

# IK-12 Beetle



High quality portable track cutting machine with one or two torches.

Able to make, straight line, circle and bevel cutting.

Wide machine body for excellent stability

Low center point for smooth movement

Using **unique high quality single cone system** for constant speed.

Single cone system will not be affected by heat input. Ensure long life time.

Wide variety of torch positioning.

# IK-12 Beetle



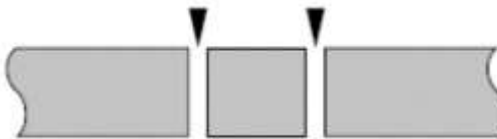
Cutting versatility



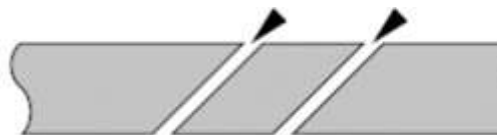
Square cutting (I)  
(with one torch)



V-bevel cutting  
(with one torch)



Square cutting (I)  
(with two torches)



V-bevel cutting  
(with two torches)



# IK-12 Beetle



Cutting thickness	3-100 mm
Cutting speed	150 – 800 mm/min
Type of cuts	I bevel to 45gr
Power units	42 / 110 / 220 VAC
Speed gearbox	single cone drive step less
Weight	9.5 kg incl. torch set
Rail	Length 1,800 mm

Scope of delivery  
Machine body with torch set  
Cutting nozzles (102HC or 106HC, size #0, 1, 2)  
Power cable  
Standard tool set  
Operation manual

## **Case Study: IK-12 Beetle**

**The KOIKE Original  
vs.  
Copy product**

# Drive System The drive wheel

## Original KOIKE

- Properly designed and processed grooves.
- High-quality hardened steel made.



## Copy

- Smooth grooves; less traction.



# Drive System – Single Cone Drive System

## Original KOIKE

- High quality Bakelite. Well compressed.
- Very robust material against frictional wear.
- Promises long life time of IK-12 Beetle.



## Copy

- Made of Cork-like material.
- Particles are visible --- not highly compressed.
- Durability is questionable.



# Drive System – Primary Gear

## Original KOIKE

- Made of high quality Bakelite, a strong material against frictional wear.



## Copy

- Made of plastic-like resin.
- Not a suitable material for this purpose.



# Drive System - Clutch

## Original KOIKE

- Proper size for smooth clutching.
- Molybdenum grease; perfect smooth lubricant under heating environment.



## Copy

- Small size, very narrow radius.
- Un-even and very sticky grease, resulted in less smooth clutch movement.

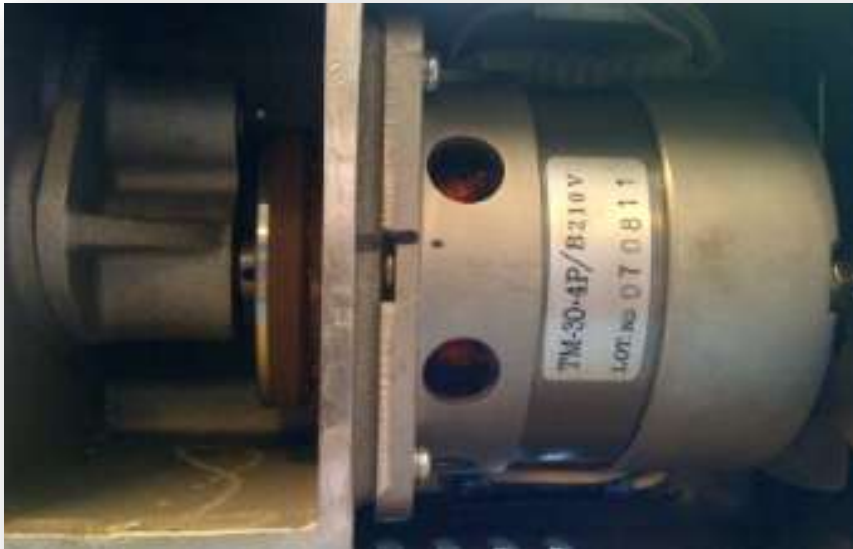




# Drive System – Motor

## Original KOIKE

- Motor is selected to provide constant power and maximize cooling efficiency.



## Copy

- Completely sealed.
- Cooling efficiency is doubtful.



# Drive System – Cooling fan

## Original KOIKE

- Made of steel for durability under heavy-duty and high-heat environment.



## Copy

- Made of plastic.



# Wiring - Switch

## Original KOIKE

- Soldered
- Wired clean and neatly



## Copy

- Twisted & Screwed
- No measures against loosening, such as use of spring washer.



# Wiring - General

## Original KOIKE

- Use of terminal for safety and easy maintenance
- Clean and neat



## Copy

- Twisted and soldered, isolated only by heat shrink tube → dangerous if tube breaks.
- Wires are not organized.



# Cutting System – Hoses

## Original KOIKE

- ISO 3821 certified Oxy-fuel cutting hose.



## Copy

- No marking.
- Not suitable for sale in many countries.



# Torch system

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## Original KOIKE

- Koike's high standard quality torch.
- Up/Down knobs and racks are built for smooth feed during cutting.



## Copy

- Un-even up/down feed.
- No mark on the dial.



# Quality control certifications

## Original KOIKE

- Koike products are designed according to standards and produced in quality certified factories.

## Copy

- Could not confirm.



# The biggest difference – Cutting Quality.

- All Koiike cutting machines are designed and built to provide best cutting results and long term durability.
- Every customer's **cutting needs achieved --- at the highest level.**

