

MS330-1 MULTISTRIPPER

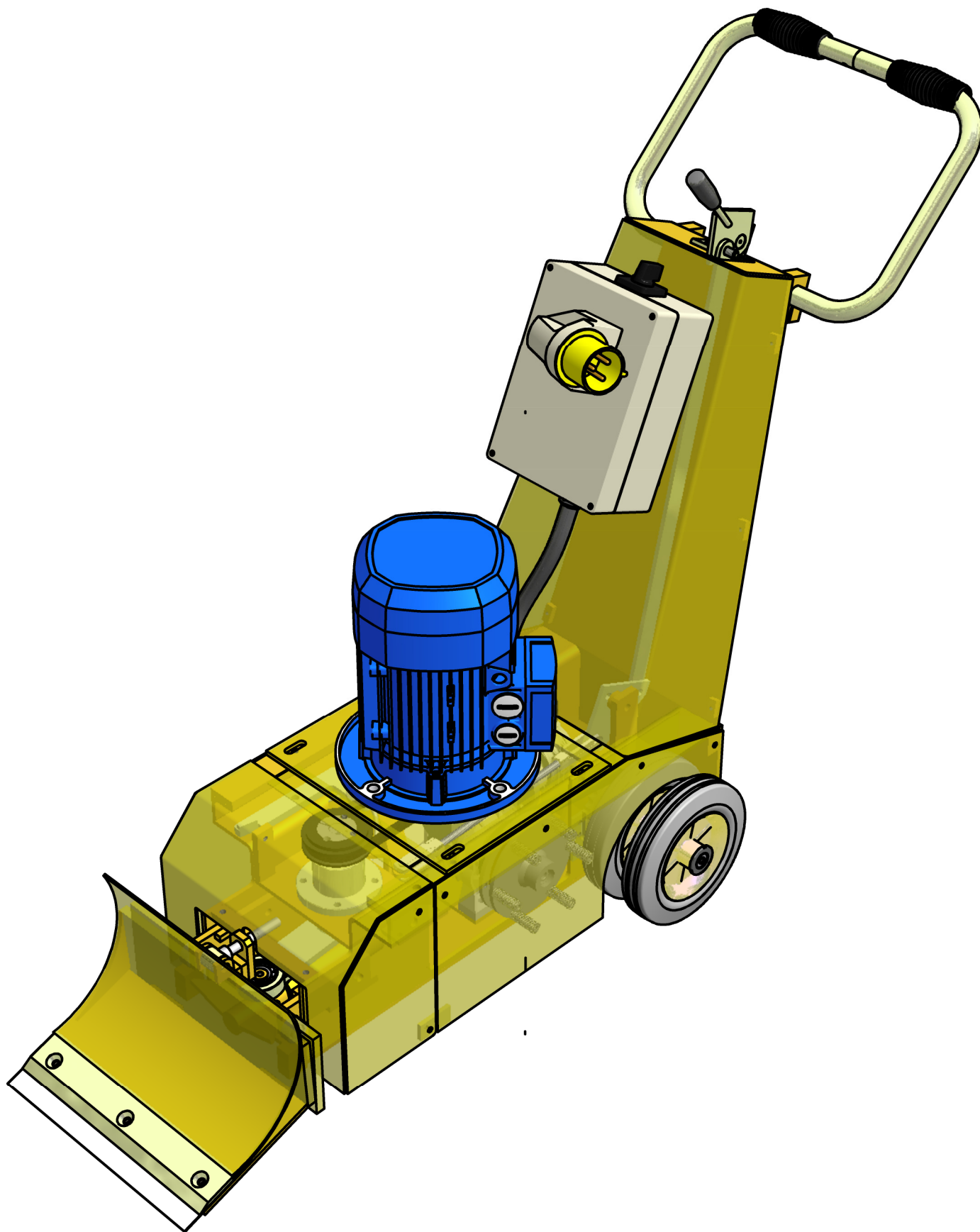
Operating Manual

This manual is provided to persons purchasing an SPE machine and may not be reproduced in part or full without written permission of SPE International Ltd.

This manual provides the basic information required and is only to be used as a guideline.
The SPE machines are manufactured and covered by SPE design registrations granted and pending.
SPE International Ltd reserves the right to alter the equipment design and specification as required without notice.

The SPE product range is subject to amendment and improvement as a result of on going research





SPE
Surface Preparation Equipment™

SPE International Limited
Honeyholes Lane, Dunholme
Lincoln, LN2 3SU, England
Tel: +44 (0) 1673 860 709
or +44 (0) 1673 860 330
Fax: +44 (0) 1673 861 119
Web Site: <http://www.spe-int.com>
E-mail: sales@spe-int.com

MS 330



<p>MS330-1 MULTISRIPPER Operating Manual</p>
--

This manual covers to the best of our knowledge, the operation and maintenance of the **MS330** Multistripper. Before operation of the equipment the manual should be read and understood by the operator. The safety regulations must be followed at all times. Service of electrical components should be carried out by authorised personnel. Failure to follow these instructions could result in damage to the machine and/or serious personal injury or death.

WARNING

Failure to follow these instructions may result in serious personal injury or death. SPE disclaims all responsibility for damage to persons or objects arising as a consequence of incorrect handling of the machine and failure to inspect the machine for damage or other faults that may influence the operation prior to starting work.



INDEX

1. Starting work
Operating Instructions
2. Electrical Instructions
3. Maintenance
4. Safety
5. Spare Parts Breakdown
6. Body Components
7. Blade & Motion Components
8. Drive Components
9. Power Components
10. Wiring Diagram
11. Electrical Components
12. Specification Sheet
13. Noise and Vibration Assessment
14. Warranty
15. Declaration of Conformity
16. Conditions of Sale



STARTING WORK

- Check the condition of the cutter blade assembly
- Check all nuts and bolts for tightness
- Check the drive belt for condition and tension
- Check the plugs and cables for damage

Before starting the machine ensure that the blade is clear of any obstructions

Adjust the handlebar to a comfortable height and position.

Connect the machine to the power supply. See page 2 for further details.

Start the motor by turning the switch on the panel to the start position hold for 2-3 seconds for the motor to start and release, the switch will return to it's run position.

To stop the machine, turn the switch to the off position.

OPERATING INSTRUCTIONS

With the motor running, the blade will now be operation. To drive the machine forwards, engage the clutch by moving the lever on top of the machine forwards. To cease the drive, pull the lever backwards.

The machine can also be moved manually (i.e. in confined areas), if required, by leaving the clutch lever in the rearward position.

Care should be taken when operating the drive clutch mechanism. Should the machine become slack/jammed into the material whilst in forward drive, the following procedure should be followed.

Stop the forward drive of the machine by pulling the clutch lever backwards. If the drive does not disengage freely on operation of the lever, do not force the lever and mechanism. Stop the machine by turning the switch to the off position and then operate the clutch lever backwards to disengage the drive. Free the machine from the material and recommence work.

Excessive pressure on the clutch mechanism will result in the bending of the clutch operating arms and the potential failure of the clutch release bearings.

NOTE: If removing sheet vinyl or carpet, cut the material into strips with a knife at approximately the width of the MS330 blade.



<p>MS330-1 MULTISRIPPER Operating Manual</p>
--

ELECTRICAL INSTRUCTIONS

The points raised are based on many years practical experience not on text book theory. If you follow these guidelines your time on site will be productive rather than frustrating.

The MS330-1 machine is supplied with a specially commissioned 110v electric motor and starter switch assembly. Each unit is fully tested and the safety overload relays have been calibrated and set according to the manufacturers specifications. In the event of the malfunction on a new machine the owner should first check that the power supply on site is suitable and adequate.

The motor requires a 32amp 110v power supply.

To avoid voltage drop the cable size must be a minimum of 4.0mm 3 core. Maximum length of cable not to exceed 30 metres.

The transformer must have a continuous rated output of at least 3 KVA. In practice this means that a 5 KVA transformer must be used. Manufacturers of transformers have different methods of rating their equipment.

The transformer and all cables should be fitted with 32 amp 110v plugs and sockets.

All cables should be fully uncoiled and never left wrapped around cable reels or tied in loops.

If the power is to be generated, the MS330-1 requires a minimum 8kva generator.

The motor is protected with a safety trip in the panel. Should the trip be activated, you must isolate the power supply, open the panel and reset the trip.

If the motor repeatedly cuts out then it will be damaged. The possible causes are either an inadequate power supply, overloading of the machine, or an electrical fault. The machine can only be overloaded by setting the depth of cut too low.



MAINTENANCE

Prior to any maintenance or adjustment, isolate the power supply.

AFTER USE:

Clean the machine to remove all the build up of dust and surface residue. If using hosepipe or pressure water take care that water is not directed onto electrical components and switches. (Note: Motors and switches are not waterproof)

The drive belts are tensioned by sliding the motor forwards to tension the gearbox drive belt and then adjust the tensioner arm/pulley to tension the front blade drive belt. It is important that the drive belts are not over tensioned. Serious damage could be caused to the drive shaft, drive shaft bearings, drive motor and/or gearbox if the belt is excessively tight.

All components should be checked daily for tightness and the drive belt for tension.

Check the individual manufacturers service recommendations for full details on motors and engines.

BLADE CHANGE

Loosen the blade clamp bolts and slide out the blade. Insert the new blade and tighten the clamp bolts

Note: The operator should be aware the blades are sharp and use suitable protection when handling them.

BLADE ANGLE

The angle of the blade can be altered to suit different applications by adjusting the angle of (part no. 7095) the blade carrier. This procedure is as follows:

- a) Loosen the M12 lock nut at the rear of the adjuster bar (part no 7097)
- b) Adjust the other M12 nut on the adjuster bar until the required angle of the blade carrier is reached. Moving this adjuster nut rearward will increase the blade angle.
- c) Once the blade angle is adjusted, retighten the lock nut.

BASIC MAINTENANCE/CHECKLIST:

This checklist should be undertaken every 8hrs to 10hrs - taking into account the vibrating action of machine

Firstly remove the outer covers and guard to gain access to check all components

Check the condition of the blade

Check all nuts and bolts for tightness

Check the condition and tension of the belts

Check the plugs and cables for damage.

Grease all the moving parts on the sliding blade mechanism

Check the condition of the bearings.



<p>MS330-1 MULTISRIPPER Operating Manual</p>
--

SAFETY

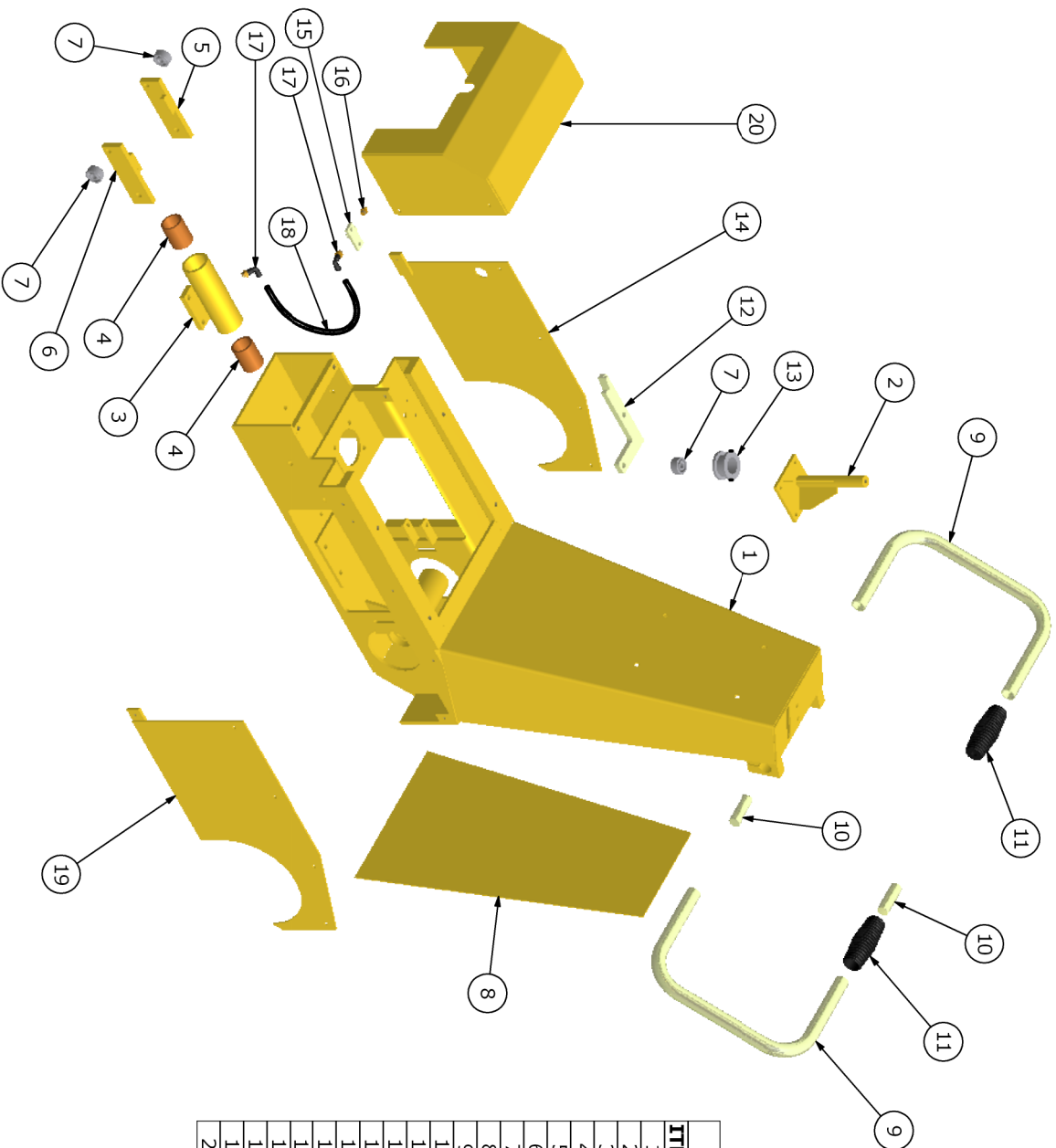
1. Only trained operatives should be allowed to work the MS330
2. Appropriate PPE must be worn.
3. Keep hands and feet away from the moving blade at all times
4. Keep the electric lead away from the moving blade
5. Never leave the MS330 unattended whilst in use. Always stop the motor before leaving the machine.
6. Always ensure that the power supply is disconnected before attempting to service the machine. Never tip the machine backwards until the blade has stopped moving.
7. Do not use in wet conditions
8. Always use correct voltage for the machine and RCD protection
- 9 Be careful when working around pipes or ducts protruding from the floor as the moving blade may cause damage to them
10. Extreme care should be taken when changing the blades. The blades are sharp and suitable protection should be used when handling them.
11. Equipment must be used in line with guidelines laid down by the Health & Safety Executive.

Noise and vibration will occur at various levels dependent on the attachments and work being completed, SPE have assessments conducted under test conditions detailed in the operating manual (see page 13). However it is recommended that additional tests are taken on site to provide the operator with accurate information on using the equipment within the guidelines laid down by the Health & Safety Executive.



**MS330-1
MULTIS RIPPER**
Operating Manual

Spare Parts Breakdown



Parts List

ITEM QTY	SPE PART NUMBER	DESCRIPTION
1	7100	Main Chassis
2	1 7080	Pivot Bracket
3	1 7099	Phosphor Bronze Bush Holder & Assembly
4	2 7099A	Blade Tube Bush
5	1 7087	Bearing Carrier - R/H
6	1 7086	Bearing Carrier - L/H
7	3 11310	Bearing
8	1 7106	Back Panel
9	2 7107B	Half Handle
10	2 7107A	Handle Connector
11	2 9104	Handlebar Grip
12	1 7094	Tension Arm
13	1 11317	Tensioner Pulley
14	1 7101	Side Panel R/H
15	1 7090	Grease Nipple Holder
16	1 7091	Grease Nipple
17	2 10093	Push-In Connector
18	1 7093	Feed Pipe
19	1 7102	Side Panel L/H
20	1 7103	Front Panel



SPE International Limited
Honeyholes Lane, Dunholme
Lincoln, LN2 3SL, England
Tel: +44 (0) 1673 860 709
or +44 (0) 1673 860 330
Fax: +44 (0) 1673 861 110
Web Site: <http://www.spe-int.com>
E-mail: sales@spe-int.com

**THIS DRAWING IS THE CONFIDENTIAL COPYRIGHT
PROPERTY OF SPE INTERNATIONAL LIMITED**

Drawn TITLE Body Components

D.G.A.

Checked Drawing No.

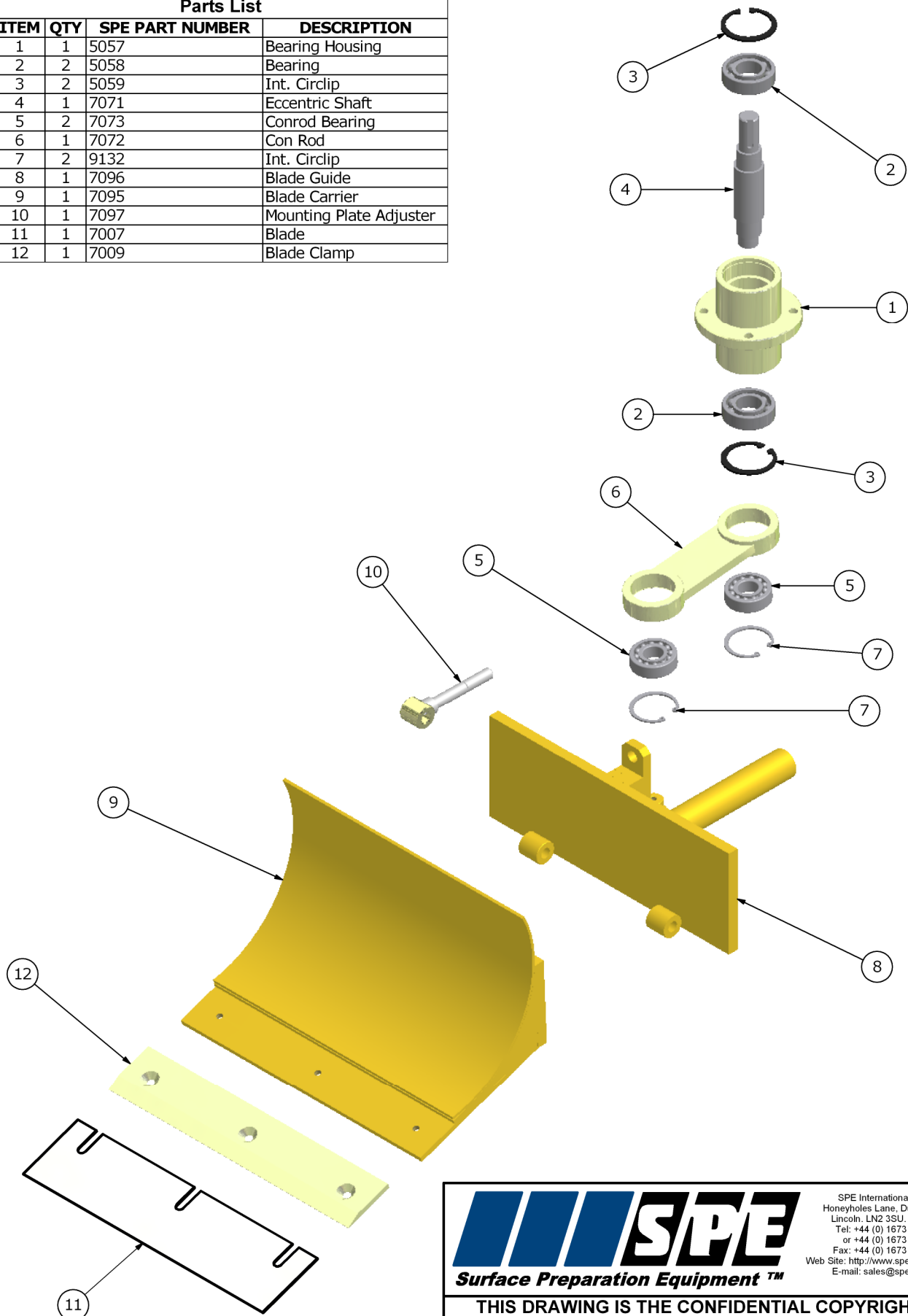
R.C.

MS-330_Bdy-01

MACHINE
MS 330-1

This drawing should not be used, copied, shown or handed to a third party
without the prior written consent of SPE International Ltd.

Parts List			
ITEM	QTY	SPE PART NUMBER	DESCRIPTION
1	1	5057	Bearing Housing
2	2	5058	Bearing
3	2	5059	Int. Circlip
4	1	7071	Eccentric Shaft
5	2	7073	Conrod Bearing
6	1	7072	Con Rod
7	2	9132	Int. Circlip
8	1	7096	Blade Guide
9	1	7095	Blade Carrier
10	1	7097	Mounting Plate Adjuster
11	1	7007	Blade
12	1	7009	Blade Clamp



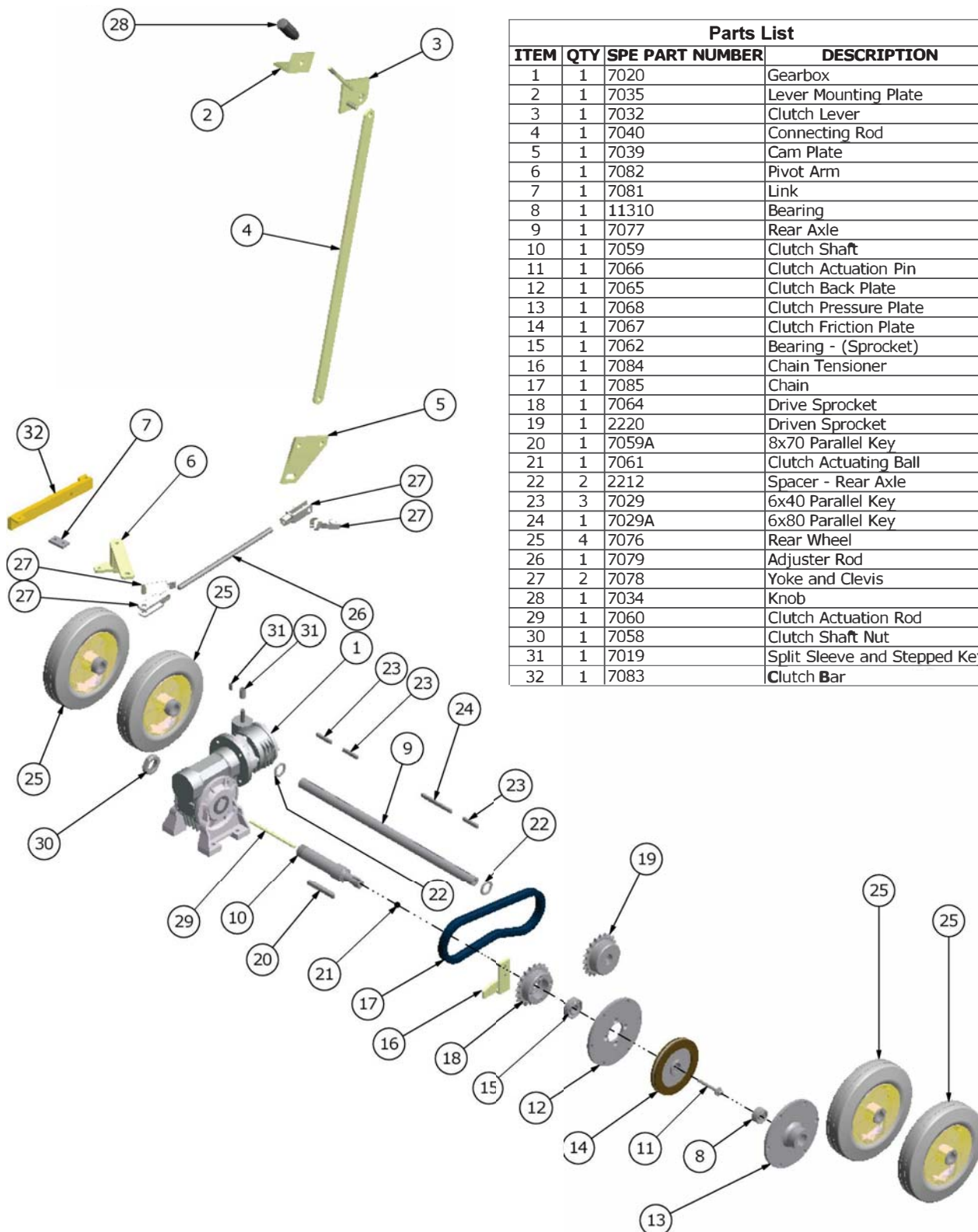
This drawing should not be used, copied, shown or handed to a third party without the prior written consent of SPE International Ltd.



SPE International Limited
Honeyholes Lane, Dunholme
Lincoln, LN2 3SU, England
Tel: +44 (0) 1673 860 709
or +44 (0) 1673 860 330
Fax: +44 (0) 1673 861 119
Web Site: <http://www.spe-int.com>
E-mail: sales@spe-int.com

**THIS DRAWING IS THE CONFIDENTIAL COPYRIGHT
PROPERTY OF SPE INTERNATIONAL LIMITED**

Drawn	TITLE Blade & Motion Components	
D.G.A.		
Checked	Drawing No.	MACHINE
R.C.	MS-330_Bld-01	MS 330-1



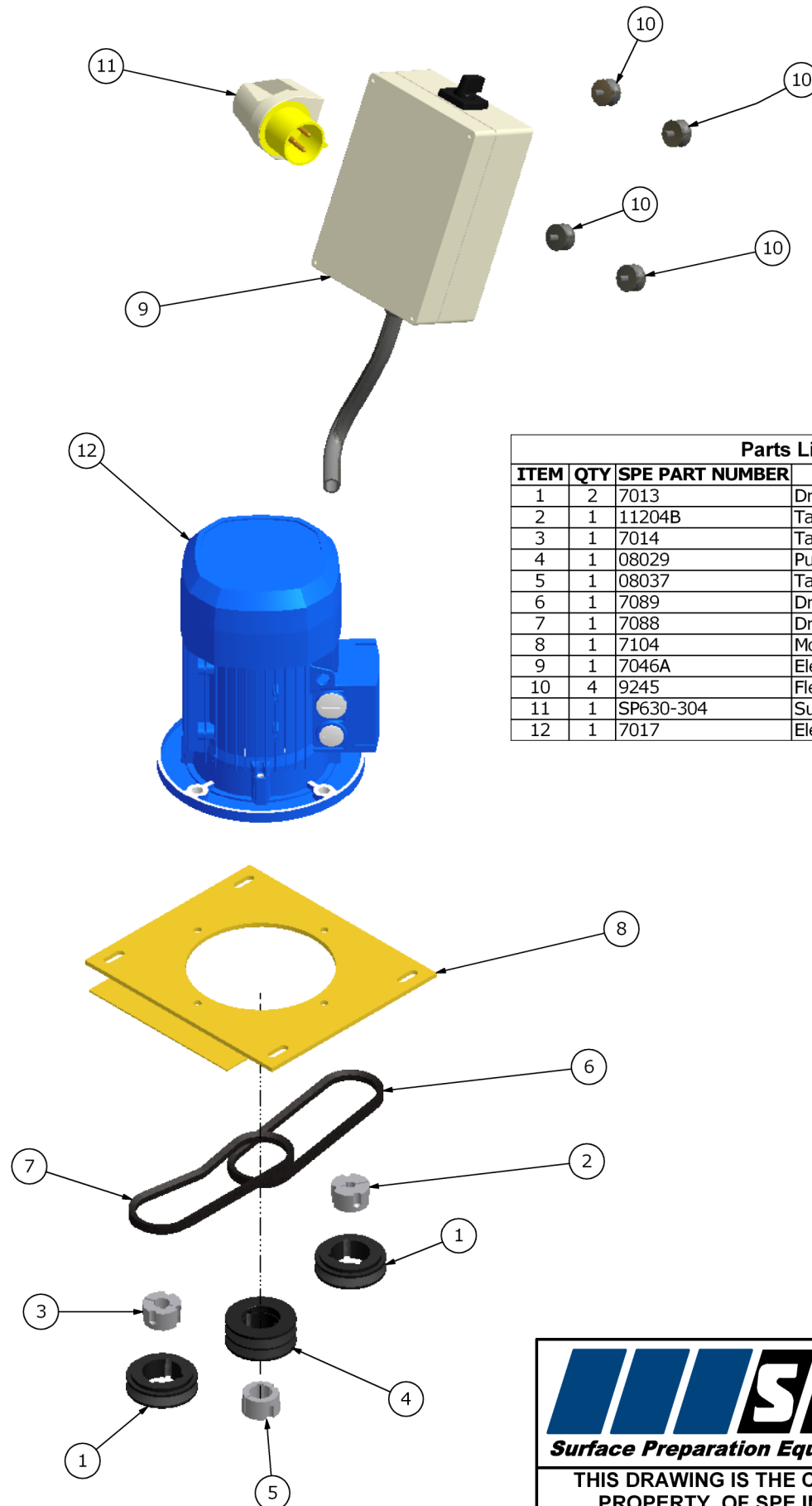
This drawing should not be used, copied, shown or handed to a third party without the prior written consent of SPE International Ltd.



SPE International Limited
Honeyholes Lane, Dunholme
Lincoln, LN2 3SU, England
Tel: +44 (0) 1673 860 709
or +44 (0) 1673 860 330
Fax: +44 (0) 1673 861 119
Web Site: <http://www.spe-int.com>
E-mail: sales@spe-int.com

**THIS DRAWING IS THE CONFIDENTIAL COPYRIGHT
PROPERTY OF SPE INTERNATIONAL LIMITED**

Drawn	TITLE Drive Components	
D.G.A.		
Checked	Drawing No.	MACHINE
R.C.	MS-330_Drv-01	MS 330-1



Parts List			
ITEM	QTY	SPE PART NUMBER	DESCRIPTION
1	2	7013	Driven Pulley
2	1	11204B	Taper Lock Bush [1210 - 12mm]
3	1	7014	Taper Lock Bush [1210 - 20mm]
4	1	08029	Pulley
5	1	08037	Taper Lock Bush [1210 - 28mm]
6	1	7089	Drive Belt - Rear / Electric
7	1	7088	Drive Belt - Front / Electric
8	1	7104	Motor Mounting - Electric
9	1	7046A	Electrical Panel Assembly
10	4	9245	Flexible Mounts
11	1	SP630-304	Surface Mounted Plug
12	1	7017	Electric Motor

This drawing should not be used, copied, shown or handed to a third party without the prior written consent of SPE International Ltd.



SPE International Limited
Honeyholes Lane, Dunholme
Lincoln, LN2 3SU, England
Tel: +44 (0) 1673 860 709
or +44 (0) 1673 860 330
Fax: +44 (0) 1673 861 119
Web Site: <http://www.spe-int.com>
E-mail: sales@spe-int.com

**THIS DRAWING IS THE CONFIDENTIAL COPYRIGHT
PROPERTY OF SPE INTERNATIONAL LIMITED**

Drawn	TITLE Power Components	
D.G.A.		
Checked	Drawing No.	MACHINE
R.C.	MS-330_Pwr-01	MS 330-1

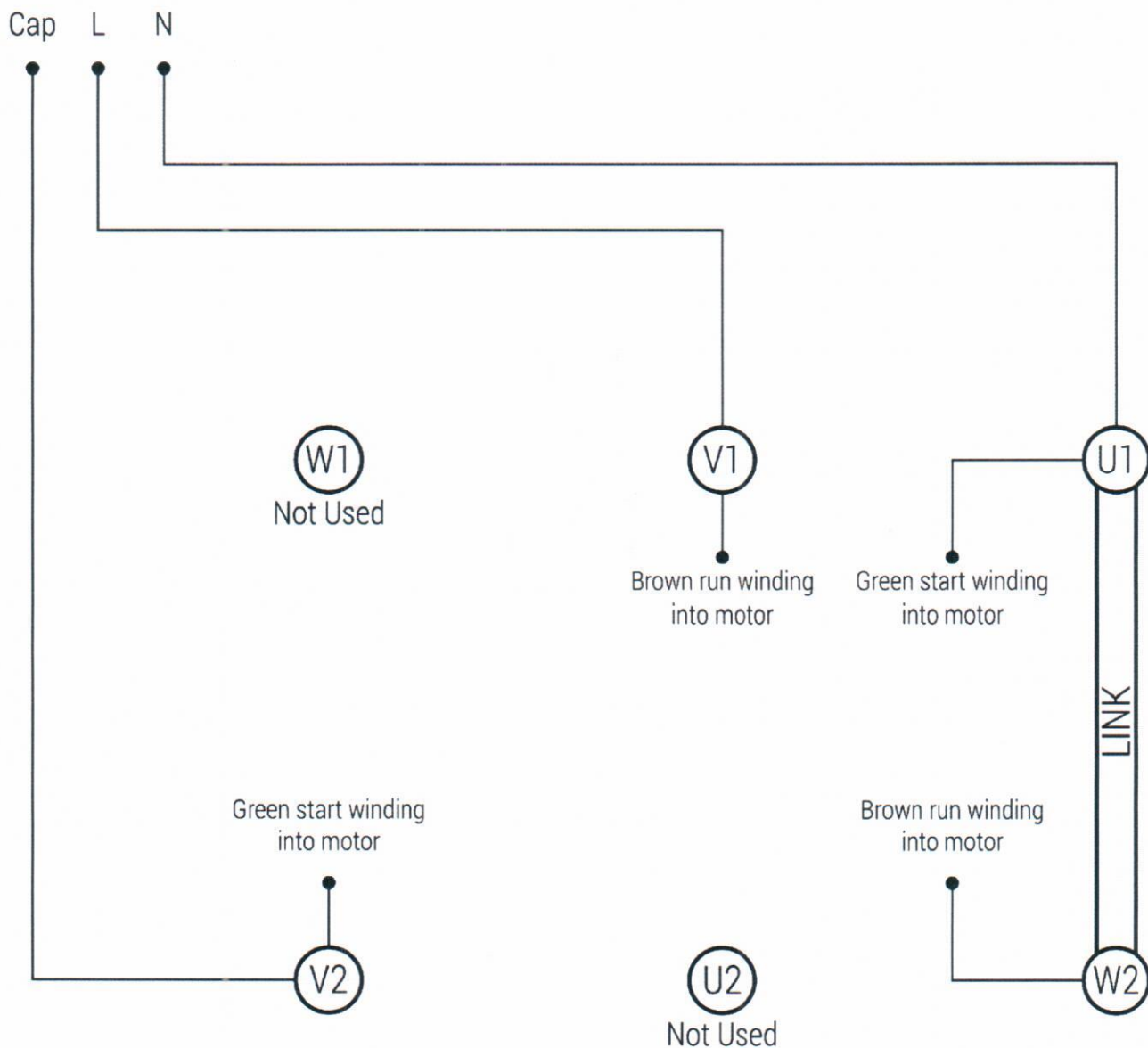
MS 330-1 (110V)

Inside Motor

Key

Cap = Capacitor

Supply From Panel - 110V



Note

Live in = Brown 4.0mm² from contactor

Neutral in = Brown 4.0mm² from MCB (old machines)

Blue 4.0mm² from contactor (new machines)

Capacitor live = Brown 2.5mm² from capacitor



**MS330-1
MULTIS RIPPER**
Operating Manual

ELECTRICAL COMPONENTS

QTY	DESCRIPTION	SPE PART NO
1	Panel box	SP2518-11
1	Hinge kit	SP190005
1	Back plate	9249
1	Rotary switch	9254
1	Contactor	9255
1	Contact breaker	9256
1	Plug retaining plate	9250
1	Start capacitor	156MF @240V
1	Run capacitor	45MF @450V
1	Conduit gland	9258
1	Conduit (MTR)	9259



**MS330-1
MULTISRIPPER**
Operating Manual

SPECIFICATION SHEET

Type	MS330 Electric
Part Number	MS330-1
Power Output	3.0hp
Voltage	110
Cycles	50hz
Machine Dimensions (mm)	
Length	1100
Width	330
Height	1000
Weight (kg)	132
Working width (mm)	330
Motor (rpm)	2800

ELECTRICAL REQUIREMENTS

Machine	Volts	Plug Size	Cable Size	Max Cable Length	Transformer	Generator
MS330	110	32 Amp 3 pin	4.0 - 3 core	30 metres	5kva	10 kva



**MS330-1
MULTISRIPPER**
Operating Manual

RECORD OF NOISE AND VIBRATION ASSESSMENT

Manufacturer: SPE
 Type: Tile Lifter
 Model No. MS330-1 Electric
 Operation : Removing vinyl tiles
 Running Conditions: 1410 rpm
 HAV Note: Operc

HAND-ARM VIBRATION

Frequency Weighted Energy Equivalent Accelerations ($a_{h,w}$)

Measurement Position	Acceleration (m/s^2)
	Vector Sum
Handle	9.4

NOISE LEVELS

Sound Power Level (L_{WA})

L_{WA} at Octave Band Centre Frequency (Hz)								Sound Power Level L_{WA}
63	125	250	500	1000	2000	4000	8000	
60.7	88.9	90.7	94.8	95.7	93.2	86.3	73.1	90.4

Operator's Ear

$L_{Aeq,T}$ at Octave Band Centre Frequency (Hz)								Overall Level ($L_{Aeq,T}$)	L_{Peak} dB(C)
63	125	250	500	1000	2000	4000	8000		
30.4	59	64.8	72.4	73.6	66.5	57.8	44.7	76.7	90.9



MS330-1 MULTISRIPPER Operating Manual

WARRANTY

The standard warranty period of this equipment is **12 months** from the date below in accordance with the company Conditions of Sale (copy attached).

<i>Warranty start date:</i>	As despatch date
<i>Model:</i>	MS330-1
<i>Serial no:</i>	
<i>Customer name:</i>	
<i>Customer Address:</i>	

<i>Manufacturer:</i>	SPE International Ltd
	Honeyholes Lane
	Dunholme
	Lincoln
	LN2 3SU
	England
<i>Telephone:</i>	+44 (0) 1673 860709
<i>Fax:</i>	+44 (0) 1673 861119
<i>Email:</i>	sales@spe-int.com
<i>Web site:</i>	www.spe-int.com



**MS330-1
MULTIS RIPPER**
Operating Manual

DECLARATION OF CONFORMITY

WE
SPE INTERNATIONAL LTD

OF
Honeyholes Lane
Dunholme
Lincoln
LN2 3SU

DECLARE that under our sole responsibility for the supply/manufacture of the product

(Description/name) MS330 Multistripper

(Model/type) MS330

to which this declaration relates is in conformity with the following standards and other normative documents following the provisions of Directive 2006/42/EC.

A handwritten signature in blue ink, appearing to read 'B. Jacklin'.

.....
Brian Jacklin – Technical Manager
SPE INTERNATIONAL LTD



CONDITIONS OF SALE

MS330-1 MULTIS RIPPER Operating Manual

The quotation overleaf and any order placed following such quotation are subject to the following conditions of sale in which SPE International Limited is referred to as the "Company".

1. Validity of quotation

No order received from a customer by the Company shall constitute a contract until accepted in writing by the Company.

2. Prices

Prices quoted by the Company are firm for 30 days only or until previously withdrawn. Unless otherwise stated all prices are exclusive of any applicable Value Added Tax for which the customer shall be additionally liable to the Company.

3. Delivery

Delivery periods and dates are given in good faith but are not the subject of any warranty or condition and time shall not be of the essence of the contract in these respects. No liability will attach to the Company if delivery periods or dates are not met for any reason whatsoever.

4. Payment

Save as may otherwise be agreed in writing the customer shall pay the price in full on or before the estimated delivery date whereupon the Company shall raise a receipted invoice. Each invoice includes an Overdue Account Levy of 5% of the total invoice value inclusive of VAT. Subject to payment in full being made on or before the due date a sum equal to the Overdue Account Levy shall be credited to the customers account with the Company. Until such time as payment in full has been made the Company shall be under no obligation to allow or effect of any goods to the customer.

5. Warranty

The Company warrants that all goods supplied by it will correspond to their specifications and will be free from defects in materials or workmanship for a period of 12 months from the date of delivery. The Company's obligation in the event of a breach of this warranty is limited to the repair or replacement of any defective goods which shall be returned at the cost and expense of the customer to the Company. This warranty is given in lieu of all the other warranty or conditions expressed or implied (whether by statute or otherwise) and is subject to the following conditions:-

5.1 Claims must be notified in writing to the Company within seven days from the date of delivery or (where the defect is not apparent on reasonable inspection) as soon as practicable after discovery of the defect.

5.2 The Company shall be under no liability in respect of any defect in the goods arising from any drawing, design or specification supplied by the customer.

5.3 The Company shall be under no liability if the defect or failure in the reasonable opinion of the Company arises from wilful damage or misuse, negligence by the customer or any third party. Failure to follow the Company instructions, usage of non-recommended parts and materials, alteration or repair of the goods without the prior approval of the Company or non-recommended maintenance.

5.4 The Company shall be under no liability if the price for the goods has not been paid by the due date for payment.

5.5 The above warranty does not extend to:-

5.5.1 Parts, materials or equipment not manufactured by the company in respect of which the customer shall be entitled only to the benefit of any such warranty or guarantee as is given by the manufacturer to the Company.

5.5.2 Any component part of the goods or associated parts coming into contact with abrasive elements or dust within surface Preparation equipment.

5.5.3 Fair wear and tear of moving parts within the goods.

5.6 Except in the case of death or personal injury caused by the Company negligence, the Company shall not be liable for any consequential loss or damage (whether for loss of profit or otherwise) or other claims for consequential compensation.

6. Carriage

Packing, carriage and insurance charges in respect of delivery of the goods to the customer will be charged to the customer at cost to the company.

7. Damage in Transit

The company does not accept any liability for loss or damage to the goods while in transit to the customer.

8. Risk

The risk in the goods shall pass to the customer on delivery to the customer or (if earlier) when possession of the goods is taken by a carrier for delivery to the customer.

9. Force Majeure

The Company shall not be liable to the customer or be deemed to be in breach of any contract with the customer by reason of any delay in performing or any failure to perform any obligation of the Company obligation in relation to the goods if the delay or failure was due to force majeure or to any other cause beyond the Company's reasonable control.

10. Reservation of Title

The goods sold under these conditions shall remain the absolute property of the Company and legal title in the goods shall remain vested in the Company until payment in full of all amounts invoiced or due to the Company in respect of the goods. If the customer shall enter into liquidation have a winding up order made against it or have a Liquidator, receiver, administrator or administrator receiver shall be appointed over its assets, income or any part thereof before the property in the goods has passed in accordance with this condition the Company shall be entitled immediately after giving notice of its intention to repossess any goods to enter upon the premises of the customer with such transport as may be necessary and to repossess any goods to which it has title under this condition. No liquidator, receiver, administrator or administrative receiver of the customer shall have authority to sell goods to which the Company has title without the prior written consent of the Company.

11. Insolvency of Customer

If the customer being a body corporate, shall pass a resolution or suffer an order of the Court to be made for winding – up, or if a Receiver, Administrator or Administrative Receiver shall be appointed or, being an individual or partnership, shall suspend payment, propose or enter into any composition or arrangement with his or their creditors, or have a bankruptcy order made against him or them, then the Company shall have the right, without prejudice to any other contract with the customer, not to proceed further with the contract and shall be entitled to charge for work already carried out (whether completed or not) and for goods and materials already purchased for the customer such charge to be an immediate debt due from the customer.

12. Patent Rights, etc

The acceptance of a quotation includes the recognition by the customer of the Company under any patents, trademarks, registered designs or other intellectual property rights relating to the goods and the customer undertakes that patent numbers, trademarks or other trade markings on goods supplied shall not be obliterated, altered or defaced.

13. Applicable Law

These conditions shall be governed by and construed in accordance with English law and parties acknowledge and accept the exclusive jurisdiction of the English Courts.