

# SASE COMPANY

DIAMOND GRINDER  
780

## OPERATING AND PARTS MANUAL

SASE Company, Inc.  
1-800-522-2606





## The Surface Preparation Equipment Specialists

Sales • Rentals • Service • Leasing

**1-800-522-2606**

[www.sasecompany.com](http://www.sasecompany.com)

E-mail: [sales@sasecompany.com](mailto:sales@sasecompany.com)

Thank you and congratulations on your decision to purchase *SASE Surface Preparation Equipment!* We are confident that you will be satisfied with your purchase and that you will receive many years of quality use and production.

Our goal is nothing short of excellence in providing the finest surface preparation equipment and service that can be found on the market today. This pursuit of excellence is founded upon our 15 years in selling and servicing surface preparation equipment. The SASE Company staff is dedicated to providing exceptional service and is the cornerstone by which the SASE Company superior product line is built.

When you need timely service, support or replacement parts, SASE Company is there with regional warehouses, same day shipping of parts and machines or delivery right to your jobsite. Sales and service staff are available from 5:30 AM to 5:00 PM (PST) for jobsite consulting, trouble shooting or for shipping orders.

On behalf of the entire SASE Company Team, thank you for your valued business and we look forward to servicing your surface preparation needs.

Sincerely,  
SASE Company, Inc.

A handwritten signature in black ink, appearing to read "JW", with a stylized flourish at the end.

Jim Weder  
President

*SASE Company Surface Preparation Equipment. . . . time tested, job site proven.*

### NATIONWIDE LOCATIONS

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Washington • California • Illinois • Georgia • Virginia  
Florida • Ohio • Texas • New England • Oklahoma • North Carolina



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## TECHNICAL SPECIFICATIONS

### **Diamatic 780 220 Volt**

Weight	1,100 LBS
Power Requirement	220 Volt Three Phase 60 Amp
Motor Output	20 Horsepower
Motor RPM	1500
Foot Pounds of Torque	96
Grinding Width	30.5 Inches
Grinding Pressure	935 Pounds
Disc Diameter	9 Inch

### **Diamatic 780 440 Volt**

Weight	1,100 LBS
Power Requirement	440 Volt Three Phase 30 Amp
Motor Output	23 Horsepower
Motor RPM	1500
Foot Pounds of Torque	108
Grinding Width	30.5 Inches
Grinding Pressure	935 Pounds
Disc Diameter	9 Inch

## SAFETY INSTRUCTIONS

- ◆ Check that you are using the recommended power supply and have made the correct connections.
- ◆ To avoid injury and damage to yourself and the machine, only qualified electricians should make and check any electrical connections to the machine.
- ◆ Before inserting the plug into the power supply socket, inspect the plug for damage. If damage is found, have the defective item replaced by a qualified electrician immediately.
- ◆ Make sure the machine is switched off before inserting the power plug into the socket.
- ◆ Before operating the machine make sure that the instruction manual has been read thoroughly by the operator.
- ◆ Keep the machine and other tools away and out of reach of children.
- ◆ When necessary: wear gloves, eye protection, and hearing protection during grinding operations.
- ◆ Use only genuine accessories.
- ◆ Use the machine only for the purposes which have been designed for.
- ◆ Make sure that the operator is qualified and capable for the operating / purpose for which the machine is intended to be used.
- ◆ Don't put anything other than water in the water tank. Always be careful that no water will come into contact with the motor or other electrical parts. Water can cause injury to yourself and the machine if it makes contact with any electrical part.
- ◆ Check the floor condition / lay out prior to starting the machine. Protruding obstacles such as screws, bolts, etc. must be removed as they can cause damage to the grinding disc and the machine.
- ◆ No responsibility can be taken by the manufacturer or any distributors for any other action which is not described in this safety instructions or in the instruction manual.

## SAFETY INSTRUCTIONS

### WARNING!

- ◆ **KEEP THE MACHINE DRY!**
- ◆ **DON'T CLEAN THE MACHINE USING HIGH PRESSURE WATER!**
- ◆ **ONLY QUALIFIED PERSONAL SHOULD OPEN THE POWER BOX!**

CHECK THAT THE CABLE IS  
FREE AND NOT PINCHED!

Power Box



## SAFETY INSTRUCTIONS

### WARNING!

- ♦ **DO NOT PUT YOUR HANDS OR OBJECTS INTO THE VACUUM HOLES WHILE THE MACHINE IS OPERATING!**
- ♦ **DURING WET GRINDING THE VACUUM HOLES SHOULD ALWAYS BE COVERED WITH THE RED PROTECTION CAP!**



Vacuum  
Hole

## MACHINE ADJUSTMENTS

Place the machine into the working condition.

Adjust the machine with the hydraulic jack in a horizontal position.



Jack

Slide the dust ring down until it is flush with the floor.



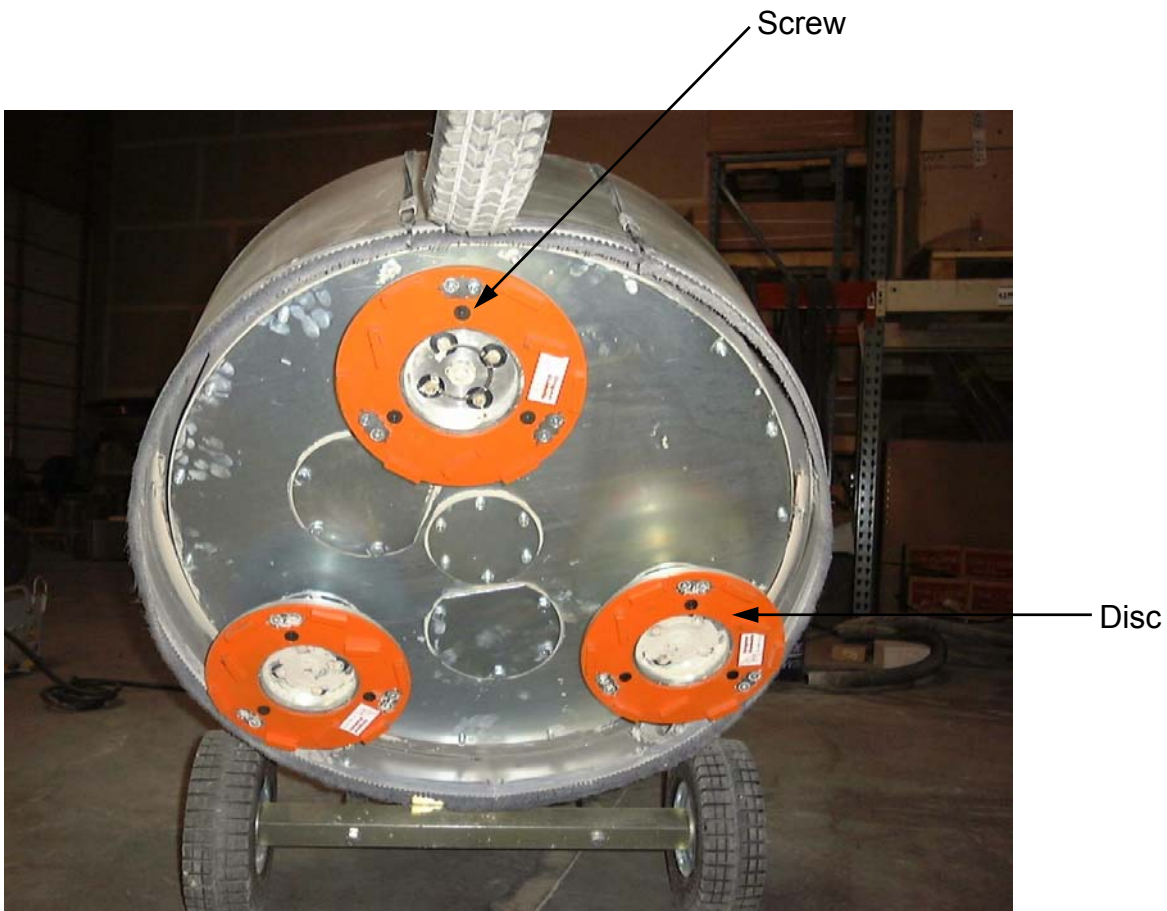
Dust Ring

## INSTALLATIONS AND REMOVAL OF TOOLS

Disconnect the machine from the power source.

Tilt the machine back into the position shown.

Each diamond disc is held on by 3 countersunk screws. When installing make sure the tools is aligned properly with the 'centering stars'.



## WET AND DRY GRINDING

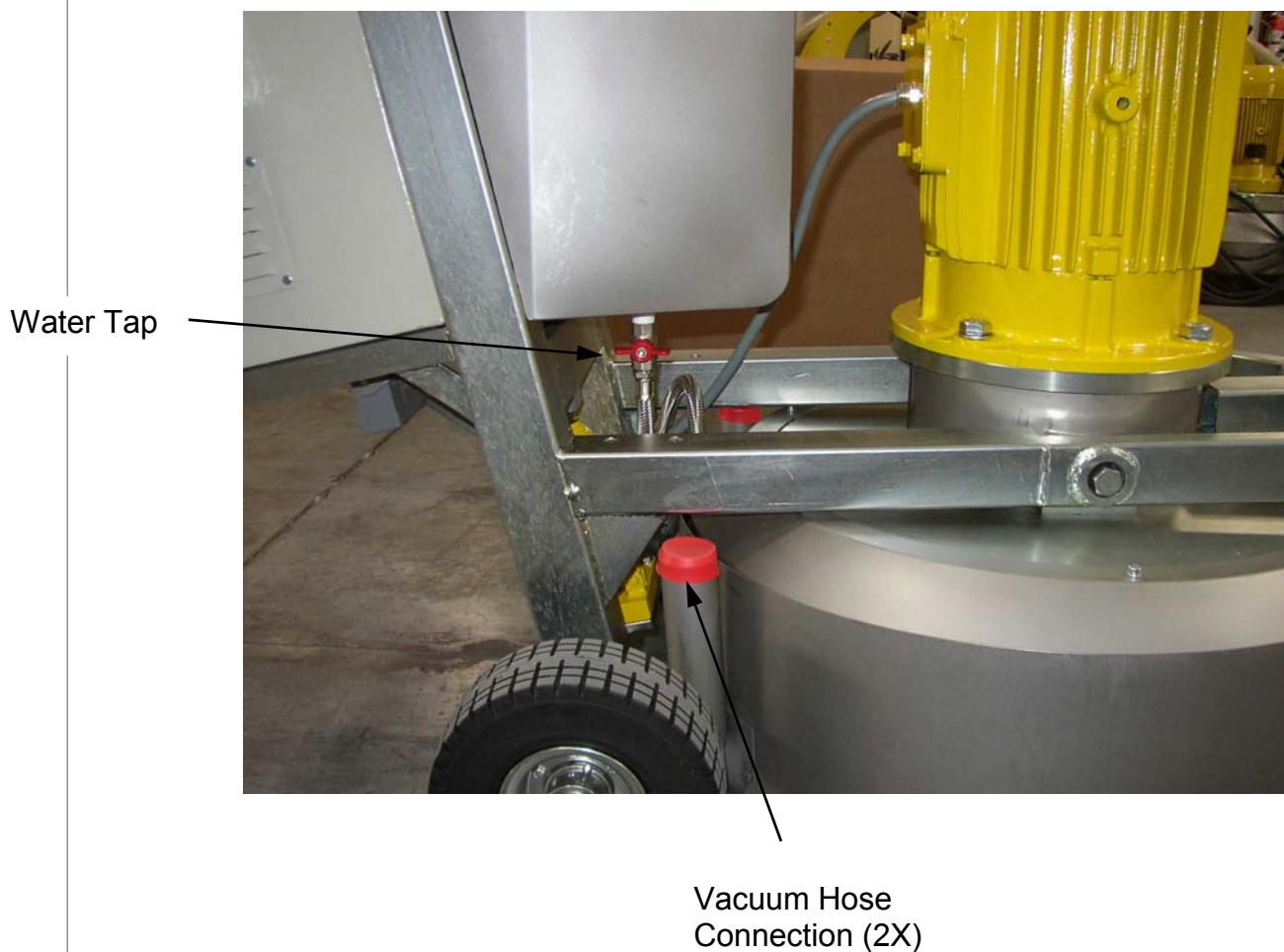
### WET GRINDING

Fill the water tank with water.

Rotate the water tap handle to start the water flowing.

### DRY GRINDING

Connect the vacuum hose to the 2 vacuum hose connections on the machine.



## POWER SUPPLY

Check that you have the correct voltage and have made the correct connections.

Connect power cable on power connector.



Power Connector

## START AND STOP PROCEDURE

Adjust the the handle for operation.

Connect the power cable to the machine at the power connection.

Wait until the “NO FAULT” light is on. (A)

Connect the saftey cord to your wrist.

Start the machine by pushing the green start button. (B)

Stop the machine by pusing the red stop button. (C)

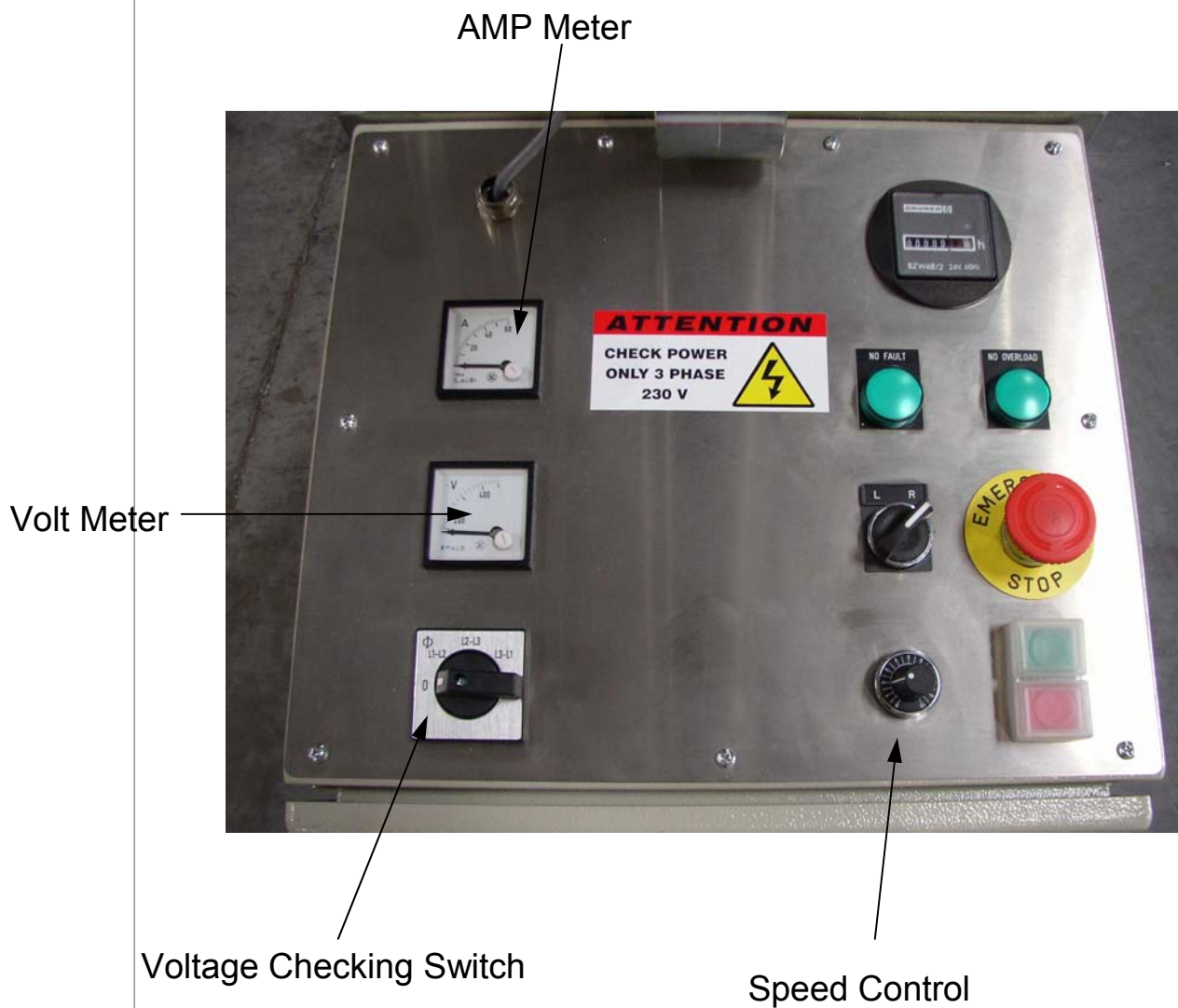


## CONTROL PANEL

You can choose the speed of the machine with the Speed Control button.

Recommended Settings:

- 0-4: Heavy Duty work
- 4-6: Medium Duty work
- 6-10: Light Duty work



## MAINTENANCE AND CLEANING

**Before any work is done on the machine you must disconnect the power supply.**

To assure the long life of the machine, it must be frequently cleaned, when doing so you must remember that:

- ♦ Clean the machine with a moist cloth without using any abrasive powers or corrosive chemicals which could cause harm to the machine.
- ♦ **Never use high pressured water on the machine.**
- ♦ Keep the electrical box dry and dust free. Water and dust will destroy the electrical components.
- ♦ Check regularly the bolts and nuts on the machine.
- ♦ Check the belts on the inside of the machine using the inspection hole on the bottom. The inside of the machine and the belt must be dry and dust free.



Inspection Hole

## TROUBLESHOOTING

### ***Machine does not start:***

Check the power connections.

Check the power source.

Check to make sure the kill switch is not activated.

### ***Machine does not grind effectively:***

Check if you are using the correct grinding tools for what you are trying to remove.

Check to see if you have correct amount of pressure on the grinding tools. (See Machine Adjustments)

### ***Machine is unstable:***

Check if the discs are mounted and tight.

### ***Machine does not rotate counter clockwise:***

Check upper belt

### ***Discs do not rotate:***

Check the lower belt. (Rotate one disc, the other two must also rotate)










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## Suggested Applications and Guidelines

### Diamatic Diamond Disc for Concrete

Disc Color	Grit Size	Binding Material	Binding Hardness	Suggested Application
 Silver	16/18	Metal	Soft	*Coatings Removal
 Blue	20/25	Metal	Soft	*Coatings Removal *Non-aggressive concrete grinding
 Red	30/40	Metal	Medium	*Powerfloated, hard concrete grinding *Some coatings removal
 Black	30/40	Metal	Hard	*Concrete grinding *General use
 Orange	30/40	Metal	Very Hard	*Aggressive concrete grinding
 White	80/100	Metal	Soft	*Removal of swirl marks from initial grinding step *Concrete polishing *Not recommended as the first grinding step
 Gold	180/200	Metal	Soft	*High-end concrete grinding *Concrete polishing *Never use as the first grinding step

\*Coating removal refers to but is not limited to: thin epoxies, urathanes, paints, sealers, adhesives and mastics

### Diamatic Diamond Disc for Polishing Concrete

Disc Color	Grit Size	Binding Material	Binding Hardness	Suggested Application
 Black	120	Resin	Very Soft	*First step of concrete polishing *Use after Gold Discs (water required)
 Red	400	Resin	Very Soft	*Second step of concrete polishing *Use after Black Resin Discs (water required)
 Yellow	800	Resin	Very Soft	*Third step for high end concrete polishing *Use after Red Resin Discs (water required)
 White	1500	Resin	Very Soft	*Fourth step for high end concrete polishing *Use after Yellow Resin Discs (water required)

\*Sase Company stocks all the above discs. Others discs with varying grit and binding combinations can be special ordered to meet your application requirement.

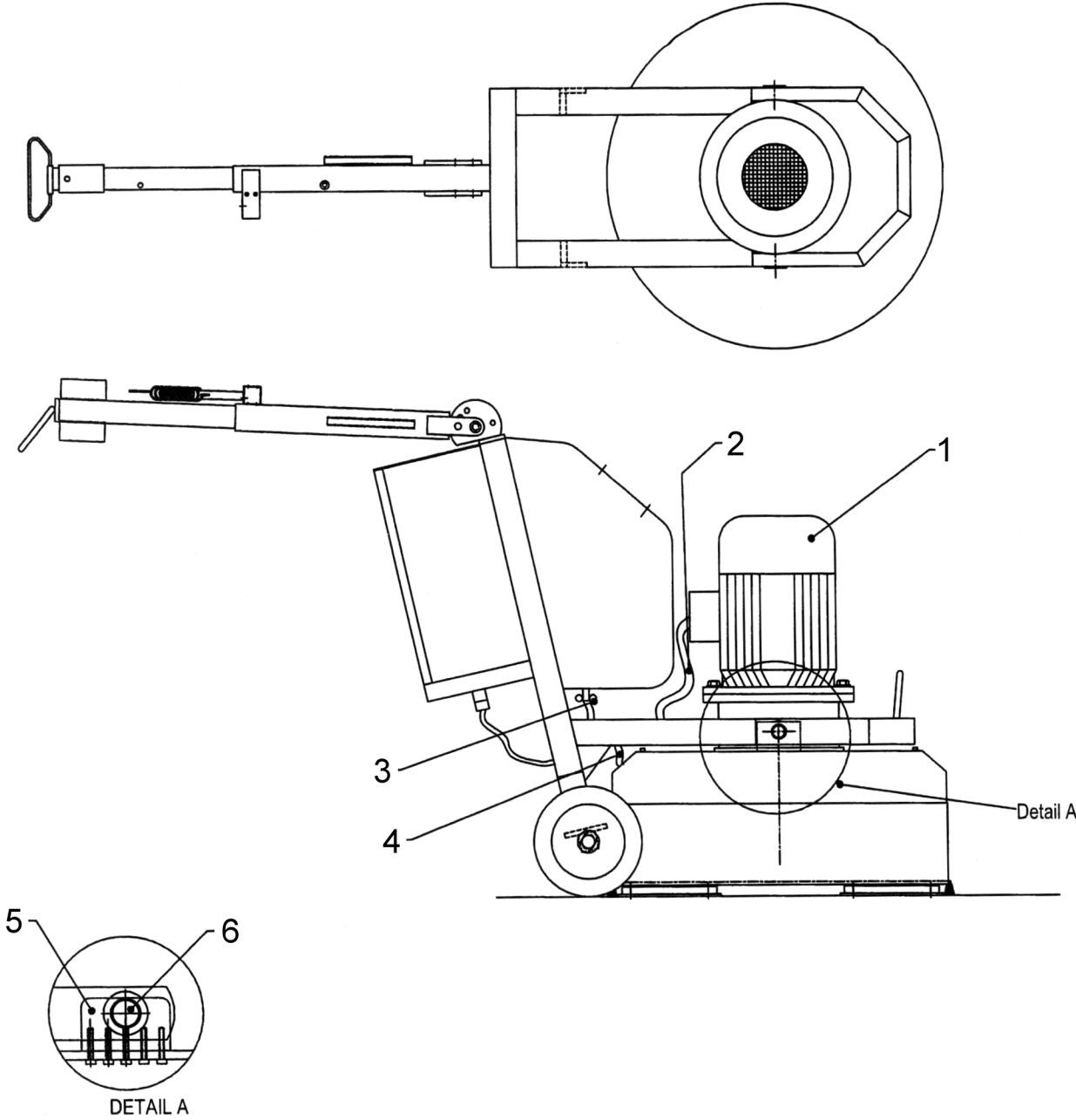
# DIAMATIC 780

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# Diamatic 780



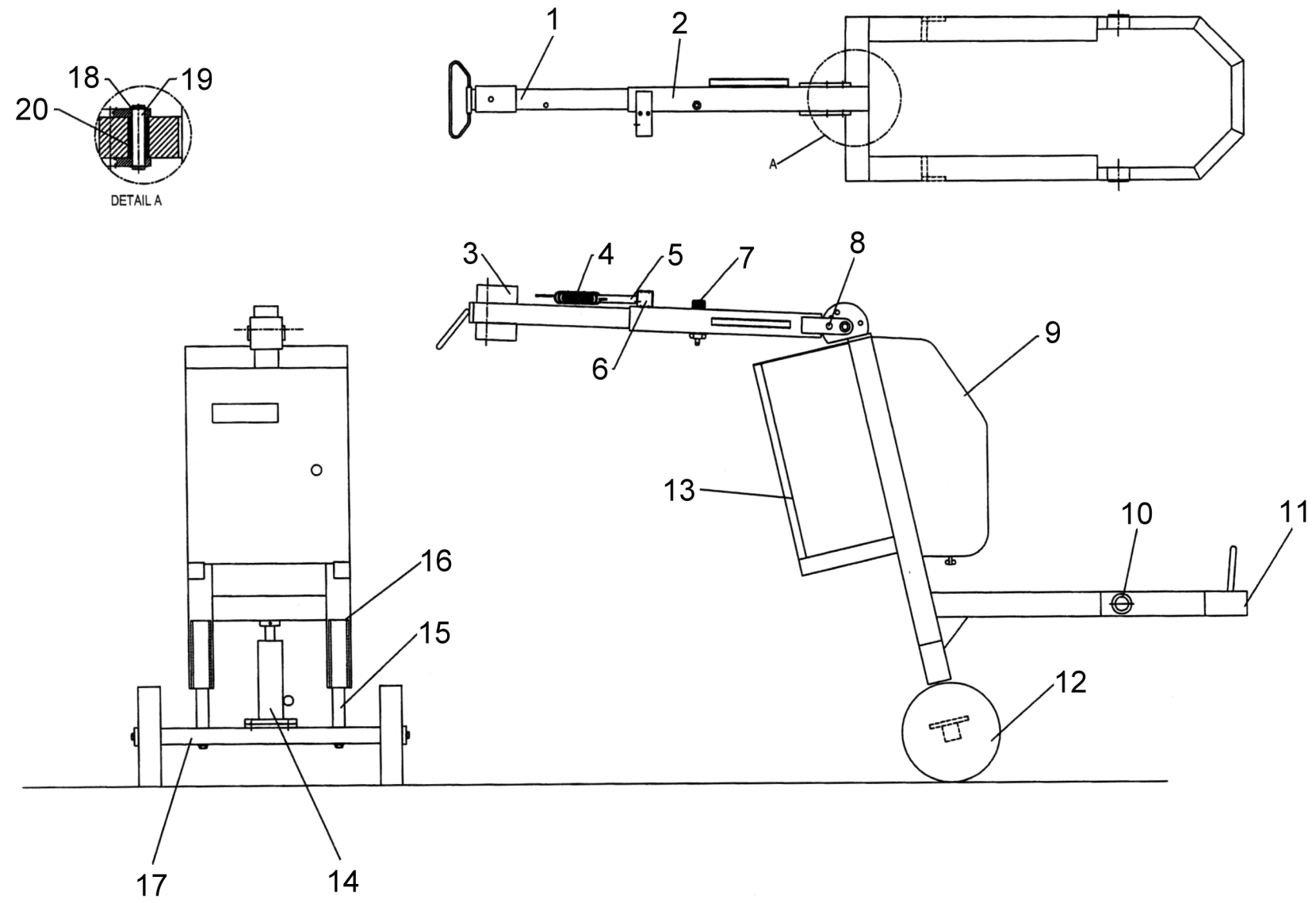
# DIAMATIC 780

Revision August 2003

## List of items for Diamatic 780

[illegible]

# Diamatic 780 Frame



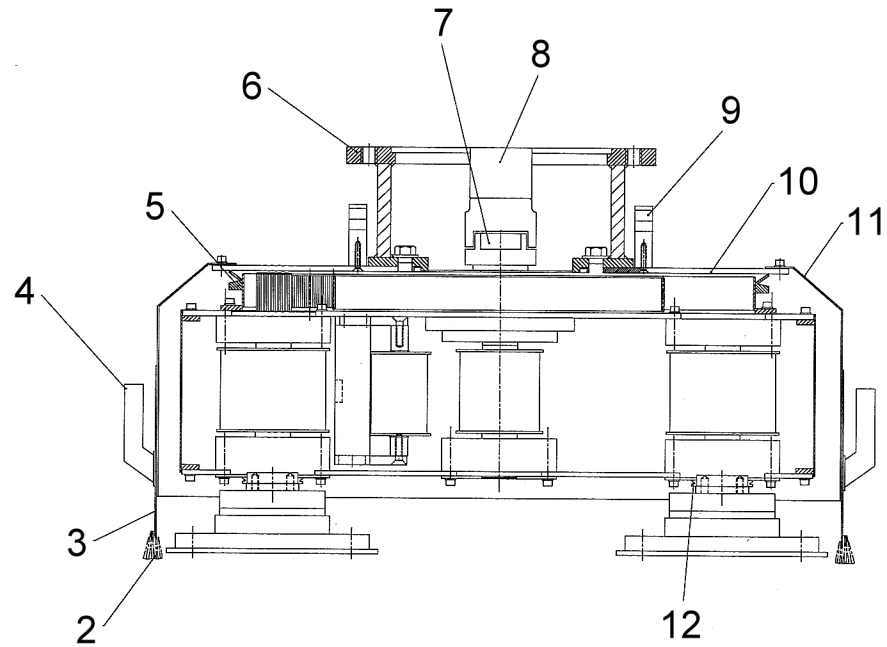
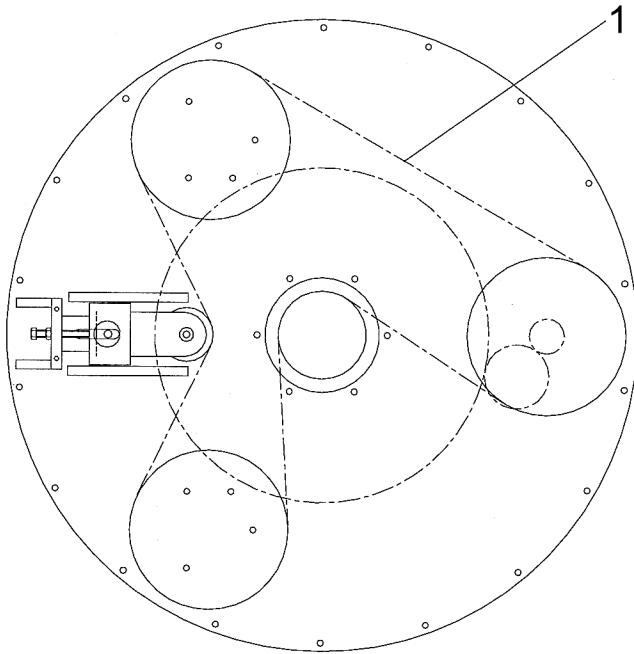
# DIAMATIC 780

Revision August 2003

## List of items for the Frame

Position Number	Article Number	Item Number	Description	Qty. per machine
1	U11857		TUBE, ADJUSTABLE STEERING	1
2	U11858		TUBE, STEERING	1
3	U11853		WEIGHT, SET	1
4	U11758		CORD, SAFETY	1
5	U11759		PIN, SAFETY	1
6	U11760		SWITCH, SAFETY	1
7	U11856		PIN WITH NUT	1
8	U11851		PIN	1
9	U11859		TANK, WATER	1
10	U11846		BUSHING	1
11	756		FRAME	1
12	U11850		WHEEL, SIDE	2
13	753		BOX, ELECTRICAL	1
14	U11852		JACK, HYDRAULIC	1
15	U11892		ROD	1
16	U11893		BUSHING, GLIDE	2
17	U11891		AXLE, WHEEL	1
18	U11794		RING, RETAINING M15	2
19	U11854		PIN	1
20	U11855		BUSHING	1

# Diamatic 780 Cross Section



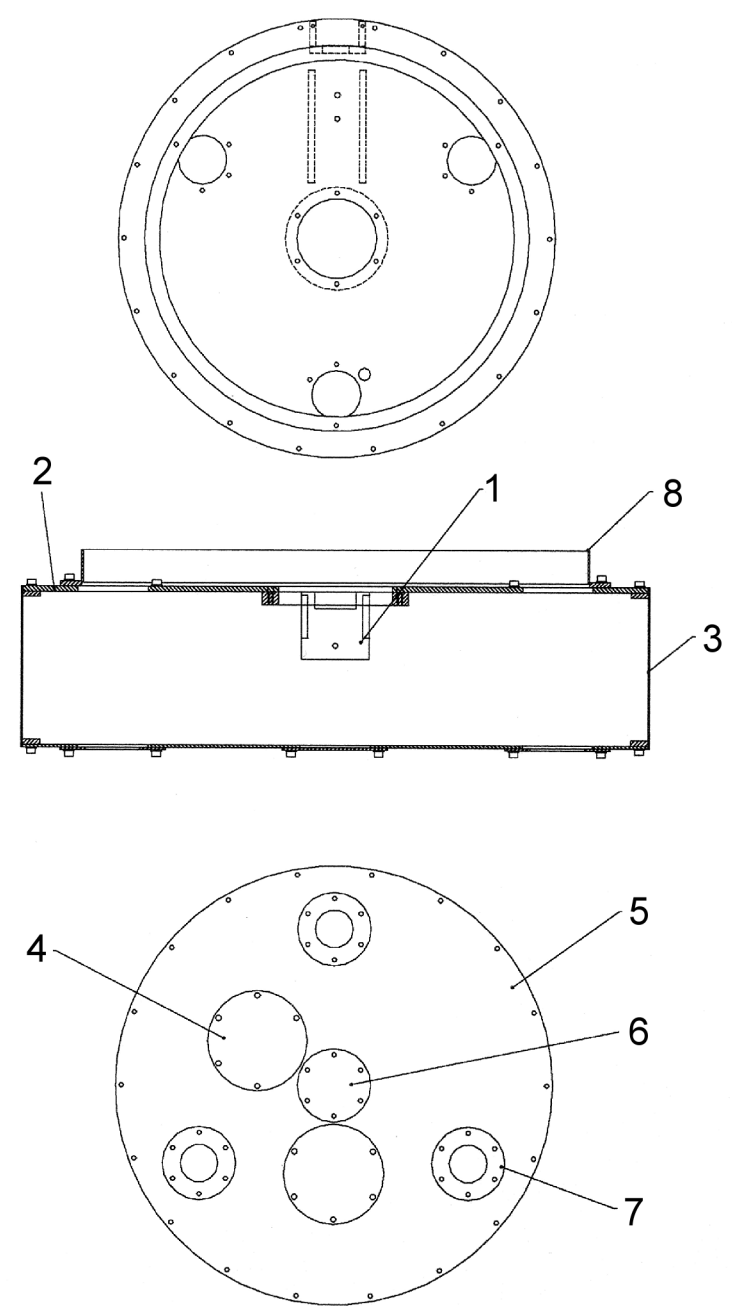
# DIAMATIC 780

Revision August 2003

### List of items for Belts and Cross Section

[illegible]

# Diamatic 780 Drive Housing



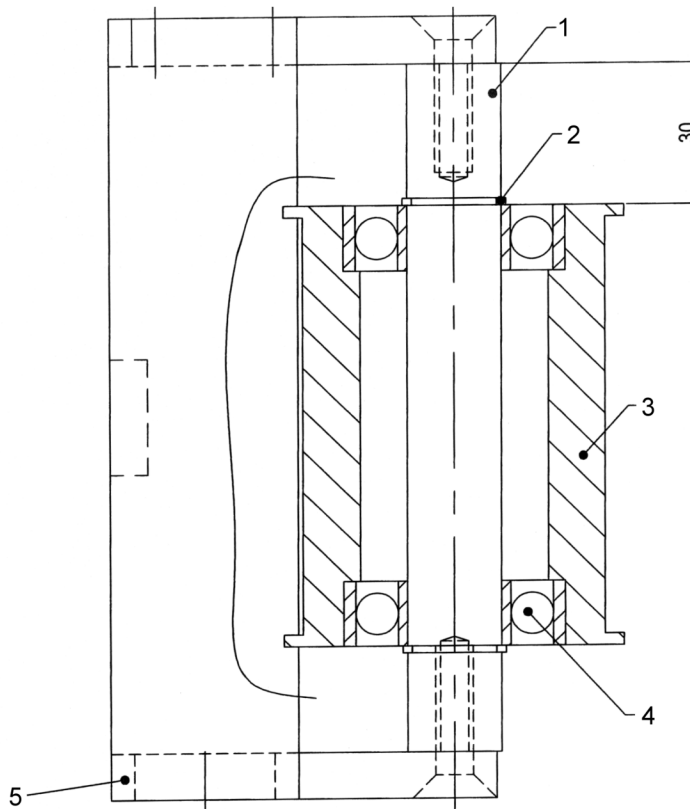
# DIAMATIC 780

Revision August 2003

## List of items for Drive Housing

[illegible]

# Diamatic 780 Belt Tensioner



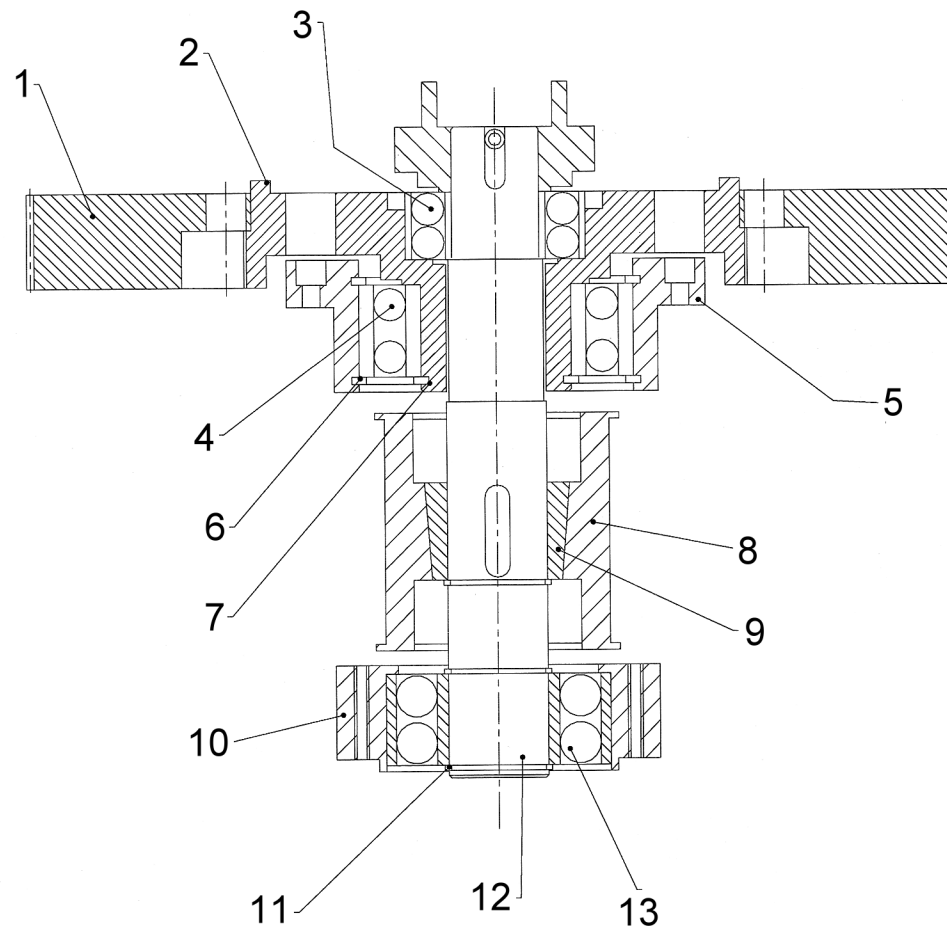
# DIAMATIC 780

Revision August 2003

## List of items for Belt Tensioner

[illegible]

# Diamatic 780 Center Pulley



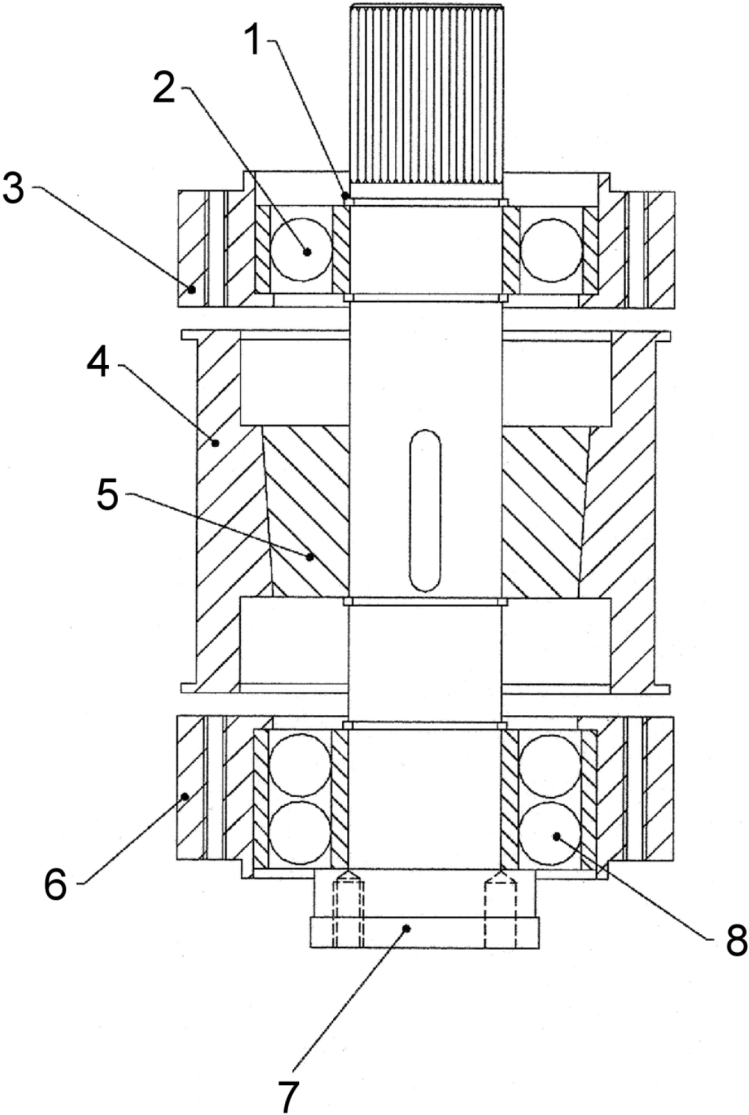
# DIAMATIC 780

Revision August 2003

## List of items for Center Pulley

Position Number	Article Number	Item Number	Description	Qty. per Pulley
1	759		GEARWHEEL, LARGE	1
2	758		SPROCKET	1
3	U11872		BEARING, 3207 2RS	1
4	U11873		BEARING, 3212 2 RS	1
5	U11870		HOUSING, BEARING	1
6	U11874		RING, RETAINING M110	1
7	U11875		RING, RETAINING M60	1
8	U11867		PULLEY	1
9	U11868		BUSHING	1
10	U11869		HOUSING, BEARING	1
11	U11886		RING, REATING M40	1
12	759		AXLE, CENTER PULLEY	1
13	U11871		BEARING, 3308 2RS	1

# Diamatic 780 Drive Pulley



# DIAMATIC 780

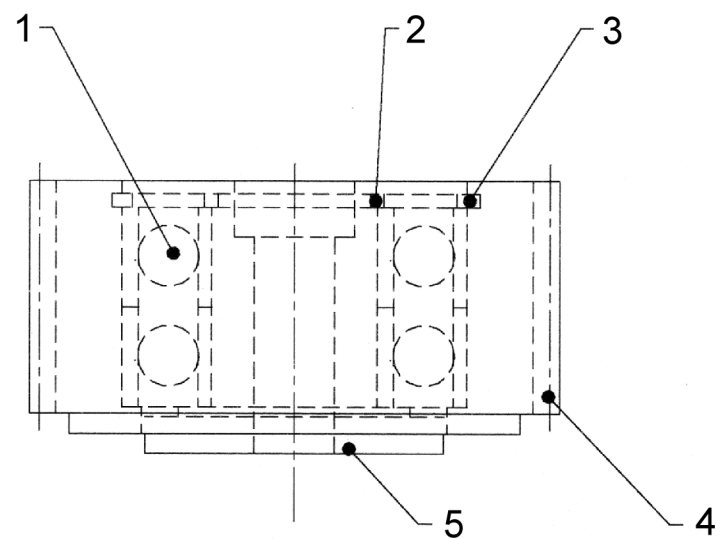
Revision August 2003

## List of items for Drive Pulley

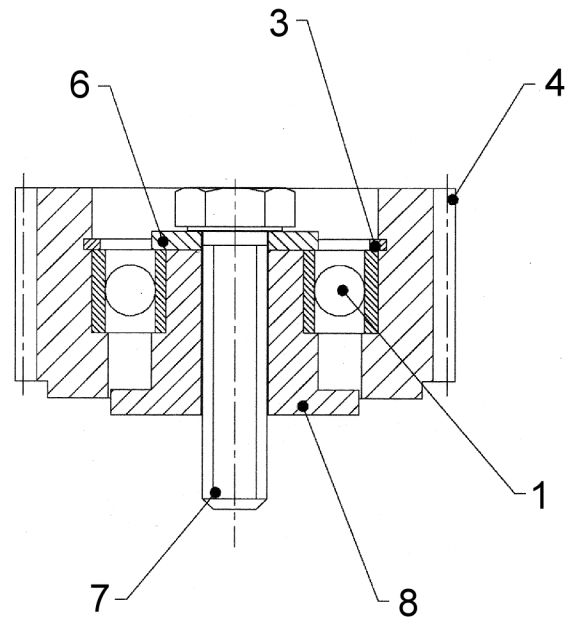
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# Diamatic 780 Gear Wheel

Older Style Gear Wheel  
using M8 bolt



Newer style Gear Wheel  
using M12 bolt



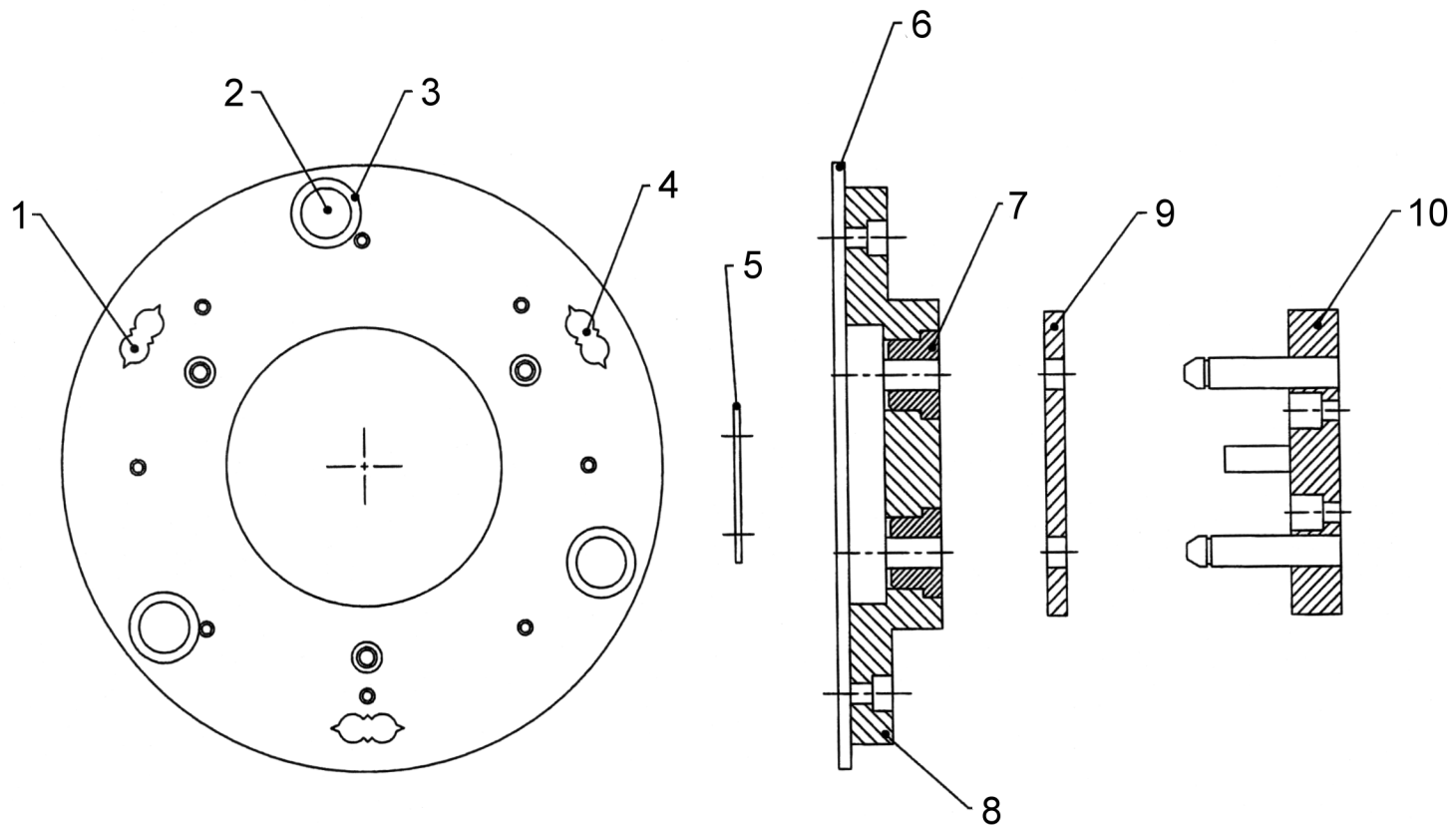
# DIAMATIC 780

Revision August 2003

### List of items for Gear wheel

[illegible]

# Diamatic 780 Diamond Holder



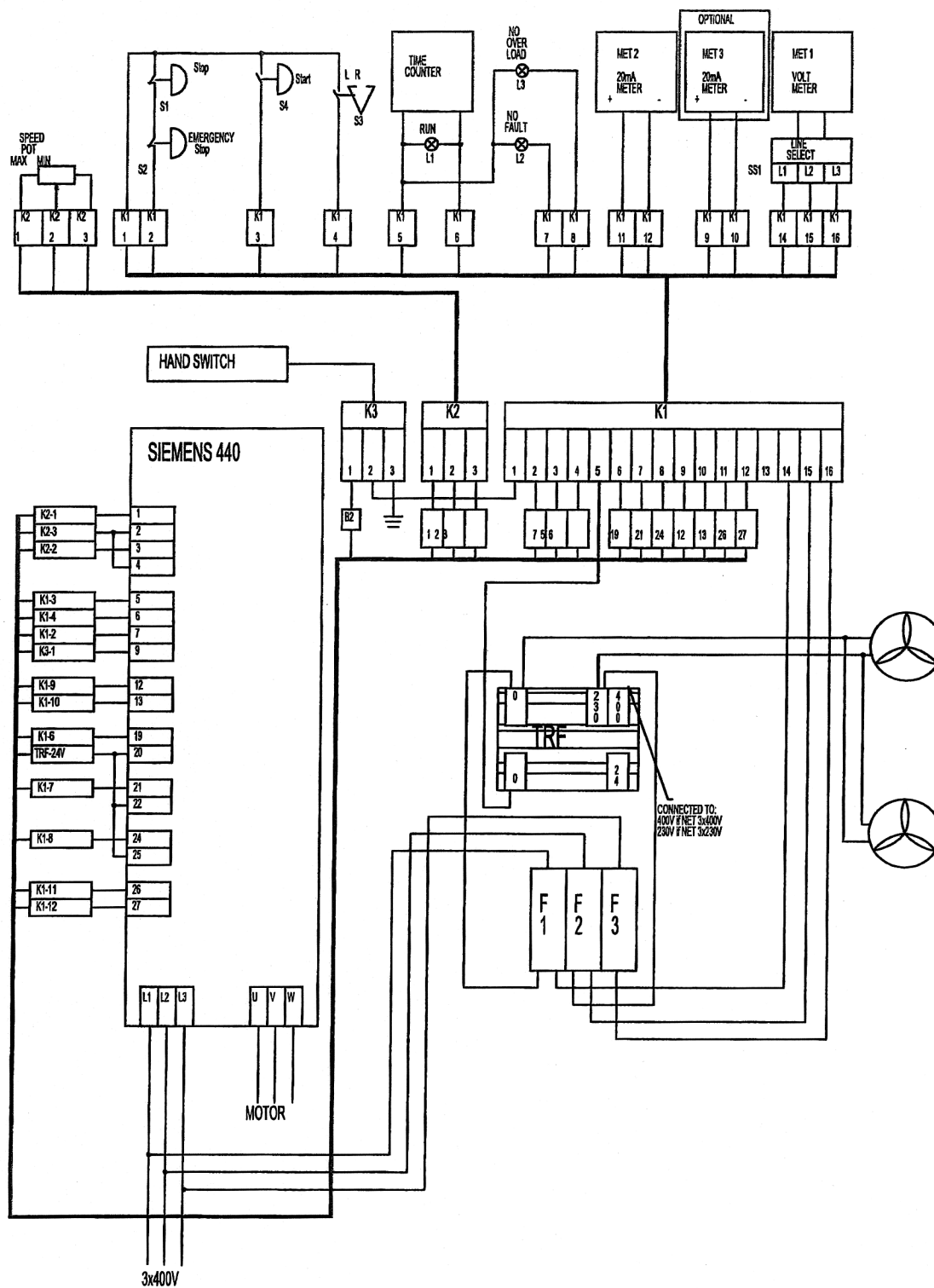
# DIAMATIC 780

Revision August 2003

## List of items for Diamond Holder

[illegible]

# 3X230V Wiring Diagram with Siemens 440 Computer



# 3X400V Wiring Diagram with ABB ACS800 Computer

