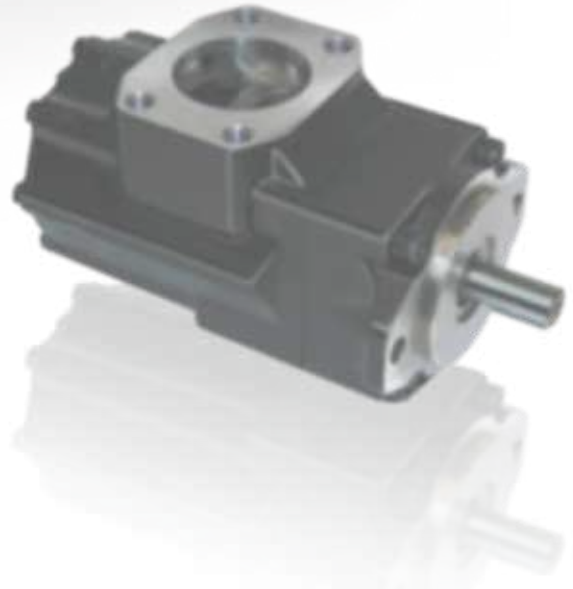




**DTA**  
Damen Technical Agencies



# Industrial Hydraulic Pumps T7BB, T7BBS

Denison Vane Technology, fixed displacement

## Hydraulic Pumps

- Hydraulic Motors
- Hydraulic Valves
- Hydraulic Cylinders
- Hydraulic Filtration
- Hydraulic Accumulators



ENGINEERING YOUR SUCCESS.

**We are doing our parts to keep you moving!**

DTA your 1 Stop Shop for Hydraulics, Pneumatics and Power Transmissions.

# DECLARATION OF CONFORMITY

DTA Hydraulics is a tradename of Damen Technical Agencies BV, supplying hydraulic parts to various industries since 1990. As a Certified Distributor Hydraulics by Parker Hannifin and Authorized Denison Vane Pump Assembler, we guarantee the use of original parts and components. As such we provide you with vane pumps of the same level of quality and warranty conditions as the factory does.

We highly recommend to **use genuine Denison Hydraulics spare parts only** in order to ensure smooth operation and longer service life. Spare parts that we have on stock include pump cartridge kits, shaft and bearing assemblies, seal kits and non-wearing parts of both the T6 and T7 series vane pumps.



**ALL VANE PUMPS SUPPLIED OR REPAIRED BY  
DTA HYDRAULICS HAVE BEEN ASSEMBLED ACCORDING  
TO THE LATEST FACTORY SPECIFICATIONS WITH  
BRAND NEW AND GENUINE DENISON HYDRAULICS PARTS**

We are able to provide you a large variety of options of the original Parker Denison single, double, and triple vane pumps. We can build any customized vane pump from our stock of genuine parts. You can now easily configure that vane pump yourself with the Denison Hydraulics Vane Pump Configurator.

[vanepump.eu/vanepumps](http://vanepump.eu/vanepumps)

Use advanced search to filter results based on configurable options and select any of the 25,000 vane pumps that are listed in our online catalogue. Most of the models are available from stock and ready for shipment to any place in the world instantly. We can supply **Any part, Anytime, Anywhere!**



**Model No.** T7BB or T7BBS - B10 - B10 - 1 R 00 - A 1 - M1 - ..

**T7BB series - 100 A2 HW**  
ISO 2 bolts 3019-2 mounting flange

P1 P2

**T7BBS series - SAE B 2 bolts**  
J744 mounting flange

**Displacement P1 & P2**  
Volumetric displacement (ml/rev.)

- B02 = 5,8    B09 = 28,0
- B03 = 9,8    B10 = 31,8
- B04 = 12,8    B11 = 35,0
- B05 = 15,9    B12 = 41,0
- B06 = 19,8    B14 = 45,0
- B07 = 22,5    B15 = 50,0
- B08 = 24,9

**Type of shaft T7BB - T7BBS**

5 = keyed (ISO R775)

**Type of shaft T7BBS**

- 1 = keyed (non SAE)
- 2 = keyed (SAE BB)
- 3 = splined (SAE B) 13 teeth
- 4 = splined (SAE BB) 15 teeth

**Modifications**

**Mounting w/connection variables**  
4 bolts SAE flange J518

	T7BB- T7BBS Metric thread		T7BBS UNC thread	
	M0	M1	00	01
<b>P1</b>	1"	3/4"	1"	3/4"
<b>P2</b>	3/4"			
<b>S</b>	2.1/2"			

**Seal class**

- 1 = S1 BUNA N - 0,7 bar max. (for mineral oil)
- 4 = S4 EPDM - 0,7 bar max. (for fire resistant fluids)
- 5 = S5 VITON® - 0,7 bar max. (for mineral oil and fire resistant fluids)

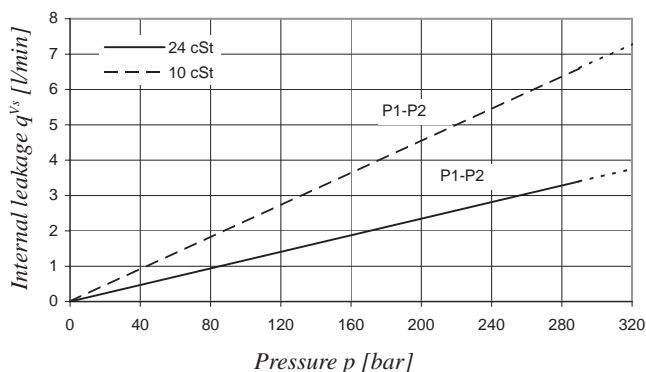
**Design letter**

**Porting combination (see page 72)**  
00 = standard

**Direction of rotation (shaft end view)**

- R = Clockwise
- L = Counter-clockwise

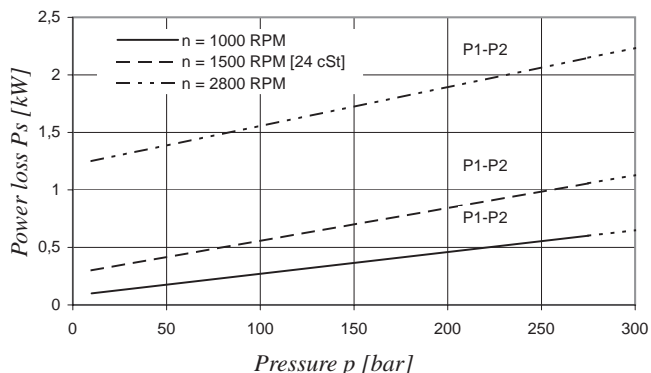
**INTERNAL LEAKAGE (TYPICAL)**



Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.

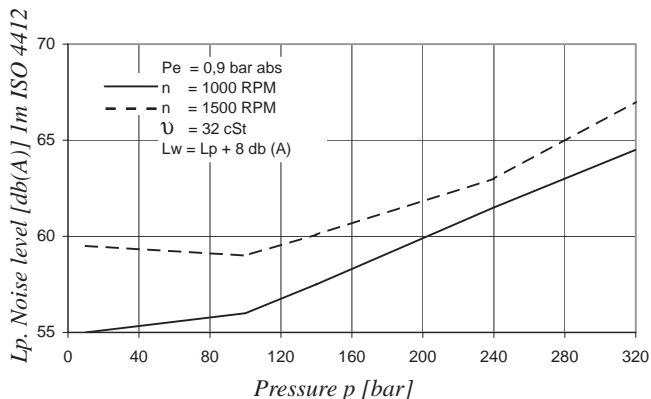
Total leakage is the sum of each section loss under its respective operating conditions.

**POWER LOSS HYDROMECHANICAL (TYPICAL)**



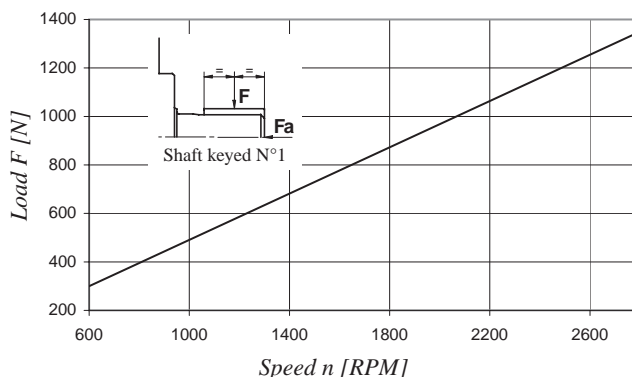
Total hydromechanical power loss is the sum of each section loss under its respective operating conditions.

**NOISE LEVEL (TYPICAL) - T7BB - B10 - B04**

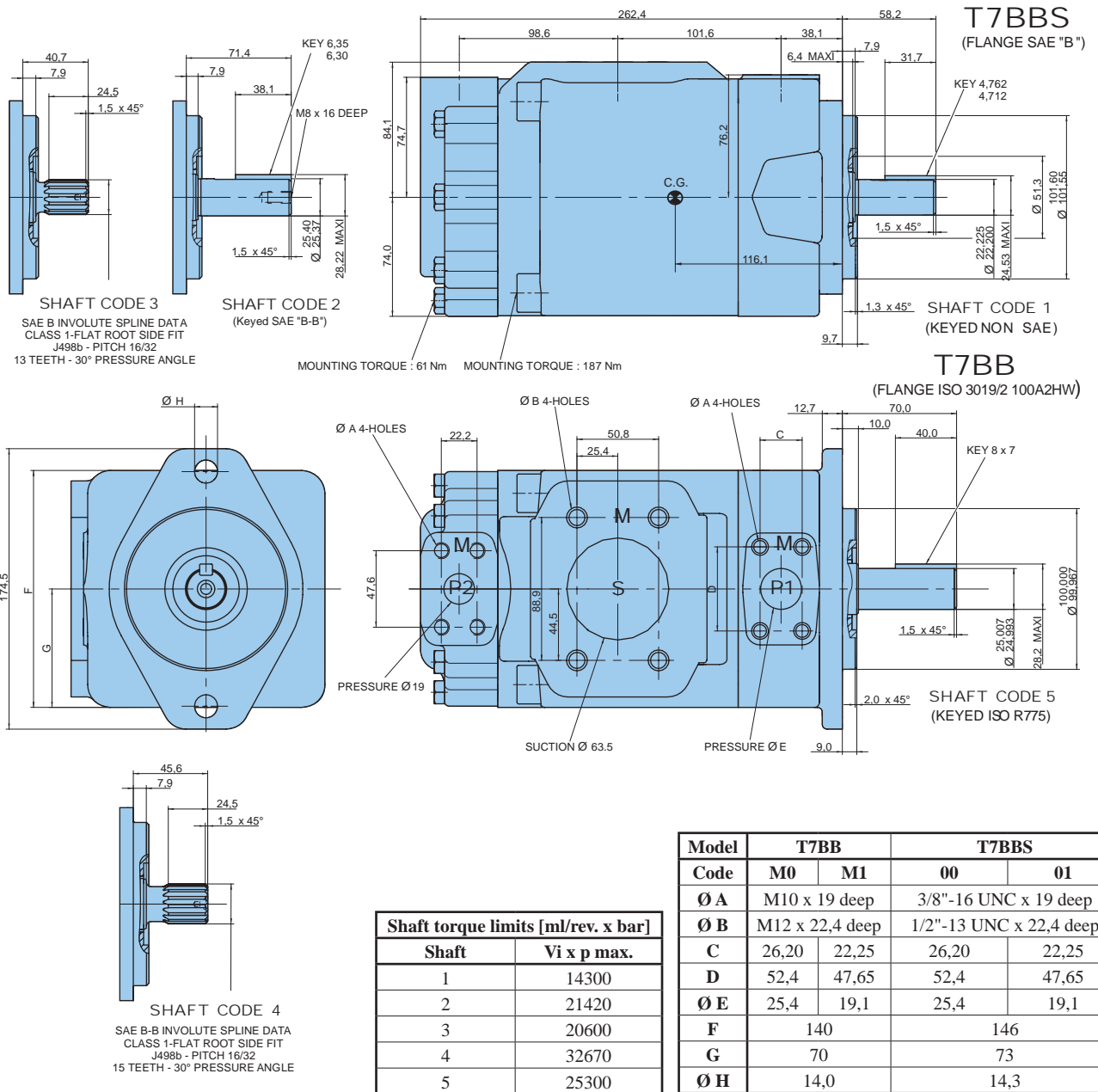


Double pump noise level is given with both stages discharging at the pressure value indicated on the curve.

**PERMISSIBLE RADIAL LOAD**



Maximum permissible axial load Fa = 800 N



**OPERATING CHARACTERISTICS - TYPICAL [24 cSt]**

Pressure port	Series	Vi Volumetric displacement	Flow q <sub>v</sub> [l/min] & n = 1500 RPM			Input power P [kW] & n = 1500 RPM		
			p = 0 bar	p = 140 bar	p = 320 bar	p = 7 bar	p = 140 bar	p = 320 bar
P1 & P2	B02	5,8 ml/rev	8,7	7,0	4,8	0,5	2,6	5,4
	B03	9,8 ml/rev	14,7	13,0	10,8	0,6	4,0	8,6
	B04	12,8 ml/rev	19,2	17,5	15,3	0,6	5,0	11,0
	B05	15,9 ml/rev	23,9	22,2	20,0	0,7	6,1	13,5
	B06	19,8 ml/rev	29,7	28,0	25,8	0,7	7,5	16,6
	B07	22,5 ml/rev	33,7	32,0	29,9	0,8	8,5	18,8
	B08	24,9 ml/rev	37,4	35,7	33,5	0,8	9,3	20,7
	B09	28,0 ml/rev	42,0	40,3	38,1	0,9	10,4	23,2
	B10	31,8 ml/rev	47,7	46,0	43,8	0,9	11,7	26,2
	B11	35,0 ml/rev	52,5	50,8	48,9 <sup>1)</sup>	1,0	12,8	27,0 <sup>1)</sup>
	B12	41,0 ml/rev	61,5	59,8	57,9 <sup>1)</sup>	1,1	14,9	31,5 <sup>1)</sup>
	B14	45,0 ml/rev	67,5	65,8	63,9 <sup>1)</sup>	1,2	16,3	34,5 <sup>1)</sup>
	B15	50,0 ml/rev	75,0	73,3	71,6 <sup>2)</sup>	1,3	18,1	35,7 <sup>2)</sup>

1) B11 - B12 - B14 = 300 bar max. int. 2) B15 = 280 bar max. int.



**ANY PART  
TIME  
WHERE**

we are doing our parts to keep you moving!

**Damen Technical Agencies B.V.**

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