

Ezee-On

**MODEL 4290/4300
TANDEM DISCS
2 SECTION FRAME**

OWNER'S MANUAL

**c/w
ASSEMBLY INSTRUCTIONS
and
PARTS LIST**

**Manufactured
by**

Ezee-On Mfg. Ltd.

**Vegreville, Alberta
Canada**

Printed in Canada

643C

WARRANTY

EZEE-ON WARRANTY FOR AGRICULTURAL PRODUCTS

EZEE-ON warrants each item of new EZEE-ON equipment sold by it to be free from defects in material and workmanship under recommended agricultural use. This warranty is void if equipment is used for other than agricultural purposes. The sole obligation of EZEE-ON under this warranty is limited to the repair or replacement of those part(s) (F.O.B. EZEE-ON Factory) of the equipment which EZEE-ON in its sole discretion, determines to have failed as a result of defects in material or workmanship occurring prior to the expiration of one year ("Warranty Period") from delivery by EZEE-ON or its selling dealer ("Dealer") to the original purchaser ("Purchaser"). Such defective part(s) will, at the option of EZEE-ON, be either repaired or replaced only to the Purchaser and must be effected by the selling Dealer.

The Purchaser must, within the Warranty Period, give written notice to the Dealer, from whom the equipment was purchased, of any claimed defect. The Dealer will have a reasonable time under the circumstances then existing, to repair or replace defective part(s). This warranty shall not cover damage to any other part(s) of the equipment caused as a result of delay by the Purchaser to repair or replace defective part(s). EZEE-ON's LIABILITY UNDER THIS WARRANTY SHALL BE LIMITED TO, AND IN NO CASE BE GREATER THAN, THE COST OF THE REPAIR OR REPLACEMENT OF THE PART(S) COVERED. THIS WARRANTY SHALL SPECIFICALLY EXCLUDE ANY OTHER COSTS, INCLUDING BUT NOT LIMITED TO, LOSS AND/OR DAMAGE TO CROPS, LOSS OF USE, LOSS OF PROFIT, REVENUE OR OTHER COMMERCIAL LOSSES, INCONVENIENCE OR COST OF RENTAL OR REPLACEMENT EQUIPMENT, TRANSPORTATION EXPENSE TO AND FROM DEALER'S PREMISES, SERVICE CALLS, NORMAL MAINTENANCE AND UPKEEP COSTS, OVERTIME LABOUR COSTS AND ANY AND ALL INJURIES, CLAIMS OR SPECIAL INDIRECT OR CONSEQUENTIAL DAMAGE OR OTHER ECONOMIC LOSS. THE FOLLOWING ITEMS ARE SPECIFICALLY EXCLUDED FROM WARRANTY:

ALL PRODUCTS -	RUBBER TIRES AND TUBES, EXCLUSIVE OF PACKER WHEEL TIRES WHICH ARE WARRANTED DIRECTLY BY AGENTS OF THE TIRE MANUFACTURERS.
CULTIVATORS/CHISEL PLOWS AND AIR DRILLS -	BENT SHANKS AND ALL GROUND ENGAGING TOOLS.
AIR SEEDERS -	TANK PAINT IF DAMAGE IS CAUSED BY CHEMICAL AGENTS.
DISCS -	DISC BLADES.
FRONT END LOADERS -	BUCKET TEETH AND GRAPPLE TEETH. MODIFICATIONS TO LOADER MOUNTS TO ADAPT TO CHANGES MADE BY TRACTOR MANUFACTURERS IN TRACTOR DESIGN.
POST DRIVERS -	ENGINE & ENGINE PARTS WHICH ARE WARRANTED DIRECTLY BY AGENTS OF THE ENGINE MANUFACTURER.

This warranty applies only to new equipment, manufactured by EZEE-ON. This warranty does not cover damage caused to or by any equipment, accessories or part(s) attached to or utilized in conjunction with EZEE-ON equipment. This warranty does not cover damage caused as a result of attachment, modification and incorrect assembly or pre-delivery.

This warranty constitutes the only warranty and is in lieu of any other warranty expressed or implied. There is no warranty of merchantability or of fitness for a particular purpose. No Dealer, salesman or agent has any authority to alter or amend this warranty.

TYPE OF EZEE-ON PRODUCT PURCHASED	_____
MODEL NUMBER	_____
SERIAL NUMBER	_____

This identification should be provided in all correspondence or communication with EZEE-ON regarding your Implement.

Tandem Disc Pre-Delivery Inspection/ Warranty Registration

Dealership _____ Location _____ Delivery Date: ____/____/____
Model _____ Width _____ Serial # _____ ☐ New Machine ☐ Demo Unit

Items for Dealership technician to inspect prior to delivery:

- | | |
|---|--|
| ☐ Torque all wheel bolts/ lug nuts to specifications | ☐ Check Operator's Manual to ensure all decals are correctly installed |
| ☐ Check tire pressures are correct. (Affects leveling process) | ☐ Connect Disc to tractor with a suitable pin and then lift the hitch jack |
| ☐ Level machine. Refer to Operator's Manual for detailed instructions | ☐ Check hydraulic hoses are leak free and hydraulic cylinders are filled with oil |
| ☐ Lubricate the entire machine as recommended in the Operator's Manual | ☐ Adjust mounted harrows as required (if equipped) |
| ☐ Check tightness of all bolts | ☐ Check overlap measurement of front gangs (Does not apply to model 395) |
| ☐ Check the correct # of depth stops are installed on mounting bar. (8)
*(Model 395 Offset disc has only (5) depth stop segments) | ☐ Check opening measurement between two inner blades of rear main frame gangs |
| ☐ Set front and rear gangs at medium angle (if adjustable) | ☐ Check all electrical components (safety lights) and connections |
| ☐ Adjust scrapers so they come into contact with blades | ☐ Ensure hydraulic lockout valves function properly |

Pre-Delivery completed by _____ (signature) Date ____/____/____
mm dd yyyy

Items for Dealership staff to cover with customer upon delivery:

- | | |
|---|--|
| ☐ Give the Operator's Manual to your customer | ☐ Connect hydraulics, wiring harness, safety chain, etc. |
| ☐ Inform your customer of all safety precautions, maintenance procedures, and proper operation of the Disc | ☐ Ensure machine functions properly. (Fold/Unfold, no leaks, lights work, etc) |
| ☐ Verify correct serial number | ☐ Take the Disc to a field (preferably where the ground is level, if possible) and perform all required leveling adjustments. Follow the Operator's Manual |
| ☐ Attach Disc to tractor | ☐ Explain warranty and fill out registration |
| ☐ Ensure hitch jack is in transport position | ☐ Start tractor and run all controls so your customer understands correct operation of the Disc and ensure all functions of the Disc are working properly |

Warranty Registration

Owner's Name _____ Address _____ Town _____
Province/ State _____ Country _____ Postal/ Zip Code _____
Home Phone # _____ Cell Phone # _____ Email Address _____

*The owner hereby acknowledges receipt of the Operator's Manual and that all delivery checks have been completed as listed above. Owner furthermore acknowledges that the Operator's Manual is an integral part of the purchased equipment and it contains information important to the proper operation, maintenance, and safety procedures of this machine.

Owner's signature _____ Date ____/____/____
mm dd yyyy

Dealer's signature _____ Date ____/____/____
mm dd yyyy

Mail or Fax the original copy of this Warranty Registration and Pre-Delivery/Delivery Inspection to Ezee-On Manufacturing immediately after delivery.

Warranty Registration is mandatory. Failure to complete and return this form will delay the processing of warranty claims

INTRODUCTION

THANK YOU for choosing to purchase this Ezee-On implement, we are confident you will be impressed with its performance.

In addition to the traditional values of simplicity, reliability and durability, your new EZEE-ON implement incorporates a number of operational and safety features. We urge you to familiarize yourself with the maintenance and operation of your implement by reading this Manual thoroughly and completely. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL contains important information regarding the assembly, maintenance, operating instructions, and troubleshooting problems, and should be considered a permanent part of your implement.

Remember that it is the responsibility of the Operator to ensure that the implement is field ready, prior to first operation. However, should you encounter a problem, please contact your dealer immediately.

READ THIS MANUAL CAREFULLY TO ENSURE THAT YOUR NEW IMPLEMENT IS ASSEMBLED AND ADJUSTED CORRECTLY PRIOR TO FIRST OPERATION.

RIGHT and LEFT is determined by standing behind the machine and facing FORWARD, in the direction of travel.



This symbol is used to identify safety messages. When you see this symbol, read the safety message carefully.



INDEX

	PAGE
Safety	2
Specifications	5
General Operations	6
Adjustments	10
Maintenance	15
Trouble Shooting	17
Assembly Instructions	20
Gang Beam Chart	32
8" Spacing Disc Gang Pattern	33
9" Spacing Disc Gang Pattern	36
10-1/2" Spacing Disc Gang Pattern	39

EZEE-ON MFG. LTD. RESERVES THE RIGHT to make improvements in design and changes in specifications at any time without notice and without incurring any obligation to install them on units previously sold. Specifications, descriptions, and illustrative material herein are as accurate as known at time of publication, but are subject to change without notice.

SAFETY RECOMMENDATIONS



WATCH FOR THIS SYMBOL. IT IDENTIFIES IMPORTANT SAFETY MESSAGES. WHEN YOU SEE THIS SYMBOL, READ THIS SAFETY MESSAGE CAREFULLY.

GENERAL SAFETY

1. Never allow anyone to ride on the tractor drawbar, or on the disc. The person(s) riding may fall and be seriously or fatally injured.
2. Disc should be operated ONLY by persons responsible and qualified to do so.
3. Never allow anyone to climb or play on the tractor or disc. They may fall and be seriously injured.
4. Follow all safety precautions in your tractor manual.
5. Keep a First Aid Kit in the tractor at all times.

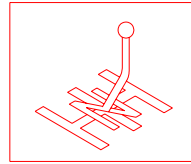


ASSEMBLY SAFETY

1. When assembling disc, use aligning punch to line up holes. Keep fingers out of holes. Any sudden movement of heavy components will severely injure or sever your fingers.
2. Use adequate manpower or hoist to lift the heavy components into place. Attempting to lift heavy components by yourself could cause serious injury.
3. Be sure all bolts and hydraulic fittings are tight, and all cotter pins are installed in the slotted nuts and pins.
4. Support the main and wing frames securely before assembling the components. Inadequate support may result in the heavy components falling and causing serious injury to you or person(s) nearby.
5. Be sure all wheel bolts are checked for tightness during initial transport or when first discing. Loose wheel bolts may result in the wheel falling off, causing serious damage to the disc and may cause serious injury to the operator or person(s) nearby.
6. To fill the wing lift cylinder with hydraulic fluid, remove the pin from the shaft end of each wing lift cylinder and pump fluid into the cylinders. Extend and contract the cylinders until they are completely filled with hydraulic fluid. The wing will free-fall if the cylinder is not completely filled with fluid, resulting in serious damage to machine or serious injury or death to person(s) nearby.
7. Do not raise or lower the main or wing frames until all components are securely tightened. Loose components will cause serious damage to the disc and serious injury or death to you and person(s) nearby if the main or wing frames fell causing serious injury or death.
8. Hydraulic oil escaping under pressure has sufficient force to cause serious injury. Relieve pressure in all hydraulic components before disconnecting any hydraulic components. Before applying pressure to hydraulic system, be sure all connections are tight and components are not damaged. If injured by escaping hydraulic fluid, see a medical doctor immediately.
9. When attaching gang assemblies, wear protective gloves to prevent injury from cutting edges of blades.
10. Before applying pressure to the hydraulic system, be sure all connections are tight and the components are not damaged.
11. Wing will free fall if wing cylinder is not full of oil causing serious damage to machine or serious injury or death to person(s) nearby.
12. If hydraulic cylinder shafts are unpinned and cycled to fill the cylinders with oil, they can be seriously damaged if clevis of shaft strikes rockshaft arm or wing cylinder lug.

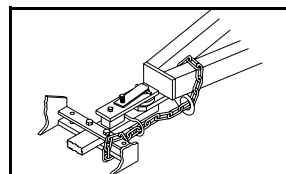
MAINTENANCE SAFETY

1. Do not loosen or disassemble hydraulic components when there is pressure within those components. Hydraulic components under pressure may cause parts and hydraulic fluid to fly out at a high velocity, which could cause serious injury. Always relieve the pressure in the hydraulic system before making adjustments to the hydraulic system. If injured by escaping hydraulic fluid, see a medical doctor immediately.
2. Check all hydraulic hoses periodically for signs of ruptures and leaks. Always use wood or cardboard as a backstop, and wear gloves and eye protection when searching the hydraulic system for leaks. Spurting hydraulic fluid can cause injury if it penetrates the skin or the eyes. If injured by escaping hydraulic fluid, see a medical doctor immediately.
3. Always relieve the pressure in the hydraulic system when the disc is not being operated.
4. Always permit parts which contain hot fluid to cool to a safe temperature before handling or disconnecting these parts.
5. Always wear safety glasses or goggles and gloves when working on the hydraulic system.
6. To fill wing lift cylinder with hydraulic oil, extend and contract cylinder within slot on wing until cylinders are completely filled with oil. Do not fold wing until cylinder is completely filled, wing(s) will free fall if cylinders are not filled with oil, causing serious damage to machine or serious injury or death to person(s) nearby.
7. Lower the disc to the ground when servicing or making adjustments. If the disc must be serviced in the raised position, place blocks under frame. Do not rely on hydraulics lock up valves as a safety device. If the hydraulic system failed, or if the hydraulic lever was accidentally operated, the disc could drop.
8. Do not lubricate disc while it is in motion. You may fall in front of disc and be seriously or fatally injured.
9. Always place all tractor controls in neutral and lock brakes when hitching disc to tractor. Tractor could roll backwards when hitching disc.
10. If wing lift cylinder is removed when wing is folded into transport position, always install a safety chain between wing frame and main frame to prevent wing(s) from falling. If wing(s) fell, serious injury or death could occur to person(s) nearby and machine would be damaged severely.



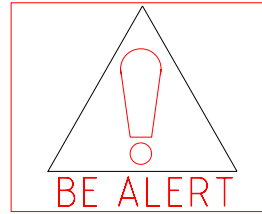
TRANSPORT SAFETY

1. When trailing the disc over public roads, use the SMV emblem and warning light for protection of tractor and other motor vehicle operators. Check local laws for width and height maximums.
2. When transporting disc always place both hydraulic lock up valves in “closed” position. See Section 7 of Operating Instructions on page 6. If hydraulic lever was accidentally operated the disc could drop or wing could fall.
3. Do not exceed 10 mph (16 km/h) when transporting the disc on smooth surfaces. Reduce speed when transporting on rough surfaces. Excessive speed could cause loss of tractor control and damage to disc and tractor. Do not transport the disc with any other vehicle except a tractor.
4. When transporting the disc with the wing(s) folded (UP), be sure there is sufficient clearance under all power lines and other overhead obstructions. Serious injury or death can result from contact with electrical lines. Use care to avoid contact with electrical lines when moving or operating the disc.
5. Always attach a safety chain to the tractor drawbar and the disc hitch before transporting the disc. Serious damage and injury could result from the disc separating from the tractor drawbar.



TRANSPORT SAFETY CONTINUED:

6. Check all reflectors and visibility and cleanliness before transporting the disc. It is important that the reflectors are clean and visible, especially during the evening hours.
7. Regulate your speed on hillsides and curves when transporting the disc. Loss of tractor control could result in serious damage to the disc and possible serious injury or death to you or those nearby.
8. Never allow anyone to ride on drawbar of the tractor or on the disc. The person riding may fall and be seriously injured.
9. When transporting disc always install the complete package of depth control stops 17" (432 mm) long on shaft of main frame cylinder. If any components of hydraulic system failed disc could drop causing serious injury or death to operator or person(s) nearby.



OPERATION SAFETY

1. Be sure person(s) are standing clear before starting or moving the tractor and disc.
2. Only one (1) person (the operator) should be permitted on the tractor when the disc is in operation, and he/she should be familiar with repair procedures and temporary first aid treatment.
3. Never stand between the tractor and disc when hitching disc to the tractor UNLESS all tractor controls are in neutral and the park brake is set. The tractor could roll backwards which could result in serious injury or death to you or persons nearby.
4. When operating on hillsides, use extreme care. The tractor may tip over if it strikes a hole, ditch or other irregularity.
5. To avoid personal injury or death, always stay clear of the folding wing(s) when it is being raised, lowered or in the folded position. If the hydraulic system failed, or if the hydraulic lever was accidentally operated, the wing could drop, resulting in serious injury or death to you or those nearby.
6. Do not stand under wing while wing is being raised or lowered. If any components of hydraulic system should fail, or if hydraulic lever should accidentally be operated, wing could drop causing serious injury or death.

SAFETY DECALS

1. Keep all decals clean and in good condition to provide you with a constant reminder of safe operating procedures.
2. Replace any destroyed, missing or illegible decals.

SPECIFICATIONS

MODEL	BLADE SPACING	APPROXIMATE	NO. OF BLADES	NO. OF GANG	WING LIFT CYL.	GANG BEARING TYPE	
		CUTTING WIDTH		BEARINGS	STROKE	STD.	OPTION
4298 - 50B	8" (203 mm)	17' (5.18 m)	50	12	34-3/4" (883 mm)	211	410
4298 - 54B	8" (203 mm)	18-1/2' (5.63 m)	54	12	34-3/4" (883 mm)	211	410
4298 - 58B	8" (203 mm)	20' (6.09 m)	58	14	34-3/4" (883 mm)	211	410
4298 - 62B	8" (203 mm)	21' (6.40 m)	62	18	36" (914 mm)	211	410
4298 - 66B	8" (203 mm)	22-1/2' (6.85 m)	66	22	36" (914 mm)	211	410
4298 - 70B	8" (203 mm)	24' (7.31 m)	70	22	36" (914 mm)	211	410
4298 -74B	8" (203 mm)	25-1/2' (7.77 m)	74	24	36" (914 mm)		
4299 - 46B	9" (229 mm)	18' (5.48 m)	46	12	34-3/4" (883 mm)	211	410
4299 - 50B	9" (229 mm)	19-1/2' (5.94 m)	50	12	34-3/4" (883 mm)	211	410
4299 - 54B	9" (229 mm)	21' (6.40 m)	54	16	36" (914 mm)	211	410
4299 - 58B	9" (229 mm)	22' (6.70 m)	58	20	36" (914 mm)	211	410
4299 - 62B	9" (229 mm)	23-1/2' (7.16 m)	62	20	36" (914 mm)	211	410
4299 - 66B	9" (229 mm)	25' (7.62 m)	66	22	36" (914 mm)	211	410
4309 - 46B	9" (229 mm)	18' (5.48 m)	46	12	34-3/4" (883 mm)	410	---
4309 - 50B	9" (229 mm)	19-1/2' (5.94 m)	50	12	34-3/4" (883 mm)	410	---
4309 - 54B	9" (229 mm)	21' (6.40 m)	54	16	36" (914 mm)	410	---
4309 - 58B	9" (229 mm)	22' (6.70 m)	58	20	36" (914 mm)	410	---
4309 - 62B	9" (229 mm)	23-1/2' (7.16 m)	62	20	36" (914 mm)	410	---
4309 -66B	9" (229 mm)	25' (7.62 m)	66	22	36" (914 mm)	410	---
4300 - 42B	10-1/2" (267 mm)	18-1/2" (5.63 m)	42	12	34-3/4" (883 mm)	410	T2-215
4300 - 46B	10-1/2" (267 mm)	20' (6.09 m)	46	12	34-3/4" (883 mm)	410	T2-215
4300 - 50B	10-1/2" (267 mm)	22' (6.70 m)	50	16	36" (914 mm)	410	T2-215
4300 - 54B	10-1/2" (267 mm)	23-1/2' (7.16 m)	54	16	36" (914 mm)	410	T2-215
4300 - 58B	10-1/2" (267 mm)	25' (7.62 m)	58	18	36" (914 mm)	410	T2-215

TIRES

MODEL	SIZE	TOTAL NO. of WHEELS	OUTER WHEEL TYPE	M/F TIRES		W/F TIRES	
				SIZE	PRESSURE	SIZE	PRESSURE
4290	17' - 19-1/2' (5.18 m - 5.94 m)	4	Single	11L x 15 F1 Load Range "C"	45	11L x 15 F1 Load Range "C"	45
4290	20' - 25-1/2' (6.09 m - 7.77 m)	6	Dual	11L x 15 F1 Load Range "C"	45	11L x 15 F1 Load Range "C"	45
4300	18' - 20' (5.48 m - 6.09 m)	4	Single	11L x 15 F1 Load Range "D"	60	11L x 15 F1 Load Range "C"	45
4300	21' - 25' (6.40 m - 7.62 m)	6	Dual	11L x 15 F1 Load Range "D"	60	11L x 15 F1 Load Range "C"	45

GANG ANGLE

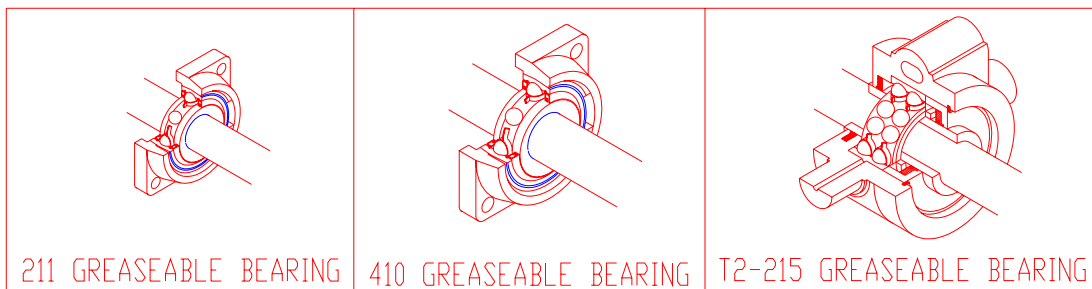
- Front Gang - Adjustable - 22 and 25 degrees
- Rear Gang - Adjustable - 20 and 23 degrees

HYDRAULIC CYLINDERS - Wing Lift (1) - 5" x 36" (127 mm x 914 mm)
 Lift (1) - 3-1/2" x 24" Rephasing (88.9 mm x 610 mm)
 (1) - 3" x 24" Rephasing (76.2 mm x 610 mm)

BOLT TORQUES

- Gang Bolts - 1-15/16" (49 mm) Diameter 3200 ft. lbs. (4336 N.m)
- Gang Beam Bolts - 1-1/4" (31.7 mm) Diameter 840 ft. lbs. (1138.2 N.m)
- Levelling Crank Bolts - 1-1/4" (31.7 mm) Diameter 840 ft. lbs. (1138.2 N.m)
- Wheel Bolts - 9/16" (14.2 mm) Diameter 130 ft. lbs. (176.2 N.m)
- Bearing Hanger U-Bolts - Model 4290 - 5/8" (15.7 mm) Diameter 150 ft. lbs. (203.25 N.m.) - Solid Hangers
 - 3/4" (19 mm) Diameter 260 ft. lbs. (352.3 N.m.) - Stone Flex Hangers
 - Model 4300 - 7/8" (22 mm) Diameter 430 ft. lbs. (582.65 N.m.)

GANG BEARINGS



GENERAL OPERATION

1. Before operating disc, refer to Safety Precautions on pages 2 to 4. Review disc safety items applicable to road transport and field operation of disc.
2. **IMPORTANT:** WHEN LOWERING WING TO FIELD POSITION, BE SURE WING LIFT CYLINDER IS FULLY EXTENDED. AFTER WING TIRES HAVE HIT THE GROUND CONTINUE TO HOLD HYDRAULIC LEVER. THERE WILL BE A SHORT PAUSE BEFORE CYLINDERS FULLY EXTEND. IF CYLINDER IS NOT FULLY EXTENDED, THE WING WILL HANG ON CYLINDERS AND WILL NOT FLEX DOWN.



CAUTION: NEVER STAND BETWEEN THE TRACTOR AND DISC WHEN HITCHING DISC TO THE TRACTOR UNLESS ALL TRACTOR CONTROLS ARE IN NEUTRAL AND THE PARK BRAKE IS SET. THE TRACTOR COULD ROLL BACKWARDS WHICH COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU OR PERSONS NEARBY.

3. For best performance, the tractor drawbar should be pinned at centre of tractor.
4. Ensure disc is level and cutting depth is properly adjusted. If further adjustments are required, see pages 10 to 15.
5. Do not make sharp turns with the disc in ground. Sharp turns put excess pressure on the gangs.

IT IS ADVISABLE TO ALWAYS LIFT MACHINERY OUT OF GROUND FOR MAKING SHARP TURNS. EXCESSIVE SIDE THRUST IS APPLIED TO BEARINGS AND MACHINE IF DISC IS TURNED WHILE IT IS IN THE GROUND.

6. In discing conditions where extreme wing flexibility is required, remove cylinder pin from shaft end of wing lift cylinder and retract cylinder.
7. See Fig. 1. When transporting disc, always place hydraulic lockup valves in closed position. Lock up valves are located at the front end of centre frame.

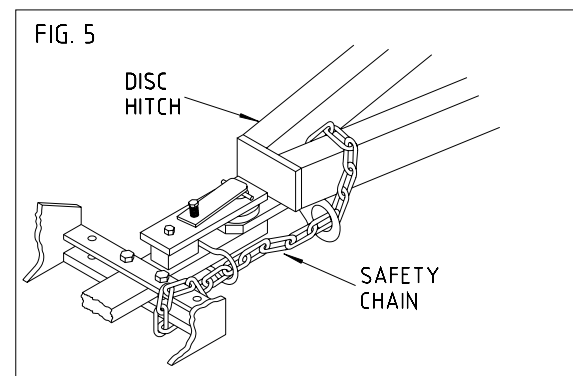
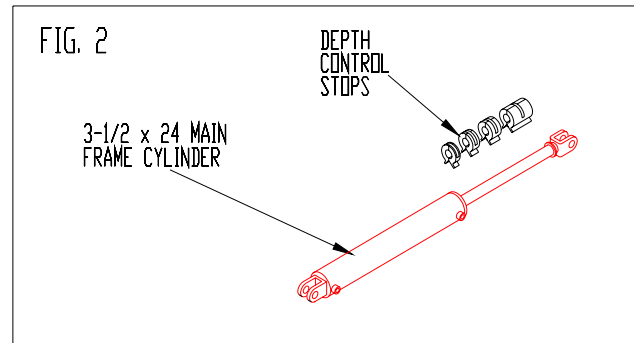


CAUTION: WHEN TRANSPORTING DISC ALWAYS PLACE BOTH HYDRAULIC LOCK UP VALVES IN "CLOSED" POSITION. IF HYDRAULIC LEVER WAS ACCIDENTALLY OPERATED THE DISC COULD DROP OR WING COULD FALL.

8. See Fig. 2. When transporting disc always place the complete depth control package 17" (432 mm) long on shaft of 3-1/2" x 24" (88.9 mm x 610 mm) main frame lift cylinder.



CAUTION: WHEN TRANSPORTING DISC ALWAYS INSTALL THE COMPLETE PACKAGE OF DEPTH CONTROL STOPS 17" (432 mm) LONG ON SHAFT OF MAIN FRAME CYLINDER. IF ANY COMPONENT OR HYDRAULIC SYSTEM FAILED DISC COULD DROP CAUSING SERIOUS INJURY OR DEATH TO OPERATOR OR PERSON(S) NEARBY.



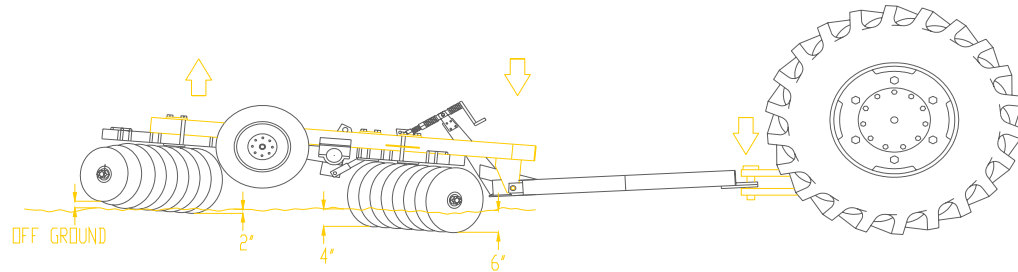
9. **IMPORTANT:** WHEN TRANSPORTING DISC, DO NOT EXCEED SPEED OF 10 MPH (16 KM/H).
10. **IMPORTANT:** DO NOT DISC WITH FRONT GANGS CUTTING DEEPER THAN REAR GANGS. DISC MUST BE LEVEL. IF FRONT GANGS ARE LOWER, EXCESSIVE STRAIN WILL BE PLACED ON BLADES, GANG BEARINGS AND FRAME HITCH, WHICH COULD LEAD TO PREMATURE PARTS FAILURE, ESPECIALLY OUTSIDE BLADES OF FRONT GANGS.
11. **IMPORTANT:** WHEN DISC IS PARKED WITH BLADES RESTING ON FROZEN GROUND, DO NOT ATTEMPT TO LIFT DISC OUT OF FROZEN GROUND BY LOWERING TRANSPORT WHEELS. LIFTING DISC OUT OF FROZEN GROUND WITH TRANSPORT WHEELS MAY CAUSE SERIOUS DAMAGE TO DISC COMPONENTS. DAMAGE WILL MOST LIKELY OCCUR TO MAIN LIFT CYLINDERS AND ROCKSHAFT CYLINDER ARMS. DO NOT PARK DISC WITH BLADES ON GROUND THAT MAY FREEZE. LEAVE DISC PARKED ON TRANSPORT WHEELS.

12. **IMPORTANT:** TO AVOID SERIOUS DAMAGE TO HITCH JACK, BE SURE JACK IS LOCKED IN HORIZONTAL POSITION AND CRANK OF JACK IS NOT HANGING BELOW HITCH WHEN DISC IS IN MOTION. SEE PAGE 22 SECTION 17.
13. **IMPORTANT:** DO NOT OPERATE DISC IN FIELD WITH WING FOLDED IN TRANSPORT POSITION. SEVERE DAMAGE WILL OCCUR WHEN DISCING WITH WINGS FOLDED.



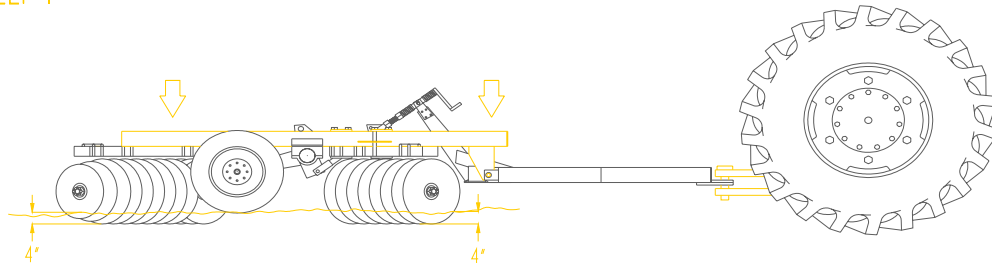
CAUTION: DO NOT STAND UNDER WING WHILE WING IS BEING RAISED OR LOWERED. IF ANY COMPONENTS SHOULD FAIL, OR IF HYDRAULIC LEVER SHOULD ACCIDENTALLY BE OPERATED, WING COULD

FIG. 3



INCORRECT - WHEELS ON GROUND GAUGING DISC DEPTH

ILL. 4



CORRECT - WHEELS ON GROUND GAUGING DISC DEPTH

14. To keep disc level transport wheels must be riding on ground gauging desired discing depth, as shown in Fig. 4.

If conditions are such that disc can not penetrate to maximum depth, do not raise transport wheels off ground as shown in Fig. 3. Raised transport wheels may cause front of disc to drop causing front gangs to cut deeper than rear gangs.

Front of disc may drop because rockshaft and hitch levelling arm is linked. As the wheels are raised, the hitch levelling arm is pulled back allowing hitch to float. If hitch is allowed to float it will not support front of disc allowing front gang to drop.

With front of disc lower than the rear, the front outside blades will cut much deeper than the front inside blades. This means that more of the disc's weight is placed on the front outside blades, forcing them deeper into the ground.

Uneven and deep front gang penetration in tough conditions will place excessive strain on blades, gang bearings, frame and hitch, and will lead to a premature failure of parts especially outside blades and bearings of front gangs.

The condition shown in Fig. 3 may also cause frame to buckle upward at frame hinge point, raising centre blades off ground. If frame is level, as shown in Fig. 4 thrust at outside end of front gangs is greatly reduced. Side thrust is distributed evenly on all front blades, reducing the possibility of centre rising.

IMPORTANT: OPERATING DISC WITH TRANSPORT WHEELS OFF GROUND WILL CAUSE UNEVEN DISCING JOB AND PLACE UNDUE STRAIN ON MACHINE WHICH COULD LEAD TO PARTS FAILURE. ALWAYS OPERATE DISC WITH TRANSPORT WHEELS ON GROUND EVEN IF SOIL CONDITIONS WILL NOT ALLOW DISC TO PENETRATE TO MAXIMUM DEPTH.

GENERAL OPERATION CONTINUED:

15. See Fig. 5. Attach a safety chain to the tractor drawbar and to the disc's hitch before transporting the disc. Use a chain with strength rating greater than the gross weight of disc. (Safety chain available as an option).

CAUTION: WHEN TRANSPORTING A DISC, BE SURE TO ATTACH A SAFETY CHAIN TO TRACTOR DRAWBAR AND DISC HITCH. THE SAFETY CHAIN WILL HELP CONTROL DISC SHOULD IT ACCIDENTALLY SEPARATE FROM THE DRAWBAR. USE A CHAIN WITH A STRENGTH RATING GREATER THAN THE GROSS WEIGHT OF THE TOWED MACHINE.

SERIOUS DAMAGE, INJURY OR DEATH COULD RESULT FROM THE DISC SEPARATING FROM THE TRACTOR DRAWBAR.

CAUTION: DO NOT STAND UNDER THE WING WHILE IT IS BEING RAISED OR LOWERED. IF ANY COMPONENT OF THE HYDRAULIC SYSTEM FAILED OR IF THE HYDRAULIC LEVER WAS ACCIDENTALLY OPERATED, WING COULD FALL CAUSING SERIOUS INJURY OR DEATH.

16. See Fig. 7. Install the "SMV" Emblem (not supplied by Ezee-On) in the "SMV" bracket welded to the rear of main frame before transporting disc.

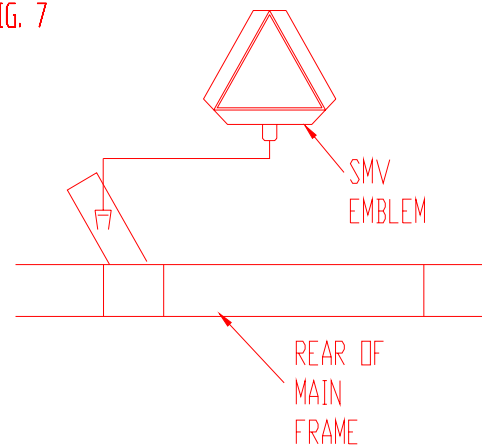
CAUTION: USE THE "SMV" EMBLEM (NOT SUPPLIED BY EZZE-ON) AND WARNING LIGHTS FOR THE PROTECTION OF TRACTOR AND OTHER VEHICLE OPERATIONS WHEN TRANSPORTING THE DISC OVER PUBLIC ROADS. CHECK LOCAL LAWS REGARDING TRANSPORTING REGULATIONS.

CAUTION: WHEN OPERATION ON HILLSIDES, USE EXTRA CARE. TRACTOR MAY TIP SIDEWAYS IF IT STRIKES A HOLE, DITCH OR OTHER IRREGULARITIES.

FIG. 6



FIG. 7





CAUTION: WHEN TRAILING THE DISC OVER PUBLIC ROADS, USE THE SMV EMBLEM AND WARNING LIGHTS FOR PROTECTION OF TRACTOR AND OTHER MOTOR VEHICLE OPERATORS. CHECK LOCAL LAWS FOR WIDTH AND WEIGHT MAXIMUMS AND HEIGHT MAXIMUMS.



CAUTION: DO NOT EXCEED 10 mph (16 km/h) WHEN TRANSPORTING DISC ON SMOOTH ROADS, REDUCE SPEED WHEN TRANSPORTING ON ROUGH ROADS. EXCESSIVE SPEED COULD CAUSE LOSS OF TRACTOR CONTROL AND DAMAGE TO DISC AND TRACTOR. DO NOT TRANSPORT DISC WITH ANY OTHER VEHICLE EXCEPT TRACTOR.



DANGER: WHEN TRANSPORTING DISC WITH WING RAISED, BE SURE THERE IS SUFFICIENT CLEARANCE UNDER ALL POWER LINES AND OTHER OVERHEAD OBSTRUCTIONS. SERIOUS INJURY OR DEATH CAN RESULT FROM CONTACT WITH ELECTRICAL LINES. USE CARE TO AVOID CONTACT WITH ELECTRICAL LINES WHEN MOVING OR OPERATING DISC.



WARNING: WHEN TRANSPORTING DISC, ALWAYS PLACE HYDRAULIC LOCK UP VALVE IN “CLOSED” POSITION. SEE SECTION 8 OF OPERATING INSTRUCTIONS ON PAGE 6. IF THE HYDRAULIC LEVER WAS ACCIDENTALLY OPERATED, THE DISC COULD DROP CAUSING SERIOUS INJURY TO OPERATOR.

17. **REPHASING ROCKSHAFT CYLINDERS** - Periodically, the hydraulic lift cylinder on wing frame will not be synchronized with main frame cylinder. This will cause uneven cutting depth. If this happens it will be necessary to rephase the lift cylinders. Rephasing is done by lifting disc completely out of the ground and holding the hydraulic control lever until both (2) rockshaft cylinders are fully extended. See section 30 on page 29 for further information on the lift hydraulic system.



WARNING: NEVER ALLOW ANYONE TO RIDE ON DRAWBAR OF THE TRACTOR OR ON THE DISC. THE PERSON RIDING MAY FALL AND BE SERIOUSLY INJURED.



WARNING: LOWER THE DISC TO THE GROUND WHEN SERVICING OR MAKING ADJUSTMENTS. IF THE DISC MUST BE SERVICED OR ADJUSTED IN THE RAISED POSITION, PLACE BLOCK UNDER FRAME. DO NOT RELY ON HYDRAULIC LOCK UP VALVES AS A SAFETY DEVICE. IF THE HYDRAULIC SYSTEM FAILED, OR IF THE HYDRAULIC LEVER WAS ACCIDENTALLY OPERATED, THE DISC COULD DROP.

18. **IMPORTANT:** BEFORE DISCONNECTING HYDRAULIC HOSES FROM TRACTOR, RELIEVE PRESSURE IN HYDRAULIC CYLINDERS, SERIOUS DAMAGE COULD OCCUR TO HYDRAULIC CYLINDERS IF OIL EXPANSION TAKES PLACE DUE TO WARM WEATHER OR IF DISC IS STORED IN HEATED BUILDING.

19. **IMPORTANT:** IN DISCING CONDITIONS WHERE EXTREME WING FLEXIBILITY IS REQUIRED, REMOVE CYLINDER PIN FROM SHAFT END OF WING LIFT CYLINDER AND RETRACT CYLINDERS.

WHEN REATTACHING SHAFT END OF WING LIFT CYLINDER TO WING FRAME, BE SURE CYLINDER SHAFT **DOES NOT** STRIKE CYLINDER LUG ON WING FRAME. SERIOUS DAMAGE MAY OCCUR TO CYLINDER IF CYLINDER SHAFT STRIKES CYLINDER LUG. BEFORE EXTENDING CYLINDER SHAFT BLOCK UP CYLINDER SO THAT CYLINDER SHAFT PASSES OVER CYLINDER LUGS.

FIG. 8

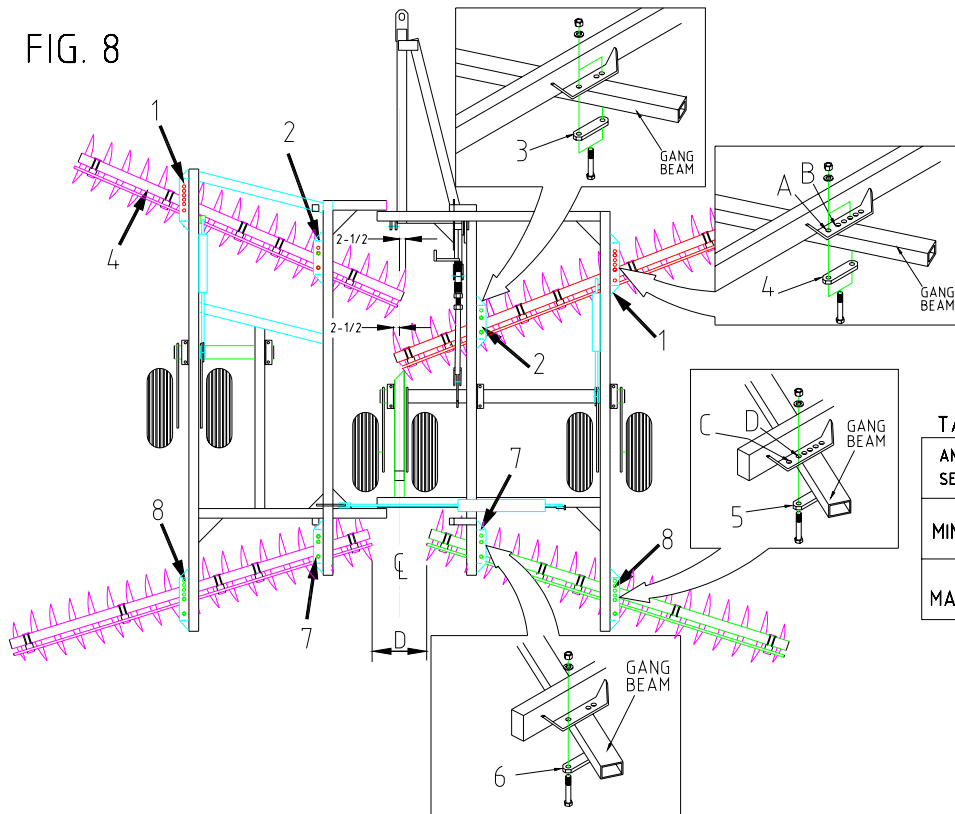


TABLE I

ANGLE SETTING	HOLE SELECTION	
	FRONT GANG	REAR GANG
MINIMUM	A	D
MAXIMUM	B	C

ADJUSTMENTS

1. SETTING ANGLE OF FRONT AND REAR GANGS - See Fig. 8

NOTE: Gang angle adjustments are made on outside of frame.

- a) The angle the gangs are set at is determined by the soil conditions. A field with hard soil will require more cutting angle to penetrate soil than a field with soft soil. In soft soil conditions, disc will push dirt or ridge at outside if there is too much cutting angle. **To start, the minimum angle is recommended.**

IMPORTANT: EXCESSIVE GANG ANGLE WILL PUT ADDED PRESSURE ON THE GANGS AND WILL DECREASE THE LIFE OF BEARINGS, BLADES, ETC. WHEN GANGS ARE SET AT AN EXTREME ANGLE, MORE HORSEPOWER IS REQUIRED TO PULL DISC.

IMPORTANT: WHEN SETTING GANG ANGLE BE SURE TO SET THE FRONT WING GANG AT SAME ANGLE AS THE FRONT MAIN FRAME GANG. THE REAR WING GANG MUST BE SET AT SAME ANGLE AS REAR MAIN FRAME GANG. FOR EXAMPLE, IF FRONT WING GANG IS AT THIRD HOLE FROM FRONT, THEN SET FRONT MAIN GANG AT THIRD HOLE FRONT.



CAUTION: WHEN OPERATING ON HILLSIDES USE EXTREME CARE. TRACTOR MAY TIP SIDEWAYS IF IT STRIKES HOLE, DITCH OR OTHER IRREGULARITY.

ADJUSTMENTS CONTINUED:

- b) **ADJUSTING FRONT GANG ANGLE** - See Fig. 8. Loosen inner clamp plate, arrow 3, which fastens gang beam to inner bracket, arrow 2. Remove outer clamp plate, arrow 4, which fastens gang beam to outer bracket, arrow 1. The gang angle is set by fastening rear bolt of clamp plate, arrow 4, to holes "A" or "B" of outer bracket. If minimum angle is desired, select hole "A" and if maximum angle is desired, select hole "B", see Table I. After choosing gang angle, install clamp plate to outer bracket, arrow 2, with (2) 1-1/4" x 7-1/2" (31.75 mm x 190.5 mm) hex bolts c/w nuts and washers.
- c) **ADJUSTING REAR GANG ANGLE** - See Fig. 8. Loosen inner clamp plate, arrow 6, which fastens gang beam to inner bracket, arrow 7. Remove outer clamp plate, arrow 5, which fastens gang beam to outer bracket, arrow 8. The gang angle is set by fastening rear bolt of clamp plate, arrow 5, to hole "C" or "D" of outer bracket. If minimum angle is desired, select hole "D" and if maximum angle is required select hole "C", see Table I. After choosing gang angle, install clamp plate to outer bracket, arrow 8, with (2) 1-1/4" x 7-1/2" (31.75 mm x 190.5 mm) hex bolts c/w nuts and washers.

NOTE: Above instructions along with Fig. 8 describes how to adjust gang angle of main frame gangs. Adjust wing gangs using the same method. Main frame gangs and wing gangs must be set at same angle.

2. LATERAL ADJUSTMENT OF THE FRONT AND REAR GANGS

- A) **FRONT GANGS** - See Fig. 8. Loosen gang beam clamp plates, arrow 3 and 4. Next, adjust front gangs so that leading edge of inside blades, arrow 3, are approximately 2-1/2" (63.5 mm) past centre of disc. The centre of disc is shown in Fig. 8. If the above adjustment is made correctly, the front gangs will not leave any unbroken ground at centre of disc.
- B) **REAR GANGS** - See Fig. 8. Loosen beam clamps, arrow 5 and 6. The opening between the rear gangs, dimensions "D", must be set at a distance that will allow furrow left by the front gangs to be filled evenly. The distance the rear gangs are set apart is determined by the discing speed, discing depth, gang angle and soil conditions. If the rear gangs are set too close together, the rear gangs will leave a ridge at centre. If rear gangs are set too far apart, the furrow at centre left by the front gangs will not be filled. Take note of the amount of soil the rear inside blades are picking up. It may be necessary to increase distance between rear gangs in order to collect enough soil to fill furrow.

To start with this distance should be set at 2" (51 mm) less than diameter of blades. For example, if your machine is equipped with 24" blades, then the opening (Dimension "D") should be 22" (559 mm).

An increase in discing speed may required rear gangs to be set further apart. A decrease in discing speed may require rear gangs to be set closer together.

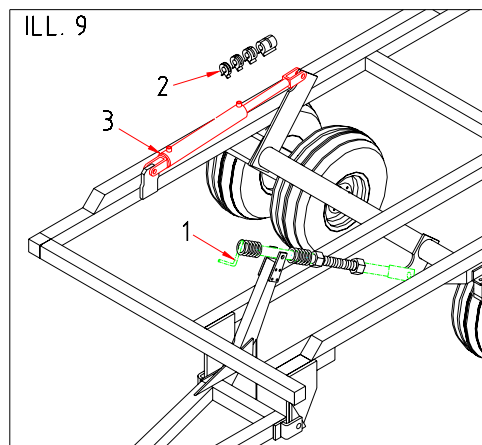
3. **IMPORTANT:** See Fig. 8. When gang adjustments are complete, tighten all gang beam clamp plates, arrows 3, 4, 5 and 6 to 840 ft. lbs. (116 m. kgs.)

4. LEVELLING DISC - Front to Rear - See Fig. 9

When discing the front and rear gangs should be cutting at same depth, the levelling crank, arrow 1, is used to level disc.

To Lower Front Gangs - turn crank, arrow 1, "IN" (clockwise)
To Raise Front Gangs - turn crank, arrow 1, "OUT" (counter clockwise)

VERY IMPORTANT: Always keep disc level from front to rear. Discing with front gangs lower than rear gangs will cause ridging at outside and may cause damage to disc components.



5. **SETTING DISCING DEPTH** - See Fig. 9.

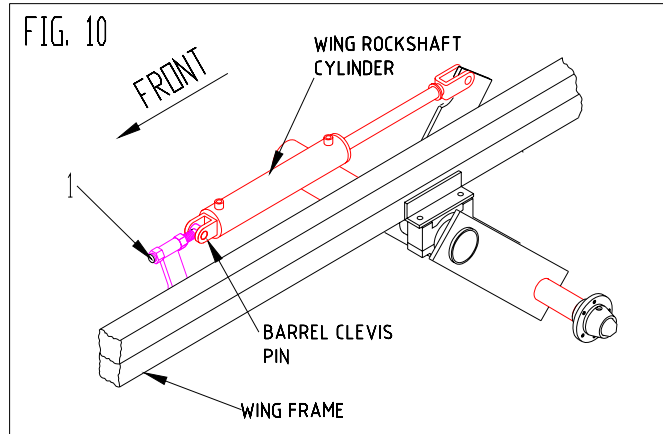
To set discing depth, install depth control segments, arrow 2, on shaft of main frame cylinder, arrow 3. Install segments as required to obtain desired discing depth.

6. **LEVELLING WING FRAME** - See Fig. 10

For even blade penetration, outside of wing frame must be level with main frame or even 1/2" (12.7 mm) higher than main frame.

To level wing frame with main frame, adjust wing rockshaft cylinder I-bolt, arrow 1. If outside of wing frame needs to be raised, loosen rear nut of I-bolt and tighten front nut. This will lower the wheels raising outside of wing. If outside of wing frame needs to be lowered, loosen front nut of I-bolt and tighten rear nut. This will raise the wheels allowing outside of wing to lower.

Before this adjustment is made, be sure centre frame is level from front to rear. After adjustments are complete tighten nuts on cylinder I-bolt.



IMPORTANT: BE SURE BARREL OF CLEVIS PIN IS HORIZONTAL WITH CYLINDER PORTS ARE FACING UP. IF CLEVIS PIN IS NOT HORIZONTAL, CYLINDER WILL NOT BE FREE TO PIVOT UP AND DOWN WHEN IT IS EXTENDED OR CONTRACTED CAUSING SERIOUS DAMAGE.

7. **REMOVE RIDGE AT CENTRE OF DISC** - Make one or more of the following adjustments:

- Level disc from front to rear using levelling crank, see section 4 of adjustments.
- Reducing discing speeds.
- Increasing distance between rear gangs, see section 2 of adjustments.

8. **REMOVE FURROW AT CENTRE OF DISC** - Make one or more of the following adjustments:

- Level disc from front to rear using levelling crank, see section 4 of adjustments.
- Increase discing speed.
- Decrease distance between rear gangs, see section 2 of adjustments.

9. **REMOVE UNBROKEN GROUND LEFT BY FRONT GANGS** - Make the following adjustment:

- Adjust leading edge of inside blade of each front gang so it is 2-1/2" (63.5 mm) past centre of disc, see section 2 of adjustments.

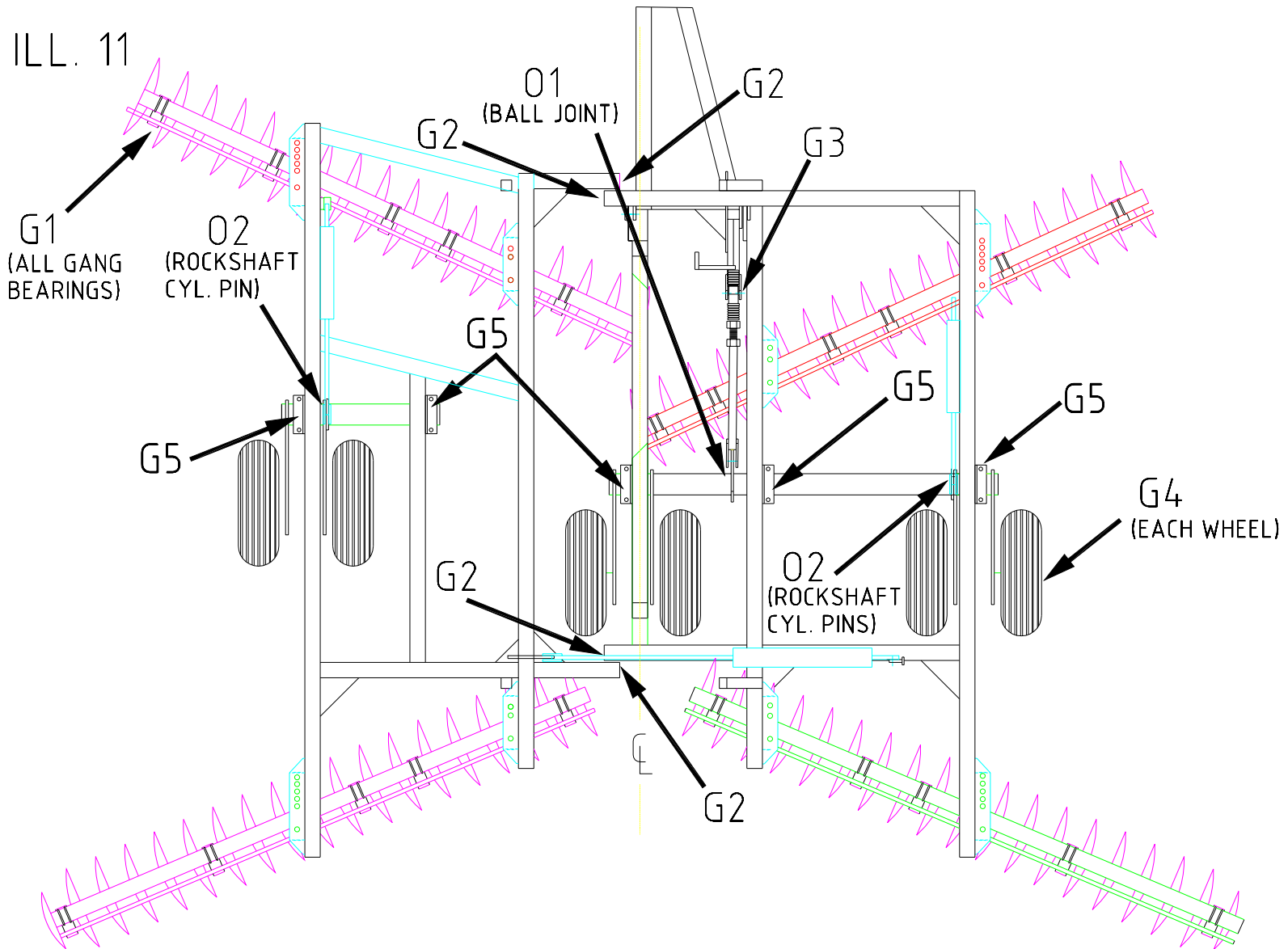
10. **REDUCE SIDE DRAFTING TO ONE SIDE** - Check Following Setting:
 - a) Gang angle setting for right hand gangs must be set same as left hand gangs.
11. **REDUCE GANG PLUGGING** - Make one or more of the following adjustments:
 - a) Adjust scrapers so they contact blades.
 - b) Reduce gang angle if soil conditions are loose causing disc to push soil.



IMPORTANT: DO NOT LOWER FRONT GANGS SO THAT DISC WILL CUT INTO TOUGH CONDITIONS. IF FRONT GANGS ARE LOWERED, EXCESSIVE STRAIN WILL BE PLACE ON FRONT GANGS, FRAME, AND HITCH, WHICH COULD LEAD TO PREMATURE PARTS FAILURE, ESPECIALLY OUTSIDE BLADES OF FRONT GANGS.

12. **STOP DISC FROM BUCKLING UP CAUSING CENTRE BLADES TO RISE OUT OF GROUND** - Make one or more of the following adjustments:
 - a) If front gangs are cutting deeper at outside - raise front of disc with levelling crank.
 - b) Check if transport wheels are raised off ground causing front of disc to drop. If so lower wheel so they ride on ground when discing, see section 14 on page 7.
 - c) Check if outer blades on wing are cutting deeper then outer blades of main frame. If so, raise outside of wing by adjusting anchor bolt fro wing rockshaft cylinder, see section 6 on page 12.

NOTE: *The condition described in section 12 may occur if front gangs are lowered so disc will cut into tough conditions.*



MAINTENANCE

1. LUBRICATION See Fig. 11- Grease all lubricating points on disc are marked with arrow G. The oil lubrication points are marked with arrow O.

- G1) GANG BEARINGS - for 211 or 410 Series - Lubricate every 20 hours of operation with a minimum amount of grease. Excess lubrication may damage seals. Use a high quality SAE multipurpose grease.
- for T2-215 Series - Lubricate every 20 hours of operation. Lubricate until grease comes out around seal, excess lubrication will not damage seal. Use high quality SAE multipurpose grease.



CAUTION: FOR 211 OR 410 SERIES BEARINGS - IF GANG BEARINGS ARE OVER LUBRICATED, THERE IS A POSSIBILITY THAT THE SEALS CAN BE PUSHED OUT. THIS IS MORE LIKELY TO HAPPEN WHEN BEARINGS ARE NEW.

NOTE: *When you receive your new disc, grease all lubricating points before starting to disc. However, use caution when lubricating 211 or 410 series gang bearings. These gang bearings are filled with grease at factory and seals may be damaged if over lubricated.*

G2) Lubricate wing pivot points with grease every 50 hours of operation.

G3) Lubricate levelling crank with grease every 100 hours of operation.

G4) Lubricate wheels with grease every 50 hours of operation.

G5) Lubricate top and bottom half of each rockshaft bearing every 20 hours of operation. If rockshaft bearings are not lubricated, there will be excessive wearing of rockshaft and rockshaft bearings.

O1) Lubricate levelling crank ball joints (with oil) at the end and beginning of each season.

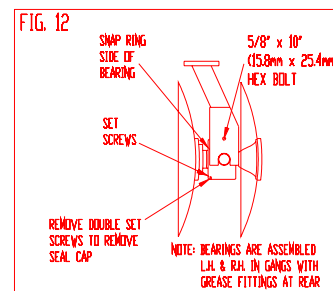
O2) Lubricate rockshaft cylinder pins (with oil) every 50 hours of operation.

2. All bolts and nuts should be checked periodically to make sure they are tight. Special attention should be given to gang bolts, bearing bolts and bearing hanger U-bolts, and wheel bolts. If gang bolts come loose, they must be tightened to 3200 ft. lbs.

They should be tightened as follows:

- Gang bolts - 1-15/16" (49 mm) Diameter - 3200 ft. lbs (4336 N.m) torque
- Gang beam bolts - 1-1/4" (31.7 mm) Diameter - 840 ft. lbs (1138.2 N.m) torque (minimum/maximum)
- Levelling crank bolt - 1-1/4" (31.7 mm) Diameter - 840 ft. lbs (1138.2 N.m) torque(minimum/maximum)
- Wheel bolts - 9/16" (14.2 mm) Diameter - 130 ft. lbs (176.2 N.m) torque
- Bearing hanger U-bolts - 3/4" (19 mm) Diameter - 260 ft. lbs (352.3 N.m) torque (Model 4290 only with stone flex hangers)
- Bearing hanger U-bolts 5/8" (15.7 mm) Diameter - 150 ft. lbs (203.25 N.m) torque (Model 4290 only with solid hangers)
- Bearing hanger U-bolts 7/8" (22 mm) Diameter - 430 ft. lbs (582.65 N.m) torque (Model 4300 only)

Note: *Gangs bolts should be re-tightened after 2 hrs of operation.*



3. When storing disc for a long period of time, grease all lubricating points.

4. Ensure tires are properly inflated. See specifications on page 5 for tire pressures.

5. **IMPORTANT:** SEE FIG. 12. FOR DISCS EQUIPPED WITH T2-215 BEARINGS. IF T2-215 BEARING IS DISMANTLED, DOUBLE SET SCREWS MUST BE REMOVED FROM BOTTOM OF HOUSING TO REMOVE CAP.



CAUTION: DO NOT SERVICE DISC WHILE IT IS IN MOTION. YOU MAY FALL IN FRONT OF DISC AND BE SERIOUSLY INJURED.

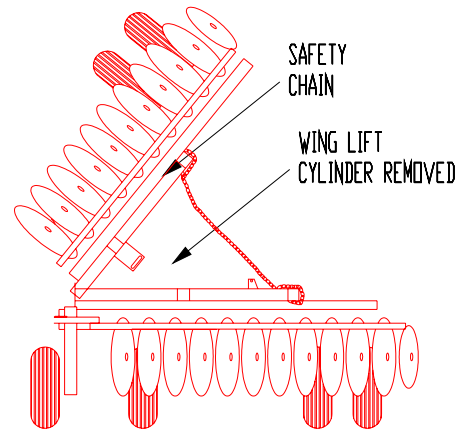


CAUTION: LOWER THE DISC TO THE GROUND WHEN SERVICING OR MAKING ADJUSTMENTS. IF THE DISC MUST BE SERVICED OR ADJUSTED IN THE RAISED POSITION, PLACE BLOCKS UNDER FRAME. DO NOT RELY ON HYDRAULIC LOCK UP VALVES AS A SAFETY DEVICE. IF THE HYDRAULIC SYSTEM FAILED, THE DISC WOULD DROP.

6. See ILL. 12. When reinstalling bearing hanger on **T2-215 Bearing** (if gangs are dismantled) do not over tighten the 5/8" x 10" (15.7 mm x 254 mm) bolts which fastens hanger to bearing. Secure nut by using a jam nut.

7. **WING LIFT CYLINDER REMOVAL** - See Fig. 13. If possible lower wing to field position if wing lift cylinder must be removed for repair or replacement. This machine uses a hydraulic lock out valve as a safety device to lock wing in transport position. Removing wing lift cylinder leaves machine without a safety lock. If wing lift cylinder must be removed with wing in folded position, install a safety chain between wing frame and main frame to prevent wing from falling down.

Fig. 13

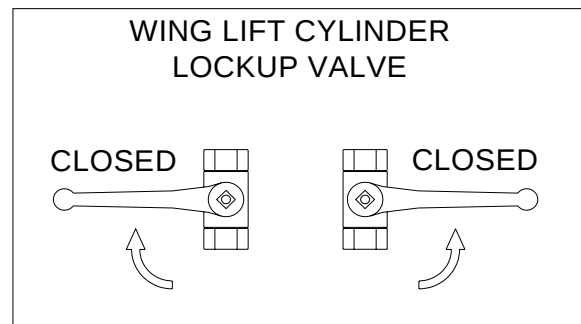


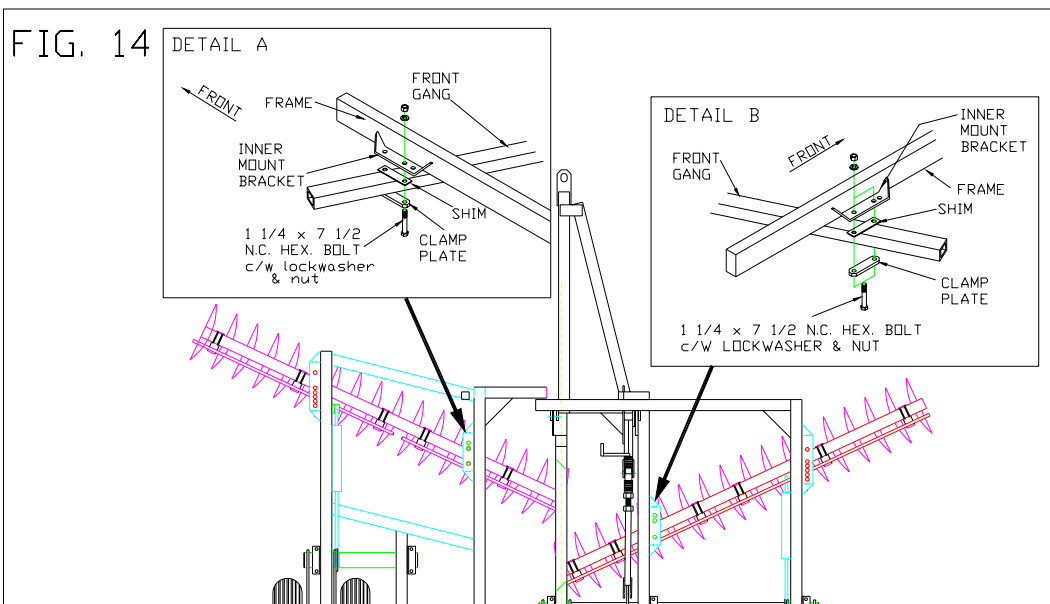
CAUTION: IF WING LIFT CYLINDER IS REMOVED WHEN WING IS FOLDED INTO TRANSPORT POSITION, ALWAYS INSTALL A SAFETY CHAIN BETWEEN WING FRAME AND MAIN FRAME TO PREVENT WING FROM FALLING. IF WING FELL SERIOUS INJURY OR DEATH COULD OCCUR TO PERSON(S) NEARBY AND MACHINE WOULD BE DAMAGED SEVERELY.

8. Keep all safety decals clean and in good condition to provide a constant reminder of safe operating procedures.
9. Replace any destroyed, missing or illegible decals and deflectors.

IMPORTANT: WHEN STORING DISC FOR WINTER, DO NOT LEAVE CYLINDERS UNDER HYDRAULIC PRESSURE, ESPECIALLY IF CYLINDERS ARE ACTIVATED DURING COLD WEATHER. THE EXPANSION OF OIL WHICH TAKES PLACE WHEN WARM OR HOT WEATHER RETURN MAY CAUSE SERIOUS DAMAGE TO CYLINDER, LINES OR HOSES.

IMPORTANT: WINGS MAY UNFOLD DUE TO THERMAL EXPANSION OF HYDRAULIC OIL CAUSING DAMAGE TO CULTIVATOR, PROPERTY OR SEVERE INJURY OR DEATH TO PERSON(S) NEARBY. RELEASE PRESSURE IN ALL CYLINDERS AND CLOSE HYDRAULIC LOCKUP VALVES BEFORE UNHITCHING FROM TRACTOR OR WHEN PARKING WITH TRACTOR.





TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
OUTSIDE BLADES OF FRONT GANGS ARE CUTTING TOO DEEP CAUSING DISC TO RIDGE AT OUTSIDE	- wheels raised off ground causing front of disc to drop - tire pressure is low on outer wheels causing disc to cut deep at outside - disc is lower at front than rear - if above solutions do not solve problem, outer blades may need to be raised	- lower wheels to ground so they gauge discing depth, see Fig. 4 on page 7 - inflate tire, see tire pressures on page 5 - using levelling crank raise front of disc - see Fig. 9 on page 11 - raise outer blades by placing a shim(s) between front gang beam and inner mount bracket. See detail "A" and "B" of Fig. 14. Shim(s) must be ordered from parts
OUTSIDE BLADES OF BOTH FRONT GANGS ARE NOT CUTTING DEEP ENOUGH	- disc is higher at front than at rear	- using levelling crank raise front of disc - see Fig. 9 on page 11.
OUTSIDE BLADE ON WING IS CUTTING TOO DEEP	- outside of wing frame is lower than main frame - wing rockshaft cylinder is not synchronized with main frame rockshaft cylinder	- raise outside of wing with wing rockshaft cylinder anchor bolt see section 6 on page 12 - rephrase rockshaft cylinder, see section 17 on page 9
OUTSIDE BLADES ON WING ARE IS CUTTING DEEP ENOUGH	- outside of wing frame is higher than main frame - wing rockshaft cylinder is not synchronized with main frame rockshaft cylinder	- lower outside of wing with wing rockshaft cylinder anchor bolt, see section 6 on page 12 - rephrase rockshaft cylinder, see section 17 on page 9
DISC IS LEAVING A RIDGE AT CENTRE OF DISCING	- rear gangs are cutting deeper than front gangs - a high discing speed is causing disc to throw dirt further resulting in a pile at centre - gang angle too extreme - rear gangs are too close together	- level disc using levelling crank - see Fig. 9 on page 11 - reduce discing speed - reduce gang angle if reduced gang will give desired discing depth - increase distance between rear gangs see section 1, paragraph C on page 11

TROUBLE SHOOTING CONTINUED

PROBLEM	POSSIBLE CAUSE	REMEDY
REAR GANGS ARE NOT FILLING FURROW LEFT BY FRONT GANGS AT CENTRE OF DISC	- front gangs are cutting deeper than rear gangs - a low discing speed is causing disc to <i>not</i> throw dirt far enough to fill furrow left by front centre blades - rear gangs are too far apart	- level disc using levelling crank - see Fig. 9 on page 11 - increase discing speed - decrease distance between rear gangs - see section 1, paragraph C on page 11
FRONT GANGS ARE LEAVING UNBROKEN GROUND AT CENTRE OF DISC	- front gangs are either overlapped too much or not enough	- adjust overlap of front gangs - see section 2 on page 11
DISC GANGS ARE PLUGGING	- too much gang angle in a loose soil conditions - scrapers are too far from blades - trash conditions too heavy for your machine	- reduce gang angle - adjust scrapers so they are contacting blades - contact your Ezee-On Dealer
WHEN RAISING DISC OUT OF GROUND, MAIN FRAME COMES OUT OF GROUND WHILE OUTSIDE OF WING LAGS BEHIND OR DOES NOT COME OUT OF GROUND	- piston seals on wing rockshaft cylinder is damaged	- replace piston seals of wing rockshaft cylinder
WHEN RAISING DISC OUT OF GROUND, OUTSIDE OF WING COMES OUT OF GROUND WHILE MAIN FRAME LAGS BEHIND OR DOES NOT COME OUT OF GROUND	- piston seals on main frame rockshaft cylinder is damaged	- replace piston seals of main frame rockshaft cylinder
WHEN RAISING DISC OUT OF GROUND, MAIN FRAME ROCKSHAFT CYLINDER IS FULLY EXTENDED WHILE WING ROCKSHAFT CYLINDER IS NOT FULLY EXTENDED	- rockshaft cylinders are not synchronized	- rephrase rockshaft cylinders, see section 17 on page 9
WHEN RAISING DISC OUT OF GROUND WING ROCKSHAFT CYLINDER IS FULLY EXTENDED WHILE MAIN FRAME ROCKSHAFT CYLINDER IS NOT FULLY EXTENDED	- rockshaft cylinders are not synchronized	- rephrase rockshaft cylinders, see section 17 on page 9
DISC WILL NOT PENETRATE SOIL	- not enough gang angle - soil condition too hard for your machine	- increase gang angle, see section 1 on page 10 - contact your Ezee-On Dealer