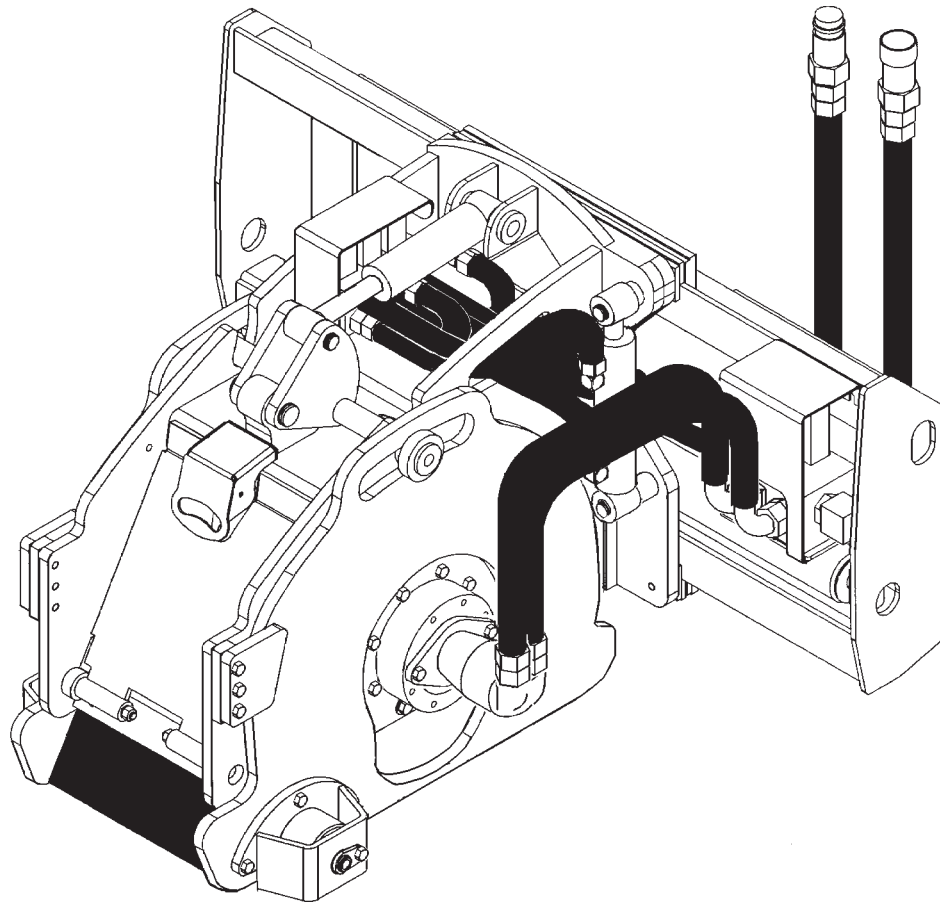


BRADCO[®]

SP300 PLANER

12" COLD PLANERS FOR SKID-STEER LOADERS



OPERATOR'S & PARTS MANUAL

IMPORTANT: Read this manual carefully. It contains information about your safety and the safety of others. Also become familiar with the controls and their proper use before you operate the product.

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REV. 2

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TABLE OF CONTENTS

TO THE OWNER	A
SAFETY PRECAUTIONS	B
To The Operator	
Before You Start	
Working With The Attachment	
Transporting The Attachment	
Maintenance	
INTERNATIONAL SYMBOLS	C
PREOPERATION	D
Preparing the Vehicle	
Skid-Steer	
Before Operation	
Nomenclature	
ASSEMBLIES	E
Planer Assemblies	
Drum and Pick Options	
Wheel Assembly	
Hydraulic Assembly (Hydraulic Controls) #100458	
Hydraulic Assembly (Manual Control) #19038	
Cylinder Assembly #19202	
Cylinder Assembly #89520	
Cylinder Assembly #89530	
Water Kit	
INSTALLATION INSTRUCTIONS	F
OPERATING INSTRUCTIONS	G
General Operating Instructions	
Special Applications	
Large Area	
Milling Around Manholes	
Deep Cuts	
Milling Taper Cuts	
LUBRICATION	H
MAINTENANCE AND SERVICE	L
Routine Maintenance	
Pick Replacement	
Changing The Drum	
Changing The Planetary	
Changing The Hydraulic Motor	
TROUBLESHOOTING	N
BOLT TORQUE SPECIFICATIONS	O
SPECIFICATIONS	P
DECALS	Q
LIMITED WARRANTY	S

TO THE OWNER

GENERAL COMMENTS

Congratulations on the purchase of your new BRADCO product! This product was carefully designed and manufactured to give you years of dependable service. Only minor maintenance (such as cleaning and lubricating) is required to keep it in top working condition. Be sure to observe all safety precautions and maintenance procedures, as described in this manual.

ABOUT THIS MANUAL

This manual has been designed to help you do a better, safer job. Read this manual carefully and become familiar with its contents. **Remember, never let anyone operate this unit without reading the "Safety Precautions" and "Operating Instructions" sections of this manual. (See Sections B and G respectively.)**

Unless noted otherwise, right and left sides are determined from the position of the operator when behind the product facing forward.

SAFETY ALERT SYMBOL



This is the "Safety Alert Symbol" used by this industry. This symbol is used to warn of possible injury. Be sure to read all warnings carefully. They are included for your safety and for the safety of others working with you.

SERVICE

When servicing your product, remember to use only manufacturer replacement parts. Substitute parts may not meet the standards required for safe, dependable operation.

To facilitate parts ordering, record the model and serial number of your unit in the space provided on this page. This information may be obtained from the identification plate located on the product.

MODEL _____
SERIAL NUMBER _____
DATE PURCHASED _____

The parts department needs this information to insure that you receive the correct parts for your specific model.

SAFETY PRECAUTIONS

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY OR OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH.



THIS SYMBOL MEANS:

ATTENTION!

BECOME ALERT!

YOUR SAFETY IS INVOLVED!

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

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

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

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

SAFETY PRECAUTIONS

GENERAL INFORMATION

This section is composed of various warnings and safety tips. **Read and learn all the information in this section before you attempt to use your attachment.** Also read your vehicle owner's manual before using your equipment. This knowledge will help you operate your unit safely. **Do not take this information lightly, it is presented for your benefit and for the benefit of others working around you.**

The "Safety Alert Symbol" (as described in Section A and at the beginning of Section B) will be used throughout this manual. It will appear with the word **DANGER**, **WARNING**, or **CAUTION**, and a safety message pertaining to the specific topic being covered. Take the time to read these messages as you come across them.

TO THE OPERATOR

The primary responsibility for safety with the equipment falls to the operator. Make sure that the equipment is operated only by responsible individuals with the proper instruction. It is the skill, care, common sense, and good judgement of the operator that will determine how efficiently and safely the job is performed. Know your equipment before you start. Know its capabilities and how to operate all the controls. Visually inspect your equipment before you start and never operate equipment that is not in proper working order.

BEFORE YOU START

1. **Read the entire loader and attachment operator's manuals** before ever attempting to use the loader. This knowledge is necessary for safe operation.
2. **Follow all safety decals.** Keep them clean and replace them if they become worn, damaged or illegible.
2. **Do not paint over,** remove or deface any safety signs or warning decals on your equipment.
4. **Know your equipment inside and out.** Know how to operate all controls and know emergency shut down procedures.
5. **Keep all stepping surfaces, pedals, and controls free from dirt, grease and oil.** Keep equipment clean to help avoid injury from a fall when getting on or off equipment.
6. **Use handholds and step plates when getting on/off .** Failure to do so could cause a fall.
7. **Be alert to others in the work area.** Be sure others know when and where you will be working. Make sure no one is behind equipment.
8. **Never take passengers on your equipment.** There is no safe place for a passenger.

SAFETY PRECAUTIONS

9. Never try to board equipment while it is moving.
10. Turn off engine before performing maintenance. All maintenance can be performed with the machine lowered. If lift arms must be left raised for any reason, use a positive lift arm lock to secure the arms in place. Serious damage or personal injury could result from lift arms accidentally lowering.
11. Reduce speed when driving over rough terrain, on a slope, or turning to avoid overturning the loader.
12. Test all controls before you begin.
13. Do not smoke when refueling. Allow room in the gas tank for expansion. Wipe up any spilt fuel. Secure cap tightly when done.

WORKING WITH THE ATTACHMENT

1. Never operate the unit without first reading and understanding the operator's manual.
2. Operate the attachment only in daylight or sufficient artificial light.
3. Do not carry load with arms in the raised position. Always carry loads close to the ground. Do not step off platform with load raised.
4. Check your work area and know where all utility lines are. Avoid hitting underground electrical wires, cables, pipes, fence posts, gas lines, etc.
5. Never operate equipment while under the influence of alcohol, or prescription drugs which could inhibit physical and/or mental capacity.
6. Do not exceed rated operating capacity, as machine may become unstable which may result in loss of control.
7. Slow down before turning. Sharp turns on any terrain may cause loss of control.
8. Always lower the loader arms to the ground, shut off the engine and remove the key before getting off the unit.

TRANSPORTING THE ATTACHMENT

1. Follow all federal, state and local regulations when transporting the unit on public roads.
2. Use extra care when loading or unloading the machine onto a trailer or truck.

MAINTENANCE

1. Never work on equipment while it is running.
2. Never make hydraulic repairs while the system is under pressure. Injury or death could result.

SAFETY PRECAUTIONS

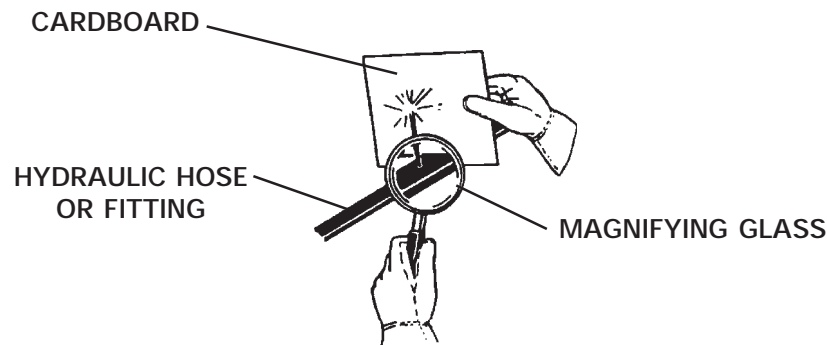
3. Observe proper maintenance schedules and repairs to keep the unit in safe working order.
4. Always wear safety goggles or glasses when working on equipment.
5. Use a drift and hammer when pressing out pins to prevent the pin from shattering.
6. Use only manufacturer recommended replacement parts. Other parts may be substandard in fit and quality.

WARNING! Escaping fluid under pressure can have sufficient force to penetrate the skin causing serious personal injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands to search for suspected leaks.






















Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.

If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research it immediately to determine proper treatment.



INTERNATIONAL SYMBOLS

As a guide to the operation of your equipment, various international symbols have been utilized on the instruments and controls. The symbols are shown below with an indication of their meaning.

	Engine speed		Alternator charge
	Hours recorded		Power take-off (on)
	Engine water temperature		Power take-off (off)
	Lights		"Tortoise," slow or minimum setting
	Horn		"Hare," fast or maximum setting
	Engine oil pressure		Caution
	Hazard warning		Control lever operating direction
	Axle connect		Rock shaft (raised)
	Axle disconnect		Rock shaft (lowered)
	Continuously variable		Remote cylinder (extended)
	Increase		Remote cylinder (retracted)
	Decrease		Remote cylinder (FLOAT)
	Diesel fuel		Differential lock
	Creeper range		Read operators manual
	High range		Neutral
	Low range		Forward
			Reverse

PRE-OPERATION

12" COLD PLANERS

GENERAL INFORMATION

The purpose of this manual is to assist in setting up, operating and maintaining your BRADCO SP300 Planer. Read it carefully. It furnishes information and instructions that will help you achieve years of dependable performance.

Unless otherwise noted, right and left are determined from the position of the skid-steer operator sitting in the operator's seat facing forward.

Remember to read the "Safety Precautions" and "Operating Instructions" sections of the manual BEFORE you attempt to install or use the SP300 Planer.

NOTE: The illustrations and data used in this manual were current (according to the information available to us) at the time of printing, however, we reserve the right to redesign and change the cold planers as may be necessary without notification.

PREPARING THE VEHICLE

WARNING! Never let anyone operate this attachment without understanding all of the "Safety Precautions" and "Operating Instructions" sections of this manual. (See Section B and G respectively.) Always choose hard, level ground to park the attachment on and set the brake so the vehicle cannot roll.



SKID-STEER

The BRADCO 12" Planers are not designed for use on high flow skid-steers. Cold planer and skid-steer compatibility is determined by the recommended lifting capacity of your skid-steer.

WARNING! Do NOT attach or operate any attachment that exceeds the recommended lifting capacity of your skid-steer.



Skid-steers MUST be equipped with auxiliary boom hydraulics to run the cold planer.

BEFORE OPERATION

The primary responsibility for safety with this equipment falls to the operator. Make sure that the equipment is operated only by trained individuals that have read and understand this manual. Don't hurry the learning process or take the unit for granted. Practice the operation of your new equipment and become familiar with the controls and the way it handles on your machine.

If there is any portion of this manual or function you do not understand, contact your local authorized dealer or the manufacturer.

OPTIONS

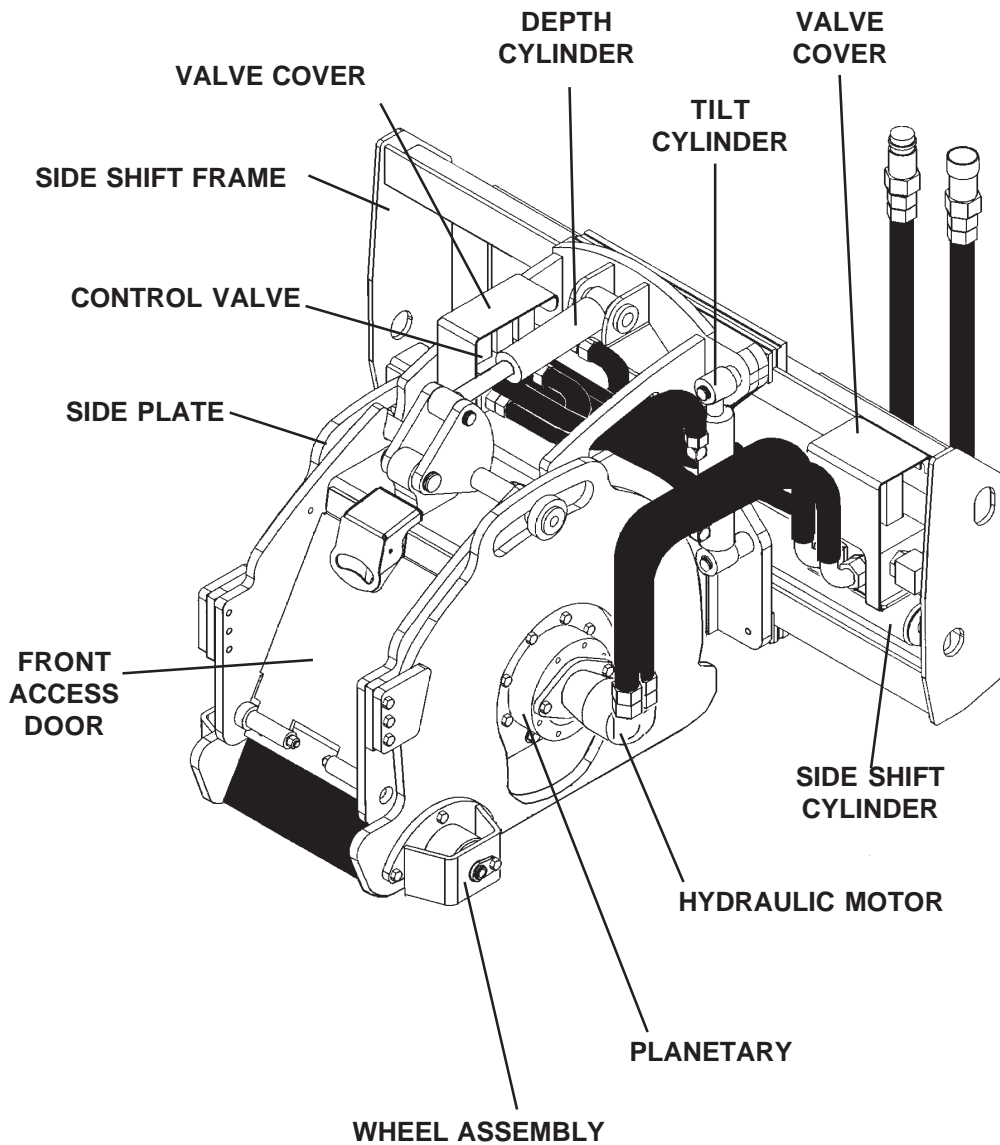
Concrete Picks Contact Dealer
2.5" (Slot Cutter) Drum #100641

PRE-OPERATION

12" COLD PLANERS

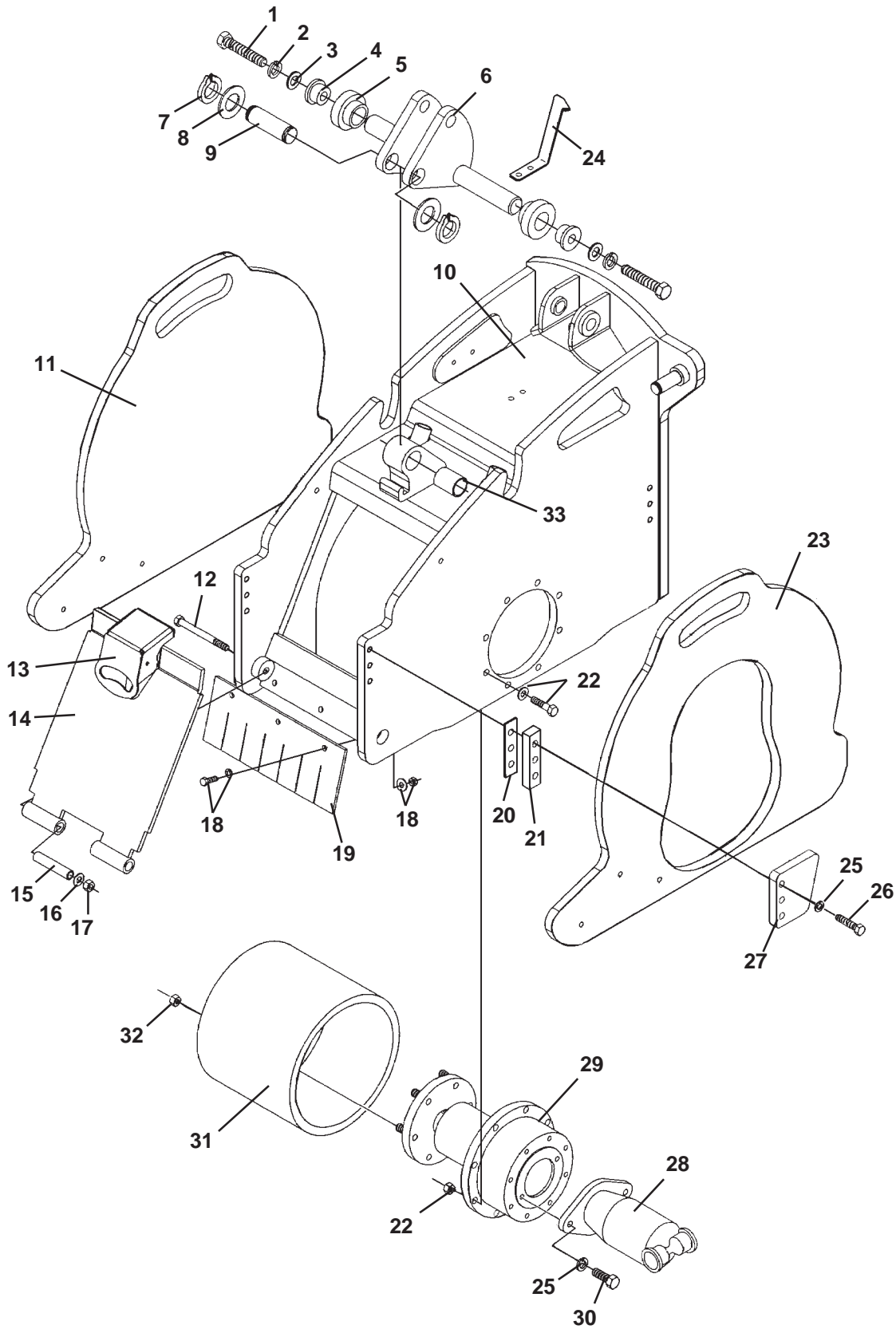
MAJOR NOMENCLATURE

Throughout this manual, reference is made to various attachment components. The purpose of this section is to acquaint you with the various names of these components. This knowledge will be helpful when reading through the manual or when ordering service parts.



SP300 PLANER ASSEMBLY

12" COLD PLANER ASSEMBLY #19070



SP300 PLANER ASSEMBLY

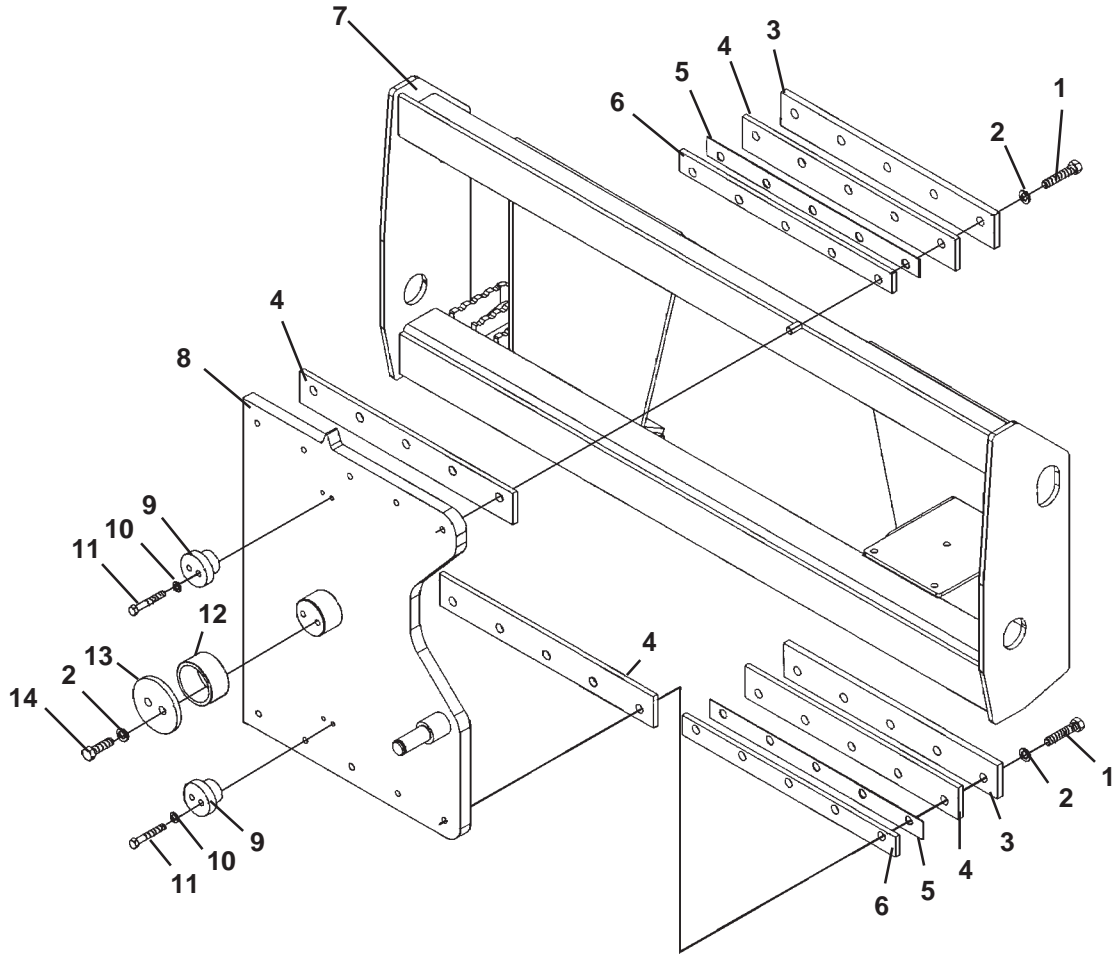
12" COLD PLANER ASSEMBLY #19070

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	2	1147	.75" UNC X 4.00" Hex Capscrew
2	2	1507	.75" Lock Washer
3	2	1518	.75" Flat Washer
4	2	100400	Pin Boss
5	2	100407	Clamp Boss
6	1	100396	Pivot Cam Bracket
7	2	1650	Snap Ring
8	2	6623	Thrust Washer
9	1	100399	Pivot Pin
10	1	100805	Cannister
	1	6616	Grease Fitting
	2	100491	Plug (Water Line Ports)
11	1	19071	Right Side Plate
12	2	1102	.50" UNC X 5.00" Hex Capscrew
13	1	100932	Latch
	2	1043	.38" UNC X 1.00" Hex Capscrew
	2	1503	.38" Lock Washer
	2	1514	.38" Flat Washer
	2	1226	.38" UNC Hex Nut
14	1	19751	Door
15	2	17666	Spacer Tube
16	2	1646	.50" Hard Flat Washer
17	2	1841	.50" UNC Deformed Lock Nut
18	3	1044	.38" UNC X 1.25" Hex Capscrew
	3	1503	.38" Lock Washer
	3	1514	.38" Flat Washer
	3	1226	.38" UNC Hex Nut
19	1	101188	Rubber Deflector
20	4	100394	Shim
21	4	100393	Spacer
22	8	10086	.50" UNC X 2.25" Hex Capscrew - Grade 8
	8	1646	.50" Hard Flat Washer
	8	1841	.50" UNC Deformed Lock Nut
23	1	19072	Left Side Plate
24	1	100533	Depth Indicator
	2	1043	.38 UNC X 1.00" Hex Capscrew
	2	1503	.38" Lock Washer
25	14	1505	.50" Lock Washer
26	12	1093	.50" UNC C 2.25" Hex Capscrew
27	4	100392	Clamp Plate
28	1	100808	Hydraulic Motor
	**	19302	Replacement Seal Kit
29	1	19857	Planetary
30	2	1089	.50" UNC X 1.25" Hex Capscrew
31	1	19706	Drum Assembly with Teeth
32	---	---	Hex Nut (Included with Planetary)
33	1	74491	Bushing

** Field replacement of internal motor seals voids warranty.

SP300 PLANER ASSEMBLY

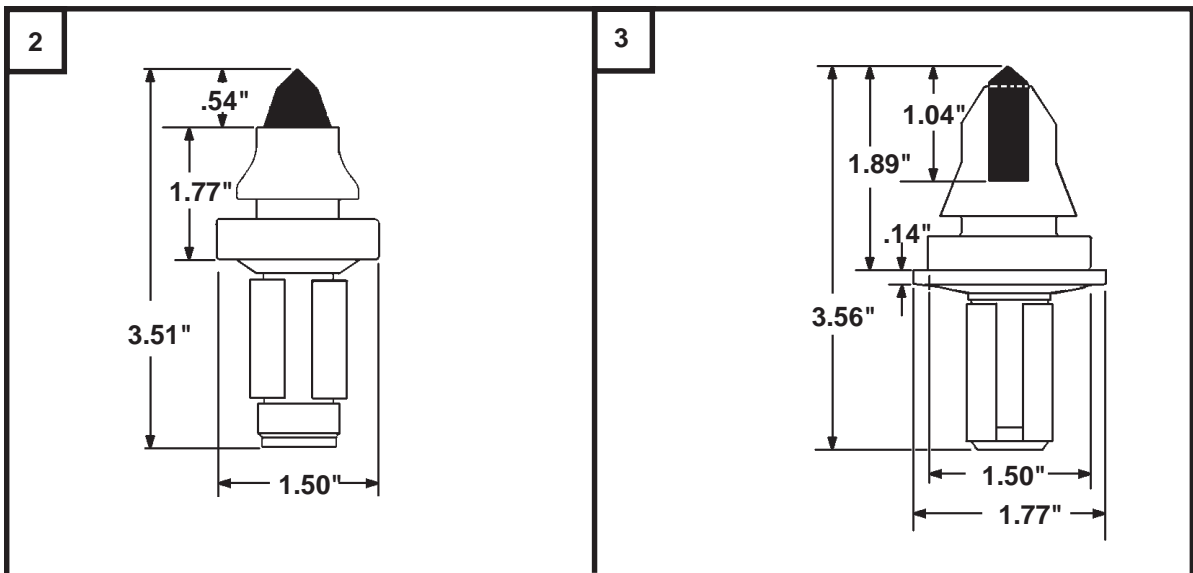
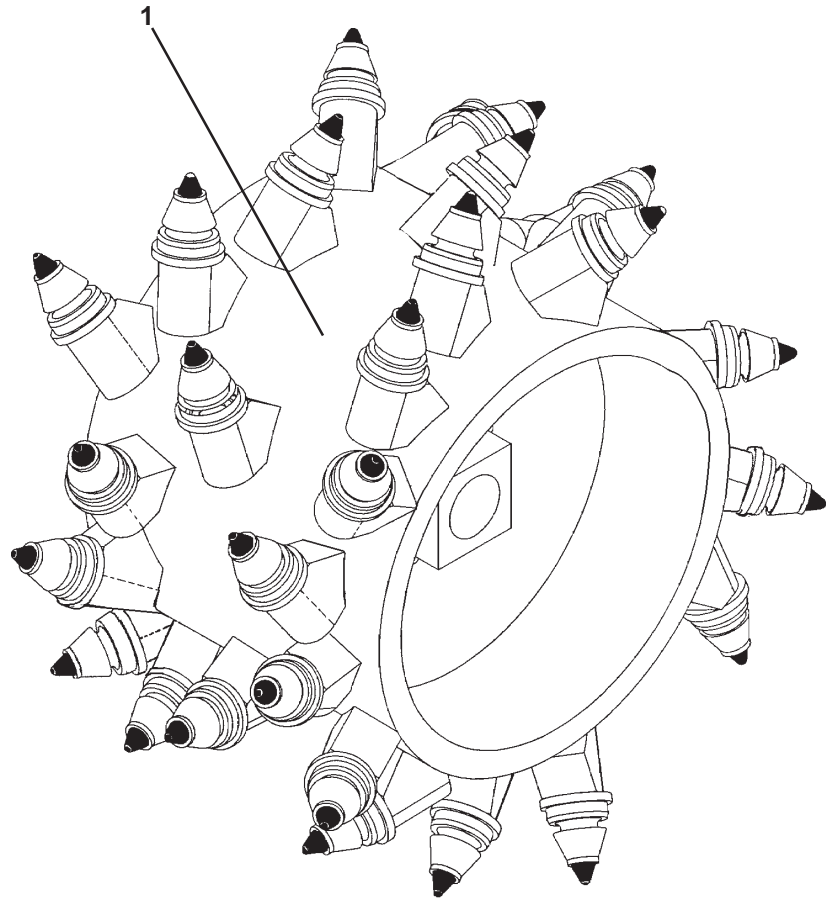
12" COLD PLANER ASSEMBLY #19070



SP300 PLANER ASSEMBLY

12" COLD PLANER ASSEMBLY #19070

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	10	1965	.50" UNC X 2.50" Hex Capscrew - Grade 8
2	12	1505	.50" Lock Washer
3	2	19281	Clamp Plate
4	4	19284	Wear Strip
5	2	19283	Shim
6	2	19282	Spacer Plate
7	1	89491	Side Shift Hitch Frame
8	1	19162	Pivot Plate
9	2	19246	Clamp Boss
10	4	1503	.38" Lock Washer
11	4	1049	.38" UNC X 2.50" Hex Capscrew
12	1	19745	Pivot Bushing
13	1	19247	Cap Plate
14	2	1964	.50" UNC X 1.75" Hex Capscrew - Grade 8



DRUM AND PICK OPTIONS

DRUM OPTIONS (INCLUDES STANDARD ALL-PURPOSE PICKS)

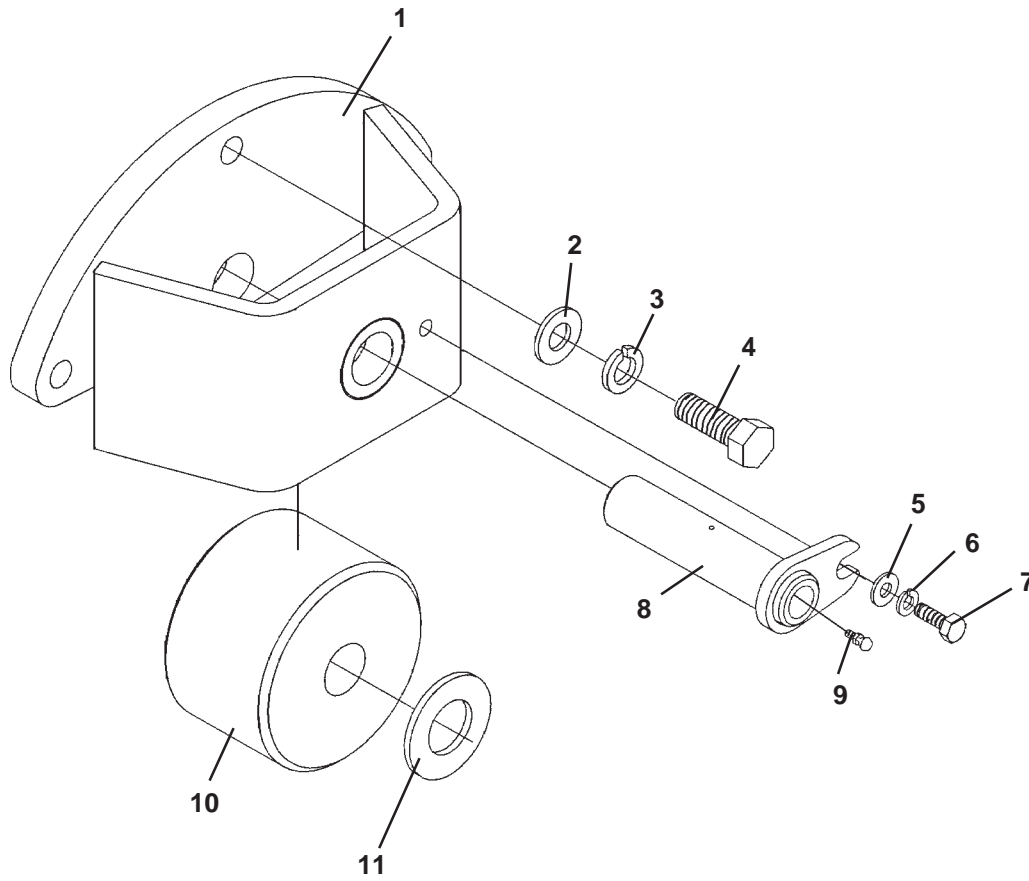
#1 <u>DESCRIPTION</u>	<u>PART NUMBER</u>	<u>PICK QTY</u>
12" Standard Drum	19706	37
2.50" Slot Cutter Drum	100641	18

#2 <u>DESCRIPTION</u>	<u>PART NUMBER</u>
General Purpose Application Pick	18546

#3 <u>DESCRIPTION</u>	<u>PART NUMBER</u>
Concrete Application Pick with Washer	18547

WHEEL ASSEMBLY

ASSEMBLY #18702



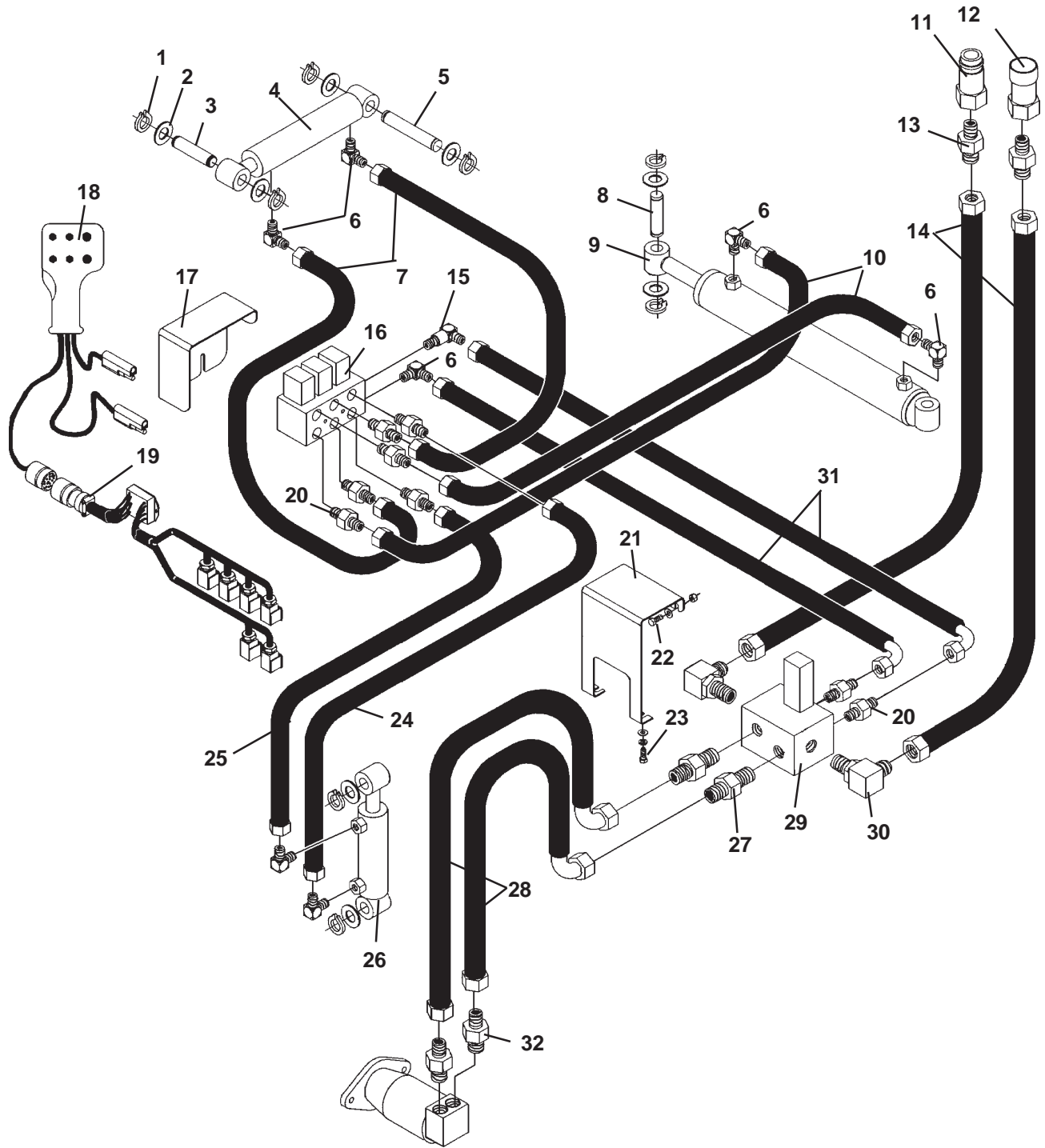
WHEEL ASSEMBLY

ASSEMBLY #18702

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	17667	Wheel Mounting Bracket
2	3	1646	.50" Hard Flat Washer
3	3	1505	.50" Lock Washer
4	3	1811	.50" UNC X 1.50" Hex Capscrew - Grade 8
5	1	1514	.38" Flat Washer
6	1	1503	.38" Lock Washer
7	1	1042	.38 "UNC X .75" Hex Capscrew
8	1	17673	Pivot Pin
9	1	6616	Grease Fitting
10	1	17671	Wheel
11	1	61079	Washer

HYDRAULIC ASSEMBLY

HYDRAULIC ASSEMBLY #100458



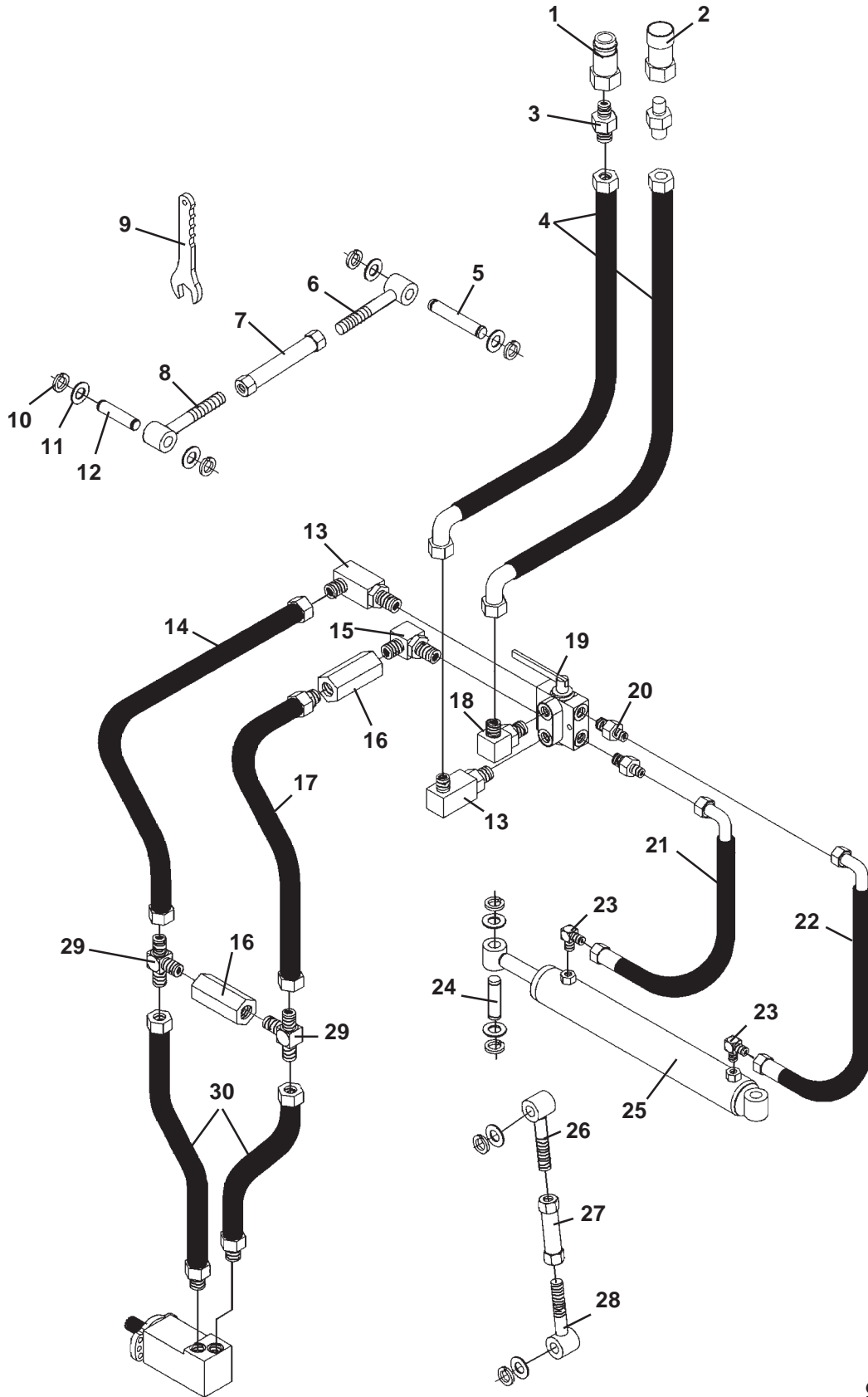
HYDRAULIC ASSEMBLY

HYDRAULIC ASSEMBLY #100458

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	10	6612	Snap Ring
2	10	61079	Thrust Washer
3	1	57461	Pivot Pin 1.00" X 3.72"
4	1	89520	Cylinder Assembly (Depth Control)
5	1	57457	Pivot Pin 1.00" X 4.88"
6	7	3434	90° Elbow 6MBo-6MJ
7	2	38155	Hose .25" X 12" 6FJX-6FJX
8	2	89978	Pivot Pin 1.00" X 3.25"
9	1	19202	Cylinder Assembly (Side Shift)
10	2	37263	Hose .25" X 48" 6FJX-6FJX
11	1	19638	Male Coupler (May Vary on Different Skid-Steers)
12	1	22520	Female Coupler (May Vary on Different Skid-Steers)
13	2	3419	Straight Connector 12MBo-12MJ
14	2	38237	Hose .75" X 60" 12FJX-12MBo-HS
15	1	30140	90° Elbow - Long 6MBo-6MJ
16	1	19675	3-Function Control Valve
	2	1034	.31" UNC X 4.00" Hex Capscrew
	2	1524	.31" Flat Washer
	2	1934	.31" UNC Deformed Lock Nut
17	1	100950	Valve Cover
18	1	100434	BRADCO Control Handle Assembly
19	1	19644	Wiring Harness
20	8	3457	Straight Connector 6MBo-6MJ
21	1	19738	Valve Cover
22	2	1837	.38" UNC Deformed Lock Nut
	2	1525	.38" Flat Washer
	2	1043	.38" UNC X 1.00" Hex Capscrew
23	2	1525	.38" Flat Washer
	2	1503	.38" Lock Washer
	2	1043	.38" UNC X 1.00" Hex Capscrew
24	1	37262	Hose .25" X 18" 6FJX-6FJX
25	1	37016	Hose .25" X 15" 6FJX-6FJX
26	1	89530	Cylinder Assembly (Tilt Control)
27	2	3409	Straight Adapter 16MBo-12MJ
28	2	38238	Hose .75" X 56" 12FJX-12FJX 90°-HS
29	1	100780	Valve
30	2	30051	90° Elbow 16MBo-12MJ
31	2	38239	Hose .25" X 48" 6FJX-6FJX 90°
32	2	3286	Straight Connector 10MBo-12MJ

MOUNTING KIT INSTALLATION

HYDRAULIC ASSEMBLY #19038
(MANUAL CONTROLS)



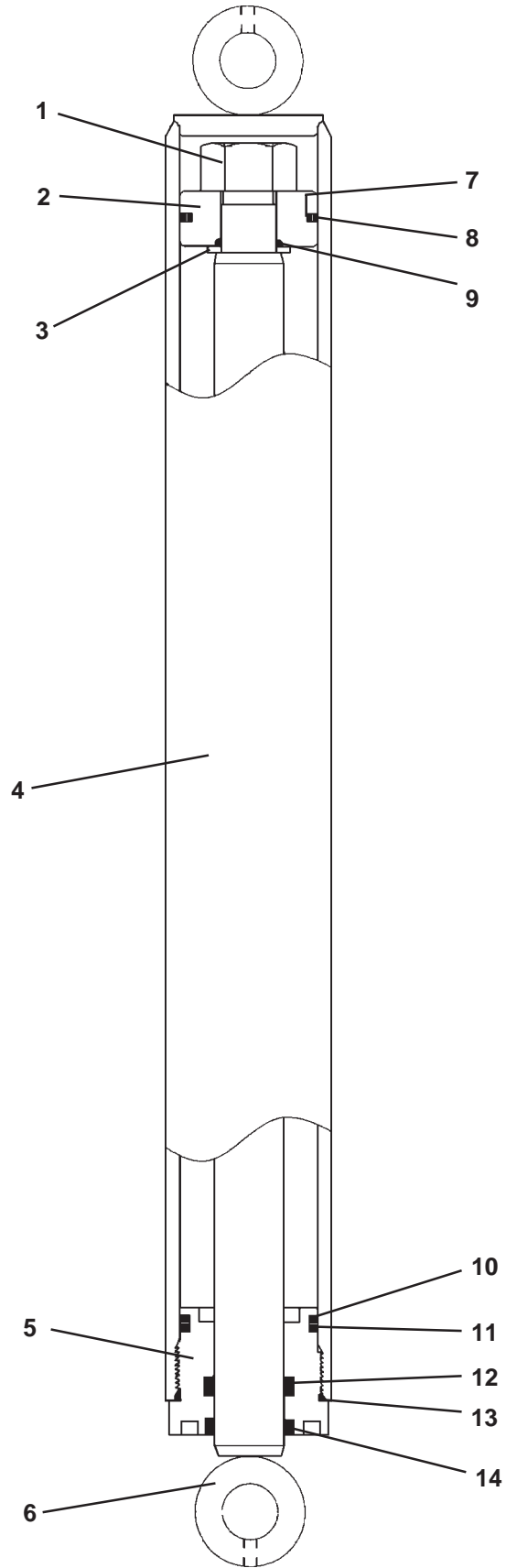
MOUNTING KIT INSTALLATION

HYDRAULIC ASSEMBLY #19038
(MANUAL CONTROLS)

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	19638	Male Coupler (May Vary on Different Skid-Steers)
2	1	22520	Female Coupler (May Vary on Different Skid-Steers)
3	2	3419	Straight Connector 12MBo-12MJ
4	2	38238	Hose .75" X 56" 12FJX-12FJX 90°
5	1	57457	Pin 1.00" X 4.75"
6	1	19773	Turnbuckle Rod - 7.28" LH - Depth Control
7	1	19768	Turnbuckle
8	1	19771	Turnbuckle Rod - 7.28" RH - Depth Control
9	1	101198	Wrench
10	10	6612	Snap ring
11	10	61079	Thrust Washer
12	1	57461	Pin 1.00" X 3.72"
13	2	30098	90° Elbow XL 12MBo-12MJ
14	1	38241	Hose .62" X 29" 12FJX-12FJX-HS
15	1	30351	90° Elbow 12MBo-12MBo
16	2	2254	Check Valve
17	1	38242	Hose .62" X 34" 12FJX-12MBo-HS
18	1	3491	90° Elbow 12MBo-12MJ
19	1	22566	Selector Valve
	2	1051	.38" UNC X 3.00" Hex Capscrew
	2	1503	.38" Lock Washer
	2	1226	.38" UNC Hex Nut
20	2	30201	Straight Adapter 12MBo-6MJ
21	1	38106	Hose .25" X 22" 6FJX-6FJX 90°
22	1	38005	Hose .25" X 30" 6FJX-6FJX 90°
23	2	3434	90° Elbow 6MBo-6MJ
24	2	89978	Pin 1.00" X 3.25"
25	1	19202	Side Shift Cylinder Assembly
26	1	19765	Turnbuckle Rod - 5.97" RH - Tilt Control
27	1	82838	Turnbuckle
28	1	19767	Turnbuckle Rod - 5.97" LH - Tilt Control
29	2	30350	Tee 12MJ-12MJ-12MBo
30	2	38240	Hose .62" X 29" 12FJX-12FJX-HS

CYLINDER ASSEMBLY

ASSEMBLY #19202



CYLINDER ASSEMBLY

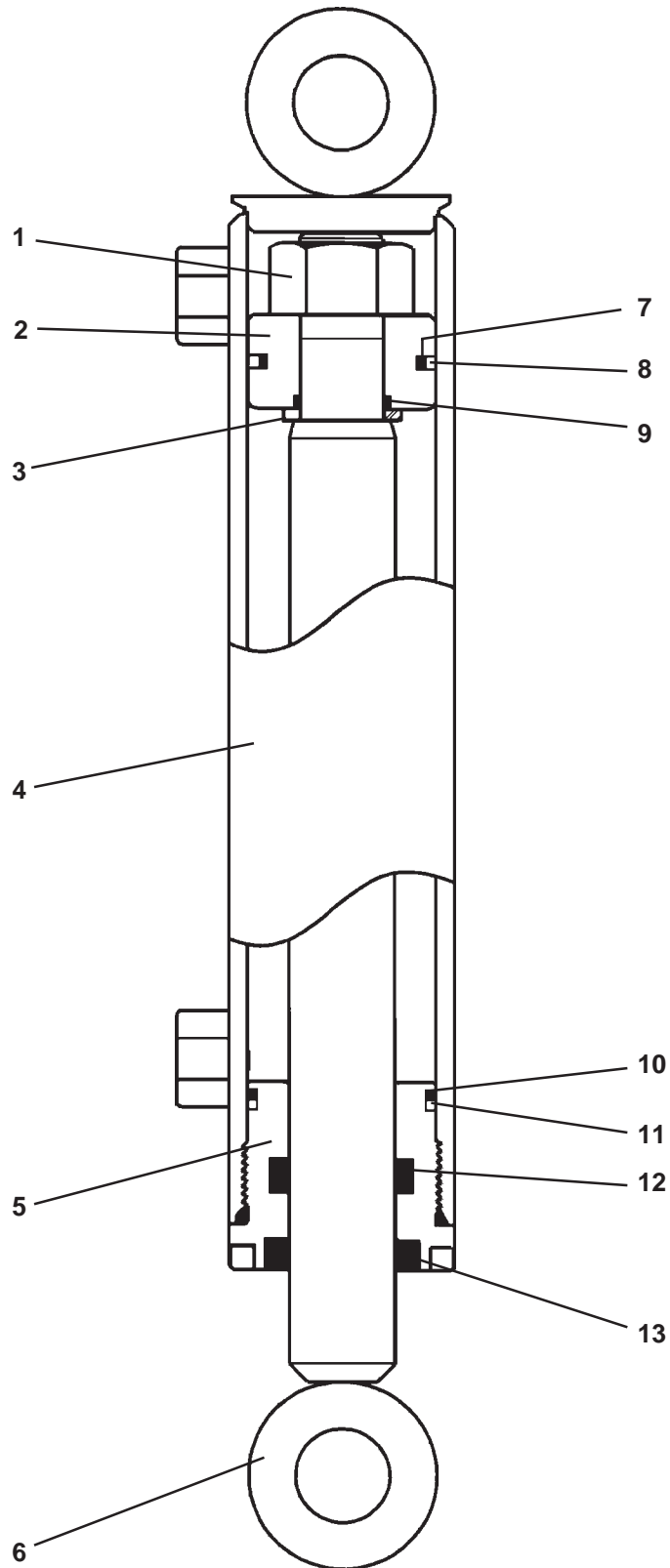
ASSEMBLY #19202

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	1483	Hex Nut
2	1	50252	Piston
3	1	5421	Washer
4	1	19203	Cylinder Tube
5	1	77458	Cylinder Gland
6	1	19205	Cylinder Rod
7	1	4645*	O-Ring
8	1	4644*	Piston Ring
9	1	4641*	O-Ring
10	1	4509*	O-Ring
11	1	4510*	Back-Up Washer
12	1	45219*	Poly-Pak Seal
13	1	45250*	O-Ring
14	1	45389*	Rod Wiper

NOTE: Seal kit #45617 includes all parts marked with an asterisk (*). Parts are not sold separately.

CYLINDER ASSEMBLY

ASSEMBLY #89520



CYLINDER ASSEMBLY

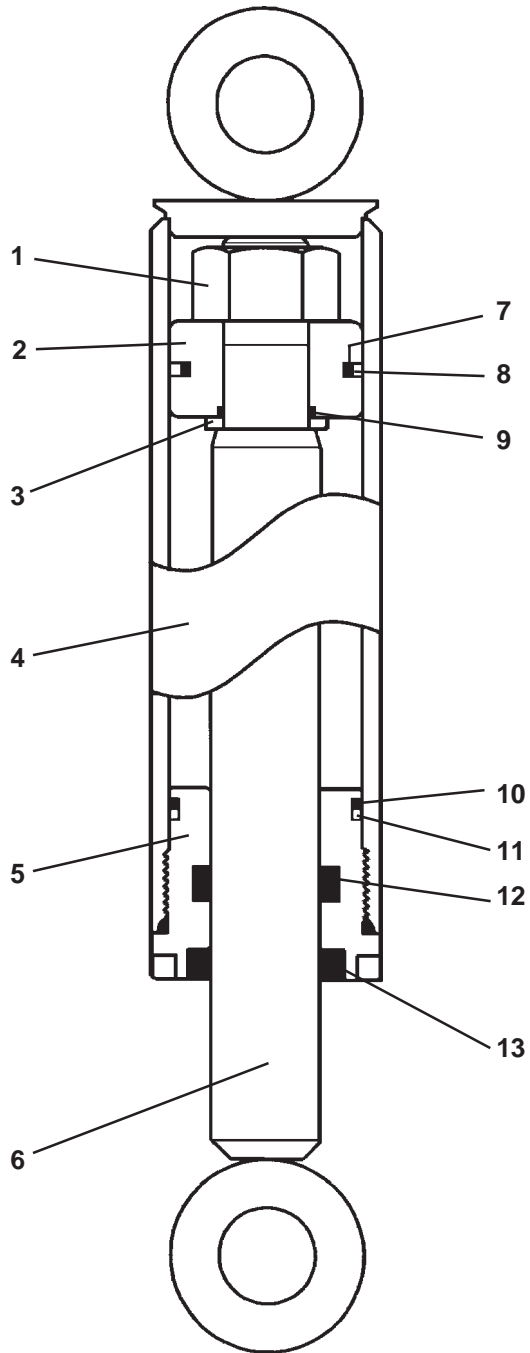
ASSEMBLY #89520

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	1482	Hex Nut
2	1	6992	Piston
3	1	52644	Washer
4	1	89521	Cylinder Tube
5	1	89527	Cylinder Gland
6	1	89522	Cylinder Rod
7	1	4637*	O-Ring
8	1	4636*	Piston Ring
9	1	4635*	O-Ring
10	1	4633*	O-Ring
11	1	4634*	Back-Up Washer
12	1	45262*	Poly-Pak Seal
13	1	4981*	Rod Wiper

NOTE: Seal kit #45581 includes all parts marked with an asterisk (*). Parts are not sold separately.

CYLINDER ASSEMBLY

ASSEMBLY #89530



CYLINDER ASSEMBLY

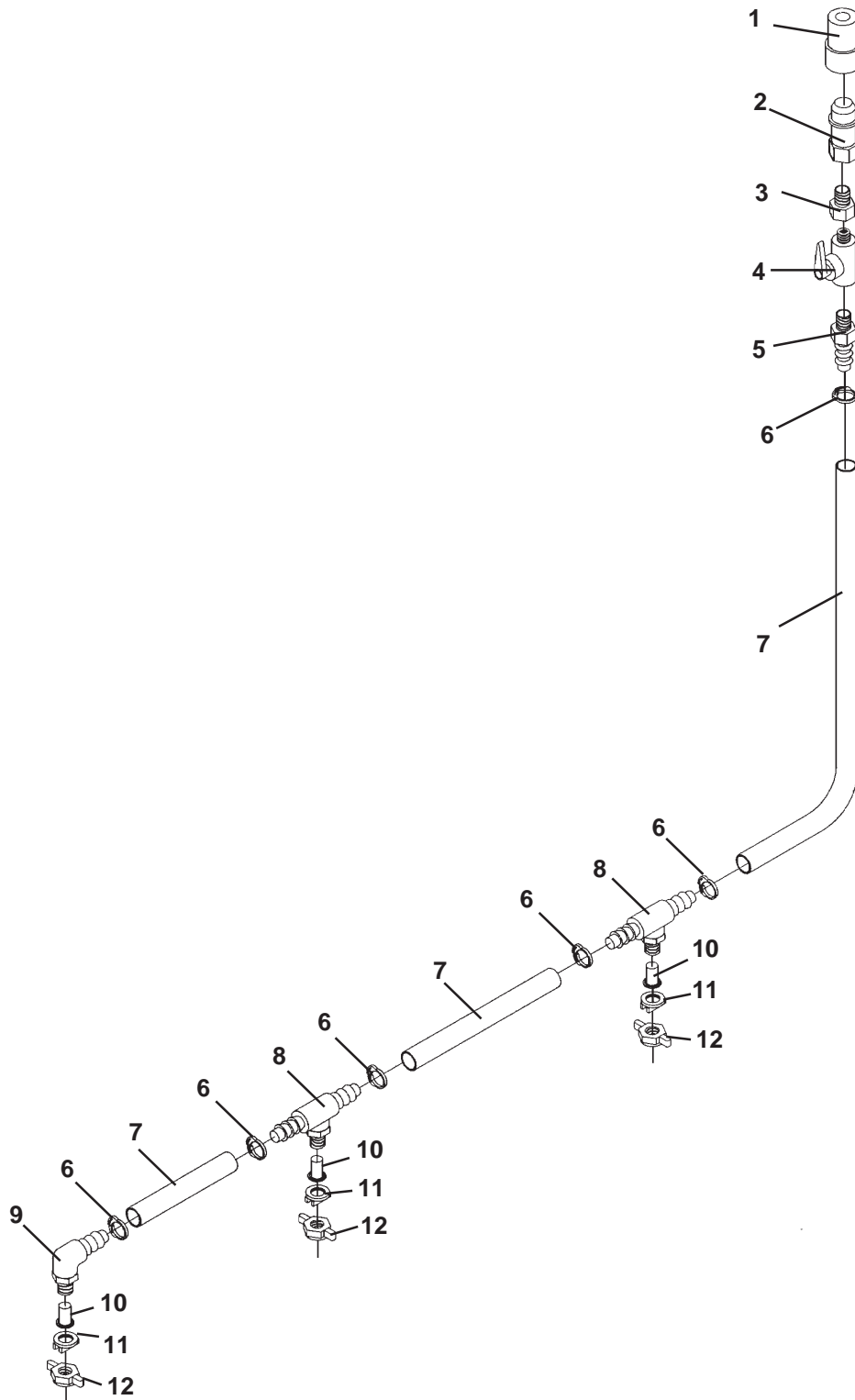
ASSEMBLY #89530

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	1482	Hex Nut
2	1	6992	Piston
3	1	52644	Washer
4	1	89531	Cylinder Tube
5	1	89527	Cylinder Gland
6	1	89532	Cylinder Rod
7	1	4637*	O-Ring
8	1	4636*	Piston Ring
9	1	4635*	O-Ring
10	1	4633*	O-Ring
11	1	4634*	Back-Up Washer
12	1	45262*	Poly-Pak Seal
13	1	4981*	Rod Wiper

NOTE: Seal kit #45581 includes all parts marked with an asterisk (*). Parts are not sold separately.

WATER KIT

ASSEMBLY #19216



WATER KIT

ASSEMBLY #19216

<u>NO</u>	<u>REQ'D</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1	30215	Female Quick Coupler
2	1	30214	Male Quick Coupler
3	1	30338	Bushing
4	1	30231	Ball Valve
5	1	30216	Hose Barb
6	6	30227	Hose Clamp
7	14'	19217	Reinforced PVC Hose (Cut to Length)
8	2	30223	Tee Nozzlebody
9	1	30222	90° Nozzlebody
10	3	30221	Inline Nozzlebody Strainer
11	3	30229	Spray Nozzle Tip
12	3	30225	Nozzlebody Wing Cap

INSTALLATION INSTRUCTIONS

GENERAL INFORMATION

The following instructions will help you to mount your SP300 Planer onto your skid-steer loader. The planer uses the quick-attach system for ease of installation. Therefore, if you know how to attach your loader bucket, attaching the cold planer should prove no problem.

Remember to read all safety warnings, decals and operating instructions before operating the attachment. If there is any portion of this manual that you do not understand, contact your dealer.

WARNING! THE 12" PLANERS ARE NOT DESIGNED FOR USE ON HIGH FLOW HYDRAULIC SYSTEMS.



DO NOT ATTACH OR OPERATE ANY ATTACHMENT THAT EXCEEDS THE RECOMMENDED LIFTING CAPACITY OF YOUR SKID-STEER.

INSTALLATION INSTRUCTIONS

1. Remove the shipping banding from around the planer and skid.
2. Remove any attachments from the front of the loader.
3. Following all standard safety practices and the instructions for installing an attachment in your skid-steer operator's manual, install the Planer onto your skid-steer.

NOTE: It is important to make sure the locking mechanism on your quick attach is engaged, therefore locking the attachment onto the skid-steer.

4. Lower the unit to the ground, and remove the key.
5. Relieve any pressure from the auxiliary hydraulic system and after making sure that there is not any foreign matter on the hydraulic couplers, connect the power and return couplers to the auxiliary hydraulic system of your skid-steer loader.
6. Connect the cord assembly (with joystick) to the control cord from the planer. Connect the power cord from the joystick control to a power source on the skid-steer.

NOTE: Some skid-steers have an auxiliary electrical outlet to plug in the control cord and then use their own existing joystick controls.

DANGER! ELECTROCUTION HAZARD



Provide electrical power to the joystick by following your skid-steer manufacturer's recommended procedures. The electrical circuit must be fused with a 10 amp fuse to prevent machine damage and serious personal injury or death.

INSTALLATION INSTRUCTIONS

7. Following all standard safety practices, start the skid-steer and run all cylinders through their full cycle to purge any air from the system. Check that all controls function in accordance with the operating control decal.
8. If your planer is equipped with an optional water kit, install the female coupler supplied to your water line coming from the water tank on the skid-steer. Connect the female coupler to the male coupler on the planer water kit.

Your SP300 Planer is now installed and ready for operation.

DISCONNECT INSTRUCTIONS

1. Center the planer on the sideshift frame.
2. Adjust the depth to ground level.
3. Set the planer on a firm level surface.
4. Following the Safety Shutdown Procedures: stop the engine and set the parking brake. Relieve any pressure in the hydraulic lines.
5. Disconnect the power and return hoses from the auxiliary hydraulics.
6. Disconnect the electrical cord assembly from the skid-steer.
7. Turn the ball valve to the off position on the water kit, and then disconnect the water line at the couplers.
8. Following all standard safety practices and the instructions for disconnecting an attachment in your skid-steer operator's manual, disconnect the planer from your skid-steer.
9. Connect the couplers on the attachment together to prevent contaminants from entering the hydraulic system.

OPERATING INSTRUCTIONS

GENERAL INFORMATION

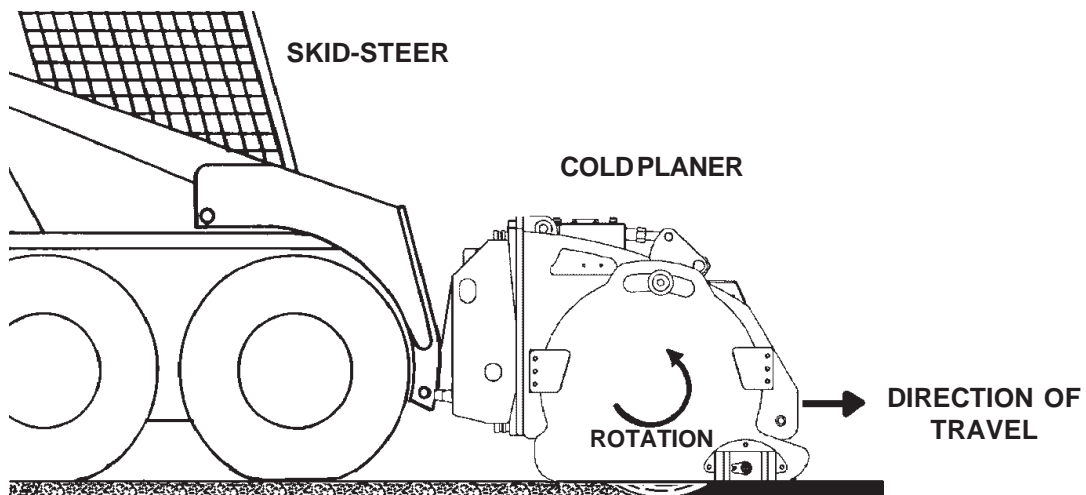
The BRADCO Planer attaches to the toolbar/quick-attach mechanism of your skid-steer loader. Due to this arrangement, thorough knowledge of the skid-steer controls is necessary for machine operation. Read and understand your skid-steer operator's manual for information regarding skid-steer operation before attempting to use the planer.

Check the surface to be planed. The standard all purpose picks can be used to mill both asphalt and concrete. There are optional concrete picks that are recommended if the planer is to be used extensively for concrete. These picks do not perform as well when milling asphalt, especially in warmer weather.

Review the job at hand and determine the required depth and tilt of the cut, and also the sideshift position of the planer. Best performance is obtained when the cold planer is in the center position. Sideshift should be used when visibility is a determining factor, such as milling around manholes or when milling next to an obstacle such as a building. **NOTE: Although the wheel assemblies are standard, they may be removed when distance is a factor such as milling next to an obstacle or building.**

OPERATING INSTRUCTIONS

1. Clear area of all bystanders.
2. Lift the planer until the drum is off the ground and start planer rotation. (Teeth at the bottom of the drum must be moving in the same forward direction that the planer travels.)



NOTE: Mill only when the skid-steer is traveling forward. Do not operate when traveling in reverse.

OPERATING INSTRUCTIONS

NOTE: On planers with hydraulic controls, hydraulic cylinders adjust the depth of the planer, sideshift the planer to the left or right and tilt the planer. On manual control planers, turnbuckles adjust the depth and tilt of the planer and a hydraulic cylinder side shifts the planer to the left or right.

3. On hydraulically controlled planers; increase engine RPM and with the drum turning you can make any necessary adjustments to the side shift. On manually controlled units; after making sure the selector valve handle is in the correct position make any necessary adjustments to the side shift and then return the handle to the operating position. Do not side shift the cold planer during milling operation. Once the desired side shift position has been achieved you are ready to begin. The drum will not cut in a side to side motion. Tilt and Depth control can both be activated during milling on hydraulically controlled units but must be set before milling on manually controlled units.

IMPORTANT: The drum **MUST** be turning to make any hydraulic adjustment to the planer on hydraulically controlled units.

4. Position the planer at the desired starting point. Set the depth gauge to the desired depth mark on the planer. Maximum depth of each cut is determined by the type of material, the horsepower of the skid-steer being used and the size of the planer. It is recommended for maximum performance that you start at approximately .75" to 1" in concrete and 1.50" to 2" in asphalt.
5. With the engine at full RPM and the planer rolled back, lower the loader arms completely down and slowly roll out the planer until the weight of the planer is resting on the mainframe assembly. Continue to exert down pressure by rolling the loader forward until the front wheels of the planer are on the ground and the front wheels of the skid-steer are raised approximately 2-3 inches off the planing surface to assure sufficient pressure for stable operation.

NOTE: It is recommended to try a sample cut until the desired depth is achieved.

6. Slowly advance forward.

NOTE: If drum stalls you have been traveling too fast or cutting too deep. Back out of the cut until the drum restarts (make necessary adjustments) and then continue operation.

NOTE: If the drum tends to ride up out of the cut, decrease travel speed, be sure the planer is level (front to back) and exert down pressure until the planer is riding on the wheel assemblies. For optimal cutting and reduced vibration, maintain down pressure on the planer with both planer wheels on the ground when cutting.

NOTE: Avoid side to side movement while planing as this may cause excessive drum wear or planetary failure.

7. When you have reached the end of the pass, stop the skid-steer and raise the planer out of the cut. Reposition skid-steer for the next cut and repeat steps 4, 5 & 6. If you are not starting a new cut, raise the planer and retract the drum into the planer housing. Do not transport the planer with drum turning.

OPERATING INSTRUCTIONS

CAUTION! Periodic observation must be made of the transmission oil temperature indicator when planing with standard flow hydraulic systems.



Depending on the ambient temperature and the duty cycle of the machine, hydraulic oil may overheat.

If indicator comes on, shut off the cold planer and allow the skid-steer to idle until the temperature falls below 160° Fahrenheit.

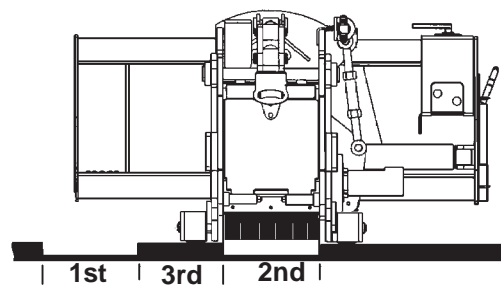
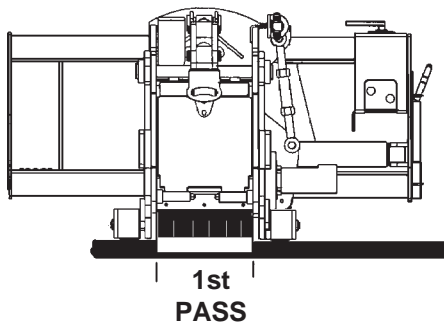
If the system continues running hot, it may be necessary to clean any debris from the oil cooler and radiator. Check engine air filter and also the hydraulic oil level.

Continuous or excessive overheating may cause machine damage.

SPECIAL APPLICATIONS

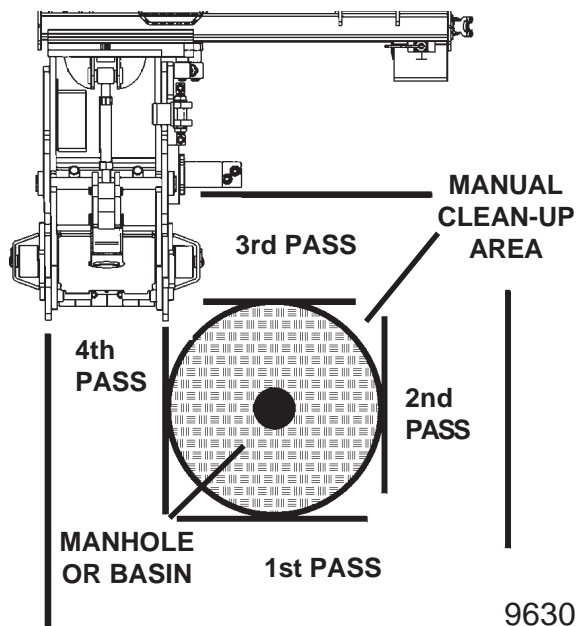
LARGE AREA

With BRADCO'S 12" standard flow planer's depth control design it is recommended that you plane pass 1, 3, and 5 and then go back and reset the planer for passes 2 and 4 in critical depth situations. An alternative method when even depth control is not as critical is to continually mill large areas with one wheel riding above ground level.



MILLING AROUND MANHOLES

For best visibility when milling around manholes, it is recommended that the planer be shifted to the right. The Planer is not designed to mill around tight corners, therefore it is recommended that four to six passes be made on each side of the manhole. **NOTE:** The more passes, the less amount of manual clean-up required.



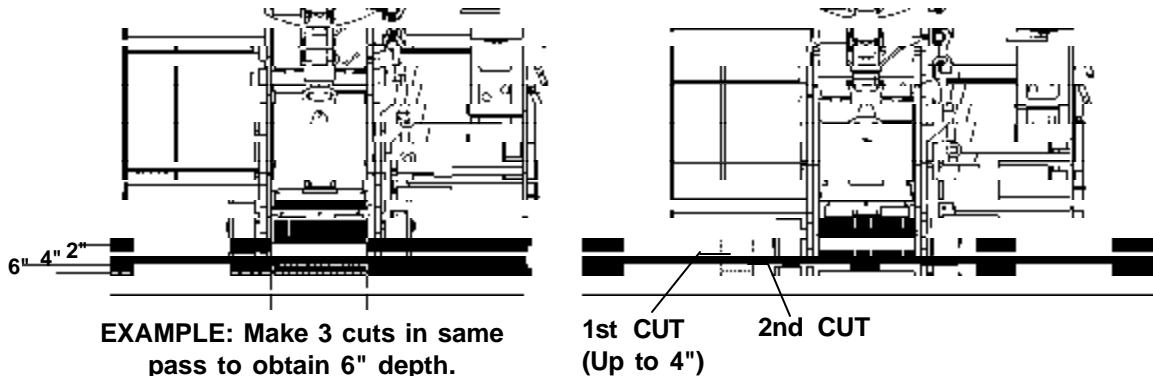
OPERATING INSTRUCTIONS

DEEP CUTS

To achieve a deep cut the width of the drum, make the first cut at the recommended depth for the material being milled, and then reposition the planer at the beginning of the pass and reset for double the recommended depth. Example: Make the first cut with the depth controls set at 2" and then set the depth control at 4" for the second pass and so on and so forth until the desired depth is obtained.

To achieve a 4" cut of a large area it is recommended to cut each pass to the required depth by following the procedure above and leaving approximately 6" between passes. Clear the spoil from the area and reposition the planer for the middle cut. NOTE: Due to the width of the middle cuts, it may be possible to achieve up to a 4" cut in one pass. Removing the spoil between cuts will enhance the productivity of the planer and maintain an even cut.

If trying to achieve a critical cutting depth, it is recommended that the spoil from one cut be cleared away before making another pass. This will eliminate the possibility of the planer riding on and off the spoil and creating an uneven surface.



MILLING TAPER CUTS

When adding to or joining new paved surfaces to existing paving, a taper cut may be required at the interacting joints so the new paving would appear seamless.

Example: To achieve a taper cut from 0" to 4" over a 2' distance with a 12" wide cold planer, it is recommended that you set the planer at 2" and the tilt set at 4° for the first pass. Then make a second pass with the planer set at 4" and the tilt still at 4°.

LUBRICATION

GENERAL INFORMATION


Economical and efficient operation of any machine is dependent upon regular and proper lubrication of all moving parts with a quality lubricant. Neglect leads to reduced efficiency, wear, breakdown and needless replacement of parts.


All parts provided with grease fittings should be lubricated, as indicated. If any grease fittings are missing, replace them immediately. Clean all fittings thoroughly before using the grease gun.

IMPORTANT: Avoid excessive greasing. Dirt collects on exposed grease and greatly increases wear. After greasing, wipe off excessive grease from fittings.

LUBRICATION SYMBOLS

The following symbols are used on the lubrication diagram below. It is reproduced here with its meaning for your convenience.

 Lubricate daily or every 8 hours of operation, whichever comes last, with SAE Multi-Purpose Lubricant or equivalent SAE Multi-Purpose type grease.

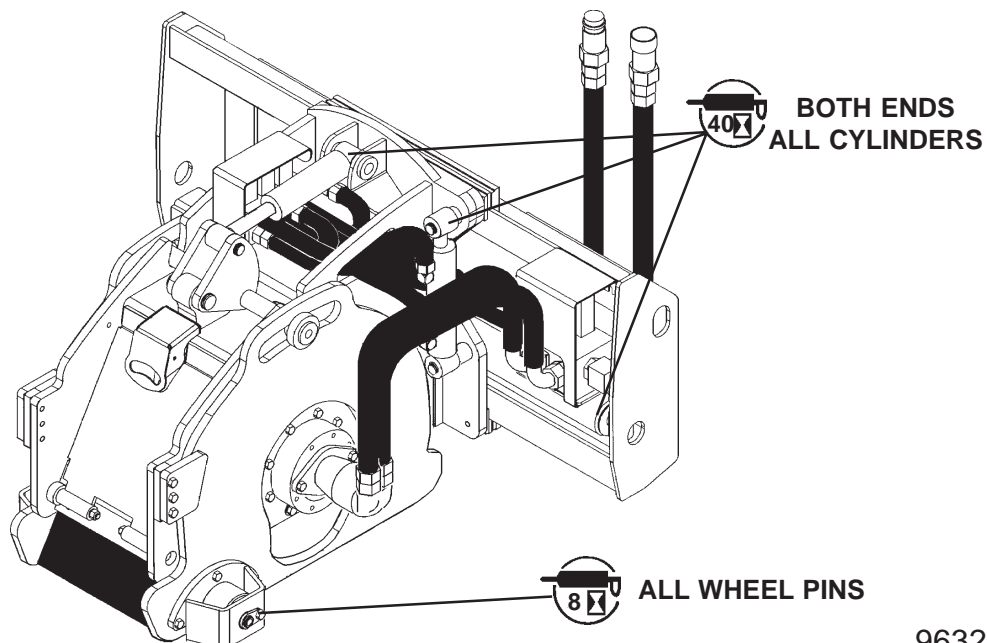
 Lubricate weekly or every 40 hours of operation, whichever comes last, with SAE Multi-Purpose Lubricant or equivalent SAE Multi-Purpose type grease.



CAUTION! SHUT OFF ENGINE BEFORE LUBRICATING EQUIPMENT.

The planer planetary is a sealed unit. If there are any signs of oil leaks, please contact your nearest BRADCO dealer before carrying out any repairs, as there can be other causes for seal leaks. The planetary uses the Gear Oil (Castrol SP 320) for lubrication of gears and bearings. The unit holds approximately 2 quarts of gear oil.

The planetary gear oil should be drained and replaced after the first 8 months of use. Thereafter, every 12 months or 2500 hours - whichever comes first.



MAINTENANCE & SERVICE

GENERAL INFORMATION

Regular maintenance is the key to long equipment life and safe operation. Maintenance requirements have been reduced to an absolute minimum. However, it is very important that these maintenance functions be performed as described below.

WARNING! Never do any maintenance to the planer while it is running. Exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE BEFORE** working on or around the planer.



DAILY

- Check skid-steer hydraulic system to ensure an adequate level of hydraulic oil.
- Check all hardware and tighten, if necessary. See Section "O" for Bolt Torque Specifications.
- Check hydraulic system for hydraulic leaks.
- Check for missing or illegible Safety / Warning Decals.
- Check picks for freedom of rotation, flat spots and wear. Replace worn or missing picks or any picks that are not rotating freely or have flat spots.
- Visually inspect the machine for worn parts or cracked welds and repair as necessary.
- Lubricate grease fittings on Wheel pivot pins.

EVERY 40 HOURS

- Lubricate grease fittings on cylinder ends (if equipped).

EVERY 2500 HOURS OR 12 MONTHS

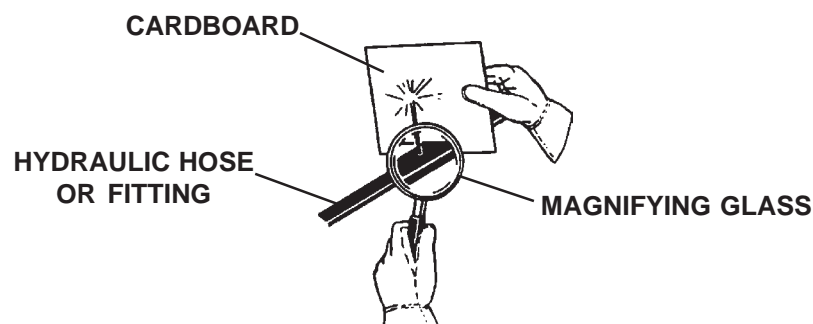
- Change gear oil in planetary.

WARNING! Escaping fluid under pressure can have sufficient force to penetrate the skin causing serious personal injury. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands to search for suspected leaks.



Keep unprotected body parts, such as face, eyes, and arms as far away as possible from a suspected leak. Flesh injected with hydraulic fluid may develop gangrene or other permanent disabilities.

If injured by injected fluid, see a doctor at once. If your doctor is not familiar with this type of injury, ask him to research it immediately to determine proper treatment.



MAINTENANCE & SERVICE

IMPORTANT: When replacing parts use only factory approved replacement parts. Manufacturer will not claim responsibility for use of unapproved parts or accessories and/or other damages as a result of their use.

PICK REPLACEMENT

Picks should be replaced if you are changing to a different application pick, they are broken, worn, flat spot or are seized in the pick holder and do not rotate freely.

WARNING! Always wear safety glasses with side shields when striking metal. Failure to heed could result in serious injury to the eyes or other parts of the body.

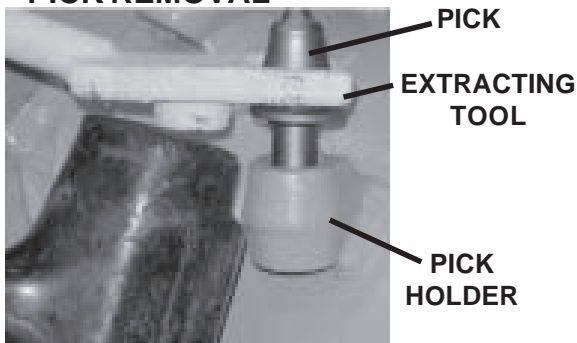


Do all pick maintenance through access door.

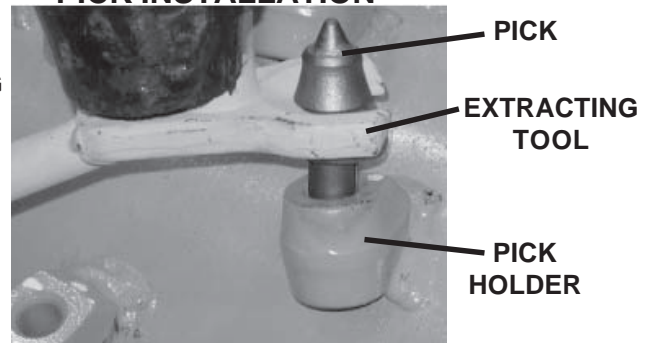
DO NOT attempt to check the picks with the planer in a raised position without first blocking the planer. Before exercising the **MANDATORY SAFETY SHUTDOWN PROCEDURE** find an elevated surface to set the planer on or have a second person block the planer in place before shutting down the machine.

1. Open front access door.
2. Rotate the drum until the pick to be removed is conveniently accessible.
3. Hold the extracting tool (pick puller) in one hand and place the jaws in the groove of the pick, with the offset handle pointing away from the pick holder.
4. Using a lead hammer or rubber-headed mallet, hit the raised pad on the tool until the pick starts to move. Continue tapping until the pick is removed.
5. Insert the new pick into the jaws of the extracting tool (pick puller) so that the raised pad of the tool is pointing in the same direction as the pick point.
6. Position the new pick in the pick holder on the drum and with a lead hammer or rubber-headed mallet, hit the raised pad of the tool to start the pick into the pick holder. (Clean out any foreign material from the pick holder before installing the new pick.)
7. Once the pick is started into the pick holder strike the tool pad one strong blow to pop the pick into the holder.

PICK REMOVAL



PICK INSTALLATION

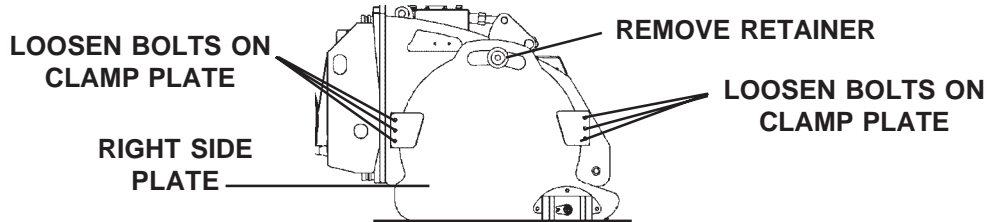


The pick is properly seated when its shoulder is against the face of the pick holder. Check to be sure the pick rotates freely.

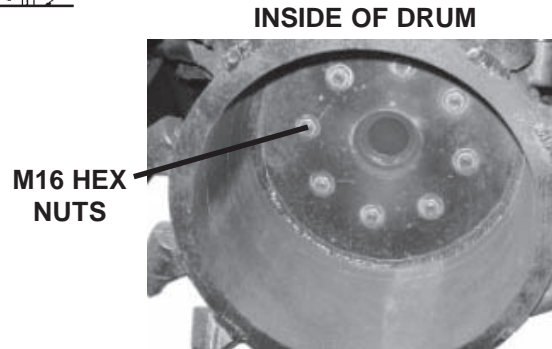
CHANGING THE DRUM

Due to the weight of the unit, place the planer in a convenient location with a hoist available for lifting the planer off the drum.

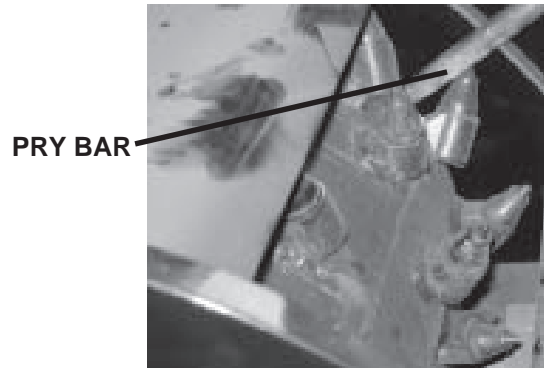
1. Remove the right side plate by first removing the two bolts in the retainer and then loosen the six .50" bolts on the clamp plates. Slide the right side plate off.



2. Remove the hex nuts securing the drum to the planetary.
3. Using a pry bar, pry the drum off of the planetary and slide out until the drum clears the planetary. lift the planer off of the drum.
4. Install the new drum by positioning it over the studs on the planetary and installing the existing hex nuts using Locktite 271 (Red) and torquing to 155 ft. lbs.
5. Reinstall the right side plate.



PRY DRUM OFF OF PLANETARY



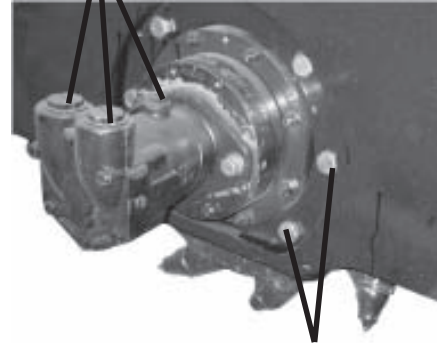
CHANGING THE PLANETARY

To gain access to the planetary the drum must first be removed. Follow the above procedure for removing the drum.

1. Tag and disconnect the power and return hoses along from the hydraulic motor and plug the motor ports to prevent contaminants from entering the hydraulic system.
2. Remove the .50" bolts securing the planetary to the planer and remove the planetary.

3. Check to be sure the new planetary is filled with oil. If not, fill with approximately 2 quarts of Castrol SP 320 gear oil.
4. Remove the hydraulic motor from the planetary. Scrap any silicone from the hydraulic motor and apply new RV 10 silicone to the motor to seal the connection between the motor and the planetary. Bolt the hydraulic motor onto the new planetary using the existing hardware.
5. Position the new planetary into the planer housing and reinstall the .50" capscrews, flat washers and lock nuts. Check to ensure that the hydraulic motor is in the correct position with the ports turned up. Torque to specification

**TAG AND REMOVE
HYDRAULIC HOSES
FROM MOTOR**



**REMOVE PLANETARY FROM
PLANER BY UNBOLTING .50" X 2.25"
CAPSCREWS**

6. Reinstall the drum as described in "CHANGING THE DRUM".
7. Re-connect the hydraulic hoses and fittings to the motor.

CHANGING HYDRAULIC MOTOR

1. Position the planer on its side or in such a fashion that the planetary oil will not leak out when replacing the motor.
2. Tag and disconnect the power and return hoses from the hydraulic motor.
3. Remove the capscrews securing the motor to the planetary.
4. Scrape the mating surface of the planetary, removing all existing silicone, to prepare it for the new motor.
5. Apply new RV 10 silicone to the motor to seal the connection between the motor and the planetary. Bolt the new hydraulic motor onto the planetary using the existing hardware. (Check to ensure that the hydraulic motor is in the correct position with the ports turned up.) Torque to specification
6. Re-connect the hydraulic hoses and fittings to the motor.

TROUBLESHOOTING

<u>PROBLEM</u>	<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
Motor on the planer will not operate.	Auxiliary hoses not hooked up to the skid-steer.	Engage Couplers
	Obstruction in hydraulic lines.	Remove obstruction and replace if necessary.
	Hydraulic motor damaged or seals blown.	Call Bradco service department for instructions.
	Skid-steer auxiliary valve not engaged.	Engage auxiliary valve.
Drum rotates sluggishly.	Insufficient hydraulic flow from the skid-steer.	Refer to skid-steer's owners manual.
	Damaged quick coupler.	Replace if necessary.
	Hydraulic motor damaged or seals blown.	Call Bradco service department for instructions.
	Oil filter on skid-steer is dirty.	Refer to skid-steer's owners manual.
Leaking Oil.	Loose or damaged hydraulic line.	Tighten or replace.
	O-Rings on fittings damaged.	Replace if necessary.
	Hydraulic motor damaged or seals blown.	Call Bradco service department for instructions.
	Fittings loose or damaged.	Tighten or replace.
	Cylinder seals damaged.	Replace cylinder seals.
Insufficient power.	Insufficient hydraulic flow from the skid-steer.	Refer to skid-steer's owners manual.
	Relief valve setting adjusted too low.	Refer to skid-steer's owners manual.
	Hydraulic motor damaged or seals blown.	Call Bradco service department for instructions.
	Oil filter on skid-steer is dirty.	Refer to skid-steer's owners manual.
Drum rotates in the wrong direction.	Hoses from the valve to the motor incorrectly connected.	Switch hoses at the motor end.
Excessive vibration during planing operation.	Picks are worn or broken.	Visually inspect the picks and replace as necessary.
	Picks contain flat spots or are not rotating freely.	Visually inspect the picks and replace as necessary.
	Insufficient down force due to incorrect operating procedure.	Refer to the Operating section of this manual.

TROUBLESHOOTING

<u>PROBLEM</u>	<u>POSSIBLE CAUSE</u>	<u>POSSIBLE REMEDY</u>
Excessive oil temperature.	Hydraulic oil level too low.	Refer to skid-steer's owners manual
	Obstruction in hydraulic lines.	Remove obstruction and replace if necessary.
	Hydraulic oil or oil filter in skid-steer is dirty.	Refer to skid-steer's owners manual.
	Relief valve setting adjusted too low.	Refer to skid-steer's owners manual.
	Couplers not engaged.	Engage couplers.
A Hydraulic cylinder not operating.	Insufficient hydraulic flow from the skid-steer.	Refer to skid-steer's owners manual.
	Cylinder rod bent.	Visually inspect the cylinder for damage.
	Cylinder seals damaged.	Replace cylinder seals.
	Obstruction in hydraulic lines.	Remove obstruction and replace if necessary.
All hydraulic cylinders not functioning.	Blown fuse on skid-steer.	Refer to skid-steer's owners manual.
	Damaged electrical wiring.	Test and replace if necessary.
	Solenoid valve spool bent.	Replace spool.
	Nut on Solenoid valve too tight	Loosen nut.
Hydraulic cylinders only operating in one direction.	Contaminants in the hydraulic system and solenoid valve.	Remove spool from solenoid valve and check for foreign material. Clean or replace.
		Remove spool from solenoid valve and check seals for damage. Replace if necessary.
	Damaged electrical wiring.	Test and replace if necessary.
	Solenoid valve spool bent.	Replace spool.
	Nut on Solenoid valve too tight	Loosen nut.



BOLT TORQUE

BOLT TORQUE SPECIFICATIONS

GENERAL TORQUE SPECIFICATION TABLE

Use the following torques when special torques are not given. These values apply to fasteners as received from suppliers, dry, or when lubricated with normal engine oil. They do not apply if special graphited or moly disulphide greases or other extreme pressure lubricants are used. This applies to both UNF and UNC threads. Remember to always use grade five or better when replacing bolts.

SAE Grade No.		2				5				8*			
Bolt head identification marks as per grade. NOTE: Manufacturing Marks Will Vary													
		TORQUE		TORQUE		TORQUE		TORQUE		TORQUE		TORQUE	
Bolt Size	Inches	Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters		Pounds Feet		Newton-Meters	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
1/4	6.35	5	6	6.8	8.13	9	11	12.2	14.9	12	15	16.3	30.3
5/16	7.94	10	12	13.6	16.3	17	20.5	23.1	27.8	24	29	32.5	39.3
3/8	9.53	20	23	27.1	31.2	35	42	47.5	57.0	45	54	61.0	73.2
7/16	11.11	30	25	40.7	47.4	54	64	73.2	86.8	70	84	94.9	113.9
1/2	12.70	45	52	61.0	70.5	80	96	108.5	130.2	110	132	149.2	179.0
9/16	14.29	65	75	88.1	101.6	110	132	149.2	179.0	160	192	217.0	260.4
5/8	15.88	95	105	128.7	142.3	150	180	203.4	244.1	220	264	298.3	358.0
3/4	19.05	150	185	203.3	250.7	270	324	366.1	439.3	380	456	515.3	618.3
7/8	22.23	160	200	216.8	271.0	400	480	542.4	650.9	600	720	813.6	976.3
1	25.40	250	300	338.8	406.5	580	696	786.5	943.8	900	1080	1220.4	1464.5
1-1/8	25.58	-	-	-	-	800	880	1084.8	1193.3	1280	1440	1735.7	1952.6
1-1/4	31.75	-	-	-	-	1120	1240	1518.7	1681.4	1820	2000	2467.9	2712.0
1-3/8	34.93	-	-	-	-	1460	1680	1979.8	2278.1	2380	2720	3227.3	3688.3
1-1/2	38.10	-	-	-	-	1940	2200	2630.6	2983.2	3160	3560	4285.0	4827.4

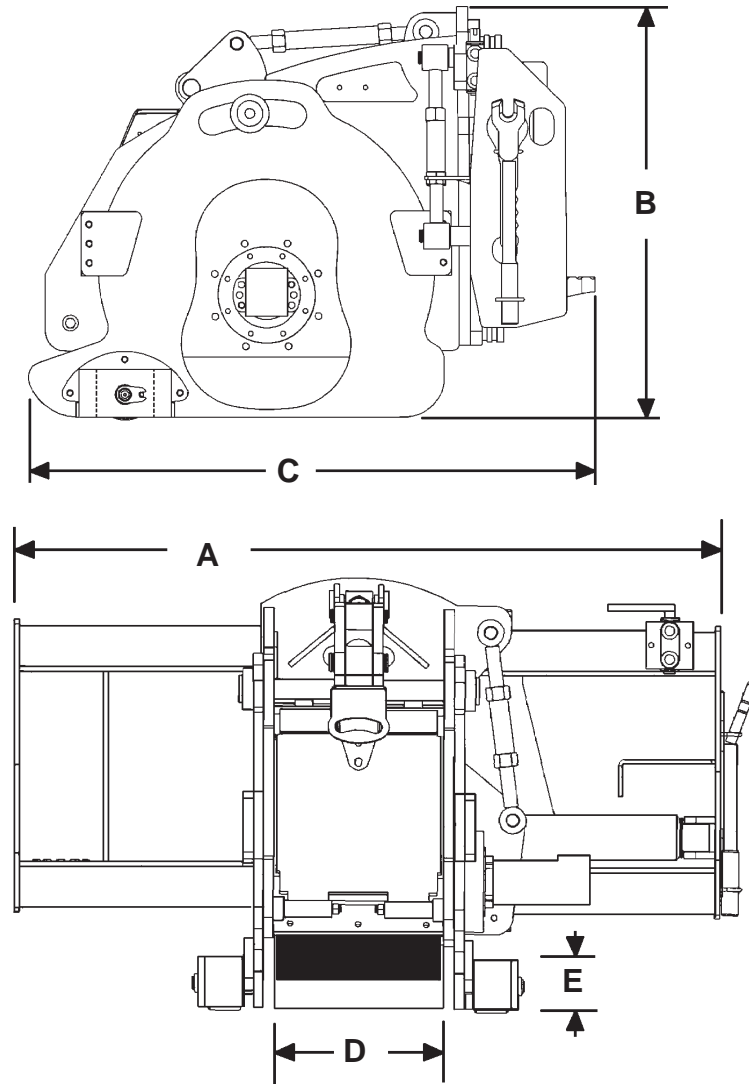
* Thick Nuts must be used with Grade 8 bolts

METRIC BOLT TORQUE SPECIFICATIONS

Size of Screw	Grade No.	Coarse Thread			Fine Thread		
		Ptich (mm)	Pounds Feet	Newton-Meters	Pitch (mm)	Pounds Feet	Newton-Meters
M6	5.6	1.0	3.6-5.8	4.9-7.9	-	-	-
	8.8		5.8-9.4	7.9-12.7		-	-
	10.9		7.2-10	9.8-13.6		-	-
M8	5.6	1.25	7.2-14	9.8-19	1.0	12-17	16.3-23
	8.8		17-22	23-29.8		19-27	25.7-36.6
	10.9		20-26	27.1-35.2		22-31	29.8-42
M10	5.6	1.5	20-25	27.1-33.9	1.25	20-29	27.1-39.3
	8.8		34-40	46.1-54.2		35-47	47.4-63.7
	10.9		38-46	51.5-62.3		40-52	54.2-70.5
M12	5.6	1.75	28-34	37.9-46.1	1.25	31-41	42-55.6
	8.8		51-59	69.1-79.9		56-68	75.9-92.1
	10.9		57-66	77.2-89.4		62-75	84-101.6
M14	5.6	2.0	49-56	66.4-75.9	1.5	52-64	70.5-86.7
	8.8		81-93	109.8-126		90-106	122-143.6
	10.9		96-109	130.1-147.7		107-124	145-168
M16	5.6	2.0	67-77	90.8-104.3	1.5	69-83	93.5-112.5
	8.8		116-130	157.2-176.2		120-138	162.6-187
	10.9		129-145	174.8-196.5		140-158	189.7-214.1
M18	5.6	2.0	88-100	119.2-136	1.5	100-117	136-158.5
	8.8		150-168	203.3-227.6		177-199	239.8-269.6
	10.9		175-194	237.1-262.9		202-231	273.7-313
M20	5.6	2.5	108-130	146.3-176.2	1.5	132-150	178.9-203.3
	8.8		186-205	252-277.8		206-242	279.1-327.9
	10.9		213-249	288.6-337.4		246-289	333.3-391.6

SPECIFICATIONS

12" COLD PLANER



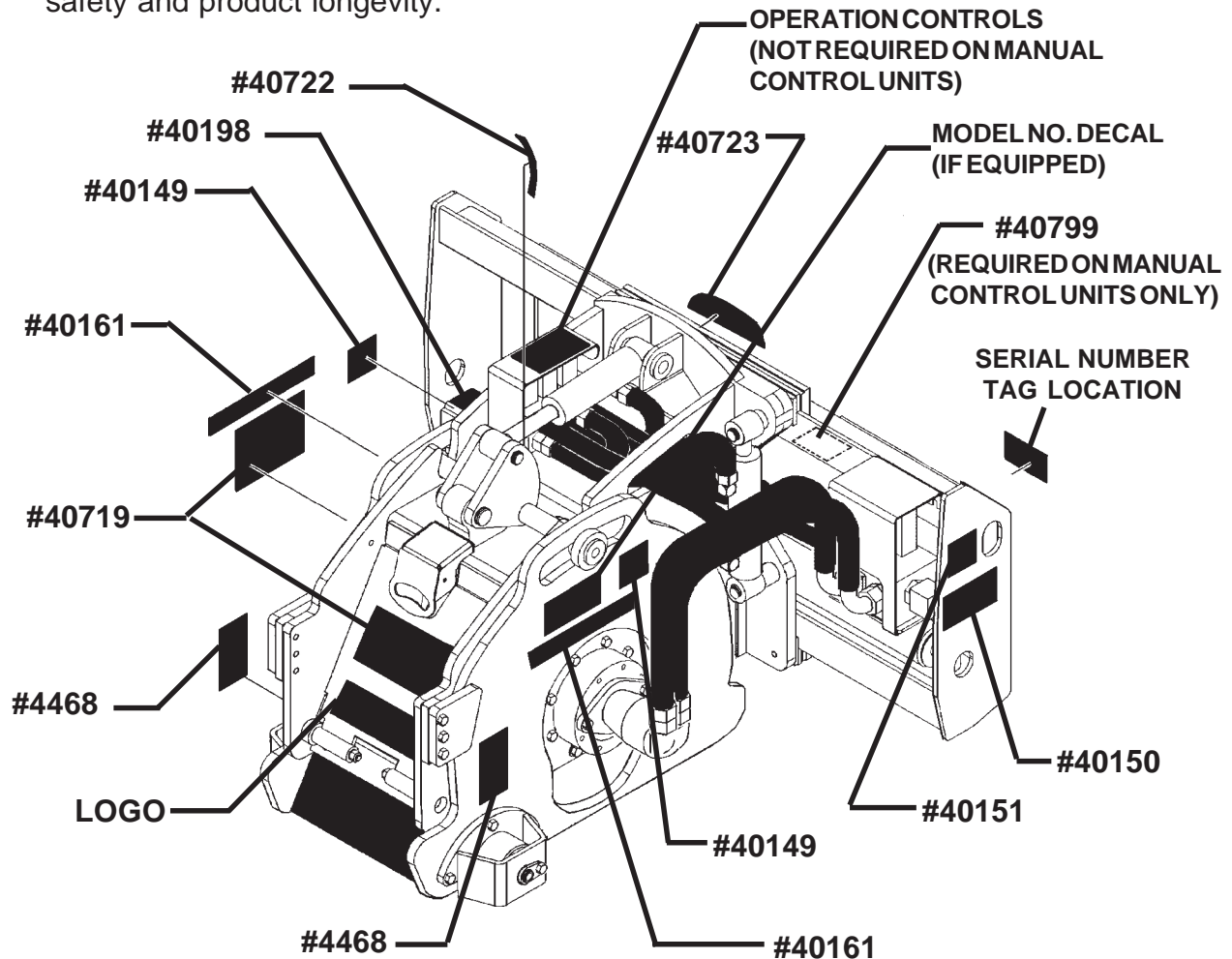
DESCRIPTION	SPECIFICATION
	12"
A. Overall Width	51.94"
B. Overall Height	32.15"
C. Overall Length	43.86"
D. Planing Width	12.00"
E. Planing Depth	0"-5.00"
Drum Diameter	19.00"
Number of Picks (Full size drum)	37
Weight (lbs)	1500#
Hydraulic Flow Requirement	15-22 GPM
Operating Pressure	2500-3000 PSI

DECALS

DECAL PLACEMENT

GENERAL INFORMATION

The diagram on this page shows the location of the decals used on the BRADCO Planer. The decals are identified by their part numbers, with reductions of the actual decals located on the following pages. Use this information to order replacements for lost or damaged decals. Be sure to read all decals before operating the attachment. They contain information you need to know for both safety and product longevity.



IMPORTANT: Keep all safety signs clean and legible. Replace all missing, illegible, or damaged safety signs. When replacing parts with safety signs attached, the safety signs must also be replaced.

REPLACING SAFETY SIGNS: Clean the area of application with nonflammable solvent, then wash the same area with soap and water. Allow the surface to fully dry. Remove the backing from the safety sign, exposing the adhesive surface. Apply the safety sign to the position shown in the diagram above and smooth out any bubbles.

STAND CLEAR

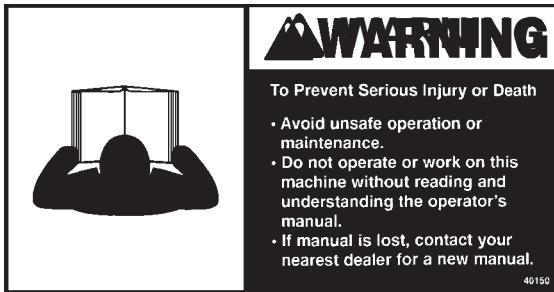
STAND CLEAR
PART #40161



DANGER! PINCH POINTS
PART #40149



WARNING! HIGH PRESSURE FLUID
PART #40151



WARNING! READ MANUAL
PART #40150

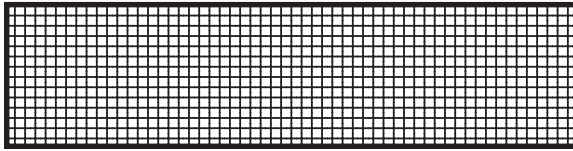


DANGER! FLYING DEBRIS
PART #40719

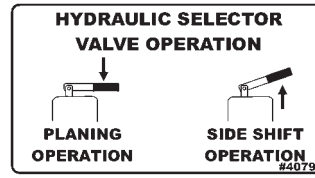


WARNING!
PART #4468

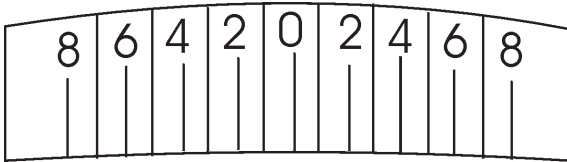
DECALS



NON-SLIP SURFACE
PART #40198



SELECTOR VALVE OPERATION
MANUAL CONTROLS ONLY
PART #40799



ANGLE INDICATOR
PART #40723

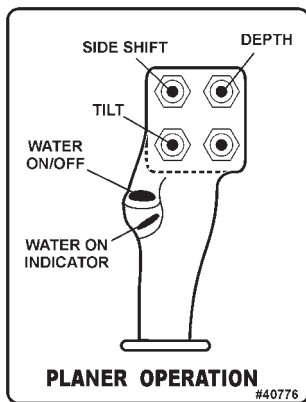
SP300

MODEL NO.
PART #40789

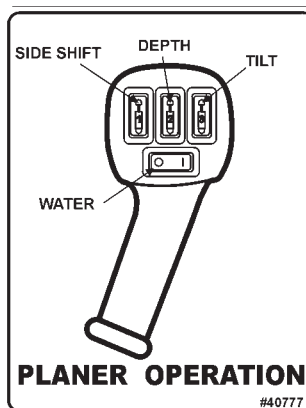


DEPTH INDICATOR
PART #40773

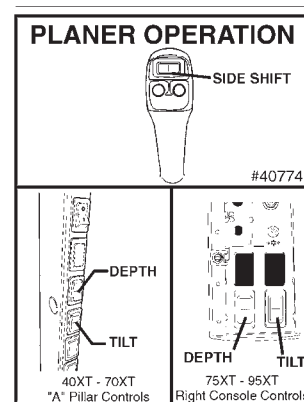
NOTE: CONTACT YOUR LOCAL DEALER TO PURCHASE LOGO DECALS



***OPERATION CONTROLS**
PART #40776
BRADCO STYLE



***OPERATION CONTROLS**
PART #40777
NEW HOLLAND STYLE



***OPERATION CONTROLS**
PART #40774
CASE STYLE

*** NOTE: OPERATION DECALS ON HYDRAULICALLY CONTROLLED UNITS ARE PURCHASED ACCORDING TO THE MULTI-FUNCTION ELECTRIC CONTROL HANDLE YOUR UNIT IS EQUIPPED WITH.**

PREDELIVERY CHECKLIST

GENERAL INFORMATION

The following is a list of areas that should be inspected by the dealer prior to delivery of the attachment to the customer. The customer should check the list and make sure that the dealer has completed the inspection. Completion of this checklist will help insure that the customer receives the attachment in complete working order, ready to install.

PREDELIVERY CHECKLIST - CHECK AND ADJUST AS NECESSARY

1. _____ Visually inspect the attachment for bent, cracked, damaged or missing parts. Check for any other irregularities.
2. _____ Check and lubricate attachment if necessary. See "Lubrication" Section H.
3. _____ Check bolts for tightness daily. Retighten after the first eight working hours.
4. _____ Remove paint from unfinished chrome surfaces of cylinders.
5. _____ Run cylinders through their full cycle to purge any air from the system.
6. _____ Check all hydraulic connections for leaks and hoses for proper positioning to reduce chafing and binding.
7. _____ Make sure all decals are not damaged or missing and are in their correct location. See "Decals" Section Q.
8. _____ Make sure customer has the necessary couplers to attach the power and return hoses to the skid-steer auxiliary hydraulic couplers.
9. _____ Complete and return the manufacturers "Warranty Validation Form" and sign your dealership predelivery checklist.

LIMITED WARRANTY

All new Bradco products are warranted to be free from defects in materials or workmanship which may cause failure under normal usage and service when used for the purpose intended.

In the event of failure within twelve (12) months from initial retail sale, lease or rental date (excluding cable, ground engaging parts such as sprockets, digging chain, bearings, teeth, tamping and demolition heads, blade cutting edges, pilot bits, auger teeth, auger heads & broom bristles), if after examination, Bradco determines failure was due to defective material and/or workmanship, parts will be repaired or replaced. Bradco may request defective part or parts be returned prepaid to them for inspection at their place of business at Delhi, Iowa, or to a location specified by Bradco.

Any claims under this warranty must be made within fifteen (15) days after the Buyer learns of the facts upon which such claim is based. All claims not made in writing and received by Bradco within the time period specified above shall be deemed waived.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED AND THERE ARE NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL BRADCO BE LIABLE FOR CONSEQUENTIAL OR SPECIAL DAMAGE.

BRADCO'S LIABILITY FOR ANY AND ALL LOSSES AND DAMAGES TO BUYER, RESULTING FROM ANY CAUSE WHATSOEVER, INCLUDING BRADCO'S NEGLIGENCE, IRRESPECTIVE OF WHETHER SUCH DEFECTS ARE DISCOVERABLE OR LATENT, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE PARTICULAR PRODUCTS WITH RESPECT TO WHICH LOSSES OR DAMAGES ARE CLAIMED, OR, AT THE ELECTION OF BRADCO, THE REPAIR OR REPLACEMENT OF DEFECTIVE OR DAMAGED PRODUCTS.