

DFG200-3

COMPACT FLOOR GRINDER

Operating Manual

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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



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DFG200

COMPACT FLOOR GRINDER

This manual covers to the best of our knowledge the operation and maintenance to the DFG200 floor grinder. 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.



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STARTING WORK

Check the following prior to starting the equipment.

- Check all nuts and bolts for tightness
- Check the plugs and cables for damage

1. Before starting work, check that the set up of the machine and the grinding head has been completed as described below to ensure even wear to the head.
2. It is vital at this stage that the machine should be set to grind the floor along the same plane. Incorrect set up will result in uneven head wear, vibration and damage to the flexible coupling that support the head.
3. Loosen the dust skirt retaining clip and raise the dust skirt to check that the grinding head is in full contact with the floor surface.
4. With the machine set on the floor surface to be ground, check the level of the floor with a spirit level. Then place the spirit level on the main body of the machine. Adjust the rear wheel height by loosening the two bolts on the side arms and raising or lowering until the level of the machine is the same as the floor level, then re-tighten the side arm bolts.
5. Push the dust skirt down to the floor surface and tighten the retaining clip.
6. Connect the vacuum hose to the dust extraction port, if a dust control vacuum is being used. We recommend the SPE VAC316 3 motor vacuum for dust control.
7. Ensure that the power supply is correct for the machine (see page 11 for further details). Connect the machine to the power supply.
8. To start the machine
Check that the stop button is out by rotating clockwise.
Lift the grinding head slightly by tipping the machine onto its rear wheels.
Press the start button.
Lower the machine onto the floor, moving the head evenly across the surface to ensure a smooth ground finish.
9. To stop the machine, press the red stop button.

Never allow the machine to stop moving whilst grinding head is in contact with the surface.



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CHANGING THE GRINDING HEAD

1. Disconnect from the power supply.
2. Tilt the machine backwards on to its handle. The machine must be secured and supported.
3. Make sure the grinding head is cool to the touch.
4. Use an allen key to undo the countersunk screws securing the Grinding Head to the adaptor plate.
5. Remove the grinding head and replace.
6. Ensure the grinding head is seated to the adaptor plate correctly prior to tightening the countersunk screws diagonally.
7. Lower the machine back to the upright position.
8. Check machine level (see page 1) and carry out adjustments if necessary.
9. Reconnect to the power supply.

CHECK FOR CORRECT WEAR RATE AFTER QUARTER OF AN HOUR AND AGAIN AT HALF AN HOUR INTERVALS - THIS WILL GIVE AN IDEA OF WEAR RATE

ADDITIONAL WEIGHT POSITIONING

The weight distribution to the grinding head can be changed with the repositioning or removal of the additional weight.

Lower Weight Position – With the additional weight on the lower position it puts the maximum downward pressure onto the grinding head.

Upper Weight Position – With the additional weight on the upper position it puts the least downward pressure onto the grinding head. (This is recommended when using PCD tools or if experiencing overload problems).

Weight Removed – With the additional weight removed completely from the machine it puts an intermediate amount of downward pressure onto the grinding head.



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MAINTENANCE

Prior to any maintenance or adjustment disconnect the machine from the power supply.

AFTER USE:

- Clean the machine to remove all build up of dust and surface residue. If using a hose pipe 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.
- Check the plugs and cables for damage.
- The flexible drive coupling that support the grinding head should be checked on a weekly basis.
- Any excess vibration due to uneven head wear should result in the head being changed to eliminate damage to coupling.

BASIC MAINTENANCE CHECKLIST

DAILY:

Check all nuts and bolts for tightness.
Check the condition of the grinding head
Check the plugs and cables

WEEKLY:

All of the above with the following.
Check the flexible drive coupling
Check the support wheels and grease



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SAFETY

Only trained operatives should be allowed to work the DFG200 floor grinder.

All operatives should wear ear defenders, goggles and an effective dust mask. Note: It is possible that the noise level produced by the DFG200 could exceed 90dbA. Personal noise protection must be worn and the equipment must be used in line with guidelines laid down by the Health & Safety Executive.

Never leave the DFG200 unattended whilst in use. Always stop the motor prior to leaving the machine.

Keep the electric lead away from the grinding head.

Always use the correct voltage for the machine and RCD protection.

Always ensure that all power leads are disconnected before attempting to service the machine. The service of electrical components should be carried out by authorised personnel. Never tip the machine completely backwards until the grinding plates have stopped rotating, just raise slightly.

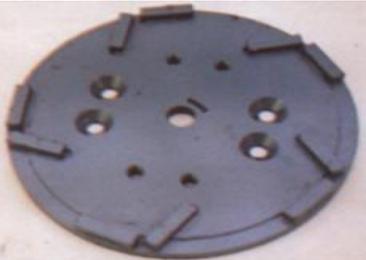
Vibration will occur at various levels dependent on the attachments and work being completed. It is recommended that tests are taken on site to provide the operator with accurate information on using the equipment within the guidelines laid down by the Health & Safety Executive.

Never operate the machine without a dust skirt or with the dust skirt raised.

NOTE:

NEVER OPERATE THE COMPACT FLOOR GRINDER IN WET CONDITIONS AS ELECTRICAL COMPONENTS ARE NOT WATERPROOF

ACCESSORIES

	Part No	Description	Application
	6401	Economy grade 250mm 10 segment (blue)	Economical removal of most types of adhesives and surface contaminants. Excellent for using on rougher surfaces as a first grind. Can be used wet or dry.
	6402	Super Aggressive 250mm 10 segment (red)	Designed for the removal of S/L and epoxy coatings in a commercially viable way. Can be used for the majority of aggressive grinding applications and will give extended wear on heads. Can be used wet or dry.
	6403	Standard Grade 250mm 16 segment (blue)	Removal and grinding of most types of concrete floor in preparing for follow on coatings. General all purpose head for most grinding works. Can be used wet or day.
	6404	High performance 250mm 20 segment (blue)	Fast removal and grinding of most types of plain and painted concrete floors. Will key floors for coatings, removal of high spots, lip edges etc. Suitable for first and second stage grinding to terrazzo and aggregated seamless floors. Can be used wet or dry.
	6405	Button head 250mm 16 segment (blue)	For the removal of the thicker adhesive on sand / cement screed whether open or closed. Will cope with large volume areas in a cost effective manner. To be used with softer elastomeric and thin film coatings.
	6403C	Fine grit 250mm 16 segment (purple)	Finishing and polishing of cementitious polyurethane, epoxy based terrazzo, terrazzo tiles and decorative aggregated concrete flooring.



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Spare Parts Breakdown



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SPECIFICATION SHEET

Specifications	
Type	Electric 1 Phase
Part Number	DFG200-3
Power Output	2.2kw
Voltage	230v
Cycles	50hz
Head Speed r.p.m.	1400
Engine motor speed r.p.m.	1400
Machine Dimensions (mm)	
Length	880
Width	370
Height	700
Weight (kg)	49
Ballast Weight (kg)	5.5

ELECTRICAL REQUIREMENTS

Volts	Plug Size	Cable Size (mm)	Norm Cable Length	Transformer	Generator
230v	16 Amp 3 Pin	2.5 - 3 Core	30 metres	-	8 kva



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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>	DFG200-3
<i>Serial no:</i>	
<i>Customer name:</i>	
<i>Customer Address:</i>	

<i>Manufacturer:</i>	SPE International Ltd
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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) DFG200 Compact Floor Grinder

(Model/type) DFG200-3

to which this declaration relates is in conformity with the following standards and other normative documents following the provisions of Directive 98/37/EC.

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

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



CONDITIONS OF SALE

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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

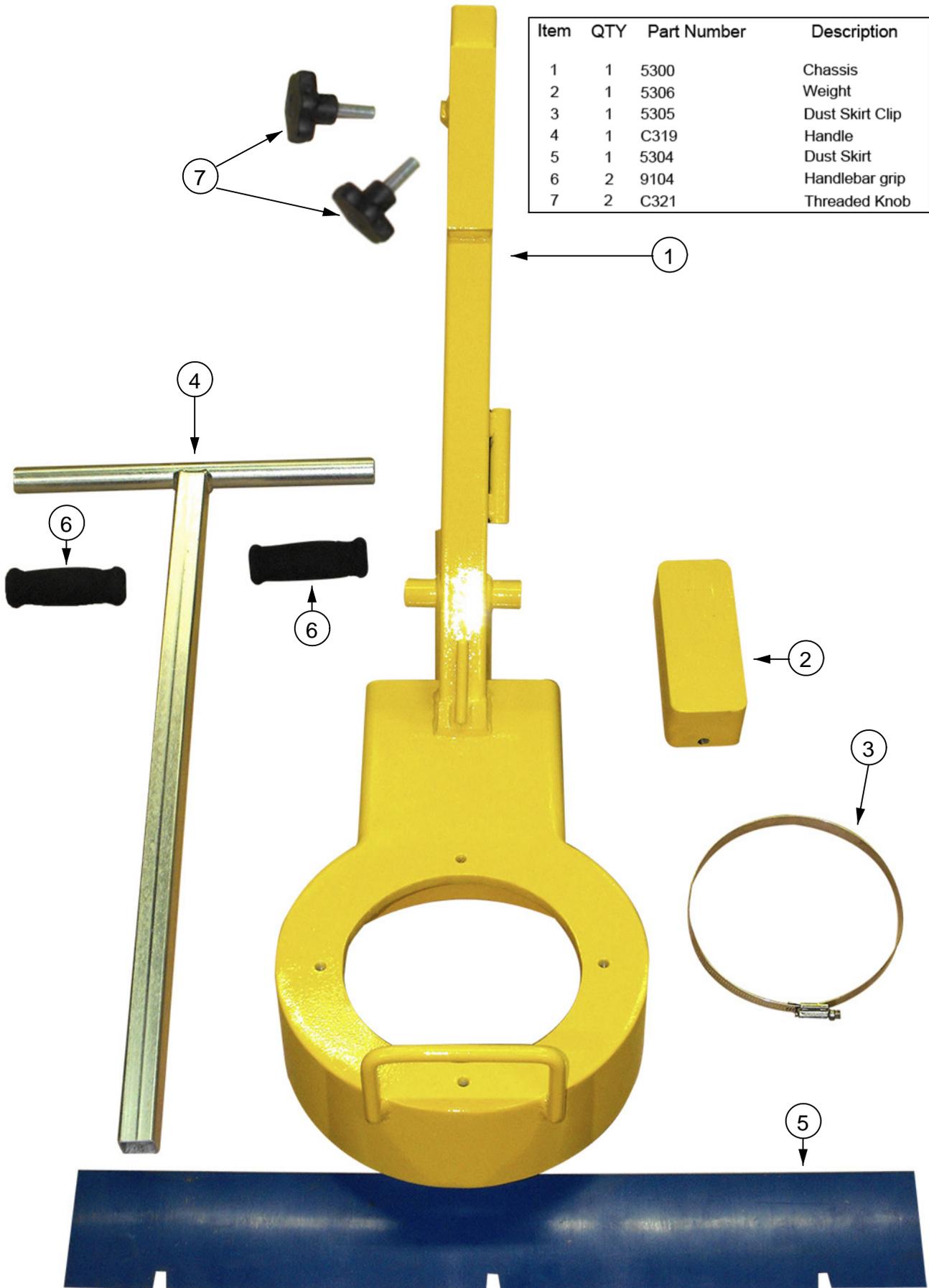
If the customer being a body corporate, shall pass a resolution or suffer an order of the Court to be made for winding – up, or if a Receiver, Administrator or Administrative Receiver shall be appointed or, being an individual or partnership, shall suspend payment, propose or enter into any composition 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.



Item	QTY	Part Number	Description
1	1	5300	Chassis
2	1	5306	Weight
3	1	5305	Dust Skirt Clip
4	1	C319	Handle
5	1	5304	Dust Skirt
6	2	9104	Handlebar grip
7	2	C321	Threaded Knob

TITLE: Chassis Assembly



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Machine: DFG200-3

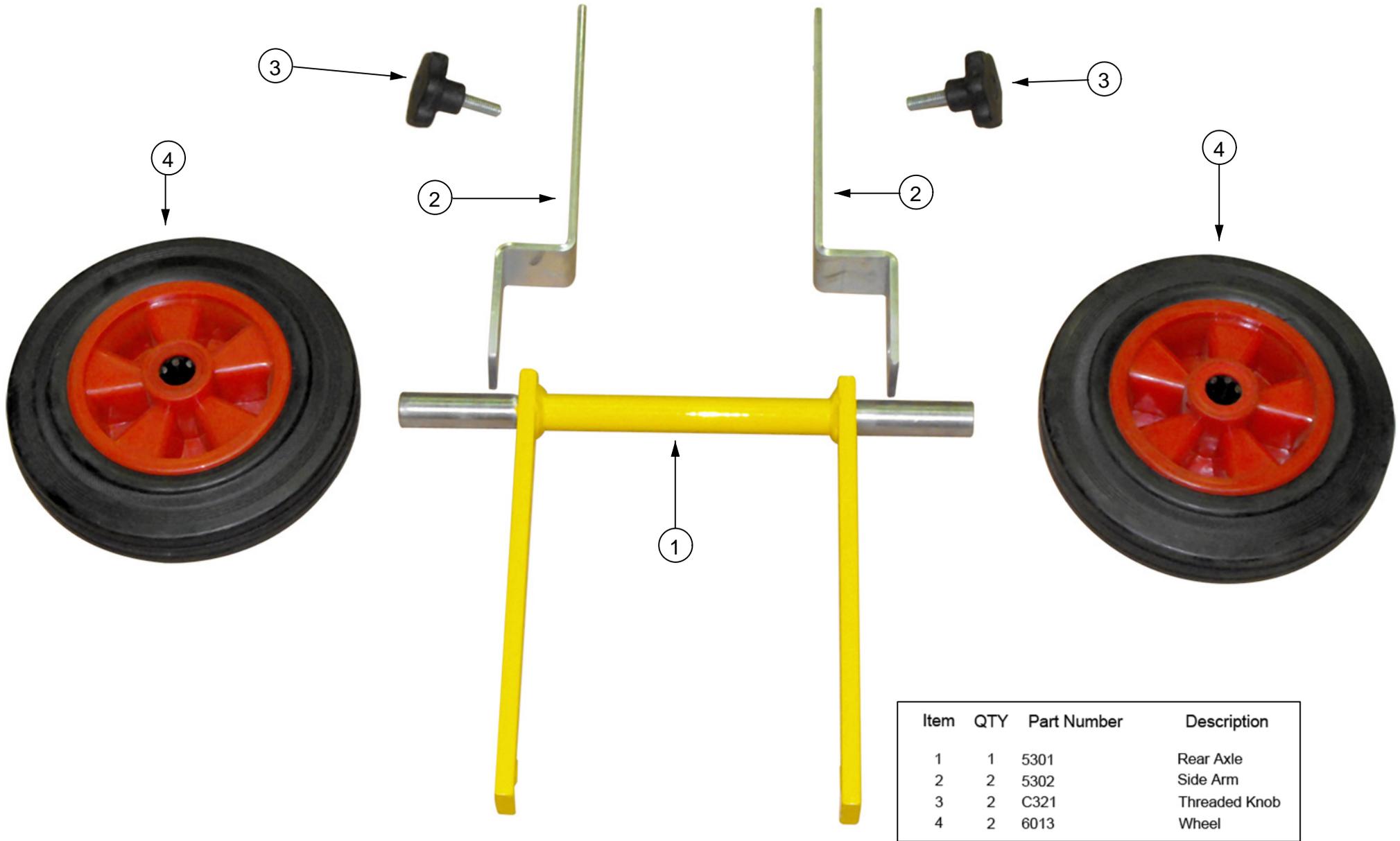
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Checked: BJ

Date: 06/12/2009

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Item	QTY	Part Number	Description
1	1	5301	Rear Axle
2	2	5302	Side Arm
3	2	C321	Threaded Knob
4	2	6013	Wheel

TITLE: Rear Axle Assembly



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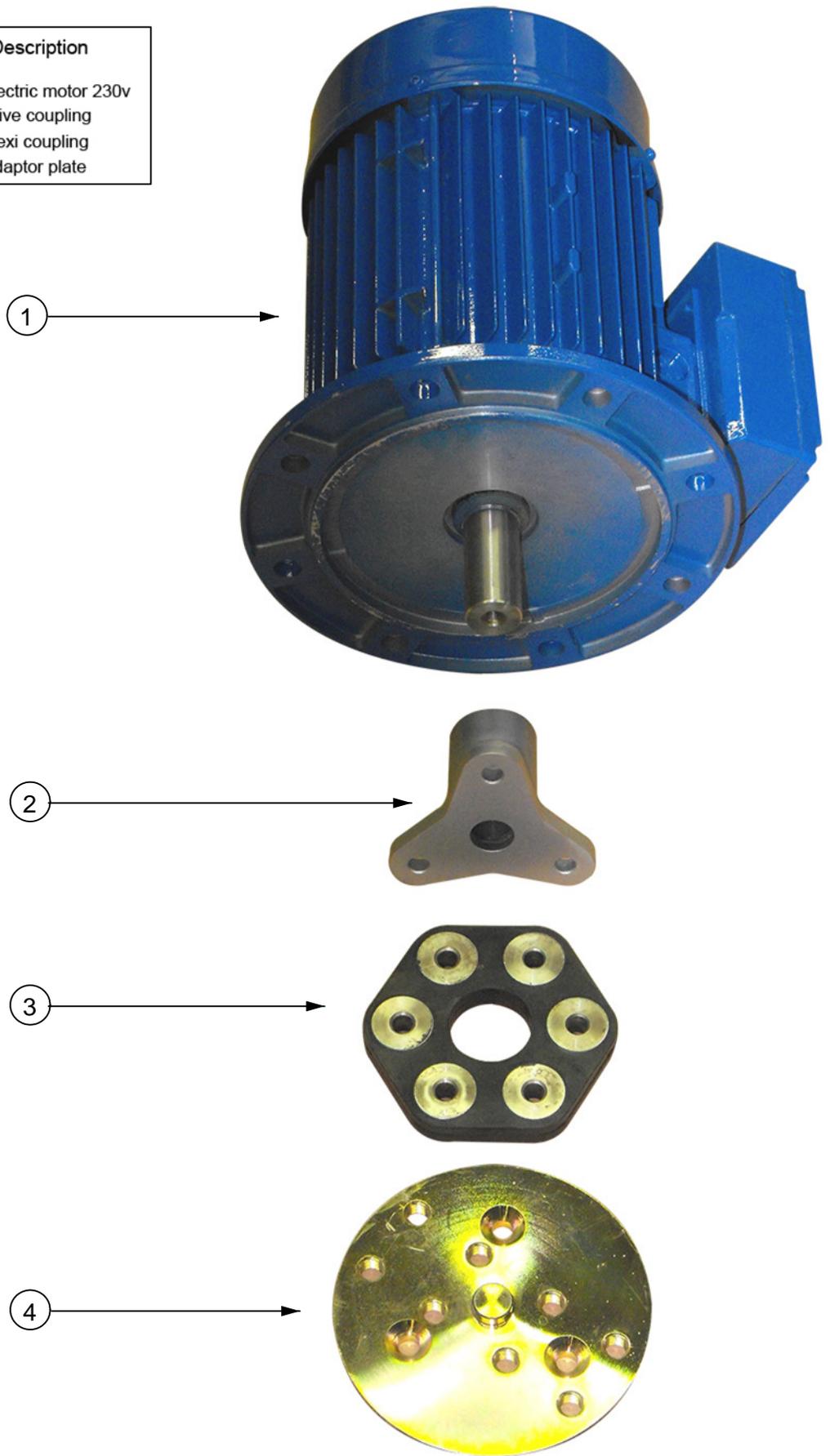
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Item	QTY	Part Number	Description
1	1	7017A	Electric motor 230v
2	1	5303	Drive coupling
3	1	5226	Flexi coupling
4	1	5064A	Adaptor plate



TITLE: Drive Components



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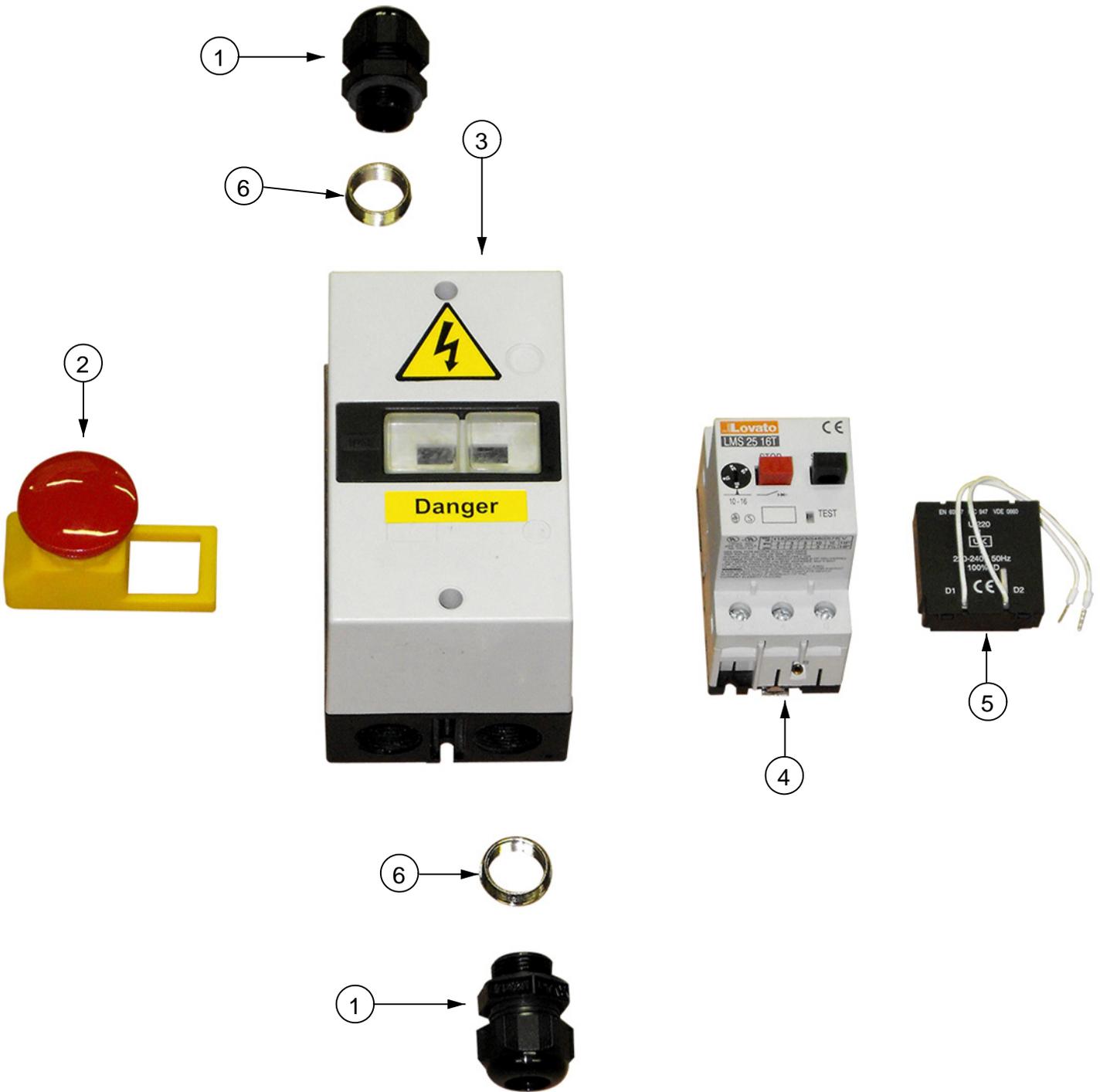
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Item	QTY	Part Number	Description
1	2	SPCG/LNM20	Gland
2	1	SPLMZ106	Stop button
3	1	SPLMZ111	Enclosure
4	1	SPLMS2516T	Switch
5	1	SP331-3703	Under voltage coil 240v
6	2	SP2520	Reducer



TITLE: Electrical Components



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