G2 OFFSET HARROW

OPERATOR'S MANUAL
PARTS IDENTIFICATION

G2

Revised
2/5/19

AMCO MANUFACTURING COMPANY

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FOREWORD

You've just joined an exclusive but rapidly growing club.

For our part, we want to welcome you to the group and thank you for buying an AMCO product.

We hope your new AMCO implement will help you achieve both increased productivity and increased efficiency so that you may generate more profit.

This operator's manual has been designed into five major sections: Foreword, Safety Precautions, Operation, Troubleshooting and Parts Identification.

It is important the owner/operator knows the implement model number and serial number. Write the serial and model number in the space provided and use it in all correspondence when referring to the implement.

Throughout the manual, references may be made to left side and right side. These terms are used as viewed from the operator's seat facing the front of the tractor.

This **SAFETY ALERT SYMBOL** indicates important safety messages in the manual. When you see this symbol, be alert to the possibility of **PERSONAL INJURY** and carefully read the message that follows.

The word **NOTE** is used to convey information that is out of context with the manual text. It contains special information such as specifications, techniques, reference information and other information of a supplementary nature.

The word **IMPORTANT** is used in the text when immediate damage will occur to the machine due to improper technique or operation. Important will apply to the same information as specified by **NOTE** only of an immediate and urgent nature.

It is the responsibility of the user to read the operator's manual and comply with the safe and correct operating procedure and to lubricate and maintain the product according to the maintenance schedule in the operator's manual.

The user is responsible for inspecting his machine and for having parts repaired or replaced when continued use of the product would cause damage or excessive wear to the other parts.

It is the user's responsibility to deliver his machine to the AMCO dealer who sold him the product for service or replacement of defective parts that are covered by the warranty policy.

If you are unable to understand or follow the instructions provided in the publication, consult your local AMCO dealer or contact:

AMCO MANUFACTURING, INC.
662-746-4464
800-748-9022
662-746-6825 (FAX)
Website: www.amcomfg.com
E-mail: sales@amcomfg.com
parts@amcomfg.com

AMCO Manufacturing warrants all products manufactured and sold by it against defects in material. This warranty being expressly limited to replacement at the factory of such parts or products as will appear to be defective after inspection. This warranty does not obligate the Company to bear cost of labor in replacement of parts. It is the policy of the company to make improvements without incurring obligations to add them to any unit already sold. No warranty is made or authorized to be made, other than herein set forth. This warranty is in effect for one year after purchase.

Model Number: _____
Serial Number: _____
Dealer: _____

AMCO Manufacturing warrants its own products only and cannot be responsible for damage to equipment on which mounted.

SAFETY

A brief description of signal words that may be used in this manual:

CAUTION: Used as a general reminder of good safety practices or to direct attention to unsafe practices.

WARNING: Denotes a specific potential hazard.

DANGER: Denotes the most serious specific potential hazard.

SAFETY PRECAUTIONS

You can make your farm a safer place to live and work if you observe the safety precautions given. Study these precautions carefully and insist that they be followed by those working with you and for you.

WARNING

Never clean, lubricate or adjust a machine that is in motion. Always lower or block the implement before performing service.

If machine must be serviced in the raised position, jack or block it up to prevent it from accidentally falling and injuring someone.

Do not allow riders on the tractor or implement.

Use speeds and caution dictated by the terrain being traversed. Do not operate on any slope steep enough to cause tipping or loss of control.

Be sure all personnel are clear of the immediate area before operating.

Read and understand the operator's manual and require all other persons who will operate the equipment to do the same.

Be familiar with all the tractor and implement controls and be prepared to stop engine and implements quickly in an emergency.

CAUTION

Consult your implement and tractor operator's manual for correct and safe operating practices.

Beware of towed implement width and allow safe clearance.

FAILURE TO HEED MAY RESULT IN PERSONAL INJURY OR DEATH.

SPECIFICATIONS AND SUGGESTED HOREPOWER REQUIREMENTS

Model	Cutting Width	No. of Disc Blades	No. of Bearings	Crawler Approx. Engine HP	Rubber Tired Approx. Engine HP	Approx. Weight lbs*
G2-2032	10'4"	20	8	135-162	202-243	10,179
G2-2432	12'4"	24	12	149-176	216-264	11,767
G2-2832	14'4"	28	12	162-203	243-304	12,508
G2-3232	16'4"	32	16	189-236	284-365	14,113
G2-3632	18'4"	36	16	216-270	324-405	14,821
G2-4032**	20'4"	40	16	270-324	378-432	16,341

**Weights shown for models with 32" blades. Add 50 lbs. per blade for models with 36" blades.*

***Auxiliary bar is standard equipment on 20'4" unit.*

Specifications for all models subject to change without notice.

BOLT TORQUE

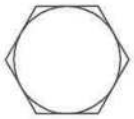
WARNING

Before making any adjustments, inspections, lubricating or repairing. Slowly lower the Disc Harrow until it is firmly in contact with the ground. Before dismounting from the tractor shut off the engine set the parking brake and remove the key.

READ THESE INSTRUCTIONS FIRST:

1. Improperly tightened bolts will result in damage, breakage, expense, and down time.
2. Always replace bolts with the specified grade and type.
3. Torque bolts using a torque wrench properly before first use of the machine and every 2-4 hours of use until you are sure bolts are staying tight.
4. The chart below is a guide for proper torque. Use it unless a specified torque is called out elsewhere in the manual.

The following table shows torque in ft. lbs.

BOLT DIA. AND THREADS PER INCH	 GRADE 2	 GRADE 5 OR  A-325	 GRADE 8
3/8-16	25	35	50
7/16-14	35	55	80
1/2-13	55	85	125
9/16-12	75	125	175
5/8-11	105	170	235
3/4-10	185	305	425
7/8-9	170	445	690
1-8	260	670	1030
1 1/8-7	365	900	1460
1 1/4-7	515	1275	2060
1 3/8-6	675	1675	2700
1 1/2-6	900	2150	3500
1 3/4-5	1410	3500	5600

Shear Bolt Torque Rating
Metric bolt torque for M12 Class 8.8 zinc plated is 55.1 foot-pounds

WARNING DECALS

Familiarize yourself with the warning decals affixed to the G2. It is important for you to operate the G2 safely. Read and follow the safety directions on all warning decals.

1. For operator safety make sure all warning decals are clean and legible.
2. Immediately replace any damaged or missing warning decals.
3. Never cover or obscure a warning decal.
4. Refer to the Parts Identification Section of this manual for correct warning decal locations.
5. Replacement warning decals can be obtained from your AMCO Dealer or by contacting AMCO at amcomfg.com.

SAFETY SUGGESTIONS

This safety alert symbol indicates important safety messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury.

 CAUTION

Never stand between tractor and disc harrow when hitching unless all controls are in neutral and the brakes are locked.

 CAUTION

Park or block the disc harrow so it will not roll when disconnected from the tractor drawbar.

 CAUTION

When working on disc harrows, care should be exercised in handling or tightening bolts near disc blades to avoid injury.

 CAUTION

Always secure for transport by using the lock pin.

 CAUTION

Never clean, adjust, or lubricate a disc harrow that is in motion.

CAUTION

When transporting machinery over public roads, comply with your local and state laws regarding length, width, and lighting.

CAUTION

When trailing the disc harrow over public roads, the SMV Emblem must be used for protection of tractor and motor vehicle operators.

CAUTION

When transporting farm implements on public roads after dusk, it is the responsibility of the operator to provide lighting and reflectors on the rear of the implement in accordance with your state law.

CAUTION

All hydraulically or mechanically elevated components must be blocked to prevent accidental lowering or must be lowered to the ground when making adjustments or when the equipment is idle.

GENERAL SPECIFICATIONS
G2 OFFSET DISC HARROW

AXLES:	2-1/4" (57MM) ROUND, HIGH CARBON COLD FINISHED STEEL	**Bearings:** **2 Year Warranty On Bearings!**	Protect-O-Shield®, 2-3/4" bore greaseable ball type, toggle mounted, with wear and zerk guards
BLADES:	32" x 3/8" (10mm) cut out with 14" x 3/16" (4.8mm) back up blades	**TRANSPORT FEATURES**:	Light kits, safety chains & a slow moving vehicle sign are standard equipment. Including brackets & electric wiring to the tractor.
SPACING:	12 – ½ INCHES	**WHEELS:**	Dual 15" x 10" with extra heavy duty (8) bolt hub w/ 12.5L x 15" Tires, 12 ply
SCRAPERS:	Extra heavy duty moldboard type with 5/8 x 3 shank	**WRENCH:**	One for gang bolt
TONGUE:	Adjustable, 92" long with tongue jack and reversible ductile iron clevis	**WEIGHT:**	379-502 lbs (172-228 kg) per blade, 758-975 lbs per foot (1128-1451 kg per meter)
GANG ANGLE:	20º to 27º front to rear	**TRANSPORT WIDTH:**	Width of cut plus 12 inches
BEARING RISERS:	Fabricated steel	**HYDRAULIC CYLINDERS:**	5" x 16" x 2-1/2" Hyd. Cylinder w/ special clevis and hose bundle to tractor, including hose holder
FINISH	Powder coated		

Optional Equipment

Feathering Blade with Scraper
32" x 3/8" plain blades in lieu of Std. 32"
36" x ½" cut out in lieu of Std. 32"
STANDARD Tire Size
4 – 12/5 L x 15 Tires, 12 Ply

Weights shown for models with 32" blades. Add 50 lbs. per blade for models with 36" blades.
Auxiliary bar is standard equipment on 20-1/4" unit.
Specifications for all models subject to change without notice.

ASSEMBLY INSTRUCTIONS

CAUTION

Use sturdy assembly stands with the correct weight load bearing capability. Secure the main frame to the assembly stands at least 44" high.

Always wear hand protection such as gloves when working around the disc blades to avoid coming in contact with sharp edges

The disc harrow is shipped from the factory with maximum pre-assembly in the following bundles:

A. MAIN FRAME AND ROCKSHAFT
B. HITCH TONGUE AND CROSS TONGUE
C. FRONT GANG AND FRAME
D. REAR GANG AND FRAME
E. FOUR 15x10- 8 HOLE WHEELS
F. 5"x16" HYDRAULIC CYLINDER
G. TONGUE JACK
H. HOSE KIT
I. LIGHT KIT

1. Place all bundles where they will be convenient. Arrange loose parts so they may be readily seen when needed. Do not remove any bolts until part involved is ready to be assembled. To insure good alignment of the units and parts, always insert all bolts leaving the nuts loose. Tighten the nuts evenly to prevent misalignment, distortion or binding. Be sure all bolts are tight, all cotter keys properly spread and all pins properly inserted**.**
2. Select clean level area for assembly. Place main frame on sturdy stands at least 44" high. Place on front and sides to clear gang frames.

CAUTION

Use sturdy stands to prevent frame from falling!

3. Bolt front gangs first and then rear gang frames to main frame . Use four special 1 3/8" diameter bolts to attach gang frame to main frame. Install 1 ¼ diameter center pivot bolt.

4. Attach hitch tongue and cross tongue to main frame using two 2” diameter bolts and bushings. Secure 2” diameter bolts with 3/8” cap screws. Install hose support, stabilizer, and tongue jack. NOTE: Store tongue jack on special mainframe bracket when disc harrow is attached to tractor.

5. Install hydraulic cylinder and hoses.
6. Remove hub nuts. Bolt wheels to hubs, tighten bolts evenly to assure proper alignment of wheels, and then remove stands.

Attach disc harrow to tractor and raise and lower disc harrow three to four times. Remove stands from under main frame. Check the disc harrow to be sure all bolts are tight, cotter pins spread, pins in place and that the gangs rotate freely.

WARNING

Before making any adjustments, inspections, lubricating or repairing. Slowly lower the Disc Harrow until it is firmly in contact with the ground. Before dismounting from the tractor shut off the engine set the parking brake and remove the key.

WARNING

Before dismounting from the tractor shut off the engine, set the parking brake and remove the key.

CAUTION

Always wear hand protection such as gloves when working around the disc blades to avoid coming in contact with sharp edges.

LUBRICATION

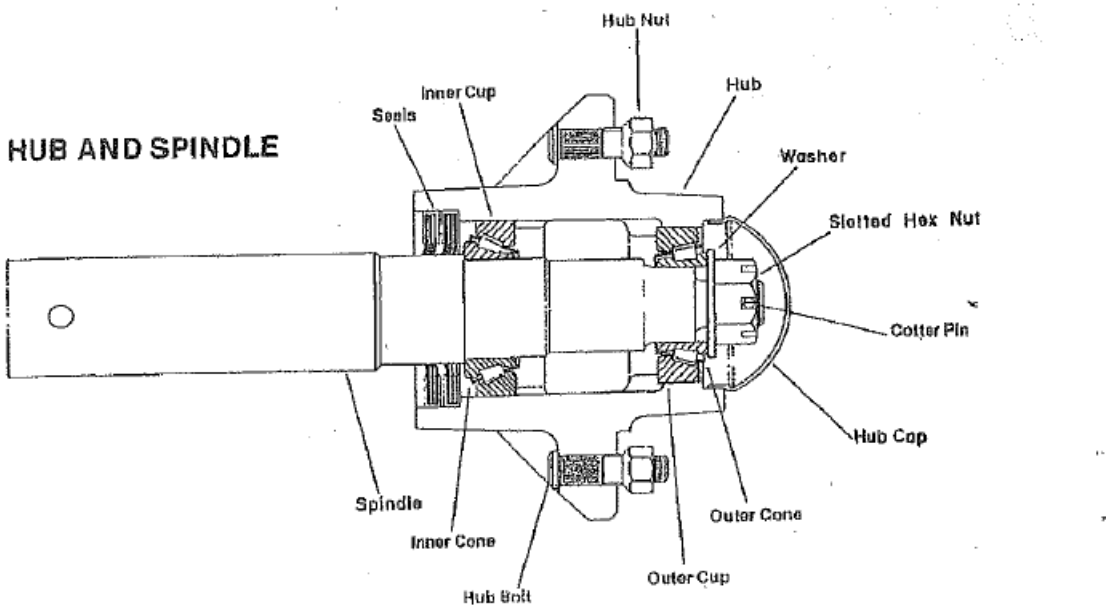
Careful and regular attention to lubrication will greatly increase the life of the disc harrow. For economical and efficient operation, the proper lubrication of the frame fittings, gang bearing, and wheel bearing is essential.

Be sure the pressure fittings are free of dirt before using the pressure gun. Replace missing or damage fittings. Use a good No. 2 gun grease (Lithium Base). Never use a grease which contains metallic additives

GANG BEARINGS-The G2 Offset Disc Harrow is equipped with triple lip seal regreasable ball bearings. These bearings are packed and greased at the factory. They should be regreased every week or after each 50 hours of operation. Grease the bearings at the end of each season and at the start of each season. Then raise the disc harrow and spin the gangs slowly so that grease wraps around the bearing seals. This will protect the seams against the elements while the disc harrow is not in use.

ROCKSHAFT BEARINGS – The two rockshaft-bearings should be greased every week or every 50 hours of operation

SPRING LOADED STABILER – Grease every week Or every 50 hours of operation.



OPERATING INSTRUCTIONS

CAUTION

This operator's manual should be carefully and thoroughly read to enable the operator to care for and operate the G2 Disc Harrow properly. The right and left hand sides of the G2 as used in these instructions are determined by standing at the rear of the G2 and facing the direction of travel. Refer to your tractor operator's manual for complete tractor operating instructions.

WARNING

Never operate the G2 Disc Harrow at excessive ground speed. Excessive ground speed can cause personal injury or damage to your tractor and Offset harrow!

1. Never allow unsafe conditions or operating practices. Your safety is of prime importance.
2. Reduce operating speed in any areas containing stumps, rocks or other obstacles.
3. Never back up without raising the Disc Harrow gangs out the soil.
4. In normal conditions operate the Disc Harrow at a groundspeed in the range of 5 to 7 m.p.h. In aggressive terrain reduce the groundspeed to 4 m.p.h.
5. High groundspeeds and shallow gang depth throw up uniform furrow
6. Low groundspeeds and deep gang depths push the soil and may cause bulldozing in front of the gangs.
7. Vary the gang angle to suit your ground conditions.

CAUTION

Always wear hand protection such as gloves when working around the disc blades to avoid coming in contact with sharp edges

TRACTOR DRAWBAR – It is suggested that the tractor drawbar be set so it is free to swing when discing. This will prevent side draft, making operation of the disc harrow easier. The tractor drawbar will pull somewhat to the left side during operation. This is normal with an offset harrow.

DISC HARROW HITCH – The harrow pull tongue can be offset to the right or left by using the set of holes in the cross tongue plates to obtain the desired offset.

Penetration of front and rear gangs may vary. The spring loaded stabilizers may be adjusted to level the disc harrow front to rear. In extremely hard ground it may be necessary to shorten the stabilizers to force the front, or penetrating gang into the ground. In normal conditions, the stabilizers should be adjusted so that the disc harrow is level, front to rear, while discing.

The type of work to be done by the disc harrow will determine the type of adjustments to be made.

Observe the disc harrow while it is working and check if the dead furrow is being filled and the ground left level. If not, an adjustment will have to be made.

DISC GANG ANGLE – Changing the angle between the gangs will affect the penetration of the disc harrow. The wider the angle, the deeper the disc harrow will cut.

There are many factors which affect the way in which the soil will flow. Some factors are: moisture content of the soil, type of soil, speed of tractor, depth of penetration, and the working angle between the gangs. If any one of the conditions change, there will be a change in the resulting discing job.

Always change the angle one hole at a time when making an adjustment.

To check the quality of discing being done, make one complete round and pass the point where the initial observation was made.

The gangs may be set at various cutting angles depending on soil conditions and the job to be done. When conditions are near normal, a setting somewhere between the two extremes is advisable for best operation. Use the gang angle set holes on the side of the main frame to select desired angles. Increasing the gang angle will increase the penetration, pulverizing action and horsepower requirements. Decreasing the gang angle will reduce penetration, pulverizing action and horsepower requirements.

OFFSETTING THE DISC HARROW – The disc harrow pull tongue may be adjusted so the left tractor wheel can be run in the furrow, if that is desirable, or the left hand tractor wheel may be operated to the right of this furrow on uncut ground, by making a compensating adjustment on the disc harrow pull tongue. An offset is normally turned to the left.

However, the fields may be laid out so right turns are made by lifting the harrow out of the ground before making the turn.

When the disc harrow is adjusted so it discs in an extreme left offset position, the front gang will assume a much greater angle (with respect to forward travel) than the rear gang. The rear gang will have a relatively small angle with respect to forward travel.

The small angle of the rear gang makes it more difficult to fill the dead furrow, but the condition can be corrected by increasing the rear gang cutting angle.

In general, when making a left offset, attempt to keep the amount of offset as small as possible.

The following points are important to remember when offsetting the harrow:

Offsetting to the left increases the angle of the front gang and decreases the angle of the rear gang.

Offsetting to the right decreases the angle of the front gang and increases the angle of the rear gang.

MAINTENANCE

WARNING

Before dismounting from the tractor shut off the engine, set the parking brake and remove the key.

CAUTION

Always wear hand protection such as gloves when working around the disc blades to avoid coming in contact with sharp edges

1. Keep all bolts tight.
   A. Check before placing in service.
   B. Visually inspect all bolts daily.
   C. Check after first 50 hours or one week's operation.
   D. Check each season.

2. Keep wheel bearings properly adjusted.
   A. Check often.
   B. Clean and repack each season or every 300 hours.
   C. Replace worn or damaged parts.

D. In dis-assembling and re-assembling the wheel hub assemblies, care must be taken to not damage the grease seal lips. In re-assembly, to seat the bearings, carefully tighten the hex nut until the hub drags. Rotate hub to help seat the bearing cups and cones. Re-tighten the hex nut until the hub drags, then back off the hex nut to the nearest slot and secure with cotter pin.

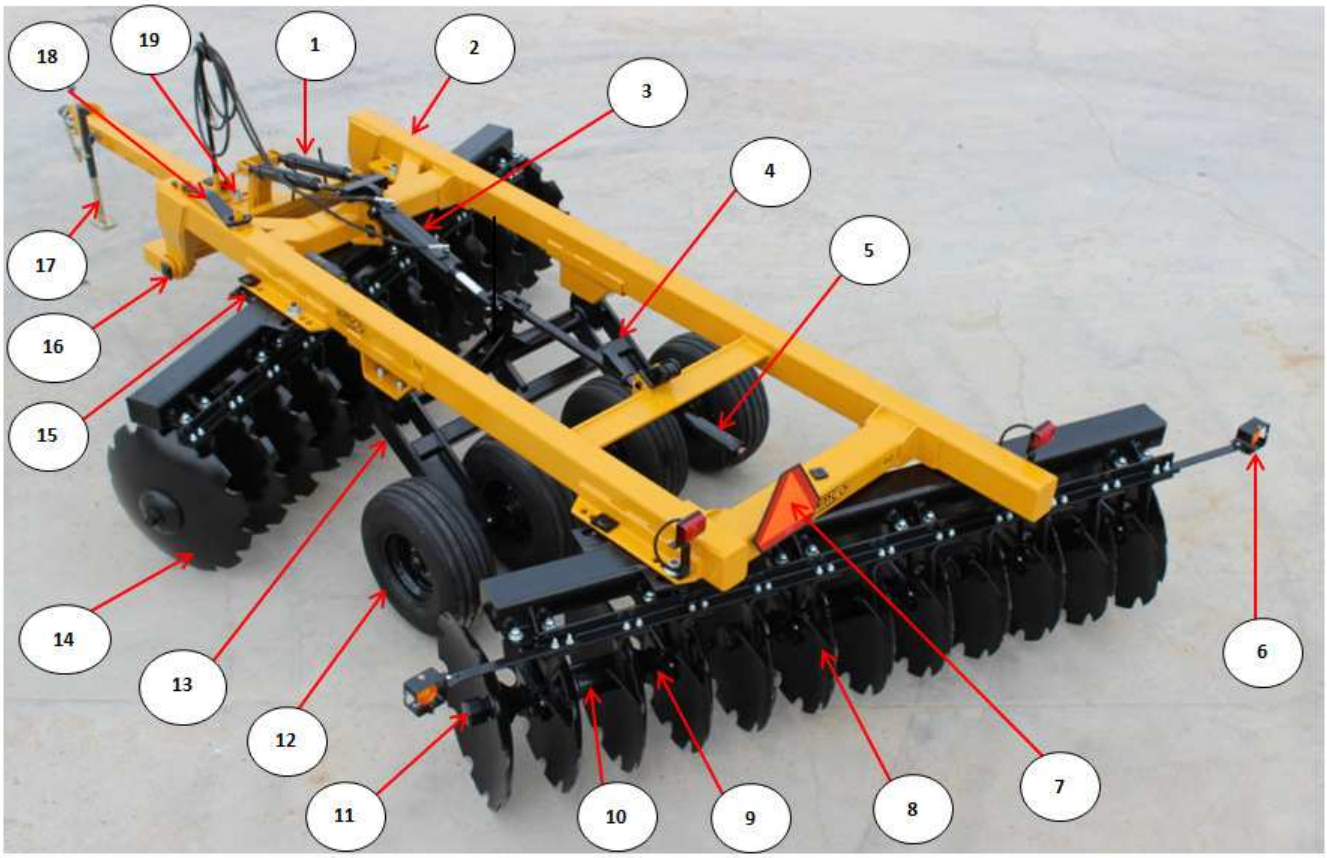
3. Do not run with loose disc blades. Keep gang bolts tight! Tighten to 1200-1500 ft lbs torque.

4. Keep scrapers properly adjusted 1/4" from blades.

5. Disc Blade, Bearing, and Spool Replacement
   A. Remove the nuts that hold the gang bearing housing trunnion clamps.
   B. Remove Clamps.
   C. Raise the harrow and roll the disc gang away from the frame.
   D. Remove the gang nut lock cap.
   E. Remove the gang hex nut from the end of the axle shaft.
   F. Slide off the bearing spools, spacers, and blades.
   G. Avoid thread damage.
   H. Install new blades.
   I. To replace bearing, remove snap ring from housing.
   J. Press out bearing and both dust shield washers.
   K. Clean and wash out all dirt and grease.
   L. Inspect dust shield washers. Replace if damaged or worn. Press new bearing into housing. Install snap ring. Check location of grease hole in outer ring of bearing. This hole must align with the grease groove in housing.
   M. Re-install bearing spools, spacers, and blades.
   N. Be sure bearing housing grease fitting faces to the rear.
   O. Be sure snap ring is toward convex (back) side of blade.
   P. Install gang shaft hex nut. **IMPORTANT: Tighten nut to 1200-1500 ft lbs torque.**
   Q. Install gang nut lock cap.
   R. Re-install gang to standards with hanger trunnion clamps.
   S. Lubricate bearings (see lubrication section).
   T. Rotate gang to be sure it turns freely. The bearings must be in proper alignment to prevent unnecessary wear. Bearing risers must be properly spaced to prevent bearing pre-load and premature bearing failure.

6. Bent scraper blades or legs should be replaced or straightened if possible. The blades can be replaced when they wear to the extent they are not performing properly. Keep the scraper blades adjusted 1/4” from the disc blades. The scrapers can be adjusted by loosening the mount bolt and sliding the scraper to the proper position, then tightening the mount bolt. Do not allow the scraper blades to run on the end bells as immediate damage to end bell will occur.

G2 OFFSET DISC HARROW COMPONENTS



1. Dual Spring Stabilizer
2. Heavy Duty Powder Coated High Clearance Frame
3. Hydraulic Lift Cylinder
4. Transport Lock
5. Dial-A-Depth
6. Safety Lighting
7. SMV Emblem
8. High Carbon Steel Scrapers
9. Protect-O-Shield Bearings

10. 12-1/2” Steel Spools
11. Extra Heavy-duty Gang Bolt
12. Dual 12.5L” x 15” 12-Ply Tires
13. Heavy-duty 5” Rockshaft
14. 32” or 36” Disc Blade Options
15. Gang Angle Adjustment
16. Tongue Pivot
17. Tongue Jack
18. Gang Wrench
19. Tongue Setting Adjustment

CHECKLIST BEFORE USING THE G2 OFFSET HARROW

1. Make sure the G2 Offset Disc Harrow is properly hooked to the tractor
2. Read and understand the operator’s manual.
3. Read and familiarize yourself with the safety and warning decals on the G2 Offset Harrow.
4. Check all bolts to verify proper torque.
5. Make sure the G2 Offset Harrow has been properly lubricated.

WARNING

Never operate the G2 at excessive ground speed. Excessive ground speed can cause personal injury or damage to your tractor and Offset Disc Harrow!

TRANSPORTATION

CAUTION

Always comply with all federal, state and local laws when traveling on public roads whether at night or during the day. Use accessory lights and devices for adequate warning to operators of other vehicles

 WARNING

Before transporting over public roads, always lock the gangs in the raised position. Failure to do so could result in serious accidental injury.

 WARNING

Before dismounting from the tractor shut off the engine, set the parking brake and remove the key.

1. Raise the G2 gangs for maximum ground clearance
2. Pin the tractor drawbar
3. When transporting the disc harrow, always lock it in transport position.
4. Be sure to reduce the tractor ground speed when turning. Leave enough clearance so that the G2 does not contact obstacles such as buildings, trees, or fences.
5. Select a safe ground travel speed when transporting from one area to another. When traveling on roadways, transport in such a way that faster moving vehicles may pass you safely. When traveling over rough or hilly terrain, shift tractor to a lower gear.

G2 DISC HARROW EXTENDED STORAGE

 **CAUTION**

Before dismounting from the tractor shut off the engine set the parking brake and remove the key.

 WARNING

Before transporting over public roads, always lock the gangs in the raised position. Failure to do so could result in serious accidental injury.

1. Before unhitching the G2 Disc Harrow from the tractor clean off any dirt or debris that may have accumulated on any of the moving parts. Scrape off any compacted dirt from the disc blades. Then use a power washer to clean the G2 Disc Harrow.
2. Thoroughly inspect the entire G2 Disc Harrow for missing, worn or damaged parts including decals. Repair or replace parts during the “off season” to assure dependable, trouble-free performance during the use season.
3. Lubricate the G2 Disc Harrow as detailed in the Maintenance and Lubrication sections of this manual.
4. Apply a rust preventative protective coating to the disc blades. Do the same for any exposed hydraulic cylinder rods or completely retract the cylinder rods.
5. The G2 Disc Harrow should be stored on a solid flat surface in a dry location. It is best to store the G2 Disc Harrow inside a storage building. Doing so will reduce future maintenance requirements and prolong the life of the G2 Disc Harrow.
6. To complete unhitching from the tractor follow the instructions in the Unhitching From The Tractor section in this manual.

HYDRAULIC SYSTEM TROUBLE SHOOTING

WARNING

Hydraulic systems are highly pressurized. Escaping hydraulic oil, even an invisible pinhole leak can penetrate body tissues causing serious injury. Use a piece of wood or cardboard when looking for leaks-never use hands or parts of the body.

CAUTION

Relieve hydraulic pressure before disconnecting circuits. When reassembling make absolutely certain that all connections are tight.

CAUTION

If injured by hydraulic oil escaping under pressure, see a doctor immediately. Serious infection or reaction may occur if medical attention is not given at once.

When first hooking up the hydraulic hoses to the tractor, the hydraulic cylinder rod should be fully extended, and the hydraulic valve on the tractor should be held open for at least one minute. This operation will fill the hydraulic cylinder and hoses with hydraulic fluid. Check the tractor hydraulic fluid level afterward. Retract and extend the cylinders several times to purge the system of air.

Should the cylinder fail to operate, check the hose installation to verify they are correctly installed per the assembly instructions.

FINAL ASSEMBLY AND CHECK POINTS

(A) Check all bolts for proper torque.

(B) Check scraper adjustment. Scrapers should be adjusted to run1/4" from disc blades.

(C) Check all hydraulic hoses and fittings for leaks. Repair as required. Replace fittings that continue to leak after tightening.

(D) Lubrication for disc harrow:

Raise the G2 to transport position. Use a good grade of clean lithium soap base chassis grease to grease the entire disc harrow. Grease the disc harrow as follows:

(1) Grease all pivot pins until grease appears.

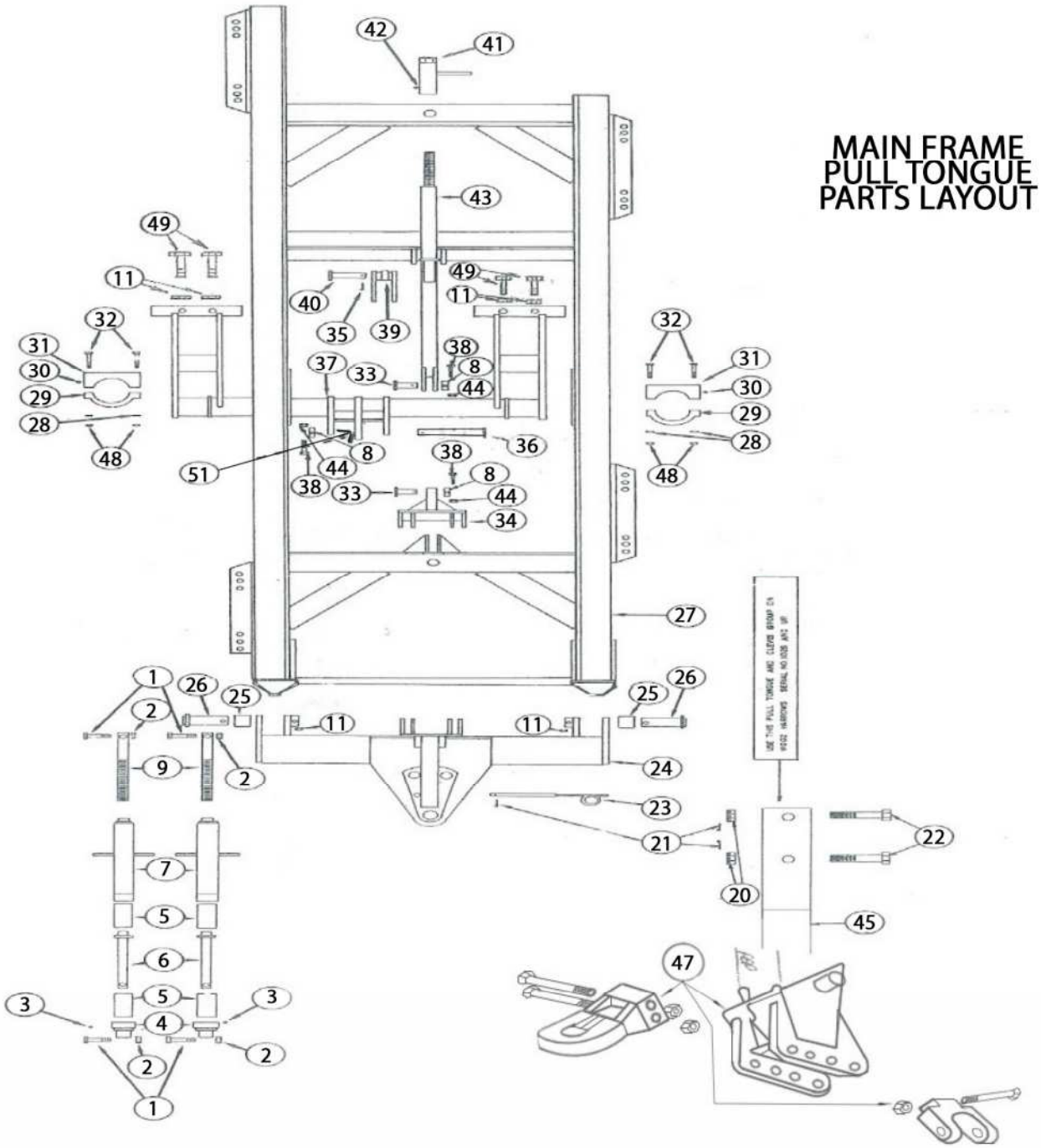
(2) Grease the gang bearings with 4 or 5 shots of grease to purge any condensations that has accumulated during shipment and storage. If the disc harrow is in storage for four to six months, the entire disc harrow should again be lubricated before placing in service. It should also be greased every 50 hours while in use, at the end of each season and at the start of each season.

(E) Check decals to be certain they are in place and in good condition. Place operator's manual back into the manual tube attached to the frame

(F) Review all steps of the assembly process to be certain the disc harrow is properly assembled. Check all bolts to be sure they are properly torqued. Visually inspect the disc harrow for any missing, damaged, or defective parts. Repaint any areas that need improvements.

Remember a little extra attention to details at this time can prevent problems after the disc harrow is placed in service.

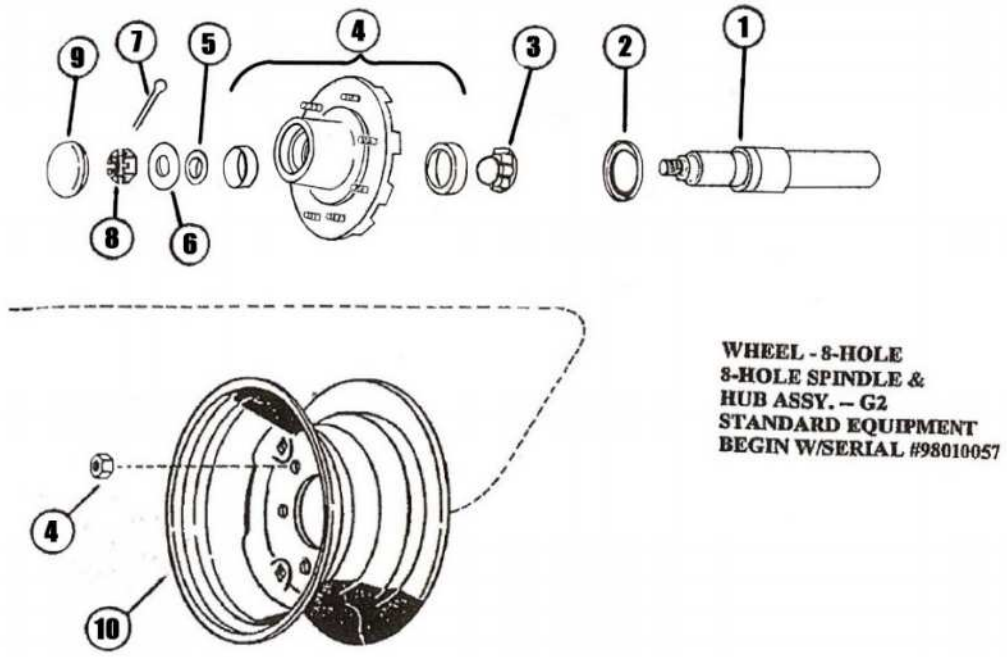
PART LIST



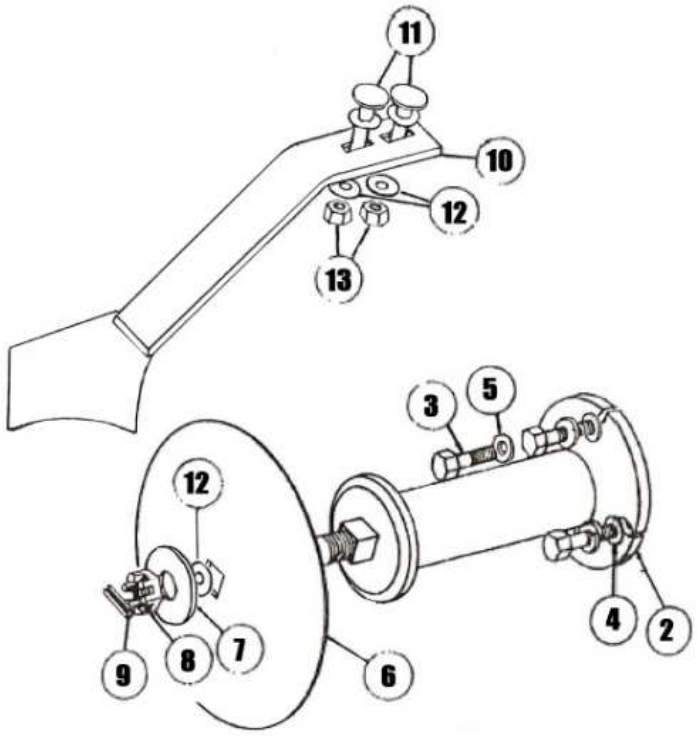
		AMCO G2 Series Disc Harrow Main Frame	
Ref No.	**Part No.**	**Description**	**Req'd**
1	10113	Machine Bolt ¾ x 4 NC, PL, Gr. 5	4
2	10300	Lock Nut ¾ NC, PL	4
3	12156	¼-28 Straight Grease Fitting Individual, H1641	3
4	1166	Assy. Cap	2
5	10460C	Spring 3" OD x 6-7/8 Long x 5/6 Wire Dia.	4
6	1167	Assy. Piston Rod	2
7	1479	Assy. Spring Housing	2
8	100178	Collar Retainer 2-1/4 OD x 3/8 Wt – 1-1/4 long	3
9	100062	Rod-Stud Threaded 1-1/2 Dia x 20 Long	2
11	10395	Lock Nut ½ NC, PL	6
20	10758	Slotted Hex Nut 2" NC	2
21	10617	Cotter Pin ¼ x 3	3
22	0198	Machine Bolt 2" Dia. X 8-5/8 Long	2
23	0207	Hose Holder	1
24	0714	Cross Tongue	1
25	8552	Bushing 2-1/4 OD x 7/32 WT x 2-7/8 Long	2
26	0711	Assy. Pin 2" Dia. X 6-/12 Long	2
27	20656	Main Frame	1
28	101792	Lock Washer 1-1/4	4
29	3431	Pillow Block Cap	2
30	10606	Grease Fitting 1/8 NPT Straight	2
31	3430	Pillow Block Base	2
32	11037	Machine Bolt 1/1/4 x 8 NC	4
33	092A	Retainer Pin 1-3/4 Dia. X 6 Long	1
34	21078	Assy. Rear Cylinder Mount	1
35	10029	Cotter Pin 3/8 x 3	1
36	21079	Retainer Pin 1-3/4 Dia. X 6 Long	2
37	0740A	Rockshaft	1
38	10871	Machine Bolt 3/8 x 3 NC, PL, Gr. 5	3
39	0102	Latch Transport	1
40	0103A	Retainer Pin 6-3/8 Long	1
41	0104	Depth Adjusting Nut	1
43	0100A	Transport Bar	1
44	10509	Lock Nut 3/8 NC, PL	3
45	20659	Pull Tongue	1
47	12459	Clevis	1
47	12456	Yoke Clevis	1
47	10304	1 x 6-1/2 HB, NC, PLT, Gr. 5	2
47	10868	1" Lock Nut NC, PLT	2

48	10397	Lock Nut 1-1/4 NC, PL	4
49	10834	½ x 4 NC, PLT, Gr. 5 HR	4
50	12070	Tongue Jack (Not Shown)	1
51	11933	Cylinder Mount Bushing	1

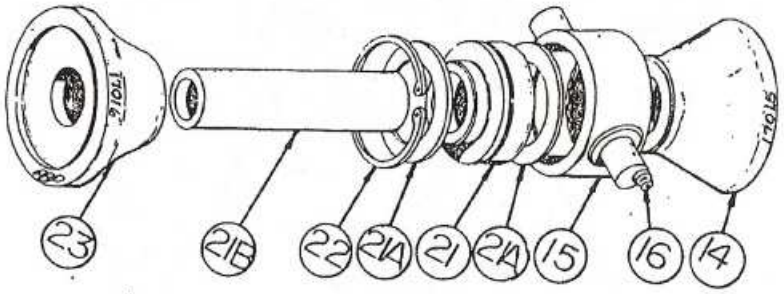
Note: To replace #0740 by #0740A you must use on #092A Retainer Pin in place of #099. AMCO G2 Harrows beginning with serial #1157 and up will have the new rockshaft #0740A.



		AMCO Spindle & Hub Assembly	
Ref No.	**Part No.**	**Description**	**Req'd**
1	12164	Spindle	4
2	12191	Seal	4
3	12187	Cone-Inner	4
4	12186-1	Hub w/ 2 Cups, Grease Fitting & Press-In Studs with Nuts	4
4	12189	Cup-Inner	4
4	12190	Cup-Outer	4
4	12192	Hub Bolt	32
4	12193	Hub Nut ¾ - 16 NF	32
5	12188	Cone-Outer	4
6	12195	Washer- Spindle	4
7	12197	Cotter Pin-Spindle	4
8	12196	Nut-Spindle	4
9	12198	Hub Cap	4
10	12305	Wheel – 15 x 10 x 8 Hole (Heavy Duty)	4
11	10606	Grease Fitting (Not Shown)	4
		Note: Part #BC-05-0331 Sub Bundle Spindle & Hub C	

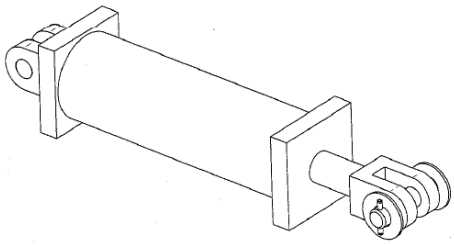


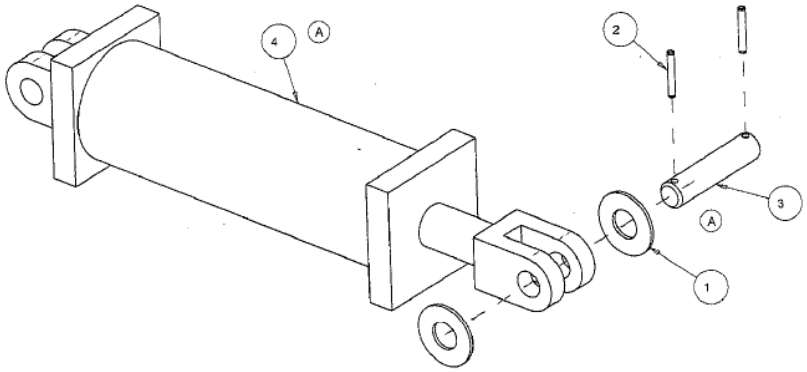
		AMCO G2 SERIES FEATHERING BLADE OPTIONAL	
Ref No.	**Part No.**	**Description**	**Req'd**
1	2404	Bumper Washer (Not Shown)	1
2	20180	Feathering Blade Extension	1
3	10678	Machine Bolt ¾ x 2-1/2 NC, PL, Gr. 5	4
4	10866	Cut Washer 3/4	4
5	10061	Lock Washer ¾	4
6	2456	Blade 26 x ¼ Cut Out	1
7	10872	Cut Washer 1-3/4 ID, PL	1
8	10226	Slotted Nut 1-1/2 NF	1
9	10910	Roll Pin 5/16 x 2-1/4	1
10	20181	Feathering Blade Scraper – LH	1
11	10201	Machine Bolt 5/8 x 3 NC, PL, Gr. 5	2
12	10059	Cut Washer 5/8 PL	4
13	10299	Lock Nut 5/8 NC, PL	2



		AMCO Bearing & End Bell Assembly	
Ref No.	**Part No.**	**Description**	**Req'd**
14	17015	End Bell – Small	1 per bearing riser
	FB-09-0018	Sub. Assy. Bearing and Housing	
15	16004	Bearing and Housing	1 per bearing riser
16	12384	Grease Fitting	1 per bearing housing
21	11504	Bearing 125mm DC214TTR3	1 per bearing housing
21A	100105	Washer 125mm	2 per bearing housing
22	11072	Retainer Ring	1 per bearing housing
21B	101337	Sleeve	1 per bearing
23	17016	End Bell - Large	1 per bearing riser

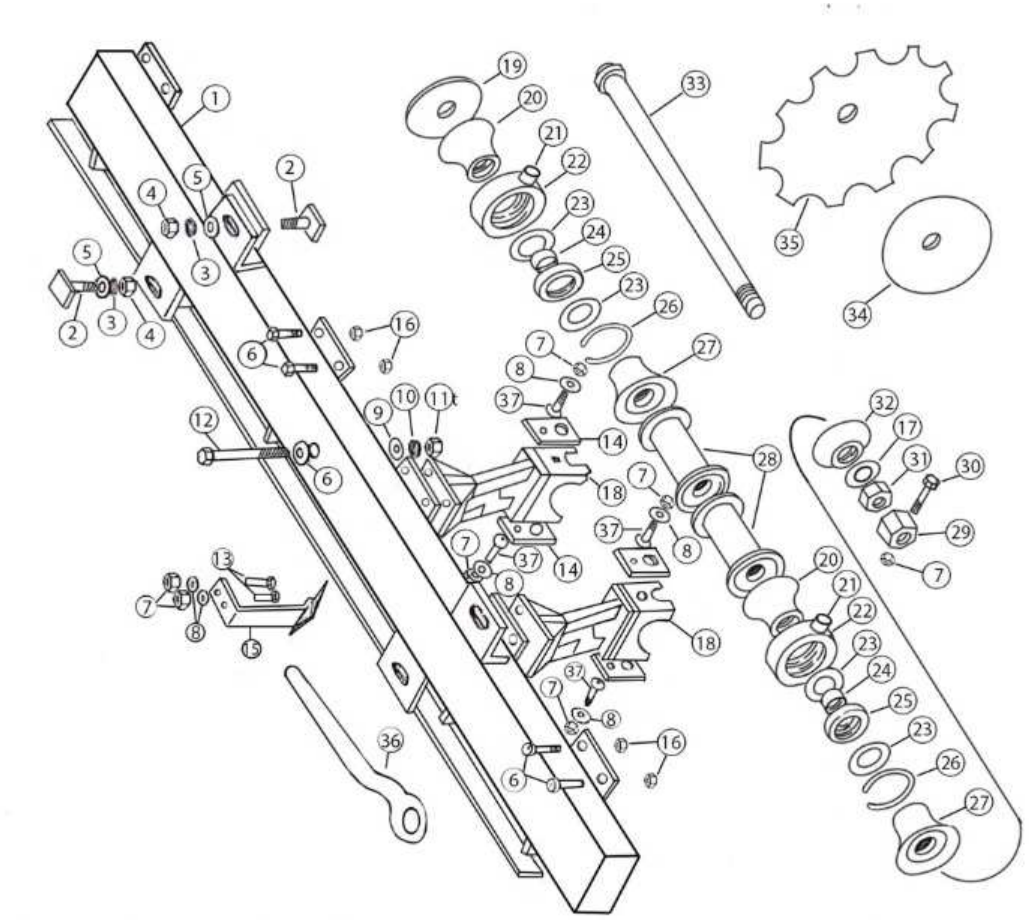
Note: Replacement Bearing and End Bells for all G2 Harrows with serial #1174 and up





		AMCO G2 SERIES CYLINDER	
Ref No.	**Part No.**	**Description**	**Req'd**
1	10077	1-1/4" USS Flatwasher, ZP, 1-3/8" ID x 3" OD, 8 Ga.	2
2	10910	5/16 x 2-1/4 Roll Pin, ZP	2
3	103485	Pin	1
4	103486	Cylinder, 5 x 16 Tie Rod	1

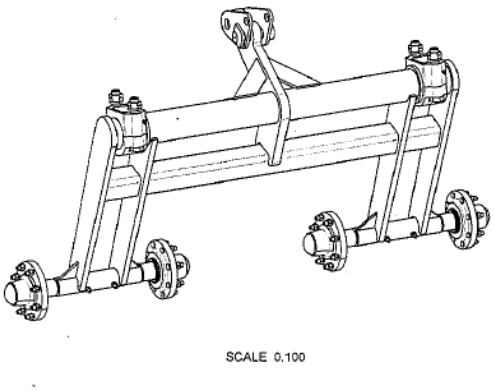
G2 GANG AND FRAME – Front & Rear

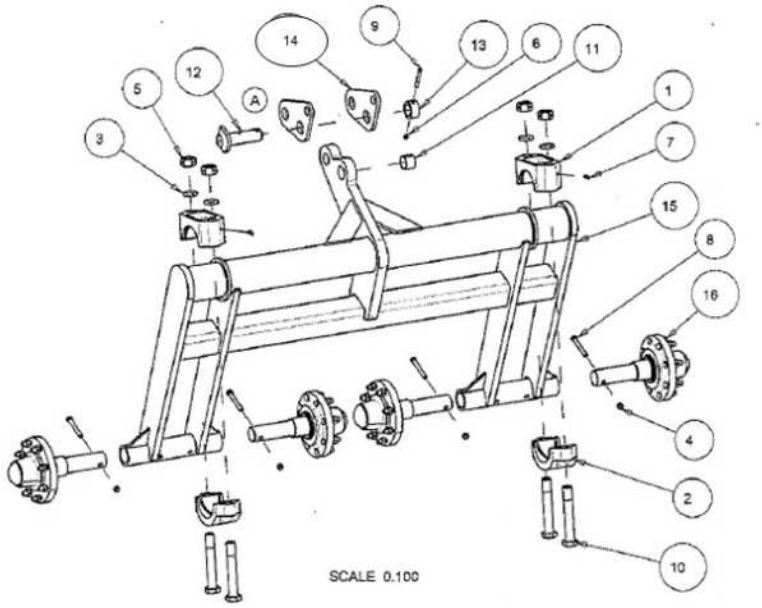


		AMCO G2 Gang Frame		No	Req'd		
Ref No.	**Part No.**	**Description**	**20**	**24**	**28**	**32**	**36**
1	20014	Gang Frame – Front	1				
1	0970	Gang Frame – Rear (Shown)	1				
1	20015	Gang Frame – Front		1			
1	0971	Gang Frame – Rear (Shown)		1			
1	0981	Gang Frame – Front			1		
1	0982	Gang Frame – Rear (Shown)			1		
1	0983	Gang Frame – Front				1	
1	0984	Gang Frame – Rear (Shown)				1	
1	0985	Gang Frame – Front					1
1	0986	Gang Frame – Rear (Shown)					1
2	094A	Angle Lock Bolt – 1-3/8 PL	8	8	8	8	8
3	10673	Lock Washer 1-3/8 PL	8	8	8	8	8
4	10873	Hex Nut 1-3/8 PL	8	8	8	8	8
5	10872	Cut Washer 1-3/8 PL	8	8	8	8	8
6	11025	Machine Bolt 1 x 3 NC PL, Gr. 5	32	48	48	64	64

7 & 8	11647	5/8 NC Gr G Flange Locknut PL	56	74	82	100	108
9,10,11	10397	1-1/4-7 NC All Metal Top L/N GRC Z High collar(Stover Style) 1-1/4-7 NC All Metal Top L/N GRC Z High collar(Stover Style)	2	2	2	2	2
12	0787	Bolt-Connecting 1-1/4 x 13	2	2	2	2	2
13	10665	Carriage Bolt 5/8 x 2 NC, PL Gr 5	44	56	64	76	84
14	20649	Clamp Trunion 3/8 x 2-1/4 x 4-1/24 (Replaces 100132)	8	12	12	16	16
14A	102723	Wear Guard (replaces 100132)	8	12	12	16	16
15	1829	Scraper – Front	9	11	13	15	17
15	1830	Scraper – Rear	9	11	13	15	17
16	10868	Lock Nut 1 NC, PL	32	48	48	64	64
17	100272	Spacer ½ Thick x 4-1/4 Dia.					
18	0739	Bearing Riser	8	12	12	16	16
19	16023	Drilled & Tapped Bumper Washer (for rear gang only)	1	1	1	1	1
19	7356A	Bumper Washer	3	5	5	7	7
*20	7216	End Bell – Small	8	12	12	16	16
21	12384	Grease Fitting	8	12	12	16	16
22	16004	Bearing Housing	8	12	12	16	16
23	100105	Washer – 125mm	16	24	24	32	32
*24	101337	Sleeve	8	12	12	16	16
*25	11504	Bearing	8	12	12	16	16
26	11072	Retainer Ring	8	12	12	16	16
*27	7217	End Bell – Large	8	12	12	16	16
28	1832	Spacer Spool	8	6	10	8	12
29	17012A	Nut Lock	4	6	6	8	8
30	10666	Machine Bolt 5/8 x 5 NC, PL, Gr 5	4	6	6	8	8
31	16019	Hex Nut 2-1/4 NF	4	6	6	8	8
32	7357	End Gang Washer	4	6	6	8	8
33	1833	Gang Bolt – 5 Blade	4		4		4
33	1846	Gang Bolt – 4 Blade		6	2	8	4
34	6847	Blade – 14” X 3/16 Plain	20	24	28	32	36
35	11562	Blade – 32” x 3/8 CO	18	22	24	30	34
35	11566	Blade – 32” x 3/8” Plain	18	22	24	30	34
35	11568	Blade - 30” x 3/8” Plain	2	2	2	2	2
35	11595	Blade – 30” x 3/8” CO	2	2	2	2	2
35	12457	Blade – 36” x 1/2” CO	20	24	26	32	36
36	100135	Nut – Wrench	1	1	1	1	1
37	10135	Carriage Bolt 5/8 x 1-3/4 NC, PL Gr 5	8	12	12	16	16

Note: *Use these parts before Serial #1174





Item	Part No.	AMCO Rockshaft G2	Qty
1	3430	Pillow Block Base	2
2	3431	Pillow Block Cap	2
3	10192	1-1/4 Split Lock Washer PL	4
4	10395	½-13 Lock Hex Nut, PL	4
5	10397	1-1/4 – 7 NC All Metal Top L/N Gr C Z	4
6	10509	3/8-16 Lock Hex Nut PL	1
7	10606	1/8-45 Pipe Thread Grease Fitting Individual, H1688	2
8	10834	½-13 x 4 NC Hex Cap Screw Gr 5 PL	4
9	10871	3/8-16 x 3 HHCS Gr. 5 PL	1
10	11037	1-1/4 x 8 NC Hex Cap Screw Gr. 2	4
11	11933	Bushing	1
12	21079	Retainer Pin W.A.	1
13	100178	Collar Retaining	1
*14	103483	Cylinder Mount Adapter	2
15	0740A	Rockshaft	1
16	BC-05-0331	Hub Assy's, 8 on 8", Reliable # 4-60880F-04-02	4

Note: * Only used with new cylinder, p/n 103486

TROUBLESHOOTING