



ver. 0612

Ashland Industries Crafting Quality since 1953!







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### **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 it 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 your power unit's hydraulic system) to ensure the longest, most productive use from your scraper.

Before starting a job, make sure the Diggers Hot Line has been contacted and all underground utilities have been properly located (i.e. electric, phone, and pipelines). Have a clear understanding of all local, OSHA, and MSHA rules that apply to your job. Beware of your environment and keep others a safe distance from the machine while familiarizing yourself with its controls. Your 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. Connect hydraulic hoses to the tractor and retract lift cylinders to **REMOVE TRANSPORT LOCK PINS**. 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 as needed to maintain proper levels. Care should be used when adding oil or when disconnecting any oil line to keep dirt out of the oil. 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 depth of cut needed 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 the cut as the tractor begins to lose power or traction.

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

### 

Safety Signal Words: Please note the use of signal words such as DANGER, WARNING, and CAUTION paired with the safety messages on your scraper. The appropriate signal word for each safety message has been selected using the following guidelines:

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

**WARNING:** Indicates a <u>potentially</u> hazardous situation that, if not avoided, <u>could result</u> in death or serious injury. For example, hazards that are exposed when guards are removed. This signal word may also be used to alert against unsafe practices.

**CAUTION:** Indicates a <u>potentially</u> hazardous situation that, if not avoided, <u>may result</u> in minor or moderate injury. This signal word may also be used to alert against unsafe practices.

Operator safety is a main concern in designing and developing equipment. Designers and manufacturers include as many safety features as possible. However, every year many accidents occur which could have been prevented by extra thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the precautions listed here. To avoid personal injury, study the following precautions and insist that those working with you or for you follow them.

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

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

Review these safety instructions with all users annually.

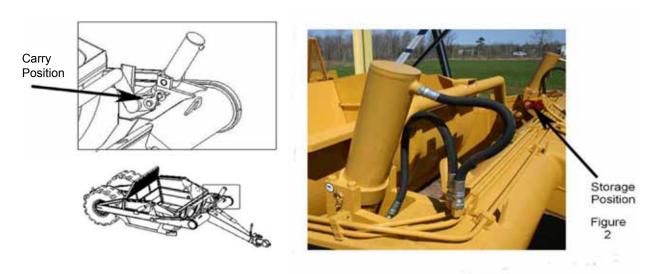
This equipment is dangerous to children and persons unfamiliar with its operation. Operators should be responsible adults familiar with machinery and trained in the equipment's operations. Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough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

### **Transport Locks**

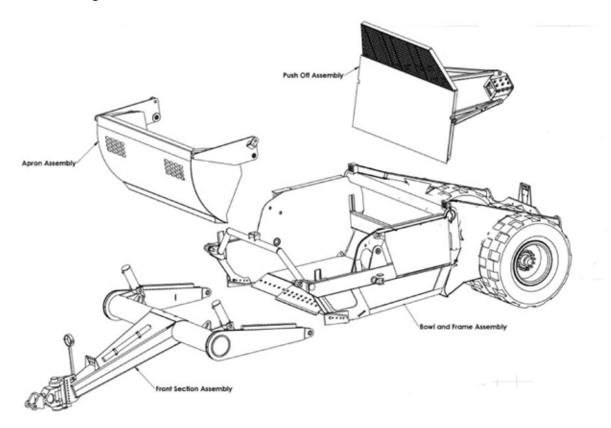
**IMPORTANT:** Please locate red transport links and remove prior to scraper operation. Retract lift cylinder circuit, remove safety snap pin, remove link, and place into storage position as show in Figure 2 below. Reinstall safety snap pins.



KEY	PART	DESCRIPTION
2	A123309-83	Transport Lock (TS, 15-20yd³)

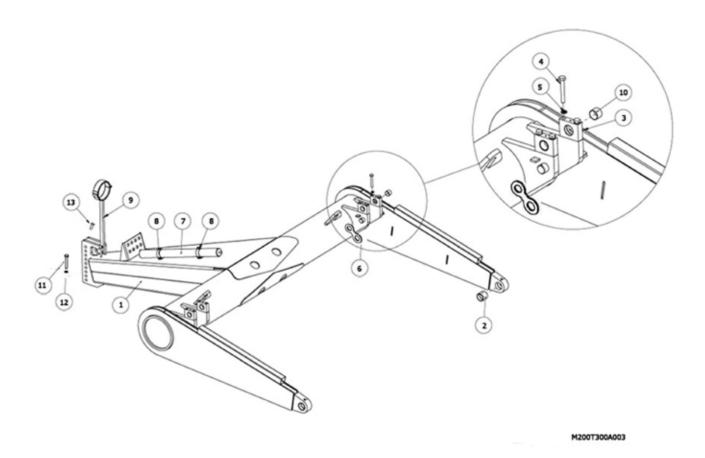
**Ashland Scrapers** Ph: (715) 682-4622 Fx: (715) 682-9717

# **Assembly - Overview**



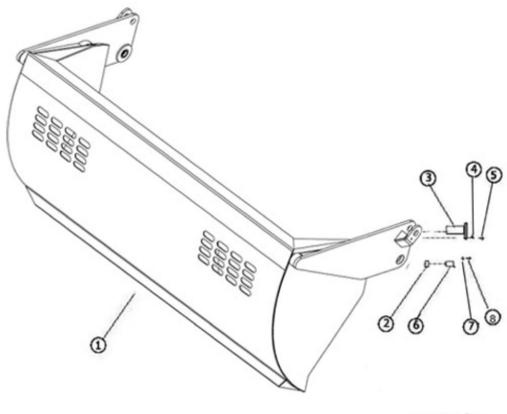
M200T50G001

# **Assembly - Front Frame**



KEY	PART	DESCRIPTION
1	500676	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	600119C	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 2-1/12"

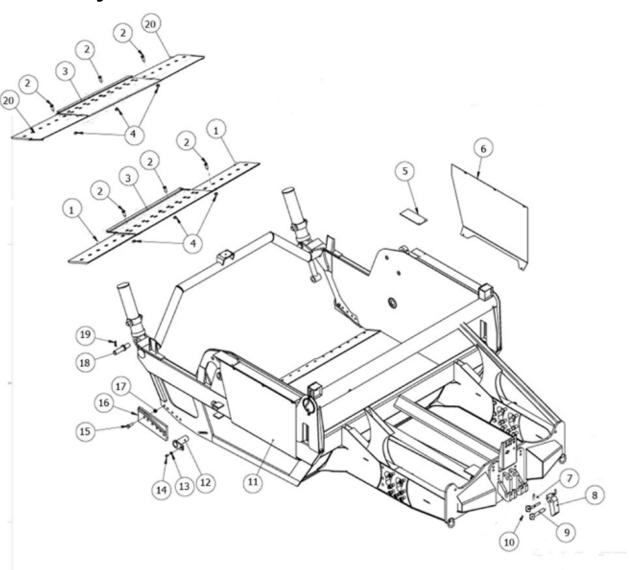
# **Assembly - Apron**



M200T300A001

KEY	PART	DESCRIPTION
1	700032	Apron Model 200
2	A125257-35	Bushing 2" ID Ball Swivel
3	A123322-14	Pin: 2" x 4-1/4" L (for apron cylinder 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	AFN-00018	1/2" Lock Nut
8	AFB-00012	1/2" Bolt, 1/2 x 4-1/2"

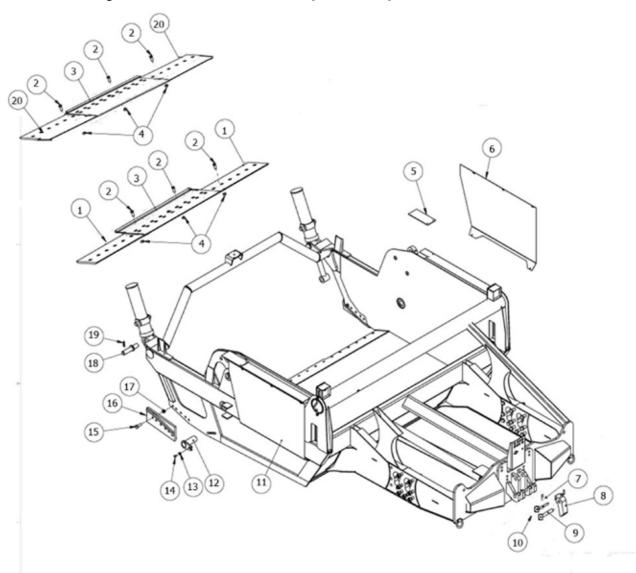
# Assembly - Bowl & Frame



M200T300A002

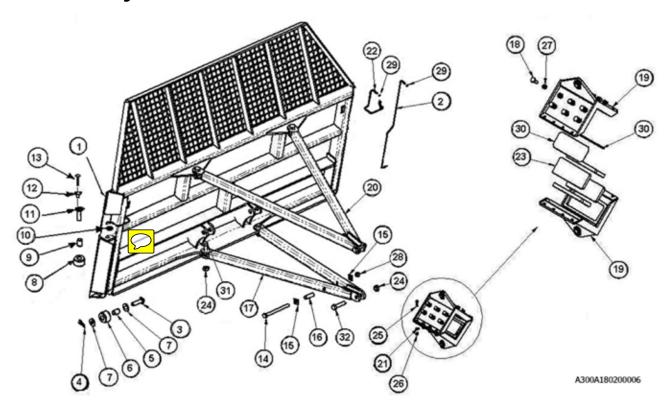
KEY	PART	DESCRIPTION
1	A125103	Left & Right Straight Corner Blade (35-1/4"x13")
2	PB1P-NC-100-0275	Bolt: Plow 1 NC x 2-3/4" Gr. 8
3	A125072	Center Blade, 18" Straight, Reversible
3	A125072-SER	Center Blade, 18" Double Serrated, Reversible
4	AFN-00012	Nut: 1" NC
5	A123369-13	Dirt Shield Flap
6	500717	Dirt Shield - Right Side
7	AFP-00001	Cotter Pin
8	600149	Pin Keeper
9	A123321-98	Pin

# Assembly - Bowl & Frame (cont'd)



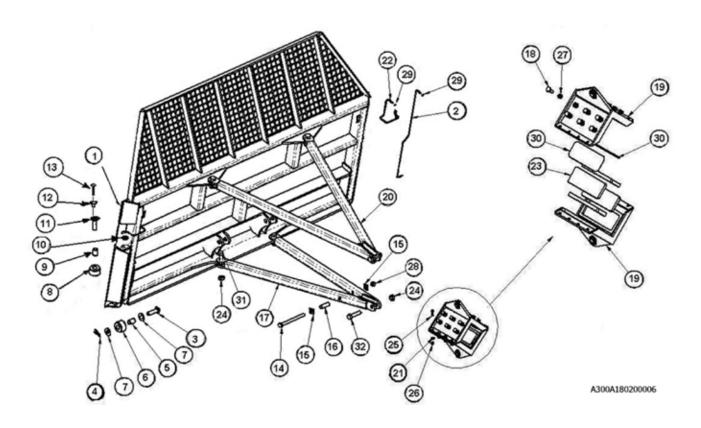
KEY	PART	DESCRIPTION
10	A125329	Pin: Rear Quick Hitch 7/8 x 7" w/ Handle
11	500178	Dirt Shield - Left Side
12	A123321-09	Main Frame Pin
13	A123358	Flanged Bolt Bushing
14	AFB-00079	Bolt: 5/8" x 1-1/2" L
15	AFB-00018	Bit: 1" NC x 3L
16	A123357	Bank Shaver/Route Bit, Reversible, L & R
17	AFN-00012	Nut: 1" NC
18	600221	Pin for Lift Cyl. Rod End: 1-1/4" NF x 10" Gr. 8
19	AFB-00128	Bolt: 1/2 NC x 1" Gr. 5 ZincBolt
20	500788	Corner Leveling Blade (str) 35-1/4"x18 (opt)

# **Assembly - Push Off**

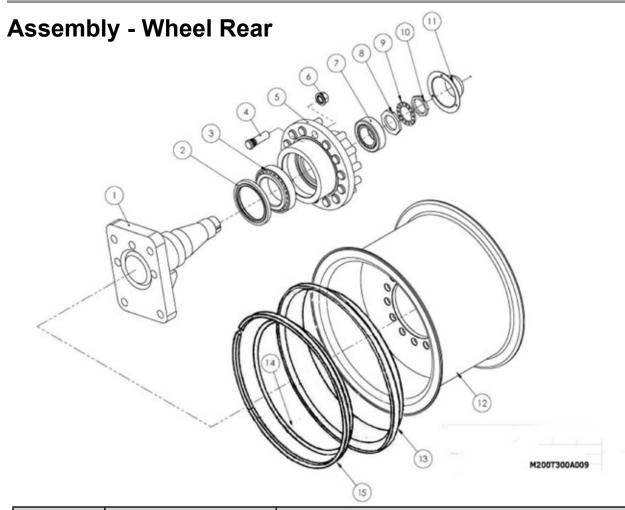


KEY	PART	DESCRIPTION
1	A123323	Pushoff Assembly
2	A125023	Grease Line, Outside Floor Roller 48"
3	A123323-21	Pin: 1-1/4" x 4-1/8" long
4	AFP-00001	Cotter Pin: 1/4" x 3"
5	A10163	Bushing: 1-3/4" OD x 1-1/4" ID
6	A10164	Roller
7	AFW-00015	Washer
8	A123323-24	Roller
9	A123323-24B	Bushing 2 ID x 2.5 OD
10	A123323-09	Spacer
11	A123323-23	Pin: Upper Roller 2 x 7-7/8"
12	A123358	Pin Keeper
13	AFB-00079	Bolt: 5/8" x 1-1/2"
14	AFB-00103	1 x 12 Bolt
15	AFQ-00019	Wedge Washer
16	A123323-48	Wedge Spacer
17	A123323-35	Bottom Support
18	AFB-00060	Bolt: 3/4" NF x 2" long

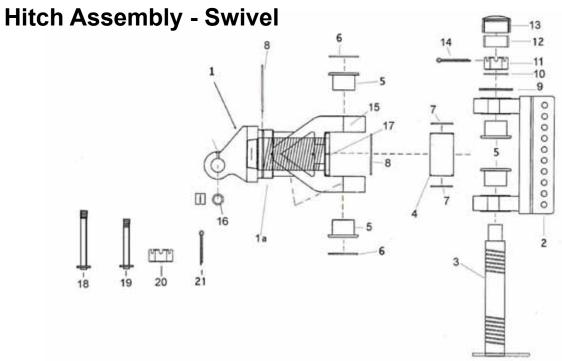
# Assembly - Push Off (cont'd)



KEY	PART	DESCRIPTION
19	A123364	Slide Guide Box
20	A123323-36	Top Support
21	8110	5/8 Lock Washer
22	A125022	Grease Line, V-Roller 18"
23	A123364-08	Plastic Slide
24	AFN-00009	1-1/4 NF Locknut
25	6684	5/8 x 2 NC Gr. 8 Bolts
26	7530	5/8 NC Gr. 8 Nuts
27	AFN-00023	JamNut: 3/4" NF
28	AFN-00001	NF Nut Lock 1" NF
29	A125026	Bulkhead Nut
30	A123364-3	Shim Plate
31	AFB-00076	Bolt: 1-1/4 NF x 4
32	AFB-00075	Bolt: 1-1/4 NF x 5



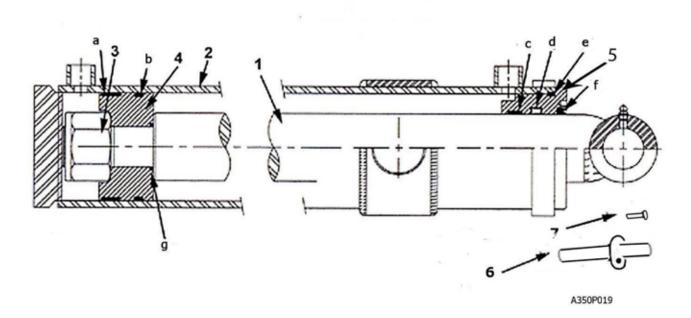
KEY	PART	DESCRIPTION
1	600158	Spindle Assembly N 22907, 22909, 22916)
1	600222	Spindle Assembly (S/N 22917-XXXXX)
2	A12037	Grease Seal
3	A125003	Bearing: Inner Cone
4	A12050	Wheel Stud 1-1/8" - 16 x 3-3/4"
5	A12035	Hub: 14 Hole
6	A125402	Nut: Flanged Cap
7	A125001	Bearing: Outer Cone
8	A10172	Spindle Nut with 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



KEY	PART	DESCRIPTION
1	A125224	Swivel Hitch: 360 Degree 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 Degree
18	A123299-08	Pin: 4 Ear Drawbar to Hitch 1-1/2" x 15-5/8" L
19	A123299-07	Pin: 2 Ear Drawbar to Hitch 1-1/2" x 12-5/8" L
20	AFN-00014	Nut: 1-1/2" Slotted
21	AFP-00001	1/4 x 3" Cotter Pin

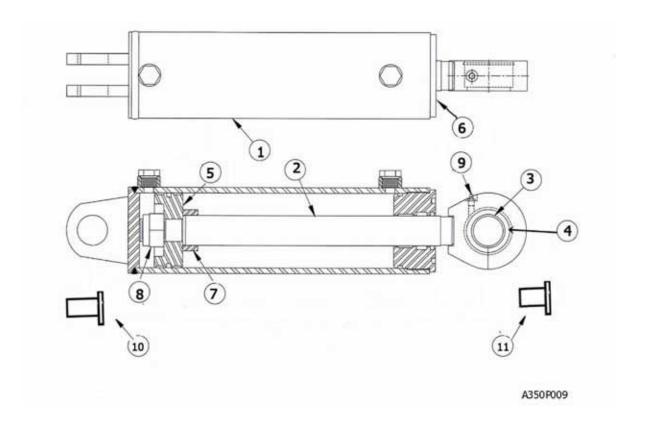
**12** 

# Lift Cylinder



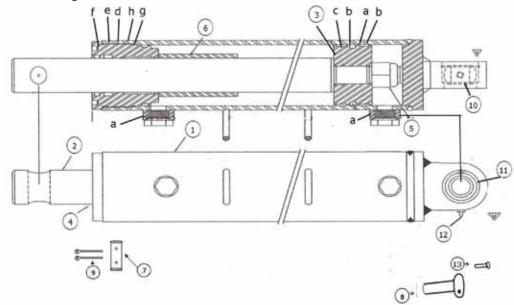
KEY	PART	DESCRIPTION
	A125044	Lift Cylinder (5-1/2" x 20")
1	A123326-1	Piston Rod: 2-1/2"
2	A125044-02	Barrel Weldment, 5-1/2"
3	A125159-34	1-3/4" NF Locknut
4	A125044-04	Piston, 5-1/2"
5	A125044-05	Gland, 5-1/2"
6	600221	Pin, 2" Lift Cylinder Rod End
7	AFB-00128	1/2 x 1 Gr. 5 Bolt
-	A125044-40	Seal Kit (Items a-g)
а	-	Rod Seal
b	-	Wear Band ID for Gland
С	-	Wear Ring, 5-1/2"
d	-	Piston Seal, 5-1/2"
е	-	O-Ring, ID of Piston
f	-	O-Ring, OD of Gland
g	-	Rod Wiper

# **Apron Cylinder**



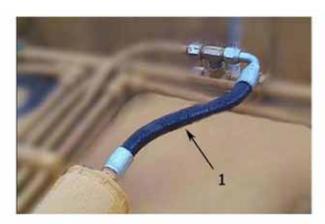
KEY	PART	DESCRIPTION
	A125257	Apron Cylinder (5" x 13")
1	A125257-10	Barrel Weldment
2	A125257-20	Rod
3	A125257-35	Uniball Bushing
4	A125057-36	Snap Ring
5	A125257-30	Piston
6	A125257-31	Head
7	A125257-32	Spacer
8	A125257-33	1-1/2" Toplock Nut
9	14505	Grease Zerk
-	A125257-40	Seal Kit
10	A123322-09	Apron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

# **Pushoff Cylinder**



KEY	PART	DESCRIPTION
	A125178	Pushoff 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	AFP-00001	1/4 x 3 Cotter Pin
10	A125178-35	Bushing
11	A125178-36	Snap Ring
12	14505	Grease Fitting 1/8 NPT St
13	AFB-00128	1/2 x 1 Gr. 5 Bolt
-	A123360-16	Seal Kit (Items a-h)
а	-	Piston Seal
b	-	Wear Ring
С	-	O-Ring
d	-	Wear Ring
е	-	Rod Seal
f	-	Wiper
g	-	O-Ring
h	-	Back-up Ring

# 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

# **Hydraulic Manifold**



KEY	PART	DESCRIPTION
-	#A125174	Hydraulic Manifold
1	A125162-02	Pushoff Sequence Cartridge
2	A125162-01	Counter Balance Cartridge

### **Setting the Apron and Pushoff Valve**

The scraper's manifold block, which contains the pushoff sequence valve cartridge and apron sequence valve cartridge, is used to control two hydraulic circuits with one hydraulic remote.

When your tractor hydraulic remote is activated, oil will flow first to the apron cylinders, until they are fully extended. Once the pressure threshold is surpassed (which is adjustable; see adjustment section), the sequence valve will diverts the oil flow to the pushoff's hydraulic remote. A counterbalance valve will hold the apron open until the pushoff is fully retracted. Then, the apron sequence valve will open and allow the apron to close.

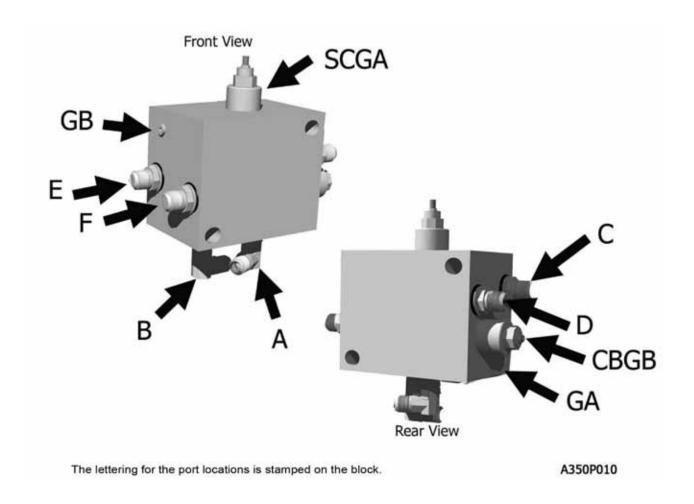
### **Step 1: Pushoff Sequence Valve**

 Loosen the lock nut (9/16") on the sequence valve cartridge. Turn the setscrew (4mm) clockwise until the front apron rises, before the pushoff begins to advance.
 Your scraper should be empty during this process. Turn the adjustment screw an additional 1/4 turn clockwise and tighten the jam nut.

### **Step 2: Counter Balance Valve**

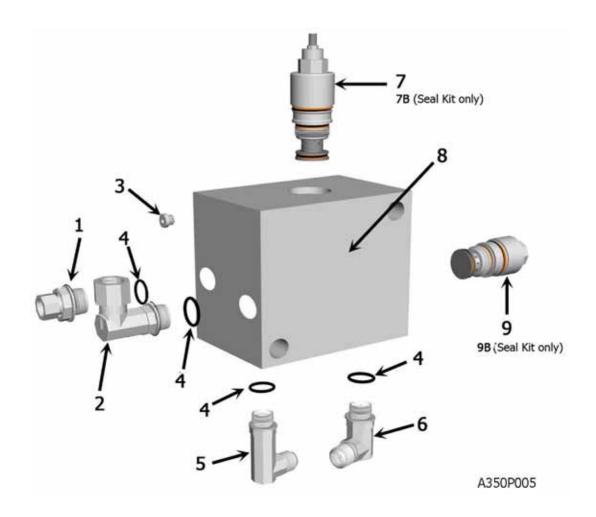
 Loosen the lock nut (9/16") on the counter balance valve cartridge. Turn the setscrew (4mm) counter-clockwise until the apron holds in a raised position while the rear gate is being retracted. Turn the adjustment screw an additional 1/4 turn and tighten the jam nut. DO NOT tighten the adjusting screw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

# **Hydraulic Valve Ports Assembly**



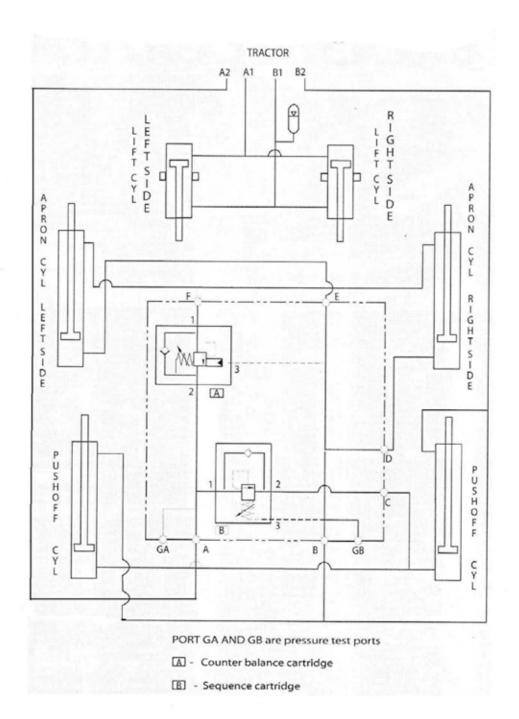
KEY	DESCRIPTION	
А	Supply Line	
В	Pushoff Cyl, (Rod End), Apron Cyl, Right Side (Base End) - Supply Line	
С	Pushoff Cylinder (Base End)	
D	Apron Cylinder, Right Side (Rode End)	
E	Apron Cylinder, Left Side (Base End)	
F	Apron Cylinder, Left Side (Rod End)	

# **Hydraulic Valve Seals**



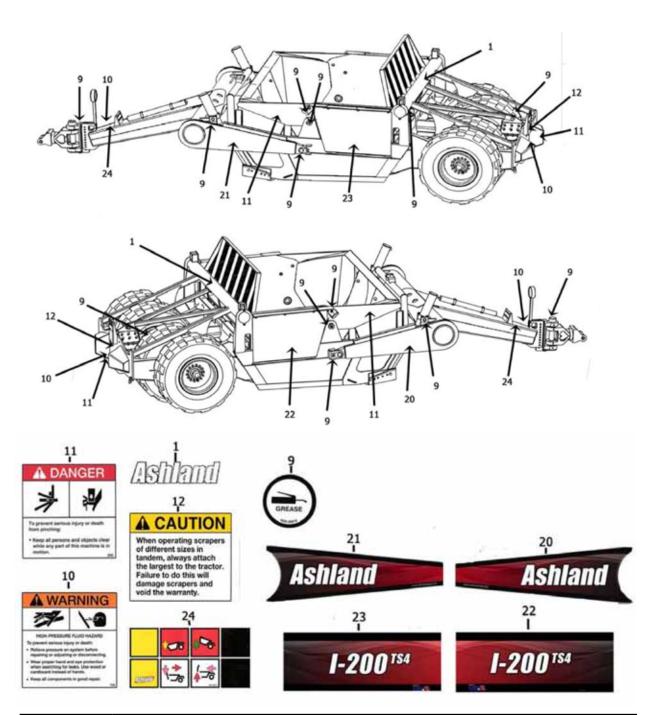
KEY	PART	DESCRIPTION
1	AHA-00043	Adapter: Str. Sw. 1-1/16 M ORB x 1/2 FP
2	AHA-00048	Adapter: 90 Degree Sw. 1-1/6 M ORB x 1/2 FP
3	AHA-00046	6 ORB Plug
4	AHS-00153	O-Ring for 12 M ORB Fitting
5	AHA-00047	Adapter: 90 Deg. XL 3/4 MJ x 1-1/6 M ORB
6	AHA-00044	Adapter: 90 Deg. 3/4 MJ x 1-1/6 M ORB
7	A125162-02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

# **Hydraulic Schematic**



M200T400H012

### **Decals**



KEY	DESCRIPTION	
1	Large Ashland	
9	Grease	
10	High Pressure Fluid Hazard	
11	Pinch Point	
12	Caution - Tandem Use	

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### **Maintenance Checklist**

#### 1. Grease all zerks.

- After every 8 hours of operation.
- See Lubrication Points section on next page.

#### 2. Grease the hubs.

- Re-pack wheel bearings after 300 hrs of operation.
- Completely clean grease out of hub and bearings after every 1,200 hours of operation.

### 3. Check tire pressure.

• 20.5 x 25, 12 ply tires require a tire pressure of 35-40 PSI on a rear tire.

### 4. Check all pins for signs of wear.

Daily

### 5. Check wheel lug nut torque.

- After first 2 hours of operation.
- Recheck daily for next 2 weeks.
- · Tighten wheel lug nuts in a star pattern.
- Torque wheel lug nuts to 120-130 ft-lbs.

### 6. Check and retighten all bolts.

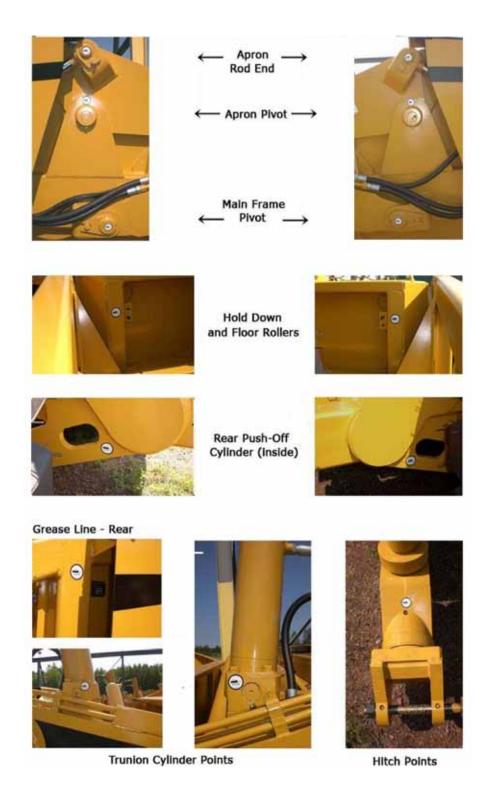
- After first 10 hours of use.
- · Again after 50 hours of use.
- See Torque Specifications on next page.

### 7. Inspect cutting edges.

- · Daily.
- Replace cutting edges when center blade has been worn to approximately
  6" and side edges are 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.

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### **Grease Locations**



### **Torque Specifications**

BOLT DIAMETER	TORQUE (ft-lbs)		
1/4"		12	
5/16"		25	
3/8"		45	
7/16"		70	
1/2"		110	
9/16"		150	
5/8"		220	
3/4"		380	
7/8"		600	
1"		900	
1-1/8"		1280	
Lug Nuts	85-100/9yd	450/11-13yd	750/15yd & Up

### Lubrication

Grease all zerks after every 8 hours of operation. Use high quality, general-purpose grease. Grease until grease flows from around the pin.

#### **Lubrication Points**

- Hitch horizontal and vertical pins
- Lift Cylinders rod end and trunion, left and right sides
- Front Arm Pivot Joint left and right sides
- Apron Cylinders rod clevis pin, left and right sides
- Apron Pivot Pin left and right sides
- Hold-down Rollers left and right sides
- Floor Rollers left and right sides
- Tapered Rollers left and right sides



### ⚠ Tire Service

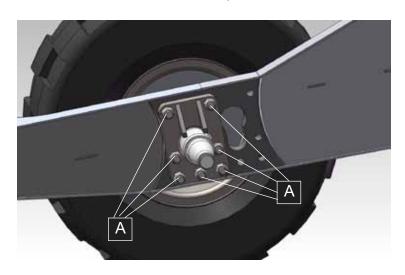
The task of servicing tires and wheels can be extremely dangerous and should be performed by trained personnel only, using the correct tools and following specific procedures. Do not attempt to mount, demount or inflate a tire if you do not have the proper equipment and experience to perform the job. 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 re-inflating the tire, to make sure there is no damage to either the rim or tire.

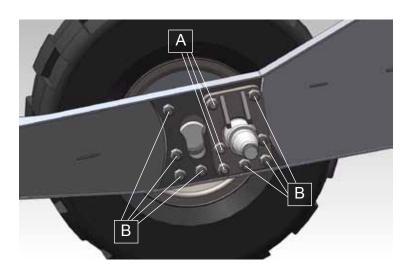
- ALWAYS wear personal protective equipment such as gloves, footwear, eye protection, hearing protection and head gear when servicing tire and wheel components.
- DO NOT operate with damaged rims, tire cuts or bubbles, missing lug bolts or nuts, or damaged rims.
- ALWAYS maintain the correct tire pressure. NEVER exceed recommended tire inflation pressure.
- INSPECT any rim and tire assembly that has been run flat or severely underinflated before re-inflating the tire. Damage to the rim and tire may have developed.
- NEVER re-inflate 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 component 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 certify that part number of components are correctly matched for the assembly.
- ALWAYS exhaust air from the tire prior to demounting.
- ALWAYS place wheel and tire assemblies in restraining devices (safety cage) when inflating tires. Use a cip-on check and long extension hose so you can 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 so that other people in the area are not endangered.

# **Spindle Relocation**





OFF-SET: Outside Spindle Moved Forward



KEY	DESCRIPTION	
Α	AFB-00109: Bolt, 9" LG AFN00032: Nyloc Nut	
В	AFB-00059: Bolt, 7" LG AFN00032: Nyloc Nut	

### Spindle Relocation Procedure - reference images on previous page

- Disconnect the scraper from the tractor, block the inside tires and raise rear. Support with stands so rear tires rotate freely.
- Remove outside tires. NOTE: Removal of hub from spindle will allow easier access to spindle mounting bolts.
- Lower the rear of the scraper or block the inside tires so they cannot rotate.
- Remove the nyloc nuts from the spindle mounting bolts, ensuring the inside wheel does not move laterally.
- Remove the outside spindle and shift forward (as shown) on three of the existing spindle fasteners (9" LG -- labeled "A" in OFFSET diagram).
- Replace the remaining spindle fasters with p.n. AFB-00059. Retain with nyloc nuts.
- Torque all spindle mounting fasteners to 1,207-1,810 ft-lb.
- Raise rear of scraper and support with stands so rear tires rotate freely.
- Reinstall rear wheels (hubs if removed previously). Retain with lug nuts.
- Lower the scraper to ground.
- Torque lug nuts to 750-900 ft-lb.
- · Check air pressure in all tires.

### **Pushing the Earthmover**



Your scraper was designed to be pushed only when equipped with an optional pushbar. However, Ashland Industries **STRONGLY** recommends using extreme caution when pushing the earthmover, to prevent any unnecessary damage.

CAUTION! Your earthmover must be pushed in a straight line with a maximum 100 HP

dozer. Do not ram or jar the earthmover while pushing. Push at a constant speed.

### **Troubleshooting**

#### Introduction

With proper care and maintenance, your Ashland scraper will give many years of reliable service. When a situation arises where the earthmover's performance is not satisfactory, this section will give some ideas on finding and correcting the problem Consult your owner's manual or call (877) 634-4622 for additional troubleshooting help.

#### Grease Zerk will not Take Grease

- Grease zerk is plugged: Remove and replace the grease zerk.
- 2. Pin is frozen: Remove, clean and inspect pin. Replace if necessary.
- 3. Bushing grease passage is not aligned with grease zerk: Remove, clean, inspect and realign bushing. Replace bushing if necessary and realign.

#### **Pushoff Rollers Do Not Roll**

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

### Cylinders will not Hold in Preset Position - a.k.a., Cylinder Creep

1. Seals leaking internally: Remove and replace seal kit.

### **Machine Cuts Unevenly**

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

### **Limited Warranty Statement**

Ashland Industries Inc. warrants each new product to be free from defects in material and workmanship. This warranty is applicable for products or components, not to exceed six consecutive months from the date of delivery of the new Ashland Industries product to the original 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 judgement, 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 directly 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.

Ashland Industries Inc. Warranty Department