# 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 MINI BELT SANDER MBS025-X**

**(ORDER CODE: KBE-270-2880K)**

**complies with all the relevant provisions of the**

**Machinery Directive 2006/42/EC**

**Standards Applied:**

EN ISO 12100:2010, EN ISO 11148-8:2011, EN ISO 28927-3:2009, 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

# MINI BELT SANDER KIT 6 - 20mm

**MODEL:** MBS025-Xk

**ORDER CODE:** KBE-270-2880K

- **Suitable for shaping, paint removal, weld sanding, smoothing and rust removal on flat or curved surfaces**
- **Kit includes the MBS025-X Mini Belt Sander**
- **Supplied complete with 9 flexible abrasive belts and 5 contact arms with heavy duty nose rollers allowing the belts to conform to a variety of contours**
- **Rated for continuous use**
- **Uses 6, 10, 13 and 20mm wide by 457mm long abrasive belts**
- **18,000rpm**
- **Quick abrasive change**
- **Adjustable sanding arm angle**
- **Speed regulator**
- **Multi positional sanding arm**
- **Rear handle exhaust with noise baffler**
- **One handed trigger operation**
- **Rotating air inlet to prevent the air hose from tangling**
- **Removable side arm for use in tight areas**
- **Easily adjustable belt tracking**



CONTINUOUS USE

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.

# 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 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.

## 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.



# NOTES

# 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.

# ACCESSORIES

Those items marked with an asterisk (*) are already supplied with your Kobe Mini Belt Sander Kit model MBS025-Xk.



File belts 457mm (18”) long. Pack of 10.

| Width | Grade | Order Code **YRK-204** |
|---|---|---|
| Surface preparation belt | | |
| *13mm | P300 | **-2770K** |
| *20mm | P80 | **-2840K** |
| Aluminium oxide | | |
| *6mm | P150 | **-3200K** |
| *10mm | P120 | **-3280K** |
| *10mm | P150 | **-3300K** |
| *13mm | P80 | **-3340K** |
| *13mm | P120 | **-3380K** |
| *20mm | P60 | **-3420K** |
| *20mm | P80 | **-3440K** |
| 25mm† | P60 | **-3520K** |
| 25mm† | P80 | **-3540K** |

† Requires the additional 25mm contact arm shown above to be purchased separately.



Additional contact arm.

| Width | Order Code **KBE-280** |
|---|---|
| 25mm | **-5650K** |



Replacement contact arms.

| Width | Order Code **KBE-298** |
|---|---|
| *6mm | **-4010A** |
| *10mm | **-4011A** |
| *10mm offset | **-4012A** |
| *13mm | **-4013A** |
| *20mm | **-4014A** |



Replacement platen pads. Sold as pairs.

| Width | To suit belt width | Order Code **KBE-298** |
|---|---|---|
| 8mm | 6mm | **-5265T** |
| 13mm | 10mm | **-5248A** |
| 18mm | 13mm | **-5244X** |
| 20mm | 20mm | **-5242V** |
| 25mm | 25mm | **-9660M** |

# 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.







# SAFETY INSTRUCTIONS Continued

- 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.

**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 work near flammable materials or in a combustible atmosphere.
- Never allow sparks to fall on cleaning rags.
- Never make contact with electric power sources as this tool is not insulated.

**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**

- Never operate without the noise baffler in place.
- Never use the Belt Sander as a fixed tool.
- 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 Belt Sander on whilst it is in contact with the workpiece.
- Never touch the workpiece immediately after sanding, 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.
- 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

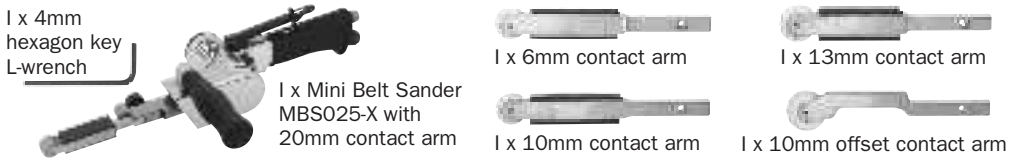
| | |
|---|---|
| **MODEL NUMBER** | MBS025-X |
| **BELT SIZE** | 457 (18”) x 6, 10, 13 & 20mm |
| **FREE SPEED** | 18,000rpm |
| **AIR INLET THREAD** | 1/4” NPT |
| **MINIMUM AIR HOSE SIZE (ID)** | 10mm (3/8”) |
| **AIR PRESSURE** | 6.2bar (90psi) |
| **MOTOR POWER** | 0.6hp |
| **AIR CONSUMPTION**[1] | 119L/Min (4.5cfm) |
| **SOUND POWER LEVEL**[2] | 92dBA |
| **SOUND PRESSURE/NOISE LEVEL**[2] | 84dBA |
| **VIBRATION LEVEL**[3] | 0.8m/s$^2$ |
| **OVERALL LENGTH** | 390mm |
| **NET WEIGHT** | 1.36kg |

[1] Air consumption without load in 1 minute.
[2] Per Pneurop Standard EN ISO 15744:2008.
[3] Per EN ISO 28927-3:2009.

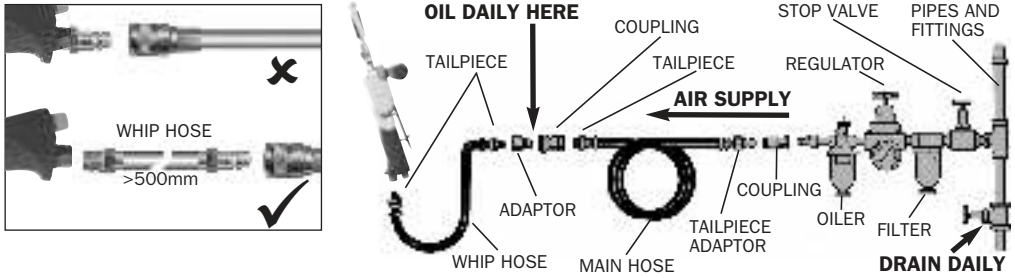
# UNPACKING & CASE CONTENTS

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.




# 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

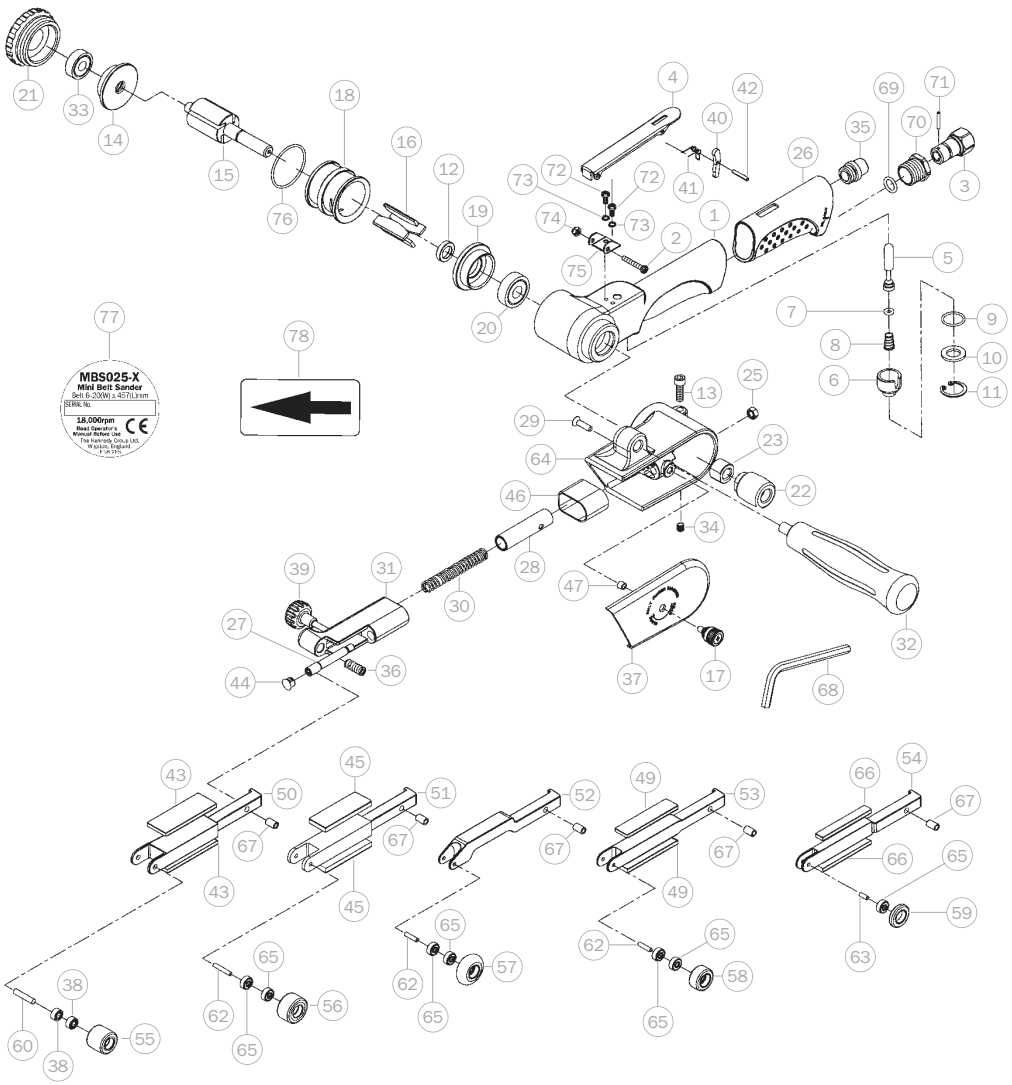
| Index No. | Order Code | Description | Qty |
|---|---|---|---|
| 1 | KBE-298-5200A | Housing | 1 |
| 2 | KBE-298-5201B | Screw (M4x25L) | 1 |
| 3 | KBE-298-5202C | Air inlet | 1 |
| 4 | KBE-298-5203D | Throttle lever | 1 |
| 5 | KBE-298-5204E | Valve stem | 1 |
| 6 | KBE-298-1184S | Valve | 1 |
| 7 | KBE-298-0016S | “O” ring (3.9x1.9) | 1 |
| 8 | KBE-298-5207H | Spring | 1 |
| 9 | KBE-298-1193S | “O” ring (14.5x1.5) | 1 |
| 10 | KBE-298-1196S | Spacer | 1 |
| 11 | KBE-298-1199S | Retaining ring (RTW-18) | 1 |
| 12 | KBE-298-1373S | Spacer | 1 |
| 13 | KBE-298-5143W | Screw (M5x16L) | 1 |
| 14 | KBE-298-1376S | Rear end plate | 1 |
| 15 | KBE-298-5214Q | Rotor | 1 |
| 16 | KBE-298-1382S | Rotor blade (4) | 1 |
| 17 | KBE-298-5216S | Screw | 1 |
| 18 | KBE-298-1388S | Cylinder | 1 |
| 19 | KBE-298-1391S | Front end plate | 1 |
| 20 | CES-298-6001B | Ball bearing (6000zz) | 1 |
| 21 | KBE-298-1394S | Cap | 1 |
| 22 | KBE-298-5221Y | Drive wheel | 1 |
| 23 | KBE-298-5222Z | Nut | 1 |
| 25 | KBE-298-5224A | Hex nut | 1 |
| 26 | KBE-298-5225B | Grip | 1 |
| 27 | KBE-298-5226C | Guide post | 1 |
| 28 | KBE-298-5227D | Support rod | 1 |
| 29 | KBE-298-5228E | Screw (M4x16L) | 1 |
| 30 | KBE-298-5229F | Spring | 1 |
| 31 | KBE-298-5230G | Tension arm | 1 |
| 32 | KBE-298-5231H | Handle | 1 |
| 33 | CES-298-0609B | Ball bearing (608zz) | 1 |
| 34 | KBE-298-5233K | Screw thread inserts (M5x0.8x1D) | 1 |
| 35 | KBE-298-1112S | Muffler | 1 |
| 36 | KBE-298-5235M | Spring | 1 |
| 37 | KBE-298-5236N | Guard | 1 |
| 38 | KBE-298-5237P | Ball bearing (2) (684zz) | 1 |
| 39 | KBE-298-5238Q | Knob | 1 |
| 40 | KBE-298-5239R | Safety bar | 1 |
| 41 | KBE-298-5240S | Spring | 1 |
| 42 | KBE-298-3634S | Spring pin (2x18L) | 1 |
| 43 | KBE-298-5242V | 20mm Platen pads (2) | 1 |

| Index No. | Order Code | Description | Qty |
|---|---|---|---|
| 44 | KBE-298-5243W | Plug | 1 |
| 45 | KBE-298-5244X | 18mm Platen pads (2) | 1 |
| 46 | KBE-298-5245Y | Dust cover | 1 |
| 47 | KBE-298-5246Z | Screw thread inserts (#8-32UNCx1D) | 1 |
| 49 | KBE-298-5248A | 13mm Platen pads | 1 |
| 50 | KBE-298-5249B | 20mm Contact arm | 1 |
| 51 | KBE-298-5250C | 13mm Contact arm | 1 |
| 52 | KBE-298-5251D | 10mm Contact arm | 1 |
| 53 | KBE-298-5252E | 10mm Contact arm | 1 |
| 54 | KBE-298-5253F | 6mm Contact arm | 1 |
| 55 | KBE-298-5254G | Idle pulley | 1 |
| 56 | KBE-298-5255H | Idle pulley | 1 |
| 57 | KBE-298-5256J | Idle pulley | 1 |
| 58 | KBE-298-5259K | Idle pulley | 1 |
| 59 | KBE-298-5258L | Idle pulley | 1 |
| 60 | KBE-298-1973S | Pin (4x19.8L) | 1 |
| 61 | KBE-298-5727D | Pin (3x17.8L) | 1 |
| 62 | KBE-298-5261P | Pin (2) (3x12.8L) | 1 |
| 63 | KBE-298-5262Q | Pin (3x7.8L) | 1 |
| 64 | KBE-298-5263R | Guard body | 1 |
| 65 | KBE-298-5264S | Ball bearing (7) (623zz) | 1 |
| 66 | KBE-298-5265T | 8mm Platen pads (2) | 1 |
| 67 | KBE-298-5266V | Screw thread inserts (5) (#8-32UNCx2D) | 1 |
| 68 | KEN-601-1400K | Hexagon key L-wrench (4mm) | 1 |
| 69 | KBE-298-5268X | “O” ring (7.5x1.5) | 1 |
| 70 | KBE-298-5726C | Screw | 1 |
| 71 | KBE-298-5724A | Pin (2x13.8) | 1 |
| 72 | KBE-298-5272A | Screw (2) (M4x8L) | 1 |
| 73 | KBE-298-5273B | Spring washer (2) (M4) | 1 |
| 74 | KBE-298-5274C | Nut (M4) | 1 |
| 75 | KBE-298-5275D | Lever support | 1 |
| 76 | KBE-298-5276E | “O” ring (26.7x1.78) | 1 |
| 77 | KBE-298-5277F | Specification label | 1 |
| 78 | KBE-298-9900A | Warning label 40x20mm | 1 |
| | KBE-298-9460S | Blow moulded case | 1 |
| | KBE-280-5650K | Optional 25mm contact arm (Not included) | 1 |

# PARTS BREAKDOWN

## MBS025-Xk

**Version: June 2006**








# 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.

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

If you start to have difficulty moving the contact arm when replacing the abrasive belt, lubricate the tensioning arm and guide post (See fig. 2) with a small amount of oil. The components are accessed by sliding the dust cover away from the main body.

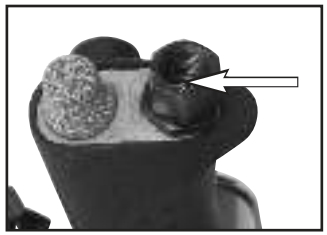


Fig. 1

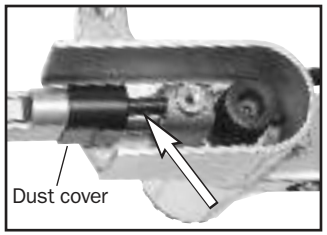
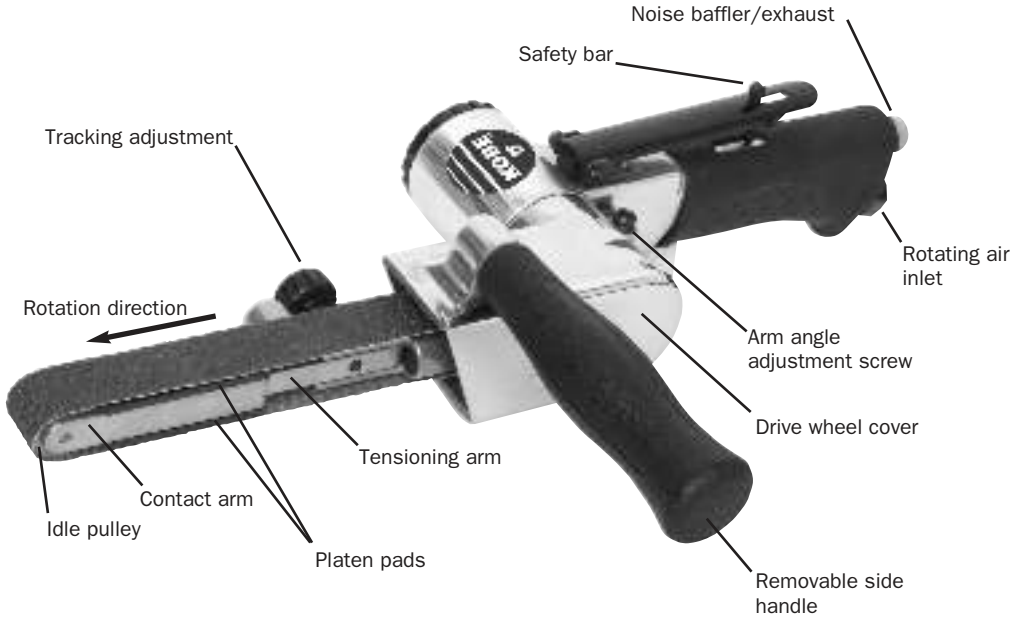



Fig. 2

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



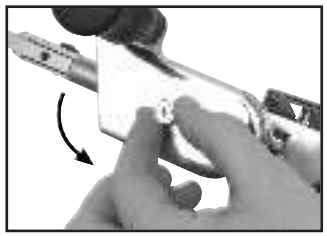
# IDENTIFICATION



# OPERATION

## TO CHANGE THE ABRASIVE BELT

1. Disconnect the Mini Belt Sander from the air supply.
2. Remove the drive wheel cover (See fig. 3).
3. Pull back on the tension arm assembly (See fig. 4).
4. Make sure the arrow on the abrasive belt is facing in the same direction as the direction the drive wheel turns, as indicated by the arrow on the outer casing (See fig. 5).
5. Place the abrasive belt around the drive wheel first and then onto the idle pulley.
6. Release the tension slightly and make sure the abrasive belt is positioned centrally on both the drive wheel and the idle pulley (See fig. 6).
7. Release the tension arm fully.
8. Replace the drive wheel cover and only finger-tighten the thumb screw.


Fig. 3

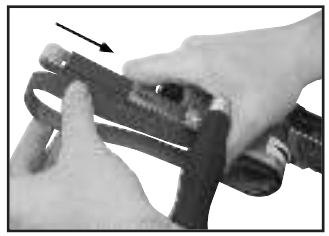
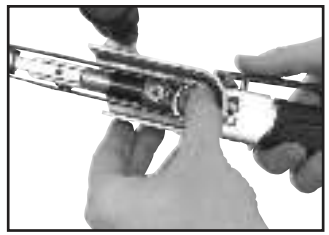
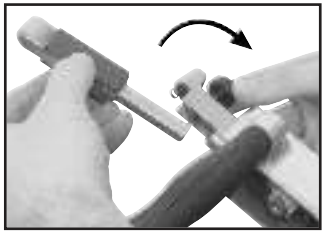

Fig. 4


Fig. 5


Fig. 6


Fig. 7

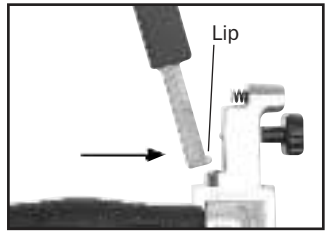


Fig. 8

## TO CHANGE THE CONTACT ARM

1. Disconnect the Mini Belt Sander from the air supply.
2. Remove the abrasive belt as described above.
3. Fully undo the knob on the tension arm (See fig. 7) to remove the contact arm.
4. To attach a new contact arm, present it up to the tension arm at a slight angle with the lip on the tension arm facing towards the tension arm (See fig. 8).

## ADJUSTING THE ANGLE OF THE ARM

1. Disconnect the Mini Belt Sander from the air supply.
2. Loosen but do not remove the screw between the main body and sanding arm (See fig. 9) using the Hex key which is provided.
3. Rotate the sanding arm to the desired angle.
4. Tighten the screw making sure that the sanding arm is flush against the main body.


Fig. 9

## OPERATION

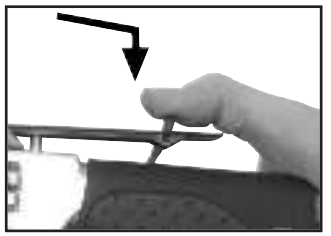
1. Carry out daily inspection and lubrication of the tool.
2. Remove the plastic dust cap using a pair of pliers (See fig. 10).
3. Connect the Mini Belt Sander to the air supply using a whip hose.
4. Hold the Mini Belt Sander firmly with both hands. **The Mini Belt Sander should not be in contact with the workpiece when you turn the tool on or off.**
5. Use your thumb to move the safety bar backwards before squeezing the throttle lever (See fig. 11). The amount the throttle lever is pressed down, will determine the speed of the tool.
6. Adjust the power regulator on the underneath of the Mini Belt Sander by turning it in either direction (See fig. 12).
7. Always work off the return side (underneath) of the abrasive belt in the area shown in figure 13. This will ensure constant tracking and reduce down time of the tool.

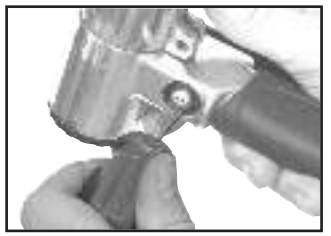

Fig. 10

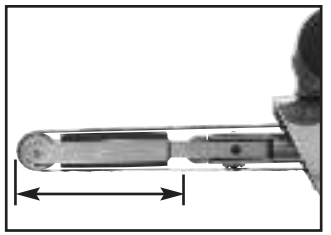


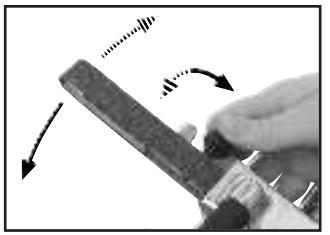


# OPERATION Continued


Fig. 11


Fig. 12


Fig. 13


Fig. 14

## ADJUSTING THE TRACKING

1. With the tool running, rotate the thumb wheel on the contact arm slowly up or down (See fig. 14) until the sanding belt rides evenly over the contact arm. The contact arm can move 5° in either direction. **Be careful not to unscrew the thumb wheel completely.**



# MAINTENANCE

Clean the Belt Sander after use and change the sanding belt 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.