KOBE INDUSTRIAL AIR TOOLS

THE ENVIRONMENT

Always dispose of unwanted tools, accessories and packaging materials in an environmentally friendly manner.

DECLARATION OF CONFORMITY

We hereby certify that the KOBE ANGLE GRINDER 115mm FGA120g

(ORDER CODE: KBE-270-1960K)

complies with all the relevant provisions of the

Machinery Directive 2006/42/EC

Standards Applied:

EN ISO 12100:2010, ISO 12100:2010, EN ISO 11148-7:2012, ISO 11148-7:2012, EN ISO 28927-1:2009, ISO 28927-1:2009, EN ISO 15744:2008

Signed:

Date: 1st May 2017

Name: Keith Read

Position: HSQE Manager

KOBE TOOLS
THE KENNEDY GROUP LTD, WIGSTON, ENGLAND, LE18 2FS.

CE

QUALITY GUARANTEE & WARRANTY

KOBE INDUSTRIAL AIR TOOLS carry a one year manufacturer's warranty.

KOBE INDUSTRIAL AIR TOOLS are designed & manufactured to the highest standards & specifications
Assuring the quality and performance required by all sectors of industry.

KOBE INDUSTRIAL AIR TOOLS are fully guaranteed against faulty materials & workmanship.
Should they be found to be defective, they will either be repaired or replaced free of charge (fair wear and tear and/or misuse excepted).

Please retain supplier invoice as proof of purchase.

KOBE TOOLS OFFICIAL AGENT: THE KENNEDY GROUP LTD, WIGSTON. LEICESTER, ENGLAND. LE18 2FS.
© The Kennedy Group Ltd. 05/17

KOBE™
INDUSTRIAL AIR TOOLS

ANGLE GRINDER 115mm

MODEL: FGA120g

ORDER CODE: KBE-270-1960K

- **Suitable for metal dressing, rust removal, weld preparation and automotive bodywork fabrication**
- **115mm disc capacity**
- **12,000rpm governed speed**
- **Powerful 0.9hp motor**
- **Rubber cushioned side handle provides grip and operator comfort**
- **Side handle can be positioned for left or right hand operation**
- **Lightweight composite body reduces the effects of vibration and hand chill**
- **Spindle lock button**
- **Safety guard is easily rotated, without the need for tools**
- **Safety lever throttle**
- **Rear exhaust**

York grinding/cutting discs are sold separately

KOBE recommends the use of YORK™ quality abrasives

WARNING: THE SAFETY INFORMATION GIVEN INSIDE MUST BE READ AND UNDERSTOOD BY ANY PERSON USING, INSTALLING, REPAIRING OR MAINTAINING THIS PRODUCT.

OPERATOR'S MANUAL

Please retain this information for future reference.

KOBE INDUSTRIAL AIR TOOLS

SAFETY INSTRUCTIONS

You have purchased a quality product that is designed for high performance and long service life. If correct use, safety and maintenance procedures are observed this product will last for many years.

KOBE INDUSTRIAL AIR TOOLS have been specifically designed to help you work **SAFELY** and **EFFICIENTLY**. Your care and good judgement are the best protection against injury, but always ensure that the appropriate safety equipment is worn. All possible hazards cannot be covered here, but the most important ones have been highlighted.

ALERTNESS

- Always stay alert, watch what you are doing and use common sense when operating this tool.
- Always make sure you do not get distracted by other people.
- Always avoid accidental starting of the tool. Disconnect the tool before adjusting, replacing accessories or repairing.
- Never operate the tool when tired or under the influence of alcohol or prescription/non-prescription drugs.

SIGHT

- Always wear approved eye protection during operation, repair or maintenance of the tool, or whilst changing accessories. Even small projectiles can injure eyes and cause blindness.

HEARING

- Always take measures to eliminate or reduce risks from exposure to noise. High sound levels can cause permanent hearing loss. Always use approved hearing protection.

RESPIRATORY

Breathing in dust can lead to lung problems. Some dust created by using this tool could contain chemicals which are known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

LEAD which can be found in old paint.
CRYSTALLINE SILICA from bricks and cement and other masonry products.
ARSENIC and **CHROMIUM** from chemically treated timber.

- Always avoid inhaling/ingesting dust or handling debris from the work process which can be harmful to your health.
- Always use dust extractors where available, work in a well ventilated area and wear a face mask which is specially designed to filter out microscopic particles.

HANDS, ARMS AND BODY

Cuts and burns

- Always wear gloves to protect hands from cuts and burns.
- Always wear shoes which are non-skid. In addition, wear shoes with steel toe caps where there is a risk of heavy or sharp objects falling on your feet.
- Always wear a protective apron capable of stopping small wheel or workpiece fragments.
- Never allow sparks to go onto your clothing. Wear wool or flame retardant cotton rather than man made fabrics.
- Never touch parts of the tool or accessories when they are moving. Use gloves when changing accessories after use.

Vibration and repetitive strain

Repetitive work motions, awkward positions and exposure to vibration can cause “Repetitive Strain Injuries”. If numbness, tingling, pain or whitening of the skin occurs consult a doctor.

- Always use appropriate safety equipment and take regular breaks.

Skin disorders

Frequent, prolonged contact with used engine oils may cause dermatitis and other skin conditions, including skin cancer.

- Always wear protective gloves and clean overalls. Never put oily rags into your pockets.

HAIR, CLOTHING & JEWELLERY

- Always ensure that all long hair and loose clothing, ties, scarves, jewellery, etc., are secured or removed.
- Never wear watches, rings or bracelets whilst using this tool.

CHILDREN AND OTHER PEOPLE

- Always ensure that all others in the area are wearing approved eye, face, respiratory, hearing and body protection.
- Always keep children away from the work area and where tools are stored.
- Never let people who are unfamiliar with the tool use it.

AIR PRESSURE

Air under pressure can cause severe injury.

- Always check for damaged or loose hoses and fittings. Whipping hoses can cause serious injury.
- Never direct air at yourself or anyone else.

NOTES

NOTES

SAFETY INSTRUCTIONS Continued

LUBRICANTS

Mineral oils (Hydraulic fluid) used as lubricants are not considered hazardous to health under normal conditions. First aid measures however should be taken if:

Ingested - Wash out

Contact with eyes - Thoroughly flush eyes with clean water for 5 to 10 minutes and seek medical advice.

Contact with skin - Wash area with soap and water. Remove effected clothing and wash. If irritation persists, seek medical advice.

Other - Seek medical advice immediately

- Always wear gloves and goggles when dealing with lubricants.
- Always extinguish using a foam or dry powder fire extinguisher. Never use water.
- Never allow lubricants to contaminate rivers, water ways or drains.

ELECTROCUTION, FIRE OR EXPLOSION

- Always be aware of hidden cables and pipes.
- Never make contact with electric power sources as this tool is not insulated.

When grinding materials especially metal, the grinding process can produce streams of sparks which are a potential source of ignition.

- Never work near flammable materials or in a combustible atmosphere.
- Never allow sparks to fall on cleaning rags.

GENERAL OPERATING HAZARDS

- Always ensure that all accessories are rated to the “Free” speed of the tool and intact before fitting or using.
- Always ensure all users are physically able and competent to handle the size, weight and power of the tools and have received appropriate training to perform the task.
- Always be aware of the tool rundown time. Control the tool as if it were under power.
- Always ensure the tool is kept in a good working condition. Do not use the tool if any parts are missing or damaged.
- Always make sure that the labels on the air tool are kept legible, indicating the model number, serial number, rpm and any warnings. If not, reorder and replace (See page 8).
- Never disable the safety lever throttle.
- Never modify the tool or accessories and only use it for the task for which it has been designed.
- Never force or apply excessive pressure, let the tool do the work for you.

SPECIFIC OPERATING HAZARDS

- Always hold the tool with both hands.
- Always use the disc guard and the side handle.
- Always ensure the disc has stopped rotating before putting the Angle Grinder down onto a stable work surface.
- Always allow the Angle Grinder to run for at least one minute preferably under a workbench before grinding/cutting to test any new disc.
- Never depress the spindle lock button whilst the Angle Grinder is running.
- Never use the Angle Grinder as a fixed tool.
- Never use a cutting wheel for grinding.
- Never try to cool the disc with water or other lubricants.
- Never fit an abrasive to the tool that is not designed to be used with it. This may cause serious injury or death.
- Never switch the Angle Grinder on whilst the disc is in contact with the workpiece.
- Never touch the workpiece immediately after grinding, as it will be very hot.

WORKPLACE HAZARDS

- Always comply with Health & Safety regulations.
- Always be aware of excess hose around the work place. Slip/Trip/Fall is a major cause of serious injury or death.
- Always maintain a balanced body position and secure footing.
- Always use a vice or clamping device to hold the work piece firmly in place.
- Never carry the tool with your fingers on the throttle lever.

AIR SUPPLY AND CONNECTION HAZARDS

- Always shut off air supply, drain hose of air pressure and disconnect tools from air supply when not in use, before changing accessories or when making repairs.
- Always install lock pins when universal twist couplings are used.
- Always keep the air hose away from heat, oil and sharp edges.
- Always check the air hose for wear and make certain that all connectors are secure.
- Always ensure the trigger is in the “OFF” position before connecting to the air supply.
- Never use quick disconnect couplings at tool. See instructions for suggested air supply.
- Never exceed the maximum air pressure of 6.2bar (90psi).
- Never carry the tool by the air hose.

SPECIFICATIONS

MODEL NUMBER	FGA120g
DISC SIZE	Ø 115mm (4½")
SPINDLE SIZE	M14 x 2.0mm
FREE SPEED[1]	12,000rpm
AIR INLET THREAD	¼" NPT
MINIMUM AIR HOSE SIZE	10mm (⅜") ID
AIR PRESSURE	6.2bar (90psi)
MOTOR POWER	0.9hp
AIR CONSUMPTION[2]	113Ltr/m (4cfm)

SOUND POWER LEVEL[3]	92dBA
SOUND PRESSURE/NOISE LEVEL[3]	89dBA
VIBRATION LEVEL[4]	1.2m/s²
OVERALL LENGTH	240mm
NET WEIGHT	1.95kg

[1] +/- 10% governed speed
[2] Air consumption without load in 1 minute.
[3] Per Pneurop Standard EN ISO 15744:2008.
[4] Per EN ISO 28927-1.

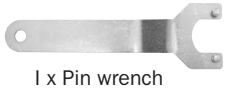
BOX CONTENTS

It is recommended that the packaging materials (plastic bags, polystyrene, cable ties etc.) are saved for future transportation of the tool in the event of it requiring service or repair. If you decide not to keep them, they must be disposed of in an appropriate refuse collection container. These materials must not be left within the reach of children as they are potential sources of danger.

Make sure the tool is in perfect condition and that there are no visible damaged parts. If in doubt, do not use the tool and contact your local Kobe agent from whom it was purchased.

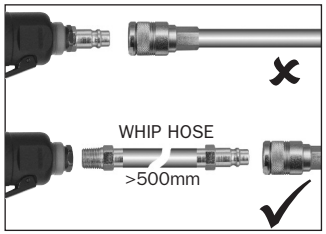
I x Angle Grinder FGA120g
N.B Grinding/cutting disc not included

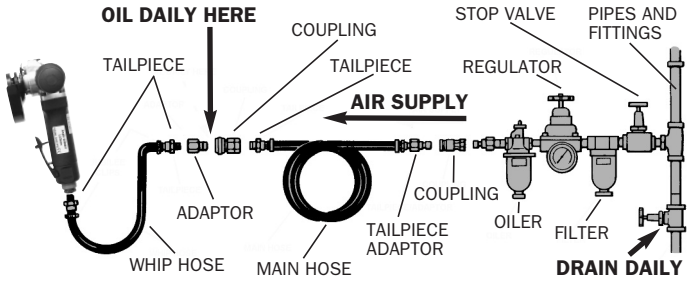
I x Cushioned side handle



I x Pin wrench

SUGGESTED AIR SUPPLY





Before connecting, ensure the dust cap is removed (See page 6 for further details).
Connect tools to the air line using pipe, hose and fitting sizes listed in the specifications.

Supply tools with 6.2bar (90psi) of clean, dry air. A higher pressure and unclean air will shorten the tool life because of faster wear and may create a hazardous condition.

Requirements for Quick Acting Couplings connected to Air Tools:

A whip hose of minimum length 500mm between the tool and the coupling is required in order to comply with Health and Safety Executive Guide **HS(G) 39, BS4575:2, ISO 4414 and ISO 6150.** This will also reduce the strain applied by the weight of the air hose on the end of the air tool.

PARTS BREAKDOWN Continued

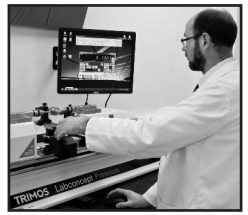
Index No.	Order Code	Description	Qty
1	KBE-298-5100A	Motor housing	1
2	KBE-298-5101B	Spring pin (3x24)	1
3	KBE-298-5102C	Air inlet	1
4	KBE-298-5103D	Throttle lever	1
5	KBE-298-5104E	Pin	1
6	KBE-298-5105F	Rubber spacer	1
7	KBE-298-5106G	"O" ring (4.9x2.2)	1
8	KBE-298-5107H	Spring	1
10	KBE-298-5109K	Valve stem	1
12	KBE-298-5111M	Plunger	1
13	KBE-298-5112N	Ball bearing (2) (608zz)	1
14	KBE-298-5113P	Rear plate	1
15	KBE-298-5114Q	Rotor	1
16	KBE-298-5115R	Rotor blade (4)	1
17	KBE-298-5116S	Spring pin (2.5x12)	1
18	KBE-298-5117T	Cylinder	1
19	KBE-298-5118V	Front end plate	1
20	KBE-298-5119W	Ball bearing (6201z)	1
21	KBE-298-5120X	Gasket	1
22	KBE-298-5121Y	Bevel gear	1
23	KBE-298-5122Z	Gear housing	1
24	KBE-298-5124A	Spring washer (4) (M5)	1
25	KBE-298-5125B	Screw (4) (M5x18)	1
26	KBE-298-5126C	Spacer	1
27	KBE-298-5127D	Screw (M6x6)	1
28	KBE-298-5128E	Ball bearing (626zz)	1
29	KBE-298-5129F	Retaining ring (STW-10)	1
30	KBE-298-5130G	Bevel gear	1
31	KBE-298-5131H	Wave washer (WW-10)	1
32	KBE-298-5132J	Ball bearing (6202zz)	1
33	KBE-298-5133K	Spindle (M14x2)	1
34	KBE-298-5134L	Key (3x13)	1
35	KBE-298-5135M	Spacer	1
36	KBE-298-5136N	Bearing cap	1

Index No.	Order Code	Description	Qty
37	KBE-298-5137P	Disc guard	1
38	KBE-298-5138Q	Flange (M14x2)	1
39	KBE-298-5139R	Spring pin (2.5x8)	1
40	KBE-298-5140S	Flange nut	1
41	KBE-298-5141T	Adjust screw	1
42	KBE-298-5142V	Adjust nut	1
43	KBE-298-5143W	Screw (4) (M5x16)	1
44	KBE-298-5144X	Inlet guide	1
45	KBE-298-5145Y	Spring	1
46	KBE-298-5146Z	Governor	1
47	KBE-298-5148A	Pendulum (6)	1
48	KBE-298-5149B	Spring pin (2) (3x12)	1
49	KBE-298-5150C	"O" ring (13.5x1.5)	1
50	KBE-298-5151D	Spring	1
51	KBE-298-5152E	Safety bar	1
52	KBE-298-5153F	Spring pin (2x18)	1
53	KBE-298-5154G	Exhaust diffuser	1
54	KBE-298-5156J	Vibration reducing handle	1
55	KBE-298-6130C	Pin wrench	1
56	KBE-298-5158L	Retaining ring (ISTW-7)	1
57	KBE-298-5159M	Bushing	1
58	KBE-298-5160N	"O" ring (10.5x1)	1
59	KBE-298-5161P	Spring	1
60	KBE-298-5162P	Spindle stop button	1
61	KBE-298-5163R	Set screw (2) (M5x8)	1
66	KBE-298-5168X	"O" ring (29.5x2)	1
68	KBE-298-5169Y	Spring	1
69	KBE-298-5170Z	Lock ring	1
70	KBE-298-5172A	Disk spring	1
71	KBE-298-5173B	Retaining ring (STW-27)	1
73	KBE-298-5174C	Specification label	1
74	KBE-298-9907A	Warning label 46x20mm	1
75	KBE-298-9906A	Warning label 35x35mm	1

SERVICE & REPAIRS

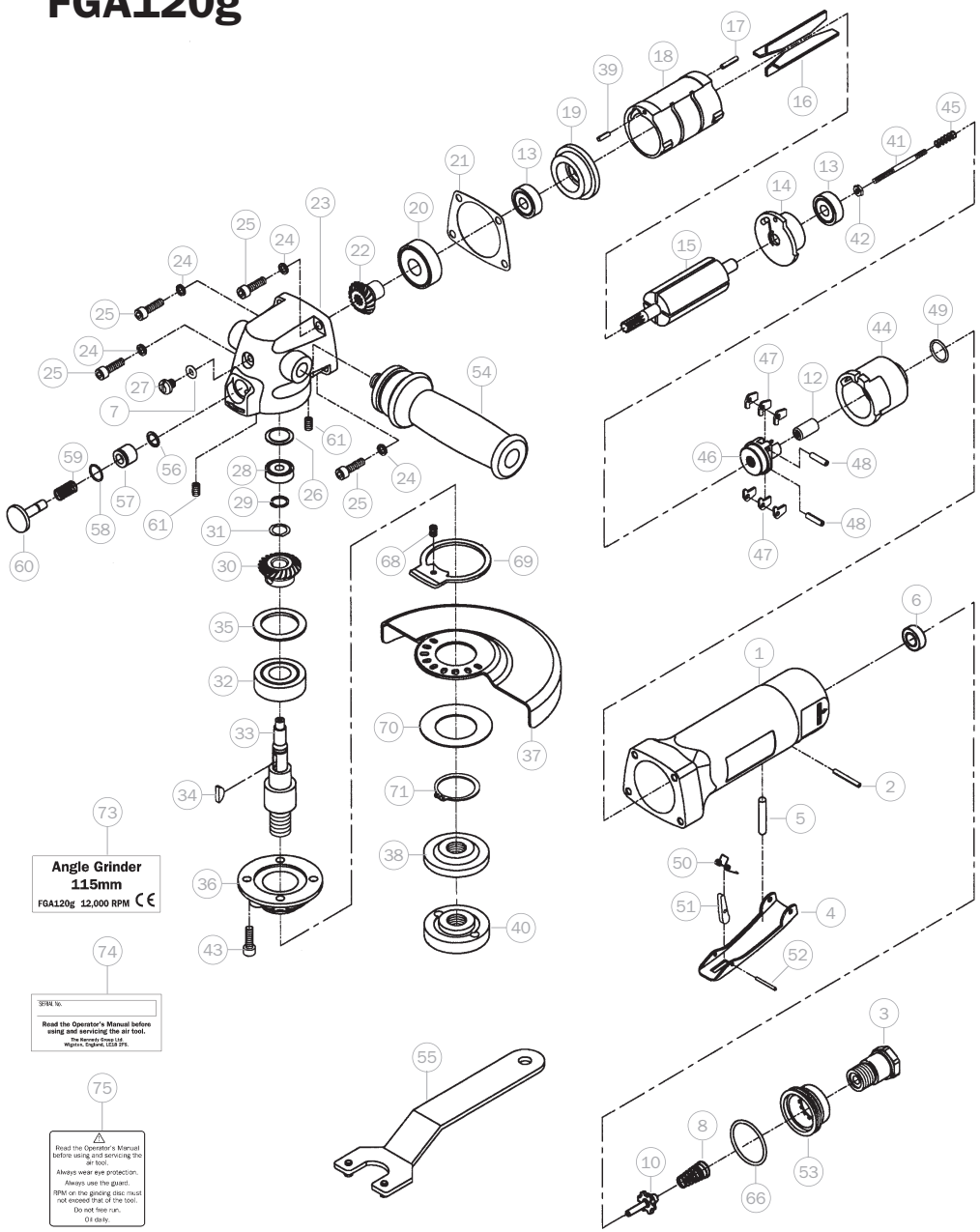
Servicing should be carried out at intervals of 1,000 hours use or every 12 months, whichever is sooner.

A comprehensive repair and service facility is available through your local Kobe agent.



PARTS BREAKDOWN

FGA120g



LUBRICATION

Air tools require lubrication throughout the life of the tool otherwise moisture in the compressed air will rust the air motor. Correct lubrication is vital for the maximum performance of the air tool and an airline lubricator should be fitted into the system down stream of the filter. Failure to lubricate the tool at the air inlet will void your warranty.

Either use an air line lubricator with air tool oil adjusted to two drops per minute, or if an air line lubricator cannot be used, add a teaspoon of air motor oil to the inlet or into the hose at the nearest connection to the air supply once a day and then run the tool (See fig. 1). ISO Grade VG22 oil is recommended. A rust inhibitive oil is acceptable for air tools.

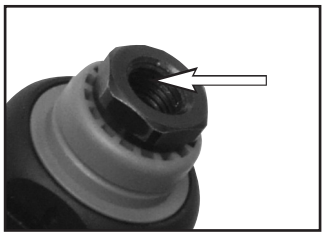


Fig. 1

Any excess oil in the motor is expelled immediately from the exhaust port. Always direct the exhaust port away from people or objects.

Every 40 hours of use, remove the screw on the front of the Angle Grinder (See fig. 2) and lubricate the gears with a multi-purpose molybdenum disulphide grease.

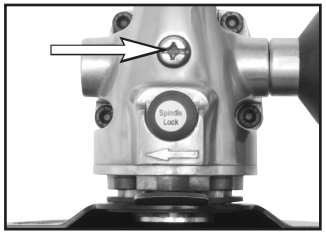


Fig. 2

Do not lubricate the tool with flammable or volatile liquids such as paraffin (kerosene), diesel or jet fuel.

OPERATION

Before using an Angle Grinder, during use or installing a new grinding/cutting disc, inspect the discs for chips and cracks. Grinding discs with flaws, can explode whilst rotating. Replace discs when worn. Always handle both the Angle Grinder and individual grinding discs carefully to avoid damage.

GRINDING/CUTTING DISC FITTING

1. Disconnect the Angle Grinder from the air supply.
2. To hold the spindle in place, depress the spindle lock button and rotate the spindle until the spindle lock locates and the spindle will not move (See fig. 3).
3. Remove the outer flange nut and ensure that the inner flange is screwed-up hand-tight against the head of the Angle Grinder (See fig. 4).
4. Position the flange nut depending on the thickness of the disc (See fig. 5) over the spindle and disc and hand-tighten.
5. Locate the pin wrench into the two holes on the flange nut (See fig. 6) and hand-tighten further.
6. Allow the Angle Grinder to run for at least 1 minute preferably under a workbench before commencing grinding/cutting to test the new disc. If the wheel vibrates it must be replaced immediately.

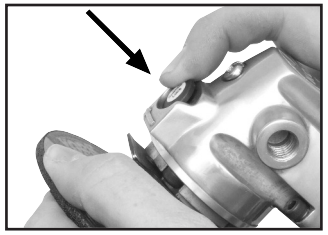


Fig. 3

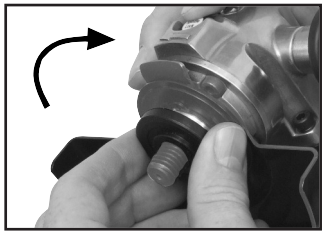


Fig. 4

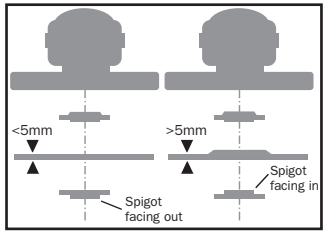


Fig. 5

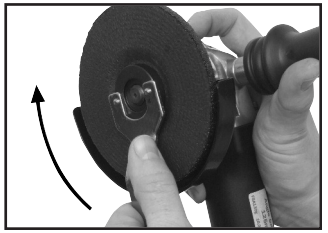


Fig. 6

OPERATION Continued

DISC GUARD ADJUSTMENT

1. Disconnect the Angle Grinder from the air supply.
2. Lift up the lock ring (See fig. 7) and rotate the disc guard to the desired position.
3. Let go of the lock ring and ensure it has located correctly by attempting to turn the disc guard.

Never remove the disc cover completely.

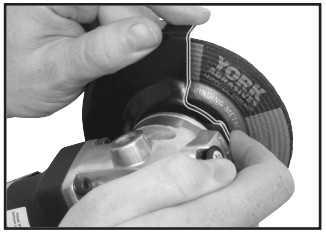


Fig. 7

OPERATION

1. Carry out daily inspection and lubrication of the tool.
2. Remove the plastic dust cap using a pair of pliers (See fig. 8).
3. Ensure that the spindle lock button has sprung back and the spindle is running free. **Never depress the spindle lock button whilst the Angle Grinder is running.**
4. Connect the Angle Grinder to the air supply using a whip hose.
5. Hold the Angle Grinder firmly with both hands. **Never use the Angle Grinder without the side handle.**
6. Use your index finger to move the safety bar forwards before squeezing the throttle lever (See fig. 9).
7. The amount the throttle lever is pressed down, will determine the speed of the tool.
8. Allow the Angle Grinder to run for at least 1 minute, preferably under a workbench, before commencing grinding/cutting to test the new disc. If the disc vibrates it must be replaced immediately.
9. Beware of the tool running on for some time after the throttle lever is released.
10. Ensure the disc has stopped rotating before putting the Angle Grinder down onto a stable work surface.

Fig. 8

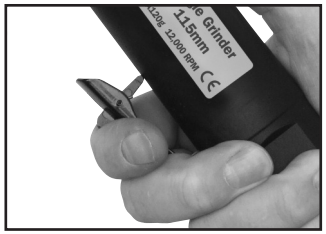


Fig. 9

OPERATING MODES

Never use a cutting wheel for grinding.

Never force or apply excessive pressure, let the Angle Grinder do the work for you.

ROUGH GRINDING To achieve the best results hold the grinder so that the grinding wheel is angled between 30° and 40° to the surface of the work piece. Steadily guide the grinder back and forth over the workpiece.

CUTTING The cutting wheel must have a clean cutting edge. When cutting hard stone a diamond cutting wheel is recommended. It is prohibited to use this machine on asbestos materials. Please refer to your countries health and safety regulations.

TROUBLESHOOTING

Other factors outside the tool may cause loss of power or erratic action. Reduced compressor output, excessive drain on the airline, moisture or restrictions in air pipes or the use of hose connections of improper size or poor conditions may reduce air supply. If outside conditions are in order and the tool still runs erratically, disconnect the tool from the air hose and take it to your local Kobe agent.

MAINTENANCE

Clean the Angle Grinder after use and change the disc when worn or damaged.

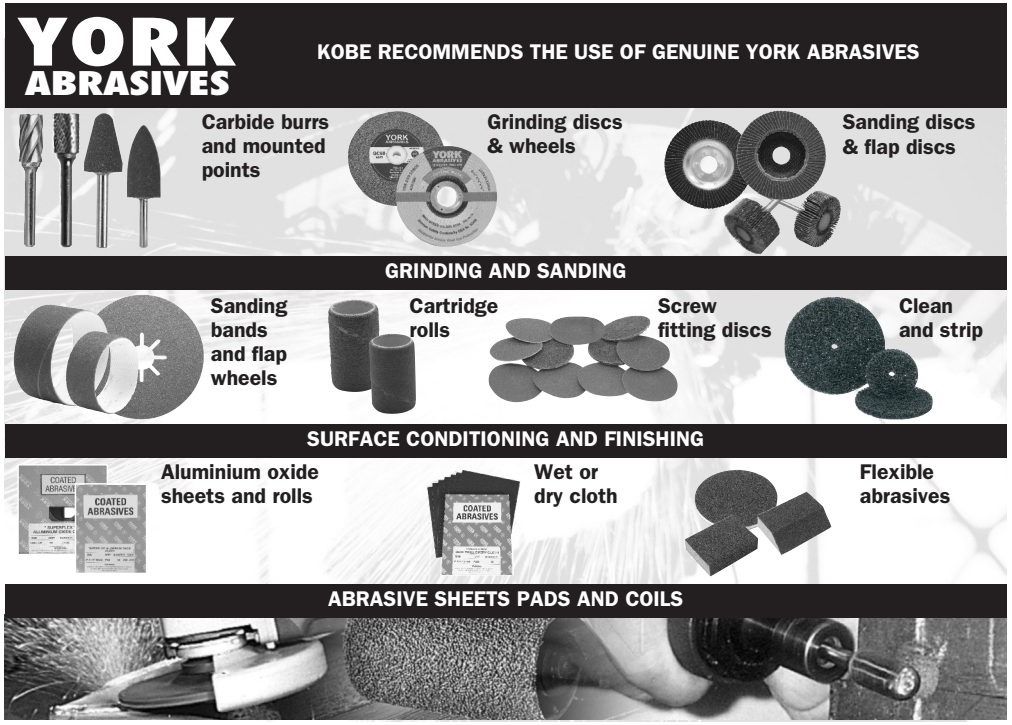
A competent person must disassemble and inspect higher wear parts periodically if the tool is used every day or if there is a noticeable drop in the tool performance. Any damaged or worn parts must be replaced. Your 12 month warranty could become void if the tool is unnecessarily dismantled and damage is caused. If you are unsure about dismantling the tool, please return it to your local Kobe agent.

Replace as necessary all "O" rings, bearings and rotor blades (See Spare Parts Breakdown). It is recommended that adequate stocks of standard service parts are held for servicing requirements.

The use of other than genuine Kobe replacement parts may result in safety hazards, decreased tool performance, increased maintenance and voiding of warranty.

Mineral spirits are recommended when cleaning the tool and its parts. Do not clean with any solvents or oils containing acids, esters, ketones, chlorinated hydrocarbons or nitro carbons. Do not use chemicals that have a low flash point.

For spare parts or servicing please contact your local Kobe agent. Remember to quote tool model number and spare part number when ordering spares.

When disposing of components, lubricants, etc. ensure that relevant environmental procedures are carried out.

When not in use, disconnect from the air supply, clean the tool and store it in a safe, dry, childproof location.