

AP SERIES

COLD PLANERS

Operating and Maintenance Manual



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1. CHECKLIST

DEALERS'S FILE COPY

1.1 PRE-DELIVERY

After the Cold Planer has been completely setup and attached to the host machine, inspect the following. Check off each item after the prescribed action is taken.

Check that:

- ◆ No parts of the unit have been damaged in shipment. Check for things such as dents and loose or missing parts; correct or replace components as required.
- ◆ All bolts and fasteners are in place and tightly secured.
- ◆ All grease fittings have been properly lubricated; see Lubrication information in this manual.
- ◆ All Decals are in place and securely attached.
- ◆ The Serial Number of your unit is recorded in the space provided on this page.
- ◆ Then, test run the unit while checking that all components are operating correctly.

I acknowledge that the procedures were performed on this unit as outlined above

DEALERSHIP NAME

DEALER REPRESENTATIVE'S NAME

DATE CHECKLIST FILLED OUT

SERIAL NUMBER

1.2 DELIVERY

The following Checklist is an important reminder of the valuable information that **MUST** be passed on to the Customer at the time the unit is delivered. Check off each item as you explain it to the Customer.

- ◆ Give the customer his Operators Manual. Instruct him to be sure to read and completely understand its contents **BEFORE** operating the unit.
- ◆ Explain and review with him the **SAFETY** information in this manual.
- ◆ Explain that regular cleaning and lubrication are required for proper operation and long life. Review with him the Lubrication information in this manual.
- ◆ Explain and review with him the Service & Maintenance information in this manual.
- ◆ Completely fill out the Owners Registration, including the Customer's signature and return it to the manufacture.

I acknowledge that the above points were reviewed with me at the time of delivery.

CUSTOMER'S SIGNATURE

DATE DELIVERED

1. CHECKLIST

CUSTOMER'S FILE

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After the Cold Planer has been completely setup and attached to the host machine, inspect the following. Check off each item after the prescribed action is taken.

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I acknowledge that the above points were reviewed with me at the time of delivery.

CUSTOMER'S SIGNATURE

DATE DELIVERED

2. WARRANTY

PRODUCT

CONEQTEC
Universal

WARRANTY

PURPOSE OF POLICY

The policy covers correction of defects in workmanship and/or materials called to the attention of Coneqtec/Universal and is subject to all conditions of the warranty.

STATEMENT OF WARRANTY

Coneqtec/Universal warrants its products for up to one year from the purchase date when correctly used under normal operating conditions. Coneqtec/Universal makes no other warranty expressed or implied.

This warranty shall not apply to any products that have been altered, changed or repaired in any manner whatsoever. Nor shall it apply to any product which has been subject to misuse, negligence or accident.

The exclusive and sole remedy for breach of contract (including breach of any express or implied warranty) shall be limited to repair, modification or replacement at the sole discretion of Coneqtec/Universal, of non-conforming products as aforesaid. Coneqtec/Universal shall not in any event be liable to anyone. Faulty or suspect parts must be returned to Coneqtec/Universal at user's cost.

GENERAL

Coneqtec/Universal reserves the right to make changes or improvements in design or construction of any part without incurring the obligation to install such changes on any unit previously delivered.

WARRANTY PARTS & LABOR PROCEDURES

WARRANTY PARTS & LABOR POLICY

Warranty parts credits will be allowed for the replacement parts that prove in the company's judgment to be defective in material or workmanship on machines sold to the original purchaser. No consideration whatsoever will be made on used, second-hand, altered or rebuilt machinery.

Only genuine Coneqtec/Universal parts will be used in correction of defective products. Any parts used that are not of Coneqtec/Universal origin will not be warranted unless prior Coneqtec/Universal approval has been granted.

Warranty labor will be paid at \$40 per hour based on flat rates established by Coneqtec/Universal; however, no mileage or mileage time will be reimbursed.

Warranty will not be paid if the dealer is not capable of doing the testing that is required by Coneqtec/Universal (this pertains to hydraulic testing and the use of pressure testing equipment) to determine the location or source of the problem.

OWNER RESPONSIBILITY

Every owner is responsible for the machine's proper use and maintenance. Parts that are simply worn out through normal wear and tear, or abused or damaged due to lack of maintenance or adjustment are not subject for warranty consideration.

DEALER RESPONSIBILITY

Coneqtec/Universal requires that the dealership has a service center that is staffed and has the ability to setup and do pre-delivery on all units prior to delivery and to do testing that is required by Coneqtec/Universal in the event that there is a problem with the machine.

It is also required that the dealers instruct the customer on the proper operation and safety procedures.

WARRANTY PROCEDURE

Warranty will not be considered on the following unless it can be proved there is negligence in workmanship or materials.

Wear items such as pics, pic blocks, blades and cutters.

Hoses that have been worn or damaged by use.

PROCEDURE FOR CLAIM

Prior to starting any warranty work please call Coneqtec/Universal for approval and notification of flat rate allowances. All warranty claims must be received within thirty days of warranty repair in order to be a valid warranty claim. Otherwise warranty claim will be denied. A copy of the parts invoices and shop work orders must be submitted with the warranty form, and the form must be filled out completely with all customer and machine information. The warranty/RGA form with parts should then be sent to the designated location stated on form. Coneqtec/Universal will pay only standard Fed Ex or LTL truck freight on warranty items.

All warranty credits will be applied to the dealer's account.

Revised 11/1/01

P.O. BOX 9102 • WICHITA, KS 67277 • (888) 832-3462 • Fax (316) 946-5552

3. INTRODUCTION

The **AP SERIES COLD PLANER** was designed as an attachment machine for use on host machines, such as skidsteer loaders, front end loaders and motor graders. The information contained in this manual refers only to the planer machine. Information regarding the valves used to control oil flow to the planer attachment can be found in the host machines manual.

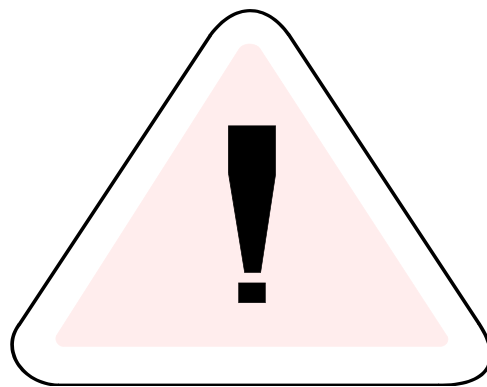
The information contained within is provided to assist you in preparing, adjusting, maintaining and servicing your machine. More importantly, this manual provides an operating plan for safe and proper use of your machine. Major points of safe operation are detailed in the safety chapter of this manual. Refer to the table of contents for an outline of this manual.

Modern machinery has become more sophisticated and, with that in mind, you must read and understand the contents of the manual **COMPLETELY** and become familiar with your new machine before attempting to operate it.

Terms such as “right” and “left” as used in the manual, are as though the reader is sitting in the host machine’s operator seat and facing the planer.

Throughout this manual, information is provided which is set in bold type and introduced by the word **NOTE**. Be sure to read carefully and comply with the message or directive given. Following this information will improve your operating or maintenance efficiency, help you to avoid costly breakdowns or unnecessary damage, and extend the life of your machine.

The Manufacturer and Society of Automotive Engineers have adopted this **SAFETY ALERT SYMBOL** to pinpoint characteristics that, if not properly followed, can create a safety hazard. When you see this symbol in this manual or on the unit itself, you are reminded to **BE ALERT! YOUR SAFETY IS INVOLVED!**



The manufacturer reserves the right to make changes or improvements in the design or construction of any part without the obligation to install such changes on any unit previously delivered.

4 . S P E C I F I C A T I O N S

AP SERIES III

MODEL	STANDARD DRUM WIDTH	WIDTH	NO. PICS
AP300 III.....	12 Inches (300 mm).....		38
AP400 III.....	16 Inches (400 mm).....		48
AP450 III.....	18 Inches (450 mm).....		54
AP600 III.....	24 Inches (600 mm).....		68
AP760 III.....	30 Inches (760 mm).....		78
AP800 III.....	32 Inches (800 mm).....		88
AP1000 III.....	40 Inches (1000mm).....		108

DRUM CUTTING WIDTH (OPTIONAL) 4 to 40 inches (100 to 1000mm)
 (MAXIMUM DRUM NO WIDER THAN STANDARD DRUM IN EACH MODEL)

SLOT CUTTER CUTTING WIDTH 2.5 inches (63mm)

MAXIMUM DRUM CUTTING DEPTH 6 inches (152mm)

MAXIMUM SLOT CUTTER CUTTING DEPTH 6 inches (152mm)

MAXIMUM TILT ANGLE 15 Degrees left & right (AP300-600)
 5 Degrees left & right (AP760-1000)

SIDE SHIFT TRAVEL 24 inches (610mm)

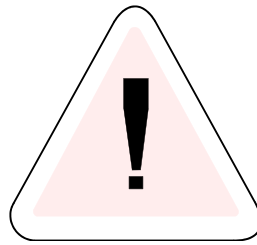
WEIGHT*

AP300	1500 lbs. (680 kg)
AP400	1600 lbs. (726 kg)
AP450	1650 lbs. (748 kg)
AP600	1750 lbs. (794 kg)
AP760	2200 lbs. (1000 kg)
AP800	2450 lbs. (1114 kg)
AP1000	2500 lbs. (1134 kg)
CROSSLIDE PLATE	400 lbs. (182 kg)
BACKHOE MOUNTING CRADLE	85 lbs. (39 kg)

* Weights are for fully hydraulic planers equipped for use on skidsteer loaders and are approximate

5 . S A F E T Y

BEFORE YOU ATTEMPT TO OPERATE THIS EQUIPMENT, READ AND STUDY THE FOLLOWING SAFETY INFORMATION. IN ADDITION, MAKE SURE THAT EVERY INDIVIDUAL WHO OPERATES OR WORKS WITH THIS EQUIPMENT IS FAMILIAR WITH THESE SAFETY PRECAUTIONS.



The manufacturer always takes the operator and their safety into consideration when designing machinery. Guards are provided on exposed moving parts for the operator's protection, however, some areas cannot be guarded or shielded in order to assure proper operation. In addition, the operator's manual and decals on the machine itself warn you of further danger and should be read and observed closely.

The **SAFETY ALERT SYMBOL** above means **ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!** It stresses an attitude of "HEAD UP" for safety and can be found throughout this operators manual and on the unit itself.

REMEMBER: The careful operator is the best operator. Most accidents are caused by human error. Certain precautions must be observed to prevent the possibility of injury or damage.

Please read the rules listed below for safe operation **BEFORE** you operate this equipment.

Use of words **CAUTION**, **WARNING**, or **DANGER**, herein and on the machine itself, signal three degrees of hazard.

CAUTION is used for general reminders of good safety practices or to direct attention to unsafe practices.

WARNING is used to denote a specific potential hazard.

DANGER is used to denote the most serious specific potential hazard.

5.1 MANDATORY SAFETY SHUTDOWN

Work of any type on machinery is always more dangerous when the machine is operating. **BEFORE** cleaning, lubricating, or servicing this unit, the following **MANDATORY SAFETY SHUTDOWN PROCEDURE** should **ALWAYS** be followed:

- 1 Move host machine's propulsion control to the neutral position and idle engine down.
- 2 Shut off Cold Planer.
- 3 Position Cold Planer so that it is completely resting on the ground or floor.
- 4 Engage the host machine's hand brake.
- 5 Move the host machine's throttle to the slow idle position, shut the Engine off and Remove the Ignition Key.
- 6 Relieve hydraulic pressure by moving the Hi-flow and cylinder control levers in both directions.

ONLY when you have taken these precautions can you be sure it is safe to proceed. Failure to follow the above procedures could lead to death or serious bodily injury!

Some diagrams used herein may show Door(s), Guard(s), or Shield(s) open or removed for illustration purposes **ONLY! BE SURE** that all Door(s), Guard(s), and Shield(s) are in their proper position(s) and securely attached **BEFORE** operating the Planer!

Read and observe ALL Safety information and Decals on the host machine and Cold Planer **BEFORE** operating the unit! In addition, familiarize yourself with ALL of the Safety Devices and periodically check that they are functioning properly!

Refer to the **SAFETY** chapter of the host machine's operator manual and observe ALL Safety recommendations set forth in that manual!

BE SURE to raise the Cold Planer clear of the ground **BEFORE** attempting to traverse it sideways!

CAREFULLY inspect **ALL** hydraulic hoses and connections on a routine basis; **NEVER** use your hand, escaping fluid under pressure can cause serious injury!



BE SURE to exercise the **MANDATORY SAFETY SHUT DOWN PROCEDURE BEFORE** proceeding to do any work on the Cold Planer!

BE SURE the Cold Planer is properly placed in the “Service Position” and resting on the ground, **BEFORE** attempting to work on the Drum.

BEFORE transporting the Cold Planer, **BE SURE** to raise the unit completely clear of the ground and turn it off.

When replacing Pics, **BE SURE** to use only a soft or lead headed hammer, when inserting the Pics into the Holders.

ALWAYS wear Safety Glasses with Side Shields, when striking metal against metal! In addition, it is recommended that a softer (non-chipable) material be used to cushion the blow. Failure to heed could result in serious injury to the eye(s) or other part(s) of the body!

ALWAYS wear proper clothing and covering when working with or on the Cold Planer!

DO NOT attempt to move the Cold Planer sideways while it is on the ground!

DO NOT attempt to work on the Planer or host machine with the hydraulics live! **BE SURE** to relieve the hydraulic pressure, by shutting down the engine and moving all control levers to relieve hydraulic pressure **BEFORE** attempting to disconnect any hoses or **BEFORE** proceeding to remove the Cold Planer from the host machine.

DO NOT treat the Cold Planer like a Bucket, it can be damaged by contact with solid objects, as well as upset the stability of the host machine!

DO NOT hit the Pics with a steel hammer as this could cause steel chips to fly, causing injury to the eyes or face.

REMEMBER! It is the owner’s responsibility for communicating information on the safe use and proper operation and maintenance of this machine!

6 . O P E R A T I O N

6.1 FOREWARD

The Planer must be attached to a host machine equipped to provide the necessary hydraulics and operational controls. As there are many different host machines available, this manual will only deal with the generic operation of the planer. Anyone attempting to attach and operate the Planer must first have the knowledge and skill of operating the host machine's controls. Information regarding the host machine's controls and attaching Procedure is found in the host machine's Operators Manual.

6.2 SETUP & USE OF HYDRAULIC CONTROL SYSTEMS

6.2.1 55508 HYDRAULIC CONTROLS

Drive the skidsteer up to the quick attach of the Planer and connect up. Exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE** before proceeding. After installing hydraulic quick couplers compatible with your skidsteer to the two 3/4" main hoses, connect them to the hydraulic outlets assuring that the hose connected to the "P" port of the valve goes to the pressure outlet of the Skidsteer.

NOTE: All planers built for hi-flo skidsteers will be equipped with a case drain line. Make sure this line is always connected to the skidsteer case drain coupler when operating.

During shipment the swingaway control arm is folded down to reduce shipping height. Before connecting the attachment to your skidsteer loader, remove the loose 1/4" capscrew from the lower pivot and the 1/4" clevis pin from the upper pivot and raise the arms. Replace the 1/4" capscrew and self locking nut into the forward most hole of the lower pivot plate. Tighten bolt to remove any looseness but to allow full travel.

After connecting the attachment to the skidsteer loader check that the swingaway arm is located correctly left to right. The lower pivot bracket has extra bolt holes to allow moving.

Adjust the upper and lower 1/4" clevis pins into the correct holes to achieve the best location of the hydraulic controls.

The hydraulic cylinders of the skidsteer mounted planer are controlled as shown on decals.

1. The lever marked depth, controls the depth of the cut. Moving the lever up adjusts the cut deeper, moving it down will raise the drum out of the cut.
2. The center lever marked tilt, controls the sideward tilt of the planer. Moving the lever up will tilt the top of the planer up to 15 degrees to the right, moving it down tilts the top of the planer up to 15 degrees to the left. The planer should be raised off the ground when adjusting the tilt.
3. The left hand lever controls the slide of the planer. Moving the lever up will slide the planer toward the right. Moving it down will slide the planer toward the left. Whenever possible use the planer near the center of the crossslide. The planer must be raised off the ground when adjusting slide.

IMPORTANT: Be sure the boom arms are all the way down and the bucket dump rolled all the way back when adjusting the arms, to avoid accidental contact with the operator or skid steer controls!

REMEMBER! The drum must be turning to make any hydraulic adjustments.

SEE PAGES 28 & 29 FOR PARTS INFORMATION

6.2.2 55509 ELECTRIC OVER HYDRAULIC CONTROLS

Drive the skidsteer up to the quick attach of the Planer and connect up. Exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE** before proceeding. After installing hydraulic quick couplers compatible with your skidsteer to the two 3/4" main hoses, connect them to the hydraulic outlets assuring that the hose connected to the #2 or "P" port of the valve goes to the pressure outlet, and 1/4" hoses are connected to the skidsteer auxiliary couplers. Connect the electric cord plug to the skidsteer receptacle.

NOTE: All Planers built for hi-flo skidsteers will be equipped with a case drainline. Make sure this line is always connected to the skidsteer case drain coupler when operating.

This system is used primarily on Bobcat skidsteers and utilizes the control switches on the skidsteer control levers. See the Bobcat operators manual for instruction of the operation of these switches. This system can be used on other skidsteers with 5 line hydraulic system, but must have an optional 6 or 8 button control kit. Call Universal for details.

SEE PAGES 30 & 31 FOR PARTS INFORMATION

6.2.3 56709 CONEQTEC ELECTRIC OVER HYD CONTROLS

Drive the skidsteer up to the quick attach of the Planer and connect up. Exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE** before proceeding. After installing hydraulic quick couplers compatible with your skidsteer to the two 3/4" main hoses, connect them to the hydraulic outlets assuring that the hose connected to the #2 or "P" port of the valve goes to the pressure outlet of the skidsteer, and 1/4" hoses are connected to the skidsteer auxiliary couplers. These hoses should be connected to best suit the skidsteer auxiliary control.

NOTE: All Planers built for hi-flo skidsteers will be equipped with a case drainline. Make sure this line is always connected to the skidsteer case drain coupler when operating.

Connect the electric cord plug to the skidsteer receptacle. On Case XT models the rocker switch on the right hand control lever selects the planer function and the auxiliary control pedal the function direction. Without using the switch, the pedal controls the depth. Moving the switch left or right will select the slide or tilt and the pedal the left or right direction.

On Cat skidsteers, the selector switch is on the left hand control lever and the direction control switch on the right.

Other skidsteers may be equipped with a remote switch box that will have to be connected to a 12 Volt electrical power source.

SEE PAGES 32, 33, 34 & 35 FOR PARTS INFORMATION

6.2.4 56613 ELECTRIC OVER HYDRAULIC CONTROLS

Drive the skidsteer up to the quick attach of the Planer and connect up. Exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE** before proceeding. After installing hydraulic quick couplers compatible with your skidsteer to the two 3/4" main hoses, connect them to the hydraulic outlets assuring that the hose connected to the #2 or "P" port of the valve goes to the pressure outlet, and 1/4" hoses are connected to the skidsteer auxiliary couplers. Connect the electric cord plug to the skidsteer receptacle.

NOTE: All planers built for hi-flo skidsteers will be equipped with a case drain line. Make sure this line is always connected to the skidsteer case drain coupler when operating.

This system is used primarily on skidsteers with only 2 or 3 line hydraulic systems. Such as New Holland, John Deere and those with just standard auxiliary flow. The skidsteer must be equipped with a 6 or 8 button control kit or remote switch box that will have to be connected to a 12 Volt electrical power source. Call Universal for details.

SEE PAGES 44 , 45 & 46 FOR PARTS INFORMATION

6.3 PREPARING TO PLANE

Check the surface to be planed. The standard drum for each model can be used to mill both asphalt and concrete. If a finer finish is required, drums with more pics are available. Contact Universal for special drums.

Determine the required depth of cut, tilt angle of cut and left to right position of the planer, as regards to the host machine.

When it is safe to do so, start the host machine's engine and ensure that the planer drum is not touching the ground. Turn on the planer and check the drum rotation. The teeth at the bottom of the drum must be moving in the same direction that the planer travels over the material to be planed. If the drum rotates incorrectly, correct the planer installation before attempting to plane. In skidsteer operation, only forward travel should be used.

Increase engine RPM, with the drum turning, you can now make necessary adjustments to the tilt angle of the cut and left & right position of the planer.

If the planer is equipped with hydraulically actuated depth control, do not set the depth of cut until the actual planing operation begins. Manual screw actuated depth control must be set at this time.

The tilt angle is adjusted by simply actuating the tilt cylinder or by turning the manual screw jack.

A hydraulic cylinder holds the planer in position on the mounting plate slide. Actuate the cylinder to gain the desired left/right position.

**NOTE: Backhoe installations do not include the tilt option.
Backhoe installations do not include a left/right slide function.**

6.4 STARTING THE CUT

Position the planer over the desired starting place. With the planer turned on, the depth gauge at "0" and the host machine's engine at full RPM, slowly lower the planer to the surface to be planed until the weight of the planer is resting on the planer's wheels. Continue to exert down pressure by rolling the dump forward on a skidsteer or front end loader, or by forcing down the boom on a backhoe/excavator to assure sufficient pressure for stable operation. For example, the front wheels of the skidsteer should be raised 2-3 inches (50-75mm) off the planing surface. Maximum depth of each cut is determined by the type of material being milled, the weight and hydraulic horsepower of the host machine, and the size planer being used. A general rule of thumb is to start at 3/4" to 1" deep in concrete and 1 1/2" to 2" deep in asphalt.

6.5 ADVANCING THE CUT

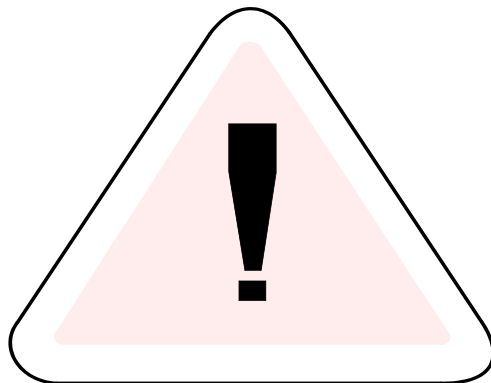
Advance the planer in the direction the drum pics are traveling in the cut. If the planer drum stalls, you have been feeding the planer into the cut too fast or cutting too deep. Back out of the cut until the drum restarts and then advance again. If the planer tends to ride up out of the cut, use the procedure outlined in the paragraph above to keep the planer wheels on the surface to be planed.

DO NOT side shift the planer while the drum is in the cut. The drum will not cut in a side to side direction. Tilt and depth controls may be actuated while the drum is in the cut.

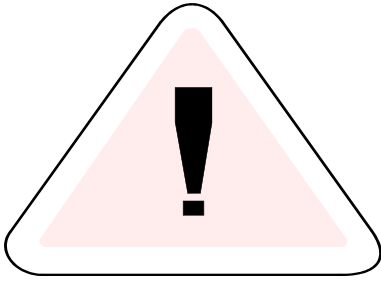
6.6 ENDING THE CUT

Stop advancing the planer and raise planer out of the cut. On planers with hydraulic depth control, retract the drum into the planer housing. If you do not wish to start a new cut, **idle host machine engine**, turn the planer off and manually retract the drum of those planers that do not have hydraulic depth control. **DO NOT** transport the planer with it turned on.

CAUTION: When using cold planers with skidsteer loaders equipped with hi-flow kits, periodic observation must be made of the transmission oil temperature indicator on the EIM in the skidsteer loader. Hydraulic oil may overheat, depending on ambient temperature and duty cycle of the machine. If indicator comes on, shut off cold planer and allow skidsteer loader to idle until the hydraulic temperature falls below 180 degrees Fahrenheit. **Damage to machine may occur if these instructions are not followed.**



7. DAILY MAINTENANCE

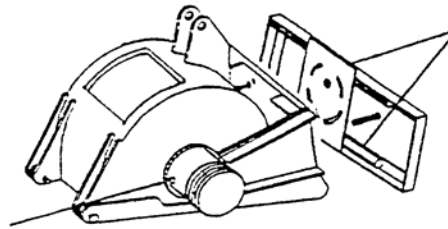


CAUTION: NEVER attempt to do any Maintenance to the Planer while it is running. Exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE BEFORE** proceeding.

NOTE: Careful attention to the daily maintenance routines will go a long way toward ensuring efficient planer operation.

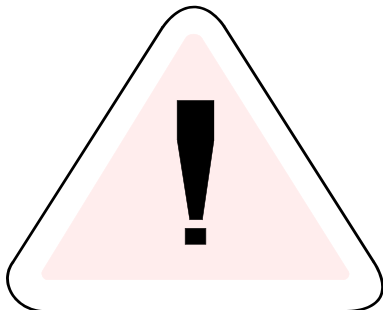
1. At the start of each day, lubricate the grease fittings at the end of the carriage arm on each side of the planer housing. Standard shop gun grease will suffice.
2. Check cross slide rods and tilt plates for lubrication. Clean away any dust or dirt and apply oil to these areas.

TWO GREASE FITTINGS
ON EACH SIDE



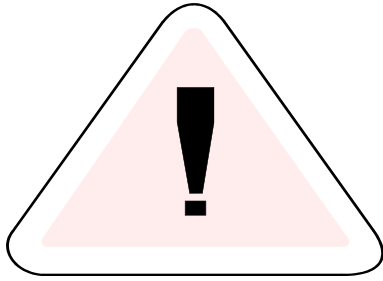
OIL BETWEEN
PIVOT PLATES
AND ON SLIDE
RODS

3. Using the correct size wrenches, retighten any loose hardware
4. Inspect for any loose hydraulic fittings or damaged hoses; retighten or replace as required.



WARNING: NEVER use your hands to check for Hydraulic leaks. Escaping fluid under pressure can Cause serious injury! If injured by escaping fluid, see A doctor at once. If proper medical treatment is **NOT** Administered **IMMEDIATELY** serious infection or Reaction can develop.

5. At least twice daily check all pics for freedom of rotation and wear. Replace all pics that are not rotating freely or are badly worn. Failure to do so will result in poor performance and premature Pic Block wear. Follow the procedure outlined under Pic Removal and Replacement.



7.1 PIC REMOVAL AND REPLACEMENT

To achieve maximum pic life and optimum performance the pics will require replacement for the following reasons:

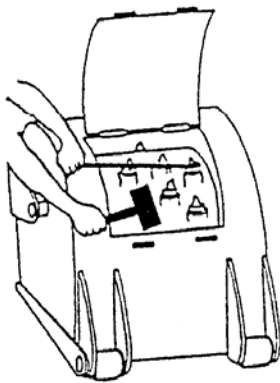
1. They are broken or worn.
2. They are seized in the pic holder and do not rotate freely.

7.1.1 REMOVAL

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!

To remove pic(s), open the top access door:

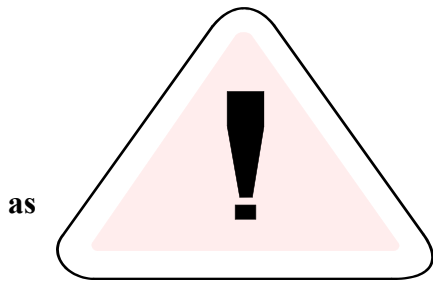
1. Rotate the drum until the pic to be removed is conveniently accessible.
2. Hold the Pic Removal Tool in one hand and place the jaws in the groove of the pic, with the offset handle pointing away from the pic holder.



3. Using a lead hammer or rubber-headed mallet, hit the raised pad on the tool until the pic starts to move and continue to tap it out.

NOTE: If the pic does not have a groove, use a PIC Punch and a lead hammer or rubber headed mallet to drive the pic out of the holder from the back side.

7.1.2 REPLACEMENT



To
place
pro-
fol-
lows:

WARNING: ALWAYS wear safety glasses with side shields when striking metal. Failure to heed could result in serious injury to the eye (s) or other part (s) of the body!

re-
a pic
ceed

1. With the Pic Removal Tool in one hand, position the new pic in the jaws of the tool so that the raised pad of the tool is pointing in the same direction as the pic point.
2. Position the stem of the pic in the hole of the pic holder.
3. With a lead hammer or rubber-headed mallet, hit the raised pad of the tool to start the pick into the holder.
4. Then, with one strong blow, strike the tool pad to pop the pic into the hole of the holder.

The pic is properly seated when its shoulder is against the face of the Pic Holder. **BE SURE** to test that the pic rotates freely.

NOTE: If the pic does not have a groove, position the stem of the pic in the hole in the holder and, using a lead hammer or rubber-headed mallet, lightly hammer the point of the pic until the pic is seated in the holder.

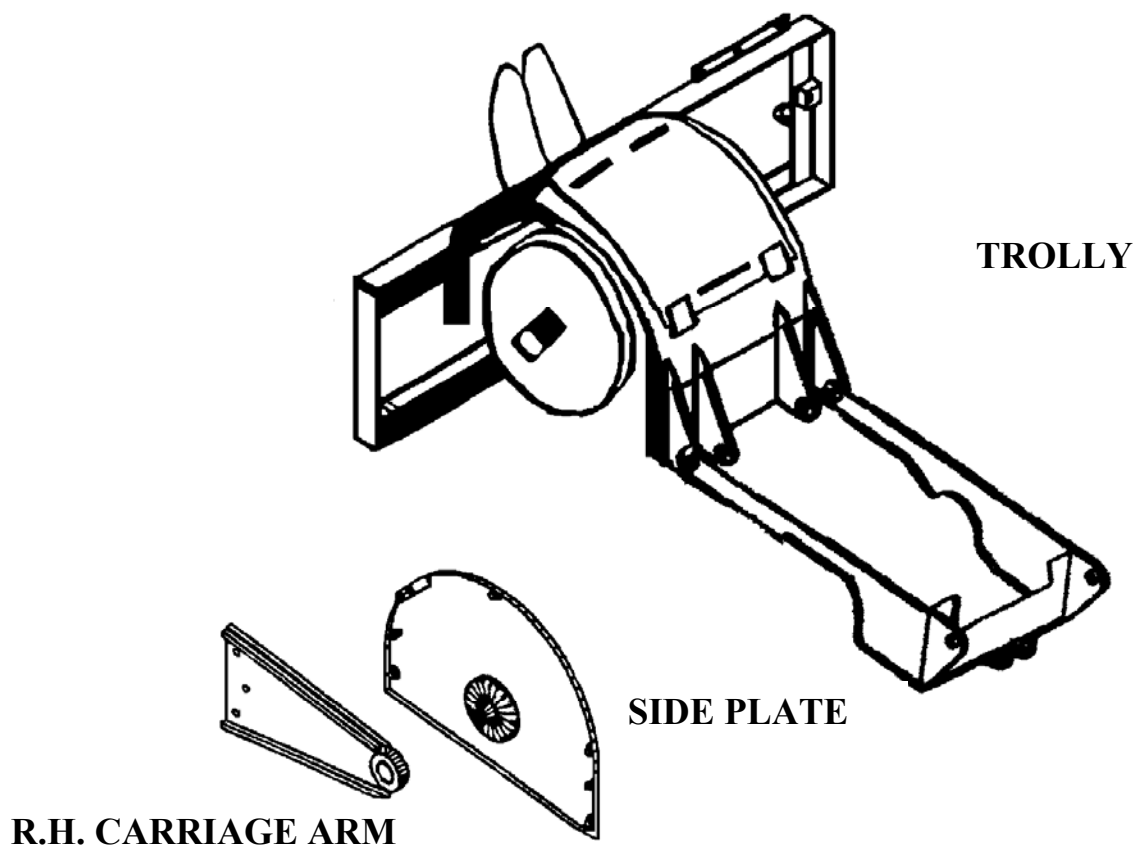
7.2 CHANGING A DRUM

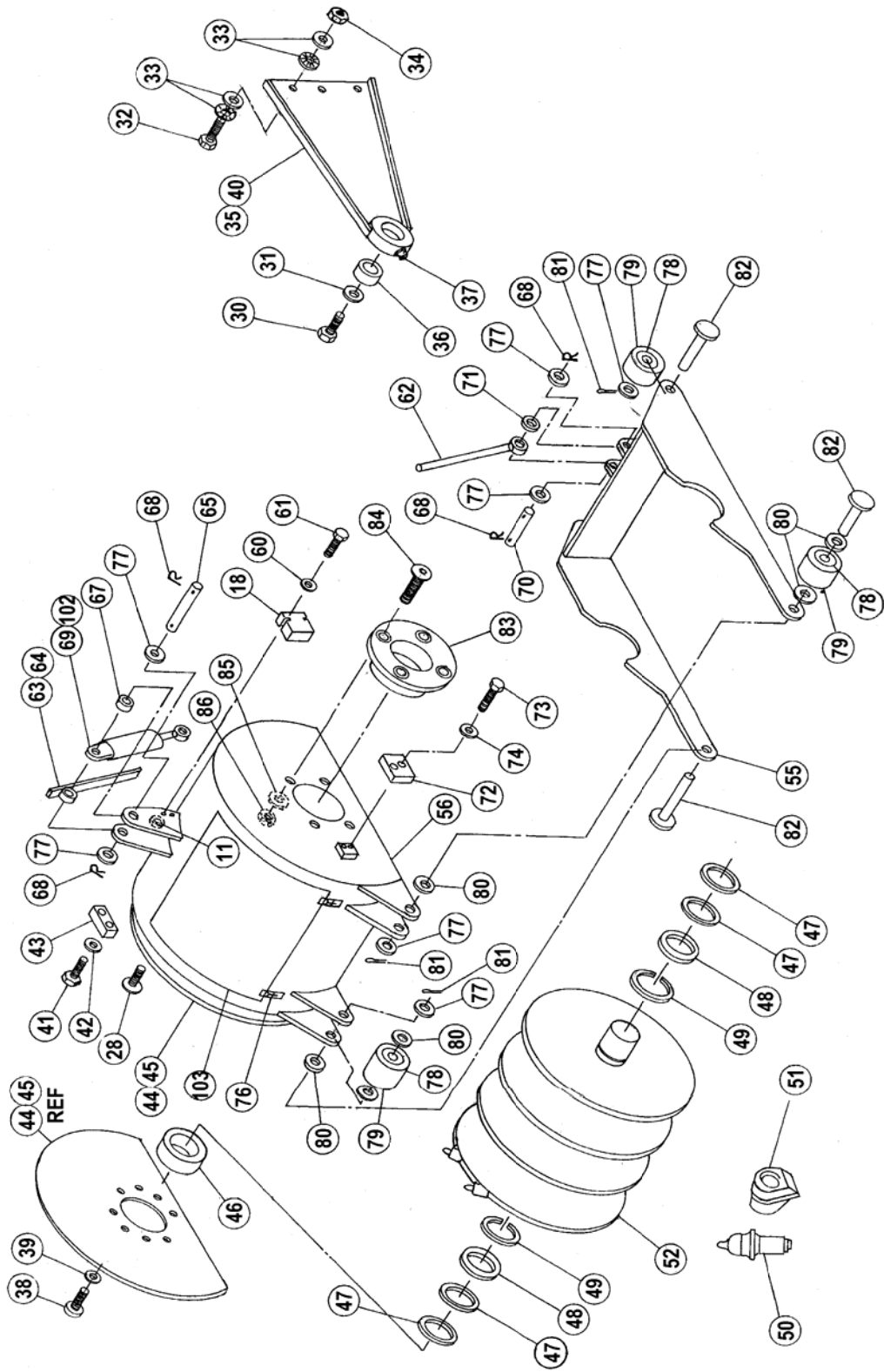
Place the planer in a convenient position.

1. Remove the lower depth cylinder pin and depth gauge.
2. Raise the planer high enough to allow the trolley assembly to pivot out in front of the planer, lower the planer while backing the host machine so that the trolley extends forward, lower the planer to the ground.
3. Remove the three cap screws holding the right hand planer carriage arm to the planer rear pivot plate. Remove the cap screw at the center of the housing side plate and set the carriage arm aside.

4. Remove the four countersunk socket head cap screws securing the casing side plate to the casing and the eight (8) mm socket head cap screws around the center pivot. Use a hammer to knock the side plate off its dowels. Remove the bearing housing off the axle. Set side plate and housing aside. **SEE ILLUSTRATION ON PAGE 18.**
5. If your planer is equipped with an open drum the shaft and flanges are one piece. To remove this drum. Remove the four planer motor bolts and pull the motor out of the drum. Some motors are difficult to remove and may require a pulling device.
 - a. One method is to remove the pipe plug located on the drum shaft near the motor end of the shaft. You may have to rotate the drum and clean away accumulate dirt or other material to locate this plug. Remove the plug and install a grease fitting in this hole. Pump the cavity full of grease forcing the motor shaft out of the drum shaft.
 - b. Insert 5/8" nuts in the cutouts, thread a 5/8" cap screw with as many threads as available through each motor bolt hole and through each nut.
 - c. Tighten cap screws evenly to pull motor from shaft.
6. After the motor has been removed, pull drum and shaft out of the bearings.
7. If your planer is equipped with a tube type drum and separate axle, remove the six cap screws holding the drum to the axle. Screw two of these cap screws into the threaded holes in the drum until the drum comes loose from the axle. Lift the drum and remove it from the planer. If the drum has not been removed for some time, it may be necessary to clean any dirt and or asphalt from the inside of the drum on the end opposite from bolted side.
8. Check all hardware removed and replace if damaged.
9. Lift the replacement drum and place it over the planer axle. Align the six cap screw holes and push the drum into place on the axle. Install the six retaining cap screws and locks. Use 242 locktite, torque cap screws to 180-200 ft/lb.
10. Reverse instructions 1 through 4 to complete the drum change. When installing the motor, clean shaft bore and motor shaft, and coat with an anti-seize.

7.2.1 DRUM CHANGE ILLUSTRATION





COLD PLANER PARTS LIST

ITEM	PART NO. QTY	DESCRIPTION	ITEM	PART NO.	DESCRIPTION	QTY		
1	55248	Valve Cover	1	52	55243	Drum AP300, 38 Pics	1	
2	55227	BLB Spool Valve	1	52	55631	Drum AP400 in 450 Cowl, 48 Pics	1	
3	55255	Sliding Arm	1	52	55241	Drum AP450, 54 Pics	1	
4	54736	Horizontal Arm	1	52	55701	Drum AP450 HD, 54 90mm Brg	1	
5	15003	Knob	1	52	56380	***	Drum AP450 HD with 95mm Brg	1
6	54735	Vertical Arm	1	52	55209	Drum AP600, 68 Pics	1	
7	54734	Lower Bracket	1	52	55980	Drum AP600 HD, 90mm Brg	1	
8	50A0624	HHCS 3/8- 16x3	2	52	56381	***	Drum AP600 HD with 95mm Brg	1
9	30C06	Nut 3/8 16 Nyllok	2	52	55308	Drum AP760, 78 Pics 90mm Brg	1	
10	50A0422	HHCS 1/4, 20x2 3/4	2	52	56382	***	Drum AP760 with 95mm Brg	1
11	30C04	Nut 1/4 20 Nyllok	2	52	56016	Drum AP800, 90mm Brg	1	
12	10C0424	Clevis Pin 1/4x3	2	52	56383	***	Drum AP800 with 95mm Brg	1
13	52165	Washer	2	52	55208	Drum AP1000, 90mm Brg	1	
14	56722	Cross Slide Assy	1	52	56384	***	Drum AP1000 with 95mm Brg	1
15	40069	Pic Wrench	1	53	30C-08	1/2 -13 Nyllok Nut	2	
16	55253	Valve Bracket Sun	1	54	50A-0418	HHCS 1/4-20x2 1/4	2	
17	55140	Valve Assy Sun	1	55	54301	Depth Control Trolley AP300	1	
18	52981	Lock Valve	2	55	54302	Depth Control Trolley AP400/450	1	
19	50B-1024	HHCS 5/8-11x3 Gd 8	1	55	54303	Depth Control Trolley AP600	1	
20	30C-10	Nut 5/8-11 Nyllok	1	55	55316	Depth Control Trolley AP760/800	1	
21	50A0810	HHCS 1/2, 13x1 1/4	2	55	55306	Depth Control Trolley AP1000	1	
22	54064	Slide Cylinder 24"	1	56	54205	Planer Casing AP300	1	
22	56745	Slide Cylinder 26"	1	56	54207	Planer Casing AP400/450	1	
23	40048	HHCS M20x50mm	4	56	54208	Planer Casing AP600	1	
24	14C12	Washer, flat 3/4	4	56	55315	Planer Casing AP750/800	1	
25	54991	Bushing, Cylinder	4	56	55304	Planer Casing AP1000	1	
26	55688	HHCS 1 1/4-12	1	57	80443	Decal "Caution"	1	
27	14C-20	Washer, flat 1 1/4	1	58	80454	Decal "Universal Planer"	1	
28	42030	CSCS M16x35	4	59	50A-0512	HHCS 5/16-18x1 1/2	2	
29	30C20	Nut, 1 1/4" Nyllok	1	60	14C04	Washer, 1/4 flat	2	
30	42030A	Bolt, M16x35mm Modified	1	61	50A0418	HHCS 1/4 20x2 1/4	2	
31	42020A	Washer, Retaining	1	62	56119	Rod, Depth Gauge 11 5/8 Cyl	1	
32	50B-1016	HHCS 5/8-11x2	3	63	56120	Guide, Depth Gauge	1	
33	56283	Washer, Nord Lock	6	64	54077	Decal Depth Scale	1	
34	30C-10	Nut, 5/8-11 Nyllok	3	65	52232	Pin, Upper Cyl AP300 - AP600	1	
35	54395	Detach Arm, AP 300-600	1	65	52232	Pin, Upper Cyl AP760 - AP1000	2	
35	57053	Detach Arm AP 760-1000	1	66	55612	Pivot Box (BLB Type)	AR	
36	55545	Bushing	1	66	54189	Pivot Box (Cable Type)	AR	
37	29A025	Grease Zerk	1	67	54558	Spacer, Upper AP300 - AP600	1	
38	350D08030	SHCS M8x30mm	8	67	54558	Spacer, Upper AP760 - AP1000	3	
39	314A08	Washer, Lock M8	8	68	13L03	R Pin 3/16 AP300 - AP600	2	
40	80441	Decal "Danger Pinch Area"	1	68	13L03	R Pin 3/16 AP760 - AP1000	4	
41	350A1260	HHCS M12x60mm 760-1000	2	69	55183	Cylinder, AP760 - AP1000	2	
41	50A-0820	HHCS 1/2-13x2 1/2" 300-600	2	69	55183	Cylinder, AP300 - AP600	1	
42	14A-08	Washer, Lock 1/2"	2	70	42019	Pin, Lower Cyl AP760 - AP1000	2	
43	54332	Stop, carriage Arm	1	70	42019	Pin, Lower Cyl AP300 - AP600	1	
44	54219	Side Plate, Removable	1	71	54559	Spacer, Lower AP300 - AP600	1	
45	80440	Decal "Danger"	1	71	54559	Spacer, Lower AP760 - AP1000	3	
46	42008	Housing, Bearing/Seal	1	72	42029	Bearing Retaining Plate	1	
47	42009	**	Bearing	4/2	73	50A-1012	HHCS 5/8-11x1 1/2	2
47	55258	Brg AP760/1000 Motor Side	2	74	14A-10	Washer Lock 5/8"	2	
47	56378	***	Bearing Motorside 95mm	2	75	50A-0506	HHCS 5/15-18x 3/4"	2
48	54990	**	Lipseal 95mm (open drum)	2/1	76	54570	Access Door Latch	2
48	55257	Lipseal 100mm 760/1000 MS	1	77	42026	Washer, Flat 1 3/16 ID	4	
48	56179	***	Lipseal 100mm Motorside	1	78	42014	Wheel Bearing	8
49	42024	**	Snap Ring	2/1	79	42013	Wheel	4
49	55256	Snap Ring AP760/1000 MS	1	80	42015	Spacer, Wheel	10	
50	10150	Pic, Low Torque	AR	81	13A0640	Cotter Pin	4	
51	40028	Pic Blk - is welded to drum	AR					

** DUAL QTY= QTY AP300-AP600 / QTY AP760-800-1000-450HD & 600HD

*** USED ON AP450HD-600HD-760-800-1000
 S/N C11034, 4369 & UP - EXCEPT FOR (3543 - 3547), 3682, (3688 - 3689), (3705 - 3706), (3736 - 3739),
 3819, (3822 - 3823), (3825 - 3826), 3830, 3834, (3838 - 3839), 3844, 3846, 3848, 3898, (3910 - 3913), 3916, 3922,
 (3995 - 3997), 4088 & 4314

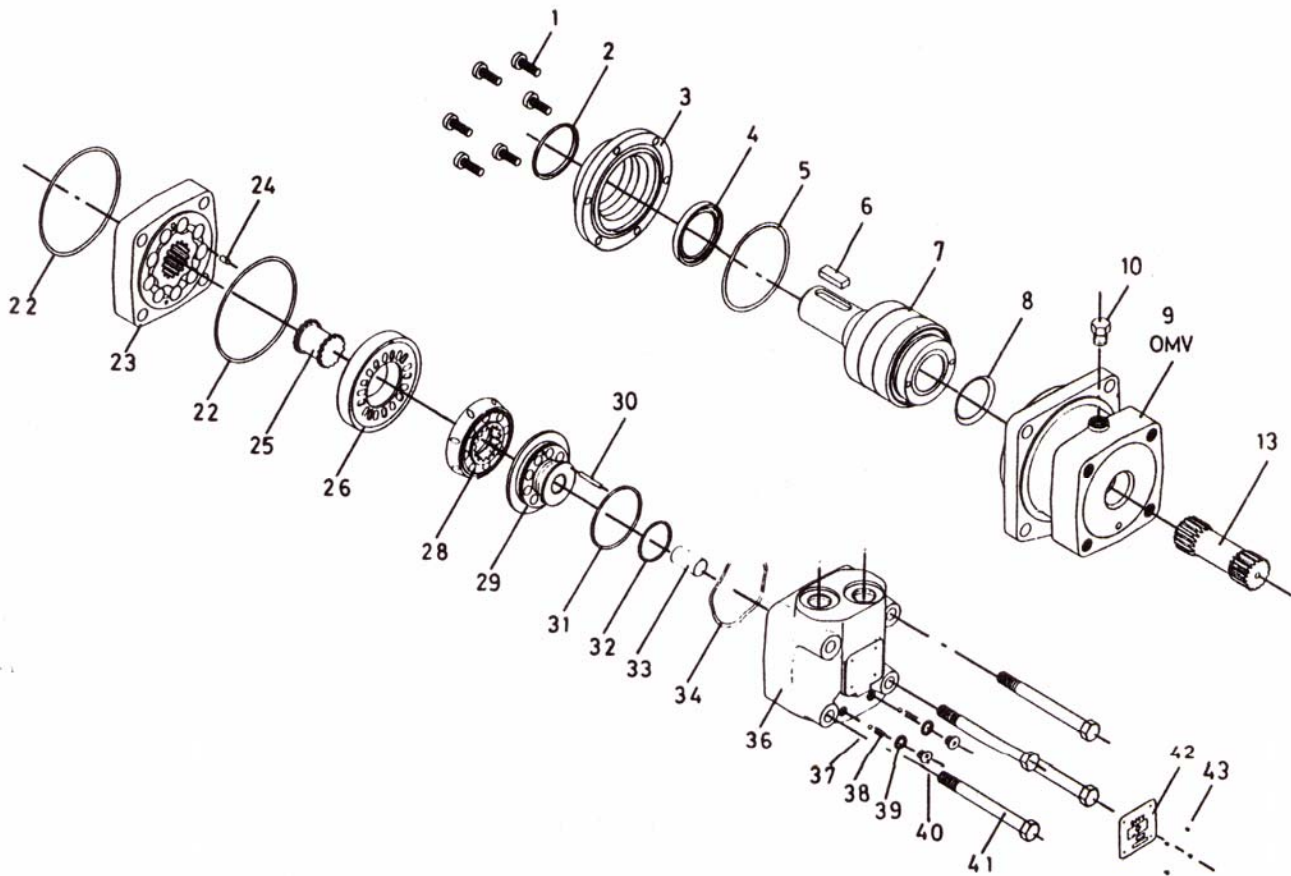
COLD PLANER PARTS LIST

ITEM	PART NO. QTY	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
82	52595	Axle, RH Rear	1	98	50A0516	HHCS 5/16 - 18x2	4
82	52596	Axle, RH Front	1	99	30C05	Nut, 5/16 - 18 Nylok	4
82	42016	Axle, LH Rear	1	100	54066	Cylinder, Tilt AP300 -AP600	1
82	42034	Axle, LH Front	1	100	55309	Cylinder, Tilt AP760 -AP1000	1
83	54092	Hub, Motor Carrier AP300-600	1	101	55279	Lever (BLB Type)	AR
83	55307	Hub, AP 300-600HD, 760, 1000	1	101	54184	Lever (Cable Type)	AR
84	42050	Bolt, M16x55mm C. Sink	4	102	55033	Seal Kit Cyl	AR
84	350E16060	CSCS HD/760-1000	4	103	54212	Access Door AP300	AR
85	314A16	Washer, Lock M16	4	103	54216	Access Door AP400/450	AR
86	330A16	Nut, M16	4	103	54218	Access Door AP600	AR
87	54227	Carriage Arm AP300	1	103	56639	Access Door AP760/800	AR
87	54230	Carriage Arm AP400/450	1	103	56640	Access Door AP1000	AR
87	54230HD	Carriage Arm AP400/450HD	1	103	56641	Access Door AP1200	AR
87	54232	Carriage Arm AP600	1	104	62G-0804	Self Tapping Screw	7
87	54232HD	Carriage Arm AP600HD	1	105	56003	Tilt Pointer 24" Crossslide	1
87	55317	Carriage Arm AP760/800	1	106	14A-04	Washer Flat 1/4"	1
88	55305	Carriage Arm AP1000	1	107	50A-0408	HHCS 1/4-20 x 1"	2
87	56642	Carriage Arm AP300HD W/95mm brg	1	108	56941	Tilt Pointer 26" Crossslide	1
87	56567	Carriage Arm AP400/450HD w/95mm brg	1	109	56940	Tilt Gauge/Step 26" Crossslide	1
87	56568	Carriage Arm AP600 HD w/95 mm brg	1	110	56926	Slid Plate 26" Crossslide	1
87	56569	Carriage Arm AP760/800 w/95 mm brg	1	111	56931	Wear Strip Upper Front	1
87	56570	Carriage Arm AP1000 w/95 mm brg	1	112	56928	Spacer Bar	2
87	56643	Carriage Arm AP1200 W/95mm brg	1	113	56929	Wear Strip Rear	2
88	52681	Parallel Key AP400 -600	1	114	56927	Clamp Bar	2
88	55542	Key AP450HD/600HD/760/800/1000	1	115	56930	Wear Strip Lower Front	1
89	55073	Motor, Hyd. 400	1	116	50A-08-20	HHCS 1/2-13 x 21/2"	10
89	52708	Motor, Hyd. 500	1				
89	52588	Motor, Hyd. 630	1				
89	54329	Motor, Hyd. 800	1				
89	52829	Seal Kit, Danfoss OMV	AR				
89	55511	Seal Kit, Eaton 6K	AR				
89	55384	Seal Kit, Adan MVA	AR				
89	55318	Motor, Eaton VIS/803	1				
89	55319	Motor, Eaton VIS/991	1				
89	55320	Motor, Eaton VIS/1245	1				
89	55321	Motor, Eaton VIS/1557	1				
89	55324	Seal Kit, VIS 45 Motor Front Only	AR				
89	55654	Seal Kit VIS 45 Motor Only (003) Series	AR				
89	57043	Seal Kit VIS 45 Motor Only (004) Series	AR				
90	40059	M16x50mm OMV (If Socket Head)	4				
90	50B-1014	HHCS 5/8-11x1 3/4	4				
90	50A1214	HHCS 3/4X1 3/4 VIS 45	4				
91	14A10	Washer, Lock 5/8" OMV	4				
91	14A12	Washer, Lock 3/4 VIS45 Motor	4				
92	42077	Seal Washer, Danfoss/Adan Only	2				
93	40040	Fitting Hyd., Danfoss/Adan Only	2				
93	111E1216	Fitting Hyd. VIS45	2				
94	111E-0606	Drain Port Fitting VIS	1				
95	111Q-0604	Drain Port Fitting Danfoss/Adan	1				
96	54047	Hose Clamp	4				
97	54048	Clamp Plate	4				

ADAN/DANFOSS OMV MOTOR PARTS LIST

ITEM	P/N	DESCRIPTION	QTY	ITEM	P/N	DESCRIPTION	QTY
1	52676	Screw M8x1x20mm	6	26	52694	Channel Plate	1 NSS
2	52677	Dust Seal Ring Danfoss	1	28	52695	Disc Valve	1 NSS
2	56412	Dust Seal Adan	1	29	52969	Balance Plate	1 NSS
3	52678	Front Cover Danfoss	1	29	52969	Balance Plate	1 NSS
3	56611	Front Cover Adan	1	30	52997	Guide Pin	1 NSS
4	52679	Shaft Seal Adan & Danfoss	1	31	52698	O Ring	1
5	52680	O Ring Danfoss	1	32	52699	O Ring	1
5	56532	O Ring Adan	1	33	52700	Spacer	1 NSS
6	52681	Parallel Key Danfoss & Adan	1	34	52701	Spring Washer	1 NSS
7	52682	Shaft Including Bearing	1	36	52702	Valve Housing	1 NSS
8	52683	Conical Seal Ring	1	37	52703	Ball	2 NSS
9	52684	Bearing Housing	1 NSS	38	52704	Springs	2 NSS
10	52685	Drain Plug Including O Ring	1 NSS	39	52705	Washers	2 NSS
13	52687	Cardan Shaft for 52708 500 mtr	1 NSS	40	52706	Plugs	2 NSS
13	55333	Cardan Shaft for 52588 630 mtr	1 NSS	41	52707	Cap Screw OMV500 & 630	4 NSS
13	55334	Cardan Shaft for 54329 800 mtr	1 NSS	41	55335	Cap Screw for 54329 800mtr	4 NSS
22	52689	O Ring	1	42	55254	Name Plate OMV	1 NSS
23	52690	Gearwheel set for 52588 630mtr	1 NSS	43	54930	Drive Screw	4 NSS
23	52691	Gearwheel set for 52708 500mtr	1 NSS	44	52829	Seal Kit Danfoss Includes Items 2,4,5,8,22,31,32	1
23	55332	Gearwheel set for 54329 800mtr	1 NSS	44	55384	Seal Kit Adan	1
24	52692	Guide Pin	1 NSS				
25	52693	Valve Drive	1 NSS				

NOTE: NSS- NOT SERVICED SEPARATELY

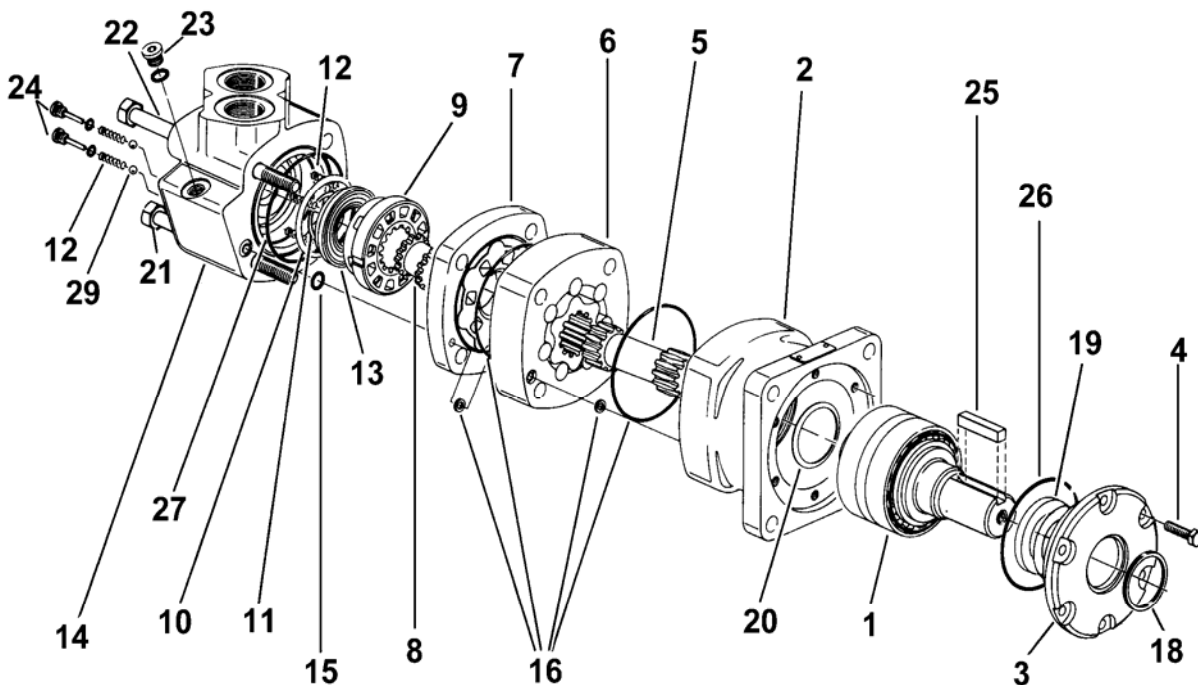


EATON 6K MOTOR PARTS LIST

ITEM	P/N	DESCRIPTION	QTY	ITEM	P/N	DESCRIPTION	QTY
1	55560	50MM Shaft & Bearing	1	15	55581	Seal	1
2	55561	Housing Bearing	1-NSS	16	55582	Seal	2
3	55562	Retainer Front	1-NSS	17	55583	Seal	2
4	50A-0508	Screw Cap	6-NSS	18	55584	Seal Dust	1
5	55563	Drive Main 390	1-NSS	19	55585	Seal Shaft	1
5	55564	Drive Main 490	1-NSS	20	55586	Seal Shaft Face	1
5	55565	Drive Main 625	1-NSS	21	55587	Screw Cap 390	2-NSS
5	55566	Drive Main 800	1-NSS	21	55588	Screw Cap 490	2-NSS
5	55567	Drive Main 985	1-NSS	21	55589	Screw Cap 625	2-NSS
6	55568	Geroler 390	1-NSS	21	55590	Screw Cap 800	2-NSS
6	55569	Geroler 490	1-NSS	21	55591	Screw Cap 985	2-NSS
6	55570	Geroler 625	1-NSS	22	55592	Screw Cap 390	2-NSS
6	55571	Geroler 800	1-NSS	22	55593	Screw Cap 490	2-NSS
6	55572	Geroler 985	1-NSS	22	55594	Screw Cap 625	2-NSS
7	55573	Plate Valve	1-NSS	22	55595	Screw Cap 800	2-NSS
8	55574	Drive Valve	1-NSS	22	55596	Screw Cap 985	2-NSS
9	55575	Valve	1-NSS	23	55599	Plug Assy	1-NSS
10	55576	Seal Face Outer	1-NSS	24	55600	Check Plug Assy	2-NSS
11	55577	Seal Face Inner	1-NSS	25	52681	Key	1-NSS
12	55578	Spring	3-NSS	26	55597	Seal	1
13	55579	Balance Ring w/Pins	1-NSS	27	55598	Seal	1
14	55580	Housing Valve	1-NSS		55511	Seal Kit (Not Shown)	AR
					Includes 15,16,17,18,19,20,26,27		

NOTE: NSS - NOT SERVICED SEPARATELY

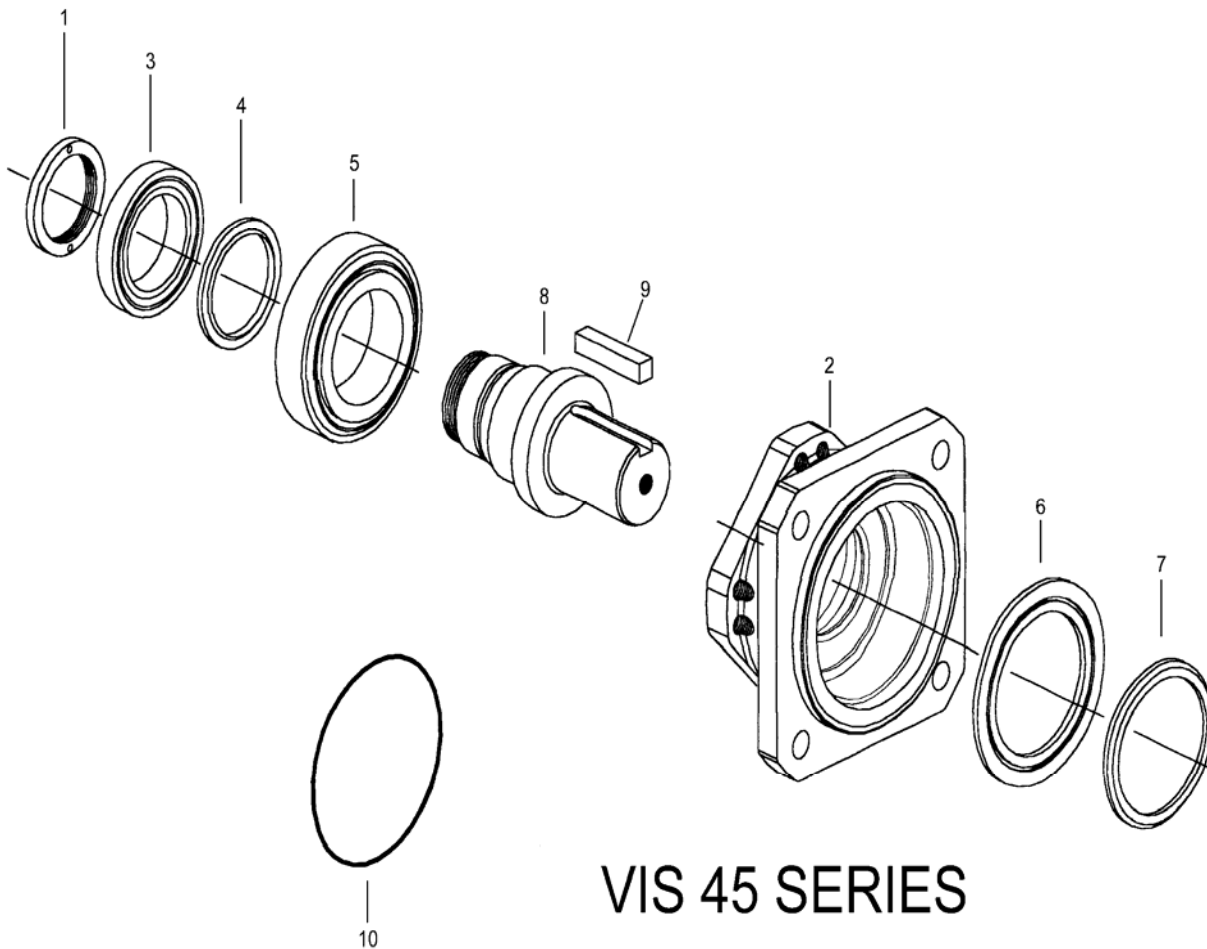
27 55598 Seal 1



EATON 6K MOTOR

EATON VIS 45 FRONT SECTION

ITEM	P/N	DESCRIPTION	QTY
1 *	55649	Ring Retaining	1
2	55895	Housing Bearing	1 NSS
3	55650	Bearing	1
4 *	SEE KIT	Seal	1
5	55651	Bearing	1
6	55652	Retainer Front	1
7 *	SEE KIT	Seal Protector	1
8	55653	Shaft	1
9	55542	Key .625 x .625 (not shown)	1
9	55896	Key .625 x .500 (not shown)	1
10 *	SEE KIT	O Ring	1
11	55324	Seal Kit Inc'd *	AR



EATON VIS 45 MOTOR PARTS PLATE

ITEM	P/N	DESCRIPTION	QTY	ITEM	P/N	DESCRIPTION	QTY
1	55770	Cap End	NSS 1	16	55789	Drive Shaft 1245CC	1-NSS
2*	55771	Seal Square	4	16	55790	Drive Shaft 1557CC	1-NSS
4*	55772	Ring Backup	1	17	55791	Screw Cap 800CC	9-NSS
5*	55773	O' Ring	1	17	55792	Screw Cap 991CC	9-NSS
7	55774	Balance Plate	NSS 1	17	55793	Screw Cap 1245CC	9-NSS
7	55775	Balance Plate	NSS 1	17	55794	Screw Cap 1557	9-NSS
8	55776	Plug/O' Ring	NSS 1	18	55795	Spring	2-NSS
9	55777	Shim	NSS AR	19	55796	Piston Shuttle	1-NSS
10	55778	Spring	NSS 1	20	55797	Poppet	2-NSS
11	55779	Poppet	NSS 1	21	55798	Sleeve Dashpot	2-NSS
12	55780	Geroler Assy 800CC	NSS 1	22	55799	Plug/ O Ring	1-NSS
12	55781	Geroler Assy 991CC	NSS 1	23	55800	Plug/ O Ring	1-NSS
12	55782	Geroler Assy 1245CC	NSS 1	27	55801	Ball	1-NSS
12	55783	Geroler Assy 1557CC	NSS 1	29	55802	Valve Plate	1-NSS
13	55784	Ball	NSS 2	30*	55803	O Ring	1
14	55785	Flange Mounting 8 Bo	NSS 1	31*	55804	Seal	1
15*	55786	Seal Face	1	32*	55805	Ring Backup	1
16	55787	Drive Shaft 800CC	NSS 1	33	Seal Kit	See Note Below	AR
16	55788	Drive Shaft 991CC	NSS 1	33	57043	Seal Kit See Note Below	AR
				34	56540	Ball	1-NSS

NOTE: NSS - NOT SERVICED SEPARATELY

Note: Item 33 Seal Kit

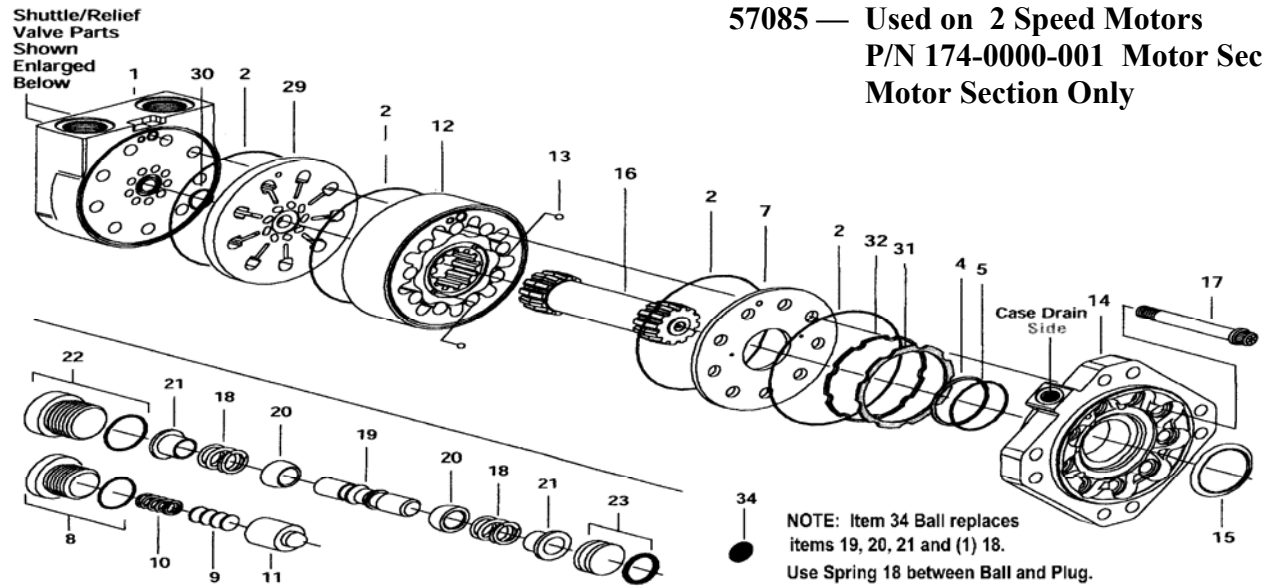
55654 — Used on Motors with P/N ending **003**
Motor Section Only.

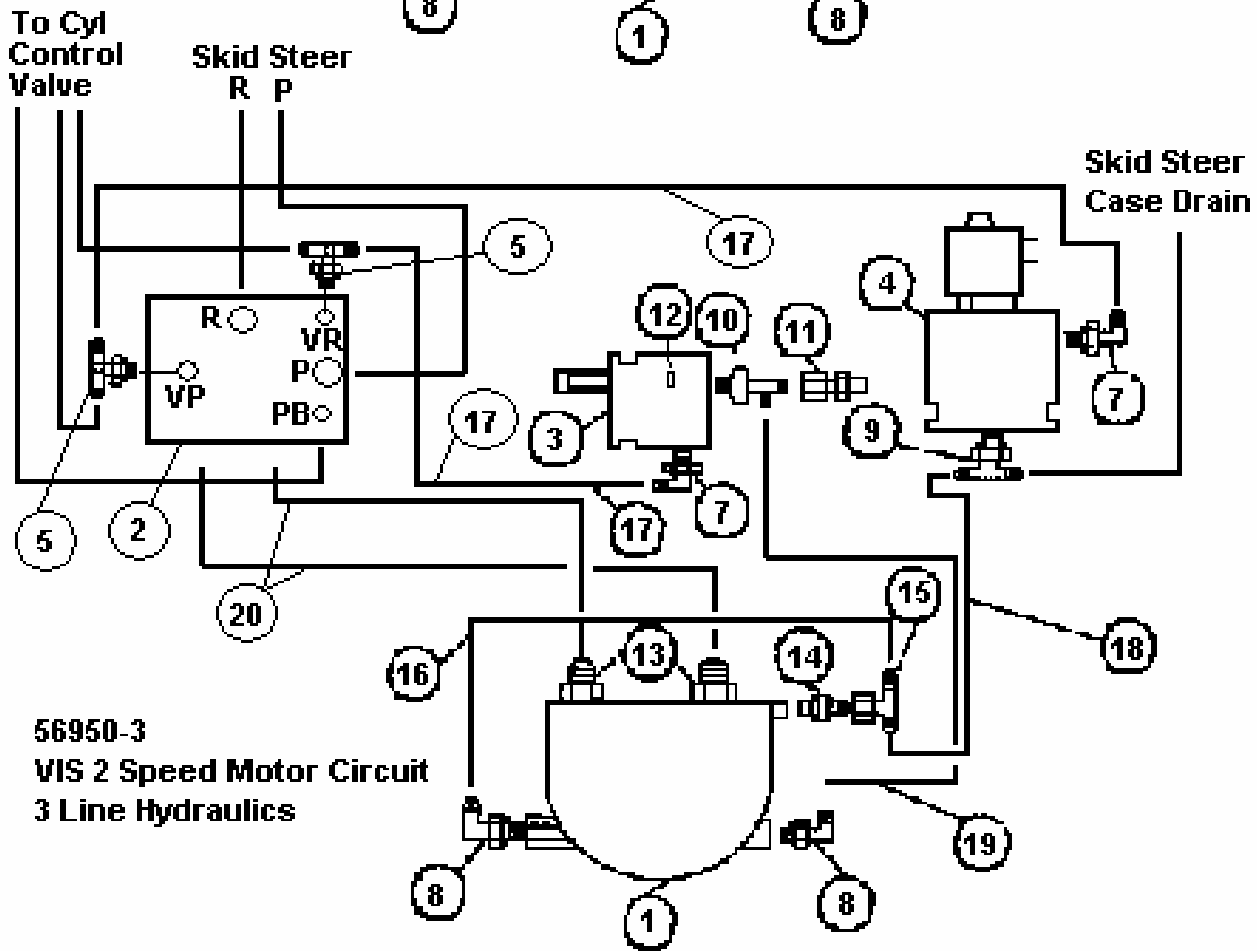
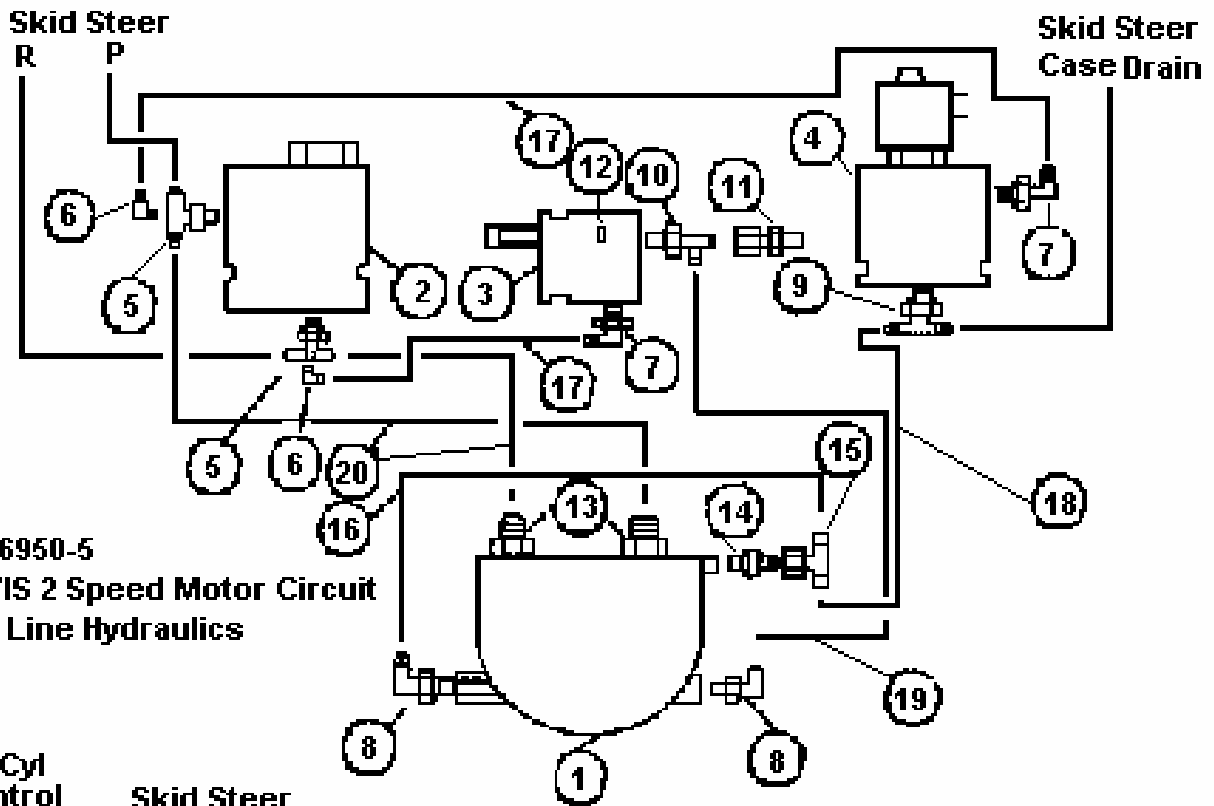
57043 — Used on Motors with P/N ending **004**
Motor Section Only

57085 — Used on 2 Speed Motors

P/N 174-0000-001 Motor Section only
Motor Section Only

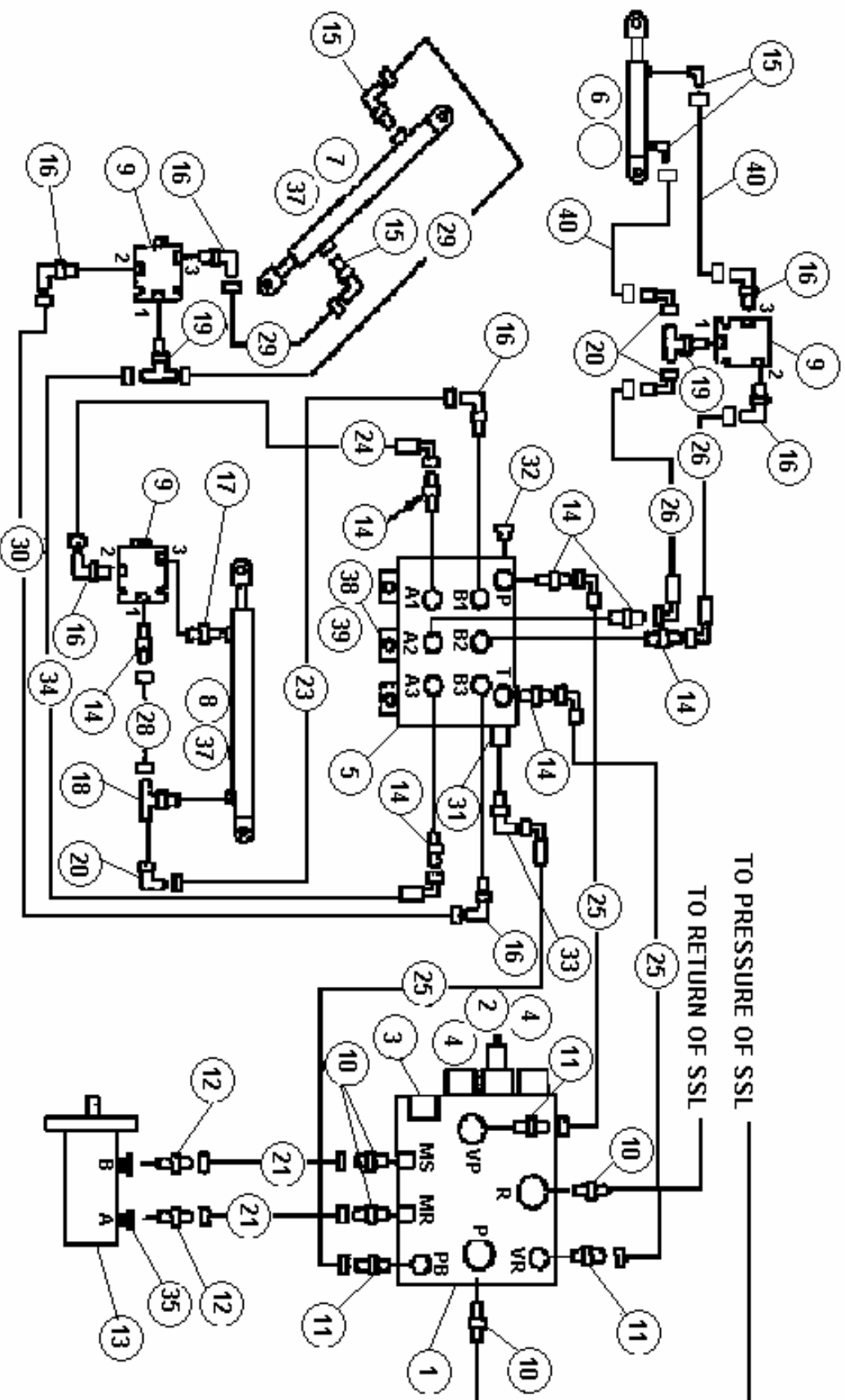
VIS 45 Series





56950 VIS 2 Speed Motor Circuit

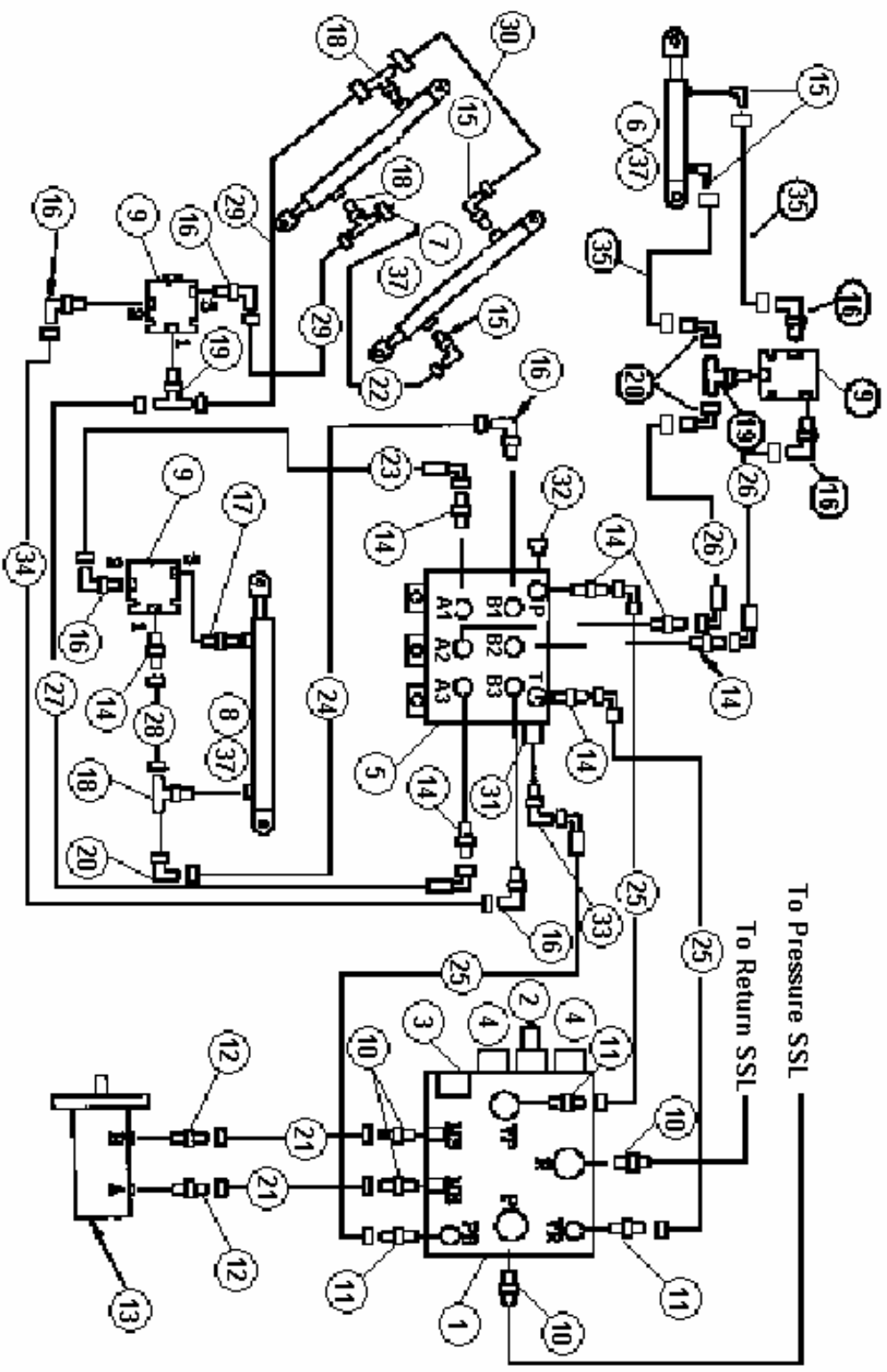
ITEM	P/N	DESCRIPTION	QTY
1	56738	MOTOR VIS 991 / 660 Two Speed	1
1	56737	MOTOR VIS 1245 / 830 Two Speed	1
1	57074	MOTOR VIS 803 / 535 Two Speed	1
2--5	55344	Overrunning Valve 5 Line Hyd System	1
2--3	55140	Sun Valve 3 Line Hyd System	1
3	56949	Relief Valve	1
4	55766	3 Way Valve	1
5--5	56948	Modified Tee 5 Line Hyd System	2
5--3	111C-0404	Tee JIC/SAE 3 Line Hyd System	2
6	110R-0404	Adap 90* JICM/NPTM	2
7	111B-0406	Adap 90* JICM/SAEM	2
8	111B-0404	Adap 90* JICM/SAEM	2
9	111C-0604	Adap Tee JICM/SAEM	1
10	111D-0604	Adap Tee JICM/SAEM	1
11	112F-0606	Adap Str JICFS/SAEM	1
12	57183	Orifice .020 (Installed Under Relief Cartridge)	1
13	111E-1216	Adap Str JICFm/SAEM	2
14	111E-0406	Adap Str JICM/SAEM	1
15	112D-0606	Adap Tee JICM/JICFS	1
16	56945	Hose 3/8 x 15 90* -STR	1
17	54026	Hose 1/4 x 15 STR-STR	2
18	56946	Hose 3/8 x 52 90*- STR	1
19	56947	Hose 1/4 x 60 #4 90* x # 6 STR	1
20	55539	Hose 3/4 x 52 STR-STR	2
21	57085	Seal Kit Motor and Front Sections	AR



55508 PRIORITY HYD SCHEMATIC

55508 PRIORITY HYDRAULIC SCHEMATIC PARTS LIST FOR AP300 THRU AP600 USED ON S/N 1628 & UP

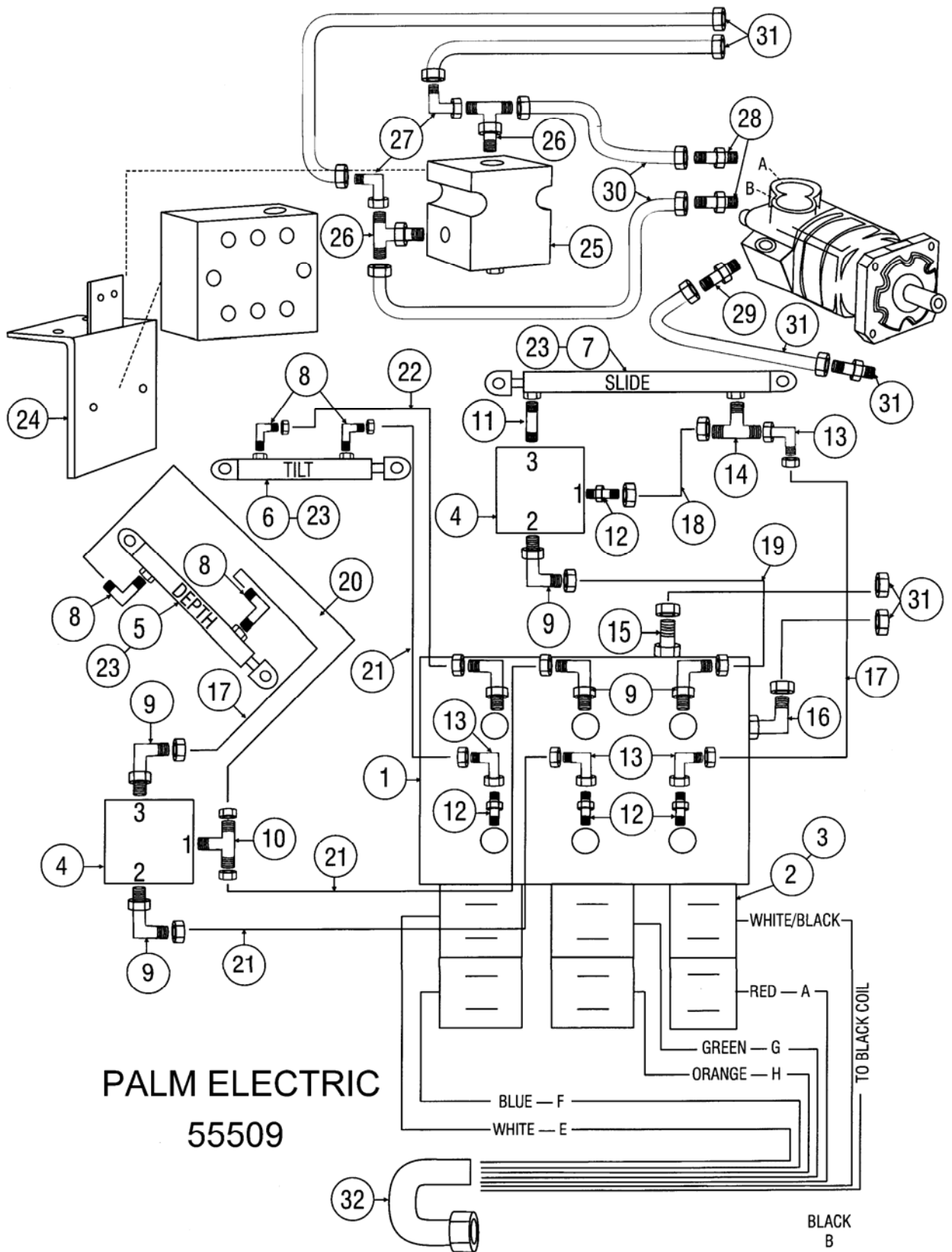
ITEM	PART NO.	PART NO.	DESCRIPTION	QTY
1	55140		Valve Assy inc Item 1,2,3,4,	1
1	55229		Valve Block Only	1
1	55277		Seal Kit for 55140 Valve	AR
2	55232		Priority Valve 2 gpm	1
3	55231		Check Valve PB	1
4	55230		Check Valve Anti Cav & return	2
5	55227		BLB Spool Valve	1
5	55928		Spool Seal BLB	6
6	54066		Tilt Cylinder	1
7	55183		Depth Cylinder	1
8	54064		Slide Cylinder	1
9	52981		Lock Valve	2
9	54946		Seal Kit 52981 Valve	AR
10	111E1212		Adapter	4
11	111E0404		Adapter	3
12	40040		Hyd Adapter JIC/BSPP OMV	2
13	See Spec		Motor	1
14	111E-0406		Hyd adapter JIC/SAE Str	7
15	110R0404		Hyd Adapter JIC/NPT 90 Deg	4
16	111B0406		Hyd Adapter JIC/SAE 90 Deg	5
17	111K0604		Hyd Adapter SAE/NPT Str	1
18	110Y0404		Hyd Adapter JIC/NPT tee	1
19	111C-0406		Hyd Adapter JIC/SAE tee	1
20	112B0404		Hyd Adapter JIC/JIC	2
	3000 psi			
21	54723	55329	Hose Motor 3/4x52	2
23	55176	55904	Hose Slide Base End 1/4x64"	1
24	55560	55905	Hose Slide Rod End 1/4x90"	1
25	57026	55903	Hose VP-P/T-VR PB 1/4x63"	3
26	55173	55290	Hose Tilt Cyl Base 1/4x112"	1
27	55175	55293	Hose Tilt Cyl Rod Depth Tee 1/4x106"	2
28	54114	55326	Hose Slide Pilot 1/4x25"	1
29	54026	55908	Hose Depth Rod & Base 1/4x15"	2
30	57033	55296	Hose Depth Lock 90 Deg 1/4x112"	1
31	55259		Power Beyond Sleeve	1
32	111HH08		SAE Plug Socket Head	1
33	111B0408		Hyd Adapter 90 Deg JIC/SAE	1
34	55173	55293	Hose Depth Lock Tee 1/4x112"	1
35	42077		Bonded Seal OMV Motor	2
37	55033		Seal Kit Cylinder	AR
38	55612		Pivot Box	AR
39	55279		Lever	AR
40	54055		Hose Tilt rod & Base	2



55508-1000 PRIORITY HYDRAULIC SCHEMATIC FOR AP760 & AP 1000

**55508-1000 PRIORITY HYDRAULIC SCHMATIC PARTS LIST
FOR AP 760,800 & 1000**

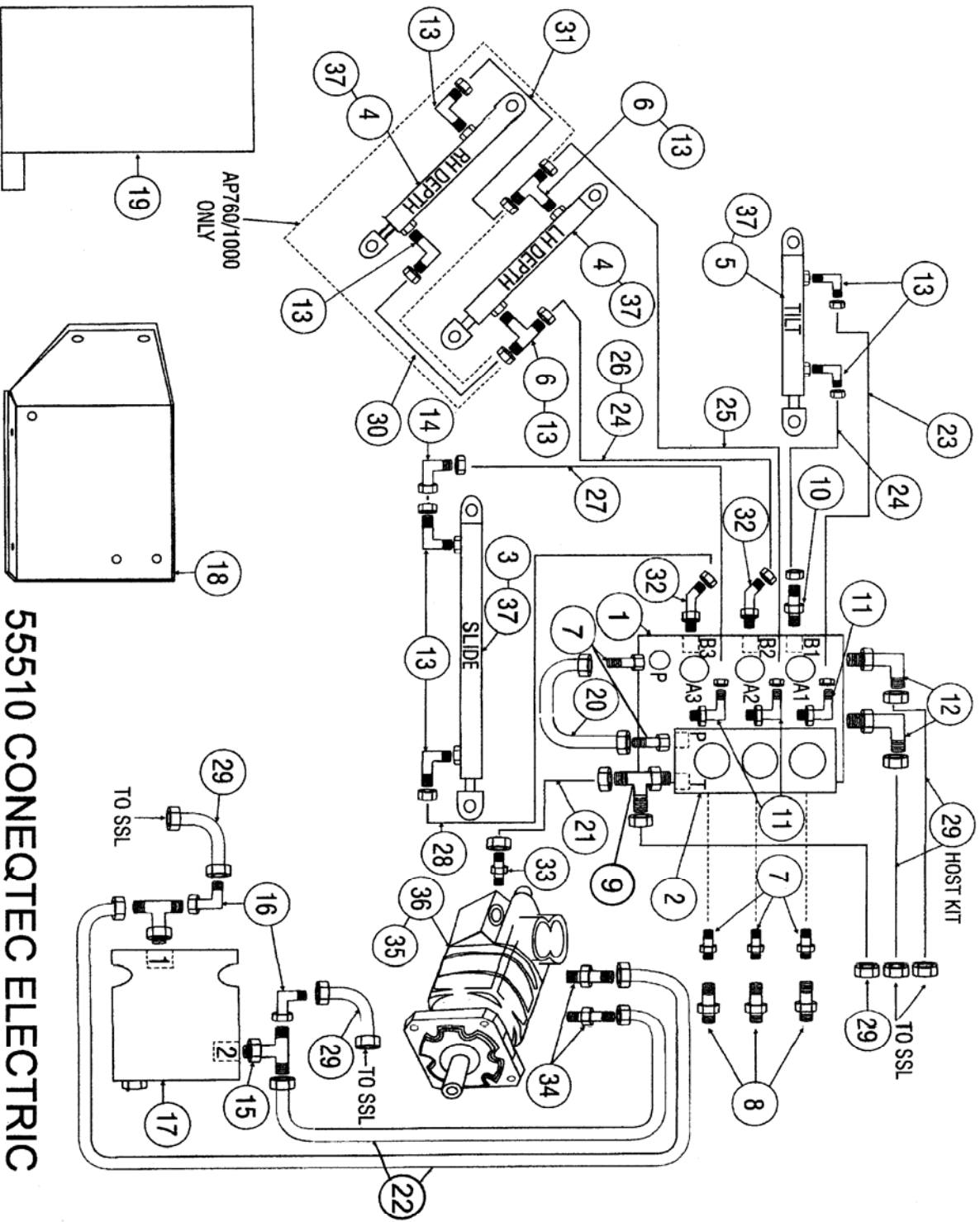
ITEM	PART NUMBER	DESCRIPTION	QTY
1	55140	Valbve Assy Inc's 1 thru 4	1
1	55229	Valve Block Only	1
2	55232	Priority Valve 2 GPM	1
3	55231	Check Valve PB	1
4	55230	Check Valve Anti Cav and Return	2
5	55227	BLB Spool Valve	1
6	55309	Tilt Cylinder	1
7	55183	Depth Cylinder	2
8	55064	Slide Cylinder Rod Type 24' Crossslide	1
8	56745	Slide Cylinder 26" Crossslide	1
9	52981	Lock Valve	3
9	54946	Seal Kit 52981 Lock Valve	AR
10	111E-1212	Adapter JIC/SAE Str	4
11	111E-0404	Adapter JIC/SAE Str	3
12	111E-1216	Adapter JIC/SAE Str Vis 45	2
13	See Spec	Motor Eaton VIS 45	1
14	111E-0406	Adapter JIC/SAE Str	6
15	110R-0404	Adapter JIC/NPT 90 Deg	3
16	111B-0406	Adapter JIC/SAE 90 Deg	7
17	111K-0406	Adapter SAE/NPT Str	1
18	110Y-0404	Adapter JIC/NPT Tee	3
19	111C-0406	Adapter JIC/SAE Tee	2
20	112B-0404	Adapter JIC/JIC	3
21	55539	Hose Motor 5000 PSI	2
21	54723	Hose Motor 3000 PSI	2
22	54114	Hose Depth Rod Jumper 1/4x25" AP 760	1
22	55482	Hose Depth Rod Jumper 1/4x35" AP 1000	1
23	55560	Hose Slide Rod ock 90 Deg 1/4x81"	1
24	55176	Hose Slide Base Lock Tee 1/4x63"	1
25	55178	Hose VP-P,VR-T, PB-PB 1/4x51"	3
26	55273	Hose Tilt Rod & Base Lock Valve 1/4x1"	2
27	55175	Hose Depth Tee 1/4x106"	1
28	54114	Hose Slide Pilot 1/4x25"	1
29	54026	Hose Depth Rod & Base to Lock 1/4x15"	1
30	55482	Hose Depth Base Jumper 1/4x35 or 760	1
30	54028	Hose Depth Base Jumper 1/4x51" for 1000	1
31	55259	Power Beyond Sleeve	1
32	11H-08	SAE Plug	1
33	111B-0408	Adapter JIC/SAE 90 Deg	1
34	55174	Hose Depth Cyl Lock 90 Deg 1/4x106	1
35	54055	Hose Tilt Rod and Base 1/4x21"	2
37	55033	Seal Kit Hyd Cyl	AR



PALM ELECTRIC CONTROLS

55509

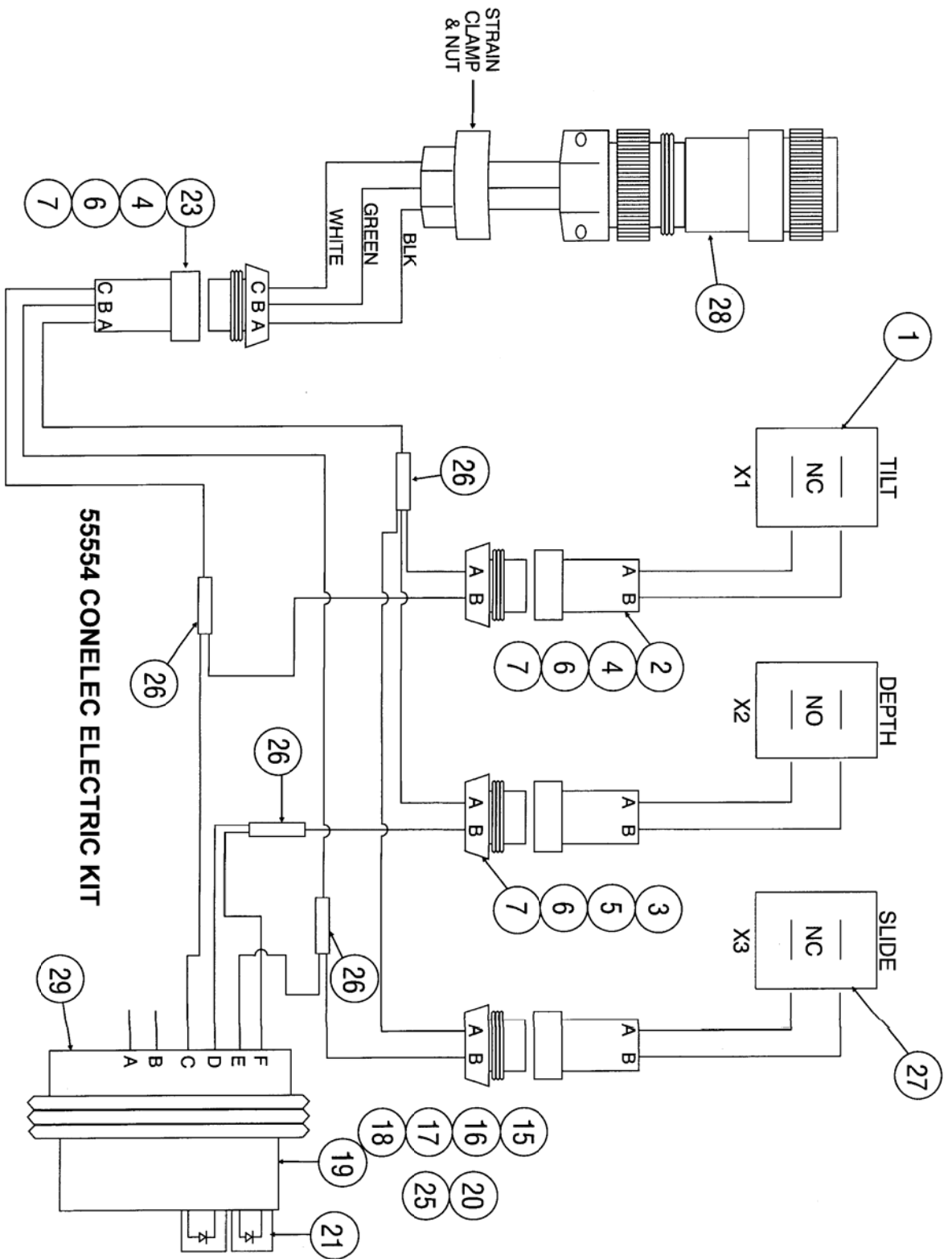
<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	55211	Valve Assembly	1
1	56046	Seal Kit 55211 Valve	AR
2	55420	Valve Cartridge	3
3	55497	Coil Assembly	6
4	52981	Lock Valve	2
4	54946	Seal Kit 52981 Valve	AR
5	55183	Cylinder Depth	1
6	54066	Cylinder Tilt	1
7	54064	Cylinder Slide	1
8	110R-0404	Adapter 90o JICM/NPTM	4
9	111B-0406	Adapter 90o JICM/SAEM	6
10	111C-0406	Adapter Tee JICM/SAEM	1
11	111K-0604	Adapter Str SAEM/NPTM	1
12	111E-0406	Adapter Str JICM/SAEM	4
13	112B-0404	Adapter 90o JICFS/JICM	4
14	110Y-0404	Adapter Tee JICM/NPTM	1
15	111E-0612	Adapter Str JICM/SAEM	1
16	111B-0608	Adapter 90o JICM/SAEM	1
17	54026	Hose 1/4X15" Slide Base/Depth Rod	2
18	54114	Hose 1/4X25" Slide Pivot	1
19	55482	Hose 1/4X35" Slide Rod	1
20	54055	Hose 1/4X21" Depth Base	1
21	54028	Hose 1/4X51" Tilt Rod/Depth Lock	3
22	54029	Hose 1/4X55" Tilt Base	1
23	55033	Seal Kit Hydraulic Cylinder	AR
24	55342	Bracket Valve	1
25	55344	Valve Overrunning	1
25	54545	Cartridge for 55344	1
25	56267	Seal Kit for 55344	AR
26	111C-1212	Adapter Tee JICM/SAEM	2
27	112B-1212	Adapter 90o JICFS/JICM	2
28	111E-1216	Adapter Str JICM/SAEM Eaton	2
28	40040	Adapter Str Jic BSPP - Danfoss	2
28	42077	Seal BSPP#16 - Danfoss	2
29	111E-0604	Adapter Str JICM/SAEM Eaton 6K	1
29	111E-0606	Adapter Str JICM/SAEM-Eaton VIS	1
29	112B-0606	Adapter 90 Deg JICM/JICF Eaton VIS	1
29	111Q-0604	Adapter Str JICM/BSPP Danfoss	1
29	55498	Seal BSPP #4-Danfoss	1
30	54723	Hose 3/4X52" Valve to Motor	2
31		See Host Kit	
32	55212	Electric Cord Bobcat	1
33	55350	Electric Cord for 6/8 Button Kit	1
34	56048	Valve Cartridge Flow (Not Shown)	1



55510 CONEQTEC ELECTRIC

CONEQTEC ELECTRIC PARTS LIST**55510**

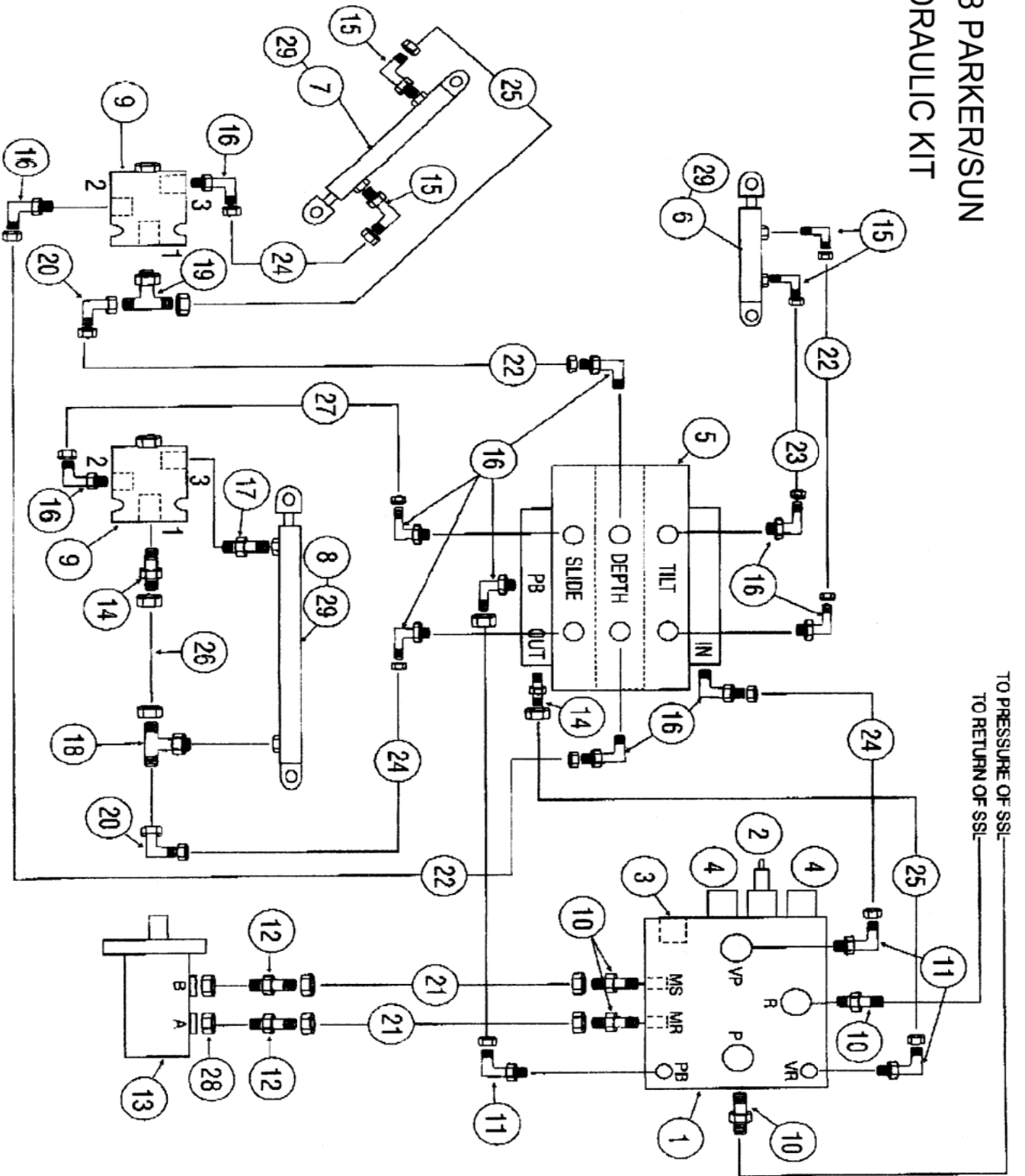
ITEM	P/N	DESCRIPTION	QTY
1	55532	Coneqtec Logic Valve	1
1*	55756	Seal Kit Logic Valve 1 Each	AR
2	55533	Coneqtec Pilot Valve	1
2	55555	Valve Cartridge NC	2
2	55558	Valve Cartridge NO	1
2	55611	Coil & Connector	3
2*	55754	Seal Kit Solenoid Valve 1 Each	AR
3	54064	Slide Cylinder	1
4	55183	Depth Cylinder 11 5/8" AP760/1000	2
4	55183	Depth Cylinder 115/8" AP300-600	1
5	55309	Tilt Cylinder 2" AP 760/1000	1
5	54066	Tilt Cylinder 41/2" AP 300-600	1
6	110Y-0404	Adapter Tee JICCM/NPTM-AP760/1000	2
7	111E-0404	Adapter Str JICM/SAEM	5
8	112F-0404	Adapter Str JICFS/SAEM	3
9	111D-0606	Adapter Tee JICM/SAEM	1
10	111E-0406	Adapter Str JICM/SAEM	1
11	111B-0406	Adapter 90o JICM/SAEM	3
12	111B-0408	Adapter 90o JICM/SAEM	2
13	110R-0404	Adapter 90o JICM/NPTM	6
14	112B-0404	Adapter 90o JICFS/JICM	1
15	111C-1212	Adapter 90o JICM/SAEM	2
16	112B-1212	Adapter 90o JICFS/JICM	2
17	55344	Overrunning Valve-3300 PSI	1
17	55344S	Overrunning Valve-5000 PSI	1
17	54545	Valve Cartridge Only	1
18	55503	Valve Mount	1
19	55504	Valve Cover	1
20	55530	Tube 1/4" Pilot (Up to S/N 1442)	1
20	55762	Tube 1/4" Pilot (S/N 1442 and up)	1
21	55534	Hose 3/8"X52" Case Drain to Motor	1
22	55539	Hose 3/4"X52" Valve/Motor 5000PSI	2
22	54723	Hose 3/4" X52" Valve/Motor 3000PSI	2
23	55477	Hose 1/4"X63" Tilt Base	1
24	54028	Hose 1/4"X51" Tilt Rod/Depth Rod AP300-600	2
25	55477	Hose 1/4"X 63" Depth Base AP760/1000	1
25	55608	Hose 1/4"X72" Depth Base AP300-600	1
26	55029	Hose 1/4"X 55" Depth Rod AP760/1000	1
27	54055	Hose 1/4"X21" Slide Base	1
28	55482	Hose 1/4"X35" Slide Rod	1
29		See Host Kit	
30	55482	Hose 1/4"X 35" Depth Rod Jumper 760/1000	1
31	54028	Hose 1/4"X 51" Depth Base Jumper 760/1000	1
32	111A-0406	Adapter 45o JICM/SAEM	2
33	111E-0604	Adapter Str JICM/SAEM Eaton 6K	1
33	111E-0606	Adapter Str JICM/SAEM VIS	1
33	111Q-0604	Adapter Str JICM/BSPPM Danfoss	1
33	55498	Seal BSPP #4 Danfoss	1
34	111E-1216	Adapter Str JICM/SAEM Eaton	2
34	40040	Adapter Str JICM/BSPPM Danfoss	2
34	42077	Seal BSPP #16	2
35	See Spec	Motor	1
36*	56047	Seal Kit Complete Coneqtec	1
	55898	Depth Lock Kit (Not Shown)	AR
	55201	Tilt Lock Kit (Not Shown)	AR



55554 CONELEC ELECTRIC WIRING KIT

<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	55611	Coil & Connector	3
2	38200	Body Male 2 Cond	3
3	38201	Body Female 2 Cond	3
4	31076	Terminal Male	6
5	31077	Terminal Female	6
6	39006	Seal Red	12
7	38202	TPA 2 Cond	6
15	38076	Body Diode Pack	1
16	31075	Terminal Female	4
17	39000	Seal Green	4
18	39010	Plug Green	2
19	38077	TPA 6 Cond	1
20	38078	Cap Diode Body (not shown)	1
21	46880	Diode	2
23	38204	Body Male 3 Cond	1
24	131C-04	Connector Female 10 Ga 1/4" Spade	1
25	38082	Clip Tree Mount (not shown)	2
26	133B-00	Connector Butt 14 Ga	1
27	55611	Coil & Connector Assy	3
28	55556	Cable Assy Case Rectangular Plug	1
28	56018	Cable Assy Case Round Plug	1
28	55852	Cable Assy Cat 248	1
28	55691	Cable Assy Switchbox	1
28	56134	Cable Assy Case Round & Rect Plug	1
29	55557	Diode Wiring Assy (Inc 15-19,21,23)	1

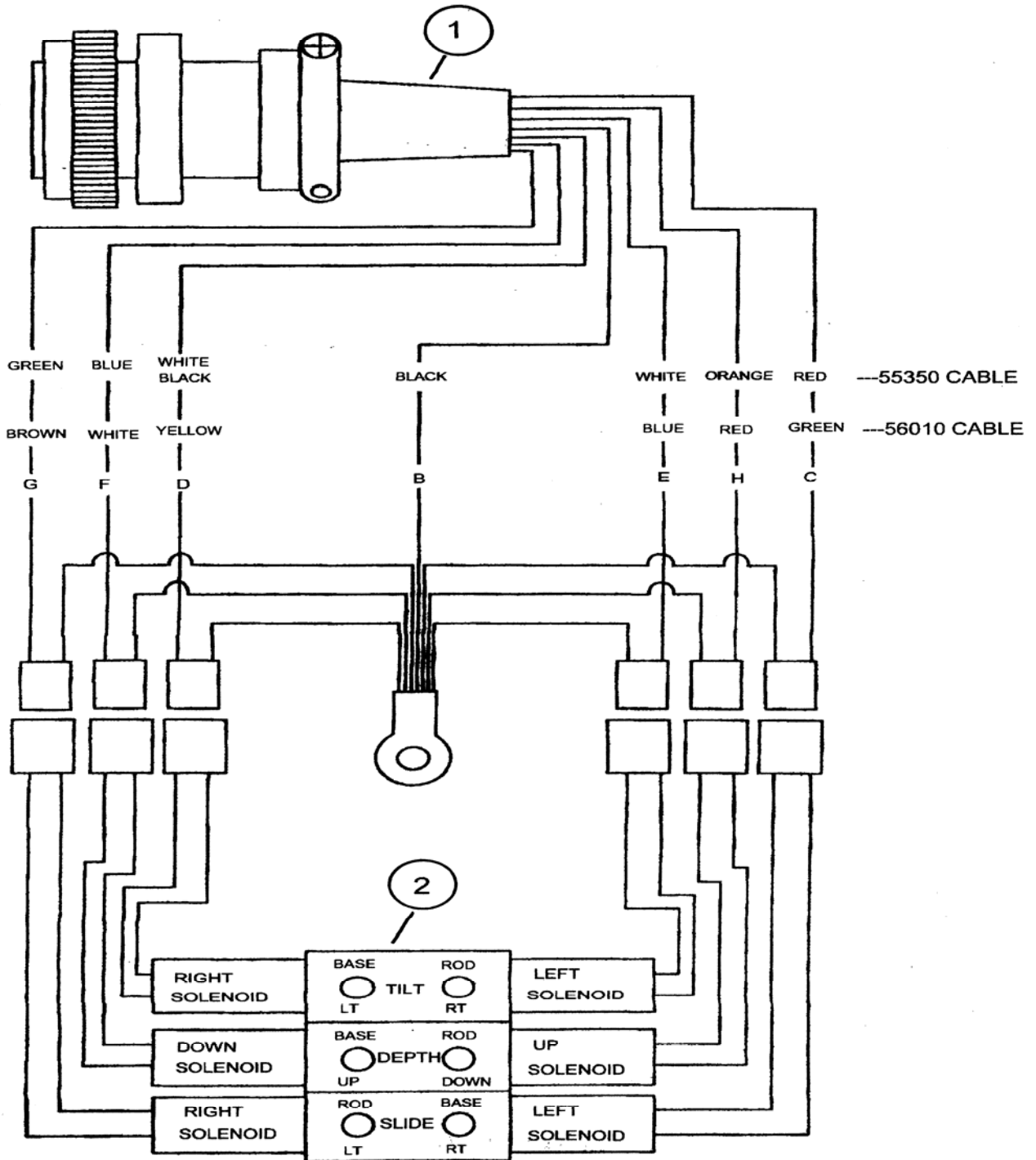
55728 PARKER/SUN HYDRAULIC KIT



55728 PARKER/SUN HYDRAULIC KIT

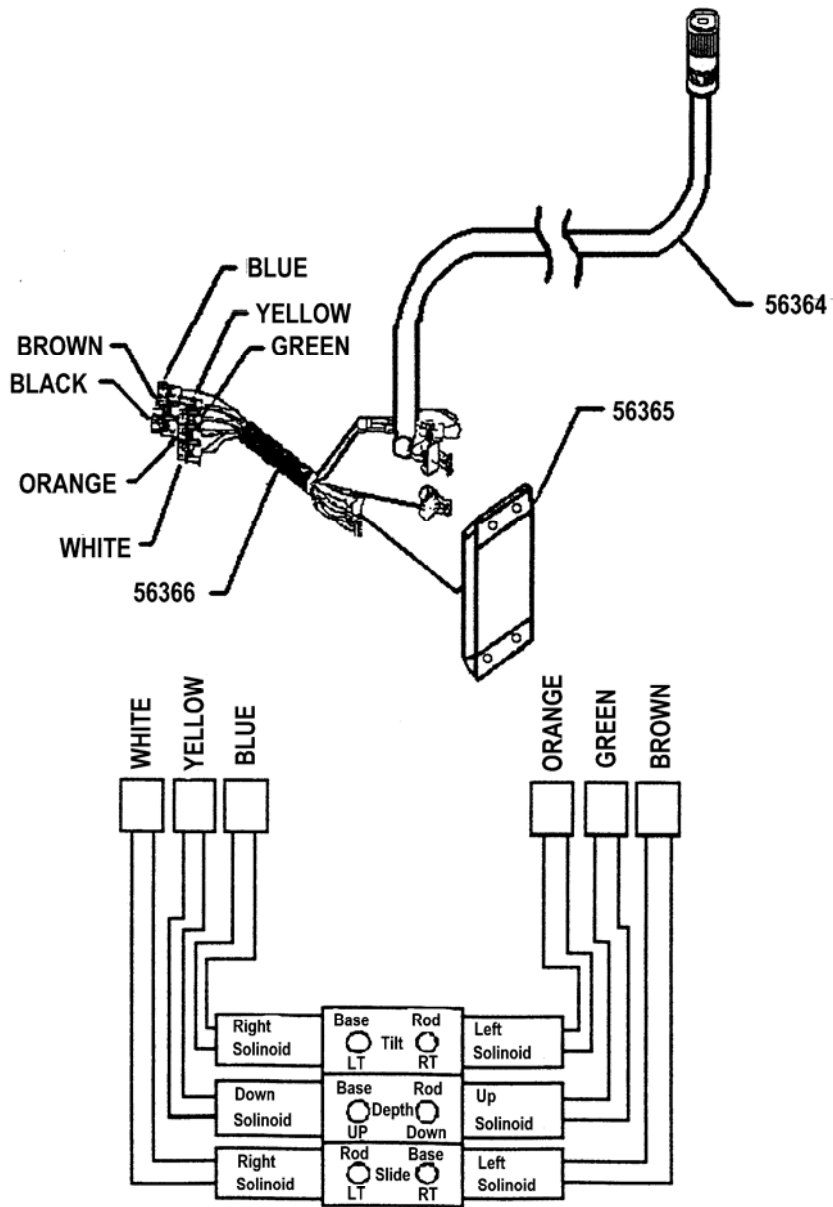
ITEM	PN	DESCRIPTION	QTY
1	55140	Sun Valve Assy Incs 2,3,4	1
1	55277	Seal Kit 55140 Valve	AR
2	55232	Valve Priority Flow	1
3	55231	Valve Check PB	1
4	55230	Valve Check	2
5	55720	Valve Parker	1
5	56065	Coil Parker MV5 Series Valve	AR
5	56066	Valve Spool Section Parker MV5 Valve	AR
5	56052	Seal Kit Parker Valve	AR
6	54066	Tilt Cylinder	1
7	55183	Depth Cylinder	1
8	54064	Slide Cylinder	1
9	52981	Lock Valve	2
9	54946	Seal Kit 52981	AR
10	111E-1212	Adapter	4
11	111B-0404	Adapter	3
12	40040	Motor Fitting	2
13	See Spec	Motor	1
14	111E-0406	Adapter	2
15	110R-0404	Adapter	4
16	111B-0406	Adapter	11
17	111K-0604	Adapter	1
18	110Y-0404	Adapter	1
19	111C-0406	Adapter	1
20	112B-0404	Adapter	2
21	54723	Hose 3/4x52	2
22	54028	Hose 1/4x51	3
23	54029	Hose 1/4x55	1
24	54026	Hose 1/4x15	2
25	54055	Hose 1/4x21	2
26	54114	Hose 1/4x25	2
27	55482	Hose 1/4x35	1
28	42077	Seal BSPP	2
29	55033	Seal Kit Cylinder	AR

**ELECTRIC SCHEMATIC FOR
PARKER/SUN
HYDRAULIC CONTROLS**

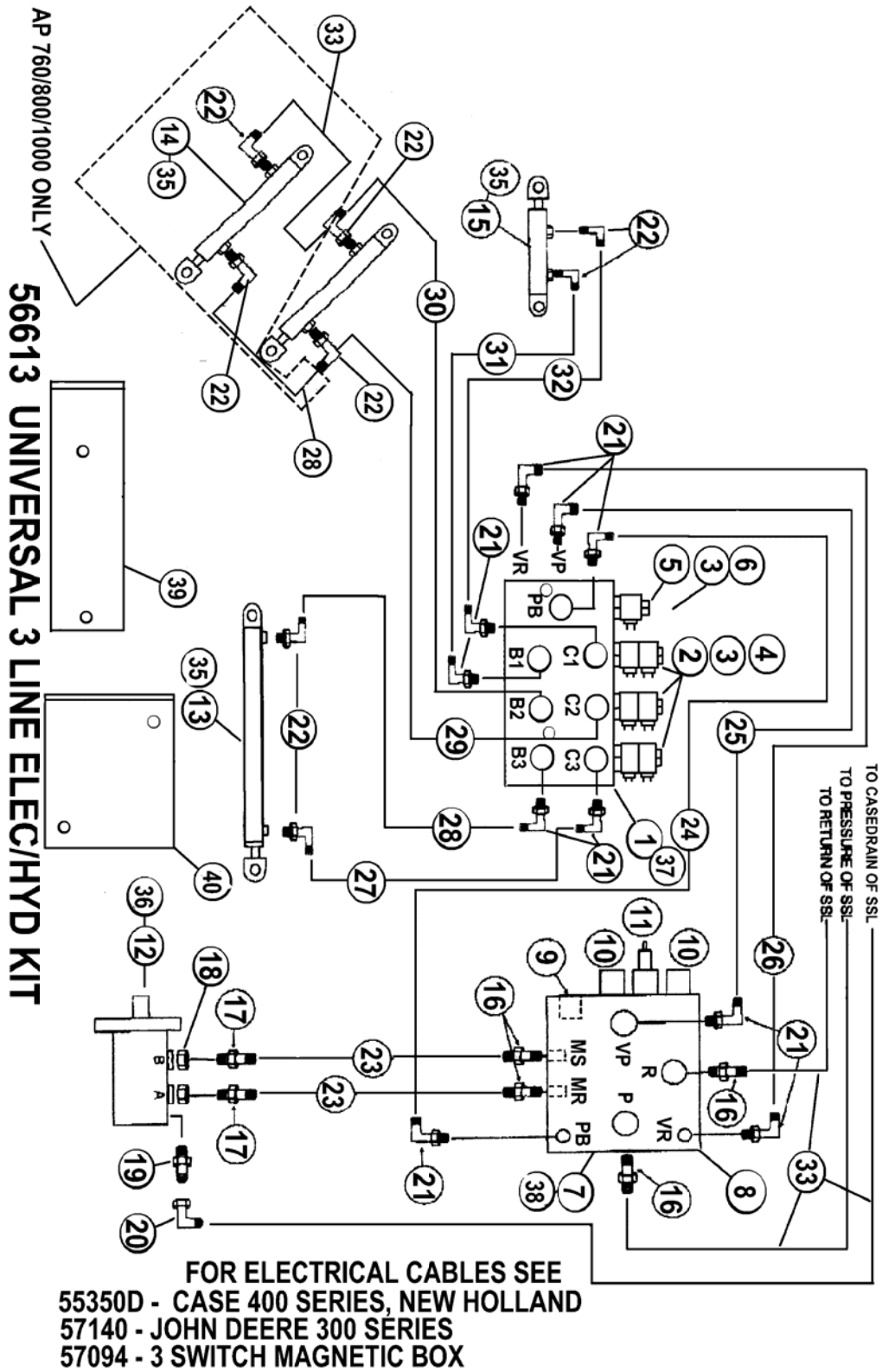


ITEM	P/N	DESCRIPTION	QTY
1	55350/56010	Cable Assembly	1
2	55719	Valve & Connector Assembly	1

**ELECTRIC SCHEMATIC FOR
PARKER/SUN
HYDRAULIC CONTROLS
BOBCAT WITH ACD**

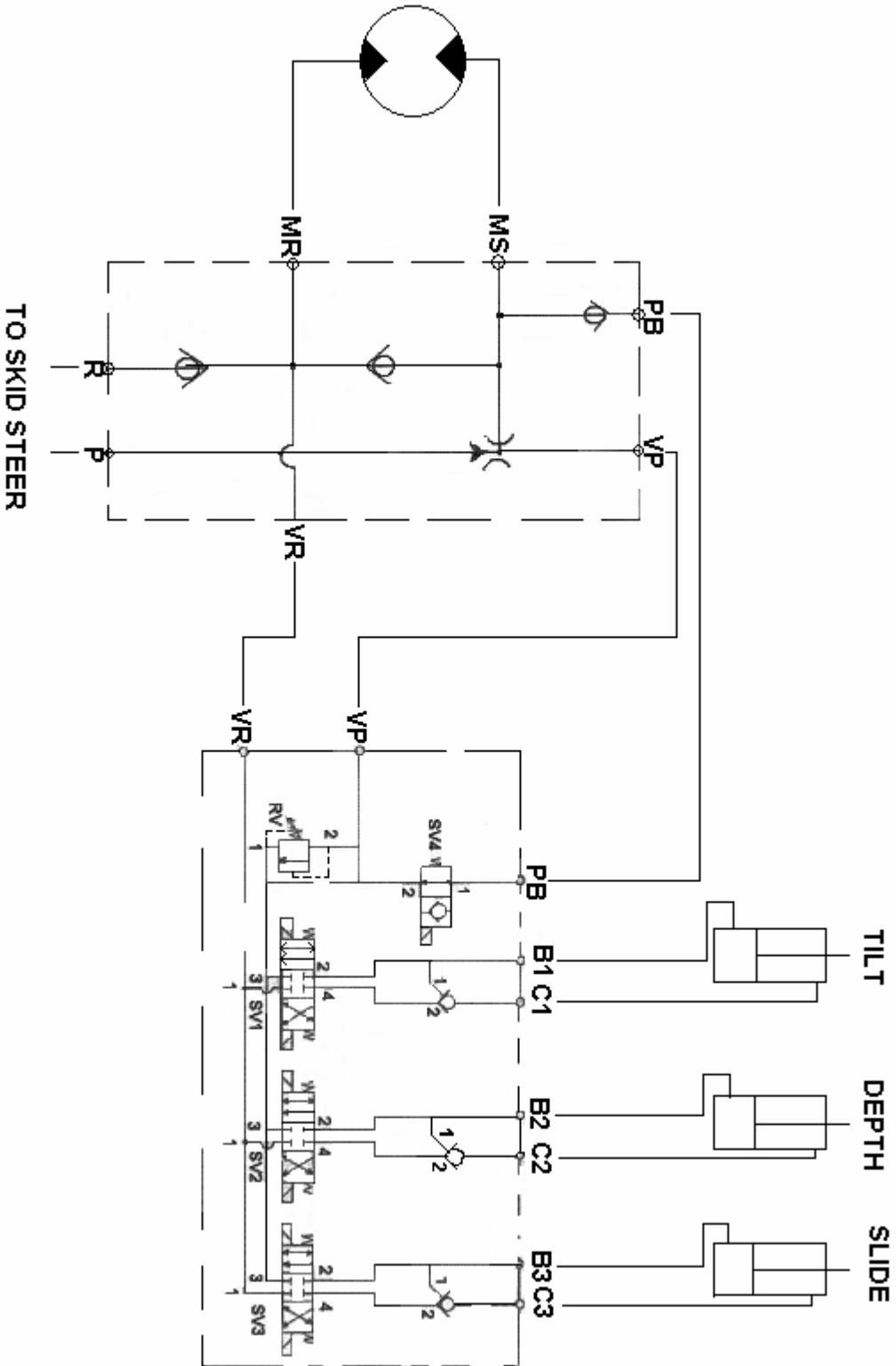


55719 Valve & Connector Assy

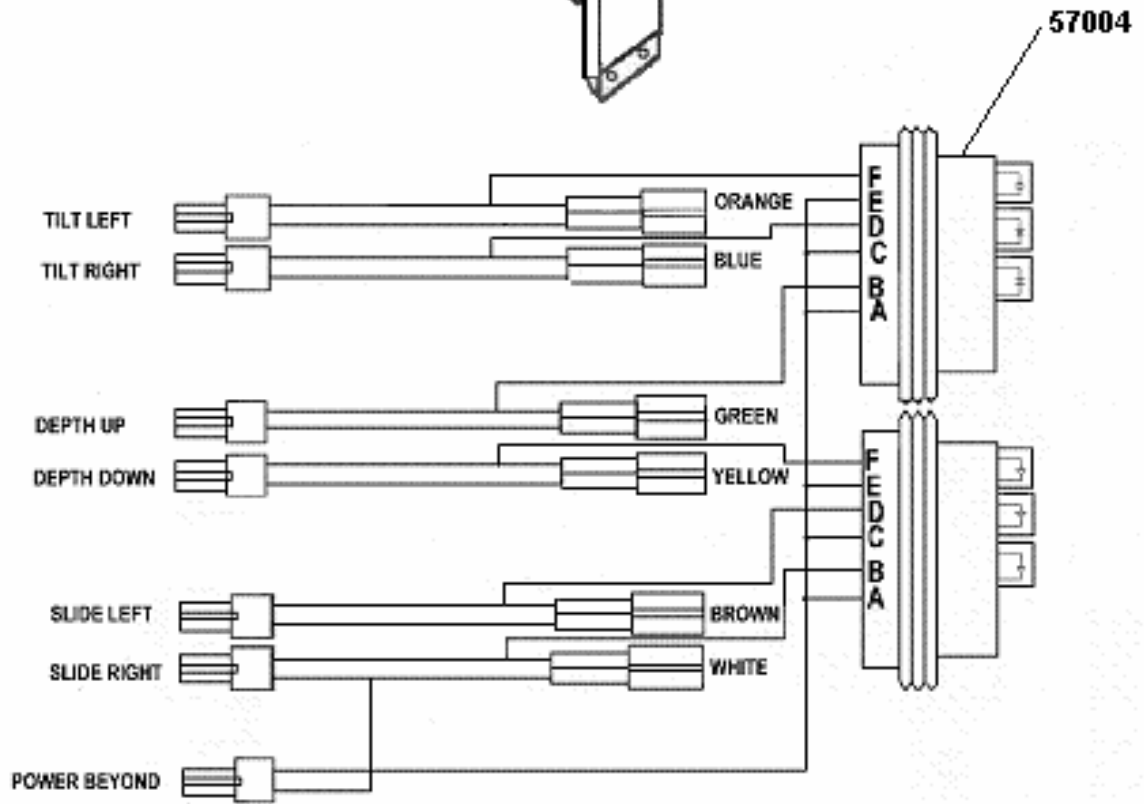
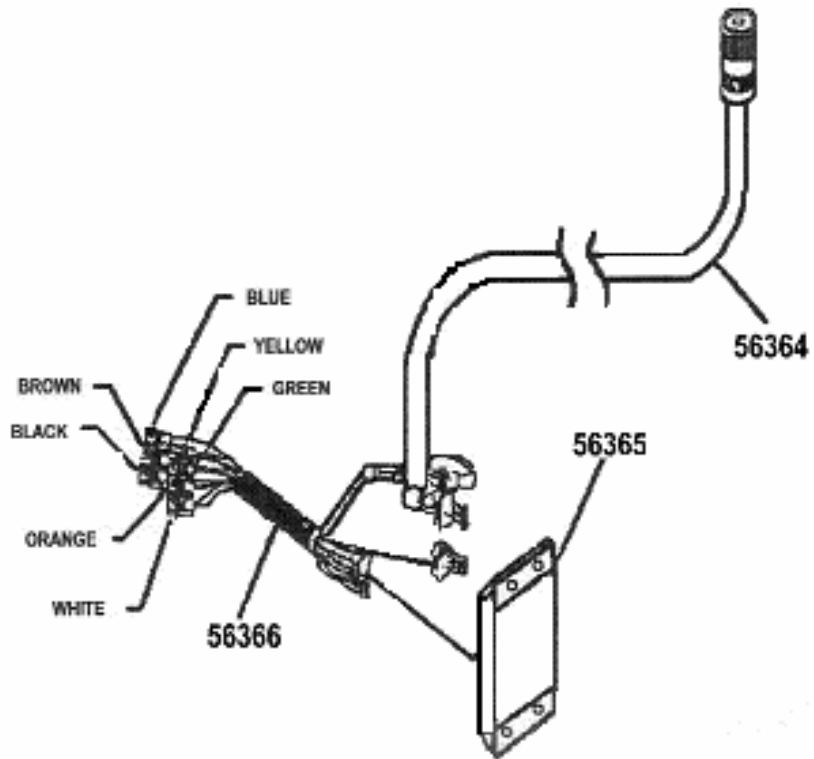


56613 UNIVERSAL 3 LINE ELEC/HYD KIT

ITEM	P/N	DESCRIPTION	QTY
1	56708	Directional Valve	1
2	56504	4 Way Cartridge Only	3
3	55611	Coil & Connector Only	7
4	54893	PO Check Cartridge	3
5	56505	Blocking Valve Cartridge Only	1
6	56905	Relief Valve Cartridge	1
7	55140	Sun Valve Assy (inc item 7 thru 11)	1
8	55229	Valve Block Only	1
9	55231	Check Valve PB	1
10	55230	Check Valve AntiCav & Return	2
11	55232	Priority Valve Cartridge 2 GPM	1
12	See Spec	Motor	1
13	54064	Slide Cyl Rod Type Crossslide	1
13	56745	Slide Cyl 26" Crossslide	1
14	55183	Depth Cyl AP 300-600	1
14	55183	Depth Cyl AP 760-1000	2
15	54066	Tilt Cyl AP300-600	1
15	55309	Tilt Cyl AP760-1000	1
16	111E-1212	Adap Str JICM/SAEM	4
17	111E-1216	Adap Str JICM/SAEM VIS	2
17	40040	Adap Str JICM/BSPPM Danfoss	2
18	42077	Seal BSPP#16 Danfoss	2
19	111E-0606	Adap Str JICM/SAEM VIS	1
19	111Q-0604	Adap Str JICM/BSPPM	1
20	112B-0606	90* JICM/JICFS	1
21	111B-0404	Adap 90* JICM/SAEM	10
22	110R-0404	Adap 90* JICM/NPTM	6
22	110Y-0404	Adap Tee JICM/NPTM AP760-1000	2
23	54723	Hose 3/4x52" 3000 PSI Valve to Motor	2
23	55539	Hose 3/4x 52" 5000 PSI Valve to Motor	2
24	57017	Tube Power Beyond PB	1
25	57018	Tube Valve Pressure VP	1
26	57019	Tube Valve Return VR	1
27	54026	Hose 1/4x 15" Slide Cyl Rod AP300-600	1
28	55482	Hose 1/4x 35" Slide Base AP300-600/760-1000 Rod Jumper	1
29	57090	Hose 1/4x 94" Depth Rod AP300-600	1
29	55177	Hose 1/4x 78" Depth Rod AP 760-1000	1
30	57089	Hose 1/4x 102" Depth Base AP300-600	1
30	57091	Hose 1/4x 84" Depth Base AP 760-1000	1
31	55478	Hose 1/4x 80" Tilt Base	1
32	55177	Hose 1/4x 78" Tilt Rod	1
33	54028	Hose 1/4x 51" AP 760-1000 Depth Base Jumper	1
34	See Spec	Host Kit Hoses	1
35	55033	Seal Kit Hydraulic Cylinders	AR
36	55324	Seal Kit VIS motor Front Section	AR
36	55654	Seal Kit VIS Motor Section	AR
36	52829	Seal Kit Danfoss Motor	AR
37	56911	Seal Kit 56708 Valve	AR
38	55277	Seal Kit 55140 Valve	AR
39	56933	Valve Bracket Directional Valve	1
40	56932	Valve Bracket Sun Valve	1



56613 HYDRAULIC SCHEMATIC

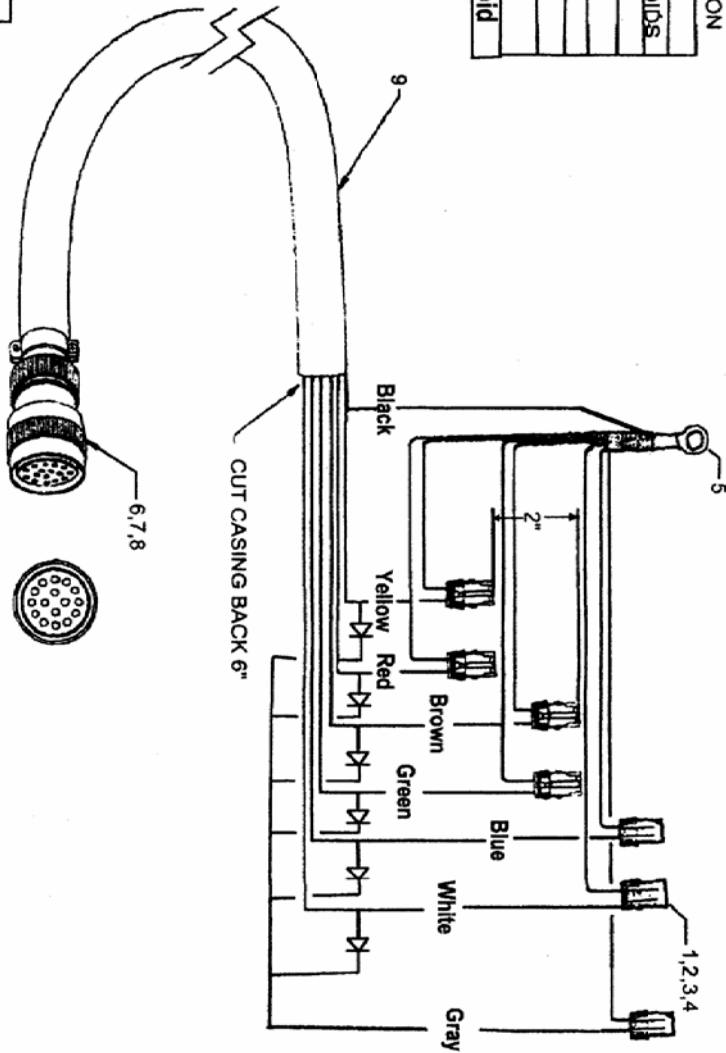


57327 BOBCAT ACD ELEC KIT

55350D Cable Assy

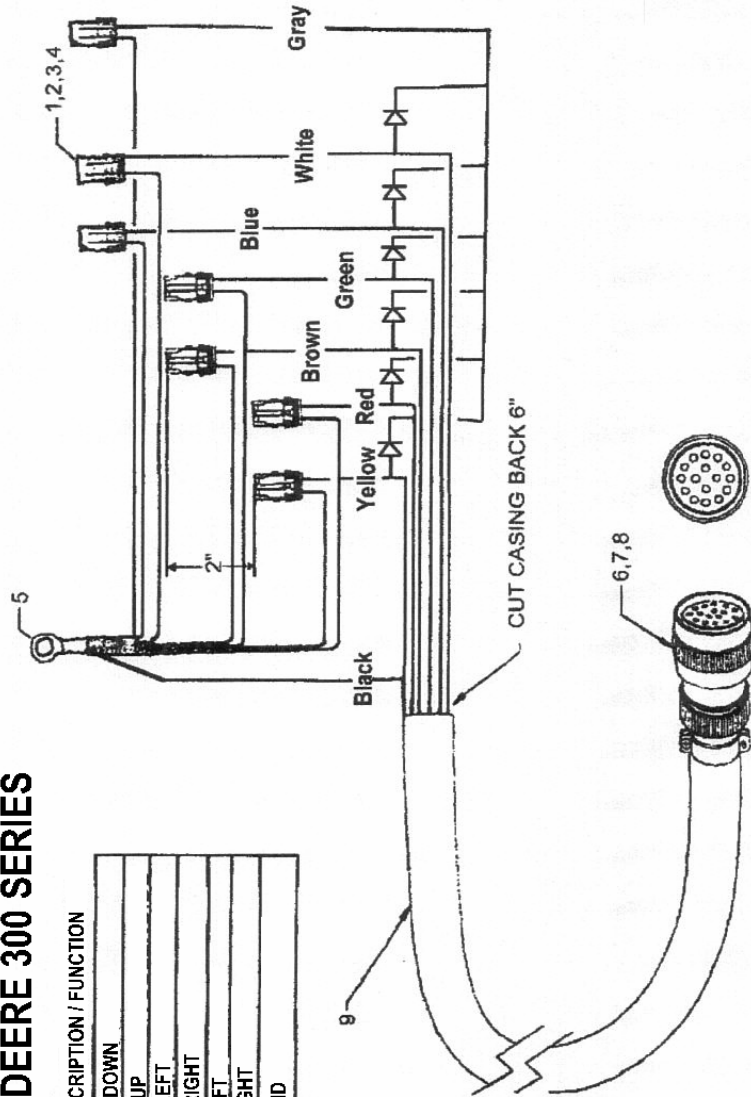
SOCKET	COLOR	DESCRIPTION/FUNCTION
C	RED	SIDE SHIFT LEFT
B	BLACK	GROUND FOR SOLENOIDS
E	WHITE	TILT LEFT
F	BLUE	TILT RIGHT
G	GREEN	DEPTH DOWN
H	BROWN	DEPTH UP
D	YELLOW	SIDE SHIFT RIGHT
	GRAY	Power Beyond Solenoid

ITEM	PART #	DESCRIPTION	QTY
1	38201	Body Female 2 Cond	6
2	31077	Terminal Female	12
3	39006	Seal Red	12
4	38202	TPA	6
5	35000	Ground Terminal	1
6	56115	Plug - 14 Pn	1
7	56116	Contact Sleeve	7
8	56117	Seal Plug	7
9	55924	Cable 7/14 8 Ft.	1



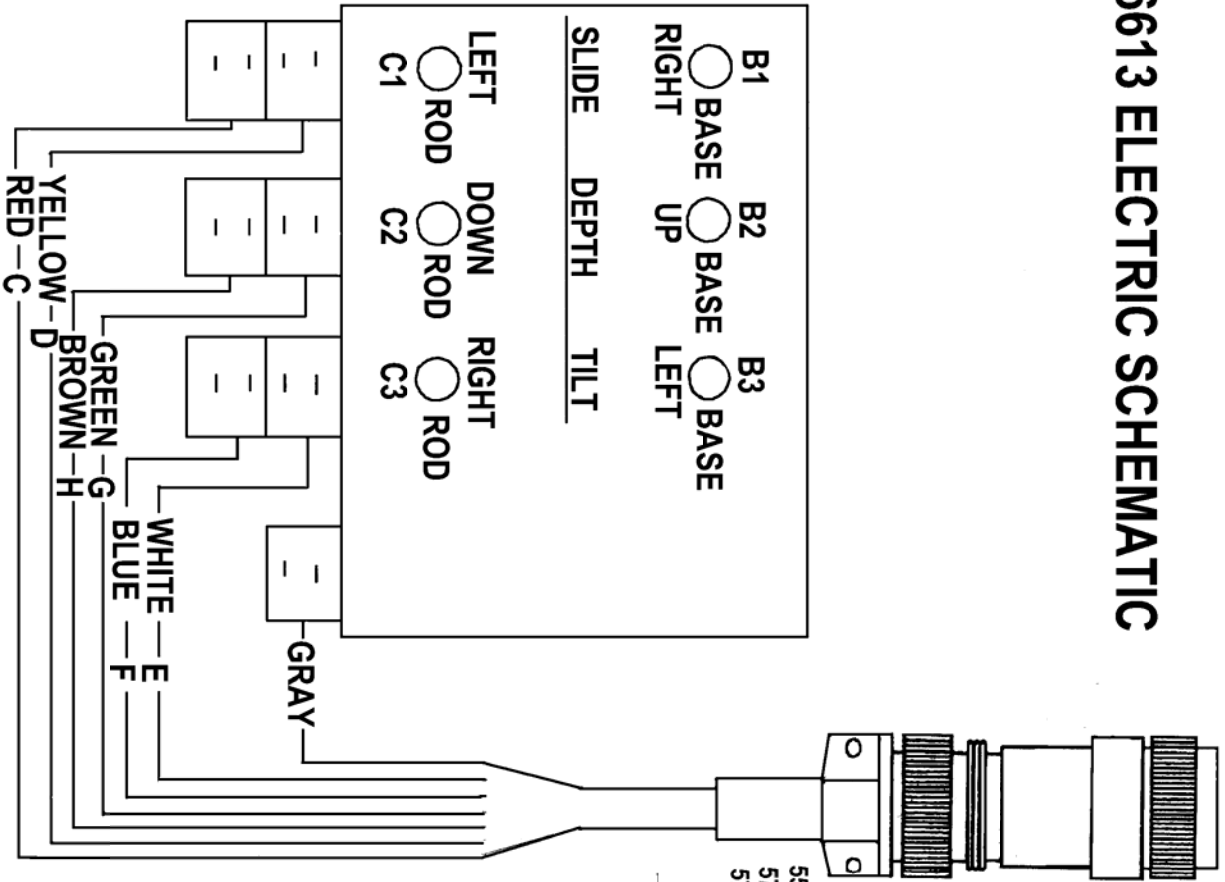
57140 CABLE JOHN DEERE 300 SERIES

SOCKET	COLOR	DESCRIPTION / FUNCTION
F	WHITE	DEPTH DOWN
H	RED	DEPTH UP
C	GREEN	SLIDE LEFT
G	BROWN	SLIDE RIGHT
D	BLUE	TILT LEFT
E	YELLOW	TILT RIGHT
A	BLACK	GROUND

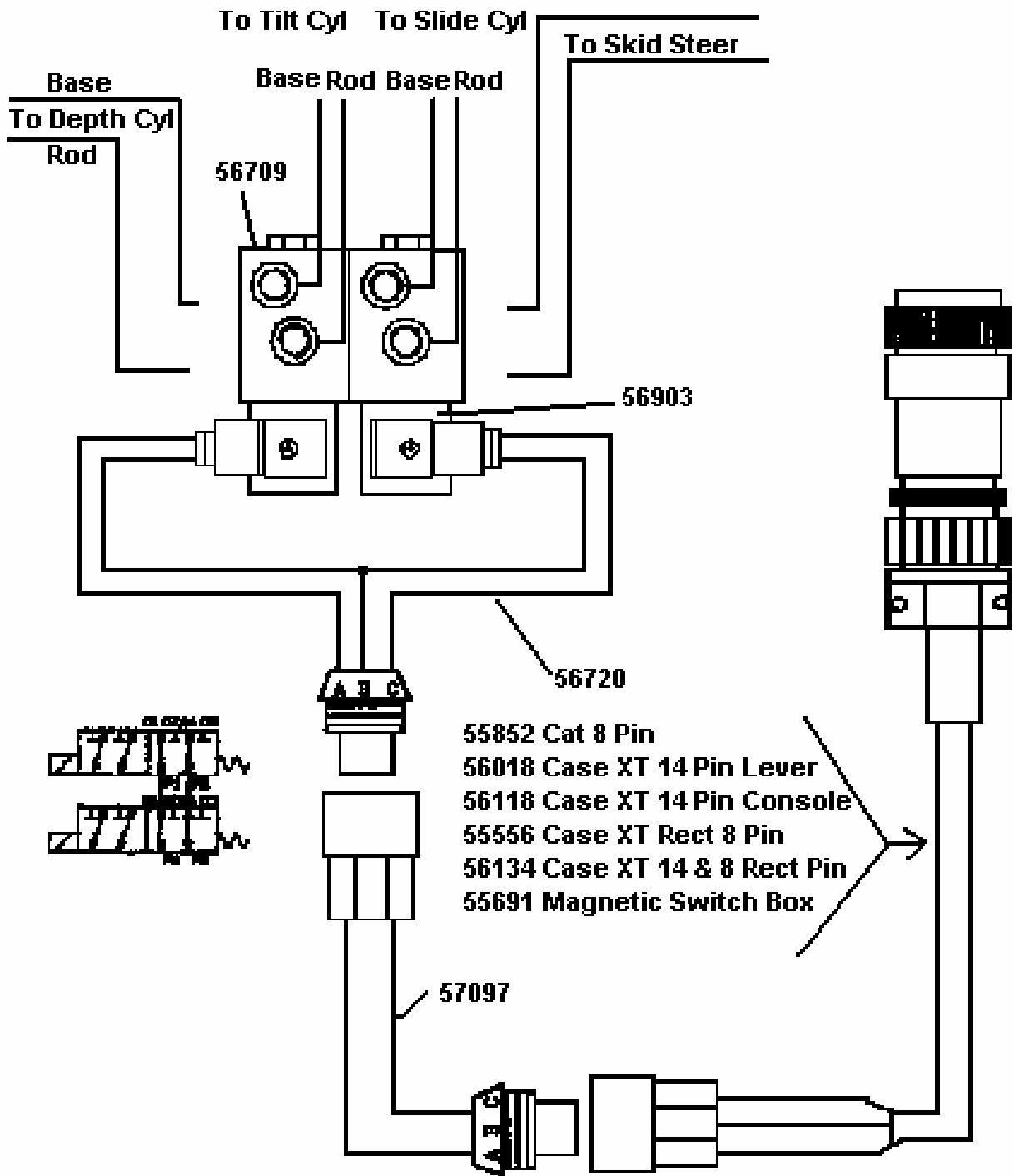


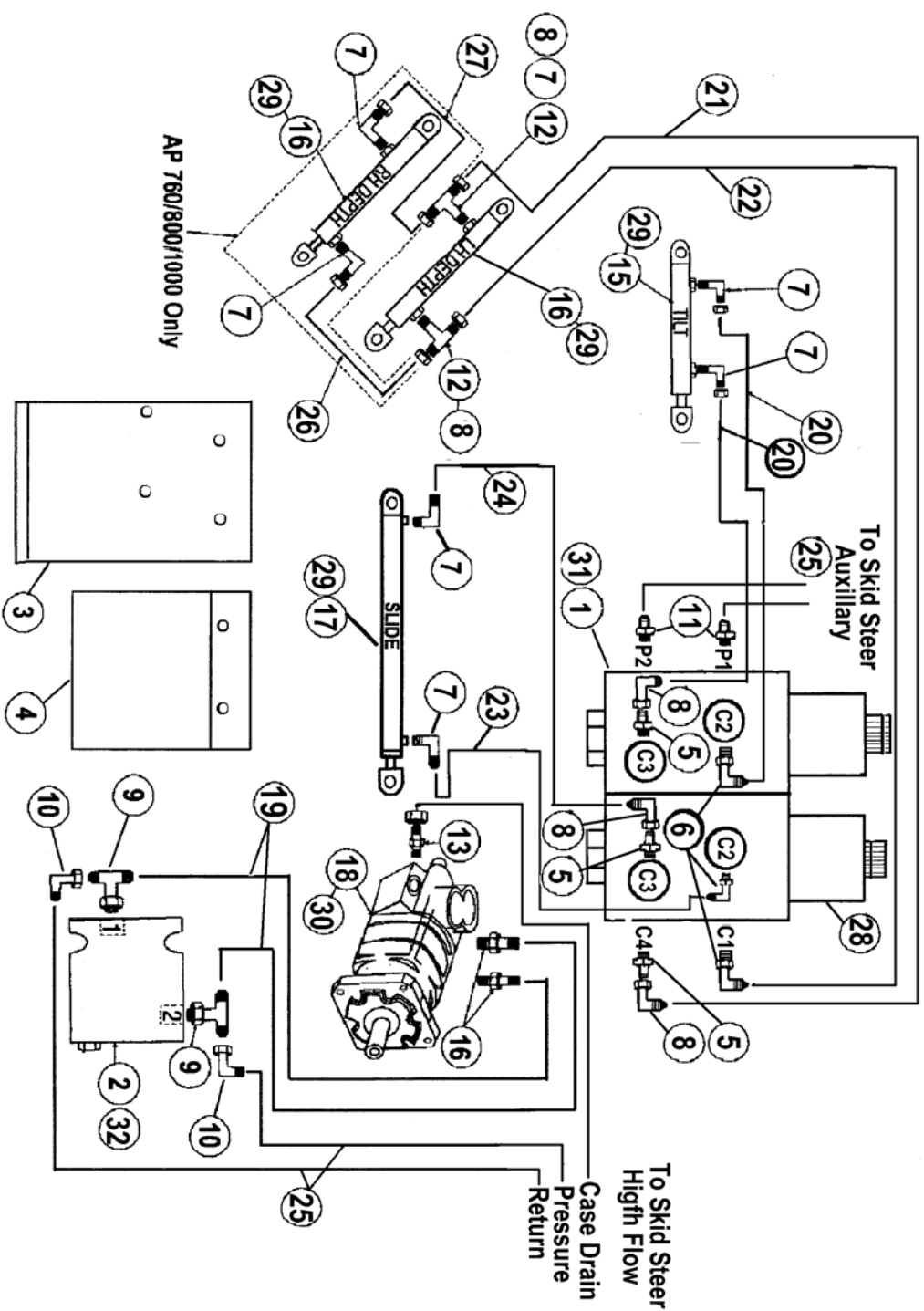
ITEM	PART #	DESCRIPTION	QTY
1	38201	Body Female 2 Cond	6
2	31077	Terminal Female	12
3	39006	Seal Red	12
4	38202	TPA	6
5	35000	Ground Terminal	1
6	56115	Plug - 14 P n	1
7	56116	Contact Sleeve	7
8	56117	Seal Plug	7
9	56024	Cable 7/14 6 FL.	1

56613 ELECTRIC SCHEMATIC



56350D - CASE 400 SERIES, NEW HOLLAND
 57140 JOHN DEERE 300 SERIES
 57094 3 SWITCH MAGNETIC BOX



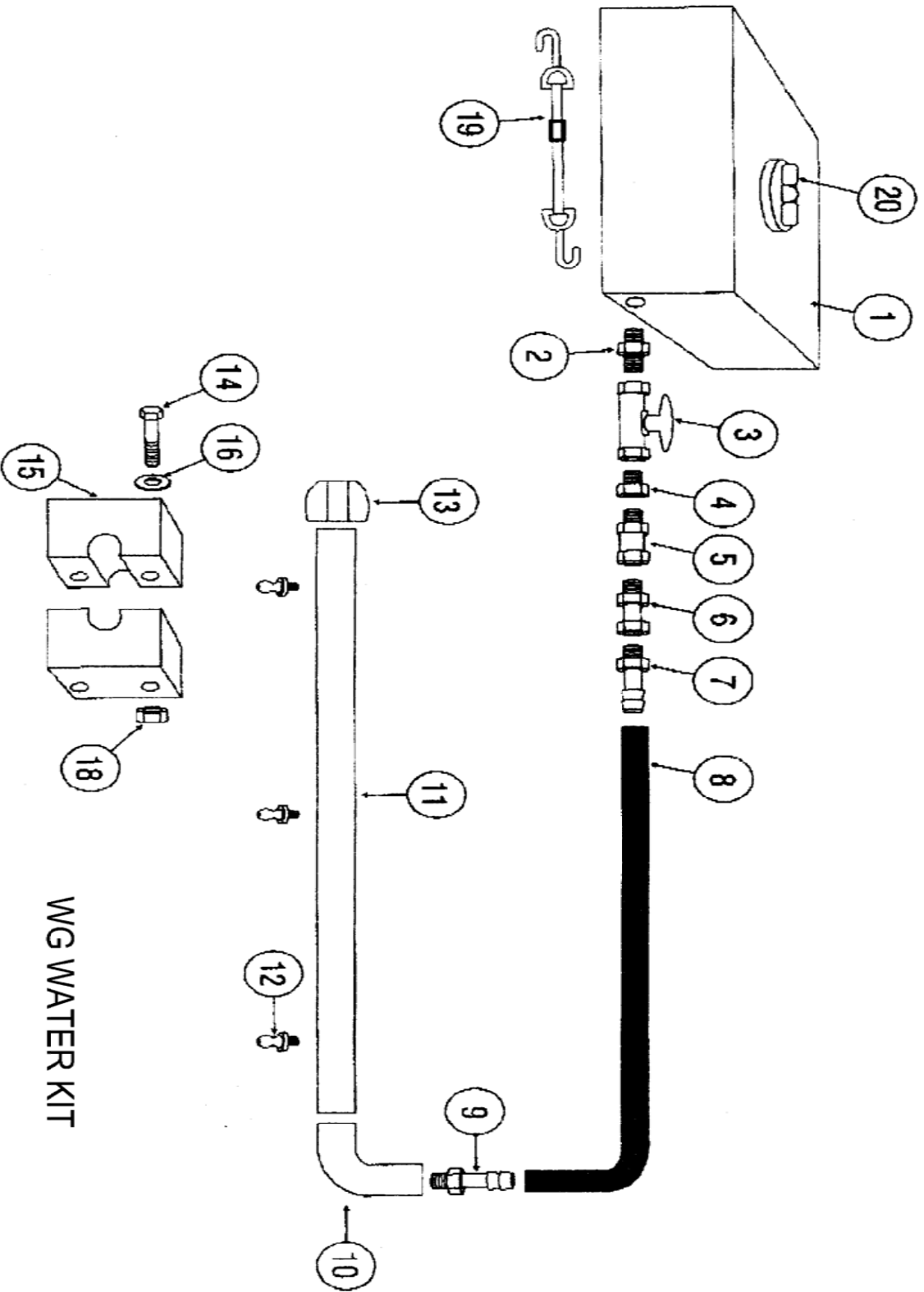


AP 760/800/1000 Only

56709 UNIVERSAL 5 LINE ELEC/HYD KIT

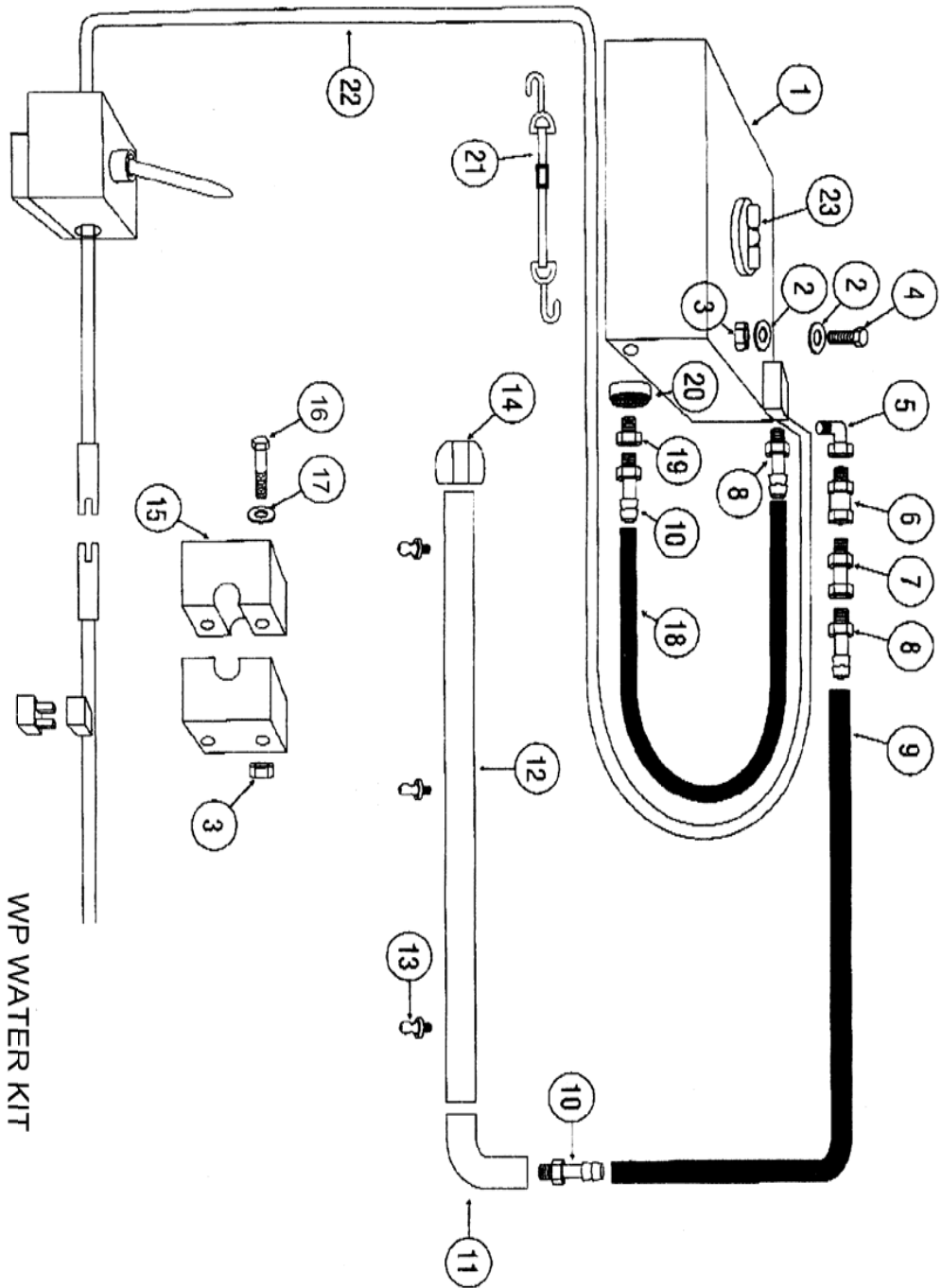
56709 UNIVERSAL 5 LINE ELEC/HYD KIT PARTS LIST

ITEM	P/N	DESCRIPTION	QTY
1	56717	Valve 8 Way Shuttle	1
2	55344	Valve Overrunning	1
3	57087	Valve Bracket Shuttle Valve	1
4	56934	Valve Bracket Overrunning Valve	1
5	111E-0404	Adap Str JICM/	3
6	111B-0404	Adap 90* JICM/SAEM	3
7	110R-0404	Adap 90* JICM/NPTM	6
8	112B-0404	Adap 90* JICFS/JICM	6
9	111C-1212	Adap Tee JICM/SAEM	2
10	112B-1212	Adap 90* JICFS/SAEM	2
11	57038	Orifice Fitting	2
12	110Y-0404	Adap Tee 760/800/1000	2
13	111E-0606	Adap Str & 112B-0606 VIS	1
13	111Q-0604	Adap STR JICM/BSPPMDanfoss	1
13	55498	Seal BSPP # 4	1
14	111E-1216	Adap STR JICM/SAEM VIS	2
14	40040	Adap STR JICM/BSPPM Danfoss	2
14	42077	Seal BSPP # 16	2
15	54066	Tilt Cyl AP 300-600	1
15	55309	Tilt Cyl AP 760-1000	1
16	55183	Depth Cyl AP300-600	1
16	55183	Depth Cyl AP 760-1000	2
17	54064	Slide Cyl Rod Type Crossslide	1
17	56745	Slide Cyl 26"Crossslide	1
18	See Spec	Motor	1
19	54723	Hose 3/4x52" Valve To Motor 3000 PSI	2
19	55539	Hose 3/4x52" Valve To Motor 5000 PSI	2
20	54114	Hose 1/4x25" Tilt Base & Rod AP300-600	2
20	55482	Hose 1/4x 35 Tilt Base & Rod AP760-1000	2
21	55482	Hose 1/4x35" Depth Base AP 300-1000	1
22	54114	Hose 1/4x25" Depth Rod AP 300-1000	1
23	54026	Hose 1/4x15" Slide Rod AP300-1000	1
24	55482	Hose 1/4x 35 Slide Base AP300-1000	1
25	See Host Kit	Skid Steer Hoses	AR
26	55482	Hose 1/4x35" Depth Rod Jumper	1
27	54028	Hose 1/4x51" Depth Base Jumper	1
28	56903	Coil Shuttle Valve	AR
29	55033	Seal Kit Hyd Cyl	AR
30	55324	Seal Kit Motor VIS Front Section	AR
30	55654	Seal Kit Motor Section VIS	AR
30	52829	Seal Kit Complete Danfoss	AR
31	56904	Seal Kit For 56717-8 Way Valve	AR
32	56267	Seal Kit For 55344	AR



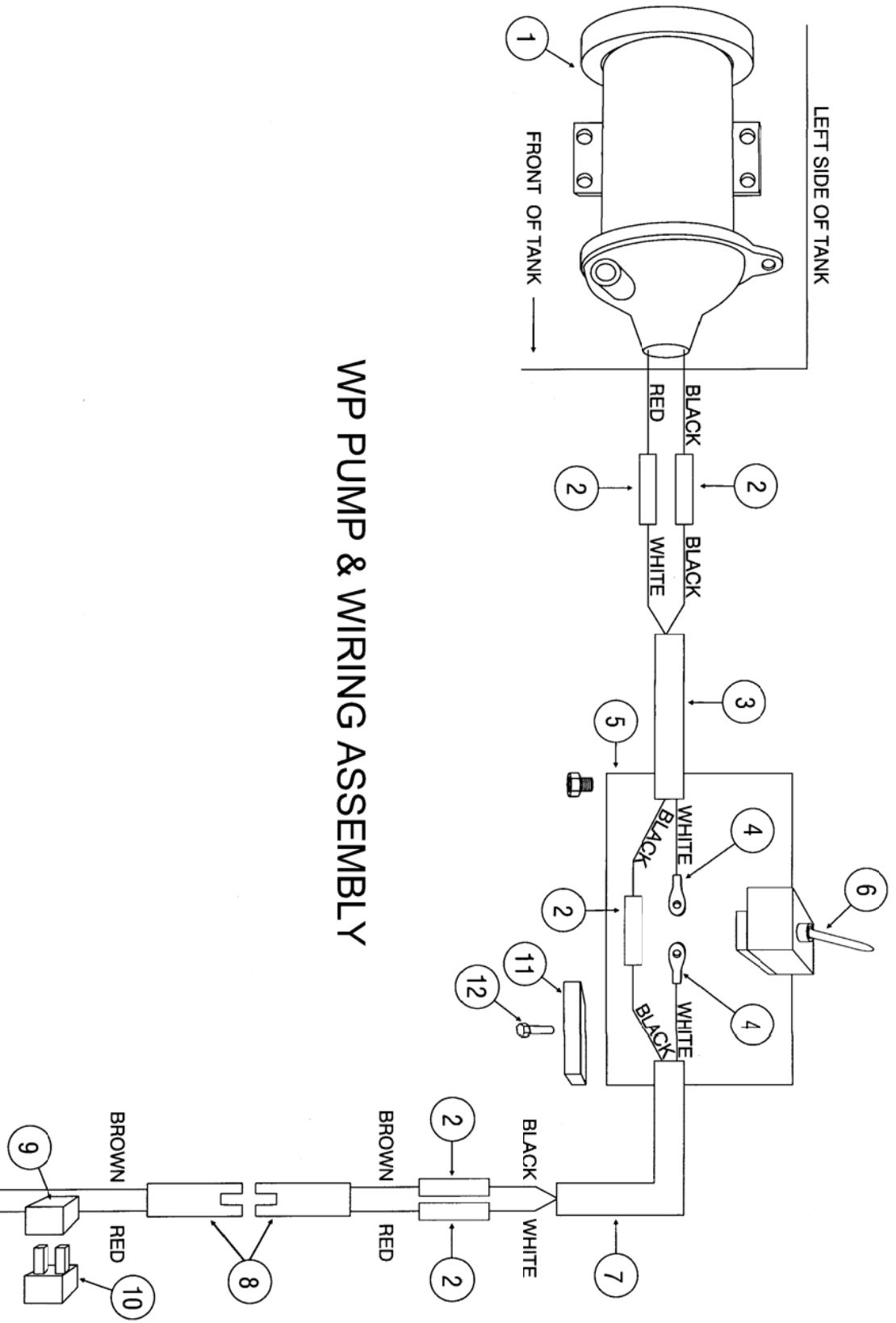
WG WATER KIT

54430/54431 WG GRAVITY WATER KITS			
ITEM	P/N	DESCRIPTION	QTY
1	54423	Tank 25 Gal (Inc Item 20	1
1	54621	Tank 55 Gal (Inc Item 20	1
2	115A-1208	Nipple Reducing	1
3	54791	Valve Ball	1
4	115B-0806	Bushing Reducing	1
5	55912	Quick Coupler Female	1
6	55913	Quick Coupler Male	1
7	106A-0606	Pushlok Fitting	1
8	54442	Hose 3/8" Pushlok 112"	1
9	106A-0806	Pushlok Fitting	1
11*	54427	Spray Bar AP/APX/ CP 300	1
11*	54425	Spray Bar AP/APX/ CP 450	1
11*	54424	Spray Bar AP/APX/CP 600	1
11*	55387	Spray Bar AP760/800	1
11*	55388	Spray Bar AP1000	1
12	54421	Nozzle as Required	AR
14	50A-0422	HHCS 1/4-20x 2 3/4	4
15	56002	Tube Clamp	2
16	56017	Plate Clamp	2
18	30C-04	Nut Nylok 1/4-20	4
19	54443	Tiedown Strap	2
20	55017	Tank Cap 8"	1
20	56007	Tank Cap 6"	1
* SPRAY BAR KITS AVAILABLE, KITS INC: SPRAY BAR, NOZZLES & CLAMPS			
	*AP 300	55875	
	*AP 450	55876	
	*AP 600	55877	
	*AP760/800	55878	
	*AP1000	55879	
Assembly Instructions For WG Water Kits			
1	Screw valve assembly including Items 2,3,4&5 pg 48 into tank outlet		
2	Mount tank on top of Skid Steer cab roof using Item 21 tiedowns hooked into cab sides to secure tank to roof		
3	Install spray bar tube Item 11 pg 48 to planer using Items 3,15,16 & 17 pg 48 to secure the spray tube to the planer. Align the nozzles with the holes and have the hose fitting on the left (motor) side of the planer		
4	Disregard # 3 if tube is already on the planer		
5	Push hose onto spray tube fitting and connect quick coupler to coupler on tank		
6	Fill tank with water and test operation.		



WP WATER KIT

54428/54429 WP WATER KITS			
ITEM	P/N	DESCRIPTION	QTY
1	54423	Tank 25 Gal (inc item 23)	1
1	54621	Tank 55 Gal (inc item 23)	1
2	14C-04	Washer Flat 1/4"	12
3	30C-04	Nut Nylok 1/4-20	6
4	50A-0408	HHCS 1/4-20 x1"	4
5	115J-06	Steer EL 3/8"	1
6	55912	Quick Coupler Female	1
7	55913	Quick Coupler Male	1
8	106A-0606	Pushlok Fitting2	2
9	54442	Hose 3/8" Pushlok 112"	1
10	106A-0806	Pushlok Fitting	2
12*	54427	Spray Bar AP/APX/CP 300	1
12*	54425	Spray Bar AP/APX/CP 450	1
12*	54424	Spray Bar AP/APX/CP 600	1
12*	55387	Spray Bar AP760/800	1
12*	55388	Spray Bar AP1000	1
13	54421	Nozzle as Required	AR
15	56002	Clamp	2
16	50A-0422	HHCS 1/4-20 x 2 3/4"	4
17	56017	Plate Clamp	2
18	54441	Hose 3/" Pushlok 24"	1
19	115B-1208	Bushing Reducing	1
20	55941	Screen	1
21	54443	Teidown Strap	2
22	55942	Wiring Assy Kit(see pgs 44 & 45`	1
23	55017	Tank Cap 8"	1
23	56007	Tank Cap 6"	1
Assembly Instructions For WP Water Kits			
1	Bolt pump assembly to top of tank at holes provided		
2	Install 55941 screen Item 20 pg 50 into outlet hole in tank		
3	Install Items 19,10 & 18 pg 50 between tank outlet and inlet of pump		
4	Mount tank on top of Skid Steer roof using Item 21 tiedowns hooked into cab sides to secure tank to cab roof		
5	Connect female electric plug to a suitable 12 volt source on your Skid Steer. Plug the connector into it and locate the magnetic box in a convenient location.		
6	Install the spray tube Item 12 pg 50 to the planer using Items 3,15,16&17to secure the spray tube to the planer. Align the nozzles with the holes and have the hose fitting on the left (motor) side of the planer.		
7	Disregard # 6 if tube assembly is already on the planer		
8	Push long (112") hose onto tube fitting and connect quick coupler to coupler on pump		
9	Fill tank with water and test operation.		



W/P PUMP & WIRING ASSEMBLY

55942 WP PUMP & WIRING ASSEMBLY

<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	54422	Pump	1
2	133B-00	Butt Connector	1
3	54438	Cable 14/2 60"	1
4	130B-03	Ring Terminal	1
5	54435	Switch Box	1
6	54434	Switch	1
7	54437	Cable 14/2 24"	1
8	54432	Connector	1
9	52058	Fuse Holder	1
10	54433	Fuse	1
11	54768	Magnet	1
12	55940	Rivet Pop	1
13	55845	Cable & Switch Box Assy (Inc. 2-12)	1

AP HOST KITS FOR 26" CROSSLIDE - 3 LINE HYD

57046 BOBCAT-NEW HOLLAND-JOHN DEERE- CASE 400-HYDRAMAC-KOMATSU

PART#	DESCRIPTION	QTY
57025	3/4 X 72" Hose	2
54723	3/4 x 52" Motor Hose	2
54136	3/8 x 106" Case Drain Hose	1
111E-1212	Adapter	2
110G-0608	Case Drain Adapter (Hydra- Mac	1
111E-0608	Case Drain Adapter (Bobcat-NH-JD-Case	1

57047 CASE 1845&XT-GEHL-MUSTANG-THOMAS-JCB- 3000PSI

57044	3/4x100" Hose	2
54723	3/4 x 52" Motor Hose	2
55170	3/8 x 160	1
111E-1212	Adapter	2
111E-0610	(Case)	1
111E-0608	(Gehl-Mustang)	1
110G-0608	(Thomas)	1

57048 CAT

57036	3/4 x 72" Hose (5000 psi)	2
54723	3/4 x 52" Motor Hose	2
54170	3/8 x 125" Case Drain Hose	1
111E-1212	Adapter	2
111E-0608	Adapter	1

AP HOST KITS FOR 26" CROSSSLIDE - 5 LINE HYD

57049 CASE 1845& XT-GEHL-MUSTANG-JCB-THOMAS-VOLVO - 3000 PSI

PART#	DESCRIPTION	QTY
57044	3/4 x 100" Hose	2
54723	3/4 x 52" Motor Hose	2
55476	1/4 x 125" Hose	2
55170	3/8 x 160" Case Drain Hose	1
111E-1212	Adapter	2
110G-0608	Case Drain Adapter (Hydra- Mac	1
111E-0608	Case Drain Adapter (Bobcat-NH-JD-Case	1
111E-0408	Adapter	2

57050 CASE XT- 5000PSI

57045	3/4x100" Hose	2
54723	3/4 x 52" Motor Hose	2
55476	1/4 x 125" Hose	2
55170	3/8 x 160	1
111E-1212	Adapter	2
111E-0610	Adapter	1
111E-0410	Adapter	2

57051 CAT

57036	3/4 x 72" Hose (5000 psi)	2
54723	3/4 x 52" Motor Hose	2
54170	3/8 x 125" Case Drain Hose	1
55476	1/4 x 125" Hose	2
111E-1212	Adapter	2
111E-0608	Adapter	1
111E-0408	Adapter	2

57052 KOMATSU- BOB CAT 5 LINE

57025	3/4 x 72" Hose	2
54723	3/4 x 72" Motor Hose	2
57070	1/4 x 155" Hose	2
111E-1212	Adapter	2
111E-0608	Adapter	1
111E-0408	Adapter	2

AP HOST KITS

24" Crosslide

32767 BOBCAT-NEW HOLLAND-JOHN DEERE-HYDRA-MAC

Part #	Description	Qty
55900	3/4 x 72" Hose	2
54136	3/8 x 106" Case Drain Hose	1
111E-1212	Adapter	2
11OG-0608	Case Drain Adapter (Hydra-Mac)	1
111E-0608	Case Drain QC Adapter (Bobcat-NH-JD)	1

55466 CASE-GEHL-MUSTANG-TRAK-THOMAS-JCB (UNIVERSAL Q.A.)

Part #	Description	Qty
55524	3/4 x 100" Hose	2
54170	3/8 x 125" Case Drain Hose	1
111E-1212	Adapter	2
111E-0610	(Case)	1
111E-0608	(GEHL-Mustang)	1
11OG-0608	(Thomas)	1

32767 CAT 248 CONELEC/AP

Part #	Description	Qty
55902	3/4 x 72" Hose	2
55608	1/4 X 72" Hose	2
54169	3/8 x 72" Case Drain Hose	1
55852	Cable Assy Cat	1
111E-1212	Adapter	2
111E-0608	Adapter	1
111E-0408	Adapter	2

AP HOST KITS (Cont.)

24" Crossslide

55665 CAT 248 HOST KIT AP - HYD BLB/SUN

Part #	Description	Qty
55902	3/4 x 72" Hose	2
54170	3/8 x 125" Case Drain Hose	1
111E-1212	Adapter	2
111E-0608	Adapter	1

32767 CASE XT 5000PSI CONELEC/AP

Part #	Description	Qty
55538	3/4 x 100" Hose	2
55608	1/4 x 72" Hose	2
54822	3/8 X 157" Case Drain Hose	1
55556	Cable Assy Case	1
111E-1212	Adapter	2
111E-0610	Adapter	1
111E-0410	Adapter	2



P/N 56044

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