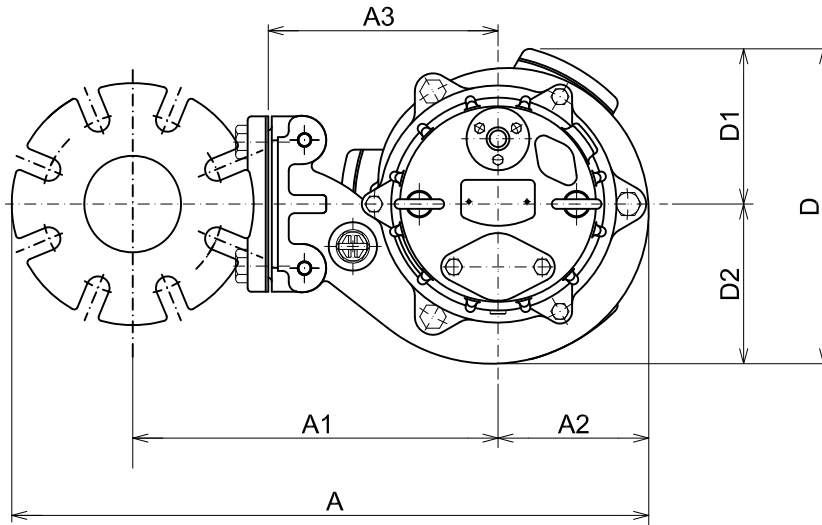




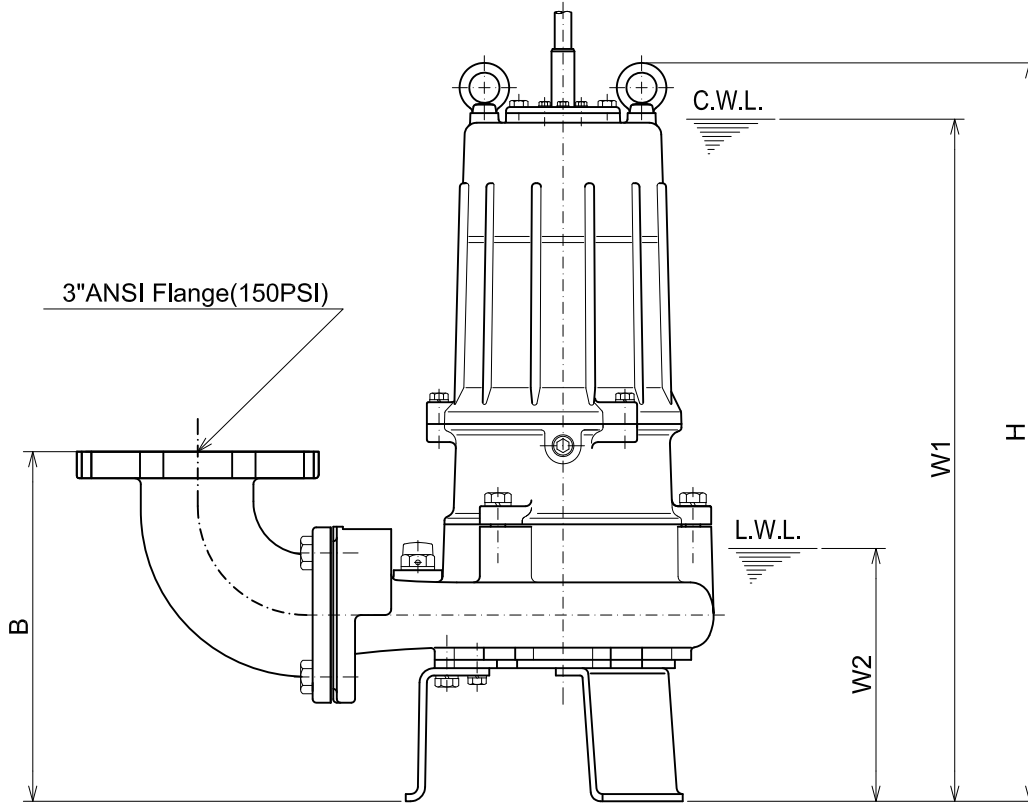
**C-SERIES  
CUTTER - TYPE - SEWAGE & WASTEWATER PUMPS**

**DIMENSIONS**

Bend model:  
BEND80-80 ANSI



**80C22.2-CR -61  
80C23.7-CR -61**



C.W.L. :Continuous running Water Level  
L.W.L. :Lowest running Water Level

**DIMENSIONS:USCS(Inch)**

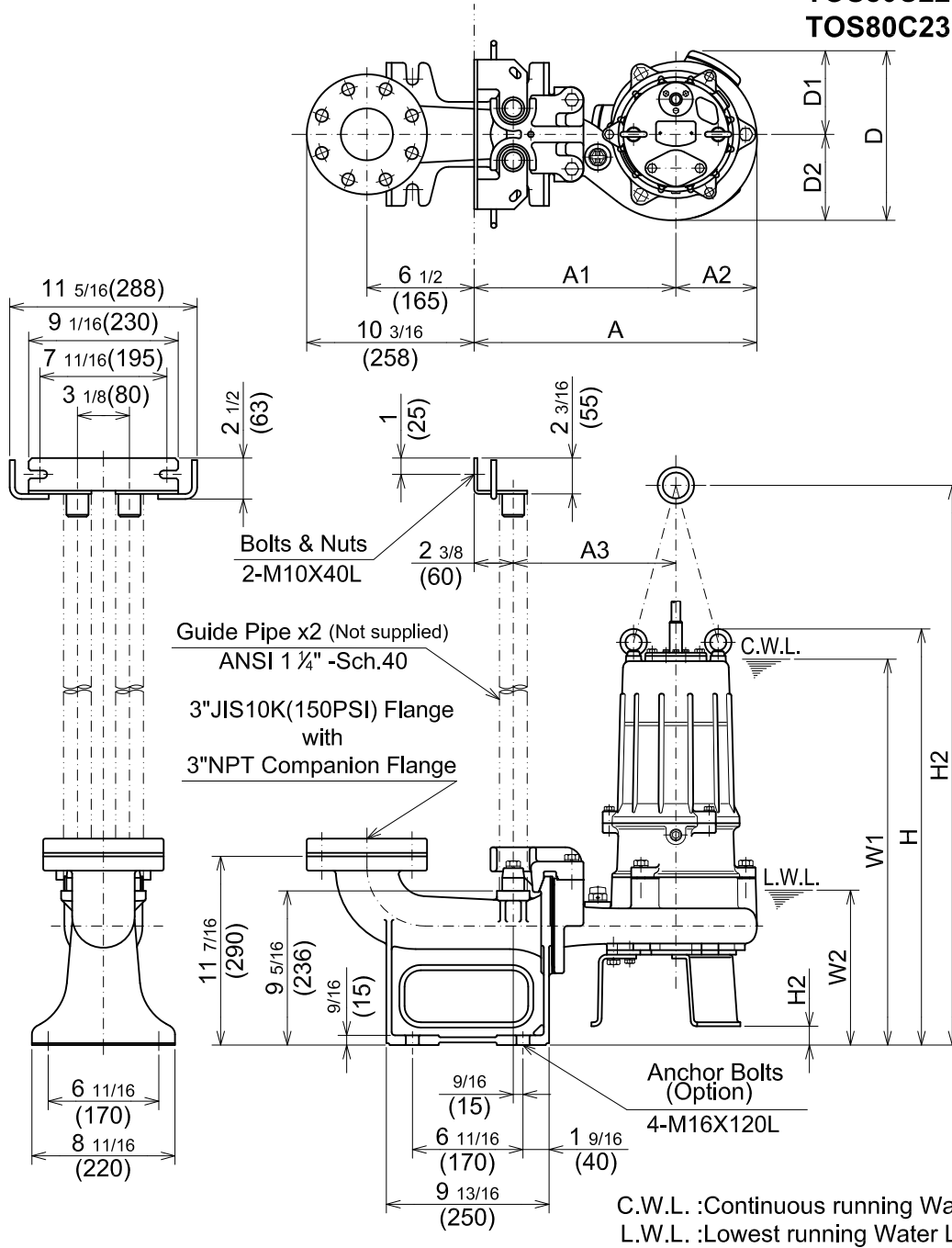
Model	HP	NOM. SIZE	Pump & Motor									C.W.L. W1	L.W.L. W2	*Wt. (lbs.)
			A	A1	A2	A3	B	D	D1	D2	H			
80C22.2-CR -61	3	3"	21 1/8	12 5/16	4 15/16	7 1/2	11 3/8	10 1/4	5 1/16	5 3/16	24 1/16	22 1/4	8 1/4	150
80C23.7-CR -61	5	3"	21 1/8	12 5/16	4 15/16	7 1/2	11 3/8	10 1/4	5 1/16	5 3/16	24 1/16	22 1/4	8 1/4	150

**DIMENSIONS:METRIC(mm)**

Model	kW	NOM. SIZE	Pump & Motor									C.W.L. W1	L.W.L. W2	*Wt. (kg)
			A	A1	A2	A3	B	D	D1	D2	H			
80C22.2-CR -61	2.2	80	537	312	125	190	289	260	128	132	611	565	210	68
80C23.7-CR -61	3.7	80	537	312	125	190	289	260	128	132	611	565	210	68

\*Excluding Cable.

**TOS80C22.2-CR -61**  
**TOS80C23.7-CR -61**



C.W.L. :Continuous running Water Level  
L.W.L. :Lowest running Water Level

**DIMENSIONS:USCS(Inch)**

Model	HP	NOM. SIZE	Pump & Motor										C.W.L.	L.W.L.	Wt. (lbs.)
			A	A1	A2	A3	D	D1	D2	H	H1	H2			
TOS80C22.2-CR -61	3	3"	17 1/8	12 3/16	4 15/16	9 13/16	10 1/4	5 1/16	5 3/16	25 3/16	33 7/8	1 1/8	23 3/8	9 1/2	141
TOS80C23.7-CR -61	5	3"	17 1/8	12 3/16	4 15/16	9 13/16	10 1/4	5 1/16	5 3/16	25 3/16	33 7/8	1 1/8	23 3/8	9 1/2	141

**DIMENSIONS:METRIC(mm)**

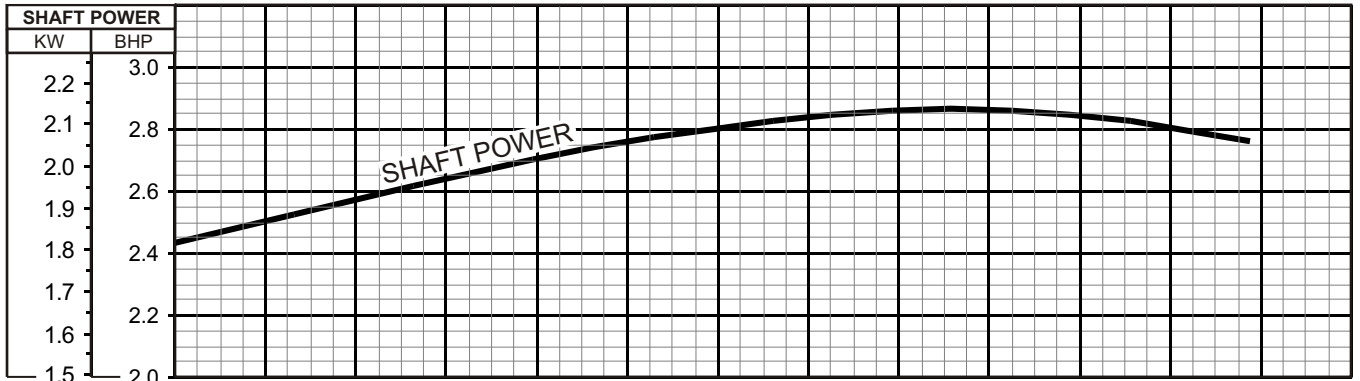
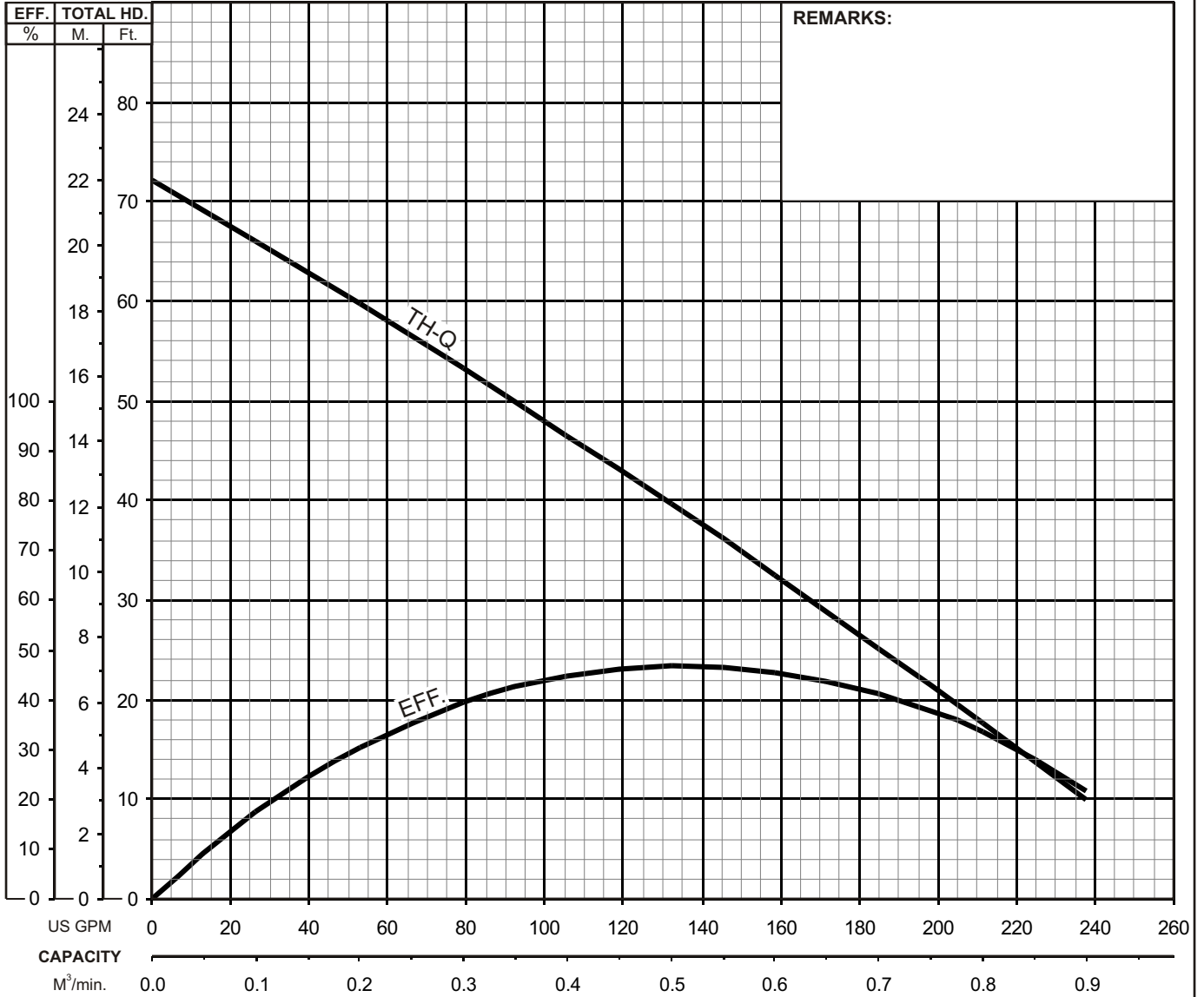
Model	kW	NOM. SIZE	Pump & Motor										C.W.L.	L.W.L.	Wt. (kg)
			A	A1	A2	A3	D	D1	D2	H	H1	H2			
TOS80C22.2-CR -61	2.2	80	435	310	125	250	260	128	132	640	860	29	595	240	64
TOS80C23.7-CR -61	3.7	80	435	310	125	250	260	128	132	640	860	29	595	240	64



# C - SERIES CUTTER-TYPE - SEWAGE & WASTEWATER PUMPS

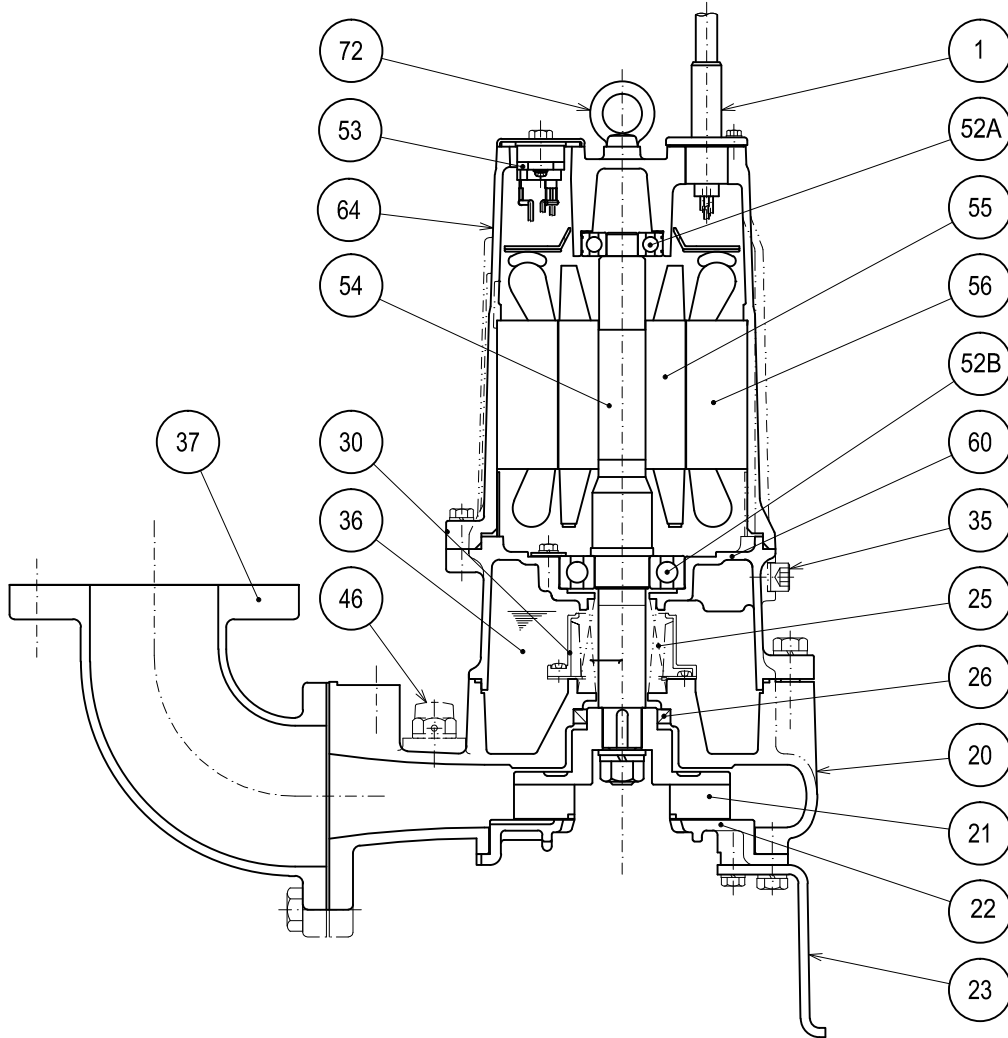
## PERFORMANCE CURVE

MODEL	BORE	HP	KW	RPM	SOLIDS DIA	LIQUID	SG.	VISCOSITY	TEMP.
(TOS) 80C22.2-CR -61	3"/80mm	3	2.2	3490	0.79"/20mm	Water	1.0	1.123 cSt.	60°F
PUMP TYPE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS			
Cutter-Type - Sewage & Wastewater	3	208-230/460/575	10.0 - 9.8 / 4.9 / 3.8	60	Direct On Line	F			
CURVE No.	DATE	PHASE	VOLTAGE	AMPERAGE	HZ	STARTING METHOD	INS. CLASS		
-	-	-	-	-	-	-	-		



<b style="font-size: 1.2em; vertical-align: middle;">TSURUMI PUMP</b>	<b>C-SERIES</b> <b>CUTTER - TYPE - SEWAGE &amp; WASTEWATER PUMPS</b>	<b>SECTIONAL VIEW</b>
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**80C22.2-CR -61**  
**80C23.7-CR -61**



PART#	DESCRIPTION	MAIN MATERIAL / NOTE	RELATED ASTM,AISI CODE	RELATED EN CODE	QTY
1	Power Cable	PVC Sheath AWG 12/4-32ft			1
20	Pump Casing	Cast Iron	A48M Class30B	EN 1561 GJL-200	1
21	Impeller	High Chrome Cast Iron W/Tungsten Carbide	A532 Class III TypeA	DIN 1695 G-X260Cr27	1
22	Suction Cover	High Chrome Cast Iron	A532 Class III TypeA	DIN 1695 G-X260Cr27	1
23	Pump Stand	Steel	A283 Grade D	EN 10025 S275	3
25	Mechanical Seal	Silicon Carbide / H-30			1
26	Oil Seal	NBR / TC45629			1
30	Oil Lifter	PBT Resin W/GF40			1
35	Oil Plug	Stainless Steel	S 30400	1.4301	1
36	Lubricant	Turbine Oil ISO VG32 or SAE 10W-20			
37	Discharge Bend	Cast Iron / 3"ANSI Flange(150PSI)	A48M Class30B	EN 1561 GJL-200	1
46	Air Release Valve	Nylon			1
52A	Upper Bearing	AC-#6304ZZC3			1
52B	Lower Bearing	#6307ZZC3			1
53	Motor Protector				1
54	Shaft	Stainless Steel	S 42000	1.4028	1
55	Rotor				1
56	Stator				1
60	Bearing Housing	Cast Iron	A48M Class25B	EN 1561 GJL-150	1
64	Motor Housing	Cast Iron	A48M Class25B	EN 1561 GJL-150	1
72	Lifting Lug Bolt	Stainless Steel	S 30400	1.4301	2

PARTS LIST		SEWER & WASTEWATER CUTTER PUMP				5/23/2018
ITEM	PART No.	DESCRIPTION	QTY	SIZE	MATERIAL	NOTES
1	001-149-21	Cabtyre Cable Set (32') 60Hz (USA)	1	VCT4Cx2mm2	BE/CE	
2	140-021-17	Hex.Bolt	3	M5x20	SUS304	
3	142-422-18	Seal Washer	3	PM-5	SUS+NBR	
4	003-111-20	Gland	1		SUS304	
5	009-105-16	Solderless Terminal	4	2mm2	CU	
6	140-052-17	Hex.Bolt	2	M8x16	SUS304	
7	127-000-16	Protector Fixing Plate	1		SUS304	
8	121-000-23	Packing	1		NBR	*
9	053-000-31	Motor Protector 208-230V-60Hz(USA)	1	KA313-GDBL110	(T.C)	
	053-000-36	Motor Protector 460V-60Hz(USA)	1	KA313-GBTL102	(T.C)	
10	143-126-38	Pan Screw (w/Spring Washer/Plain Washer)	2	M4x12	SWRM	
11	072-100-20	Eye Bolt	2	M10	SUS304	
12	064-000-20	Motor Frame	1		FC	
13	140-057-12	Hex.Bolt	3	M8x35	SUS304	
14	142-163-18	Spring Washer	3	M8	SUS304	
15	009-212-17	Earth Terminal	1Set	2mm2x130L		
16	143-085-21	Pan Screw (w/Spring Washer)	1	M4x6	SWRM	
17	122-333-19	O-Ring	1	170xd3.1	NBR	*
18	142-196-10	Wave Washer	1	6205/6304	SK5	
19	052-188-17	Bearing (w/O-ring)	1	AC-6304ZZC3		
20	058-000-04	Lead Wire Protection Plate	1	d66xd150x1.5t	Bakelite	
21	055-001-56	Rotor	1Set			
22	147-079-11	Impeller Key	1	7x7x18l	SUS420	
23	056-001-27	Stator 208-230V-60Hz(USA)	1Set			
	056-001-29	Stator 460V-60Hz(USA)	1Set			
24	140-000-06	Hex.Bolt (w/Spring Washer/Plain Washer)	3	M6x12	SWCH	
25	052-110-18	Bearing	1	6307ZZC3		
26	071-336-11	Collar	1	41L	SECC	
27	060-000-97	Bearing Housing	1		FC	
28	035-113-18	Oil Plug	1	M12x14	SUS304	
29	121-247-12	Packing	1	d12.3xd18x2t	PE	*
30	140-098-15	Hex.Bolt	3	M12x35	SUS304	
31	142-165-10	Spring Washer	3	M12	SUS304	
32	025-194-12	Mechanical Seal	1	H-30	SiC	
33	143-070-23	Pan Screw	2	M5x6	SWRM	
34	030-142-11	Oil Lifter	1	H-30(A)(T)	Resin	
35	143-070-10	Pan Screw	3	M5x6	SWRM	
36	030-151-13	Seal Stopper	1	H-30(A)(T)	SPCC	

PARTS LIST		SEWER & WASTEWATER CUTTER PUMP				5/23/2018
ITEM	PART No.	DESCRIPTION	QTY	SIZE	MATERIAL	NOTES
37	046-107-13	Air Release Valve	1	PT-1/2	Nylon	
38	122-246-14	O-Ring	1	180xd3.1	NBR	*
39	020-002-06	Pump Casing	1	80C22.2/23.7-CR-51/61	FC	
40	026-155-14	Oil Seal	1	TC-45629	NBR	
41	040-107-28	Impeller Shim		d25.2xd38x0.3t	SUS304	varying quantities may be used to set impeller to suction cover clearance
42	021-007-04	Impeller (60Hz)	1	80C22.2-CR-61	HiCrFC	
	021-007-05	Impeller (50Hz) OPTION	1	80C23.7-61	HiCrFC	50Hz OPTION
43	142-166-11	Spring Washer	1	M16	SUS304	
44	141-033-15	Hex.Cap Nut	1	M16	SUS304	
45	120-127-12	Packing		d171xd186x0.3t	PE	varying quantities may be used to set impeller to suction cover clearance
46	022-001-44	Suction Cover (60Hz)	1	80C22.2-CR-61	HiCrFC	
	022-001-45	Suction Cover (50Hz) OPTION	1	80C23.7-CR-61	HiCrFC	50Hz OPTION
47	023-469-15	Pump Stand	3	22/37-BE3	SPHC	
48	142-164-19	Spring Washer	3	M10	SUS304	
49	140-076-17	Hex.Bolt	3	M10x30	SUS304	
50	142-163-18	Spring Washer	3	M8	SUS304	
51	140-054-19	Hex.Bolt	3	M8x20	SUS304	
52	140-130-36	Hex.Bolt	8	M16x70	SWRM	
53	048-000-54	Screwed Flange	1	NPT-3(JIS10K)	FC	
54	121-105-33	Packing	1	JIS10Kx80mm	NR	
55	142-166-37	Spring Washer	8	M16	SWRH	
56	141-008-11	Hex.Nut	8	M16	SUS304	
57	140-124-11	Hex.Bolt	4	M16x40	SUS304	
58	037-169-15	Discharge Bend	1	80x80mm	FC	
59	121-152-19	Packing	1	145mm2(P.C.145)	NBR	*
	173-000-79	<b>Packing O-Ring Set</b>	1Set	(Marked by *)		
8	121-000-23	Packing (Protector Fixing Plate)	1		NBR	*
17	122-333-19	O-Ring (M.Frame/Brg.Housing)	1	170xd3.1	NBR	*
29	121-247-12	Packing (Oil Plug)	1	d12.3xd18x2t	PE	*
38	122-246-14	O-Ring (Brg.Housing/P.Casing)	1	180xd3.1	NBR	*
59	121-152-19	Packing (Discharge Bend)	1	145mm2(P.C.145)	NBR	*
		Lubricant		Turbine Oil VG32 1,890ml		

PARTS LIST		SEWER & WASTEWATER CUTTER PUMP				5/23/2018
ITEM	PART No.	DESCRIPTION	QTY	SIZE	MATERIAL	NOTES

## EXPLODED VIEW

(TOS) 80C22. 2-CR-51/61

(TOS) 80C23. 7-CR-51/61

