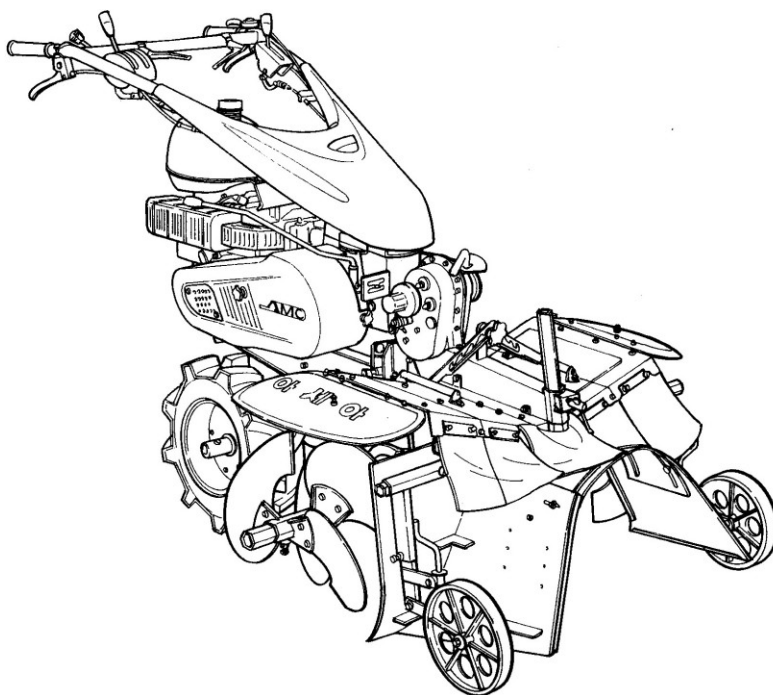


ASIA FORMER

OPERATING MANUAL & PARTS LIST
AF-300



ASIA TECHNOLOGY CO., LTD

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For Safety, Please Read the Instruction Manual

1. Safety Issues

■ Warning Signs

Warning signs, mentioned in this manual, indicate dangerous situations as explained below contents. Please read the instruction manual carefully for safe use.

When warning sign is damaged or out of its place, please purchase new warning sign and place it on the designated spot.



Danger

- This sign indicates the machine is in a serious situation which could lead to a death or a serious injury if not observed.



Warning

- This indicates the potential signal for a serious injury if not observed.



Caution

- This indicates the dangerous situation which could lead to a injury or cause damage of the machine,

***Important:**

- This booklet illustrates the important directions about usage of the machine: maintenance, inspection, and storage.

For Safety, Please Read the Instruction Manual

For safety, it is important to follow below guidelines.

Caution

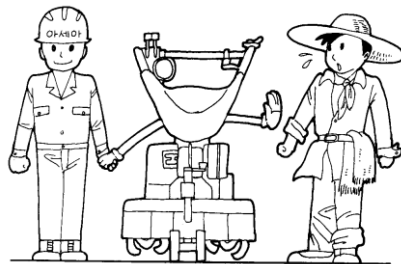
Do not operate the machine if the driver meets below condition:

- Pregnant
- Intoxicated
- Age fewer than 18
- Taking a medication which will influence driving ability



Caution

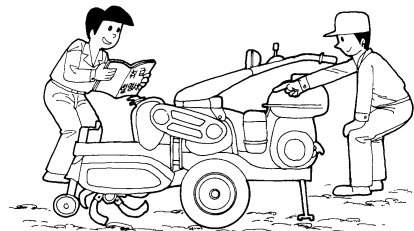
Do not wear loose clothing or hang towel around the waist as they may enter into the machine.



Please wear helmet, safety glass, glove, and safety boots if the working condition is rough.

Caution

In case of lending the machine, be sure to explain operational and safety issues.



For Safety, Please Read the Instruction Manual

Danger!

Do not reconstruct the machine.

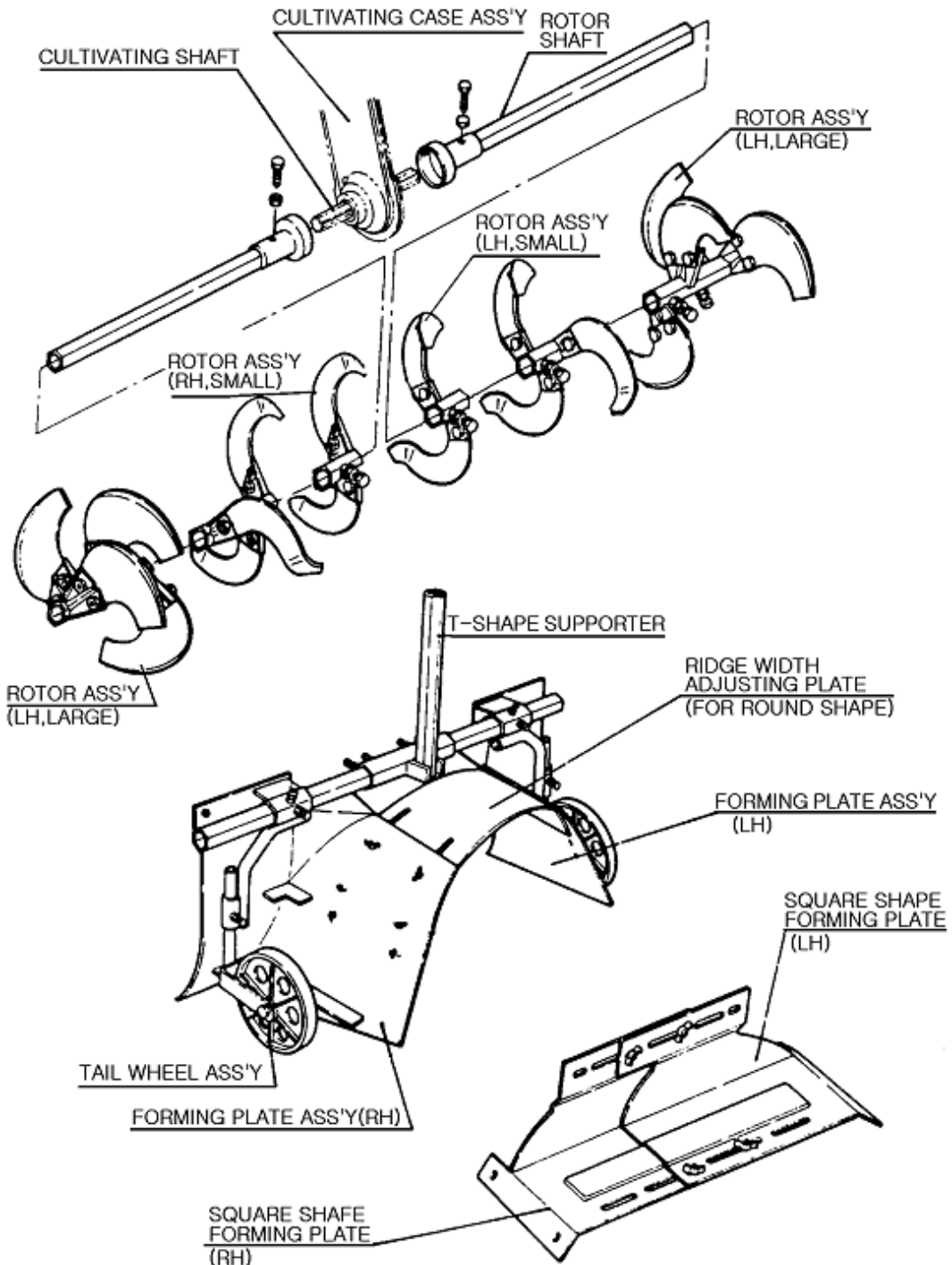
Reconstructing machine may cause serious

Accident, or it may lead to malfunctioning of

the machine.



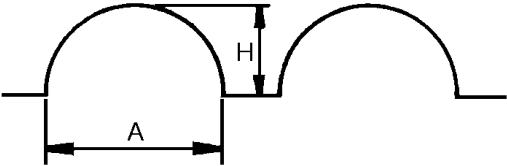
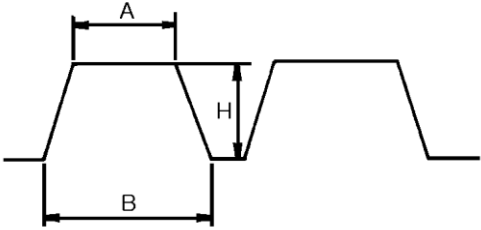
2. Name of Each Part of the Machine



3. Features

- 1) The rotor has been designed and manufactured so that can have an ingenious structure to enable the covering work and the leveling work to be done easily in the paddy field and the dry field.
- 2) The rotor's blade has been designed so as to be made of a special steel plate, and therefore, it is very resistant against abrasion and shock.
- 3) This former is so light in weight, so simple in structure and so handy in operation that even women can operate it with ease.
- 4) This former has been developed to be of a cost saving type, enabling the ridge to be formed angularly or roundly as desired, for the first time in the world.
- 5) Particularly, this former is manufactured so lightly and compactly that it is most adequate for marking various ridge in the vinyl house.
- 6) This former can adapt itself to the characteristics of the work area by marking the corner of a ridge be angular or round with its variable forming plates, as desired.
- 7) This former makes the ridge well only by one operation so that no more finishing touch is required for it.
- 8) This former can make various shapes of ridges by manipulating relevant sections simple.

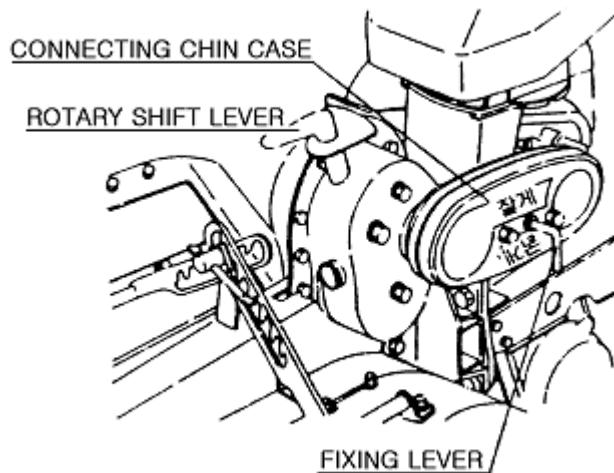
4. Specification

Form				AF-300	
Rotary Attached	Length (mm)		820		
	Width (mm)		1000		
	Height (mm)		700		
	Weight (kg)		65		
Operating Working Gear				Backward 1 or 2 Stage	
Operating Method				Travel for Backward	
Operating Efficiency		Round Ridge(m ² / day)		8250	
		Square Ridge(m ² / day)		9900	
Applicable Crops				Red Pepper, Gorlie, Tobacco, Sesame, Watermelon, Melon, Cucumber, Tomato, Onion, Strawberry, Sweet Potato, Peanut, Cabbage, Radish , Corn	
R I D G E	R O U N D	A	MIN	400(mm)	
			MAX	700(mm)	
	H	MIN	210(mm)		
		MAX	300(mm)		
	VINYL WIDTH		750~1200(mm)		
S I Z E	S Q U A R E	A	MIN	360(mm)	
			MAX	700(mm)	
	B	MIN	580(mm)		
		MAX	900(mm)		
	Height		150,180(mm)		
	Vinyl Width		750~1200(mm)		

※ Above specifications are can be changed without forecasting for up-grade the quality.

5. Attaching the Implement

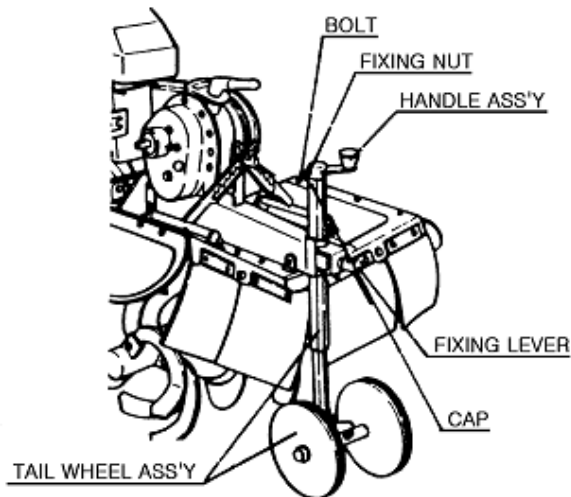
1. Confirm the position of the connecting chain case as Fig. 1.



[Fig. 1]

- ※ Setting the “Thin” to see correctly, and the rotary shift lever to the forward 1st step.

2. Detaching for Tail Wheel

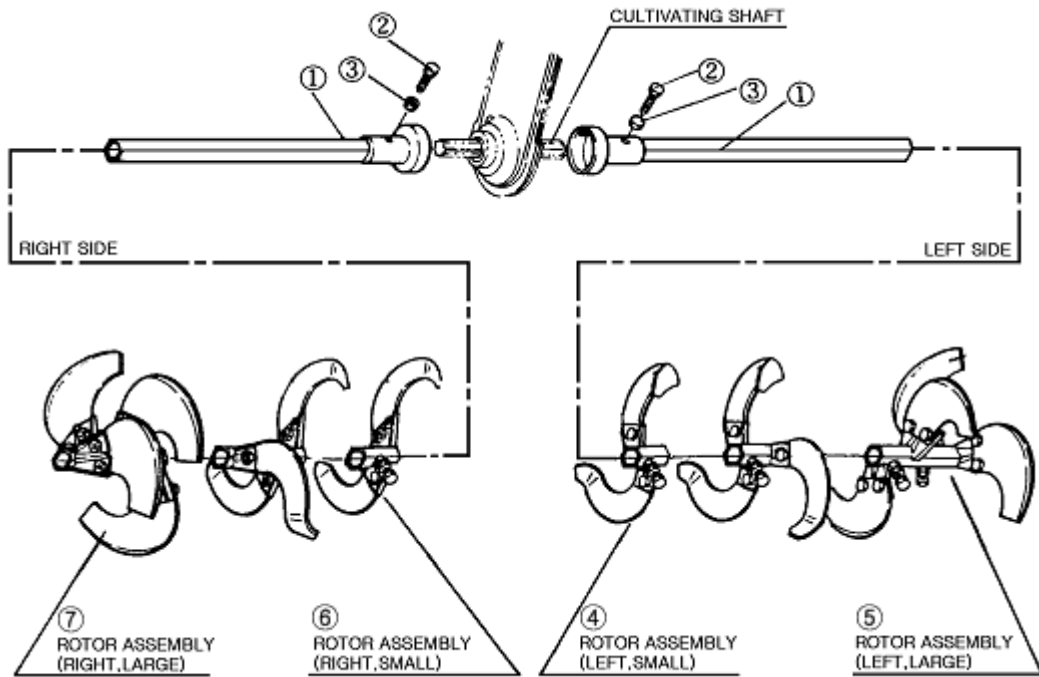


[Fig. 2]

Loosen the fixing nut and the bolt of the handle assembly, and detach the handle assembly, and then, get the fixing lever loose, and detach the tail wheel assembly downward therefrom.(Please keep the detached parts well in a safe place so that be re-assembled later with no trouble.)

3. Assembling of Forming Rotors

- 1) Detach the implements assembled into the cultivating shaft before assembling the forming rotors.

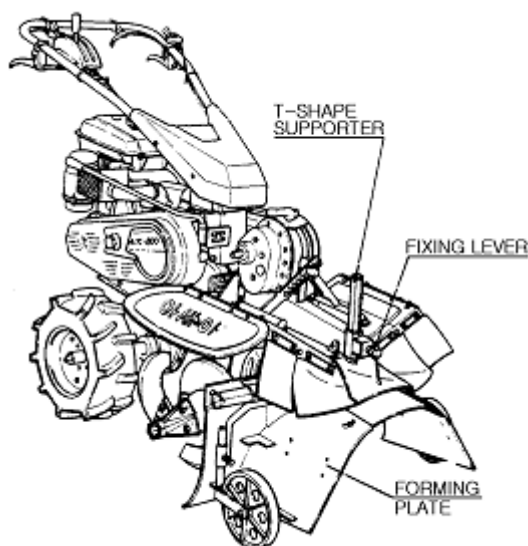


[Fig. 3]

- 2) As shown in Figure 3, assemble the two rotor shafts into sides(right and left) of the cultivating shaft so that the bolt hole of each rotor(①) may be mated with the groove of the cultivating shaft respectively, and tighten each locking bolt(②) completely, and then fasten each nut(③) tightly so that the said bolts may not get loose.t.

- 3) The right and left side of this cultivator shall be the right and left side when seeding the cultivator from its engine. So, after confirming the "Right" and "left" as inscribed on each hexagonal part of the rotor assembly ⑥ (RIGHT, SMALL) and ④ (LEFT, SMALL), assemble them into the right and left rotor shaft ① respectively so that the blade of each rotor assembly may be symmetric mutually.
- 4) Then, after confirming the "Right" and "Left" as inscribed on each hexagonal part of the rotor assembly ⑦ (RIGHT, LARGE) and ⑤ (LEFT, LARGE), assemble them into the right and left rotor shafts ① with each one set in the same direction as each hexagonal fixing bolt of the rotor assembly ⑥ and ④ so that the blade of each rotor assembly may be symmetric mutually.
- 5) If the rotor assemblies are assembled into the rotor shaft with them set reversely in the right and left side, or each direction of the right and left rotor assemblies is not symmetric mutually and consequently the blades of the large and small rotor assemblies are wrongly, it causes the work to be done poorly and further the engine to have an overload. So, please be much cautious not to assemble them so wrongly.

4. Assembling of Forming Plates



[Fig. 4]

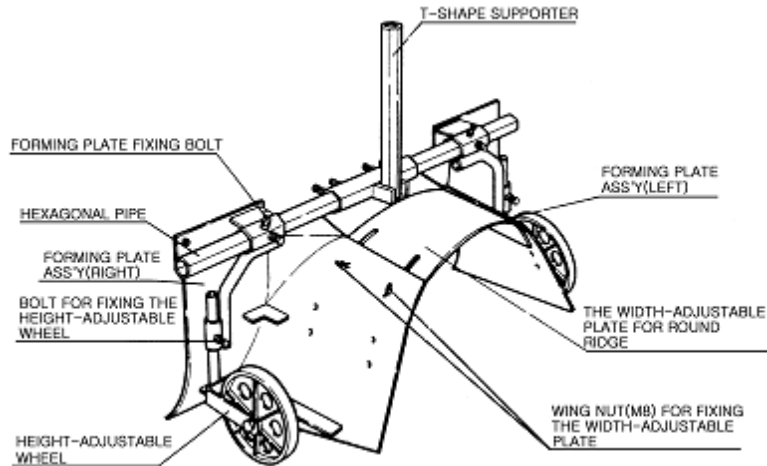
- 1) Get the hexagonal part of the T-supporter in tight contact with the hexagonal hole of the rotary frame with the tail wheel assembly detached therefrom as shown in Fig. 2 by pushing the said hexagonal part upward from underside, and tighten one fixing lever slightly.
- 2) Before tightening the fixing lever, confirm whether the intervals between the right and left rotor blades and the forming plates are similar by rotating the rotor assemblies manually, and tighten the fixing lever completely.

5. Assembling Pneumatic Tires with the Right Tire Exchange with the Left One.

- 1) Since the work of forming the ridge is being done while the ridge former is being moved backward, assemble the pneumatic tires with the right tire exchanged with the left one.
- 2) If the steel wheels for tracking are assembled into the shaft in the inner side of the pneumatic tires respectively and in the slippery soil, the work can be done more efficiency.

6. How to Operate the Ridge Former

1. Work for Forming the Round Ridge

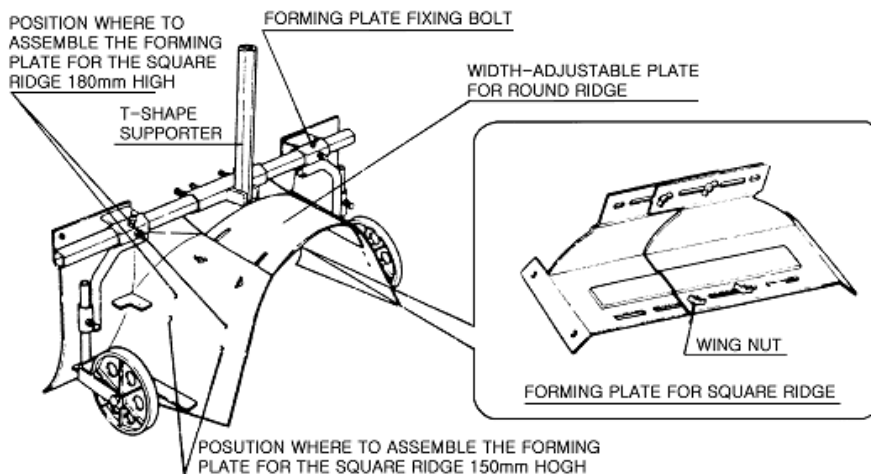


[Fig. 5]

- 1) Before doing the forming work, decide how wide the ridge is to be formed, and then, for adjusting the width of the ridge, loosen the right and left bolts for fixing the forming plates and get the 4 wing nuts for fixing the width-adjustable plate loose slightly and further set the forming plates at the desired width. And then, fasten the bolt and wing nuts completely, and as confirming the notches on the hexagonal pipe, set the right and left forming plate assemblies so that the width of right plate assembly from the T-shape supporter tie bar may be the same as that of the left one. Then, fasten the right and left bolts for fixing the forming plates completely.
- 2) In case that the ridge is to be made more than 600mm wide, set the respective last blade ends of the rotor assembly ⑦(RIGHT, LARGE) and ⑤(LEFT, LARGE) as referred to in Fig. 3 so that they may be protruded from the respective ends of the right and left forming plate assemblies by 5 ~ 10mm, and then fasten the right and left bolts for fixing the forming plates completely. Then, as keeping the rotor assembly ⑥(RIGHT, SMALL) and ④(LEFT, SMALL) at an adequate interval respectively in the inner side of the rotor assembly ⑦(RIGHT, LARGE) and ⑤(LEFT, LARGE), fasten the right and left bolts for fixing the forming plates completely.

- 3) In case that ridge is to be made 400 ~ 500mm wide, detach the rotor assembly ⑥(RIGHT, SMALL) and ④(LEFT, SMALL) as referred to in Fig. 3, assemble only the rotor assembly ⑦(RIGHT, LARGE) and ⑤(LEFT, LARGE) into the shaft, and set the respective blade ends of the rotor assembly ⑦(RIGHT, LARGE) and ⑤(LEFT, LARGE) so that they may be protruded from the respective ends of the right and left forming plate assemblies by 5 ~ 10mm, and then fasten the right and left bolts for fixing the forming plates completely.
- 4) Proper position of the height-adjustable wheel is variable according to the soil condition, the cultivating depth by the rotary cultivator, the water portion, etc. in the field, and therefore, as doing the work little by little, loosen the right and left height-adjustable bolts and then, adjust and fix the height-adjustable wheel at a proper position. Then, use the former.

2. Work for Forming the Square Ridge



[Fig. 6]

- 1) Decide how wide the square ridge is to be made and further which one is to be selected as the height of it, 150mm or 180mm, and loosen the 4 wing nuts (M8) for fixing the width-adjustable plate with the round ridge having been formed, and then, detach the width-adjustable plate. Then, assemble the forming plate for the square ridge in place of the width-adjustable plate. Please keep the detached plate well in a safe place.

- 2) When the right and left forming plates for the square ridge are assembled into the lower holes respectively on the right and left forming plates, the ridge becomes 150mm high. And, when they are assembled into the upper holes respectively on the right and left forming plates, the ridge becomes 180mm high.
- 3) When the right and left bolts fixing the right and left forming plates are loosened and the right and left forming plates are pushed inwardly to the end and assembled, the ridge becomes 350mm wide. And, When they are pulled outwardly to the end and assembled, the ridge becomes 700mm wide. So, set the right and left forming plates at a proper width as desired, and fix them by fixing M8 bolts and the wing nuts completely.
- 4) As confirming the notches on the hexagonal pipe, set the right and left forming plate assemblies so that the width of the right plate assembly from the T-shape supporter may be the same as that of the left one. Then, fasten the right and left bolts for fixing the forming plates completely.
- 5) In case that the ridge is to be made less than 500mm wide, detach the right and left rotor assemblies(SMALL) in the inner side, like the case that the round ridge is to be made 400 ~ 500mm wide. And then, assemble only the right and left rotor assemblies(LARGE) in the outer side into the shaft, and set the respective last blade ends of the right and left rotor assemblies (LARGE) so that they may be protruded from the respective ends of the right and left forming plate assemblies by 5 ~ 10mm, and then assemble them by tightening the right and left bolts for fixing the forming plates completely. And then, use the forms.
- 6) In case that the ridge is to be made 600 ~ 700mm wide, assemble the right and left rotor assemblies(LARGE, SMALL), like the case that the round ridge is to be made more than 600mm wide. And then, use the forms.
- 7) For adjusting the hardening condition and the height of the ridge, fix the height-adjustable wheel at a proper position by adjusting the height-adjustable wheel upward or downward. And then, use the former.

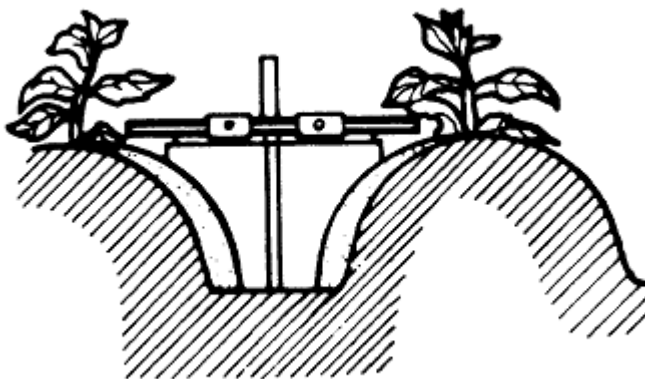
3. Applied Works of the Ridge Former

■ Working with only the Forming Rotors being attached.

- 1) When the forming are detached the former and the tail wheels are assembled into the rotary frame to the original condition and further the forming rotors only are assembled there into, the covering work can be done.
- 2) In the above condition, when the right and left forming rotors are assembled reversely (the right rotor in the left side, and the left one in the right side), the levelling work can be done.
- 3) Get the pneumatic tires back to the original condition, and shift the driving gear to the forward position.

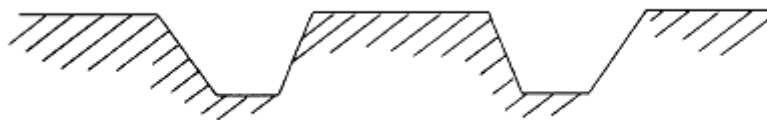
■ Working with only the Forming Plates being attached.

- 1) When the right and left forming plates are assembled reversely (the right plate in the left side, and the left one in the right side) as shown in Fig. 7 and the forming rotors and shafts are detached from the cultivating shaft and the blades for ditching are assembled into the cultivating shaft, the earthing-up work and the ridging work can be done by driving the plow backward. (Only Steel Wheels for Ditching to be used)



[Fig. 7]

- 2) When the of the ridge is adjusted by the height-adjustable wheel during the forming work of ①, the square ridge can be formed 15 ~ 20cm wide so that vegetables, potatoes, garlcs, etc. can be planted.



[Fig. 8]

7. Checking Before Operation and About Safe Operation

1. Checking Points before Working

- 1) Check once more whether the ridge former is assembled into the cultivator or not, and whether the bolts and the nuts are tightened completely or not.
- 2) Check whether the blade ends of the rotor assemblies are protruded from the right and left ends of the forming plate assemblies by 5 ~ 10mm.
- 3) Check whether the forming plates are of the right shape as desired or not, and whether the width-adjustable plate is assembled at the desired width or not.
- 4) Check whether the cultivating condition of the field, where the work is to be done, is deep so sufficiently, or not. If the condition thereof is poor, do the rotary work once more by the tractor or the power tiller and check whether the humidity of soil is adequate or not. If the depth and humidity of the cultivating is not adequate, it will cause the ridge not to be formed well.

2. How to Operate

- 1) Get the engine started while the main clutch of the main body of the cultivator is in the disconnection position, and lower the rotative speed to the low speed.
- 2) Get the driving shift lever in the neutral position, and then, as standing by the side of the cultivator and getting the main clutch to be in the connection by one hand, shift the gear to the first step of the forward rotation.(See the Working Information Label)
- 3) After confirming whether there is any obstacle in the rear side, get the driving shift lever in the backward direction and the first step speed position. And then, the operator keeps his balance, and he gets the main clutch to be in the connection position slowly. In the meanwhile, the former gets to be driven backward so that the work gets to be done.

【 CAUTION 】

- Please be sure to connect the main clutch of AMC-800 cultivator with the low speed. If it is connected with the high speed, the speed gets to be too fast, and it is very dangerous.
 - Be cautious so that no rotor blade may get in contact with the operator's foot when shifting the cultivating shift lever to the operation position.
- 4) When the engine has much load, push the handle slightly. When the ridge is hardened poorly or the soil amount is short, bring strength to the handle so that the backward driving speed may get to be slow.
 - 5) When turning the former, if the operator gets the driving gear to be at the forward direction and the first step speed position and he is pushing the handle and simultaneously turning it, he can turn it with much ease.

8. Maintenance and Preservation of the Machine

1. Maintenance

- 1) Please turn off the engine before the inspection.
- 2) Please check whether all of nuts and bolt are fully tightened.
- 3) Please check the rotor blades and change the blades if there is too much abrasion.
- 4) Please apply grease and oil on all moving parts.

2. Maintenance Before Storing

- 1) Please swipe with all parts with oil towel in order to prevent machine getting rusted.
- 2) Please clean the main body and implement, and apply oil and grease on all moving parts.

3. Storing

- 1) Please store the machine where there is good ventilation and away from sun / rain.
- 2) When storing the machine for long period of time, please make sure to drain fuel from all parts.

9. Troubleshooting

Division	Ridge Width	Symptoms	Cause	Remedy
Round Type	50cm	Ridge Shape is not Good Enough.	Cultivating depth is not Correct.	Keep over 15cm for cultivating depth
			Adjustment for rotor blade widen is correct.	Adjust the end of rotor blade is protruded outside 5 ~ 10cm to the end of forming plate.
			Travel speed is so high	Holding the handle to the upward a little to decrease speed.
		Engine has a overload	T-shape supporter assembled not correctly.	Reassemble the T-shape support to the upward completely to adhere the rotary frame.
			Height-adjustment wheel's height did not adjusting properly.	Position the height-adjustment wheel under to the former ass'y.
			Rotor's R.P.M is not proper.	Change the cultivating shift lever to the forward rotation 1st step.(Thinly)
		Can not working on the slope ground well.	Operating the backward 2nd step.	Operating the backward 1st step.
			Adjust the wheel base badly.	Setting the wheel base same as ridge width, and operating the main wheel put in furrows.

Division	Ridge Width	Symptoms	Cause	Remedy
Round Type	60~70cm	Ridge shape is not good enough.	Soil mount is not enough.	Protruding the rotor blade to the outside more than before.
			Travel speed is so high.	Holding the handle to the upward a little to decrease the speed.
		Bad drafting.	Rotor has a over load due to the too much soil mount.	Operating by the press down the handle a little.
			Wheel slips.	Changing the left and right wheel each other.
		Operating on the slope ground so hard.	Operation is pushed tack to the down direction.	Operating the main wheel put in the furrow by the handle lifting a little.
Square Type	50~60cm 70cm	Ridge shape is not good enough.	Cultivating depth is not correct.	Same as round ridge type.

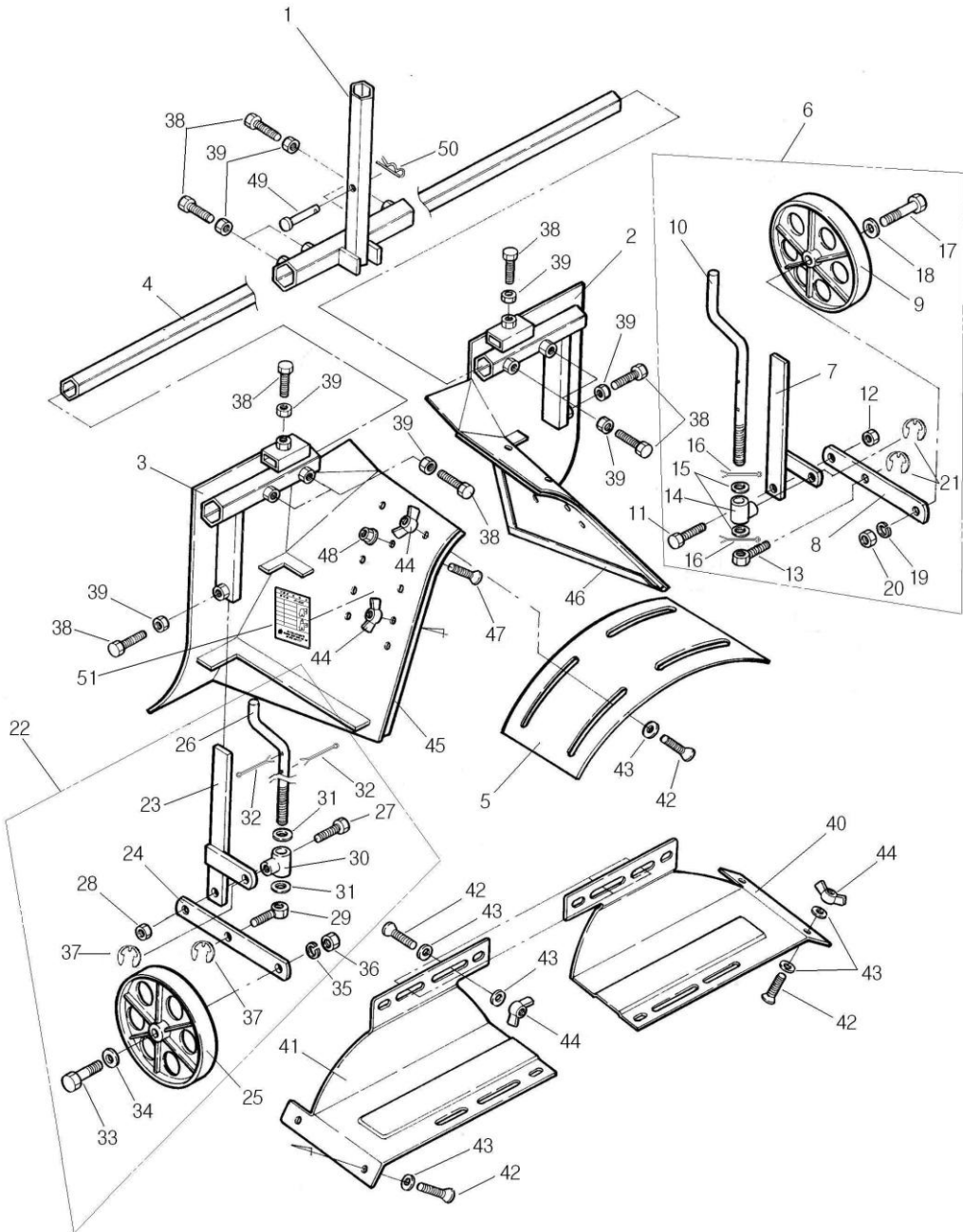
THE ASIA PARTS LIST

***Never use other than GENUINE ASIA PARTS
they are standardized, tested and proved.***

***Using genuine parts saves your time and money above all.
Ensures that your machine will always be ready for immediate work.***

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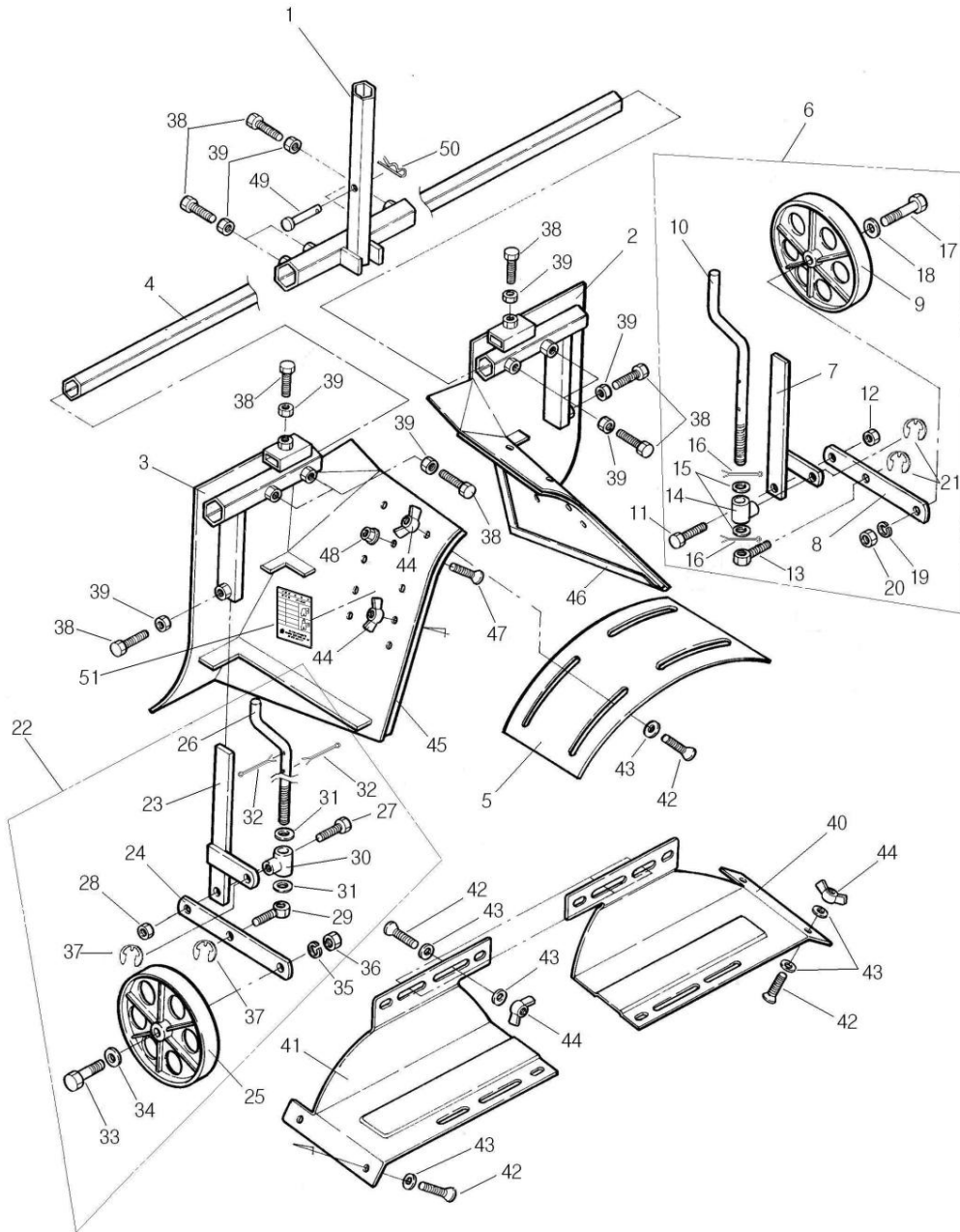
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G010A**Former Group**

AF-300

No.	Parts No.	Size	Parts Name	Q'ty	Remarks
1	AF-1001		T-Support	1	
2	AB111-10030		Former Ass'y (L)	1	
3	AB111-10130		Former Ass'y (R)	1	
4	AF-1017		Pipe	1	
5	AF-1018		Adjusting Plate	1	
6	AB111-10190		Tail Wheel Ass'y (L)	1	
7	AB111-10610		Support (L)	1	
8	AB111-10200		Wheel Support	1	
9	AB111-10210		Tail Wheel	1	
10	AB111-10630		Control Handle	1	
11	A1050-51035	M10xP1.25x35	Bolt	1	
12	AB111-10640		Lock Nut	1	
13	AB111-10650		Adjusting Nut	1	
14	AB111-10660		Adjusting Pin	1	
15	A201-12Z	M12	Plain Washer	2	
16	A5525-51200		Pin	2	
17	A1050-51260		Bolt	1	
18	A200-12Z	M12	Plain Washer	1	
19	A204-12Z	M12	Spring Washer	1	
20	A164-12Z	M12xP1.25	Nut	1	
21	A186-9		Snap Ring	2	
22	AB111-10220		Tail Wheel Ass'y (R)	1	
23	AB111-10620		Support (R)	1	
24	AB111-10200		Wheel Support	1	
25	AB111-10210		Tail Wheel	1	
26	AB111-10630		Control Handle	1	
27	A1050-51035		Bolt	1	
28	AB111-10640		Lock Nut	1	
29	AB111-10650		Adjusting Nut	1	
30	AB111-10660		Adjusting Pin	1	



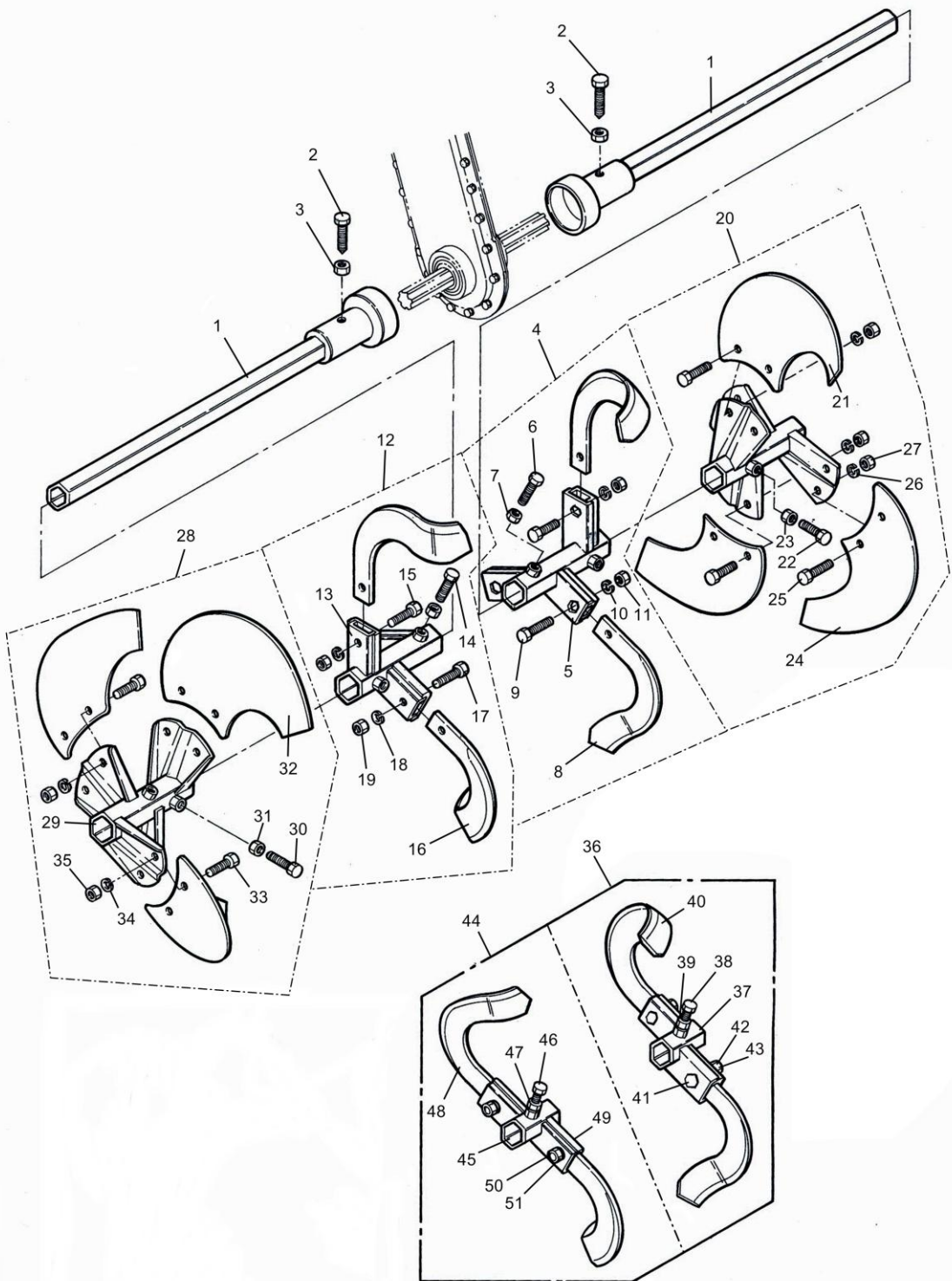
ASIA PARTS LIST

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G010A**Former Group**

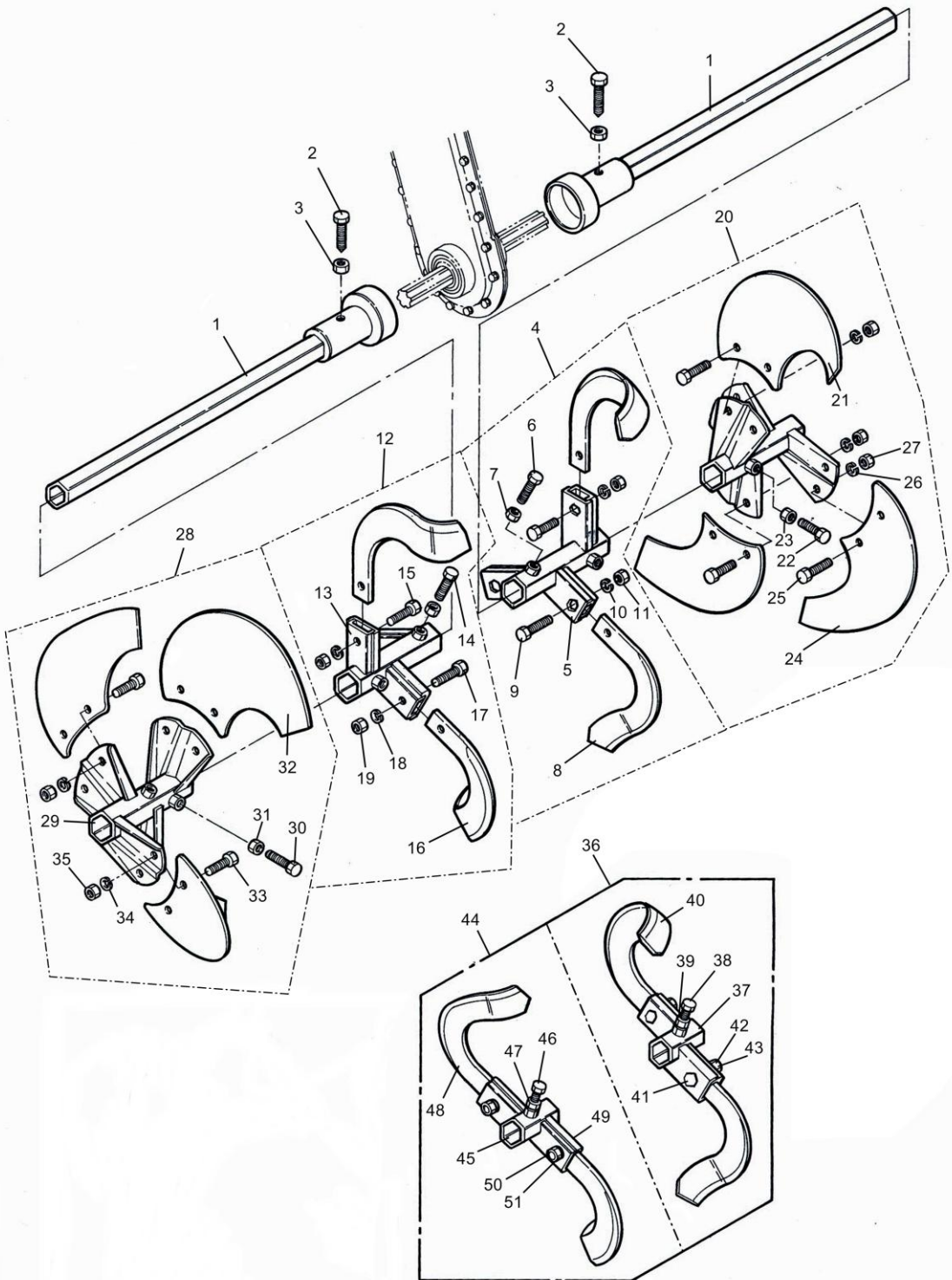
AF-300

No.	Parts No.	Size	Parts Name	Q'ty	Remarks
31	A201-12Z	M12	Plain Washer	2	
32	A5511-50330		Pin	2	
33	A1050-51260	M12xP1.25x60	Bolt	1	
34	A200-12Z	M12	Plain Washer	1	
35	A204-12Z	M12	Spring Washer	1	
36	A164-12Z	M12xP1.25	Nut	1	
37	A186-9		Snap Ring	2	
38	AF-1024		Bolt	12	
39	A164-10Z	M10xP1.25	Nut	12	
40	AF-1025		Former (L)	1	
41	AF-1026		Former (R)	1	
42	A100-8x18Z	M8xP1.25x18	Bolt	12	
43	A200-8Z	M8	Plain Washer	24	
44	A181-8Z	M8	Wing Nut	12	
45	AF-1028		Plate (L)	1	
46	AF-1029		Plate (R)	1	
47	A133-6x16Z		Bolt	2	
48	A580-6Z	M6xP1.0x16	Flange Nut	2	
49	DT-0507A	M6xP1.0	Pin	1	
50	A321-14Z		Snap Pin	1	
51	AB111-10309		Type Plate	1	



ASIA PARTS LIST

2011.11.01		G020A		Former Rotor Group		AF-300
No.	Parts No.	Size	Parts Name	Q'ty	Remarks	
1	AF-2001B		Shaft Rotor	2		
2	DT-0708		Lock Bolt	2		
3	A163-10Z	M10xP1.5	Nut	2		
4	AB110-20041		Rotor Shaft (A) Ass'y (L)	(1)	5 ~ 11	
5	AF-2005A		Rotor Shaft Ass'y A (L)	1		
6	AF-1024	M10x30xP1.5	Bolt	2		
7	A164-10Z	M10xP1.5	Nut	2		
8	B03 0131A		Rotor Blade A (L)	3		
9	A102-10x25Z	7T	Bolt	3		
10	A204-10Z	M10	Spring Washer	3		
11	A164-10Z	M10xP1.5	Nut	3		
12	AB110-20071		Rotor Shaft (B)Ass'y (R)	(1)	13 ~ 19	
13	AF-2008A		Rotor Shaft Ass'y A (R)	1		
14	AF-1024	M10x30xP1.5	Bolt	2		
15	A164-10Z	M10xP1.5	Nut	2		
16	B03 0132A		Rotor Blade A (R)	3		
17	A102-10x25Z		Bolt	3		
18	A204-10Z	M10	Spring Washer	3		
19	A164-10Z	M10xP1.5	Nut	3		
20	AB110-20121		Rotor Shaft (B) Ass'y (L)	(1)	21 ~ 27	
21	AF-2013		Rotor Shaft Ass'y (L)	1		
22	AF-1024	M10x30xP1.5	Bolt	2		
23	A164-10Z	M10xP1.5	Nut	2		
24	AF-2019		Rotor Blade B (L)	4		
25	A100-8x20Z	M8xP1.25x20	Bolt	8		
26	A204-8Z	M8	Spring Washer	8		
27	A159-8Z	M8xP1.25	Nut (7T)	8		
28	AB110-20151		Rotor Shaft (B)Ass'y (R)	(1)	29 ~ 35	
29	AF-2016		Rotor Shaft Ass'y (R)	1		
30	AF-1024		Bolt	2		



ASIA PARTS LIST

2011.11.01

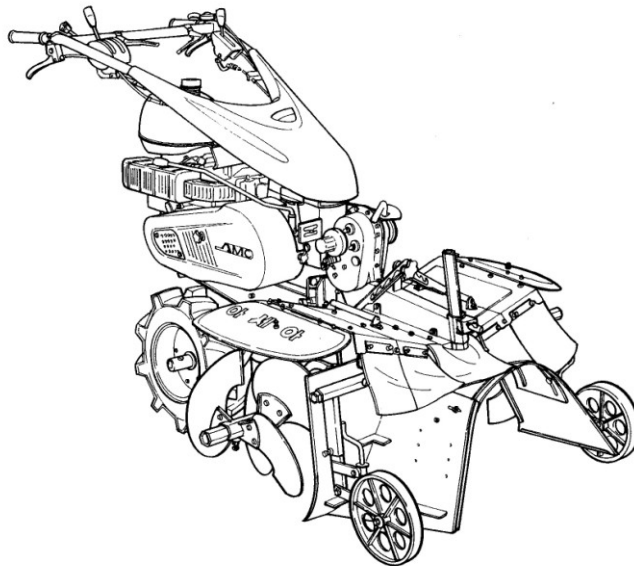
G020A**Former Rotor Group**

AF-300

No.	Parts No.	Size	Parts Name	Q'ty	Remarks
31	A164-10Z	M10xP1.5	Nut	2	
32	AF-2020		Rotor Blade B (R)	4	
33	A100-8x20Z	M8xP1.25x20	Bolt	8	
34	A204-8Z	M8	Spring Washer	8	
35	A159-8Z	M8xP1.25	Nut (7T)	8	
36	AB110-20201		Rotor Assembly(Left, Small)	(1)	37 ~ 43
37	AF-2021		Extended Sheath (L)	1	
38	AF-1024		Bolt	1	
39	A164-10Z	M10xP1.5	Nut	1	
40	B03 0131A		Rotor Blade A (L)	2	
41	A102-10x25Z	M10xP1.5x25	Bolt	2	
42	A204-10Z	M10	Spring Washer	2	
43	A164-10Z	M10xP1.5	Nut	2	
44	AB110-20231		Rotor Assembly(Right, Small)	(1)	45 ~ 51
45	AF-2022		Extended Sheath (R)	1	
46	AF-1024		Bolt	1	
47	A164-10Z	M10xP1.5	Nut	1	
48	B03 0132A		Rotor Blade A (R)	2	
49	A102-10x25Z	M10xP1.5x25	Bolt	2	
50	A204-10Z	M10	Spring Washer	2	
51	A164-10Z	M10xP1.5	Nut	2	

ASIA FORMER

AF-300



ASIA TECHNOLOGY CO., LTD.

Mailing Add. :

R.M.701, SHIN TAE YANG BLDG. 736-8, BANPO-DONG, SEOCHO-GU, SEOUL,
KOREA 137-810

<http://www.asiakor.com>

TEL : +82 2-547-8098

FAX : +82 2-547-0989

NO.1111