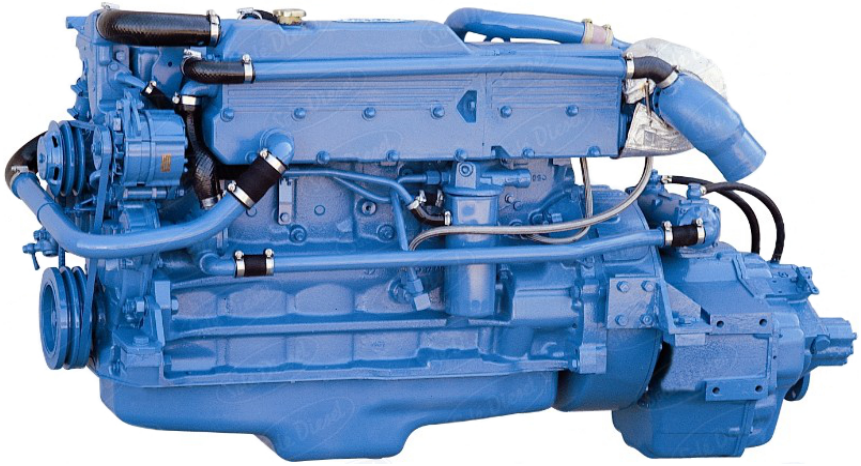
Engine SFN-210

VERSION 2016-6

SPARE PARTS MANUAL



PARTS LIST CATALOGUE

NORMS TO PLACE AN ORDER:

For fast and more efficient service, please specify the following information on spare parts orders that must be preferably done by FAX or e-mail as specified below:

1- Engine model: As shown in identification plate

2- Engine serial number: As shown in identification plate and stamped on crankcase

3- Item description + part number + quantity required

Spare parts requests must be adressed to:

recambios@solediesel.com

Telf.: +34 93 775 44 05

Fax: +34 93 775 30 13

The components shown in the catalog have:

- Figure: Number by which they are represented in scheme
- Description: Trade name of the component
- Quantity: Total number of parts used in the assembly of the part represented (may differ from the total minimum quantities)

Hoses, indicates the total length in meters

The diagrams shown in this catalog of spare parts, have only the purpose to identify the piece in question, its representation is not meaningful and may differ from the actual piece.

In case of doubt, contact Solé Diesel, or your authorized dealer.
The parts i / or references in this catalog are subject to change without notice.

SOLÉ, S.A.

C-243b, Km, 2 - P.O. BOX 15

08760 Martorell (Barcelona) Spain

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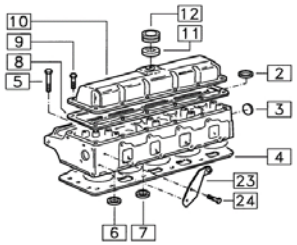
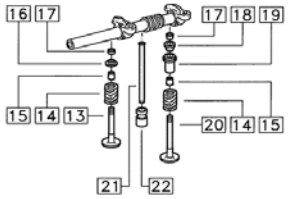
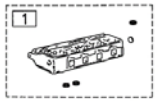
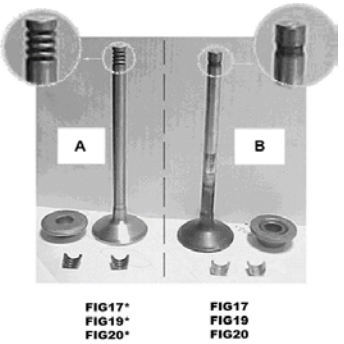
D_SF21_1_1			Cylinder Head
FIG.	**REF.**	**QTY**	**DESCR.**
1	19121001	1	Cylinder,head
2	19021012	11	Plug
3	19020012	1	Plug
4	19121004	1	Gasket
5	19021005	19	Screw
6A	19021062	6	V.seat std. EXH.
6B	19021063	6	V.seat O.25mm EXH.
6C	19021064	6	V.seat O.51mm EXH.
6D	19021065	6	V.seat O.76mm EXH.
7A	19021006	6	V.seat std.INT.
7B	19021067	6	V.seat O.25mm INT.
7C	19021068	6	V.Seat O.51mm INT.
8	19121010	1	Gasket
9	19021011	14	Screw
10	19121009	1	Cover
11	19021015	1	Filter element
12	19021016	1	VENT
13A	19122055.1	6	Intake Valve STD
13B	19122055A	6	Intake Valve 0.38
13C	19122055B	6	Intake Valve 0.76
14	19022057	12	Spring
15	19022054	12	Seal Valve
15A	19022054.1	12	Seal Valve
16	19022058	6	Plate Intake
17	19022059	24	LOCK CONE
17*	19022059.1	24	LOCK CONE
18	19022063	6	SLEEVE
19	19022062	6	Plate exhaust
19*	19022062.1	6	Plate
20A	19022056.1	6	Exhaust Valve STD.
20B	19122056A	6	Exhaust Valve 0.38
20C	19122056B	6	Exhaust Valve 0.76
21	19022041	12	ROD
22	19022061	12	Tappet
23	19021019	1	HOOK

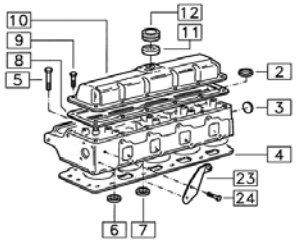


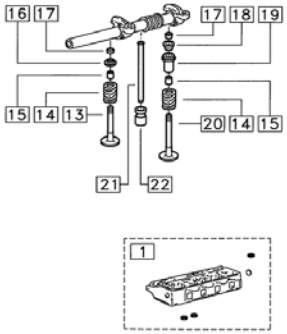


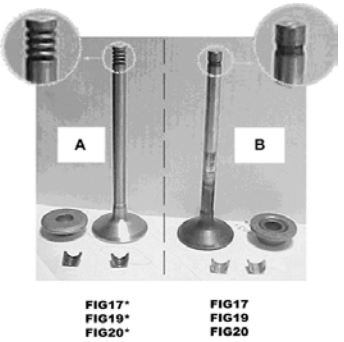




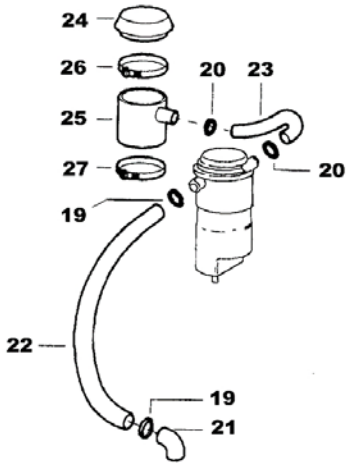
D_SF21_1_1			Cylinder Head
FIG.	**REF.**	**QTY**	**DESCR.**
24	19021074	2	Screw

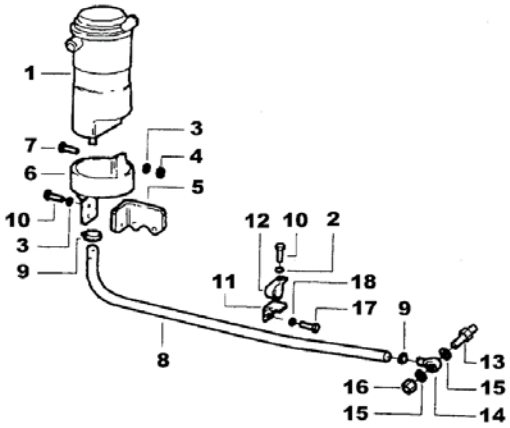






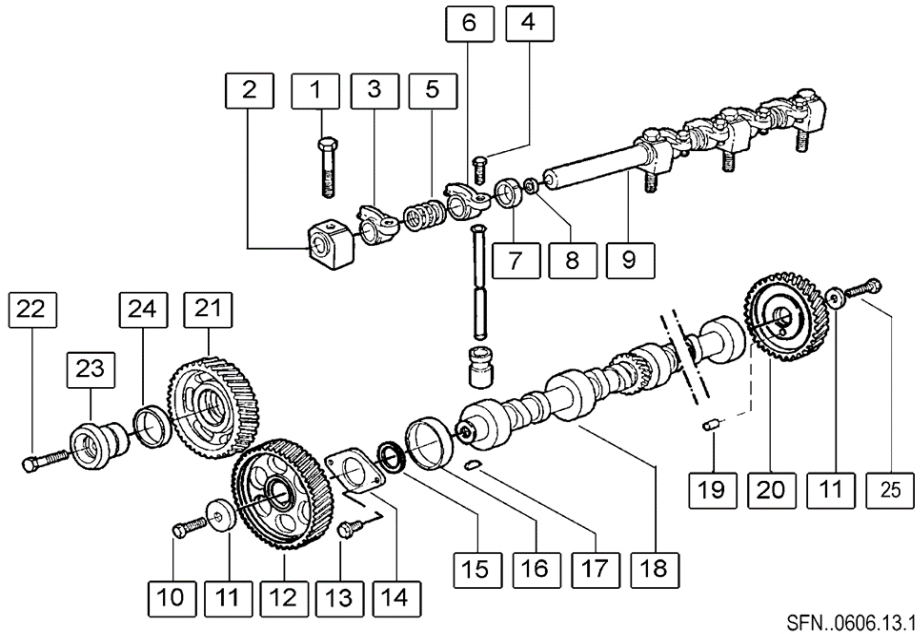
D_SF21_1_2			Breather
FIG.	**REF.**	**QTY**	**DESCR.**
1	19020150	1	Tank
2	51031008	1	Washer DIN 9021 8
3	19020152	3	LOCKWasher
4	19020153	1	Nut
5	19120154	1	Bracket
6	19020157	1	Clamp
7	19020158	1	Screw
8	19120160	1	Hose Flexible
9	19020161	2	Clamp
10	19020162	3	Screw
11	19020163	1	Bracket
12	19020166	1	Clamp [NP]
13	19020167	1	Union
14	19020168	1	Connection
15	59031014	2	Washer
16	19020172	1	Plug
17	19020173	1	Screw
18	51031006	1	Washer DIN 9021 6
19	54082025	4	Clamp DIN 3017 25-40/12 W4
20	54082025	1	Clamp DIN 3017 25-40/12 W4
21	19010036	1	Elbow
22	19010032	1	Tube,cooler to filter





[NP] Not provided

D_SF16_1_4			Timing Parts
FIG.	**REF.**	**QTY**	**DESCR.**
1	19022053	7	Screw
2	19022048	7	Support
3	19022042	6	Rocker(intake)
4	19022044	12	Screw
5	19022047	6	Spring
6	19022045	6	Rocker(exhaust)
7	19022049	6	Spacer
8	19022081	2	Plug
9	19122046	1	Shaft
10	52301319	2	Bolt DIN 931 W7/16-80 8.8
11	19022076	2	Washer
12	19022037	1	Gear
13	19022069	2	Screw
14	19022075	1	Plate
15	19022078	1	Spacer
16	19122079	5	Bush
17	19022021	1	KEY
18	19122035	1	CamShaft
19	19022080	1	DowelL
20	19022066	1	Gear
21	19022043	1	Gear
22	19022082	1	Screw
23	19022083	1	Bush
24	19022084	1	Bush
25	52302309	1	Bolt DIN 933 W7/16-30 8.8



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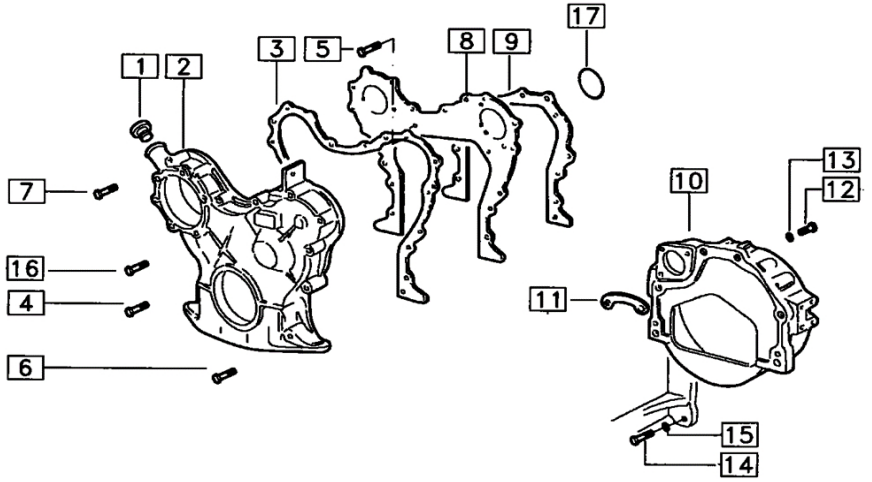
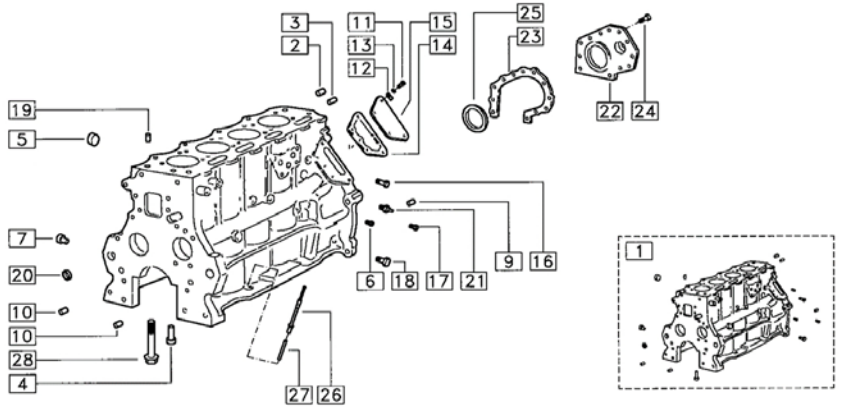
D_SF21_1_5			Gear Case
FIG.	REF.	QTY	DESCR.
1	19021003	1	Cap Oil FILLER
2	19020035	1	Case Gear
3	19020040	1	Gasket
4	19020062	4	Screw
5	19020050	2	Screw
6	19020051	8	Screw [NP]
7	19020060	2	Screw
8	19020024	1	Plate
9	19020025	1	Gasket
10	19020002	1	FLYWEEL Housing
11	19020054	1	Spacer
12	19020055	2	Bolt DIN 912 3/4 SAE 2
13	53033020	2	Washer GROWER DIN 127-20
14	19020057	4	Screw
15	19020058	4	LOCKWasher
16	19020059	1	Screw
17	19010006	1	O-Ring D. 83X3,5



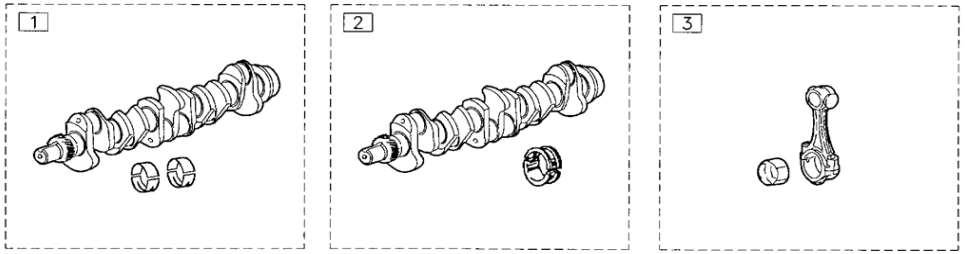
[NP] Not provided

D_SF21_1_6A			Cranckcase
FIG.	REF.	QTY	DESCR.
1	19120001	1	CRANKCase
2	19020012	1	Plug
3	19020023	1	Plug
4	19020027	6	JET
5	19020013	2	Plug
6	19020009	3	Plug
7	19020021	2	Plug
9	19020026	2	DowelL
10	19020011	2	DowelL
11	19024076	4	Screw
12	19020019	1	Retainer
13	19020020	1	LOCKWasher
14	19020038	1	Gasket
15	19120061	1	Cover
16	19020041	1	Union
17	19020042	1	Plug
18	19020043	1	Plug [NP]
19	19020049	2	Pin
20	19020044	1	Plug
21	19027027	1	SENDING,unit 0,7
22	19020045	1	Plate
23	19020046	1	Gasket
24	19020047	12	Screw
25	19020048	1	Seal
26	19020029	1	Gauge Oil LEVEL
27	19020039	1	Pipe [NP]
28	19020010	14	Screw

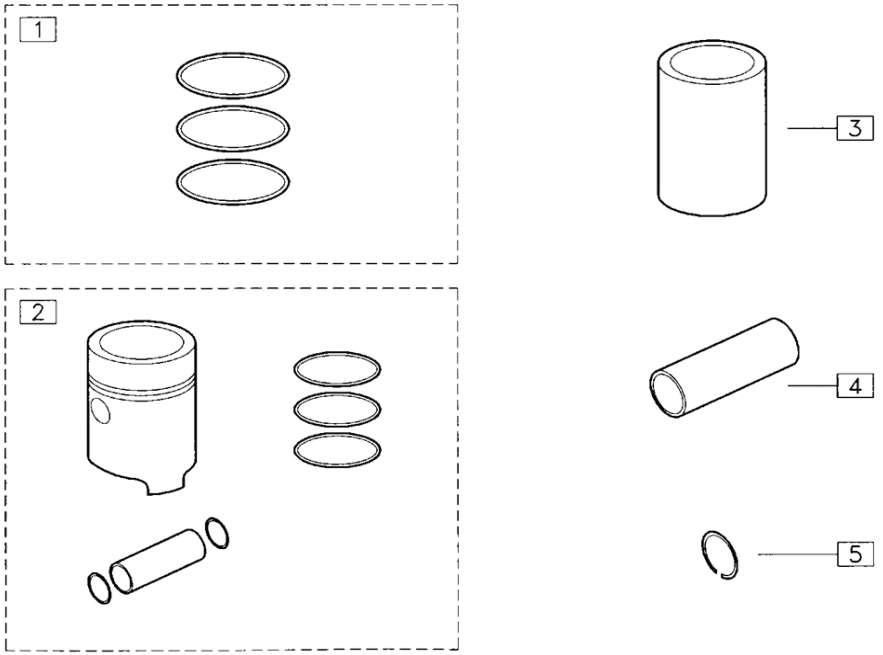


[NP] Not provided

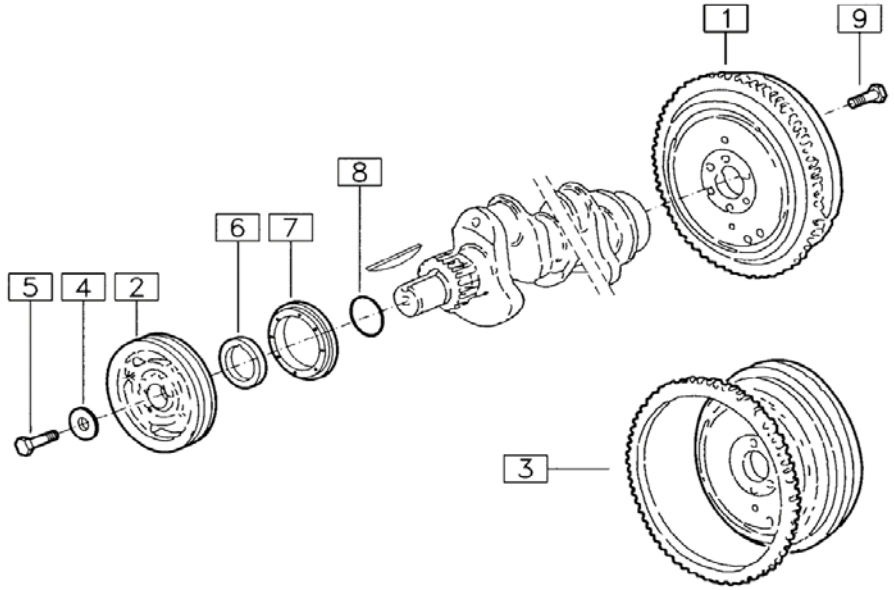
D_SF16_1_6B			Crankshaft & Con Rod Bearings
FIG.	**REF.**	**QTY**	**DESCR.**
1A	19020003	6	Set of bearings std.
1B	19020004	6	Set of bearings(0-254mm)
1C	19020005	6	Set of bearings(-0.508mm)
1D	19020006	6	Set of bearings(0.762mm)
1E	19020007	6	Set of bearings(-1.016mm)
2A	19020109	1	Set of bearings std.
2B	19020110	1	Set of bearings(-0.254mm)
2C	19020111	1	Set of bearings(-0.508mm)
2D	19120112	1	Set of bearings(-0.762mm)
2E	19020113	1	Set of bearings(-1.016mm)
3A	19022014	6	CON. rod bearing
3B	19022015	6	CON. rod bearing(0.254mm)
3C	19022016	6	CON. rod bearing(0.508mm)
3D	19022017	6	CON. rod bearing(0.762mm)
3E	19022019	6	CON.rod bearing(1.016mm)



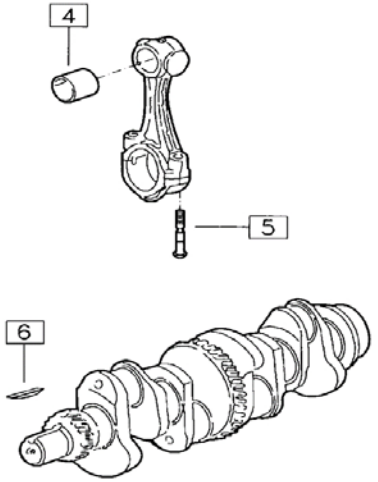
D_SF21_1_8			Piston
FIG.	**REF.**	**QTY**	**DESCR.**
1	19122006	6	Set of rings std.
2	19122001	6	COMPL.piston std.
3	19020052	6	Cylinder,liner
4	19122011	6	Piston,pin
5	19122032	12	LOCKRing

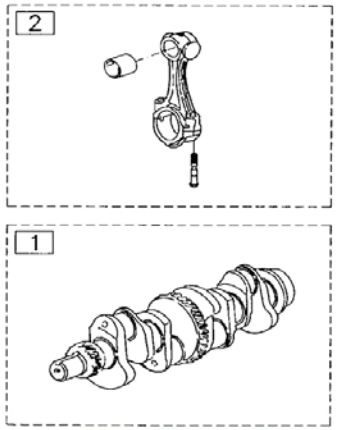


D_SF16_1_9A			Flywheel
FIG.	**REF.**	**QTY**	**DESCR.**
1	19022027	1	Flywheel(Assy)
2	19022024	1	Pulley
3	19022029	1	Ring,Gear
4	19122025	1	Washer
5	19122026	1	Screw
6	19022034	1	Spacer
7	19022030	1	Seal
8	19022036	1	O-Ring D. 32X3,5
9	19022031	6	Screw

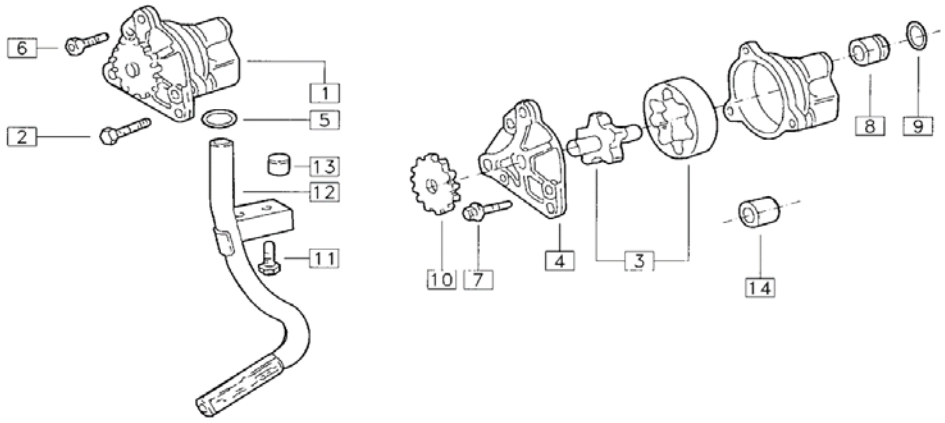


D_SF21_1_9B			Crankshaft & Connectiong Rod
FIG.	**REF.**	**QTY**	**DESCR.**
1	19122018	1	CrankShaft
2	19122012	6	CONNECTING,rod
4	19122033	6	Bushing
5	19022013	12	Screw
6	19122010	1	KEY

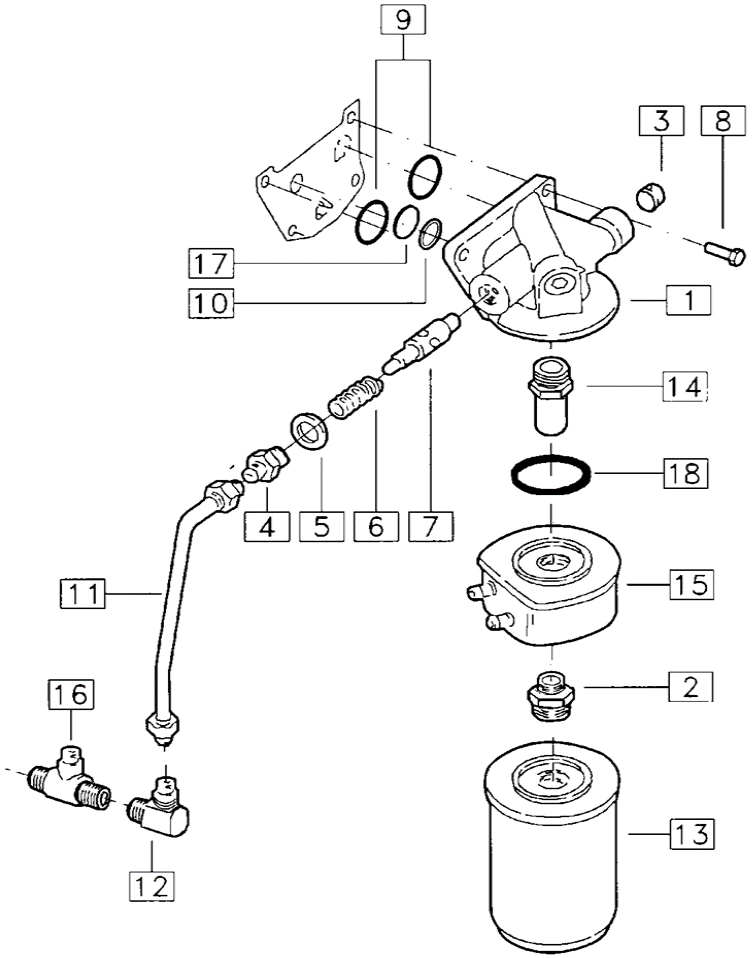




D_SF16_1_10			Oil Sysem
FIG.	**REF.**	**QTY**	**DESCR.**
1	19124040	1	Oil,pump(Assy)
2	19024069	3	Screw
3	19124042	1	Rotor
4	19124061	1	Cover
5	19124049	1	Seal
6	19024063	1	Screw
8	19024092	1	SLEEVE
9	19024093	1	O-Ring D. 25X3,5
10	19024094	1	Gear
11	19024095	1	Screw
13	19024053	1	Plug
14	19124047	1	Bushing

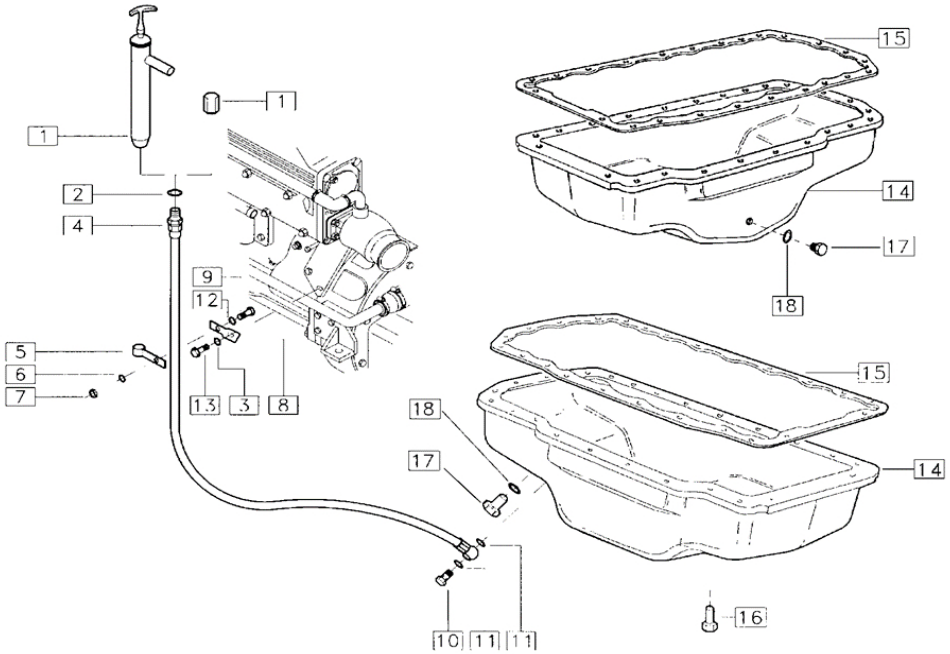


D_SF13_1_10B			Oil Filter
FIG.	**REF.**	**QTY**	**DESCR.**
1	19124056	1	Support
2	19024055	1	Connection
3	19024072	3	Plug
4	19024073	1	Connection
5	19024074	1	O-Ring D. 27X3
6	19024075	1	Spring
7	19024065	1	Valve
8	19024076	4	Screw
9	19024077	2	O-Ring D. 35X3,5
10	19024078	1	O-Ring D. 37X3,5 [NP]
11	19124080	1	Pipe
12	19124081	1	Connection
13	19024051	1	Filter,oil
14	19024054	1	Connection
15	19024085	1	Heat,Exchanger
16	19124083	1	Connection
17	19124082	1	Plug
18	19024087	1	O-Ring

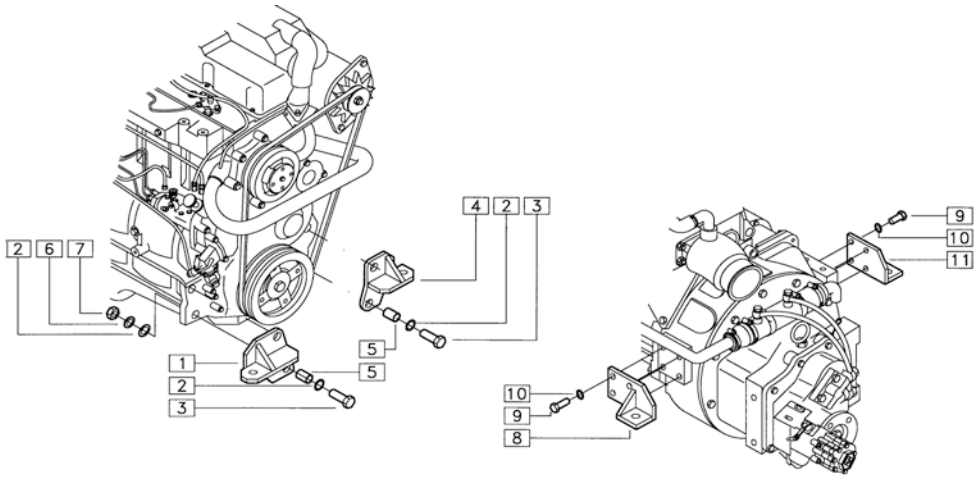


[NP] Not provided

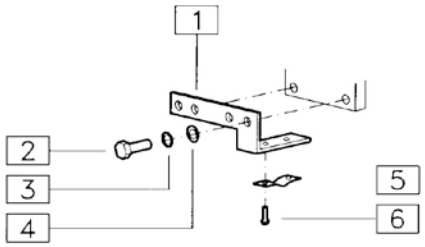
D_SF16_1_11			Oil Pan
FIG.	**REF.**	**QTY**	**DESCR.**
1	14714001	1	Pump,oil Suction
1	16514023	1	Plug 1/2" SAE
2	56000067	1	Washer 13-20-1,5
3	53033009	1	Washer GROWER DIN 127-9
4	16514021	1	ExtraCTION Hose
5	16514010	1	Bracket Clamp
10	16514022	1	Coupling,screw
11	56000077	2	Washer 18-23-1,5
13	53302257	1	Bolt DIN 931 12.9 UNC-3/8-16hx19
14	19120030	1	Oil PAN
15	19120033	1	Gasket
16	19020034	34	Screw
17-18	19020032	1	Plug

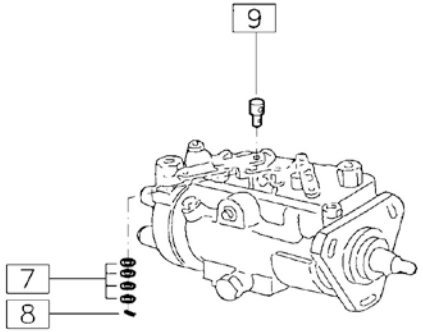


D_SF10_1_12			Engine Brackets
FIG.	**REF.**	**QTY**	**DESCR.**
1	19010002	1	LEFT,front bracket
2	51030020	8	Washer DIN 125-20
3	52301469	4	Bolt DIN 931 W3/4-80 8.8
4	19010001	1	RIGHT,front bracket
5	19010003	2	Bushing
6	53033020	4	Washer GROWER DIN 127-20
7	52320034	4	Nut DIN 934 W 3/4" 8.8
8	19010004	1	RIGHT,rear bracket
9	52102359	8	Bolt DIN 933 M12-30 8.8
10	53033012	8	Washer GROWER DIN 127-12
11	19010005	1	LEFT,rear bracket

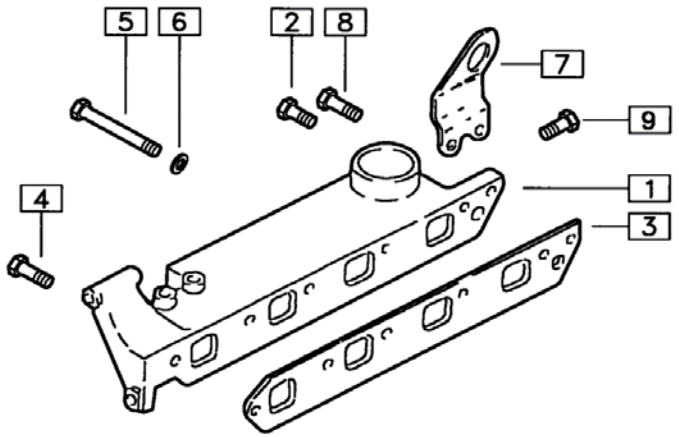


D_SF10_1_13			Bracket, Engine Control
FIG.	**REF.**	**QTY**	**DESCR.**
1	19019001	1	Bracket,engine control
2	52302258	2	Bolt DIN 933 W3/8-25 8.8
3	53033010	2	Washer GROWER DIN 127-10
4	51030010	2	Washer DIN 125-10
5	14719013	1	Clamp,cable
6	55307104	2	Bolt DIN 86 W3/16-10
7	51030006	4	Washer DIN 125-6
8	51051107	1	Pin DIN-94 1,6-16
9	14719115	1	Coupling,cable



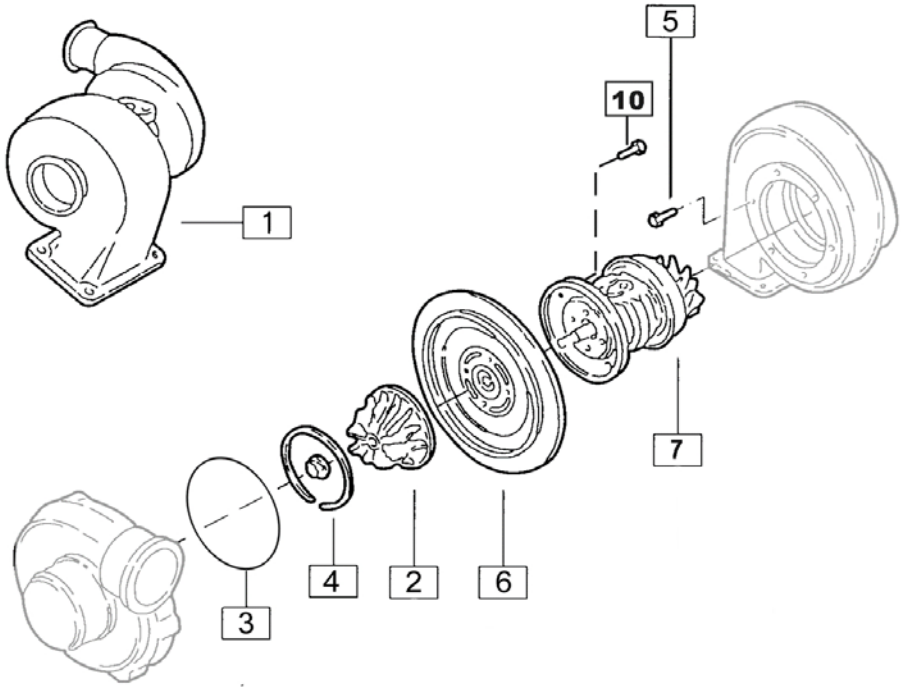


D_SF16_2_1			Inlet
FIG.	**REF.**	**QTY**	**DESCR.**
1	19121030	1	MANIFOld Intake
2	19020042	1	Plug
3	19121032	1	Gasket
4	19020059	3	Screw
5	19021037	7	Screw
6	19021038	7	O-Ring D. 10X1,8
7	19021039	1	HOOK
8	19021040	2	Screw
9	19121043	1	Plug [NP]



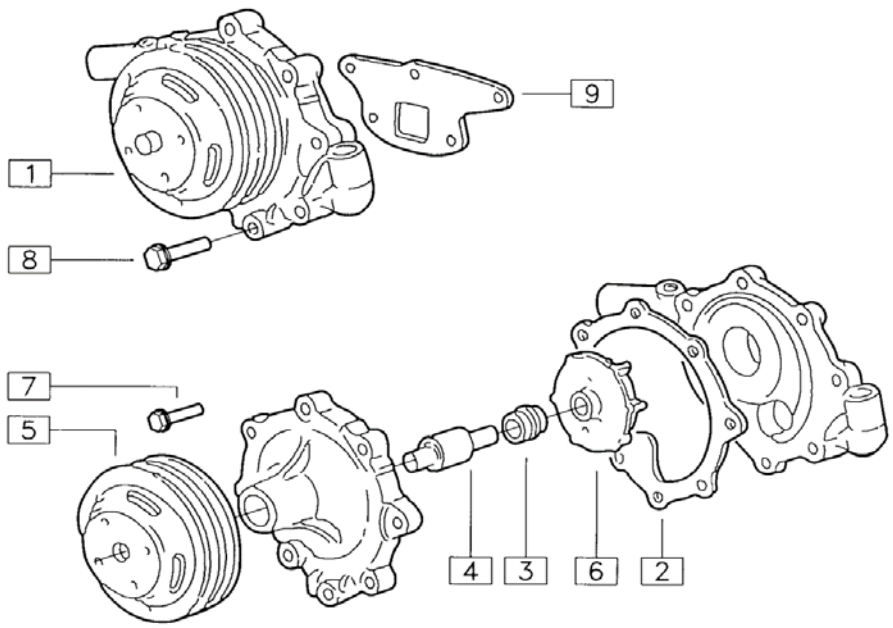
[NP] Not provided

D_SF21_2_3			Turbocharger
FIG.	**REF.**	**QTY**	**DESCR.**
1	19128002	1	TURBOCHARGER
2	19128020	1	Gear
3	19128029	1	O-Ring TURBO
4	19128034	1	LOCKRing
5	51302206	6	Bolt DIN 933 W5/16-15 5.6
6	19128039	1	Plate
7	19128019	1	Impeller
10	19128038	4	Screw
NS	19128102	1	REPAir Kit, TURBO [NS]

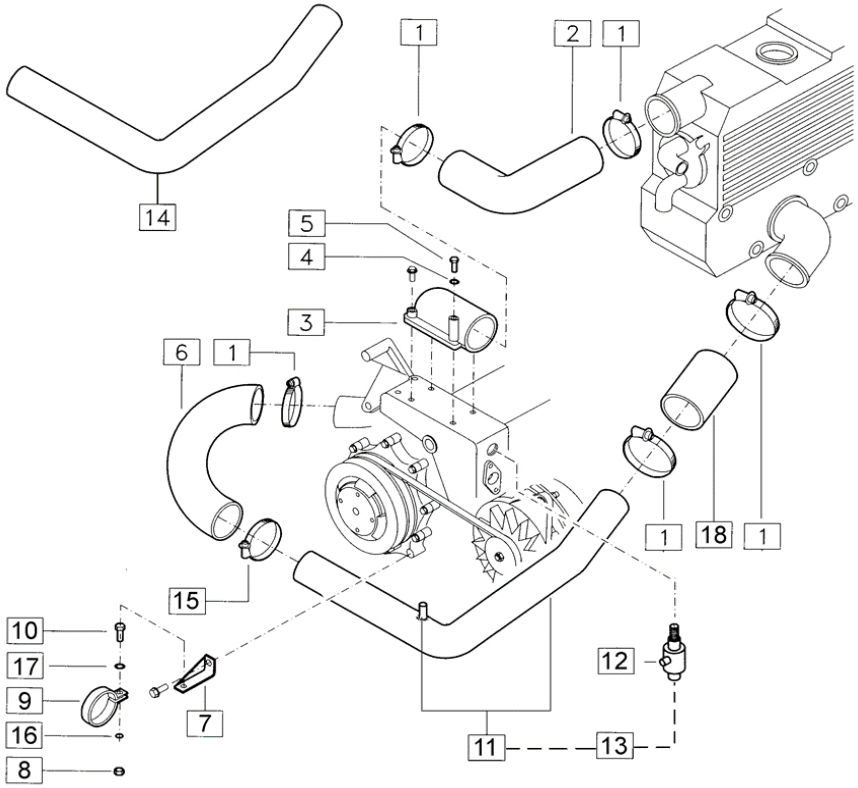


[NS] Not shown

D_SF16_3_1			Water Pump
FIG.	**REF.**	**QTY**	**DESCR.**
1	19121020	1	Water,pump(Assy)
2	19021041	1	Gasket Water Pump
3	19021048	1	Ring
4	19121014	1	Bearing D. 10,5X20X20
5	19021021	1	Pulley
6	19121056	1	Impeller
7	19021057	4	Screw
8	19021058	4	Screw
9	19021022	1	Gasket

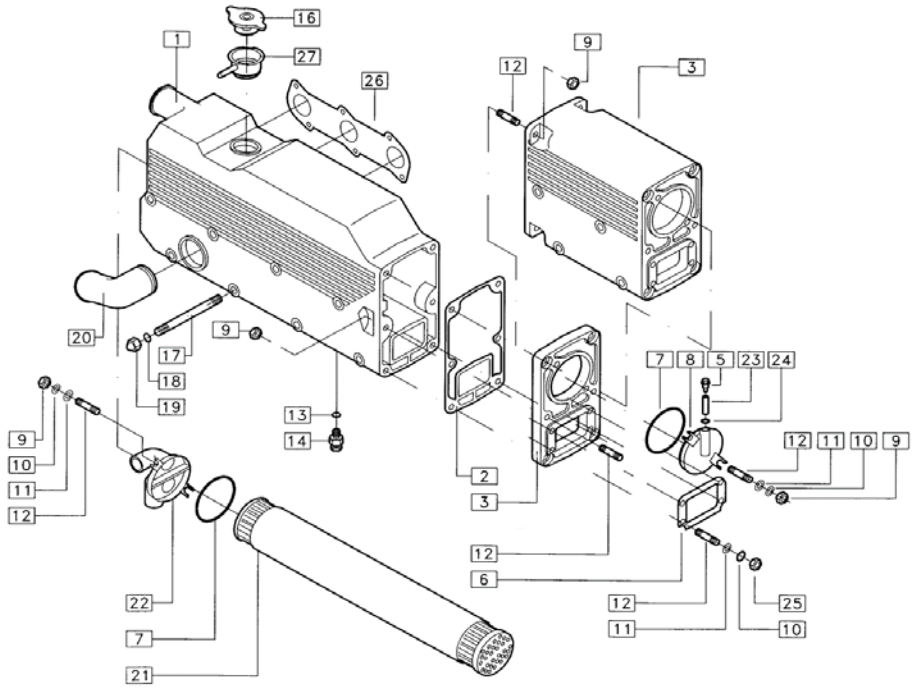


D_SF16_3_2			Cooler Pipes
FIG.	**REF.**	**QTY**	**DESCR.**
1	54082040	5	Clamp DIN 3017 40-60/12 W4
2	19111016	1	Elbow
3	19111020	1	Thermostat Cover
4	53038008	2	Washer DIN 6798-A 8
5	52301216	2	Bolt DIN 931 W5/16-65 8.8
6	19111014	1	Hose
7	19011018	1	Bracket
8	52120008	1	Nut DIN 934 M8 8.8
9	19011017	1	Bracket Clamp
10	52102258	1	Bolt DIN 933 M8-25 8.8
11	19011022	0	Pipe [VAR]
12	13511050	0	NIPPLE,heater [VAR]
13	19011150	1	Kit Heater SFN-100/130
14	19011016	1	Pipe,cooler to engine
15	54082040	1	Clamp DIN 3017 40-60/12 W4
16	54082032	1	Clamp DIN 3017 32-50/12 W4
17	51030008	1	Washer DIN 125-8
18	40030055	1	Rubber Pipe



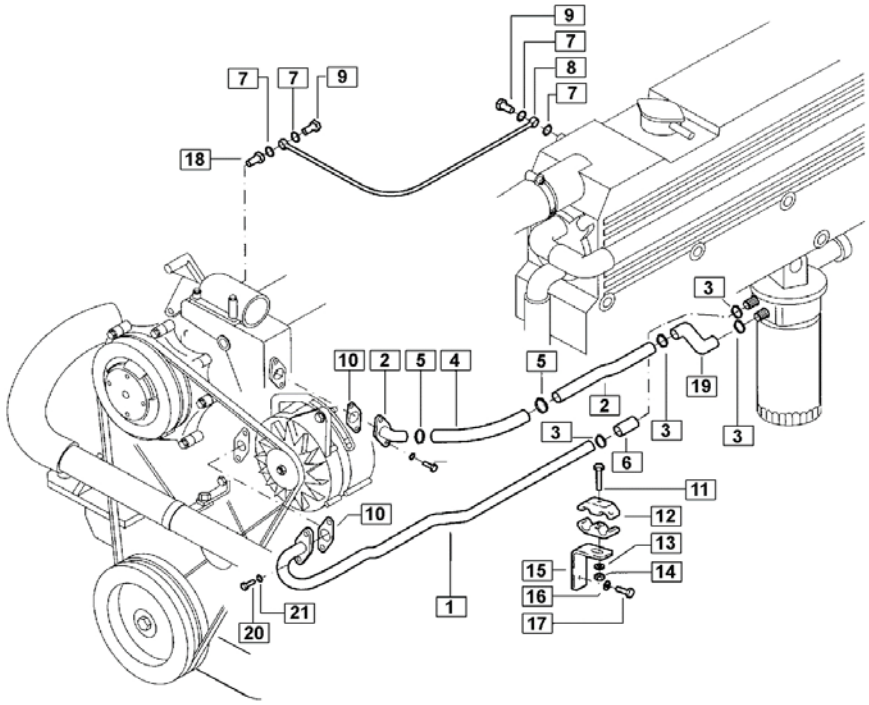
[VAR] Variable according to repair

D_SF21_3_3			Water Cooler
FIG.	**REF.**	**QTY**	**DESCR.**
1	19011001C	1	Body,water cooler and cap
2	19011003.1	1	Gasket
3	19111001	1	Body,water cooler
5	18011009	1	Plug
6	19128007	1	Gasket
7	18011008	2	O-Ring D. 72X3
8	18011002	1	Cover Front,water cooler
9	19111012	6	Nut
10	53033010	8	Washer GROWER DIN 127-10
11	51030010	8	Washer DIN 125-10
12	16511007	14	Stud
13	56000061	1	Washer 10-16-1,5
14	52102306	1	Bolt DIN 933 M10-15 8.8
16	14711003	1	Cap
17	19011015	12	Stud
18	56000061	12	Washer 10-16-1,5
19	13511013	12	Nut DIN 1587 M10
20	19111015	1	BEND 1 1/2"
21	19111004	1	Element,water cooler
22	18011003	1	Cover REAR,water cooler
23	18011031	1	Anode
24	56000073	1	Washer 16-23-1,5
25	55120110	4	Nut DIN 934 M10
26	19121035	2	Gasket
27	15111002R	1	Cap,mouth
NS	19111000	1	Cooler,Assy water SFN-160/210 [NS]



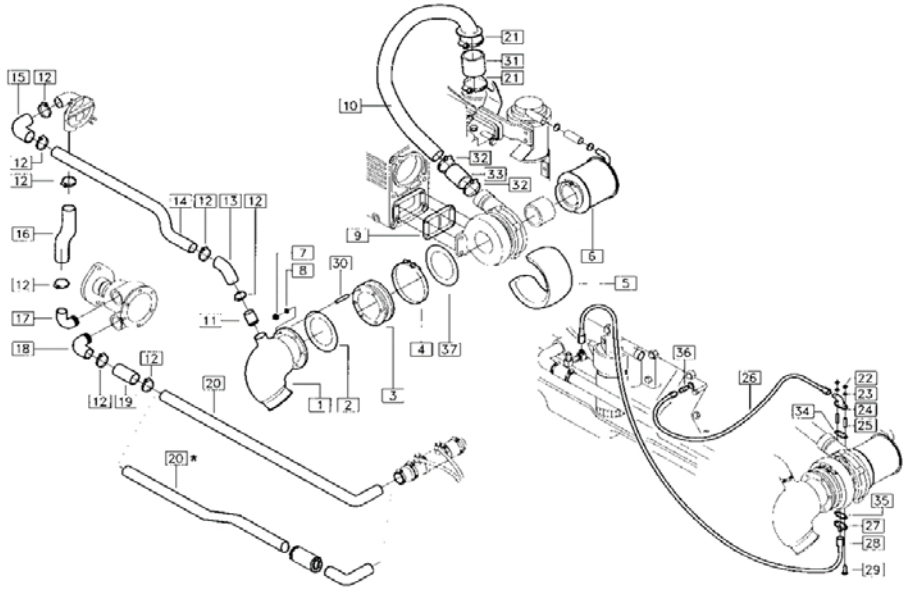
[NS] Not shown

D_SF16_3_4			Water Lines
FIG.	**REF.**	**QTY**	**DESCR.**
1	19121088	1	Pipe
2	19121087	1	Pipe
3	54082025	4	Clamp DIN 3017 25-40/12 W4
4	19111021	1	Pipe
5	54081016	2	Clamp DIN 3017 16-27/9 W4
6	19121085	1	Pipe
7	56000061	4	Washer 10-16-1,5
8	19211035	1	Pipe
9	16713009	2	Bolt,eye
10	19121082	2	Gasket
11	19024084	1	Screw [NP]
12	19121080	2	Clamp
13	19020152	1	LOCKWasher
14	19020153	1	Nut
15	19121076	1	Support [NP]
16	19121078	1	Washer
17	19121074	1	Screw
18	19111022	1	Racord
19	19121069	1	SLEEVE
20	19021050	4	Screw



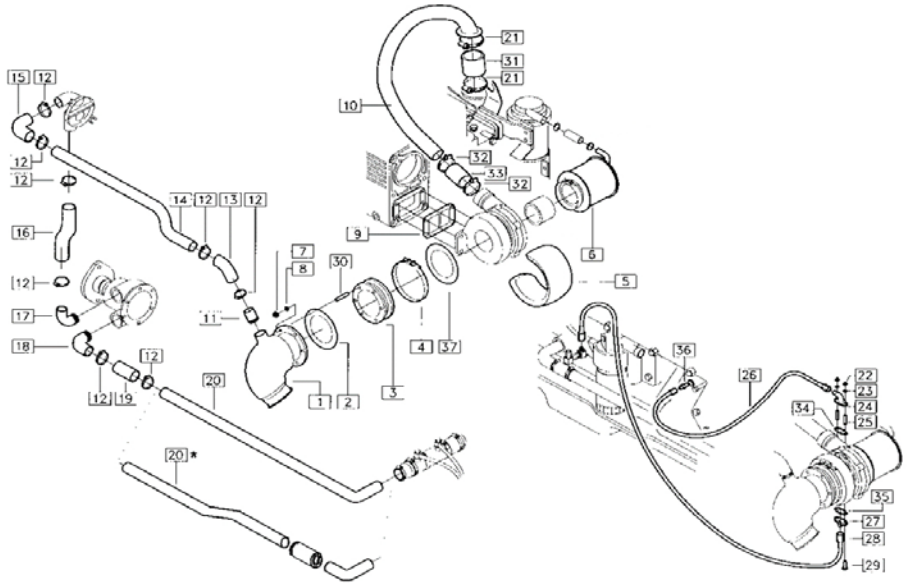
[NP] Not provided

D_SF21_3_5			Cooler Pipes
FIG.	**REF.**	**QTY**	**DESCR.**
1	16513015	1	Elbow, wet exhaust
2	19113016	1	Gasket
3	19113014	1	Cover
4	19121091	1	Clamp
5	19118010	1	TERMIC,bucklers
6	19110030	1	Air,filter
7	54120008	4	Nut DIN 934 M8
8	53033008	4	Washer GROWER DIN 127-8
9	19128007	1	Gasket
10	19110009	1	Inlet Pipe
11	60180007	1	Outlet Coupling
12	54082025	9	Clamp DIN 3017 25-40/12 W4
13	19113011	1	Elbow
14	19111013	1	Pipe,cooler water
15	13211057	1	Rubber
16	18011020	1	Pipe
17	14711021	1	Hose Nº 1
18	14711026	1	Hose Nº 3
18	14711028	1	Hose Nº 4
19	16511021	1	Pipe 30-40-95
20	19111011	1	Pipe,water inlet
20*	19211011	1	Pipe,water inlet
21	54082060	2	Clamp DIN 3017 60-80/12 W4
22	52520516	2	Nut DIN 934 SAE 5/16 8.8
23	53033008	2	Washer GROWER DIN 127-8
24	19114010	1	Flange
25	19114009	2	Stud
26	19114012	1	Pipe
27	19114014	1	Flange
28	19114016	1	Pipe
29	19121094	2	Screw
30	13311006	4	Stud,cover
31	19121095	1	SLEEVE
32	54082040	2	Clamp DIN 3017 40-60/12 W4
33	19121097	1	SLEEVE

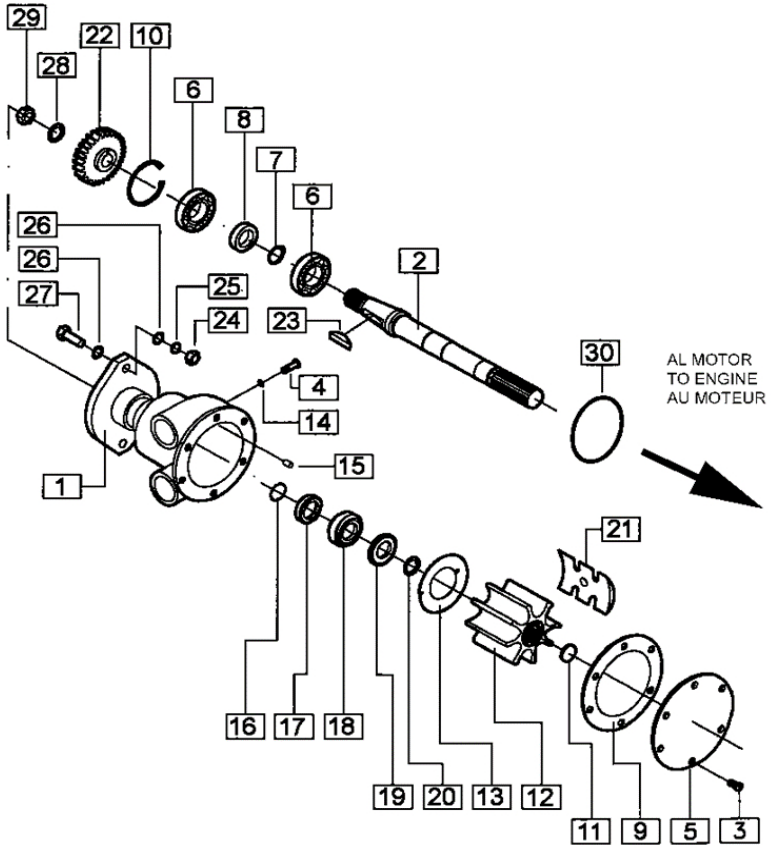


[NS] Not shown

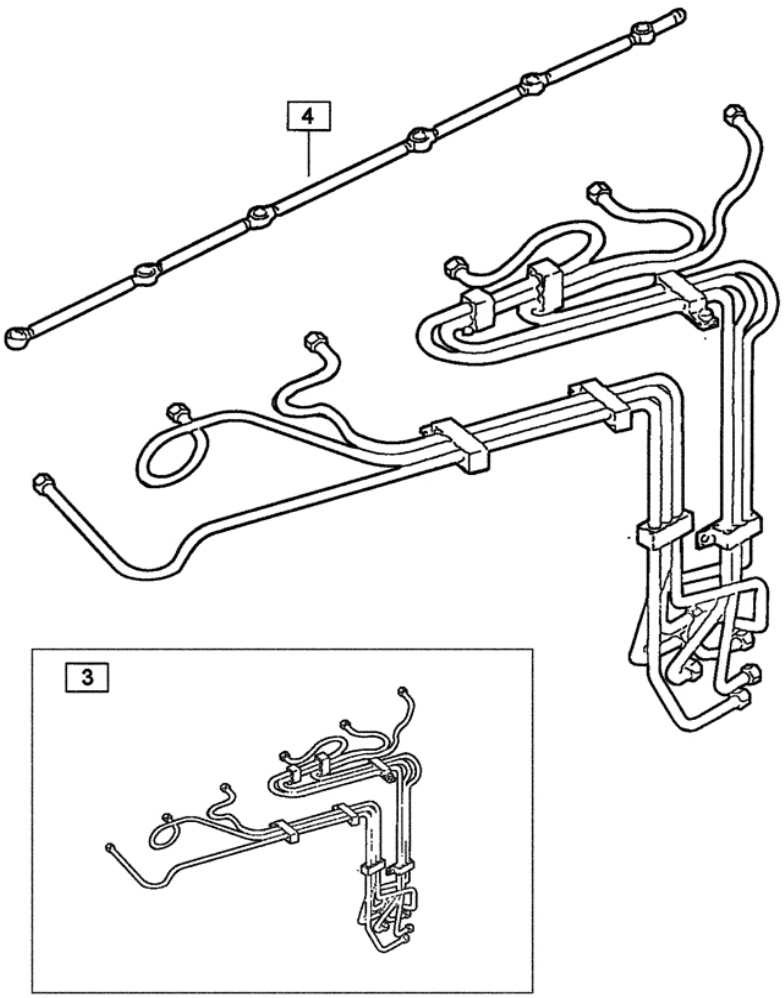
D_SF21_3_5			Cooler Pipes
FIG.	REF.	QTY	DESCR.
34	19114013	1	Gasket
35	19114017	1	Gasket
36	19121090	1	Connection
37	19113013	1	Gasket
NS	19110031	1	Element,air filter [NS]



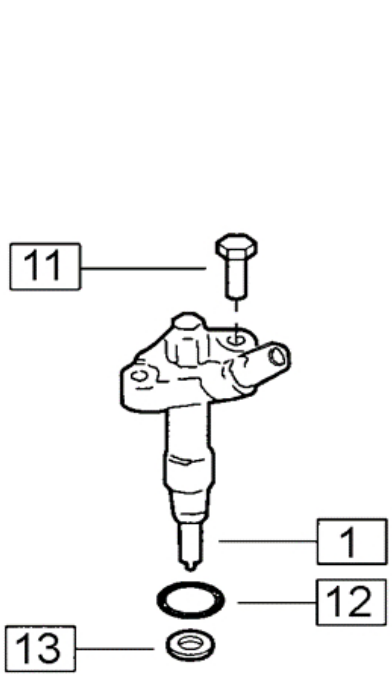
D_39011000			Water Pump Set
FIG.	**REF.**	**QTY**	**DESCR.**
1	39011001	1	Body,water pump
2	36711010	1	Shaft,pump
3	54102154	6	Bolt DIN 933 M6-10
4	54108154	1	Bolt DIN 84 M6-10
5	34711002	1	Cover Pump
6	33311014	2	Ball Bearing 6203
7	53040017	1	CIRClip DIN 471 E-17
8	36511015	1	Spacer 17X24X7
9	34711003	1	Gasket Cover
1-21	39011000	1	Water Pump Set
10	53041040	1	CIRClip DIN 472 I-40
11	34711041	1	Plug, impeller
12	34711008	1	1" Impeller
13	34711026	1	Plate,Friction
14	56000053	1	Washer 6-10-1,5
15	34711017	1	Pin
16	33311013	1	O-Ring D. 15X2
17	36511020	1	Seal 16-30-7
18	36511019	1	Seal
19	36511018	1	Washer,seal
20	54040016	1	CIRClip E-16
21	34711005	1	Cam
22	19010022	1	Gear,drive
23	13122036	1	KEY
24	52120010	2	Nut DIN 934 M10 8.8
25	53033010	2	Washer GROWER DIN 127-10
26	51030010	4	Washer DIN 125-10
27	52101317	2	Bolt DIN 931 M10-70 8.8
28	53033014	1	Washer GROWER DIN 127-14
29	51221014	1	Nut DIN 936 M14X1,5 5.6 ZINC
30	19010006	1	O-Ring D. 83X3,5

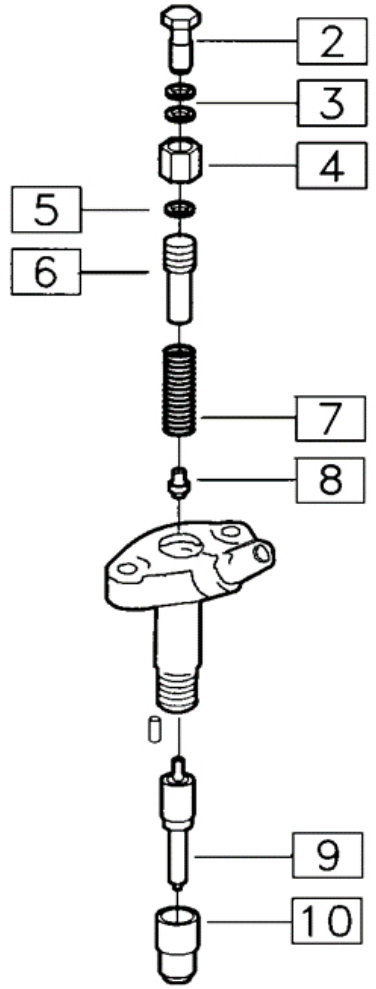


D_SF16_4_1			Fuel Pipe
FIG.	**REF.**	**QTY**	**DESCR.**
3	19124010	1	Pipe (kit)
4	19124026	1	Assy,Fuel Return



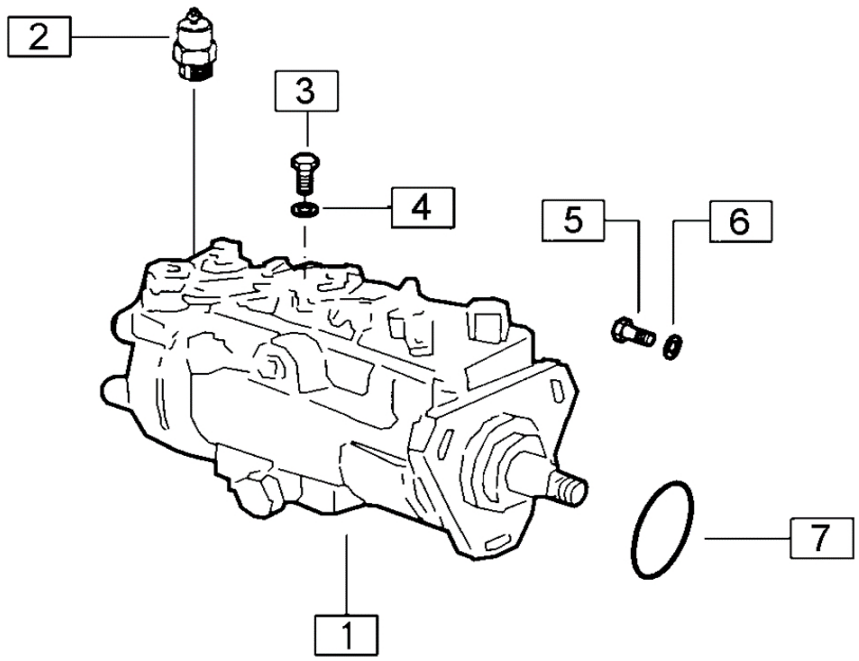
D_SF21_4_2			Injection Nozzle
FIG.	**REF.**	**QTY**	**DESCR.**
1	19126001	6	Injector,Assy
2	19026005	6	Screw, Racord
3	56000006	12	Washer 8-12-1
4	19026007	6	Nut
5	19026008	6	Washer
6	19026009	6	Screw
7	19026004	6	Spring
8	19026003	6	Seat
9	19126018	6	Nozzle
10	19026019	6	Nozzle,holder [NP]
11	19026011	12	Screw
12	19026012	6	Seal
13	19026013	6	Gasket



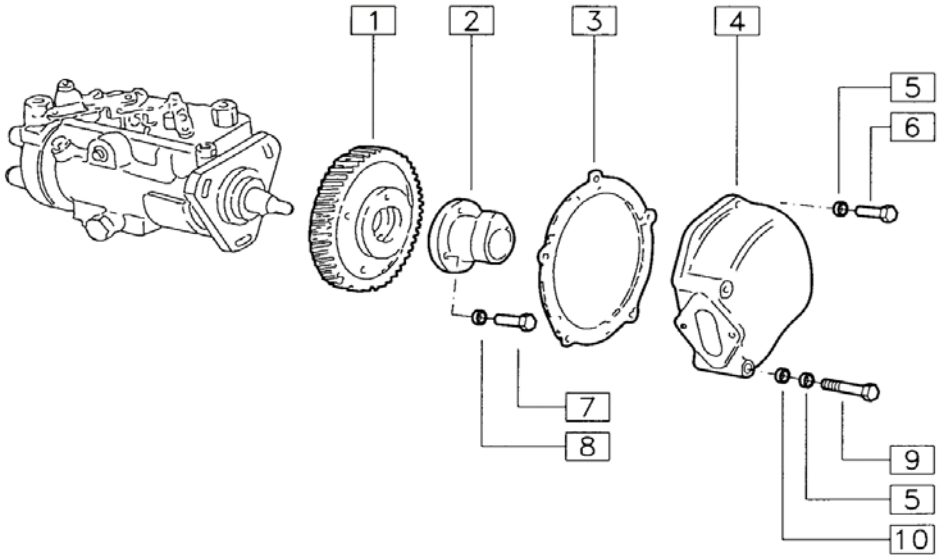


[NP] Not provided

D_SF21_4_3			Fuel Injection Pump
FIG.	**REF.**	**QTY**	**DESCR.**
1	19125001	1	INJENTION,pump
2A	19025300	1	SOLENOID 12V
2B	19025310	1	SOLENOID 24V
3	19025015	1	Plug
4	19024010	1	Gasket
5	19025017	3	Screw
6	19025018	3	LOCKWasher
7	19025020	1	O-Ring D. 60X3,5

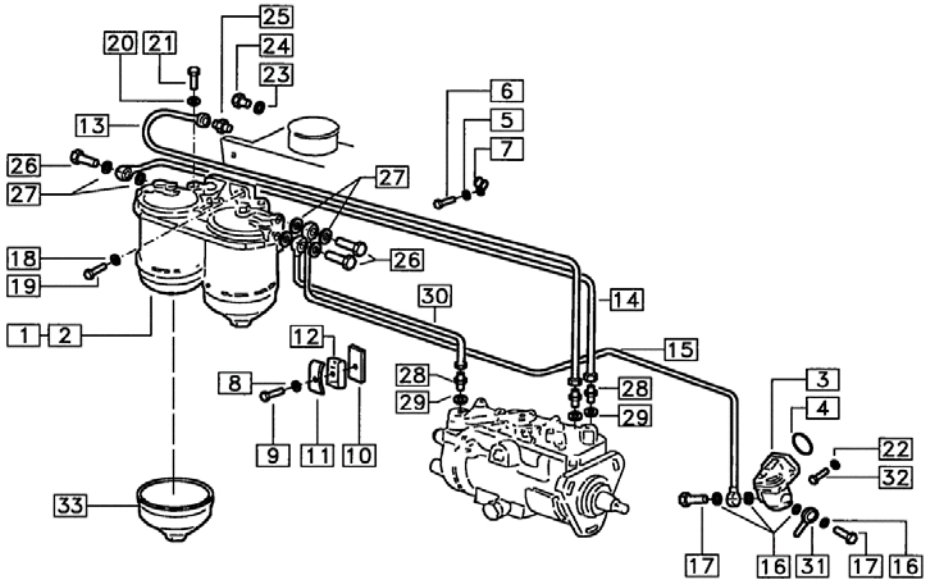


D_SF13_4_4			Injection Pump Drive
FIG.	**REF.**	**QTY**	**DESCR.**
1	19024045	1	Gear
2	19024046	1	SLEEVE
3	19024047	1	Gasket
4	19024048	1	Cover
5	19020152	7	LOCKWasher
6	19024066	3	Screw
7	19024059	3	Screw
8	19024067	3	LOCKWasher
9	19024062	2	Screw
10	19024064	2	Spacer
2*	19024046.1	0	Cam [VAR]
4*	19024048.1	0	Cover [VAR]



[VAR] Variable according to repair

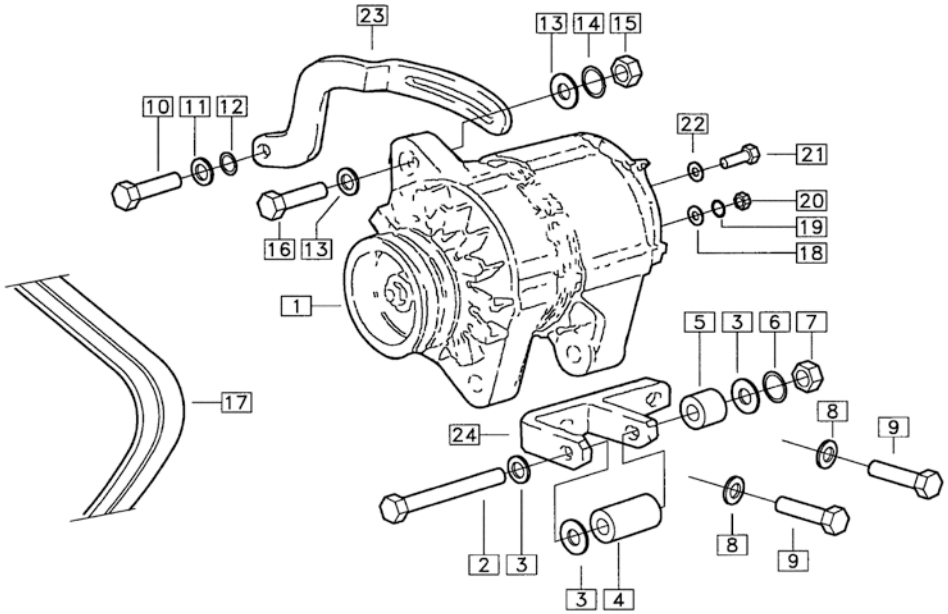
D_SF16_4_5			Fuel Filter
FIG.	REF.	QTY	DESCR.
1	19024020	1	Fuel,filter(Assy)
2	12814028	2	Fuel Filter DELPHI HDF296
3	19024001	1	Fuel,pump
4	19024002	1	Seal
5	19024003	1	LOCKWasher
6	19024004	1	Screw
7	19024005	1	Clamp [NP]
8	19024006	1	LOCKWasher
9	19024007	1	Screw
10	19024008	1	Clamp
11	19024009	1	Clamp
12	19024011	1	Washer
13	19124097	1	Pipe
14	19124048	1	Pipe
14*	19024013.1	0	Pipe [VAR]
15	19124099	1	Pipe
16	19024098	4	Gasket
17	19024096	2	Union
18	51031008	2	Washer DIN 9021 8
19	19024084	2	Screw [NP]
20	19024010	1	Gasket
21	19024086	1	Plug
22	19020152	2	LOCKWasher
23	19024088	1	Gasket
24	19024089	1	Plug
25	19024090	1	Connection
26	19024012	3	Screw, Racord
27	59031014	6	Washer
28	19024017	2	Connection
29	19024018	2	Gasket
30	19024023	1	Pipe
31	19024024	1	Pipe
32	19020158	2	Screw
33	60300103l	2	Body Glass



[NP] Not provided

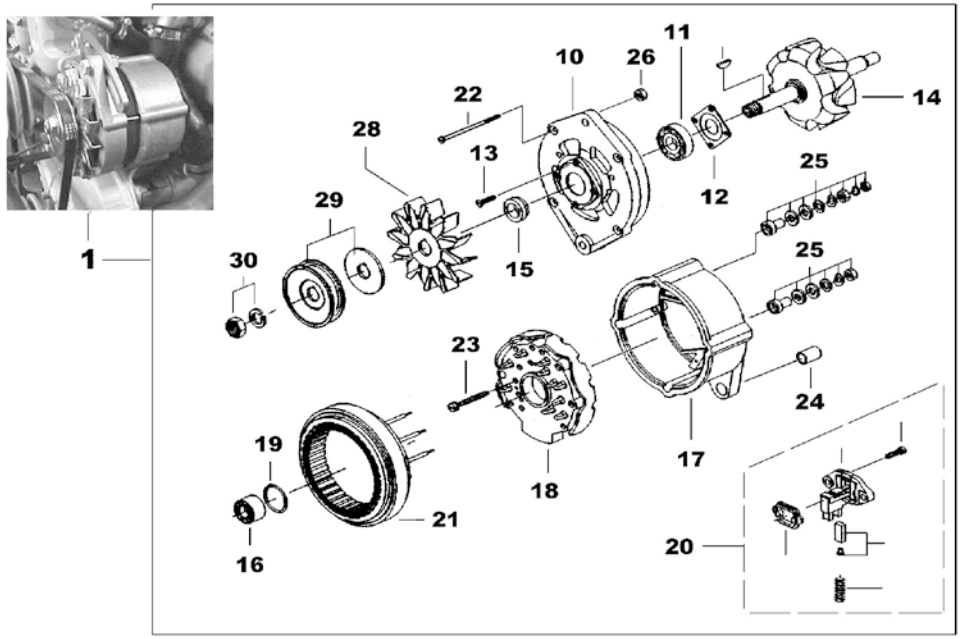
[VAR] Variable according to repair

D_SF10_5_1			Kit Alternator
FIG.	**REF.**	**QTY**	**DESCR.**
1A	18017010.1	1	Alternator 14/70A
1B	19027210	1	Alternator 28V/35A
2	52101376	1	Bolt DIN 931 M12-130 8.8
3	51030012	3	Washer DIN 125-12
4	19027006	1	Spacer [NP]
5	18617011	1	Spacer 12,5X24X18
6	53033012	1	Washer GROWER DIN 127-12
7	52120012	1	Nut DIN 934 M12 8.8
8	19024003	2	LOCKWasher
9	19027008	2	Screw
10	52303207	1	Bolt DIN 912 W5/16-20 8.8
11	51030012	1	Washer DIN 125-12
12	53033011	1	Washer GROWER DIN 127-11
13	51030010	2	Washer DIN 125-10
14	53033010	1	Washer GROWER DIN 127-10
15	52120010	1	Nut DIN 934 M10 8.8
16	52101311	1	Bolt DIN 931 M10-40 8.8
17	19017025	1	Belt Type SPAX 1415
18	51030006	1	Washer DIN 125-6
19	53033006	1	Washer GROWER DIN 127-6
20	52120006	1	Nut DIN 934 M6 8.8
21	54102104	1	Bolt DIN 933 M5-10 INOX.
22	51030005	1	Washer DIN 125-5
23	19027007	1	Belt,stretcher
24	19027005	1	Support

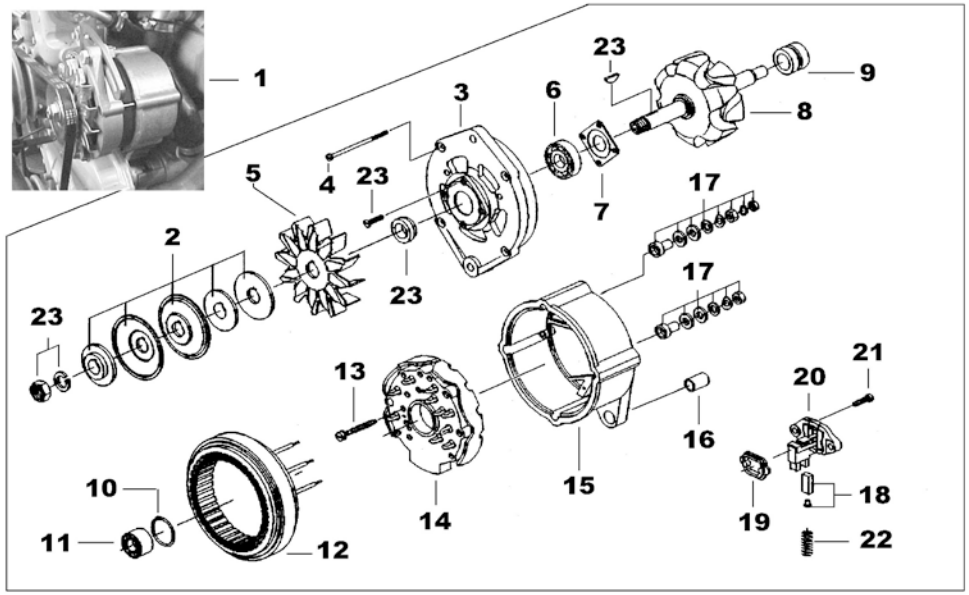


[NP] Not provided

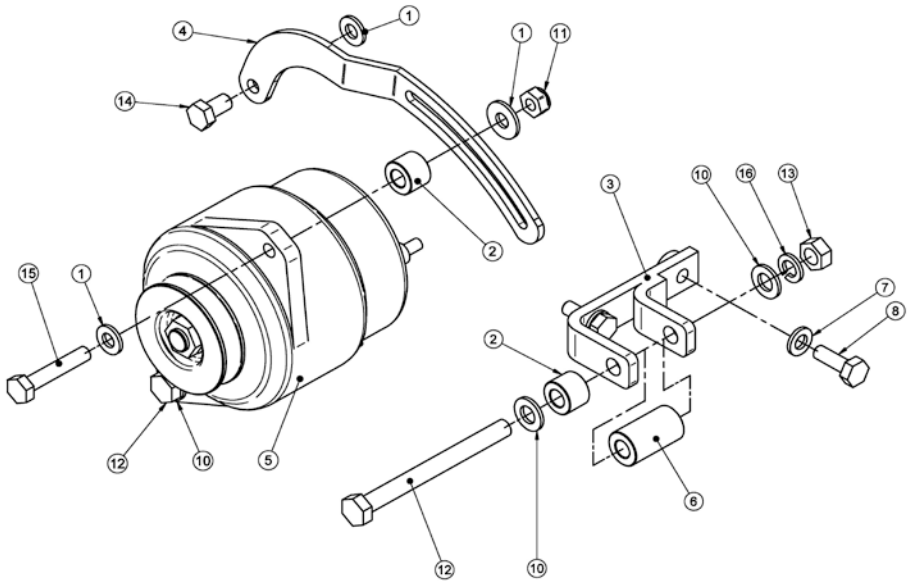
D_SF10_5_2A			Alternator 12V/70A
FIG.	**REF.**	**QTY**	**DESCR.**
1*	19017010.1	1	Alternator 14V/70A
10	18017054	1	Bracket Assy
11	18017083	1	Ball Bearing 6303-RDD
12	18017068	3	Plate Seal
13	18017055	1	Screw
14	18017057	2	Rotor Assy
15	18017067	3	Ring
16	18017056	4	Ball Bearing 6201-DUB
17	18017060	1	Bracket Assy REAR
18	18017066	1	RECTIFIER Assy
19	18017084	1	Ring
20	18017016	1	REGULATOR Assy
21	18017059	1	STATOR Assy
22	18017053	4	ROD,TIE
23	18017082	2	Screw
24	18017085	1	Bushing
25	18017089	1	Connector B.
26	18017087	4	Nut
27	18017088	1	Washer
28	18017061	1	FAN
29	18017052	1	Pulley Assy
30	18017051	1	Kit Rotor



D_SF10_5_2B			Alternator 24V/35A
FIG.	**REF.**	**QTY**	**DESCR.**
1	19027210	1	Alternator 28V/35A
2	18017052	1	Pulley Assy
3	19017054	1	Bracket Assy 28V.
4	19027267	4	Bolt
5	18017061	1	FAN
6	19027256	1	Bearing
7	19027258	1	Cover Plate
8	19027257	1	Rotor Assy
9	19027259	1	RUB Ring
10	18017084	1	Ring
11	19027261	1	Bearing
12	19017059	1	STATOR Assy 28V.
13	19027255	1	Bolt
14	19027266	1	RECTIFIER Assy
15	19017060	1	Bracket Assy REAR 28V.
16	18017085	1	Bushing
17	18017089	1	Connector B.
18	19017065	1	Brush 28V.
19	19027264	1	Gasket
20	19017058	1	REGULATOR Assy 28V.
21	18017082	2	Screw
22	19027263	2	Spring
23	18017051	1	Kit Rotor

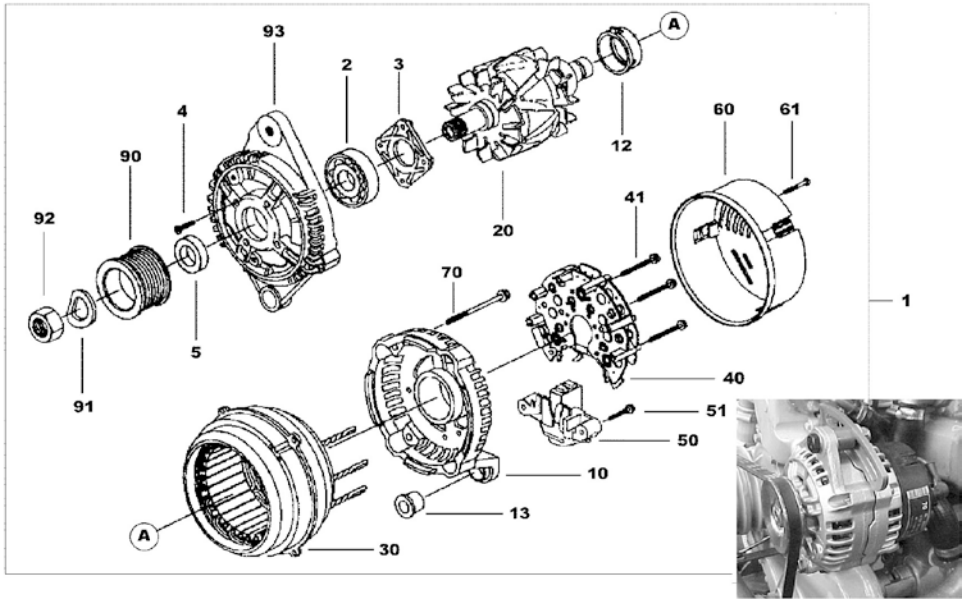


D_SF10_5_3			Kit Alternator
FIG.	**REF.**	**QTY**	**DESCR.**
1	51030010	3	Washer DIN 125-10
2	18617011	2	Spacer 12,5X24X18
3	19017006	1	Support
4	19017007	1	STrap,alternator
5	19017010.1	1	Alternator 14V/70A
6	19027006	1	Spacer [NP]
7	19024003	2	LOCKWasher
8	19027008	2	Screw
10	51030012	2	Washer DIN 125-12
11	51123010	1	Nut DIN 985 M10 5.6
12	52101376	1	Bolt DIN 931 M12-130 8.8
13	52120012	1	Nut DIN 934 M12 8.8
14	52302307	1	Bolt DIN 933 W7/16-20 8.8
15	52101314	1	Bolt DIN 931 M10-55 8.8
16	53033012	1	Washer GROWER DIN 127-12

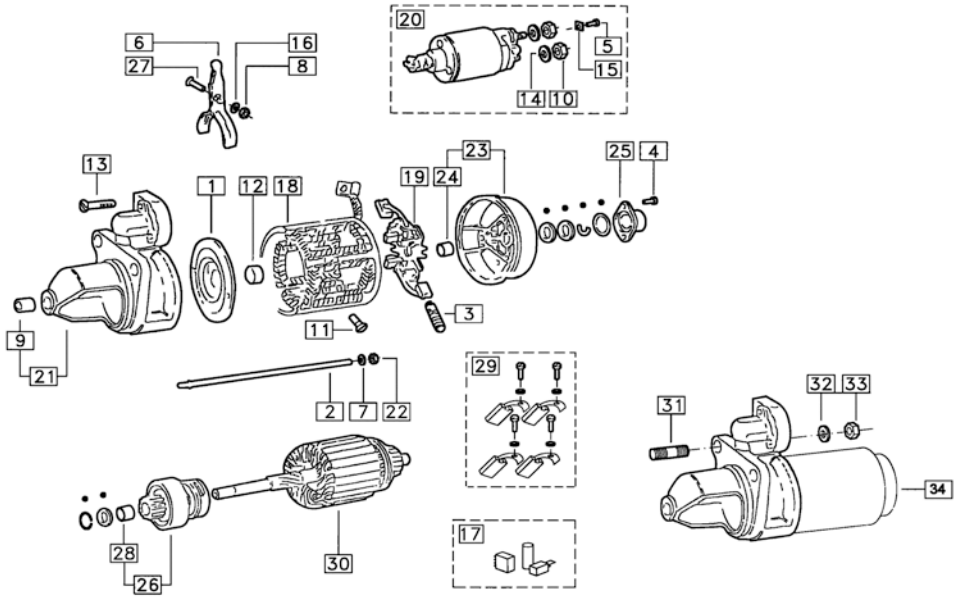


[NP] Not provided

D_SF10_5_4			Alternator 14V/70A
FIG.	**REF.**	**QTY**	**DESCR.**
1	19017010.1	1	Alternator 14V/70A
2	18017056.1	1	Bearing
3	18017068	1	Plate Seal
4	18017055	4	Screw
5	18017067	1	Ring
10	18017058.1	1	Plate
12	18017084.1	1	Ring
13	18017069.1	1	Bearing
20	18017057.1	1	Rotor
30	18017059.1	1	STATOR
40	18017010.1	1	Alternator 14/70A
41	18017082.1	3	Screw
50	18017016.1	1	Brush
51	18017055.1	2	Screw
61	18017062.1	3	Screw
70	18017053.1	4	Screw
90	18017052.1	1	Pulley
91	18017088	1	Washer
92	18017087.1	1	Nut
93	18017054.1	1	Bracket Assy

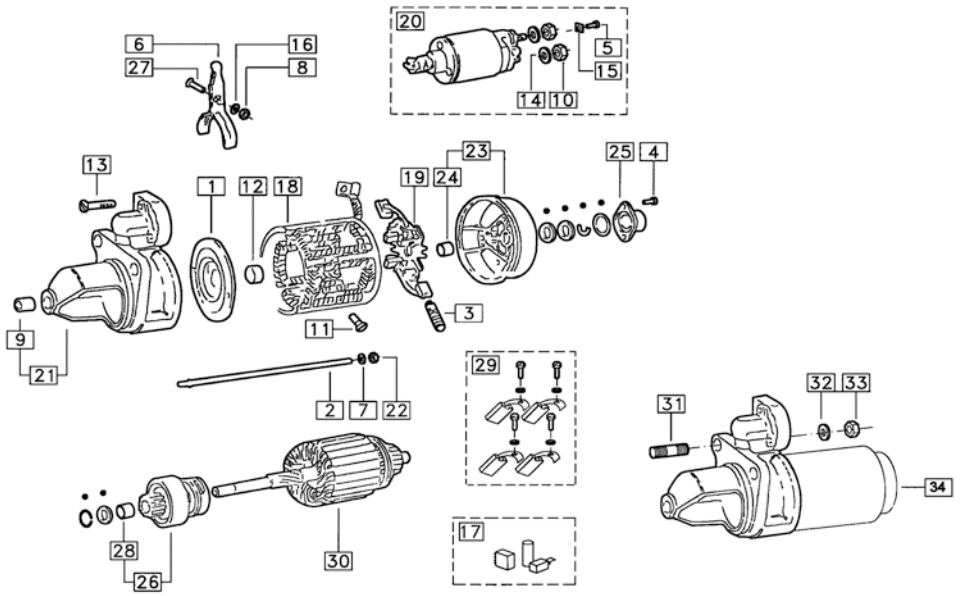


D_SF10_5_5			Starter
FIG.	**REF.**	**QTY**	**DESCR.**
1	19027131	1	Support
2	19027107	2	ROD
3	19027121	4	Spring
4A	19027132	2	Screw 12V
4B	19027232	2	Screw 24V
5	19027133	1	Screw
6	19027103	1	Lever
7	19027129	2	Washer 12V ANTIGUA
8A	19027128	1	Nut 12V
8B	19027228	1	Nut 24V [NP]
9	19027127	1	Bush
10A	19027126	2	Nut 12V
10B	19027226	2	Nut 24V [NP]
11	19027124	4	Screw
12A	19027134	1	Bush 12V
12B	19027234	1	Bush 24V
13	19027135	3	Screw
14A	19027136	2	LOCKWasher 12V
14B	19027236	2	LOCKWasher 24V
15	19027137	1	Plate
16A	19027138	1	LOCKWasher 12V
16B	19027238	1	LOCKWasher 24V
17	19027125	1	Kit
18A	19027119	1	WINDING 12V
18B	19027219	1	WINDING 24V
19A	19027120	1	Brush,holder
19B	19027220	1	Brush,holder 24V
20A	19027106	1	SOLENOID 12V
20B	19027206	1	SOLENOID 24V
21A	19027102	1	Support 12V
21B	19027202	1	Support 24V
22	52120006	2	Nut DIN 934 M6 8.8
23	19027122	1	Cover
24	19027111	1	Bush
25	19027139	1	BOOT

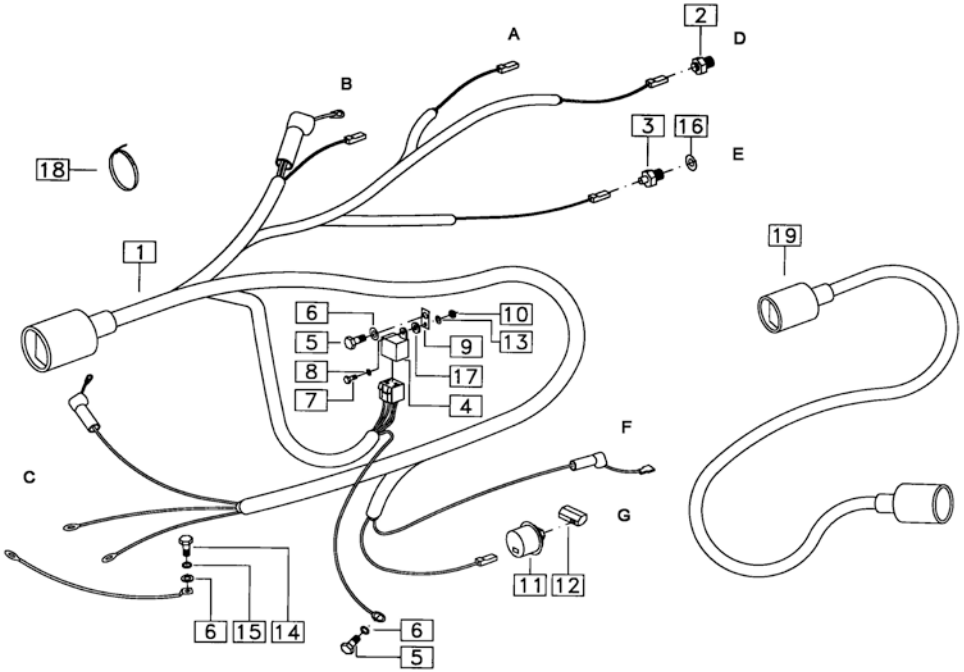


[NP] Not provided

D_SF10_5_5			Starter
FIG.	**REF.**	**QTY**	**DESCR.**
26	19027113	1	Drive,unit
27	19027140	1	Screw
28	19027109	2	Bush
29A	19027101	1	Kit 12V
29B	19027201	1	Kit 24V
30A	19027108	1	ARMATURE 12V
30B	19027208	1	ARMATURE 24V
31	19027071	3	Stud
32	19024003	3	LOCKWasher
33	19027073	3	Nut
34	19027301.1	1	Starter Assy 24V

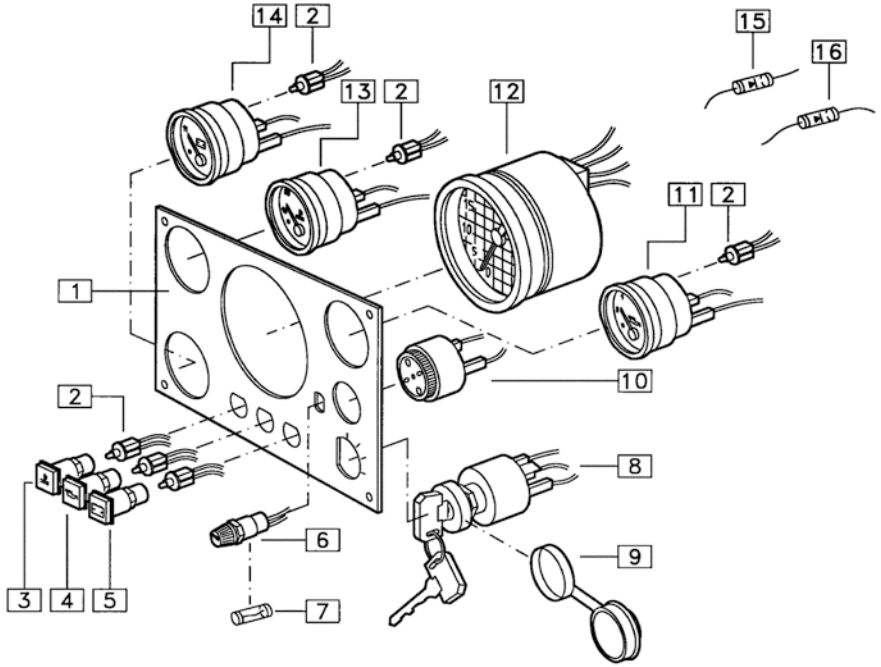


D_SF10_5_6			24V Electrical Wiring
FIG.	**REF.**	**QTY**	**DESCR.**
1A	60990200.1	1	SFN-100 Electrical Wiring
1B	60990200.1	1	SFN-100 Electrical Wiring
2A	60900980	1	Temperature Sensor
2B	60900780	1	Temperature SENDER 12 V
3	60900070	1	Thermo-Switch 97ºC
4A	18517005.1	1	Relay 12-6V
4B	19017005	1	Relay 24V 24/22A
5	52302307	2	Bolt DIN 933 W7/16-20 8.8
6	51030012	3	Washer DIN 125-12
7	52102106	1	Bolt DIN 933 M5-15 8.8
8	51030005	1	Washer DIN 125-5
9	19017002	1	Relay,bracket
10	52120005	1	Nut DIN 934 M5 8.8
11A	60900985	1	Pressure Sensor
11B	60900785	1	Oil Presure Sender 12-24 V
12	19017016	1	Bell Housing
13	53033005	1	Washer GROWER DIN 127-5
14	52302258	1	Bolt DIN 933 W3/8-25 8.8
15	53033010	1	Washer GROWER DIN 127-10
16	56000073	1	Washer 16-23-1,5
17	13217007	1	REGULATOR SILENTBlock
18	58088283	1	Clamp
19	60985210	1	Engine Wiring Ext. 4 M.
20	19027027	1	SENDING,unit 0,7

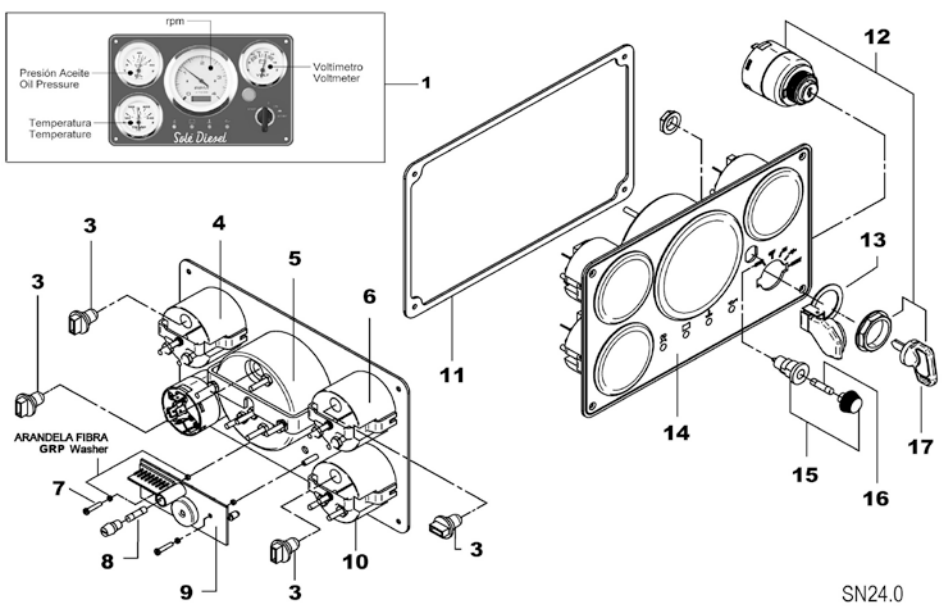


2* Y 11*PARA UNIDADES FABRICADAS A PARTIR DE DICIEMBRE DE 2005 CON PANEL NUEVO
2* &11* FOR UNITS MANUFACTURED FROM DECEMBER 2005 WITH NEW PANEL
2* &11* POUR MOTEURS FABRIQUÉES AVEC TABLEAU DE BORD NEUF À PARTIR DE DECEMBRE DE 2005

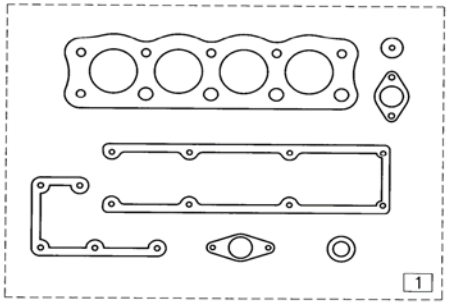
D_SF10_5_7			Instrument Panel
FIG.	**REF.**	**QTY**	**DESCR.**
1	60990001	1	Panel
1-16	60990100	1	Panel 24V SFN-100/160/210
1-16	60990000	1	Panel SFN-100/160/210
2A	60900045A	3	Bulb 12V 3W
2B	60900046A	3	Bulb 24V
3	60900052A	1	LAMP, water temp.
4	60900050A	1	LAMP, oil press.
5	60900051A	1	LAMP, charge
6	60900121	1	FuseHolder, panel
7	60900118	1	Fuse 10 A.
8	60900031	1	Key-Locking Switch
9	60900035	1	Cover,key
10	60900060	1	Alarm, SWITCH
11A	60900820	1	Oil PRESURE Gauge 12 V
11B	60900821	1	Oil PRESURE Gauge 24 V
12A	60990710	1	TACHOMETER SFN-100,160 and 210
12B	60900812M	1	TACHOMETER 24 V
13A	60900815	1	Water Gauge 12 V
13B	60900816	1	Water Gauge 24 V
14A	60900825	1	VOLTMETER 12 V
14B	60900826	1	VOLTMETER 24 V
15	60900112	2	DIODE 1 A.
16	60900111	1	DIODE 6 A.

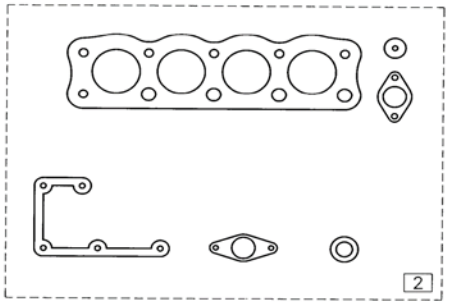


D_SF10_5_8			Deluxe Instrument Panel
FIG.	**REF.**	**QTY**	**DESCR.**
1*	60990125	1	Panel SFN 12V.
3	60900929	4	Bulb 12V
4	60900925	1	VOLTMETER 12 V
5	60990912	1	TACHOMETER SFN-100,160 and 210
6	60900920	1	Oil Pressure Gauge 12 V
7	54108003	1	Bolt DIN 84 M3-8 INOX.
8	60900119	1	Fuse 0.5A
9	60900301	1	Integrated Circuit Plate 12V
10	60900915	1	Water Gauge 12 V
11	60990006	1	Gasket Panel
12	60900037	1	Key-Locking
13	60900038	1	Cover,KEY
14	60990005	1	Panel N.3
15	60900121	1	FuseHolder, panel
16	60900118	1	Fuse 10 A.
17	60900036	1	Key,Starter Switch



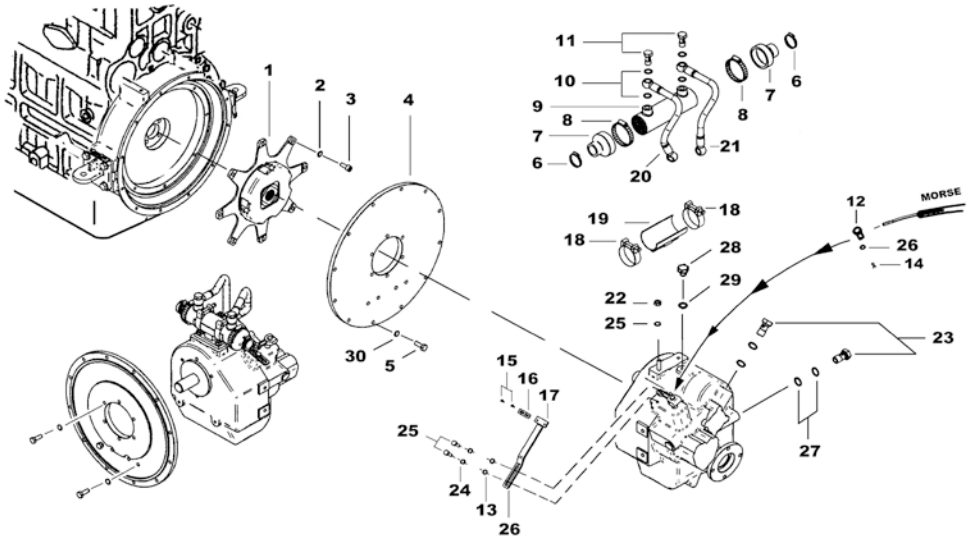
D_19020101			Gasket Kit
FIG.	**REF.**	**QTY**	**DESCR.**
1	19020101	1	Set OF Engine GasketS
2	19020102	1	Valve,refacing gasket set





Gearbox Kit

D_SF10_7_1			Gearbox Kit, TM-93/170
FIG.	**REF.**	**QTY**	**DESCR.**
1	16510170	1	Flexible Coupling Type C SAE 11"1/2
2	53038010	8	Washer DIN 6798-A 10
3	52103308	8	Bolt DIN 912 M10-25 8.8
4	24810021	1	SAE3 Housing TM-93 and 170
5	52102309	12	Bolt DIN 933 M10-30 8.8
6	54082025	2	Clamp DIN 3017 25-40/12 W4
7	15312007	2	Cover, water cooler D 30
8	54082050	2	Clamp DIN 3017 50-70/12 W4
9	14712051	1	Cooler,oil
10	57000375	4	Washer 17-22-1,5
11	14712015	2	Bolt,Coupling pipe oil
12	14719115	1	Coupling,cable
13	51030008	1	Washer DIN 125-8
14	51051107	1	Pin DIN-94 1,6-16
15	55307104	2	Bolt DIN 86 W3/16-10
16	14719013	1	Clamp,cable
17	18619020	1	Bracket,Gear box control
18	51083060	2	Clamp "P" 59-63
19	18012041	1	Bracket,TM93/170 oil cooler
20A	19212019	1	Pipe,rev.oil cooler
20B	17412017	1	Pipe,Oil
21	19212018	1	Pipe,rev.oil cooler
22	52120010	2	Nut DIN 934 M10 8.8
23	18012012	2	Bolt,eye
24	53033008	2	Washer GROWER DIN 127-8
25A	52102256	2	Bolt DIN 933 M8-15 8.8
25B	52120008	2	Nut DIN 934 M8 8.8
26	51030006	1	Washer DIN 125-6
27	56000083	4	Washer 21-26-1,5
28	52102256	1	Bolt DIN 933 M8-15 8.8
29	56000061	1	Washer 10-16-1,5
30	53033010	12	Washer GROWER DIN 127-10
31	15212022	1	Elbow



25 SOLO PARA TM-93 / ONLY FOR TM-93 / POUR TM-93
20* / 25* SOLO PARA TM-170 / ONLY FOR TM-170 / POUR TM-170