

MS230 - 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



Honeyholes Lane, Dunholme, Lincoln LN2 3SU, England
Tel: +44 (0) 1673 860709 Fax: +44 (0) 1673 861119
Email: sales@spe-int.com



**MS230-1
MULTISTRIPPER
Operating Manual**

MS230-1 MULTISTRIPPER

OPERATING MANUAL

This manual covers to the best of our knowledge, the operation and maintenance of the **MS230** 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

Page No

1	Starting Work Electrical Instructions
2	Maintenance Blade Change Blade Angle Basic Maintenance Checklist
3	Safety
4	Spare Parts Breakdown
5	Body Components
6	Operational Parts
7	Electrical Listing
8	Wiring Diagram
9	Specifications
10	Noise/Vibration Assessment
11	Warranty
12	Declaration of Conformity
13	Conditions of Sales



**MS230-1
MULTIS RIPPER
Operating Manual**

STARTING WORK

- 1) Check the condition of the blade assembly
- 2) Check all bolts and nuts for tightness
- 3) Check all leads for damage where applicable
- 4) Before starting the machine ensure that the blade is clear of any obstructions
- 5) Adjust the handlebar to a comfortable height and position.
- 6) Adjust the blade angle to a suitable setting – See blade angle (page 2)
- 7) Start the motor by turning the switch to the on position.

NOTE: If removing sheet vinyl or carpet cut the material into strips with a knife at approximately the width of the MS230 blade.

ELECTRICAL INSTRUCTIONS

The MS230 110v machine requires a 3 kva transformer providing a 16 amp supply. Extension cables must be no less than 2.5 mm (normal length 30 metres) fitted with 16 amp plugs and sockets.

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



**MS230-1
MULTIS RIPPER
Operating Manual**

MAINTENANCE

AFTER USE:

- Clean the machine to remove all the build up of dust and surface residue. If using a hosepipe or pressure washer take care that water is not directed onto electrical components and switches.

(Note: Motors and switches are not waterproof)

- All components should be checked daily for tightness

BLADE CHANGE

1) Isolate from the power supply

2) 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 that 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

1) Loosen the thumb screws on either side of the chassis

2) Adjust the angle to a suitable setting

3) Tighten the thumb screws.

BASIC MAINTENANCE/CHECKLIST:

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

- DISCONNECT FROM THE POWER SUPPLY

- Check the condition of the blade

- Check all bolts and nuts for tightness

- Grease all moving parts on the sliding blade mechanism

- Check all the electric cables and plugs



**MS230-1
MULTIS RIPPER
Operating Manual**

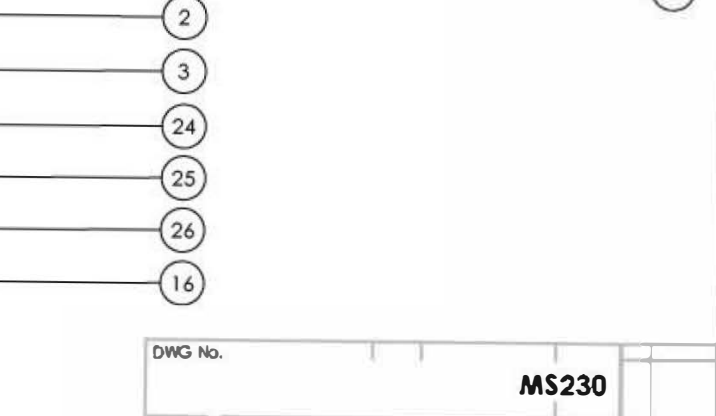
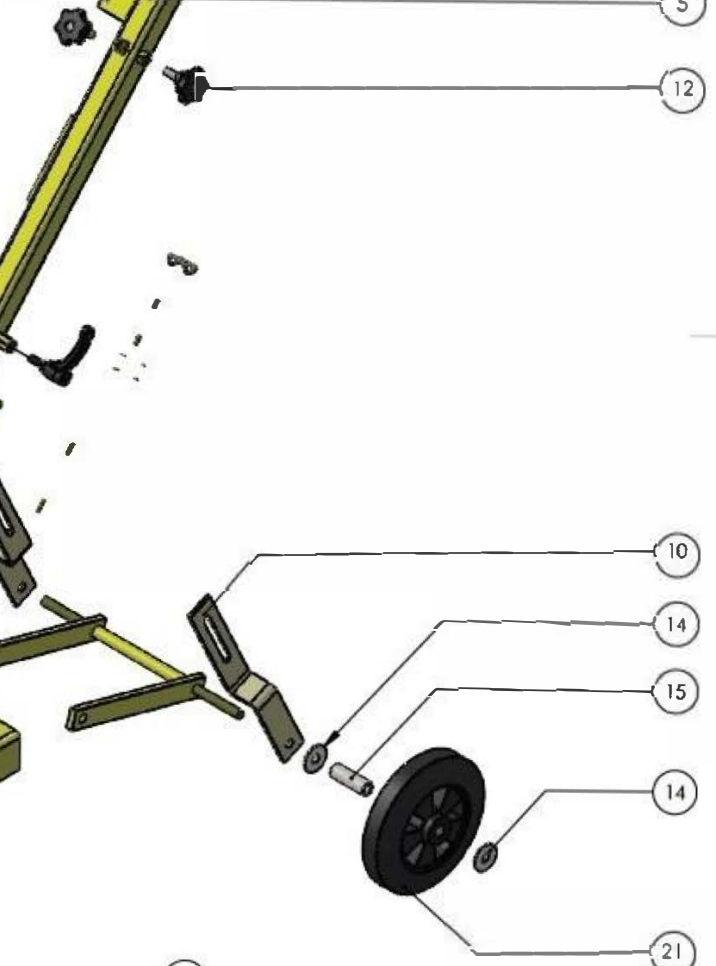
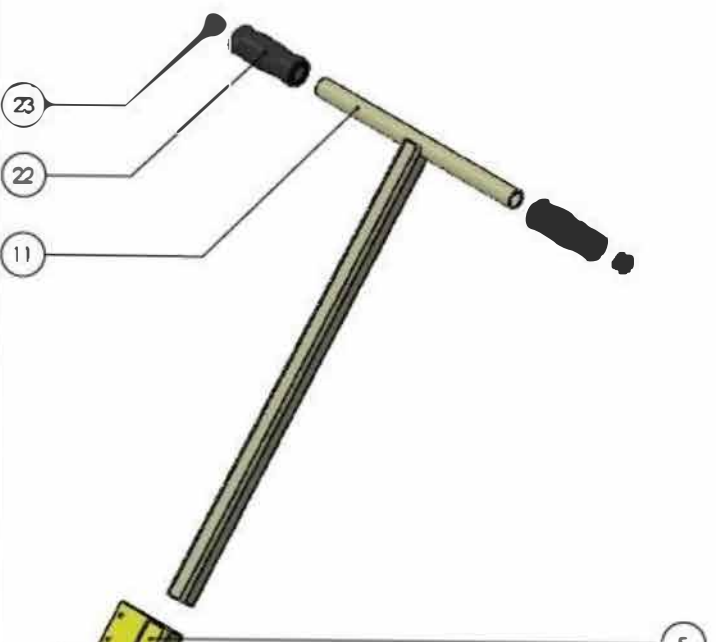
SAFETY

- 1) Only trained operatives should be allowed to work the MS230
- 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 MS230 unattended whilst in use. Always stop the motor before leaving the machine.
- 6) Always ensure that all power leads are 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 the 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 10. 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 and Safety Executive.

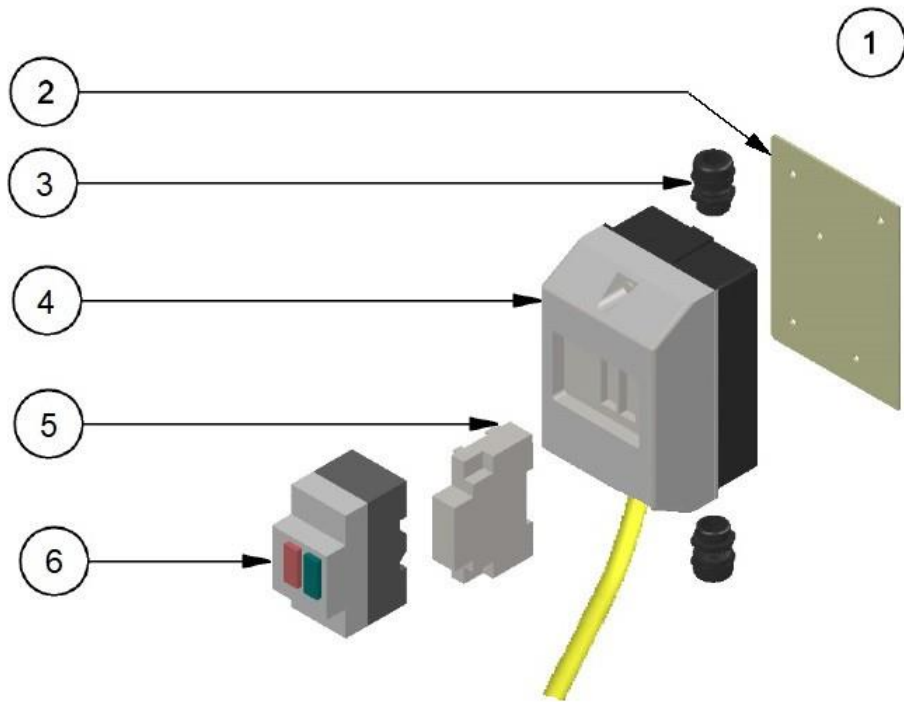
ITEM #	SPE P/N	DESCRIPTION	QTY.
1	C305	MOTOR (110V) CAPACITORS SOLD SEPARATELY	1
2	C306	ECCENTRIC BUSHING	1
3	C307	BEARING	1
4	C309	SWITCH	1
5	C311A	CHASSIS HANDLE	1
6	C312	DRIVE ARM	1
7	C313	BEARING ARM	1
8	C314	DEFLECTOR	1
9	C315	MOTION ARM	1
10	C318	SIDE ARM	2
11	C319	HANDLE	1
12	C321	THREADED KNOB (M10X25)	2
13	C323	AXLE FORK	1
14	C323B	AXLE SPACER	4
15	C324	WHEEL BEARING SPACER	2
16	C327	DRIVE ARM BUSHING	1
17	C328	WEAR STRIP	1
18	C331	BOLT SPACER	2
19	C334	INDEXED CLAMPING LEVER	2
20	C341	SPRING	1
21	6013	WHEEL	2
22	9104	HANDLEBAR GRIP	2
23	TV009	TUBE INSERT (BLACK)	2
24	BOLT000	M6 X 30 HEX BOLT	1
25	BOLT000	M8 X 25 HEX BOLT	6
26	BOLT000	M8 X 35 HEX BOLT	6
40	C301	BLADE	1
41	C311	CHASSIS	1

ITEM #	SPE P/N	DESCRIPTION	QTY
NOT SHOWN	30MF@400V	RUN CAPACITOR 110V	1
NOT SHOWN	125MF@240V	START CAPACITOR 110V	1



DWG No.					
					MS230
SCALE	NOT TO SCALE				

Parts List			
ITEM	QTY	SPE PART NUMBER	DESCRIPTION
1	1	C309K	Switch Kit
2	1	C309KP	Switch Plate
3	2	SPGC/LNM20	Gland
4	1	NS2-25-MC	Enclosure
5	1	NS2-25-UV1	Undervoltage Coil
6	1	NS2-25-14	Switch



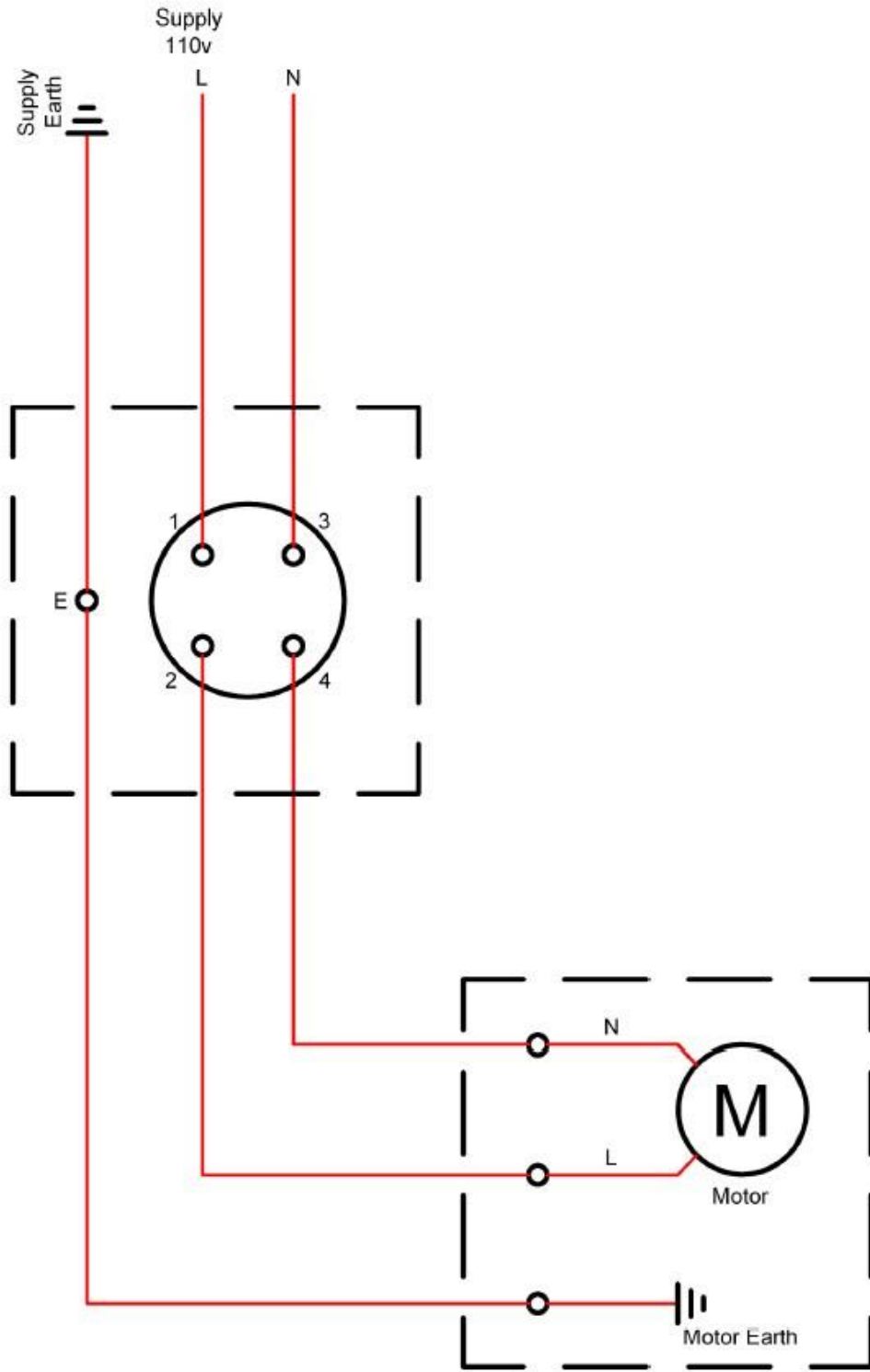


MS230-1
MULTIS RIPPER
Operating Manual

ELECTRICAL COMPONENTS NOT ILLUSTRATED

Part no	Description	Qty
30MF@400V	Run Capacitor 110v	1
125MF@240V	Start Capacitor 110v	1
SP210-304	110v 16A 3pin Trailing Plug	1
7512	2.5mm Cable - Yellow	5 mtrs

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 3BU, England.
 Tel: +44 (0) 1673 860 700
 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 Ltd.

Drawn	TITLE	Main Component Wiring Diagram
D.G.A.		
Checked	Drawing No.	Machine
D.F.G.	MS-230_Elec-01	MS 230-1



**MS230-1
MULTIS RIPPER
Operating Manual**

SPECIFICATION SHEET

Type	MS230 Electric
Part number	MS230-1
Power output	2.0 h.p
Voltage	110v
Cycles	50
Machine dimensions (mm)	
Length	685
Width	380
Height	787
Weight (kg)	45
Working width mm	230
Engine/Motor rpm	1400

ELECTRICAL REQUIREMENTS

Machine	Volts	Plug size	Cable size (mm)	Norm Cable Length	Transformer	Generator
MS230	110	16A 3 pin	2.5mm 3 core	30 metres	3 Kva	5 Kva



**MS230-1
MULTIS RIPPER
Operating Manual**

RECORD OF NOISE AND VIBRATION ASSESSMENT

Manufacturer:	SPE
Type:	Tile Lifter
Model No.	MS230-1 Electric
Operation :	Removing vinyl tiles
Running Conditions:	1420 rpm
HAV Note:	Operc

HAND-ARM VIBRATION

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

Measurement Position	Acceleration (m/s^2)
	Vector Sum
Handle	13.5

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	
46.2	57.0	63.8	69.3	69.3	76.6	73.4	64.5	79.5

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		
29.6	36.9	44.6	51.3	61	63.1	59.6	49.8	68.3	85.9





MS230-1 MULTIS RIPPER 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>	MS230-1
<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

<i>Distributor:</i>



**MS230-1
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) MS230 Multistripper

(Model/type) MS230-1

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 black ink, appearing to read 'B. Jacklin', is positioned above the printed name of the signatory.

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



CONDITIONS OF SALE

**MS230-1
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.