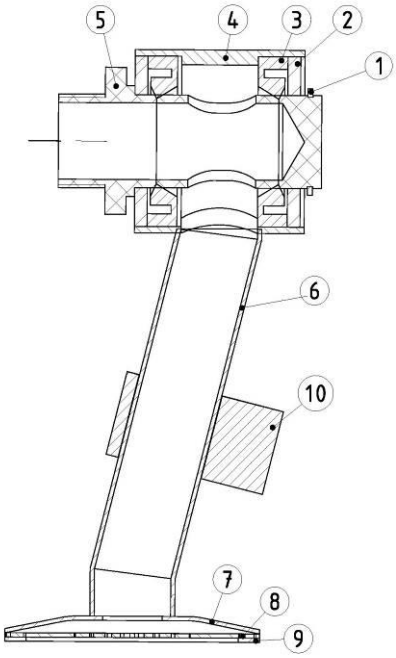
SUASE044535 (N°45) (Subass oil sump connection)



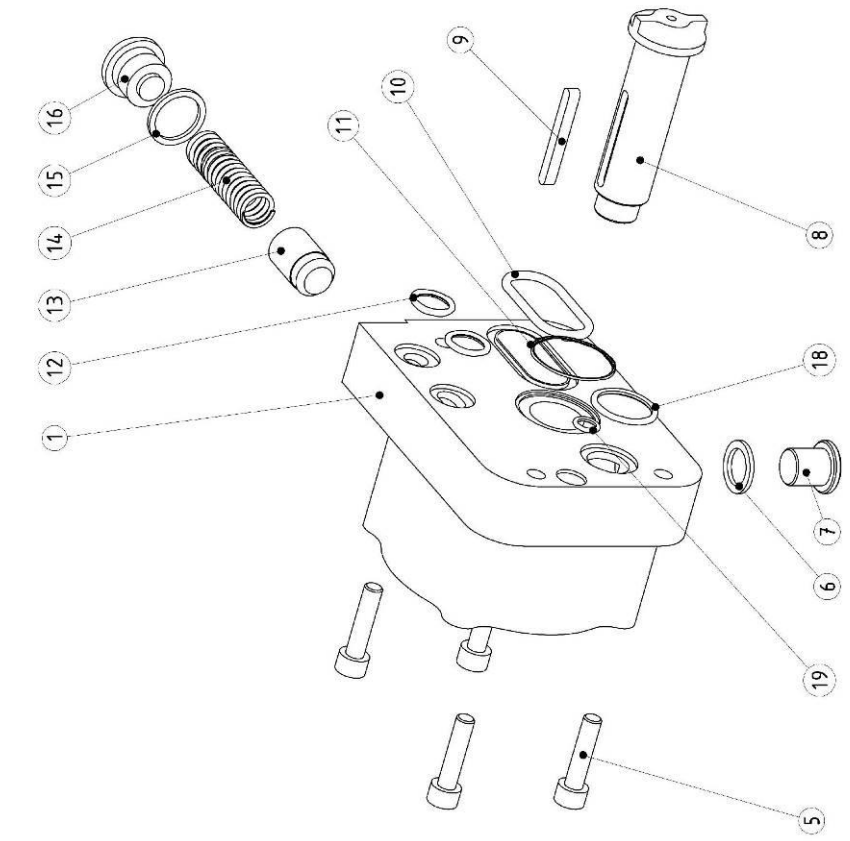
Item	Part No.	Description	Parts in assembly	Note
1	ASE044537	Holder filter	1	
2	AE042012	Filter	1	
3	ASE044535	Connection gravity valve	1	
4	F5302207	Plug 22mm	1	

SUAE044520 (N°42) (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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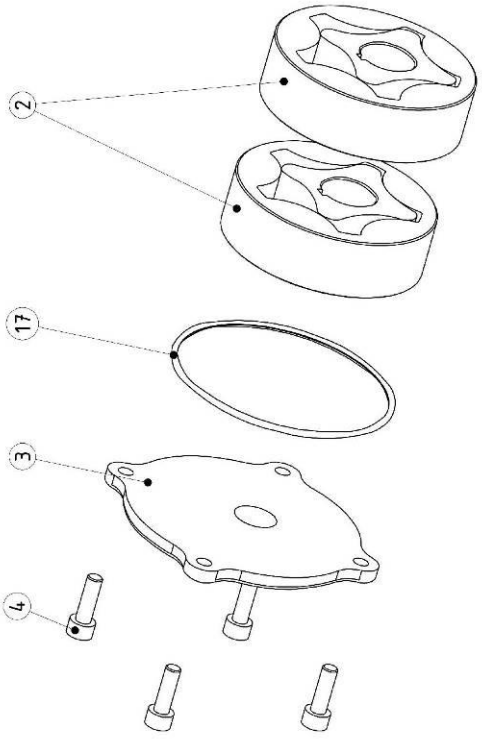
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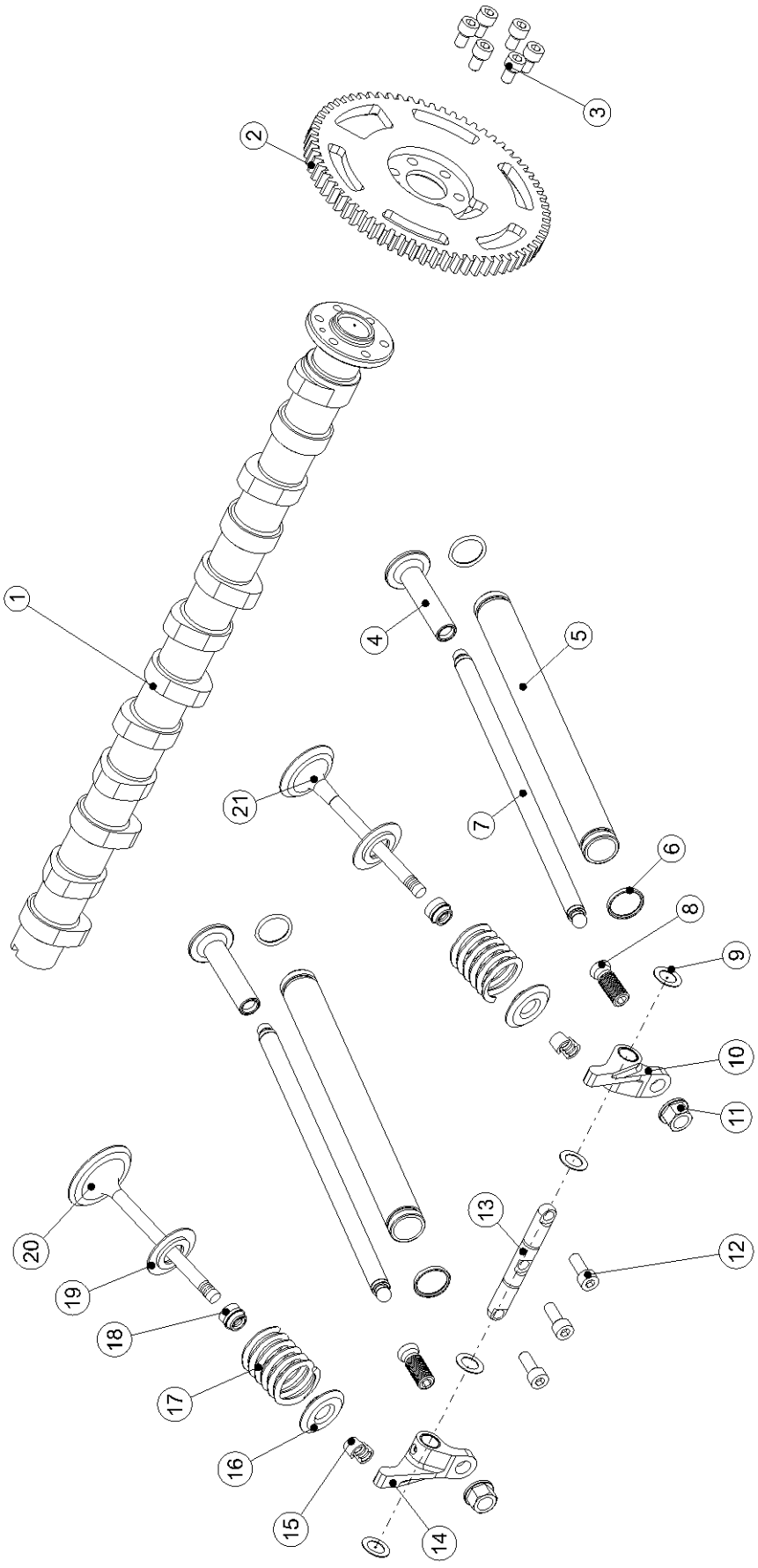
Oil Pump Assembly: SE040515

Item	Part No.	Description	Parts in assembly	Note
1	SE040510	Oil Pump Housing	1	(7)
2	E040512	Oil Pump Rotor Set b = 20	2	
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	SE040513	Oil Pump Shaft	1	
9	F1704035	Parallel Key 4x4x35	1	
10	S1030020	O-Ring Viton ø30x2	1	
11	S1026010	O-Ring Viton ø26x1	1	
12	S1011020	O-Ring Viton ø11x2	2	
13	BE040516	Plunjer oil pump	1	
14	E040506	Pressure Relief Spring	1	
15	S3162015	Copper Sealing Ring ø16xD20x1.5	1	
16	E041040	Hexagon Socket Screw Plug - M16x1.5	1	25 Nm
17	S1070020	O-ring Viton 70x2	1	
18	S1016020	O-Ring Viton Ø16x2	1	
19	S1006015	O-ring Viton Ø6x1,5	1	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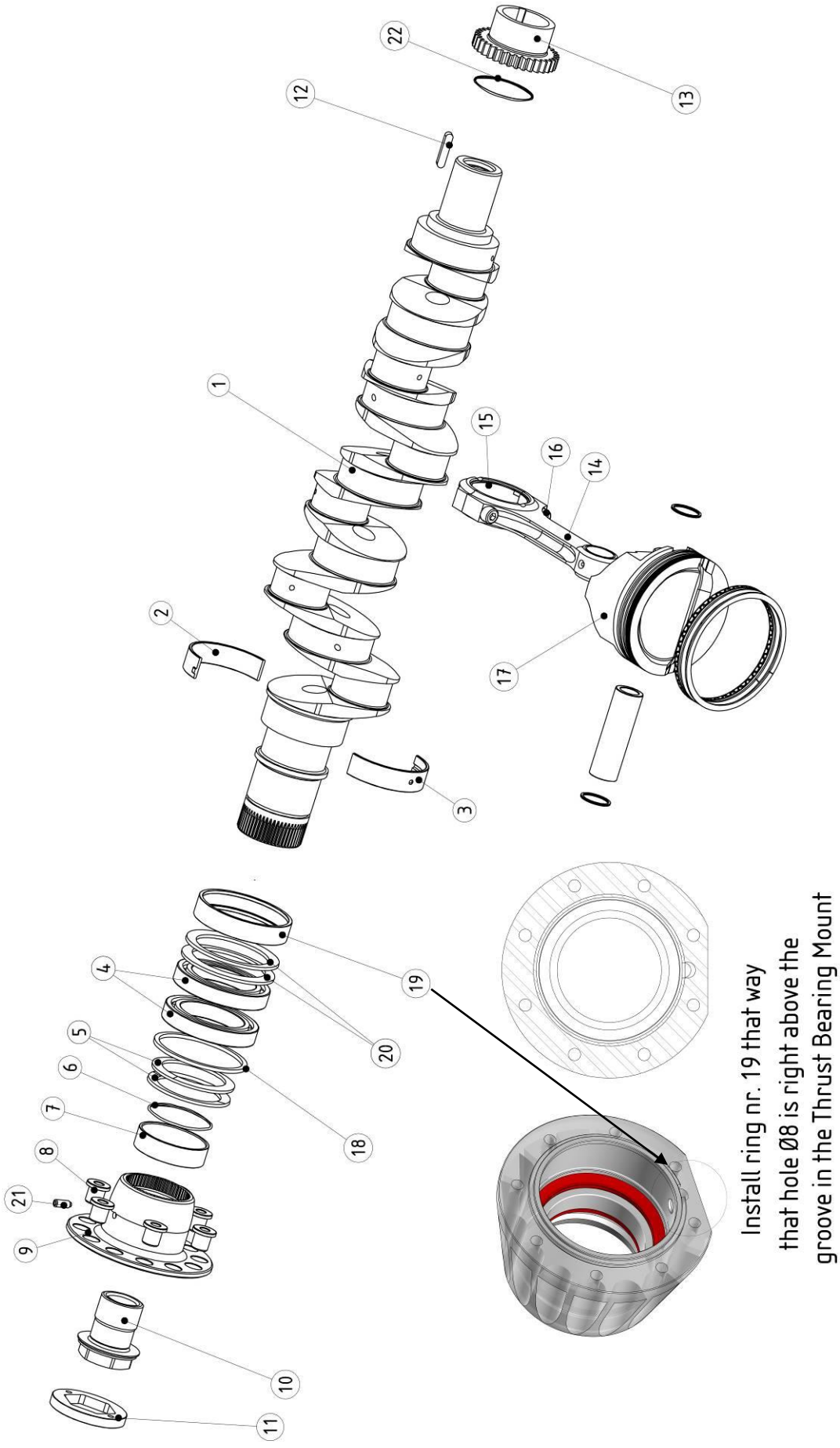
Camshaft and Valve Train

Item	Part No.	Description	Parts in assembly	Note
1	SBE030501	Camshaft 5.2	1	
2	SE031001	Camshaft Gear	1	
3	F0306012	Socket Cap Screw - M6x12 - 12.9 Steel	6	18 Nm (1)
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 (1)
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	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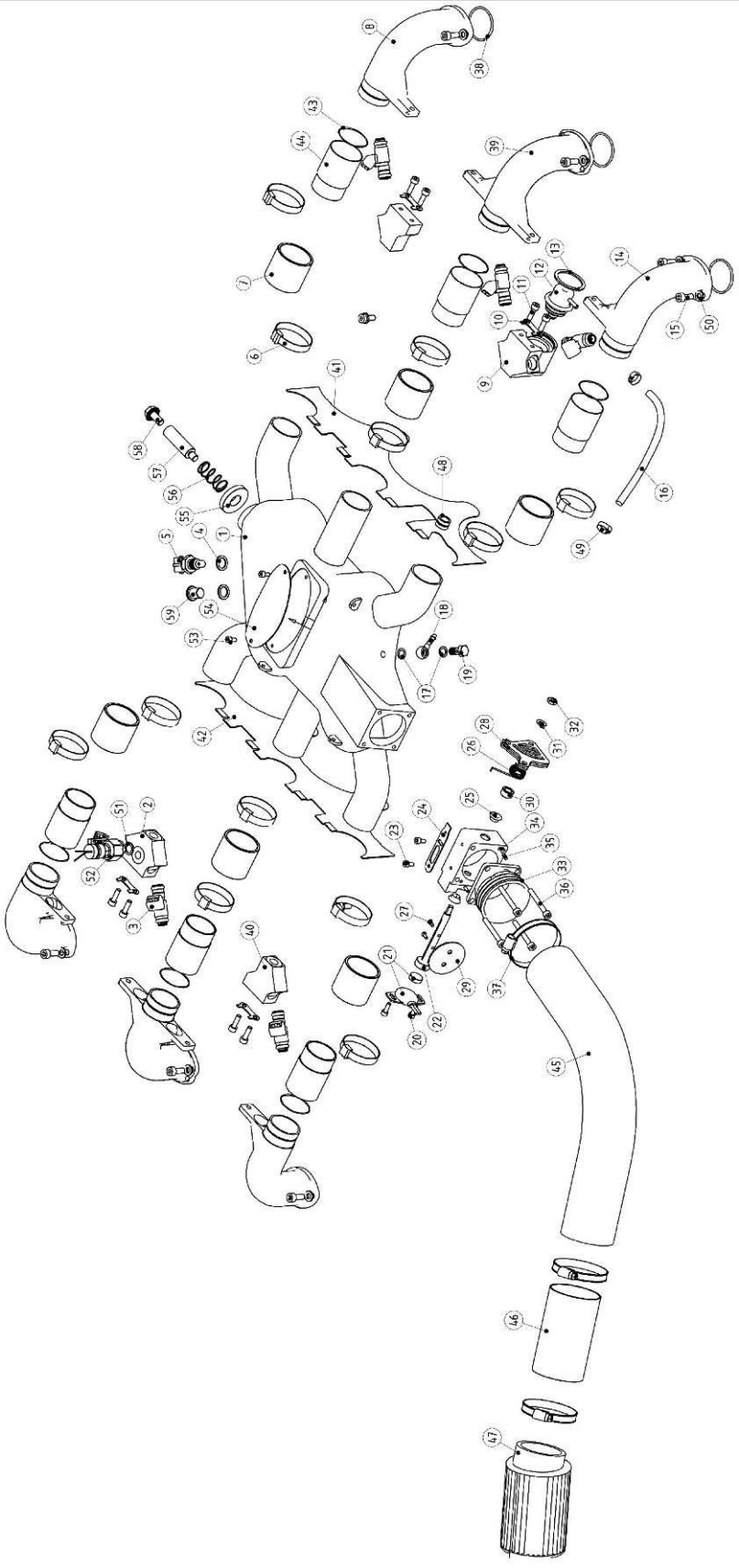
Install ring nr. 19 that way
that hole Ø8 is right above the
groove in the Thrust Bearing Mount

Crankshaft, Conrod and Piston

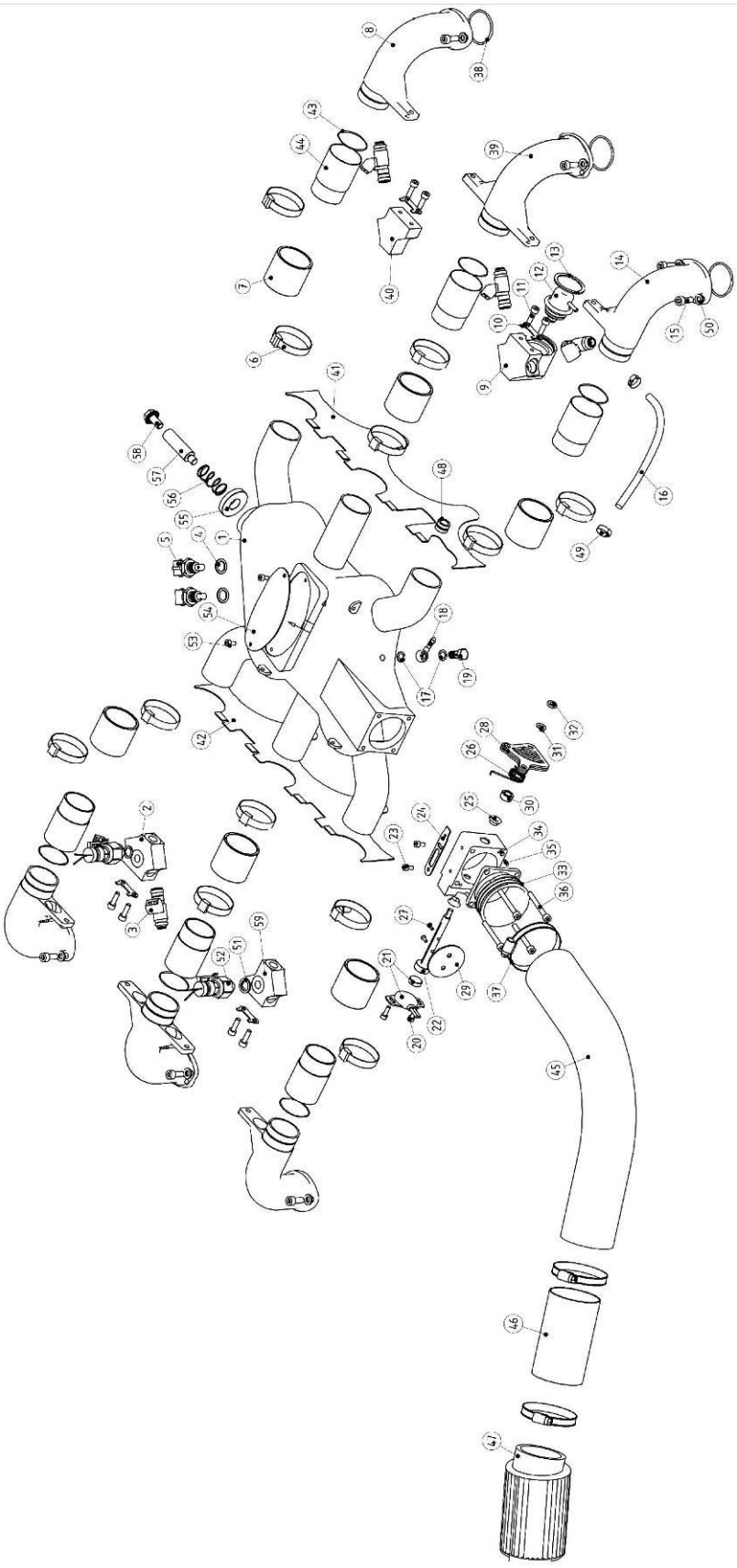
Item	Part No.	Description	Parts in assembly	Note
1	SBE020502	Crankshaft	1	
 2 3	BE022005A	Crankshaft Bearing Set (contains piece 2, 3) Crankshaft Bearing Half 1 Crankshaft Bearing Half 1	7	
4	E022001	Thrust Bearing	2	
5	E021502	Thrust Bearing Disc Spring	2	
6	S1052020	O-Ring Viton ø50x1.78	1	
7	E021504	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 (6)* *Propeller Flange L = 35 (6)* *Propeller Flange L = 110 (6)*	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	6	
15	E022004	Connecting Rod Bearing set (2)	6	
16	F0408035	Socket Cap Screw - M8x1x35 - 12.9 Steel	12	36 Nm (2+4)
17	E024009 E024008	Piston -18cc (“I”engines) Piston -7cc (“iS” engines)	6	
18	E021506	Thrust Bearing Disc	1	
19	SE021515	Thrust Bearing Retention Ring Outer	1	
20	E021510	Thrust Bearing Disc Spring Outer	2	
21	F1306012	hexagon socket set screw M6x12	1	10 Nm
22	S1047017	O-ring Viton 47.34x1.78	1	



Inlet Manifold, Injectors and Throttle (single ECU)

Item	Part No.	Description	Parts in assembly	Note
1	SE061519	Inlet Collector	1	
2	SE061504 SE061506	Injector +sensor Holder Injector Holder + sensor holder (Forced Cooling)	1 1	
3	E062501	Injector	6	(3)
4	S3121715	Copper Sealing Ring ø12x17x1.5	2	
5	E081515	Air Temperature Sensor	1	20 Nm
6	F2580001	Hose Clamp single use ø 47	12	
7	E061511	Rubber Hose 38x3x38	6	
8	E061509	Inlet Tube Right	2	(7)
9	SE061520	Injector + Fuel Pressure Regulator Holder / Bypass	1	
10	SE061512	Injector Holder Lock Plate	4	
11	F1005010	Hex Head Screw - M5x16 - 8.8 Steel - Yellow Passivated	8	6 Nm
12	E064501	Fuel Pressure Regulator - 3bar	1	(3)
13	F1600036	Retaining Ring - bore 36mm	1	
14	E061508	Inlet Tube Left	2	(7)
15	F0106016	Socket Cap Screw - M6x16 - 8.8 Steel - Yellow Passivated	12	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
	SUSE060521	Throttle assy 6cyl (contains piece 20-34)		
20	F3604010	Flanged Button Head Socket Cap Screw – M4x10-Zinc Plated	2	
21	E081519	Hall sensor + magnet	1	
22	SE060530	Throttle Shaft	1	2 Nm
23	F0104008	Socket Cap Screw - M4x8 - 8.8 Steel - Yellow Passivated	2	
24	E060506	Throttle Lever Stop	1	3Nm
25	B2200001	Flanged Bushing 8x10x5.5	2	
26	E060511	Throttle Lever Spring	1	
27	F3504008	Button Head Socket Cap Screw – M4x8 - 10.9 Steel - Zinc Plated	2	
28	E060543	Throttle lever outer plate hall sensor	1	
	E060544	Throttle lever middle plate hall sensor	1	
	E060545	Throttle lever inner plate hall sensor	1	
29	SE060525	Throttle plate D45	1	
30	E060542	Throttle bushing hall sensor	1	
31	SE061513	Locking plate throttle shaft	1	
32	F5001060	Hex Thin Nut M6-Zn	1	
33	SE060535	Throttle connection	1	
34	SE060521	Throttle housing D45 hall sensor	1	(7)
35	F1803006	Parallel Pin 3x6	2	
36	F015040	Socket Cap Screw - M5x45 - 8.8 Steel - Yellow Passivated	4	6 Nm
37	F2580007	Hose clamp Ø 40 - 60	3	
38	S1036020	O – Ring Viton 36 x 2	6	
39	SE061508	Inlet tube middle	2	
40	SE061505	Injector holder single hole	2	
41	SE012510	Baffle right	1	

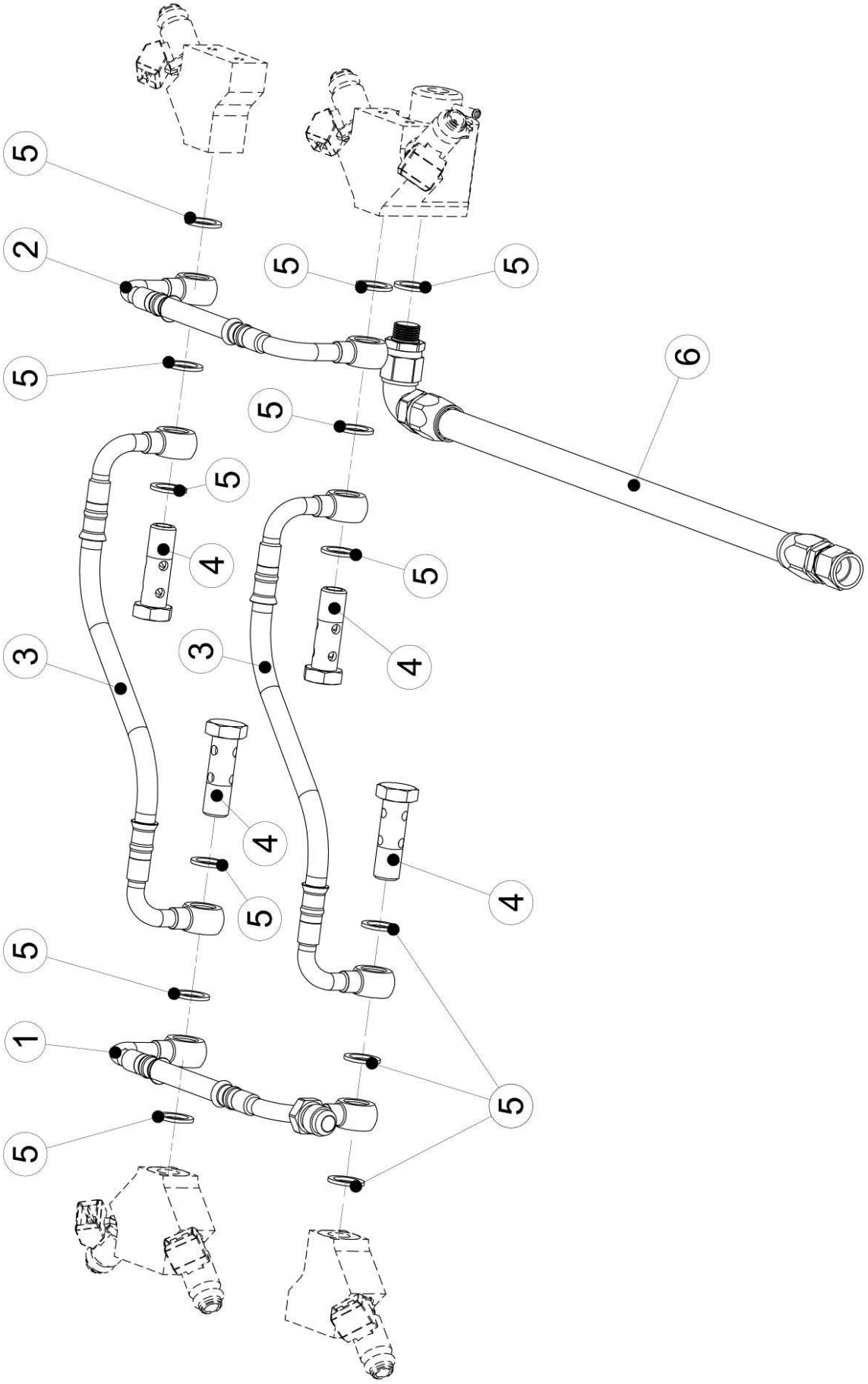
Item	Part No.	Description	Parts in assembly	Note
42	SE012509	Baffle left	1	
43	S1035012	O – Ring Viton 35 x 1,2	6	
44	BE061515	Inlet extension tube	6	
45	SE060565	Inlet hose D60 – L700	1	
46	SE060560	Inlet tube D60 x 1	1	
47	SE062003	Air filter D60 straight	1	
48	E012517	Protection hose Fp-regulator	1	
49	F2580002	Hose clamp single use Ø10	2	
50	F2110060	Nord lock washer	12	
51	S3101415	Copper sealing ring d10xD14x1.5	1	
52	E081507	Fuel pressure sensor	1	12Nm
53	F0904008	Hex socket button head cap screw M4x8 -10.2 Zn	2	
54	M900016	Logo plaatje	1	
55	SE061515	Overpressure valve	1	
56	F2010006	Spring Ø14,2 x 1,2 L=40	1	
57	SE061514	Overpressure valve body	1	
58	F0808050	hexagon flange bolt M8x50	1	
59	F4621215	Hexagon Socket Screw Plug M12x1,5	1	20Nm



Inlet Manifold, Injectors and Throttle (double ECU)

Item	Part No.	Description	Parts in assembly	Note
1	SE061519	Inlet Collector	1	
2	SE061504	Injector +sensor Holder	1	
	SE061506	Injector Holder + sensor holder (Forced Cooling)	1	
3	E062501	Injector	6	(3)
4	S3121715	Copper Sealing Ring ø12x17x1.5	2	
5	E081515	Air Temperature Sensor	2	20 Nm
6	F2580001	Hose Clamp single use ø 47	12	
7	E061511	Rubber Hose 38x3x38	6	
8	E061509	Inlet Tube Right	2	(7)
9	SE061520	Injector + Fuel Pressure Regulator Holder / Bypass	1	
10	SE061512	Injector Holder Lock Plate	4	
11	F1005010	Hex Head Screw - M5x16 - 8.8 Steel - Yellow Passivated	8	6 Nm
12	E064501	Fuel Pressure Regulator - 3bar	1	(3)
13	F1600036	Retaining Ring - bore 36mm	1	
14	E061508	Inlet Tube Left	2	(7)
15	F0106016	Socket Cap Screw - M6x16 - 8.8 Steel - Yellow Passivated	12	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
	SUSE060521	Throttle assy 6cyl (contains piece 20-34)		
20	F3604010	Flanged Button Head Socket Cap Screw - M4x10-Zinc Plated	2	
21	E081519	Hall sensor + magnet	1	
22	SE060530	Throttle Shaft	1	
23	F0104008	Socket Cap Screw - M4x8 - 8.8 Steel - Yellow Passivated	2	2 Nm
24	E060506	Throttle Lever Stop	1	
25	B2200001	Flanged Bushing 8x10x5.5	2	3Nm
26	E060511	Throttle Lever Spring	1	
27	F3504008	Button Head Socket Cap Screw - M4x8 - 10.9 Steel - Zinc Plated	2	
28	E060543	Throttle lever outer plate hall sensor	1	
	E060544	Throttle lever middle plate hall sensor	1	
	E060545	Throttle lever inner plate hall sensor	1	
29	SE060525	Throttle plate D45	1	
30	E060542	Throttle bushing hall sensor	1	
31	SE061513	Locking plate throttle shaft	1	
32	F5001060	Hex Thin Nut M6-Zn	1	
33	SE060535	Throttle connection	1	
34	SE060521	Throttle housing D45 hall sensor	1	(7)
35	F1803006	Parallel Pin 3x6	2	
36	F0105040	Socket Cap Screw - M5x40 - 8.8 Steel - Yellow Passivated	4	6 Nm
37	F2580007	Hose clamp Ø 40 - 60	3	
38	S1036020	O - Ring Viton 36 x 2	6	
39	SE061508	Inlet tube middle	2	
40	SE061505	Injector holder single hole	1	
41	SE012510	Baffle right	1	

Item	Part No.	Description	Parts in assembly	Note
42	SE012509	Baffle left	1	
43	S1035012	O – Ring Viton 35 x 1,2	6	
44	BE061515	Inlet extension tube	6	
45	SE060565	Inlet hose D60 – L700	1	
46	SE060560	Inlet tube D60 x 1	1	
47	SE062003	Air filter D60 straight	1	
48	E012517	Protection hose Fp-regulator	1	
49	F2580002	Hose clamp single use Ø10	2	
50	F2110060	Nord lock washer	12	
51	S3101415	Copper sealing ring d10xD14x1.5	2	
52	E081507	Fuel pressure sensor	2	12Nm
53	F0904008	Hex socket button head cap screw M4x8 -10.2 Zn	2	
54	M900016	Logo plaatje	1	
55	SE061515	Overpressure valve	1	
56	F2010006	Spring Ø14,2 x 1,2 L=40	1	
57	SE061514	Overpressure valve body	1	
58	F0808050	hexagon flange bolt M8x50	1	
59	SE061502	Injector (single hole) + sensor holder	1	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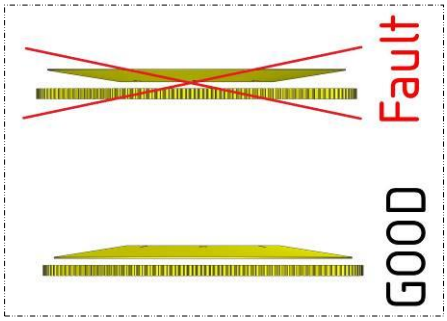
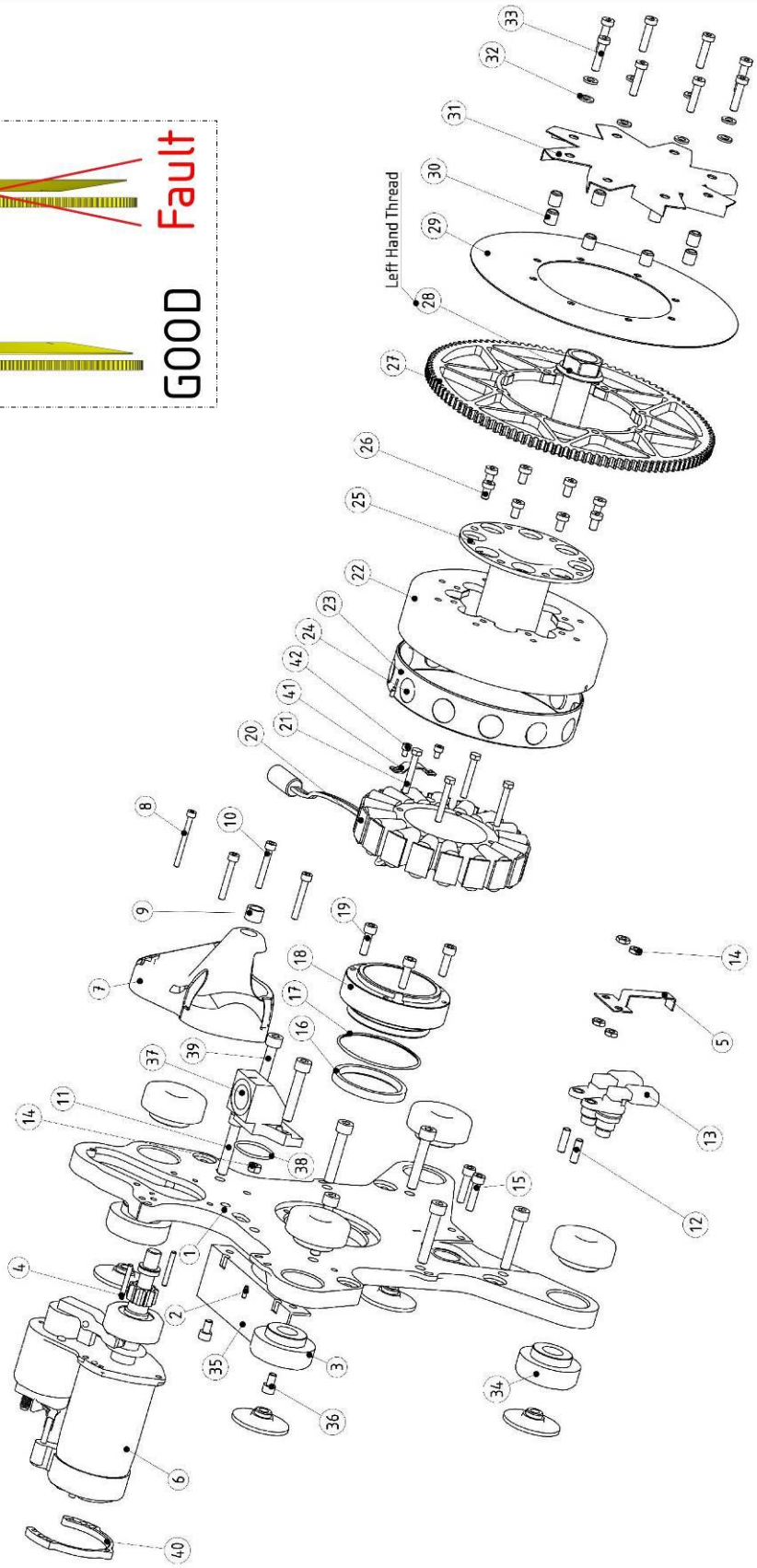
Fuel lines

Item	Part No.	Description	Parts in assembly	Note
1	SE063010	Fuel line connection & feed line	1	
2	SE063011	Fuel line side	1	
3	E063013	Fuel line cross long	2	
4	F2521210	Banjo bolt M12x1.5 double	4	18 Nm
5	S3121715	Copper sealing ring d12xD17x1.5	13	18Nm
6	E063015	Fuel return line 3.5 – 5.2	1	

Assemble 25 & 27

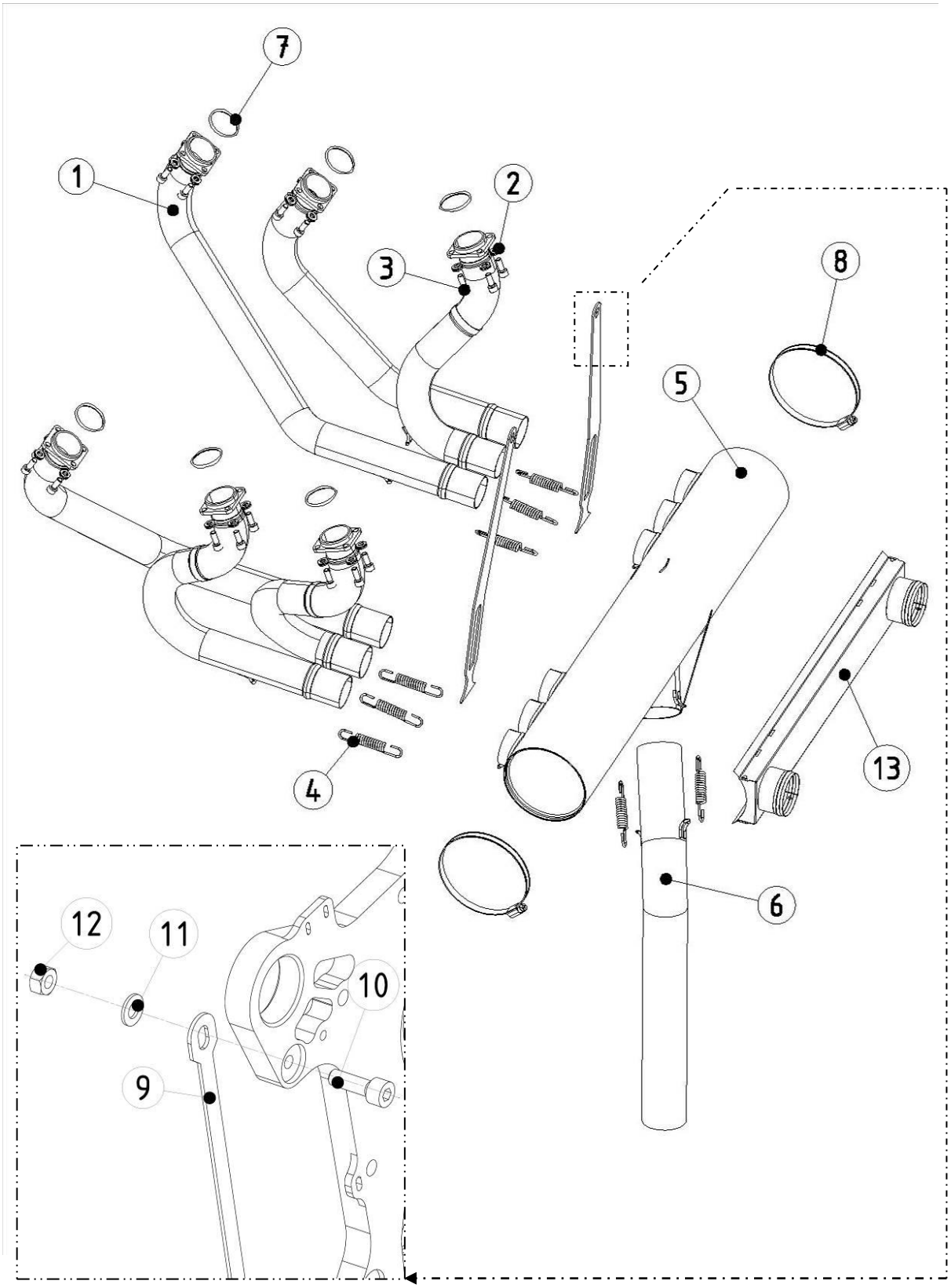




Engine Mount Plate, Starter and Alternator

Item	Part No.	Description	Parts in assembly	Note
1	ASE013506	Engine Mount Plate	1	(7)
2	F1803010	Parallel Pin 3x10	2	
3	E014001	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	F0108045	Socket Cap Screw - M8x45 - 12.9 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 hex nut - M6 - Zn	4	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	SE051510	Alternator Stator Spacer	1	(7)
19	F0106020	Socket cap screw M6x20 - 8.8 Steel - Yellow passivated	3	10 Nm(1)
20	SE052001	Alternator Stator	1	
21	F0705040	Hexagon head screw - M5x40 - 8.8 Steel - Zinc plated	4	10 Nm
	SUSE052000	alternator rotor ass + magnetAlternator Magnet Ring		
	SE052600	Alternator Flange 6cyl AssemblyAlternator Magnet	1	
22	SE052501	Alternator Magnet Ring		
23	SE051502	Alternator Magnet Spacer ring		
24	E052002	Alternator Magnet	12	
25	SE052508	Alternator rotor flange	1	
26	F0306010	Socket cap screw thin - M6x10 - 12,9 Steel - Zinc plated	8	12 Nm
27	E051001	Starter Ring Gear	1	
28	E023002	Alternator Rotor Flange Bolt / Socket size 30 mm	1	280 Nm (2)
	E052507	Alternator Fan Assembly *(Contains piece 27 , 28 , 29)*	1	(8)
29	E052503	*Alternator fan base*	1	
30	E052504	*Spacer alternator fan*	8	
31	E052506	*Alternator fan top*	1	
32	F2110060	NordLock Washer M6	8	
33	F0206028	Socket Cap Screw - M6x28 - 8.8 Steel - Zn	8	10 Nm
34	E013505	Engine Mount Washer	4	
35	AE013540	Drainer	1	
36	F0106010	Socket cap screw - ,M6x1010 - 8,8 Steel - Yellow passivated	2	10 Nm
37	ASE045001	Oil distributor	1	
38	S1028015	O-ring Viton D28x1,5	1	

Item	Part No.	Description	Parts in assembly	Note
39	F0108045	Socket cap screw –M8x45 -12.9 Steel – yellow passivated	2	25Nm
40	E050504	Starter Fixing Ring	1	
41	E013030	Bracket Alternator Guide	1	
42	F0104006	Socket Cap Screw M4x6 8-8 yellow	2	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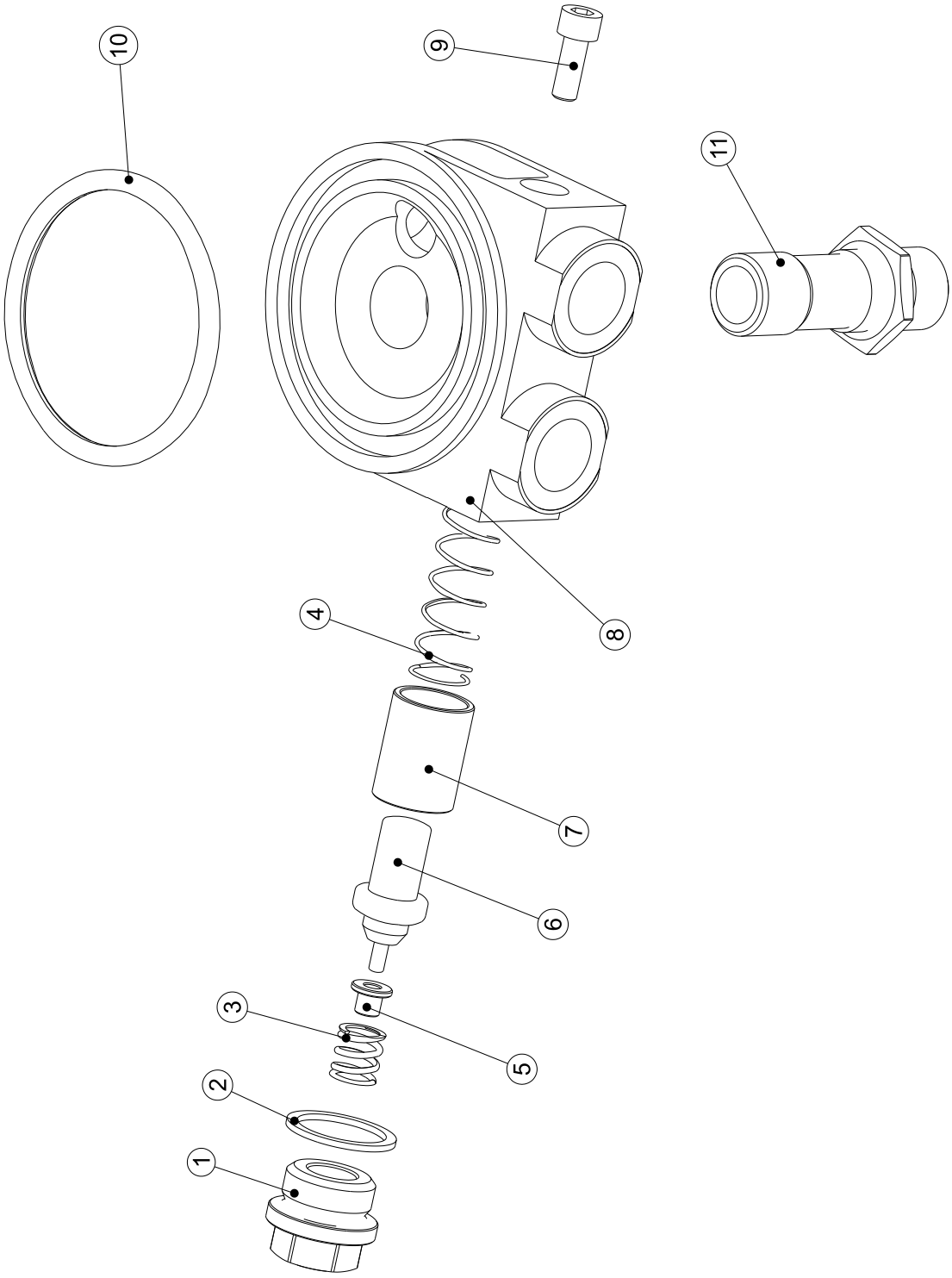
Exhaust System

Item	Part No.	Description	Parts in assembly	Note
1	SBE091110	Stainless Steel Exhaust Tubes (set)	1	
2	F2110060	NordLock Washer M6	24	
3	F0106016	Socket Cap Screw - M6x16 - 8.8 Steel - Yellow Passivated	24	10 Nm (1)
4	E093001	Exhaust Spring	8	
5	SBE091516	Stainless Steel Muffler L=600	1	
6	SE093505	Exhaust Tube	1	
7	E092002	Exhaust gasket ring Inox d32xD38x2.5	6	
8	F2580008	Hose clamp ø 90 – 110 / Stainless steel	2	
9	BE093005	Muffler bracket 3.5 – 5.2	2	
10	F0108025	Cap Screw M8x25 -8,8 Yellow	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	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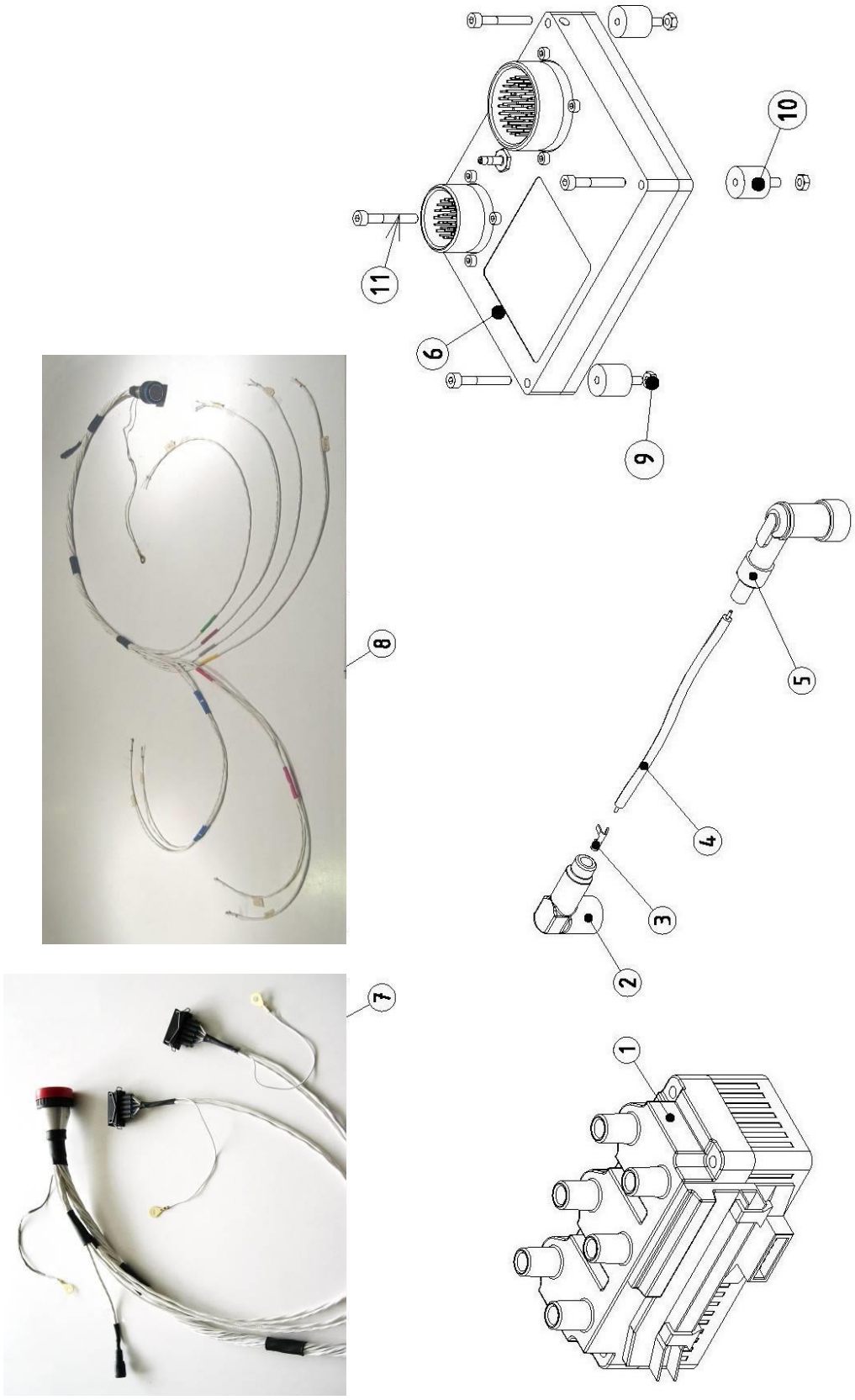
Oil Thermostat : E042515

Item	Part No.	Description	Parts in assembly	Note
1	E42520	Plug M22x1,5	1	20Nm
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	Bi metal	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	E042007D	Oil filter adapter screw M20 x 1.5	1	20 Nm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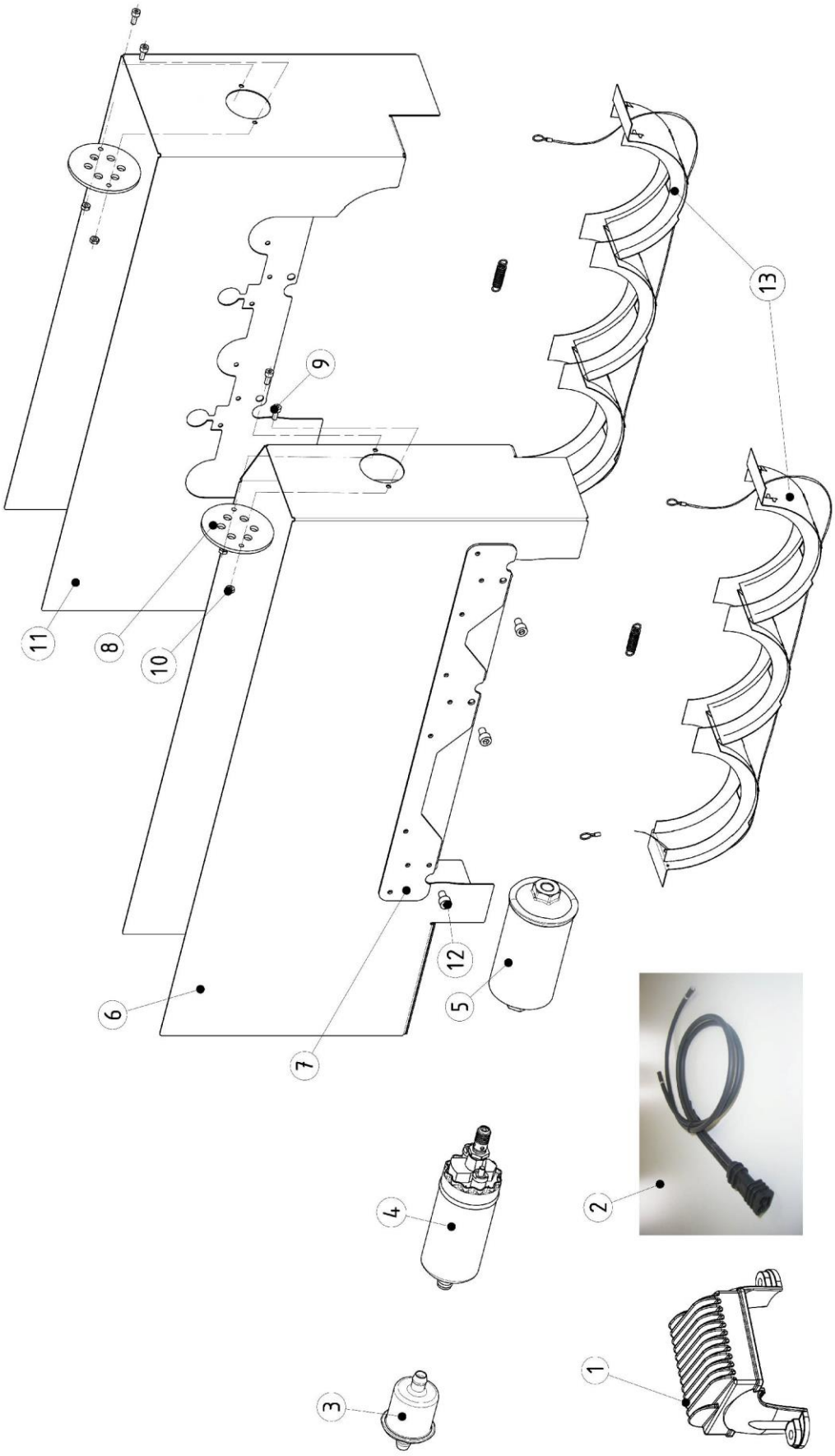
Ignition and Engine Control Unit

Item	Part No.	Description	Parts in assembly	Note
1	SE071005	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	SBE080510	Engine Control Unit UL 520i	1	
	SBE080511	Engine Control Unit UL 520iS	1	
7	SE081006 SE081008	ECU Wiring loom engine L = 1100 (Single ECU) ECU Wiring loom engine (Double ECU)	1	
8	SE081007 SE081012 SE081013	ECU Wiring loom cockpit (4 + 6 cylinder) L = 1000 (Single ECU) ECU Wiring loom cockpit double (4 + 6 cylinder) L =1000 ECU A ECU Wiring loom cockpit double (4 + 6 cylinder) L =1000 ECU B	1	
9	F5102040	Prevailing hexagon nut M4	4	4Nm
10	F2641515	Silent bloc M4 type B - hoogte 15	4	
11	F0204030	cap screw M4x30-8,8 yellow	4	4Nm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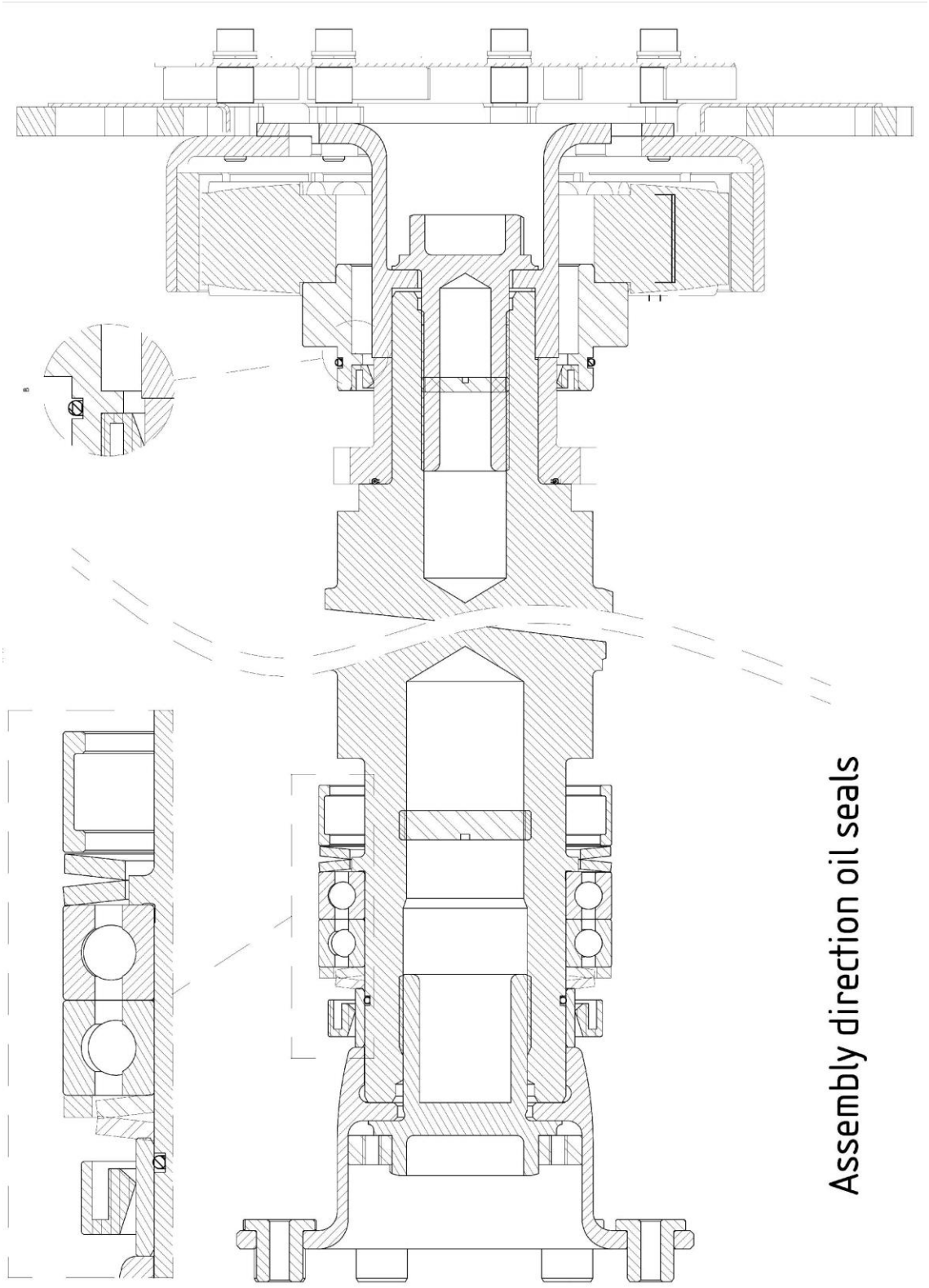
Accessories

Item	Part No.	Description	Parts in assembly	Note
1	SE053003	Regulator 50A	1	
2	SE053010	Cable regulator - battery	1	
3	E064003	Fuel Filter (Pre-filter)	1	
4	E063502	Fuel Pump	1	
5	E064001	Fuel Filter (Fine)	1	
		Assembly Cylinder Head Ram Air Box (Left)		
6	SE012507	Cylinder Head Ram Air Box (Left)	1	
7	SE012524	Reinforcing Rib	1	
8	SE011504	Ignition Cable Grommet	1	
9	F0204010	Cap screw M4x10 - 8.8 Zn	4	4 Nm
10	F5102040	Prevailing Hexagon nut M4	4	
		Assembly Cylinder Head Ram Air Box (Right)		
11	SE012508	Cylinder Head Ram Air Box (Right)	1	
7	SE012524	Reinforcing Rib	1	
8	SE011504	Ignition Cable Grommet	1	
9	F0204010	Cap screw M4x10 - 8.8 Zn	4	4 Nm
10	F5102040	Prevailing Hexagon nut M4	4	
12	F0106016	Cap Screw M6x16-8-8 Yellow	6	10 Nm
13	SE013002	Cylinder baffle	2	
		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 30 and pg 31: Accessoires: nr 16: (E013025: Steel Cable)

Revision 2: (01/06/2018)

Pg 4 - 5: Nr. 22

Pg 6 - 7: Nr11: E081507 (Oil / Fuel Pressure Sensor) / E081501 was E081516 / Nr 58 and 59

Pg 13: nr 16: E041040 was F4621615

Pg 14: Nr18: S1016020 was S1013020

Pg 17 -18: Nr 21

Pg 19- 20 Nr1: SE061519 was SE061510, Nr2: SE061504 was SE061503, + extra 50 - 57.

Pg 24: Detail Montage E052503

Pg 25: Nr 27: E052503 was E052505

Pg 31: SE081002 => SE081006 / SE081003 => SE081007 / SE081004 => SE081008 / SE081005 => SE081009

Pg 32 - 33: Nr 8: Clips deleted

Silicone 030.792 was 030.790

Revision 3 (2019-10-01)

Pg 16 en 17: Nr 23 F1305016 was F1306016

Pg 18 en 19: Nr 9: SE061520 wad SE061507

Pg 24 en 25: Nr 8 F0104035 was F0104045 en Nr10 F0105030 was F0105035

Revision 4 (2020-02-10)

Pg 6, 7 en 8: Nr19: ASE043005 was SE043005
Nr 24-27 verwijderd (Nylon Cable Tie)
Nr 24: S3142015 was S3141815

Nr37: F0105010 was F0106010

Nr 55: Single ECU / Double ECU

Pg 10: Nr 45: SUSE044535 is nieuwe look (nr 4 is bijgekomen)

Pg 16 en 17: Nr 24: O-ring Viton

Pg 18 en 19: Throttle assy SUSE060521 was SUE060520 / E081819 was E081506 / SE060521 was SE060520
Pg 24-26: Inlet Manifold Double ECU
Pg 28 en 29: Nr 38: E050504 (Starter fixing ring) /(2) bij nr 10

Nr39-40: Bracket Alternator Guide

Pg 32 en 33: Nr 3: F2010010 was F2010002

Nr 4: F2010020 was F2010002

Pg 36 en 37: Nr 13 Spring 1.0x8x35 (F2010003) en Steel Cable (E013025) zit in assembly SE013002

Pg 38: Section of drawing

Revision 5 (2020-07-01)

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

Revision 6 (2021-06-01)

Pg 12 – 13 : Nr 19 S1006015 toegevoegd
Pg 16 – 17 : Nr 19 Detail
Pg 18 - 24: Nr 57: F0808050 was F08080060
Pg 28 -29 : Nr 14 (F5103060) 8Nm was 10Nm
Pg 34 - 35: Nr 8: SE081009 is vervangen door SE081012 en SE081013
Pg 39: Detail bij Section of drawings

Revision 7 (2022 – 04 -01)

Pg 06 en 07: Nr 26: F4621815 was F46218158 (plug M18x1.5)

Pg 16 en 17: Nr 21 was E020510
Nr 21 F1306012 was F1305016
Nr 25: S1028020 (O-ring viton 28x2) toegevoegd
Oil Stop Crankshaft front & O-ring Viton Ø28x2 verwijderd
Oil Stop M24x1,5 verwijderd

Revision 8 (2023 – 06 -01)

Pg 04 en 05: Nr 18 verwijderd (S1105020: O-ring Viton)

Pg 04 en 05: Nr 22: S3101415 (copper ring) toegevoegd
Pg 06 en 07: Nr 6 SE041045 was F4621615
Pg 6-7: Nr 13 S1012020 (O-Ring Viton ø12x2) was S1011020 (O-Ring Viton ø11x2)
Pg 28 en 30: Nr 22: SE052600 was SE052505 (23 – 24 toegevoegd)
Pg 39: Notes toegevoegd

Revision 9 (2024 – 02 -01)

Pg 18- 20: nr 43: S1035012 was S103510 (O-ring 35x1 word O-ring 35x1,2)

Pg 22- 24: nr 43: 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 10 (2025-04-30)

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