

No	Date	Customer Name	Product Name (Applicable Field)	Characteristics of Product			Qty, pcs	Remarks
				Material	Size, mm	Wt, kg		
59	Feb. 19	Indo Pattern Lestari	Bracket #6	FCD450	205L × 185W × 207H	16.5	1	Hand Mould with GS
60			Bracket #7		226L × 197W × 205H	17.5	1	
61		MIDC	Support Base for Tilting Table	FCD500	425L × 300W × 80H	20	1	Hand Mould with α Resin
62		Indo Karya Bdg	Flange	FCD500	Φ 215 × 33H	4	5	
63		Plta Kracak	Shoe	FC250	260L × 134W × 90H	45	18	Hand Mould with α Resin
64			Brill			165L × 80W × 32H	3	
65		MIDC	Round Table for Tilting Table	FCD500	Φ 360 × 35H	28	1	Hand Mould with α Resin
66		PT Huhtomag	Ingot Case	FC250	576L × 170W × 137H	13	50	
67		MIDC	End Bracket	FC250	Φ 230 × 45H	8	1	Hand Mould with α Resin
68		Kumia Teknik	Toggle	FCD600	280L × 70W × 70H	2	20	

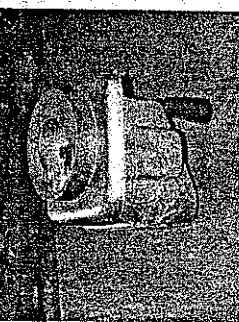


Fig. 56a

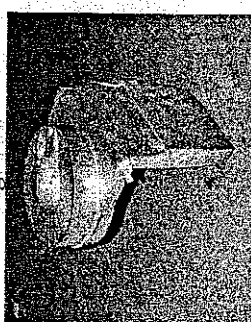


Fig. 56b

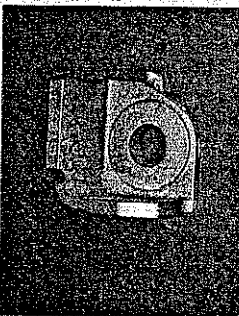


Fig. 57b

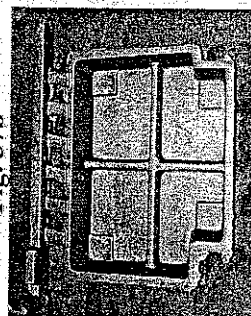


Fig. 58a

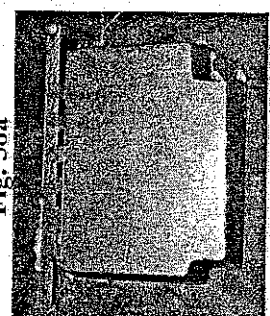


Fig. 58b

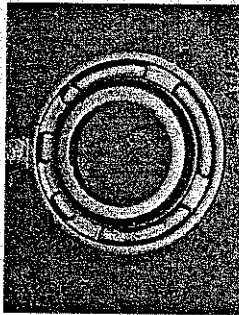


Fig. 59a

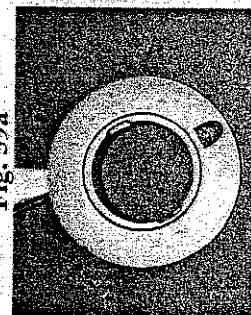


Fig. 59b

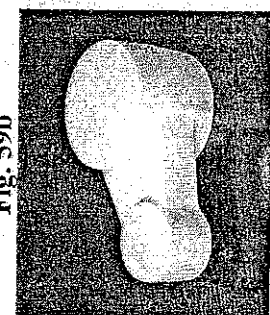


Fig. 60

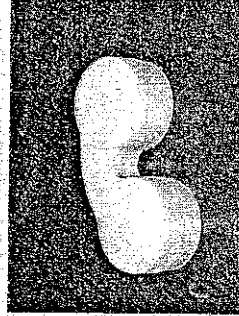


Fig. 61

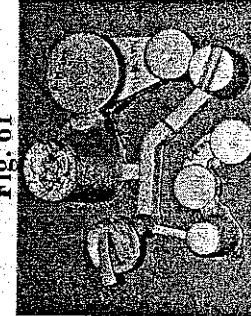


Fig. 62

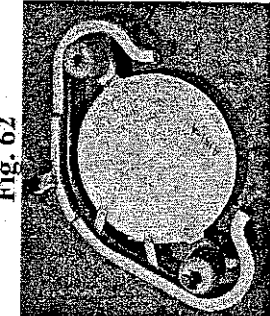


Fig. 63

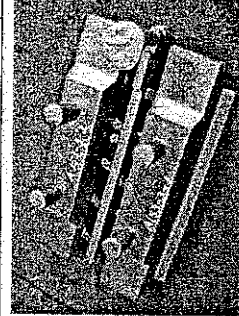


Fig. 64a

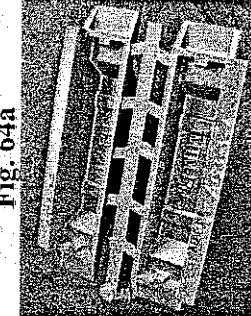


Fig. 64b

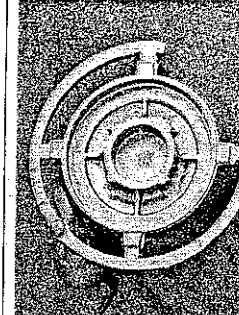


Fig. 65b

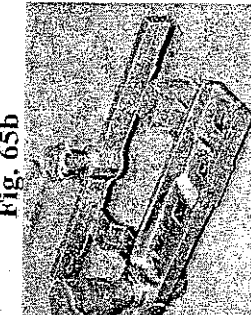


Fig. 66a

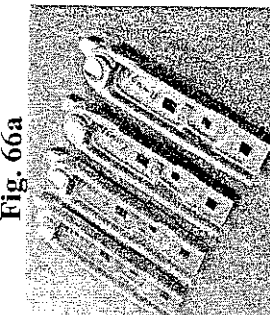


Fig. 66b

No	Date	Customer	Product Name (Applicable Field)	Characteristics of Product			Qty, pcs	Remarks
				Material	Size, mm	Wt, kg		
69	May 04	MIDC	Table for Chill Test	FC250	300L×250W×35H	2.5	2	Hand Mould with α Resin
70	May 15	CV Akur	Pulley Hub B	FC250	Φ265×135H	9.8	300	D/S with GS
71			Pulley Hub C		Φ265×105H	10	300	
72	May 23		Pulley Hub A		Φ235×122H	6	300	
73	May 30	Aryono	Cam 1/122	FCD700	250L×205W×20H	3.5	40	Hand Mould with GS
74			Cam 1/3	FCD700	250L×165W×20H	3.5	40	
75	Aug. 02	CV Castar	Nozzle	FC250	Φ60×300L	5	2	Hand Mould with α Resin
76	Aug. 09	CV Castar	Pulley 440	FC250	Φ440×260H	65	1	Hand Mould with α Resin
77	Aug. 09	JICA Diary Project	Pulley	FC250	Φ70×100H	1	4	Hand Mould with GS
78	Aug. 14	PT PRN	Impeller	FC250(BC)	Φ440×100H	35(42)	2	Hand Mould with α Resin

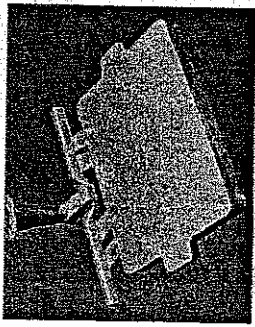


Fig. 67a

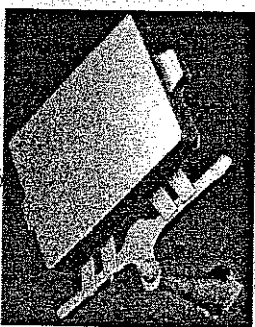


Fig. 67b

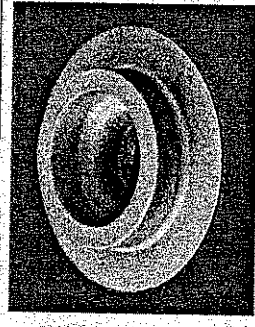


Fig. 68a

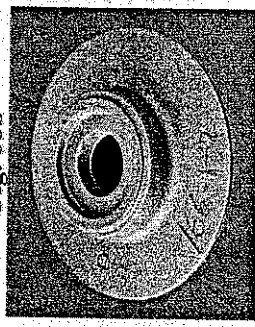


Fig. 68b

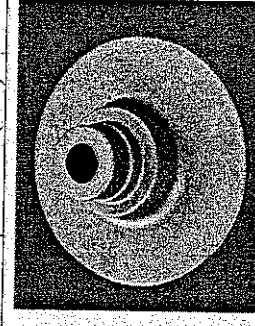


Fig. 69a

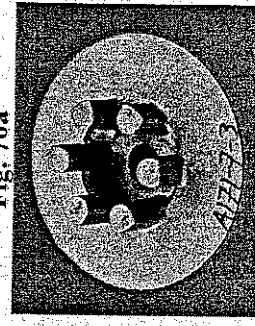


Fig. 69b

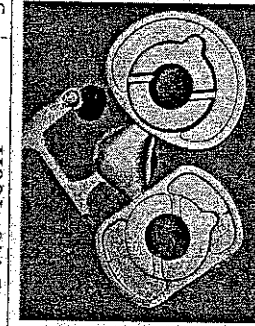


Fig. 70a

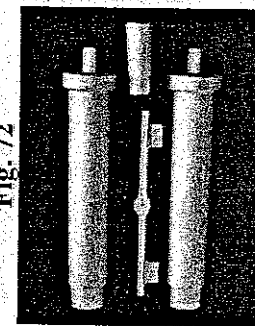


Fig. 70b

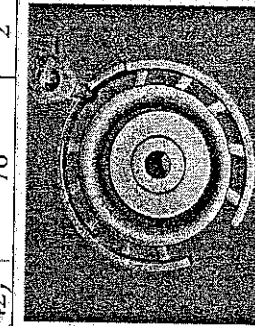


Fig. 71



Fig. 72

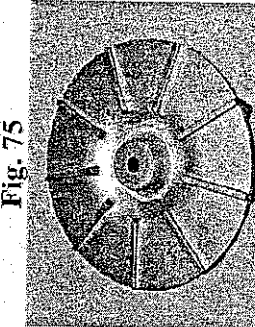


Fig. 73a

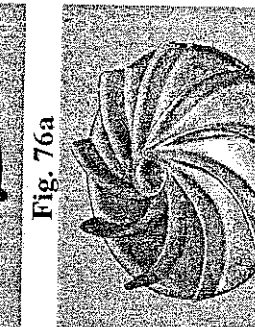


Fig. 73b

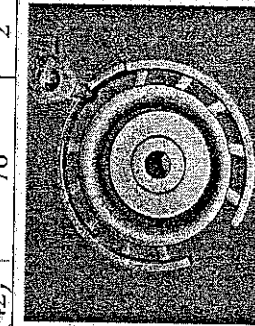


Fig. 74a

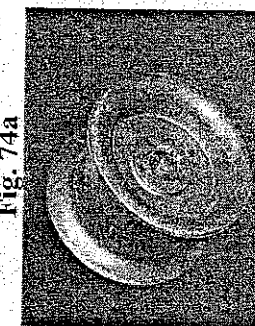


Fig. 74b

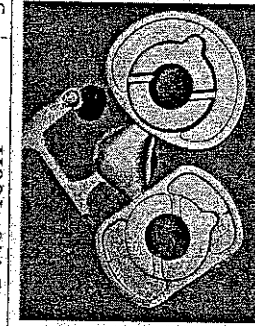


Fig. 74c

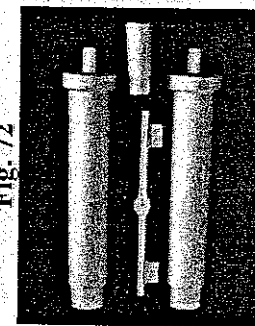


Fig. 75

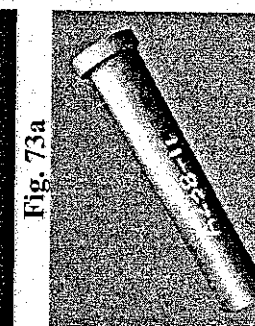


Fig. 76a



Fig. 76b

AB

No	Date	Customer Name	Product Name (Applicable Field)	Characteristics of Product			Qty, pcs	Remarks
				Material	Size, mm	Wt, kg		
79	Aug. 06	Shinwa	Front Case #FC1-1	FC300	516L × 326W × 216H	1.60	77	Hand Mould with α Resin
80	Aug. 26	CV Castar	Sprocket 540	FCD500	Φ 540 × 294H	227	78	Hand Mould with α Resin
81	Aug. 26		Sprocket 356		Φ 356 × 203H	60	79	
82	Sep. 03	Shinwa	Rear Gear Case #RC1-1	FC300	506L × 326W × 85H	62	80	Hand Mould with α Resin
83	Sep. 06		Rear Case #RC1-2		506L × 326W × 92H	70	81	
84	Sep. 07	PT Polypin	Motor Cover	FC250	Φ 300 × 60H	15	82	Hand Mould with GS
85	Sep. 13	Shinwa	Rear Case #RC1-3	FC300	506L × 326W × 85H	70	83	Hand Mould with α Resin
86	Sep. 19	CV Castar	Dies for Suspension	FCD500	380L × 150W × 80H	86	84	Hand Mould with α Resin
87	Sep. 19	PT Adly Kreasi	Wheel	FC300	Φ 60 × 50H	0.8	85	Hand Mould with α Resin
88	Sep. 19	Shinwa	Front Case #FC1-2	FC300	506L × 326W × 300H	157	86	Hand Mould with α Resin

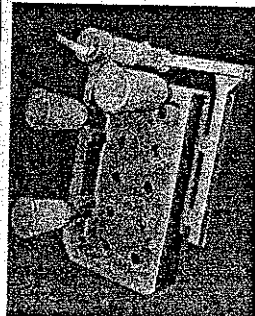


Fig. 77a

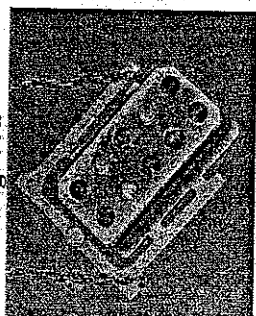


Fig. 77b

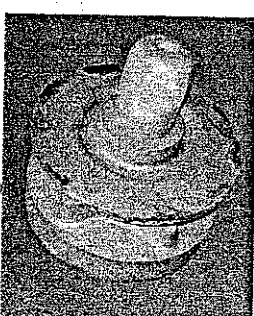


Fig. 78a

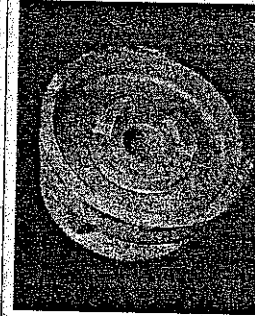


Fig. 78b

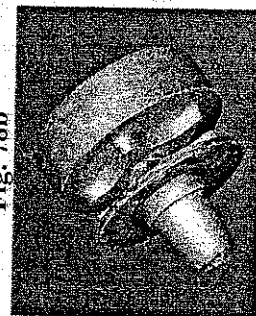


Fig. 79a

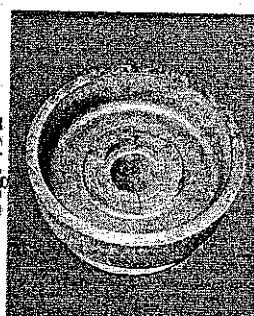


Fig. 79b

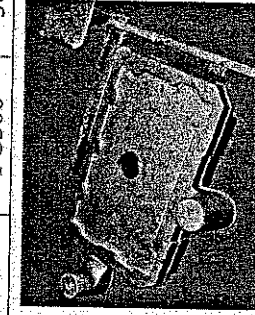


Fig. 80a

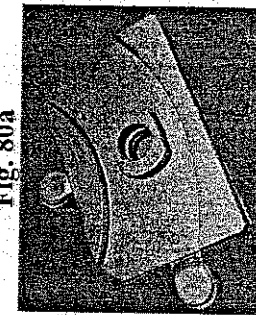


Fig. 80b

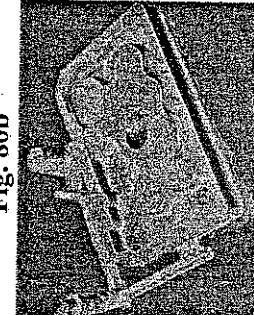


Fig. 81a

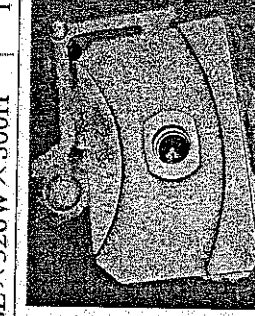


Fig. 81b

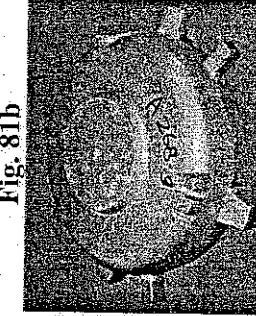


Fig. 82a

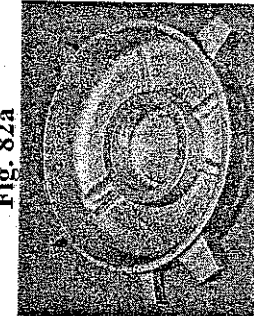


Fig. 82b

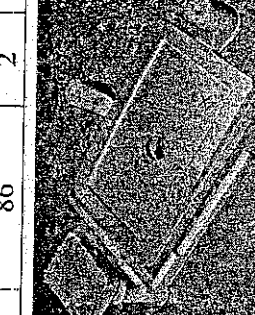


Fig. 83a

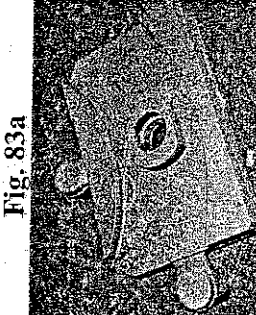


Fig. 83b

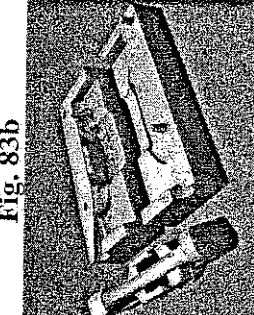


Fig. 84

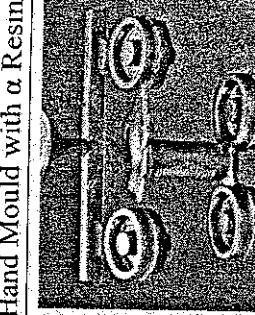


Fig. 85

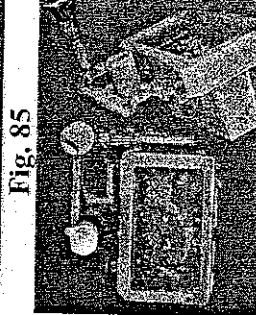


Fig. 86a

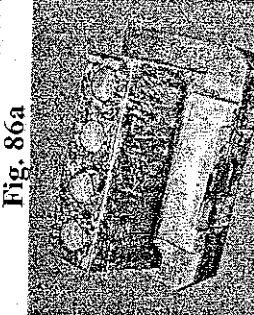


Fig. 86b

No	Date	Customer Name	Product Name (Applicable Field)	Characteristics of Product			Qty, pcs	Remarks
				Material	Size, mm	Wt, kg		
89	Sep. 19	Shinwa	Front Case #FC1-3	FC300	506L × 326W × 317H	175	1	Hand Mould with α Resin Sand
90	Sep. 20	Cipta Nusa Castech	Die for Suspension Cover	FCD500	180L × 105W × 35H	10	4	Hand Mould with α Resin Sand
91	Sep. 20	Aryono	Cam 11/11	FCD700	250L × 165W × 25H	3.5	40	Hand Mould with Green Sand
92	Sep. 20	CV Castar	Die for Printing Holder	FCD500	500L × 125W × 38H	15	2	Hand Mould with Furan Resin Sand
93	Sep. 24	IPTN	Impeller	Bronze	Φ 260 × 95H	12.5	2	CO ₂ with Organic Resin Sand Core
94	Oct. 01	Shinwa	Front Case #FC1-4	FC300	506L × 326W × 303H	171	1	Hand Mould with α Resin Sand
95	Oct. 04	Yogi Saptra	Stopper Pins	FC300	140L × 90W × 10H	0.2	100	Hand Mould with α Resin Sand
96	Oct. 04	Shinwa	Front Case #FC2-2	FC300	509L × 326W × 321H	142	1	Hand Mould with α Resin Sand
97	Oct. 04		Rear Gear Case #RC2-2	FC300	506L × 326W × 131H	81	1	Hand Mould with α Resin Sand
98	Oct. 04	MIDC	Sampling Spoon	FCD500	Φ95 × 60H	1	10	Hand Mould with α Resin Sand

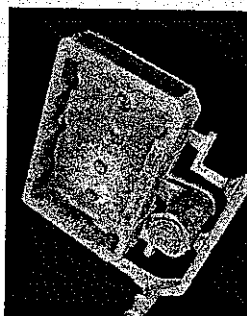


Fig. 87a

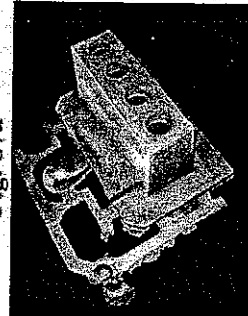


Fig. 87b

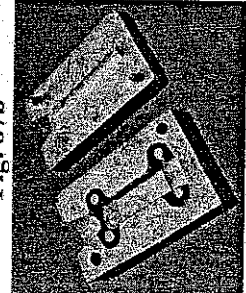


Fig. 88

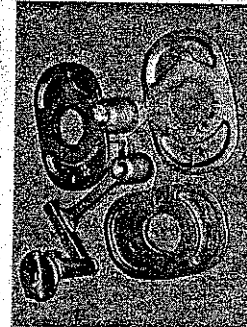


Fig. 89a

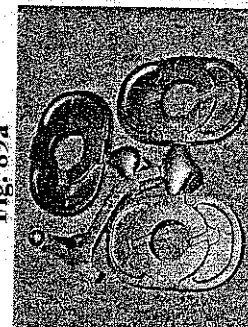


Fig. 89b

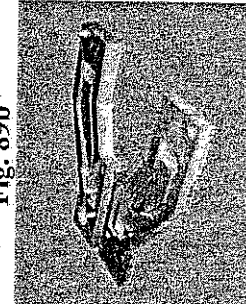


Fig. 90

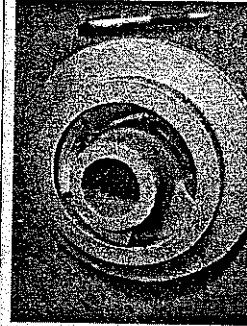


Fig. 91a

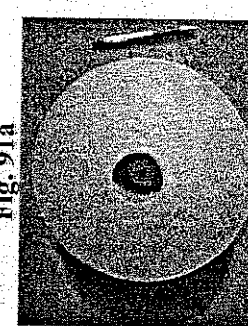


Fig. 91b

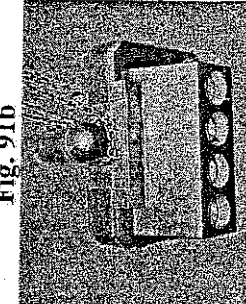


Fig. 92a

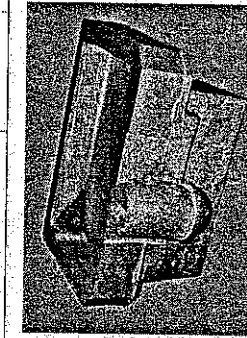


Fig. 92b

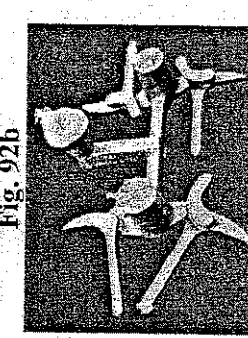


Fig. 93a

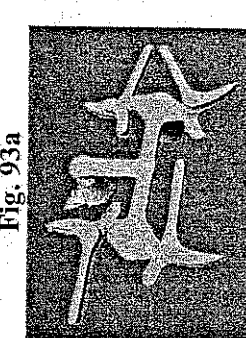


Fig. 93b

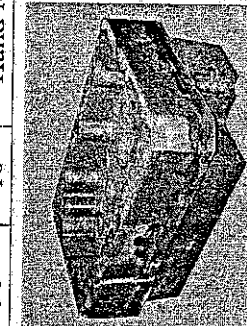


Fig. 94a



Fig. 94b

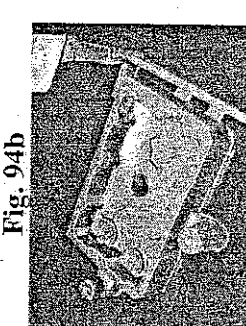


Fig. 95a

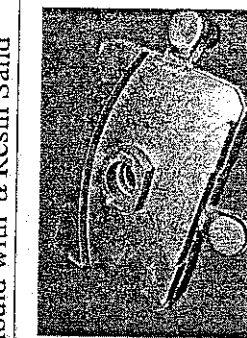


Fig. 95b

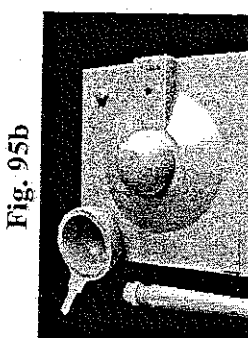


Fig. 96a

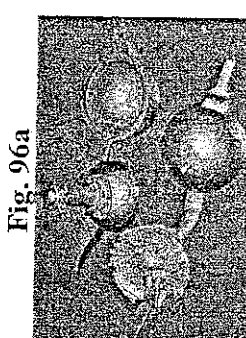


Fig. 96b

AB

No	Date	Customer Name	Product Name (Applicable Field)	Characteristics of Product			Qty, pcs	Remarks	
				Material	Size, mm	Wt, kg			
99	Oct. 04	PT Adly Kreasi	Wheel 80	FC300	Φ60×50H	0.8	97	Hand Mould with α Resin Sand	
100	Oct. 09	Pibdurohini	Gas Manifold	FC300	400L×85W×45H	8	98	Hand Mould with Green Sand	
101	Oct. 16	Shruwa	Rear Case #RC2-1	FC300	506L×326W×139H	73	99	Hand Mould with α Resin Sand	
102	Oct. 17		Rear Gear Case #RC2-5	FC300	506L×326W×140H	75	100	Hand Mould with α Resin Sand	
103	Oct. 17	Cipna Nusa Castech	Dies for Cover Suspension	FC300	30L×105W×190H	3.5	101	Shell Mould	
104	Oct. 17	Shruwa	Front Case #FC2-1	FC300	506L×326W×227H	161	102	Hand Mould with α Resin Sand	
105	Oct. 18	CV Castar	Dies for Adjustable Printer	FC300	50L×110W×310H	10.5	103	Hand Mould with α Resin Sand	
106	Oct. 19	CV Castar	Part A, B and C for Adjustable Printer	FC300	65L×100W×140H	1.25	104&105	Hand Mould with Green Sand	
107				FC300	65L×100W×140H	1.25			Hand Mould with Green Sand
108				FC300	350L×65W×16H	2.1	104&106		Hand Mould with α Resin Sand

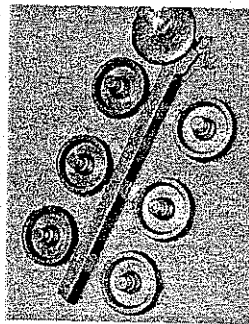


Fig. 97a

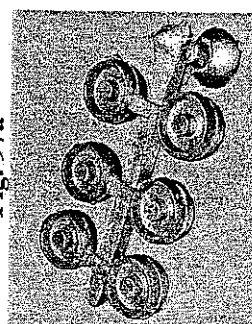


Fig. 97b



Fig. 98a

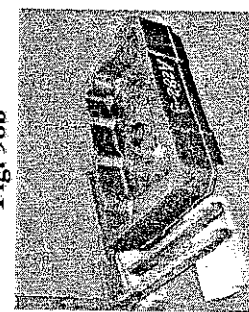


Fig. 98b

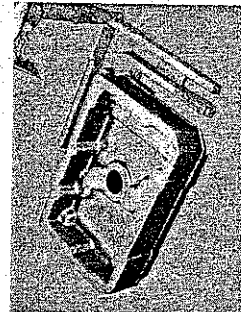


Fig. 100a

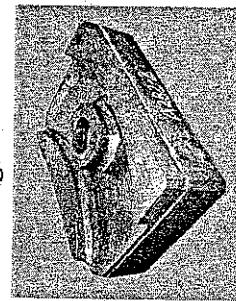


Fig. 100b

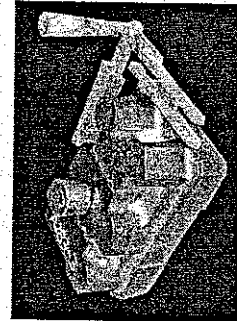


Fig. 102a

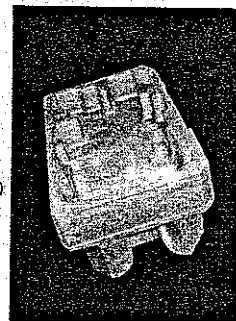


Fig. 102b

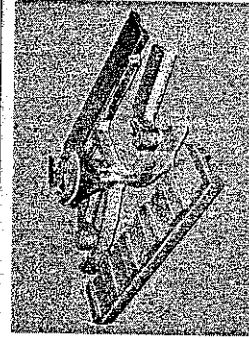


Fig. 104a

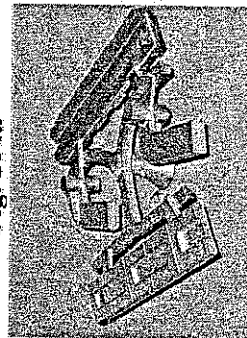


Fig. 104b

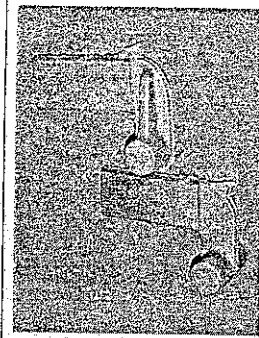


Fig. 105b

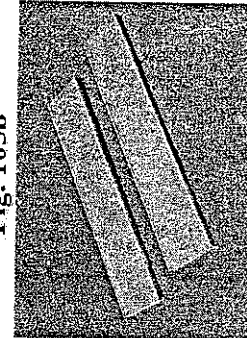


Fig. 106a

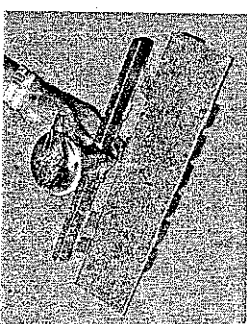


Fig. 98a

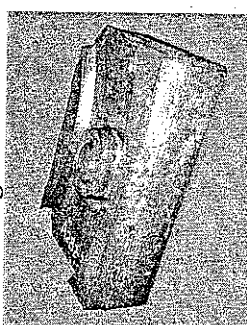


Fig. 99b

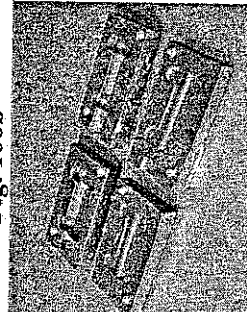


Fig. 101

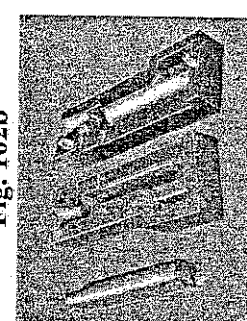


Fig. 103

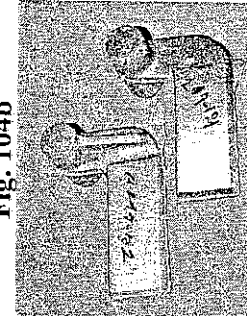


Fig. 105a

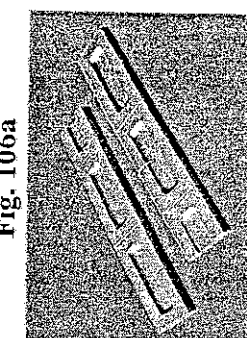


Fig. 106b

No	Date	Customer Name	Product Name (Applicable Field)	Characteristics of Product			Qty, pcs	Remarks
				Material	Size, mm	Wt, kg		
109	Oct. 19	CV Caster	Part D for Adjustable Printer	FC300	350L × 65W × 35H	4.5	2	Hand Mould with α Resin Sand
110	Oct. 18	Shinwa	Front Case #FC2-3	FC300	506L × 326W × 221H	145	1	Hand Mould with α Resin Sand
111			Rear Gear Case #RC2-4	FC300	506L × 326W × 140H	78	1	Hand Mould with α Resin Sand
112	Oct. 19	Shinwa	Front Gear Case #FC2-5	FC300	506L × 326W × 226H	149	1	Hand Mould with α Resin Sand
113	Oct. 22	Shinwa	Rear Case #RC2-3	FC300	506L × 326W × 139H	73	1	Hand Mould with α Resin Sand
114	Oct. 26	MIDC	Upper Roller	FC300	Φ75×290L	5	3	Hand Mould with Green Sand
115			Medium Roller	FC300	Φ82×290L	8	3	Hand Mould with Green Sand
116			Lower Roller	FC300	Φ75×270L	5	3	Hand Mould with Green Sand
117	Oct. 27	Shinwa	Rear Case #RC2-6	FC300	506L × 326W × 85H	75	1	Hand Mould with α Resin Sand
118			Rear Case #RC2-7	FC300	506L × 326W × 95H	75	1	Hand Mould with α Resin Sand

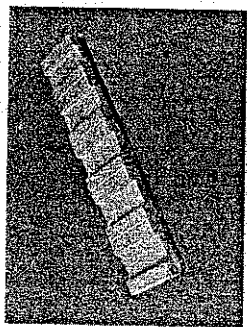


Fig. 107a

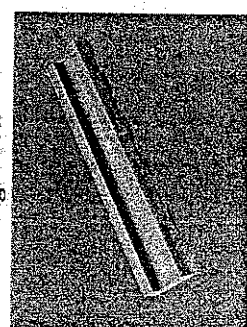


Fig. 107b

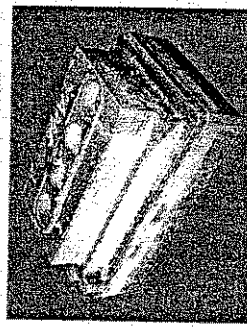


Fig. 108b

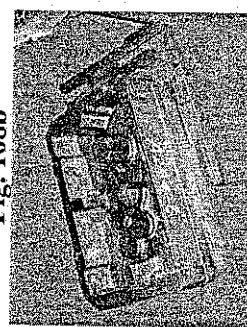


Fig. 109a

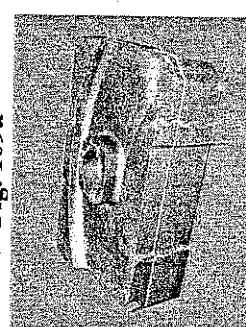


Fig. 109b

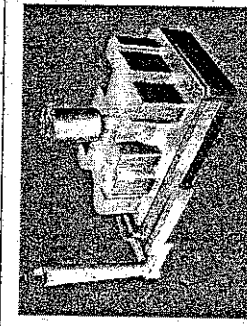


Fig. 110a

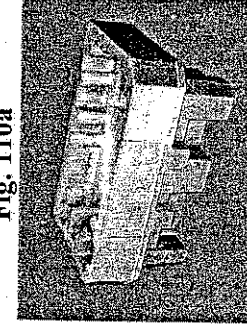


Fig. 110b

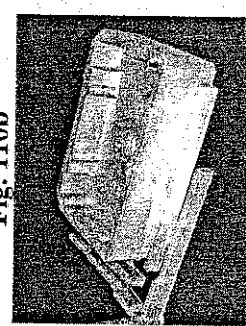


Fig. 111a

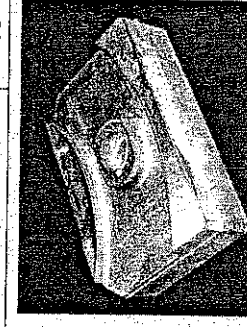


Fig. 111b

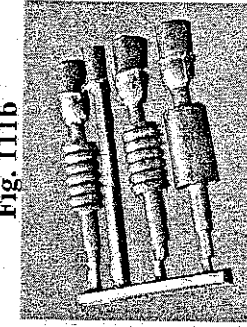


Fig. 112

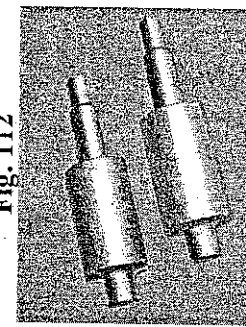


Fig. 113

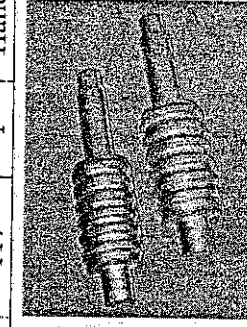


Fig. 114

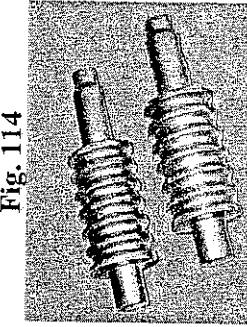


Fig. 115

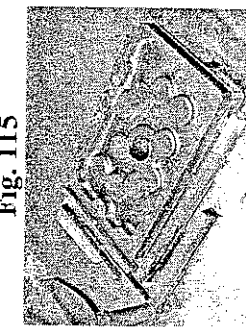


Fig. 116a

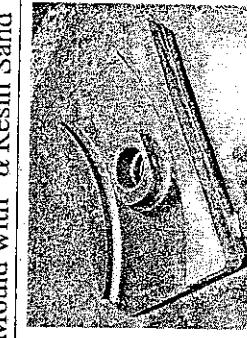


Fig. 116b

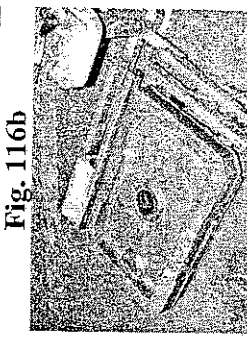


Fig. 117a

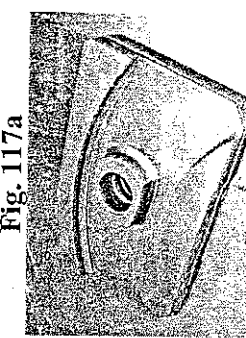


Fig. 117b

AB

No	Date	Customer Name	Product Name (Applicable Field)	Characteristics of Product			Qty, pcs	Remarks
				Material	Size, mm	Wt, kg		
119	Oct. 27	Shinwa	Rear Case #RC2-8	FC300	506L × 326W × 100H	75	118	Hand Mould with α Resin Sand
120	Oct. 31	Shinwa	Front Gear Case #FC2-4	FC300	506L × 326W × 226H	150	119	Hand Mould with α Resin Sand
121	Nov. 02	MIDC (UKNT)	Rocker Arms	FC300	70L × 20W × 30H	0.1	120	Lost Wax Process
122	Nov. 02	MIDC (BPPT)	Impeller (Water Pump)	Bronze	Φ62 × 16H	0.2	121	Lost Wax Process
123	Nov. 08	Haryono	Top Lever	FC300	395L × 100W × 18H	2.5	122&123	Hand Mould with Green Sand
124	Nov. 21	Gamma Epsilon	Disc	FC300	180L × 120W × 10H	0.8	122&124	Hand Mould with Green Sand
125	Nov. 21	MIDC	Flask Holder	SC410	170L × 112W × 62H	4.5	125	Hand Mould with α Resin Sand
126								
127								
128								



Fig. 118a

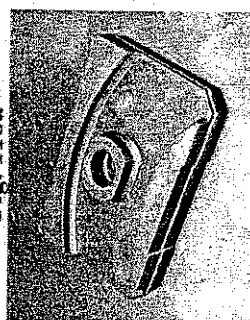


Fig. 118b

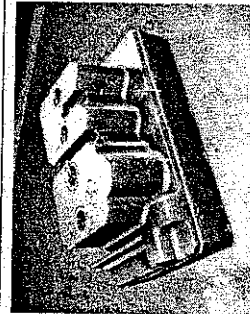


Fig. 119b

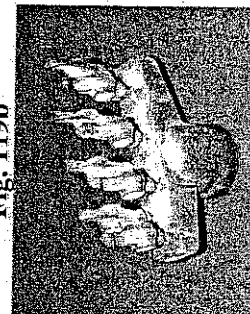


Fig. 120

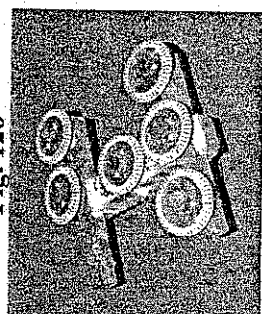


Fig. 121

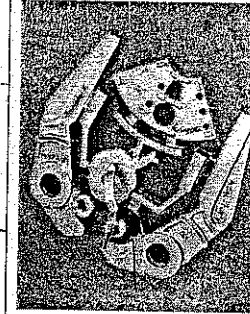


Fig. 122a



Fig. 122b

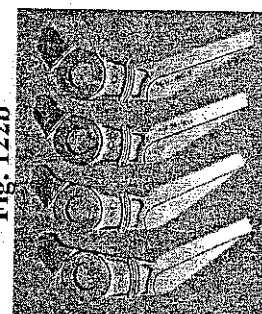


Fig. 123



Fig. 124

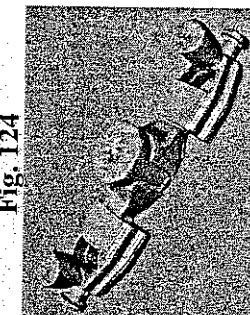


Fig. 125a

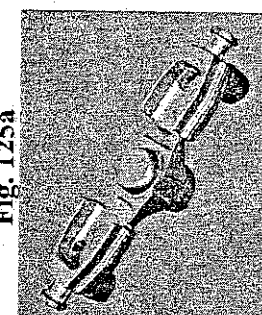


Fig. 125b

List of Attendees of the Discussions

JAPANESE SIDE

- 1 Management Consultation Team (Mid-term Evaluation, JICA Japan)

Mr. Tsunenobu MIKI	Leader
Dr. Senri OKADA	Technology Transfer Planning
Ms. Chikako YAMAUCHI	Counterpart Training Planning
Mr. Kentaro AKUTSU	Cooperation Planning

- 2 JICA Indonesia Office (Jakarta)

Mr. Takaaki OIWA	Deputy Resident Representative
Mr. Hisao ANDO	Assistant Resident Representative

- 3 JICA Expert Team in MIDC (Bandung)

Mr. Toru HOMMA	Project Coordinator and SME Development
Mr. Ryoza HASHIDA	Expert (Casting Plan / Melting)
Mr. Teiji SUZUKI	Expert (Moulding)

- 4 JICA Individual Expert (Jakarta)

Mr. Tsutomu NAGAE	Expert (Advisor, Bureau of Planning, MOIT)
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INDONESIAN SIDE

1. Agency for Research and Development of Industry and Trade (BPPIP), Ministry of Industry and Trade (MOIT)

Mr. Manahan Laut Simbolon	Head
Mr. Benny Wahyudi	Secretary
Dr. Alexander Barus	Director, Centre for Technology Assessment of Industry and Trade

- 2 Bureau of Planning, Ministry of Industry and Trade

Mr. Robby M Kumenaung	Head
Mr. Mardjoko Siswanto	Head, Foreign Aid Division

- 3 Institute for Research and Development for Metal and Machinery Industries (IRDMMI / MIDC)

Mr. J. Suyono	Head
Mr. Sopar Napitupulu	Head, Process Development Division
Mr. Hadi Nugroho	Head, Administration Division
Mr. Mochamad Furqon	Head, Foundry Section