

Thank you for purchasing a National Machinery product. Manufactured to a high standard this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS AND CAUTIONS. USE THIS PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. RETAIN INSTRUCTIONS FOR FUTURE USE.


1. SAFETY INSTRUCTIONS

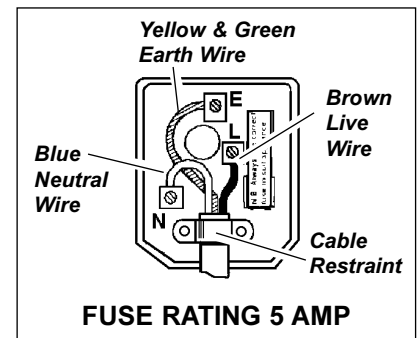
1.1 ELECTRICAL SAFETY

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. We also recommend that a Residual Current Device (RCD) is used. It is particularly important to use an RCD with portable products that are plugged into a supply which is not protected by an RCCB. If in any doubt consult a qualified electrician. You may obtain a Residual Current Device by contacting your Sealey dealer.

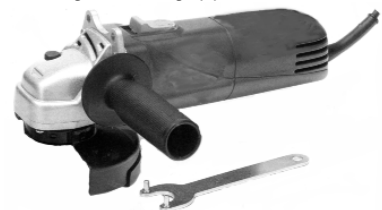
You must also read and understand the following instructions concerning electrical safety.

- 1.1.1 The Electricity at Work Act 1989 requires that all portable electrical appliances, if used on business premises, are tested by a qualified electrician, using a Portable Appliance Tester (PAT), at least once a year.
- 1.1.2 The Health & Safety at Work Act 1974 makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. If in any doubt about electrical safety, contact a qualified electrician.
- 1.1.3 Ensure that the insulation on all cables and on the appliance is safe before connecting it to the power supply. See 1.1.1 and 1.1.2 and use a Portable Appliance Tester.
- 1.1.4 Ensure that cables are always protected against short circuit and overload.
- 1.1.5 Regularly inspect power supply cables and plugs for wear or damage and check all connections to ensure that none is loose.
- 1.1.6 Important: Ensure that the voltage marked on the appliance matches the power supply to be used and that the plug is fitted with the correct fuse - see fuse rating at right.
- 1.1.7 DO NOT pull or carry the appliance by the power cable.
- 1.1.8 DO NOT pull the plug from the socket by the cable.
- 1.1.9 DO NOT use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician. When a BS 1363/A UK 3 pin plug is damaged, cut the cable just above the plug and dispose of the plug safely. Fit a new plug according to the following instructions (UK only).
 - a) Connect the GREEN/YELLOW earth wire to the earth terminal 'E'.
 - b) Connect the BROWN live wire to the live terminal 'L'.
 - c) Connect the BLUE neutral wire to the neutral terminal 'N'.
 - d) After wiring, check that there are no bare wires, that all wires have been correctly connected, that the cable outer insulation extends beyond the cable restraint and that the restraint is tight. Double insulated products, which are always marked with this symbol , are fitted with live (brown) and neutral (blue) wires only. To rewire, connect the wires as indicated above - DO NOT connect either wire to the earth terminal.
- 1.1.10 Products which require more than 5 amps are supplied without a plug. In this case you must contact a qualified electrician to ensure that a suitably rated supply is available. We recommend that you discuss the installation of an industrial round pin plug and socket with your electrician.
- 1.1.11 If an extension reel is used it should be fully unwound before connection. A reel with an RCD fitted is preferred since any appliance plugged into it will be protected. The cable core section is important and should be at least 1.5mm², but to be absolutely sure that the capacity of the reel is suitable for this product and for others which may be used in the other output sockets, we recommend the use of 2.5mm² section cable.



1.2. GENERAL SAFETY

- ✓ Disconnect the grinder from the mains power before changing accessories, servicing or performing any maintenance.
- ✓ Maintain grinder and discs in good condition. Check moving parts and alignment. If necessary use an authorised service agent.
- ✓ Replace or repair damaged parts. *Use recommended parts only. Unauthorised parts may be dangerous and will invalidate the warranty.*
- ☐ **WARNING!** Always work with the grinder safety guard in place.
- ✓ Wear approved safety goggles, ear defenders, gloves and, if grinder generates dust, a dust mask.
- ✓ The grinding wheel or disc must only be changed by persons holding an appropriate grinding wheel certificate.
- ✓ Remove ill fitting clothing. Remove ties, watches, rings and other loose jewellery and contain long hair.
- ✓ Use grinder in a suitable work area. Keep area clean, tidy and free from unrelated materials and ensure adequate lighting.
- ✓ Maintain correct balance and footing, DO NOT over-reach. Ensure the floor is not slippery and wear non-slip shoes.
- ✓ Use only approved grinding discs and only use the normal grinding surface.
- ✓ Check grinding disc to ensure there are no splits, cracks or other damage (see Section 4). If in doubt do not use the disc.
- ✓ Grinding discs must be securely attached before use, but not over-tightened.
- ✓ Secure unstable workpiece with a clamp, vice or other adequate holding device and ensure the grinder is gripped with both hands.
- ✓ Keep non-essential persons away from the working area, use screens if necessary.
- x DO NOT operate the grinder if any parts are missing or the grinder is damaged.
- x DO NOT use the grinder for a task it is not designed to perform.
- x DO NOT operate the grinder where there are flammable solids, liquids or gasses.
- ☐ **WARNING!** DO NOT grind any materials containing asbestos.
- x DO NOT get the grinder wet or use in damp or wet locations.
- x DO NOT switch the grinder on whilst the disc is in contact with the workpiece.
- x DO NOT cover the grinder air vents. To do so will overheat the machine.
- x DO NOT touch the workpiece immediately after grinding, it will be very hot.
- x DO NOT use the grinder as a fixed tool and DO NOT try to cool the grinding disc with water or other lubricants.
- x DO NOT hold unsecured work in your hand and DO NOT touch the grinding disc whilst operating, or whilst plugged into the mains power.
- x DO NOT leave the grinder running unattended, and DO NOT lay the grinder down whilst it is running.
- x DO NOT operate the grinder when you are tired or under the influence of alcohol, drugs or intoxicating medication.
- ✓ When not in use switch off grinder, remove plug from power supply and store in safe, dry, childproof area.



DANGER OF FIRE/EXPLOSION HAZARD

- ❑ **WARNING!** The grinding process can produce streams of sparks which are a potential source of ignition especially when grinding metal.
- ✗ **DO NOT** use the grinder where there are flammable liquids, solids or gases.
- ✗ **DO NOT** allow grinder sparks to make contact with the operators clothing or any other fabric such as cleaning rags. Fabrics contaminated with inflammable materials such as petrol, oil, grease, paint and solvents are a particular fire hazard.
- ✓ To reduce the risk of clothing catching fire the operator should wear wool or cotton outer garments treated with a fire retardant in preference to man made fibres.

Risk of Hand Arm Vibration Injury

Angle Grinder Models: N115600, N115880 when operated in accordance with these instructions and tested in accordance with EN 28662-2: 1994 results in the following vibration emission declared in accordance with BS EN12096: 1996.

Measured vibration emission value: N115600: ...2.5m/s², N115880: ...2.4m/s²

Uncertainty: N115600: ...1.0m/s², N115880: ...1.0m/s²

These values are suitable for comparison with emission levels of other tools that have been subject to the same test. This tool may cause hand-arm vibration syndrome if its use is inadequately managed. Recommended Measures to reduce risk of hand-arm vibration syndrome:

This item represents a low Hand Arm Vibration risk to users. The calculated maximum usage period exceeds 8 hours. We recommend appropriate safety equipment is utilised and regular breaks for the operator are employed to reduce any residual risk of fatigue or repetitive strain injury.

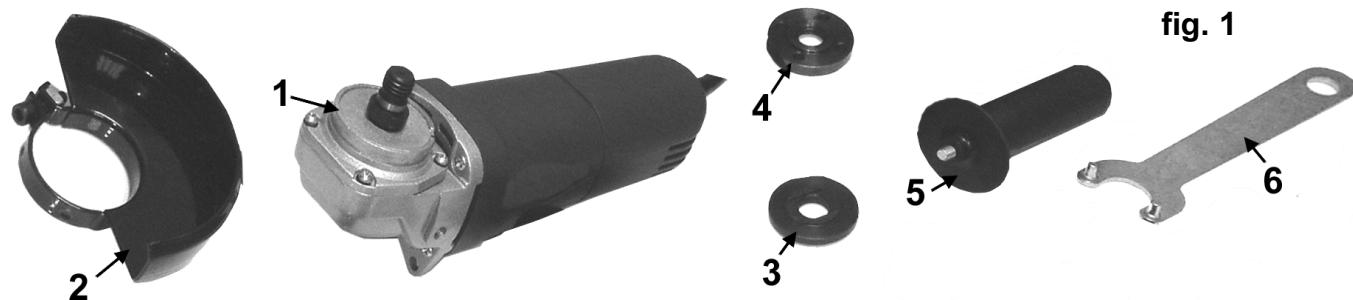
2. CONTENT & SPECIFICATION

❑ **WARNING!** *This tool is not intended for continuous professional use.*

Remove items from packing and identify parts against fig. 1. Check to ensure they are in good condition. If any part is damaged or missing contact your supplier immediately.

CONTENT LIST

- | | | | |
|---------|---------------|---------|------------------|
| 1. | Angle grinder | 4. | Nut flange |
| 2. | Safety guard | 5. | Auxiliary handle |
| 3. | Disc flange | 6. | Disc spanner |



Model No	N115600	N115880
Power Input	.230V	.230V
Power	.600W	.880W
No Load Speed	.11000rpm	.11000rpm
Maximum grinding disc size	.115mm	.115mm
Spindle thread	.M14	.M14
Weight	.2.1kg	.2.3kg
Disc bore	.22.2mm	.22.2mm
Sound pressure level	.89.3dB(A)	.89.5dB(A)
Sound power level	.102.3dB(A)	.102.5dB(A)
Vibration	.2.5m/s ²	.2.5m/s ²

3. ASSEMBLY

❑ **WARNING!** *Ensure that the grinder is unplugged from the mains power supply before assembling.*

3.1. Fit Grinding Disc (only to be performed by person holding grinding wheel certificate)

- 3.1.1. Place the disc flange **fig. 5.8** onto the centre spindle **fig. 5.A** ensuring that the joint ring **fig. 5.9** is facing away from the grinder. Engage the recess in the disc flange with the drive flats on the shaft.
- 3.1.2. Place grinding disc on the spindle.
- 3.1.3. Retain disc with nut flange. Fit with spigot facing out if disc is less than 5mm thick, and facing in if disc is more than 5mm thick **fig. 2 & 3**.
- 3.1.4. Stop the spindle from turning by pushing in and holding the locking button **fig. 4**.
- 3.1.5. Lock the grinding disc into place by tightening the nut flange **fig. 5.10** with the disc spanner **fig. 5.11**
- 3.1.6. Release the locking button and check that it has sprung back to the initial position.

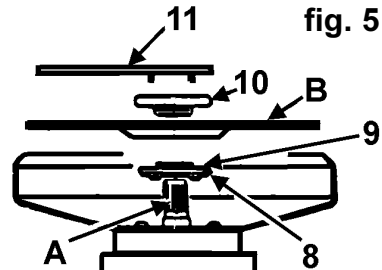
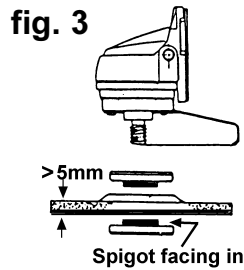
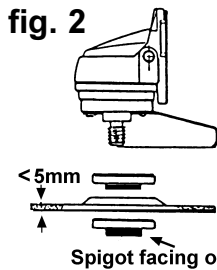
3.2. Positioning the Guard

- The guard may be rotated through any angle to suit the task.
- 3.2.1. Position the guard to give working access whilst still providing maximum personal protection for the operator.
- 3.2.2. Lock the guard in place by tightening locking bolt **fig. 4**

3.3. Handle

- The auxiliary handle will allow better control and safety.
- 3.3.1. Fit the handle by screwing it into the threaded hole on either the left or right side of the gear box, as best suits the work.





4. GRINDING DISCS

WARNING! DO NOT USE DISCS THAT ARE DAMAGED, OR SUSPECTED OF DAMAGE.

Before using a grinding disc ensure there are no fissures or cracks. Once mounted on the grinder test the disc before use by facing the grinder in a safe direction (pointing away from yourself, others and vulnerable items) and operate for a short time.

DANGER! Use of damaged discs may cause damage and/or personal injury.

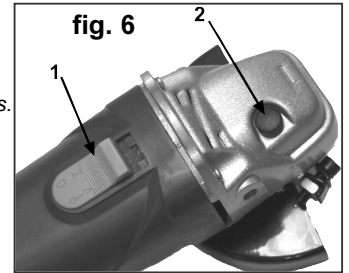
Grinding and cutting discs used in association with this machine shall be of an adequate speed rating and suitable for the job in hand. The discs shall be made in accordance with British Standard 4481:Part 1 1989.

Only persons holding a grinding wheel certificate are authorised to change grinding discs.

5. OPERATING INSTRUCTIONS

WARNING! This tool is not intended for continuous professional use.

WARNING! Ensure grinder is unplugged from the mains power supply before changing accessories.



5.1. Preparation

- 5.1.1. Assemble grinding disc according to 3.1. and position handle to suit the task.
- 5.1.2. Ensure the disc safety guard is correctly positioned.
- 5.1.3. Plug grinder into the mains power supply.

5.2. Grinder On/Off Switch

The On/Off switch (fig 6.1) is designed to avoid starting should the switch be pressed in error.

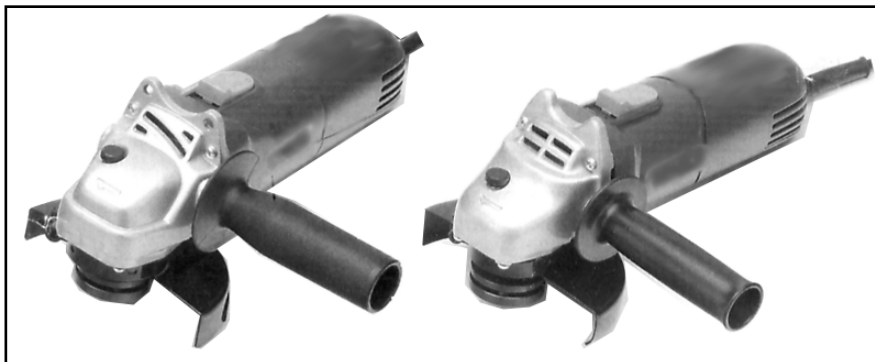
- 5.2.1. Once plugged into the mains supply, start the grinder by sliding the switch forward - it will latch in the 'On' position.
- WARNING!** When the grinder first starts it will kick to the right, you must ensure therefore that the tool is securely gripped in both hands. Especially important is the position you choose to secure the auxiliary handle in order to maintain stability.
- 5.2.2. To switch off the machine push the back of the On/Off button down. The button will slide backward under spring pressure to the safety position and the machine will stop.

WARNING! Before grinding ensure you wear approved safety goggles, ear defenders, dust mask if grinder generates dust and safety gloves, and that all other safety instructions in Section 1 are followed carefully.

5.3. Grinding

The key to effective operating is controlling the pressure and surface contact between the disc and the workpiece.

- WARNING!** DO NOT switch the grinder on whilst the disc is in contact with the workpiece. Bring the rotating disc to the workpiece.
- 5.3.1. Allow the disc to reach full speed before starting to grind.
- 5.3.2. Grind flat surfaces at an angle of between 10 to 20 degrees. Too great an angle will cause a concentration of pressure in one small area resulting in gouging or burning of the surface.
- 5.3.3. When grinding is complete allow the workpiece to cool. DO NOT touch the hot surface.
- 5.3.4. Unplug the grinder from the mains power supply, clean and store in a safe, dry, childproof area.



6. MAINTENANCE

WARNING! Ensure the grinder is disconnected from the mains power supply before attempting any maintenance.

6.1. Cleaning

Keep the grinder ventilation slots clean and free from obstructions. If available, blow compressed air into the vents to clear any internal dust (safety goggles must be worn when undertaking this process). Keep the outer case of the grinder clean and free from grease. DO NOT wash with water or use solvents or abrasives.

Declaration of Conformity

Angle Grinder Models N115600, N115880

73/23/EEC Low Voltage Directive
89/336/EEC EMC Directive
98/37/EC Machinery Directive
93/68/EEC CE Marking Directive

We declare that the products listed below conform with the following standards and directives.



The construction files for these products are held by the Manufacturer.

Signed by Nigel Sykes

4th February 2005

For National Automotive Machinery Ltd.

**NATIONAL
MACHINERY**

WARRANTY: GUARANTEE IS 12 MONTHS PARTS AND LABOUR FROM PURCHASE DATE.
PROOF OF PURCHASE WILL BE REQUIRED FOR ANY CLAIM.