



Spare Parts Catalogue

ZF 85 IV
ZF 80 IV (ZF 85 IV DERIVATE VERSION)

JUNE 2008

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TABLE OF CONTENTS

1. SPARE PARTS LIST ZF 85 IV	3	2. SPARE PARTS LIST ZF 80 IV (ZF 85 IV DERIVATE VERSION)	15
Preface	3	Preface	15
Name plate	3	Name plate	15
FIG. 1 ZF 85 IV	4	FIG. 1 ZF 80 IV (ZF 85 IV DERIVATE VERSION)	16
FIG. 2 ZF 85 IV	6	FIG. 2 ZF 80 IV (ZF 85 IV DERIVATE VERSION)	18
FIG. 3 Mechanical selector valve ZF 85 IV	8	FIG. 3 Mechanical selector valve ZF 80 IV (ZF 85 IV DERIVATE VERSION)	20
FIG. 4 Electric selector valve ON/OFF 12V - 26 bar Electric selector valve ON/OFF 24V - 26 bar ZF 85 IV	10	FIG. 4 Electric selector valve ON/OFF 12V - 26 bar Electric selector valve ON/OFF 24V - 26 bar ZF 80 IV (ZF 85 IV DERIVATE VERSION)	22
FIG. 5 Electric selector valve ON/OFF 12V - 26 bar with trolling valve Electric selector valve ON/OFF 24V - 26 bar with trolling valve ZF 85 IV	12	FIG. 5 Electric selector valve ON/OFF 12V - 26 bar with trolling valve Electric selector valve ON/OFF 24V - 26 bar with trolling valve ZF 80 IV (ZF 85 IV DERIVATE VERSION)	24
KIT COMPONENTS ZF 85 IV	14	KIT COMPONENTS ZF 80 IV (ZF 85 IV DERIVATE VERSION)	26



1. SPARE PARTS LIST ZF 85 IV

Preface

The spare parts list is only valid for the type and versions of transmission, as shown below.

You will find the transmission type and version on your transmission name plate.

If the type and version indicated differs from that printed in this Manual, the relative Spare Parts List should be ordered from ZF MARINE ARCO S.p.A..

The indicated dimensions and standards are as such not enough for ordering parts.

When ordering parts, please state:

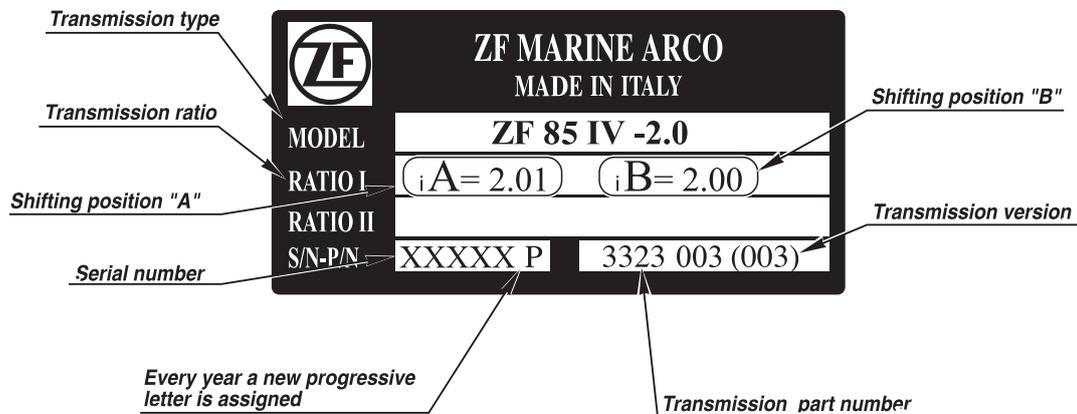
- Transmission type
- Transmission version
- Serial number
- Item no.
- Part name
- Identification no.
- quantity of parts required.

The spare parts list is referring to the following versions:

ZF 85 IV versions 004 (1.64 R); 003 (2.01 R); 002 (2.49 R)

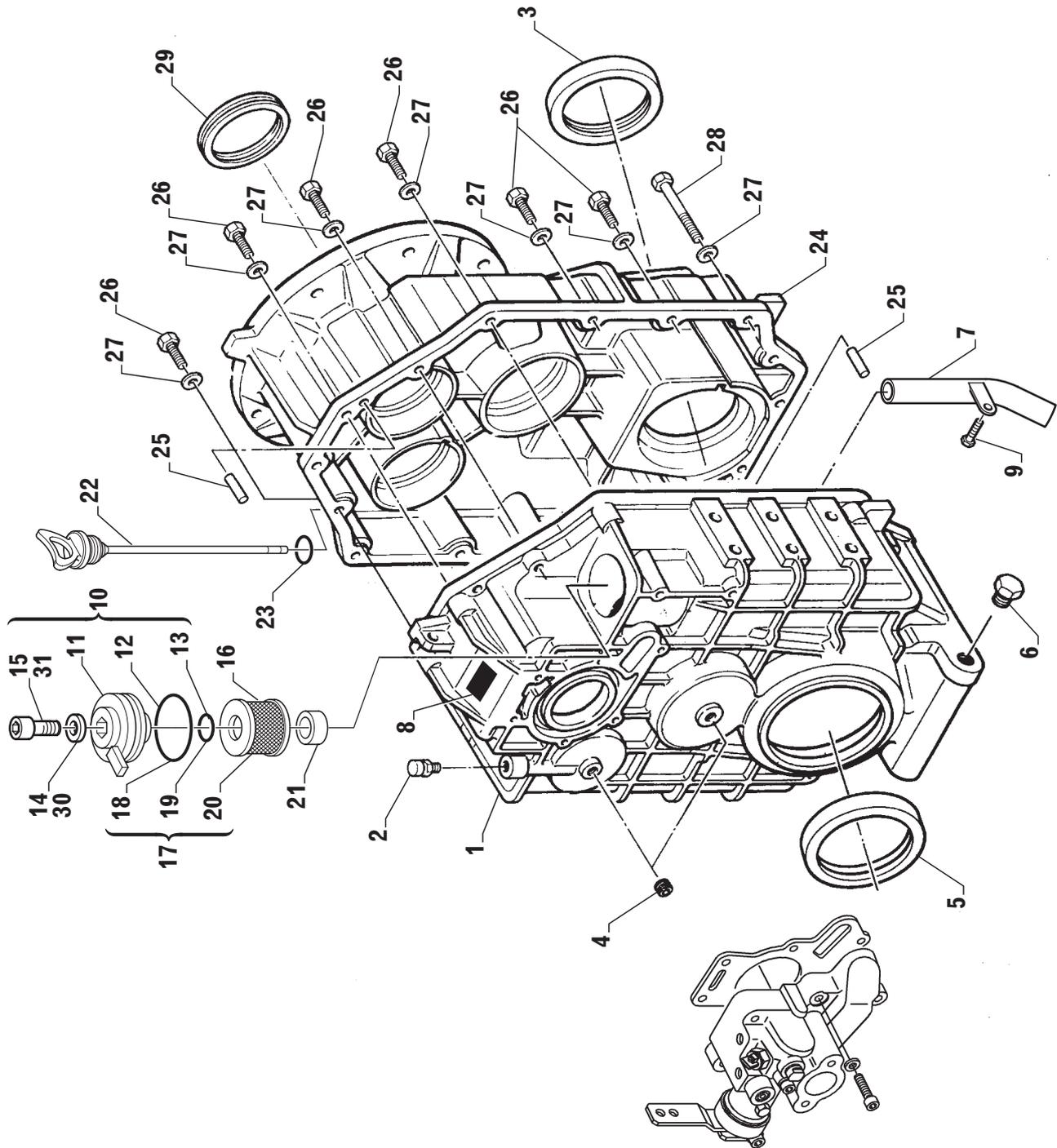
Name plate

The name plate is mounted to the transmission.





ZF 85 IV versions 002 - 003 - 004



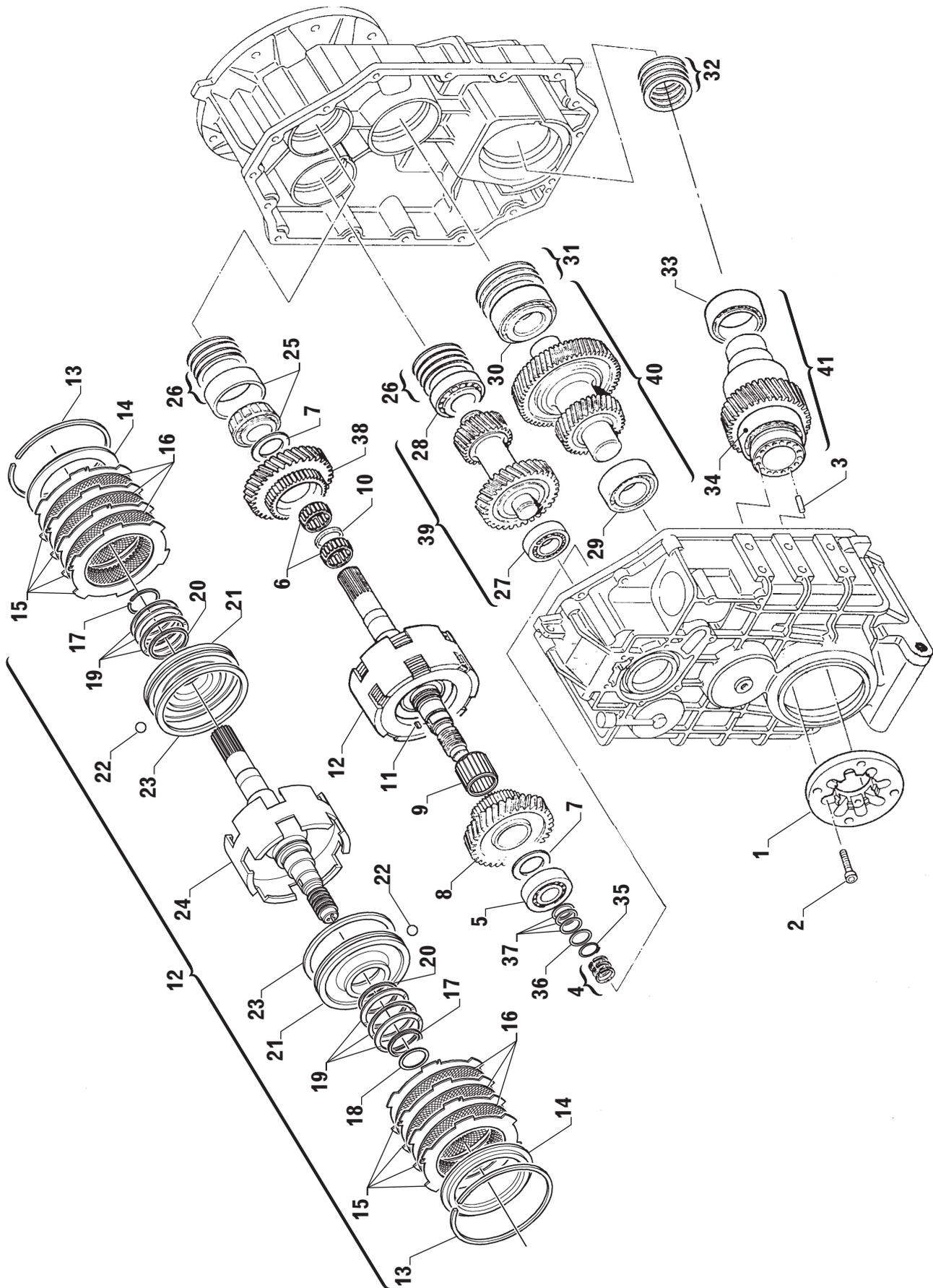


Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3323 199 002		Assieme scatola	Housing, assy.	1	
	3323 301 005		. Scatola	. Housing	1	
	3313 301 026		. Tubo aspirazione con supporto	. Suction pipe with support	1	
	0636 101 411		. Vite TCEI M6x16	. Cap screw M6x16	1	
	3312 301 008		. Guarnizione	. Gasket	1	
2	3311 301 002	442369	Valvola di sfiato	Breather valve	1	
3	0634 309 619	480762	Paraolio uscita	Output shaft seal	1	
4	0636 301 041	442373	Tappo a vite M16x1,5	Screw plug M16x1.5	2	
5	0634 309 631	105113	Paraolio uscita	Output shaft seal	1	
6	3312 301 017	469691	Tappo scarico olio	Oil drain plug	1	
7	3313 301 026		Tubo aspirazione con supporto	Suction pipe with support	1	
8	3312 301 001		Targhetta di identificazione	Name plate	1	
9	0636 101 411	102879	Vite T.E. M6x16 (fascetta tubo aspirazione)	Hex head screw M6x16 (suction pipe clamp)	1	
10	3312 101 003	500484	Coperchio filtro completo	Filter cover, assy.	1	
11	☆		. Coperchio filtro	. Filter cover	1	
12	0634 304 688	442731	. Guarnizione OR	. O-Ring	1	
13	0634 306 204	105542	. Guarnizione OR	. O-Ring	1	
14	0630 001 085	167010	. Rosetta	. Washer	1	
15	0636 101 475	320202	. Vite M8x30	. Screw M8x30	1	
16	3312 301 007	438637	Filtro olio	Oil filter	1	* old part number
17	3312 199 031	463772	Filtro olio completo	Oil filter, assy	1	
18	0634 304 688	442731	. Guarnizione OR	. O-Ring	1	
19	0634 306 204	105542	. Guarnizione OR	. O-Ring	1	
20	3312 301 037		. Filtro olio	. Oil filter	1	* new part number
21	3312 301 008	439653	Guarnizione	Gasket	1	
22	3313 201 002	500990	Asta livello olio + OR	Oil dipstick + OR	1	
23	0634 304 405	501211	. Guarnizione OR	. O-Ring	1	
24	3323 301 004	480425	Coperchio	Cover (housing)	1	
25	0631 315 520	335817	Spina	Locator pin	2	
26	0636 015 227	442375	Vite T.E. M10x35	Hex head screw M10x35	15	
27	0630 302 091	442371	Rosetta	Washer	16	
28	0636 010 463	315548	Vite T.E. M10x70	Hex head screw M10x70	1	
29	0634 301 846		Paraolio entrata	Input shaft seal	1	
30	0630 001 085	167010	Rosetta	Washer	1	
31	0636 101 475	320202	Vite M8x30	Screw M8x30	1	

* Fornito solamente incluso nel Kit filtro olio p/n 3312 199 031
Supplied only included in the oil filter Kit p/n 3312 199 031



ZF 85 IV versions 002 - 003 - 004

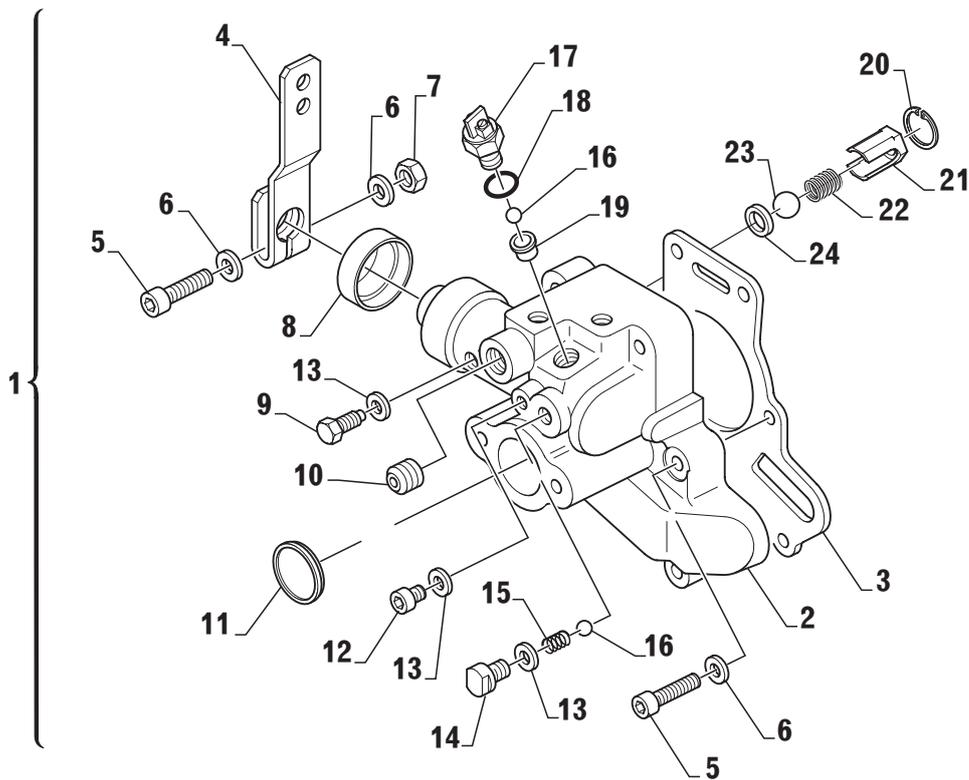




Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3313 304 019	480566	Flangia	Flange	1	
2	0636 101 072	312590	Vite TCEI M12x40	Cap screw M12x40	8	
3	0631 313 056	104661	Spina cilindrica 10x24	Locator pin 10x24	4	
4	3312 302 041	447038	Anello di tenuta	Piston ring	3	
5	0635 501 952		Cuscinetto a rulli conici	Tapered roller bearing	1	
6	0735 321 607		Cuscinetto a rullini	Needle bearing	2	
7	3323 302 008		Rasamento	Butting ring	2	
8	3323 302 023		Ingranaggio Z3 = 38	Reverse gear Z3 = 38	1	
9	0735 321 606		Cuscinetto a rullini	Needle bearing	1	
10	3323 302 013		Distanziale a due elementi	Spacer (two halves)	1	
11	0631 501 062	437956	Chiavetta	Key	1	
12	3323 199 004		Albero di ingresso completo	Input shaft, assy.	1	
13	0630 513 065		. Anello elastico	. Snap ring	2	
14	3323 302 017		. Disco finale	. End disc	2	
15	3323 302 012		. Disco frizione esterno	. Outer clutch disc	10	
16	3323 302 011		. Disco frizione interno	. Inner clutch disc	8	
17	3323 302 009		. Anello di ritegno	. Retainer ring	2	
18	3323 302 030		. Ralla	. Thrust washer	1	
19	3323 302 018		. Molla a tazza	. Cup spring	6	
20	0634 402 178	500066	. Anello interno	. Inner clutch piston ring	2	
21	3323 302 006		. Pistone	. Clutch piston	2	
22	0635 460 006	106690	. Sfera	. Ball	2	
23	0634 402 177		. Anello esterno	. Outer clutch piston ring	2	
24	3323 199 003		. Albero di ingresso + cilindro frizione	. Input shaft and clutch housing	1	
25	0635 501 951		Cuscinetto a rulli conici	Tapered roller bearing	1	
26	3313 302 042	439630	Spessore 0,1 mm	Shim 0.1 mm	2	
	3313 302 043	439631	Spessore 0,15 mm	Shim 0.15 mm	2	
	3313 302 044	439632	Spessore 0,2 mm	Shim 0.2 mm	2	
	3313 302 045	439633	Spessore 0,5 mm	Shim 0.5 mm	2	
	3313 302 046	439634	Spessore 1,0 mm	Shim 1.0 mm	2	
27	0635 501 937	447754	Cuscinetto a rulli conici	Tapered roller bearing	1	
28	0635 373 021	106664	Cuscinetto a rulli conici	Tapered roller bearing	1	
29	0635 374 005	229784	Cuscinetto a rulli conici	Tapered roller bearing	1	
30	0635 372 007	106652	Cuscinetto a rulli conici	Tapered roller bearing	1	
31	3312 304 022	439393	Spessore 0,1 mm	Shim 0.1 mm	2	
	3312 304 023	439394	Spessore 0,15 mm	Shim 0.15 mm	2	
	3312 304 024	439395	Spessore 0,3 mm	Shim 0.3 mm	2	
	3312 304 025	439396	Spessore 0,5 mm	Shim 0.5 mm	2	
32	3313 304 031	477560	Spessore 0,1 mm	Shim 0.1 mm	2	
	3313 304 030	477558	Spessore 0,15 mm	Shim 0.15 mm	2	
	3313 304 029	477557	Spessore 0,2 mm	Shim 0.2 mm	2	
	3313 304 028	477551	Spessore 0,5 mm	Shim 0.5 mm	2	
33	0635 370 017	464199	Cuscinetto a rulli conici	Tapered roller bearing	1	
34	0635 373 010	480757	Cuscinetto a rulli conici	Tapered roller bearing	1	
35	0630 501 031		Anello di sicurezza	Retaining ring	1	
36	0630 100 010		Disco appoggio	Support shim	1	
37	0630 000 193		Spessore 40x50x0,10	Shim 40x50x0.10	1	
	0630 000 298		Spessore 40x50x0,15	Shim 40x50x0.15	1	
	0630 004 274		Spessore 40x50x0,20	Shim 40x50x0.20	1	
	Vers. 004 (Rapporto I = 1,64)			Vers. 004 (Ratio I = 1.64)		
38	3323 302 019		Ingranaggio Z1 = 33	Forward gear Z1 = 33	1	
39	3323 199 013		Albero intermedio Z4 = 39, Z5 = 34	Intermediate shaft Z4 = 39, Z5 = 34	1	*
40	3323 199 016		Albero intermedio Z2 = 46, Z6 = 39	Intermediate shaft Z2 = 46, Z6 = 39	1	*
41	3323 199 018		Albero uscita Z7 = 46	Output shaft Z7 = 46	1	*
	Vers. 003 (Rapporto I = 2,01)			Vers. 003 (Ratio I = 2.01)		
38	3323 202 007		Ingranaggio Z1 = 31	Forward gear Z1 = 31	1	
39	3323 199 014		Albero intermedio Z4 = 39, Z5 = 32	Reversing shaft Z4 = 39, Z5 = 32	1	*
40	3323 199 025		Albero intermedio Z2 = 49, Z6 = 37	Intermediate shaft Z2 = 49, Z6 = 37	1	*
41	3323 199 026		Albero di uscita Z7 = 47	Output shaft Z7 = 47	1	*
	Vers. 002 (Rapporto I = 2,49)			Vers. 002 (Ratio I = 2.49)		
38	3323 202 006		Ingranaggio Z1 = 27	Forward gear Z1 = 27	1	
39	3323 199 015		Albero intermedio Z4 = 39, Z5 = 28	Intermediate shaft Z4 = 39, Z5 = 28	1	*
40	3323 199 017		Albero intermedio Z2 = 53, Z6 = 37	Intermediate shaft Z2 = 53, Z6 = 37	1	*
41	3323 199 027		Albero di uscita Z7 = 47	Output shaft Z7 = 47	1	*

* Cuscinetti a rulli conici già assemblati - *Tapered roller bearings already assembled*

ZF 85 IV versions 002 - 003 - 004

MECHANICAL SELECTOR VALVE

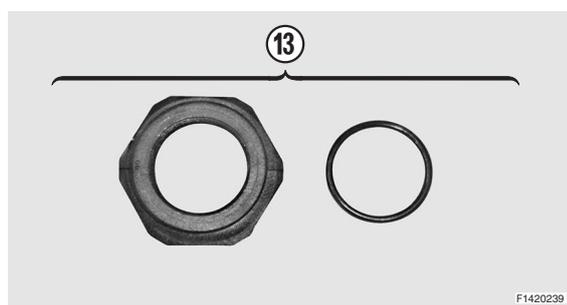
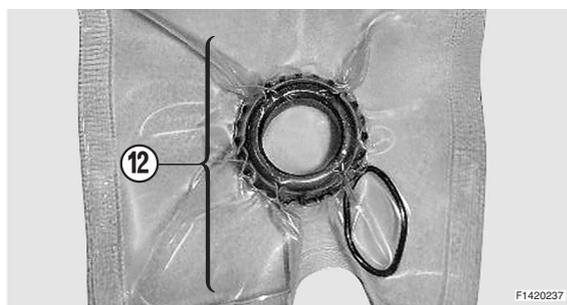
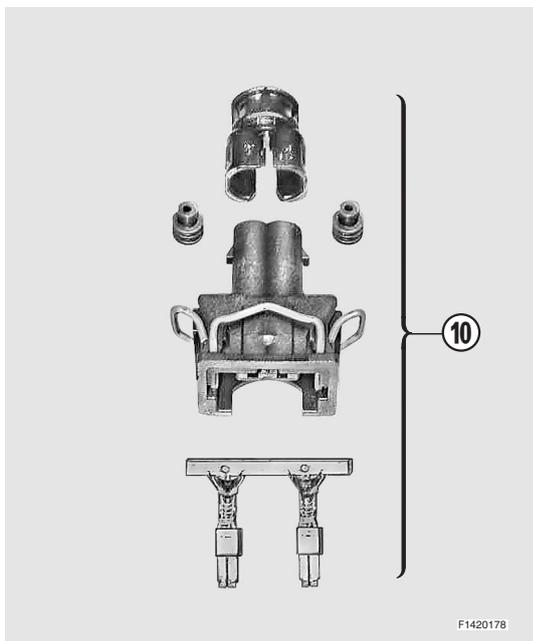
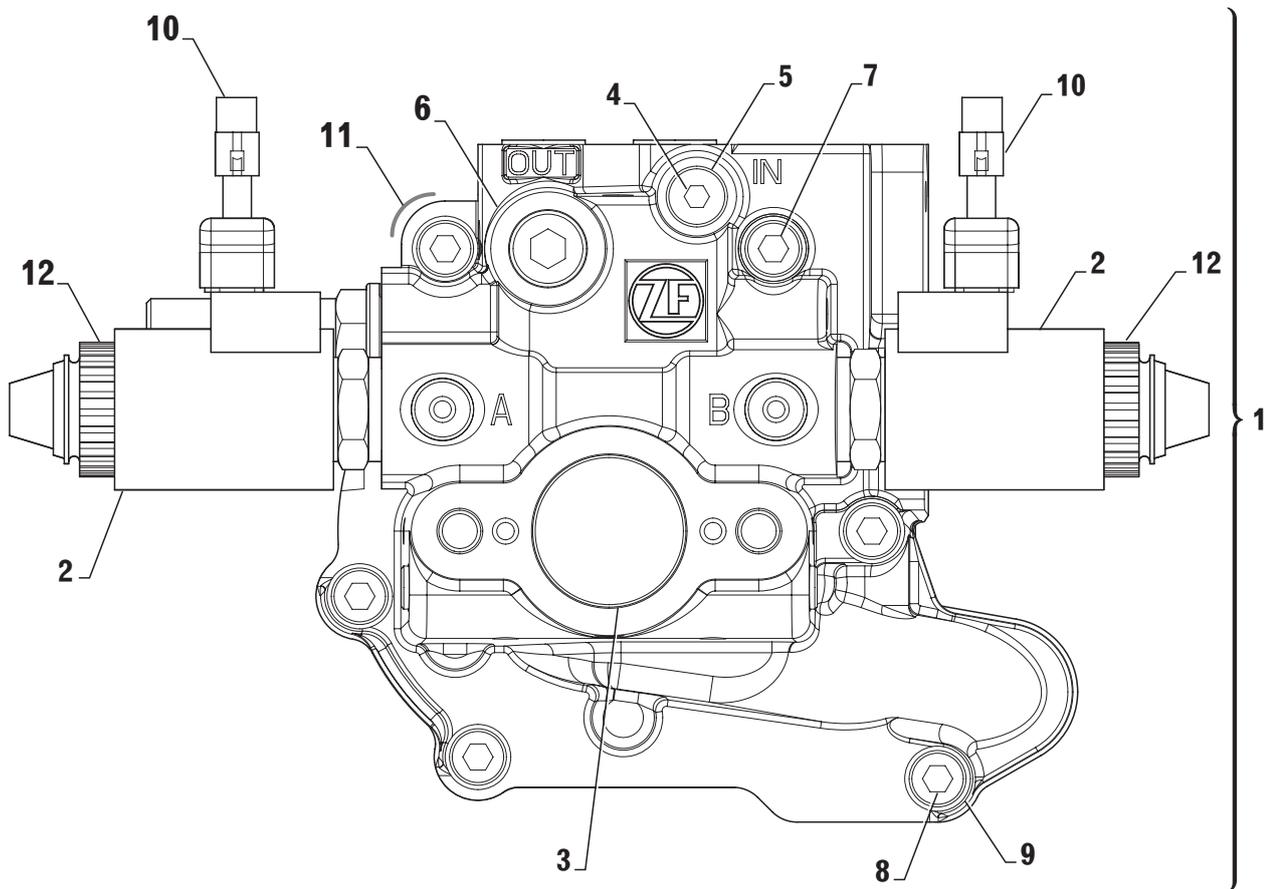


Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3313 108 001		Valvola di comando alta velocità	Mechanical selector valve 26 bar	1	
2	☆		. Valvola di comando	. Control valve	1	
3	3312 308 020	408388	. Guarnizione	. Gasket	1	
4	3312 308 025	452963	. Leva	. Lever	1	
5	0636 101 727	442377	. Vite T.E.	. Hex head screw	7	
6	0630 302 090	442372	. Rosetta	. Washer	8	
7	0637 006 157	455785	. Dado	. Nut	1	
8	0634 309 621	500065	. Guarnizione	. Gasket	1	
9	3312 308 034	500026	. Vite di fermo	. Stop screw	1	
10	0636 309 007	455756	. Tappo	. Plug	1	
11	0631 405 061	500107	. Tappo	. Plug	1	
12	0636 302 053	103465	. Tappo	. Plug	1	
13	0634 801 302	107410	. Rosetta	. Washer	3	
14	3312 308 037	500028	. Vite di guida	. Guide bolt	1	
15	3312 308 047	500044	. Molla	. Spring	1	
16	0635 460 014	106695	. Sfera	. Ball	2	
17	3312 308 029	455764	. Interruttore completo	. Neutral safety switch assy.	1	
18	0634 306 518	500834	. Guarnizione OR	. O-Ring	1	
19	3312 308 039	500030	. Boccia	. Bushing	1	
20	0630 502 005	500083	. Anello elastico	. Snap ring	1	
21	3312 308 038	500029	. Boccia	. Bushing	1	
22	3312 308 042	500032	. Molla per lubrificazione	. Spring	1	
23	0635 460 023	500097	. Sfera	. Ball	1	
24	3312 308 036	500027	. Distanziale	. Spacer	1	



ZF 85 IV versions 002 - 003 - 004

ELECTRIC SELECTOR VALVE ON/OFF 12V - 26 BAR
ELECTRIC SELECTOR VALVE ON/OFF 24V - 26 BAR





Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3312 199 063		Distributore elettrico ON/OFF 12V - 26 bar	Electric selector valve ON/OFF 12V - 26 bar	1	*
	3312 199 064		Distributore elettrico ON/OFF 24V - 26 bar	Electric selector valve ON/OFF 24V - 26 bar	1	**
2	3312 308 069		Elettrovalvola ON/OFF 12V	Solenoid valve ON/OFF 12V	2	OLD
	3312 308 106		Elettrovalvola ON/OFF 24V	Solenoid valve ON/OFF 24V	2	OLD
	3312 308 173		Elettrovalvola ON/OFF 12V	Solenoid valve ON/OFF 12V	2	NEW Ma = 20 Nm
	3312 308 174		Elettrovalvola ON/OFF 24V	Solenoid valve ON/OFF 24V	2	NEW Ma = 20 Nm
3	0631 405 061		Tappo	Dummy plug	1	
4	0636 302 053		Tappo M10x1	Screw plug M10x1	1	Ma = 12 Nm
5	0634 801 302		Rosetta	Washer	1	
6	0636 309 007		Tappo	Screw plug	1	Ma = 35 Nm
7	0636 101 709		Vite T.E. M8x65	Cap screw M8x65	2	
8	0636 101 727		Vite T.E. M8x40	Cap screw M8x40	4	
9	0630 302 090		Rosetta elastica	Spring washer	6	
10	3316 117 001		Assieme connettore	Connector kit	2	
12	3312 199 087		Ghiera + Guarnizione OR	End cap + O-Ring	2	OLD Ma = 3 Nm
13	3312 199 088		Ghiera + Guarnizione OR	End cap + O-Ring	2	NEW Ma = 4 + 2 Nm

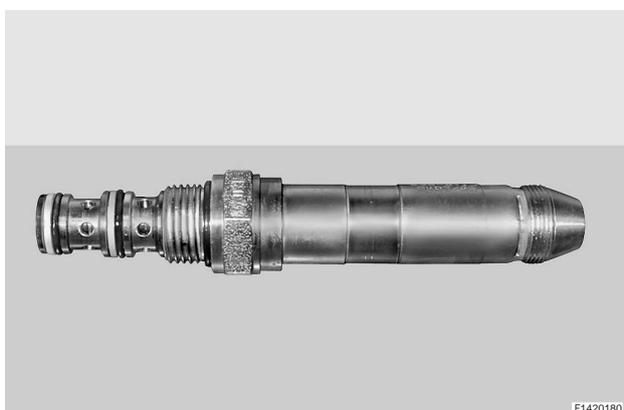
* Installare con 12 V - *To be installed with 12 V power supply*

** Installare con 24 V - *To be installed with 24 V power supply*



Per convertire la elettrovalvola da 12V a 24V sostituire solo il solenoide con il ricambio a cod. 3312 199 062.

To transform the solenoid valve from 12V to 24V it will be enough to replace only the solenoid - available loosen P/N 3312 199 062.

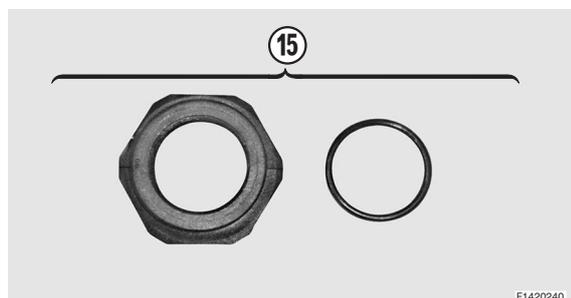
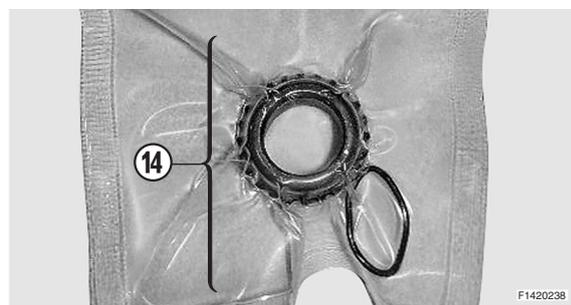
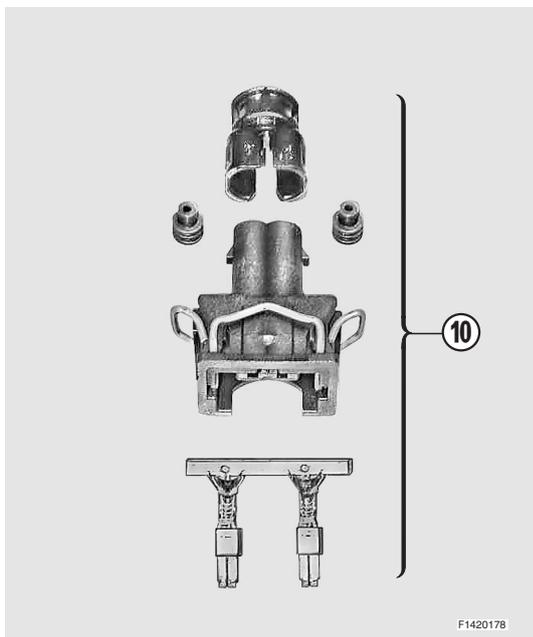
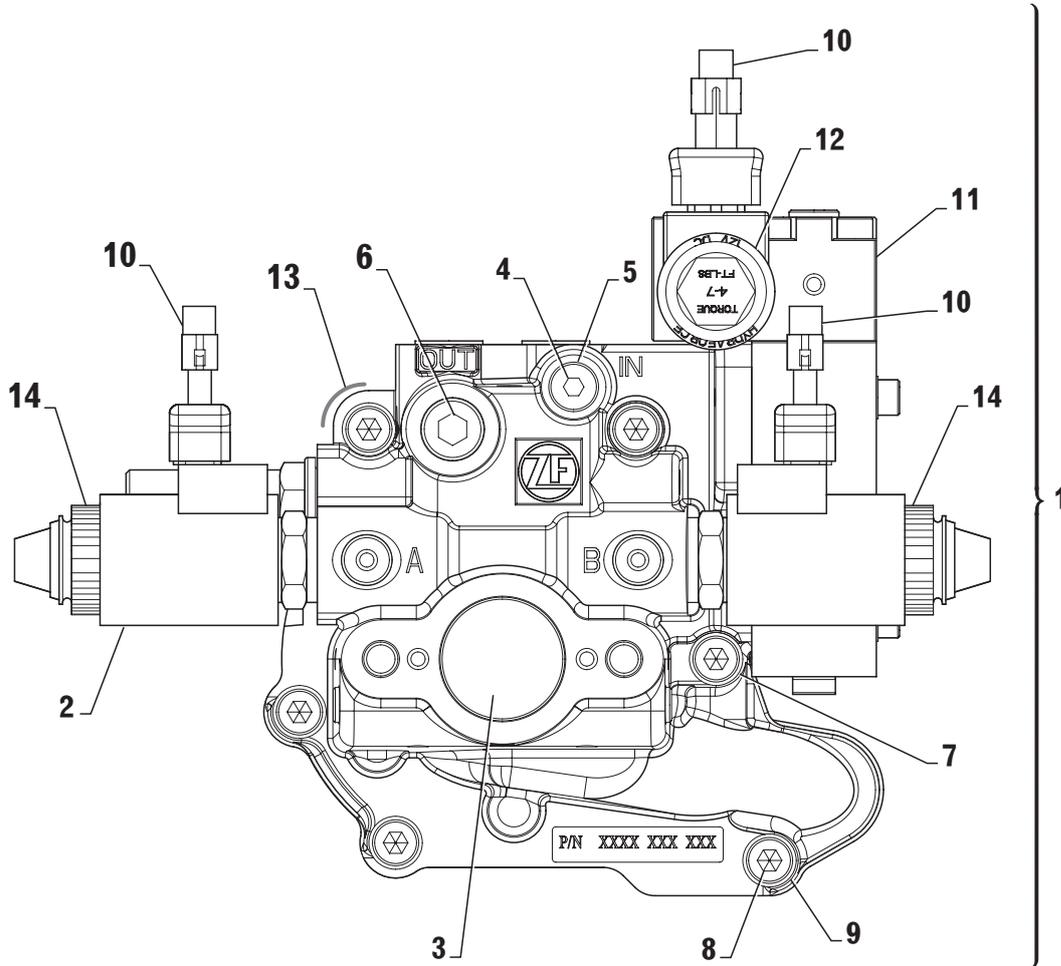


La valvola non è disponibile singolarmente ed è un componente comune alla versione 12V e 24V dell'elettrovalvola.
The valve is not available loosen and it is a common component both for 12V and 24V solenoid valve.

ZF 85 IV versions 002 - 003 - 004

**ELECTRIC SELECTOR VALVE ON/OFF 12V - 26 BAR
WITH TROLLING VALVE**

**ELECTRIC SELECTOR VALVE ON/OFF 24V - 26 BAR
WITH TROLLING VALVE**





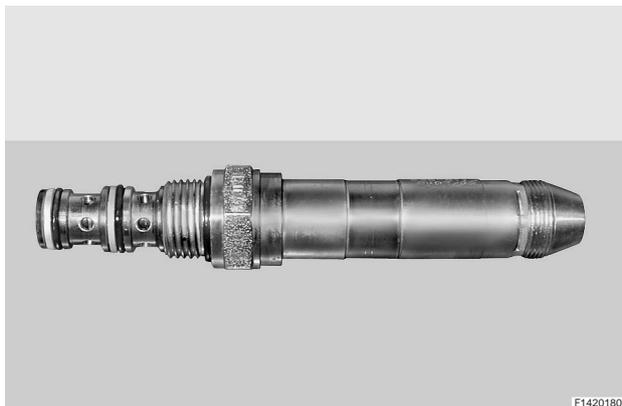
Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3312 199 065		Distributore elettrico ON/OFF 12V, 26 bar con TV	Electric selector valve ON/OFF 12V, 26 bar with Trolling valve	1	*
	3312 199 066		Distributore elettrico ON/OFF 24V, 26 bar con TV	Electric selector valve ON/OFF 24V, 26 bar with Trolling valve	1	**
2	3312 308 069		Elettrovalvola ON/OFF 12V	Solenoid valve ON/OFF 12V	2	OLD
	3312 308 106		Elettrovalvola ON/OFF 24V	Solenoid valve ON/OFF 24V	2	OLD
	3312 308 173		Elettrovalvola ON/OFF 12V	Solenoid valve ON/OFF 12V	2	NEW Ma = 20 Nm
	3312 308 174		Elettrovalvola ON/OFF 24V	Solenoid valve ON/OFF 24V	2	NEW Ma = 20 Nm
3	0631 405 061		Tappo	Dummy plug	1	
4	0636 302 053		Tappo a vite M10x1	Screw plug M10x1	1	Ma = 12 Nm
5	0634 801 302		Anello di tenuta	Sealing ring	1	
6	0636 309 007		Tappo a vite	Screw plug	1	Ma = 35 Nm
7	0636 101 709		Vite TCEI M8x65	Cap screw M8x65	2	
8	0636 101 727		Vite TCEI M8x40	Cap screw M8x40	4	
9	0630 302 090		Rosetta elastica	Spring washer	6	
10	3316 117 001		Assieme connettore	Connector kit	3	
11	3312 108 027		Trolling valve	Trolling device	1	
12	3312 308 096		Valvola proporzionale 12V	Proportional valve 12V	1	Ma = 27 Nm
	3312 308 124		Valvola proporzionale 24V	Proportional valve 24V	1	Ma = 27 Nm
13	3312 308 020		Guarnizione	Gasket	1	
14	3312 199 087		Ghiera + Guarnizione OR	End cap + O-Ring	2	OLD Ma = 3 Nm
15	3312 199 088		Ghiera + Guarnizione OR	End cap + O-Ring	2	NEW Ma = 4 + 2 Nm

* Installare con 12 V - *To be installed with 12 V power supply*

** Installare con 24 V - *To be installed with 24 V power supply*



Per convertire la elettrovalvola da 12V a 24V sostituire solo il solenoide con il ricambio a cod. 3312 199 062.
To transform the solenoid valve from 12V to 24V it will be enough to replace only the solenoid - available loosen P/N 3312 199 062.



La valvola non è disponibile singolarmente ed è un componente comune alla versione 12V e 24V dell'elettrovalvola.
The valve is not available loosen and it is a common component both for 12V and 24V solenoid valve.

**COMPOSIZIONE KIT - KIT COMPONENTS****ZF 85 IV versions 002 - 003 - 004**

Fig.	Pos.	Part number	Old P/N	Descrizione	Description	Q.ty
-	-	3323 199 022		Kit guarnizioni e anelli elastici	Seal kit & piston rings	1
1	29	0634 301 846		. Paraolio entrata	. Input shaft seal	1
1	5	0634 309 631	105113	. Paraolio uscita	. Output shaft seal	1
1	3	0634 309 619	480762	. Paraolio uscita	. Output shaft seal	1
3	3	3312 308 020	408388	. Guarnizione	. Gasket	1
3	8	0634 309 621	500065	. Anello di tenuta	. Seal	1
2	4	3312 302 041	447038	. Anello elastico	. Piston ring	3
1	23	0634 304 405	501211	. Guarnizione OR	. O-Ring	1
1	12	0634 304 688	442731	. Guarnizione OR	. O-Ring	1
1	13	0634 306 204	105542	. Guarnizione OR	. O-Ring	1
1	21	3312 301 008	439653	. Guarnizione	. Gasket	1
-	-	3323 199 023		Kit guarnizioni e frizioni	Seal kit & clutch kit	1
-	-	3323 199 022		. Kit guarnizioni e anelli elastici	. Seal kit & piston rings	1
2	16	3323 302 011		. Disco frizione interno	. Inner clutch disc	8
2	15	3323 302 012		. Disco frizione esterno	. Outer clutch disc	10
2	7	3323 302 008		. Rasamento	. Butting ring	2
2	11	0631 501 062	437956	. Chiavetta	. Key	1
-	-	3323 199 024		Kit cuscinetti	Bearing kit	1
2	5	0635 501 952	447754	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	6	0735 321 607		. Cuscinetto a rulli	. Needle bearing	2
2	9	0735 321 606		. Cuscinetto a rulli	. Needle bearing	1
2	25	0635 501 951	-	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	27	0635 501 937	447754	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	28	0635 501 938	333859	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	29	0635 374 005	229784	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	30	0635 372 007	106652	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	33	0635 370 017	464199	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	34	0635 373 010	480757	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	26	3313 302 042	439630	. Spessore 0,1 mm	. Shim 0.1 mm	2
2	26	3313 302 043	439631	. Spessore 0,15 mm	. Shim 0.15 mm	2
2	26	3313 302 044	439632	. Spessore 0,2 mm	. Shim 0.2 mm	2
2	26	3313 302 045	439633	. Spessore 0,5 mm	. Shim 0.5 mm	2
2	26	3313 302 046	439634	. Spessore 1,0 mm	. Shim 1.0 mm	2
2	31	3312 304 022	439393	. Spessore 0,1 mm	. Shim 0.1 mm	2
2	31	3312 304 023	439394	. Spessore 0,15 mm	. Shim 0.15 mm	2
2	31	3312 304 024	439395	. Spessore 0,3 mm	. Shim 0.3 mm	2
2	31	3312 304 025	439396	. Spessore 0,5 mm	. Shim 0.5 mm	2
2	32	3313 304 031	477560	. Spessore 0,1 mm	. Shim 0.1 mm	2
2	32	3313 304 030	477558	. Spessore 0,15 mm	. Shim 0.15 mm	2
2	32	3313 304 029	477557	. Spessore 0,2 mm	. Shim 0.2 mm	2
2	32	3313 304 028	447551	. Spessore 0,5 mm	. Shim 0.5 mm	2
2	37	0630 000 193		. Spessore 40x50x0,10	. Shim 40x50x0.10	1
2	37	0630 000 298		. Spessore 40x50x0,15	. Shim 40x50x0.15	1
2	37	0630 004 274		. Spessore 40x50x0,20	. Shim 40x50x0.20	1



2. SPARE PARTS LIST ZF 80 IV (ZF 85 IV DERIVATE VERSION)

Preface

The spare parts list is only valid for the type and versions of transmission, as shown below.

You will find the transmission type and version on your transmission name plate.

If the type and version indicated differs from that printed in this Manual, the relative Spare Parts List should be ordered from ZF MARINE ARCO S.p.A..

The indicated dimensions and standards are as such not enough for ordering parts.

When ordering parts, please state:

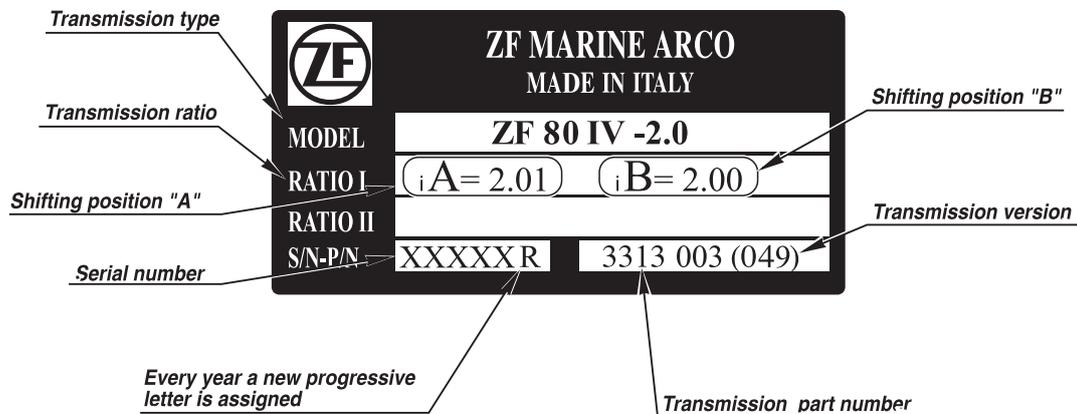
- Transmission type
- Transmission version
- Serial number
- Item no.
- Part name
- Identification no.
- quantity of parts required.

The spare parts list is referring to the following versions:

ZF 80 IV versions 048 (1.64 R); 049 (2.01 R); 050 (2.49 R)

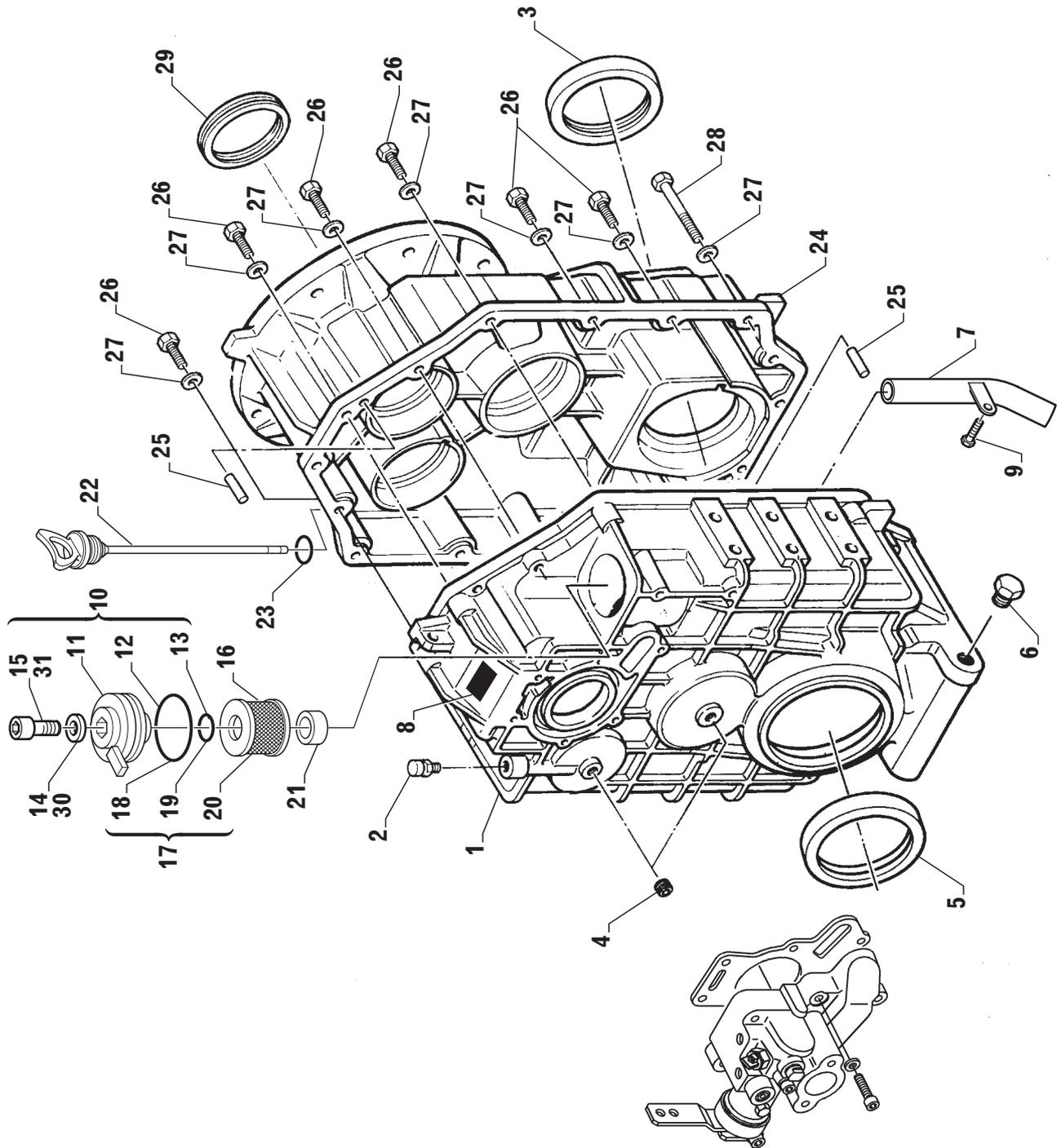
Name plate

The name plate is mounted to the transmission.





ZF 80 IV versions 048 - 049 - 050



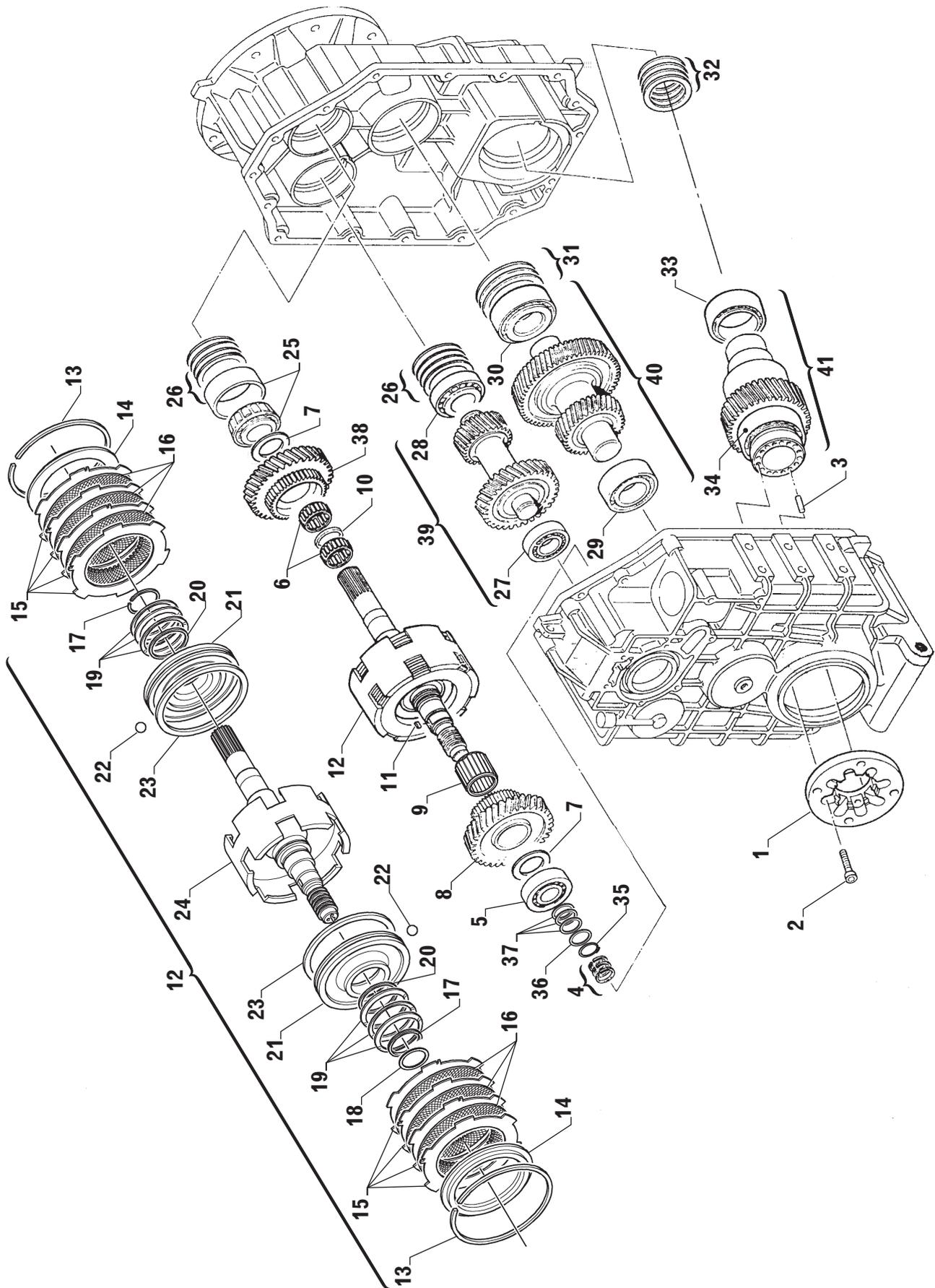


Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3323 199 002		Assieme scatola	Housing, assy.	1	
	3323 301 005		. Scatola	. Housing	1	
	3313 301 026		. Tubo aspirazione con supporto	. Suction pipe with support	1	
	0636 101 411		. Vite TCEI M6x16	. Cap screw M6x16	1	
	3312 301 008		. Guarnizione	. Gasket	1	
2	3311 301 002	442369	Valvola di sfiato	Breather valve	1	
3	0634 309 619	480762	Paraolio uscita	Output shaft seal	1	
4	0636 301 041	442373	Tappo a vite M16x1,5	Screw plug M16x1.5	2	
5	0634 309 631	105113	Paraolio uscita	Output shaft seal	1	
6	3312 301 017	469691	Tappo scarico olio	Oil drain plug	1	
7	3313 301 026		Tubo aspirazione con supporto	Suction pipe with support	1	
8	3312 301 001		Targhetta di identificazione	Name plate	1	
9	0636 101 411	102879	Vite T.E. M6x16 (fascetta tubo aspirazione)	Hex head screw M6x16 (suction pipe clamp)	1	
10	3312 101 003	500484	Coperchio filtro completo	Filter cover, assy.	1	
11	☆		. Coperchio filtro	. Filter cover	1	
12	0634 304 688	442731	. Guarnizione OR	. O-Ring	1	
13	0634 306 204	105542	. Guarnizione OR	. O-Ring	1	
14	0630 001 085	167010	. Rosetta	. Washer	1	
15	0636 101 475	320202	. Vite M8x30	. Screw M8x30	1	
16	3312 301 007	438637	Filtro olio	Oil filter	1	* old part number
17	3312 199 031	463772	Filtro olio completo	Oil filter, assy	1	
18	0634 304 688	442731	. Guarnizione OR	. O-Ring	1	
19	0634 306 204	105542	. Guarnizione OR	. O-Ring	1	
20	3312 301 037		. Filtro olio	. Oil filter	1	* new part number
21	3312 301 008	439653	Guarnizione	Gasket	1	
22	3313 201 002	500990	Asta livello olio + OR	Oil dipstick + OR	1	
23	0634 304 405	501211	. Guarnizione OR	. O-Ring	1	
24	3323 301 004	480425	Coperchio	Cover (housing)	1	
25	0631 315 520	335817	Spina	Locator pin	2	
26	0636 015 227	442375	Vite T.E. M10x35	Hex head screw M10x35	15	
27	0630 302 091	442371	Rosetta	Washer	16	
28	0636 010 463	315548	Vite T.E. M10x70	Hex head screw M10x70	1	
29	0634 301 846		Paraolio entrata	Input shaft seal	1	
30	0630 001 085	167010	Rosetta	Washer	1	
31	0636 101 475	320202	Vite M8x30	Screw M8x30	1	

* Fornito solamento incluso nel Kit filtro olio p/n 3312 199 031
Supplied only included in the oil filter Kit p/n 3312 199 031



ZF 80 IV versions 048 - 049 - 050



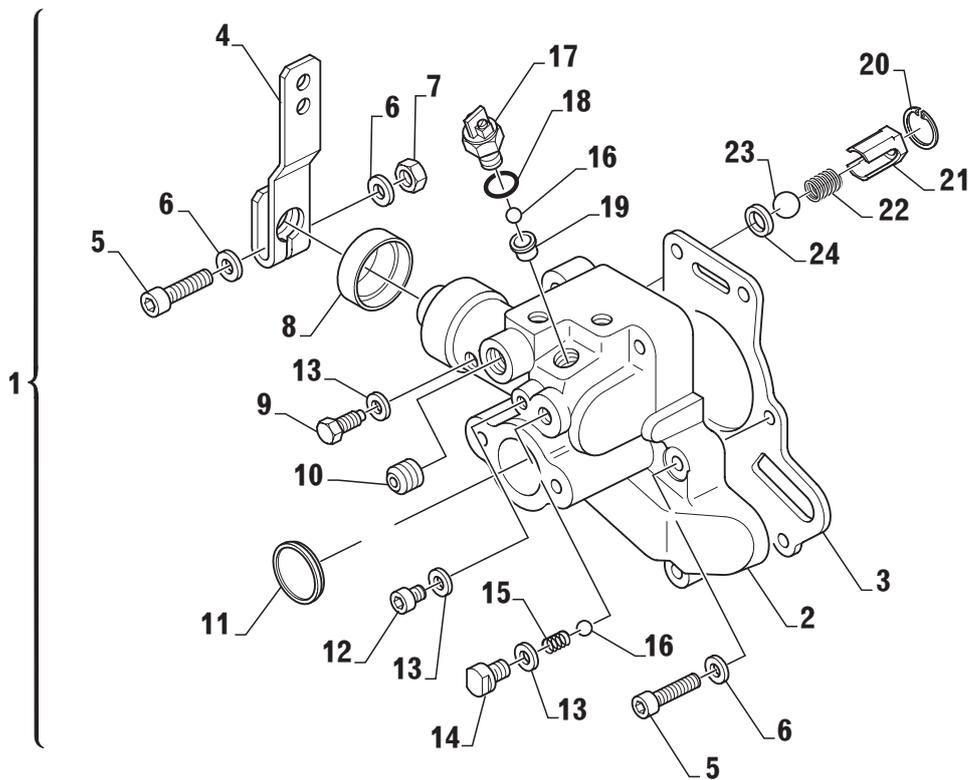


Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3313 304 019	480566	Flangia	Flange	1	
2	0636 101 072	312590	Vite TCEI M12x40	Cap screw M12x40	8	
3	0631 313 056	104661	Spina cilindrica 10x24	Locator pin 10x24	4	
4	3312 302 041	447038	Anello di tenuta	Piston ring	3	
5	0635 501 952		Cuscinetto a rulli conici	Tapered roller bearing	1	
6	0735 321 607		Cuscinetto a rullini	Needle bearing	2	
7	3323 302 008		Rasamento	Butting ring	2	
8	3313 302 064		Ingranaggio Z3 = 38	Reverse gear Z3 = 38	1	
9	0735 321 606		Cuscinetto a rullini	Needle bearing	1	
10	3323 302 013		Distanziale a due elementi	Spacer (two halves)	1	
11	0631 501 062	437956	Chiavetta	Key	1	
12	3313 199 109		Albero di ingresso completo	Input shaft, assy.	1	
13	0630 513 065		. Anello elastico	. Snap ring	2	
14	3323 302 017		. Disco finale	. End disc	2	
15	3323 302 012		. Disco frizione esterno	. Outer clutch disc	10	
16	3323 302 011		. Disco frizione interno	. Inner clutch disc	8	
17	3323 302 009		. Anello di ritegno	. Retainer ring	2	
18	3323 302 030		. Ralla	. Thrust washer	1	
19	3323 302 018		. Molla a tazza	. Cup spring	6	
20	0634 402 178	500066	. Anello interno	. Inner clutch piston ring	2	
21	3313 302 602		. Pistone	. Clutch piston	2	
22	0635 460 006	106690	. Sfera	. Ball	2	
23	0634 402 181		. Anello esterno	. Outer clutch piston ring	2	
24	3313 199 108		. Albero di ingresso + cilindro frizione	. Input shaft and clutch housing	1	
25	0635 501 951		Cuscinetto a rulli conici	Tapered roller bearing	1	
26	3313 302 042	439630	Spessore 0,1 mm	Shim 0.1 mm	2	
	3313 302 043	439631	Spessore 0,15 mm	Shim 0.15 mm	2	
	3313 302 044	439632	Spessore 0,2 mm	Shim 0.2 mm	2	
	3313 302 045	439633	Spessore 0,5 mm	Shim 0.5 mm	2	
	3313 302 046	439634	Spessore 1,0 mm	Shim 1.0 mm	2	
27	0635 501 937	447754	Cuscinetto a rulli conici	Tapered roller bearing	1	
28	0635 373 021	106664	Cuscinetto a rulli conici	Tapered roller bearing	1	
29	0635 374 005	229784	Cuscinetto a rulli conici	Tapered roller bearing	1	
30	0635 372 007	106652	Cuscinetto a rulli conici	Tapered roller bearing	1	
31	3312 304 022	439393	Spessore 0,1 mm	Shim 0.1 mm	2	
	3312 304 023	439394	Spessore 0,15 mm	Shim 0.15 mm	2	
	3312 304 024	439395	Spessore 0,3 mm	Shim 0.3 mm	2	
	3312 304 025	439396	Spessore 0,5 mm	Shim 0.5 mm	2	
32	3313 304 031	477560	Spessore 0,1 mm	Shim 0.1 mm	2	
	3313 304 030	477558	Spessore 0,15 mm	Shim 0.15 mm	2	
	3313 304 029	477557	Spessore 0,2 mm	Shim 0.2 mm	2	
	3313 304 028	477551	Spessore 0,5 mm	Shim 0.5 mm	2	
33	0635 370 017	464199	Cuscinetto a rulli conici	Tapered roller bearing	1	
34	0635 373 010	480757	Cuscinetto a rulli conici	Tapered roller bearing	1	
35	0630 501 031		Anello di sicurezza	Retaining ring	1	
36	0630 100 010		Disco appoggio	Support shim	1	
37	0630 000 193		Spessore 40x50x0,10	Shim 40x50x0.10	1	
	0630 000 298		Spessore 40x50x0,15	Shim 40x50x0.15	1	
	0630 004 274		Spessore 40x50x0,20	Shim 40x50x0.20	1	
Vers. 048 (Rapporto I = 1,64)				Vers. 048 (Ratio I = 1.64)		
38	3323 302 019		Ingranaggio Z1 = 33	Forward gear Z1 = 33	1	
39	3323 199 013		Albero intermedio Z4 = 39, Z5 = 34	Intermediate shaft Z4 = 39, Z5 = 34	1	*
40	3323 199 016		Albero intermedio Z2 = 46, Z6 = 39	Intermediate shaft Z2 = 46, Z6 = 39	1	*
41	3323 199 018		Albero uscita Z7 = 46	Output shaft Z7 = 46	1	*
Vers. 049 (Rapporto I = 2,01)				Vers. 049 (Ratio I = 2.01)		
38	3323 202 007		Ingranaggio Z1 = 31	Forward gear Z1 = 31	1	
39	3323 199 014		Albero intermedio Z4 = 39, Z5 = 32	Reversing shaft Z4 = 39, Z5 = 32	1	*
40	3323 199 025		Albero intermedio Z2 = 49, Z6 = 37	Intermediate shaft Z2 = 49, Z6 = 37	1	*
41	3323 199 026		Albero di uscita Z7 = 47	Output shaft Z7 = 47	1	*
Vers. 050 (Rapporto I = 2,49)				Vers. 050 (Ratio I = 2.49)		
38	3313 202 022		Ingranaggio Z1 = 27	Forward gear Z1 = 27	1	
39	3323 199 015		Albero intermedio Z4 = 39, Z5 = 28	Intermediate shaft Z4 = 39, Z5 = 28	1	*
40	3313 199 115		Albero intermedio Z2 = 53, Z6 = 37	Intermediate shaft Z2 = 53, Z6 = 37	1	*
41	3323 199 027		Albero di uscita Z7 = 47	Output shaft Z7 = 47	1	*

* Cuscinetti a rulli conici già assemblati - *Tapered roller bearings already assembled*

ZF 80 IV versions 048 - 049 - 050

MECHANICAL SELECTOR VALVE



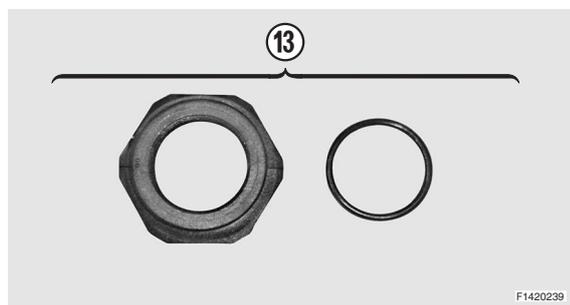
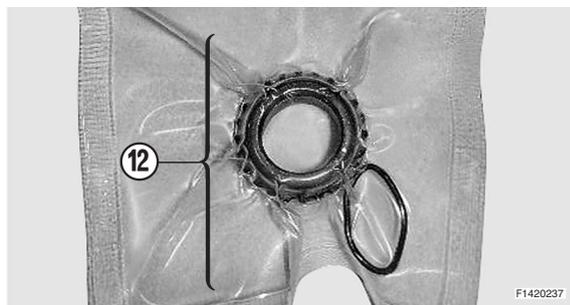
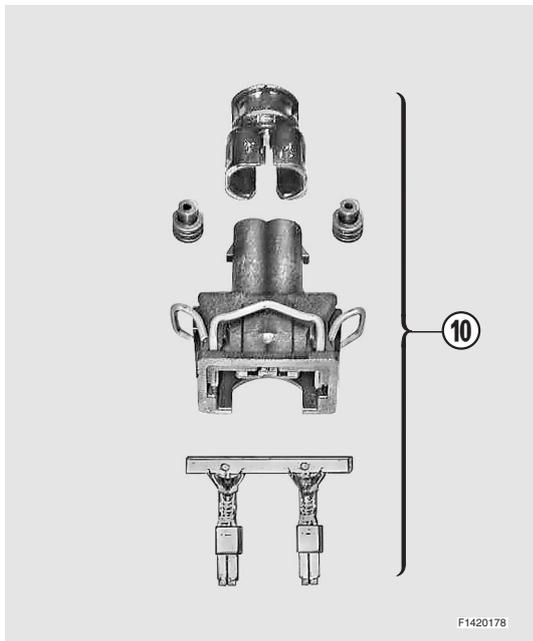
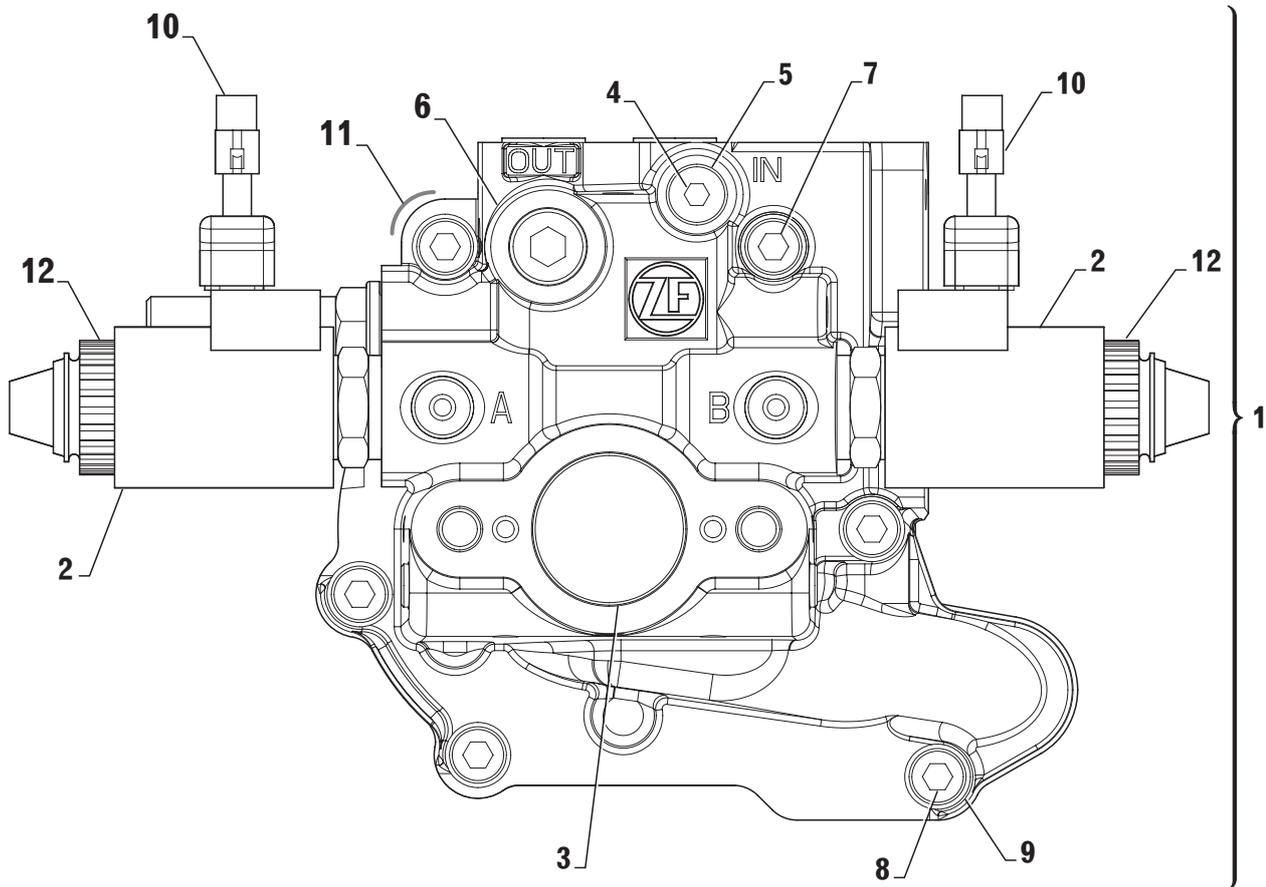


Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3313 108 001		Valvola di comando alta velocità	Mechanical selector valve 26 bar	1	
2	☆		. Valvola di comando	. Control valve	1	
3	3312 308 020	408388	. Guarnizione	. Gasket	1	
4	3312 308 025	452963	. Leva	. Lever	1	
5	0636 101 727	442377	. Vite T.E.	. Hex head screw	7	
6	0630 302 090	442372	. Rosetta	. Washer	8	
7	0637 006 157	455785	. Dado	. Nut	1	
8	0634 309 621	500065	. Guarnizione	. Gasket	1	
9	3312 308 034	500026	. Vite di fermo	. Stop screw	1	
10	0636 309 007	455756	. Tappo	. Plug	1	
11	0631 405 061	500107	. Tappo	. Plug	1	
12	0636 302 053	103465	. Tappo	. Plug	1	
13	0634 801 302	107410	. Rosetta	. Washer	3	
14	3312 308 037	500028	. Vite di guida	. Guide bolt	1	
15	3312 308 047	500044	. Molla	. Spring	1	
16	0635 460 014	106695	. Sfera	. Ball	2	
17	3312 308 029	455764	. Interruttore completo	. Neutral safety switch assy.	1	
18	0634 306 518	500834	. Guarnizione OR	. O-Ring	1	
19	3312 308 039	500030	. Boccia	. Bushing	1	
20	0630 502 005	500083	. Anello elastico	. Snap ring	1	
21	3312 308 038	500029	. Boccia	. Bushing	1	
22	3312 308 042	500032	. Molla per lubrificazione	. Spring	1	
23	0635 460 023	500097	. Sfera	. Ball	1	
24	3312 308 036	500027	. Distanziale	. Spacer	1	



ZF 80 IV versions 048 - 049 - 050

ELECTRIC SELECTOR VALVE ON/OFF 12V - 26 BAR
ELECTRIC SELECTOR VALVE ON/OFF 24V - 26 BAR





Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3312 199 063		Distributore elettrico ON/OFF 12V - 26 bar	Electric selector valve ON/OFF 12V - 26 bar	1	*
	3312 199 064		Distributore elettrico ON/OFF 24V - 26 bar	Electric selector valve ON/OFF 24V - 26 bar	1	* *
2	3312 308 069		Elettrovalvola ON/OFF 12V	Solenoid valve ON/OFF 12V	2	OLD
	3312 308 106		Elettrovalvola ON/OFF 24V	Solenoid valve ON/OFF 24V	2	OLD
	3312 308 173		Elettrovalvola ON/OFF 12V	Solenoid valve ON/OFF 12V	2	NEW Ma = 20 Nm
	3312 308 174		Elettrovalvola ON/OFF 24V	Solenoid valve ON/OFF 24V	2	NEW Ma = 20 Nm
3	0631 405 061		Tappo	Dummy plug	1	
4	0636 302 053		Tappo M10x1	Screw plug M10x1	1	Ma = 12 Nm
5	0634 801 302		Rosetta	Washer	1	
6	0636 309 007		Tappo	Screw plug	1	Ma = 35 Nm
7	0636 101 709		Vite T.E. M8x65	Cap screw M8x65	2	
8	0636 101 727		Vite T.E. M8x40	Cap screw M8x40	4	
9	0630 302 090		Rosetta elastica	Spring washer	6	
10	3316 117 001		Assieme connettore	Connector kit	2	
12	3312 199 087		Ghiera + Guarnizione OR	End cap + O-Ring	2	OLD Ma = 3 Nm
13	3312 199 088		Ghiera + Guarnizione OR	End cap + O-Ring	2	NEW Ma = 4 + 2 Nm

* Installare con 12 V - *To be installed with 12 V power supply*

* * Installare con 24 V - *To be installed with 24 V power supply*



Per convertire la elettrovalvola da 12V a 24V sostituire solo il solenoide con il ricambio a cod. 3312 199 062.

To transform the solenoid valve from 12V to 24V it will be enough to replace only the solenoid - available loosen P/N 3312 199 062.

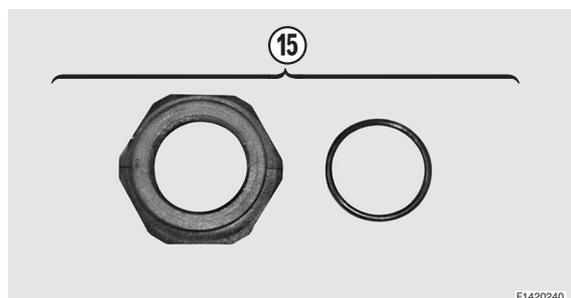
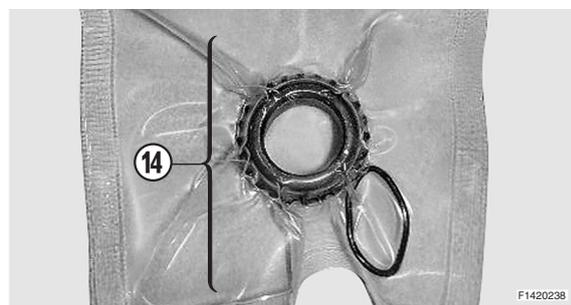
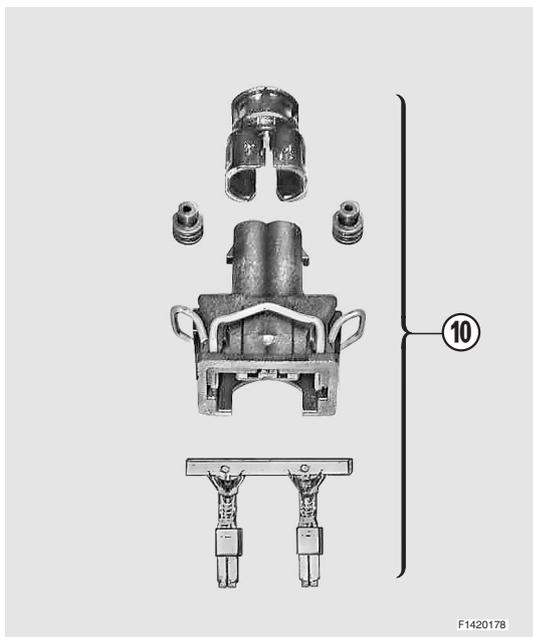
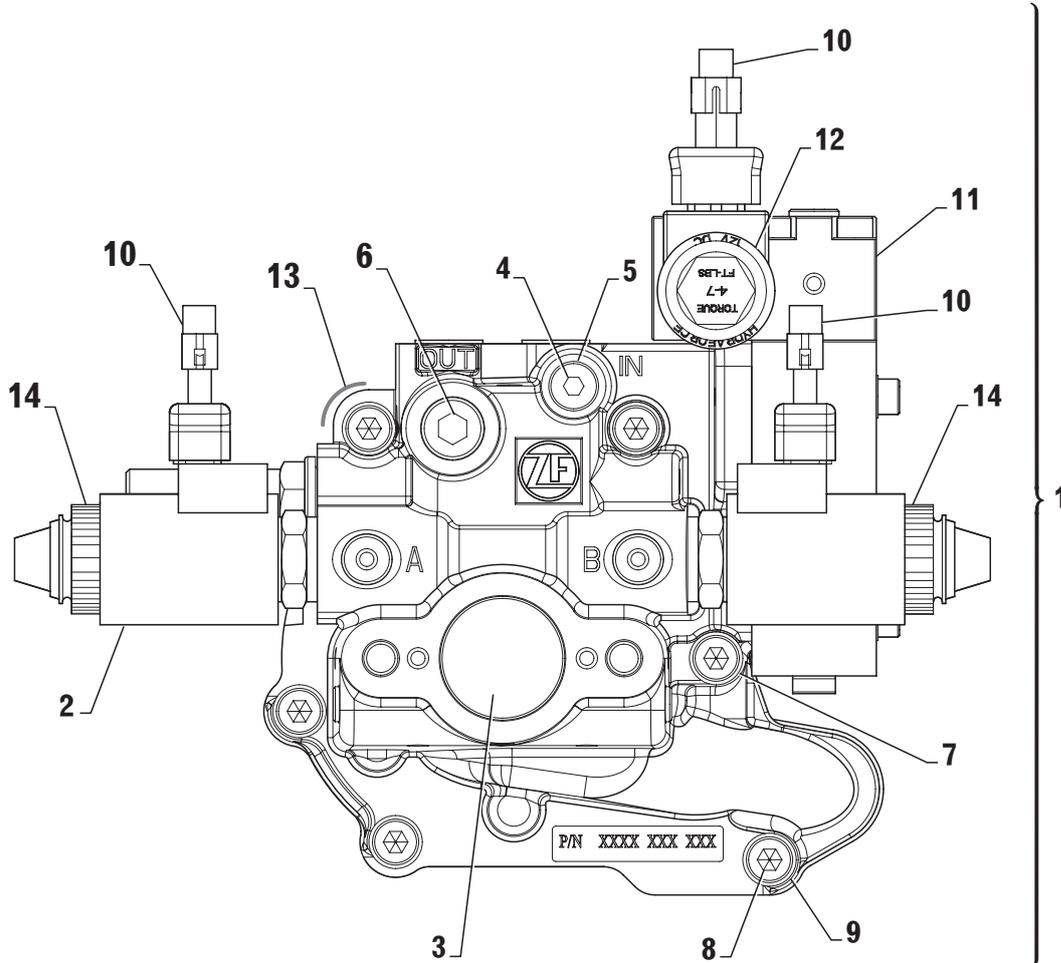


La valvola non è disponibile singolarmente ed è un componente comune alla versione 12V e 24V dell'elettrovalvola.
The valve is not available loosen and it is a common component both for 12V and 24V solenoid valve.

ZF 80 IV versions 048 - 049 - 050

**ELECTRIC SELECTOR VALVE ON/OFF 12V - 26 BAR
WITH TROLLING VALVE**

**ELECTRIC SELECTOR VALVE ON/OFF 24V - 26 BAR
WITH TROLLING VALVE**





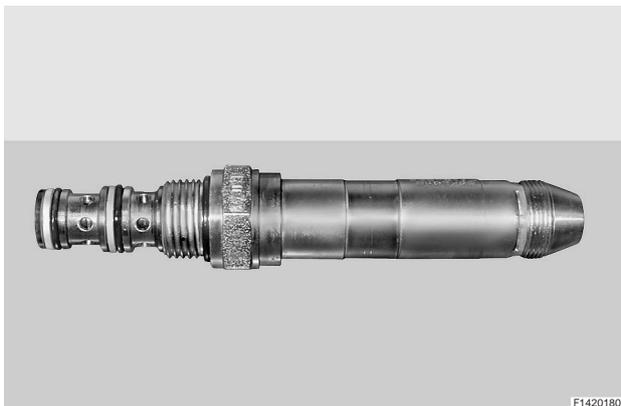
Pos.	Part number	Old P/N	Descrizione	Description	Q.tà Q.ty	Note
1	3312 199 065		Distributore elettrico ON/OFF 12V, 26 bar con TV	Electric selector valve ON/OFF 12V, 26 bar with Trolling valve	1	*
	3312 199 066		Distributore elettrico ON/OFF 24V, 26 bar con TV	Electric selector valve ON/OFF 24V, 26 bar with Trolling valve	1	* *
2	3312 308 069		Elettrovalvola ON/OFF 12V	Solenoid valve ON/OFF 12V	2	OLD
	3312 308 106		Elettrovalvola ON/OFF 24V	Solenoid valve ON/OFF 24V	2	OLD
	3312 308 173		Elettrovalvola ON/OFF 12V	Solenoid valve ON/OFF 12V	2	NEW Ma = 20 Nm
	3312 308 174		Elettrovalvola ON/OFF 24V	Solenoid valve ON/OFF 24V	2	NEW Ma = 20 Nm
3	0631 405 061		Tappo	Dummy plug	1	
4	0636 302 053		Tappo a vite M10x1	Screw plug M10x1	1	Ma = 12 Nm
5	0634 801 302		Anello di tenuta	Sealing ring	1	
6	0636 309 007		Tappo a vite	Screw plug	1	Ma = 35 Nm
7	0636 101 709		Vite TCEI M8x65	Cap screw M8x65	2	
8	0636 101 727		Vite TCEI M8x40	Cap screw M8x40	4	
9	0630 302 090		Rosetta elastica	Spring washer	6	
10	3316 117 001		Assieme connettore	Connector kit	3	
11	3312 108 027		Trolling valve	Trolling device	1	
12	3312 308 096		Valvola proporzionale 12V	Proportional valve 12V	1	Ma = 27 Nm
	3312 308 124		Valvola proporzionale 24V	Proportional valve 24V	1	Ma = 27 Nm
13	3312 308 020		Guarnizione	Gasket	1	
14	3312 199 087		Ghiera + Guarnizione OR	End cap + O-Ring	2	OLD Ma = 3 Nm
15	3312 199 088		Ghiera + Guarnizione OR	End cap + O-Ring	2	NEW Ma = 4 + 2 Nm

* Installare con 12 V - *To be installed with 12 V power supply*

* * Installare con 24 V - *To be installed with 24 V power supply*



Per convertire la elettrovalvola da 12V a 24V sostituire solo il solenoide con il ricambio a cod. 3312 199 062.
To transform the solenoid valve from 12V to 24V it will be enough to replace only the solenoid - available loosen P/N 3312 199 062.



La valvola non è disponibile singolarmente ed è un componente comune alla versione 12V e 24V dell'elettrovalvola.
The valve is not available loosen and it is a common component both for 12V and 24V solenoid valve.

**COMPOSIZIONE KIT - KIT COMPONENTS****ZF 80 IV versions 048 - 049 - 050**

Fig.	Pos.	Part number	Old P/N	Descrizione	Description	Q.ty
-	-	3323 199 022		Kit guarnizioni e anelli elastici	Seal kit & piston rings	1
1	29	0634 301 846		. Paraolio entrata	. Input shaft seal	1
1	5	0634 309 631	105113	. Paraolio uscita	. Output shaft seal	1
1	3	0634 309 619	480762	. Paraolio uscita	. Output shaft seal	1
3	3	3312 308 020	408388	. Guarnizione	. Gasket	1
3	8	0634 309 621	500065	. Anello di tenuta	. Seal	1
2	4	3312 302 041	447038	. Anello elastico	. Piston ring	3
1	23	0634 304 405	501211	. Guarnizione OR	. O-Ring	1
1	12	0634 304 688	442731	. Guarnizione OR	. O-Ring	1
1	13	0634 306 204	105542	. Guarnizione OR	. O-Ring	1
1	21	3312 301 008	439653	. Guarnizione	. Gasket	1
-	-	3323 199 023		Kit guarnizioni e frizioni	Seal kit & clutch kit	1
-	-	3323 199 022		. Kit guarnizioni e anelli elastici	. Seal kit & piston rings	1
2	16	3323 302 011		. Disco frizione interno	. Inner clutch disc	8
2	15	3323 302 012		. Disco frizione esterno	. Outer clutch disc	10
2	7	3323 302 008		. Rasamento	. Butting ring	2
2	11	0631 501 062	437956	. Chiavetta	. Key	1
-	-	3323 199 024		Kit cuscinetti	Bearing kit	1
2	5	0635 501 952	447754	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	6	0735 321 607		. Cuscinetto a rulli	. Needle bearing	2
2	9	0735 321 606		. Cuscietto a rulli	. Needle bearing	1
2	25	0635 501 951	-	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	27	0635 501 937	447754	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	28	0635 501 938	333859	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	29	0635 374 005	229784	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	30	0635 372 007	106652	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	33	0635 370 017	464199	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	34	0635 373 010	480757	. Cuscinetto a rullini conici	. Tapered roller bearing	1
2	26	3313 302 042	439630	. Spessore 0,1 mm	. Shim 0.1 mm	2
2	26	3313 302 043	439631	. Spessore 0,15 mm	. Shim 0.15 mm	2
2	26	3313 302 044	439632	. Spessore 0,2 mm	. Shim 0.2 mm	2
2	26	3313 302 045	439633	. Spessore 0,5 mm	. Shim 0.5 mm	2
2	26	3313 302 046	439634	. Spessore 1,0 mm	. Shim 1.0 mm	2
2	31	3312 304 022	439393	. Spessore 0,1 mm	. Shim 0.1 mm	2
2	31	3312 304 023	439394	. Spessore 0,15 mm	. Shim 0.15 mm	2
2	31	3312 304 024	439395	. Spessore 0,3 mm	. Shim 0.3 mm	2
2	31	3312 304 025	439396	. Spessore 0,5 mm	. Shim 0.5 mm	2
2	32	3313 304 031	477560	. Spessore 0,1 mm	. Shim 0.1 mm	2
2	32	3313 304 030	477558	. Spessore 0,15 mm	. Shim 0.15 mm	2
2	32	3313 304 029	477557	. Spessore 0,2 mm	. Shim 0.2 mm	2
2	32	3313 304 028	447551	. Spessore 0,5 mm	. Shim 0.5 mm	2
2	37	0630 000 193		. Spessore 40x50x0,10	. Shim 40x50x0.10	1
2	37	0630 000 298		. Spessore 40x50x0,15	. Shim 40x50x0.15	1
2	37	0630 004 274		. Spessore 40x50x0,20	. Shim 40x50x0.20	1