

# I-180TS2 PARTS MANUAL

Version 2-07



Ashland Industries Inc. 1115 Rail Drive P.O. Box 717 Ashland, WI. 54806 877-634-4622 Toll Free - phone 715-682-4622 phone 715-682-9717 fax www.ashlandind.com





# **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.







# **Model I-180TS Scraper**

### **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.

### **INDEX**

- Page 4. Operators and Maintenance Instructions
- Page 5. Safety Guidelines
- Page 6. Illustration Assembly
- Page 7. Complete Yoke Type Hitch
- Page 8-9. Swivel Hitch Assembly
- Page 10. Front Section Frame
- Page 11. Lift Cylinder  $5-1/2 \times 20$
- Page 13. Apron Assembly
- Page 12. Apron Cylinder
- Page 13-14 Bowl and Frame Assembly
- Page 15. Push Off Gate Assembly
- Page 16. Push Off Cylinder
- Page 17. Wheel Assembly
- Page 18. Front Section
- Page 19-24 Hydraulic Plumbing
- Page 25 Identification, Illustration, Parts List and Adjustment Hydraulic Valve
- Page 26. Hydraulic Schematic
- Page 27-28 Grease Locations
- Page 29-32 Service Manual Appendix
- Page 33. Warranty Statement

#### **OPERATORS AND MAINTENANCE INSTRUCTIONS**

This scraper is a durable piece of equipment and with proper care will yield many years of trouble free operation. 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** (point A), 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.

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.

- 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.
- 5. Maintain tire pressure at 45 to 50 psi.



#### **SAFETY SIGNAL WORDS**

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

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

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

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



#### **GENERAL SAFETY GUIDELINES**

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

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

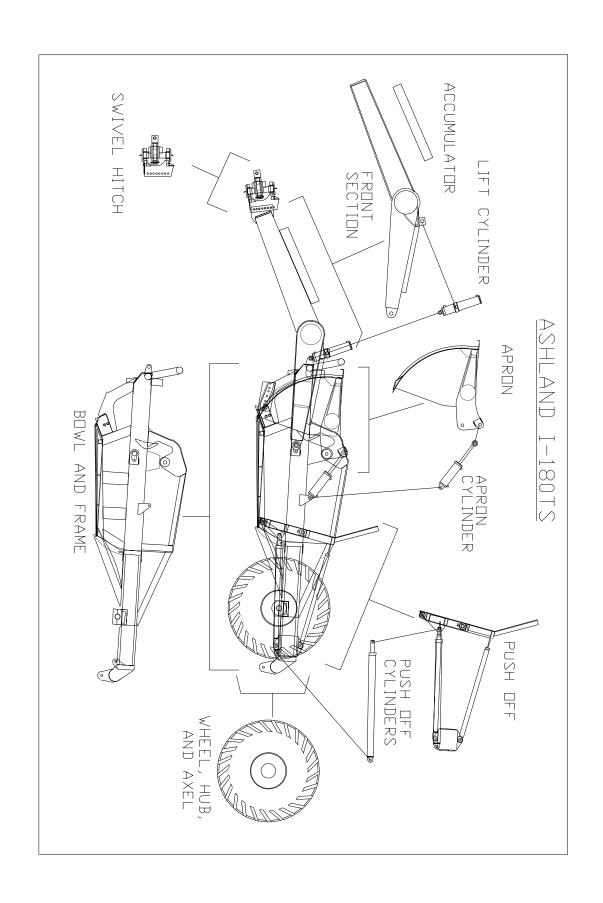
Do not attempt to operate this equipment under the influence of drugs or alcohol.

Review the safety instructions with all users annually.

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

To prevent injury or death, use a tractor equipped with a Roll Over Protective System (ROPS). Do not paint over, remove or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice the instructions on them.

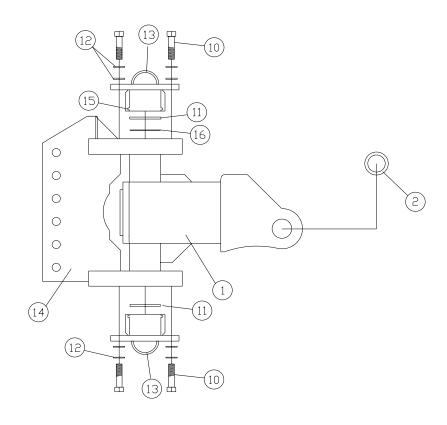
Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **DON'T TRY IT.** 



page\_02-icon.eps

#### **Icon Swivel Hitch** A-125224 14 <sub>-</sub>7 -11 Õ - 8

| KEY# | PART NUMBER | QUANTITY REQUIRED | DESCRIPTION             |
|------|-------------|-------------------|-------------------------|
| 1    | A125224-01  | 1                 | Yoke: A-Frame swivel    |
| 3    | A125224-03  | 1                 | Bracket: 10 Hole        |
| 4    | A125224-04  | 1                 | Pin: Main Vertical      |
| 5    | A125224-05  | 1                 | Spacer: 6"              |
| 7    | A125224-07  | 4                 | Bushing                 |
| 8    | A125224-08  | 2                 | Seal: O-ring            |
| 9    | A125224-09  | 2                 | Seal: O-ring            |
| 10   | A125224-10  | 2                 | O-ring                  |
| 13   | A125224-13  | 1                 | Spacer: 6"              |
| 14   | A125224-14  | 2                 | Washer: 2 1/2"          |
| 15   | A125224-15  | 1                 | Nut: Slotted 2-1/2" NC  |
| 16   | A125224-16  | 1                 | Sleeve: 2" Rubber       |
| 17   | A125224-17  | 1                 | Cap: For Vertical Pin   |
| 18   | A125224-18  | 1                 | Pin: Cotter 3/8 x 5"    |
| 19   | 14505       | 4                 | Grease Fitting Straight |
| 20   | A125056-24  | 2                 | Bushing                 |
| 21   | AHF-00027   | 1                 | Zerk 45°                |

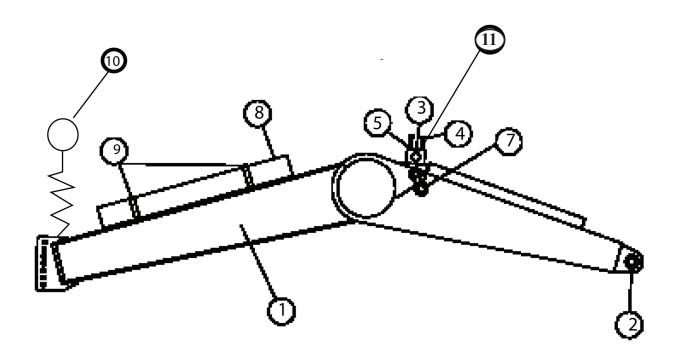


# SUPER CAPACITY SWIVEL HITCH ASSEMBLY A125057

**COMPLETE HITCH: H.D. ICON 360 DEG. SWIVEL** 

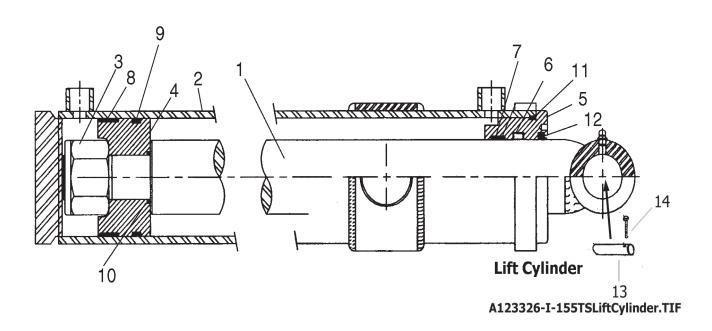
| <u>ITEM</u> | QTY | PART NUMBER  | <b>DESCRIPTION</b>                  |
|-------------|-----|--------------|-------------------------------------|
| 1           | 1   | A125057-01   | Swivel Hitch Yoke                   |
| 2           | 2   | A125057-02A  | Bushing, 1-1/2" ID, Reynolds Spec.  |
|             |     | A125057-02JD | Bushing, 60 mm ID, John Deere Spec. |
| 10          | 8   | AFB-00064    | HHCS: 3/4 NC X 3" GR. 8 ZINC        |
| 11          | 2   | A125056-06   | WASHER: FOR ICON HITCH CAP          |
| 12          | 16  | AFW-00007    | WASHER: FLAT 3/4" ZINC USS          |
| 13          | 2   | A125057-13   | HITCH CAP, ICON                     |
| 14          | 1   | A125057-14   | SWIVEL HITCH BRACKET, 7 HOLE        |
| 15          | 2   | A125057-15   | SEAL, HITCH CAP                     |
| 16          | 1   | A125057-16   | SHIM, HITCH CAP                     |

# I-180TS Front Section Frame A123320



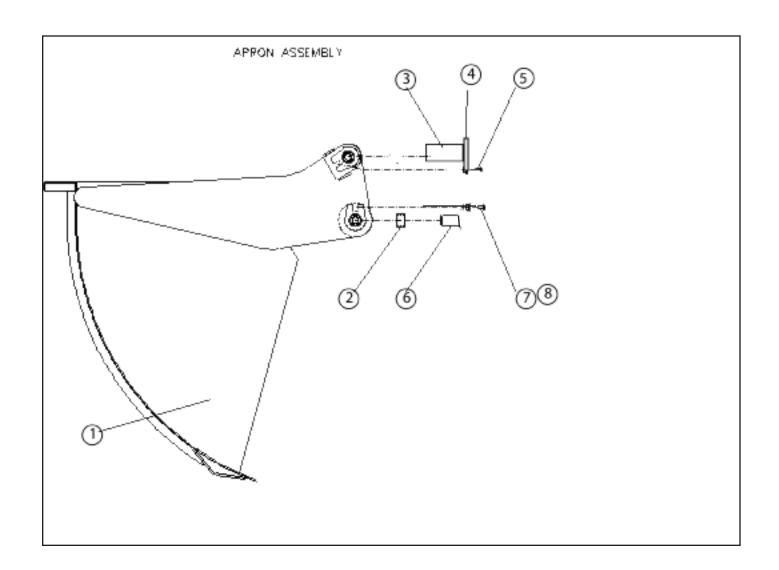
| ITEM | QTY | PART NUMBER | <u>DESCRIPTION</u>                         |
|------|-----|-------------|--|
| 1    | 1   | A123320     | Front Section                              |
| 2    | 2   | A123320-8   | 2" ID x 3-1/2" OD x 3" long bronze bushing |
| 3    | 4   | A123293A    | Trunion mount block                        |
| 4    | 8   | AFB-00039   | Bolt, 3/4" NC x 5-1/2" long, gr. 8         |
| 5    | 8   | AFW-00002   | 3/4" lock washer                           |
| 7    | 2   | A123320-20  | Travel Lock                                |
| 8    | 1   | A125005     | Accumulator                                |
| 9    | 2   | A125009     | Mounting brackets                          |
| 10   | 1   | A125109A    | Hose Support                               |
| 11   | 2   | A125179     | Trunion Bushing                            |

## MODEL I-180 LIFT CYLINDER 5 1/2 X 20 PART NO. A125044



| KEY NO. | PART NO.   | <b>DESCRIPTION</b>      |
|---------|------------|-------------------------|
| 1.      | A123326-1  | Piston Rod: 2-1/2"      |
| 2.      | A125044-02 | Barrel Weldment, 5-1/2" |
| 3.      | AFN-00018  | Nut: Lock 1-1/2-12      |
| 4.      | A125044-04 | Piston, 5-1/2"          |
| 5.      | A125044-05 | Gland, 5-1/2"           |
| 6.      | A123324-6  | Rod Seal                |
| 7.      | A123324-5  | Wear Band ID for Gland  |
| 8.      | A125044-10 | Wear Ring, 5-1/2"       |
| 9.      | A125044-15 | Piston Seal, 5-1/2"     |
| 10.     | A123324-10 | O-Ring, ID of Piston    |
| 11.     | A125044-20 | O-Ring, OD of Gland     |
| 12.     | A123324-7  | Rod Wiper               |
|         | A125044-40 | Seal Kit (Items 6-12)   |
| 13.     | A123335    | Pin, 2" x 10-1/2" lg.   |
| 14.     | AFP-00001  | Cotter Pin, 1-4" x 3"   |
|         |            |                         |

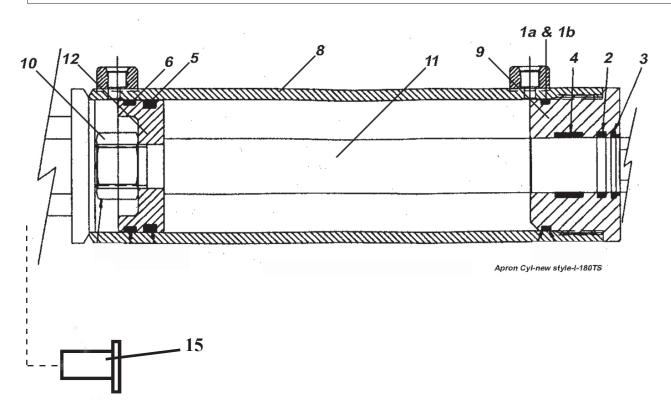
## **A123322 Apron Model I-180-TS2**



| <u>ITEM</u> | QTY | PART NUMBER | DESCRIPTION                                   |
|-------------|-----|-------------|---|
| 1           | 1   | A123322     | Apron Model I-180-TS                          |
| 2           | 2   | A123299-10  | Bushing, 2- 2/8" O.D. x 2" I.D. x 1-1/2" long |
|             |     |             | with grease groove                            |
| 3           | 2   | A123322-14  | Pin: 2" x 3-3/4" long, For Apron cyl rod end  |
| 4           | 2   | A123358     | Flanged bolt Bushing                          |
| 5           | 4   | AFB-00079   | Bolt: 5/8" x 1-1/2"                           |
| 6           | 2   | A123321-109 | Apron Pivot Pin w/grease zerk                 |
| 7           | 2   | AFB-00012   | 1/2" Bolt                                     |
| 8           | 2   | 750500      | 1/2" lock                                     |

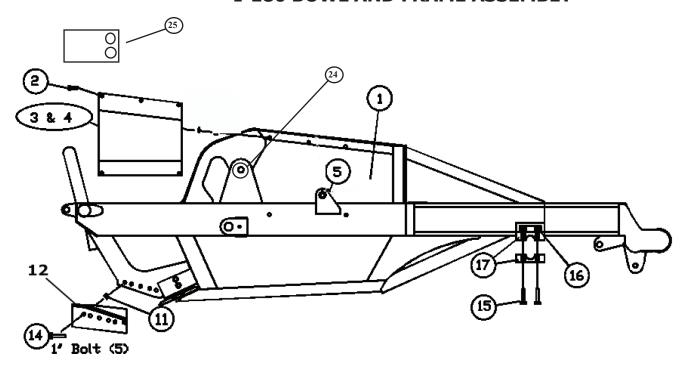
# APRON CYLINDER I-180TS2 PART NO. A125065 NEW STYLE

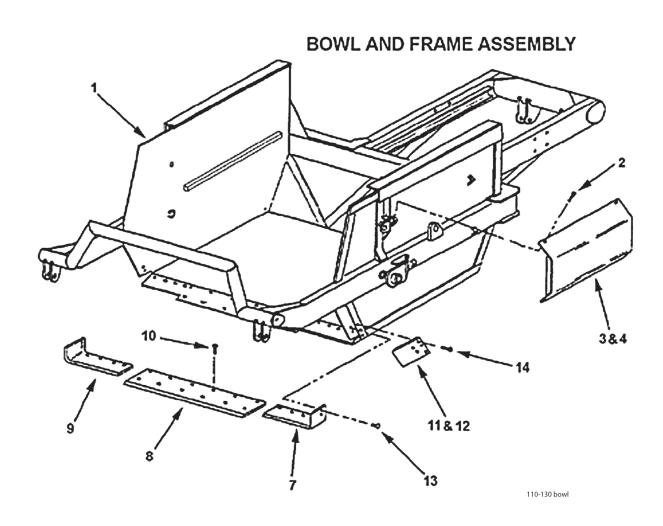
**IMPORTANT:** This is the new style Apron Cylinder. The old style has reinforcement strap on the outside of the barrel near the rod end, the new style does not. New style was integrated into production Sept. 2003, sn 20808 and above.



| <b>ITEM</b> | QTY | PART NUMBER | <u>DESCRIPTION</u>                |
|-------------|-----|-------------|-----------------------------------|
| 1a          | 1   | A125065-1a  | O-RING (-248)                     |
| 1b          | 1   | A125065-1b  | B/U RING 5" OD X 1-8" C.S. (-248) |
| 2           | 1   | A125065-2   | ROD SEAL U-CUP                    |
| 3           | 1   | AHS-00096   | WIPER SEAL                        |
| 4           | 1   | A125065-4   | WEAR RING                         |
| 5           | 1   | A123324-9   | PISTON SEAL = PSP TYPE            |
| 6           | 1   | A125065-6   | WEAR RING                         |
| 8           | 1   | A125065-01  | BARREL                            |
| 9           | 1   | A125065-02  | HEAD                              |
| 10          | 1   | AFN-00018   | LOCK NUT                          |
| 11          | 1   | A125065-04  | ROD                               |
| 12          | 1   | A125065-03  | PISTON                            |
| 13          | 1   | A125065-05  | SEAL KIT, INCLUDES ITEMS 1 - 7    |
| 15          | 2   | A123322-09  | Pin: Apron cylinder barrel end    |

#### I-180 BOWL AND FRAME ASSEMBLY

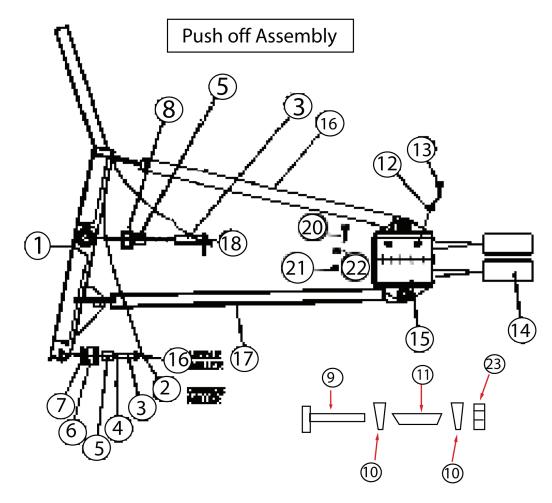




#### I-180 BOWL AND FRAME PARTS LIST

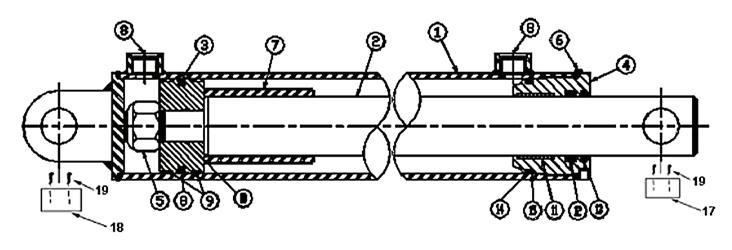
| <u>ITEM</u> | QTY     | PART NUMBER                          | DESCRIPTION  |
|-------------|---------|--------------------------------------|--|
| 1           | 1       | A123321                              | Bowl and frame assembly  |
| 2           | 10      | AFB-00094                            | Flanged Bolt: 3/8" NC x 1" long  |
| 3           | 1       | A123369-1L                           | Left side dirt shield  |
| 4           | 1       | A123369-1R                           | Right side dirt shield   |
| 5           | 2       | A125018                              | Bushing: 2-3/8" OD x 2" ID x 1-1/4 Lg.                                       |
| 7           | 2       | A123355                              | Corner cutting blade, "L" shape, reversible,                                 |
| ,           | ۷       | A123333                              | 13" x 36-1/2" L & R  |
| Each b      | lade re | quires: (6) 1" x 2-3/4" plo          | w bolts, (2) 1" x 2-1/2" plow bolts, (8) 1" NC nuts                          |
|             | 2       | A125103                              | Left & Right Straight Corner Blade w/6 1 x 2-3/4 plow                        |
| 8           | 1       | A1222E6CED (standard)                | bolts & nuts each, 6 per side  |
| 0           | 1<br>1  | A123356SER (stardard)<br>A123356SER1 | Center blade, Serrated Both sides, Reversible                                |
|             | 1       | A1233565ER1                          | Center blade, 1-side Serrated & 1-side Straight                              |
|             | 1       | A123330                              | Center cutting blade, reversible, Straight, Blade Diamensions. 16" x 54-1/4" |
|             | 1       | A125072*                             | Center blade, 18" Straight, reversible                                       |
|             | 1       | A125072-SER*                         | Center blade, 18" dbl serrated, reversible                                   |
|             | 1       | A125072-SERTC*                       | Center blade, 18" dbl serrated w/ 2-pass                                     |
|             |         |                                      | Tungsten/Carbide imbedding - reversible.                                     |
|             |         |                                      | Blade Dimensions. 18" x 54-1/4"  |
|             |         | Blade requires: (9) 1" x 2           | 2-3/4" plow bolts, (9) 1" NC nuts  |
| 10          | 21      | PB1P-NC-100-0275                     | Plow bolt: 1" NC x 2-3/4" long   |
| 11          | 25      | AFN-00012                            | Nut: 1" NC   |
| 12          | 2       | A123357                              | Bank shaver/router bit, reversible, L & R                                    |
|             |         | Each blade requires: (5)             | 1" NC x 3" long bolts, (5) 1" NC nuts  |
| 13          | 4       | PB1P-NC-100-250                      | Plow bolt: 1" NC x 2-1/2" long   |
| 14          | 10      | AFB-0018                             | Bolt: 1" NC x 3" long (5 per router blade)                                   |
| 15          | 4       | AFB-00067                            | Bolt: 1-1/4" NF x 7-1/2" long  |
| 16          | 4       | AFN-00032                            | Nut: 1-1/4" NF   |
| 17          | 2       | A123321-65                           | Axle mount   |
| 18          | 2       | A123335                              | Lift cylinder pin  |
| 19          | 2       | A123321-09                           | Main frame pin   |
| 20          | 2       | A123358                              | Flanged bolt bushing   |
| 21          | 2       | AFB-00079                            | Bolt: 5/8" x 1 1/2" long   |
| 22          | 2       | A123321-98                           | Pins   |
| 23          | 1       | A123321-89                           | Pin Keeper   |
| 24          | 2       | A123321-107                          | Weld in Apron Boss   |
| 25          | 2       | A123369-13                           | Dirt Shield Flap   |

<sup>\*</sup> Optional Center Blades



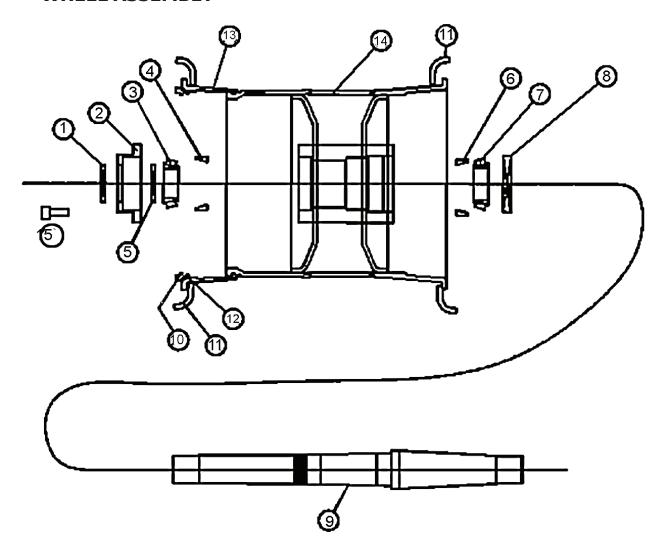
| <b>ITEM</b> | QTY | <b>PART NUMBER</b> | DESCRIPTION                           |
|-------------|-----|--------------------|---------------------------------------|
| 1           | 1   | A123323            | Push Gate Assembly                    |
| 2           | 2   | A125023            | Grease line, outside floor roller 48" |
| 3           | 4   | A123323-21         | Pin: 1-1/4" x 4-1/8" long             |
| 4           | 3   | AFP-0001           | Cotter Pin: 1/4" x 3 1/2"             |
| 5           | 4   | A10163             | Bushing: 1-3/4" O.D. x 1-1/4" I.D.    |
| 6           | 3   | A10164             | Roller                                |
| 7           | 6   | AFW-00015          | Washer                                |
| 8           | 2   | A123459            | V-Roller                              |
| 9           | 1   | AFB-00103          | 1 x 12 Bolt                           |
| 10          | 2   | AFW-00019          | Wedge Washer                          |
| 11          | 1   | A123323-48         | Wedge Spacer                          |
| 12          | 12  | AFN-00023          | JamNut: 3/4" NF                       |
| 13          | 12  | AFB-00060          | Bolt: 3/4" NF x 2" long               |
| 14          | 4   | A123364-08         | Plastic slide                         |
| 15          | 1   | A123364            | Slide Guide Box                       |
| 16          | 2   | A123323-36         | Top Support                           |
| 17          | 2   | A123323-35         | Bottom Support                        |
| 18          | 2   | A125022            | Grease line, hold down roller 18"     |
| 19          | 1   | A125023            | Grease line, middle floor roller 96"  |
| 20          | 8   | 6684               | 5/8 x 2 NC gr. 8 Bolts                |
| 21          | 8   | 7530               | 5/8 NC gr. 8 Nuts                     |
| 22          | 8   | 8110               | 5/8 Lock Washer                       |
| 23          | 1   | AFN-00001          | NF Nut                                |

# I-180 TS2 Push Off Cylinder Part # A123360 2 required 4" Bore x 60" Stroke



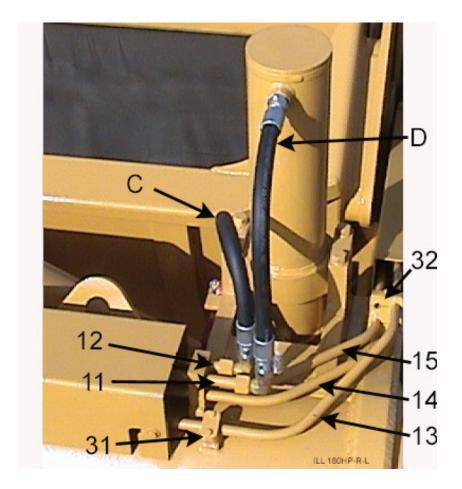
| <u>ITEM</u> | QTY | PART NUMBER | <b>DESCRIPTION</b>              |
|-------------|-----|-------------|---------------------------------|
| 1           | 1   | A123360-01  | BARREL                          |
| 2           | 1   | A123360-02  | ROD                             |
| 3           | 1   | A123360-03  | PISTON                          |
| 4           | 1   | A123360-04  | GLAND                           |
| 5           | 1   | A123360-05  | LOCK NUT                        |
| 6           | 1   | A123360-06  | SCREW                           |
| 7           | 1   | A123360-07  | SPACER SLEEVE                   |
| 8           | 1   | A123360-08  | PISTON SEAL                     |
| 9           | 1   | A123360-09  | WEAR RING                       |
| 10          | 1   | A123360-10  | O-RING                          |
| 11          | 1   | A123360-11  | WEAR RING                       |
| 12          | 1   | A123360-12  | ROD SEAL                        |
| 13          | 1   | A123360-13  | WIPER                           |
| 14          | 1   | A123360-14  | O-RING                          |
| 15          | 1   | A123360-15  | BACK-UP RING                    |
| 16          | 1   | A123360-16  | SEAL KIT, INCLUDES ITEMS 8 - 15 |
| 17          | 2   | A123323-38  | Rod End Pin 5-1/16 x 1-1/2      |
| 18          | 2   | A123323-41  | Barrel End Pin 4-9/16 x 1-1/2   |
| 19          | 8   | AFP-00001   | 1/4 x 3 Cotter Pin              |
|             |     |             |                                 |

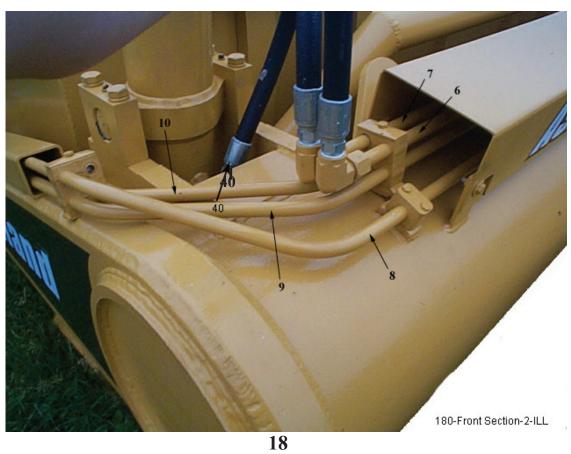
## WHEEL ASSEMBLY



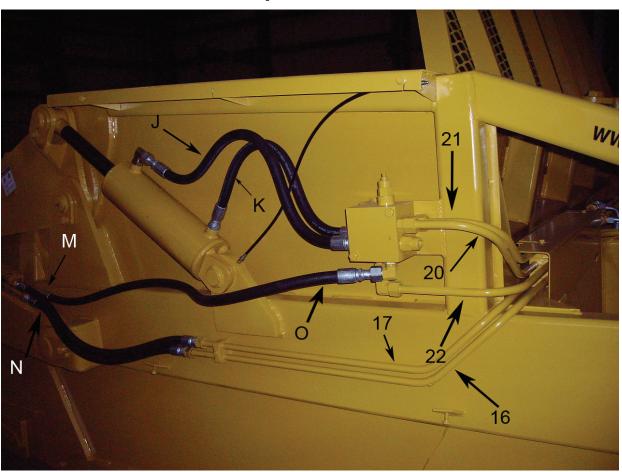
| <u>ITEM</u> | QTY | PART NUMBER | <b>DESCRIPTION</b>           |
|-------------|-----|-------------|------------------------------|
| 1           | 1   | A125008     | Outer Seal CRWH1             |
| 2           | 1   | A123359-03  | Cap- seal mount              |
| 3           | 1   | A125016     | Outer Bearing Cone 77375     |
| 4           | 1   | A125017     | Outer Bearing Cup 77675      |
| 5           | 1   | A125013     | Spindle nut                  |
| 6           | 1   | A125015     | Inner Bearing Cup            |
| 7           | 1   | A125014     | Inner Bearing Cone           |
| 8           | 1   | A125007     | Inner Seal CRSHA1            |
| 9           | 1   | A123368     | Axle                         |
| 10          | 1   | A12042      | Lock Ring                    |
| 11          | 2   | A12041      | Side Ring                    |
| 12          | 1   | A12047      | O-Ring                       |
| 13          | 1   | A12043      | Collar                       |
| 14          | 1   | A123359-04  | 25 x 25 wheel/hub            |
| 15          | 4   | AFB-00082   | 5/16 x 1-1/2 Bolt for Hubcap |

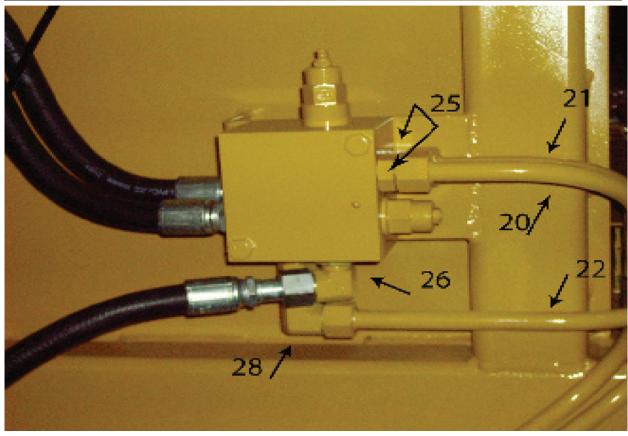
# **Front Section I-180TS2**



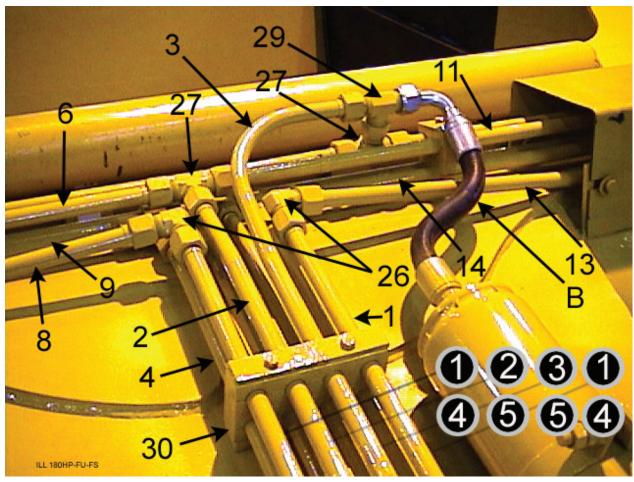


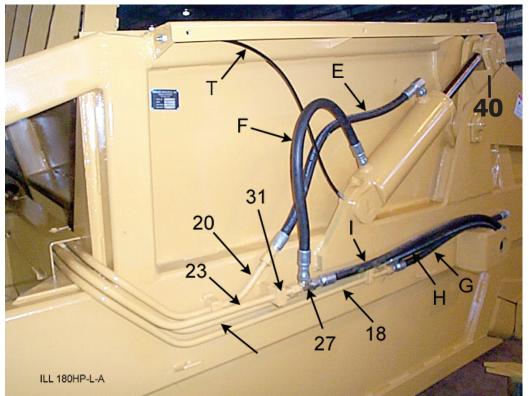
Hydraulic Plumbing I-180TS2 s.n. 21403 & Up

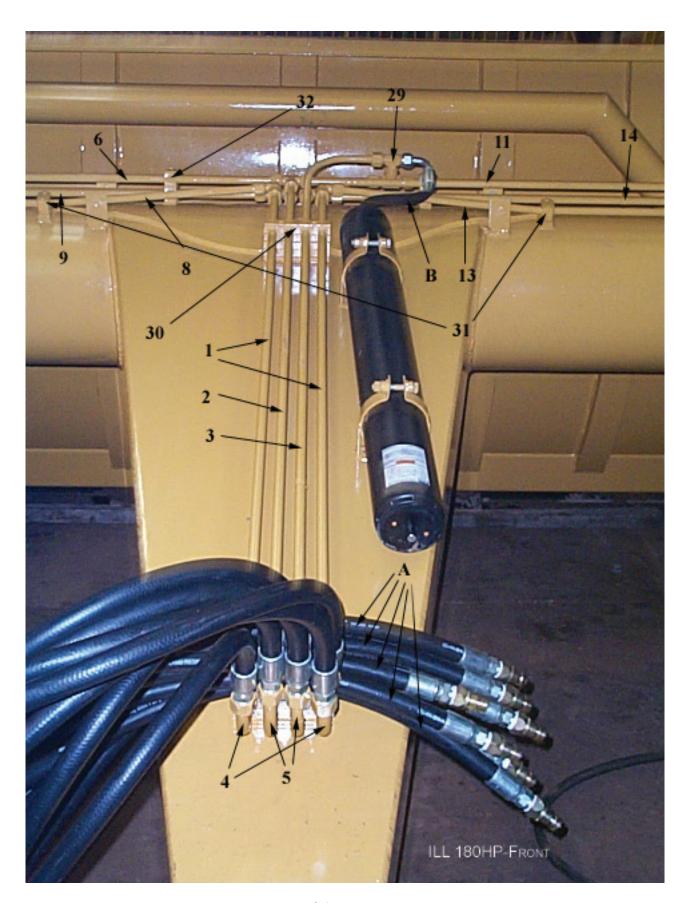


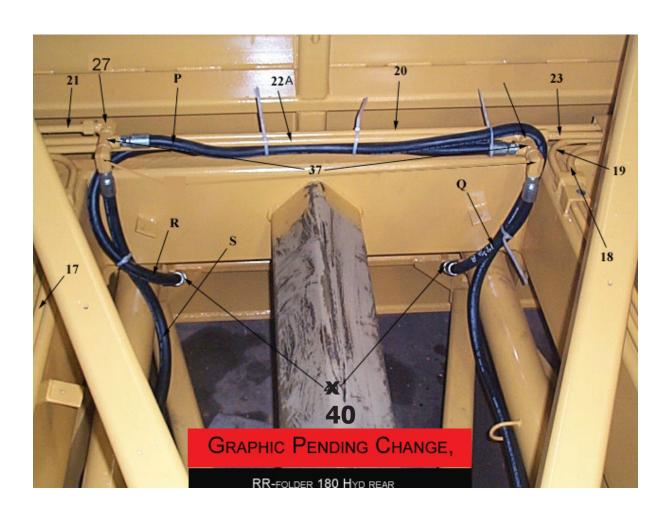


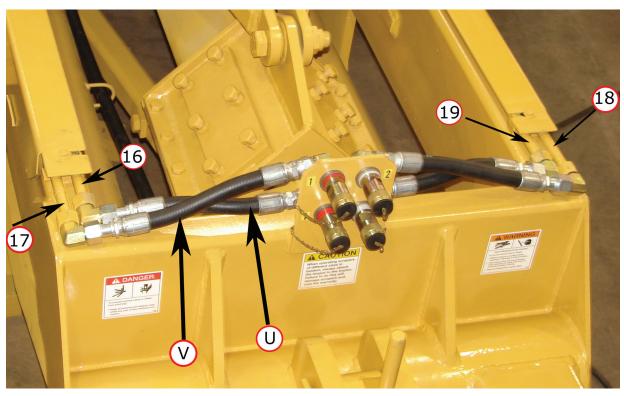
Hydraulic Plumbing I-180TS2
Front Section Center











## PARTS LIST - HYDRAULIC PLUMBING - MODEL I-180TS2

| Key No. | Part No.      | Description  |
|---------|---------------|--|
| 1       | A125116       | Tubing, Front, Top, Far Right and Far Left           |
| 2       | A125117       | Tubing, Front, Top, 2nd From Right                   |
| 3       | A125118       | Tubing, Front, Top, 2nd From Left                    |
| 4       | A125117       | Tubing, Front, Bottom, Outside                       |
| 5       | A125120       | Tubing, Front, Bottom, Inside                        |
| 6       | A125121       | Tubing, Top, Right Side                              |
| 7       | A125122       | Tubing, Top, Right Side                              |
| 8       | A125123       | Tubing, Top, Right Arm                               |
| 9       | A125123       | Tubing, Bottom, Outer, Right Arm                     |
| 10      | A125123       | Tubing, Bottom, Inner, Right Arm                     |
| 11      | A125126       | Tubing, Top, Left Side                               |
| 12      | A125127       | Tubing, Top, Left Side                               |
| 13      | A125123       | Tubing, Top, Left Arm                                |
| 14      | A125123       | Tubing, Bottom, Outer, Left Arm                      |
| 15      | A125123       | Tubing, Bottom, Inner, Left Arm                      |
| 16      | A125132R      | Tubing, Back, Outer Right                            |
| 17      | A125131L      | Tubing, Back, Inner Left                             |
| 18      | A125132L      | Tubing, Back, Outer Left                             |
| 19      | A125131R      | Tubing, Back, Inner Right                            |
| 20      | A125190       | Tubing, Wraps Around Back of Bowl                    |
| 21      | A125191       | Tubing, Top, Around Left Side of Bowl                |
| 22      | A125137       | Tubing, Bottom, Around Left Side of Bowl             |
| 22A     | A125138       | Tubing, Middle Back                                  |
| 23      | A125139       | Tubing, Around Right Side of Bowl                    |
| 24      | A125174       | Manifold Block, s.n. 21403 +                         |
| 25      | AHA-00069     | ADAPTER: M ORS                                       |
| 26      | AHA-00068     | ADAPTER: 90 DEG. 3/4 M ORB X 3/4 M ORS               |
| 27      | AHA-00066     | ADAPTER: T 3/4 M ORS X 3/4 M ORS X 3/4 M ORS         |
| 28      | AHA-00075     | ADAPTER: 90 DEG. MORB M ORS LONG                     |
| 29      | AHA-00071     | ADAPTER: T 3/4 M ORS X 3/4 F ORS X 3/4 M ORS         |
| 30      | AHL-00004     | CLAMP, HYD TUBING: 4 TUBE                            |
| 31      | AHL-00001     | CLAMP, HYD TUBING: 1 TUBE                            |
| 32      | AHL-00022     | CLAMP, HYD TUBING: 2 TUBE STACKING                   |
| 33      | AHL-00022 (2) | CLAMP, HYD TUBING: 3 TUBE STACKING                   |
| 34      | AHL-00002     | CLAMP, HYD TUBING: 2 TUBE                            |
| 35      | AHF-00036     | [IF UNIT HAS BREAKAWAY COUPLERS, YOU NEED] DUST CAPS |
| 36      | AHA-00068     | ADAPTER: 90 DEG. 3/4 M ORB X 3/4 M ORS               |
| 37      | NOT USED      |  |
| 38      | AHF-00023     | FEMALE QUICK COUPLERS-RIDGE STYLE                    |
| 39      | AHF-00035     | FEMALE QUICK COUPLERS-BREAKAWAY STYLE                |
| 40      | AHA-00026     | Adapter 90 degree Swivel 1-1/16 M or B x 3/4 FNPT    |
|         |               |  |

#### PARTS LIST - HYDRAULIC PLUMBING - HOSES - MODEL I-180TS2

| <u>Key No.</u> | Part No.             | <u>Description</u>   |
|----------------|----------------------|--|
| Α              | A180H50S             | 3/4" x 75" Long, F ORS, M NPT, Double Braid High Pressure Hose   |
| В              | A180H70S             | 3/4" x 12" Long, M ORB, F ORS, Double Braid High Pressure Hose   |
| С              | A180H71S             | 3/4" x 21" Long, MPT, F ORS, Double Braid High Pressure Hose   |
| D              | A180H72S             | 3/4" x 28" Long, St. ORB, F ORS, Double Braid High Pressure Hose   |
| Е              | A180H73S             | 3/4" x 34" Long, F ORS, 3/4 M ORS Double Braid High Pressure Hose  |
| F              | A180H74S             | 3/4" x 32" Long, F ORS, F ORS, Double Braid High Pressure Hose   |
| G              | A180H56S             | 3/4" x 41 5/8" Long, M ORS, M ORS, Double Braid High Pressure Hose   |
| Н              | A180H57S             | 3/4" x 36 3/4" Long, M ORS, M ORS, Double Braid High Pressure Hose   |
| I              | A180H75S             | 3/4" x 50 3/4" Long, M ORS, F ORS, Double Braid High Presure Hose  |
| J              | A180H76S             | 3/4" x 36" Long, 90 M ORS, M ORB, Double Braid High Pressure Hose  |
| K              | A180H77              | 3/4" x 30" Long, M ORB, M ORB, Double Braid High Pressure Hose   |
| M              | A180H78S             | 3/4" x 41 1/2" Long, F ORS, F ORS, Double Braid High Pressure Hose   |
| N              | A180H63S             | 3/4" x 36 3/4" Long, M ORS, M ORS, Double Braid High Pressure Hose   |
| 0              | A180H62S             | 3/4" x 60" Lg, M ORS, 3/4 90 M ORS, Double Braid High Pressure Hose  |
| Р              | A180H79S             | 3/4" x 121" Lg,90 M ORB, 90 F ORS, Double Braid High Pressure Hose   |
| Q              | A180H80S             | 3/4" x 19 1/2" Lg,90 M ORB, 90 F ORS, Double Braid High Pressure Hose  |
| R              | A180H81S             | 3/4" x 62" Lg 3/4 M ORB, 90 F ORS, Double Braid High Pressure Hose   |
| S              | A180H82S             | 3/4 " x 79" Lg 3/4 M ORB, F ORS, Double Braid High Pressure Hose   |
| Т              | A125020              | 32" x 1/8" M NPT x 1/8" M NPT Swivel, Remote Grease Line   |
| U<br>V         | A180H835<br>A180H845 | 3/4 x 11 Lg - 3/4 Fors, FJIC, Double Braid High Pressure Hose 3/4 x 9 1/2 Lg 3/4 FORS, FJIC, Double Braid High Pressure Hose |

**IMPORTANT:** This Hyd. Manifold was intergrated into production April, 2006 It replaces A125070 valve.

For older machines see master parts book on Ashlandind.com.

# HYDRAULIC MANIFOLD ASSEMBLY A125174 S.N. 21403 & above SETTING THE APRON AND PUSHOFF VALVE

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

#### **Setting the valves:**

#### **STEP 1 PUSHOFF SEQUENCE VALVE**

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

#### **STEP 2 Counter Balance VALVE**

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



| ITEM # | PART NO.   | <b>DESCRIPTION</b>        |
|--------|------------|---------------------------|
| 1      | A125162-01 | COUNTER BALANCE CARTRIDGE |
| 2      | A125162-02 | SEOUENCE CARTRIDGE        |

# I-180 TS Hydraulic Schematic tractor<sub>B</sub> APRON APRON CYLI CYLI2 NOUR RIGHT NOUR LUFT 6 **M**Q̂ PUSHOFF CYLINDER ₩ PUSHOFFCY C LINDER В Α

#### **PORT 7 & 8 ARE PRESSURE TEST PORTS #6SAE**

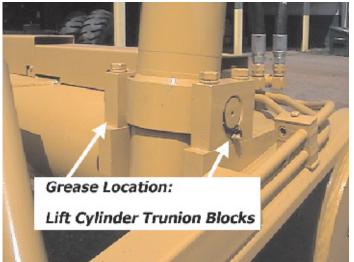
| <b>KEY</b> | <u> DESCRIPTION</u>       |  |
|------------|---------------------------|--|
| Α          | Counter Balance Valve     |  |
| В          | Check Valve               |  |
| С          | Directional Control Valve |  |
| D          | Sequence Valve            |  |

# GREASE LOCATIONS

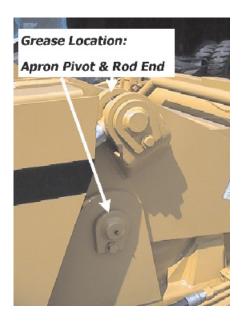








# GREASE LOCATIONS











All Grease areas should be cleaned prior to greasing. Lack of grease within these pivoting areas will void your factory warranty.

## MAINTENANCE CHECKLIST

- 1. Grease all zerks.
  - a) Every 5 hours of operation.
  - b) See Lubrication Points section on next page.
- 2. Greasing the hubs.
  - a) Re-pack wheel bearings after 600 hrs of operation.

hours

b) Completely clean grease out of hub and bearings every 1200 of operation.

- 3. Check tire pressure.
  - a) 29.5 25, 28-ply tire requires a tire pressure of 45-50 psi. If pressure drops, first secure valve stem, and if pressure continues to drop, contact Ashland Industries.
- 4. Check all pins for signs of wear.
  - a) Daily
- 5. 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.
- 6. 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.

#### **Standard Two-Circuit Hydraulic Plumbing**

The apron cylinders and the push-off cylinder are controlled on the same circuit with the sequence of the operation controlled by the hydraulic manifold which contains a sequence and counterbalance valve. The other hydraulic circuit controls the lift cylinders on the earthmover.

\*To adjust the sequence valve, see Troubleshooting section.

#### **CAUTION!**

Relieve all hydraulic pressure before working on the hydraulic system.

#### **WARNING!**

High Pressure Fluid Hazard – To prevent serious injury or death from high pressure fluid:



- a) Relieve pressure on hydraulic system before repairing, adjusting, or disconnecting.
- b) Wear proper hand and eye protection when searching for leaks.
- c) Keep all components in good repair.

## **TORQUE SPECIFICATIONS**

| Grade 8  |        |  |
|----------|--------|--|
| 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   |  |

#### 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**

- 1. Hitch Horizontal and vertical pins.
- 2. Lift Cylinders Rod end; Both left & right sides.
- 3. Hold-down Rollers Both left & right sides.
- 5. Front Arm Pivot Joint Both left & right sides.
- 6. Apron Pivot Pin; Both left & right sides.
- 7. Lift Cylinders Trunnion Mount Blocks; Both left & right sides
- 8. Lift Cylinders Trunnion Mount Blocks; Both left & right sides

## **TROUBLESHOOTING**

#### Introduction

With proper care and maintenance, the I-180TS 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.

#### 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.

# **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 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 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