

# SPECIFICATION

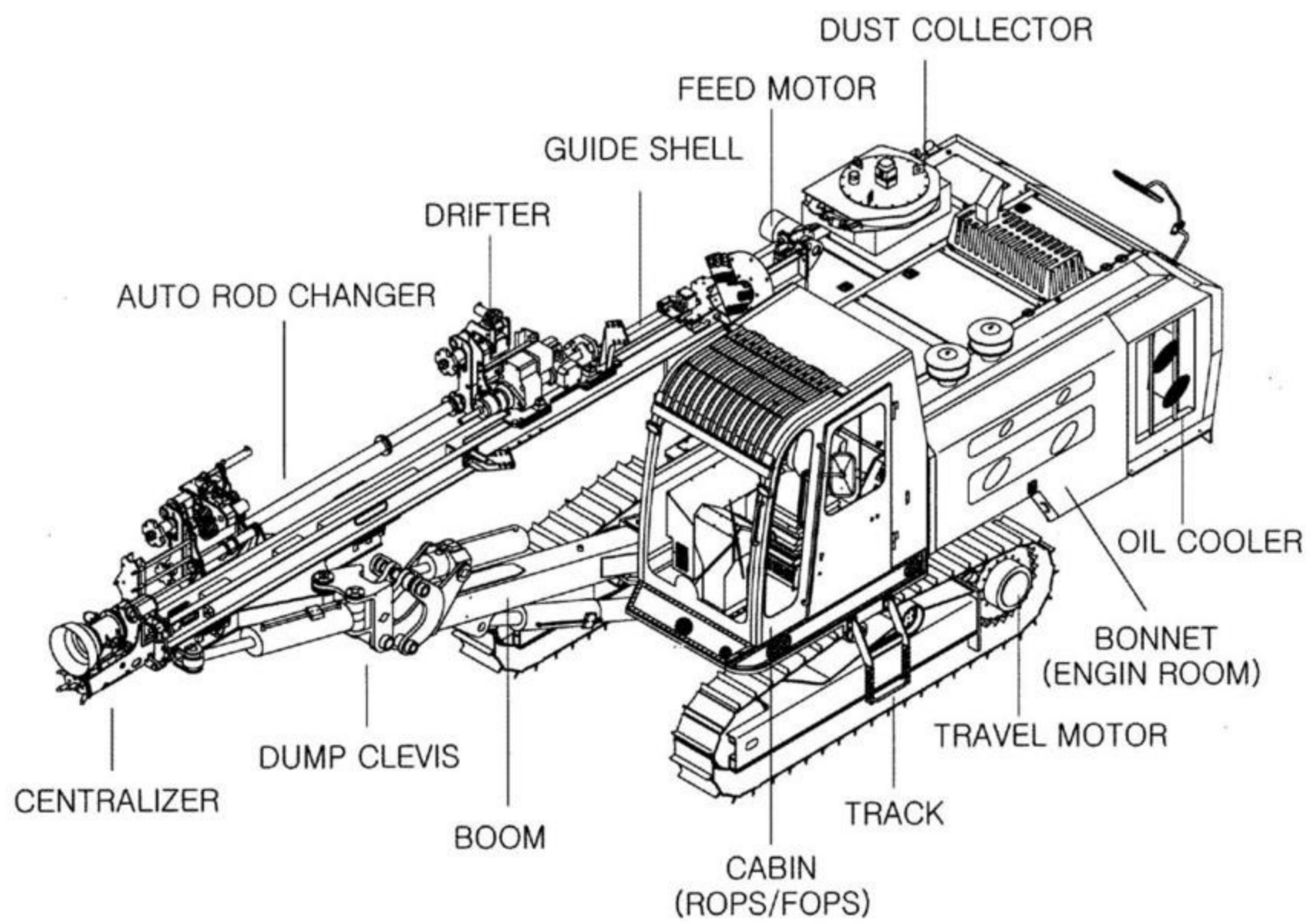
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MODEL : HYD. CRAWLER DRILL  
(JD-1400E)

## 1. Outline

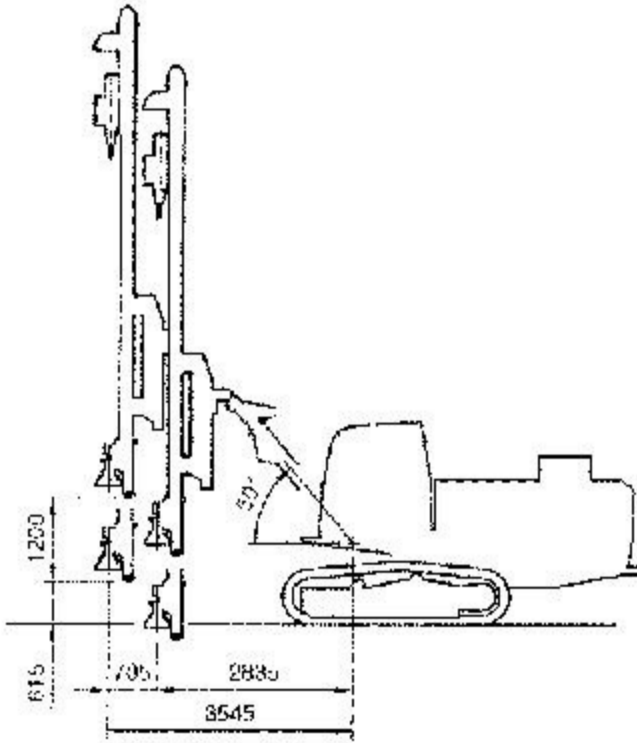
SOOSAN csm hydraulic crawler drill is a drilling machine for blasting with dynamite in the quarries, and mining and construction site. It is mainly composed of Travelling device as a base machine, Drifter, Guide shell, loading device as drilling device, power unit and running device operated by diesel engine. Differently from pneumatic drill, Air compressor and dust collector installed on the power unit make a high efficient rock drilling with low noise as much as possible.

## 2. Major Components

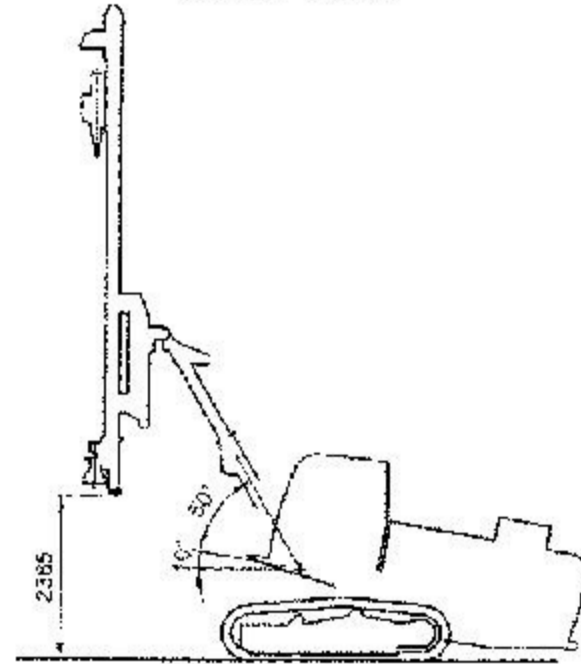


### 3. COVERAGE RANGE

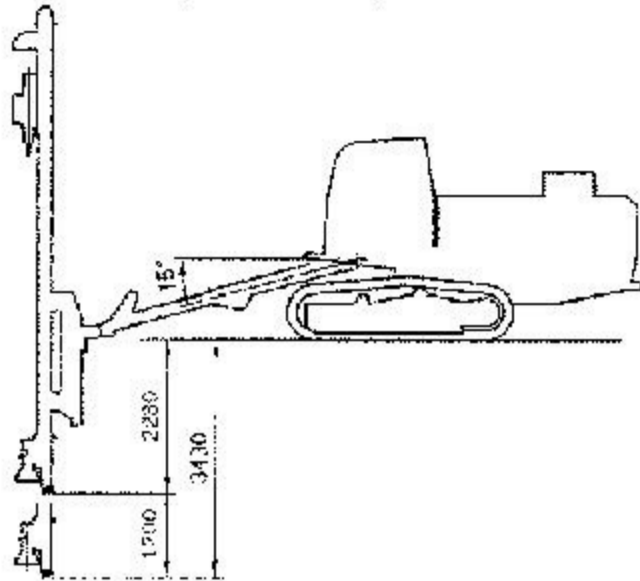
1) BOOM LIFTING, EXTENDING, GUIDE SLIDING  
(Vertical Drilling)



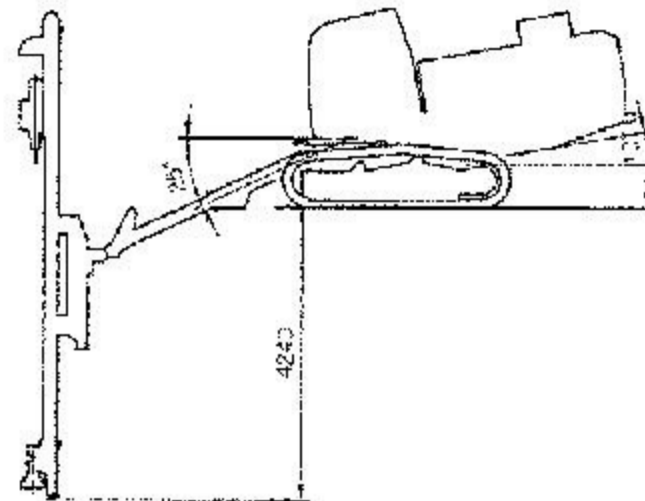
2) BOOM LIFTING, EXTENDING, TRACK OSCILLATING  
(Vertical Drilling)



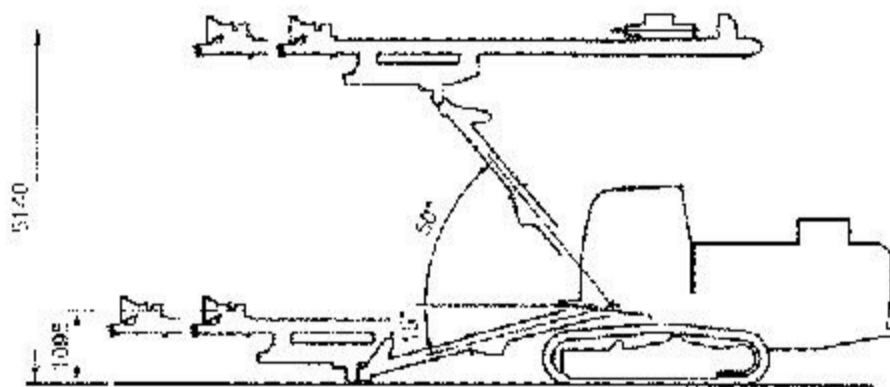
3) BOOM LOWERING, EXTENDING, GUIDE SLIDING  
(Vertical Drilling)



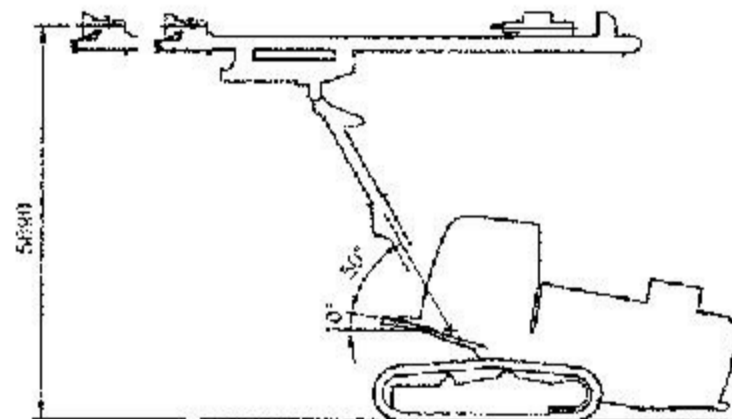
4) BOOM LOWERING, EXTENDING, GUIDE SLIDING,  
TRACK OSCILLATING. (Vertical Drilling)



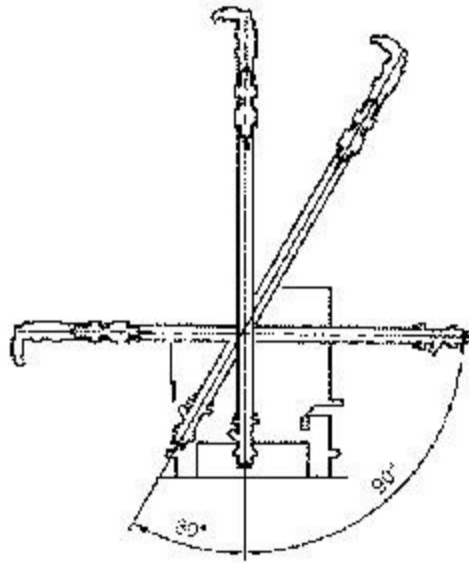
5) BOOM LIFTING, LOWERING, EXTENDING, GUIDE SLIDING  
(Horizontal Drilling)



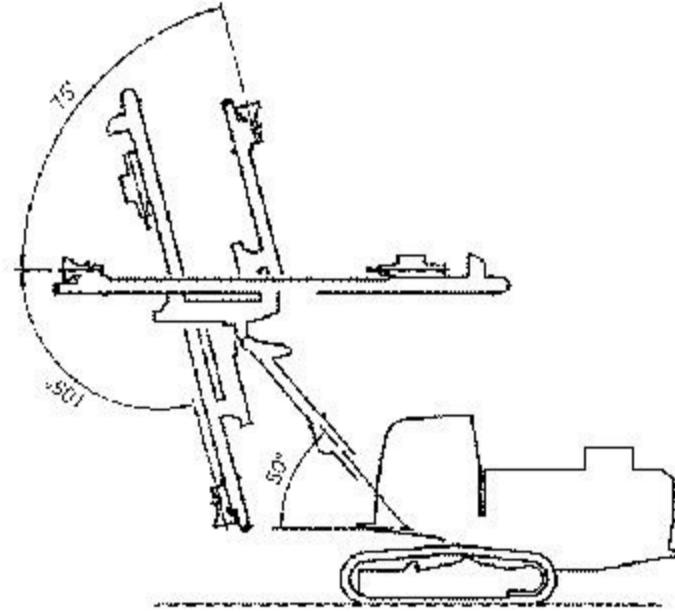
6) BOOM LIFTING, EXTENDING, TRACK OSCILLATING  
(Horizontal Drilling)



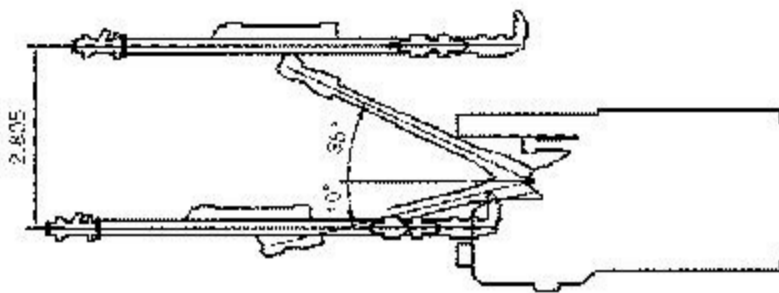
7) GUIDE SWING



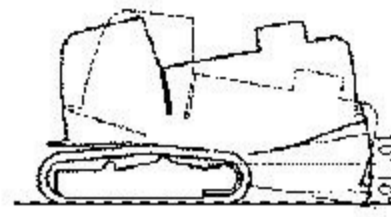
8) GUIDE SWING. (AT BOOM LIFTING: 50°)



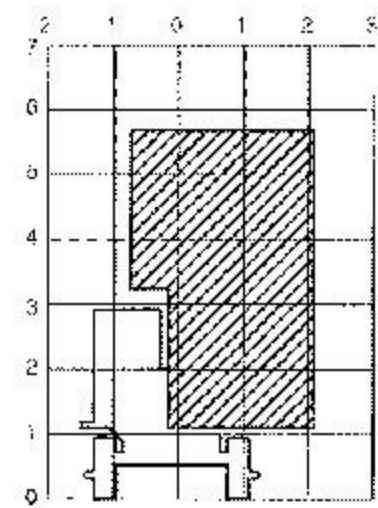
9) BOOM SWING



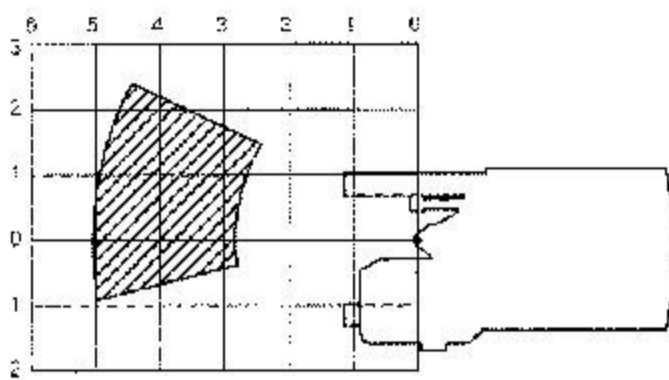
10) TRACK OSCILLATING



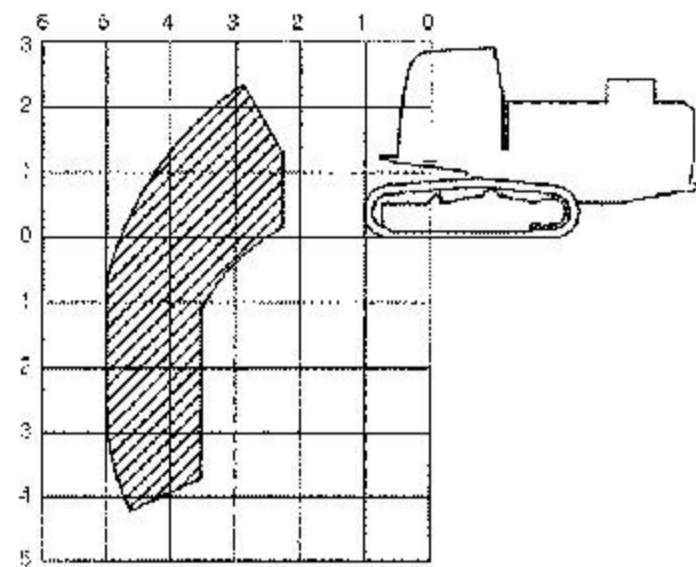
11) HORIZONTAL DRILLING



12) VERTICAL DRILLING(I)

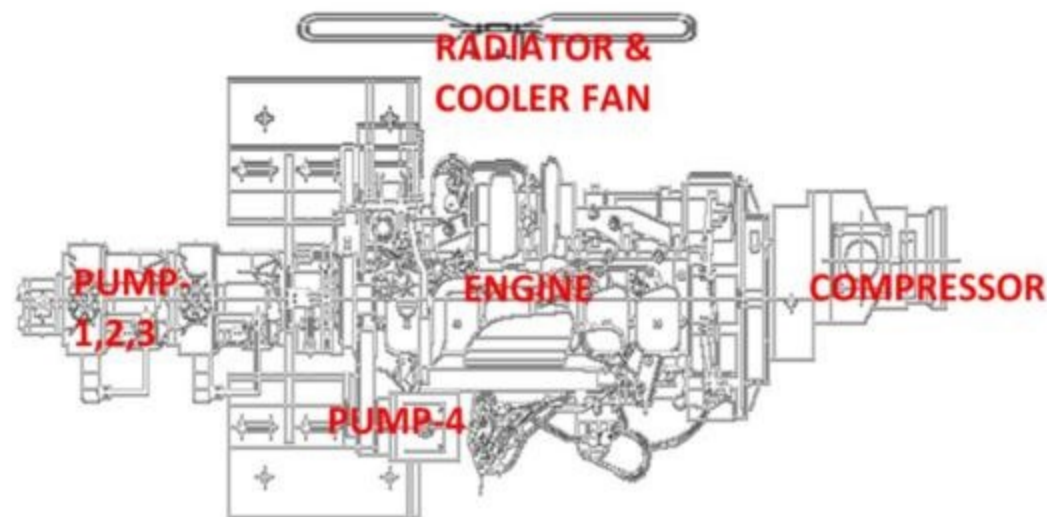


13) VERTICAL DRILLING(II)



## 4. Features

### 1) Power Unit



### 2) Working safety

- ① Tumbler length 2480mm and shoe width 330mm maximizes safety.
- ② Ground clearance 530mm and track oscillation( $\pm 10^\circ$ ) on either side prevent the bottom from being damaged by projection on the rough zone.

### 3) Anti-jamming system

Makes the stable operation possible on all kind of rock and makes an easy operations by an unskilled operator. This will be operated only in case the anti-jamming switch is on position.

### 4) Collaring

Collaring makes it easy to take a correct position for drilling and an unskilled operator performs drilling correctly.

### 5) Travelling speed and gradeability

The piston pump and travelling motor with high efficiency maximize its travelling speed and gradeability—Travelling speed : 3.8km/h ; Max. gradeability : 30

#### **6) Maintenance and inspection**

Panel typed bonnet and vertical typed fuel tank make more room for checking and services.

The oil drain cocks installed on either side for engine oil, gear box oil, fuel, compressor oil make the oil exchange and cleaning easy.

#### **7) Powerful Dust Collector**

- ① Dust collector with 4 filters prevents dust from flying in drilling and its filters are protected by air flushing in each filter.
- ② To prevent the filter from being damaged by a water vein, shutter installed within stop collecting dust in case a water vein appears during drilling.

#### **8) Comfortable and safe Cabin**

Strong frame, safety glass on all directions, and safety net protect the operator and provide secure broad view in job site. Floating typed operators seat with air-bellows protects the operator from vibration and provides very comfortable working conditions. Air condition, radio, and the heater are provided as basic specifications.

#### **9) Sliding Suction Hood**

With suction hood cab slided up and down by the operator in the cabin , the operator can perform drilling without others assistance correctly. The hood stuck to the ground prevents the debris from flying in drilling.

#### **10) Large Lubrication for Drifter**

With additional device, lubricating oil can be supplied from Lubrication tank directly. The automatic lubrication system removes the inconvenience of feeding oil frequently and protects the drifter from being damaged by lubrication oil shortage.

#### **11) Centralized Electric Control System**

All the electric control devices are centralized in the control box for checking any trouble easily.

**12) Pre-Cleaner(Cyclone)**

Pre-cleaner installed between hood and dust collector protects the filters in the dust collector and the hose from being damaged by the debris.

**13) Auto Grease Gun**

Before the rod and the sleeve connected, greases the external screw by only pushing the button, which helps the rod and the sleeve charged tightly to get easily loosed.

**14) Automatic Rod Changer**

The operator connects or disconnects the rods by controlling only a few levers in the cabin without an assistant. This automatic rod exchange can be performed by means of sequential hydraulic schematic.

5 Rods(including the first rod) can be equipped in the cartridge of ARC

**15) Cummins Engine with large output**

Cummins engine with water cooling system supply sufficient power for travelling or operating at job site. Especially its world wide services network by Cummins will be a good point for the users.

**16) Large Fuel Tank**

Fuel tank can hold 480 liters and gives comparatively a long operating duration. The residual fuel can be observed in sight unless engine room opened.

**17) Compressor On/Off Switch**

Air compressor can be used only in case compressed air required by On/Off switch. The On/Off switch of compressor is effective to cut down the engine fuel consumption by unloading the compressor at the Off position.



## 5. Specifications

| NO | ITEM               |                      | MODEL              |                    |
|----|--------------------|----------------------|--------------------|--------------------|
|    |                    |                      | JD-1400E           |                    |
| 1  | Overall Dimensions | Gross weight         | kg                 | 16,000             |
|    |                    | Overall length       | mm                 | 10,300             |
|    |                    | Overall width        | mm                 | 2,470              |
|    |                    | Overall height       | mm                 | 3,200              |
| 2  | Crawler            | Ground clearance     | mm                 | 510                |
|    |                    | Oscillating angle    |                    | ±10                |
|    |                    | Gradeability         | °                  | 28                 |
|    |                    | Traveling speed      | km/h               | 3.3                |
| 3  | Engine             | Model                |                    | QSC8.3-C (CUMMINS) |
|    |                    | Rated output         | bhp /rpm           | 260/2,200          |
|    |                    |                      |                    |                    |
| 4  | Drifter            | Model                |                    | YH-135             |
|    |                    | Total Length         | Mm                 | 1,225              |
|    |                    | Total Width          | Mm                 | 360                |
|    |                    | Total Height         | Mm                 | 335                |
|    |                    | Weight               | Kgf                | 260                |
|    |                    | Impact Frequency     | Hz                 | 40~45              |
|    |                    | Rotational Torque    | Kgf-m              | Max. 120           |
|    |                    | Rotational Frequency | RPM                | Max. 120           |
|    |                    | Impact Pressure      | Bar                | Max. 140           |
|    |                    | Rotation Pressure    | Bar                | Max. 140           |
|    |                    | Flusing Pressure     | Bar                | Max. 10.5          |
| 5  | Air compressor     | Model                |                    | CF90LG3 (GHH-RAND) |
|    |                    | Working pressure     | kg/cm <sup>2</sup> | 10.5               |
|    |                    | Free air delivery    | m <sup>3</sup>     | 11.3               |
|    |                    | Tank capacity        | m <sup>3</sup>     | 0.075              |
| 6  | Guide              | Overall length       | mm                 | 7,290              |
|    |                    | Slide length         | mm                 | 1,500              |
|    |                    | Feed length          | mm                 | 4,300              |
|    |                    | Swing angle          | R/L°               | 90 / 15            |
|    |                    | Tilt angle           | °                  | 180                |

JD-1400E

| NO | ITEM             |                   |                     | MODEL                |
|----|------------------|-------------------|---------------------|----------------------|
|    |                  |                   |                     | JD-1400E             |
| 7  | Boom             | Overall length    | mm                  | 3,000                |
|    |                  | Lift angle        | U/D。                | 50/15                |
|    |                  | Swing angle       | R/L。                | 15/35                |
| 8  | Dust collector   | Suction capacity  | m <sup>3</sup> /min | 40                   |
|    |                  | Number of filters | EA                  | 4                    |
|    |                  | Blow pressure     | mm/Aq               | 550                  |
| 9  | Rod changer      | Weight            | kg                  |                      |
|    |                  | Number of rods    |                     | 6+1                  |
| 10 | Bit & Rod        | Bit dia           |                     | Φ76 ~ Φ127           |
|    |                  | Bit design        |                     | CROSS,BUTTON         |
|    |                  | Rod length        | mm                  | 3,660                |
|    |                  | Rod section       |                     | 51R                  |
| 11 | Hyd. sys.        | Hyd. pump         |                     | Variable Piston Pump |
| 12 | Auto rod changer | Type              |                     | ○                    |
|    |                  | Number of Rod     | EA                  | 6 + 1                |

## 6. Specification Diagram

