

# **JAHNS**

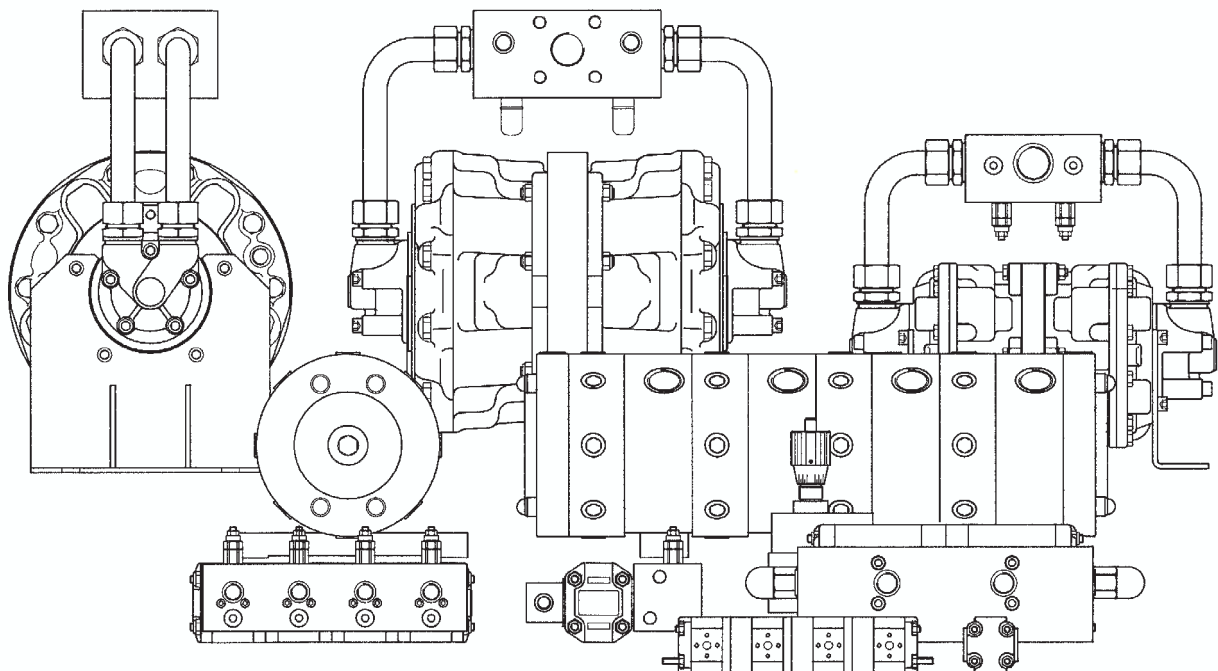
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## **HYDRAULIK**

# **Spare parts list gear-flow-divider**

## **Series MTO**

Edition July 2003



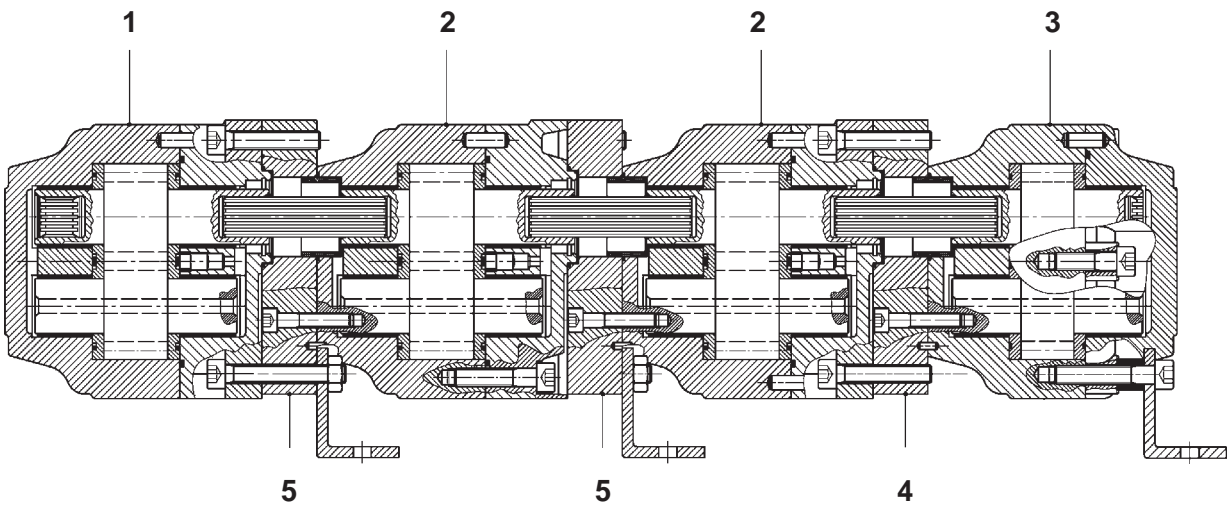
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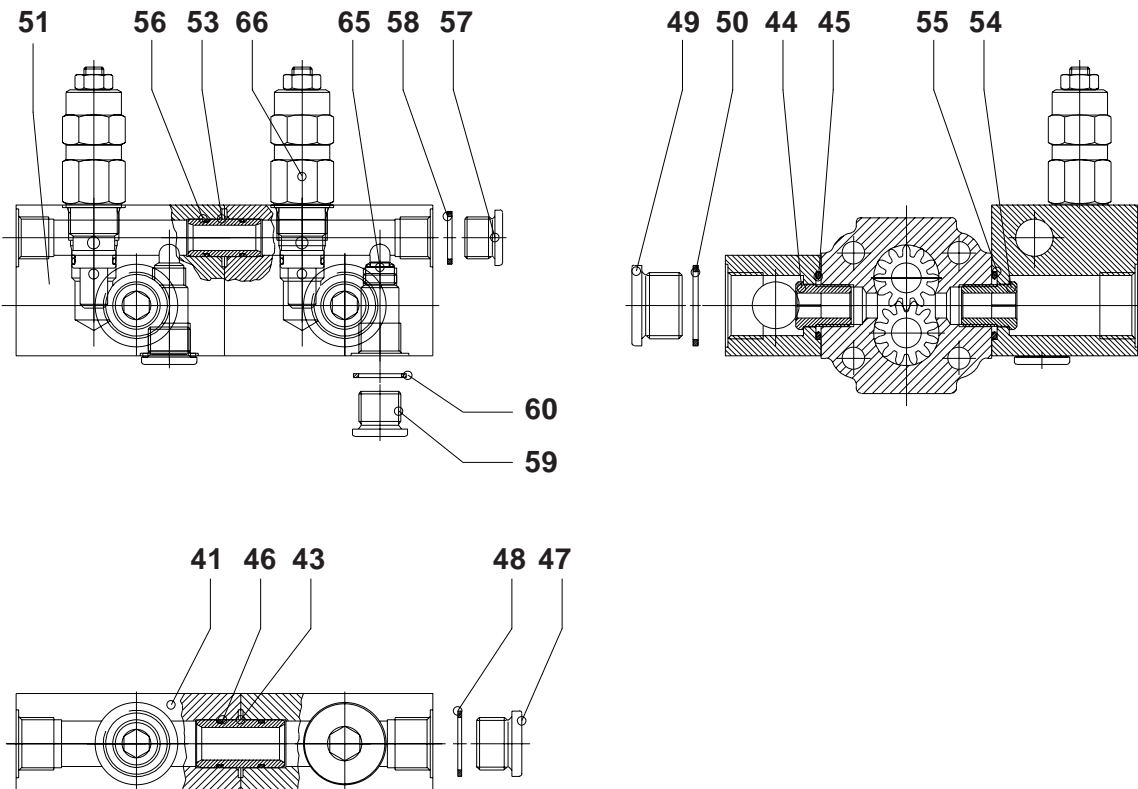
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# Gear-flow-divider MTO

## Gear-flow-divider



## Inlet- / outletbloc EA7



# Gear-flow-divider MTO

## Ersatzteile / Parts

Pos	Benennung	Naming	Denomination		Stckz.
1	Anfangssegment	First-section		MTO-234 -25 / -80	1
2	Mittelsegment	Middle-section		MTO-245 -25 / -80	n-2
3	Endsegment	Last-section		MTO-235 -25 / -80	1
4	Zwischenplatte I	Intermediate plate I		MTO-247 -25 / -80	
5	Zwischenplatte II	Intermediate plate II		MTO-259 -25 / -80	
	Dichtsatz / Segment	seal kit	Joints	MTOED-W3-EA7	n

## Eingangsblock / Inletbloc

Pos	Benennung	Naming	Denomination		Stckz.
41	Eingangsblock	Inletbloc		EB-..51-7	1
43	Buchse	Bushing	Douille	G1"	m
44	Bundschraube	Screw connection	Raccord a vis	Bsch G1"	n
45	O-Ring	O-ring	Rondelle	2-129	n
46	O-Ring	O-ring	Rondelle	2-023	m x 2
47	Verschlußschraube	Plug	Vis de fermeture	DIN 908 G1"	1
48	Dichtring	Seal	Bague d'etancheite	DIN 7603 33/39x2	1
49	Verschlußschraube	Plug	Vis de fermeture	DIN 908 G11/4"	n-1
50	Dichtring	Seal	Bague d'etancheite	DIN 7603 42/49x2	n-1

## Ausgangsblock / outletbloc

Pos	Benennung	Naming	Denomination		Stckz.
51	Ausgangsblock	Outletbloc		AB-..51-7	1
53	Buchse	Bushing	Douille	G1/2"	m
54	Bundschraube	Screw connection	Raccord a vis	Bsch G1"	n
55	O-Ring	O-ring	Rondelle	2-129	n
56	O-Ring	O-ring	Rondelle	2-016	m x 2
57	Verschlußschraube	Plug	Vis de fermeture	DIN 908 G1/2"	1
58	Dichtring	Seal	Bague d'etancheite	DIN 7603 21/26x1,5	1
59	Verschlußschraube	Plug	Vis de fermeture	DIN 908 G3/4"	n
60	Dichtring	Seal	Bague d'etancheite	DIN 7603 27/32x2	n
65	Rückschlagventil	Valve		RVL04-K	n
66	DB-Ventil	Pressure relief valve		DBV-30	n

n = Anzahl der Kammern / number of sections / quantite de section

# Installation Instructions for gear-flow-dividers

When installing flow-dividers MTO..., please take care for the following:

Technical datas are given in our data-leaflets. Tubes should be clean like in every hydraulic-system. Any pollution can lead to lifetime-abbreviation and leads to poorer synchronisation of the divided flowrates, specially, if any pollution would be held in the check-valve-cones.

It doesn't play any roll, which side of the flow-divider is used as input and which-one as output. It's only important that all input lie on one side of the flow-divider and all outputs on the opposite side.

Oil-choise is not a question of the used MTO... but of the total hydraulic unit. HLP-oil with viscosity of 68 cSt at 40 degrees centigrade is recommended.

**It's not necessary to fill flow-dividers with oil before using them for the first time.**

Flow-dividers are working automatically as pressure-multipliers, if some outputs need only low pressure and the rest of outputs has to overcome a greater resistance. If the max. pressure, forced by worst-case pressure-multiplication, can reach max. allowed pressure of the flow-divider, the outputs must have relief-valves to protect the circuits. Normally it's recommended to have these relief-valves generally.

To get rid of any synchronisation-faults in the stroke-end of the cylinders, you should bring valves in your outputs as shown in hydraulic-schemes of our leaflet. We recommend 1 bar check-valves and a pressure-resistance 5 bars in the source-line. Check-valves with less than 1 bar or without spring can lead to small flows in the wrong direction, that would trouble the synchronisation.

The relief-valves should be without any leakage, if installed pressure isn't reached. We see from time to time, that low quality of these valves leads to poor synchronisation.

Pressure-setting of the relief-valves should be about 20 bars higher than really needed to overcome the charge of the cylinder.

System-pressure of the pump: If all the cylinders have the same load, you can say, that pump-pressure  $p_s$  = pressure for the load + 25 bar +  $\Delta p$  ( $\Delta p$  = pressure drop in the flow-divider, normally 10 - 15 bar, it's better to calculate with 20 bars).

To avoid great oil-compression-faults, it's recommended to set flow-divider nearest to the cylinders.

If the cylinders have always the same differences in load, the flow-divider with it's pressure-multiplication can lead to lower pressures of the pumpsystem.

According to our MTO-leaflets we recommend to use outlet-blocs **A** with inline-mounted valves. These blocs lead to low space-need and are often more leakproof than tubing. These blocs are mounted on MTO ...GB.

## Outlet-blocs

Blocs with serial-standard 3 or higher are standard now, because 90% of the customers favourite them. Every outlet has it own pressure-relief-valve and no connection by check-valves to other outlets.

## Pressure-setting:

Bring cylinders to max. stroke-end. Caused by technical-difficulties, you don't find any special threads to connect manometers. So you must bring manometer in the connection-tube between flow-divider-outlet and cylinder. Then you set pump-pressure so high, that it would be possible to have the desired outlet-pressure.

Thread **T**, **NS** must be connected with source-connection, brought on a pressure-level of 5 bars at a minimum.