

FERTILIZER SPREADER

Fertilizer Spreader for tractor – Mod. IJS-200,200D,340,340D

OPERATOR'S MANUAL

 Please Read this operator's manual before operating the machine



ISO 9001, ISO 14001, 50 Patents For Spreader

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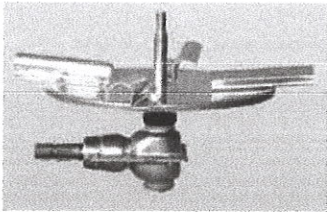
www.iksanfm.com www.youtube.com/user/irisspreaders E-mail : c8048@iris-spreaders.com

- INDEX -

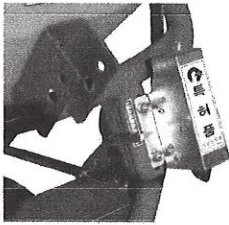
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1. Introduction

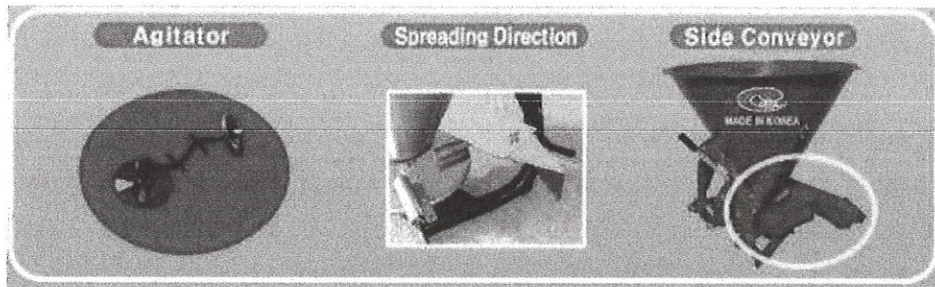
- 1) The spreading Angle can be adjusted..(Three spreading patterns)
- 2) Stainless Steel Vanes and Disc.
- 3) Adjust spreading amount by adjusting lever.
- 4) Yellow poly hopper makes rust free and visible inside
- 5) Stainless steel vanes, Disc and prevention plate
- 6) Heavy duty frame
- 7) Transmission gearbox in stamped steel with high resistance gears.



- 9) Electric control Shutter (US-200D, 340D)



- 10) Optional

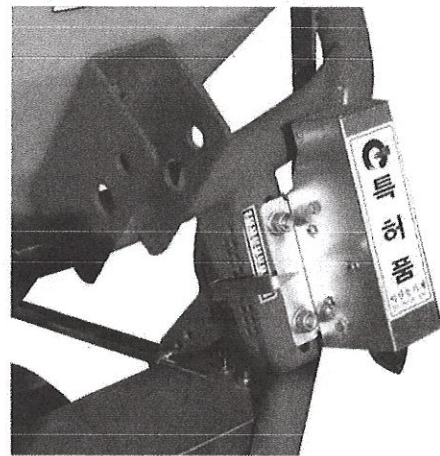


2. Technical data

Model	IJS-200	IJS-200D	IJS-340	IJS-340D
HOPPER CAPACITY(l/gallon)	200/52.8		340/89.8	
Outlet Shutter Control	Mechanic	Electric control	Mechanic	Electric control
WEIGHT OF THE MACHINE(kg/lbs)	52.5/115.7		56.5/124.5	
WIDTH(outside side)(mm/inch)	1170/46			
LOADING HEIGHT(mm/inch)	900/35.4		1045/41	
LENGTH(mm/inch)	1220/48			
SPREADING WIDTH(m/ft)	8-16/26-52.5			
POWER	P.T.O			



IJS-200



IJS-340D

3. Parts

Fertilizer Spreader(IJS-200,200D340,340D)

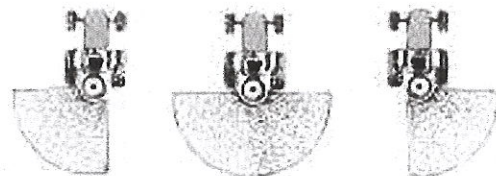
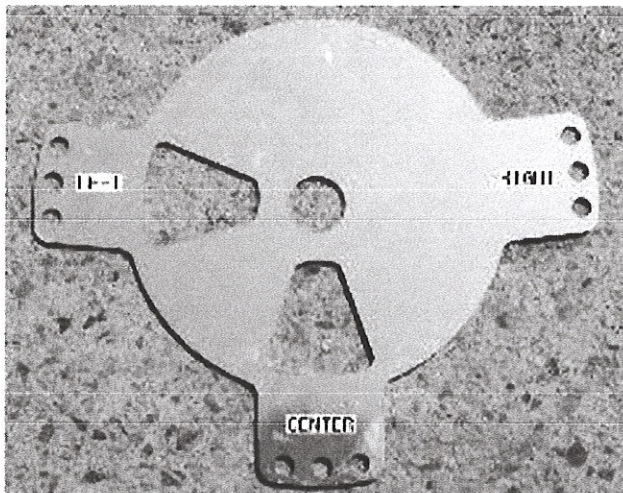
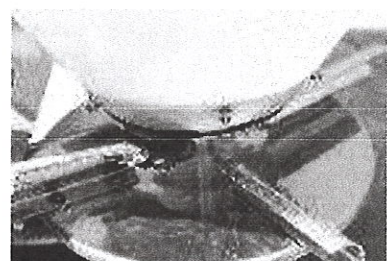
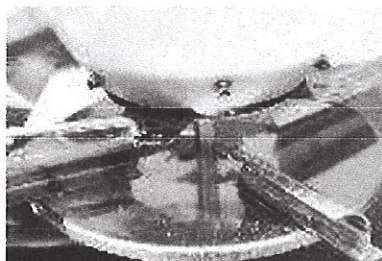
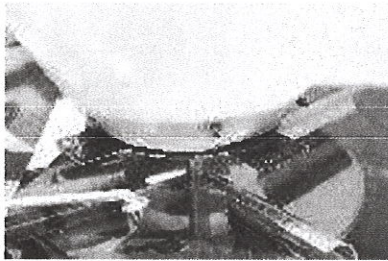


- | | | |
|------------------|--------------------|--------|
| ① Hopper | ② Frame | |
| ③ Discharger | ④ Prevention Plate | |
| ⑤ Lower Link Pin | ⑥ Gearbox | ⑦ Disc |
| ⑧ Vane | | |

4. How to Operate

- 1) Insert fertilizer spreader's link to the tractor's low links (both left and right) and fasten with the pins.
- 2) Connect and fasten the fertilizer spreader's upper link to the tractor's top link.
- 3) Close the outlet and pour fertilizer or seed into the hopper.
- 4) Adjust spread rate by using adjustment lever.
- 5) Spread fertilizer or seed by a tractor.
- 6) Three spreading patterns :

A simple adjustment of shutter level allows direction of distribution towards the righthand side or towards the lefthand side.

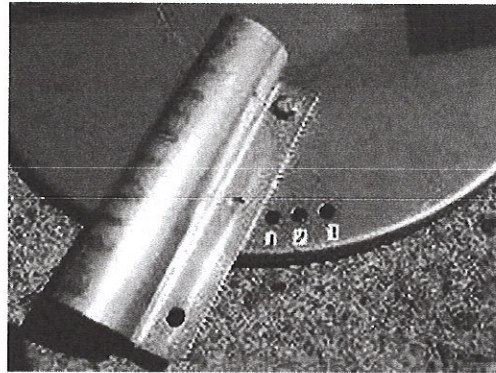
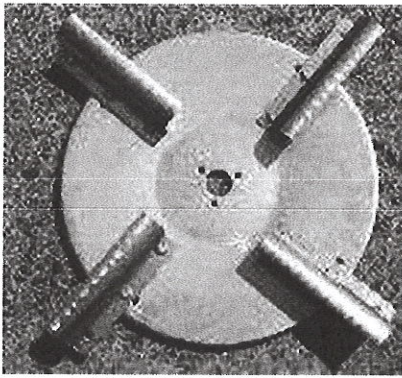


7) You may require an additional adjustment by moving the individual vanes when the condition of fertilizer changes(weight, condition(wet or dry), etc)

Moving the vane tips forward(No.1) will carry more material to the lefthand side.

Moving the vane tips backward(No.3) will carry more material to be spread to the righthand side.

Please have a test spreading after each adjustment.



5. Important safety information

- 1) **Safety gear must be worn while operating the machine.**
 - 2) **If more than two people are operating the machine, observe the others' movement carefully.**
 - 3) **Make sure there is NO on or no obstacle within the operating area and its range.**
 - 4) **Do NOT overload or apply excessive force to the equipment.**
 - 5) **Perform "pre-operation" procedures. In particular, check for loosen nuts and bolts, connecting pins, and Lubricant.**
 - 6) **If any trouble occurs while operating the equipment, turn off the engine of ATV or tractor and apply the break, then refer to "Trouble Shooting."**
 - 7) **Comply with all local traffic regulations while driving.**
 - 8) **After assembling universal joint (before trial run), if joint is too long, or the angle between the tractor's PTO and the spreader exceeds recommended angle, then it may cause the breakage of the gear box.**
- ※ **Recommended angle is 15 degree**
- ※ **A PTO driveline that is too long and "bottoms out" could possibly cause severe damage to the gearbox. It is VERY IMPORTANT to check the proper PTO driveline length for your tractor.**
- Gearboxes damaged by incorrect PTO driveline length are NOT covered by warranty.**

6. Checkup

- 1) **Make sure to apply Lubricant where needed and check for loosen nuts and bolts before operating.**
- 2) **Before operating, please check for lubrication, and connection of the parts.**
- 3) **Test drive the equipment before actual use.**

7. Storage

- 1) **When the equipment is to be stored for a long time, apply lubricants to the area where it is likely to have corrosion.**
- 2) **Firmly secure the fertilizer spreader on the flat surface to prevent any possible fall off.**
- 3) **Keep it away from children to prevent any safety hazard.**
- 4) **When the equipment is to be stored for a long time, store it in indoor. If it is to be stored outside, place it on the flat surface and cover it with protectors to prevent any source of damages from rain and snow.**

8. SPREADING CHART FOR FERTILIZER – METERS

FERTILIZER TYPE	P.T.O SPEED (RPM)	SPREAD WIDTH (METERS)	TRACTOR SPEED (km/h)	QUANTITY TO BE SPREAD, IN KGS PER HECTARE AT CONTROL LEVER SETTING INDICATED							
				1	2	3	4	5	6	7	8
Coarse Grain Fertilizers	540	12	5.0	99	231	333	781	1022	1307	1556	
			8.0	74	182	295	556	830	1059	1093	
			12.0	65	123	235	352	429	593	701	
Medium Grain Fertilizers	540	15	5.0	23	99	158	299	395	501	563	
			8.0	21	64	131	217	264	400	467	
			12.0	14	43	105	143	215	284	314	
Fine Grain Fertilizers	540	18	5.0	14	52	140	214	308	393	434	
			8.0	9	43	105	175	224	288	305	
			12.0	7	32	78	117	165	204	220	

SPREADING CHART FOR FERTILIZER – FT

FERTILIZER TYPE	P.T.O SPEED (RPM)	SPREAD WIDTH (FT)	TRACTOR SPEED (mile/h)	QUANTITY TO BE SPREAD, IN LBS PER HECTARE AT CONTROL LEVER SETTING INDICATED							
				1	2	3	4	5	6	7	8
Coarse Grain Fertilizers	540	39	3.0	-	218	509	734	1722	2253	2881	3430
			5.0	-	163	401	650	1226	1830	2335	2410
			7.5	-	140	271	518	776	946	1307	1545
Medium Grain Fertilizers	540	49	3.0	-	51	218	348	659	871	1105	1241
			5.0	-	46	141	289	478	582	882	1030
			7.5	-	31	95	231	315	474	626	692
Fine Grain Fertilizers	540	59	3.0	-	31	115	309	472	679	886	957
			5.0	-	20	95	231	386	494	635	672
			7.5	-	15	71	172	258	364	445	485

9. Parts sales & Trouble shootings

Parts sales

- 1) The parts list provided is in compliance with IJS-340,340D standards. Refer to this list when order any parts.
- 2) Follow next steps as below when order parts:
ex) We would like to order 1 unit of hopper

Model	Number	Description	Quantity
IJS-340	2-1	Extension Hopper	1

- 3) To purchase the parts, contact the dealer where you purchased the equipment or our main office.

Trouble shootings

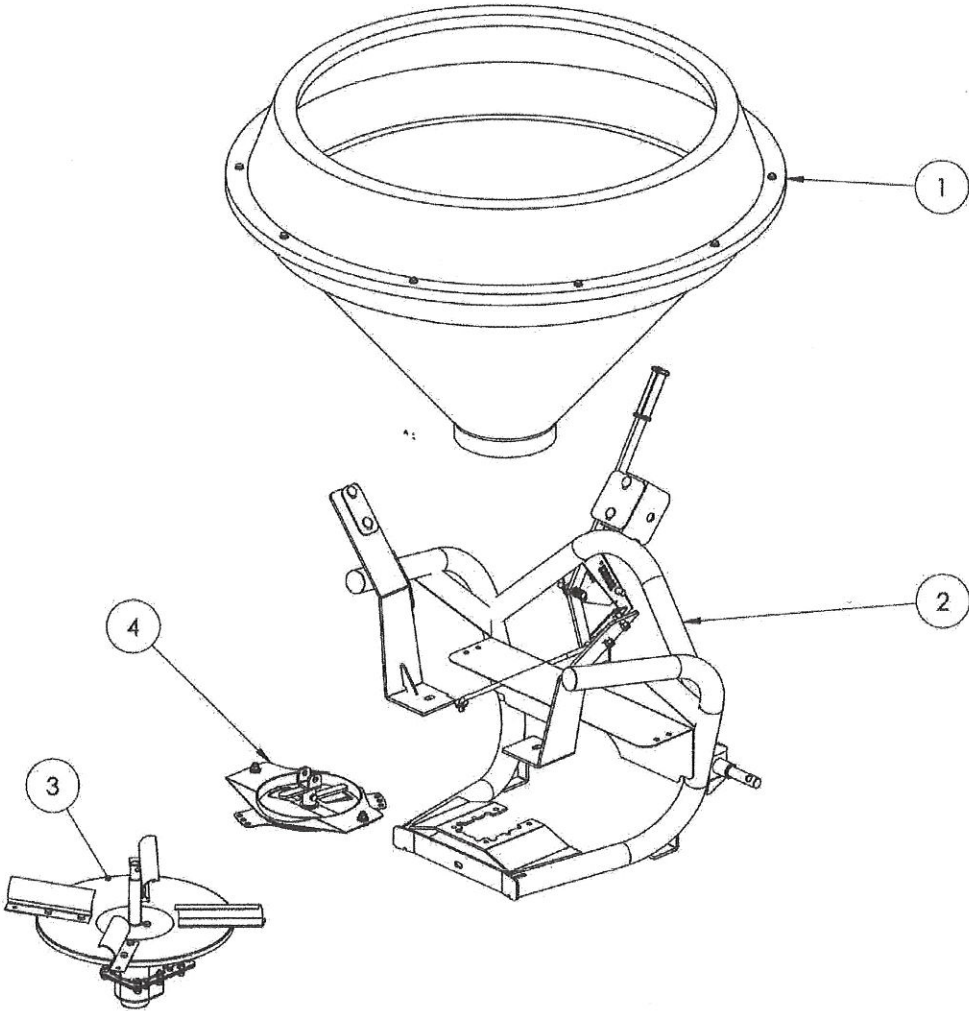
- 1) If any malfunction occurs, please refer to "Trouble Shooting" section first.
- 2) If "Trouble Shooting" does not solve the issue, contact authorized dealer or manufacturer's Customer Service.

10. Warranty/complimentary check up & Repair

- 1) The warranty is good for one year from the date of delivering to the customer.
- 2) Even after one-year warranty period, we would gladly check up and repair the equipment at a reasonable price.
- 3) With a faith that any one-time customer is a customer for forever, we would continue to take care of our products for you until it lasts.

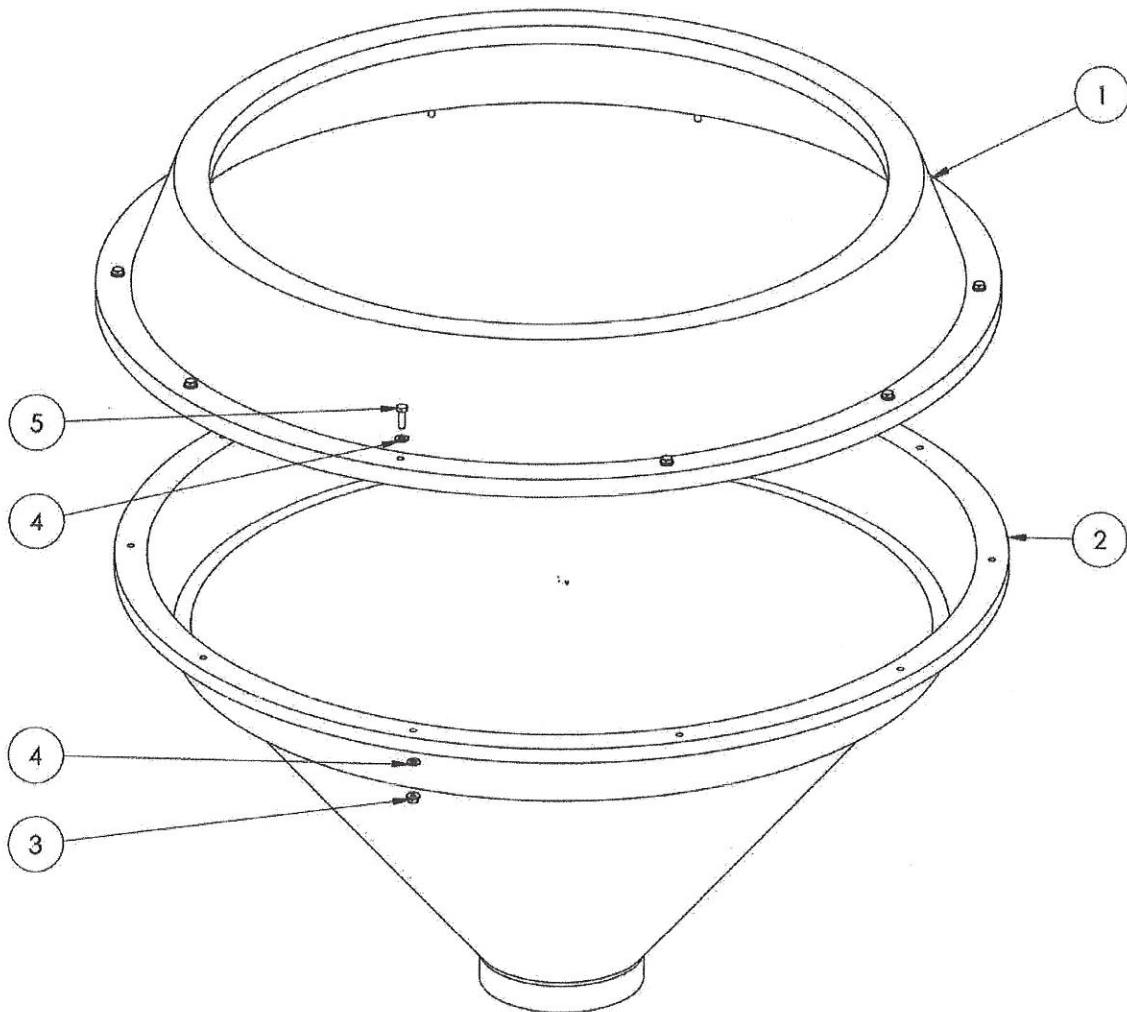
11. Part list

1-Full Layout



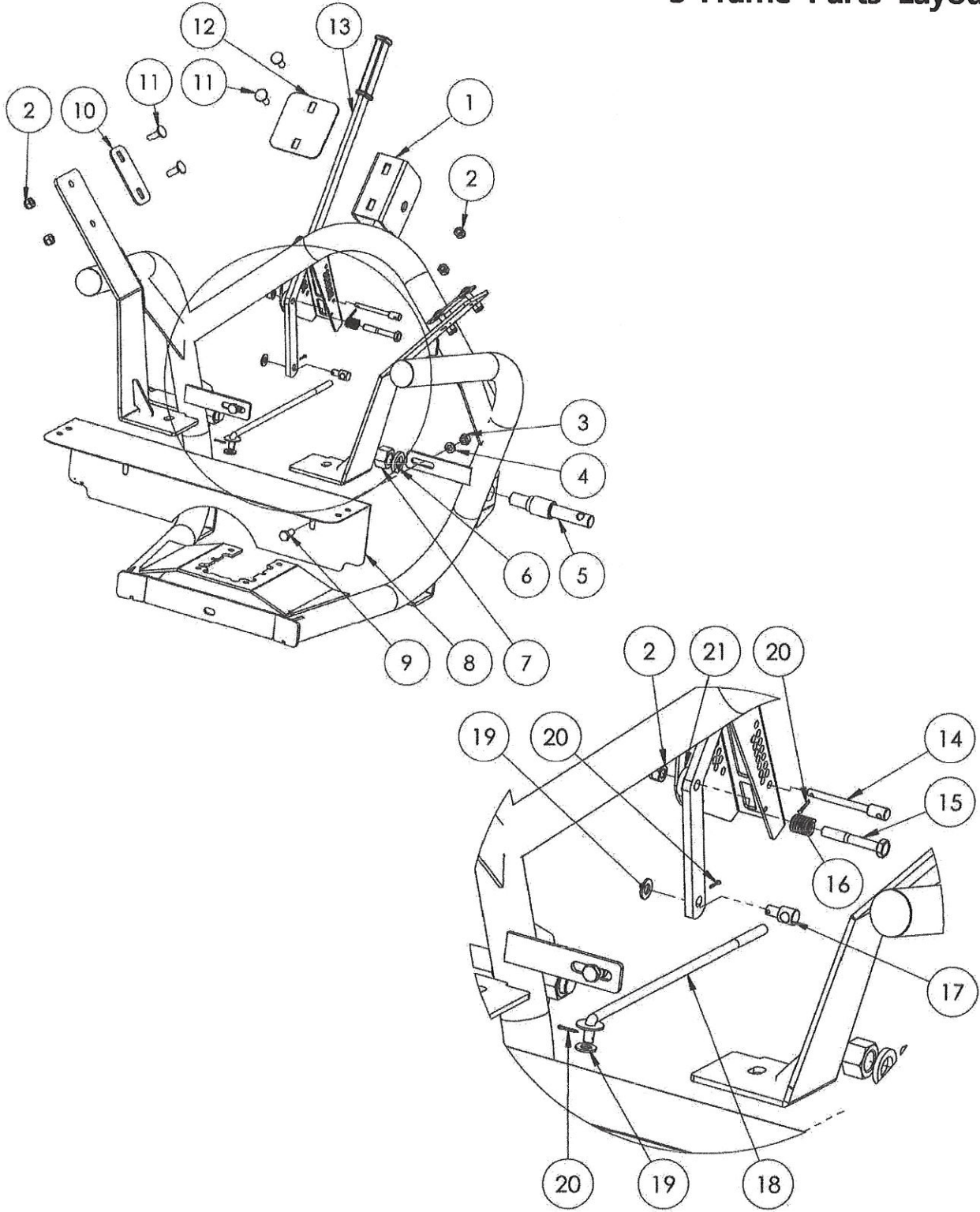
PART NO.	QTY	DESCRIPTION
1	1	Hopper Parts
2	1	Frame Parts
3	1	Gearbox Parts
4	1	Shutter Parts

2-Hopper Parts Layout



PART NO.	QTY	DESCRIPTION
1	1	Extension Hopper
2	1	Hopper
3	10	Flange Nut, M8
4	20	Washer, M8
5	10	Bolt, Hex Head M8X25

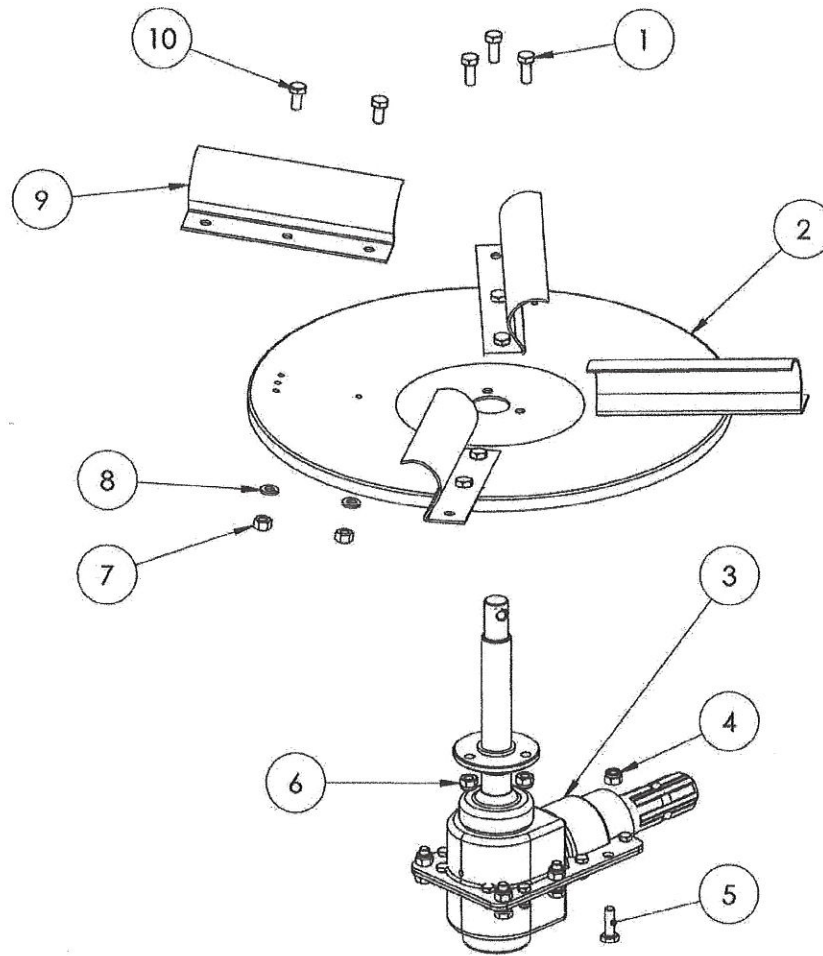
3-Frame Parts Layout



3-Frame Parts Layout

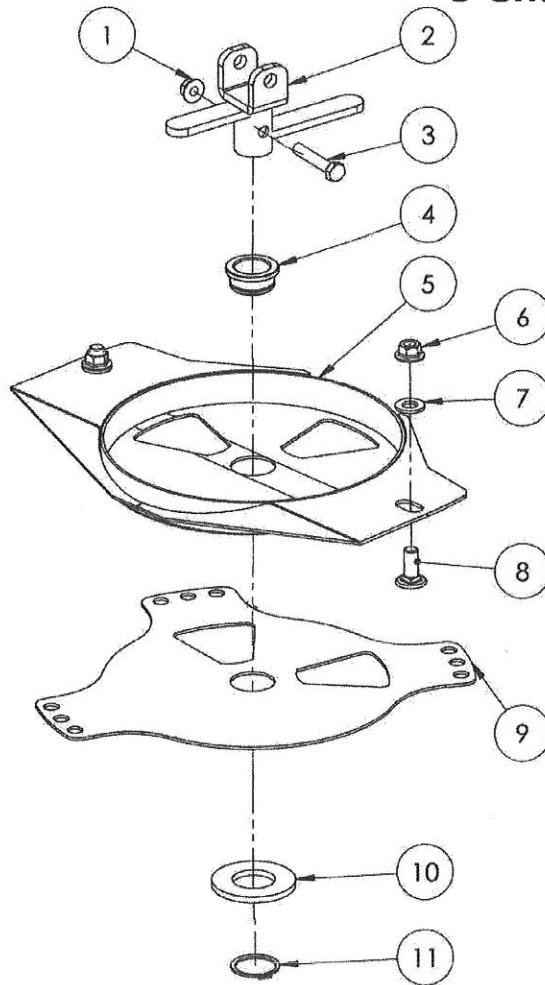
PART NO.	QTY	DESCRIPTION
1	1	Frame
2	7	Lock Nut, M10
3	2	SUS Nut, M10
4	2	SUS Spring Washer, M10
5	2	Low Link Pin(CAT1)
6	2	Spring Washer, M22
7	2	Nut, M22
8	1	Spreading Prevention Plate
9	2	SUS Bolt, Hex Head M10X25
10	2	Small Square Washer
11	6	Carriage Bolt M10X30
12	1	Big Square Washer
13	1	Lever
14	1	Lever Fixing Pin
15	1	Bolt, Hex Head M10X65
16	1	Lever Tension Spring
17	1	Lever Link Pin Connector
18	1	Lever Link Pin
19	2	Washer, M10
20	2	R Pin
21	1	Lever Gap Washer, M10

4-Gearbox Parts Layout



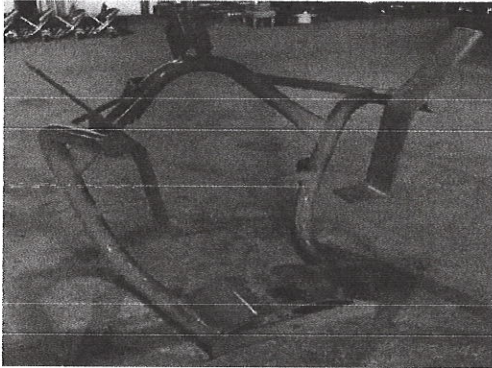
PART NO.	QTY	DESCRIPTION
1	3	SUS Bolt, Hex Head M8X20
2	1	Spreading Disc
3	1	Gearbox
4	6	Lock Nut, M8
5	6	Bolt, Hex Head M8X25
6	6	SUS Lock Nut, M8
7	8	SUS Nut, M8
8	8	SUS Spring Washer, M8
9	4	Vane
10	8	SUS Bolt, Hex Head M8X15

5-Shutter Parts Layout

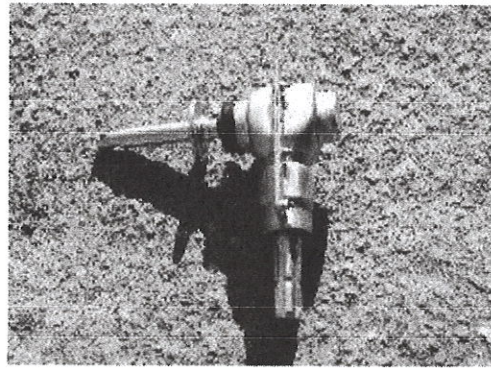


PART NO.	QTY	DESCRIPTION
1	1	SUS Flange Nut, M8
2	1	Lower Agitator
3	1	SUS Bolt, Hex Head M8X45
4	1	SUS Nocking Bushing
5	1	Fertilizer Discharger
6	2	SUS Flange Nut, M10
7	2	SUS Washer M10
8	2	SUS Carriage Bolt M10X30
9	1	Shutter
10	1	Washer M30
11	1	Snap ring S-32

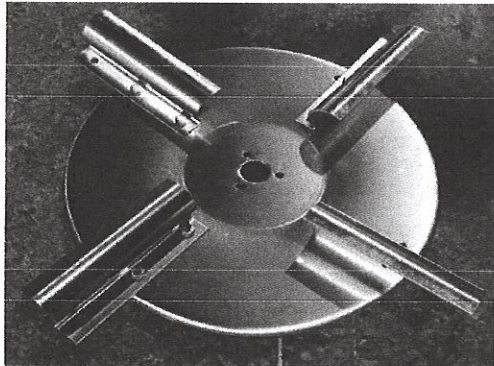
12-1. Assembling instructions for IJS MODEL



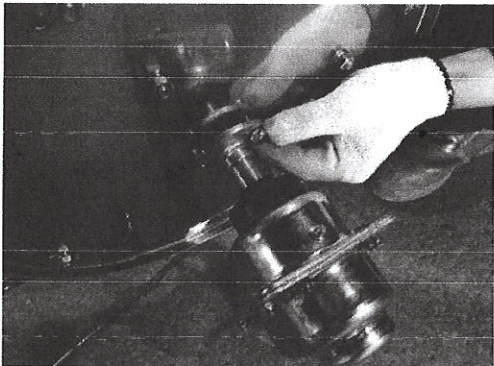
1) FRAME



2) GEAR BOX

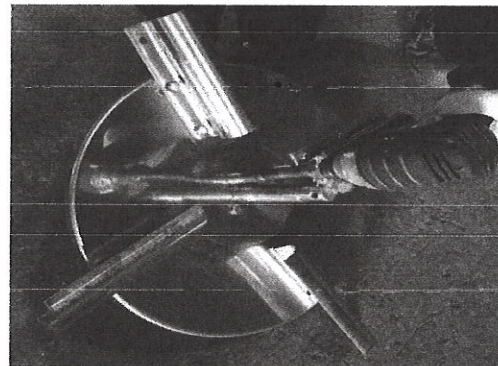


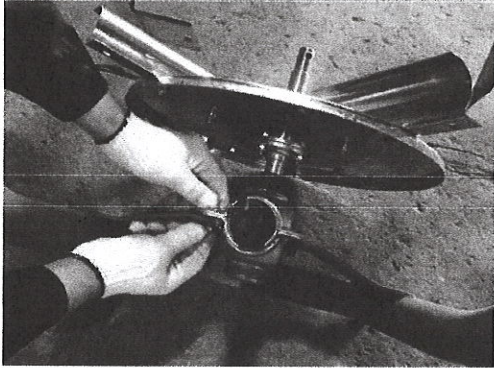
3) DISK & VANES



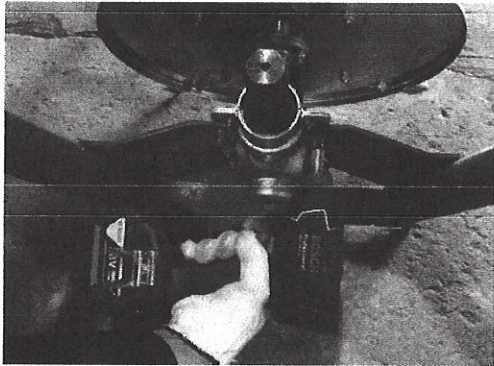
- A) Fix the disk on the proper bracket of the gear box by 3 SUS SCREWS 8x20, 3 SUS LOCK NUTS M8

B) Tighten

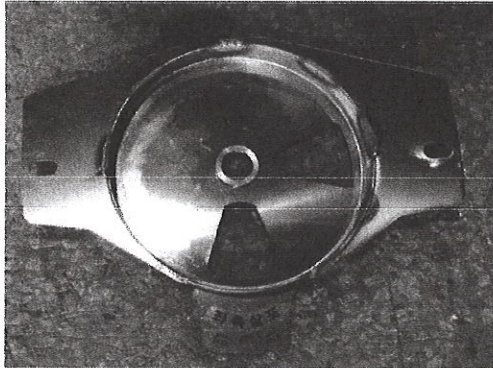




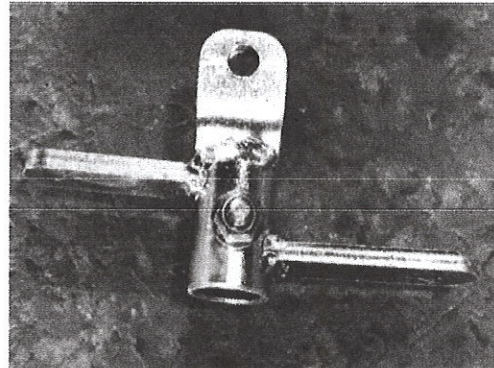
C) Fix the gear box on the proper bracket of the frame by 6 SCREWS 8x25, 6 LOCK NUTS



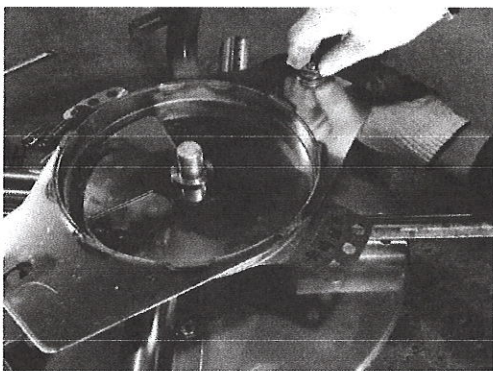
D) Tighten



1) DISCHARGER&SHUTTER



2) LOWER AGITATOR



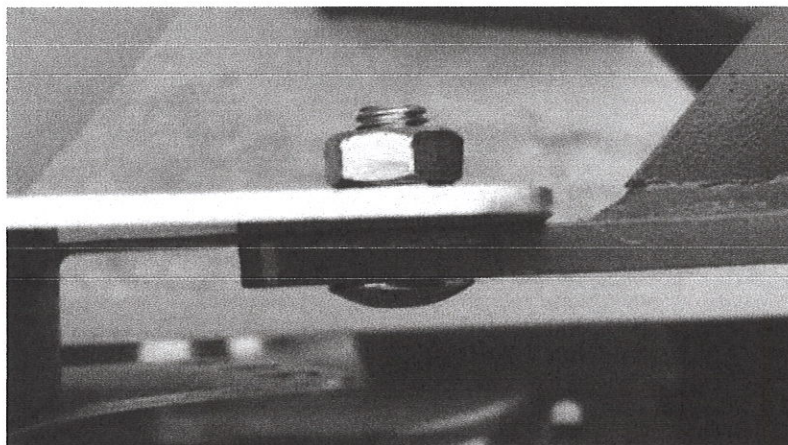
A) Fix the Discharger&Shutter on the proper bracket of the frame by

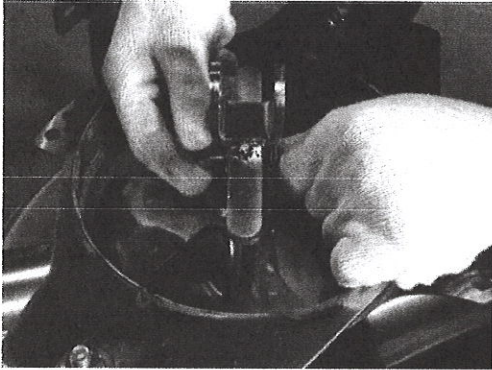
2 SUS CARRIAGE SCREWS 10x25,

2 SUS FLANGE NUTS M10,

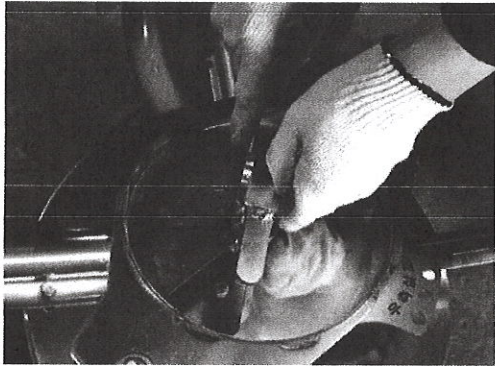
2 SUS WASHERS M10,

B) Tighten

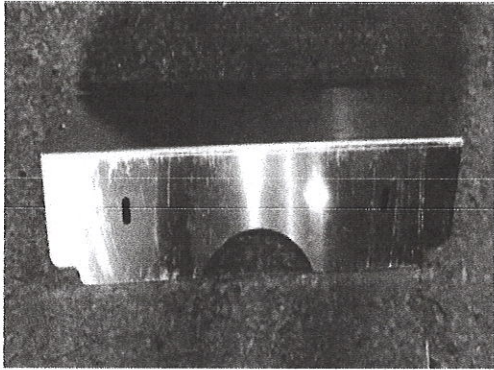




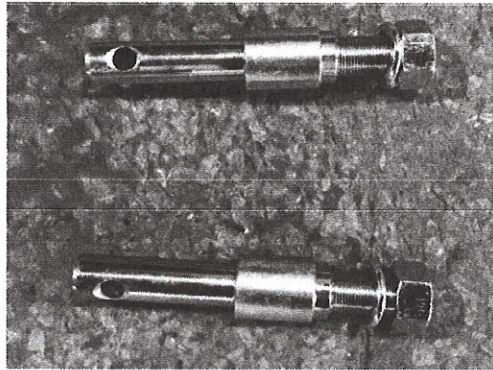
C) Insert the lower agitator and then
fix the lower agitator on the shaft
by 8 SUS SCREWS 8x45 and
1 SUS FLANGE NUTS M8



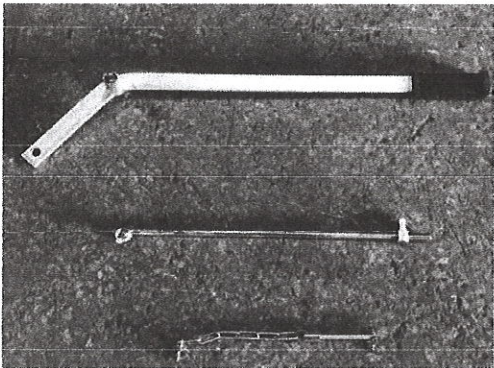
D) Tighten



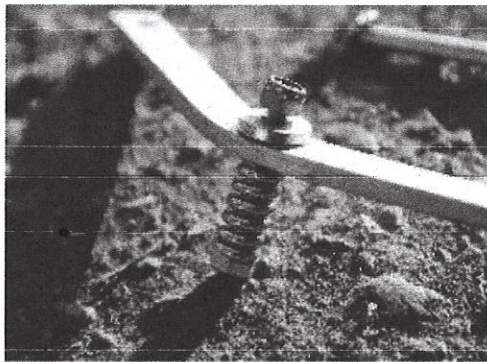
1) PREVENTION PLATE



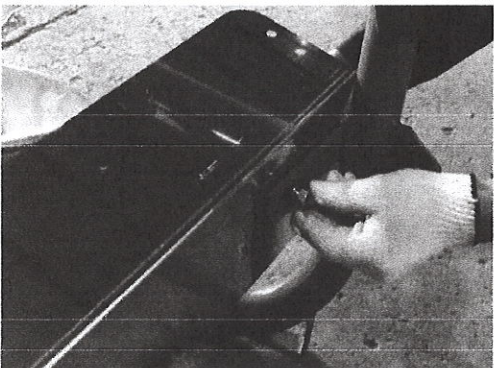
2) LOWER LINK PINS



3) LEVER SET



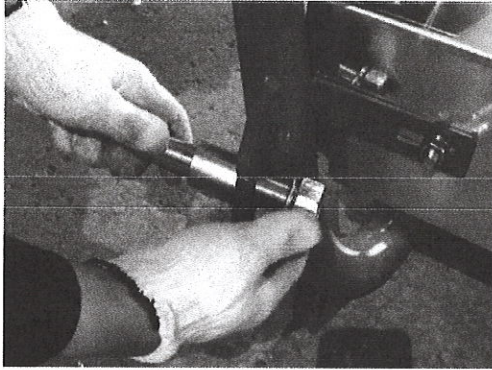
4) LEVER SET



A) Fix the prevention plate on the proper bracket of the frame by 2 SUS SCREWS 10x25, 2 SUS SPRING LOCK WASHERS M10, 2 SUS NUTS M10

B) Tighten

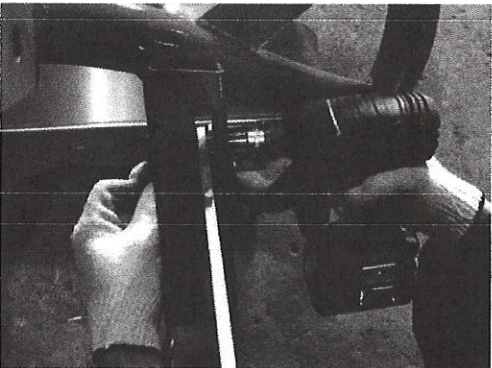




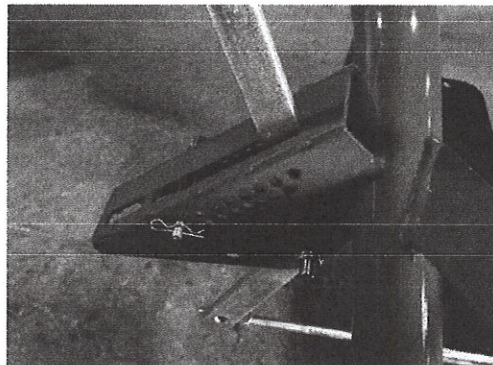
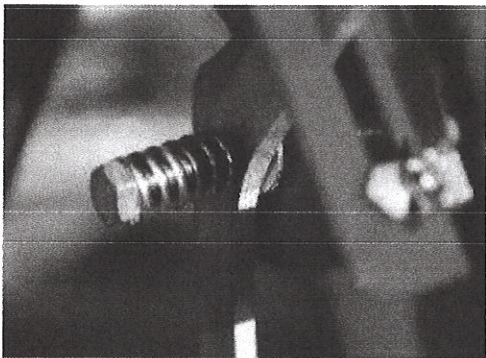
C) Fix the lower link pins to the frame
by 2 NUTS M22,
2 SPRING LOCK WASHERS M22

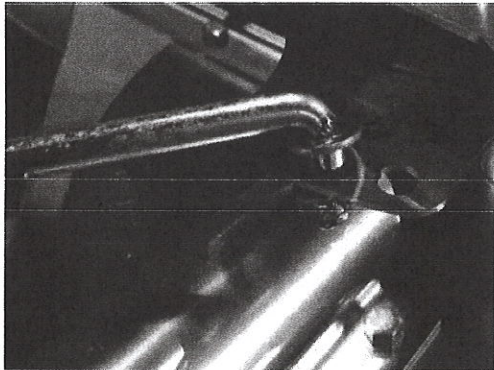


D) Tighten

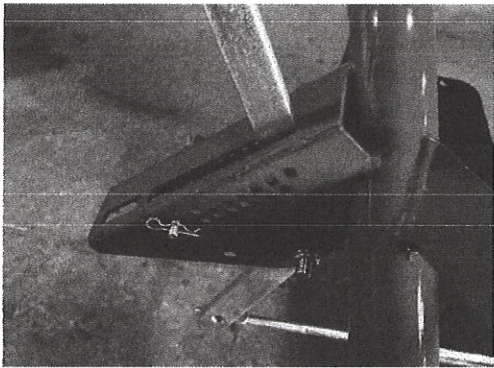


E) Assemble the lever set

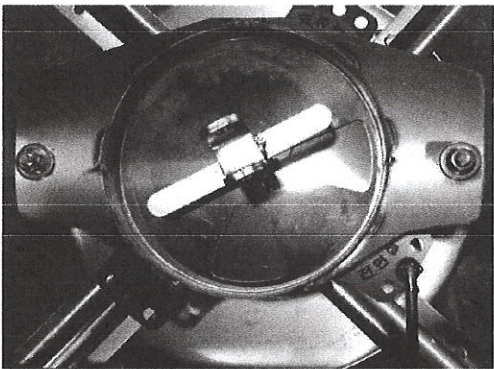




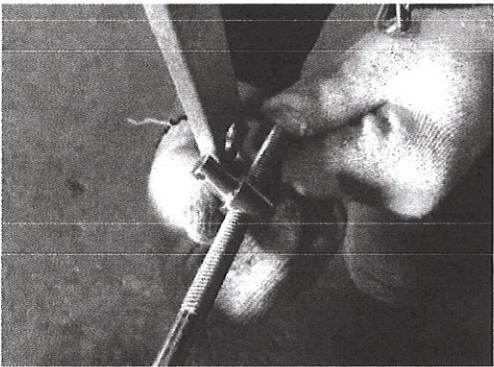
F) Fix the adjusting bar on the proper hole of the shutter by 1 WASHER M10 and 1 RPIN



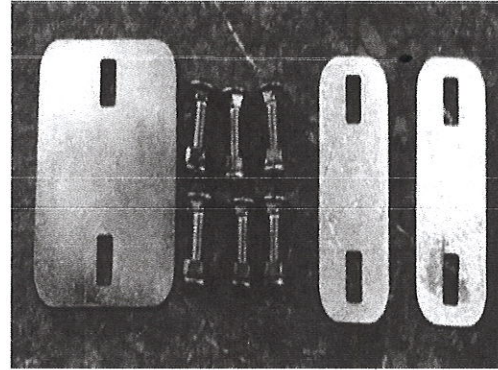
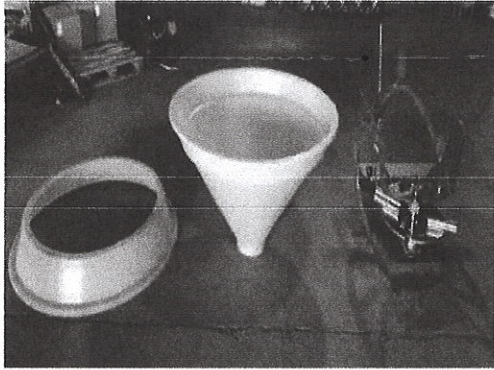
G) Pull the lever all the way up



H) Close the shutter

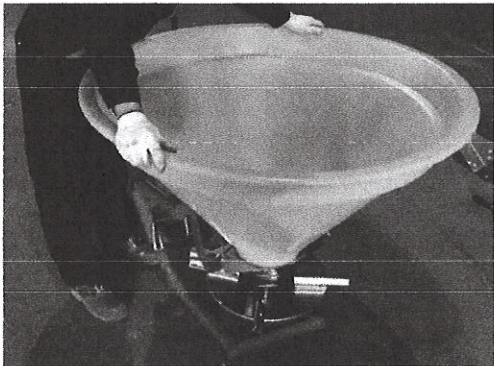


I) Turn the lever pin to set the distance of adjusting bar between shutter and lever by 1 WASHER M10 and 1 RPIN

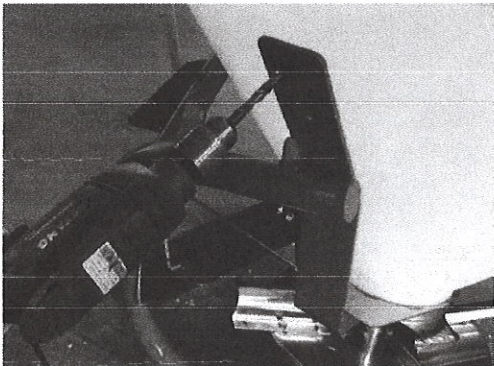


1) EXTENSION HOPPER & HOPPER & FRAME ASSY'

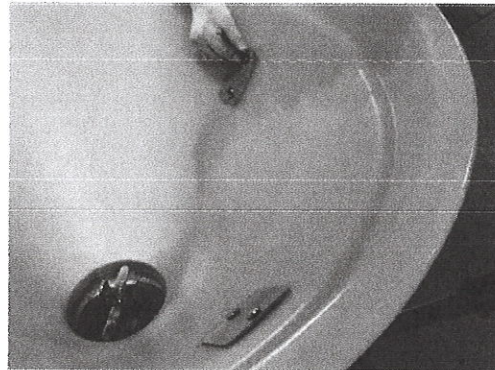
2) BIG SQUARE WASHER & SMALL SQUARE WASHER & SCREWS&NUTS



A) Place the hopper on the Fertilizer Discharger and Hoper Braces centering



B) If the holes do not fit, drill these with a drill



- C)** Fix the hopper on the proper bracket of the frame
by 6 SHANK SCREWS M10x30, 6 LOCK NUTS M10,
1 BIG SQUARE WASHER, 2 SMALL SQUARE WASHERS
(Big square washer → Small square washers)



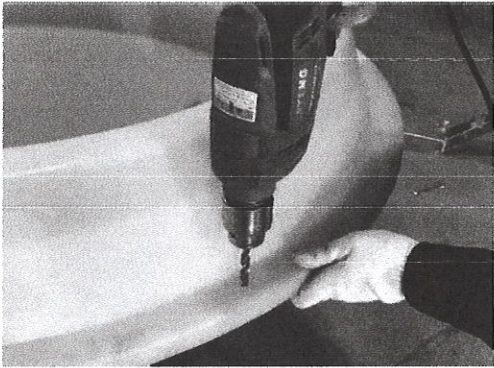
- D)** Tighten center first



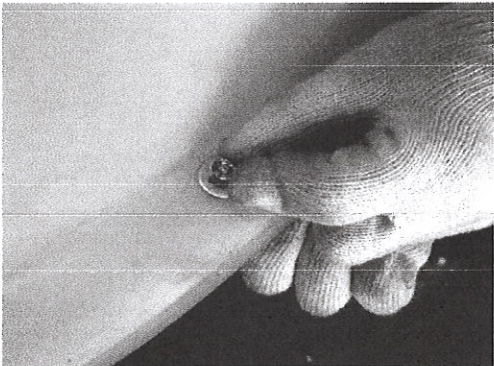
- E)** Tighten others



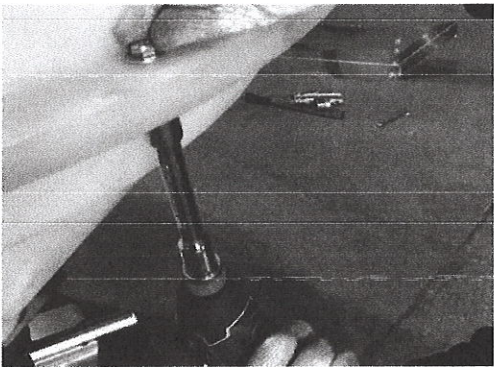
F) Place the extension hopper on the hopper



G) Make 10 hole for M8 to fix extension hopper on hopper by a drill machine with hole jig



H) Fix the extension hopper on the hopper by 10 SCREWS M8x25,
10 FLANGE NUTS M8,
20 WASHERS M8

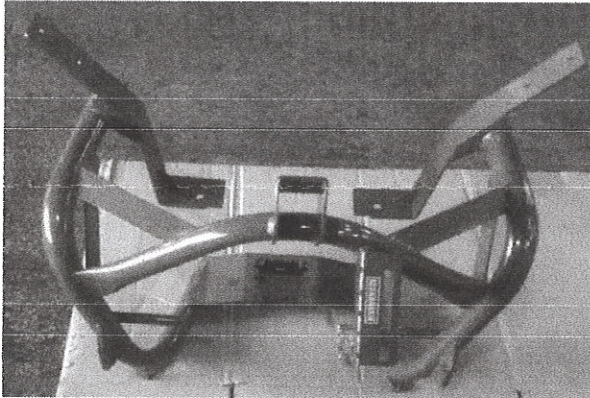


I) Tighten



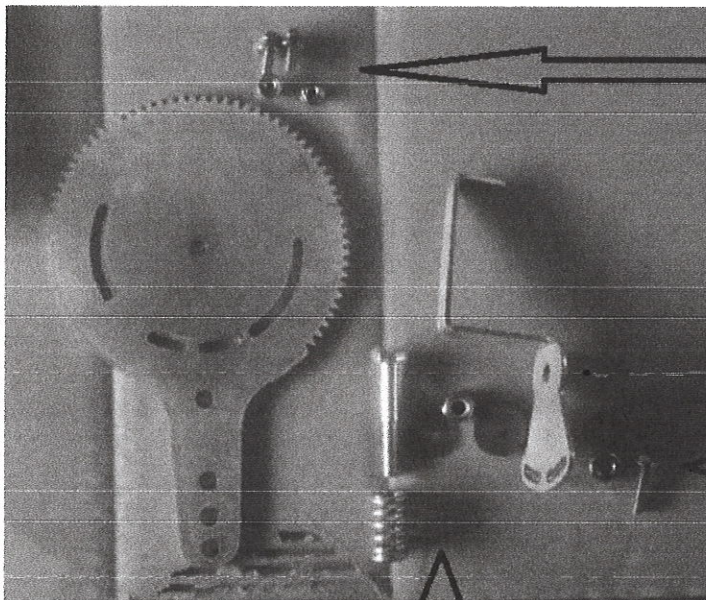
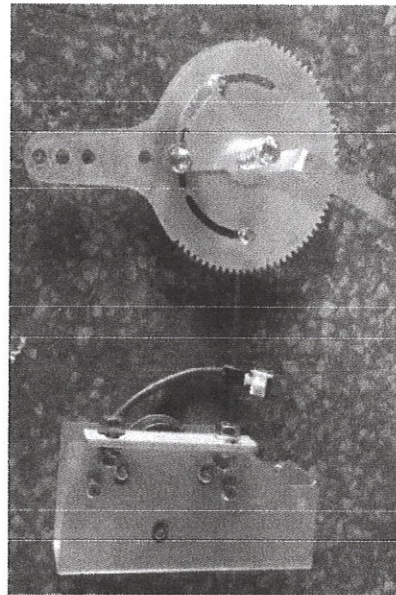
IJS-340

12-2. Assembling instructions for Electric Control



1) Frame

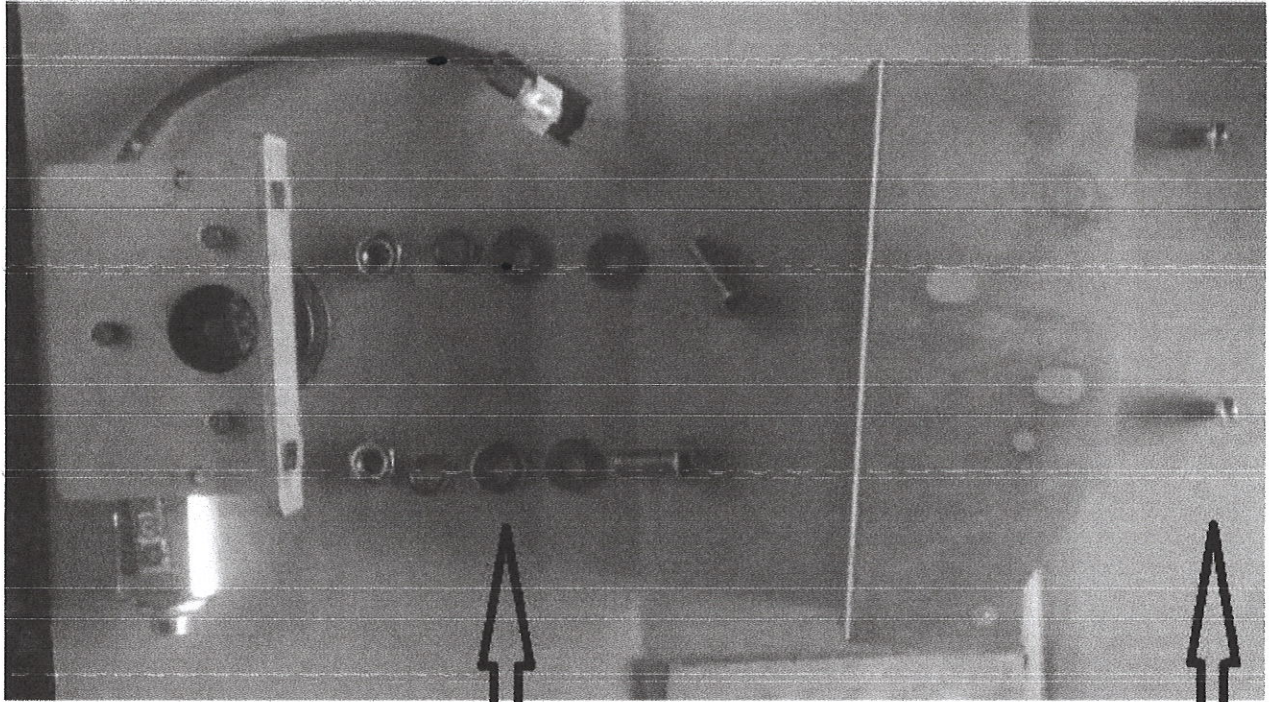
2) Gear lever and DC motor



SUS BOLT M6X20 2EA
SUS FLANGE NUT M6 4EA

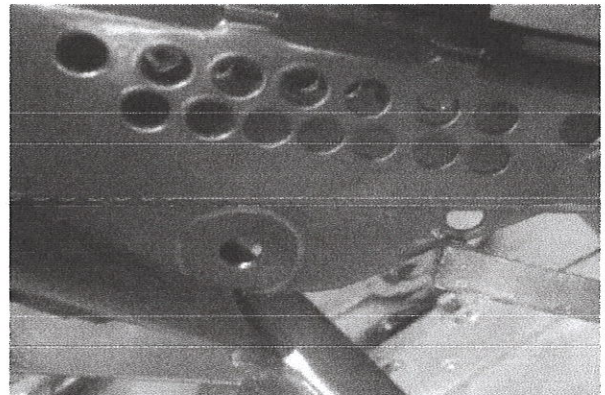
BOLT M6X35 1EA
SUS FLANGE NUT M6 1EA
NUT M10 1EA
WASHER M10 1EA

BOLT M10X65 1EA
LOCK NUT M10 1EA
WASHER M10 1EA
WASHER 10X30X6T 1EA
SPRING 1EA

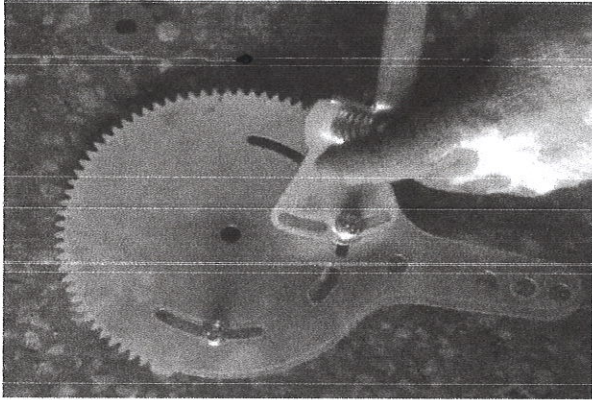


BOLT M10X25 2EA
WASHER M10 4EA
SPRING WHASHER M10 2EA
NUT M10 2EA

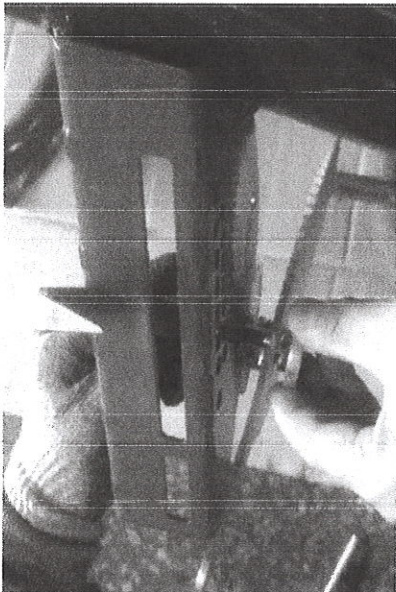
SUS BOLT M6X15 2EA



A) Paint the grease on the hole left side and right side

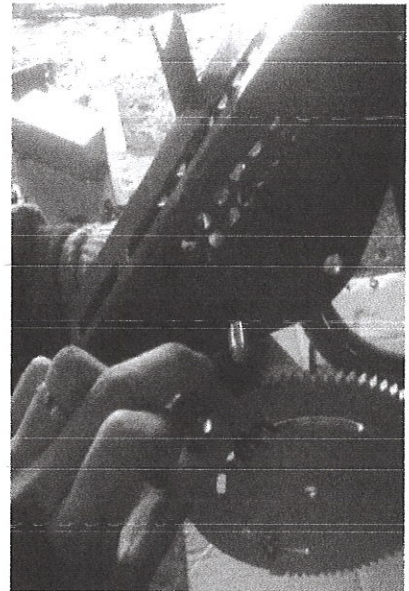


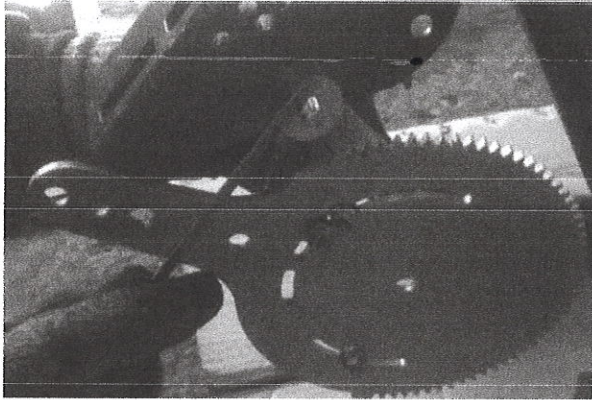
B) Separate Bolt M10x65, Lock nut M10, Washer M10, Washer 10x30x6t and Spring from gear lever



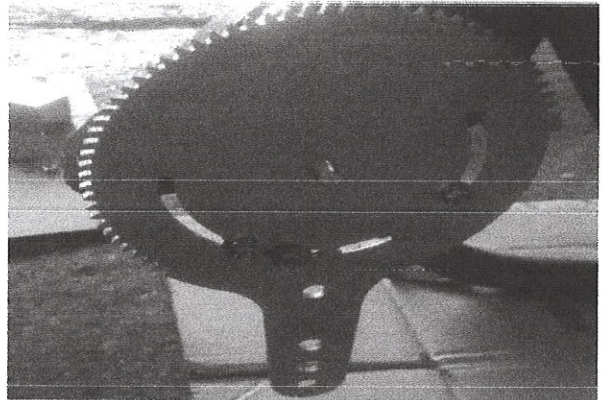
C) Assemble the gage pin with Bolt M10x65 and spring on the frame such as the left photo

D) Assemble the Washer 10x30x6t the frame such as the right photo

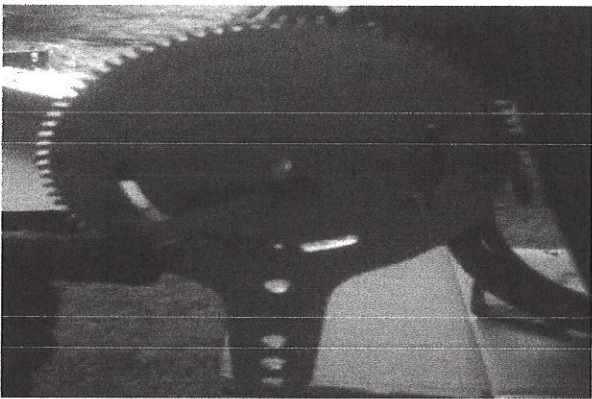




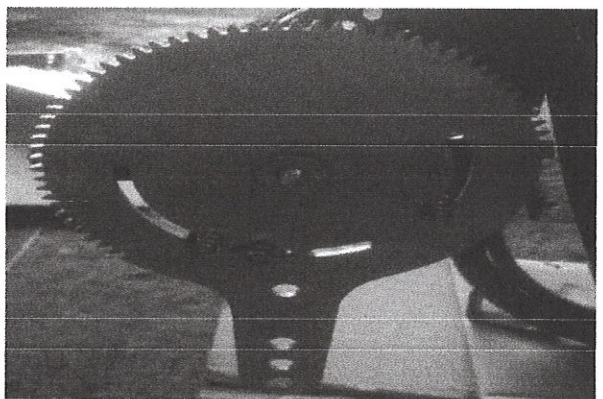
E) Paint the grease on Washer



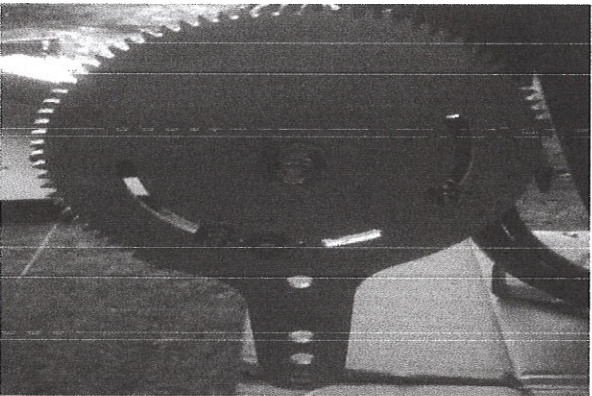
F) Assemble the gear lever



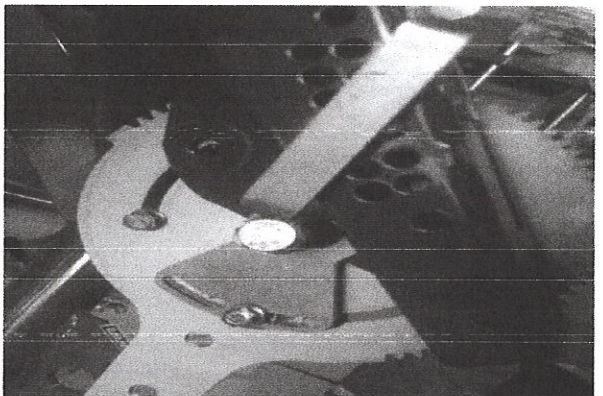
G) Paint the grease on gear lever

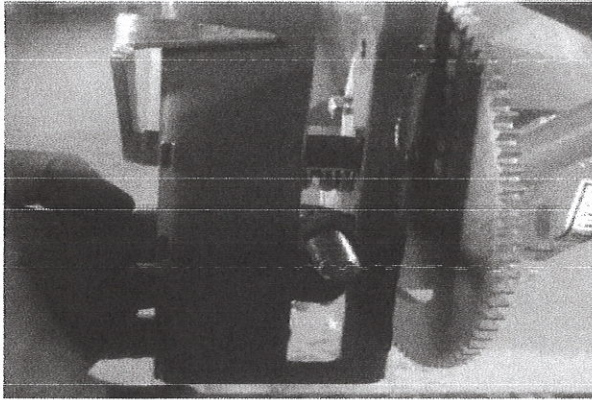


H) Assemble the washer M10

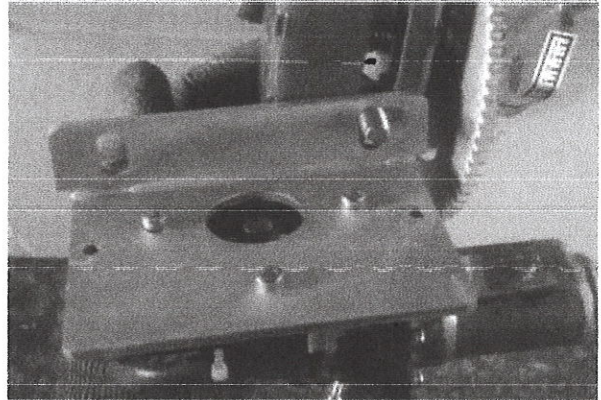


I) Assemble the Lock nut M10 and tighten
(If too tight, the gear lever may not move)

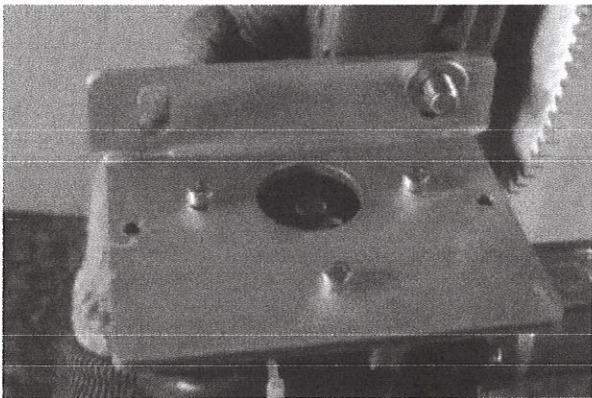




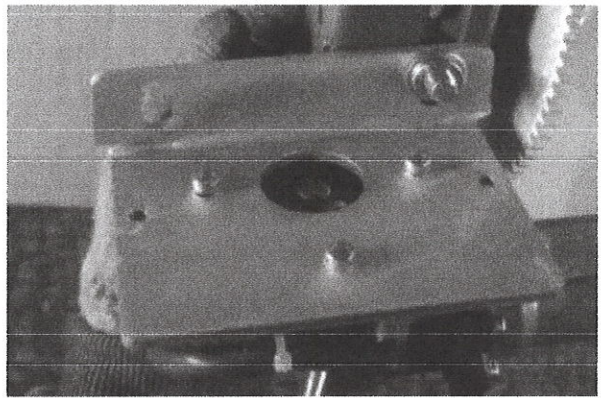
J)



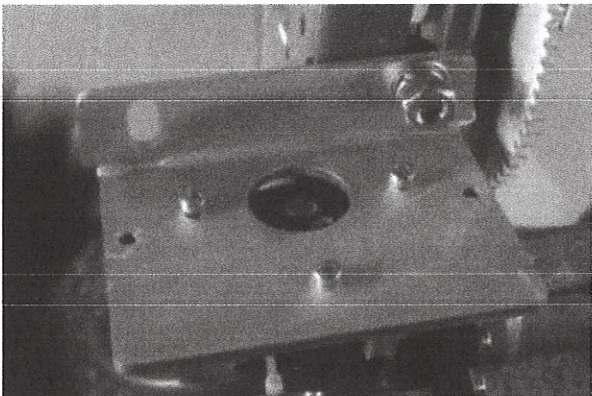
K)



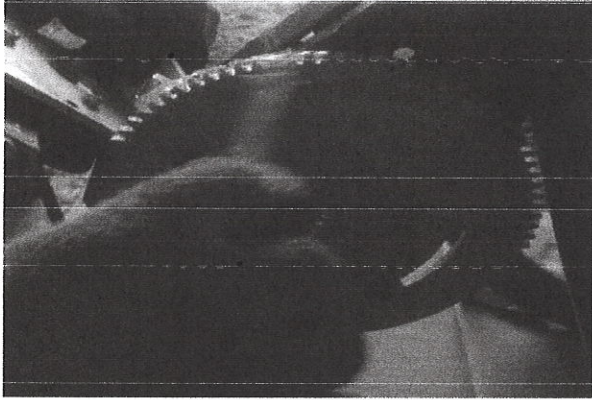
L)



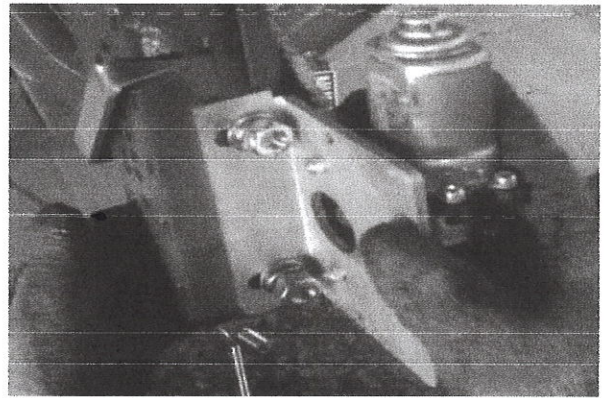
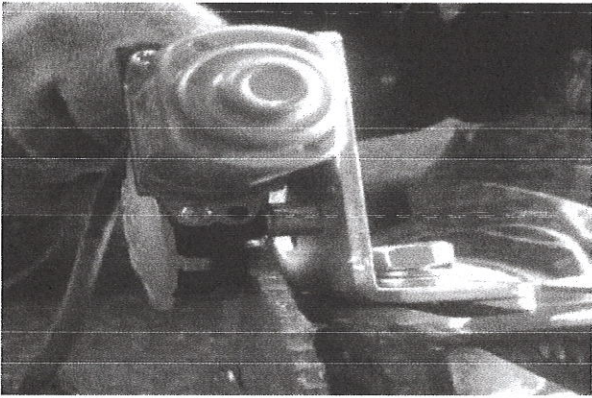
M)



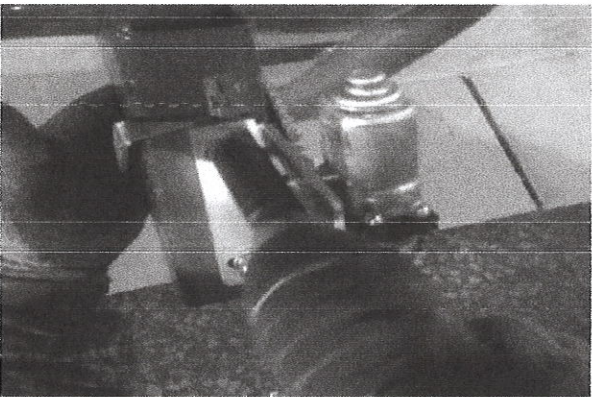
N) Assemble the DC motor upper hole on the frame with Bolt M10x25,
Washer M10, Spring washer M10 and Nut M10



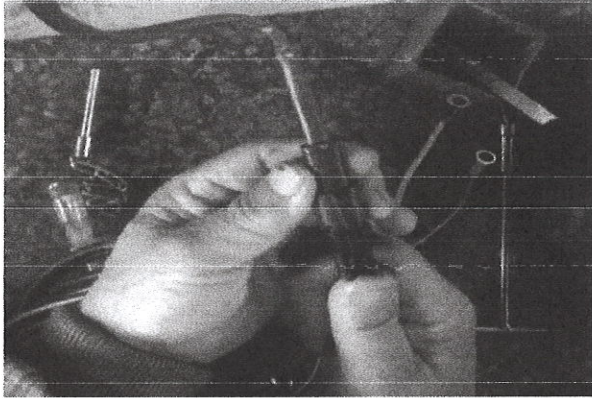
O) Paint the grease on gear teeth



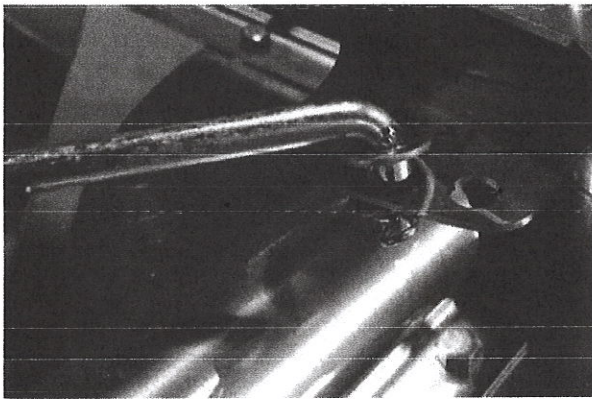
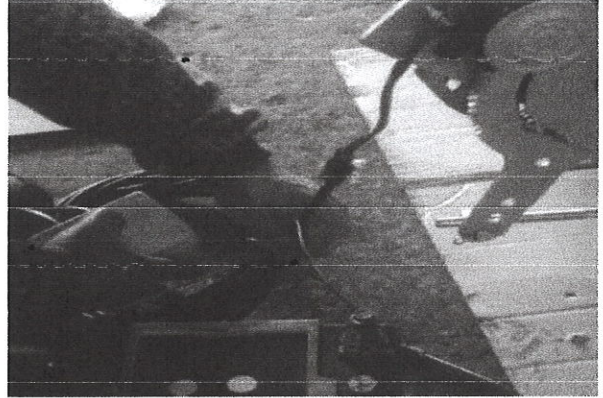
P) Align gear teeth and assemble the DC motor lower hole on the frame
with Bolt M10x25, Washer M10, Spring washer M10 and Nut M10



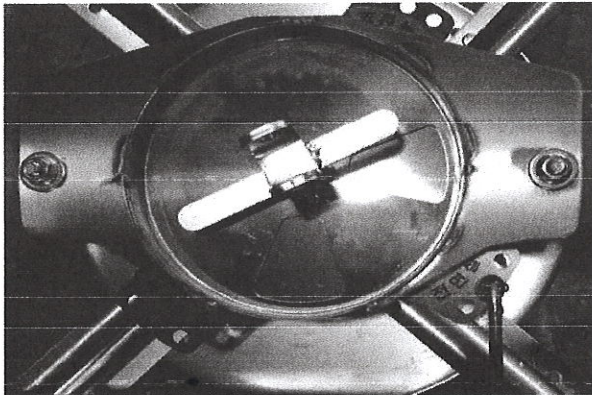
Q) Tighten



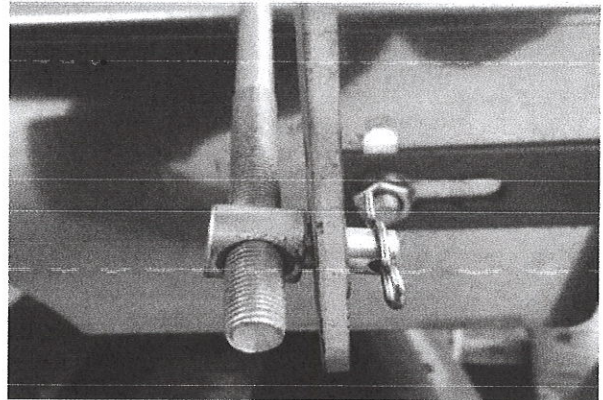
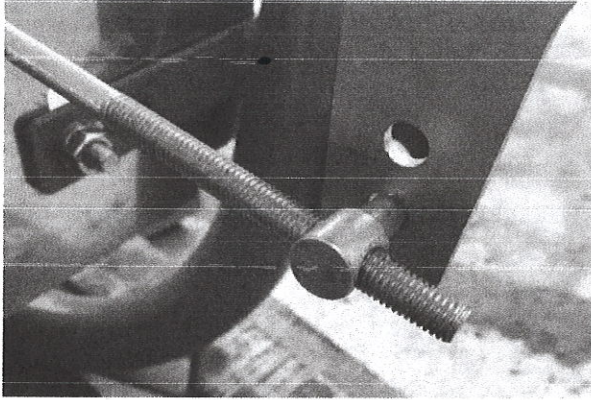
R) Connect DC motor connector to controller connector and battery



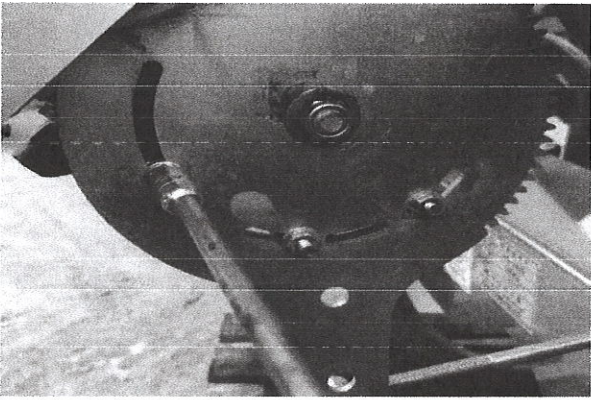
S) Fix the adjusting bar on the proper hole of the shutter by 1 WASHER M10 and 1 RPIN



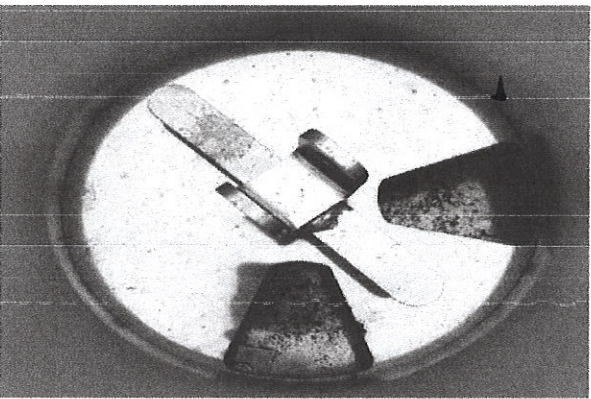
T) Close the shutter



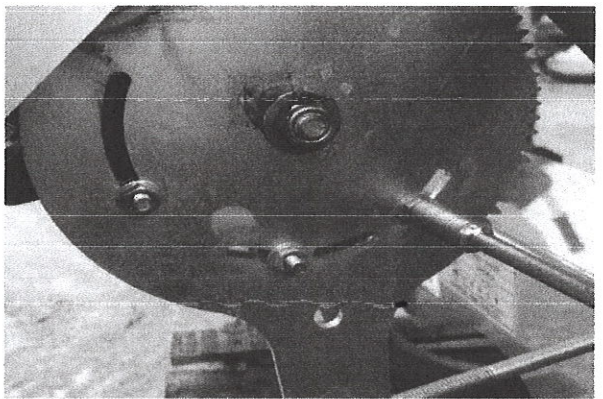
U) Turn the lever pin and operate controller to set the distance between shutter and gear lever and fix adjusting bar by 1 WASHER M10 and 1 RPIN

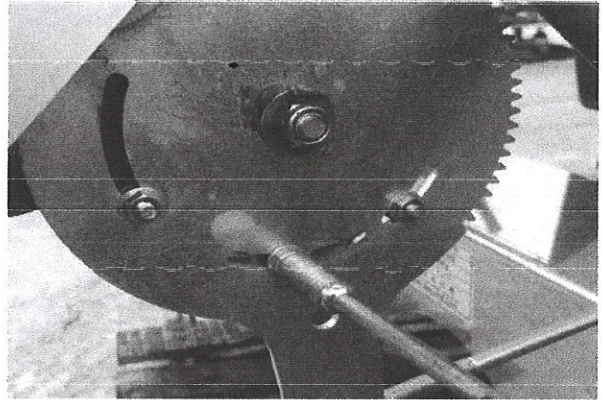
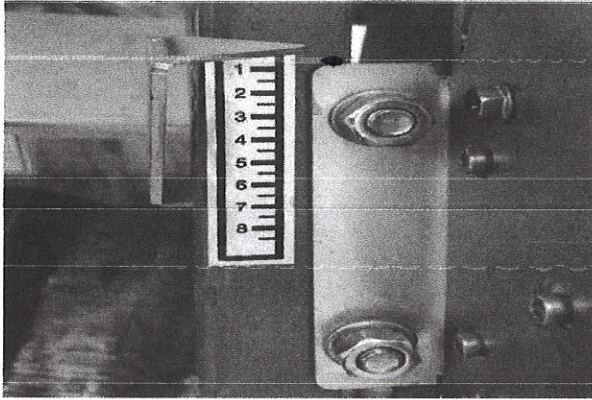


V) Tighten stopper

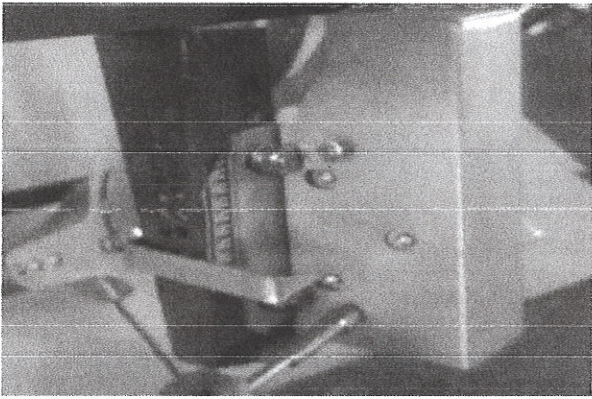


W) Open the shutter and tighten stopper

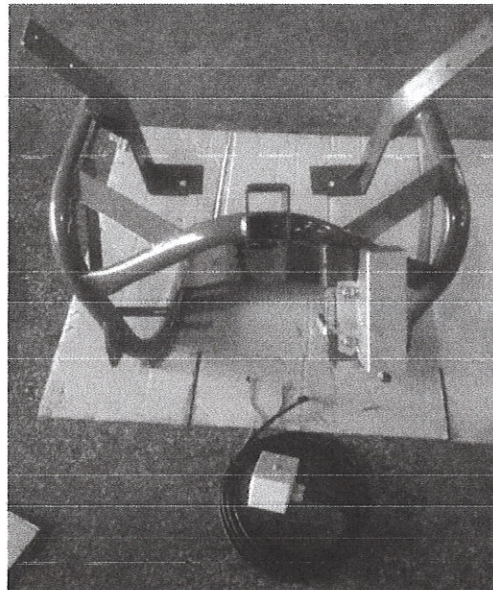




X) Set gage pin on gage level and tighten(Closing)



Y) Tighten DC motor cover



CERTIFICATE OF QUALITY ASSURANCE

All products manufactured and sold by IRIS SPREADERS, Co. are designed and assembled in accordance with regulations on farm machinery under very strict quality management. If the product is managed and used in accordance with instructions on regular check-ups and maintenance schedule provided in the owner's operation manual then we assure you that the product always will be at its best condition and outstanding performance, and safely maintained. Thus, we are pleased to offer you the assurance terms as below.

1. SCOPE OF WARRANTY

If the product you purchased was managed and used in accordance with instructions on regular check-ups and maintenance schedule provided in the owner's operation manual AND the product is still within warranty period and used less than allowed usage time for warranty AND technical analysis reveals that the malfunction was caused by quality of the parts or manufacturing defects, we will repair it or exchange with our qualified replacement parts.

- ▶ On delivery the customer should check the machine that the machine has not been damaged in transit, and that it complies with that ordered as that it is complete with all the accessories as specified in the purchase contract. If it is found defective, a written complaint should be sent within 8 days of receipt of the same.

2. WARRANTY PERIOD: 1 FULL YEAR

When the product requires complementary repairs or maintenance, simply Present “Certificate of Warranty” to an authorized dealer or our main office for inspections and repairs.

3. RESPONSIBILITIES OF THE OWNER

Since any unauthorized inspections or use of non-genuine parts that are not prescribed in Owner’s Operation Manual may decrease the performance of the parts or cause fatal damages to the product, it is very critical to follow all the instructions prescribed in the Owner’s Operation Manual and Certificate of Quality Assurance.

4. EXCLUSIONS (Even within Warranty Period)

- 1) Items to be checked frequently for management :
cleaning fuel-related parts,
Items to be checked on regular basis :
inspection of breaks and adjustment
- 2) Wear and Tear parts
(except manufacturer’s defect):
filters, elements, rubber parts, vinyl parts, fuse, and wires.

3) Any malfunction or defect caused by using unspecified fuel (low quality fuel or contaminated fuel)

4) Any malfunction caused by not complying with instructions prescribed in Owner's Operation Manual or Warning Signs

5) Any defect caused by unauthorized modification of the product or use of non-genuine parts.

6) Any defect caused by negligence in storing and managing such as damages due to extreme weather conditions.

7) Minor issues not related with the function (smell, vibrations, shape, sensitivity)

8) Major discrepancies between the parts and its serial numbers recorded in our data base.

9) Malfunction caused by natural calamities.

5. PROCEDURE FOR WARRANTY REPAIR

Warranty repair will be provided in our authorized Customer Service Centre by qualified warranty repair technician during business hours.

6. In case we upgrade the specifications of certain model, we do not have any responsibility to upgrade the already-sold-equipments.

7. TRANSFER OF WARRANTY

Since we honor the remaining warranty time even after the transfer of ownership through sale or donation, it is very important to acquire the Certificate of warranty when transfer of the product takes place.

※ We will honor all the terms prescribed above. However if you are not satisfied with the service provided to you, you may contact our customer service center directly and we will do our best to support you.

WARRANTY INFORMATION

○ In order for us to guarantee our highest quality on our products, we offer complimentary inspections in designated agencies. If any malfunction occurs caused by manufacturing defect during warranty period, we will repair or replace the parts at free of charge.

○ WARRANTY EXCLUSIONS:

1. Modified products
2. Missed or skipped check-ups and measures
3. Damages or malfunction caused by negligence

Certificate of Warranty (1)

Please bring this certificate within 1 year from the date of purchase to have routine inspection.

Name		Address		
Model Name		Model #	Serial #	
Date of Purchase		Date of Service	Used Time	

This certificate should be submitted when you request an inspection.

Certificate of Warranty (2)

Please bring this certificate within 1 year from the date of purchase to have routine inspection.

Name		Address		
Model Name		Model #	Serial #	
Date of Purchase		Date of Service	Used Time	

This certificate should be submitted when you request an inspection.

Warranty Execution Report

DATE	PERFORMED	TECHNICIAN	CONFIRMED



ISO 9001, ISO 14001, 50 Patents For Spreader

IRIS SPREADERS, CO.

62, Ssangjae 1gil, Wanggung-Myeun, Iksan-Si, Jeonbuk, 570-945, Rep of KOREA

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