



Spare Parts Catalog

6 WG 210

Material number: 4657.056.078

Current date: 15.03.2019

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zuständiges Werk:
Passau

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: 4657.056.078



6 WG 210 /

Pos.	Information	Amendment number
	CUSTOMER: HBM-NOBAS	
	STATE: NORDHAUSEN	
	VEHICLE DATA:	
	VEHICLE APPLICATION: GRADER TG210/BG240	
	WEIGHT LOADED (TO): 21	
	ENGINE: CUMMINS QSB6.7 FR91434	
	ENGINE POWER(KW): 164	
	SPEED (RPM): 2200	
	INPUT TORQUE(NM): 949	
	SPEED (RPM): 1500	
	TIRES: 20,5X25	
	TIRE RADIUS (M): 0.715	
	AXLE RATIO: 21,504	
	MAX. SPEED (KM/H): 46	
	PRODUCT DESCRIPTION: ZF-ERGOPOWER TRANSMISSION	
	TRANSMISSION TYPE 6 WG 210	
	DROP CENTER DISTANCE: 540 MM	
	VEHICLE: GRADER	
	VERSION STANDARD	
	1. GEAR FORWARD: 5,562	
	2. GEAR FORWARD: 3,615	
	3. GEAR FORWARD: 2,255	
	4. GEAR FORWARD: 1,466	
	5. GEAR FORWARD: 0,942	
	6. GEAR FORWARD: 0,613	
	1. GEAR REVERSE: 5,274	
	2. GEAR REVERSE: 2,138	
	3. GEAR REVERSE: 0,894	
	NUMBER OF PULSES ENGIN: 4	
	NUMBER OF PULSES TURB: 54	
	NUMBER OF PULSES MRK: 55	
	NUMBER OF PULSES OUTP.: 46	
	CONVERTER: W 340	



Pos.	Information	Amendment number
	CONVERTER PART NR: 034 H 078	
	LOCK-UP CLUTCH: WITH	
	TORQUE CONVERTER ABSORP 186 NM	
	MOUNTING VALVE TOP	
	SETTING INSTRUKTIONS 4657 700 042 OPERATING PR 15+1	
	STALL TORQUE RATIO: 2,26	
	STATOR FREEWHEEL: WITH	
	RETARDER: WITHOUT	
	ENGINE INPUT: REMOTE MOUNTED VIA JOINT SHAFT	
	INPUT FLANGE: MECHANIC	
	INPUT FLANGE-TYPE: MECH 6 C	
	OUTPUT: STANDARD	
	OUTPUT CONVERTER SIDE: WITHOUT AXLE DISCONNECT	
	OUTPUT FLANGECONVERTER MECHANIC	
	OUTPUT FLANGE TYPE: MECH 7 C	
	OUTPUT PTO SIDE: WITHOUT PARKING BRAKE	
	OUTPUT FLANGE PTO SIDE MECHANIC	
	OUTPUT FLANGE-TYPE: MECH 7 C	
	POWER TAKE OFF: 1 PTO COAXIAL ENGINE-DEPENDEN	
	DISCONNECTION: WITHOUT	
	FLANGE: SAE C 2/4 HOLE	
	DRIVER / PROFILE: SAE C 12/24 DP 14 T	
	GEAR CHANGE CONTROL: ZF-ERGOSHIFT/ PROP VALVE	
	VOLTAGE: 24 VOLT	
	OPERATING PRESSURE: 16+2 BAR	
	CABLE CONNECT. TO EST 3 BAYONET	
	CONTROL SYSTEM:	
	ELECTRIC PARTS ORDER: INCLUDED IN SCOPE OF SUPPLY	
	GROUP LOOSE PARTS: 4657 183 152	
	SEPERATE ORDER: EST 37A	
	CONTROL UNIT: EST 37A	
	VEHICLE SUPPLY VOLTAGE: 24 VOLT	
	GEAR SELECTOR: VTS 3	



Pos.	Information	Amendment number
	DISPLAY: FOR INBOARD MOUNTING	
	LOAD SENSOR: WITHOUT	
	WIRING: WITH	
	OIL TEMPERATURE SENSOR: WITHOUT	
	SPEED CONTROL: CONNECTION VIA EST	
	OIL LEVEL TUBE: MOUNTED ON CONVERTER SIDE	
	OIL DIPSTICK: CUSTOMERSIDE ADAPTATION	
	DELIVERY OIL LEV. TUBE: ASSEMBLED	
	FILTER INSTALLATION: DIRECT MOUNTED	
	ADDITIONAL FILTER WITHOUT	
	PRES. DROP SWITCH: CLOSING SWITCH	
	EMERGENCY STEERING PUMP MOUNTING POSSIBILITY	
	GEARBOX BREATHER: WITH	
	SEPERATE PARTS 4657.199.048	
	DOCUMENTATION GEAR BOX:	
	SECTION DRAWING: 4657 500 012	
	GEARBOX DIAGRAM: 4657 700 043	
	OIL CIRCUIT DIAGRAMM: 4657 700 046	
	DOCU. CONTROL UNIT:	
	DRAWING 6009.665.002	
	DRAWING GEAR SEL. 1: 6006.635.006	
	CONNECTION DIAGRAMM: 6006.700.529	
	DRAWING GEAR SEL. 2: WITHOUT	
	WIRING DIAGRAMM: 6029.701.923	
	CONNECTION DIAGRAMM: 6029.701.924	
	DRAWING DISPLAY: 6007.603.047	
	OIL CAPACITY: 27	
	GEARBOX OIL CAPACITY: WITHOUT	
	OIL-CLASS: TE ML 03	
	PRIME CODE: RAL-3009	
	INSTAL. INSTRUCTIONS: 0000 702 271	
	INSTALLATION DRAWING: 4657.656.078	
	PERFORMANCE CALC.: 4657.706.996	

Assembly group overview

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6 WG 210 /

Material number: 4657.056.078

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
465713005900	270	4657.130.059	ENGINE CONNECTION	1		
465713040100	280	4657.130.401	ENGINE CONNECTION	1		
416603417600	500	4166.034.176	CONVERTER	1		
465710201300	30	4657.102.013	INPUT	1		
465710103301	10	4657.101.033	TRANSMISSION HOUSING	1		
465710140800	20	4657.101.408	TRANSMISSION HOUSING	1		
465717103000	350	4657.171.030	COUPLING	1		
465717202700	360	4657.172.027	COUPLING	1		
465717301900	370	4657.173.019	COUPLING	1		
465717403800	380	4657.174.038	COUPLING	1		
465717501400	390	4657.175.014	COUPLING	1		
465717601700	400	4657.176.017	COUPLING	1		
465710301000	50	4657.103.010	OUTPUT	1		
465710340700	60	4657.103.407	OUTPUT	1		
465710341200	70	4657.103.412	OUTPUT	1		
465715400200	340	4657.154.002	POWER TAKE-OFF	1		

Assembly group overview

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6 WG 210 /

Material number: 4657.056.078

Graphics	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
465710601200	110	4657.106.012	SHIFT SYSTEM	1		
465710640720	115	4657.106.407	SHIFT SYSTEM	1		
465615901921	120	4656.159.019	SHIFT SYSTEM	1		
465712300100	225	4657.123.001	CONTROL UNIT	1		
465712340000	227	4657.123.400	CONTROL UNIT	1		
465712000300	190	4657.120.003	PRESSURE REGULATOR	1		
465712200500	220	4657.122.005	PRESSURE OIL PUMP	1		
465713700200	310	4657.137.002	EMERGENCY STEERING PUMP	1		
465710700300	130	4657.107.003	SPEEDOMETER	1		
465712500200	250	4657.125.002	INDUCTIVE SENSOR	1		
465712400100	240	4657.124.001	TEMPERATURE SENSOR	1		
465613800600	330	4656.138.006	FILTER	1		
465713100700	290	4657.131.007	FILLER NOZZLE	1		
465713140100	300	4657.131.401	FILLER NOZZLE	1		
465719904800	490	4657.199.048	LOOSE PARTS	1		
465718315200	495	4657.183.152	LOOSE PARTS	1		

Plant

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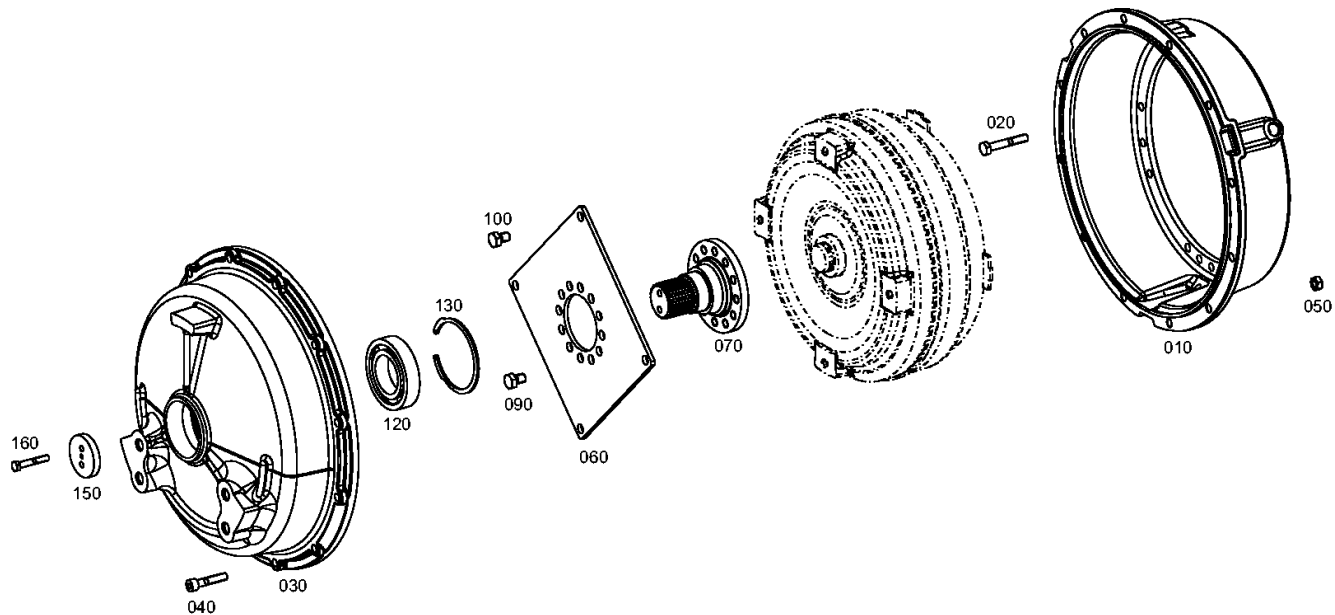
Material number: 4657.056.078

Plant: 465713005900

Material-assembly-group-no: 4657.130.059



6 WG 210 /
ENGINE CONNECTION



Plant

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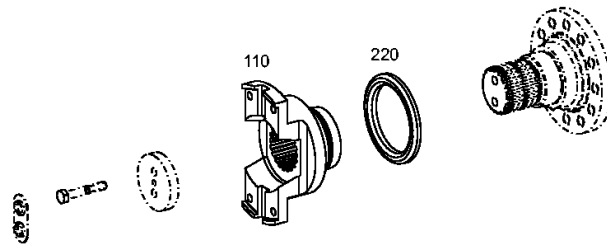
Material number: 4657.056.078

Plant: 465713040100

Material-assembly-group-no: 4657.130.401



6 WG 210 /
ENGINE CONNECTION



Plant

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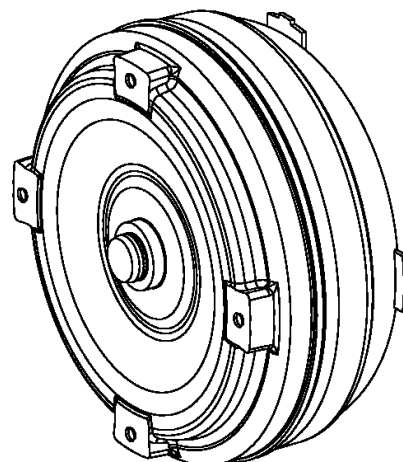
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Plant: 416603417600

Material-assembly-group-no: 4166.034.176



6 WG 210 /
CONVERTER



010

Plant

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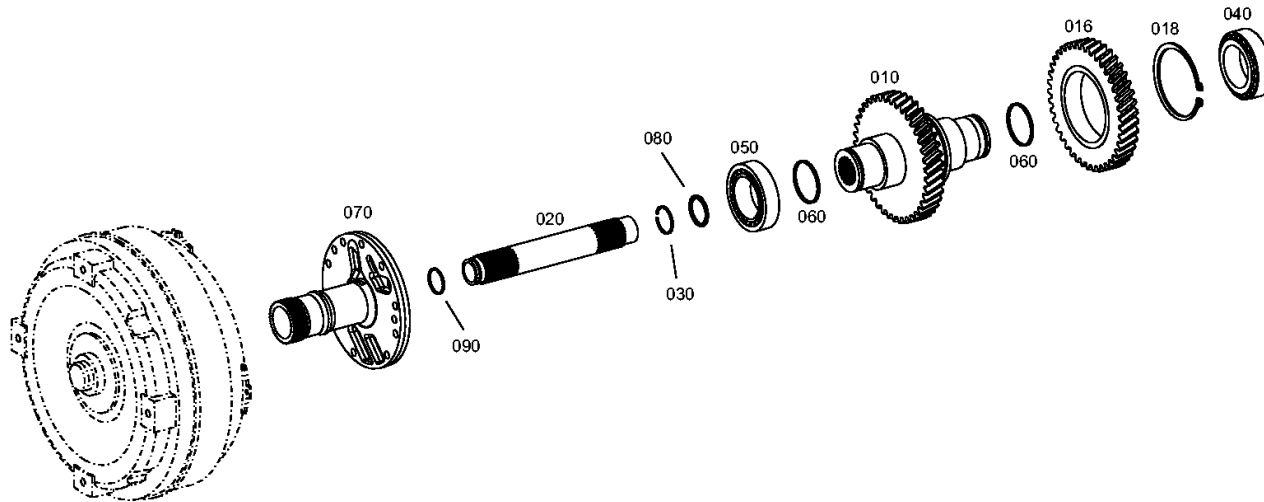
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Plant: 465710201300

Material-assembly-group-no: 4657.102.013



6 WG 210 /
INPUT



Plant

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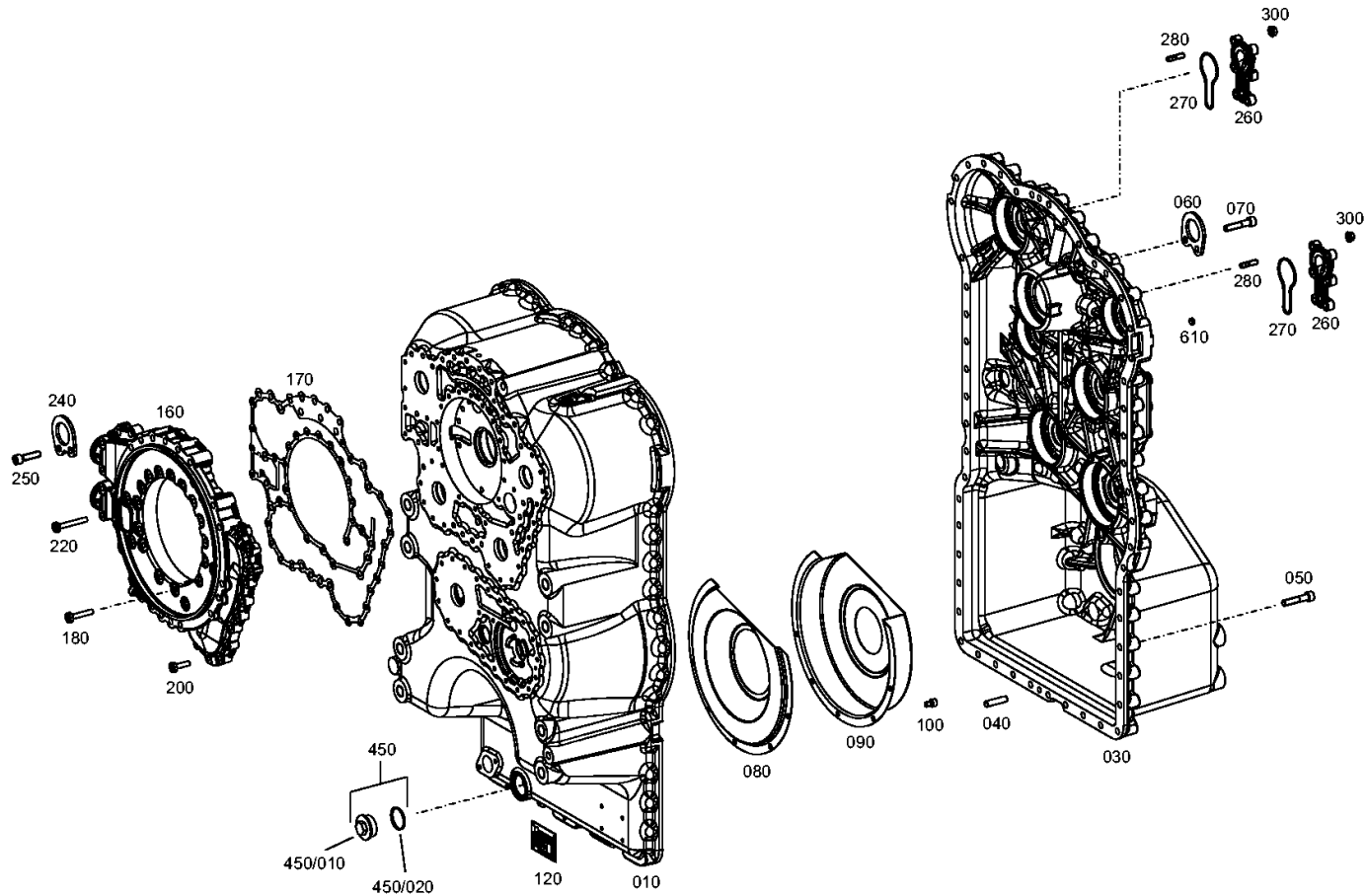
Material number: 4657.056.078

Plant: 465710103301

Material-assembly-group-no: 4657.101.033



6 WG 210 /
TRANSMISSION HOUSING



Plant

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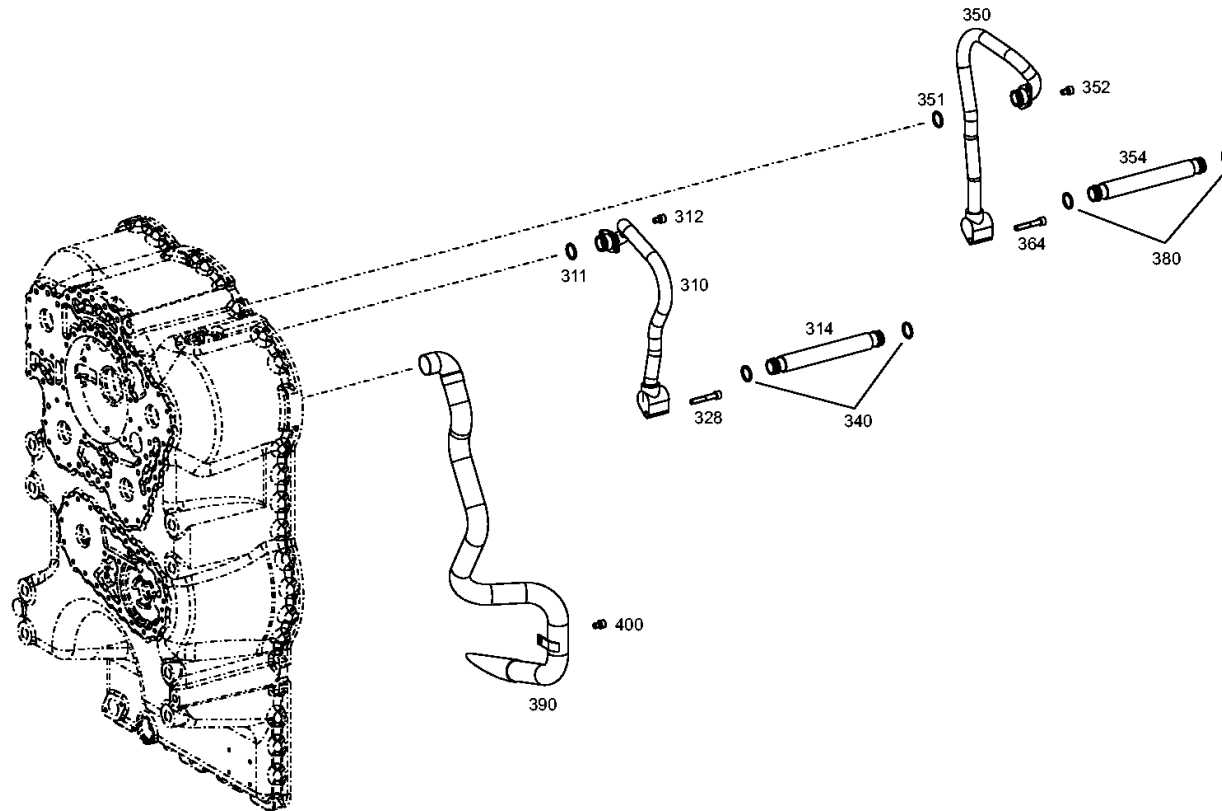
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Plant: 465710103302

Material-assembly-group-no: 4657.101.033



6 WG 210 /
TRANSMISSION HOUSING



Plant

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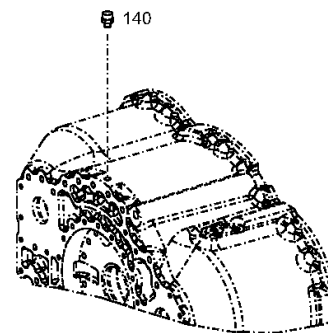
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Plant: 465710140800

Material-assembly-group-no: 4657.101.408



6 WG 210 /
TRANSMISSION HOUSING



Plant

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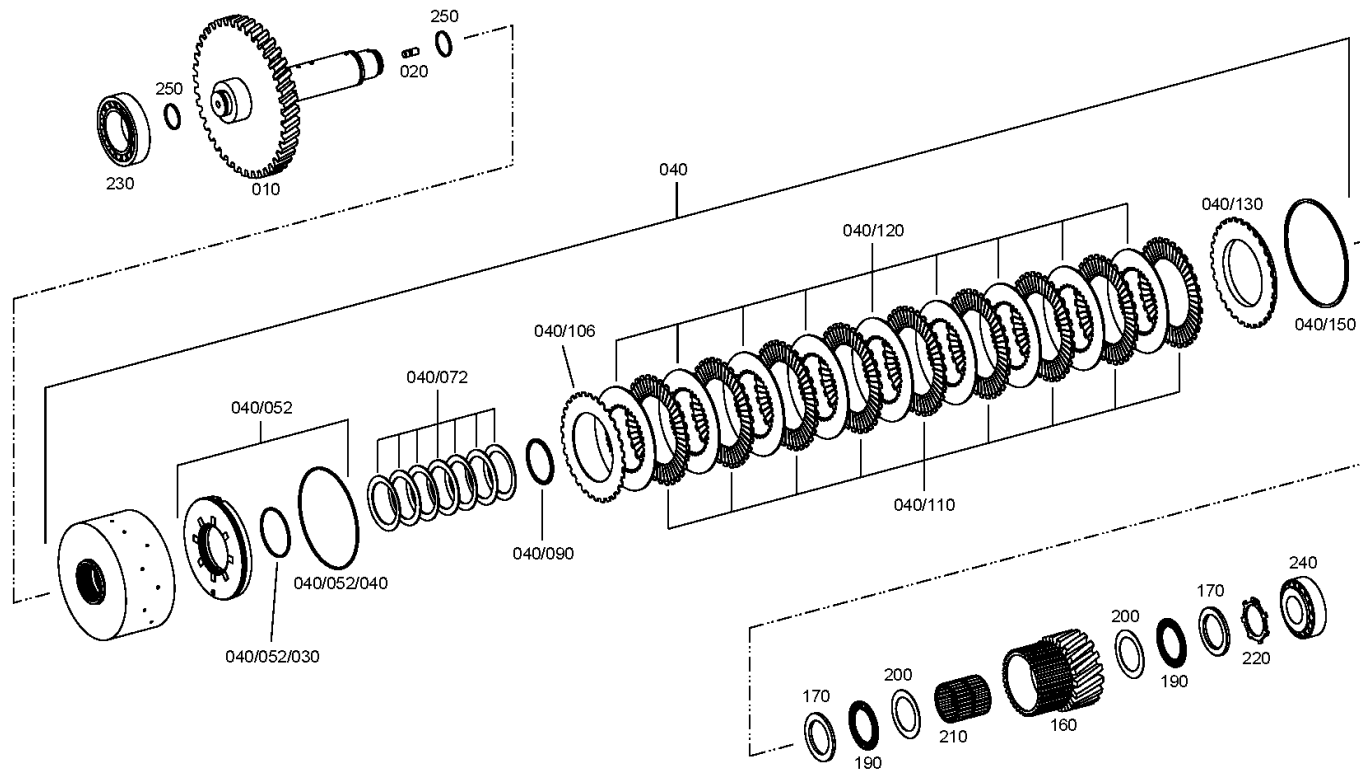
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Plant: 465717103000

Material-assembly-group-no: 4657.171.030



6 WG 210 /
COUPLING



Plant

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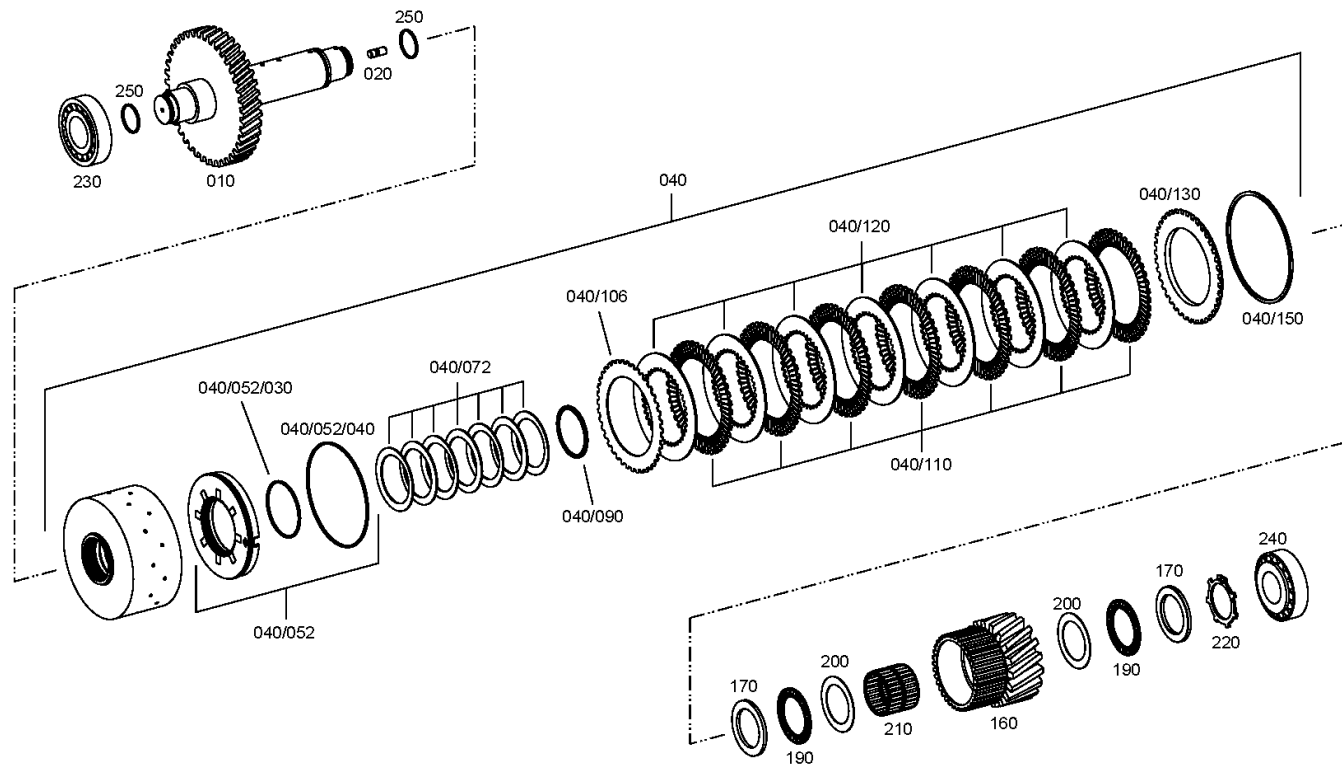
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Plant: 465717202700

Material-assembly-group-no: 4657.172.027



6 WG 210 /
COUPLING



Plant

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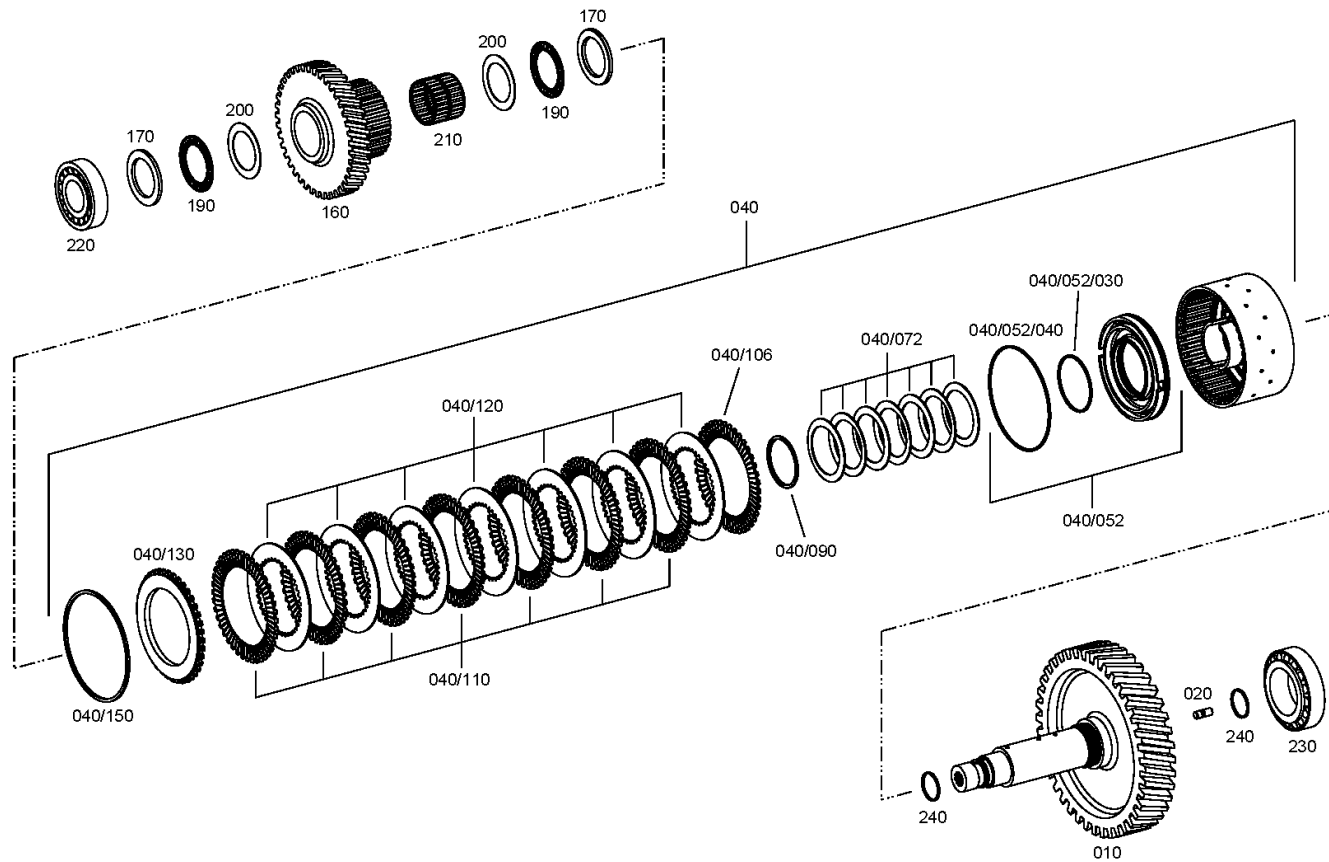
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Plant: 465717301900

Material-assembly-group-no: 4657.173.019



6 WG 210 /
COUPLING



Plant

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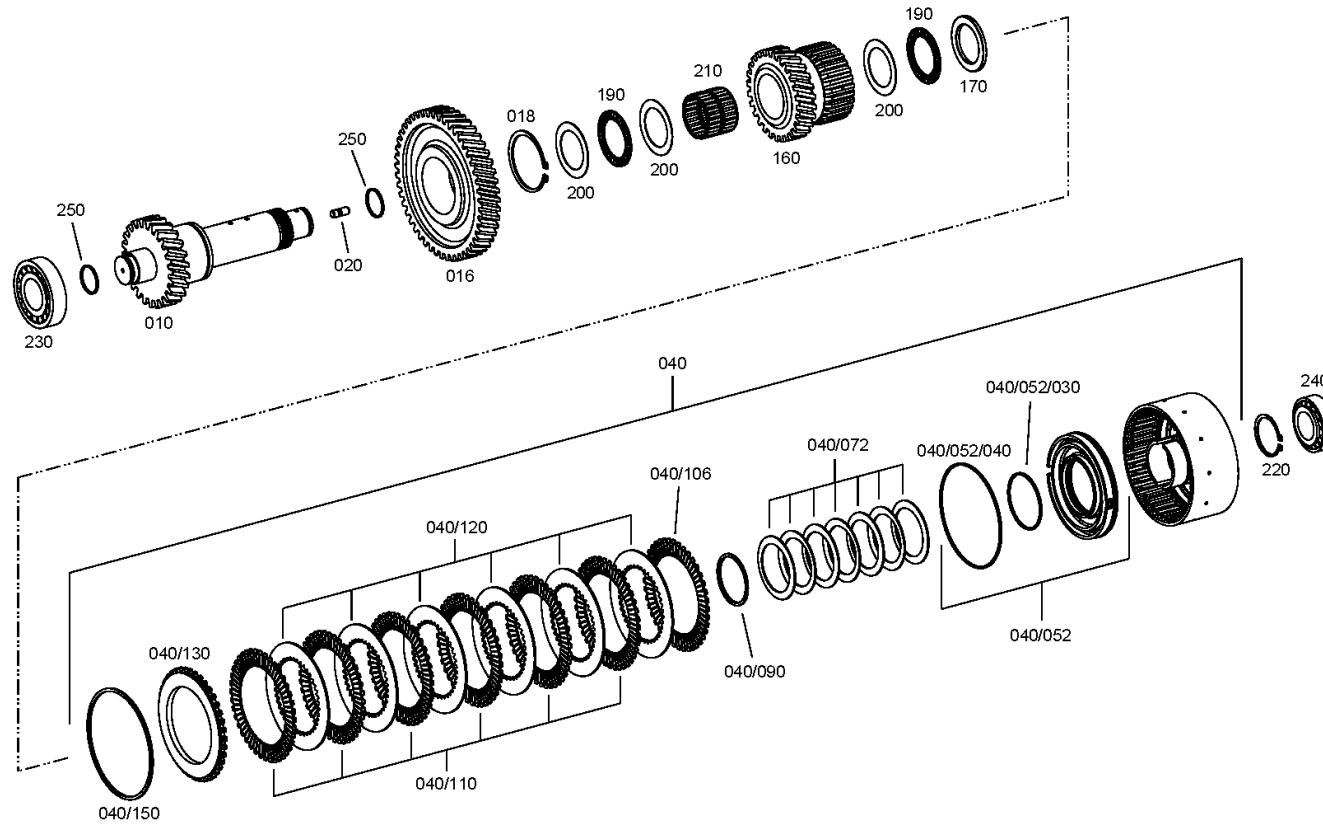
Material number: 4657.056.078

Plant: 465717403800

Material-assembly-group-no: 4657.174.038



6 WG 210 /
COUPLING



Plant

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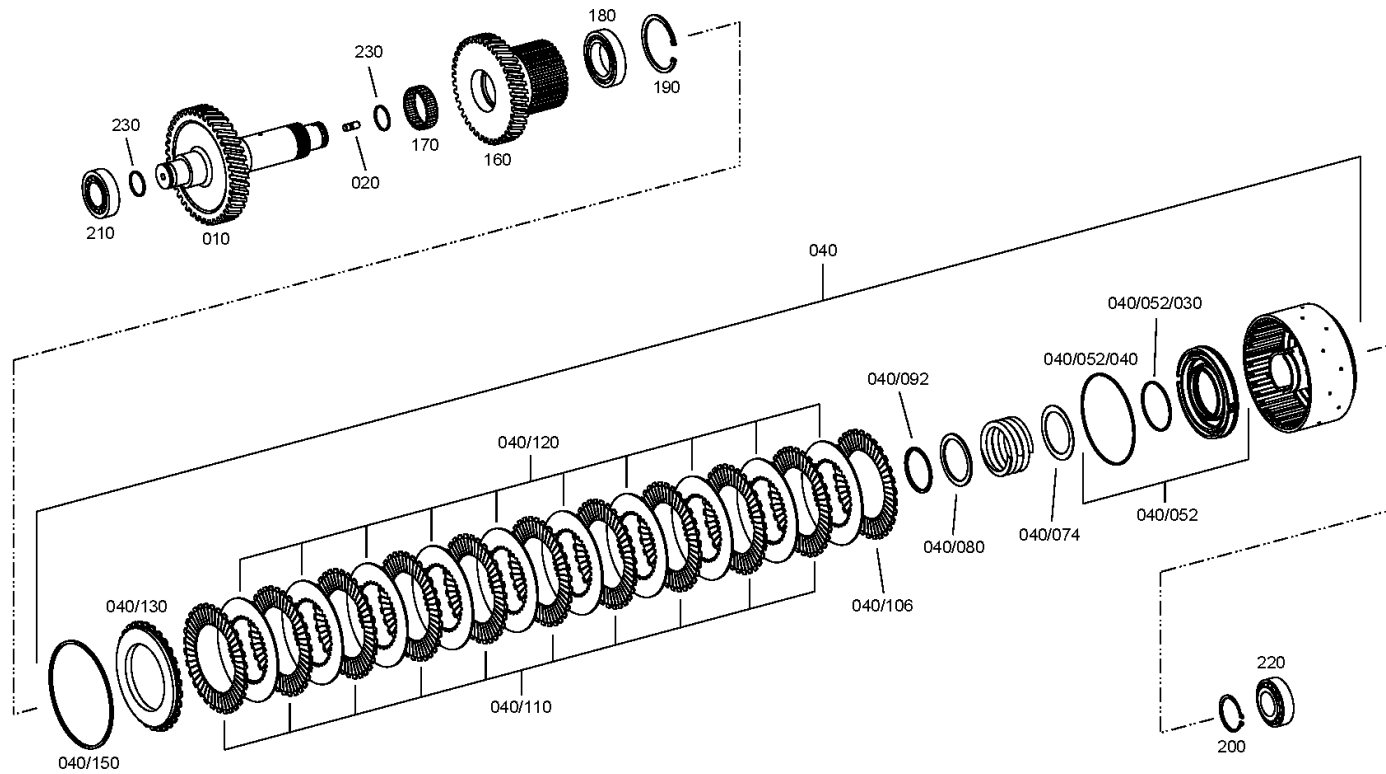
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Plant: 465717501400

Material-assembly-group-no: 4657.175.014



6 WG 210 /
COUPLING



Plant

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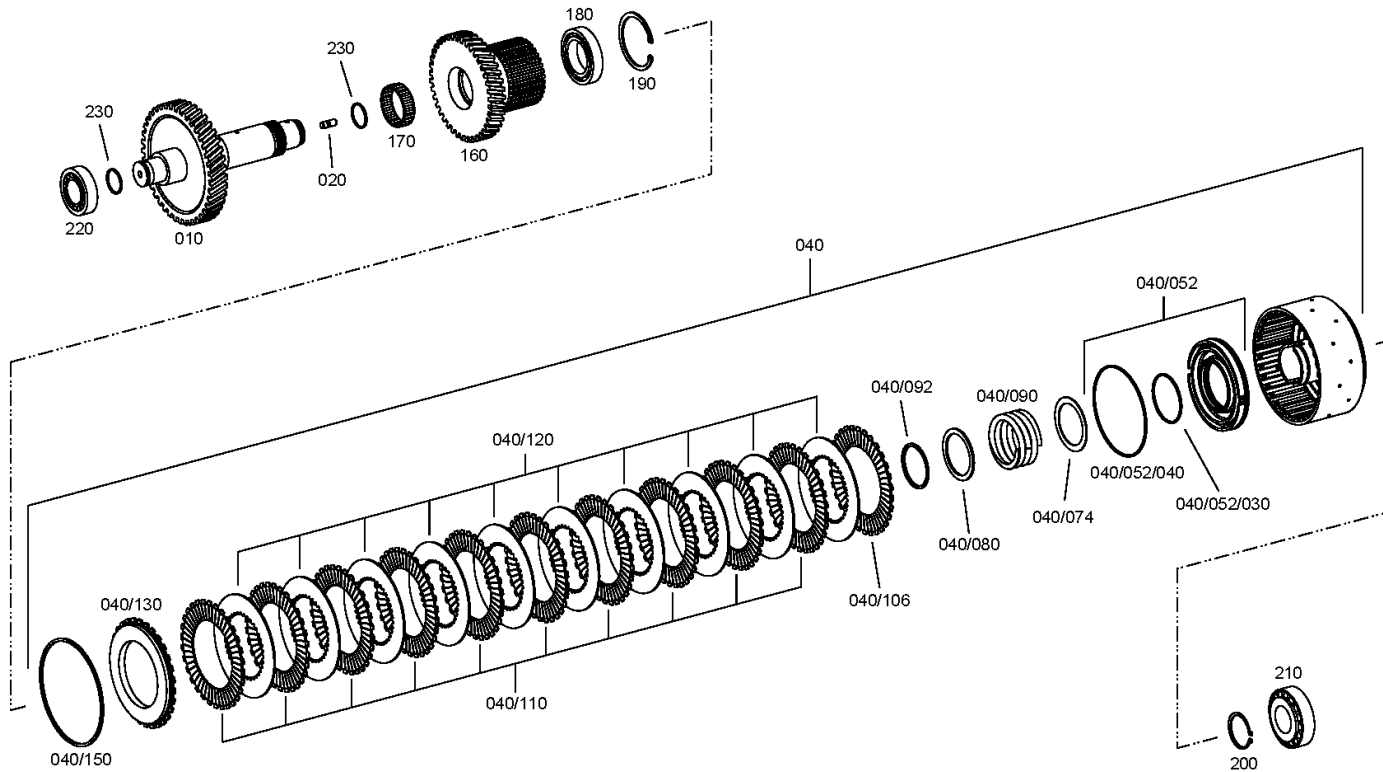
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Plant: 465717601700

Material-assembly-group-no: 4657.176.017



6 WG 210 /
COUPLING



Plant

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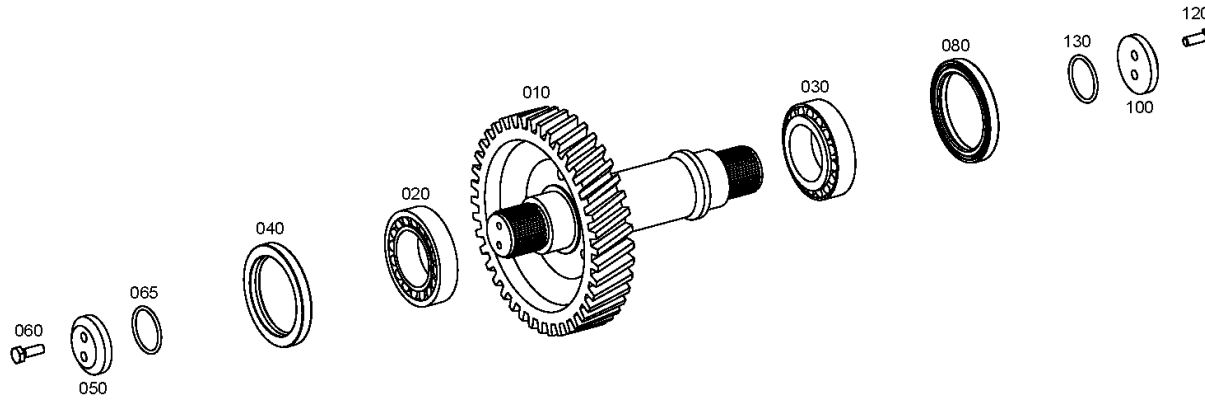
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Plant: 465710301000

Material-assembly-group-no: 4657.103.010



6 WG 210 /
OUTPUT



Plant

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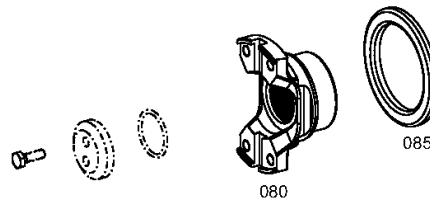
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Plant: 465710340700

Material-assembly-group-no: 4657.103.407



6 WG 210 /
OUTPUT



Plant

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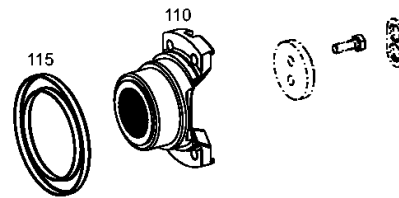
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Plant: 465710341200

Material-assembly-group-no: 4657.103.412



6 WG 210 /
OUTPUT



Plant

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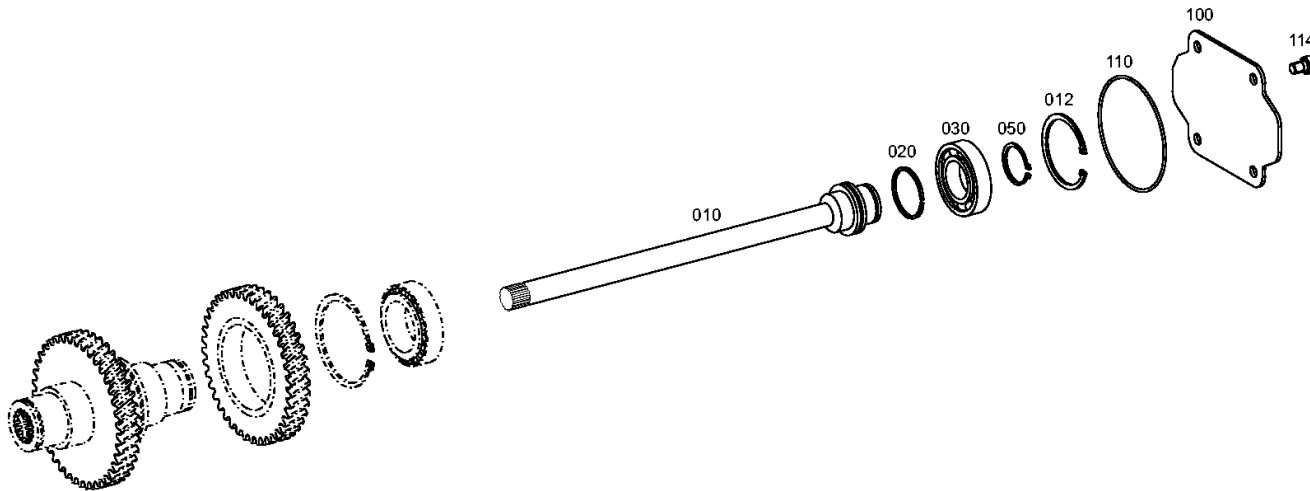
Material number: 4657.056.078

Plant: 465715400200

Material-assembly-group-no: 4657.154.002



6 WG 210 /
POWER TAKE-OFF



Plant

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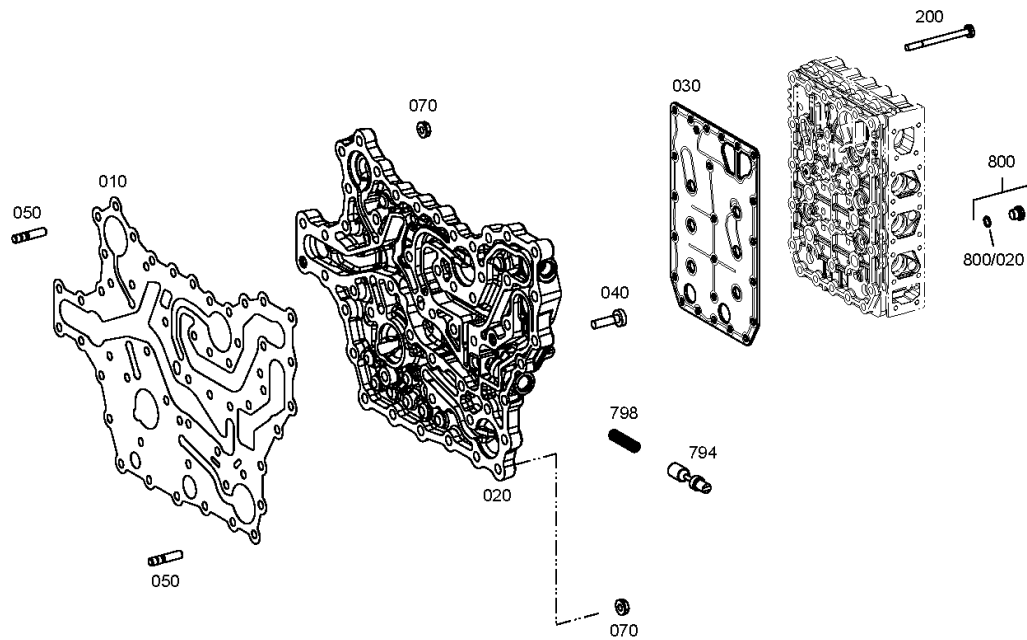
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Plant: 465710601200

Material-assembly-group-no: 4657.106.012



6 WG 210 /
SHIFT SYSTEM



Plant

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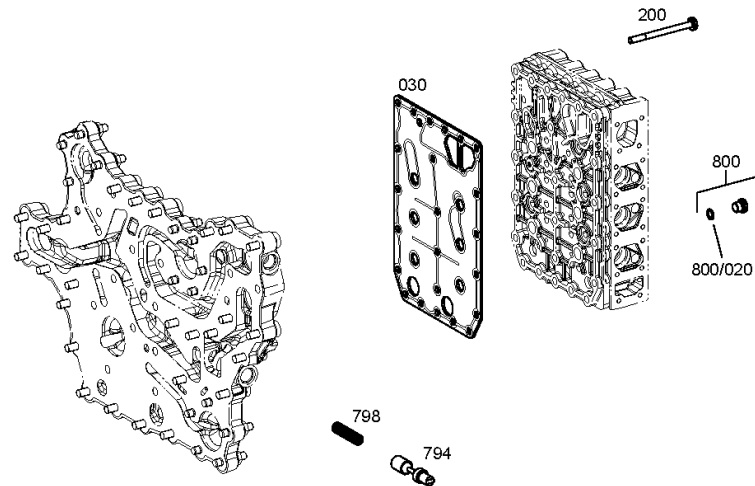
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Plant: 465710601280

Material-assembly-group-no: 4657.106.012



6 WG 210 /
SHIFT SYSTEM



Plant

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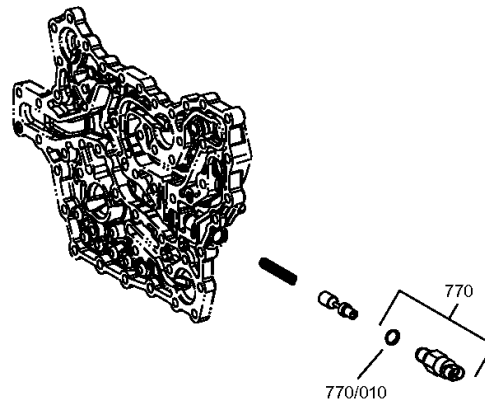
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Plant: 465710640720

Material-assembly-group-no: 4657.106.407



6 WG 210 /
SHIFT SYSTEM



Plant

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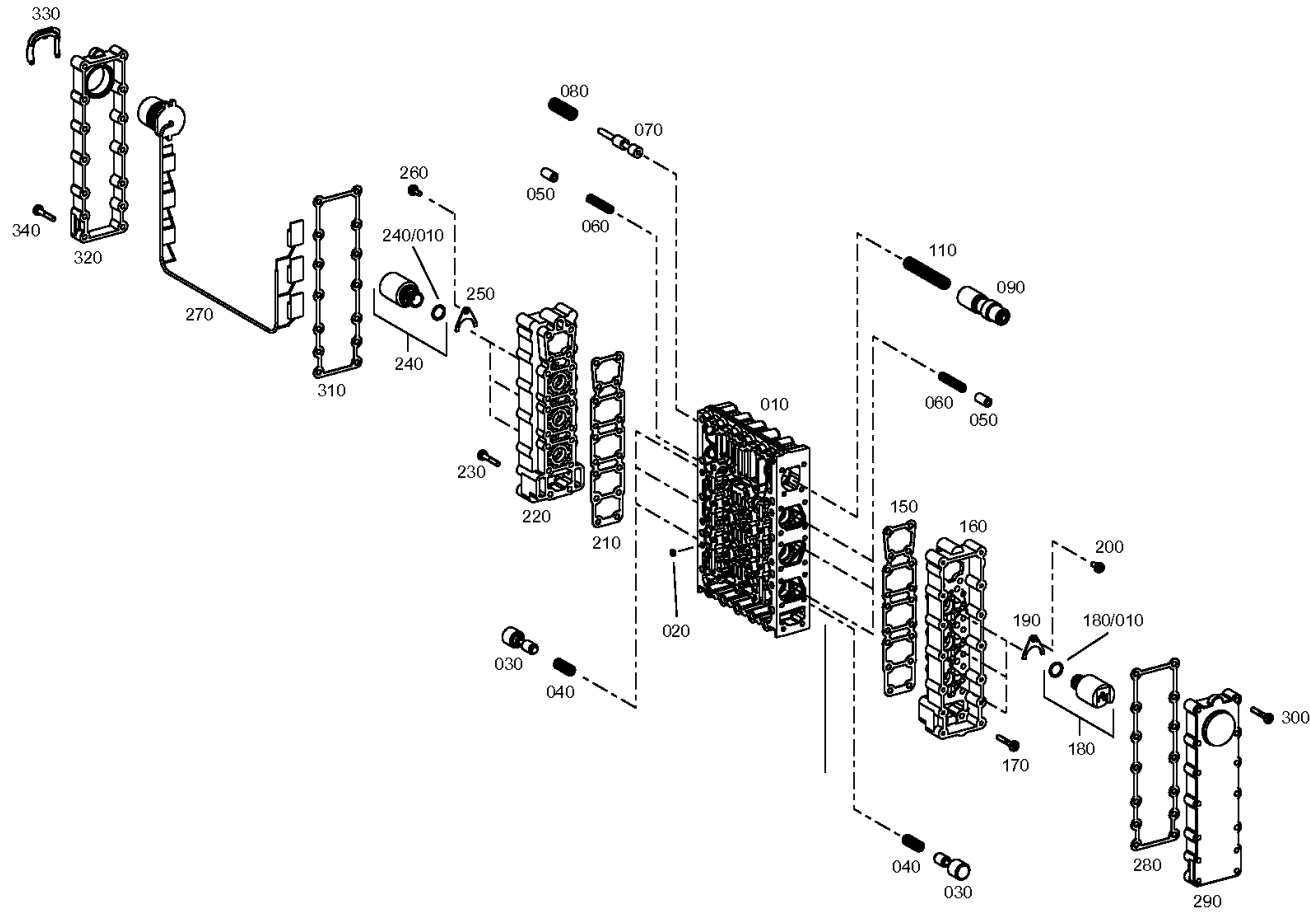
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Plant: 465615901921

Material-assembly-group-no: 4656.159.019



6 WG 210 /
SHIFT SYSTEM



Plant

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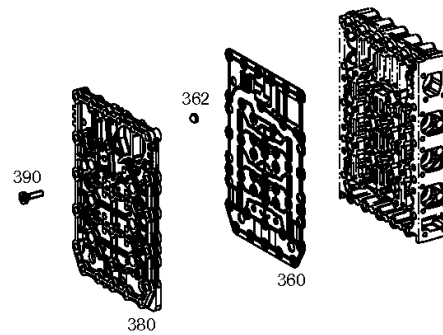
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Plant: 465615901922

Material-assembly-group-no: 4656.159.019



6 WG 210 /
SHIFT SYSTEM



Plant

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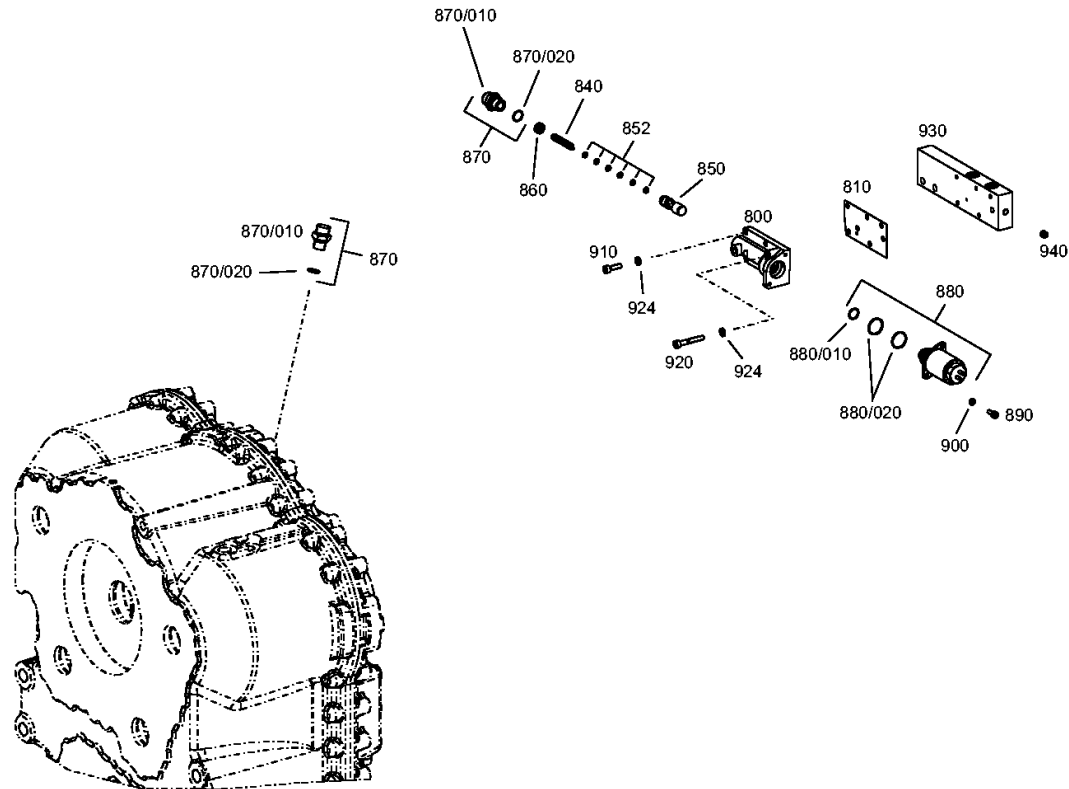
Material number: 4657.056.078

Plant: 465712300100

Material-assembly-group-no: 4657.123.001



6 WG 210 /
CONTROL UNIT



Plant

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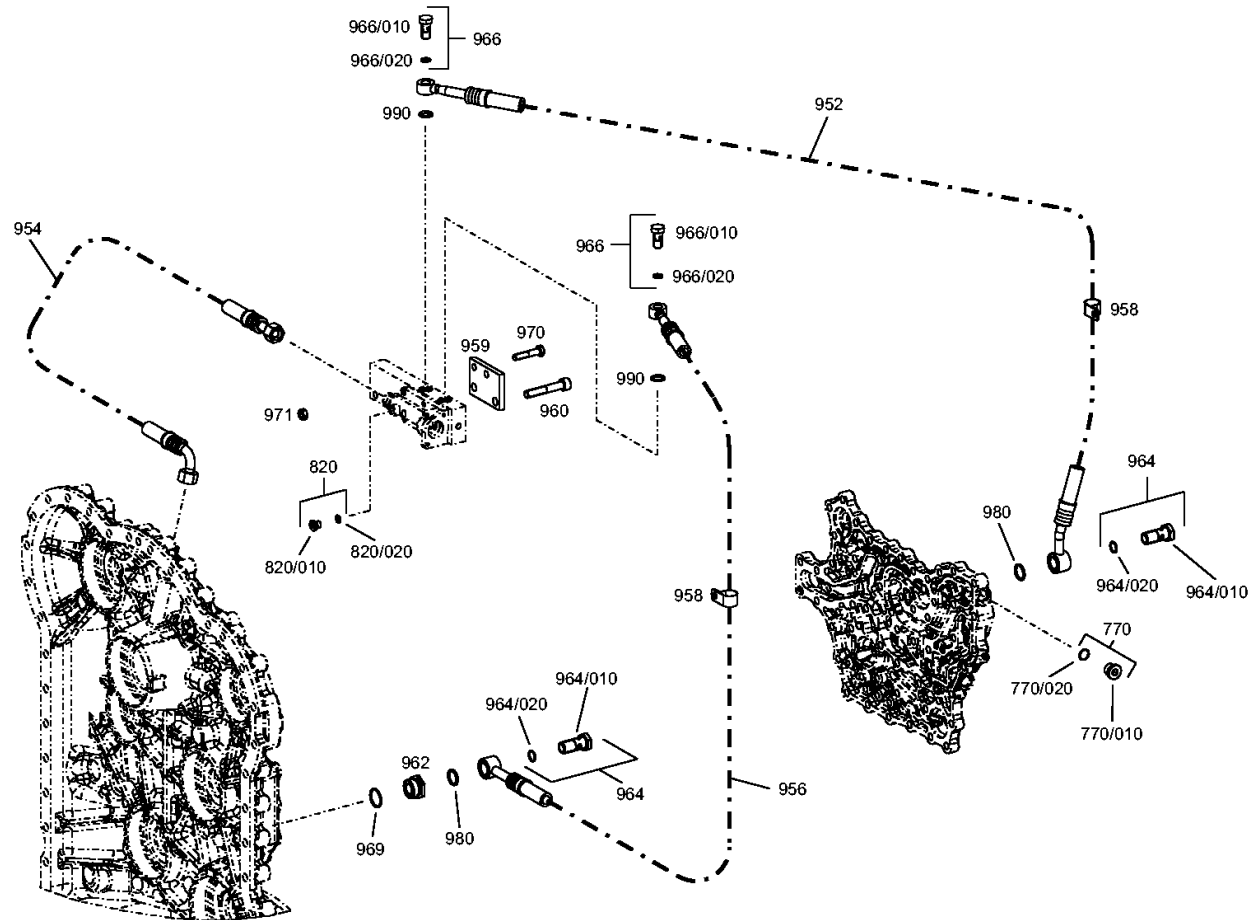
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Plant: 465712340000

Material-assembly-group-no: 4657.123.400



6 WG 210 /
CONTROL UNIT



Plant

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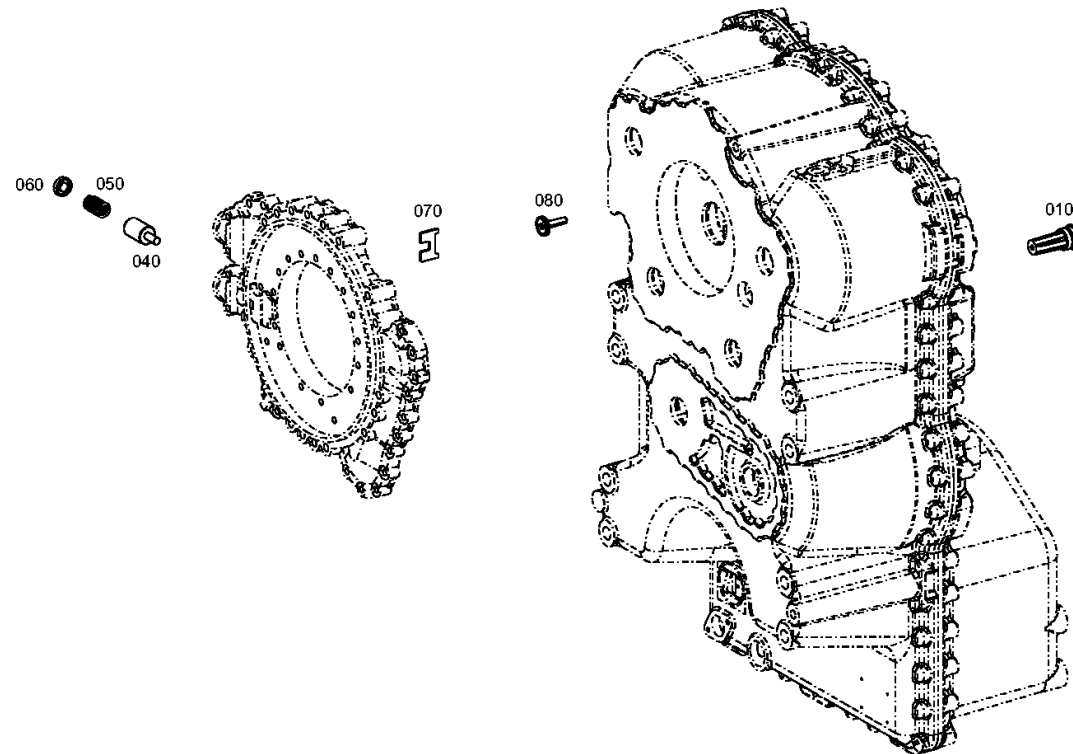
Material number: 4657.056.078

Plant: 465712000300

Material-assembly-group-no: 4657.120.003



6 WG 210 /
PRESSURE REGULATOR



Plant

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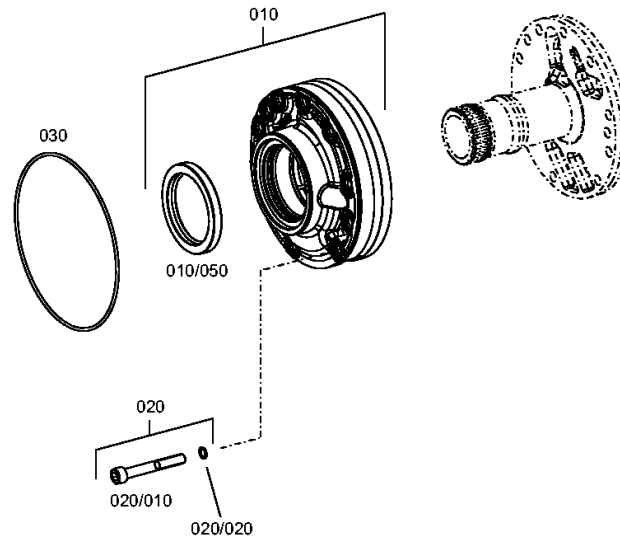
Material number: 4657.056.078

Plant: 465712200500

Material-assembly-group-no: 4657.122.005



6 WG 210 /
PRESSURE OIL PUMP



Plant

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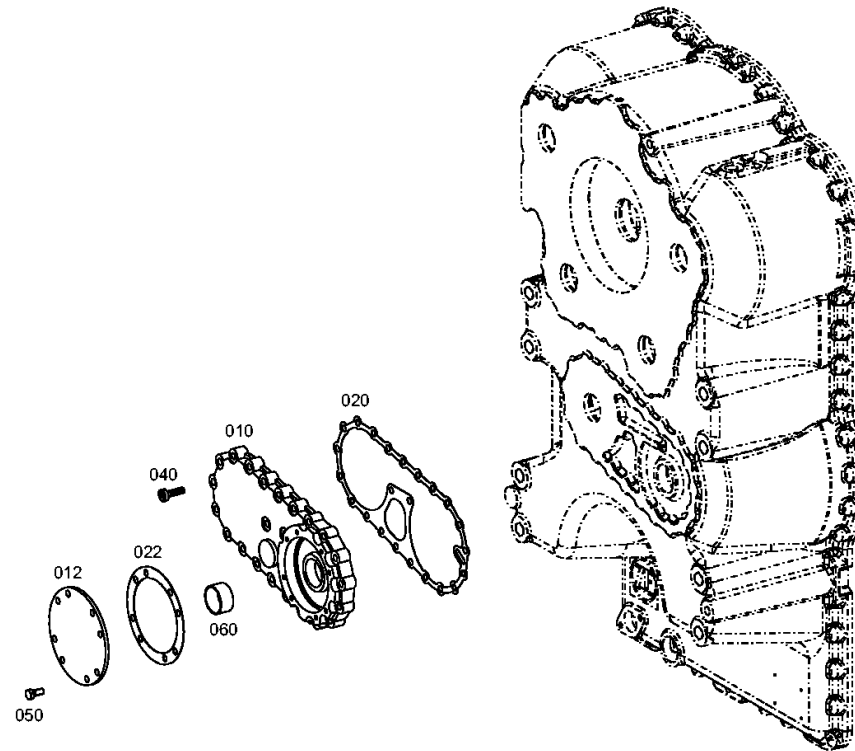
Material number: 4657.056.078

Plant: 465713700200

Material-assembly-group-no: 4657.137.002



6 WG 210 /
EMERGENCY STEERING PUMP



Plant

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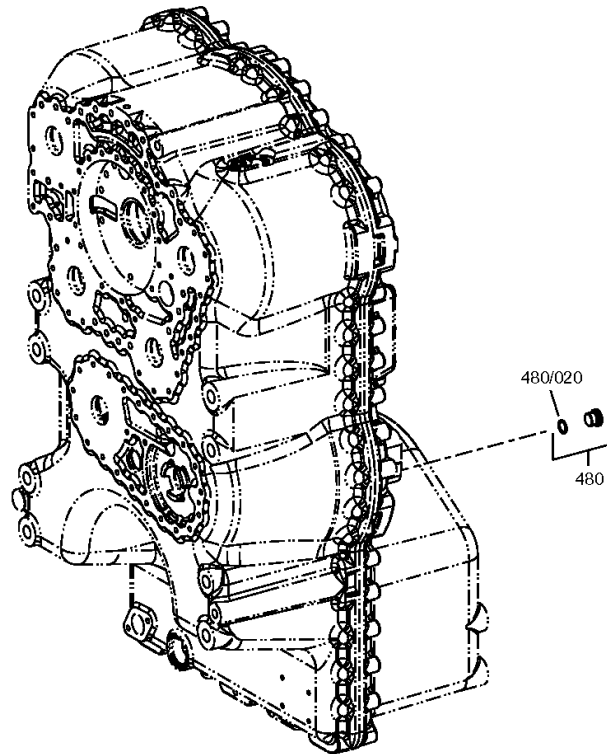
Material number: 4657.056.078

Plant: 465710700300

Material-assembly-group-no: 4657.107.003



6 WG 210 /
SPEEDOMETER



Plant

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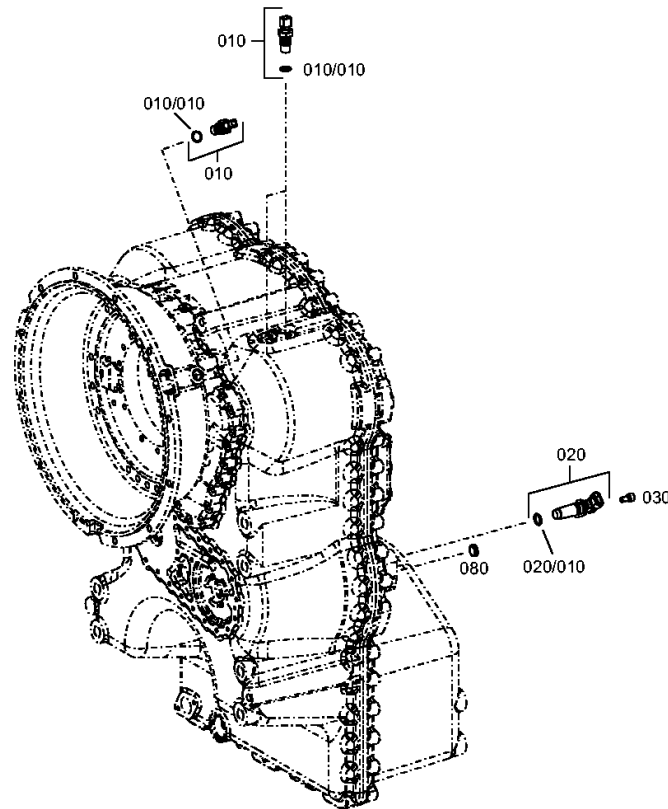
Material number: 4657.056.078

Plant: 465712500200

Material-assembly-group-no: 4657.125.002



6 WG 210 /
INDUCTIVE SENSOR



Plant

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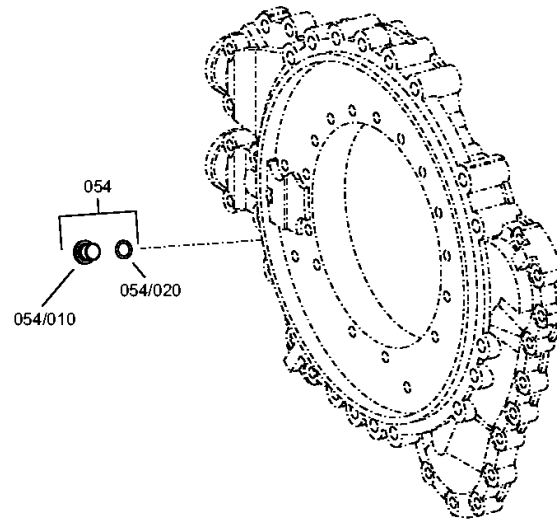
Material number: 4657.056.078

Plant: 465712400100

Material-assembly-group-no: 4657.124.001



6 WG 210 /
TEMPERATURE SENSOR



Plant

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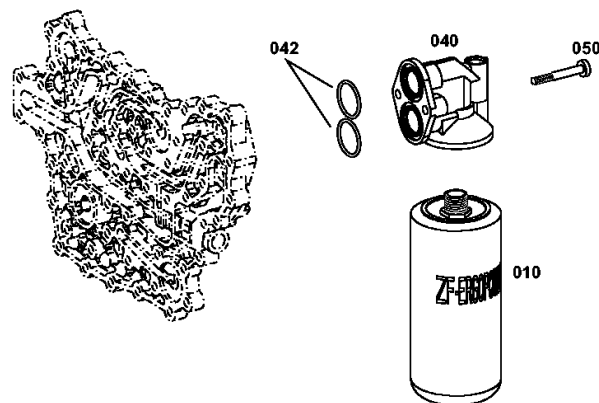
Material number: 4657.056.078

Plant: 465613800600

Material-assembly-group-no: 4656.138.006



6 WG 210 /
FILTER



Plant

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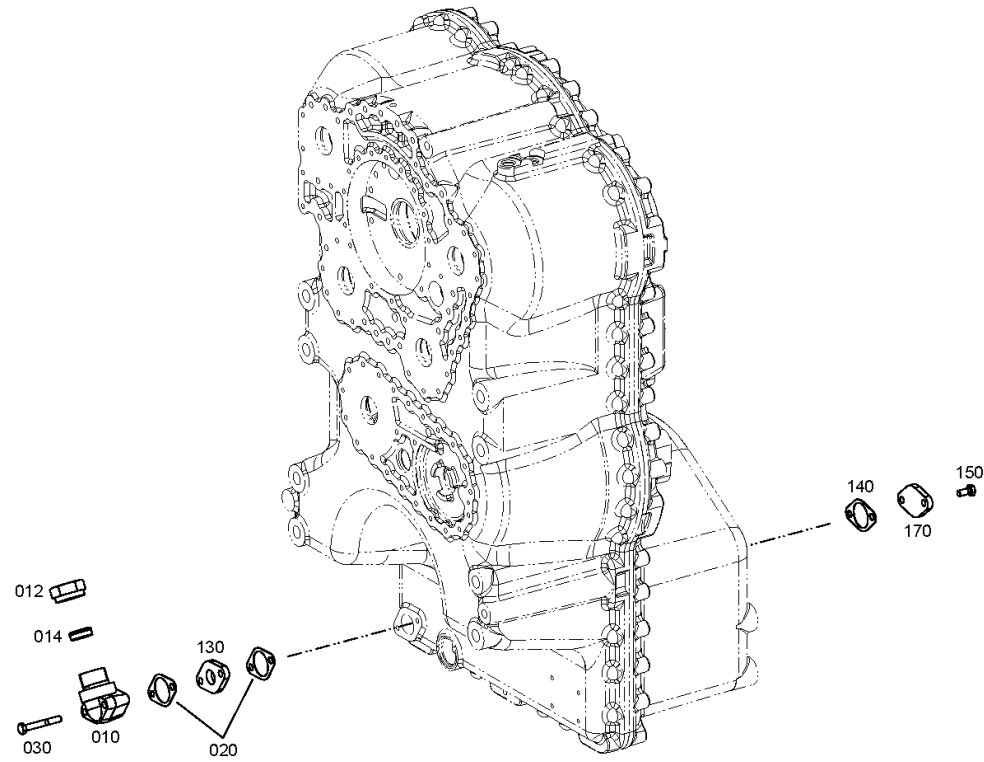
Material number: 4657.056.078

Plant: 465713100700

Material-assembly-group-no: 4657.131.007



6 WG 210 /
FILLER NOZZLE



Plant

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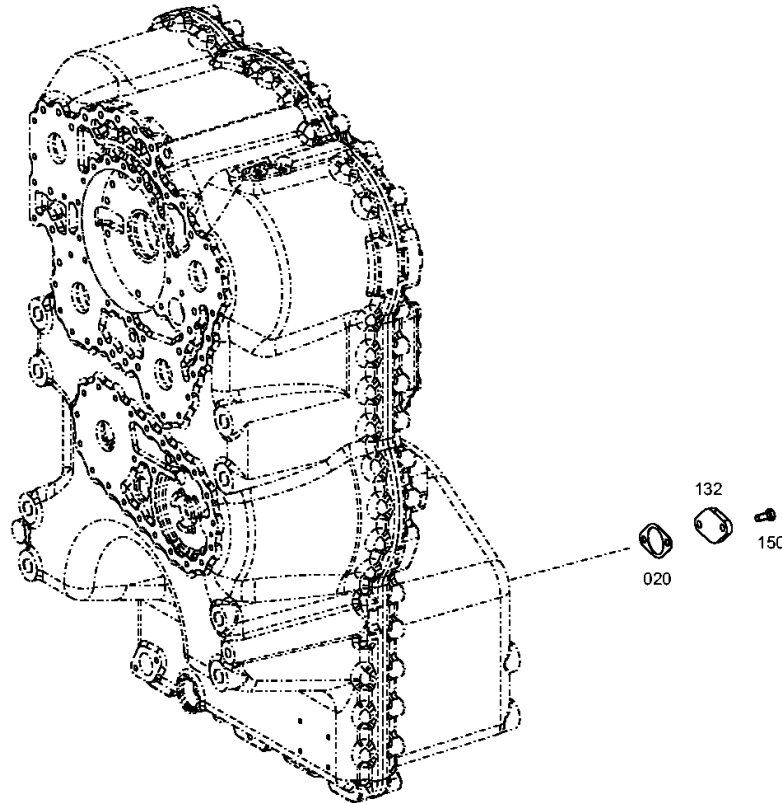
Material number: 4657.056.078

Plant: 465713140100

Material-assembly-group-no: 4657.131.401



6 WG 210 /
FILLER NOZZLE



Plant

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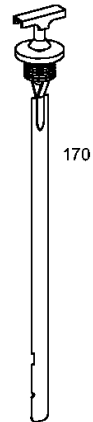
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LOOSE PARTS



Plant

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Material number: 4657.056.078

Plant: 465718315200

Material-assembly-group-no: 4657.183.152



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LOOSE PARTS

