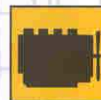


# DH 441

hydraulic excavator

132.4 kW/180 HP



0.55 to 2.0 m<sup>3</sup>



1.15 to 2.0 m<sup>3</sup>



26.8 to 31.5 t



**UNEX®**  
UNEX a.s., UNIČOV



## Technical specification:



### MOTOR

Compression ignition engine,  
water-cooled LIAZ M 1.2.A-ML 634  
Output (DIN 6270B) 132.4 kW at 1800 rpm  
Number of cylinders 6  
Oil filter with air precleaner.  
Fuel tank 330 l

#### Electrical equipment:

Voltage 24 V  
Storage capacity 2 x 180 Ah  
Alternator 28 V/60 A



### HYDRAULICS AND CONTROL

Double circuit system with two axial piston hydraulic generators with output regulation and minimal supply of hydraulic liquid at pressure restriction 32 MPa.

Amount of supply 2 x 165 l.min<sup>-1</sup> at pressure 14,7 MPa.  
Working pressure max. 35 MPa  
Hydraulic tank capacity 460 l

- Possibility of tanking by means of an electrical pump.
- System of stabilization of hydraulic liquid with enough dimensioned cooling in the reverse branch.
- Low-pressure full-flow filtration of 10 micrometers with indication of filter impurities.
- Sensitiv control of working movements. Rapid motions enabling quick working cycle of the excavator increasing thus its efficiency.
- Diagnostic system for quick checking of the hydraulic device.
- Equipment for emergency control of the system in case of drive failure.
- Cross controls of the working motions corresponding to ISO system.
- 2 pedals for steering the track, possibility of additional manual levers in case of especially sensitive control.
- Sealing system SAE.
- Additional hydrogenator when slewing the grab.



### SLEWING RING DRIVE

The drive consists of an axial piston hydraulic motor and an epicyclic multi-speed gearbox by Lohmann Stolterfoht with a built-in static multiple disk brake. The delivery side of the pinion engages in the inner tooth system of the cross-roll bearing. The system enables governing the hydraulic braking - by reversing the control lever of the slewing drive into its original position, or with pedal, or through combination of both the ways. Automatic hydraulic working braking by means of the braking valve not requiring any maintenance.



### UNDERCARRIAGE AND TRACK-DRIVE

A rigid welded box construction of types ST and LC, tractor- type.

Track-drive by compact driving units consisting of an axial piston hydromotor and an epicyclic differential gearbox by Lohmann Stolterfoht with a built-in static multiple disk brake.

The driving units and the hydraulic lines are laid in the frame of the undercarriage and sufficiently protected from damage, which enables an easy passage on the ground. Automatically acting multiple disk brake serves for both purposes, working and parking, and requires no maintenance.

Travel speed 0 - 3,2 km/hour  
Tractive force max. 172 kN  
Climbing ability 58% (30°)



### SLEWING SUPERSTRUCTURE

A rigid welded box construction of through beams from the boom mounting to the stationary load. The boom is laid on bronze bushings. The bonnet is provided with damping material to lower the exterior noise. An easy approach to all parts of the slewing superstructure is made possible. All opening parts of the slewing superstructure are provided with a lock.



## DRIVER'S CABIN

The cabin is elastically mounted on the left side of the slewing superstructure and is efficiently sound insulated.

One-part front window is fitted with an all-round windscreen wiper and the side window can be open. A comfortable cushioned seat fitted with a vibration damper can be adjusted according to the height and weight of the driver. The seat position is adjustable independently on the integrated control levers and foot control levers. Thus, optimum ergonomical requirements are complied with and the operators fatigue reduced.

A safety bracket of steering belongs to the seat as well. A newly designed control dashboard is fitted with all the lights and indicators in full visibility of the driver. Warning indicators and functional instruments are further indicated in colours and symbols.

Fluent change of the motor revolutions by means of a hand lever with position arrestment.

Hot water heating has a two-speed ventilator fan which insures simultaneously efficient air conditioning. The drawn air is filtered.

The cabin can be protected by FOPS guard frame and the front window by protecting grid.



## WORKING EQUIPMENT

**The excavator uses two basic working equipments:**

- backhoe bucket equipment
- loading shovel equipment

**The backhoe bucket equipment can be fitted with:**

- backhoe buckets
- double jaw grabs with rectangular or circular jaws
- multiple jaw grab of polyp
- hydraulic demolishing pliers
- hydraulic demolishing hammers

A wide range of parts enables optimal arrangement for works of different character with high digging forces of reaches.

The excavator can also be supplied fitted with a special grab equipment with a two-piece straight boom or two-piece hydraulically adjustable boom and grabsticks to dig in deeper depths.

The working equipment is of a box beam welded type with a giant pin seating.

**The main features of the working equipment are:**

- high digging and lifting forces
- long working reaches
- working cylinders with hydraulic damping of terminal positions
- sealing system SAE
- easy approach to lubrication points



## NOISE

**Exterior noise level**

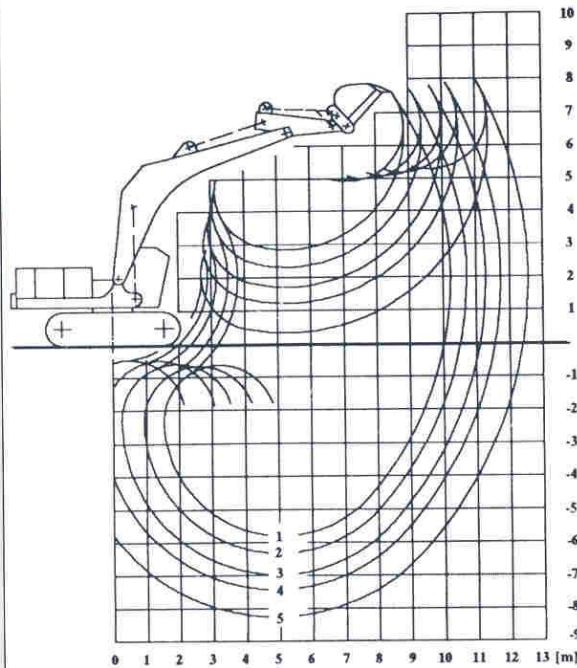
**$L_{WA} = 108 \text{ dB}$**

**Equivalent noise level in cabin**

**$L_{PA} = 75 \text{ dB}$**



## BACKHOE EQUIPMENT



Excavator with a monoboom and a backhoe bucket

### Basic machine with:

- monoboom of length 6.7 m
- dipper stick of length 1.9 m (1)  
2.5 m (2)  
3.1 m (3)  
3.6 m (4)  
4.4 m (5)
- lever mechanism
- backhoe bucket

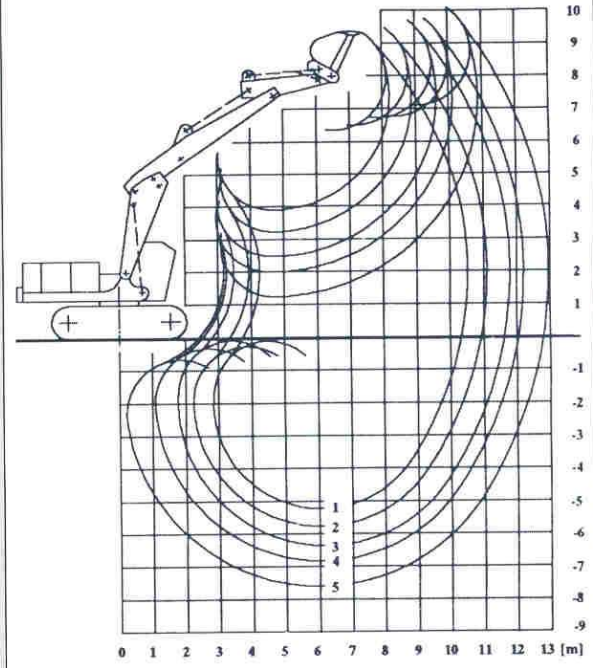
Excavating digging force: max. 188 kN  
Break out digging force: max. 208 kN

### Backhoe buckets

|                                |      |      |      |      |      |      |      |      |
|--------------------------------|------|------|------|------|------|------|------|------|
| Capacity SAE [m <sup>3</sup> ] | 0.55 | 0.80 | 1.00 | 1.25 | 1.40 | 1.60 | 1.80 | 2.00 |
| Width [m]                      | 0.80 | 1.08 | 1.29 | 1.29 | 1.29 | 1.50 | 1.70 | 1.69 |
| Weight [kg]                    | 750  | 990  | 1060 | 1160 | 1270 | 1140 | 1250 | 1240 |

### Cleaning shovels

|                                |      |      |
|--------------------------------|------|------|
| Capacity SAE [m <sup>3</sup> ] | 1.00 | 1.40 |
| Width [m]                      | 2.00 | 2.50 |
| Weight [kg]                    | 870  | 1000 |



Excavator with a retractable boom and a backhoe bucket

### Basic machine with:

- two-piece boom of length 6.7 m
- dipper stick of length 1.9 m (1)  
2.5 m (2)  
3.1 m (3)  
3.6 m (4)  
4.4 m (5)
- lever mechanism
- backhoe bucket

Booms: monoboams of length 5.8 m and 6.7 m  
two-piece boom with adjustment to four different positions

### Backhoe bucket with scarifying tooth

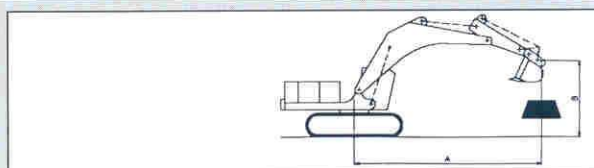
|                                |      |
|--------------------------------|------|
| Capacity SAE [m <sup>3</sup> ] | 0.80 |
| Width [m]                      | 1.08 |
| Weight [kg]                    | 970  |

### Ditch forming buckets (trapezoidal)

| Capacity [SAE]<br>[m <sup>3</sup> ] | Slope of<br>the wall<br>[°] | Bottom<br>depth<br>[m] | For ditch of<br>widths of the<br>upper level<br>[m] | Widths<br>[m] | Weights<br>[kg] |
|-------------------------------------|-----------------------------|------------------------|-----------------------------------------------------|---------------|-----------------|
| 0.85                                | 33                          | 1.30                   | 0.60                                                | 4.40          | 1000            |
| 0.70                                | 45                          | 1.25                   | 0.72                                                | 3.21          | 670             |
| 0.88                                | 45                          | 1.25                   | 1.02                                                | 3.50          | 740             |

# LIFTING CAPACITY

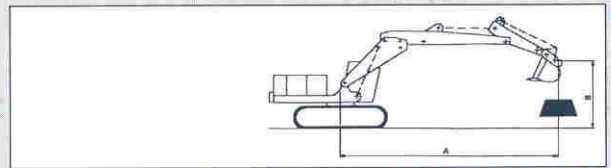
Lifting capacity of the backhoe equipment with a **one-piece boom of 6.7 m in length**, considered on the suspension hook of the backhoe bucket of 1.25 m<sup>3</sup> in capacity with 25% safety against overturning according to DIN 15019 when slewing the superstructure by 360° and the excavator being positioned on a hard and flat surface. Values indicated N are limited by the lifting capacity of the hydraulic cylinders of the dipper stick, values indicated V are limited by the lifting capacity of the hydraulic cylinders of the boom.



| Length of the<br>dipper stick<br>[m] | Height<br>B<br>[m] | Unloading A [m]    |                    |      |      |      |      |      |      |      |      |      |      |
|--------------------------------------|--------------------|--------------------|--------------------|------|------|------|------|------|------|------|------|------|------|
|                                      |                    | 3                  |                    | 4,5  |      | 6    |      | 7,5  |      | 9    |      | 10,5 |      |
|                                      |                    | ST                 | LC                 | ST   | LC   | ST   | LC   | ST   | LC   | ST   | LC   | ST   | LC   |
| 1,9                                  | 6,0                | -                  | -                  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                      | 4,5                | -                  | -                  | -    | -    | -    | -    | 1,79 | 2,31 | -    | -    | -    | -    |
|                                      | 3,0                | -                  | -                  | -    | -    | 3,04 | 3,81 | 1,99 | 2,58 | -    | -    | -    | -    |
|                                      | 1,5                | -                  | -                  | -    | -    | 3,43 | 4,37 | 2,35 | 3,05 | -    | -    | -    | -    |
|                                      | 0,0                | -                  | -                  | 7,18 | 8,85 | 4,39 | 5,58 | 3,05 | 3,92 | -    | -    | -    | -    |
|                                      | -1,5               | -                  | 12,22 <sup>V</sup> | 7,21 | 8,89 | 4,59 | 5,66 | 3,24 | 4,02 | -    | -    | -    | -    |
|                                      | -3,0               | 15,31              | 18,05 <sup>N</sup> | 7,37 | 9,06 | 4,64 | 5,72 | -    | -    | -    | -    | -    | -    |
|                                      | -4,5               | -                  | -                  | 7,69 | 9,41 | 4,88 | 5,98 | -    | -    | -    | -    | -    | -    |
| 2,5                                  | 6,0                | -                  | -                  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                      | 4,5                | -                  | -                  | -    | -    | -    | -    | -    | -    | 1,01 | 1,43 | -    | -    |
|                                      | 3,0                | -                  | -                  | 4,92 | 6,05 | 3,11 | 3,88 | 1,97 | 2,56 | 1,23 | 1,71 | -    | -    |
|                                      | 1,5                | -                  | -                  | 5,35 | 6,76 | 3,41 | 4,34 | 2,28 | 2,98 | 1,56 | 2,12 | -    | -    |
|                                      | 0,0                | -                  | -                  | 6,97 | 8,81 | 4,25 | 5,43 | 2,90 | 3,77 | 2,12 | 2,81 | -    | -    |
|                                      | -1,5               | 10,20 <sup>N</sup> | 10,46 <sup>N</sup> | 7,09 | 8,76 | 4,51 | 5,57 | 3,15 | 3,93 | -    | -    | -    | -    |
|                                      | -3,0               | 14,11 <sup>N</sup> | 14,37 <sup>N</sup> | 7,18 | 8,86 | 4,50 | 5,58 | 3,15 | 3,94 | -    | -    | -    | -    |
|                                      | -4,5               | 15,37 <sup>N</sup> | 18,32 <sup>N</sup> | 7,42 | 9,12 | 4,65 | 5,74 | -    | -    | -    | -    | -    | -    |
| 3,1                                  | 6,0                | -                  | -                  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                      | 4,5                | -                  | -                  | -    | -    | -    | -    | -    | -    | 1,00 | 1,41 | -    | -    |
|                                      | 3,0                | -                  | -                  | -    | -    | -    | -    | 1,98 | 2,57 | 1,18 | 1,66 | -    | -    |
|                                      | 1,5                | -                  | -                  | 5,47 | 6,87 | 3,44 | 4,37 | 2,24 | 2,94 | 1,47 | 2,03 | -    | -    |
|                                      | 0,0                | -                  | -                  | 6,80 | 8,63 | 4,17 | 5,34 | 2,80 | 3,66 | 1,97 | 2,65 | -    | -    |
|                                      | -1,5               | 8,55 <sup>N</sup>  | 8,75 <sup>N</sup>  | 7,03 | 8,69 | 4,45 | 5,52 | 3,09 | 3,87 | 2,22 | 2,84 | -    | -    |
|                                      | -3,0               | 11,61 <sup>N</sup> | 11,82 <sup>N</sup> | 7,03 | 8,70 | 4,39 | 5,46 | 3,03 | 3,82 | -    | -    | -    | -    |
|                                      | -4,5               | 11,80 <sup>N</sup> | 15,01 <sup>N</sup> | 7,19 | 8,89 | 4,47 | 5,55 | 3,11 | 3,91 | -    | -    | -    | -    |
| 3,6                                  | 6,0                | -                  | -                  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                      | 4,5                | -                  | -                  | -    | -    | -    | -    | -    | -    | -    | -    | -    | -    |
|                                      | 3,0                | -                  | -                  | -    | -    | -    | -    | -    | -    | 1,16 | 1,63 | 0,60 | 1,00 |
|                                      | 1,5                | -                  | -                  | 5,64 | 7,03 | 3,49 | 4,42 | 2,22 | 2,92 | 1,41 | 1,97 | 0,89 | 1,35 |
|                                      | 0,0                | -                  | -                  | 6,73 | 8,54 | 4,12 | 5,28 | 2,72 | 3,58 | 1,86 | 2,54 | -    | -    |
|                                      | -1,5               | 7,54 <sup>N</sup>  | 7,70 <sup>N</sup>  | 6,99 | 8,65 | 4,42 | 5,48 | 3,04 | 3,82 | 2,17 | 2,78 | -    | -    |
|                                      | -3,0               | 10,07 <sup>N</sup> | 10,24 <sup>N</sup> | 6,91 | 8,58 | 4,30 | 5,37 | 2,95 | 3,74 | 2,12 | 2,74 | -    | -    |
|                                      | -4,5               | 12,76 <sup>N</sup> | 12,95 <sup>N</sup> | 7,02 | 8,70 | 4,33 | 5,41 | 2,98 | 3,77 | -    | -    | -    | -    |
| 4,4                                  | 6,0                | -                  | -                  | -    | -    | -    | -    | -    | -    | -    | -    | 0,22 | 0,53 |
|                                      | 4,5                | -                  | -                  | -    | -    | -    | -    | -    | -    | -    | -    | 0,36 | 0,71 |
|                                      | 3,0                | -                  | -                  | -    | -    | -    | -    | -    | -    | -    | -    | 0,52 | 0,92 |
|                                      | 1,5                | -                  | -                  | -    | -    | -    | -    | 2,21 | 2,90 | 1,33 | 1,88 | 0,75 | 1,21 |
|                                      | 0,0                | -                  | -                  | 6,63 | 8,43 | 4,03 | 5,18 | 2,60 | 3,45 | 1,70 | 2,38 | 1,13 | 1,69 |
|                                      | -1,5               | 6,38 <sup>N</sup>  | 6,50 <sup>N</sup>  | 6,94 | 8,59 | 4,37 | 5,43 | 2,98 | 3,75 | 2,09 | 2,70 | 1,47 | 1,97 |
|                                      | -3,0               | 8,25 <sup>N</sup>  | 8,38 <sup>N</sup>  | 6,71 | 8,37 | 4,17 | 5,23 | 2,83 | 3,61 | 2,00 | 2,61 | -    | -    |
|                                      | -4,5               | 10,34 <sup>N</sup> | 10,48 <sup>N</sup> | 7,71 | 8,39 | 4,12 | 5,19 | 2,79 | 3,58 | 2,00 | 2,62 | -    | -    |

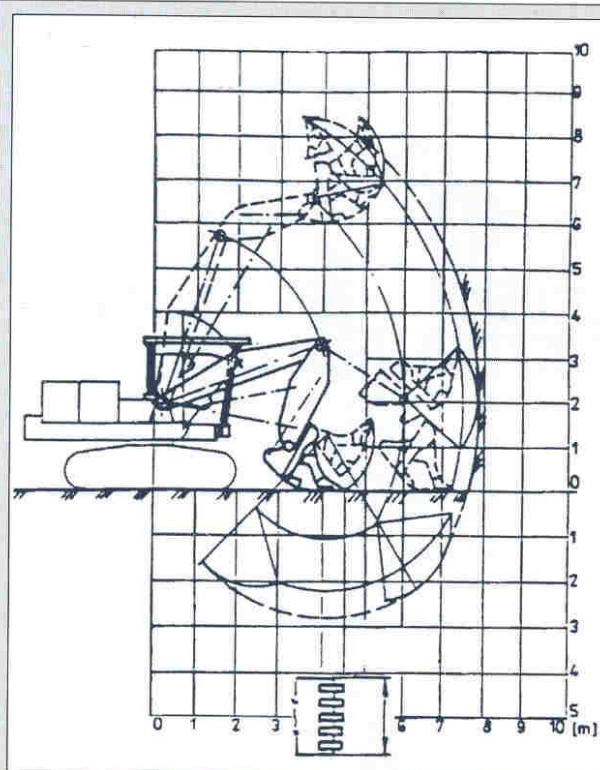
# LIFTING CAPACITY

Lifting capacity of the backhoe equipment with a two-piece boom considered on the suspension hook of the backhoe bucket of 1.25 m<sup>3</sup> in capacity with 25% safety against overturning according to DIN 15019 when slewing the superstructure by 360° and the excavator being positioned on a hard and flat surface. Values indicated N are limited by the loading capacity of the hydraulic cylinders of the dipper stick, values indicated V are limited by the loading capacity of the hydraulic cylinders of the boom.



| Lenght of the<br>dipper stick<br>[m] | Height<br>B<br>[m] | Unloading A [m]    |                    |      |                   |      |      |      |      |      |      |      |      |
|--------------------------------------|--------------------|--------------------|--------------------|------|-------------------|------|------|------|------|------|------|------|------|
|                                      |                    | 3                  |                    | 4,5  |                   | 6    |      | 7,5  |      | 9    |      | 10,5 |      |
|                                      |                    | ST                 | LC                 | ST   | LC                | ST   | LC   | ST   | LC   | ST   | LC   | ST   | LC   |
| 1,9                                  | 6,0                | -                  | -                  | -    | -                 | -    | -    | 1,52 | 1,98 | -    | -    | -    | -    |
|                                      | 4,5                | -                  | -                  | 4,33 | -                 | 2,70 | 3,36 | 1,64 | 2,15 | 0,94 | 1,36 | -    | -    |
|                                      | 3,0                | -                  | -                  | -    | -                 | 2,73 | 3,51 | 1,80 | 2,39 | 1,16 | 1,64 | -    | -    |
|                                      | 1,5                | -                  | -                  | -    | -                 | 3,14 | 4,08 | 2,14 | 2,84 | 1,51 | 2,08 | -    | -    |
|                                      | 0,0                | -                  | -                  | -    | -                 | 4,14 | 5,33 | 2,83 | 3,70 | 2,13 | 2,82 | -    | -    |
|                                      | -1,5               | -                  | -                  | 7,00 | 8,68              | 4,41 | 5,48 | 3,10 | 3,89 | -    | -    | -    | -    |
|                                      | -3,0               | -                  | -                  | 7,19 | 8,88              | 4,48 | 5,57 | 3,15 | 3,95 | -    | -    | -    | -    |
|                                      | -4,5               | -                  | -                  | -    | -                 | -    | -    | -    | -    | -    | -    | -    | -    |
| 2,5                                  | 6,0                | -                  | -                  | -    | -                 | -    | -    | -    | -    | 0,74 | 1,11 | -    | -    |
|                                      | 4,5                | -                  | -                  | -    | -                 | -    | 3,48 | 1,66 | 2,17 | 0,91 | 1,33 | -    | -    |
|                                      | 3,0                | -                  | -                  | -    | -                 | 2,80 | 3,57 | 1,78 | 2,36 | 1,10 | 1,57 | -    | -    |
|                                      | 1,5                | -                  | -                  | -    | -                 | 3,09 | 4,03 | 2,06 | 2,76 | 1,39 | 1,96 | -    | -    |
|                                      | 0,0                | -                  | -                  | 6,72 | 8,45 <sup>N</sup> | 3,97 | 5,14 | 2,68 | 3,54 | 1,94 | 2,62 | -    | -    |
|                                      | -1,5               | -                  | -                  | 6,85 | 8,52              | 4,32 | 5,39 | 3,02 | 3,80 | 2,20 | 2,82 | -    | -    |
|                                      | -3,0               | -                  | -                  | 6,97 | 8,66              | 4,34 | 5,41 | 3,02 | 3,81 | -    | -    | -    | -    |
|                                      | -4,5               | -                  | -                  | -    | -                 | 4,49 | 5,58 | 3,16 | 3,97 | -    | -    | -    | -    |
| 3,1                                  | 6,0                | -                  | -                  | -    | -                 | -    | -    | -    | -    | 0,75 | 1,12 | -    | -    |
|                                      | 4,5                | -                  | -                  | -    | -                 | -    | -    | 1,69 | 2,20 | 0,89 | 1,30 | -    | -    |
|                                      | 3,0                | -                  | -                  | -    | -                 | 2,91 | 3,68 | 1,79 | 2,37 | 1,05 | 1,52 | 0,56 | 0,96 |
|                                      | 1,5                | -                  | -                  | -    | -                 | 3,11 | 4,04 | 2,02 | 2,71 | 1,30 | 1,86 | 0,86 | 1,32 |
|                                      | 0,0                | -                  | -                  | 6,43 | 7,71 <sup>N</sup> | 3,85 | 5,02 | 2,56 | 3,42 | 1,78 | 2,47 | -    | -    |
|                                      | -1,5               | 7,00 <sup>N</sup>  | 7,22 <sup>N</sup>  | 6,75 | 8,42              | 4,26 | 5,32 | 2,05 | 3,73 | 2,12 | 2,74 | -    | -    |
|                                      | -3,0               | 10,14 <sup>N</sup> | 10,35 <sup>N</sup> | 6,80 | 8,48              | 4,22 | 5,29 | 2,90 | 3,69 | 2,11 | 2,73 | -    | -    |
|                                      | -4,5               | -                  | -                  | 7,00 | 8,69              | 4,31 | 5,40 | 2,98 | 3,78 | -    | -    | -    | -    |
| 3,6                                  | 6,0                | -                  | -                  | -    | -                 | -    | -    | -    | -    | 0,76 | 1,13 | -    | -    |
|                                      | 4,5                | -                  | -                  | -    | -                 | -    | -    | -    | -    | 0,88 | 1,30 | 0,32 | 0,67 |
|                                      | 3,0                | -                  | -                  | 5,07 | 6,18              | 3,02 | 3,79 | 1,80 | 2,39 | 1,02 | 1,49 | 0,49 | 0,89 |
|                                      | 1,5                | -                  | -                  | 5,08 | 6,47              | 3,15 | 4,07 | 1,99 | 2,69 | 1,24 | 1,80 | 0,75 | 1,22 |
|                                      | 0,0                | -                  | -                  | 6,28 | 7,21 <sup>N</sup> | 3,78 | 4,94 | 2,48 | 3,33 | 1,67 | 2,35 | 1,18 | 1,75 |
|                                      | -1,5               | 6,16 <sup>N</sup>  | 6,33 <sup>N</sup>  | 6,70 | 8,36              | 4,22 | 5,28 | 2,90 | 3,68 | 2,06 | 2,68 | 1,48 | -    |
|                                      | -3,0               | 8,75 <sup>N</sup>  | 8,92 <sup>N</sup>  | 6,67 | 8,34              | 4,13 | 5,20 | 2,82 | 3,60 | 2,02 | 2,64 | -    | -    |
|                                      | -4,5               | -                  | -                  | 6,81 | 8,50              | 4,17 | 5,25 | 2,85 | 3,64 | -    | -    | -    | -    |
| 4,4                                  | 6,0                | -                  | -                  | -    | -                 | -    | -    | -    | -    | -    | -    | 0,16 | 0,47 |
|                                      | 4,5                | -                  | -                  | -    | -                 | -    | -    | -    | -    | 0,89 | 1,31 | 0,28 | 0,62 |
|                                      | 3,0                | -                  | -                  | -    | -                 | -    | -    | 1,86 | 2,44 | 0,99 | 1,46 | 0,41 | 0,80 |
|                                      | 1,5                | -                  | -                  | 5,34 | 6,71              | 3,22 | 4,14 | 1,96 | 2,65 | 1,15 | 1,70 | 0,61 | 0,07 |
|                                      | 0,0                | -                  | -                  | 6,05 | 6,64 <sup>N</sup> | 3,64 | 4,80 | 2,33 | 3,18 | 1,50 | 2,17 | 0,96 | 1,52 |
|                                      | -1,5               | 5,16 <sup>N</sup>  | 5,28 <sup>N</sup>  | 6,60 | 7,31 <sup>N</sup> | 4,15 | 5,21 | 2,83 | 3,60 | 1,98 | 2,59 | 1,38 | 1,89 |
|                                      | -3,0               | 7,09 <sup>N</sup>  | 7,23 <sup>N</sup>  | 6,44 | 8,10              | 3,97 | 5,04 | 2,69 | 3,47 | 1,89 | 2,50 | 1,35 | 1,86 |
|                                      | -4,5               | 9,22 <sup>N</sup>  | 9,36 <sup>N</sup>  | 6,48 | 8,15              | 3,95 | 5,02 | 2,66 | 3,45 | 1,88 | 2,51 | -    | -    |

## LOADING EQUIPMENT



Excavator with the loading equipment and clam loading shovel

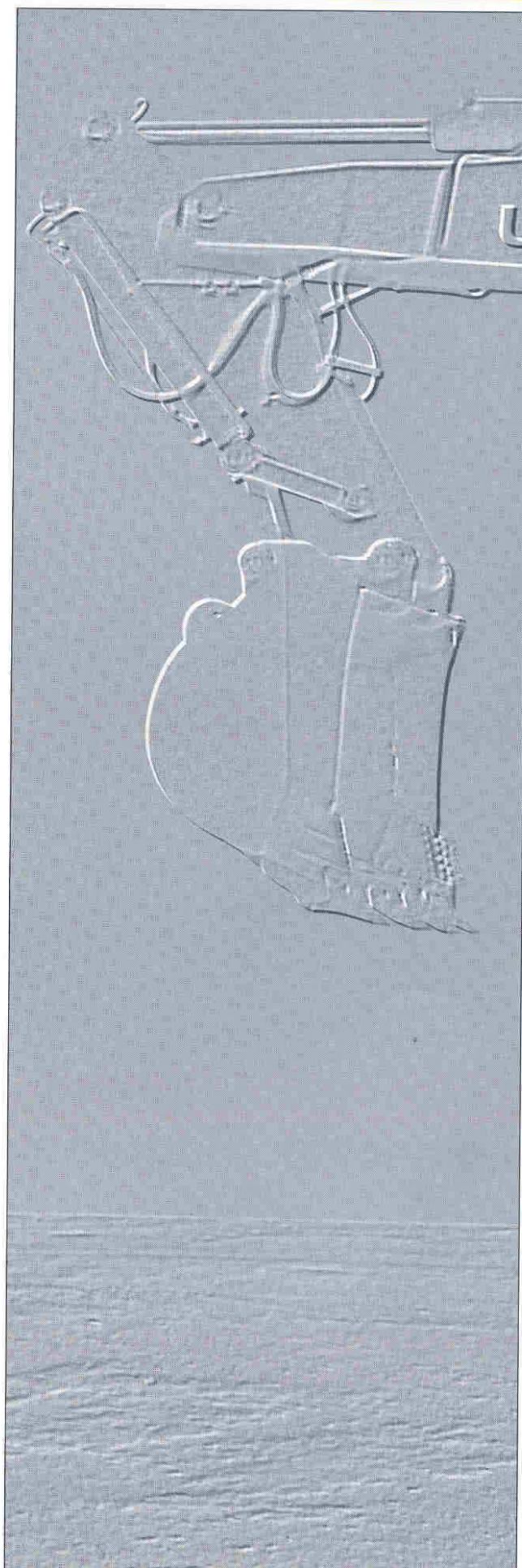
### Basic machine with ST undercarriage and:

- loading boom
- loading dipper stick
- clam loading shovel

|                           |        |
|---------------------------|--------|
| Shovelling digging force: | 205 kN |
| Break out digging force:  | 180 kN |
| Closing force:            | 96 kN  |

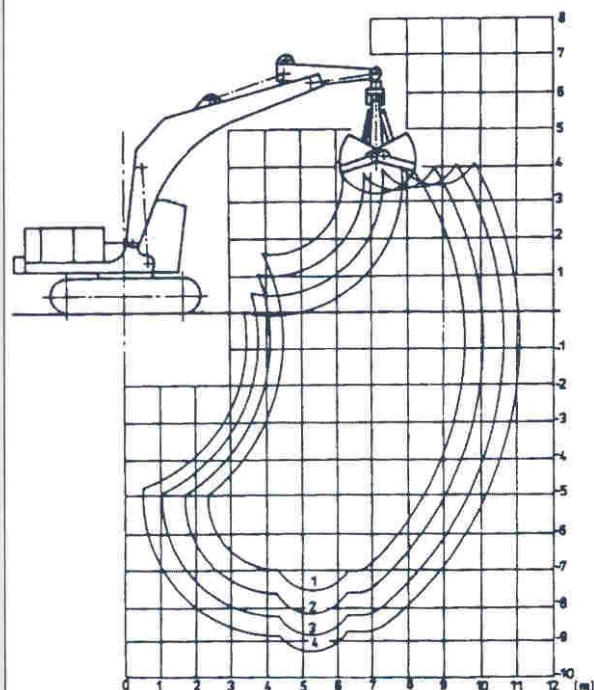
### Clam loading shovels

|                         |           |           |          |
|-------------------------|-----------|-----------|----------|
| Capacity CECE/SAE [m³]  | 1,15/1,40 | 1,40/1,70 | 2,0/2,40 |
| Width of the shovel [m] | 1,47      | 1,72      | 1,97     |
| Weight [kg]             | 2160      | 2340      | 2390     |





## GRAB EQUIPMENT



Excavator with a monoboom and grab

### Basic machine with:

- monoboom of length 6,7 m
- dipper stick of length
  - 1,9 m (1)
  - 2,5 m (2)
  - 3,1 m (3)
  - 3,6 m (4)
- grab

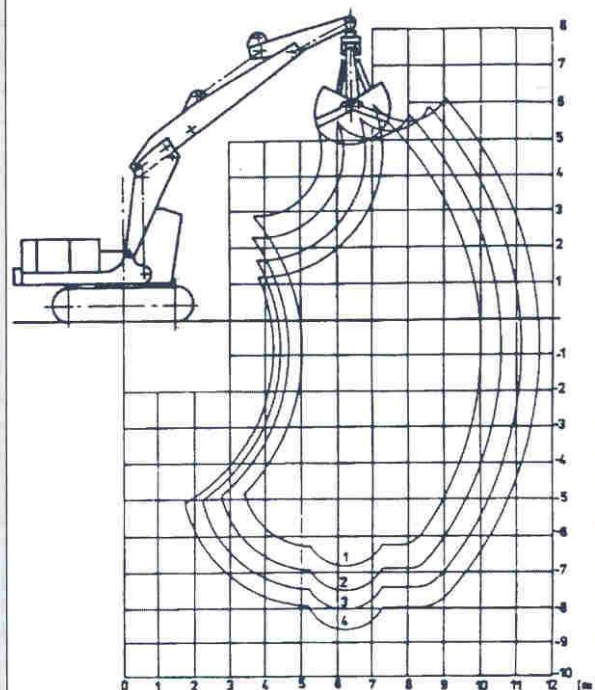
A grab can be used instead of the backhoe bucket with all combination of booms and dipper sticks of length 1,9 - 3,6 m.

### Double jaw grabs - rectangular jaws

|                       |      |      |      |      |      |      |
|-----------------------|------|------|------|------|------|------|
| Capacity              | [m³] | 0,45 | 0,63 | 0,80 | 1,00 | 1,60 |
| Width                 | [m]  | 0,60 | 0,80 | 1,04 | 1,04 | 1,29 |
| Weight                | [kg] | 1760 | 1940 | 2100 | 1800 | 1950 |
| Closing digging force | [kN] | 103  | 103  | 98   | 98   | 94   |

### Double jaw grabs - circular jaws

|                       |      |      |      |
|-----------------------|------|------|------|
| Capacity              | [m³] | 0,17 | 0,30 |
| Diameter              | [m]  | 1,20 | 1,50 |
| Weight                | [kg] | 1610 | 1750 |
| Closing digging force | [kN] | 165  | 148  |



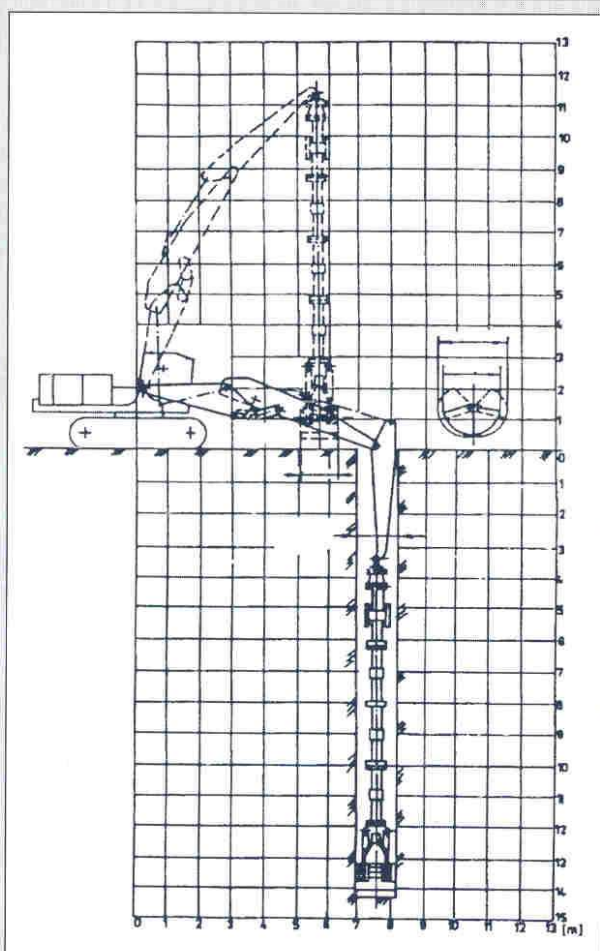
Excavator with a two-piece boom and grab

### Basic machine with:

- monoboom of length 6,7 m
- dipper stick of length
  - 1,9 m (1)
  - 2,5 m (2)
  - 3,1 m (3)
  - 3,6 m (4)
- grab

### Multiple grab jaw

|          |      | Jaws closed | Jaws opened |
|----------|------|-------------|-------------|
| Capacity | [m³] | 0,70        |             |
| Diameter | [m]  | 1,58        | 2,60        |
| Weight   | [kg] | 1650        |             |



Excavator with the grab equipment on a two-part straight boom on extendable stick for very deep digging

#### Basic machine with an LC undercarriage with:

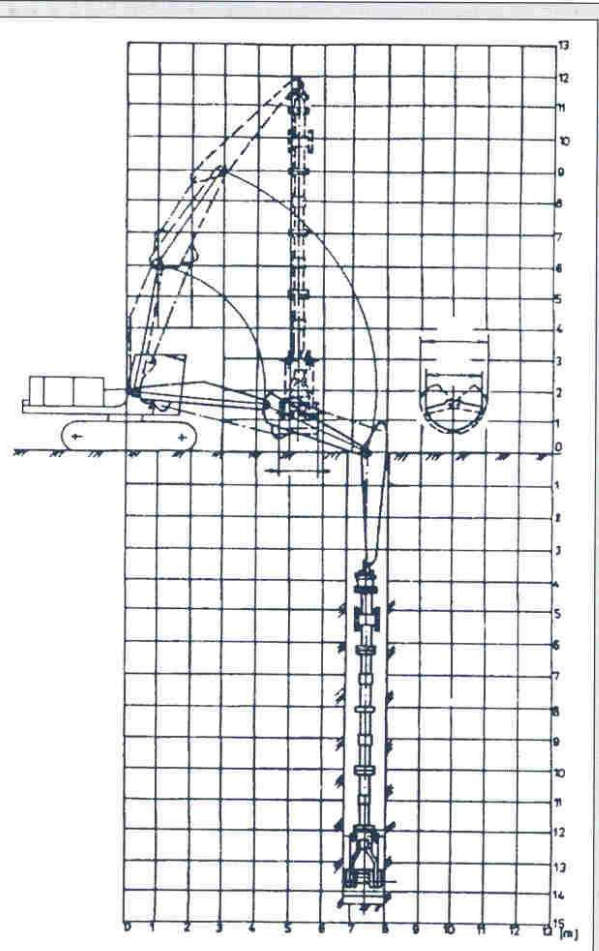
- two-piece boom
- boom strut
- a grab dipper stick of 3,6 m length
- extendable sticks
- turret grab head
- grab

#### Double jaw grabs with:

|                                |                     |
|--------------------------------|---------------------|
| • rectangular jaws of capacity | 0,45 m <sup>3</sup> |
|                                | 0,63 m <sup>3</sup> |
| • circular jaws of diameter    | 1,20 m              |
|                                | 1,50 m              |

#### Double jaw grabs - circular jaws

|                       |                   |      |      |
|-----------------------|-------------------|------|------|
| Capacity              | [m <sup>3</sup> ] | 0,17 | 0,30 |
| Diameter              | [m]               | 1,20 | 1,50 |
| Weight                | [kg]              | 1610 | 1750 |
| Closing digging force | [kN]              | 165  | 148  |



Excavator with the grab equipment on a two-part hydraulically adjustable boom with a grab on extendable sticks for very deep digging without the necessity of moving

#### Basic machine with an LC undercarriage with:

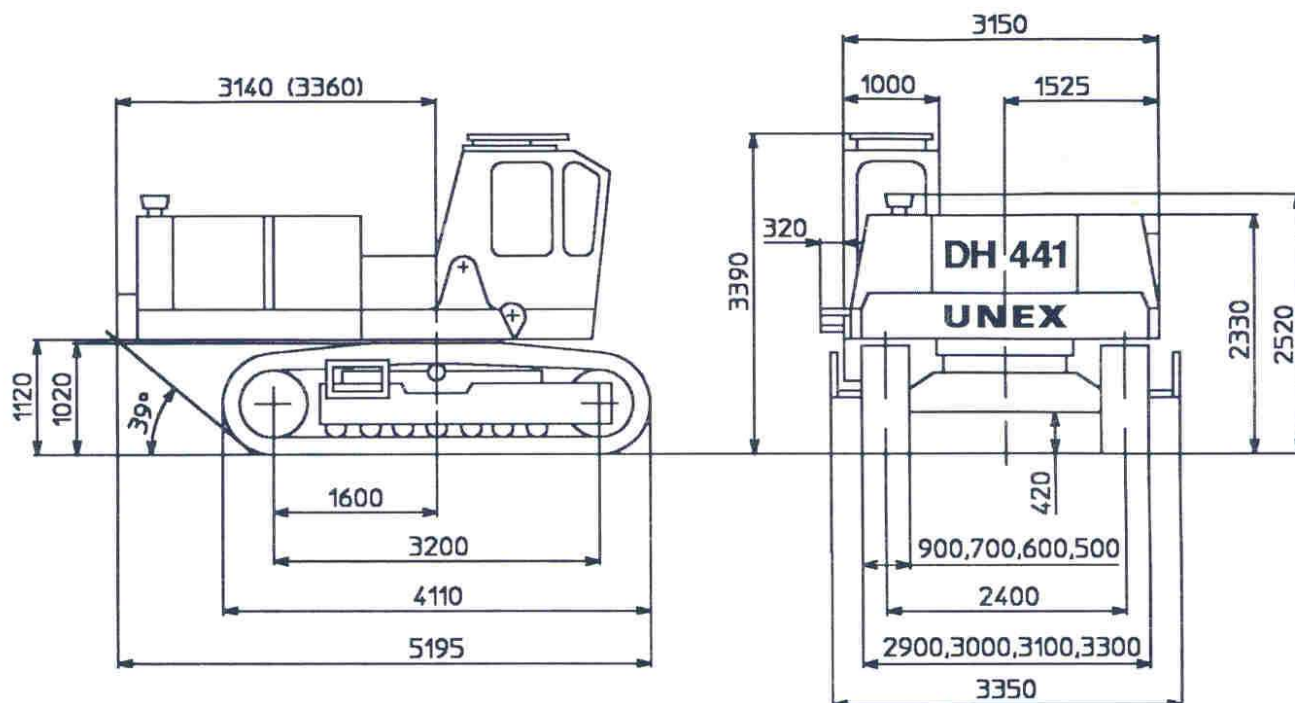
- loading boom
- boom stick
- a grab dipper stick of 3,6 m length
- extendable sticks
- turret grab head
- grab

#### Double jaw grabs with:

|                                |                     |
|--------------------------------|---------------------|
| • rectangular jaws of capacity | 0,45 m <sup>3</sup> |
|                                | 0,63 m <sup>3</sup> |
| • circular jaws of diameter    | 1,20 m              |
|                                | 1,50 m              |



## BASIC DIMENSIONS



## Service weight and ground pressure

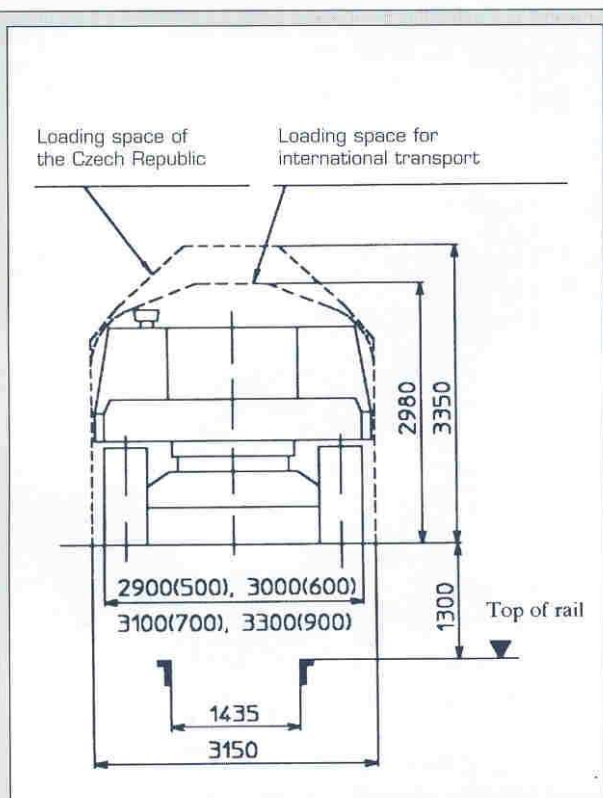
### Excavator with the backhoe equipment:

| track width [mm] | undercarriage ST    | undercarriage LC    |         |
|------------------|---------------------|---------------------|---------|
| 500              | 26,8-28,2t/75-79kPa | 28,3-29,6t/64-67kPa | triple  |
| 600              | 27,1-28,4t/63-66kPa | 28,6-30,0t/54-57kPa | grouser |
| 700              | 27,3-28,7t/55-57kPa | 28,9-30,3t/47-49kPa | shoe    |
| 900              | 28,1-29,5t/44-46kPa | 30,0-31,3t/38-40kPa |         |
| 900              | 27,3-28,7t/42-44kPa | 29,0-30,3t/36-38kPa | smooth  |
| 1100             | -                   | 29,3-30,7t/30-32kPa | plates  |

### Excavator with the loading equipment:

| track width [mm] | undercarriage ST |         |
|------------------|------------------|---------|
| 500              | 27,4-27,7t/78kPa | triple  |
| 600              | 27,7-28,0t/66kPa | grouser |
| 700              | 27,9-28,2t/57kPa | shoe    |
| 900              | 28,9-29,3t/46kPa |         |

## TRANSPORT



### RAILWAY TRANSPORT

The excavator fitted with standard undercarriage (ST) can be transported rails as outlined, according to ČSN 28 0312 (loading space of ČSD) and ČSN 28 0312 (loading space for international transport), without dismantling if equipped with tracks of 500, 600 and 700 mm width. Tracks of 900 mm width have to be dismantled unless exempted from exceeding the limit.

The excavator fitted with an extended undercarriage (LC) can be transported on rails as outlined according to ČSN 28 0312 (loading space of ČSD) without dismantling if equipped with tracks of 500 mm. Tracks of 600, 700, 900 and 1100 mm width have to be dismantled unless exempted from exceeding the loading space limit.

If transported on rails as outlined according to ČSN 28 0312 (loading space for international transport), tracks of all widths have to be dismantled in order to reduce the total height of the excavator on the freight-car.

Further proceeding in transport is the same as with standard undercarriage.

### TRANSPORT ON MULTI-WHEEL TRAILOR

The excavator can be transported on roads on multi-wheel trailers without dismantling or perhaps, partly, insuring the transport according to the roads safety rules.