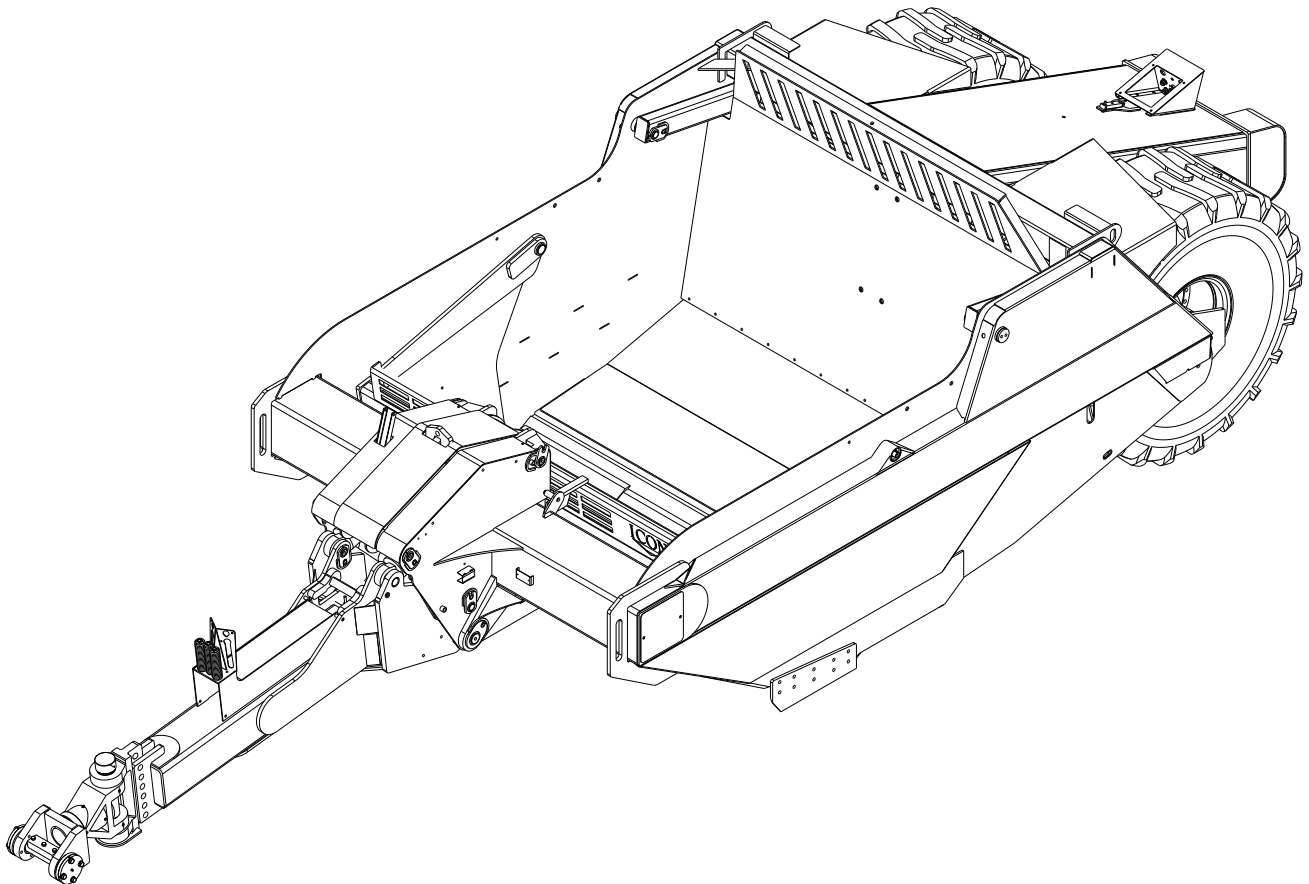




ICON™

Model 819 Scraper Service and Parts Manual



LANDOLL CORPORATION

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Foreword

Literature Information

This information should be stored in the literature holder located on the machine.

This manual contains safety information, operating instructions, lubrication and maintenance information.

Some of the photographs or illustrations in the publication show details that can differ slightly from your personal machine. Shields and covers may have been removed to allow for illustrations.

Constant improvement and knowledge of product design may cause changes to your personal machine that is not listed in this manual. Read, understand, and keep this manual with the machine to aid in repairs, adjustment, service and parts identification.

Whenever a question arises regarding your machine, or this manual, please contact Product Support for assistance.

Safety

The safety section of this manual lists basic safety precautions. In addition, this section shows the location of safety signs and decals used on this machine.

Read and understand the basic precautions listed in the safety section before operating or performing lubrication, maintenance or repair work on this machine.

NOTE: Before any service or repair work is performed, make certain that all safety stops are in place.

Be certain to remove all safety stops when repairs are complete.

Operation

This operation section is a reference guide for the new operator and a refresher for the experienced operator. Operating techniques shown are basic, skill and technique will increase with knowledge and usage of the machine.

Maintenance

The maintenance section is a guide to machine care. The illustrated step by step procedures covers the most important of the maintenance schedule. Regular routine lubrication is described in less detail.

Maintenance Intervals

Normally, all lubrication should be on a daily basis. However, certain locations only require lubrication on a weekly basis or require a specific quantity. These locations will be marked clearly, showing and describing requirements.

Under extremely severe, dusty/wet/sandy conditions, or if the haul is long and rough, more frequent lubrication and inspection of highly stressed areas is recommended.

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Safety Information

Introduction

This manual is compiled as a guide for owners and operators of the Scraper. Read it carefully so as to be able to follow the suggestions made. Please take time to understand the proper maintenance schedule and SAFE operation of your equipment.

In the event that a new and inexperienced operator is placed in charge of running the equipment, they should read and understand, that part of the manual for proper maintenance and SAFE operation, and to be trained in regard by an experienced operator.

Owner Assistance

If customer service or repairs are needed, contact your Icon dealer. They have trained personnel, parts and service equipment specially designed for Icon products. Your machine's parts should only be replaced with Icon parts. Have the Serial Number and complete Model Number available when ordering parts from your Icon dealer (**See Figure 2-1.**)

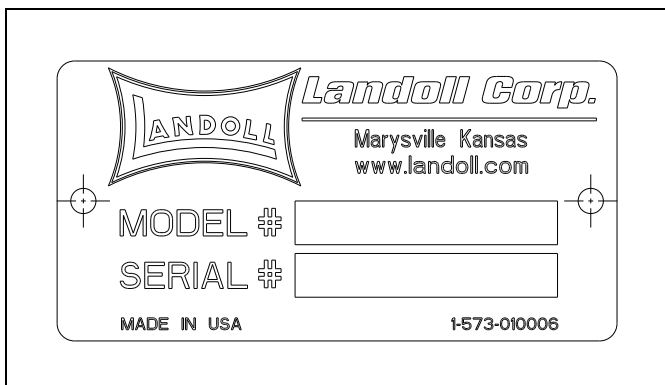


Figure 2-1: ID Plate

Warranty Registration

Be certain to register the grader, by Online registration at www.landoll.com within 10 days of purchase or lease, in order to be on file at Landoll and eligible for Warranty.

Take time to read and understand the Warranty for this product. That Warranty is printed in the Owner's Manual (**See Figure 2-2**), and a separate copy enclosed in the packet.

ICON/Landoll reserves the right to make changes and/or add improvements to its products at any time without obligation to previously manufactured equipment.

Please take time to complete the following information for your personal reference, should you need to contact your Dealer with questions or parts needs.

MODEL _____

SERIAL # _____

DATE OF PURCHASE _____

DEALER NAME _____

We at ICON/Landoll wish to thank you for purchasing our product. We have spent considerable time and effort to research, design, test and develop this machine and are confident it will serve you in the use for which it was designed.

LANDOLL CORPORATION

Product Warranty

LANDOLL CORPORATION 1600 W. 8th St. Beloit KS 67420
(referred to as LANDOLL in this document)

LANDOLL shall Warrant workmanship and materials on the **ICON Industrial Products** for a period of 270 calendar day from the date of original purchase, lease, or rental, from the original Dealer, and in accordance with the following terms and conditions.

Should any part or component fail within the Warranty period, and under normal use conditions, LANDOLL shall supply a new part or component for replacement through the original Dealer. Cost of normal ground freight, for that part or component to the Dealer, shall be paid by LANDOLL. Repair and replacement labor cost, from the original Dealer, shall be paid by LANDOLL at a rate negotiated by LANDOLL.

No further expense shall be paid by LANDOLL, including but not limited to, loss of time or income.

LANDOLL shall not provide Warranty on any part or component that has failed due to abuse, misuse, alteration, improper maintenance, or normal wear. Failure occurring while being pulled by a tractor in excess of engine horsepower, as described in the owners manual and/or posted on the machine, is considered abuse and misuse and shall not receive Warranty. Warranty applies only to normal, intermittent agricultural use, and not commercial or industrial use.

In regard to some components manufactured by other companies and sold by LANDOLL, including but not limited to tires, said Warranty shall be provided solely by that manufacturing company.

This Warranty applies to products sold in the United States and Canada, and is made expressly in place of all other warranties, expressed or implied.

Figure 2-2: Product Warranty

Understanding Safety Statements

You will find various types of safety information on the following pages and on the machine decals (signs) attached to the implement. This section explains their meaning.

NOTICE

Special notice - read and thoroughly understand.



CAUTION

Proceed with caution. Failure to heed caution may cause injury to person or damage product.



WARNING

Proceed with caution. Failure to heed warning will cause injury to person or damage product.



DANGER

Proceed with extreme caution. Failure to heed notice will cause injury or death to person and/or damage product.

NOTE

Means that failure to follow these instructions could cause damage to the equipment or cause it to operate improperly.

NOTE

Make sure you read and understand the information contained in this manual and on the machine signs (decals) before you attempt to operate or maintain this vehicle.

The safety statements contained in this manual relate to the operation of the Grader.

NOTE

You should read and understand the information contained in this manual and on the machine decals before you attempt to operate or maintain this equipment.

- Examine safety decals and be sure you have the correct safety decals for the machine. Order replacement decals through your Icon dealer.
- Keep these signs clean so they can be observed readily. It is important to keep these decals cleaned more frequently than the machine. Wash with soap and water or a cleaning solution as required.
- Replace decals that become damaged or lost. Also, be sure that any new machine components installed during repair include decals which are assigned to them by the manufacturer.
- When applying decals to the machine, be sure to clean the surface to remove any dirt or residue. Where possible, sign placement should protect the sign from abrasion, damage, or obstruction from mud, dirt, oil etc.



DANGER

- **Keep Riders Off of Machinery**
- **Do not allow anyone to ride on tractor or machine. Riders could be struck by foreign objects or thrown from the machine.**
- **Never allow children to operate equipment.**
- **Keep bystanders away from machine during operation.**

Safety Decals

See Decal Listing for decal locations.

NOTE

Replace all missing or damaged safety signs/decals.

Pinching or Crushing Danger

1. Moving parts that are operated by hydraulic pressure can cause serious injury or death.
2. Use extreme caution when working around any moving part.
3. Do not allow any person to be on or near the machine while it is in motion.

Moving Parts

1. Be aware of all moving parts of the machine.
2. Do not allow anyone to be near, or on the machine while operating any moving part.

Danger

1. Read and understand the operator's manual before using the machine.
2. Allow no person to operate the machine before reading the manual and being instructed on proper operation.

Caution

1. This machine is designed for off road use only.

Danger, High Pressure

1. High pressure fluid can cause serious damage to hands and eyes.
2. Carefully relieve pressure before attempting any
3. adjustments.
4. Tighten all fittings before applying pressure.

NOTE

*If fluid is sprayed into eyes or injected into skin, **see a doctor immediately!***

Lubrication

1. Lubrication information is placed near each zerk.
2. Proper maintenance should be followed to assure the working life of the machine.

Proper Notification

1. Contact the proper authorities before you dig.
2. When digging in a populated area, it is recommended that a call be made to area utilities to establish the local of any buried pipes, lines, or structures. When digging in open areas, research and know the local of any underground structures and objects.
3. Striking the blades or bits against buried objects can cause damage to the machine, and is considered as abuse to the unit.

Storage Recommendations

NOTE

If the machine is being stored or not in use for a long period of time, it is recommended that a coating of heavy grease be applied to the exposed chrome cylinder rods. This will help to protect the coating from moisture and rust during this time.

Standard Specifications

Model Specification

Specification	
	Model 819
Capacity Struck	17.3 yd
Capacity Heaped	19 yd
Shipping Weight	28,000 lbs
Width of Cut	10'
Overall Width	10' - 11"
Transport Height	9' - 1"
Replaceable Cutting Edge Center	7/8" X 16" X 48"
Replaceable Cutting Edge Outside	7/8" X 13" X 35.75"
Ground Clearance Full Raised	18"
Maximum Cut Depth	9"
Length Overall	28' - 3"
Cylinders Lift	5.5" X 22"
Cylinders Gate	6" X 22"
Cylinders Push Off	5' X 40"
Hydraulic Hoses	3,000 psi rated
Hydraulics use a Sequencing Valve and requires 2 Tractor Remotes	2 Valve System
Hitches	Cast 360° Swivel
Grease Locations	30 total
Safety Warning Lights	Standard LED
Hub & Spindle	20 Bolt 48,500 lbs.

Tire Inflation

Tire Size	Tire Manufacturer	Ply/Load Rating	Inflation Pressure (Psi) (Max.)
29.5 X 25	Titan or equivalent	28 Ply 38,580LBS. @ 5MPH	62 psi

Recommended Torque Specification For Lug Bolts and Nuts

Bolt Size	Torque (FT. LBS.)
7/8-14	450ft. lbs.

General Torque Specifications (rev. 4/97)

TORQUE SPECIFIED IN FOOT POUNDS - This chart provides tightening torques for general purpose applications when special torques are not specified on process or drawing. Assembly torques apply to plated nuts and cap-screws assembled without supplemental lubrication (as received condition). They do not apply if special graphite moly-disulfide or other extreme pressure lubricants are used. When fasteners are dry (solvent cleaned) add 33% to as received condition torque. Bolt head identification marks indicate grade and may vary from manufacturer to manufacturer. Thick nuts must be used on grade 8 cap-screws. Use value in [] if using prevailing torque nuts.

UNC SIZE	SAE Grade 2	SAE Grade 5	SAE Grade 8	UNF SIZE	SAE Grade 2	SAE Grade 5	SAE Grade 8
1/4-20	4 [5]	6 [7]	9 [11]	1/4-28	5 [6]	7 [9]	10 [12]
5/16-18	8 [10]	13 [13]	18 [22]	5/16-24	9 [11]	14 [17]	20 [25]
3/8-16	15 [19]	23 [29]	35 [42]	3/8-24	17 [21]	25 [31]	35 [44]
7/16-14	24 [30]	35 [43]	55 [62]	7/16-20	27 [34]	40 [50]	60 [75]
1/2-13	35 [43]	55 [62]	80 [100]	1/2-20	40 [50]	65 [81]	90 [112]
9/16-12	55 [62]	80 [100]	110 [137]	9/16-18	60 [75]	90 [112]	130 [162]
5/8-11	75 [94]	110 [137]	170 [212]	5/8-18	85 [106]	130 [162]	180 [225]
3/4-10	130 [162]	200 [250]	280 [350]	3/4-16	150 [188]	220 [275]	320 [400]
7/8-9	125 [156]	320 [400]	460 [575]	7/8-14	140 [175]	360 [450]	500 [625]
1-8	190 [237]	408 [506]	680 [850]	1-14	210 [263]	540 [675]	760 [950]
1-1/8-7	270 [337]	600 [750]	960 [1200]	1-1/8-12	300 [375]	660 [825]	1080 [1350]
1-1/4-7	380 [475]	840 [1050]	1426 [1782]	1-1/4-12	420 [525]	920 [1150]	1500 [1875]
1-3/8-6	490 [612]	1010 [1375]	1780 [2225]	1-3/8-12	560 [700]	1260 [1575]	2010 [2512]
1-1/2-6	650 [812]	1460 [1825]	2360 [2950]	1-1/2-12	730 [912]	1640 [2050]	2660 [3325]
1-3/4-5	736 [920]	1651 [2063]	2678 [3347]	1-3/4-12	920 [1150]	2063 [2579]	3347 [4183]

METRIC:
Coarse thread metric class 10.9 fasteners and class 10.0 nuts and through hardened flat washers, phosphate coated, Rockwell "C" 38-45. Use value in [] if using prevailing torque nuts.

Nominal thread diameter (mm)	Newton Meters (Standard Torque)	Foot Pounds (Standard Torque)	Nominal Thread Diameter (mm)	Newton Meters (Standard Torque)	Foot Pounds (Standard Torque)
6	10 [14]	7 [10]	20	385 [450]	290 [335]
7	16 [22]	12 [16]	24	670 [775]	500 [625]
8	23 [32]	17 [24]	27	980 [1105]	730 [825]
10	46 [60]	34 [47]	30	1330 [1470]	990 [1090]
12	80 [125]	60 [75]	33	1790 [1950]	1340 [1450]
14	125 [155]	90 [115]	36	2325 [2515]	1730 [1870]
16	200 [240]	150 [180]	39	3010 [3210]	2240 [2380]
18	275 [330]	205 [245]	-----	-----	-----

Table 3-1: General Torque Specifications

Hydraulic Fitting Torque Specifications

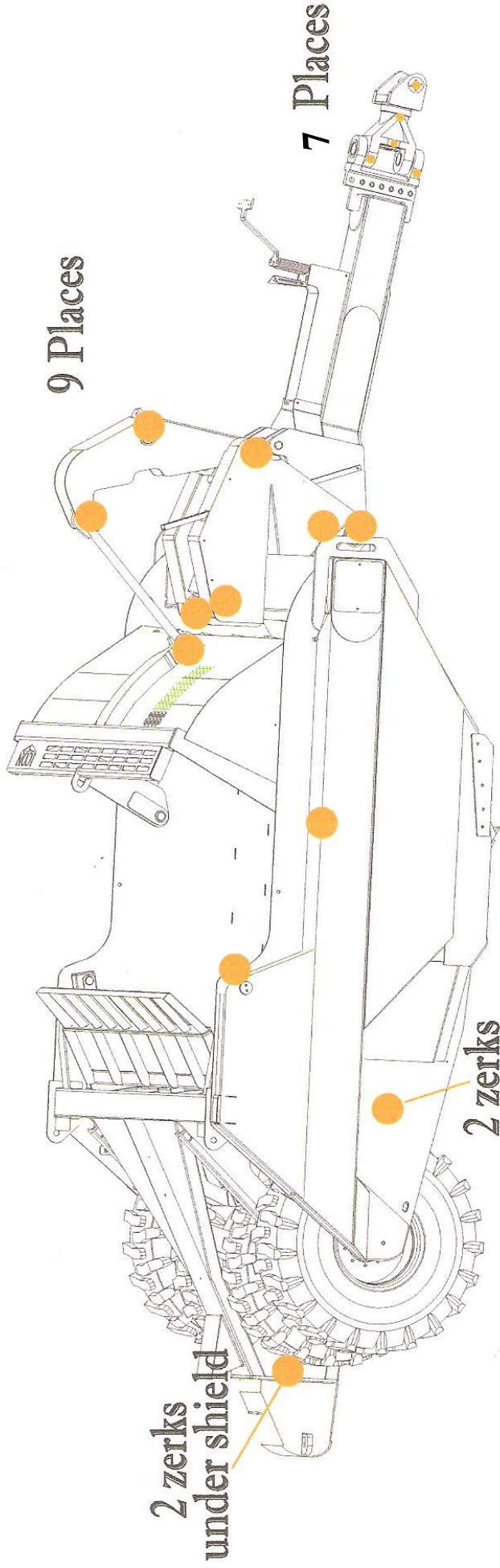
TORQUE IS SPECIFIED IN FOOT POUNDS- 37° JIC, ORS, & ORB (REV. 10/97)

This chart provides tightening torques for general purpose applications when special torques are not specified on process or drawing. Assembly torques apply to plated nuts and capscrews assembled without supplemental lubrication (as received condition). They do not apply if special graphite moly-disulfide or other extreme pressure lubricants are used. When fasteners are dry (solvent cleaned) add 33% to as received condition torque. Bolt head identification marks indicate grade and may vary from manufacturer to manufacturer. Thick nuts must be used on grade 8 capscrews. Use value in [] if using prevailing torque nuts.

Parker Brand Fittings			
Dash Size	37 Degree JIC	O-Ring (ORS)	O-Ring Boss (ORB)
-4	11-13	15-17	13-15
-5	14-16	-----	21-23
-6	20-22	34-36	25-29
-8	43-47	58-62	40-44
-10	55-65	100-110	58-62
-12	80-90	134-146	75-85
-16	115-125	202-218	109-121
-20	160-180	248-272	213-237
-24	185-215	303-327	238-262
-32	250-290	-----	310-340
Gates Brand Fittings			
Dash Size	37 Degree JIC	O-Ring (ORS)	O-Ring Boss (ORB)
-4	10-11	10-12	14-16
-5	13-15	-----	-----
-6	17-19	18-20	24-26
-8	34-38	32-40	37-44
-10	50-56	46-56	50-60
-12	70-78	65-80	75-83
-14	-----	65-80	-----
-16	94-104	92-105	111-125
-20	124-138	125-140	133-152
-24	156-173	150-180	156-184
-32	219-243	-----	-----
Aeroquip Brand Fittings			
Dash Size	37 Degree JIC	O-Ring (ORS)	O-Ring Boss (ORB)
-4	11-12	10-12	14-16
-5	15-16	-----	16-20
-6	18-20	18-20	24-26
-8	38-42	32-35	50-60
-10	57-62	46-50	75-80
-12	79-87	65-70	125-135
-14	-----	-----	160-180
-16	108-113	92-100	200-220
-20	127-133	125-140	210-280
-24	158-167	150-165	270-360
-32	245-258	-----	-----

Table 3-2: Hydraulic Fitting Torque Specifications

**Grease Guide 800 Series
(34 total zerks)**



All Locations Are Grease Daily, Except Axles (2 zerks per hub - 3 pumps weekly)

About the ICON 819/821 Limited Warranty.....

The ICON 800 Series scraper is designed with front lowering and a push bumper on the rear. The responsibility of use of this push bumper is left up to the discretion of the owner and operator.

When push loading a pull type scraper, there are many issues to contend with so as not to damage the scraper or the pull type tractor. The most important is the operator. The push tractor can be an issue. Size and power must be kept within reasonable range. Should the pull tractor operator put the scraper bit too deep into the ground, damage can occur due to undue stress on the frog of the scraper. A straight push is necessary. Out of line or side stress can damage the rear frame and possibly the scraper tires. Hard hits on link up with the push bumper can also damage the machine. Whether loading single or tandem machines, care must be taken not to jackknife the machines. Trained operators and common sense will create less damage and downtime. When pushing in a bogged down or stuck condition, extreme care must be taken so as not to side stress or damage the rear frame.

Due to the many ways in which the scraper can be damaged while pushing.

ICON will not Warranty damage to the scraper occurred while pushing.



When pushing this scraper there are many issues to contend with so as not to damage this machine. Read the owners manual in regard. The responsibility for the use of the push bumper is at the discretion of the owner and operator. ICON will not Warranty damage occurred while pushing

Optional Depth Gauge For 800 Series

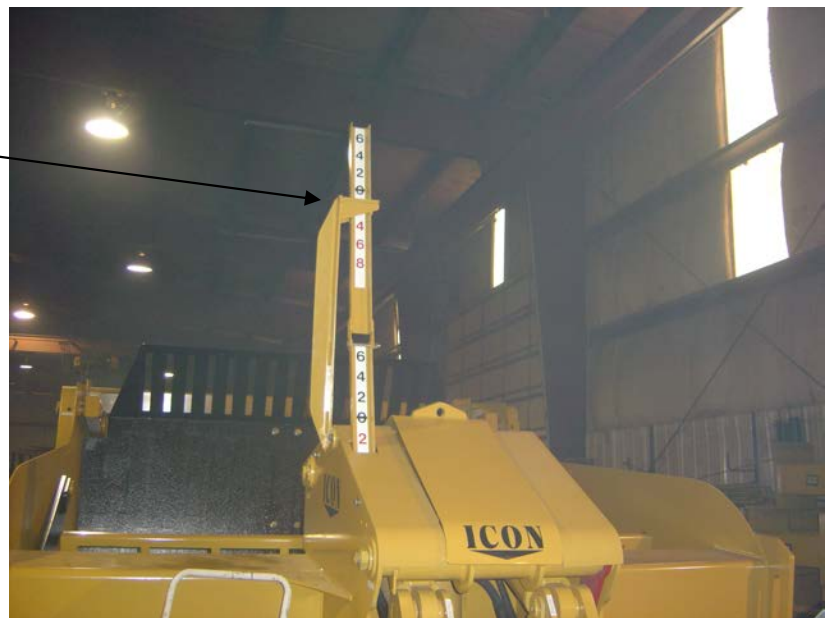
Shown is the optional depth gauge extension frame. It mounts, by use of two (2) of the existing cover bolts. This allows easier viewing of the back machine, in a tandem hook up.

By removing the rear bolt on the frame, allows the unit to fold down for transport.

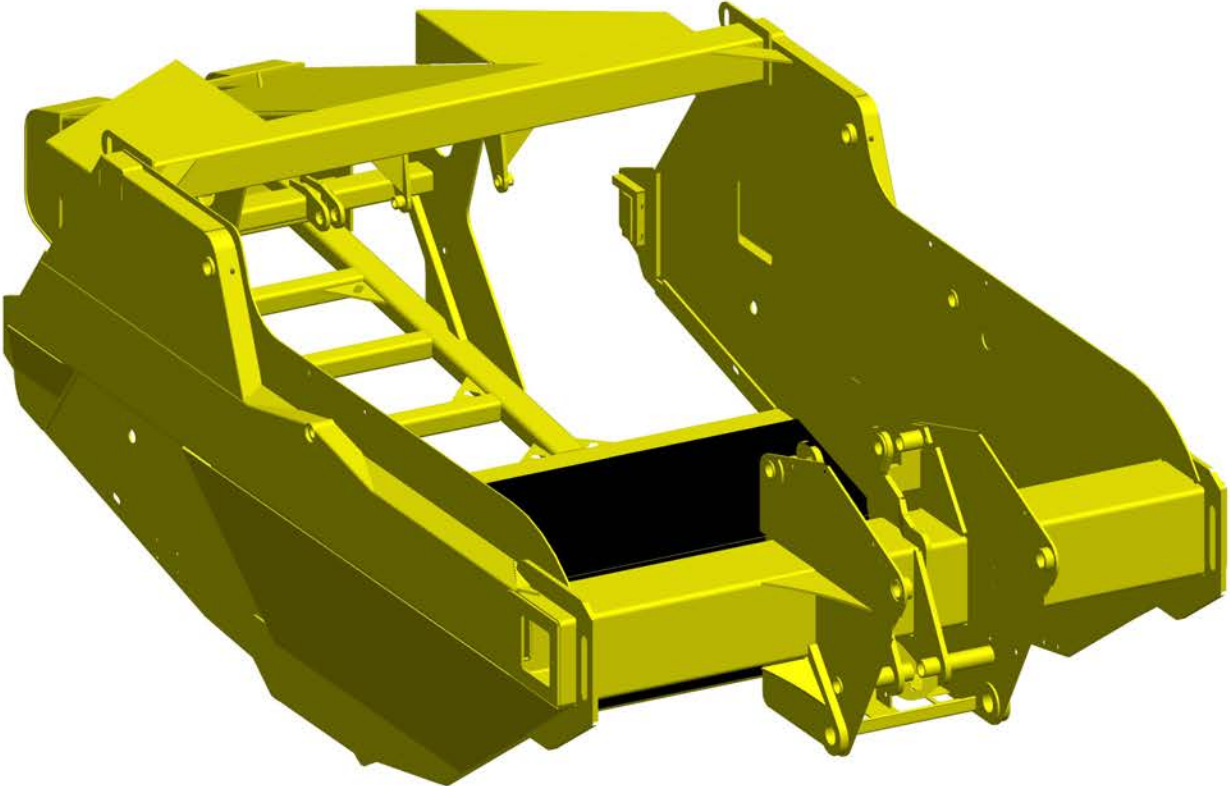
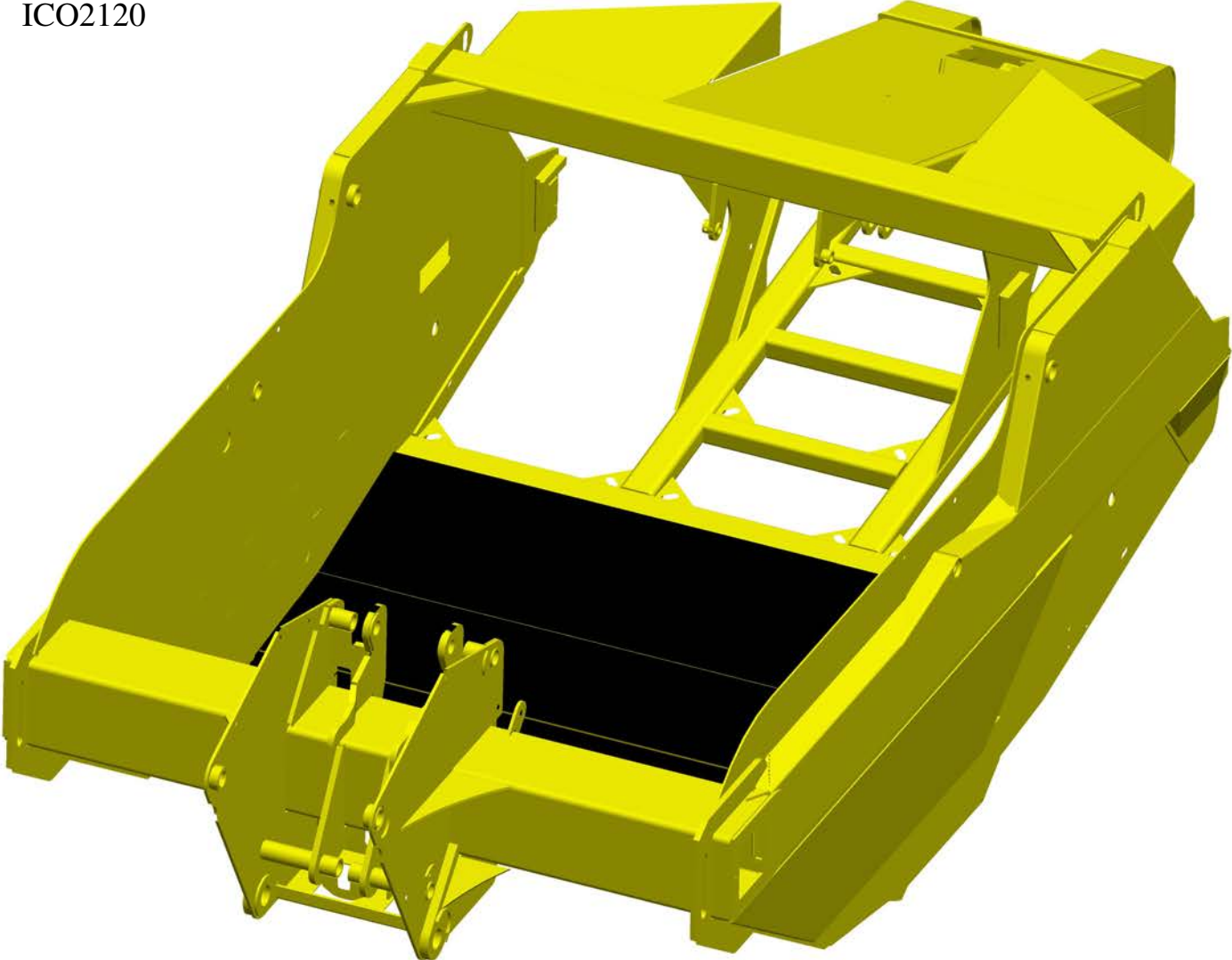
CAUTION: Care should be used when folding the extension down. Be sure to keep hands and fingers out of the way, as the folding motion of the extension can cause serious pinching and crushing injury.

The extension bracket also contain the pointer for the gauge.

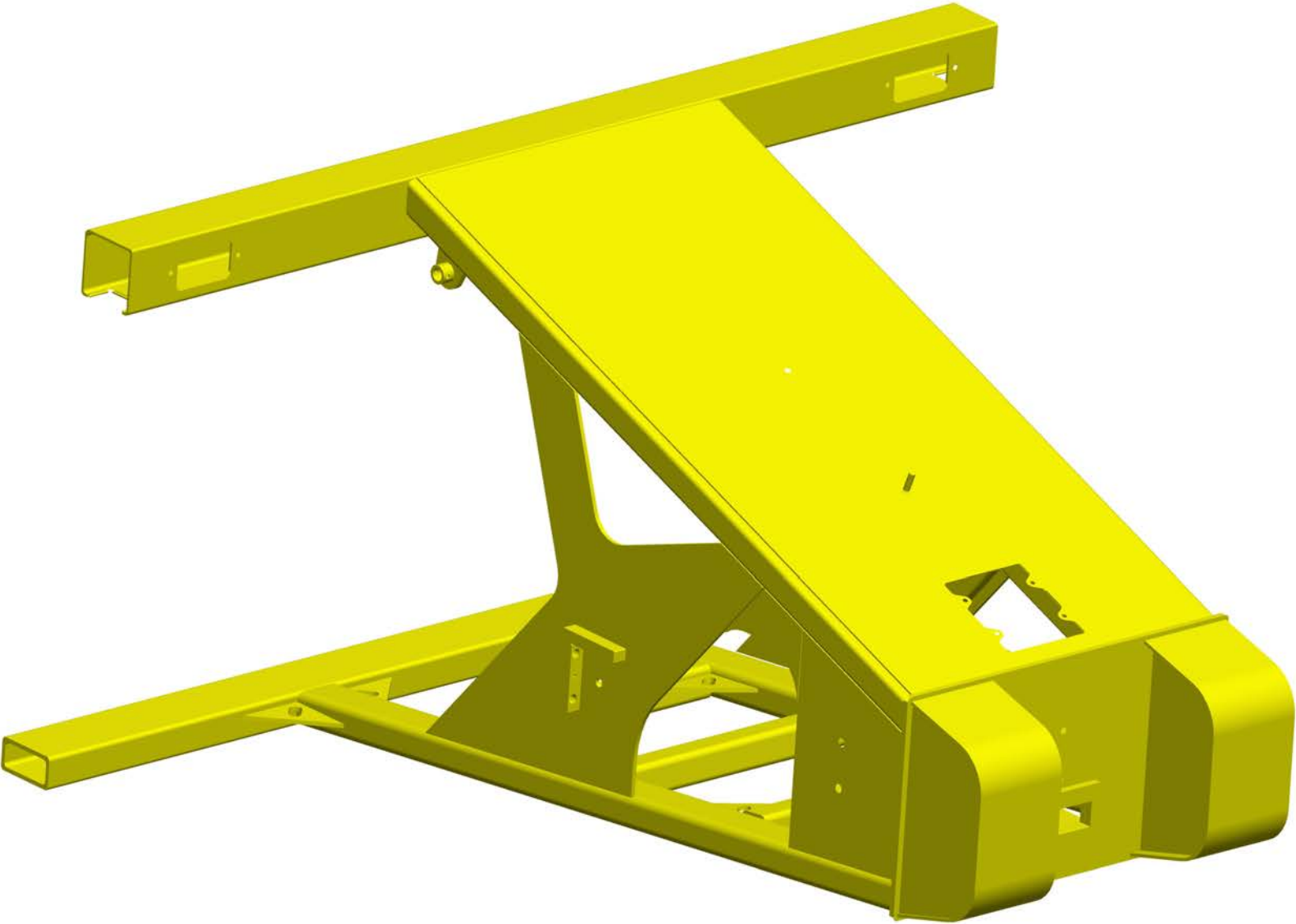
The extension and all the components are available to retro fit all existing 821 and 819 earthmovers. The part # is 2000598



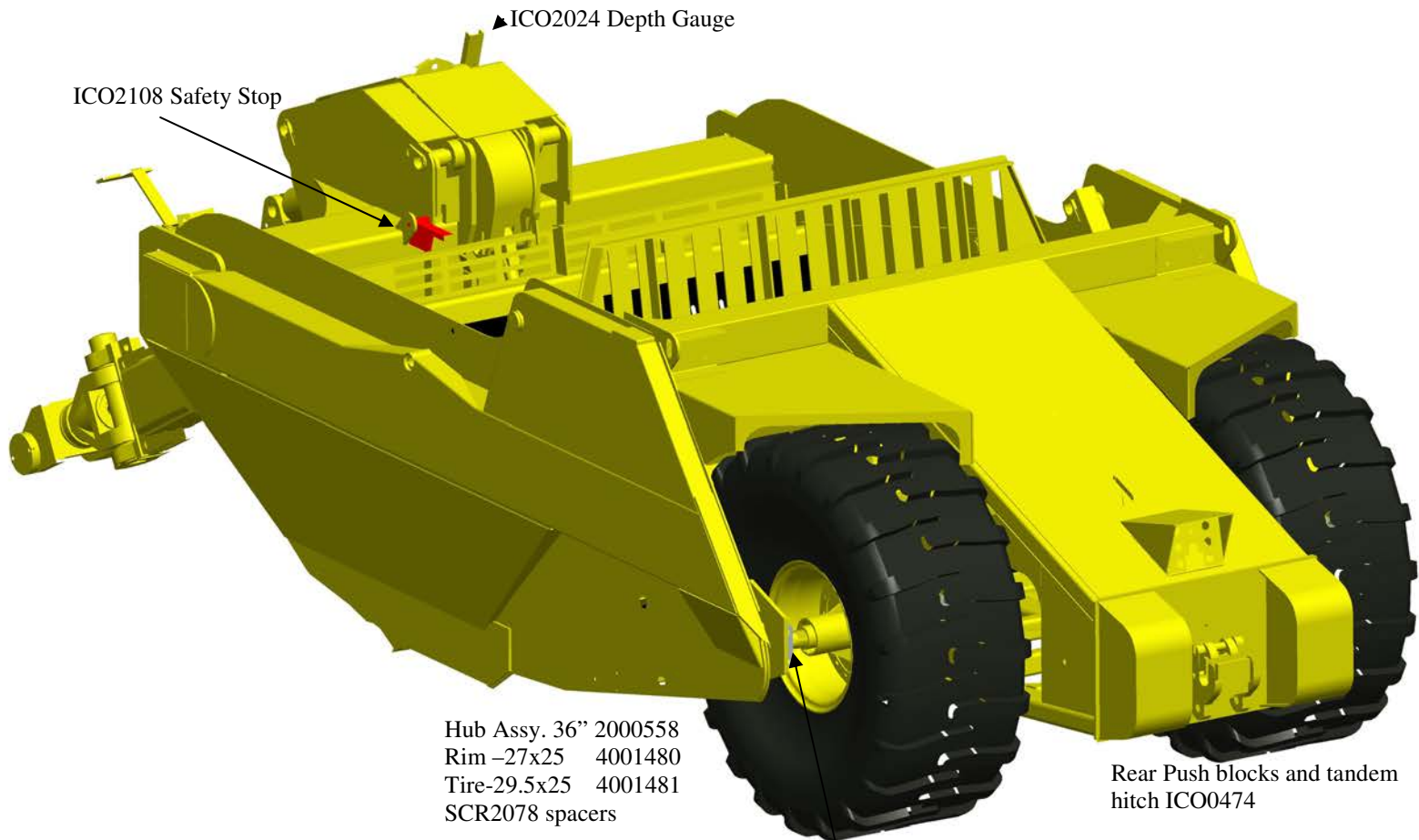
819 Main Frame
ICO2120



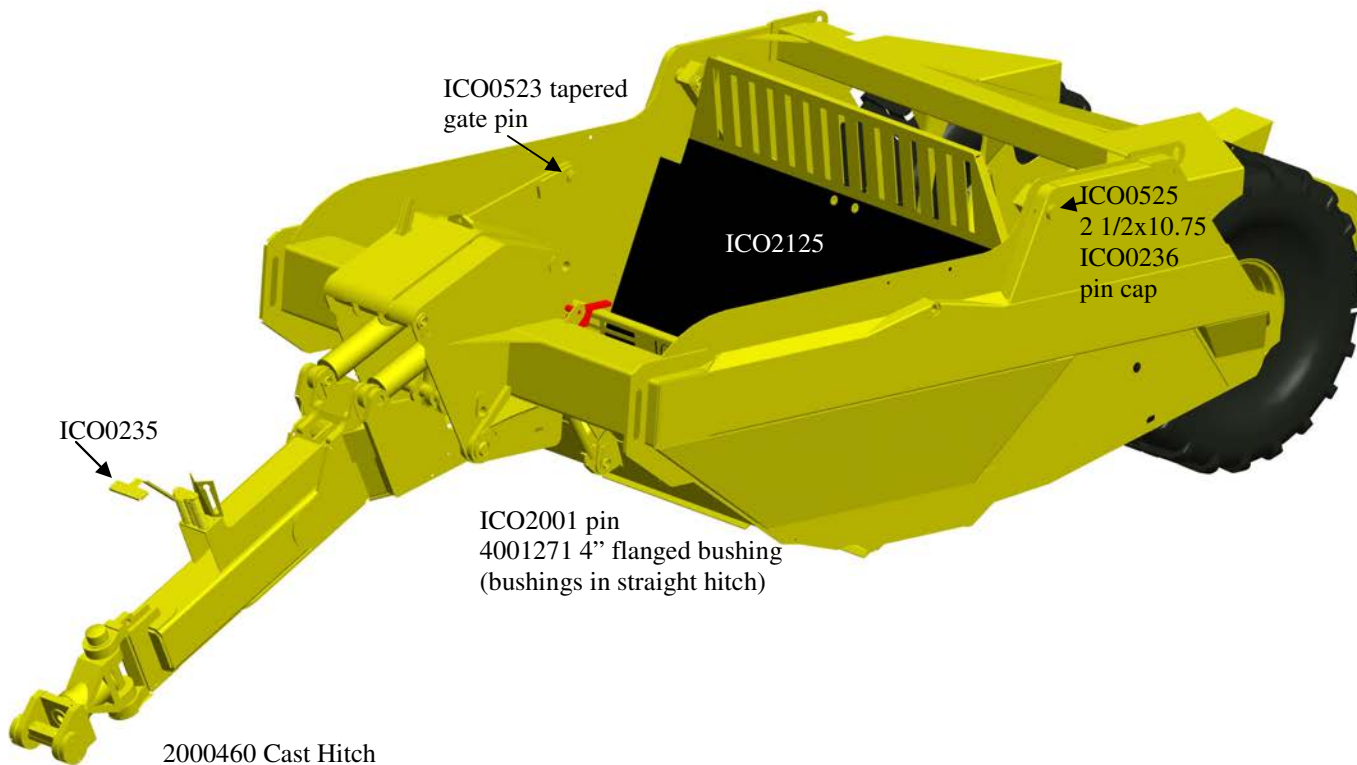
Rear View of Main Frame Showing Push Blocks And Axle Mounting Tabs.



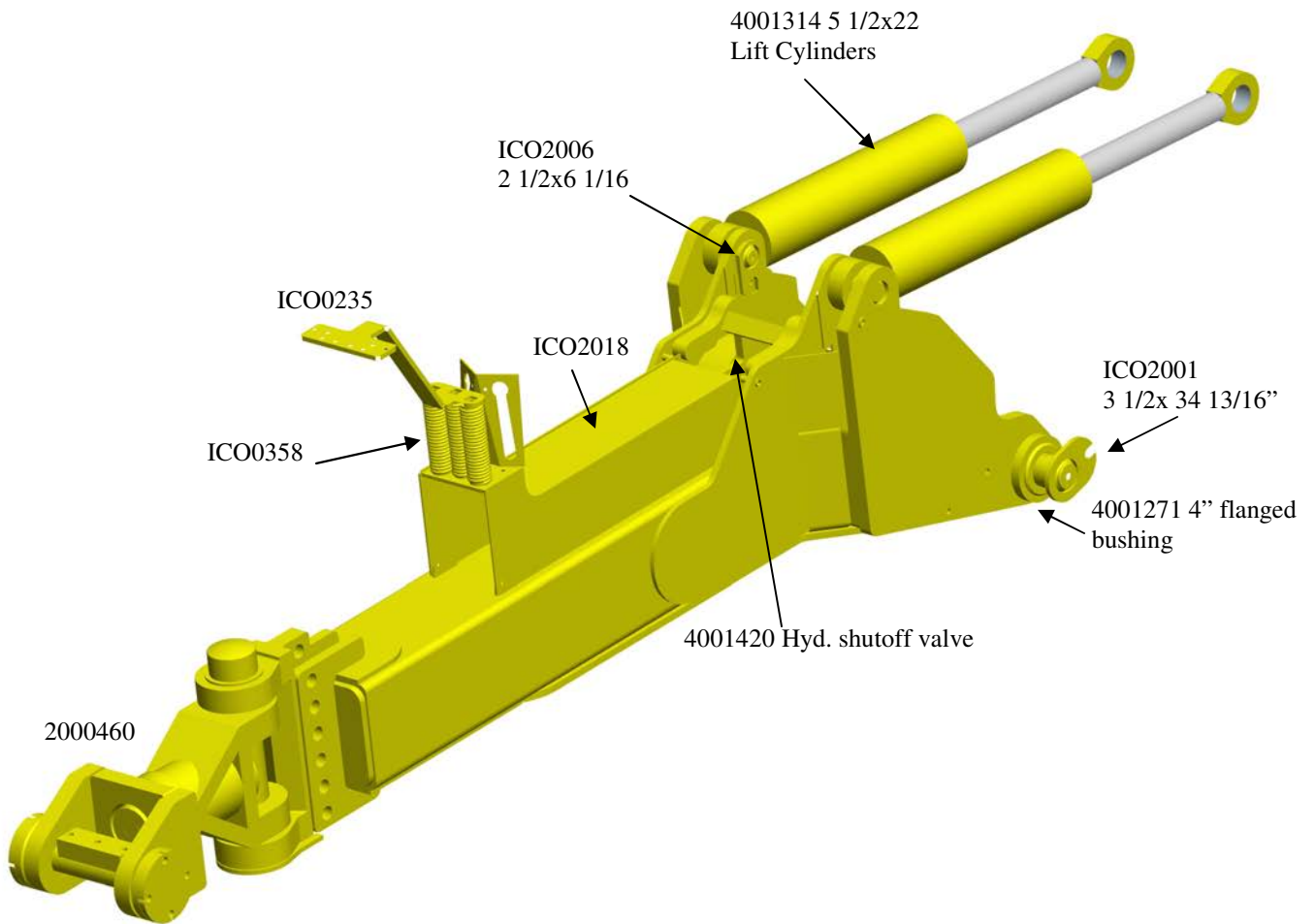
Assembled View of 819



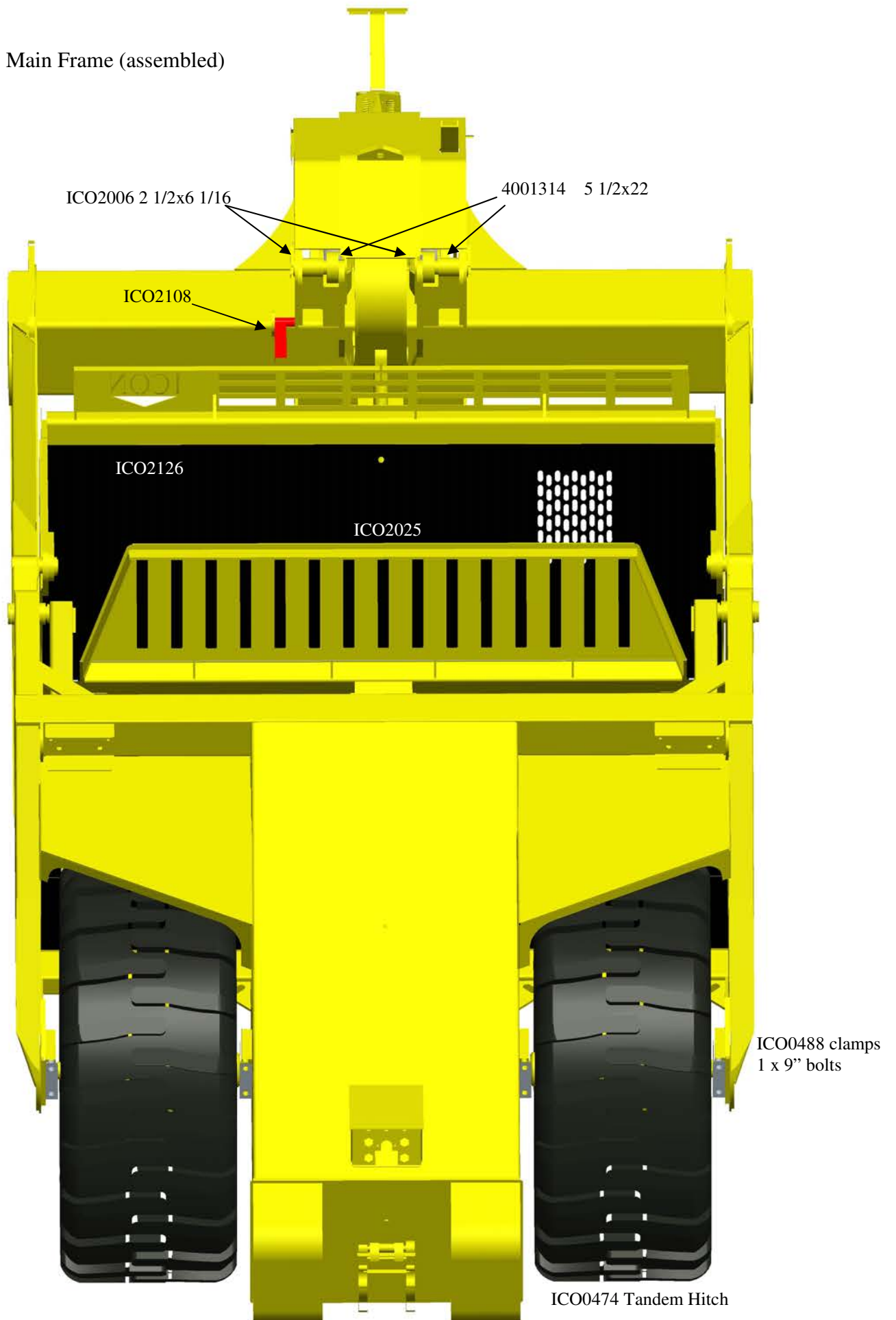
ICO0488 Axle clamp w/groove
ICO2113 Axle bolt spacers



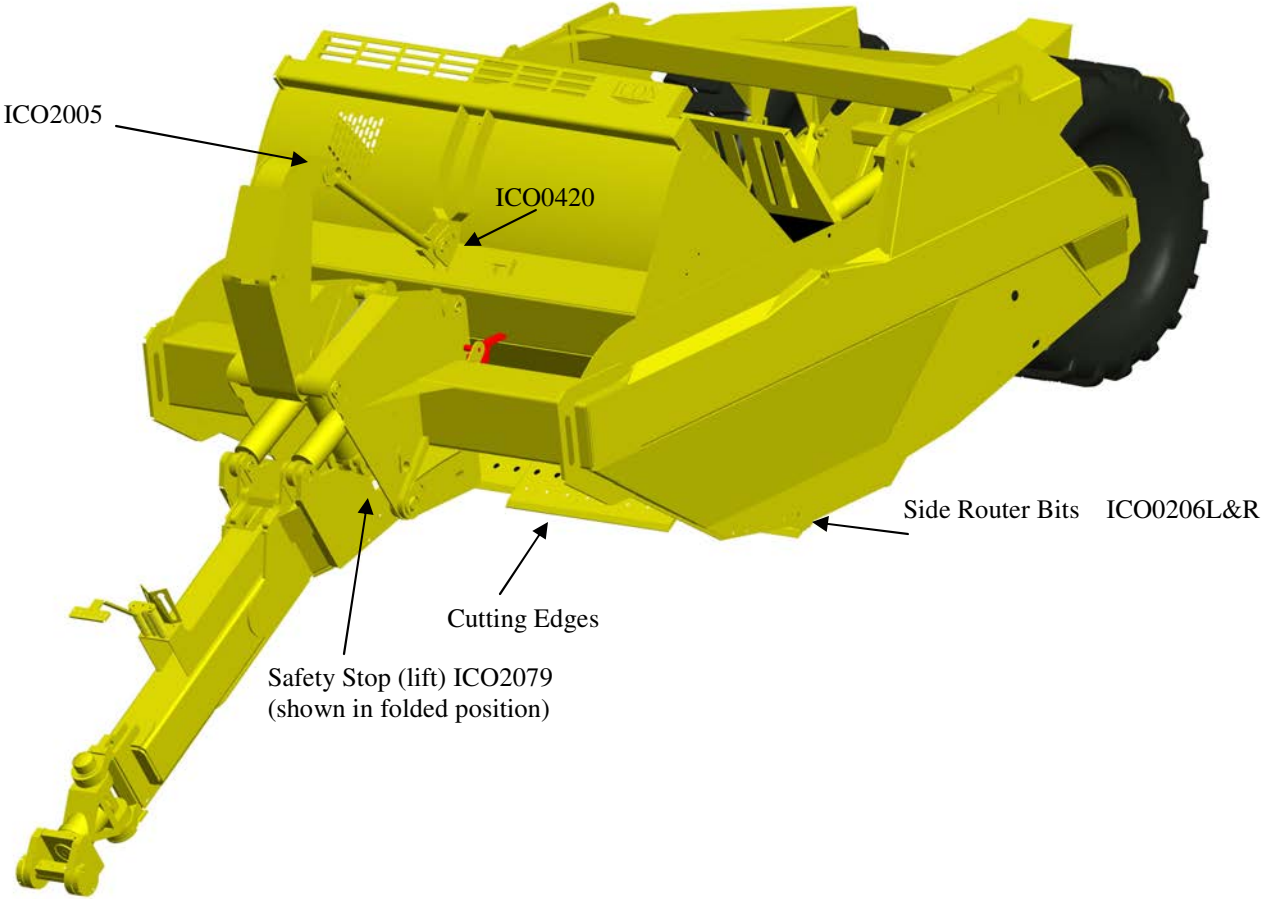
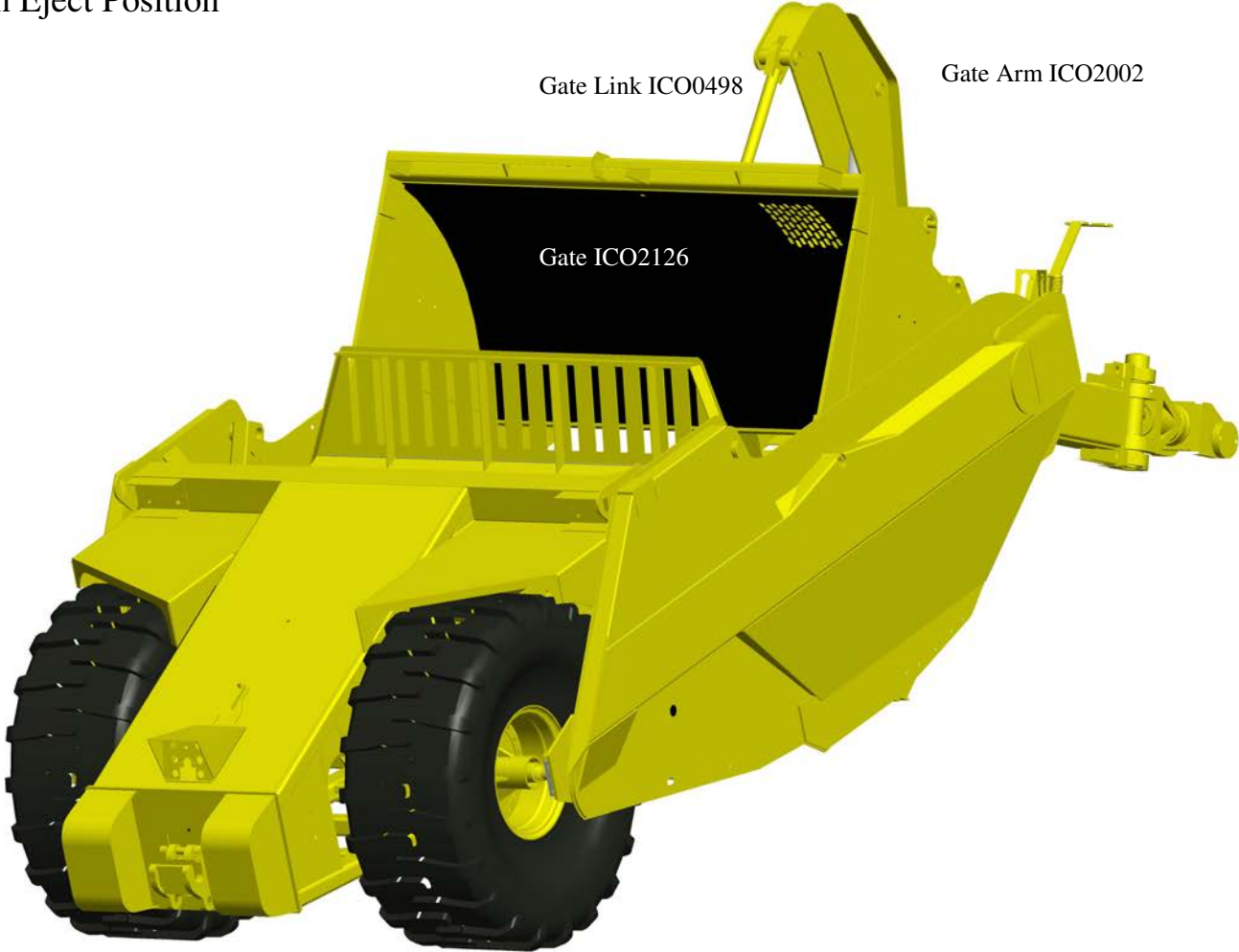
Straight Hitch Assembly ICO2000



819 Main Frame (assembled)

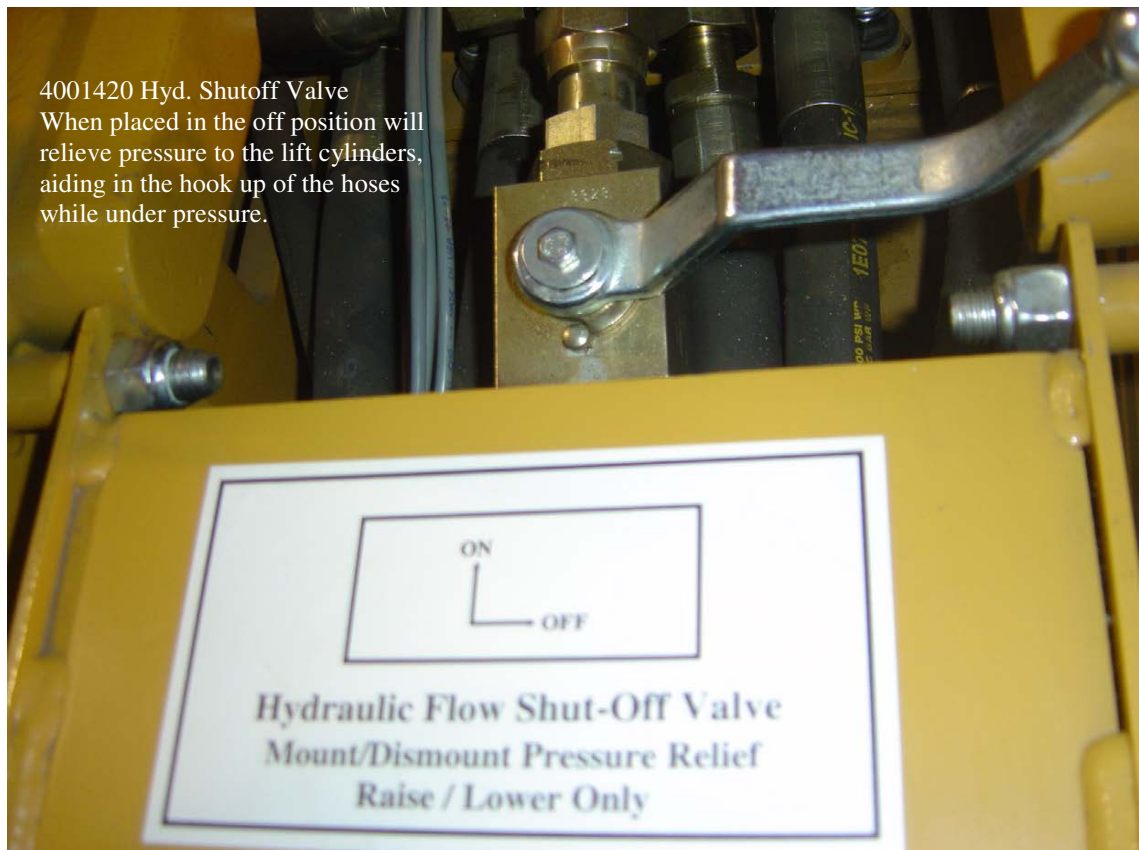


819 In Eject Position





Brake Mounting Block 4001283
Located on underside of rear cover



Components of the 800 Series Earthmovers



View of the tandem hose routing, the push off framework and push off cylinder.

The remote grease line allows the center pin to be greased from the outside of the machine.



Shown with the gate in the open position.





Shown is the push off bearing ICO0258 and pin ICO0218.

This bearing rolls on the curved pad (shown). This allows a smooth and stable cycle through the full motion of the push off wall.

The bushing and pin are located just below the push off cylinder mounting pin.



Clam Pivot Pin (ICO0523)



Shown is the ICO0523 Clam Pivot Pin. The tapered pin is threaded for an 1 1/2" nut.
NOTE: The nut should be torqued to 650 ft. lbs.



Parts Listing For 819 Earthmover

Ref #	Part #	Description	Qty
1.	ICO2127	Push Off Wear Strip	2
2.	ICO0206L	Left Side Cutting Edge	1
3.	ICO0206R	Right Side Cutting Edge	1
4.	ICO2089	Push Off Linkage	2
5.	ICO0213	Push Off Support	1
6.	ICO2045	Pin, 1 1/2" x 4 1/4" (chrome)	4
7.	ICO1128	Brake Hose Protector	4
8.	ICo0235	Hose Support	1
9.	ICO0236	Push Off Pin Cap	2
10.	ICO2124	Push Off Frame	1
11.	ICO2125	Push Off Wall	1
12.	ICO0335	Axle Nut Wrench	1
13.	ICO0358	Hose Support Spring	3
14.	ICO0420	Pin, 2 1/2" x 5 3/8"	3
15.	ICO0464	Accumulator Mount	2
16.	ICO0498	Gate Link	1
17.	ICO0501	Pin, 2 1/2" x 4 1/2"	3
18.	ICO0512	Tandem Coupler Holder	1
19.	ICO0523	Pin, Gate Tapered	2
20.	ICO0525	Pin, 2 1/2" x 10 3/4" (po frame)	2
21.	ICO2000	819 Straight Hitch	1
22.	ICO2001	Pin, 32 3/8" x 3 1/2"	1
23.	ICO2002	819 Gate Arm	1
24.	ICO2003	Pin, 31 13/16" x 2 1/2"	1
25.	ICO2005	Pin, 9 1/2" x 2 1/2"	4
26.	ICO2006	Pin, 6 1/16" x 2 1/2"	2
27.	ICO2018	Hose Guard	1
28.	ICO2019	Light Holder	2
29.	ICO2020	Brake Cover	2
30.	ICo2024	Depth Gauge	1
31.	ICO2108	Cylinder Stop (gate)	1
32.	ICO2031	Accumulator Valve Bracket	1
33.	ICO2032	Accumulator Valve Bracket @2	1
34.	ICO2033	Tongue Cover (right)	1
35.	ICO2041	Tongue Cover (left)	1
36.	ICO2042	Accumulator Valve Actuator	1
37.	ICO2126	819 Gate	1
38.	ICO2044	Accumulator Valve Mounting Block	1
39.	ICO2079	Safety Stop (lift)	1
40.	4000851	Cutting Edge, 7/8" x 13" x 35.75"	2
41.	4000958	Cutting Edge 7/8" x 16" x 48"	1
42.	2000558	Hub Assembly 36"	2
43.	4001480	Rim, 27 x 25 5 pc.	2
44.	ICO0225	Rear Side Pipe Clamps	2
45.	4001481	Tire, 29.5 x 25—28 ply	2
46.	ICO2049	Rear Hyd. Cover (single)	1
47.	4001035	Hyd. Cylinder 5 x 40 (53 3/4")	1
48.	4001236	Hyd. Cylinder 6 x 22 (37 1/4")	1
49.	4001314	Hyd. Cylinder 5 1/2 x 22 (lift)	2
50.	4001317	Hyd. Accumulator Valve VS4BCBF9	1
51.	4001449	Hyd. Counter Valve CBGB-LHN	1
52.	4001450	Hyd. Sequence Valve SCGA-LAN	1
53.	4001451	Hyd. Pilot Chk Valve CKGB-XCN	1
54.	4001452	Hyd. Valve Block Sequence	1
55.	ICO2069	Gate Pin Cover	2

Parts Listing Cont.

56. 4001300	Lights Modular (left w/brake)	1
57. LT0058	Lights 819 Rear Harness	1
58. LT0059	Lights 819 Front Harness	1
59. 4001301	Lights, Modular (right w/brake)	1
60. 2000460	Cast Swivel Hitch (complete)	1
61. ICO2033	Tongue Cover Rt.	1
62. ICO2041	Tongue Cover Left	1
63. 4002081	Accumulator (charged to 600 psi)	1
64. 4001414	Bushings (175150150) plastic (non grease)	4
65. ICO0350	Gate Link Spacer	2
66. 2000474	Optional Tandem Hitch	1
67. ICO0218	Pin, 2 1/2" x 5 3/4" (tandem hitch mounting pin)	1
68. 2000524	Decal Kit (819)	1
69. ICO2120	819 Main Frame	1
70. ICO0258	Push Off Bearing	1
71. ICO0488	Axle Clamp w/groove	4
72. ICO2113	Axle Bolt Spacers	8
73. SCR2078	Wheel Bolt spacers	40
74. 4001420	Hyd. Shutoff Valve (lift)	1
75. 4001421	Accumulator U Bolt	1
76. ICO2007	Pin, 2 1/2" x 20 5 /16"	1
77. 4001419	Bearing, Sealed NTN SBX0339	1
78. ICO2068	Washer For 3 1/2" Pin (straight hitch)	1
79. ICO2069	Gate Pin Cover	2
80. ICO2016	Model 819 Cover	2
81. ICO2017	Model 819 Cover	2
82. ICO2053	819 Axle Nut	5
83. 2000581	819 Brake Assembly	1
84. 2000582	819 Bolt Kit	1
85. 5001115	819 Hose Kit (single)	1
86. 5000982	819 Hyd. fittings Kit	1
87. 4001271	Flanged 4" bushing. (located in straight hitch)	2

Bolt Listing For 819

Part #	Description	Ref# Where Used	Qty
BC	Bolt, Carriage 1/2 x 1 1/2"	PO Wall Wear Strip (1)	12
WFH	Washer, Flat Hard 1/2		12
NH	Nut, Hex		12
BP	Bolt, Plow 3/4 x 2 1/2"	Side Cutting Edges (2 & 3)	10
WFH	Washer, Flat, Hard 3/4		10
NJ	Nut, Jam 3/4		10
BH	Bolt, Hex 1 x 6"	Push Off Support to Wall	4
NL	Nut, Nyloc 1"		4
WF	Washer, Flat 1"		4
BP	Bolt, Plow 1 x 2 1/2"	Cutting Bits & Frost Bit	22
WFH	Washer, Flat, Hard 1"		22
NJ	Nut, Jam 1"		22
WFH	Washer, Flat, Hard 1 1/2"	Clam Pins	2
NJ	Nut, Jam 1 1/2"		2
BH	Washer, Flat, Hard 1 1/2"	Swivel Hitch Mount	6
NH	Nut, Hex 1 1/2"		6
BH	Bolt, Hex 1/2 x 1"	Springs on Hose Holders	6
WF	Washer, Flat 1/2"		6
WFH	Washer, Flat, Hard 1/2"		6
BH	Bolt, Hex 1/2 x 3"	Pin Keepers on all 1 1/2" Pins	5
NL	Nut, Nyloc 1/2"		5
WM	Washer, Machine 2.5 x 3.5OD	Push Off Frame Spacers	8
BH	Bolt, Hex 3/4 x 1 1/2"	Pin Keepers For All 2 1/2" pins (except ICO0222 center frame pin)	7
BH	Bolt, Hex 3/4 x 1 3/4"		3
WF	Washer, Flat 3/4"		10
WFH	Washer, Flat, Hard 3/4"		10
ICO1118	Pin Spacer 9/16"		7
ICO1117	Pin Spacer 3/4"		3
4000067	Zerk Straight 1/8"		
4000720	Zerk Adapter 1/8 -27-18NPT 90 ELB		2
BH	Bolt, Hex 5/8 x 1 1/2"	Push Off Frame Pin Caps	4
WFH	Washer, Flat 5/8"	Washer, Flat 5/8"	4
WM	Washer, Machine 2.5 x 3.5OD	PO to PO Frame Spacers	4
ICO0350	Spacer	Gate Link	2
BH	Bolt, Hex 3/4 x 2 1/2"	Depth Gauge	1
WFH	Washer, Flat, Hard 3/4"		1
BH	Bolt, Hex 1 x 9"	Axle Clamp Bolts	16
WFH	Washer, Flat, Hard 1"		16
BH	Bolt, Hex 3/4 x 1 3/4"	Acc Valve to Tongue	1
BH	Bolt, Hex 3/4 x 2 1/2"		1
WFH	Washer, Flat, Hard 3/4"		2

Part#	Description	Where Used	Qty
SCR2078	Bolt Listing Cont. Spacer For Wheels		40
BH	Bolt, Hex 7/8 x 3" Fine	Wheel Bolts	40
WFH	Washer, Flat, Hard 7/8"		40
BH	Bolt, Hex 1/2 x 1"	Front Hyd Cover Plates	4
WFH	Washer, Flat, Hard 1/2"		4
BH	Bolt, Hex 1/2 x 1 1/2"	PO Wall Extension	10
NW	Nut, Whiz 1/2"		10
BH	Bolt, Hex 1/2 x 1"	Hyd Covers (rear)	4
WFH	Washer, Flat, Hard 1/2"		4
BH	Bolt, Hex 3/8 x 2"	Accumulator Valve to Block	2
BH	Bolt, Hex 1/4 x 3/4"	Bracket to Acc. Valve	4
WF	Washer, Flat 1/4"		4
BH	Bolt, Hex 1/2 x 4"	Acc. Pivot to Bracket	1
NL	Nut, Nyloc 1/2"		1
BH	Bolt, Hex 5/8 x 2 1/2"	Acc. Valve Roller to Pivot	1
WFH	Washer, Flat, Hard 5/8"		2
BH	Bolt, Hex 1/2 x 6"		2
NW	Nut, Whiz 1/2"	Hyd Block to Main Frame	2
WF	Washer, Flat 1/2"		4
BH	Bolt, Hex 1/2 x 1"	Rear Hyd Cover	4
WFH	Washer, Flat, Hard 1/2"		4
BH	Bolt, Hex 1/4 x 1"		8
WF	Washer, Flat 1/4"	Lights to Top Hyd Covers	8
WL	Washer, Lock 1/4"		8
NH	Nut, Hex 1/4"		8
BH	Bolt, Hex 1/2 x 1 1/2"		6
WFH	Washer, Flat, Hard 1/2"	Gate Arm Side Covers	6
BH	Bolt, Hex 1/2 x 1"		4
WFH	Washer, Flat, Hard 1/2"	Hose Cover	4
NW	Nut, Whiz 1/2"		4
Bh	Bolt, Hex 1/2 x 1 1/2"	Tandem Cover Plate	4
BH	Bolt, Hex 1 x 6"		1
NL	Nut, Nyloc 1"	Gate Safety Stop	1
WFH	Washer, Flat, Hard 1"		1
NL	Nut, Nyloc 1/2"	Bulk Head	2
WFH	Washer, Flat, Hard 1/2"		2

Tandem Hitch and Swivel Hitch

ICO0474

Shown is the tandem hitch assembly used on all ICON models. It allows for one person hook /unhook , without the need to have hands in harms way.

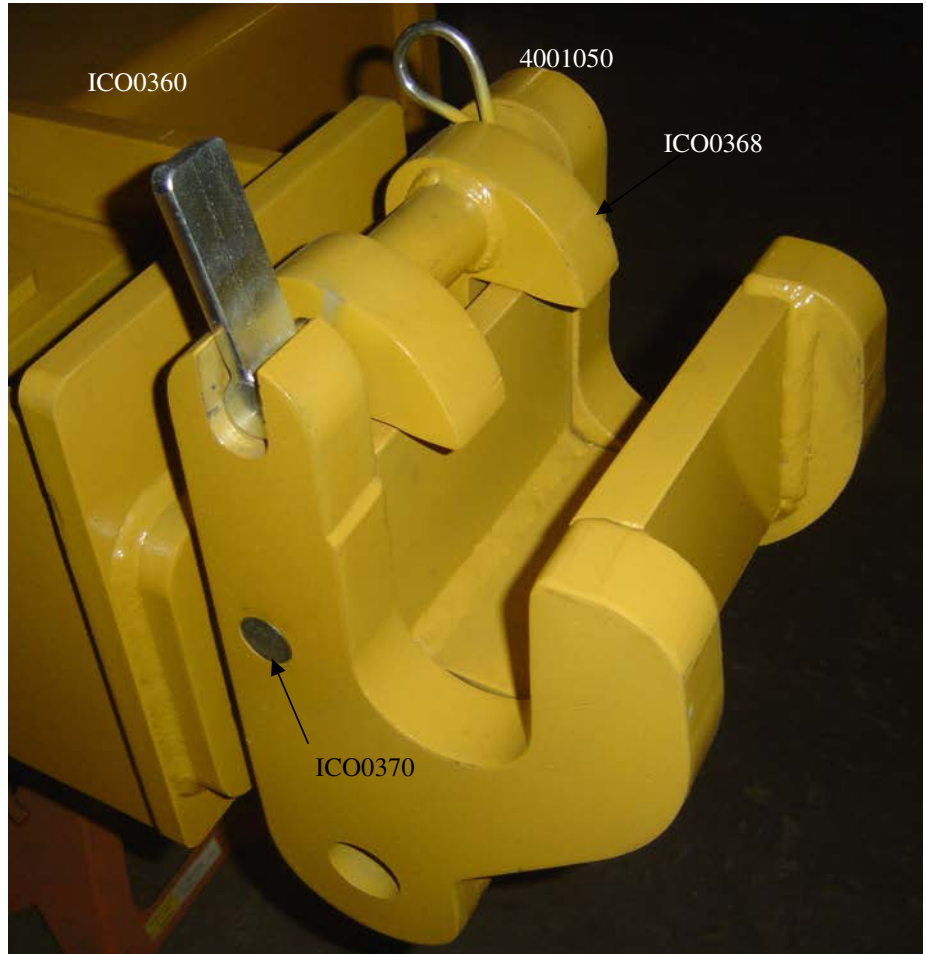
ICO0370 Pivot Pin

ICO0369 Lockdown Pin

4001050 Spring Clip

ICO0368 Lockdown Ears

The pivot pin is secured in place with (2) 3/16 x 3 1/2" cotter pins.



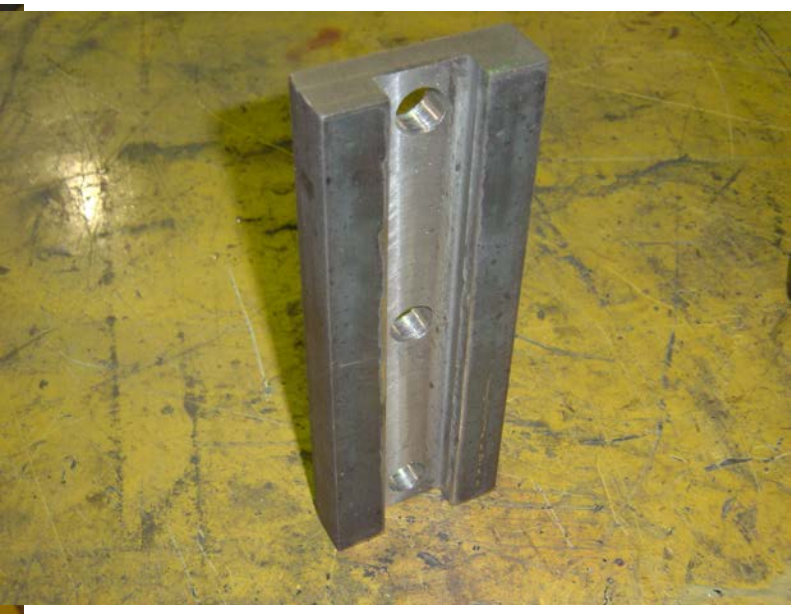
Shown is the 2000460 swivel hitch (standard on 800 series) and the tandem hitch (ICO0474) on the 819 earthmover.

The Super Duty Cast Hitch is standard on all 821 models

2000460



Shown is the 3" pin (ICO2052) used with the cast hitch. The top is milled to allow the retainer plate (ICO2051) to bolt on using (3) 5/8 x 3" bolts.



2000460

The Super Duty Cast Hitch
uses a 3" quick attach pin
ICO1094

1 1/2" x 6 1/2"

cast bracket
ICO1055

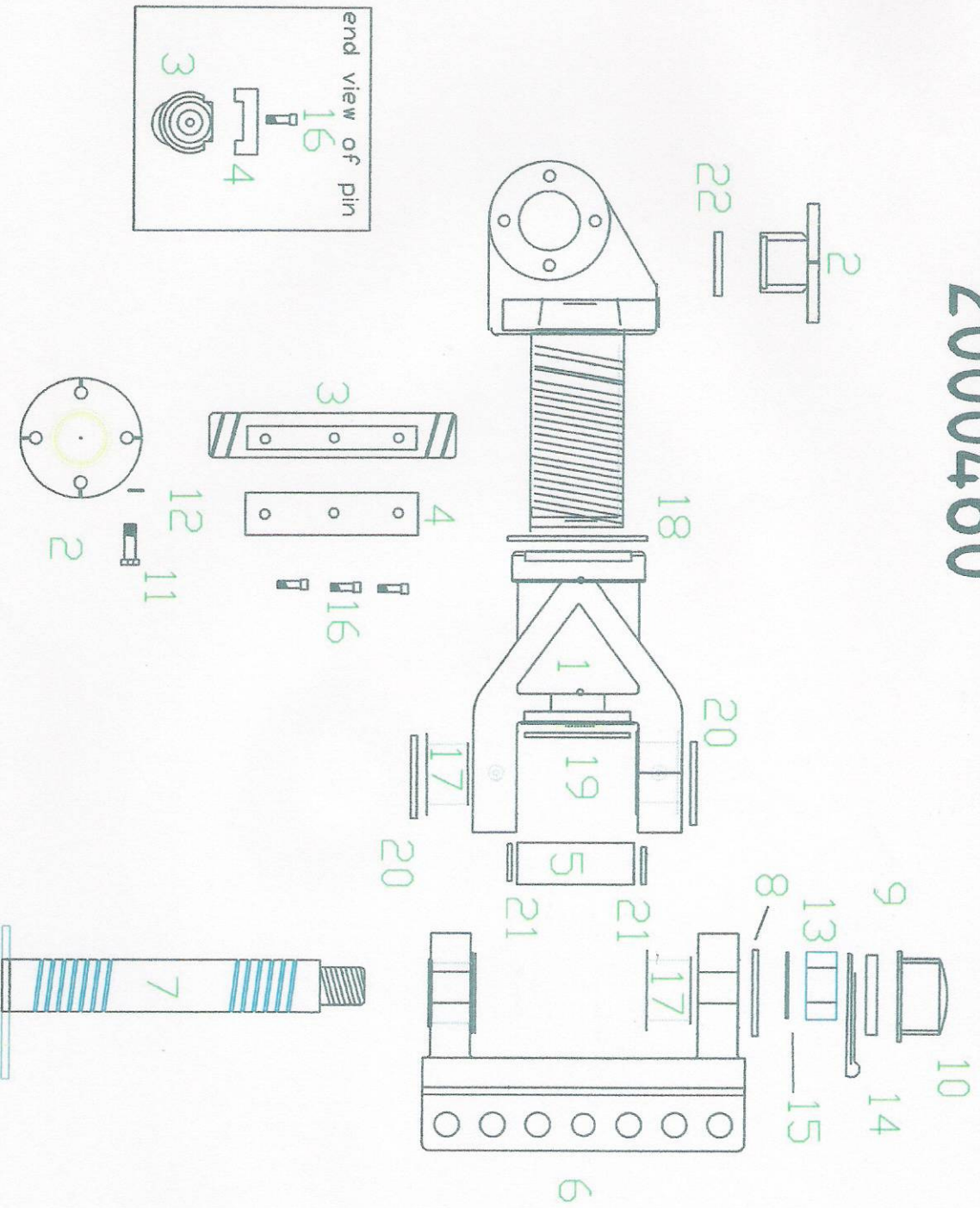
3/4 x 2" gr. 8

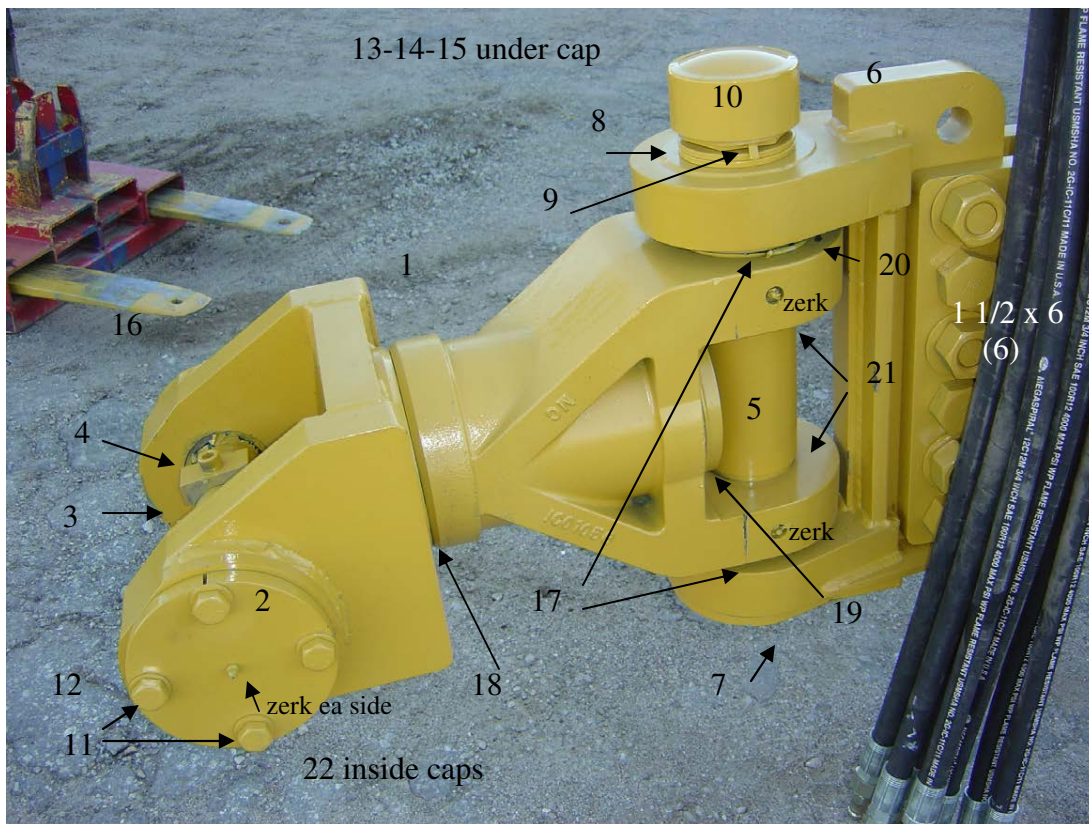
ICO1093

5/8 x 3"



SUPER DUTY CAST 2000460





Ref #	Description	Qty	Part #
1	Cast Swivel	1	ICO1092
2	Quick Attach 3" Pin Cap	2	ICO1093
3	Quick Attach 3" Pin	1	ICO2052
4	Quick Attach Pin Keeper	1	ICO2051
5	Hitch Spacer Tube	1	ICO1061
6	Cast Hitch Bracket	1	ICO1055
7	Main Vertical Pin	1	ICO1062
8	6" Swivel Hitch Spacer	1	ICO1086
9	2" Rubber Hose	1	ICO1087
10	4" PVC Cap	1	4001292
11	Bolt, Hex 3/4 x 2" gr. 8	8	BH 3/4
12	Washer, Flat Hard 3/4"	8	WFH 3/4
13	Nut, Slotted 2 1/2" Course	1	NS 2 1/2
14	Pin, Cotter 3/8 x 5"	1	PC 3/8
15	Washer, Flat 2 1/2" Hard	1	WFH 2 1/2
16	Bolt, 5/8 x 3"	3	BH 5/8
17	Bushing	4	4001271
18	O-Ring 8 7/8x8 1/2" ID	1	4001272
19	O-Ring 7 3/8x7" ID	1	4001286
20	O-Ring 5 7/8x 5" ID	2	4001275
21	O-Ring 4 x 3 5/8" ID	2	4001274
22	Wiper Seal 3 1/2 x 3 1/4"	2	4001298

Hub & Axle Assembly

Hub and brake assembly for the 800 series
hub (ICO2121)



29.5 x 25 tire (40014801) on 25 x 25, 5pc rim (4001480)



Wheels are attached to the hubs with (20) 3/4 x 3" fine
thread bolts.

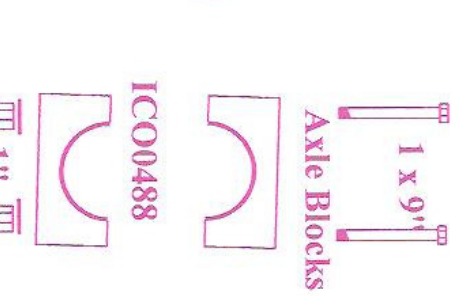
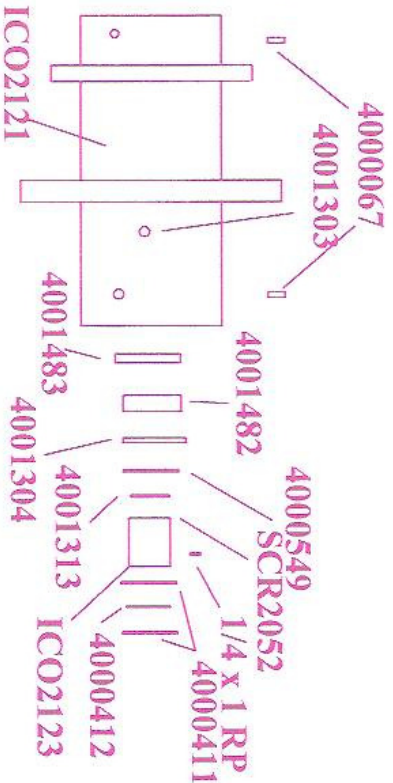
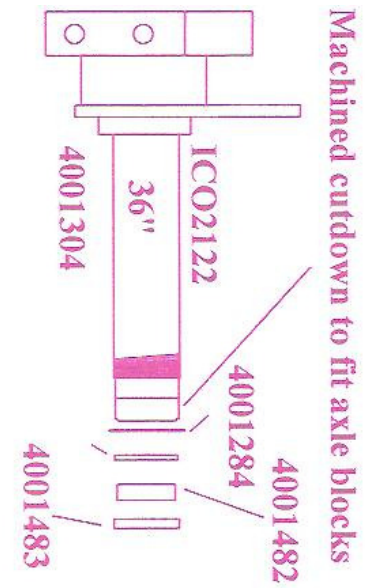


Axle and wheel assembly mounted on 819.

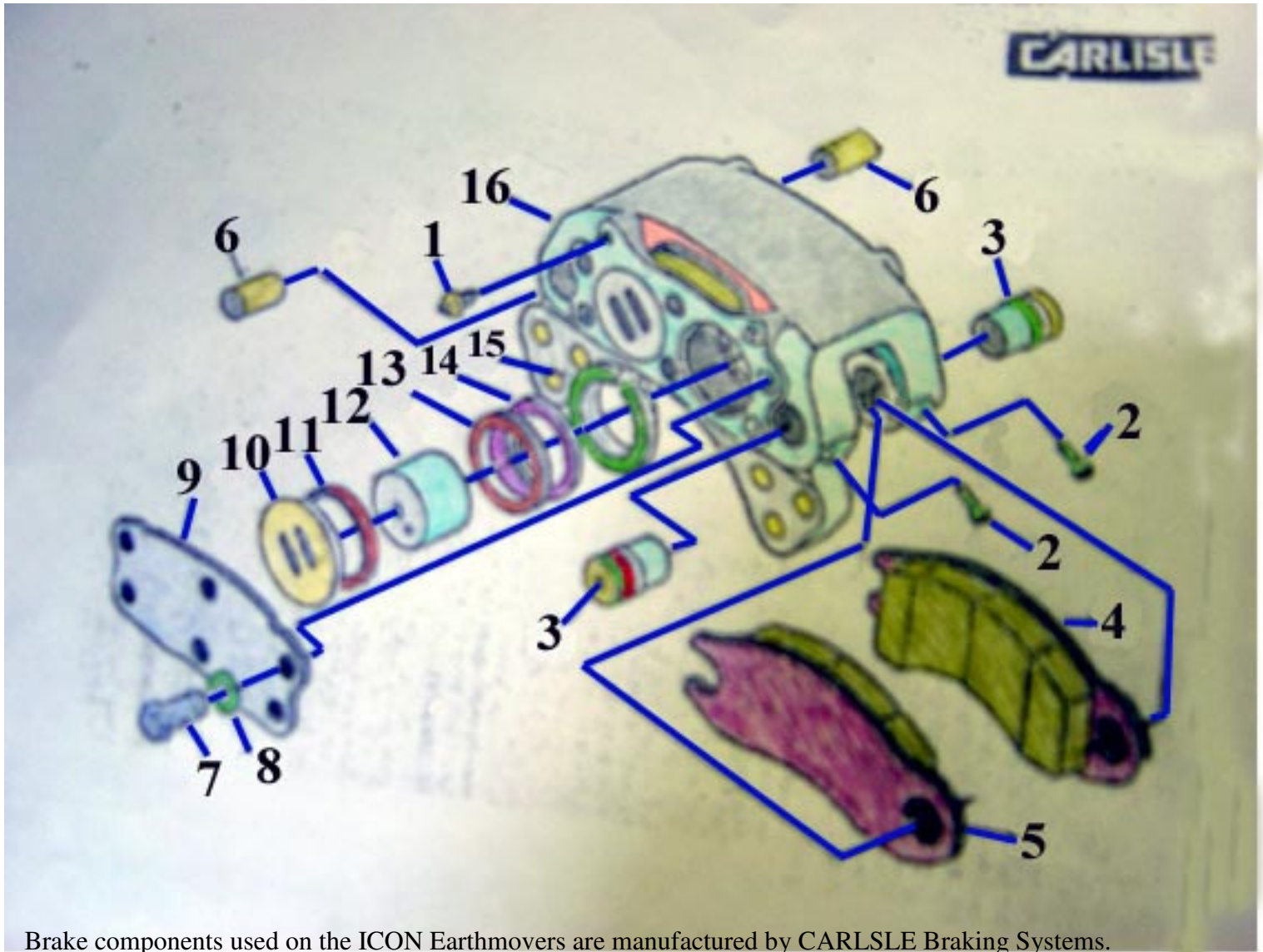


Model 819

**Parts List For ICON Earthmovers With Individual Axles W/O Brakes
Assembled - 2000558**



Machined step to prevent axle side movement



Brake components used on the ICON Earthmovers are manufactured by CARLISLE Braking Systems.

Below is a list of the components currently used on the Earthmover brakes. ICON does not stock or supply these components, they must be ordered directly from the Mfr. NOTE: Use only CARLISLE Approved parts.

Brake Head Assembly #419-888

Index	Part	Description	Qty.
1.	84-35	Bleeder Valve (CAT #7K-4942)	1
2.	43-1140	Bolt, Hex (CAT #3V-0197)	4
3.	20-554	Pin	2
4.	244-741-2	Lining & Carrier Assy.	1
5.	244-741-1	Lining & Carrier Assy.	1
6.	20-490	Pin (CAT #4V-7277)	2
7.	43-1299	Bolt, Hex	6
8.	80-717	Washer	6
9.	93-986	Plate, Cover	1
10.	49-402	Plug, Piston (CAT #114-9304)	2
11.	*NSS	Packing Plug	2
12.	74-927	Piston (CAT #114-9306)	4
13.	*NSS	Packing Piston	4
14.	*NSS	Retainer Ring	4
15.	*NSS	Boot	4
16.	+184-979	Torque Plate	1
	**306-7376	Parts Kit	1
	328-741	Lining Kit	1

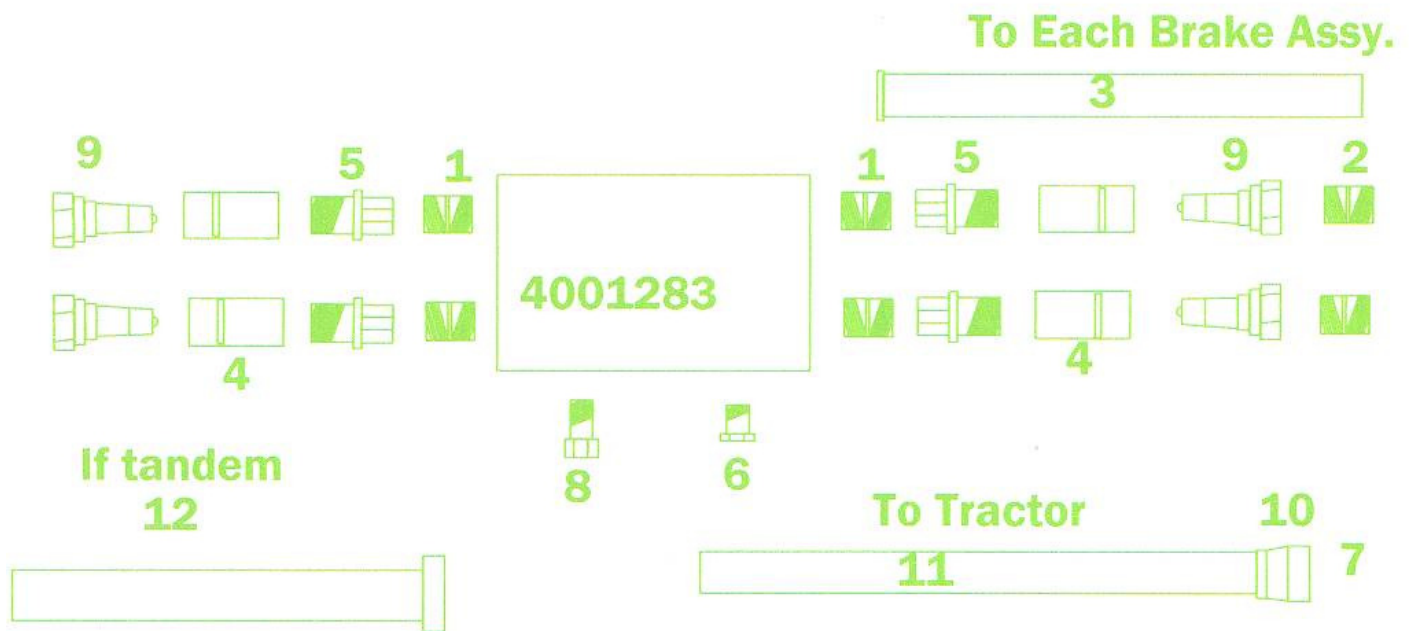
*These items not sold separately: see parts kit

** Kit contains — 4 ea of item 13, 14, and 15. (2) of item 11.

+ Not a repairable or replaceable item, do not stock as spares.

Brake Fittings/Hose Package For 800 Series

Block is located on upper rear frame.



If tandem unit, (2) 5001015 instead of plug. (5000355)

Item #	Description	Qty	Ref. #
5000919	Hyf-Adap 6MB-6MB	4	1
5000903	Hyf-Adap 6FB-10MB	4	2
5000997	Hose - 4MB-4M3Kx98"-6MB	4	3
5000845	Pioneer 1/2" Female End	4	4
5000920	Hyd-Adap 8MB-6FB	4	5
5000355	Hyd-Plug 8MB	1	6
5000907	Brake Coupler VF-0/1815	1	7
5001015	Hyf-Adap 8MB-8FFORX (2 if tandem)	1	8
5000835	Pioneer Male End 8010-16P 10FB	4	9
5000906	Hyd-Adap JIC to M 7400-10-18	1	10
5000996	Hose - 8MFFOR-8M3Kx538"-10FJX	1	11
5001016	Hose-10FJX-8M3Kx65-8MFFOR	1	12
5001120	Hose-10FJX-8M3Kx80-8MFFOR (819)	1	12

(#12 used on tandem)



Wear Strip—ICO2127 (2 pcs)
 1/2 x 1 1/2" Carriage Bolts (12)

Location	Dimensions	Cutting Edges #	CAT #
Side (2)	7/8 x 13 x 35.75	4000851	178-4080
Center	7/8 x 16 x 48	4000958	174-8002
	7/8 x 19 x 48 (longer more aggressive cut)	4001013	

Bolts Per Blade

40008516
 4000958.....8
 4001013

Cutting Edges
 1 x 2 1/2" gr. 8 Plow Bolt
 1" gr. 8 Jam Nuts
 1" Hardened Flat Washers

Side Cutting Edges

ICO0206L & R
 ICO2172/73

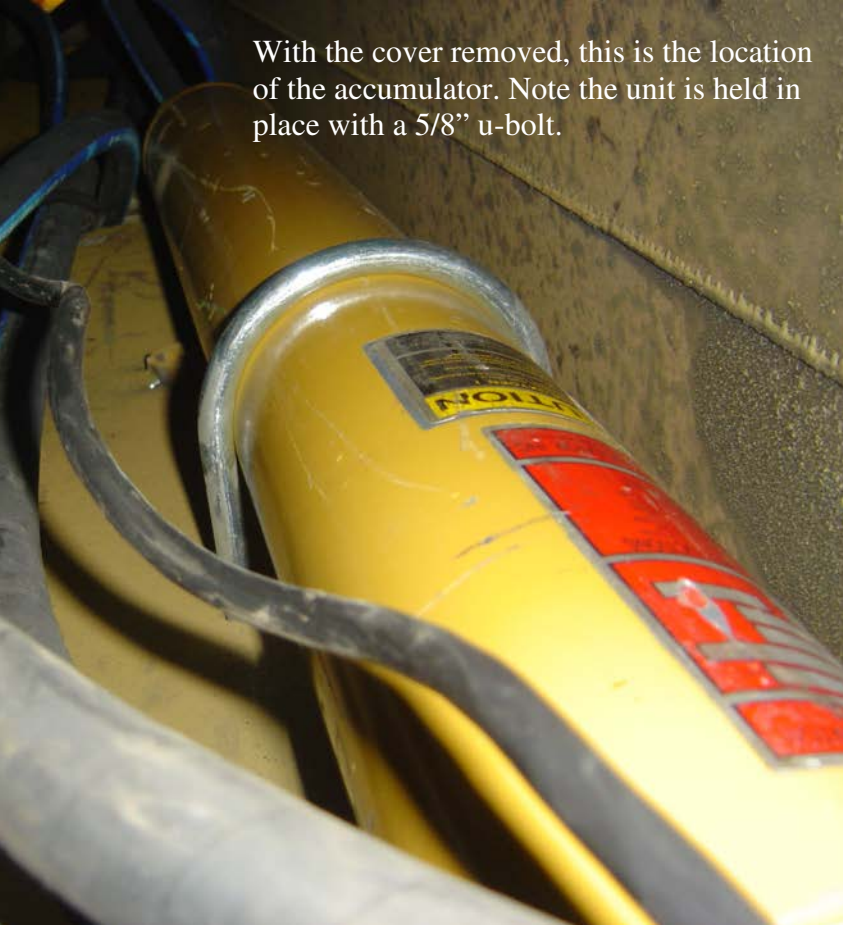
Each side requires (5) 3/4 x 2 1/2" Plow Bolts, Hard Washers and Hex Nuts.
 (4" longer - will interchange with existing edges)

ICON now installs hydraulic accumulators on all machines. The 2 gallon unit is charged to 600 psi and greatly reduces the shock and bounce of a loaded machine.

Shown in the first picture is the accumulator unit that is used on all models. Here it is shown mounted on a rear lowering machine. Since the 821/819 lowers from the front, the accumulator is now mounted inside the frame. (as fig.2 shows).



With the cover removed, this is the location of the accumulator. Note the unit is held in place with a 5/8" u-bolt.



Accumulator Components

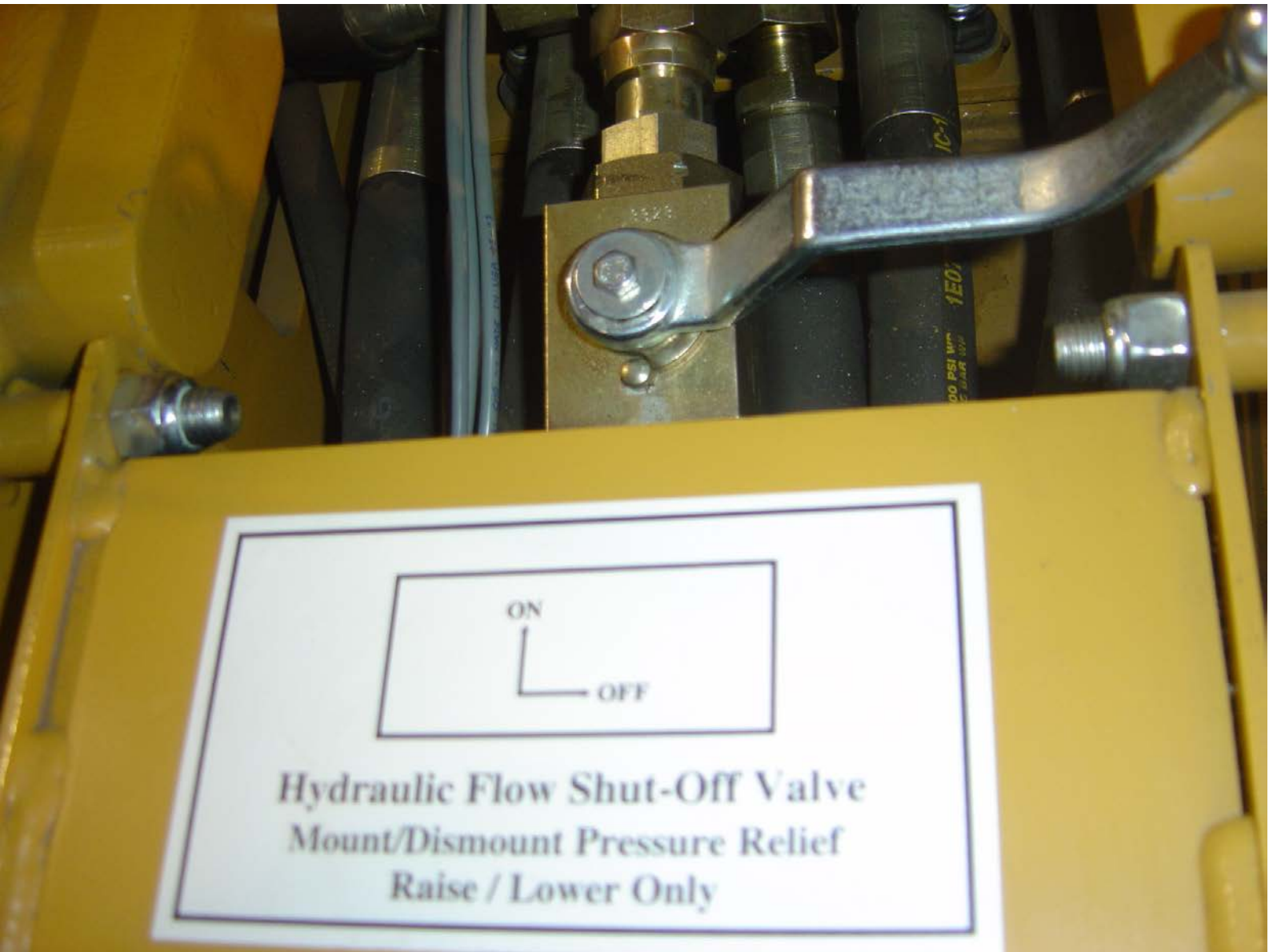
Complete Assembly—2000459

#	Description	Qty
4001267	2 gal. Accumulator (600psi)	1
5000736	Hyd, Tee—JIC 16MJ-16MJ-16FJX	1
4001270	5/8 U Bolt	1
ICO0464	Accumulator Mount	1
WF	Washer, Flat 5/8"	2
NL	Nut, Nyloc 5/8" gr. 5	2

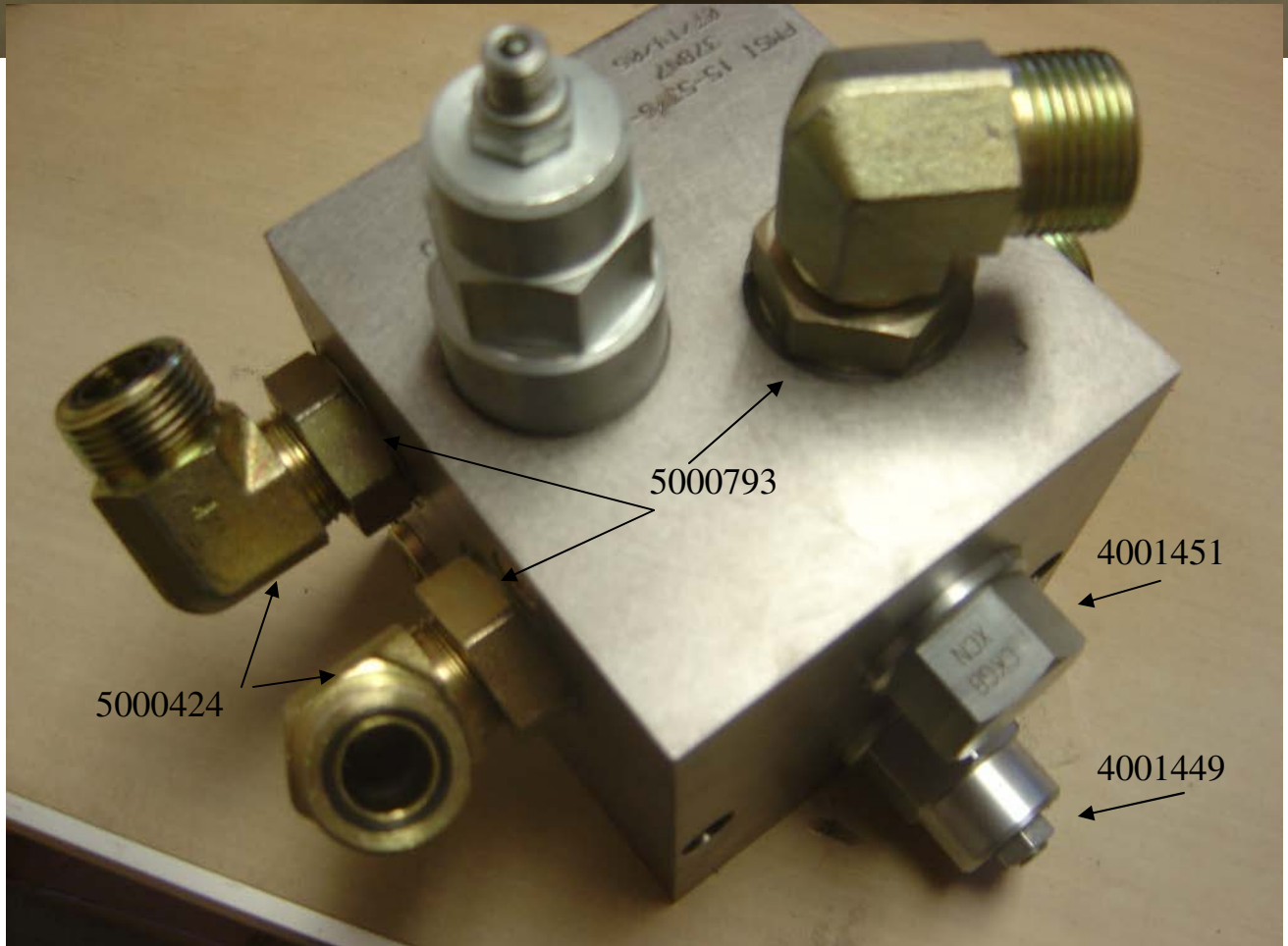
Hydraulic Flow Shut—Off Valve

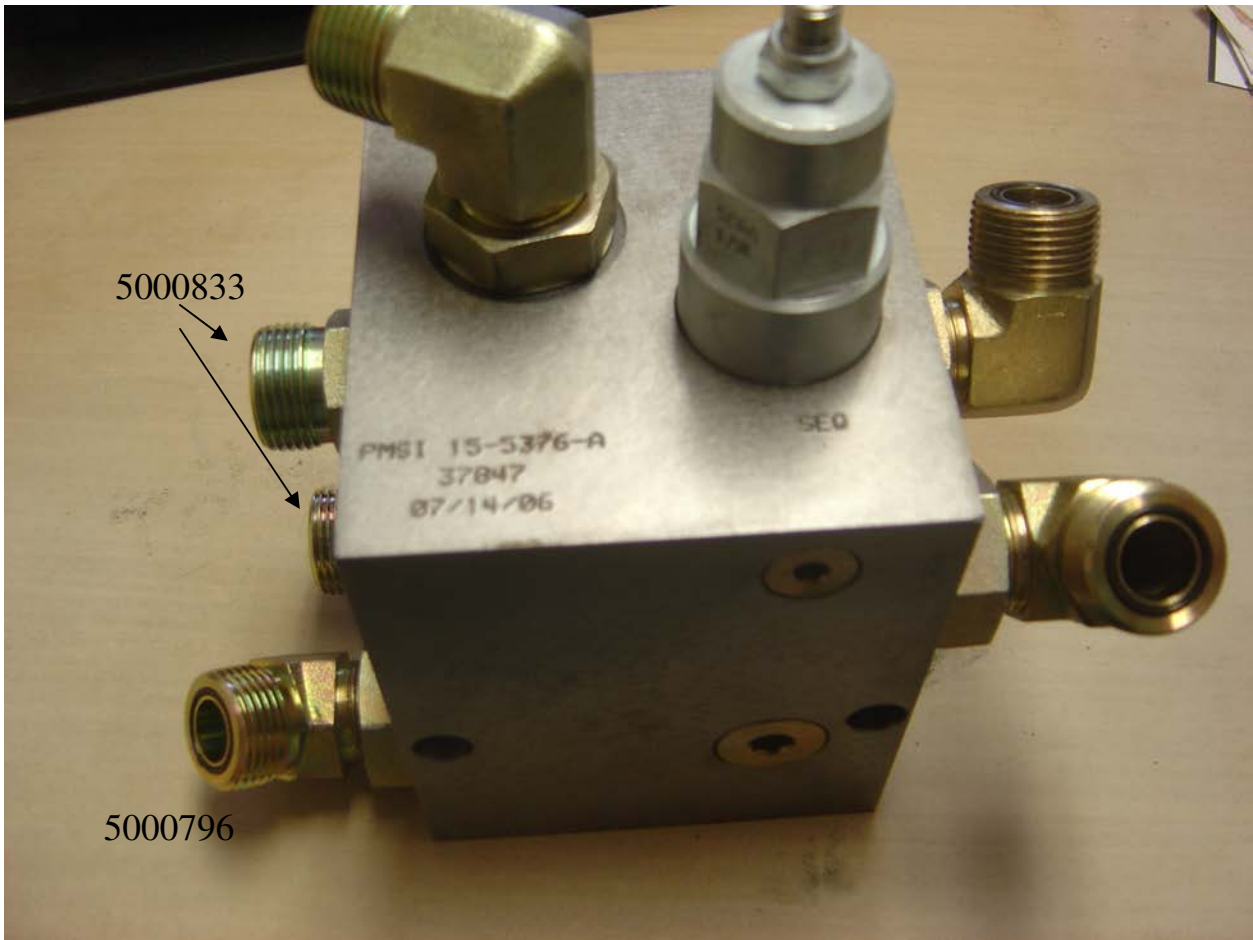
The shut off valve is located at the rear of the tongue. It is designed to relieve the hydraulic pressure in the system to aid in hook up of the machine. To shut off the hydraulic flow, turn the lever 90° to the side (see decal).

NOTE: This shut off valve should also be turned to **OFF** position when the safety stops are in place and any service is to be performed on the machine, while in the raised position. **BE CERTAIN** to remove the safety stops before cycling the machine, or damage to the cylinders and the machine can occur..

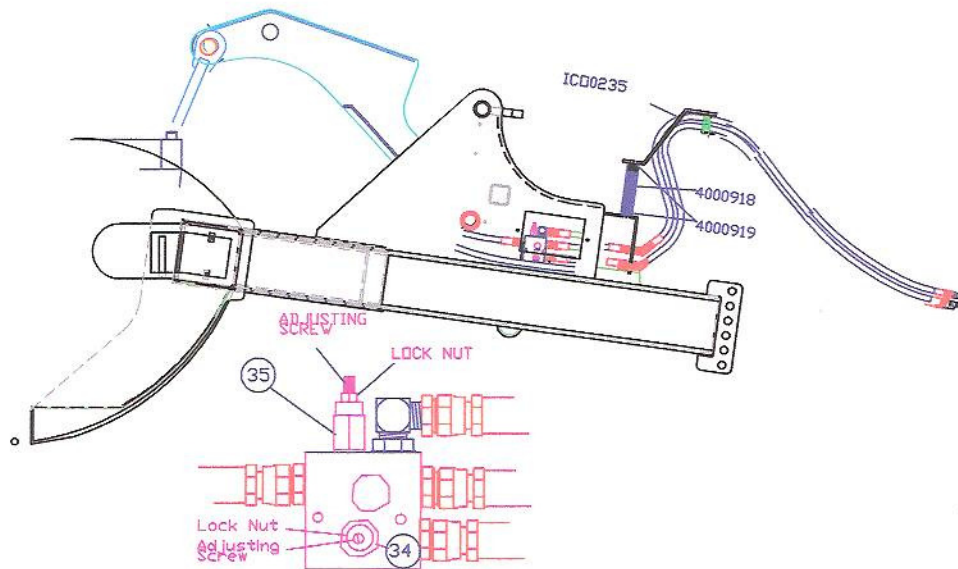


Current valve block and fittings for Model 800 Series Earthmovers,





Valve Adjustment 2 - valve hydraulics



Valve Adjustment

Problem:

Push wall comes forward before gate is fully up.

Answer:

- *Loosen locknut on top of valve
- *Adjust sequence valve 1/4 turn clockwise and check performance.
- *Repeat until remedied
- *Retighten locknut

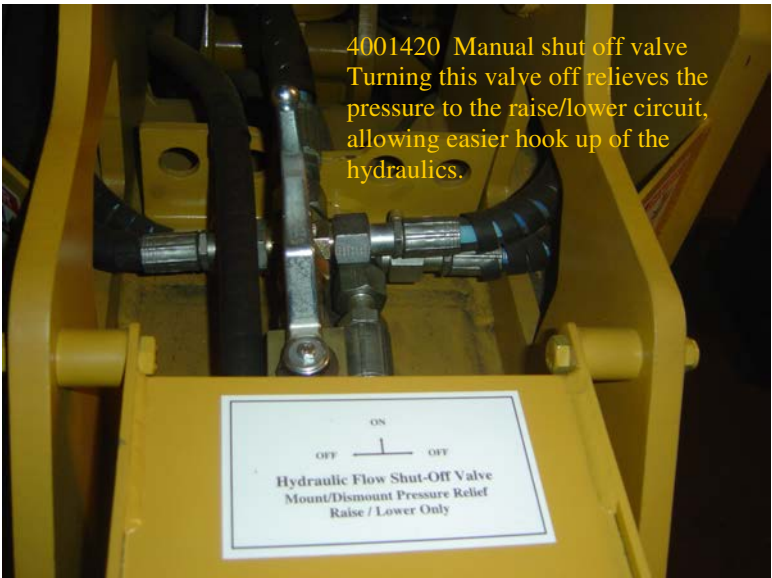
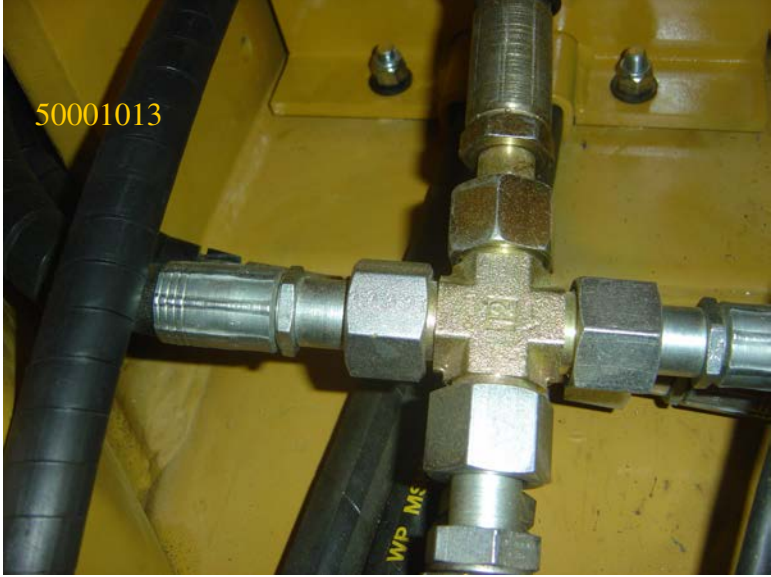
Problem:

Gate comes down before push wall is fully back.

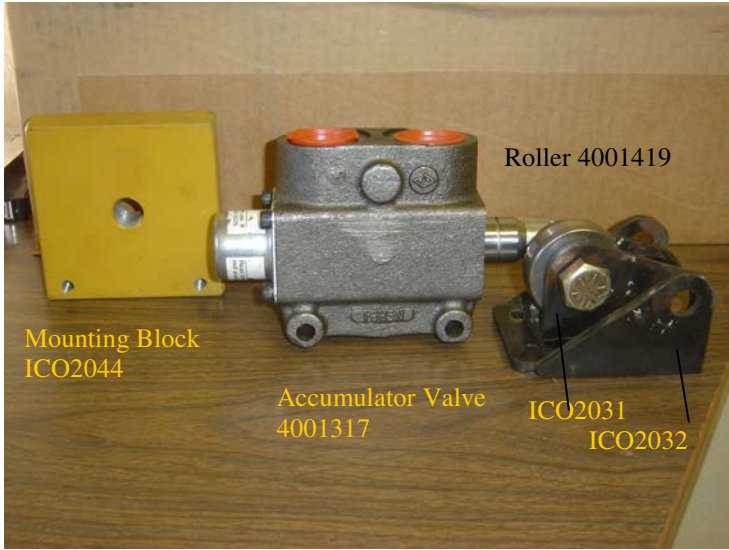
Answer:

- *Adjust counterbalance valve (located on side of valve block in tongue)
- *Loosen locknut on top of valve
- *Adjust counterbalance valve 1/4 turn counterclockwise and check performance.
- *Repeat until remedied
- *Retighten locknut.

Hydraulic Components of the 800 Series



Shown are the components of the Accumulator Valve and Actuator Arm
 This setup was standard on the early model 821's. Later models are not adjustable.



Valve shown mounted



Accumulator Valve Actuator Arm
 ICO2042



Actuator Arm mounted



Mounted and sliding into place



Valve installed and the adjustment bolt shown

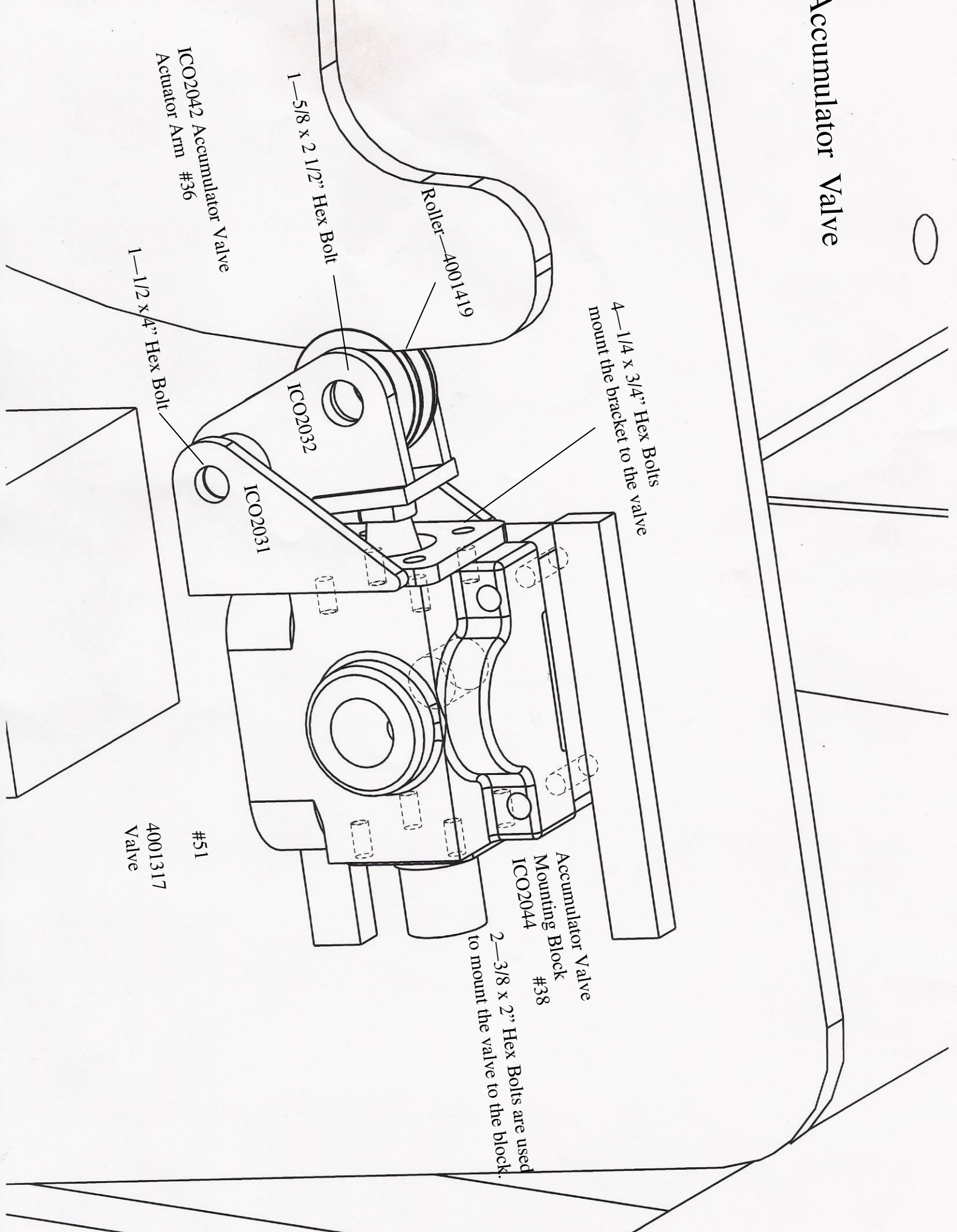
Adjustment for the activation of the accumulator is controlled by the bolt on the left (controls the actuator arm). And the adjustment bolt (located on the back side of the tongue frame)

Adjustment is set at the factory to activate the accumulator when the center stinger is app. 4" above the ground. This allow for a cushioned ride while loaded. De-activation of the accumulator occurs at the same point, when lowering, to allow a smooth cut.

The adjustment of the actuator is up to the operator and may be adjusted to his or her preference.

NOTE: After serial # 6297 the accumulator adjustment has been set at the factory and the adjustment slot has been removed. No adjustment should be needed.

Accumulator Valve



IC02042 Accumulator Valve
Actuator Arm #36

1-5/8 x 2 1/2" Hex Bolt

Roller-4001419

4-1/4 x 3/4" Hex Bolts
mount the bracket to the valve

IC02032

IC02031

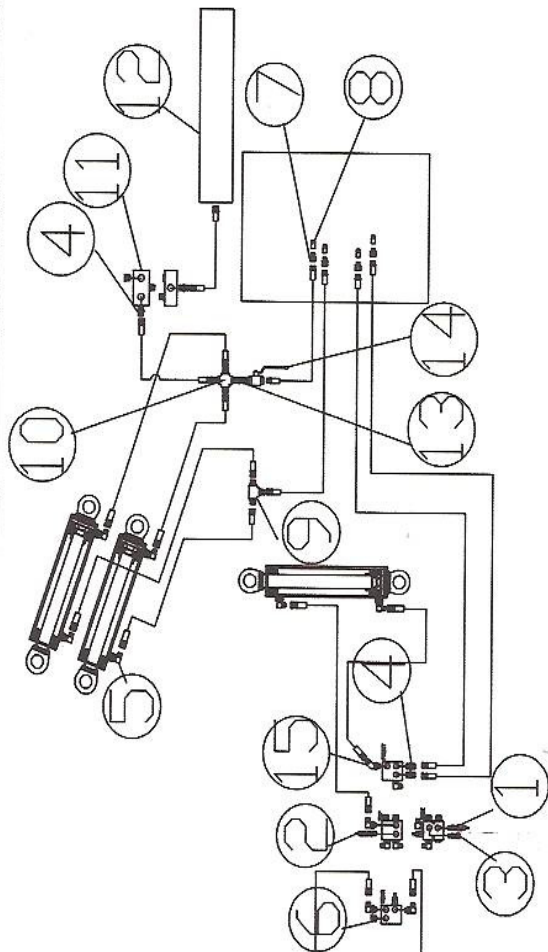
1-1/2 x 4" Hex Bolt

#51
4001317
Valve

Accumulator Valve
Mounting Block
#38
IC02044

2-3/8 x 2" Hex Bolts are used
to mount the valve to the block.

819 SINGLE FITTINGS AND VALVES



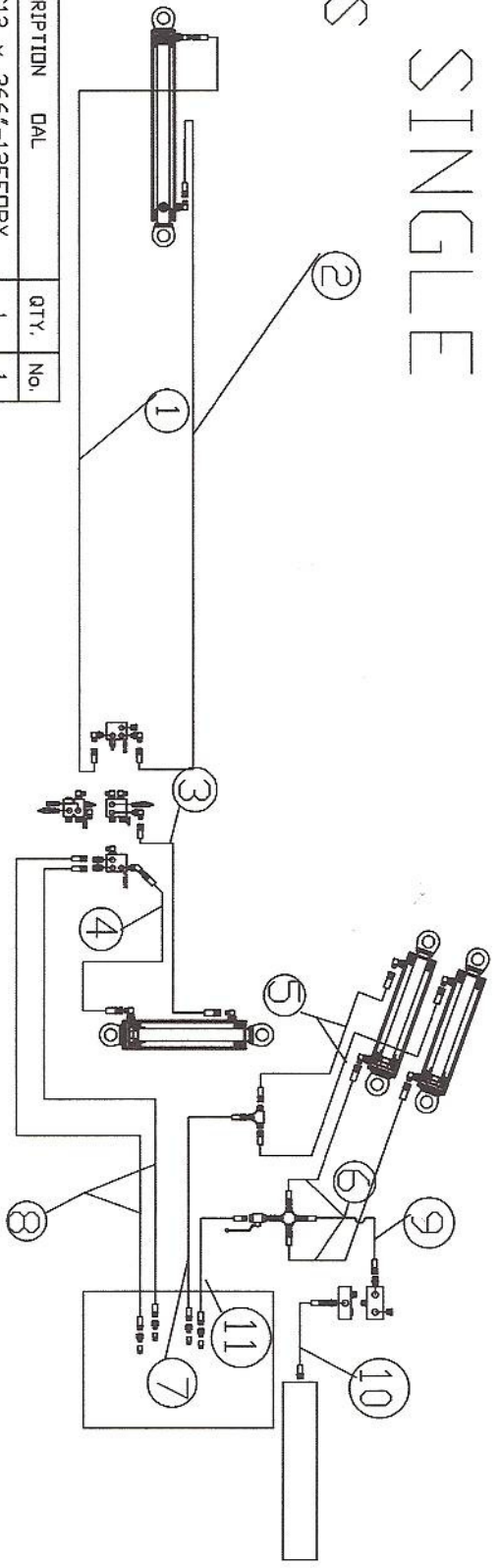
2000508 HYD KIT
 5000982 FITTINGS
 5001115 HOSE

IT	DESCRIPTION	QTY.	No.
4	COUNTER VALVE CBEA-LHN	1	1
5	SEQUENCE VALVE SCEA-LAN	1	2
3	PILOT CHK VALVE CKEB-XCN	1	3
3	12MB-12MFFOR	5	4
3	12MFFOR-12MB90	11	5
4	12MB-HH PLUG	2	6
6	ADAP 10MB-12FB	4	7
5	PIONEER 7/8 M END 8010-16P	4	8
3	TEE, 12MFFORT	1	9
1	CROSS 12MFFOR	1	10
1	ACCUM. VALVE VS4BCBF9	1	11
7	2 GALLON ACCUM. TOBUL 4.7	1	12
7	12MB-12FFORX	1	13
0	HYD BALL SHUT OFF VALVE	1	14
6	HYF-45, 12MFFOR-12MB45	1	15

Optional Block/Valves

COMPONENT	DESCRIPTION	QTY.	No.
4001449	Counter Valve CBGB-LHN	1	1
4001450	Sequence Valve SCGA-LA	1	2
4001451	Pilot Chk Valve CKGB-XCN	1	3
4001452	Valve Block 15-5376	1	19

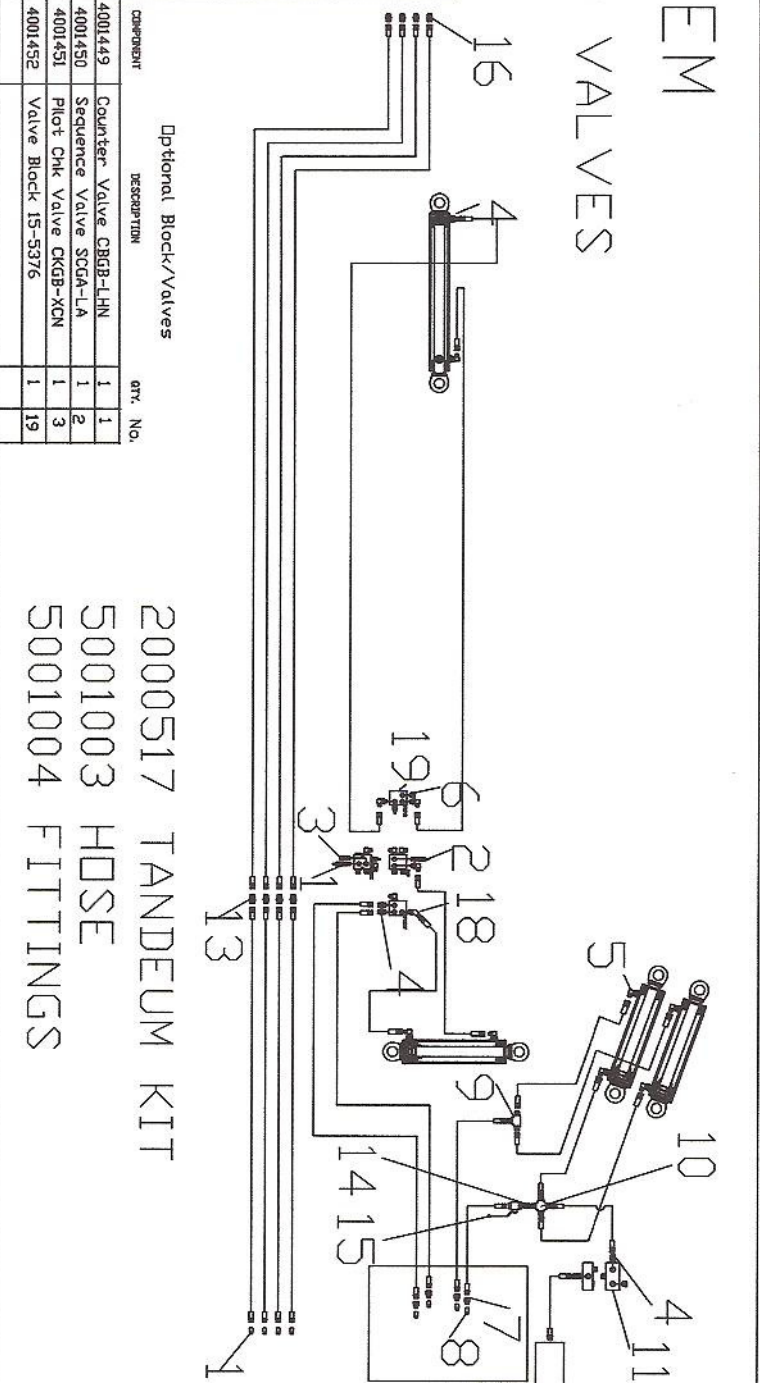
819 SINGLE HOSES



COMPONENT	DESCRIPTION	QTY.	No.
5001113	12FFDRX-12C12 x 366"-12FFDRX	1	1
5001114	12FFDRX-12C12 x 402"-12FFDRX	1	2
5000988	12FFDRX-12C12 x 53"-12FFDRX	1	3
5000989	12FFDRX-12C12 x 57"-12FFDRX	1	4
5000990	12FFDRX-8C12 x 16.75"-12FFDRX	2	5
5000991	12FFDRX-8C12 x 41.25"-12FFDRX	2	6
5000992	12FFDRX-12C12 x 152.5"-12MB	1	7
5000993	12FFDRX-12C12 x 203.5"-12MB	2	8
5000998	12FFDRX-12C12M x 80"-12FFDRX	1	9
5000999	16MB-12C12M x 61"-12FFDRX	1	10

819 TANDEM FITTINGS AND VALVES

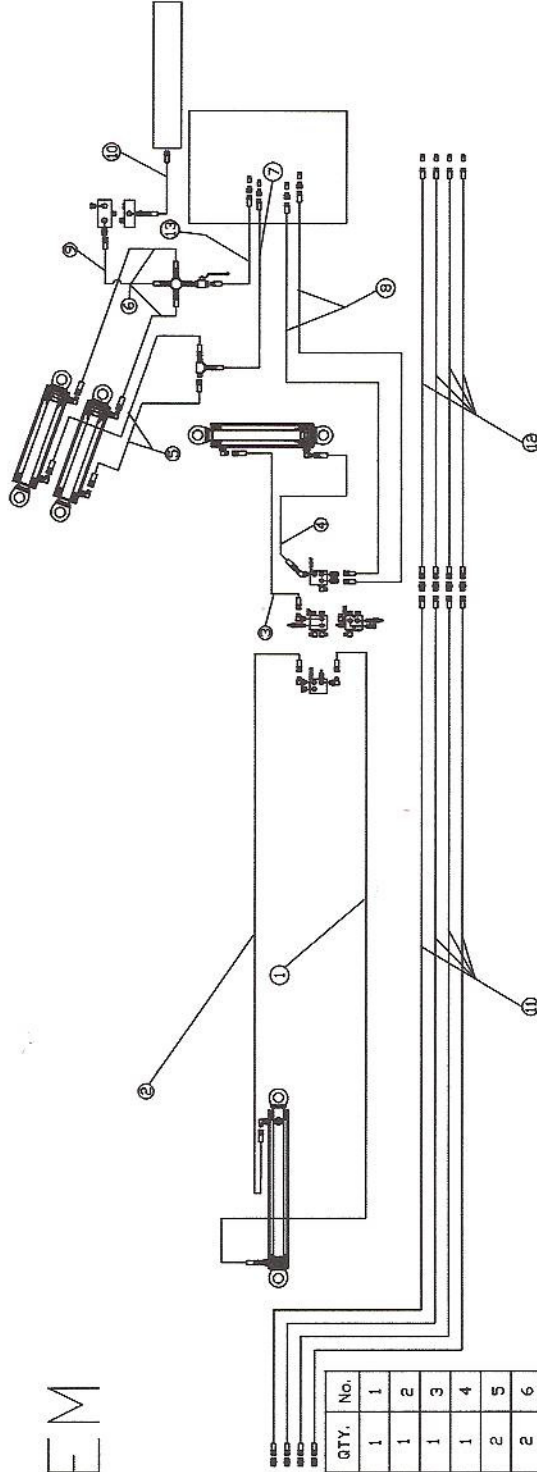
COMPONENT	DESCRIPTION	QTY.	No.
4000924	COUNTER VALVE CBGA-LHN	1	1
4000925	SEQUENCE VALVE SCGA-LAN	1	2
4000623	PILOT CHK VALVE CKGB-XCN	1	3
5000833	12MB-12MFFDR	6	4
5000793	12MFFDR-12MB90	11	5
5000424	12MB-HH PLUG	2	6
5000836	ADAP 10MB-12FB	4	7
5000835	PIONEER 7/8 N END 8010-16P	4	8
5000983	TEE, 12MFFDR	1	9
5001013	CROSS 12MFFDR	1	10
4001314	ACCUM. VALVE VS4BCBF9	1	11
4001267	2 GALLON ACCUM. TOBUL 4,7	1	12
5001011	12MFFDRBH	4	13
5001017	12MB-12FFDRX	1	14
4001420	HYD BALL SHUT DFF VAVLE	1	15
5001001	HYD-PIONEER 3/4 W/AC END-12FB INLET 660-16-12	4	16
5000977	HYD-PIONEER FEM 3/4 HYD-12MB	4	17
5000796	HYF-45, 12MFFDR-12MB45	1	18



Optional Block/Valves

2000517 TANDEUM KIT
5001003 HOSE
5001004 FITTINGS

819 TANDEM HOSES

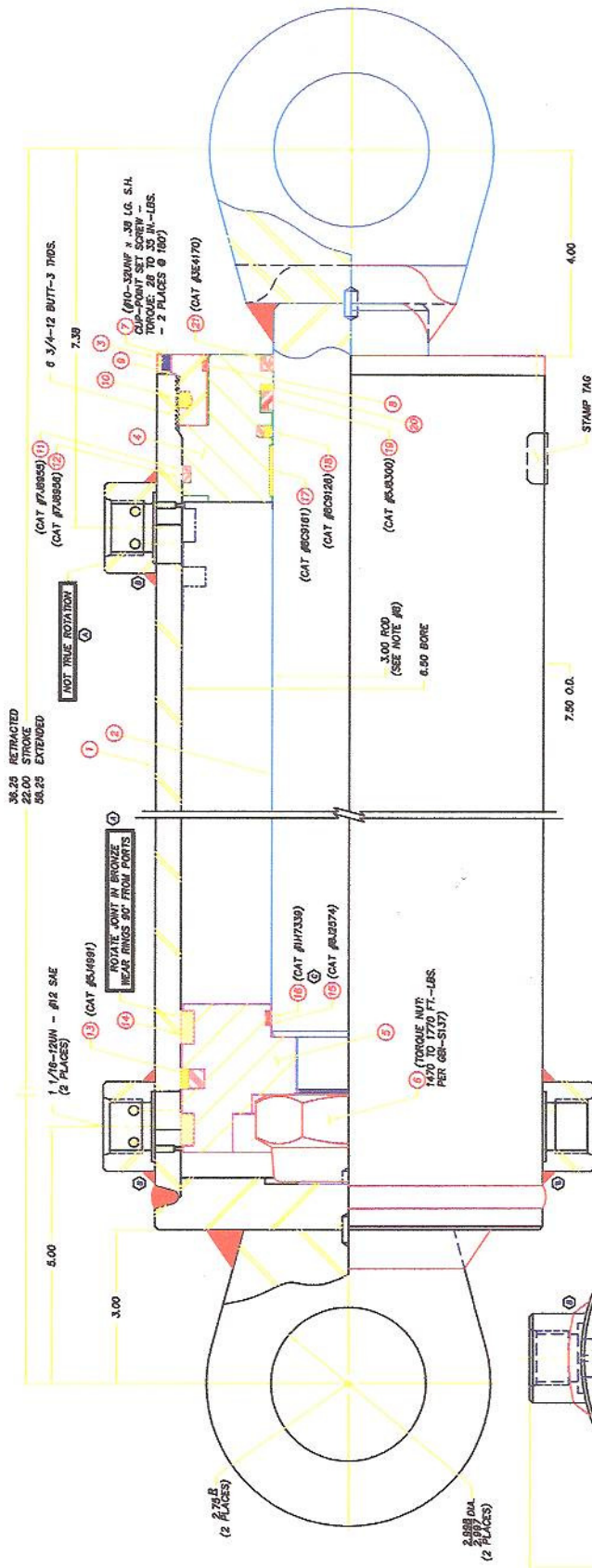


COMPONENT	DESCRIPTION	DIAL	QTY.	No.
5001113	12FFDRX-12C12	x 366"	1	1
5001114	12FFDRX-12C12	x 402"	1	2
5000988	12FFDRX-12C12	x 53"	1	3
5000989	12FFDRX-12C12	x 57"	1	4
5000990	12FFDRX-8C12	x 16.75"	2	5
5000991	12FFDRX-8C12	x 41.25"	2	6
5000992	12FFDRX-12C12	x 152.5"	1	7
5000993	12FFDRX-12C12	x 203.5"	2	8
5000998	12FFDRX-12C12M	x 80"	1	9
5000999	16MB-12C12M	x 61"	1	10
5000994	16FJX-12C12M	x 432"	4	11
5001010	12FFDRX-12C12M	x 160.5"	4	12
5001018	12MB-12C12	x 147"	1	13

6 1/2 x 22

4001034

Seal Kit # 4000962



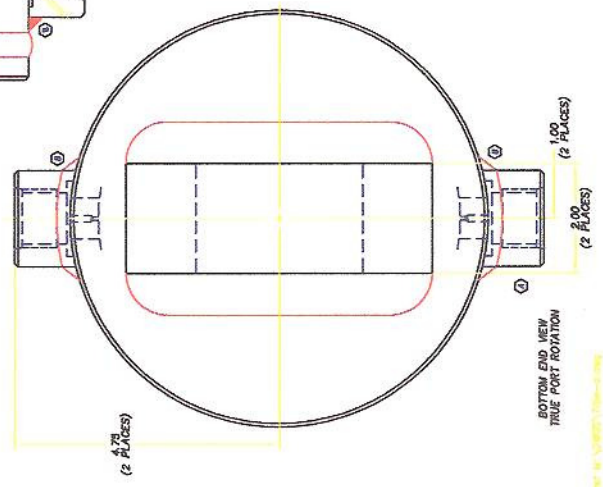
- NOTE:
1. ALL DIM'S. REF.
 2. TEST - 3300 P.S.I. PER (88-580).
 3. APPLY WETTED CONSISTANT GREASE TO O.D. THREAD RING THRS.
 4. AND TO 30° CHAMFER ON O.D. OF HEAD GLAND DURING ASSY.
 5. CRITICAL BUCKLING LOAD - 290,000 LBS. (n=1).
 6. PERMISSIBLE PRESSURE - 3000 P.S.I.
 7. ANNUATION HARDEN ROD TO Rc 45 TO 60 x .050 TO .060 DR.
 8. AND HARD CHROME PLATE - .0010/.0013 THK.
 9. CUSHIONING DIA'S: O = 1/16, O = 3/4

ITEM	PART NO.	QTY.	NAME	ITEM	PART NO.	QTY.	NAME
11	173813	1	BACK-UP	9	173803	1	SEAL KIT
10	30010	1	NYLON PUG	8	78035	1	WFER, LP TYPE
9	78250	1	O-RING	7	32844	1	BACK-UP
8	77360	1	O-RING	6	77450	1	U-CUP
7	80243	2	SET SCREW	5	81488	1	BUFFER SEAL
6	77051	1	NUT	4	158188	1	NEAR RING
5	173802	1	PISTON	3	76976	1	O-RING
4	173801	1	HEAD GLAND	2	76988	2	BACK-UP
3	173800	1	THREAD RING	14	173608	2	NEAR RING
2	173899	1	ROD WELD	13	154653	1	TEFLON SEAL
1	173898	1	CASE WELD	12	80218	1	O-RING

CONNECTED TAG NUMBER	BACK-UP	WFER	U-CUP	BUFFER SEAL	NEAR RING	O-RING	BACK-UP	NEAR RING	TEFLON SEAL	O-RING
1	21	20	19	18	17	16	15	14	13	12

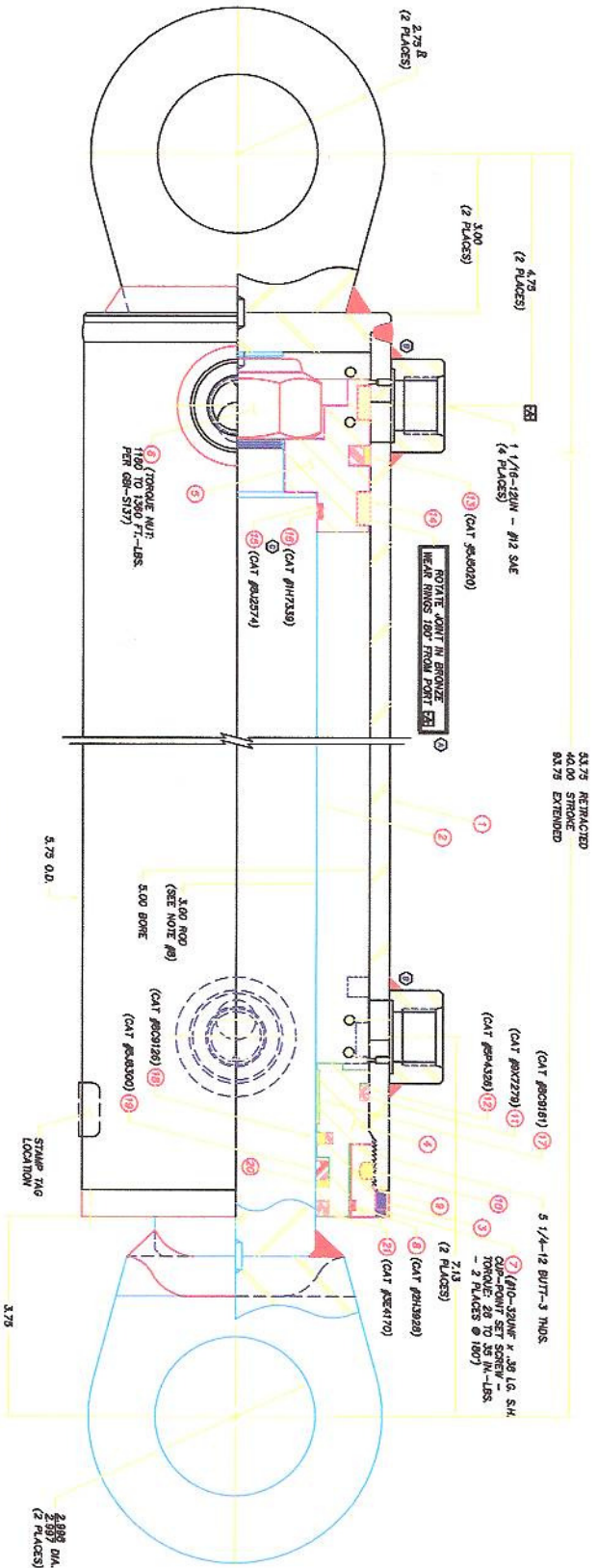
173344
 CHANGED PARTS FOR RETAIL PRICE
 RECALCULATED PART COST
 ADDED NOTE TO REG. NEAR RING

1 = 1
 ING. JOB. R.F.
 173344
 COLUMBIA
 LOW MOORE INC.



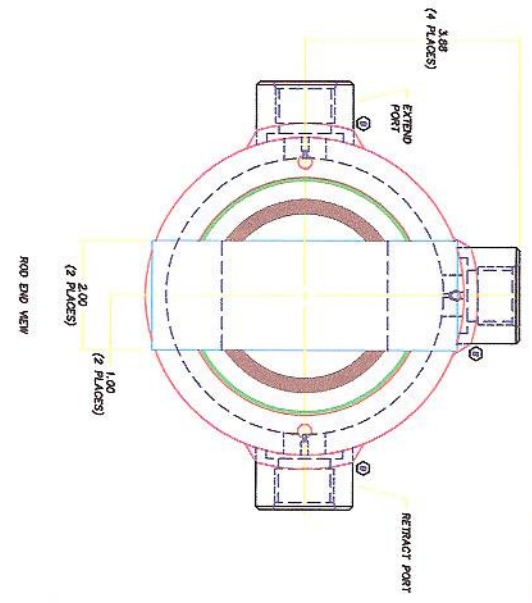
4001035

5 x 40 Eject Cyl. Seal Kit # 4000961



- NOTE:
1. ALL DIM'S ARE IN INCHES UNLESS OTHERWISE NOTED.
 2. TYPICAL SURFACE FINISH PER GR-137.
 3. APPLY WATER RESISTANT GREASE TO O.D. THREAD RING THDS. (CAT #80300).
 4. O.D. TO BE CHAMFER ON O.D. OF HEAD GLAND DURING ASST. TO PREVENT DAMAGE TO HEAD GLAND.
 5. OPERATING PRESSURE - 11,000 P.S.I.
 6. MAX. BURST PRESSURE - 11,000 P.S.I.
 7. MAX. BURST PRESSURE TO BE 50% TO 100% OF OPERATING PRESSURE.
 8. MAX. BURST PRESSURE TO BE 50% TO 100% OF OPERATING PRESSURE.
 9. CUSHIONING DIA'S: $\emptyset = 1/16$, $\emptyset = 3/16$.

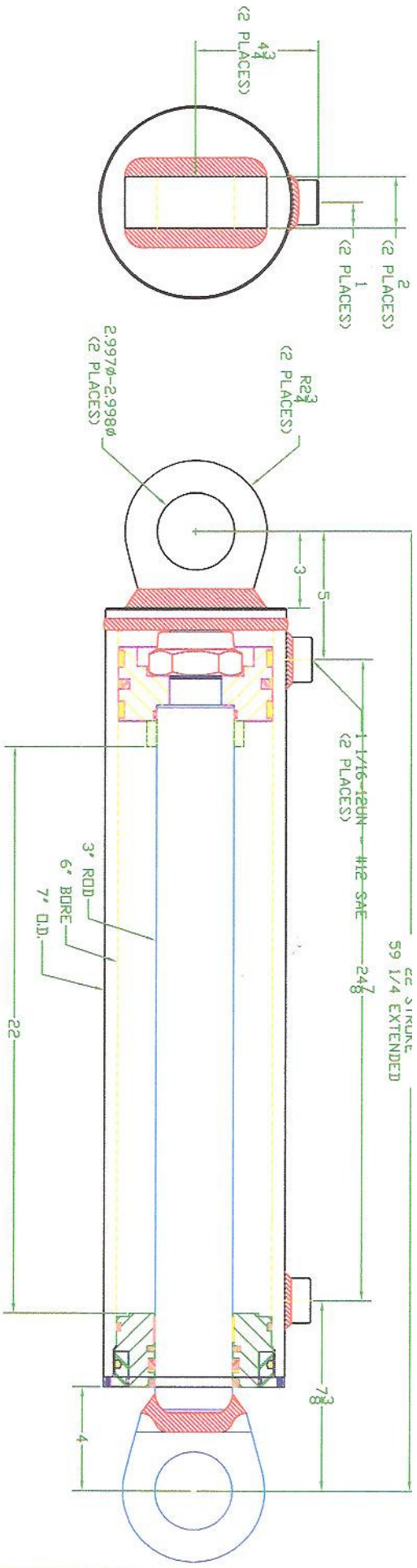
11	7 9 9 8 0	1	BACK-UP	*	1 2 3 4 7 2	SEAL KIT	*
10	3 0 0 1 9	1	NYLON RULO	*	7 9 0 3 5	IMPER. LIP TYPE	*
9	7 7 8 3 8	1	O-RING	*	3 2 8 4 4	BACK-UP	*
8	7 8 9 0 2	1	O-RING	*	7 7 4 5 0	U-CAP	*
7	8 0 2 4 3	2	SET SCREW	*	8 1 4 8 8	BURTER SEAL	*
6	7 6 8 4 1	1	PISTON	*	1 5 0 1 8 8	MEAN RING	*
5	1 7 3 4 7 1	1	PISTON	*	7 5 9 7 8	O-RING	*
4	1 7 3 4 7 0	1	HEAD GLAND	*	7 5 8 8 9	BACK-UP	*
3	1 7 3 4 8 8	1	THREAD RING	*	1 5 8 4 8 8	MEAN RING	*
2	1 7 3 7 8 1	1	ROD WELD	*	7 8 9 1 7	TEFLON SEAL	*
1	1 7 3 7 7 9	1	CASE WELD	*	7 8 8 8 9	O-RING	*



6 x 22

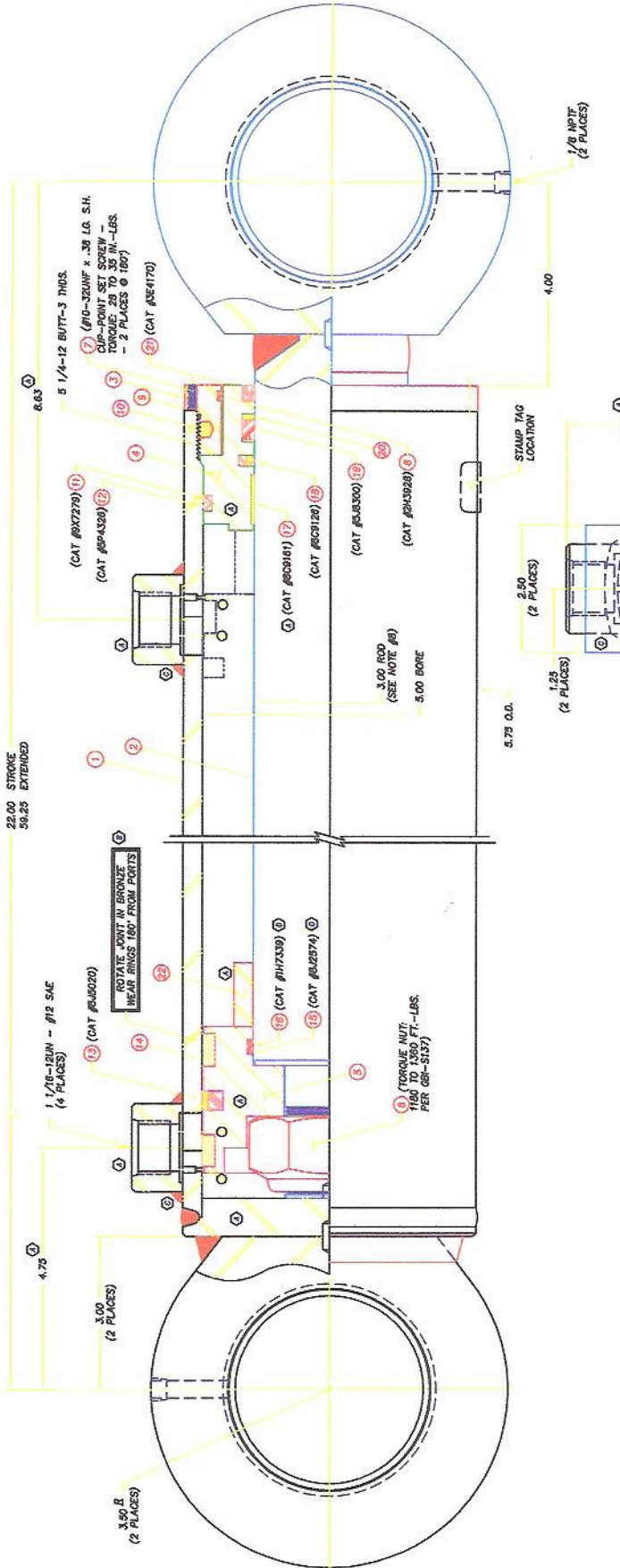
#4001236

Seal Kit #4001434



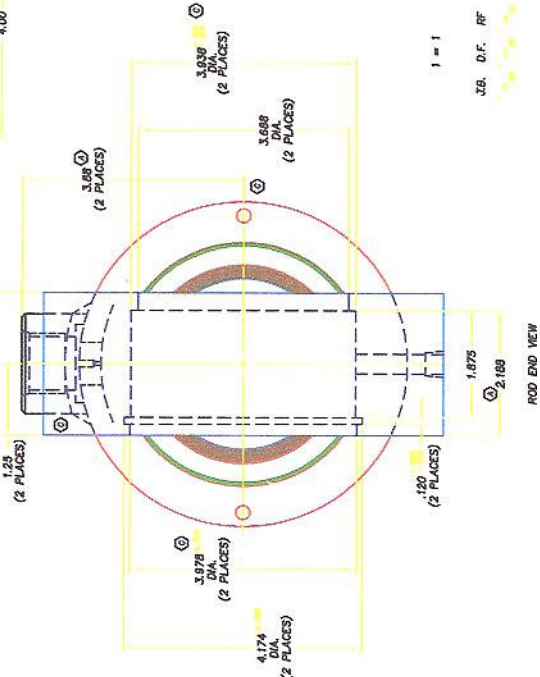
INTERNAL THREAD
 CAT COMPATIBLE SEALS
 DUCTILE PISTON & GLAND
 HARDENED SHAFT

MATERIAL:		 INDUSTRIES INCORPORATED 1800 W. 9TH BELLOT KANSAS 67420	
DIMEN. TOLERANCES	ISA. TOLERANCES	DATE	5/26/02
APPROX. 3/164	0.000 2.001	BY	TAF
GENERAL 3/178	PROVISIONAL 3/178	ICDNB4	
SCALE	1/4	SHEET	4001235
		DWG. NO.	



NOTE:
 1. ALL DIM'S, REF. TO CENTER LINE UNLESS NOTED OTHERWISE.
 2. ALL DIM'S, REF. TO CENTER LINE UNLESS NOTED OTHERWISE.
 3. APPLY WATER RESISTANT GREASE TO O.D. THREAD RING THDS. AND TO 30° CHAMFER ON O.D. OF HEAD GLAND DURING ASSY.
 4. CRITICAL BUCKLING LOAD $300 \times 10,000$ LBS. (n=1).
 5. MIN. BURST PRESSURE - 11,000 P.S.I.
 6. INDUCTION HARDEN ROD TO R6 55 TO 60 x .060 TO .060 DP. AND HARD CHROME PLATE -.0010/.0013 THK.
 7. CUSHIONING DIA. S: O = 1/16, O = 3/4.

CONNECTED TAIL CALL-OUTS	2, 2, 4, 6
UNCONNECTED TAIL CALL-OUTS	7, 1, 4, 6
CONNECTED HEAD GLAND CALL-OUTS	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23
UNCONNECTED HEAD GLAND CALL-OUTS	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23
CONNECTED ROD CALL-OUTS	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23
UNCONNECTED ROD CALL-OUTS	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23



1 = 1
 J.B. D.F. RF

QTY	DESCRIPTION	QTY	DESCRIPTION
1	BACK-UP	22	SPACER
1	NYLON PLUG	1	SEAL BIT
1	O-RING	21	WEAR LIP TYPE
1	SET SCREW	20	BACK-UP
1	PISTON	10	U-CUP
1	HEAD GLAND	16	BUFFER SEAL
1	THREAD RING	17	O-RING
1	ROD WELD	15	BACK-UP
1	CASE WELD	14	WEAR RING
1		13	REFLON SEAL
1		12	O-RING

5 x 22 # 4001037 Seal Kit # 4000961

CYLINDER
 4000917

ICON and CAT Crossover Part #'s For 5x22/5x40 KAYDON Cyl's

Ref #	Description	Size	ICON #	CAT #
11.	Back Up	5.00ODx3/16 CS	4000975	9X7279
12.	O-Ring	5.00ODx3/16 CS	4000974	5P4326
13.	Teflon Seal	5.00OD	4000973	5J5020
14.	Wear Ring	5.00ODx.63 LG	4000972	660 BRZ
15.	Back Up	3.00IDx1/8 CS	4000971	8J2574
16.	O-Ring	3.00IDx1/8 CS	4000970	IH7339
17.	Wear Ring	3.00IDx.98 LG	4000969	8C9161
18.	Buffer Seal	3.00ID	4000968	8C9126
19.	U-Cup	3.00ID	4000967	5J8300
21.	Wiper, Lip Type	3.00ID	4000965	3E4170

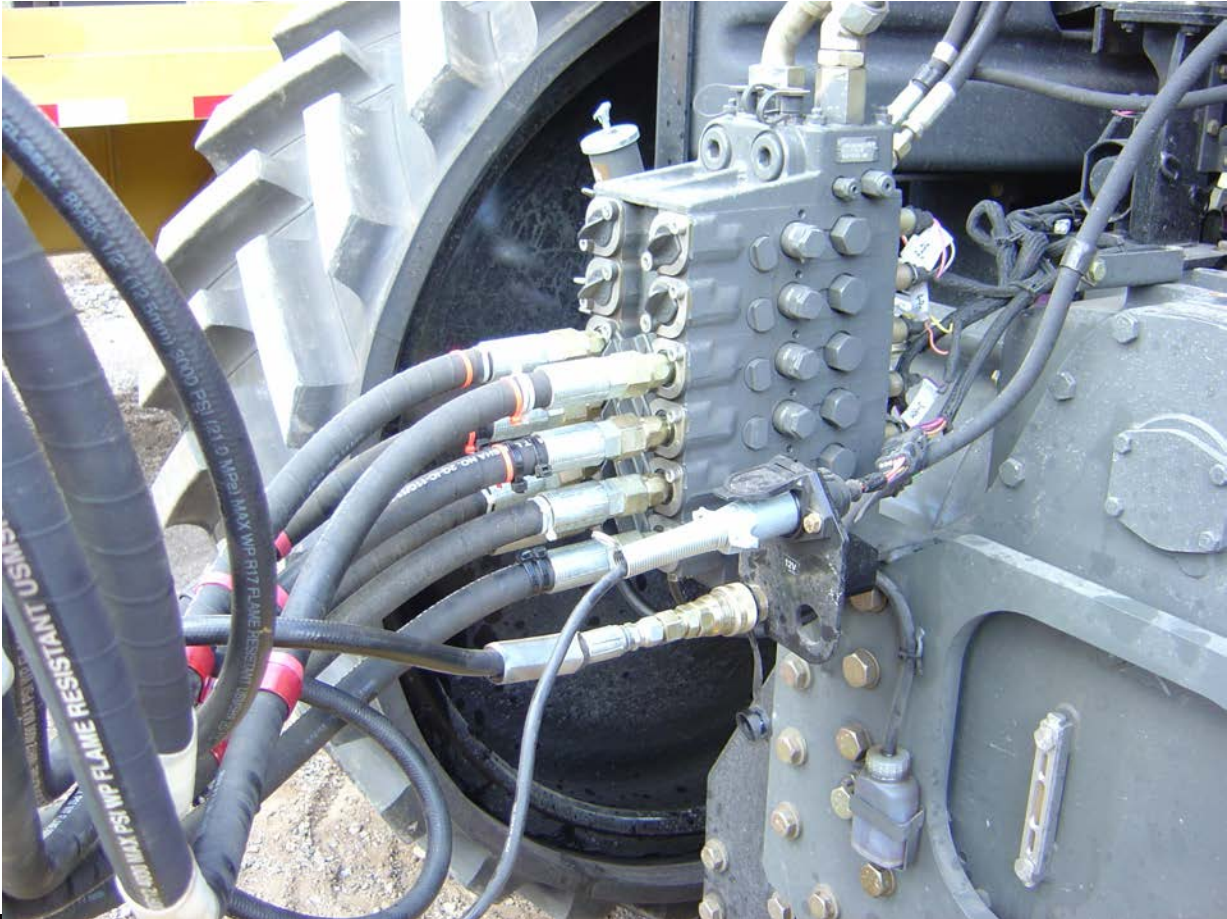
ICON and CAT Crossover Part #'s For 4 x 50 KAYDON Cyl's

Ref#	Description	Size	ICON #	CAT #
11.	Back Up	4.00OD	4000995	2K6830
12.	O-Ring	4.00OD	4000994	1H8128
13.	Teflon Ring	4.00OD	4000993	5J5402
14.	Wear Ring	4.00 x .63LG	4000992	660 BRZ
15.	O-Ring	2.50ID	4000991	1H5728
16.	Back Up	2.50ID	4000990	4J9225
17.	Wear Ring	2.50ID x .98LG	4000989	8T0785
18.	Buffer Seal	2.50ID	4000988	8C3839
19.	U-Cup	2.50ID	4000987	5J0964
21.	Wiper, Lip Type	2.50ID	4000985	3E4166

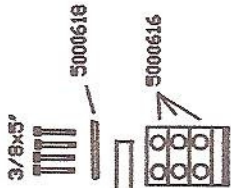
ICON and CAT Crossover Part #'s For 6.5 x 22 KAYDON Cyl's

Ref#	Description	Size	ICON #	CAT #
11.	Back Up	6.38OD x 3/16CS	4000982	7J8956
12.	O-Ring	6.38OD x 3/16CS	4000981	7J8955
13.	Teflon Seal	6.50OD	4000980	5J4991
14.	Wear Ring	6.50OD x .63LG	4000979	660BRZ
15.	Back Up	3.00ID x 1/8CS	4000971	8J2574
16.	O-Ring	3.00ID x 1/8CS	4000970	1H7339
17.	Wear Ring	3.00ID x .98LG	4000969	8C9161
18.	Buffer Seal	3.00ID	4000968	8C9126
19.	U-Cup	3.00ID	4000967	5J8300
21.	Wiper, Lip Type	3.00ID	4000965	3E4170

The hoses on all ICON Earthmovers are color coded and marked for their function and also with a + or - to distinguish between flow or return line. The tandem connectors are marked and color coded to match. The operator only needs to match colors and signs for proper hook up.



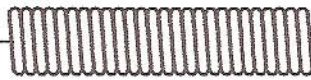
IC00235



4000919



4000918



4000919



IC00358
contains all 3
assembled



Decal Locations



4001306

4001309

819

4001496

4000702

4000938 Grease Daily
@ ea. zerk



4000960

4001254

Wheel Bolt torque - Inflation should be to
tire manufacture specs, located on sidewall
of tire.



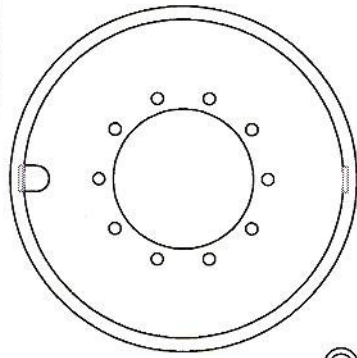
Decal Listing For 819 Series Kit # 2000597

Part #	Qty	Description
4000931	5	Warning—High Pressure
4000934	2	Loading Hard/Loose Material
4000935	1	Safety/Operation Manual
4001435	2	Tire Pressure/Torque (29.5 tires)
4000937	2	3 Pumps Of Grease Weekly
4000938	27	Grease Daily
4000940	5	Danger Pinch/Crush
4000396	1	Gate Gauge (A-B-C-D)
4000941	1	Danger—To Prevent a Hazardous Situation
4000702	4	18”Reflective Tape
4000372	3	Warning Moving Parts
4001248	1	This Machine is Designed To Be Pulled By (600)
4001254	1	Icon Axle Nut Wrench
4000960	4	ICON 4”
4001309	2	ICON 11 x 24
4001496	2	819 5x12
4001415	2	American Flag
4001306	1	819 Side Graphics
4001418	1	819 Raise/Lower
4001432	2	Made In USA
4001433	1	Hyd. Shutoff Valve
4000949	1	Hyd. Color Codes
4001445	3	Safety Stops
4001446	1	Warning Remove Safety Stops
4001447	1	Caution Before Any Repair

Rim Assembly 819

Rim Assy. 4001480

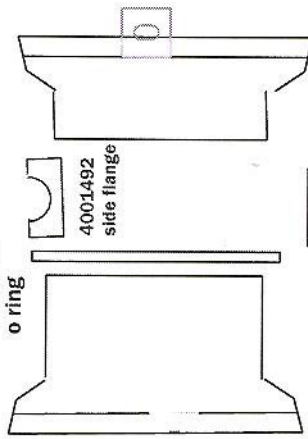
25 x 25 5 pc rim



SCR2078
Spacer
(20)

7/8 x 3"
fine (20)

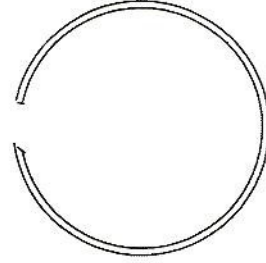
4001494
o ring



4001090
Flange

4001492
side flange

4001491
rim w/o flange



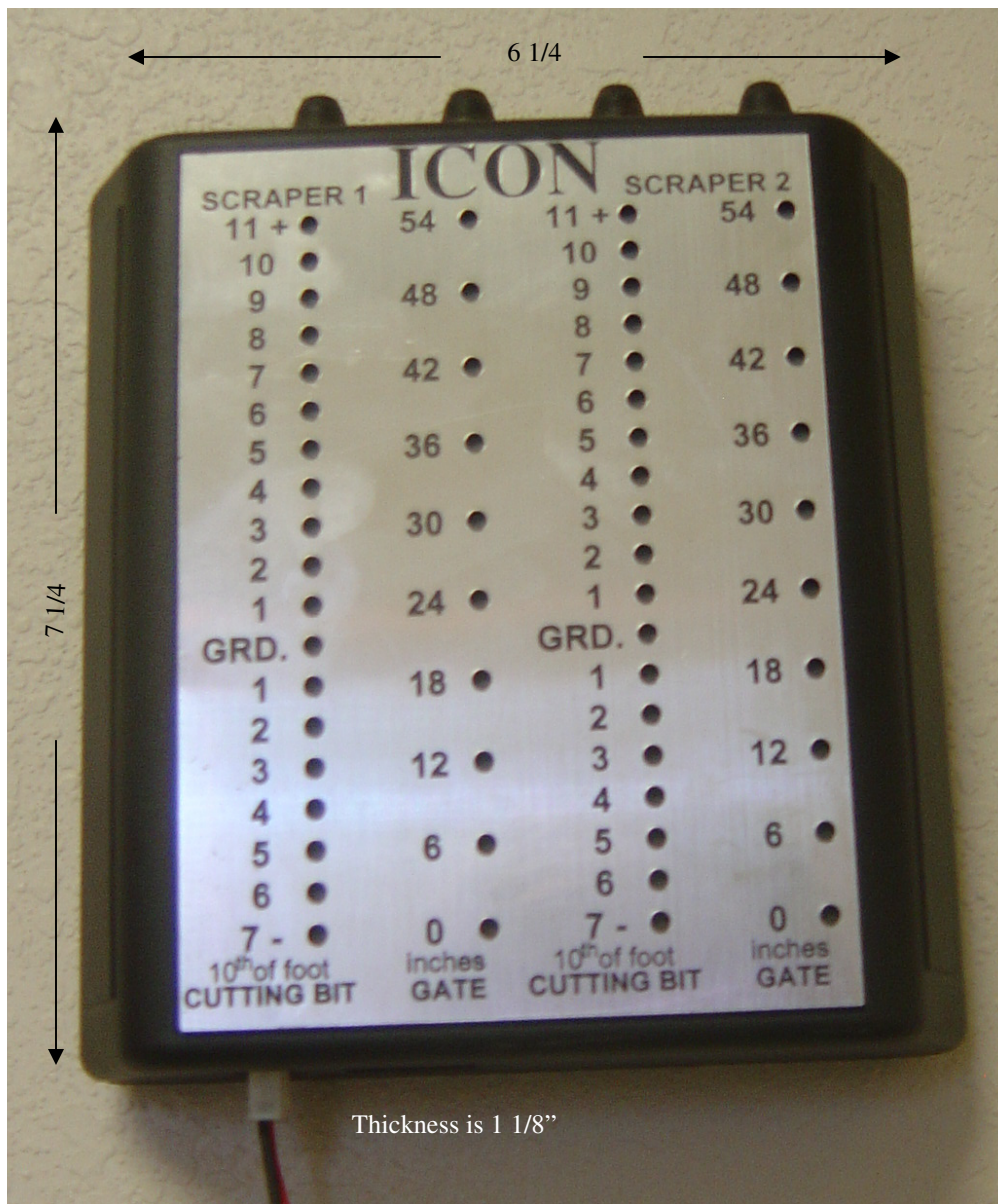
Snap Ring
4001093

ICON In Cab Site Gauge

A three color led readout on a printed face plate, informs the operator of height, in tenths of a foot above or below ground, on the cutting bit, and height in inches of the front gate.

All gauges are set up for a front and rear tandem machine, or can be operated with a single machine.

A mounting plate and velcro mounting tape is supplied, allowing the operator to mount the gauge at his/her preference. Usual mounting is directly above the hydraulic controls, providing info without turning around to see the machine(s).

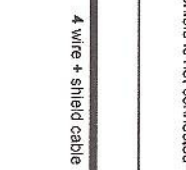
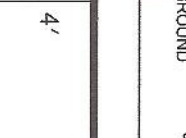
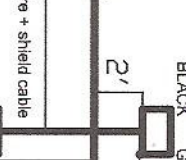
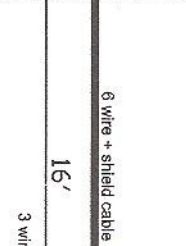
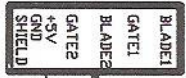


Shown is the potentiometer that is installed on each machine (at the appropriate pin locations). Each wiring harness is made for a tandem setup, and plugs into each lead on the potentiometer.



METRI-Pack 150 Series
Sealed 8-way
Male Connector 12047931

PIN OUT	Color
1 - Ground	Black
2 - Shield	bare wire
3 - Blade 1	Brown
4 - Gate 1	Blue
5 - +5	Red
6 - open NC	Clear
7 - Blade 2	Clear
8 - Gate 2	Green



METRI-Pack 150 Series
Sealed 8-way
Female Connector
12047937

PIN OUT	Color
1 - Ground	Black
2 - Shield	bare wire
3 - Blade 2	Clear
4 - Gate 2	Green
5 - +5	Red
6 - open NC	Clear
7 - open NC	Clear
8 - open NC	Clear

Delphi Packard Metri-Pack 150 Sealed Connector sealed 3 pin female body connector 12110293

+5 BLADE 1 ground shield is not connected
BLADE 1
RED
CLEAR SIGNAL
BLACK GROUND

Pin Out for Metri-Pack 3 way Connectors
Pin A - +5
Pin B - signal
Pin C - ground
shield is not connected

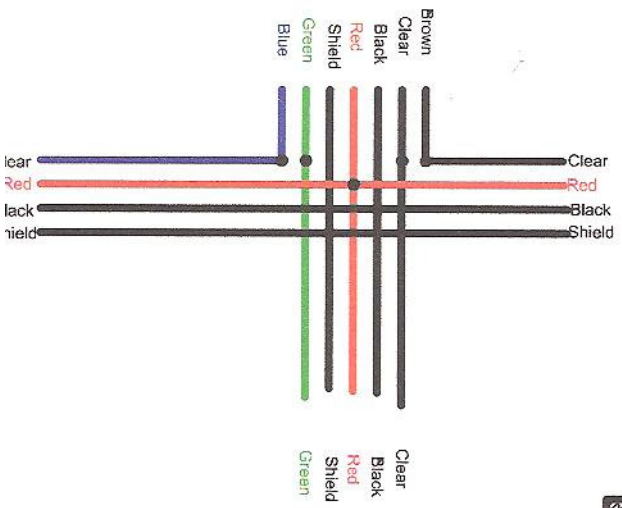
NOTE: All Dimensions are in Feet

All Connectors should use appropriate Pirs for 20 awg. wire as well as plugs in any open connections and seals on all wires and secondary locks on all connectors.

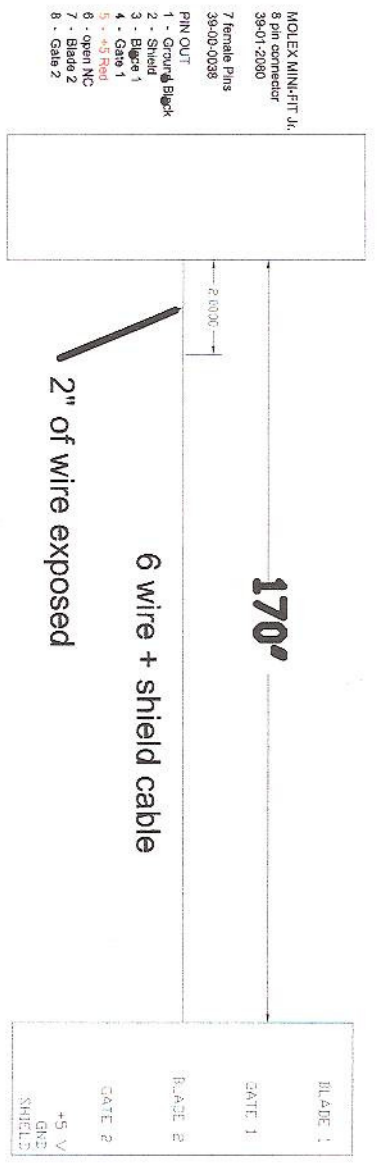
All Wire to wire connections should be soldered.

Every end should have glue lined heat shrink overlapping the cable and wires going to the connectors.

The main joint in the middle of the harness should have glue lined heat shrink over each soldered connection as well as one



METRI-Pack 150 Series
 Sealed 8-way
 Female Connector
 12047937



- MOLEX MINI-FIT Jr.
 8 pin connector
 38-01-2000
 7 female Pins
 38-00-0038
- PIN OUT
 1 - Ground
 2 - Shield
 3 - Blade 1
 4 - Gate 1
 5 - +5V
 6 - open NC
 7 - Blade 2
 8 - Gate 2

- PIN OUT
- 1 - Ground Black
 - 2 - Shield bare wire
 - 3 - Blade 1 Brown
 - 4 - Gate 1 Blue
 - 5 - +5 Red
 - 6 - open NC
 - 7 - Blade 2 Clear
 - 8 - Gate 2 Green

170"
 6 wire + shield cable
 2" of wire exposed

MATERIAL:		DIA. TOLERANCES	
MACHINE ± 1/64		0.000 ±.001	
GENERAL ± 1/16		FRACTIONAL ±1/64	
DATE	IC0NC16	INDUSTRIES INCORPORATED	
TRACTOR POTENTIOMETER WIRING HARNESS		1600 W. 8TH BELLOT KANSAS 67420	

MOLEX MINI-FIT Jr.
 8 pin connector
 39-01-2020
 2 female Pins
 39-00-0038
 PIN OUT
 1 - Ground Black
 2 - +12V Red



60' 18 awg wire

MATERIAL:		ICON INDUSTRIES INCORPORATED	
DIMEN. TOLERANCES		1800 W. 8TH BELDT KANSAS 67420	
MACHINE ± 1/64	0.000 ±.001	GAUGE POWER SUPPLY HARNESS	
GENERAL ± 1/16	FRACTIONAL ±1/64		
DATE	ICDNC16	REVISED	SHEET
SCALE 1/16	BY	DWG. NO.	4001460



Intertek

Equipment from Landoll Corporation is built to exacting standards ensured by ISO 9001 registration at all Landoll manufacturing facilities.

Model 819 Scraper Service and Parts Manual

Re-Order Part Number F-882-0118

LANDOLL CORPORATION

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Marysville, Kansas 66508

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