

# Ashland

## EARTHMOVERS

# Parts Manual

ver 1013



# CS18-HD

**Ashland Industries**

*Crafting Quality since 1953!*



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## ASHLAND SCRAPERS

### Serial Number

#### **WELCOME NEW CUSTOMERS!**

Thank you for your purchase of an Ashland scraper and the confidence you have placed in us to handle your earthmoving projects. Years of research, testing and successful application have been spent to ensure quality and maximum performance for our customers. Please read and understand this manual before attempting to attach or operate this scraper. This manual should always remain with the machine. Be sure and fill out and send in the owners registration form at the beginning of this manual, or you may fill out the form on-line by going to [ashlandind.com](http://ashlandind.com) and click on "Register your Machine" at the bottom of the page.

#### **SCRAPER ID NUMBER**

The serial number identification plate is located on the apron cylinder weldment on the front hitch of the CS18HD. Because of product changes, we highly recommend you provide your dealer the serial number when ordering parts. If your machine is ever stolen, law enforcement agencies and your insurance company will require this serial number.



## ASHLAND SCRAPERS

### How to Order Parts

#### **IMPORTANT**

Parts must be ordered through your local authorized ASHLAND dealer.  
Be sure to state MODEL and SERIAL NUMBER of your machine, PART NUMBER, DESCRIPTION and QUANTITY needed.

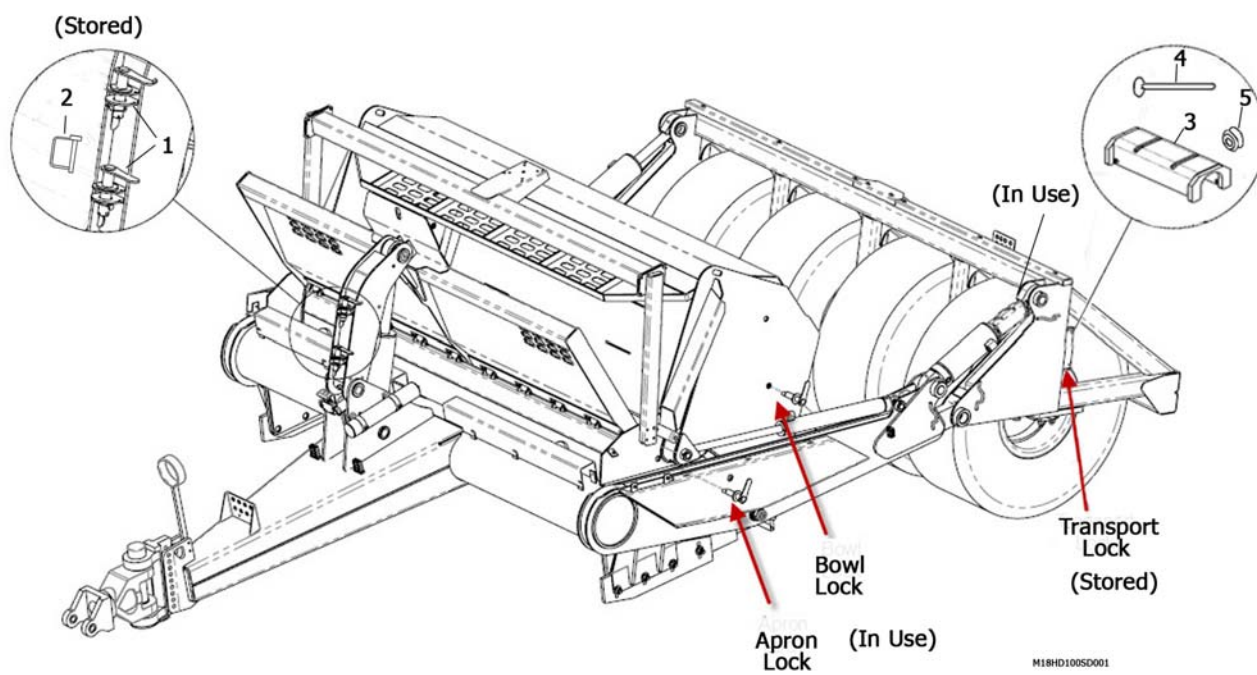
Unless this is done, we cannot provide prompt service or assure shipment of the correct parts.



Ashland Industries weldable replacement parts are available to rebuild, modify or update your scraper to current factory specifications.

# ASHLAND SCRAPERS

## Parts - Transport Locks (18HD)



M18HD100SD001

KEY	PART	DESCRIPTION	SN CS18HD
	500414	Front Apron Lock	XXXXX-23231
	500415	Rear Cylinder Lock	XXXXX-23231
1	600121	Pin (Apron & Bowl)	23234-XXXXX
2	A125006	Lock Pin	23234-XXXXX
3	600282	Rear Cylinder Lock	23234-XXXXX
4	A125226	Quick Release Pin	23234-XXXXX
5	A125227	Grommet	23234-XXXXX



## 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

#### 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.

## ASHLAND SCRAPERS

### Instruction: Operation and Maintenance

#### APRON OPENING GUIDELINES:

You will need to determine the ideal opening for your soil condition. It is important to have the apron opened prior to loading. To receive the highest production possible, it is important to know the general characteristics of the material that you will be loading. In heavier soils like clay or gumbo, the soil will slab up and remain together after being cut by the blades. In lighter soils, like sand or dry loose top soil, the material 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 apron 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:** 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 imminently hazardous situation that, if not avoided, will result 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 potentially hazardous situation that, if not avoided, could result 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 potentially hazardous situation that, if not avoided, may result 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 avoided by extra thought and a more careful approach to handling equipment. The operator, can avoid many accidents by observing the precautions in this section. To avoid personal injury, study the following precautions and insist those working with, or for you, follow them.

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

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

Review the safety instructions in the operator's manual with all users annually.

**Operators should be responsible adults who are 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 the owner's manual and have developed a thorough understanding of the safety precautions and how the scraper works.**

# ASHLAND SCRAPERS

## Specifications

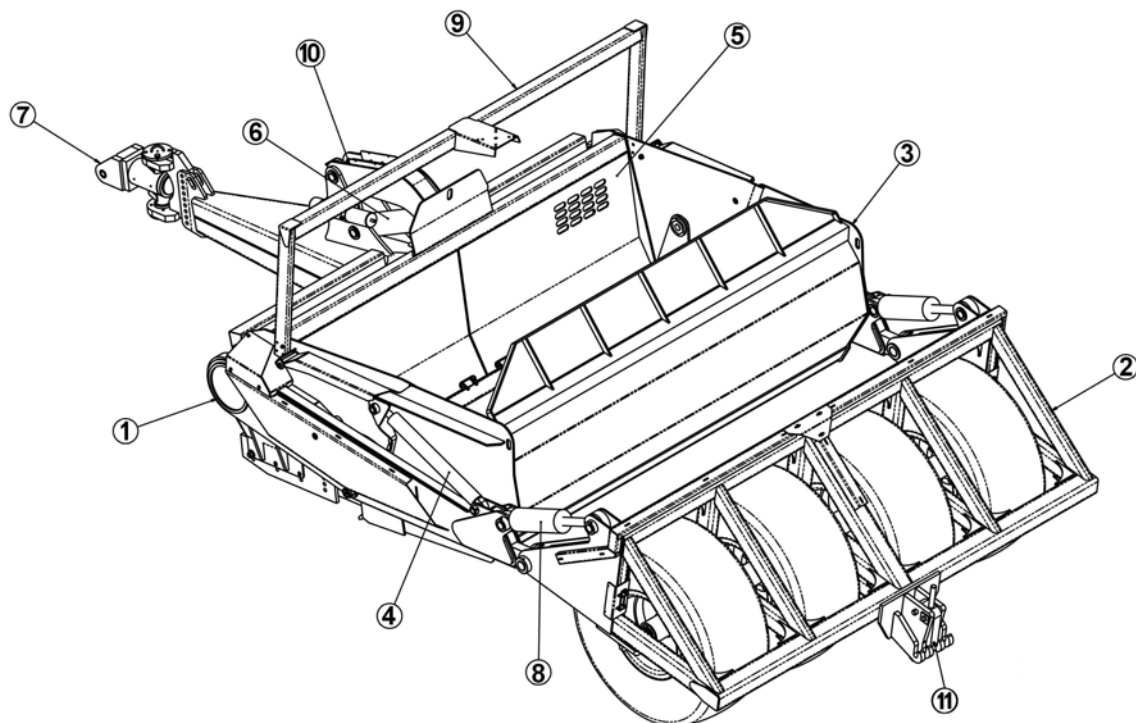


### CS18HD SPECIFICATIONS

DIMENSIONS – OVERALL	UNITS	METRIC
Length	365 in.	927.1 cm
Width	143 in.	363.22 cm
Height	101 in.	256.54 cm
Weight	26,400 lbs.	11,213 kg
SCRAPER BOWL	UNITS	METRIC
Capacity-Struck	13.5 cu. yd.	10.4 cu. m
Capacity-Heaped	18 cu. yd.	13.8 cu. m
Payload Only (@2,500 lbs/cu/yd)	45,000 lbs.yd.^3	26697.4 kg/m^3
Width of Cut	144 in.	365.8 cm
Apron Opening	48 in.	121.9 cm
Depth of Spread	0-17	0.43.2 cm
Depth of Cut Max	6 in.	15.2 cm
BLADES	UNITS	METRIC
Center	1 1/8 x 18 x 60.25	2.86 x 45.72 x 153.04
Corner Blade	1 1/8 x 13 x 41.5	2.86 x 33.02 x 105.41
Router Blade	1 x 10 x 38.75	2.54 x 254 x 98.43
Blades per Scraper	5	
PULL UNIT RECOMMENDATIONS	UNITS	
Tractor Power Required-Single	325+hp	
Dozer Power Required-Single	242+kW	
Tractor Power Required-Tandem	435+hp	
Dozer Power Required-Tandem	324-336 kW	
WEIGHT DISTRIBUTION	%	
Tongue	28%	
Rear Wheels	72%	

# ASHLAND SCRAPERS

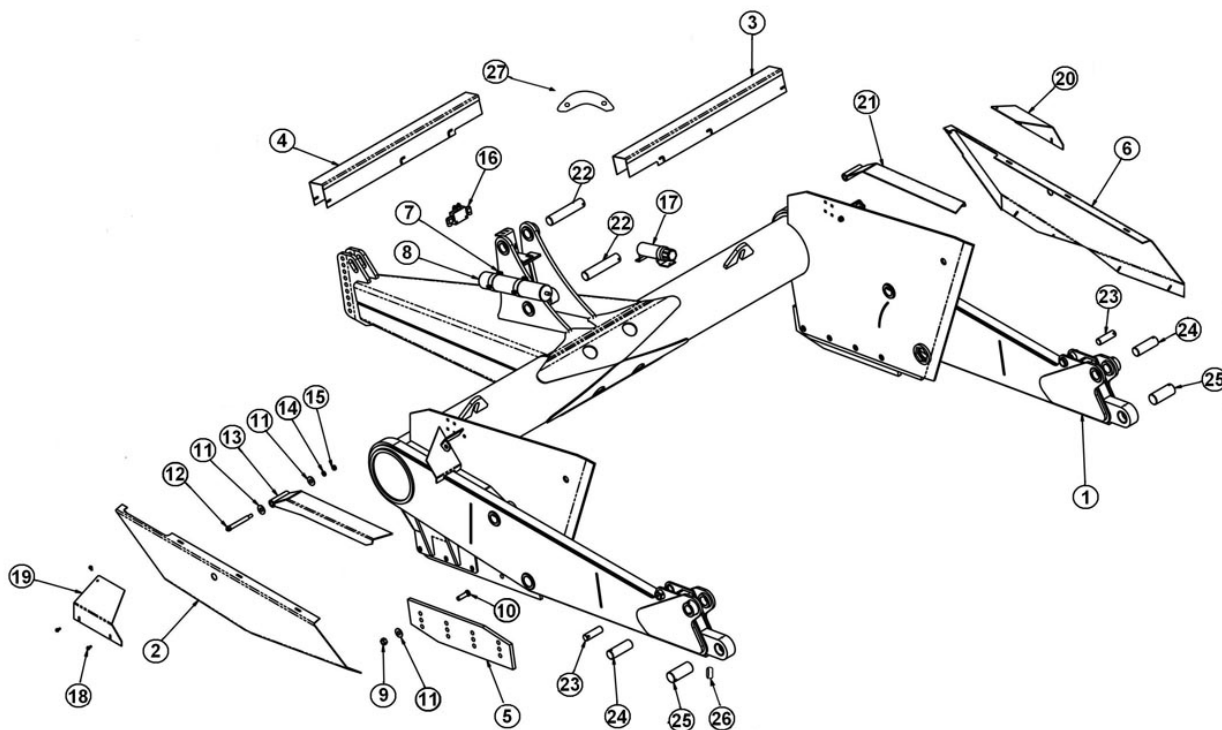
## CS18HD Assembly



M18HD300A007

KEY	PART	DESCRIPTION
1	700001	Front Section
2	700002	Rear Section
3	700004	Bowl
4	A125160	Bowl Dump Cylinder
5	700003	Apron
6	A125395	Apron Lift Cylinder
7	A125224	Super Swivel Hitch
8	A125159	Main Lift Cylinder
9	600290	Laser Mount (Optional)
10	600031	Apron Lift Arm
11	600019	Locking Lug

## Front Frame Assembly (CS18HD)




M18HD300A003

KEY	PART	DESCRIPTION	SN CS18HD
1	600033	Frame-Front Section	
2	600003	Arm Guard LH	
3	600008	Front Pipe Guard RH	
4	600007	Front Pipe Guard LH	
5	500164	Bank Edge	
6	600004	Arm Guard RH	
7	A125009	Accumulator Bracket	
8	A125051	Accumulator	
9	AFN-00012	1" NC Heavy Hex Nut	
10	PB1P-NC-100-0375	1" Plow Bolt x 3 3/4" Lg	
11	AFW-00001	1" Flat Washer	
12	600002	Top Shield Pin	
13	600005	Top Pivot Shield LH	
14	AFW-00002	3/4" NC Lock Washer	
15	7680	3/4" NC Hex Jam Nut	
16	A125211	Valve	

## ASHLAND SCRAPERS

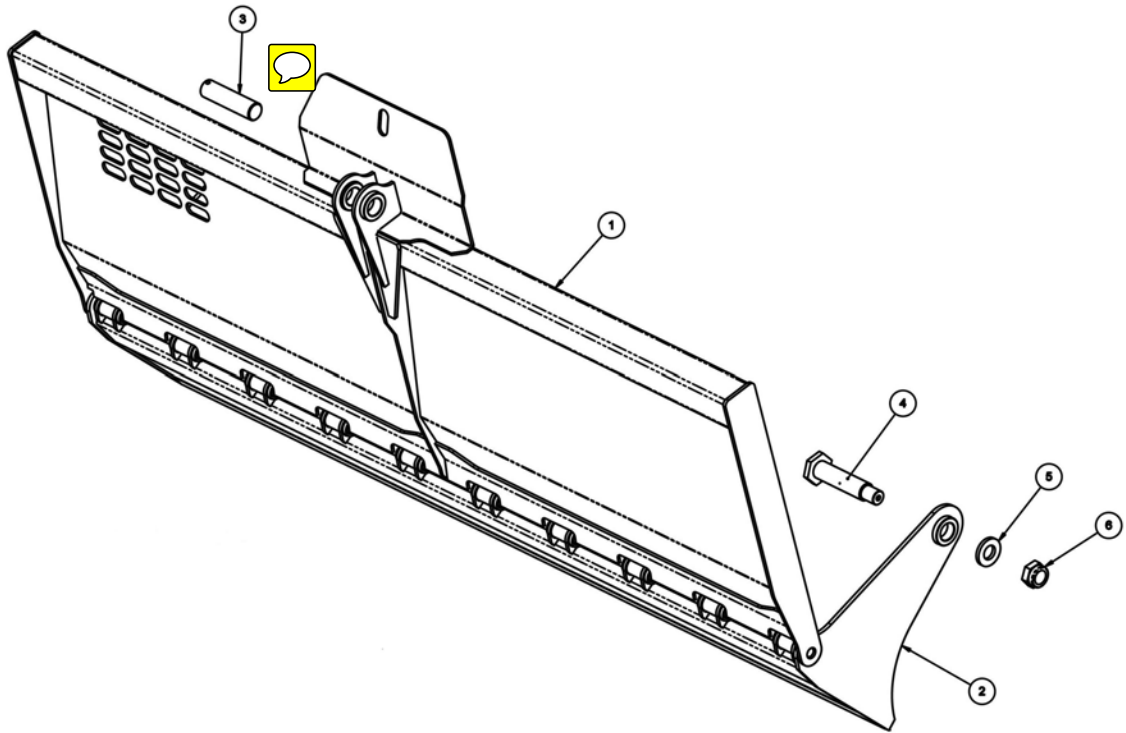
### Front Frame Assembly (CS18HD)

KEY	PART	DESCRIPTION	SN CS18HD
17	A125180	Manual Canister	
18	AFB-00094	3/8"NC Flanged Bolt	
19	500395	Guard Corner LH	
20	500394	Guard Corner RH	
21	600006	Top Pivot Shield RH	
22	500332	Pin-Apron Lift Cylinder	XXXXX-23382
22	<del>600294</del> 	Pin-Apron Lift Cylinder	23383-XXXXX
23	500335	Pin-Bowl Dump Cylinder-Lower	
24	500336	Pin-Rear Section Cylinder-Lower	
25	600052	Pin: Rear Section Pivot w nut	
26	A123320-08	Bushing	XXXXX-22358
26	A125468	Bushing (Interchangeable-May be used on earlier machines w/greaseable pins.)	22359-XXXXX
27	600031	Apron Lift Arm	




## ASHLAND SCRAPERS

### Apron Assembly (CS18HD)



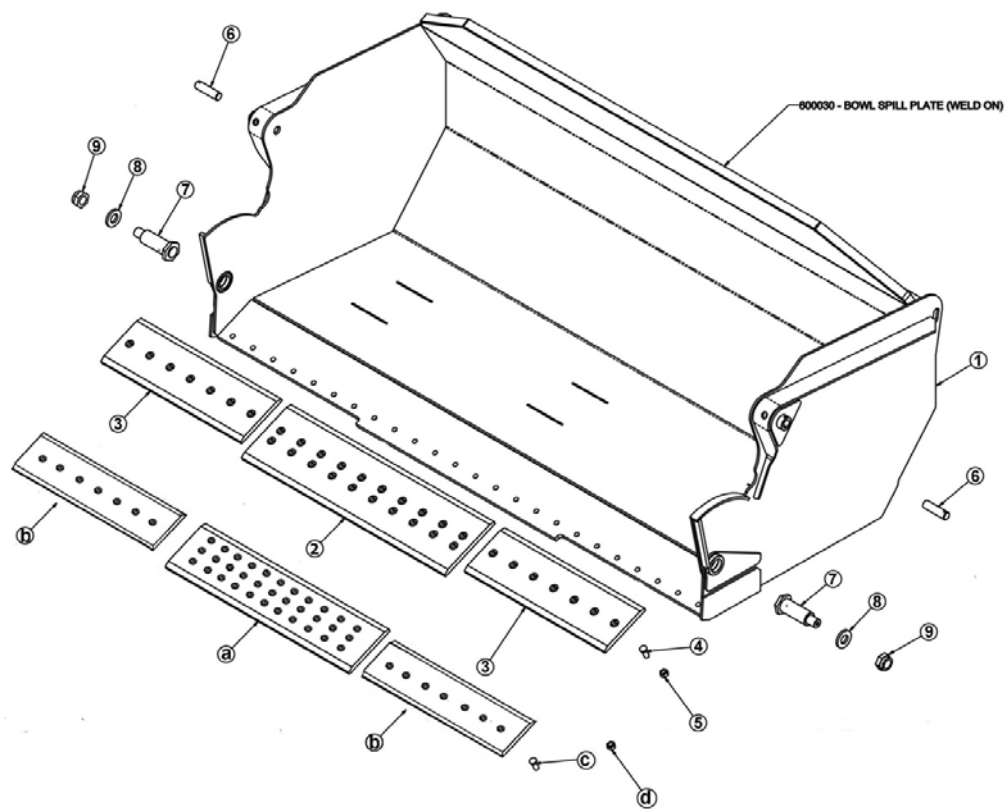
M18HD300A001

KEY	PART	DESCRIPTION
1	600039	Upper Apron
2	600040	Lower Apron
3	500333	Pin-Apron Lift Arm
4	600000	Assembly-Apron Pivot Pit
5	500330	Washer-Apron Pin Spacer
6	AFN-00033	Jam Nut



# ASHLAND SCRAPERS

## Bowl and Frame Assembly (CS18HD)

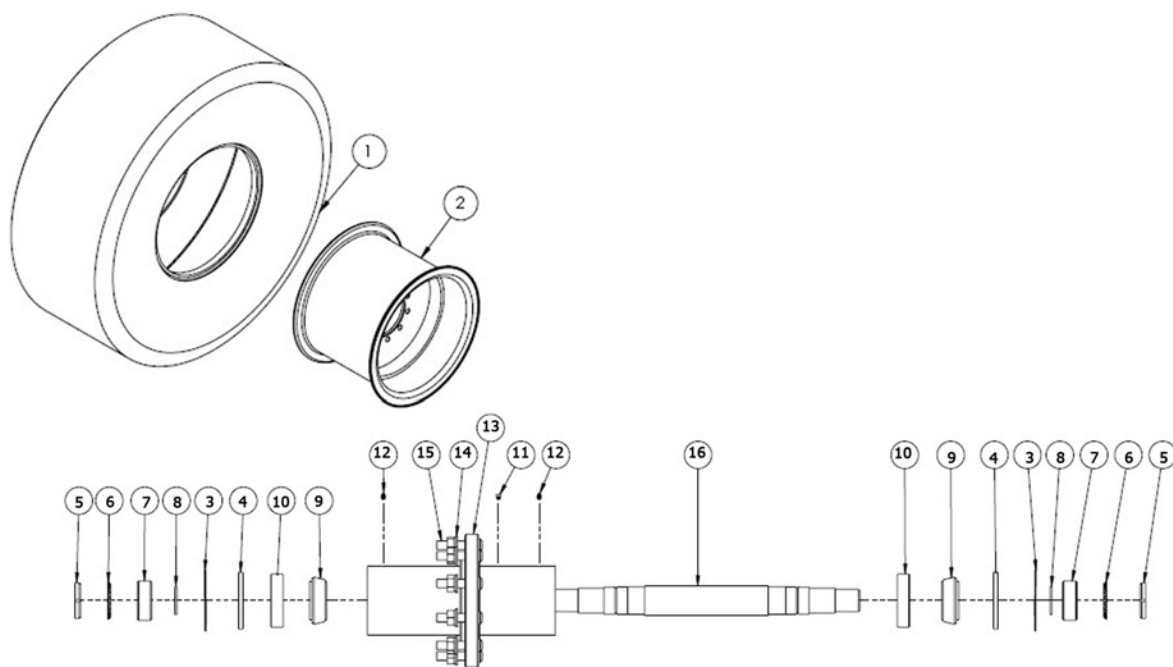


M18HD300A002

KEY	PART	DESCRIPTION
1	600026	Bowl and Frame CS18HD
2	500418	Center Blade: 10 Hole
3	500419	Corner Blade
4	PB1P-NC-100-0275	1" Plow Bolt x 2 3/4" L
5	AFN-00012	1" NC Hex Nut
a	A125198	Center Blade: Old Style 11 Hole
b	A125199	Corner Blade: Old Style
c	PB7P-NC-750-0275	Plow Bolt: 3/4 NC X 2 3/4" gr.8
d	AFN-00006	Nut: 3/4" NC Gr. 8
6	500334	Pin-Upper Bowl Dump
7	600001	Assembly-Bowl Pivot Pin
8	500330	Washer-Apron Pin Spacer
9	AFN-00033	2.00NF-Jam Nut

# ASHLAND SCRAPERS

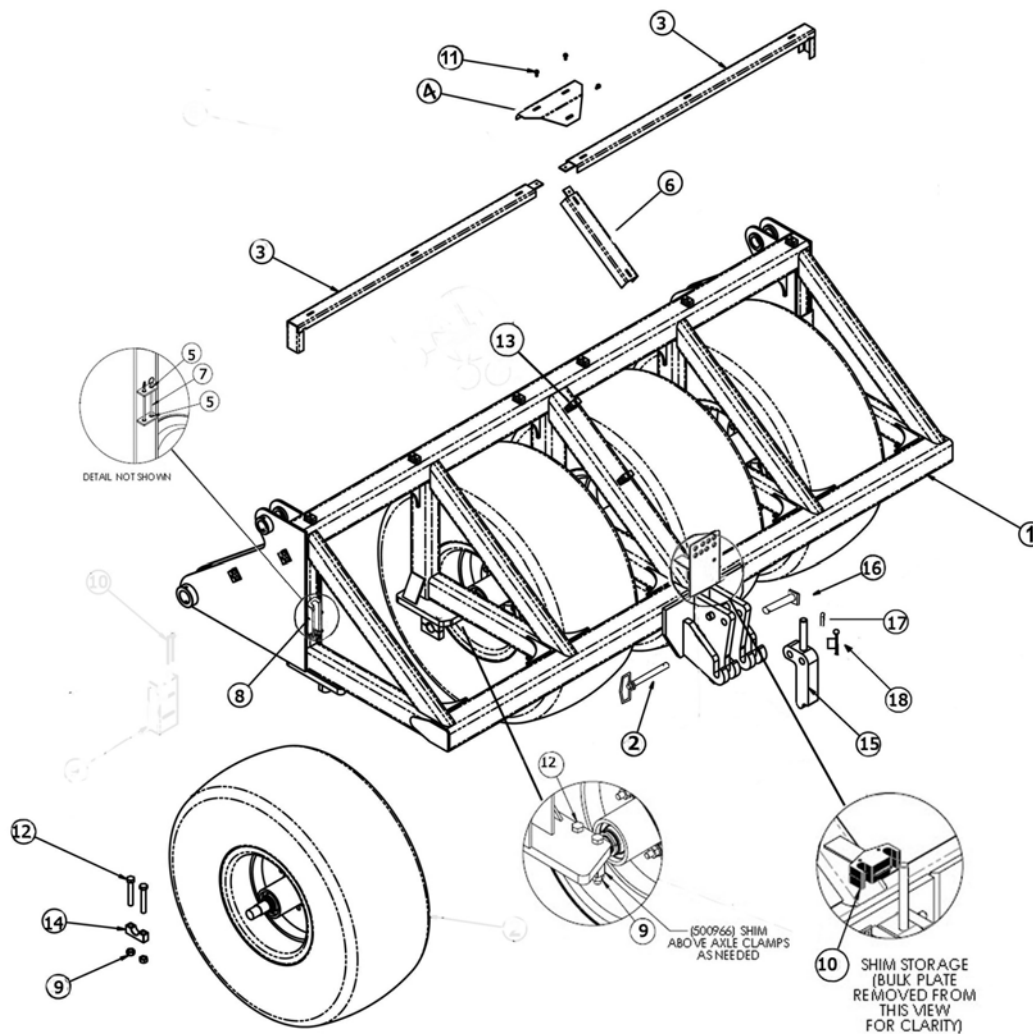
## Wheel Assembly (CS18HD)



M18HD300A009-2

KEY	PART	DESCRIPTION
1	ATI-00024	Tire - 23.5 X 25
2	500279	Rim - 25 X 19.5
3	A125204	Retaining Ring
4	A125214	Seal
5	A125202	Locknut
6	A125203	Lockwasher
7	500140	Spacer Bearing
8	A130H13	O-Ring
9	A14015	Bearing: Cone Outer
10	A14014	Bearing: Cup Outer
11	A125466	Pressure Relief Vent
12	14505	Fitting: Grease
13	500278	Hub: 10 Hole
14	A125156	Nut: Wheel
15	A125236	Stud: Wheel
16	500138	Axle: Spindle 3"

## Rear Frame Assembly (CS18HD)



M18HD300A008-3

KEY	PART	DESCRIPTION
1	600025	Frame Assembly-Rear Section
2	A125238	Pin: Rear Quick Hitch 7/8 X 7"
3	600021	Guard-Rear Section Top
4	500409	Guard-Top Center
5	A125227	Grommet
6	600020	Guard-Rear Center
7	A125226	Quick Release Pin
8	600282	Transport Lock, Rear
9	AFN-00001	Nut: Lock
10	500966	Shim Plate
11	AFB-00094	3/8 NC Flange Head Bolt
12	AFB-00024	1" NF x 7 Lg. Bolt
13	AHL-00022	Clamp: Hyd. Tube 2 Stack Assy
14	500205	Mount Block 18HD Axle
15	600019	Assembly-Locking Lug
16	A123321-98	Pin-Quick Hitch



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

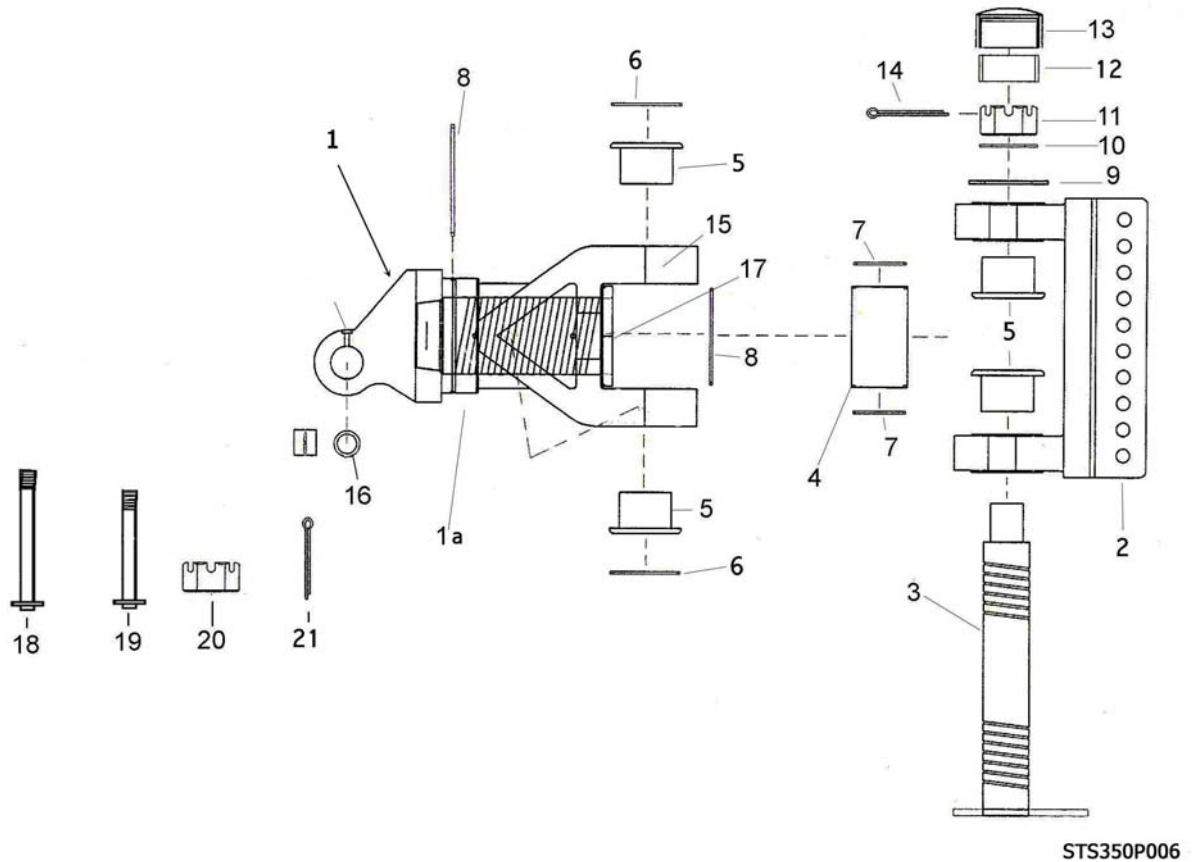
## ASHLAND SCRAPERS

### Rear Frame Assembly (CS18HD)

KEY	PART	DESCRIPTION
17	AFP-00001	Cotter Pin
18	A125006	Safety Snap Pin

# ASHLAND SCRAPERS

## Hitch Assembly - Swivel (#A125224)



STS350P006

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 1/2" X 12 5/8"L



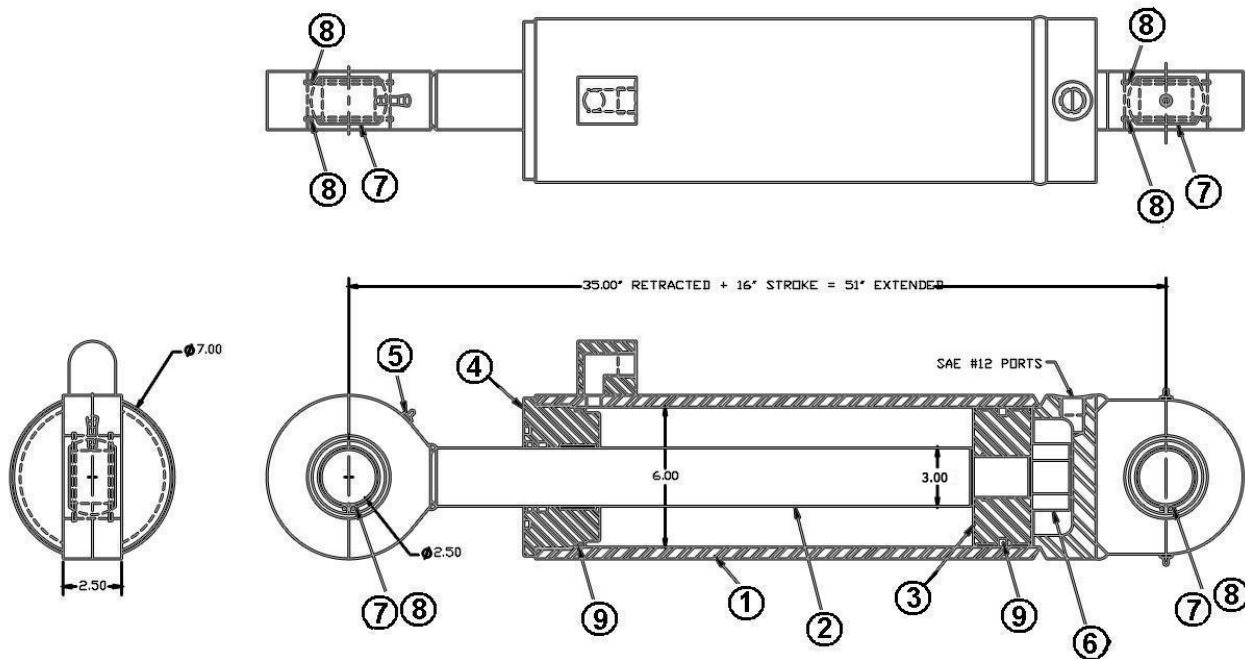
## ASHLAND SCRAPERS

### 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 (#A125395) 6" X 16"



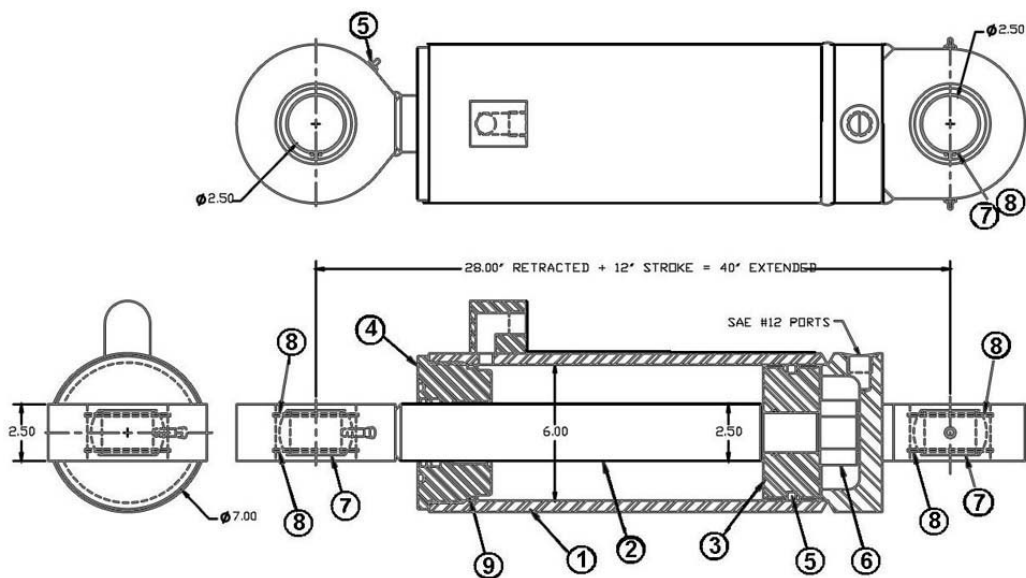
M18HD350P001.1

KEY	PART	DESCRIPTION	SN CS18HD
	A125395	APRON CYLINDER	22623-XXXXX
1	A125158-10	Barrel	22623-XXXXX
2	A125395-20	Rod" 3" dia	22623-XXXXX
3	A125159-30	Piston 6"	22623-XXXXX
4	A125395-31	Gland: 6"	22623-XXXXX
5	A125159-33	Grease Fitting, 1/8 NPT	22623-XXXXX
6	A125159-34	Nut: Top Lock	22623-XXXXX
7	A125159-35	Bushing: 2/12" ID	22623-XXXXX
8	A125159-36	Snap Ring	22623-XXXXX
9	A125395-40	Seal Kit	22623-XXXXX



# ASHLAND SCRAPERS

## Lift Cylinder (#A125159) 6" X 12"

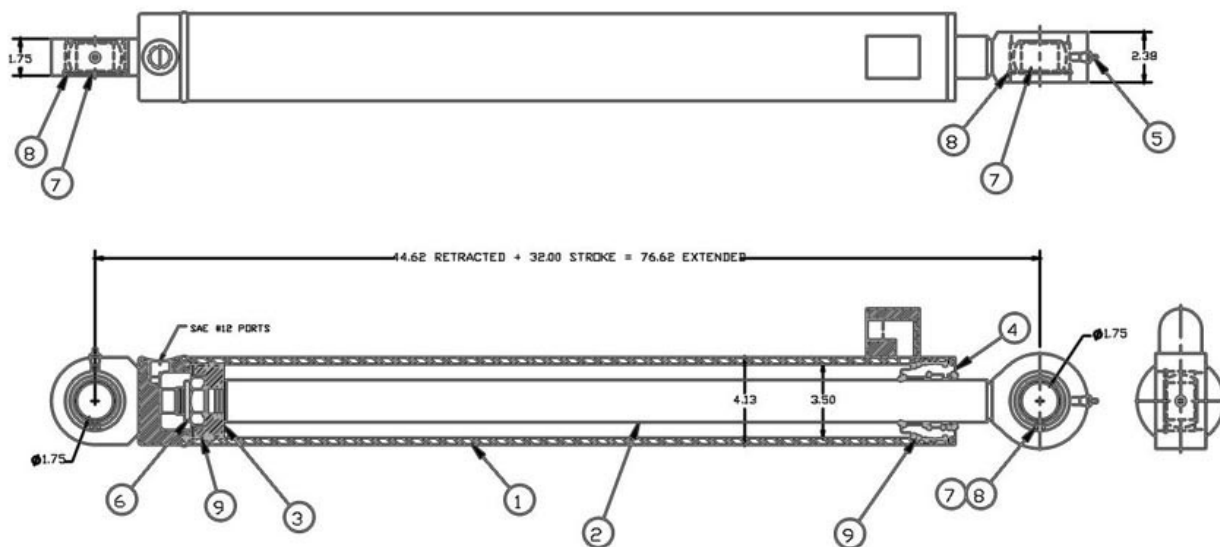


M18HD350P003

KEY	PART	DESCRIPTION
	A125159	LIFT CYLINDER 6" X 12"
1	125159-10	Barrel Weldment
2	125159-20	Shaft Weldment
3	125159-30	Piston, 6.00" dia.
4	125159-31	Head, 6.00" dia.
5	125159-33	Grease Fitting, 1/8 NPT
6	125159-34	Nut, 1 3/4" NF Toplock
8	125159-36	Snap Ring
9	125159-40	Seal Kit

## ASHLAND SCRAPERS

### Dump Cylinder ( #A125160) 3 1/2 X 32"

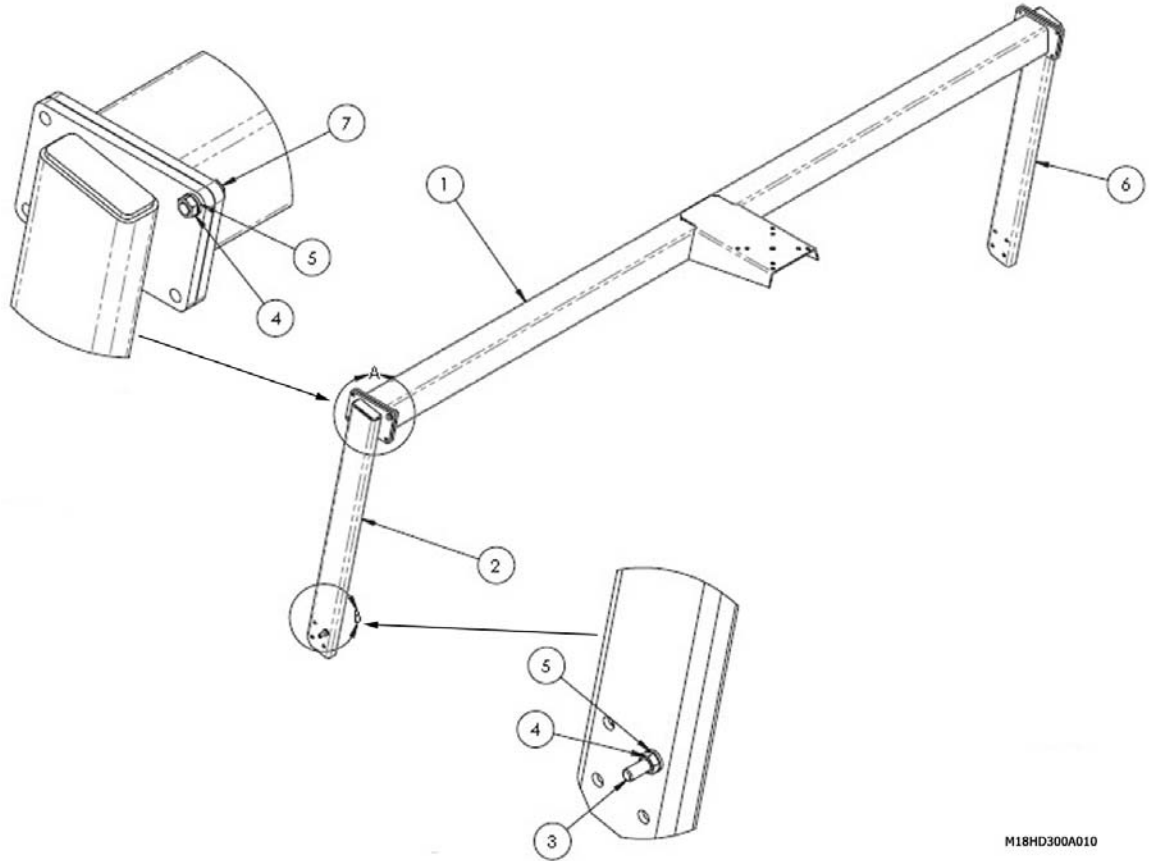


M18HD350P002

KEY	PART	DESCRIPTION
	A125160	DUMP CYLINDER 3 1/2 x 32"
1	A125160-10	Barrel Weldment
2	A125160-20	Shaft Weldment
3	A125160-30	Piston, 3.50" Dia.
4	A125160-31	Head, 3.50" Dia.
5	A125160-33	Grease Fitting, 1/8-NPT
6	A125160-34	Nut, 1 1/4"
7	A125160-35	Uniball, 1 3/4" ID
8	A125160-36	Snap Ring
9	A125160-40	Seal Kit

## ASHLAND SCRAPERS

### Assembly - Laser Mount (Optional)

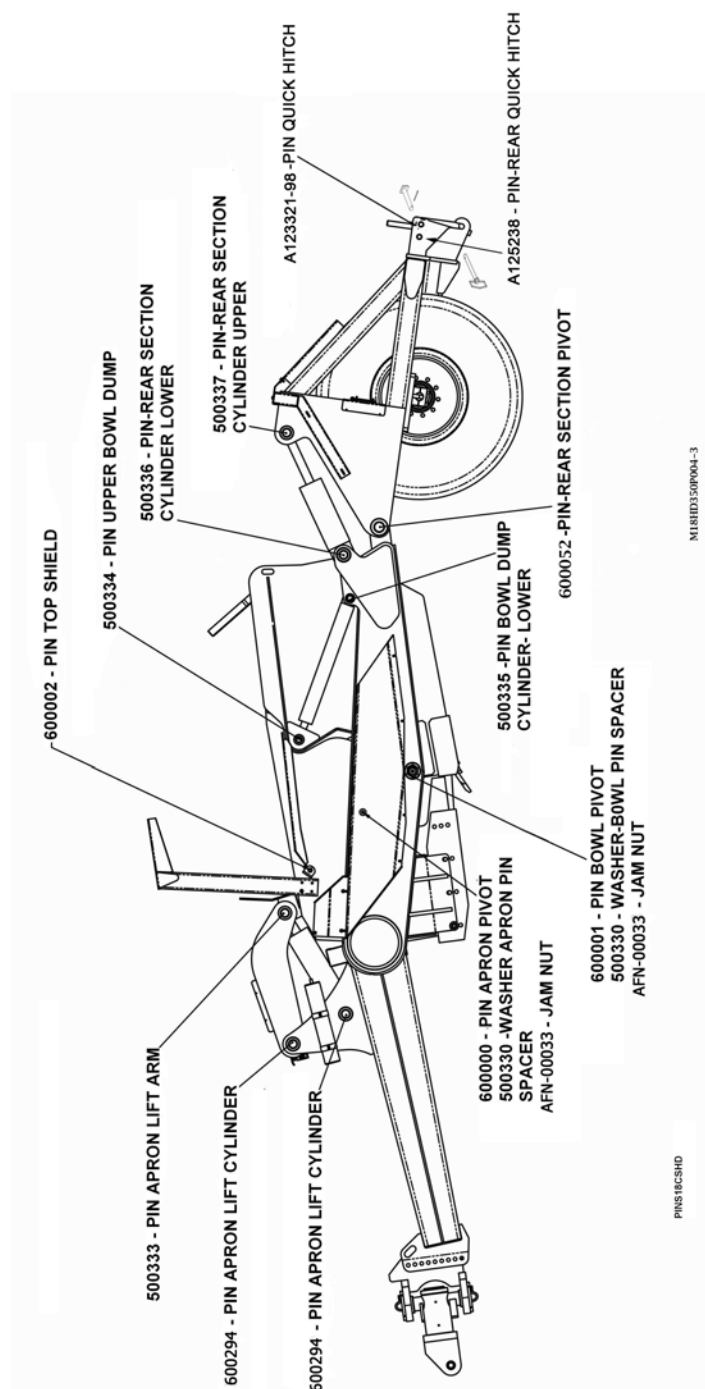


M18HD300A010

KEY	PART	DESCRIPTION
	600290	LASER MOUNT (optional)
1	600291	Mount, SMD Laser Top
2	600292	Mount, Upright Laser Left
3	AFB-00121	Carriage Bolt, 1/2 NC X 4" L
4	7500	Nut: Hex
5	8100	Washer: Lock
6	600293	Mount, Upright Laser Right
7	AFB-00015	Bolt: 1/2 NC X 1 1/2"

# ASHLAND SCRAPERS

## Pins





## ASHLAND SCRAPERS

### Decals

KEY	PART	DESCRIPTION
1	ADS-00001	Large Ashland
2	ADS-00019	Grease
3	ADS-00011	Pinch Point
4	750464	High Pressure Fluid Hazard
5	ADS-00035	CS18HD
6	ADS-00015	Caution - Tandem Use
7	ADS-00002	Small Ashland
8	ADS-00041	Plumbing Diagram

## ASHLAND SCRAPERS

### Decals Illustration (CS18-HD)



Front - Right Side



Front - Left Side



Right Side



Left Side



Back - Both Sides



Scraper Rear

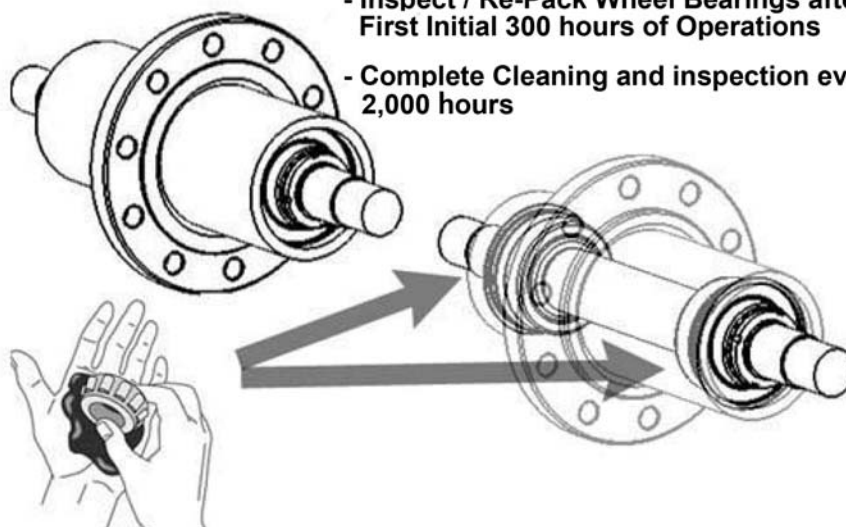
M18HD1005D001-2

## ASHLAND SCRAPERS

### Grease Bearings 18HD-200

## Grease Maintenance

- 5 Pumps Every 50 Hours
- Inspect / Re-Pack Wheel Bearings after First Initial 300 hours of Operations
- Complete Cleaning and inspection every 2,000 hours



### CS18HD Axle service recommendation

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 amount of additional grease is 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 contaminants 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

### Grease Bearings 18HD-200

#### 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 140° C (284°F).

Their performance features make them ideal choices for operating conditions including high temperature, water contamination, shock loading and extended re-lubrication operations. Mobilgrease XHP 222 Special is an extreme pressure grease fortified with 0.75% molybdenum disulfide that provides protection from wear under conditions pivoting and other conditions that lead to loss of oil film.

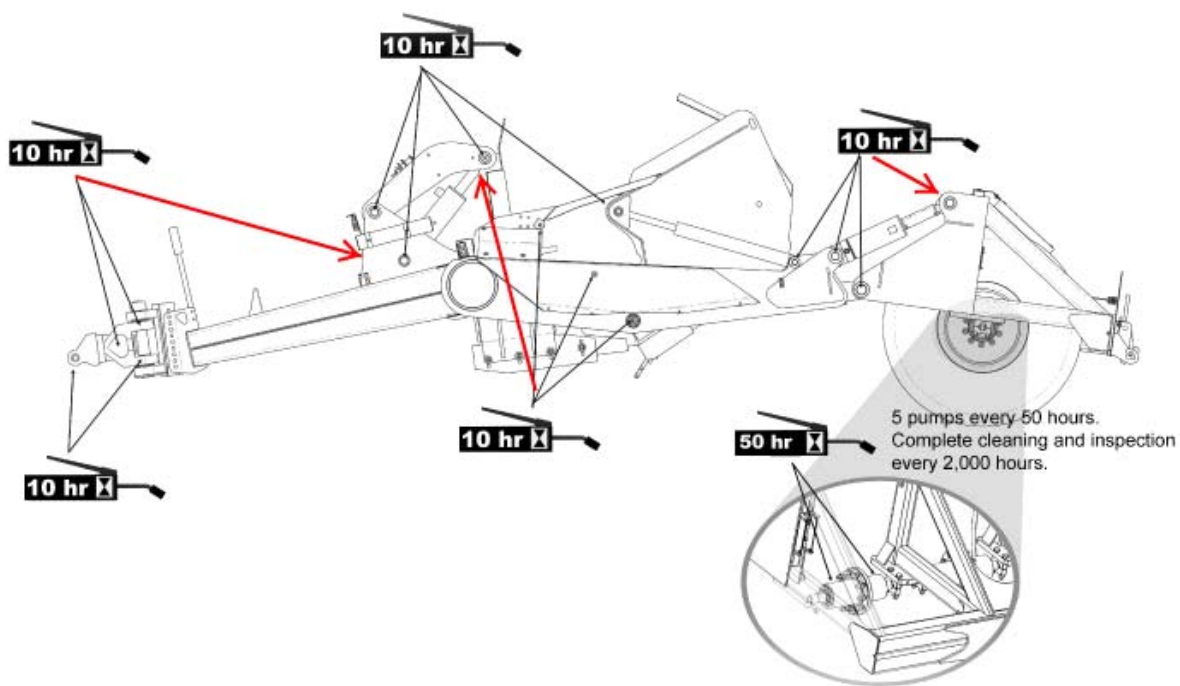
#### Caution

Too much grease volume (over greasing) 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

## Lube Location CS18HD



### LUBRICATION

Grease all zerks every 8 hrs of operation with high quality, general-purpose grease.

- a) Grease until grease flows from around pin.

Lubrication Points (see III.)

1. Hitch – Horizontal and vertical pins
2. Lift Cylinders – Rod end & Trunion; left & right sides.
3. Front Arm Pivot Joint – Both left & right sides.
4. Apron Cylinders – Rod clevis pin; left & right sides.
5. Apron Pivot Pin – left & right sides.
6. Hold-down Rollers – left & right sides.
7. Floor Rollers – left & right sides.
8. Tapered Rollers – left & right sides.
9. Hubs

## 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".



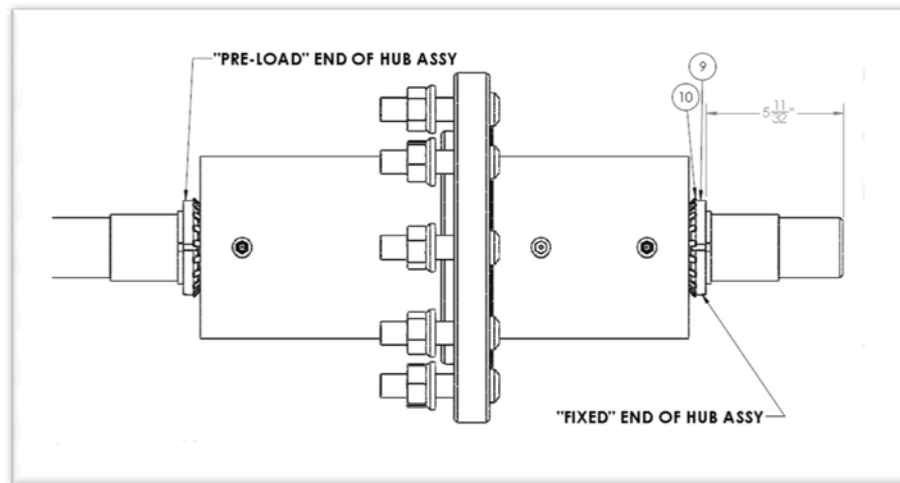
**CAUTION!** Failure to replace worn cutting edges may result in unnecessary wear to the earthmover sides and floor.

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

### 18HD Hub 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

### 18HD Hub 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

### 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 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 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

### Tire Inflation & Torque Charts

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
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

## ASHLAND SCRAPERS

### Troubleshooting

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#### Introduction

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.

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#### Grease zerk will not take grease.

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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.

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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.

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

#### Machine cuts unevenly.

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



## 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