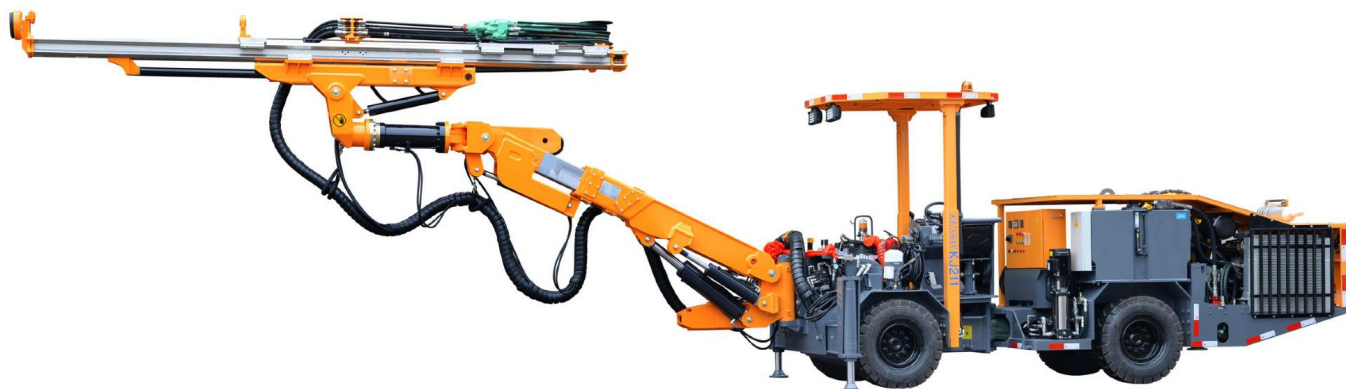


## KJ211 Hydraulic Tunneling Drilling Rig



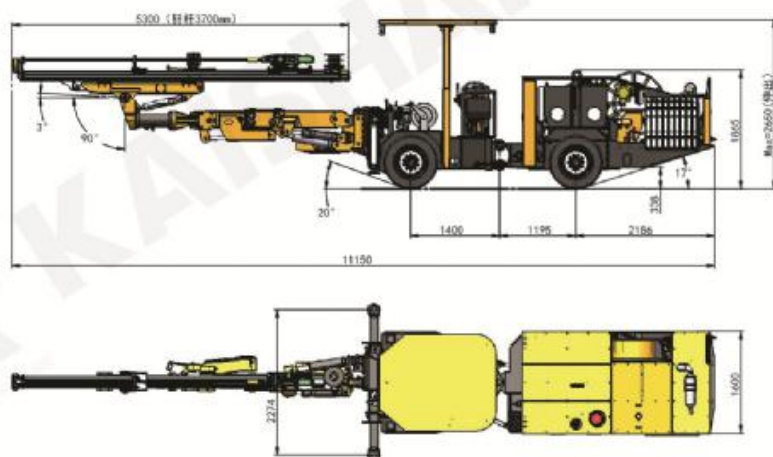
## KJ211型全液压掘进钻车 / KJ211 Hydraulic Tunneling Drilling Rig

### 用途及特点 / Application and Features

KJ211型全液压掘进钻车用于采矿准备工作和隧道掘进，是独立作业的液压凿岩台车，可以钻凿垂直、倾斜和水平的炮孔；适用于7-35m<sup>2</sup>断面的硬岩掘进作业。

KJ211 hydraulic tunneling drilling rig used for mining preparations and tunneling, it is an independent working drill rig. It can be used for drilling vertical, inclined and horizontal blast hole, suitable for the hard-rock of any section in the range of 7-35m<sup>2</sup>.

- 坚固可靠的方向大臂具有最佳断面覆盖形状，推进梁360° 翻转和自动持平便于快速方便地实现钻孔定位；
- The firm flexible boom is capable of optical coverage of the section, 360° rotation and self-leveling beam make drill positioning easy;
- 大臂同时还可用于侧向开石门和锚杆钻孔作业；
- The boom can also be used for the drilling of lateral cross-cut and rock bolting;
- 钻车布置确保操作手视野良好；
- The drill rig provides a good view for the operator;
- 布置平衡，强劲有力的四轮驱动铰接底盘确保在狭窄巷道中能够灵活，快速，安全行驶；
- Balanced layout and the articulated chassis of four-wheel drive ensure the flexible, fast and safe driving in the narrow tunnel;
- 高频冲击凿岩机采用梯级活塞优化了冲击波传递效率，提高钻进速度，降低钎具消耗并提高设备的完好率；
- The stepped piston is used for the high-frequency impacting rock drill and this can improve the transmission efficiency of impact wave and drilling speed and reduce the consumption of drilling tools and make it in good condition;
- 宽敞的作业空间和一系列自动功能有助于司机集中精力安全、快速、准确地钻进；
- Considerable space and automatic functions enable the driver to concentrate on drilling in a safe, fast and accurate manner;
- 各个维修保养部位均受到良好的保护，同时又易于维护保养；
- All the relevant parts are kept in good protection, meanwhile maintenance easily.



外形尺寸 / Dimensions





## 技术参数 / Technical Parameters

外形尺寸与重量 / Dimensions and weight		风水路系统 / Air & water system			
长度 / Length	11150mm	空压机 / Air compressor	1 × JN4	润滑油量 Oil Consumption of lubrication	180-250g/h
宽度 / Width	1600mm	排量 / Capacity of air compressor	0.5m³/min	水泵 / Water pump	1xCR3   1xCR5
高度 / Height	1850/2650mm	压力 / Pressure	6-8bar	功率 / Power	1.5kW   5.5kW
重量 / Weight	约11000kg / Appr. 11000kg	钎尾润滑装置 Device of shank lubrication	电子脉冲润滑泵 Electronic pulse lubrication pump	水泵排量 Capacity of water pump	3m³/h   6m³/h
行驶速度 (水平) Tramming speed on flat ground	10km/h	润滑油耗气量 Air consumption of lubrication	0.3 m³/min		
最大爬坡能力 Maximum climbing capacity	25% ( 14° )	<b>底盘 / Chassis</b>			
<b>安全防护 / Safety protection</b>		柴油机 Diesel engine	Cummins QSB3.9-C80-31 60KW, 2200rpm	轮胎 / Tires	300-15
噪音水平 / Noise level	< 100dB(A)	尾气净化 Exhaust purification	尾气催化器 / Exhaust catalyst	转向机构 Steering mechanism	± 35° 铰接转向 Articulated steering: ±35°
可升降安全顶棚 Lifting safety roof	符合防滚翻防落石要求 Meet the requirements of FOPS and ROPS	传动系统 Drive system	四轮驱动闭式行走系统 Closed hydraulic system for four-wheel driving	驻车制动 Parking braking	多片式湿式制动器 Wet multidisc brake
		摆动角 Swing angle	后桥摆动 ± 6° Swing of rear axle: ±6°	行走制动 Travelling braking	静液压制动 Hydrostatic braking
				燃油箱 Fuel tank	30L
<b>钻进系统 / Drilling system</b>			<b>电动液压泵站 / Electric hydraulic power unit</b>		
凿岩机 / Rock drill	1 × HC50/R38	1 × HC109/R38	1 × HC95LM/R38	电动机 / Motor	45kW   55kW   75kW
冲击功率 / Impact power	13kW	18.8kW	21kW	冲击 / 推进 / 钻臂 / Impact / Feed / Positioning	轴向变量柱塞泵 Axial variable displacement piston pump
冲击流量 / Impact flow	105L/min	135L/min	100-120L/min	回转 / Rotation	齿轮泵 / Gear pump
冲击压力 / Impact pressure	130bar	135bar	180bar	过滤精度 / Filter fineness	10 μ
最大回转压力 Maximum rotary pressure	150bar	150bar	210bar	液压油箱 / Hydraulic oil tank	240L
频率 / Impact Frequency	62Hz	47Hz	62 Hz	液压冷却器 / Hydraulic cooler	水冷却器 / Water cooler
扭矩 / Torque	325Nm	780Nm	764Nm	工作电压 / Working voltage	380V
孔径 / Hole diameter	Φ32-76mm	Φ42-102mm	Φ42-102mm	频率 / Frequency	50Hz
推进梁翻转 / Beam rotation	360°			启动方式 / Starting method	星-三角 / Star-triangle
推进梁补偿行程 / Feed extension	1600mm			电缆卷盘 / Cable reel	1 × F440
钻臂型号 / Model of drill boom	K 22			卷盘容量 / Length of reel cabling	100m   80m
钻臂形式 / Form of drill boom	自动持平 / Self-leveling			电缆规格 / Cable specifications	3 × 35+3G6+2 × 1.5   3 × 50+3G6+2 × 1.5
钻臂伸缩 / Boom extension	800mm				



## KJ212 Hydraulic Tunneling Drilling Rig



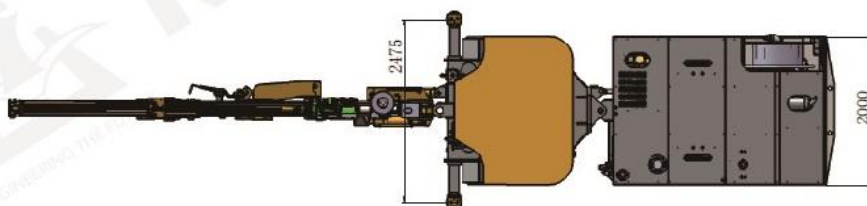
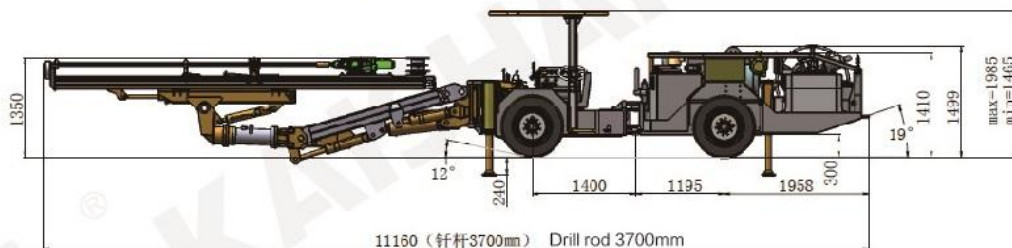
### KJ212型全液压掘进钻车 / KJ212 Hydraulic Tunneling Drilling Rig

#### 用途及特点 / Application and Features

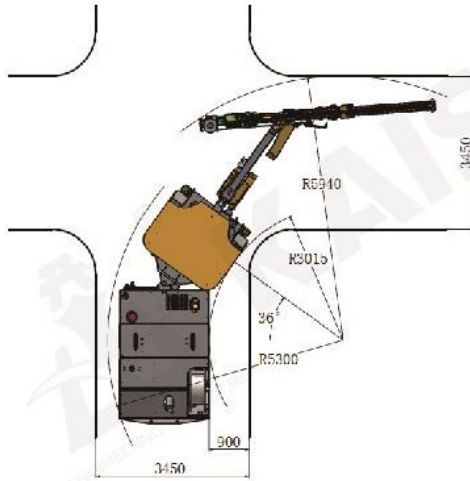
KJ212型全液压掘进钻车可以钻凿垂直、倾斜和水平的炮孔，专为低矮巷道设计，通过断面2.5m\*1.5m，适用于3.5m\*1.8m-5m\*4.8m断面的巷道掘进作业。

KJ212 hydraulic tunneling drilling rig used to drill vertical, inclined and horizontal blast holes in low tunnels. Through the section (2.5m\*1.5m), the drill rig is suitably qualified for any tunnels whose section falls in the range of 3.5m\*1.8m-5m\*4.8m.

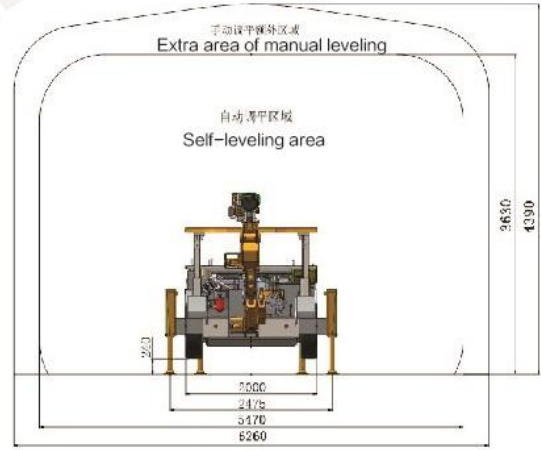
- 坚固可靠的方向大臂具有最佳断面覆盖形状，推进梁360° 翻转和自动持平便于快速方便地实现钻孔定位；
- The firm flexible boom is capable of optical coverage of the section; 360° rotation and self-leveling beam make drill positioning easy;
- 大臂同时还可用于侧向开石门和锚杆钻孔作业；
- The boom can also be used for the drilling of lateral cross-cut and rock bolting;
- 钻车布置确保操作手视野良好；
- The drill rig provides a good view for the operator;
- 布置平衡，强劲有力的四轮驱动铰接底盘确保在狭窄巷道中能够灵活，快速，安全行驶；
- Balanced layout and the articulated chassis of four-wheel drive ensure the flexible, fast and safe driving in the narrow tunnel;
- 高频冲击凿岩机采用梯级活塞优化了冲击波传递效率，提高钻进速度，降低钎具消耗并提高设备的完好率；
- The stepped piston is used for the high-frequency impacting rock drill and this can improve the transmission efficiency of impact wave and drilling speed and reduce the consumption of drilling tools and make it in good condition;
- 宽敞的作业空间和一系列自动功能有助于司机集中精力安全、快速、准确地钻进；
- Considerable space and automatic functions enable the driver to concentrate on drilling in a safe, fast and accurate manner;
- 各个维修保养部位均受到良好的保护，同时又易于维护保养；
- All the relevant parts are kept in good protection, meanwhile maintenance easily.



外形尺寸 / Dimensions



转弯示意 / Turning Diagram



断面示意 / Coverage area

## 技术参数 / Technical Parameters

外形尺寸与重量 / Dimensions and weight		风水路系统 / Air & water system			
长度 / Length	11160mm	空压机 / Air compressor	1 × JN4	润滑油油量 Oil Consumption of lubrication	180-250g/h
宽度 / Width	2000mm	排量 / Capacity of air compressor	0.5m <sup>3</sup> /min	水泵 / Water pump	1 × CR3    1 × CR5
高度 / Height	1465/1985mm	压力 / Pressure	6-8bar	功率 / Power	1.5kW    5.5kW
重量 / Weight	约11000kg / Appr. 11000 kg	钎尾润滑装置 Device of shank lubrication	电子脉冲润滑泵 Electronic pulse lubrication pump	水泵排量 Capacity of water pump	3m <sup>3</sup> /h    6m <sup>3</sup> /h
行驶速度 (水平) Tramming speed on flat ground	10km/h	润滑油耗气量 Air consumption of lubrication	0.3 m <sup>3</sup> /min	<b>底盘 / Chassis</b> 柴油机 / Diesel engine: Cummins QSB3.9-C80-31 60KW, 2200rpm 尾气净化 / Exhaust purification: 尾气催化器 / Exhaust catalyst 传动系统 / Drive system: 四轮驱动闭式行走系统 / Closed hydraulic system for four-wheel driving 摆动角 / Swing angle: 后桥摆动 ±6° / Swing of rear axle: ±6° 轮胎 / Tires: 300-15 转向机构 / Steering mechanism: ±35° 铰接转向 / Articulated steering: ±35° 驻车制动 / Parking braking: 多片式制动器 / Multidisc brake 紧急制动 / Emergency braking 燃油箱 / Fuel tank: 30L	
最大爬坡能力 Maximum climbing capacity	20% ( 11° )	<b>安全防护 / Safety protection</b> 噪音水平 / Noise level: < 100dB(A) 可升降安全顶棚 Lifting safety roof: 符合防滚翻防落石要求 / Meet the requirements of FOPS and ROPS			
<b>钻进系统 / Drilling system</b>		<b>电动液压泵站 / Electric hydraulic power unit</b>			
凿岩机 / Rock drill	1 × HC50/R38    1 × HC109/R38    1 × HC95LM/R38	电动机 / Motor	45kW    55kW    75kW	轴向变量柱塞泵 Axial variable displacement piston pump	
冲击功率 / Impact power	13kW    18.8kW    21kW	冲击/推进/钻臂 / Impact / Feed / Positioning	回转 / Rotation: 齿轮泵 / Gear pump		
冲击流量 / Impact flow	105L/min    135L/min    100-120L/min	过滤精度 / Filter fineness	10 μ		
冲击压力 / Impact pressure	130bar    135bar    180bar	液压油箱 / Hydraulic oil tank	240L		
最大回转压力 / Maximum rotary pressure	150bar    150bar    210bar	液压冷却器 / Hydraulic cooler	水冷冷却器 / Water cooler		
频率 / Impact Frequency	62Hz    47Hz    62 Hz	工作电压 / Working voltage	380V		
扭矩 / Torque	325Nm    780Nm    764Nm	频率 / Frequency	50Hz		
孔径 / Hole diameter	Φ32-76mm    Φ42-102mm    Φ42-102mm	启动方式 / Starting method	星-三角 / Star-triangle		
推进梁翻转 / Beam rotation	360°		电缆卷盘 / Cable reel	1 × F440	
推进梁补偿行程 / Feed extension	1600mm		卷盘容量 / Length of reel cabling	100m	80m
钻臂型号 / Model of drill boom	K 20		电缆规格 / Cable specifications	3 × 35+3G6+2 × 1.5	3 × 50+3G6+2 × 1.5
钻臂形式 / Form of drill boom	自动持平 / Self-leveling				
钻臂伸缩 (选配) / Boom extension (optional)	1200mm				



## KJ310 Hydraulic Tunneling Drilling Rig



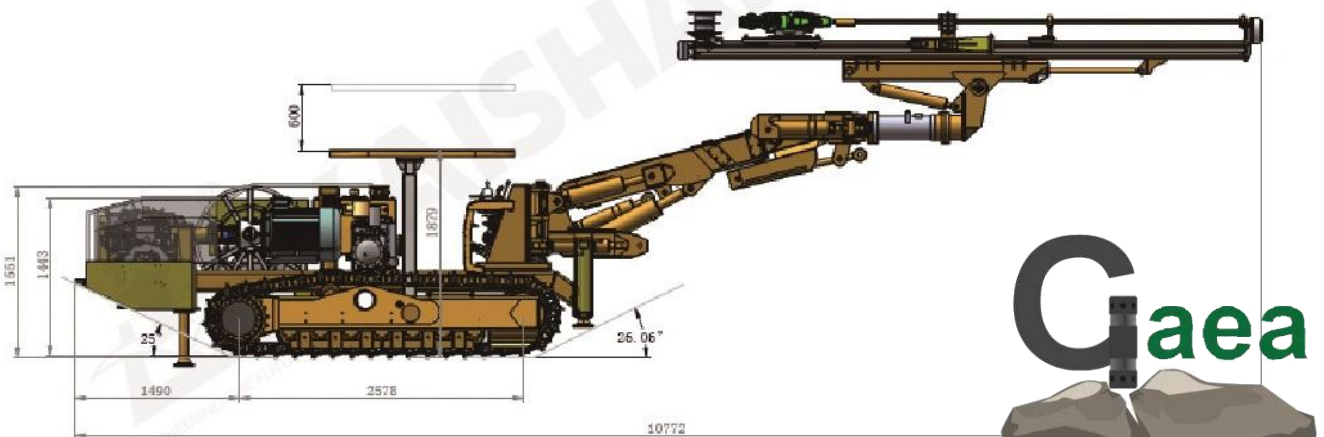
### KJ310型全液压掘进钻车 / KJ310 Hydraulic Tunneling Drilling Rig

#### 用途及特点 / Application and Features

KJ310型全液压掘进钻车专为大坡度斜巷而设计，最大适用坡度25°，可适用于12-35m<sup>2</sup>断面的硬岩矿山掘进作业。

KJ310 hydraulic tunneling drilling rig is specially designed for the extremely inclined tunnel, with the maximum slope standing at 25°. It is suitably qualified for the drilling of hard rock mine whose section falls in the range of 12-35 square meters.

- 坚固可靠的方向大臂具有最佳断面覆盖形状，推进梁360° 翻转和自动持平便于快速方便地实现钻孔定位；钻臂同时还可用于侧向开石门和锚杆钻孔作业；
- The firm flexible boom is capable of optimal coverage of the section; 360° rotation and self-leveling boom make drill positioning easy; The boom can also be used for the drilling of lateral cross-cut and rock bolting;
- 钻车的推进梁平移、终孔自动停推冲、孔底吹渣、电子脉冲润滑等功能，减少操作，提高工作效率；
- The drill rig is capable of the advancing beam's translation, automatic suspension of drilling of end hole, slag blowing at the hole bottom and electronic impulse lubrication, thus leading to few operations and improve drilling efficiency;
- 高频冲击凿岩机采用梯级活塞优化了冲击波传递效率，提高钻进速度，降低钎具消耗并提高设备的完好率；
- The stepped piston is used for the high-frequency impacting rock drill and this can improve the transmission efficiency of impact wave and drilling speed and reduce the consumption of drilling tools and make it in good condition;
- 宽敞的作业空间和一系列自动功能有助于司机集中精力安全、快速、准确地钻进；
- Considerable space and automatic functions enable the driver to concentrate on drilling in a safe, fast and accurate manner;
- 钻车布置确保司机视野良好，各个维修保养部位均受到良好的保护，同时又易于维护保养；
- The drill rig provides a good view for the operator; All the relevant parts are kept in good protection, meanwhile maintenance easily.



外形尺寸 / Dimensions



断面示意 / Coverage area

## 技术参数 / Technical Parameters

外形尺寸与重量 / Dimensions and weight		风水路系统 / Air & water system			
长度 / Length	10700mm	空压机 / Air compressor	1 × JN4	润滑油油量 Oil Consumption of lubrication	180-250g/h
宽度 / Width	1650mm	排量 / Capacity of air compressor	0.5m³/min	水泵 / Water pump	1xCR3   1xCR5
高度 / Height	1900/2500 mm	压力 / Pressure	6-8bar	功率 / Power	1.5kW   5.5kW
重量 / Weight	约12000 kg / Appr. 12000 kg	钎尾润滑装置 Device of shank lubrication	电子脉冲润滑泵 Electronic pulse lubrication pump	水泵排量 Capacity of water pump	3m³/h   6m³/h
行驶速度 (水平) Tramming speed on flat ground	2.5km/h	润滑耗气量 Air consumption of lubrication	0.3 m³/min		
最大爬坡能力 Maximum climbing capacity	25°				
安全防护 / Safety protection		底盘 / Chassis			
噪音水平 / Noise level	< 100dB(A)	柴油机 Diesel engine	Cummins QSB3.9-C80-31/ 60KW/2200rpm	驻车制动 Parking braking	多盘湿式制动器 Wet multidisc brake
可升降安全顶棚 Lifting safety roof	符合防滚翻防落石要求 Meet the requirements of FOPS and ROPS	尾气净化 Exhaust purification	尾气催化器 / Exhaust catalyst	行走制动 Travelling braking	多盘湿式制动器 Wet multidisc brake
		传动系统 Drive system	双速马达驱动履带行走 Track travelling driven by double-speed motor	燃油箱 / Fuel tank	60L
钻进系统 / Drilling system			电动液压泵站 / Electric hydraulic power unit		
凿岩机 / Rock drill	1 × HC50/R38	1 × HC109/R38	1 × HC95LM/R38	电动机 / Motor	45kW   55kW   75kW
冲击功率 / Impact power	13kW	18.8kW	21kW	冲击 / 推进 / 钻臂 / Impact / Feed / Positioning	轴向变量柱塞泵 Axial variable displacement piston pump
冲击流量 / Impact flow	105L/min	135L/min	100-120L/min	回转 / Rotation	齿轮泵 / Gear pump
冲击压力 / Impact pressure	130bar	135bar	180bar	过滤精度 / Filter fineness	10 μ
最大回转压力 / Maximum rotary pressure	150bar	150bar	210bar	液压油箱 / Hydraulic oil tank	240L
频率 / Impact Frequency	62 Hz	47Hz	62 Hz	液压冷却器 / Hydraulic cooler	水冷却器 / Water cooler
扭矩 / Torque	325Nm	780Nm	764Nm	工作电压 / Working voltage	380V
孔径 / Hole diameter	Φ32-76mm	Φ42-102mm	Φ42-102mm	频率 / Frequency	50Hz
推进梁翻转 / Beam rotation		360°		启动方式 / Starting method	星-三角 / Star-triangle
推进梁补偿行程 / Feed extension		1600mm		电缆卷盘 / Cable reel	1 × F440
钻臂型号 / Model of drill boom		K 26F		卷盘容量 / Length of reel cabling	100m   80m
钻臂形式 / Form of drill boom		自动持平 / Self-leveling		电缆规格 / Cable specifications	3 × 35+3G6   3 × 50+3G6
钻臂伸缩 / Boom extension		1200mm			



## KJ311 Hydraulic Tunneling Drilling Rig



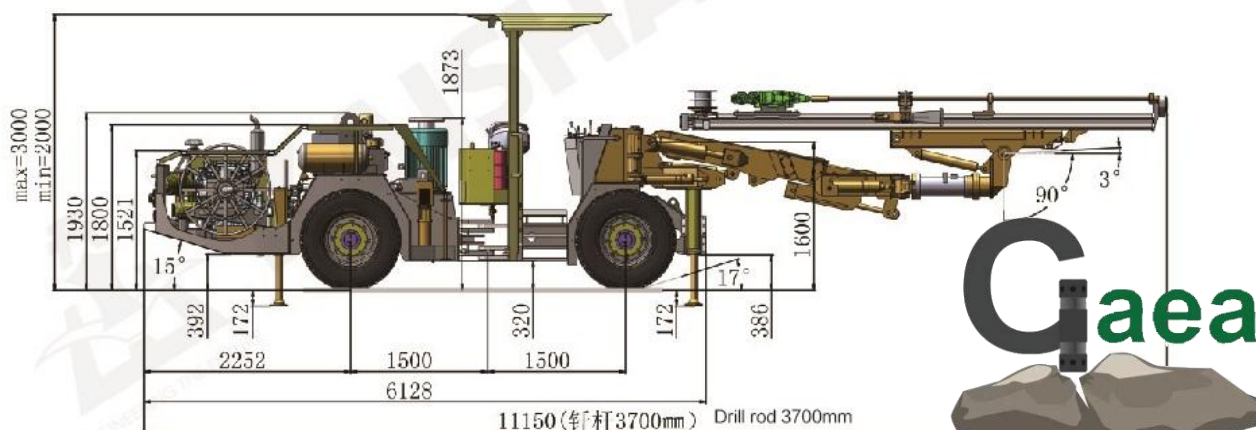
### KJ311型全液压掘进钻车 / KJ311 Hydraulic Tunneling Drilling Rig

#### 用途及特点 / Application and Features

KJ311型全液压掘进钻车适用于12-35m<sup>2</sup>断面的硬岩矿山掘进作业。

KJ311 hydraulic tunneling drilling rig is suitably qualified for the drilling of hard rock mine whose section falls in the range of 12-35 square meters.

- 坚固的方向大臂具有最佳断面覆盖形状，推进梁360° 翻转和自动持平便于快速方便地实现钻孔定位；钻臂同时还可用于侧向开石门和锚杆钻孔作业；
- The firm flexible boom is capable of optical coverage of the section; 360° rotation and self-leveling beam make drill positioning easy; It can also be used for the drilling of lateral cross-cut and rock bolt;
- 钻车布置确保司机视野良好；布置平衡，强劲有力的四轮驱动铰接底盘确保在狭窄巷道中能够灵活，快速，安全行驶；
- The drill rig provides a good view for the operator; balanced layout and the articulated chassis of four-wheel drive ensure the flexible, fast and safe driving in the narrow tunnel;
- 高频冲击凿岩机采用梯级活塞优化了冲击波传递效率，提高钻进速度，降低钎具消耗并提高设备的完好率；
- The stepped piston is used for the high-frequency impacting rock drill and this can improve the transmission efficiency of impact wave and drilling speed and reduce the consumption of drilling tools and make it in good condition;
- 宽敞的作业空间和一系列自动功能有助于司机集中精力安全、快速、准确地钻进；
- Considerable space and automatic functions enable the driver to concentrate on drilling in a safe, fast and accurate manner;
- 各个维修保养部位均受到良好的保护，同时又易于维护保养；
- All the relevant parts are kept in good protection, meanwhile maintenance easily.



外形尺寸 / Dimensions



**技术参数 / Technical Parameters**

外形尺寸与重量 / Dimensions and weight		风水路系统 / Air & water system			
长度 / Length	11300mm	空压机 / Air compressor	1 × JN4	润滑油耗油量 / Oil Consumption of lubrication	180-250g/h
宽度 / Width	1750mm	排量 / Capacity of air compressor	0.5m <sup>3</sup> /min	水泵 / Water pump	1 × CR3   1 × CR5
高度 / Height	2000/3000 mm	压力 / Pressure	6-8bar	功率 / Power	1.5kW   5.5kW
重量 / Weight	约12000 kg / Appr. 12000 kg	钎尾润滑装置 / Device of shank lubrication	电子脉冲润滑泵 / Electronic pulse lubrication pump	水泵排量 / Capacity of water pump	3m <sup>3</sup> /h   6m <sup>3</sup> /h
行驶速度 (水平) / Traming speed on flat ground	10km/h	润滑油耗气量 / Air consumption of lubrication	0.3 m <sup>3</sup> /min	<b>底盘 / Chassis</b>	
最大爬坡能力 / Maximum climbing capacity	25% (14°)	柴油发动机 / Diesel engine	Cummins QSB3.9-C80-31 60KW, 2200rpm		
<b>安全防护 / Safety protection</b>		尾气净化 / Exhaust purification	尾气催化器 / Exhaust catalyst	轮胎 / Tires	11.00-20
噪声水平 / Noise level	< 100dB(A)	传动系统 / Drive system	四轮驱动闭式行走系统 / Closed hydraulic system for four-wheel driving	转向机构 / Steering mechanism	±40° 铰接转向 / Articulated steering: ±40°
可升降安全顶棚 / Lifting safety roof	符合防滚翻防落石要求 / Meet the requirements of FOPS and ROPS	摆动角 / Swing angle	后桥摆动 ±10° / Swing of rear axle: ±10°	行走制动 / Travelling braking	双回路液压制动器 / Two-circuit hydraulic brake
				驻车制动 / Parking braking	减速器多盘湿式制动器 / Wet multidisc brake of reducer
				燃油箱 / Fuel tank	60L
<b>钻进系统 / Drilling system</b>			<b>电动液压泵站 / Electric hydraulic power unit</b>		
凿岩机 / Rock drill	1 × HC50/R38	1 × HC109/R38	1 × HC95LM/R38	电动机 / Motor	45kW   55kW   75kW
冲击功率 / Impact power	13kW	18.8kW	21kW	冲击/推进/钻臂 / Impact / Feed / Positioning	轴向变量柱塞泵 / Axial variable displacement piston pump
冲击流量 / Impact flow	105L/min	135L/min	100-120L/min	回转 / Rotation	齿轮泵 / Gear pump
冲击压力 / Impact pressure	130bar	135bar	180-200bar	过滤精度 / Filter fineness	10 μ
最大回转压力 / Maximum rotary pressure	150bar	150bar	210bar	液压油箱 / Hydraulic oil tank	240L
频率 / Impact Frequency	62 Hz	47Hz	62 Hz	液压冷却器 / Hydraulic cooler	水冷冷却器 / Water cooler
扭矩 / Torque	325Nm	780Nm	764Nm	工作电压 / Working voltage	380V
孔径 / Hole diameter	Φ32-76mm	Φ42-102mm	Φ42-102mm	频率 / Frequency	50Hz
推进梁翻转 / Beam rotation	360°			启动方式 / Starting method	星-三角 / Star-triangle
推进梁补偿行程 / Feed extension	1600mm			电缆卷盘 / Cable reel	1 × F440
钻臂型号 / Model of drill boom	K 26F			卷盘容量 / Length of reel cabling	100m   80m
钻臂形式 / Form of drill boom	自动持平 / Self-leveling			电缆规格 / Cable specifications	3 × 35+3G6   3 × 50+3G6
钻臂伸缩 / Boom extension	1200mm				





## KJ311 Hydraulic Tunneling Drilling Rig (plateau type)



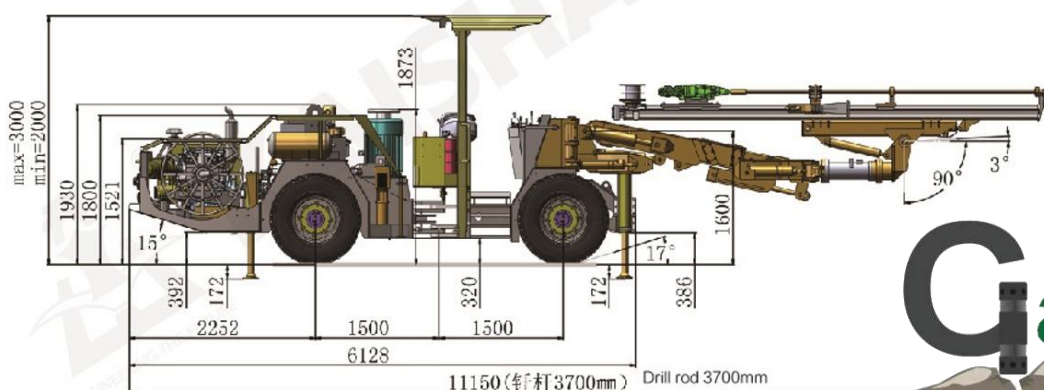
### KJ311型全液压掘进钻车(高原型) / KJ311 Hydraulic Tunneling Drilling Rig (Plateau Type)

#### 用途及特点 / Application and Features

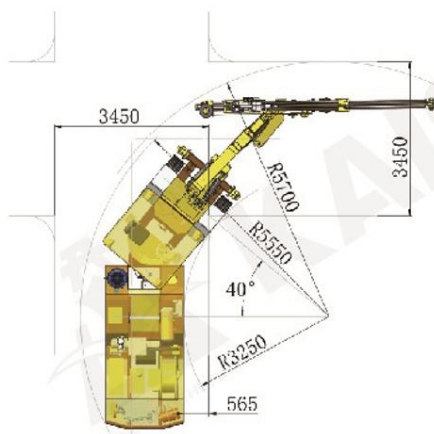
KJ311型全液压掘进钻车(高原型) 专为高海拔地区施工而设计, 适用于12-35m<sup>2</sup>断面的硬岩矿山掘进作业。

KJ311 Hydraulic Tunneling Drilling Rig (Plateau Type) is designed for high altitude construction, It is suitably qualified for the drilling of hard rock mine whose section falls in the range of 12-35 square meters.

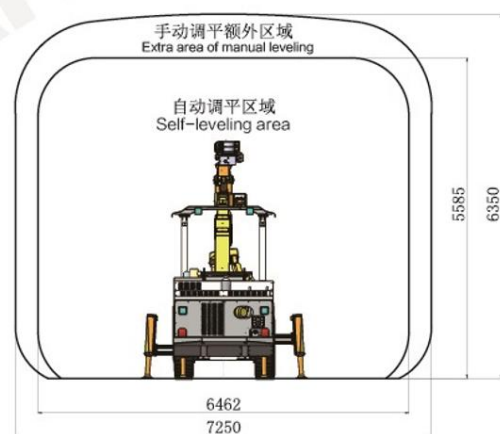
- 坚固的定向大臂具有最佳断面覆盖形状, 推进梁360° 翻转和自动持平便于快速方便地实现钻孔定位; 钻臂同时还可用于侧向开石门和锚杆钻孔作业;
- The firm flexible boom is capable of optical coverage of the section; 360° rotation and self-leveling beam make drill positioning easy; It can also be used for the drilling of lateral cross-cut and rock bolt;
- 钻车布置确保司机视野良好; 布置平衡, 强劲有力的四轮驱动铰接底盘确保在狭窄巷道中能够灵活, 快速, 安全行驶;
- The drill rig provides a good view for the operator; balanced layout and the articulated chassis of four-wheel drive ensure the flexible, fast and safe driving in the narrow tunnel;
- 高频冲击凿岩机采用梯级活塞优化了冲击波传递效率, 提高钻进速度, 降低钎具消耗并提高设备的完好率;
- The stepped piston is used for the high-frequency impacting rock drill and this can improve the transmission efficiency of impact wave and drilling speed and reduce the consumption of drilling tools and make it in good condition;
- 宽敞的作业空间和一系列自动功能有助于司机集中精力安全、快速、准确地钻进;
- Considerable space and automatic functions enable the driver to concentrate on drilling in a safe, fast and accurate manner;
- 各个维修保养部位均受到良好的保护, 同时又易于维护保养;
- All the relevant parts are kept in good protection, meanwhile maintenance easily.



外形尺寸 / Dimensions



转弯示意 / Turning Diagram



断面示意 / Coverage area

### 技术参数 / Technical Parameters

外形尺寸与重量 / Dimensions and weight		风水路系统 / Air & water system			
长度 / Length	11300mm	空压机 / Air compressor	1 × JN4	润滑油耗油量 Oil Consumption of lubrication	180-250g/h
宽度 / Width	1750mm	排量 / Capacity of air compressor	0.5m³/min	水泵 / Water pump	1×CR3 1×CR5
高度 / Height	2000/3000 mm	压力 / Pressure	6-8bar	功率 / Power	1.5kW 5.5kW
重量 / Weight	约12000 kg / Appr. 12000 kg	钎尾润滑装置 Device of shank lubrication	电子脉冲润滑油泵 Electronic pulse lubrication pump	水泵排量 Capacity of water pump	3m³/h 6m³/h
行驶速度 (水平) Tramming speed on flat ground	10km/h	润消耗气量 Air consumption of lubrication	0.3 m³/min	底盘 / Chassis	
最大爬坡能力 Maximum climbing capacity	25%(14°)	柴油机 Diesel engine	Cummins QSB3.9-C125 / 93kW/2200rpm		
安全防护 / Safety protection		尾气净化 Exhaust purification	尾气催化器 / Exhaust catalyst	转向机构 Steering mechanism	±40° 铰接转向 Articulated steering: ±40°
噪音水平 / Noise level	< 100dB(A)	传动系统 Drive system	四轮驱动闭式行走系统 Closed hydraulic system for four-wheel driving	行走制动 Travelling braking	双回路液压制动器 Two-circuit hydraulic brake
可升降安全顶棚 Lifting safety roof	符合翻滚防落石要求 Meet the requirements of FOPS and ROPS	摆动角 Swing angle	后桥摆动 ±10° Swing of rear axle: ±10°	驻车制动 Parking braking	减速器多盘湿式制动器 Wet multidisc brake of reducer
				燃油箱 Fuel tank	60L
钻进系统 / Drilling system				电动液压泵站 / Electric hydraulic power unit	
凿岩机 / Rock drill	1 × HC50/R38	1 × HC109/R38	1 × HC95LM/R38	电动机(高原型) / Motor (Plateau type)	55kW 75kW
冲击功率 / Impact power	13kW	18.8kW	21kW	冲击/推进/钻臂 / Impact / Feed / Positioning	轴向变量柱塞泵 Axial variable displacement piston pump
冲击流量 / Impact flow	105L/min	135L/min	100-120L/min	回转 / Rotation	齿轮泵 / Gear pump
冲击压力 / Impact pressure	130bar	135bar	180-200bar	过滤精度 / Filter fineness	10 μ
最大回转压力 / Maximum rotary pressure	150bar	150bar	210bar	液压油箱 / Hydraulic oil tank	240L
频率 / Impact Frequency	62 Hz	47Hz	62 Hz	液压冷却器 / Hydraulic cooler	水冷却器 / Water cooler
扭矩 / Torque	325Nm	780Nm	764Nm	工作电压 / Working voltage	380V
孔径 / Hole diameter	Φ32-76mm	Φ42-102mm	Φ42-102mm	频率 / Frequency	50Hz
推进梁翻转 / Beam rotation	360°			启动方式 / Starting method	星-三角 / Star-triangle
推进梁补偿行程 / Feed extension	1600mm			电缆卷盘 / Cable reel	1 × F440
钻臂型号 / Model of drill boom	K 26F			卷盘容量 / Length of reel cabling	100m 80m
钻臂形式 / Form of drill boom	自动持平 / Self-leveling			电缆规格 / Cable specifications	3 × 35+3G6 3 × 50+3G6
钻臂伸缩 / Boom extension	1200mm				



## KJ311 Hydraulic Tunneling Drilling Rig (increase height type)



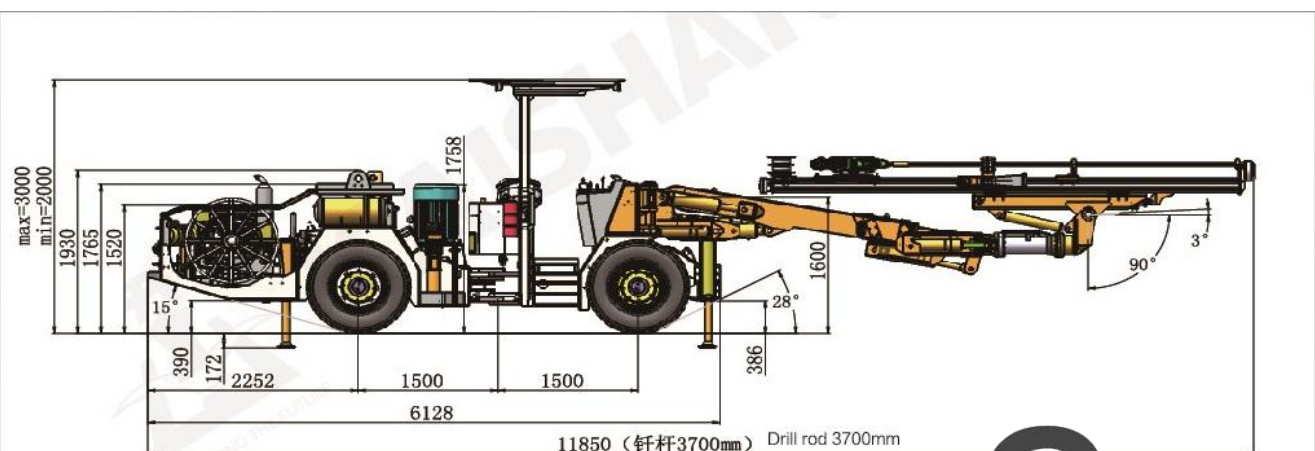
### KJ311型全液压掘进钻车(增高型) / KJ311 Hydraulic Tunneling Drilling Rig (Increase Height Type)

#### 用途及特点 / Application and Features

KJ311型全液压掘进钻车（增高型）适用于12-44m<sup>2</sup>断面的硬岩矿山掘进作业。专为大型巷道而设计，最高水平高度可达7.4米，宽度可达7.6米。

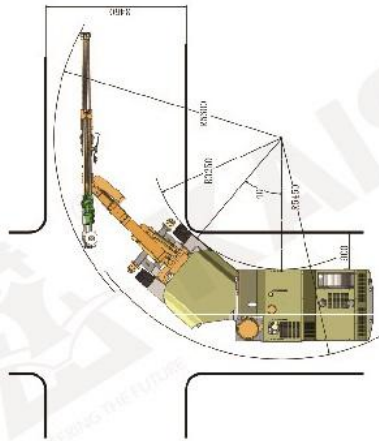
KJ311 hydraulic tunneling drilling rig (increase height type) is suitably qualified for the drilling of hard rock mine whose section falls in the range of 12-44 square meters. It is specially designed for large tunnels and its maximum horizontal height and width can reach 7.4 meters and 7.6 meters respectively.

- 坚固的方向大臂具有最佳断面覆盖形状，推进梁360° 翻转和自动持平便于快速方便地实现钻孔定位；钻臂同时还可用于侧向开石门和锚杆钻孔作业；
- The firm flexible boom is capable of optical coverage of the section; 360° rotation and self-leveling beam make drill positioning easy; The arm can also be used for the drilling of lateral cross-cut and rock bolting;
- 钻车布置确保司机视野良好；布置平衡，强劲有力的四轮驱动铰接底盘确保在狭窄巷道中能够灵活，快速，安全行驶；
- The drilling rig provides a good view for the operator; balanced layout and the articulated chassis of four-wheel drive ensure the flexible, fast and safe driving in the narrow tunnel;
- 高频冲击凿岩机采用梯级活塞优化了冲击波传递效率，提高钻进速度，降低钎具消耗并提高设备的完好率；
- The stepped piston is used for the high-frequency impacting rock drill and this can improve the transmission efficiency of impact wave and drilling speed and reduce the consumption of drilling tools and make it in good condition;
- 宽敞的作业空间和一系列自动功能有助于司机集中精力安全、快速、准确地钻进；
- Considerable space and automatic functions enable the driver to concentrate on drilling in a safe, fast and accurate manner;
- 各个维修保养部位均受到良好的保护，同时又易于维护保养；
- All the relevant parts are kept in good protection, meanwhile maintenance easily.

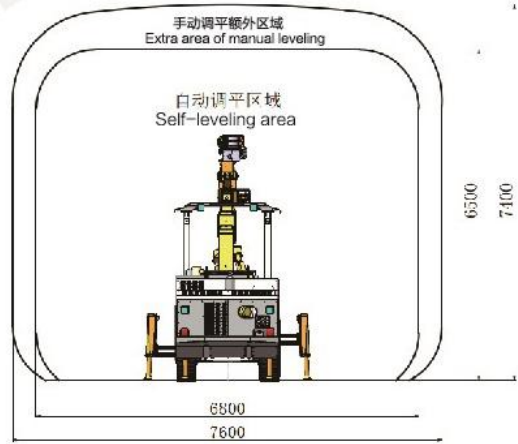


外形尺寸 / Dimensions





转弯示意 / Turning Diagram



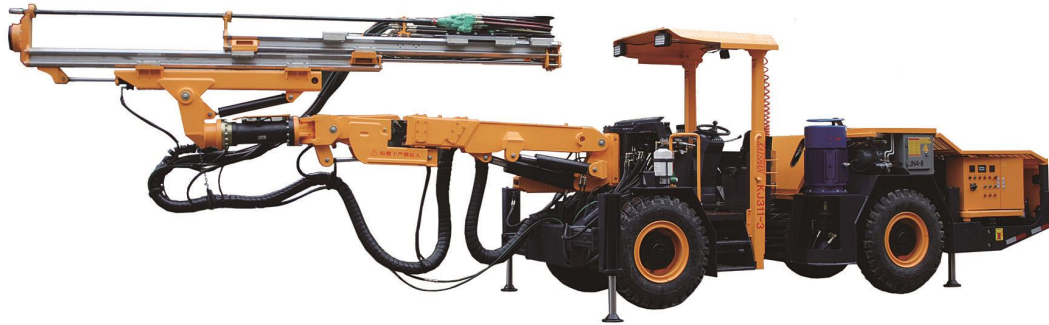
断面示意 / Coverage area

### 技术参数 / Technical Parameters

外形尺寸与重量 / Dimensions and weight		风水路系统 / Air & water system			
长度 / Length	12000mm	空压机 / Air compressor	1 × JN4	润滑油油量 Oil Consumption of lubrication	180-250g/h
宽度 / Width	1750mm	排量 / Capacity of air compressor	0.5m³/min	水泵 / Water pump	1xCR3 1xCR5
高度 / Height	2000/3000 mm	压力 / Pressure	6-8bar	功率 / Power	1.5kW 5.5kW
重量 / Weight	约12000 kg / Appr. 12000 kg	钎尾润滑装置 Device of shank lubrication	电子脉冲润滑泵 Electronic pulse lubrication pump	水泵排量 Capacity of water pump	3m³/h 6m³/h
行驶速度 (水平) Tramming speed on flat ground	10km/h	润滑耗气量 Air consumption of lubrication	0.3 m³/min		
最大爬坡能力 Maximum climbing capacity	25%(14°)	<b>底盘 / Chassis</b>			
<b>安全防护 / Safety protection</b>		柴油机 Diesel engine	Cummins QSB3.9-C80-31 60KW, 2200rpm	轮胎 / Tires	11.00-20
噪音水平 / Noise level	< 100dB(A)	尾气净化 Exhaust purification	尾气催化器 / Exhaust catalyst	转向机构 Steering mechanism	± 40° 铰接转向 Articulated steering: ±40°
可升降安全顶棚 Lifting safety roof	符合防滚翻防落石要求 Meet the requirements of FOPS and ROPS	传动系统 Drive system	四轮驱动闭式行走系统 Closed hydraulic system for four-wheel driving	行走制动 Travelling braking	双回路液压制动器 Two-circuit hydraulic brake
		摆动角 Swing angle	后桥摆动 ± 10° Swing of rear axle: ±10°	驻车制动 Parking braking	减速器多盘湿式制动器 Wet multidisc brake of reducer
				燃油箱 Fuel tank	60L
<b>钻进系统 / Drilling system</b>			<b>电动液压泵站 / Electric hydraulic power unit</b>		
凿岩机 / Rock drill	1 × HC50/R38	1 × HC109/R38	1 × HC95LM/R38	电动机 / Motor	45kW 55kW 75kW
冲击功率 / Impact power	13kW	18.8kW	21kW	冲击/推进/钻臂 / Impact / Feed / Positioning	轴向变量柱塞泵 Axial variable displacement piston pump
冲击流量 / Impact flow	105L/min	135L/min	100-120L/min	回转 / Rotation	齿轮泵 / Gear pump
冲击压力 / Impact pressure	130bar	135bar	180-200bar	过滤精度 / Filter fineness	10 μ
最大回转压力 / Maximum rotary pressure	150bar	150bar	210bar	液压油箱 / Hydraulic oil tank	240L
频率 / Impact Frequency	62 Hz	47Hz	62 Hz	液压冷却器 / Hydraulic cooler	水冷却器 / Water cooler
扭矩 / Torque	325Nm	780Nm	764Nm	工作电压 / Working voltage	380V
孔径 / Hole diameter	Φ32-76mm	Φ42-102mm	Φ42-102mm	频率 / Frequency	50Hz
推进梁翻转 / Beam rotation	360°			启动方式 / Starting method	星-三角 / Star-triangle
推进梁补偿行程 / Feed extension	1600mm			电缆卷盘 / Cable reel	1 × F440
钻臂型号 / Model of drill boom	K35F			卷盘容量 / Length of reel cabling	100m 80m
钻臂形式 / Form of drill boom	自动持平 / Self-leveling			电缆规格 / Cable specifications	3 × 35+3G6 3 × 50+3G6
钻臂伸缩 / Boom extension	1750mm				



## KJ311 Hydraulic Tunneling Drilling Rig (Double Layer type)



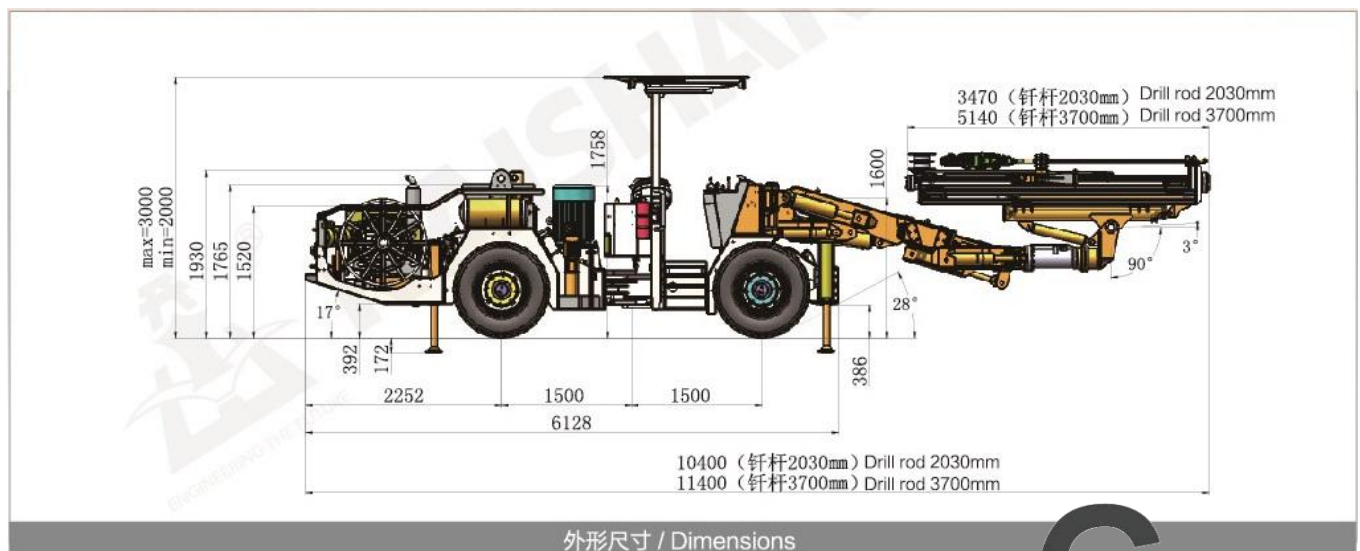
### KJ311型全液压掘进钻车(双层导轨型) / KJ311 Hydraulic Tunneling Drilling Rig (Double Layer Beam Type)

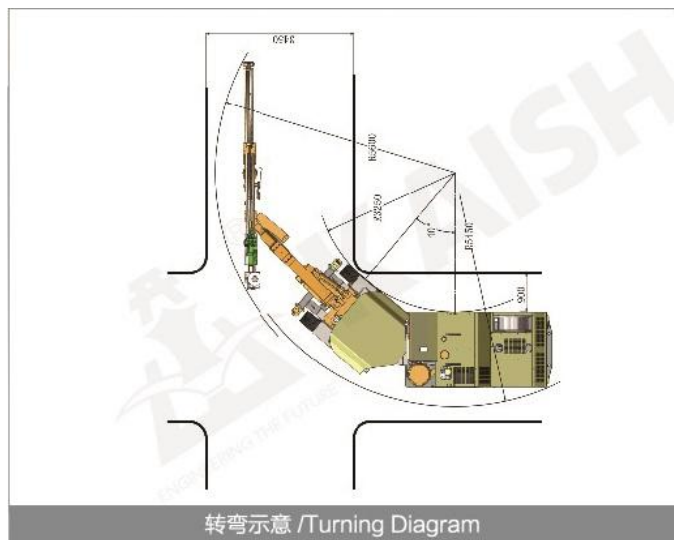
#### 用途及特点 / Application and Features

KJ311型全液压掘进钻车（双层导轨型）适用于12-35m<sup>2</sup>断面的硬岩矿山掘进作业。专为兼顾打锚杆而设计，可在4m高巷道钻凿2.2m深的锚杆孔。

KJ311 Hydraulic Tunneling Drilling Rig (Double Layer Beam Type) is suitably qualified for the drilling of hard rock mine whose section falls in the range of 12-35 square meters. It is specially designed for the rock bolt and is capable of drilling the 2.2-meter-deep rock bolt in the 4-meter-high tunnel.

- 坚固的方向大臂具有最佳断面覆盖形状，推进梁360° 翻转和自动持平便于快速方便地实现钻孔定位；钻臂同时还可用于侧向开石门和锚杆钻孔作业；
- The firm flexible boom is capable of optical coverage of the section; 360° rotation and self-leveling beam make drill positioning easy; The arm can also be used for the drilling of lateral cross-cut and rock bolting;
- 钻车布置确保司机视野良好；布置平衡，强劲有力的四轮驱动铰接底盘确保在狭窄巷道中能够灵活，快速，安全行驶；
- The drilling rig provides a good view for the operator; balanced layout and the articulated chassis of four-wheel drive ensure the flexible, fast and safe driving in the narrow tunnel;
- 高频冲击凿岩机采用梯级活塞优化了冲击波传递效率，提高钻进速度，降低钎具消耗并提高设备的完好率；
- The stepped piston is used for the high-frequency impacting rock drill and this can improve the transmission efficiency of impact wave and drilling speed and reduce the consumption of drilling tools and make it in good condition;
- 宽敞的作业空间和一系列自动功能有助于司机集中精力安全、快速、准确地钻进；
- Considerable space and automatic functions enable the driver to concentrate on drilling in a safe, fast and accurate manner;
- 各个维修保养部位均受到良好的保护，同时又易于维护保养；
- All the relevant parts are kept in good protection, meanwhile maintenance easily.





转弯示意 / Turning Diagram



断面示意 / Coverage area

技术参数 / Technical Parameters

外形尺寸与重量 / Dimensions and weight		风水路系统 / Air & water system			
长度 / Length	11300mm	空压机 / Air compressor	1×JN4	润滑油油量 Oil Consumption of lubrication	180-250g/h
宽度 / Width	1750mm	排量 / Capacity of air compressor	0.5m³/min	水泵 / Water pump	1×CR3 1×CR5
高度 / Height	2000/3000 mm	压力 / Pressure	6-8bar	功率 / Power	1.5kW 5.5kW
重量 / Weight	约12000 kg / Appr. 12000 kg	钎尾润滑装置 Device of shank lubrication	电子脉冲润滑泵 Electronic pulse lubrication pump	水泵排量 Capacity of water pump	3m³/h 6m³/h
行驶速度 (水平) Tramming speed on flat ground	10km/h	润滑油气量 Air consumption of lubrication	0.3 m³/min		
最大爬坡能力 Maximum climbing capacity	25%(14°)	<b>底盘 / Chassis</b>			
<b>安全防护 / Safety protection</b>		柴油机 Diesel engine	Cummins QSB3.9-C80-31 60KW, 2200rpm	轮胎 / Tires	11.00-20
噪音水平 / Noise level	< 100dB(A)	尾气净化 Exhaust purification	尾气催化器 / Exhaust catalyst	转向机构 Steering mechanism	±40° 铰接转向 Articulated steering: ±40°
可升降安全顶棚 Lifting safety roof	符合防滚翻防落石要求 Meet the requirements of FOPS and ROPS	传动系统 Drive system	四轮驱动闭式行走系统 Closed hydraulic system for four-wheel driving	行走制动 Travelling braking	双回路液压制动器 Two-circuit hydraulic brake
		摆动角 Swing angle	后桥摆动 ±10° Swing of rear axle: ±10°	驻车制动 Parking braking	减速器多盘湿式制动器 Wet multidisc brake of reducer
				燃油箱 / Fuel tank	60L
<b>钻进系统 / Drilling system</b>			<b>电动液压泵站 / Electric hydraulic power unit</b>		
凿岩机 / Rock drill	1×HC50/R38	1×HC109/R38	1×HC95LM/R38	电动机 / Motor	45kW 55kW 75kW
冲击功率 / Impact power	13kW	18.8kW	21kW	冲击/推进/钻臂 / Impact / Feed / Positioning	轴向变量柱塞泵 Axial variable displacement piston pump
冲击流量 / Impact flow	105L/min	135L/min	100-120L/min	回转 / Rotation	齿轮泵 / Gear pump
冲击压力 / Impact pressure	130bar	135bar	180-200bar	过滤精度 / Filter fineness	10 μ
最大回转压力 / Maximum rotary pressure	150bar	150bar	210bar	液压油箱 / Hydraulic oil tank	240L
频率 / Impact Frequency	62 Hz	47Hz	62 Hz	液压冷却器 / Hydraulic cooler	水冷却器 / Water cooler
扭矩 / Torque	325Nm	780Nm	764Nm	工作电压 / Working voltage	380V
孔径 / Hole diameter	Φ32-76mm	Φ42-102mm	Φ42-102mm	频率 / Frequency	50Hz
推进梁翻转 / Beam rotation	360°			启动方式 / Starting method	星-三角 / Star-triangle
推进梁补偿行程 / Feed extension	1100mm			电缆卷盘 / Cable reel	1×F440
钻臂型号 / Model of drill boom	K26F			卷盘容量 / Length of reel cabling	100m 80m
钻臂形式 / Form of drill boom	自动持平 / Self-leveling			电缆规格 / Cable specifications	3×35+3G6 3×50+3G6
钻臂伸缩 / Boom extension	1200mm				



## KJ311 Hydraulic Tunneling Drilling Rig (All diesel power type)

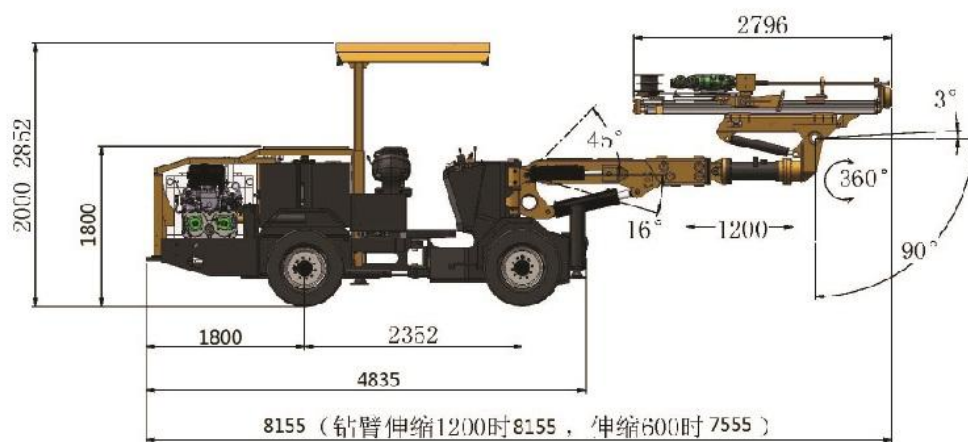


### KJ311型全液压掘进钻车 (全柴动型) / KJ311 Hydraulic Tunneling Drilling Rig (All diesel power type)

#### 用途及特点 / Application and Features

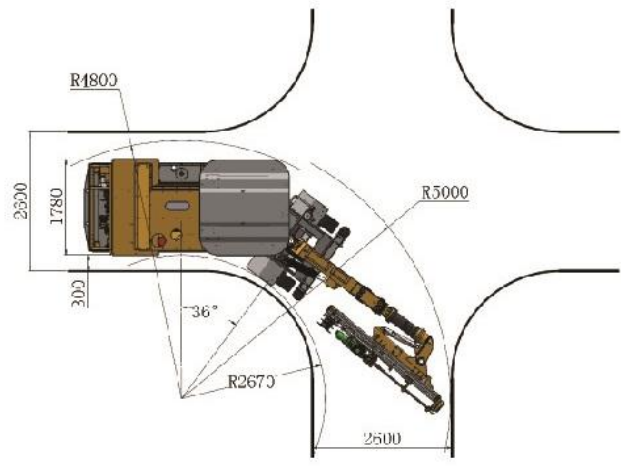
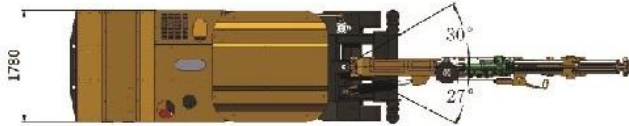
KJ311-4全液压钻车专为短时间多工位凿岩而设计，钻车以柴油机动力为动力，自带空压机，采用水箱供水，不需要外接水、气管路和电源。钻车可以实现快速凿岩，快速转场，特别适用于自然崩落法采矿中的大块矿石处理。

KJ311-4 hydraulic drill rig is specially designed for short time and multi-station rock drilling. The drill rig is powered by diesel engine and has air compressor on board. It uses water tank for water supply and does not need external water, air and power supply. The drill rig can realize rapid rock drilling and rapid sites transfer, especially suitable for processing large pieces of ore in which mines that using natural block caving method.



外形尺寸 / Dimensions





转弯示意 / Turning Diagram

## 技术参数 / Technical Parameters

外形尺寸与重量 / Dimensions and weight		风水路系统 / Air & water system			
长度 / Length	8200mm	空压机 / Air compressor	CP9952	润滑油油量 Oil Consumption of lubrication	180-250g/h
宽度 / Width	1780mm	排量 / Capacity of air compressor	0.3 m <sup>3</sup> /min	水泵排量 Capacity of water pump	3m <sup>3</sup> /h
高度 / Height	2000/3000 mm	压力 / Pressure	3-5bar		
重量 / Weight	约12000 kg / Appr. 12000 kg	钎尾润滑装置 Device of shank lubrication	电子脉冲润滑泵 Electronic pulse lubrication pump		
行驶速度 (水平) Tramming speed on flat ground	10km/h	<b>底盘 / Chassis</b>			
最大爬坡能力 Maximum climbing capacity	25%(14°)	柴油机 Diesel engine	Cummins QSB3.9-C125 /93kW/2200rpm	轮胎 / Tires	11.00-20
<b>安全防护 / Safety protection</b>		尾气净化 Exhaust purification	尾气催化器 / Exhaust catalyst	转向机构 Steering mechanism	±40° 铰接转向 Articulated steering: ±40°
噪音水平 / Noise level	< 100dB(A)	传动系统 Drive system	液压马达-减速箱-湿式车桥 (四驱) hydraulic motor-Gearbox-wet axle four-Wheel drive	行走制动 Travelling braking	双回路液压制动器 Two-circuit hydraulic brake
可升降安全顶棚 Lifting safety roof	符合防滚翻防落石要求 Meet the requirements of FOPS and ROPS	摆动角 Swing angle	后桥摆动 ± 10° Swing of rear axle: ±10°	驻车制动 Parking braking	减速器多盘湿式制动器 Wet multidisc brake of reducer
<b>钻进系统 / Drilling system</b>		<b>钻臂 / Drill boom</b>			
凿岩机 / Rock drill	1 × HC50/R38	钻臂型号 / Model of drill boom	K25		
冲击功率 / Impact power	13kW	钻臂形式 / Form of drill boom	伸缩式 / Telescopic		
冲击流量 / Impact flow	105L/min	钻臂伸缩 / Boom extension	1200mm		
冲击压力 / Impact pressure	130bar	<b>电动液压泵站 / Electric hydraulic power unit</b>			
最大回转压力 / Maximum rotary pressure	150bar	冲击/推进/钻臂 /Impact / Feed / Positioning	轴向变量柱塞泵 Axial variable displacement piston pump		
频率 / Impact Frequency	62 Hz	回转 / Rotation	齿轮泵 / Gear pump		
扭矩 / Torque	325Nm	过滤精度 / Filter fineness	10 μ		
孔径 / Hole diameter	Φ32-76mm	液压油箱 / Hydraulic oil tank	240L		
推进梁翻转 / Beam rotation	360°	液压冷却器 / Hydraulic cooler	风冷却器 / Wind cooler		
推进梁补偿行程 / Feed extension	850mm				
钻孔深度 / Drilling depth	1000mm				
钎杆 / Drill rod	R38-H35-R32-1350		R38-H35-R32-1850		

