



# **SPARE PARTS CATALOGUE**

**CD-ROM 'ELCAT' 1/2004 05.03.2004**

**16 S 221**

**ZF parts list no.: 1316 051 350**

**customer: IVECO-M**

**Z F F R I E D R I C H S H A F E N A G**

## ZF-ELCAT technical information sheet

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parts list: 1316 051 350 16 S 221 / SG-KK\*LL\*ANGEFL\*DW-WR H-H \*N221PL\*SERVO-WR / IVECO-M

item	text	mod. no.
A10	CUSTOMER:IVECO-M	
	COUNTRY:D	
	CITY:ULM	
A14	CODE: CUST.SPEC.NO: TYPE NO:	
A16	8851760	
F06	INSTAL.POSITION:HOR. LH *FLANGE MOUNTED*	
F10	RATIO: 13,86- 0,84 *SG	
	G13,86* 9,52* 6,56* 4,58* 3,02* 2,08*	
	G 1,43* 1,00* R12,97	
	S11,59* 7,96* 5,48* 3,83* 2,53* 1,74*	
	S 1,20* 0,84* R10,85	
	RATIO SERIES-BASIS:DG	
F26	PLANET GEAR SET:I= 4,583* 5 GEAR	
	SPUR GEAR.	
F34	CONTROL:REMOTE CONTROL*HORIZONTAL RH *H-H	
	SHIFT ASSISTANCE:SERVO RH	
	ACTUATION:MECHANIC	
	GP:PLASTIC FORM PIPE	
	SERVO:PLASTIC PIPING	
	ZULUFTABSPERRVENTIL	
F38	SEPARAT.CLUTCH: SYNCHRONIZED	
	1-4 GEAR BK-SYNCHR.	
F40	INPUT SHAFT : L=117,0*SAE 10C 2 INCH	
	JOURNAL:D=25 F7*SHAFT:D=50,30*BUSH:WITHOUT	
	SHAFT:L=403,50 *SPLINE:L=120,000*	
	BEARING CONSTANT I:GL *D= 99,916H5	
	SPIGOT BEARING:TAPER ROLLER	
F46	REL.BRG.CARRIER:L=- 3,0 D= 62,611	
F50	OUTPUT :STANDARD BEARINGS	
F52	OUTP.FLANGE RA:OD=180 *NH= 4 *D=15,0	
	L=211,5	
F60	MOUNTING FACE HOUSING II:WITHOUT	
F64	CONN.OF GEARSHIFT:	
F66	CONTROL SHAFT DIMENSION:A=306,0*	
F68	MEAS.POINT: SHIFTLIVER-LOCATION *	
F96	SET OF SPRINGS:LAYOUT Q3 *	

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parts list: 1316 051 350 16 S 221 / SG-KK\*LL\*ANGEFL\*DW-WR H-H \*N221PL\*SERVO-WR / IVECO-M

item	text	mod. no.
F98	PAWL STOP: SPRING FORCE RG= 60N	
G00	RESISTANCE DETENT:SPRING HF= 120N DETENT LEVER LAYOUT:VERSION= A	
G02	SPRING*WF- 35N*I- 26N	
G08	DETENT NG: SPRING FORCE= 200N	
G16	SELECTION PATTERN:WI	
G30	SWITCH: RG*CLOSING *G.SHIFT SHAFT PROTECTING CAP:WITH *BAYONET	
G32	SWITCH: NG*OPENING * PROTECTING CAP:WITH *BAYONET	
G36	SWITCH: GP*CLOSING * PROTECTING CAP:WITH *BAYONET	
G50	AUXILIARY UNITS:	
G56	SWITCH: GV*PREPARED * PROTECTING CAP:WITHOUT*	
G60	AUXILIARY UNITS/ACCESSORIES	
G64	HEAT EXCHANGER:FRONT LEFT PREP*	
G66	G.BOX VENTING:BREATHER	
G76	CLUTCH HOUSING:SAE 1 * INTEGR RELEASE: CYL: * *L= HOLDING FIXTURE D= *SUSPENSION: SENSOR: * ASSEMBLY: 6	
H50	ELECTRONIC:	
H68	PULSE TRANSMITTER TACHO:IMP/U 6,00 TRANSMIT:WITHOUT*PROTECT.CAP:WITHOUT	
H70	PULSE TRANSMITTER TACHO:IMP/U 6,00 * TRANSMITTER:WITHOUT*PROTECTING CAP:WITHOUT POS: 1*INSTALL.DRAWING	
K62	POWER TAKE-OFF TYPE:N221PL * * STEER.PU. Z=85/67/ *PTO POSITION:TOP	
K64	PTO SPEED: R= 1,850 XR MAIN OUTP*S.PUMP	
K66	CONTROL:NON SHIFTABLE * S.PUMP MOUNTING INTERFACE:WITH COVER	
K82	PUMP TYPE:8605/07 *WITHOUT* S.PUMP	
M00	DRAWING:	

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item	text	mod. no.
M02	INSTALLATION: 1316 655 002	
M14	SECTION: 1315 051 100(0)	
M16	SECTION: 1316 101 035(0)	
M18	SECTION: 1316 173 010	
M28	SECTION: 1315 192 100	
M30	INSTALLATION PTO: 6091 616 001	
M42	SECTION PTO: 6091 016 001	
M50	ASSEMBLY INSTRUCTIONS:	
M58	ASSEMBLY:OIL FILL+OVERFLOW *HOUSING LEFT+RIGHT	
M82	ASSEMBLY:SHUT-OFF VALVE *F *THROTTLE:D=1,55	
M90	OIL CAPACITY:EX WORKS * 13,00L GEARBOX	3998C
M92	OIL GRADE ACC.TO ZF:TE-ML02C	
M94	MASS : APPRX. 335,0 KG	
M96	PAINT :BROWN-RED *ZFN 915W	
M98	PRESERVATION : KA1 T/KI2/ *ZFN 916	
Q50	QUALITY INSTRUCTION:	
Q52	TESTING:GAERBOX KPL/INTARDER 1Q49 154 847	
S02	VEHICLE DATA 1:	
S04	MODEL:TRUCK *SPR 6X 4	
S06	MAX. G.V.M. 26T*MAX. G.C.M. 60T	
S08	R DYN: 446*V MAX: APPRX. 110KM/H	
S10	RA: I= 2,93	
S14	FIAT /8280TCA *KW375/1900*N.M2200/1100	

## ZF-ELCAT summary of figures

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parts list: 1316 051 350 16 S 221 / SG-KK\*LL\*ANGEFL\*DW-WR H-H \*N221PL\*SERVO-WR / IVECO-M

figure	part no.	description	technical information	mod. no.
068.01.03	1316 101 103	GEARBOX HOUSING	DG/SG-KK*W I *FL.OHNE	
068.01.52	1316 101 957	GEARBOX HOUSING	DG/SG-KK *O.KAPPE	0424B
068.02.02	1316 102 059	INPUT SHAFT	SG-KK*16S221/251 *L117 *GL100*ZAPF.25	
068.02.57	1315 102 415	CONN.PLATE	L-3*D62,611*AUSR-IVECO *GETR	
068.02.KB	1315 102 811	INPUT SHAFT	A-PLATTE GETR*GEH.6KT-SCHR	0424B
068.03.01	1316 103 013	LAYSHAFT	16S221*SG-KK*N.KONST.K.	
068.03.81	1316 103 803	LAYSHAFT	PUMPE GETR*GEH.1 6KT-SCHR	0424B
068.04.11	1316 104 033	MAIN SHAFT	16S221*SG-KK+DG*NEUES K.K *GP-GV*1-4G BK	
068.04.KB	1315 104 804	MAIN SHAFT	GP GV+SV*EINSTELLUNG GV *RING	
068.06.01	1316 106 008	GEARSHIFT SYST.	WL*W I*	9339B
068.06.KB	1315 106 402	CONN.PARTS	WL*W I*WR WI+WII *RG/HG/1G-VERSCHL	
068.06.KB	1315 106 800	GEARSHIFT SYST.	GLEITSTEINE 1-4GANG *SCHALTSCHIENE VERSTIFTET	
068.07.34	1316 108 052	G.SHIFT HOUSING	HGS+WR-SERVO*W I*H-H	
068.07.KB	1316 108 806	G.SHIFT HOUSING	WR*H-H*SCHUTZK.	
068.07.KB	1316 108 459	G.SHIFT SHAFT	SERVO WL/WR*RASTE 200N	7175C
068.07.KB	1316 108 026	DETENT	WL/WR-SERVO*W I*H-H*HF120N *R.HEBEL LI AUSF.A	
068.07.KB	1316 108 811	COVER	WL/WR-SERVO*W I/WII	
068.08.31	1316 171 004	SHIFT TURRET	WR-SERVO	
068.08.82	1316 171 809	CONN.PARTS	WL/WR-SERVO*LA=F*D=OHNE *HASV NEU*ZULUFTABSPERRVENTIL	5829A
068.08.KB	1316 171 800	SHIFT TURRET	WL/WR*WR-SERVO	
068.08.KB	1316 171 408	PNEUM.SERVUNIT	SERVO*ZULUFTABSPERRVENTIL *WL/WR*EUROPA	
068.09.01	1316 109 023	CONN.PARTS	HASV 2-ST*D=1,55 INTEGR. *RG-RASTE 60N*WL/WR*SERVO	5829A
068.09.KB	1316 109 419	CONN.PARTS	NG-OEFF/BAJO*RG-SCHL*BAJO *SERVO	
068.12.18	1316 149 404	SET OF SPRINGS	SERVO-WR*Q2/Q3*WF 35*I=26N *RAEND=23	7175C
068.40.02	1316 112 007	GV-SHIFT SYSTEM	235N*GV-LAG.GEH.1	
068.40.KB	1315 112 405	CONN.PARTS	SG*GV-VORB	
068.43.02	1315 131 036	GP HOUSING	16S151/221*PL*RET-ADP*ET *OHNE GP-LUFTKANAL	5127A
068.43.KB	1315 131 401	CONN.PARTS	E-TACHO-VORB*MECH.TACHO	
068.43.KB	1315 131 400	CLOSING COMPON.	NA-OEFFNUNG	
068.43.KB	1315 131 805	GP HOUSING		
068.44.03	1316 132 014	PLANETARY DRIVE	4,583*E/Z6 *O.SCHR.FUER TACHO	79635
068.45.02	1316 133 002	SYNCHRONIZER	MOLYB*FL-PROFIL 90	
068.45.KB	1316 133 404	SYNCHRONIZER	MOLYBDAEN*FL-PROFIL 90	
068.46.03	1316 134 016	GP SHIFT SYSTEM	16S221*ZYL*LUFTKANAL *GP-ANZEIGENUT	1823B
068.46.KB	1315 134 413	CONN.PARTS	145N*GP-SCHL*BAJONETT *GV-LAG	
068.57.04	1316 145 002	RANGE SELECTION	16S221 *VORGEFORMTE ROHRE	
068.74.60	6091 116 006	HOUSING	LENKPUMPE OBEN	1377C