

2009

# HUBTEX Product Information



HUBTEX Diesel Frontloader in Compact Design,  
Model DKS-120 (Series 4150)

## HUBTEX DIESEL FRONTLOADER IN COMPACT DESIGN, MODEL DKS 120 (Series 4150)



Execution: according to drawing no. M0002275

Operating conditions:

Working hours per year:	approx. 4000
Floor conditions:	uneven concrete floor
Gradients:	non
Utilization:	hard, splash-proofed for liquid iron, multishift operation
Ambient temperature:	up to +45°C, oil smaller than 80°C, diesel < 60°C
Application:	transportation of liquid iron in a +GF-converter or open ladle, temperature of iron up to 1550°C, particularity: reaction of the molten iron with magnesium

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Capacity:	12000 kg, divided in 6000 kg converter and 6000 kg liquid iron, dynamic
Lifting device:	rotatable lifting gear with automatic telescopic arm, lift height 3600 mm
Load center:	600 mm inside converter
Load picking:	via rotating attachment, brand Stabau
Truck dimensions:	length (up to carriage support): 4100 mm width: 2300 mm cabin height: 3650 mm overall height (lowered on rear side): 3120 mm overall height - max. lift height, with straight converter: 5850 mm overall height - max. lift height, with turned converter: 6187 mm turning radius approx.: 3400 mm

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Empty weight:	34.500 kg approx.												
Axle load max.:	28.100 kg approx. (static)												
Working aisle AST:	3300 mm incl. 500 mm safety distance left and right side												
Steering system:	electro-hydraulic 2-axle rear wheel steering, steering angle 90°, category 4												
Speeds:	<table><tr><td>- driving with/without load (1. stage):</td><td>approx. 6 km/h</td></tr><tr><td>- driving without load (2. stage):</td><td>approx. 15 km/h</td></tr><tr><td>- lifting with/without load:</td><td>approx. 0,3 m/s / 0,3 m/s</td></tr><tr><td>- lowering with/without load:</td><td>approx. 0,3 m/s / 0,3 m/s</td></tr><tr><td>- side shift:</td><td>approx. 0,1 m/s</td></tr><tr><td>- rotating speed:</td><td>approx. 90°/10 s</td></tr></table>	- driving with/without load (1. stage):	approx. 6 km/h	- driving without load (2. stage):	approx. 15 km/h	- lifting with/without load:	approx. 0,3 m/s / 0,3 m/s	- lowering with/without load:	approx. 0,3 m/s / 0,3 m/s	- side shift:	approx. 0,1 m/s	- rotating speed:	approx. 90°/10 s
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- rotating speed:	approx. 90°/10 s												
Remark:	In case of simultaneous operation of two functions, the speeds will not be influenced.												

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Gradability: no existing gradients, gradability of drive technology with load up to 5% (1. stage)

Chassis: 4-wheel chassis with driven pendulum steering axle, double load wheels

Tires: drive wheel: solid rubber  
load wheel: solid rubber

Wheel dimensions: drive wheel: 2 x Ø 1016 x w 508 mm  
load wheel: 2 x Ø 1016 x w 508 mm

Braking system: Operating brake: - via hydrostatic steering  
Parking brake: - hydraulic spring-loaded brake

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### Drive motor:

modern liquid-cooled 4 cylinder Deutz diesel straight-type engine with electronic CAN-BUS motor electronics with diagnostic system, turbocharging, external cooling system and charge cooling, power approx. 122 kW at nominal speed 2000 rpm, type TCD 2013 according to ISO 14396  
Splash-proofed for motor, intake-air and cooling air.  
Execution of motor according to the latest European exhaust emission standard

### Drive:

hydrostatic gear with variable displacement pump in closed circuit for drive motor, consisting of:  
- 1 pce. jetting pump with automotive control  
- 2 pcs. hydraulic drives

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### Working hydraulics:

- proportional valves, controlled for the function ,linear lifting! Executed via rotating lift, reach and tilt.
- sideshift left/right +/- 200 mm
- endless turning left/right
- top opener for converter, left/right, open/close, modifiable for converter operation left/right

### Operation:

via multifunctional joystick inside driver's cabin for the functions:

1. lifting / lowering, proportional
2. side shift, proportional
3. turning, proportional
4. top opener, fix speed
5. forward/backward, drive direction
6. horn

additional operation on right and left side (exterior) of truck, function 1-4, fix speed

7. gas pedal
8. brake pedal
9. parking brake

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### Driver's cabin:

- flame resistant Kevlar® fibre
- inner lining non-combustible
- closed with sliding door, emergency exit via pivoting window on rear side, fixing via hinge
- swivelling bar beside driver's seat for driving with open sliding door
- additional Makrolon® window for quick exchange
- Makrolon® windows
- ventilator, adjustable to driver
- closed roof, removable (for reduction of cabin height)
- cabin width 850 mm
- indication of hydraulic temperature, water temperature, oil levels

### Soot particle filter:

Deutz diesel particle filter with integrated burner for filter regeneration during operation

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- Exhaust pipe: exhaust pipe turned away from cabin entrance to avoid that exhaust fumes will ingress in driver's cabin when driving backwards
- Air filter/Motor cooling air: via effective pre-separator against liquid iron and dust
- Splash-proof: all covers, tops and lids have to be tight against liquid iron, that means that they have to overlap and open spots, drill holes, etc. have to be closed/sealed
- Fire protection:
- endangered hydraulic pipes with fire protection
  - fire extinguisher à 6 kg
  - 1 fire extinguisher à 6 kg stationary for motor compartment
  - extinction pipes with water supply for motor compartment
  - $\frac{3}{4}$  hood with 80 mm boreholes in upper area of loadwheels

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- Hydraulics execution:
- filtering of hydraulic oil 10  $\mu\text{m}$
  - hauling in steel pipes, if possible
  - hydraulic connections according to requirement specification
- Central lube system: central greasing points for rotating device
- Crash sensor: truck equipped with crash sensor „Crash + D + M”, software provided by the customer
- Towing attachment:
- towbar
  - device for heavy-duty rollers
- Working lights: on front and rear side
- Mirror: rear-view mirror inside driver's cabin

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- Signalisation and warning -  
-system: rotating warning light activated when driving  
back-up alarm and automatic switch on of working lights  
when reversing
- Camera systems:
- camera on rear side for reversing
  - additional camera on the side for better view in driving direction
  - double monitors on top of each other, arranged in driving direction
- Weighing device: integrated weighing device for liquid iron, accuracy relating to 12000 kg converter weight = +/- 2%, weighing accuracy +/- 240 kg
- Noise level: noise level according to EC guideline, 84 dB (A)
- Finish: two-colour paint with 2 component lacquer
- RAL 1014 – ivory
  - RAL 7021 – blackgrey

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Reference:

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