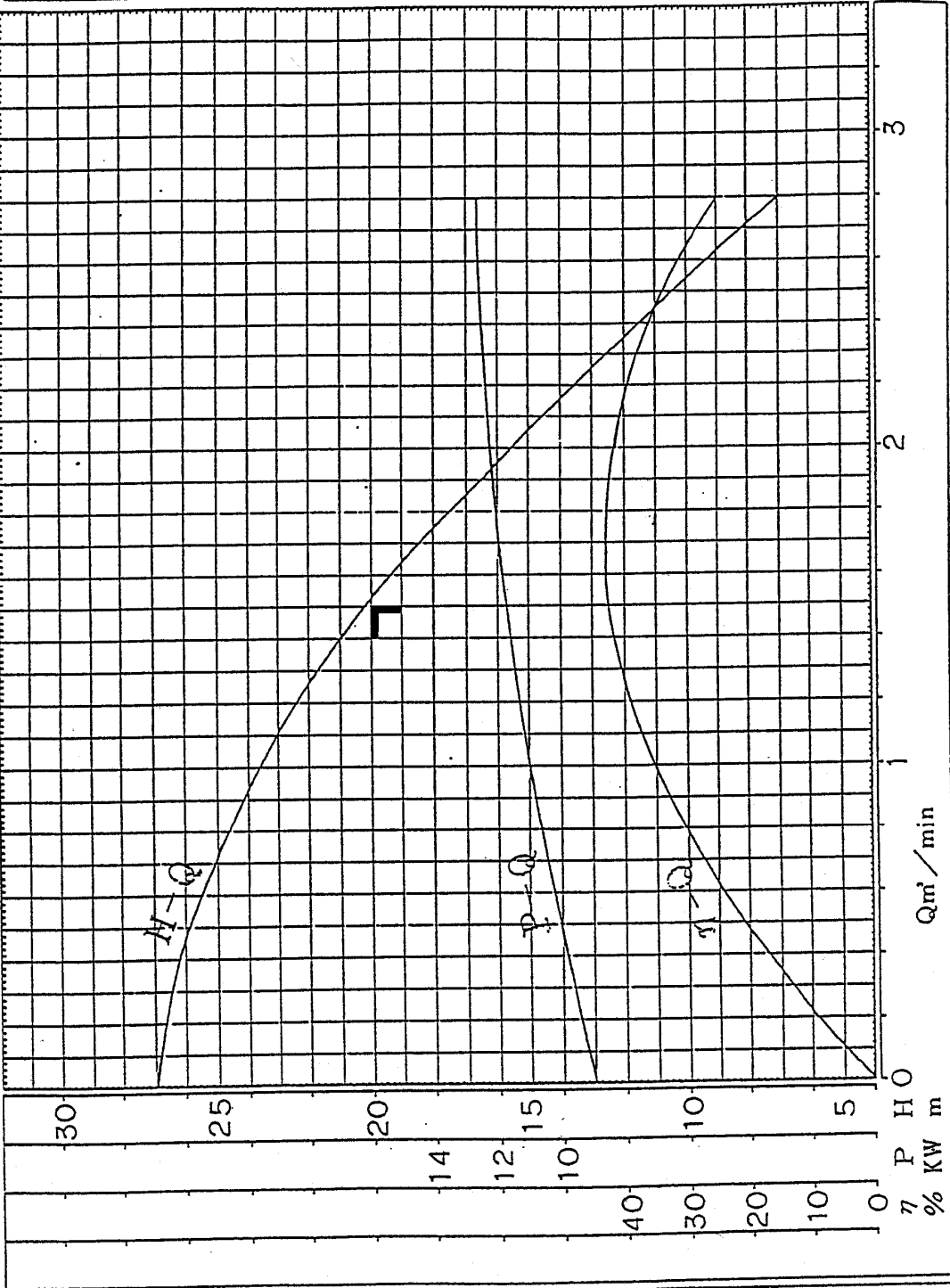



Technical specifications

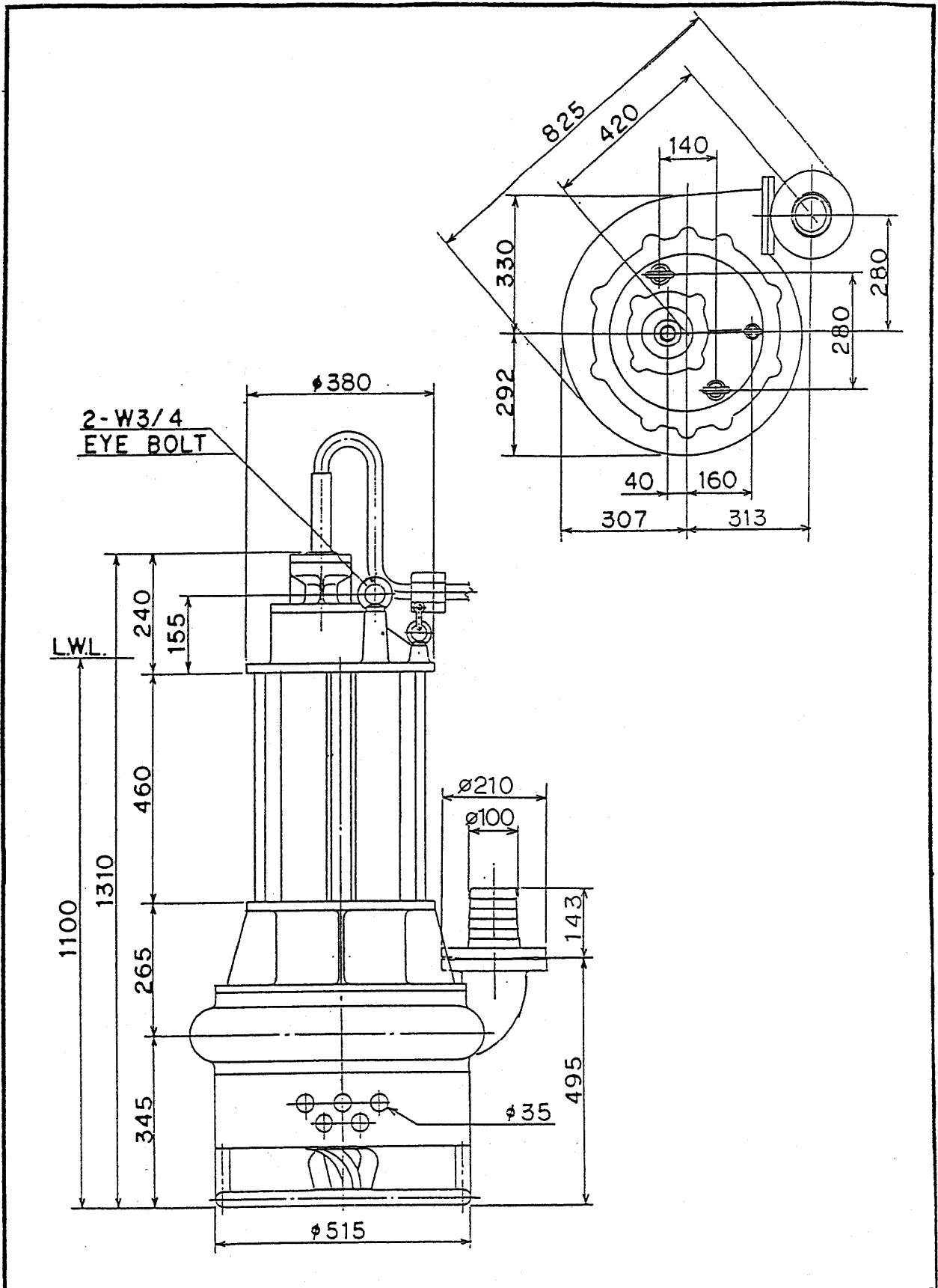
	DESCRIPTION
Type	Submersible pump with agitator
Model	DP-20-4-HD
Outlet	100 mm
Manometric head	20 m
Capacity	1,5 m³/min
Grain size	35 mm
Motor type	RKN 101/13-6
Output	15 kW 50 Hz
Phase / Poles	3 Phase 6 Poles
Speed	970 1/min
Voltage / Current	400V 32 A
Insulation class	Class B
Starting method	Reactor starter
Cable	HO7RN-F 4G10
Oil quantity	15 L
Oil type	SAE 15W40
Weight	560 kg
Dimensions	Following drawing M-09021
Painting	A A metallic silver
Wear plates	Clearance between 1.0 – 1.5 mm
Max. liquid temperature	40°C
pH min – max	4 – 9.5
Max. working depth	120 m
Min. generating power	65 kVA
External diam. cable	23 mm
Cable length m/400V	120 m

P E R F O R M A N C E C U R V E



PUMP MODEL	DP-20-4
DISCHARGE	100 mm
HEAD	20 m
CAPACITY	1.5 m³/min
MOTOR OUTPUT	15 kW
PHASE	3
POLES	6
FREQUENCY	50 Hz
SPEED	ss1000 rpm
VOLTAGE	V
CURRENT	A


TOYO DENKI INDUSTRIAL
CO., LTD.
KITAKYUSHU JAPAN



DRAWING	APPROVAL	DATE	DRAWING NO.	DP-20-4	OUTLINE
		SCALE	M-09021	TOYO DENKI INDUSTRIAL CO., LTD.	
		FREE	3rd ANGLE PROJECTION (三角法)		

PARTS LIST

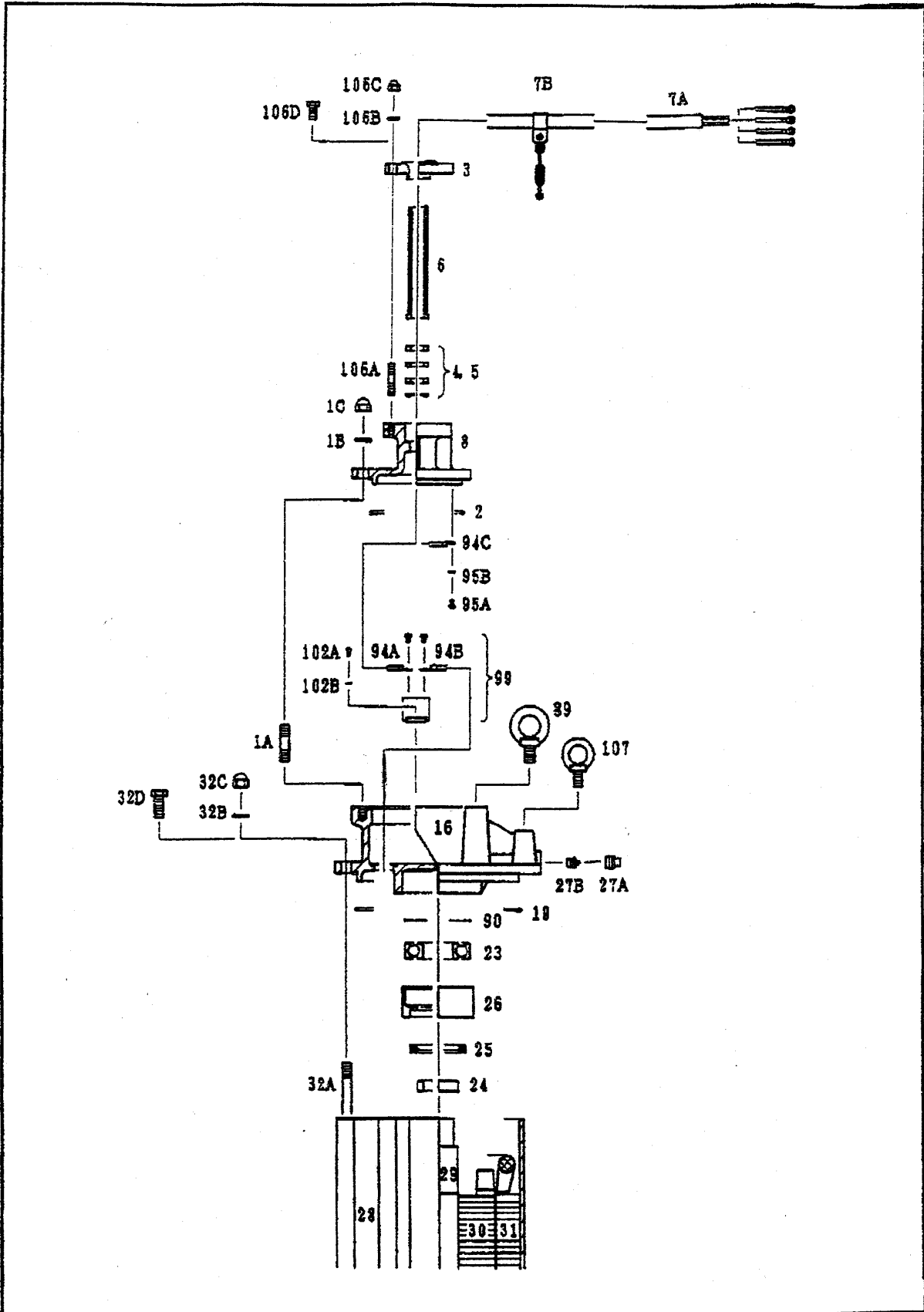
Model : DP-20-4-HD

400V/50Hz

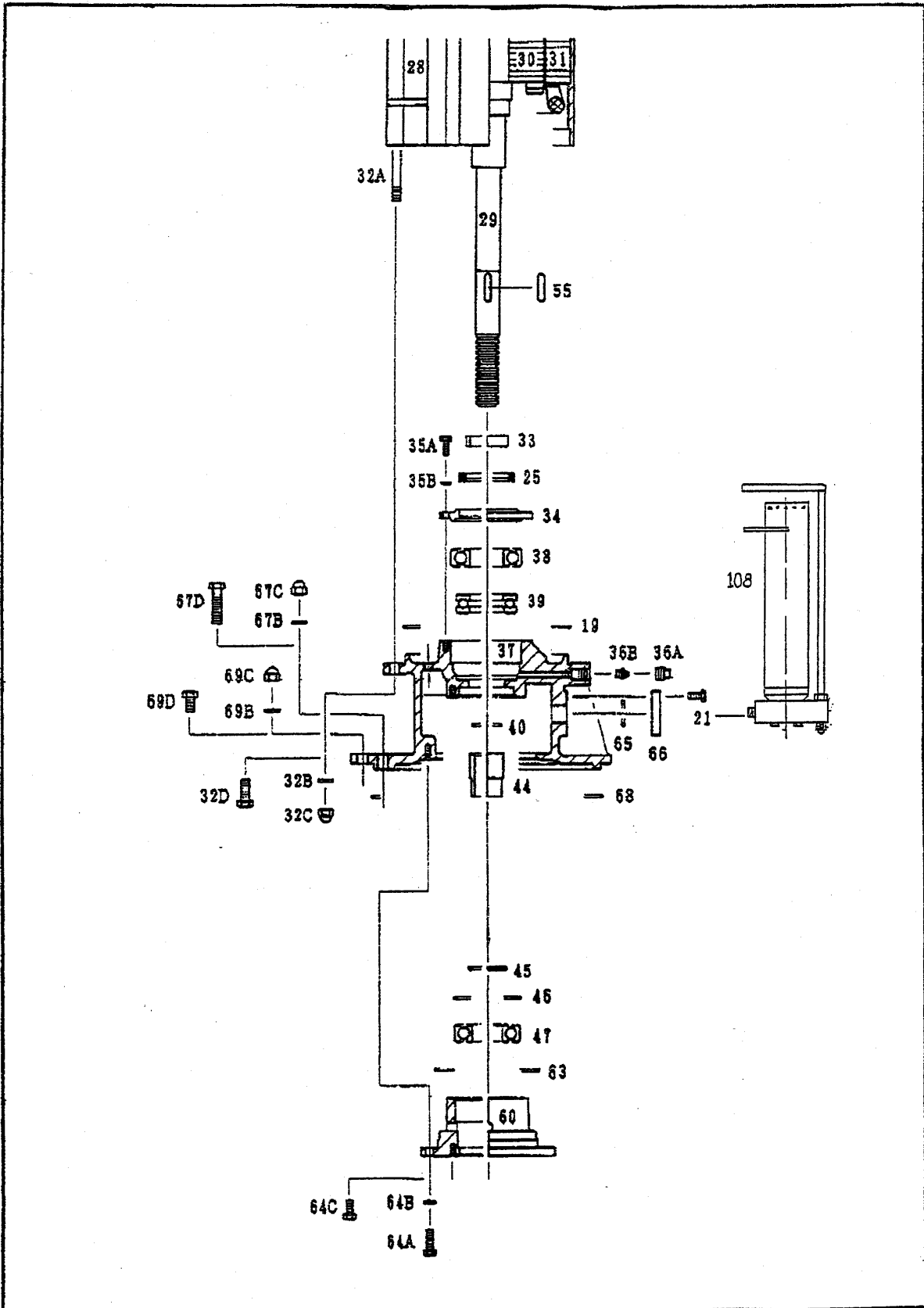
<u>N°</u>	<u>Description</u>	<u>Reference</u>	<u>Quantity</u>	<u>Material</u>
1A	Stud bolt	SM-1655	4	SS400
1B	Spring washer	WM-1600	4	SWRH
1C	Cap nut	NM-1601	4	SS400
2	Packing	P-4165	1	Rubber
3	Packing gland	15-H192-3	1	FC250
4	Packing	CR-6008	3	Rubber
5	Packing set ring	CS-5008	1	SS400
6	Cable protection tube	CP-6008	1	Rubber
7A	Electric cable	7-921		
7B	Cable clamp	CC-9008	1 set	
8	Lead cover	15-H142-3	1	FC250
16	Upper cover	20-141-4	1	FC250
19	O-Ring	P-4300	2	Rubber
21	Set bolt	RM-1025S	8	SUS304
23	Roller bearing	R3-811	1	
24	Seal ring A	20-768A	1	S25C
25	Oil seal	S-875	2	
26	Bearing housing	20-158	1	FC250
27A	Plug	PW-912	1	
27B	Grease nipple	GN-03P	1	
28	Motor case	20-532-4	1	SS400
29	Shaft	20-713	1	SCM435
30	Rotor	20-923	1	
31	Stator	20-922-E	1	
32A	Body clasp bolt	BM-16540	6	SS400
32B	Spring washer	WM-1600	12	SWRH
32C	Cap nut	NM-1601	12	SS400
32D	Adjust bolt	RM-1640	4	SS400
33	Seal ring B	15-768B	1	S25C
34	Bearing cover	15-248	1	FC250
35A	Set bolt	RM-1025	18	SS400
35B	Spring washer	WM-1000	18	SWRH
35C	Adjust bolt	RM-1010	2	SS400
36A	Plug	PW-912	1	
36B	Grease nipple	GN-03P	1	
37	Under cover	20-242-4	1	FC250
38	Roller bearing	R3-812	1	
39	Thrust bearing	T13-812	1	
44	Shaft sleeve A	15-778A	1	
45	Bearing lock plate A	15-788A	1	S25C
46	Stop ring B	15-968B	1	SWRS

<u>N°</u>	<u>Description</u>	<u>Reference</u>	<u>Quantity</u>	<u>Material</u>
47	Roller bearing	R3-811	1	
48	Bearing lock plate B	15-788B	1	S25C
49	Oil seal	S-855	3	
50	Space ring	15-569	4	SS400
51	Shaft sleeve B	15-778B	1	
52	Rareflon seal	A-855	2	
53	O-Ring	OV-640	1	Rubber
54	Distance sleeve	15-771	1	S25C
55	Key	15-717	1	S45C
56	Vortex casing	20-300-3	1	FCD500
60	Oil chamber cover	15-244-3	1	FC250
61	Oil seal housing B	15-258B-3	1	FC250
62	Packing	P-4105	1	Rubber
63	Packing	P-4185	1	Rubber
64A	Set bolt	RM-1240	6	SS400
64B	Spring washer	WM-1200	6	SWRH
64C	Adjust bolt	RM-1225	2	SS400
65	Packing	P-626	2	Rubber
66	Oil inlet cover	15-542	2	FC250
67A	Stud bolt	SM-1665	4	SS400
67B	Spring washer	WM-1600	4	SWRH
67C	Cap nut	NM-1601	4	SS400
67D	Adjust bolt	RM-1665	2	SS400
68	Packing	P-4420	1	Rubber
69A	Stud bolt	SM-1665	16	SS400
69B	Spring washer	WM-1600	16	SWRH
69C	Cap nut	NM-1601	16	SS400
69D	Adjust bolt	RM-1625	4	SS400
70	Bend	15-309-3	1	FCD500
71	Delivery cover	20-442-3	1	H Cr
72	Impeller	20-405	1	H Cr
73	Impeller disc	20-403-3	1	H Cr
74	Suction cover	20-340-3	1	FC250
75	Strainer plate	20-583	1	SS400
76A	Stud bolt	SM-1655	4	SS400
76B	Spring washer	WM-1600	4	SWRH
76C	Cap nut	NM-1601	4	SS400
77	Packing	P-4420	1	Rubber
78A	Flat head bolt	FM-1030	6	SS400
78B	Spring washer	WM-1000	6	SWRH
78C	Nut	NM-1002	6	SS400

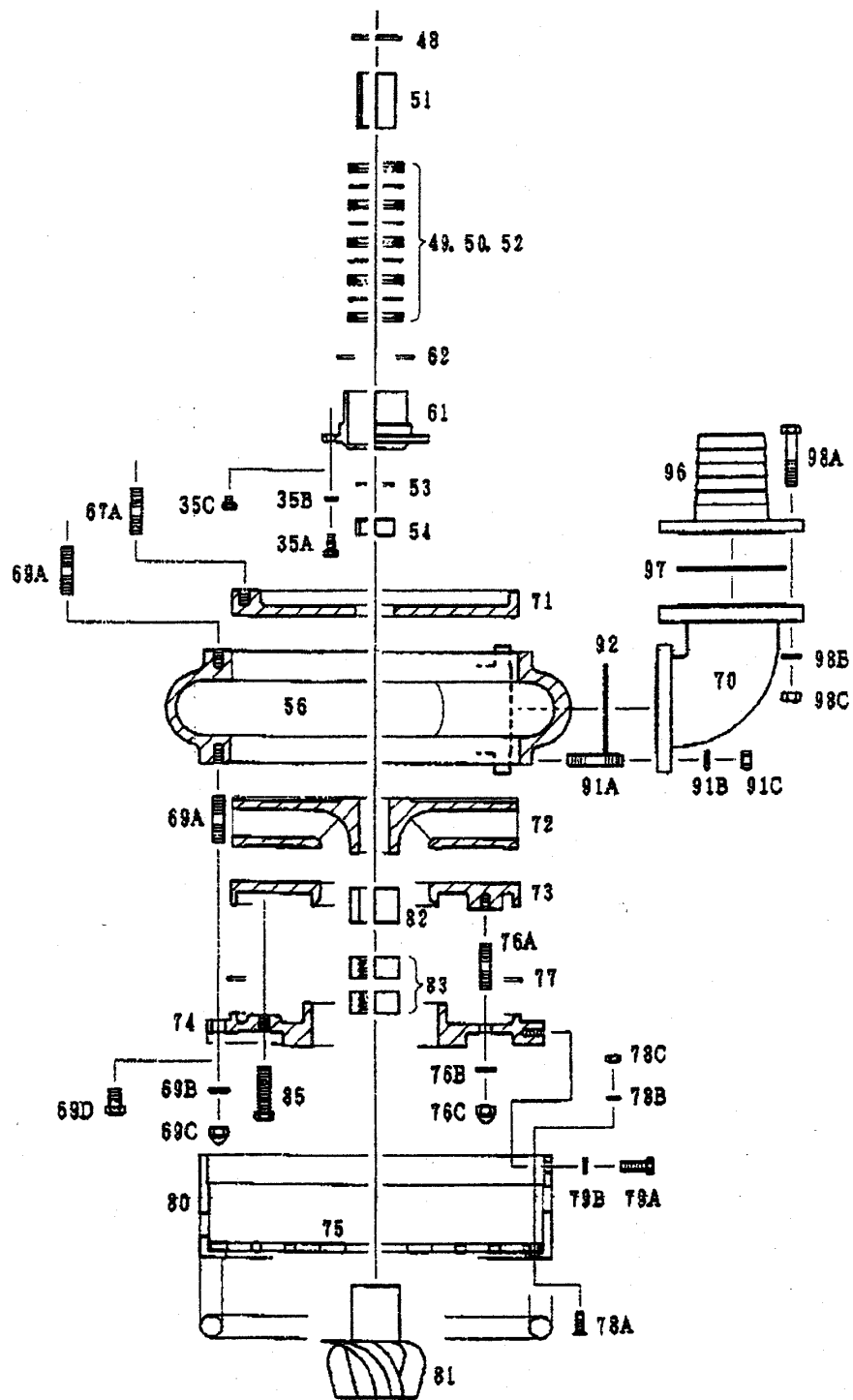
<u>N°</u>	<u>Description</u>	<u>Reference</u>	<u>Quantity</u>	<u>Material</u>
79A	Set bolt	RM-1240	4	SS400
79B	Spring washer	WM-1200	4	SWRH
80	Strainer	20-503	1	SS400
81	Cutter fan	15-499	1	H Cr
82	Impeller collar	15-791	1	S25C
83	Impeller nut	15-793	2	S25C
85	Adjust bolt	RM-1665S	4	SUS304
89	Eye bolt	IM-2030	2	SS400
90	Stop ring A	20-968A	1	SWRS
91A	Stud bolt	SM-1680S	8	SUS304
91B	Spring washer	WM-1600S	8	SUS340
91C	Nut	NM-1602S	8	SUS304
92	Plate packing	P-303	1	Rubber
94A	Press terminal	PT-0805	3	CuP
94B	Press terminal	PT-1405	3	CuP
94C	Press terminal	PT-0806	1	Cup
95A	Set bolt	RM-0612B	1	BsB
95B	Washer	W-0600B	1	BsP
96	Hose nipple	15-109	1	FC250
97	Plate packing	P-304	1	Rubber
98A	Set bolt	RM-1675	8	SS400
98B	Spring washer	WM-1600	8	SWRH
98C	Nut	NM-1602	8	SS400
99	Terminal block	DF-50	1 set	
102A	Set screw	MM-0410B	2	BsW
102B	Washer	W-0400B	2	BsP
106A	Stud bolt	SM-1255	4	SS400
106B	Spring washer	WM-1200	4	SWRH
106C	Cap nut	NM-1201	4	SS400
106D	Adjust bolt	RM-1225	2	SS400
107	Eye bolt	IM-1222	1	SS400
108	Complete set pressure compensator	PRES.COMPENS.15/50	1	



DRAWING	APPROVAL	DATE	DRAWING NO.	
S. G		00.5.25	P-0009-1	DP-20 & 20B-4-HD
		SCALE	3rd ANGLE PROJECTION (三角法)	TOYO DENKI INDUSTRIAL CO., LTD.
			A 4	UNIT. mm 出图先



DRAWING	APPROVAL	DATE	DRAWING NO.	
S.G		00.5.25	P-0009-2	DP-20 & 20B-4-HD
		SCALE	3rd ANGLE PROJECTION (三角法)	TOYO DENKI INDUSTRIAL CO., LTD.
			A 4	UNIT. mm 出図先



DRAWING	APPROVAL	DATE	DRAWING NO.	DP-20 & 20B-4-HD
S.G		00.5.25	P-0009-3	
		SCALE	3rd ANGLE PROJECTION (三角法)	TOYO DENKI INDUSTRIAL CO., LTD.
			A 4 UNIT. mm	出題先