

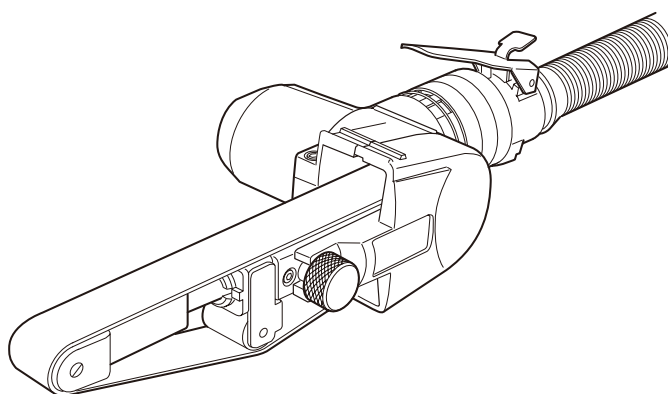
INSTRUCTION MANUAL

PNEUMATIC BELT SANDER

Please read this manual carefully before you attempt to use your tool so that you may use it properly and safely.

BABY BELTON PROFESSIONAL TOOL

Model BB-20



Specifications

Model	BB-20
Maximum Operating Pressure	0.6 MPa
Air Consumption (No Load)	0.43 m ³ /min
Rated Speed (No load)	16000 r/min (min ⁻¹)
Standard Belt Size	20 x 330 mm (25/32"x13")
Mass (Weight)	0.8 kg
Sound Pressure Level	86 dB (A)
Sound Power Level	97 dB (A)
Vibration Level [Uncertainty K]	$\leq 2.5 \text{ m/s}^2$ (1.35 m/s ² [0.63 m/s ²])
Thread Size of Air Inlet	Rc 1/4

Due to continuous product development/improvement the specifications and configurations in this document are subject to change without prior notice.



Manufactured by :

NITTO KOHKI Co., Ltd.
2-9-4, Nakaikegami, Ohta-ku,
Tokyo, 146-8555, Japan
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Keep the manual handy – so you can use it whenever necessary.

Original Instructions

Thank you very much for your purchase of this **Nitto Kohki products**.

Before using your tool, please read this manual carefully so that you may use it properly to get the most out of it.

Please keep the manual handy - so you can use it whenever necessary.

- **English** : Please ask your dealer or distributor for instruction manual in local language(s).
- **German** : Bitte fragen Sie Ihren Händler nach eine Betriebsanleitung in Landessprache.
- **French** : S'il vous plait, veuillez demandez á votre fournisseur de manuel instruction en langue locale.
- **Spanish** : Por favor, contacte con su distribuidor para el manual de instrucciones en español.
- **Portuguese** : Por favor pessa ao seu agente ou distribuidor o manual de instruções em linguagem local.
- **Italian** : Per Manuale Istruzioni in lingua locale Vi preghiamo di rivolgervi al rivenditore o distributore.
- **Dutch** : Vraag uw handelaar om een nederlandsstalige gebruiksaanwijzing.
- **Swedish** : Be er lokala Åtreförsäljare eller distributör om manualer på svenska.
- **Danish** : Venligst henvend Dem til den danske distributør for instructions manualer.
- **Polish** : Proszę pytać swojego dealera lub dystrybutora o instrukcje obsługi w języku lokalnym.
- **中文** : 請向當地供應商或經銷商詢問中文使用說明書

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PICTOGRAM



Warning: It might be dangerous to operate the tool if the instructions supplied are not followed.



Using this tool improperly could result in serious injury. Read the instruction manual before use.



Always wear suitable eye protection.



Always wear suitable hearing protection.



Always wear respiratory protective equipment (PPE).

The following Safety notations are used throughout the manual to highlight safety precautions for the user and for the tool.



Warning:

Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in death or serious injury.



Caution:

Indicates a potentially hazardous situation which, if not avoided by following the instructions given, could result in injury or material damage.

Please note, however, that failure to observe safety precautions under the “**Caution**” category could result in a serious occurrence depending on the situation: please observe all safety precautions in the manual.

Caution: Important precautions for tool setup, operation and maintenance.

IMPORTANT SAFETY INSTRUCTIONS

When using the tool, please observe the safety precautions below to prevent possible accident or injury.

GENERAL: TOOLS

Warning

TO OPERATORS

- **Wear proper clothing for the type of work being done.**

Take care so that clothing, ties, hair, etc. will not become entangled with the moving parts. If items become entangled it will cause the operator to be pulled towards the tool and lead to possible cause of accident or injury.

- **Always wear suitable eye protection.**

Remember, regular glasses are not safety glasses. The lenses are only shock resistant, which will not give you sufficient eye protection you may need in your working environment.

- **Always wear suitable hearing protection.**

- **Wear respiratory protective equipment (PPE).**

Wear respiratory protective equipment (PPE) when working in an environment where dust particles are generated in operation.

- **Avoid working posture that is too stressful.**

Always ensure a firm footing and well balanced posture.

- **Do not operate the tool if you are too tired.**

- **Never touch any moving parts of the tool when running.**

ABOUT WORK AREA

- **Keep the work area clean.**

Cluttered work areas (e.g. workbench) invite accidents.

- **Carefully select the work area.**

Do not expose tool to rain.

Do not use tool in a wet or soaked area.

See that the work area is adequately illuminated.

- **Never work near inflammable liquid or in a potentially explosive atmosphere.**

- **Keep children away from the work area.**

Keep children and unauthorized people away from the work area to avoid accident or injury.

BEFORE OPERATION

- **Inspect tool before use.**

Before using, check that screws are securely tightened, that any protective cover or guard is securely in place, other parts are free from damage and that the tool runs as it should.

Check that moving parts are properly adjusted for positioning and tightened, that parts are free from damage and properly mounted, and that all other parts are in good condition for normal operation.

Should you find any damage to the protective cover or other part, replace it in accordance with the Operation Manual. If there are no instructions in the Manual, please contact the sales agent through which you have purchased your tool or an authorized dealer near you for repair.

Likewise, if a switch failure occurs, contact sales agent through which you have purchased your tool or an authorized dealer near you for repair.

Do not use the tool if it does not start or stop with the start/stop switch.

- **Securely mount cutter**

An improperly mounted cutter may fly out, causing possible damage to the tool or injury to the operator.

- **Always remove spanner, wrench, etc., once adjustment has been made with them.**

- **Use a tool appropriate for the application.**

Avoid heavy-duty application that is beyond the capacity of tool.

- **Do not use the tool for purposes other than what it is designed for.**

- **Do not abuse tool.**

Use tool in accordance with the specifications: you'll get the most out of it while ensuring safety.

- **Securely fasten workpiece in place.**

Use a vice or clamp to securely fasten the workpiece in place. It is much safer this way than holding it in your hand, allowing you to operate the tool with both hands.

ABOUT HANDLING

- **How to store tool.**

When the tool is not used, store it in a dry area and out of reach of children.

- **How to carry tool.**

Do not touch the start switch while the tool is being carried.

- **Do not leave the tool unattended while it is running.**

Turn off the start switch and disconnect the tool from power source. Do not leave the work area until the tool comes to a complete stop.

MAINTENANCE/SERVICE

- **Do not take apart or modify tool.**

Disassembly or modification carried out without the supervision of a qualified or authorized service engineer could result in an accident or injury.

- **Inspect cutting tool and accessories, etc.**

Always check to see that cutting tool and accessories, etc. are in good operating condition without damage or deterioration before you mount them on the tool. Should you find any damage to an accessory or part, please contact sales agent through which you have purchased your tool or an authorized dealer near you for repair.

- **Check parts for damage.**

When you have found damage to accessory or other part, carefully check the damaged part to determine the extent of influence it has upon the functions of the tool – that is, determine whether it can still perform its normal functions.

Check to see that the linkage of the moving parts is OK, that all parts are OK without damage, that they are properly mounted, and that the tool functions normally. Should you find any damage to an accessory or part that may hamper proper functioning of the tool, please contact sales agent through which you have purchased your tool or an authorized dealer near you for repair.

- **Have your tool repaired at an authorized Nitto Service Center.**

For repair or parts replacement, please contact the sales agent through which you have purchased your tool or an authorized dealer near you.

- **Use only Nitto genuine parts.**

Use of improper parts may result in serious accident. To obtain a Nitto genuine part, consult this Manual or contact the sales agent from which you have purchased your tool directly.

- **Do not detach label or nameplate from tool.**

When a label/nameplate gets damaged, worn or becomes missing, contact the sales agent through which you have purchased your tool or Nitto Kohki Co. Ltd, directly for a replacement.

DISPOSAL

When a tool is taken permanently out of service, it is advised that the tool is disassembled, degreased and parts separated by material and recycled locally in the appropriate manner.

GENERAL: PNEUMATIC TOOLS



Warning

- **Use appropriate air pressure.**

Excessively high air pressure will increase the number of revolutions or strokes causing not only potential premature failure/breakage but could also lead to an unexpected accident or injury.

- **Connect tool to air supply line.**

There are various types of pipes running in a factory in addition to the pneumatic line (such as oxygen, nitrogen, gas and water). For this reason, always ensure that you are connecting to the pneumatic line.

- **Start tool properly.**

Turn the start switch OFF before connecting to the air supply line.

- **Always disconnect the tool from the air supply line before putting on/taking off any accessory and prior to carrying out any maintenance work.**

- **Avoid exposure to exhaust air.**

Pneumatic tool exhaust air contains oil and contaminated moisture. Make sure the exhaust air is not directed towards your face or anyone else within the work area.

- **Keep tool off electricity.**

This pneumatic tool is not electrically insulated. To avoid a potential electric shock do not use where there is a possibility of coming into contact with live electricity.



Caution

- **Handle tool carefully.**

Abusive use of tool could invite failure or accident. Do not throw, drop or shock the tool.

- **Handle air hose carefully.**

Do not carry the tool by the air hose. Do not pull the air hose to disconnect.

INSTRUCTIONS FOR THIS TOOL

About Your Tool

Warning

- **Wear protective glasses and a dustproof mask.**
Operation generates dust and abrasive particles, etc. which may cause eye and/or respiratory injury: Always use PPE (Personal Protective Equipment) for eye and respiratory protection.
- **When you change or adjust the tool or parts, be sure to detach the tool from the air hose.**
- **Never touch the moving parts while in operation.**
- **Do not remove the Protective Cover from the tool while sanding. The Abrasive Belt runs very fast. Without the Protective Cover, your fingers and hand may be injured when they touch the running belt.**

Caution

- **Protect yourself from dust and abrasive particles.**
When sanding hot dust and abrasive particles fly off the workpiece: Always wear eye protection glasses, long sleeve protective clothing, gloves (except knitted gloves), foot and leg protection, etc. to protect yourself. Always keep your face away from the sanding surface.
- **Always use the genuine Abrasive Belt for the Belt Sander BB-20 (Nitto Kohki Co., Ltd.).**

1. USAGE

This is a handheld pneumatic belt sander designed and built to perform sanding operation utilizing an abrasive belt.

2. CHECK THE CONTENTS OF THE PACKAGE

Upon unpacking, check to see that the shipment is complete without damage or oil leakage in transport. Should you find any damage or short-shipment, please contact sales agent through which you have purchased your tool or authorized dealer near you for corrective actions.

Package Contents	Qty	Check
BB-20	1 set	
HA-65SN Ass'y (HI-Cupla)	1 set	
Abrasive Belt Z76×N #60 20×330 ; (on tool)	1	
Abrasive Belt Z76×N #120 20×330	1	
Abrasive Belt Z76×N #240 20×330	1	
Hex. Socket Screw Key 2.5	1	
Hex. Socket Screw Key 3	1	
Shoe	1	
Dust Cover	1	
Bushing R1/4×NPT1/4	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	

3. AIR SUPPLY

3-1. Air Pressure

Adjust air pressure with the Air Regulator to the level appropriate for the pneumatic tool used.

Air pressure that is too low fails the Tool to operate at full capacity.

Air pressure that is too high may cause damage to the Tool.

3-2. Air Line (Fig. 1)

Use a 9.5 mm (3/8") I.D. Connecting Hose between the Compressor and the Tool.

Drained water, etc., if flown into the Tool, could cause Tool failure. Install an Air Filter between the Compressor and the Tool.

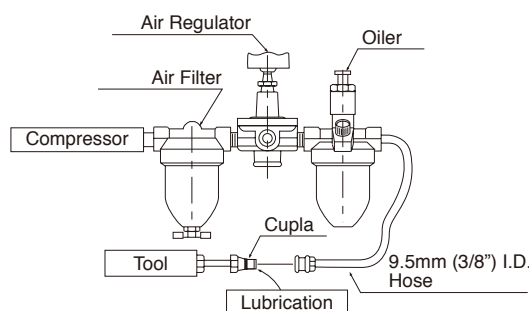


Fig. 1

3-3. Lubrication

Install an Oiler between the Compressor and the Tool. Use the machine oil ISO VG-10. Failure to lubricate as required may result in damage to the Tool. Use of oil that is too thick will reduce the performance of Tool.

4 HOW TO OPERATE THE TOOL

Warning

- When sanding, always wear protective glasses and respiratory protection: Microscopic dust and abrasive particles that fly off the workpiece may cause eye or respiratory injury or both.
- Before you change or adjust the tool or parts, always disconnect the air supply hose.
- Never touch the moving parts in operation.

4-1. Start and Stop (Fig. 2)

- (1) Make sure the Throttle Lever is at the OFF position and insert the Air Supply Hose to the Hose Joint (HI-Cupla) of the tool.
- (2) Holding the tool, press down the Throttle Lever ② while pressing the Lock Lever ① backward to start the tool.
- (3) When removing your hand from the Throttle Lever, it automatically returns to the OFF position.

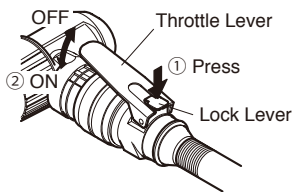


Fig. 2

4-2. Adjusting the Rotation Speed (Fig. 3)

The rotation speed can be adjusted by turning the Adjust Valve.

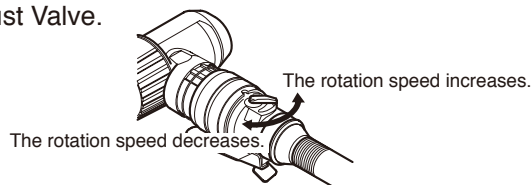


Fig. 3

4-3. Changing the Abrasive Belt (Fig. 4)

Loosen the Cover Screw to remove the Cover. (①) When the Idle Pulley is pressed, the Tension Bar locks. When the Abrasive belt is changed and the Push Button is pressed, the Tension Bar unlocks. (②) Mount the Cover securely and then tighten the Cover Screw. (③~④)

Caution

- Do not press the Push Button immoderately without the Abrasive Belt on the tool. Otherwise, it may cause a trouble.
- When changing the Abrasive Belt, blow off the

chips in the surroundings of the Drive Pulley with an air blower.

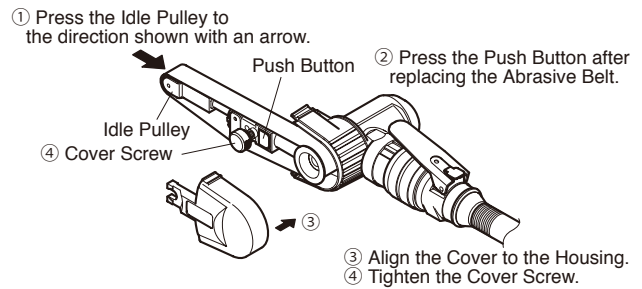


Fig. 4

4-4. Adjusting the Tracking (Fig. 5)

Loosen the Adjusting Screws A and B with the Hex. Wrench Key 2.5 as shown in the Fig. 5 and then adjust the Abrasive Belt so that it may run almost in the center of the Idle Pulley. After adjusting the Abrasive Belt, tighten and lock the remaining Adjusting Screws.

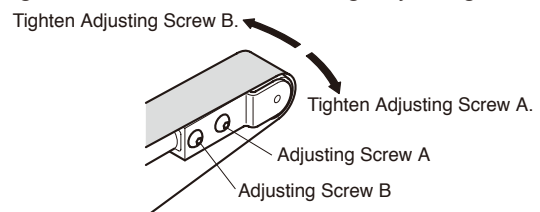


Fig. 5

4-5. Rotational Direction of Abrasive Belt

(Fig. 6, 7 and 8)

The rotational direction of the Abrasive Belt can be selected.

At the time of shipment, it has been set to turn in direction L shown on the Cover.

Its rotational direction can be changed by the following steps.

- (1) Pull the Lock Sleeve to direction ①.
- (2) Turn the Valve Body to direction ② by 180°.
- (3) When releasing the Lock Sleeve, the Valve Body locks.
- (4) Try turning the Valve Body clockwise and counterclockwise to confirm that it is locked.
- (5) The Valve Body can turn by 180° in relation to the Housing as shown in Fig. 7. The Valve Body cannot rotate more than this degree.
- (6) The rotational direction of the Abrasive Belt can be set to the same direction of L or R by adjusting the mark ▲ on the Throttle Lever to the mark L or R on the rubber of the top or bottom of the Housing as the direction of L or R indicated on the Cover as shown in Fig. 6. See Fig. 8.

⚠ Caution

- Do not hold the Throttle Lever when turning the Valve Body. Do not turn the Valve Body with the Throttle Lever set to ON. Otherwise, it may cause a trouble.

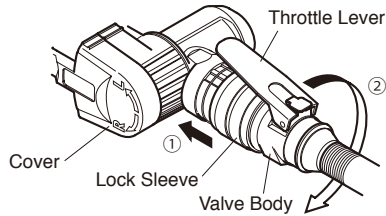


Fig. 6

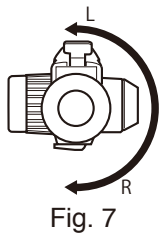


Fig. 7

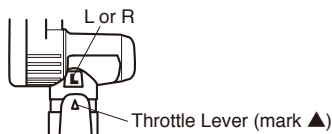


Fig. 8

4-6. Offset Bracket, Shoe, and Dust Cover (Accessories) (Fig. 9 and 10)

The Offset Bracket, Shoe, and Dust Cover are removable. At the time of shipment, the Offset Bracket has been mounted in the direction shown in the Fig. 9 and 10. The Shoe and Dust Cover are included as accessories in the same package.

If the Offset Bracket or Shoe is mounted on the opposite side of the tool, a left-handed user can easily use it.

Take the following steps to do this.

- (1) Remove the Cover and Abrasive Belt in the same procedure as for replacing the Abrasive Belt.
- (2) Pull out the Offset Bracket and insert it into the opposite side. (When using the Shoe, pull out the Offset Bracket and insert the Shoe into the top or bottom.)
- (3) Mount the Abrasive Belt.
- (4) Set the Dust Cover between the two protruding portions at the tip of the Guard.
- (5) When using the Dust Cover, remove the Cover Screw. Set the Dust Cover between the two protruding portions at the tip of the Cover so that there may not be gaps between the Guard and the Dust Cover.
- (6) Tighten and lock the Cover Screw. Use the Dust Cover together with the Shoe.

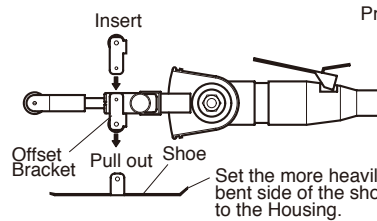


Fig. 9

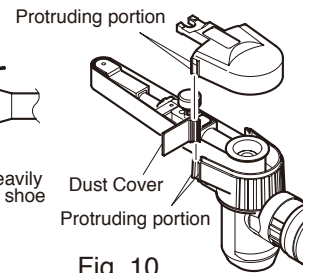


Fig. 10

4-7. Adjusting the Guard Angle (Fig. 11)

⚠ Caution

- A gap between the Housing and Guard gives rise to the displacement of the Abrasive Belt, which may cause a damage to the tool or an injury to the user.

The Guard angle can be changed in accordance with user's position and the form of a material.

When the Guard angle is adjusted, tighten and lock the Hex. Socket Head Setscrew of the Guard with the Hex. Socket Screw Key 3. At this time, set the Guard so that there may be no gap between the Housing and the Guard.

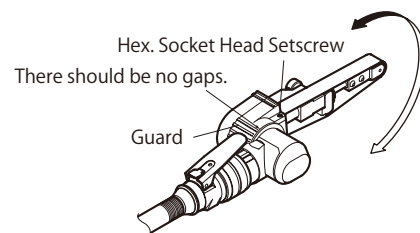


Fig. 11

4-8. Sanding Operation

⚠ Caution

- Do not press the Abrasive Belt too hard upon the workpiece. If you do so, the Abrasive Belt may break.
- When using a non-woven Belt, do not use the Offset Bracket. If you do so, the Belt may come Off, causing personal injury.

When deburring a material, hold the tool and turn on the Throttle Lever. Slightly press the Abrasive Belt to the material between the Idle Pulley and Offset Bracket. When grinding a material, press the Abrasive Belt to the material by using its portion with the Shoe.

A sanding direction (forward or backward) can be selected according to the job. Refer to "4-5. Rotational Direction of Abrasive Belt".

Caution

- When using the Abrasive Belt turning in R direction with a right hand or using it turning in direction L with a left hand, it may slip if a force is applied to a material from the top. When using it in these directions, keep pushing it forward. A job can be done in this way. (The rotational direction L or R of the Abrasive Belt is shown on the Cover. See Fig. 6.)

5. THREAD SIZE OF HOSE FITTING

The product comes with a metal fitting with Rc (metric) thread. Connect the Bushing R thread × NPT thread included as standard accessories, if you would like to have American NPT thread instead.

6. STORAGE

Caution

- When tool is not used, store it out of children.

Avoid storing the tool in a location subject to high humidity. If the tool is left as it is used, residual moisture on the inside can cause rusting. Before storing, and after operation, oil the tool at the air inlet with machine oil ISO VG-10 and run it for a short time.

7. OPTIONAL PARTS

Abrasive Belt with various abrasives and grain sizes are separately prepared by us. Select them at your needs.

8. ORDERING SERVICE PARTS

For further operational and handling information or for replacement of parts and components, contact the company from whom you purchased the tool or an authorized dealer.

In ordering parts and components give each part number, part name and quantity required.

Use only NITTO genuine parts.

Overseas Affiliates / Offices

NITTO KOHKI U.S.A., INC.

46 Chancellor Drive, Roselle, IL 60172 U.S.A.

Tel:(1)-630-924-9393 Fax:(1)-630-924-0303

NITTO KOHKI EUROPE CO., LTD.

Unit 21, The Empire Centre Imperial Way,
Watford Herts, WD24 4TS, U.K.

Tel:(44)-1-923-239668 Fax:(44)-1-923-248815

NITTO KOHKI DEUTSCHLAND GMBH

Lerchenstr.47 D-71144 Steinenbronn, Germany

Tel:(49)-7-157-22436 Fax:(49)-7-157-22437

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UBI TECHPARK LOBBY D, SINGAPORE 408564,

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EC DECLARATION OF CONFORMITY

We hereby declare that the following our product conforms with the essential health and safety requirements of EU Directives.

Product: PNEUMATIC BELT SANDER
Model: BABY BELTON: BB-10A and BB-20
Serial No: In the case of 6 digits serial number.

X X X X X X

→ Consecutive numbers (00001~99999)
→ Last digit (0-9) of year (A.D.)

In the case of 7 digits serial number.

X X X X X X X

→ Consecutive numbers (00001~99999)
→ Last two digits (00-99) of year (A.D.)

Manufacturer: NITTO KOHKI Co., Ltd.
2-9-4, Nakaikegami, Ohta-ku, Tokyo, 146-8555, Japan

Authorised person to prepare the technical construction file(TCF) in the community:

Masatoshi Ogue

President

NITTO KOHKI EUROPE Co., Ltd.

Unit21, Empire Centre, Imperial Way, Watford Hertfordshire,
WD24 4TS, UK

Tel:(44)-01923-239668 Fax:(44)-01923-248815

Directive: 2006/42/EC Machinery Directive

The above product has been evaluated for conformity with above directives using the following European standards. The technical construction file (TCF) for this product is retained at the above manufacturer's location.

Machinery Directive: EN ISO12100:2010, EN ISO1148-8:2012, others

Sound Pressure/Power Level: EN ISO15744:2008, EN ISO4871:1996

Vibration Level: ISO 20643:2005

Signature: K. Kishi

Date/Place: Apr. 8. 2010 /Tokyo, Japan

Name: K. Kishi

Title: GENERAL MANAGER MACHINE TOOLS DIV.

NITTO KOHKI Co., Ltd.

2-9-4, Nakaikegami, Ohta-ku, Tokyo, 146-8555, Japan

Being the responsible person appointed and employed the manufacturer.