

T7DB or T7DBS - B42 - B10 - 1 R 00 - A 1 00 -

T7DB series-125 A2 HW
ISO 2 bolts 3019-2 mounting flange
T7DBS series- SAE C 2 bolts
Mounting flange J744

Cam ring for 'P1'

Volumetric displacement cm^3/rev (in^3/rev)

B14 = 43.9 (2.68) B31 = 99.1 (6.05)
B17 = 55.0 (3.36) B35 = 113.4 (6.92)
B20 = 66.0 (4.03) B38 = 120.6 (7.36)
B22 = 70.3 (4.29) B42 = 137.5 (8.39)
B24 = 81.1 (4.95) O45 = 145.7 (8.89)
B28 = 89.9 (5.49) O50 = 157.9 (9.64)

Cam ring for 'P2'

Volumetric displacement cm^3/rev (in^3/rev)

B02 = 5.7 (0.35) B09 = 28.0 (1.71)
B03 = 9.8 (0.60) B10 = 31.8 (1.94)
B04 = 12.8 (0.78) B11 = 34.9 (2.13)
B05 = 15.9 (0.97) B12 = 40.9 (2.50)
B06 = 19.8 (1.21) B14 = 45.1 (2.75)
B07 = 22.5 (1.37) B15 = 50.0 (3.05)
B08 = 24.9 (1.52)

Modifications

Mounting W/connection variables

	UNC		METRIC	
	T7DBS	T7DB- T7DBS	T7DB- T7DBS	T7DBS
00	01	M0	M1	
P2	1"	3/4"	1"	3/4"

Seal class

- 1 - S1 (for mineral oil)
- 4 - S4 (for fire resistant fluids)
- 5 - S5 (for mineral oil and fire resistant fluids)

Design letter

Porting combination (see page BM-1-5)

00 - standard

Direction of rotation (view on shaft end)

R - clockwise

L - counter-clockwise

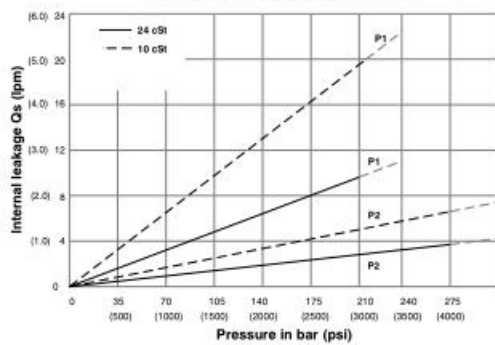
Type of shaft T7DBS

- 1 - keyed (SAE C)
- 2 - keyed (no SAE)
- 3 - splined (SAE C)
- 4 - splined (spec. SAE C)

Type of shaft T7DB- T7DBS

- 5 - keyed (ISO 3019-2-G32M)

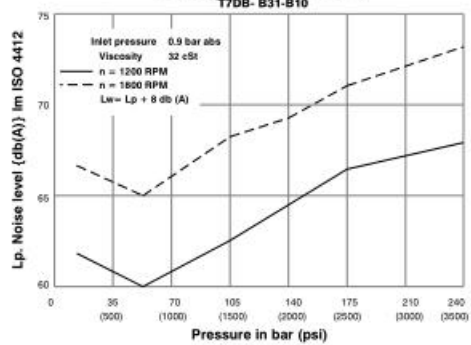
INTERNAL LEAKAGE (TYPICAL)



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

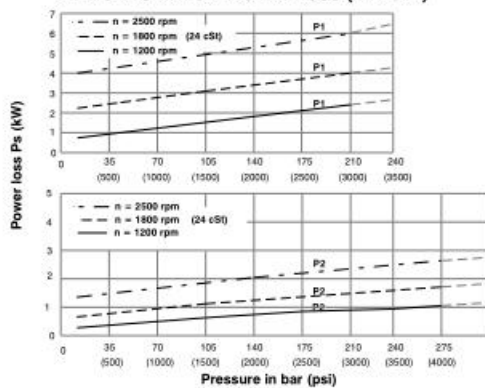
NOISE LEVEL (TYPICAL)

T7DB- B31-B10



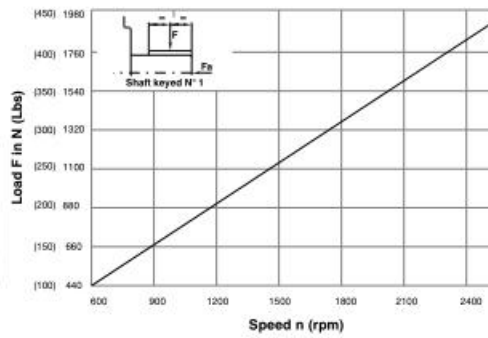
Double pump noise level is given with each section discharging at the pressure noted on the curve.

HYDROMECHANICAL POWER LOSS (TYPICAL)

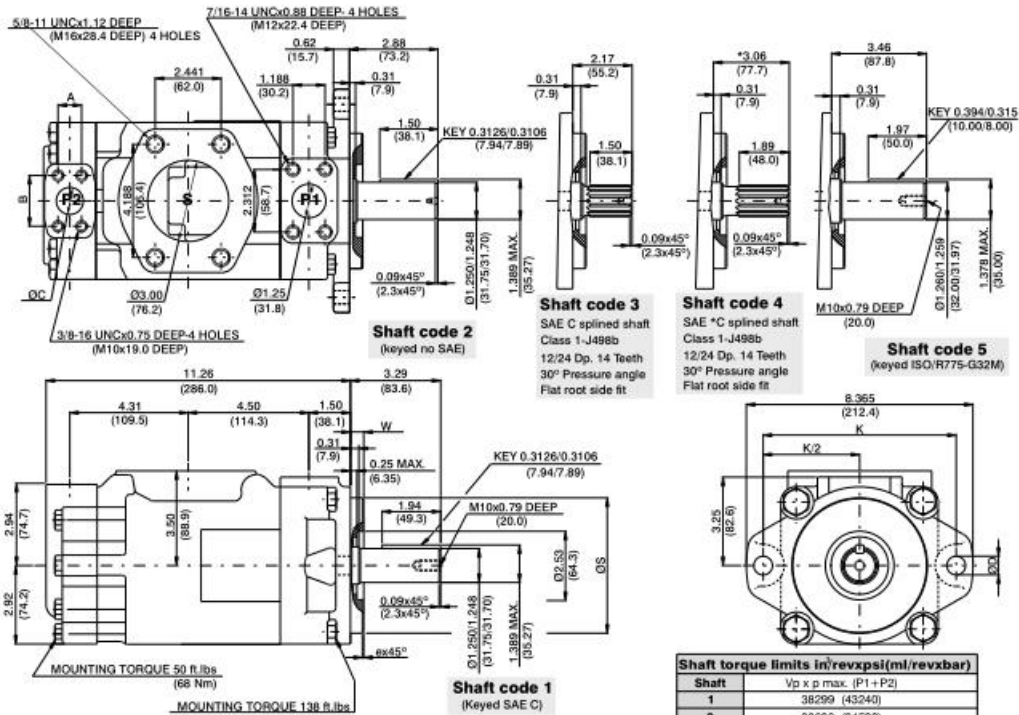


Total hydromechanical power loss is the sum of each section at its operating conditions.

PERMISSIBLE RADIAL LOAD



Maximum permissible axial load $F_a = 1200 \text{ N (270 Lbs)}$



Series	Alternate mounting flange				
	OS	ex45°	W	K	OD
	MAX.	Min.			
T7DB	4.921 (124.99)	4.919 (124.94)	0.079 (2.0)	0.374 (9.49)	7.087 (180.0)
T7DBS	5.00 (127.00)	4.998 (126.94)	0.051 (1.3)	0.50 (12.7)	7.126 (181.0)

Shaft	Vp x p max. (P1 + P2)
1	36299 (43240)
2	30636 (34590)
3	54207 (61200)
4	54207 (61200)
5	37644 (42542)

Alternate connect. variables		
OO & MO	O1 & M1	
A	1.031 (26.2)	0.874 (22.2)
B	2.06 (52.4)	1.874 (47.6)
C	1.00 (25.4)	0.75 (19.05)

OPERATING CHARACTERISTICS - TYPICAL (24 cST) (Input power p (KW) for one cartridge only)

Pressure port	Series	Volumetric Displacement Vp		Flow q & n = 1800 rpm						Input power p & n = 1800 rpm					
		in ³ /rev		p = 0 bar (0 psi)						p = 140 bar (2000 psi)					
		cm ³ /rev	gpm	lpm	gpm	lpm	gpm	lpm	hp	kw	hp	kw	hp	kw	
P1	B14	2.68	43.9	20.92	79.1	19.18	72.5	17.81	67.3	3.46	2.6	27.77	20.7	47.03	35.0
	B17	3.36	55.0	26.16	98.8	24.41	92.3	23.04	87.0	3.77	2.8	33.88	25.3	57.71	43.0
	B20	4.03	66.0	31.39	118.6	29.64	112.0	28.27	106.8	4.07	3.0	39.98	29.8	68.39	50.9
	B22	4.29	70.3	33.43	126.4	31.69	119.8	30.32	104.6	4.19	3.1	42.37	31.6	72.57	54.0
	B24	4.95	81.1	38.57	145.8	36.82	139.2	35.45	134.0	4.49	3.4	48.36	36.1	83.06	61.9
	B28	5.49	89.9	42.80	161.8	41.06	155.2	39.69	150.0	4.74	3.5	53.30	39.7	91.70	68.3
	B31	6.05	99.1	47.18	178.3	45.43	171.7	44.06	166.5	4.99	3.7	58.41	43.6	100.63	75.0
	B35	6.92	113.4	53.93	203.9	52.18	197.2	50.81	192.0	5.39	4.0	66.29	49.4	114.42	85.3
	B38	7.36	120.6	57.35	216.8	55.61	210.2	54.24	204.9	5.59	4.2	70.28	52.4	121.42	90.5
	B42	8.39	137.5	65.39	247.2	63.65	240.6	62.28	235.4	6.05	4.5	79.66	59.4	137.83	102.7
	O45	8.89	145.7	69.29	262.0	67.11	253.6	65.31	246.8	6.74	5.0	83.75	62.4	145.79	108.7
O50	9.64	157.9	75.14	284.0	72.96	275.8	71.78 ¹⁾	271.3 ¹⁾	7.08	5.3	90.58	67.5	134.50 ¹⁾	100.3 ¹⁾	
P2	B02	0.35	5.7	2.76	10.4	2.33	8.8	1.80	6.8	0.74	0.55	4.02	2.99	8.10	6.04
	B03	0.60	9.8	4.66	17.6	4.23	15.9	3.70	14.0	0.85	0.63	6.24	4.65	12.93	9.64
	B04	0.78	12.8	6.09	23.0	5.66	21.4	5.13	19.4	0.94	0.70	7.90	5.89	16.55	12.34
	B05	0.97	15.9	7.56	28.6	7.13	26.9	6.60	25.0	1.02	0.76	9.62	7.17	20.29	15.13
	B06	1.21	19.8	9.42	35.6	8.99	33.9	8.46	32.0	1.13	0.84	11.79	8.79	25.00	18.64
	B07	1.37	22.5	10.70	40.4	10.27	38.8	9.74	36.8	1.20	0.89	13.29	9.91	28.26	21.07
	B08	1.52	24.9	11.84	44.7	11.41	43.1	10.88	41.1	1.27	0.95	14.62	10.90	31.15	23.23
	B09	1.71	28.0	13.31	50.3	12.87	48.6	12.35	47.0	1.36	1.01	16.35	12.19	34.92	26.04
	B10	1.94	31.8	15.12	57.2	14.69	55.5	14.16	53.5	1.46	1.09	18.45	13.75	39.48	29.44
	B11	2.13	34.9	16.64	62.9	16.19	61.2	15.68	59.3	1.55	1.16	20.17	15.04	43.22	32.23
	B12	2.50	40.9	19.50	73.7	19.07	72.1	18.54	70.1	1.72	1.28	23.55	17.56	50.58	37.71
	B14	2.75	45.1	21.40	80.8	20.95	79.2	20.44	77.0	1.83	1.36	25.80	19.24	55.48	41.37
	B15	3.05	50.0	23.78	89.8	23.35	88.3	22.88 ²⁾	86.5 ²⁾	1.97	1.47	28.55	21.28	57.35 ²⁾	42.76 ²⁾

1) O50 = 210 bar (3000 psi) max. int 2) B15 = 280 bar (4060 psi) max. int