

Operation Manual



Electric Scaler / Scraper / Shaver

CAT 200BC / CAT 200BCEPS / CAT 200BCES

Revision 10

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1. Introduction



WARNING

The Electric Scaler / Scraper / Shaver is designed specifically for cleaning and dehairing animals quick and efficiently. Please ensure that the animal is pre-scalded before using this machine, as scalding softens the hair and allows for easy dehairing. It is vital to practice the right safety precautions when using the machine as it is capable of inflicting damage to the user. Please ensure that you follow the according safety precautions closely as it is very important that the utmost care is taken when using this machine.

PLEASE COMPLY WITH THE FOLLOWING:

- DO NOT use the machine unless you have read and completely understood this manual.
- DO NOT use the machine unless all the guards and safety devices are fixed firmly into place.
- Disconnect the power source before maintenance, cleaning or adjusting of the machine and once you are finished with the machine.
- Report all faults immediately.

Please note: If you are using a **Left Hand** machine, everything has been reversed (with the exception of the fish scaler head, which is ambidextrous). You will **not** be able to purchase a regular head for either the shaver, or scraper, as these are oriented for use with a regular Right Hand machine. If you require a shaver, or scraper head for a **Left Hand** machine, please contact info@mefe.com.au.

1.1 Technical Specifications

Model	Weight	Horse Power	Dimensions	Rubber Tube	Head
Electric Fish Scaler CAT 200BC	16kg	0.37kW	425 x 240 x 275mm	1500	Large Scraping Handle 200BC32
Electric Scraper CAT 200BCEPS	16kg	0.37kW	425 x 240 x 275mm	1500	Large Scraping Spindle 200BC61
Electric Shaver CAT 200BCES	16kg	0.37kW	425 x 240 x 275mm	1500	Large Shaving Spindle 200BC70

1.2 Machine Noise

DECLARED NOISE EMISSION VALUES in accordance with ISO 7960.

	Idling	Operating
Declared A-weighted Sound Power Level, L _w , in dB re 1 pW	60	70
Declared A-weighted Emission Sound Pressure Level, L _{pAd} , in dB re 20 µPa, at the operators position	50	60
Values determined according to specific test code ISO 3746.		

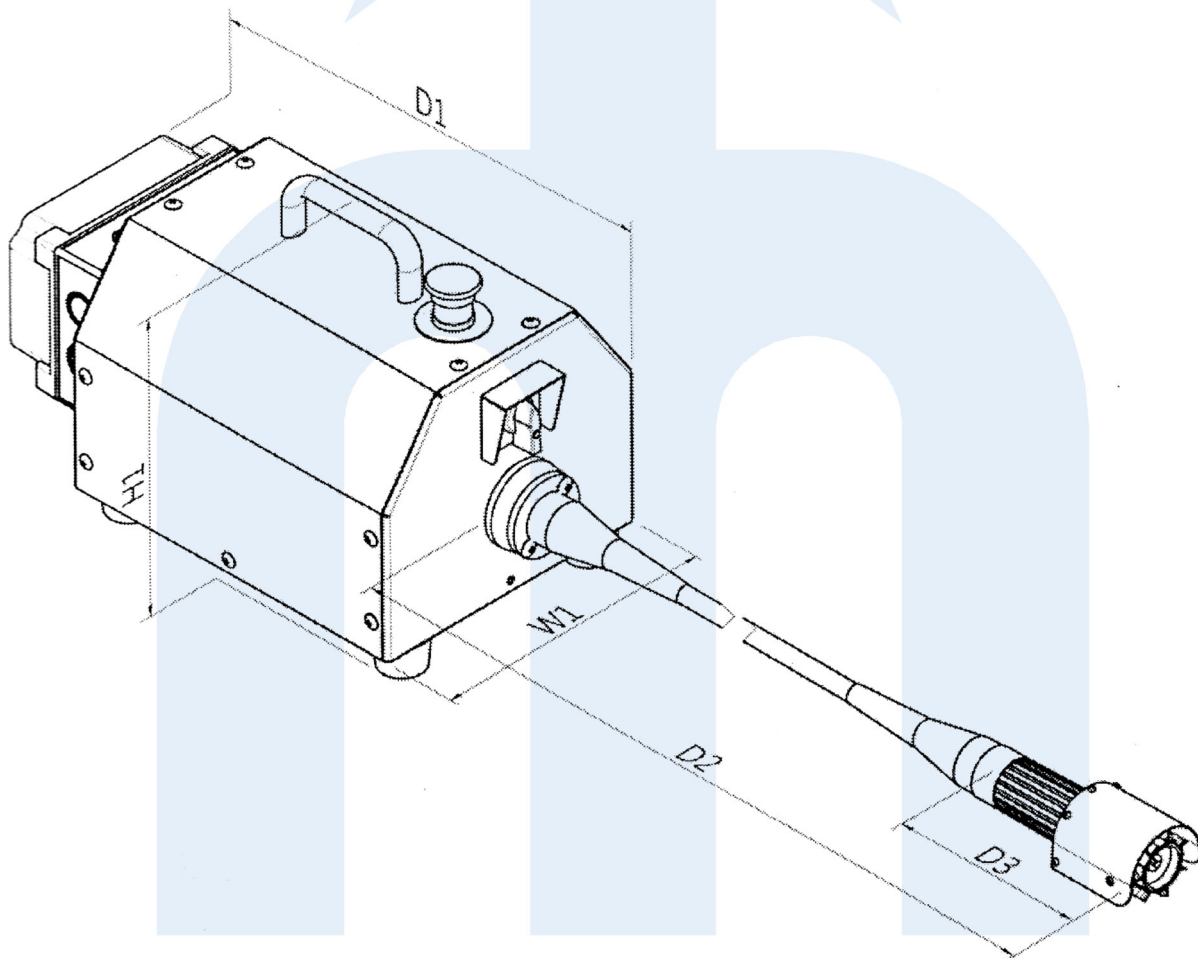
The emission levels quoted above are not necessarily safe work levels. While there is a relation between emission levels and exposure levels, this cannot be used reliably to determine whether or not further precautions are required. Also, the permissible exposure levels can vary from country to country. This information however will enable the machine user to make a better evaluation of hazard and risk.

1.3 Machine Dimensions

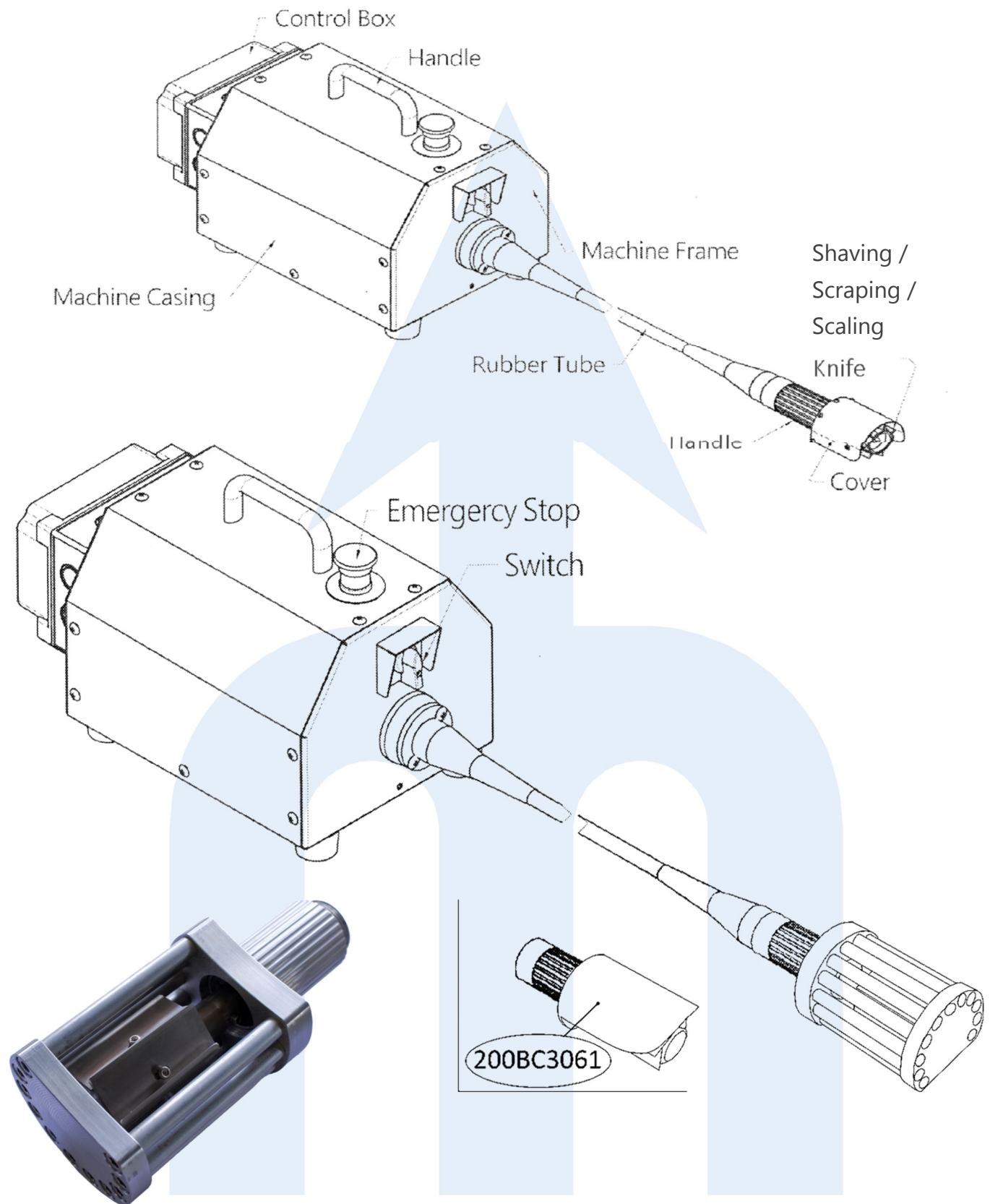
CAT 200BC / CAT 200BCEPS / CAT 200BCES

D1	425mm
D2	1715mm
D3	165mm
H1	275mm
W1	240mm

1.4 Machine Dimensions Diagram

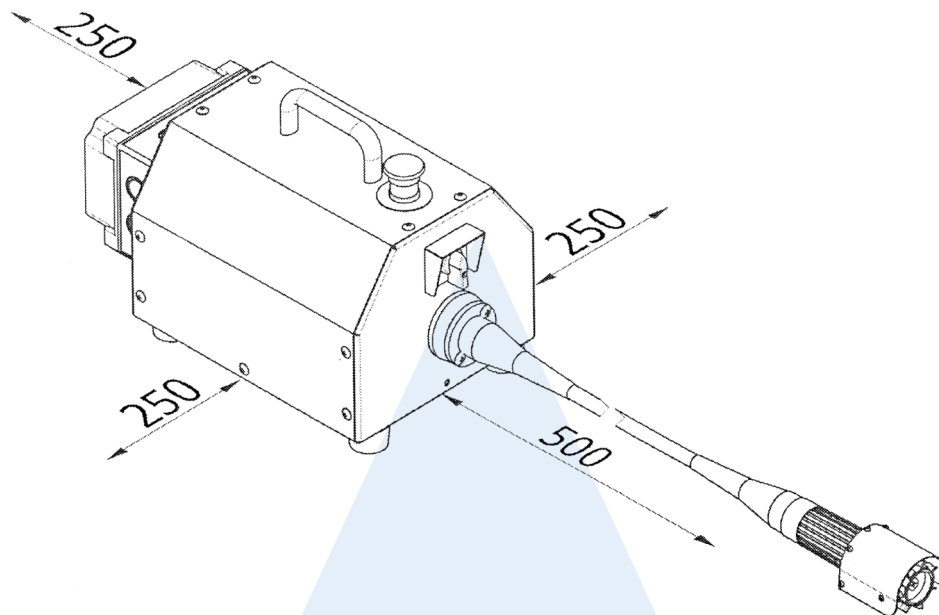


1.5 Labelled Diagram of Parts



200BC3070 Shaver Hand piece Complete

2. Installation



Ensure that the work table is suitable for purpose; consider factors of height, hygiene and safety to the user.

NOTE: Please ensure that the supply voltage corresponds with the voltage marked on the rating label and that the electrical supply is disconnected before conducting any maintenance, adjustment or cleaning.

2.1 Direction of Rotation

When viewed from the front, the SCALING/SHAVING/SCRAPING SPINDLE should rotate anti-clockwise

2.2 Choosing the Appropriate Location

This product must be installed in a well lit place, away from corridors and doors and where passer-by's are not able to disturb the machine. For safety precautions please ensure that the floor is a non-slip surface. The operating requirement temperatures are within +5-40°C, while the relative humidity should be between 30% and 95%.

2.3 Power Supply Requirement

Insufficient voltage from the factory power source may affect the power output of the motor and the function of the controller .

IT IS IMPORTANT TO CONNECT THIS MACHINE TO THE CORRECT VOLTAGE IN THE FACTORY POWER SOURCE. USE ONLY AN INDEPENDENT POWER SOURCE.

Model	kW	Voltage	Current	Breaker capacity	Wire size
CAT 200BC					
CAT 200BCEPS	0.37	110V / 200V	5.7 / 2.9	5~8A / 2.5~4.1A	2.0mm ²
CAT 200BCES					

2.4 Connecting Power Source Wires

1. Before connecting the power wires make sure the voltage between the machine and your factory power source is the same.
2. Connect the power wires to the L1, L2 and PE.
3. The machine must be properly grounded to prevent possible injury from electrical shock.
4. Connect the power wires from the machine bed to the electrical control box relative to connector type.
5. Qualified electrical personal should perform all electrical connections.



WARNING: Grounding should be based on the local regulations.

2.5 Checking Power Wire Connection

After connecting the power wires it is necessary to check that they are connected to the correct connection points. After checking this turn on the switch, step on the foot switch and check to see if the scale knife is rotating.

3. Operation

3.1 Safety Measures

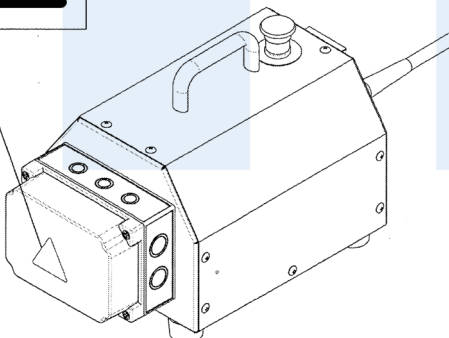
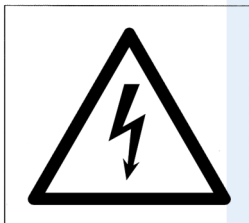
Following safety procedures in the operation of the machine is of the utmost importance to avoid bodily damage to the operator. Personal safety exceeds importance over the quick operation of the machine in all situations. It is recommended that only the people who have undergone the correct training in operating the machine use the machine. Operators must be made aware of the dangerous factors and safety measures.

3.2 Warning Plate

The machine has warning symbols attached on it, as shown across, to ensure proper and safe operation. These symbols are used on the machine to indicate points or instances of specific danger to operating personnel.



3.3 Warning Plate Diagram



3.4 Before Use

- The machine is delivered with the applicable end removed (scaling / scraping / shaving).
- The machine must be installed at a height which is suitable for the operator. Ensure that the flexible casing is not kinked. For best results and longevity of the drive cable please ensure the drive motor is behind the operator at the same work height—avoid bending the drive cable.
- Ensure operator is properly protected wearing gloves, armguards and aprons that are cut proof.

3.5 During Use

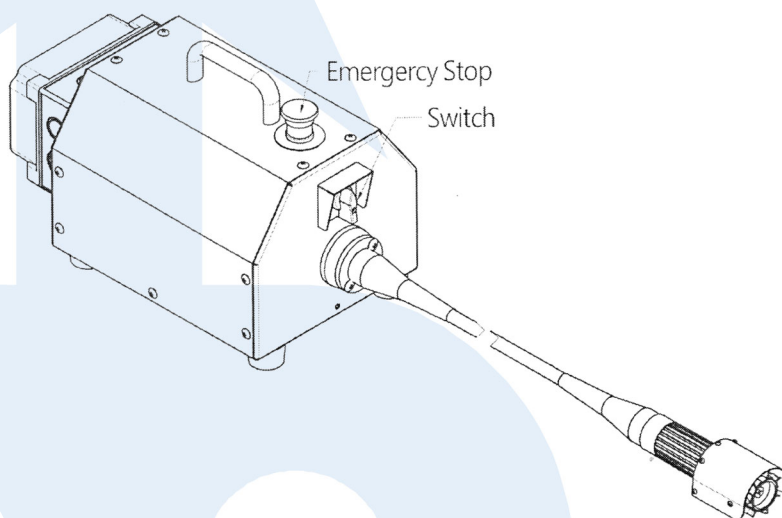
- Check that the rubber tube is not kinked.
- Do not touch the body of the machine during use.

3.6 After Use

Turn the switch to stop the machine. In order to prevent accidental starting, also remove the plug from the wall socket. **DO NOT** touch the machine body right after operation whilst the machine is cooling down.

3.7 Emergency Stop

During the operation of the machine, if any malfunctions occur, press this switch to stop all motion. When restarting the machine remember to turn this switch to the right to release it.



3.8 Starting Up and Stopping

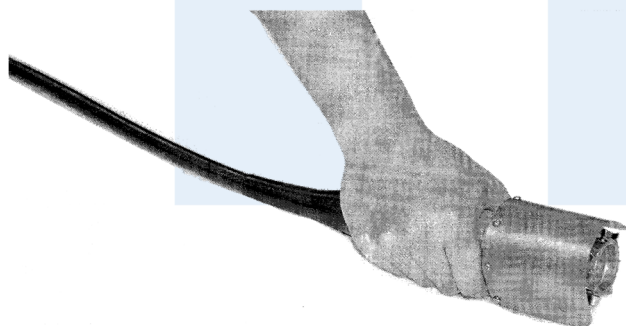
1. Take a firm hold of the handle of the machine.
2. Turn on the switch.
3. Step on the foot switch to rotate the knife.

Stop stepping on the foot switch to cease the knife. Then turn the switch off.

4. Instructions for Use

4.1 General Instructions

Correct Use - Straight



Incorrect Use - Bent



Please Note: If you are using a Left Hand machine, use the opposite hands than the below instructions.

4.2 CAT 200BC Scaling Fish

1. Begin by placing the fish on a study surface/table.
2. Using your left hand, take hold of the fish by its head. Hold the handle in your right hand and move it gently along the body of the fish, starting at the tail then towards the head. Make sure not to kink the rubber tube.
3. To clean the rotating scaling knife if it gets clogged with scales, rinse with clean, flowing water. ALWAYS stop the machine for cleaning.
4. Never put your fingers, or any other object which could cause an accident near the rotating scale knife.

4.3 CAT 200BCEPS Animal Scraping

1. Begin by scalding the animal in hot water—62Degrees Celsius .
2. Using your left hand, take hold of the animal. Hold the handle in your right hand and move it gently along the body of the animal.
3. Make sure not to kink the rubber tube.
4. To clean the rotating scraping knife if it gets clogged with bristles, rinse with clean, flowing water. ALWAYS stop the machine for cleaning. It is safe to run the machine under water.
5. Never put your fingers, or any other object which could cause an injury near the rotating scraping knife.

4.4 CAT 200BCES Animal Shaving

1. Begin by scalding the pig / GOAT / SHEEP in hot water—62 Degrees Celsius.
2. Using your left hand, take hold of the animal. Hold the handle in your right hand and move it gently along the body of the animal.
3. Make sure not to kink the rubber tube.
4. To clean the rotating shaving knife if it gets clogged with hair, rinse with clean, flowing water. ALWAYS stop the machine for cleaning. It is safe to run the shaving head under water.
5. Never put your fingers, or any other object which could cause an accident near the rotating shaving knife.

We recommend:

- User wears chain mesh cut proof gloves when operating the machine.
- Average use of 20-30 minutes before the machine needs to be stopped for a while.
- Operating this machine with two people will ensure the most comfortable use.
- After use, add grease to the flexible shaft to extend the life of the machine. Completely remove the inner cable and cover completely in food grade grease.

4.5 Cleaning and Washing

Disconnect the plug from the wall socket. The scaling/scarping/shaving end of the machine may be washed in warm water using detergent and a dish brush. The rubber and the machine itself may be wiped clean using a damp cloth. DO NOT use running water to clean the motor, DO NOT wet the switch and DO NOT use a pressure hose.

4.6 Maintenance

The machine does not require maintenance, except for daily cleaning. The service life of the casing wire can be increased by oiling. When necessary the casing and flexible wire must be replaced. DO NOT wash the machine with a shower.

5. Fault Finding

Fault	Cause	Suggestion
The machine does not start	(a) The plug is not attached to the socket (b) The switch is broken (c) The electrical cord is broken	Contact an authorized electrician or the manufacturer.
The knife end does not rotate	The rubber tube is broken	Replace the rubber tube
The rubber tube is fractured	The rubber tube is broken	Replace the rubber tube
The scales/hair will not come off	The knife end is blunt OR Incorrect or insufficient scalding	(a) Use a fine file to sharpen the teeth of the knife (b) Replace the knife

Drive Cable Lubrication Guide

You should be regularly inspecting, and greasing your drive cable. Here is our suggested schedule for heavy use.

Daily	Monthly	Quarterly
Inspect casing for damage (tears, holes, kinks). Replaced damaged casing immediately	Perform a thorough inspection of the entire drive cable assembly	Take photos of assembly for documentation and send to MEFE if any concerns
Check connection between handpiece and casing for any play or improper connection	Open the casing, clean and regrease the drive cable.	Review the parts list, and verify if any updates / changes.
Lubricate the inner shaft with (GREASE) after each 6 hour shift.	If any unusual noise or performance issues are observed, contact MEFE	

If your scaler is experiencing issues, such as the motor running but the spindle not turning, or improper connection between the hand-piece and casing, follow these steps to troubleshoot and perform drive cable replacement and lubrication. See image on following page for assistance.

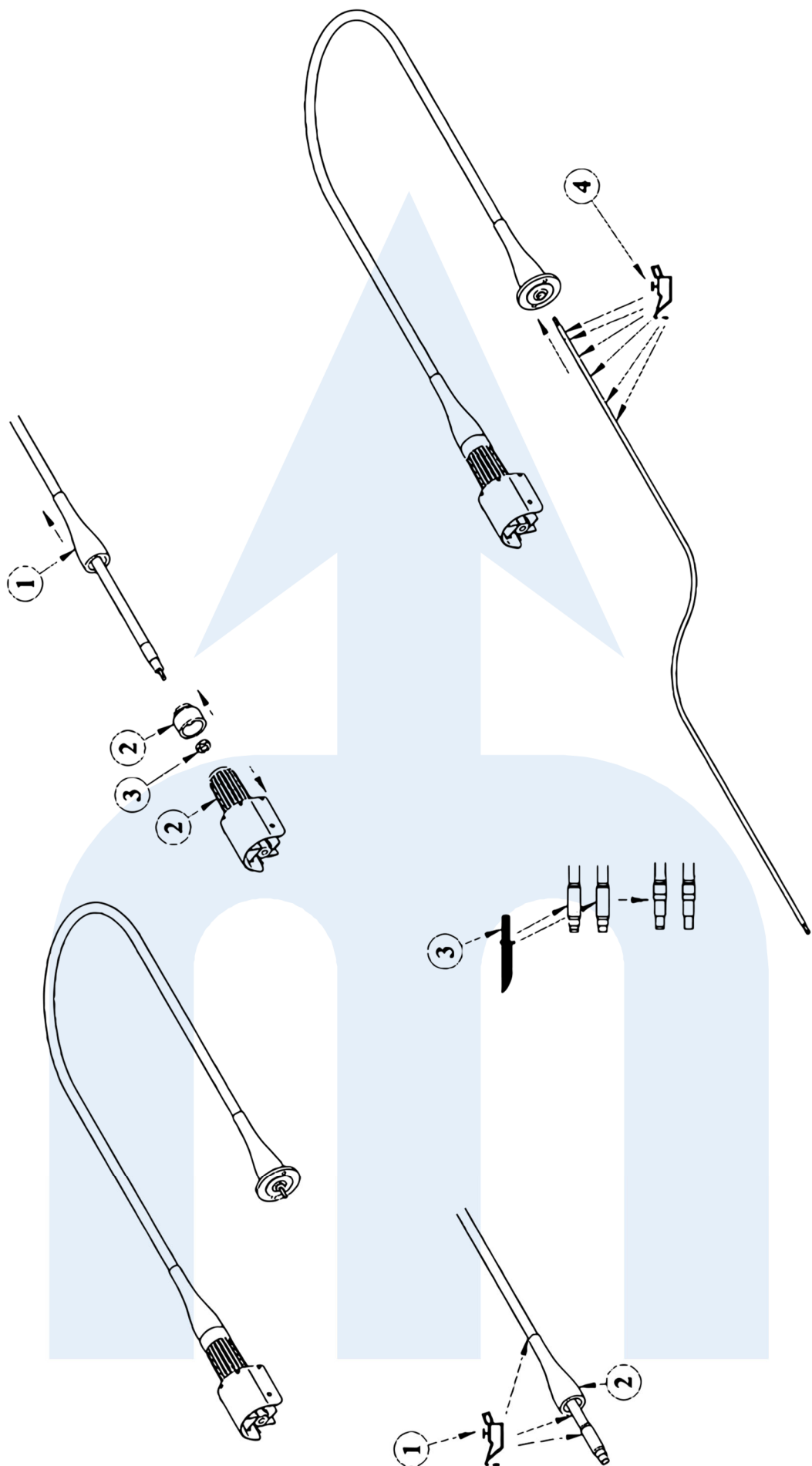
Replacing the Drive Cable:

1. Remove the 2 bolts connecting the casing to the motor and take out the drive shaft from the casing. If the shaft is broken, replace it.
2. Inspect the casing for any damage. If damaged, replace it. Ensure that the plastic base of the shaft is securely attached to the casing by a washer and circlip.
3. Check that the hand-piece is firmly attached to the rubber casing. If there is any play, refer to the instructions below.
4. Lubricate the new shaft with grease and insert it into the casing. Make sure it is fully inserted. Reattach the casing to the motor with the 2 bolts and test.

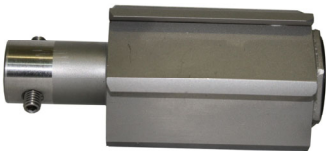

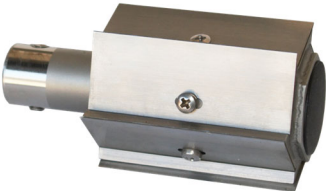













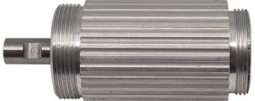


Replacing the Casing/Troubleshooting:

1. If the spindle is not turning properly after checking the metal shaft, inspect the connection between the hand-piece and casing.
2. To replace the casing, remove the 2 bolts connecting the casing to the motor and take out the drive shaft from the casing.
3. Remove the hand-piece from the casing by following these steps:
 - a. Spray GREASE CODE on the casing below the rubber end piece.
 - b. Use a dull knife to pry off the Reinforcing Rubber end piece and slide it down the casing.
 - c. If casing threads are showing, tighten the nut on the casing and the hand piece to eliminate play.
 - d. Slide the Reinforcing Rubber end piece back onto the hand-piece.
5. Remove the plastic base using circlip pliers. Be cautious not to stretch the circlip.
6. Install the new casing, trimming excess rubber on both ends.
7. For the hand-piece, tighten the nut and casing securely. No threads should be showing.
8. Lubricate the new shaft with grease and insert it into the casing. Reattach the casing to the motor and test.

Remember to use Food Grade Grease for lubrication, and ensure all components are properly secured. If you encounter any issues or have questions, contact MEFE.



6. Spare Parts

			
200BC61 Large Scraping Spindle	200BC23 Rubber Handle	200BC70 Large Shaver Spindle Complete 200BC70B Shaving Blades 200BC413 Mounting Screws	171-500-010 Food Grade Grease
			
200BC32 Fish scaling Spindle 200BC414 Spindle grub screws set (2 x grubs and Allen key)	200BC 20B Drive Flex Shaft 1.5M Long 200BC 20D Drive Flex Shaft 2M Long	200BC18 Transmission Shaft	200BC 20C Drive Flex Casing 1.5M Long 200BC 20E Drive Flex Casing 2M Long
			
200BC19 FLANGE Connecting Plate		200BC26 Shaft	200BC27 Bearing
			
200BC28 Bearing	200BC31 Oil Seal	200BC34 Nut	200BC29 Locking Ring
			
200BC35 Bush	200BC30 Handle Assembly	200BC3070 Shaver Handpiece Complete	200BC36 Plastic Guard

7. Exploded View

No.	Item	Qty	No.	Item	Qty.
1	Machine Base	1	21	Locking Ring	1
2	Machine Case	1	22	Screw	2
3	Motor	1	23	Rubber Handle	2
3C	Motor Capacitors	2	24	Screw	4
4	Handle	1	25	Screw	14
5	Foot Pad	4	26	Shaft	1
6	Nut	8	27	Bearing	1
7	Spring Washer	8	28	Bearing	1
8	Washer	8	29	Locking Ring	1
9	Screw	4	30	Handle	1
10	Screw	2	31	Oil Seal	2
11	Washer	2	32	Scaling knife	1
12	Spring Washer	2	33	Screw	1
13	Protect Cover	1	34	Nut	1
14	Bush	1	35	Bush	1
15	Screw	4	36	Cover	1
16	Nut	4	37	Screw	5
17	Spring Washer	4	38	Switch	1
18	Transmission Shaft	1	39	Emergency stop	1
19	Flange	1	61	Big Scale knife	Option
20	Flexible wire set	1			

