

INSTRUCTION MANUAL

PNEUMATIC CHIPPING HAMMER

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

AIR CHIPPER Model ACH-16 CH-24 PROFESSIONAL TOOL



ACH-16



CH-24

Specifications

Model		ACH-16	CH-24
Maximum Operating Pressure	MPa	0.6	
Air Consumption (No Load)	m ³ /min	0.15	0.20
Stroke Speed (No Load)	r/min (min ⁻¹)	6,000	4,000
Chisel Shank	mm	O.D.10.5	12.7sq.
Mass (Weight)	kg	0.9	1.7
Sound Pressure Level	dB(A)	87	88
Sound Power Level	dB(A)	98	99
Vibration Level [Uncertainty K]	m/s ² [m/s ²]	66.0 [7.0]	16.2 [2.1]
Thread Size of Air Inlet		Rc3/8	

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

Tel : (81)-3-3755-1111

Fax : (81)-3-3753-8791

E-mail : overseas@nitto-kohki.co.jp

URL : www.nitto-kohki.co.jp

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 seo agente ou distribuidor o manual de instrucces ih linguagen local.
- **Italian** : Per Manuale Istruzioni in lingua locale Vi preghiamo di rivolgervi al rivenditore o distributore.
- **Dutch** : Vraag uw handelaar om een nederladstalige gebruiksaanwijzing.
- **Swedish** : Be er lokala Åtreförsäljare eller distributör om manualer pá svenska.
- **Danish** : Venligst henvend Dem til den danske distributør for instructions manualer.
- **Polish** : Prosze pytac swojego dealera lub dystrybutora o instrukcje obslugi w jezyku localnym.
- **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 using.



Always wear suitable eye protection.



Always wear suitable hearing protection.



Always wear respiratory protective equipment (PPE).



Always wear protective gloves for protection of hands from Vibration and Shock

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.
- **Always wear suitable protective gloves.**
- **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 tool 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 chips and dust particles, etc. which may cause eye and/or respiratory injury: Always use PPE (Personal Protective Equipment) for eye and respiratory protection.
- **Wear vibration reducing and shock absorbing gloves.**
This is a power tool utilizing vibration. Wear vibration reducing and shock absorbing gloves. When your hands, fingers, arms, etc. feel discomfort during operations, immediately stop your work. Long hour operation should be prohibited, for it may cause Vibration - Induced disorder.
- **Always wear suitable hearing protection.**
The tool generates loud noise. Always use ear plugs for hearing protection. Take necessary measures to comply with the local regulatory requirements and laws with regard to noise level, or do better.
- **Do not operate tool at no load.**
Do not operate the tool at no load: It may not only cause damage to the tool but also may cause chisels to fracture and fly out, possibly resulting in unexpected accident.
- **Be sure to keep hands clear of chisel edge.**
- **Fix the chisel firmly. If the chisel is not fixed firmly , it may jump out and cause injury**

1. USAGE

This tool is for chipping work pieces with a chisel.

2. CHECK THE CONTENTS OF THE PACKAGE

Check the contents and make sure that the tool does not have any damage which may have occurred during transportation. The contents should correspond to the list as follows. In case of damage/missing parts, please contact the sales agent from whom you purchased the tool.

ACH-16

Package Contents	Qty	check
ACH-16	1	
Flat Chisel 20×120	1	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	1	
Instruction Manual	1	
Declaration of Conformity	1	
Caution for Use	1	

CH-24

Package Contents	Qty	check
CH-24	1	
Curved Flat Chisel 25×155	1	
Bushing R3/8×NPT3/8	1	
Hose Nipple R3/8×3/8	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 will 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 9.5mm (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, bsetween the compressor and the tool.

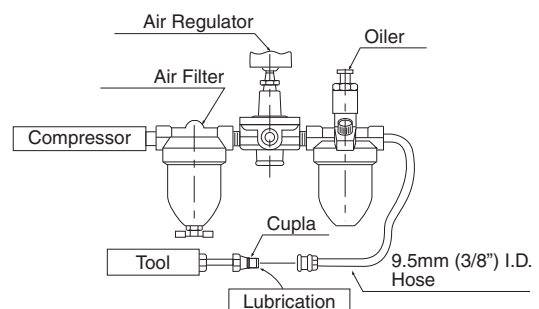


Fig. 1

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 the tool.

3-4. Short hose fittings

Do not fix a coupling directly on the tool. Make sure that after a short hose is fixed with the Hose Nipple R3/8X3/8 including in the accessories, then the coupling be attached. If the couplings directly fixed, it would be damaged by the vibration and the life would be shortened.

4. PREPARATIONS

! WARNING

Turn off the air supply and disconnect the air supply hose before preparation for use.

4-1. Fixing the Attachment (Fig.2)

Fix the Hose Nipple to the Bushing (M16XRc3/8) of the tool.

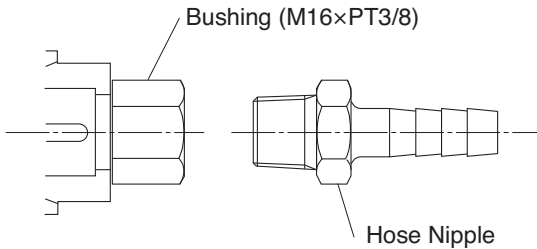


Fig.2

4-2. Replacing Chisels

ACH-16 (Fig.3)

(1) For fixing the chisel, pull the Sleeve aligning the rectangular shaped groove on the chisel with the Throttle Lever (180°reversed side is also OK.) and push the chisel to the end and pull it slightly till the Sleeve returns to the External Retaining Ring. Then, if the Sleeve does not return, leave the hand off the Sleeve and turn the chisel left - and - right, or move it back and - forth. When the chisel comes to the set - position, the Sleeve automatically returns to the External Retaining Ring.

(2) For removing the chisel, Chisel pull the Sleeve and take out the chisel.

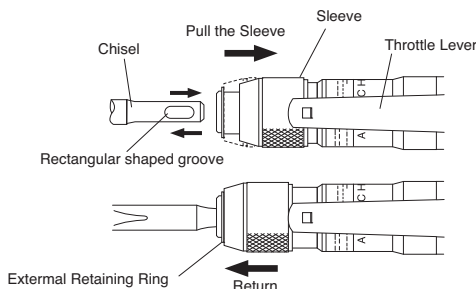


Fig.3

CH-24 (Fig.4)

(1) Rotate the Stop Ring and when the hole is aligned with the position of the inner Ball, the Ball escapes and the chisel can be removed.

(2) To mount the chisel, align the notch on the chisel with the ball position, insert the chisel and turn the stop ring to prevent the chisel from being withdrawn.

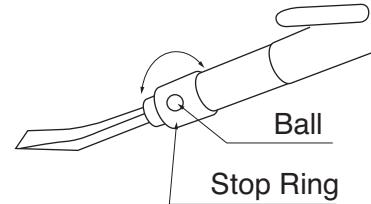


Fig.4

5. HOW TO OPERATE THE TOOL

! WARNING

Do not operate tool at no load.

5-1. Start and Stop (Fig.5)

(1) Before connecting to the air hose, make sure that the Throttle Lever is in OFF position.

(2) To start, hold the machine and press the Throttle Lever.

(3) To stop, leave the hand off the Throttle Lever.

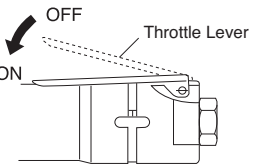


Fig.5

5-2. Adjustment of Stroke (Fig.6) For ACH-16

Rotating the Adjust Valve (adjusting air flow) by a flat driver, the stroke can be adjusted. The maximum Stroke can be obtained when the groove on the Valve align with the axis of the tool.

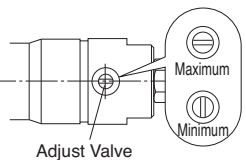


Fig.6

5-3. Operating Procedure (Fig.7)

Grasp the Valve Body and place the chisel to the work piece. Next, holding the Cylinder with the other hand lightly press the Throttle Lever so that the chisel starts lightly hammering the work piece. Gradually press the lever harder and 90 to full operation after the cutting position has been determined. Stable chipping work is obtained.

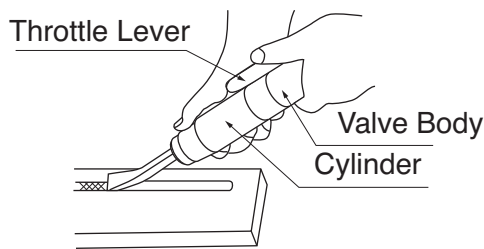


Fig.7

6. MAINTENANCE AND INSPECTION

When reshaping the edge of the chisel, apply water sometimes so that it may not be heated too much.

7. THREAD SIZE OF HOSE FITTING

The product comes with a metal-fitting with R thread. Connect the Bushing R thread X NPT thread included as standard accessories. If you would like to have American NPT thread instead.

8. STORAGE

CAUTION

When tool is not used, store it out of reach 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.

9. 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.

10. OPTIONAL PARTS

The following chisels are available from ex-stock.

ACH-16

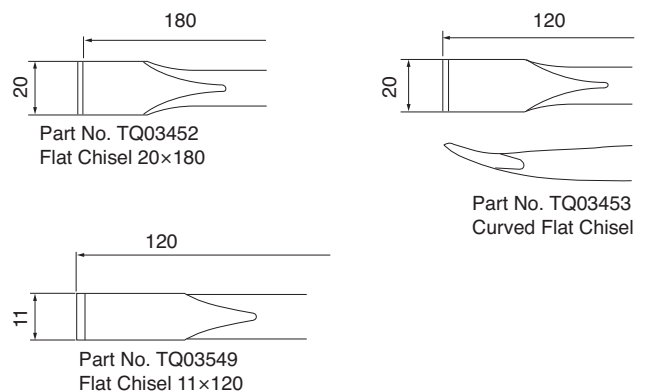


Fig.8

CH-24

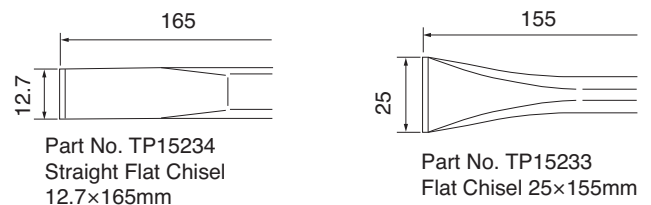
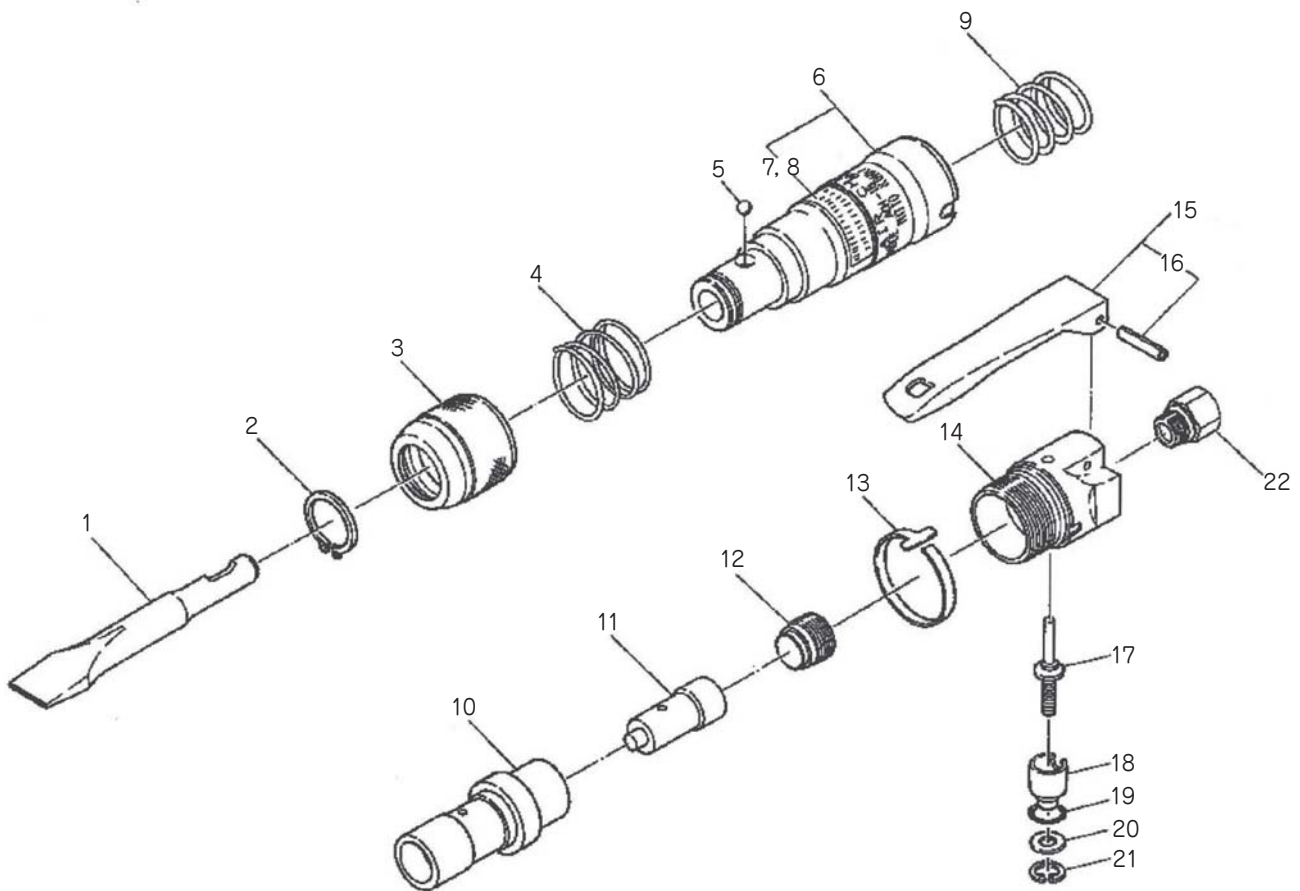


Fig.9

11. EXPLODED DIAGRAM: ACH-16

WARNING

This diagram is for your reference only. Do not attempt to service or repair the Tool.
Do not take the Tool apart. Contact an authorized Nitto dealer for all service and repair of the Tool.
Improper service and repair can cause accidents and service injuries.
Never attempt to modify the Tool.
Never attempt service or repair the Tool yourself.



The part numbers with () are included in the Ass'y parts written above them.

No.	Parts No.	Parts Name	Qty	Price
1	TQ03431	Flat Chisel 20×120	1	
2	TP18406	External Retaining Ring C-22	1	
3	TQ03423	Sleeve	1	
4	TQ03424	Spring 1.6×29.5×25	1	
5	TP06633	Ball 5/16	1	
6	TB02701	Cylinder Sub Ass'y	1set	
7	(TQ12611)	Label Warning CE Mark	1	
8	(TQ12814)	Label Warning	1	
9	TQ03430	Spring 2.9×24.5×29	1	
10	TQ06609	Counter Cylinder	1	
11	TQ03427	Piston	1	
12	TQ06608	End Plate	1	
13	TQ03429	Lock Band	1	
14	TQ03428	Valve Body	1	
15	TB02772	Throttle Lever Ass'y	1set	
16	(TP00460)	Spring Pin 3×22	1	

No.	Parts No.	Parts Name	Qty	Price
17	TA93070	Valve Stem Ass'y	1set	
18	TP06325	Adjust Valve	1	
19	TP11997	O-Ring KS-7	1	
20	TP06327	Spacer 6×12×1.2	1	
21	TP03695	Internal Retaining Ring C-12	1	
22	TQ02349	Bushing M16×Rc3/8	1	

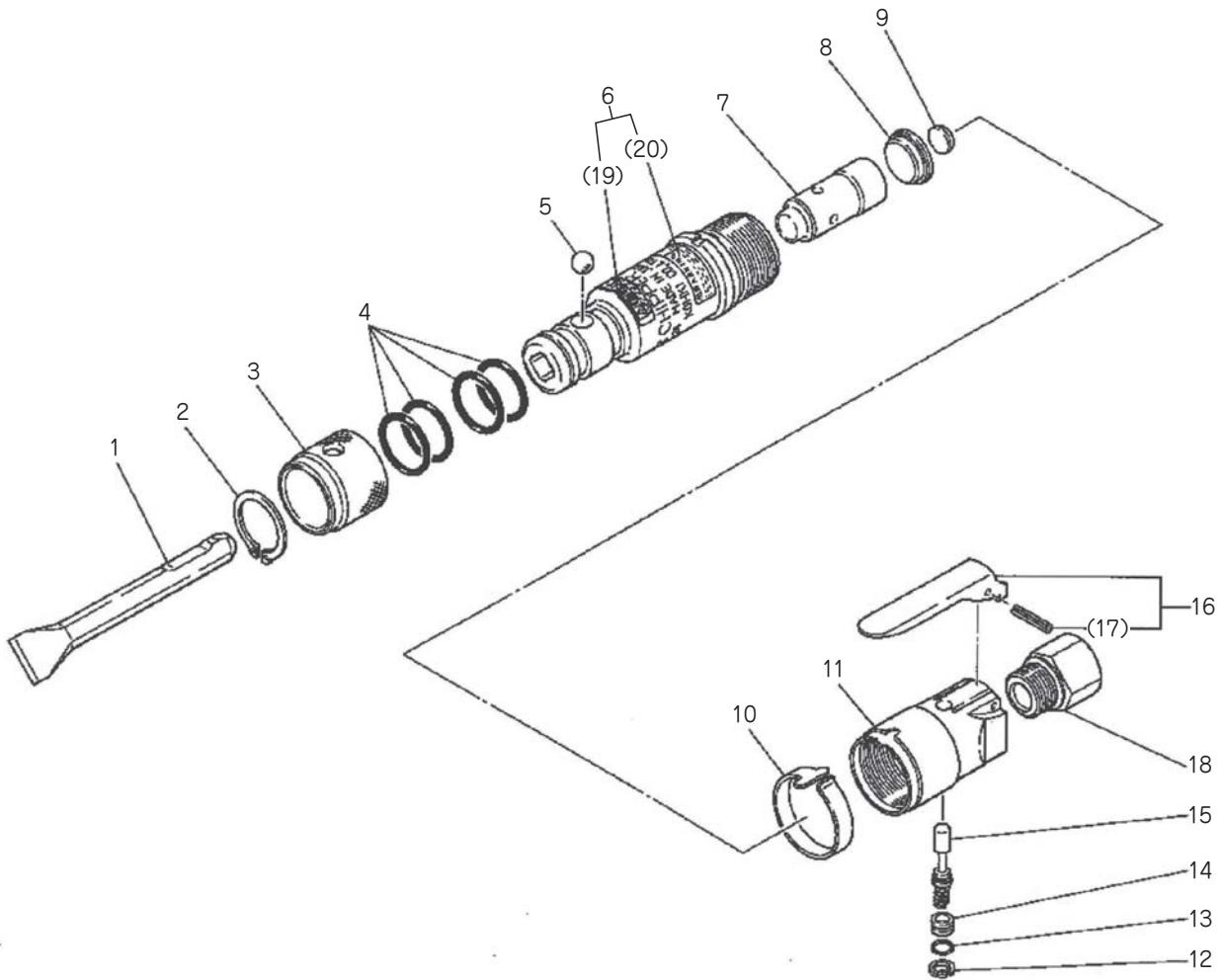
Accessories

No.	Parts No.	Parts Name	Qty	Price
	TQ02350	Bushing R3/8×NPT3/8	1	
	TQ03262	Hose Nipple R3/8×3/8	1	
	TQ12815	Instruction Manual	1	
	TQ12816	Declaration of Conformity	1	

12. EXPLODED DIAGRAM: CH-24

WARNING

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 Never attempt service or repair the Tool yourself.



The part numbers with () are included in the Ass'y parts written above them.

No.	Parts No.	Parts Name	Qty	Price
1	TP15166	Curved Flat Chisel 25x155	1	
2	TP15175	External Retaining Ring C-30	1	
3	TP15167	Stop Ring	1	
4	TP11986	O-Ring KS-19	4	
5	CP05002	Ball 7/16	1	
6	TB01773	Cylinder Ass'y	1set	
19	(TQ12611)	Label Warning CE Mark	1	
20	(TQ12822)	Label Warning CH-24	1	
7	TP02242	Piston	1	
8	TP15168	End Plate	1	
9	TA99382	Rear Cushion Ass'y	1set	
10	TP15170	Lock Band	1	
11	TP15171	Valve Body	1	
12	TP03695	Internal Retaining Ring C-12	1	

No.	Parts No.	Parts Name	Qty	Price
13	TP14604	O-Ring S-10	1	
14	TP14601	Valve Cap	1	
15	TA98983	Throttle Valve Ass'y	1set	
16	TA96324	Throttle Lever Ass'y	1set	
17	(TP00327)	Spring Pin 3x25	1	
18	TQ02349	Bushing M16xRc3/8	1	

Accessories

No.	Parts No.	Parts Name	Qty	Price
	TQ02350	Bushing R3/8xNPT3/8	1	
	TQ03262	Hose Nipple R3/8x3/8	1	
	TQ12815	Instruction Manual	1	
	TQ12816	Declaration of Conformity	1	



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

NITTO KOHKI CO., LTD., SINGAPORE BRANCH
10 UBI CRESCENT #01-62,
UBI TECHPARK LOBBY D, SINGAPORE 408564,
Tel:(65)-6227-5360 Fax:(65)-6227-0192

NITTO KOHKI AUSTRALIA PTY. LTD.
77 Brandl St., Brisbane Technology Park,
Eight Mile Plains QLD 4113 Australia
Tel:(61)-7-3340-4600 Fax:(61)-7-3340-4640

NITTO KOHKI CO., LTD.,
BANGKOK REPRESENTATIVE OFFICE
M&A Business Center 38Q. House Convent Bldg.,
7th Floor, Unit 7A, Convent Rd., Silom, Bangrak,
Bangkok 10500 Thailand
Tel:(66)-2-632-0307 Fax:(66)-2-632-0308

NITTO KOHKI (SHANGHAI) CO., LTD.
Room1506, suite C, Orient International Plaza,
NO85 LouShanGuan Road, Shanghai, 200336, CHINA
Tel: (86)-21-6415-3935 Fax:(86)-21-6472-6957

NITTO KOHKI CO., LTD.,
SHENZHEN REPRESENTATIVE OFFICE
2005C Shenzhen ICC Tower, Fuhuasanlu 168, Futian District,
Shenzhen, Guangdong, 518048 China
Tel: (86)-755-8375-2185 Fax:(86)-755-8375-2187

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 CHIPPING HAMMER
Model: AIR CHIPPER: CH-24,ACH-16
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 ISO11148-4:2012, others
Sound Pressure/Power Level: EN ISO15744:2008, EN ISO4871:1996
Vibration Level: EN28927-9:2009

Signature: K. Kishi

Date/Place: Oct. 17, 2012 /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.