

DEVICE SET HYDRAULIX 304 FOR HYDRAULIX 300 WORKSTATION "MOBILE HYDRAULICS – LOAD-SENSING CONTROL, COMPLETE"


Material number R901465311

Material short text GERAETE-SET TS-HS 304-3X

The device set is used to impart practical applications from the mobile control technology. Only components corresponding to the industrial standard and especially prepared for use in the training area are used.

The device set matches the exercise book "Mobile hydraulics – Load-sensing control 2M4-12". The exercises with the listed components can be carried out at the Hydraulix 300 workstation.

Pos.	Component	Mat.-no.	Quantity	Image
1	Mobile control block Load-sensing 2M4-12	R961005969	1	
2	Hydraulic pilot control unit 2 levers 2-2TH6	R961005967	1	
3	Planetary motor	R961008748	1	
4	Pressure relief valve DBDH6G1X/	R961002520	1	
5	Pressure reducing valve, direct-operated, DR6DP1-5X	R961002544	1	
6	Pressure sequence valve, direct-operated, DZ6DP1-5X	R961002558	1	
7	Throttle valve DV06-1-1X/V	R961002539	1	
8	Non-return valve S6A05-1X	R901462818	1	

Pos.	Component	Mat.-no.	Quantity	Image
9	Accumulator module	R961002503	1	
10	Hydraulic distributor 4 ports	R961002485	5	
11	Manometer 0-100 bar with measuring hose	R961002715	3	
12	Hose line 630 mm	R961002474	10	
13	Hose line 700 mm with 90° fitting and Minimes port	R961004329	3	
14	Hose line 1000 mm with 90° fitting	R961004331	8	

Necessary accessories (for exercises 6, 7, 8, 9, 10, 11):

Pos.	Component	Mat.-no.	Quantity	Image
1	Load unit 80 kg, stationary	R961004005	1	

The recommended accessories are listed at Rexroth Store in the category Academy/Systems/Hydraulics device sets.

Mobile hydraulics – Load-sensing control

The target of this learning topic is the familiarization with the use of a mobile control block with load-sensing control. With successful completion of the practical exercises, knowledge of function and effect of the most important components and basic circuits of mobile hydraulics is acquired. This ensures practice-related training in mobile hydraulics.

Exercise books

The exercise books are tailored to the device sets. These device sets build on the contents and knowledge from the "On/off hydraulics – Manual operation (BIBB, A-H)" and "Mobile hydraulics – Throttle control" learning topics. The described exercises and tasks provide basic information and methods. The setup is structured in a uniform manner and provides the step-by-step description for completion of the individual exercises.

Two versions – Teaching and learning document

- ▶ Exercises with solutions: more far-reaching trainer information and contents such as measured values, calculation results, etc.
- ▶ Exercises: independent completion of calculations and measured value tables, etc.

Learning content

With the help of logically structured, practice-related exercises, the trainee shall learn the following:

- ▶ understand physical laws of hydraulics such as pressure difference, opening cross-section and flow,
- ▶ get to know and use specific graphical symbols,
- ▶ understand the function of the load-sensing control,
- ▶ get to know components such as 4/3 directional control valve, load holding valve, primary and secondary valve, pressure compensator, hydraulic pilot control,
- ▶ understand the connection between control and velocity,
- ▶ get to know the function of the load-sensing control in parallel operation,
- ▶ work out the function and application of the hydraulic pilot control,
- ▶ determine characteristic values and derive characteristic curves from them, if required.

The following exercises are included

No.	Exercise
1	Primary pressure limitation
2	Actuator flow
3	Load pressure compensation
4	Pressure losses in p line
5	Hydraulic pilot control
6	External force
7	Outlet pressure limitation
8	LS pressure limitation
9	Parallel operation with sufficient delivery volume
10	Parallel operation with too little delivery volume
11	Load change

EXERCISE BOOKS
 "MOBILE HYDRAULICS – LOAD-SENSING CONTROL 2M4-12"



◀ Exercise book example

	Language	Material number	Material short text
Exercises with solutions (trainer's manual)	DE	R961004565	UEBUNGSBUCH TW-HY-LH-1/X 304DE
Exercises with solutions (trainer's manual)	EN	R961005147	EXERCISE BOOK TW-HY-LH-1/X 304EN
Exercises with solutions (trainer's manual)	ES	R901206091	LIBRO DE EJERCICIOS TW-HY-LH-1/X 304ES
Exercises (trainee's manual)	DE	R961004564	UEBUNGSBUCH TW-HY-SH-1/X 304DE
Exercises (trainee's manual)	EN	R961005146	EXERCISE BOOK TW-HY-SH-1/X 304EN
Exercises (trainee's manual)	ES	R901206157	LIBRO DE EJERCICIOS TW-HY-SH-1/X 304ES

Mobile hydraulics – Accessories

For the exercises in the mobile hydraulics technology, you need measuring equipment for the flow and pressure measurement as well as a multimeter.

We recommend:

Pos.	Component	Mat.-no.	Quantity	Image
1	Basic measuring instrument set	R961009563	1	
and	Measuring glass, 2.5 l (integral part of the Hydraulix 300 workstation)	R961002564	1	
2	Gear wheel flow rate sensor	R961002508	1	
and	Measuring cable for ISDS	R900733207	1	
and	Measuring instrument set 3020	R913038909	1	
3	Test and filling device for hydraulic accumulator	0538103012	1	
4	Pressure release sleeve	R961002927	1	
5	Multimeter VC175	R913038027	1	