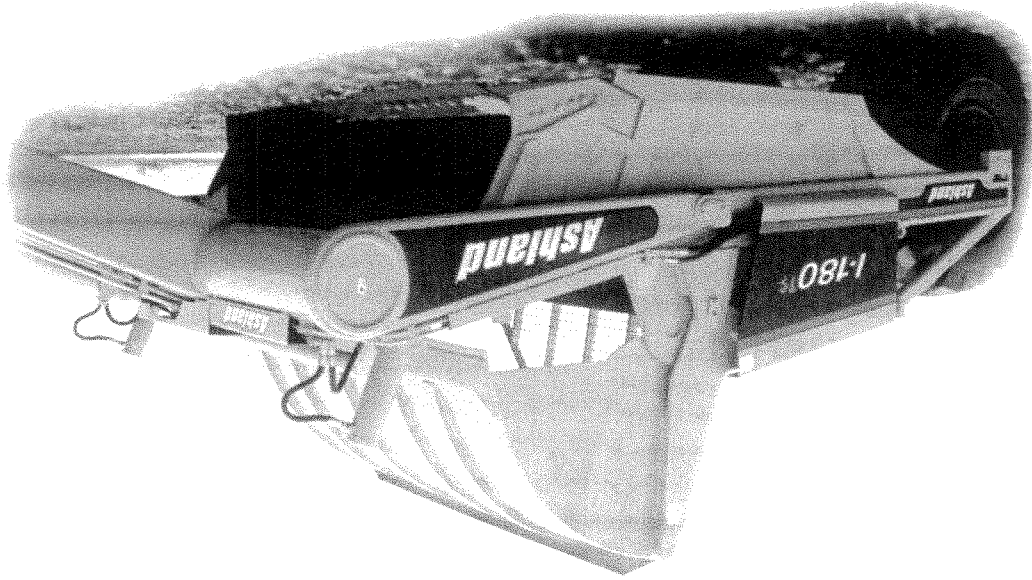


CONSTRUCTION INDUSTRY
MANUFACTURERS ASSOCIATION



Ashland Industries Inc.
1115 Rail Drive
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Ashland, WI, 54806
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715-682-4622 phone
715-682-9717 fax
www.ashlandind.com



Version 3-03

I-180-TS PARTS MANUAL

*Quality
Equipment
Since
1953*

INDUSTRIES, INC.™

Ashland

IMPORTANT

Please locate red

Transport Links and

remove prior to op-

eration. Retract

Lift Cylinder Circuit,

Remove Safety

Snap Pin, Remove

link and replace

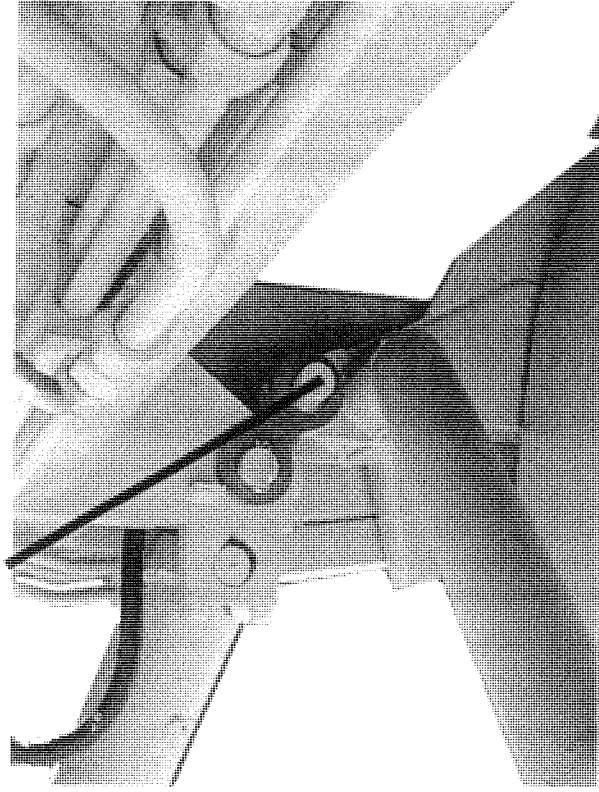
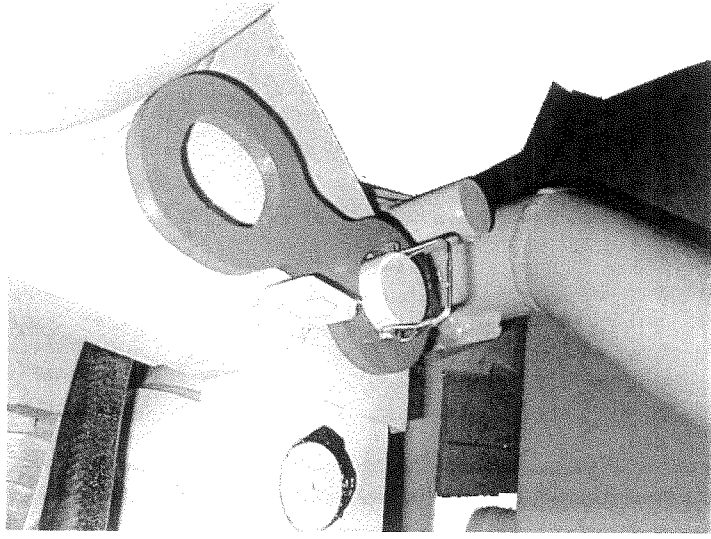
into storage

position as shown

in figure 2.

Reinstall Safety

Snap Pins.



Page 4. Operators and Maintenance Instructions

Page 5. Safety Guidelines

Page 6. Illustration - Assembly

Page 7. Super Yoke Hitch

Page 8. Front Section

Page 9. Lift Cylinder

Page 10. Apron

Page 11. Apron Cylinder

Page 12-13. Bowl and Frame

Page 14. Push Off Assembly

Page 15. Push Off Cylinder

Page 16. Wheel Assembly

Page 17-23. Hydraulic Lines

Page 24. Sequence Valve

Page 25. Counterbalance Valve

Page 26. Valve Adjustment Instructions

Page 27-31. Service Manual Appendix

Page 32-33. Trouble Shooting

Page 34. Warranty Statement

INDEX



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

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.

IMPORTANT

HOW TO ORDER PARTS:



Model I-180TS Scraper

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.

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.**

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.

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.**

Review the safety instructions with all users annually.

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

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.

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.

GENERAL SAFETY GUIDELINES



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.



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.



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.

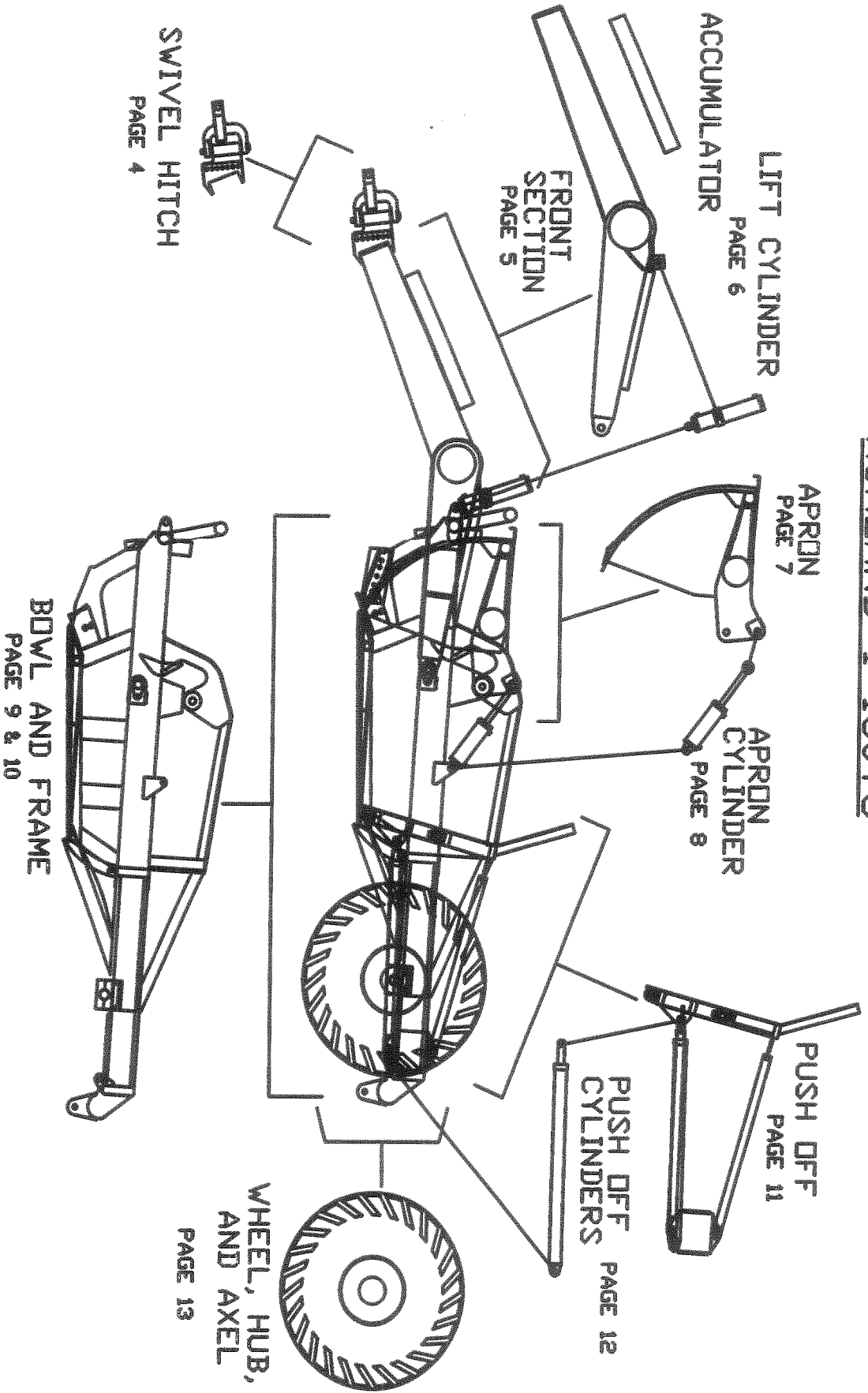


Note the use of the signal words DANGER, WARNING and CAUTION with the safety messages. The appropriate signal word for each has been selected using the following guidelines:

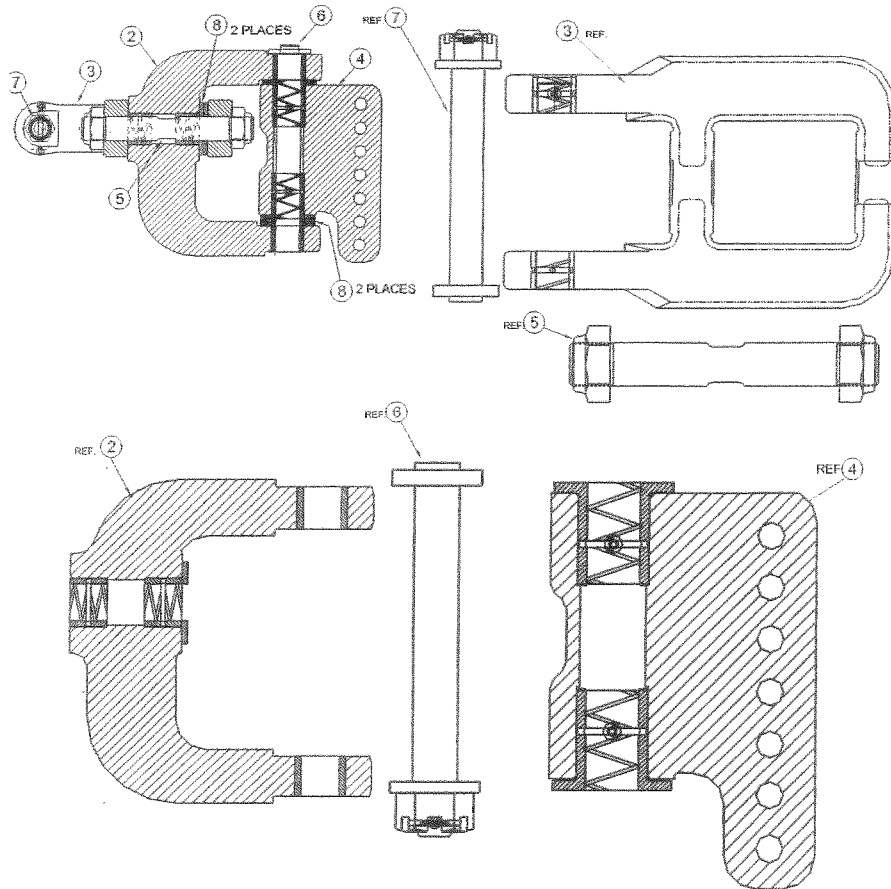
SAFETY SIGNAL WORDS



ASHLAND I-180TS

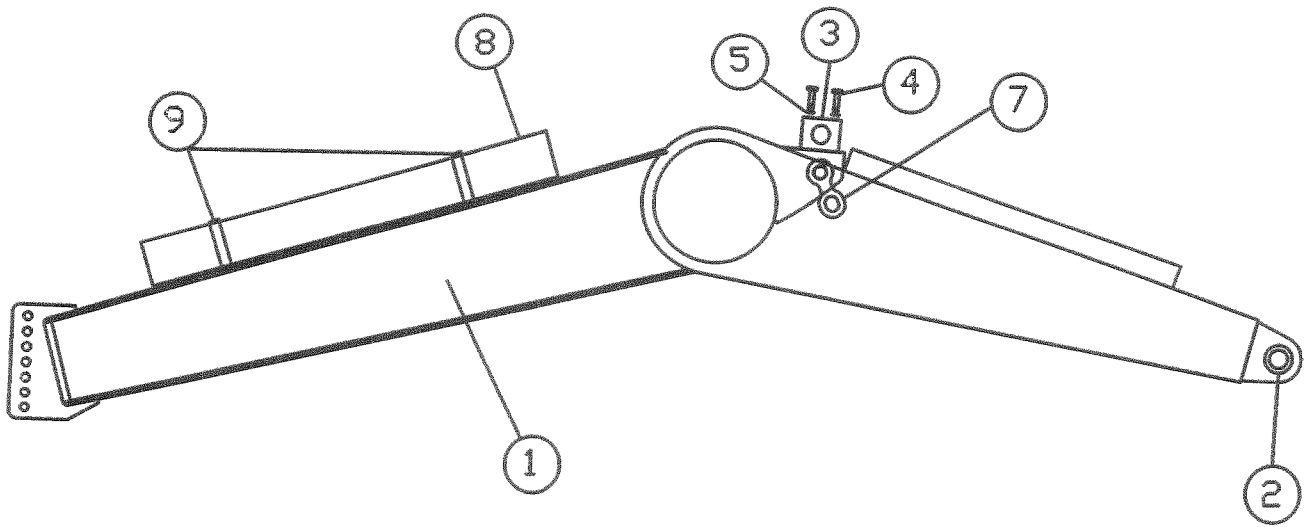


SUPER SWIVEL HITCH ASSEMBLY



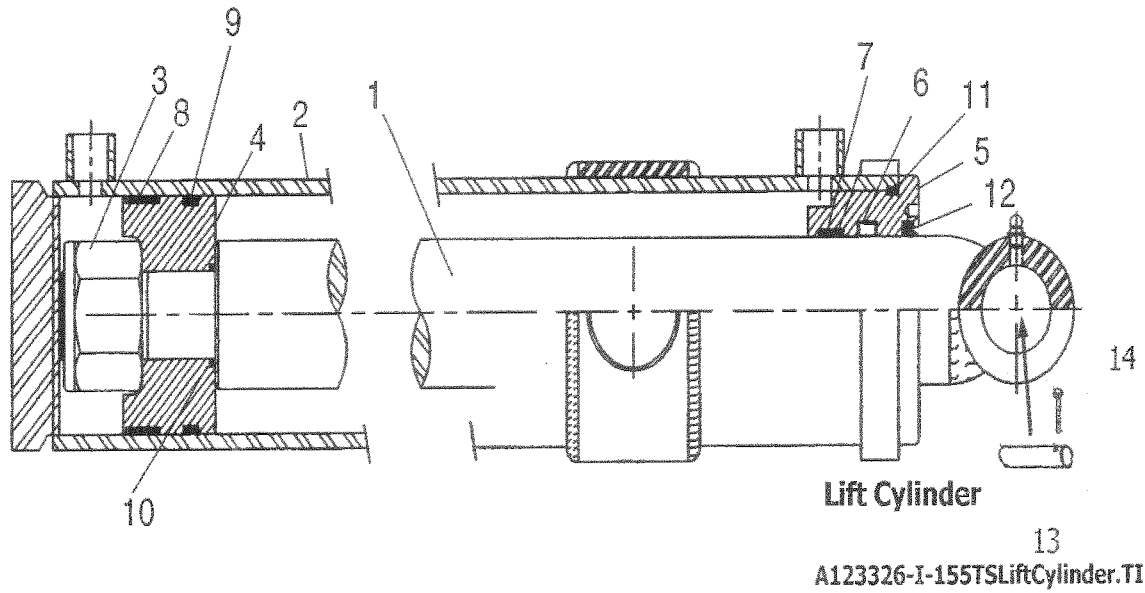
KEY NO.	PART NO.	DESCRIPTION
1.	A1063527	Super Yoke hitch, Includes 2 & 3, (w/o 4,6,7 & 1 ea. of 8) (Required 1)
2.	A1062280	Rear Super Yoke, Assembly (1 required)
	A1063177	Bushing (2 required)
	A1063144	Bushing, Spiral (2 required)
	14505	Fitting, Grease (2 required)
3.	A1063281	Front Super Yoke, Assembly (1 required)
	A1063145	Busing, Spiral (2 required)
	14505	Fitting, Grease (2 required)
4.	A1063688	Pivot Pin Housing, Assembly (1 required)
	A1063143	Bushing, Spiral (2 required)
	14505	Fitting, Grease (2 required)
5.	A1063283	Pin, Horizontal Assembly with Nuts (1 required)
	A1063212	Pin only (1 required)
	A1044362	Nut, Lock Nylon, 2-12 UNF (2 required)
6.	A1063284	Pin, Vertical Assembly with nut,wash,c.pin (1 required)
	A1063214	Pin only (1 required)
	A1063259	Washer (1 required)
	ARF03024-00260	Nut, Slotted. Hex 2.00 NC G5 (1 required)
	ARF06020-00083	Pin, Cotter .375" x 4.00" (1 required)
7.	AB581	Hitch Pin, Assembly (1 required)
	AB580	Pin Weldment (1 required)
	AB195	Washer, 3.00"OD x 1.56" (1 required)
	AFN-00014	Nut, Slotted, 1.5" NC G5 (1 required)
	ARF06020-00060	Pin, Cotter
8.	A1063146	Washer, Thrust (4 required)

I-180 FRONT SECTION



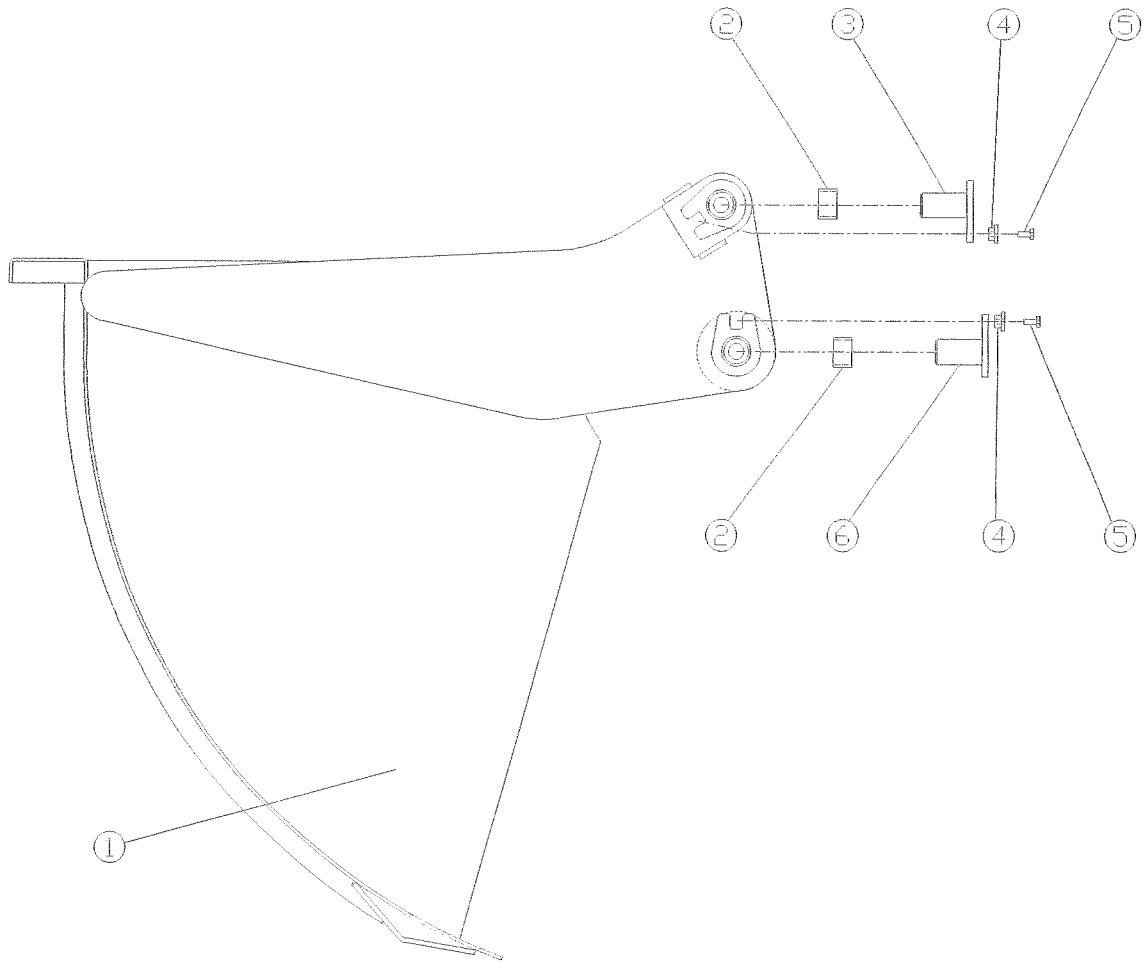
<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	A123320	Front Section
2	2	A123320-8	Flanged bolt bushing
3	4	A123320-3	Trunion mount block
4	8	AFB-00064	Bolt, 3/4" NC x 3" long, gr. 8
5	8	AFW-00002	3/4" lock washer
6	2	A125006	Link Pin
7	2	A123320-20	Travel Lock
8	1	A125005	Accumulator
9	2	A125009	Mounting brackets

**MODEL I-180
LIFT CYLINDER 5 X 20
PART NO. A123326**



<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1.	A123326-1	Piston Rod: 2-1/2"
2.	A123326-2	Barrel Weldment
3.	AFN-00018	Nut: Lock 1-1/2-12
4.	A123324-4	Piston
5.	A123324-3	O-ring
6.	A123324-6	Rod Seal
7.	A123324-5	Gland
8.	A123324-8	Wear Ring
9.	A123324-9	Piston Seal
10.	A123324-10	O-Ring
11.	A123324-11	O-Ring
12.	A123324-7	Rod Wiper
	AHS-00140	Seal Kit (Items 6-12)

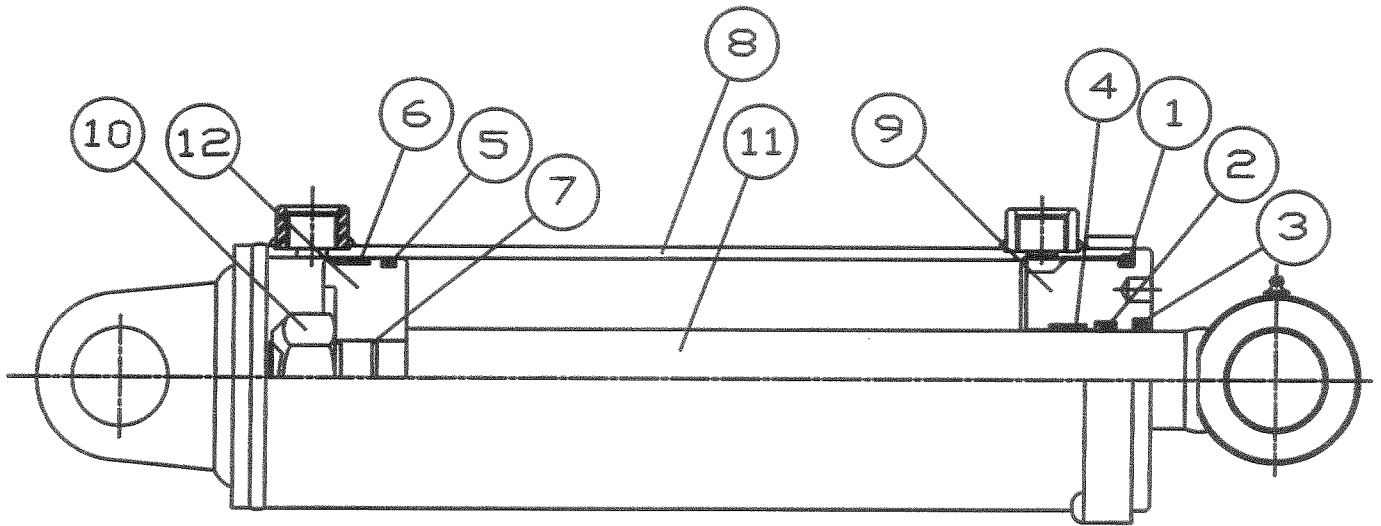
APRON ASSEMBLY



ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	A123322	Apron Model I-180-TS
2	4	A123322-10	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	4	A123358	Flanged bolt Bushing
5	4	AFB-00079	Bolt: 5/8" x 1-1/2"
6	2	A123322-08	Apron Pivot Pin w/grease zerker

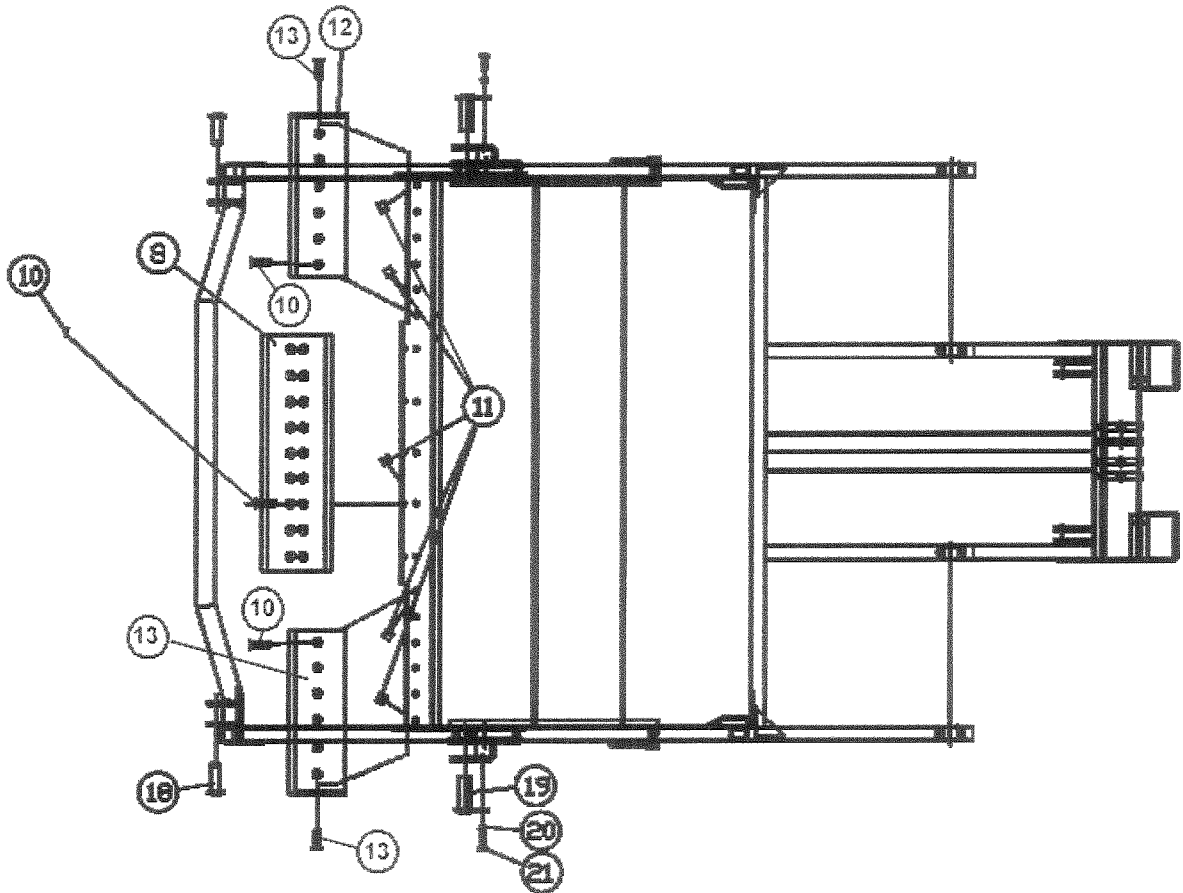
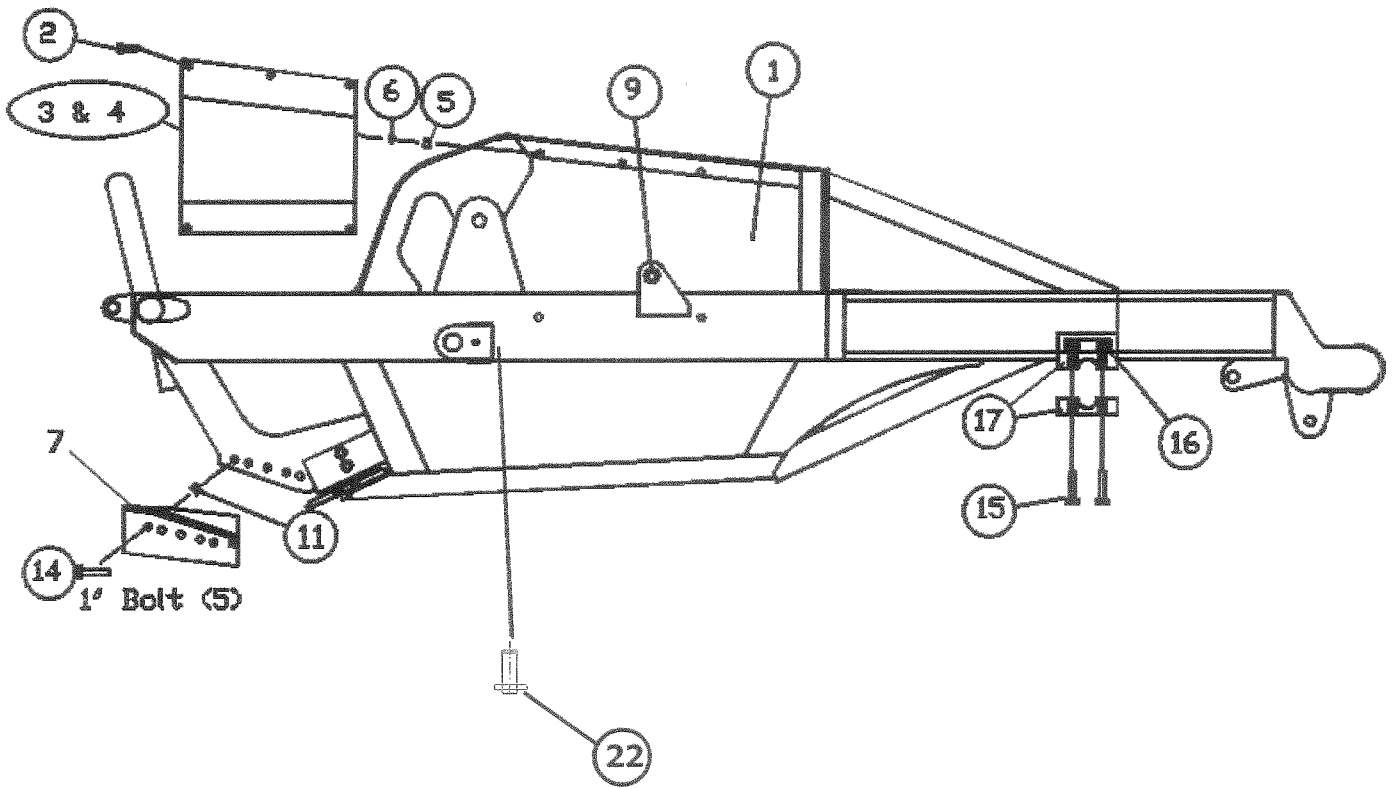
I-180 APRON CYLINDER

PART NO. A123361
 5" BORE X 13" STROKE
 (2) REQ'D



<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	A123361-1	O-RING
2	1	A123361-2	ROD SEAL
3	1	A123361-3	WIPER SEAL
4	1	A123361-4	WEAR RING
5	1	A123361-5	PISTON SEAL
6	1	A123361-6	WEAR RING
7	1	A123361-7	O-RING
8	1	A123361-8	BARREL
9	1	A123361-9	HEAD
10	1	A123361-10	LOCK NUT
11	1	A123361-11	ROD
12	1	A123361-12	PISTON
13	1	A123361-13	SEAL KIT, INCLUDES ITEMS 1 - 7

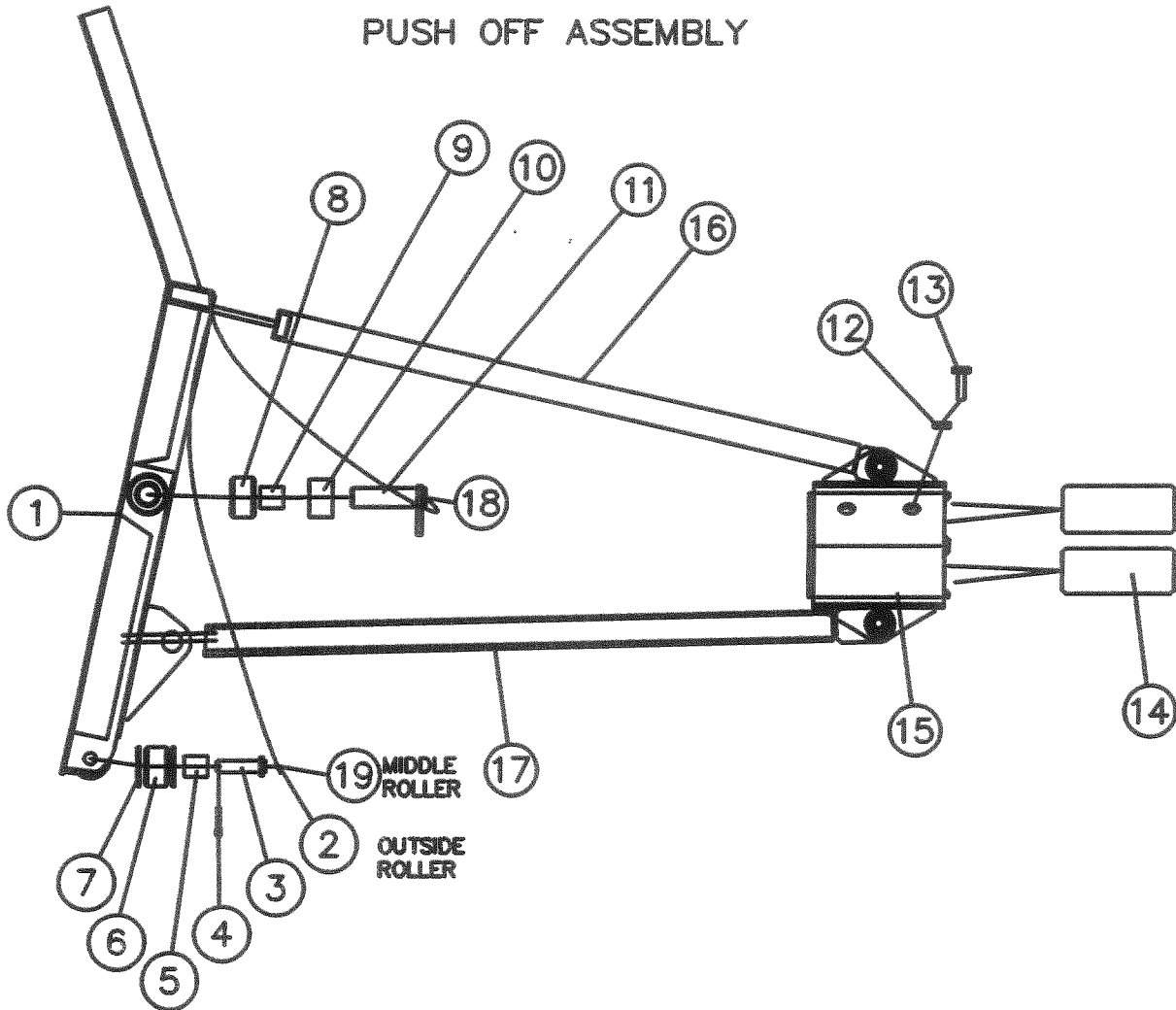
I-180 BOWL AND FRAME ASSEMBLY



I-180 BOWL AND FRAME PARTS LIST

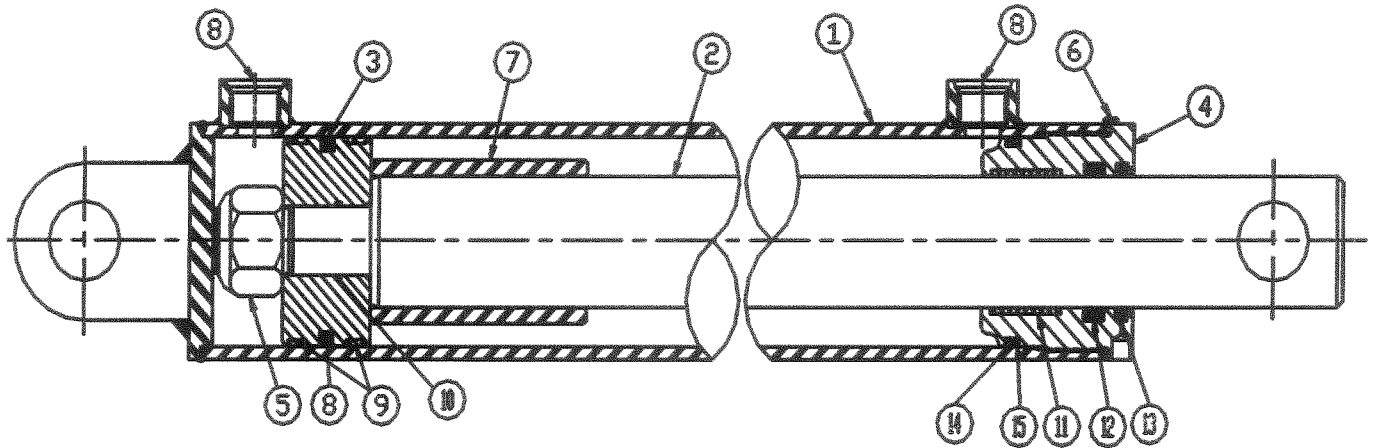
<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	A123321	Bowl and frame assembly
2	10	AFB-00034	Bolt: 3/8" NC x 1" long
3	1	A123369-1L	Left side dirt sheild
4	1	A123369-1R	Right side dirt sheild
5	10	A7450	Nut: 3/8" nc
6	10	AFW-00010	Washer: 3/8" flat
7	2	A123355	Corner cutting blade, "L" shape, reversible, 13" x 36-1/2" L & R
<i>Each blade requires: (6) 1" x 2-3/4" plow bolts, (2) 1" x 2-1/2" plow bolts, (8) 1" NC nuts</i>			
8	1	A123356	Center cutting blade, reversible, 16" x 54-1/4" <i>Blade requires: (9) 1" x 2-3/4" plow bolts, (9) 1" NC nuts</i>
9	2	A125018	Bushing: 2-3/8" O.D. x 2" I.D. x 1-1/4 long
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 <i>Each blade requires: (5) 1" NC x 3" long bolts, (5) 1" NC nuts</i>
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	A123368	Flanged bolt bushing
21	2	AFB-00079	Bolt: 5/8" x 1 1/2" long
22	2	A123322-09	Pin: Apron cylinder barrel end

PUSH OFF ASSEMBLY



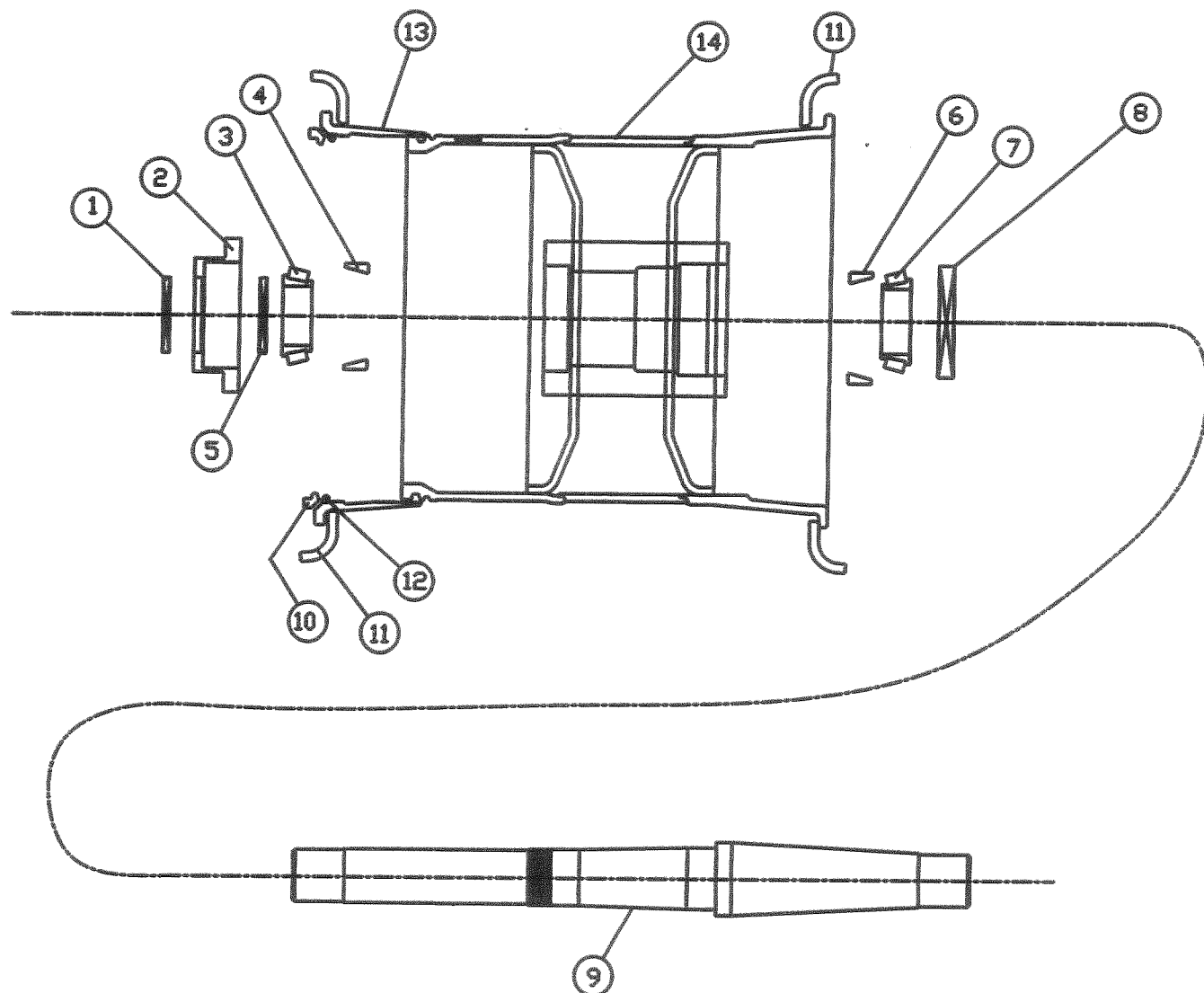
<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	A123323	Push Gate Assembly
2	2	A125023	Grease line, outside floor roller 48"
3	3	A123323-21	Pin: 1-1/4" x 4-1/8" long
4	3	AFP-0001	Cotter Pin: 1/4" x 3 1/2"
5	3	A10163	Bushing: 1-3/4" O.D. x 1-1/4" I.D.
6	3	A10164	Roller
7	6	A12323-22	Washer
8	2	A123323-24	Roller
9	2	A123323-24B	Bushing: 2-1/2" O.D. x 2" I.D.
10	2	A123323-09	Spacer
11	2	A123323-23	Pin: 2" x 4-1/8" long
12	12	AFN-00030	Nut: 3/4" NF
13	12	AFB-00060	Bolt: 3/4" NF x 2" long
14	4	A123364-01	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"

I-180 TS PUSH OFF CYLINDER
 PART NO. A123360
 (2) Required
 4" Bore x 60" Stroke



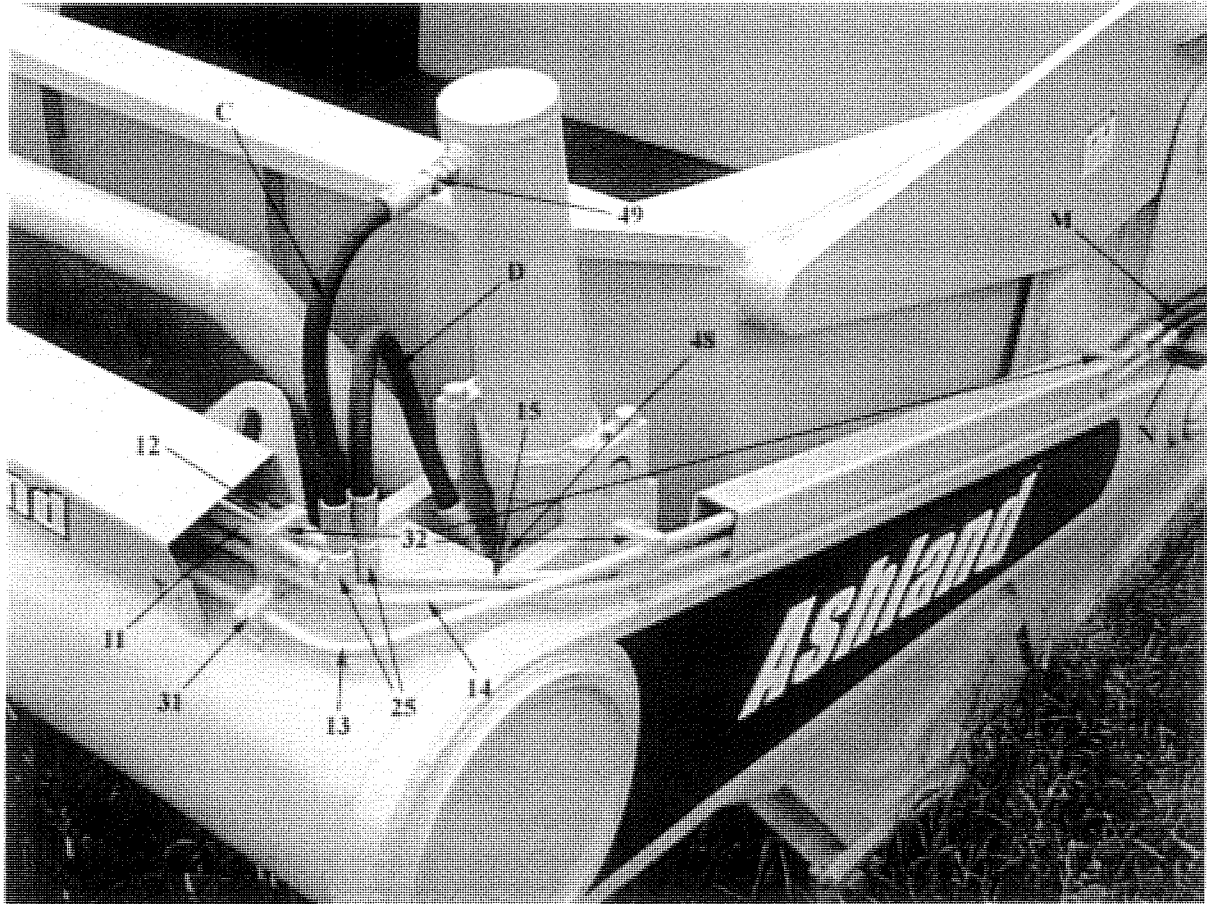
<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	A123360-01	BARREL
2	1	A123360-02	ROD
3	1	A123360-03	PISTON
4	1	A123360-04	GLAND
5	1	A123360-05	LOCK NUT
6	1	A123360-06	SCREW
7	1	A123360-07	SPACER SLEEVE
8	1	A123360-08	PISTON SEAL
9	1	A123360-09	WEAR RING
10	1	A123360-10	O-RING
11	1	A123360-11	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

WHEEL ASSEMBLY

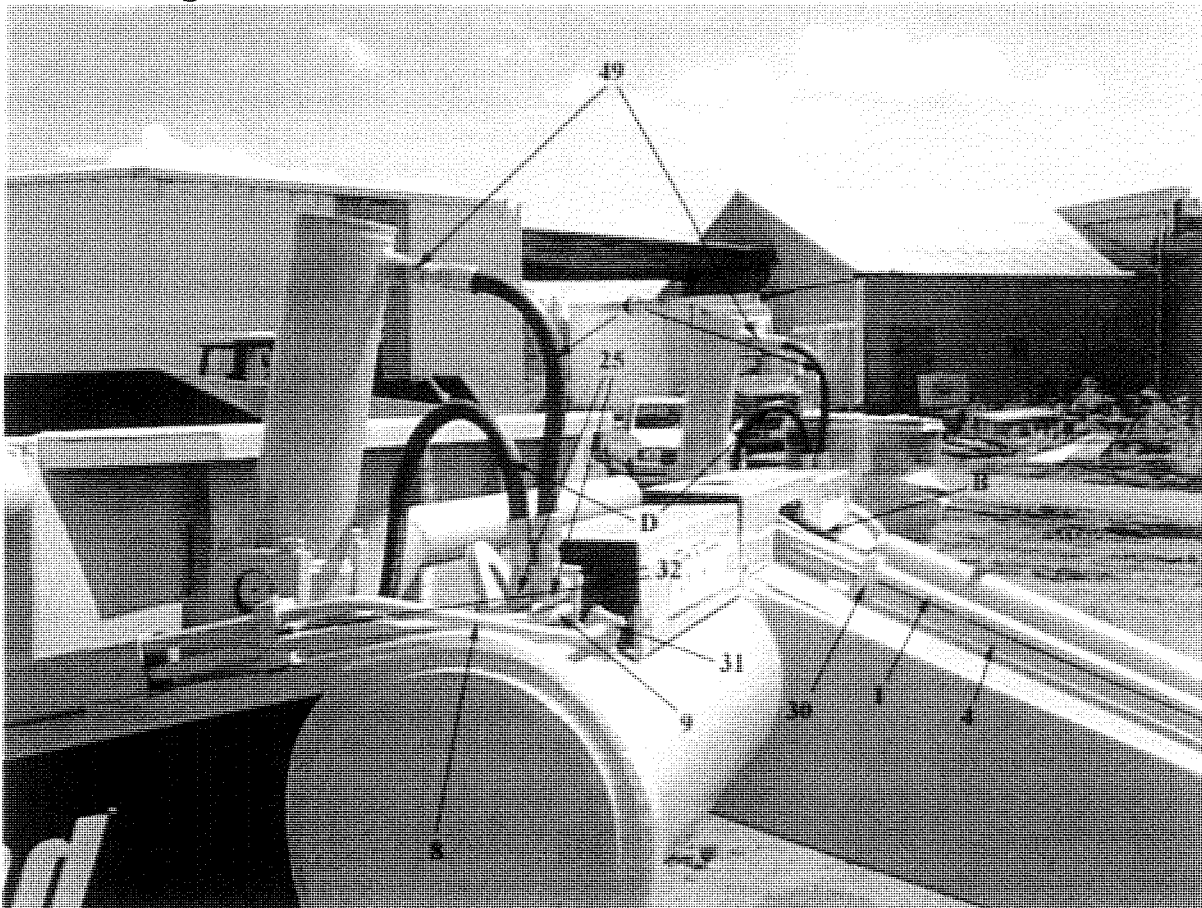


<u>ITEM</u>	<u>QTY</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
1	1	A125008	Outer Seal CRWH1
2	1	A123359-03	Cap- seal mount
3	1	A125016	Outer Bearing Cone 77375
4	1	A125017	Outer Bearing Cup 77675
5	1	A125013	Spindle nut
6	1	A125015	Inner Bearing Cup
7	2	A125014	Inner Bearing Cone
8	1	A125007	Inner Seal CRSHA1
9	1	A123368	Axle
10	1	A12042	Lock Ring
11	2	A12041	Side Ring
12	1	A12047	O-Ring
13	1	A12045	Collar
14	1	A123359-04	25 x 25 wheel/hub

**Hydraulic Plumbing
I-180TS
Front Section Left Side**



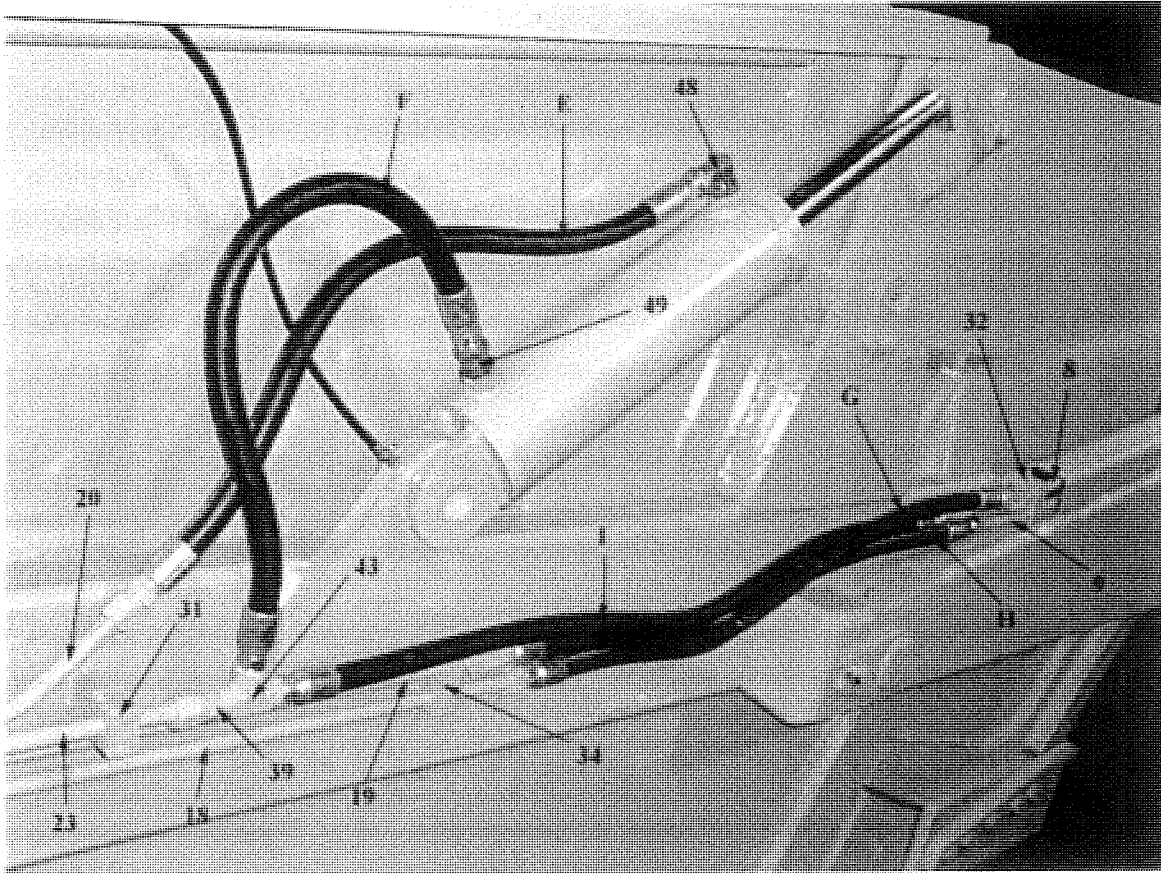
Front Section Right Side



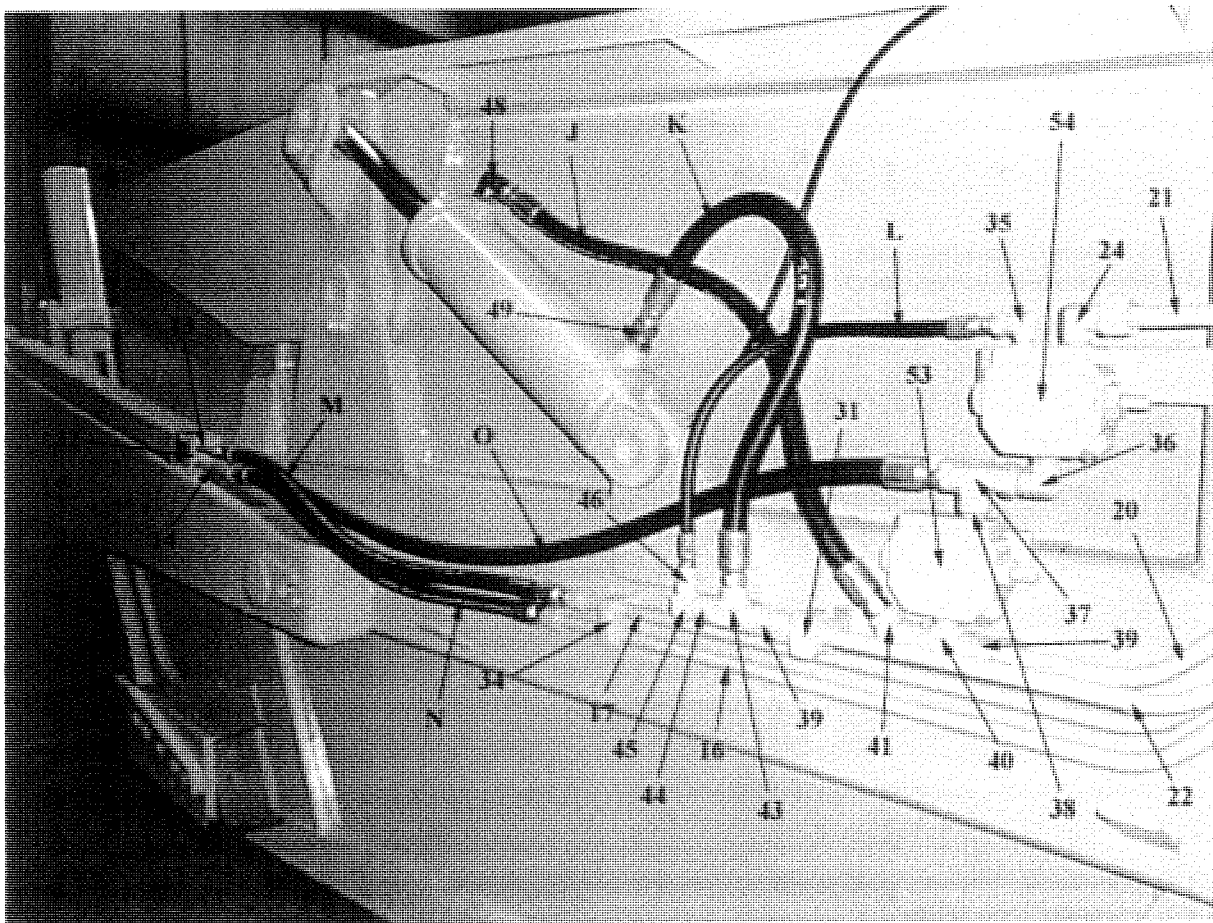
Hydraulic Plumbing

I-180TS

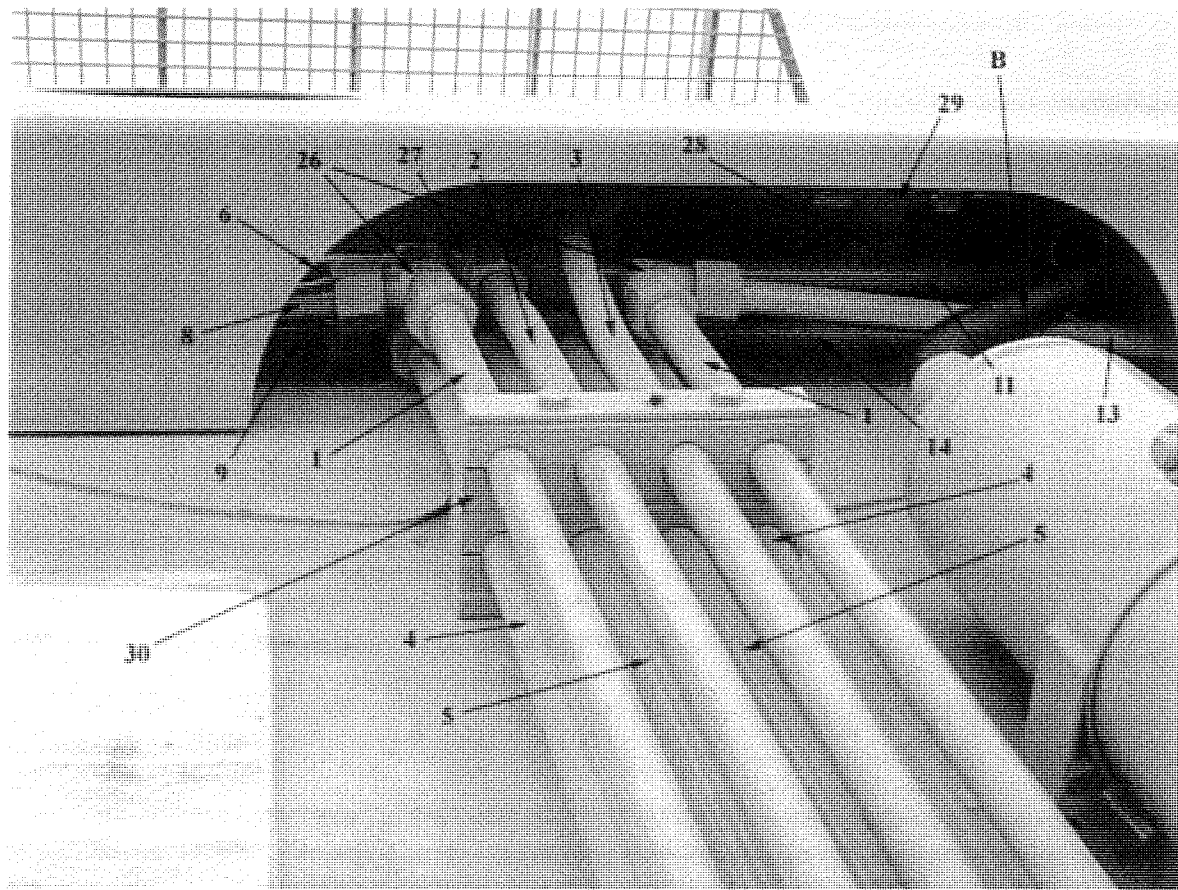
Rear Section Wraps Around Bowl Right Side



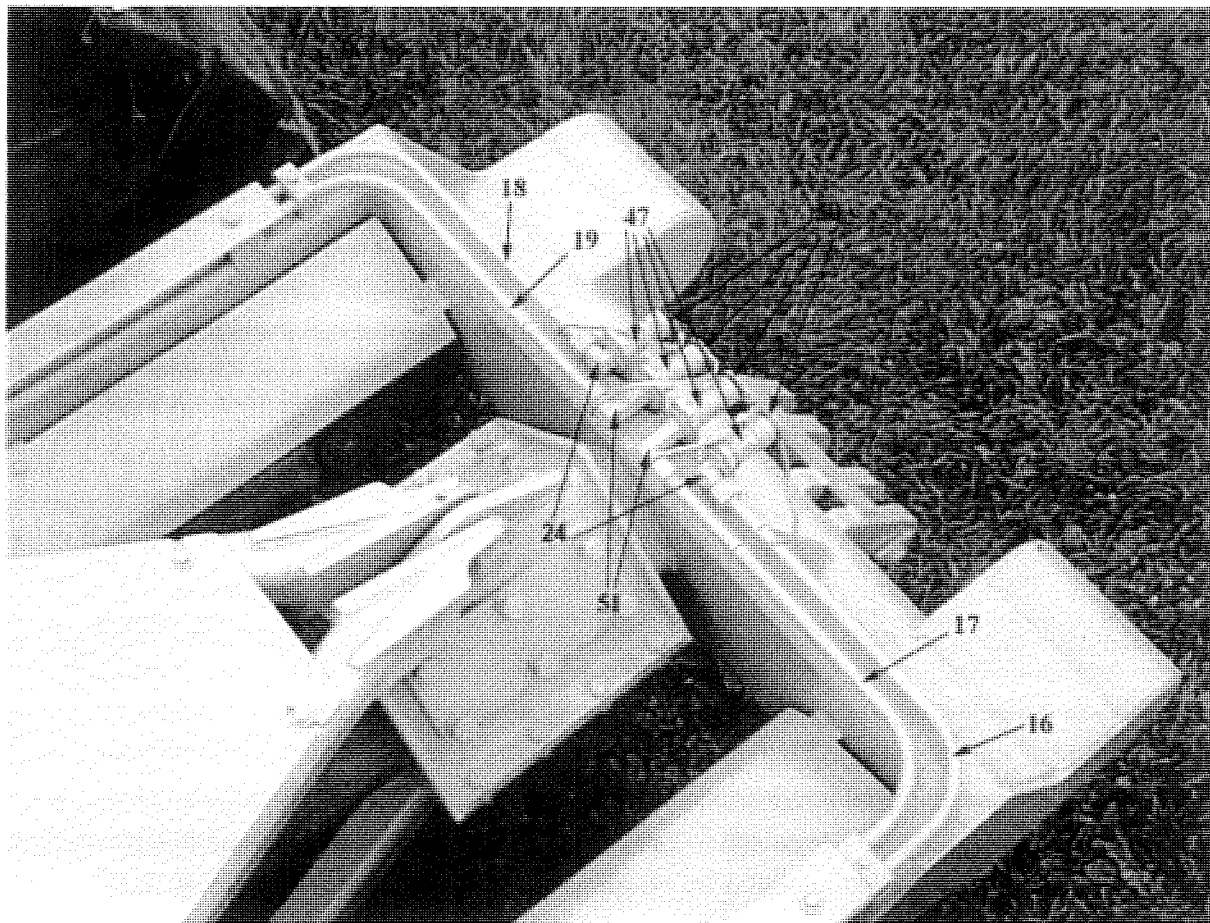
Rear Section Wraps Around Bowl Left Side



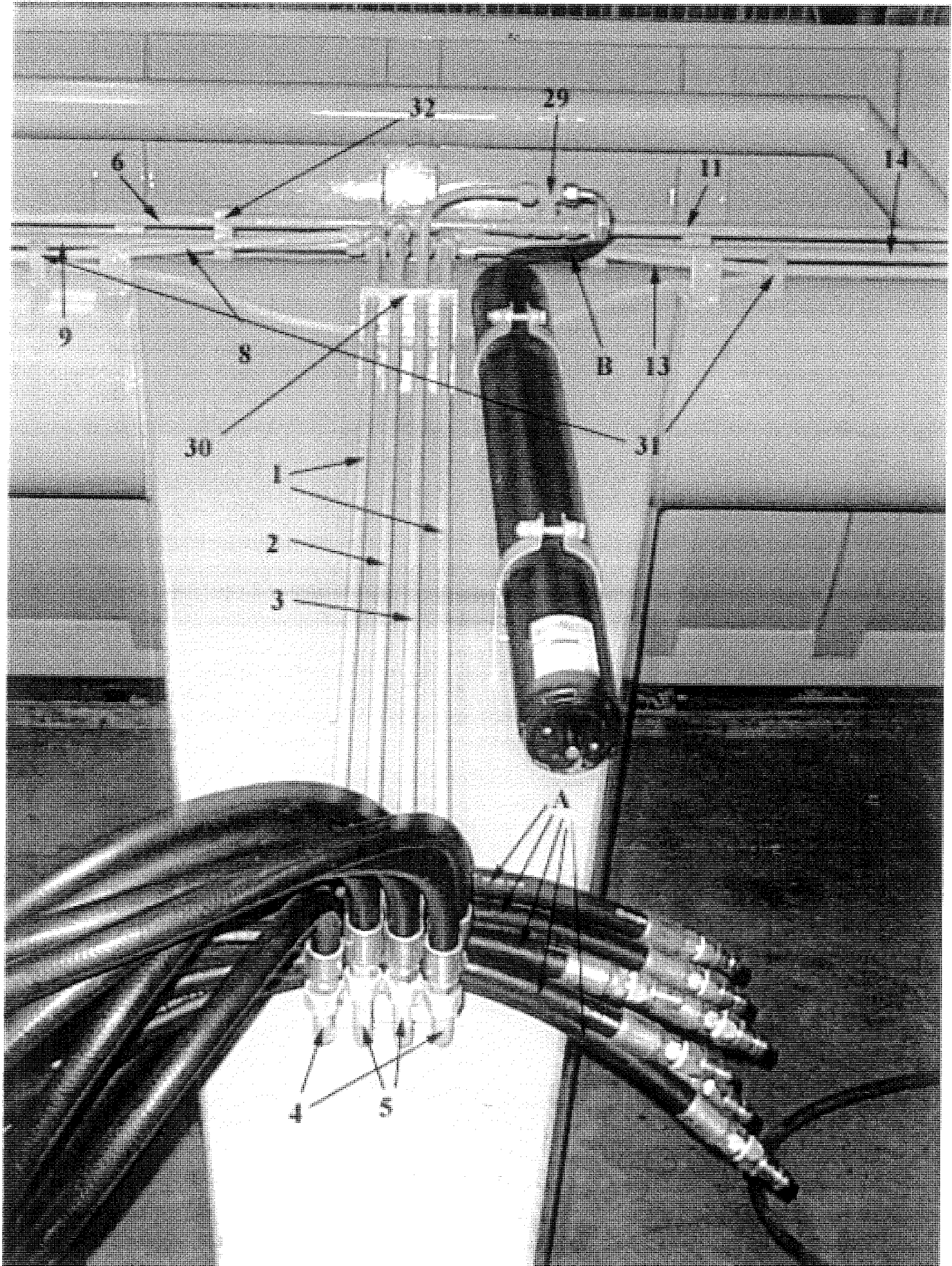
**Hydraulic Plumbing
I-180TS
Front Section Center**



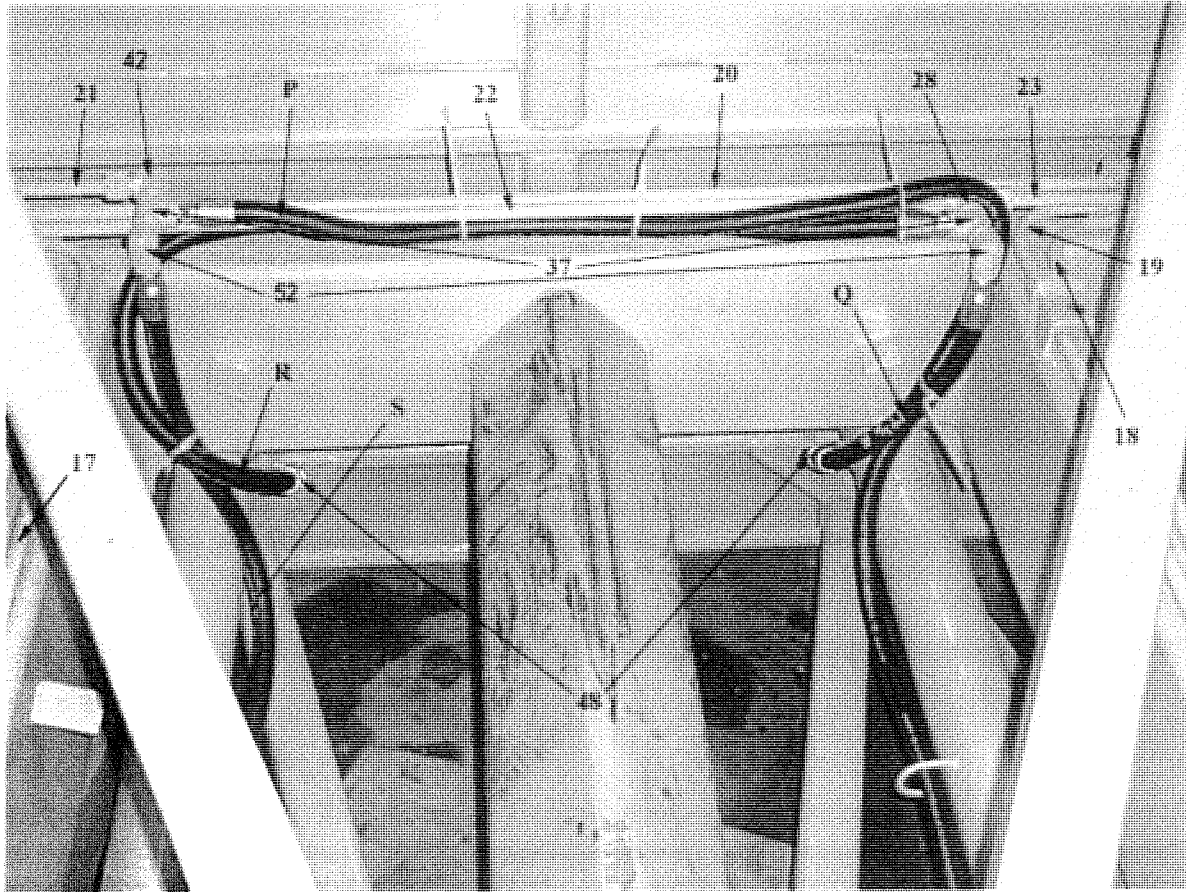
Rear Section Center



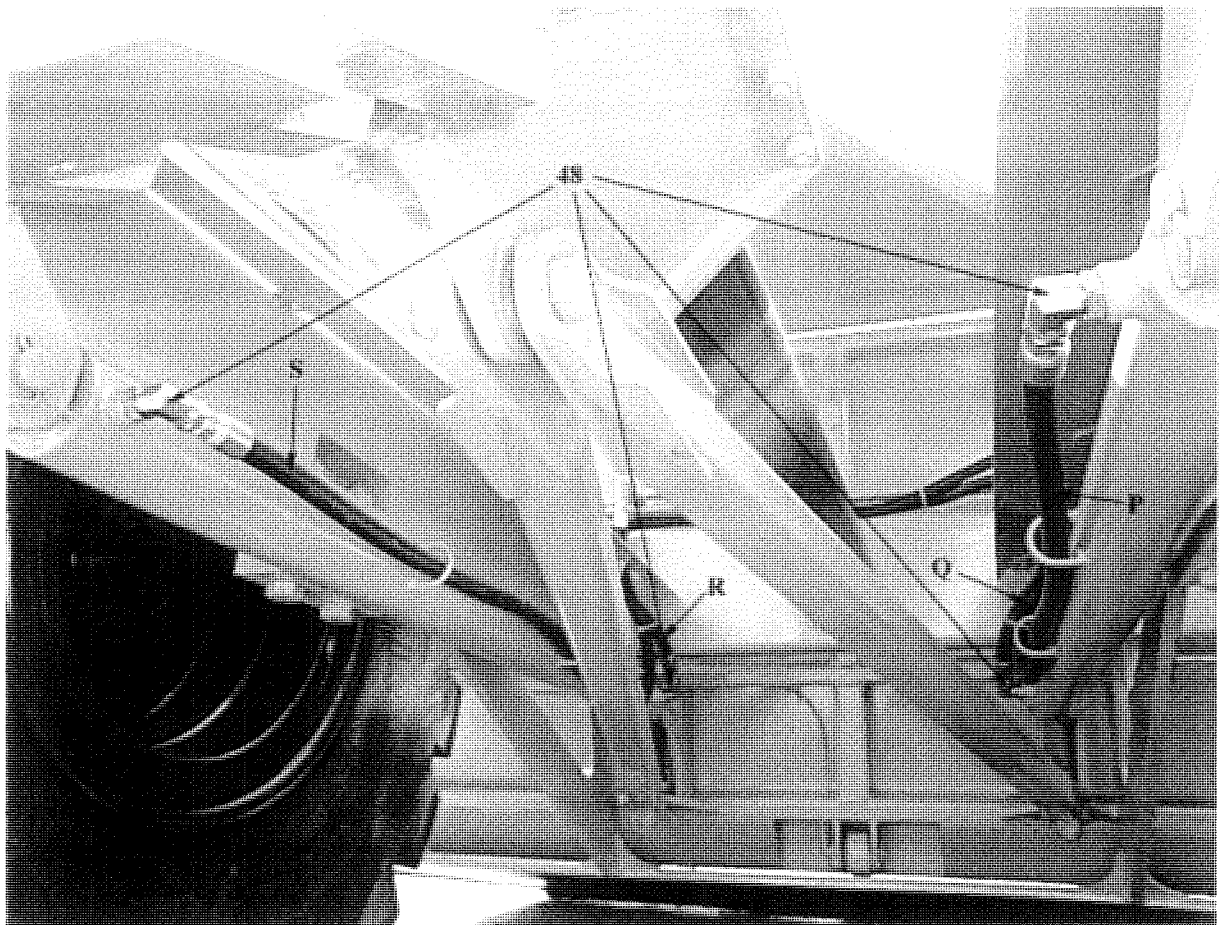
**Hydraulic Plumbing
I-180TS
Front Section**



**Hydraulic Plumbing
I-180TS
Behind Bowl Top**



Behind Bowl Underneath



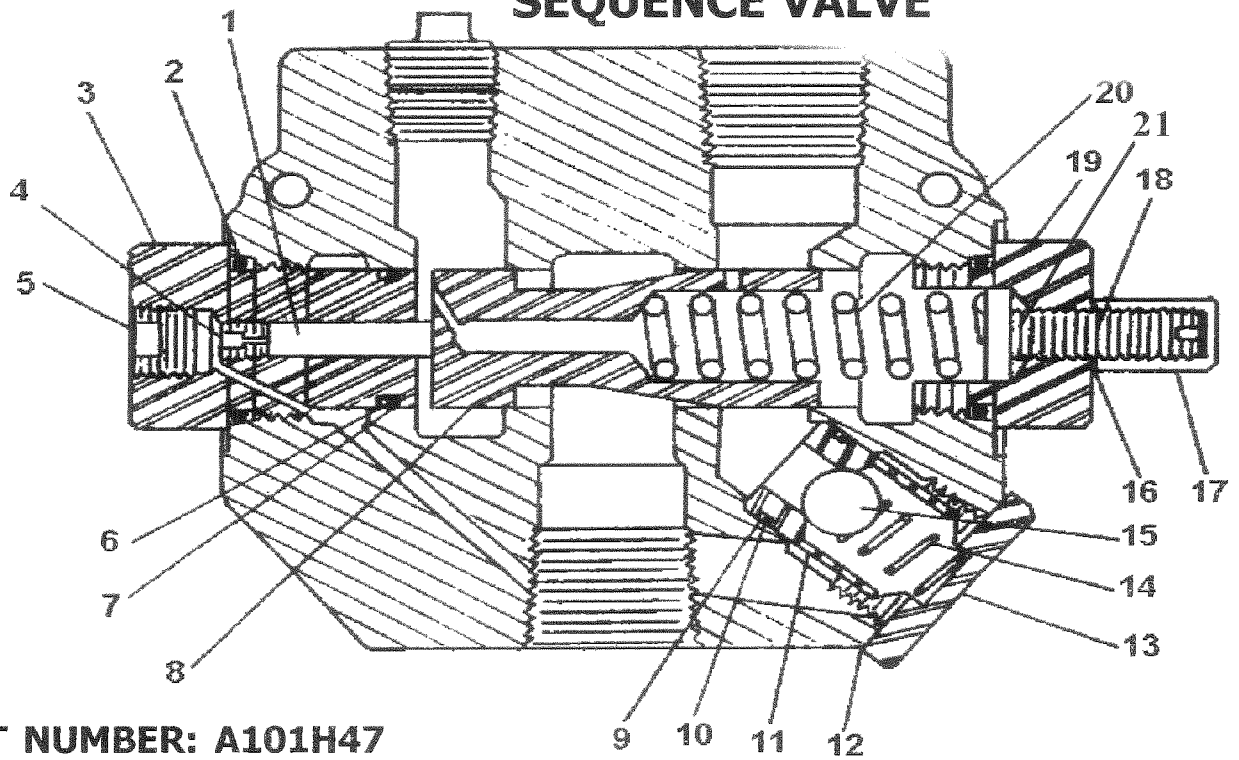
PARTS LIST - HYDRAULIC PLUMBING - MODEL I-180TS

<u>Key No.</u>	<u>Part No.</u>	<u>Description</u>
1	A125037	Tubing, Front, Top, Far Right and Far Left
2	A125036	Tubing, Front, Top, 2nd From Right
3	A125033	Tubing, Front, Top, 2nd From Left
4	A125035	Tubing, Front, Bottom, Outside
5	A125034	Tubing, Front, Bottom, Inside
6	A125041	Tubing, Top, Right Side
7	A125039	Tubing, Top, Right Side
8	A125031-1	Tubing, Top, Right Arm
9	A125031-3	Tubing, Bottom, Outer, Right Arm
10	A125031-5	Tubing, Bottom, Inner, Right Arm
11	A125040	Tubing, Top, Left Side
12	A125043	Tubing, Top, Left Side
13	A125031-2	Tubing, Top, Left Arm
14	A125031-4	Tubing, Bottom, Outer, Left Arm
15	A125031-6	Tubing, Bottom, Inner, Left Arm
16	A125029-1	Tubing, Back, Outer Right
17	A125028-1	Tubing, Back, Inner Left
18	A125029-2	Tubing, Back, Outer Left
19	A125028-2	Tubing, Back, Inner Right
20	A125030	Tubing, Wraps Around Back of Bowl
21	A125042	Tubing, Top, Around Left Side of Bowl
22	A125032	Tubing, Bottom, Around Left Side of Bowl
23	A125038	Tubing, Around Right Side of Bowl
24	AHA-00018	ADAPTER: 90 DEG. 3/4 M NPT X 3/4 M JIC
25	AHA-00009	ADAPTER: 90 DEG. 3/4 M JIC X 3/4 F NPT
26	AHA-00019	ADAPTER: 90 DEG. 3/4 M JIC X 3/4 M JIC
27	AHA-00022	ADAPTER: T 3/4 M JIC X 3/4 M JIC X 3/4 M JIC
28	AHA-00015	ADAPTER: T 3/4 M JIC X 3/4 F NPT X 3/4 M JIC
29	A175H17	ADAPTER: T 3/4 M JIC X 3/4 M NPT X 3/4 M JIC
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	11127	ADAPTER: 90 DEG. SWIVEL 3/8 M NPT X 3/8 F NPT
36	A101H77	ADAPTER: 90 DEG. SWIVEL 3/4 M NPT X 3/4 F NPT
37	AHA-00016	ADAPTER: T 3/4 F NPT X 3/4 F NPT X 3/4 M NPT
38	AHA-00039	ADAPTER: STR 3/4 NPT CLOSE PIPE NIPPLE
39	AHA-00006	ADAPTER: STR 3/4 M JIC X 3/4 M NPT
40	AHA-00031	ADAPTER: T 3/4 F NPT X 3/4 M NPT X 3/4 F NPT
41	AHA-00021	ADAPTER: 45 DEG. 3/4 F NPT X 3/4 M NPT
42	AHA-00009	ADAPTER: 90 DEG. 3/4 M JIC X 3/4 F NPT
43	AHA-00020	ADAPTER: T 3/4 F NPT X 3/4 F NPT X 3/4 F NPT
44	AHA-00017	ADAPTER: HEX REDUCER BUSHING 3/4 M NPT X 1/2 F NPT
45	A101H73	ADAPTER: 90 DEG. 1/2 M NPT X 1/2 F NPT
46	AHA-00025	ADAPTER: HEX REDUCER BUSHING 1/2M NPT X 3/8 F NPT
47	AHF-00023	FEMALE QUICK COUPLERS
48	AHA-00026	ADAPTER: 90 DEG. SWIVEL 1-1/16 M ORB X 3/4 F NPT
49	AHA-00037	ADAPTER: STR. SWIVEL 1-1/16 M ORB X 3/4 F NPT
50	AHF-00025	DUST CAPS
51	AHA-00030	ADAPTER: 90 DEG. 3/4 M JIC X 3/4 M NPT EXTRA LONG
52	AHA-00010	ADAPTER: 90 DEG. 3/4 M NPT X 3/4 F NPT
53	A101H48	Counterbalance Valve
54	A101H47	Sequencing Valve

PARTS LIST - HYDRAULIC PLUMBING - HOSES - MODEL I-155TS

<u>Key No.</u>	<u>Part No.</u>	<u>Description</u>
A	A180H50	3/4" x 75" Long, M JIC, M NPT, Double Braid High Pressure Hose
B	A180H51	3/4" x 12" Long, M ORB, M JIC SS, Double Braid High Pressure Hose
C	A180H52	3/4" x 21" Long, M NPT, M NPT, Double Braid High Pressure Hose
D	A180H53	3/4" x 28" Long, M NPT, M NPT, Double Braid High Pressure Hose
E	A180H54	3/4" x 34" Long, M JIC, M NPT, Double Braid High Pressure Hose
F	A180H55	3/4" x 32" Long, M NPT, M NPT, Double Braid High Pressure Hose
G	A180H56	3/4" x 41 5/8" Long, M JIC, M JIC, Double Braid High Pressure Hose
H	A180H57	3/4" x 36 3/4" Long, M JIC, M JIC, Double Braid High Pressure Hose
I	A180H58	3/4" x 50 3/4" Long, M JIC, M NPT, Double Braid High Pressure Hose
J	A180H59	3/4" x 36" Long, M NPT, M NPT, Double Braid High Pressure Hose
K	A180H60	3/4" x 30" Long, M NPT, M NPT, Double Braid High Pressure Hose
L	A180H61	3/8" x 24" Long, M NPT, M NPT, Single Braid High Pressure Hose
M	A180H62	3/4" x 41 1/2" Long, M JIC, M JIC, Double Braid High Pressure Hose
N	A180H63	3/4" x 36 3/4" Long, M JIC, F JIC, Double Braid High Pressure Hose
O	A180H64	3/4" x 60" Long, M JIC, M NPT, Double Braid High Pressure Hose
P	A180H65	3/4" x 121" Long, M NPT, M NPT, Double Braid High Pressure Hose
Q	A180H66	3/4" x 19 1/2" Long, M NPT, M NPT, Double Braid High Pressure Hose
R	A180H67	3/4" x 62" Long M NPT, M NPT, Double Braid High Pressure Hose
S	A180H68	3/4" x 79" Long MNPT, MNPT, Double Braid High Pressure Hose

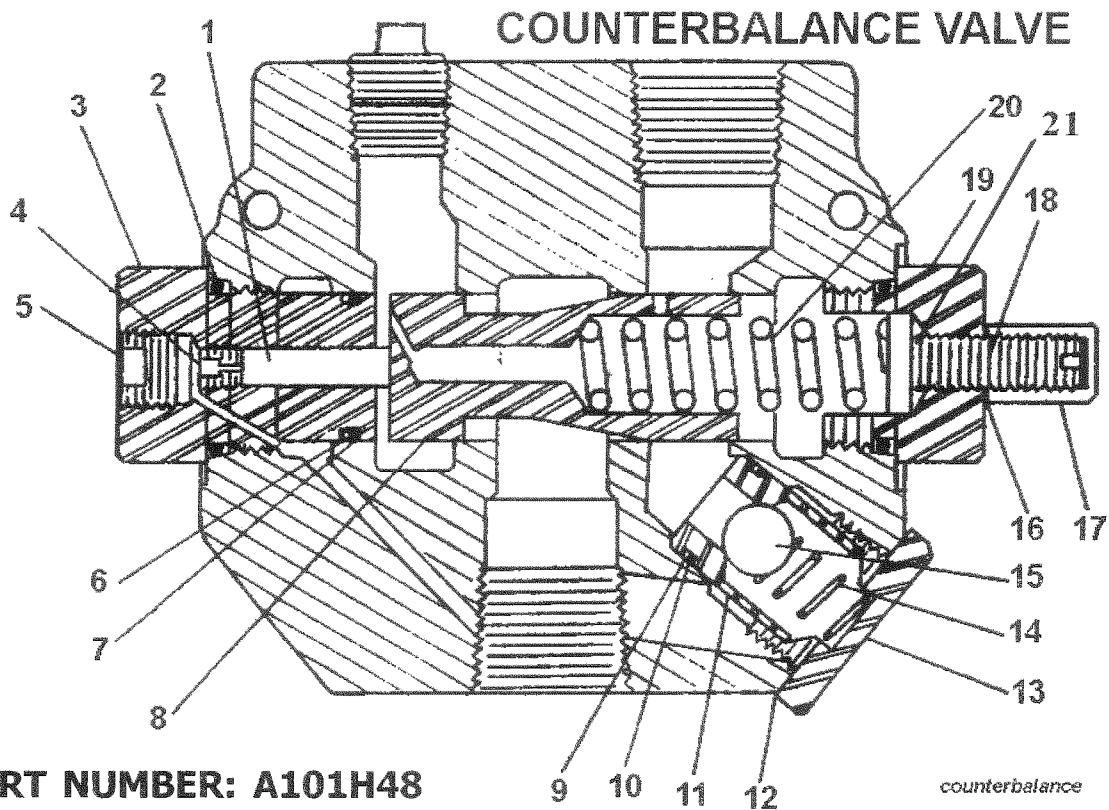
SEQUENCE VALVE



PART NUMBER: A101H47

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	A101H49	Piston
2	A101H50	O-ring
3	A101H51	External pilot plug
4	A101H52	Orifice
5	A101H53	Plug
6	A101H54	O-ring
7	A101H55	Backup washer
*8	A101H70	Metering spool
9	A101H57	Backup washer
10	A101H58	O-ring
11	A101H59	Check seat
12	A101H60	Aluminum washer
13	A101H61	Check plug
14	A101H62	Check spring
15	A101H63	Check ball
16	A101H64	Aluminum washer
17	A101H65	Acorn nut
18	A101H66	Adjusting screw
19	A101H69	Adjusting plug - RD1075 SM
20	A101H68	Metering spring
21		O-ring
*	A101H71	Valve body

* *NOT SOLD SEPARATELY*



PART NUMBER: A101H48

<u>KEY NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	A101H49	Piston
2	A101H50	O-ring
3	A101H51	External pilot plug
4	A101H52	Orifice
5	A101H53	Plug
6	A101H54	O-ring
7	A101H55	Backup washer
*8	A101H70	Metering spool
9	A101H57	Backup washer
10	A101H58	O-ring
11	A101H59	Check seat
12	A101H60	Aluminum washer
13	A101H61	Check plug
14	A101H62	Check spring
15	A101H63	Check ball
16	A101H64	Aluminum washer
17	A101H65	Acorn nut
18	A101H66	Adjusting screw
19	A101H69	Adjusting plug - RD1075 SM
20	A101H70	Metering spring (High Pressure Spring)
21		O-ring
*	A101H71	Valve body

* *NOT SOLD SEPARATELY*

SETTING THE SEQUENCE VALVE AND COUNTERBALANCE VALVE RELATIONSHIP

The sequence valve controls two hydraulic circuits with one hydraulic remote. Ashland Industries incorporates a sequence valve to control the Apron and Pushoff cylinder systems. When the tractors 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 pushoff is completely extended the operator then reverses the tractors hydraulic remote. The counterbalance valve will hold the apron open until the pushoff is fully retracted. The counterbalance valve then opens and allows the apron to close.

INSTRUCTIONS for establishing a good sequence valve and counterbalance valve relationship:

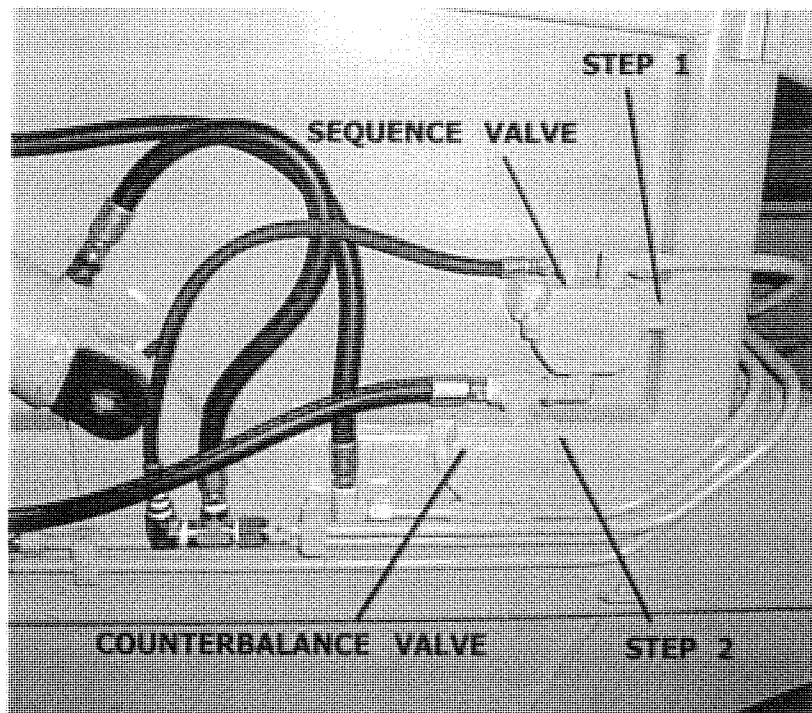
STEP 1 SEQUENCE VALVE

Remove acorn nut from end of sequence valve with a 1/2" wrench and loosen jam nut. Turn adjustment screw, using a 4mm hex wrench, clockwise until front apron rises before the push-off begins to advance while the earthmover is empty. Turn the adjustment screw an additional 1/4 turn clockwise, tighten jam nut, then replace the acorn nut and tighten. Torque check valve assembly and internal pilot plug to 25 ft.-lbs. **maximum**.

STEP 2 COUNTERBALANCE VALVE

Remove acorn nut from end of Counterbalance valve and loosen jam nut. Turn adjustment screw clockwise until front apron holds in a raised position while rear gate is being retracted. Turn the adjustment screw an additional 1/4 turn clockwise, tighten jam nut, then replace the acorn nut and tighten. **DO NOT** tighten adjusting screw more than necessary.

NOTE: Sequence valve identified by "S" imprint on No. 19 adjusting plug per previous page. Counterbalance valve identified by "CB" imprint on No. 19 adjusting plug per previous page.



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

HYDRAULIC SYSTEM

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 a sequence 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.
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TORQUE SPECIFICATIONS

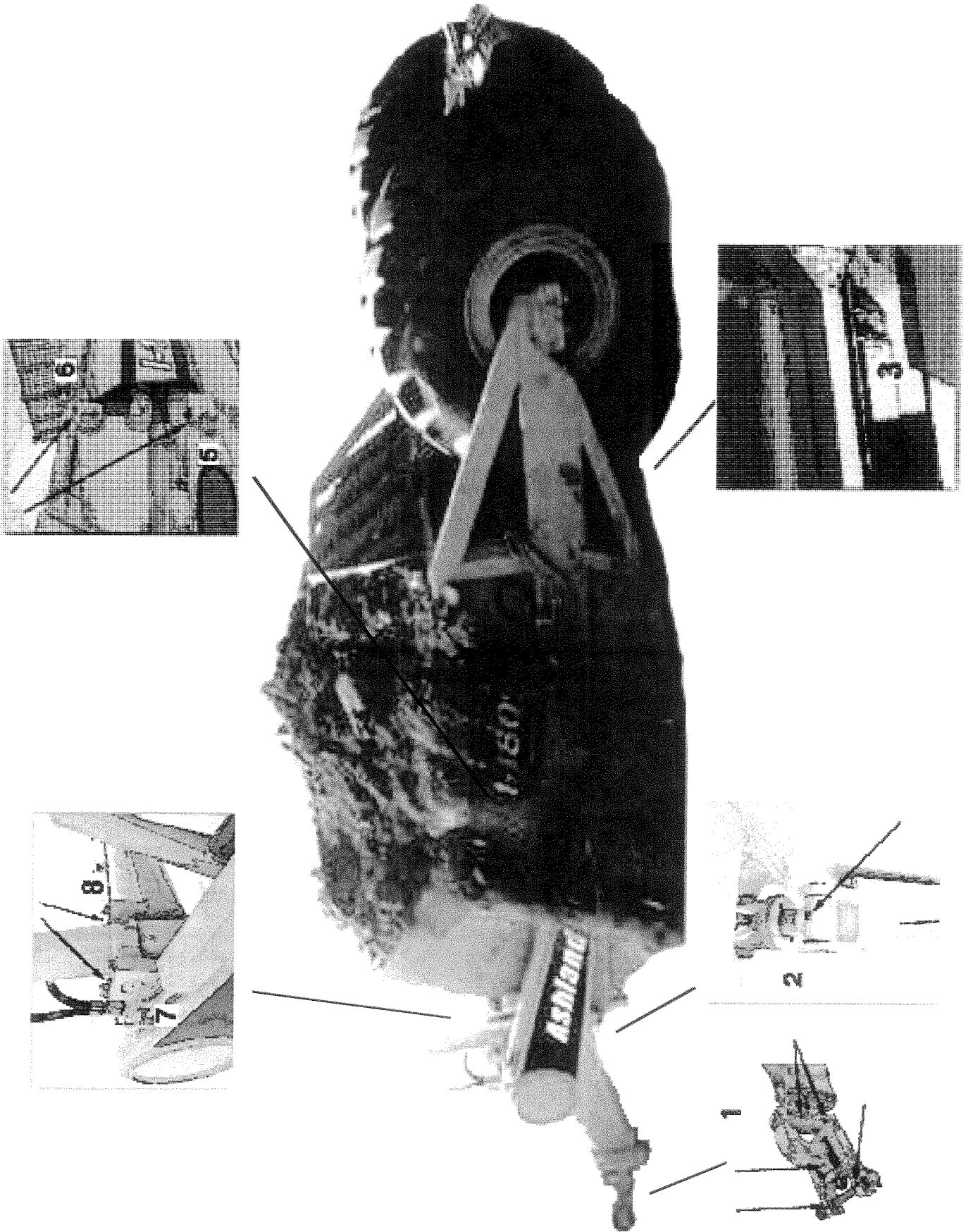
<i>Grade 8</i>	
<i>Bolt Diameter</i>	<i>Torque ft-lbs</i>
1/4"	12
5/16"	25
3/8"	45
7/16"	70
1/2"	110
9/16"	150
5/8"	220
3/4"	380
7/8"	600
1"	900
1-1/8"	1280

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



PUSHING THE EARTHMOVER

The I-180TS was designed to be pushed when equipped with the optional push-bar. However, Ashland Industries, Inc. **STRONGLY** recommends using extreme caution when pushing the I-180TS earthmover to prevent any unnecessary damage.



CAUTION! The I-180TS earthmover must be pushed in a straight line with a maximum of a 150 hp dozer. Do not ram or jar the earthmover while push and push at a constant speed.



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.

Apron closes slowly

or

Apron and push-off are not working well together.

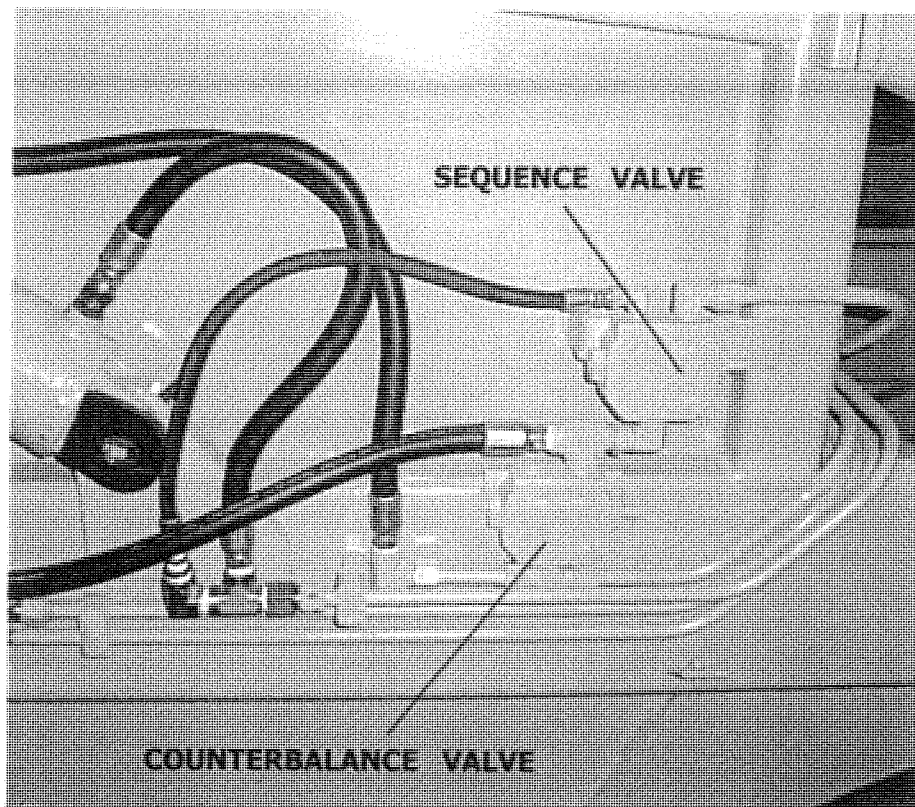
1. Sequence valve needs adjusting.
 - a) Remove acorn nut from end of sequence valve with a 1/2" wrench. Turn adjustment screw, using a 4mm hex wrench, clockwise until front apron rises before the push-off advances while the earthmover is empty. Turn the adjustment screw an additional 1/4 turn clockwise, then replace the acorn nut and tighten.
 - b) Torque check valve assembly and int. pilot plug to **25 ft-lbs maximum**.



CAUTION! Overtightening check valve assembly and int. pilot plug will cause internal damage to the sequence valve.



Note: Check valve assembly may leak slightly when torqued to 25 ft-lbs.



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 original purchaser, or the date the product is first put into service via a rental agreement or other means, whichever occurs first.

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 these items are warranted separately by their respective manufacturer. 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.

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