

Spare Parts Catalog 4 WG 260

Material number: 4646.054.151

Current date: 06.10.2021

ZF Friedrichshafen AG Hauptverwaltung 80038 Friedrichshafen Deutschland

Telefon: +49 7541 77-0

Telefax: +49 7541 77-908000 zuständiges Werk:

www.zf.com Passau

Notes relating to the spare parts catalog

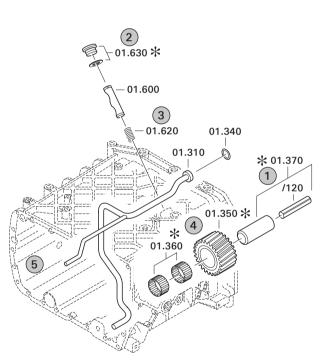


Setup of the spare parts catalog

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

- ..

Figure and parts list



Overview of figures

Bildtafel Figure			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
0680814	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)		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

		Sachnummer Product number	Benennung (Description)		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

Page 1 from 4



Pos.	Information	Amendment number
	CUSTOMER: DOOSAN	
	1.PERFORMANCE CALC.: 4646 709 857	
	VEHICLE DESIGNATION: SMK420A	
	WEIGHT LOADED: 30,371 T	
	WEIGHT EMPTY: 22,181 T	
	ENGINE: DOOSAN DX12, TIER2	
	ENGINE POWER: 219,4 KW	
	SPEED: 2050 RPM	
	INPUT TORQUE: 1327 NM	
	SPEED: 1200 RPM	
	TYRE SIZE: 26,5-25 L3	
	TYRE RADIUS DYN.: 0,817 M	
	AXLE RATIO: 23,333	
	MAX. SPEED: 38,4 KM/H	
	VEHICLE DATA 2:	
	2.PERFORMANCE CALC.: 4646 709 858	
	VEHICLE APPLICATION: SMK420A	
	WEIGHT LOADED: 31,556 T	
	WEIGHT EMPTY: 23,566 T	
	ENGINE: DOOSAN DX12, TIER2	
	ENGINE POWER: 219,4 KW	
	SPEED: 2.050 RPM	
	ENGINE TORQUE: 1.327 NM	
	SPEED: 1.200 RPM	
	TIRES: 26,5-25 L3	
	TYRE RADIUS DYN.: 0,817 M	
	AXLE RATIO: 23,333	
	MAX. SPEED: 37,9 KM/H	
	VEHICLE DATA 3:	
	3.PERFORMANCE CALC.: 4646 709 859	
	VEHICLE APPLICATION: SMK420A	
	WEIGHT LOADED: 33,246 T	
	WEIGHT EMPTY: 25,496 T	

Page 2 from 4



Pos.	Information	Amendment number
	ENGINE: DOOSAN DX12, TIER2	
	ENGINE POWER: 219,4 KW	
	SPEED: 2.050 RPM	
	INPUT TORQUE: 1.327 NM	
	SPEED: 1.200 RPM	
	TIRES: 26,5-25 L4	
	TYRE RADIUS DYN.: 0,823 M	
	AXLE RATIO: 23,333	
	MAX. SPEED: 37,3 KM/H	
	PRODUCT DESCRIPTION: ZF-ERGOPOWER L	
	TRANSMISSION TYPE: 4 WG 260	
	DROP CENTER DISTANCE: 575 MM	
	PRODUCTION LOCATION: PASSAU	
	VEHICLE: WHEEL LOADER	
	1. GEAR FORWARD: 3,731	
	2. GEAR FORWARD: 2,207	
	3. GEAR FORWARD: 0,970	
	4. GEAR FORWARD: 0,625	
	1. GEAR REVERSE: 3,731	
	2. GEAR REVERSE: 2,207	
	3. GEAR REVERSE: 0,970	
	NUMBER OF PULSES ENGIN: 60	
	NUMBER OF PULSES TURBINE: 59	
	NUMBER OF PULSES MRK: 91	
	NUMBER OF PULSES OUTPUT: 64	
	SHIFTED CLUTCHES 1G.KV/K1 2G.KV/K2 3G.KV/K3	
	SHIFTED COUPLING 4G.K4/K3	
	TYPE PLATE: DOOSAN	
	CONVERTER: W 370	
	CONVERTER PART NO.: 037 H 054	
	LOCK-UP CLUTCH: WITHOUT	
	STALL TORQUE RATIO: 3,09	
	TORQUE CONVERTER ABSORPTION: 188 NM	

Page 3 from 4



Pos.	Information	Amendment number
	STATOR FREEWHEEL: WITHOUT	
	ENGINE INPUT: ENGINE MOUNTED WITH DIAPHRAGM	
	ENGINE: DOOSAN	
	HOLE PATTERN CONVERTER HOUSING DIAMETER 11	
	CONNECTION: HOLE	
	BOLT CIRCLE: 428,6 MM	
	ENGINE-CONNECTION: SAE 1 4646 500 352	
	OUTPUT: STANDARD	
	GEAR BOX SUMP STANDARD	
	OUTPUT FLANGE CONVERTER SIDE: MECH 8,5 C	
	OUTPUT PTO SIDE: WITH PARKING BRAKE	
	DISC BRAKE: SAHR FSG 110	
	RELEASE PRESSURE: 120 - 150 BAR	
	MEDIUM: HYDRAULIC OIL DIN 51524 PART 2	
	CONNECTION BRAKE PRESSURE: JIC 9/16-18	
	OUTPUT FLANGE PTO SIDE: MECH 8,5 C	
	VIBRATION ABSORBER WITHOUT ABSORBER	
	1.POWER TAKE OFF:	
	PTO RATIO 1	
	1.PTO FLANGE: SAE C - C 2/4 HOLE (M16/M14)	
	DRIVER / PROFILE: SAE C - C 12/24 DP 17 Z	
	2. POWER TAKE OFF:	
	RATIO 2 PTO 1,05	
	2.PTO FLANGE: SAE C 2 HOLE M16 * 4 HOLE M14	
	VERSION SHORT VERSION 0 MM	
	DRIVER / PROFILE: SAE C 12/24 DP 14 T	
	GEAR CHANGE CONTROL: ZF-ERGOSHIFT/ PROP VALVE	
	VOLTAGE: 24 VOLT	
	SETTING SPECIFICATION: 4657.700.099	
	SPEED CONTROL: CONNECTION VIA EST	
	OIL LEVEL TUBE: WITHOUT	
	OIL DIPSTICK: WITHOUT	
	FILTER INSTALLATION: SEPARATE MOUNTED	

Page 4 from 4



Pos.	Information	Amendment number
	PRES. DROP SWITCH: CLOSING SWITCH	
	ADAPTER WITHOUT	
	EMERGENCY STEERING PUMP: WITHOUT	
	TEMPERATURE SENSOR T/C: WITH (VIA EST)	
	ELECTRIC PARTS ORDER: SEPARATE ORDER	
	SEPARATE ORDER: 4646 185 047	
	TCU S. SCD 002000008656	
	CONTROL UNIT: EST 37A	
	SOFTWARE OPTIONS ENGINE DE-RATING	
	POWERINCH	
	ERGOTRACTION	
	GEAR SELECTOR: DW 3	
	2ND GEAR SELECTOR: WITHOUT	
	DISPLAY: FOR INBOARD MOUNTING	
	LOAD SENSOR: WITHOUT	
	WIRING: WITHOUT	
	OIL CAPACITY TRANSM.: CA. 32 LITRE	
	OIL FILLING TRANSM.: WITHOUT	
	OIL GRADE TRANSM.: OIL SPECIFICATION TE ML 03	
	PAINTING: PRIMING	
	COLOR: BLACK RAL 9005	
	DOCUMENTATION GEAR BOX:	
	SECTION DRAWING: 4646 055 012	
	INSTALLATION DRAWING: 4646 654 151	
	GEARBOX DIAGRAM: 4646 700 384	
	OIL CIRCUIT DIAGRAM: 4646 700 291	
	INSTALL. INSTRUCTIONS: 0000 702 951	
	DRAWING 6009 665 002	
	DRAWING GEAR SEL. 1: 6006 630 033	
	CONNECTION DIAGRAM: 6006 700 564	
	CONNECTION DIAGRAM: S. SOFTWARE CONTROL DOC. (SCD)	
	DRAWING DISPLAY: 6040 603 007	

Assembly group overview Page 1 from 3



Picture	Pos.	Material number	Name	Quantit y	Amend. no.	Techn. Info.
00	270	4646.130.011	ENGINE CONNECTION	1		
4166037074 00	500	4166.037.074	CONVERTER	1		
4646102045 00	30	4646.102.045	INPUT	1		
4646102423 00	35	4646.102.423	INPUT	1		
4646101189 00	10	4646.101.189	TRANSMISSION HOUSING	1		
4646101484 00	14	4646.101.484	TRANSMISSION HOUSING	1		
4646101486 00	12	4646.101.486	TRANSMISSION HOUSING	1		
4646101488 00	16	4646.101.488	TRANSMISSION HOUSING	1		
4646162416 00	20	4646.162.416	OIL PIPE	1		
4646108014 00	150	4646.108.014	COUNTERSHAFT	1		
4646151073 00	350	4646.151.073	COUPLING	1		
4646151471 00	355	4646.151.471	COUPLING	1		
4646151486 00	352	4646.151.486	COUPLING	1		
4646152079 00	360	4646.152.079	COUPLING	1		
4646152532 00	365	4646.152.532	COUPLING	1		
4646152548 00	367	4646.152.548	COUPLING	1		

[©] All rights reserved by ZF Friedrichshafen AG, even in the event of applications for copyright. We hold all rights of disposal, such as the right to copy and disseminate. All rights reserved. 21.09.2022 For information only, not subject to the amendment service.

Assembly group overview Page 2 from 3



Picture	Pos.	Material number	Name	Quantit y	Amend. no.	Techn. Info.
00	370	4646.153.072	COUPLING	1		
4646153457 00	375	4646.153.457	COUPLING	1		
4646103037 00	50	4646.103.037	OUTPUT	1		
4646103456 00	60	4646.103.456	OUTPUT	1		
4646109019 00	170	4646.109.019	PARKING BRAKE	1		
4646109423 00	70	4646.109.423	PARKING BRAKE	1		
4646154069 00	380	4646.154.069	POWER TAKE-OFF	1		
4646154448 00	390	4646.154.448	POWER TAKE-OFF	1		
4646155010 00	400	4646.155.010	POWER TAKE-OFF	1		
4646155415 00	410	4646.155.415	POWER TAKE-OFF	1		
4646106022 00	110	4646.106.022	SHIFT SYSTEM	1		
4656159019 01	120	4656.159.019	SHIFT SYSTEM	1		
4657106401 00	115	4657.106.401	SHIFT SYSTEM	1		
4646122012 00	225	4646.122.012	PRESSURE OIL PUMP	1		
4646138004 00	330	4646.138.004	FILTER	1		
4646199406 00	335	4646.199.406	LOOSE PARTS	1		

[©] All rights reserved by ZF Friedrichshafen AG, even in the event of applications for copyright. We hold all rights of disposal, such as the right to copy and disseminate. All rights reserved. 21.09.2022 For information only, not subject to the amendment service.

Assembly group overview Page 3 from 3



Picture	Pos.	Material number	Name	Quantit y	Amend. no.	Techn. Info.
4646125023 50	250	4646.125.023	INDUCTIVE SENSOR	1		
4646137024 00	310	4646.137.024	EMERGENCY STEERING PUMP	1		
4646124006 00	235	4646.124.006	TEMPERATURE SENSOR	1		
4646131010 00	290	4646.131.010	FILLER NOZZLE	1		
4646121101 00	210	4646.121.101	OIL PIPE	1		
4646121416 00	215	4646.121.416	OIL PIPE	1		
4646199415 00	480	4646.199.415	LOOSE PARTS	1		
4646185047 00	490	4646.185.047	ACCESSORIES	1		
4143139019 00	18	4143.139.019	TYPE PLATE	1		

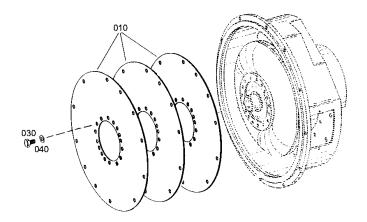
Page 1 from 1

Material number: 4646.054.151

Picture: 464613001100

Material-assembly-group-no: 4646.130.011





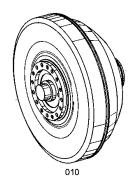
Page 1 from 1

Material number: 4646.054.151

Picture: 416603707400

Material-assembly-group-no: 4166.037.074





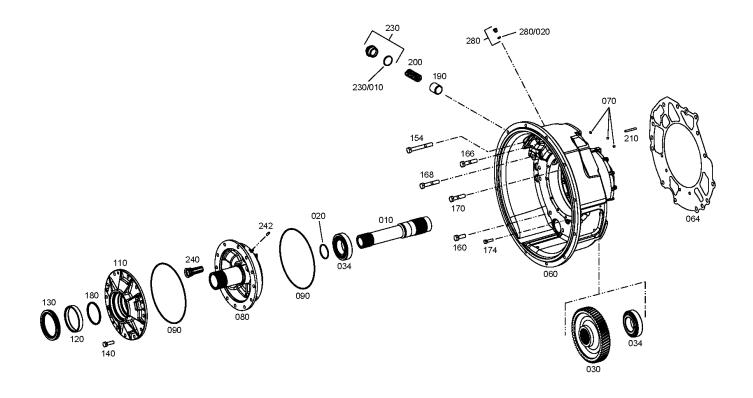
Page 1 from 1

Material number: 4646.054.151

Picture: 464610204500

Material-assembly-group-no: 4646.102.045





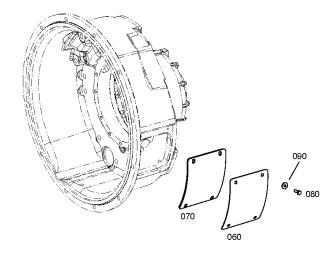
Page 1 from 1

Material number: 4646.054.151

Picture: 464610242300

Material-assembly-group-no: 4646.102.423





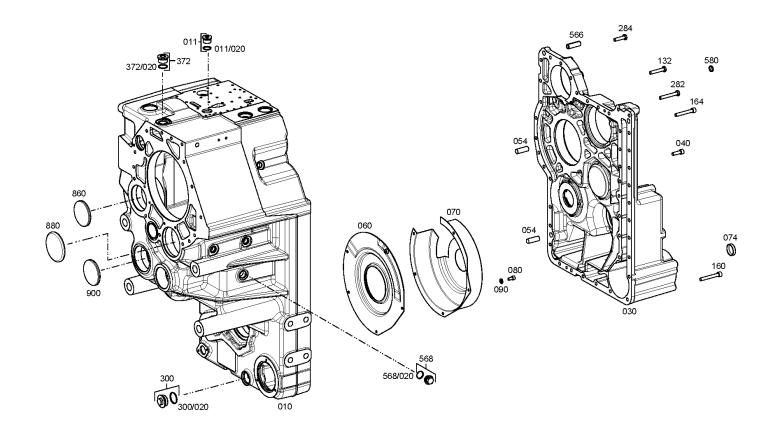
Page 1 from 1

Material number: 4646.054.151

Picture: 464610118900

Material-assembly-group-no: 4646.101.189

4 WG 260 / TRANSMISSION HOUSING



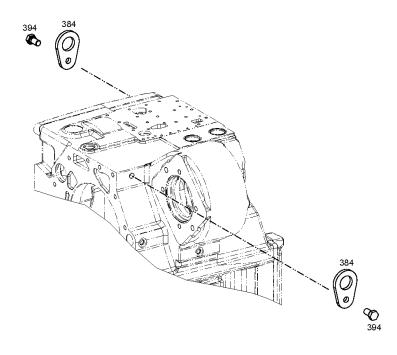
Page 1 from 1

Material number: 4646.054.151

Picture: 464610148400

Material-assembly-group-no: 4646.101.484

4 WG 260 / TRANSMISSION HOUSING



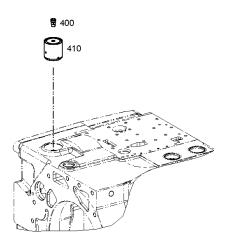
Page 1 from 1

Material number: 4646.054.151

Picture: 464610148600

Material-assembly-group-no: 4646.101.486





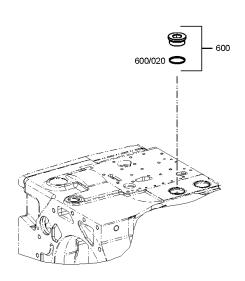
Page 1 from 1

Material number: 4646.054.151

Picture: 464610148800

Material-assembly-group-no: 4646.101.488





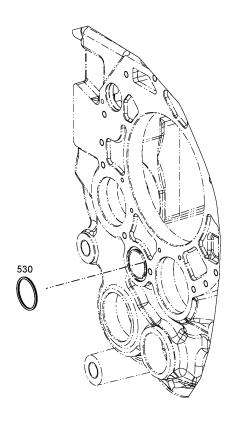
Page 1 from 1

Material number: 4646.054.151

Picture: 464616241600

Material-assembly-group-no: 4646.162.416





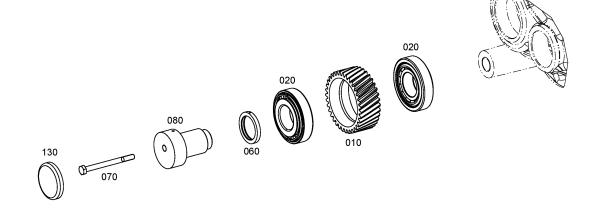
Page 1 from 1

Material number: 4646.054.151

Picture: 464610801400

Material-assembly-group-no: 4646.108.014





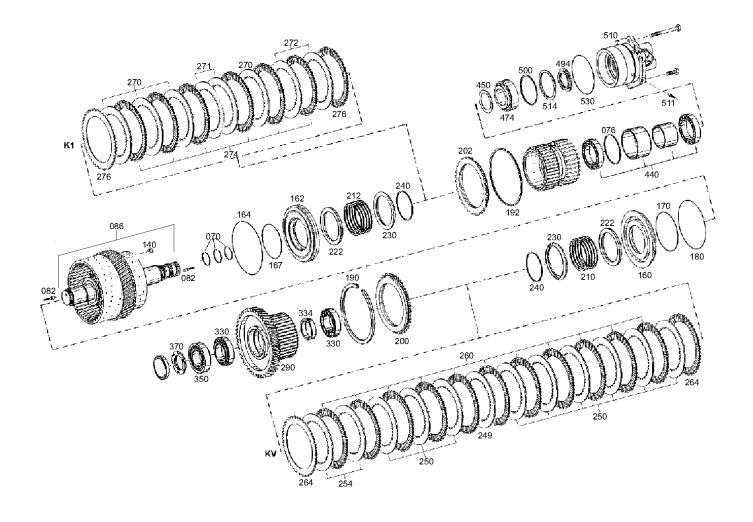
Page 1 from 1

Material number: 4646.054.151

Picture: 464615107300

Material-assembly-group-no: 4646.151.073





Page 1 from 1

Material number: 4646.054.151

Picture: 464615147100

Material-assembly-group-no: 4646.151.471





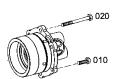
Page 1 from 1

Material number: 4646.054.151

Picture: 464615148600

Material-assembly-group-no: 4646.151.486





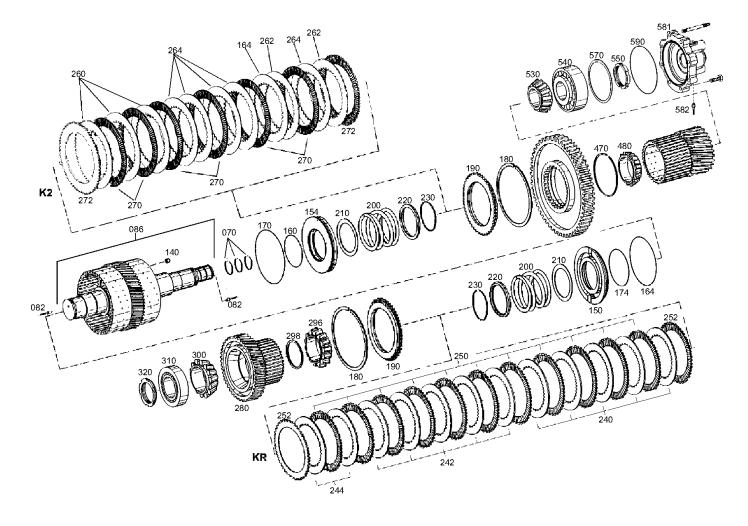
Page 1 from 1

Material number: 4646.054.151

Picture: 464615207900

Material-assembly-group-no: 4646.152.079





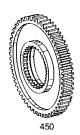
Page 1 from 1

Material number: 4646.054.151

Picture: 464615253200

Material-assembly-group-no: 4646.152.532







Page 1 from 1

Material number: 4646.054.151

Picture: 464615254800

Material-assembly-group-no: 4646.152.548





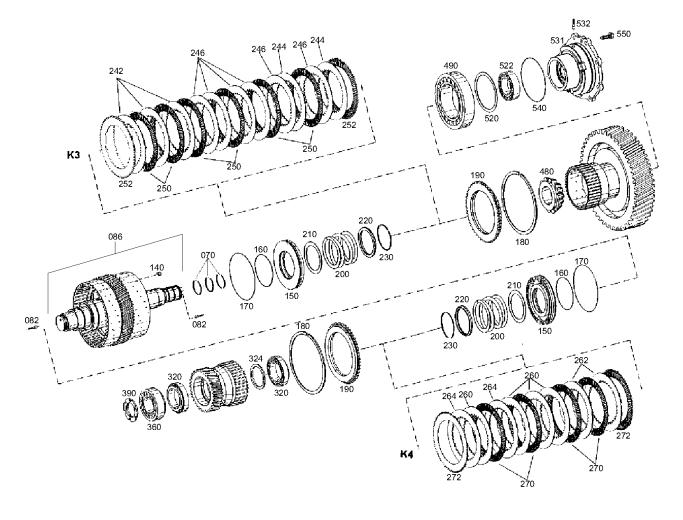
Page 1 from 1

Material number: 4646.054.151

Picture: 464615307200

Material-assembly-group-no: 4646.153.072





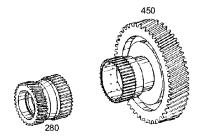
Page 1 from 1

Material number: 4646.054.151

Picture: 464615345700

Material-assembly-group-no: 4646.153.457





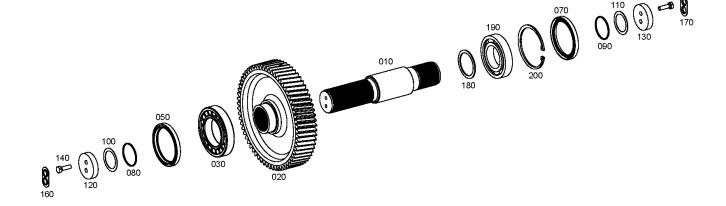
Page 1 from 1

Material number: 4646.054.151

Picture: 464610303700

Material-assembly-group-no: 4646.103.037





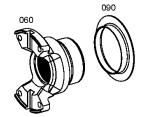
Page 1 from 1

Material number: 4646.054.151

Picture: 464610345600

Material-assembly-group-no: 4646.103.456





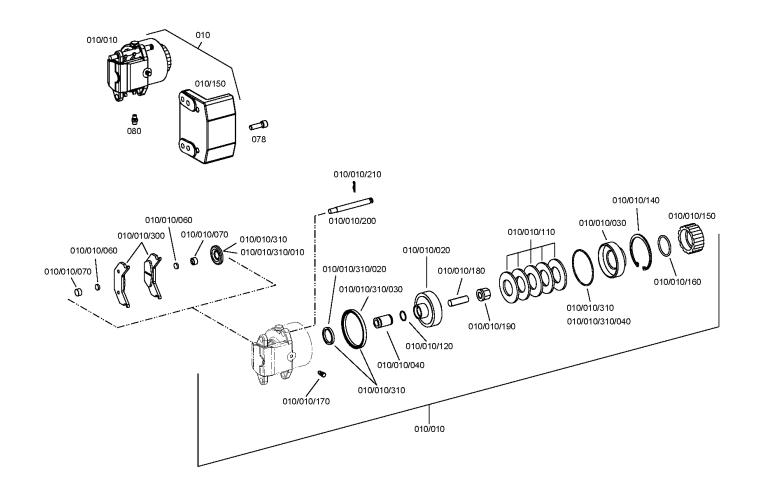
Page 1 from 1

Material number: 4646.054.151

Picture: 464610901900

Material-assembly-group-no: 4646.109.019





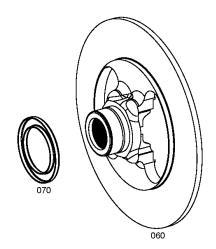
Page 1 from 1

Material number: 4646.054.151

Picture: 464610942300

Material-assembly-group-no: 4646.109.423





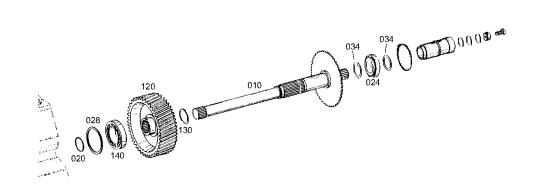
Page 1 from 1

Material number: 4646.054.151

Picture: 464615406900

Material-assembly-group-no: 4646.154.069





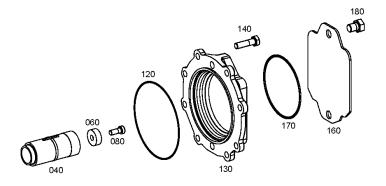
Page 1 from 1

Material number: 4646.054.151

Picture: 464615444800

Material-assembly-group-no: 4646.154.448





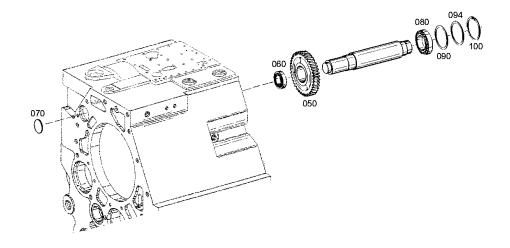
Page 1 from 1

Material number: 4646.054.151

Picture: 464615501000

Material-assembly-group-no: 4646.155.010





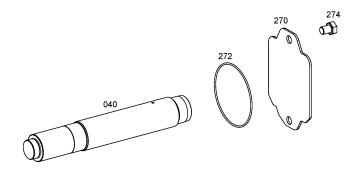
Page 1 from 1

Material number: 4646.054.151

Picture: 464615541500

Material-assembly-group-no: 4646.155.415





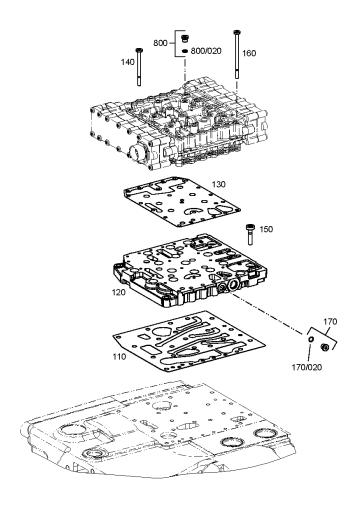
Page 1 from 1

Material number: 4646.054.151

Picture: 464610602200

Material-assembly-group-no: 4646.106.022





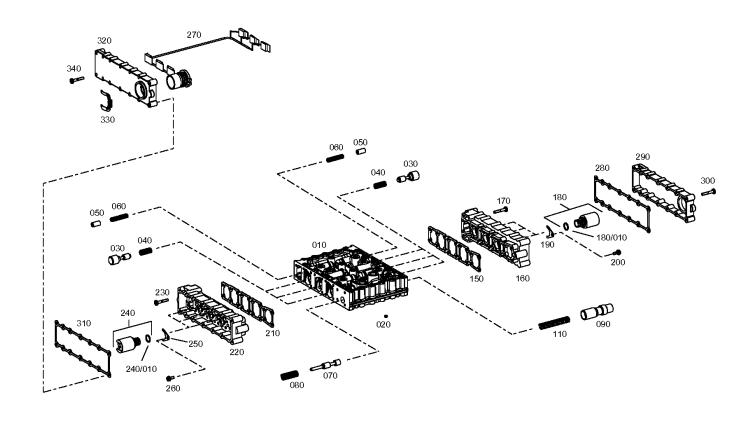
Page 1 from 2

Material number: 4646.054.151

Picture: 465615901901

Material-assembly-group-no: 4656.159.019





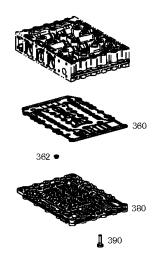
Page 2 from 2

Material number: 4646.054.151

Picture: 465615901902

Material-assembly-group-no: 4656.159.019





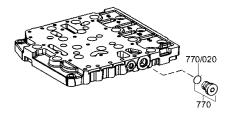
Page 1 from 1

Material number: 4646.054.151

Picture: 465710640100

Material-assembly-group-no: 4657.106.401





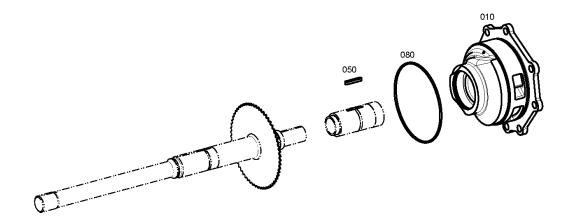
Page 1 from 1

Material number: 4646.054.151

Picture: 464612201200

Material-assembly-group-no: 4646.122.012





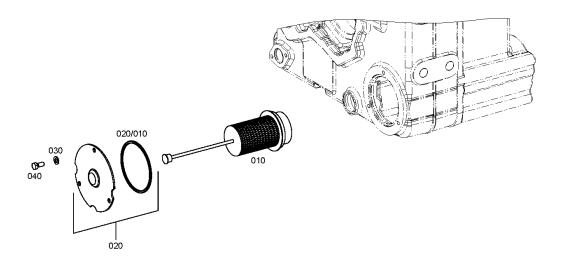
Page 1 from 1

Material number: 4646.054.151

Picture: 464613800400

Material-assembly-group-no: 4646.138.004





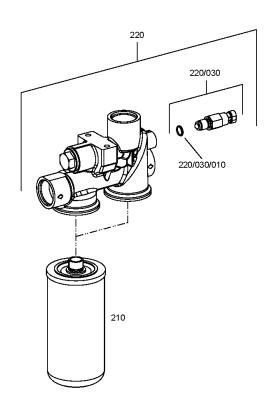
Page 1 from 1

Material number: 4646.054.151

Picture: 464619940600

Material-assembly-group-no: 4646.199.406





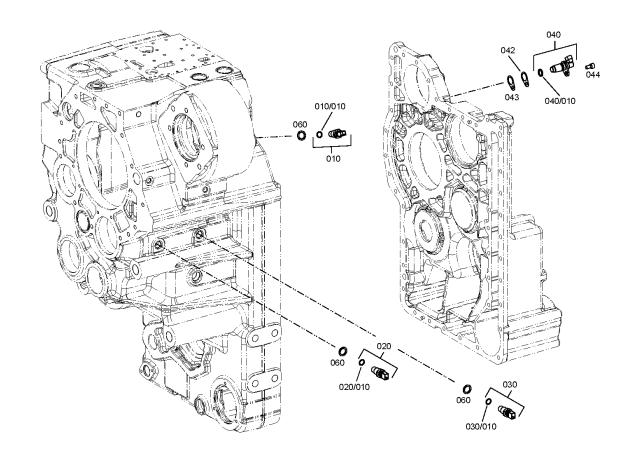
Page 1 from 1

Material number: 4646.054.151

Picture: 464612502350

Material-assembly-group-no: 4646.125.023





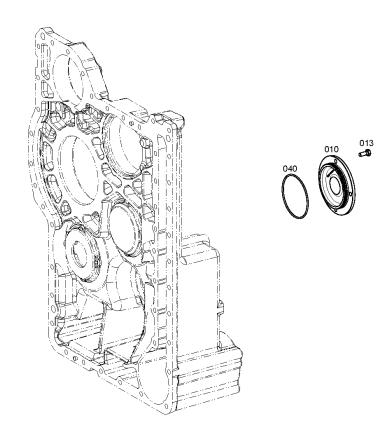
Page 1 from 1

Material number: 4646.054.151

Picture: 464613702400

Material-assembly-group-no: 4646.137.024

4 WG 260 / EMERGENCY STEERING PUMP



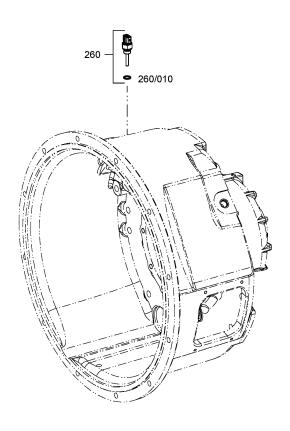
Page 1 from 1

Material number: 4646.054.151

Picture: 464612400600

Material-assembly-group-no: 4646.124.006

4 WG 260 / TEMPERATURE SENSOR



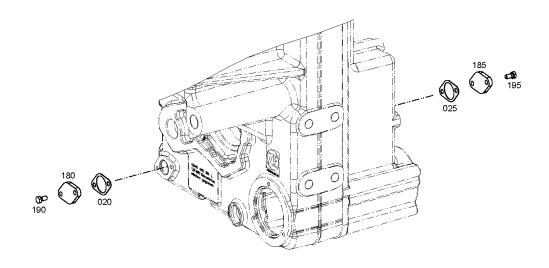
Page 1 from 1

Material number: 4646.054.151

Picture: 464613101000

Material-assembly-group-no: 4646.131.010





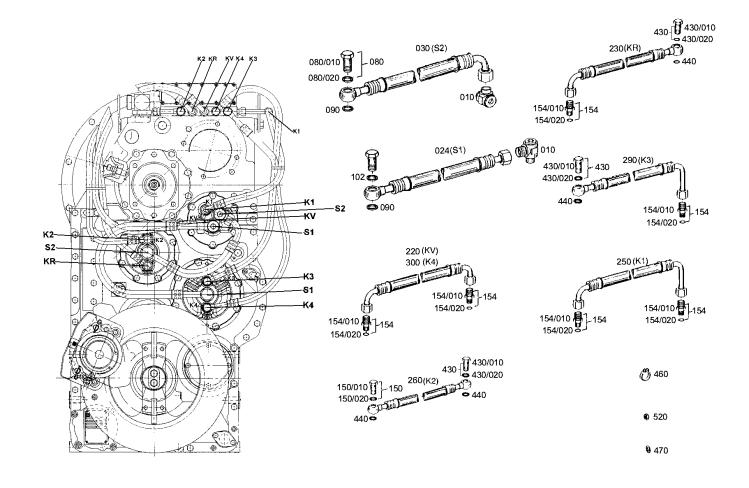
Page 1 from 1

Material number: 4646.054.151

Picture: 464612110100

Material-assembly-group-no: 4646.121.101





Page 1 from 1

Material number: 4646.054.151

Picture: 464612141600

Material-assembly-group-no: 4646.121.416





Page 1 from 1

Material number: 4646.054.151

Picture: 464619941500

Material-assembly-group-no: 4646.199.415





010



020

Page 1 from 1

Material number: 4646.054.151

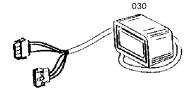
Picture: 464618504700

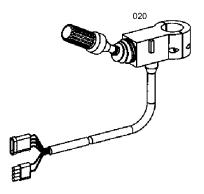
Material-assembly-group-no: 4646.185.047











Page 1 from 1

Material number: 4646.054.151

Picture: 414313901900

Material-assembly-group-no: 4143.139.019



