Spare Parts Catalog

16 S 109

Material number: 1304.050.404

Current date: 18.05.2001

ZF Friedrichshafen AG
Hauptverwaltung
80038 Friedrichshafen
Deutschland
Telefon: +49 7541 77-0
Telefax: +49 7541 77-908000
www.zf.com

zuständiges Werk:
Friedrichshafen

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Notes relating to the spare parts catalog

Setup of the spare parts catalog

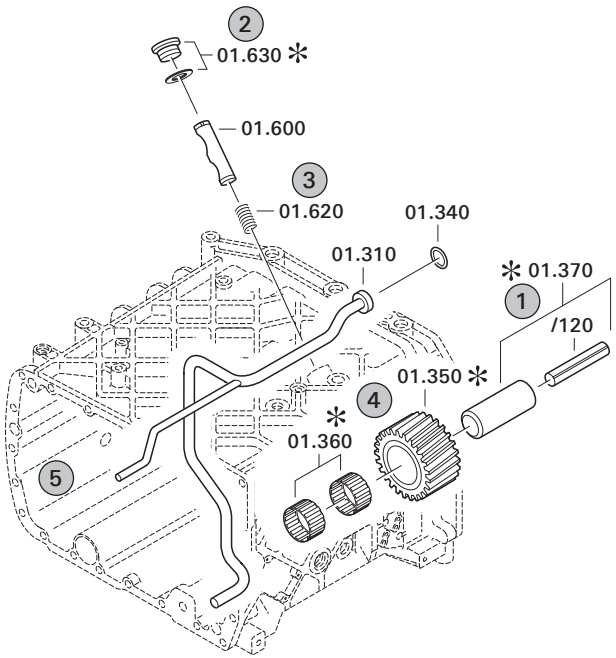
- Cover sheet
- Tecnical Cover (only in SDM print)
- Overview of figures
- Figure
- Associated parts list
- Next figure
- Associated parts list
- ...

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

Figure and parts list



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 distina base

5 Parts, dotted display

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

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Pos.	Information	Amendment number
001	Use case ----------	
002	Customer MAN	
003	City NN	
004	DUNS	
005	Vehicle / Apparatus ----------	
006	Sales Name 19.262F	
007	Manufacturer MAN	
008	Engineering Name	
009	Product Use TRUCK	
010	Vehicle/Hardware Type ROAD TRACTOR	
011	SOP	
012	Engine	
013	Sales Designation	
014	Manufacturer MAN	
015	Eng.Displ.	
016	Cylinder	
017	Nom. power 191 kW	
018	RPM at nom. power 2200 1/min	
019	Nom. torque 1100 Nm	
020	RPM at nom. torque 1000 1/min	
021	Classification use case ----------	
024	TOTAL NUMBER OF WHEELS 4	
025	NUMBER OF DRIVING WHEELS 2	
026	DYNAMIC TYRE RADIUS 527 mm	
027	REAR AXLE RATIO 4.62	
032	PERMISS.GROSS COMBIN.WEIGHT 40 t	
033	Product description ----------	
034	INSTALLATION POS TRANSMISSION HORIZONTAL LEFT	
035	TRANSMISSION ATTACHMENT FLANGE-MOUNTED	
036	RATIO, BOTTOM GEAR 13.53	
037	RATIO, TOP GEAR .82	
038	SET OF RATIOS SG	
039	RATIO, 1ST GEAR 13.53	

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Pos.	Information	Amendment number
040	RATIO, 2ND GEAR 11.1	
041	RATIO, 3RD GEAR 9.58	
042	RATIO, 5TH GEAR 6.51	
043	RATIO, 4TH GEAR 7.86	
044	RATIO, 7TH GEAR 4.52	
045	RATIO, 9TH GEAR 2.99	
046	RATIO, 11TH GEAR 2.12	
047	RATIO, 6TH GEAR 5.34	
048	RATIO, 13TH GEAR 1.44	
049	RATIO, 15TH GEAR 1	
050	RATIO, 8TH GEAR 3.71	
051	RATIO, 1ST GEAR REVERSE 12.46	
052	RATIO, 10TH GEAR 2.45	
053	RATIO, 12TH GEAR 1.74	
054	RATIO, 14TH GEAR 1.18	
055	RATIO, 16TH GEAR .82	
056	RATIO, 2ND GEAR REVERSE 10.23	
057	RATIO PLANETARY GEAR SET 4.52	
058	NUMBER OF PLANETARY GEARS 5	
060	DESIGN, SHIFT SYSTEM TURNING SHAFT	
061	POSITION, GEAR SHIFT SYSTEM HORIZONTAL LEFT	
062	DESIGN, SHIFT PATTERN H-H	
063	VERSION TUBE R/C PLASTIC-FORM-PIPE	
068	DESIGN, SEPARATING CLUTCH FULL-SYNCHRONIZED	
069	REFERENCE LENGTH INPUT SHAFT 260 mm	
070	STANDARD TYPE INPUT SHAFT SAE	
071	NUMBER OF WEDGES INPUT SHAFT 10	
072	VERSION OF INPUT SHAFT FORM C	
073	NOMINAL DIAMETER INPUT SHAFT 1.75 in	
074	DIAMETER, JOURNAL, INPUT SHAFT 25 mm	
075	TYPE FIT SPIGOTS INPUT SHAFT F7	
076	DIAMETER SHAFT OF INPUT SHAFT 44 mm	
077	BUSH VARIANT INPUT SHAFT WITHOUT GROOVE	

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Pos.	Information	Amendment number
078	DIAMETER, RELEASE FLANGE 57 mm	
079	TYPE FIT RELEASE BEARING FLA. E8	
080	SEALING CAP RELEASE BEAR.FLAN y	
081	DESIGN BEARING OUTPUT STANDARD SUSPENSION	
082	OUTER DIA. OUTPUT FLANGE RA 150 mm	
084	NO.OF BORES OUTPUT FLANGE HA1 4	
085	BORE DIA. OUTPUT FLANGE RA 13 mm	
088	REF. LENGTH OUTPUT FLANGE RA 103 mm	
092	DIMENSION SHIFT TURRET DIST. 261 mm	
093	MEAS. LOC. SHIFT TURRET DIST. SHIFT LEVER OUTSIDE EDGE	
096	RADIUS 1 SHIFT LEVER 55 mm	
097	DESIGN, OFFSET, SHIFT LEVER OUTSIDE	
099	LOCATION GEAR SHIFT LEVER TAPER OUTSIDE	
102	LEVER POSITION SHIFTING OUTPUT A	
109	GEAR SHIFT LEVER ANGLE EPSILON 17 GRAD	
112	SPRING ARRANGEMENT Q3	
113	TOOLING SET OF SPRINGS W082	
114	SPRING FORCE DETENT PLUNGER RG 120 N	
115	SPRING FORCE,GEAR DETENT NG+GG 158 N	
118	SELECTION PATTERN VARIANT GEAR SHIFT PATTERN 2	
126	SWITCH, REVERSE GEAR y	
127	DESIGN, RG (REV.GEAR) SWITCH OPENING SWITCH	
128	NOTE ON SWITCH, REVERSE GEAR GEAR SHIFT RAIL	
129	PROT.CAP SWITCH, REVERSE GEAR y	
130	DESIGN, CONNECTION, RG SWITCH DIN BAYONET	
131	SWITCH, NEUTRAL GEAR y	
132	DESIGN,NG(NEUTRAL GEAR)SWITCH WITHOUT GROOVE	
133	PROT.CAP SWITCH, NEUTRAL GEAR n	
135	FUNCTION OF R/C SWITCH GP	
136	STANDARDS TYPE HOLLOW FLANGE HEXAGON SCREW	
137	DESIGN, GP SWITCH CLOSING	
138	PROTECTING CAP GP SWITCH y	
139	DESIGN, CONNECTION, GP SWITCH DIN BAYONET	

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Pos.	Information	Amendment number
150	ATTACHED AGRREGATES 1 WITHOUT WSK	
151	FUNCTION OF S/G SWITCH GV	
152	DESIGN, GV SWITCH CLOSING	
153	PROTECTING CAP GV SWITCH y	
154	DESIGN, CONNECTION, GV SWITCH DIN BAYONET	
158	ATTACHM.POS.HEAT EXCHANGER WITHOUT GROOVE	
160	VER. TRANSMISSION VENTILATION BREATHER	
163	REF.LENGTH,RELEASE BEAR.FLAN 147 mm	
165	ATTACHMENT VARIANT, RETARDER WITHOUT	
193	DESIGN PULSE SENSOR INPUT WITHOUT GROOVE	
194	PROT.CAP PULSE SENSOR INPUT n	
198	NO. PULSES PULSE SENSOR SFAH68 8 IMP/U	
200	VERSION PULSE SENSOR SFA H68 WITH	
202	PROT.CAP PULSE SENSOR SFA H68 n	
232	NOTE ON OIL FILL FILL IN OVERFLOW	
233	POSITION, OIL FILLER HOUSING, LH SIDE	
235	OIL CAPACITY, GEARBOX 9 dm3	
236	OIL FILL VARIANT EX WORKS	
237	OIL GRADE PERMISSIBLE ACC. TO TE-ML02	
238	OIL CLASS FIRST FILLING C	
239	COLOR JET BLACK	
240	COLOUR CLASSIFICATION ACC. TO RAL 9005	
241	PAINTING, ZF STANDARD 915 W	
243	CODING OUTER CONSERVATION KA1	
244	SCOPE OUTER CONSERVATION T	
245	CODING INNER CONSERVATION KI2	
246	CONSERVATION SPECIFICATION ZFN 916	
252	Alias ID ---------- ----------	
253	MAN 81.32003-6307	

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Picture	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
062.01.11-1	110	1304.101.261	TRANSMISSION HOUSING	1		
062.001.041-1	118	1304.101.402	CONNECTING PARTS	1		
062.01.84-1	120	1304.101.928	TRANSMISSION HOUSING	1		
062.01.90-1	122	1304.101.800	CLOSING COMPONENTS	1		
062.02.40-1	140	1304.102.480	CONNECTION PLATE	1		
062.02.81-1	150	1304.102.807	INPUT SHAFT	1		
062.02.03-1	910	1304.102.121	INPUT SHAFT	1		
062.03.80-1	180	1304.103.804	COUNTERSHAFT	1		
062.03.05-1	920	1304.103.043	COUNTERSHAFT	1		
062.04.05-1	930	1304.104.117	MAIN SHAFT	1		
062.06.22-1	230	1304.106.123	SHIFT SYSTEM	1		
062.06.48-1	238	1304.106.445	CONNECTING PARTS	1		
062.07.03-1	282	1304.107.803	GEAR SHIFT HOUSING	1		
062.07.03-1	910	1304.107.224	GEAR SHIFT HOUSING	1		
062.07.47-1	914	1304.107.510	GEARSHIFT SHAFT	1		
062.08.01-1	926	1304.170.016	SHIFT TURRET	1		
	930	1304.170.002	COVER	1		
	934	1304.170.803	COVER	1		
062.12.05-1	922	1304.149.133	SET OF SPRINGS	1		
062.40.01-1	500	1304.112.006	GV-SHIFT SYSTEM	1		
062.40.40-1	504	1304.112.413	CONNECTING PARTS	1		
062.43.02-1	20	1304.131.052	RC HOUSING	1		
062.43.40-1	30	1304.131.400	CLOSING COMPONENTS	1		
	512	1304.131.825	RC HOUSING	1		
062.44.12-1	40	1304.132.093	PLANETARY DRIVE	1		
062.44.55-1	50	1304.132.500	PLANETARY DRIVE	1		
	60	1304.132.804	PLANETARY DRIVE	1		
062.45.05-1	70	1304.133.010	SYNCHRONIZER	1		
062.45.40-1	80	1304.133.404	SYNCHRONIZER	1		
062.46.05-1	90	1304.134.033	GP SHIFT SYSTEM	1		
062.46.40-1	554	1304.134.408	CONNECTING PARTS	1		

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Picture	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
062.47.02-1	190	1304.135.007	SPEEDOMETER COVER	1		
	194	1304.135.803	SPEEDOMETER COVER	1		
062.57.04-1	390	1304.145.008	RANGE SELECTION	1		

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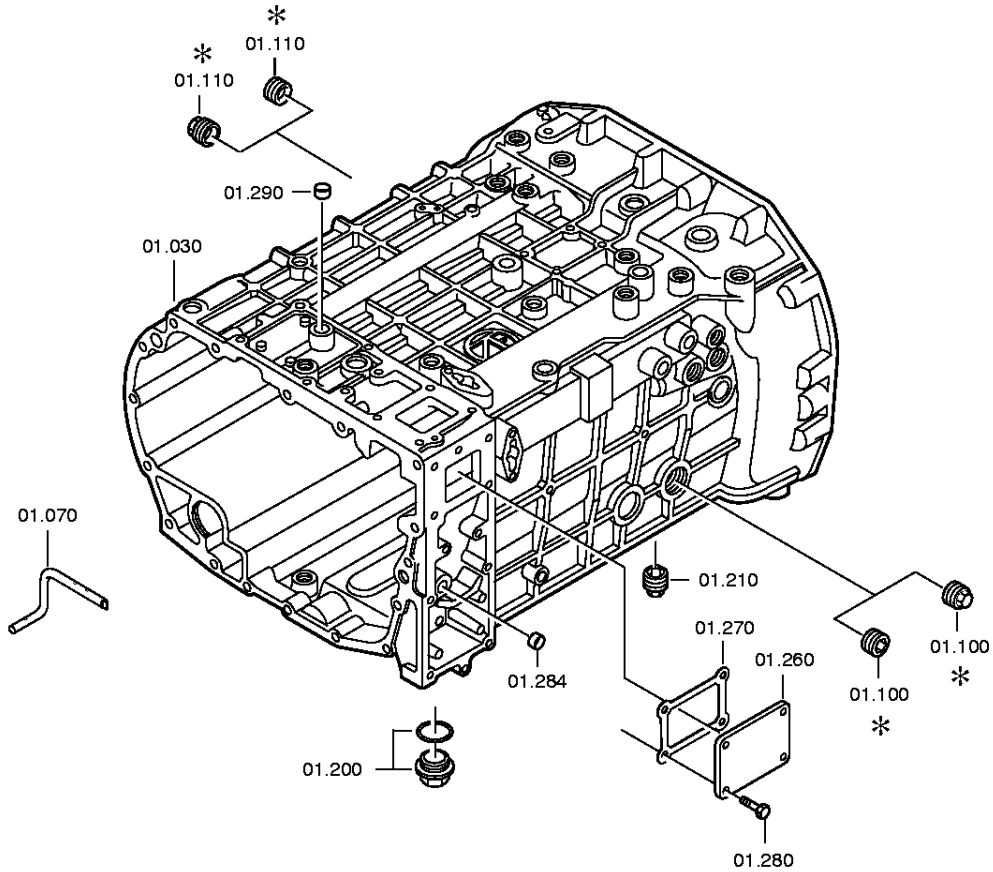
Material number: 1304.050.404
Picture: 062.01.11-1
TRANSMISSION HOUSING



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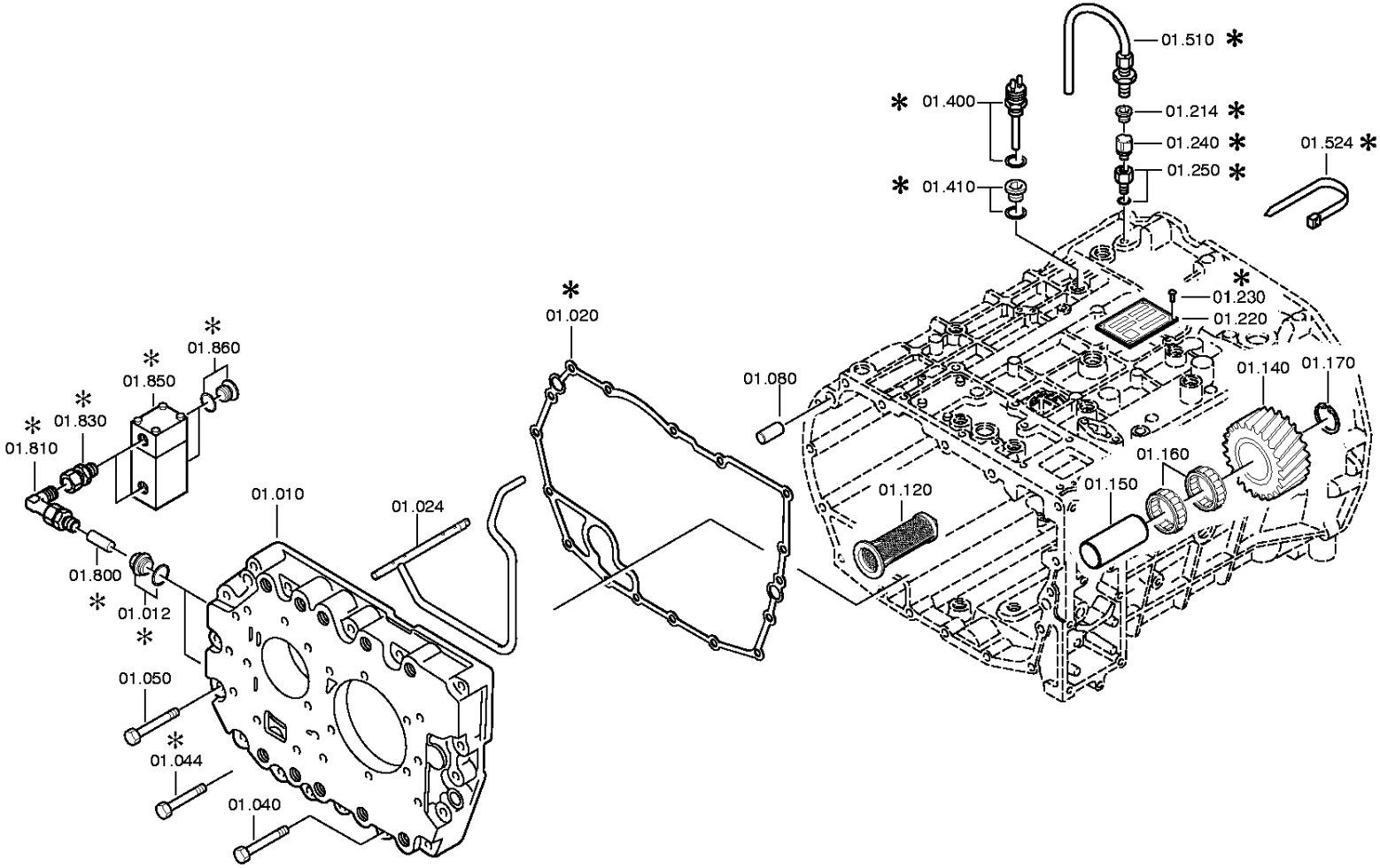
Material number: 1304.050.404
Picture: 062.01.84-1
TRANSMISSION HOUSING



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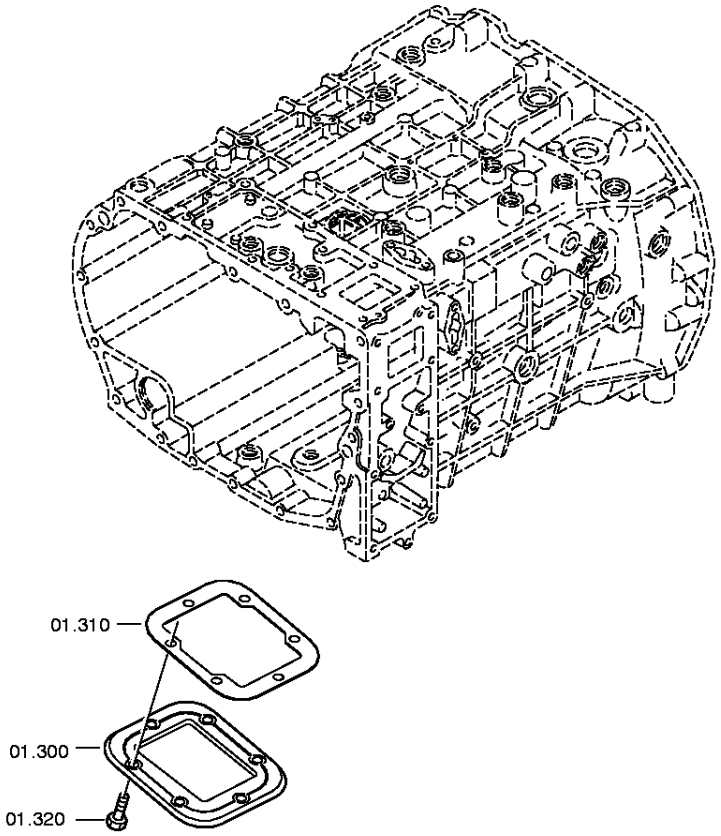
Material number: 1304.050.404
Picture: 062.01.90-1
TRANSMISSION HOUSING



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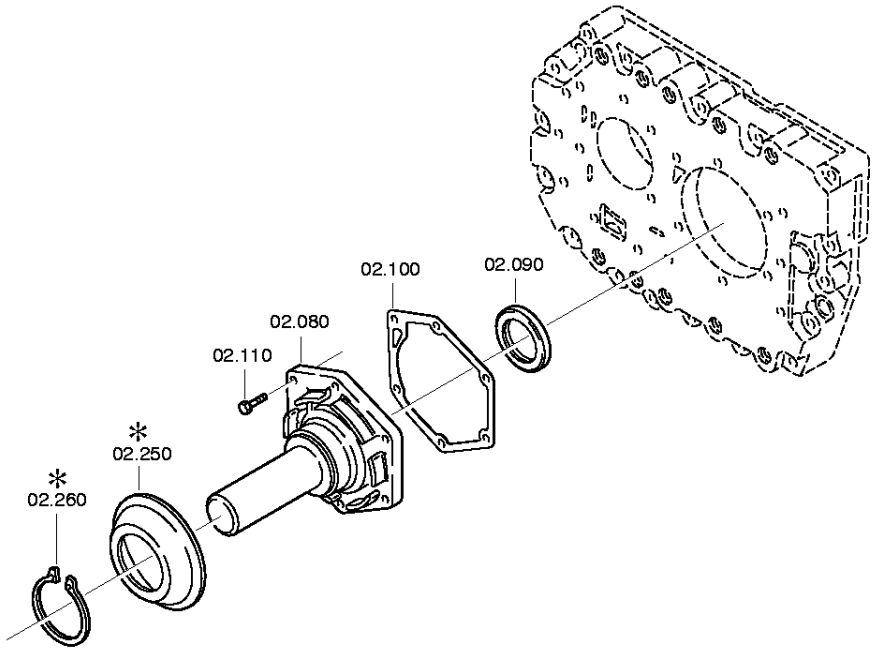
Material number: 1304.050.404
Picture: 062.02.40-1
CONNECTION PLATE



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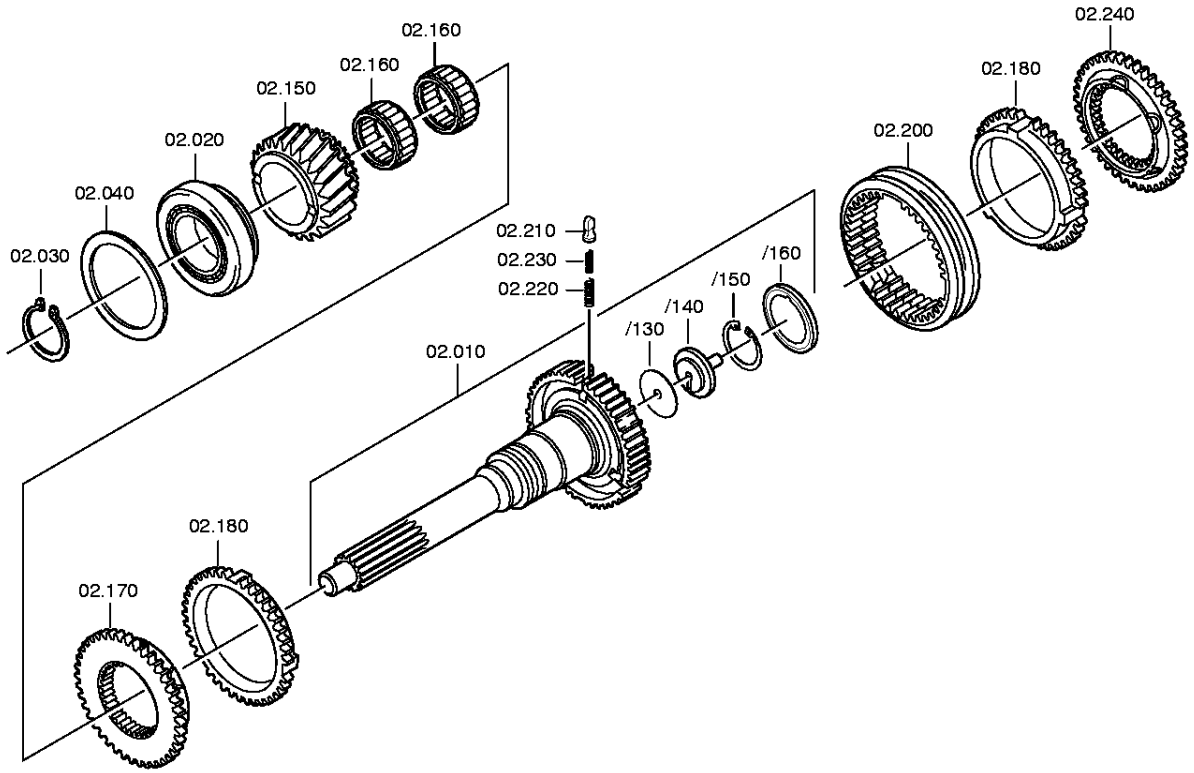
Material number: 1304.050.404
Picture: 062.02.03-1
CONNECTION PLATE



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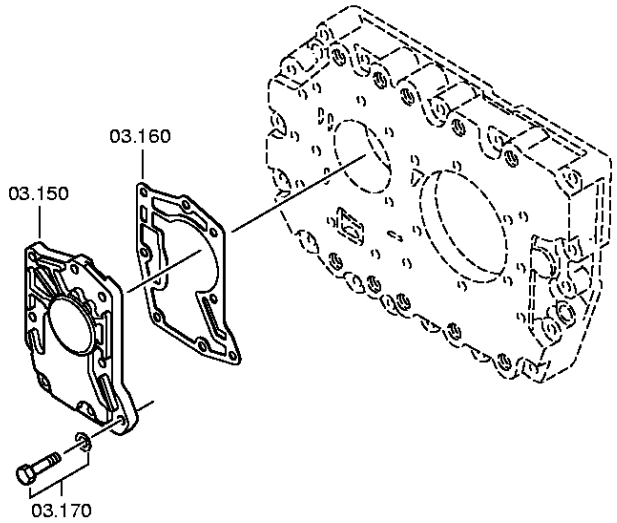
Material number: 1304.050.404
Picture: 062.03.80-1
COUNTERSHAFT



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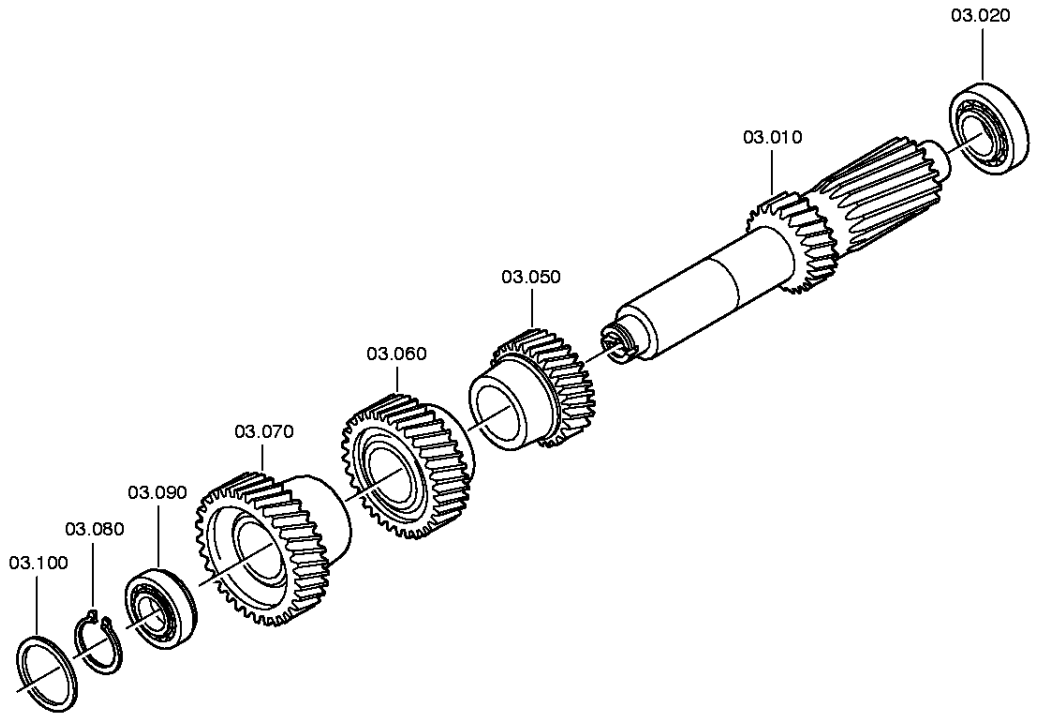
Material number: 1304.050.404
Picture: 062.03.05-1
COUNTERSHAFT



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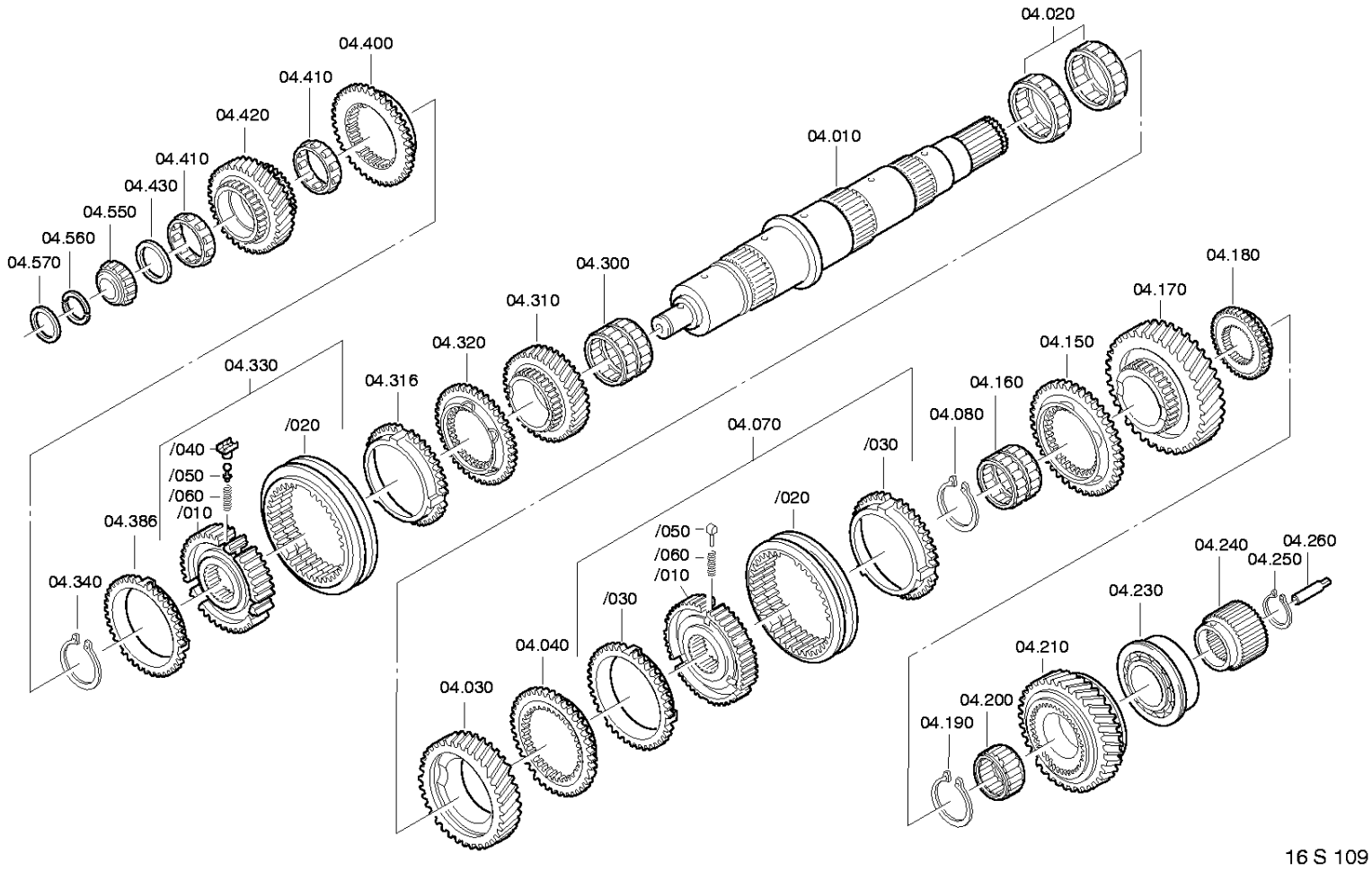
Picture

Material number: 1304.050.404
Picture: 062.04.05-1
Material-assembly-group-no: 1304.104.117



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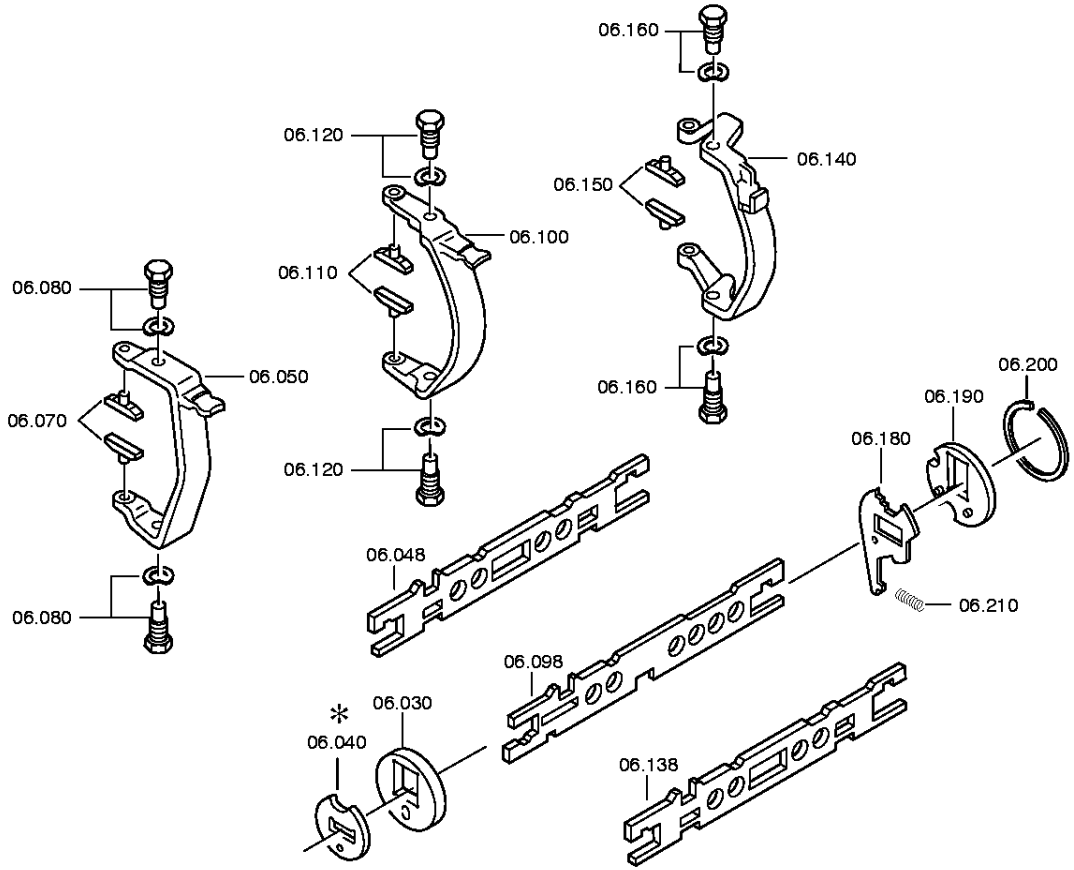
Material number: 1304.050.404
Picture: 062.06.22-1
SHIFT SYSTEM



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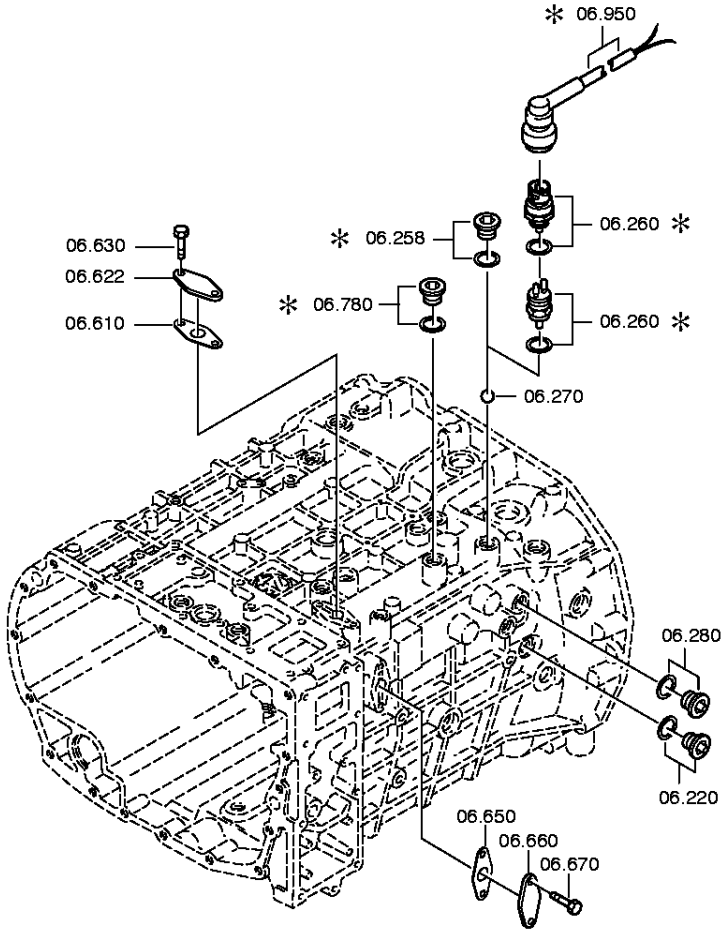
Material number: 1304.050.404
Picture: 062.06.48-1
SHIFT SYSTEM



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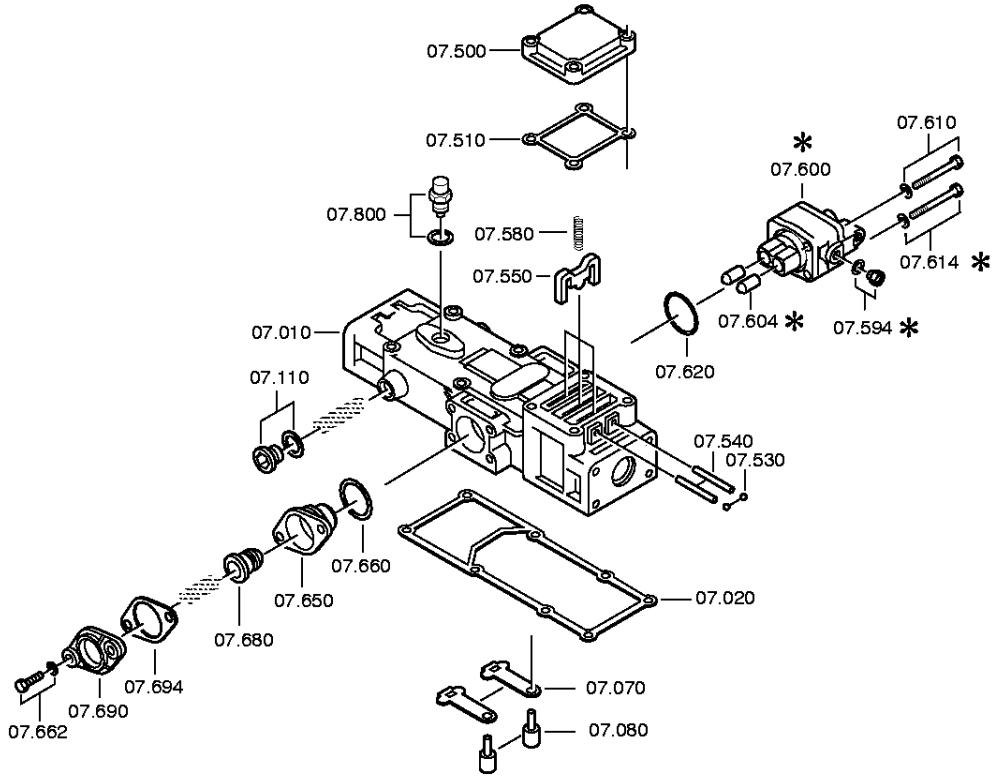
Material number: 1304.050.404
Picture: 062.07.03-1
GEAR SHIFT HOUSING



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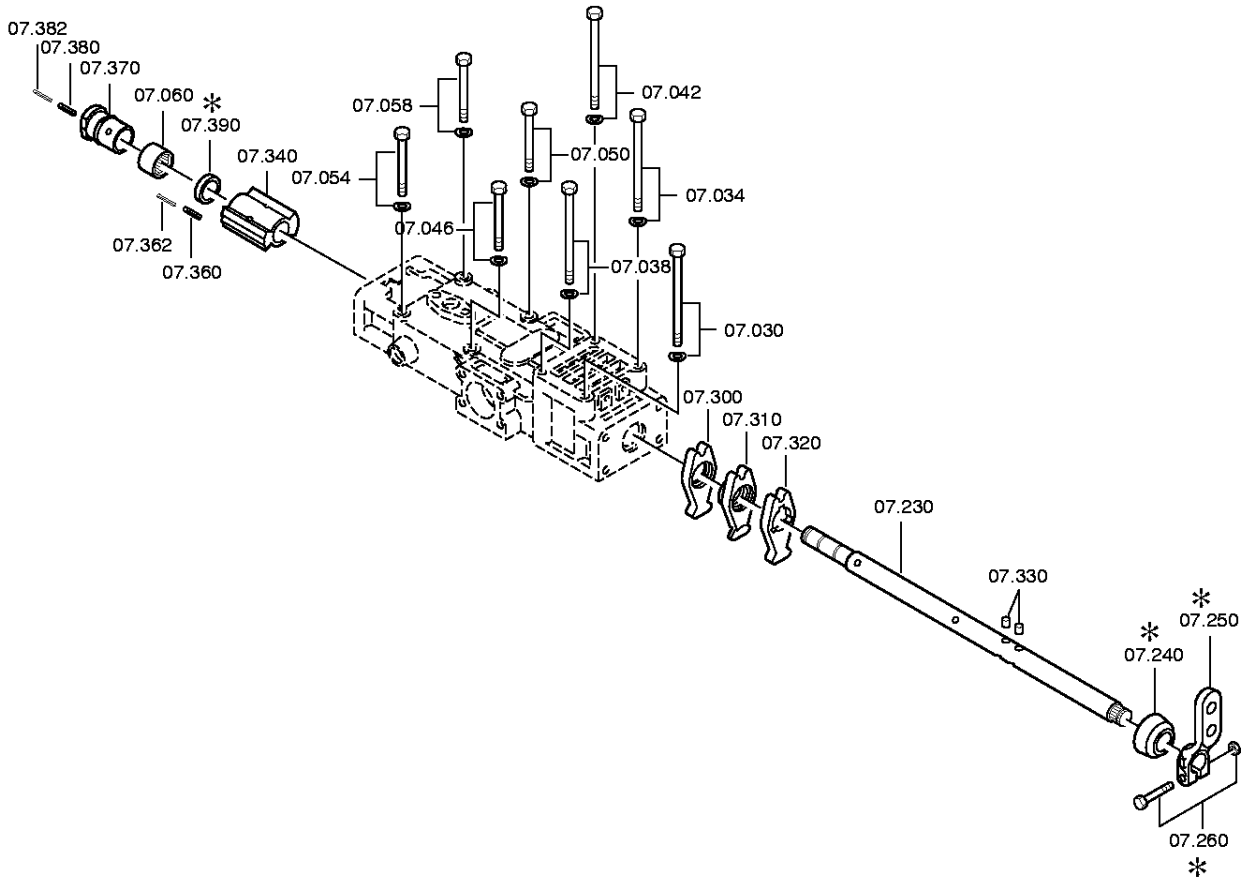
Material number: 1304.050.404
Picture: 062.07.47-1
GEAR SHIFT HOUSING



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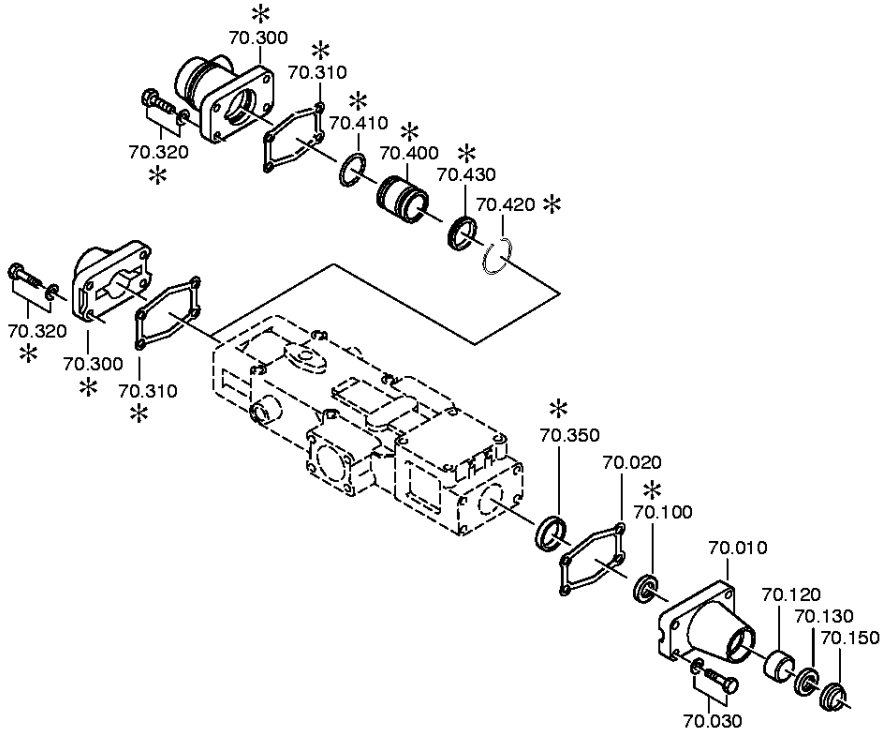
Material number: 1304.050.404
Picture: 062.08.01-1
SHIFT TURRET



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Picture

Material number: 1304.050.404
Picture: 062.12.05-1
Material-assembly-group-no: 1304.149.133

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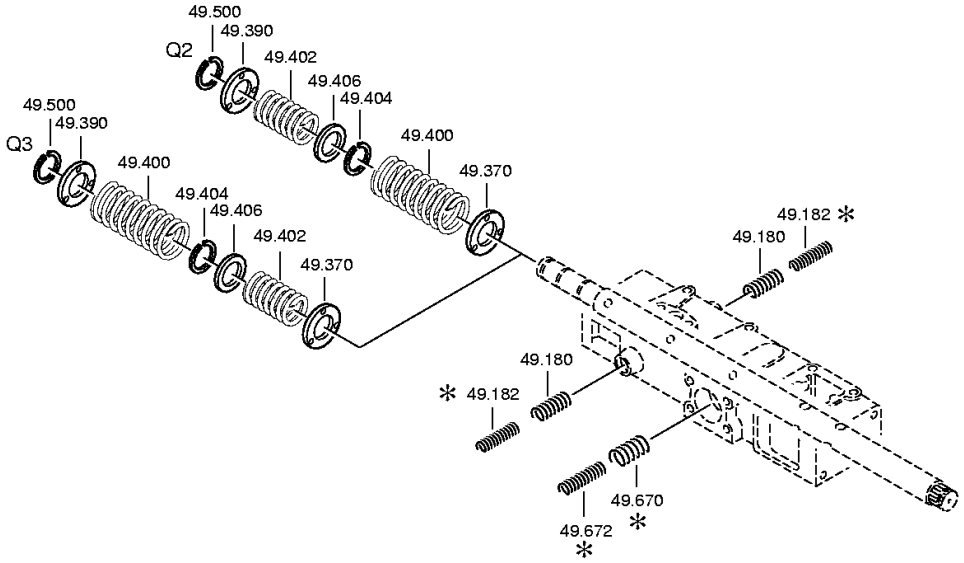
SET OF SPRINGS

Bildtafel: Figure: Figure: Figura:	062.12.05	*	je nach Stücklistenausführung depending on spec. number suivant la nomenclature secondo la distina base



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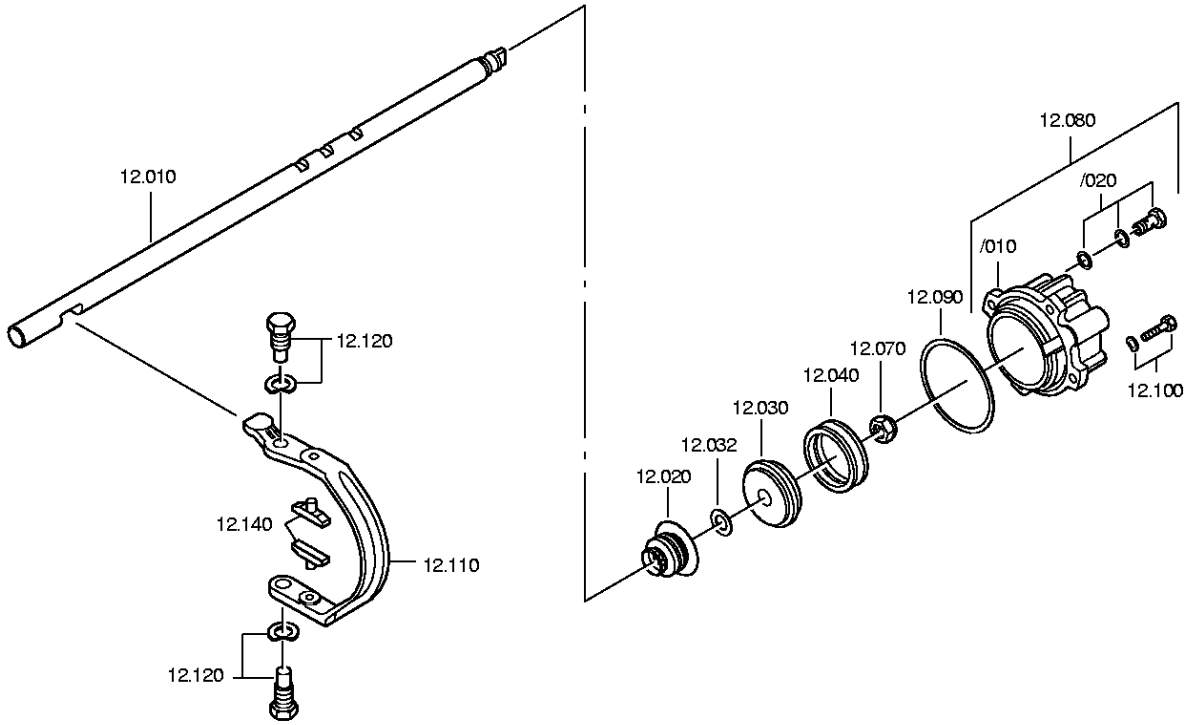
Material number: 1304.050.404
Picture: 062.40.01-1
GV-SHIFT SYSTEM



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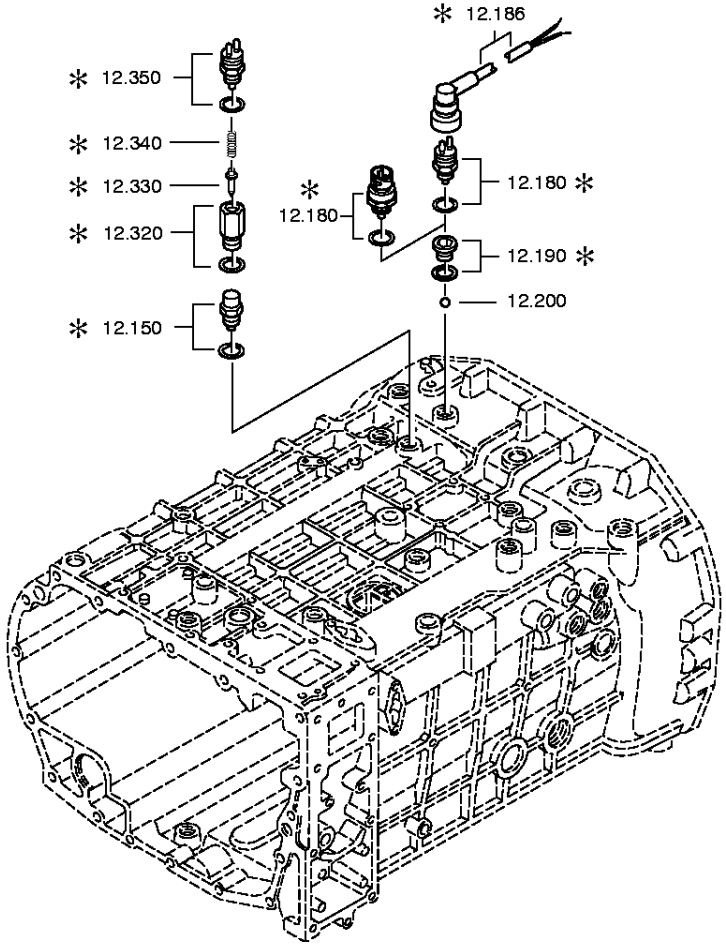
Material number: 1304.050.404
Picture: 062.40.40-1
GV-SHIFT SYSTEM



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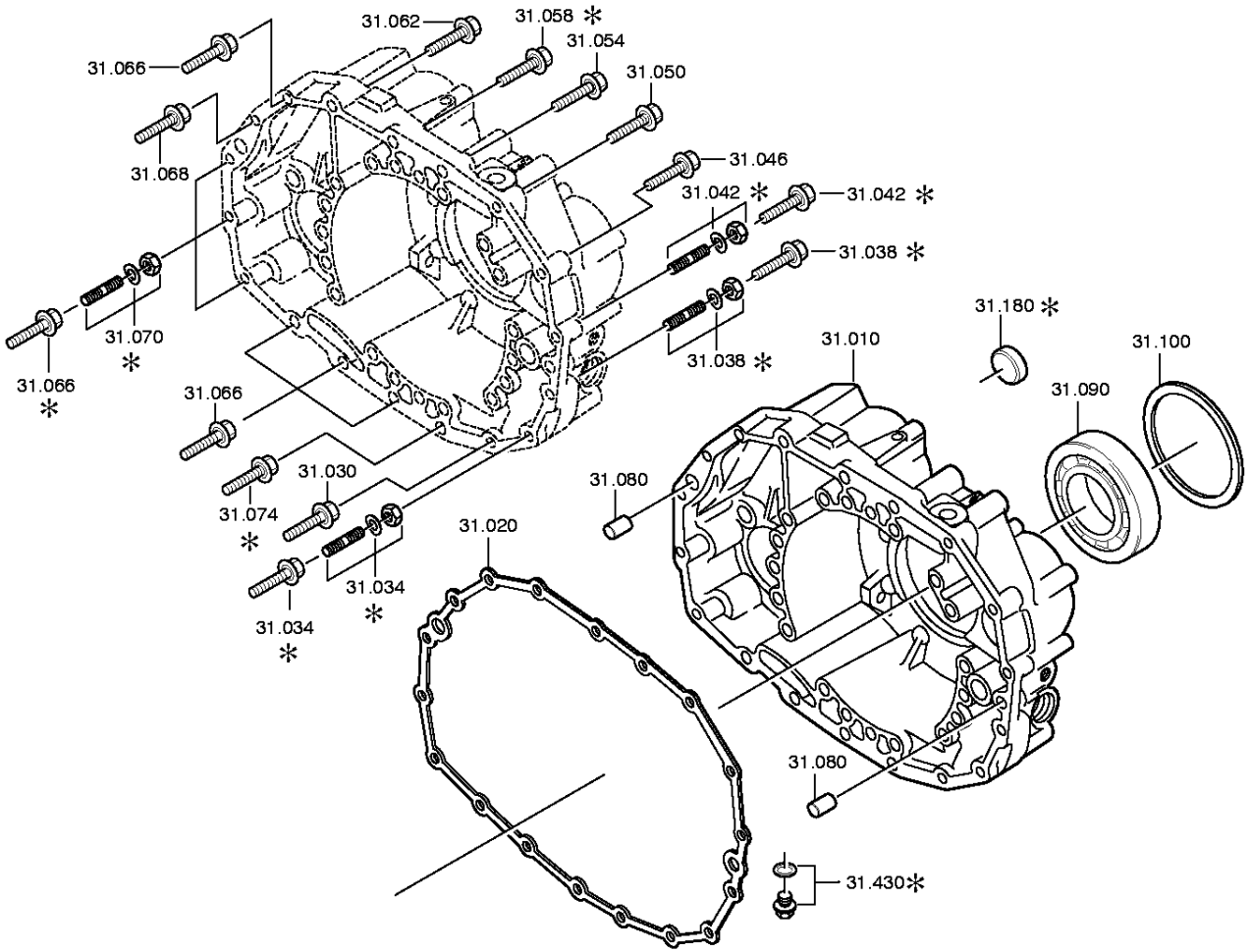
Material number: 1304.050.404
Picture: 062.43.02-1
RC HOUSING



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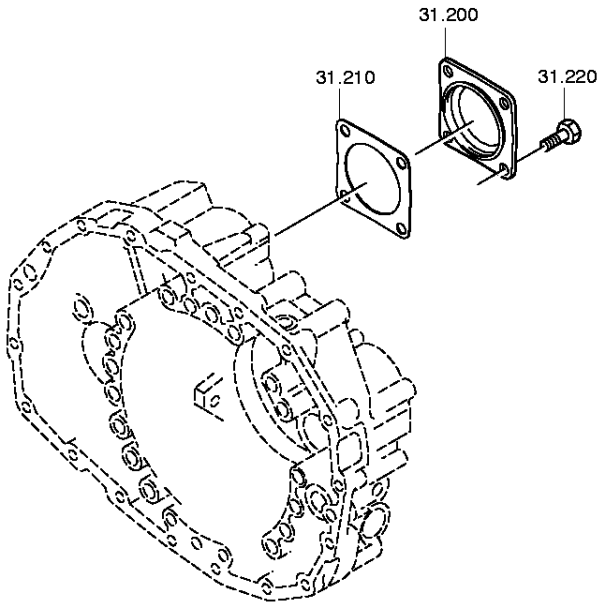

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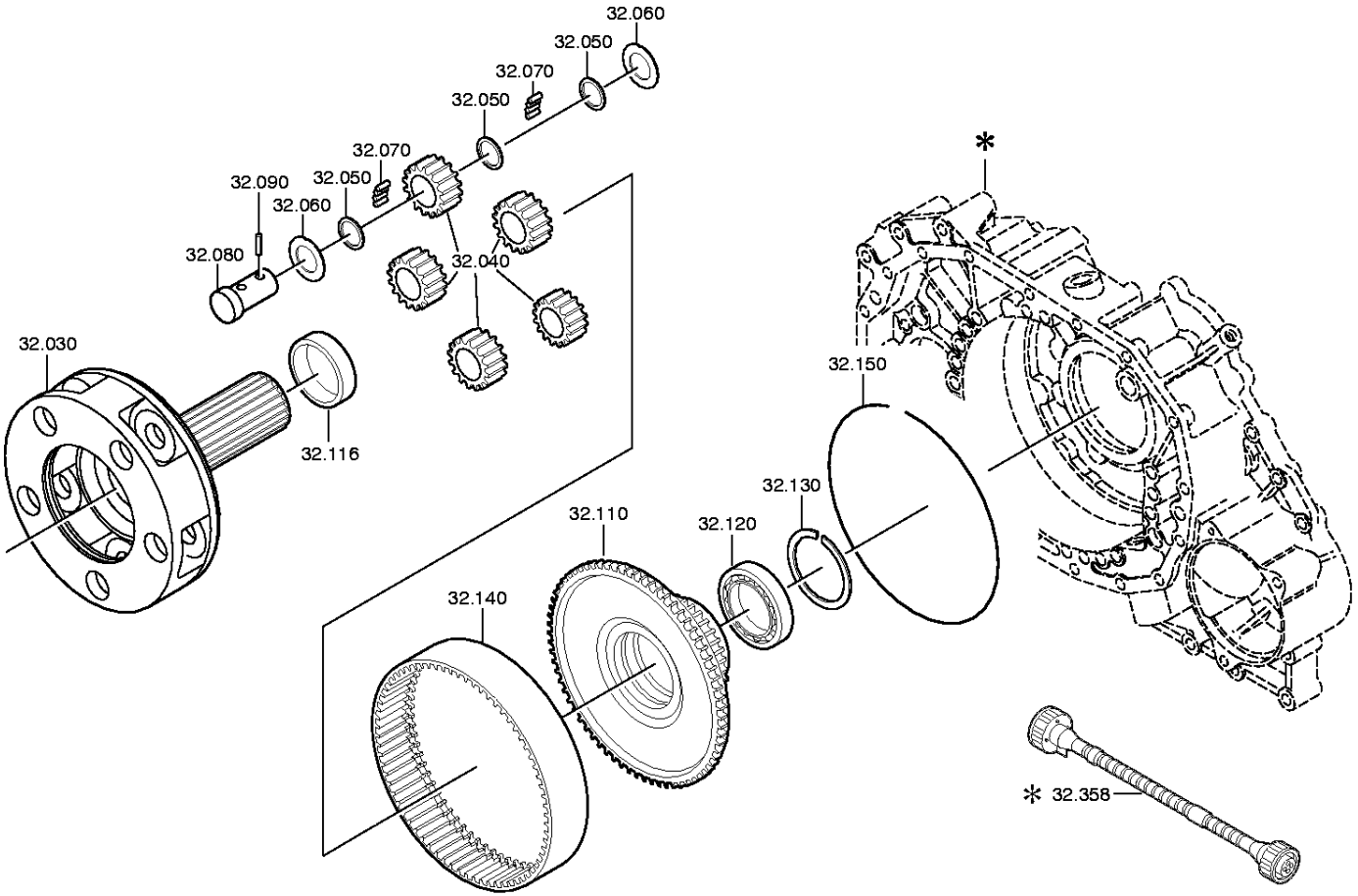

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Material number: 1304.050.404
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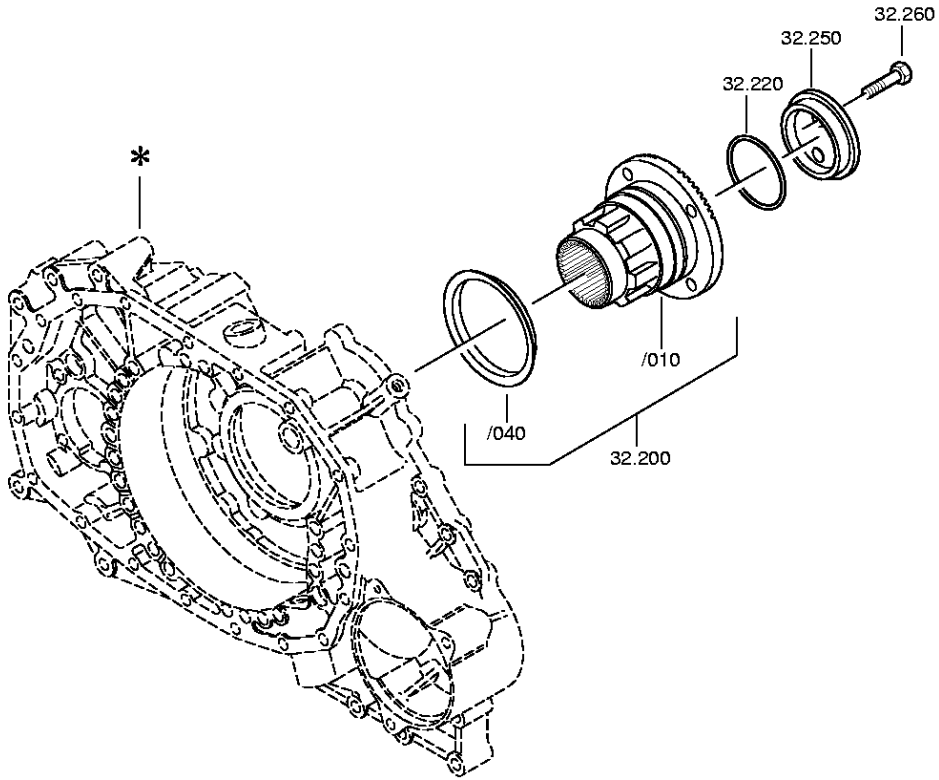

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Material number: 1304.050.404
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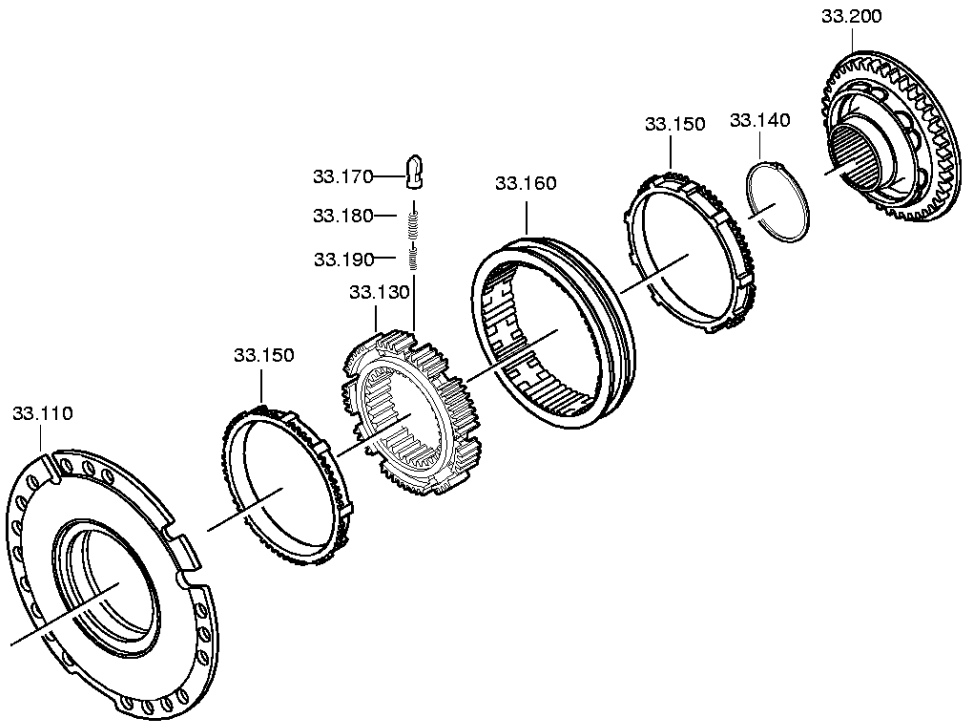
SYNCHRONIZER



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Material number: 1304.050.404
Picture: 062.46.05-1
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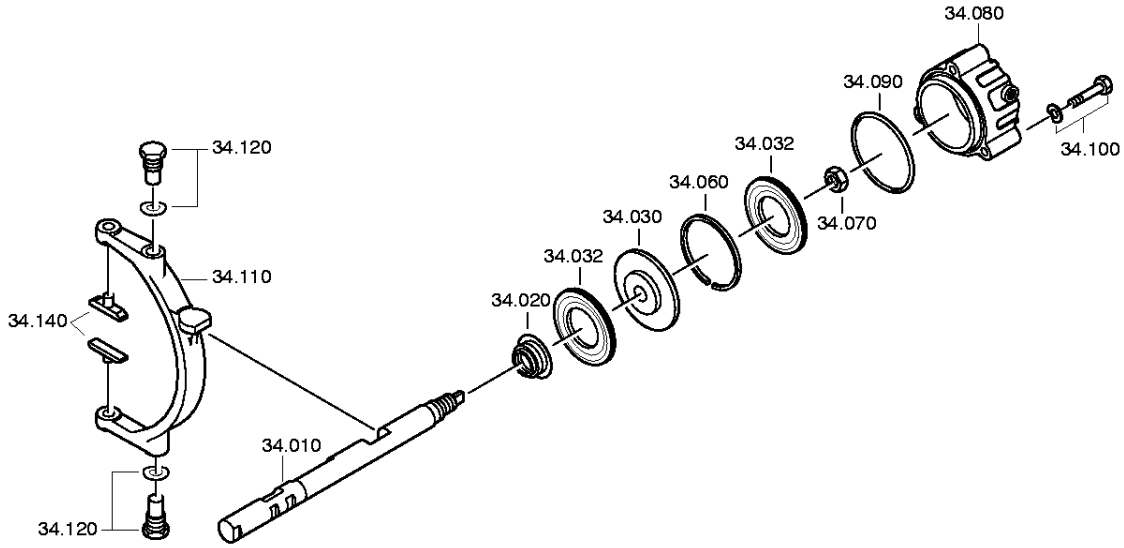

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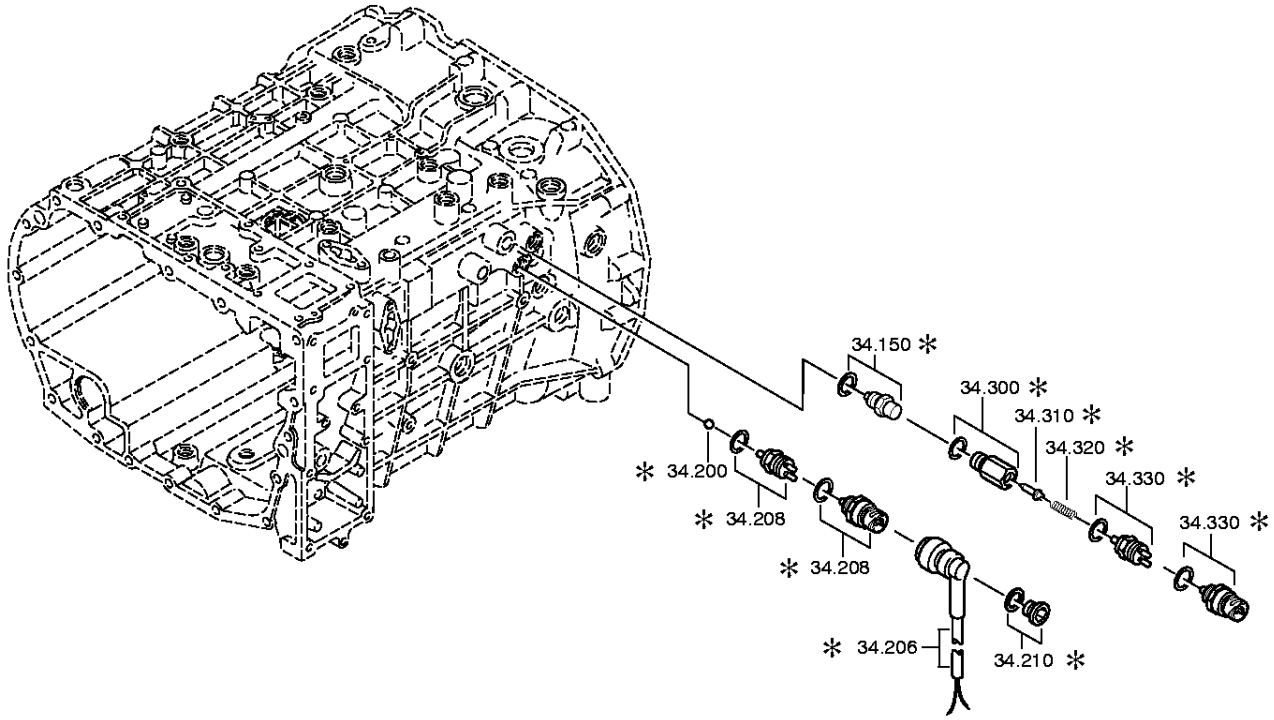

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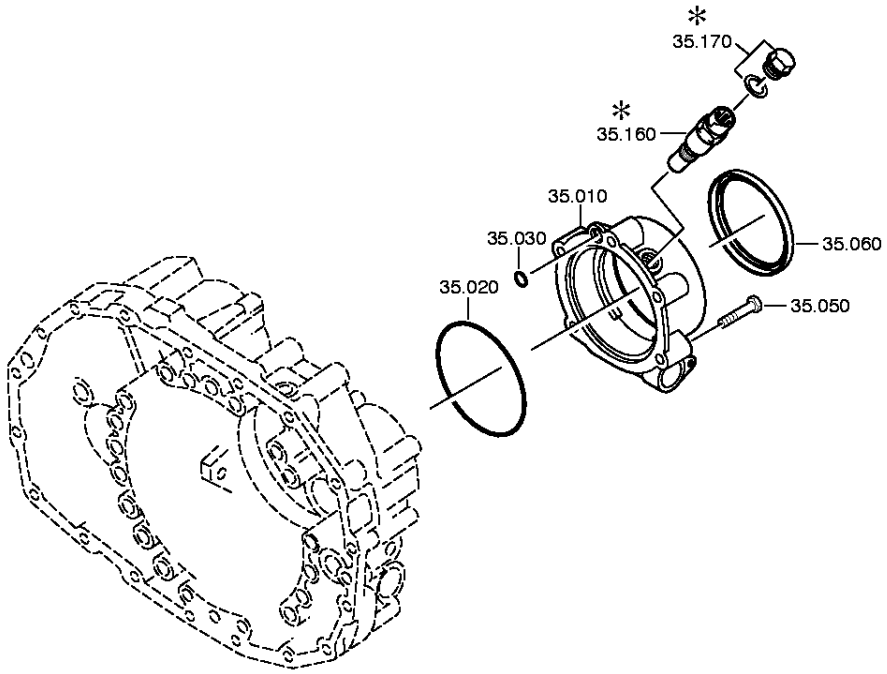
Material number: 1304.050.404
Picture: 062.47.02-1
SPEEDOMETER COVER



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Material number: 1304.050.404
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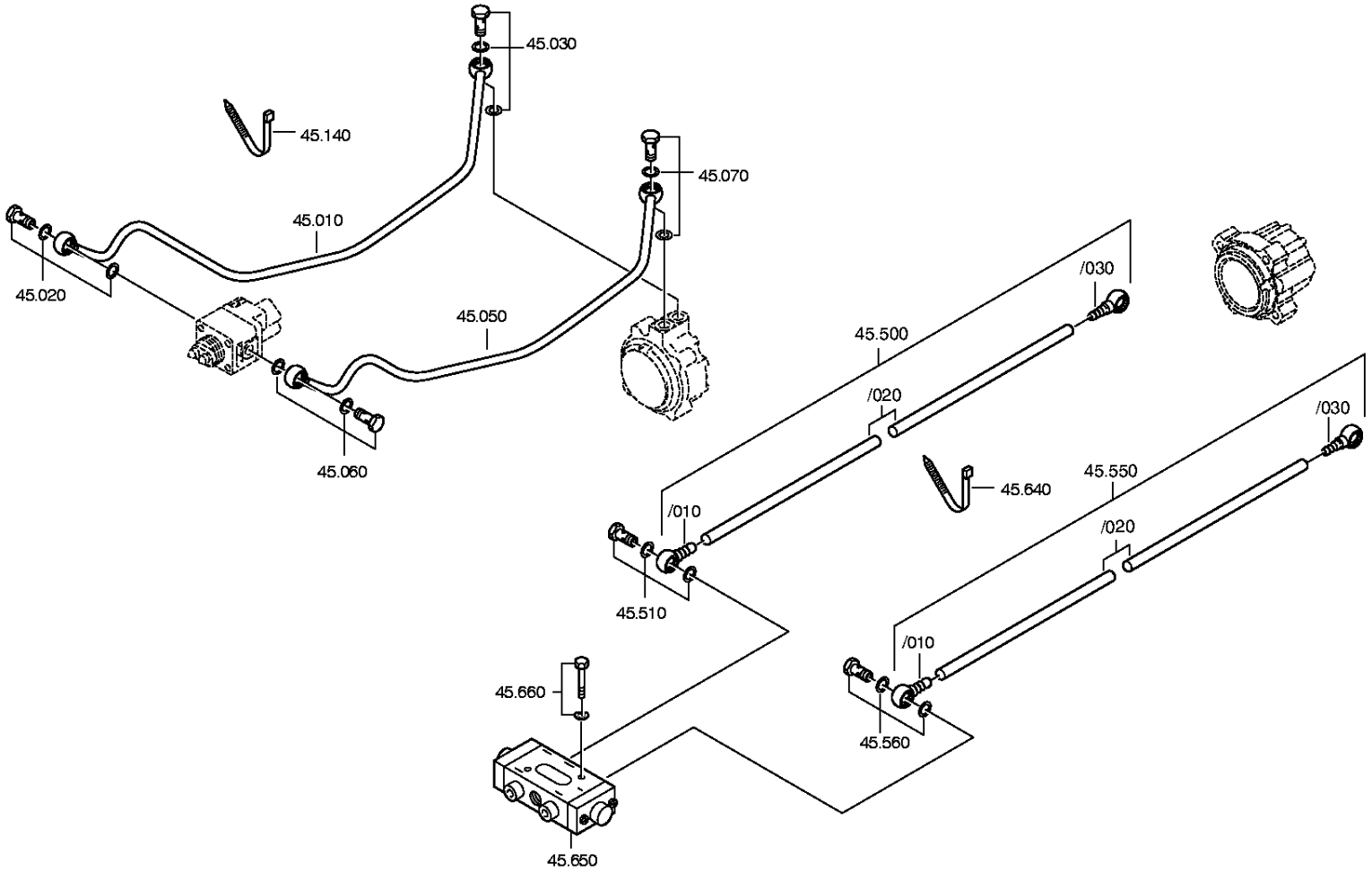

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