THE ENVIRONMENT

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

In observance of European Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE) and its implementation in accordance with national law, electrical goods that have reached the end of their life must be collected separately and returned to an environmentally compatible recycling facility.

Do not dispose of electrical goods with domestic waste materials as inappropriate disposal may cause potential hazards to the environment and human health.

For further information, please contact your local authority or the retailer from whom you purchased the product.

RoHS

This product does not contain any restricted substances in concentrations and applications which are banned by the European RoHS2 Directive.

DECLARATION OF CONFORMITY

We hereby certify that KOBE 90° ANGLE DIE GRINDER

(ORDER CODE: KBE-270-2222K)

complies with all the relevant provisions of the

EMC Electromagnetic Compatibility Directive 2006/42/EC

Standards Applied:

EN ISO 12100:2010, EN ISO 11148-9:2011, EN ISO 15744:2008

RoHS2 Restriction of Hazardous Substances Directive 2011/65/EU

Standards Applied:

EN 50581-1:2012

Signed:

Date: 1st June 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, WIGSTON. LEICESTER, ENGLAND. LE18 2FS

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KOBE™

INDUSTRIAL AIR TOOLS

90° ANGLE DIE GRINDER

MODEL
FDG090

ORDER CODE
KBE-270-2222K



OPERATOR FRIENDLY

- For Polishing, Buffing Deburring & Grinding
- Rubber Handle Provides Grip and Operator Comfort
- 22,000rpm
- 1/4" Collet Size
- Speed Regulator
- Safety Release Throttle
- Rear Exhaust
- Rotating Air Inlet
- Ball Bearing Construction for a Long Tool Life

CE

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

OPERATOR'S MANUAL

Please retain this information for future reference.

SAFETY INSTRUCTIONS

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

GENERAL OPERATING HAZARDS

- Keep clear from all rotating spindles and moving parts
- Ensure that all long hair and loose clothing, ties, scarves, jewellry, etc., are secured or removed
- Always wear approved eye protection during operation, repair or maintenance of the tool, or whilst changing accessories. The operator of the tool is responsible for following accepted eye, face, respiratory, hearing and body protection.
- Ensure that all others in the area are wearing approved eye, face, respiratory, hearing and body protection. Even small projectiles can injure eyes and cause blindness.
- Wear gloves to protect hands from cuts and burns.
- Do not touch accessories during or after use.
- Never disable the safety lever throttle.
- Do not modify tools or accessories and only use for the task for which they have been designed.
- Ensure that all accessories are rated to the "Free" speed of the tool and intact before fitting or using.
- All users must be physically able and competent to handle the size, weight and power of the tools and have received appropriate training to perform the task.
- Note the tool rundown time. Control the tool as if it were under power.

SPECIFIC OPERATING HAZARDS

- Only use abrasives that are designed for the tool.
- Do not use cut off wheels or router bits in this tool.
- An abrasive fitted to a tool that is not designed for its use may cause serious injury or death.
- Make sure that insert tools have the correct shaft size for the collet.
- Protect abrasive accessories from exposure to water, solvents, high humidity, freezing temperature and extreme temperature changes.
- Store accessories in protective racks or compartments to prevent damage.
- The user is responsible for making sure that the specification label on the air tool is kept legible, indicating the model number, serial number and rpm. If not, reorder and replace.

WORKPLACE HAZARDS

- Slip/Trip/Fall is a major cause of serious injury or death. Be aware of excess hose around the work place.
- Maintain a balanced body position and secure footing.
- High sound levels can cause permanent hearing loss. Use approved hearing protection.
- 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.
- Avoid inhaling dust or handling debris from work process which can be harmful to your health.
- This tool is not intended for use in a flammable or combustible atmosphere and is not insulated for contact with electric power sources.
- Use a vice or clamping device to hold the work piece firmly in place.

AIR SUPPLY AND CONNECTION HAZARDS

- Air under pressure can cause severe injury.
- 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.
- Never direct air at yourself or anyone else.
- Whipping hoses can cause serious injury. Always check for damaged or loose hoses and fittings.
- Do not use quick disconnect couplings at tool. See instructions for suggested air supply.
- Whenever universal twist couplings are used, lock pins must be installed.
- Do not exceed maximum air pressure of 90psi/6.2bar.
- Do not carry the tool by the air hose.

SPECIFICATIONS

FREE SPEED	22,000rpm
COLLET SIZE	1/4"(6mm)
AIR INLET THREAD	1/4"NPT
AIR HOSE SIZE (ID)	3/8"(10mm)
AIR PRESSURE	90PSI (6.2Bar)
AIR CONSUMPTION	4CFM*
OVERALL LENGTH	160mm
WEIGHT	500gm

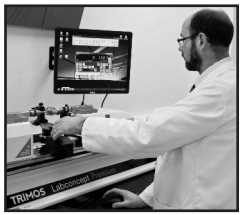
*Air consumption without load in 1min is 4CFM.

NOTES

SERVICE & REPAIRS

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





BOX CONTENTS

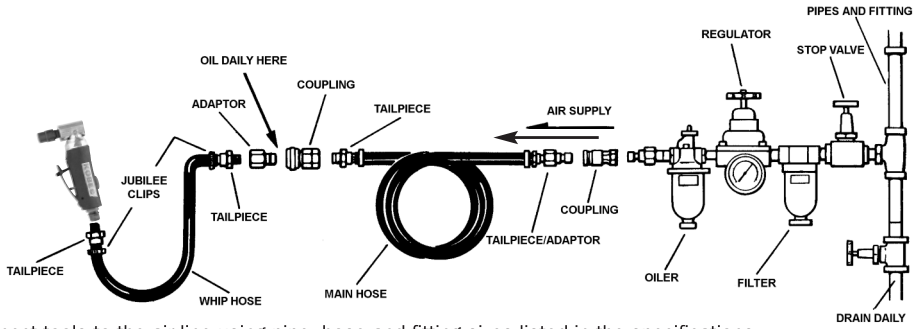


I x 90° Angle Die Grinder with ¼" Collet.



2 x Collet Spanners.

SUGGESTED AIR SUPPLY



Connect tools to the air line using pipe, hose and fitting sizes listed in the specifications.
Supply tools with 90psi/6.2bar of clean, dry air. A higher pressure will reduce the tool life.
Requirements for Quick Acting Couplings connected to Air Tools:
A leader 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.**

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 die grinder 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 air motor oil to the inlet once a day (See fig 1). ISO Grade VG22 oil is recommended.

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

Apply grease to the grease fitting located on the head of the die grinder (See fig. 2).

Do not lubricate the die grinder with flammable or volatile liquids such as kerosene, diesel or jet fuel.

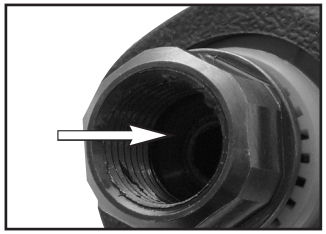


Fig. 1

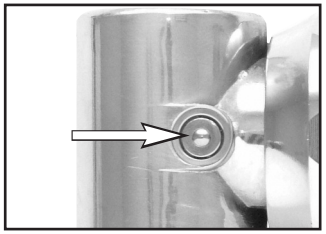


Fig. 2

OPERATION

1. Remove the plastic dust cap using a pair of pliers (See fig. 3).
2. Always disconnect the grinder from the air supply before using collet spanners to change accessories.
3. It is not recommended that wheels or points are used with more than a 13mm of spindle overhang (See fig. 4).
4. Use your index finger to move the safety bar forwards before squeezing the throttle lever (See fig. 5).
5. Turn the speed regulator knob to select a High or Low speed (See fig. 6).
6. Allow the tool to run up to its maximum speed, preferably under a workbench, before applying to the workpiece.
7. Beware of the tool running on for some time after the throttle lever is released.

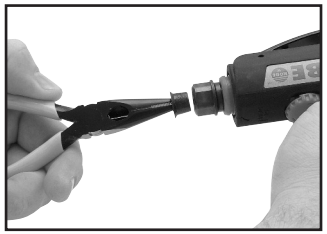


Fig. 3

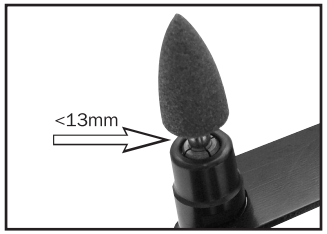


Fig. 4



Fig. 5

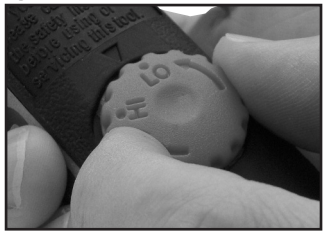


Fig. 6

MAINTENANCE

Disassemble and inspect higher wear parts every three months if the tool is used every day and replace damaged or worn parts.

Replace as necessary all "O" rings, bearings and rotor blades, see parts break down. It is recommended that adequate stocks of standard service parts are held for servicing requirements.

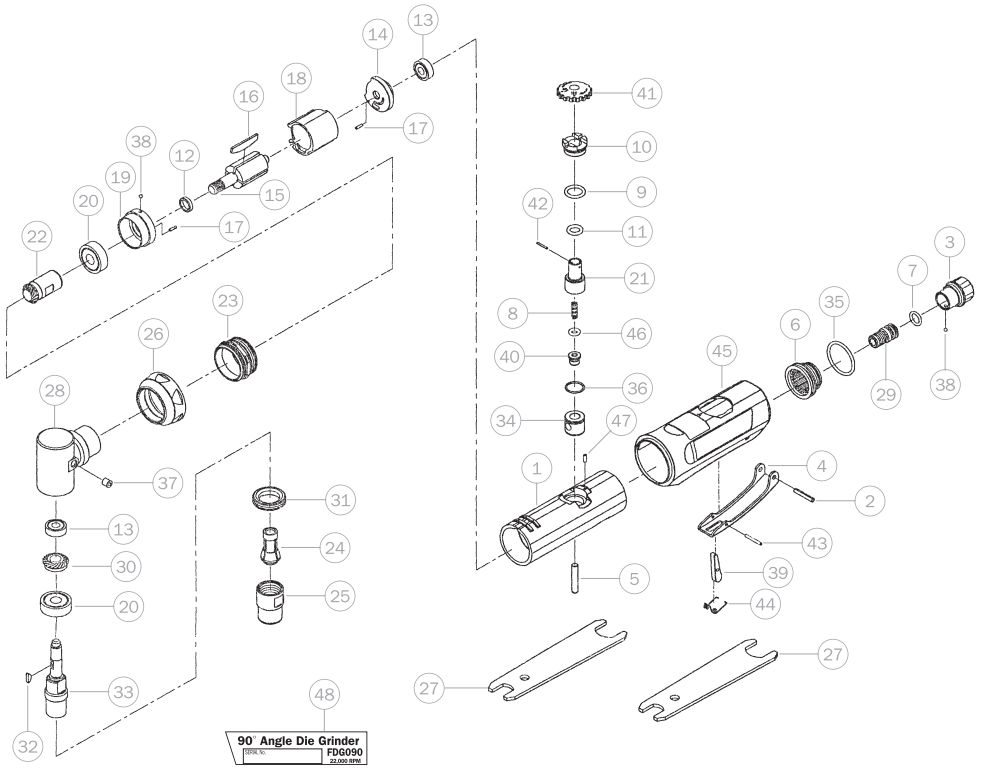
The use of other than genuine Kobe replacement parts may result in safety hazards, decreased tool performance and increased maintenance.

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 nearest 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.

SPARE PARTS BREAKDOWN



No.	Order Code	Description	Qty	No.	Order Code	Description	Qty
1	KBE-298-9301S	Motor Housing	1	25	KBE-298-9325S	Collet Nut	1
2	KBE-298-9302S	Lever Pin	3	26	KBE-298-9326S	Front Cap	1
3	KBE-298-9303S	Air Inlet	1	27	KBE-298-9327S	Collet Spanner	2
4	KBE-298-9304S	Throttle Lever	1	28	KBE-298-9328S	Head	1
5	KBE-298-9305S	Valve Shaft	1	29	KBE-298-9329S	Fixed Shaft	1
6	KBE-298-9306S	Deflector	1	30	KBE-298-9330S	Bevel Gear	1
7	KBE-298-9307S	“O” Ring	(7.5x1.5)	31	KBE-298-9331S	Lock Ring	1
8	KBE-298-9308S	Spring	1	32	KBE-298-9332S	Key	1
9	KBE-298-9309S	“O” Ring	9	33	KBE-298-9333S	Spindle	1
10	KBE-298-9310S	Valve Screw	1	34	KBE-298-9334S	Bushing	1
11	KBE-298-9311S	“O” Ring	(5.28x1.78)	35	KBE-298-9335S	“O” Ring	(22.8x2)
12	KBE-298-9312S	Rotor Spacer	1	36	KBE-298-9336S	“O” Ring	(10.5x1)
13	KBE-298-9313S	Ball Bearing (696ZZ)	1	37	KBE-298-9337S	Oil Cap	1
14	KBE-298-9314S	Rear End Plate	1	38	KBE-298-9338S	Steel Ball	2
15	KBE-298-9315S	Rotor	1	39	KBE-298-9339S	Safety Bar	1
16	KBE-298-9316S	Vane	4	40	KBE-298-9340S	Throttle Valve	1
17	KBE-298-9317S	Spring Pin (1.5x6)	2	41	KBE-298-9341S	Knob	1
18	KBE-298-9318S	Cylinder	1	42	KBE-298-9342S	Spring Pin	(1x8L)
19	KBE-298-9319S	Front End Plate	1	43	KBE-298-9343S	Spring Pin	(2x15L)
20	KBE-298-9320S	Ball Bearing (608ZZ)	2	44	KBE-298-9344S	Spring	1
21	KBE-298-9321S	Controller	1	45	KBE-298-9345S	Grip	1
22	KBE-298-9322S	Pinion Gear	1	46	KBE-298-9346S	“O” Ring	(3.8x1.9)
23	KBE-298-9323S	Front Coupling	1	47	KBE-298-9347S	Spring Pin	(2x5L)
24	KBE-298-9324S	Collet	1	48	KEN-988-5000K	Specification Label	1