Excavator Long Arm Engineered for Extended Reach and Superior Durability

Our Product Introduction

Basic Information

- Place of Origin: Guangdong Province, China
- Brand Name: Kaiping Zhonghe Machinery Manufacturing Co. Ltd
- Certification: CE, Patents, ISO9001
- Model Number: JCB0012
- Minimum Order Quantity: 1 set / piece
- Price: USD 199.00-USD18999.00
- Packaging Details: Bubble / Wooden Cases / Others As You Request
- Delivery Time: 5-25/works
- Payment Terms: T/T, L/C
- Supply Ability: 5 sets per week

Product Specification

- Material: Q355B Or Q690D Or As You Request
- Length(m): 10m - 35ton
- Bucket Capacity(cbm): 0.25cbm - 4cbm
- Color: Red, Yellow, Blue White Customized
- Digging Depth(m): 8m 10m 12m 14m 16m 18m 20m
- Technicial Support: YES

More Images




Our Product Introduction

Product Description

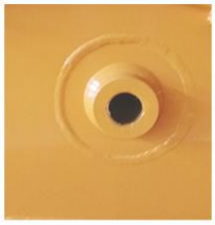
Key Features and Structural Design
The excavator long arm, also known as a boom extension or long-reach attachment, is a specialized modification designed to significantly expand the operational envelope of a standard excavator. By replacing or extending the original boom and stick, these attachments allow machinery to achieve working radii ranging from 10 meters to over 40 meters, depending on the configuration. The design typically utilizes high-strength low-alloy (HSLA) steels, such as WELDOX, to maintain structural integrity while managing weight.

	* Dredging * River Project
	* Carry Grab for Grabbing Wood * Long Reach

The structural configurations are generally categorized into three types based on application requirements:
Two-Stage: This is the most common modification for deep excavation. It consists of an extended boom and a longer stick. It is primarily used for slope finishing, deep foundation pit excavation, and river dredging where horizontal reach and depth are critical.
Three-Stage: Often referred to as a "Demolition Arm," this configuration includes an additional articulation point (a middle arm). This allows for greater vertical reach, making it ideal for high-rise building dismantling (up to 30 meters). It often features a fixed or hydraulic angle adjustment for the bucket or breaker.
Sliding/Telescopic Arm: Designed for vertical precision, this type allows the arm to extend and retract telescopically. It is frequently used with a clamshell bucket for deep, narrow shafts or caisson excavation, minimizing the footprint of the operation.

Three Layers with Four Passes Welding

Strong weldings ensure the boom end not easy cracking.



Perfect Middle Sleeve

The middle sleeve of big boom is processed as a whole, which is more firm and beautiful

Reinforcement of stress-bearing parts

Prolonger the service life-span & Not easy cracking

Premium Cylinder

Using high quality cylinder ensure no oil leakage and longer service life-span

Seamless Pipeline

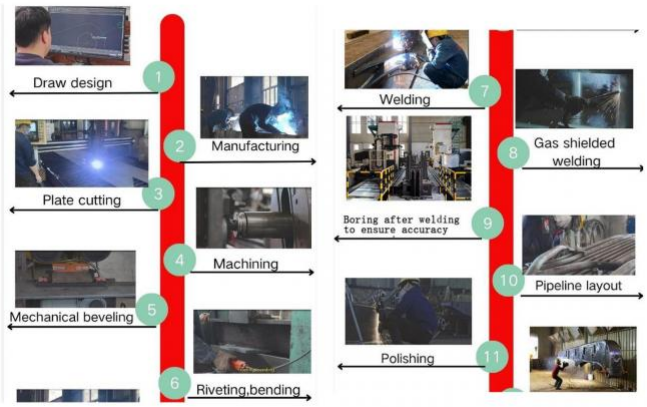
Can bear huge stress and no oil leakage

Centralized lubrication system

Easy for later maintenance

Manufacturing Process and Production Details
The production of a long arm is a precision engineering task that goes far beyond simple welding. It requires advanced Computer-Aided Design (CAD) and Finite Element Analysis (FEA) to simulate stress distribution and prevent structural failure under load.
Material Selection and Cutting
The manufacturing process begins with the selection of high-tensile steel plates (often 10-12mm thick for the main plates). Modern manufacturing utilizes CNC plasma cutting machines to ensure that the complex geometries of the side plates and internal reinforcement ribs are cut with millimeter precision. This precision is crucial for the proper fit-up of internal components.
Welding and Assembly
The assembly phase involves robotic or skilled manual welding. To ensure durability, manufacturers employ submerged arc welding or CO2 shielded arc welding for the main seams. The internal structure is reinforced with buffer plates and box-section designs to resist torsional forces.
Machining and Finishing
Once the main structure is welded, the boom undergoes stress-relief treatment (often vibration aging) to eliminate internal stresses caused by welding heat. The pin holes (bore holes) are then precision-bored using large horizontal boring mills to ensure perfect alignment with the excavator's hydraulic cylinders and linkage. Finally, the unit undergoes shot blasting to remove rust and mill scale, followed by the application of anti-corrosive primer and topcoat.

Our production steps



Our production steps

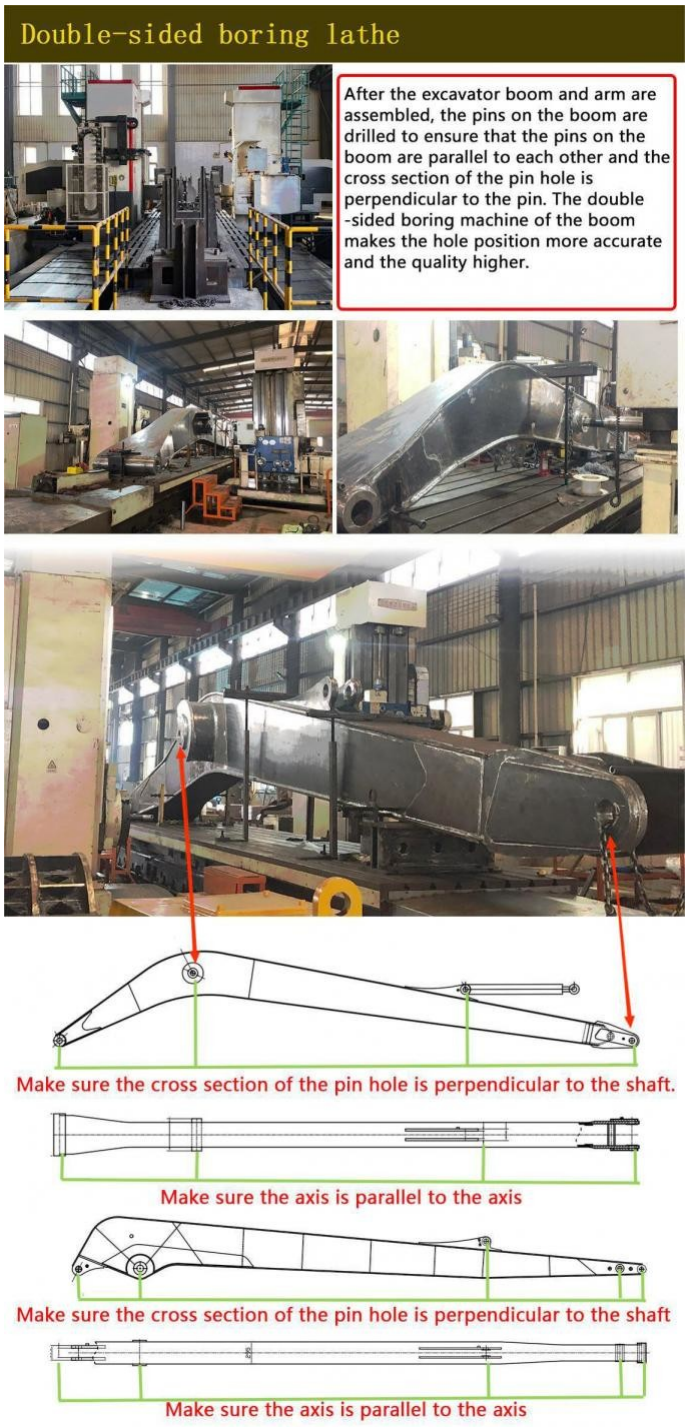
我们的生产流程比较明确，每一步都很严格!
主要分为三个制度。
1. 技术设计图审查机制，
2. 半成品审查机制，
（每道工序都有上一道工序的检测）
3. 成品检测。
（喷漆前进行整体检查，检查设计尺寸与焊接尺寸是否匹配，安装尺寸是否符合设计要求。）

综上所述，众合的每一件产品都经过了以上三级检查制度，确保合格后才能出货。

Our production process is relatively clear, and every step is very strict!
It is mainly divided into three systems.

1. The technical design drawing review mechanism.
2. The semi-finished product review mechanism.
(Each process has the inspection of the previous process)
3. The finished product inspection.
(Before painting, conduct an overall inspection to check whether the design size matches the welding size, and whether the installation size meets the design requirements.)

In summary, every product of Zhonghe has passed the above three-level inspection system to ensure that it can be shipped only after it is qualified.



Frequently Asked Questions (FAQ)

Q1: What are the maintenance requirements for a long arm?
A: Maintenance is critical due to the high stress on the extended structure.
Lubrication: Greasing the pins and bushings is vital. It is recommended to inject grease at least twice daily. If working in muddy or submerged conditions, the pins should be cleaned before greasing to prevent abrasive wear.
Inspection: Regular checks for cracks in the welds, especially near the root and toe of the welds, are necessary. Any signs of structural fatigue should be addressed immediately.
Q2: What is the typical lead time for manufacturing a long arm?
A: Depending on the complexity (2-stage vs. 3-stage) and the specific tonnage, the manufacturing process usually takes between 15 to 30 days. This includes the time required for design simulation, material procurement, welding, machining, and painting.

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