

TEST REPORT**EN ISO 11148-3: 2012****Hand-held non-electric power tools - Safety requirements****- Part 3: Drills and tappers**

Report reference No. : SH11080399-007

Tested by (+ signature)..... : Heinrich Wu

Approved by (+ signature) : Michael Shen

Date of issue : 16 August, 2011

Amendment 1: June.13, 2013

Testing laboratory : Intertek Testing Services Shanghai Ltd.

Address : Building No.86, 1198 Qinzhou Road (North), Shanghai 200233, China

Testing location/procedure : TL RMT SMT WMT TMP

Address : As above

Applicant : Ningbo Steed Tools Co., LtdAddress : Fangjiada, Gulin Town, Yinzhou District, Ningbo, Zhejiang, P.R.
China**Test specification:**

Standard : EN ISO 11148-3: 2012

Test procedure : CE-MD

Non-standard test method : N/A

Test Report Form No : TTRF EN ISO 11148_3A

TRF Originator : Intertek Shanghai

Master TRF : 2011-06

Test Item Description : Air straight drills

Trademark : N/A

Model and/or type reference : AT-4038, AT-4039

Manufacturer : Same sa applicant

Rating(s) : AT-4038: n_0 : 2600/min, Max. air pressure: 6,5 barAT-4039: n_0 : 18000/min, Max. air pressure: 6,0 bar

Remarks : None.

Test case verdicts

Test case does not apply to the test object : N/A
Test item does meet the requirement..... : P(Pass)
Test item does not meet the requirement..... : F(Fail)

Testing

Date of receipt of test item : N/A
Date(s) of performance of test..... : N/A

General remarks

The test results presented in this report relate only to the object tested.

This report shall not be reproduced, except in full, without the written approval of the issuing testing laboratory.

"(See Enclosure #)" refers to additional information appended to the report.

"(See appended table)" refers to a table appended to the report.

Throughout this report a comma is used as the decimal separator.

Determination of the test results includes consideration of measurement uncertainty from the test equipment and methods.

General product information:

The products covered by this report are hand-held air straight drills.

Amendment 1:

This report based on report ref. no. SH11080399-007 issued on 16 August, 2011 by Intertek Testing Services Shanghai Limited including following changes and/or additions:

Test standard changed from EN ISO 11148-3: 2010 to EN ISO 11148-3: 2012

Copy of marking plate (Representative)**Summary of testing:**

All tests are carried out in according to the EN ISO 11148-3:2012 and the test results meet the requirements specified in the above-mentioned standards.

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
6	Information for use		
6.1	Marking, signs and written warnings		
	Drills and tappers shall be marked visibly, legibly and indelibly with the following information		
	name and full address of the manufacturer and, where applicable, his/her authorized representative		P
	designation of series or type		P
	serial number or batch number;		P
	year of construction, that is the year in which the manufacturing process is completed;		P
	rated speed, in revolutions per minute		P
	for pneumatic drills and tappers the rated air pressure marked as (max.)		P
	for hydraulic drills and tappers the nominal pressure and flow the maximum allowable setting for the pressure relief valve		N/A
	Drills and tappers shall be permanently marked with a graphical symbol in accordance with Annex C showing that the operator's instructions shall be read before work starts.		P
	The direction of rotation, as required in 4.8.4, shall be permanently marked in accordance with Annex C.		P
6.2	Instruction handbook		
6.2.1	General		
	For the information that is provided to the user, the content of Clause 6 together with ISO 12100:2010, 6.4.5.2 and 6.4.5.3, apply.		P
	The information provided by the manufacturer is an important but not exclusive basis for the safe use of the tool. It shall provide sufficient information for the end user to perform an initial risk assessment.		P
	The hazards identified in 6.2.2.3 to 6.2.2.12 are foreseeable in the general use of hand-held drills and tappers. The information provided with the tool shall state that the user or the user's employer shall assess the specific risks that can be present as a result of each use.		P
	The instruction handbook shall contain information relating to at least the following:		P
	name and address of the manufacturer or supplier or any other agent responsible for placing the drill or tapper on the market;		P
	designation of the series or type;		P
	operating instructions; see 6.3;		P
	information on noise emission; see 6.4.2;		P
	information on vibration transmitted to the hands of the operator; see 6.4.3		P
	maintenance instructions; see 6.5		P

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
	explanations of any symbols marked on the assembly power tool for threaded fasteners; see Annex C;		P
	information about residual risks and how to control them		P
6.2.2	Operator's instructions		
6.2.2.1	Statement of use		
	The operator's instructions shall include a description of the correct use of the drill or tapper and make reference to the appropriate inserted tools. The operator's instructions shall state that any other use is forbidden. Foreseeable misuse of the drill or tapper, which experience has shown to occur, shall be warned against.	See copy of manual	P
	If the drill is intended as a prime mover for other functions such as sawing, screw driving and hedge trimming, the operator's instructions shall make reference to instructions for those applications.		N/A
6.2.2.2	Allowance for user		
	The operator's instructions shall be written primarily for professional users. Where a tool can be used by nonprofessional users, additional information for use shall be provided		P
6.2.2.3	General safety rules		
	Warnings shall be given with regard to significant hazards arising from or associated with the use of the drill or tapper.		P
	The following is a non-exhaustive list. Manufacturers may add additional warnings.		P
	For multiple hazards, read and understand the safety instructions before installing, operating, repairing, maintaining, changing accessories on, or working near the drill or tapper. Failure to do so can result in serious bodily injury.		P
	Only qualified and trained operators should install, adjust or use the drill or tapper.		P
	Do not modify this drill or tapper. Modifications can reduce the effectiveness of safety measures and increase the risks to the operator.		P
	Do not discard the safety instructions; give them to the operator.		P
	Do not use the drill or tapper if it has been damaged.		P
	Tools shall be inspected periodically to verify that the ratings and markings required by this part of ISO 11148 are legibly marked on the tool. The employer/user shall contact the manufacturer to obtain replacement marking labels when necessary.		P
6.2.2.4	Projectile hazards		
	The following apply		P

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
	Be aware that the failure of the workpiece, of accessories or even of the inserted tool itself can generate high-velocity projectiles.		P
	Always wear impact-resistant eye protection during the operation of the drill or tapper. The grade of protection required should be assessed for each use.		P
	Remove the chuck key before drilling starts.		P
	Ensure that the workpiece is securely fixed.		P
6.2.2.5	Entanglement hazards		
	Choking, scaling and/or lacerations can occur if loose clothing, personal jewellery, neckware, hair or gloves are not kept away from the tool and accessories.		P
6.2.2.6	Operating hazards		
	The following apply		
	The use of the tool can expose the operator's hands to hazards including cuts, abrasions and heat. Wear suitable gloves to protect hands.		P
	Operators and maintenance personnel shall be physically able to handle the bulk, weight and power of the tool.		P
	Hold the tool correctly; be ready to counteract normal or sudden movements and have both hands available.		P
	Maintain a balanced body position and secure footing		P
	High-reaction torque can be developed in the case of stalling, which can be caused by excessive loads being applied to the drill bit, by the drill bit snagging on the material being drilled into or by the drill bit breaking through the material being drilled.		P
	In cases where the means to absorb the reaction torque are requested, it is recommended to use a suspension arm whenever possible. In any case, it is recommended to use a means to absorb the reaction torque above 4 N.m for straight tools and above 10 N.m for pistol-grip tools.		N/A
	Keep hands away from the rotating chuck and drill bit.		P
	Release the start-and-stop device in case of an interruption of the energy supply.		P
	Use only lubricants recommended by the manufacturer.		P
	Personal protective safety glasses shall be used; suitable gloves and protective clothing are recommended.		P
6.2.2.7	Repetitive motions hazards		
	The following apply		

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
	When using a drill or tapper to perform work-related activities, the operator can experience discomfort in the hands, arms, shoulders, neck, or other parts of the body.		P
	While using a drill or tapper, the operator should adopt a comfortable posture whilst maintaining secure footing and avoiding awkward or off-balanced postures. The operator should change posture during extended tasks, which can help avoid discomfort and fatigue		P
	If the operator experiences symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensations or stiffness, these warning signs should not be ignored. The operator should tell the employer and consult a qualified health professional.		P
6.2.2.8	Accessory hazards		
	The following apply.		
	Disconnect the drill or tapper from the energy supply before fitting or changing the inserted tool or accessory.		P
	Use only sizes and types of accessories and consumables that are recommended by the drill or tapper manufacturer.		P
	Avoid direct contact with the inserted tool during and after use, as it can be hot or sharp.		P
6.2.2.9	Workplace hazards		
	The following apply		
	Slips, trips and falls are major causes of workplace injury. Be aware of slippery surfaces caused by the use of the tool and also of trip hazards caused by the air line or hydraulic hose		P
	Proceed with care in unfamiliar surroundings. There can be hidden hazards, such as electricity or other utility lines.		P
	The drill or tapper is not intended for use in potentially explosive atmospheres and is not insulated against coming into contact with electric power		P
	Ensure that there are no electrical cables, gas pipes, etc., that can cause a hazard if damaged by use of the tool		P
6.2.2.10	Dust and fume hazards		
	The following apply		
	Dust and fumes generated when using drills and tappers can cause ill health (for example, cancer, birth defects, asthma and/or dermatitis); risk assessment and implementation of appropriate controls for these hazards are essential.		P
	Risk assessment should include dust created by the use of the tool and the potential for disturbing existing dust.		P

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
	Operate and maintain the drill or tapper as recommended in these instructions, to minimize dust and fume emissions.		P
	Direct the exhaust so as to minimize disturbance of dust in a dust-filled environment		P
	Where dust or fumes are created, the priority shall be to control them at the point of emission		P
	All integral features or accessories for the collection, extraction or suppression of airborne dust or fumes should be correctly used and maintained in accordance with the manufacturer's instructions.		P
	Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook to prevent an unnecessary increase in dust or fumes.		P
	Use respiratory protection in accordance with employer's instructions and as required by occupational health and safety regulations.		P
6.2.2.11	Noise hazards		
	The following apply.		
	Unprotected exposure to high noise levels can cause permanent, disabling, hearing loss and other problems, such as tinnitus (ringing, buzzing, whistling or humming in the ears).		P
	Risk assessment and implementation of appropriate controls for these hazards are essential		P
	Appropriate controls to reduce the risk may include actions such as damping materials to prevent workpieces from "ringing".		P
	Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.		P
	Operate and maintain the drill or tapper as recommended in the instruction handbook, to prevent an unnecessary increase in noise levels.		P
	Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook, to prevent an unnecessary increase in noise		P
	If the drill or tapper has a silencer, always ensure that it is in place and in good working order when the drill or tapper is operating.		N/A
6.2.2.12	Vibration hazards		

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
	The information for use shall draw attention to vibration hazards that have not been eliminated by design and construction and remain as residual vibration risks. It shall enable employers to identify the circumstances in which the operator is likely to be at risk from vibration exposure. If the vibration emission value obtained using ISO 28927-5 for drills or ISO 20643 for tappers does not adequately represent the vibration emission in the intended uses (and foreseeable misuses) of the machine, additional information and/or warnings shall be supplied to enable the risks arising from vibration to be assessed and managed.		P
	The following warnings (or equivalent) shall be given.		
	Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms		P
	Wear warm clothing when working in cold conditions and keep your hands warm and dry.		P
	If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the drill or tapper, tell your employer and consult a physician.		P
	Operate and maintain the drill or tapper as recommended in the instruction handbook, to prevent an unnecessary increase in vibration levels		P
	Do not allow the inserted tool to chatter on the workpiece, as this is likely to cause a substantial increase in vibration.		P
	Select, maintain and replace the consumable/inserted tool as recommended in the instruction handbook, to prevent an unnecessary increase in vibration levels.		P
	Support the weight of the tool in a stand, tensioner or balancer, if possible		P
	Hold the tool with a light but safe grip, taking account of the required hand reaction forces, because the risk from vibration is generally greater when the grip force is higher.		P
6.2.3	Additional safety instructions for pneumatic power tools		
	The following additional warnings (or equivalent) shall be given with all pneumatic drills and tappers.		
	Air under pressure can cause severe injury.		P
	Always shut off air supply, drain hose of air pressure and disconnect tool from air supply when not in use, before changing accessories or when making repairs;		P
	Never direct air at yourself or anyone else.		P
	Whipping hoses can cause severe injury. Always check for damaged or loose hoses and fittings		P
	Cold air shall be directed away from the hands		P

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
	Whenever universal twist couplings (claw couplings) are used, lock pins shall be installed and whipcheck safety cables shall be used to safeguard against possible hose-to-tool and hose-and-hose connection failure.		P
	Do not exceed the maximum air pressure stated on the tool.		P
	Never carry an air tool by the hose.		P
6.2.4	Additional safety instructions for hydraulic power tools		
	The following additional warnings (or equivalent) shall be given with all hydraulic drills and tappers.		
	Do not exceed the maximum relief-valve setting stated on the tool		N/A
	Carry out a daily check for damaged or worn hoses or hydraulic connections and replace if necessary		N/A
	Use only clean oil and filling equipment		N/A
	Power units require a free flow of air for cooling purposes and should, therefore, be positioned in a well ventilated area free from hazardous fumes.		N/A
	Ensure that couplings are clean and correctly engaged before operation		N/A
	Do not inspect or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury		N/A
	Do not install or remove the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury		N/A
	Be sure all hose connections are tight.		N/A
	Wipe all couplers clean before connecting. Failure to do so can result in damage to the quick couplers and cause overheating.		N/A
	Instructions shall be given that only hydraulic fluid recommended by the manufacturer shall be used.		N/A
6.2.5	Specific safety instructions		
	Warnings shall be given about any specific or unusual hazards associated with the use of the drill or tapper. Such warnings shall indicate the nature of the hazard, the risk of injury and the avoidance action to take.		P
6.3	Operating instructions		
	The instructions shall include, where appropriate		
	instructions for setting up or fixing the drill or tapper in a stable position, appropriate for drills and tappers that can be mounted in a support		P
	assembly instructions, including recommended guards, accessories and inserted tools		P
	illustrated description of functions;		P
	limitation on tool use due to environmental conditions		P
	instructions for setting and testing		P

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
	general instructions for use, including changing inserted tools and limits on the size and type of workpiece		P
6.4	Data		
6.4.1	General		
	The instructions shall include the information on the data plate and the following		
	mass of the drill or tapper		P
	for hydraulic drill or tapper		N/A
	specification of the coupling		N/A
	specification of hoses with regard to pressure and flow		N/A
	maximum inlet temperature of the inlet fluid		N/A
6.4.2	Noise		
6.4.2.1	Declaration of emission		
	The instructions shall include the noise-emission values and uncertainties as specified in 5.2 and the reference number of the test code, ISO 15744.		P
6.4.2.2	Additional information		
	If the values for noise emissions obtained using the appropriate tests defined in 5.2 do not adequately represent the emissions during the intended uses of the machine, additional information and/or warnings shall be supplied to enable an assessment and the management of the associated risks.		P
	Information on noise emission should also be provided in the sales literature.		P
6.4.3	Vibration		
6.4.3.1	Declaration of emission		
	The instruction shall include the vibration-emission value and uncertainty as specified in 5.3 and the reference number of the test code, ISO 28927-5 for drills or ISO 20643 for tappers.		P
6.4.3.2	Additional information		
	If the values for vibration emissions obtained using the appropriate tests defined in 5.3 do not adequately represent the emissions during the intended uses of the machine, additional information and/or warnings shall be supplied to enable an assessment and the management of the associated risks.		P
	Information on vibration emission should also be provided in the sales literature.		P
6.5	Maintenance instructions		
	The maintenance instructions shall contain		P
	instructions to keep the drills and tappers safe by regular preventative maintenance		P

EN ISO 11148-3:2012

Clause	Requirement - Test	Result - Remark	Verdict
	information on when the regular preventative maintenance shall be carried out, for instance, after a specified time of operation, a specified number of cycles/operations or a stated number of times per year		P
	instructions for disposal so as not to expose personnel and the environment to hazards		P
	list of the service operations that the user should carry out		P
	instructions for lubrication, if required		P
	instructions to check the speed and make a simple check of the vibration level after each service		P
	instructions to check the speed regularly		P
	specifications of the spare parts for use when these affect the health and safety of operators		P
	Maintenance instructions shall include the precautions to take to avoid exposure to hazardous substances deposited (due to work processes) on the tool		P