

Ezee-On

**MODEL 6650-LTF DISC
MEDIUM DUTY TANDEM
3 SECTION FRAME
with
FOLDING OUTER WINGS**

OWNER'S MANUAL

includes
OPERATION
&
ASSEMBLY

Manufactured by
Ezee-On Manufacturing
Vegreville, Alberta Canada

735I

Printed in Canada

INTRODUCTION

Thank you for deciding to purchase this Ezee-On manufactured product. In addition to having the traditional performance values of simplicity, reliability and durability, your new implement has been designed with a number of operational and safety features. We urge you to familiarize yourself with the operation and maintenance of this implement by reading this Manual carefully.

Remember that it is the responsibility of the operator to ensure that the implement is field ready. Should you encounter a problem however, please contact your dealer immediately.

This Manual contains the following:

- Assembly Instructions
- Operating (field) Instructions
- Parts listing



READ THIS BOOK CAREFULLY TO ENSURE THAT YOUR NEW DISC IS ASSEMBLED AND ADJUSTED CORRECTLY.

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.

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Ezee-On Manufacturing reserves the right to make any changes in design, materials, prices and/or specifications without notice and without liability. Specifications and limited warranties are applicable to products manufactured for sale in North American and may vary outside this area.



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Tandem Disc Pre-Delivery Inspection/ Warranty Registration

Dealership _____ Location _____ Delivery Date: ____/____/____
mm dd yyyy

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

EZEE-ON MANUFACTURING

Limited Warranty Policy

NORTH AMERICA

Ezee-On Manufacturing's products are warranted to the original non-commercial purchaser to be free from defects in material and workmanship for a minimum period of twelve (12) months from the original date of purchase.

Ezee-On Manufacturing's obligation under this warranty shall be limited to the repair or exchange, at Ezee-On's option, free of charge to the original purchaser, any part or component that, in our judgment, shows evidence of such defect. Further, that such part shall be returned within thirty (30) days from date of failure to Ezee-On Manufacturing, routed through the dealer and distributor from whom the equipment was purchased, **transportation charges prepaid**.

This warranty shall not be interpreted to render Ezee-On Manufacturing liable for injury or damages of any kind or nature to person or property. This warranty does not include claims for, or extend to the loss or damage of crops, loss because of delay in seeding/ planting or harvesting, or any expense or loss incurred for labor, substitute machinery, rental, transportation expense or for any other reason.

Except as set forth above, Ezee-On Manufacturing shall have no obligation or liability of any kind on account of any of its equipment and shall not be liable for special or consequential damages. Ezee-On Manufacturing makes no other warranty, expressed or implied, and, specifically, Ezee-On Manufacturing disclaims any implied warranty or merchantability or fitness for a particular purpose. The purchaser is solely responsible for determining suitability of Ezee-On equipment purchased. This warranty is subject to any existing conditions of supply, which may directly affect our ability to obtain materials or manufacture replacement parts.

Ezee-On reserves the right to make improvements in the design of products and/ or changes in specifications at any time, without incurring any obligation to owners of units previously sold. No one other than Ezee-On Manufacturing is authorized to alter, modify or enlarge this warranty.

Genuine Ezee-On replacement parts and components will be warranted for 90 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Under no circumstances will this warranty cover any merchandise or components thereof, which, in the opinion of the Company, has been subjected to misuse, unauthorized modifications, alteration, an accident or if repairs have been made with parts other than those obtainable through Ezee-On Manufacturing.

Commercial Use: Warranty for commercial, rental or custom use of any Ezee-On product is limited to 90 days, parts and labor.

Twelve Months Warranty:

All Ezee-On manufactured products are warranted for twelve consecutive months from the date of delivery of the new Ezee-On product to the original non-commercial purchaser.

- 1-12 Months: 100% parts and labor coverage

Extended Coverage Limited Warranty (24 additional months):

Air Drills, Coulter Drills, Air Carts, Cultivators, Chisel Plows, Offset and Tandem Discs and Post Drivers carry limited extended warranty. Ezee-On Manufacturing's obligations under this extended warranty coverage shall be limited to repair or exchange, at Ezee-On Manufacturing's option, for the original, non-commercial owner:

- 13-24 Months: 100% Ezee-On manufactured components only, NO labour – see below for description
- 25-36 Months: 50% Ezee-On manufactured components only, NO labour – see below for description

Ezee-On manufactured components are, but not limited to: frames, axles, hitches, castor assemblies, packers, turnbuckles, rockshafts, packer frames, packers, air cart seed and fertilizer tanks, seed cups, metering rollers, augers, harrows, etc.

NON Ezee-On manufactured components are, but not limited to: monitors, tires, rims, disc blades, bearings, hydraulic motors, pumps & controls, cylinders, hoses and valves; sprockets, chain, rubber packer tires, polyurethane packers, coulter blades, shanks, springs, bolts, pulleys, air hoses, sweeps, spikes, spoons, seals, power wheels, hitch jacks, hubs and wheels.

The Company in no way warrants engines, batteries, coulter assemblies, rubber tires, or other trade accessories since these items are warranted separately by their respective manufacturers.

T2-215 Bearing Extended Coverage Limited Warranty:

Seven year limited warranty: Extended coverage (13-84 months) on T2-215 Series bearing is limited to the replacement of ball bearings and seals for the original, non-commercial owner. Associated bearing parts, labor, freight, etc., are not covered.

Warranty Limitations and/ or Exclusions:

1. Buckets, bucket tines, bale spears & tines, grapple tines, pallet forks, shanks, all ground engaging tools, including disc blades, air seeder hose and other normal wear parts/ items carry NO warranty.
2. There is no warranty coverage if parts or attachments, other than those made or marketed by Ezee-On Manufacturing have been used in connection with the unit, and in the sole judgment of Ezee-On, such use affects its performance or reliability.
3. If the equipment has been altered or repaired in a manner which, in the sole judgment of Ezee-On, affects its performance, stability or reliability.
4. The purchaser shall be responsible for dealer travel time to the machine or to deliver the machine to the dealer's service shop for repair. Ezee-On Manufacturing does not cover delivery charges or travel time.

This warranty policy is subject to change without prior written notice at Ezee-On Manufacturing's sole discretion.

Effective: September 1, 2004

SAFETY RECOMMENDATIONS



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

SAFETY

You are responsible for the safe operation and maintenance of your Ezee-On implement. You must ensure that you and anyone else who is going to operate, maintain or work around the equipment be familiar with the operating and maintenance procedures and related safety information contained in this manual. This manual will alert you to all good safety practices.

You are the key to safety. Good safety practices not only protect you but also the people around you. Make these practices a working part of your safety program. Be certain that EVERYONE operating this equipment is familiar with the recommended operating and maintenance procedures and follows all the safety precautions. Most accidents can be prevented. Do not risk injury or death by ignoring good safety practices.

1. Owners must give operating instructions to operators or employees before allowing them to operate the unit.
2. The most important safety device on this equipment is a SAFE operator. It is the operator's responsibility to read and understand ALL Safety and Operating instructions in the manual and to follow these. All accidents can be avoided.
3. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.
4. Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.
5. Think SAFETY! Work SAFELY!

GENERAL SAFETY

1. Read and understand the Operator's Manual and all safety signs before operating, maintaining or adjusting the unit.
2. Only trained competent person(s) shall operate the unit. An untrained operator is not qualified to operate the machine.
3. Have a first-aid kit available for use should the need arise and know how to use it.
4. Do not allow riders.
5. Have a fire extinguisher available for use should the need arise and know how to use it.
6. Lower machine to the ground, place all tractor controls in neutral, stop engine, turn monitor off, set park brake and remove ignition key, before servicing, adjusting, repairing this implement.
7. Review safety related items with all personnel annually.



ASSEMBLY SAFETY

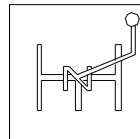
1. When assembling disc, use aligning punch to line up holes. Keep fingers out of holes. Any sudden movement of heavy components will severely injure or sever your fingers.
2. Use adequate manpower or hoist to lift the heavy components into place. Attempting to lift heavy components by yourself could 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.

Assembly safety continued:

6. 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.
7. To fill the wing lift cylinders 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 wings will free-fall if the cylinders are not completely filled with fluid, resulting in serious damage to machine or serious injury or death to person(s) nearby.
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. Wings 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 cylinder with oils, they can be seriously damaged if clevis of shaft strikes rockshaft arm or wing cylinder lug.
13. Do not stand under folded wings when working on disc. If hydraulic system failed or if hydraulic lever was accidentally operated, wings may fall resulting in serious injury or death to person(s) near disc.
14. When assembling gangs be sure adequate support is placed under main frame and wing frames. Do not use lock out valves as safety device to prevent frame from falling. If any hydraulic component failed, disc could drop causing serious injury or death to person(s) nearby.

MAINTENANCE SAFETY

1. Review the Operator's Manual and all safety items before working with maintaining or operating this disc.
2. Lower machine to the ground, place all tractor controls in neutral, stop engine, turn monitor off, set park brake and remove ignition key before servicing, adjusting, or repairing this disc.
3. Follow good shop practices:
 - Keep service area clean and dry.
 - Be sure electrical outlets and tools are properly grounded.
 - Use adequate light for the job at hand.
4. Before applying pressure to a hydraulic system, make sure all components are tight and hoses and couplings are in good condition.
5. Relieve pressure from hydraulic cylinder before servicing or disconnecting from tractor.
6. Clear the area of bystanders when carrying out any maintenance and repairs or making any adjustments.
7. Place stands or blocks under the frame before working beneath the machine or when changing tires.
8. Use only tools, jacks and hoists of sufficient capacity for the job.

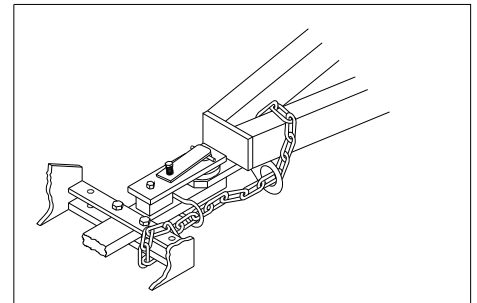
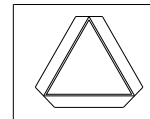


HYDRAULIC SAFETY

1. Always place all tractor hydraulic controls in neutral before dismounting.
2. Make sure that all components in the hydraulic system are kept in good condition and are clean.
3. Replace any worn, cut, abraded, flattened or crimped hoses.
4. Do not attempt any makeshift repairs to the hydraulic lines, fittings or hoses by using tape, clamps or cements. The hydraulic system operates under extremely high pressure. Such repairs will fail suddenly and create a hazardous and unsafe condition.
5. Wear proper hand and eye protection when searching for a high pressure hydraulic leak. Use a piece of wood or cardboard as a backstop instead of hands to isolate and identify a leak.
6. If injured by escaping hydraulic fluid, seek medical attention immediately. Serious infection or toxic reaction can develop from hydraulic fluid penetrating the skin surface.
7. Before applying pressure to the system, make sure all components are tight and that hoses and couplings are in good condition.

TRANSPORT SAFETY

1. Read and understand ALL the information in the Operator's Manual regarding procedures and SAFETY before operating this disc in the field and/or on the road.
2. Check with local authorities regarding transporting this implement on public roads.
3. Always transport at a safe speed. Use caution when turning corners or meeting traffic.
4. Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean and can be seen clearly by all overtaking and oncoming traffic.
5. Be sure all amber and red lights are working to safeguard against rear end collisions. Daybreak and dusk are particularly dangerous.
6. Be sure that the disc is securely attached to the tractor. Always use a safety chain between the machine and the tractor.
7. Do not exceed 20 mph (32 km/h). Reduce speed on rough roads and surfaces.
8. Always use hazard warning flashers on tractor and when transporting unless prohibited by law.
9. Stay away from overhead high voltage electrical lines when transporting disc. Electrocutation can occur without direct contact.



OPERATION SAFETY

1. Read and understand the Operator's Manual and all safety signs before using this disc.
2. Lower machine to the ground, place all tractor controls in neutral, stop engine, set park brake and remove ignition key before servicing, adjusting or repairing implement.

Operation safety continued:

3. Do not allow riders on the disc or tractor during operation or transporting.
4. Clear the area of all bystanders, before moving tractor and disc.
5. Stand clear when folding or unfolding wings. Keep others away.
6. Clean reflectors, SMV and lights before transporting.
7. Attach disc securely to tractor using a hardened pin and a safety chain.
8. Do not exceed a safe travel speed.
9. Use hazard flasher on tractor and disc when transporting.
10. Stay away from overhead power lines when folding or unfolding wings and during transport.
11. Before applying pressure to the hydraulic system, make sure all components are tight and that hoses and couplings are in good condition.
12. Review safety instructions annually.

TIRE SAFETY

1. Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death.
2. Do not attempt to mount a tire unless you have the proper equipment and experience to do the job.
3. Have a qualified tire dealer perform required tire maintenance.

SAFETY DECALS

1. Keep safety decals clean and legible at all time.
2. Replace safety decals that are missing or have become illegible.

STORAGE SAFETY

1. Store unit in an area away from human activity.
2. Do not permit children to play on or around parked implement.

SPECIFICATIONS

MODEL	BLADE SPACING	APPROX. CUTTING WIDTH	NO. OF BLADES	NO. OF GANG BEARINGS	GANG BEARING TYPE		APPROX. TRANSPORT WIDTH	APPROX. TRANSPORT HEIGHT
					STD.	OPTIONAL		
6650-LTF	9" (230mm)	38-1/2' (17.73m)	90	34	410WSS	215	17'6" (5.4 m)	13'11" (4.25 m)
6650-LTF	9" (230mm)	40' (12.19m)	106	36	410WSS	215	17'6" (5.4 m)	13'11" (4.25 m)
6650-LTF	9" (230mm)	42' (12.80m)	110	36	410WSS	215	17'6" (5.4 m)	13'11" (4.25 m)
6650-LTF	10-1/2" (273mm)	38-1/2' (17.73m)	90	32	410WSS	215	17'6" (5.4 m)	13'11" (4.25 m)
6650-LTF	10-1/2" (273mm)	40' (12.19m)	94	32	410WSS	215	17'6" (5.4 m)	13'11" (4.25 m)
6650-LTF	10-1/2" (273mm)	42' (12.80m)	98	34	410WSS	215	17'6" (5.4 m)	13'11" (4.25 m)

TIRE LOCATION	TIRE SIZES	PRESSURE
Centre Frame	(4) 11L x 15 F1, Load Range AF $\equiv$ (Std)	60 PSI (414 KPA)
	(4) 12.5L x 15 F1, Load Range AF $\equiv$ (Option)	60 PSI (414 KPA)
Wing Frame	(4) 11L x 15 F1, Load Range AD $\equiv$ (Std)	45 PSI (310 KPA)
	(4) 12.5L x 15 F1, Load Range AF $\equiv$ (Option)	45 PSI (310 KPA)

HYDRAULIC CYLINDERS		
Application	Size	Req'd
Centre Frame Lift	4" x 24" (101.6 mm x 610 mm) Rephasing	1
L.H. Wing Frame Lift	3-1/2" x 24" (88.9 mm x 610 mm) Rephasing	1
R.H. Wing Frame Lift	3" x 24" (76.2 mm x 610 mm) Rephasing	1
Wing Lift	5" x 36" (127 mm x 1066 mm)	2
Outer Flip-Up Wing	4" x 24" (102 mm x 610 mm)	2

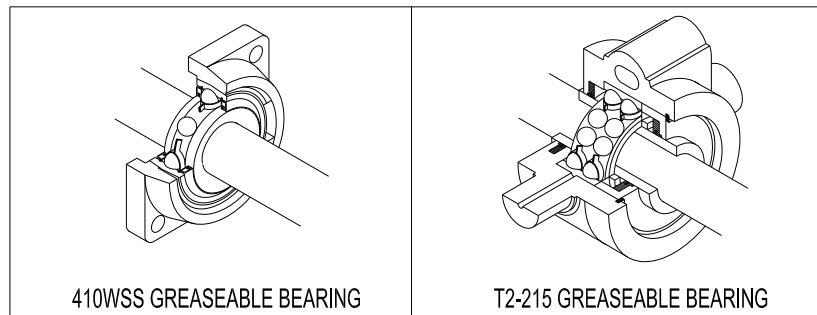


CAUTION: WHEN INFLATING TIRES USE A CLIP-ON CHUCK AND HOSE EXTENSION WHICH WILL ALLOW OPERATOR TO STAND CLEAR OF TIRE AND WHEEL ASSEMBLY. DO NOT STAND IN FRONT OF OR OVER TIRE WHEN INFLATING. EXPLODING TIRE AND WHEEL PARTS CAN CAUSE SERIOUS INJURY OR DEATH

GANG ANGLE: Front Gang -----20 Degree (Fixed)
Rear Gang ----- 17 Degree (Fixed)

BOLT TORQUES: Gang Bolts ----- 1-15/16" (49 mm) Diameter 3200 ft. lbs (4339 N · m)
Levelling Crank Bolts ----- 1-1/4" (31.7 mm) Diameter 840 ft. lbs (1139 N · m)
Wheel Bolts ----- 9/16" (14.2 mm) Diameter 150 ft. lbs (203 N · m)
Bearing Hanger U-Bolts -- 7/8" (22 mm) Diameter 430 ft. lbs (582.6 N m)

GANG BEARINGS



GENERAL OPERATING INSTRUCTIONS

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 CYLINDERS ARE 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 CYLINDERS ARE 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 BRAKE IS SET. THE TRACTOR COULD ROLL BACKWARDS WHICH COULD RESULT IN SERIOUS INJURY OR DEATH TO YOU OR PERSONS NEARBY.

3. Do not make sharp turns with the disc in ground. Sharp turns put excess pressure on the gangs.

IT IS ADVISABLE TO ALWAYS LIFT MACHINE 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.

4. For best performance, the tractor drawbar should be pinned at centre of tractor.

5. Ensure disc is level fore and aft and side to side and cutting depth is properly adjusted. If further adjustments are required, see pages 10 and 11.

6. See Fig. 1. When transporting disc, always place hydraulic lockup valves in closed position. Lockup valves are located at the front end of centre frame.



CAUTION: WHEN TRANSPORTING DISC ALWAYS PLACE BOTH HYDRAULIC LOCKUP VALVES IN A CLOSED POSITION. IF HYDRAULIC LEVER WAS ACCIDENTALLY OPERATED THE DISC COULD DROP OR WINGS COULD FALL CAUSING SERIOUS INJURY OR DEATH TO OPERATOR OR PERSON(S) NEARBY.

7. See Fig. 2. When transporting disc always place the complete depth control package 17" (431.80 mm) long on shaft of 4" x 24" (102 mm x 610 mm) centre frame lift cylinder.



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

FIG. 1

HYDRAULIC LOCKUP VALVES

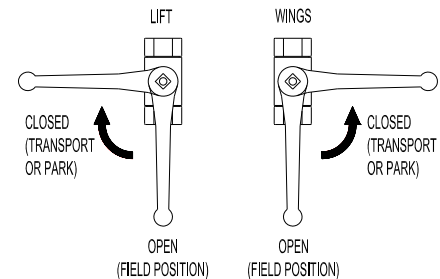
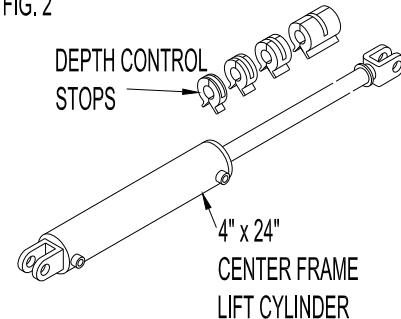


FIG. 2



8. **IMPORTANT:** When transporting disc, do not exceed speed of 10 mph (16 km/h).
9. **IMPORTANT:** Do not operate disc in field with wings folded in transport position. Severe damage will occur when discing with wings folded.
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.

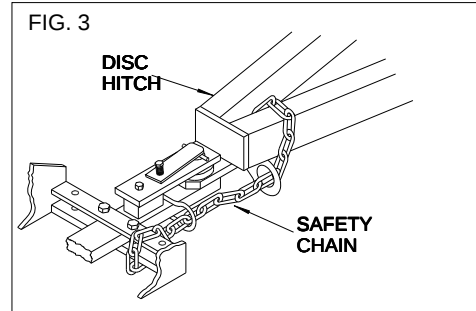
Do not park disc with blades on ground that may freeze. Leave disc parked on transport wheels.

12. 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 24.

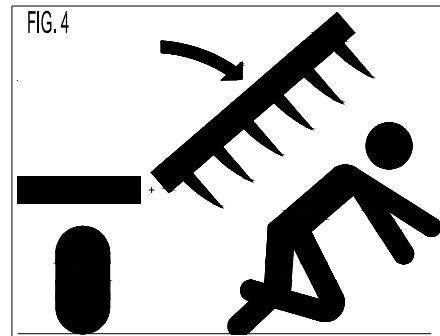
13. See Fig. 3. Attach a safety chain to the tractor drawbar and to the disc's hitch before transporting the disc. Use a chain with strength rating greater than the gross weight of disc. (Safety chain available as an option).



DANGER: 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.



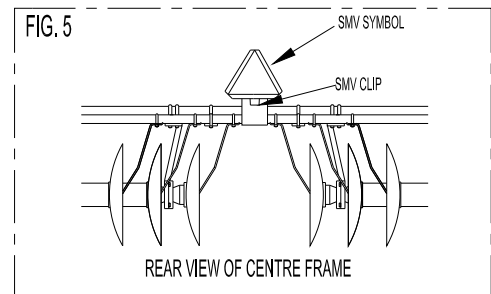
DANGER: SEE FIG. 4. DO NOT STAND UNDER THE WING(S) WHILE IT IS BEING RAISED OR LOWERED. IF ANY COMPONENT OF THE HYDRAULIC SYSTEM FAILED OR IF THE HYDRAULIC LEVER WAS ACCIDENTALLY OPERATED, WING COULD FALL CAUSING SERIOUS INJURY OR DEATH.



14. See Fig. 5. Install the "SMV" emblem (not supplied by Ezee-On) in the "SMV" clip welded to rear of centre frame.



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



CAUTION: DISC MAY FALL REARWARD SUDDENLY AND HITCH MAY RISE ABRUPTLY IF DISC IS UNPINNED FROM TRACTOR WHEN DISC IS FULLY RAISED AND WINGS UNFOLDED. ALWAYS USE CAUTION AND ENSURE OTHER PERSON(S) ARE NOT STANDING NEAR DISC WHEN UNHITCHING FROM TRACTOR.



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 WINGS 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. MODELS EQUIPPED WITH FOLDING GANG BEAMS MUST HAVE THESE BEAMS FOLDED TO GIVE MINIMUM TRANSPORT HEIGHT.



WARNING: WHEN TRANSPORTING DISC, ALWAYS PLACE HYDRAULIC LOCK UP VALVES IN A CLOSED $\cong$ POSITION. SEE SECTION 6 OF OPERATING INSTRUCTIONS ON PAGE 6. IF THE HYDRAULIC LEVER WAS ACCIDENTALLY OPERATED, THE DISC COULD DROP OR WINGS COULD FALL CAUSING OR DEATH INJURY TO OPERATOR AND PERSON(S) NEARBY.

15. **REPHASING ROCKSHAFT CYLINDERS** - Periodically, the hydraulic lift cylinders on wing frame will not be synchronized with center 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 all (3) three rockshaft cylinders are fully extended.



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.



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

16. **VERY IMPORTANT:** WHEN PARKING DISC ALWAYS RELEASE PRESSURE IN HYDRAULIC CYLINDERS. SERIOUS DAMAGE COULD OCCUR TO HYDRAULIC CYLINDER IF THERMAL EXPANSION OF HYDRAULIC OIL TAKES PLACE DUE TO WARMER WEATHER OR IF DISC IS STORED IN HEATED BUILDING.

17. **IMPORTANT:** *When parking disc always place both hydraulic lockup valves in A Closed Position $\cong$ See Fig. 1 on page 6.*

18. In discing conditions where extreme wing flexibility is required, remove cylinder pin from shaft end of each wing lift cylinder and retract cylinders.

When reattaching shaft end of wing lift cylinders 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 shafts block up cylinder so that cylinder shaft passes over cylinder lugs.

FIG. 6

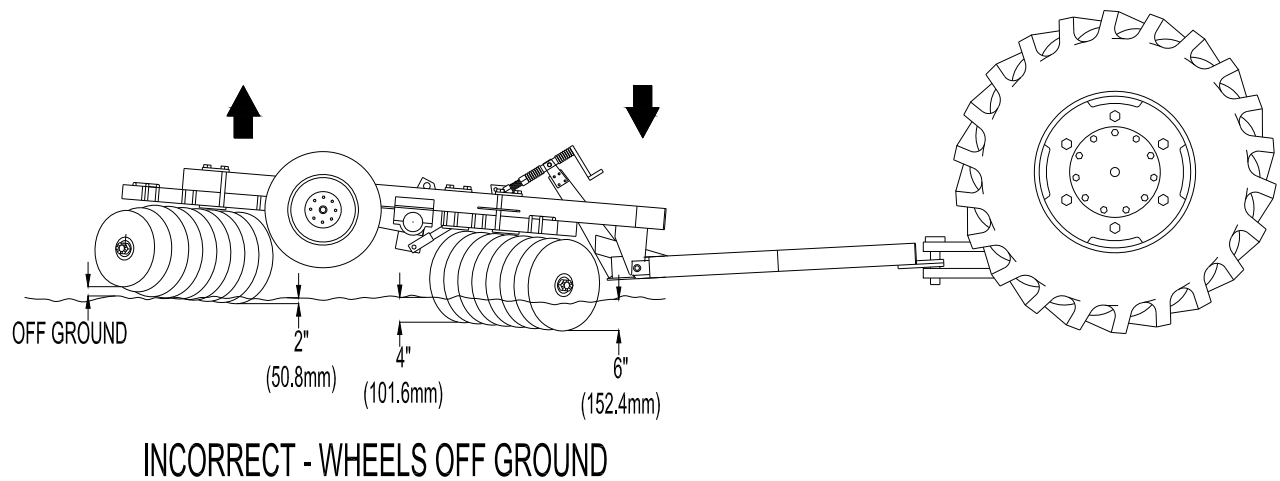
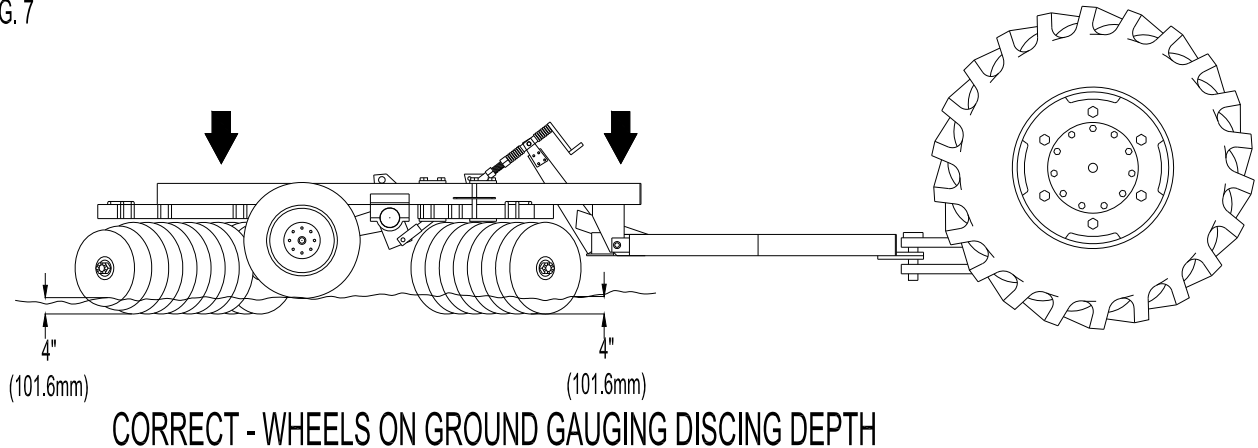


FIG. 7



19. To keep disc level transport wheels must be riding on ground gauging desired discing depth, as shown in Fig. 7.

If conditions are such that disc can not penetrate to maximum depth, do not raise transport wheels off ground as shown in Fig. 6. 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.

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.*

ADJUSTMENTS

1. LATERAL ADJUSTMENT OF THE FRONT AND REAR GANGS

- FRONT GANGS** - See Fig. 8. Loosen bearing hanger U-bolts and adjust front gangs so that leading edge of inside blades are, arrow 1, 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 gang will not leave any unbroken ground at centre of disc.
- REAR GANGS** - See Fig. 9. To adjust rear gangs, loosen bearing hanger U-bolts.

The opening between the rear gang 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" (50.8 mm) less than diameter of blades. For example, if your disc is equipped with 26" (660 mm) blades, the opening (Dimension AD≅) should be 24" (610 mm). If your disc is equipped with 28" (711 mm) blades, (Dimension "D") would be set at a maximum of 24" (610 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.

FIG. 8

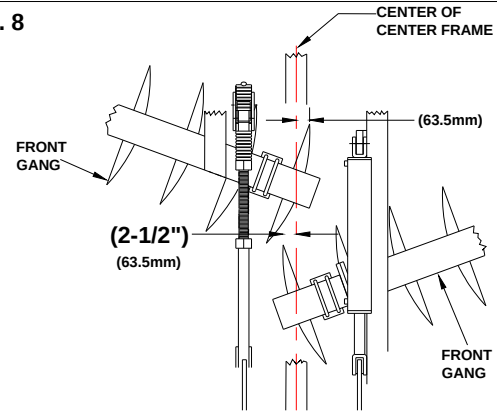
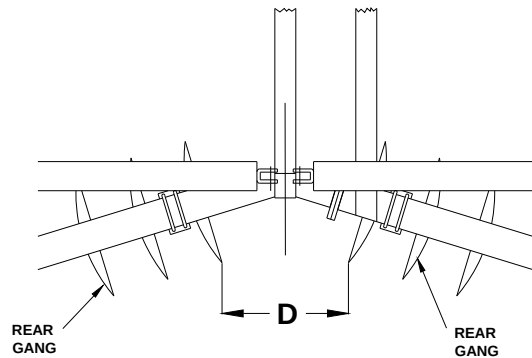


FIG. 9



NOTE: Be sure the blade to blade distance between individual gangs are adjusted to match your discs blade spacing.

- When gang adjustments are complete, tighten all bearing hanger U-Bolts. Before tightening bearing hanger U-Bolts, check each hanger to make sure hanger is sitting square under gang beam. If disc is equipped with 410WSS gang bearings, ensure hangers are not turned to one side. Tighten U-Bolt to 430 ft. lbs (583.0 N m). Next, if disc is equipped with 410WSS gang bearings, see section 33 on page 38 for gang bearing alignment procedures.

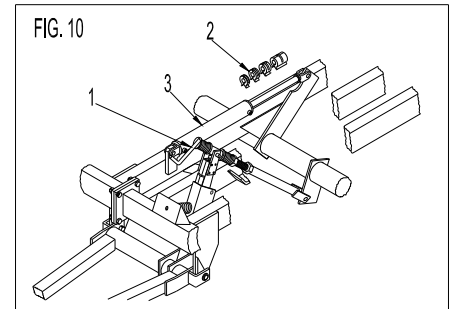
IMPORTANT: WHEN RAISING WINGS FOR TRANSPORT FOR FIRST TIME AFTER ADJUSTING GANGS, RAISE WINGS SLOWLY MAKING SURE WING GANGS CLEAR CENTRE FRAME GANGS.

- LEVELLING DISC - FRONT TO REAR** - See Fig. 10. 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, AIN≅ (clockwise)

TO RAISE FRONT GANGS: Turn crank, arrow 1, AOUT≅ (counter clockwise)

FIG. 10



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.

- SETTING DISCING DEPTH** -See Fig. 10. To set discing depth, lower disc into the ground while moving forward until disc reaches desired discing depth. Install the necessary depth control stops on centre frame cylinder to maintain the desired cutting depth.

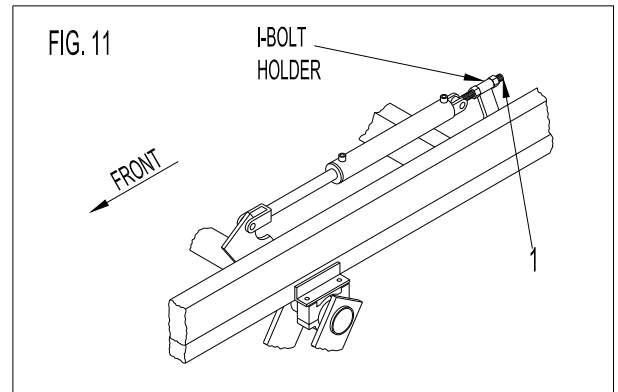
ADJUSTMENTS CONTINUED:

5. LEVELLING WING FRAMES - See Fig. 11.

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.

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

To level wing frame with centre 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 lower. After adjustments are complete, lock I-Bolt by tightening rear nut against I-Bolt holder.



IMPORTANT: Be sure axis of clevis pin is horizontal and cylinder ports are facing up. If cylinder and I-Bolt are not positioned properly, cylinder will not be free to pivot when activated, causing serious damage.



CAUTION: ALWAYS PLACE TRACTOR CONTROLS IN NEUTRAL AND LOCK BRAKES WHEN HITCHING DISC TO TRACTOR, TRACTOR COULD ROLL BACKWARDS WHEN HITCHING DISC.



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

6. 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 3 of adjustments on page 13.
- Reduce discing speeds.
- Increase distance between rear gangs, see Section 1 of adjustments on page 13.

7. 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 3 of adjustments on page 13.
- Increase discing speed.
- Decrease distance between rear gangs, see Section 1 of adjustments on page 13.

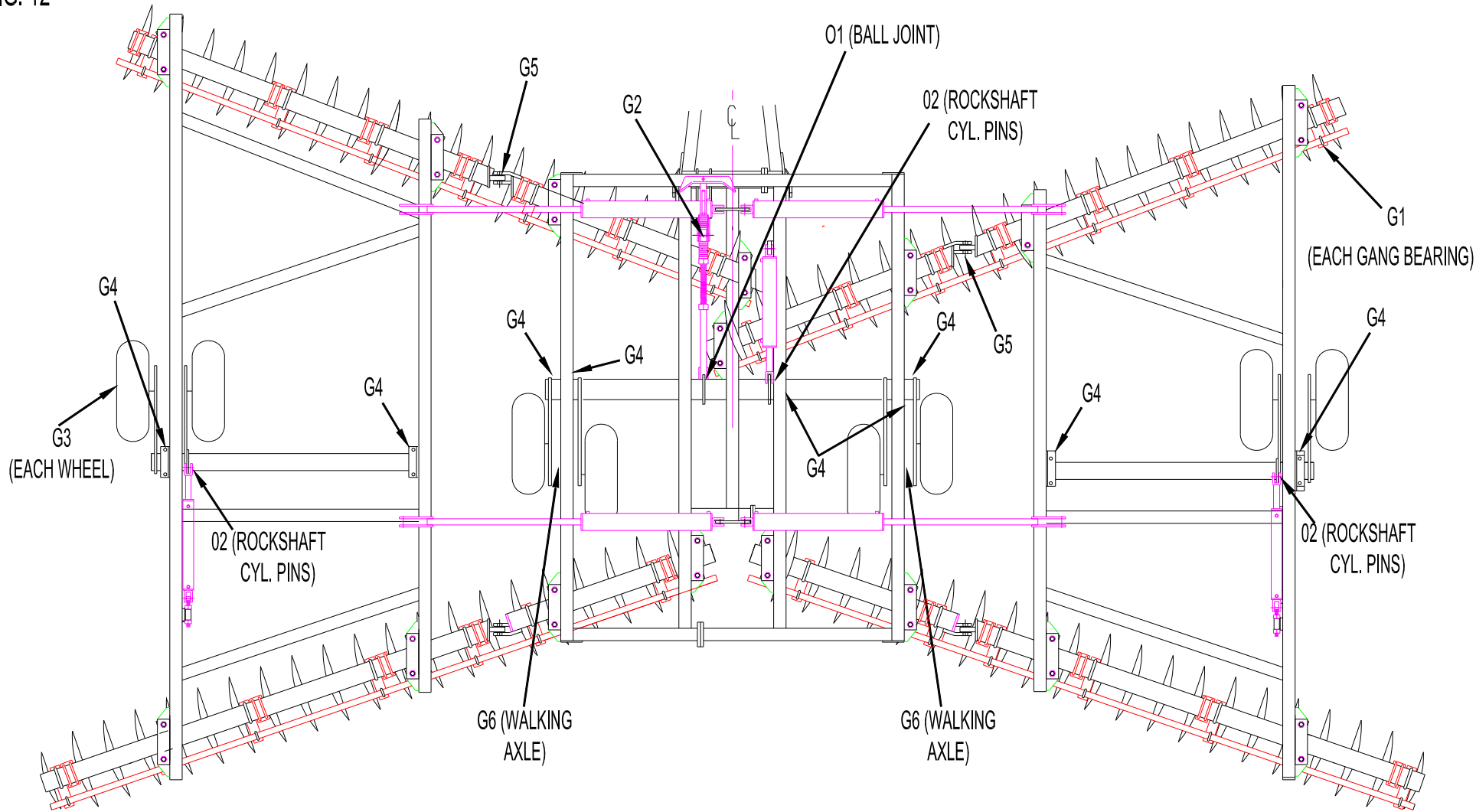
8. REMOVE UNBROKEN GROUND LEFT BY FRONT GANGS - Make the following adjustments:

- Adjust leading edge of inside blade of each front gang so it is 2-1/2" (63.5mm) past centre of disc, see Section 1 of adjustments on page 13.

9. REDUCE GANG PLUGGING - Make the following adjustment:

- Adjust scrapers so they contact blades.

FIG. 12



MAINTENANCE

1. LUBRICATION See Fig. 12 - All grease lubricating points on disc are marked with arrow G. The oil lubrication points are marked with arrow O.

- G1) GANG BEARING - for T2-215 Series Gang Bearing - Lubricate every 20 hours of operation. Lubricate until grease comes out around seal. Excessive lubrication will not damage seals. Use high quality SAE multi-purpose grease.
- G2) Lubricate levelling crank every 100 hours of operation.
- G3) Lubricate wheels every 50 hours of operation.
- G4) Lubricate top and bottom half of each rockshaft bearing every 20 hours of operation.
- G5) Lubricate wing hinge points every 100 hours of operation.
- G6) Lubricate walking axles every 50 hours of operation.

NOTE: When you receive your new disc, grease all lubricating points before starting to disc.

- O1) Lubricate levelling crank ball joint (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.

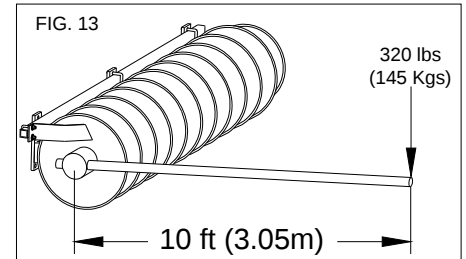
They should be tightened as follows:

- Gang bolts 1-15/16" (49 mm) Diameter -tighten to 3200 ft. lbs torque (4339 N · m)
- Gang beam bolts 1-1/4" (31.7 mm) Diameter --- 840 ft. lbs (1139 N · m)
- Levelling crank bolt 1-1/4" (31.7 mm) Diameter - 840 ft. lbs (1139 N · m)
- Wheel bolts 9/16" (14.2 mm) Diameter ----- 150 ft. lbs (203 N · m)
- Bearing hanger u-bolts 7/8" (22 mm) Diameter -- 430 ft. lbs (583.0 N · m)

See Fig. 13. To tighten gang bolt to 3200 ft. Lbs (4339N.m) install a 10ft. (3.05m) bar in socket wrench and apply 320 Lbs. (145Kgs) of force to end of bar.

IMPORTANT: After repairing a gang, the gang bolt should be retightened after 2 hours of operation

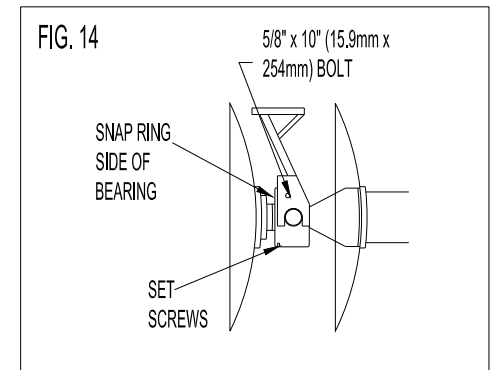
IMPORTANT!!!!
SEVERE DAMAGE WILL OCCUR IF GANG BOLTS ARE LOOSE."



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

4. **IMPORTANT:** See Fig. 14.

- a) If T2-215 bearing must be dismantled, double set screws must be removed from bottom of housing to remove seal cap.
- b) When replacing grease seals in T2-215 bearing, ensure they are installed correctly. The I.D. of the outer shield is larger on one side than the other. Be sure the side with the larger I.D. of both seals are facing out. The rubber seal may be damaged if grease seal is not installed correctly.



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

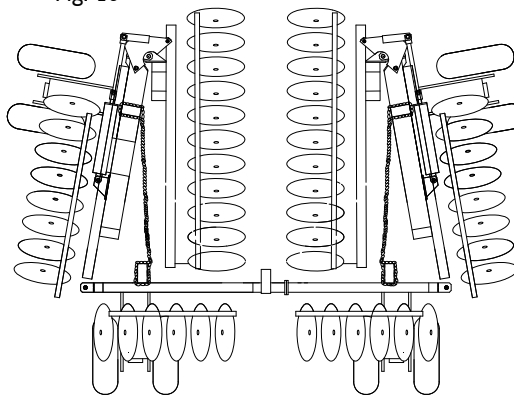


CAUTION: LOWER THE DISC TO THE GROUND WHEN SERVICING OR MAKING ADJUSTMENTS. IF THE DISC MUST BE SERVICED OR ADJUSTED IN THE RAISED POSITION, PLACE BLOCKS UNDER FRAME. DO NOT RELY ON HYDRAULIC LOCK UP VALVES AS A SAFETY DEVICE. IF THE HYDRAULIC SYSTEM FAILED, THE DISC COULD DROP.

5. See Fig. 14. 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 fasten hanger to bearing. Turn lock nut until it is snug against bearing hanger. The bolt may break during field operations if it is tightened using a normal torque.

6. WING LIFT CYLINDER REMOVAL - See Fig. 15. If possible lower wings to field position if the wing lift cylinder hydraulic system must be serviced or repaired. If wing lift cylinders must be serviced or repaired with wings in folded position, install a safety chain between each wing frame and main frame to prevent wings from falling down. Always install a chain on both wings even if only one cylinder is being worked on.

Fig. 15



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

7. Keep all safety decals clean and in good condition to provide a constant reminder of safe operating procedures.
8. Replace any destroyed, missing or illegible decals and reflectors.
9. At the end of each season do following:
 - a) Relieve pressure in all hydraulic cylinders. Disconnect hydraulic hoses from tractor and cap them.
 - b) If disc is to be stored outdoors, cover hydraulic cylinders and hoses with weather proof material and coat all exposed cylinder shafts with grease.
 - c) Set planks under each wheel.
 - d) Lubricate all grease points.
 - e) Check disc for worn or damaged parts. Replace damaged parts during the off season.
 - f) Touch up any scratches with EZEE-ON paint.



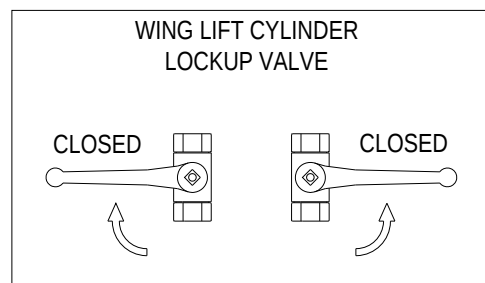
CAUTION: ALWAYS RELIEVE THE PRESSURE IN HYDRAULIC SYSTEM AND CLOSE BOTH HYDRAULIC LOCKUP VALVES WHEN DISC IS NOT BEING USED.

- (g) **VERY IMPORTANT:** WHEN STORING DISC DO NOT LEAVE CYLINDERS UNDER HYDRAULIC PRESSURE, ESPECIALLY IF CYLINDERS ARE ACTIVATED DURING COOL TEMPERATURES. THE THERMAL EXPANSION OF OIL WHICH TAKES PLACE WHEN THE MACHINE IS IN A WARMER ENVIRONMENT MAY CAUSE SERIOUS DAMAGE TO CYLINDERS OR HOSES. ALWAYS RELEASE HYDRAULIC PRESSURE AND CLOSE LOCKUP VALVES BEFORE UNHITCHING FROM TRACTOR.



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.

Fig. 16



MAINTENANCE CONTINUED:

10. TIRE MAINTENANCE AND SAFETY:

- a) Keep the pressure equal on all wheels. See specifications on page 5 for correct tire pressure.
- b) Do not inflate tires above recommended pressure.
- c) Only experienced personal should attempt to repair a tire or mount tire on a wheel.
- d) Do not weld or heat tire and wheel assembly when tire is inflated. The heat may cause an increase in tire pressure causing tire to explode.
- e) Periodically check tires for cuts, bulges and damaged rims.
- f)  **CAUTION: WHEN INFLATING TIRES USE A CLIP ON CHUCK AND HOSE EXTENSION WHICH WILL ALLOW OPERATOR TO STAND CLEAR OF TIRE AND WHEEL ASSEMBLY. DO NOT STAND IN FRONT OF OR OVER THE TIRE WHEN INFLATING. EXPLODING TIRE AND WHEEL PARTS CAN CAUSE SERIOUS INJURY OR DEATH.**

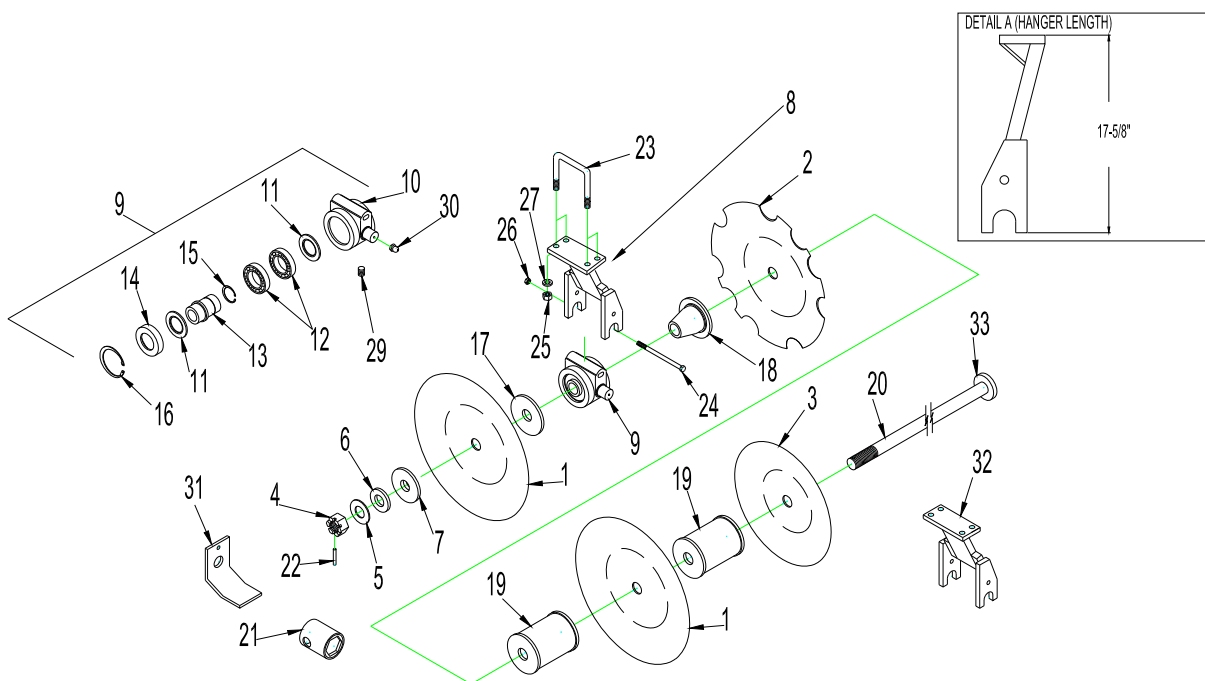
TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
OUTSIDE BLADES OF FRONT WINGS 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 at rear - wing wheel not adjusted for proper cutting depth - wing rockshaft cylinders are not synchronized with centre from rockshaft cylinders	- lower wheels to ground so they gauge discing depth, see section 19 of general operating instructions on page 12 - inflate tire, see tire pressures on page 8 - using levelling crank raise front of disc - see Fig. 10 on page 13 - raise outside of wing by adjusting lift cylinder I-bolt, see section 5 on page 14 - rephase rockshaft cylinders, section 15 on page 11
OUTSIDE BLADES OF FRONT WINGS ARE NOT CUTTING DEEP ENOUGH	- disc is higher at front than at rear	- using levelling crank raise front of disc - see Fig. 10 on page 13
OUTSIDE BLADES ON FRONT AND REAR GANGS ARE CUTTING TOO DEEP	- tire pressure is low for wing wheels causing wings too cut deeper - outside of wing frame is lower than main frame - wing rockshaft cylinder are not synchronized with main frame rockshaft cylinder	- check tire inflation for all wheels, see tire pressure on page 8 - raise outside of wing with wing rockshaft cylinder anchor bolt see section 5 on page 14 - rephase rockshaft cylinder, see section 15 on page 11
OUTSIDE BLADES ON FRONT AND REAR GANGS ARE NOT CUTTING DEEP ENOUGH	- tire pressure is lower on centre section wheels than wing section wheel causing centre section to cut deeper - outside of wing frame(s) is higher than main frame - wing rockshaft cylinder is not synchronized with main frame rockshaft cylinder	- check tire inflation for all wheels, see tire pressure on page 8 - lower outside of wing with wing rockshaft cylinder anchor bolt, see section 5 on page 14 - rephase rockshaft cylinder, see section 15 on page 11
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 - rear gangs are too close together	- level disc using levelling crank - see Fig. 10 on page 13 - reduce discing speed - increase distance between rear gangs see section 1 on page 13
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. 10 on page 13 - increase discing speed - decrease distance between rear gangs - see section 1 on page 13

TROUBLE SHOOTING CONTINUED

PROBLEM	POSSIBLE CAUSE	REMEDY
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 1 on page 13
DISC GANGS ARE PLUGGING	- scrapers are too far from blades	- adjust scrapers so they are contacting blades
	- thrash conditions too heavy for your machine cylinder(s)	- contact your Ezee-On Dealer
WHEN RAISING DISC OUT OF GROUND, MAIN FRAME COMES OUT OF GROUND WHILE OUTSIDE OF WING(S) LAGS BEHIND OR DOES NOT COME OUT OF GROUND	- piston seals on wing rockshaft cylinder(s) are damaged	- replace piston seals of wing rockshaft cylinder
WHEN RAISING DISC OUT OF GROUND, OUTSIDE OF WING(S) 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(S) ARE NOT FULLY EXTENDED	- rockshaft cylinders are not synchronized	- rephrase rockshaft cylinders, see section 15 on page 11
WHEN RAISING DISC OUT OF GROUND WING ROCKSHAFT CYLINDER IS FULLY EXTENDED WHILE MAIN FRAME ROCKSHAFT CYLINDER(S) ARE NOT FULLY EXTENDED	- rockshaft cylinders are not synchronized	- rephrase rockshaft cylinders, see section 15 on page 11
OUTER WING BLADES WILL NOT PENETRATE SOIL	- soil condition too hard for your machine	- add weights to outside of wing frame - Ezee-On makes weights available. Contact your Ezee-On Dealer
ALL SECTION OF DISC WILL NOT PENETRATE SOIL	- soil condition too hard for your machine	- contact your Ezee-On Dealer

MODEL 6650 – LTF DISC

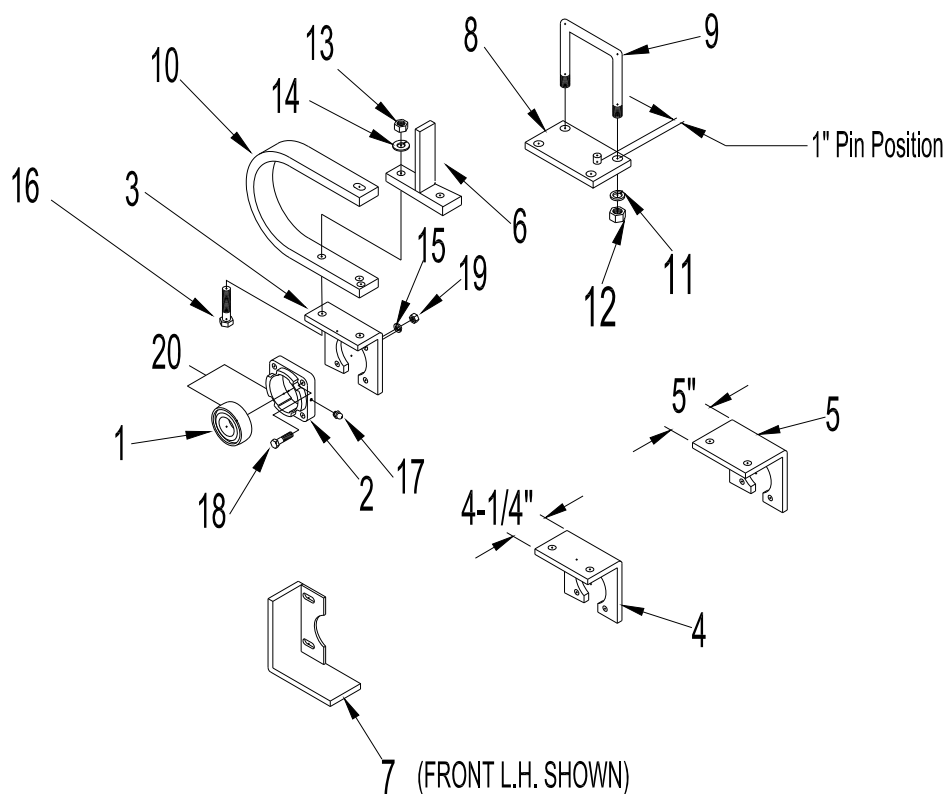


MODEL 1225 DISC GANG (WITH STANDARD HANGERS FOR T2-215 BEARINGS) – 9" & 10-1/2" (230 & 267mm) SPACING
(used with INDEPENDENTLY MOUNTED SCRAPER BAR – used AFTER S/N 51463)

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D	REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	---	Refer to Ref. No. 1 on page 63 for Plain Blades		20		Refer to Ref. No 15 on Page 63 for Gang Bolts for 9" and 10-1/2" (230 & 267mm) Spacing	
2	---	Refer to Ref. No. 2 on page 63 for Notched Blades		21	DGA35	Socket Wrench	*
3	---	Refer to Ref. No. 3 on page 63 for Outrigger Blades		22	DG10310	7/16" x 3" (10.9 x 76.2mm) Lock Pin	*
4	DG82	2" N.C. (50.8mm) Heavy Hex Slotted Nut	*	23	DG5379	7/8" x 6" x 5-7/8" (22 x 152 x 149mm) Long U-Bolt	*
5	DG89	1/4 (6.35mm) Shim Washer	*	24	B062100	5/8" x 10" N.C. (15.7 x 254mm) Hex Bolt Gr. 5 – used on machines less bearing	*
6	DG88	1/2" (12.7mm) Shim Washer	*		B062110	5/8" x 11" N.C. (15.7 x 279mm) Hex Bolt Gr. 5 – used on machines equipped w/bearing	*
7	DG13185	5-1/2" O.D. x 2" I.D. x 3/4" (138 x 50.8 x 19.0mm) Head Washer – used with 24" blades	*	25	BN087	7/8" (22.2mm) N.C. Hex Nut	*
	DG13184	6" O.D. x 2" I.D. x 1" (152 x 50.8 x 25.4mm) Head Washer – used with 26" & 28" blades	*	26	BN062L	5/8" (15.7mm) N.C. Hex Nylon Lock Nut	*
8	DGA13162	Std. Trunion Mounted Bearing Hanger w/o Scraper tail – (see Detail A above for length)	*	27	BW087L	7/8" (22.2mm) Lockwasher	*
9	DGB9900	Housing c/w Bearings, Seals, Sleeve, Snap Ring & Cap – T2-215 Series	*	28	DGA5370	5-1/2" (139.7mm) Gang Washer – Weld On	*
10	DG9901	Housing Only – T2-215 Series	*	29	DG9912	Set Screw – 1/4" N.C. x 1/2" Long (6.35 x 12.7mm)	*
11	DG9905	Bearing Seal – National #200322	*	30	10GN1	1/4" (6.35mm) – 28 Straight Grease Fitting	*
12	DG9904	#6215 Ball Bearing (Modified)	*	31	DG10590	Bearing Guard – T2-215 Bearing	*
13	DG9906	5" (127mm) Sleeve	*	32	DGA13163	2" (50.8mm) Offset Trunion Mounted Bearing Hanger w/o scraper tail – see Detail "A" above for lengths	*
14	DG9902	Bearing Housing Cap	*		DGA13164	3-1/2" (88.9mm) Offset Trunion Mounted Bearing Hanger w/o scraper tail – see Detail "A" above for lengths	*
15	DG9911	External Snap Ring – Philip French #D1400-75	*				
16	DG9910	Internal Snap Ring – Philip French #D1300-130	*				
17	DGA10563	9" & 10-1/2" (230 & 267mm) Spacing, Short Half, 1-3/8" (34.9mm) Long Convex Side w/6" (152mm) Washer Spool	*				
18	DGA10571	9" (230mm) Spacing, Long Half 2-11/16" (68mm) - Concave Side	*				
	DGA103	10-1/2" & 12" (267 & 305mm) Spacing Long Half, 4-3/16" (106mm) Long - Concave Side	*				
19	DGA100	9" (230mm) Spacing, Full Spool w/6" (152mm) Dia. Washer both ends	*				
	DGA101	10-1/2" (267mm) Spacing, Full Spool w/6" (152mm) Dia. Washer both ends	*				

* as required

MODEL 6650 – LTF DISC

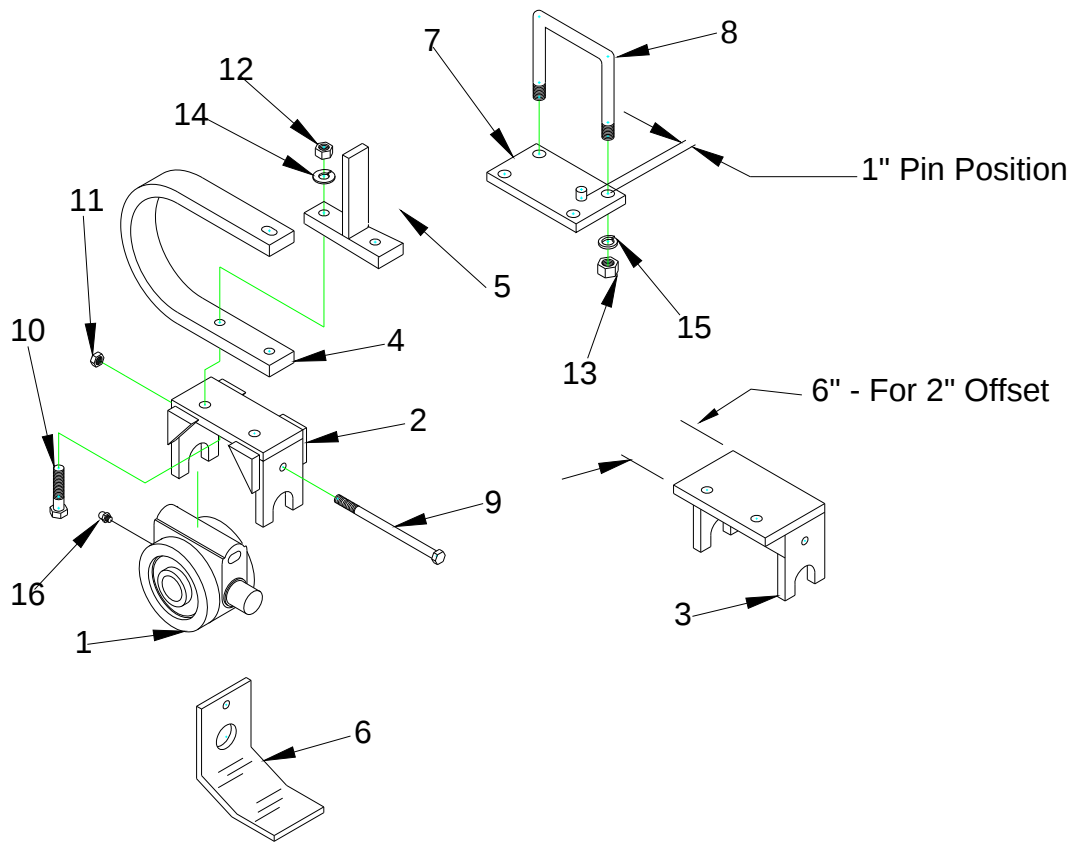


STONE FLEX HANGER FOR 410WSS BEARINGS (OPTIONAL) (INDEPENDENTLY MOUNTED SCRAPER BAR ARM)

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	DG108	410WSS Series Greaseable Bearing - 2-1/16" (52mm) Wide	*
2	DG96	Housing - 410WSS Bearing	*
3	DG5324	Standard Mounting Bracket For 410WSS Bearing	*
4	DGA5376	1-1/2" (38.1mm) Offset Mounting Bracket - 410WSS Bearing	*
5	DGA5341	2" (50.8mm) Offset Mounting Bracket - 410WSS Bearing	*
6	DG5338	Scraper Bar Support - Independently Mounted Scraper Bar	*
7	DGA40 DGA39	Front L.H. and Rear R.H. Bearing Guard Rear R.H. and Front L.H. Bearing Guard	* *
8	DGA5327	Backing Plate - used with independently mounted scraper Only	*
9	DG5378	7/8" (22.2mm) x 6" (152.4mm) x 7-1/8" (181mm) Long U-bolt	*
10	DG5313	1-1/4" (31.7mm) x 2-1/2" (63.5mm) Spring Shank	*
11	BW087L	7/8" (22.2mm) Lockwasher	*
12	BN087	7/8" (22.2mm) N.C. Hex. Nut	*
13	BN075	3/4" (19mm) N.C. Hex. Nut	*
14	BW075L	3/4" (19mm) Lockwasher	*
15	BW062L	5/8" (15.7mm) Lockwasher	*
16	B075035	3/4" (19mm) x 3-1/2" (88.9mm) N.C. Hex. Bolt	*
17	10GN1	1/4" (6.35mm) - 28 Straight Grease Fitting	*
18	B062022	5/8" (15.7mm) x 2-1/4" (57.2mm) N.C. Hex. Bolt	*
	B062025	5/8" (15.7mm) x 2-1/2" (63.5mm) N.C. Hex. Bolt - used with bearing guard	*
19	BN062	5/8" (15.7mm) N.C. Hex. Nut	*
20	DGB109	410WSS Bearing c/w Housing and Grease Fitting - 2-1/16" (52mm) Bearing Width	*

* As Required

MODEL 6650 – LTF DISC

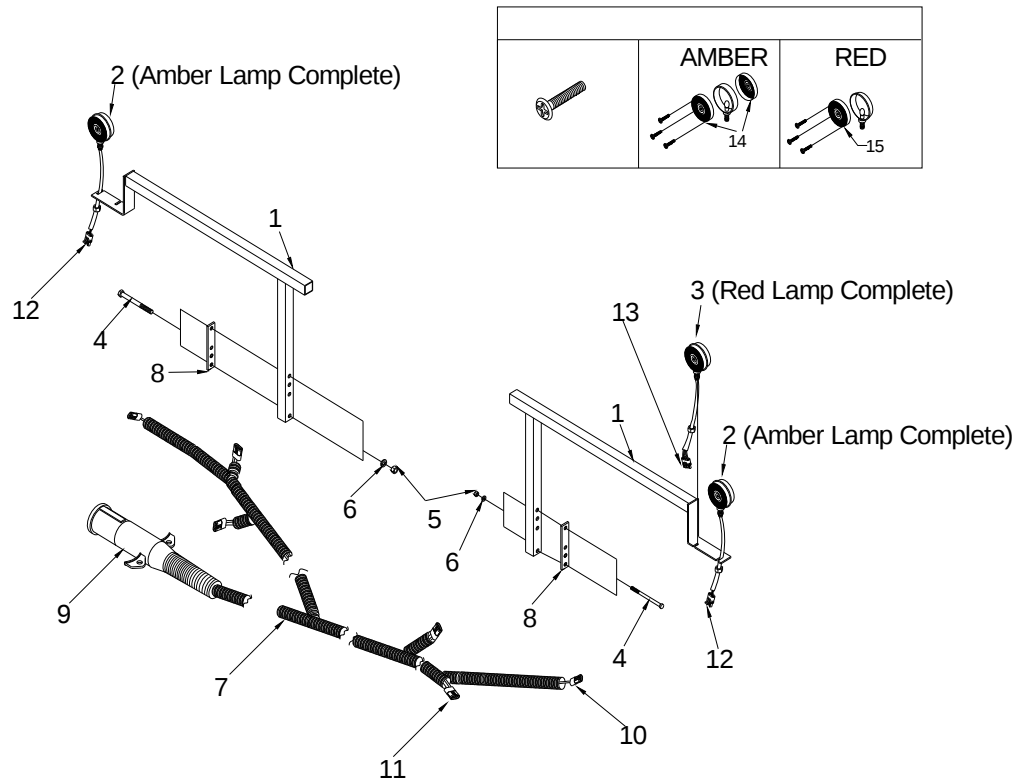


T2-215 BEARING W/STONE FLEX HANGER ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	DGB9900	T2-215 Bearing Assembly - See Page 10 for parts breakdown for T2-215 Bearing	*
2	DGA10570	Standard Mounting Bracket	*
3	DGA10575	2" (50.8mm) Offset Mounting Bracket	*
4	DG5313	1-1/4" (31.8mm) x 2-1/2" (63.5mm) Spring Shank	*
5	DGA5338	Shank Stop – Independently Mounted Scrapers only	*
6	DG10590	Bearing Guard – T2-215	*
7	DGA5327	Backing Plate – Independently Mounted Scrapers only	*
8	DG5378	7/8" (22.2mm) x 7" (178mm) x 7-1/8" (181mm) Long U-bolt	*
9	BO62100	5/8" (15.7mm) x 10" (254mm) N.C. Hex. Bolt- GR.5	*
10	BO75035	3/4" (19mm) x 3-1/2" (88.9mm) N.C. Hex. Bolt- GR.5	*
11	BN062L	5/8" (15.7mm) N.C. Hex. Nylon Lock Nut	*
12	BN075	3/4" (19mm) N.C. Hex. Nut	*
13	BN087	7/8" (22.2mm) N.C. Hex. Nut	*
14	BW075L	3/4" (19mm) Lockwasher	*
15	BW087L	7/8" (22.2mm) Lockwasher	*
16	10GN1	1/4" (6.35mm) - 28 Straight Grease Fitting	*

* as required

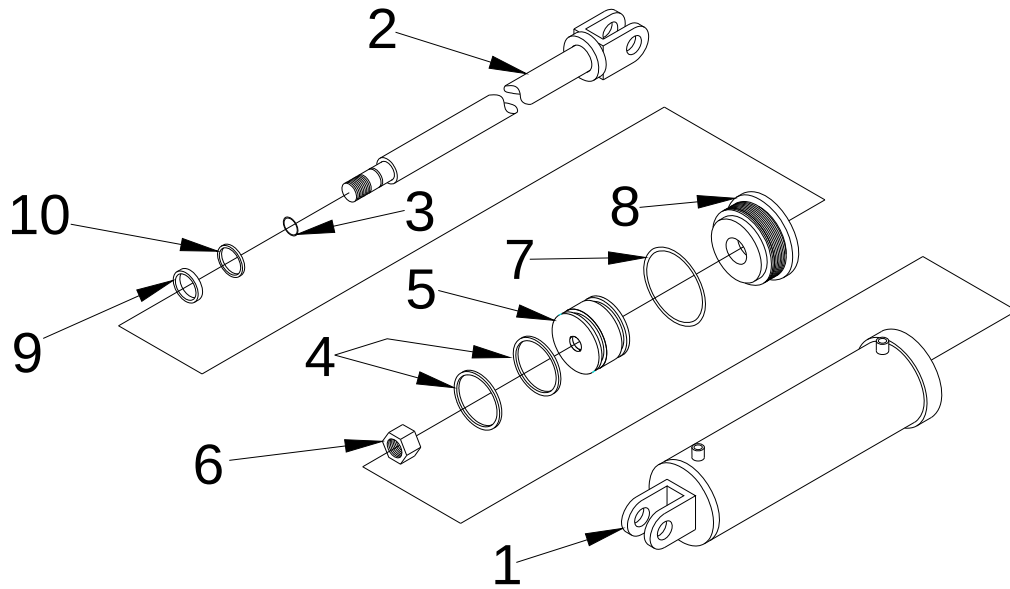
MODEL 6650 – LTF DISC



WARNING LIGHT KIT (Optional)

REF. NO."	PART NO."	DESCRIPTION"	QTY. REQ'D"
1	D6252	Light Bracket	2
2	LK6422	Amber Lamp c/w Washers and Nut	2
3	LK6401	Red Lamp c/w Washers and Nut	1
4	B050085	1/2" x 8-1/2" (12.7 x 216mm) N.C. Hex Bolts (Plated)	4
5	BN050	1/2" (12.7mm) N.C. Hex Nut (Plated)	8
6	BW050L	1/2" (12.7mm) Lockwasher (Plated)	8
7	LK6427	55' Light Harness	1
8	LK6404	Light Mount Plate	2
9	LK6409	Amber Lamps – for Amber Lights	2
10	Lk6410	Red Lamps – for Red Lights	1

MODEL 6650 – LTF DISC



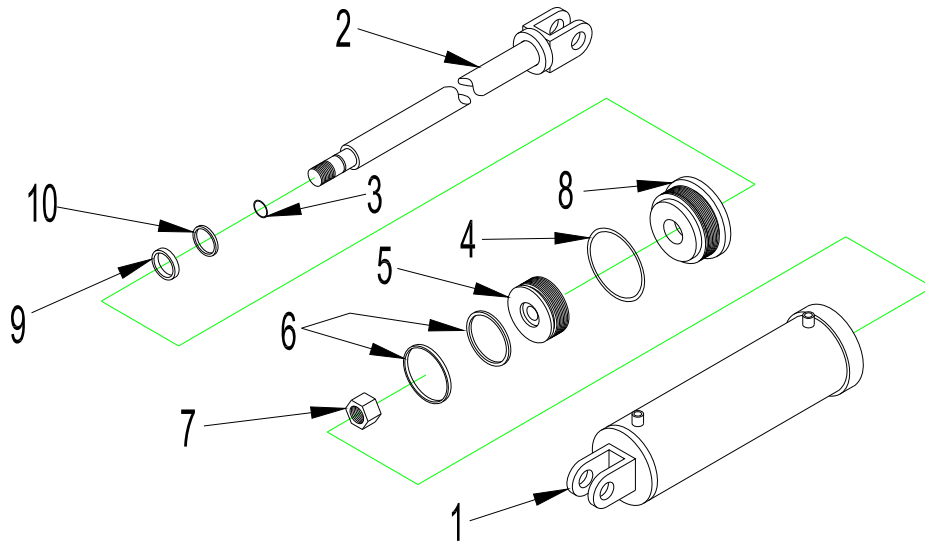
OUTER WING LIFT CYLINDER – 4" x 24" (102 x 610mm) CYLINDER - #241

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	40TU9	Tube Assembly - 4" x 24" (102 x 610mm)	1
2	10SH46	Shaft – 1-3/4" x 24" (44 x 610mm)	1
3	100R13	1/8" x 1-1/4" O.D. (3.3 x 22.2mm) O-Ring	1
4	40CU3	4" x 3/8" (101.6 x 9.6mm) U-Cup	2
5	40PB5	4" O.D. x 2-1/2" (102 x 64mm) Long Piston.	1
6	10NU4	1" (25.4mm) Locknut	1
7	100R17	3/16" x 4" O.D. (4.8 x 102mm) O-Ring	1
8	40HP7	4" O.D. x 1-1/2" I.D. (102 x 38mm)	1
9	10RS3	1-3/4" x 2-1/8" x 3/8" (44 x 54 x 9.39mm) Rod Seal	1
10	10WS3	1-3/4" x 2-1/8" x 3/16" (44 x 54 x 4.8mm) Wiper Seal	1

SEAL KIT

KIT NO."	QTY."	CONTENTS "	APPLICATION"
4017N4	2	40CU3	4" x 24" Outer Wing Lift
	1	100R13 – 1/8" x 1-1/4" O.D. (3.3 x 31.7mm) O-Ring	
	1	100R17 – 3/16" x 4" O.D. (4.8 x 102mm) O-Ring	
	1	10RS3 – 1-3/4" (44mm) Rod Seal	
	1	10WS3 – 1-3/4" (44mm) Wiper Seal	

MODEL 6650 – LTF DISC



R.H. MAIN ROCKSHAFT CYLINDER - 4" x 24" (102 x 610mm) REPHASING CYLINDER - #306

REF. NO.	PART NO.	DESCRIPTION	QTY. REQ'D
1	40TU10	Tube Assembly - 4" x 24" (102 x 610mm)	1
2	10SH60	Shaft - 2" x 24" (50.8 x 610mm)	1
3	100R18	1" O.D. x 7/8" (25.4 x 22.2mm) I.D. O-Ring	1
4	100R17	4" O.D. x 3/16" (102 x 4.76mm) O-Ring	1
5	40PB8	Piston - 4" O.D. x 1" (102 x 25.4mm) I.D.	1
6	40PS1	4" (102mm) O.D. Piston Seal Assembly	1
7	10NU4	1" (25.4mm) - 14 N.F. Hex Nut	1
8	40HP5	Head Plate - 4" O.D. x 2" (102 x 50.8mm) I.D.	1
9	10RS2	Rod Seal - 2-3/8" O.D. x 2" I.D. x 3/8" (60.2 x 50.8 x 9.39mm)	1
10	10WS6	Wiper Seal - 2-1/2" O.D. x 2" I.D. x 3/8" (63.5 x 50.8 x 9.39mm) - All Urethane	1

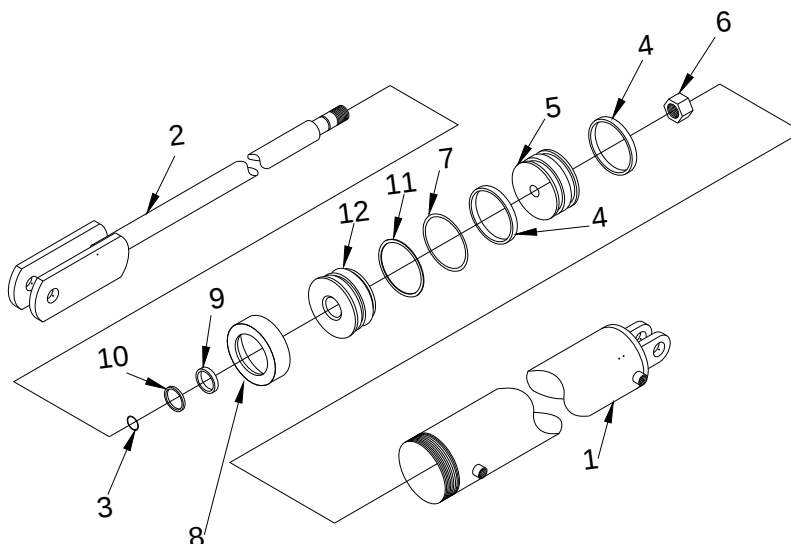
L.H. WING ROCKSHAFT CYLINDER - 3-1/2" x 24" (88.9 x 610mm) CYLINDER - #305

REF. NO."	PART NO."	DESCRIPTION"	QTY. REQ'D"
1	35TU15	Tube Assembly - 3-1/2" (88.9mm) x 24" (610mm)	1
2	10SH59	Shaft - 1-3/4" (44.4mm) x 24" (610mm)	1
3	100R18	1" (25.4mm) O.D. x 7/8" (22.2mm) I.D. O-Ring	1
4	100R8	3-1/2" (88.9mm) O.D. x 3/16" (4.76mm) O-Ring	1
5	35PB8	Piston - 3-1/2" (88.9mm) O.D. x 1" (25.4mm) I.D.	1
6	35PS1	Piston Seal Assembly	1
7	10NU4	1" (25.4mm) - 14 N.F. Hex Nut	1
8	35HP9	Head Plate - 3-1/2" (88.9mm) O.D. x 1-3/4" (44.4mm) I.D.	1
9	10RS3	Rod Seal - 1-3/4" (44.4mm) I.D. x 2-1/8" (54.0mm) O.D. x 3/8" (9.39mm)	1
10	10WS10	All Urethane Wiper Seal - 1-3/4" (44.4mm) I.D. x 2-1/8" (54.0mm) O.D. x 1/4" (6.35mm)	1

R.H. WING ROCKSHAFT CYLINDER - 3" (76.2mm) x 24" (610mm) CYLINDER - #304

REF. NO."	PART NO."	DESCRIPTION"	QTY. REQ'D"
1	30TU34	Tube Assembly - 3" (76.2mm) x 24" (610mm)	1
2	10SH59	Shaft - 1-3/4" (44.4mm) x 24" (610mm)	1
3	100R18	1" (25.4mm) O.D. x 7/8" (22.2mm) I.D. O-Ring	1
4	100R3	3" (76.2mm) O.D. x 3/16" (4.76mm) O-Ring	1
5	30PB4	Piston - 3" (76.2mm) O.D. x 1" (25.4mm) I.D.	1
6	30PS1	Piston Seal Assembly	1
7	10NU4	1" (25.4mm) - 14 N.F. Hex Nut	1
8	30HP15	Head Plate - 3" (76.2mm) O.D. x 1-3/4" (44.4mm) I.D.	1
9	10RS3	Rod Seal - 1-3/4" (44.4mm) I.D. x 2-1/8" (54.0mm) O.D. x 3/8" (9.39mm)	1
10	10WS10	All Urethane Wiper Seal - 1-3/4" (44.4mm) I.D. x 2-1/8" (54.0mm) O.D. x 1/4" (6.35mm) All Urethane Wiper Seal	1

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WING LIFT CYLINDER - 5" x 36" (127 x 914mm) CYLINDER - #332

REF. NO."	PART NO."	DESCRIPTION"	QTY. REQ'D"
1	50TU11	Tube Assembly - 5" x 36" (127 x 914mm)	1
2	10SH36	Shaft - 1-3/4" x 36" (44.4 x 914mm)	1
3	100R19	1-1/8" I.D. x 1-1/4" O.D. (28.5 x 31.8mm) O-Ring	1
4	50CU1	4-1/2" I.D. x 5" O.D. x 1/2" (29.9 x 127 x 12.7mm) U-Cup	2
5	50PB2	5" O.D. x 1-1/4" I.D. (127 x 31.8mm) Piston	1
6	10NU3	1-1/4" (31.8mm) U.N.F. Hex Lock Nut	1
7	100R14	4-1/2" I.D. x 5" O.D. (29.9 x 127mm) O-Ring	1
8	50HN1	5" Head Nut (N3 Type)	1
9	10RS3	1-3/4" I.D. x 2-1/8" O.D. x 3/8" (44.4 x 54.0 x 9.39mm) Rod Seal	1
10	10WS3	1-3/4" I.D. x 2-1/8" O.D. x 3/16" (44.4 x 54.0 x 4.76mm) Wiper Seal	1
11	50BR1	5"OD x 4-1/2" I.D Backup Ring	1
12	50HP5	5"OD X 1-3/4" I.D. Head Plate (N3 Type)	1

SEAL KIT

PART NO.	DESCRIPTION"	QTY. REQ'D"	CYLINDER NO."
5017N3	50CU1 - 4-1/2" I.D. x 5" O.D. x 1/2" (114 x 127mm x 12.7mm) U-Cup 100R14 - 4-1/2" I.D. x 5" O.D. (114 x 127mm) O-Ring 100R19 - 1-1/8" I.D. x 1-1/4" O.D. (28.5 x 31.8mm) O-Ring 100RS3 - 1-3/4" I.D. x 2-1/8" O.D. x 3/8" (44.4 x 54.0 x 9.39mm) Rod Seal 10WS3 - 1-3/4" I.D. x 2-1/8" O.D. x 3/16" (44.4 x 54.0 x 4.76mm) Wiper Seal 100R13 - 1" O.D. x 1-1/4" O.D. O-Ring (25.4 x 31.8mm) 50BR1 - 5"OD x 4-1/2"ID Backup Ring	2 1 1 1 1 1 1	332
4020N4-0	100R18 - 1" O.D. x 7/8" I.D. (25.4 x 22.2mm) O-Ring 100R17 - 4" O.D. x 3/16" (101.6 x 4.76mm) O-Ring 40PS1 - 4" (101.6mm) Piston Seal Assembly 10RS2 - 2-3/8" O.D. x 2" I.D. x 3/8" (60.2 x 50.8 x 9.39mm) Rod Seal 10WS6 - 2-1/2" O.D. x 2" I.D. x 3/8" (63.5 x 50.8 x 9.39mm) All Urethane Wiper Seal	1 1 1 1 1	306
3517N4-0	100R18 - 1" O.D. x 7/8" I.D. (25.4 x 22.2mm) O-Ring 100R8 - 3-1/2" O.D. x 3/16" (88.9 x 4.76mm) O-Ring 35PS1 - 3-1/2" (88.9mm) Piston Seal Assembly 10RS3 - 1-3/4" I.D. x 2-1/8" O.D. x 3/8" (44.4 x 54.0 x 9.39mm) Rod Seal 10WS10 - 1-3/4" I.D. x 2-1/8" O.D. x 1/4" (44.4 x 54.0 x 6.35mm) All Urethane Wiper Seal	1 1 1 1 1	305
3017N4-0	100R18 - 1" O.D. x 7/8" (25.4 x 22.2mm) I.D. O-Ring 100R3 - 3" O.D. x 3/16" (76.2 x 4.76mm) O-Ring 30PS1 - 3" (76.2mm) Piston Seal Assembly 10RS3 - 1-3/4" I.D. x 2-1/8" O.D. x 3/8" (44.4 x 54.0 x 9.39mm) Rod Seal 10WS10 - 1-3/4" I.D. x 2-1/8" O.D. x 1/4" (44.4 x 54.0 x 6.35mm) All Urethane Wiper Seal	1 1 1 1 1	304