

Industrial Hydraulic Pumps T7DD, T7DDS

Hydraulic Pumps

Parker



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Model No. T7DD or T7DDS - B42 - B22 - 1 R 00 - A 1 M0 - ..

T7DD series - ISO 6 bolts 3019-2
 Mounting flange 125-A2-HW or 125-B4 HW
T7DDS series - SAE C 6 bolts
 J744 mounting flange

Displacement P1 & P2

Volumetric displacement (ml/rev.)

B14 = 44,0 B31 = 99,2
 B17 = 55,0 B35 = 113,4
 B20 = 66,0 B38 = 120,6
 B22 = 70,3 B42 = 137,5
 B24 = 81,1 045 = 145,7
 B28 = 90,0 050 = 158,0

Type of shaft T7DDS

1 = keyed (SAE C) 3 = splined (SAE C) 14 teeth
 2 = keyed (SAE CC) 4 = splined (SAE BB)

Type of shaft - T7DD and T7DDS

5 = keyed (ISO 3019-2 - G32M)

Modifications

Mounting w/connection variables

4 bolts SAE flanges J518

Type	P1 & P2 = 1.1/4" - S = 4"	
	Metric thread	UNC thread
T7DD	M0	
T7DDS	M0	00

Seal class

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

Design letter

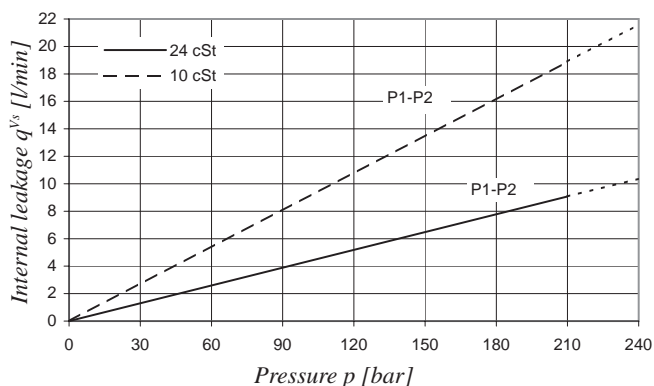
Porting combination (see page 72)

00 = standard

Direction of rotation (shaft end view)

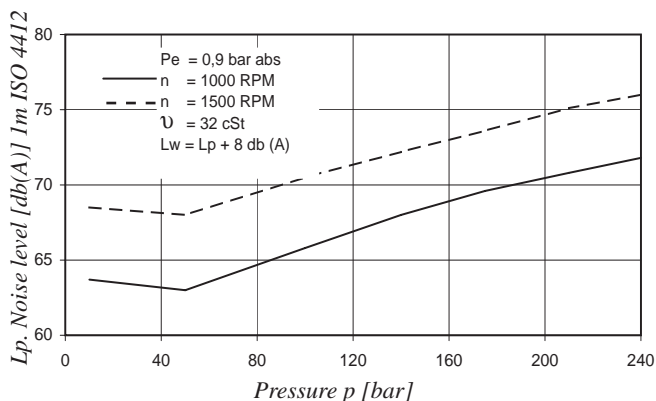
R = Clockwise
 L = Counter-clockwise

INTERNAL LEAKAGE (TYPICAL)



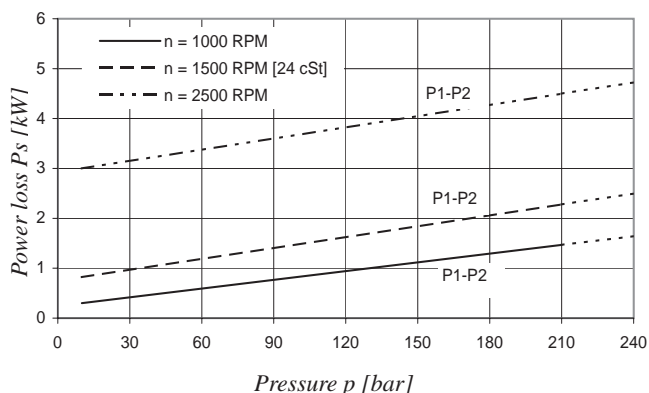
Do not operate pump more than 5 seconds at any speed or viscosity if internal leakage is higher than 50% of theoretical flow.
 Total leakage is the sum of each section loss under its respective operating conditions.

NOISE LEVEL (TYPICAL) - T7DDS - B31 - B31



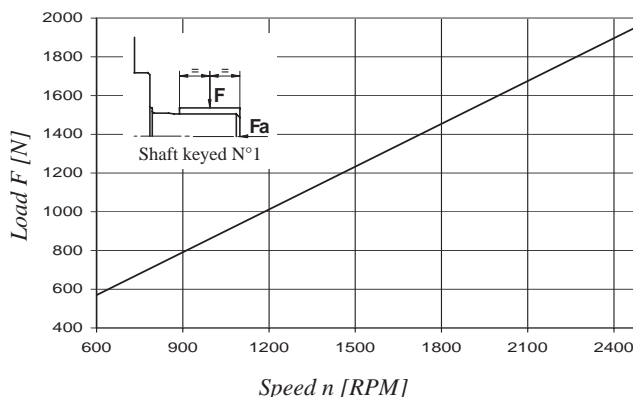
Double pump noise level is given with both stages discharging at the pressure value indicated on the curve.

POWER LOSS HYDROMECHANICAL (TYPICAL)



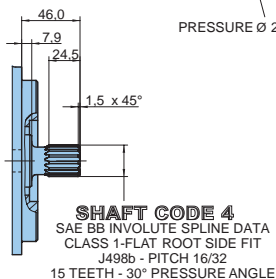
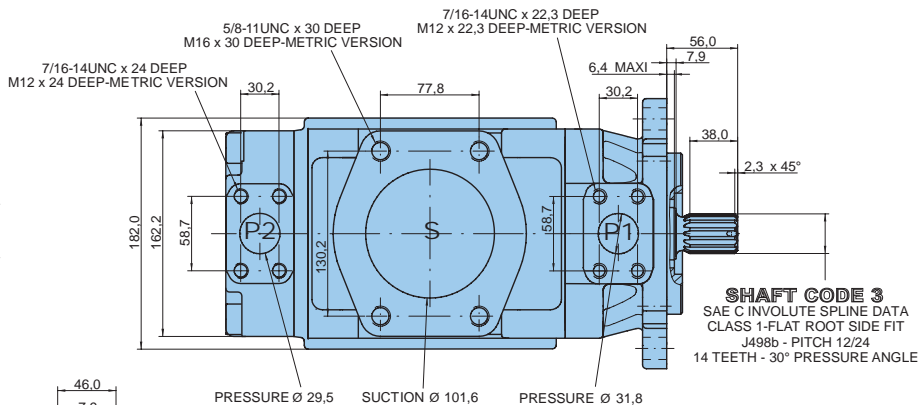
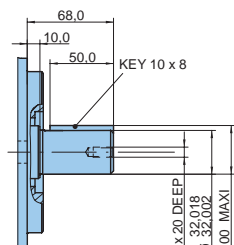
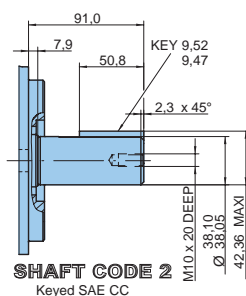
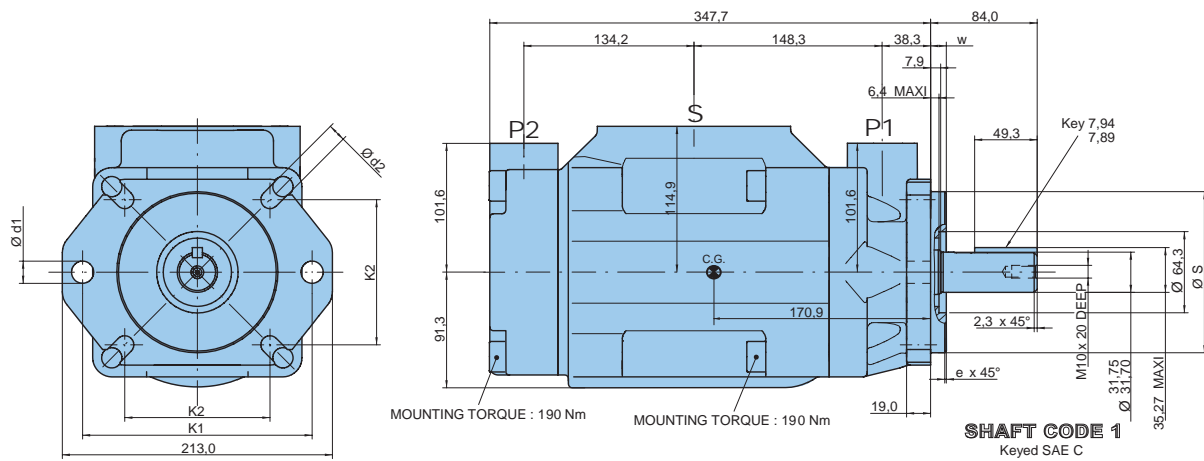
Total hydromechanical power loss is the sum of each section loss under its respective operating conditions.

PERMISSIBLE RADIAL LOAD



Maximum permissible axial load $F_a = 1200\text{ N}$





Alternate mounting flange								
Series	Dia S		e x 45°	W	K1	Dia d1	K2	Dia d2
	Max.	Min.						
T7DD	125,000	124,937	2,0	9,5	180,0	18,0	113,14	14,0
T7DDS	127,000	126,950	1,3	12,7	181,0	17,5	114,50	14,3

Shaft torque limits [ml/rev. x bar]			
Shaft	Vi x p max.	Shaft	Vi x p max.
1	43240	4	35880
2	71750	5	45200
3	61200		

OPERATING CHARACTERISTICS - TYPICAL [24 cSt]

Pressure port	Series	Vi Volumetric displacement	Flow q_v [l/min] & n = 1500 RPM			Input power P [kW] & n = 1500 RPM		
			p = 0 bar	p = 140 bar	p = 250 bar	p = 7 bar	p = 140 bar	p = 250 bar
P1 & P2	B14	44,0 ml/rev	66,0	59,4	54,2	1,5	16,6	29,0
	B17	55,0 ml/rev	82,5	75,9	70,7	1,7	20,4	35,8
	B20	66,0 ml/rev	99,0	92,4	87,2	1,9	24,3	42,7
	B22	70,3 ml/rev	105,5	98,8	93,7	2,0	25,8	45,4
	B24	81,1 ml/rev	121,7	115,0	109,9	2,2	29,5	52,1
	B28	90,0 ml/rev	135,0	128,4	123,2	2,3	32,7	57,7
	B31	99,2 ml/rev	148,8	142,2	137,0	2,5	35,9	63,5
	B35	113,4 ml/rev	170,1	163,5	158,3	2,7	40,8	72,3
	B38	120,6 ml/rev	180,9	174,3	169,1	2,9	43,4	76,8
	B42	137,5 ml/rev	206,3	199,6	194,5	3,2	49,3	87,4
	045	145,7 ml/rev	218,6	209,2	202,6 ¹⁾	4,1	52,8	89,5 ¹⁾
050	158,0 ml/rev	237,0	227,7	223,0 ²⁾	4,4	57,1	85,0 ²⁾	

¹⁾ 045 = 240 bar max. int.

²⁾ 050 = 210 bar max. int.