



Spare Parts Catalog

16 S 2230 TO

Material number: 1356.080.018

Current date: 07.02.2018

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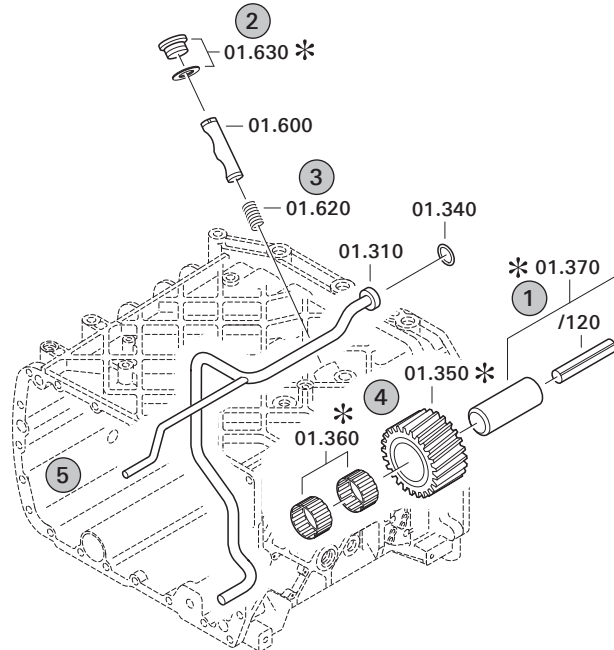
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Friedrichshafen

Notes relating to the spare parts catalog

Setup of the spare parts catalog

- Cover sheet
- Technical Cover (only in SDM print)
- Overview of figures
- Figure
- Associated parts list
- Next figure
- Associated parts list
- ...

Figure and parts list



Overview of figures

Bildtafel Figure	Sachnummer Product number	Benennung (Description)	Technische Info Technical info	Description (Benennung)	Menge Quantity	Einheit Unit
068.08.17	1316.170.001	AUSLEGER	WL	SHIFT TURRET	1	Stk
068.08.06	1316.170.031	DECKEL	WL*H-H*VM	COVER	1	Stk
068.08.14	1316.170.808	DECKEL	WL*AUSL+GEH*H-H*HF160N	COVER	1	Stk
08	1316.170.441	ANSCHLUSSTEILE	WL*NG-VORB*RG-SCHL*168N*BAJONETT	CONNECTING PARTS	1	Stk

The "gap" indicates that there is no separate graphics panel (poster) for this assembly
The parts of this assembly are shown with the same mid-section number on the figure

1 Positions and subpositions

Pos.	Sachnummer Product number	Benennung (Description)	Technische Info Technical info	Description (Benennung)	Menge Quantity	Einheit Unit
0370	1315.201.054	RUECKLAUFBOLZEN	KPL.16S151*SG*L= 79	REV.IDLER SHAFT	1	Stk
/0120	0631.329.293	SPANNSTIFT		SLOT. PIN	1	Stk

Positions marked with "/" are the individual items of a completion
For example: Position 0370 contains a centering pin with the position /0120

2 Combinations with standardized parts

Pos.	Sachnummer Product number	Benennung (Description)	Technische Info Technical info	Description (Benennung)	Menge Quantity	Einheit Unit
0630		VERSCHL.SCHR.		SCREW PLUG	1	Stk
	0636.302.067	VERSCHL.SCHR.		SCREW PLUG	1	Stk
	0634.801.249	DICHTRING	A 26 X 31	SEALING RING	1	Stk

The parts list shows the components included in the combination of standardized parts

3 Depiction of position/item number on the figure and in the parts list

01.620 - on the figure 01 relates to the assembly in which the position is included. Due to program-related reasons, it is shown on the figure.

0620 - in the parts list

Pos.	Sachnummer Product number	Benennung (Description)	Technische Info Technical info	Description (Benennung)	Menge Quantity	Einheit Unit
0620	0732.040.736	DRUCKFEDER		COMPRESSION SPRING	1	Stk

4 *-Positions

Positions marked with an * are optional i.e. inclusion in the parts list is not mandatory.
The following note is shown on the figure

je nach Stücklistenausführung
depending on spec. number
*
suivant la nomenclature
secondo la distinta base

5 Parts, dotted display

Parts with dotted display on the figure are only used for orientation of other parts



Pos.	Information	Amendment number
001	Use case -----	
002	Customer CNHTC - China National Heavy Duty Truck Group	
003	City Jinan	
004	DUNS	
005	Vehicle / Apparatus -----	
006	Sales Name ZZ4187V361VE1K	
007	Manufacturer CNHTC - China National Heavy Duty Truck Group	
008	Engineering Name	
009	Product Use TRUCK	
010	Vehicle/Hardware Type TRAILER TRUCK	
011	SOP	
012	Engine	
013	Sales Designation MC11.44-50	
014	Manufacturer CNHTC - China National Heavy Duty Truck Group	
015	Drivetrain type DIESEL	
016	Eng.Displ. 10518 cm3	
017	Cylinder 6	
018	Nom. power 324 kW	
019	RPM at nom. power 1900 1/min	
020	Nom. torque 2100 Nm	
021	RPM at nom. torque 1000 1/min	
022	Classification use case -----	
023	DESIGNATION, CLUTCH MFZ430	
024	MANUFACTURER, CLUTCH ZF-SACHS	
025	TOTAL NUMBER OF WHEELS 4	
026	NUMBER OF DRIVING WHEELS 2	
027	DYNAMIC TYRE RADIUS 510 mm	
028	REAR AXLE RATIO 4.11	
029	INERTIA TORQUE .1199 kg/m2	
031	PERMISS.GROSS VEHICLE WEIGHT 49 t	
032	PERMISS.GROSS COMBIN.WEIGHT 25 t	
033	Product description -----	
057	DESIGN, RELEASE SHAFT	



Pos.	Information	Amendment number
058	WIDTH ACROSS FLATS, RELEAS. FORK 94 mm	
061	REF. LENGTH, RELEASE BEAR. FLAN -24.2 mm	
062	DIAMETER, RELEASE FLANGE 62.62 mm	
063	DESIGN RELEASE CYLINDER WITHOUT GROOVE	
064	OIL CAPACITY, GEARBOX 25 dm ³	
066	OIL GRADE PERMISSIBLE ACC. TO TE-ML02	
067	OIL CLASS FIRST FILLING E	
076	SELECTOR LEVER	
077	RADIUS SELECTOR LEVER mm	
078	SELECTOR LEVER POSITION	
081	SHIFT LEVER	
082	RADIUS 1 SHIFT LEVER mm	
083	RADIUS 2 SHIFT LEVER mm	
085	DESIGN, OFFSET, SHIFT LEVER	
087	LEVER POSITION SHIFTING OUTPUT	
088	GEAR SHIFT LEVER ANGLE EPSILON GRAD	
092	Alias ID -----	
093	CNHTC - China National Heavy Duty Truck Group WG9725220359/1	

Assembly group overview

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Material number: 1356.080.018



16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
	10	1356.002.122	16 S 2530 TO	1		
	20	1356.002.113	16 S 2530 TO	1		
	910	0769.174.710	16 S 2530 TO	1		
063.95.02-1	12	6007.101.493	CONNECTING PARTS	1		
	988	1356.177.010	ACCESSORIES	1		

Plant

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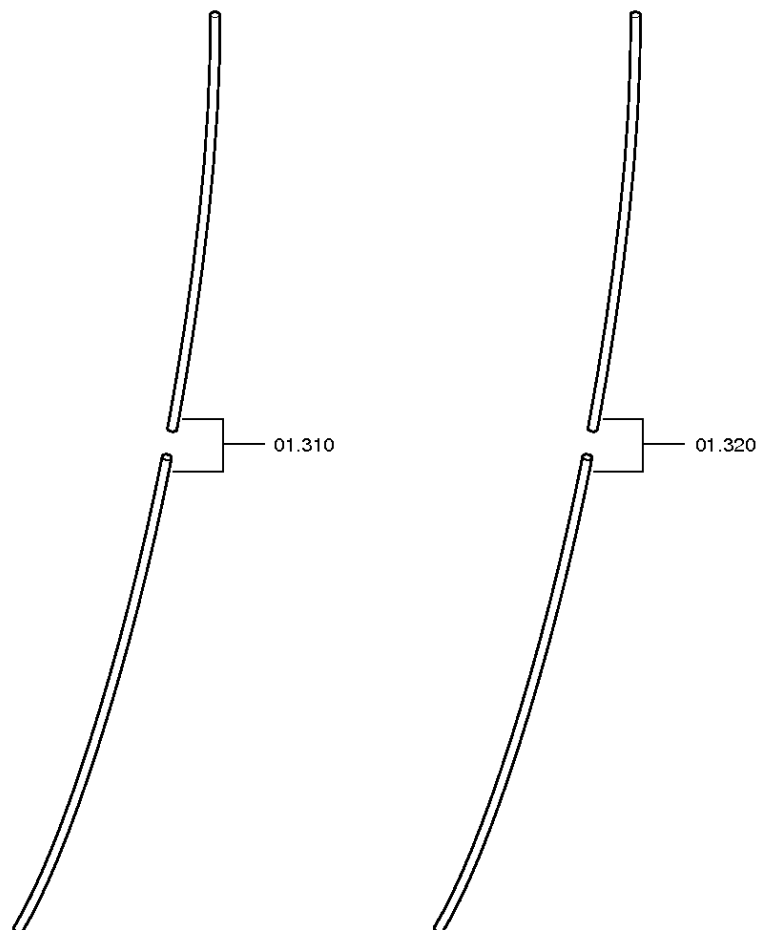
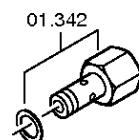
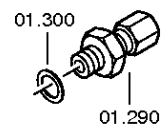
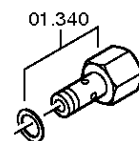
Material number: 1356.080.018

Plant: 063.95.02-1

Material-assembly-group-no: 6007.101.493



16 S 2230 TO /
CONNECTING PARTS



Parts list

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Material number: 1356.080.018

Plant: 063.95.02-1

Material-assembly-group-no: 6007.101.493

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
290	0637.100.762		PIPE UNION	1		Z00015226610			
300	0634.801.152		SEALING RING	1			10X13,5		

Parts list

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Material number: 1356.080.018

16 S 2230 TO /

Material-assembly-group-no: 1356.177.010

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	6005.300.639		SHIFT LEVER	1		Z00033730010			
20	---		BOLT+NUT	1			M10X65		
---	0636.100.713		HEXAGON SCREW	1		Z00007890810	M10X65		
---	0637.100.419		HEXAGON NUT	1		Z00007892710	M10		
30	1297.307.326		SELECTOR LEVER	1			R65		
40	---		BOLT+NUT	1			M10X50		
---	0636.011.756		HEXAGON SCREW	1			M10X50		
---	0637.100.419		HEXAGON NUT	1		Z00007892710	M10		
200	---		TYPE PLATE	1			KONZERN		
---	0730.365.241		TYPE PLATE	1			EINHEITSSCH. VERDREHSICHER		
---	0730.365.259		TYPE PLATE	1			EINHEITSSCH.VERDREHSICHER BRASILIAN		
---	0730.365.267		TYPE PLATE	1			CHINA		
---	0730.300.258		TYPE PLATE	1			EINHEITSSCH.VERDREHSICHER		
---	0730.365.271		TYPE PLATE	1			RUSSLAND/ KYRILLISCH		
---	0730.365.257		TYPE PLATE	1			S.S.CH IRAN		
---	0730.365.800		TYPE PLATE	1		Z00015972510			
---	0730.302.754		TYPE PLATE	1			AUSFUEHRUNG UNIVERSAL		
210	0731.300.027		BLIND RIVET	4					
230	---		UNION SCREW	1					
---	0737.300.028		UNION SCREW	1					
---	0634.801.331		SEALING RING	1			12X18		
232	0700.300.427		PROTECTION CAP	1					
240	0501.396.746		TAG	1					



Pos.	Information	Amendment number
001	Use case -----	
002	Customer ZF Drivotech Co., Ltd.	
003	City Hangzhou, Zhejiang	
004	DUNS 54-526-6199	
005	Use case -----	
006	Customer China National Heavy Duty Truck	
007	City Jinan	
008	DUNS 65-389-6704	
009	Product description -----	
010	INSTALLATION POS TRANSMISSION HORIZONTAL LEFT	
011	TRANSMISSION ATTACHMENT FLANGE-MOUNTED	
019	NUMBER OF GEARS 16	
020	RATIO, BOTTOM GEAR 13.8	
021	RATIO, TOP GEAR .84	
022	SET OF RATIOS SG	
023	NOTE ON TYPE OF GEAR SHIFT SYS TURNING SHAFT	
024	POSITION, GEAR SHIFT SYSTEM HORIZONTAL LEFT	
025	DESIGN, SHIFT PATTERN H-H	
026	VERSION SHIFT SUPPORT SERVO	
027	VERSION ACTUATION SHIFT SYSTEM CONTROL CABLE	
029	DESIGN PSE PSE2	
030	DESIGN PSE WITH VALVE PRESSURE RELIEF VALVE 6	
032	MAIN CUTOFF VALVE WITH	
033	NO. TAPPETS MAIN CUTOFF VALVE 2	
034	POS. AIR CON MAIN CUTOFF VALVE F	
036	DESIGN AIR SHUT-OFF GV-VALVE	
037	DIA.THROTTLE VALVE AIR SUPPLY 1.3 mm	
038	SELECTION PATTERN VARIANT GEAR SHIFT PATTERN 1	
039	VERSION OF SYNCHRONIZER 1 1+2 GEAR BK-SYNCHR.MOLYBDAEN	
040	VERSION OF SYNCHRONIZER 2 3+4 GEAR BK-SYNCHR.MOLYBDAEN	
041	REFERENCE LENGTH INPUT SHAFT 117 mm	
042	STANDARD TYPE INPUT SHAFT SAE	
043	NUMBER OF WEDGES INPUT SHAFT 10	



Pos.	Information	Amendment number
044	VERSION OF INPUT SHAFT FORM C	
045	NOMINAL DIAMETER INPUT SHAFT 2 in	
046	DIAMETER, JOURNAL, INPUT SHAFT 25 mm	
047	TYPE FIT SPIGOTS INPUT SHAFT F7	
048	VER. BEAR. SPIGOTS INPUT SHAFT TAPER ROLLER	
051	DESIGN,CONN., CLUTCH HOUSING SAE 1	
052	CENTR.DIA,HSG/ENGINE CONNECT. 511.175 mm	
053	NUMBER OF BORES,ENGINE CONN. 12	
054	BORE DIA, ENGINE CONNECTION 11 mm	
055	DESIGN, RELEASE SHAFT	
056	WIDTH ACROSS FLATS,RELEAS.FORK 94 mm	
059	REF.LENGTH,RELEASE BEAR.FLAN -24.2 mm	
060	DIAMETER, RELEASE FLANGE 62.62 mm	
061	DESIGN RELEASE CYLINDER WITHOUT GROOVE	
062	OUTER DIA. OUTPUT FLANGE RA 180 mm	
064	NO.OF SCREWS OUTPUT FLANGE RA 4	
066	DIA. THREAD OUTPUT FL. SCR. RA M14	
067	THREAD PITCH OUTPUT FL SCR. RA 1.5 mm	
068	THREAD LENGTH OUTP.FL SCREW RA 50 mm	
070	DIMENSION SHIFT TURRET DIST. 300 mm	
071	MEAS. LOC. SHIFT TURRET DIST. SHIFT LEVER-LOCATION	
072	SELECTOR LEVER n	
073	RADIUS SELECTOR LEVER mm	
074	SELECTOR LEVER POSITION	
075	DESIGN OFFSET SELECTOR LEVER	
076	LENGTH OFFSET SELECTOR LEVER mm	
077	SHIFT LEVER n	
078	RADIUS 1 SHIFT LEVER mm	
079	RADIUS 2 SHIFT LEVER mm	
081	SHIFT LEVER CONNECTION KNURLING	
082	DESIGN, OFFSET, SHIFT LEVER	
084	LEVER POSITION SHIFTING OUTPUT	
085	GEAR SHIFT LEVER ANGLE EPSILON GRAD	



Pos.	Information	Amendment number
088	SPRING ARRANGEMENT Q1	
089	SPRING FORCE DETENT PLUNGER RG 60 N	
092	SELECTOR SPRING FORCE, OUTSIDE 80 N	
094	HUMP SPRING FORCE, OUTSIDE 120 N	
095	HUMP SPRING FORCE, CENTRE 70 N	
097	SPRING FORCE OUTS. DETENT NEUT 200 N	
099	ALLOCATION DETENT LEVER VER. C	
100	SWITCH, REVERSE GEAR y	
101	DESIGN, RG (REV.GEAR) SWITCH CLOSING	
102	DESIGN, CONNECTION, RG SWITCH DIN BAYONET	
103	CODE SWITCH RG A1	
104	PROT.CAP SWITCH, REVERSE GEAR y	
105	SWITCH, NEUTRAL GEAR y	
106	DESIGN,NG(NEUTRAL GEAR)SWITCH OPENING SWITCH	
107	DESIGN, CONNECTION, NG SWITCH DIN BAYONET	
108	CODE SWITCH NG A1	
109	PROT.CAP SWITCH, NEUTRAL GEAR y	
110	PRESSURE SWITCH n	
115	RG-GATE-IDENTIFICATION SWITCH n	
120	SWITCH RG-ENGAGED n	
125	SWITCH GP y	
126	DESIGN, GP SWITCH CLOSING	
127	DESIGN, CONNECTION, GP SWITCH DIN BAYONET	
128	CODE SWITCH GP A1	
129	PROTECTING CAP GP SWITCH y	
130	SWITCH GP-END POSITION n	
135	SWITCH GV n	
140	SWITCH HG n	
145	SWITCH 1 GEAR n	
150	ATTACHM.POS.HEAT EXCHANGER IN FRONT RIGHT	
151	DES.CONN.HEAT EXCHANGER PREPARED	
152	VER. TRANSMISSION VENTILATION BREATHER	
159	PULSE SENSOR TRANSMISSION WITH	



Pos.	Information	Amendment number
160	PULSE RATE PULSE SENS GEARBOX 6 IMP/U	
161	PROT.CAP PULSE SENSOR GEARBOX y	
162	DES.CONN.PULSE SENSOR GEARBOX DIN BAYONET	
169	OIL CAPACITY, GEARBOX 15.5 dm3	
171	OIL GRADE PERMISSIBLE ACC. TO TE-ML02	
172	OIL CLASS FIRST FILLING B	
173	CODING OUTER CONSERVATION KA2	
175	CODING INNER CONSERVATION KI1	
176	CONSERVATION SPECIFICATION ZFN 916	
177	COLOR JET BLACK	
178	COLOUR CLASSIFICATION ACC. TO RAL 9005	
179	PAINTING, ZF STANDARD 915 W	

Assembly group overview

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Material number: 1356.002.122

16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
161.01.09-1	110	1356.101.004	TRANSMISSION HOUSING	1		
161.01.87-1	180	1325.101.825	CLUTCH HOUSING	1		
161.02.05-1	10	1356.102.017	INPUT SHAFT	1		
161.02.80-1	240	1325.102.802	CONNECTION PLATE	1		
161.02.01-1	910	1325.102.018	CONNECTION PLATE	1		
068.03.01-1	20	1316.103.013	COUNTERSHAFT	1		
161.04.12-1	30	1356.104.027	MAIN SHAFT	1		
161.05.01-1	130	1325.105.002	RETURN	1		
161.06.04-1	40	1356.106.003	TRANSMISSION SHIFT SYSTEM	1		
161.06.02-1	44	1325.106.803	TRANSMISSION SHIFT SYSTEM	1		
068.07.81-1	460	1316.108.817	GEAR SHIFT HOUSING	1		
068.07.38-1	910	1316.108.075	GEAR SHIFT HOUSING	1		
068.07.25-1	914	1316.108.459	GEARSHIFT SHAFT	1		
068.07.75-1	924	1316.108.070	DETENT	1		
062.08.30-1	954	1316.171.403	END COVER	1		
068.08.45-1	960	1316.171.445	PNEUMATIC SERVO UNIT	1		
068.09.01-1	934	1316.109.052	CONNECTING PARTS	1		
068.09.11-1	940	1316.109.433	CONNECTING PARTS	1		
161.10.04-1	200	1356.110.002	OIL SUPPLY	1		
161.10.01-1	920	1325.110.005	PUMP	1		
068.10.02-1	932	1316.111.011	SELECTOR LEVER	1		
068.10.92-1	466	1341.111.803	SELECTOR LEVER	1		
068.12.08-1	918	1316.149.478	SET OF SPRINGS	1		
161.28.01-1	370	1325.128.806	PLANETARY RANGE	1		
161.40.01-1	50	1356.112.001	GV-SHIFT SYSTEM	1		
161.40.80-1	340	1325.112.817	GV-SHIFT SYSTEM	1		
161.43.01-1	40	1325.131.024	RC HOUSING	1		
161.43.40-1	50	1325.131.400	CLOSING COMPONENTS	1		
161.44.04-1	10	1325.132.005	PLANETARY DRIVE	1		
161.44.41-1	60	1325.132.415	OUTPUT FLANGE	1		
161.45.01-1	20	1325.133.006	SYNCHRONIZER	1		
161.46.01-1	30	1325.134.006	GP SHIFT SYSTEM	1		

Assembly group overview

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Material number: 1356.002.122

16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
161.46.40-1	400	1325.134.404	SWITCH	1		
161.57.04-1	510	1325.145.007	RANGE SELECTION	1		
161.70.05-1	480	1356.170.003	SHUT-OFF VALVE	1		
161.90.08	320	1325.147.009	SCREW PLUG	1		
161.93.76-1	260	1325.168.011	CLUTCH RELEASE DEVICE	1		
161.93.17-1	262	1315.301.230	PROTECTION CAP	1		

Plant

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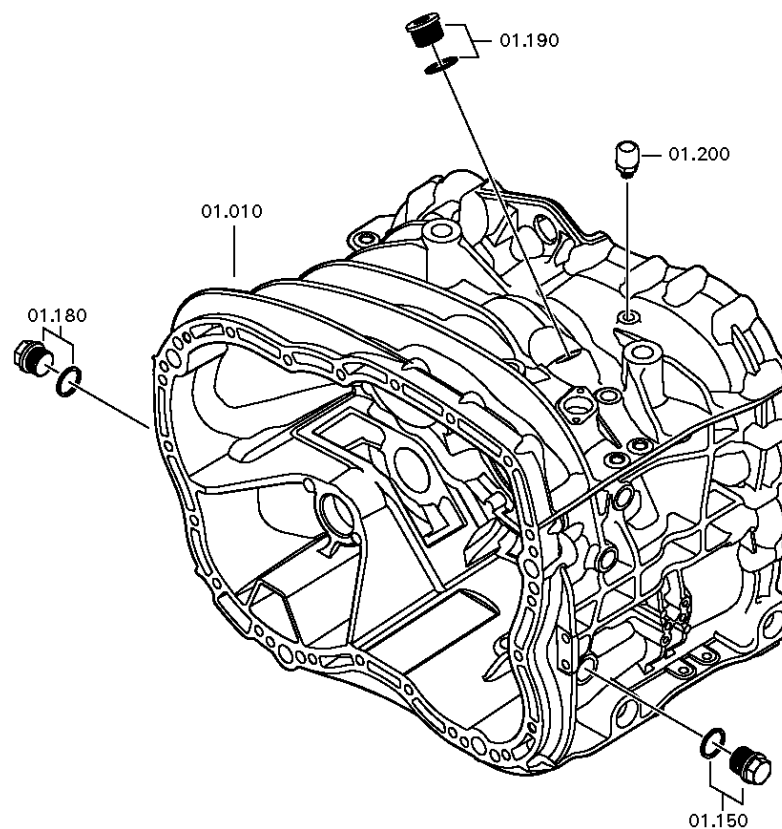
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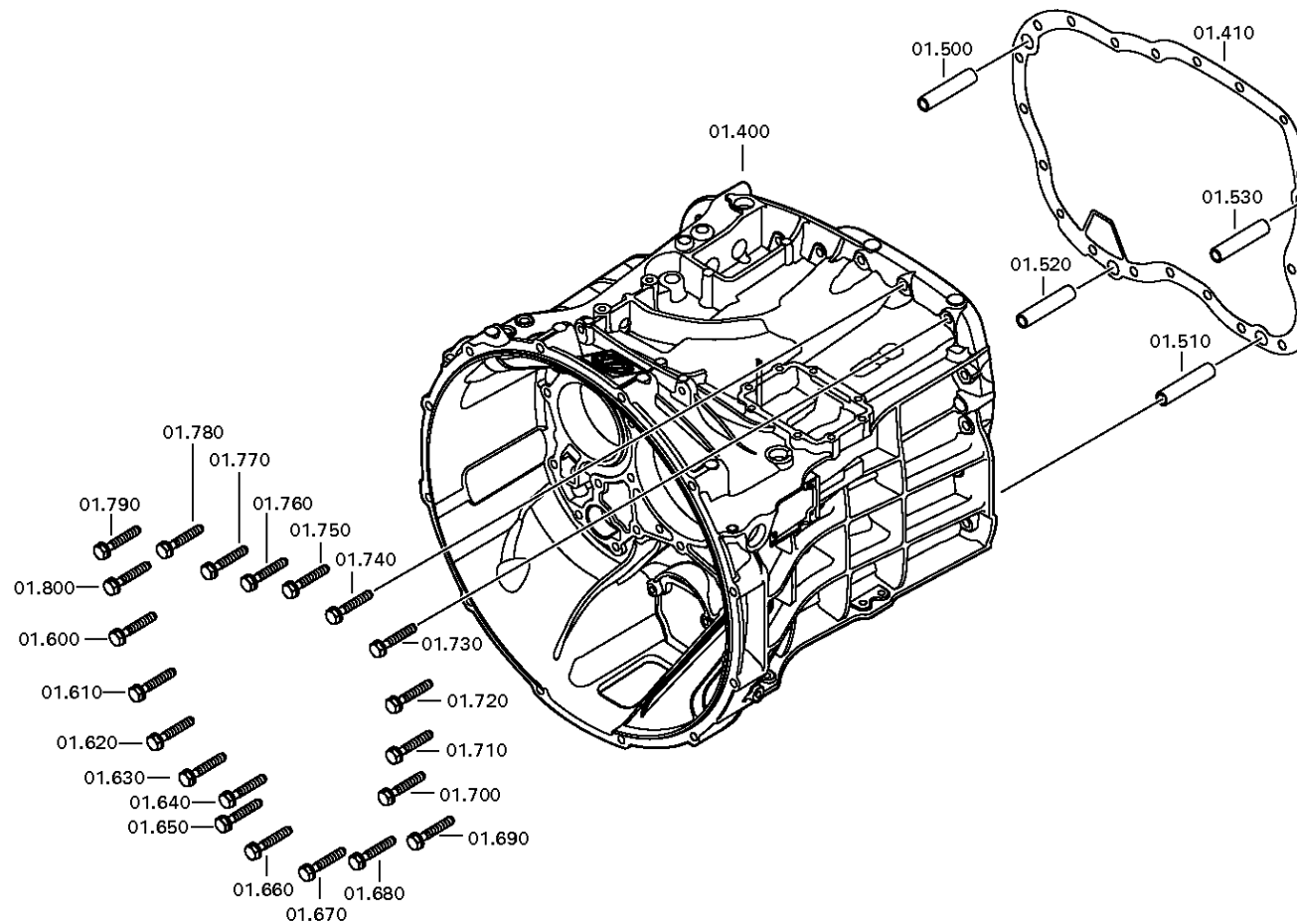
Plant: 161.01.09-1

TRANSMISSION HOUSING



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TRANSMISSION HOUSING





Parts list

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Material number: 1356.002.122

Plant: 161.01.09-1

Material-assembly-group-no: 1356.101.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.201.031		TRANSMISSION HOUSING	1		Z00008470912	KPL.BEARBEITET*GP-ANZ		
150	---		SCREW PLUG	1		Z00010112111	60N.M*DICHTRING M24X1,5		
---	0636.304.088		SCREW PLUG	1		Z00010112110	M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010112110	24X29		
180	---		SCREW PLUG	1		Z00010112111	60N.M*DICHTRING M24X1,5		
---	0636.304.088		SCREW PLUG	1		Z00010112110	M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010112110	24X29		
190	---		SCREW PLUG	1		Z00010164412	70N.M*DICHTRING M26X1,5		
---	0636.100.811		SCREW PLUG	1		Z00010164420	M26X1,5		
---	0634.801.249		SEALING RING	1		Z00010164420	26X31		
200	0501.218.540		BREATHER	1					
400	1325.201.025		CLUTCH HOUSING	1			SAE D=11*ABSTZG.2X D=9*UNBEARB.SENSOR/GV/M8/SCHUTZBL/LEITG		
410	0501.322.776		GASKET	1					
500	0731.201.563		CYLINDRICAL PIN	1					
510	0731.201.563		CYLINDRICAL PIN	1					
520	0731.201.563		CYLINDRICAL PIN	1					
530	0731.201.563		CYLINDRICAL PIN	1					
600	0636.016.405		HEXAGON SCREW	1			M10X60		
610	0636.016.405		HEXAGON SCREW	1			M10X60		
620	0636.016.405		HEXAGON SCREW	1			M10X60		
630	0636.016.405		HEXAGON SCREW	1			M10X60		
640	0636.016.405		HEXAGON SCREW	1			M10X60		
650	0636.016.405		HEXAGON SCREW	1			M10X60		
660	0636.016.405		HEXAGON SCREW	1			M10X60		
670	0636.016.405		HEXAGON SCREW	1			M10X60		
680	0636.016.405		HEXAGON SCREW	1			M10X60		
690	0636.016.405		HEXAGON SCREW	1			M10X60		
700	0636.016.405		HEXAGON SCREW	1			M10X60		
710	0636.016.405		HEXAGON SCREW	1			M10X60		
720	0636.016.405		HEXAGON SCREW	1			M10X60		
730	0636.016.405		HEXAGON SCREW	1			M10X60		
740	0636.016.405		HEXAGON SCREW	1			M10X60		

Parts list

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Material number: 1356.002.122

Plant: 161.01.09-1

Material-assembly-group-no: 1356.101.004

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Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
750	0636.016.405		HEXAGON SCREW	1			M10X60		
760	0636.016.405		HEXAGON SCREW	1			M10X60		
770	0636.016.405		HEXAGON SCREW	1			M10X60		
780	0636.016.405		HEXAGON SCREW	1			M10X60		
790	0636.016.405		HEXAGON SCREW	1			M10X60		
800	0636.016.405		HEXAGON SCREW	1			M10X60		

Plant

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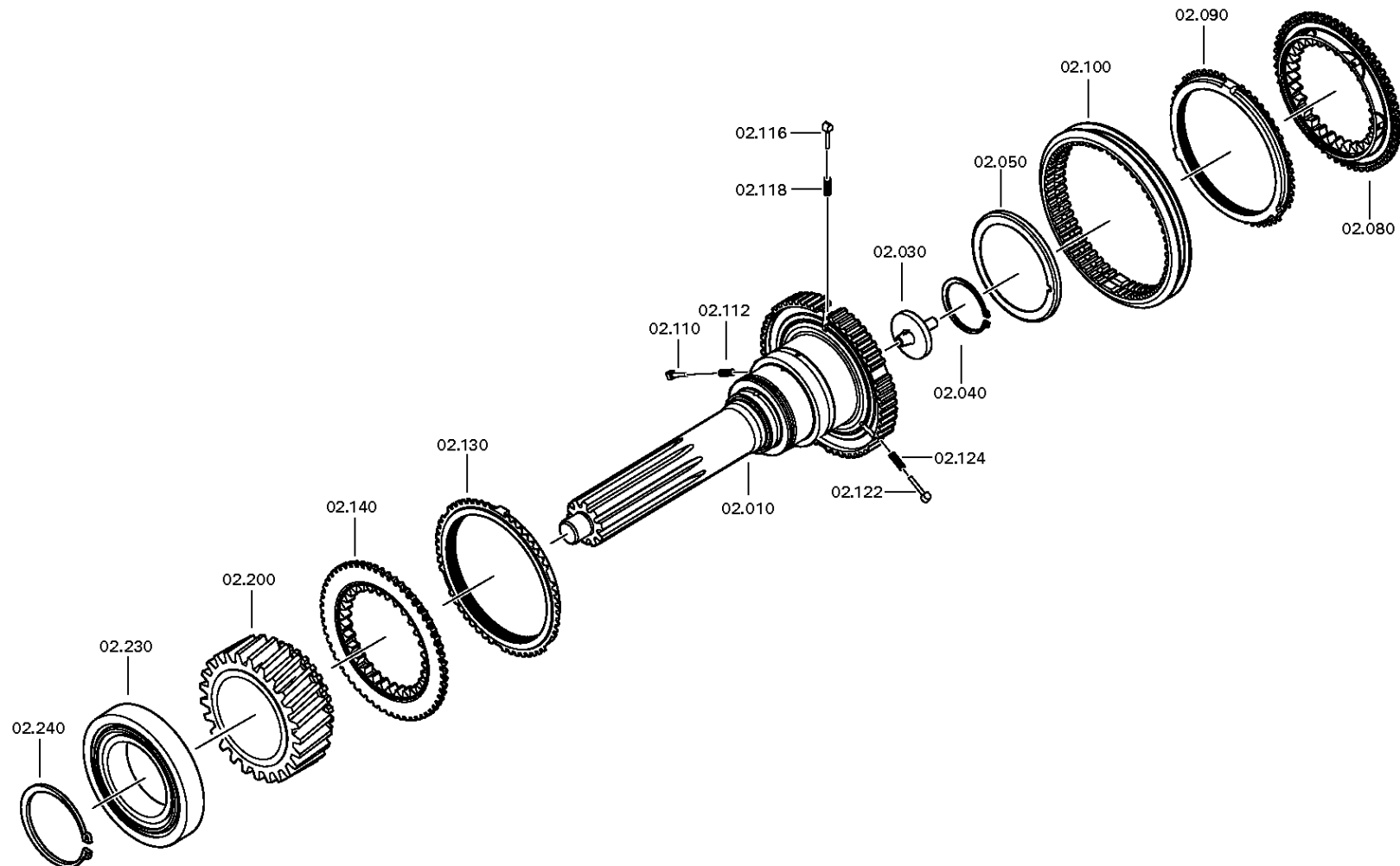
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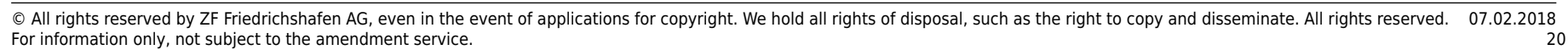
Plant: 161.02.05-1

INPUT SHAFT



16 S 2230 TO /
INPUT SHAFT





Plant

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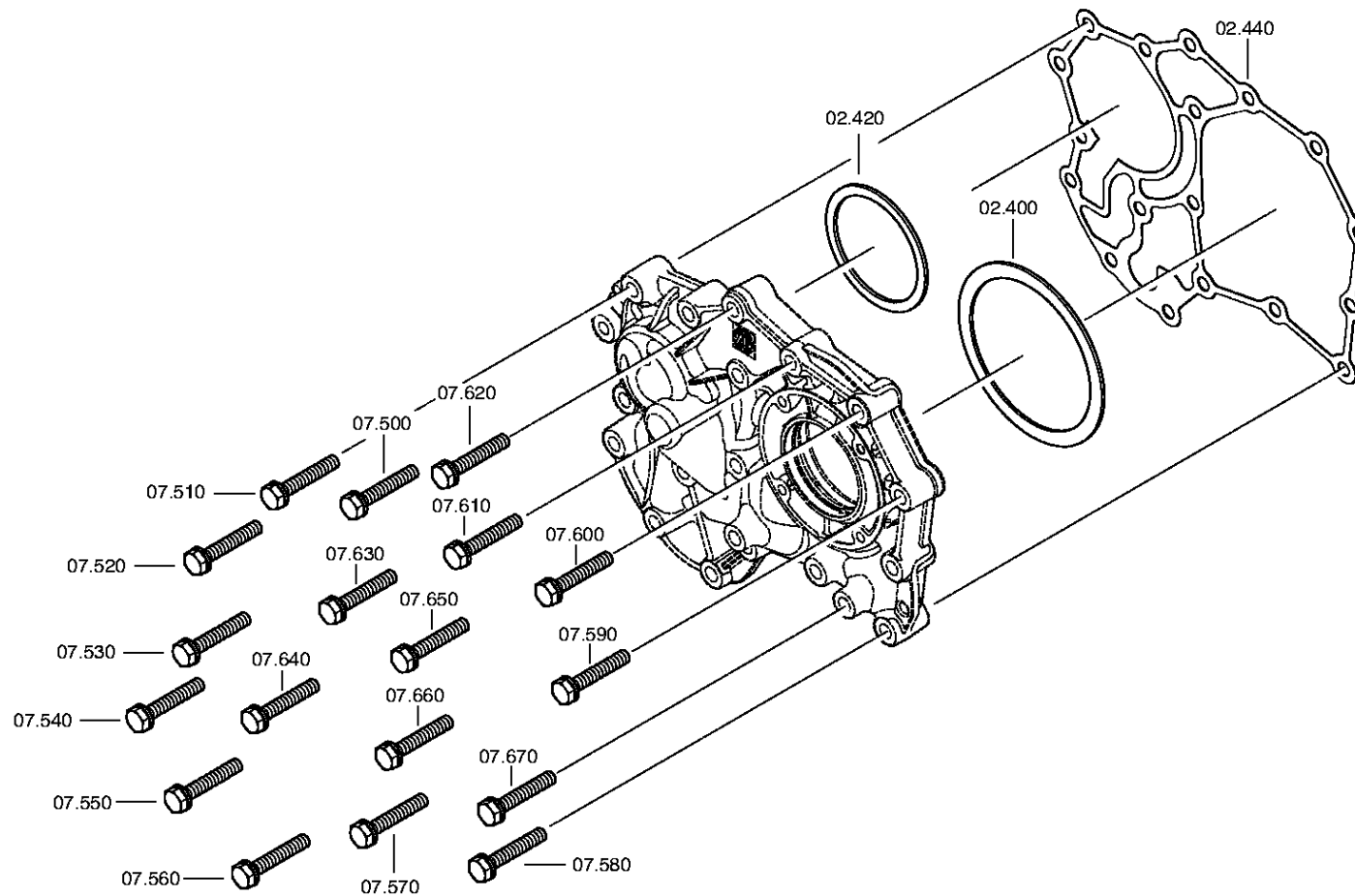
Material number: 1356.002.122

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INPUT SHAFT



16 S 2230 TO /
INPUT SHAFT



Parts list

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Material number: 1356.002.122

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.017

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.302.103		INPUT SHAFT	1					
30	1354.302.019		TUBE	1					
40	0630.502.027		RETAINING RING	1			50X2		
50	0750.101.179		OIL DAM	1		Z00037157511	77,0X95,5X6,0		
80	1297.304.523		CLUTCH BODY	1			ZF BK144		
90	---		SYNCHRO.RING	1			ZF-BK144*ZFF*LOKAL HNG		
---	1316.304.189		SYNCHRO.RING	1			ZF-BK 144		
---	1297.304.507		SYNCHRO.RING	1			ZF-BK144		
100	1297.304.516		SLIDING SLEEVE	1			ZF BK150		
110	1297.304.436		PRESSURE PART	1					
112	0732.040.409		COMPRESSION SPRING	1					
116	1297.304.436		PRESSURE PART	1					
118	0732.040.409		COMPRESSION SPRING	1					
122	1297.304.436		PRESSURE PART	1					
124	0732.040.409		COMPRESSION SPRING	1					
130	---		SYNCHRO.RING	1			ZF-BK144*ZFF*LOKAL HNG		
---	1316.304.189		SYNCHRO.RING	1			ZF-BK 144		
---	1297.304.507		SYNCHRO.RING	1			ZF-BK144		
140	1297.304.523		CLUTCH BODY	1			ZF BK144		
200	1316.302.067		HELICAL GEAR	1			Z35 IN 1316 302 026(1)		
230	0750.117.732		TAPERED ROLLER BEARING	1			85,0X150,0X30,5		
240	0730.501.598		RETAINING RING	1			85X4		
300	1325.302.055		CONNECTION PLATE	1		Z00013937810			
320	1325.302.029		GUIDE TUBE	1		Z00013937810			
330	---		SHAFT SEAL	1		Z00013937810	55X78X8		
---	0734.310.435		SHAFT SEAL	1			55X78X8 FA.CF 55X78X8		
340	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
350	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
360	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
370	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		

Parts list

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Material number: 1356.002.122

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.017

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
400	---		SHIM	1			H= 0,90- 2,40(ABSTUFUNG:0,05MM)		
---	2050.309.094		SHIM	1			A=2,2 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.007.489		SHIM	1			A=2,15 IN 2050 309 090(2)		
---	0730.007.488		SHIM	1			A=2,10 IN 2050 309 090(2)		
---	0730.007.487		SHIM	1			A=2,05 IN 2050 309 090(2)		
---	0730.007.486		SHIM	1			A=2,00 IN 2050 309 090(2)		
---	0730.007.485		SHIM	1			A=1,95 IN 2050 309 090(2)		
---	0730.007.484		SHIM	1			A=1,90 IN 2050 309 090(2)		
---	0730.007.483		SHIM	1			A=1,85 IN 2050 309 090(2)		
---	0730.007.482		SHIM	1			A=1,80 IN 2050 309 090(2)		
---	0730.007.481		SHIM	1			A=1,75 IN 2050 309 090(2)		
---	0730.007.480		SHIM	1			A=1,70 IN 2050 309 090(2)		
---	0730.007.479		SHIM	1			A=1,65 IN 2050 309 090(2)		
---	0730.007.136		SHIM	1			A=1,60 IN 2050 309 090(2)		
---	0730.007.135		SHIM	1			A=1,55 IN 2050 309 090(2)		
---	0730.007.134		SHIM	1			A=1,50 IN 2050 309 090(2)		
---	0730.007.133		SHIM	1			A=1,45 IN 2050 309 090(2)		
---	0730.007.132		SHIM	1			A=1,40 IN 2050 309 090(2)		
---	0730.007.131		SHIM	1			A=1,35 IN 2050 309 090(2)		
---	0730.007.130		SHIM	1			A=1,30 IN 2050 309 090(2)		
---	0730.007.129		SHIM	1			A=1,25 IN 2050 309 090(2)		
---	2050.309.034		SHIM	1			A=1,2 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.007.128		SHIM	1			A=1,15 IN 2050 309 090(2)		
---	0730.007.127		SHIM	1			A=1,10 IN 2050 309 090(2)		
---	0730.007.126		SHIM	1			A=1,05 IN 2050 309 090(2)		
---	2050.309.065		SHIM	1			A=1,0 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.005.749		SHIM	1			A=0,95 IN 2050 309 090(2)		
---	0730.005.748		SHIM	1			A=0,90 IN 2050 309 090(2)		
---	0730.301.503		SHIM	1			h=2,25		
---	0730.301.504		SHIM	1			h=2,30		
---	0730.301.505		SHIM	1			h=2,35		

Parts list

Page 3 from 4



Material number: 1356.002.122

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.017

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.301.506		SHIM	1			h=2,40		
420	---		SHIM	1			H= 1,85- 3,25(ABSTUFUNG:0,05MM)		
---	0730.112.938		SHIM	1		C01007375C10	A=3,25		
---	0730.112.937		SHIM	1		C01007375C10	A=3,20		
---	0730.112.936		SHIM	1		C01007375C10	A=3,15		
---	0730.112.935		SHIM	1		C01007375C10	A=3,10		
---	0730.106.860		SHIM	1		C01007375C10	A=3,05 IN 0730 106 904(2)		
---	0730.106.917		SHIM	1			A=3,00 IN 0730 106 904(2)		
---	0730.106.916		SHIM	1			A=2,95 IN 0730 106 904(2)		
---	0730.106.915		SHIM	1			A=2,90 IN 0730 106 904(2)		
---	0730.106.914		SHIM	1			A=2,85 IN 0730 106 904(2)		
---	0730.106.913		SHIM	1			A=2,80 IN 0730 106 904(2)		
---	0730.106.912		SHIM	1			A=2,75 IN 0730 106 904(2)		
---	0730.106.911		SHIM	1			A=2,70 IN 0730 106 904(2)		
---	0730.106.910		SHIM	1			A=2,65 IN 0730 106 904(2)		
---	0730.106.909		SHIM	1			A=2,60 IN 0730 106 904(2)		
---	0730.106.908		SHIM	1			A=2,55 IN 0730 106 904(2)		
---	0730.100.799		SHIM	1			A=2,50 IN 0730 106 904(2)		
---	0730.100.800		SHIM	1			A=2,45 IN 0730 106 904(2)		
---	0730.100.801		SHIM	1			A=2,40 IN 0730 106 904(2)		
---	0730.100.802		SHIM	1			A=2,35 IN 0730 106 904(2)		
---	0730.100.803		SHIM	1			A=2,30 IN 0730 106 904(2)		
---	0730.101.466		SHIM	1			A=2,25 IN 0730 106 904(2)		
---	0730.101.467		SHIM	1			A=2,20 IN 0730 106 904(2)		
---	0730.101.468		SHIM	1			A=2,15 IN 0730 106 904(2)		
---	0730.101.469		SHIM	1			A=2,10 IN 0730 106 904(2)		
---	0730.101.470		SHIM	1			A=2,05 IN 0730 106 904(2)		
---	0730.101.471		SHIM	1			A=2,00 IN 0730 106 904(2)		
---	0730.106.907		SHIM	1			A=1,95 IN 0730 106 904(2)		
---	0730.106.906		SHIM	1			A=1,90 IN 0730 106 904(2)		
---	0730.106.905		SHIM	1			A=1,85 IN 0730 106 904(2)		
440	0501.324.454		GASKET	1		C01005568F10			
500	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
510	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		

Parts list

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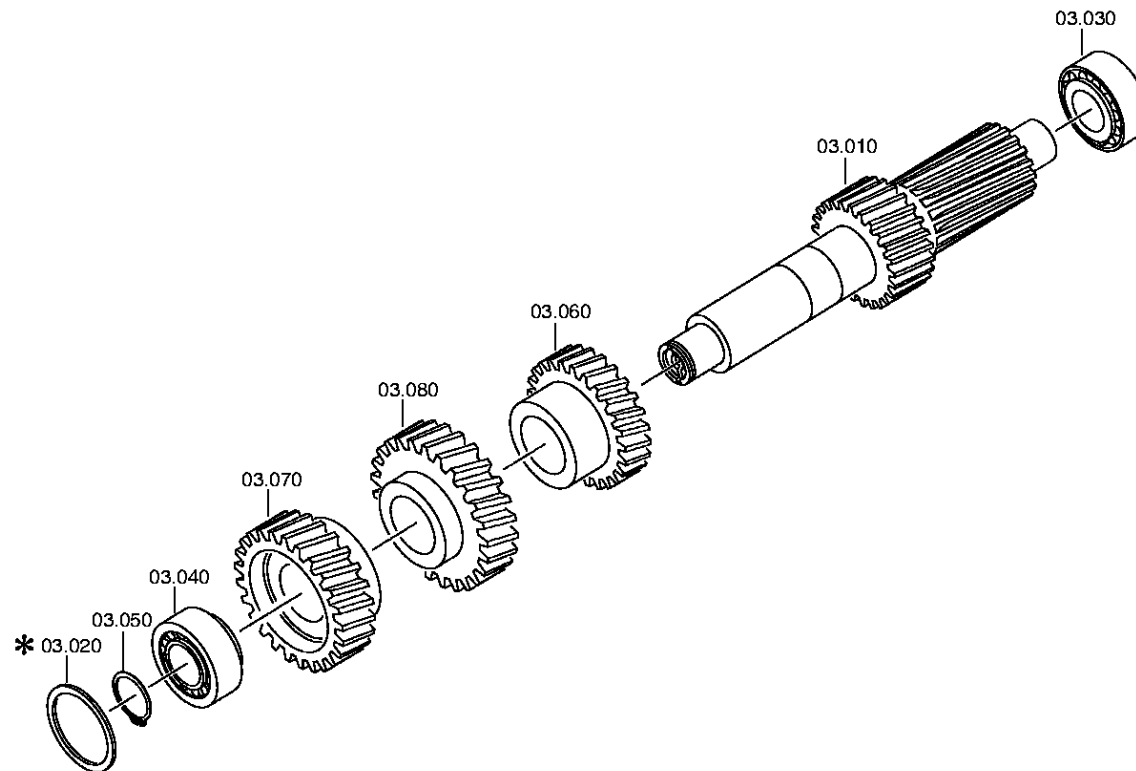
Material number: 1356.002.122

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.017

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
520	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
530	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
540	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
550	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
560	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
570	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
580	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
590	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
600	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
610	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
620	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
630	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
640	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
650	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
660	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
670	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		



Parts list

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Material number: 1356.002.122

Plant: 068.03.01-1

Material-assembly-group-no: 1316.103.013

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.303.033		COUNTERSHAFT	1			ENTHALT.IN 1316 303 032(0)		
30	0750.117.009		TAPERED ROLLER BEARING	1			49,213x103,188x44,475		
40	0750.117.009		TAPERED ROLLER BEARING	1			49,213x103,188x44,475		
50	---		RETAINING RING	1		Z00027144136	H= 2,40- 3,00(ABSTUFUNG:0,05MM)		
---	0730.303.174		RETAINING RING	1		Z00027144110	h=3,00		
---	0730.303.173		RETAINING RING	1		Z00027144110	h=2,95		
---	0730.303.172		RETAINING RING	1		Z00027144110	h=2,90		
---	0730.303.171		RETAINING RING	1		Z00027144110	h=2,85		
---	0730.303.170		RETAINING RING	1		Z00027144110	h=2,80		
---	0730.303.169		RETAINING RING	1		Z00027144110	h=2,75		
---	0730.303.168		RETAINING RING	1		Z00027144110	h=2,70		
---	0730.303.167		RETAINING RING	1		Z00027144110	h=2,65		
---	0730.303.166		RETAINING RING	1		Z00027144110	h=2,60		
---	0730.303.165		RETAINING RING	1		Z00027144110	h=2,55		
---	0730.302.599		RETAINING RING	1		Z00027144110	h=2,50		
---	0730.302.598		RETAINING RING	1		Z00027144110	h=2,45		
---	0730.302.597		RETAINING RING	1		Z00027144110	h=2,40		
60	1316.303.005		HELICAL GEAR	1			3G/Z26 IN 1312 303 018(1)		
70	1316.303.071		HELICAL GEAR	1			KON 1		
80	1316.303.065		HELICAL GEAR	1			Z35 IN 1312 303 013(1)		

Plant

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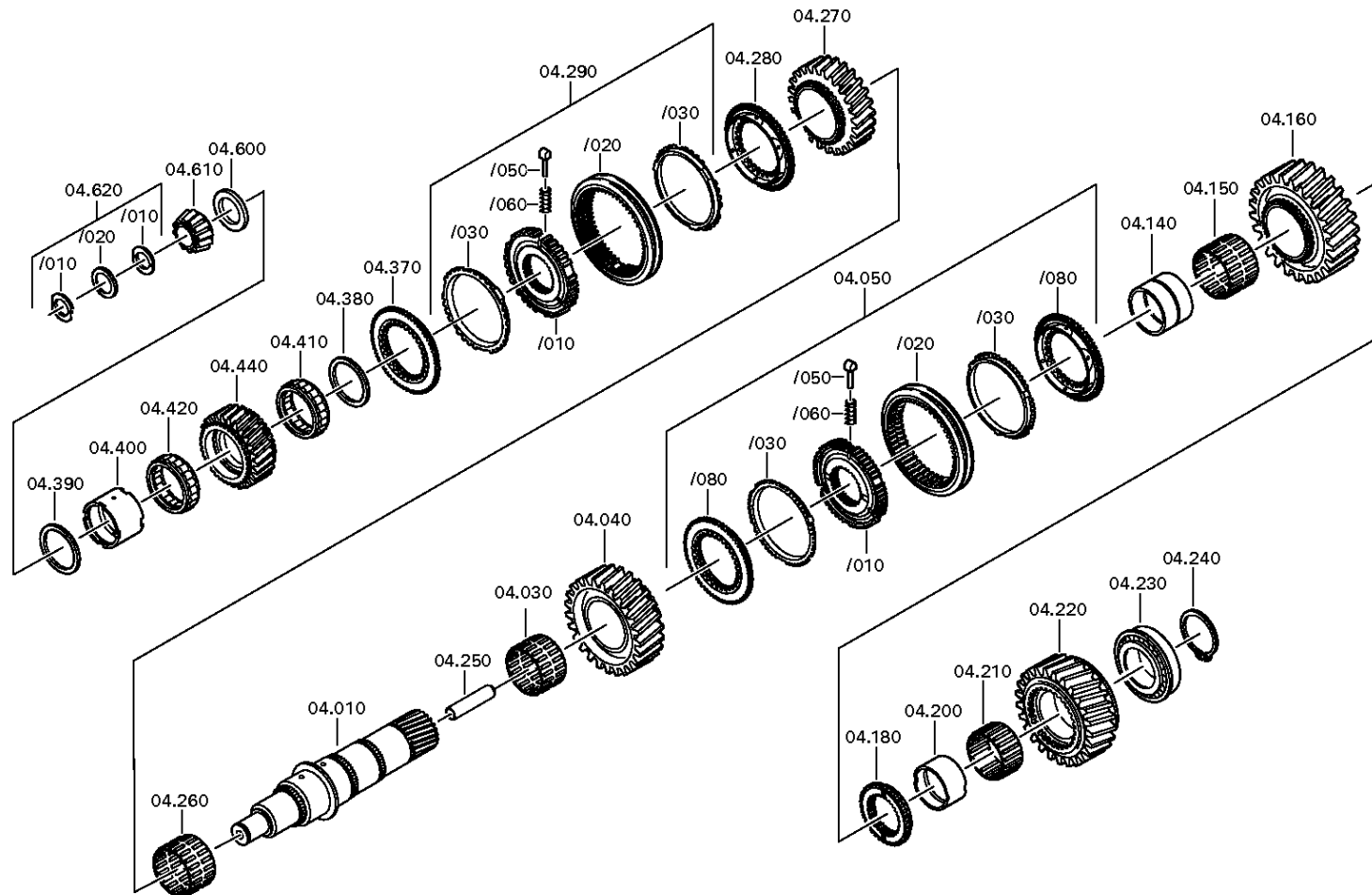
Material number: 1356.002.122

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.027



16 S 2230 TO /
MAIN SHAFT



Parts list

Page 1 from 3



Material number: 1356.002.122

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.027

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.304.132		MAIN SHAFT	1					
30	0750.115.597		NEEDLE CAGE	1			ZFF*LOKAL HNG 92,0X100,0X62,8		
/10	0735.321.094		NEEDLE CAGE	1			92,0X100,0X63,0 FA.INA		
40	1316.304.002		HELICAL GEAR	1			2G/Z38 IN 1316 304 005(1)		
50	1356.204.009		SYNCHRONIZER	1			KPL.1+2G*BK160 MOLYBDAEN* ECOSPLIT 3+4*LOKAL		
/10	1297.304.527		SYNCHRO.BODY	1			ZF BK160		
/20	1297.304.517		SLIDING SLEEVE	1			ZF BK160		
/30	---		SYNCHRO.RING	2			ZFF*LOKAL HNG		
/50	1297.304.436		PRESSURE PART	3					
/60	0732.040.409		COMPRESSION SPRING	3					
/80	---		CLUTCH BODY	2			BK160*ZFF*LOKAL HNG		
---	1316.304.156		CLUTCH BODY	1					
---	1297.304.529		CLUTCH BODY	1			ZF160 BK		
140	1312.304.084		BUSH	1			ENTHALT.IN 1312 304 007(2)		
150	0750.115.598		NEEDLE CAGE	1			ZFF*LOKAL HNG 96,0X104,0X71,6		
160	1316.304.010		HELICAL GEAR	1			1G/Z47 IN 1312 304 033(0)		
180	1312.304.124		CLUTCH BODY	1			ENTHALT.IN 1312 304 055(0)		
200	1316.304.133		BUSH	1			A=50,00 IN 1312 304 010(2)		
210	0750.115.599		NEEDLE CAGE	1			ZFF*LOKAL HNG 90,0X98,0X49,8		
220	---		HELICAL GEAR	1					
---	1316.304.012		HELICAL GEAR	1			RG*Z44 IN 1312 304 125(0)		
---	1316.304.235		HELICAL GEAR	1					
230	0750.117.678		TAPERED ROLLER BEARING	1			80,000X139,992X36,512		
240	---		RETAINING RING	1		Z00027144137	H= 3,00- 3,65(ABSTUFUNG:0,05MM)		
---	0730.303.186		RETAINING RING	1		Z00027144110	h=3,50		
---	0730.303.185		RETAINING RING	1		Z00027144110	h=3,45		
---	0730.303.184		RETAINING RING	1		Z00027144110	h=3,40		
---	0730.303.183		RETAINING RING	1		Z00027144110	h=3,35		
---	0730.303.182		RETAINING RING	1		Z00027144110	h=3,30		
---	0730.303.181		RETAINING RING	1		Z00027144110	h=3,25		
---	0730.303.180		RETAINING RING	1		Z00027144110	h=3,20		
---	0730.303.179		RETAINING RING	1		Z00027144110	h=3,15		
---	0730.303.178		RETAINING RING	1		Z00027144110	h=3,10		

Parts list

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Material number: 1356.002.122

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.027

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.303.187		RETAINING RING	1		Z00027144110	h=3,55		
---	0730.303.188		RETAINING RING	1		Z00027144110	h=3,60		
---	0730.303.189		RETAINING RING	1		Z00027144110	h=3,65		
250	1312.304.150		TUBE	1					
260	0750.115.597		NEEDLE CAGE	1			ZFF*LOKAL HNG 92,0X100,0X62,8		
/10	0735.321.094		NEEDLE CAGE	1			92,0X100,0X63,0 FA.INA		
270	1316.304.008		HELICAL GEAR	1			3G/Z34 IN 1312 304 135(1)		
280	1297.304.523		CLUTCH BODY	1			ZF BK144		
290	1356.204.010		SYNCHRONIZER	1			KPL.3+4G*BK144 MOLYBD*ANSCHL. INTEGR VERST*ECO 3+4*LOKAL		
/10	1297.304.525		SYNCHRO.BODY	1			ZF BK144		
/20	1297.304.516		SLIDING SLEEVE	1			ZF BK150		
/30	---		SYNCHRO.RING	2			ZF-BK144*ZFF*LOKAL HNG		
---	1316.304.189		SYNCHRO.RING	1			ZF-BK 144		
---	1297.304.507		SYNCHRO.RING	1			ZF-BK144		
/50	1297.304.436		PRESSURE PART	3					
/60	0732.040.409		COMPRESSION SPRING	3					
370	1297.304.523		CLUTCH BODY	1			ZF BK144		
380	0750.101.193		THRUST WASHER	1			ZFF*LOKAL HNG 67,0X81,7X5,0		
390	0750.101.193		THRUST WASHER	1			ZFF*LOKAL HNG 67,0X81,7X5,0		
400	0750.119.161		BEARING INNER RING	1			ZFF*LOKAL HNG 67,00X77,00X66,16		
410	0750.115.531		ROLLER CAGE	1			77,0X101,0X29,0		
420	0750.115.531		ROLLER CAGE	1			77,0X101,0X29,0		
440	1316.304.103		HELICAL GEAR	1			Z32		
600	---		AXIAL WASHER	1			H= 7,30- 8,00(ABSTUFUNG:0,10MM)		
---	1315.304.048		AXIAL WASHER	1			A=8,00 IN 1315 304 042(2)		
---	1315.304.047		AXIAL WASHER	1			A=7,90 IN 1315 304 042(2)		
---	1315.304.046		AXIAL WASHER	1			A=7,80 IN 1315 304 042(2)		
---	1315.304.045		AXIAL WASHER	1			A=7,70 IN 1315 304 042(2)		
---	1315.304.044		AXIAL WASHER	1			A=7,60 IN 1315 304 042(2)		
---	1315.304.043		AXIAL WASHER	1			A=7,50 IN 1315 304 042(2)		
---	1315.304.085		AXIAL WASHER	1			A=7,40 IN 1315 304 042(2)		
---	1315.304.086		AXIAL WASHER	1			A=7,30 IN 1315 304 042(2)		
610	0750.117.232		TAPERED ROLLER BEARING	1		Z00041242010	42,070X40,386		

Parts list

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Material number: 1356.002.122

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.027

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
620	1312.204.040		SPLIT RING	1			GESTANZT		
/10	---		SPLIT RING	2			H= 4,60- 5,00(ABSTUFUNG:0,10MM)		
---	0730.107.023		SPLIT RING	1			A=5,00 IN 0730 106 207(2)		
---	0730.107.022		SPLIT RING	1			A=4,90 IN 0730 106 207(2)		
---	0730.107.021		SPLIT RING	1			A=4,80 IN 0730 106 207(2)		
---	0730.107.020		SPLIT RING	1			A=4,70 IN 0730 106 207(2)		
---	0730.107.019		SPLIT RING	1			A=4,60 IN 0730 106 207(2)		
/20	0730.062.781		RETAINING RING	1			ENTHALT.IN 0730 062 636(2)		

Plant

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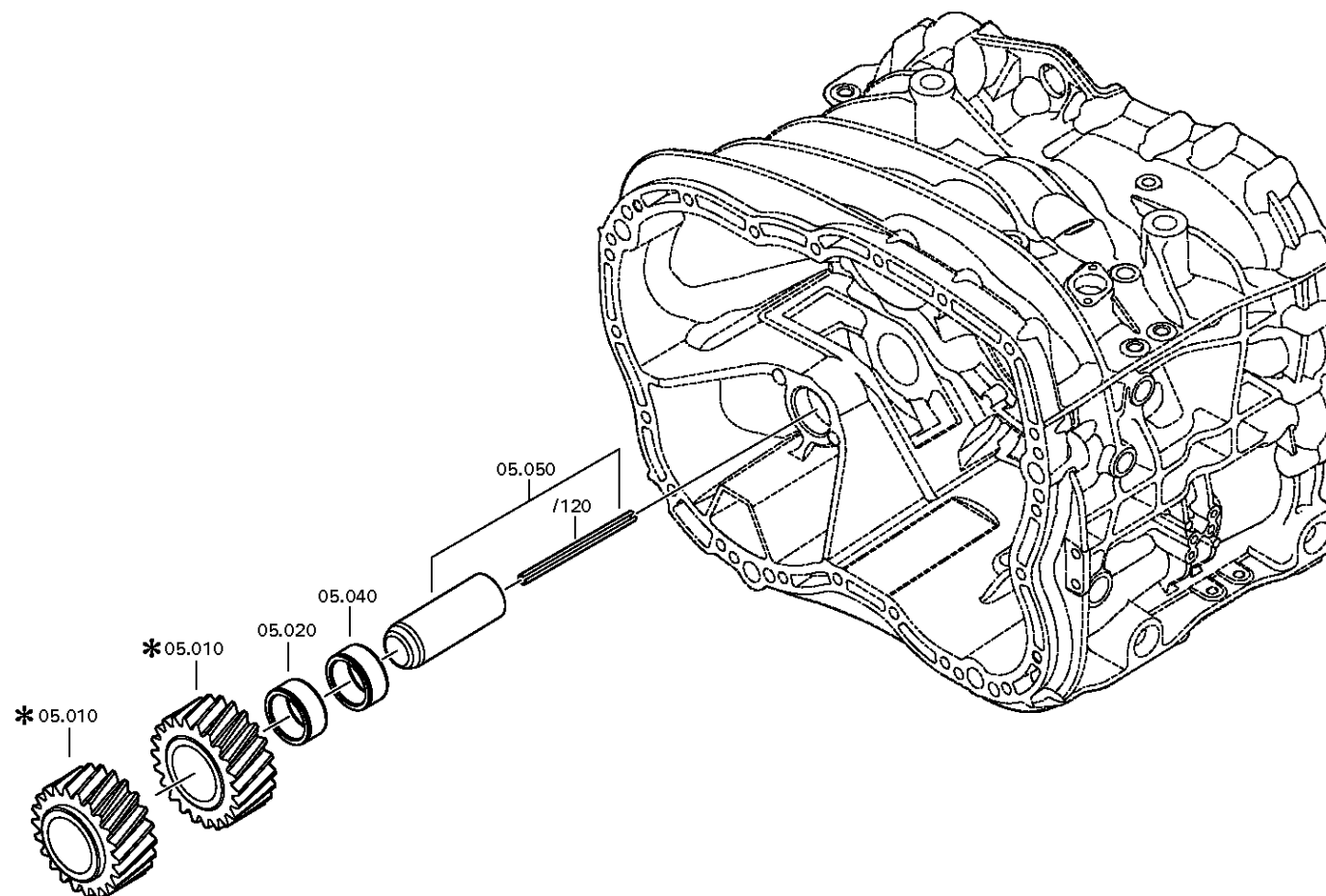
Material number: 1356.002.122

Plant: 161.05.01-1

Material-assembly-group-no: 1325.105.002



16 S 2230 TO /
RETURN



Parts list

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Material number: 1356.002.122

Plant: 161.05.01-1

Material-assembly-group-no: 1325.105.002

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	---		REVERSE IDLER GEAR	1					
---	1316.305.001		REVERSE IDLER GEAR	1			Z22 IN 1295 305 050(1)		
---	1316.305.008		REVERSE IDLER GEAR	1			Z22 IN 1295 305 050(1)		
20	0750.115.596		NEEDLE CAGE	1			ZFF*LOKAL HNG 45,0X57,0X24,8		
40	0750.115.596		NEEDLE CAGE	1			ZFF*LOKAL HNG 45,0X57,0X24,8		
50	1316.201.030		REVERSE IDLER SHAFT	1			KPL.16S221*SG*L=102		
/120	0631.329.295		SLOTTED PIN	1			10X118		

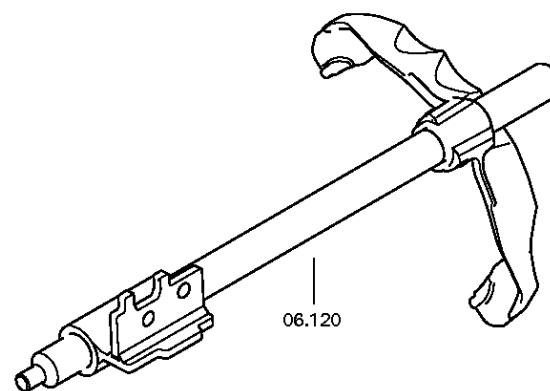
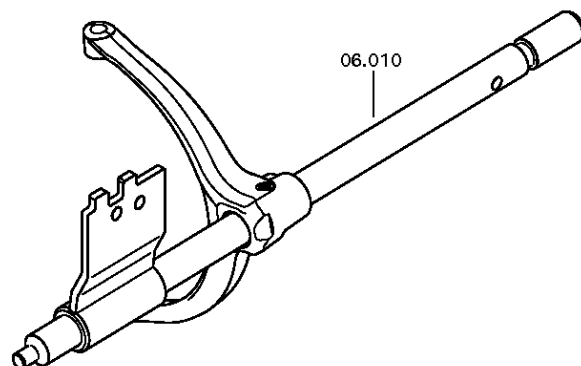
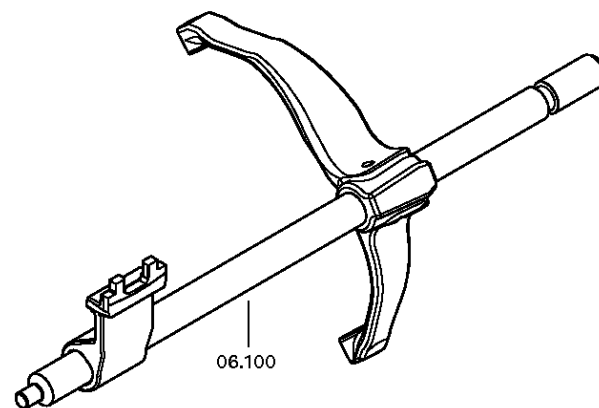
Plant

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Material number: 1356.002.122
Plant: 161.06.04-1
TRANSMISSION SHIFT SYSTEM



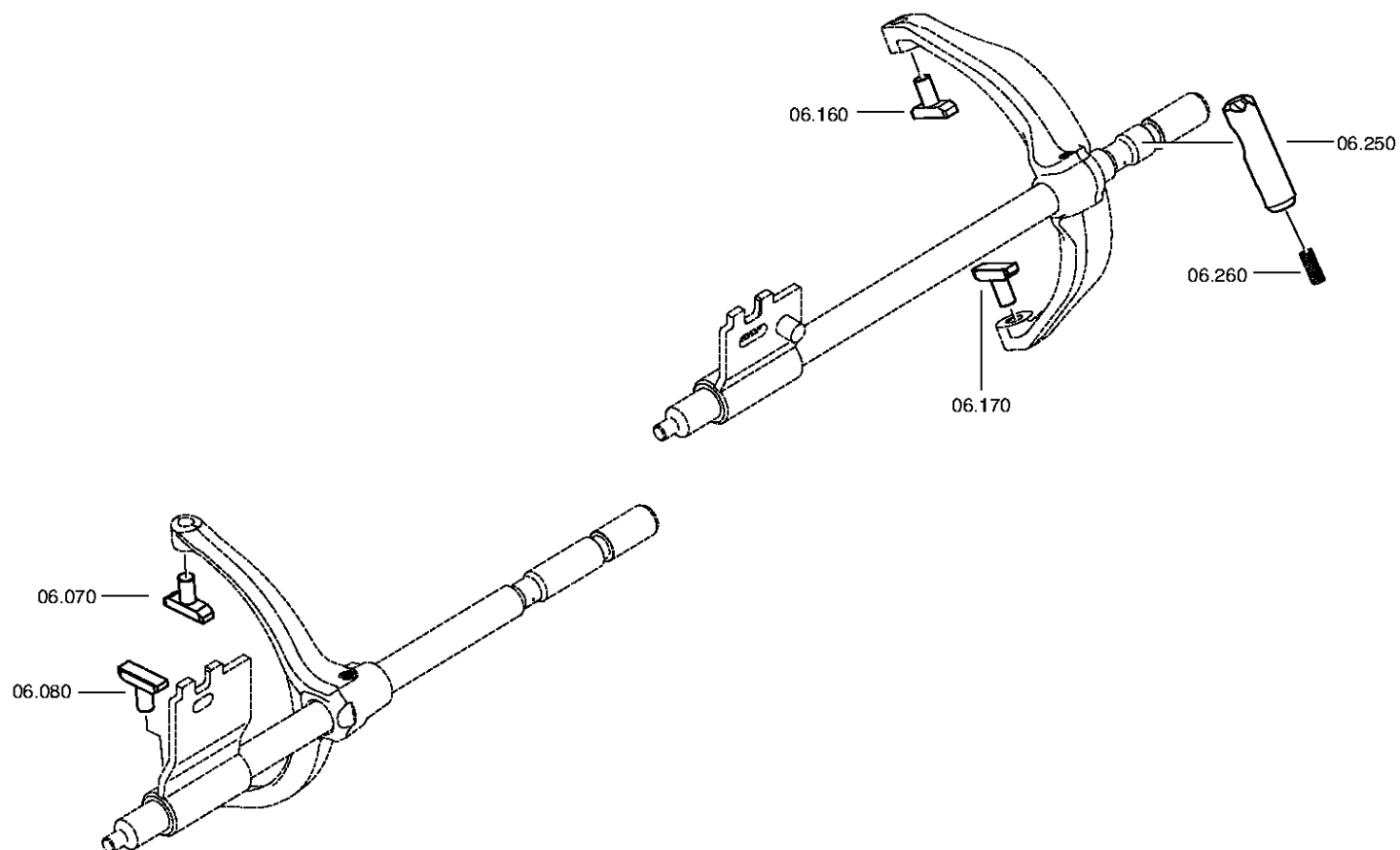
16 S 2230 TO /
TRANSMISSION SHIFT SYSTEM



Material number: 1356.002.122
Plant: 161.06.02-1
TRANSMISSION SHIFT SYSTEM



16 S 2230 TO /
TRANSMISSION SHIFT SYSTEM



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.06.04-1

Material-assembly-group-no: 1356.106.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.206.012		GEAR SHIFT RAIL	1			KPL*WBI-3/4G*LANG*MIT GANGERKENNUNG*LOKAL		
70	1316.306.015		SLIDING PAD	1					
80	1316.306.015		SLIDING PAD	1					
100	1356.206.013		GEAR SHIFT RAIL	1			KPL*WBI-1/2G*LANG*LOKAL		
120	1356.206.014		GEAR SHIFT RAIL	1			KPL*WBI-RG*LANG*LOKAL		
160	1316.306.015		SLIDING PAD	1					
170	1316.306.015		SLIDING PAD	1					
250	1313.306.013		LOCKING PIN	1					
260	0732.040.736		COMPRESSION SPRING	1					

Plant

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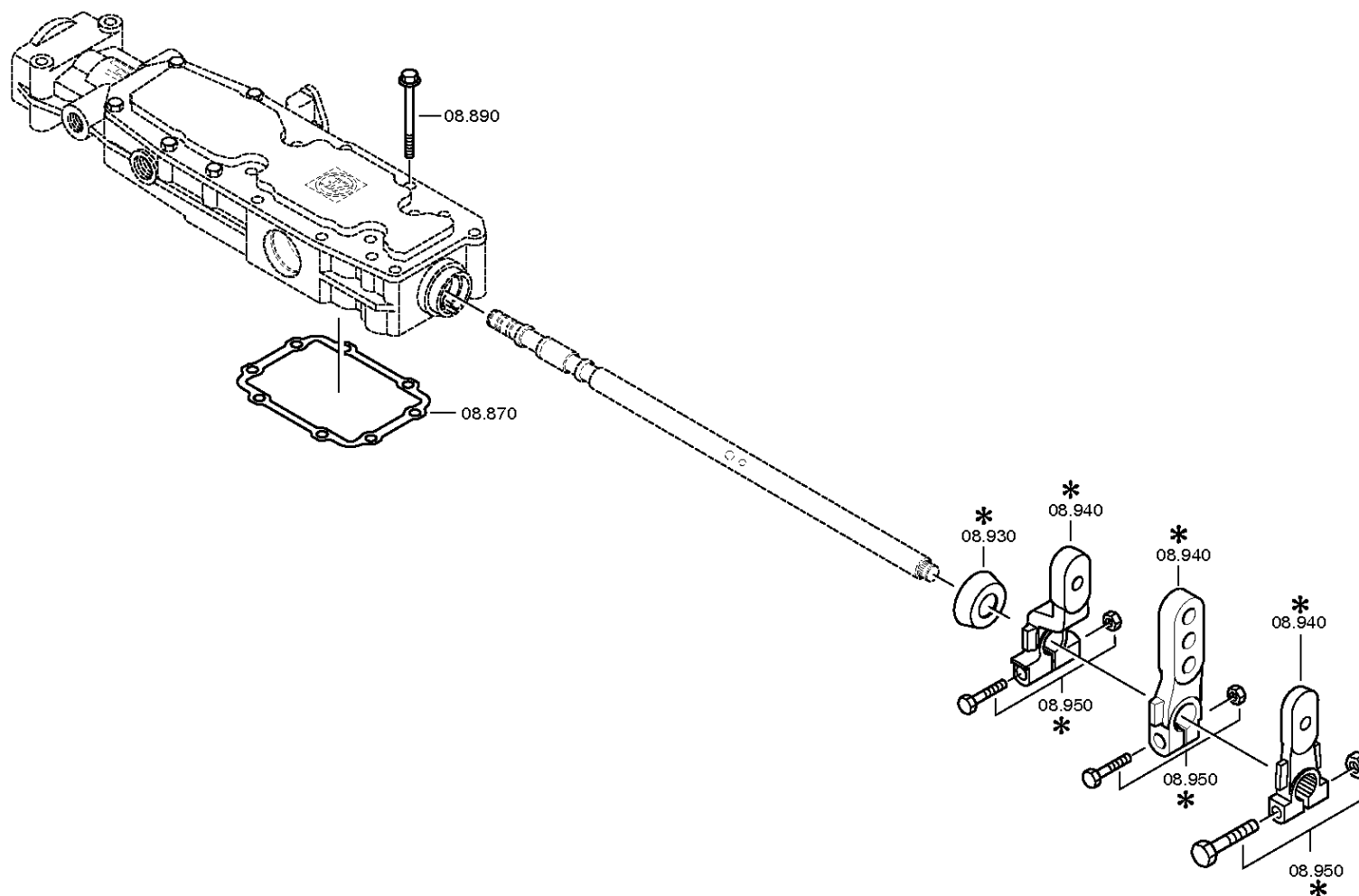
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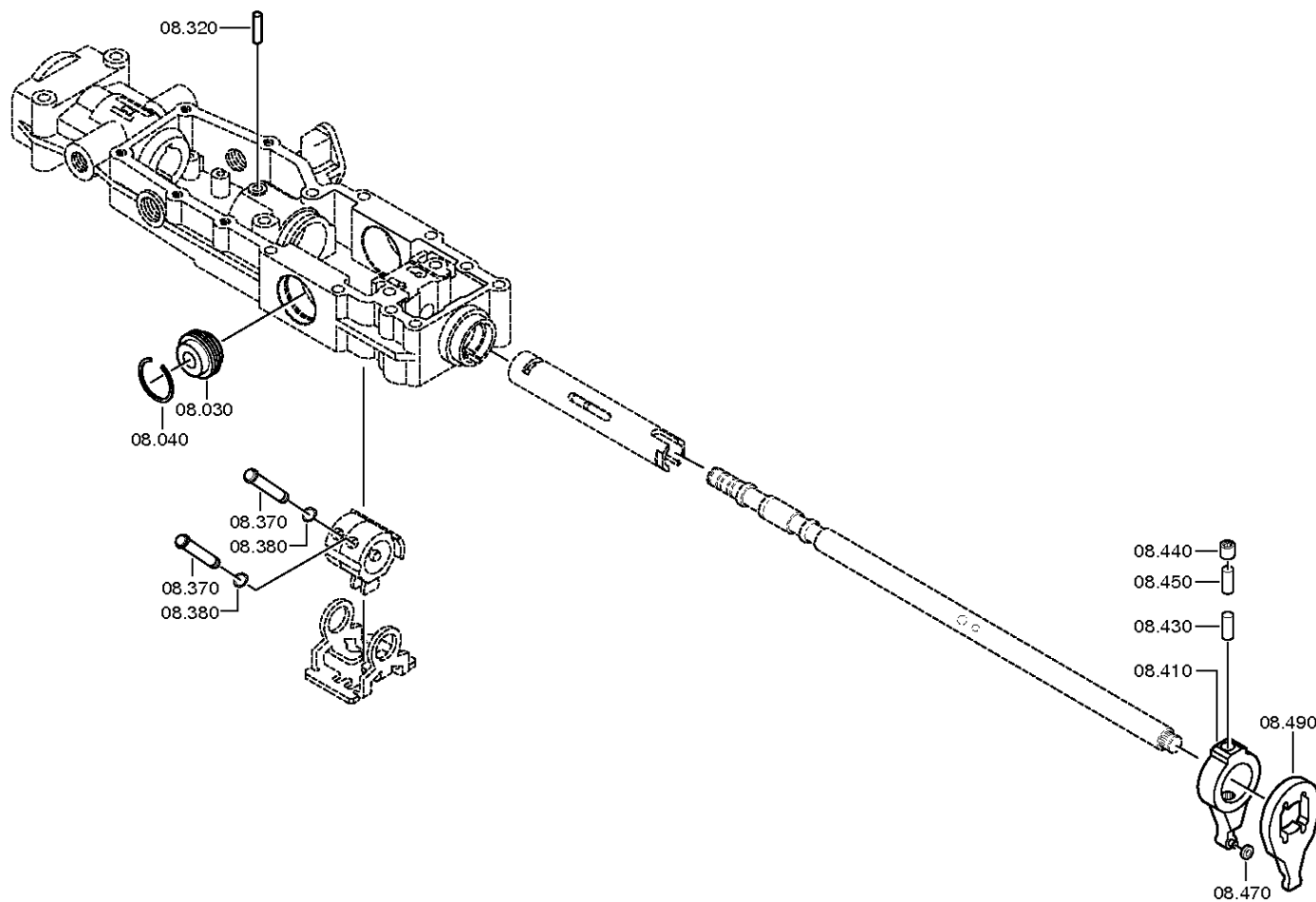
Plant: 068.07.81-1

GEAR SHIFT HOUSING



16 S 2230 TO /
GEAR SHIFT HOUSING





Plant

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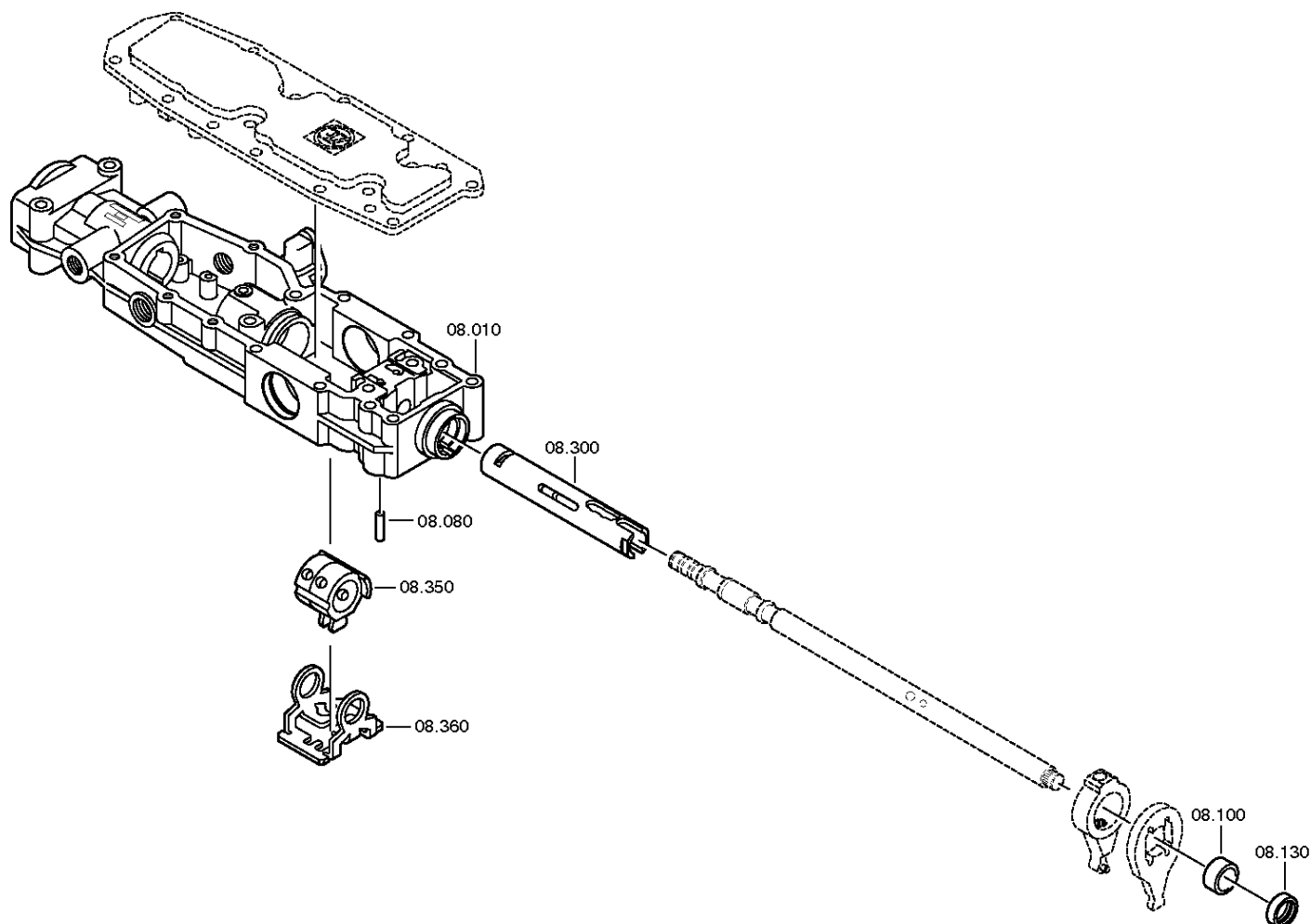
Material number: 1356.002.122

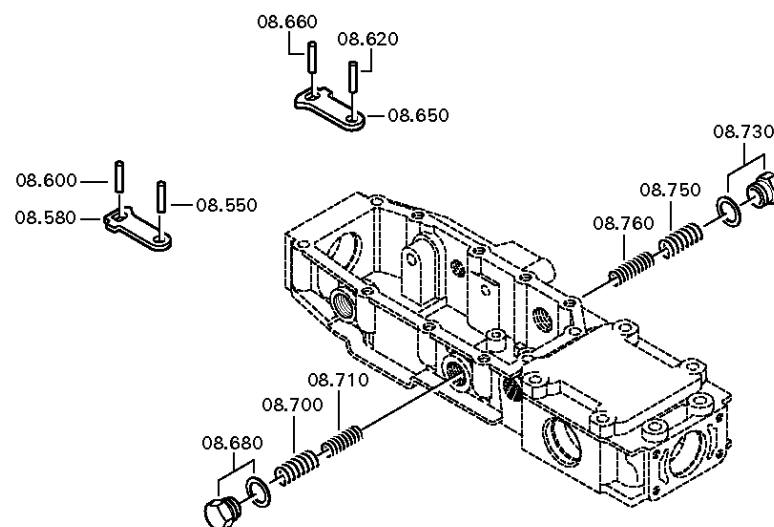
Plant: 068.07.38-1

GEAR SHIFT HOUSING



16 S 2230 TO /
GEAR SHIFT HOUSING





Parts list

Page 1 from 2



Material number: 1356.002.122

Plant: 068.07.81-1

Material-assembly-group-no: 1316.108.817

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1315.307.383		GEAR SHIFT HOUSING	1		Z00008223510			
30	0501.209.212		DETENT	1			KPL.		
40	0630.532.130		V-RING	1					
80	0631.306.123		CYLINDRICAL PIN	1		Z00008223510	8X24		
130	0734.309.765		SHAFT SEAL	1		Z00008223510	28,0X42,0X11,0		
300	1315.307.294		QUILL SHAFT	1		Z00011957210	ENTHALT.IN 1315.307.293(1)		
320	0731.201.702		PIN	1					
350	1315.307.735		DRIVER	1		Z00011746811			
360	1315.307.218		LOCKING PIECE	1		Z00008223510			
370	1316.208.003		PIN	2			KPL.		
380	0630.501.006		RETAINING RING	2			10X1		
410	1316.208.002		VALVE LEVER	1			KPL.		
430	0731.201.732		PIN	1					
440	0635.303.019		NEEDLE BUSH	1			10X14X15		
450	0731.201.732		PIN	1					
470	1315.307.226		ROLLER	1					
490	1315.307.292		LEVER	1					
550	0631.306.832		CYLINDRICAL PIN	1			6X20		
580	1315.307.203		DETENT LEVER	1					
600	0631.306.832		CYLINDRICAL PIN	1			6X20		
620	0631.306.832		CYLINDRICAL PIN	1			6X20		
650	1315.307.203		DETENT LEVER	1					
660	0631.306.832		CYLINDRICAL PIN	1			6X20		
680	---		SCREW	1		Z00010146310	M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
700	0732.040.985		COMPRESSION SPRING	1					
710	0732.040.984		COMPRESSION SPRING	1					
730	---		SCREW	1		Z00010146310	M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
750	0732.040.985		COMPRESSION SPRING	1					
760	0732.040.984		COMPRESSION SPRING	1					
870	1315.307.013		GASKET	1					

Parts list

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Material number: 1356.002.122

Plant: 068.07.81-1

Material-assembly-group-no: 1316.108.817

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
890	0736.300.137		HEXAGON SCREW	8		Z00009195410	M8X80 M8X80		
930	1341.307.104		PROTECTION CAP	1		C01007034F10			

Plant

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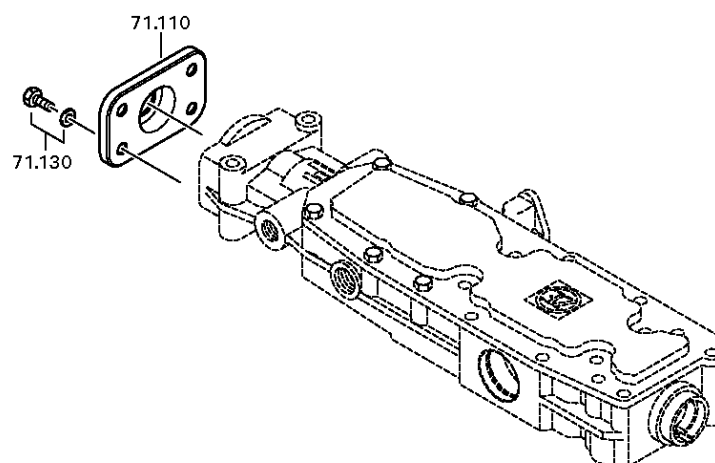
Material number: 1356.002.122

Plant: 062.08.30-1

END COVER



16 S 2230 TO /
END COVER



Plant

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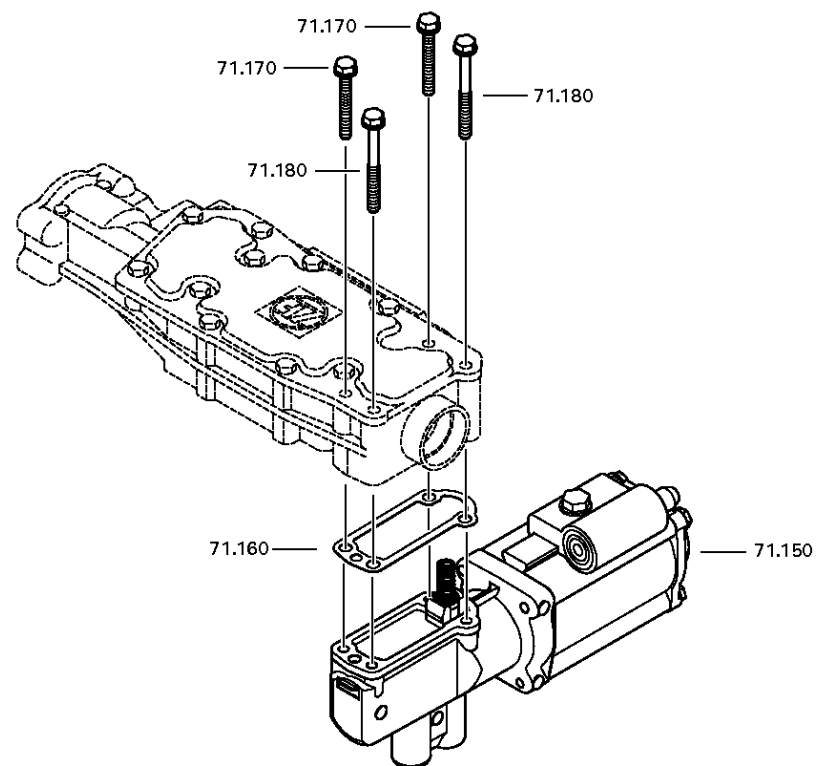
Material number: 1356.002.122

Plant: 068.08.45-1

END COVER



16 S 2230 TO /
END COVER



Parts list

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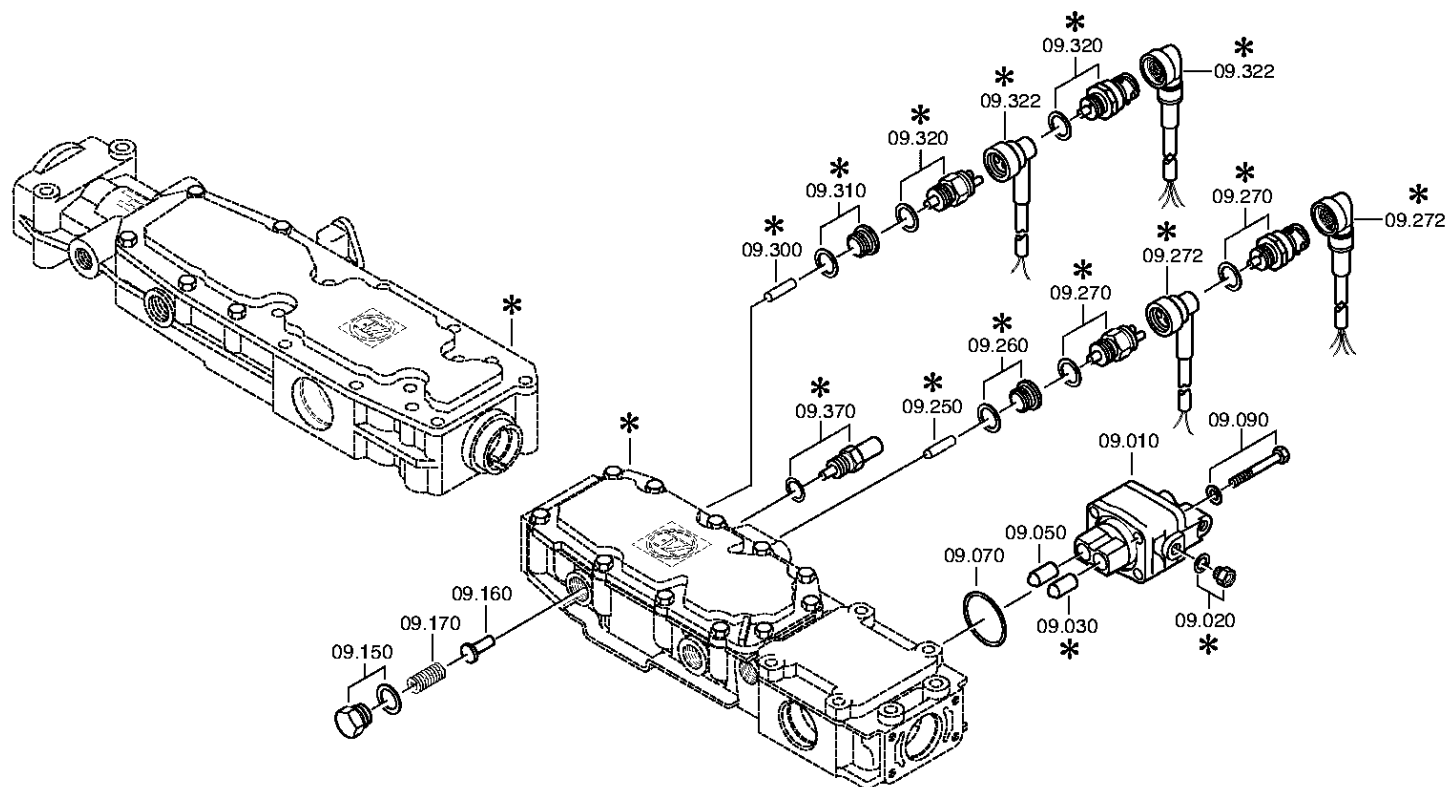
Material number: 1356.002.122

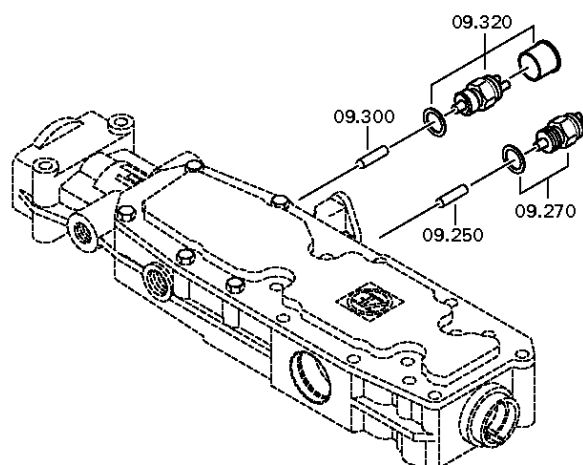
Plant: 062.08.30-1

Material-assembly-group-no: 1316.171.403

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
110	1341.307.113		COVER	1		Z00009271410			
130	---		HEXAGON SCREW	4		Z00007891111	M8X20		
---	0636.100.796		HEXAGON SCREW	1		Z00007891120	M8X20		
---	0630.100.295		WASHER	1		Z00007158414			
150	0501.223.660		PNEUMATIC SERVO UNIT	1			KPL.		
160	1315.307.242		GASKET	1					
170	0736.300.137		HEXAGON SCREW	2			M8X80 M8X80		
180	---		HEXAGON SCREW	2			M8X80		
---	0736.300.137		HEXAGON SCREW	1		Z00009195414	M8X80 M8X80		
---	0666.790.033		SEAL.COMPOUND	1		Z00009195414			





Parts list

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Material number: 1356.002.122

Plant: 068.09.01-1

Material-assembly-group-no: 1316.109.052

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	6038.202.043		CUT-OFF VALVE	1			KPL.H-H*ZULUFTDROSSEL 1,55		
30	0501.209.188		BALL CASTER	1			KPL.		
50	0501.209.188		BALL CASTER	1			KPL.		
70	---		O-RING	1			ZFF*LOKAL HNG 42X3		
---	0634.313.505		O-RING	1		Z00026363710	42X3		
---	0501.331.851		O-RING	1		Z00026363710	42X3		
90	---		HEXAGON SCREW	4			M8X65		
---	0636.100.519		HEXAGON SCREW	1		Z00007054110	M8X65		
---	0630.100.295		WASHER	1		Z00007158414			
150	---		SCREW	1			M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
160	1315.307.384		BOLT	1			ENTHALT.IN 1250 307 589(2)		
170	0732.042.207		COMPRESSION SPRING	1					
250	0731.201.446		PIN	1			ENTHALT.IN 0731 201 445(2)		
270	---		SWITCH	1		Z00004287211	OEFF*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.219.856		SWITCH	1			OEFFNER DIN BAJONETT		
---	0634.801.062		SEALING RING	1			18X24		
300	0731.208.256		PIN	1			A=30,0		
320	---		SWITCH	1		Z00025033610	SCHL*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.331.660		SWITCH	1		Z00025033617			
---	0634.801.062		SEALING RING	1		Z00025033617	18X24		
---	0700.300.427		PROTECTION CAP	1		Z00025033617			

Plant

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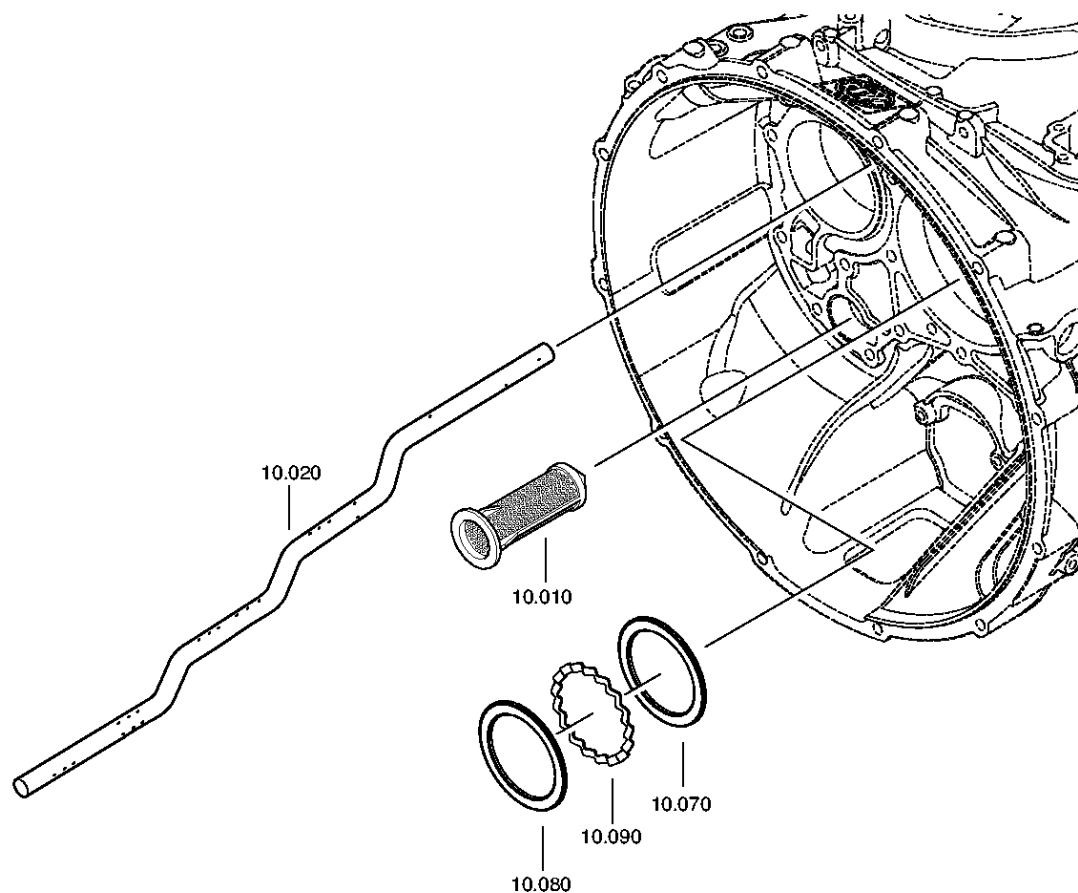
Material number: 1356.002.122

Plant: 161.10.04-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Plant

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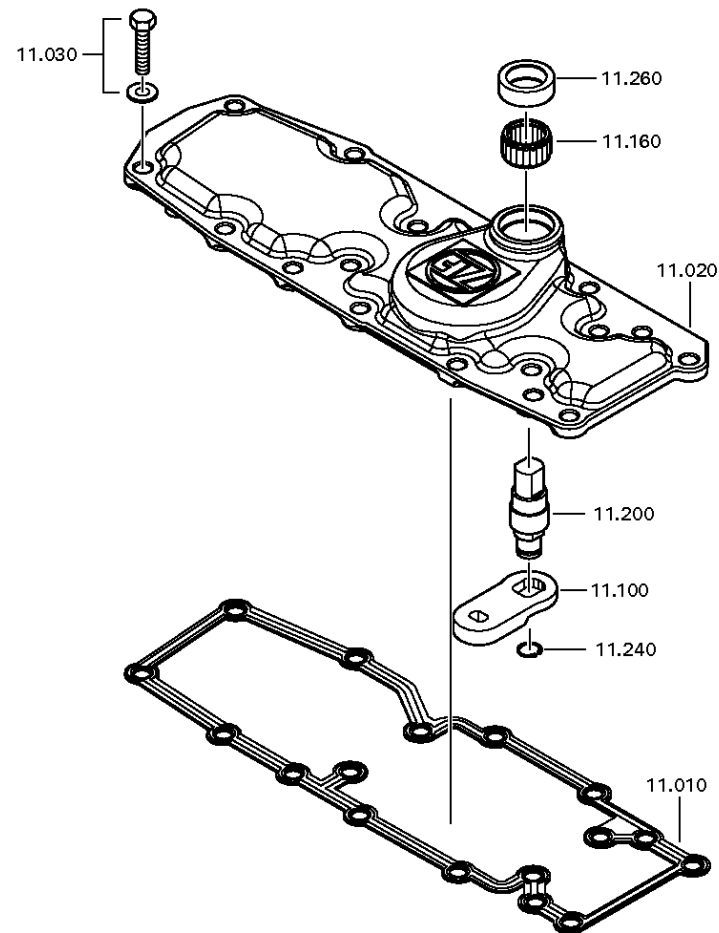
Material number: 1356.002.122

Plant: 068.10.02-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Plant

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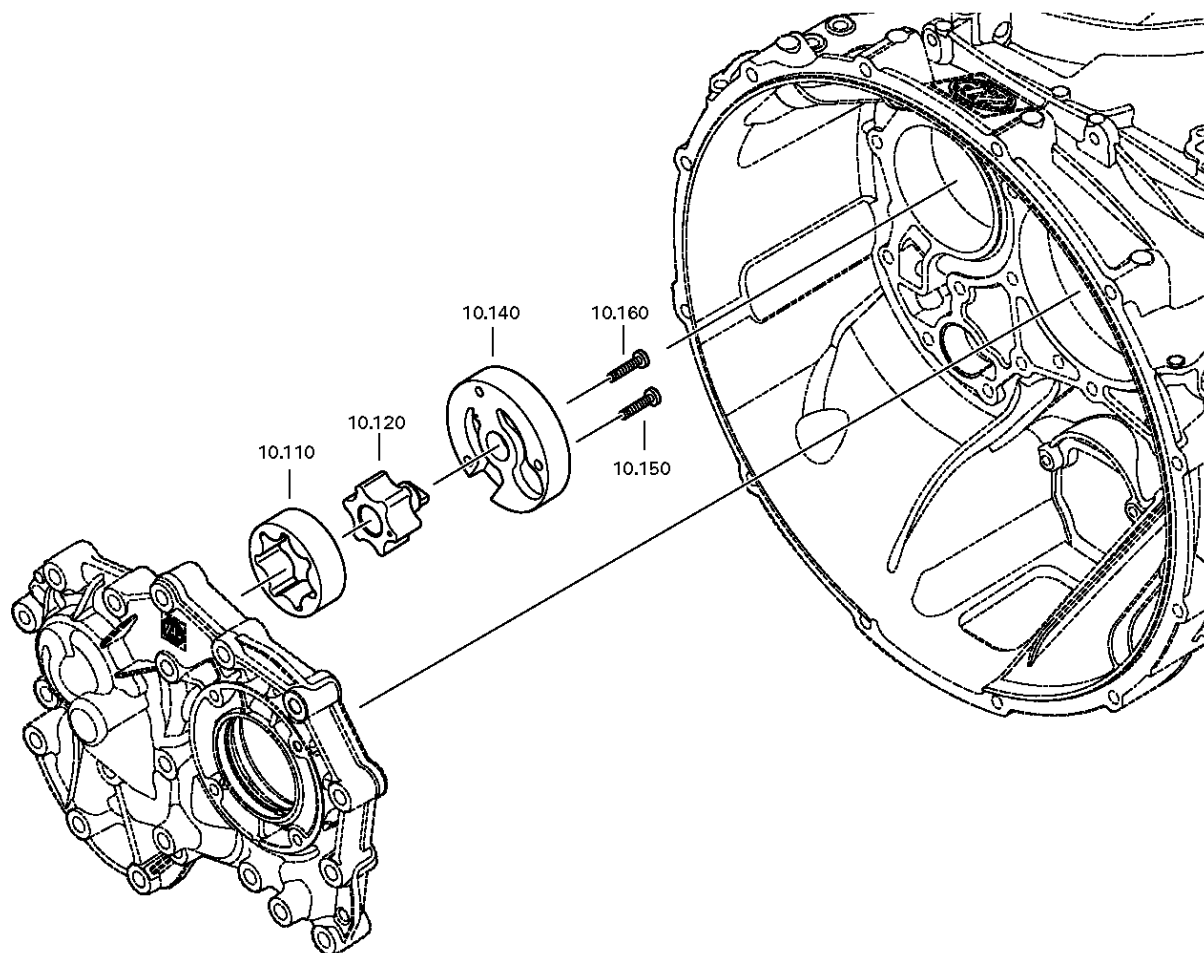
Material number: 1356.002.122

Plant: 161.10.01-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Parts list

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Material number: 1356.002.122

Plant: 161.10.04-1

Material-assembly-group-no: 1356.110.002

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0501.318.802		SCREEN INSERT	1					
10	0501.324.072		GASKET	1		Z00033959410			
20	---		COVER	1		Z00033959410	ZFF/ZFDH		
---	1315.307.336		COVER	1		Z00034298610			
20	1356.301.001		OIL TUBE	1			ECO 4 16G LANG		
30	---		HEXAGON SCREW	5		Z00033959410	M8X25		
---	0636.016.401		HEXAGON SCREW	1			M8X25		
---	0630.100.295		WASHER	1		Z00007158414			
70	0730.300.745		WASHER	1			A=3,30 A=3,30		
80	0730.150.766		WASHER	1					
90	1315.302.040		SPACER RING	1					
100	---		SELECTOR LEVER	1		Z00033959410	ZFF*LOKAL HNG		
---	1315.307.375		SELECTOR LEVER	1		Z00026363710			
110	1315.303.027		ROTOR	1					
120	1314.202.039		PUMP SHAFT	1			KPL.		
140	1325.303.017		PUMP COVER	1					
150	0736.101.076		HEXALOBULAR DRIVING SCREW	1			M6X30		
160	0736.101.076		HEXALOBULAR DRIVING SCREW	1			M6X30		
160	---		NEEDLE SLEEVE	1		Z00033959410	ZFF*LOKAL HNG 22X28X10		
200	---		SELECTOR SHAFT	1		Z00033959410	ZFF*LOKAL HNG		
---	1315.307.346		SELECTOR SHAFT	1		Z00026363710			
240	0630.531.240		V-RING	1		Z00033959410			
260	---		SHAFT SEAL	1		Z00033959410	20X30X7		
---	0734.309.392		SHAFT SEAL	1			20,0X30,0X7,0		

Plant

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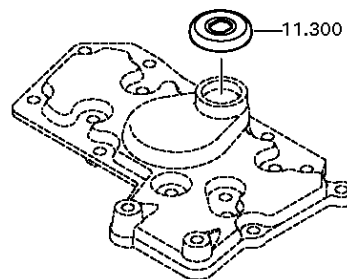
Material number: 1356.002.122

Plant: 068.10.92-1

Material-assembly-group-no: 1341.111.803



16 S 2230 TO /
SELECTOR LEVER



Parts list

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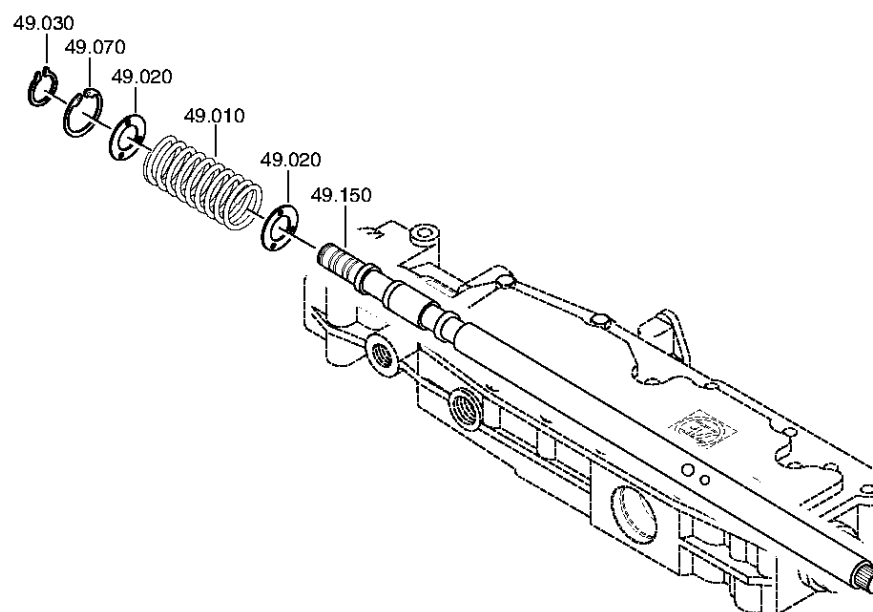
Material number: 1356.002.122

Plant: 068.10.92-1

Material-assembly-group-no: 1341.111.803

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
300	---		PROTECTION CAP	1		Z00030698111			
---	0501.324.645		PROTECTION CAP	1		Z00030698110			
---	1307.307.052		PROTECTION CAP	1		Z00030698110			
---	0501.330.970		PROTECTION CAP	1		Z00030698110	46mmx7mm		



Parts list

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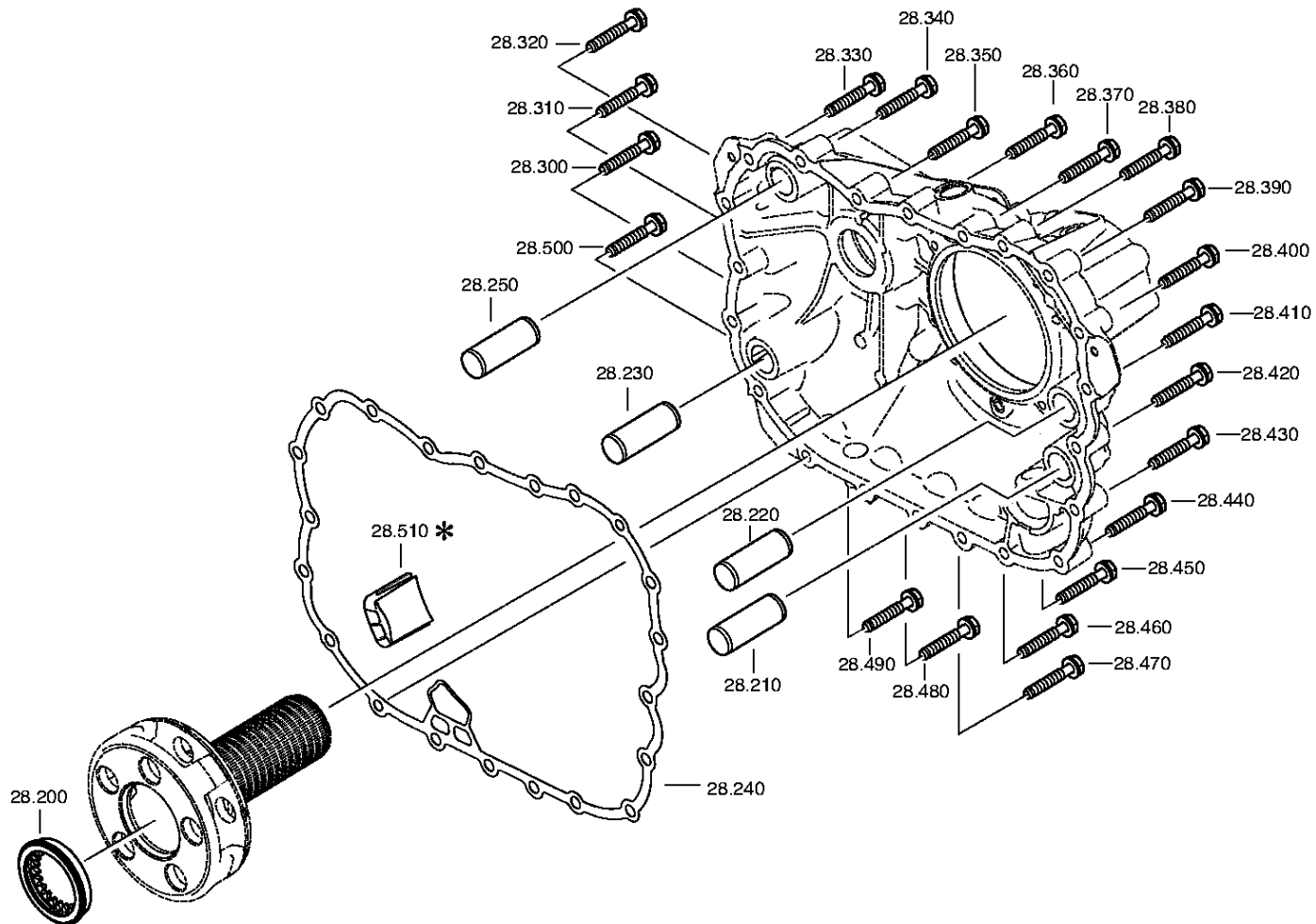
Material number: 1356.002.122

Plant: 068.12.08-1

Material-assembly-group-no: 1316.149.478

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0732.040.630		COMPRESSION SPRING	1					
20	0730.301.376		WASHER	2					
30	0630.532.138		V-RING	1					
70	0630.502.022		RETAINING RING	1			40X1,75		
150	1315.307.517		GEARSHIFT SHAFT	1					



Parts list

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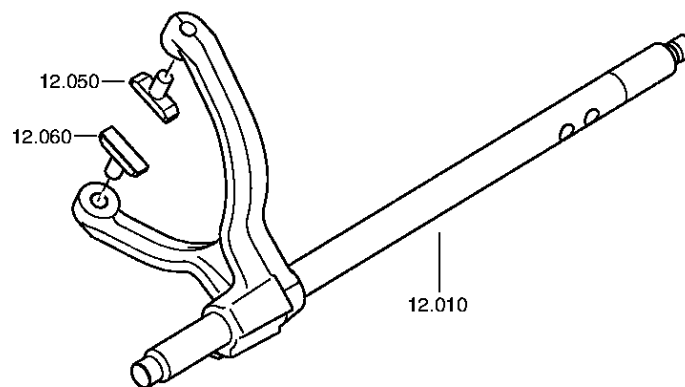
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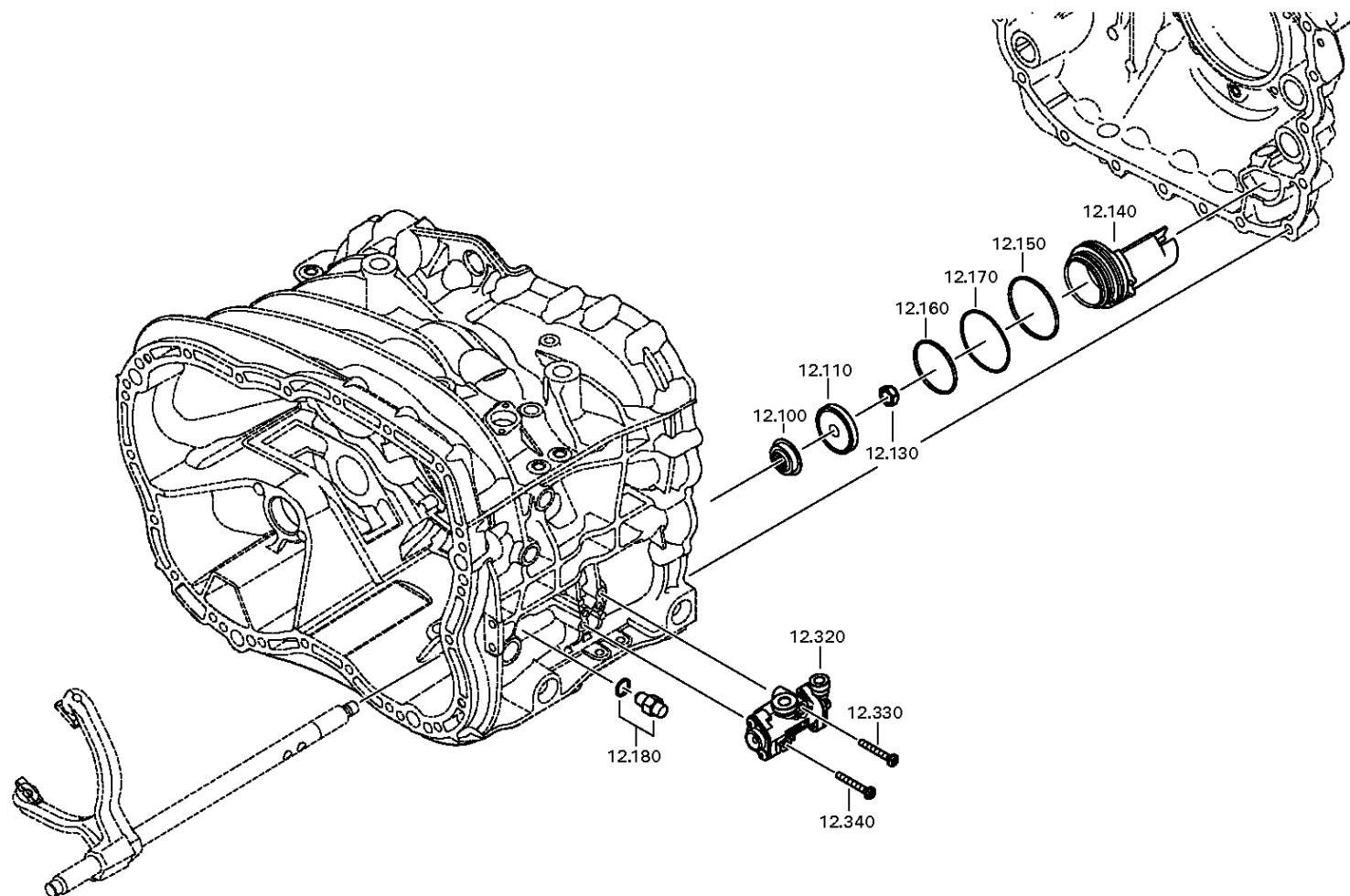
Plant: 161.28.01-1

Material-assembly-group-no: 1325.128.806

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
200	1315.332.073		PRESSURE DISK	1		Z00033223510			
210	0731.300.002		CYLINDRICAL PIN	1					
220	0731.300.002		CYLINDRICAL PIN	1					
230	0731.300.002		CYLINDRICAL PIN	1					
240	0501.323.705		GASKET	1					
250	0731.300.002		CYLINDRICAL PIN	1					
300	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
310	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
320	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
330	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
340	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
350	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
360	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
370	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
380	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
390	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
400	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
410	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
420	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
430	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
440	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
450	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
460	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
470	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
480	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
490	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
500	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		





Parts list

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Material number: 1356.002.122

Plant: 161.40.01-1

Material-assembly-group-no: 1356.112.001

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.212.002		GEAR SHIFT RAIL	1			KPL.GV*E32 LANG*16 GANG		
50	1316.306.015		SLIDING PAD	1					
60	1316.306.015		SLIDING PAD	1					
100	0750.112.131		FLANGE PACKING	1			25X40X15		
110	0501.324.670		PISTON	1					
130	0737.300.037		LOCKING NUT	1			MS16X1,5		
140	1325.312.012		CYLINDER	1					
150	---		O-RING	1			ZFF*LOKAL HNG		
---	0634.313.018		O-RING	1			82X3		
---	0501.331.849		O-RING	1			82X3		
160	---		O-RING	1			ZFF*LOKAL HNG		
---	0634.313.320		O-RING	1			67X3		
---	0501.331.850		O-RING	1			67X3		
170	1315.312.034		SPRING	1					
180	---		DETENT PLUNGER	1			235N*50N.M		
---	1324.207.033		DETENT PLUNGER	1			KPL. *235 N		
---	0730.008.604		SEALING RING	1		C01009860C10			
320	0501.219.848		5/2 WAY VALVE	1		Z00035060612	SPLITGRUPPENVENTIL VERSION B 96,1mmx49,8mm		
330	0736.300.659		TORX SCREW	1		Z00035060612	M6X45		
340	0736.300.659		TORX SCREW	1		Z00035060612	M6X45		

Plant

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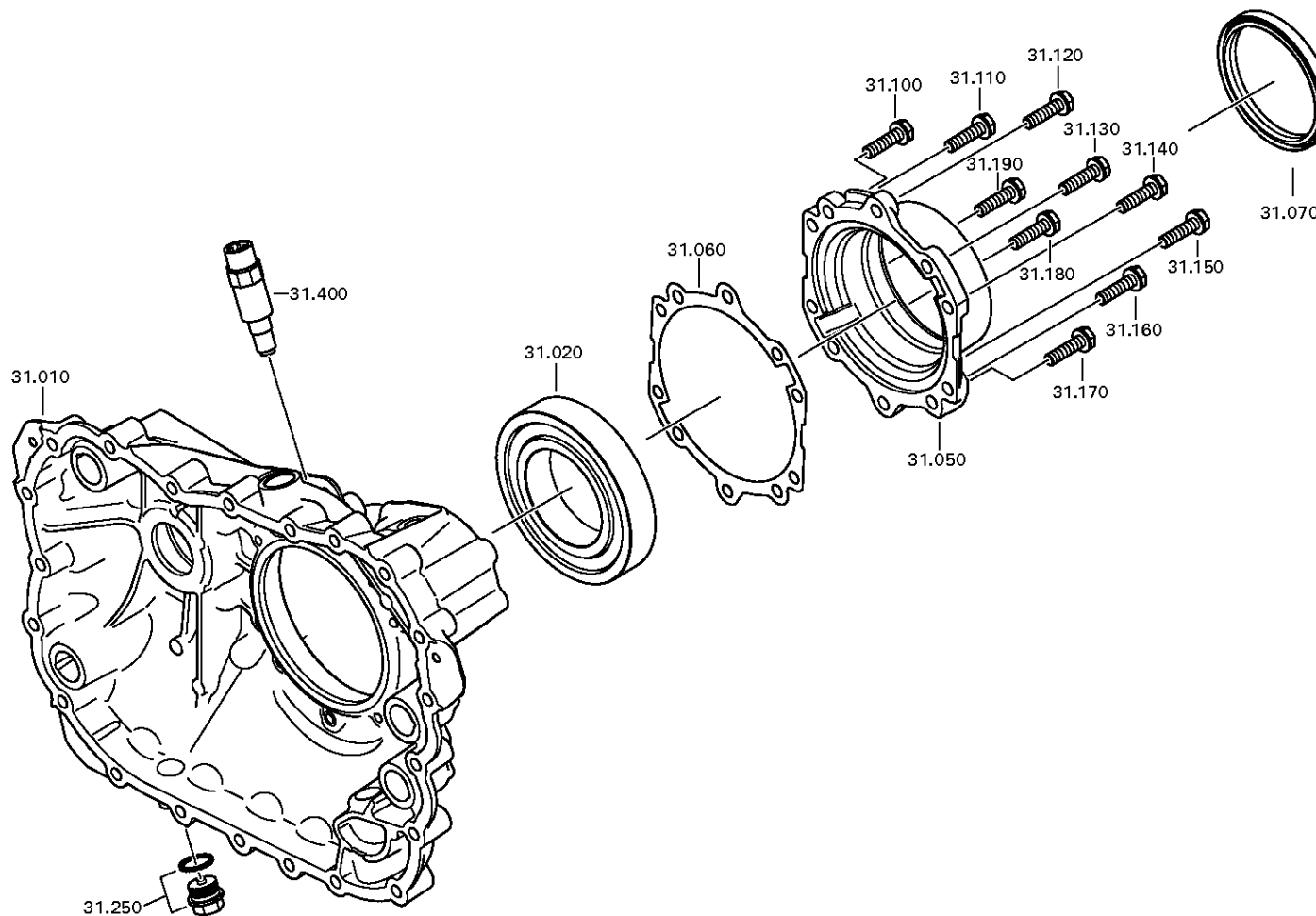
Material number: 1356.002.122

Plant: 161.43.01-1

RC HOUSING



16 S 2230 TO /
RC HOUSING



Plant

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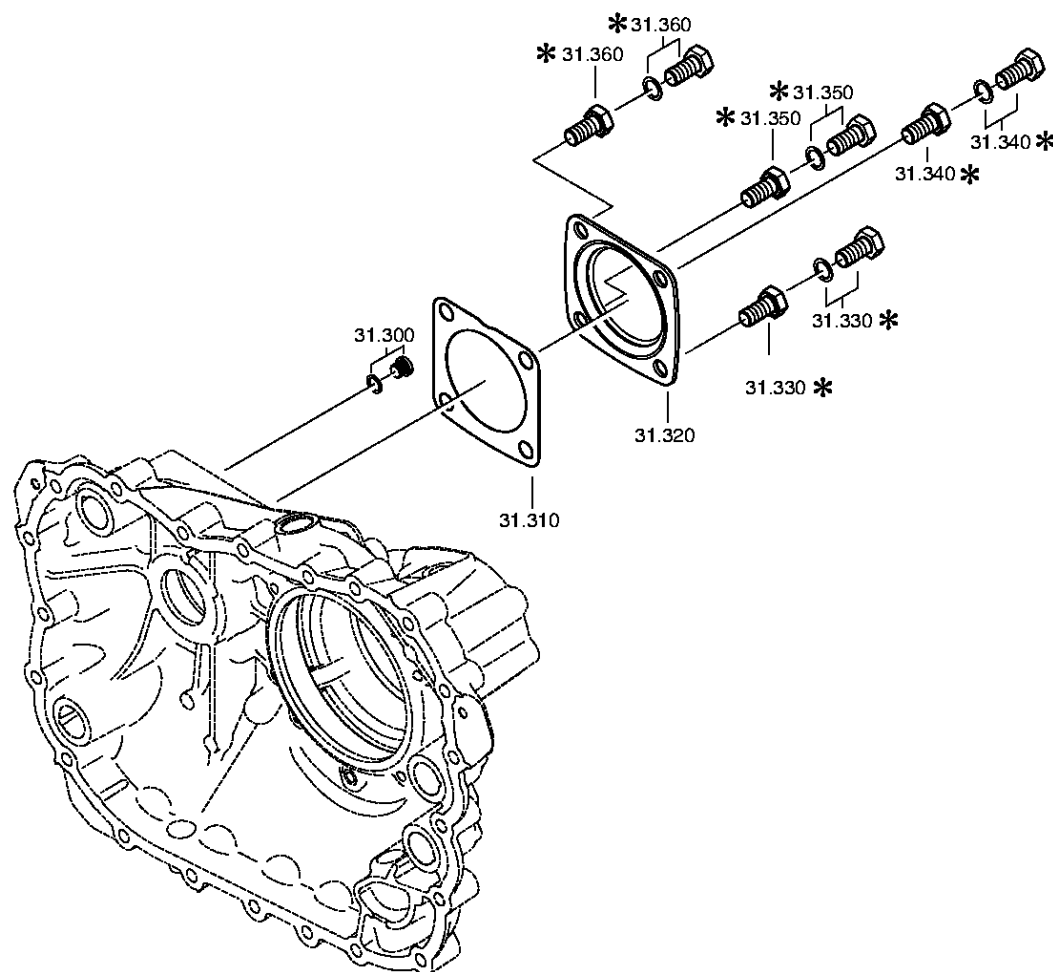
Material number: 1356.002.122

Plant: 161.43.40-1

RC HOUSING



16 S 2230 TO /
RC HOUSING



Parts list

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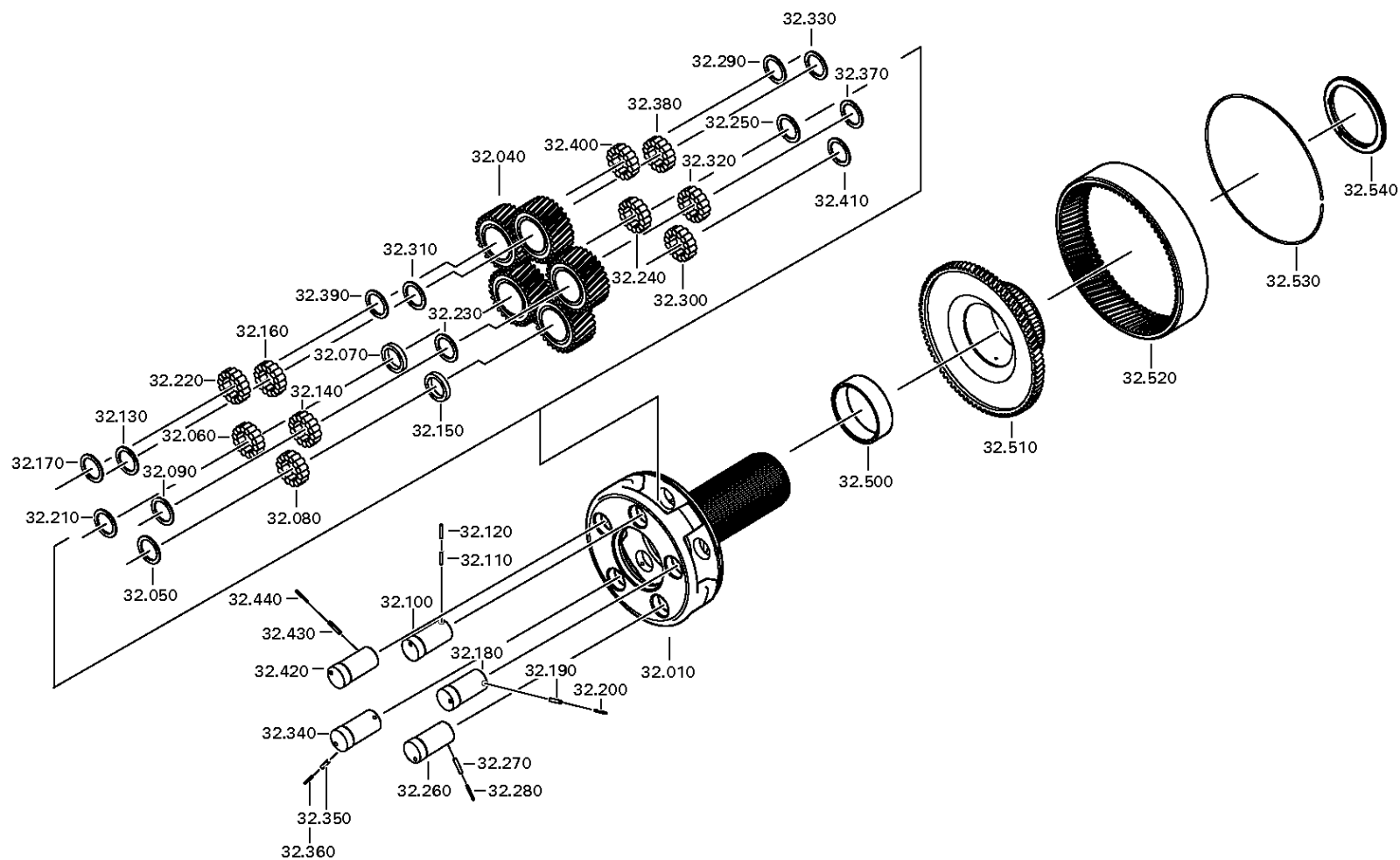
Material number: 1356.002.122

Plant: 161.43.01-1

Material-assembly-group-no: 1325.131.024

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.301.065		TRANSMISSION HOUSING	1					
20	0750.116.394		BALL BEARING	1		Z00039152310	90,0X160,0X30,0		
50	1325.331.001		COVER	1					
60	0501.331.906		GASKET	1					
70	---		SHAFT SEAL	1					
---	---		SHAFT SEAL	1			WTB 105X125X12/16		
---	0734.300.421		SHAFT SEAL	1			105,0X125,0X12,0/16,0		
---	0734.300.679		SHAFT SEAL	1			105X125X16		
100	0636.100.433		HEXAGON SCREW	1			M10X40		
110	0636.100.433		HEXAGON SCREW	1			M10X40		
120	0636.100.433		HEXAGON SCREW	1			M10X40		
130	0636.100.433		HEXAGON SCREW	1			M10X40		
140	0636.100.433		HEXAGON SCREW	1			M10X40		
150	0636.100.433		HEXAGON SCREW	1			M10X40		
160	0636.100.433		HEXAGON SCREW	1			M10X40		
170	0636.100.433		HEXAGON SCREW	1			M10X40		
180	0636.100.433		HEXAGON SCREW	1			M10X40		
190	0636.100.433		HEXAGON SCREW	1			M10X40		
250	---		SCREW PLUG	1			M24X1,5		
---	0736.300.160		SCREW PLUG	1		Z00010176110	M24X1,5 M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010176110	24X29		
300	---		SCREW PLUG	1		C01004359F10	15N.M*DICHTRING M10X1		
---	0636.100.793		SCREW PLUG	1		Z00010111613	M10X1		
---	0730.008.055		SEALING RING	1			10X14		
310	1238.308.201		GASKET	1			ENTHALT.IN 1238 308 202(2)		
320	1328.301.170		COVER	1		Z00008068010			
330	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
340	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
350	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
360	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
400	---		PULSE SENSOR	1			35N.M*O.DICHTRING*BAJONETT*L=35,0		
---	0501.210.857		PULSE SENSOR	1		Z00008965210			



Plant

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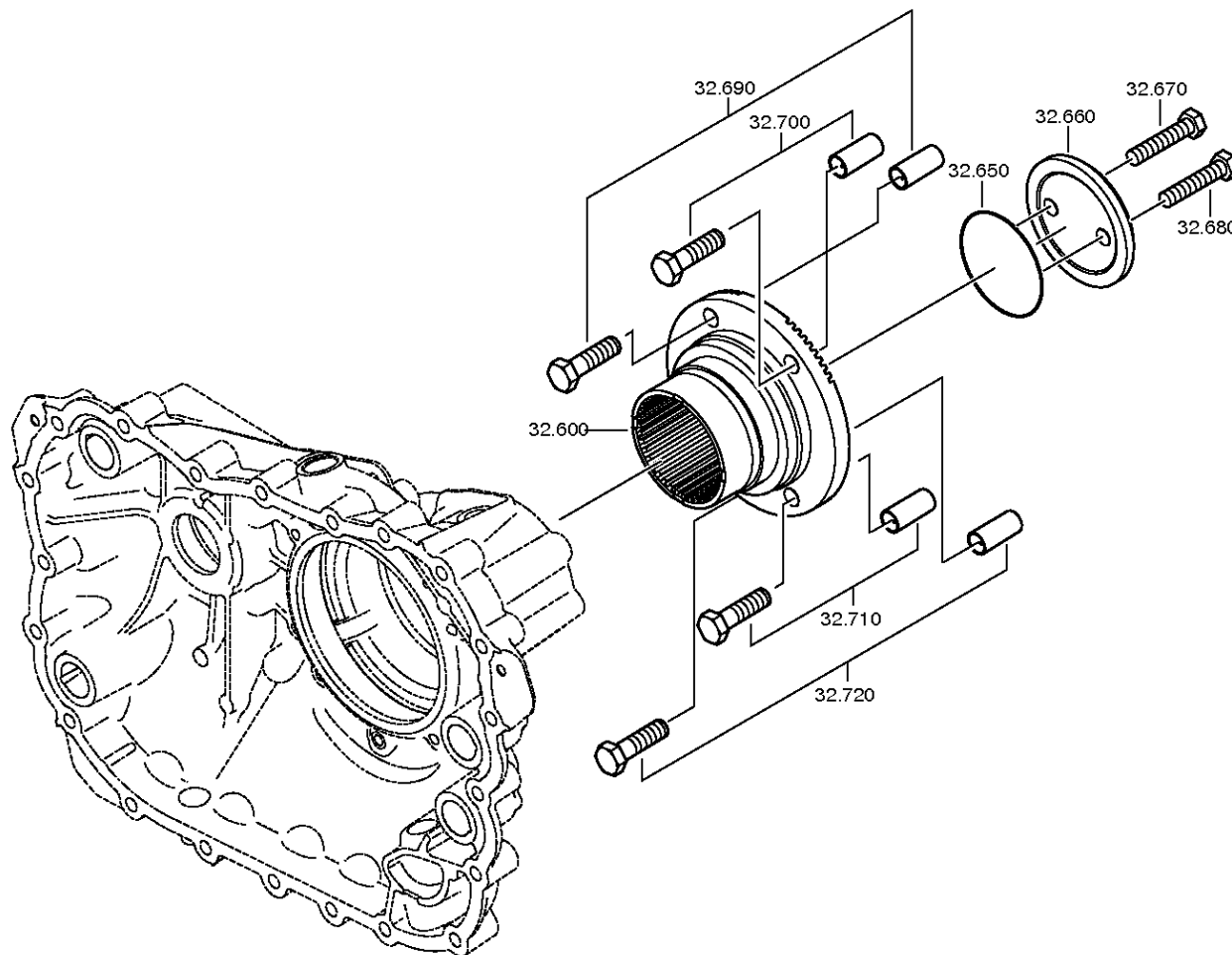
Material number: 1356.002.122

Plant: 161.44.41-1

PLANETARY DRIVE



16 S 2230 TO /
PLANETARY DRIVE



Parts list

Page 1 from 2



Material number: 1356.002.122

Plant: 161.44.04-1

Material-assembly-group-no: 1325.132.005

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.232.039		PLANET CARRIER	1					
40	1316.232.011		PLANET GEAR SET	1			KPL.		
50	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
60	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
70	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
80	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
90	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
100	1316.332.140		PLANET SHAFT	1					
110	0631.329.147		SLOTTED PIN	1			6X26		
120	0631.329.261		SLOTTED PIN	1			3,5X26		
130	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
140	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
150	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
160	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
170	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
180	1316.332.140		PLANET SHAFT	1					
190	0631.329.147		SLOTTED PIN	1			6X26		
200	0631.329.261		SLOTTED PIN	1			3,5X26		
210	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
220	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
230	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
240	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
250	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
260	1316.332.140		PLANET SHAFT	1					
270	0631.329.147		SLOTTED PIN	1			6X26		
280	0631.329.261		SLOTTED PIN	1			3,5X26		
290	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
300	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
310	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
320	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
330	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
340	1316.332.140		PLANET SHAFT	1					
350	0631.329.147		SLOTTED PIN	1			6X26		
360	0631.329.261		SLOTTED PIN	1			3,5X26		

Parts list

Page 2 from 2



Material number: 1356.002.122

Plant: 161.44.04-1

Material-assembly-group-no: 1325.132.005

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
370	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
380	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
390	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
400	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
410	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
420	1316.332.140		PLANET SHAFT	1					
430	0631.329.147		SLOTTED PIN	1			6X26		
440	0631.329.261		SLOTTED PIN	1			3,5X26		
500	1325.332.011		BUSH	1					
510	1316.332.130		RING GEAR CARRIER	1					
520	1315.332.041		RING GEAR	1			IN 1316 332 055(1)		
530	0730.513.583		LOCKING WIRE	1			A=3,20 IN 0730 505 052(2)		
540	0735.298.169		AXIAL NEEDLE BEARING	1			103,3X128,4X10,0		
600	1325.332.036		OUTPUT FLANGE	1					
650	---		O-RING	1			ZFF*LOKAL HNG		
---	0634.313.805		O-RING	1			82X4		
---	0501.331.852		O-RING	1			82X4		
660	1312.332.028		WASHER	1					
670	0636.011.777		HEXAGON SCREW	1			M12X60		
680	0636.011.777		HEXAGON SCREW	1			M12X60		
690	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
700	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
710	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
720	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					

Plant

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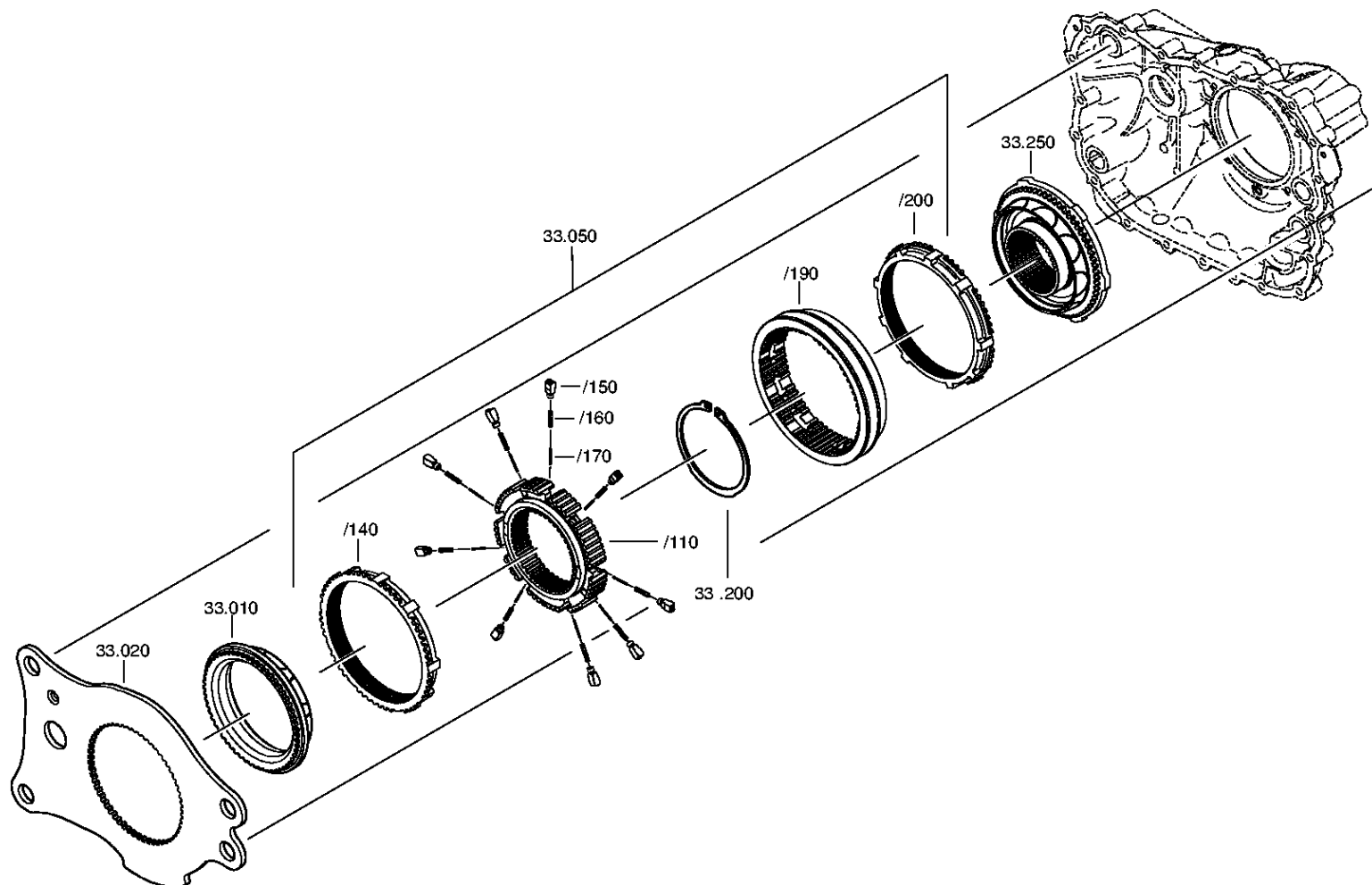
Material number: 1356.002.122

Plant: 161.45.01-1

Material-assembly-group-no: 1325.133.006



16 S 2230 TO /
SYNCHRONIZER



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.45.01-1

Material-assembly-group-no: 1325.133.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1296.333.050		CLUTCH BODY	1			ENTHALT.IN 1296.333.053(1)		
20	1325.333.016		PLATE	1					
50	1325.233.016		SYNCHRONIZER	1			KPL.GP*DRUCKGUSS*LOKAL		
/110	1313.333.001		SYNCHRO.BODY	1			ENTHALT.IN 1296 333 014(1)		
/140	---		SYNCHRO.RING	1			ZFF*LOKAL HNG		
---	1296.333.044		SYNCHRO.RING	1					
---	1296.333.045		SYNCHRO.RING	1					
---	1297.333.137		SYNCHRO.RING	1			ZF-BK165/74		
/150	1240.304.278		PRESSURE PART	9					
/160	0732.040.385		COMPRESSION SPRING	9					
/170	0732.040.386		COMPRESSION SPRING	9					
/190	1325.333.018		SLIDING SLEEVE	1					
/200	---		SYNCHRO.RING	1			ZFF*LOKAL HNG		
---	1296.333.044		SYNCHRO.RING	1					
---	1296.333.045		SYNCHRO.RING	1					
---	1297.333.137		SYNCHRO.RING	1			ZF-BK165/74		
200	0630.501.175		RETAINING RING	1			125X3,7		
250	1325.233.007		CLUTCH BODY	1			KPL.		

Plant

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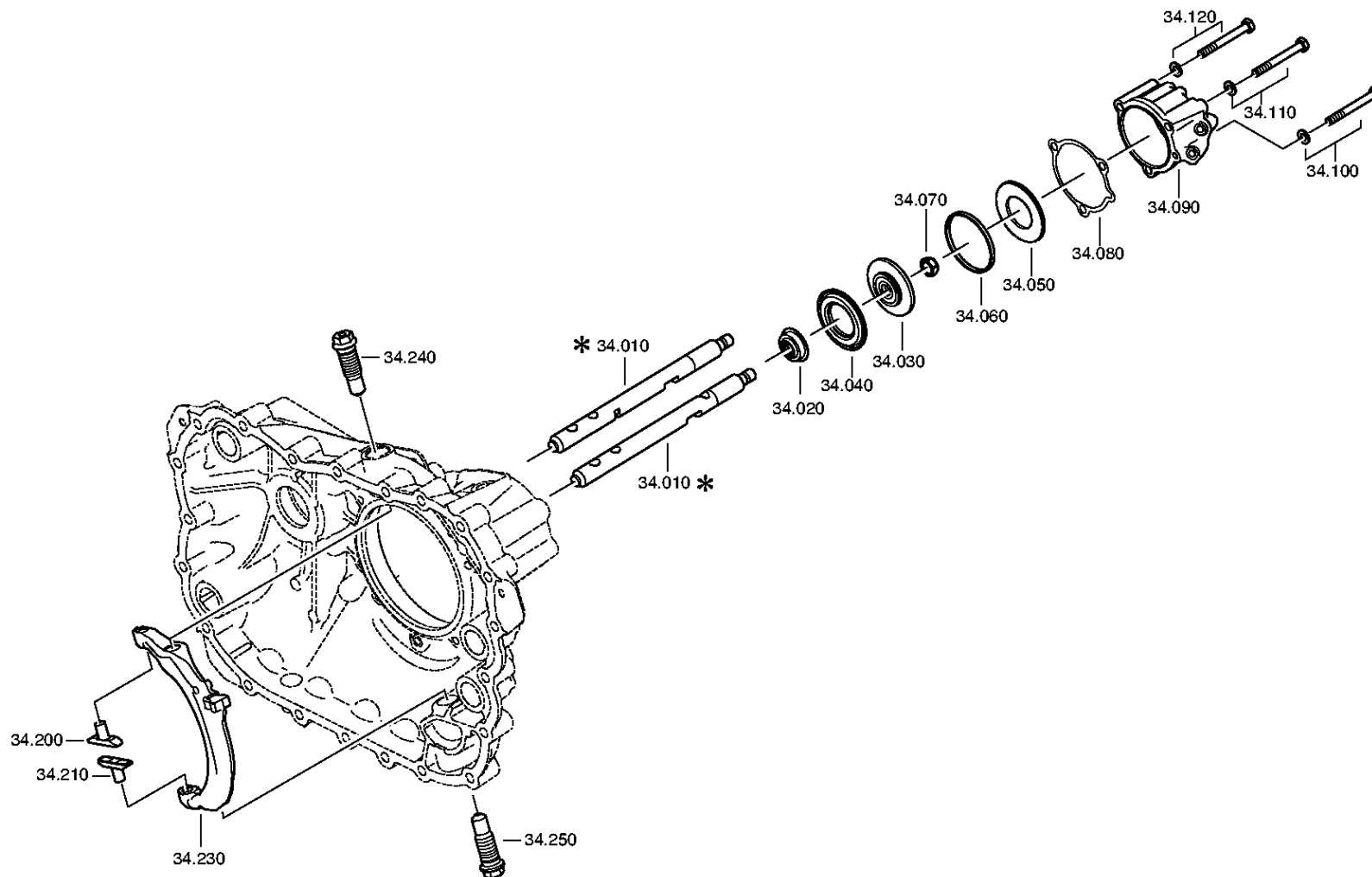
Material number: 1356.002.122

Plant: 161.46.01-1

GP SHIFT SYSTEM



16 S 2230 TO /
GP SHIFT SYSTEM



Plant

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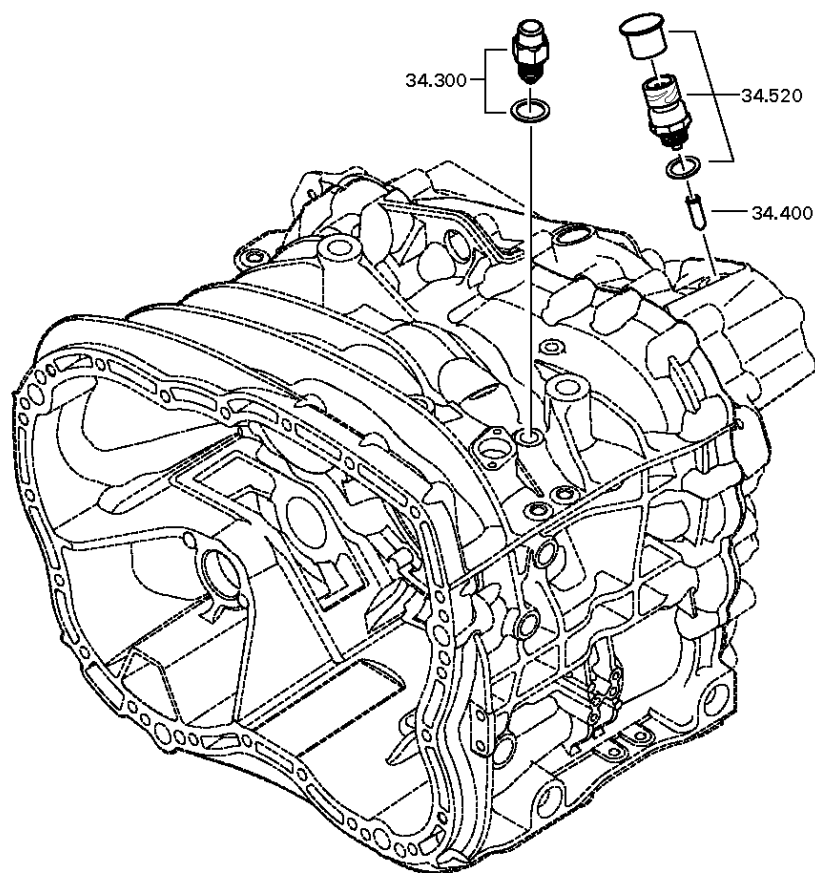
Material number: 1356.002.122

Plant: 161.46.40-1

GP SHIFT SYSTEM



16 S 2230 TO /
GP SHIFT SYSTEM



Parts list

Page 1 from 2



Material number: 1356.002.122

Plant: 161.46.01-1

Material-assembly-group-no: 1325.134.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.334.017		GEAR SHIFT RAIL	1					
20	0750.112.253		FLANGE PACKING	1			25X40X15		
30	---		PISTON	1			GP		
---	1315.334.034		PISTON	1			ENTHALT.IN 1315 334 040(2)		
---	1315.334.063		PISTON	1					
40	0734.307.294		SEALING RING	1			49X91X7,4 FA.KACO		
50	0734.307.294		SEALING RING	1			49X91X7,4 FA.KACO		
60	0750.112.066		GUIDE RING	1					
70	0737.300.037		LOCKING NUT	1			MS16X1,5		
80	0501.322.778		GASKET	1					
90	1325.334.013		CYLINDER	1			GP		
100	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
110	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
120	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
200	1325.334.008		SLIDING PAD	1			GP		
210	1325.334.008		SLIDING PAD	1			GP		
230	1325.334.007		GEARSHIFT FORK	1			GP		
240	---		SWIVEL SCREW	1			O.SCHEIBE*ZF KAMA		
---	---		SWIVEL SCREW	1		Z00015655010	WTB*ZF KAMA M24X1,5		
---	1324.334.008		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
---	1315.334.074		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
250	---		SWIVEL SCREW	1			O.SCHEIBE*ZF KAMA		
---	---		SWIVEL SCREW	1		Z00015655010	WTB*ZF KAMA M24X1,5		
---	1324.334.008		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
---	1315.334.074		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
300	---		DETENT PLUNGER	1			145N*50N.M		
---	1324.207.035		DETENT PLUNGER	1			KPL. *145 N		
---	0730.008.604		SEALING RING	1					

Parts list

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Material number: 1356.002.122

Plant: 161.46.01-1

Material-assembly-group-no: 1325.134.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
400	1295.212.006		PIN	1			KPL.		
520	---		SWITCH	1		Z00025033610	SCHL*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.331.660		SWITCH	1		Z00025033617			
---	0634.801.062		SEALING RING	1		Z00025033617	18X24		
---	0700.300.427		PROTECTION CAP	1		Z00025033617			

Plant

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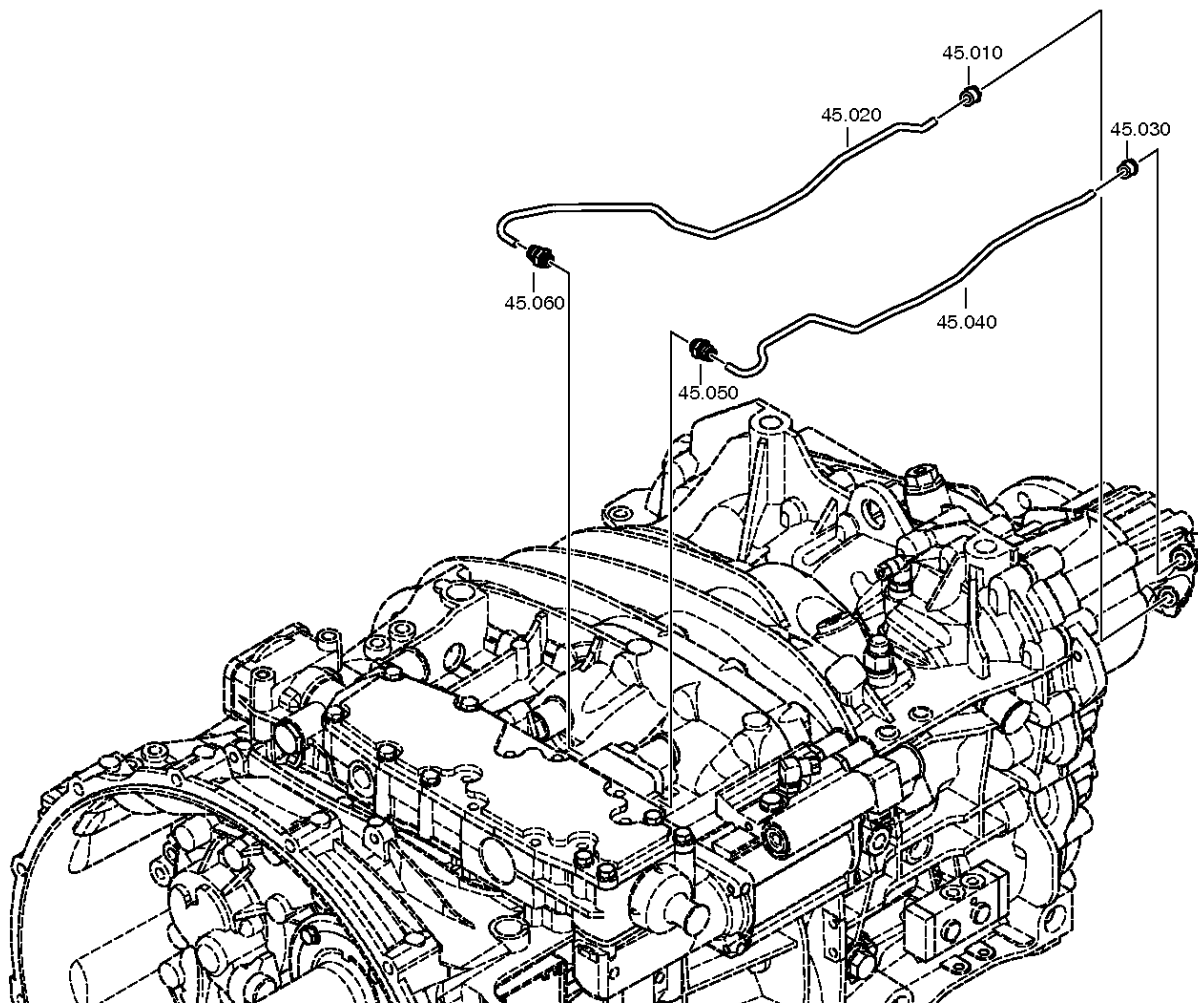
Material number: 1356.002.122

Plant: 161.57.04-1

Material-assembly-group-no: 1325.145.007



16 S 2230 TO /
RANGE SELECTION



Parts list

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Material number: 1356.002.122

Plant: 161.57.04-1

Material-assembly-group-no: 1325.145.007

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0501.324.029		PLUG-IN COUPLING	1					
20	1325.345.009		TUBE	1			H-H		
30	0501.324.029		PLUG-IN COUPLING	1					
40	1325.345.008		TUBE	1			E13MP		
50	0501.326.099		PLUG-IN COUPLING	1			M14X1,5 ROHR 8MM		
60	0501.326.099		PLUG-IN COUPLING	1			M14X1,5 ROHR 8MM		

Plant

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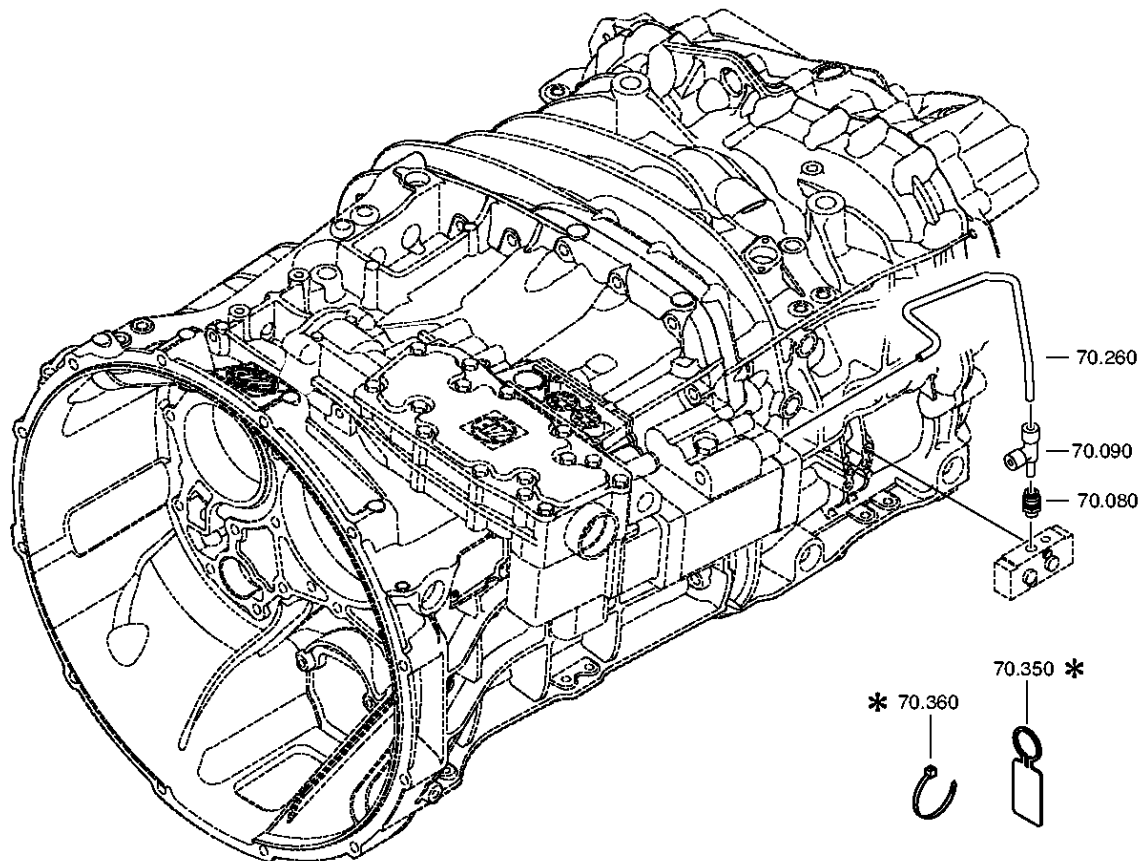
Material number: 1356.002.122

Plant: 161.70.05-1

Material-assembly-group-no: 1356.170.003



16 S 2230 TO /
SHUT-OFF VALVE



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.70.05-1

Material-assembly-group-no: 1356.170.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
80	0501.324.477		PLUG-IN COUPLING	1			M12X1,5 ROHR 8MM		
90	0501.324.457		PLUG-IN COUPLING	1					
260	1325.345.039		TUBE	1		Z00007299711	8X1 ZWISCHEN DBV UND GV		

Plant

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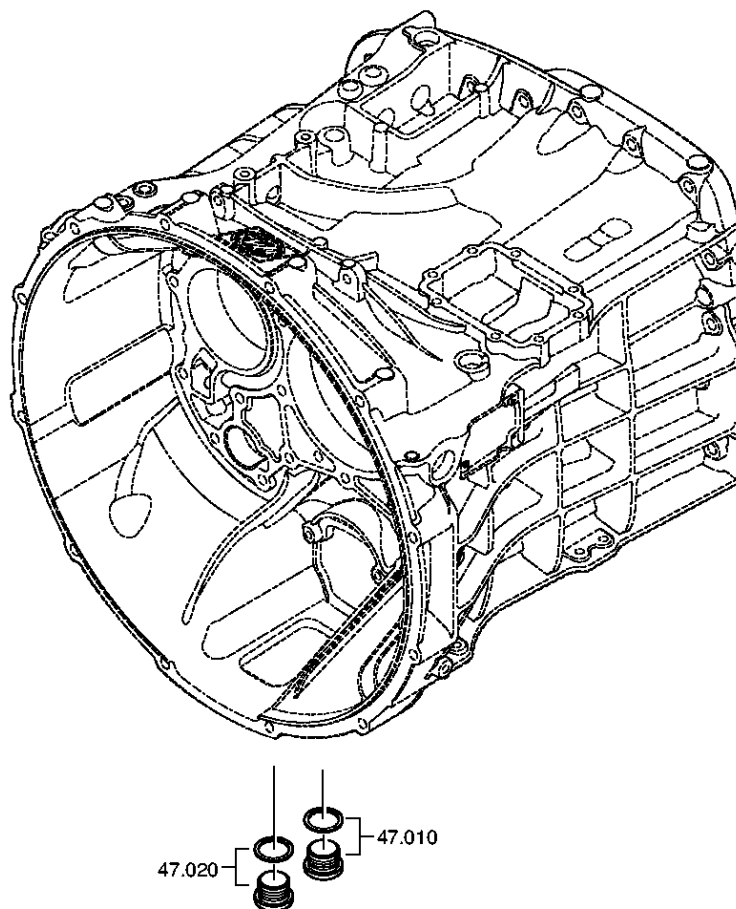
Material number: 1356.002.122

Plant: 161.90.08

Material-assembly-group-no: 1325.147.009



16 S 2230 TO /
SCREW PLUG



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.90.08

Material-assembly-group-no: 1325.147.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	---		SCREW PLUG	1		Z00010164013	50N.M*DICHTRING M22X1,5		
---	0636.100.824		SCREW PLUG	1		Z00010164019	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010164019	A22X27		
20	---		SCREW PLUG	1		Z00010164013	50N.M*DICHTRING M22X1,5		
---	0636.100.824		SCREW PLUG	1		Z00010164019	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010164019	A22X27		

Plant

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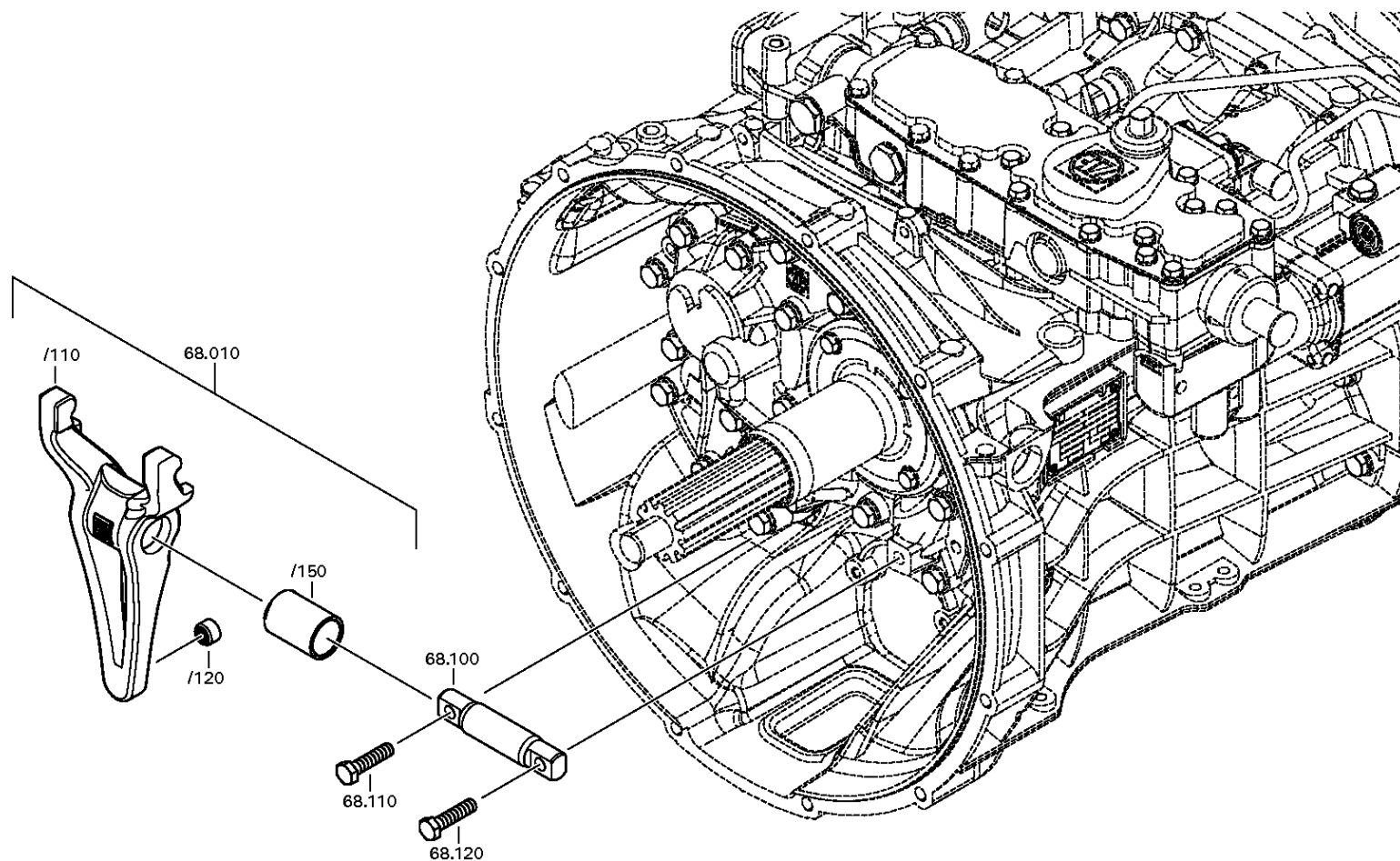
Material number: 1356.002.122

Plant: 161.93.76-1

CLUTCH RELEASE DEVICE



16 S 2230 TO /
CLUTCH RELEASE DEVICE



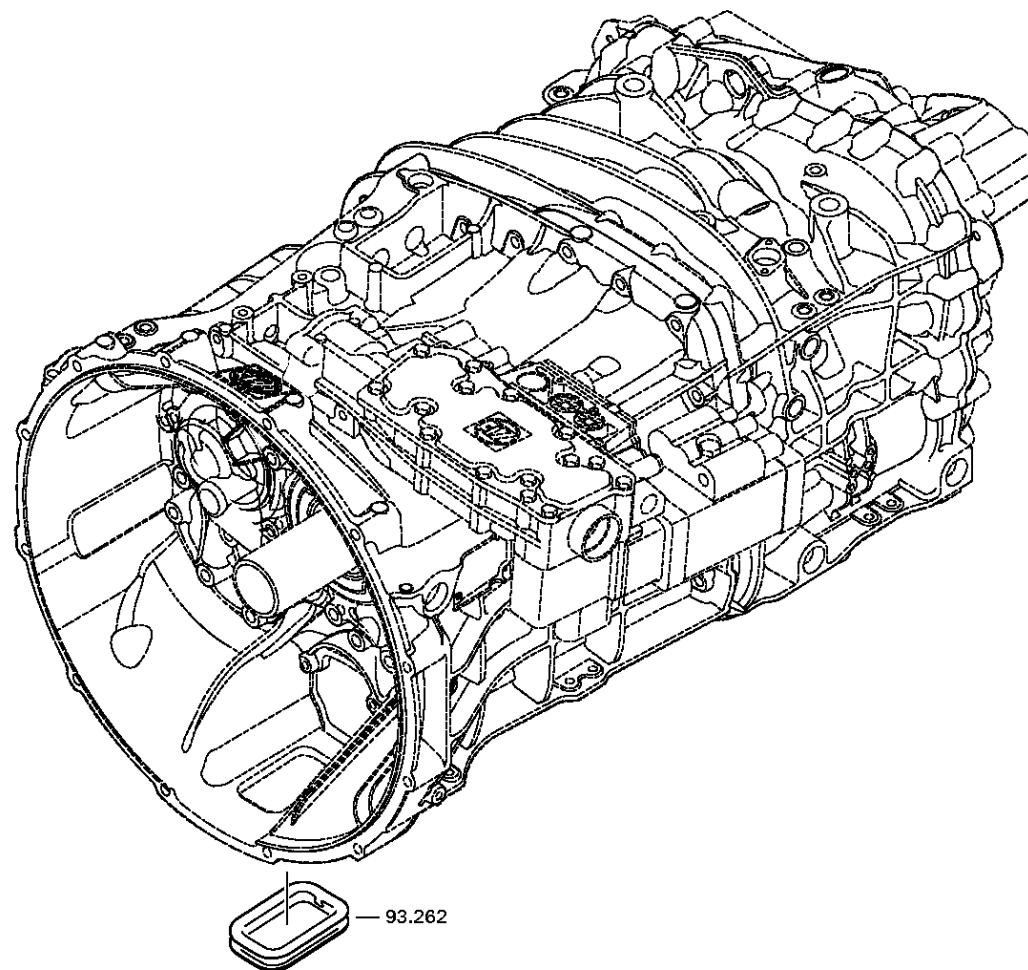
Material number: 1356.002.122

Plant: 161.93.17-1

CLUTCH RELEASE DEVICE



16 S 2230 TO /
CLUTCH RELEASE DEVICE



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.93.76-1

Material-assembly-group-no: 1325.168.011

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.268.009		RELEASE FORK	1			KPL*GABELWEITE 94,0*KUGEL D=12*I=1,76*OHNE ROLLE*1-SK*LOKAL		
/110	---		RELEASE FORK	1			ZFF*LOKAL HNG		
---	1325.368.007		RELEASE FORK	1					
/120	0501.315.159		BALL CUP	1			KS12-18-12		
/150	0501.323.199		BEARING BUSH	1			30x37x50		
100	1325.368.008		RELEASE SHAFT	1			A=119,8mm		
110	0636.016.416		HEXAGON SCREW	1			M12X50		
120	0636.016.416		HEXAGON SCREW	1			M12X50		
262	1315.301.230		PROTECTION CAP	1					



Pos.	Information	Amendment number
001	Use case -----	
002	Customer ZF Drivtech Co., Ltd.	
003	City Hangzhou, Zhejiang	
004	DUNS 54-526-6199	
005	Use case -----	
006	Customer China National Heavy Duty Truck	
007	City Jinan	
008	DUNS 65-389-6704	
009	Product description -----	
010	INSTALLATION POS TRANSMISSION HORIZONTAL LEFT	
011	TRANSMISSION ATTACHMENT FLANGE-MOUNTED	
019	NUMBER OF GEARS 16	
020	RATIO, BOTTOM GEAR 13.8	
021	RATIO, TOP GEAR .84	
022	SET OF RATIOS SG	
023	NOTE ON TYPE OF GEAR SHIFT SYS TURNING SHAFT	
024	POSITION, GEAR SHIFT SYSTEM HORIZONTAL LEFT	
025	DESIGN, SHIFT PATTERN H-H	
026	VERSION SHIFT SUPPORT SERVO	
027	VERSION ACTUATION SHIFT SYSTEM CONTROL CABLE	
029	DESIGN PSE PSE2	
030	DESIGN PSE WITH VALVE PRESSURE RELIEF VALVE 6	
032	MAIN CUTOFF VALVE WITH	
033	NO. TAPPETS MAIN CUTOFF VALVE 2	
034	POS. AIR CON MAIN CUTOFF VALVE F	
036	DESIGN AIR SHUT-OFF GV-VALVE	
037	DIA.THROTTLE VALVE AIR SUPPLY 1.3 mm	
038	SELECTION PATTERN VARIANT GEAR SHIFT PATTERN 1	
039	VERSION OF SYNCHRONIZER 1 1+2 GEAR BK-SYNCHR.MOLYBDAEN	
040	VERSION OF SYNCHRONIZER 2 3+4 GEAR BK-SYNCHR.MOLYBDAEN	
041	REFERENCE LENGTH INPUT SHAFT 117 mm	
042	STANDARD TYPE INPUT SHAFT SAE	
043	NUMBER OF WEDGES INPUT SHAFT 10	



Pos.	Information	Amendment number
044	VERSION OF INPUT SHAFT FORM C	
045	NOMINAL DIAMETER INPUT SHAFT 2 in	
046	DIAMETER, JOURNAL, INPUT SHAFT 25 mm	
047	TYPE FIT SPIGOTS INPUT SHAFT F7	
048	VER. BEAR. SPIGOTS INPUT SHAFT TAPER ROLLER	
051	DESIGN,CONN., CLUTCH HOUSING SAE 1	
052	CENTR.DIA,HSG/ENGINE CONNECT. 511.175 mm	
053	NUMBER OF BORES,ENGINE CONN. 12	
054	BORE DIA, ENGINE CONNECTION 11 mm	
055	DESIGN, RELEASE SHAFT	
056	WIDTH ACROSS FLATS,RELEAS.FORK 94 mm	
059	REF.LENGTH,RELEASE BEAR.FLAN -24.2 mm	
060	DIAMETER, RELEASE FLANGE 62.62 mm	
061	DESIGN RELEASE CYLINDER WITHOUT GROOVE	
062	OUTER DIA. OUTPUT FLANGE RA 180 mm	
064	NO.OF SCREWS OUTPUT FLANGE RA 4	
066	DIA. THREAD OUTPUT FL. SCR. RA M14	
067	THREAD PITCH OUTPUT FL SCR. RA 1.5 mm	
068	THREAD LENGTH OUTP.FL SCREW RA 50 mm	
070	DIMENSION SHIFT TURRET DIST. 300 mm	
071	MEAS. LOC. SHIFT TURRET DIST. SHIFT LEVER-LOCATION	
072	SELECTOR LEVER n	
077	SHIFT LEVER n	
081	SHIFT LEVER CONNECTION KNURLING	
088	SPRING ARRANGEMENT Q1	
089	SPRING FORCE DETENT PLUNGER RG 60 N	
092	SELECTOR SPRING FORCE, OUTSIDE 80 N	
094	HUMP SPRING FORCE, OUTSIDE 120 N	
095	HUMP SPRING FORCE, CENTRE 70 N	
097	SPRING FORCE OUTS. DETENT NEUT 200 N	
099	ALLOCATION DETENT LEVER VER. C	
100	SWITCH, REVERSE GEAR y	
101	DESIGN, RG (REV.GEAR) SWITCH CLOSING	



Pos.	Information	Amendment number
102	DESIGN, CONNECTION, RG SWITCH DIN BAYONET	
103	CODE SWITCH RG A1	
104	PROT.CAP SWITCH, REVERSE GEAR y	
105	SWITCH, NEUTRAL GEAR y	
106	DESIGN,NG(NEUTRAL GEAR)SWITCH OPENING SWITCH	
107	DESIGN, CONNECTION, NG SWITCH DIN BAYONET	
108	CODE SWITCH NG A1	
109	PROT.CAP SWITCH, NEUTRAL GEAR y	
110	PRESSURE SWITCH n	
115	RG-GATE-IDENTIFICATION SWITCH n	
120	SWITCH RG-ENGAGED n	
125	SWITCH GP y	
126	DESIGN, GP SWITCH CLOSING	
127	DESIGN, CONNECTION, GP SWITCH DIN BAYONET	
128	CODE SWITCH GP A1	
129	PROTECTING CAP GP SWITCH y	
130	SWITCH GP-END POSITION n	
135	SWITCH GV n	
140	SWITCH HG n	
145	SWITCH 1 GEAR n	
150	ATTACHM.POS.HEAT EXCHANGER IN FRONT RIGHT	
151	DES.CONN.HEAT EXCHANGER PREPARED	
152	VER. TRANSMISSION VENTILATION BREATHER	
159	PULSE SENSOR TRANSMISSION WITH	
160	PULSE RATE PULSE SENS GEARBOX 6 IMP/U	
161	PROT.CAP PULSE SENSOR GEARBOX y	
162	DES.CONN.PULSE SENSOR GEARBOX DIN BAYONET	
169	OIL CAPACITY, GEARBOX 15.5 dm3	
171	OIL GRADE PERMISSIBLE ACC. TO TE-ML02	
172	OIL CLASS FIRST FILLING E	
173	CODING OUTER CONSERVATION KA2	
175	CODING INNER CONSERVATION KI1	
176	CONSERVATION SPECIFICATION ZFN 916	



Pos.	Information	Amendment number
177	COLOR JET BLACK	
178	COLOUR CLASSIFICATION ACC. TO RAL 9005	
179	PAINTING, ZF STANDARD 915 W	

Assembly group overview

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Material number: 1356.002.113

16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
161.01.09-1	110	1356.101.004	TRANSMISSION HOUSING	1		
161.01.81-1	180	1325.101.810	CLUTCH HOUSING	1		
161.02.05-1	10	1356.102.009	INPUT SHAFT	1		
161.02.80-1	240	1325.102.802	CONNECTION PLATE	1		
161.02.01-1	910	1325.102.018	CONNECTION PLATE	1		
068.03.01-1	20	1316.103.013	COUNTERSHAFT	1		
161.04.12-1	30	1356.104.016	MAIN SHAFT	1		
161.05.01-1	130	1325.105.001	RETURN	1		
161.06.04-1	40	1356.106.001	TRANSMISSION SHIFT SYSTEM	1		
161.06.02-1	44	1325.106.803	TRANSMISSION SHIFT SYSTEM	1		
068.07.81-1	460	1316.108.817	GEAR SHIFT HOUSING	1		
068.07.38-1	910	1316.108.075	GEAR SHIFT HOUSING	1		
068.07.25-1	914	1316.108.459	GEARSHIFT SHAFT	1		
068.07.75-1	924	1316.108.070	DETENT	1		
062.08.30-1	954	1316.171.403	END COVER	1		
068.08.45-1	960	1316.171.430	PNEUMATIC SERVO UNIT	1		
068.09.01-1	934	1316.109.052	CONNECTING PARTS	1		
068.09.11-1	940	1316.109.433	CONNECTING PARTS	1		
161.10.04-1	200	1356.110.002	OIL SUPPLY	1		
161.10.01-1	920	1325.110.005	PUMP	1		
068.10.02-1	932	1316.111.011	SELECTOR LEVER	1		
068.10.92-1	466	1341.111.803	SELECTOR LEVER	1		
068.12.08-1	918	1316.149.478	SET OF SPRINGS	1		
161.28.01-1	370	1325.128.806	PLANETARY RANGE	1		
161.40.01-1	50	1356.112.001	GV-SHIFT SYSTEM	1		
161.40.80-1	340	1325.112.812	GV-SHIFT SYSTEM	1		
161.43.01-1	40	1325.131.015	RC HOUSING	1		
161.43.40-1	50	1325.131.400	CLOSING COMPONENTS	1		
161.44.03-1	10	1325.132.003	PLANETARY DRIVE	1		
161.44.41-1	60	1325.132.408	OUTPUT FLANGE	1		
161.45.01-1	20	1325.133.004	SYNCHRONIZER	1		
161.46.01-1	30	1325.134.006	GP SHIFT SYSTEM	1		

Assembly group overview

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Material number: 1356.002.113

16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
161.46.40-1	400	1325.134.404	SWITCH	1		
161.57.04-1	510	1325.145.004	RANGE SELECTION	1		
161.70.05-1	480	1356.170.003	SHUT-OFF VALVE	1		
161.90.08	320	1325.147.009	SCREW PLUG	1		
161.93.76-1	260	1325.168.011	CLUTCH RELEASE DEVICE	1		
161.93.17-1	262	1315.301.230	PROTECTION CAP	1		

Plant

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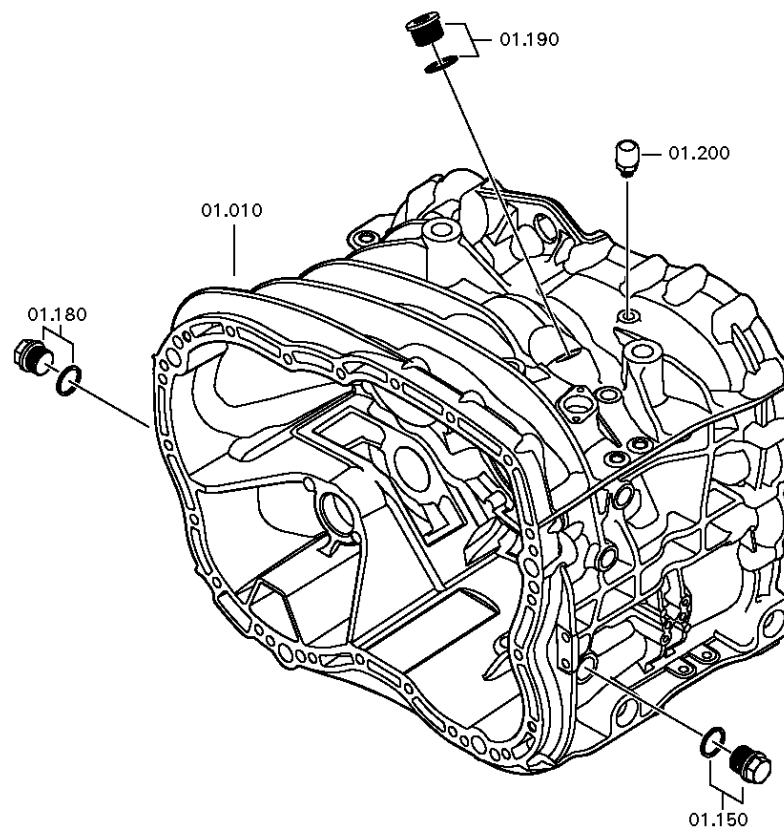
Material number: 1356.002.113

Plant: 161.01.09-1

TRANSMISSION HOUSING



16 S 2230 TO /
TRANSMISSION HOUSING



Plant

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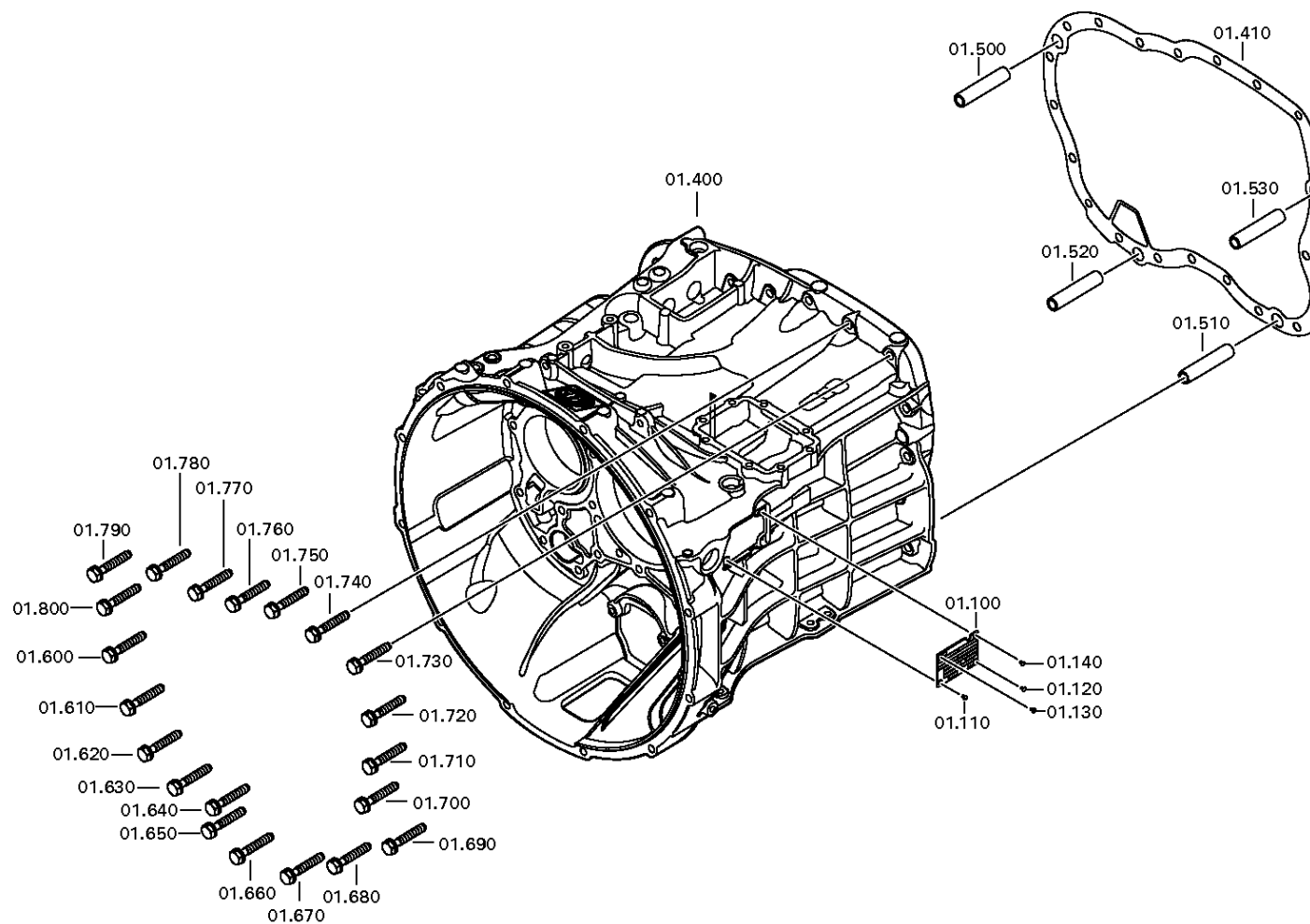
Material number: 1356.002.113

Plant: 161.01.81-1

TRANSMISSION HOUSING



16 S 2230 TO /
TRANSMISSION HOUSING



Parts list

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Material number: 1356.002.113

Plant: 161.01.09-1

Material-assembly-group-no: 1356.101.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.201.031		TRANSMISSION HOUSING	1		Z00008470912	KPL.BEARBEITET*GP-ANZ		
100	---		TYPE PLATE	1			KONZERN		
---	0730.365.241		TYPE PLATE	1			EINHEITSSCH. VERDREHSICHER		
---	0730.365.259		TYPE PLATE	1			EINHEITSSCH.VERDREHSICHER BRASILien		
---	0730.365.267		TYPE PLATE	1			CHINA		
---	0730.300.258		TYPE PLATE	1			EINHEITSSCH.VERDREHSICHER		
---	0730.365.271		TYPE PLATE	1			RUSSLAND/ KYRILLISCH		
---	0730.365.257		TYPE PLATE	1			S.S.CH IRAN		
---	0730.365.800		TYPE PLATE	1		Z00015972510			
---	0730.302.754		TYPE PLATE	1			AUSFUEHRUNG UNIVERSAL		
110	0731.300.027		BLIND RIVET	1		Z00007904810			
120	0731.300.027		BLIND RIVET	1		Z00007904810			
130	0731.300.027		BLIND RIVET	1		Z00007904810			
140	0731.300.027		BLIND RIVET	1		Z00007904810			
150	---		SCREW PLUG	1		Z00010112111	60N.M*DICHTRING M24X1,5		
---	0636.304.088		SCREW PLUG	1		Z00010112110	M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010112110	24X29		
180	---		SCREW PLUG	1		Z00010112111	60N.M*DICHTRING M24X1,5		
---	0636.304.088		SCREW PLUG	1		Z00010112110	M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010112110	24X29		
190	---		SCREW PLUG	1		Z00010164412	70N.M*DICHTRING M26X1,5		
---	0636.100.811		SCREW PLUG	1		Z00010164420	M26X1,5		
---	0634.801.249		SEALING RING	1		Z00010164420	26X31		
200	0501.218.540		BREATHER	1					
400	1325.201.025		CLUTCH HOUSING	1			SAE D=11*ABSTZG.2X D= 9*UNBEARB.SENSOR/GV/M8/ SCHUTZBL/LEITG		
410	0501.322.776		GASKET	1					
500	0731.201.563		CYLINDRICAL PIN	1					
510	0731.201.563		CYLINDRICAL PIN	1					
520	0731.201.563		CYLINDRICAL PIN	1					
530	0731.201.563		CYLINDRICAL PIN	1					
600	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		

Parts list

Page 2 from 2



Material number: 1356.002.113

Plant: 161.01.09-1

Material-assembly-group-no: 1356.101.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
610	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
620	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
630	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
640	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
650	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
660	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
670	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
680	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
690	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
700	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
710	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
720	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
730	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
740	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
750	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
760	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
770	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
780	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
790	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
800	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		

Plant

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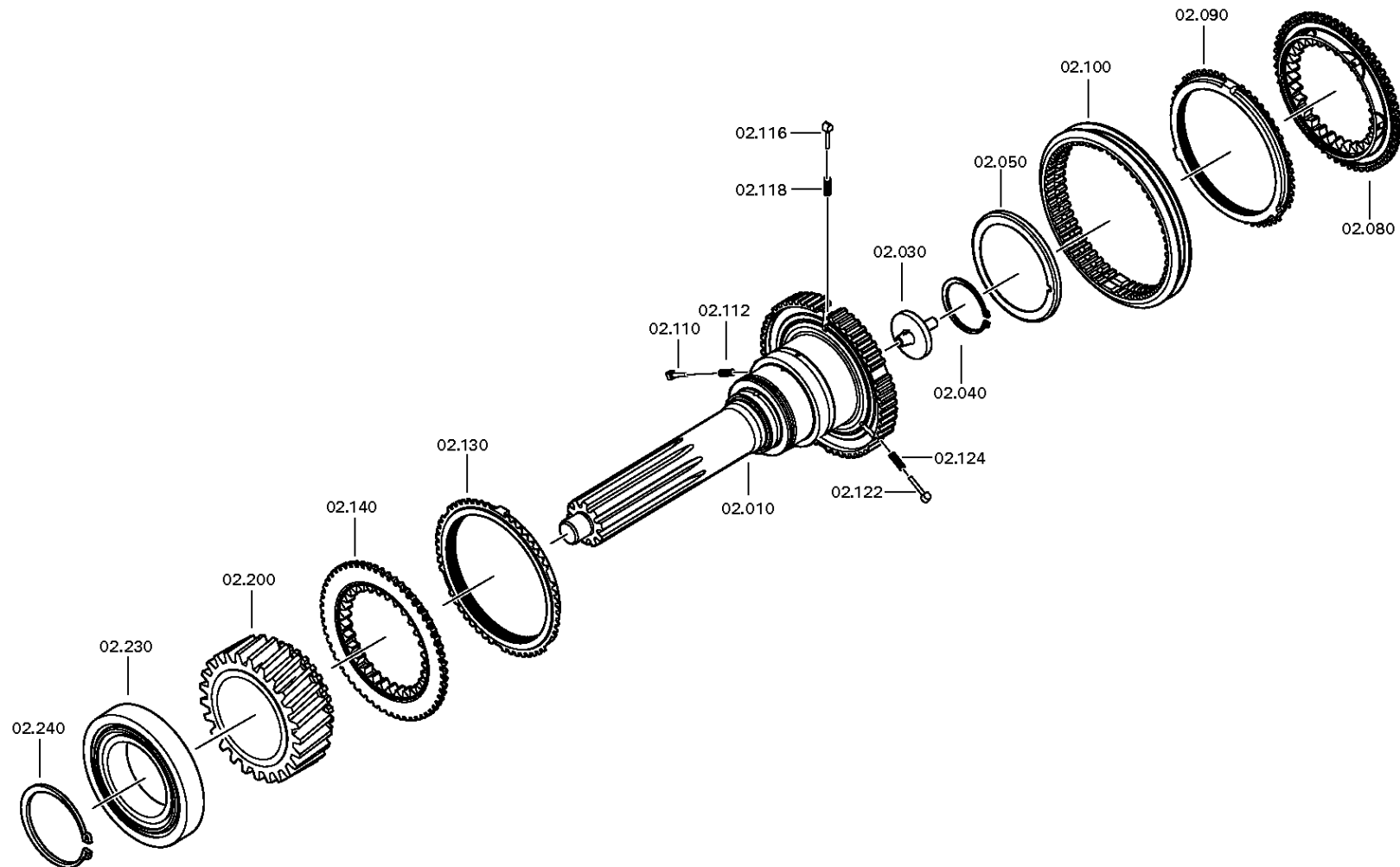
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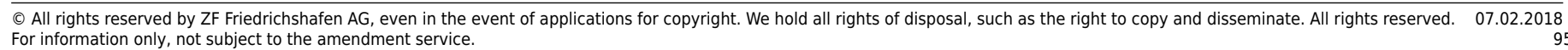
Plant: 161.02.05-1

INPUT SHAFT



16 S 2230 TO /
INPUT SHAFT





Plant

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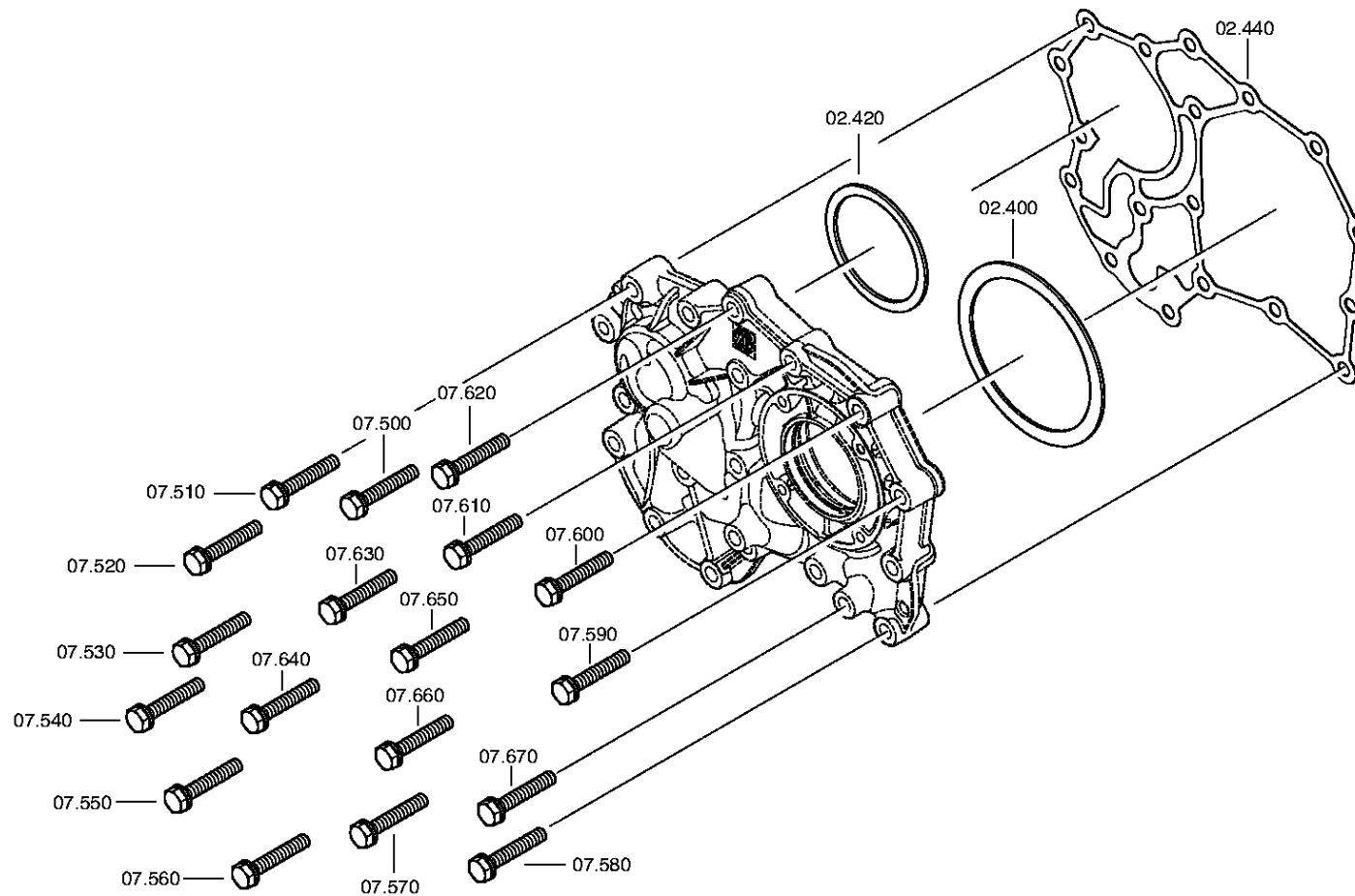
Material number: 1356.002.113

Plant: 161.02.80-1

INPUT SHAFT



16 S 2230 TO /
INPUT SHAFT



Parts list

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Material number: 1356.002.113

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.302.103		INPUT SHAFT	1		Z00011537241			
30	1354.302.019		TUBE	1		Z00003066010			
40	0630.502.027		RETAINING RING	1		Z00003066010	50X2		
50	0750.101.179		OIL DAM	1		Z00007187910	77,0X95,5X6,0		
80	1316.304.190		CLUTCH BODY	1		Z00012049010	ZF-BK 144 O		
90	1316.304.189		SYNCHRO.RING	1		Z00003066010	ZF-BK 144		
100	1356.304.023		SLIDING SLEEVE	1		Z00011717310	ZF-BK 144		
110	1297.304.436		PRESSURE PART	1		Z00003066010			
112	0732.040.409		COMPRESSION SPRING	1		Z00003066010			
116	1297.304.436		PRESSURE PART	1		Z00003066010			
118	0732.040.409		COMPRESSION SPRING	1		Z00003066010			
122	1297.304.436		PRESSURE PART	1		Z00003066010			
124	0732.040.409		COMPRESSION SPRING	1		Z00003066010			
130	1316.304.189		SYNCHRO.RING	1		Z00003066010	ZF-BK 144		
140	1316.304.190		CLUTCH BODY	1		Z00012049010	ZF-BK 144 O		
200	1316.302.067		HELICAL GEAR	1		Z00003066010	Z35 IN 1316 302 026(1)		
230	0750.117.732		TAPERED ROLLER BEARING	1		Z00003066010	85,0X150,0X30,5		
240	0730.501.598		RETAINING RING	1		Z00003066010	85X4		
300	1325.302.055		CONNECTION PLATE	1		Z00013937810			
320	1325.302.029		GUIDE TUBE	1		Z00013937810			
330	---		SHAFT SEAL	1		Z00013937810	55X78X8		
---	0734.310.435		SHAFT SEAL	1			55X78X8 FA.CF 55X78X8		
340	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
350	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
360	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
370	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
400	---		SHIM	1			H= 0,90- 2,40(ABSTUFUNG:0,05MM)		
---	2050.309.094		SHIM	1			A=2,2 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.007.489		SHIM	1			A=2,15 IN 2050 309 090(2)		

Parts list

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Material number: 1356.002.113

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.007.488		SHIM	1			A=2,10 IN 2050 309 090(2)		
---	0730.007.487		SHIM	1			A=2,05 IN 2050 309 090(2)		
---	0730.007.486		SHIM	1			A=2,00 IN 2050 309 090(2)		
---	0730.007.485		SHIM	1			A=1,95 IN 2050 309 090(2)		
---	0730.007.484		SHIM	1			A=1,90 IN 2050 309 090(2)		
---	0730.007.483		SHIM	1			A=1,85 IN 2050 309 090(2)		
---	0730.007.482		SHIM	1			A=1,80 IN 2050 309 090(2)		
---	0730.007.481		SHIM	1			A=1,75 IN 2050 309 090(2)		
---	0730.007.480		SHIM	1			A=1,70 IN 2050 309 090(2)		
---	0730.007.479		SHIM	1			A=1,65 IN 2050 309 090(2)		
---	0730.007.136		SHIM	1			A=1,60 IN 2050 309 090(2)		
---	0730.007.135		SHIM	1			A=1,55 IN 2050 309 090(2)		
---	0730.007.134		SHIM	1			A=1,50 IN 2050 309 090(2)		
---	0730.007.133		SHIM	1			A=1,45 IN 2050 309 090(2)		
---	0730.007.132		SHIM	1			A=1,40 IN 2050 309 090(2)		
---	0730.007.131		SHIM	1			A=1,35 IN 2050 309 090(2)		
---	0730.007.130		SHIM	1			A=1,30 IN 2050 309 090(2)		
---	0730.007.129		SHIM	1			A=1,25 IN 2050 309 090(2)		
---	2050.309.034		SHIM	1			A=1,2 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.007.128		SHIM	1			A=1,15 IN 2050 309 090(2)		
---	0730.007.127		SHIM	1			A=1,10 IN 2050 309 090(2)		
---	0730.007.126		SHIM	1			A=1,05 IN 2050 309 090(2)		
---	2050.309.065		SHIM	1			A=1,0 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.005.749		SHIM	1			A=0,95 IN 2050 309 090(2)		
---	0730.005.748		SHIM	1			A=0,90 IN 2050 309 090(2)		
---	0730.301.503		SHIM	1			h=2,25		
---	0730.301.504		SHIM	1			h=2,30		
---	0730.301.505		SHIM	1			h=2,35		
---	0730.301.506		SHIM	1			h=2,40		
420	---		SHIM	1			H= 1,85- 3,25(ABSTUFUNG:0,05MM)		
---	0730.112.938		SHIM	1		C01007375C10	A=3,25		
---	0730.112.937		SHIM	1		C01007375C10	A=3,20		

Parts list

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Material number: 1356.002.113

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.112.936		SHIM	1		C01007375C10	A=3,15		
---	0730.112.935		SHIM	1		C01007375C10	A=3,10		
---	0730.106.860		SHIM	1		C01007375C10	A=3,05 IN 0730 106 904(2)		
---	0730.106.917		SHIM	1			A=3,00 IN 0730 106 904(2)		
---	0730.106.916		SHIM	1			A=2,95 IN 0730 106 904(2)		
---	0730.106.915		SHIM	1			A=2,90 IN 0730 106 904(2)		
---	0730.106.914		SHIM	1			A=2,85 IN 0730 106 904(2)		
---	0730.106.913		SHIM	1			A=2,80 IN 0730 106 904(2)		
---	0730.106.912		SHIM	1			A=2,75 IN 0730 106 904(2)		
---	0730.106.911		SHIM	1			A=2,70 IN 0730 106 904(2)		
---	0730.106.910		SHIM	1			A=2,65 IN 0730 106 904(2)		
---	0730.106.909		SHIM	1			A=2,60 IN 0730 106 904(2)		
---	0730.106.908		SHIM	1			A=2,55 IN 0730 106 904(2)		
---	0730.100.799		SHIM	1			A=2,50 IN 0730 106 904(2)		
---	0730.100.800		SHIM	1			A=2,45 IN 0730 106 904(2)		
---	0730.100.801		SHIM	1			A=2,40 IN 0730 106 904(2)		
---	0730.100.802		SHIM	1			A=2,35 IN 0730 106 904(2)		
---	0730.100.803		SHIM	1			A=2,30 IN 0730 106 904(2)		
---	0730.101.466		SHIM	1			A=2,25 IN 0730 106 904(2)		
---	0730.101.467		SHIM	1			A=2,20 IN 0730 106 904(2)		
---	0730.101.468		SHIM	1			A=2,15 IN 0730 106 904(2)		
---	0730.101.469		SHIM	1			A=2,10 IN 0730 106 904(2)		
---	0730.101.470		SHIM	1			A=2,05 IN 0730 106 904(2)		
---	0730.101.471		SHIM	1			A=2,00 IN 0730 106 904(2)		
---	0730.106.907		SHIM	1			A=1,95 IN 0730 106 904(2)		
---	0730.106.906		SHIM	1			A=1,90 IN 0730 106 904(2)		
---	0730.106.905		SHIM	1			A=1,85 IN 0730 106 904(2)		
440	0501.324.454		GASKET	1		C01005568F10			
500	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
510	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
520	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
530	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
540	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
550	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		

Parts list

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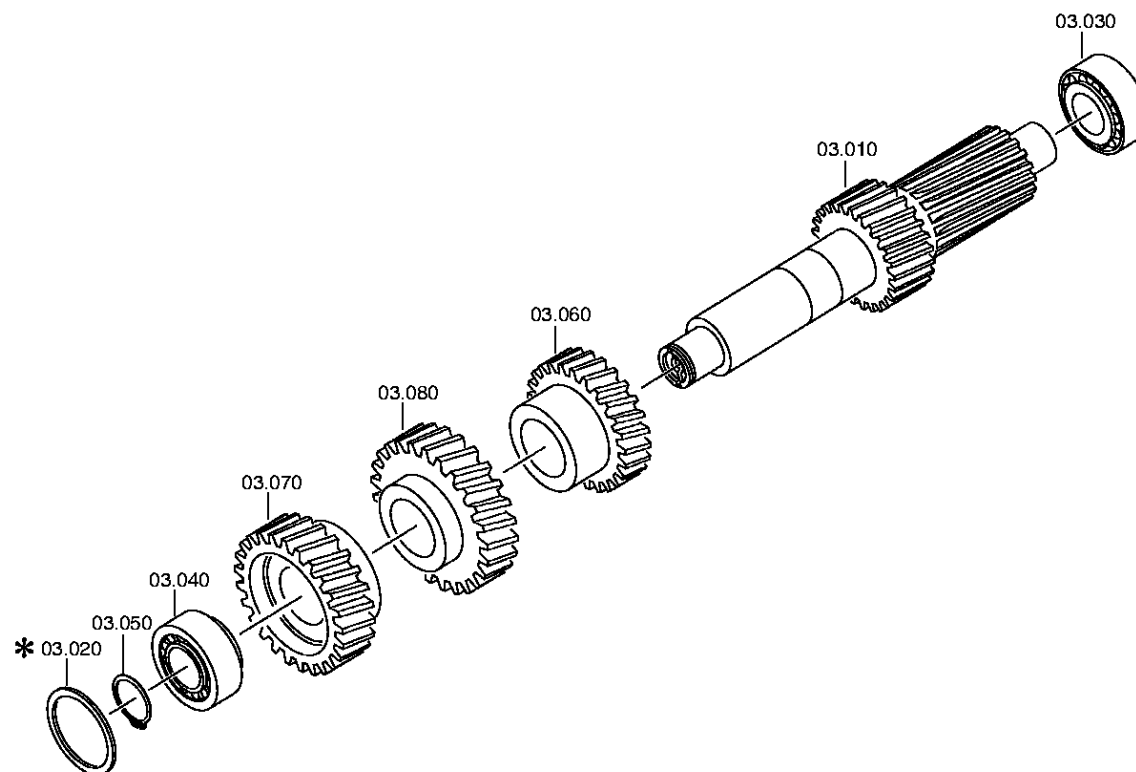
Material number: 1356.002.113

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
560	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
570	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
580	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
590	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
600	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
610	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
620	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
630	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
640	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
650	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
660	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
670	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		



Parts list

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Material number: 1356.002.113

Plant: 068.03.01-1

Material-assembly-group-no: 1316.103.013

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.303.033		COUNTERSHAFT	1			ENTHALT.IN 1316 303 032(0)		
30	0750.117.009		TAPERED ROLLER BEARING	1			49,213x103,188x44,475		
40	0750.117.009		TAPERED ROLLER BEARING	1			49,213x103,188x44,475		
50	---		RETAINING RING	1		Z00027144136	H= 2,40- 3,00(ABSTUFUNG:0,05MM)		
---	0730.303.174		RETAINING RING	1		Z00027144110	h=3,00		
---	0730.303.173		RETAINING RING	1		Z00027144110	h=2,95		
---	0730.303.172		RETAINING RING	1		Z00027144110	h=2,90		
---	0730.303.171		RETAINING RING	1		Z00027144110	h=2,85		
---	0730.303.170		RETAINING RING	1		Z00027144110	h=2,80		
---	0730.303.169		RETAINING RING	1		Z00027144110	h=2,75		
---	0730.303.168		RETAINING RING	1		Z00027144110	h=2,70		
---	0730.303.167		RETAINING RING	1		Z00027144110	h=2,65		
---	0730.303.166		RETAINING RING	1		Z00027144110	h=2,60		
---	0730.303.165		RETAINING RING	1		Z00027144110	h=2,55		
---	0730.302.599		RETAINING RING	1		Z00027144110	h=2,50		
---	0730.302.598		RETAINING RING	1		Z00027144110	h=2,45		
---	0730.302.597		RETAINING RING	1		Z00027144110	h=2,40		
60	1316.303.005		HELICAL GEAR	1			3G/Z26 IN 1312 303 018(1)		
70	1316.303.071		HELICAL GEAR	1			KON 1		
80	1316.303.065		HELICAL GEAR	1			Z35 IN 1312 303 013(1)		

Plant

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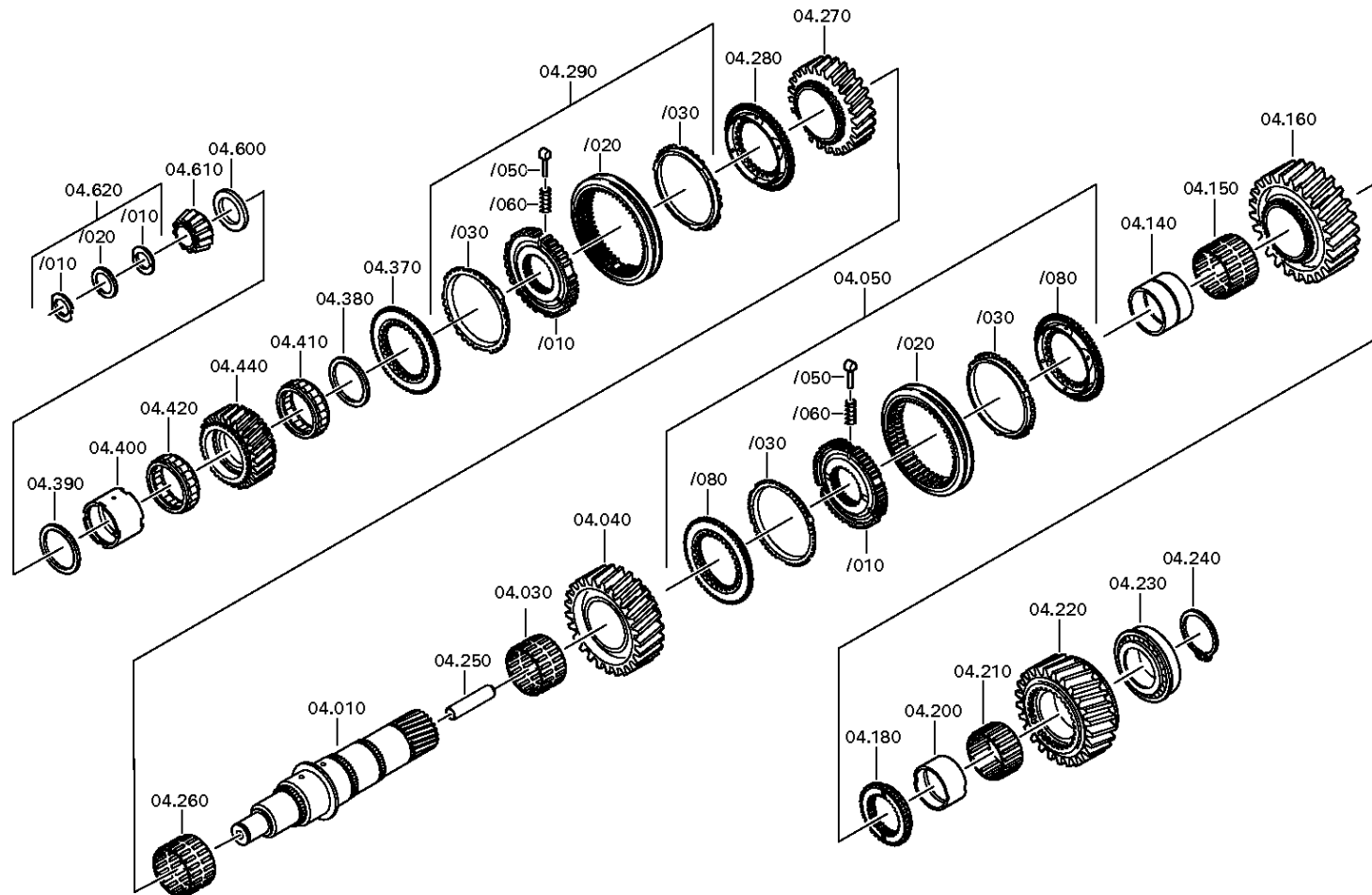
Material number: 1356.002.113

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.016



16 S 2230 TO /
MAIN SHAFT



Parts list

Page 1 from 3



Material number: 1356.002.113

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.016

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.304.132		MAIN SHAFT	1					
30	0750.115.303		NEEDLE CAGE	1			92,0X100,0X63,0		
40	1316.304.002		HELICAL GEAR	1			2G/Z38 IN 1316 304 005(1)		
50	1356.204.007		SYNCHRONIZER	1			KPL.1+2G*BK160 MOLYBDAEN* ECOSPLIT 3+4		
/10	1356.304.022		SYNCHRO.BODY	1					
/20	1356.304.024		SLIDING SLEEVE	1			ZF-BK 160		
/30	1316.304.170		SYNCHRO.RING	2					
/50	1297.304.436		PRESSURE PART	3					
/60	0732.040.409		COMPRESSION SPRING	3					
/80	1316.304.156		CLUTCH BODY	2					
140	1312.304.084		BUSH	1			ENTHALT.IN 1312 304 007(2)		
150	0750.115.327		NEEDLE CAGE	1			96,0X104,0X72,0		
160	1316.304.010		HELICAL GEAR	1			1G/Z47 IN 1312 304 033(0)		
180	1312.304.124		CLUTCH BODY	1			ENTHALT.IN 1312 304 055(0)		
200	1316.304.133		BUSH	1			A=50,00 IN 1312 304 010(2)		
210	0750.115.326		NEEDLE CAGE	1			90,0X98,0X50,0		
220	---		HELICAL GEAR	1					
---	1316.304.012		HELICAL GEAR	1			RG*Z44 IN 1312 304 125(0)		
---	1316.304.235		HELICAL GEAR	1					
230	0750.117.678		TAPERED ROLLER BEARING	1			80,000X139,992X36,512		
240	---		RETAINING RING	1		Z00027144137	H= 3,00- 3,65(ABSTUFUNG:0,05MM)		
---	0730.303.186		RETAINING RING	1		Z00027144110	h=3,50		
---	0730.303.185		RETAINING RING	1		Z00027144110	h=3,45		
---	0730.303.184		RETAINING RING	1		Z00027144110	h=3,40		
---	0730.303.183		RETAINING RING	1		Z00027144110	h=3,35		
---	0730.303.182		RETAINING RING	1		Z00027144110	h=3,30		
---	0730.303.181		RETAINING RING	1		Z00027144110	h=3,25		
---	0730.303.180		RETAINING RING	1		Z00027144110	h=3,20		
---	0730.303.179		RETAINING RING	1		Z00027144110	h=3,15		
---	0730.303.178		RETAINING RING	1		Z00027144110	h=3,10		
---	0730.303.187		RETAINING RING	1		Z00027144110	h=3,55		
---	0730.303.188		RETAINING RING	1		Z00027144110	h=3,60		
---	0730.303.189		RETAINING RING	1		Z00027144110	h=3,65		

Parts list

Page 2 from 3



Material number: 1356.002.113

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.016

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
250	1312.304.150		TUBE	1					
260	0750.115.303		NEEDLE CAGE	1			92,0X100,0X63,0		
270	1316.304.008		HELICAL GEAR	1			3G/Z34 IN 1312 304 135(1)		
280	1316.304.190		CLUTCH BODY	1			ZF-BK 144 O		
290	1356.204.006		SYNCHRONIZER	1			KPL.3+4G*BK144 MOLYBDAEN* ANSCHL.INTEGR VERST*ECOSPLIT 3+4		
/10	1356.304.019		SYNCHRO.BODY	1					
/20	1356.304.023		SLIDING SLEEVE	1			ZF-BK 144		
/30	1316.304.189		SYNCHRO.RING	2			ZF-BK 144		
/50	1297.304.436		PRESSURE PART	3					
/60	0732.040.409		COMPRESSION SPRING	3					
370	1316.304.190		CLUTCH BODY	1			ZF-BK 144 O		
380	0750.101.158		THRUST WASHER	1					
390	0750.101.158		THRUST WASHER	1					
400	0750.119.124		INNER RING	1			67,0X77,0X66,1		
410	0750.115.531		ROLLER CAGE	1			77,0X101,0X29,0		
420	0750.115.531		ROLLER CAGE	1			77,0X101,0X29,0		
440	1316.304.103		HELICAL GEAR	1			Z32		
600	---		AXIAL WASHER	1			H= 7,30- 8,00(ABSTUFUNG:0,10MM)		
---	1315.304.048		AXIAL WASHER	1			A=8,00 IN 1315 304 042(2)		
---	1315.304.047		AXIAL WASHER	1			A=7,90 IN 1315 304 042(2)		
---	1315.304.046		AXIAL WASHER	1			A=7,80 IN 1315 304 042(2)		
---	1315.304.045		AXIAL WASHER	1			A=7,70 IN 1315 304 042(2)		
---	1315.304.044		AXIAL WASHER	1			A=7,60 IN 1315 304 042(2)		
---	1315.304.043		AXIAL WASHER	1			A=7,50 IN 1315 304 042(2)		
---	1315.304.085		AXIAL WASHER	1			A=7,40 IN 1315 304 042(2)		
---	1315.304.086		AXIAL WASHER	1			A=7,30 IN 1315 304 042(2)		
610	0750.117.232		TAPERED ROLLER BEARING	1			42,070X40,386		
620	1312.204.040		SPLIT RING	1			GESTANZT		
/10	---		SPLIT RING	2			H= 4,60- 5,00(ABSTUFUNG:0,10MM)		
---	0730.107.023		SPLIT RING	1			A=5,00 IN 0730 106 207(2)		
---	0730.107.022		SPLIT RING	1			A=4,90 IN 0730 106 207(2)		
---	0730.107.021		SPLIT RING	1			A=4,80 IN 0730 106 207(2)		

Parts list

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Material number: 1356.002.113

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.016

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.107.020		SPLIT RING	1			A=4,70 IN 0730 106 207(2)		
---	0730.107.019		SPLIT RING	1			A=4,60 IN 0730 106 207(2)		
/20	0730.062.781		RETAINING RING	1			ENTHALT.IN 0730 062 636(2)		

Plant

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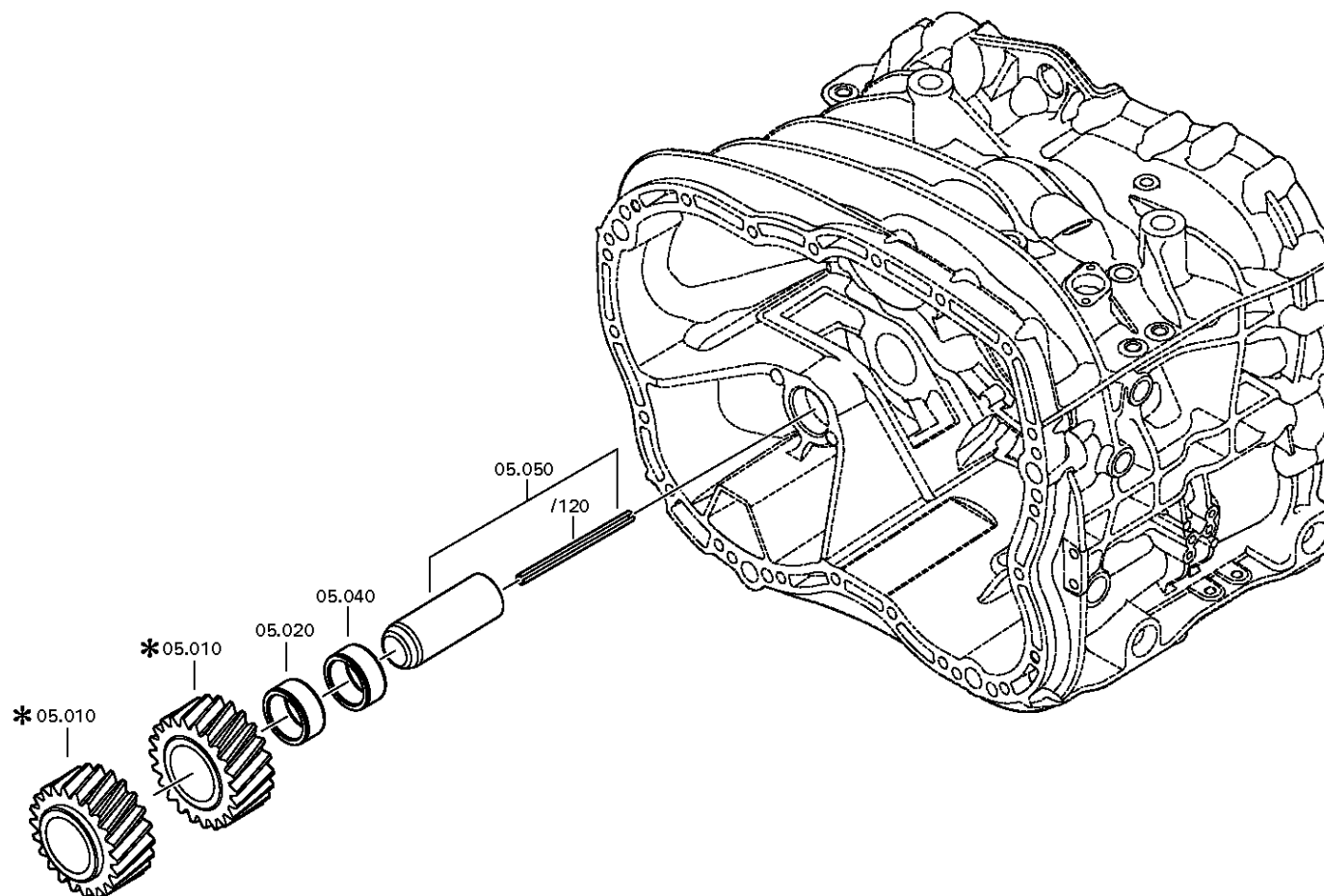
Material number: 1356.002.113

Plant: 161.05.01-1

Material-assembly-group-no: 1325.105.001



16 S 2230 TO /
RETURN



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.05.01-1

Material-assembly-group-no: 1325.105.001

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	---		REVERSE IDLER GEAR	1		C01006413F10			
---	1316.305.001		REVERSE IDLER GEAR	1			Z22 IN 1295 305 050(1)		
---	1316.305.008		REVERSE IDLER GEAR	1			Z22 IN 1295 305 050(1)		
20	0750.115.369		NEEDLE CAGE	1			45,0X57,0X25,0		
40	0750.115.369		NEEDLE CAGE	1			45,0X57,0X25,0		
50	1316.201.030		REVERSE IDLER SHAFT	1			KPL.16S221*SG*L=102		
/120	0631.329.295		SLOTTED PIN	1			10X118		

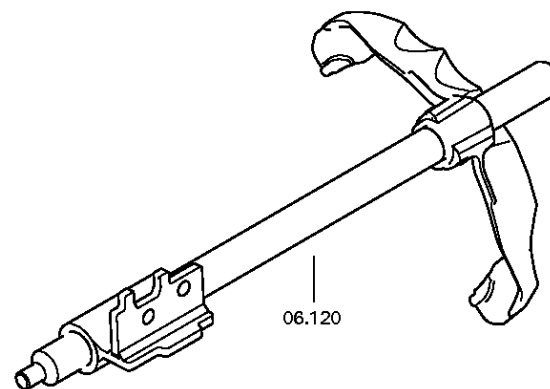
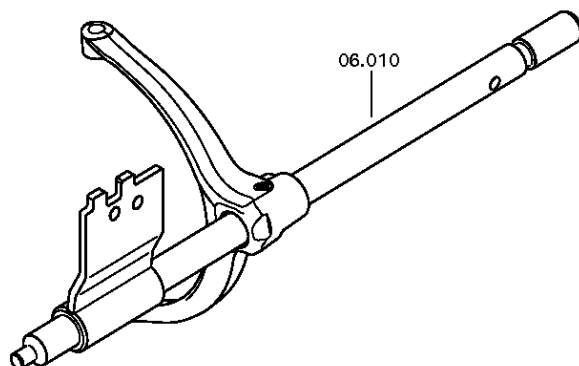
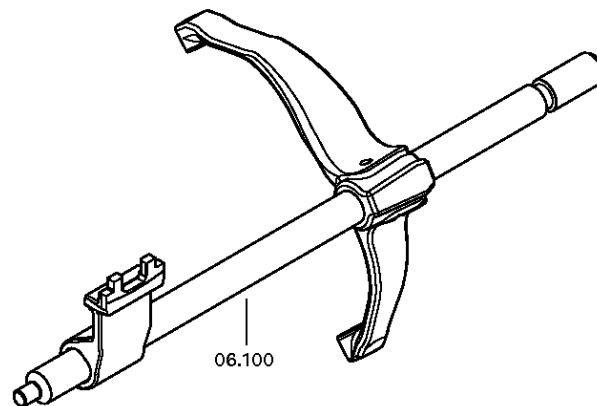
Plant

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Material number: 1356.002.113
Plant: 161.06.04-1
TRANSMISSION SHIFT SYSTEM



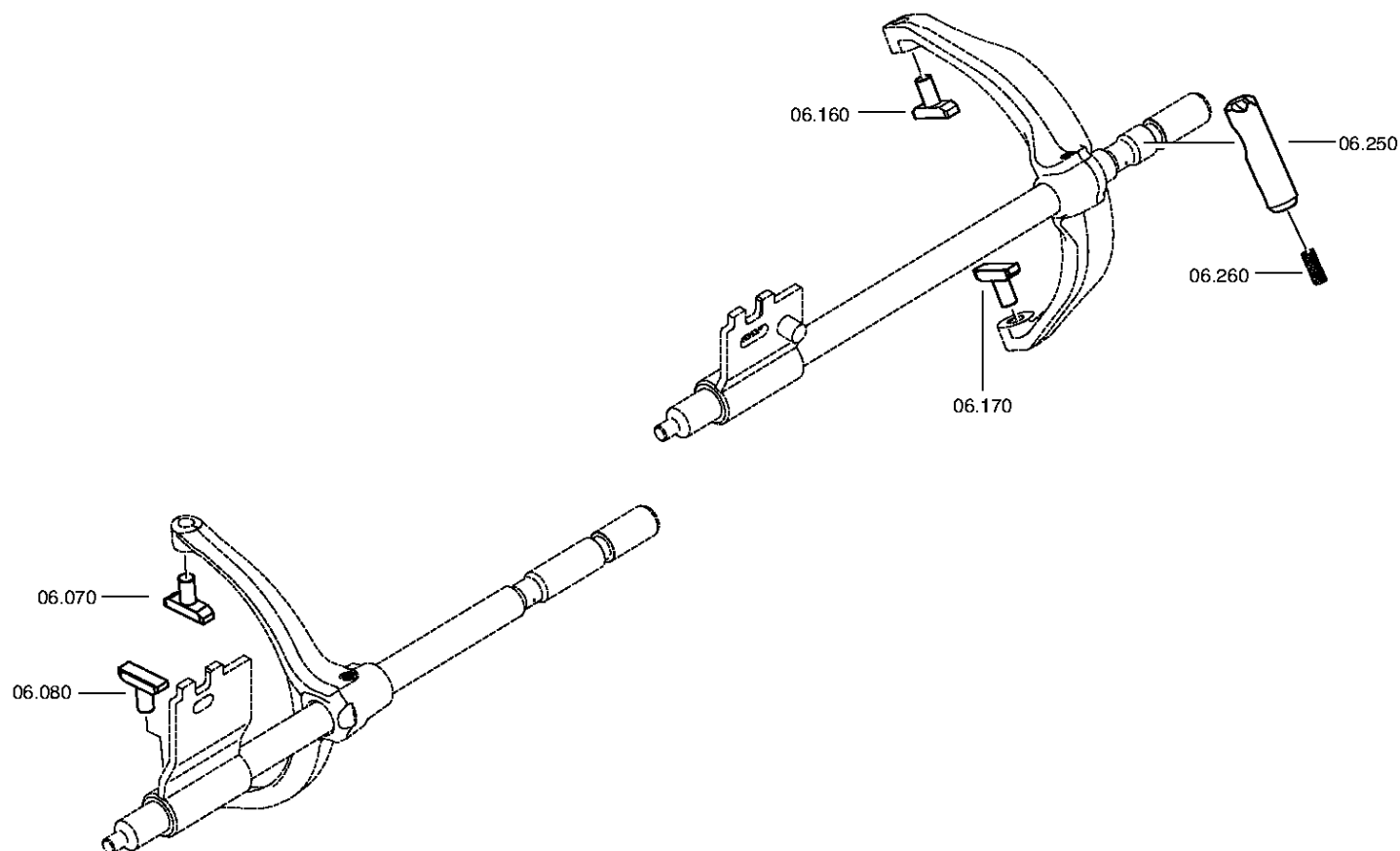
16 S 2230 TO /
TRANSMISSION SHIFT SYSTEM



Material number: 1356.002.113
 Plant: 161.06.02-1
 TRANSMISSION SHIFT SYSTEM



16 S 2230 TO /
 TRANSMISSION SHIFT SYSTEM



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.06.04-1

Material-assembly-group-no: 1356.106.001

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.206.004		GEAR SHIFT RAIL	1			KPL*WBI-3/4G*LANG*MIT GANGERKENNUNG DAF		
70	1316.306.015		SLIDING PAD	1					
80	1316.306.015		SLIDING PAD	1					
100	1356.206.002		GEAR SHIFT RAIL	1			KPL*WBI-1/2G*LANG		
120	1356.206.001		GEAR SHIFT RAIL	1			KPL*WBI-RG*LANG		
160	1316.306.015		SLIDING PAD	1					
170	1316.306.015		SLIDING PAD	1					
250	1313.306.013		LOCKING PIN	1					
260	0732.040.736		COMPRESSION SPRING	1					

Plant

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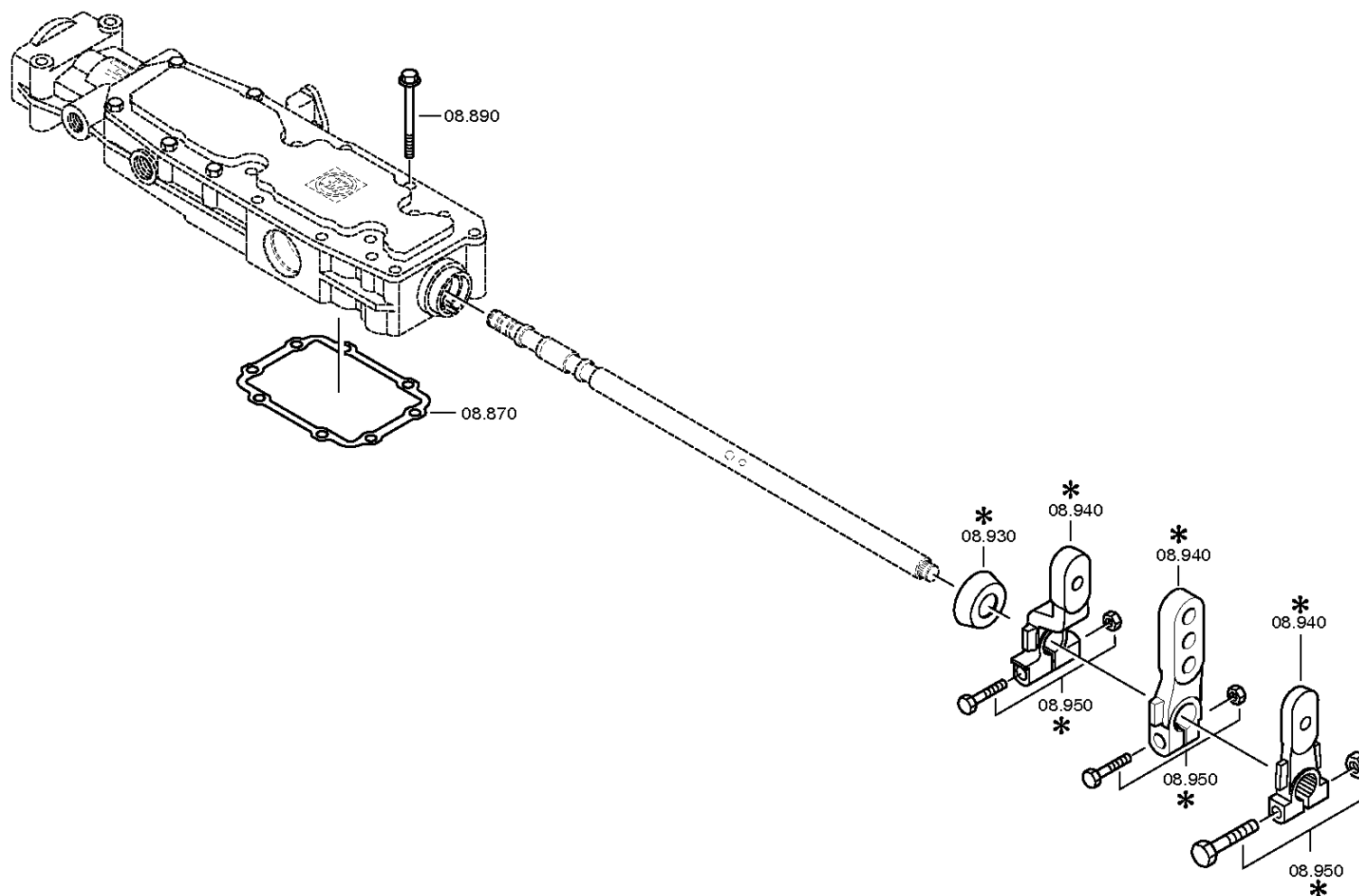
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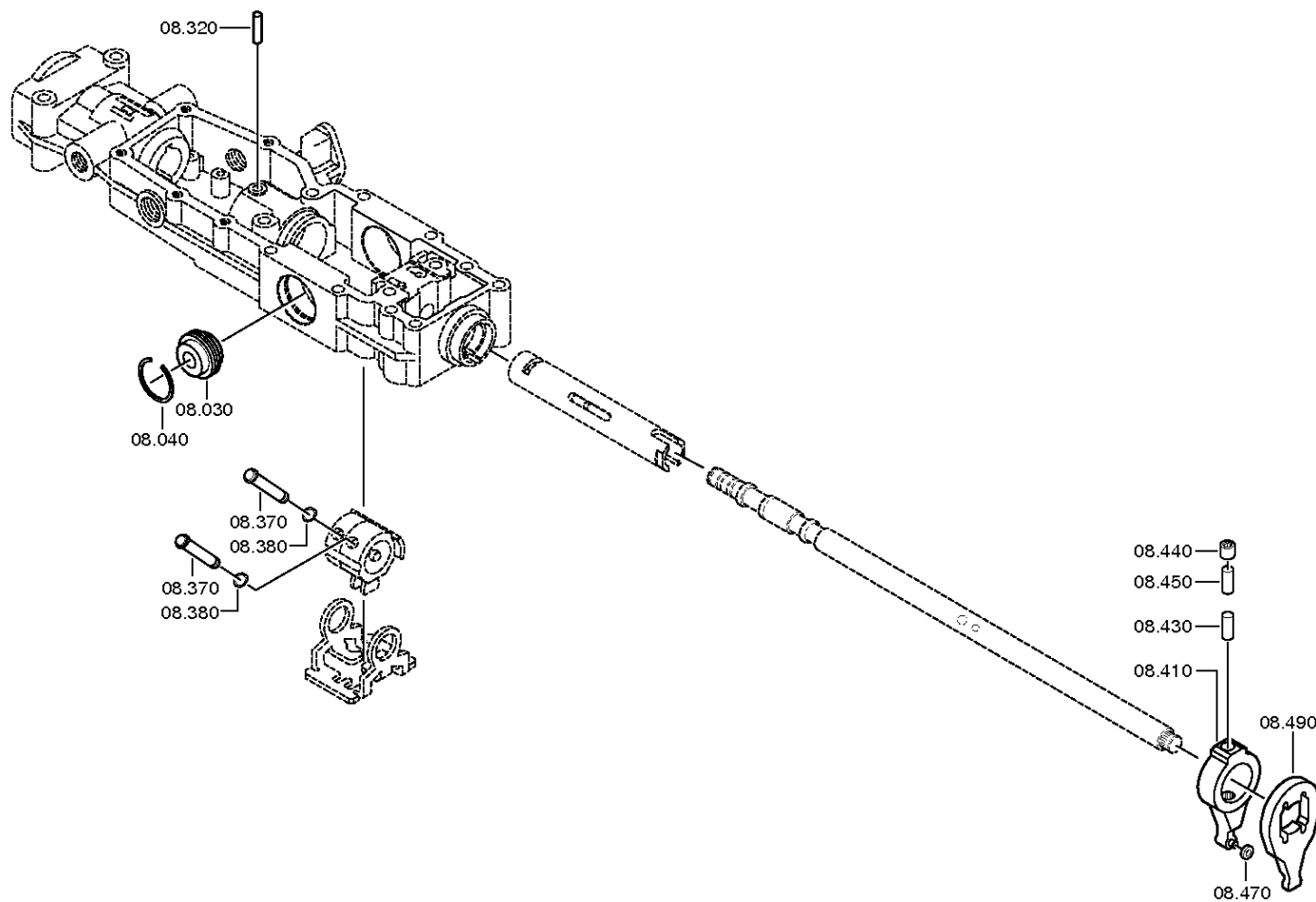
Plant: 068.07.81-1

GEAR SHIFT HOUSING



16 S 2230 TO /
GEAR SHIFT HOUSING





Plant

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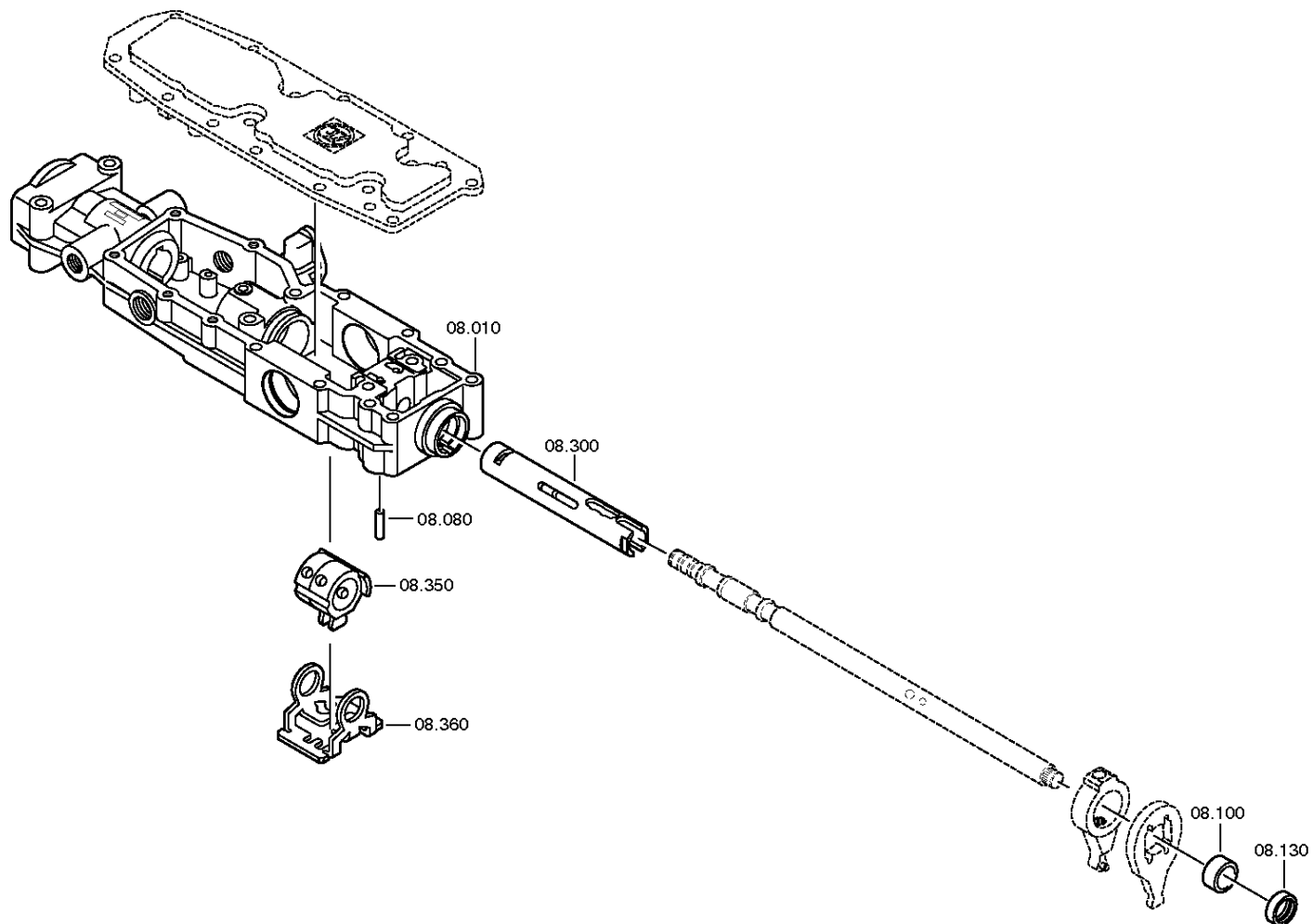
Material number: 1356.002.113

Plant: 068.07.38-1

GEAR SHIFT HOUSING



16 S 2230 TO /
GEAR SHIFT HOUSING



Plant

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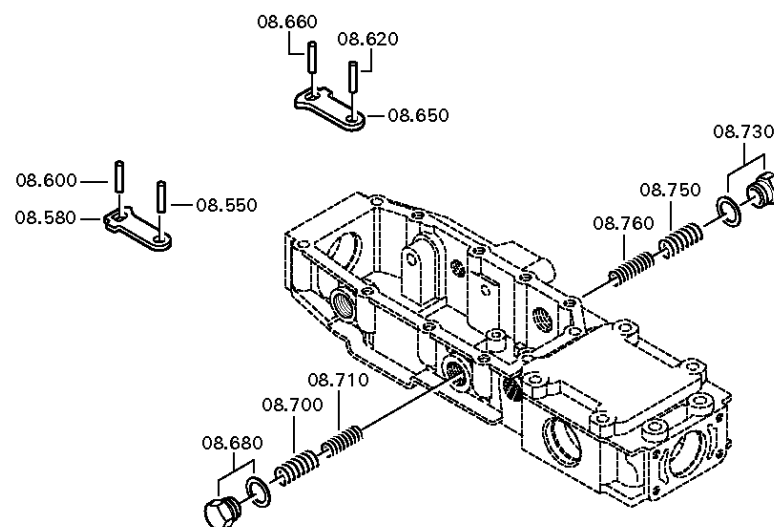
Material number: 1356.002.113

Plant: 068.07.75-1

GEAR SHIFT HOUSING



16 S 2230 TO /
GEAR SHIFT HOUSING



Parts list

Page 1 from 2



Material number: 1356.002.113

Plant: 068.07.81-1

Material-assembly-group-no: 1316.108.817

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1315.307.383		GEAR SHIFT HOUSING	1		Z00008223510			
30	0501.209.212		DETENT	1			KPL.		
40	0630.532.130		V-RING	1					
80	0631.306.123		CYLINDRICAL PIN	1		Z00008223510	8X24		
130	0734.309.765		SHAFT SEAL	1		Z00008223510	28,0X42,0X11,0		
300	1315.307.294		QUILL SHAFT	1		Z00011957210	ENTHALT.IN 1315.307.293(1)		
320	0731.201.702		PIN	1					
350	1315.307.735		DRIVER	1		Z00011746811			
360	1315.307.218		LOCKING PIECE	1		Z00008223510			
370	1316.208.003		PIN	2			KPL.		
380	0630.501.006		RETAINING RING	2			10X1		
410	1316.208.002		VALVE LEVER	1			KPL.		
430	0731.201.732		PIN	1					
440	0635.303.019		NEEDLE BUSH	1			10X14X15		
450	0731.201.732		PIN	1					
470	1315.307.226		ROLLER	1					
490	1315.307.292		LEVER	1					
550	0631.306.832		CYLINDRICAL PIN	1			6X20		
580	1315.307.203		DETENT LEVER	1					
600	0631.306.832		CYLINDRICAL PIN	1			6X20		
620	0631.306.832		CYLINDRICAL PIN	1			6X20		
650	1315.307.203		DETENT LEVER	1					
660	0631.306.832		CYLINDRICAL PIN	1			6X20		
680	---		SCREW	1		Z00010146310	M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
700	0732.040.985		COMPRESSION SPRING	1					
710	0732.040.984		COMPRESSION SPRING	1					
730	---		SCREW	1		Z00010146310	M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
750	0732.040.985		COMPRESSION SPRING	1					
760	0732.040.984		COMPRESSION SPRING	1					
870	1315.307.013		GASKET	1					

Parts list

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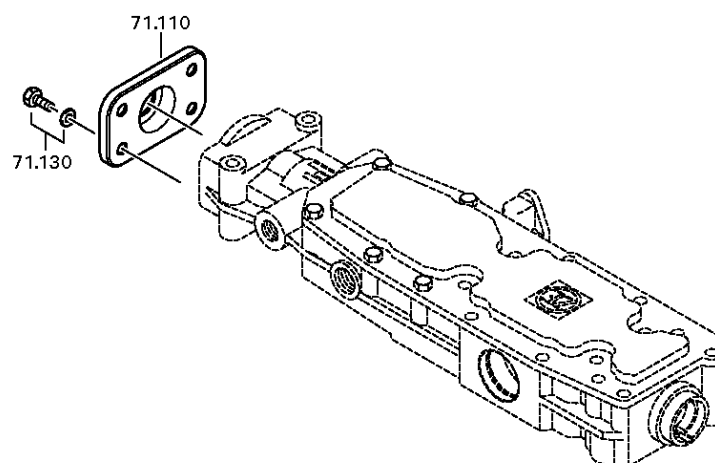
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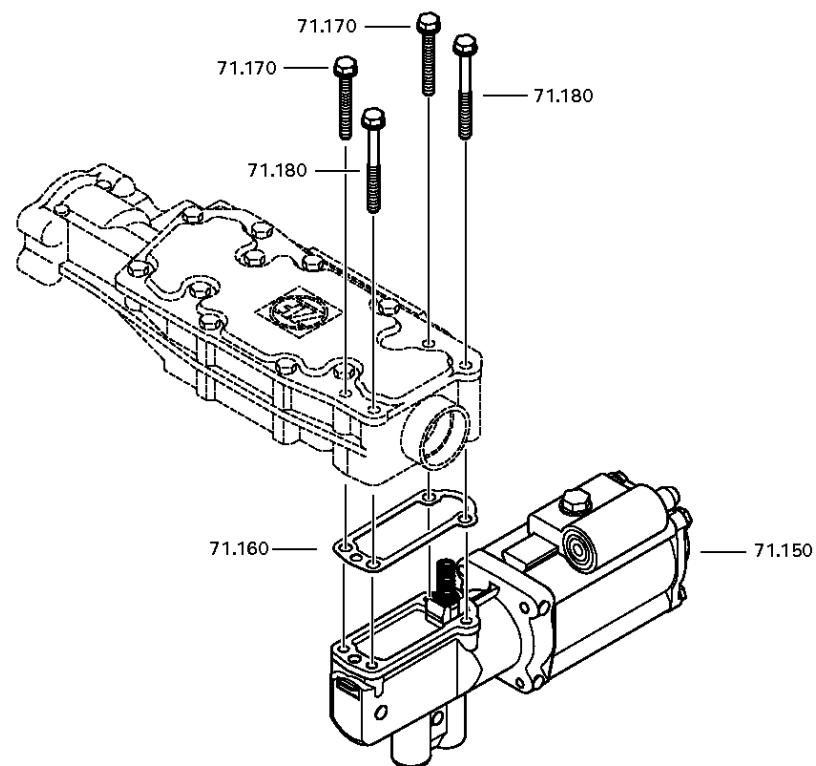
Plant: 068.07.81-1

Material-assembly-group-no: 1316.108.817

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
890	0736.300.137		HEXAGON SCREW	8		Z00009195410	M8X80 M8X80		
930	1341.307.104		PROTECTION CAP	1		C01007034F10			





Parts list

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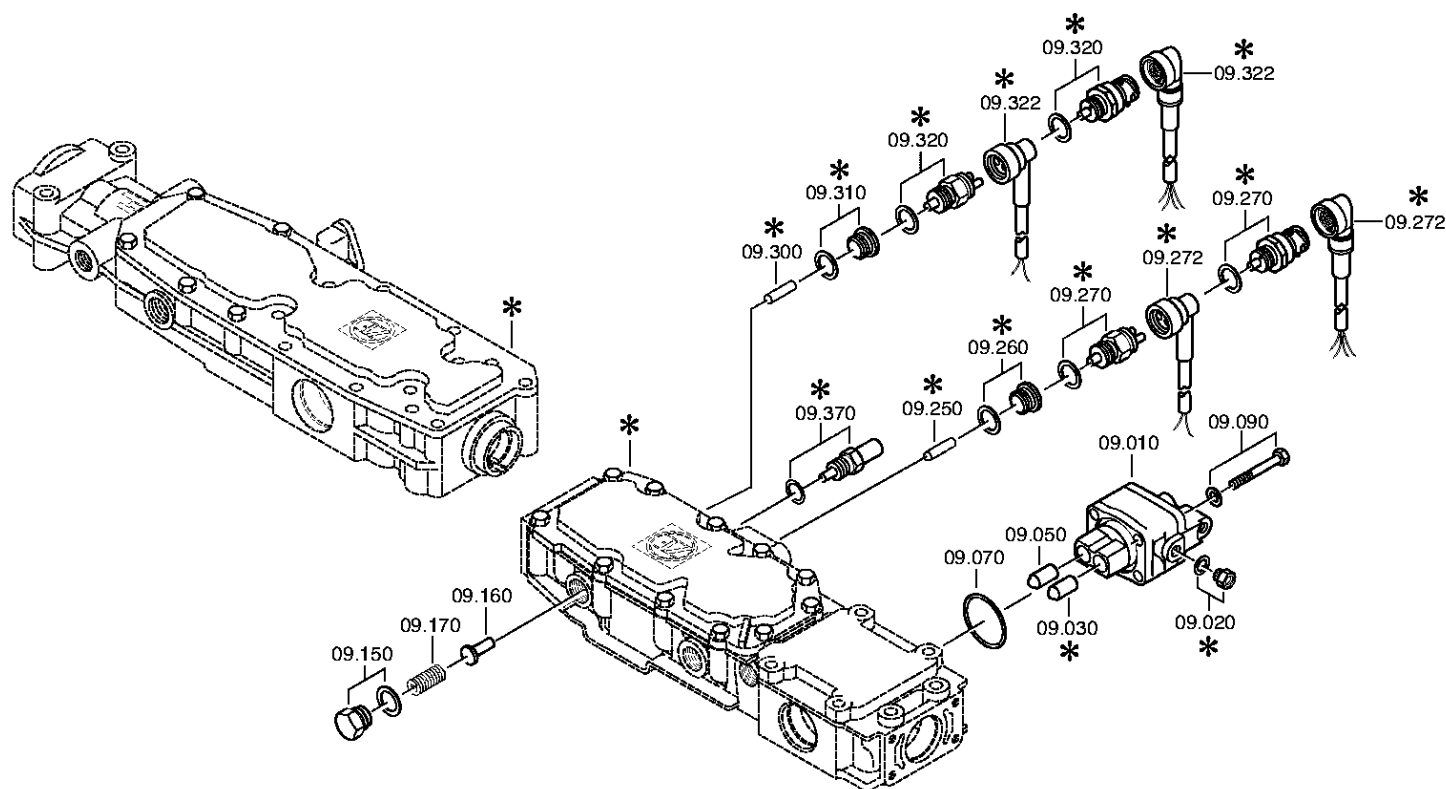
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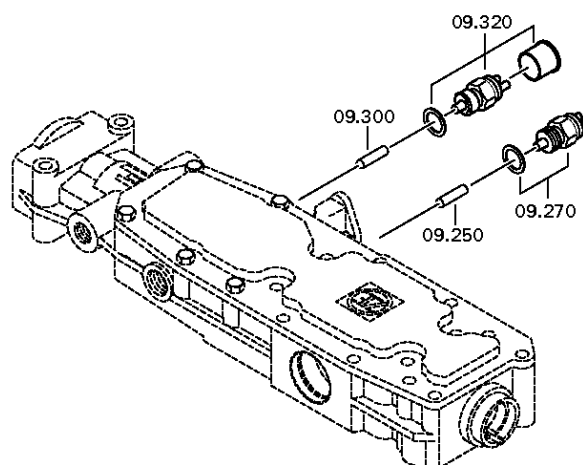
Plant: 062.08.30-1

Material-assembly-group-no: 1316.171.403

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
110	1341.307.113		COVER	1		Z00009271410			
130	---		HEXAGON SCREW	4		Z00007891111	M8X20		
---	0636.100.796		HEXAGON SCREW	1		Z00007891120	M8X20		
---	0630.100.295		WASHER	1		Z00007158414			
150	0501.216.414		PNEUMATIC SERVO UNIT	1			KPL. PSE2 DBV6		
160	1315.307.242		GASKET	1					
170	0736.300.137		HEXAGON SCREW	2		Z00009195410	M8X80 M8X80		
180	---		HEXAGON SCREW	2		Z00009195410	M8X80		
---	0736.300.137		HEXAGON SCREW	1		Z00009195414	M8X80 M8X80		
---	0666.790.033		SEAL.COMPOUND	1		Z00009195414			





Parts list

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Material number: 1356.002.113

Plant: 068.09.01-1

Material-assembly-group-no: 1316.109.052

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	6038.202.043		CUT-OFF VALVE	1			KPL.H-H*ZULUFTDROSSEL 1,55		
30	0501.209.188		BALL CASTER	1			KPL.		
50	0501.209.188		BALL CASTER	1			KPL.		
70	---		O-RING	1			ZFF*LOKAL HNG 42X3		
---	0634.313.505		O-RING	1		Z00026363710	42X3		
---	0501.331.851		O-RING	1		Z00026363710	42X3		
90	---		HEXAGON SCREW	4			M8X65		
---	0636.100.519		HEXAGON SCREW	1		Z00007054110	M8X65		
---	0630.100.295		WASHER	1		Z00007158414			
150	---		SCREW	1			M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
160	1315.307.384		BOLT	1			ENTHALT.IN 1250 307 589(2)		
170	0732.042.207		COMPRESSION SPRING	1					
250	0731.201.446		PIN	1			ENTHALT.IN 0731 201 445(2)		
270	---		SWITCH	1		Z00004287211	OEFF*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.219.856		SWITCH	1			OEFFNER DIN BAJONETT		
---	0634.801.062		SEALING RING	1			18X24		
300	0731.208.256		PIN	1			A=30,0		
320	---		SWITCH	1		Z00025033610	SCHL*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.331.660		SWITCH	1		Z00025033617			
---	0634.801.062		SEALING RING	1		Z00025033617	18X24		
---	0700.300.427		PROTECTION CAP	1		Z00025033617			

Plant

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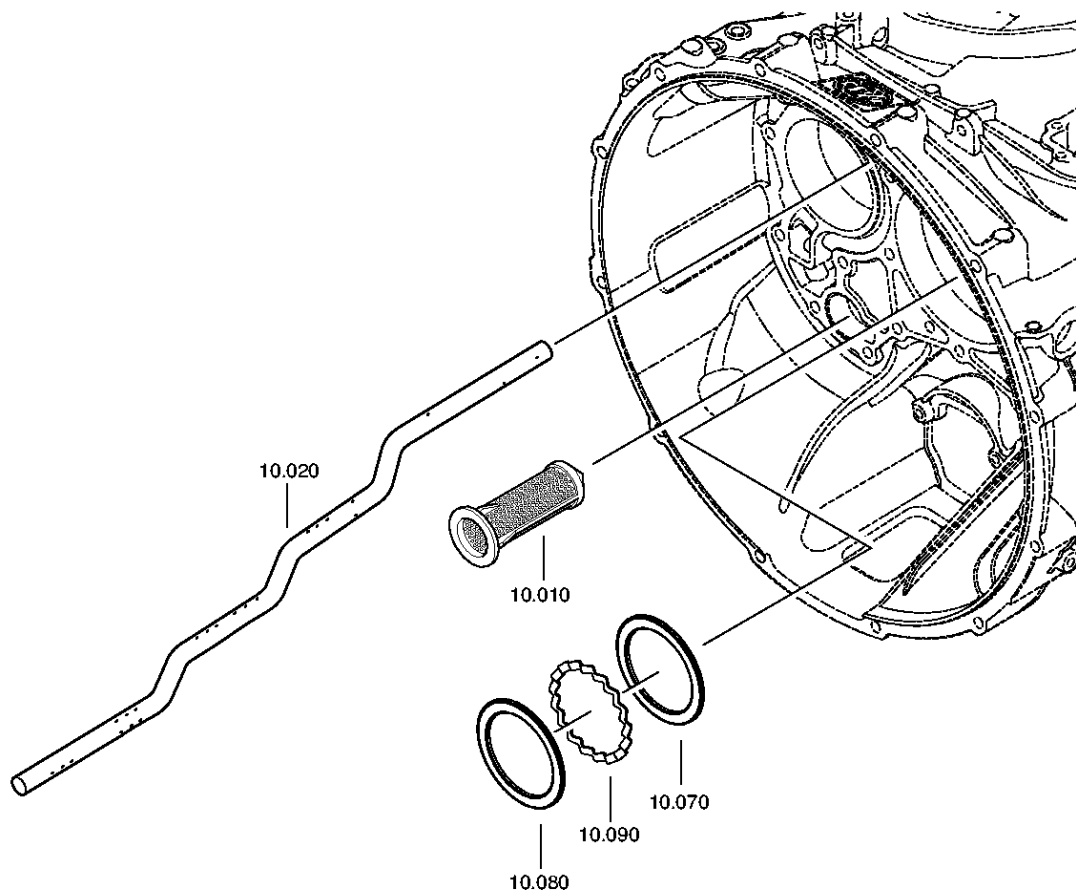
Material number: 1356.002.113

Plant: 161.10.04-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Plant

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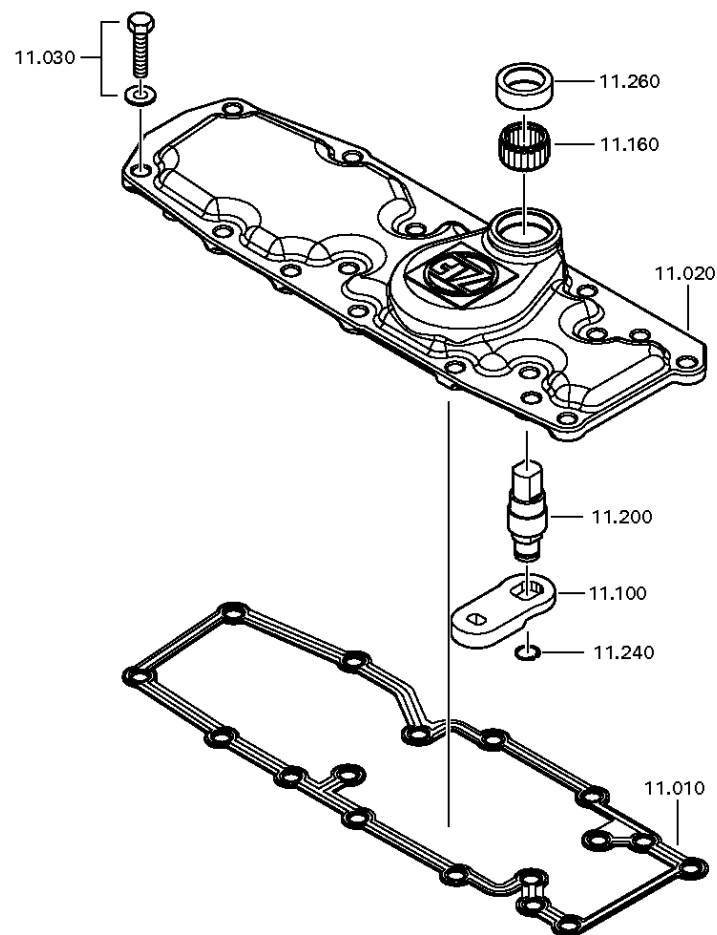
Material number: 1356.002.113

Plant: 068.10.02-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Plant

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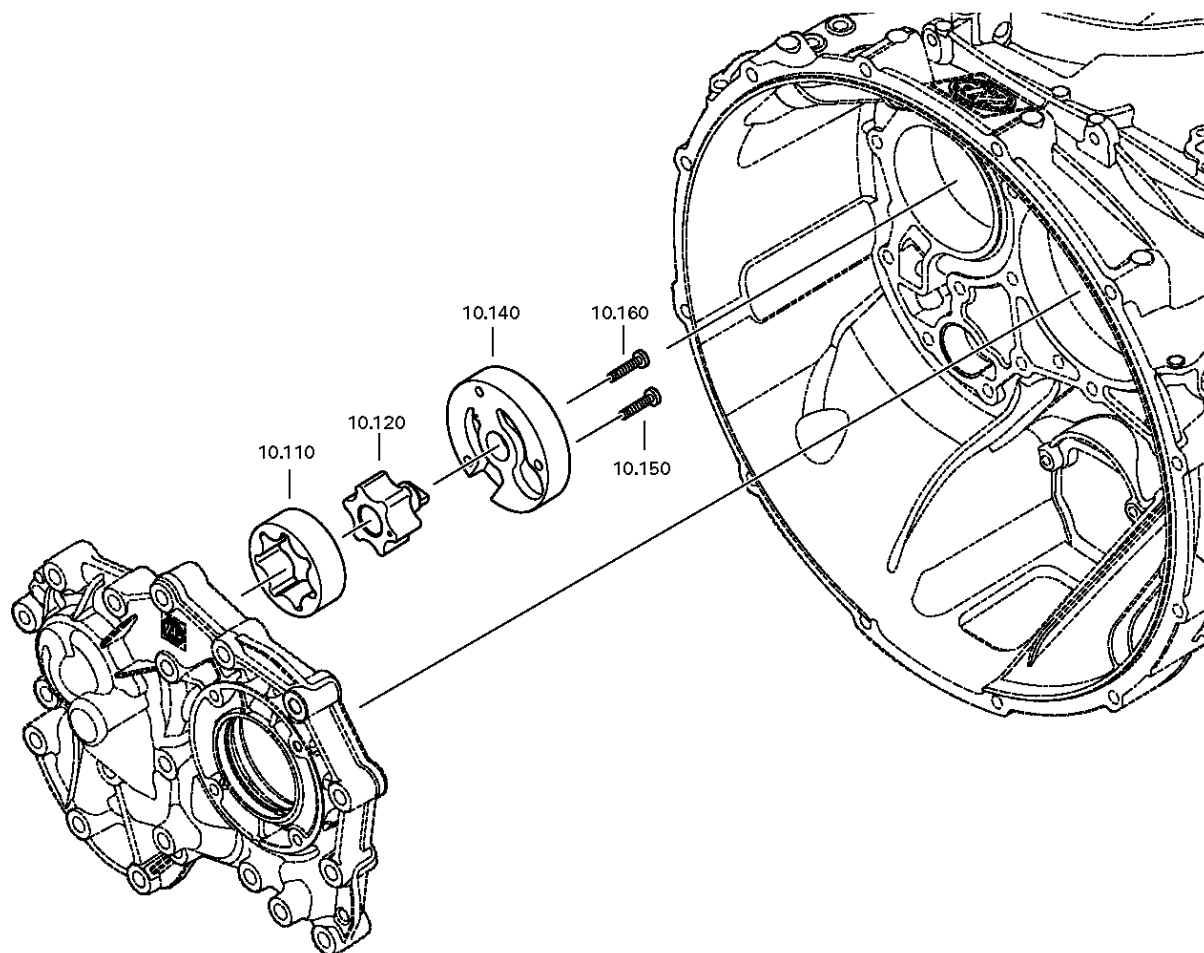
Material number: 1356.002.113

Plant: 161.10.01-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Parts list

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Material number: 1356.002.113

Plant: 161.10.04-1

Material-assembly-group-no: 1356.110.002

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0501.318.802		SCREEN INSERT	1					
10	0501.324.072		GASKET	1		Z00033959410			
20	---		COVER	1		Z00033959410	ZFF/ZFDH		
---	1315.307.336		COVER	1		Z00034298610			
20	1356.301.001		OIL TUBE	1			ECO 4 16G LANG		
30	---		HEXAGON SCREW	5		Z00033959410	M8X25		
---	0636.016.401		HEXAGON SCREW	1			M8X25		
---	0630.100.295		WASHER	1		Z00007158414			
70	0730.300.745		WASHER	1			A=3,30 A=3,30		
80	0730.150.766		WASHER	1					
90	1315.302.040		SPACER RING	1					
100	---		SELECTOR LEVER	1		Z00033959410	ZFF*LOKAL HNG		
---	1315.307.375		SELECTOR LEVER	1		Z00026363710			
110	1315.303.027		ROTOR	1					
120	1314.202.039		PUMP SHAFT	1			KPL.		
140	1325.303.017		PUMP COVER	1					
150	0736.101.076		HEXALOBULAR DRIVING SCREW	1			M6X30		
160	0736.101.076		HEXALOBULAR DRIVING SCREW	1			M6X30		
160	---		NEEDLE SLEEVE	1		Z00033959410	ZFF*LOKAL HNG 22X28X10		
200	---		SELECTOR SHAFT	1		Z00033959410	ZFF*LOKAL HNG		
---	1315.307.346		SELECTOR SHAFT	1		Z00026363710			
240	0630.531.240		V-RING	1		Z00033959410			
260	---		SHAFT SEAL	1		Z00033959410	20X30X7		
---	0734.309.392		SHAFT SEAL	1			20,0X30,0X7,0		

Plant

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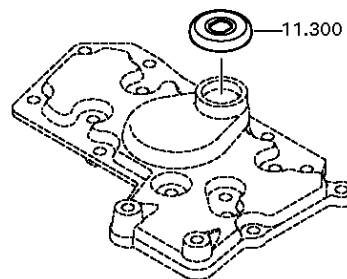
Material number: 1356.002.113

Plant: 068.10.92-1

Material-assembly-group-no: 1341.111.803



16 S 2230 TO /
SELECTOR LEVER



Parts list

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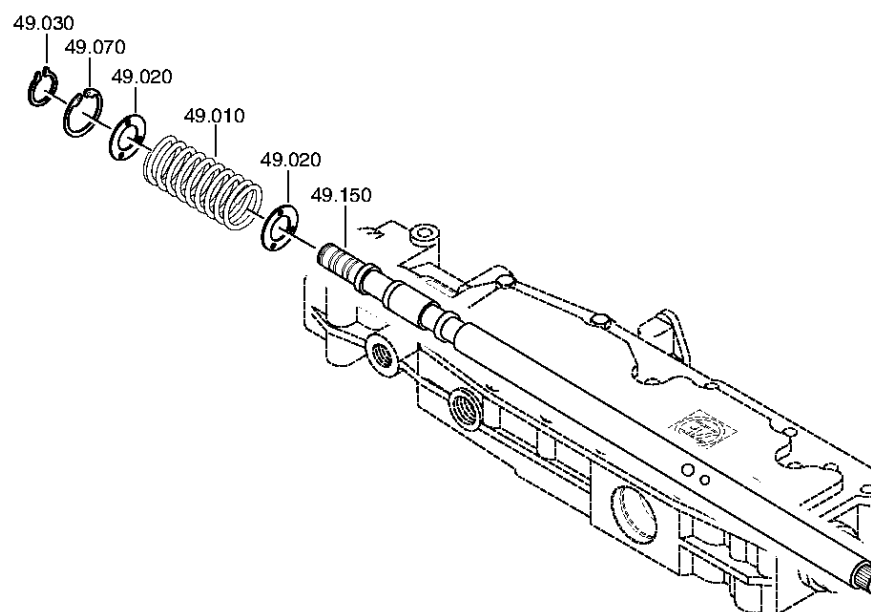
Material number: 1356.002.113

Plant: 068.10.92-1

Material-assembly-group-no: 1341.111.803

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
300	---		PROTECTION CAP	1		Z00030698111			
---	0501.324.645		PROTECTION CAP	1		Z00030698110			
---	1307.307.052		PROTECTION CAP	1		Z00030698110			
---	0501.330.970		PROTECTION CAP	1		Z00030698110	46mmx7mm		



Parts list

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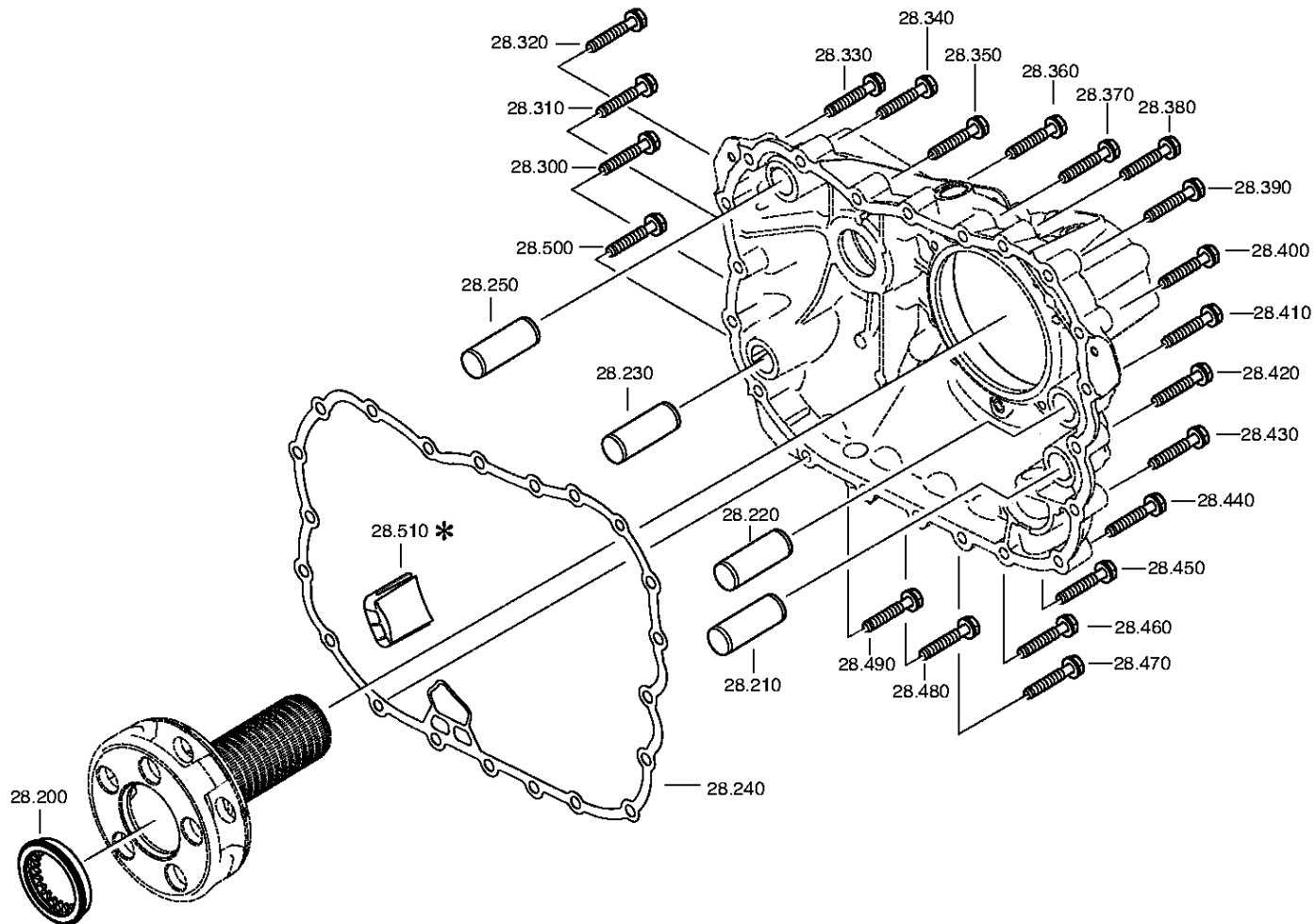
Material number: 1356.002.113

Plant: 068.12.08-1

Material-assembly-group-no: 1316.149.478

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0732.040.630		COMPRESSION SPRING	1					
20	0730.301.376		WASHER	2					
30	0630.532.138		V-RING	1					
70	0630.502.022		RETAINING RING	1			40X1,75		
150	1315.307.517		GEARSHIFT SHAFT	1					



Parts list

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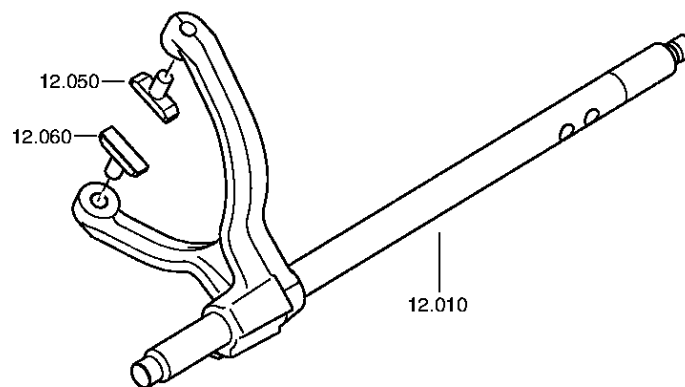
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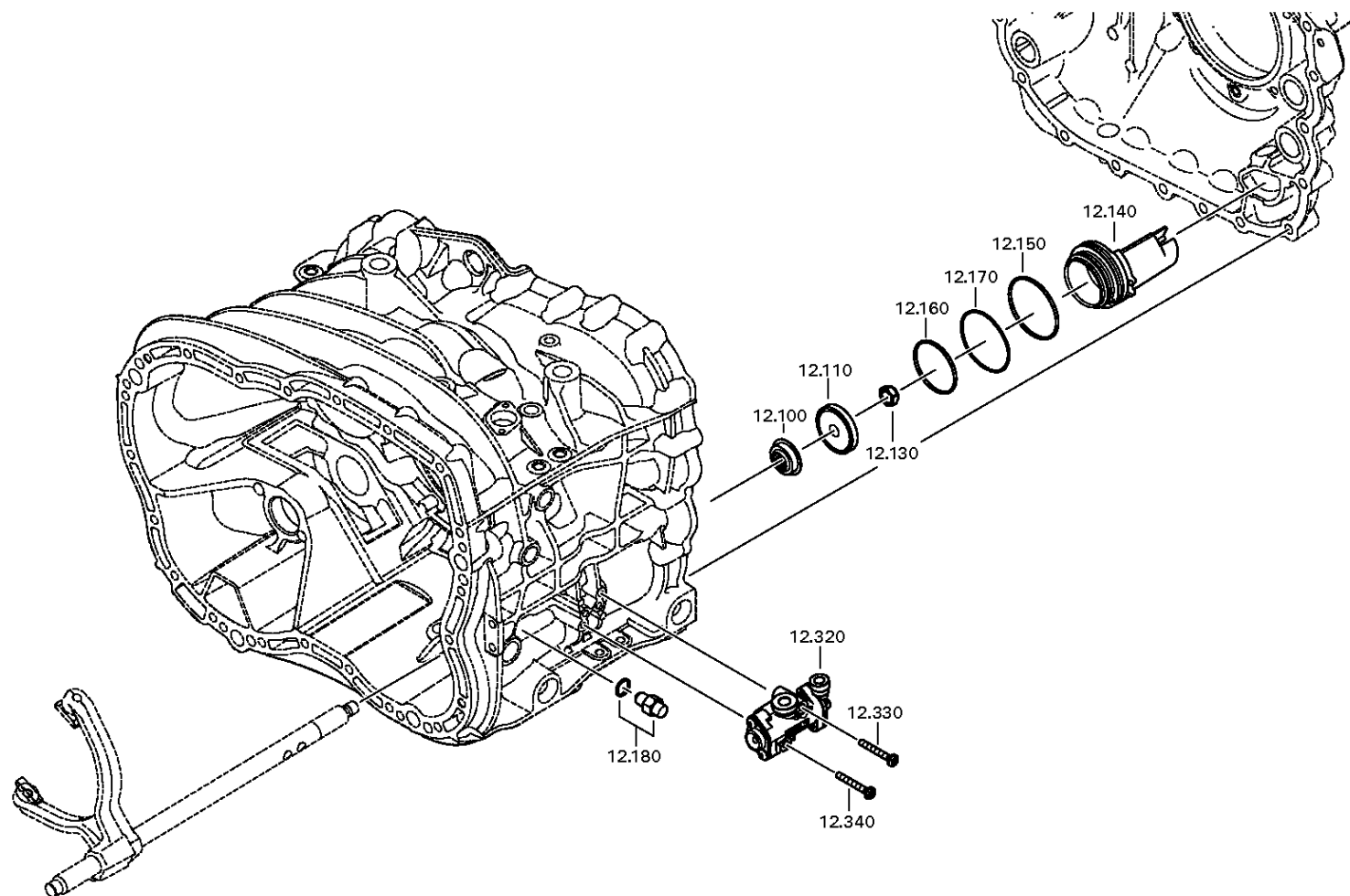
Plant: 161.28.01-1

Material-assembly-group-no: 1325.128.806

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
200	1315.332.073		PRESSURE DISK	1		Z00033223510			
210	0731.300.002		CYLINDRICAL PIN	1					
220	0731.300.002		CYLINDRICAL PIN	1					
230	0731.300.002		CYLINDRICAL PIN	1					
240	0501.323.705		GASKET	1					
250	0731.300.002		CYLINDRICAL PIN	1					
300	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
310	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
320	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
330	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
340	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
350	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
360	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
370	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
380	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
390	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
400	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
410	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
420	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
430	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
440	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
450	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
460	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
470	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
480	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
490	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
500	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		





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Material number: 1356.002.113

Plant: 161.40.01-1

Material-assembly-group-no: 1356.112.001

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.212.002		GEAR SHIFT RAIL	1			KPL.GV*E32 LANG*16 GANG		
50	1316.306.015		SLIDING PAD	1					
60	1316.306.015		SLIDING PAD	1					
100	0750.112.131		FLANGE PACKING	1			25X40X15		
110	0501.324.670		PISTON	1		Z00012212711			
130	0737.300.037		LOCKING NUT	1			MS16X1,5		
140	1325.312.012		CYLINDER	1		Z00012212711			
150	---		O-RING	1		Z00034779210	ZFF*LOKAL HNG		
---	0634.313.018		O-RING	1			82X3		
---	0501.331.849		O-RING	1			82X3		
160	---		O-RING	1		Z00034779311	ZFF*LOKAL HNG		
---	0634.313.320		O-RING	1			67X3		
---	0501.331.850		O-RING	1			67X3		
170	1315.312.034		SPRING	1		Z00012212711			
180	---		DETENT PLUNGER	1		Z00012212711	235N*50N.M		
---	1324.207.033		DETENT PLUNGER	1			KPL. *235 N		
---	0730.008.604		SEALING RING	1		C01009860C10			
320	0501.219.848		5/2 WAY VALVE	1		Z00035060612	SPLITGRUPPENVENTIL VERSION B 96,1mmx49,8mm		
330	0736.300.659		TORX SCREW	1		Z00035060612	M6X45		
340	0736.300.659		TORX SCREW	1		Z00035060612	M6X45		

Plant

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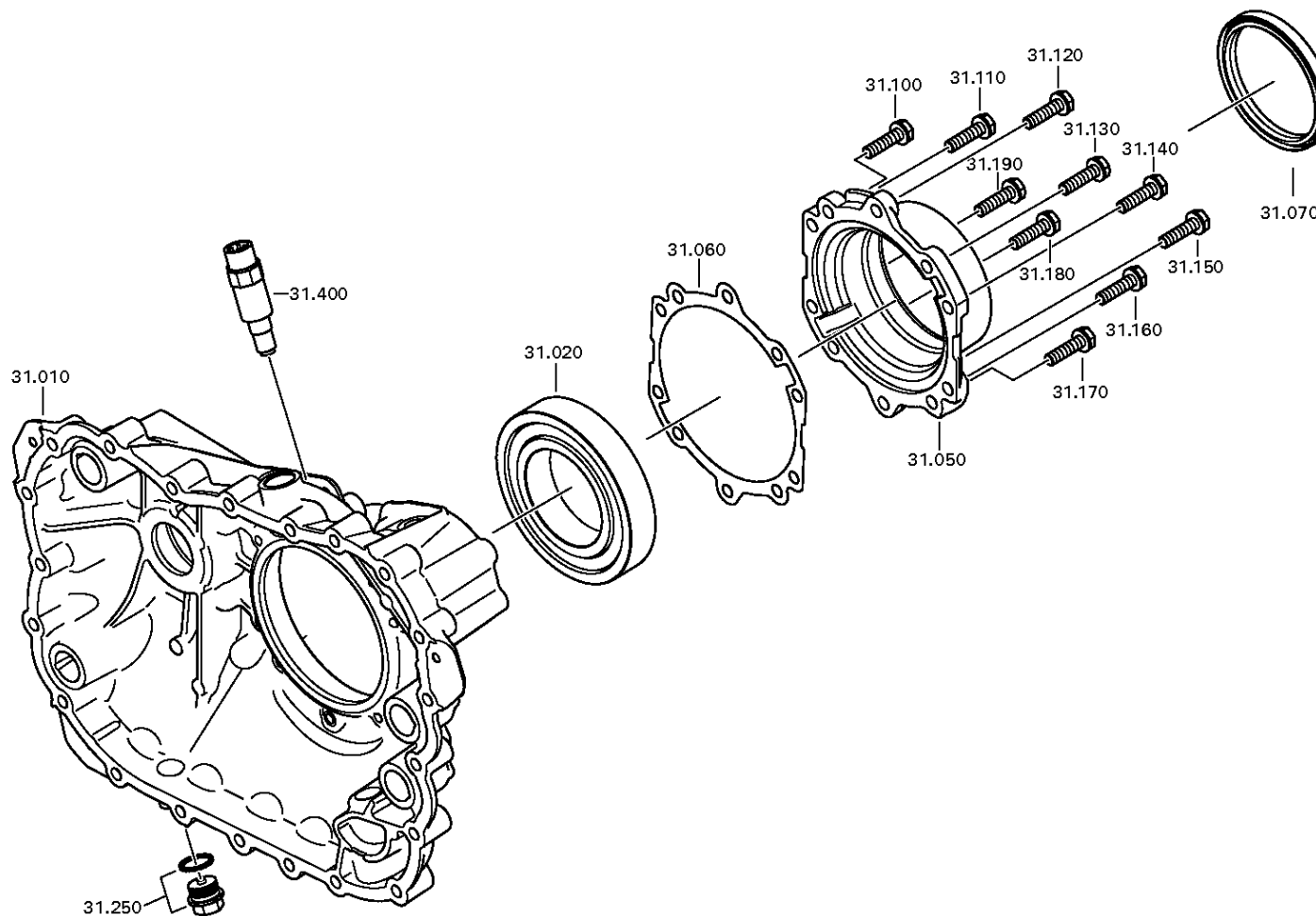
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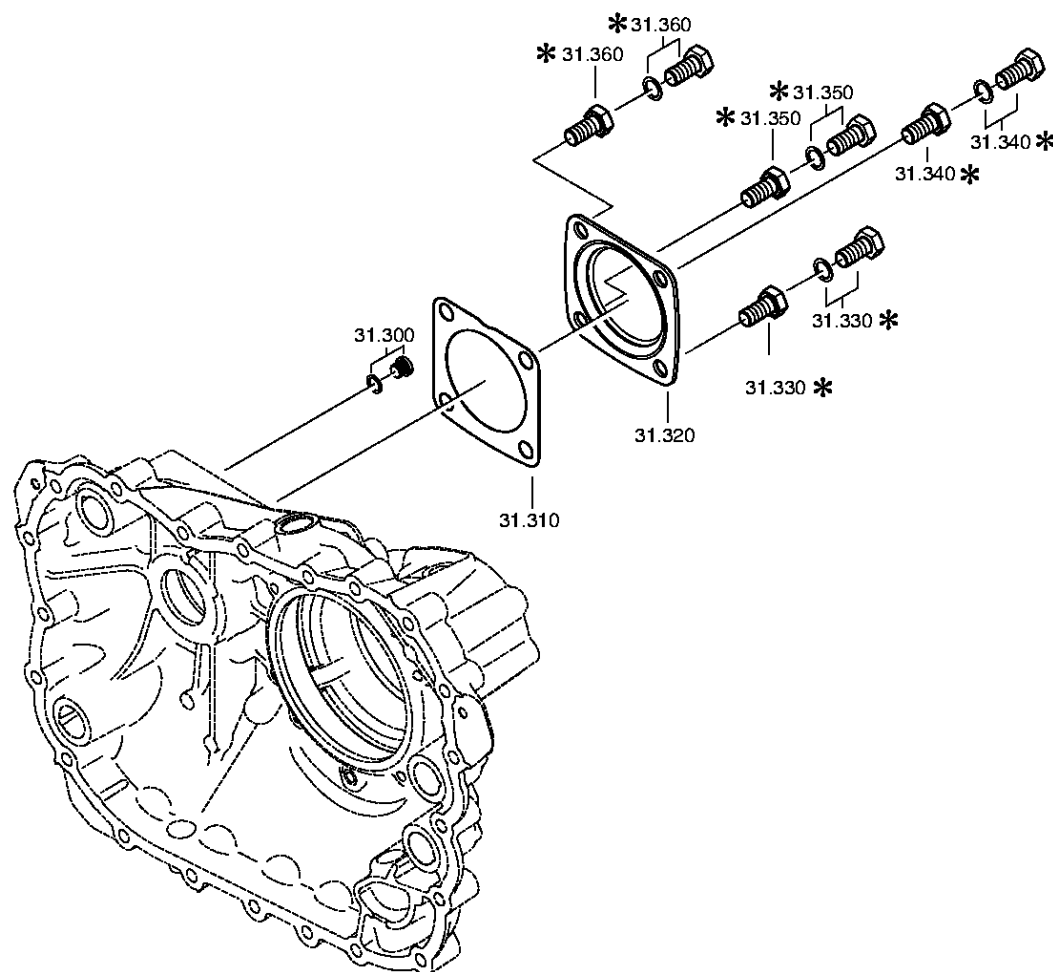
Plant: 161.43.01-1

RC HOUSING



16 S 2230 TO /
RC HOUSING





Parts list

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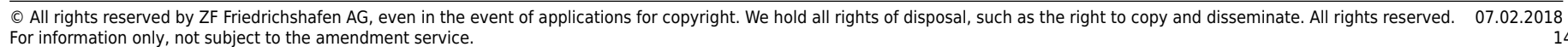
Material number: 1356.002.113

Plant: 161.43.01-1

Material-assembly-group-no: 1325.131.015

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.301.065		TRANSMISSION HOUSING	1		Z00013438510			
20	0750.116.394		BALL BEARING	1		Z00013438510	90,0X160,0X30,0		
50	1325.331.001		COVER	1		Z00013438510			
60	0501.331.906		GASKET	1		Z00024187410			
70	---		SHAFT SEAL	1		Z00020928810			
---	---		SHAFT SEAL	1			WTB 105X125X12/16		
---	0734.300.421		SHAFT SEAL	1			105,0X125,0X12,0/16,0		
---	0734.300.679		SHAFT SEAL	1			105X125X16		
100	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
110	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
120	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
130	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
140	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
150	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
160	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
170	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
180	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
190	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
250	---		SCREW PLUG	1		Z00010176111	M24X1,5		
---	0736.300.160		SCREW PLUG	1		Z00010176110	M24X1,5 M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010176110	24X29		
300	---		SCREW PLUG	1		C01004359F10	15N.M*DICHTRING M10X1		
---	0636.100.793		SCREW PLUG	1		Z00010111613	M10X1		
---	0730.008.055		SEALING RING	1			10X14		
310	1238.308.201		GASKET	1			ENTHALT.IN 1238 308 202(2)		
320	1328.301.170		COVER	1		Z00008068010			
330	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
340	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
350	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
360	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
400	---		PULSE SENSOR	1		Z00013438510	35N.M*O.DICHTRING*BAJONETT*L=35,0		
---	0501.210.857		PULSE SENSOR	1		Z00008965210			



Plant

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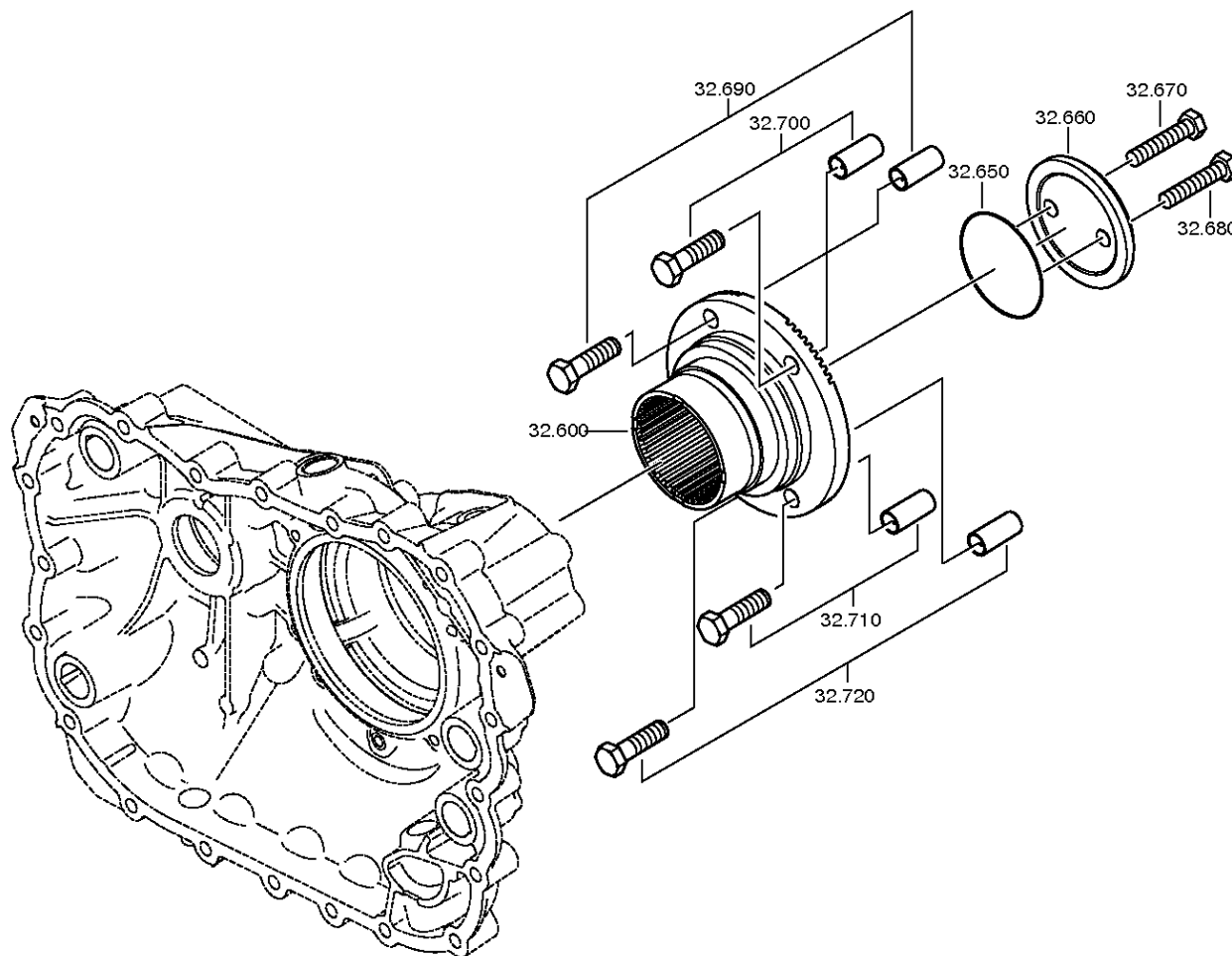
Material number: 1356.002.113

Plant: 161.44.41-1

PLANETARY DRIVE



16 S 2230 TO /
PLANETARY DRIVE



Parts list

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Material number: 1356.002.113

Plant: 161.44.03-1

Material-assembly-group-no: 1325.132.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.232.039		PLANET CARRIER	1		Z00014438013			
40	1316.232.011		PLANET GEAR SET	1			KPL.		
50	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
60	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
70	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
80	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
90	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
100	1316.332.140		PLANET SHAFT	1		Z00014438013			
110	0631.329.147		SLOTTED PIN	1			6X26		
120	0631.329.261		SLOTTED PIN	1			3,5X26		
130	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
140	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
150	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
160	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
170	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
180	1316.332.140		PLANET SHAFT	1		Z00014438013			
190	0631.329.147		SLOTTED PIN	1			6X26		
200	0631.329.261		SLOTTED PIN	1			3,5X26		
210	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
220	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
230	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
240	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
250	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
260	1316.332.140		PLANET SHAFT	1		Z00014438013			
270	0631.329.147		SLOTTED PIN	1			6X26		
280	0631.329.261		SLOTTED PIN	1			3,5X26		
290	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
300	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
310	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
320	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
330	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
340	1316.332.140		PLANET SHAFT	1		Z00014438013			
350	0631.329.147		SLOTTED PIN	1			6X26		
360	0631.329.261		SLOTTED PIN	1			3,5X26		

Parts list

Page 2 from 2



Material number: 1356.002.113

Plant: 161.44.03-1

Material-assembly-group-no: 1325.132.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
370	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
380	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
390	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
400	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
410	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
420	1316.332.140		PLANET SHAFT	1		Z00014438013			
430	0631.329.147		SLOTTED PIN	1			6X26		
440	0631.329.261		SLOTTED PIN	1			3,5X26		
500	1325.332.011		BUSH	1					
510	1316.332.130		RING GEAR CARRIER	1					
520	1315.332.041		RING GEAR	1			IN 1316 332 055(1)		
530	0730.513.583		LOCKING WIRE	1			A=3,20 IN 0730 505 052(2)		
540	0735.298.169		AXIAL NEEDLE BEARING	1			103,3X128,4X10,0		
600	1325.332.036		OUTPUT FLANGE	1		Z00020928810			
650	---		O-RING	1		Z00034779410	ZFF*LOKAL HNG		
---	0634.313.805		O-RING	1			82X4		
---	0501.331.852		O-RING	1			82X4		
660	1312.332.028		WASHER	1					
670	0636.011.777		HEXAGON SCREW	1		Z00007292012	M12X60		
680	0636.011.777		HEXAGON SCREW	1		Z00007292012	M12X60		
690	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
700	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
710	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
720	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					

Plant

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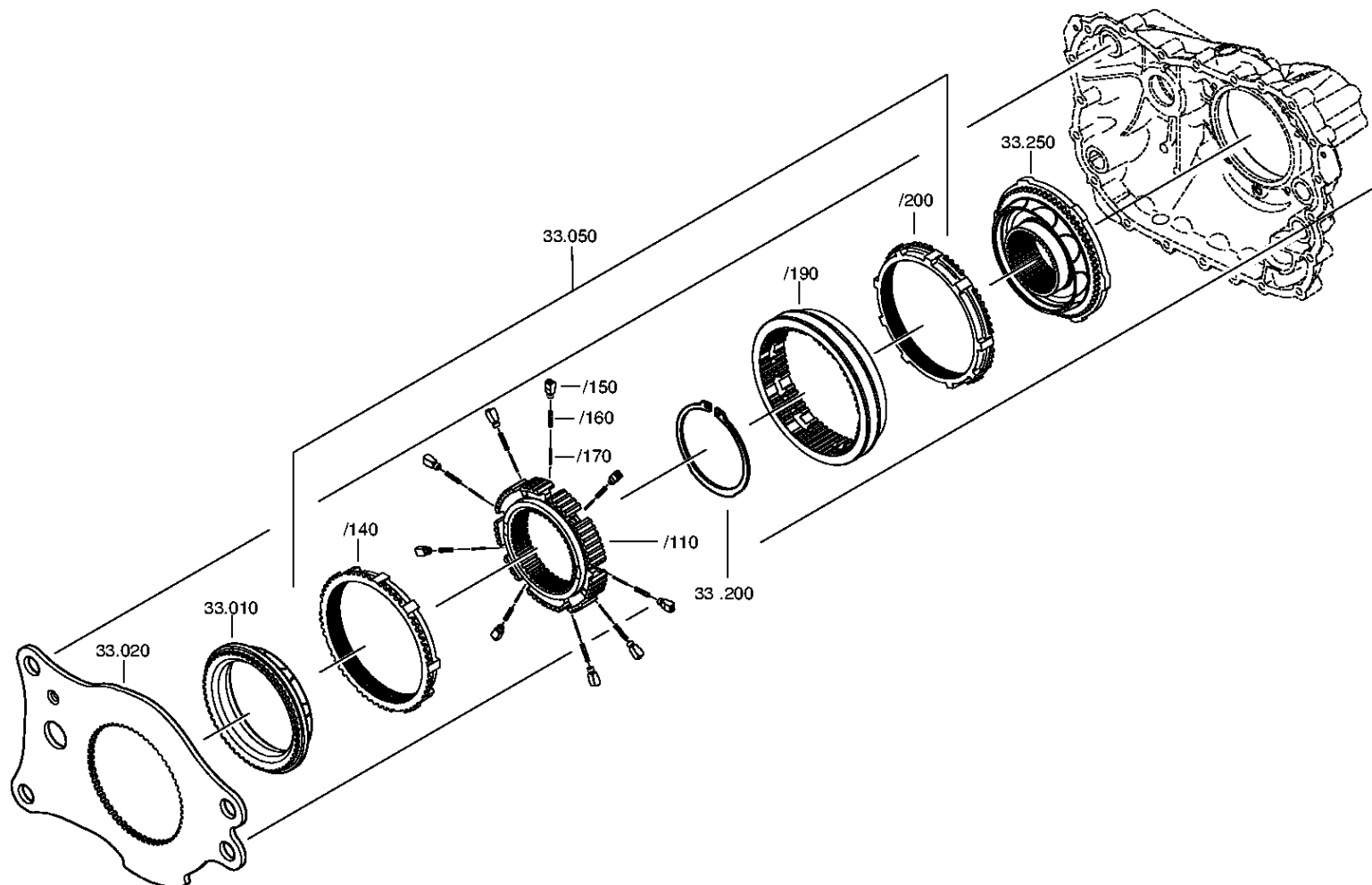
Material number: 1356.002.113

Plant: 161.45.01-1

Material-assembly-group-no: 1325.133.004



16 S 2230 TO /
SYNCHRONIZER



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.45.01-1

Material-assembly-group-no: 1325.133.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1296.333.050		CLUTCH BODY	1			ENTHALT.IN 1296.333.053(1)		
20	1325.333.016		PLATE	1					
50	1325.233.008		SYNCHRONIZER	1			KPL.GP*DRUCKGUSS		
/110	1313.333.001		SYNCHRO.BODY	1			ENTHALT.IN 1296 333 014(1)		
/140	1296.333.045		SYNCHRO.RING	1					
/150	1240.304.278		PRESSURE PART	9					
/160	0732.040.385		COMPRESSION SPRING	9					
/170	0732.040.386		COMPRESSION SPRING	9					
/190	1325.333.018		SLIDING SLEEVE	1					
/200	1296.333.045		SYNCHRO.RING	1					
200	0630.501.175		RETAINING RING	1			125X3,7		
250	1325.233.007		CLUTCH BODY	1			KPL.		

Plant

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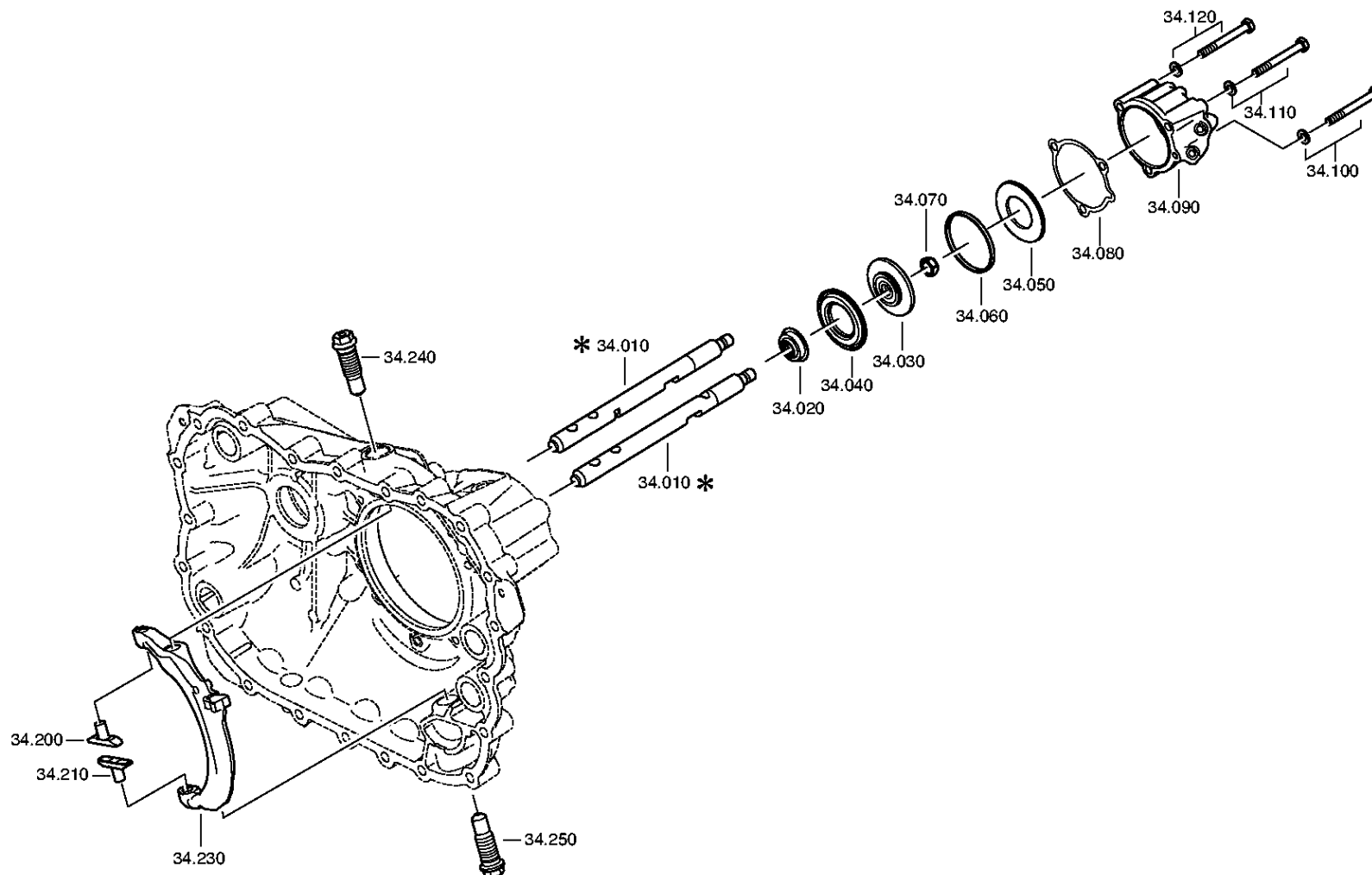
Material number: 1356.002.113

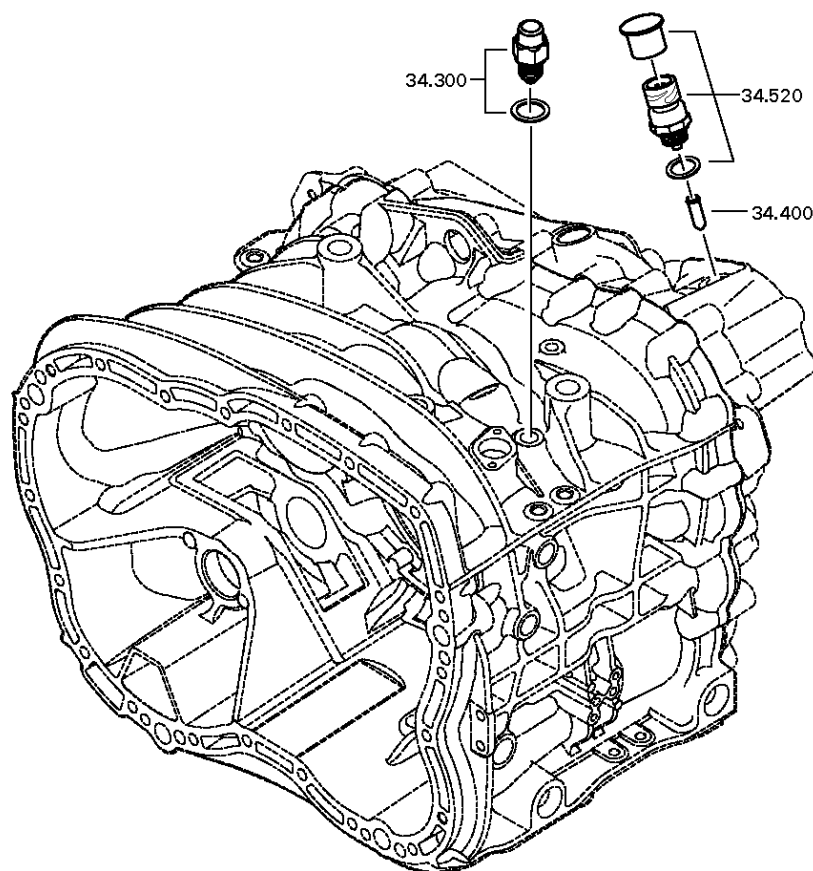
Plant: 161.46.01-1

GP SHIFT SYSTEM



16 S 2230 TO /
GP SHIFT SYSTEM





Parts list

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Material number: 1356.002.113

Plant: 161.46.01-1

Material-assembly-group-no: 1325.134.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.334.017		GEAR SHIFT RAIL	1					
20	0750.112.253		FLANGE PACKING	1			25X40X15		
30	---		PISTON	1			GP		
---	1315.334.034		PISTON	1			ENTHALT.IN 1315 334 040(2)		
---	1315.334.063		PISTON	1					
40	0734.307.294		SEALING RING	1			49X91X7,4 FA.KACO		
50	0734.307.294		SEALING RING	1			49X91X7,4 FA.KACO		
60	0750.112.066		GUIDE RING	1					
70	0737.300.037		LOCKING NUT	1			MS16X1,5		
80	0501.322.778		GASKET	1					
90	1325.334.013		CYLINDER	1			GP		
100	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
110	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
120	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
200	1325.334.008		SLIDING PAD	1			GP		
210	1325.334.008		SLIDING PAD	1			GP		
230	1325.334.007		GEARSHIFT FORK	1			GP		
240	---		SWIVEL SCREW	1			O.SCHEIBE*ZF KAMA		
---	---		SWIVEL SCREW	1		Z00015655010	WTB*ZF KAMA M24X1,5		
---	1324.334.008		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
---	1315.334.074		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
250	---		SWIVEL SCREW	1			O.SCHEIBE*ZF KAMA		
---	---		SWIVEL SCREW	1		Z00015655010	WTB*ZF KAMA M24X1,5		
---	1324.334.008		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
---	1315.334.074		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
300	---		DETENT PLUNGER	1			145N*50N.M		
---	1324.207.035		DETENT PLUNGER	1			KPL. *145 N		
---	0730.008.604		SEALING RING	1					

Parts list

Page 2 from 2



Material number: 1356.002.113

Plant: 161.46.01-1

Material-assembly-group-no: 1325.134.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
400	1295.212.006		PIN	1			KPL.		
520	---		SWITCH	1		Z00025033610	SCHL*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.331.660		SWITCH	1		Z00025033617			
---	0634.801.062		SEALING RING	1		Z00025033617	18X24		
---	0700.300.427		PROTECTION CAP	1		Z00025033617			

Plant

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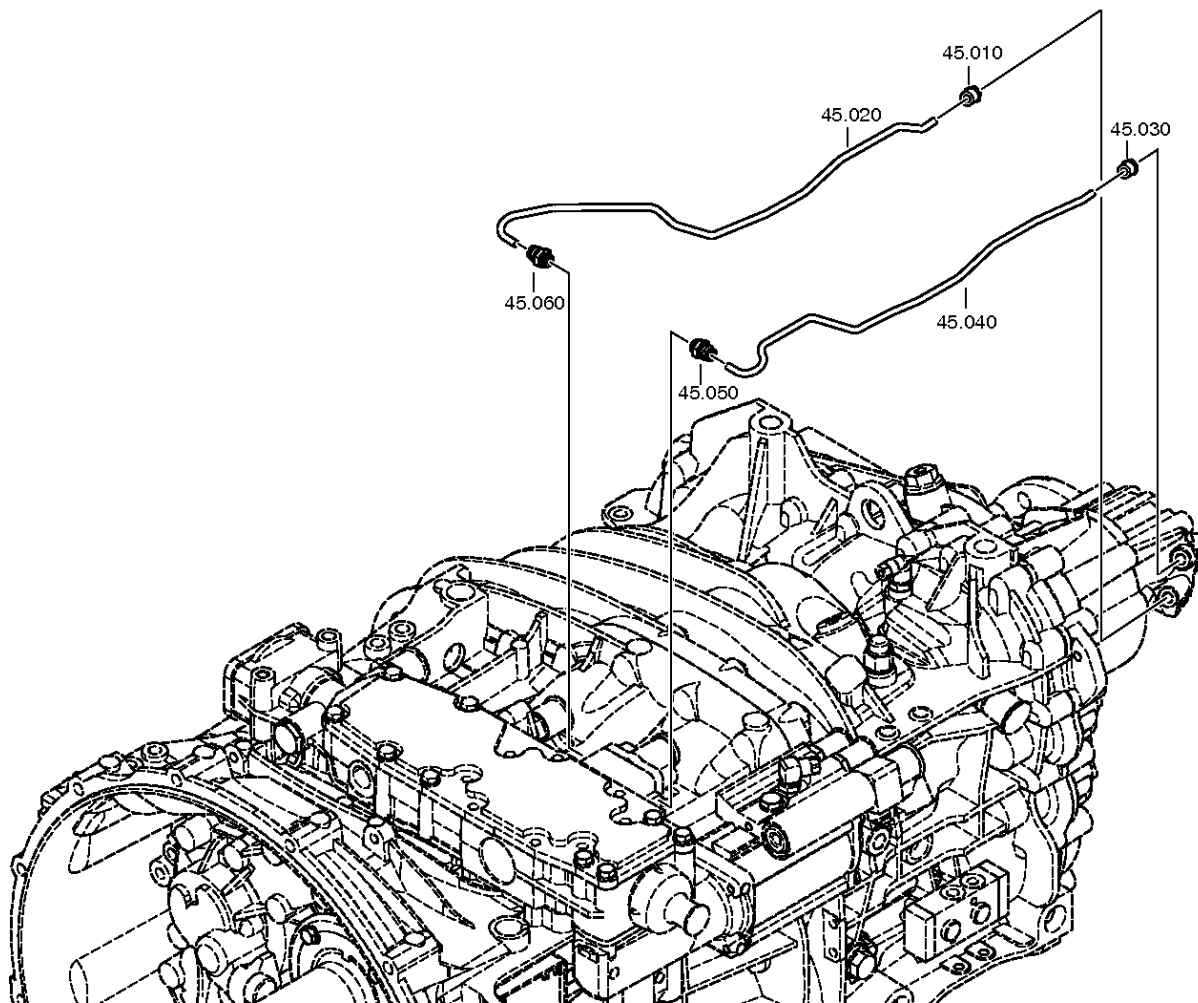
Material number: 1356.002.113

Plant: 161.57.04-1

Material-assembly-group-no: 1325.145.004



16 S 2230 TO /
RANGE SELECTION



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.57.04-1

Material-assembly-group-no: 1325.145.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0501.324.029		PLUG-IN COUPLING	1					
20	1325.345.009		TUBE	1			H-H		
30	0501.324.029		PLUG-IN COUPLING	1					
40	1325.345.008		TUBE	1			E13MP		
50	0501.326.099		PLUG-IN COUPLING	1			M14X1,5 ROHR 8MM		
60	0501.326.099		PLUG-IN COUPLING	1			M14X1,5 ROHR 8MM		

Plant

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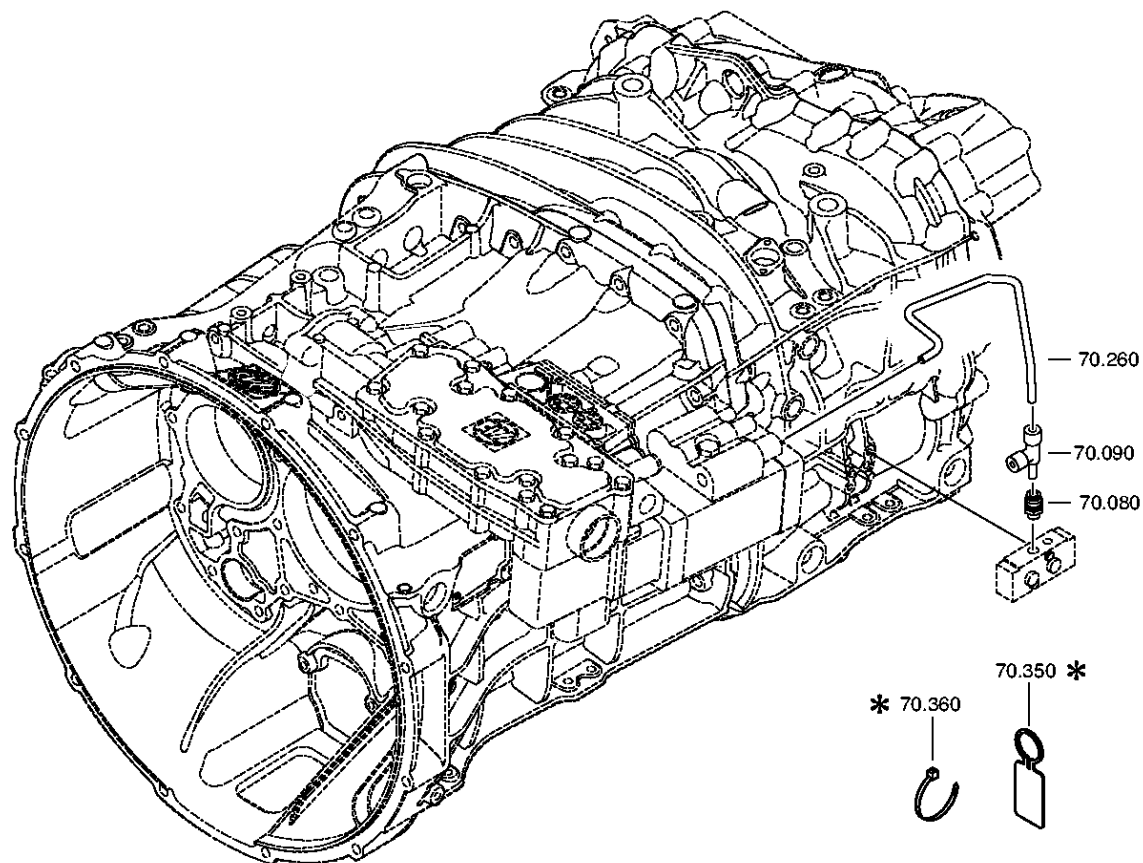
Material number: 1356.002.113

Plant: 161.70.05-1

Material-assembly-group-no: 1356.170.003



16 S 2230 TO /
SHUT-OFF VALVE



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.70.05-1

Material-assembly-group-no: 1356.170.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
80	0501.324.477		PLUG-IN COUPLING	1			M12X1,5 ROHR 8MM		
90	0501.324.457		PLUG-IN COUPLING	1					
260	1325.345.039		TUBE	1		Z00007299711	8X1 ZWISCHEN DBV UND GV		

Plant

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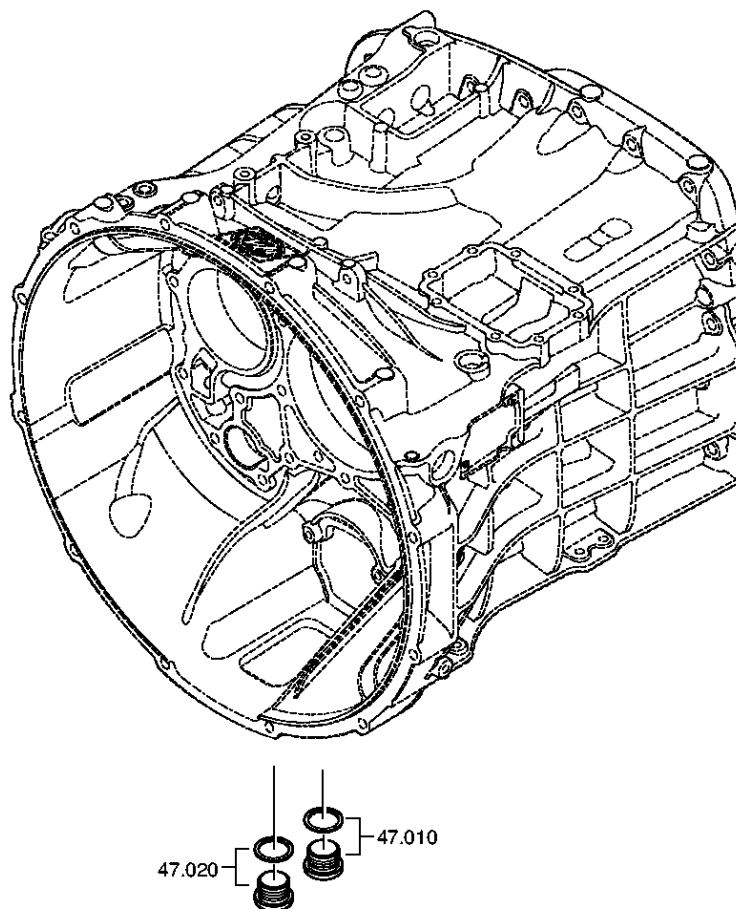
Material number: 1356.002.113

Plant: 161.90.08

Material-assembly-group-no: 1325.147.009



16 S 2230 TO /
SCREW PLUG



Parts list

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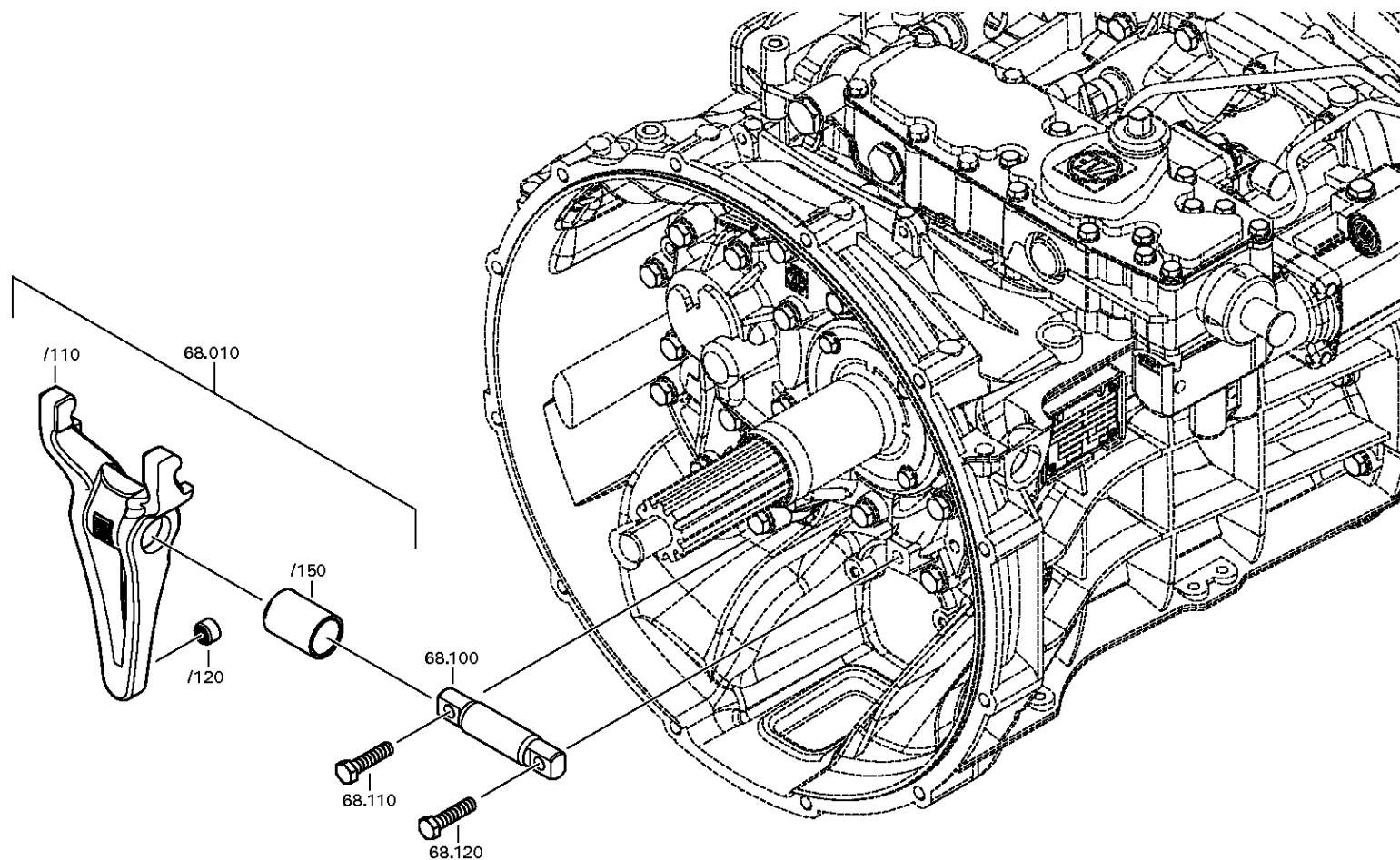
Material number: 1356.002.113

Plant: 161.90.08

Material-assembly-group-no: 1325.147.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	---		SCREW PLUG	1		Z00010164013	50N.M*DICHTRING M22X1,5		
---	0636.100.824		SCREW PLUG	1		Z00010164019	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010164019	A22X27		
20	---		SCREW PLUG	1		Z00010164013	50N.M*DICHTRING M22X1,5		
---	0636.100.824		SCREW PLUG	1		Z00010164019	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010164019	A22X27		



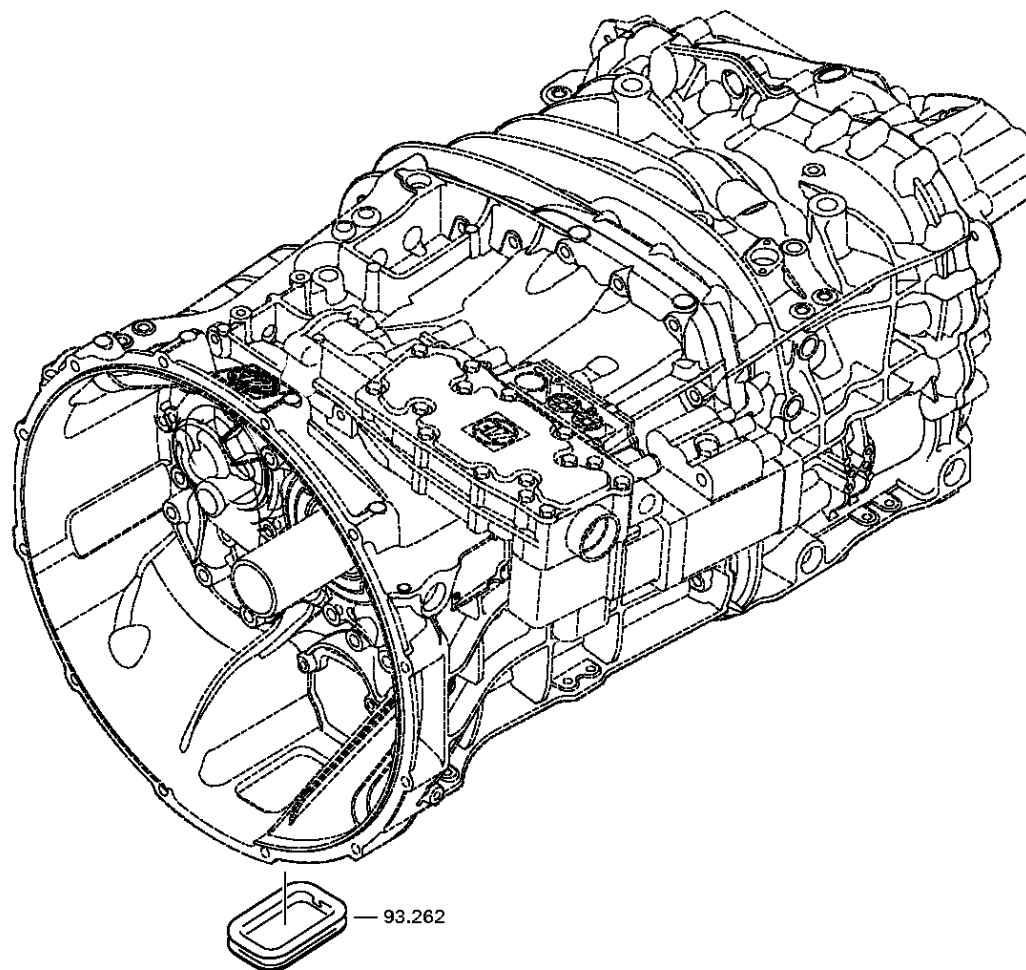
Material number: 1356.002.113

Plant: 161.93.17-1

CLUTCH RELEASE DEVICE



16 S 2230 TO /
CLUTCH RELEASE DEVICE



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.93.76-1

Material-assembly-group-no: 1325.168.011

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.268.009		RELEASE FORK	1			KPL*GABELWEITE 94,0*KUGEL D=12*I=1,76*OHNE ROLLE*1-SK*LOKAL		
/110	---		RELEASE FORK	1			ZFF*LOKAL HNG		
---	1325.368.007		RELEASE FORK	1					
/120	0501.315.159		BALL CUP	1			KS12-18-12		
/150	0501.323.199		BEARING BUSH	1			30x37x50		
100	1325.368.008		RELEASE SHAFT	1			A=119,8mm		
110	0636.016.416		HEXAGON SCREW	1			M12X50		
120	0636.016.416		HEXAGON SCREW	1			M12X50		
262	1315.301.230		PROTECTION CAP	1					

Assembly group overview

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Material number: 0769.174.710



16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
	10	1356.002.122	16 S 2530 TO	1		
	20	1356.002.113	16 S 2530 TO	1		



Pos.	Information	Amendment number
001	Use case -----	
002	Customer ZF Drivotech Co., Ltd.	
003	City Hangzhou, Zhejiang	
004	DUNS 54-526-6199	
005	Use case -----	
006	Customer China National Heavy Duty Truck	
007	City Jinan	
008	DUNS 65-389-6704	
009	Product description -----	
010	INSTALLATION POS TRANSMISSION HORIZONTAL LEFT	
011	TRANSMISSION ATTACHMENT FLANGE-MOUNTED	
019	NUMBER OF GEARS 16	
020	RATIO, BOTTOM GEAR 13.8	
021	RATIO, TOP GEAR .84	
022	SET OF RATIOS SG	
023	NOTE ON TYPE OF GEAR SHIFT SYS TURNING SHAFT	
024	POSITION, GEAR SHIFT SYSTEM HORIZONTAL LEFT	
025	DESIGN, SHIFT PATTERN H-H	
026	VERSION SHIFT SUPPORT SERVO	
027	VERSION ACTUATION SHIFT SYSTEM CONTROL CABLE	
029	DESIGN PSE PSE2	
030	DESIGN PSE WITH VALVE PRESSURE RELIEF VALVE 6	
032	MAIN CUTOFF VALVE WITH	
033	NO. TAPPETS MAIN CUTOFF VALVE 2	
034	POS. AIR CON MAIN CUTOFF VALVE F	
036	DESIGN AIR SHUT-OFF GV-VALVE	
037	DIA.THROTTLE VALVE AIR SUPPLY 1.3 mm	
038	SELECTION PATTERN VARIANT GEAR SHIFT PATTERN 1	
039	VERSION OF SYNCHRONIZER 1 1+2 GEAR BK-SYNCHR.MOLYBDAEN	
040	VERSION OF SYNCHRONIZER 2 3+4 GEAR BK-SYNCHR.MOLYBDAEN	
041	REFERENCE LENGTH INPUT SHAFT 117 mm	
042	STANDARD TYPE INPUT SHAFT SAE	
043	NUMBER OF WEDGES INPUT SHAFT 10	



Pos.	Information	Amendment number
044	VERSION OF INPUT SHAFT FORM C	
045	NOMINAL DIAMETER INPUT SHAFT 2 in	
046	DIAMETER, JOURNAL, INPUT SHAFT 25 mm	
047	TYPE FIT SPIGOTS INPUT SHAFT F7	
048	VER. BEAR. SPIGOTS INPUT SHAFT TAPER ROLLER	
051	DESIGN,CONN., CLUTCH HOUSING SAE 1	
052	CENTR.DIA,HSG/ENGINE CONNECT. 511.175 mm	
053	NUMBER OF BORES,ENGINE CONN. 12	
054	BORE DIA, ENGINE CONNECTION 11 mm	
055	DESIGN, RELEASE SHAFT	
056	WIDTH ACROSS FLATS,RELEAS.FORK 94 mm	
059	REF.LENGTH,RELEASE BEAR.FLAN -24.2 mm	
060	DIAMETER, RELEASE FLANGE 62.62 mm	
061	DESIGN RELEASE CYLINDER WITHOUT GROOVE	
062	OUTER DIA. OUTPUT FLANGE RA 180 mm	
064	NO.OF SCREWS OUTPUT FLANGE RA 4	
066	DIA. THREAD OUTPUT FL. SCR. RA M14	
067	THREAD PITCH OUTPUT FL SCR. RA 1.5 mm	
068	THREAD LENGTH OUTP.FL SCREW RA 50 mm	
070	DIMENSION SHIFT TURRET DIST. 300 mm	
071	MEAS. LOC. SHIFT TURRET DIST. SHIFT LEVER-LOCATION	
072	SELECTOR LEVER n	
073	RADIUS SELECTOR LEVER mm	
074	SELECTOR LEVER POSITION	
075	DESIGN OFFSET SELECTOR LEVER	
076	LENGTH OFFSET SELECTOR LEVER mm	
077	SHIFT LEVER n	
078	RADIUS 1 SHIFT LEVER mm	
079	RADIUS 2 SHIFT LEVER mm	
081	SHIFT LEVER CONNECTION KNURLING	
082	DESIGN, OFFSET, SHIFT LEVER	
084	LEVER POSITION SHIFTING OUTPUT	
085	GEAR SHIFT LEVER ANGLE EPSILON GRAD	

Pos.	Information	Amendment number
088	SPRING ARRANGEMENT Q1	
089	SPRING FORCE DETENT PLUNGER RG 60 N	
092	SELECTOR SPRING FORCE, OUTSIDE 80 N	
094	HUMP SPRING FORCE, OUTSIDE 120 N	
095	HUMP SPRING FORCE, CENTRE 70 N	
097	SPRING FORCE OUTS. DETENT NEUT 200 N	
099	ALLOCATION DETENT LEVER VER. C	
100	SWITCH, REVERSE GEAR y	
101	DESIGN, RG (REV.GEAR) SWITCH CLOSING	
102	DESIGN, CONNECTION, RG SWITCH DIN BAYONET	
103	CODE SWITCH RG A1	
104	PROT.CAP SWITCH, REVERSE GEAR y	
105	SWITCH, NEUTRAL GEAR y	
106	DESIGN,NG(NEUTRAL GEAR)SWITCH OPENING SWITCH	
107	DESIGN, CONNECTION, NG SWITCH DIN BAYONET	
108	CODE SWITCH NG A1	
109	PROT.CAP SWITCH, NEUTRAL GEAR y	
110	PRESSURE SWITCH n	
115	RG-GATE-IDENTIFICATION SWITCH n	
120	SWITCH RG-ENGAGED n	
125	SWITCH GP y	
126	DESIGN, GP SWITCH CLOSING	
127	DESIGN, CONNECTION, GP SWITCH DIN BAYONET	
128	CODE SWITCH GP A1	
129	PROTECTING CAP GP SWITCH y	
130	SWITCH GP-END POSITION n	
135	SWITCH GV n	
140	SWITCH HG n	
145	SWITCH 1 GEAR n	
150	ATTACHM.POS.HEAT EXCHANGER IN FRONT RIGHT	
151	DES.CONN.HEAT EXCHANGER PREPARED	
152	VER. TRANSMISSION VENTILATION BREATHER	
159	PULSE SENSOR TRANSMISSION WITH	



Pos.	Information	Amendment number
160	PULSE RATE PULSE SENS GEARBOX 6 IMP/U	
161	PROT.CAP PULSE SENSOR GEARBOX y	
162	DES.CONN.PULSE SENSOR GEARBOX DIN BAYONET	
169	OIL CAPACITY, GEARBOX 15.5 dm3	
171	OIL GRADE PERMISSIBLE ACC. TO TE-ML02	
172	OIL CLASS FIRST FILLING B	
173	CODING OUTER CONSERVATION KA2	
175	CODING INNER CONSERVATION KI1	
176	CONSERVATION SPECIFICATION ZFN 916	
177	COLOR JET BLACK	
178	COLOUR CLASSIFICATION ACC. TO RAL 9005	
179	PAINTING, ZF STANDARD 915 W	

Assembly group overview

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Material number: 1356.002.122

16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
161.01.09-1	110	1356.101.004	TRANSMISSION HOUSING	1		
161.01.87-1	180	1325.101.825	CLUTCH HOUSING	1		
161.02.05-1	10	1356.102.017	INPUT SHAFT	1		
161.02.80-1	240	1325.102.802	CONNECTION PLATE	1		
161.02.01-1	910	1325.102.018	CONNECTION PLATE	1		
068.03.01-1	20	1316.103.013	COUNTERSHAFT	1		
161.04.12-1	30	1356.104.027	MAIN SHAFT	1		
161.05.01-1	130	1325.105.002	RETURN	1		
161.06.04-1	40	1356.106.003	TRANSMISSION SHIFT SYSTEM	1		
161.06.02-1	44	1325.106.803	TRANSMISSION SHIFT SYSTEM	1		
068.07.81-1	460	1316.108.817	GEAR SHIFT HOUSING	1		
068.07.38-1	910	1316.108.075	GEAR SHIFT HOUSING	1		
068.07.25-1	914	1316.108.459	GEARSHIFT SHAFT	1		
068.07.75-1	924	1316.108.070	DETENT	1		
062.08.30-1	954	1316.171.403	END COVER	1		
068.08.45-1	960	1316.171.445	PNEUMATIC SERVO UNIT	1		
068.09.01-1	934	1316.109.052	CONNECTING PARTS	1		
068.09.11-1	940	1316.109.433	CONNECTING PARTS	1		
161.10.04-1	200	1356.110.002	OIL SUPPLY	1		
161.10.01-1	920	1325.110.005	PUMP	1		
068.10.02-1	932	1316.111.011	SELECTOR LEVER	1		
068.10.92-1	466	1341.111.803	SELECTOR LEVER	1		
068.12.08-1	918	1316.149.478	SET OF SPRINGS	1		
161.28.01-1	370	1325.128.806	PLANETARY RANGE	1		
161.40.01-1	50	1356.112.001	GV-SHIFT SYSTEM	1		
161.40.80-1	340	1325.112.817	GV-SHIFT SYSTEM	1		
161.43.01-1	40	1325.131.024	RC HOUSING	1		
161.43.40-1	50	1325.131.400	CLOSING COMPONENTS	1		
161.44.04-1	10	1325.132.005	PLANETARY DRIVE	1		
161.44.41-1	60	1325.132.415	OUTPUT FLANGE	1		
161.45.01-1	20	1325.133.006	SYNCHRONIZER	1		
161.46.01-1	30	1325.134.006	GP SHIFT SYSTEM	1		

Assembly group overview

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Material number: 1356.002.122

16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
161.46.40-1	400	1325.134.404	SWITCH	1		
161.57.04-1	510	1325.145.007	RANGE SELECTION	1		
161.70.05-1	480	1356.170.003	SHUT-OFF VALVE	1		
161.90.08	320	1325.147.009	SCREW PLUG	1		
161.93.76-1	260	1325.168.011	CLUTCH RELEASE DEVICE	1		
161.93.17-1	262	1315.301.230	PROTECTION CAP	1		

Plant

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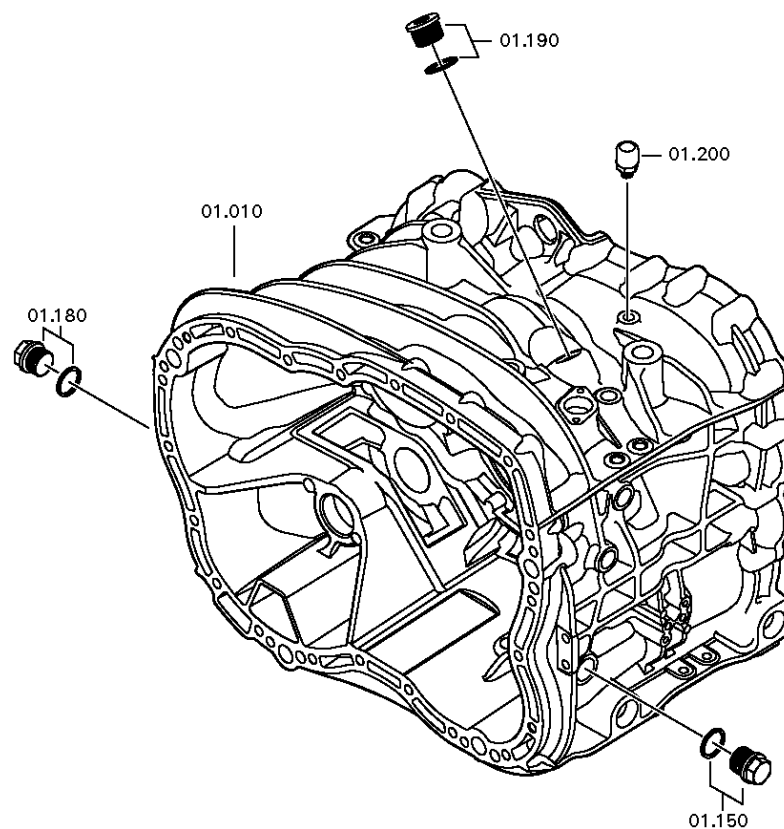
Material number: 1356.002.122

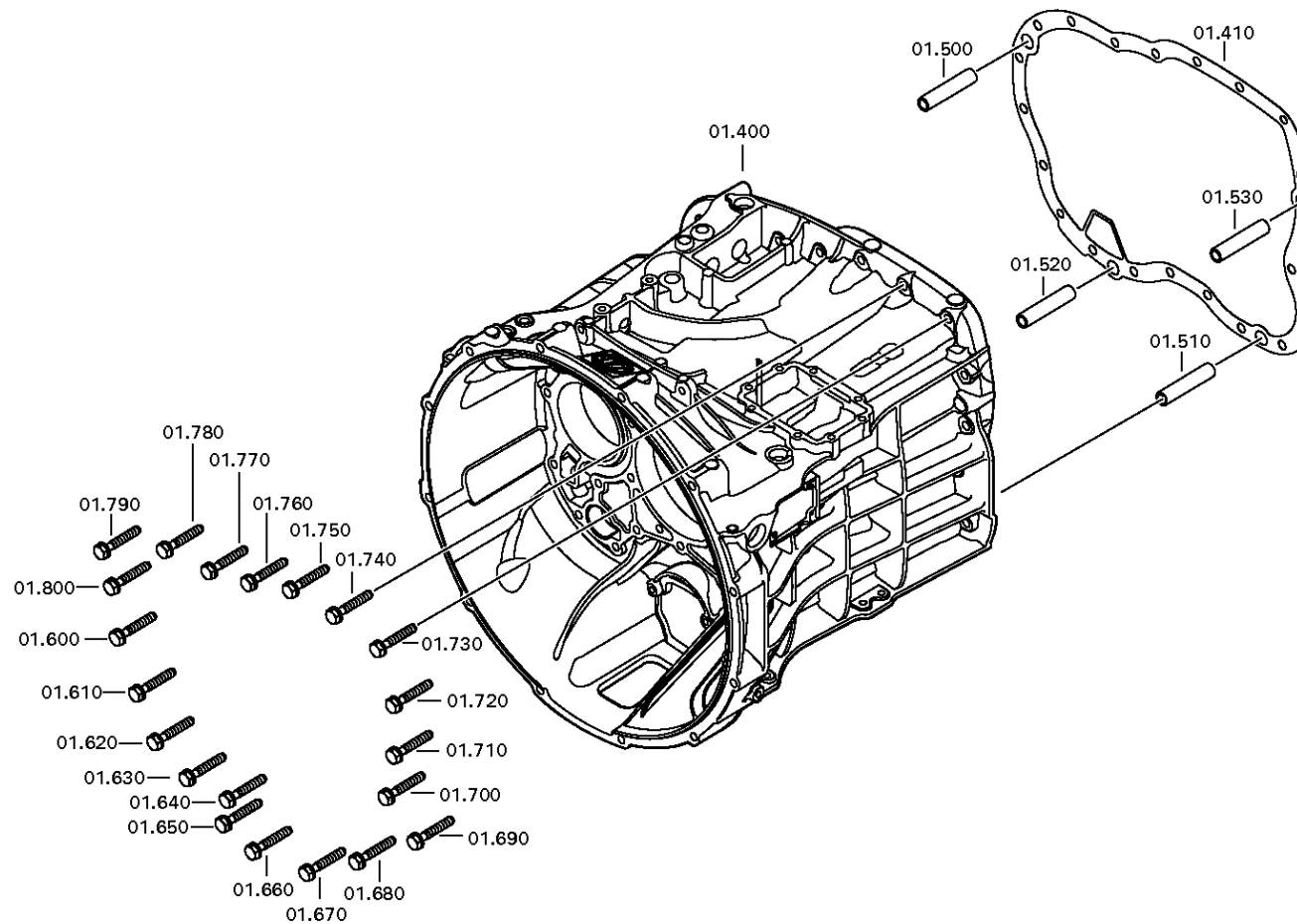
Plant: 161.01.09-1

TRANSMISSION HOUSING



16 S 2230 TO /
TRANSMISSION HOUSING





Parts list

Page 1 from 2



Material number: 1356.002.122

Plant: 161.01.09-1

Material-assembly-group-no: 1356.101.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.201.031		TRANSMISSION HOUSING	1		Z00008470912	KPL.BEARBEITET*GP-ANZ		
150	---		SCREW PLUG	1		Z00010112111	60N.M*DICHTRING M24X1,5		
---	0636.304.088		SCREW PLUG	1		Z00010112110	M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010112110	24X29		
180	---		SCREW PLUG	1		Z00010112111	60N.M*DICHTRING M24X1,5		
---	0636.304.088		SCREW PLUG	1		Z00010112110	M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010112110	24X29		
190	---		SCREW PLUG	1		Z00010164412	70N.M*DICHTRING M26X1,5		
---	0636.100.811		SCREW PLUG	1		Z00010164420	M26X1,5		
---	0634.801.249		SEALING RING	1		Z00010164420	26X31		
200	0501.218.540		BREATHER	1					
400	1325.201.025		CLUTCH HOUSING	1			SAE D=11*ABSTZG.2X D=9*UNBEARB.SENSOR/GV/M8/SCHUTZBL/LEITG		
410	0501.322.776		GASKET	1					
500	0731.201.563		CYLINDRICAL PIN	1					
510	0731.201.563		CYLINDRICAL PIN	1					
520	0731.201.563		CYLINDRICAL PIN	1					
530	0731.201.563		CYLINDRICAL PIN	1					
600	0636.016.405		HEXAGON SCREW	1			M10X60		
610	0636.016.405		HEXAGON SCREW	1			M10X60		
620	0636.016.405		HEXAGON SCREW	1			M10X60		
630	0636.016.405		HEXAGON SCREW	1			M10X60		
640	0636.016.405		HEXAGON SCREW	1			M10X60		
650	0636.016.405		HEXAGON SCREW	1			M10X60		
660	0636.016.405		HEXAGON SCREW	1			M10X60		
670	0636.016.405		HEXAGON SCREW	1			M10X60		
680	0636.016.405		HEXAGON SCREW	1			M10X60		
690	0636.016.405		HEXAGON SCREW	1			M10X60		
700	0636.016.405		HEXAGON SCREW	1			M10X60		
710	0636.016.405		HEXAGON SCREW	1			M10X60		
720	0636.016.405		HEXAGON SCREW	1			M10X60		
730	0636.016.405		HEXAGON SCREW	1			M10X60		
740	0636.016.405		HEXAGON SCREW	1			M10X60		

Parts list

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Material number: 1356.002.122

Plant: 161.01.09-1

Material-assembly-group-no: 1356.101.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
750	0636.016.405		HEXAGON SCREW	1			M10X60		
760	0636.016.405		HEXAGON SCREW	1			M10X60		
770	0636.016.405		HEXAGON SCREW	1			M10X60		
780	0636.016.405		HEXAGON SCREW	1			M10X60		
790	0636.016.405		HEXAGON SCREW	1			M10X60		
800	0636.016.405		HEXAGON SCREW	1			M10X60		

Plant

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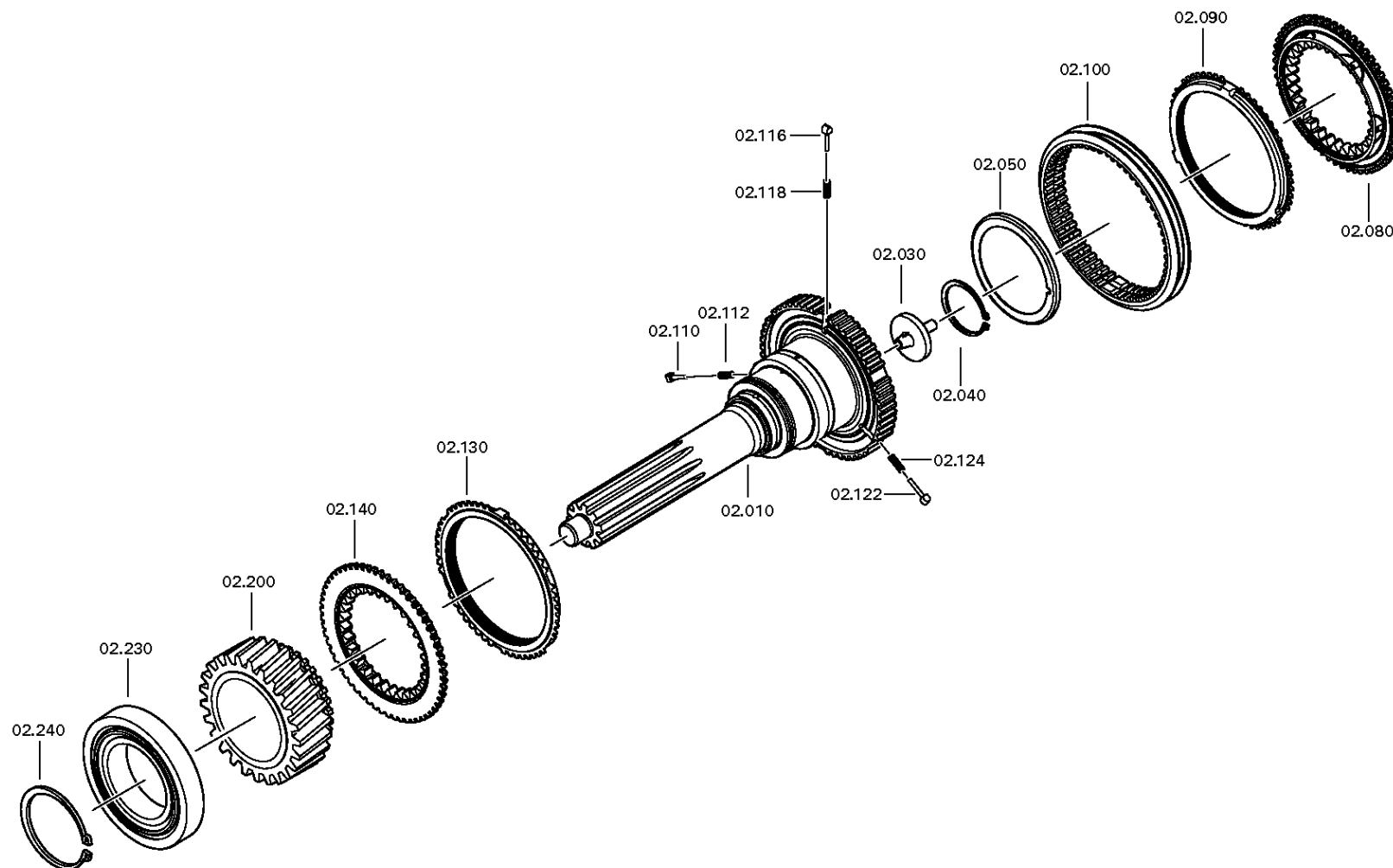
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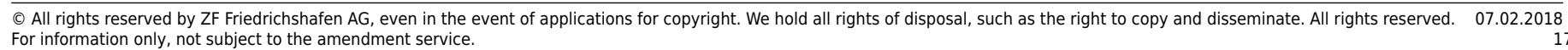
Plant: 161.02.05-1

INPUT SHAFT



16 S 2230 TO /
INPUT SHAFT





Plant

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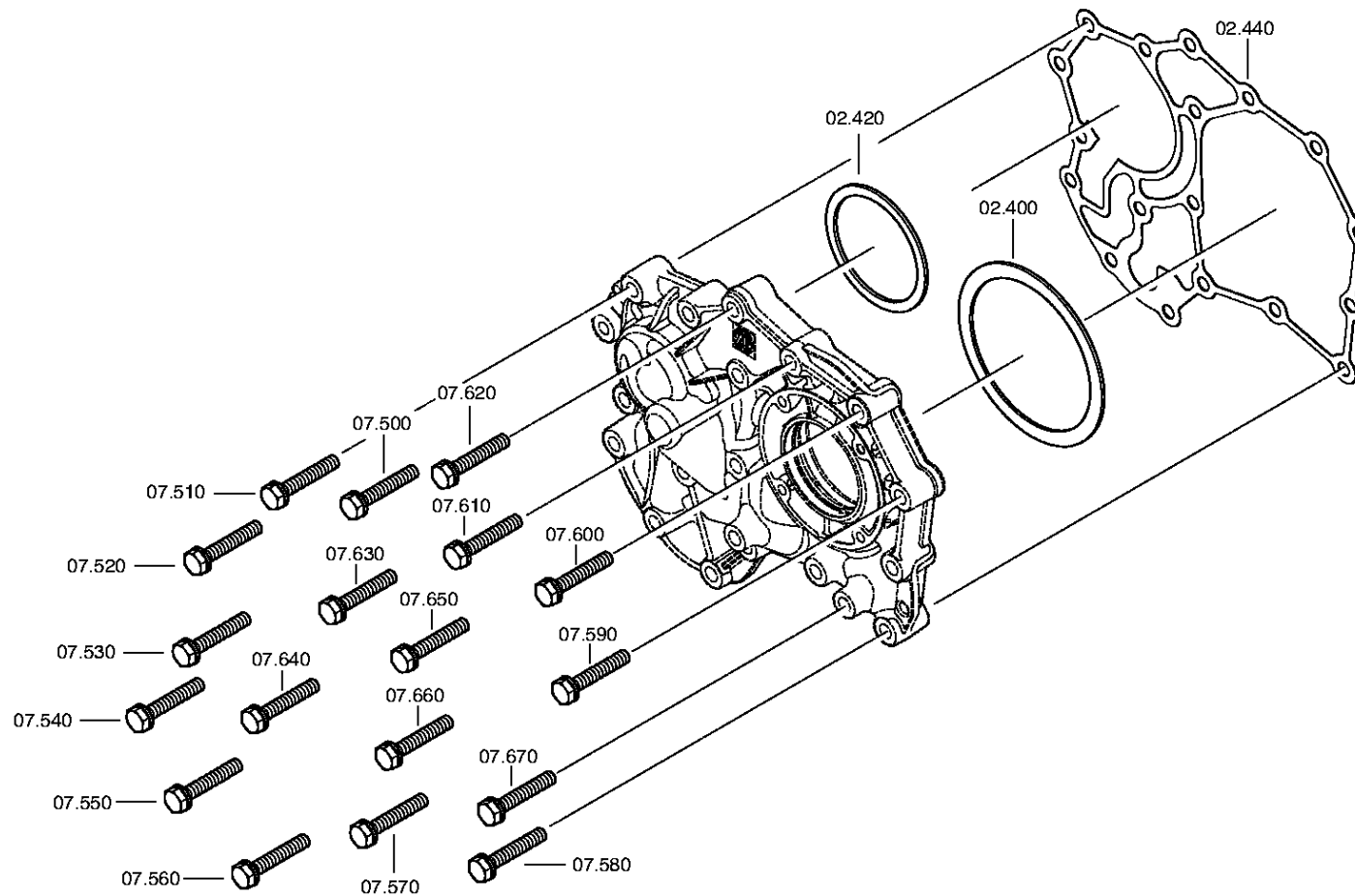
Material number: 1356.002.122

Plant: 161.02.80-1

INPUT SHAFT



16 S 2230 TO /
INPUT SHAFT



Parts list

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Material number: 1356.002.122

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.017

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.302.103		INPUT SHAFT	1					
30	1354.302.019		TUBE	1					
40	0630.502.027		RETAINING RING	1			50X2		
50	0750.101.179		OIL DAM	1		Z00037157511	77,0X95,5X6,0		
80	1297.304.523		CLUTCH BODY	1			ZF BK144		
90	---		SYNCHRO.RING	1			ZF-BK144*ZFF*LOKAL HNG		
---	1316.304.189		SYNCHRO.RING	1			ZF-BK 144		
---	1297.304.507		SYNCHRO.RING	1			ZF-BK144		
100	1297.304.516		SLIDING SLEEVE	1			ZF BK150		
110	1297.304.436		PRESSURE PART	1					
112	0732.040.409		COMPRESSION SPRING	1					
116	1297.304.436		PRESSURE PART	1					
118	0732.040.409		COMPRESSION SPRING	1					
122	1297.304.436		PRESSURE PART	1					
124	0732.040.409		COMPRESSION SPRING	1					
130	---		SYNCHRO.RING	1			ZF-BK144*ZFF*LOKAL HNG		
---	1316.304.189		SYNCHRO.RING	1			ZF-BK 144		
---	1297.304.507		SYNCHRO.RING	1			ZF-BK144		
140	1297.304.523		CLUTCH BODY	1			ZF BK144		
200	1316.302.067		HELICAL GEAR	1			Z35 IN 1316 302 026(1)		
230	0750.117.732		TAPERED ROLLER BEARING	1			85,0X150,0X30,5		
240	0730.501.598		RETAINING RING	1			85X4		
300	1325.302.055		CONNECTION PLATE	1		Z00013937810			
320	1325.302.029		GUIDE TUBE	1		Z00013937810			
330	---		SHAFT SEAL	1		Z00013937810	55X78X8		
---	0734.310.435		SHAFT SEAL	1			55X78X8 FA.CF 55X78X8		
340	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
350	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
360	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
370	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		

Parts list

Page 2 from 4



Material number: 1356.002.122

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.017

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
400	---		SHIM	1			H= 0,90- 2,40(ABSTUFUNG:0,05MM)		
---	2050.309.094		SHIM	1			A=2,2 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.007.489		SHIM	1			A=2,15 IN 2050 309 090(2)		
---	0730.007.488		SHIM	1			A=2,10 IN 2050 309 090(2)		
---	0730.007.487		SHIM	1			A=2,05 IN 2050 309 090(2)		
---	0730.007.486		SHIM	1			A=2,00 IN 2050 309 090(2)		
---	0730.007.485		SHIM	1			A=1,95 IN 2050 309 090(2)		
---	0730.007.484		SHIM	1			A=1,90 IN 2050 309 090(2)		
---	0730.007.483		SHIM	1			A=1,85 IN 2050 309 090(2)		
---	0730.007.482		SHIM	1			A=1,80 IN 2050 309 090(2)		
---	0730.007.481		SHIM	1			A=1,75 IN 2050 309 090(2)		
---	0730.007.480		SHIM	1			A=1,70 IN 2050 309 090(2)		
---	0730.007.479		SHIM	1			A=1,65 IN 2050 309 090(2)		
---	0730.007.136		SHIM	1			A=1,60 IN 2050 309 090(2)		
---	0730.007.135		SHIM	1			A=1,55 IN 2050 309 090(2)		
---	0730.007.134		SHIM	1			A=1,50 IN 2050 309 090(2)		
---	0730.007.133		SHIM	1			A=1,45 IN 2050 309 090(2)		
---	0730.007.132		SHIM	1			A=1,40 IN 2050 309 090(2)		
---	0730.007.131		SHIM	1			A=1,35 IN 2050 309 090(2)		
---	0730.007.130		SHIM	1			A=1,30 IN 2050 309 090(2)		
---	0730.007.129		SHIM	1			A=1,25 IN 2050 309 090(2)		
---	2050.309.034		SHIM	1			A=1,2 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.007.128		SHIM	1			A=1,15 IN 2050 309 090(2)		
---	0730.007.127		SHIM	1			A=1,10 IN 2050 309 090(2)		
---	0730.007.126		SHIM	1			A=1,05 IN 2050 309 090(2)		
---	2050.309.065		SHIM	1			A=1,0 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.005.749		SHIM	1			A=0,95 IN 2050 309 090(2)		
---	0730.005.748		SHIM	1			A=0,90 IN 2050 309 090(2)		
---	0730.301.503		SHIM	1			h=2,25		
---	0730.301.504		SHIM	1			h=2,30		
---	0730.301.505		SHIM	1			h=2,35		

Parts list

Page 3 from 4



Material number: 1356.002.122

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.017

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.301.506		SHIM	1			h=2,40		
420	---		SHIM	1			H= 1,85- 3,25(ABSTUFUNG:0,05MM)		
---	0730.112.938		SHIM	1		C01007375C10	A=3,25		
---	0730.112.937		SHIM	1		C01007375C10	A=3,20		
---	0730.112.936		SHIM	1		C01007375C10	A=3,15		
---	0730.112.935		SHIM	1		C01007375C10	A=3,10		
---	0730.106.860		SHIM	1		C01007375C10	A=3,05 IN 0730 106 904(2)		
---	0730.106.917		SHIM	1			A=3,00 IN 0730 106 904(2)		
---	0730.106.916		SHIM	1			A=2,95 IN 0730 106 904(2)		
---	0730.106.915		SHIM	1			A=2,90 IN 0730 106 904(2)		
---	0730.106.914		SHIM	1			A=2,85 IN 0730 106 904(2)		
---	0730.106.913		SHIM	1			A=2,80 IN 0730 106 904(2)		
---	0730.106.912		SHIM	1			A=2,75 IN 0730 106 904(2)		
---	0730.106.911		SHIM	1			A=2,70 IN 0730 106 904(2)		
---	0730.106.910		SHIM	1			A=2,65 IN 0730 106 904(2)		
---	0730.106.909		SHIM	1			A=2,60 IN 0730 106 904(2)		
---	0730.106.908		SHIM	1			A=2,55 IN 0730 106 904(2)		
---	0730.100.799		SHIM	1			A=2,50 IN 0730 106 904(2)		
---	0730.100.800		SHIM	1			A=2,45 IN 0730 106 904(2)		
---	0730.100.801		SHIM	1			A=2,40 IN 0730 106 904(2)		
---	0730.100.802		SHIM	1			A=2,35 IN 0730 106 904(2)		
---	0730.100.803		SHIM	1			A=2,30 IN 0730 106 904(2)		
---	0730.101.466		SHIM	1			A=2,25 IN 0730 106 904(2)		
---	0730.101.467		SHIM	1			A=2,20 IN 0730 106 904(2)		
---	0730.101.468		SHIM	1			A=2,15 IN 0730 106 904(2)		
---	0730.101.469		SHIM	1			A=2,10 IN 0730 106 904(2)		
---	0730.101.470		SHIM	1			A=2,05 IN 0730 106 904(2)		
---	0730.101.471		SHIM	1			A=2,00 IN 0730 106 904(2)		
---	0730.106.907		SHIM	1			A=1,95 IN 0730 106 904(2)		
---	0730.106.906		SHIM	1			A=1,90 IN 0730 106 904(2)		
---	0730.106.905		SHIM	1			A=1,85 IN 0730 106 904(2)		
440	0501.324.454		GASKET	1		C01005568F10			
500	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
510	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		

Parts list

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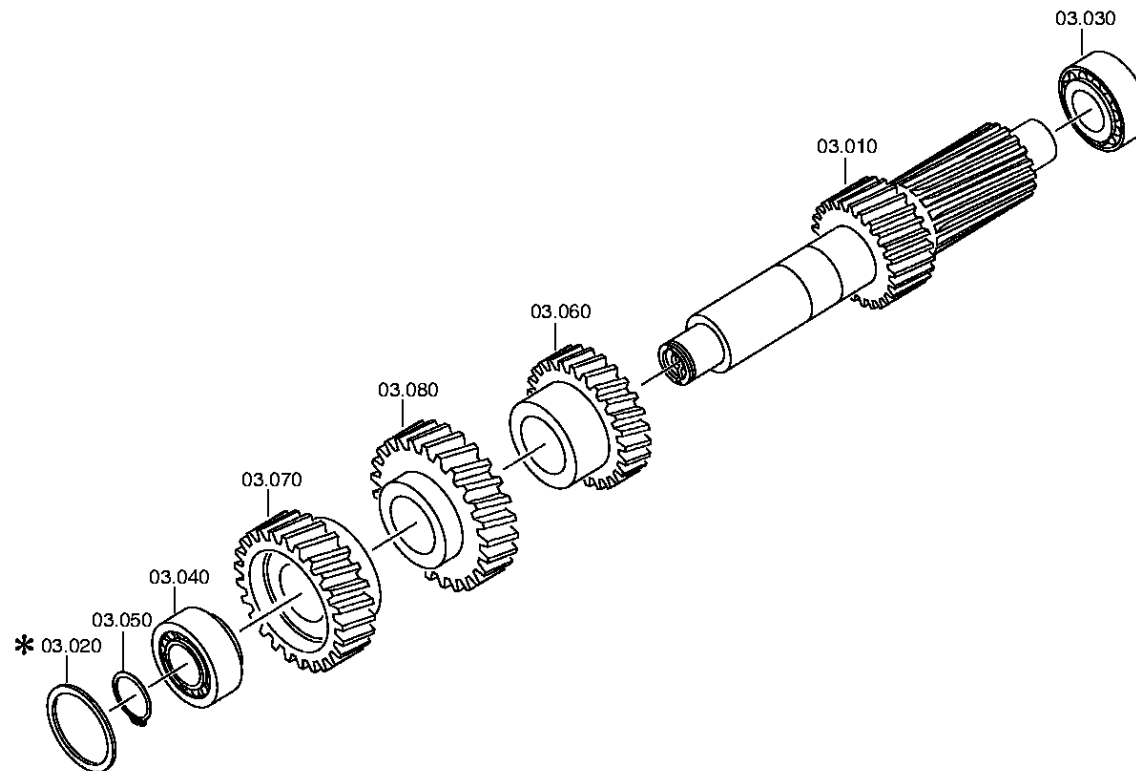
Material number: 1356.002.122

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.017

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
520	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
530	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
540	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
550	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
560	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
570	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
580	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
590	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
600	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
610	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
620	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
630	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
640	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
650	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
660	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
670	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		



Parts list

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Material number: 1356.002.122

Plant: 068.03.01-1

Material-assembly-group-no: 1316.103.013

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.303.033		COUNTERSHAFT	1			ENTHALT.IN 1316 303 032(0)		
30	0750.117.009		TAPERED ROLLER BEARING	1			49,213x103,188x44,475		
40	0750.117.009		TAPERED ROLLER BEARING	1			49,213x103,188x44,475		
50	---		RETAINING RING	1		Z00027144136	H= 2,40- 3,00(ABSTUFUNG:0,05MM)		
---	0730.303.174		RETAINING RING	1		Z00027144110	h=3,00		
---	0730.303.173		RETAINING RING	1		Z00027144110	h=2,95		
---	0730.303.172		RETAINING RING	1		Z00027144110	h=2,90		
---	0730.303.171		RETAINING RING	1		Z00027144110	h=2,85		
---	0730.303.170		RETAINING RING	1		Z00027144110	h=2,80		
---	0730.303.169		RETAINING RING	1		Z00027144110	h=2,75		
---	0730.303.168		RETAINING RING	1		Z00027144110	h=2,70		
---	0730.303.167		RETAINING RING	1		Z00027144110	h=2,65		
---	0730.303.166		RETAINING RING	1		Z00027144110	h=2,60		
---	0730.303.165		RETAINING RING	1		Z00027144110	h=2,55		
---	0730.302.599		RETAINING RING	1		Z00027144110	h=2,50		
---	0730.302.598		RETAINING RING	1		Z00027144110	h=2,45		
---	0730.302.597		RETAINING RING	1		Z00027144110	h=2,40		
60	1316.303.005		HELICAL GEAR	1			3G/Z26 IN 1312 303 018(1)		
70	1316.303.071		HELICAL GEAR	1			KON 1		
80	1316.303.065		HELICAL GEAR	1			Z35 IN 1312 303 013(1)		

Plant

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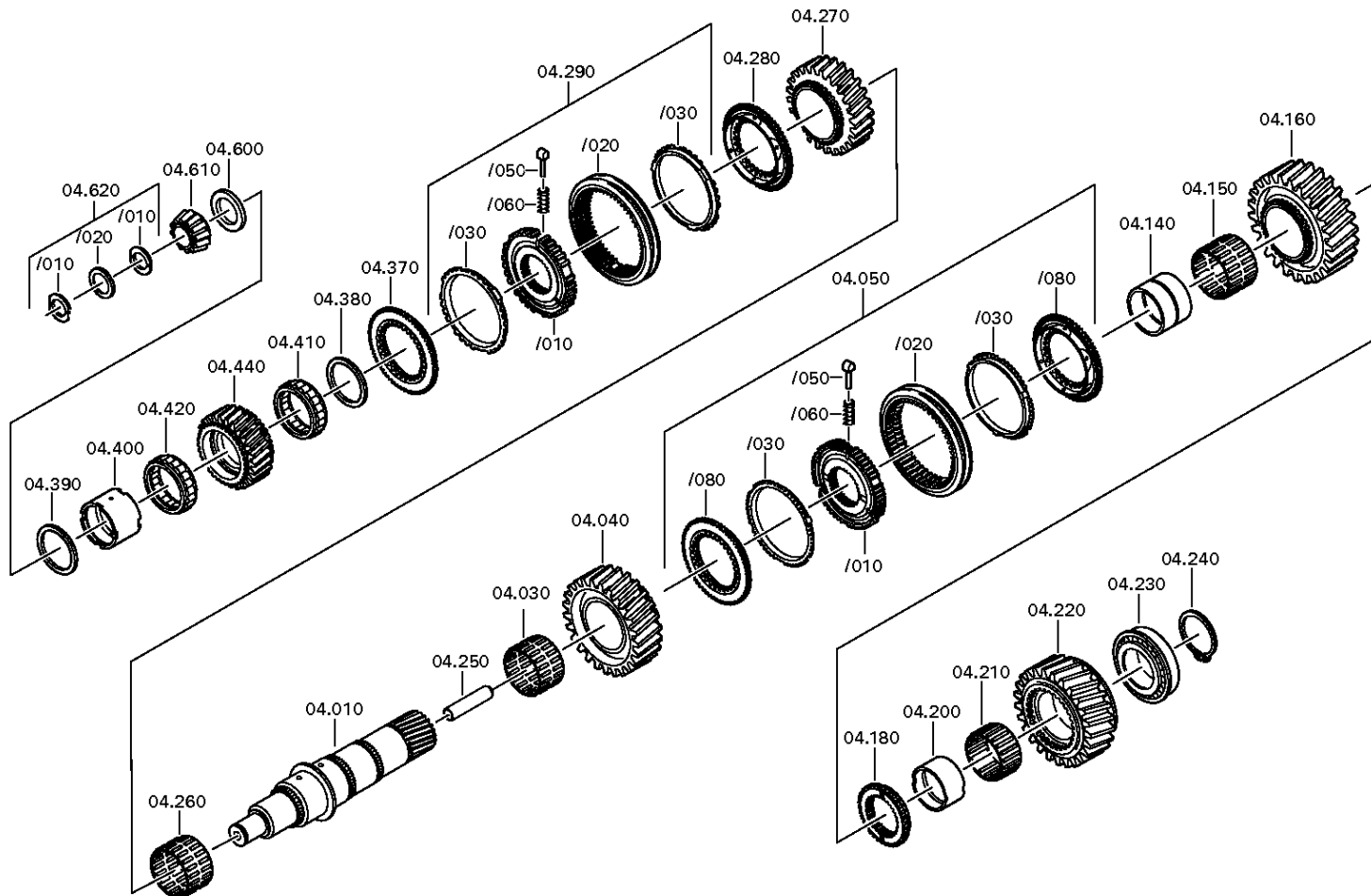
Material number: 1356.002.122

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.027



16 S 2230 TO /
MAIN SHAFT



Parts list

Page 1 from 3



Material number: 1356.002.122

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.027

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.304.132		MAIN SHAFT	1					
30	0750.115.597		NEEDLE CAGE	1			ZFF*LOKAL HNG 92,0X100,0X62,8		
/10	0735.321.094		NEEDLE CAGE	1			92,0X100,0X63,0 FA.INA		
40	1316.304.002		HELICAL GEAR	1			2G/Z38 IN 1316 304 005(1)		
50	1356.204.009		SYNCHRONIZER	1			KPL.1+2G*BK160 MOLYBDAEN* ECOSPLIT 3+4*LOKAL		
/10	1297.304.527		SYNCHRO.BODY	1			ZF BK160		
/20	1297.304.517		SLIDING SLEEVE	1			ZF BK160		
/30	---		SYNCHRO.RING	2			ZFF*LOKAL HNG		
/50	1297.304.436		PRESSURE PART	3					
/60	0732.040.409		COMPRESSION SPRING	3					
/80	---		CLUTCH BODY	2			BK160*ZFF*LOKAL HNG		
---	1316.304.156		CLUTCH BODY	1					
---	1297.304.529		CLUTCH BODY	1			ZF160 BK		
140	1312.304.084		BUSH	1			ENTHALT.IN 1312 304 007(2)		
150	0750.115.598		NEEDLE CAGE	1			ZFF*LOKAL HNG 96,0X104,0X71,6		
160	1316.304.010		HELICAL GEAR	1			1G/Z47 IN 1312 304 033(0)		
180	1312.304.124		CLUTCH BODY	1			ENTHALT.IN 1312 304 055(0)		
200	1316.304.133		BUSH	1			A=50,00 IN 1312 304 010(2)		
210	0750.115.599		NEEDLE CAGE	1			ZFF*LOKAL HNG 90,0X98,0X49,8		
220	---		HELICAL GEAR	1					
---	1316.304.012		HELICAL GEAR	1			RG*Z44 IN 1312 304 125(0)		
---	1316.304.235		HELICAL GEAR	1					
230	0750.117.678		TAPERED ROLLER BEARING	1			80,000X139,992X36,512		
240	---		RETAINING RING	1		Z00027144137	H= 3,00- 3,65(ABSTUFUNG:0,05MM)		
---	0730.303.186		RETAINING RING	1		Z00027144110	h=3,50		
---	0730.303.185		RETAINING RING	1		Z00027144110	h=3,45		
---	0730.303.184		RETAINING RING	1		Z00027144110	h=3,40		
---	0730.303.183		RETAINING RING	1		Z00027144110	h=3,35		
---	0730.303.182		RETAINING RING	1		Z00027144110	h=3,30		
---	0730.303.181		RETAINING RING	1		Z00027144110	h=3,25		
---	0730.303.180		RETAINING RING	1		Z00027144110	h=3,20		
---	0730.303.179		RETAINING RING	1		Z00027144110	h=3,15		
---	0730.303.178		RETAINING RING	1		Z00027144110	h=3,10		

Parts list

Page 2 from 3



Material number: 1356.002.122

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.027

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.303.187		RETAINING RING	1		Z00027144110	h=3,55		
---	0730.303.188		RETAINING RING	1		Z00027144110	h=3,60		
---	0730.303.189		RETAINING RING	1		Z00027144110	h=3,65		
250	1312.304.150		TUBE	1					
260	0750.115.597		NEEDLE CAGE	1			ZFF*LOKAL HNG 92,0X100,0X62,8		
/10	0735.321.094		NEEDLE CAGE	1			92,0X100,0X63,0 FA.INA		
270	1316.304.008		HELICAL GEAR	1			3G/Z34 IN 1312 304 135(1)		
280	1297.304.523		CLUTCH BODY	1			ZF BK144		
290	1356.204.010		SYNCHRONIZER	1			KPL.3+4G*BK144 MOLYBD*ANSCHL. INTEGR VERST*ECO 3+4*LOKAL		
/10	1297.304.525		SYNCHRO.BODY	1			ZF BK144		
/20	1297.304.516		SLIDING SLEEVE	1			ZF BK150		
/30	---		SYNCHRO.RING	2			ZF-BK144*ZFF*LOKAL HNG		
---	1316.304.189		SYNCHRO.RING	1			ZF-BK 144		
---	1297.304.507		SYNCHRO.RING	1			ZF-BK144		
/50	1297.304.436		PRESSURE PART	3					
/60	0732.040.409		COMPRESSION SPRING	3					
370	1297.304.523		CLUTCH BODY	1			ZF BK144		
380	0750.101.193		THRUST WASHER	1			ZFF*LOKAL HNG 67,0X81,7X5,0		
390	0750.101.193		THRUST WASHER	1			ZFF*LOKAL HNG 67,0X81,7X5,0		
400	0750.119.161		BEARING INNER RING	1			ZFF*LOKAL HNG 67,00X77,00X66,16		
410	0750.115.531		ROLLER CAGE	1			77,0X101,0X29,0		
420	0750.115.531		ROLLER CAGE	1			77,0X101,0X29,0		
440	1316.304.103		HELICAL GEAR	1			Z32		
600	---		AXIAL WASHER	1			H= 7,30- 8,00(ABSTUFUNG:0,10MM)		
---	1315.304.048		AXIAL WASHER	1			A=8,00 IN 1315 304 042(2)		
---	1315.304.047		AXIAL WASHER	1			A=7,90 IN 1315 304 042(2)		
---	1315.304.046		AXIAL WASHER	1			A=7,80 IN 1315 304 042(2)		
---	1315.304.045		AXIAL WASHER	1			A=7,70 IN 1315 304 042(2)		
---	1315.304.044		AXIAL WASHER	1			A=7,60 IN 1315 304 042(2)		
---	1315.304.043		AXIAL WASHER	1			A=7,50 IN 1315 304 042(2)		
---	1315.304.085		AXIAL WASHER	1			A=7,40 IN 1315 304 042(2)		
---	1315.304.086		AXIAL WASHER	1			A=7,30 IN 1315 304 042(2)		
610	0750.117.232		TAPERED ROLLER BEARING	1		Z00041242010	42,070X40,386		

Parts list

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Material number: 1356.002.122

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.027

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
620	1312.204.040		SPLIT RING	1			GESTANZT		
/10	---		SPLIT RING	2			H= 4,60- 5,00(ABSTUFUNG:0,10MM)		
---	0730.107.023		SPLIT RING	1			A=5,00 IN 0730 106 207(2)		
---	0730.107.022		SPLIT RING	1			A=4,90 IN 0730 106 207(2)		
---	0730.107.021		SPLIT RING	1			A=4,80 IN 0730 106 207(2)		
---	0730.107.020		SPLIT RING	1			A=4,70 IN 0730 106 207(2)		
---	0730.107.019		SPLIT RING	1			A=4,60 IN 0730 106 207(2)		
/20	0730.062.781		RETAINING RING	1			ENTHALT.IN 0730 062 636(2)		

Plant

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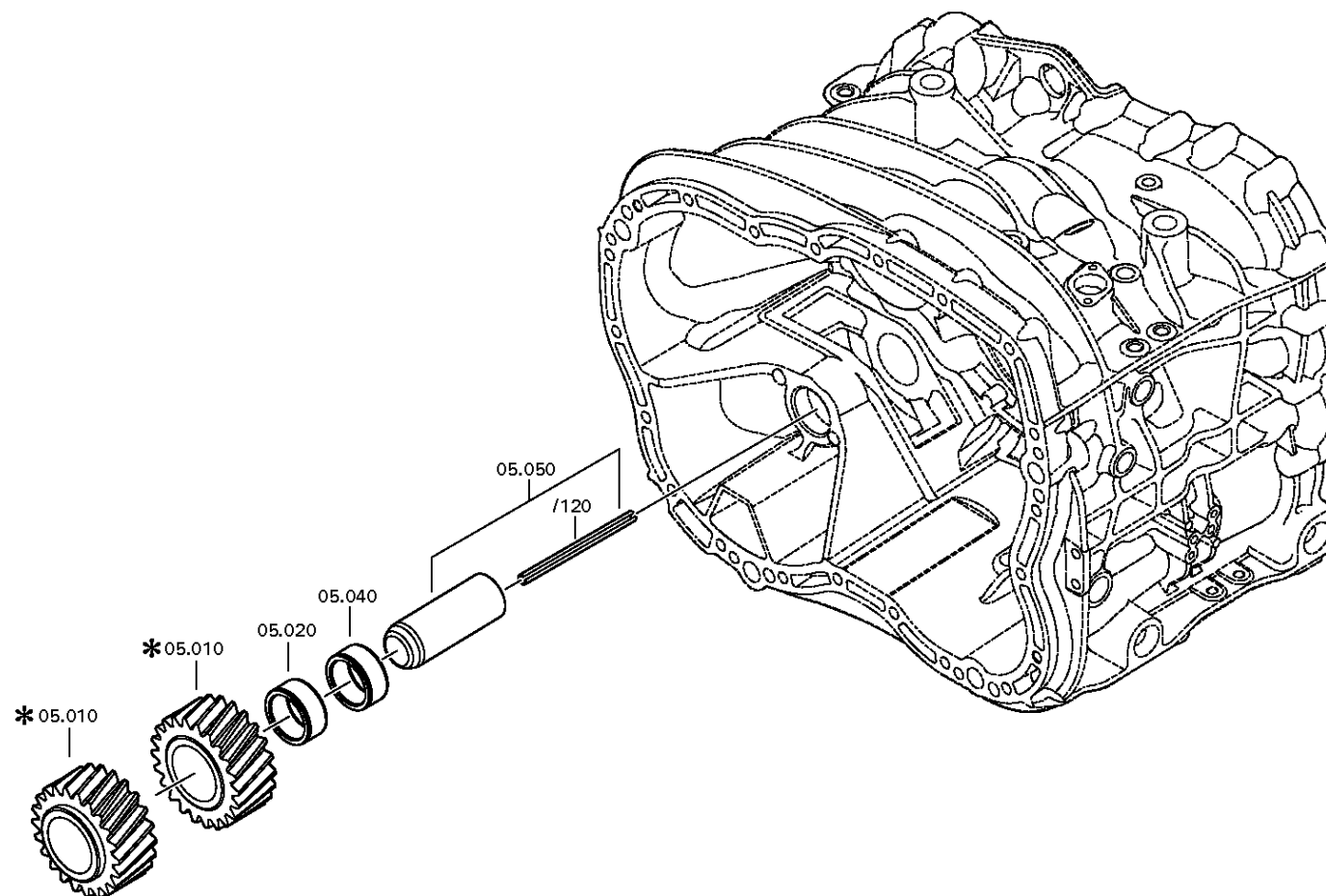
Material number: 1356.002.122

Plant: 161.05.01-1

Material-assembly-group-no: 1325.105.002



16 S 2230 TO /
RETURN



Parts list

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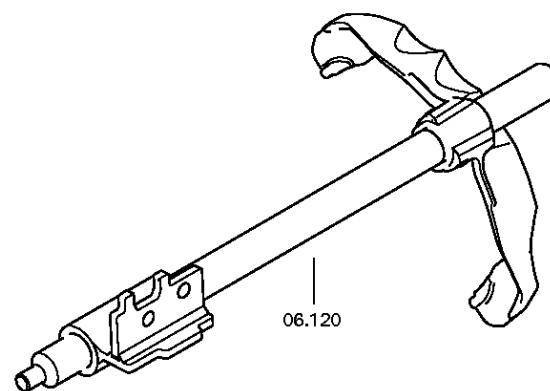
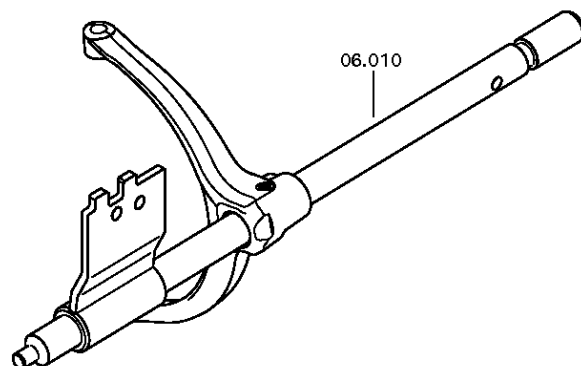
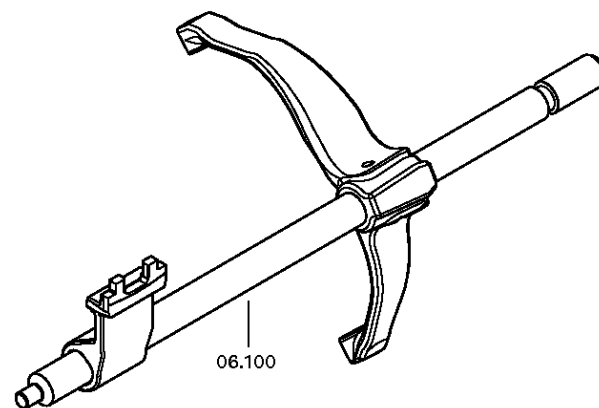
Material number: 1356.002.122

Plant: 161.05.01-1

Material-assembly-group-no: 1325.105.002

16 S 2230 TO /

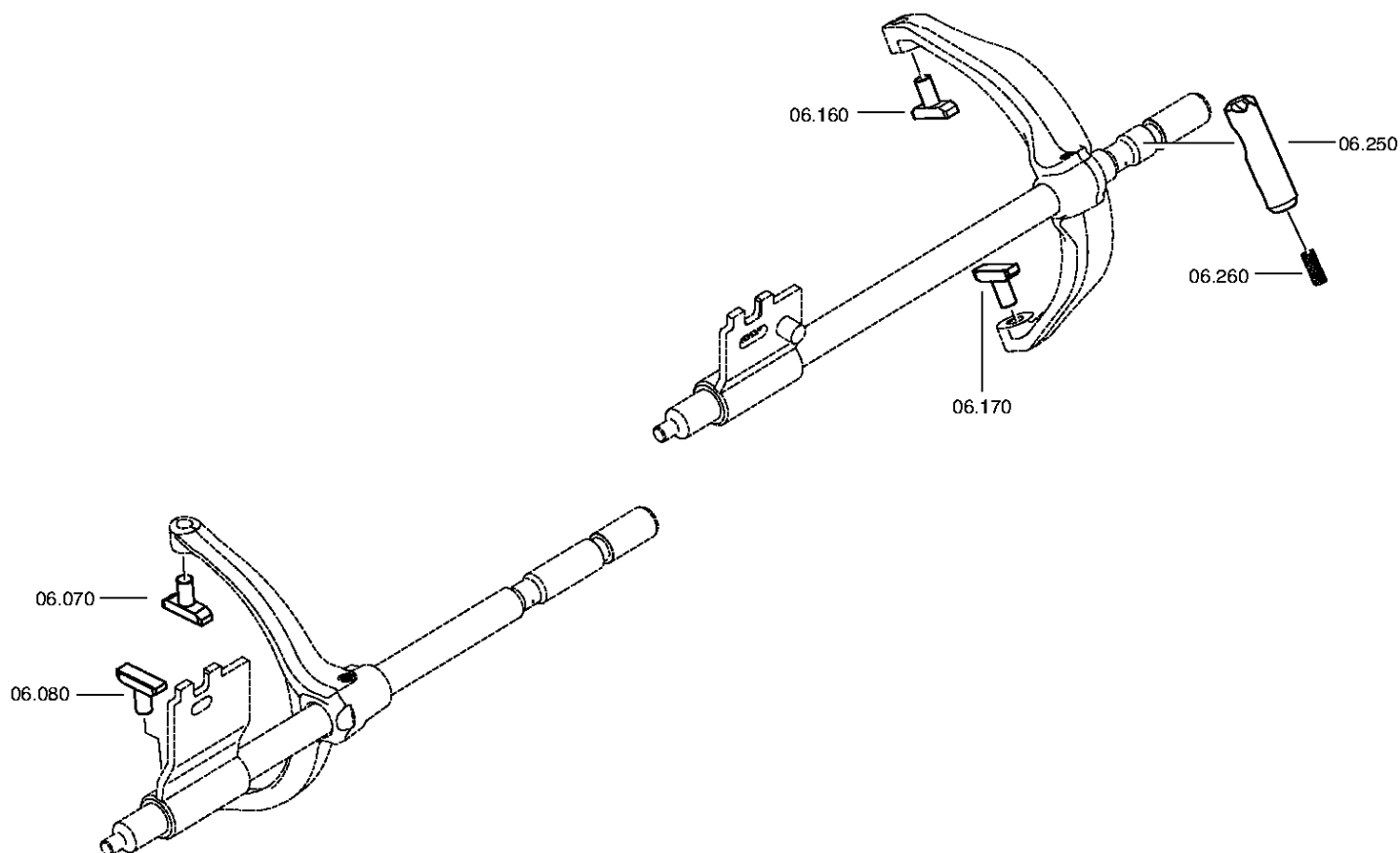
Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	---		REVERSE IDLER GEAR	1					
---	1316.305.001		REVERSE IDLER GEAR	1			Z22 IN 1295 305 050(1)		
---	1316.305.008		REVERSE IDLER GEAR	1			Z22 IN 1295 305 050(1)		
20	0750.115.596		NEEDLE CAGE	1			ZFF*LOKAL HNG 45,0X57,0X24,8		
40	0750.115.596		NEEDLE CAGE	1			ZFF*LOKAL HNG 45,0X57,0X24,8		
50	1316.201.030		REVERSE IDLER SHAFT	1			KPL.16S221*SG*L=102		
/120	0631.329.295		SLOTTED PIN	1			10X118		



Material number: 1356.002.122
Plant: 161.06.02-1
TRANSMISSION SHIFT SYSTEM



16 S 2230 TO /
TRANSMISSION SHIFT SYSTEM



Parts list

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Material number: 1356.002.122

Plant: 161.06.04-1

Material-assembly-group-no: 1356.106.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.206.012		GEAR SHIFT RAIL	1			KPL*WBI-3/4G*LANG*MIT GANGERKENNUNG*LOKAL		
70	1316.306.015		SLIDING PAD	1					
80	1316.306.015		SLIDING PAD	1					
100	1356.206.013		GEAR SHIFT RAIL	1			KPL*WBI-1/2G*LANG*LOKAL		
120	1356.206.014		GEAR SHIFT RAIL	1			KPL*WBI-RG*LANG*LOKAL		
160	1316.306.015		SLIDING PAD	1					
170	1316.306.015		SLIDING PAD	1					
250	1313.306.013		LOCKING PIN	1					
260	0732.040.736		COMPRESSION SPRING	1					

Plant

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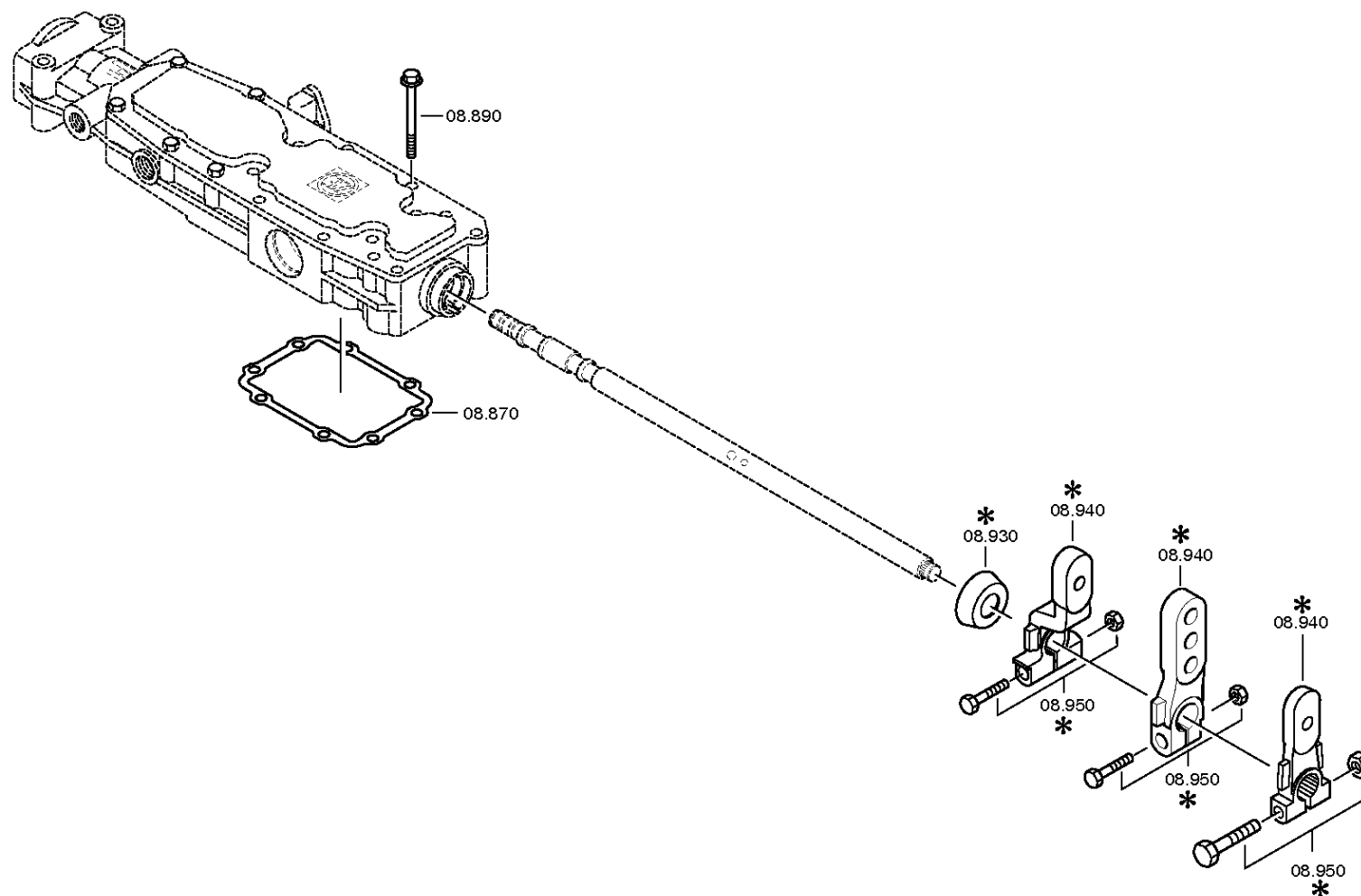
Material number: 1356.002.122

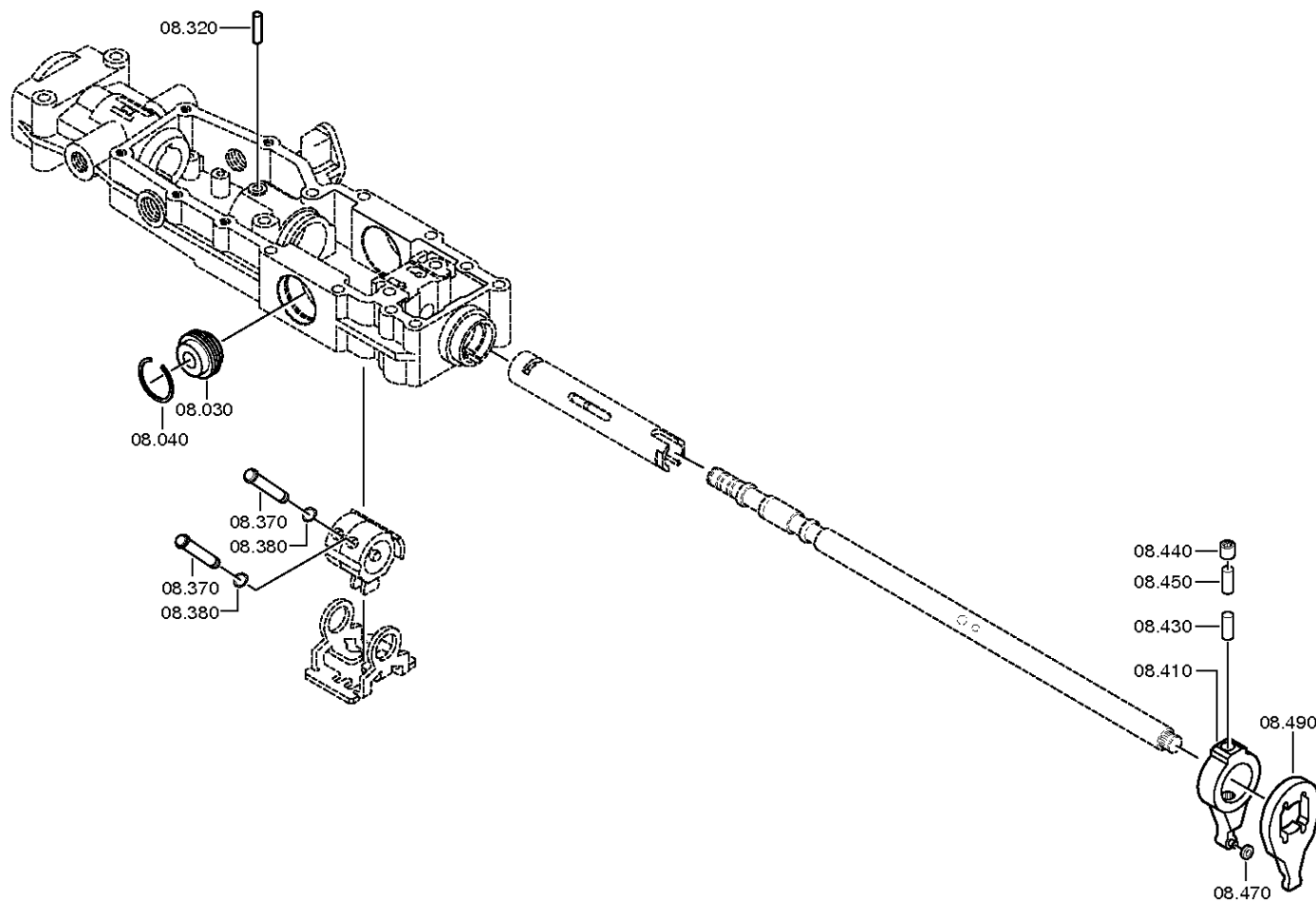
Plant: 068.07.81-1

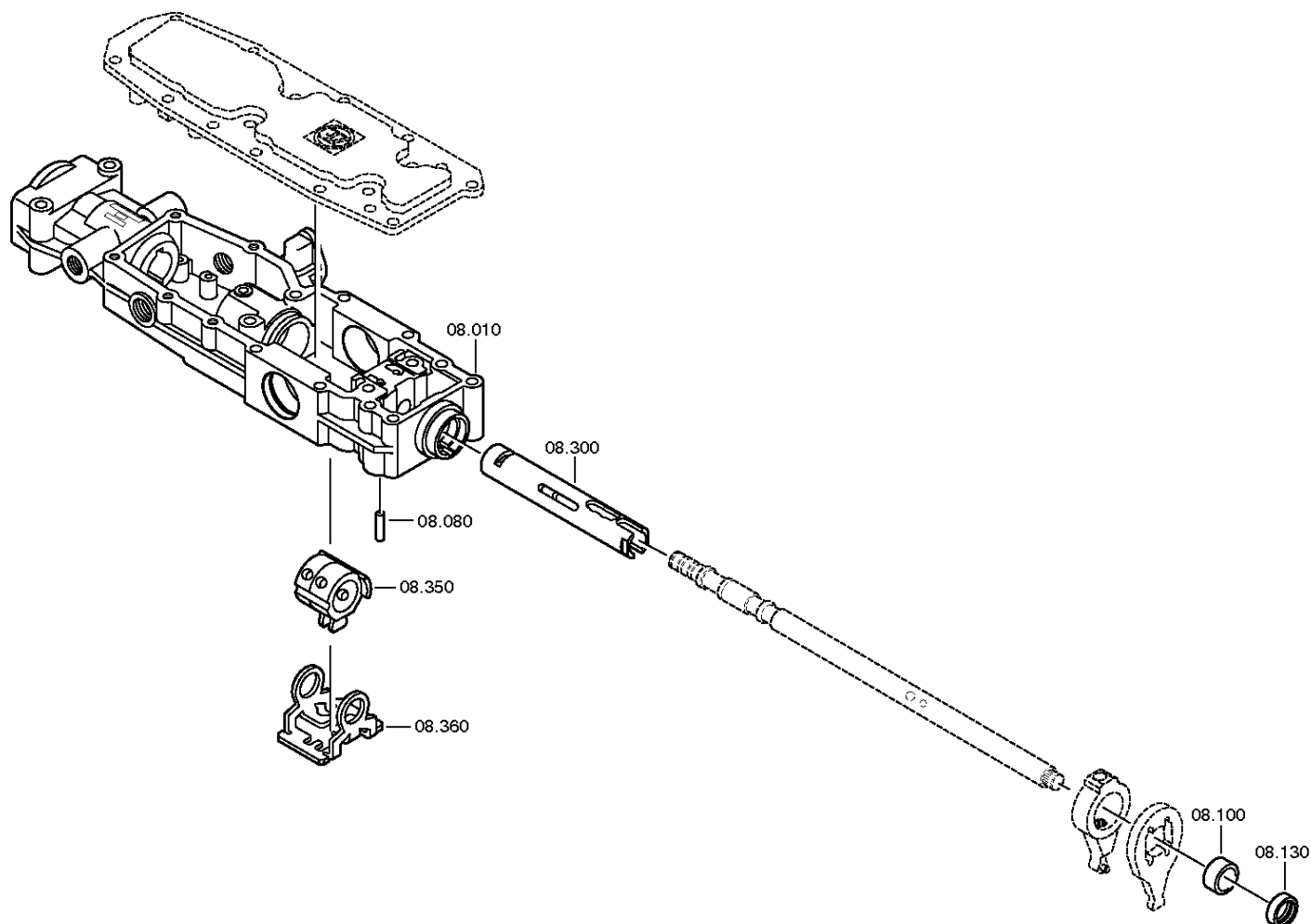
GEAR SHIFT HOUSING

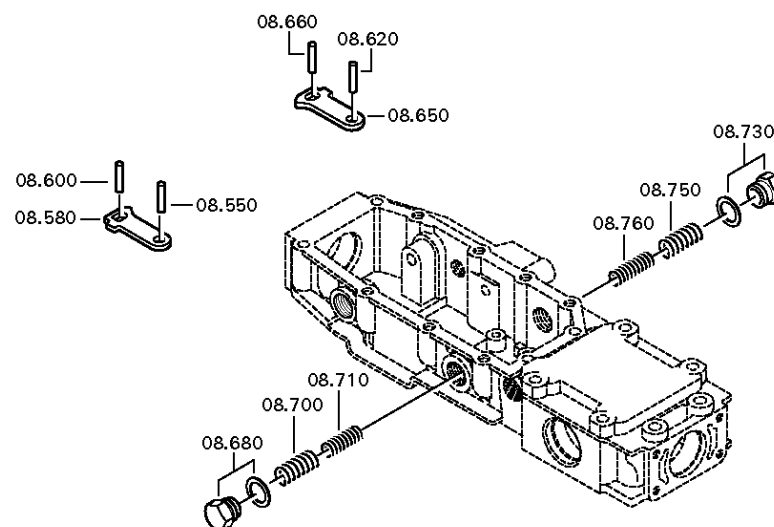


16 S 2230 TO /
GEAR SHIFT HOUSING









Parts list

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Material number: 1356.002.122

Plant: 068.07.81-1

Material-assembly-group-no: 1316.108.817

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1315.307.383		GEAR SHIFT HOUSING	1		Z00008223510			
30	0501.209.212		DETENT	1			KPL.		
40	0630.532.130		V-RING	1					
80	0631.306.123		CYLINDRICAL PIN	1		Z00008223510	8X24		
130	0734.309.765		SHAFT SEAL	1		Z00008223510	28,0X42,0X11,0		
300	1315.307.294		QUILL SHAFT	1		Z00011957210	ENTHALT.IN 1315.307.293(1)		
320	0731.201.702		PIN	1					
350	1315.307.735		DRIVER	1		Z00011746811			
360	1315.307.218		LOCKING PIECE	1		Z00008223510			
370	1316.208.003		PIN	2			KPL.		
380	0630.501.006		RETAINING RING	2			10X1		
410	1316.208.002		VALVE LEVER	1			KPL.		
430	0731.201.732		PIN	1					
440	0635.303.019		NEEDLE BUSH	1			10X14X15		
450	0731.201.732		PIN	1					
470	1315.307.226		ROLLER	1					
490	1315.307.292		LEVER	1					
550	0631.306.832		CYLINDRICAL PIN	1			6X20		
580	1315.307.203		DETENT LEVER	1					
600	0631.306.832		CYLINDRICAL PIN	1			6X20		
620	0631.306.832		CYLINDRICAL PIN	1			6X20		
650	1315.307.203		DETENT LEVER	1					
660	0631.306.832		CYLINDRICAL PIN	1			6X20		
680	---		SCREW	1		Z00010146310	M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
700	0732.040.985		COMPRESSION SPRING	1					
710	0732.040.984		COMPRESSION SPRING	1					
730	---		SCREW	1		Z00010146310	M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
750	0732.040.985		COMPRESSION SPRING	1					
760	0732.040.984		COMPRESSION SPRING	1					
870	1315.307.013		GASKET	1					

Parts list

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Material number: 1356.002.122

Plant: 068.07.81-1

Material-assembly-group-no: 1316.108.817

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
890	0736.300.137		HEXAGON SCREW	8		Z00009195410	M8X80 M8X80		
930	1341.307.104		PROTECTION CAP	1		C01007034F10			

Plant

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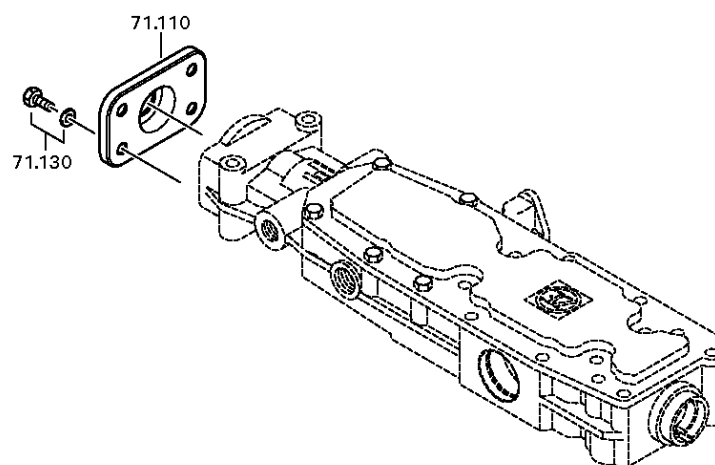
Material number: 1356.002.122

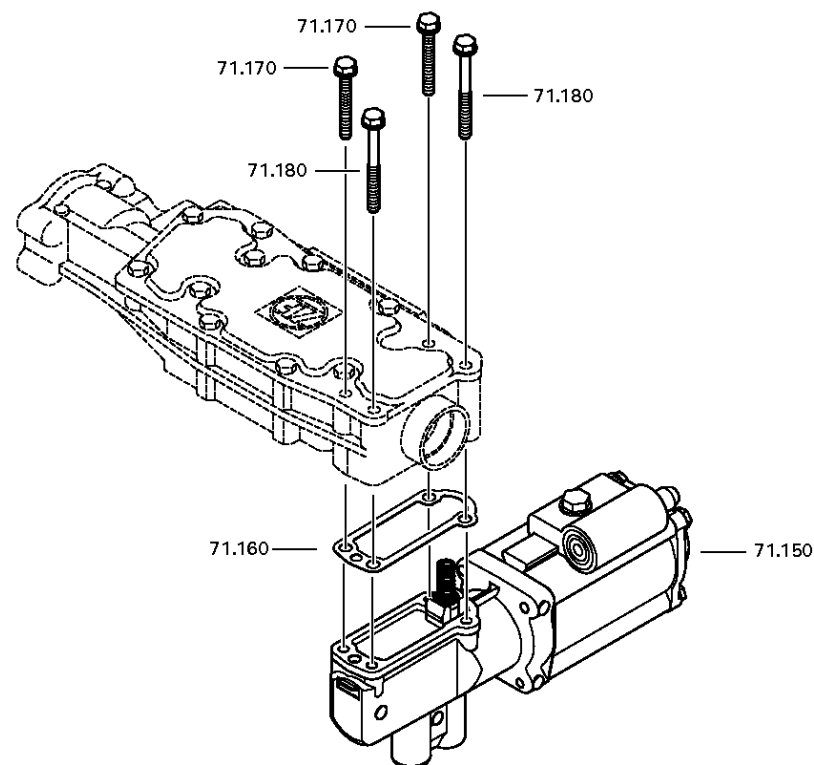
Plant: 062.08.30-1

END COVER



16 S 2230 TO /
END COVER





Parts list

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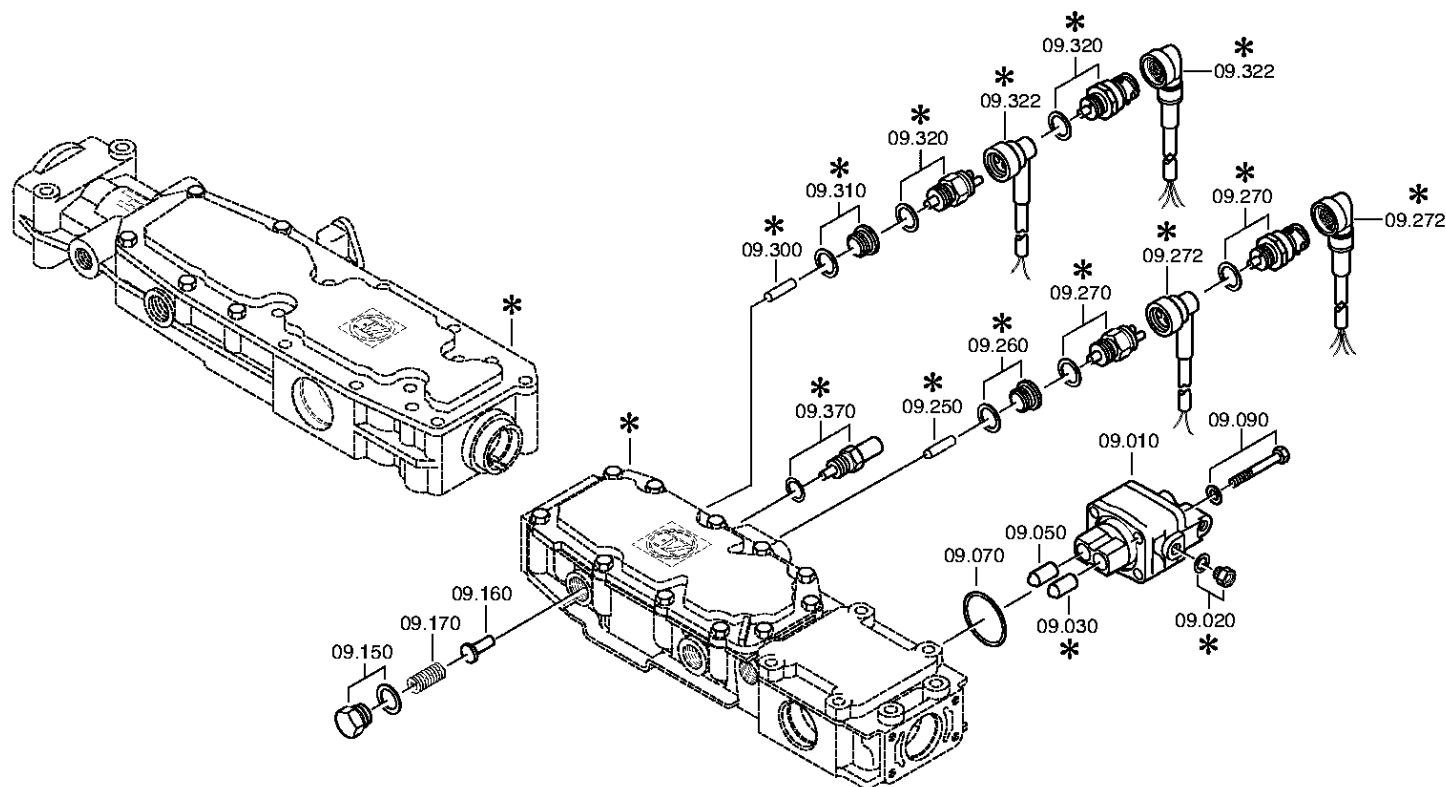
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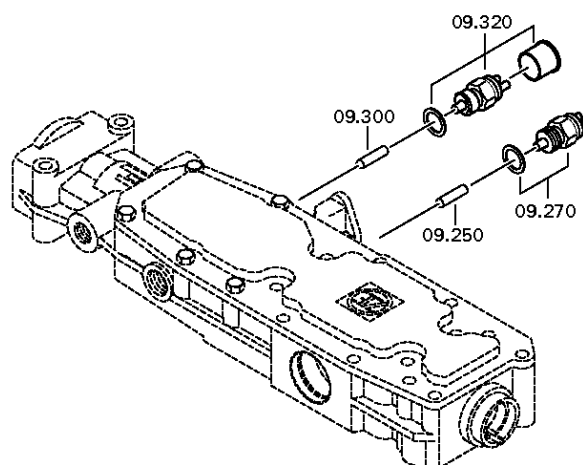
Plant: 062.08.30-1

Material-assembly-group-no: 1316.171.403

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
110	1341.307.113		COVER	1		Z00009271410			
130	---		HEXAGON SCREW	4		Z00007891111	M8X20		
---	0636.100.796		HEXAGON SCREW	1		Z00007891120	M8X20		
---	0630.100.295		WASHER	1		Z00007158414			
150	0501.223.660		PNEUMATIC SERVO UNIT	1			KPL.		
160	1315.307.242		GASKET	1					
170	0736.300.137		HEXAGON SCREW	2			M8X80 M8X80		
180	---		HEXAGON SCREW	2			M8X80		
---	0736.300.137		HEXAGON SCREW	1		Z00009195414	M8X80 M8X80		
---	0666.790.033		SEAL.COMPOUND	1		Z00009195414			





Parts list

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Material number: 1356.002.122

Plant: 068.09.01-1

Material-assembly-group-no: 1316.109.052

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	6038.202.043		CUT-OFF VALVE	1			KPL.H-H*ZULUFTDROSSEL 1,55		
30	0501.209.188		BALL CASTER	1			KPL.		
50	0501.209.188		BALL CASTER	1			KPL.		
70	---		O-RING	1			ZFF*LOKAL HNG 42X3		
---	0634.313.505		O-RING	1		Z00026363710	42X3		
---	0501.331.851		O-RING	1		Z00026363710	42X3		
90	---		HEXAGON SCREW	4			M8X65		
---	0636.100.519		HEXAGON SCREW	1		Z00007054110	M8X65		
---	0630.100.295		WASHER	1		Z00007158414			
150	---		SCREW	1			M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
160	1315.307.384		BOLT	1			ENTHALT.IN 1250 307 589(2)		
170	0732.042.207		COMPRESSION SPRING	1					
250	0731.201.446		PIN	1			ENTHALT.IN 0731 201 445(2)		
270	---		SWITCH	1		Z00004287211	OEFF*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.219.856		SWITCH	1			OEFFNER DIN BAJONETT		
---	0634.801.062		SEALING RING	1			18X24		
300	0731.208.256		PIN	1			A=30,0		
320	---		SWITCH	1		Z00025033610	SCHL*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.331.660		SWITCH	1		Z00025033617			
---	0634.801.062		SEALING RING	1		Z00025033617	18X24		
---	0700.300.427		PROTECTION CAP	1		Z00025033617			

Plant

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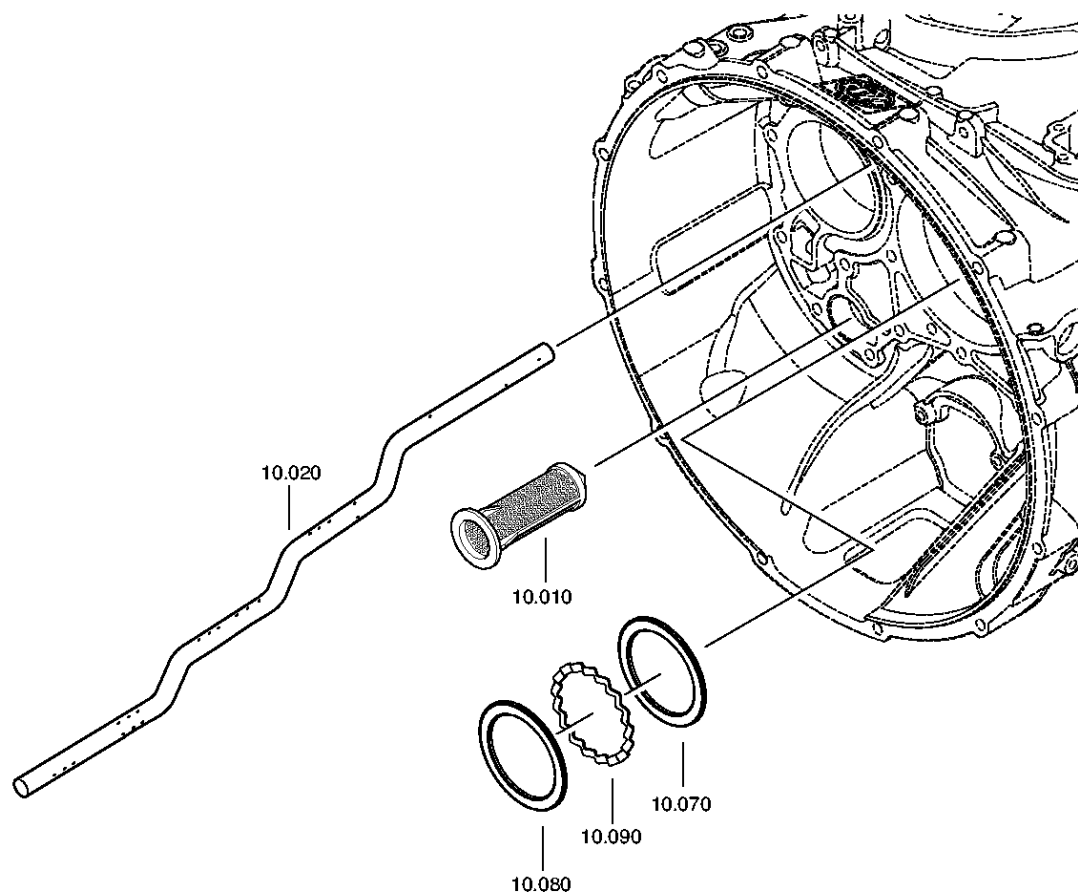
Material number: 1356.002.122

Plant: 161.10.04-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Plant

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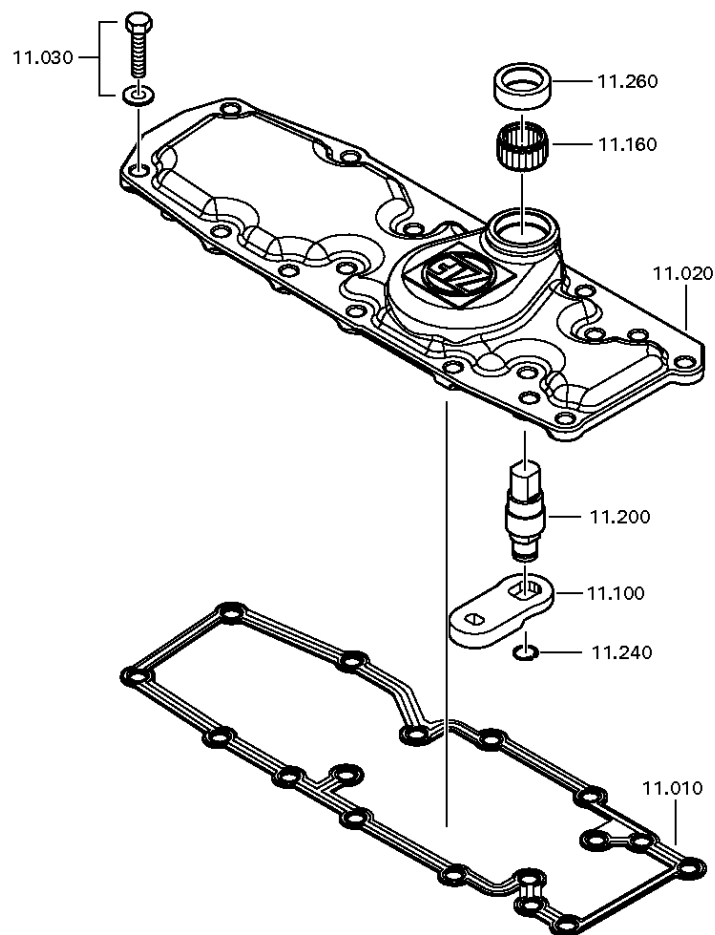
Material number: 1356.002.122

Plant: 068.10.02-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Plant

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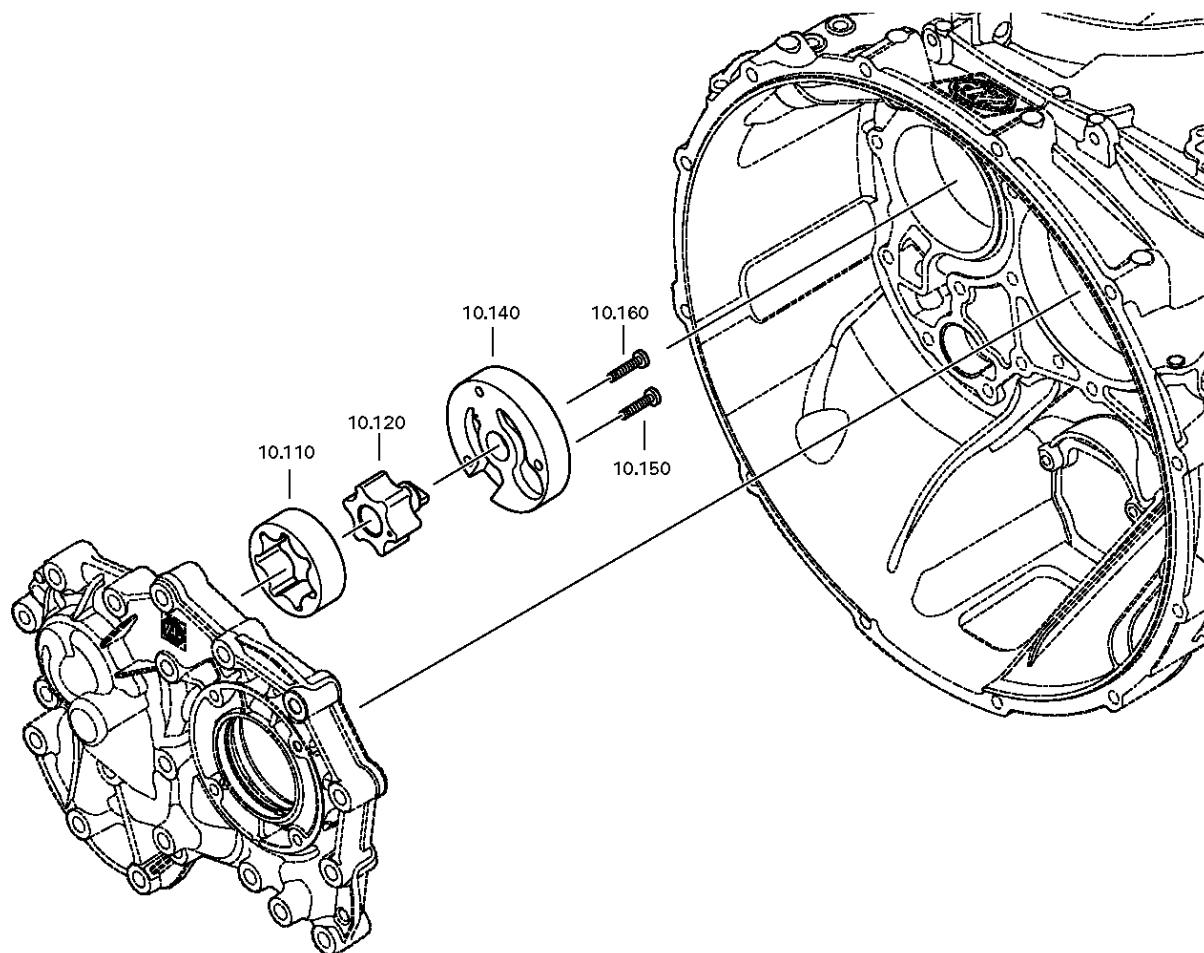
Material number: 1356.002.122

Plant: 161.10.01-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Parts list

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Material number: 1356.002.122

Plant: 161.10.04-1

Material-assembly-group-no: 1356.110.002

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0501.318.802		SCREEN INSERT	1					
10	0501.324.072		GASKET	1		Z00033959410			
20	---		COVER	1		Z00033959410	ZFF/ZFDH		
---	1315.307.336		COVER	1		Z00034298610			
20	1356.301.001		OIL TUBE	1			ECO 4 16G LANG		
30	---		HEXAGON SCREW	5		Z00033959410	M8X25		
---	0636.016.401		HEXAGON SCREW	1			M8X25		
---	0630.100.295		WASHER	1		Z00007158414			
70	0730.300.745		WASHER	1			A=3,30 A=3,30		
80	0730.150.766		WASHER	1					
90	1315.302.040		SPACER RING	1					
100	---		SELECTOR LEVER	1		Z00033959410	ZFF*LOKAL HNG		
---	1315.307.375		SELECTOR LEVER	1		Z00026363710			
110	1315.303.027		ROTOR	1					
120	1314.202.039		PUMP SHAFT	1			KPL.		
140	1325.303.017		PUMP COVER	1					
150	0736.101.076		HEXALOBULAR DRIVING SCREW	1			M6X30		
160	0736.101.076		HEXALOBULAR DRIVING SCREW	1			M6X30		
160	---		NEEDLE SLEEVE	1		Z00033959410	ZFF*LOKAL HNG 22X28X10		
200	---		SELECTOR SHAFT	1		Z00033959410	ZFF*LOKAL HNG		
---	1315.307.346		SELECTOR SHAFT	1		Z00026363710			
240	0630.531.240		V-RING	1		Z00033959410			
260	---		SHAFT SEAL	1		Z00033959410	20X30X7		
---	0734.309.392		SHAFT SEAL	1			20,0X30,0X7,0		

Plant

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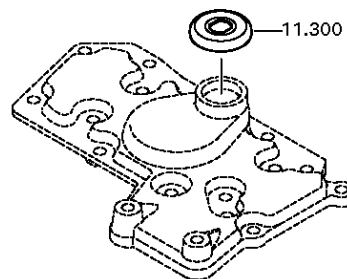
Material number: 1356.002.122

Plant: 068.10.92-1

Material-assembly-group-no: 1341.111.803



16 S 2230 TO /
SELECTOR LEVER



Parts list

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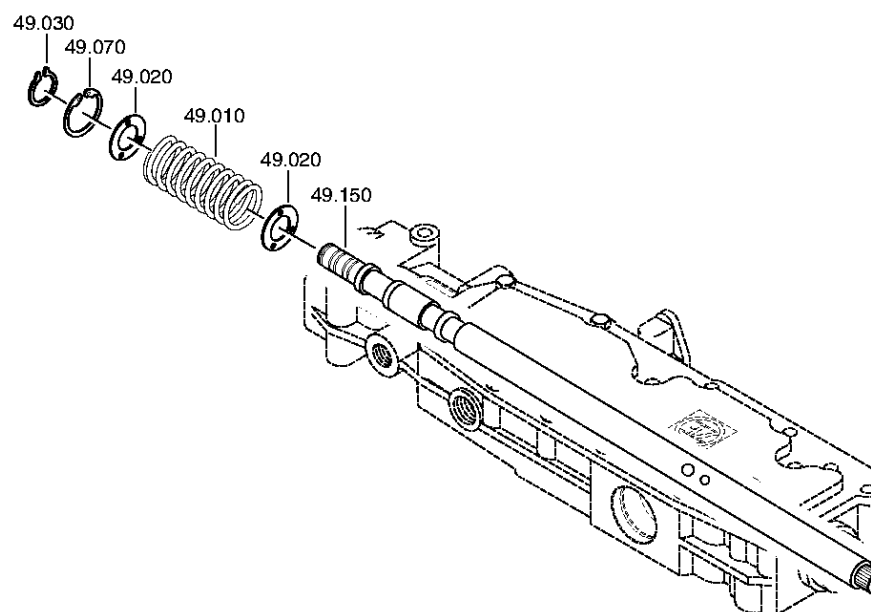
Material number: 1356.002.122

Plant: 068.10.92-1

Material-assembly-group-no: 1341.111.803

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
300	---		PROTECTION CAP	1		Z00030698111			
---	0501.324.645		PROTECTION CAP	1		Z00030698110			
---	1307.307.052		PROTECTION CAP	1		Z00030698110			
---	0501.330.970		PROTECTION CAP	1		Z00030698110	46mmx7mm		



Parts list

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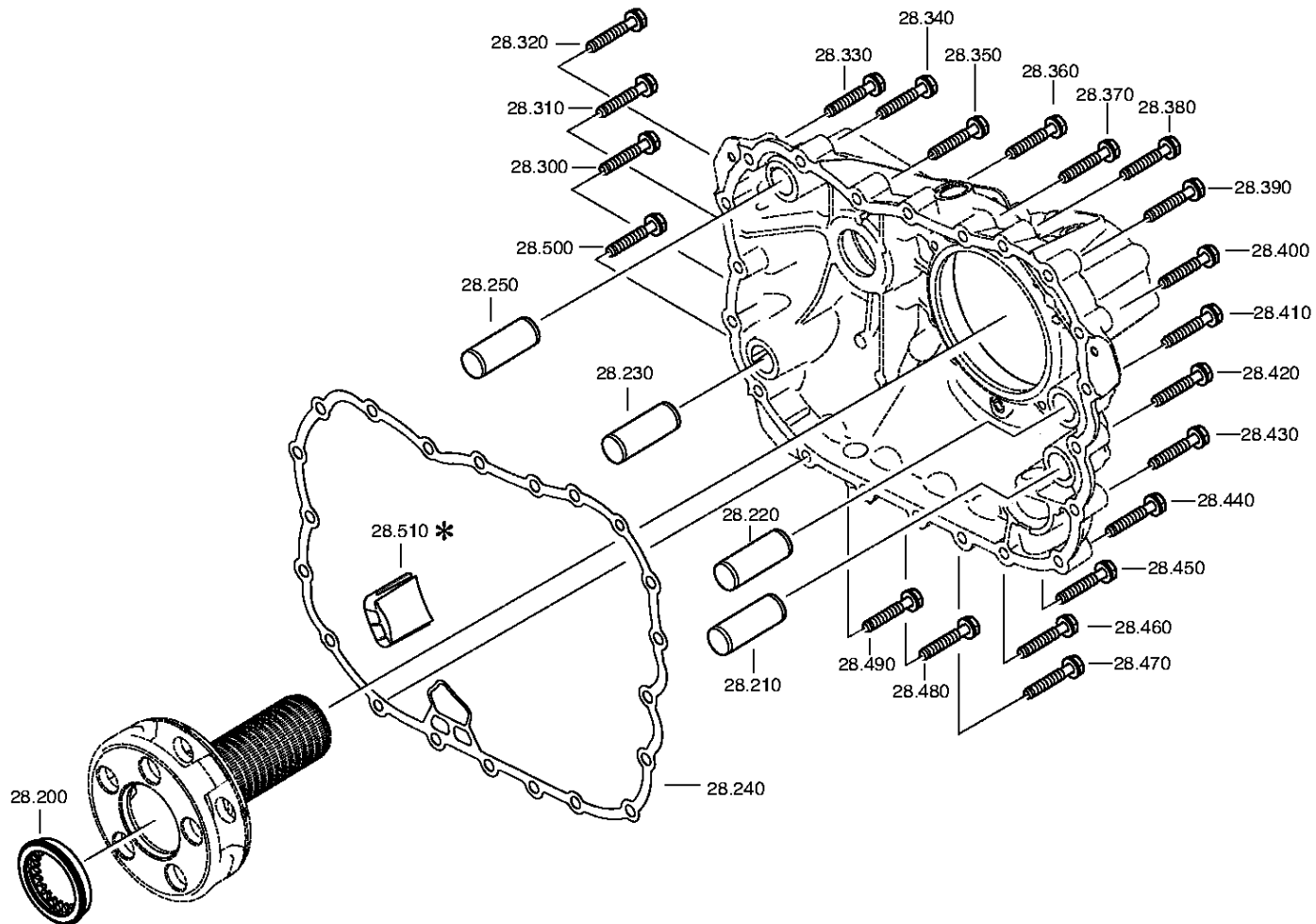
Material number: 1356.002.122

Plant: 068.12.08-1

Material-assembly-group-no: 1316.149.478

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0732.040.630		COMPRESSION SPRING	1					
20	0730.301.376		WASHER	2					
30	0630.532.138		V-RING	1					
70	0630.502.022		RETAINING RING	1			40X1,75		
150	1315.307.517		GEARSHIFT SHAFT	1					



Parts list

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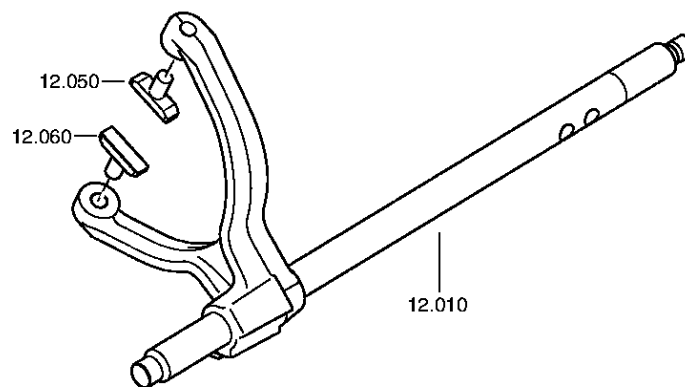
Material number: 1356.002.122

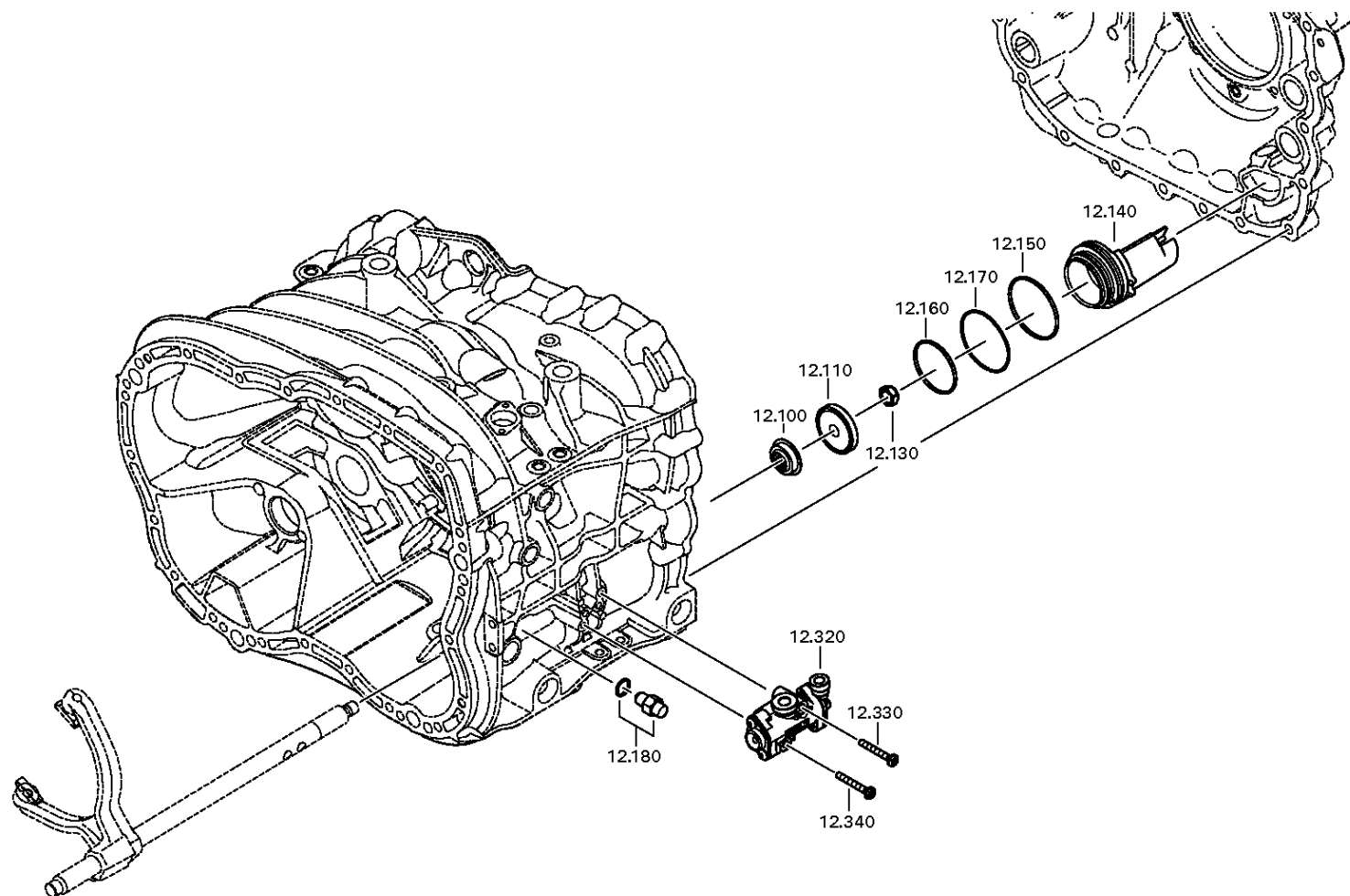
Plant: 161.28.01-1

Material-assembly-group-no: 1325.128.806

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
200	1315.332.073		PRESSURE DISK	1		Z00033223510			
210	0731.300.002		CYLINDRICAL PIN	1					
220	0731.300.002		CYLINDRICAL PIN	1					
230	0731.300.002		CYLINDRICAL PIN	1					
240	0501.323.705		GASKET	1					
250	0731.300.002		CYLINDRICAL PIN	1					
300	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
310	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
320	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
330	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
340	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
350	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
360	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
370	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
380	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
390	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
400	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
410	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
420	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
430	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
440	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
450	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
460	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
470	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
480	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
490	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
500	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		





Parts list

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Material number: 1356.002.122

Plant: 161.40.01-1

Material-assembly-group-no: 1356.112.001

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.212.002		GEAR SHIFT RAIL	1			KPL.GV*E32 LANG*16 GANG		
50	1316.306.015		SLIDING PAD	1					
60	1316.306.015		SLIDING PAD	1					
100	0750.112.131		FLANGE PACKING	1			25X40X15		
110	0501.324.670		PISTON	1					
130	0737.300.037		LOCKING NUT	1			MS16X1,5		
140	1325.312.012		CYLINDER	1					
150	---		O-RING	1			ZFF*LOKAL HNG		
---	0634.313.018		O-RING	1			82X3		
---	0501.331.849		O-RING	1			82X3		
160	---		O-RING	1			ZFF*LOKAL HNG		
---	0634.313.320		O-RING	1			67X3		
---	0501.331.850		O-RING	1			67X3		
170	1315.312.034		SPRING	1					
180	---		DETENT PLUNGER	1			235N*50N.M		
---	1324.207.033		DETENT PLUNGER	1			KPL. *235 N		
---	0730.008.604		SEALING RING	1		C01009860C10			
320	0501.219.848		5/2 WAY VALVE	1		Z00035060612	SPLITGRUPPENVENTIL VERSION B 96,1mmx49,8mm		
330	0736.300.659		TORX SCREW	1		Z00035060612	M6X45		
340	0736.300.659		TORX SCREW	1		Z00035060612	M6X45		

Plant

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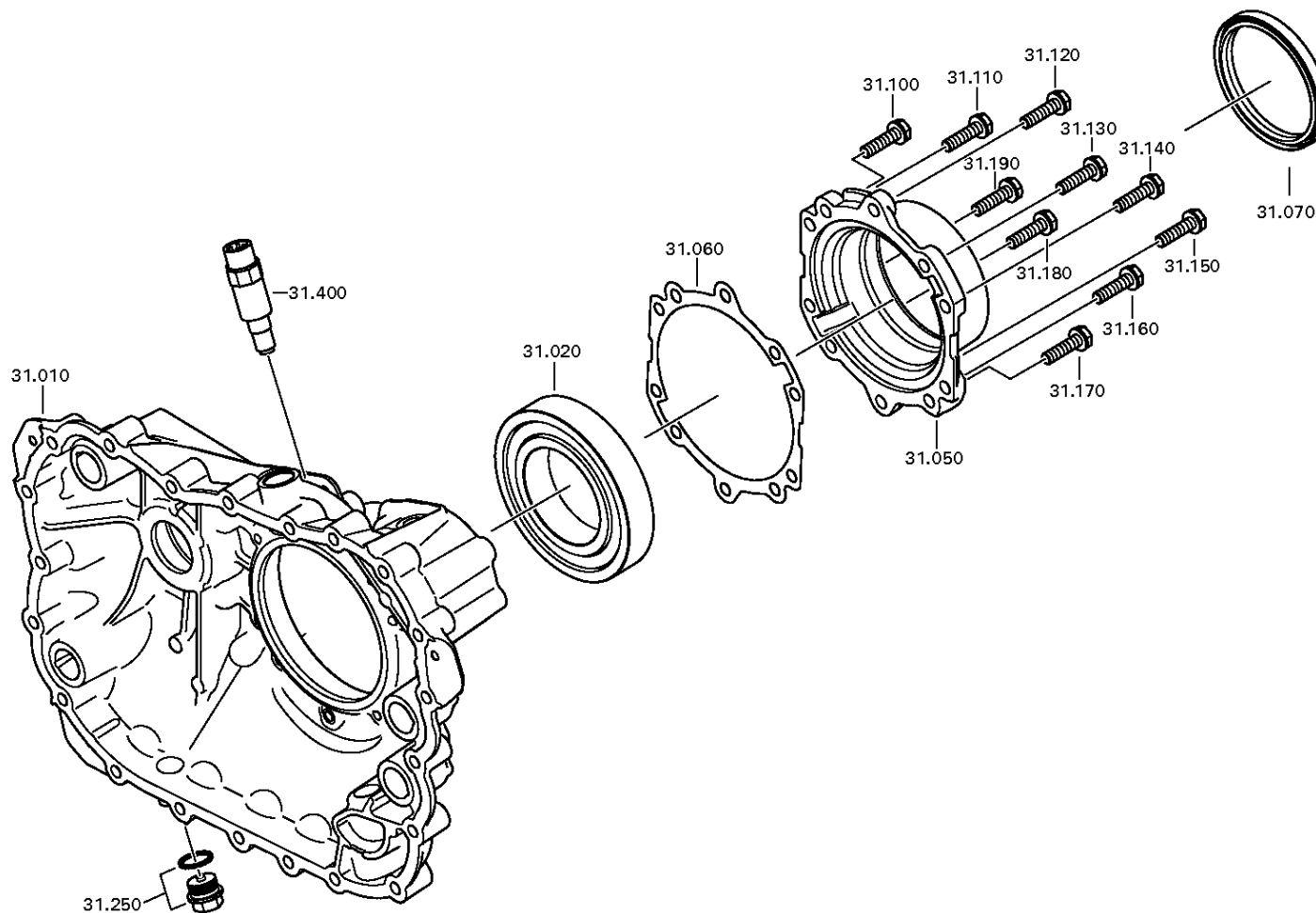
Material number: 1356.002.122

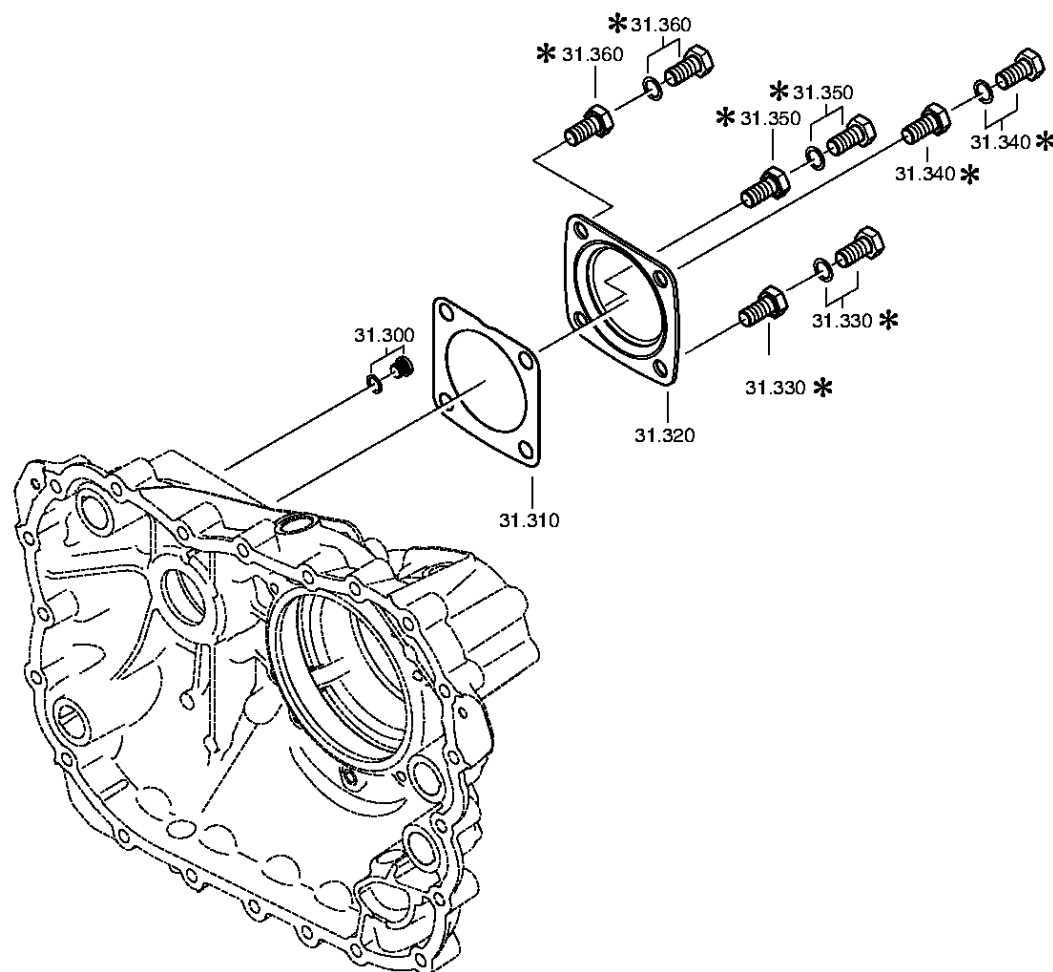
Plant: 161.43.01-1

RC HOUSING



16 S 2230 TO /
RC HOUSING





Parts list

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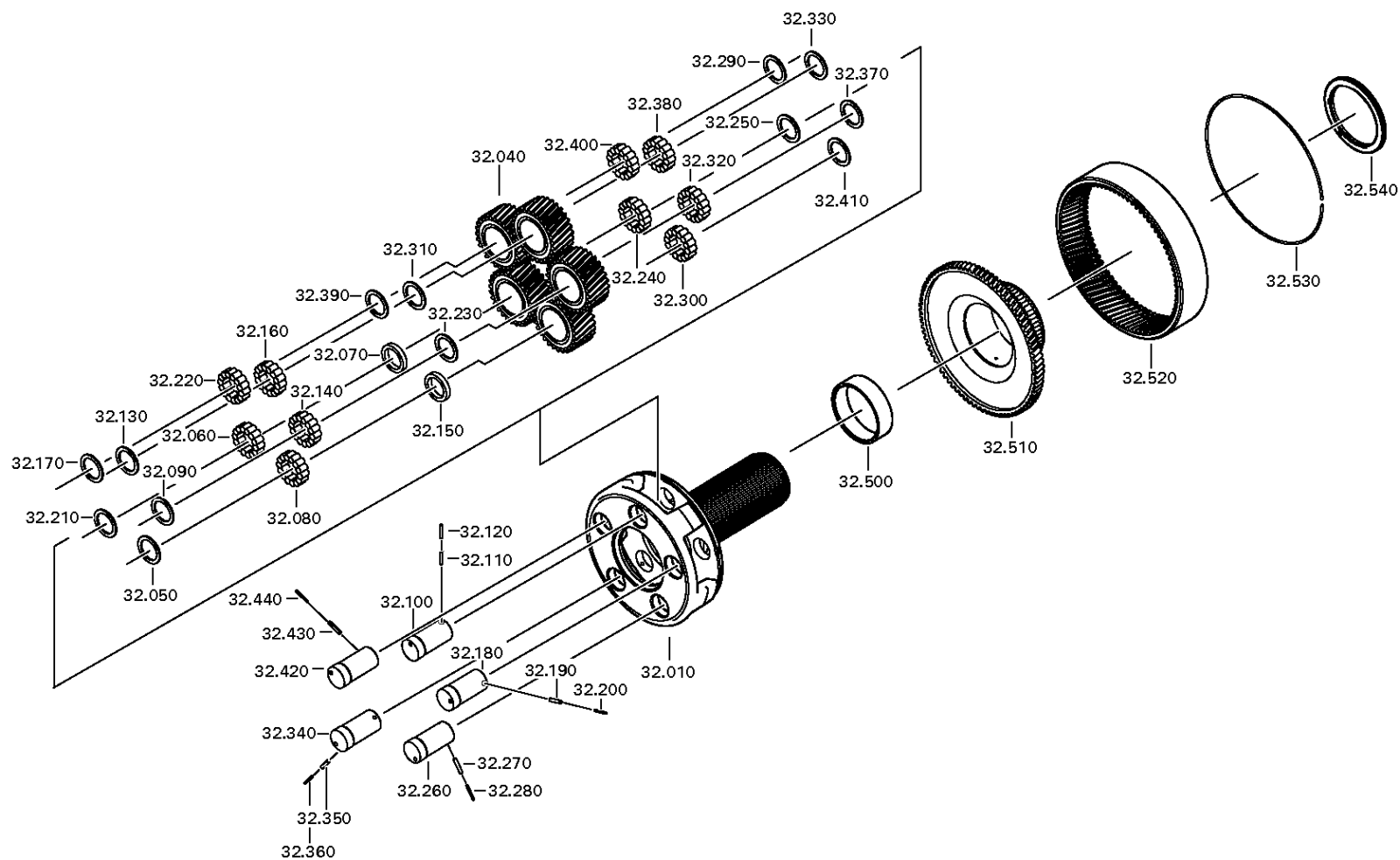
Material number: 1356.002.122

Plant: 161.43.01-1

Material-assembly-group-no: 1325.131.024

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.301.065		TRANSMISSION HOUSING	1					
20	0750.116.394		BALL BEARING	1		Z00039152310	90,0X160,0X30,0		
50	1325.331.001		COVER	1					
60	0501.331.906		GASKET	1					
70	---		SHAFT SEAL	1					
---	---		SHAFT SEAL	1			WTB 105X125X12/16		
---	0734.300.421		SHAFT SEAL	1			105,0X125,0X12,0/16,0		
---	0734.300.679		SHAFT SEAL	1			105X125X16		
100	0636.100.433		HEXAGON SCREW	1			M10X40		
110	0636.100.433		HEXAGON SCREW	1			M10X40		
120	0636.100.433		HEXAGON SCREW	1			M10X40		
130	0636.100.433		HEXAGON SCREW	1			M10X40		
140	0636.100.433		HEXAGON SCREW	1			M10X40		
150	0636.100.433		HEXAGON SCREW	1			M10X40		
160	0636.100.433		HEXAGON SCREW	1			M10X40		
170	0636.100.433		HEXAGON SCREW	1			M10X40		
180	0636.100.433		HEXAGON SCREW	1			M10X40		
190	0636.100.433		HEXAGON SCREW	1			M10X40		
250	---		SCREW PLUG	1			M24X1,5		
---	0736.300.160		SCREW PLUG	1		Z00010176110	M24X1,5 M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010176110	24X29		
300	---		SCREW PLUG	1		C01004359F10	15N.M*DICHTRING M10X1		
---	0636.100.793		SCREW PLUG	1		Z00010111613	M10X1		
---	0730.008.055		SEALING RING	1			10X14		
310	1238.308.201		GASKET	1			ENTHALT.IN 1238 308 202(2)		
320	1328.301.170		COVER	1		Z00008068010			
330	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
340	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
350	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
360	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
400	---		PULSE SENSOR	1			35N.M*O.DICHTRING*BAJONETT*L=35,0		
---	0501.210.857		PULSE SENSOR	1		Z00008965210			



Plant

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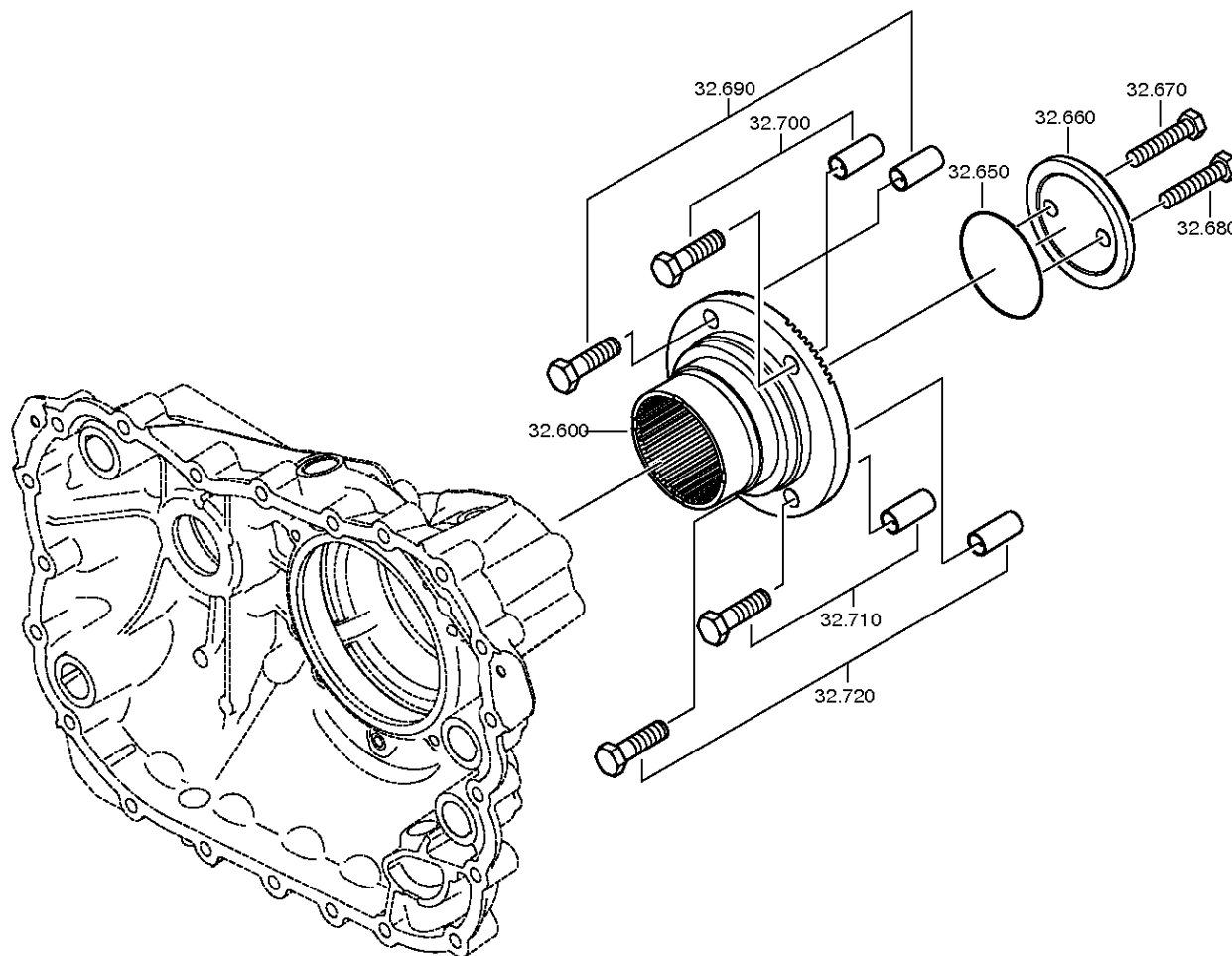
Material number: 1356.002.122

Plant: 161.44.41-1

PLANETARY DRIVE



16 S 2230 TO /
PLANETARY DRIVE



Parts list

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Material number: 1356.002.122

Plant: 161.44.04-1

Material-assembly-group-no: 1325.132.005

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.232.039		PLANET CARRIER	1					
40	1316.232.011		PLANET GEAR SET	1			KPL.		
50	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
60	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
70	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
80	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
90	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
100	1316.332.140		PLANET SHAFT	1					
110	0631.329.147		SLOTTED PIN	1			6X26		
120	0631.329.261		SLOTTED PIN	1			3,5X26		
130	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
140	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
150	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
160	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
170	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
180	1316.332.140		PLANET SHAFT	1					
190	0631.329.147		SLOTTED PIN	1			6X26		
200	0631.329.261		SLOTTED PIN	1			3,5X26		
210	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
220	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
230	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
240	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
250	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
260	1316.332.140		PLANET SHAFT	1					
270	0631.329.147		SLOTTED PIN	1			6X26		
280	0631.329.261		SLOTTED PIN	1			3,5X26		
290	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
300	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
310	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
320	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
330	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
340	1316.332.140		PLANET SHAFT	1					
350	0631.329.147		SLOTTED PIN	1			6X26		
360	0631.329.261		SLOTTED PIN	1			3,5X26		

Parts list

Page 2 from 2



Material number: 1356.002.122

Plant: 161.44.04-1

Material-assembly-group-no: 1325.132.005

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
370	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
380	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
390	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
400	1325.232.003		ROLLER	1			KPL.SATZ*PLANETENRAD*LOKAL		
410	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
420	1316.332.140		PLANET SHAFT	1					
430	0631.329.147		SLOTTED PIN	1			6X26		
440	0631.329.261		SLOTTED PIN	1			3,5X26		
500	1325.332.011		BUSH	1					
510	1316.332.130		RING GEAR CARRIER	1					
520	1315.332.041		RING GEAR	1			IN 1316 332 055(1)		
530	0730.513.583		LOCKING WIRE	1			A=3,20 IN 0730 505 052(2)		
540	0735.298.169		AXIAL NEEDLE BEARING	1			103,3X128,4X10,0		
600	1325.332.036		OUTPUT FLANGE	1					
650	---		O-RING	1			ZFF*LOKAL HNG		
---	0634.313.805		O-RING	1			82X4		
---	0501.331.852		O-RING	1			82X4		
660	1312.332.028		WASHER	1					
670	0636.011.777		HEXAGON SCREW	1			M12X60		
680	0636.011.777		HEXAGON SCREW	1			M12X60		
690	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
700	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
710	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
720	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					

Plant

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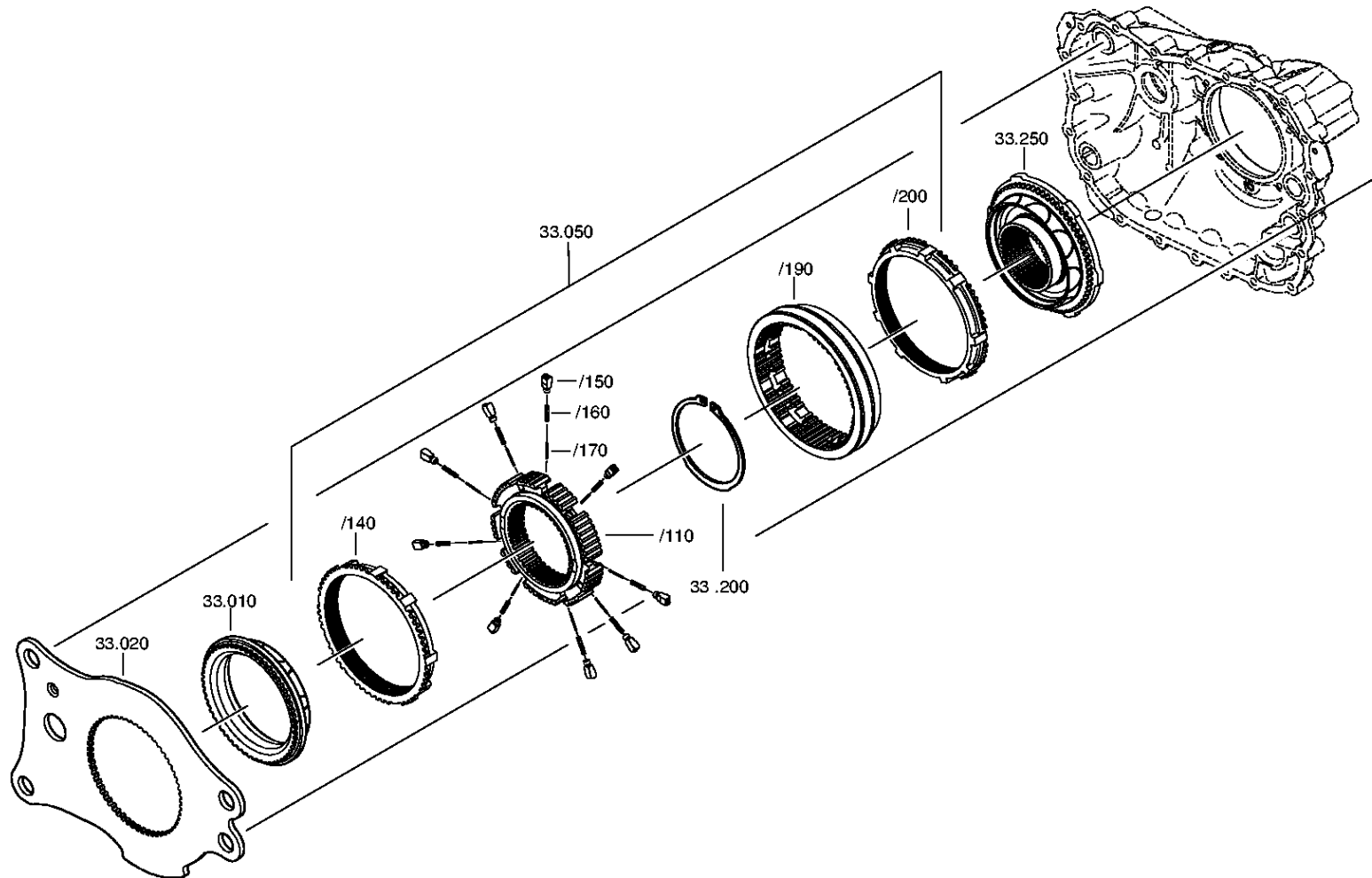
Material number: 1356.002.122

Plant: 161.45.01-1

Material-assembly-group-no: 1325.133.006



16 S 2230 TO /
SYNCHRONIZER



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.45.01-1

Material-assembly-group-no: 1325.133.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1296.333.050		CLUTCH BODY	1			ENTHALT.IN 1296.333.053(1)		
20	1325.333.016		PLATE	1					
50	1325.233.016		SYNCHRONIZER	1			KPL.GP*DRUCKGUSS*LOKAL		
/110	1313.333.001		SYNCHRO.BODY	1			ENTHALT.IN 1296 333 014(1)		
/140	---		SYNCHRO.RING	1			ZFF*LOKAL HNG		
---	1296.333.044		SYNCHRO.RING	1					
---	1296.333.045		SYNCHRO.RING	1					
---	1297.333.137		SYNCHRO.RING	1			ZF-BK165/74		
/150	1240.304.278		PRESSURE PART	9					
/160	0732.040.385		COMPRESSION SPRING	9					
/170	0732.040.386		COMPRESSION SPRING	9					
/190	1325.333.018		SLIDING SLEEVE	1					
/200	---		SYNCHRO.RING	1			ZFF*LOKAL HNG		
---	1296.333.044		SYNCHRO.RING	1					
---	1296.333.045		SYNCHRO.RING	1					
---	1297.333.137		SYNCHRO.RING	1			ZF-BK165/74		
200	0630.501.175		RETAINING RING	1			125X3,7		
250	1325.233.007		CLUTCH BODY	1			KPL.		

Plant

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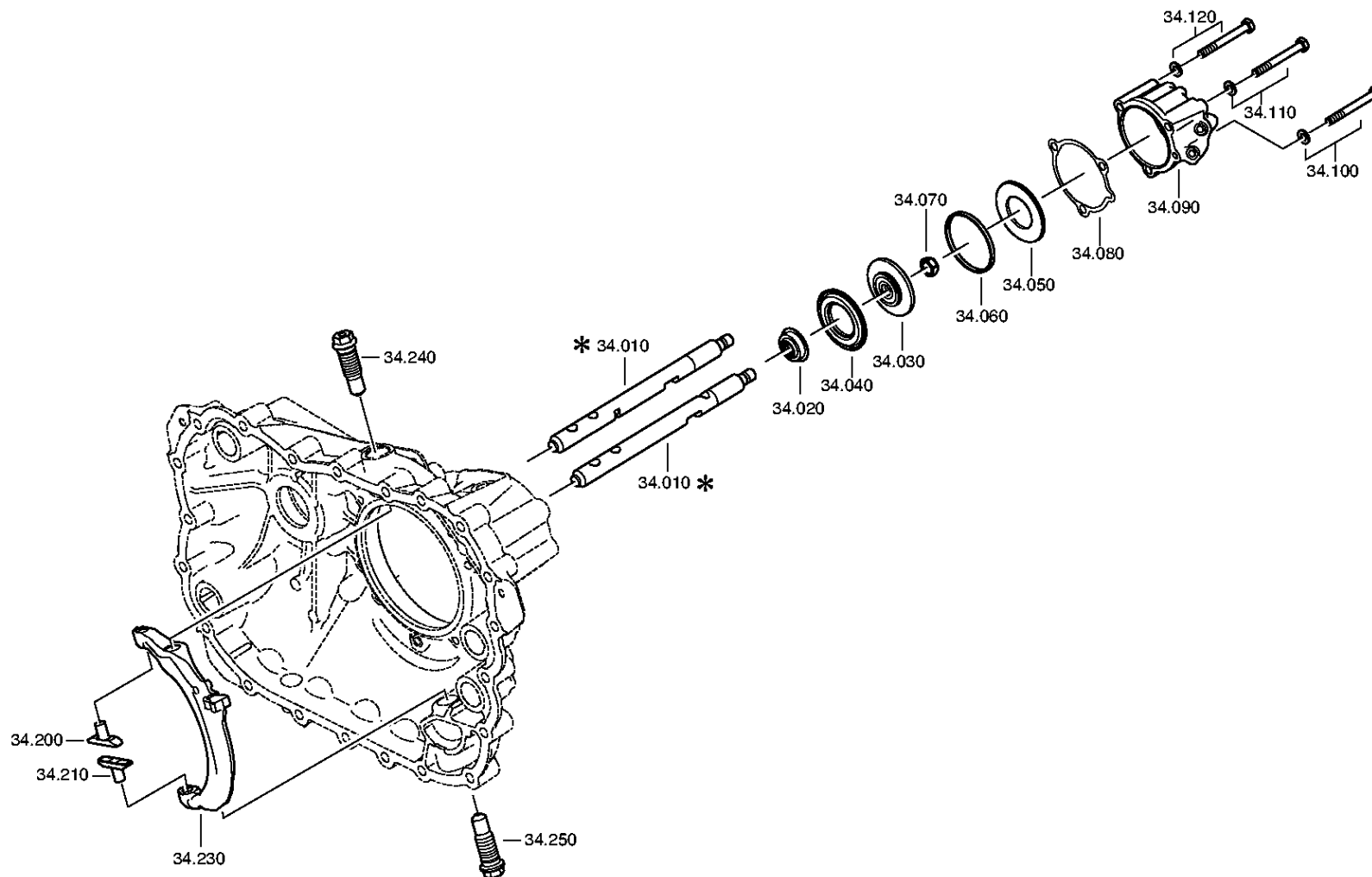
Material number: 1356.002.122

Plant: 161.46.01-1

GP SHIFT SYSTEM



16 S 2230 TO /
GP SHIFT SYSTEM



Plant

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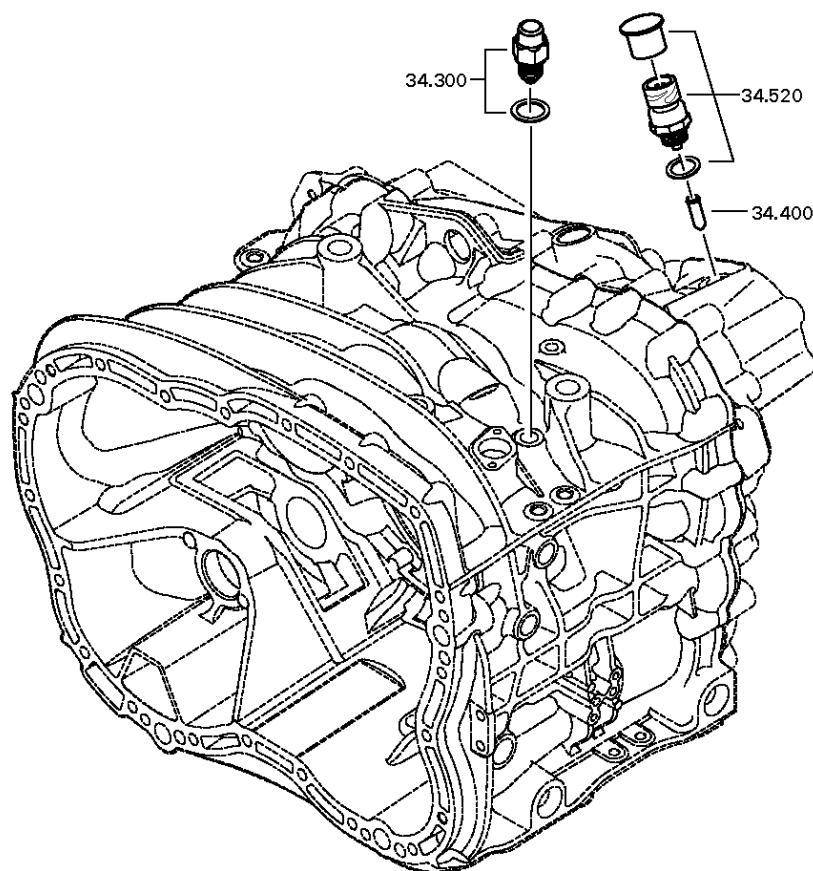
Material number: 1356.002.122

Plant: 161.46.40-1

GP SHIFT SYSTEM



16 S 2230 TO /
GP SHIFT SYSTEM



Parts list

Page 1 from 2



Material number: 1356.002.122

Plant: 161.46.01-1

Material-assembly-group-no: 1325.134.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.334.017		GEAR SHIFT RAIL	1					
20	0750.112.253		FLANGE PACKING	1			25X40X15		
30	---		PISTON	1			GP		
---	1315.334.034		PISTON	1			ENTHALT.IN 1315 334 040(2)		
---	1315.334.063		PISTON	1					
40	0734.307.294		SEALING RING	1			49X91X7,4 FA.KACO		
50	0734.307.294		SEALING RING	1			49X91X7,4 FA.KACO		
60	0750.112.066		GUIDE RING	1					
70	0737.300.037		LOCKING NUT	1			MS16X1,5		
80	0501.322.778		GASKET	1					
90	1325.334.013		CYLINDER	1			GP		
100	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
110	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
120	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
200	1325.334.008		SLIDING PAD	1			GP		
210	1325.334.008		SLIDING PAD	1			GP		
230	1325.334.007		GEARSHIFT FORK	1			GP		
240	---		SWIVEL SCREW	1			O.SCHEIBE*ZF KAMA		
---	---		SWIVEL SCREW	1		Z00015655010	WTB*ZF KAMA M24X1,5		
---	1324.334.008		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
---	1315.334.074		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
250	---		SWIVEL SCREW	1			O.SCHEIBE*ZF KAMA		
---	---		SWIVEL SCREW	1		Z00015655010	WTB*ZF KAMA M24X1,5		
---	1324.334.008		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
---	1315.334.074		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
300	---		DETENT PLUNGER	1			145N*50N.M		
---	1324.207.035		DETENT PLUNGER	1			KPL. *145 N		
---	0730.008.604		SEALING RING	1					

Parts list

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Material number: 1356.002.122

Plant: 161.46.01-1

Material-assembly-group-no: 1325.134.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
400	1295.212.006		PIN	1			KPL.		
520	---		SWITCH	1		Z00025033610	SCHL*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.331.660		SWITCH	1		Z00025033617			
---	0634.801.062		SEALING RING	1		Z00025033617	18X24		
---	0700.300.427		PROTECTION CAP	1		Z00025033617			

Plant

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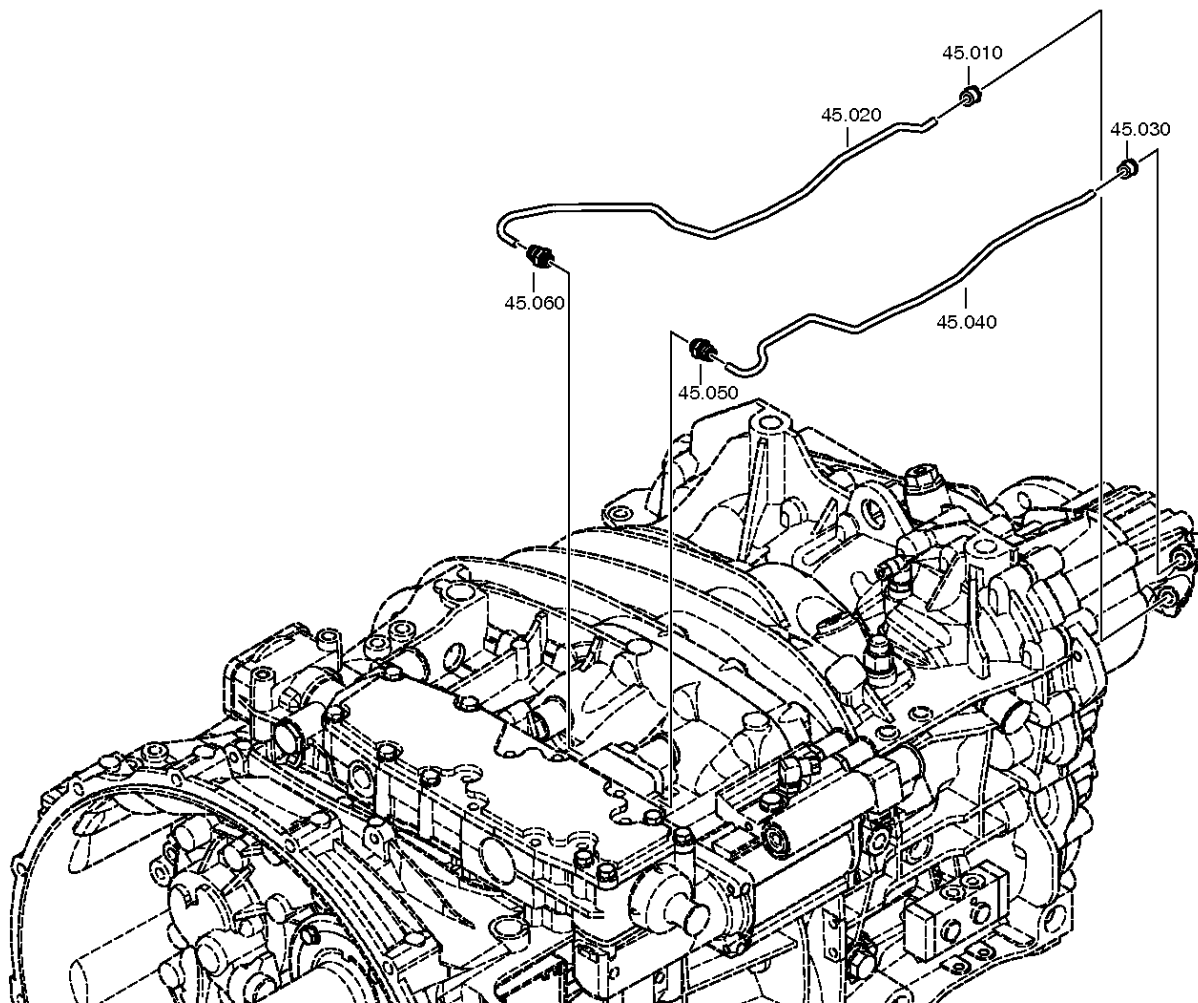
Material number: 1356.002.122

Plant: 161.57.04-1

Material-assembly-group-no: 1325.145.007



16 S 2230 TO /
RANGE SELECTION



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.57.04-1

Material-assembly-group-no: 1325.145.007

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0501.324.029		PLUG-IN COUPLING	1					
20	1325.345.009		TUBE	1			H-H		
30	0501.324.029		PLUG-IN COUPLING	1					
40	1325.345.008		TUBE	1			E13MP		
50	0501.326.099		PLUG-IN COUPLING	1			M14X1,5 ROHR 8MM		
60	0501.326.099		PLUG-IN COUPLING	1			M14X1,5 ROHR 8MM		

Plant

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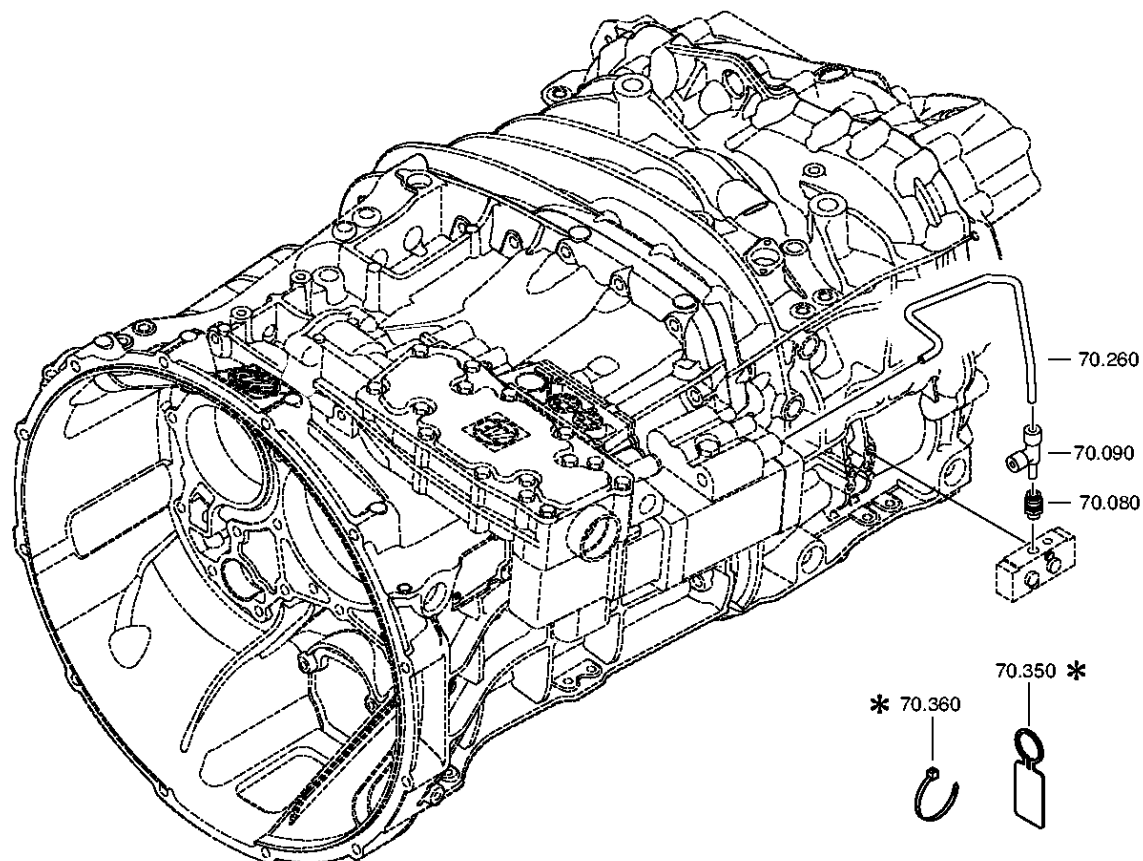
Material number: 1356.002.122

Plant: 161.70.05-1

Material-assembly-group-no: 1356.170.003



16 S 2230 TO /
SHUT-OFF VALVE



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.70.05-1

Material-assembly-group-no: 1356.170.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
80	0501.324.477		PLUG-IN COUPLING	1			M12X1,5 ROHR 8MM		
90	0501.324.457		PLUG-IN COUPLING	1					
260	1325.345.039		TUBE	1		Z00007299711	8X1 ZWISCHEN DBV UND GV		

Plant

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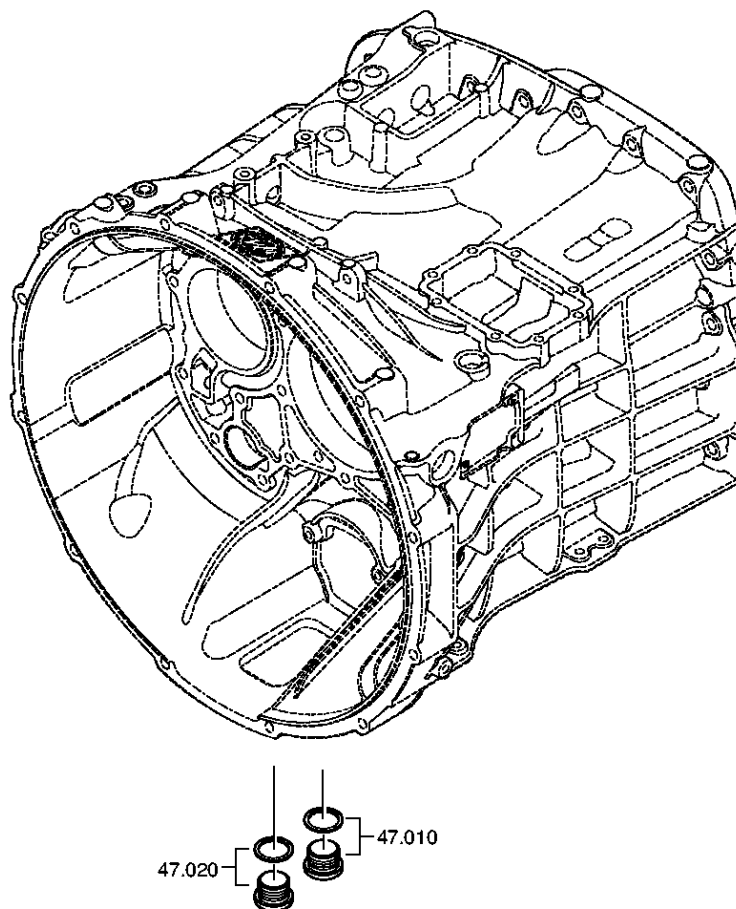
Material number: 1356.002.122

Plant: 161.90.08

Material-assembly-group-no: 1325.147.009



16 S 2230 TO /
SCREW PLUG



Parts list

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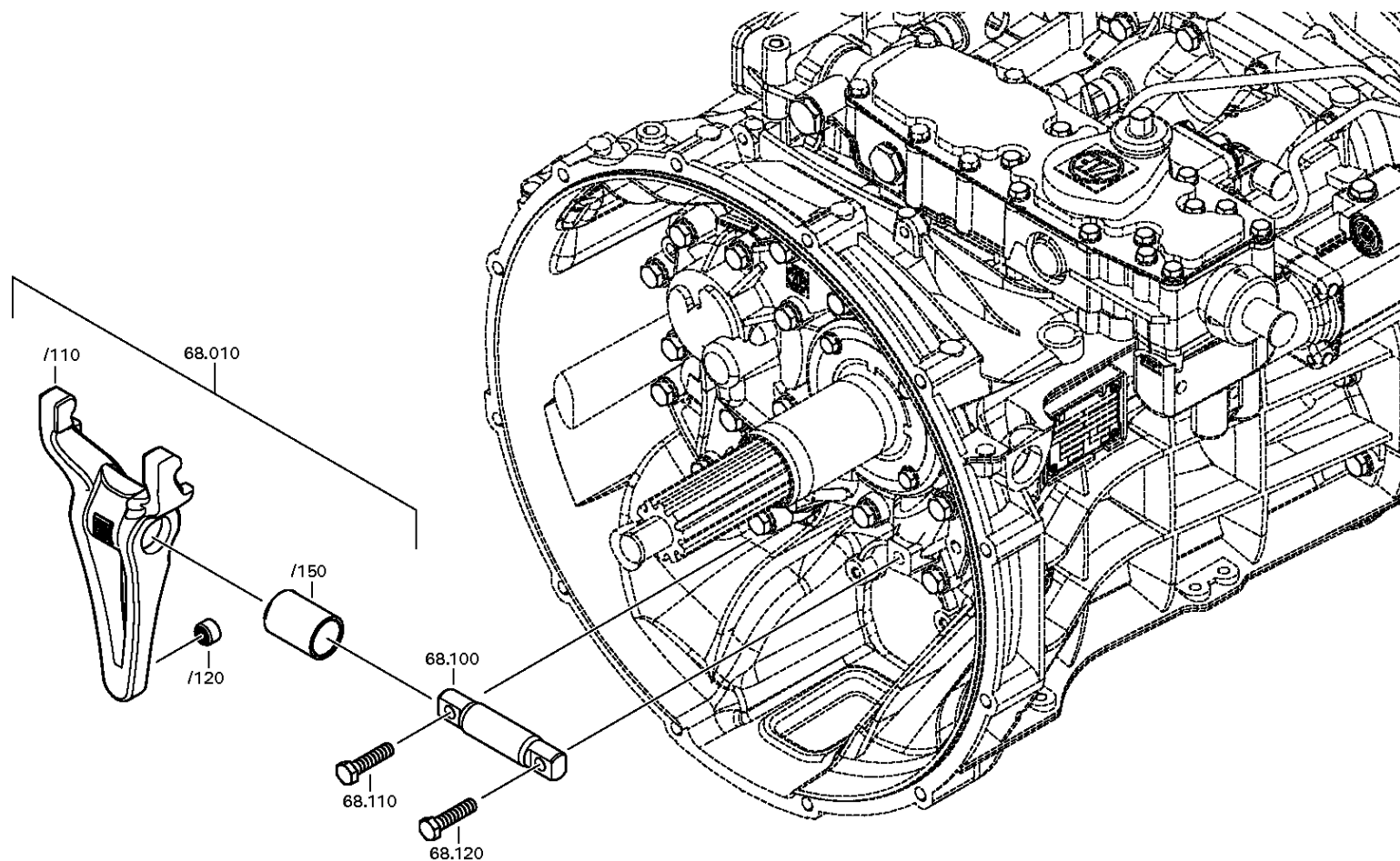
Material number: 1356.002.122

Plant: 161.90.08

Material-assembly-group-no: 1325.147.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	---		SCREW PLUG	1		Z00010164013	50N.M*DICHTRING M22X1,5		
---	0636.100.824		SCREW PLUG	1		Z00010164019	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010164019	A22X27		
20	---		SCREW PLUG	1		Z00010164013	50N.M*DICHTRING M22X1,5		
---	0636.100.824		SCREW PLUG	1		Z00010164019	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010164019	A22X27		



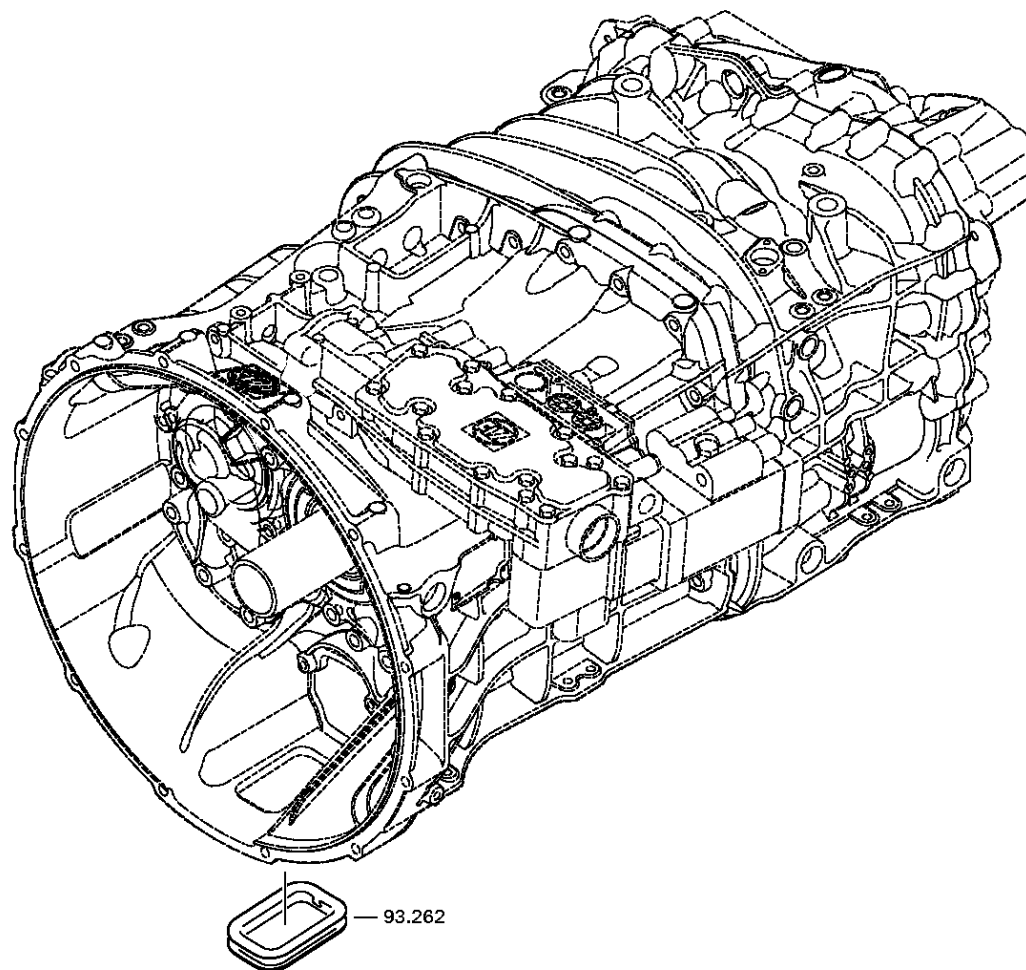
Material number: 1356.002.122

Plant: 161.93.17-1

CLUTCH RELEASE DEVICE



16 S 2230 TO /
CLUTCH RELEASE DEVICE



Parts list

Page 1 from 1



Material number: 1356.002.122

Plant: 161.93.76-1

Material-assembly-group-no: 1325.168.011

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.268.009		RELEASE FORK	1			KPL*GABELWEITE 94,0*KUGEL D=12*I=1,76*OHNE ROLLE*1-SK*LOKAL		
/110	---		RELEASE FORK	1			ZFF*LOKAL HNG		
---	1325.368.007		RELEASE FORK	1					
/120	0501.315.159		BALL CUP	1			KS12-18-12		
/150	0501.323.199		BEARING BUSH	1			30x37x50		
100	1325.368.008		RELEASE SHAFT	1			A=119,8mm		
110	0636.016.416		HEXAGON SCREW	1			M12X50		
120	0636.016.416		HEXAGON SCREW	1			M12X50		
262	1315.301.230		PROTECTION CAP	1					



Pos.	Information	Amendment number
001	Use case -----	
002	Customer ZF Drivotech Co., Ltd.	
003	City Hangzhou, Zhejiang	
004	DUNS 54-526-6199	
005	Use case -----	
006	Customer China National Heavy Duty Truck	
007	City Jinan	
008	DUNS 65-389-6704	
009	Product description -----	
010	INSTALLATION POS TRANSMISSION HORIZONTAL LEFT	
011	TRANSMISSION ATTACHMENT FLANGE-MOUNTED	
019	NUMBER OF GEARS 16	
020	RATIO, BOTTOM GEAR 13.8	
021	RATIO, TOP GEAR .84	
022	SET OF RATIOS SG	
023	NOTE ON TYPE OF GEAR SHIFT SYS TURNING SHAFT	
024	POSITION, GEAR SHIFT SYSTEM HORIZONTAL LEFT	
025	DESIGN, SHIFT PATTERN H-H	
026	VERSION SHIFT SUPPORT SERVO	
027	VERSION ACTUATION SHIFT SYSTEM CONTROL CABLE	
029	DESIGN PSE PSE2	
030	DESIGN PSE WITH VALVE PRESSURE RELIEF VALVE 6	
032	MAIN CUTOFF VALVE WITH	
033	NO. TAPPETS MAIN CUTOFF VALVE 2	
034	POS. AIR CON MAIN CUTOFF VALVE F	
036	DESIGN AIR SHUT-OFF GV-VALVE	
037	DIA.THROTTLE VALVE AIR SUPPLY 1.3 mm	
038	SELECTION PATTERN VARIANT GEAR SHIFT PATTERN 1	
039	VERSION OF SYNCHRONIZER 1 1+2 GEAR BK-SYNCHR.MOLYBDAEN	
040	VERSION OF SYNCHRONIZER 2 3+4 GEAR BK-SYNCHR.MOLYBDAEN	
041	REFERENCE LENGTH INPUT SHAFT 117 mm	
042	STANDARD TYPE INPUT SHAFT SAE	
043	NUMBER OF WEDGES INPUT SHAFT 10	



Pos.	Information	Amendment number
044	VERSION OF INPUT SHAFT FORM C	
045	NOMINAL DIAMETER INPUT SHAFT 2 in	
046	DIAMETER, JOURNAL, INPUT SHAFT 25 mm	
047	TYPE FIT SPIGOTS INPUT SHAFT F7	
048	VER. BEAR. SPIGOTS INPUT SHAFT TAPER ROLLER	
051	DESIGN,CONN., CLUTCH HOUSING SAE 1	
052	CENTR.DIA,HSG/ENGINE CONNECT. 511.175 mm	
053	NUMBER OF BORES,ENGINE CONN. 12	
054	BORE DIA, ENGINE CONNECTION 11 mm	
055	DESIGN, RELEASE SHAFT	
056	WIDTH ACROSS FLATS,RELEAS.FORK 94 mm	
059	REF.LENGTH,RELEASE BEAR.FLAN -24.2 mm	
060	DIAMETER, RELEASE FLANGE 62.62 mm	
061	DESIGN RELEASE CYLINDER WITHOUT GROOVE	
062	OUTER DIA. OUTPUT FLANGE RA 180 mm	
064	NO.OF SCREWS OUTPUT FLANGE RA 4	
066	DIA. THREAD OUTPUT FL. SCR. RA M14	
067	THREAD PITCH OUTPUT FL SCR. RA 1.5 mm	
068	THREAD LENGTH OUTP.FL SCREW RA 50 mm	
070	DIMENSION SHIFT TURRET DIST. 300 mm	
071	MEAS. LOC. SHIFT TURRET DIST. SHIFT LEVER-LOCATION	
072	SELECTOR LEVER n	
077	SHIFT LEVER n	
081	SHIFT LEVER CONNECTION KNURLING	
088	SPRING ARRANGEMENT Q1	
089	SPRING FORCE DETENT PLUNGER RG 60 N	
092	SELECTOR SPRING FORCE, OUTSIDE 80 N	
094	HUMP SPRING FORCE, OUTSIDE 120 N	
095	HUMP SPRING FORCE, CENTRE 70 N	
097	SPRING FORCE OUTS. DETENT NEUT 200 N	
099	ALLOCATION DETENT LEVER VER. C	
100	SWITCH, REVERSE GEAR y	
101	DESIGN, RG (REV.GEAR) SWITCH CLOSING	



Pos.	Information	Amendment number
102	DESIGN, CONNECTION, RG SWITCH DIN BAYONET	
103	CODE SWITCH RG A1	
104	PROT.CAP SWITCH, REVERSE GEAR y	
105	SWITCH, NEUTRAL GEAR y	
106	DESIGN,NG(NEUTRAL GEAR)SWITCH OPENING SWITCH	
107	DESIGN, CONNECTION, NG SWITCH DIN BAYONET	
108	CODE SWITCH NG A1	
109	PROT.CAP SWITCH, NEUTRAL GEAR y	
110	PRESSURE SWITCH n	
115	RG-GATE-IDENTIFICATION SWITCH n	
120	SWITCH RG-ENGAGED n	
125	SWITCH GP y	
126	DESIGN, GP SWITCH CLOSING	
127	DESIGN, CONNECTION, GP SWITCH DIN BAYONET	
128	CODE SWITCH GP A1	
129	PROTECTING CAP GP SWITCH y	
130	SWITCH GP-END POSITION n	
135	SWITCH GV n	
140	SWITCH HG n	
145	SWITCH 1 GEAR n	
150	ATTACHM.POS.HEAT EXCHANGER IN FRONT RIGHT	
151	DES.CONN.HEAT EXCHANGER PREPARED	
152	VER. TRANSMISSION VENTILATION BREATHER	
159	PULSE SENSOR TRANSMISSION WITH	
160	PULSE RATE PULSE SENS GEARBOX 6 IMP/U	
161	PROT.CAP PULSE SENSOR GEARBOX y	
162	DES.CONN.PULSE SENSOR GEARBOX DIN BAYONET	
169	OIL CAPACITY, GEARBOX 15.5 dm3	
171	OIL GRADE PERMISSIBLE ACC. TO TE-ML02	
172	OIL CLASS FIRST FILLING E	
173	CODING OUTER CONSERVATION KA2	
175	CODING INNER CONSERVATION KI1	
176	CONSERVATION SPECIFICATION ZFN 916	



Pos.	Information	Amendment number
177	COLOR JET BLACK	
178	COLOUR CLASSIFICATION ACC. TO RAL 9005	
179	PAINTING, ZF STANDARD 915 W	

Assembly group overview

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Material number: 1356.002.113

16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
161.01.09-1	110	1356.101.004	TRANSMISSION HOUSING	1		
161.01.81-1	180	1325.101.810	CLUTCH HOUSING	1		
161.02.05-1	10	1356.102.009	INPUT SHAFT	1		
161.02.80-1	240	1325.102.802	CONNECTION PLATE	1		
161.02.01-1	910	1325.102.018	CONNECTION PLATE	1		
068.03.01-1	20	1316.103.013	COUNTERSHAFT	1		
161.04.12-1	30	1356.104.016	MAIN SHAFT	1		
161.05.01-1	130	1325.105.001	RETURN	1		
161.06.04-1	40	1356.106.001	TRANSMISSION SHIFT SYSTEM	1		
161.06.02-1	44	1325.106.803	TRANSMISSION SHIFT SYSTEM	1		
068.07.81-1	460	1316.108.817	GEAR SHIFT HOUSING	1		
068.07.38-1	910	1316.108.075	GEAR SHIFT HOUSING	1		
068.07.25-1	914	1316.108.459	GEARSHIFT SHAFT	1		
068.07.75-1	924	1316.108.070	DETENT	1		
062.08.30-1	954	1316.171.403	END COVER	1		
068.08.45-1	960	1316.171.430	PNEUMATIC SERVO UNIT	1		
068.09.01-1	934	1316.109.052	CONNECTING PARTS	1		
068.09.11-1	940	1316.109.433	CONNECTING PARTS	1		
161.10.04-1	200	1356.110.002	OIL SUPPLY	1		
161.10.01-1	920	1325.110.005	PUMP	1		
068.10.02-1	932	1316.111.011	SELECTOR LEVER	1		
068.10.92-1	466	1341.111.803	SELECTOR LEVER	1		
068.12.08-1	918	1316.149.478	SET OF SPRINGS	1		
161.28.01-1	370	1325.128.806	PLANETARY RANGE	1		
161.40.01-1	50	1356.112.001	GV-SHIFT SYSTEM	1		
161.40.80-1	340	1325.112.812	GV-SHIFT SYSTEM	1		
161.43.01-1	40	1325.131.015	RC HOUSING	1		
161.43.40-1	50	1325.131.400	CLOSING COMPONENTS	1		
161.44.03-1	10	1325.132.003	PLANETARY DRIVE	1		
161.44.41-1	60	1325.132.408	OUTPUT FLANGE	1		
161.45.01-1	20	1325.133.004	SYNCHRONIZER	1		
161.46.01-1	30	1325.134.006	GP SHIFT SYSTEM	1		

Assembly group overview

Page 2 from 2



Material number: 1356.002.113

16 S 2230 TO /

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
161.46.40-1	400	1325.134.404	SWITCH	1		
161.57.04-1	510	1325.145.004	RANGE SELECTION	1		
161.70.05-1	480	1356.170.003	SHUT-OFF VALVE	1		
161.90.08	320	1325.147.009	SCREW PLUG	1		
161.93.76-1	260	1325.168.011	CLUTCH RELEASE DEVICE	1		
161.93.17-1	262	1315.301.230	PROTECTION CAP	1		

Plant

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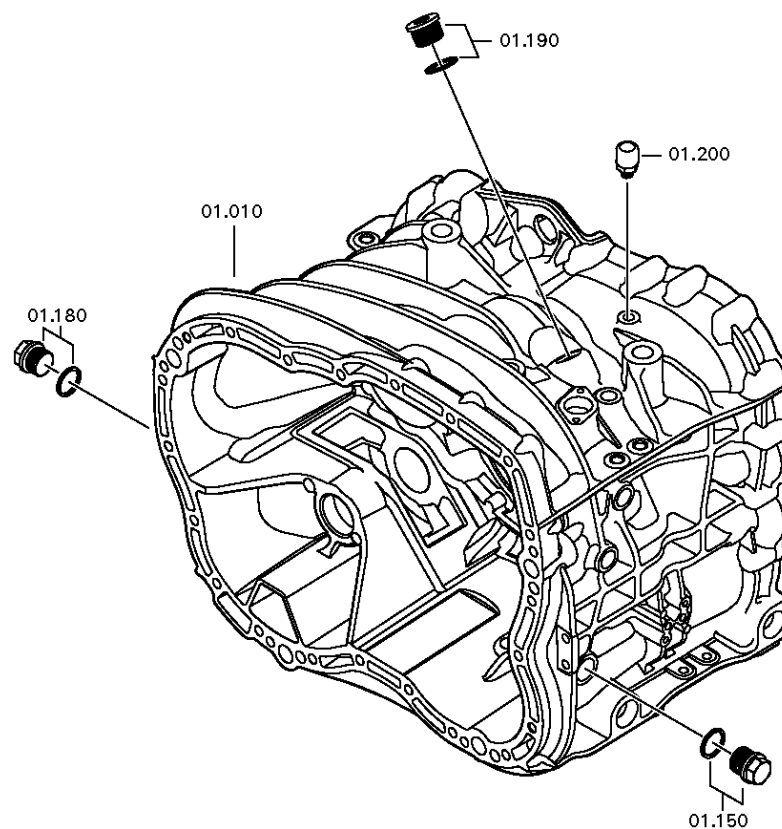
Material number: 1356.002.113

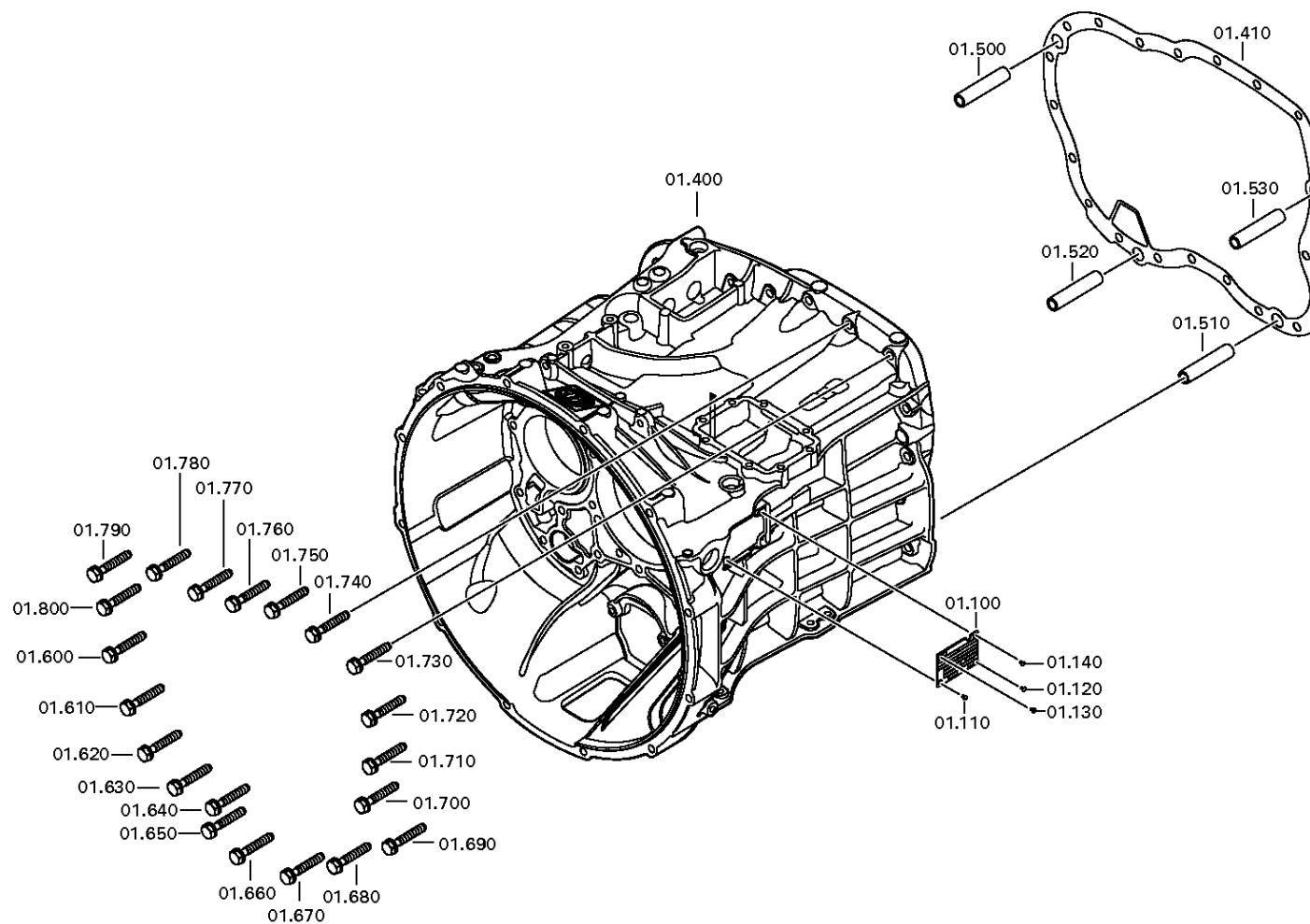
Plant: 161.01.09-1

TRANSMISSION HOUSING



16 S 2230 TO /
TRANSMISSION HOUSING





Parts list

Page 1 from 2



Material number: 1356.002.113

Plant: 161.01.09-1

Material-assembly-group-no: 1356.101.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.201.031		TRANSMISSION HOUSING	1		Z00008470912	KPL.BEARBEITET*GP-ANZ		
100	---		TYPE PLATE	1			KONZERN		
---	0730.365.241		TYPE PLATE	1			EINHEITSSCH. VERDREHSICHER		
---	0730.365.259		TYPE PLATE	1			EINHEITSSCH.VERDREHSICHER BRASILien		
---	0730.365.267		TYPE PLATE	1			CHINA		
---	0730.300.258		TYPE PLATE	1			EINHEITSSCH.VERDREHSICHER		
---	0730.365.271		TYPE PLATE	1			RUSSLAND/ KYRILLISCH		
---	0730.365.257		TYPE PLATE	1			S.S.CH IRAN		
---	0730.365.800		TYPE PLATE	1		Z00015972510			
---	0730.302.754		TYPE PLATE	1			AUSFUEHRUNG UNIVERSAL		
110	0731.300.027		BLIND RIVET	1		Z00007904810			
120	0731.300.027		BLIND RIVET	1		Z00007904810			
130	0731.300.027		BLIND RIVET	1		Z00007904810			
140	0731.300.027		BLIND RIVET	1		Z00007904810			
150	---		SCREW PLUG	1		Z00010112111	60N.M*DICHTRING M24X1,5		
---	0636.304.088		SCREW PLUG	1		Z00010112110	M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010112110	24X29		
180	---		SCREW PLUG	1		Z00010112111	60N.M*DICHTRING M24X1,5		
---	0636.304.088		SCREW PLUG	1		Z00010112110	M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010112110	24X29		
190	---		SCREW PLUG	1		Z00010164412	70N.M*DICHTRING M26X1,5		
---	0636.100.811		SCREW PLUG	1		Z00010164420	M26X1,5		
---	0634.801.249		SEALING RING	1		Z00010164420	26X31		
200	0501.218.540		BREATHER	1					
400	1325.201.025		CLUTCH HOUSING	1			SAE D=11*ABSTZG.2X D= 9*UNBEARB.SENSOR/GV/M8/ SCHUTZBL/LEITG		
410	0501.322.776		GASKET	1					
500	0731.201.563		CYLINDRICAL PIN	1					
510	0731.201.563		CYLINDRICAL PIN	1					
520	0731.201.563		CYLINDRICAL PIN	1					
530	0731.201.563		CYLINDRICAL PIN	1					
600	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		

Parts list

Page 2 from 2



Material number: 1356.002.113

Plant: 161.01.09-1

Material-assembly-group-no: 1356.101.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
610	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
620	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
630	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
640	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
650	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
660	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
670	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
680	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
690	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
700	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
710	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
720	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
730	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
740	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
750	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
760	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
770	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
780	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
790	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
800	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		

Plant

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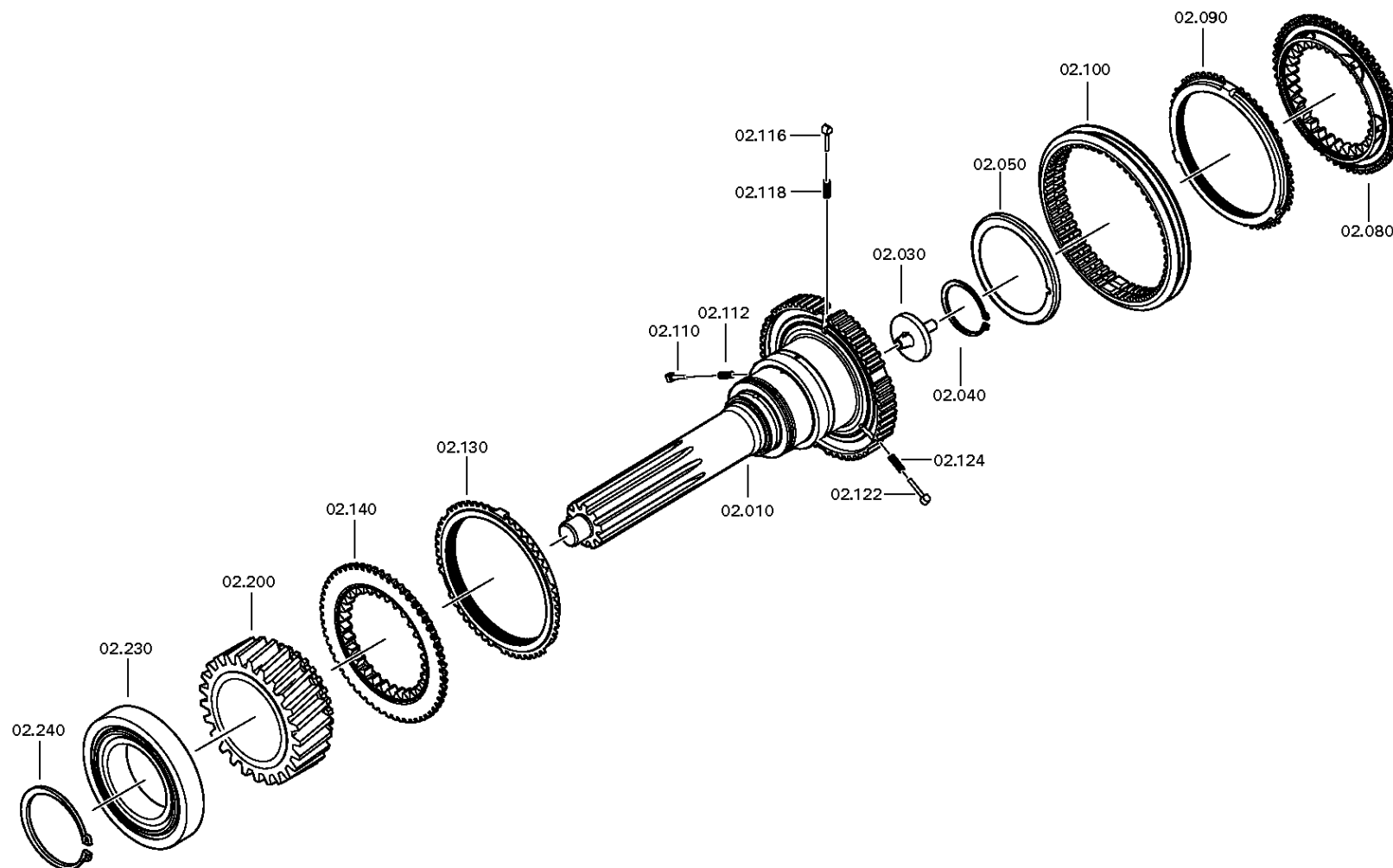
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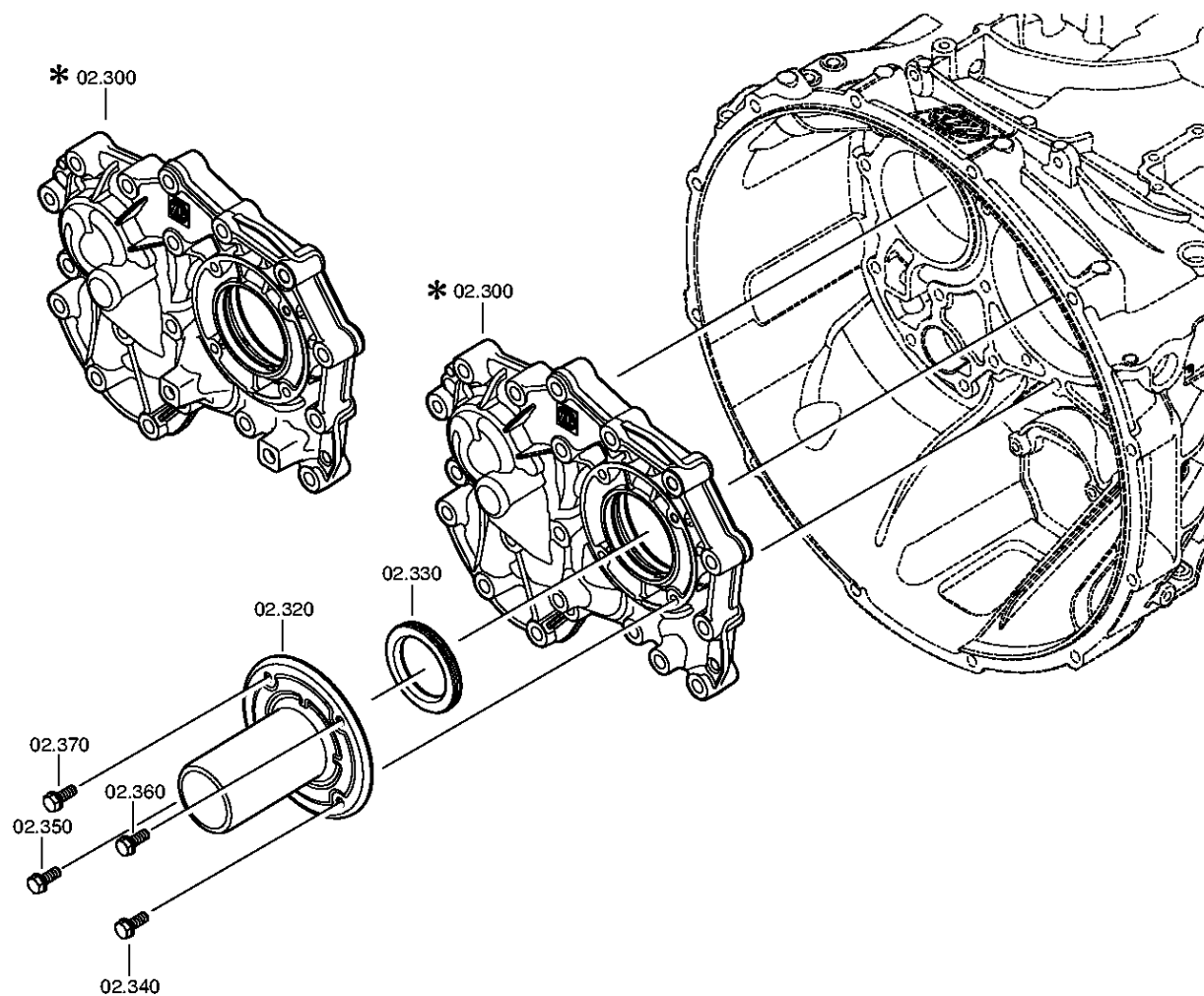
Plant: 161.02.05-1

INPUT SHAFT



16 S 2230 TO /
INPUT SHAFT





Plant

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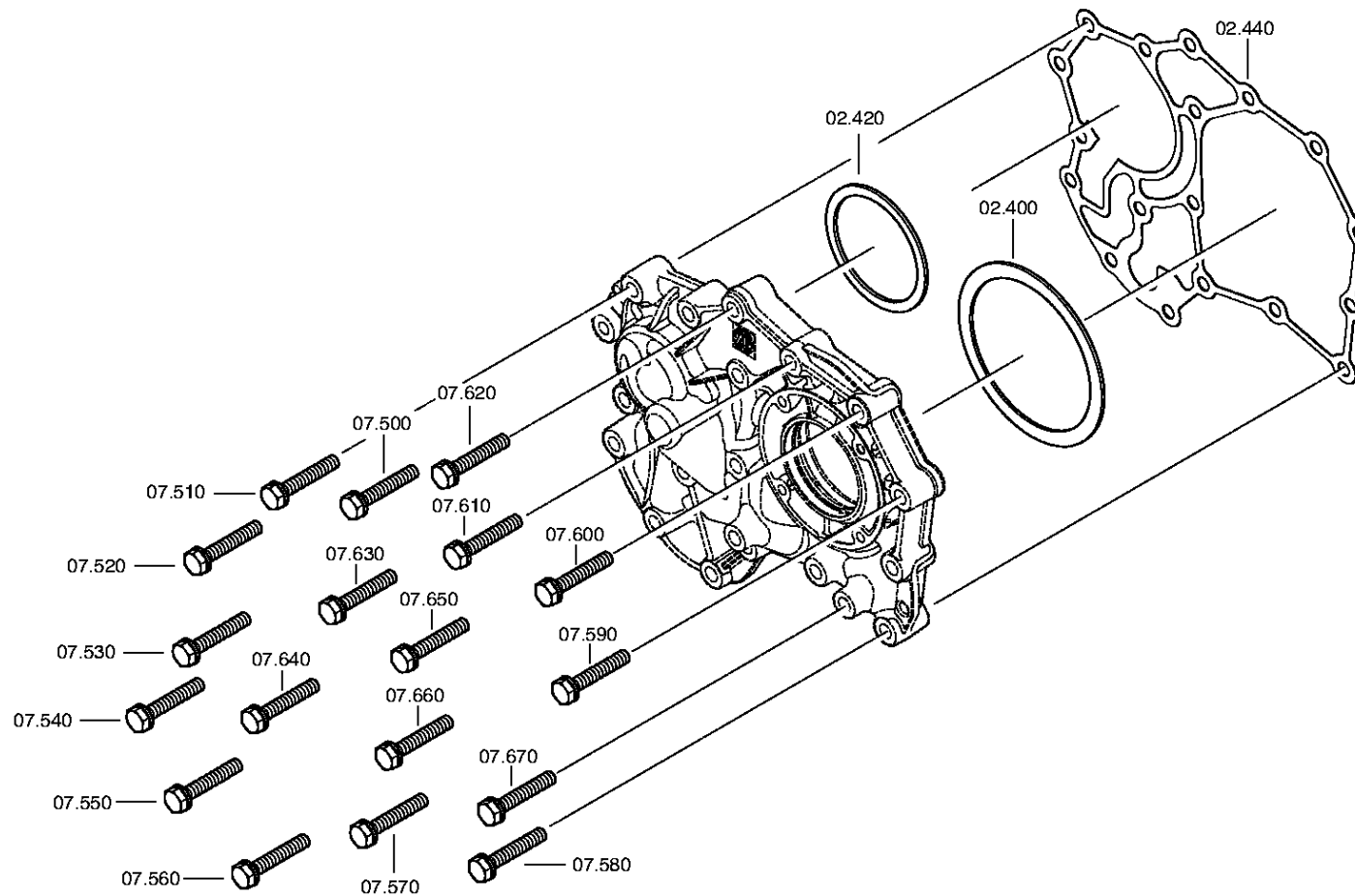
Material number: 1356.002.113

Plant: 161.02.80-1

INPUT SHAFT



16 S 2230 TO /
INPUT SHAFT



Parts list

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Material number: 1356.002.113

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.302.103		INPUT SHAFT	1		Z00011537241			
30	1354.302.019		TUBE	1		Z00003066010			
40	0630.502.027		RETAINING RING	1		Z00003066010	50X2		
50	0750.101.179		OIL DAM	1		Z00007187910	77,0X95,5X6,0		
80	1316.304.190		CLUTCH BODY	1		Z00012049010	ZF-BK 144 O		
90	1316.304.189		SYNCHRO.RING	1		Z00003066010	ZF-BK 144		
100	1356.304.023		SLIDING SLEEVE	1		Z00011717310	ZF-BK 144		
110	1297.304.436		PRESSURE PART	1		Z00003066010			
112	0732.040.409		COMPRESSION SPRING	1		Z00003066010			
116	1297.304.436		PRESSURE PART	1		Z00003066010			
118	0732.040.409		COMPRESSION SPRING	1		Z00003066010			
122	1297.304.436		PRESSURE PART	1		Z00003066010			
124	0732.040.409		COMPRESSION SPRING	1		Z00003066010			
130	1316.304.189		SYNCHRO.RING	1		Z00003066010	ZF-BK 144		
140	1316.304.190		CLUTCH BODY	1		Z00012049010	ZF-BK 144 O		
200	1316.302.067		HELICAL GEAR	1		Z00003066010	Z35 IN 1316 302 026(1)		
230	0750.117.732		TAPERED ROLLER BEARING	1		Z00003066010	85,0X150,0X30,5		
240	0730.501.598		RETAINING RING	1		Z00003066010	85X4		
300	1325.302.055		CONNECTION PLATE	1		Z00013937810			
320	1325.302.029		GUIDE TUBE	1		Z00013937810			
330	---		SHAFT SEAL	1		Z00013937810	55X78X8		
---	0734.310.435		SHAFT SEAL	1			55X78X8 FA.CF 55X78X8		
340	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
350	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
360	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
370	0636.100.466		SCREW WITH WASHER ASSEMBLY	1		Z00009178210	M8X22		
400	---		SHIM	1			H= 0,90- 2,40(ABSTUFUNG:0,05MM)		
---	2050.309.094		SHIM	1			A=2,2 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.007.489		SHIM	1			A=2,15 IN 2050 309 090(2)		

Parts list

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Material number: 1356.002.113

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.007.488		SHIM	1			A=2,10 IN 2050 309 090(2)		
---	0730.007.487		SHIM	1			A=2,05 IN 2050 309 090(2)		
---	0730.007.486		SHIM	1			A=2,00 IN 2050 309 090(2)		
---	0730.007.485		SHIM	1			A=1,95 IN 2050 309 090(2)		
---	0730.007.484		SHIM	1			A=1,90 IN 2050 309 090(2)		
---	0730.007.483		SHIM	1			A=1,85 IN 2050 309 090(2)		
---	0730.007.482		SHIM	1			A=1,80 IN 2050 309 090(2)		
---	0730.007.481		SHIM	1			A=1,75 IN 2050 309 090(2)		
---	0730.007.480		SHIM	1			A=1,70 IN 2050 309 090(2)		
---	0730.007.479		SHIM	1			A=1,65 IN 2050 309 090(2)		
---	0730.007.136		SHIM	1			A=1,60 IN 2050 309 090(2)		
---	0730.007.135		SHIM	1			A=1,55 IN 2050 309 090(2)		
---	0730.007.134		SHIM	1			A=1,50 IN 2050 309 090(2)		
---	0730.007.133		SHIM	1			A=1,45 IN 2050 309 090(2)		
---	0730.007.132		SHIM	1			A=1,40 IN 2050 309 090(2)		
---	0730.007.131		SHIM	1			A=1,35 IN 2050 309 090(2)		
---	0730.007.130		SHIM	1			A=1,30 IN 2050 309 090(2)		
---	0730.007.129		SHIM	1			A=1,25 IN 2050 309 090(2)		
---	2050.309.034		SHIM	1			A=1,2 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.007.128		SHIM	1			A=1,15 IN 2050 309 090(2)		
---	0730.007.127		SHIM	1			A=1,10 IN 2050 309 090(2)		
---	0730.007.126		SHIM	1			A=1,05 IN 2050 309 090(2)		
---	2050.309.065		SHIM	1			A=1,0 IN 2050 309 090 C45E WW.F500 ZFN410		
---	0730.005.749		SHIM	1			A=0,95 IN 2050 309 090(2)		
---	0730.005.748		SHIM	1			A=0,90 IN 2050 309 090(2)		
---	0730.301.503		SHIM	1			h=2,25		
---	0730.301.504		SHIM	1			h=2,30		
---	0730.301.505		SHIM	1			h=2,35		
---	0730.301.506		SHIM	1			h=2,40		
420	---		SHIM	1			H= 1,85- 3,25(ABSTUFUNG:0,05MM)		
---	0730.112.938		SHIM	1		C01007375C10	A=3,25		
---	0730.112.937		SHIM	1		C01007375C10	A=3,20		

Parts list

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Material number: 1356.002.113

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.112.936		SHIM	1		C01007375C10	A=3,15		
---	0730.112.935		SHIM	1		C01007375C10	A=3,10		
---	0730.106.860		SHIM	1		C01007375C10	A=3,05 IN 0730 106 904(2)		
---	0730.106.917		SHIM	1			A=3,00 IN 0730 106 904(2)		
---	0730.106.916		SHIM	1			A=2,95 IN 0730 106 904(2)		
---	0730.106.915		SHIM	1			A=2,90 IN 0730 106 904(2)		
---	0730.106.914		SHIM	1			A=2,85 IN 0730 106 904(2)		
---	0730.106.913		SHIM	1			A=2,80 IN 0730 106 904(2)		
---	0730.106.912		SHIM	1			A=2,75 IN 0730 106 904(2)		
---	0730.106.911		SHIM	1			A=2,70 IN 0730 106 904(2)		
---	0730.106.910		SHIM	1			A=2,65 IN 0730 106 904(2)		
---	0730.106.909		SHIM	1			A=2,60 IN 0730 106 904(2)		
---	0730.106.908		SHIM	1			A=2,55 IN 0730 106 904(2)		
---	0730.100.799		SHIM	1			A=2,50 IN 0730 106 904(2)		
---	0730.100.800		SHIM	1			A=2,45 IN 0730 106 904(2)		
---	0730.100.801		SHIM	1			A=2,40 IN 0730 106 904(2)		
---	0730.100.802		SHIM	1			A=2,35 IN 0730 106 904(2)		
---	0730.100.803		SHIM	1			A=2,30 IN 0730 106 904(2)		
---	0730.101.466		SHIM	1			A=2,25 IN 0730 106 904(2)		
---	0730.101.467		SHIM	1			A=2,20 IN 0730 106 904(2)		
---	0730.101.468		SHIM	1			A=2,15 IN 0730 106 904(2)		
---	0730.101.469		SHIM	1			A=2,10 IN 0730 106 904(2)		
---	0730.101.470		SHIM	1			A=2,05 IN 0730 106 904(2)		
---	0730.101.471		SHIM	1			A=2,00 IN 0730 106 904(2)		
---	0730.106.907		SHIM	1			A=1,95 IN 0730 106 904(2)		
---	0730.106.906		SHIM	1			A=1,90 IN 0730 106 904(2)		
---	0730.106.905		SHIM	1			A=1,85 IN 0730 106 904(2)		
440	0501.324.454		GASKET	1		C01005568F10			
500	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
510	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
520	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
530	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
540	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
550	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		

Parts list

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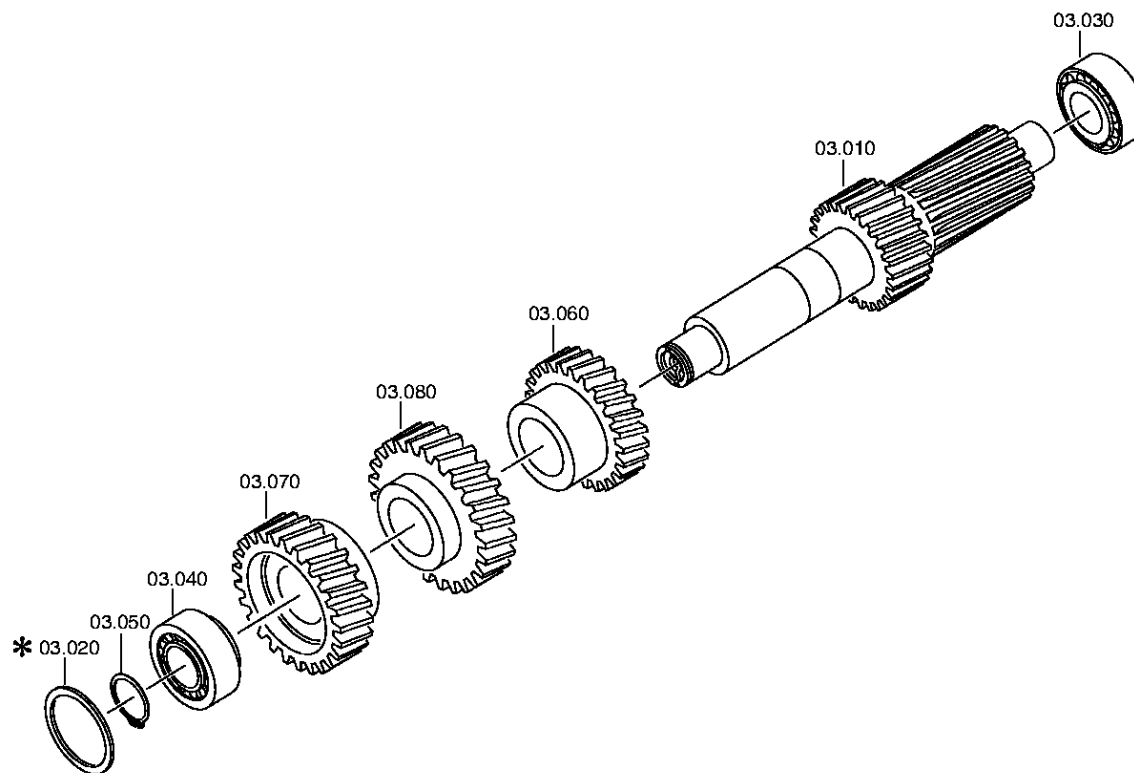
Material number: 1356.002.113

Plant: 161.02.05-1

Material-assembly-group-no: 1356.102.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
560	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
570	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
580	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
590	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
600	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
610	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
620	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
630	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
640	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
650	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
660	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		
670	0636.102.270		HEXAGON SCREW	1		Z00009177410	M10X60		



Parts list

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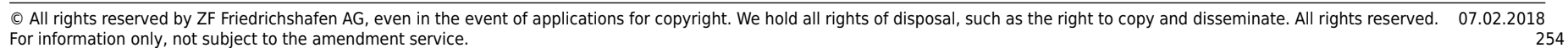
Material number: 1356.002.113

Plant: 068.03.01-1

Material-assembly-group-no: 1316.103.013

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.303.033		COUNTERSHAFT	1			ENTHALT.IN 1316 303 032(0)		
30	0750.117.009		TAPERED ROLLER BEARING	1			49,213x103,188x44,475		
40	0750.117.009		TAPERED ROLLER BEARING	1			49,213x103,188x44,475		
50	---		RETAINING RING	1		Z00027144136	H= 2,40- 3,00(ABSTUFUNG:0,05MM)		
---	0730.303.174		RETAINING RING	1		Z00027144110	h=3,00		
---	0730.303.173		RETAINING RING	1		Z00027144110	h=2,95		
---	0730.303.172		RETAINING RING	1		Z00027144110	h=2,90		
---	0730.303.171		RETAINING RING	1		Z00027144110	h=2,85		
---	0730.303.170		RETAINING RING	1		Z00027144110	h=2,80		
---	0730.303.169		RETAINING RING	1		Z00027144110	h=2,75		
---	0730.303.168		RETAINING RING	1		Z00027144110	h=2,70		
---	0730.303.167		RETAINING RING	1		Z00027144110	h=2,65		
---	0730.303.166		RETAINING RING	1		Z00027144110	h=2,60		
---	0730.303.165		RETAINING RING	1		Z00027144110	h=2,55		
---	0730.302.599		RETAINING RING	1		Z00027144110	h=2,50		
---	0730.302.598		RETAINING RING	1		Z00027144110	h=2,45		
---	0730.302.597		RETAINING RING	1		Z00027144110	h=2,40		
60	1316.303.005		HELICAL GEAR	1			3G/Z26 IN 1312 303 018(1)		
70	1316.303.071		HELICAL GEAR	1			KON 1		
80	1316.303.065		HELICAL GEAR	1			Z35 IN 1312 303 013(1)		



Parts list

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Material number: 1356.002.113

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.016

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.304.132		MAIN SHAFT	1					
30	0750.115.303		NEEDLE CAGE	1			92,0X100,0X63,0		
40	1316.304.002		HELICAL GEAR	1			2G/Z38 IN 1316 304 005(1)		
50	1356.204.007		SYNCHRONIZER	1			KPL.1+2G*BK160 MOLYBDAEN* ECOSPLIT 3+4		
/10	1356.304.022		SYNCHRO.BODY	1					
/20	1356.304.024		SLIDING SLEEVE	1			ZF-BK 160		
/30	1316.304.170		SYNCHRO.RING	2					
/50	1297.304.436		PRESSURE PART	3					
/60	0732.040.409		COMPRESSION SPRING	3					
/80	1316.304.156		CLUTCH BODY	2					
140	1312.304.084		BUSH	1			ENTHALT.IN 1312 304 007(2)		
150	0750.115.327		NEEDLE CAGE	1			96,0X104,0X72,0		
160	1316.304.010		HELICAL GEAR	1			1G/Z47 IN 1312 304 033(0)		
180	1312.304.124		CLUTCH BODY	1			ENTHALT.IN 1312 304 055(0)		
200	1316.304.133		BUSH	1			A=50,00 IN 1312 304 010(2)		
210	0750.115.326		NEEDLE CAGE	1			90,0X98,0X50,0		
220	---		HELICAL GEAR	1					
---	1316.304.012		HELICAL GEAR	1			RG*Z44 IN 1312 304 125(0)		
---	1316.304.235		HELICAL GEAR	1					
230	0750.117.678		TAPERED ROLLER BEARING	1			80,000X139,992X36,512		
240	---		RETAINING RING	1		Z00027144137	H= 3,00- 3,65(ABSTUFUNG:0,05MM)		
---	0730.303.186		RETAINING RING	1		Z00027144110	h=3,50		
---	0730.303.185		RETAINING RING	1		Z00027144110	h=3,45		
---	0730.303.184		RETAINING RING	1		Z00027144110	h=3,40		
---	0730.303.183		RETAINING RING	1		Z00027144110	h=3,35		
---	0730.303.182		RETAINING RING	1		Z00027144110	h=3,30		
---	0730.303.181		RETAINING RING	1		Z00027144110	h=3,25		
---	0730.303.180		RETAINING RING	1		Z00027144110	h=3,20		
---	0730.303.179		RETAINING RING	1		Z00027144110	h=3,15		
---	0730.303.178		RETAINING RING	1		Z00027144110	h=3,10		
---	0730.303.187		RETAINING RING	1		Z00027144110	h=3,55		
---	0730.303.188		RETAINING RING	1		Z00027144110	h=3,60		
---	0730.303.189		RETAINING RING	1		Z00027144110	h=3,65		

Parts list

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Material number: 1356.002.113

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.016

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
250	1312.304.150		TUBE	1					
260	0750.115.303		NEEDLE CAGE	1			92,0X100,0X63,0		
270	1316.304.008		HELICAL GEAR	1			3G/Z34 IN 1312 304 135(1)		
280	1316.304.190		CLUTCH BODY	1			ZF-BK 144 O		
290	1356.204.006		SYNCHRONIZER	1			KPL.3+4G*BK144 MOLYBDAEN* ANSCHL.INTEGR VERST*ECOSPLIT 3+4		
/10	1356.304.019		SYNCHRO.BODY	1					
/20	1356.304.023		SLIDING SLEEVE	1			ZF-BK 144		
/30	1316.304.189		SYNCHRO.RING	2			ZF-BK 144		
/50	1297.304.436		PRESSURE PART	3					
/60	0732.040.409		COMPRESSION SPRING	3					
370	1316.304.190		CLUTCH BODY	1			ZF-BK 144 O		
380	0750.101.158		THRUST WASHER	1					
390	0750.101.158		THRUST WASHER	1					
400	0750.119.124		INNER RING	1			67,0X77,0X66,1		
410	0750.115.531		ROLLER CAGE	1			77,0X101,0X29,0		
420	0750.115.531		ROLLER CAGE	1			77,0X101,0X29,0		
440	1316.304.103		HELICAL GEAR	1			Z32		
600	---		AXIAL WASHER	1			H= 7,30- 8,00(ABSTUFUNG:0,10MM)		
---	1315.304.048		AXIAL WASHER	1			A=8,00 IN 1315 304 042(2)		
---	1315.304.047		AXIAL WASHER	1			A=7,90 IN 1315 304 042(2)		
---	1315.304.046		AXIAL WASHER	1			A=7,80 IN 1315 304 042(2)		
---	1315.304.045		AXIAL WASHER	1			A=7,70 IN 1315 304 042(2)		
---	1315.304.044		AXIAL WASHER	1			A=7,60 IN 1315 304 042(2)		
---	1315.304.043		AXIAL WASHER	1			A=7,50 IN 1315 304 042(2)		
---	1315.304.085		AXIAL WASHER	1			A=7,40 IN 1315 304 042(2)		
---	1315.304.086		AXIAL WASHER	1			A=7,30 IN 1315 304 042(2)		
610	0750.117.232		TAPERED ROLLER BEARING	1			42,070X40,386		
620	1312.204.040		SPLIT RING	1			GESTANZT		
/10	---		SPLIT RING	2			H= 4,60- 5,00(ABSTUFUNG:0,10MM)		
---	0730.107.023		SPLIT RING	1			A=5,00 IN 0730 106 207(2)		
---	0730.107.022		SPLIT RING	1			A=4,90 IN 0730 106 207(2)		
---	0730.107.021		SPLIT RING	1			A=4,80 IN 0730 106 207(2)		

Parts list

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Material number: 1356.002.113

Plant: 161.04.12-1

Material-assembly-group-no: 1356.104.016

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
---	0730.107.020		SPLIT RING	1			A=4,70 IN 0730 106 207(2)		
---	0730.107.019		SPLIT RING	1			A=4,60 IN 0730 106 207(2)		
/20	0730.062.781		RETAINING RING	1			ENTHALT.IN 0730 062 636(2)		

Plant

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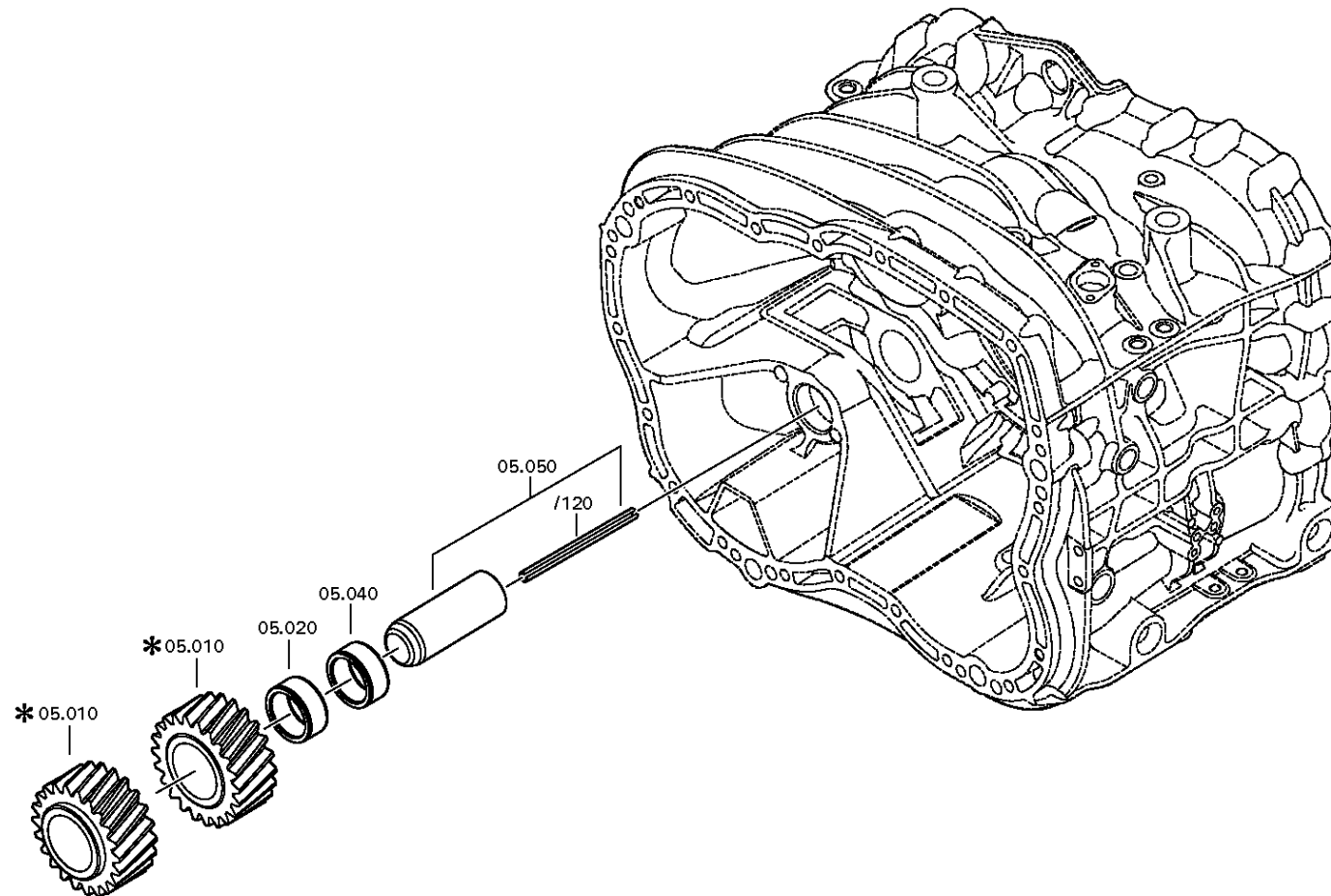
Material number: 1356.002.113

Plant: 161.05.01-1

Material-assembly-group-no: 1325.105.001



16 S 2230 TO /
RETURN



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.05.01-1

Material-assembly-group-no: 1325.105.001

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	---		REVERSE IDLER GEAR	1		C01006413F10			
---	1316.305.001		REVERSE IDLER GEAR	1			Z22 IN 1295 305 050(1)		
---	1316.305.008		REVERSE IDLER GEAR	1			Z22 IN 1295 305 050(1)		
20	0750.115.369		NEEDLE CAGE	1			45,0X57,0X25,0		
40	0750.115.369		NEEDLE CAGE	1			45,0X57,0X25,0		
50	1316.201.030		REVERSE IDLER SHAFT	1			KPL.16S221*SG*L=102		
/120	0631.329.295		SLOTTED PIN	1			10X118		

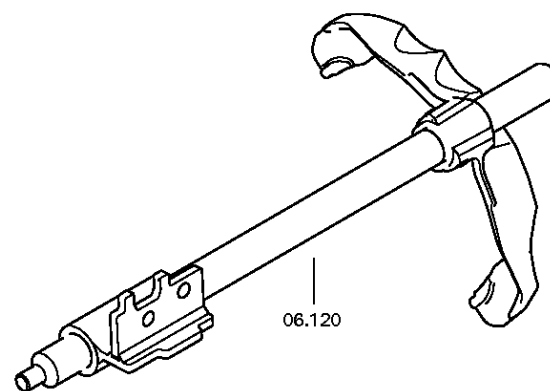
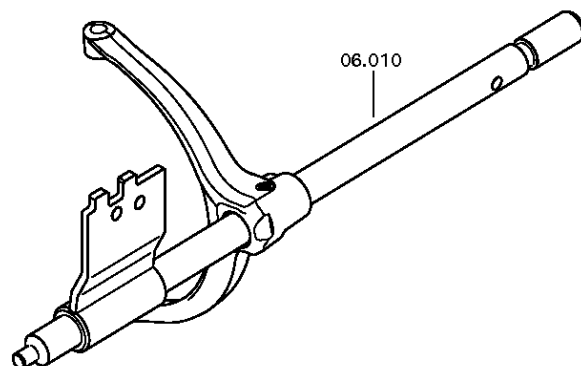
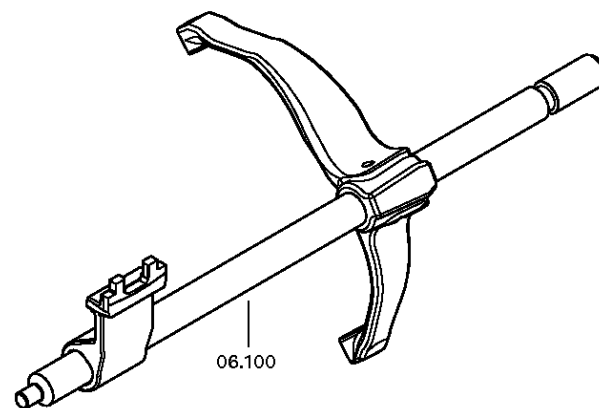
Plant

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Material number: 1356.002.113
Plant: 161.06.04-1
TRANSMISSION SHIFT SYSTEM



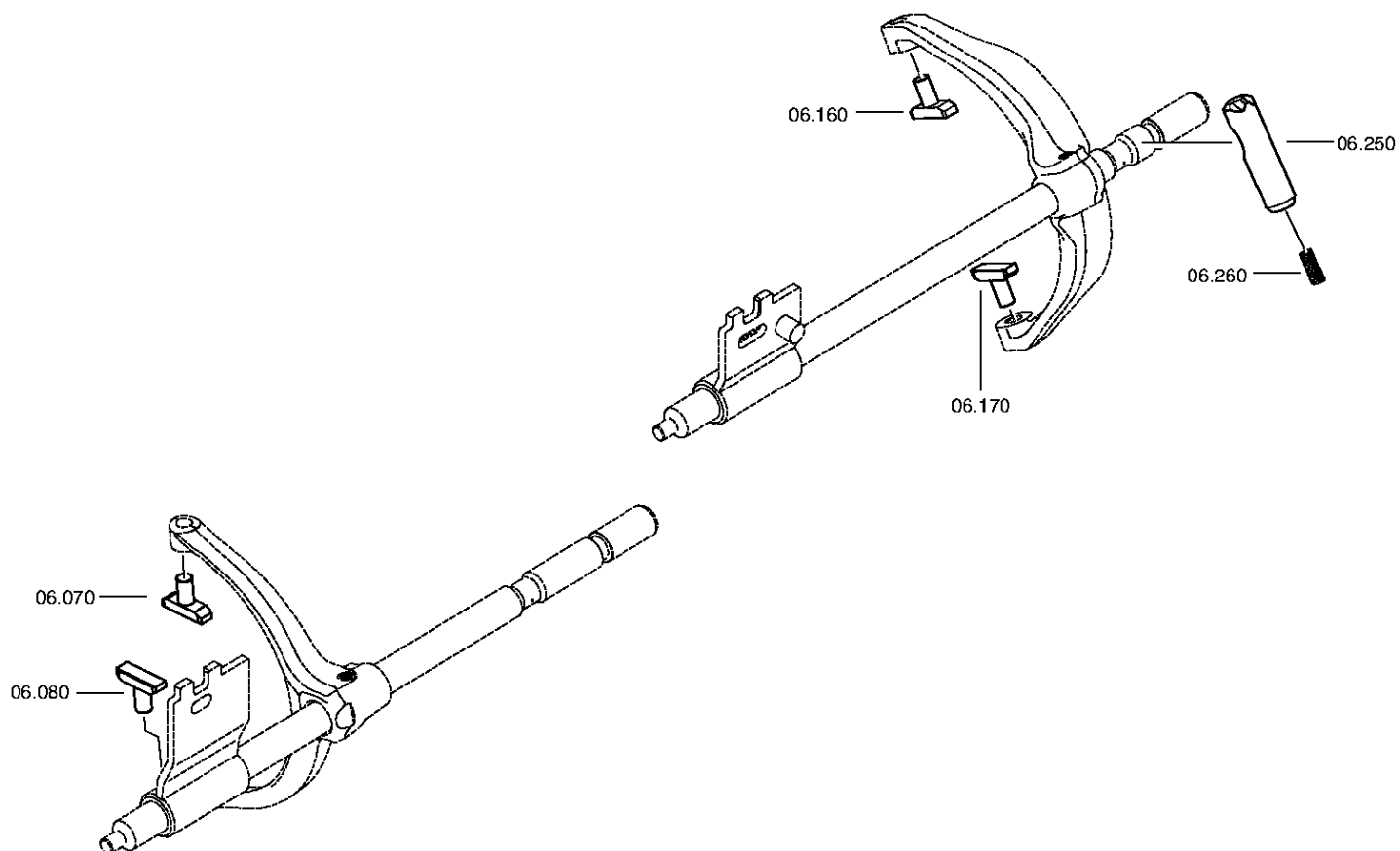
16 S 2230 TO /
TRANSMISSION SHIFT SYSTEM



Material number: 1356.002.113
Plant: 161.06.02-1
TRANSMISSION SHIFT SYSTEM



16 S 2230 TO /
TRANSMISSION SHIFT SYSTEM



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.06.04-1

Material-assembly-group-no: 1356.106.001

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.206.004		GEAR SHIFT RAIL	1			KPL*WBI-3/4G*LANG*MIT GANGERKENNUNG DAF		
70	1316.306.015		SLIDING PAD	1					
80	1316.306.015		SLIDING PAD	1					
100	1356.206.002		GEAR SHIFT RAIL	1			KPL*WBI-1/2G*LANG		
120	1356.206.001		GEAR SHIFT RAIL	1			KPL*WBI-RG*LANG		
160	1316.306.015		SLIDING PAD	1					
170	1316.306.015		SLIDING PAD	1					
250	1313.306.013		LOCKING PIN	1					
260	0732.040.736		COMPRESSION SPRING	1					

Plant

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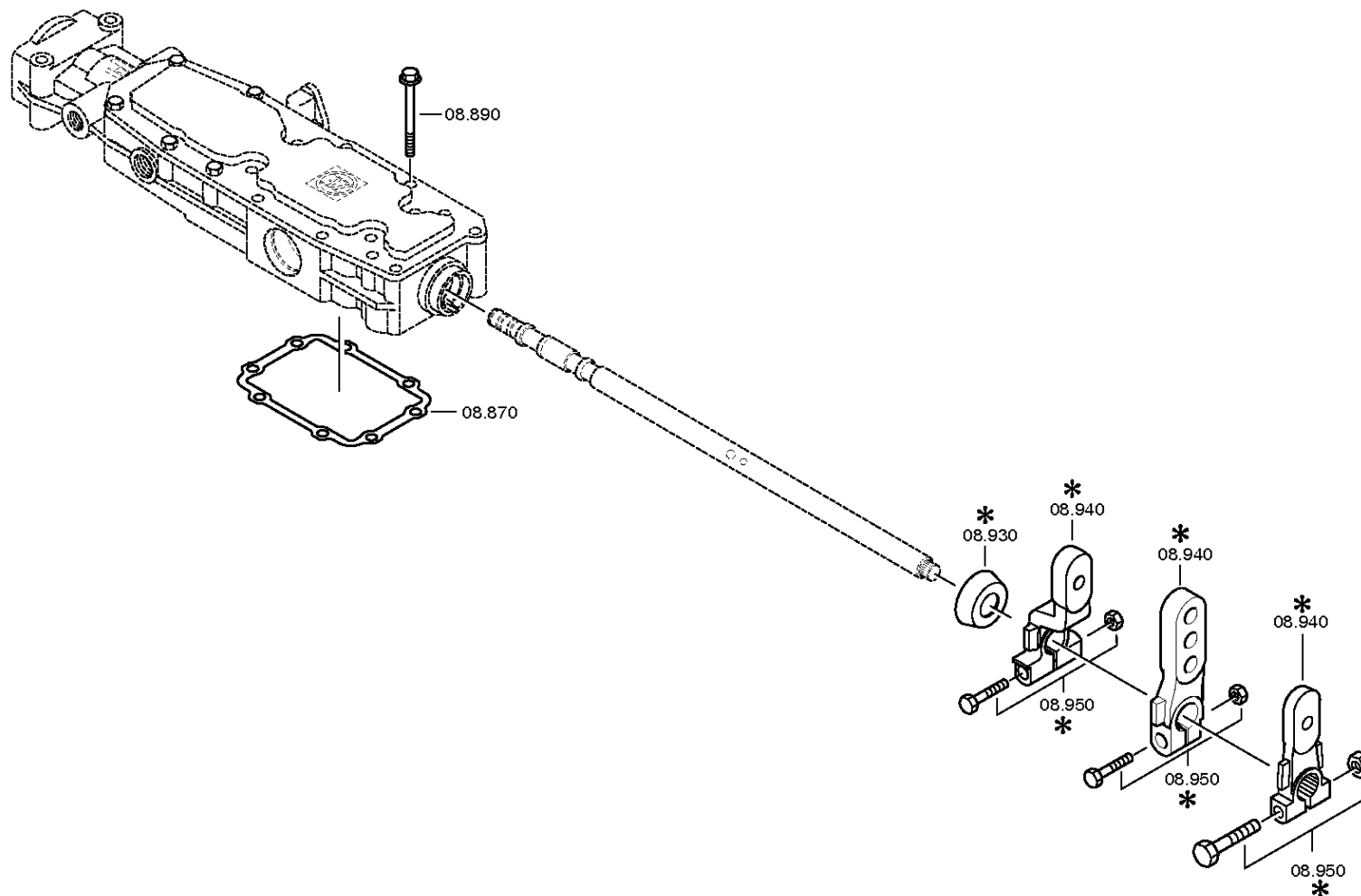
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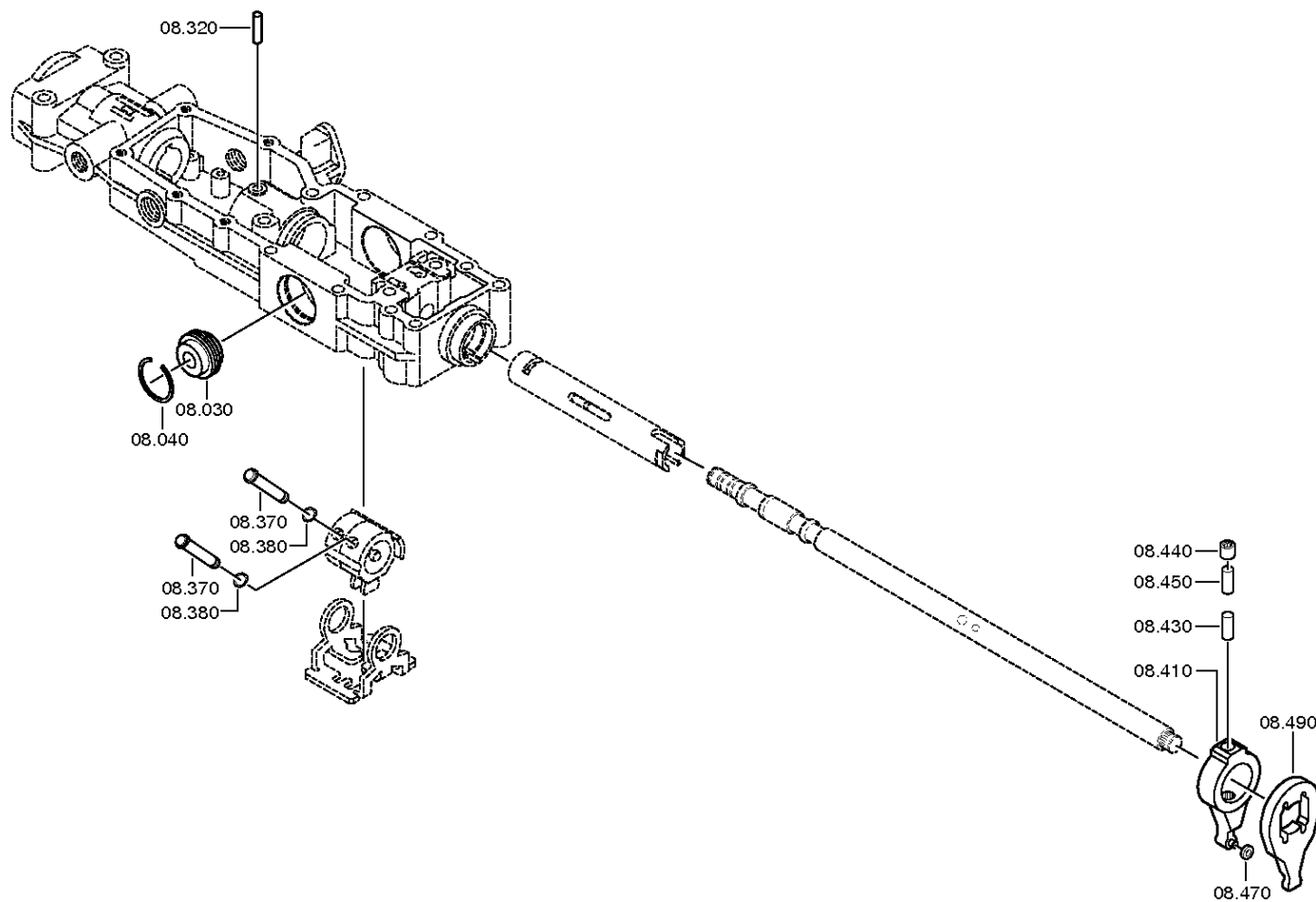
Plant: 068.07.81-1

GEAR SHIFT HOUSING



16 S 2230 TO /
GEAR SHIFT HOUSING





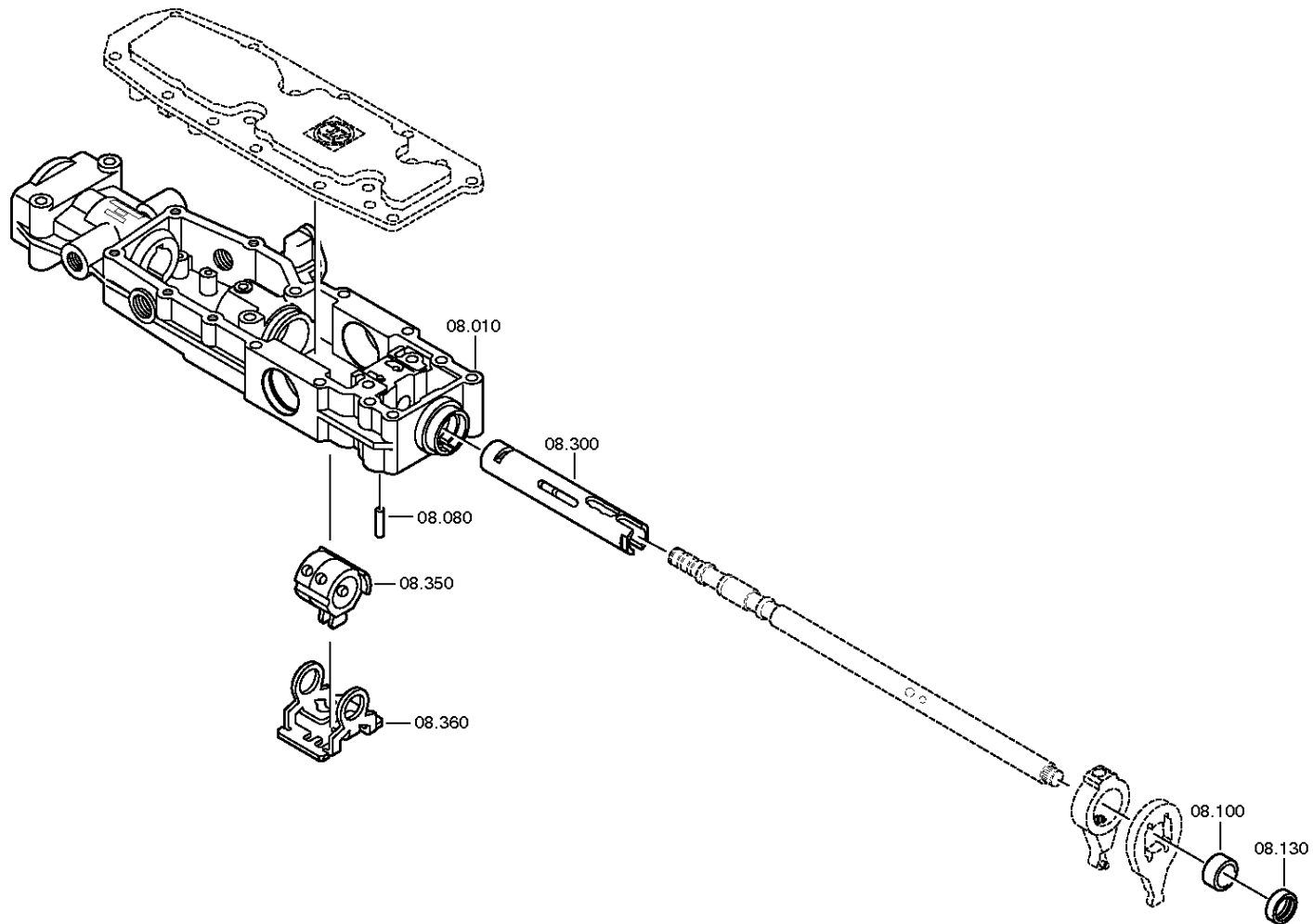
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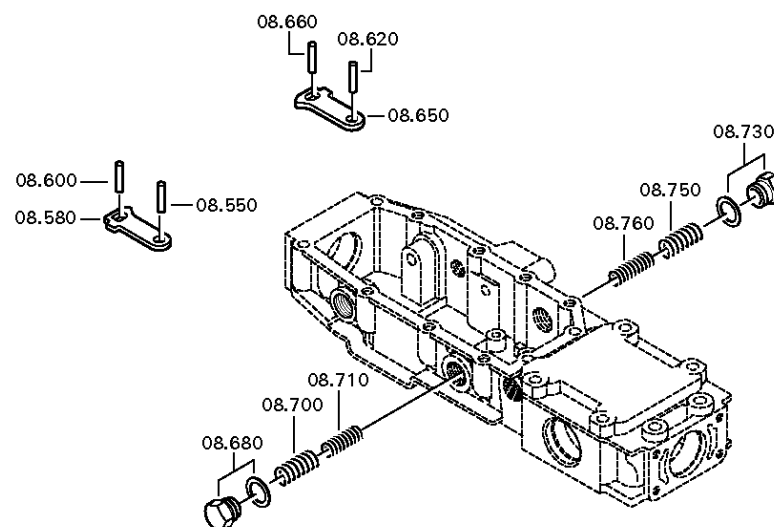
Plant: 068.07.38-1

GEAR SHIFT HOUSING



16 S 2230 TO /
GEAR SHIFT HOUSING





Parts list

Page 1 from 2



Material number: 1356.002.113

Plant: 068.07.81-1

Material-assembly-group-no: 1316.108.817

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1315.307.383		GEAR SHIFT HOUSING	1		Z00008223510			
30	0501.209.212		DETENT	1			KPL.		
40	0630.532.130		V-RING	1					
80	0631.306.123		CYLINDRICAL PIN	1		Z00008223510	8X24		
130	0734.309.765		SHAFT SEAL	1		Z00008223510	28,0X42,0X11,0		
300	1315.307.294		QUILL SHAFT	1		Z00011957210	ENTHALT.IN 1315.307.293(1)		
320	0731.201.702		PIN	1					
350	1315.307.735		DRIVER	1		Z00011746811			
360	1315.307.218		LOCKING PIECE	1		Z00008223510			
370	1316.208.003		PIN	2			KPL.		
380	0630.501.006		RETAINING RING	2			10X1		
410	1316.208.002		VALVE LEVER	1			KPL.		
430	0731.201.732		PIN	1					
440	0635.303.019		NEEDLE BUSH	1			10X14X15		
450	0731.201.732		PIN	1					
470	1315.307.226		ROLLER	1					
490	1315.307.292		LEVER	1					
550	0631.306.832		CYLINDRICAL PIN	1			6X20		
580	1315.307.203		DETENT LEVER	1					
600	0631.306.832		CYLINDRICAL PIN	1			6X20		
620	0631.306.832		CYLINDRICAL PIN	1			6X20		
650	1315.307.203		DETENT LEVER	1					
660	0631.306.832		CYLINDRICAL PIN	1			6X20		
680	---		SCREW	1		Z00010146310	M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
700	0732.040.985		COMPRESSION SPRING	1					
710	0732.040.984		COMPRESSION SPRING	1					
730	---		SCREW	1		Z00010146310	M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
750	0732.040.985		COMPRESSION SPRING	1					
760	0732.040.984		COMPRESSION SPRING	1					
870	1315.307.013		GASKET	1					

Parts list

Page 2 from 2



Material number: 1356.002.113

Plant: 068.07.81-1

Material-assembly-group-no: 1316.108.817

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
890	0736.300.137		HEXAGON SCREW	8		Z00009195410	M8X80 M8X80		
930	1341.307.104		PROTECTION CAP	1		C01007034F10			

Plant

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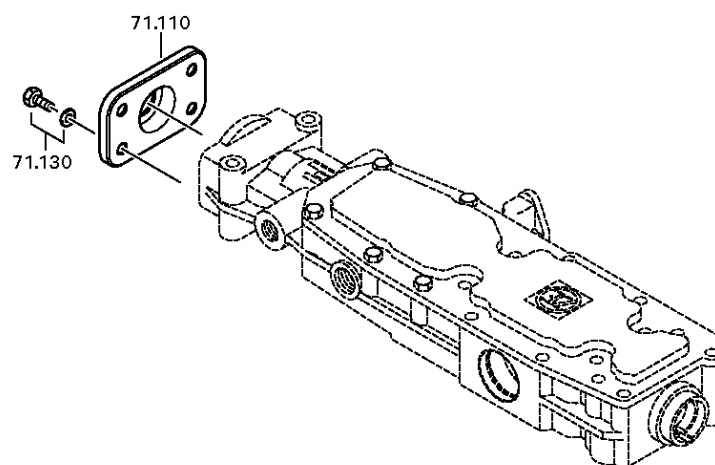
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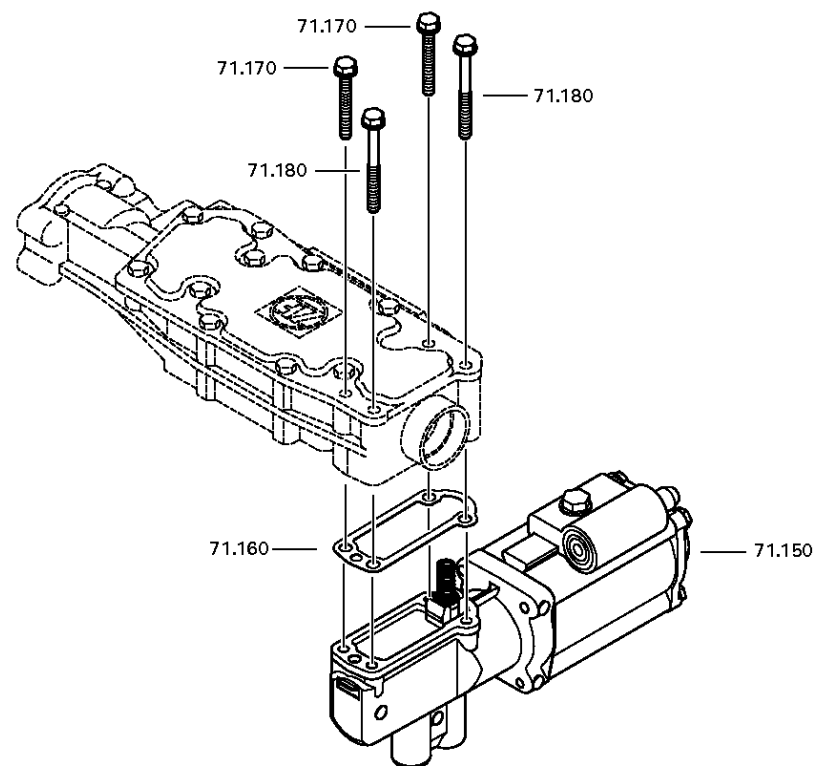
Plant: 062.08.30-1

END COVER



16 S 2230 TO /
END COVER





Parts list

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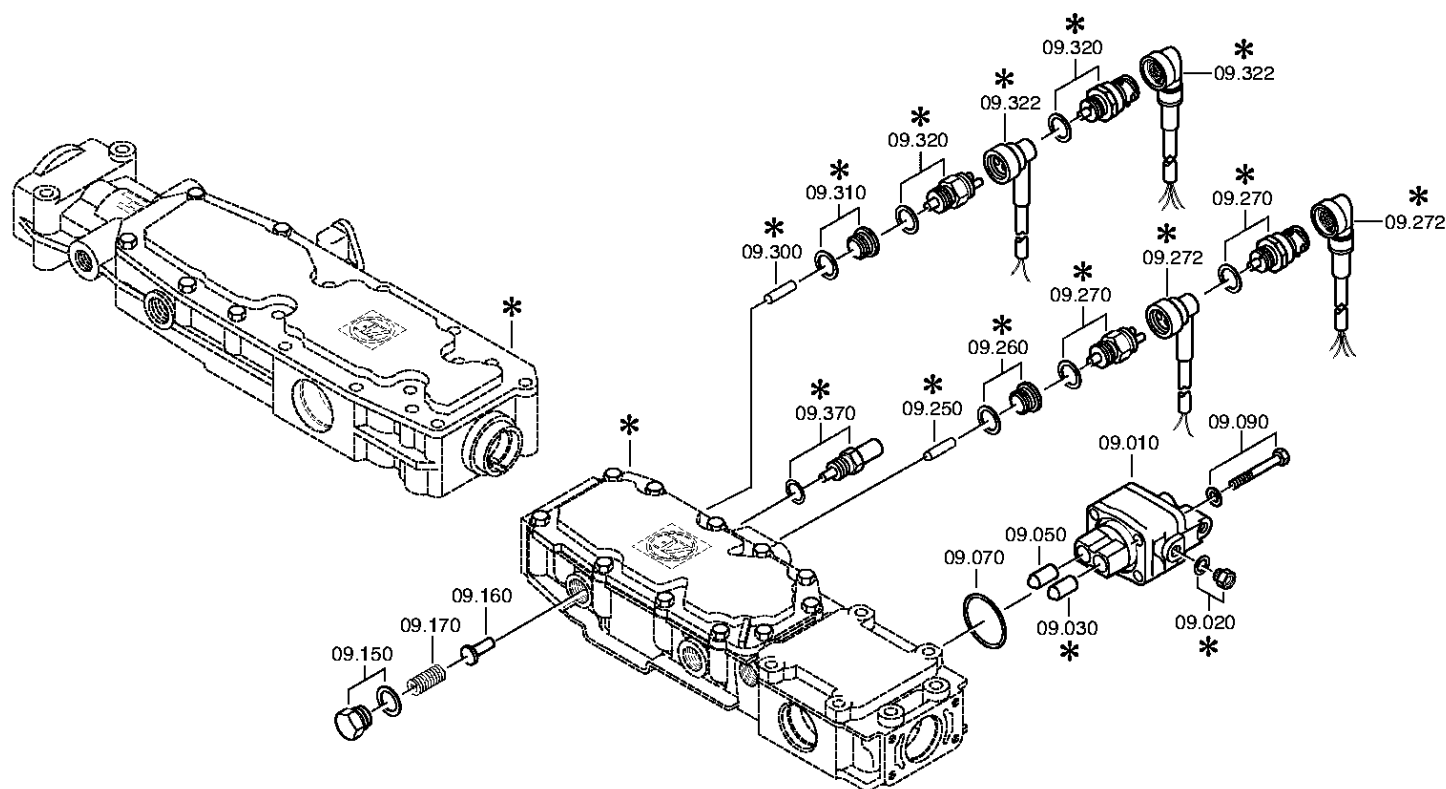
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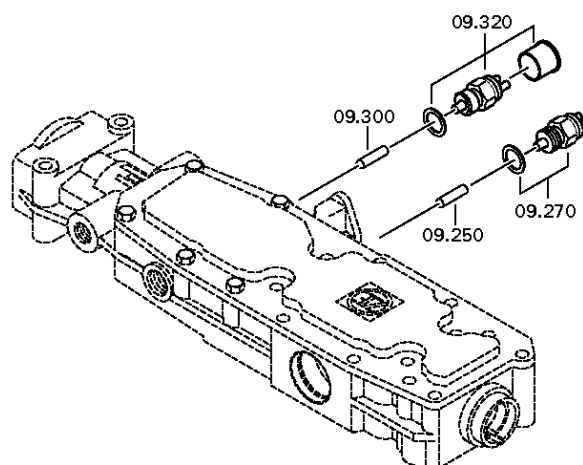
Plant: 062.08.30-1

Material-assembly-group-no: 1316.171.403

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
110	1341.307.113		COVER	1		Z00009271410			
130	---		HEXAGON SCREW	4		Z00007891111	M8X20		
---	0636.100.796		HEXAGON SCREW	1		Z00007891120	M8X20		
---	0630.100.295		WASHER	1		Z00007158414			
150	0501.216.414		PNEUMATIC SERVO UNIT	1			KPL. PSE2 DBV6		
160	1315.307.242		GASKET	1					
170	0736.300.137		HEXAGON SCREW	2		Z00009195410	M8X80 M8X80		
180	---		HEXAGON SCREW	2		Z00009195410	M8X80		
---	0736.300.137		HEXAGON SCREW	1		Z00009195414	M8X80 M8X80		
---	0666.790.033		SEAL.COMPOUND	1		Z00009195414			





Parts list

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Material number: 1356.002.113

Plant: 068.09.01-1

Material-assembly-group-no: 1316.109.052

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	6038.202.043		CUT-OFF VALVE	1			KPL.H-H*ZULUFTDROSSEL 1,55		
30	0501.209.188		BALL CASTER	1			KPL.		
50	0501.209.188		BALL CASTER	1			KPL.		
70	---		O-RING	1			ZFF*LOKAL HNG 42X3		
---	0634.313.505		O-RING	1		Z00026363710	42X3		
---	0501.331.851		O-RING	1		Z00026363710	42X3		
90	---		HEXAGON SCREW	4			M8X65		
---	0636.100.519		HEXAGON SCREW	1		Z00007054110	M8X65		
---	0630.100.295		WASHER	1		Z00007158414			
150	---		SCREW	1			M22X1,5		
---	1315.307.736		SCREW	1		Z00010146312	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010146312	A22X27		
160	1315.307.384		BOLT	1			ENTHALT.IN 1250 307 589(2)		
170	0732.042.207		COMPRESSION SPRING	1					
250	0731.201.446		PIN	1			ENTHALT.IN 0731 201 445(2)		
270	---		SWITCH	1		Z00004287211	OEFF*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.219.856		SWITCH	1			OEFFNER DIN BAJONETT		
---	0634.801.062		SEALING RING	1			18X24		
300	0731.208.256		PIN	1			A=30,0		
320	---		SWITCH	1		Z00025033610	SCHL*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.331.660		SWITCH	1		Z00025033617			
---	0634.801.062		SEALING RING	1		Z00025033617	18X24		
---	0700.300.427		PROTECTION CAP	1		Z00025033617			

Plant

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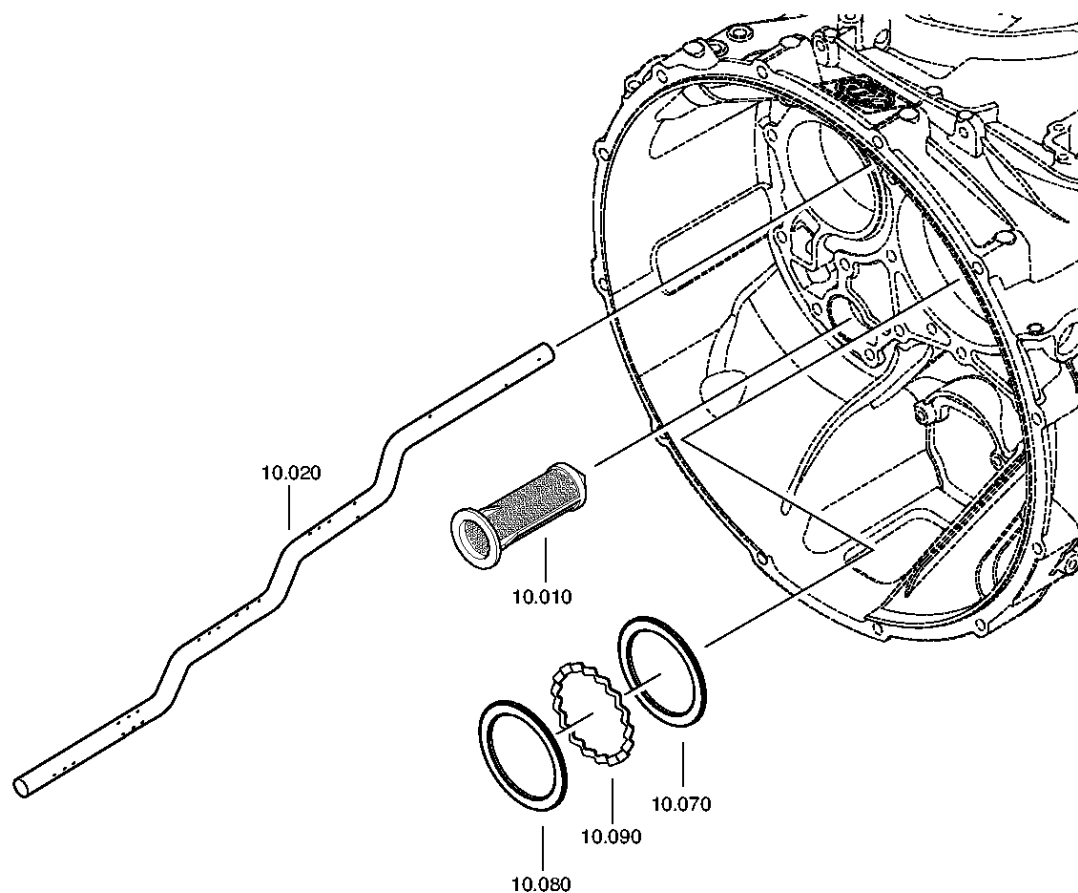
Material number: 1356.002.113

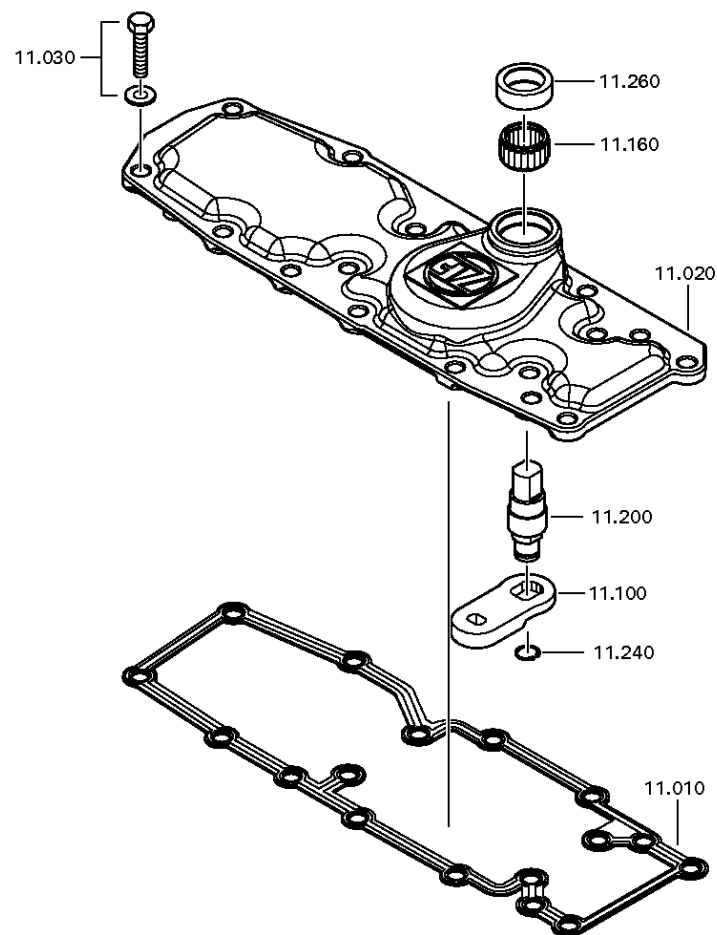
Plant: 161.10.04-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY





Plant

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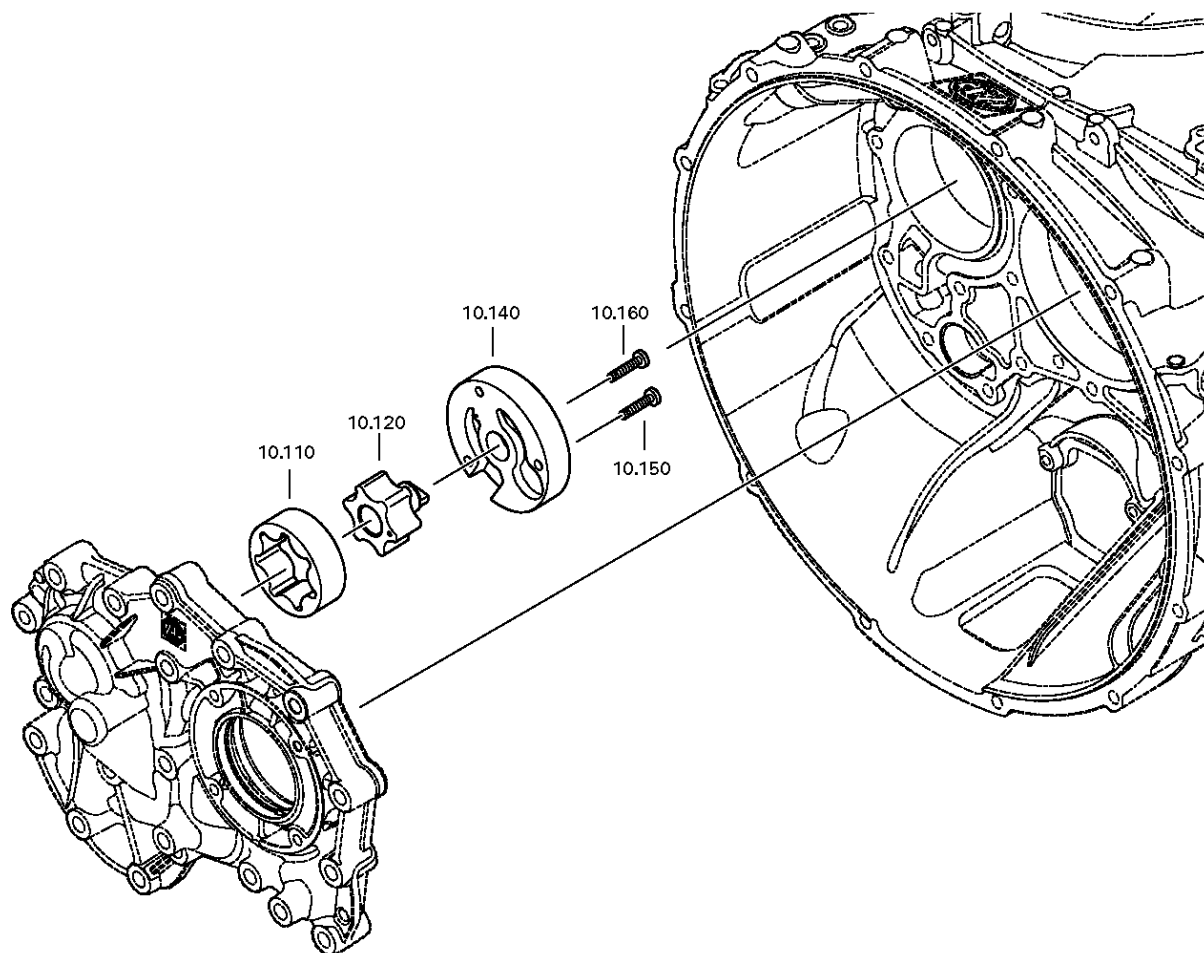
Material number: 1356.002.113

Plant: 161.10.01-1

OIL SUPPLY



16 S 2230 TO /
OIL SUPPLY



Parts list

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Material number: 1356.002.113

Plant: 161.10.04-1

Material-assembly-group-no: 1356.110.002

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0501.318.802		SCREEN INSERT	1					
10	0501.324.072		GASKET	1		Z00033959410			
20	---		COVER	1		Z00033959410	ZFF/ZFDH		
---	1315.307.336		COVER	1		Z00034298610			
20	1356.301.001		OIL TUBE	1			ECO 4 16G LANG		
30	---		HEXAGON SCREW	5		Z00033959410	M8X25		
---	0636.016.401		HEXAGON SCREW	1			M8X25		
---	0630.100.295		WASHER	1		Z00007158414			
70	0730.300.745		WASHER	1			A=3,30 A=3,30		
80	0730.150.766		WASHER	1					
90	1315.302.040		SPACER RING	1					
100	---		SELECTOR LEVER	1		Z00033959410	ZFF*LOKAL HNG		
---	1315.307.375		SELECTOR LEVER	1		Z00026363710			
110	1315.303.027		ROTOR	1					
120	1314.202.039		PUMP SHAFT	1			KPL.		
140	1325.303.017		PUMP COVER	1					
150	0736.101.076		HEXALOBULAR DRIVING SCREW	1			M6X30		
160	0736.101.076		HEXALOBULAR DRIVING SCREW	1			M6X30		
160	---		NEEDLE SLEEVE	1		Z00033959410	ZFF*LOKAL HNG 22X28X10		
200	---		SELECTOR SHAFT	1		Z00033959410	ZFF*LOKAL HNG		
---	1315.307.346		SELECTOR SHAFT	1		Z00026363710			
240	0630.531.240		V-RING	1		Z00033959410			
260	---		SHAFT SEAL	1		Z00033959410	20X30X7		
---	0734.309.392		SHAFT SEAL	1			20,0X30,0X7,0		

Plant

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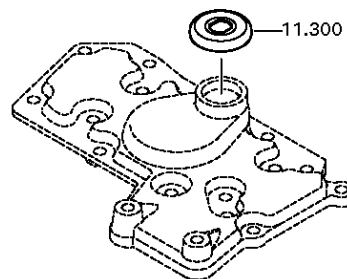
Material number: 1356.002.113

Plant: 068.10.92-1

Material-assembly-group-no: 1341.111.803



16 S 2230 TO /
SELECTOR LEVER



Parts list

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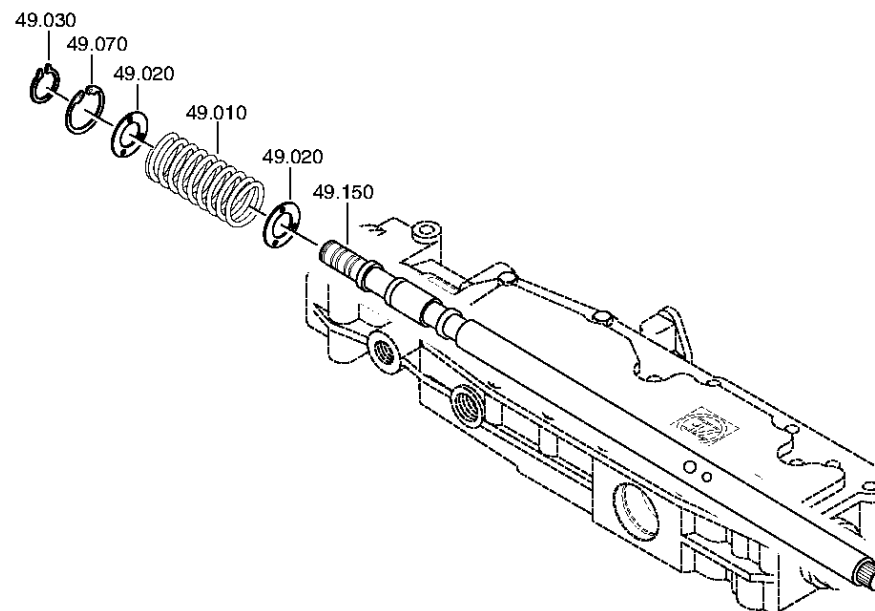
Material number: 1356.002.113

Plant: 068.10.92-1

Material-assembly-group-no: 1341.111.803

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
300	---		PROTECTION CAP	1		Z00030698111			
---	0501.324.645		PROTECTION CAP	1		Z00030698110			
---	1307.307.052		PROTECTION CAP	1		Z00030698110			
---	0501.330.970		PROTECTION CAP	1		Z00030698110	46mmx7mm		



Parts list

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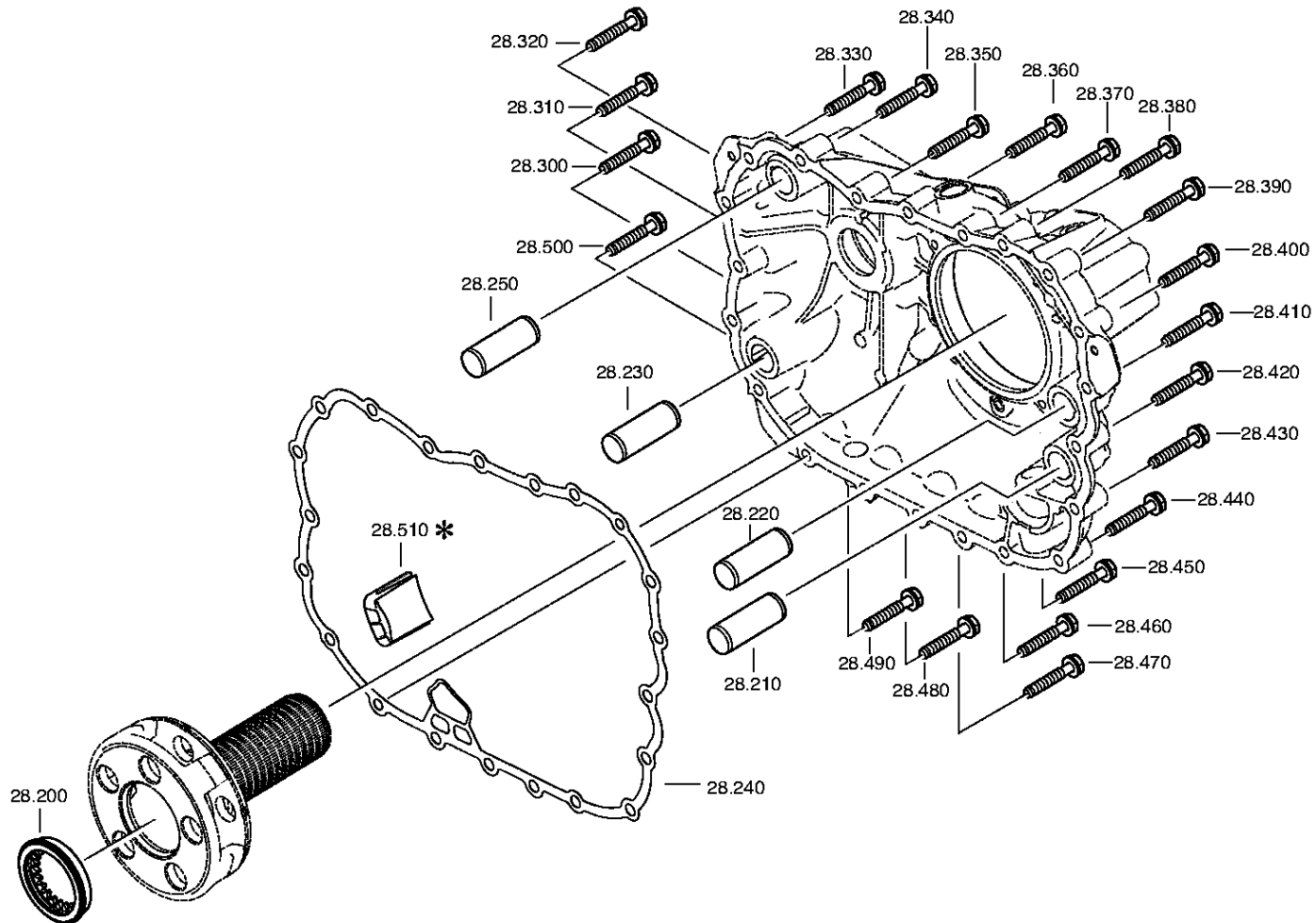
Material number: 1356.002.113

Plant: 068.12.08-1

Material-assembly-group-no: 1316.149.478

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0732.040.630		COMPRESSION SPRING	1					
20	0730.301.376		WASHER	2					
30	0630.532.138		V-RING	1					
70	0630.502.022		RETAINING RING	1			40X1,75		
150	1315.307.517		GEARSHIFT SHAFT	1					



Parts list

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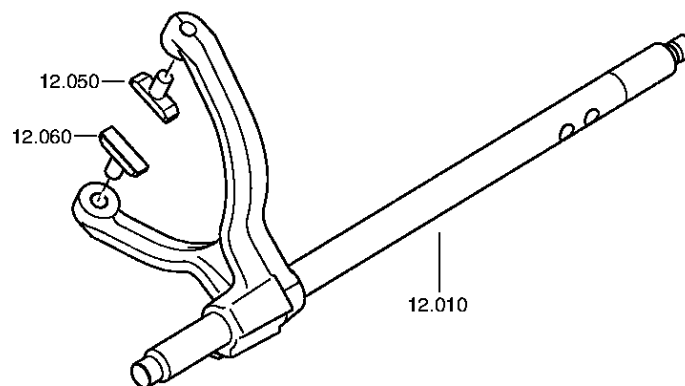
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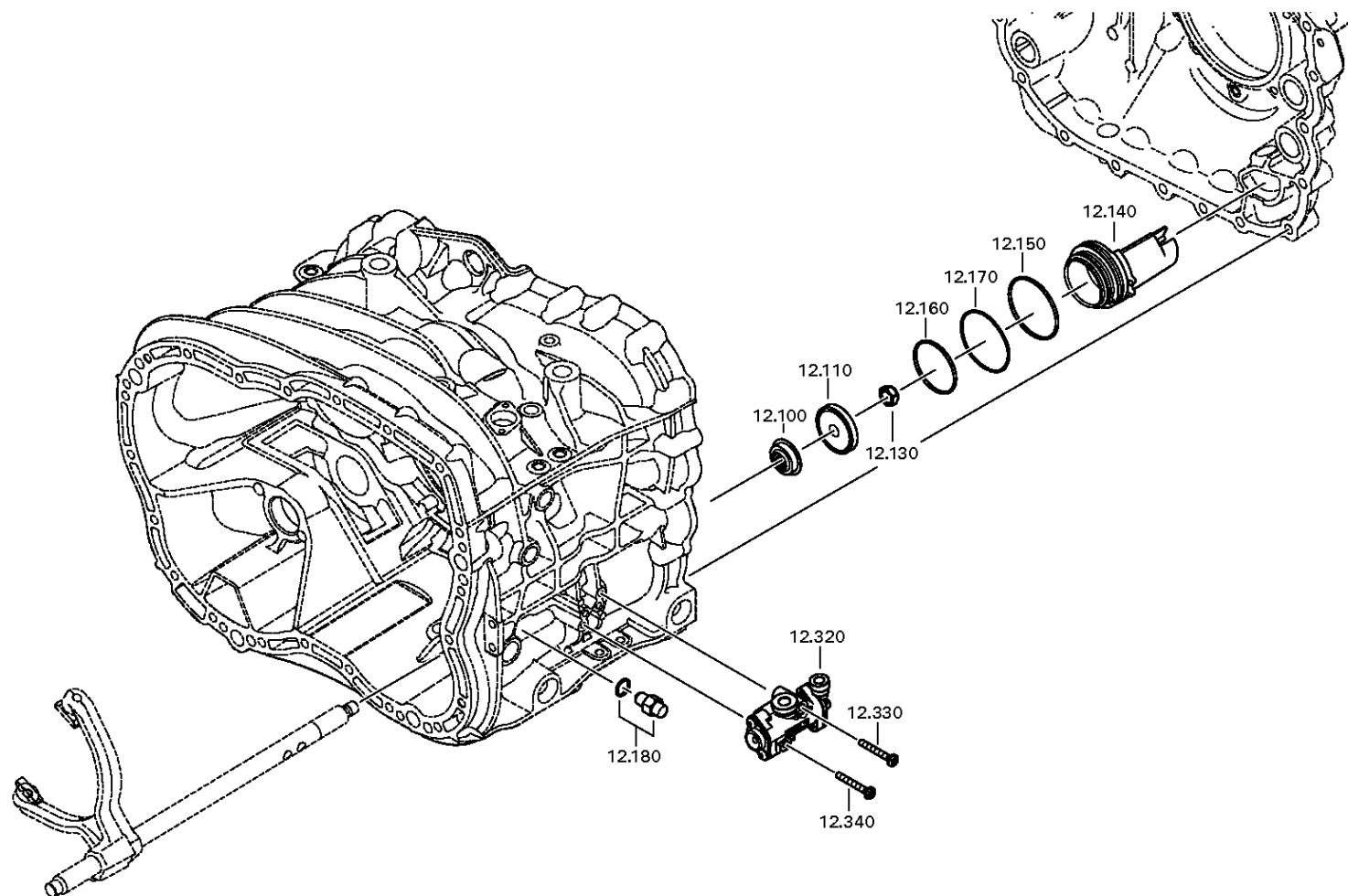
Plant: 161.28.01-1

Material-assembly-group-no: 1325.128.806

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
200	1315.332.073		PRESSURE DISK	1		Z00033223510			
210	0731.300.002		CYLINDRICAL PIN	1					
220	0731.300.002		CYLINDRICAL PIN	1					
230	0731.300.002		CYLINDRICAL PIN	1					
240	0501.323.705		GASKET	1					
250	0731.300.002		CYLINDRICAL PIN	1					
300	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
310	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
320	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
330	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
340	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
350	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
360	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
370	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
380	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
390	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
400	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
410	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
420	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
430	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
440	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
450	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
460	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
470	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
480	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
490	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		
500	0636.016.405		HEXAGON SCREW	1		Z00007060111	M10X60		





Parts list

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Material number: 1356.002.113

Plant: 161.40.01-1

Material-assembly-group-no: 1356.112.001

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1356.212.002		GEAR SHIFT RAIL	1			KPL.GV*E32 LANG*16 GANG		
50	1316.306.015		SLIDING PAD	1					
60	1316.306.015		SLIDING PAD	1					
100	0750.112.131		FLANGE PACKING	1			25X40X15		
110	0501.324.670		PISTON	1		Z00012212711			
130	0737.300.037		LOCKING NUT	1			MS16X1,5		
140	1325.312.012		CYLINDER	1		Z00012212711			
150	---		O-RING	1		Z00034779210	ZFF*LOKAL HNG		
---	0634.313.018		O-RING	1			82X3		
---	0501.331.849		O-RING	1			82X3		
160	---		O-RING	1		Z00034779311	ZFF*LOKAL HNG		
---	0634.313.320		O-RING	1			67X3		
---	0501.331.850		O-RING	1			67X3		
170	1315.312.034		SPRING	1		Z00012212711			
180	---		DETENT PLUNGER	1		Z00012212711	235N*50N.M		
---	1324.207.033		DETENT PLUNGER	1			KPL. *235 N		
---	0730.008.604		SEALING RING	1		C01009860C10			
320	0501.219.848		5/2 WAY VALVE	1		Z00035060612	SPLITGRUPPENVENTIL VERSION B 96,1mmx49,8mm		
330	0736.300.659		TORX SCREW	1		Z00035060612	M6X45		
340	0736.300.659		TORX SCREW	1		Z00035060612	M6X45		

Plant

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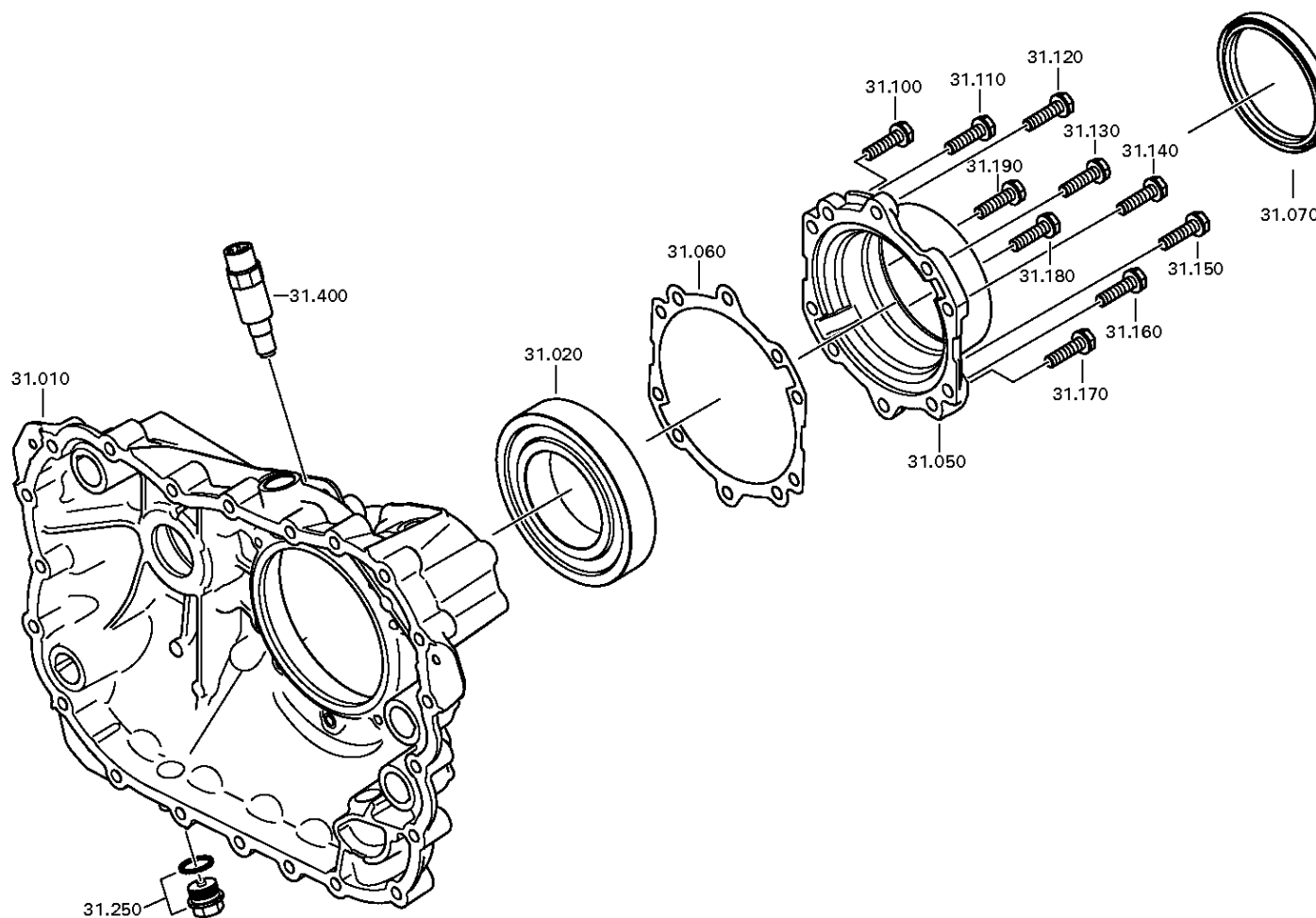
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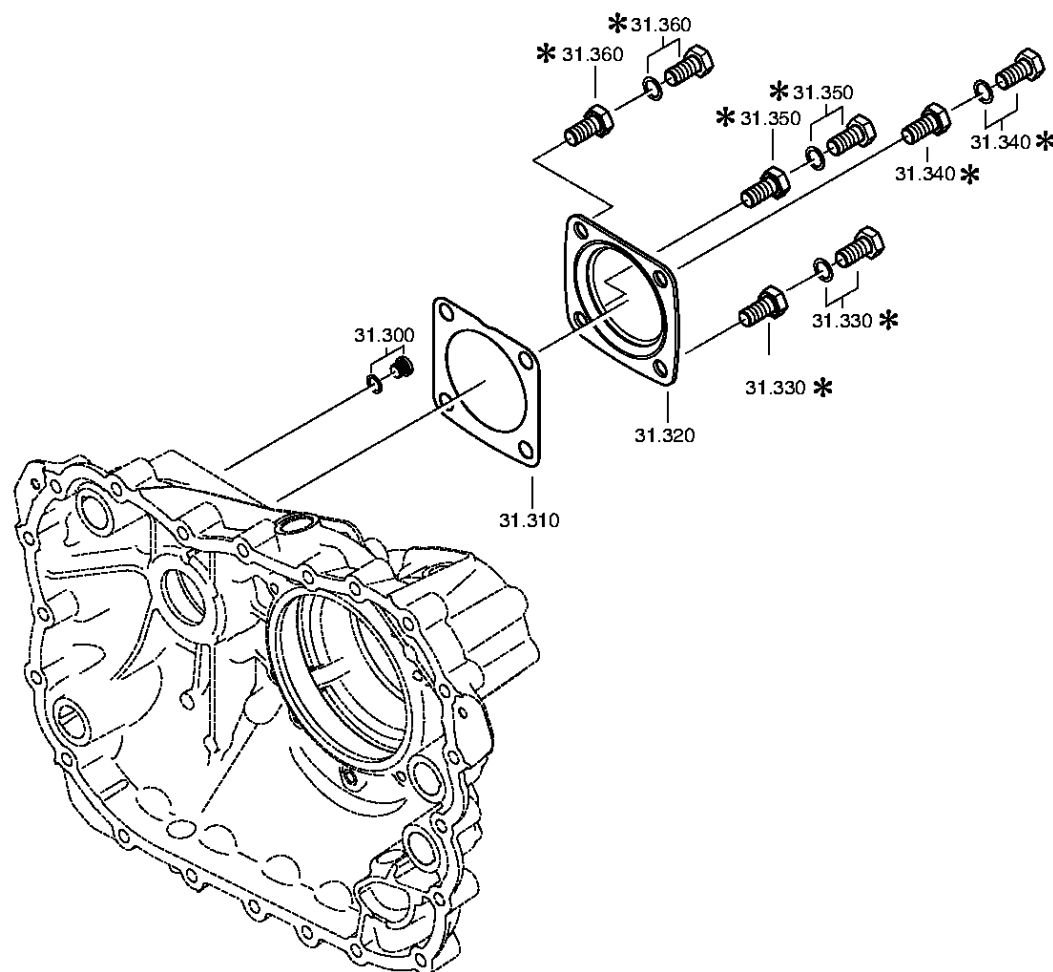
Plant: 161.43.01-1

RC HOUSING



16 S 2230 TO /
RC HOUSING





Parts list

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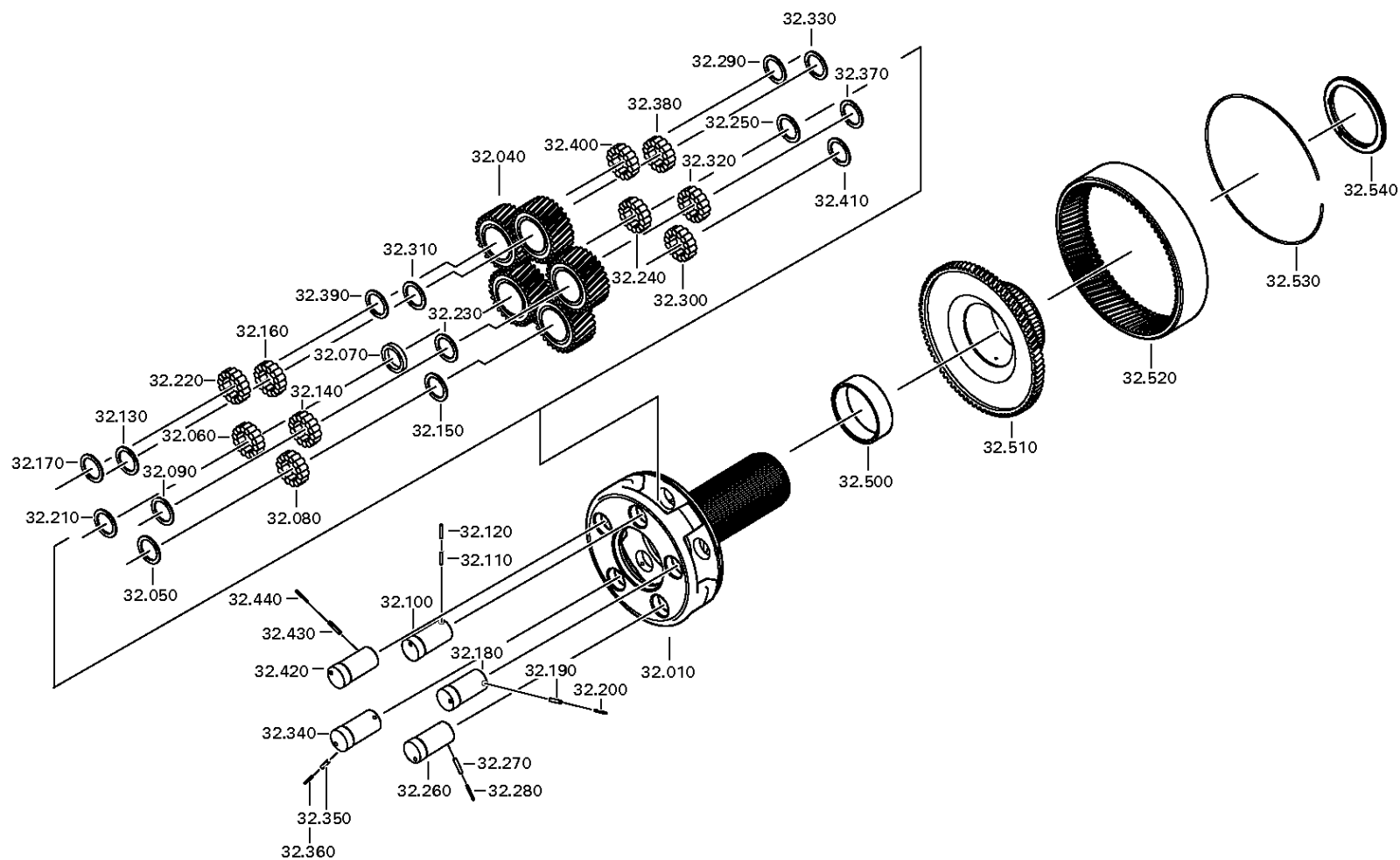
Material number: 1356.002.113

Plant: 161.43.01-1

Material-assembly-group-no: 1325.131.015

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.301.065		TRANSMISSION HOUSING	1		Z00013438510			
20	0750.116.394		BALL BEARING	1		Z00013438510	90,0X160,0X30,0		
50	1325.331.001		COVER	1		Z00013438510			
60	0501.331.906		GASKET	1		Z00024187410			
70	---		SHAFT SEAL	1		Z00020928810			
---	---		SHAFT SEAL	1			WTB 105X125X12/16		
---	0734.300.421		SHAFT SEAL	1			105,0X125,0X12,0/16,0		
---	0734.300.679		SHAFT SEAL	1			105X125X16		
100	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
110	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
120	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
130	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
140	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
150	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
160	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
170	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
180	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
190	0636.100.433		HEXAGON SCREW	1		Z00009178010	M10X40		
250	---		SCREW PLUG	1		Z00010176111	M24X1,5		
---	0736.300.160		SCREW PLUG	1		Z00010176110	M24X1,5 M24X1,5		
---	0730.008.637		SEALING RING	1		Z00010176110	24X29		
300	---		SCREW PLUG	1		C01004359F10	15N.M*DICHTRING M10X1		
---	0636.100.793		SCREW PLUG	1		Z00010111613	M10X1		
---	0730.008.055		SEALING RING	1			10X14		
310	1238.308.201		GASKET	1			ENTHALT.IN 1238 308 202(2)		
320	1328.301.170		COVER	1		Z00008068010			
330	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
340	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
350	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
360	0636.016.406		HEXAGON SCREW	1		Z00007061014	M12X25		
400	---		PULSE SENSOR	1		Z00013438510	35N.M*O.DICHTRING*BAJONETT*L=35,0		
---	0501.210.857		PULSE SENSOR	1		Z00008965210			



Plant

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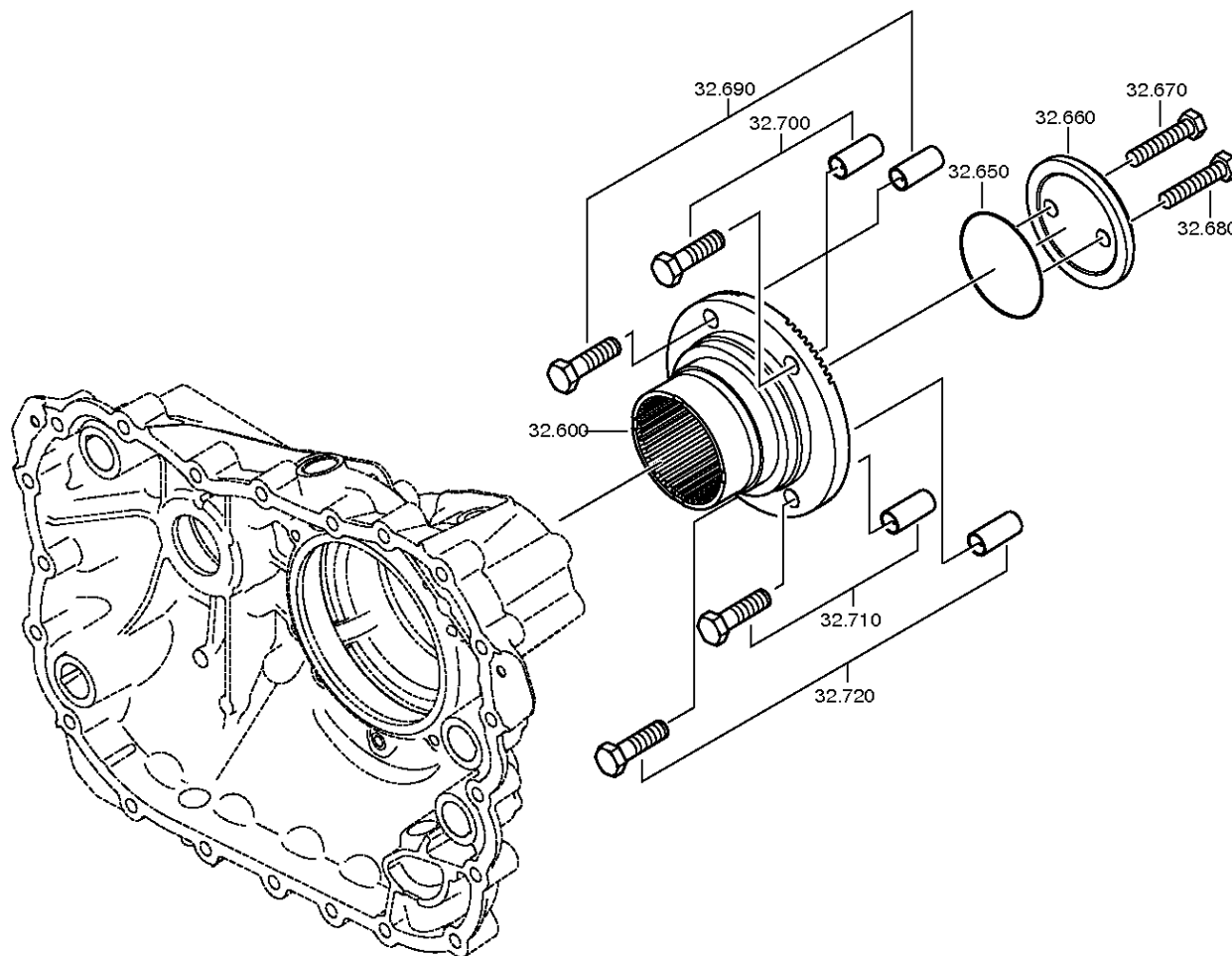
Material number: 1356.002.113

Plant: 161.44.41-1

PLANETARY DRIVE



16 S 2230 TO /
PLANETARY DRIVE



Parts list

Page 1 from 2



Material number: 1356.002.113

Plant: 161.44.03-1

Material-assembly-group-no: 1325.132.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1316.232.039		PLANET CARRIER	1		Z00014438013			
40	1316.232.011		PLANET GEAR SET	1			KPL.		
50	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
60	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
70	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
80	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
90	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
100	1316.332.140		PLANET SHAFT	1		Z00014438013			
110	0631.329.147		SLOTTED PIN	1			6X26		
120	0631.329.261		SLOTTED PIN	1			3,5X26		
130	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
140	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
150	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
160	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
170	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
180	1316.332.140		PLANET SHAFT	1		Z00014438013			
190	0631.329.147		SLOTTED PIN	1			6X26		
200	0631.329.261		SLOTTED PIN	1			3,5X26		
210	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
220	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
230	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
240	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
250	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
260	1316.332.140		PLANET SHAFT	1		Z00014438013			
270	0631.329.147		SLOTTED PIN	1			6X26		
280	0631.329.261		SLOTTED PIN	1			3,5X26		
290	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
300	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
310	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
320	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
330	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
340	1316.332.140		PLANET SHAFT	1		Z00014438013			
350	0631.329.147		SLOTTED PIN	1			6X26		
360	0631.329.261		SLOTTED PIN	1			3,5X26		

Parts list

Page 2 from 2



Material number: 1356.002.113

Plant: 161.44.03-1

Material-assembly-group-no: 1325.132.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
370	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
380	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
390	0730.109.309		INTERMEDIATE WASHER	1			A=7,90 IN 0730 105 951(2)		
400	1325.232.001		ROLLER	1			KPL.SATZ*PLANETENRAD		
410	0730.109.323		INTERMEDIATE WASHER	1			A=2,30 IN 0730 105 951(2)		
420	1316.332.140		PLANET SHAFT	1		Z00014438013			
430	0631.329.147		SLOTTED PIN	1			6X26		
440	0631.329.261		SLOTTED PIN	1			3,5X26		
500	1325.332.011		BUSH	1					
510	1316.332.130		RING GEAR CARRIER	1					
520	1315.332.041		RING GEAR	1			IN 1316 332 055(1)		
530	0730.513.583		LOCKING WIRE	1			A=3,20 IN 0730 505 052(2)		
540	0735.298.169		AXIAL NEEDLE BEARING	1			103,3X128,4X10,0		
600	1325.332.036		OUTPUT FLANGE	1		Z00020928810			
650	---		O-RING	1		Z00034779410	ZFF*LOKAL HNG		
---	0634.313.805		O-RING	1			82X4		
---	0501.331.852		O-RING	1			82X4		
660	1312.332.028		WASHER	1					
670	0636.011.777		HEXAGON SCREW	1		Z00007292012	M12X60		
680	0636.011.777		HEXAGON SCREW	1		Z00007292012	M12X60		
690	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
700	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
710	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					
720	---		HEXAGON SCREW	1			SCHUTZKAPPE M14X1,5X50		
---	0636.100.202		HEXAGON SCREW	1			M14X1,5X50		
---	1315.332.067		PROTECTION CAP	1					

Plant

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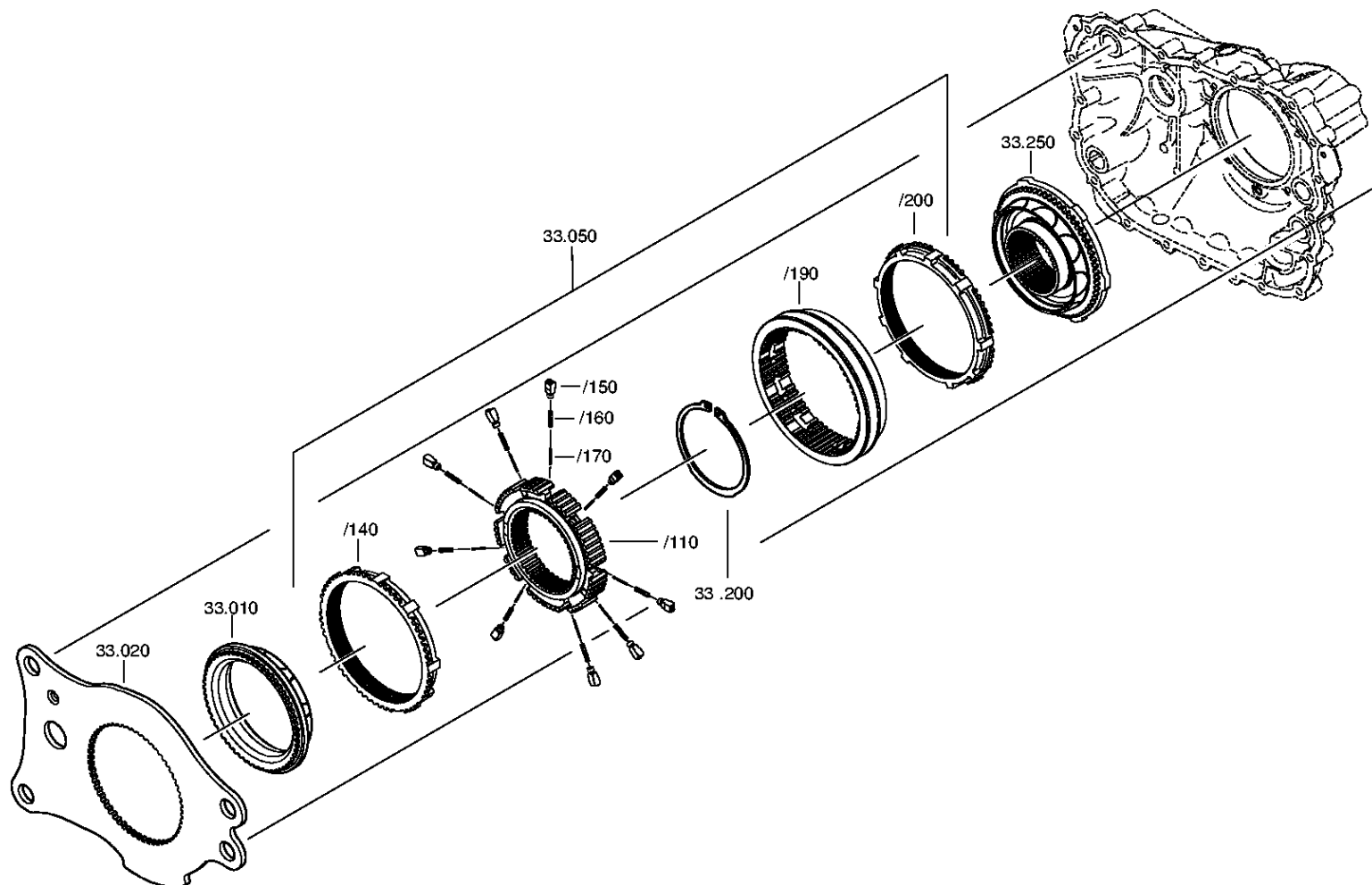
Material number: 1356.002.113

Plant: 161.45.01-1

Material-assembly-group-no: 1325.133.004



16 S 2230 TO /
SYNCHRONIZER



Parts list

Page 1 from 1



Material number: 1356.002.113

Plant: 161.45.01-1

Material-assembly-group-no: 1325.133.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1296.333.050		CLUTCH BODY	1			ENTHALT.IN 1296.333.053(1)		
20	1325.333.016		PLATE	1					
50	1325.233.008		SYNCHRONIZER	1			KPL.GP*DRUCKGUSS		
/110	1313.333.001		SYNCHRO.BODY	1			ENTHALT.IN 1296 333 014(1)		
/140	1296.333.045		SYNCHRO.RING	1					
/150	1240.304.278		PRESSURE PART	9					
/160	0732.040.385		COMPRESSION SPRING	9					
/170	0732.040.386		COMPRESSION SPRING	9					
/190	1325.333.018		SLIDING SLEEVE	1					
/200	1296.333.045		SYNCHRO.RING	1					
200	0630.501.175		RETAINING RING	1			125X3,7		
250	1325.233.007		CLUTCH BODY	1			KPL.		

Plant

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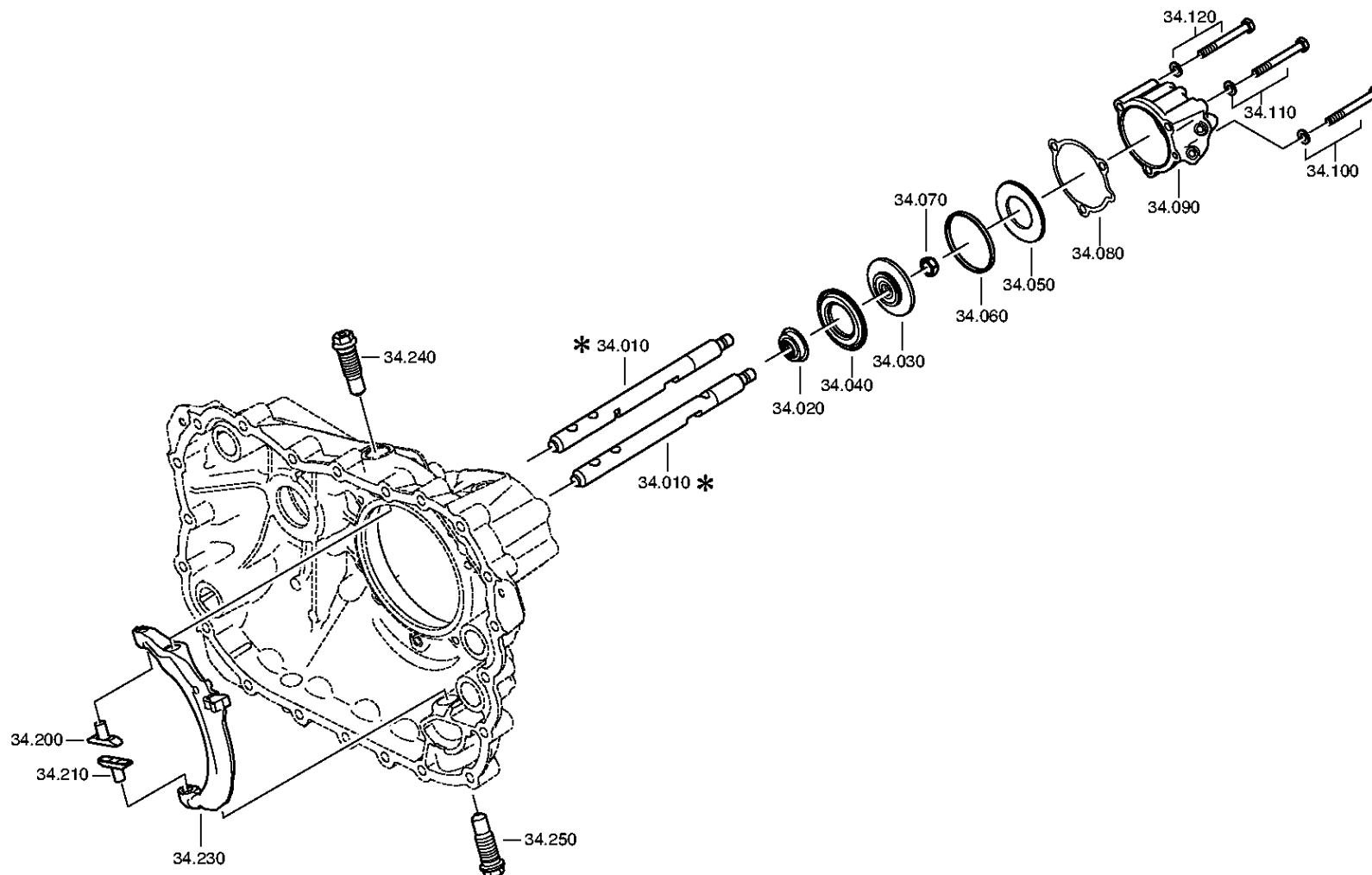
Material number: 1356.002.113

Plant: 161.46.01-1

GP SHIFT SYSTEM



16 S 2230 TO /
GP SHIFT SYSTEM



Plant

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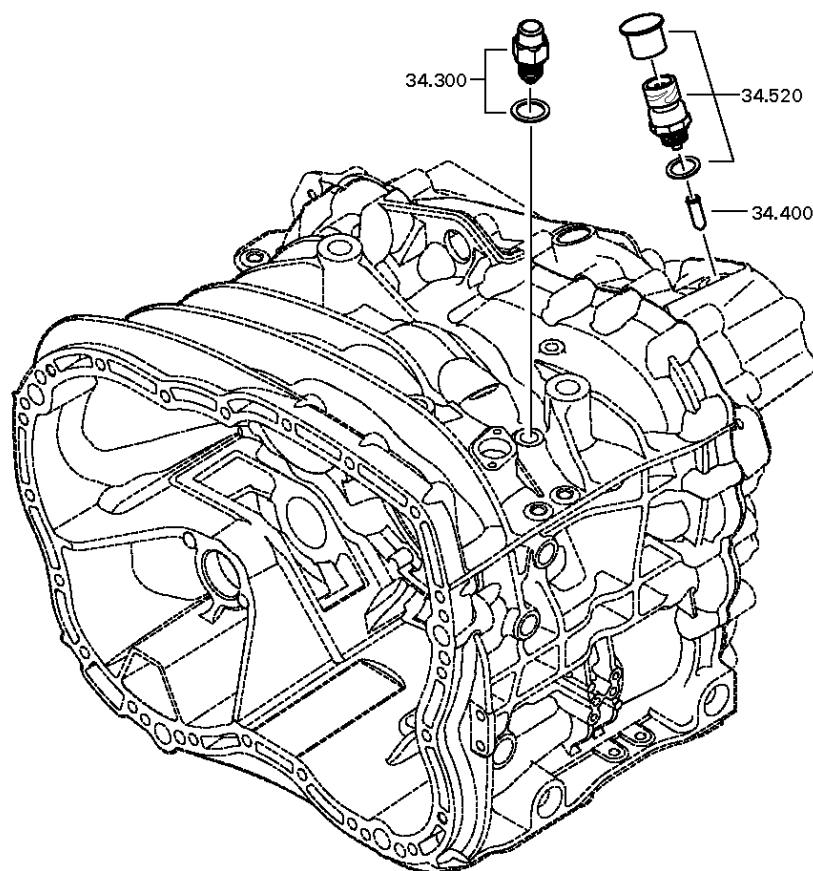
Material number: 1356.002.113

Plant: 161.46.40-1

GP SHIFT SYSTEM



16 S 2230 TO /
GP SHIFT SYSTEM



Parts list

Page 1 from 2



Material number: 1356.002.113

Plant: 161.46.01-1

Material-assembly-group-no: 1325.134.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.334.017		GEAR SHIFT RAIL	1					
20	0750.112.253		FLANGE PACKING	1			25X40X15		
30	---		PISTON	1			GP		
---	1315.334.034		PISTON	1			ENTHALT.IN 1315 334 040(2)		
---	1315.334.063		PISTON	1					
40	0734.307.294		SEALING RING	1			49X91X7,4 FA.KACO		
50	0734.307.294		SEALING RING	1			49X91X7,4 FA.KACO		
60	0750.112.066		GUIDE RING	1					
70	0737.300.037		LOCKING NUT	1			MS16X1,5		
80	0501.322.778		GASKET	1					
90	1325.334.013		CYLINDER	1			GP		
100	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
110	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
120	---		HEXAGON SCREW	1		Z00007349210	M10X90		
---	0636.015.688		HEXAGON SCREW	1		Z00007349212	M10X90		
---	0630.100.294		WASHER	1		Z00007158111			
200	1325.334.008		SLIDING PAD	1			GP		
210	1325.334.008		SLIDING PAD	1			GP		
230	1325.334.007		GEARSHIFT FORK	1			GP		
240	---		SWIVEL SCREW	1			O.SCHEIBE*ZF KAMA		
---	---		SWIVEL SCREW	1		Z00015655010	WTB*ZF KAMA M24X1,5		
---	1324.334.008		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
---	1315.334.074		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
250	---		SWIVEL SCREW	1			O.SCHEIBE*ZF KAMA		
---	---		SWIVEL SCREW	1		Z00015655010	WTB*ZF KAMA M24X1,5		
---	1324.334.008		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
---	1315.334.074		SWIVEL SCREW	1		Z00015655010	M24X1,5X74,5		
300	---		DETENT PLUNGER	1			145N*50N.M		
---	1324.207.035		DETENT PLUNGER	1			KPL. *145 N		
---	0730.008.604		SEALING RING	1					

Parts list

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Material number: 1356.002.113

Plant: 161.46.01-1

Material-assembly-group-no: 1325.134.006

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
400	1295.212.006		PIN	1			KPL.		
520	---		SWITCH	1		Z00025033610	SCHL*45N.M*DICHTRING*BAJONETT* SCHUTZKAPPE		
---	0501.331.660		SWITCH	1		Z00025033617			
---	0634.801.062		SEALING RING	1		Z00025033617	18X24		
---	0700.300.427		PROTECTION CAP	1		Z00025033617			

Plant

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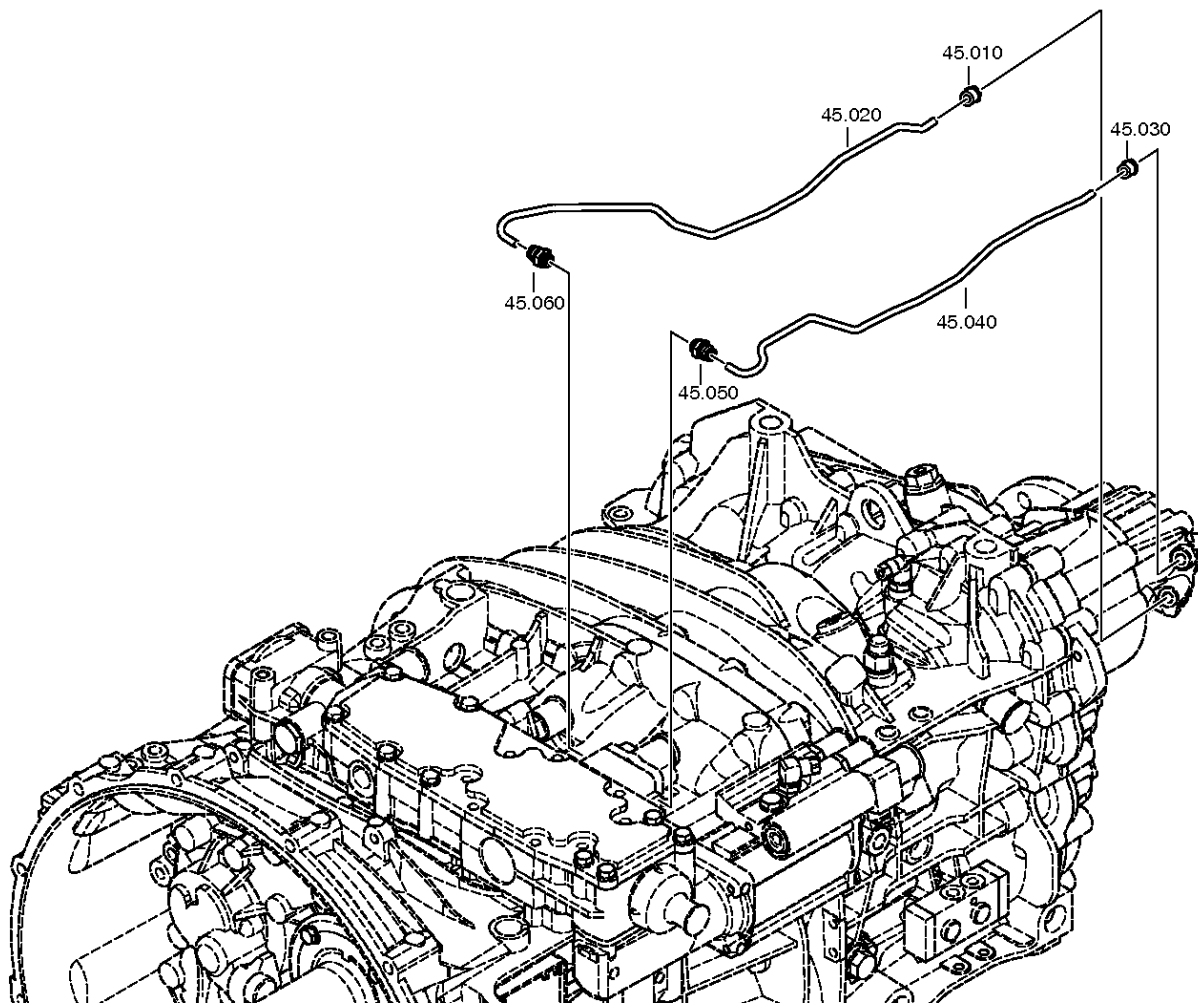
Material number: 1356.002.113

Plant: 161.57.04-1

Material-assembly-group-no: 1325.145.004



16 S 2230 TO /
RANGE SELECTION



Parts list

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Material number: 1356.002.113

Plant: 161.57.04-1

Material-assembly-group-no: 1325.145.004

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	0501.324.029		PLUG-IN COUPLING	1					
20	1325.345.009		TUBE	1			H-H		
30	0501.324.029		PLUG-IN COUPLING	1					
40	1325.345.008		TUBE	1			E13MP		
50	0501.326.099		PLUG-IN COUPLING	1			M14X1,5 ROHR 8MM		
60	0501.326.099		PLUG-IN COUPLING	1			M14X1,5 ROHR 8MM		

Plant

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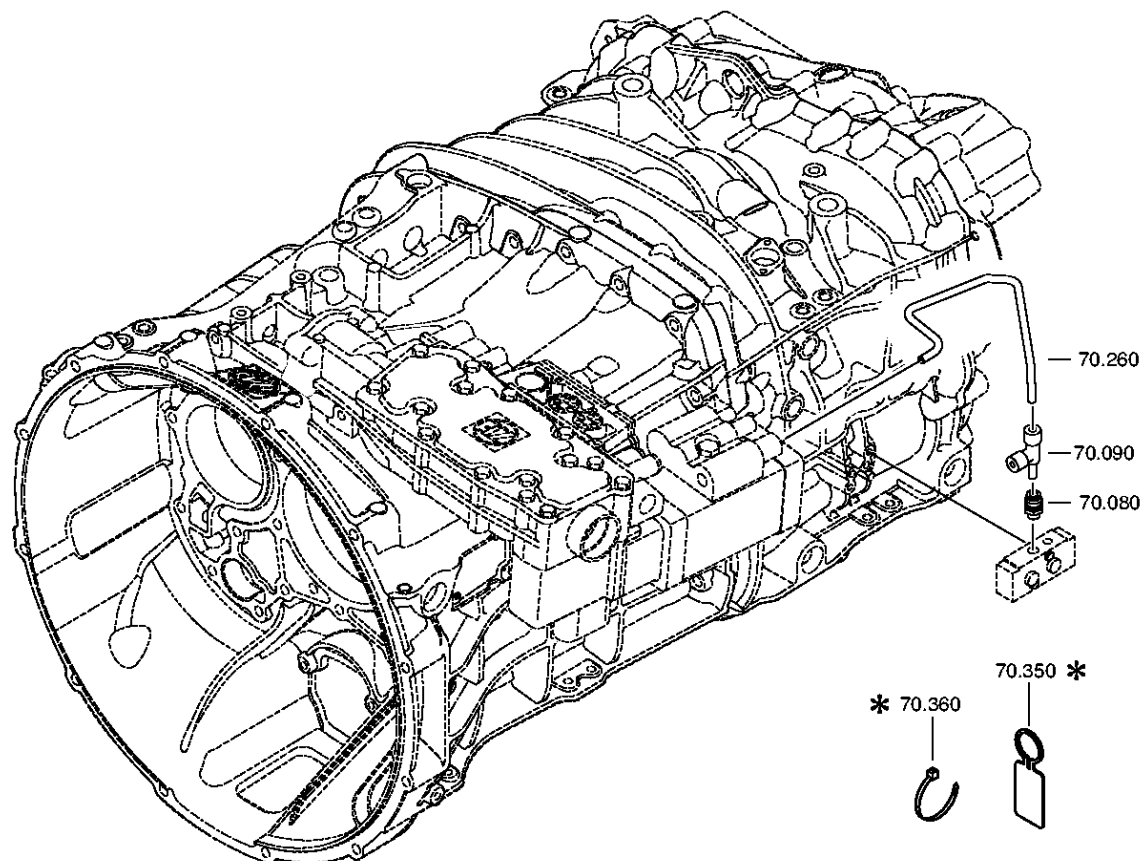
Material number: 1356.002.113

Plant: 161.70.05-1

Material-assembly-group-no: 1356.170.003



16 S 2230 TO /
SHUT-OFF VALVE



Parts list

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Material number: 1356.002.113

Plant: 161.70.05-1

Material-assembly-group-no: 1356.170.003

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
80	0501.324.477		PLUG-IN COUPLING	1			M12X1,5 ROHR 8MM		
90	0501.324.457		PLUG-IN COUPLING	1					
260	1325.345.039		TUBE	1		Z00007299711	8X1 ZWISCHEN DBV UND GV		

Plant

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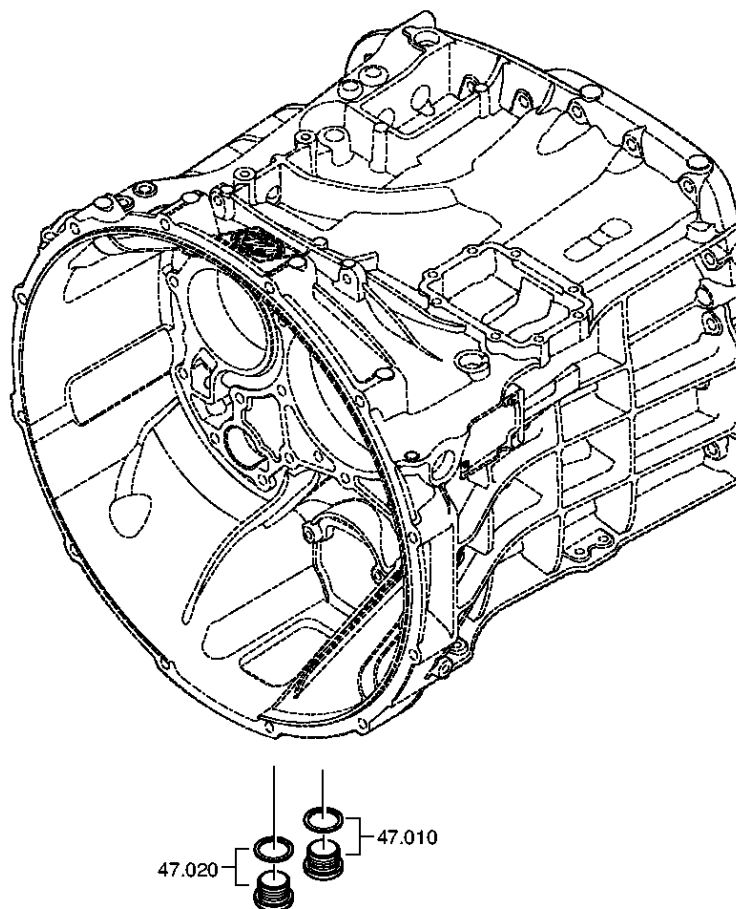
Material number: 1356.002.113

Plant: 161.90.08

Material-assembly-group-no: 1325.147.009



16 S 2230 TO /
SCREW PLUG



Parts list

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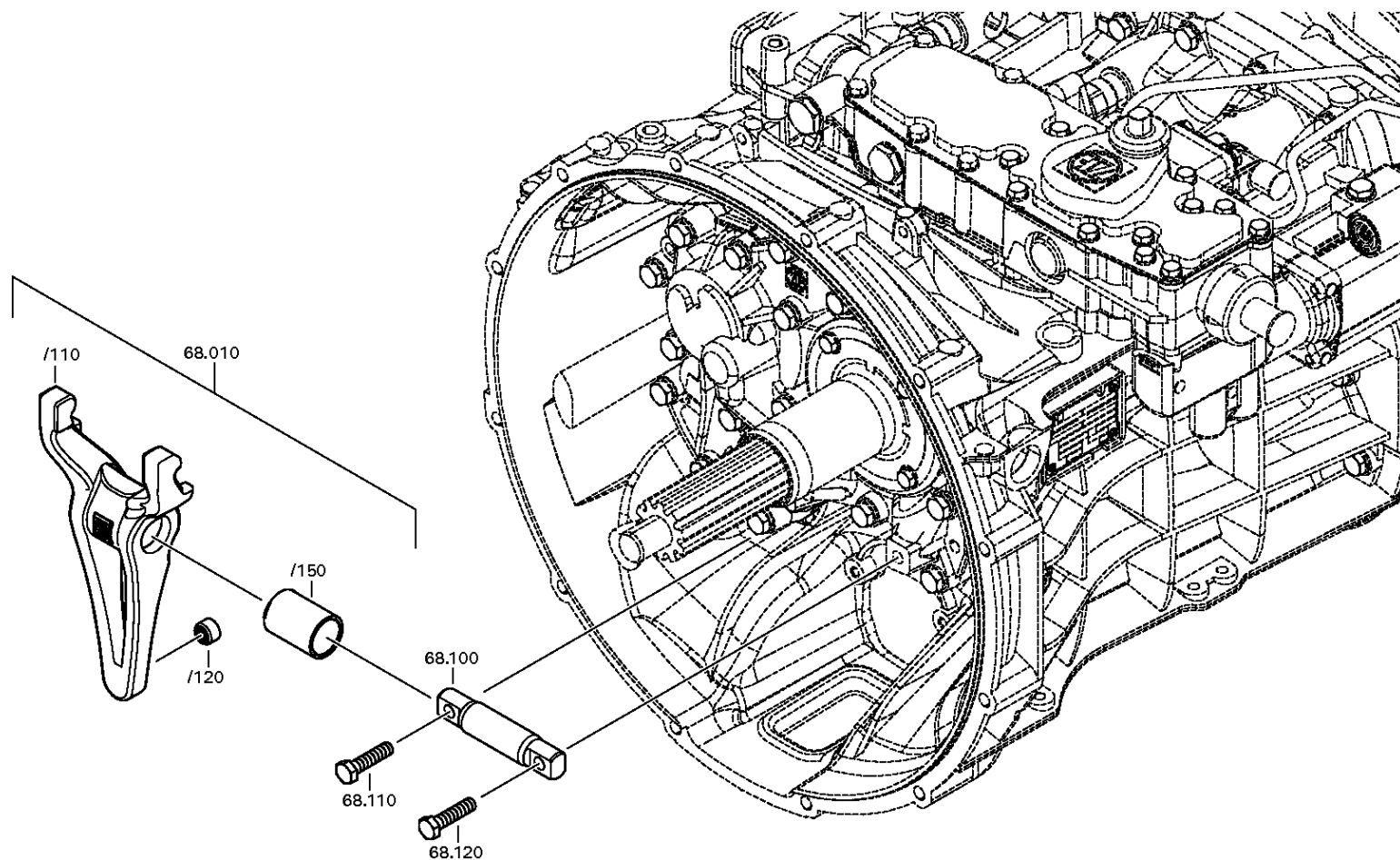
Material number: 1356.002.113

Plant: 161.90.08

Material-assembly-group-no: 1325.147.009

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	---		SCREW PLUG	1		Z00010164013	50N.M*DICHTRING M22X1,5		
---	0636.100.824		SCREW PLUG	1		Z00010164019	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010164019	A22X27		
20	---		SCREW PLUG	1		Z00010164013	50N.M*DICHTRING M22X1,5		
---	0636.100.824		SCREW PLUG	1		Z00010164019	M22X1,5		
---	0730.009.515		SEALING RING	1		Z00010164019	A22X27		



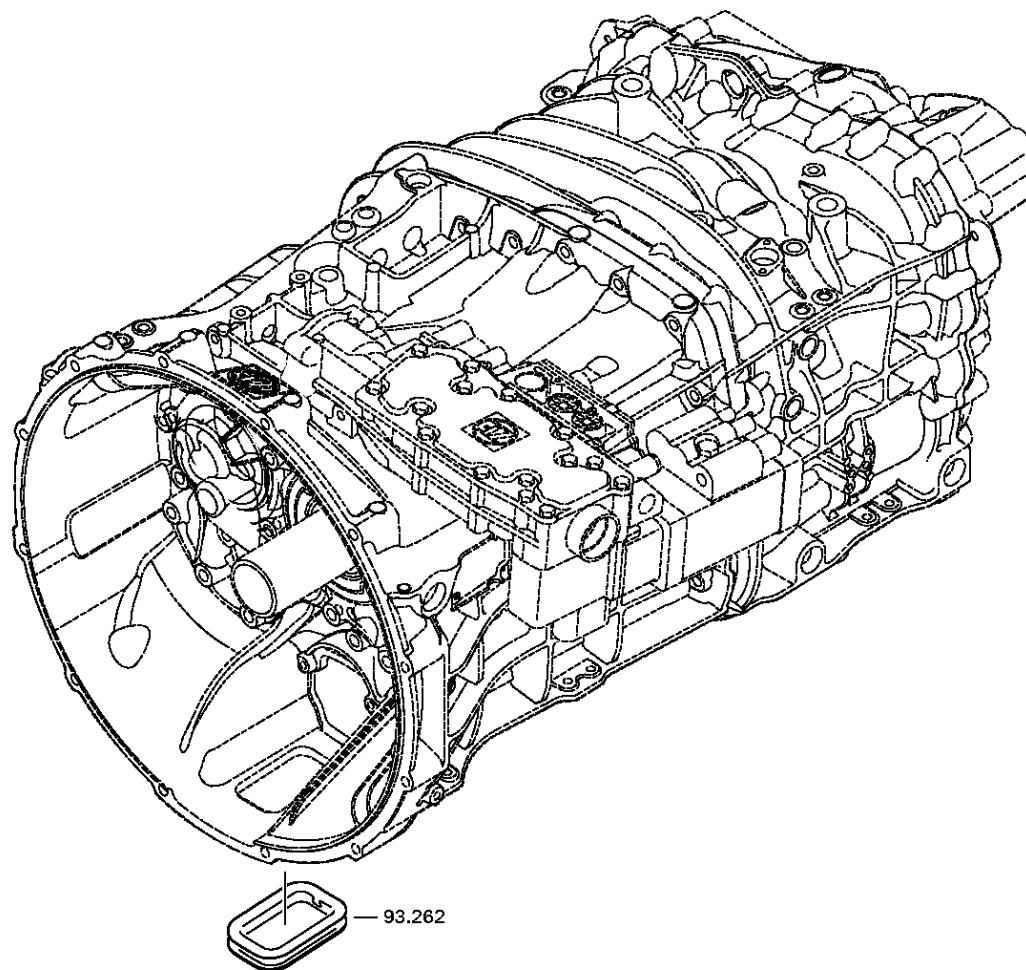
Material number: 1356.002.113

Plant: 161.93.17-1

CLUTCH RELEASE DEVICE



16 S 2230 TO /
CLUTCH RELEASE DEVICE



Parts list

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Material number: 1356.002.113

Plant: 161.93.76-1

Material-assembly-group-no: 1325.168.011

16 S 2230 TO /

Pos.	Material number	Customer material	Name	Quantity	ME	Amend. no.	Techn. Info.	Rep kit	Alternative material
10	1325.268.009		RELEASE FORK	1			KPL*GABELWEITE 94,0*KUGEL D=12*I=1,76*OHNE ROLLE*1-SK*LOKAL		
/110	---		RELEASE FORK	1			ZFF*LOKAL HNG		
---	1325.368.007		RELEASE FORK	1					
/120	0501.315.159		BALL CUP	1			KS12-18-12		
/150	0501.323.199		BEARING BUSH	1			30x37x50		
100	1325.368.008		RELEASE SHAFT	1			A=119,8mm		
110	0636.016.416		HEXAGON SCREW	1			M12X50		
120	0636.016.416		HEXAGON SCREW	1			M12X50		
262	1315.301.230		PROTECTION CAP	1					