



Spare Parts Catalog

4 WG 261

Material number: 4646.044.021

Current date: 17.10.2006

ZF Friedrichshafen AG
Hauptverwaltung
80038 Friedrichshafen
Deutschland

Telefon: +49 7541 77-0

Telefax: +49 7541 77-908000

www.zf.com

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

Page 1 from 3

Material number: 4646.044.021



4 WG 261 /

Pos.	Information	Amendment number
	CUSTOMER: KALMAR	
	STATE: FINLAND	
	VEHICLE APPLICATION: TELESCOP STAPLER	
	WEIGHT EMPTY (TO): 65.00	
	ENGINE: SCANIA DI 12 52A	
	ENGINE POWER (KW): 243	
	SPEED (RPM):	
	INPUT TORQUE (NM): 158	
	SPEED (RPM): 1400	
	TIRES: 35/65 R 33	
	TIRE RADIUS (M): 0.835	
	AXLE RATIO: 30.200	
	MAX.SPEED (KM/H): 32	
	PRODUCT DESCRIPTION: ZF-ERGOPOWER TRANSMISSION	
	VERSION: STANDARD	
	TRANSMISSION TYPE: 4 WG 261 (4)	
	DROP CENTER DISTANCE: 380 MM	
	VEHICLE: TELESCOPIC STAPLER	
	1. GEAR FORWARD: 3,713	
	2. GEAR FORWARD:2,063	
	3. GEAR FORWARD:1,065	
	4. GEAR FORWARD:0,686	
	1. GEAR REVERSE: 3,712	
	2. GEAR REVERSE:2,063	
	3. GEAR REVERSE:1,065	
	NUMBER OF PULSES ENGIN: 60	
	NUMBER OF PULSES TURB: 59	
	NUMBER OF PULSES MRK: 91	
	NUMBER OF PULSES OUTP.: 66	
	CONVERTER: W 370	
	CONVERTER PART NO: 037 H 052	
	LOCK-UP CLUTCH: WITHOUT	
	STALL TORQUE RATIO: 2,08	



Pos.	Information	Amendment number
	STATOR FREEWHEEL: WITHOUT	
	ENGINE INPUT: DIRECT MOUNTED TO ENGINE	
	ENGINE: SCANIA DI 12 52A	
	ENGINE-CONNECTION: SAE 1	
	OUTPUT FLANGECONVERTER: WITHOUT	
	OUTPUT FLANGE PTO SIDE: DIN	
	OUTPUT FLANGE-TYPE: DIN 180 KV	
	POWER TAKE OFF: 1 PTO COAXIAL ENGINE- DEPENDET	
	3 PTO TOP BRAKE SIDE	
	4 PTO TOP CONVERTER SIDE	
	1. POWER TAKE OFF: 1 : 1	
	FLANGE: SAE C 2 HOLE M16*4 HOLE M14	
	DRIVER / PROFILE: SAE C 12/24 DP 14 T	
	RATIO 3 PTO: 1 : 1	
	FLANGE: SAE C 2 HOLE M16*4 HOLE M14	
	DRIVER / PROFILE: SAE 12/24 DP 14 T	
	RATIO 4 PTO: 1 : 1	
	SAE B 2LOCH/M12	
	SAE B 16/32 DP 13T	
	GEAR CHANGE CONTROL: ZF-ERGOSHIFT/ PROP VALVE	
	VOLTAGE: 24 VOLT	
	OPERTATING PRESSURE: 16*2 BAR	
	CABLE CONNECT. TO EST 3 BAYONET	
	OIL TEMPERATURE SENSOR: WITH (VIA EST)	
	SPEED CONTROL: CONNECTION VIA EST 37A	
	OIL LEVEL TUBE: MOUNTED ON PTO SIDE	
	OIL DIPSTICK: B1-LONG	
	DELIVERYOIL LEV. TUBE: ASSEMBLED	
	FILTER INSTALATION: SPARATE MOUNTED	
	PRES.DROP SWITCH: CLOSING SWITCH	
	EMERGENCY STEERING PUMP WITHOUT	
	DOCUMENTATION GEAR BOX:	
	SECTION DRAWING: 4646 044 002	

Technical Cover

Page 3 from 3

Material number: 4646.044.021



4 WG 261 /

Pos.	Information	Amendment number
	OIL CIRCUIT DIAGRAMM: 4646 700 291	
	DOKU. CONTROL:	
	WIRING DIAGRAMM: 6029 701 741	
	DRAWING: 6009 665 002	
	GEARBOX OIL FILLING: WITHOUT	
	OIL GRADE: LIBRICANTS LIST TE ML 03	
	PRIME CODE: RAL-3009	
	INSTAL. INSTRUCTIONS: 4657 700 079	
	INSTALLATION DRAWING: 4646 644 021	
	PERFORMANCE CALC.: 4646 708 857	

Assembly group overview

Page 1 from 2



4 WG 261 /

Material number: 4646.044.021

Picture	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
465615901901	120	4656.159.019	SHIFT SYSTEM	1		
	220	0501.213.900	FILTER HEAD	1		
464613001000	270	4646.130.010	ENGINE CONNECTION	1		
416603707200	500	4166.037.072	CONVERTER	1		
464610205700	30	4646.102.057	INPUT	1		
464610111100	10	4646.101.172	TRANSMISSION HOUSING	1		
464610145900	20	4646.101.459	TRANSMISSION HOUSING	1		
464610801300	150	4646.108.013	COUNTERSHAFT	1		
464615107300	350	4646.151.073	COUPLING	1		
464615148500	352	4646.151.485	COUPLING	1		
464615146600	355	4646.151.466	COUPLING	1		
464615206900	360	4646.152.069	COUPLING	1		
464615253300	365	4646.152.533	COUPLING	1		
464615307200	370	4646.153.072	COUPLING	1		
464615345800	375	4646.153.458	COUPLING	1		
464610304100	50	4646.103.041	OUTPUT	1		
464610343000	70	4646.103.430	OUTPUT	1		

Assembly group overview

Page 2 from 2



4 WG 261 /

Material number: 4646.044.021

Picture	Pos.	Material number	Name	Quantity	Amend. no.	Techn. Info.
464615404300	380	4646.154.043	POWER TAKE-OFF	1		
464615442600	390	4646.154.426	POWER TAKE-OFF	1		
464615600800	420	4646.156.008	POWER TAKE-OFF	1		
464615643400	430	4646.156.434	POWER TAKE-OFF	1		
464610602200	110	4646.106.022	SHIFT SYSTEM	1		
465710640100	115	4657.106.401	SHIFT SYSTEM	1		
464612201200	225	4646.122.012	PRESSURE OIL PUMP	1		
464613800400	330	4646.138.004	FILTER	1		
464619940600	335	4646.199.406	LOOSE PARTS	1		
02300	250	4646.125.023	INDUCTIVE SENSOR	1		
464612400600	240	4646.124.006	TEMPERATURE SENSOR	1		
464613103000	290	4646.131.030	FILLER NOZZLE	1		
464613140100	295	4646.131.401	FILLER NOZZLE	1		
464612141401	210	4646.121.414	OIL PIPE	1		
464618313400	495	4646.183.134	LOOSE PARTS	1		
	KIT	4646.298.914	DISC CARRIER	1		
	KIT	4646.298.916	DISC CARRIER	1		

Picture

Page 1 from 2

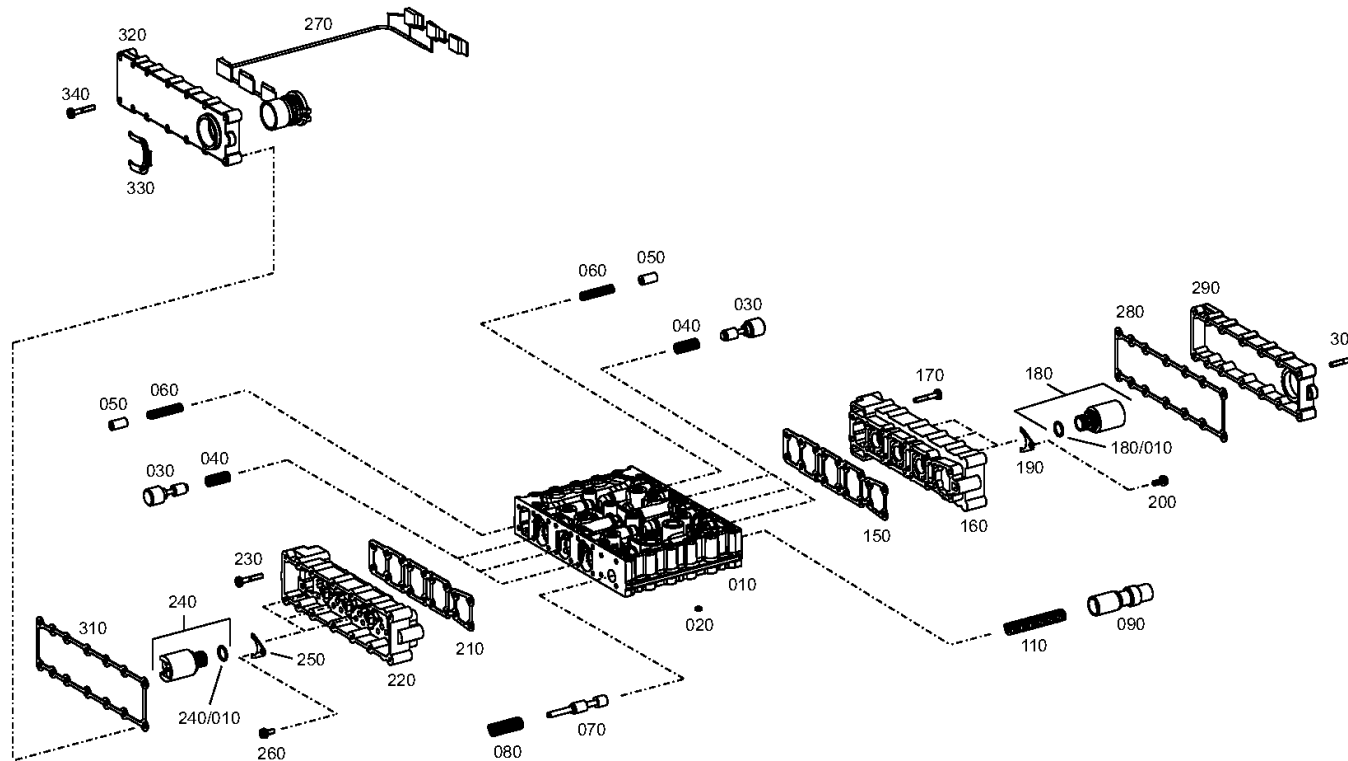
Material number: 4646.044.021

Picture: 465615901901

Material-assembly-group-no: 4656.159.019



4 WG 261 /
SHIFT SYSTEM



Picture

Page 2 from 2

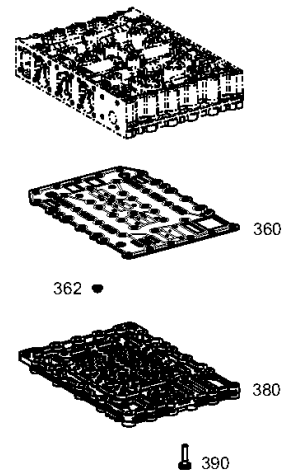
Material number: 4646.044.021

Picture: 465615901902

Material-assembly-group-no: 4656.159.019



4 WG 261 /
SHIFT SYSTEM



Picture

Page 1 from 1

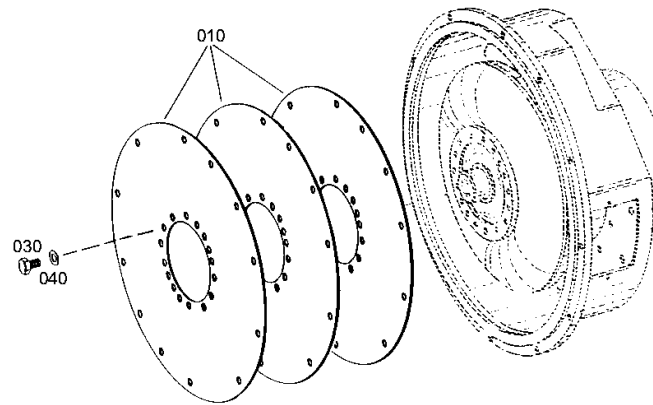
Material number: 4646.044.021

Picture: 464613001000

Material-assembly-group-no: 4646.130.010



4 WG 261 /
ENGINE CONNECTION



Picture

Page 1 from 1

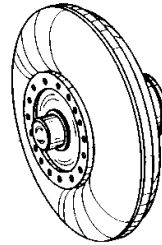
Material number: 4646.044.021

Picture: 416603707200

Material-assembly-group-no: 4166.037.072



4 WG 261 /
CONVERTER



010

Picture

Page 1 from 1

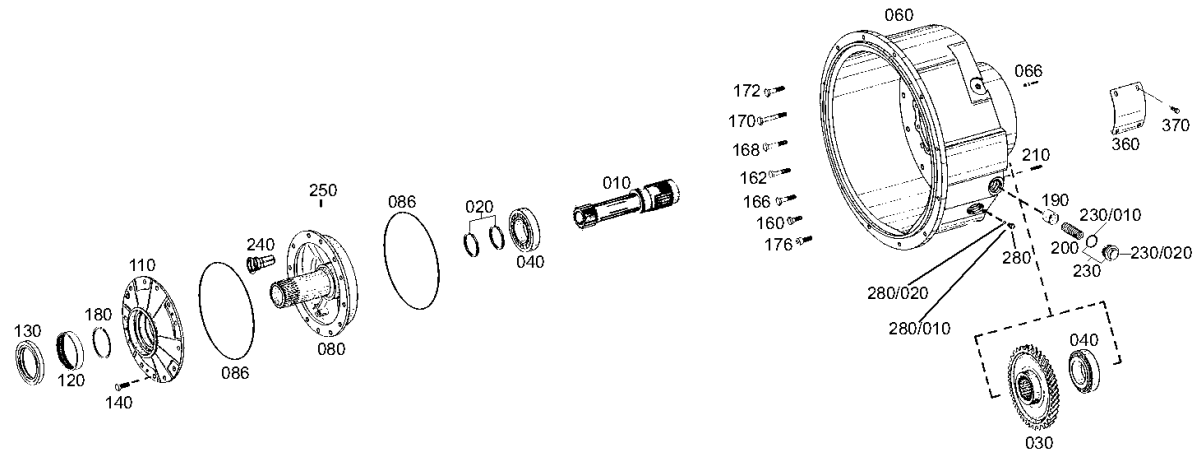
Material number: 4646.044.021

Picture: 464610205700

Material-assembly-group-no: 4646.102.057



4 WG 261 /
INPUT



Picture

Page 1 from 1

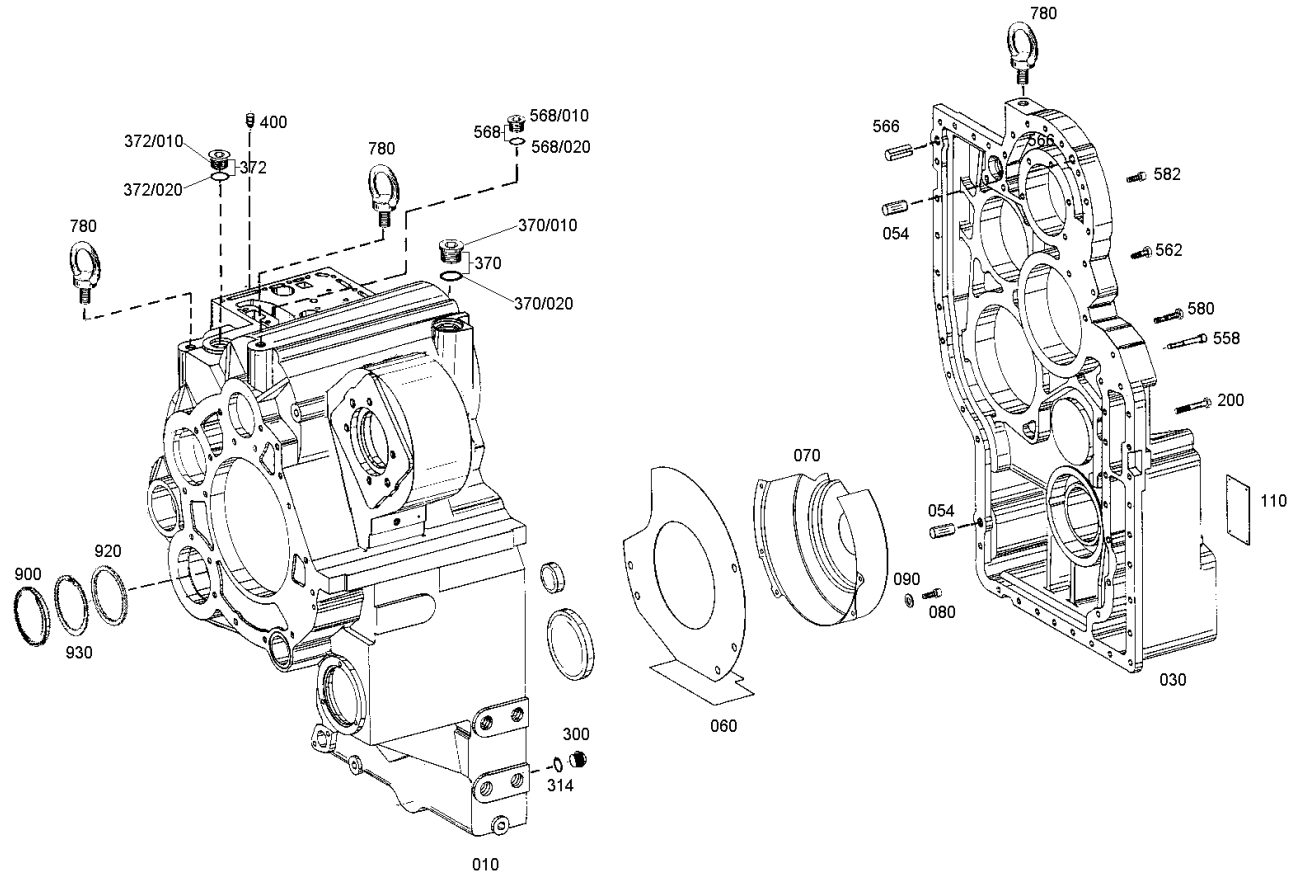
Material number: 4646.044.021

Picture: 464610111100

Material-assembly-group-no: 4646.101.172



4 WG 261 /
TRANSMISSION HOUSING



Picture

Page 1 from 1

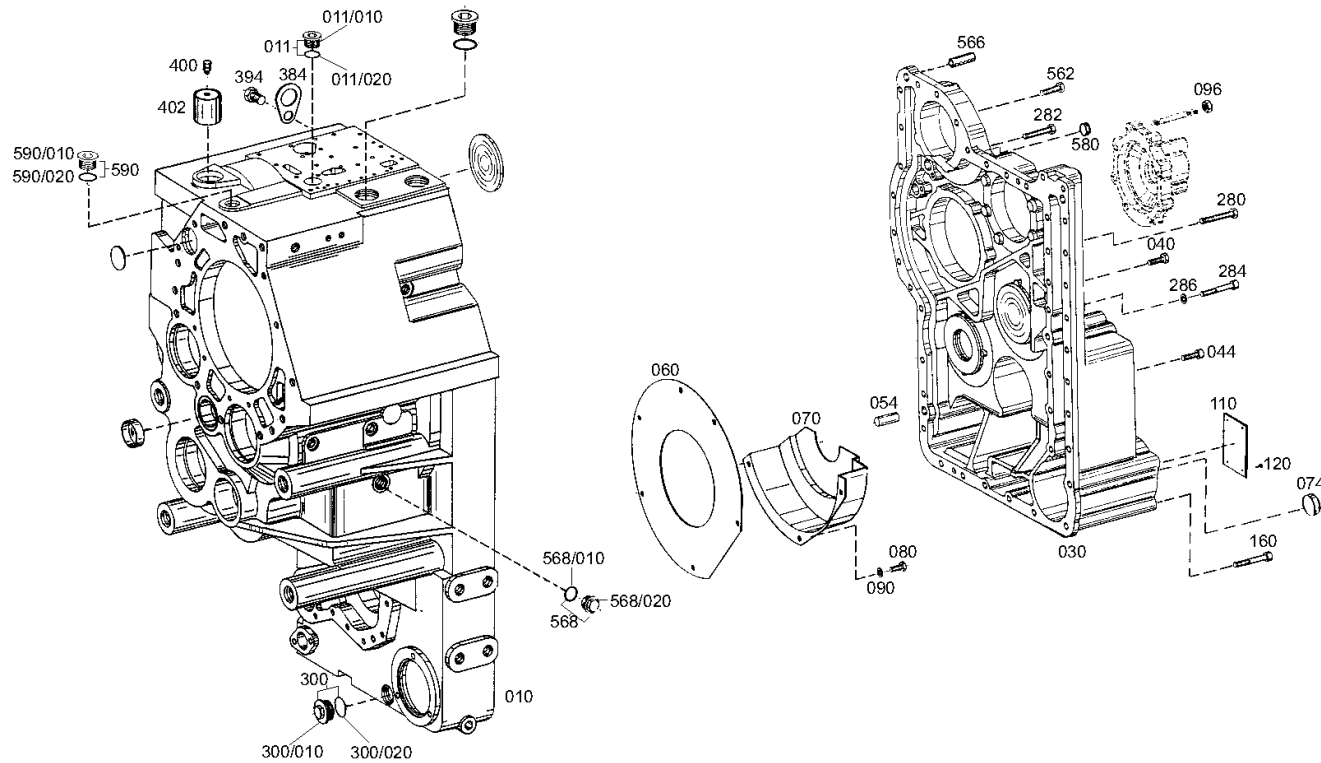
Material number: 4646.044.021

Picture: 464610145900

Material-assembly-group-no: 4646.101.459



4 WG 261 /
TRANSMISSION HOUSING



Picture

Page 1 from 1

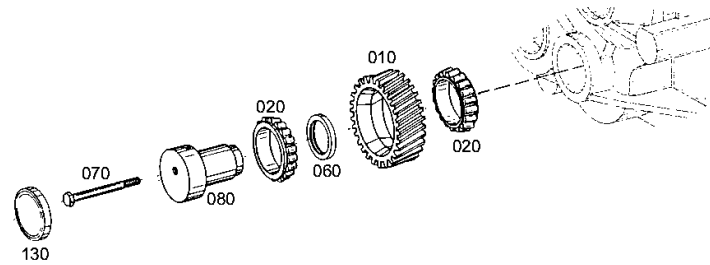
Material number: 4646.044.021

Picture: 464610801300

Material-assembly-group-no: 4646.108.013



4 WG 261 /
COUNTERSHAFT



Picture

Page 1 from 1

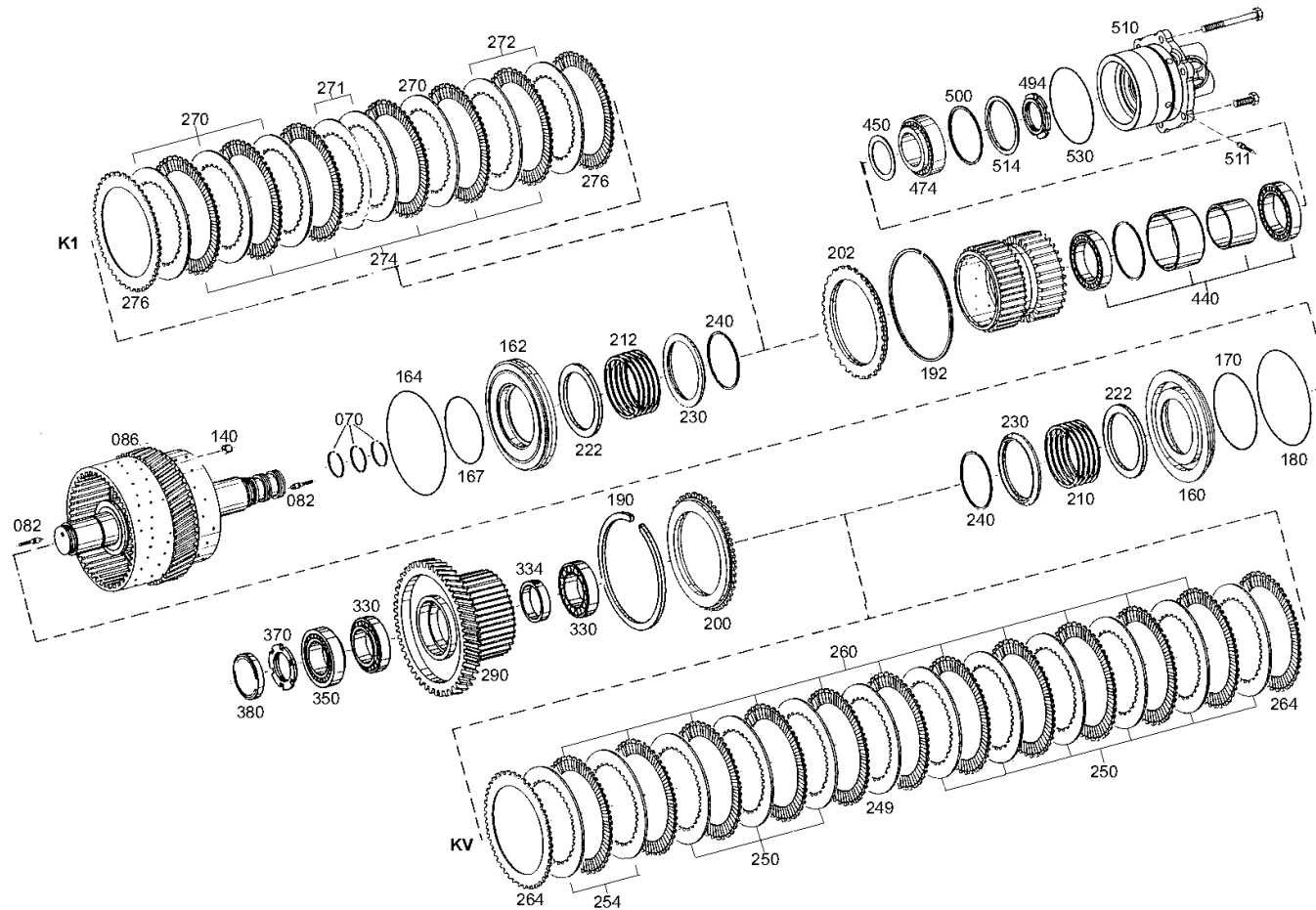
Material number: 4646.044.021

Picture: 464615107300

Material-assembly-group-no: 4646.151.073



4 WG 261 /
COUPLING



Picture

Page 1 from 1

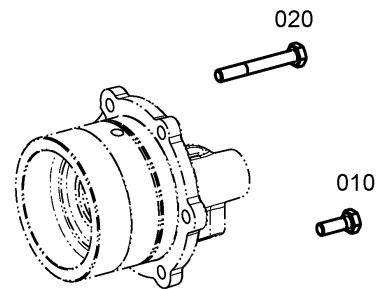
Material number: 4646.044.021

Picture: 464615148500

Material-assembly-group-no: 4646.151.485



4 WG 261 /
COUPLING



Picture

Page 1 from 1

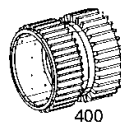
Material number: 4646.044.021

Picture: 464615146600

Material-assembly-group-no: 4646.151.466



4 WG 261 /
COUPLING



Picture

Page 1 from 1

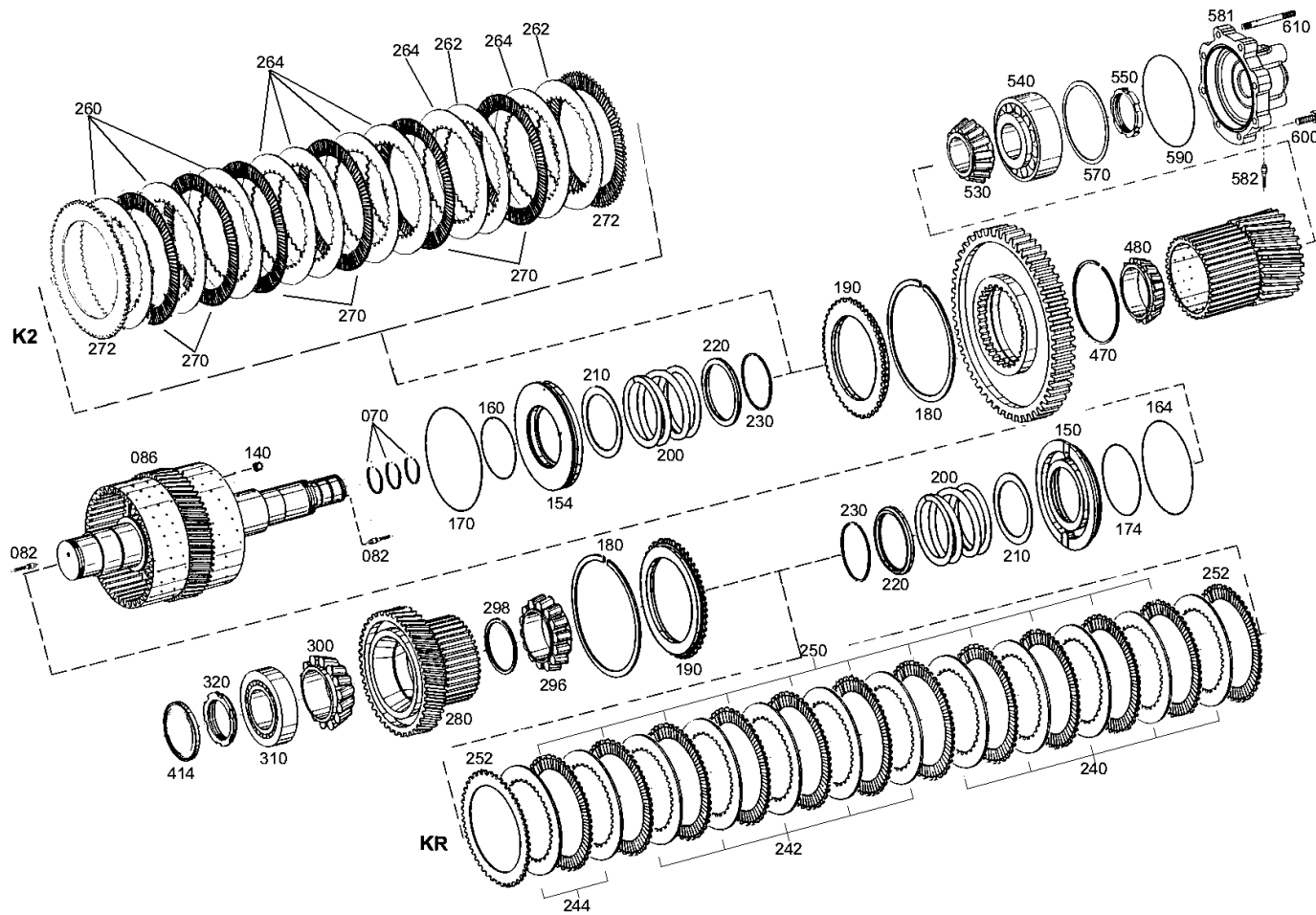
Material number: 4646.044.021

Picture: 464615206900

Material-assembly-group-no: 4646.152.069



4 WG 261 /
COUPLING



Picture

Page 1 from 1

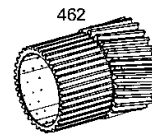
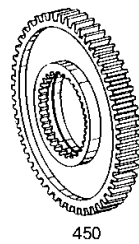
Material number: 4646.044.021

Picture: 464615253300

Material-assembly-group-no: 4646.152.533



4 WG 261 /
COUPLING



Picture

Page 1 from 1

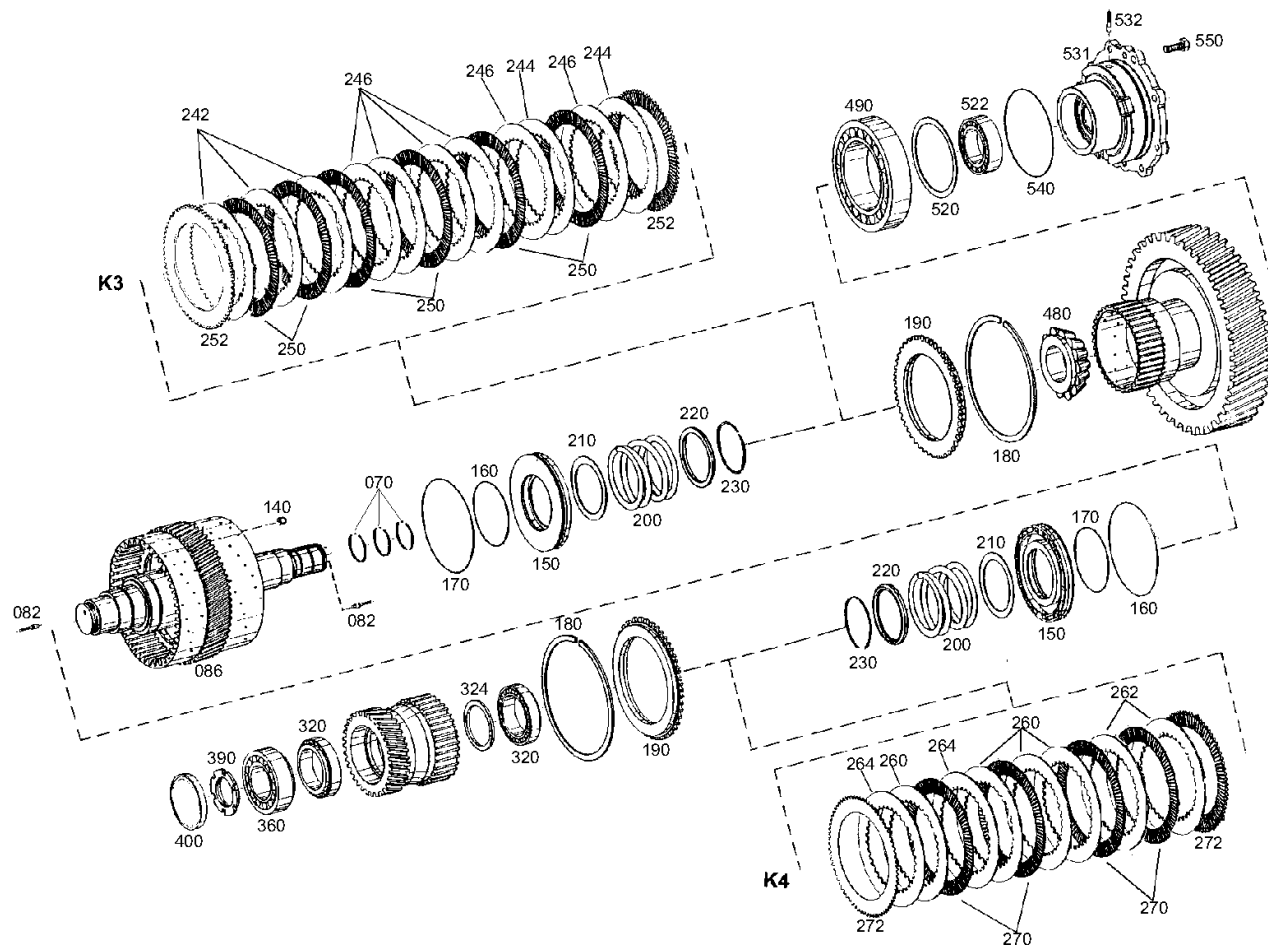
Material number: 4646.044.021

Picture: 464615307200

Material-assembly-group-no: 4646.153.072



4 WG 261 /
COUPLING



Picture

Page 1 from 1

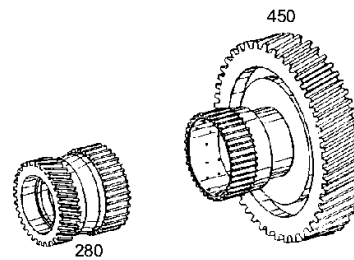
Material number: 4646.044.021

Picture: 464615345800

Material-assembly-group-no: 4646.153.458



4 WG 261 /
COUPLING



Picture

Page 1 from 1

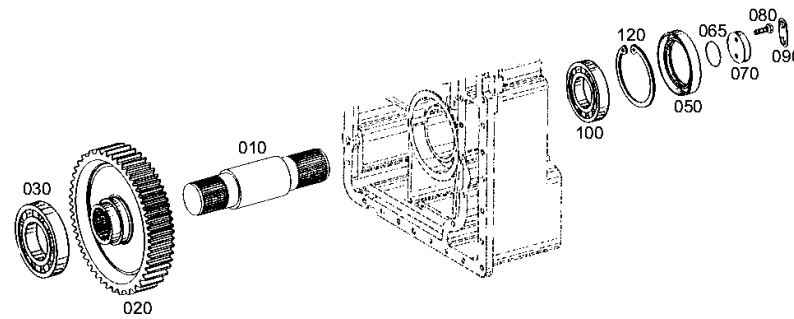
Material number: 4646.044.021

Picture: 464610304100

Material-assembly-group-no: 4646.103.041



4 WG 261 /
OUTPUT



Picture

Page 1 from 1

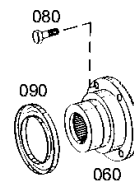
Material number: 4646.044.021

Picture: 464610343000

Material-assembly-group-no: 4646.103.430



4 WG 261 /
OUTPUT



Picture

Page 1 from 1

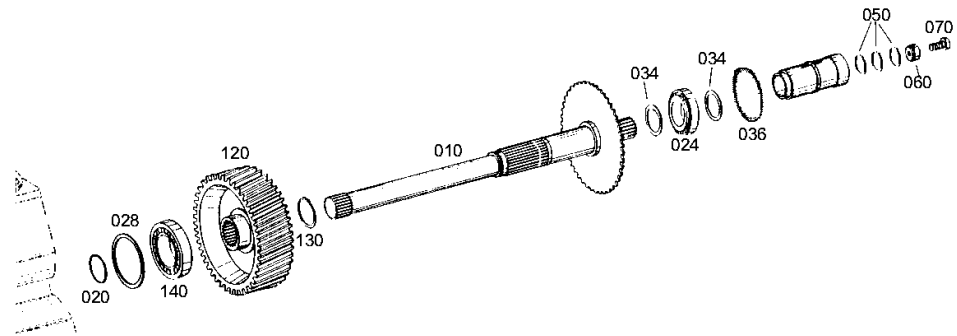
Material number: 4646.044.021

Picture: 464615404300

Material-assembly-group-no: 4646.154.043



4 WG 261 /
POWER TAKE-OFF



Picture

Page 1 from 1

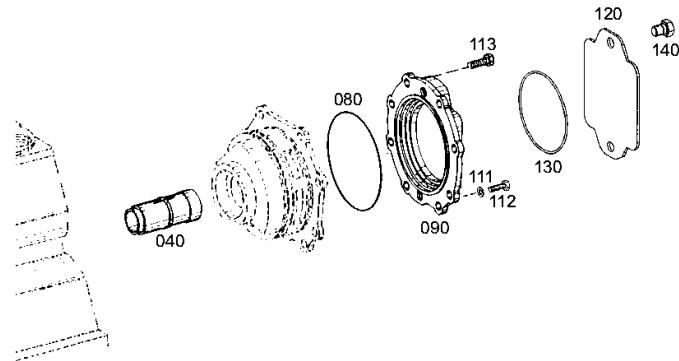
Material number: 4646.044.021

Picture: 464615442600

Material-assembly-group-no: 4646.154.426



4 WG 261 /
POWER TAKE-OFF



Picture

Page 1 from 1

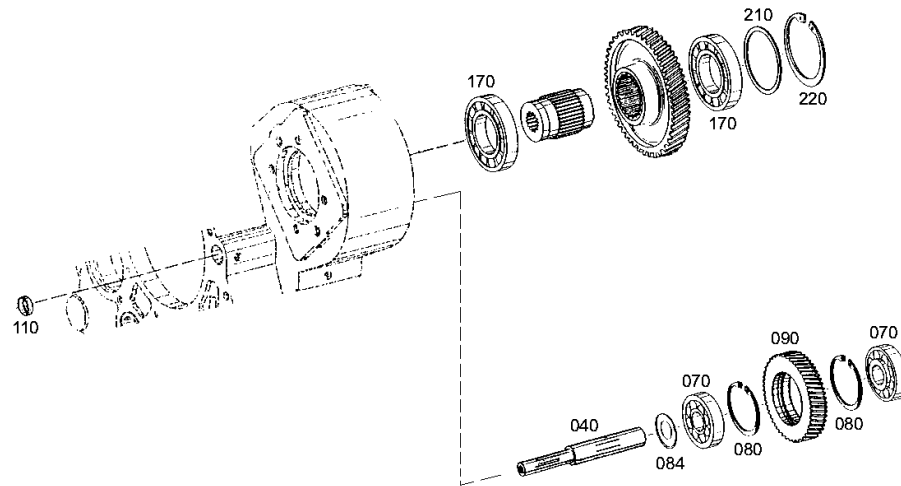
Material number: 4646.044.021

Picture: 464615600800

Material-assembly-group-no: 4646.156.008



4 WG 261 /
POWER TAKE-OFF



Picture

Page 1 from 1

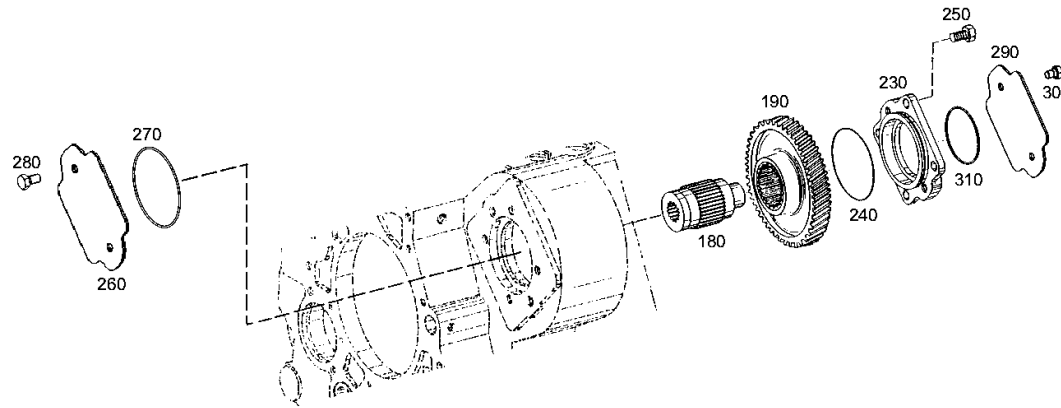
Material number: 4646.044.021

Picture: 464615643400

Material-assembly-group-no: 4646.156.434



4 WG 261 /
POWER TAKE-OFF



Picture

Page 1 from 1

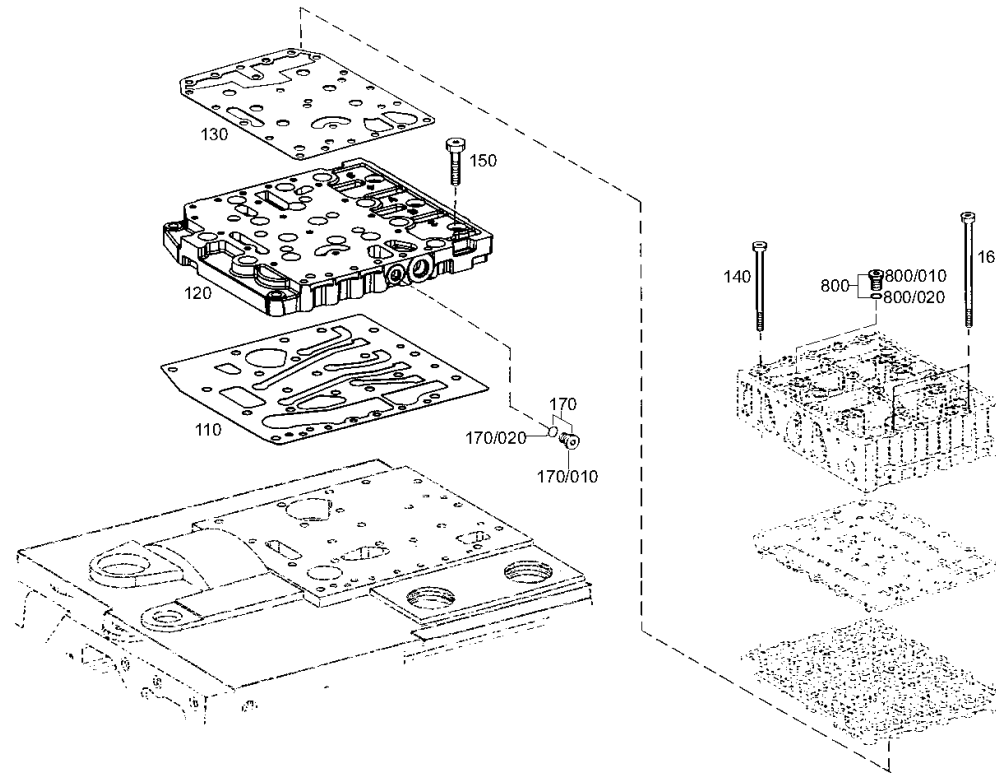
Material number: 4646.044.021

Picture: 464610602200

Material-assembly-group-no: 4646.106.022



4 WG 261 /
SHIFT SYSTEM



Picture

Page 1 from 1

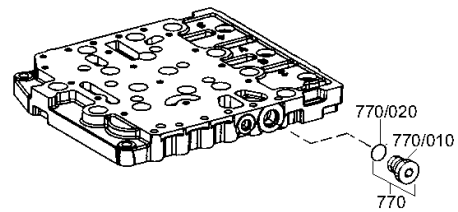
Material number: 4646.044.021

Picture: 465710640100

Material-assembly-group-no: 4657.106.401



4 WG 261 /
SHIFT SYSTEM



Picture

Page 1 from 1

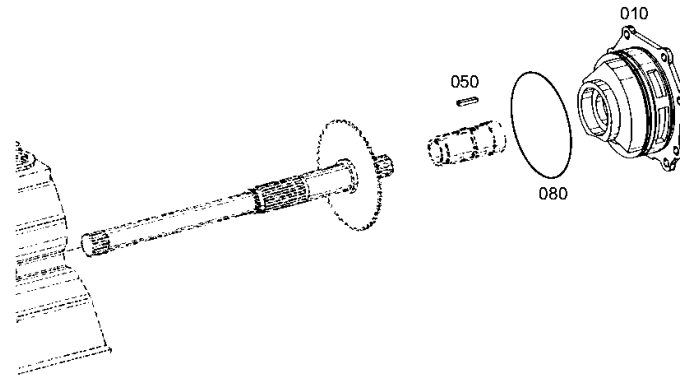
Material number: 4646.044.021

Picture: 464612201200

Material-assembly-group-no: 4646.122.012



4 WG 261 /
PRESSURE OIL PUMP



Picture

Page 1 from 1

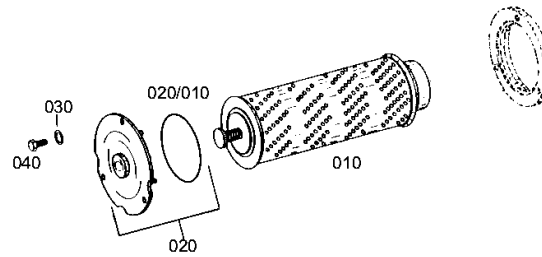
Material number: 4646.044.021

Picture: 464613800400

Material-assembly-group-no: 4646.138.004



4 WG 261 /
FILTER



Picture

Page 1 from 1

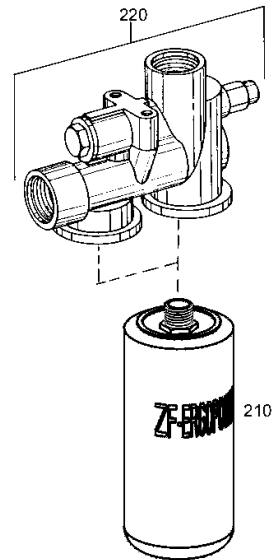
Material number: 4646.044.021

Picture: 464619940600

Material-assembly-group-no: 4646.199.406



4 WG 261 /
LOOSE PARTS



Picture

Page 1 from 1

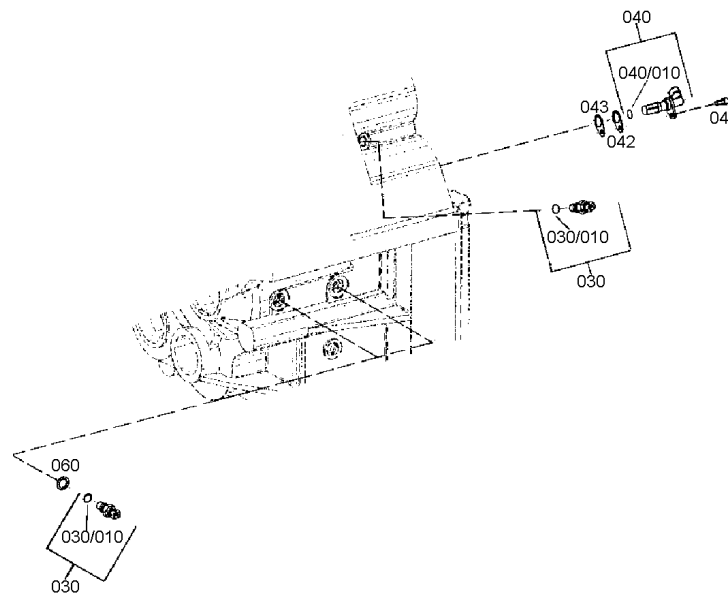
Material number: 4646.044.021

Picture: 02300

Material-assembly-group-no: 4646.125.023



4 WG 261 /
INDUCTIVE SENSOR



Picture

Page 1 from 1

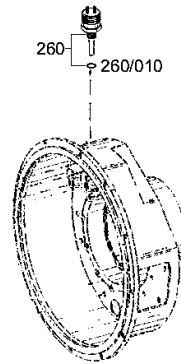
Material number: 4646.044.021

Picture: 464612400600

Material-assembly-group-no: 4646.124.006



4 WG 261 /
TEMPERATURE SENSOR



Picture

Page 1 from 1

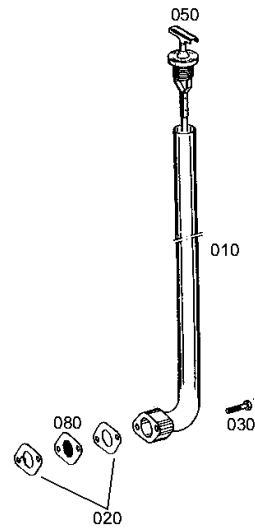
Material number: 4646.044.021

Picture: 464613103000

Material-assembly-group-no: 4646.131.030



4 WG 261 /
FILLER NOZZLE



Picture

Page 1 from 1

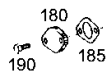
Material number: 4646.044.021

Picture: 464613140100

Material-assembly-group-no: 4646.131.401



4 WG 261 /
FILLER NOZZLE



Picture

Page 1 from 2

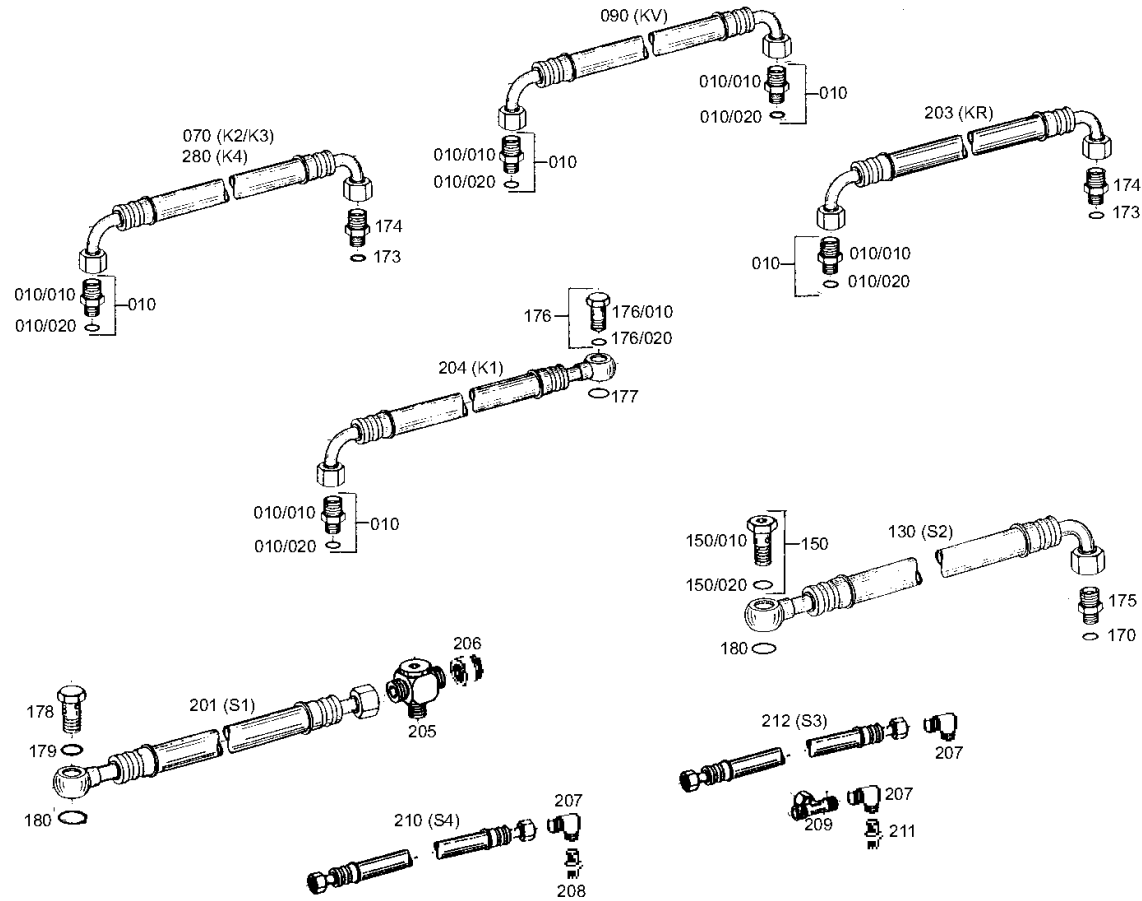
Material number: 4646.044.021

Picture: 464612141401

Material-assembly-group-no: 4646.121.414



4 WG 261 /
OIL PIPE



Picture

Page 2 from 2

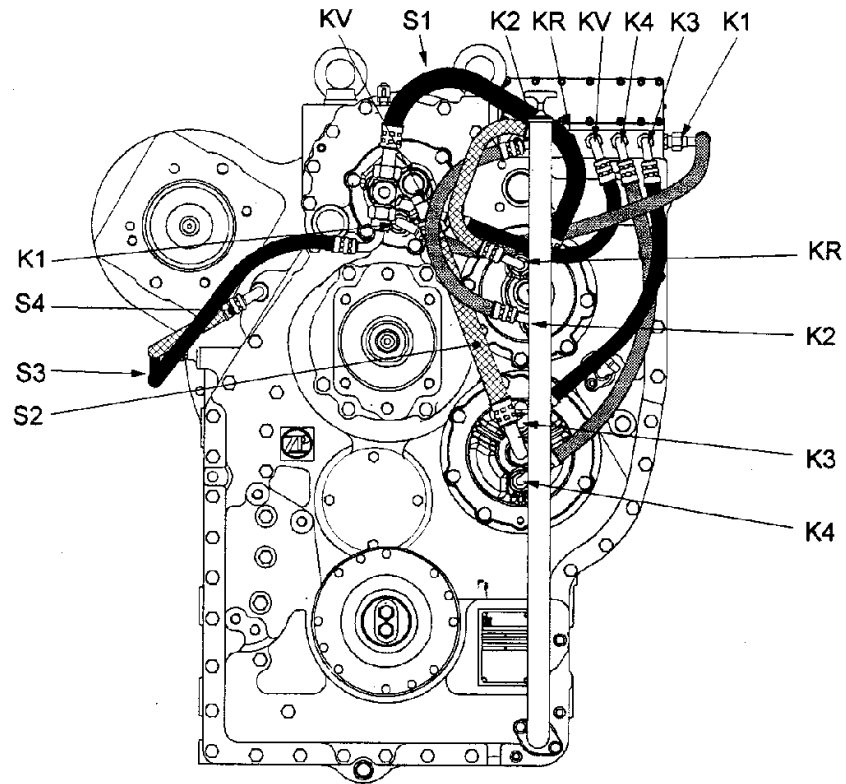
Material number: 4646.044.021

Picture: 464612141402

Material-assembly-group-no: 4646.121.414



4 WG 261 /
OIL PIPE



Picture

Page 1 from 1

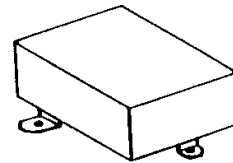
Material number: 4646.044.021

Picture: 464618313400

Material-assembly-group-no: 4646.183.134



4 WG 261 /
LOOSE PARTS



010