

**EXALMGERE<sup>®</sup>**  
*a CH Hanson brand*



## 9" Cold Saw 230 V, 1-Phase

Model 9683336



**PLEASE READ AND SAVE  
THESE INSTRUCTIONS.  
READ CAREFULLY  
BEFORE ATTEMPTING  
TO ASSEMBLE, INSTALL,  
OPERATE OR MAINTAIN THE  
PRODUCT DESCRIBED.**

**PROTECT YOURSELF AND  
OTHERS BY OBSERVING ALL  
SAFETY INFORMATION. FAILURE  
TO COMPLY WITH INSTRUCTIONS  
COULD RESULT IN PERSONAL  
INJURY AND/OR PROPERTY  
DAMAGE! RETAIN INSTRUCTIONS  
FOR FUTURE REFERENCE.**

**PLEASE REFER TO BACK COVER  
FOR INFORMATION REGARDING  
PALMGREN'S WARRANTY  
AND OTHER IMPORTANT  
INFORMATION.**

**Model #:** \_\_\_\_\_

**Serial #:** \_\_\_\_\_

**Purch. Date:** \_\_\_\_\_

## GETTING STARTED

### Save this manual

You will need this manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts lists and diagrams. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

### Structural requirements



Make sure all supporting structures and load attaching devices are strong enough to hold your intended loads. If in doubt, consult a qualified structural engineer.

### Electrical requirements



This saw does not come with a plug, and can be wired to a plug or directly into the power main. Blue wire is neutral, brown is line wire, and yellow with a green stripe is ground.

The circuit must be configured to provide 230VAC at 5.5A, single-phase, 60 Hz.

### Tools needed

Standard professional mechanic's hand tool set.

## UNPACKING

**⚠ WARNING** *Be careful not to touch overhead power lines, piping, lighting, etc. if lifting equipment is used. Cold Saw weighs approximately 90 lbs (41 kg), proper tools, equipment and qualified personnel should be employed in all phases of unpacking and installation.*

Carton should be handled with care to avoid damage from dropping, bumping, etc. Store and unpack carton with correct side up. Unpack all parts from the container. Check for damage as each piece is removed. Especially check the tubing located at the bottom of the motor for kinks, cuts, or other damage that would be detrimental to coolant flow. After unpacking Saw, inspect carefully for any damage that may have occurred during transit. Check for loose, missing or damaged parts. If any damage or loss has occurred, claim must be filed with carrier immediately. Check for completeness. Immediately report missing parts to dealer.

**⚠ WARNING** *Never use highly volatile solvents. Non flammable solvents are recommended to avoid possible fire hazard. Avoid getting cleaning solution on paint as it may tend to deteriorate these finishes. Use soap and water on painted components.*

Dayton model 9683336 9" Cold Saw is shipped complete in one box. The saw comes assembled as one unit. Additional parts which need to be assembled or fastened to the saw should be located and accounted for before assembling.

**IMPORTANT:** Many unpainted steel surfaces have been coated with a protectant. To ensure proper fit and operation, remove the coating. Coating can be easily removed with mild solvents, such as mineral spirits, and a soft cloth. Avoid getting solution on paint or any of the rubber/plastic parts. Solvents may deteriorate these finishes. Use soap and water on paint, plastic

or rubber components. After cleaning, cover all exposed surfaces with a light coating of oil.

### Package Contents:

Saw unit	1
Trigger handle	1
Trigger handle rod	1
Depth stop rods	1
Allen wrench set, sizes: 3, 4, 5, 6, 14	1 ea
Manual	1

### Unpack



After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Shipping damage claims must be filed with the carrier.

### Inspect



After unpacking the unit, carefully inspect for any damage that may have occurred during transit. Check for loose, missing or damaged parts. Shipping damage claims must be filed with the carrier.

All tools should be visually inspected before use, in addition to regular periodic maintenance inspections.

Be sure that the voltage labeled on the unit matches your power supply.



**See General Safety Instructions, Cautions and Warnings as shown.**

## SAFETY RULES

**⚠ WARNING** *Completely read and understand this owner's manual before assembly or tool operation. Read and understand the warnings shown on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury or death.*



**PROPOSITION 65 WARNING:** Some dust created by using power tools contain chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

Some examples of these chemicals are:

- Lead from lead-based paints
- Crystalline silica from bricks and cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area and work with approved safety equipment. Always wear an **OSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

**⚠ WARNING** *Always follow proper operating procedures as defined in this manual even if you are familiar with the use of this or similar tools. Remember that being careless for even a fraction of a second can result in severe personal injury.*

## PREPARING FOR YOUR JOB

- Wear proper apparel. Do not wear loose clothing, neckties, rings, bracelets or other jewelry which may get caught up in moving parts of machine. Do NOT wear gloves.
- Wear protective hair covering to contain long hair.
- Wear safety shoes with non-slip soles.
- Wear safety glasses complying with United States ANSI Z87.1. Everyday glasses have only impact resistant lenses. They are **NOT** safety glasses. Use guards and eye shields.
- Wear face mask or dust mask if operation is dusty.
- Wear ANSI approved ear protection for extended operation.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.
- Focus your attention completely on your work. Looking around, careless actions and other distractions can result in serious injury.

## Preparing the work area for your job

- Keep work area clean. Cluttered work areas invite accidents.
- Do not use power tools in dangerous environments. Do not use power tools in damp or wet locations. Do not expose power tools to rain.
- Work area should be properly lighted.
- Proper electrical receptacle should be available for tool. Three-prong plug should be plugged directly into properly grounded, three-prong receptacle.
- Extension cords should have a grounding prong and the three wires of the extension cord should be of the correct gauge.
- Keep visitors at a safe distance from work area.
- Keep children out of workplace. Make workshop childproof. Use padlocks, master switches or remove switch keys to prevent any unintentional use of power tools.

## Maintaining your tool

- Failure to follow the guidelines in this manual can result in serious injury.
- Disconnect the tool completely from its power supply before performing any service, maintenance, repair or adjustments.
- Follow OSHA lock-out, tag-out procedures to prevent accidental machine starts.
- Consult this manual for the proper use, specific maintenance, and adjustment procedures.
- Keep tool lubricated and clean for safest operation.
- Read and understand warnings posted on the machine and in this manual. Replace the warning labels if they become obscured or removed. Failure to comply with all of these warnings can result in serious injury.
- Before using the machine, check for damaged parts. Check for alignment of moving parts, binding, breakage, mounting issues and any other conditions that may affect operation.
- A guard or other part that is damaged should be properly repaired or replaced. Do not perform makeshift repairs. (Use parts list provided to order repair parts.)
- Use compressed air or a suitable brush to clear chips or debris — do not use your hands.
- Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.

## Know how to use your tool

**⚠ WARNING** *The operation of any tool can result in foreign objects being thrown into the eyes, which can result in severe eye damage. Always wear safety goggles complying with United States ANSI Z87.1. before commencing power tool operation.*



**Think safety! Safety is a combination of operator common sense and alertness at all times when tool is being used.**

- Use right tool for job. Do not force tool or attachment to do a job for which it was not designed.
- Disconnect tool when changing the blade.
- Avoid accidental start-up. Make sure that the tool power switch is in the OFF position before plugging in.
- Do not force tool. It will work most efficiently at the rate for which it was designed.
- Keep hands away from moving parts and cutting surfaces.
- Never leave tool running unattended. Turn the power off and do not leave tool until it comes to a complete stop.
- Do not overreach. Keep proper footing and balance.
- Never stand on tool. Serious injury could occur if tool is tipped or if blade is unintentionally contacted.
- Know your tool. Learn the tool's operation, application and specific limitations.
- Use recommended accessories. Use of improper accessories may cause risk of injury to persons.
- Handle workpiece correctly. Protect hands from possible injury.
- Turn machine off if it jams. Blade jams when it digs too deeply into workpiece. (Motor force keeps it stuck in the work.) Do not remove jammed or cut off pieces until the saw is turned off, unplugged and the blade has stopped.
- Adjust upper guide to just clear workpiece.
- Hold workpiece firmly against vise.
- DIRECTION OF FEED: Feed work into a blade or cutter against the direction of rotation of the blade or cutter only

## SPECIFICATIONS

The saw features a solid cast iron vise to ensure durability. The saw is equipped with a miter gauge for performing many different operations.

Parameter	9683336
Blade Diameter	9in
Blade thickness	.008in; 2mm
Arbor diameter	1.25in; 32mm
Blade speed	52 rpm
Max vise opening	2-3/4 in; 70mm
Miter angle range	0 - 45° Right
Cutting degree	45° Right
Vise height from floor	N/A
Motor specs	.75 KW; 1~; 230V 5.5A; 1HP
Motor RPM	1400
Coolant tank capacity	.75 Gal; 3 liters
Machine Dimensions	30.70in x 31.50in x 24.00in
Base Footprint	15.75in x 17.70in
Machine weight	90lbs; 41 kg

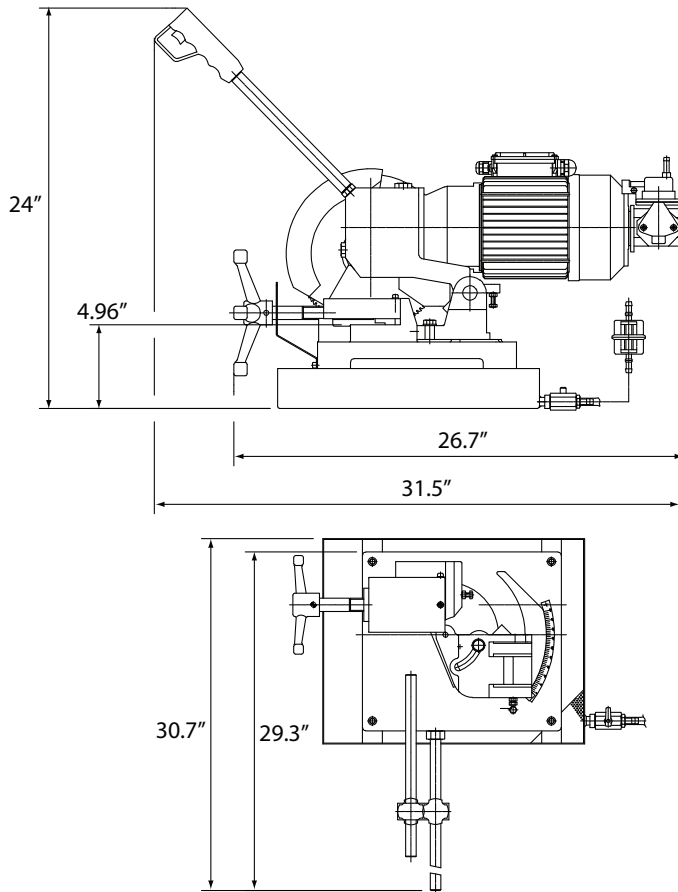
## ASSEMBLY/INSTALLATION

### Location

The saw must be installed on a structurally stable surface. The coolant pump output and inputs may extend below the coolant tank of the saw, when the saw is at rest. Ensure that the saw is installed so that coolant flow is not restricted. Alternatively, the saw's rest position may be adjusted by changing the set bolt's height.

### Machine dimensions

The following figure shows the approximate dimensions of the saw and its parts. When determining a final location for your machine, ensure there is enough clearance for both the operator and for technicians who will service the machine. Also, consider any larger workpieces that would extend beyond the machine's table and require extra space.



### Lifting and setting up the saw

**▲ WARNING** *Make certain that slings, cables, chains, forklifts or other load suspending gear or machines used to move this unit are properly rated to handle the weight. The machine is heavy.*

**▲ CAUTION** *The machine must be properly secured and anchored before use. Make sure that it is supported equally on all four corners.*

1. Remove any crating or overpacking materials which may be covering the machine. Leave the machine attached to the

pallet.

**NOTE:** The saw is heavy, see "SPECIFICATIONS". Be certain any machine or devices used to lift the saw are capable of handling this weight. If manually lifting, ensure that enough people are performing the lift.

2. Ensure sufficient space is available for operation. See Machine Dimensions.
3. Remove all the nuts and/or bolts securing saw to the pallet.
4. Center an overhead crane or other suitable overhead lifting device and sling arrangement over the frame.
5. Carefully lift the saw off the pallet. Lift it no higher than necessary to clear the surface on which it is to be installed and pull the pallet out of the way. **DO NOT** put your hands or feet beneath the saw while moving it or removing the pallet.
6. Place the saw into its final location where it will be anchored to the table top.
7. Level the saw using shims under the corners needing them. A highly accurate spirit or digital level should be used for leveling. It is very important that the saw be properly leveled for accurate performance.

### Electrical Connection To The Mains

**NOTE:** Install a differential thermomagnetic switch with characteristics suited to the mains.

Make sure that the power supply voltage corresponds to the voltage on the motor plate. Connect the cable to the power supply line observing the color codes of the individual wires, pay particular attention to the ground/earth wire. Connect the saw, making sure that the rotation of the circular blade is in the direction shown by the arrow on the guard.

See "Parts List" on page 12 for all parts

**Assembly: Handle**

1. Screw the shaft (item #22) into the top of the saw.



2. Slide the handle (#25) onto the shaft (#22). Ensure the wire from the handle fits with the slot in the shaft.



3. Tighten the set screw to lock handle to shaft.



4. The nut on the end of the rod can be used to lock the handle to face the desired direction.

**Depth stop**

1. Slide long bar stopper rod into bar stopper, and tighten the handle screw.
2. Position and screw into the side of the blue base of the saw.
3. Use provided nut to lock the bar stopper in the upright position.

**Saw blade**

Select the appropriate blade for the job as shown in "Blade Selection" on page 9.

To install the blade, remove the screw 33, keeping the motor-blade block raised and rotate the mobile guard 31 backwards. Unscrew the screw 29 counter clock wise, withdraw the flange 28, insert the circular blade, making sure that the teething faces the same direction as the arrow on the mobile guard. Then refit flange 28 and screw 29.

**Cutting Coolant**

For the cooling of the circular blade, fill the tank with emulsion oil obtained from a mixture of water and AGIP AQUAMET 700 EP oil with a percentage of 5-7%

**Lubrication**

**CAUTION** *Do not operate this machine before lubrication and ensuring proper oil level. Failure to comply may damage the machine.*

Fill the pump with 32# or 46# hydraulic oil as shown by the fill indications.



### OPERATION

**⚠ WARNING** Always wear safety glasses complying with U.S. ANSI Z87.1 before beginning any power tool operation.

**⚠ WARNING** To avoid injury from unexpected starting, whenever changing the saw blade or carrying out adjustments, switch the saw off and remove the power cord from the mains outlet. To avoid injury to hands when handling the saw blade, wear gloves whenever necessary.

**⚠ CAUTION** Do not operate before properly lubricating the machine. Failure to lubricate before using can damage the saw.

#### Cutting

**⚠ WARNING** Power at the main power switch must be set to "O" (OFF) .

1. Ensure the correct power is being supplied to the saw.
2. Ensure proper coolant is available (see "Cutting Coolant" on page 7).
3. Ensure stock is securely clamped in the vise.

#### Miter Gauge

**⚠ WARNING** Do not activate the saw if bolt #52 is not tightened.

4. Set the angle between the saw blade and stock to be cut. Loosen the bolt #52, in the parts list. See the following figure. Rotate the saw head to the desired angle. An angle scale is provided behind the saw head. And retighten the bolt to lock into position.



5. To prepare the saw to cut, flip the main power, rocker switch from the "O", OFF, position to the "1", ON, position (See the following figure). This provides power to the microswitch that must be pressed to spin the saw blade in the next step.



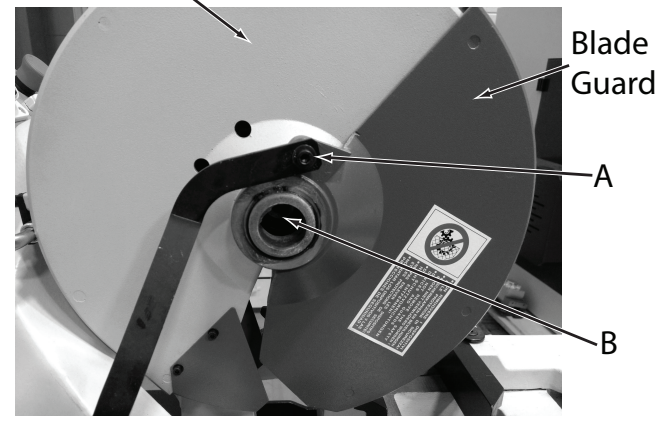
6. Press and hold the micro switch found in the top handle, and the saw blade will begin to spin. Use the handle to slowly lower the blade into the stock to make the cut. If the micro switch is released the saw blade will not continue to rotate.

### CHANGING BLADES

To remove and replace the saw blade:

1. Make sure the cold saw is disconnected from the power.
2. Hold the saw blade still, by lowering the blade into a piece of wood set in the vise.
3. Unhook the guard rod (A) from the guard.

#### Blade Housing







4. Remove Allen head screw (B)
5. Use gloves to safely remove the saw blade.
6. Follow these steps in the reverse order with a new blade.

NOTE: The new blade will need to be broken in, before full use.



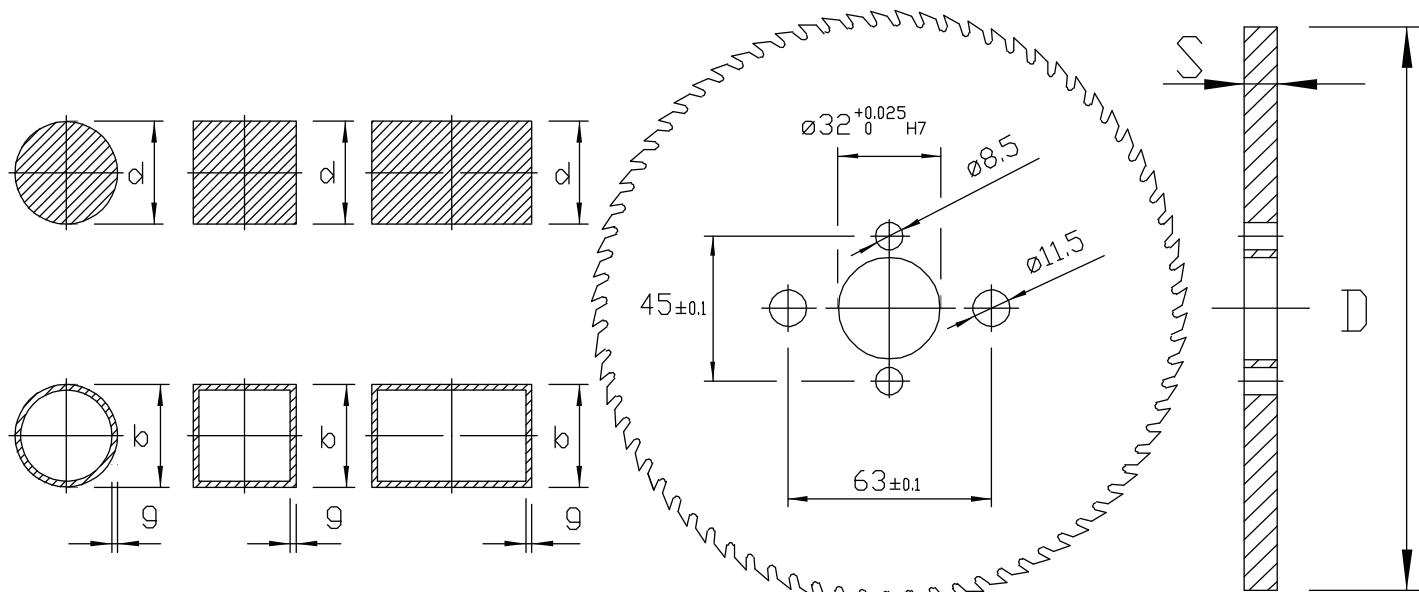
## BLADE SELECTION

NOTE: Best performance of worm screw worm wheel gearing is guaranteed when circular saw blades with drawing-holes are used.

Cutting Capacity (values in parentheses are in mm)				
Cut				
90°	1.18" (30)	2.56" (65)	2.17" x 2.17" (55 x 55)	1.77" x 2.76" (45 x 70)
45°	1.18" (30)	2.36" (60)	1.97" x 1.97" (50 x 50)	1.57" x 2.36" (40 X 60)

Blade Selection (values in parentheses are in mm)								
Diameter		7.78" (200)	8.86" (225)	9.84" (250)	10.83" (275)	11.81" (300)	12.40" (315)	13.78" (350)
Thickness		0.07" (1.8)	0.07" (1.8)	0.08" (2)	0.10" (2.5)	0.10" (2.5)	0.10" (2.5)	0.12" (3)
b=0.39"-3.15" (10-80) g<(2)	t	0.12" (3)	0.12" (3)	0.12" (3)	0.12" (3)	0.12" (3)	0.12" (3)	0.12" (3)
	z	7.87" (200)	9.06" (230)	9.84" (250)	11.02" (280)	11.81" (300)	12.60" (320)	13.78" (350)
b= 0.39"-3.15" (10-80) g=0.08"-0.16" (2-4) d=0.39"-0.71" (10-18)	t	0.20" (5)	0.20" (5)	0.20" (5)	0.20" (5)	0.20" (5)	0.20" (5)	0.20" (5)
	z	5.12" (130)	5.51" (140)	6.30" (160)	6.70" (170)	7.48" (190)	7.87" (200)	8.66" (220)
b= 0.39"-3.15" (20-80) g=0.16"-0.39" (4-10) d=0.71"-1.18" (18-30)	t	0.31" (8)	0.31" (8)	0.31" (8)	0.31" (8)	0.31" (8)	0.31" (8)	0.31" (8)
	z	3.15" (80)	7.48" (90)	3.94" (100)	4.33" (110)	4.72" (120)	4.72" (120)	5.51" (140)
d=1.18"-1.57" (30-40)	t	0.39" (10)	0.39" (10)	0.39" (10)	0.39" (10)	0.39" (10)	0.39" (10)	0.39" (10)
	z	2.36" (60)	2.76" (70)	3.15" (80)	7.48" (90)	7.48" (90)	3.94" (100)	4.33" (110)
d>1.57" (40)	t				0.47" (12)	0.47" (12)	0.47" (12)	0.47" (12)
	z				2.76" (70)	3.15" (80)	3.15" (80)	7.48" (90)

NOTE: t = tothing pitch, z = number of teeth



## TRUBLESHOOTING GUIDE

Symptom	Possible Cause(s)	Corrective Action
Teeth breaking	Coolant flow problem	Ensure proper coolant flow; hoses unclogged; nozzles pointed correctly, etc. Make sure coolant type is suitable for the machine.
	Material too hard	Check the blade speed and the type of blade you are using. Also be aware of feed pressure.
	Blade not worn-in correctly	With a new blade it is necessary to start cutting at half feeding speed. After the wearing-in period (a cutting surface of about 300 cm <sup>2</sup> for hard materials and about 1000 cm <sup>2</sup> for soft materials) the blade and feed speeds can be raised to normal values.
	Blade with excessively fine tooth pitch	The swarf wedges into the bottom of the teeth causing excessive pressure on the teeth themselves. Use a blade with coarser tooth pitch.
	New blade inserted in a partially completed cut	The surface of the cut may have undergone work hardening. When starting work again, use a lower blade speed and reduced feed pressure. A tooth from the old blade may be left in the cut: check and remove before starting work again.
Rapid tooth wear	Work piece not clamped firmly in place	Any movement of the work piece during cutting can cause broken teeth: check the vise, jaws and clamping pressure.
	Feed speed too slow	The blade runs over the material without removing it: increase feed speed.
	Blade speed too high	The teeth slide over the material without cutting it: reduce the blade speed.
	Insufficient coolant Incorrect fluid concentration Material defective	Check the coolant level and clean coolant lines and nozzles. Check and use the correct concentration. The materials may present altered zones either on the surface, such as oxides or sand, or in section, such as under-cooled inclusions. These zones, which are much harder than the blade, cause the teeth to break: Discard or clean these materials.
Broken blade	Blade speed too high	Reduce blade speed.
	Teeth in contact with material before starting the cut	Always check the position of the blade before starting a new job.
	Insufficient coolant	Check the coolant level and clean coolant lines and nozzles.
Cuts not straight	Feed speed too strong	Reduce feed speed.
	Blade not perpendicular to workpiece.	Adjust blade tracking according to instructions. If this proves unsuccessful, contact JET technical support.
Green pilot lamp not lit when ON button pressed	No incoming power	Check connections at machine and power source.
	Lamp fuse or bulb is out	Replace fuse/bulb.

Symptom	Possible Cause(s)	Corrective Action
Motor will not turn	Emergency stop engaged	Rotate Emergency Stop button to disengage.
	Electrical power supply	Check: the phases; the cables; the plug; the socket. Also check that the motor connections are in place.
	Trigger switch not activating	Check that socket/plug connection from handle to motor is inserted correctly; check micro-switch in trigger.
	Transformer	Check that the voltages are present both on the input and output. Otherwise replace.
	Magnetic contactor	Check that the phases in it are present both on the input and output, that it is not jammed, that it closes when powered and that it is not causing short circuits. Change if any of these problems are found.
	Thermal relay	Make sure it is closed, i.e. check that the phases are present in input and output, that it is not causing short circuits and responds when the reset coil is closed. If it has tripped to protect the motor, check the amperage setting, re-set, and check the motor. Change if necessary.
	Motor	Check that it has not burned out, that it turns freely and that there is no moisture in the connection terminal board box. The winding can be rewound or replaced by experienced motor repair personnel.

## MAINTENANCE/REPAIR

### Replacement of gear box oil

- Remove caps 38 and 19, let all the used oil flow out into a container which should have a label indicating the contents for the purposes of disposal.
- Replace cap 19. Feed 0.2 litres of oil (as specified above) into the oil feed hole located on the upper part of the gear box and then replace cap 38.

### Lubrication of mobile parts of piece locking vice

Clean and grease the parts worked by the bench 2, the vice 9 and the vice screw 6.

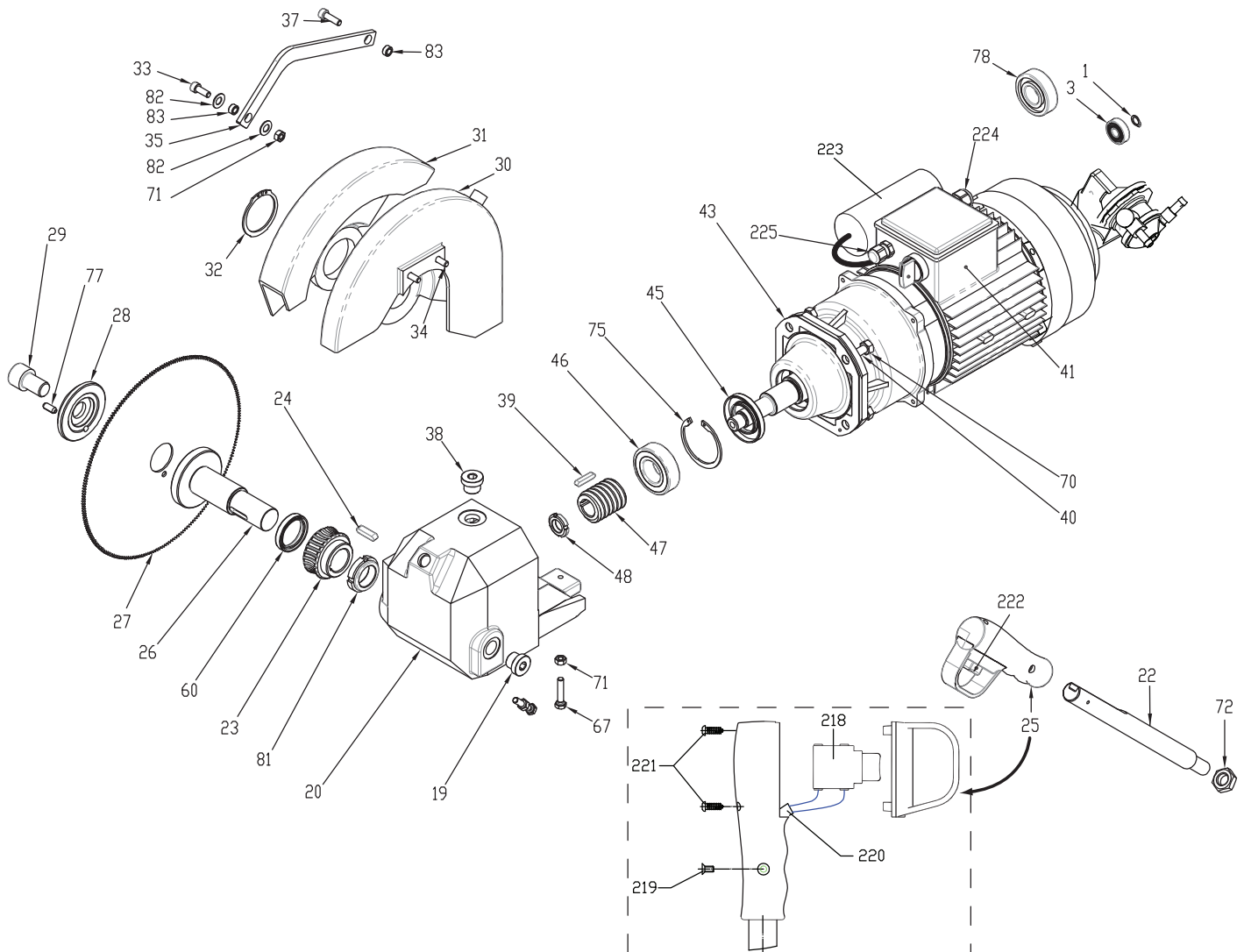
### Cleaning of the coolant tank: Filter check

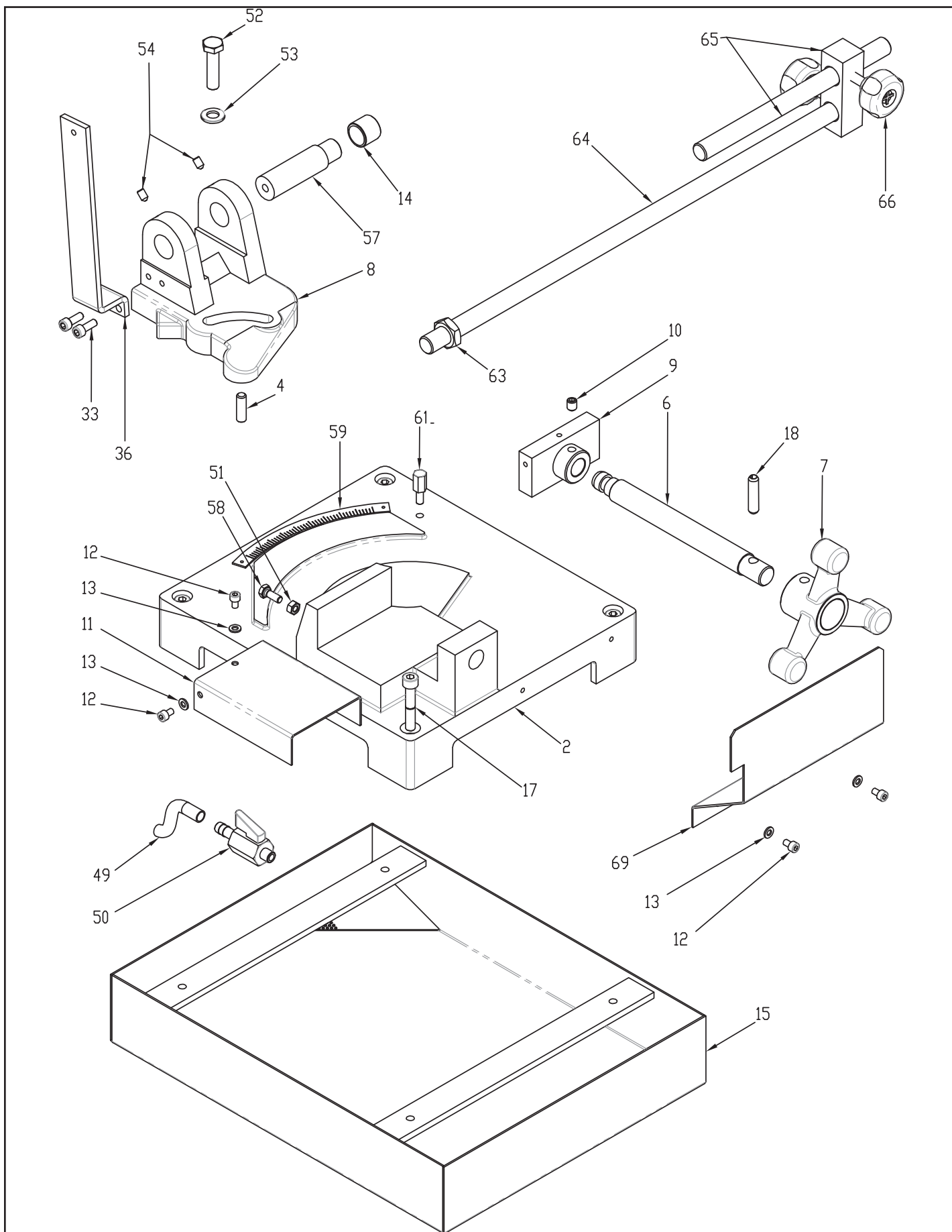
Empty the coolant from the tank by means of the tap located on the rear part of the machine tank (after moving the liquid feed pipe away from this). Collect the coolant in a container for future disposal. Clean out the shavings and the metallic powder, taking care not to scatter this over the machine especially around the motor and the box containing the electrical equipment. Reconnect the pipe, check filter 44 and if necessary replace it. Fill the tank with the amount and liquid stated previously.

### Suggested Maintenance Schedule

FREQUENCY ( working hours )	OPERATION
1000 hrs or monthly	Replace the oil in the gear box with AGIP BLASIA 220 oil (0.2 litres) or equivalent.
1000 hrs or monthly	Lubrication of mobile parts in the piece locking vice
50 hrs or every 2 days	Cleaning of the coolant tank and filter check

### Parts List





POS.	DESCRIPTION	Part Number	QTY
1	Snap Ring ?9 E	*	1
2	Bench	9644230.01	1
3	Bearing 629-2RS ?9/26x8	*	1
4	Pin 8x26 DIN-6325	9644231.01	1
5	Not shown	*	1
6	Vice screw	9644233.01	1
7	Vice handwheel ?140 3BR BF 18 H7	9644234.01	1
8	Head carrying arm	9644235.01	1
9	Vice jaw	9644236.01	1
10	Dowel M8x10 DIN-915 UNI-5925	9644237.01	1
11	Vice cover	9644238.01	1
12	HSHC screw M5x8 DIN-912 UNI-5931	*	4
13	Washer ?5 DIN-125-A	*	2
14	Bush Eccentric	9644239.01	2
15	Tank	9644240.01	1
16	Not shown	*	1
17	HSHC Screw M8x45 DIN-912 UNI-5931	*	4
18	Spring Pin ?8x36	*	1
19	Oil level plug ?3/8?	9644241.01	1
20	Head	9644242.01	1
21	Spacer worm Screw	9644243.01	1
22	Head lever	9644244.01	1
23	Helical gear	9644245.01	1
24	Pin 6x6x40	9644246.01	1
25	Head lever handle with slot	9644247.01	1
26	Disk shaft	9644248.01	1
27	Disk	9644249.01	1
28	Disk flange	9644250.01	1
29	Disk fastening screw	9644251.01	1
30	Disk guard	9644252.01	1
31	Disk movable guard	9644253.01	1
32	Snap ring ?45 E DIN-471	*	1
33	HSHC screw M6x16 DIN-912 UNI-5931	*	2
34	HSHC screw M6x16 DIN-912 UNI-5931	*	2
35	Disk movable guard movable rod	9644254.01	1
36	Disk movable guard fixed rod	9644255.01	1
37	HSHC screw M6x16 DIN-912 UNI-5931	*	1
38	Oil filling cap ?3/8?	9644256.01	1
39	Key 5x5x30 DIN-6885	9644257.01	1

POS.	DESCRIPTION	Part Number	QTY
40	Dowel M8x35 DIN-914 UNI-5927	9644258.01	4
41	Switch box	9644259.01	1
42	Not shown	*	1
43	Motor M80 V230/50 1F 4P B4 HP1	9644261.01	1
44	Filter TE 250 FB 7	9644262.01	1
45	Splash ?30/42x7	9644263.01	1
46	Bearing 6205 ?25/52x15	*	1
47	Worm screw	9644264.01	1
48	Self-locking ring nut M16x1 DIN-981	*	1
49	Water pipe	9644265.01	1
50	Tap ?1/8?	9644266.01	1
51	Medium Nut M6 DIN-934 UNI-5589	*	1
52	HH screw M10x40 DIN-933 UNI-5739	*	1
53	Washer ?10 DIN-125/A	*	1
54	Dowel 6x10 DIN-914 UNI-5927	9644267.01	1
55	Not shown	*	1
56	Stator	9644269.01	1
57	Head pin	9644270.01	1
58	HH screw M6x16 DIN-933 UNI-5739	*	1
59	Graduated sector	9644271.01	1
60	Splash guard 25-35-7	9644272.01	1
61	Stopper	9644273.01	1
62	Not shown	*	1
63	Nut M16 DIN-934 UNI-5589	*	1
64	Bar stopper rod	9644275.01	1
65	Bar stopper	9644276.01	1
66	Bar stopper knob	9644277.01	2
67	HH screw M6x30 DIN-933 UNI-5739	*	2
68	Pump	9644278.01	1
69	Front cover	9644279.01	1
70	Nut M8 DIN-934 UNI-5589	*	4
71	Nut M6 DIN-934 UNI-5589	*	3
72	Nut M14 DIN-936 UNI-5589	*	1
73	Not shown	*	1
74	Not shown	*	1
75	Snap ring ?52 I	*	1
76	Compensation Ring	9644282.01	1
77	Spring pin 6x16 DIN1481	*	1
78	Bearing 6204 - 2Z ?20/47x14	*	1
79	Not shown	*	1

POS.	DESCRIPTION	Part Number	QTY
80	Fan MEC80	9644284.01	1
81	"Self Locking Ring Nut M25x1 5"	*	1
82	"Belleville Washer 16x8 2x2 DIN-2093"	*	2
83	Bush ?6	9644285.01	2
219	HSFHC screw M4x8 DIN- 7991	*	1
220	Electrical cable 2x1	9644286.01	1
221	"RH screw M2 9x13 DIN- 7981"	*	6
222	Micro switch of handle	9644287.01	1
223	Capacitor 25µF±5% SH 450V Ac-50/60Hz	9644288.01	1
224	"Fitting Pg 13 5"	9644289.01	1
225	Fitting Pg 9	9644290.01	1

## **PALMGREN WARRANTY**

C.H. Hanson / Palmgren warrants their products to be free of defects in material or workmanship. This warranty does not cover defects due directly or indirectly to misuse, abuse, normal wear and tear, failure to properly maintain the product, heated, ground or otherwise altered, or used for a purpose other than that for which is was intended.

The warranty does not cover expendable and/or wear part (i.e. v-belts, screws, abrasives, jaws), damage to tools arising from alteration, abuse or use other than their intended purpose, packing and freight. The duration of this warranty is expressly limited to the terms noted below beginning from the date of delivery to the original user.

**The Palmgren branded items carry the following warranties on parts:**

**All vises, clamps, positioning tables, tombstones, jack screws and vise accessories - LIFETIME.**

**All bench grinders, drill presses, tapping machines, band saws, lathes, milling machines, arbor presses, abrasive finishing machines and work stands - 3 YEARS.**

The obligation of C.H. Hanson / Palmgren is limited solely to the repair or replacement, at our option, at its factory or authorized repair agent of any part that should prove inoperable. Purchaser must lubricate and maintain the product under normal operating conditions at all times. Prior to operation become familiar with product and the included materials, i.e. warnings, cautions and manuals.

**Failure to follow these instructions will void the warranty.**

This warranty is the purchaser's exclusive remedy against C.H. Hanson for any inoperable parts in its product. Under no circumstances is C.H. Hanson liable for any direct, indirect, incidental, special or consequential damages including loss of profits in any way elated to the use or inability to use our products. This warranty gives you specific legal rights which may vary from state to state.



**Palmgren - a C.H. Hanson Company**  
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or call **1-800-827-3398**