



# Spare Parts Catalog

16 S 151

Material number: 1315.051.867

Current date: 29.05.2018

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zuständiges Werk:  
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

# Technical Cover

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Material number: 1315.051.867



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Pos.	Information	Amendment number
001	Use case -----	
002	Customer GM Daewoo Auto & Technology	
003	City Chungnam	
004	DUNS	
005	Vehicle / Apparatus -----	
006	Sales Name	
007	Manufacturer GM Daewoo Auto & Technology	
008	Engineering Name	
009	Product Use TRUCK	
010	Vehicle/Hardware Type ROAD TRACTOR	
011	SOP	
012	Engine	
013	Sales Designation	
014	Manufacturer DETROIT DIESEL ALLISON ATTN: M	
015	Eng.Displ.	
016	Cylinder	
017	Nom. power 298 kW	
018	RPM at nom. power 1900 1/min	
019	Nom. torque 1825 Nm	
020	RPM at nom. torque 1200 1/min	
021	Classification use case -----	
022	DESIGNATION, CLUTCH 430DTE	
023	MANUFACTURER, CLUTCH VALEO	
024	TOTAL NUMBER OF WHEELS 10	
025	NUMBER OF DRIVING WHEELS 4	
026	DYNAMIC TYRE RADIUS 518 mm	
027	REAR AXLE RATIO 3.91	
029	INERTIA TORQUE .14 kg/m2	
030	SLIP TORQUE 2150 Nm	
031	PERMISS.GROSS VEHICLE WEIGHT 25 t	
032	PERMISS.GROSS COMBIN.WEIGHT 40 t	
033	Use case -----	
034	Customer GM Daewoo Auto & Technology	

# Technical Cover

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Pos.	Information	Amendment number
035	City Chungnam	
036	DUNS	
037	Vehicle / Apparatus -----	
038	Sales Name	
039	Manufacturer GM Daewoo Auto & Technology	
040	Engineering Name	
041	Product Use TRUCK	
042	Vehicle/Hardware Type ROAD TRACTOR	
043	SOP	
044	Engine	
045	Sales Designation	
046	Manufacturer DETROIT DIESEL ALLISON ATTN: M	
047	Eng.Displ.	
048	Cylinder	
049	Nom. power 298 kW	
050	RPM at nom. power 1900 1/min	
051	Nom. torque 1825 Nm	
052	RPM at nom. torque 1200 1/min	
053	Classification use case -----	
054	DESIGNATION, CLUTCH 430DTE	
055	MANUFACTURER, CLUTCH VALEO	
056	TOTAL NUMBER OF WHEELS 6	
057	NUMBER OF DRIVING WHEELS 4	
058	DYNAMIC TYRE RADIUS 518 mm	
059	REAR AXLE RATIO 3.91	
061	INERTIA TORQUE .14 kg/m2	
062	SLIP TORQUE 2150 Nm	
063	PERMISS.GROSS VEHICLE WEIGHT 25 t	
064	PERMISS.GROSS COMBIN.WEIGHT 40 t	
065	Product description -----	
066	INSTALLATION POS TRANSMISSION HORIZONTAL LEFT	
067	TRANSMISSION ATTACHMENT FLANGE-MOUNTED	
069	RATIO, BOTTOM GEAR 13.8	



Pos.	Information	Amendment number
070	RATIO, TOP GEAR .84	
071	RATIO, 1ST GEAR 13.8	
072	RATIO, 2ND GEAR 11.54	
073	RATIO, 3RD GEAR 9.49	
074	RATIO, 4TH GEAR 7.93	
075	RATIO, 5TH GEAR 6.53	
076	RATIO, 6TH GEAR 5.46	
077	RATIO, 7TH GEAR 4.57	
078	RATIO, 8TH GEAR 3.82	
079	RATIO, 9TH GEAR 3.02	
080	RATIO, 10TH GEAR 2.53	
081	RATIO, 11TH GEAR 2.08	
082	RATIO, 12TH GEAR 1.74	
083	RATIO, 13TH GEAR 1.43	
084	RATIO, 14TH GEAR 1.2	
085	RATIO, 15TH GEAR 1	
086	RATIO, 16TH GEAR .84	
087	RATIO, 1ST GEAR REVERSE 12.92	
088	RATIO, 2ND GEAR REVERSE 10.8	
089	SET OF RATIOS SG	
090	RATIO RANGE BASIC DG	
091	NUMBER OF PLANETARY GEARS 5	
092	RATIO PLANETARY GEAR SET 4.565	
093	VER. SPLINE PLANETARY GEAR SET OBLIQUE TOOTHING	
094	DESIGN, SHIFT SYSTEM TURNING SHAFT	
095	POSITION, GEAR SHIFT SYSTEM HORIZONTAL LEFT	
096	DESIGN, SHIFT PATTERN H-H	
097	VERSION SHIFT SUPPORT SERVO	
098	VERSION ACTUATION SHIFT SYSTEM MECHANICAL	
100	VERSION TUBE R/C PLASTIC-FORM-PIPE	
102	VERSION TUBE SERVO PLASTIC PIPING	
103	NOTE ON VERSION SHIFT SYSTEM AIR SUPPLY:GV-VALVE	
112	DESIGN,THROTTLE, CUT-OFF VALVE D=1.55	



Pos.	Information	Amendment number
113	DESIGN AIR CONNECT. CUT-OFF VALVE F	
114	ASSEMBLY NOTE CUT-OFF VALVE CUT-OFF VALVE	
117	SELECTION PATTERN VARIANT GEAR SHIFT PATTERN 1	
121	DESIGN, SEPARATING CLUTCH FULL-SYNCHRONIZED	
122	VERSION OF SYNCHRONIZER 1 1.-4.GEAR BK-SYNCHRONIZATION	
124	REFERENCE LENGTH INPUT SHAFT 109 mm	
125	STANDARD TYPE INPUT SHAFT SAE	
126	NUMBER OF WEDGES INPUT SHAFT 10	
129	VERSION OF INPUT SHAFT FORM C	
130	NOMINAL DIAMETER INPUT SHAFT 2 in	
132	DIAMETER, JOURNAL, INPUT SHAFT 25 mm	
133	TYPE FIT SPIGOTS INPUT SHAFT F7	
134	VER. BEAR. SPIGOTS INPUT SHAFT TAPER ROLLER	
135	LENGTH, INPUT SHAFT 382.5 mm	
136	DIAMETER SHAFT OF INPUT SHAFT 50.3 mm	
137	LENGTH, PROFILE, INPUT SHAFT 120 mm	
138	BUSH VARIANT INPUT SHAFT WITHOUT GROOVE	
139	VERSION BEARING CONSTANT 1 GL	
140	DIAMETER BEARING INPUT SHAFT 99.916 mm	
141	TYPE FIT BEAR. INPUT SHAFT H5	
143	DESIGN,CONN., CLUTCH HOUSING SAE 1	
148	VERSION OF CLUTCH HOUSING INTEGRATED	
149	DESIGN BEARING OUTPUT STANDARD SUSPENSION	
151	POSITION MOUNT. FACE HOUSING 2 WITHOUT GROOVE	
157	TYPE OF RELEASE MECHANISM WITH	
158	REF.LENGTH,RELEASE BEAR.FLAN -7 mm	
159	DIAMETER, RELEASE FLANGE 60 mm	
160	TYPE FIT RELEASE BEARING FLA. F8	
164	ASSEMBLY POS. CLUTCH CYLINDER 6	
165	OUTER DIA. OUTPUT FLANGE RA 180 mm	
169	NO.OF SCREWS OUTPUT FLANGE RA 4	
171	DIA. THREAD OUTPUT FL. SCR. RA M14	
172	THREAD PITCH OUTPUT FL SCR. RA 1.5 mm	



Pos.	Information	Amendment number
173	THREAD LENGTH OUTP.FL SCREW RA 50 mm	
175	REF. LENGTH OUTPUT FLANGE RA 211.5 mm	
182	DIMENSION SHIFT TURRET DIST. 300 mm	
183	MEAS. LOC. SHIFT TURRET DIST. SHIFT LEVER-LOCATION	
190	SHIFT LEVER CONNECTION KNURLING	
207	SPRING ARRANGEMENT Q3	
208	SPRING FORCE DETENT PLUNGER RG 120 N	
209	HUMP SPRING FORCE, OUTSIDE 120 N	
212	SELECTOR SPRING FORCE, OUTSIDE 50 N	
213	SELECTOR SPRING FORCE, INSIDE 55 N	
215	SPRING FORCE OUTS. DETENT NEUT 200 N	
217	ALLOCATION DETENT LEVER VER. A	
225	SWITCH, REVERSE GEAR y	
226	DESIGN, RG (REV.GEAR) SWITCH CLOSING	
229	PROT.CAP SWITCH, REVERSE GEAR y	
231	NOTE ON SWITCH, REVERSE GEAR G.SHIFT SHAFT	
232	SWITCH, NEUTRAL GEAR y	
233	DESIGN,NG(NEUTRAL GEAR)SWITCH OPENING SWITCH	
236	PROT.CAP SWITCH, NEUTRAL GEAR y	
253	FUNCTION OF R/C SWITCH GP	
254	DESIGN, GP SWITCH OPENING SWITCH	
257	PROTECTING CAP GP SWITCH y	
264	FUNCTION OF S/G SWITCH GV	
265	DESIGN, GV SWITCH CLOSING	
268	PROTECTING CAP GV SWITCH y	
315	ATTACHM.POS.HEAT EXCHANGER IN FRONT LEFT PREPARED	
317	VER. TRANSMISSION VENTILATION ELBOW JOINT	
319	POS.TRANSMISSION VENTILATION IN FRONT	
336	VERSION PULSE SENSOR SFA H68 WITHOUT GROOVE	
340	PROT.CAP PULSE SENSOR SFA H68 n	
341	NO. PULSES PULSE SENSOR SFAH68 6 IMP/U	
346	VER. PULSE SENSOR TRANSM. H70 WITHOUT GROOVE	
350	PROT.CAP PULSE SENSOR TM H70 n	

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Pos.	Information	Amendment number
351	NO PULSES PULSE SENSOR TM H70 6 IMP/U	
352	ASSEMBLY POS PULSE SENSOR H70 1	
353	NOTE ASS. POS PULSE SENSOR H70 INSTALLATION DRAWING	
368	POSITION, OIL FILLER HOUSING LEFT+RIGHT	
369	NOTE ON OIL FILL FILL IN OVERFLOW	
370	OIL CAPACITY, GEARBOX 11 dm3	
372	OIL GRADE PERMISSIBLE ACC. TO TE-ML02	
373	OIL CLASS FIRST FILLING H	
374	CODING OUTER CONSERVATION KA2	
375	SCOPE OUTER CONSERVATION T	
376	CODING INNER CONSERVATION KI2	
377	CONSERVATION SPECIFICATION ZFN 916	
379	COLOR JET BLACK	
380	COLOUR CLASSIFICATION ACC. TO RAL 9005	
381	PAINTING, ZF STANDARD 915 W	
388	Alias ID -----	
389	GM Daewoo Auto & Technology 3321017710	



# Assembly group overview

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Material number: 1315.051.867



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Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
068.01.05-1	110	1315.101.123	TRANSMISSION HOUSING	1		
068.01.57-1	120	1315.101.525	TRANSMISSION HOUSING	1		
068.02.55-1	140	1315.102.439	CONNECTION PLATE	1		
068.02.82-1	150	1315.102.811	INPUT SHAFT	1		
068.02.02-1	910	1315.102.055	INPUT SHAFT	1		
068.03.80-1	180	1316.103.803	COUNTERSHAFT	1		
068.03.01-1	920	1315.103.019	COUNTERSHAFT	1		
068.04.13-1	930	1315.104.026	MAIN SHAFT	1		
068.06.01-1	230	1315.106.008	SHIFT SYSTEM	1		
068.06.43-1	234	1315.106.422	CONNECTING PARTS	1		
068.06.80-1	238	1315.106.800	SHIFT SYSTEM	1		
068.07.81-1	292	1316.108.817	GEAR SHIFT HOUSING	1		
068.07.36-1	910	1316.108.047	GEAR SHIFT HOUSING	1		
068.07.25-1	914	1316.108.459	GEARSHIFT SHAFT	1		
068.07.55-1	924	1316.108.026	DETENT	1		
068.07.57-1	930	1316.108.811	COVER	1		
062.08.30-1	954	1316.171.403	END COVER	1		
068.08.02-1	960	1316.171.406	PNEUMATIC SERVO UNIT	1		
068.08.85-1	964	1316.171.815	CONNECTING PARTS	1		
068.09.01-1	934	1316.109.024	CONNECTING PARTS	1		
068.09.01-1	940	1316.109.414	CONNECTING PARTS	1		
068.12.16-1	918	1316.149.423	SET OF SPRINGS	1		
068.40.04-1	500	1315.112.017	GV-SHIFT SYSTEM	1		
068.40.42-1	502	1315.112.424	CONNECTING PARTS	1		
068.43.21-1	10	1315.131.047	COVER	1		
068.43.06-1	20	1315.131.050	RC HOUSING	1		
068.43.45-1	24	1315.131.401	CONNECTING PARTS	1		
068.43.40-1	30	1315.131.400	CLOSING COMPONENTS	1		
068.43.80-1	512	1315.131.805	RC HOUSING	1		
068.44.07-1	40	1315.132.015	PLANETARY DRIVE	1		
068.44.41-1	50	1316.132.403	PLANETARY DRIVE	1		
068.45.04-1	70	1316.133.008	SYNCHRONIZER	1		

# Assembly group overview

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Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
068.45.40-1	80	1315.133.405	SYNCHRONIZER	1		
068.46.03-1	90	1315.134.015	GP SHIFT SYSTEM	1		
068.46.40-1	554	1315.134.407	CONNECTING PARTS	1		
068.57.04-1	390	1315.145.004	RANGE SELECTION	1		
068.93.13-1	130	1315.168.030	CLUTCH RELEASE DEVICE	1		
073.R0.01-1	KIT	1272.298.934	SMALL COMP.SET	1		

# Plant

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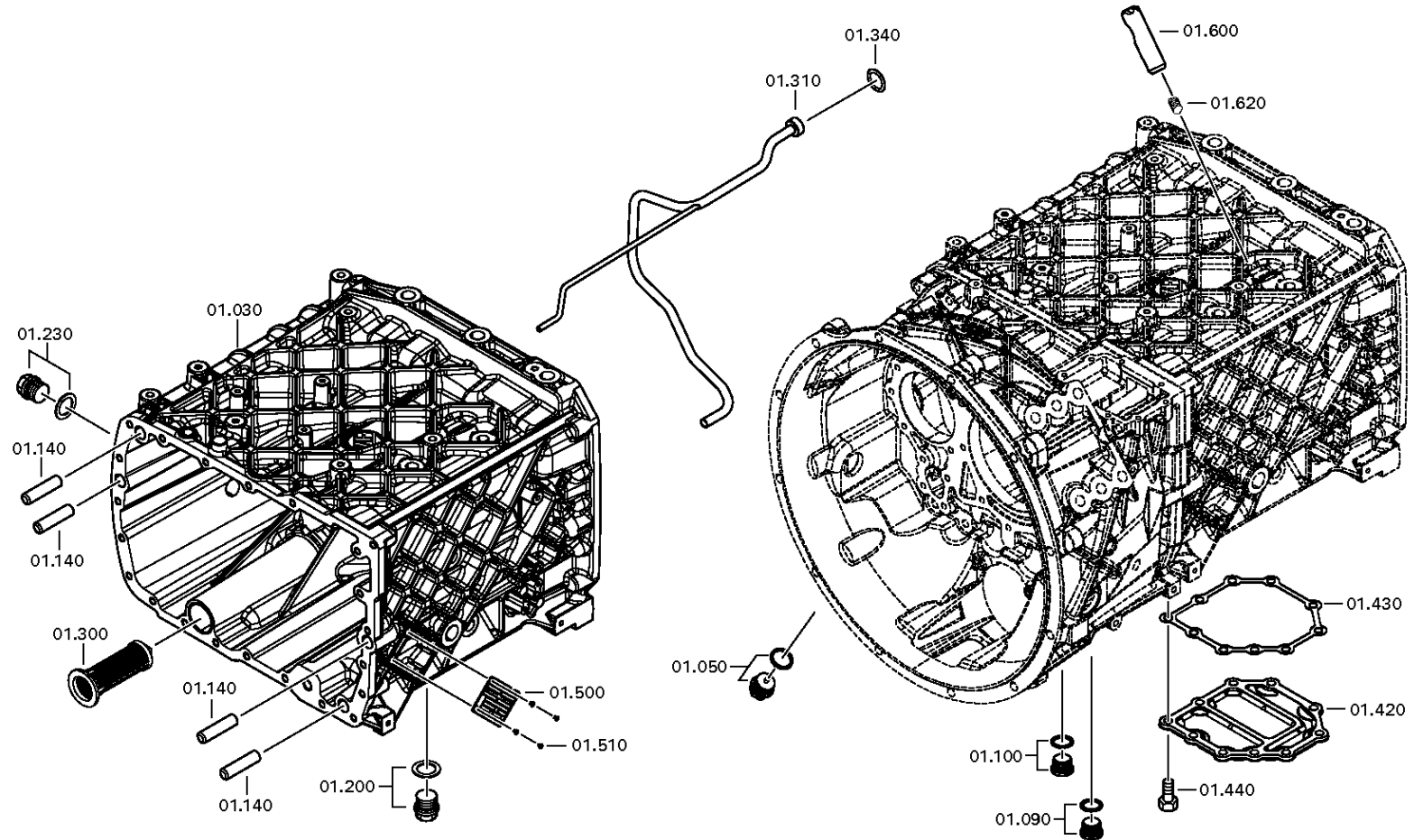
Material number: 1315.051.867

Plant: 068.01.05-1

TRANSMISSION HOUSING



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TRANSMISSION HOUSING



# Plant

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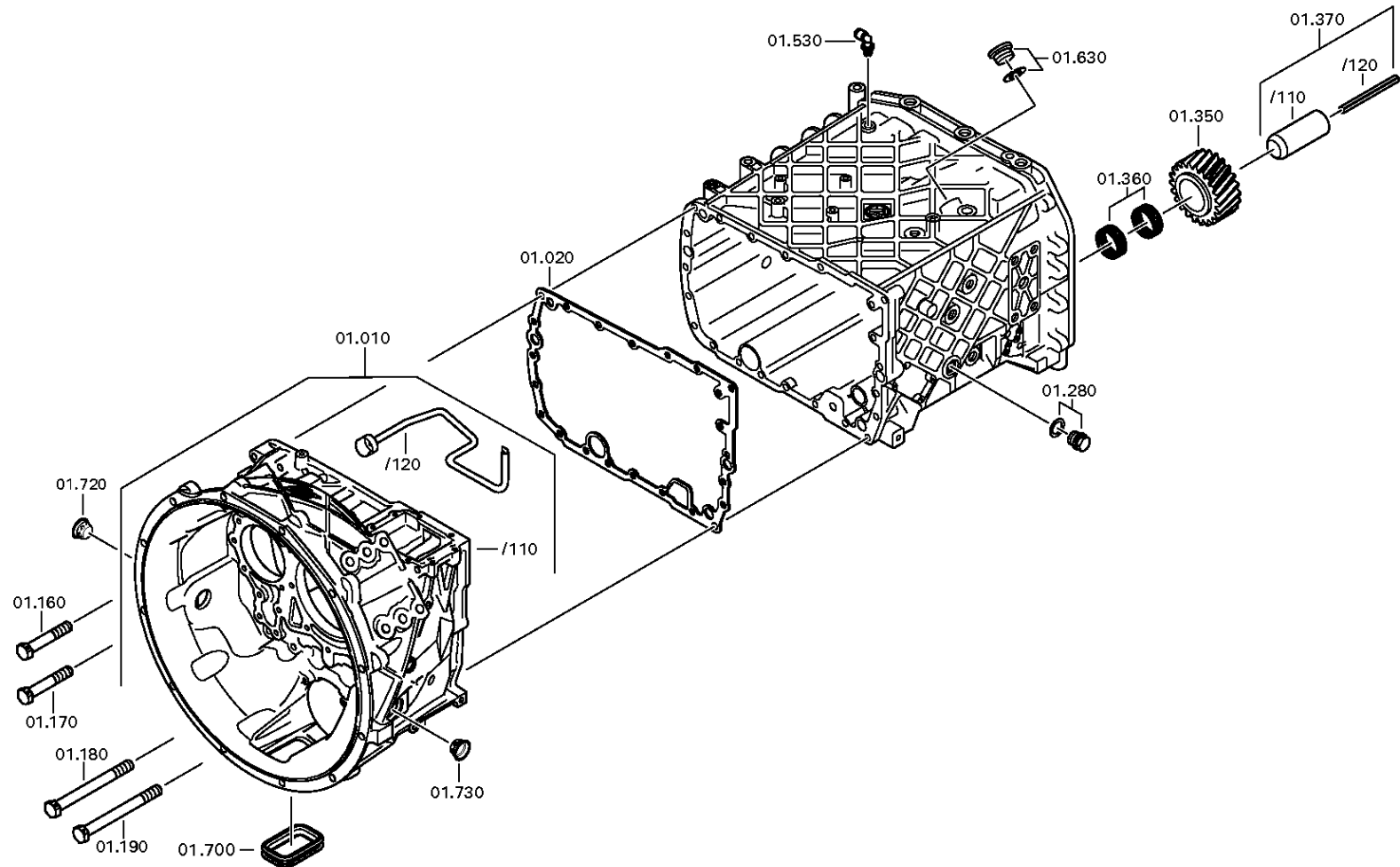
Material number: 1315.051.867

Plant: 068.01.57-1

TRANSMISSION HOUSING



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TRANSMISSION HOUSING



# Plant

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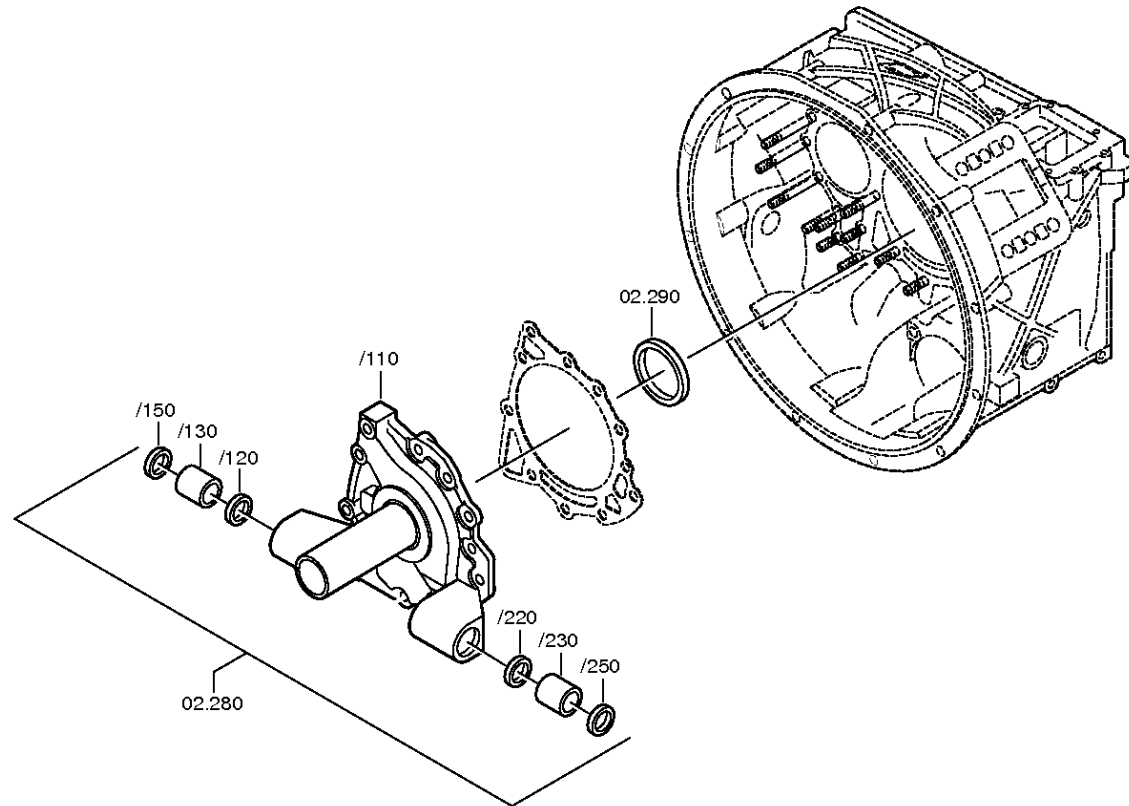
Material number: 1315.051.867

Plant: 068.02.55-1

CONNECTION PLATE



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CONNECTION PLATE



# Plant

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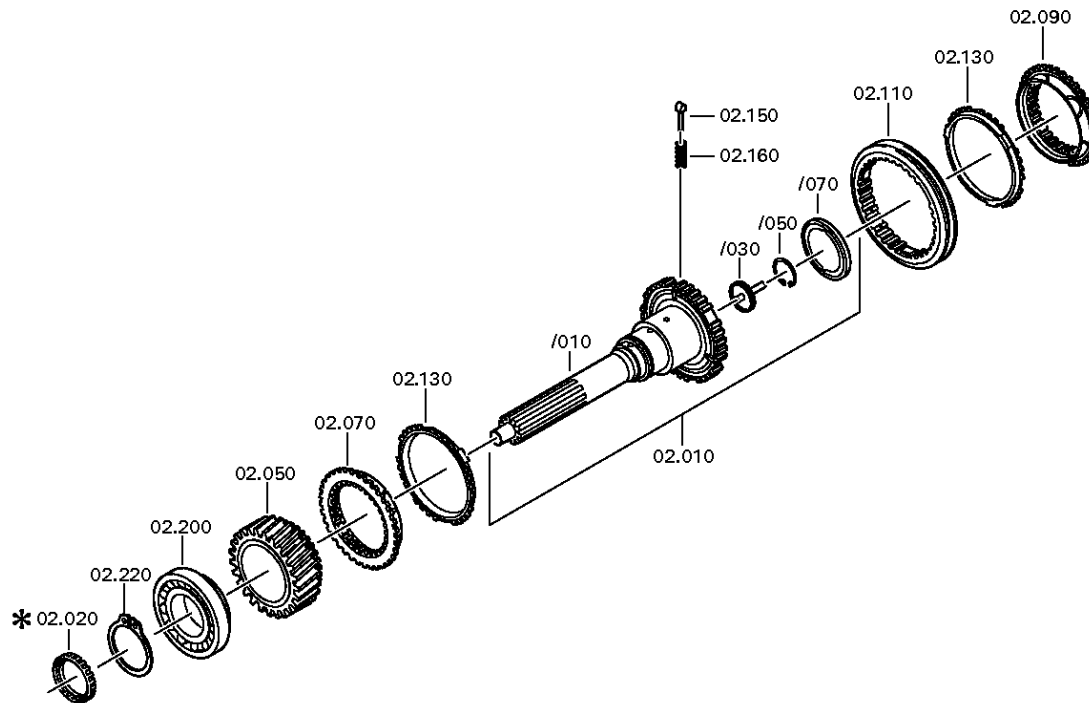
Material number: 1315.051.867

Plant: 068.02.02-1

CONNECTION PLATE



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CONNECTION PLATE



# Plant

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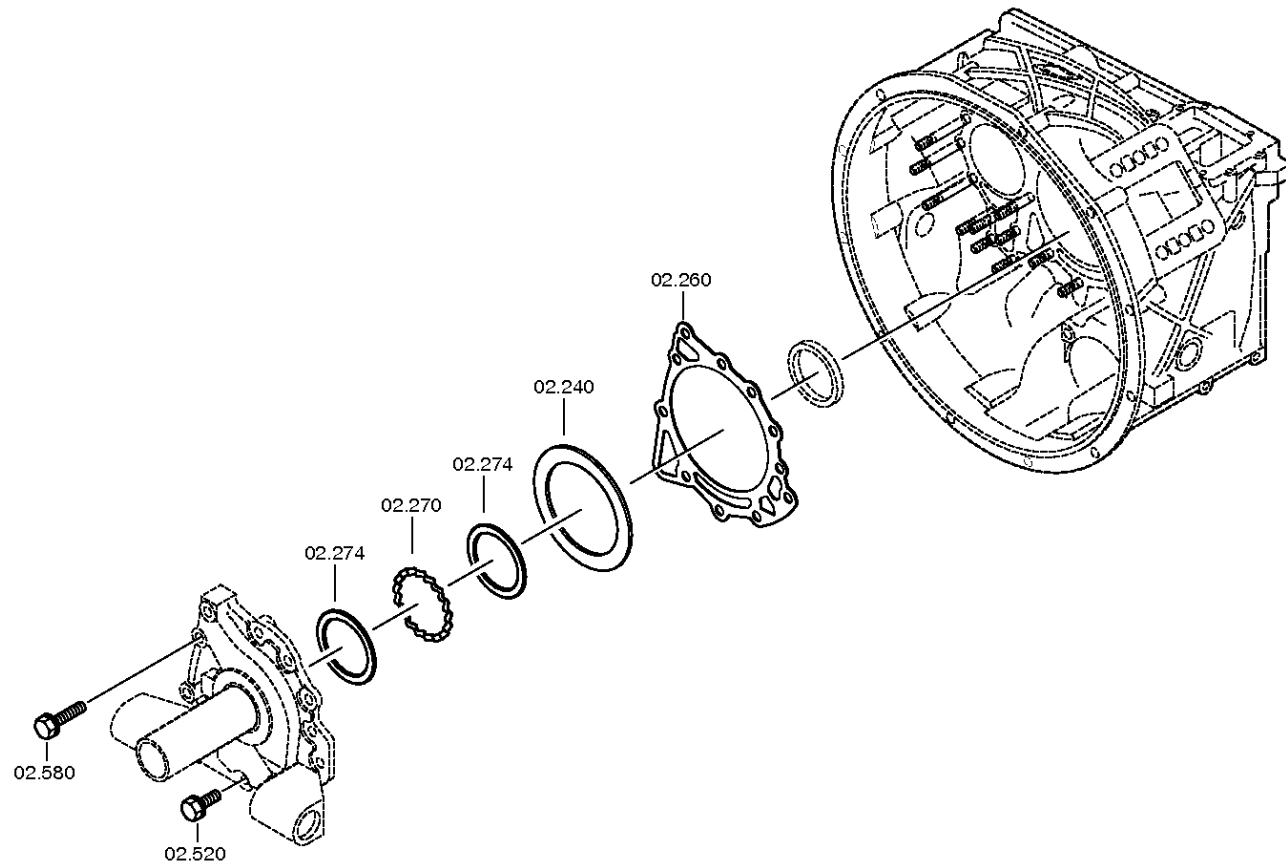
Material number: 1315.051.867

Plant: 068.02.82-1

CONNECTION PLATE



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CONNECTION PLATE



# Plant

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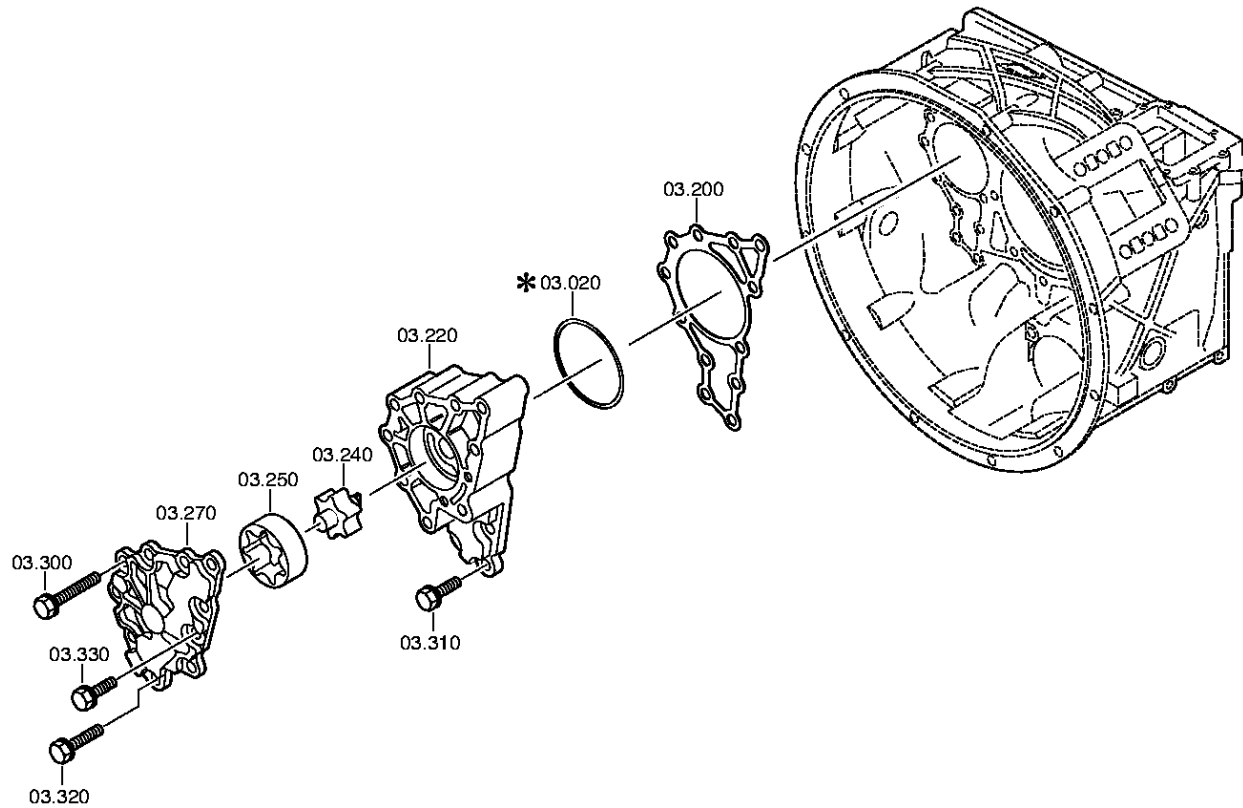
Material number: 1315.051.867

Plant: 068.03.80-1

COUNTERSHAFT



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COUNTERSHAFT





# Plant

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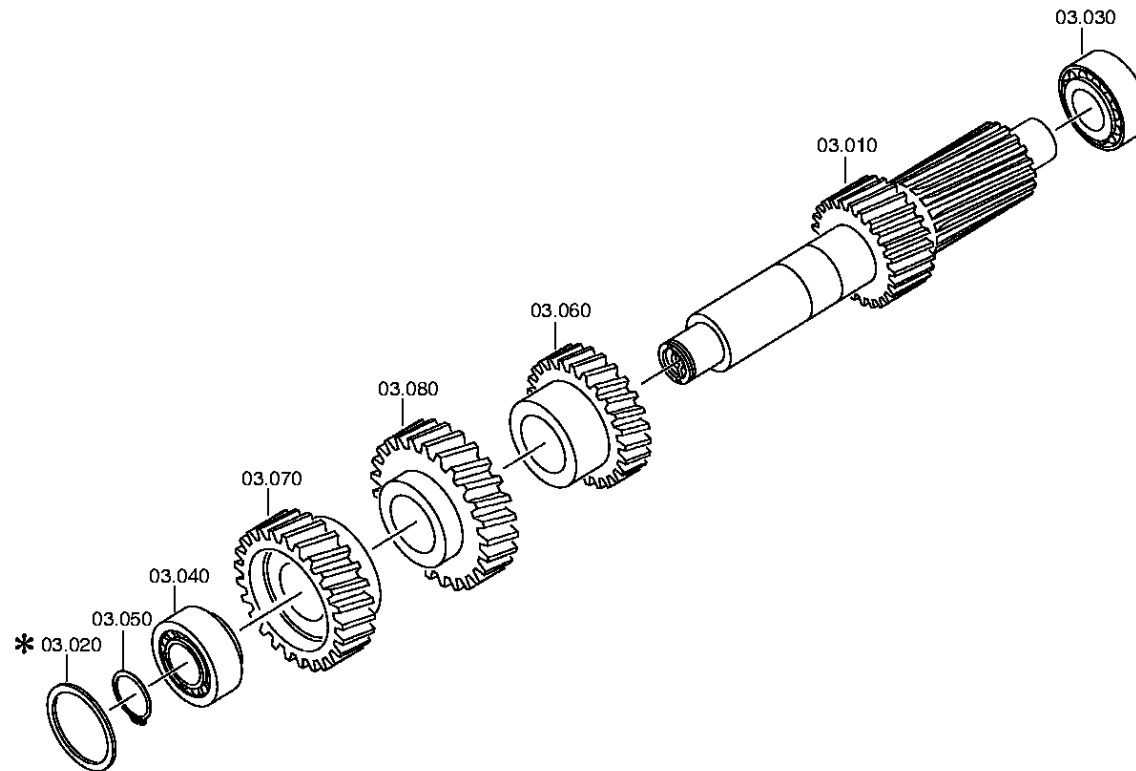
Material number: 1315.051.867

Plant: 068.03.01-1

COUNTERSHAFT



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COUNTERSHAFT



# Plant

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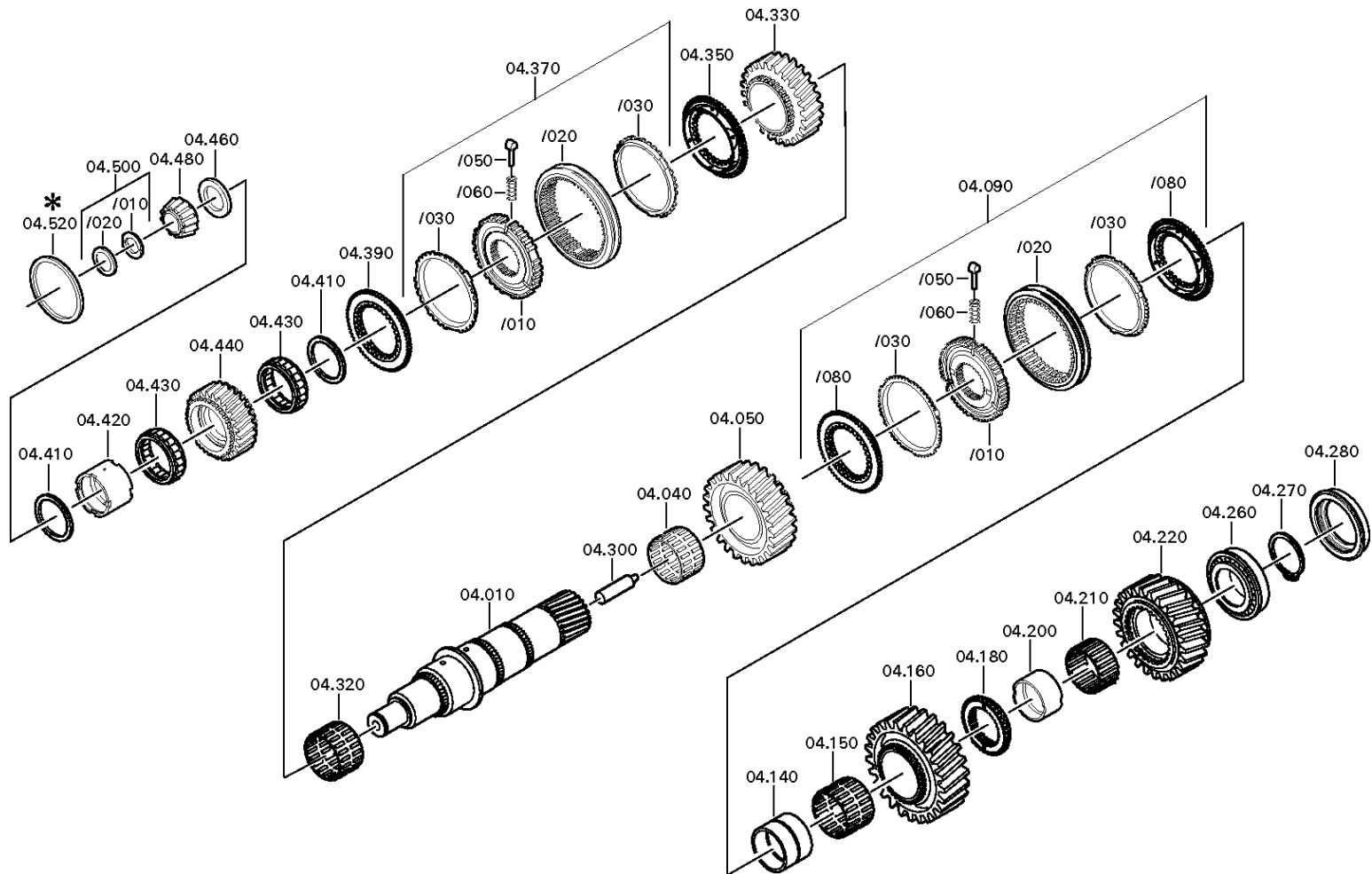
Material number: 1315.051.867

Plant: 068.04.13-1

Material-assembly-group-no: 1315.104.026



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MAIN SHAFT



# Plant

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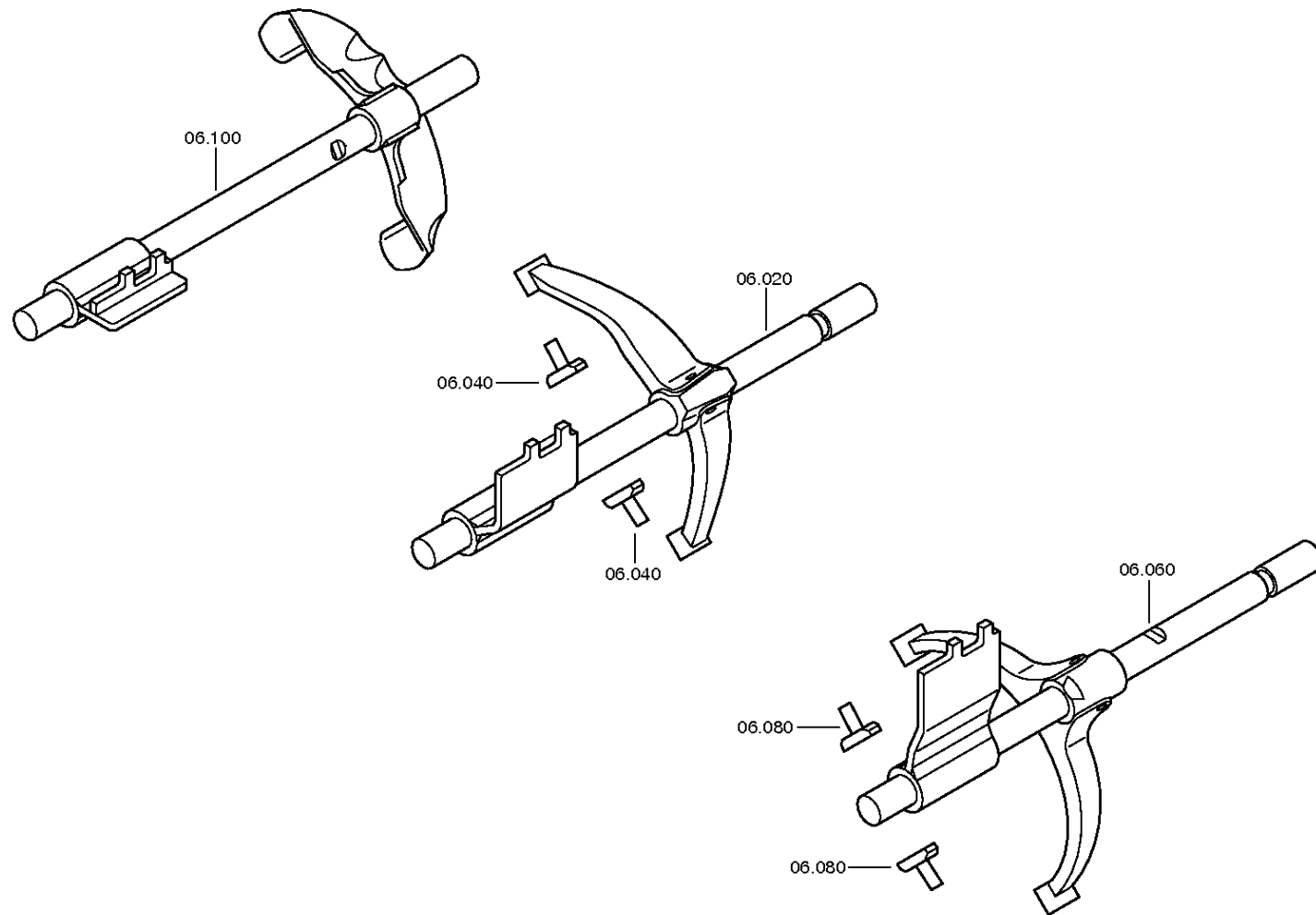
Material number: 1315.051.867

Plant: 068.06.01-1

SHIFT SYSTEM



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SHIFT SYSTEM



# Plant

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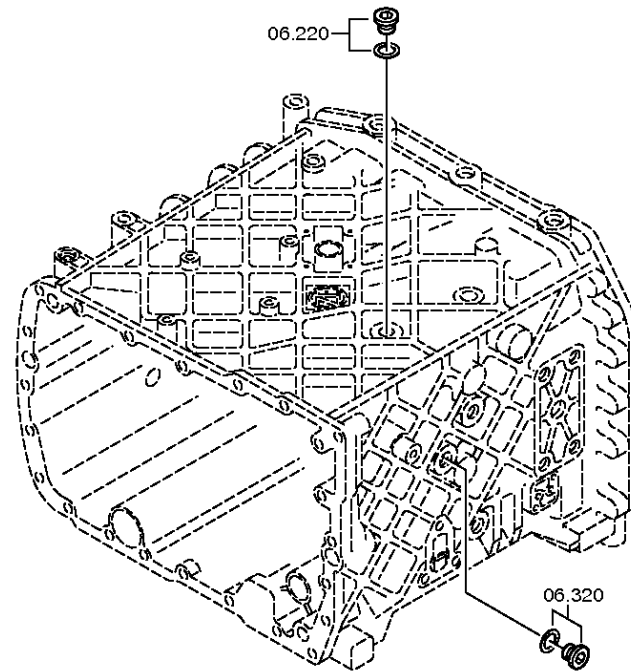
Material number: 1315.051.867

Plant: 068.06.43-1

SHIFT SYSTEM



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SHIFT SYSTEM



# Plant

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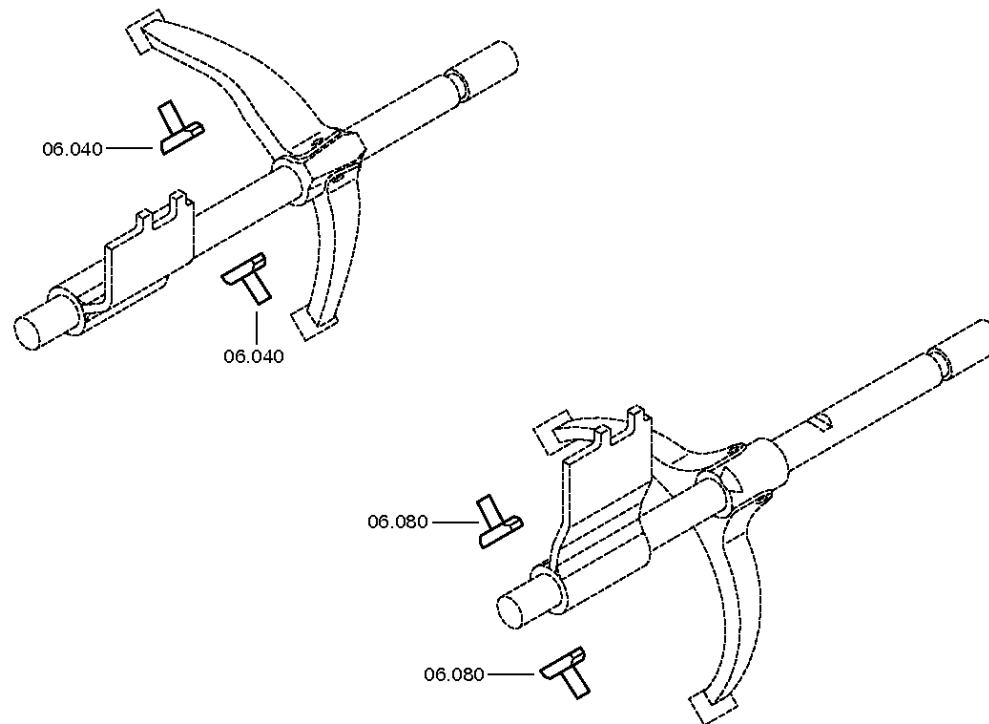
Material number: 1315.051.867

Plant: 068.06.80-1

SHIFT SYSTEM



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SHIFT SYSTEM



# Plant

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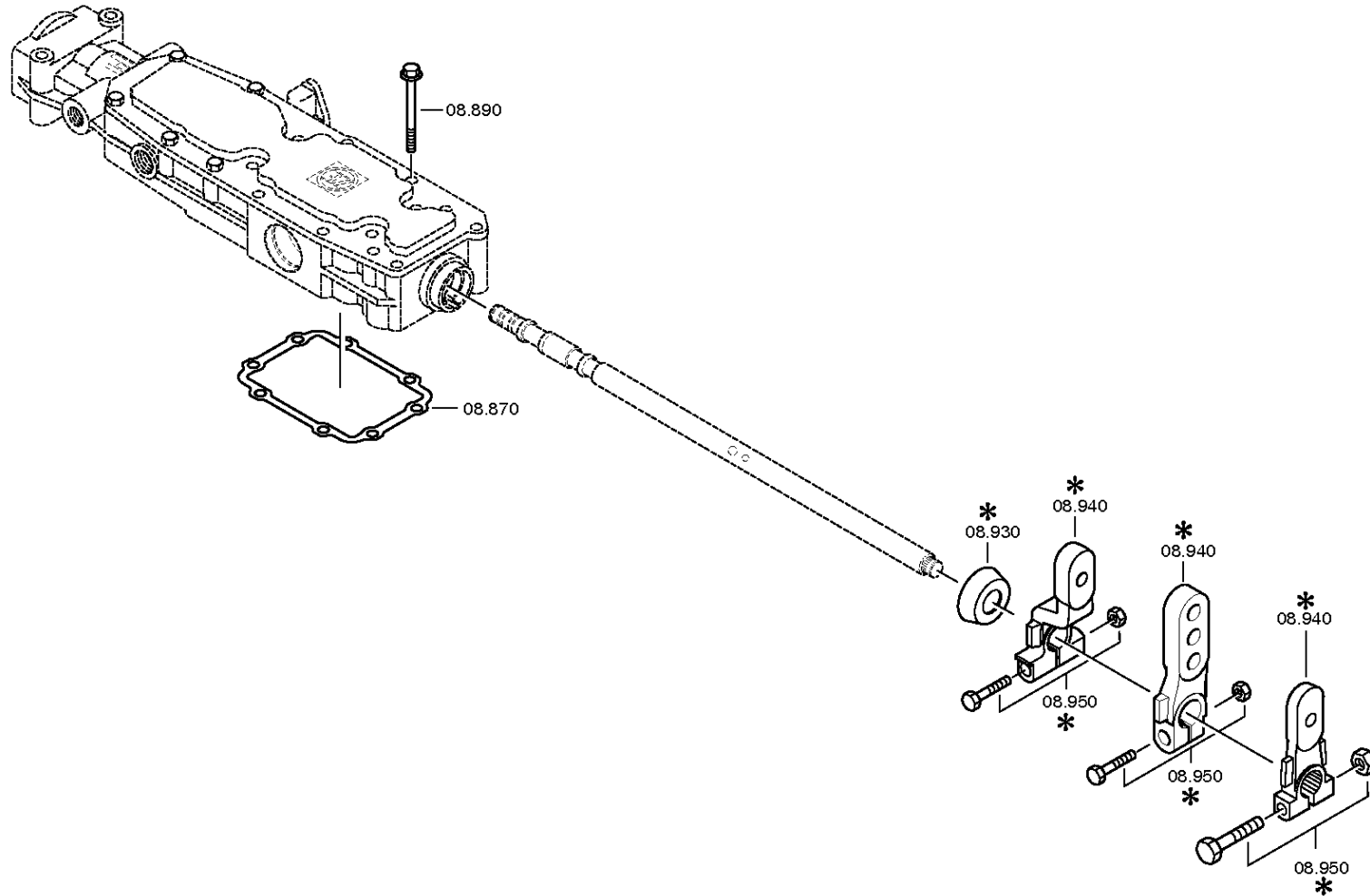
Material number: 1315.051.867

Plant: 068.07.81-1

GEAR SHIFT HOUSING



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GEAR SHIFT HOUSING



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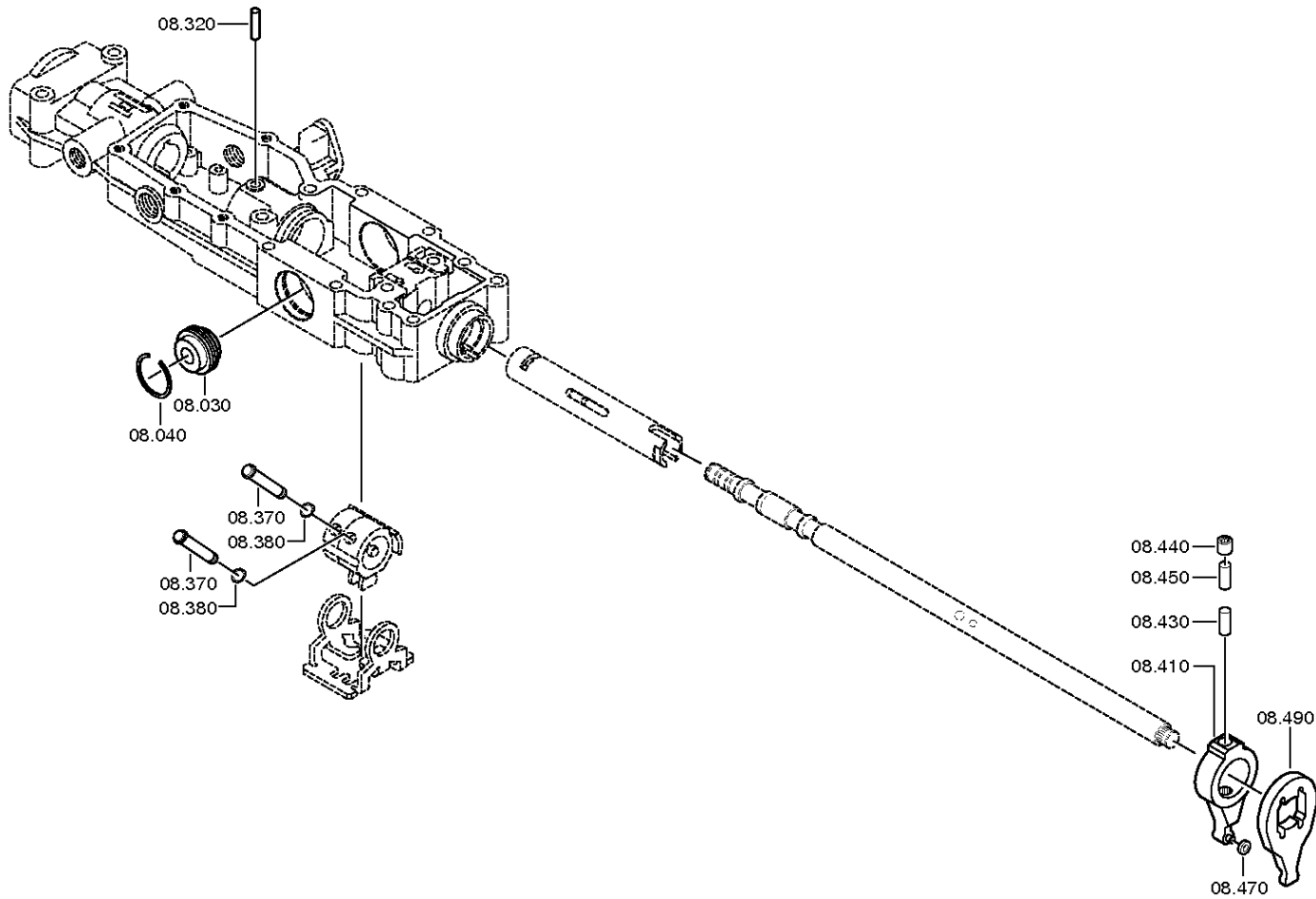
Material number: 1315.051.867

Plant: 068.07.25-1

GEAR SHIFT HOUSING



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GEAR SHIFT HOUSING



# Plant

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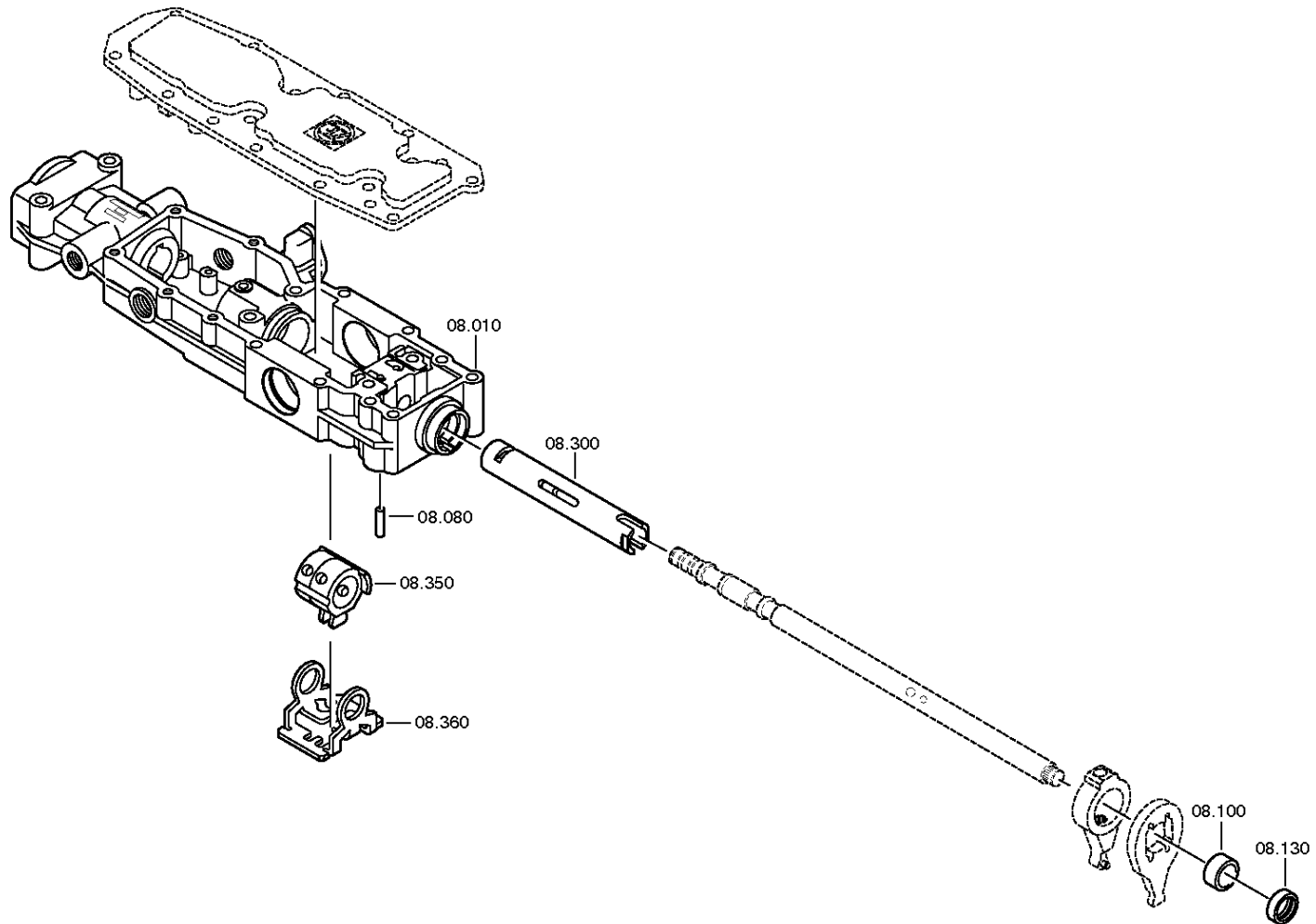
Material number: 1315.051.867

Plant: 068.07.36-1

GEAR SHIFT HOUSING



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GEAR SHIFT HOUSING





# Plant

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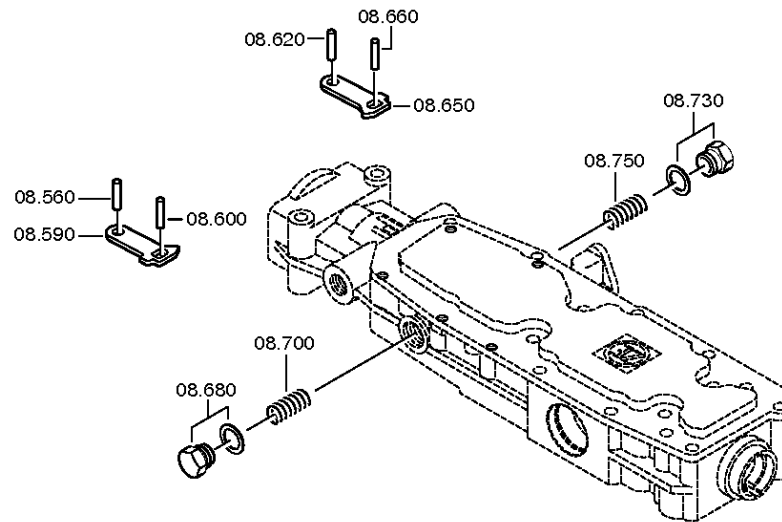
Material number: 1315.051.867

Plant: 068.07.55-1

GEAR SHIFT HOUSING



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GEAR SHIFT HOUSING



# Plant

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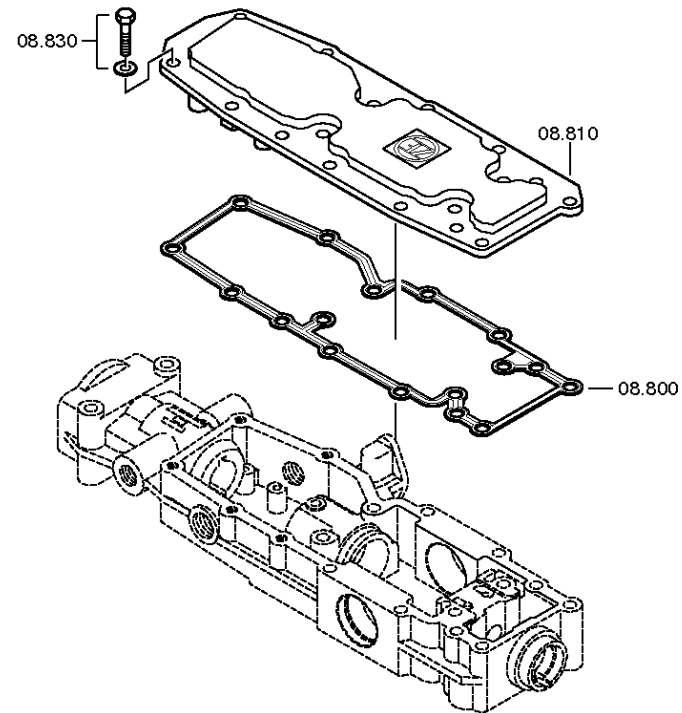
Material number: 1315.051.867

Plant: 068.07.57-1

GEAR SHIFT HOUSING



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GEAR SHIFT HOUSING



# Plant

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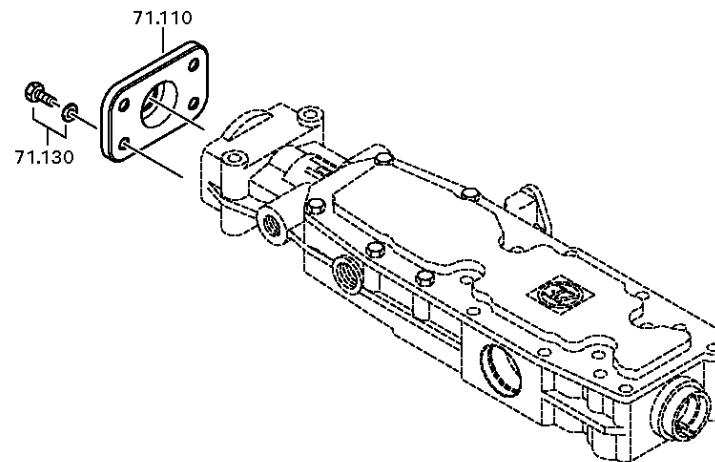
Material number: 1315.051.867

Plant: 062.08.30-1

END COVER



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END COVER



# Plant

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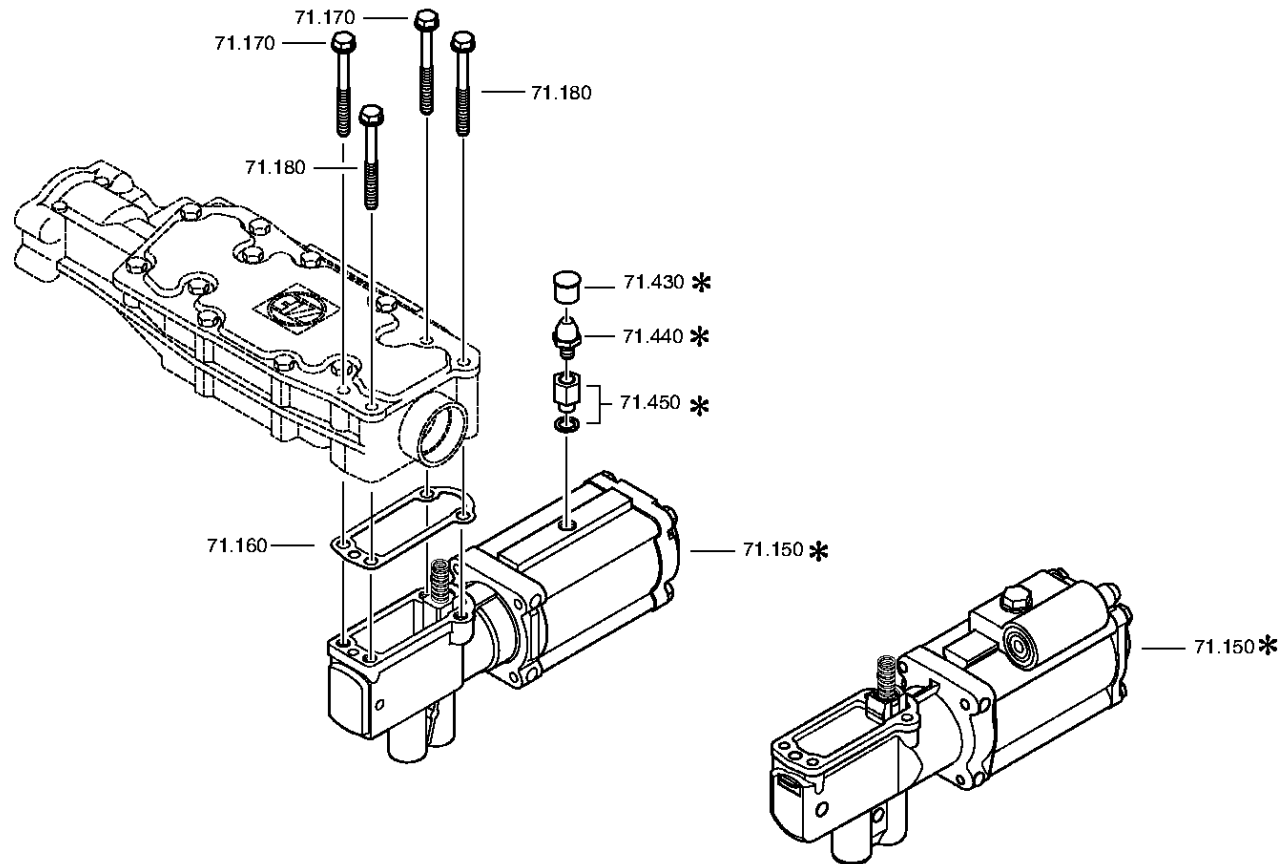
Material number: 1315.051.867

Plant: 068.08.02-1

END COVER



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END COVER



# Plant

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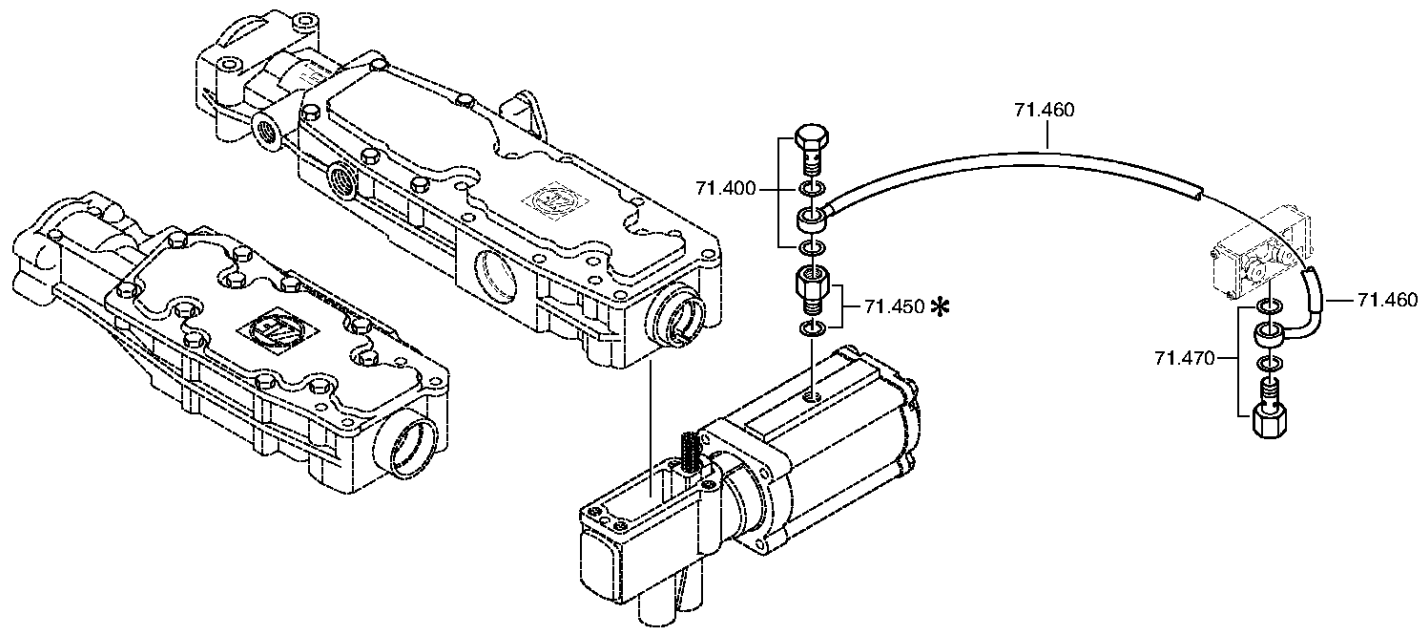
Material number: 1315.051.867

Plant: 068.08.85-1

END COVER



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END COVER



# Plant

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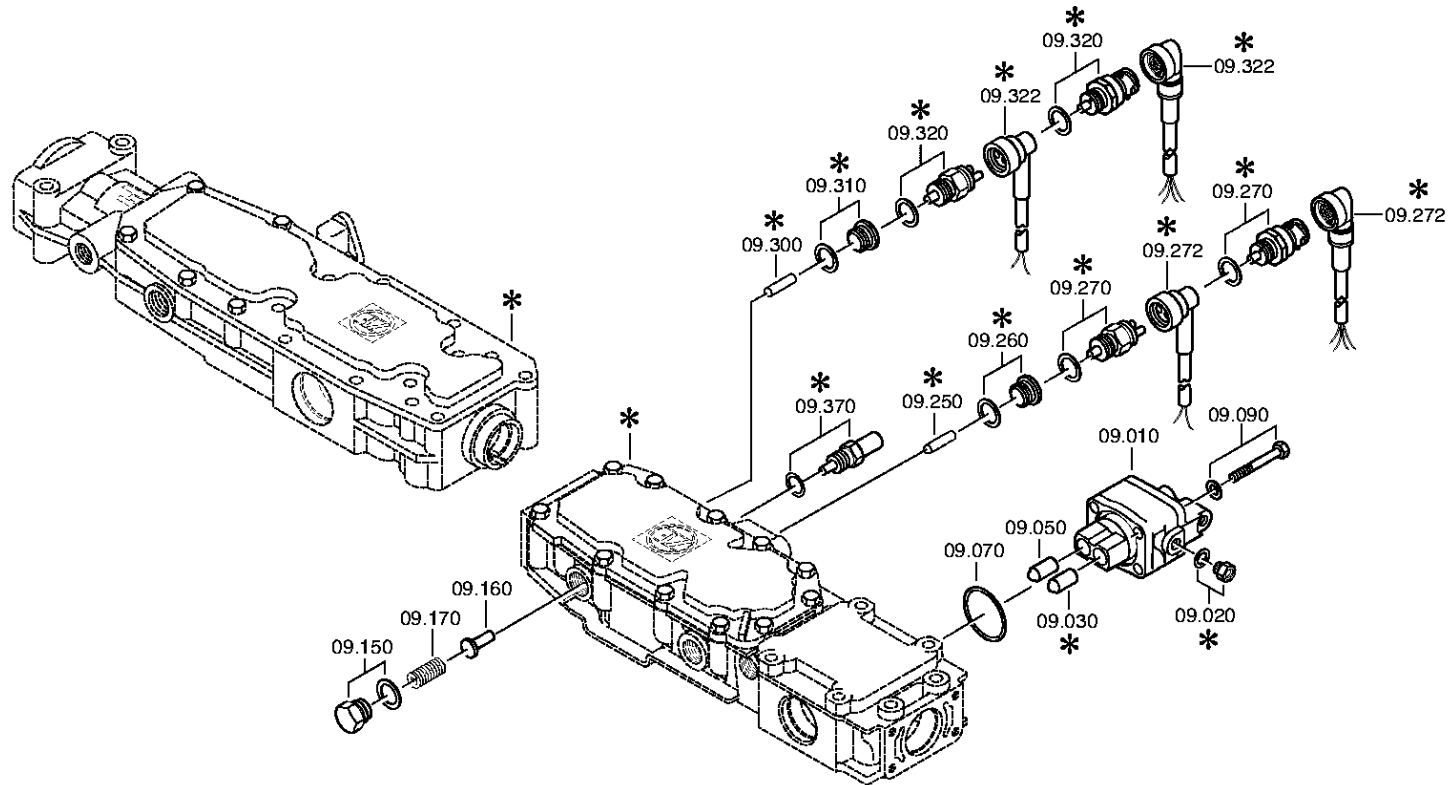
Material number: 1315.051.867

Plant: 068.09.01-1

CONNECTING PARTS



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CONNECTING PARTS



# Plant

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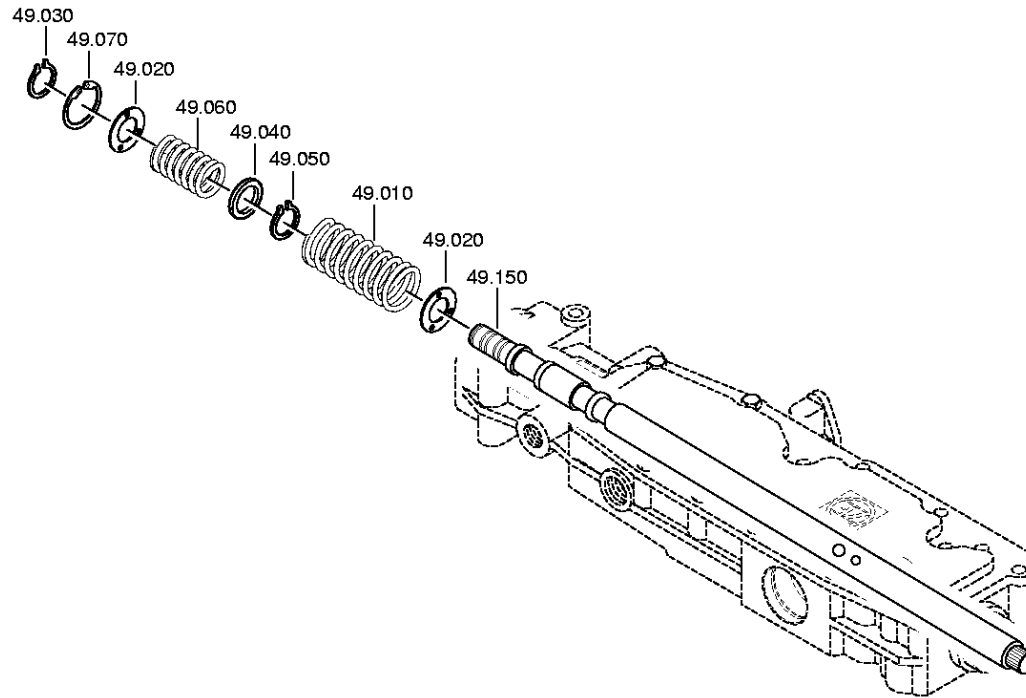
Material number: 1315.051.867

Plant: 068.12.16-1

Material-assembly-group-no: 1316.149.423



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SET OF SPRINGS







# Plant

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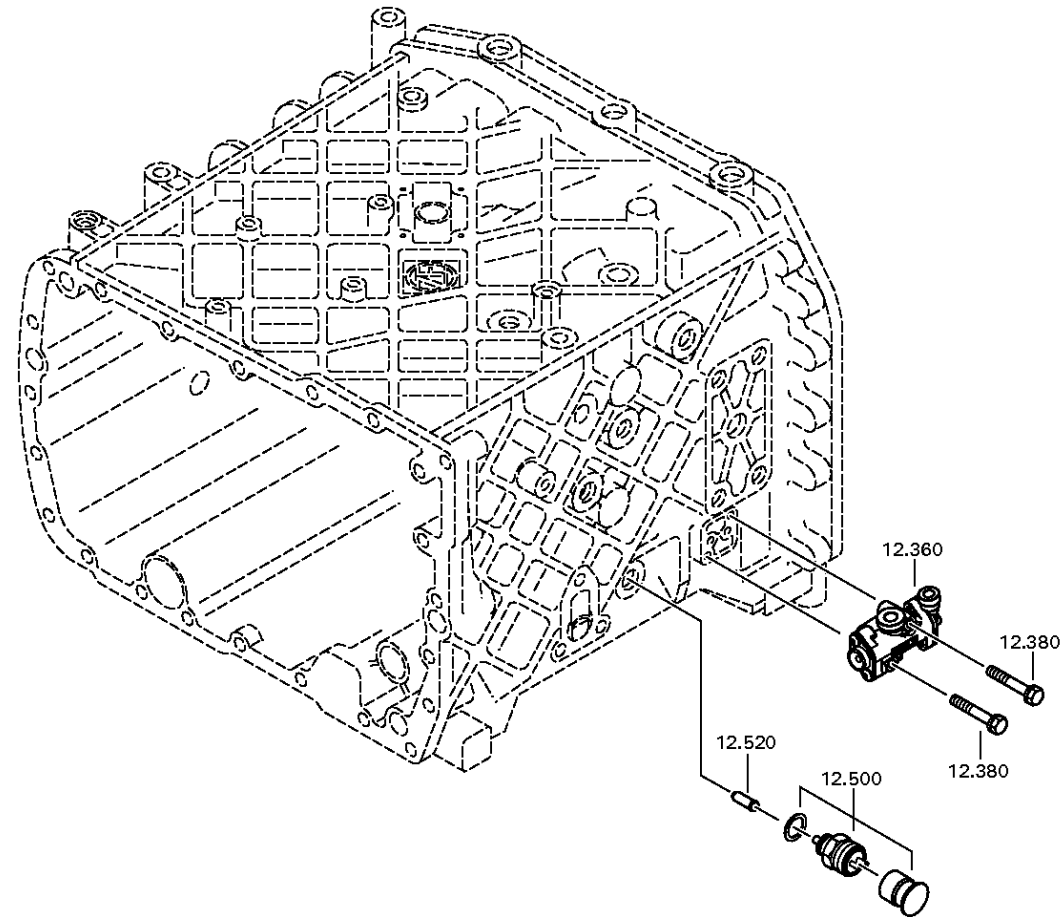
Material number: 1315.051.867

Plant: 068.40.42-1

GV-SHIFT SYSTEM



16 S 151 /  
GV-SHIFT SYSTEM



# Plant

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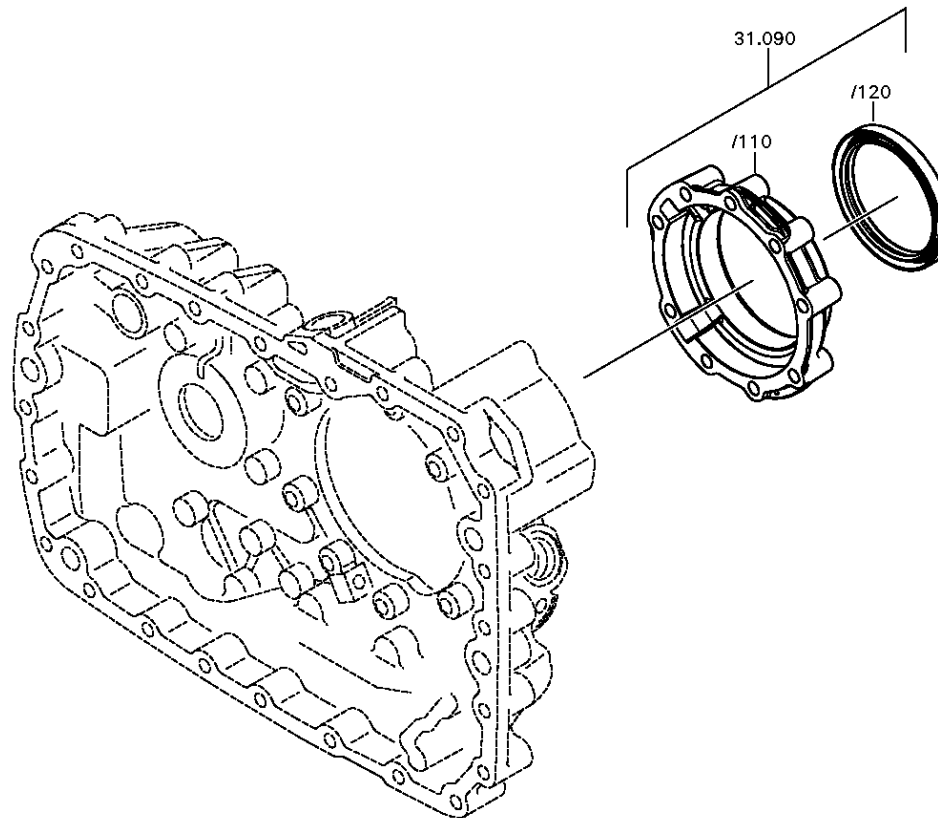
Material number: 1315.051.867

Plant: 068.43.21-1

COVER



16 S 151 /  
COVER



# Plant

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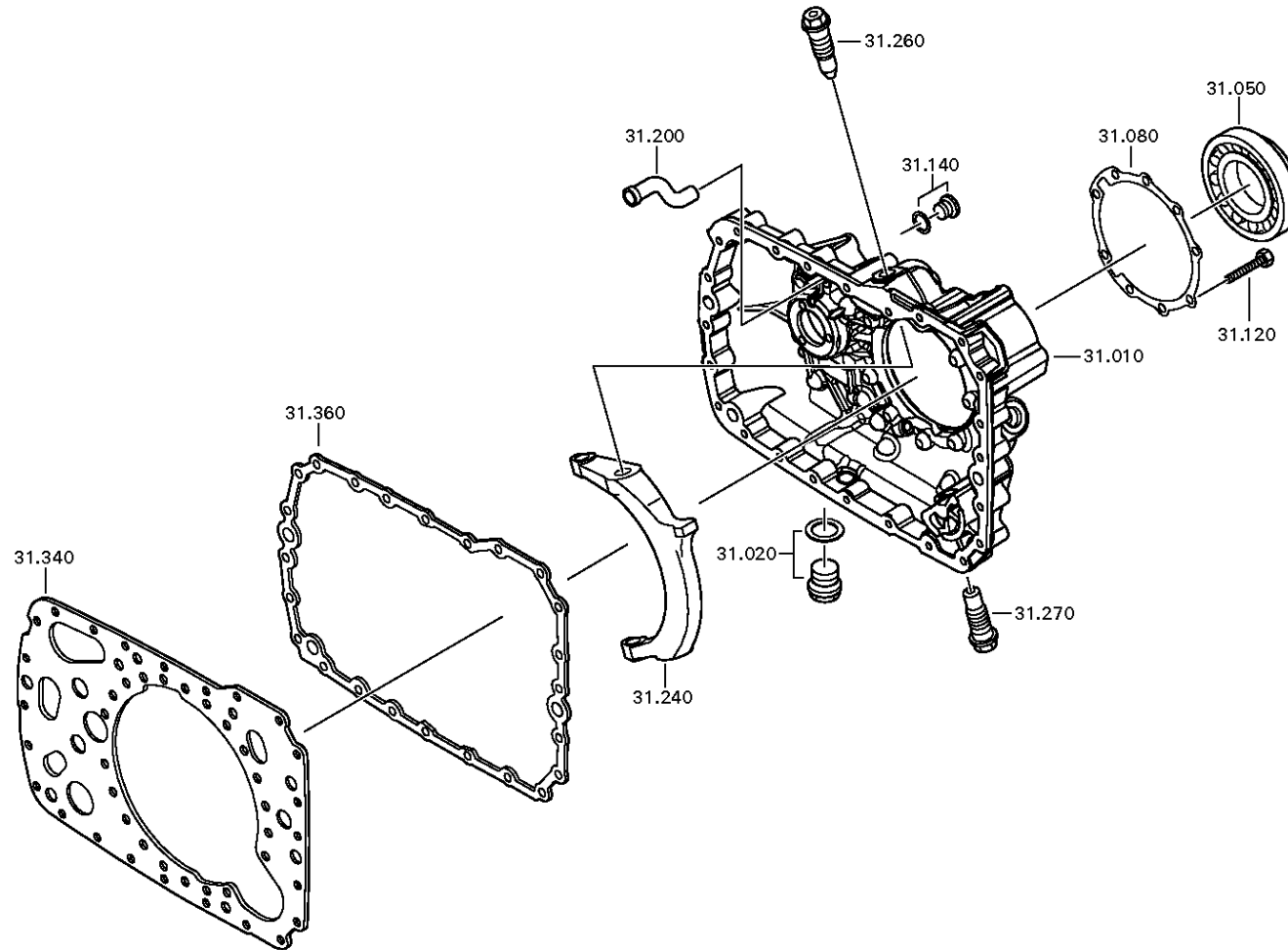
Material number: 1315.051.867

Plant: 068.43.06-1

COVER



16 S 151 /  
COVER



# Plant

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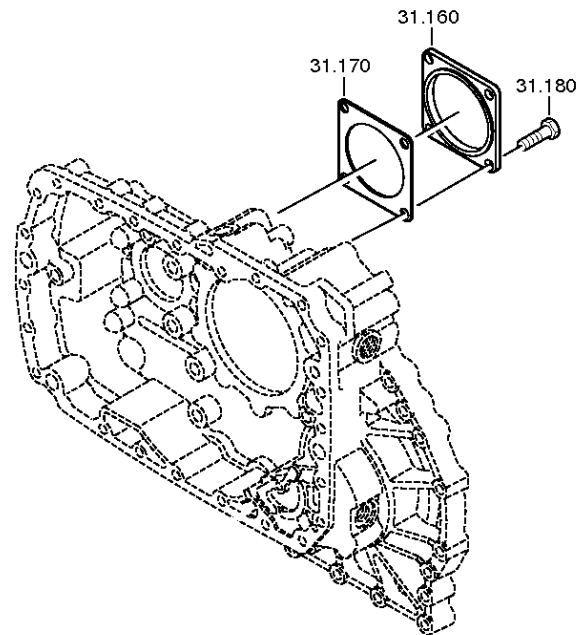
Material number: 1315.051.867

Plant: 068.43.40-1

COVER



16 S 151 /  
COVER



# Plant

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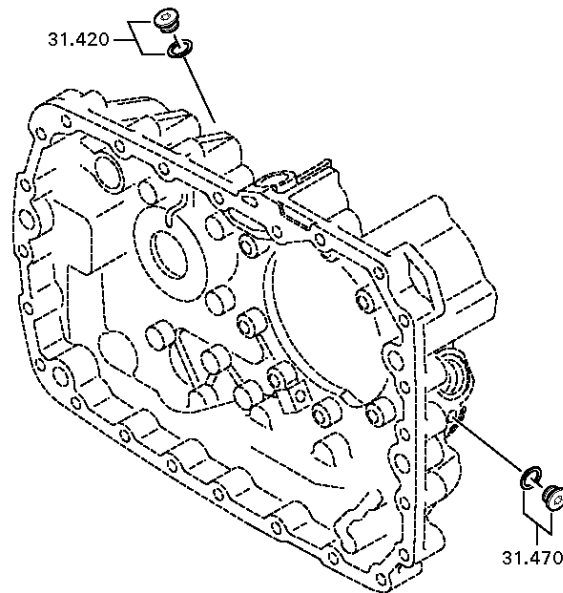
Material number: 1315.051.867

Plant: 068.43.45-1

COVER



16 S 151 /  
COVER



# Plant

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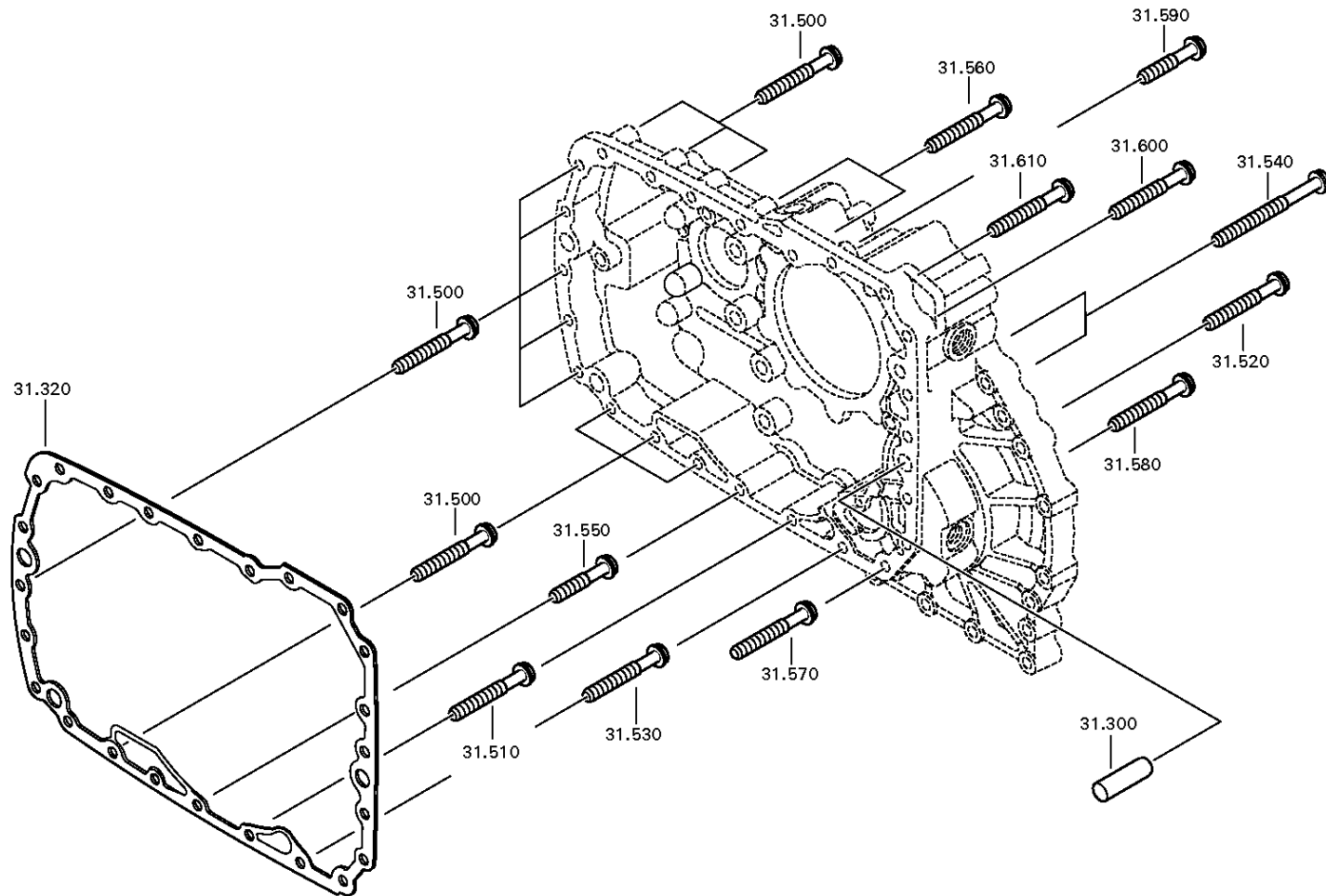
Material number: 1315.051.867

Plant: 068.43.80-1

COVER



16 S 151 /  
COVER



# Plant

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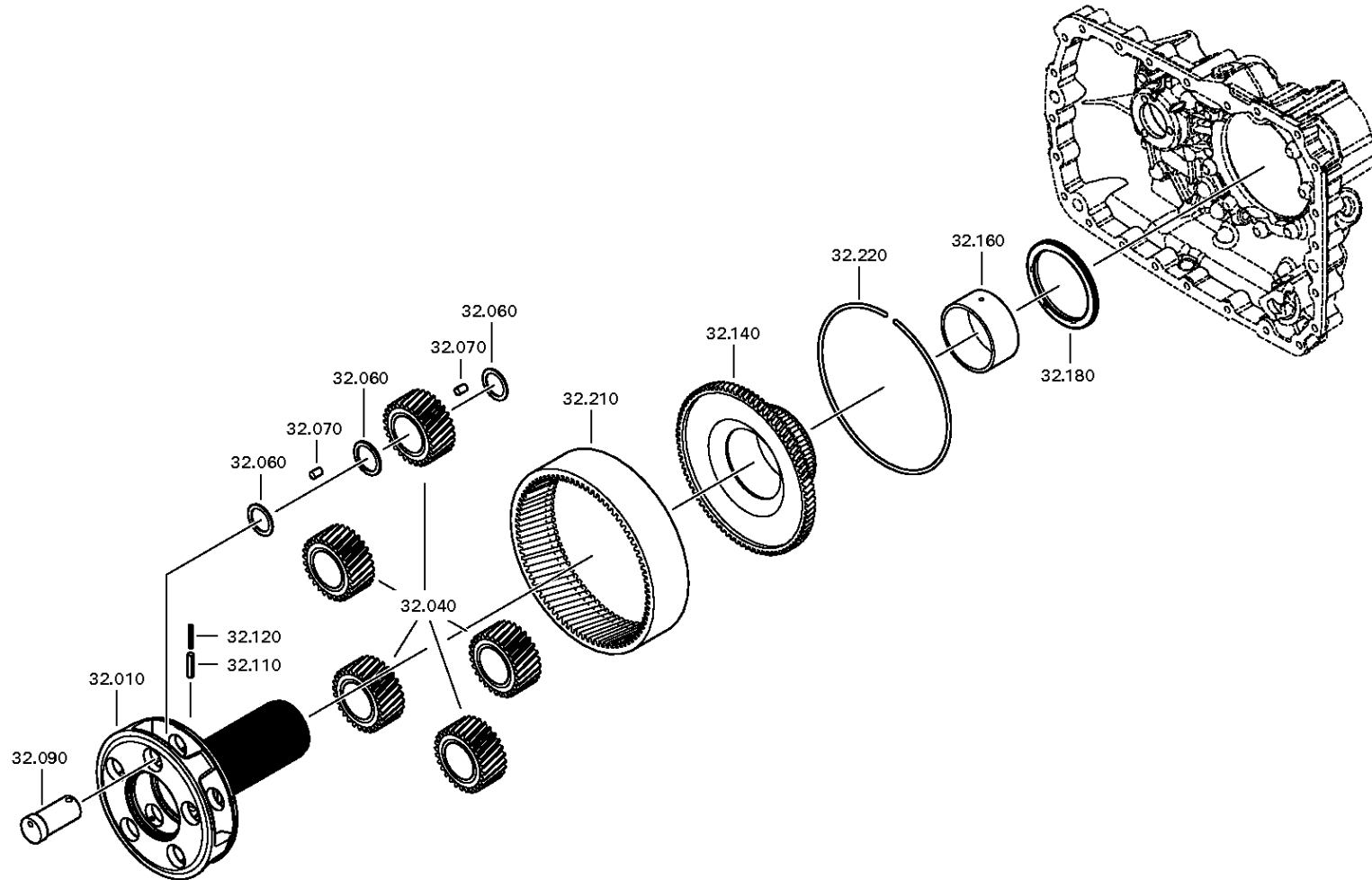
Material number: 1315.051.867

Plant: 068.44.07-1

PLANETARY DRIVE



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PLANETARY DRIVE



# Plant

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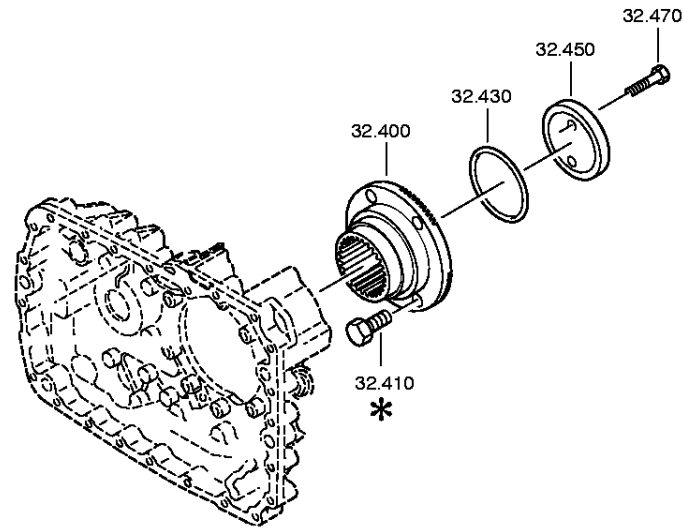
Material number: 1315.051.867

Plant: 068.44.41-1

PLANETARY DRIVE



16 S 151 /  
PLANETARY DRIVE





# Plant

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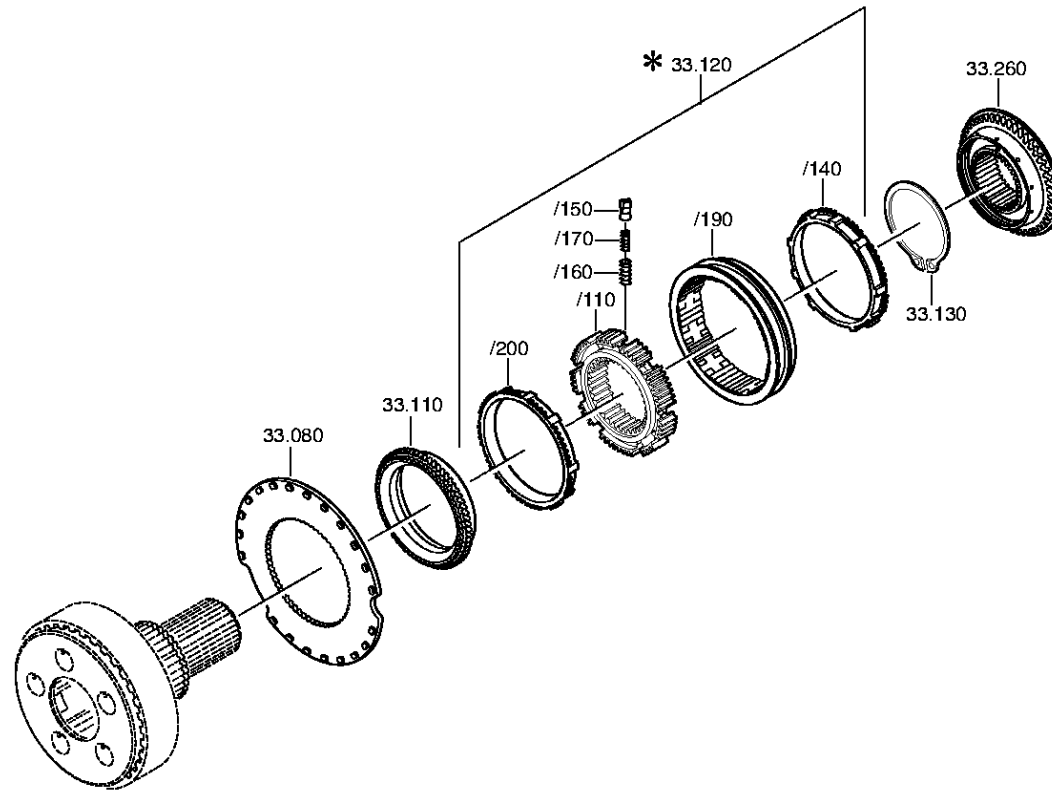
Material number: 1315.051.867

Plant: 068.45.04-1

SYNCHRONIZER



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SYNCHRONIZER



# Plant

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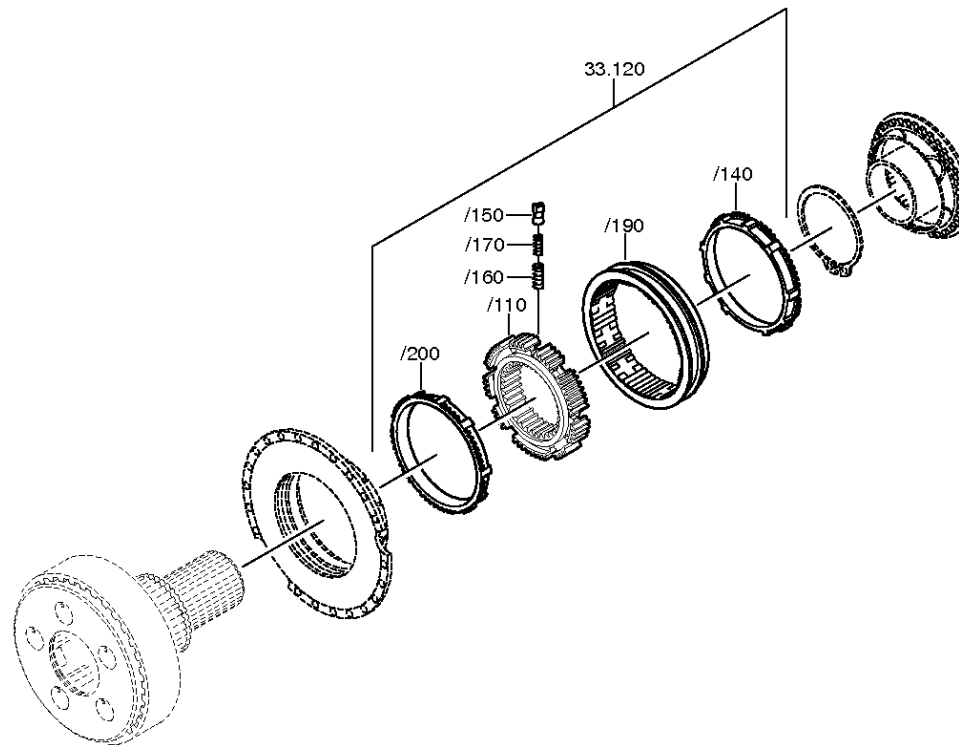
Material number: 1315.051.867

Plant: 068.45.40-1

SYNCHRONIZER



16 S 151 /  
SYNCHRONIZER



# Plant

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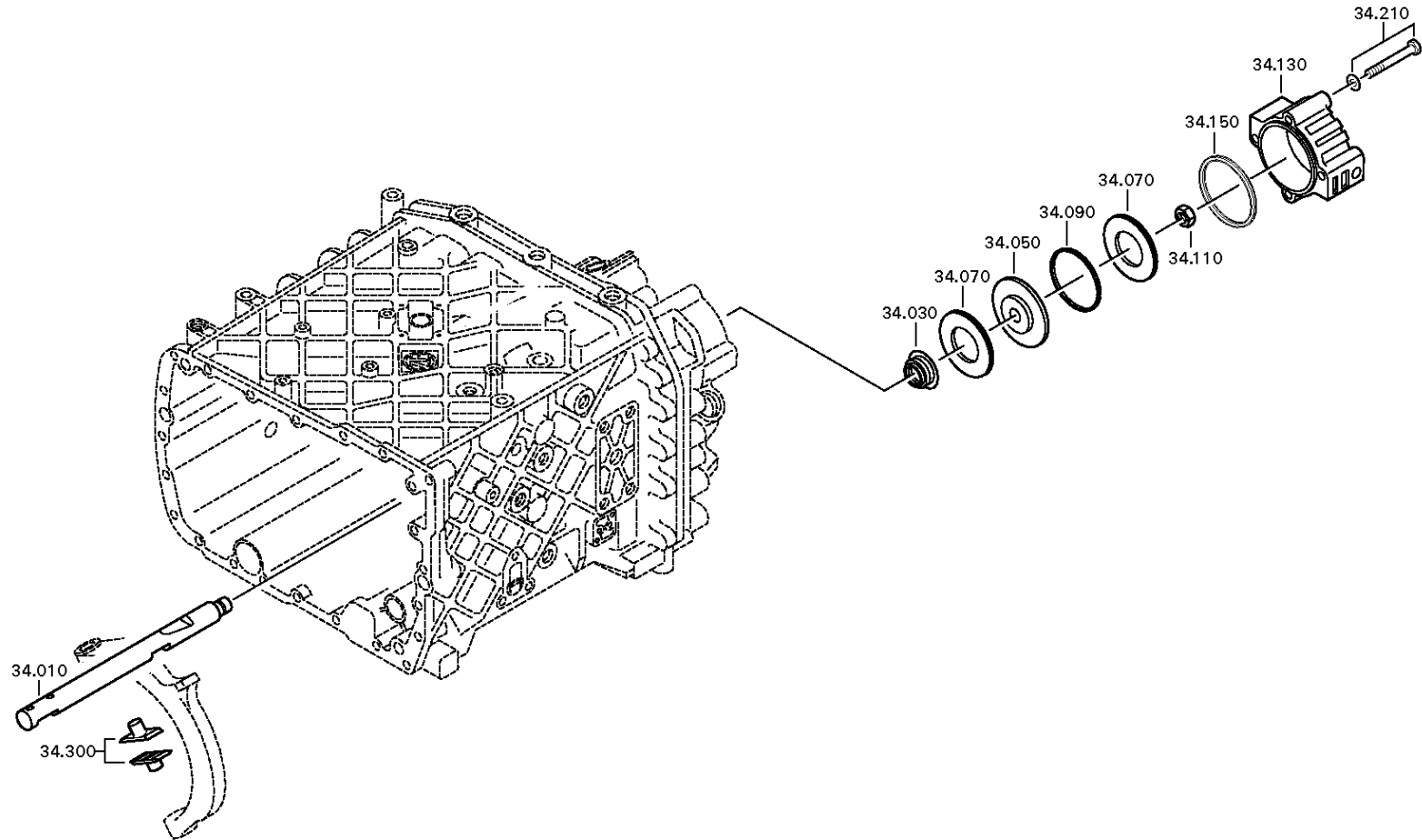
Material number: 1315.051.867

Plant: 068.46.03-1

GP SHIFT SYSTEM



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GP SHIFT SYSTEM



# Plant

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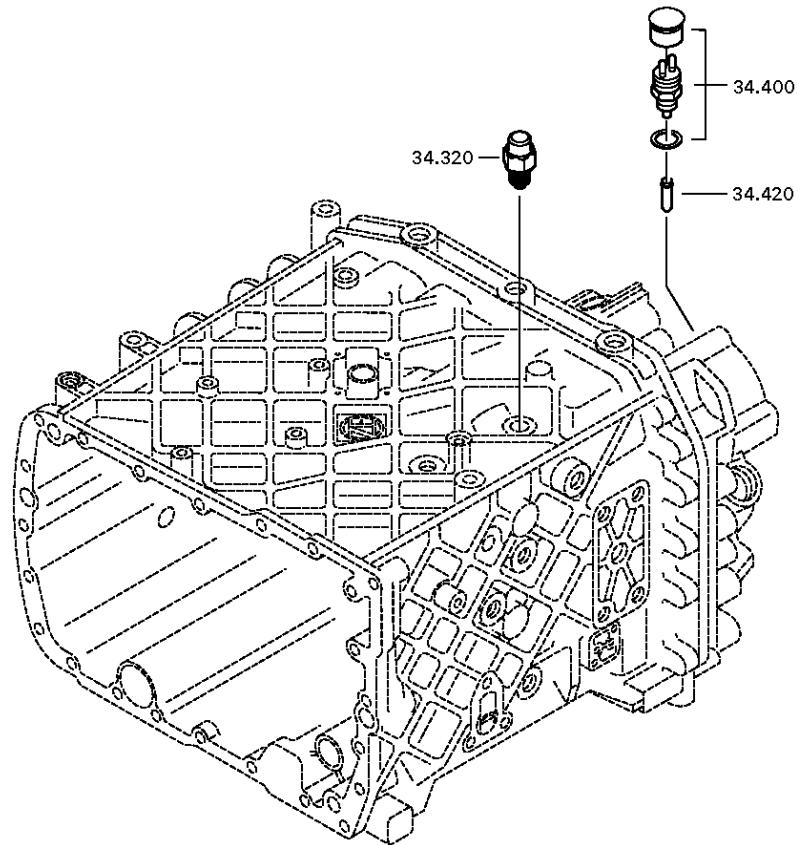
Material number: 1315.051.867

Plant: 068.46.40-1

GP SHIFT SYSTEM



16 S 151 /  
GP SHIFT SYSTEM



# Plant

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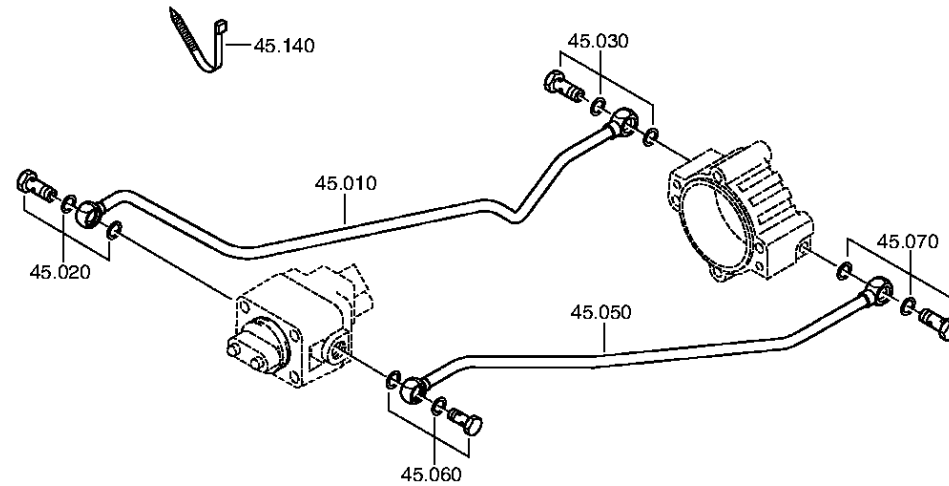
Material number: 1315.051.867

Plant: 068.57.04-1

Material-assembly-group-no: 1315.145.004



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RANGE SELECTION



# Plant

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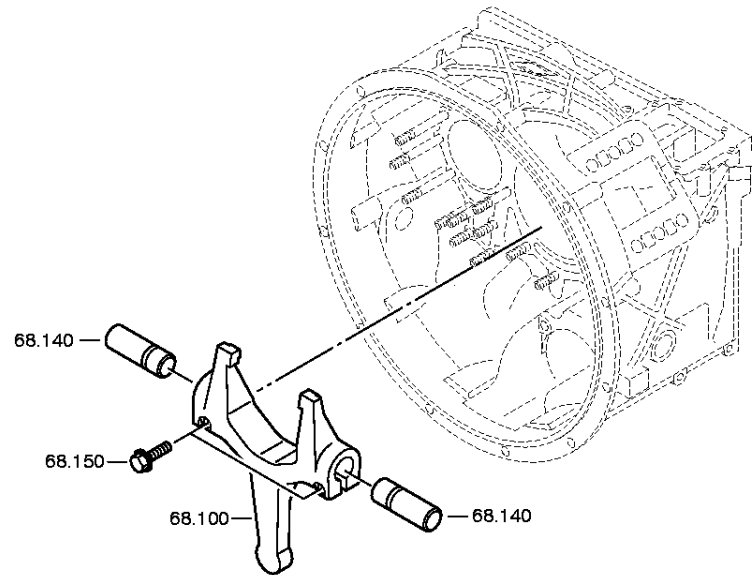
Material number: 1315.051.867

Plant: 068.93.13-1

Material-assembly-group-no: 1315.168.030



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CLUTCH RELEASE DEVICE



# Plant

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Material number: 1315.051.867

Plant: 073.R0.01-1

Material-assembly-group-no: 1272.298.934



16 S 151 /  
SMALL COMP.SET

