

ANNEX H. FARM MECHANIZATION

LIST OF TABLES

Table H.1	Current Rice Retail Price in East Timor
Table H.2	District Wise Farm Machinery distributed under Mobile Brigade and Donation by Chinese Government
Table H.3	Estimated Number of Post-Harvest Facility in East Timor
Table H.4	District Wise Hand Tools Distribution under TFET
Table H.5	Hand Tools donated by China
Table H.6	Spare Parts for Hand Tractor and Implement
Table H.7	Certificate of Acceptance of Spare Parts for Siam Kubota SK Walk-Behind Tractor
Table H.8	Delivery Note of Spare Parts for Siam Kubota SK Walk-Behind Tractor under JICA Pilot Project at Manatuto (Manatuto DAO)
Table H.9	Delivery Note of Spare Parts for Siam Kubota SK Walk-Behind Tractor under JICA Pilot Project at Manatuto (Baucau DAO)
Table H.10	Records on Spare Parts for Kubota Tractor SKP131 & Diesel Engine ET80 (MAFF)
Table H.11	Records on Spare Parts for Kubota Tractor SKP131 & Diesel Engine ET80 (Pilot Project)
Table H.12	Fuel Consumption Records
Table H.13	Certificate of Acceptance of a Full Set of Mobile Rice Milling Unit
Table H.14	Luran “Kontribusi” Pemakaian Mesin Pengolah Pertanian Oleh Petani Pada Proyek
Table H.15	Kesepakatan pada Kontrak Pemrajanan
Table H.16	Perjanjian Kontrak Mengenai Mesin Perontok
Table H.17	Kontrak Kesepakatan Mengganai Penggilingan Padi
Table H.18	Tes Petunjuk Lapangan Mesin Perontok : Model Agrindo TPA 1000
Table H.19	Field Performance Test : Mobile Rice Milling Unit : Satake SB 10D
Table H.20	Principle Data Recorded in Land Preparation by Power Tiller
Table H.21	Contract Threshing Results : Portable Rice Thresher : Agrindo TPA 1000
Table H.22	Equipment List Provided for Farm Mechanization under JICA Pilot Project
Table H.23	Flow of System for Parts Use
Table H.24	Buku Pengantar Siam Kubota Traktor Tangan
Table H.25	Illustrated Parts List : SK Walk-Behind Tractor Model SKP 131
Table H.26	Illustrated Parts List : Kubota Diesel Engine Model ET 80
Table H.27	Operasi Manual Perontok Padi Model : Agrindo TPA 1000
Table H.28	Satak Petunjuk Manual Mobile Unit Giling Padi Model : SB 10D
Table H.29	Satake Daftar Barang Mobile Unit Giling Padi Model : SB 10D
Table H.30	Digital Tachometer Genggam
Table H.31	Alat Pengetes Kelembabam Butir Padi Model : Riceter J Petunjun Manual

Table H.1 Appendix H.1 Current Rice Retail Price in East Timor

Sample No.	Market Purchased	Production Origin	Retail Price (US\$)		Sampling Date
			Per Can	Per KG	
1.	Summary	Local Import	- -	0.82-2.04 0.77-1.10	July-Sept. Sept 2001
2	Comoro/Dili	Viqueque (ET)	0.50	0.71	Nov 18, 2002
3	Hello Mr./Dili	Australia SUN RICE	3.07/2kg	1.54	Nov 18, 2002
4	Hello Mr./Dili	Australia Koala Brand	1.64/kg	1.64	Nov 18, 2002
5	Comoro/Dili	Viqueque (ET) Purple-colored	1.00	1.32	Nov 18, 2002
6	Maliana	(ET) Nonaportu Maliana (dirty)	0.20	0.29	Nov 21, 2002
7	Maliana	Indonesia	0.25	0.36	Nov 21, 2002
8	Singapore Market/Dili	Thailand	1.20/kg	1.20	Nov 23, 2002
9	Singapore Market/Dili	Japonica Rice/Singapore	1.60/kg	1.60	Nov 23, 2002
10	CLNTL/Dili	(ET)Maliana	0.60/2kg	0.24	Dec 2, 2002
11	Becora/Dili	Baucau (ET) Sulawesh (dirty)	0.50	0.64	Dec 6, 2002
12	Becora/Dili	Viqueque (ET) R5 (mixed with Broken & husk)	0.50	0.71	Dec 6, 2002
13	Taibesse/Dili	Indonesia	0.25	0.36	Dec 6, 2002
14	Taibesse/Dili	Viqueque (reddish-colored)	0.50	0.71	Dec 6, 2002
15	Comoro/Dili	Baucau	0.50	0.71	June 30, 2003
16	Comoro/Dili	Indonesia	0.25	0.34	June 30, 2003

Source : JICA Study Team by actual sampling purchase

Table H.2 District Wise Farm Machinery distributed under Mobile Brigade and Donation by Chinese Government

Equipment	Lautem	Baucau	Viqueque	Manatutu	Manufahi	Dili	Aileu	Ermera	Ainaro	Liquica	Bobonaro	Covalima	Ambino	Total
A. MOBILE BRIGADE														
1. 4-wheel Tractor, John Deere Model 1100	1	2(3)	2	1	2	1	1	1	1	1	1	2	1	20
2. 4-wheel Tractor, John Deere Model 5000	1	(1)			1	1			1		1	1	5	5
3. Hand Tractor, Tongyang Model TDM-120E		20 (2)	12	13	13	1		5	20		20	9	5	100
Paddy wheel set		20 (2)	12	13	13	1		5	20		20	9	5	100
4. Hand Tractor, John Deere Model 820R	19	7 (4)	13	10	23	5	14	17	13	10	20	25	8	188
Paddy wheel set	6	5	10	4	15		7	7	7	7	10	15	7	100
5. Hand Tractor, Siam Kubota Model KP131		15		15										30
Paddy wheel set		15		15										30
Leveler		15		15										30
Rotor		15		15										30
Trailer		15		15										30
B. CHINA GRANT AID														
1. 4-wheel Tractor, Model 504	2	2	3	3	3	2	2	2	2	2	2	2	2	30
Trailer	2	2	3	3	3	2	2	2	2	2	2	2	2	30
5 mouldboard Plough	2	2	3	3	3	2	2	2	2	2	2	2	2	30
4 mouldboard Plough	2	2	3	3	3	2	2	2	2	2	2	2	2	30
2 mouldboard Plough	12	12	13	13	13	5	12	12	12	11	13	12	10	150
Spiral Harrow	2	2	3	3	3	2	2	2	2	2	2	2	2	30
Paddy Harrow	2	2	3	3	3	2	2	2	2	2	2	2	2	30
Paddy Plum Harrow	2	2	3	3	3	2	2	2	2	2	2	2	2	30
Grain Drill	2	2	3	3	3	2	2	2	2	2	2	2	2	30
Trencher	2	2	3	3	3	2	2	2	2	2	2	2	2	30
2. Hand Tractor, Model Dongfeng 12L	12	12	13	13	13	5	12	12	12	11	13	12	10	150
Paddy Wheel	12	12	13	13	13	5	12	12	12	11	13	12	10	150
Harvester, Model SU 4GL-130	12	12	13	13	13	5	12	12	12	11	13	12	10	150
3. Thresher, Model TDG-400	7	9	10	10	10	3	7	8	8	7	10	9	2	100
4. Separate Rice Mill, Model GNF-13.2	7	8	9	9	9	3	7	8	8	7	9	8	9	100
5. Grain Blower, Model YJ-10A	7	8	9	9	9	3	7	8	8	7	9	8	8	100
6. Mist Duster, Model 3WS-3A	7	8	8	8	8	4	7	8	8	7	8	8	8	100
7. Hand Sprayer	7	8	8	8	8	7	7	8	8	7	8	8	8	400
8. Tipcart	4	4	4	4	3	5	3	3	4	3	4	4	5	50
9. Excavator		1			1						1			3
C. Total (A. + B.)														
1. 4-wheel Tractor	4	4 (4)	5	4	6	3	3	3	3	3	5	5	3	55
2. Hand Tractor	31	54 (6)	38	51	49	11	26	29	30	21	53	46	23	468

Table H-3 Estimated Number of Post-Harvest Facility in East Timor (1)

1. Number of Post-Harvest Facility collected by Suco Survey													
District	Rice Mill		Drying Facility (No. of Units or Plots)				Storage Facility			Pulper/Sheller			
	No. of Unit	Capacity (kg/day)	Mat (Units)	Public (Plot)	Private (Plot)	Standing Platform (Unit)	Curing (Unit/sq.m.)	Inside Home	Separate Building	Others	(Unit)	(kg/day)	Coffee (kg/day)
1. Lautem	4	1,250	34	2	17	0	0	9	2	8	0	0	0
2. Baucau	17	675	770	433	948	10	0	13	6	0	0	0	0
3. Viqueque	25	14,455	3,590	0	0	646	1	18	8	1	2,682	0	0
4. Manatuto	1	21	31	0	882	0	0	4	0	0	0	0	0
5. Manufahi	4	3,100	1	1	603	0	0	5	1	0	0	0	0
6. Dili	1	500	204	1	6	86	0	7	0	0	0	12	6,000
7. Aileu	0	0	120	0	160	0	0	4	0	0	0	0	0
8. Ermera	1	850	2,500	3	1,722	1,684	0	12	0	0	0	0	106
9. Ainaro	0	0	0	0	0	0	0	4	0	0	0	0	0
10. Liqueia	0	0	1,291	0	1,007	836	0	7	0	0	0	19	23,500
11. Bobonaro	7	8,500	3,350	0	444	710	0	9	0	0	0	2	200
12. Covalima	5	1,050	191	80	154	0	0	10	0	0	3	270	0
13. Ambino	4	600	536	0	528	0	0	4	0	8	0	0	0
Total	69	31,001	13	520	6,471	3,972	1	105	17	17	10	2,952	139
2. Factors for Calibration													
District	No. of Sucos		Population & Households (1997)				Population (2001)	Production (1997)					
	(a) Total	(b) Survey	(b)/(a)	(a) Population	(b) Households	(a)/(b)		Rice (ha)	(MT-Paddy)	Maize (MT)			
1. Lautem	34	9	0.265	51,900	11,596	4.5	49,213	686	1,656	3,495	6,174		
2. Baucau	63	13	0.206	96,800	19,187	5.0	93,368	2,254	6,211	5,873	11,039		
3. Viqueque	35	17	0.486	59,400	12,691	4.7	54,315	3,747	9,369	5,257	10,493		
4. Manatuto	29	4	0.138	35,200	8,804	4.0	32,598	871	2,467	1,675	3,240		
5. Manufahi	29	5	0.172	38,300	7,180	5.3	35,500	446	1,178	1,754	3,816		
6. Dili	48	8	0.167	174,200	35,628	4.9	128,490	47	108	797	1,487		
7. Aileu	43	4	0.093	31,900	5,479	5.8	30,146	319	900	3,981	8,167		
8. Ermera	53	13	0.245	88,300	20,341	4.3	84,510	648	1,708	2,569	4,844		
9. Ainaro	21	4	0.190	43,400	9,111	4.8	36,969	319	811	1,839	3,339		
10. Liqueia	23	6	0.261	52,500	11,452	4.6	43,406	115	253	2,821	3,860		
11. Bobonaro	50	9	0.180	91,300	19,925	4.6	62,273	2,670	7,860	11,560	22,944		
12. Covalima	45	10	0.222	63,000	12,993	4.8	42,506	910	2,661	7,442	12,824		
13. Ambino	25	4	0.16	55,400	12,356	4.5	44,517	1,166	2,786	4,366	5,977		
Total	498	106	0.213	881,600	186,743	4.7	737,811	14,198	37,968	53,429	99,204		

Estimated Number of Post-Harvest Facility in East Timor (2)

3. Estimated Number of Post-Harvest Facility

District	Rice Mill		Drying Facility (No. of Units or Plots)			Storage Facility			Pulper/Sheller				
	No. of Unit	Capacity (ton/day)	Mat (Units)	Concrete Yard (Plot)	Private (Plot)	Standing Platform (Unit)	Curing (Unit/sq.m.)	Inside Home	Separate Building	Others	(Unit)	Corn (ton/day)	Coffee (ton/day)
1. Lautem	15	4.7	453	8	64	0	0	40	8	30	0	0	0
2. Baucau	45	1.8	4,302	2,419	5,296	56	0	73	0	0	3	2.0	0
3. Viqueque	51	27.2	6,786	0	678	1,221	1/1,000	34	0	0	13	5.0	0
4. Manatuto	7	5.4	225	0	6,391	0	0	29	0	0	0	0	0
5. Manufahi	23	18.6	919	6	3,611	0	0	30	6	0	0	0	0
6. Dili	6	3	1,308	7	38	551	0	49	0	0	0	0	77
7. Aileu	1	0.5	1,200	0	1,600	0	0	40	0	0	0	0	0
8. Ermera	4	3.4	10,639	13	7,328	7,166	0	39	0	0	3	1.0	310.7
9. Ainaro	1	0.5	400	0	0	0	0	21	0	0	0	0	0
10. Liquica	1	0.5	4,267	0	3,313	2,750	0	23	0	0	0	0	63
11. Bobonaro	38	47.3	18,715	0	38	4,034	0	47	0	0	0	0	11
12. Covalima	22	4.6	842	353	7,328	0	0	44	0	42	13	1.2	0
13. Ambino	25	3.2	2,821	0	2,779	0	0	21	15	2	0	0	0
Total	239	120.7	52,877	2,806	38,464	15,778	1/1,000	490	15	74	32	9.2	602
													428.2

Source : Suco Survey

Remarks : Standing Platform : Bamboo or wooden made bench/stand to protect post-harvest loss from animals, so called "Pangung untuk jemar"

Table H.4 District Wise Hand Tools Distribution under TFET

Unit : pieces

District	Beneficiaries	Name and Quantity of Hand Tools													Total	Partner		
		Pick Axe	Hoe	Sickle	Shovel	Crow Bar	Pitch Fork	Saw	Grass Knife	Cow Plow	Wheel Barrow							
1. Lautem	330	0	330	330	330	0	0	0	0	0	0	0	0	0	0	0	1,650	
2. Baucau	1,677	0	1,677	1,669	1,677	1,890	1,669	35	1,000	5	106	10	106	10	10	10	1,650	DAA + Thaibatt
3. Viqueque	4,135	0	4,135	4,135	4,135	4,135	4,135	0	0	0	0	0	0	0	0	0	16,540	
4. Manatuto	2,900	2,900	2,900	2,900	2,900	0	0	0	0	0	0	0	0	0	0	0	14,500	ETADEP
5. Manufahi	4,576	0	1,827	1,988	437	0	324	0	0	0	0	0	0	0	0	87	4,663	
6. Dili	1,143	1,143	1,143	1,143	0	1,143	0	0	0	0	0	0	0	0	0	245	5,960	
7. Ailue	389	389	389	389	389	389	389	0	0	0	0	0	0	0	0	0	1,945	OIKOS
8. Ermera	1,301	1,149	1,305	0	0	1,301	0	155	1,209	0	0	0	0	0	0	0	5,119	World Vision
9. Ainaro	147	147	147	147	147	147	0	0	0	0	0	0	0	0	37	772		
10. Liquica	1,803	1,893	1,893	1,893	1,893	0	0	0	0	0	0	0	0	0	0	0	9,591	World Vision
11. Bobonaro	357	0	357	357	0	357	0	0	0	0	0	0	0	0	0	357	1,785	CMET
12. Covalima	1,041	0	803	811	810	0	801	0	0	0	0	0	0	0	0	719	3,944	DAA + PKF
13. Ambeno	355	0	355	355	355	355	355	0	0	0	0	0	0	0	0	0	2,428	
Total	20,154	7,621	17,261	16,117	10,438	13,340	9,114	190	2,209	5	1,677	77,972	1,677	77,972	126	24,940		

Source : DAA, MAFF

Remarks : Upper Column : Total requested by farmers, Lower Column : Delivered before the End of September, 2001

Table H.5 Hand Tools donated by China

No.	Description	Standard	Quantity
A. Agricultural Tools			
1	Sickle	S1202, 12"	1,200 pcs
2	Square toes steel shovel	2#	800 pcs
3	Hoe	3 lb	600 pcs
4	Iron Dustpan	28 x 28 x 63cm	400 pcs
5	Wood lift blank	S503 x 35 x 35cm	500 pcs
6	Drag Blank	80# 120cm	200 pcs
7	Axe	A60 11.2 lb	300 pcs
8	Loquat	F101/4G	300 pcs
9	Pick axe	P401 6lb	650 pcs
B. Pesticides			
1	Monosultap	90% WP	1,600 kg
2	Imidacloprid	10% WP	900 kg
3	Prochloraz	25% EC	250 lit
4	Carbendazim & Triadimefon	40% WP	250 kg
5	Omethote	40% WP	2,500 kg
C. Other Materials			
1	Concrte	425#, 50kg/bag	75,000 kg
2	Galvanized steel pipe	5", 6m/piece	100 pcs
3	Galvanized steel pipe	2.5", 5.8m/piece	518 pcs
4	Iron thread	16#, 25kg/roll	150 kg
5	Iron thread	14#, 50kg/roll	200 kg
6	Irin thread	12#, 50kg/roll	150 kg
7	Mosquito set	twin	100,000 pcs

Source : Packing List

China Friendship Development International

Engineering Design & Consultation Corporation

Date : May 18, 2001, Port of Dispatch : Xiangang, Port of Destination : Dili

Table H-6 SPARE PARTS FOR POWER TILLER AND IMPLEMENTS
(Parts received from MAFF)

Serial No.	Parts No.	Parts Name	Quantity
1	14911-21050	Piston ring set	75 pcs
2	-	Crank pin metal set	30 pcs
3	14911-03310	Head gasket	30 pcs
4	14911-51010	Injection pump (complete)	5 pcs
5	-	High pressure pipe	10 pcs
6	15231-43560	Fuel filter	20 pcs
7	15231-43580	Cup, fuel filter	20 pcs
8	62735-66110	V-belt, driving (#78)	32 pcs
9	62735-17300	Rubber tire	20 pcs
10	-	Tube, rubber tire	20 pcs
11	10101-61110	Handle, starting	5 pcs
12	62735-42480	Wire, steering	60 pcs
13	62735-42110	Wire, main clutch	10 pcs
14	-	Rubber tire, trailer	10 pcs
15	-	Tube, trailer tire	10 pcs
16	14911-97010	V-belt, radiator	30 pcs
17	-	Injector	20 pcs
18	11154-22010	Connecting rod (complete)	10 pcs
19	14911-02310	Cylinder liner	10 pcs
20	62735-42890	Accelerator lever (complete)	10 pcs
21	19104-23010	Crankshaft	5 pcs
22	-	Bored nut pink	30 pcs
23	-	Rubber packing	30 pcs
24	14911-02350	O-ring liner set	30 pcs
25	09560-38558	Seal, oil	30 pcs
26	09550-25357	Seal, oil	30 pcs
27	62721-13270	Plate, drive	90 pcs
28	62735-17180	Seal, oil	60 pcs
29	62735-17270	Pin, wheel tube	60 pcs
30	62735-14140	Gear, 14	60 pcs
31	09501-74008	Seal, oil	30 pcs

To whom it may concern

**CERTIFICATE OF ACCEPTANCE
OF**

SPARE PARTS FOR SIAM KUBOTA SK WALK-BEHIND TRACTOR

It is notified that spare parts for Siam Kubota SK Walk-Behind Tractor, consisting of the following breakdowns, supplied by the Timor Victory have been duly inspected and accepted at the yard of Timor Victory, Dili on June 17, 2003 by JICA Pilot Project Study Team.

Parts No.	Parts Name	Quantity Required	CIF/Dili (US\$)	
			Unit Price	Amount
1. Tractor SKP131				
62735-13100	ASSY ARM, tension pulley	10	39.00	390.00
62735-13220	PULLEY, tension	10	8.50	85.00
08101-06203	BEARING, ball	20	5.00	100.00
09502-24011	SEAL, oil	10	1.80	18.00
04612-00170	CIR-CLIP, external	10	0.70	7.00
04611-00400	CIR-CLIP, internal	20	1.80	36.00
62735-13130	CAP, tension pulley	10	2.50	25.00
63633-13350	PLATE, friction	30	4.80	144.00
62721-13280	NUT	30	0.30	9.00
62735-66110	V-BELT #78	60	5.90	354.00
62231-22130	SHOE, brake	20	3.80	76.00
62735-42210	LEVER, speed change	20	21.00	420.00
62735-42220	COLLAR, speed change lever	20	1.00	20.00
62735-42230	SPRING 2, speed change lever	20	1.00	20.00
62735-42590	GRIP, lever	20	9.00	180.00
62735-42530	LEVER, steering clutch RH	20	8.00	160.00
62735-42890	LEVER, accelerator	20	5.00	100.00
62735-42830	WIRE, accelerator	20	3.50	70.00
62735-42570	LEVER, steering clutch LH	20	8.50	170.00
14153-51235	BOLT	160	1.00	160.00
14156-50123	NUT	160	0.80	128.00
14312-50123	WASHER, spring	160	0.90	144.00
62721-13260	BRACKET	10	35.00	350.00
62735-17320	BOLT WHEEL HUB	20	2.00	40.00
64512-50120	WASHER, spring	20	1.00	20.00
62756-50120	NUT	20	1.20	24.00
2. Diesel Engine ET80				
10124-69020	ASSY LAMP	10	55.00	550.00
14911-02350	O-RING, liner	40	1.00	40.00
14911-03310	GASKET, head	20	5.00	100.00
14911-42013	ASSY PIPE, fuel 1	20	2.00	40.00
14911-51010	ASSY PUMP, injection	5	160.00	800.00
14911-53710	PIPE, injection	20	5.00	100.00
14911-97010	BELT, fan	20	7.00	140.00
14301-74323	PULLEY, tension	20	16.00	320.00
14911-43513	BODY, fuel filter	20	18.00	360.00
15231-43580	CUP, filter	20	4.50	90.00
14301-43650	O-RING, fuel filter	20	0.70	14.00
15231-43560	ELEMENT, filter	20	2.30	46.00
Total				5,850.00

Inspected and accepted by :



S. Tamura / Farm Machinery
JICA Pilot Project Study Team

**DELIVERY NOTE
OF
SPARE PARTS FOR SIAM KUBOTA SK WALK-BEHIND TRACTOR
UNDER JICA PILOT PROJECT AT MANATUTO**

Parts No.	Parts Name	Quantity Required	CIF (US\$) – Dili	
			Unit Price	Amount
1. Tractor SKP131				
83-62735-131002	ASSY ARM, tension pulley	5	39.00	195.00
83-62735-132201	PULLEY, tension	5	8.50	42.50
83-08101-06203	BEARING, ball	10	5.00	50.00
83-09502-24011	SEAL, oil	5	1.80	9.00
83-04612-00170	CIR-CLIP, external	5	0.70	3.50
83-04611-00400	CIR-CLIP, internal	10	1.80	18.00
83-62735-13130	CAP, tension pulley	5	2.50	12.50
83-63633-133501	PLATE, friction	15	4.80	72.00
83-62721-132801	NUT	15	0.30	4.50
62735-66110	V-BELT #78	30	5.90	177.00
83-62231-221301	SHOE, brake	10	3.80	38.00
83-62735-422106	LEVER, speed change	10	21.00	210.00
83-62735-422202	COLLAR, speed change lever	10	1.00	10.00
83-62735-422301	SPRING 2, speed change lever	10	1.00	10.00
83-62735-425901	GRIP, lever	10	9.00	90.00
83-62735-425303	LEVER, steering clutch RH	10	8.00	80.00
83-62735-428903	LEVER, accelerator	10	5.00	50.00
62735-42830	WIRE, accelerator	10	3.50	35.00
83-62735-425703	LEVER, steering clutch LH	10	8.50	85.00
83-01053-51235	BOLT	80	1.00	80.00
83-02056-50120	NUT	80	0.80	64.00
81-04512-50120	WASHER, spring	80	0.90	72.00
2. Diesel Engine ET80				
81-14911-023501	O-RING, liner	20	1.00	20.00
81-14911-033102	GASKET, head	10	5.00	50.00
81-14911-420131	ASSY PIPE, fuel 1	10	2.00	20.00
81-14911-51010	ASSY PUMP, injection	3	160.00	480.00
81-14911-537101	PIPE, injection	10	5.00	50.00
81-IT021-97011	BELT, fan	10	7.00	70.00
81-14301-74323P	PULLEY, tension	10	16.00	160.00
81-14911-43513	BODY, fuel filter	10	18.00	180.00
81-IT021-43101	CUP, filter	10	4.50	45.00
81-14301-43651	O-RING, fuel filter	10	0.70	7.00
81-46100-01100	ELEMENT, filter	10	2.30	23.00
Total				2,513.00

Received by :

Mr.
Manatuto District Agricultural Office

June 24, 2003

To Baucau District Agricultural Office

DELIVERY NOTE
OF
SPARE PARTS FOR SIAM KUBOTA SK WALK-BEHIND TRACTOR
UNDER JICA PILOT PROJECT AT MANATUTO

Parts No.	Parts Name	Quantity Required	CIF (US\$) - Dili	
			Unit Price	Amount
1. Tractor SKP131				
83-62735-131002	ASSY ARM, tension pulley	5	39.00	195.00
83-62735-132201	PULLEY, tension	5	8.50	42.50
83-08101-06203	BEARING, ball	10	5.00	50.00
83-09502-24011	SEAL, oil	5	1.80	9.00
83-04612-00170	CIR-CLIP, external	5	0.70	3.50
83-04611-00400	CIR-CLIP, internal	10	1.80	18.00
83-62735-13130	CAP, tension pulley	5	2.50	12.50
83-63633-133501	PLATE, friction	15	4.80	72.00
83-62721-132801	NUT	15	0.30	4.50
62735-66110	V-BELT #78	30	5.90	177.00
83-62231-221301	SHOE, brake	10	3.80	38.00
83-62735-422106	LEVER, speed change	10	21.00	210.00
83-62735-422202	COLLAR, speed change lever	10	1.00	10.00
83-62735-422301	SPRING 2, speed change lever	10	1.00	10.00
83-62735-425901	GRIP, lever	10	9.00	90.00
83-62735-425303	LEVER, steering clutch RH	10	8.00	80.00
83-62735-428903	LEVER, accelerator	10	5.00	50.00
62735-42830	WIRE, accelerator	10	3.50	35.00
83-62735425703	LEVER, steering clutch LH	10	8.50	85.00
83-01053-51235	BOLT	80	1.00	80.00
83-02056-50120	NUT	80	0.80	64.00
81-04512-50120	WASHER, spring	80	0.90	72.00
83-62721-132601	BRACKET	10	35.00	350.00
83-01053-51270	BOLT WHEEL HUB	20	2.00	40.00
83-02056-50120	WASHER, spring	20	1.00	20.00
81-14301-74323P	NUTS	20	1.20	24.00
2. Diesel Engine ET80				
81-10124-690201	ASSY LAMP	10	55.00	550.00
81-14911-023501	O-RING, liner	20	1.00	20.00
81-14911-033102	GASKET, head	10	5.00	50.00
81-14011-420131	ASSY PIPE, fuel 1	10	2.00	20.00
81-14911-51010	ASSY PUMP, injection	2	160.00	320.00
81-14911-537101	PIPE, injection	10	5.00	50.00
81-IT021-97011	BELT, fan	10	7.00	70.00
81-14301-74323P	PULLEY, tension	10	16.00	160.00
81-14911-43513	BODY, fuel filter	10	18.00	180.00
81-IT021-43101	CUP, filter	10	4.50	45.00
81-14301-43651	O-RING, fuel filter	10	0.70	7.00
81-46100-01100	ELEMENT, filter	10	2.30	23.00
Total				3,337.00

Received by :

 Mr.
 Baucau District Agricultural Office

June 24, 2003

Table H.10

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Piston Ring Set	14911-21050	75		
Crank Pin Metal	-	30		
Head Gasket	14911-03310	30		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Injection Pump	14911-51010	5		
High Pressure Pipe	-	10		
Fuel Filter	15231-43560	20		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Cup, Fuel Filter	15231-43580	20		
V-Belt, driving (78)	62735-66110	32		
Rubber Tire	62735-17300	20		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Tube, Rubber Tire	-	20		
Handle, Starting	10101-61110	5		
Wire Steering	62735-42480	60		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Wire, Main Clutch	62735-42110	10		
Rubber Tire, Trailer	-	10		
Tube, Trailer Tire	-	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
V-Belt, Radiator	14911-97010	30		
Injector	-	20		
Connection Rod	11154-22010	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Cylinder Liner	14911-02310	10		
Accelerator Lever	62735-42890	10		
Crankshaft	19104-23010	5		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Bored Nut Pink	-	30		
Rubber Packing	-	30		
O-Ring Liner	14911-02350	30		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Seal Oil	09560-38558	30		
Seal Oil	09550-25357	30		
Plate Drive	62721-13270	90		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Seal Oil	62735-17180	60		
Pin Wheel Tube	62735-17270	60		
Gear 14	62735-14140	60		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
Seal Oil	09501-74008	30		

Table H.11

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
1. Tractor SKP 131 ASSY ARM, tension pulley	83-62735-131002	5		
PULLEY, tension	83-62735-132201	5		
BEARING, ball	83-08101-06203	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
SEAL, oil	83-09502-24011	5		
CRI-CLIP, external	83-04612-00170	5		
CRI-CLIP, internal	83-04611-00400	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
CAP, tension pulley	83-04611-13130	5		
PLATE, friction	83-63633-133501	15		
NUT	83-62721-132801	15		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
V-BELT #78	62735-66110	30		
SHOE, brake	83-62231-221301	10		
LEVER, speed chang	83-62735-422106	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
COLLAR, speed change lever	83-62735422202	10		
SPRING 2, speed change lever	83-62735-422301	10		
GR0P, lever	83-62735-425901	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
LEVER, steering clutch RH	83-62735-425303	10		
LEVER, accelerator	83-62735-428903	10		
WIRE, accelerator	62735-42830	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
LEVER, steering clutch LH	83-62735-425703	10		
BOLT	83-01053	80		
NUT	83-02056	80		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
WASHER, spring	81-04512-50120	80		
2. Diesel Engine ET80				
O-RING, liner	81-14911-023501	20		
GASKET, head	81-14911-033102	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
ASSY PIPE, fuel 1	81-14911-420131	10		
ASSY PUMP, injection	81-14911-51010	3		
PIPE, injection	81-14911-537101	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
BELT, fan	81-iT021-97011	10		
PULLEY, tension	81-143-74323P	10		
BODY, fuel filter	81-14911-43513	10		

RECORDS ON SPARE PARTS for KUBOTA TRACTOR SKP 131 & DIESEL ENGINE ET 80

Nama Barang Parts Name	No. Barang Parts No.	Jumlah Semula Original Quantity	Jumlah yang dipakai dan Tanggal Used Quantity and Date	Sisa Remained
CUP, filter	81-iT021-43101	10		
O-RING, fuel filter	81-14301-43651	10		
ELEMENT, filter	81-46100-01100	10		

Table H.13

June 20, 2003

To whom it may concern

CERTIFICATE OF ACCEPTANCE
OF
A FULL SET OF MOBILE RICE MILLING UNIT

It is notified that a full set of Mobile Rice Milling Unit, consisting of the following components in accordance with the terms and conditions signed between the JICA Pilot Project Team and the Supplier Satake Corporation has been duly inspected and accepted at the former Mobile Brigade Motor Pool , Manatuto, Manatuto District, East Timor on June 14 (Sat), 2003 by JICA Pilot Project Team.

Serial No	Description	Quantity
1.	Rice Milling Unit SB 10	1 unit
2.	Diesel Engine	1 unit
3.	Common Machine Stand	1 unit
4.	Spare Parts for SB 10	1 lot
4.1	Milling roller (0251010)	1 piece
4.2	Screw iron rtoll (0251011)	1 piece
4.3	Milling screen (RB0309)	10 pieces
4.4	Rubber roll (05040882)	24 pieces
5.	Spare Parts for Diesel Engine R-220H	1 lot
5.1	Fuel filter element	1 piece
5.2	Piston ring set	1 piece
5.3	Cylinder head gasket	2 pieces
5.4	Nozzle body with nozzle valve	1 piece
5.5	Primary fuel filter	2 pieces
5.6	Tools and Spare Parts	1 lot
5.6.1	Valve spring outer	1 piece
5.6.2	Valve spring inner	1 piece
5.6.3	Valve collect	2 pieces
5.6.4	Fine fuel filter	1
5.6.5	Primary fuel filter	1
5.6.6	Piston ring	1 set
5.6.7	Gasket cylinder head	1 piece

5.6.8	Gasket exhaust pipe	1 piece
5.6.9	Nozzle	1 piece
5.6.10	Valve guide	2 pieces
5.6.11	Element pump	1 piece
5.6.12	O ring liner	2 pieces
5.6.13	Valve in	1 piece
5.6.14	Valve ex	1 piece
5.6.15	Bearing connection rod	1 set
5.6.16	Fuel pipe injection	1 piece
5.6.17	Oil seal crank shaft	1 piece
5.6.18	Oil seal shaft starting	1 piece
5.6.19	Starting handle	1 piece
5.6.20	V pulley	1 piece
5.6.21	Feeler gauge for valve clearance	1 piece
5.6.22	Tool for dismantling fly wheel	1 piece
5.6.23	Double socket spanner	1 piece
5.6.24	Double spanner 13 – 16	1 piece
5.6.25	Double spanner 18 – 21	1 piece
5.6.26	Fly wheel spanner	1 piece
5.6.27	Cylinder head nut spanner	1 piece
5.6.28	Valve dismantling tool	1 piece
5.6.29	Valve lapping tool	1 piece
5.6.30	Pasta	1 piece
5.6.31	Screw driver (-)	1 piece
5.6.32	Bolt 10 x 85	2 pieces
5.6.33	Bolt 8 x 60	2 pieces
5.6.34	Operation manual	1 copy
5.6.35	Tool box	1 unit
6.	ving belt	1 lot
6.1	Perforated belt A type FD1500A	1 piece
6.2	Hexagonal belt (green) FD152111	1 piece

Inspected and accepted by :

S. Tamura/Farm Machinery
JICA Pilot Project Team

Table H.14

**IURAN “KONTRIBUSI” PEMAKAIAN MESIN PENGOLAH PERTANIAN OLEH
PETANI PADA PROYEK PERCOBAAN**

(Efektif selama periode 1 January ~ 30 Juni, 2003)

Unit : US\$/ha

	Sistem Pemakaian A (menetapkan penuh dengan Operator dan bahan baker)	Sistem Pemakaian B (menetapkan sebagian dengan bahan baker & tanpa Operator)	Sistem Pemakaian C (Tidak menetapkan Bahan baker dan Operator)
Iuran oleh Petani	30.00	23.00	8.00

Keterangan :

1. Mesin yang dipakai 1) Siam Kubota Model SKP131 disediakan dengan alat pembajakan (Liku), alat pengunkit dan pemerataan serta roda besi untuk pelumpuran.
2. Jumlah mesin yang dipakai dan operator yang tersedia : 2 units dan 4 orang operators
3. Kontrak sudah harus dtukar sebelum dibawa keluar untuk dikerjakan
4. Daerah Lahan yang akan ditanam diukur secara benar sebelum memulai proses pembajakan
5. Tarif diatas berdasarkan system pembagian biaya (Cost Sharing) sebagai pengganti biaya semula (“instead of cost recovery”)

Table H-15

KESEPAKATAN
Pada
KONTRAK PEMBAJAKAN

Kontrak Pembajakan di bawah JICA Pilot Project disetujui dan dilaksanakan antara kelompok Tani Haburas Manatuto, diwakili oleh Sekretaris _____, dan anggota petani Bapak / ibu _____, dari desa _____, pada tanggal ____ - ____ - 2003, untuk persetujuan membawa keluar surat pembajakan lahan oleh petugas Penyediaan dengan berdasarkan kondisi – kondisi berikut :

1. Mesin yang akan dipakai : Traktor Siam Kubota (No. Mesin JK - _____) dilengkapi dengan roda besi, bajak singkal atau luku, rotary, dan garu.
2. Area yang akan dibajak : Area Nominal : _____ ha
Area Sebenarnya : _____ ha
3. Biaya pembajakan : US\$ _____/ha dan Total Keseluruhan US\$ _____
Termasuk (1) Operator, (2) Bahan Bakar, (3) Mesin dan Biaya administrasi
0 hanya menandai.
4. Metode pembayaran dari biaya pembajakan : (1) Tunai, (2) Hasil panen (Padi), atau (3) Tunai dan Hasil Panen)Padi)
(Tunai US\$ _____ + Padi _____ kg disamakan dengan US\$ _____)
5. Waktu pembayaran : Sebelum, _____, 2003

Dua (2) copi harus dibagikan, yaitu satu dipegang oleh Sekretaris dan satunya lagi oleh petani, Efektif hingga pembayaran selesai.

Ditanda tangani oleh :

Ditanda tangani oleh :

Nama : Bapak
Sekretaris Haburas Manatuto

Nama : Bapak
Desa :

Saksi :

Nama : Bapak

Table H.16

PERJANJIAN KONTRAK MENGENAI MESIN PERONTOK

Kontrak mengenai mesin perontok dibawah oleh JICA Poryek Pilot dengan ini adalah perjanjian dan yang dilaksanakan antara Haburas Manatuto, mewakili oleh Sekretaris Bpk. Jose Pires, dan para anggota petani/bukan anggota petani Bpk/Ibu

_____, dari Desa _____,
Tanggal _____ Hari _____ Bulan _____, 2003, untu mengadakan
persetujuan surat-surat mengenai mesin perontok padi oleh para petani persiapan megenai
kondisi-kondisi dasar sebagai berikut:

1. Mesin yang digunakan: **Model AGROINDO TPA 1000**, No. Mesin _____
menyediakan dengan bahan bakar dan oli motor
2. Ladan sawah : Aria nominal : _____ ha
Aria Aktual : _____ ha
3. Volumi mesin perontok padi : _____ kg
4. Harga mesin perontok padi : (US\$ _____/30kg/karung x _____ karung-karung)
5. Metodi pembayaran dari harga mesin perontok :
 - (1) Kontan/Tunai
 - (2) Hasil panen padi
 - (3) Tunai dan hasil panen padi
6. Waktu pembayaran : Sehari sebelum _____ Bulan _____ 2003

Dua (2) hasil cetak lagi dan satu lainnya menerima oleh Sekertasi dan para tepani lainnya, adalah berlaku sampai masa pembayaran jelas.

Tandatangan Oleh

Tandatangan Oleh

Nama : Bpk Sekertasi Jose Pires,

Nama : Bpk/Ibu

Haburas Manatuto

Desa :

Saksimata :

Table H.17

KONTRAK KESEPAKATAN MENGGANAI PENGGILINGAN PADI

Kontrak penggilingan yang di bawah oleh “ JICA Pilot Project “ dengan ini adalah kesepakatan bersama dan dilaksanakan antara Haburas Manatuto, diwakili oleh Sekertaris Bpk. Jose Pires da Silva, dan para anggota-anggota petani Bpk/Ibu _____, dari desa _____, tanggal Bulanan dan Tanggal _____, 2003, menurut kesepakatan/persetujuan yang diuraikan dalam surat-surat para petani penggilingan padi, dan penetapan mengenai kondisi dasar berikut, yaitu:

1. Mesin yang digunakan : **SATAKE** Mobil Unit Penggilingan Beras (**Model : SB 10D**) dijalankan oleh Ratna Diesel Motor Model **R-220H**
2. Padi yang digilin : Variasi _____
Bersih _____ Bagus _____ Normal _____ Rusak _____
Kadar Lembab _____% dalam dasar basi _____
_____ sak-sak atau total _____ kg jumlah masukan padi
3. Harga penggilingan :US\$ _____/kg- hasil produksi dan jumlah total US\$ _____ termasuk (1) operator, (2) semua kebutuhan bahan bakar dan (3) mesin dan biaya administrasi
4. Kulit padi : (1) bawah kembali (2) pembuangan (3) pembayaran kompensasi (sama dengan US\$ _____)
5. Medote pembayaran dari harga penggilingan : (1) Biaya, (2) padi atau beras, (3) biaya dan hasil panen padi atau beras (biaya US\$ _____ + hasil panen padi atau beras _____ kg sama dengan US\$ _____ + kulit padi _____ sama dengan kg US\$ _____)
6. Waktu pembayaran : Sebelum, _____, 2003

Pembuatan dua (2) cetak copy, satunya diserahkan pada Sekertaris dan lainnya akan diberikan para anggota-anggota petani, efektif/berlaku sampai selesainya masa pembayaran.

Tandatangan oleh

Nama: Bpk. Jose Pires da Silva
Manager, Haburas Manatuto

Ditandatangani dengan

Nama: Bpk.
Desa:

Disaksikan oleh

Table H-18

JICA PILOT PROJECT AT MANATUTO

Tes Petunjuk Lapangan Mesin Perontok: Model: Agrindo TPA 1000

Deskripsi	Hasil Petunjuk				
	Trial 1	Trial 2	Trial 3	Trial 4	Rata-Rata
A Kondisi padi 1. Jenis bibit 2. Jerami-Kernel Ratio 3. Jumlah kelembahan 4. Panjang jerami 5. Cara pengeringan sebelum merontok					
B. Petunjuk Lapangan 1. Komponen kecepatan (rata-rata rpm) 1.1. Drum 1.2. Peniupan 2. Peniupan kecepatan udara (m/sec) 3. Level kebisingan 4. Penggunaan bahan bakar (lit/jam) 5. Kapasitas merontok (kg/jam) 5.1. Masukan 5.2. Hasil produksi 6. Murni 7. Pendapatan perontok 8. Kerugian peniupan 9. Kerugian pemisahan 10. Total kerugian merontok					
C. Laboratori analisis butir padi 1. Keretakan 1.1. Sebelum merontok 1.2. Sesudah merontok 2. Jumlah bersih dari keretakan butir padi					
D. Keterangan					

Tanggal Tes Dan Waktu	
Nama petani	
Kondisi cuaca (Temperatur & Lembab)	
Pemeriksaan	

Table H.19 JICA PILOT PROJECT AT MANATUTO

**FIELD PERFORMANCE TEST
MOBILE RICE MILLING UNIT : SATAKE SB 10D**

Test No. 1

Description	Test Results		
	Trial 1	Trial 2	Average
A. Intake Paddy Conditions			
1. Variety	Membrane		
2. Moisture content (% in weight)	Average 16.1		
3. Cracked kernels (%)			
4. Chalky and immature paddy (%)			
5. Red rice (%)			
6. Purity (%)			
B. Milling Test			
1. Weight of input (kg)	82.0		
2. Weight of milled rice (kg)	53.0		
3. Weight of husk, immature paddy & bran (kg)	29.0		
4. Milling recovery (%)	64.6		
5. Hours required (min)	13.00		
6. Intake capacity (kg/hr-paddy)	378.46		
7. Output capacity (kg/hr-white rice)	244.49		
8. Fuel consumption (lit)	0.56		
9. Fuel consumption (lit/hr)	2.58		
C. Grain Analysis			
1. Hulling coefficient			
2. Coefficient of wholeness			
3. Hulling efficiency (%)			
4. Head rice recovery (%)			
5. Broken grains			
6. Binlid			

D. Speed of Components					
1. Engine	without load with load	900			
2. Polisher drive	without load with load				
3. Huller main shaft	without load with load				
4. Huller aspirator	without load with load				
5. Bran suction blower	without load with load				
E. Noise Level (db)					
F. Remarks			Too small quantity for collecting practical data.		

Test Date	July 5, 2003
Location of Paddy Field	MB warehouse/Manatuto
Farmer's Name	Mr. Jose Pires da Silva/Manager of Haburas Manatuto
Weather Conditions	30.5°C & 68% at a.m.11:00
Tester	Mr. Tamura/Mr. Elias

Table H.20 Principle Data Recorded in Land Preparation by Power Tiller

Power Tiller used : Siam Kubota SKP131

Serial No.	Date & Time	Weather Condition	Location	Area (ha)	Land Owner	Works & Contract Type	Level of Operator Skill	Actual		Conversion per ha		Machine No.
								Hour Required	Fuel Consumption (liter)	Hour Required	Fuel Consumption	
1	January 27, '03 a.m.10:18 a.m.12:00	31°C 62% Seedbed	Demo Farm A-4	0.083	Mr. Sebastiano	Plowing	"A"	1'42"	1.00	20'29"	12.1	JK-010
2	January 28, '03 a.m.9:20 p.m.9:58	31°C 53% Seedbed	Demo Farm A-4	0.083	Mr. Sebastiano	Puddling	"A"	0'38"	0.50	7'38"	6	JK-010
3	January 28, '03 a.m.10:52 p.m.12:52	31°C 53% Seedbed	Demo Farm A-5-1	0.045	Mr. Sebastiano	Plowing	"C"	2'00"	0.86	44'27"	19.1	JK-010
4	January 28, '03 a.m.10:10 a.m.11:07	31°C 53% Seedbed	Demo Farm A-4	0.083	Mr. Sebastiano	Puddling	"A"	0'53"	0.64	10'39"	7.7	JK-008
5	January 28, '03 a.m.11:25 p.m.12:35	31°C 53% A-7	Demo Farm A-7	0.071	Mr. Sebastiano	Plowing	"C"	1'10"	0.74	16'26"	10.4	JK-008
6	January 28, '03 p.m.15:37 p.m.16:32	31°C 53% A-8	Demo Farm A-8	0.067	Mr. Sebastiano	Plowing	"C"	0'55"	0.63	13'41"	9.4	JK-008
7	January 29, '03 a.m.11:05 p.m.13:20	32°C 55% A-10	Demo Farm A-10	0.063	Mr. Sebastiano	Plowing	"C"	2'15"	1.30	35'43"	20.7	JK-010

Principle Data Recorded in Land Preparation by Power Tiller

Serial No.	Date & Time	Weather Condition	Location	Area (ha)	Land Owner	Works & Contract Type	Level of Operator Skill	Actual		Conversion per ha		Machine No.
								Hour Required	Fuel Consumption (liter)	Hour Required	Fuel Consumption	
8	January 30, '03 a.m.9:41 p.m.13:11	30°C 52%	Contract Farmer	0.166	Mr. Eusebio	Plowing	"D"	3'30"	n.a.	21'05"	n.a.	JK-010
9	January 30, '03 a.m.10:36 a.m.11:45	33°C 53%	Demo Farm A-4	0.083	Mr. Sebastiano	Puddling	"B"	1'09"	0.78	13'52"	9.4	JK-008
10	January 30, '03 p.m.14:13 p.m.14:45	32°C 55%	Demo Farm Seedbed A-5-1	0.045	Mr. Sevastinano	Puddling	"C"	0'32"	0.38	11'52"	8.4	JK-008
11	January 31, '03 p.m.13:18 p.m.14:34	33°C 53%	Contract Farmer	0.029	Mr. Benjamine	Plowing	"C"	1'20"	0.45	45'59"	15.6	JK-010
12	February 5, '03	33°C 52%	Demo Farm B-6	0.052	Mr. Sebastiano	Plowing	"C"	1'05"	1.50	20'50"	28.8	JK-010
13	February 6, '03 a.m.8:55 a.m.9:58	36°C 55%	Demo Farm A-6-1	0.065	Mr. Sebastiano	Plowing	"C"	1'03"	1.03	16'10"	15.9	JK-010
14	February 6, '03 a.m.10:00 a.m.10:59	36°C 55%	Demo Farm A-6-2	0.025	Mr. Sebastiano	Plowing	"C"	59"	1.00	39'20"	40.0	JK-008

Principle Data Recorded in Land Preparation by Power Tiller

Serial No.	Date & Time	Weather Condition	Location	Area (ha)	Land Owner	Works & Contract Type	Level of Operator Skill	Actual		Conversion per ha		Machine No.
								Hour Required	Fuel Consumption (liter)	Hour Required	Fuel Consumption	
15	February 6, '03 a.m.10:02 a.m.10:59	36°C 55%	Demo Farm A-9	0.042	Mr. Sebastiano	Plowing	"C"	57"	1.40	22'38"	33.4	JK-010
16	February 6, '03 a.m.11:35 p.m.12:35	36°C 55%	Demo Farm A-2	0.013	Mr. Sebastiano	Plowing	"C"	1'00"	0.57	76'56"	43.9	JK-010
17	February 6, '03 p.m.12:01 p.m.12:33	36°C 55%	Demo Farm B-9	0.078	Mr. Sebastiano	Puddling	"B"	0'32"	0.30	6'51"	3.9	JK-008
18	February 7, '03 a.m.11:58 p.m.12:26	35°C 54%	Demo Farm A-7	0.071	Mr. Sebastiano	Puddling	"C"	0'28"	0.25	6'58"	3.6	JK-008
19	February 7, '03 a.m.10:11 a.m.11:40	34°C 53%	Demo Farm B-2	0.054	Mr. Sebastiano	Plowing	"C"	1'29"	0.70	27'28"	13.0	JK-010
20	February 5, '03	n.a.	Demo Farm B-9	0.078	Mr. Sebastiani	Plowing	"C"	1'51"	n.a.	23'43"	n.a.	JK-008
21	February 6, '03 a.m.10:30 a.m.11:15	36°C 55%	Beside Demo Farm	0.062	n.a.	Rencah 16 heads & 4 keepers	"A"	45"	-	12'07"	-	-

JICA PILOT PROJECT AT MANATUTO

Table H-21

**CONTRACT THRESHING RESULTS
PORTABLE RICE THRESHER : AGRINDO TPA 1000**

No.1

Description	Results			
	Lot 1	Lot 2	Lot 3	Total
A. Conditions of Paddy				
1. Variety	IR64	IR64	IR64	IR64
2. Straw-Kernel Ratio				1 : 0.68
3. Moisture Content (% in weight)				Max. 20.6 Min. 17.6 Av. 18.0
4. Straw Length (mm)				Max. 640 Min. 330 Av. 440
5. Drying Method before Threshing				On field
B. Field Performance				
6. Threshing Drum Speed (average rpm)				580
7. Fuel Consumption (liter/hour)				n.a.
8. Threshing Time	2.07'	2.10'	2.08'	6.25'
9. Threshing Capacity – Intake (kg)	732.0	546.4	725.5	2,003.9
10. Threshing Capacity – Intake (kg/hr)	346.38	252.15	340.13	312.28
11. Threshing Capacity – Output (kg)				1,362.3
12. Threshing Capacity – Output (kg/hr)				212.3
C. Remarks	(1) No. of bundles : 323, Average 6.20kg/bundle (2) Output Grain : 53 sacks, Average 25.7/sack (3) Harvest Area : 0.28ha (4)Yield : 4.8 ton/ha (5) Poor separation performance			
Test Date	June 16, 17 & 18, 2003, Total 3 days			
Location	Down stream of Lacro Irrigation Area			
Weather Conditions	Cloudy/Fine Max. 34°C & 70%			
Farmer's Name	Mr. Domingos			
Tester	Mr. Tamura/Mr. Erias			

JICA PILOT PROJECT AT MANATUTO

CONTRACT THRESHING RESULTS

PORTABLE RICE THRESHER : AGRINDO TPA 1000

No.2

Description	Results			
	Lot 1	Lot 2	Lot 3	Total
A. Conditions of Paddy				
1. Variety	Dinas	Dinas		Dinas
2. Straw-Kernel Ratio				1 : 0.617
3. Moisture Content (% in weight)				Max 16.6 Min 10.9 Av 13.8
4. Straw Length (mm)				Max 570 Min 320 Av 470
5. Drying Method before Threshing				On Field
B. Field Performance				
6. Threshing Drum Speed (average rpm)	635	635		635
7. Threshing Time	3.08'	3.54'		7.02'
8. Fuel Consumption (liter)	3.0	3.1		6.1
9. Fuel Consumption Rate (liter/hr)	0.958	0.795		0.867
10. Threshing Capacity – Intake (kg)	1,058.0	1,510.6		2,568.6
11. Threshing Capacity – Intake (kg/hr)	337.70	387.33		365.22
12. Threshing Capacity – Output (kg)				1,584.8
13. Threshing Capacity – Output (kg/hr)				225.34
C. Remarks	(1) Harvested Area : 34 x 168m = 0.5712ha (2) Yield : 2.77 ton/ha (3) Output : 53 sacks, 29.9kg/sack (4) All harvest for family consumption			
Test Date	June 23 & 24, 2003, Total 2 days			
Location	Inkelo, beside demonstration farm			
Weather Conditions	Fine 28°C & 74% (June 23 a.m. 9:00)			
Farmer's Name	Mr. Sebastiao Da Silva			
Tester	Mr. Tamura/Mr. Erias			

JICA PILOT PROJECT AT MANATUTO

CONTRACT THRESHING RESULTS

PORTABLE RICE THRESHER : AGRINDO TPA 1000

No.3

Description	Results			
	Lot 1	Lot 2	Lot 3	Total
A. Conditions of Paddy				
1. Variety	Dinas	Dinas		Dinas
2. Straw-Kernel Ratio				1 : 0.685
3. Moisture Content (% in weight)				Av 13.9
4. Straw Length (mm)				Max 590 Min 220 Av 490
5. Drying Method before Threshing				On Field
B. Field Performance				
6. Threshing Drum Speed (average rpm)	600	600		600
7. Threshing Time	1.55'	4.10'		6.05'
8. Fuel Consumption (liter)				6.0
9. Fuel Consumption Rate (liter/hr)				0.986
10. Threshing Capacity – Intake (kg)	564.8	1,075.4		1,640.2
11. Threshing Capacity – Intake (kg/hr)	294.63	258.1		269.64
12. Threshing Capacity – Output (kg)				1,122.8
13. Threshing Capacity – Output (kg/hr)				184.58
C. Remarks	(1) Harvested Area : 0.365 (6 blocks) (2) Yield : 3.73 ton/ha including foot threshing (3) Output : 39 sacks, 29.55kg/sack (4) Foot threshing 240kg/8 sacks			
Test Date	June 24 & 25, 2003, total 2 days			
Location	Near Demonstration Farm			
Weather Conditions	Fine 28°C, 62% (June 24 p.m.4:00) Fine 30°C, 60% (June 25 a.m.10:00)			
Farmer's Name	Mr. Fransico Preto (Non-member)			
Tester	Mr. Tamura/Mr. Erias			

JICA PILOT PROJECT AT MANATUTO

CONTRACT THRESHING RESULTS

PORTABLE RICE THRESHER : AGRINDO TPA 1000

No.4

Description	Results			
	Lot 1	Lot 2	Lot 3	Total
A. Conditions of Paddy				
1. Variety	Dinas	Dinas		Dinas
2. Straw-Kernel Ratio				1 : 0.806
3. Moisture Content (% in weight)				Av 14.2
4. Straw Length (mm)				- - -
5. Drying Method before Threshing				On Field
B. Field Performance				
6. Threshing Drum Speed (average rpm)	600	600		600
7. Threshing Time	1.46'	4.45'		6.31'
8. Fuel Consumption (liter)				4.16
9. Fuel Consumption Rate (liter/hr)				0.638
10. Threshing Capacity – Intake (kg)	534.6	1,266.4		1,801.0
11. Threshing Capacity – Intake (kg/hr)	302.5	266.6		276.4
12. Threshing Capacity – Output (kg)				1,443.5
13. Threshing Capacity – Output (kg/hr)				221.50
C. Remarks	(1) Harvested Area : 0.41ha (2) Yield : 3.52 ton/ha (3) Output : 46 sacks, 31.38kg/sack (4) Paddy Sale Price : US\$0.10/kg (5) White Rice Price : US\$0.50/kg			
Test Date	June 25 & 26, 2003, total 2 days			
Location	Near Demonstration Farm			
Weather Conditions	Fine			
Farmer's Name	Mr. Jose Pires da Silva			
Tester	Mr. Tamura/Mr. Erias			

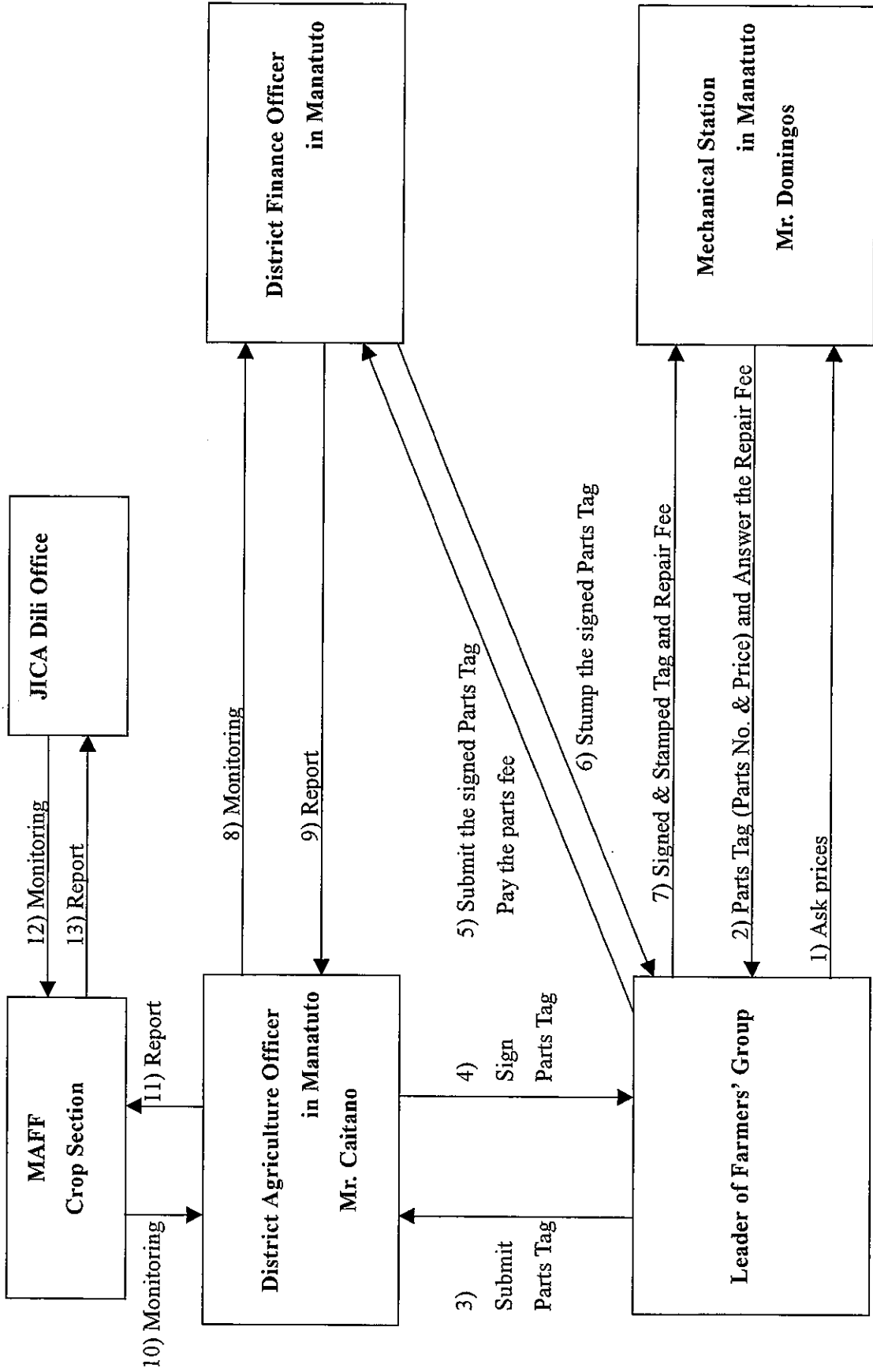
**Table H.22 EQUIPMENT LIST PROVIDED FOR FARM MECHANIZATION
UNDER
JICA PILOT PROJECT**

Serial No.	Name of Equipment	Q'ty	Standard
	Walk-Behind Tractor	2 units	Kubota, together with implement of plow, puddling wheels, puddling rake and rotor, Hiring from DAO
1.	Spare Parts for Walk-Behind Tractor	1 lot	Details as shown in separate sheet
2.	Thresher	2 units	270 – 370kg-Intake Paddy/hr with Honda GX 240 Gasoline Engine Portable
3.	Rice Mill	1 unit	Mobile, 650 – 750kg/hr – Intake Paddy with RATNA 20 Hp Diesel Engine
4.	Hand Digital Tachometer (NIDEC-SHIMPO CORPORATION)	1 unit	1~25,000rpm, 5 digits 1.5V AA x 3 pcs, 137 x 74 φ x32mm 200g with batteries Accessories : 3pcs dry cell batteries, 2pcs cones, 1 pc funnel, 1pc surface speed adaptor 100mm
5.	Grain Moisture Tester (KETT ELECTRIC LABORATORY)	1 unit	Measuring Principle : Electric Resistance Indication : Digital display Battery : 4 pcs x 1.5V AA Dimensions : 164 x 94 x 65mm Accessories : 2pcs sampling tray, 1pc brush, 1pc spoon with tweezers, 1pc rice husker, 1pc carrying case
6.	Platform Scale (DELUXE KAMAJAYA) TIMBANGAN SENTISIMAL) Made in Indonesia		Capacity : 300kg Minimum Graduation : 1kg Sensitivity : 100gr Class : III

Serial No.	Name of Equipment	Q'ty	Standard
			Accessories : Hanging Pan, 100kg, 50kg, 20kg, 10kg and 5kg weight
7.	Top Pan Scale (Five Goats, Made in China)	1 unit	Capacity : 10kg Graduation : 50gr
8.	Fuel Measuring Tool	2 pieces	500cc and 1,250cc with graduation
9.	Funnel	1 piece	Made of Plastic
10.	Fuel Tank	4 tanks	20 liter x 2 tanks for Diesel, 20 liter x 2 tanks for Gasoline, Made of Plastic
11.	Thermohygrometer (BARIGO)	1 unit	3°C-40°C/20-100%
12.	Vinyl Sheet	3 sheets	6 x 8 m
13.	Rice Sack	300 sacks	Made of Polypropylene, White
14.	Diesel Fuel	10 drums	1,800 liter
15.	Gasoline Fuel	40 liter	
16.	Diesel Engine Oil	27 liter	5 liter/can x 5 cans, 1 liter/can x 2 cans, SAE 40
17.	Gasoline Engine Oil	10 liter	5 liter/can x 2 cans, SAE 50
18.	Fuel Pump (ORIENTAL, RP-24)	1 piece	
19.	Stop Watch	1 unit	
20.	Handy Tool Set	1 set	

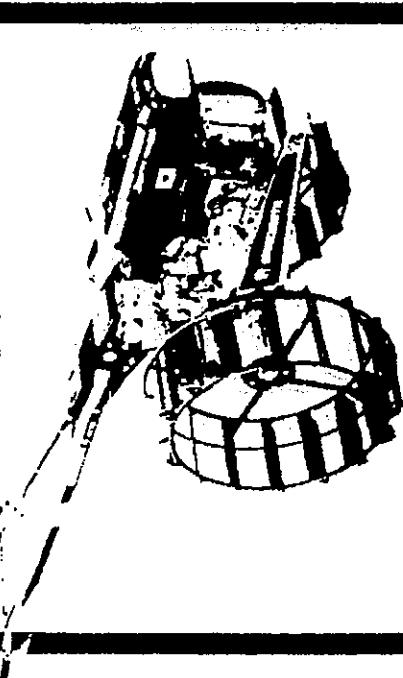
Table H.23

Flow of System for Parts Use



* If farmers can repair a tractor by themselves, the repair fee (flow number 2)&7)) is no need.

Buku Pengantar SIAM KUBOTA TRAKTOR TANGAN

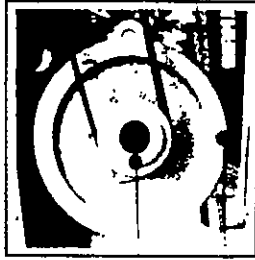


NC 131

KETERANGAN MENGENAI TRAKTOR TANGAN NC-131

1. Besi kotak transmisi terbuat dari bahan-bahan berkualitas tinggi.
Semua bagian dari SIAM KUBOTA Traktor Tangan terbuat dari bahan - bahan berkualitas tinggi. Kotak transmisi dibuat dengan menggunakan Teknologi produksi dari Kubota diesel mesin dan mobil. Semua bagian dari kotak transmisi dibuat dengan cermat untuk daya tahan yang baik.
2. Berat traktor yang ringan, mempermudah pembelokan.
Besi body traktor yang ringan mempermudah pada saat pengontrolan dan radius belok yang kecil.
3. Tiga kecepatan maju dan satu kecepatan mundur.
Untuk mempermudah, disediakan tiga kecepatan maju untuk memperoleh jumlah maksimal pada tenaga putaran dan kekuatan untuk membajak dan juga pada transportasi.
4. Sistem kopling yang tahan lama.
Pada pulin utama terpasang Dry Multiple Clutch sehingga menambah efisiensi transmisi tanpa membuat tali kipas tergelincir keluar. Kopling kemudi untuk menggerakkan traktor sangat stabil. Untuk pencegahan lumpur dan air digunakan kabel kopling agar kopling dapat tahan lama saat beroperasi. Pelindung pulin dipasang untuk keamanan saat beroperasi.
5. Kemudahan dalam memasang mesin.
Mesin dasar adalah sejenis dengan 7 - 11,5 hp mesin Kubota diesel. Kayu atau besi tidak dibutuhkan, jadi kemudahan dalam memasang mesin sangat terjamin.
6. Pengaturan jarak roda.
Pengaturan jarak roda dapat di atur sesuai dengan syarat kerja. Misalnya; Untuk transportasi, dipakai ban biasa bukan roda besi.
7. Sistem Transmisi.
Perlengkapan pengubah kecepatan yang tersendiri disediakan untuk keamanan dalam beroperasi.

PEMASANGAN MESIN KUBOTA DIESEL PADA SIAM KUBOTA TRAKTOR TANGAN



1. Engine pulley
2. Power tiller frame

3. Engine mounted bolt
4. Engine base

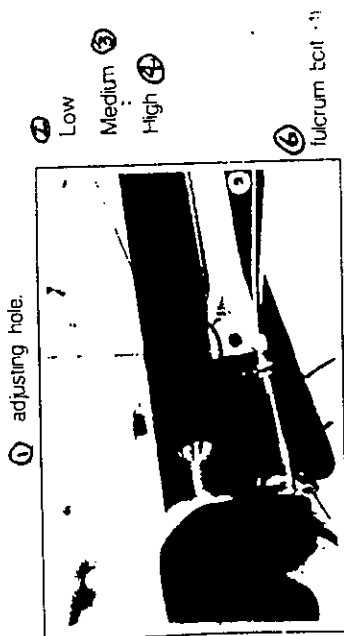
1. Pulin mesin,
2. KerangkaTraktor,
3. Mulut kancing mesin,
4. Dasar mesin.

SIAM KUBOTA traktor tangan dapat dipasang oleh semua jenis mesin Kubota diesel model ET70 $\frac{1}{4}$, 115. Pemasangan mesin dapat dilakukan tanpa menggunakan kayu atau besi sebagai bahan pembantu seperti di bawah ini.

1. Gunakan kayu untuk mengangkat mesin.
2. Tempatkan mesin pada kerangka traktor. Lampu harus diarahkan ke depan.
3. Lepaskan mulut kancing mesin dan pasang pulin mesin (lihat pada gambar).
4. Pasang 2 tali kipas pada mesin dan pulin utama.
5. Naikkan standar dan blarkkan kerangka traktor menurun kedepan. Mesin akan menurun kedepan dan tali kipas akan mengencang.
6. Kencangkan 4 mulut kancing mesin.
7. Putar baut sayap untuk mengatur pulin ketegangan dan mengencangkan tali kipas. Gunakan tangan untuk menekan bagian atas kedua tali kipas. Maksimal pembelokan adalah 10 - 20 mm.

DI PENYETEL BAGIAN BAGIAN DARI SAMA KUBOTA
TRAKTOR TANGAN

a). **Menyetel Pegangan.**
Pegangan dapat di setel dengan 3 posisi; tinggi, sedang, dan rendah sesuai dengan tinggi badan operator / pemakai.



5) Handle locked bolt (2)

1. Lobang penyetel
2. Rendah
3. Sedang
4. Tinggi
5. Kancing pengunci pegangan
6. Kancing fulcrum

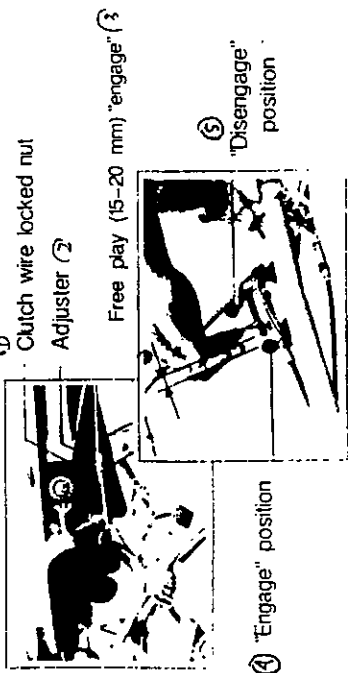
Metode,

1. Longgarkan kancing fulcrum.
2. Pindahkan kancing pengunci pegangan, pilih sesuai dengan lobang penyetel.
3. Pasang dan kancingkan kunci pegangan.

Perhatian,

Sebelum penggunaan sehari - hari, periksa dan kencangkan kunci pegangan. Kunci pegangan longgar akan mengakibatkan kerusakan pada atas pegangan.

b). Menyetel tuas kopling utama.



1. Mur kopling
2. Penyetel
3. Kelonggaran (15-20 mm) "Jalan"
4. Pisisi "Jalan"
5. Posisi "Diam"

Selama penggunaan kalau sewaktu - waktu terjadi hal - hal seperti :

1. Setelah mendorong Kopling utama pada posisi "Diam", Tuas pengubah kecepatan susah untuk masuk atau terjadi kebisingan.
2. Tuas kopling utama pada posisi "Jalan" tapi traktor tidak bergerak.

Penyetelan,

1. Lepaskan mur kopling (Seperti pada gambar bagian atas).
2. Putar penyetel Dorong kopling utama pada posisi "Jalan", kemudian tuas ditarik perlahan - lahan kebelakang hingga dapat terkunci kembali.
3. Longgarkan tuas kopling utama 15 - 20 mm (Pada gambar bagian bawah).
4. Atur Jarak bebas maksimum. Kencangkan baut kopling dan penyetel.

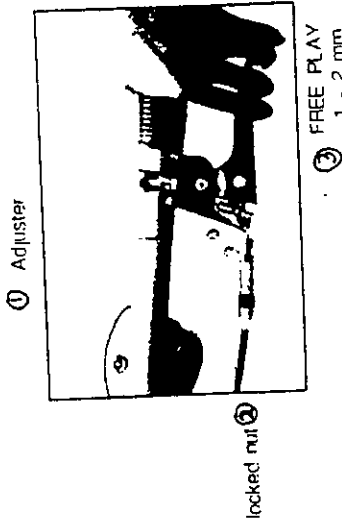
Perhatian,

Hentikan mesin sebelum penyetelan

c). Menyetel kopling kemudi kiri dan kanan.

Billamana kopling kemudi sudah dipegang dan Traktor tidak belok. Atau Terlalu banyak kelonggaran pada kopling kemudi atau tidak ada sama sekali.

Atur kopling kemudi seperti di bawah ini.



1. Penyetel
2. Mur Pengunci
3. Kelonggaran 1 - 2 mm

Penyetelan,

1. Hentikan mesin. Lepaskan mur pengunci (lihat gambar).
2. Putar penyetel dan periksa kelonggaran dari kopling kemudi.
3. Longgarkan kopling kemudi hingga 1 - 2 mm.
4. Kencangkan kembali mur tersebut.

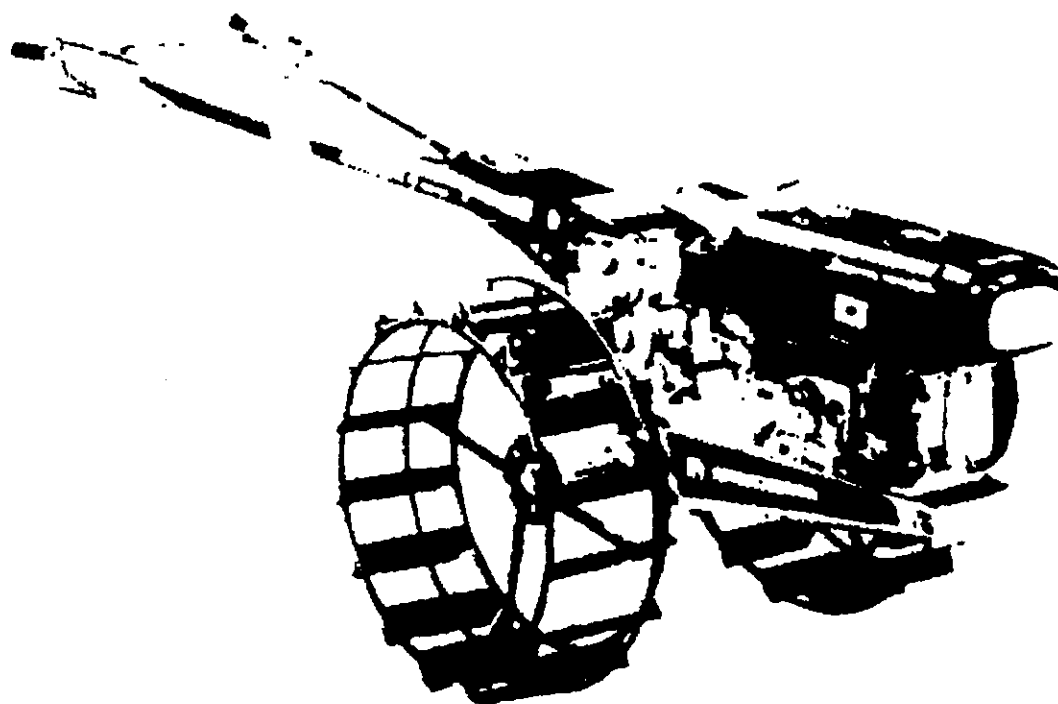
Perhatian,

Hentikan mesin sebelum penyetelan

ILLUSTRATED PARTS LIST

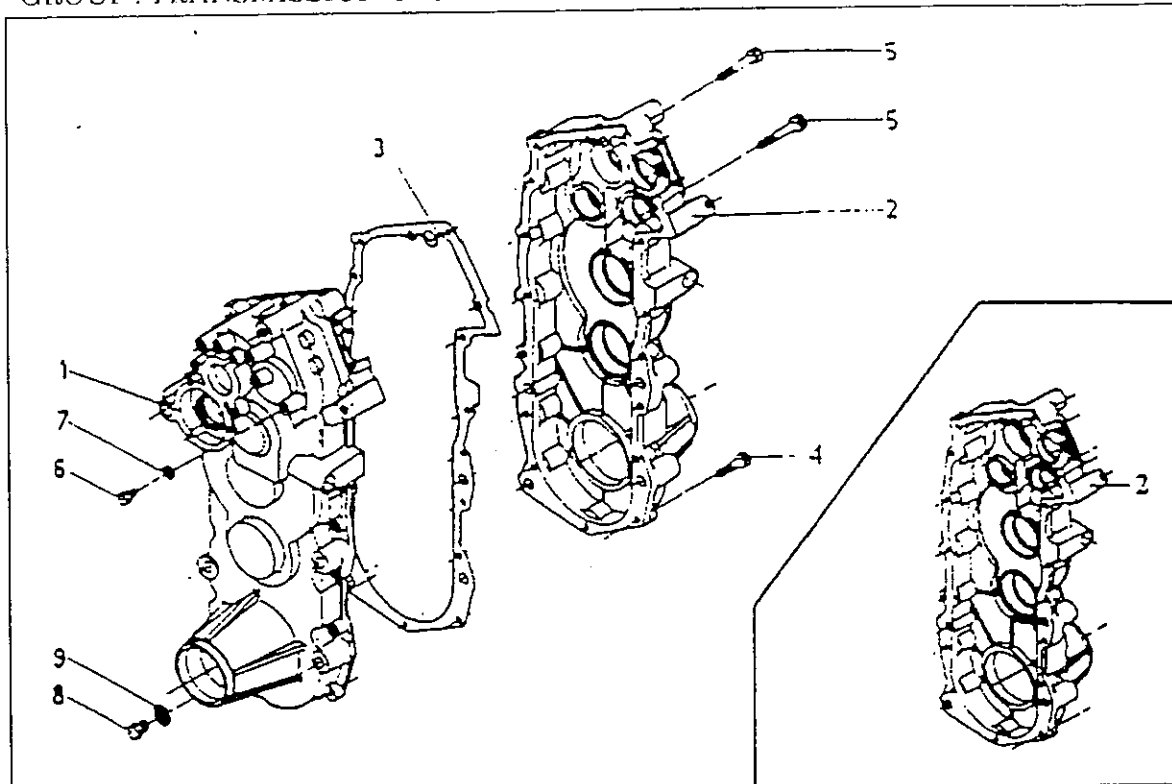
SK WALK-BEHIND TRACTOR

MODEL SKP 131



JICA PILOT PROJECT at MANATUTO, 2003

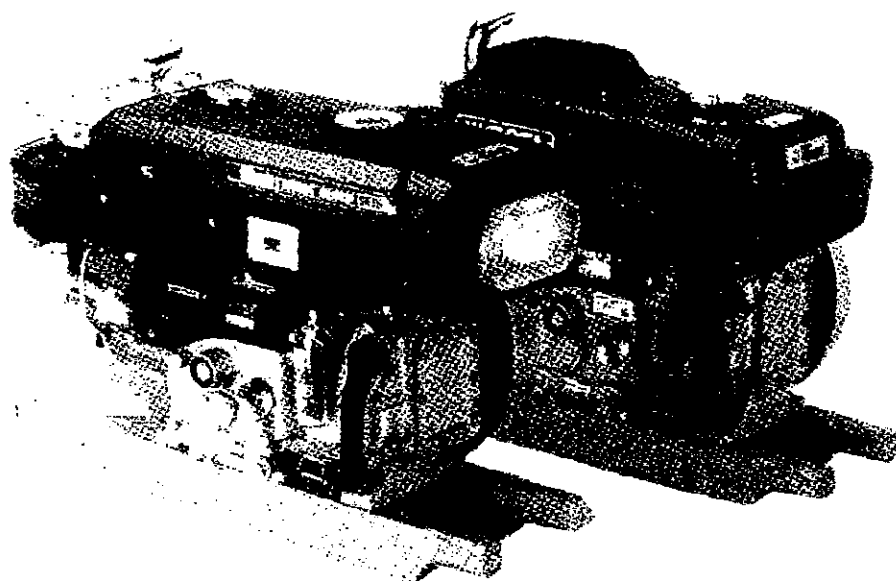
GROUP : TRANSMISSION CASE



No	Part No	Part Name	Quantity (Export)				Remarks
			NC:31	NC:31R	SKP:131	SKP:131R	
1	62735-11110	CASE, transmission, LH	1	1	1	1	
2	62735-11120	CASE, transmission, RH	1	-	1	-	
	62745-11120		-	1	-	1	
3	62735-11130	PACKING, transmission Case	1	1	1	1	
4	61123-50840	BOLT	15	15	15	15	
5	61123-50855	BOLT	2	2	2	2	
6	61150-56812	BOLT	1	1	1	1	
7	64717-60800	WASHER, seal	1	1	1	1	
8	62735-11150	PLUG	1	1	1	1	
9	64717-61200	WASHER, seal	1	1	1	1	

ILLUSTRATED PARTS LIST

KUBOTA DIESEL ENGINE



MODEL - ET 80

JICA PILOT PROJECT at MANATUTO, 2003

NOTICE

PURPOSE OF KUBOTA ENGINE PARTS LIST

1) TO ORDER PARTS BY CHECKING PARTS NUMBER AND PARTS NAME IN THIS PARTS LIST FOR CONFIRMATION THE ORDER.

2) WHEN THE PARTS ARE MODIFIED, THERE WILL BE CHANGED PARTS NUMBER AND REVISED PAGE OF PARTS LIST WILL BE ISSUED AND CARRIED TO THE NEW CODE

3) THE PARTS LIST IS SUBJECTED TO CHANGE WITHOUT NOTICE.

THIS PARTS LIST IS COMPILED FOR EACH MODEL AS FOLLOWS :-

MODEL OF ENGINE

ET 70	}	- ALL PURPOSE ENGINE (WITH RADIATOR TYPE. WITH LAMP)
ET 80		
ET 95		
ET 110		
ET 115		

ET 70H	}	- ALL PURPOSE ENGINE (WITH HOPPER TYPE. WITHOUT LAMP)
ET 80H		
ET 95H		
ET 110H		

CONTENTS

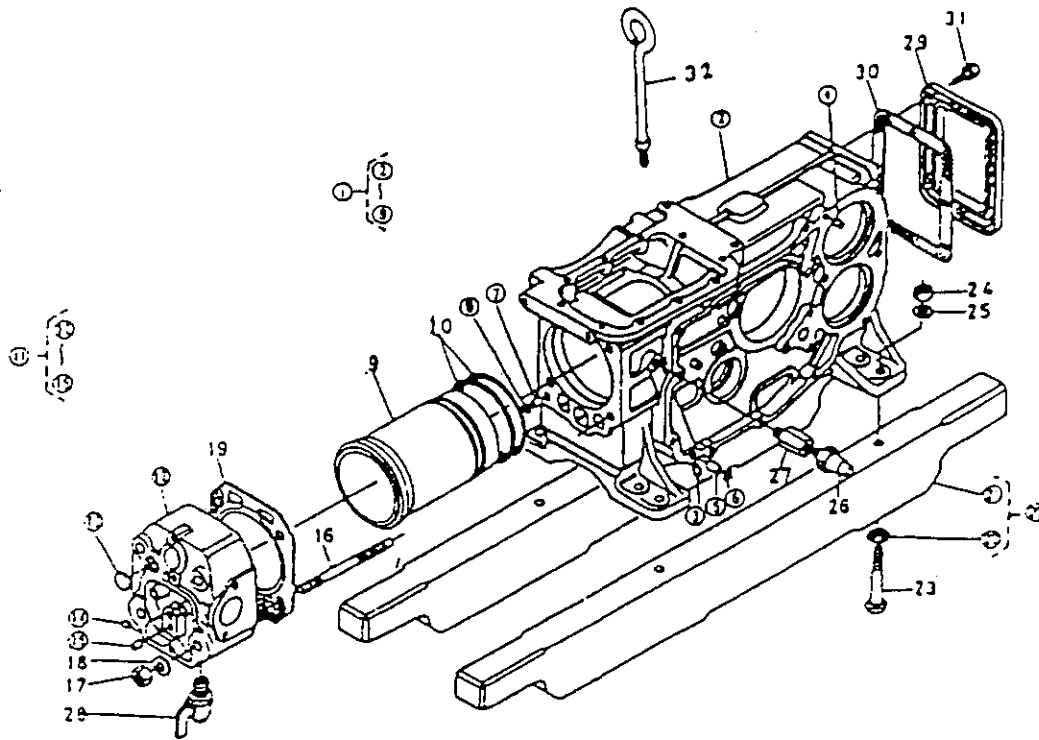
(FOR MODEL ET70, ET80, ET95, ET110, ET115)

	<u>PAGE</u>
1. CRANKCASE.....	1 - 3
2. GEAR CASE.....	4 - 5
3. MAIN BEARING.....	6 - 7
4. BREATHER.....	8
5. MUFFLER.....	9
6. VALVE, HEAD COVER.....	10 - 12
7. CAMSHAFT.....	13 - 14
8. PISTON, CRANKSHAFT.....	15 - 17
9. FLYWHEEL.....	18
10. NOZZLE HOLDER.....	19
11. FUEL PIPE.....	20 - 21
12. GOVERNOR.....	22 - 23
13. FUEL TANK.....	24 - 25
14. LAMP, BONNET.....	26 - 27
15. RADIATOR.....	28
16. FAN.....	29
17. TENSION.....	30
18. SIDE COVER.....	31 - 32
19. INJECTION PUMP.....	33 - 34
20. ASSY FUEL FILTER	35
21. PULLEY TENSION.....	36

(FOR MODEL ET70H, ET80H, ET95H, ET110H)

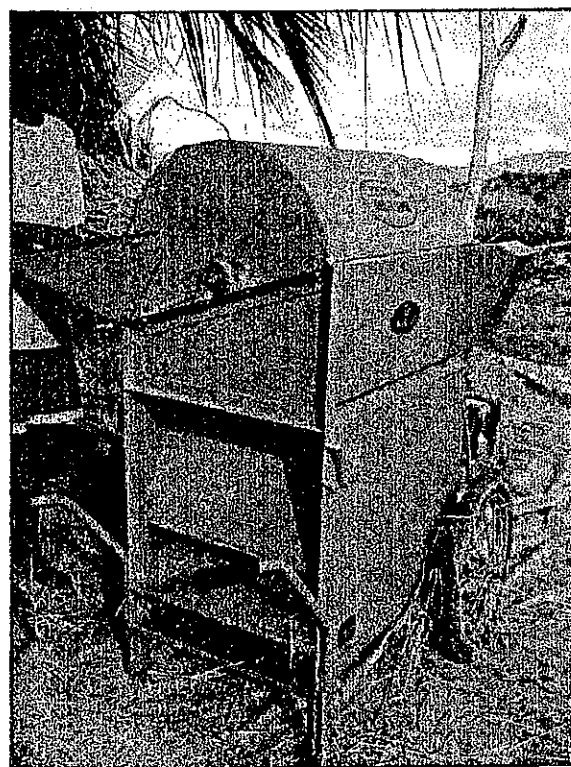
22. FUEL TANK.....	37
23. HOPPER.....	38
24. SIDE COVER.....	39

CRANKCASE GROUP



EF. NO.	PARTS NO.	PARTS NAME	UNIT				
			ET70	ET80	ET95	ET110	ET115
1	14911-01010	ASSY CRANKCASE	1	1			
1	14921-01010	ASSY CRANKCASE			1	1	
1	19090-12230	ASSY CRANKCASE					1
3	15261-96010	PLUG	2	2	2	2	2
4	05012-00612	PIN	1	1	1	1	1
5	14911-94930	PIN	1	1	1	1	1
	04811-00080	O-RING	1	1	1	1	1
7	14301-33950	PIN	1	1	1	1	1
8	04811-00080	O-RING	1	1	1	1	1
9	14901-02310	LINER, CYLINDER	1				
9	14911-02310	LINER, CYLINDER		1			
9	14921-02310	LINER, CYLINDER			1		
9	14931-02310	LINER, CYLINDER				1	
2	19090-15320	LINER, CYLINDER					1
10	14911-02350	O-RING, LINER	2	2			
10	14301-02350	O-RING, LINER			2	2	
10	04811-11001	O-RING, LINER					2
11	19103-03042	ASSY CYLINDER HEAD	1				
11	19104-03042	ASSY CYLINDER HEAD		1			
11	14921-03040	ASSY CYLINDER HEAD			1		

OPERASI MANUAL PERONTOK PADI MODEL : AGRINDO TPA 1000



Crisi-Crisi

- * Daya Mesin Mesin 5.5Hp
- * Terapa Pembantu 2 Orang Untuk Perontok Pad dan Mengisi Sak Beras Padi
- * Jents Penggunaan Desain yg Sederhana dan Tidak Memerlukan banak tenaga Serta Kewaspadaan dlm timbulnya Masalah
- * Perontok dan Gabungan Sayap Penampi Sistem Perontokan telah tergabung bersama jengan Tiupan Udara dan Sekitin Sistem Pembersih
- * Keringanan Mesin Jorsa di dorong oleh Seorang Saja. Pasak Kemudi tersusun rapi dan Keringanan Pada Semda Bodi.

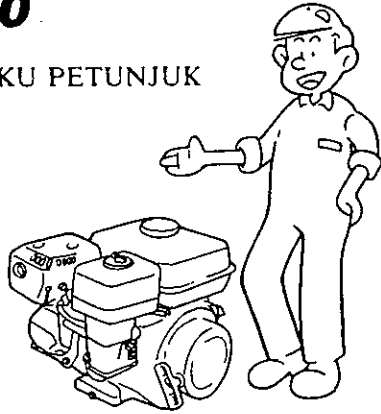
Spesifikasi/Perincian

1. Tenaga	: HONDA GX 160 5.5 Hp Bahan Bakar Bensin
2. Tipe	: Aliran Aksial Fan, 340mm diameter
3. Berat (dengan Bensin)	: 147 kg
4. Panjang	: 2,030mm
5. Lebar	: 1,175mm
6. Tinggi	: 1,415mm
7. Kapasitas Kerja	: 270 – 370 kg intake Padi/Jam
8. Daya rontok Butir Padi	: Kurang dari 4%
9. Oemisahan Pendapantan	: 98% (Berat dasar)
10. Silinder (Sistem Pembuka)	: Paku besar 7 pieces/bar x 8 bars, 394mm Diluar Diameter 725mm Panjang
11. Konstruksi	: Long life all steel
12. Komponen Kecepatan	: 600 – 650 rpm
13. Pengipasa (Kipas)	: 800 rpm
14. Pemakaian Bahan Bakar	: Kira-Kira 1 liter/Jam

HONDA

GX160

BUKU PETUNJUK



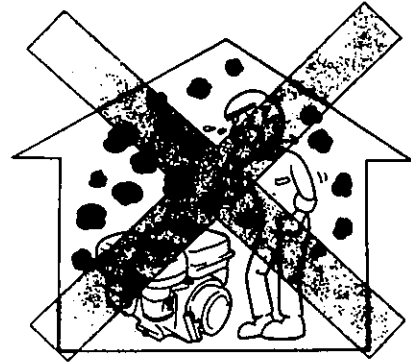
© HONDA MOTOR CO. LTD. 1992
39ZH9702
00X39-ZH9-7020

K1

N AP 9504

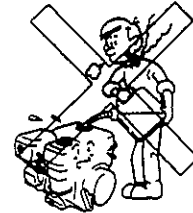
I. PETUNJUK UMUM KESELAMATAN

DILARANG MENGHIDUPKAN MESIN DI

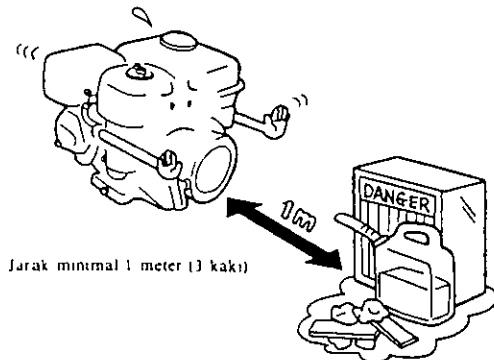


JAUHKAN DARI BAHAN-BAHAN YANG

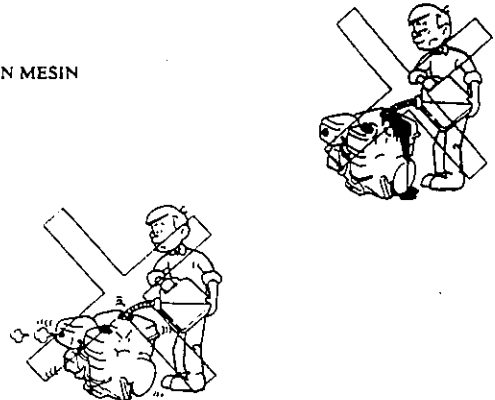
DILARANG MEROKOK



JANGAN SAMPAI TUMPAH



MATIKAN MESIN



SATAKE

PETUNJUK MANUAL

MOBILE UNIT GILING PADI

MODEL : SB 10D

Lahan Percobaan JICA di Manatuto

**MOBILE UNIT GILING PADI
MODEL : SB 10D**

DAFTAR ISI

A. Mesin Giling

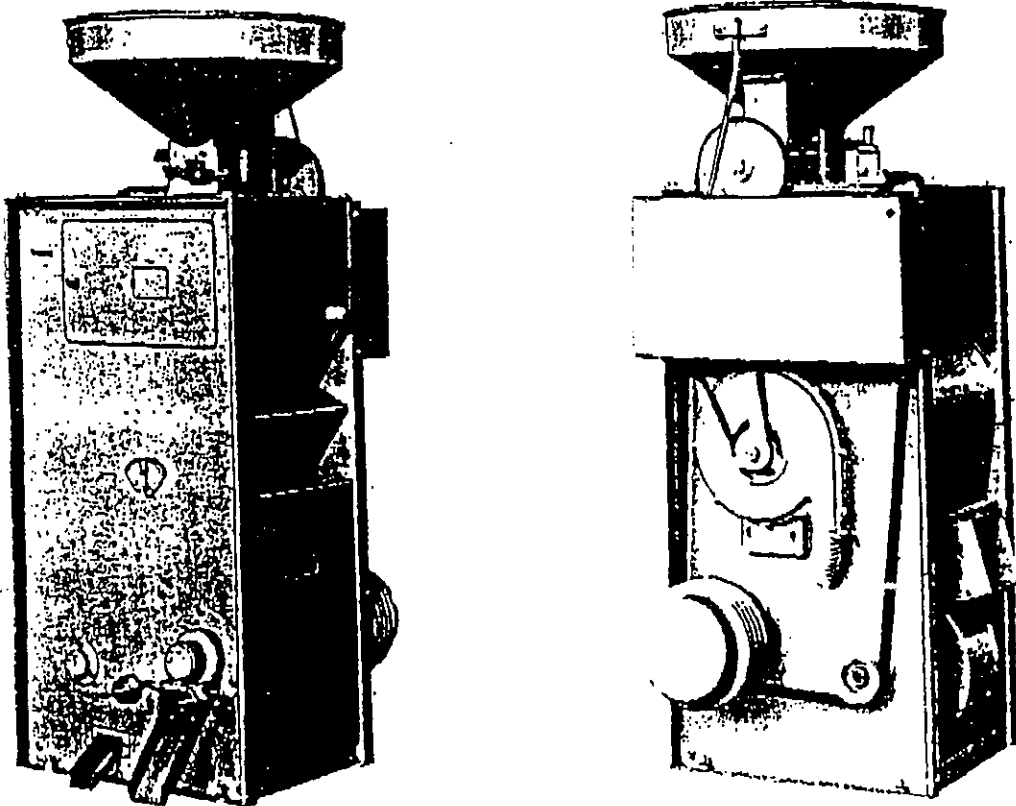
I. CIRI – CIRI.....	1
II. SPESIFIKASI.....	2
III. SUSUNAN.....	3
IV. INSTALASI.....	5
1. Bagian baja dari Dasar Mesin.....	5
2. Tenaga untuk Penuaian.....	5
V. PERCOBAAN OPERASI.....	5
VI. PERSIAPAN UNTUK OPERASI.....	6
1. Gulungan per penyetel.....	6
2. Gulungan Karet Penyetel Jarak.....	6
3. Penyetelan tekanan Sabuk.....	6
VII. OPERASI.....	7
1. Pengatur Cahaya, Regulasi arus Klep dan tahanan.....	7
2. Isi Padi.....	7
3. Membuka Pengatur Cahaya dan Arus Regulasi.....	7
4. Regulasi arus Beras Putih.....	7
5. Perbandiangan sekam (U'ut).....	7
6. Pemisahan Penyetel Klep.....	7
7. Regulasi Klep Pengisi Udara.....	7
8. Mencocokkan Ketahanan Pelat Dengan tahanan.....	7
9. Tahanan Operasi.....	7
VIII. PEMELIHARAAN (Mantencao).....	9
1. Penukaran Dan Pemasangain Kembali Gulungan Karet.....	9
2. Membersihkan Kipas.....	9
3. Daftar Pemeliharaan.....	9

4. Pemeliharaan Kunci.....	10
5. Membongkar Mesin Giling Dan Sekrup Gulungan Kawat (Besi).....	10
IX. PEMAKAIAN ALAT-ALAT.....	11
X. PEDOMAN PERMASALAHAN DAN PENGELESAIANNYA.....	12
B. MOTOR DIESEL	
I. GARIS DIMENSI.....	14
II. NAMA-NAMA ALAT.....	15
III. PERINCIAN POKOK.....	16
1. Keterangan Teknikal.....	16
2. Klep Pengatur tempo.....	16
3. Penyusunan Jarak alat-alat Induk.....	17
IV. SELEKSI UKURAN KATROL.....	18
V. OPERASI.....	19
1. Persiapan KerJa.....	19
1.1 Oli Diesel.....	19
1.2 Minyak Pelumas.....	19
1.3 Air Pendingin.....	20
1.4 Mengurangi Udara dari bahan bakar.....	20
2. Starting (Start, Hamoris).....	21
3. Mesin HIDUP.....	22
4. Menhentikan (Hamate).....	22
VI. Pemeliharaan (Mantençaõ).....	24
VII. Masalah dan Penyelesaiannya.....	25
1. Susah untuk start atau Gagal untuk start.....	25.
2. Ketidak cukupan tenaga.....	26.
3. Mesin Mogok (falha).....	26
4. Lain-lain.....	27.

A. MESIN GILING

I. CIRI-CIRI

1. Satu-Satunya sistem untuk Melakukan proses pengupasan, Pemisahan sekan (Hare kulit) dan Beras Murni, Beras putih dan kulit di pindahkan oleh Satu Mesin saja.
2. Sejak butir padi di Satukan oleh tekanan udara yang tinggi Maka akan Meghasilkan beras putih yang Murni.
3. Pembuatan Mesin ini Sederhana (Simplis) dan tersusun rapi.
4. Dua Instalisi Kerja dan Operasinya (Pengunaanya) Sangat Gampang.
5. Keributan (Barulhu) dalam operasi Sangat Sedikit.



B. MOTOR DIESEL

I. GARIS DIMENSI

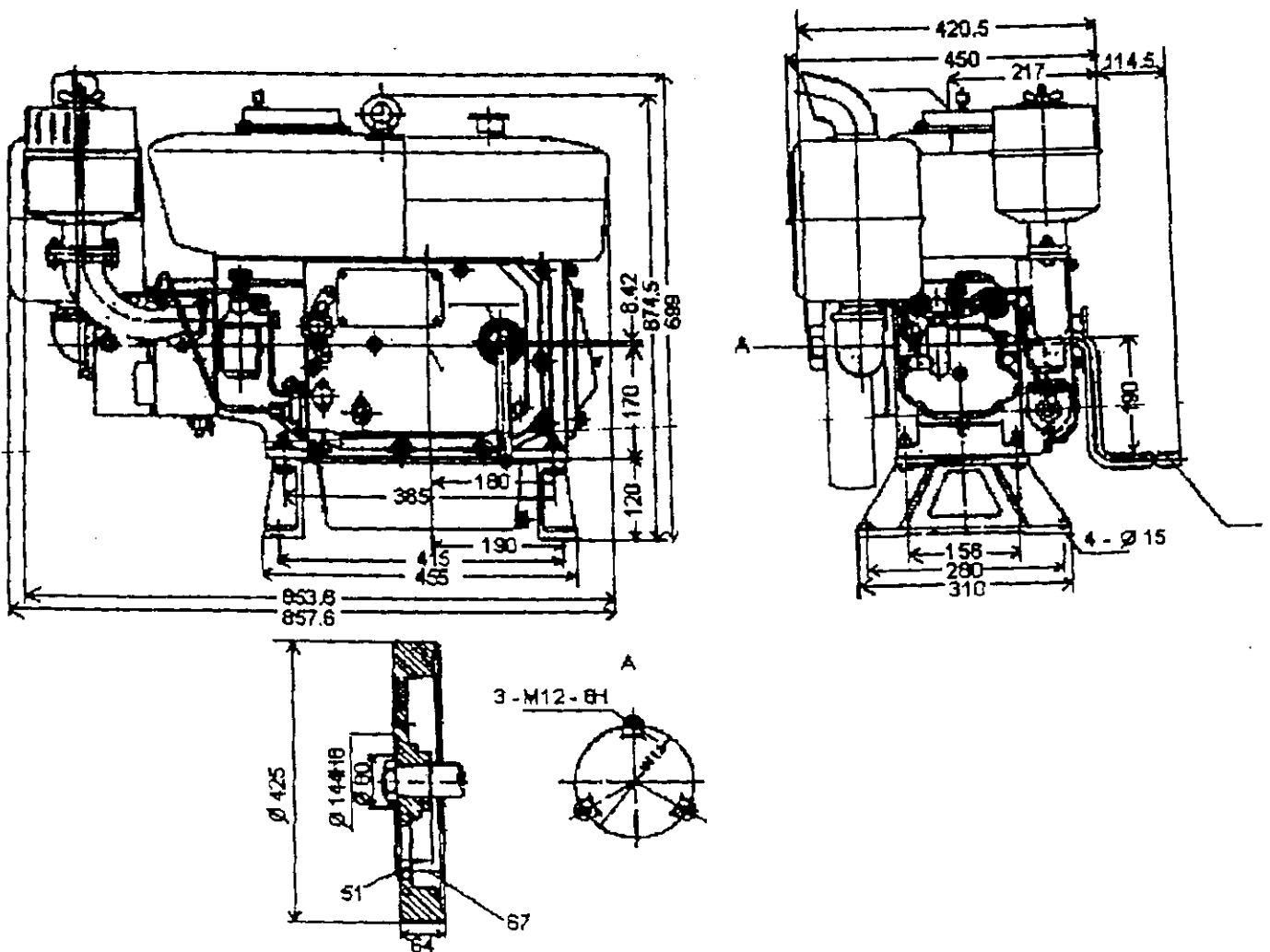


Fig. 14 Gambar Luar Dimensi Motor Diesel

**SATAKE
DAFTAR BARANG**

MOBILE UNIT GILING PADI

MODEL: SB 10D

LAHAN PERCOBAAN JICA DI MANATUTO

KONTEKS

Halaman

A. UNIT MESIN GILING (MODEL : SB 10D)

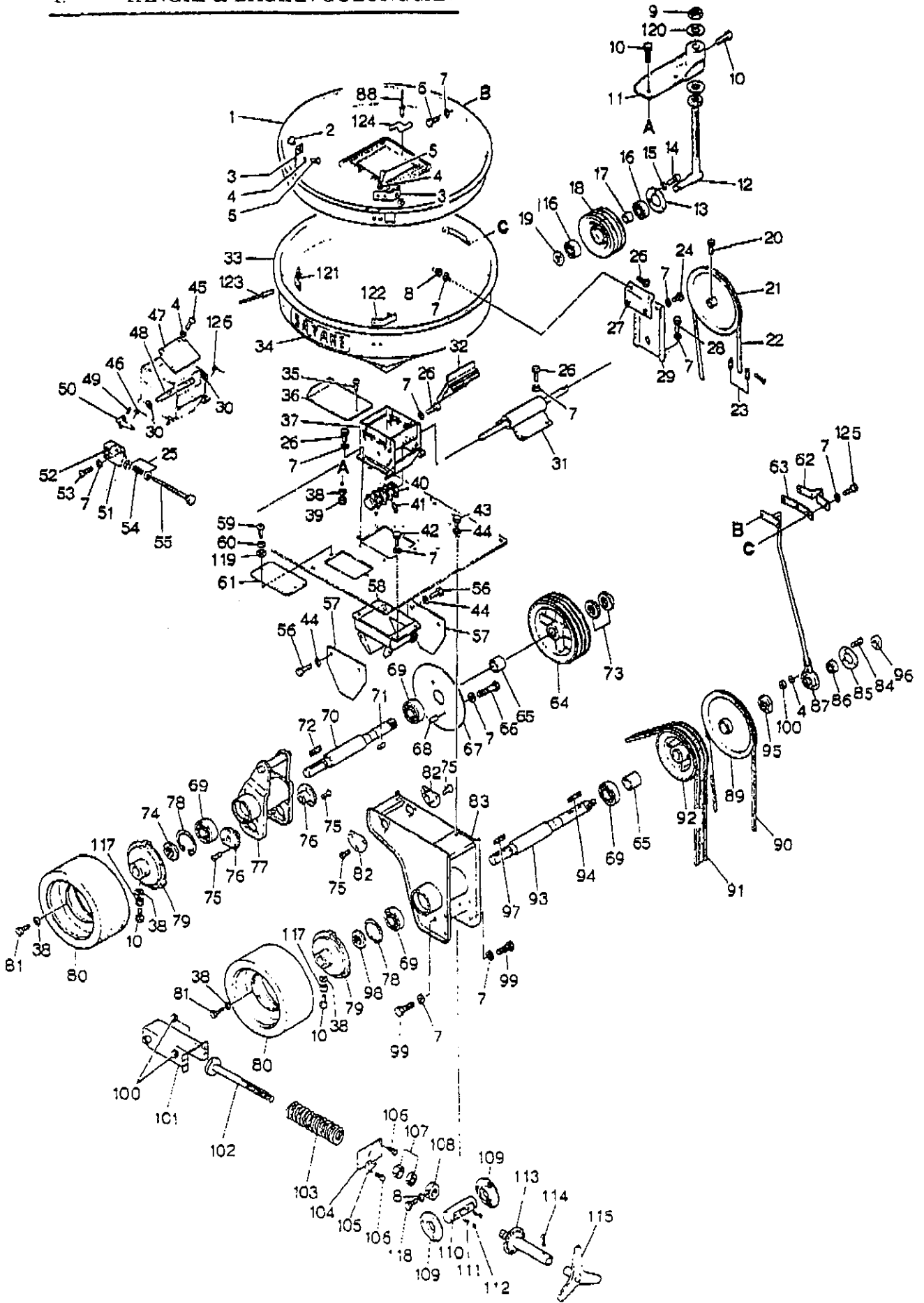
I.	TANGKI & BAGIAN GULUNGGAN.....	1
II.	BAGAIAN BATANG INDUK.....	6
III.	BAGIAN INDUK BODI.....	10

B. MESIN DIESEL (MODEL : R-220H)

I.	SAMBUNGAN BLOK SILINDER (I).....	13
II.	SAMBUNGAN BLOK SILINDER (II).....	15
III.	SAMBUNGAN POROS NOK.....	17
IV.	SAMBUNGAN KEPALA SILINDER.....	19
V.	PISTON DAN SAMBUNGAN BALOK.....	21
VI.	BATANG ENKOL DAN MEKANIS RODA BERAT (I).....	23
VII.	BATANG ENKOL DAN MEKANIS RODA BERAT (II).....	25
VIII.	SAMBUNGAN ATAP (TANKI).....	27
IX.	SISTEM BAHAN BAKAR.....	29
X.	SAMBUNGAN LIS FIR.....	31
XI.	SISTEM PELUMAS.....	34
XII.	SISTEM PENASAPAN.....	36
XIII.	SISTEM INDUK.....	38
XIV.	INJEKSI POMPA BAHAN BAKAR.....	40

A. UNIT MESIN GILING (MODEL : SB 10D)

I. TANGKI & BAGIAN GULUNGGAN

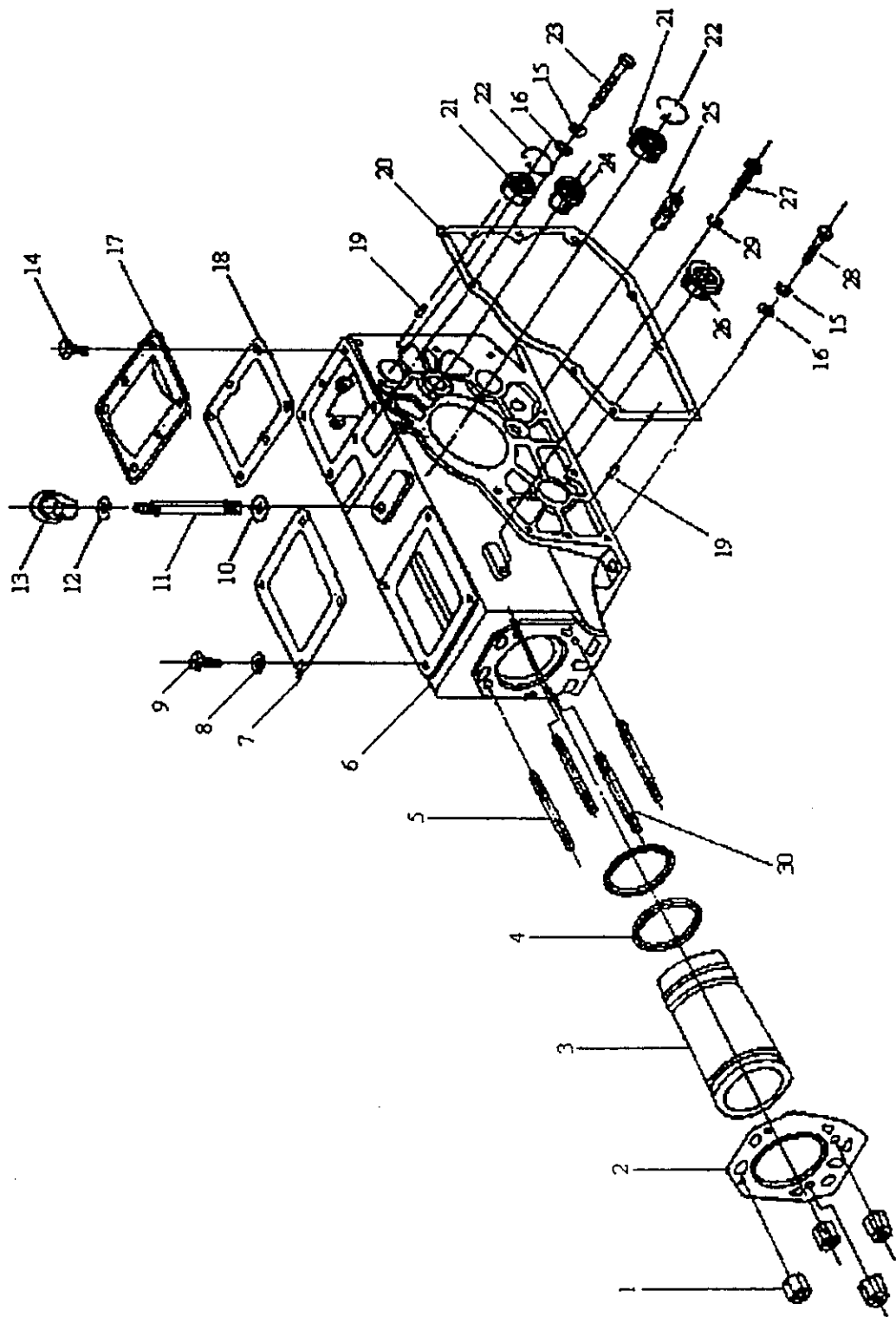


I. TANGKI & BAGIAN GULUNGGAN

KEY NO	PARTS NO	PARTS NAME	NOS. USED PER SET	PRICE
1	0651029	Getaian Skrin	1	
2	0651167	Busi	2	
3	0651117	Penyuap (A)	2	
4	EDA05	Pembergih, M5	9	
5	EAA05012	Baut Bersegi Enam, M5x12	4	
6	EAA06012	Baut Bersegi Enam, M6x12	2	
7	EDA06	Pembergih, M6	36	
8	EBA06	Mur Bersegi Enam, M6	3	
9	EBK2415	Mur Bersegi Enam, M24x1.5	2	
10	EAA10025	Baut Bersegi Enam, M10x25	7	
11	0651032	Gikap Patil	1	
	90651127	Bagran, Penyuapan Batang Penemu	1	
12	* 0651127	Roundana	1	
13	* 0133004	Ptutupan Gikap	1	
14	* ECK05012	Skrup Penjepit Mesin, M5x12	3	
15	* EDA05	Pembergih, M5	3	
16	* FC110204	Megin Giling Gilas, 6204DDU	2	
17	* 0504062	Kerah	1	
18	* 0587028	Peneqan Katrol (takai)	1	
19	* 0112204	Mur, Mzo, Trip tanqqan kiri	1	
20	EAA08020	Baut Bergiqi Enam, M8x20	1	
21	0651014	V. Katrol (Takal)	1	
22	FD15000A	Ikat pinqqanq Berlubanq, TipeA	100 cm	
23	FD15010A	Set Piringqan Unfuk pinqqang berlubanq, TipeA	1	
24	EAA06016	Baut Persegi Enam, M6x16	2	
25	0463065	Tempat pegas	2	
26	EAA06012	Baut Persegi Enam, M6x12	14	
27	0651128	Pelat 2	1	
28	BAA06010	Baut Bersegi Enam, M6x10	2	
29	0651126	Pelat 1	1	
30	EDB10	Pembergih Paratan, M10	2	
31	90651132	Pengguinq Kaki Paril	1	
32	0504132	Maqnet Pemisah	1	
	90651077	Pebmpat Penemu	1	
33	* 0651077	Pebmpat	1	
34	* 0118367	Nama piringanq	1	
35	ECK04006	Sekrup Penjepit Mesin, M4x6	1	
36	0504136	Penqatur Cahaya	1	
37	0651010	Pelompat Maruk	1	
38	EDA10	Pemberigih, M10	12	
39	EBA10	Mur Persegi Enam, M10	2	
40	0651022	Penqqulung Makanan	1	

B. MESIN DIESEL (MODEL : R-220H)

I. SAMBUNGAN BLOK SILINDER (I)

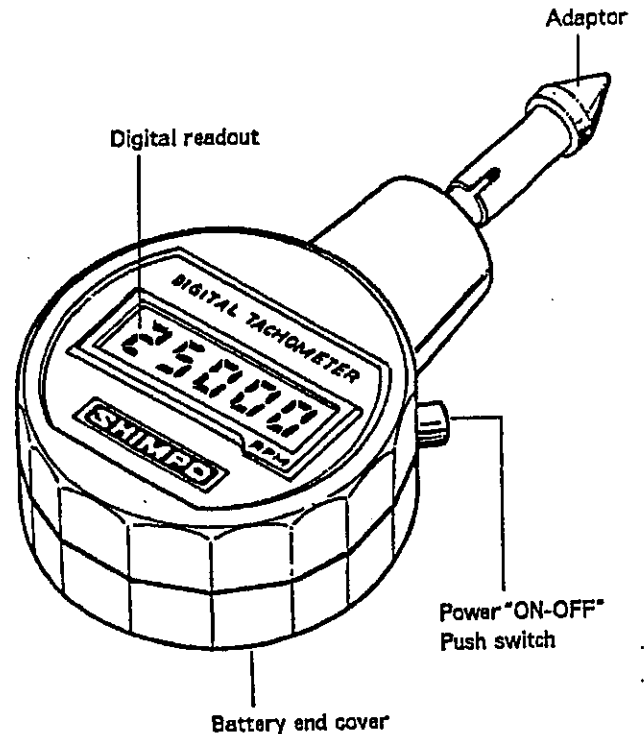


I. SAMBUNGAN BLOK SILINDER (I)

No.	Name of Parts	Part Number	Qty.
1	Cylinder head nut	S1110-01001	4
2	Cylinder head gasket	S1110-01003	1
3	Cylinder liner	S1110-01004	1
4	Cylinder liner water seal ring	S1110-01005	2
5	Cylinder head stud	S1110-01002	2
6	Cylinder block	S1110-01101	1
7	Hopper packing	S195-01007	1
8	Washer	GB97.1-85	4
9	Hexagonal bolt	GB5783-86	4
10	Washer	S195-01008	1
11	Lifting stud	S1110-01005	1
12	Washer	GB97.1-85	1
13	Lifting eye nut	S195-01010	1
14	Hexagonal bolt	GB5783-86	6
15	Washer	GB93-87	15
16	Washer	GB97.1-85	15
17	Upper cover of the cylinder block	S195-01011	1
18	Packing sheet of upper cover	S195-01012	1
19	Locating pin	GB119-86	2
20	Gear casing packing	S1110-01011	1
21	Bearing	GB276-82	2
22	Circlip	S1110-01010	2
23	Hexagonal bolt	S195-01034	3
24	Starting shaft bushing	S1110-01102	1
25	Speed governing gear shaft	S1110-10105B	1
26	Camshaft front bushing	S195-01018	1
27	Hexagonal bolt	GB5783-86	1
28	Hexagonal bolt	GB5782-86	6
29	Washer	GB93-87	1
30	Cylinder head stud	S1110-01012	2

Digital tachometer Genqqam

- Tergugun rapi, sederhana dan ada penerangan (lampu) ditambah digital tachometer yg akurat.
- Mulai terhitung dari 1 sampai 25,000 rpm (FPM, YPM, MPM) dalam bentuk LCD 5 buah penunjuk . Dan berat benda 9mm.
- Ketelitiannya ± 1 rpm.
- Setiap keterangan akan berubah setiap detik secara atomatik.
- Gunakan C-MOS serta funqqinya yg merupakan Hai yg tahan uji serta kekuatan daripada baterai akan semaktu melonlak (tinqqi).



TINDAKAN PENCEGAHAN DAN KEAMANAN

Sebelum menqqnakannya, terlebih dahulu bacalah pedoman ini secara Hati-Hati san tindakan pencegahan untuk keselamatan keamanan dan bunyi penqqunaan.



Perinqatan

Bila tidak Hati-hati munqqtu akan menqqakibateran luka yg serivs atau nyawa melayanq.



Perinqatan

Bila tidak beghati-Hati dalam beberapa Hai biga menqqakibatkan kecelakan yo loerat.



Peringatan



Penyetelan adaptor dan sekeliling potongan persneling secara langsung atau secara tegak lurus pada putarannya.

Bila anda menyetel adaptor secara miring atau pada penikunannya, maka batang adapter akan berhenti dan mungkin juga akan menghantam tangan anda dan hal itu akan mengakibatkan luka.



Bila anda gunakan perpanjangan, perikalah putarannya, harus kurang dari 2000 rpm.

Untuk desain yang secukupnya, ukurlah hingga 10000 rpm bila mungkin, bagaimanapun gunakanlah 2000 rpm untuk alasan keamanan atau keselamatan.



Sebelum menqukur, periksalah dahulu adaptor sebaik mungkin, pasanglah pada batang penqukur.

Bila adaptor telah di pasang pas dan lonqqar pada batang, mungkin batang adaptor akan berhenti mendadak dan mengenai jari atau tangan anda dan bisa berakibat luka.



Bila anda menyetel adaptor ke dalam putaran, kontaklah adaptor ke batang pemutar secara tenang dan halus dan jangan secara kasar dan terpaksa.

Penggunaan secara paksa akan mengakibatkan hal yang tidak baik pada adaptor atau tachometer akan menubrunk putaran batang, dan bisa mengakibatkan akgiden.



Jangan gunakan atau menoperari benda ini bila tangan anda basah untuk menghindari kecurutan, tangan jangan licin atau berminyak sebab bisa mengakibatkan akgiden (luka).



Jangan lakukan penqukuran apabila gigi adaptor tidak di letakan dalam gigi pas tenqqah daripada putaran. Penggunaan adaptor pada putaran secara paksa akan berakibat fatal atau akgiden.



Perhatian



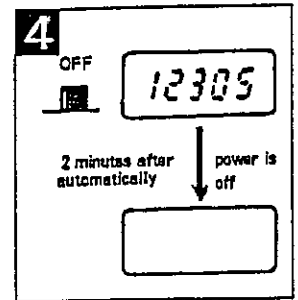
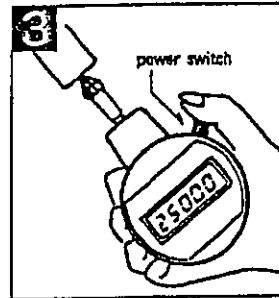
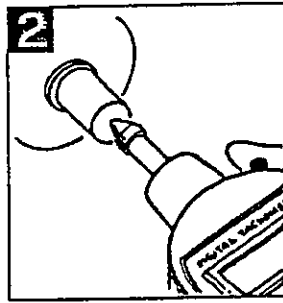
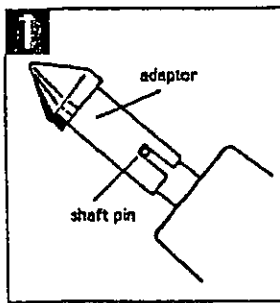
Jangan menyentuh adaptor waktu penqukuran berlangsung sebab bisa menyeret tangan anda pada putaran batang adaptor.



Untuk perpanjangan batang tidak bisa digunakan untuk pada sekeliling potongan (Disk) persneling (kecepatan)

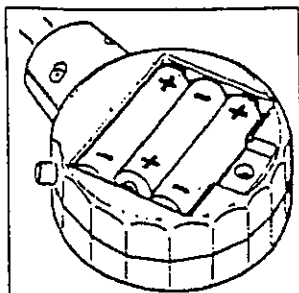
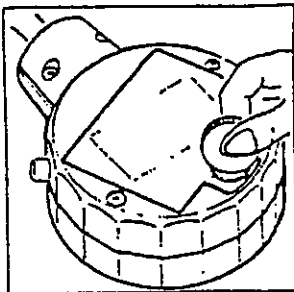
UNTUK MENGUKUR

Instrumen ini EE-1 mudah di igi dengan bateri.



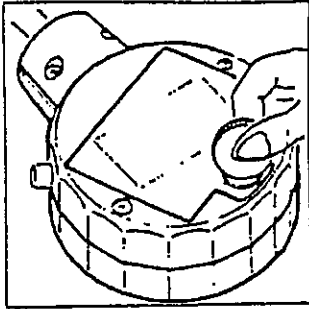
1. Tempatkan secara banar adaptor pada batanq instrumen dan tekan hidup. Pastikan penitinya lurus pada batanq dengan lubang adaptor.
 - Untuk menqukur datarankecepatan, pilinlan dengan tepat pada dataran kecepatan adaptor.
2. Pogigi adaptor pas tenqqah, pada putaran batanq secara banar.
 - Saat menqukur permukaan kecepatan, gunakan permukaan kecepatan adaptor daripada bagunq atau conenq adaptor.
3. Tekanlah "Power" dalam keadaan hidup dan terus menekan. Penqukuran akan secara otomatis bertukar dan berganti setiap detik.
 - Setrap nomor yq berganti - ganti - keterangan akan terdapat poin degimal (persepuluhan).
4. Power akan secara otomatis mati. Dalam 2 menit sesudah power ditekan mati (Off)
 - Bahkan sebelum 2 menit mati, anda dapat memulai kembali penqukuran yq baru.
 - Apabila "Power" ditekan hidup (On) data-data atau keterangan sebelumnya akan tertunda.

UNTUK MEMAGAN BATERI



1. Bateri persenelinq rendah biga menqakibatkan cahaya lampu hidup tidak teratur (cahaya kelap-kelip) pada lampu indikagi "B". Apabila hu terjadi tarulah semua bateri pada tempatnya.
2. Pindah kan bateri dan kanqqinkan dengan oben atau loqan.
3. Magukan tiqq bateri kering, amatilah dengan tepat muatan kutub bateri yo berlawanan. (Perhatikan dengan banar, muatan kutub yo berlawan dengan teliti)

UNTUK MENQUR DATARAN KECEPATAN



- Pilihlah dengan tepat ukuran yo seguai, untuk perhitunqan seperti (FPM, YPM, MPM) dilikuti denqan instrukgi untuk menhitunq RPM.



Untuk keselamatan, hiudari perhitunqan yo tecepat lebih dari 200m/merit.



Untuk menqukur kecepatan yq salah, luruskan secara tepat instrumen denqan putarannya. Jamqar menqukur miring sebab dapat menqakibatkan kerusakan atau mematikan kontaktor (Penqquna).


SPEKGIFIKAGI

Jarak hitunq	: 1~25,000 rpm (kecepatan berkisar: 0~200m/min.) * Tambahkan gama denqan kecepatan dataran FRM, YPM, MPM, denqan adoptor yo tepat.
Penunjuk	: 5 tombol, Besarnya 7 bagian LCD.
Penelitian	: 1~5,999 rpm :±1 rpm/6,000~25,000 rpm :±2 rpm
Waktu Perolehan	: 1 Detik (crystal peuqontrol) * 3 Detik, Saat 1 rpm terbaca.
Temperatur	: 0~45°C
Bateri	: 1.5V. AA Akikering x 3 bh.
Dimensi	: 137 x φ 74 x 32 mm
Berat	: 200g denqan baterai
Perlenqkapan	: AKI kering Bateri (3bh), Adoptor : Kerucut (2bh), Penyalur (1bh), Pendatar Kecepatan Adoptor 100mm (1bh).

Alat Pengetes Kelembaban Butir padi

Model: Riceter J

Petunjuk Manual

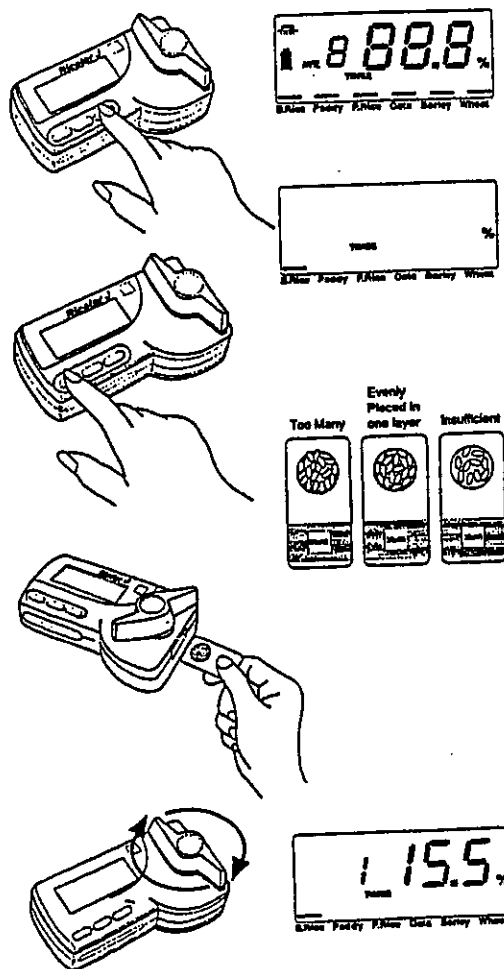
Pertama, angka waktu tlanis "8 TIMES 88.8%", Dan tanda. Tanda lainnya akan terlihat pada saat anda telah menekan "POWER" dengan Jari anda, apabila tak ada tanda-tanda  Hu berarti baterai telah soak atau kehabisan tenaga, Mana Gantilah baterai Yo baru ke tempatnya Seguai Petunjuk yo terqambar di kamar Bateri.

Tenanlah "SELECT" Hinqqa indicator selengi dari Penqetesan kelihatan pada dasar penunjuk. Ambil satu sendok penuh dengan butiran padi untuk Melakukan Tes atau penqukuran dan tempatkan secukupnya pada tempat contou percobaan.

Catatan: Untuk Menghindari kekeliruan, jangan Menqunakan Butiran padi Mentah atau yo telah rusak.

Putarlah tombol penhancur, yo berlawanan dengan jalan jarum jam dan Masukkan contoh yo akan dites kedouam ruang atau kamar percobaan. Putarlah tombol penhancur Hinqqa bethenti Penhancuran yo baik. Dapat dipercaya dayamuat dari pada kelembaban akan terbaca lanqgun setelah Tes tanpa menqunakan penqubahan pada tabel.

Trap indikator yo berikut maginq-maginq memiliki arti yo penting. Lampu peneraq akan Menyala Pada 2 Detik. Setelah tombol "POWER", di tekan dan 4 detik pada saat daya muat kelembaban telah mulai atau melakukan penekanan pada tombol "SELECT". Indikator baterai, setelah tombol power ditekanmaka menjelang dua detik. Indikator ini akan keluar.



 Illumination Indicator



Battery Indicator

Full



Half



Empty



Over Indicator



Under Indicator



Selection Indicator

Atas indikator “ \cap ” ini akan muncul pada saat daya muat kelembaban dari pada contoh tes (sampel) melebihi batas kamar tes daripada jarak ukurannya, atau terjadinya masalah dengan penqukuran awai atau ketidak beresan lainnya.

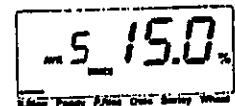
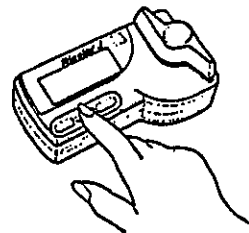
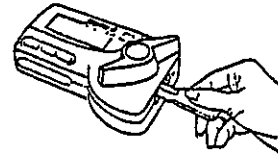
Indikator bawah “ \cup ” ini akan keluar pada saat daya muat kelembaban dari pada contoh tes menurun daripada jarak ukurannya, atau kontak antara tanqqan dan bagian metal daripada unit pertama hilang atau lemah.

Catatan: Bagian atas atau bawah indikator biga juga menunjukkan guatu peristiwa prosedur dari pada pengukuran telah ugai atau telah dilakukan tanpa mengisi contoh tes kedalam tempat pengetegan (sampel). Ada kondengangi didalam tempat atau kamar testing. Atau. igolagi atau penyekatan sangat kurang (lemah) pada kelembabam yq bertemperatur tinqqi “soiling”, apabila ini terjadi, bergihkan sepenuhnya kamar atau tempast testing dan keringkanq dengan teliti akan adanya penquapan kalau ada uap, oas, kelembabam.

Rata-Rata daya muat kelembaban dari 2-9. Ranqkaian tes menunjukkan saat “AVE” telah ditekan Dalam 2 menit sesudah tes. Dalam hai ini “ \cap ” atau “ \cup ” berarti bertanda, test tidak sempurna. Nomor atau anqka akanterlihat pada bagian kiri pada digital tersebut. Tetapi pada seterusnya nomor atau anqka hagil tes akan kembali pada “1”.

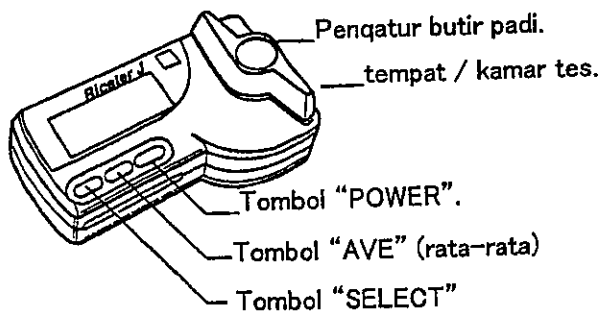
1. Lebih dari dua 2 menit berlalu setelah tes.
2. Setelah test selegai menujjukan “kira-kiranya”.
3. Qebih dari 9 test yq dilakukan.

Sesudah setiap penqukuran, bergihkan tempat tes, penqatur, san sampel percobaan dengan bantuan sikat (ESKOBA).



Riceter model "J" selalu memungkinkan-pada penqqunq untuk teliti dlm penqukuran daya muat kelembabam 3 dari 7 jenis biji padi tempa menqunakan perubahan meja. Mode "J" membutuhkan peqquna untuk meninsert contoh tes atau sampel, dan memutarkan unit penqatur thrqqa berhenti. Semua prosedur yq ada bergifat atomatik, denqan dibanqun penqqolahan cara, temperatur penqanti dan sengitit guna penargiran dalam tantutan.

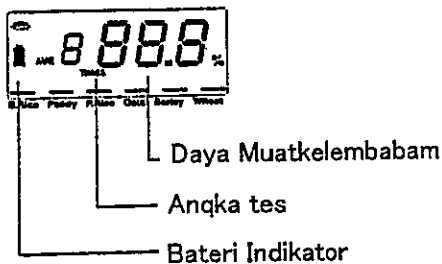
Bentuk alat



Spekgifikasi

- Dasar ukuran : Ketahanan Listrik
- Indikagi : Digital penunjuk
- Ketelitian Ukuran : S.E.C : 0.5% (9~20%)
(standar daripada penqujian)
pertimbangan dengan ukuran daigar
- Temperatur penganti : Ranqkap dua otomatis
- Bateri : 4 buah x 1.5 V (ukuran "AA")
- Dimengi : 164 (W) x 94 (D) x 65 (H)
- Berat : Kira-kira, 443g. Bergih

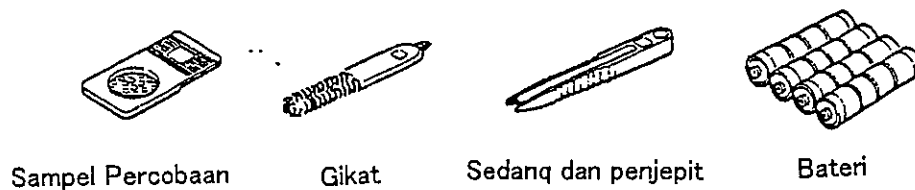
Penunjuk



Perlenqkapan

2 buah sampel percobaan / 1 buah gikat / 1 buah sendok denqan penjepit / 4 buah bateri "AA" / Petunjuk Manual

Perlenqkapan



ANNEX I. EXCHANGED AGREEMENT

ANNEX I. EXCHANGED AGREEMENT

Issues of Agreement for the Pilot Project in Manatuto **in** **the Study on Integrated Agricultural Development of East Timor**

December 5, 2002

JICA Study Team had the planning workshop from November 25 to November 29, 2002 related to the implementation of the Pilot Project in Manatuto Irrigation Scheme, with the representatives of farmers' groups and water users association (WUA), MAFF central and the district staff, CARE staff and JICA East Timor Office staff.

In the courses of the workshop, the following issues were agreed among the above mentioned stakeholders for implementing the project effectively:

- The Pilot Project shall be implemented through the participatory approach, i.e., with the active participation of the farmers to all stages of the project.
- The implementation period of the project shall be from November 2002 to June 2003.
- The project purpose is the capacity building of the farmers on rice production technologies and management of farmers' groups. The major project activities are divided into four components; (1) Production Technologies of Rice, (2) Farm Mechanization, (3) Irrigation Canal, and (4) Water Management.
- The activities of "Production Technologies of Rice" and "Farm Mechanization" shall be centered in a demonstration farm to be set up in the project area. The activities of "Irrigation Canal" and "Water Management" shall be centered in Inkeru Secondary Canal.
- The land for demonstration farm shall be offered by Mr. Sebastian de Carvalho. The size of the farm shall be 2 ha in max. The harvested products from the demonstration farm shall belong to Mr. Sebastian.
- JICA Study Team shall supply the project with the necessary inputs such as seeds, fertilizers, pesticides (if needed), fuel for farm machineries (power tillers, thresher and rice mill), cement for division box, and canal cleaning tools. The farmers shall offer the project with free labor for the necessary activities, including the cleaning of Inkeru Canal.
- The farmers shall bear a part of the costs for the above inputs, namely the introduction of a cost-sharing system. The intention of the system is to help sustain the project activities for long time. The collected money therefore shall be used exclusively for the project activities which the farmers shall continue after June 2003.
- The collected money shall be deposited in an authorized account or place under the

management of a treasurer to be designated by the farmers' groups.

- The details of the necessary inputs, the activities requiring labor and those quantities, and the rates of cost-sharing shall be discussed further by JICA Study Team and the farmers. The results of the discussion shall be summarized in paper and signed by JICA Study Team and the farmers.
- JICA Study Team and the farmers shall also discuss about a water fee, and if possible, the water fee shall be collected from the beneficiary farmers. The intention of the water fee collection is to maintain Manatuto Irrigation System in a good condition for long time.
- Three farmers' groups shall be set up for "Production Technologies of Rice" and "Farm Mechanization" Components, and the total members shall be 35. Another farmers' group shall be set up for "Irrigation Canal" and "Water Management" component, and the total members shall be between 43 and 60. The members of all groups shall be selected from the whole area of Manatuto Irrigation Scheme as the representatives of the farmers in their areas.
- In relation to the project activities, study tours shall be conducted once a month to take the farmers to advanced areas in East Timor.
- A small house shall be constructed for conducting trainings and storing the inputs and other materials. The land shall be offered by Mr. Sebastian de Carvalho. The construction materials shall be supplied by the JICA Study Team, and the necessary labor shall be offered by the farmers.

Representative of the Farmers
Manatuto Irrigation Scheme

Takeuchi Seiji
Team Leader, JICA Study Team

Witnessed by

Caitano Jose Soares
District Agricultural Officer (DAO)
Manatuto

**ANNEX J. GOVERNMENT AND LOCAL STAFF
INTERVIEWED BY STUDY TEAM**

ANNEX J. GOVERNMENT AND LOCAL STAFF INTERVIEWED BY STUDY TEAM

Study Team interviewed the following East Timor Government officers and other related persons during the field work for implementation of the Pilot Project.

<u>Name</u>	<u>Office Name/Position</u>
A. Ministry of Agriculture, Forestry and Fisheries (MAFF)	
1. Mr. Estanislau Aleixo da Silva	Minister
2. Mr. Francisco Benevides	Vice-Minister
3. Mr. Cesar Jose Da Cruz	Director General
4. Mr. Mario R. Nunes	Director of Forestry
5. Mr. Romeo Guterres	Director of Geography and Cadastre Unit
6. Mr. Domingos Gusmao	Director of Livestock
7. Mr. Lourenco B. Fontes	Research and Extension Center (Coordinator)
8. Mr. Narciso A. da C	Director of Fisheries
9. Mr. Deolindo da Silva	Crop Production Unit
10. Mr. Florindo Barreto	Irrigation and Water Management Unit
11. Mr. Adalfredo de R. Pereira	Agricultural Land Use & GIS Unit
12. Mr. Egas da Silva	Training Unit
13. Mr. James Oliver Oduk	Community Irrigation Specialist (Advisor)
14. Mr. Gertrudo Felimar M. Torrizo	Management Advisor
15. Mr. Gil Rangel da Cruz	PASC Coordinator, MAFF
16. Dr. Braian Palmer	Advisor to the MAFF Minister
17. Mr. Julio Correia	Research and Extension Unit
18. Mr. Antonio S.C	livestock
19. Mr. Vicente Guterres	Irrigation
20. Mr. Eduardo de Carvalho	Fisheries
21. Mr. Hikaru Niki	JICA Expert/Senior Advisor
B. District Office	
<u>Manatuto</u>	
1. Mr. Mateus Ximenes Belo	District Administrator
2. Ms. Leonia da Costa Monteiro	Deputy District Administrator
3. Ms. Clara de Carvalho	Manatuto Sub-District Coordinator
4. Mr. Caitano Jose Soares	District Agricultural Officer (DAO)
5. Mr. Julio Correia	Research and Extension Center
6. Mr. Pedro Vital	District Irrigation Office (DIO)
7. Mr. Gaspar H. da Silva	District Development Officer (DDO)
<u>Baucau</u>	
1. Mr. Abilino Ornai	District Agricultural Officer (DAO)
2. Mr. Antonio Jose Lopes	Crop Production Officer
C. United Nations	
1) United Nation Mission of Support in East Timor (UNMISSET)	
1. Mr. Sukehiro Hasegawa	Deputy Special Representative of the Secretary-General of the United Nation for East Timor

- 2) United Nations Office for Project Services (UNOPS)
 1. Mr. Atsushi Kameda Project Manager Specialist,
East Timor Implementation Facility

D. Non-Government Organizations NGOs

- 1) CARE, East Timor
 1. Mr. Rene De Grace Acting Country Director
 2. Mr. Herman Koopman Agricultural Specialist
 3. Mr. Marcelo Caitano Desous Crop Specialist
 4. Mr. Adalberto Gaspar Farm Machinery Specialist
 5. Mr. Thomas Francisco Irrigation Specialist
- 2) GTZ
 1. Mrs Brigitte S. Podborny Food Security Programme, Institutional
Development

E. Lacro Irrigation Scheme

1. Mr. Lourenco Brondizio Soares Ex-President of Water User's Association
(WUA)
2. Mr. Joao da Silva Ex-Vise-President of WUA
3. Mr. Lucas H. da Silva President
4. Mr. Sebastiao M. de Carvalho Vice-President
5. Mr. Lourenco B. Soares Secretary
6. Mr. Antonio Soares Treasurer

G. Haburas Manatuto

1. Mr. Jose Pires Silva Manager
2. Mr. Jacinto Soares Assistant Manager
3. Mr. Felix de Carvalho. Accountant
4. Mr. Lourenso Soares Auditor
5. Mr. Antonio de Silva Tractor Operator
6. Mr. Benjamin Hale Tractor Operator
7. Mr. Lucas Soares Tractor Operator
8. Mr. Matias Soares Tractor Operator

F. Others

- 1) Dom Bosco High School
 1. Mr. Eligio Locatelli Principle, Dom Bosco High School
- 2) Toa Corporation
 1. Mr. Hiromichi Takagi Staff
- 3) Dai Nihon Construction
 1. Mr. Keiji Ando Project Manager, Lacro Irrigation Project
 2. Mr. Kiyoshi Kusaka Project Manager, Water Supply Rehabilitation
and Improvement
 3. Mr. Mario Soares Staff

- 4) Centro Logistico Nacional de Timor-Leste (CLNTL)
 1. Mr. Zeca Amx Member
 2. Mr. Ladislau Marketing
- 5) Ex-Mobile Brigade
 1. Mr. Domingo das Reis Tractor Operator

H. Related Japanese Agencies

- 1) Embassy of Japan
 1. Mr. Hideo Fukushima Ambassador
- 2) JICA East Timor Office
 1. Mr. Katuo Shouji Ex-Resident Representative
 2. Mr. Toshiaki Tanaka Resident Representative
 2. Mr. Masayashi Takehara Assistant Resident Representative
 3. Mr. Masaru Yamada Assistant Resident Representative
 4. Miss Eriko Kameyama Assistant Resident Representative