

MP SERIES

MINI PLANER

Operating and Maintenance Manual



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1. PRODUCT 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

2. CHECKLIST

DEALER'S FILE COPY

2.1 PRE-DELIVERY

After the Mini 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

2.2 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 owner's registration, including the customer's signature and return it to the manufacturer.

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

CUSTOMER'S SIGNATURE

DATE DELIVERED

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CUSTOMER'S SIGNATURE

DATE DELIVERED

3. INTRODUCTION

The **MP SERIES COLD PLANER** was designed as an attachment machine for use on host machines such as Mini skidsteers and Compact utility loaders. The information contained in this manual refers only to the Cold Planer. Information regarding the valve used to control oil flow to the Planer attachment can be found in the host machine's manual or the power pack installation manual if the host machine is so equipped.

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 slot cutter.

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. SPECIFICATIONS

MP SERIES

MODEL	STANDARD CUTTING WIDTH
MP-75.....	3 INCHES (76 mm)
MP-150.....	6 INCHES (150 mm)
MP-225.....	9 INCHES (225mm)
MP-300	12 INCHES (300mm)

MAXIMUM CUTTING DEPTH 4 inches (200 mm)

WEIGHT 504 lbs (230 kg)

5. SAFETY

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 “**HEADS UP**” for safety and can be found throughout this operator's 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 the 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 PROCEDURE

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 Mini Planer
3. Position Planer so that it is completely resting on the ground or floor.
4. Engage the host machine's hand brake, or parking brake.
5. With 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

REMEMBER ALWAYS IDLE ENGINE DOWN BEFORE SHUTTING OFF OIL FLOW.

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 Cutter!

Read and observe **ALL** Safety information and decals on the host machine and Cutter **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!

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 Planer!

BE SURE the Planer is properly placed in the “service position” and resting on the ground **BEFORE** attempting to work on the machine.

BEFORE transporting the 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-chippable) 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 Planer.

DO NOT attempt to move the 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 **BEFORE** attempting to disconnect any hoses or **BEFORE** proceeding to remove the Planer from the host machine.

DO NOT treat the 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 to communicate information regarding the safe use and proper operation and maintenance to any user of this machine!

6. OPERATION

6.1 FOREWORD

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 or from its Authorized Dealer.

6.2 ATTACHING TO AND DETACHING FROM A HOST MACHINE

Drive the Host Machine up to the quick attach of the Mini Planer and connect up. Exercise the **MANDATORY SAFETY SHUTDOWN PROCEDURE** before proceeding. After installing hydraulic quick couplers compatible with your host machine to the hydraulic hoses of the slot cutter, connect them to the hydraulic outlet as follows:

The 3/4" hose attached to the # "2" port of the overrunning valve must be connected to the pressure outlet of the host machine's high flow. The 3/4" hose attached to the # "1" port must be connected to the return outlet.

6.3 PREPARING TO CUT

Determine the required depth of cut.

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

OPERATION Continued

6.4 STARTING THE CUT

Position the Planer over the desired starting place. With the planer turned on, the depth shoe at “0,” that is with the bucket tilted forward and the forward tip of the depth shoe on the ground. Advance the host machine’s engine to full rpm, slowly rotate the cutter into the surface to be cut by rolling the bucket tilt backward. Continue to increase cutting depth until the desired depth is reached. Maximum depth of each cut is determined by the type of material being cut, the weight and hydraulic horsepower of the host machine, and the width of cutter being used. To keep the planer stable, use down pressure of the lift arms, the front wheels of the host machine may be 1-2 inches off the ground.

6.5 ADVANCING THE CUT

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

6.6 ENDING THE CUT

Stop advancing the planer and raise wheel out of the cut. If you do not wish to start a new cut, **idle host machine engine**, and turn the planer off. **DO NOT** transport the planer while it is running.

7. DAILY MAINTENANCE



CAUTION: When using cold planers, periodic observation must be made of the hydraulic oil temperature indicator on the host machine. Hydraulic oil may overheat, depending on ambient temperature and duty cycle of the machine. If indicator comes on, shut off slot cutter, and allow host machine to idle until the hydraulic temperature falls below 180°F (82°C).

Damage to machine may occur if these instructions are not followed.



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 operation.

1. At the start of each day, lubricate the bearing grease fitting at the end of the axle shaft on the right hand side of the cutter housing. Standard shop gun grease will suffice.
2. Using the correct size wrenches, retighten any loose hardware. **BE SURE** to check the motor and bearing bolts regularly.
3. Inspect for any loose hydraulic fittings or damaged hoses; retighten or replace as required.
5. At least twice a day, check all pics for freedom of rotation and wear. Replace all pics that are not rotating freely or are badly worn. Follow the procedure outlined under pic removal and replacement.



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**



Exercise the **MANDATORY SAFETY SHUT-DOWN PROCEDURE** but find an elevated surface to set the planer on, or have a second person block the planer in place before shutting off the host machine.

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.

7.2 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):

1. Rotate the wheel 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 backside.

7.3 REPLACEMENT



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 replace a pic proceed as follows:

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 pic into the holder.
4. With one strong blow, strike the tool pad to pop the pic into the hole of the holder.

The pic is properly seated when it's shoulder is against the face of the pic holder. **BE SURE** to test that the pic rotates freely.

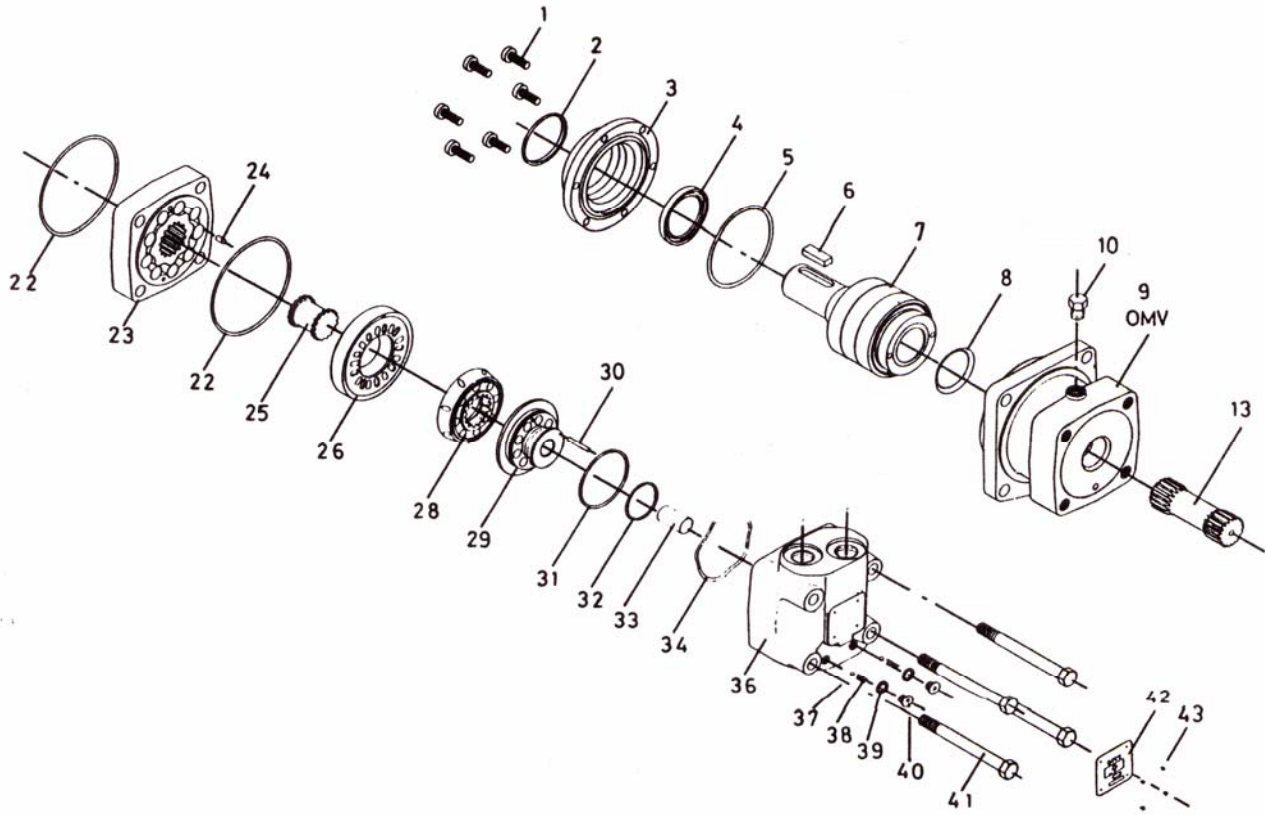
NOTE: If the pic does not have a groove, position the stem of the pic in the hold in the holder, and using a lead hammer or rubber-headed mallet, lightly hammer the point of the pic until the pic is seated in the holder.

7.4 CHANGING A WHEEL

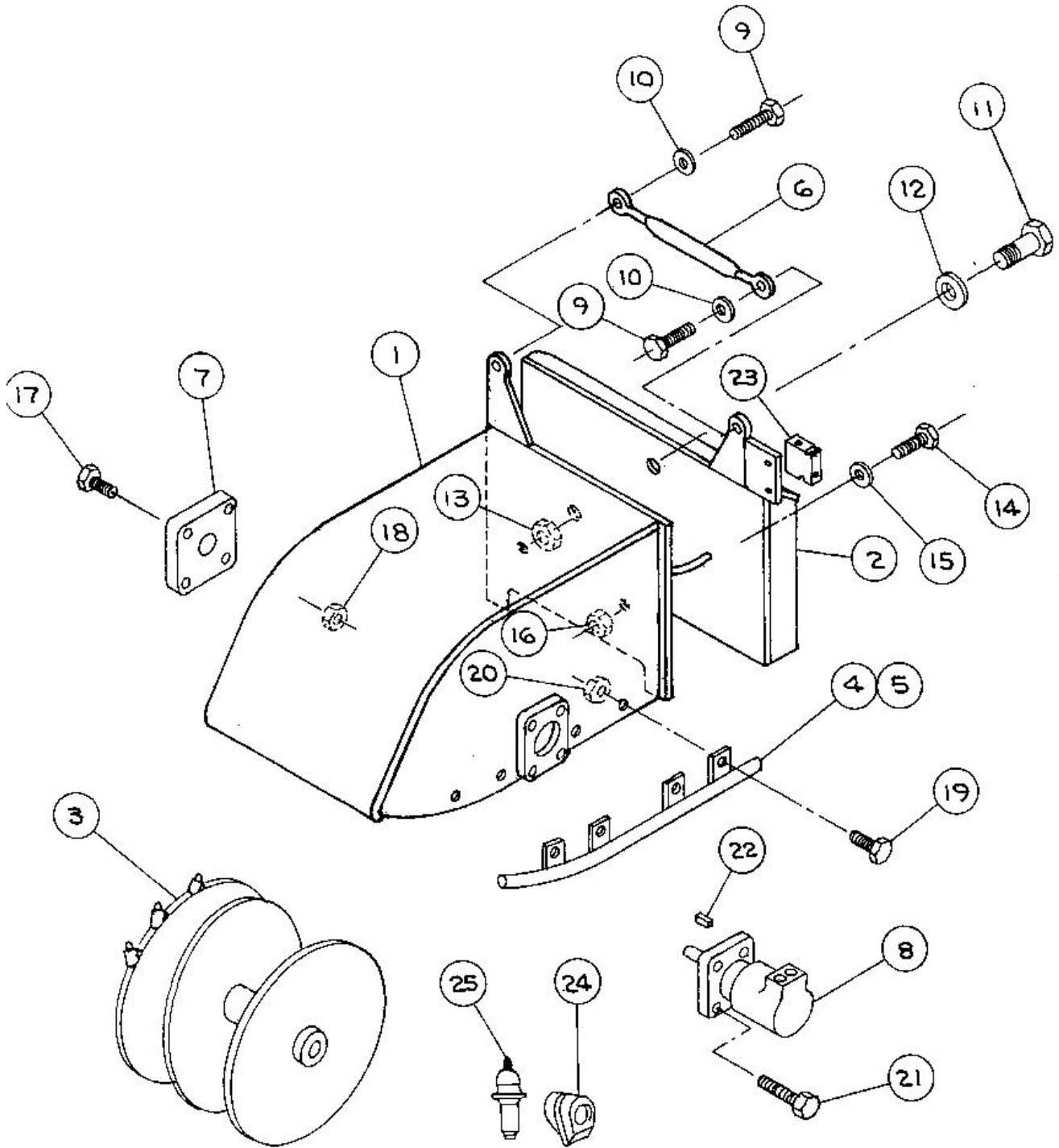
1. Place the planer in a convenient position.
2. Remove the four motor bolts, and pull the motor out of the wheel. Some motors are difficult to remove and may require a pulling device.
3. After the motor has been removed, remove the four bolts from the axle shaft bearing, and raise the planer cowl off wheel.
4. Check all hardware removed, and replace if damaged.
5. Reverse instructions 1 and 2 to complete the wheel change. Upon installing the motor, clean the shaft bore and motor shaft, and coat with an anti-seize.

DANFOSS MOTOR OMT PARTS LIST

ITEM	P/N	DESCRIPTION	QTY	ITEM	P/N	DESCRIPTION	QTY
1	52676	Screw M8x1x20mm	6	31	54919	O' ring 63x2	1
2	54894	Dust Deal Ring	1	32	54920	O' ring 40x2	1
3	54895	Front Cover	1	33	54921	Spacer	1
4	54896	Shaft Seal	1	34	54922	Spring washer	1
5	54897	O Ring	1	36	54923	Valve housing	1
6	54898	Parallel Key	1	37	54924	Ball 1/4"	2
7	54899	Shaft Including Bearing	1	38	54925	Spring	2
8	54900	Conical Seal Ring	1	39	54926	Washer	2
13	54902	Drain Plug Including O Ring	1	40	52706	Plugs	2
22	54909	O'ring	2	41	54928	Cap screw	4
23	54910	Gearwheel set 315 mtr	1	42	54929	Name plate	1
24	54911	Guide pin	1	43	54930	Drive screw	4
25	54912	Valve drive	1	44	54557	Seal Kit OMT incs. Items	AR
26	54913	Channel Plate				2,4,5,8,22,31,32	
28	54915	Disc valve	1				
29	54916	Balance Plate	1				
30	54917	Guide Pin	1				



Mini Planer Components



MINI PLANER PARTS

ITEM	P/N	DESCRIPTION	QTY
1	56913	Mini Planer Housing	1
2	56918	Mini Planer Backplate	1
3	56812	Drum MP 300	1
3	56812-9	Drum MP 225	1
3	56812-6	Drum MP 150	1
3	56812-3	Drum MP 75	1
4	56924	Skid Shoe RH.	1
5	56925	Skid Shoe LH	1
6	55462	Turnbuckle	1
7	56994	Bearing	1
8	54388	Motor Danfoss 315	1
9	50A-1216	HHCS 3/4"-10x2"	2
10	14C-10	Washer Flat 3/4" SAE	2
11	56995	Pivot Bolt	1
12	14C-12	Washer Flat 1" SAE	1
13	30C-12	Nut Nylok 1-8	1
14	50B-0814	HHCS 1/2"-13x1 3/4"	2
15	14C-08	Washer Flat 1/2" SAE	2
16	30C-08	Nut Nylok 1/2"-13	2
17	50B-1014	HHCS 5/8"-11x1 3/4"	4
18	30C-10	Nut Nylok 5/8"-11	4
19	50A-0610	HHCS 3/8"-16x 1 1/4"	8
20	30C-06	Nut Nylok 3/8"-16	8
21	50A-0812	HHCS 1/2"13 x 1 1/2"	4
22	54898	Key OMT Motor	1
23	55344	Overrunning Valve	1
24	40028	Pic Block	AR
25	10150	Pic, Low Torque	AR

MINI PLANER HYDRAULIC PARTS

<u>ITEM</u>	<u>P/N</u>	<u>DESCRIPTION</u>	<u>QTY</u>
1	55344	Overrunning Valve	1
2	54388	Danfoss Motor 315 cc	1
3	111Q-0812	Adapter Str JICM/BSPPM	2
3	40075	Seal Washer BSPP	2
4	111C-0808	Adapter Tee JICM/SAEM	2
4	111G-1208	Adapter Reducer SAEM/SAEF	2
5	112B-0808	Adapter 90* JICM/JICFS	2
6	50A-0522	HHCS 5/16-18x2 3/4	2
6	14C-05	Washer Flat 5/16	2
7	30C-05	Nut Nylok 5/16-18	2
8	57005	Hose 1/2 x 20	2
9	55943	Hose 1/2 x 50	2