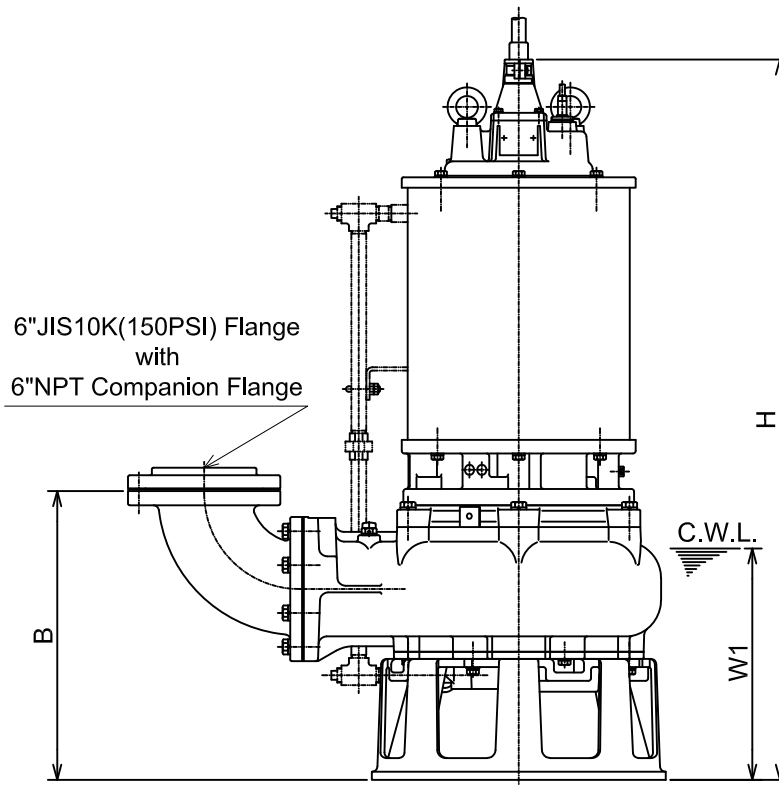
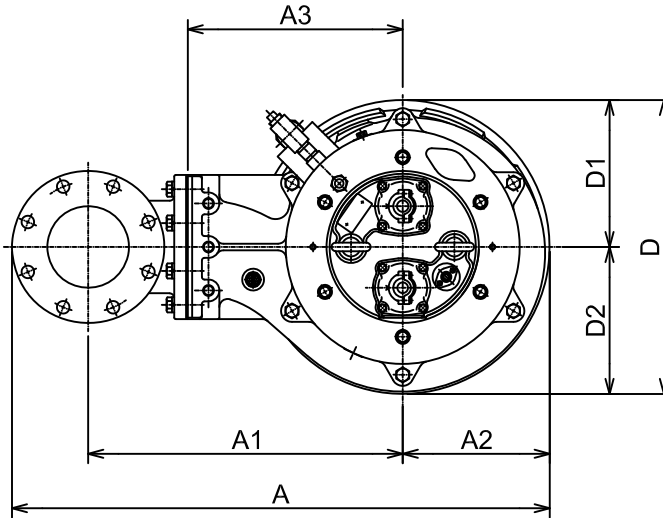




B-SERIES
SEWAGE & WASTEWATER PUMPS

DIMENSIONS

150BK422 -64



C.W.L. :Continuous running Water Level

DIMENSIONS:USCS(Inch)

Model	HP	NOM. SIZE	Pump & Motor								C.W.L. W1	*Wt. (lbs.)	
			A	A1	A2	A3	B	D	D1	D2			H
150BK422 -63	30	6"	38 7/8	22 3/4	10 5/8	15 9/16	22 1/16	21 1/4	10 5/8	10 5/8	52 1/8	16 3/4	1180

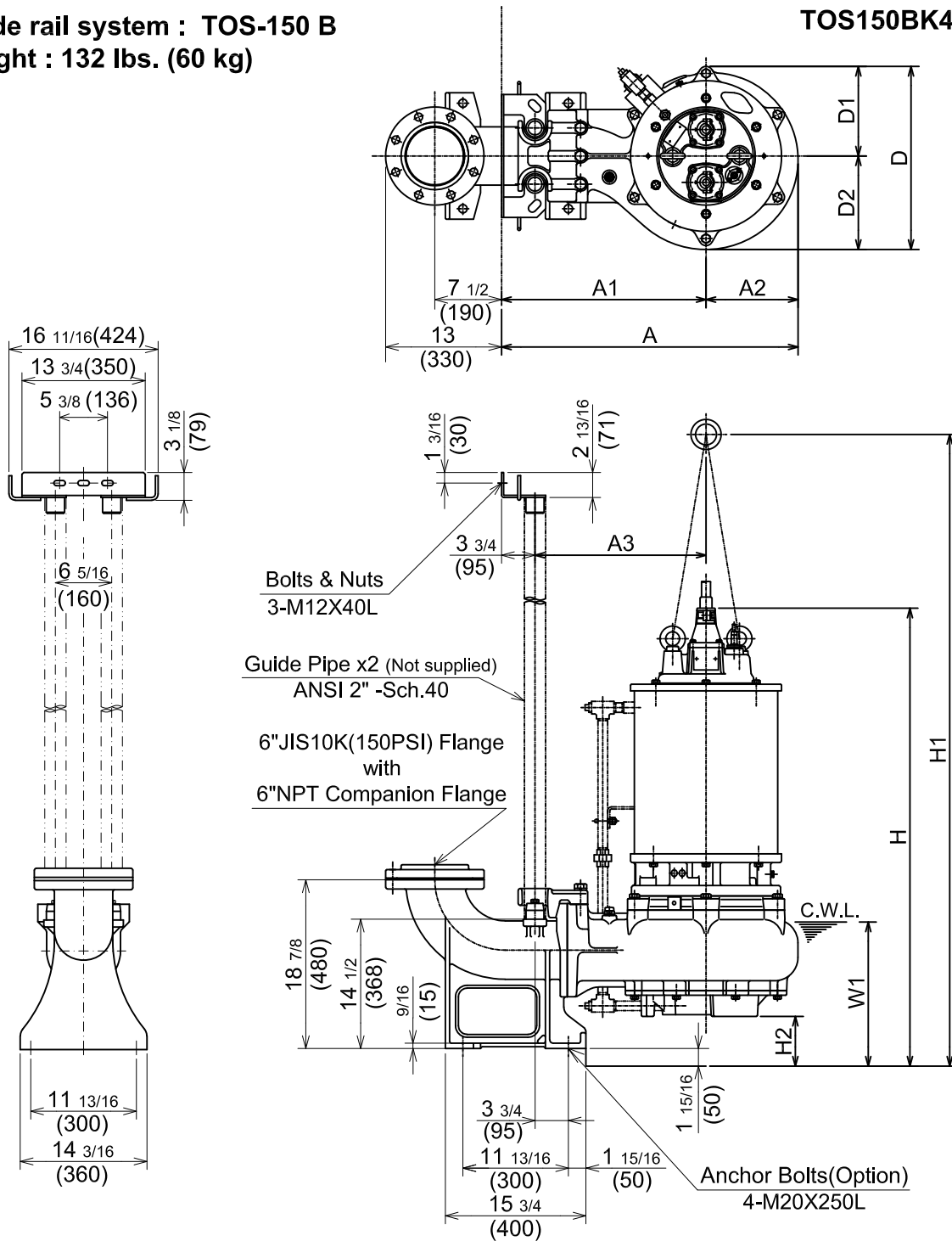
DIMENSIONS:METRIC(mm)

Model	kW	NOM. SIZE	Pump & Motor								C.W.L. W1	*Wt. (kg)	
			A	A1	A2	A3	B	D	D1	D2			H
150BK422 -63	22	150	988	578	270	395	531	540	270	270	1324	425	535

*Excluding Cable

Guide rail system : TOS-150 B
Weight : 132 lbs. (60 kg)

TOS150BK422 -64



C.W.L. :Continuous running Water Level

DIMENSIONS:USCS (Inch)

Model	HP	NOM. SIZE	Pump & Motor										C.W.L. W1	*Wt. (lbs.)
			A	A1	A2	A3	D	D1	D2	H	H1	H2		
TOS150BK422-64	30	6"	33 1/4	22 15/16	10 5/16	19 3/16	20 1/2	10 1/16	10 1/2	51 5/16	70 3/4	5 9/16	16 1/8	1030

DIMENSIONS:METRIC (mm)

*Excluding TOS & Cable

Model	kW	NOM. SIZE	Pump & Motor										C.W.L. W1	*Wt. (kg)
			A	A1	A2	A3	D	D1	D2	H	H1	H2		
TOS150BK422-64	22	150	844	582	262	487	521	255	266	1303	1797	142	410	468

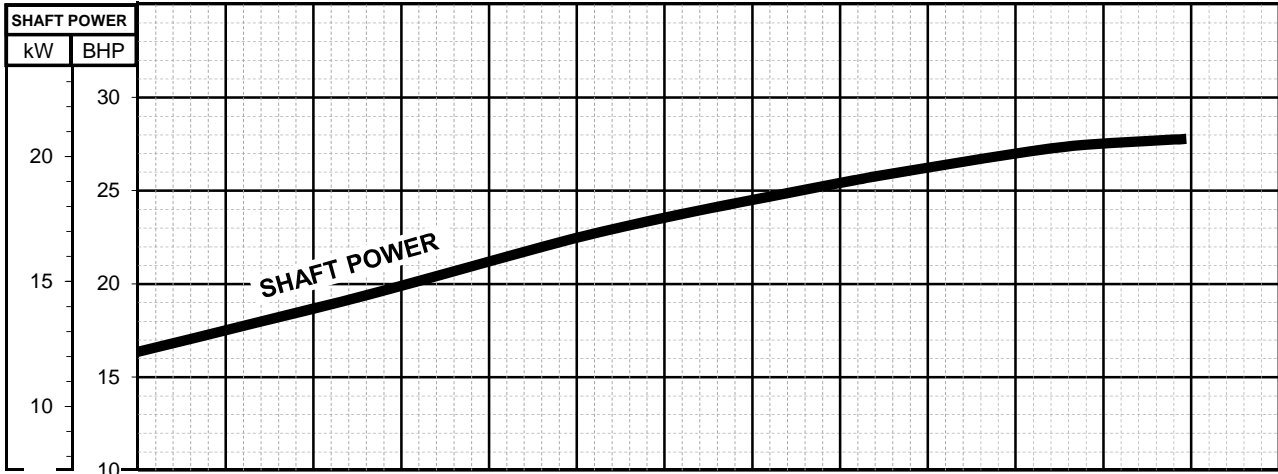
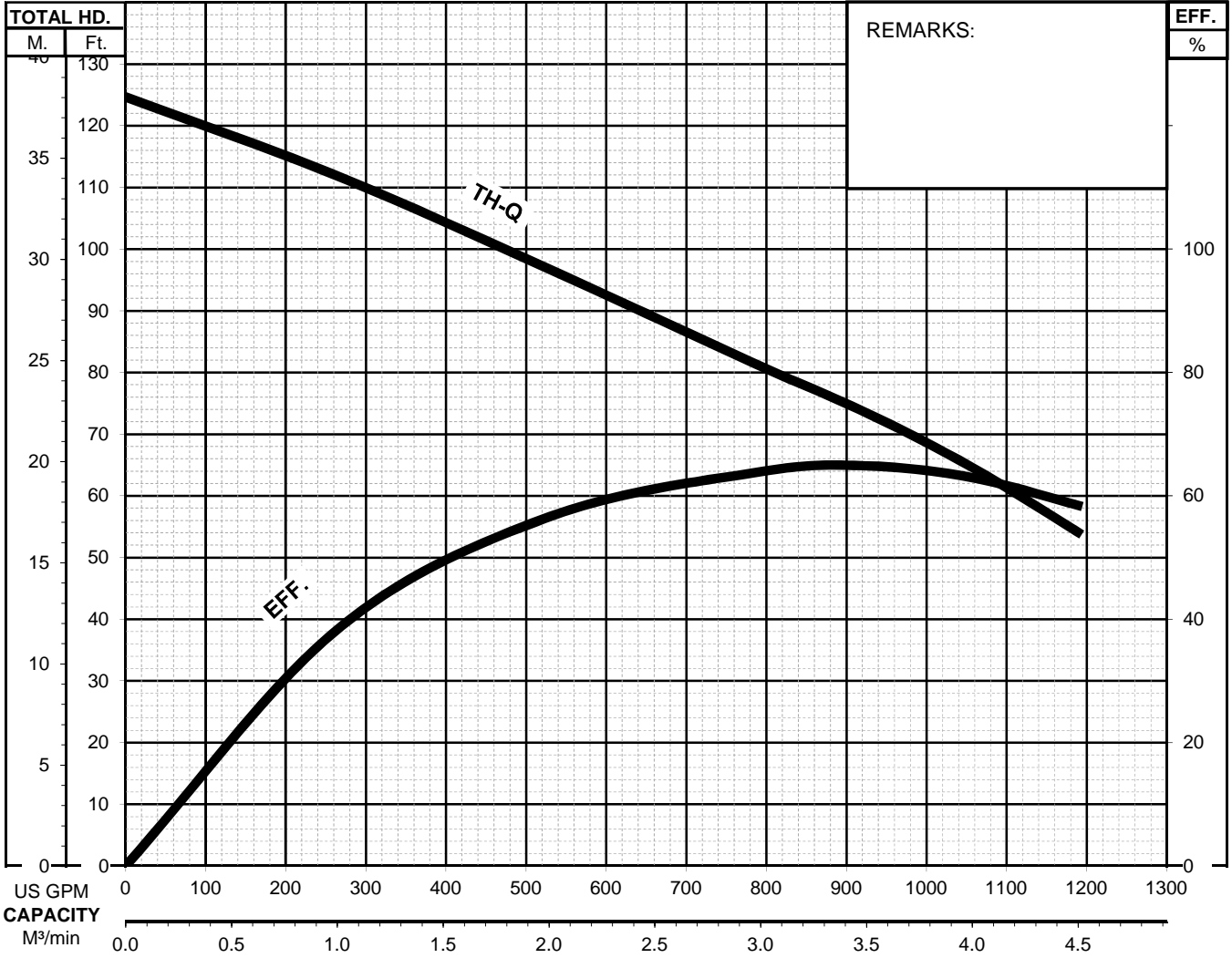


BK - SERIES

SEWAGE & WASTEWATER PUMPS

PERFORMANCE
CURVE

MODEL		BORE	HP	KW	RPM	SOLIDS DIA.	LIQUID	SG.	VISCOSITY	TEMP.
(TOS)150BK422-64		6"/150mm	30	22	1750	2.95"/75mm	Water	1.0	1.123cSt.	60°F
PUMP TYPE		PHASE	VOLTAGE		AMPERAGE		HZ	STARTING METHOD		INS. CLASS
Sewage & Wastewater		3	460/575		39 / 31.5		60	Star-Delta		F
CURVE No.	DATE	PHASE	VOLTAGE		AMPERAGE		HZ	STARTING METHOD		INS. CLASS
-	-	-	-		-		-	-		-

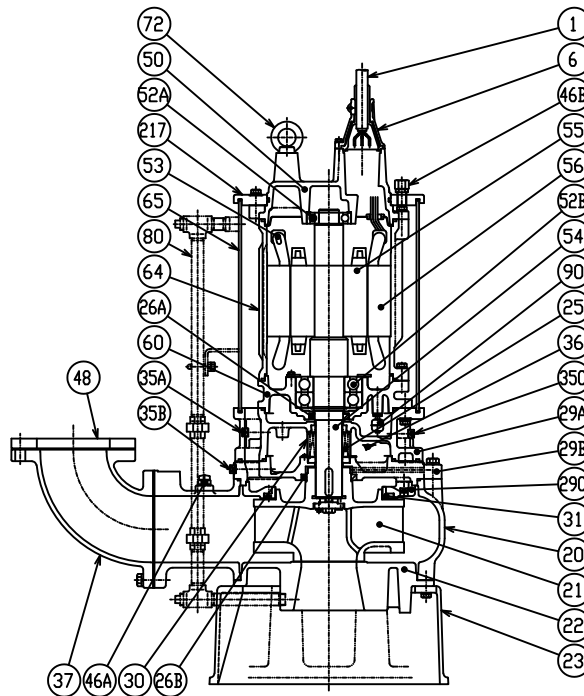




B-SERIES
SEWAGE & WASTEWATER PUMPS

SECTIONAL VIEW

150BK422 -64
200BK422H -63



PART#	DESCRIPTION	MAIN MATERIAL / NOTE	RELATED ASTM,AISI CODE	RELATED EN CODE	QTY
1	Power Cable	Chloroprene Sheath AWG 6/4-32ft			1
	Power Cable	Chloroprene Sheath AWG 6/3-32ft			1
	Control Cable	Chloroprene Sheath AWG 14/4-32ft			1
6	Stuffing Box	Cast Iron	A48M Class30B	EN 1561 GJL-200	2
20	Pump Casing	Cast Iron	A48M Class35B	EN 1561 GJL-250	1
21	Impeller	Cast Iron	A48M Class35B	EN 1561 GJL-250	1
22	Suction Cover	Cast Iron	A48M Class35B	EN 1561 GJL-250	1
23	Suction Strainer	Ductile Cast Iron	A536 80-55-06	EN 1563 GJS-500-7	1
25	Mechanical Seal	Silicon Carbide / H-60			1
26A	Oil Seal	NBR / TC659013			1
26B	Oil Seal	NBR / TC10012513			1
29A	Casing Cover	Cast Iron	A48M Class30B	EN 1561 GJL-200	1
29B	Oil Casing	Cast Iron	A48M Class35B	EN 1561 GJL-250	1
29C	Casing Plate	Cast Iron	A48M Class35B	EN 1561 GJL-250	1
30	Oil Lifter	Steel (Cold Rolled)	A109/A1008	EN 10130	1
31	Wear Ring	Cast Iron	A48M Class30B	EN 1561 GJL-200	1
35A	Oil Plug	Stainless Steel	S 30400	1.4301	2
35B	Oil Plug	Stainless Steel	S 30400	1.4301	1
35C	Drain Plug	Stainless Steel	S 30400	1.4301	1
36	Lubricant	Turbine Oil ISO VG32 or SAE 10W-20			
37	Discharge Bend	Cast Iron	A48M Class30B	EN 1561 GJL-200	1
46A	Air Release Valve	Nylon			1
46B	Air Release Valve	Stainless Steel	S 30400	1.4301	1
48	Companion / Welded Flange	Cast Iron / 6" NPT Companion or 8" Welded	A48M Class30B	EN 1561 GJL-200	1
50	Motor Bracket	Cast Iron	A48M Class30B	EN 1561 GJL-200	1
52A	Upper Bearing	#6309ZZC3			1
52B	Lower Bearing	#6314ZZD2C3			1
53	Motor Protector				3
54	Shaft	Stainless Steel	S 42000	1.4021	1
55	Rotor				1
56	Stator				1
60	Bearing Housing	Cast Iron	A48M Class30B	EN 1561 GJL-200	1
64	Motor Housing	Cast Iron	A48M Class30B	EN 1561 GJL-200	1
65	Outer Cover	Steel	A283 Grade D	EN 10025 S275	1
72	Lifting Lug Bolt	Stainless Steel	S 30400	1.4301	2
80	Cooling Pipe Set	Steel	A283 Grade D	EN 10025 S275	1
90	Leak Sensor (Float)				1
217	Fixing Plate	Cast Iron	A48M Class30B	EN 1561 GJL-200	1

PARTS LIST		SEWAGE & WASTEWATER PUMP			1/11/2018	
ITEM	PART No.	DESCRIPTION	QTY	SIZE	MATERIAL	NOTES
1	009-127-14	Terminal	4	R-1.25-4	CU	
2	140-427-17	Hex.Bolt (w/Plain Washer)	2	M5x15	SUS304	
3	003-190-10	Gland	1		SUS316	
4	001-006-56	Cabtyre Cable Set (32') 460V-60Hz(USA)	1	VCT4Cx1.25mm2	LBT	
5	009-104-15	Solderless Terminal	4	TMVB-1.25	CU	
6	009-107-18	Terminal	7	R-14-6	CU	**included in ITEM# 11 Cable Assy **included in ITEM# 13 Cable Assy
7	140-035-14	Hex.Bolt	4	M6x20	SUS304	**included in ITEM# 11 Cable Assy **included in ITEM# 13 Cable Assy
8	070-107-18	Cable Clamp	2		FC	**included in ITEM# 11 Cable Assy **included in ITEM# 13 Cable Assy
9	140-488-16	Hex.Bolt (w/Spring Washer)	8	M8x30	SUS304	
10	006-127-15	Stuffing Box	2	No.3	FC	**included in ITEM# 11 Cable Assy **included in ITEM# 13 Cable Assy
11	001-007-76	Cabtyre Cable (32') 60Hz(USA)	1	2PNCT4Cx14mm2	(Vm)	
12	008-147-17	Mould Cover	1	KR3-9	CR	**included in ITEM# 11 Cable Assy
13	001-007-77	Cabtyre Cable (32') 60Hz(USA)	1	2PNCT3Cx14mm2	(Vm)	
14	008-150-13	Mould Cover	1	KR3-12	CR	**included in ITEM# 13 Cable Assy
15	140-029-28	Hex.Bolt	7	M6x10	SWRM	
16	009-106-17	Terminal	6	R-8-6	CU	
17	009-107-18	Terminal	7	R-14-6	CU	
18	141-004-59	Hex.Nut	7	M6	SWRM	
19	200-000-23	Electrical tape(30M)	1	540S(0.18T-25Wx30M)		
20	002-000-18	Heat Shrink Tube (per meter)	m	W3F2(3/4IN)	(Vm)	
21	143-000-58	Pan Screw (w/Spring Washer/Plain Washer)	1	M6x12	SWRM	
22	009-106-17	Terminal	2	R-8-6	CU	
23	046-000-03	Air Release Valve	1	PT-1/2	SUS304	
24	140-101-12	Hex.Bolt	6	M12x50	SUS304	
25	142-165-10	Spring Washer	6	M12	SUS304	
26	142-000-47	Washer	6	M12(d12.5xd25.5x5t)	SUS304	
27	121-513-12	Seal Packing	6	d11.5xd21x4t	CR	*
28	217-000-16	Fixing Plate	1	TO150BG422-55/65	FC	
29	122-158-18	O-Ring	1	G-270(269.3xd5.7)	NBR	*
30	122-256-17	O-Ring	1	390xd5.7	NBR	*
31	072-125-21	Eye Bolt	2	M20	SUS304	
32	035-113-18	Air Tightness Test Plug	1	M12x14	SUS304	
33	121-247-12	Packing	1	d12.3xd18x2t	PE	*
34	140-100-11	Hex.Bolt	6	M12x45	SUS304	
35	142-165-10	Spring Washer	6	M12	SUS304	
36	050-000-73	Motor Bracket	1		FC	
37	122-160-13	O-Ring	1	G-290(289.3xd5.7)	NBR	*
38	142-000-70	Wave Washer	1	d83xd99x0.9t	SK5	
39	052-000-27	Bearing (w/O-ring)	1	AC-6309ZC3		

PARTS LIST		SEWAGE & WASTEWATER PUMP			1/11/2018	
ITEM	PART No.	DESCRIPTION	QTY	SIZE	MATERIAL	NOTES
40	016-000-04	Lead Wire Protection Bush	2	d21xd52x11t	SBR	
41	058-000-22	Lead Wire Protection Plate	1	d130xd290x3tx21H	SPCC	
42	055-001-84	Rotor	1Set			
43	147-000-16	Impeller Key	1	16x10x63	SUS420	
44	053-001-67	Motor Protector	3	YS11A135A-D20	(H)	
45	056-005-27	Stator 460V-60Hz(USA)	1Set			
46	064-001-03	Motor Frame	1		FC	
47	142-427-13	Seal Washer	2	WD-12	SPC+NBR	
48	140-000-69	Hex.Bolt	2	M12x25	SS	
49	140-102-13	Hex.Bolt	6	M12x55	SUS304	
50	142-165-10	Spring Washer	6	M12	SUS304	
51	122-160-13	O-Ring	1	G-290(289.3xd5.7)	NBR	*
52	140-000-68	Hex.Bolt	4	M8x20	SS	
53	062-000-14	Bearing Fixing Plate	1	6314(d130xd190x4.5t)	SS	
54	052-145-12	Bearing	1Set	6314ZZD2C3		
55	146-039-16	Retaining Ring	1	C70	SK5	
56	060-000-62	Bearing Housing	1		FC	
57	122-160-13	O-Ring	1	G-290(289.3xd5.7)	NBR	*
58	090-112-18	Leakage Sensor(Float)	1	OLV-5-2(B)		
59	142-293-18	Seal Washer	1	W-10	SUS304	
60	026-116-13	Oil Seal	1	TC-659013	NBR	
61	065-000-44	Outer Cover	1	TO150BG422-55/65	SS	
62	122-256-17	O-Ring	1	390xd5.7	NBR	*
63	144-528-11	U-bolt	1	C-#20-M10	SUS304	
64	141-006-19	Hex.Nut	4	M10	SUS304	
65	035-113-18	Drain Plug	1	M12x14	SUS304	
66	121-247-12	Packing	1	d12.3xd18x2t	PE	*
67	029-000-34	Casing Cover	1	200BK422-52/62	FC	
68	121-513-12	Seal Packing	6	d11.5xd21x4t	CR	*
69	142-000-47	Washer	6	M12(d12.5xd25.5x5t)	SUS304	
70	142-165-10	Spring Washer	6	M12	SUS304	
71	140-101-12	Hex.Bolt	6	M12x50	SUS304	
72	121-247-12	Packing	2	d12.3xd18x2t	PE	*
73	035-113-18	Oil Plug	2	M12x14	SUS304	
74	025-000-51	Mechanical Seal	1	H-60	SiC	
75	143-028-13	Pan Screw	3	M5x10	SWRM	
76	030-134-10	Oil Lifter	1	H-60	SPCC	
77	122-256-17	O-Ring	1	390xd5.7	NBR	*
78	122-159-19	O-Ring	1	G-280(279.3xd5.7)	NBR	*

PARTS LIST		SEWAGE & WASTEWATER PUMP			1/11/2018	
ITEM	PART No.	DESCRIPTION	QTY	SIZE	MATERIAL	NOTES
79	121-247-12	Packing	1	d12.3xd18x2t	PE	*
80	035-113-18	Drain Plug	1	M12x14	SUS304	
81	140-128-15	Hex.Bolt	6	M16x60	SUS304	
82	142-166-11	Spring Washer	6	M16	SUS304	
83	029-000-31	Oil Casing	1	150BG422-53/63	FC	
84	142-000-23	Spring Washer	6	M16(CP)	SUS304	
85	140-317-13	Hex.Socket Cap Bolt	6	M16x40	SUS304	
86	026-229-10	Oil Seal	1	TC-10012513	NBR	
87	029-000-33	Casing Plate	1	200BK422-52/62	FC	
88	140-286-12	Hex.Socket Cap Bolt	3	M10x30	SUS304	
89	031-000-02	Wear Ring	1	150B422-53/63	FC	
90	140-248-12	Hex.Socket Cap Bolt	4	M6x14	SUS304	
91	021-004-67	Impeller (60Hz)	1	150BK422-64	FC	
92	145-035-19	Taper Pin	1	5x10	SUS304	
93	142-431-10	Impeller Fixing Washer	1	d18xd65x11t(w/Pin)	SUS304	
94	217-020-17	Fixing Plate	1	d60x3t M16(B=24)	SUS304	
95	140-232-13	Hex.Socket Cap Bolt	2	M5x10	SUS304	
96	140-128-15	Hex.Bolt	1	M16x60	SUS304	
97	122-258-19	O-Ring	1	395xd5	NBR	*
98	020-001-18	Pump Casing	1	200BK422H-51/61	FC	
99	046-107-13	Air Release Valve	1	PT-1/2	Nylon	
100	120-000-07	Packing (S.Cover)		100SC422-52/62	PE	
101	022-000-78	Suction Cover	1	150BK422-52/62	FC	
102	142-165-10	Spring Washer	4	M12	SUS304	
103	140-098-15	Hex.Bolt	4	M12x35	SUS304	
104	023-546-17	Strainer Stand	1	150B422	FCD	
105	142-129-12	Plain Washer	4	M12	SUS304	
106	142-165-10	Spring Washer	4	M12	SUS304	
107	140-101-12	Hex.Bolt	4	M12x50	SUS304	
108	037-119-10	Discharge Bend	1	150x150mm	FC	
109	121-165-28	Packing	1	JIS5Kx150mm	NR	
110	140-128-15	Hex.Bolt	8	M16x60	SUS304	
111	142-166-11	Spring Washer	8	M16	SUS304	
		Guide rail rail fittings				
	140-098-15	Hex.Bolt	4	M12x35	SUS304	
	142-165-10	Spring Washer	4	M12	SUS304	
	093-134-15	Guide Hook	1	TOS-150	FCD	
	140-153-19	Hex.Bolt	3	M20x75	SUS304	
	142-168-13	Spring Washer	3	M20	SUS304	

* Indicates items included in set

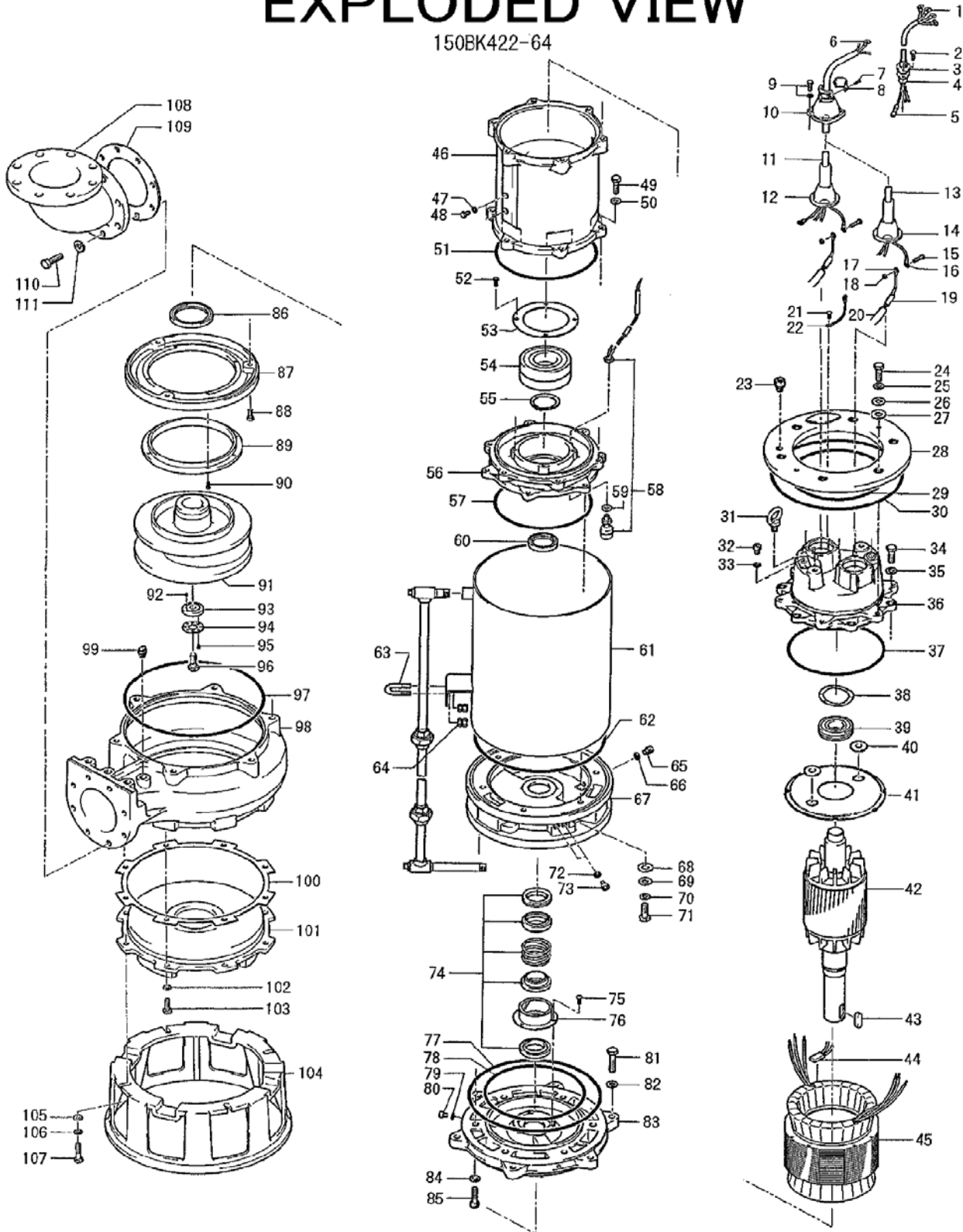
PARTS LIST		SEWAGE & WASTEWATER PUMP			1/11/2018	
ITEM	PART No.	DESCRIPTION	QTY	SIZE	MATERIAL	NOTES
	091-156-17	Duck Foot Bend(JIS10K)	1	TOS-150	FC	
	096-102-13	Guide Connector	2	51mm	FC	
	140-103-14	Hex.Bolt	2	M12x60	SUS304	
	142-165-10	Spring Washer	2	M12	SUS304	
	094-211-10	Guide Support	1	TOS-150C	SUS304	
	140-099-16	Hex.Bolt	3	M12x40	SUS304	
	141-007-10	Hex.Nut	3	M12	SUS304	
	142-129-12	Plain Washer	3	M12	SUS304	
		NPT Flange Version				
	048-238-10	Welding Flange	1	JIS10Kx150mm	SS	
	121-108-23	Packing	1	JIS10Kx150mm	NR	
	140-154-36	Hex.Bolt	12	M20x80	SWRM	
	141-009-12	Hex.Nut	12	M20	SUS304	
	142-168-26	Spring Washer	12	M20	SWRH	
	173-002-51	Packing O-Ring Set	1Set	(Marked by *)		
27	121-513-12	Seal Packing (Fixing Plate Bolt)	6	d11.5xd21x4t	CR	*
29	122-158-18	O-Ring (Fixing Plate/M.Bracket)	1	G-270(269.3xd5.7)	NBR	*
30	122-256-17	O-Ring (Fixing Plate/Out.Cover)	1	390xd5.7	NBR	*
33	121-247-12	Packing (Air Tightness Test Plug)	1	d12.3xd18x2t	PE	*
37	122-160-13	O-Ring (M.Bracket/M.Frame)	1	G-290(289.3xd5.7)	NBR	*
51	122-160-13	O-Ring (M.Frame/Brg.Housing)	1	G-290(289.3xd5.7)	NBR	*
57	122-160-13	O-Ring (Brg.Housing/Casing Cover)	1	G-290(289.3xd5.7)	NBR	*
62	122-256-17	O-Ring (Brg.Housing/Casing Cover)	1	390xd5.7	NBR	*
66	121-247-12	Packing (Drain Plug)	1	d12.3xd18x2t	PE	*
68	121-513-12	Seal Packing (Casing Cover Bolt)	6	d11.5xd21x4t	CR	*
72	121-247-12	Packing (Oil Plug)	2	d12.3xd18x2t	PE	*
77	122-256-17	O-Ring (Casing Cover/O.Casing)	1	390xd5.7	NBR	*
78	122-159-19	O-Ring (Casing Cover/O.Casing)	1	G-280(279.3xd5.7)	NBR	*
79	121-247-12	Packing (Drain Plug)	1	d12.3xd18x2t	PE	*
97	122-258-19	O-Ring (O.Casing/P.Casing)	1	395xd5	NBR	*
		Lubricant		Turbine Oil VG32 3,400ml		
	095-176-28	Chain	1	9mmx5M	SS	
	011-105-13	Shackle	1	16mm	SS	
	095-250-14	Chain	1	11mm(11L)	SS	
	011-105-13	Shackle	1	16mm	SS	
	095-176-15	Chain	1	9mmx5M	SUS304	
	011-112-13	Shackle	1	13mm	SUS304	
	095-124-18	Chain	1	11mm(6L)	SUS304	
	011-112-13	Shackle	2	13mm	SUS304	
	080-000-89	Cooling Pipe Set	1Set		SUS304	-

* Indicates items included in set

PARTS LIST		SEWAGE & WASTEWATER PUMP			1/11/2018	
ITEM	PART No.	DESCRIPTION	QTY	SIZE	MATERIAL	NOTES

EXPLODED VIEW

150BK422-64



C-01204-1

* Indicates items included in set