EVOLUTION®
POWER TOOLS

EVO355 RAPTOR

355mm (14") TCT STEEL CUTTING SAW

Instruction Manual

Manuel d'Instruction
Instruktionshandbuch
Manual de Instrucción
Handleiding

Read instructions before operating this tool.

Lisez le mode d'emploi avant d'utiliser cet outil.

Vor Benutzung des Werkzeugs bitte bediensungsanleitungen sorgfaltig lesen.

Antes de utilizar esta herramienta, lean las instrucciones.

Lees instructies alvorens dit hulpmiddel in werking te stellen.

EVOLUTIONSTEEL®

Operating Instructions

Important

Please read these operating and safety instructions carefully and completely. For your own safety, before using this equipment check that the voltage is correct and that all handles and parts are firmly secured. If you are uncertain about any aspect of using this equipment contact your distributor.

Please Keep These Instructions

Model EVO355 Raptor Specifications	
Motor (230v or 115v ~ 50/60 Hz) (Watts):	2200
RPM No Load (Speed 1) (min-1):	1450
Recommended Maximum Duty Cycle (Minutes):	30
Sound Power Level (Under Load) (dB(A)):	112.4
Vibration Level (No Load) (ms2)	1.39
Weight (Kg):	23
Max Dimensions (Raised) (mm):	H 575 W 355 D 600
Maximum Box Cut Capacity 90^0	
Square (mm):	120 x 120
Rectangle (mm):	95 x 180
Round (mm):	130
Wood (mm):	125 x 175
Maximum Box Cut Capacity 45^0	
Square (mm):	89 x 89
Rectangle (mm):	78 x 110
Round (mm):	105
Wood (mm):	125 x 125
Blade Dimensions	
Maximum Diameter (mm):	355
Bore Diameter (mm):	25.4
Thickness (mm):	2.4

Standard Equipment Supplied With Unit: 1 Jig Plate, 1 8mm Hex Wrench, 1 Operating Instructions.

Ear and Eye protection MUST be worn whilst operating this equipment. Do NOT touch the blade whilst it is in motion. Always follow the Personal Protection Equipment (PPE) recommendations whilst operating this tool.

This machine is designed specifically for cutting steel & other materials using the appropriate TCT (Tungsten Carbide Tipped) blades. It should NOT be modified and / or used for any application other than for which it was intended, including powering other equipment.

Ensure that the total work area can be viewed from the operating position. Use barriers to keep people away. Do not operate the tool in explosive environments – power tools create sparks that may ignite flammable materials or gases. Do not operate the tool in damp or wet conditions or areas, as electric shocks may result. Always use both hands to operate the tool. Always ensure that the material you are working on is securely clamped.

- This tool is equipped with an approved cord and plug for its intended Country of use. The green and yellow conductor in the cord is the earth / ground wire, **never** connect this to a live terminal.
- Remove plug from power supply before replacement of the blade, making adjustments or other maintenance work.
- We recommend the use of genuine Evolution brand blades.
- Inspect the machine and blade before each use and do not use deformed, cracked, worn or otherwise damaged blades.
- Ensure the blade is correctly mounted and do not stop by hand.
- Only use blades rated at 1500rpm or higher.
- Always keep the power cord away from moving parts of the tool.

EC – Declaration of Conformity

CE

We, ***Evolution Power Tools Limited***
Venture One
Longacre Close
Sheffield
S20 3FR
as the supplier of the product listed below:-

RAPTOR 355mm TCT Steel/Metal Cutting Chop Saw

Part Number: EVO3551/EVO3552/EVO3552EU
Voltage: 110/230v
Power: 2200W

Declare, under our sole responsibility that the equipment to which this document relates, is in conformity with the following standards or other normative documents:-
EN60335-1: 1994+A1+A2+A11-A16
EN55014-1: 2000+A1+A2
EN55014-2: 1997+A1
EN61000-3-2: 2000
EN61000-3-3: 1995+A1
EN61000-3-11: 2000
and thereby conforms to the protection requirements of Council Directive **73/23/EEC** amended by **93/68/EEC** relating to the Low Voltage Directive, Council Directive **98/37/EEC** relating to the Machine Directive and Council Directive **89/336/EEC** relating to the EMC Directive, and is compliant with Council Directive **2002/95/EC** in relation to the Restriction of Hazardous Substances in electrical & electronic equipment (RoHS). EU Directive **2002/95/EC** restricts the use of the 6 substances below in the manufacture of specific types of electrical equipment. Whilst this restriction does not legally apply to components, it is recognized that component 'compliance' is relevant to many customers.

Evolution Power Tools' definition of RoHS Compliance:

- The product does not contain any restricted substances in concentrations and applications banned by the directive
- and for components, the product is capable of being worked at the higher temperatures required by lead-free soldering.

The restricted substances and maximum allowed concentrations in homogenous materials are, by weight:

Lead – 0.1%
Mercury – 0.1%
PBB (Polybrominated Biphenyis) – 0.1%
PBDE (Polybrominated Diphenyl Ethers) – 0.1%
Hexavalent Chromium – 0.1%
Cadmium – 0.01%

Level of Sound pressure according to **86/188/EEC, 98/37/EEC & 2000/14/EC:-**

Guaranteed Sound Power Level:
112.4 dB(A)

All Relevant technical documentation is held at Evolution Power Tools Ltd, Sheffield (UK).

Authorised by:

RoHS COMPLIANT

Mr Matthew J Gavins
Managing Director

1st Feb 2008

- When you put the tool away, switch off the motor and ensure that all moving parts have come to a complete standstill.
- Ensure that moveable guards operate freely without jamming.
- **Never use the tool without the original protection guard system. Do not lock the moving guard in the open position.**
- In case of jamming, immediately switch off the tool and disconnect the plug.
- Ensure that the cutting depth adjustment, angle adjustment and vice mechanisms are firmly fixed whilst using the tool.
- Only use the flanges and washers that are supplied with the tool, and replace them if they become damaged or scored.
- Do not operate the tool under the influence of drugs, alcohol or medication. Keep loose items of clothing away from moving parts of the saw. Keep hands away from blade whilst in motion.
- After installing a new blade, always run the machine for approximately one minute before cutting. If the blade has a flaw it may shatter in this time, so stand away from the blade.
- Ensure that you use all necessary personal safety protection equipment and follow all safety guidelines at all times.

Machine Set Up

Power Supply

It is recommended that the 355 Raptor should be used on a separate power supply, and be protected by a Residual Current Device. Any extension cable should be no longer than 15 Metres and should be 1.5mm^2 for 240v and 2.5mm^2 for 110v machines.

Changing Blades: Ensure the machine is unplugged. Undo the butterfly nut (fig. 1. ref. A) and rotate the blade cover. Press in the spindle lock and check that it is fully engaged by manually rotating the blade. Using the supplied 8mm Hex wrench, undo the hex bolt that secures the blade by turning it counter clockwise, and remove the bolt, washer, outside blade flange and blade. **Note: Do not remove inside blade flange**. Press in the spindle lock. Replace blade, making sure that the printed side of the blade is facing you then refit the outside blade flange, washer, and hex bolt. Turn the hex bolt clockwise to tighten. Note: Check that the spindle lock is fully released by manually rotating the blade before use. Rotate the blade cover back into position and tighten the butterfly nut. Refit the Hex wrench to the holder on the machine.

Adjustment Of The Cutting Depth Stop

The down stop (fig. 2. ref. A) should be adjusted so that the maximum cutting capacity is maintained without the blade hitting the base. Lower the cutter head until the arm hits the down stop. If necessary adjust the down stop screw and lock nut until the correct clearance is achieved. Tighten the lock nut to lock in position.

Adjustment Of The Cutting Angle

The vice can be adjusted from 0 to 45 degrees. Loosen the lever on the vice and adjust to the required cutting angle. Tighten lever to lock in position.

Adjustment Of The Stationary Vice

The vice can be repositioned by removing the lever and Allen screw, and then sliding the fence to the desired position. Replace and tighten the lever and screw to lock in position.

Metal Cutting Saw Safety

Operating Advice

Always securely clamp the material to be cut in the vice. To start the tool, you must depress the main trigger switch to power the motor. With the motor head in the raised position, switch on the motor and allow to come up to full speed. Lower the motor head to begin cutting. When starting a cut take care to introduce the blade to the material slowly, using light pressure at first to keep blade from grabbing, and then continue with

normal pressure. Do not force the tool – let the speed of the saw blade do the work. Cutting performance will not improve by applying more pressure on the tool, and blade and motor life will be reduced. Use less pressure as the blade exits through the material. On completion of the cut, return the motor head to its upright position and switch off the power. Keep the tool clean of metal chips and other dirt and debris.

Work piece Clamping

Position the work piece in the vice so that if a jam occurs, the blade will not tend to throw it from the vice. Clamp it securely. Angles should be in an inverted position so that the point of the section is uppermost. The saw cuts most efficiently if the blade is cutting the thinnest section of the material (fig. 3).

Maintenance And Troubleshooting

Keep tool and cord clean. Regularly vacuum or blow out the motor unit to keep its ventilation clear, also check that the machine is well lubricated. Inspect weekly. Avoid using cleaning products, which include benzene, trichloroethelene, chloride, and ammonia as these can damage plastic parts. In case of electrical or mechanical malfunction, immediately switch off the tool and disconnect the plug.

Cleaning Chipping Tray

Periodically clean out the chipping tray by removing the screw (fig. 2. ref. B) and removing the tray. Empty the tray into a suitable disposal container then refit the tray and retaining screw.

Brush Inspection And Replacement

Excessive sparking may indicate the presence of dirt in the motor or worn out carbon brushes. Check for wear after the first 50 hours of use and then at 10 hours use intervals. Replace when they reach 6mm. The brush holders are located on the motor housing opposite each other and unscrew to allow access to the brushes. For all other service and maintenance, take the machine to an authorised service centre after typically 60 cutting hours, dependent upon the type of workload it has endured.

Lubrication

Your machines motor bearings are lubricated at the factory with sufficient lubricant to last for the lifetime of the unit under normal operating conditions. Other movable parts can be lubricated with light machine oil as necessary. It is recommended that the machine be taken to the nearest SERVICE CENTER or HiTech USA, Iowa, if in the USA, at least once a year for a thorough cleaning and lubrication. All repairs and servicing made by these centres are fully guaranteed against defective materials and workmanship.

12 Months Warranty

12 MONTH LIMITED WARRANTY. EVOLUTION POWER TOOLS RESERVES THE RIGHT TO MAKE IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE.

Evolution Power Tools will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship, provided the product warranty registration card has been returned to Evolution Power Tools. This warranty is void if the tool being returned has been used to cut materials beyond the recommendations in the Instruction Manual or if the saw has been damaged by accident, neglect, or improper service. This warranty does not apply to machines and / or components which have been altered, changed, or modified in any way, or subjected to use beyond recommended capacities and specifications. Electrical components are subject to respective manufacturers' warranties. All goods returned defective shall be returned prepaid freight to Evolution Power Tools. Evolution Power Tools reserves the right to optionally repair or replace it with the same or equivalent item. There is no warranty

– written or verbal – for saw blades. In no event shall Evolution Power Tools be liable for loss or damage resulting directly or indirectly from the use or merchandise or from any other cause. Evolution Power Tools is not liable for any costs incurred on such goods or consequential damages. No officer, employee or agent of Evolution Power Tools is authorised to make oral representations of fitness or to waive any of the foregoing terms of sale and none shall be binding on Evolution Power Tools.

Questions relating to this limited warranty should be directed to the company's head office, or call the appropriate Helpline number.

Accessories – Genuine Evolution Technology Blades

66T	355mm TCT Mild Steel Blade
80T	355mm TCT Aluminium / Thin Mild Steel Blade
90T	355mm TCT Stainless Steel Capable Blade

Notice: Fair wear and tear and damage caused by misuse is not covered under the 12-Month guarantee.

Fig. 1.

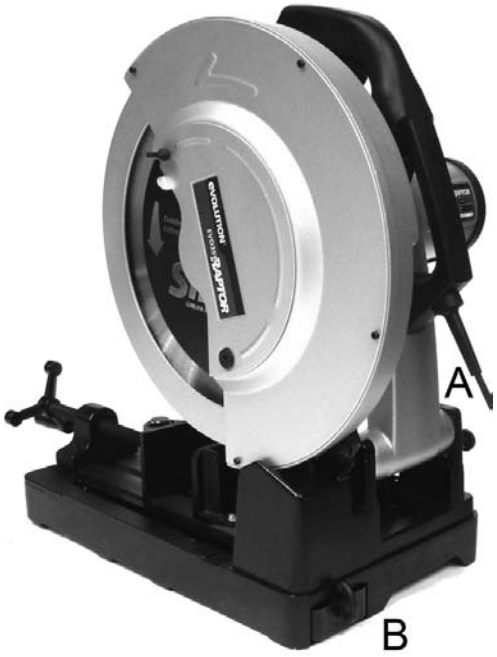

Fig. 2.

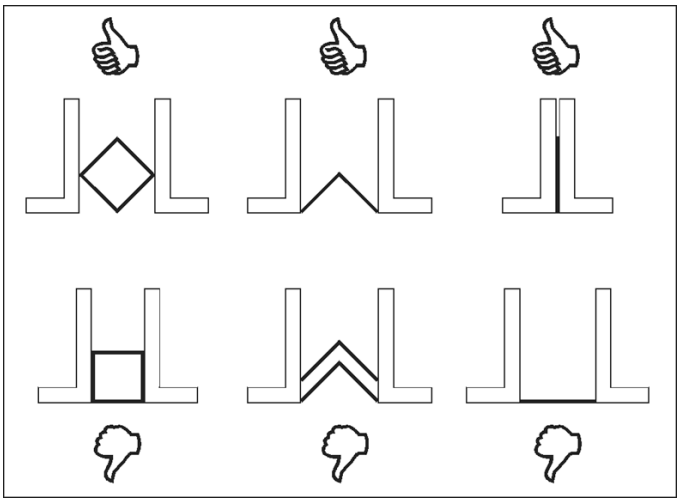

Fig. 3.

355 Raptor

TCT Cut off saw

EVOLUTION POWER TOOLS

Service Parts List

REV. 2.00