Ashland

EARTHMOVERS

I-200TS4

Parts Manual

ver. 0613

Ashland Industries

Crafting Quality since 1953!

1115 Rail Drive
P.O. Box 717
Ashland, WI U.S.A.
Toll Free: (877) 634-4622
Business: (715) 682-4622
Fax: (715) 682-9717

www.ashlandind.com
www.scraperdrawbar.com

Table of Contents

Alphabetized Listing

PH: 715-682-4622 FX: 715-682-9717

ASHLAND SCRAPERS

Parts - Transport Locks (TS) 155-200

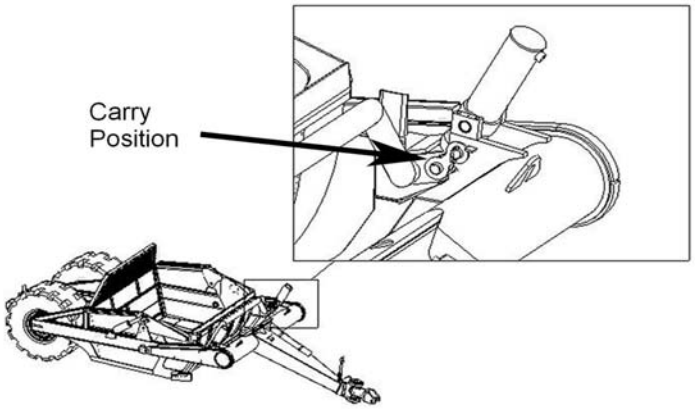


Figure 2

KEY	PART	DESCRIPTION
2	A123320-20	Transport Lock (155TS2-200TS4)

IMPORTANT

Please locate red Transport Links and remove prior to operation. Retract Lift Cylinder Circuit, Remove Safety Snap Pin, Remove link and replace into storage position as shown in figure 2. Reinstall Safety Snap Pins.

ASHLAND SCRAPERS

Instruction: Operation and Maintenance

Thank you for choosing Ashland for your scraper needs. Your Ashland scraper is a durable piece of equipment and with proper care will yield many years of trouble free operation. However, the life of your scraper can be severely shortened by poor maintenance. You must follow consistent maintenance practices and use good quality grease and hydraulic oil (compatible with the power unit's hydraulic system) to insure the longer, most productive use from your scraper.

Before starting a job, make sure Diggers Hot Line has been contacted and all underground utilities have been properly located (electric, phone and pipelines). Have a clear understanding of all local, OSHA and MSHA rules that apply to the job. Beware of your environment and keep others a safe distance from the machine while familiarizing yourself with the machine's controls. The scraper requires a power source with **TWO** 4-way (double acting) hydraulic control valves.

Your scraper should be greased at all points where grease fittings are provided. **REMOVE TRANSPORT LOCKS** prior to operation. Next, extend and retract all cylinders several times to force out any air from the hydraulic cylinders and lines. Check the oil levels in the tractor hydraulic system and add to maintain the proper level. Care should be used when adding oil or when disconnecting any oil line to keep all dirt out of the oil as dirt is a major factor in the failure of hydraulic components.

When your scraper is placed into operation, the operator will have to "feel out" the amount of depth of cut to obtain maximum loading efficiency. This is usually accomplished by taking a lesser and more uniform cut; however, some soil conditions such as loose sand may require a "pumping action" obtained by taking successive deep cuts and lifting out of cut as the tractor begins to lose power or traction.

- After 10 hours work, all bolts should be checked and tightened if necessary.
- Every 10 hours all grease fittings should be lubricated.
- After 50 hours work, all bolts should be rechecked and tightened if necessary. Check wheel bearings and adjust if necessary.
- After 300 hours work, clean and repack wheel bearings and replace, if necessary, cutting edges, worn pins, etc.

ASHLAND SCRAPERS

Instruction: Operation and Maintenance

This scraper is a durable piece of equipment and with proper care will yield many years of trouble free operation. The life of your scraper can be severely shortened by poor maintenance. Follow consistent maintenance practices and use good quality grease and hydraulic oil (compatible with the power unit's hydraulic system) to insure the longest, most productive use from your equipment.

Before starting the job, make sure Diggers Hot Line has been contacted and all underground utilities have been properly located (electric, phone and pipelines). Have a clear understanding of all local, OSHA and MSHA rules that apply to the job. Beware of your environment and keep others a safe distance from the machine while familiarizing yourself with the machine's controls. The scraper requires a power source with TWO 4 way (double acting) hydraulic control valves.

The scraper should be greased at all points where grease fittings are provided. **REMOVE TRANSPORT LOCK PINS**, then extend and retract all cylinders several times to force out any air from the hydraulic cylinders and lines. Check the oil levels in the tractor hydraulic system and add to maintain the proper level. Care should be used when adding oil or when disconnecting any oil line to keep all dirt out of the oil as dirt is a major factor in the failure of hydraulic components. Each time the scraper is hooked to a power unit, the sequencing valve needs to be checked for proper timing. This will insure optimum performance from the scraper.

When the scraper is placed into operation, the operator will have to "feel out" the amount of depth of cut to obtain maximum loading efficiency. This is usually accomplished by taking a lesser and more uniform cut; however, some soil conditions such as loose sand may require a "pumping action" obtained by taking successive deep cuts and lifting out of cut as the tractor begins to lose power or traction. The operation of the scraper will vary depending upon soil type, moisture content, power-unit and jobsite. Results will vary.

1. After 10 hours work, all bolts should be checked and tightened if necessary.

2. Every 10 hours all grease fittings should be lubricated.

3. After 50 hours work, all bolts should be rechecked and tightened if necessary.
   Check wheel bearings and adjust if necessary.

4. After 300 hours work, clean and repack wheel bearings and replace, if necessary, cutting edges, worn pins, etc.

ASHLAND SCRAPERS

Instruction: Operation and Maintenance

SCRAPER DAMAGE CAN OCCUR IF:

1. The scraper is running over the haul road with the bowl fully raised.
2. A power unit that is above the horsepower rating is pulling the scraper.
3. The scraper is being used to level haul roads with the apron closed.
4. The scraper is being top loaded with the bowl is a raised position.
5. The scraper is being used to load rock.

These types of damage are not covered by warranty. Warranty only covers defects in material or workmanship and not abuse because of improper use.

KNOW THE JOB:

1. Know the weight of the material to be moved.
2. Lay the job out to take advantage of grades when loading, if possible.
3. Keep hauls as short as possible.
4. Keep haul roads smooth.
5. If more than one unit is on the job, make sure the haul roads are one way and that the operators understand the direction.
6. Brief the operators as to what the job consists of so there is not misunderstanding.
7. Know the moisture content in the material to be moved.
8. Will water be needed for proper compaction?
9. Will drainage be a problem?
10. How many units will be needed to efficiently complete the job?

TRANSPORT SCRAPER SAFELY:

1. Always empty scraper.
2. Clean all material from exterior of scraper.
3. Make sure all road rules are followed.
4. Use proper lighting and flagging.
5. Lower scraper bowls to provide just enough clearance over obstacles.
6. Transport at a safe speed to avoid roll over.
7. Reduce speed on curves and when going down hill.

APRON OPENING GUIDELINES:

You will need to determine the ideal opening for your soil condition. It is important to have the apror opened prior to loading To receive the highest production possible, it is important to know the genera characteristics of the material that you will be loading. In heavier soils like clay or gumbo, the soil wil slab up and and remain together after being cut by the blades. In lighter soils, like sand or dry loose top soil, the matieral will pile up or push after being cut by the blade. Use the suggestions listed below:

Topsoil with heavy vegetation (12" to 24" opening):

When cutting undisturbed soils, you will need to open the apron high enough to allow debris to easily enter the scraper bowl. If the apron is opened too high, the rolling up sod will fall out past the apror and hinder the incoming material. If the apron is not adjusted quick enough, the material will bunch or push ahead of the machine. If this happens, you should close the apron and pull out the cut quickly. If you wait too long, you may develop too large a pile to clear the scraper while rising out of the cut. This can cause the power unit to lose traction and possibly cause you to get stuck.

Clay or loamy material (6" to 12" opening):

To cut clay or loam soils, lower the apron to approximately 6" to 12" between the blades and the bottom of the apron. When you first lower the bowl, you'll see the material being cut by the blades and entering the bowl. As you continue to move forward, small clumps will fall past the apron and develop a small pile ahead of the apron. By limiting this apron opening, the small pile will "blade off" any loose material ahead of the machine. Adjustments should be made if large objects such as rocks or deep gouges are within the cut.

Sand or loose top soil (15" to 30" opening):

Loading sand or loose top soil is the most difficult type of soil to load. In combination with the larger apron opening, you'll want to operate at a faster ground speed. By traveling faster and lowering the blade deeper than normal, it forces the material into the scraper bowl.

We encourage you to experiment with different apron openings to determine the best condition for your jobsite.

The Apron is designed to capture material inside of the scraper bowl and should not be used as a large blade. Obstructions like large rocks or dense piles may cause the apron to bend inward after prolonged exposure to these conditions.

ASHLAND SCRAPERS

Safety Guidelines

SAFETY SIGNAL WORDS

Note the use of the signal words DANGER, WARNING and CAUTION with the safety messages. The appropriate signal word for each has been selected using the following guidelines:

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING: Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

GENERAL SAFETY GUIDELINES

Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or for you, follow them.

Replace any CAUTION, WARNING, DANGER or instruction safety decal that is not readable or is missing. Location of such decals is indicated in this booklet.

Do not attempt to operate this equipment under the influence of drugs or alcohol.

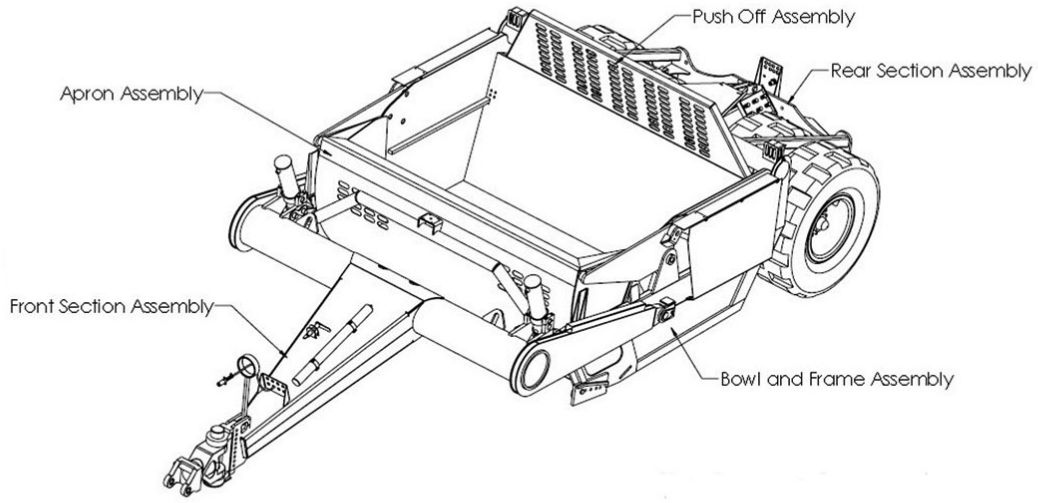
Review the safety instructions with all users annually.

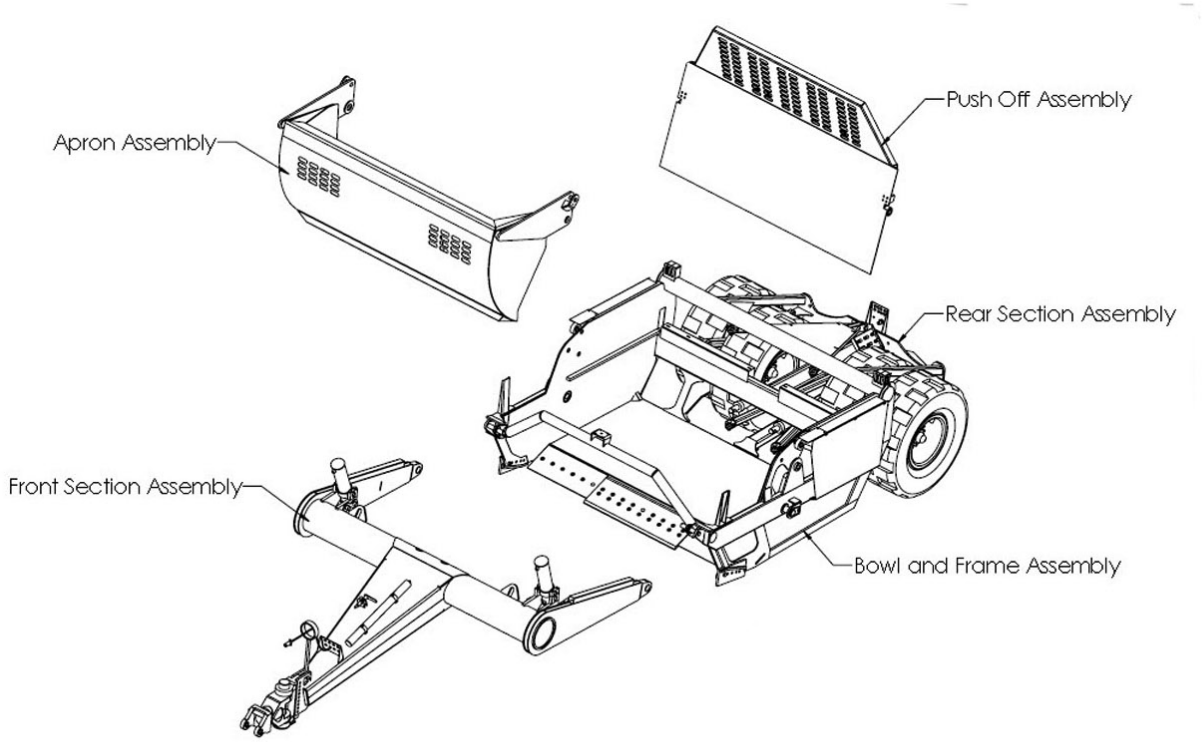
This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations. **Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.**

To prevent injury or death, use a tractor equipped with a Roll Over Protective System (ROPS). Do not paint over, remove or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice the instructions on them.
Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.**

ASHLAND SCRAPERS

Illustration: Assembly 200TS4



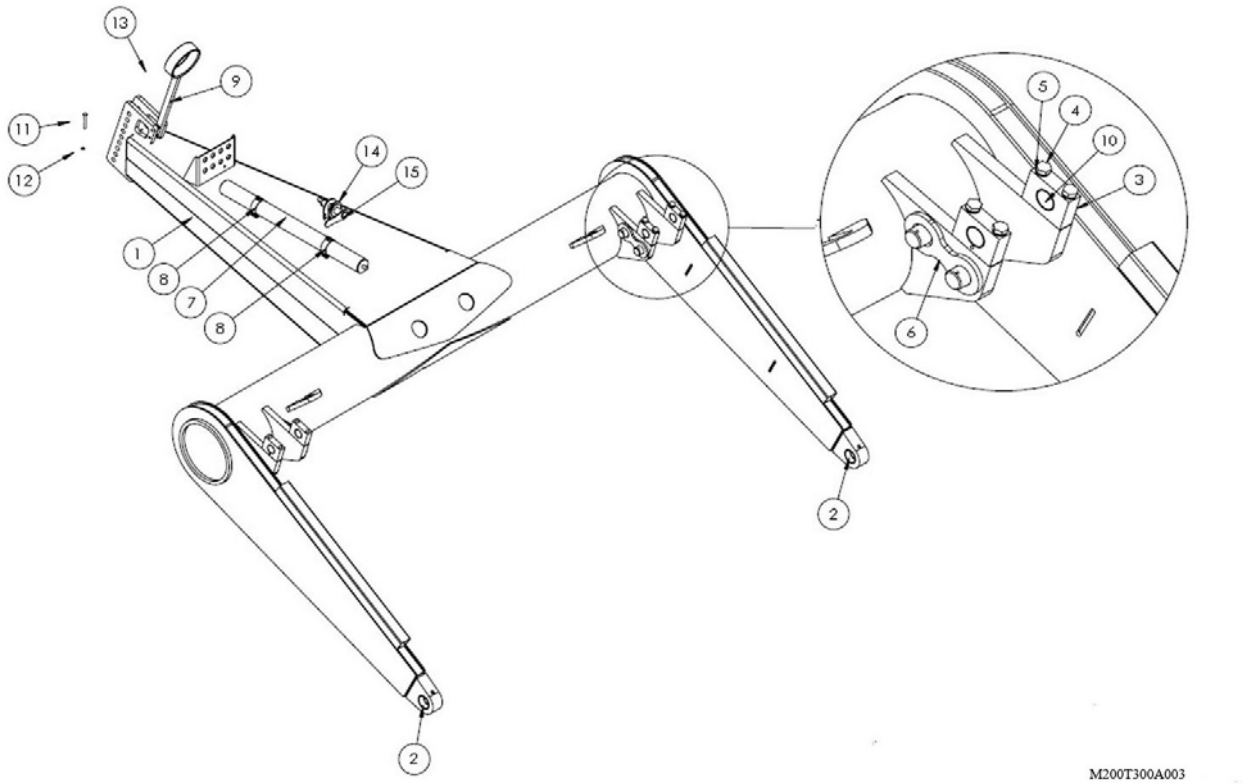


M200T50G003

PH: 715-682-4622 FX: 715-682-9717

ASHLAND SCRAPERS

Assembly - Front Frame (200)

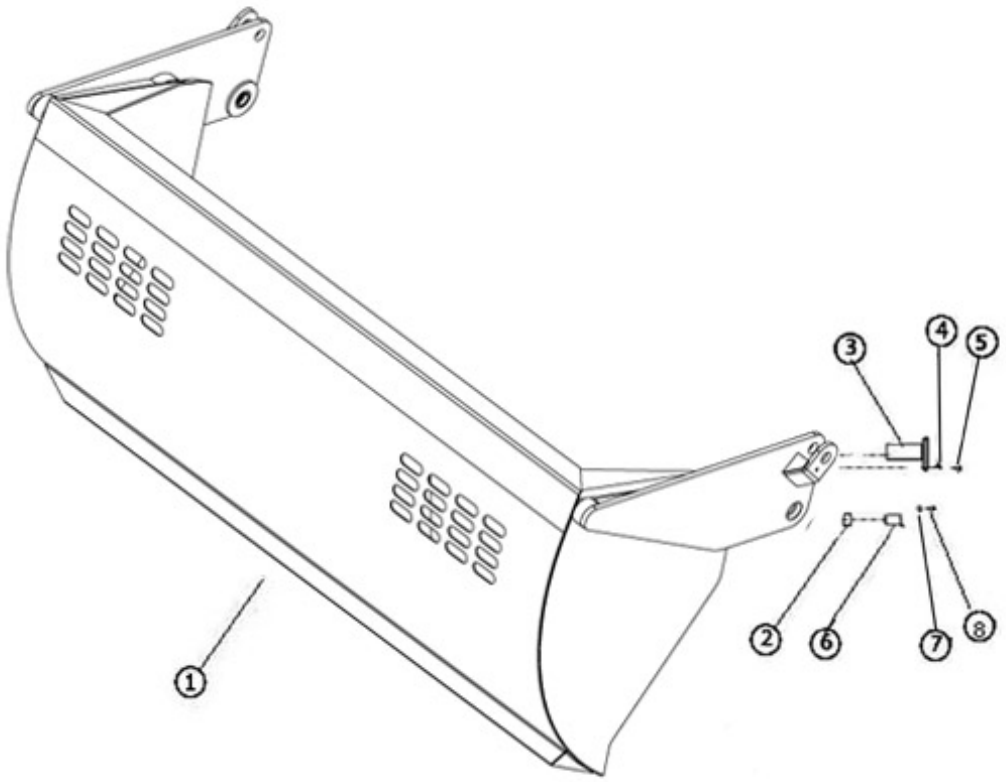


KEY	PART	DESCRIPTION
1	600142	Front Frame Assembly
2	A123320-08	3” ID x 3-1/2” OD x 3” L bronze bushing
3	A123456	Trunion Mount Block
4	AFB-00039	"Bolt, 3/4” NC x 5-1/2” long, gr. 8"
5	AFW-00002	3/4” lock washer
6	A123320-20	Travel Lock
7	A125005	Accumulator
8	A125009	Mounting Brackets
9	600119	Hose Holder
10	A125179	Trunion Bushing
11	AFB-00021	Hitch bolt: 1x5 1/2 NC
12	AFN-00037	1" NC Locknut
13	AFB-00033	Bolt: 1/2 NC X 2 1/2"
14	500580	Mount: Apron Cylinder Pin Lock
15	AFB-00033	Pin: 1 1/2 x 6 1/2" Apron Lock

PH: 715-682-4622 FX: 715-682-9717

ASHLAND SCRAPERS

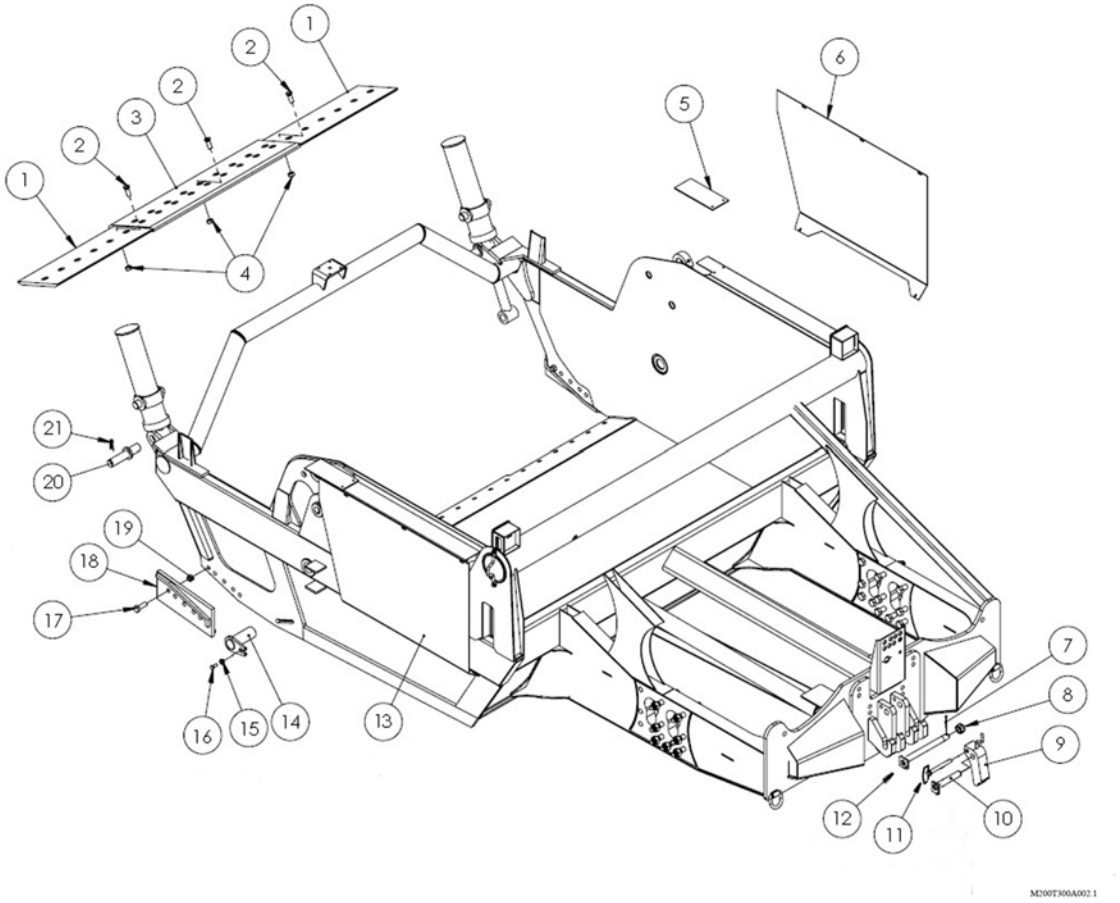
Assembly - Apron (200)



M200T300A001

KEY	PART	DESCRIPTION
1	700035	Apron Model 200
2	A125257-35	Bushing 2" ID Ball Swivel
3	A123322-14	Pin: 2" X 4 1/4" L, (for apron cyl rod end)
4	A123358	Flanged Bolt Bushing
5	AFB-00079	Bolt: 5/8" X 1 1/2"
6	A123321-113	Apron Pivot Pin w/grease zerk
7	7500	Nut: (1/2" NC)
8	AFB-00012	1/2" Bolt 1/2 x 4 1/2"

Assembly - Bowl & Frame (200)



KEY	PART	DESCRIPTION
1	A125103	Corner Blade (Left & Right), 16" x 35 1/2"
2	PB1P-NC-100-0275	Bolt: Plow (1 NC X 2 3/4)
3	A125072	Center Blade, 18" X 54 1/4" Straight
	A125072-SER	Center Blade 18" X 54 1/4" Serrated (not shown)
4	AFN-00012	Nut: 1" NC
5	A123369-13	Dirt Shield Guard
6	500717	Dirt Shield- Right Side
7	AFP-00001	Cotter Pin
8	AFN-00014	Nut: slotted
9	600149	Pin Keeper
10	A123321-98	Pin: Rear Quick Hitch
11	A125238	Pin: Rear Quick Hitch 7/8 x 7" w/Handle
12	A123299-08	Pin: 3 Ear DB 1.5" X 12 5/8' L
13	500718	Dirt Shield-Left Side
14	A123321-09	Pin: Main Frame Front Sect. to Bowl
15	A123358	Bushing: Pin Keeper w/ Flng.

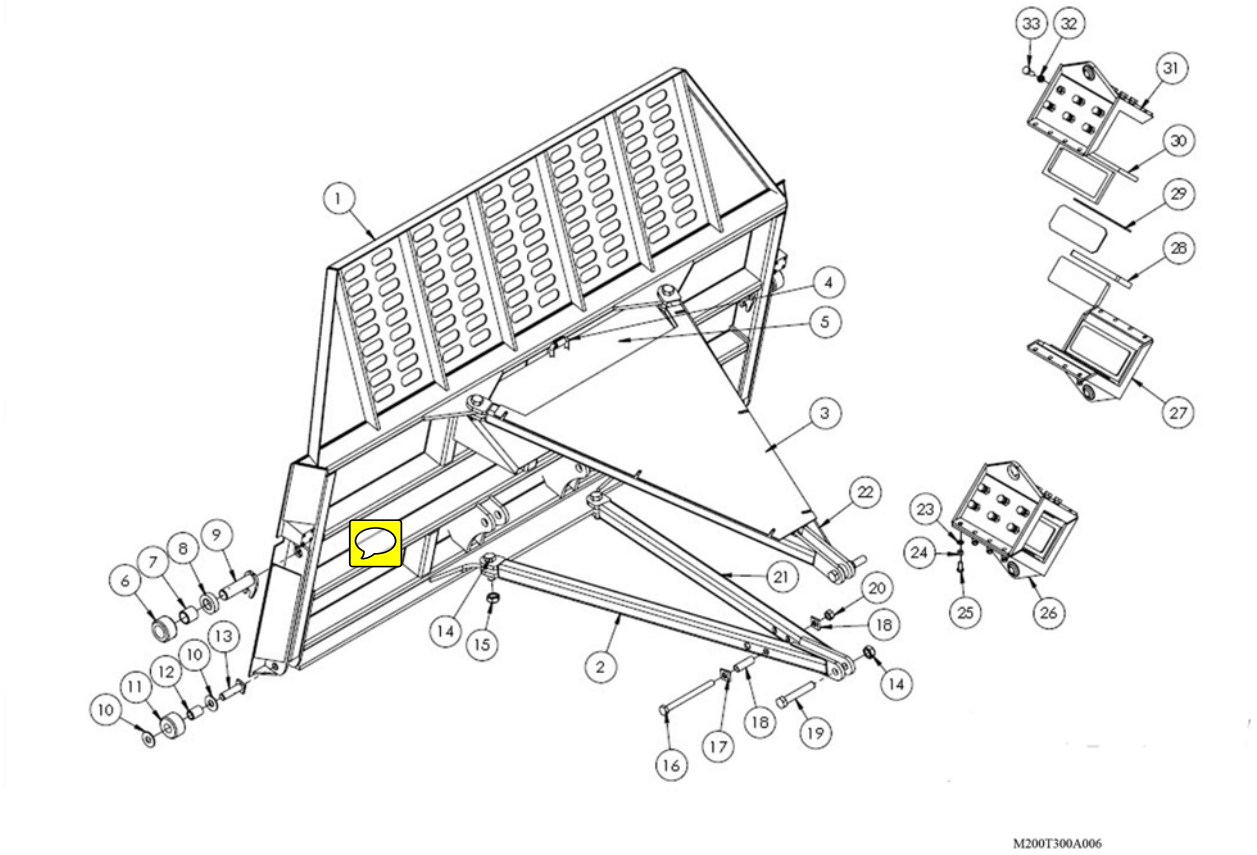
PH: 715-682-4622 FX: 715-682-9717

ASHLAND SCRAPERS

Assembly - Bowl & Frame (200)

KEY	PART	DESCRIPTION
16	AFB-00079	Bolt: 5/8" X 1 1/2" L
17	AFB-00018	Bolt: 1 NC X 3"
18	A123357	Blade: Router Bit L/R
19	AFN-00012	Nut: 1" NC
20	600221	Pin: Lift Cyl. Rod End
21	AFP-00001	Cotter Pin

Assembly - Push Off (200)



KEY	PART	DESCRIPTION
1	600202	Pushoff Ejector Assembly
2	A123364-17	Slide-Saddle and Arm Assembly
3	500934	Guard: Pushoff Superman
4	A125334	D-Ring
5	500932	Guard: Pushoff Center
6	A123323-24	Roller: Pushoff Hold Down
7	A123323-24B	Bushing: Bronze Elector Hold Down
8	A123323-09	Pushoff Leg Plate
9	A123323-23	Pin: Hold Down Roller (upper)
10	A123323-22	Spacer: Pushoff
11	A10164	Roller: Pushoff Gate
12	A10163	Bushing: Pushoff Roller
13	A123323-21	Pin: Hold Down Roller (lower)
14	AFB-00076	Bolt: Hex (1 1/4" NC X 4")
15	AFN-00009	Nut: Locknut (1 1/4" NC)
16	AFB-00018	Bolt: Bolt: Hex Head Cap (1"NC X 3")

PH: 715-682-4622 FX: 715-682-9717

ASHLAND SCRAPERS

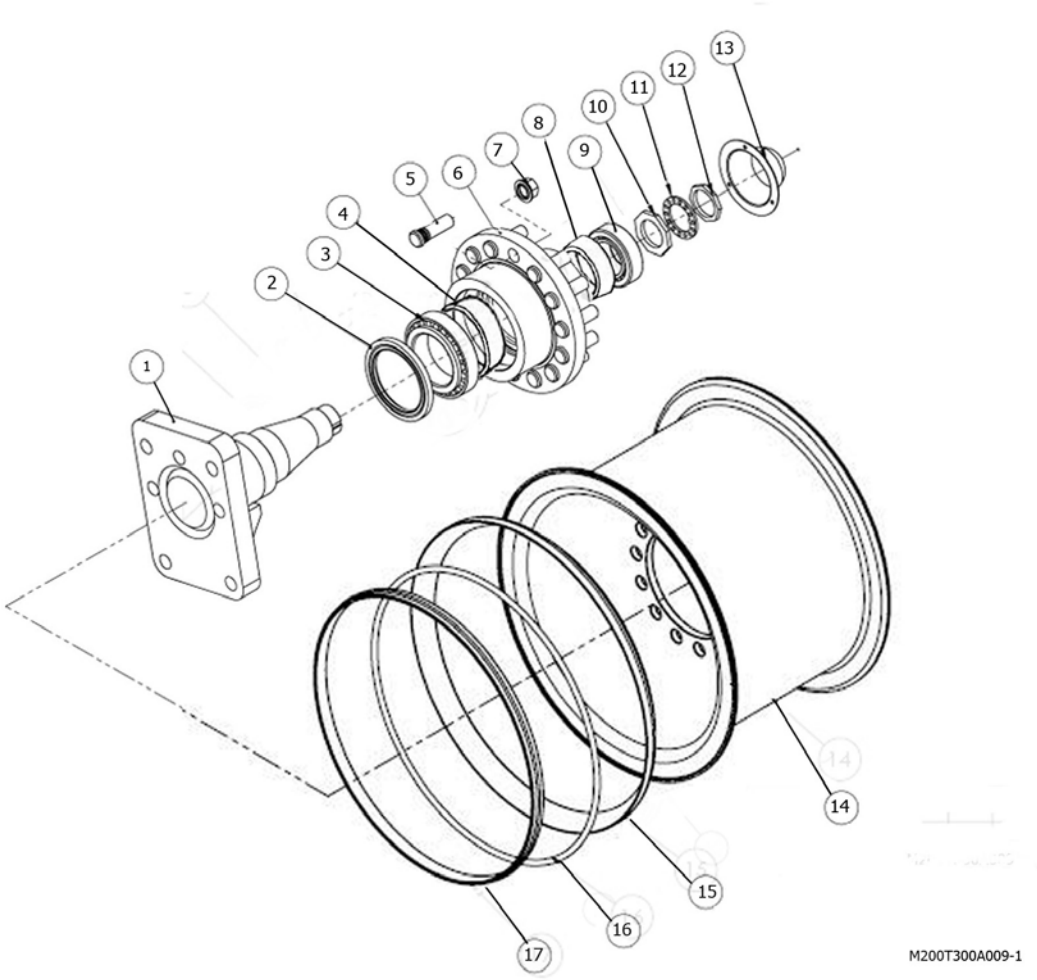
Assembly - Push Off (200)

KEY	PART	DESCRIPTION
17	AFW-00019	Washer: Slide Saddle Leg
18	A123323-48	Spacer: Slide Saddle Leg
19	AFB-00075	Bolt: Heavy Hex (1 1/4" NC X 5")
20	AFN-00012	Nut: Hex Nut (1" NC)
21	A123364-20	Saddle Tie-Bottom
22	A123364-19	Saddle Tie-Top
23	8110	Washer: Lock (5/8")
24	7530	Nut: Hex Nut (5/8" NC)
25	AFB-00079	Bolt: Hex Head Cap Screw (5/8"NC X 1 1/2")
26	A123364	Slide Saddle Assembly
27	A123364-15	Slide Saddle - Bottom
28	A123364-08	Wear Pad (1") Slide Saddle
29	A123364-03	Shim Plate: (1/4") Slide Saddle
30	A123364-02	Slide Saddle Frame
31	A123364-14	Slide Saddle - Top
32	AFN-00023	Nut: Jam 3/4" NF
33	AFB-00060	Bolt: Hex (3/4" NC X 2")
34	A123358	Bushing: Pin Keeper (not shown, w/ assy A123323-23)
35	AFB-00079	Bolt: Hex (5/8" NC X 1 1/2", not shown w/assy A123323-23)
36	AFP-00001	Pin: Cotter (1/4" x 3") not shown, w assy A123323-23)
37	A125021	Hose assy: Grease Line Outside floor roller 54" - not shown
38	A125022	Hose assy: Grease Line V-Roller 18" - not shown
39	A123358	Fitting: Bulkhead Nut 1/8" - not shown, w assy A125022)

PH: 715-682-4622 FX: 715-682-9717

ASHLAND SCRAPERS

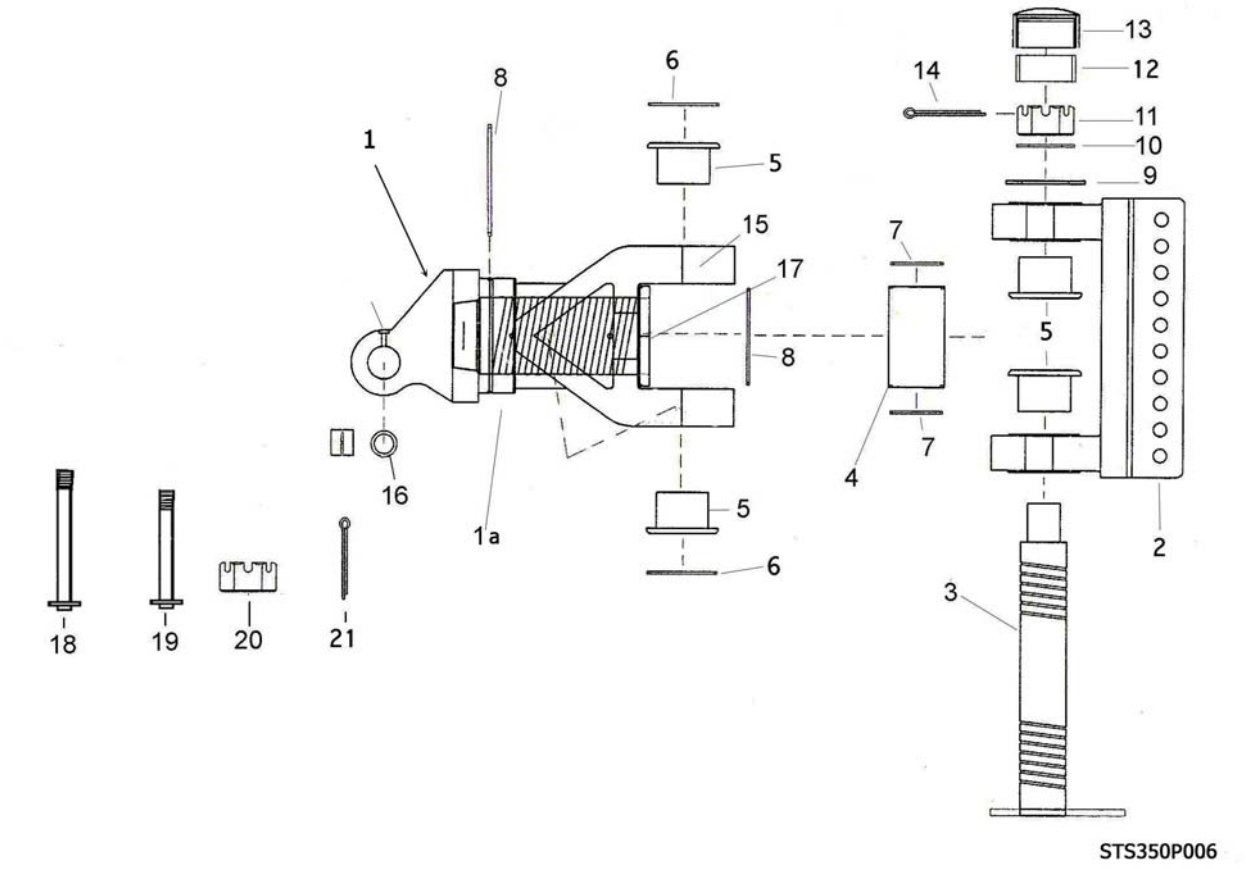
Assembly - Wheel Rear (200)



KEY	PART	DESCRIPTION	SN 200TS4
1	600158	Spindle Assembly	22904, 22907, 22909
1	600222	Spindle Assembly	22916-XXXXX
2	A12037	Grease Seal	
3	A125003	Bearing: Inner Cone	
4	A12050	Wheel Stud 1 1/8"-16 X 3 3/4"	
5	A12035	Hub: 14 Hole	
6	A125402	Nut: Flanged Cap	
7	A125001	Bearing: Outer Cone	
8	A10172	Spindle Nut w/ Locking Peg	
9	A10049A	Lock Collar (for Spindle)	
10	A10048	Spindle Nut - 2 5/8"	
11	A14004	Hub Cap	
12	A125400	Wheel Rim	
13	A125401	Side Ring	
14	A14008	O-Ring	
15	A14038	Lock Ring	

ASHLAND SCRAPERS

Hitch Assembly - Swivel (#A125224)



KEY	PART	DESCRIPTION
1	A125224	Swivel Hitch: 360 deg. cast
1a	A125224-01	Yoke: A-Frame Swivel
2	A125224-03	Bracket: 10 Hole
3	A125224-04	Pin: Main Vertical
4	A125224-05	Spacer Tube
5	A125224-07	Bushing
6	A125224-08	Seal: O-ring
7	A125224-09	Seal: O-ring
8	A125224-10	O-ring
9	A125224-13	Spacer: 6"
10	A125224-14	Washer: 2 1/2"
11	A125224-15	Nut: Slotted 2 1/2" NC
12	A125224-16	Sleeve: 2" Rubber
13	A125224-17	Cap: For Vertical Pin
14	A125224-18	Pin: Cotter 3/8 X 5"
15	14505	Grease Fitting Straight
16	A125057-02A	Bushing
17	AHF-00027	Zerk 45 deg.
18	A123299-08	Pin: Four Ear Drawbar to Hitch 1 1/2" x 15 5/8"L
19	A123299-07	Pin: Two Ear Drawbar to Hitch 1 12" X 12 5/8"L

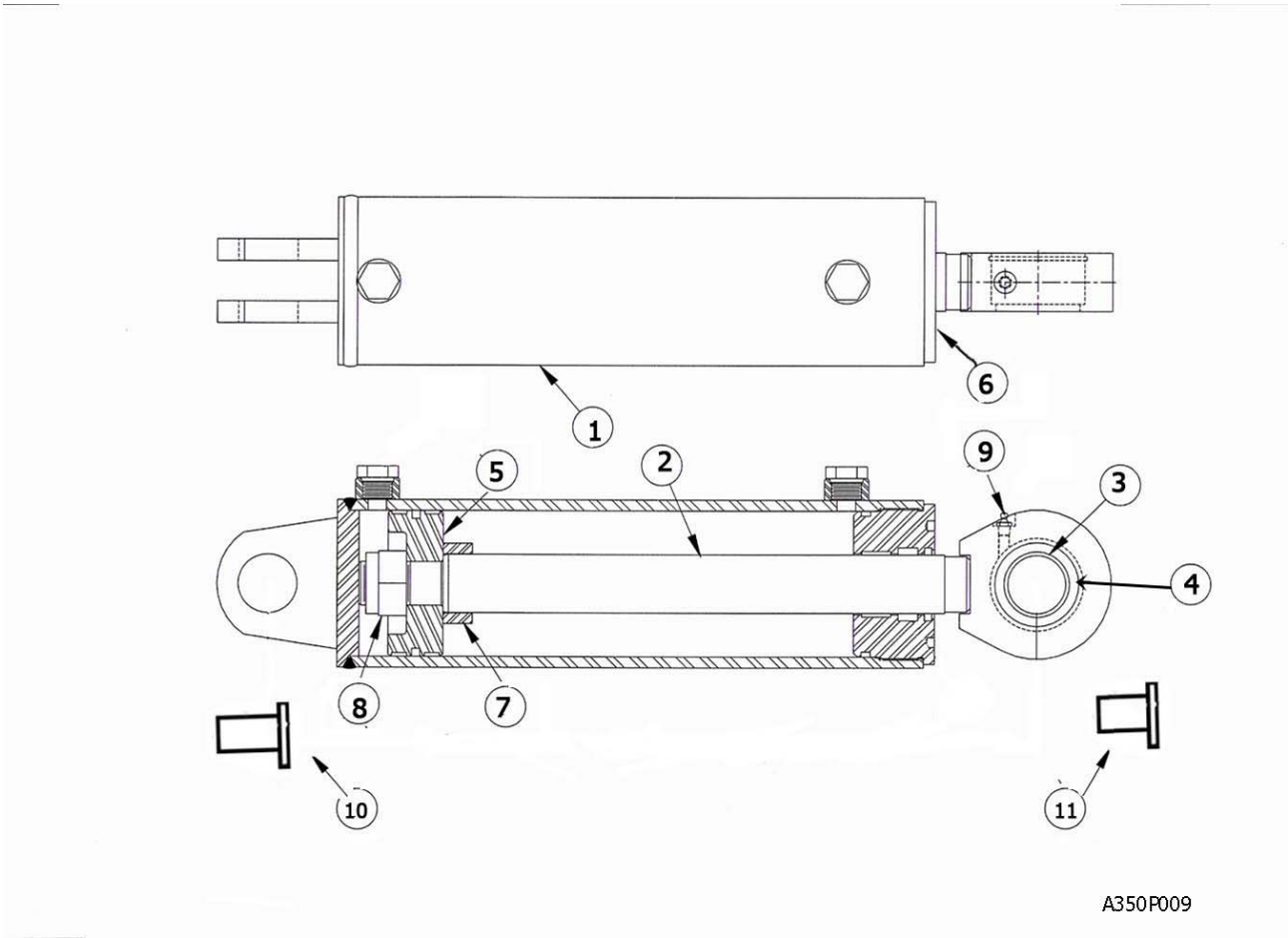
ASHLAND SCRAPERS

Hitch Assembly - Swivel (#A125224)

KEY	PART	DESCRIPTION
20	AFN-00014	Nut: 1 1/2" Slotted
21	AFP-00001	1/4" X 3" Cotter Pin

ASHLAND SCRAPERS

Apron Cylinder (#A125257) 5" X 13"

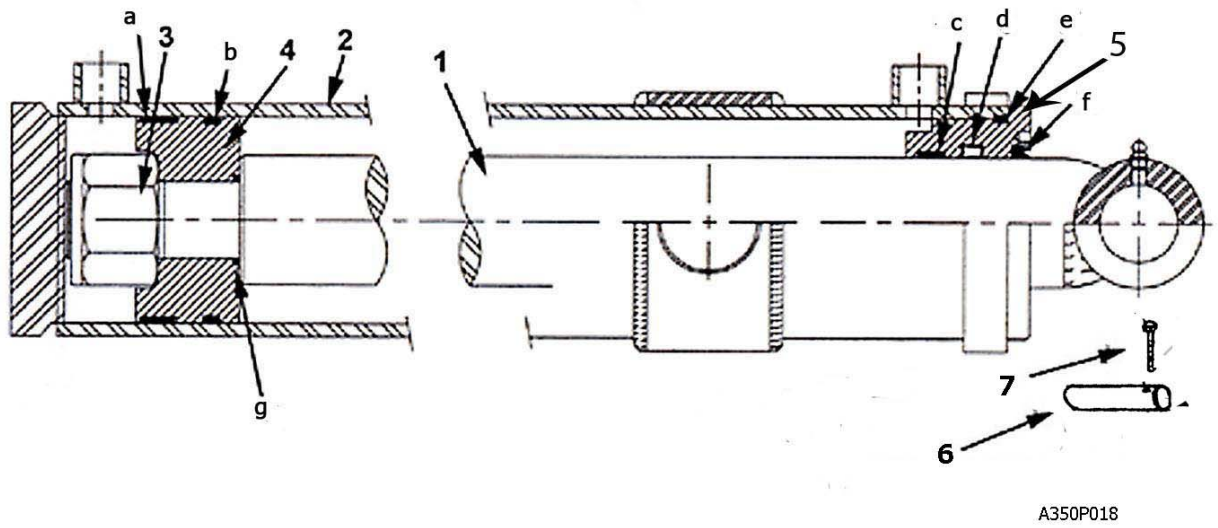


KEY	PART	DESCRIPTION
1	A125257	APRON CYLINDER (5" X 13")
1	A125257-10	Barrel
2	A125257-20	Rod
3	A125257-35	Uniball Bushing
4	A125057-36	Snap Ring
5	A125257-30	Piston
6	A125257-31	Head
7	A125257-32	Spacer
8	A125257-33	1 1/2" Toplock Nut
9	14505	Grease Zerk
	A125257-40	Seal Kit
10	A123322-09	Apron Cyl Base End Pin
11	A123322-14	Apron Cyl Rod End Pin

PH: 715-682-4622 FX: 715-682-9717

ASHLAND SCRAPERS

Lift Cylinder (#A125044) 5 1/2" X 20"

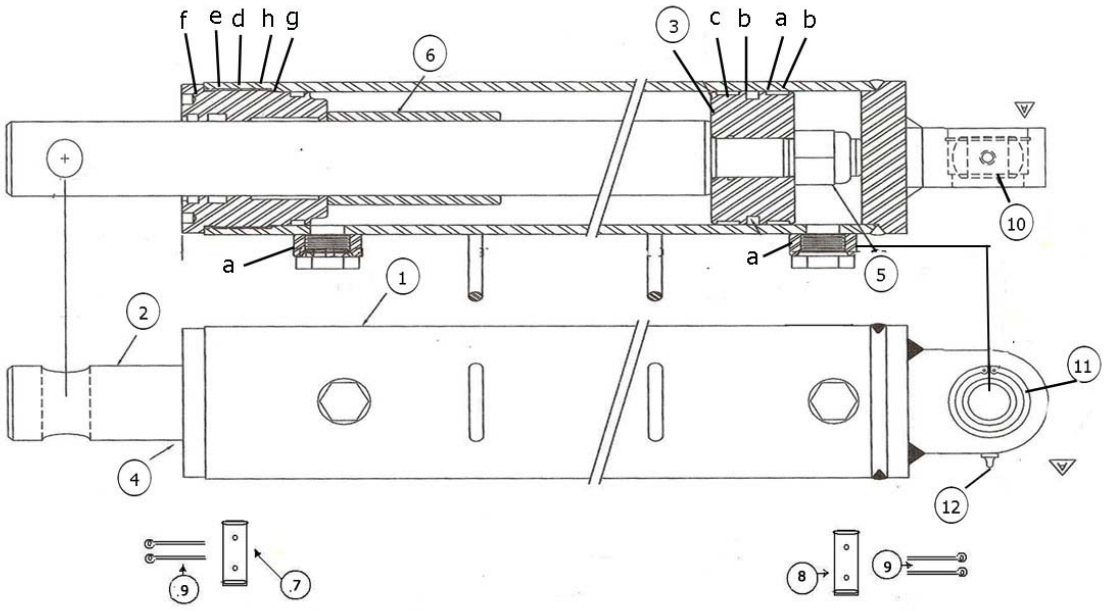


KEY	PART	DESCRIPTION
	A125044	LIFT CYLINDER (5" X 20")
1	A123326-1	Piston Rod: 2-1/2”
2	A125044-02	"Barrel Weldment, 5-1/2”"
3	A125159-34	1-3/4 NF Locknut
4	A125044-04	"Piston, 5-1/2”"
5	A125044-05	"Gland, 5-1/2”"
6	600221	Pin for Lift Cyl. Rod End
7	AFB-00128	1/2 X 1 Gr. 5 Bolt
	A125044-40	Seal Kit (Items a-g)
a	A123324-6	Rod Seal
b	A123324-3	Wear Band ID for Gland
c	A125044-10	"Wear Ring, 5-1/2”"
d	A125044-15	"Piston Seal, 5-1/2”"
e	A123324-10	"O-Ring, ID of Piston"
f	A125044-20	"O-Ring, OD of Gland"
g	A123324-7	Rod Wiper

ASHLAND SCRAPERS

Push Off Cylinder (#A125178) 4" X 60"

4" X 60" Stroke



A350P003

KEY	PART	DESCRIPTION
	A125178	PUSH OFF CYLINDER (4" X 60")
1	A123360-01	Barrel
2	A123360-02	Rod
3	A123360-03	Piston
4	A123360-04	Head Gland
5	A123360-05	Lock Nut
6	A123360-07	Spacer Sleeve
7	A123323-38	Rod End Pin 5-1/16 x 1-1/2
8	600157	Barrel End Pin 1 1/2 X 4 1/8 L
9	AFB-00128	1/2 NC X 1" Gr. 5 Bolt
10	A125178-35	Bushing
11	A125178-36	Snap ring
12	14505	Grease Fitting 1/8 NPT st
	A123360-16	Seal Kit (including a-h)
a		Piston Seal
b		Wear Ring
c		O-Ring
d		Wear Ring
e		Rod Seal
f		Wiper

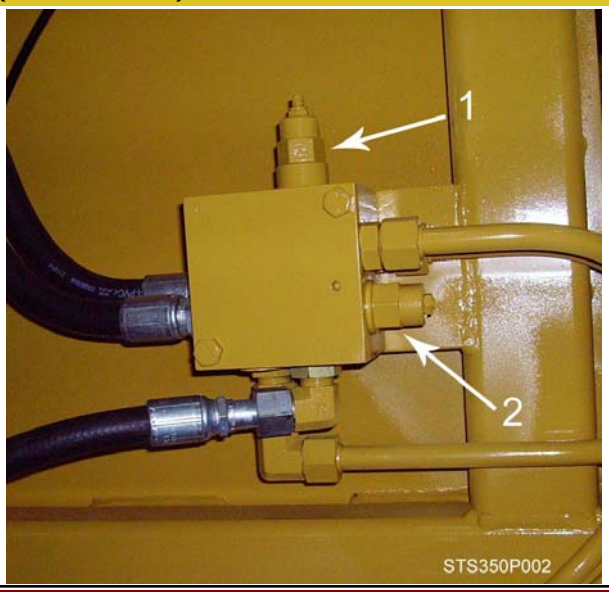
ASHLAND SCRAPERS

Push Off Cylinder (#A125178) 4" X 60"

KEY	PART	DESCRIPTION
g		O-Ring
h		Back-up Ring

ASHLAND SCRAPERS

Hydraulic Manifold (#A125174)



KEY	PART	DESCRIPTION
1	A125162-02	PUSHOFF SEQUENCE CARTRIDGE
2	A125162-01	COUNTER BALANCE CARTRIDGE

SETTING THE APRON AND PUSHOFF VALVE

The manifold block containing the pushoff sequence valve cartridge and apron sequence valve cartridge is used to control two hydraulic circuits with one hydraulic remote. When the tractor hydraulic remote is activated, oil flows first to the apron cylinders until they are fully extended. Once the cylinders are fully extended, the apron circuits' hydraulic pressure begins to increase. Once the pressure threshold is surpassed (which is adjustable. See adjustment section), the sequence valve diverts the oil flow to the pushoff's hydraulic circuit. Once the push off is completely extended the operator then reverses the tractors hydraulic remote. The counterbalance valve will hold the apron open until the push off is fully retracted. The Apron sequence valve then opens and allows the apron to close.

Setting the valves:

STEP 1 PUSHOFF SEQUENCE VALVE

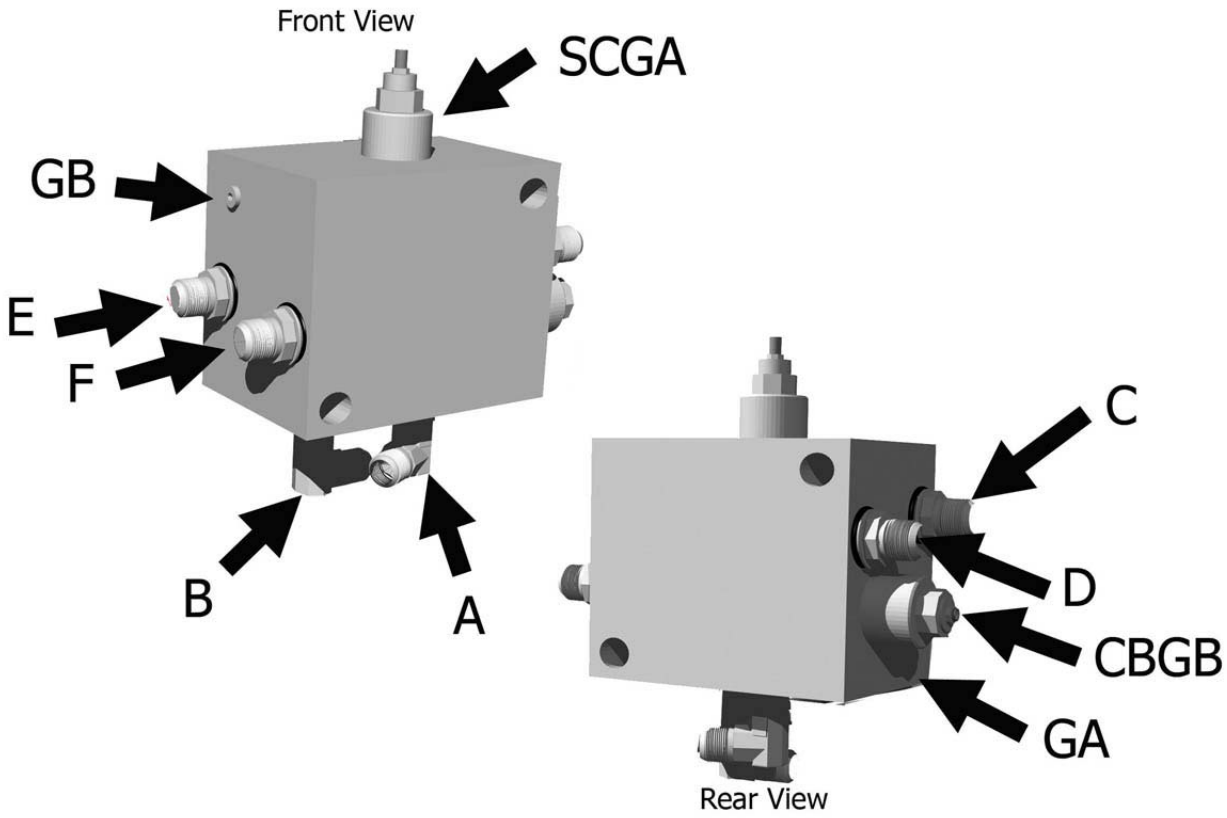
Loosen the lock nut (9/16") on the sequence valve cartridge. Turn the setscrew (4mm) clockwise until the front apron rises before the push-off begins to advance. (Earthmover should be empty) Turn the adjustment screw an additional 1/4 turn clockwise and tighten jam nut.

STEP 2 COUNTER BALANCE VALVE

Loosen the lock nut (9/16") on the counterbalance valve cartridge. Turn the setscrew (4mm) counter-clockwise until the apron holds in a raised position while rear gate is being retracted. Turn adjustment screw an additional 1/4 turn, tighten jam nut. DO NOT tighten adjusting screw more than necessary.

ASHLAND SCRAPERS

Hydraulic Valve Ports Assembly



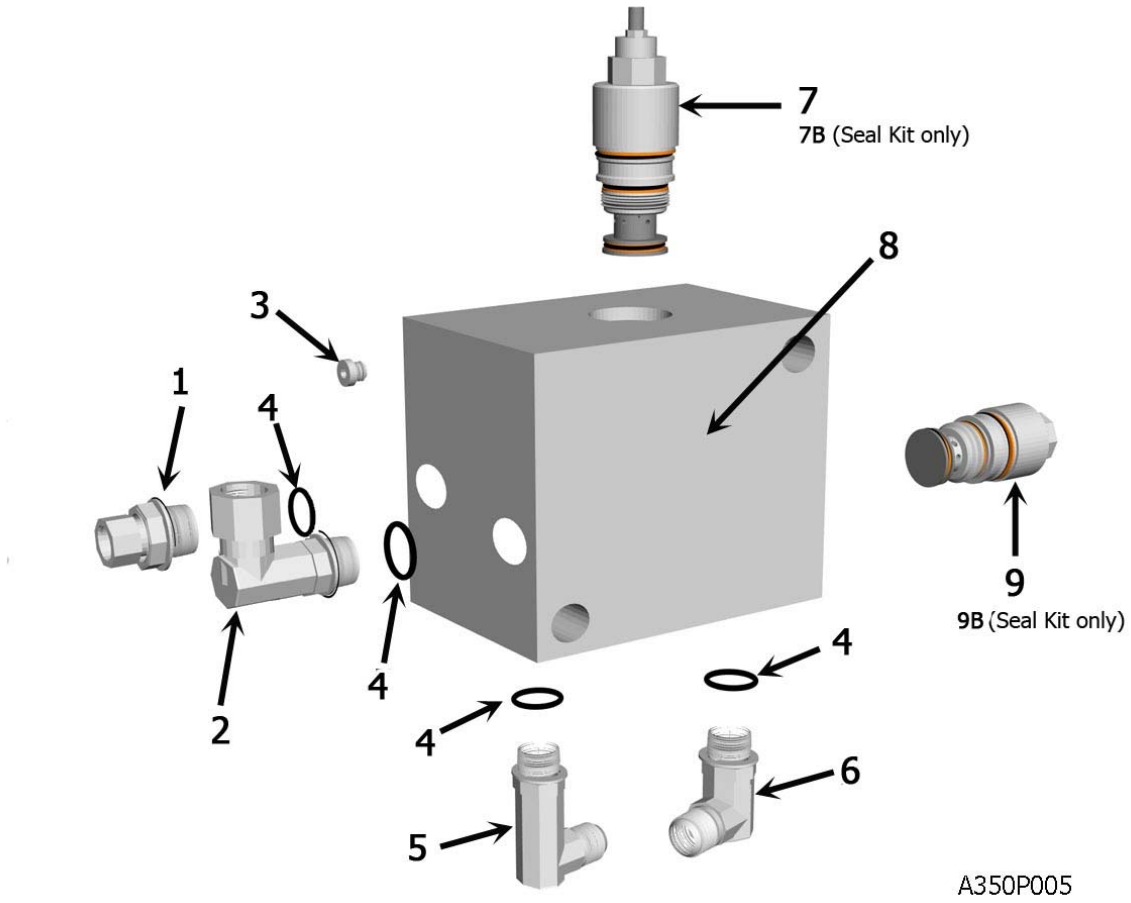
The lettering for the port locations are stamped on the block

A350P010

KEY	PART	DESCRIPTION
A		Supply Line
B		Pushoff Cyl., (Rod End)-Apron Cyl., Right side (Base End)-Supply Line
C		Pushoff Cylinder, (Base End)
D		Apron Cylinder, Right side, (Rod end)
E		Apron Cylinder, Left side, (Base end)
F		Apron Cylinder, Left side, (Rod end)

ASHLAND SCRAPERS

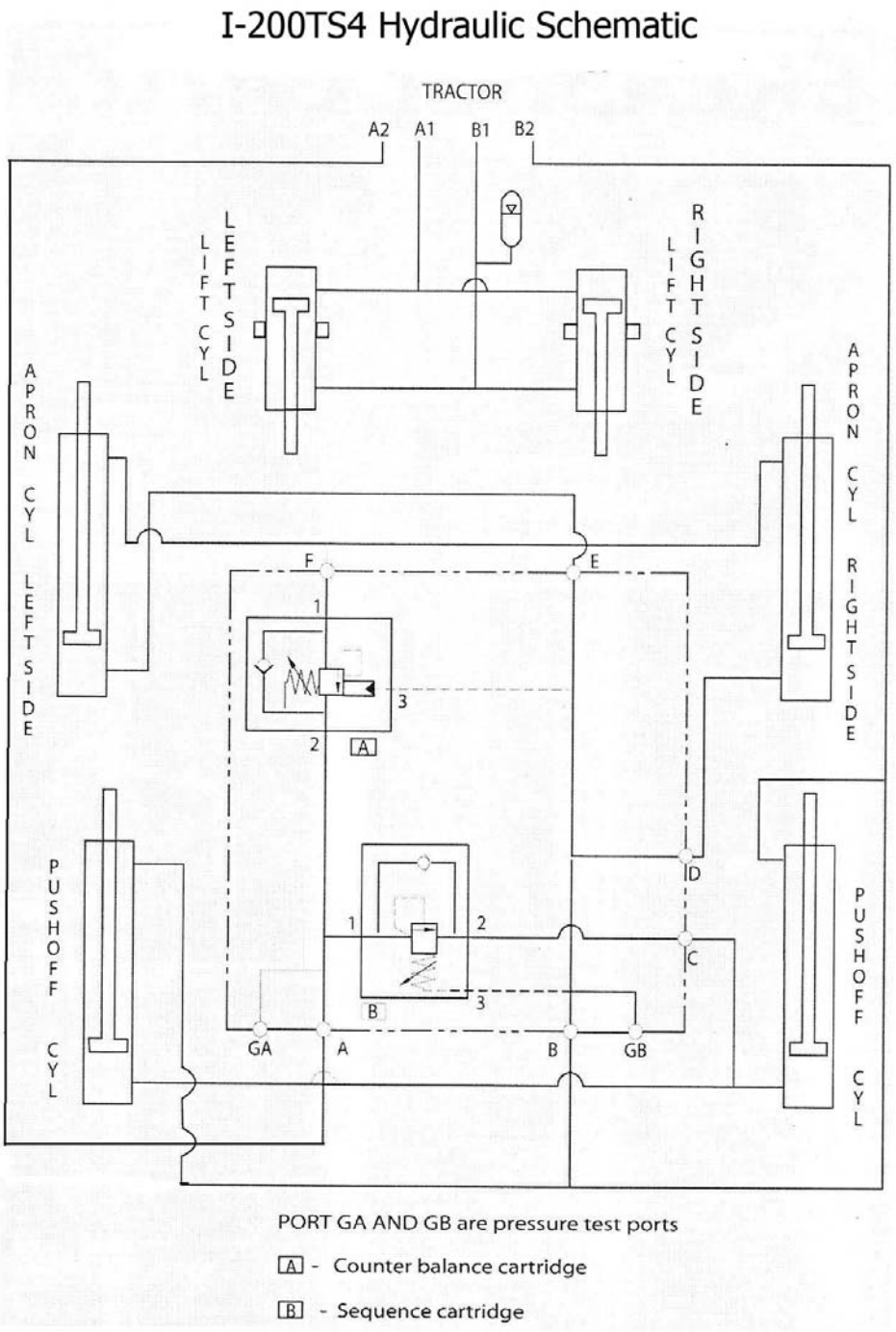
Hydraulic Valve Seals



KEY	PART	DESCRIPTION
1	AHA-00043	Adapter: Str. Sw. 1 1/16 M ORB X 1/2 FP
2	AHA-00048	Adapter: 90 Deg. Swiv. 1 1/6 M ORB X 1/2 FP
3	AHA-00046	6 ORB Plug
4	AHS-00153	O-Ring for 12 M ORB Fitting
5	AHA-00047	Adapter: 90 Deg. XL 3/4 MJX 1 1/6 M ORB
6	AHA-00044	Adapter: 90 Deg. 3/4 MJ X 1 1/6 M ORB
7	A125162-02	Valve: Sequence Cartridge for Ver. III & IV
8	A125174	Valve: Manifold Block IV Body
9	A125162-01	Valve: Counterbalance Cartridge for Ver. III & IV
9B	A125162-01 KIT	Seal Kit for A125162-01 Valve Cartridge
7B	A125162-02 KIT	Seal Kit for A125162-02 Valve Cartridge

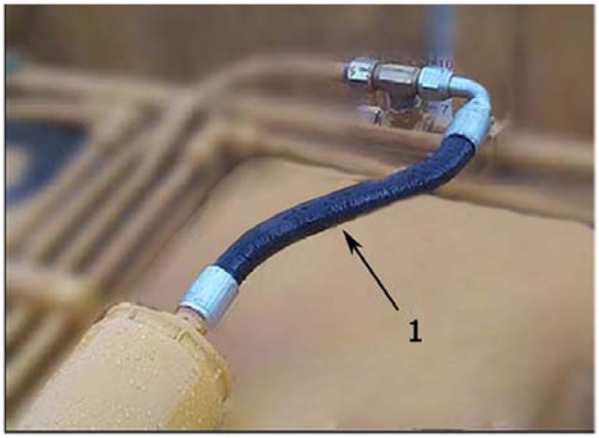
ASHLAND SCRAPERS

Illustration: Hydraulic Schematic: I-200TS4



ASHLAND SCRAPERS

Parts - Nitrogen over Hydraulic Accumulator



STS350P004

KEY	PART	DESCRIPTION
1	A155H67	Hose, 3/4” x 16” MORB with sweep
2	A125009	Bracket, Welded with bolts
3	A125005	Accumulator Cylinder

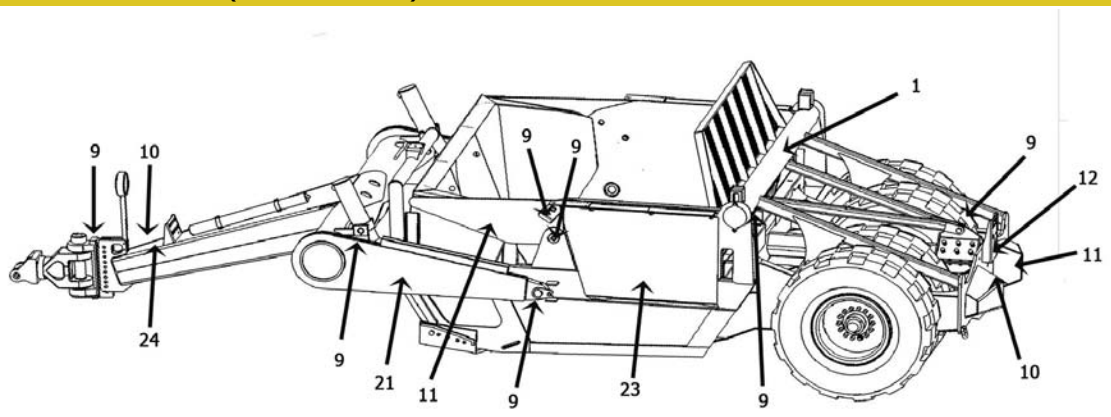
ASHLAND SCRAPERS

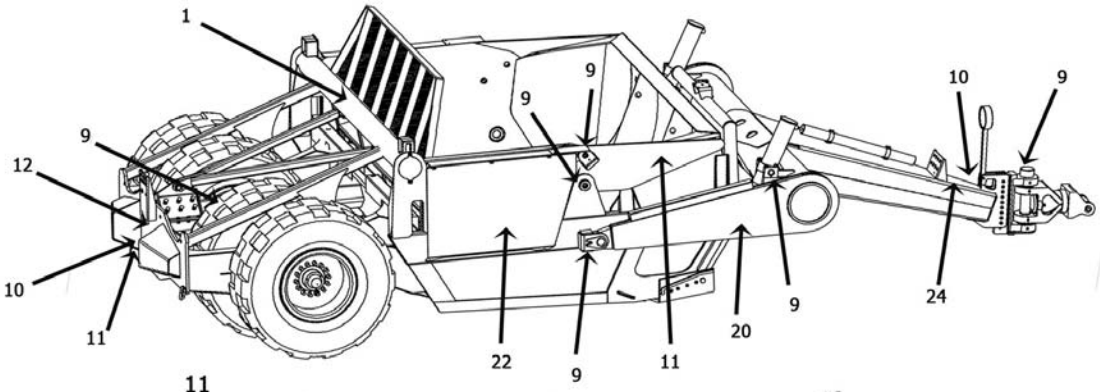
Decals

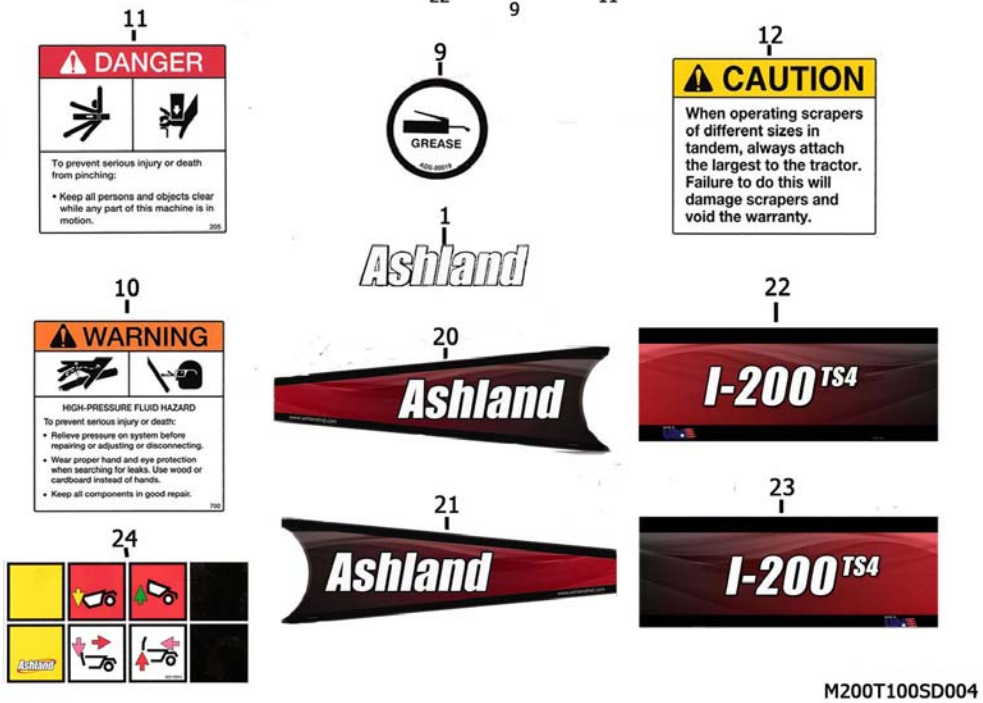
KEY	PART	DESCRIPTION
1	ADS-00001	Large Ashland
2	ADS-00002	Small Ashland
9	ADS-00019	Grease
10	750464	High Pressure Fluid Hazard
11	ADS-00011	Pinch Point
12	ADS-00015	Caution - Tandem Use
20	ADS-00045	Decal: Arm, Left
21	ADS-00044	Decal: Arm, Right
22	ADS-00043	Decal: Shield Left
23	ADS-00042	Decal: Shield Right
24	ADS-00041	Plumbing Diagram

ASHLAND SCRAPERS

Decals Illustration (I-1200TS4)







ASHLAND SCRAPERS

Grease Locations

Trunion Cylinder Points

Hitch Points

Grease Line - Rear

Apron Rod End

Apron Pivot

Main Frame Pivot

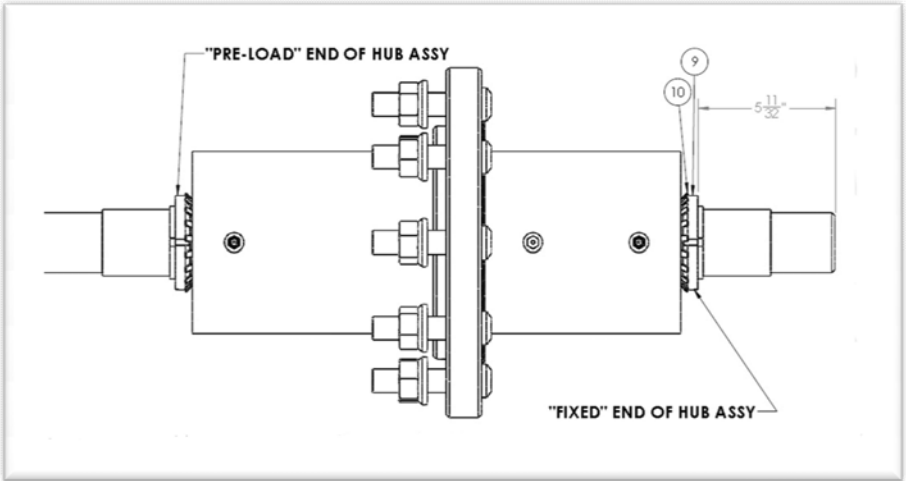
Hold Down and Floor Rollers

Rear Push-Off Cylinder (Inside)

ASHLAND SCRAPERS

Hub-Axle Disassembly

1. Disengage lock tab on “pre-load” side of axle lockwasher (item 10).
2. Remove axle locknut (item 9) and lockwasher (item 10).
3. Remove seal retaining rings (item 8, x2).
4. Remove hub seals (item 5, x2).
5. Remove axle (item 2) out “fixed” end of hub.
6. Remove bearing spacers (item 4, x2).
7. Remove bearing cones (item 7, x2).
8. Remove o-rings from axle (item 3, x2).



Hub/Axle Preparation:

1. Remove old lubricant and thoroughly clean axle.

2. Inspect machined axle seal surface for nicks, scratches, burrs, or marks. If needed use crocus cloth or emery cloth to repair any damages areas.

3. Clean axle threads and keyways thoroughly with a wire brush to avoid false bearing adjustments and to avoid introduction of contaminants into the lubricant cavity.

4. Thoroughly clean axle machined surfaces of rust, dirt, grease or any contaminants that could damage the hub seal and cause it to leak.

5. Thoroughly clean the hub bore of any dirt, grease, rust or any other substance that may be present.

6. Remove all sharp edges, nicks and burrs from seal bore, hubcap bore and hubcap mounting surface of the hub.

7. Inspect hub seal bore for roughness. If needed, use emery cloth to remove any burrs or old bore sealant, and wipe hub clean.

8. Inspect bearing cups (item 6,x2) for damage/wear. Replace, if necessary.

ASHLAND SCRAPERS

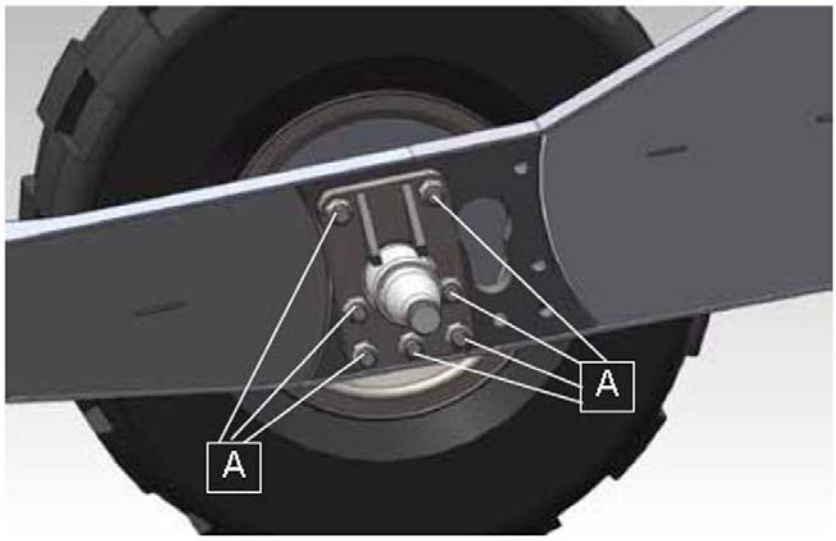
Hub-Axle Assembly

1. Lubricate bearings cones (item 7,X2).
2. Install (1) bearing cones onto axle.
3. Install new o-rings (item 3, x2) onto axle.
4. Install bearing spacer against lubricated bearing.
5. Install (1) lockwasher against bearing spacer with internal tab positioned in keyway of axle.
6. Install (1) locknut. Torque to 50 ft-lb. Bend appropriate lockwasher tab into locknut slot.
7. Install axle assembly into hub from “fixed” end.
8. Repeat steps 2-5 for parts on “pre-load” end of hub.
9. Install locknut and torque as follows:
    - Initial torque locknut to 200 ft-lb.
    - Back off locknut one full turn.
    - Rotate axle at least 5 revolutions.
    - Torque locknut to 50 ft-lb while rotating axle.
    - Back off locknut 1/4-1/2 turn.
    - Final torque locknut to 55-65 in-lb.
10. Bend appropriate lockwasher tab into locknut slot.
11. Lubricate seals and install into hub.
12. Install retaining rings (item 8,x2).

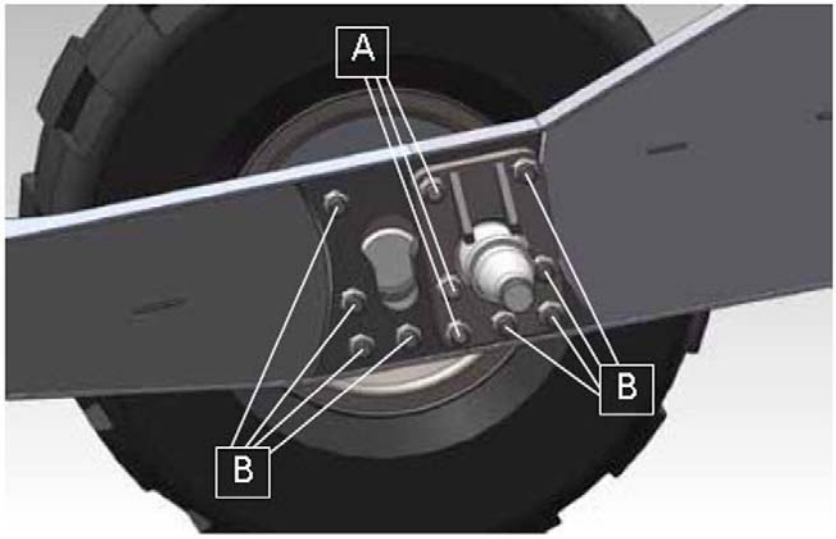
ASHLAND SCRAPERS

Spindle Relocation

IN-LINE: Outside Spindle In-line



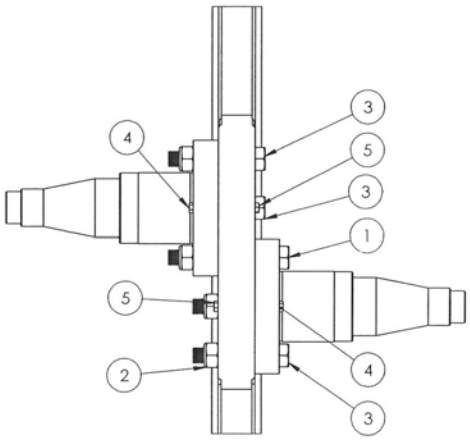
OFF-SET: Outside Spindle Moved Forward



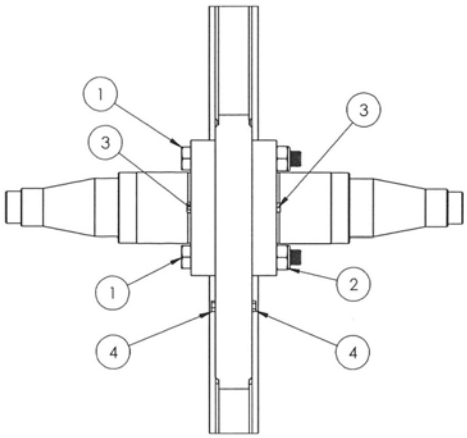
ASHLAND SCRAPERS

Spindle Layout

SPINDLES OFFSET



SPINDLES IN LINE



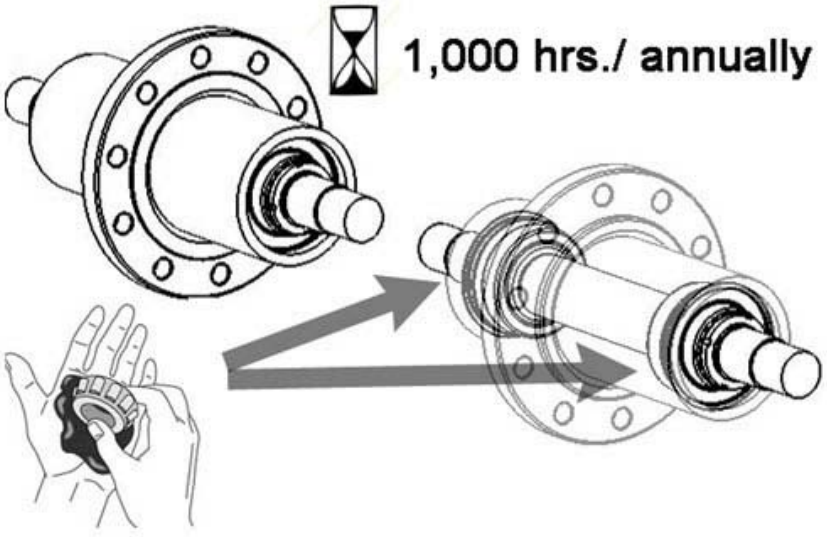
M200T50G004

ITEM	PART #	DESC.	QTY
1	AFB-00109	Bolt: 1.25 X 9”	3
2	AFN-00032	Nut: Hex	11
3	AFB-00059	Bolt: 1 ¼ X 7”	8
4	AFB-00114	Bolt: ½” X 3”	2
5	7000	Bolt: ½ X 1”	2
-		Stowed Fasteners	
-	AFB-00109	Bolt: 1.25 X 9”	7
-	AFN-00032	Nut: Hex	7
-	AFB-00114	Bolt: ½” x 3”	2
-	7000	Bolt: ½ X 1”	2

ITEM	PART #	DESC.	QTY
1	AFB-00109	Bolt: 1.25 X 9”	7
2	AFN-00032	Nut: Hex	7
3	AFB-00014	Bolt: ½ X 3”	2
4	7000	Bolt: ½ 1”	2
-		Stowed Fasteners	
-	AFB-00109	Bolt: 1.25 X 9”	3
-	AFN-00032	Nut: Hex	11
-	AFB-00059	Bolt: ¼ X 7”	8
-	AFB-00114	Bolt: ½ x 3”	2
-	7000	Bolt: ½ x 1”	2.

ASHLAND SCRAPERS

Service: Axle Service Recommendations



The bearings within the rear axle of the CS18HD scraper are fully greased with a Mobilgrease XHP 222 series grease at the factory. This series of grease is an extended service lithium complex greases intended for a wide variety of applications and severe operating conditions. Ashland uses special bearing grease packer to ensure the bearing is effectively & evenly lubricated. Generous amounts of additional grease are added on both sides of the bearing prior to install within the hub.

Before installing or re-installing the hub, follow this procedure to ensure spindle machined surfaces are clean and undamaged.

1. Remove old lubricant and thoroughly clean spindle.

2. Inspect machined spindle seal surface for nicks, scratches, burrs or marks. If needed, use crocus cloth or emery cloth to repair damaged areas.

3. Clean spindle threads thoroughly with a wire brush to avoid false bearing adjustments and to avoid introduction of contaminates into the hub.

4. Thoroughly clean spindle machined surfaces of rust, dirt, grease or other contaminants that could damage the hub seal and cause it to leak.

ASHLAND SCRAPERS

Service: Axle Service Recommendations

Mobilgrease XHP™ 222

Mobilgrease XHP 222, part of the Mobilgrease XHP™ 220 series, is an extended service lithium complex greases intended for a wide variety of applications and severe operating conditions. These greases were designed to outperform conventional products by applying cutting edge, proprietary, lithium complex manufacturing technology. They are formulated to provide excellent high temperature performance with superb adhesion, structural stability and resistance to water contamination. These greases have a high level of chemical stability and offer excellent protection against rust and corrosion. These greases feature high dropping points and maximum recommended operating temperature of 140º C (284°F).

Caution

Too much grease volume (overgreasing) in a bearing cavity will cause the rotating bearing elements to begin churning the grease, pushing it out of the way, resulting an increase of bearing component temperatures. This leads to rapid oxidation (chemical degradation) of the grease as well as an accelerated rate of oil bleed, which is a separation of the oil from the thickener. The heat that has been generated over time along with the oil bleed eventually will cook the grease thickener into a hard, crusty build-up that can impair proper lubrication and even block new grease from reaching the core of the bearing. This can result in accelerated wear of the rolling elements and then component failure.

ASHLAND SCRAPERS

Maintenance Check list

1. Grease all zerks.
   a) Every 8 hours of operation.
   b) See Lubrication Points section on next page.

2. Greasing the hubs.
   a) Re-pack wheel bearings after 300 hrs of operation.
   b) Completely clean grease out of hub and bearings every 1200 hours of operation.

3. Check tire pressure.
   a) See Tire Pressure Chart.

4. Check all pins for signs of wear.
   a) Daily

5. Check wheel lug nut torque.
   a) After first 2 hours of operation.
   b) Recheck daily for next 2 weeks.
   c) Tighten wheel lug nuts in a star pattern.
   d) Torque wheel lug nuts (See Torque Specifications).

6. Check and retighten all bolts.
   a) After initial 10 hours of use.
   b) Again after 50 hours of use.
   c) See Torque Specifications.

7. Inspect cutting edges.
   a) Daily
   b) Replace cutting edges when center blade has been worn to approximately 6” and side edges worn to approximately 4”.

CAUTION! Failure to replace worn cutting edges may result in unnecessary wear to the earthmover sides and floor.

Note: Please specify left or right “L” shaped cutting edges when ordering replacements. Left or right side parts are determined by viewing from rear of the scraper.

ASHLAND SCRAPERS

Pushing the Earthmover

This scraper was designed to be pushed when equipped with the optional push-bar. However, Ashland Industries, Inc. **STRONGLY** recommends using extreme caution when pushing the earthmover to prevent any unnecessary damage.

CAUTION! The earthmover must be pushed in a straight line with a maximum of a 100 hp dozer. Do not ram or jar the earthmover while pushing and push at a constant speed.

ASHLAND SCRAPERS

Tire Service

The task of servicing tires and wheels can be extremely dangerous and should be performed by trained personnel only, using the correct tools and following specific procedures. Do not attempt to mount, demount or inflate a tire if you do not have the proper equipment and experience to perform the job. Call a qualified repair service to inspect the assembly and make necessary repairs. Failure to heed warnings could lead to serious injury or death.

Visually inspect tires and wheels daily. Carefully inspect any rim and tire assembly that has been run underinflated or flat before reinflating the tire to make sure there is no damage to either the rim or tire.

- ALWAYS wear personal protection equipment such as gloves, footwear, eye protection, hearing protection and head gear when servicing tire and wheel components.
- DO NOT operate with damaged rims, tire cuts or bubbles, missing lug bolts or nuts or damaged rims.
- ALWAYS maintain the correct tire pressure. NEVER exceed recommended tire inflation pressure.
- INSPECT any rim and tire assembly that has been run flat or severely underinflated before reinflating the tire. Damage to the rim and tire may have developed.
- NEVER reinflate a tire that has lost air pressure or has been run flat without determining and correcting the problem.
- NEVER try to repair wheel, rim, or tire components parts. Parts that are cracked,worn, pitted with corrosion, or damaged must be discarded, and replaced with good parts.
- ALWAYS use approved tire and rim combinations for the model scraper that you have and verify that part numbers of components are correctly matched for the assembly.
- ALWAYS exhaust all air from the tire prior to demounting.
- ALWAYS place wheel and tire assemblies in restraining devices (safety cage) when inflating tires. Use a clip-on chuck and long extension hose to allow you to stand to the side of the tire and not in front of it.
- NEVER weld or cut on an inflated tire assembly. Welding heat can cause increased pressure which could result in tire explosion.
- ALWAYS use proper lifting techniques, and mechanized lifting aids to move heavy components and assemblies.
- NEVER leave a tire, wheel, or assembly unsecured in a vertical position.
- ALWAYS take care when moving tires and wheels that other people in the area are not endangered.

ASHLAND SCRAPERS

Service: Tire Inflation-Torque Chart

TIRE INFLATION (PSI)				
Scraper Model	Front Tire Size (XL)	Max PSI	Rear Tire Size	Max PSI
950	16.9-24 ANS 8 Ply	24	16.5L-16.1 ANS 10 Ply	36
110	16.5L-16.1 ANS 10 ply	36	18.4-26 ANS 10 Ply	26
130	18.4-26 ANS 12 Ply	32	21.5L-15.1 10 Ply	28
155	20.5-25 12 Ply	51	29.5 X 25 28 Ply	62
175	20.5-25 12 Ply	51	29.5 X 25 28 Ply	62
180TS			29.5 X 25 28 Ply	62
180CS			23.5 X 25 12 Ply	54
200			20.5-25 12 Ply	65

Check tires daily to ensure correct inflation levels. Also check for:

- Tire damage
- Loose or missing wheel lugs, nuts or caps
- Uneven wear
- Damaged Rims

Lug nuts (by model	Torque Ft-lbs
900-950	85-100
110-130	450
155-175 front	450
155-175 rear	750
180TS-180CS	450-500
200	750
Bolt Diameter	**Torque Ft-lbs**
¼"	12
5/16"	25
3/8"	45
7/16"	70
½"	110
9/16"	150
5/8"	220
¾"	380
7/8"	600
1"	900
1 1/8"	1280

ASHLAND SCRAPERS

Troubleshooting

With proper care and maintenance, your Ashland Scraper will give many years of reliable service. When a situation arises where the earthmover performance is not satisfactory, this section will give some pointers on finding and correcting the problem.

Grease zerk will not take grease.

1. Grease zerk plugged.
   a) Remove and replace grease zerk.
2. Pin is frozen.
   a) Remove, clean, and inspect pin.
   b) Replace pin if necessary.
3. Bushing grease passage is not aligned with grease zerk.
   a) Remove, clean, inspect, and realign bushing.
   b) Replace bushing if necessary and realign.

Push-off rollers do not roll.

1. The rollers need lubrication.
   a) Check zerk hole and grease.
   b) Remove pin, clean, inspect, and replace if necessary.
2. The roller bushing is worn out.
   a) Remove roller assembly and replace bushing.
   b) See parts manual.

Cylinders will not hold in preset position, i.e. the cylinder creeps.

1. Seals leaking internally.
   a) Remove and replace seal kit.

Machine cuts unevenly.

1. Cutting edges worn unevenly.
   a) Replace cutting edges.
2. Improperly inflated tires.
   a) Check air pressure in tires.

PH: 715-682-4622 FX: 715-682-9717

ASHLAND SCRAPERS

Warranty Statement

Ashland Industries Inc. warrants each new product to be free from defects in material and workmanship. This warranty is applicable only for the normal service life expectancy of the product or components, not to exceed **six consecutive months** from the date of delivery of the new Ashland Industries product to the purchaser, or the date the product is first put into service via a rental agreement or other means, whichever occurs first.

The major components of swivel hitches used on Industrial series scrapers are warranted for three consecutive months from the date of delivery of the new Ashland Industries product to the purchaser, or the date the product is first put into service via a rental agreement or other means, whichever occurs first, except those components described below.

Genuine Ashland Industries Inc. replacement parts and components will be warranted for 30 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

Under no circumstances will it cover any merchandise or components thereof, which in the opinion of the company, has been subjected to misuse, unauthorized modification, alterations, an accident or if repairs have been made with parts other than those obtained through Ashland Industries Inc.

Ashland Industries Inc. in no way warrants Tires since their respective manufacturer warrants these items separately. Please call Ashland Industries Inc. to receive phone numbers of tire suppliers.
Ashland Industries Inc. in no way warrants wearable items such as cutting edges, front dolly wheel balls, socket halves, rollers, bushings, yoke hitch pins, hitch bushings, etc..

Our obligation under this warranty shall be limited to repairing or replacing, free of charge to the original purchaser, any part that, in our judgment, shall show evidence of such defect, provided further that such part shall be returned within 30 days from the date of failure to Ashland Industries Inc. routed through the dealer and distributor from whom the purchase was made, transportation charges prepaid. Upon warranty approval proper credits will be reimbursed for transportation.

This warranty shall not be interpreted to render Ashland Industries Inc. liable for injury or damages of any kind or nature to person or property. This warranty does not extend to the loss revenue, extra labor cost associated with downtime, substitute machinery, rental or for any other reason.

Except as set forth above, Ashland Industries Inc. 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. Ashland Industries Inc. make no other warranty, expressed or implied, and, specifically, Ashland Industries Inc. disclaims any implied warrant or merchantability or fitness for a particular purpose. Some states or provinces do not permit limitations or exclusions of implied warranties or incidental or consequential damages, so the limitations or exclusion in this warranty may not apply.

This warranty is subject to any existing conditions of supply which may direct affect our ability to obtain materials or manufacture replacement parts.

Ashland Industries Inc. reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligation to owners of units previously sold.
No one is authorized to alter, Modify or enlarge this warranty nor the exclusion, limitations and reservations.

Warranty Department