1.1 Configuration of the Integrated Equipment

(1) Engine

Manufacturer DEUTZ

Type F10L413FWB

Design air-cooled diesel engine two-stage combustion

Max power 170 kW/2300 rpm

Max torque 840 Nm/1500 rpm

Air intake system Dry air filter

Exhaust system Silencer/exhaust gas catalyst

(2) Torque converter

Manufacturer CLARK

Type C5472

Design single-stage industrial type with auxiliary

drives for steering and dump/hoist

hydraulic systems

(3) Power shift transmission

Manufacturer CLARK

Type R36420

Design power shift transmission with 4 forward

and 4 reverse gears each

(4) Axles

Manufacturer CLARK

Type 19D2748

Design rigid planetary axles with differential gear

Rear axle swing angle $\pm 15^{\circ}$

(5) Design of brake system

Design of service brake multi-disk brake, externally cooled

Design of parking brake spring brake operated disk brake,

Hydraulically released

(6) Hydraulic system

Dump/hoist hydraulic system

Number of hoist cylinders 2

Boom raising 19 sec

Bucket raising, from dumping position 20 sec

Steering hydraulic system

Number of steering cylinders 2

(7) Wheels and tires

Rim 18.00-25

Tire filling pressure 7.0 bar

1.2 Performance of the Integrated Equipment

(1) Main dimensions

Length 9200±50 mm

Width 2950±50 mm

Height 2420±50 mm

Bucket capacity (SAE, heaped) 15 m³

Max hoist height 4850±100 mm

Unlading angle $70^{\circ}\pm1^{\circ}$

Inner clearance circle 5300±250 mm

Outer clearance circle 9200±250 mm

Steering angle $42^0 \pm 2^0$

(2) Weights

Operating weight 25500 kg

Payload 25000 kg

(3) Driving capacities

Maximum driving speed, laden forward/reverse, on a level roadway

1st gear $0\sim5.3$ km/h

2nd gear $0\sim11.7$ km/h

3rd gear $0\sim$ 18.5 km/h

4th gear $0\sim$ 26.0 km/h

Maximum admissible gradient 22%

(4) Electrical equipment

Operating voltage 24 V

Battery $2 \times 12 \text{ V}/165 \text{ Ah}$

Main/reversing headlights 50 W

(5) Filling volumes

Fuel tank 3001

Hydraulic tank 275 1

Front axle differential gear 45 l

Rear axle differential gear 45 1







