ASPANOVERS Parts Manual

CS18-HD

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

ver. 1011

www.ashlandind.com www.scraperdrawbar.com

Ashland Industries

Crafting Quality since 1953!





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.



Illustration: Travel Lock CS18HD

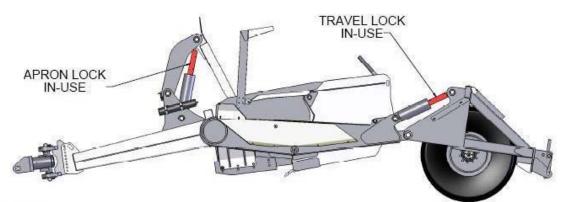


Figure 1

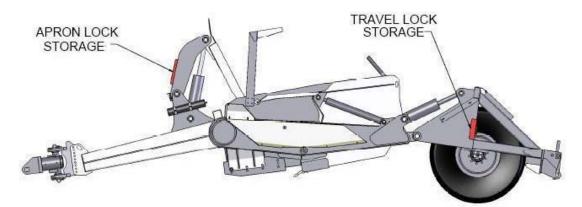


Figure 2

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.



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. Connect hydraulic hoses to the tractor and retract lift cylinders to **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.



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 <u>not abuse because of improper use.</u>

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 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 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.



Safety Guidelines



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 quarded.

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.

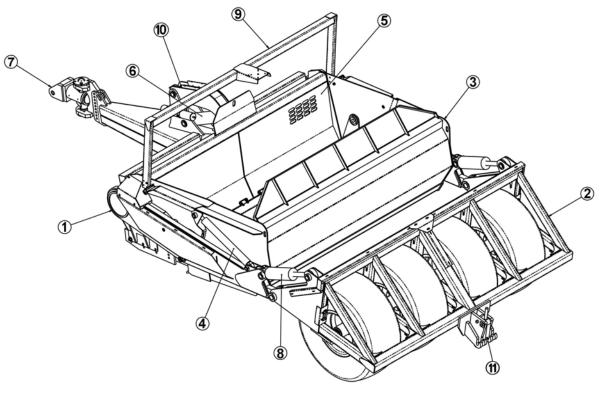
This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations. Do not allow persons to operate or assemble this unit until they have read this manual and have developed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



Machine Assembly (CS18HD)

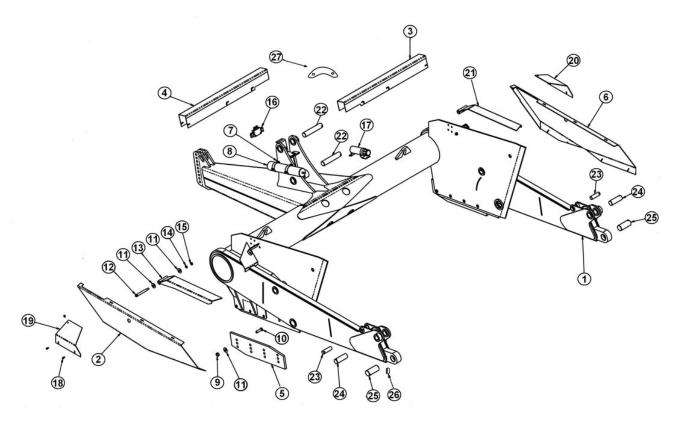


M18HD300A007

KEY	PART	DESCRIPTION
1	700001	Front Section
2	700002	Rear Section
3	700004	Bowl
4	A125160	Bowl Dump Cylinder
5	700003	Apron
6	A125158	Apron Lift Cylinder
7	A125224	Super Swivel Hitch
8	A125159	Main Lift Cylinder
9	700005	Laser Mount (Optional)
10	600031	Apron Lift Arm
11	600009	Locking Lug



Front Frame Assembly (CS18HD)



M18HD300A003

KEY	PART	DESCRIPTION
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
Page #8	P.O. Box 717	Ashland WI 54806

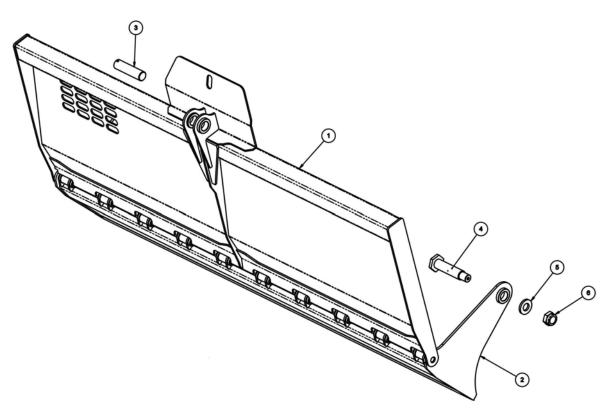


Front Frame Assembly (CS18HD)

KEY	PART	DESCRIPTION
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
23	500335	Pin-Bowl Dump Cylinder-Lower
24	500336	Pin-Rear Section Cylinder-Lower
26	A123320-08	Bushing
27	600031	Apron Lift Arm



ASHLAND SCRAPERS Apron Assembly (CS18HD)



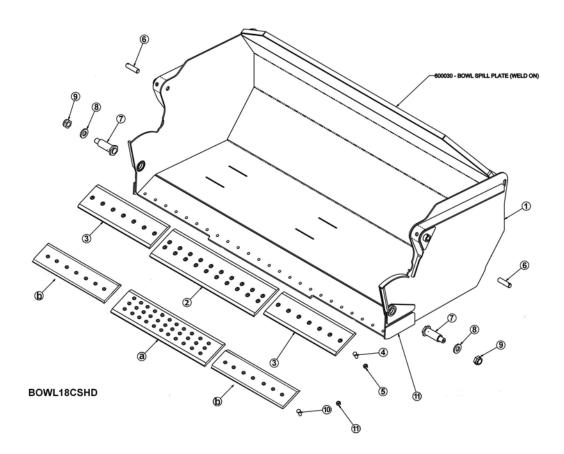
M18HD300A001

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)

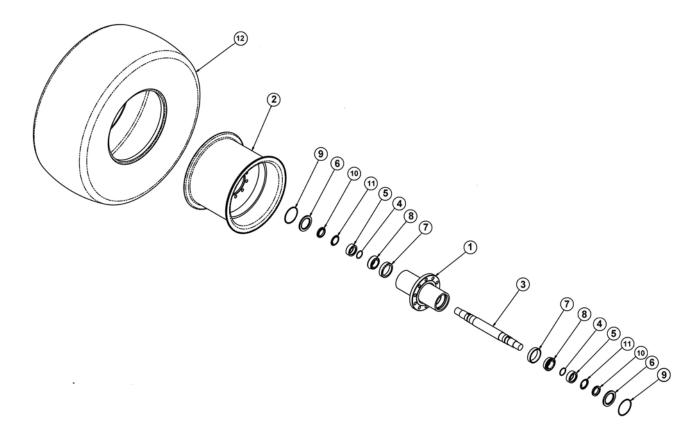


KEY	PART	DESCRIPTION	
1	600026	Bowl and Frame CS18HD	
2	500418	Center Blade: 10 Hole	
3	500419	Corner Blade	
4	PB1P-NC-100-0275	1" Plow Bolt x 2 3/4" L	
5	AFN-00012	1" NC Hex Nut	
а	A125198	Center Blade: Old Style 11 Hole	
b	A125199	Corner Blade: Old Style	
С	PB7P-NC-750-0275	Plow Bolt: 3/4 NC X 2 3/4" 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)

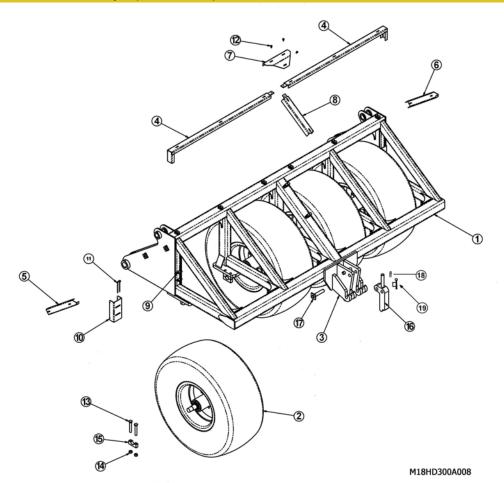


M18HD300A010

KEY	PART	DESCRIPTION	
1	500278	Hub	
2	500279	Rim - 25 X 19.5	
3	500138	Axle	
4	A130H13	O-Ring 2.50 ID X 2.88 OD	
5	500140	Spacer Bearing	
6	A125214	Seal	
7	A14014	Bearing Cup	
8	A14015	Bearing Cone	
9	A125204	Retaining Ring	
10	A125202	Locknut	
11	A125203	Lockwasher	
12	ATI-00024	Tire: 23.5 X 25	



Rear Frame Assembly (CS18HD)

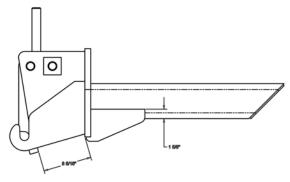


KEY	PART	DESCRIPTION
1	600025	Frame Assembly-Rear Section
2	600022	Wheel Assembly
3	600018	Quick Hitch
4	600021	Guard-Rear Section Top
5	500408	Guard-Side LH
6	500405	Guard-Side RH
7	500409	Guard-Top Center
8	600020	Guard-Rear Center
9	A125227	Grommet
10	500415	Transport Lock-Rear Section
11	A125226	Quick Release Pin
12	AFB-00094	3/8 NC Flange Head Bolt
13	AFB-00017	1" NF x 6.5 Lg. Hex Bolt
14	AFN-00001	1" NF Locknut
15	500205	Axle Clamp Block
16	600019	Assembly-Locking Lug
17	A123321-98	Pin-Quick Hitch
18	AFP-00001	Cotter Pin
19	A125006	Safety Snap Pin

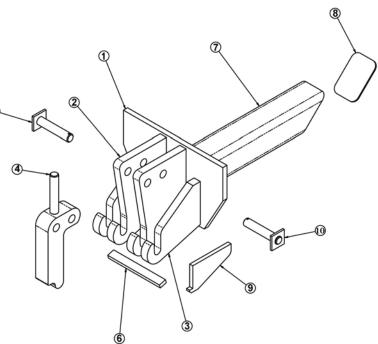


ASHLAND SCRAPERS

Hitch Assembly (CS18HD)



Quickhitch 18CSHD

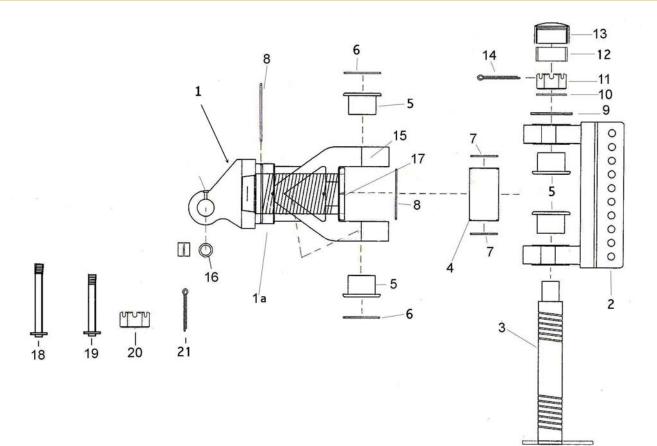


KEY	PART	DESCRIPTION	
1		Quick Hitch Assembly	
2	500282	Inner Ears	
3	500283	Outer Ears	
4	600019	Assembly-Locking Lub	
5	A123321-98	Pin-Quick Hitch	
6	123321-55	Tie Strap	
7	500278	Tube-Hitch Support	
8	500279	Tube Cap-Hitch Support	
9	500422	Gusset-Rear Hitch	
9	500422	Gusset-Rear Hitch	

(5



Hitch Assembly - Swivel (#A125224)



STS350P006

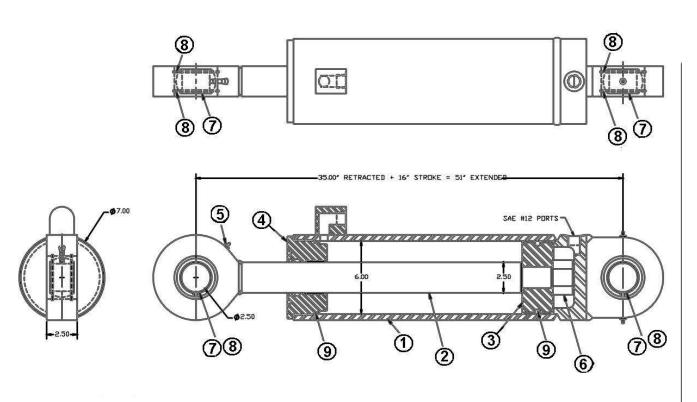
KEY	PART	DESCRIPTION
1	A125224	Swivel Hitch: 360 deg. cast
1a	A125224-01	Yoke: A-Frame Swivel
2	A125224-03	Bracket: 10 Hole
3	A125224-04	Pin: Main Vertical
4	A125224-05	Spacer Tube
5	A125224-07	Bushing
6	A125224-08	Seal: O-ring
7	A125224-09	Seal: O-ring
8	A125224-10	O-ring
9	A125224-13	Spacer: 6"
10	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 12" X 12 5/8"L
20	AFN-00014	Nut: 1 1/2" Slotted
21	AFP-00001	1/4" X 3" Cotter Pin
Page #	15	



Hitch A	Hitch Assembly - Swivel (#A125224)				
KEY	PART	DESCRIPTION			
22	A123299-08	4 Ear Drawpar Hitch Pin			
23	AFN-00014	Slotted castle Nut			



Parts - Cylinder - Apron (#A125395) 6" X 16"

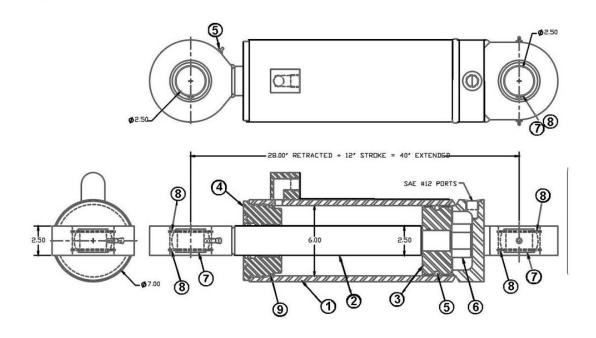


M18HD350P001

KEY	PART	DESCRIPTION	SN CS18HD
	A125395	APRON CYLINDER	22623-XXXXX
1	A125158-10	Barrel Weldment	
2	A125395-20	Barrel Weldment	22623-XXXXX
3	A125159-30	Barrel Weldment	
4	A125395-31	Barrel Weldment	22623-XXXXX
5	A125159-33	Barrel Weldment	
6	A125159-34	Barrel Weldment	
7	A125159-35	Barrel Weldment	
8	A125159-36	Barrel Weldment	22623-XXXXX
9	A125395-40	Barrel Weldment	22623-XXXXX



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

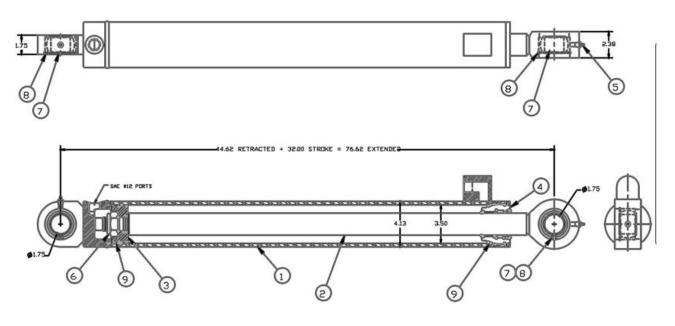


M18HD350P003

KEY	PART	DESCRIPTION	
	A125159	LIFT CYLINDER	
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"



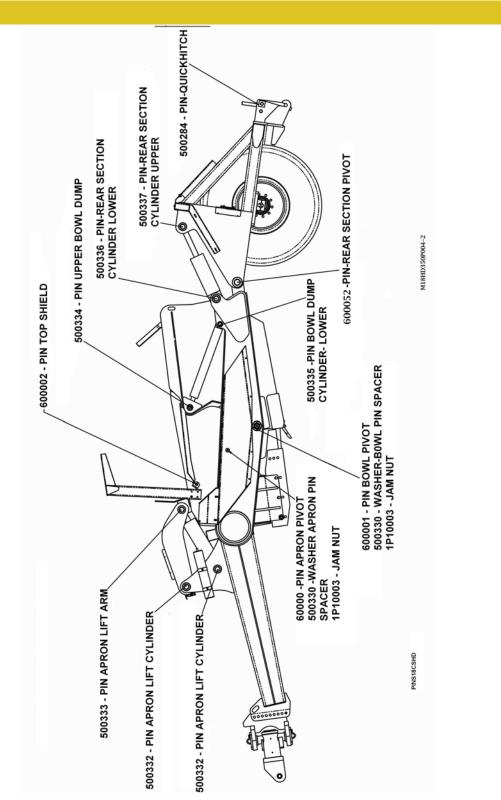
M18HD350P002

KEY	PART	DESCRIPTION	
1	A125160	DUMP CYLINDER	
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

Pins





Decals



KEY	PART	DESCRIPTION
1	ADS-00001	Large Ashland
2	ADS-00002	Small Ashland
3	ADS-00035	CS18HD
9	ADS-00019	Grease
10	750464	High Pressure Fluid Hazard
11	ADS-00011	Pinch Point
12	ADS-00015	Caution-Tamdem Use
13	ADS-00027	Hyd. Hose Hook-Up Index
14	ADS-00028	Hyd. Hose Hook-up Index Tandem
Page #21	P.O. Box 717	Ashland . WI 54806



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) 20.5 25, 12-ply tire requires a tire pressure of 35-40 psi on a rear tire, 40-50 on a front tire.
- 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 to 120 to 130 ft-lbs.
- 6. Check and retighten all bolts.
 - a) After initial 10 hours of use.
 - b) Again after 50 hours of use.
 - c) See Torque Specifications on next page.
- 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 Torque Specifications

TORQUE SPECIFICATIONS

Bolt		Torque	
Diameter		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	85-100/9 yd	450-11/13 yd	750-15 yd & up

LUBRICATION

- 1. 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; Both left & right sides.
- 3. Front Arm Pivot Joint Both left & right sides.
- 4. Apron Cylinders Rod clevis pin; Both left & right sides.
- 5. Apron Pivot Pin Both left & right sides.
- 6. Hold-down Rollers Both left & right sides.
- 7. Floor Rollers Both left & right sides.
- 8. Tapered Rollers Both left & right sides.



Pushing the Earthmover



PUSHING THE EARTHMOVER

This scraper was designed to be pushed when equipped with the optional pushbar. 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.





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. <u>Failure to heed</u> 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.



Troubleshooting

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.

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.



ASHLAND SCRAPERS Warranty Statement

Limited 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.

Ashland Industries Inc. Warranty Department

Table of Contents Categorized Listing

ASHLAND SCRAPERS	1
How to Order Parts	1
Illustration: Travel Lock CS18HD	2
Instruction: Operation and Maintenance	3
Safety Guidelines	6
Machine Assembly (CS18HD)	7
Front Frame Assembly (CS18HD)	8
Apron Assembly (CS18HD)	10
Bowl and Frame Assembly (CS18HD)	11
Wheel Assembly (CS18HD)	12
Rear Frame Assembly (CS18HD)	13
Hitch Assembly (CS18HD)	14
Hitch Assembly - Swivel (#A125224)	15
Parts - Cylinder - Apron (#A125395) 6" X 16"	17
Lift Cylinder (#A125159) 6" X 12"	18
Dump Cylinder (#A125160) 3 1/2 X 32"	19
Pins	20
Decals	21
Maintenance Check list	22
Torque Specifications	23
Pushing the Earthmover	24
Tire Service	25
Troubleshooting	26
Warranty Statement	27

Table of ContentsAlphabetized Listing

Α	
Apron Assembly (CS18HD)	10
ASHLAND SCRAPERS	1-27
В	
Bowl and Frame Assembly	11
D	
Decals	21
Dump Cylinder (#A125160) 3 1/2 X	19
F	
Front Frame Assembly (CS18HD)	8
Hitch Assembly - Swivel	15
Hitch Assembly (CS18HD)	14
How to Order Parts	1
1	
Illustration: Travel Lock CS18HD	2
Instruction: Operation and	3
L	
Lift Cylinder (#A125159) 6" X 12"	18
Μ	
Machine Assembly (CS18HD)	7
Maintenance Check list	22
Р	
Parts - Cylinder - Apron	17
Pins	20
Pushing the Earthmover	24
	10
Rear Frame Assembly (CS18HD)	13
Safety Guidelines	6
T	0
Tire Service	25
Torque Specifications	25 23
Troubleshooting	26
W	
Warranty Statement	27
Wheel Assembly (CS18HD)	12