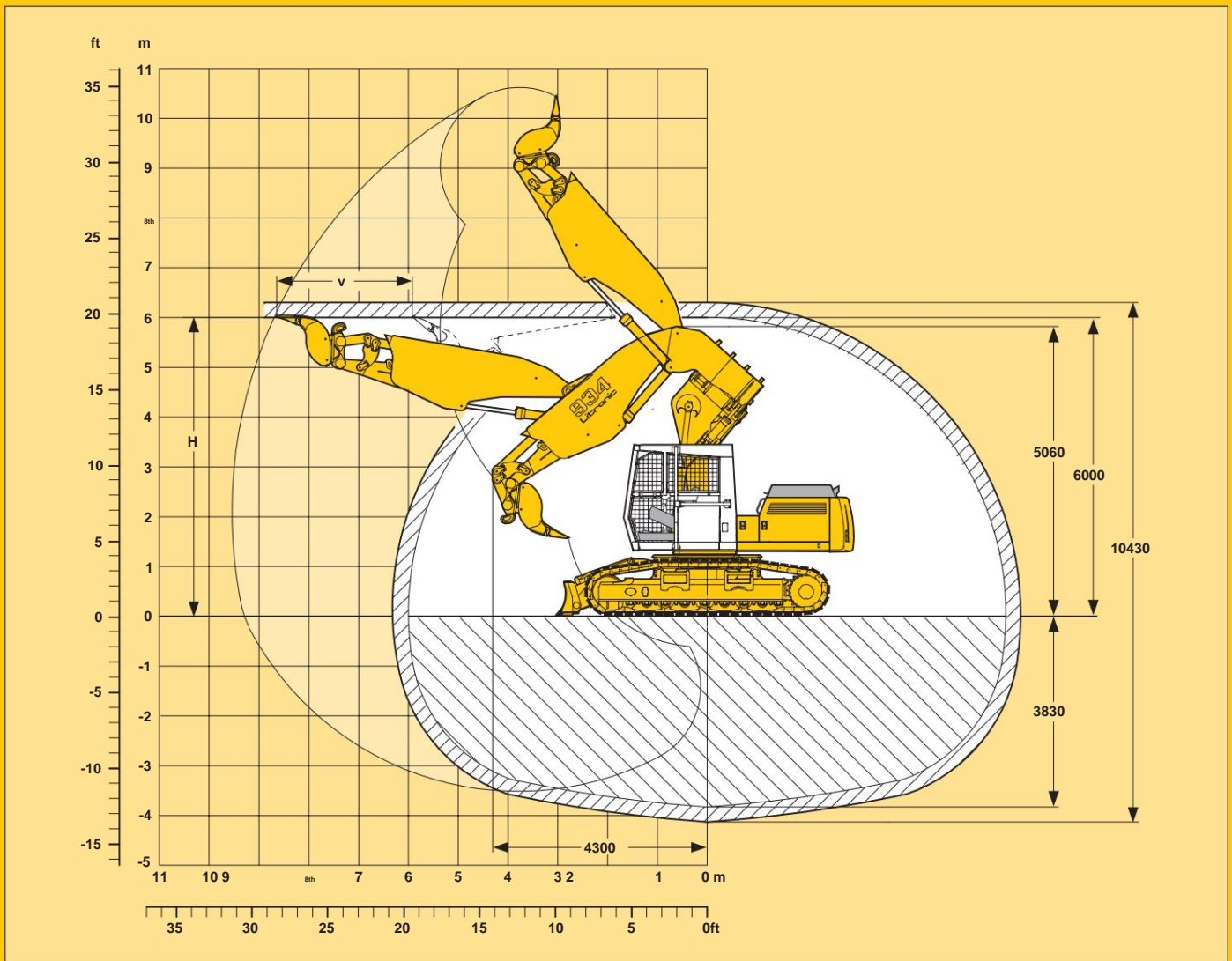


# The construction machines for economical tunnel use.



# LIEBHERR



**scope of delivery**  
**R 934 B litronic` tunnel device**

- x Basic device R 934 B litronic`
- x Chain D 7 with 2-web base plates 500 mm
- x Traction drive protection
- x Four chain guides per side
- x Tunnel version mounting kit
- x Cabin for tunnel use
- x Uppercarriage protection
- x Protection plate on tank
- x alternator 55 A
- x Front tank protection
- x Driving warning device
- x Emergency towing attachment kit
- x lifting cylinder
- x swivel arm with 2 x 45h swivel bearings
- x dipper arm 4.50 m with protected tipping cylinder
- x mining bucket with cutting width 700 mm
- x positioning swivel brake\*
- x Rear headlight with stone chip protection\*
- x refueling pump\*
- x Rotary drive mounting kit\*
- x Dozer blade 3000 mm with cylinder protection\*
- x Quick coupler SW 48 for tunnel use\*

\* = option

Swivel arm bolted into hole II of the superstructure

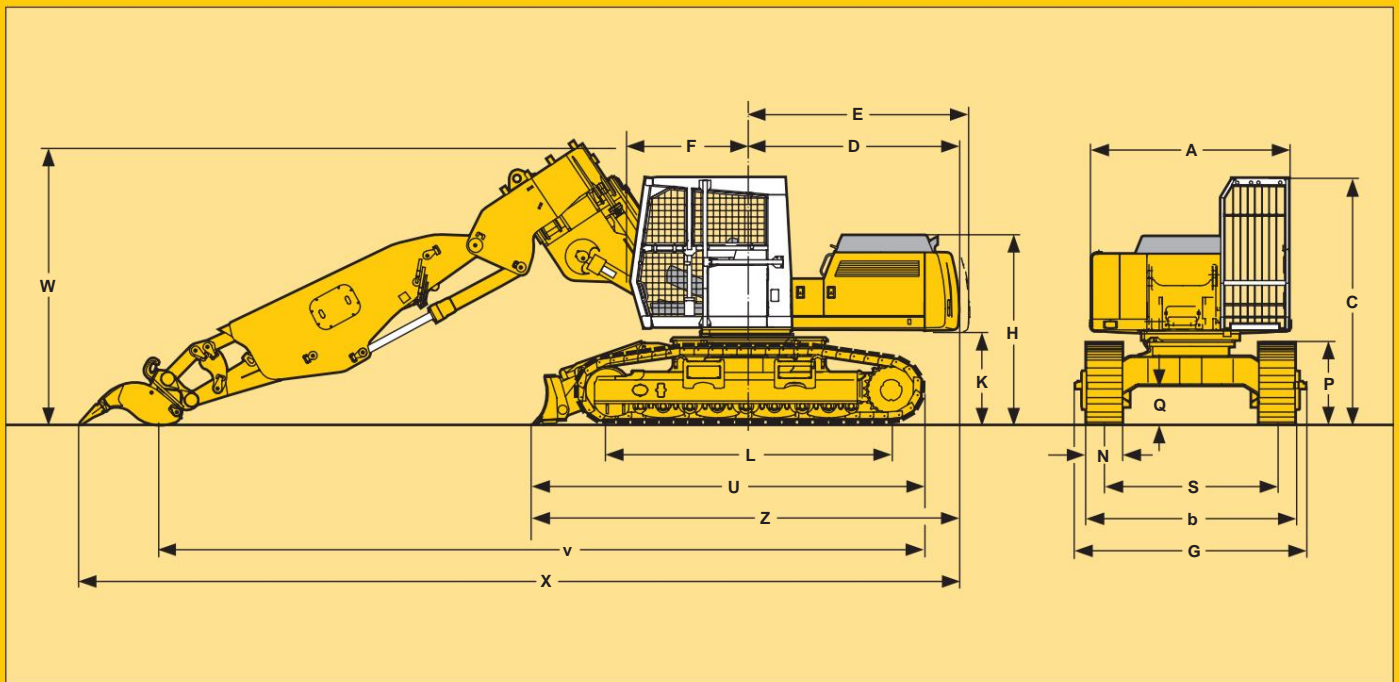
Tunnel height	feed
Hm	v m
6.00	2.70
6.50	2.55
7.00	2.35
7.50	2.20
8.00	2.00

Max. breaking force: 129 kN  
 Max. breakaway force: 173 kN

# R 934 B litronic` tunnel device with 45h swivel bearing

<b>Tunnel devices</b>	<b>R 900 HDS litronic` R 912 litronic`</b>	<b>R 934 B litronic`</b>	
<b>engine</b>			
<b>Manufacturer</b>	Deutz	Liebherr	Liebherr
<b>design type</b>	4-cylinder in-line engine, air-cooled	4-cylinder in-line engine, water-cooled	4-cylinder in-line engine water cooled
<b>Type</b>	BF4L 913	D 924 TE	D 924 TI-E
<b>Performance</b>	67 kW/2000 rpm	99 kW/2000 rpm	145 kW/2000 rpm
<b>Fuel tank contents</b>	200 litres	360 litres	390 l
<b>Battery voltage</b>	24V	24V	24V
<b>Battery capacity</b>	2 x 92Ah/12V	2 x 110Ah/12V	2 x 110Ah/12V
<b>Alternator capacity</b>	Three-phase current 24 V/35 A	Three-phase current 24 V/55 A	Three-phase current 24 V/55 A
<b>Hydraulics</b>			
<b>hydraulic pump</b>	Liebherr variable double pump in Swashplate design	Liebherr variable double pump in Swashplate design	Liebherr variable double pump in Swashplate design
<b>Flow rate max.</b>	2 x 128L	2 x 200 litres	2 x 230 litres
<b>Operating pressure max.</b>	320/360 bar	320/360 bar	350 bar
<b>regulation</b>	electronic Limit load control	electronic Limit load control	electronic Limit load control
<b>Hydraulic tank contents</b>	180 litres	230 litres	280 litres
<b>traction drive</b>			
<b>drive</b>	Liebherr Swashplate oil motor	Liebherr Swashplate oil motor	Liebherr Swashplate oil motor
<b>transmission</b>	Liebherr compact Planetary gear	Liebherr compact Planetary gear	Liebherr compact Planetary gear
<b>Driving speed</b>	0-2.8/5.0km/h	0-3.0/5.0km/h	0-2.8/5.0km/h
<b>Tensile force max.</b>	240 kN	271 kN	336 kN
<b>drive</b>	W 60 L	W 60 L	D7
<b>floor tiles</b>	2-bar/500 mm	2-bar/500 mm	2-bar/500 mm
<b>equipment</b>			
<b>Swing arm</b>	with 2 x 45h swivel bearings or with 360h swivel bearing	with 2 x 45h swivel bearings	with 2 x 45h swivel bearings
<b>spoon handle</b>	3.60 m with integrated Bucket tilt cylinder	4.20 m with integrated Bucket tilt cylinder	4.50 m with integrated Bucket tilt cylinder
<b>Grave vessel</b>	Mining bucket 550 mm in HD version	Mining bucket 550 mm in HD version	Mining bucket 700 mm in HD version
<b>Options</b>	SW adapter Hydraulic hammer Concrete biter	SW adapter Hydraulic hammer Concrete biter	SW adapter Hydraulic hammer Concrete biter

# Technical data hydraulic excavator



		R 900 HDS litronic <sup>c</sup>		R 912 litronic <sup>c</sup>	R 934 B litronic <sup>c</sup>
		with 360h swivel bearing	with 45h swivel bearing	with 45h swivel bearing	with 45h swivel bearing
A	mm	2500	2500	2530	2800
b	mm	2500	2500	-	-
C	mm	3290	3290	3250	3425
D	mm	1750	1750	2655	2950
E	mm	1750	1750	2725	3076
F	mm	-	-	1660	1670
H	mm	2274	2274	2330	2660
K	mm	1154	1154	1145	1270
L	mm	3368	3368	3368	4000
P	mm	1042	1042	1042	1125
Q	mm	472	472	472	537
R	mm	4740	4740	-	-
S	mm	-	-	2000	2400
U	mm	-	-	4740	5480
Z	mm	-	-	5310	5970
N	mm	500	500	500	500
b	mm	-	-	2500	3020
G	mm	-	-	-	3195
v	mm	7650	8900	9970	10650
W	mm	2850	3400	3700	4000
X	mm	8690	9950	11100	12250
Weight	kg	22900	22600	26000	40800

# Dimensions and weights

## Hydraulic excavator

## Undercarriage

	Default option	
Two-stage traction motors	X	
Additional chain guide		
R 900 HDS		X
R912		X
R 934 B	X	
Permanently lubricated rollers	X	
Protective cover for travel drives		
R 900 HDS	X	
R912		X
R 934 B	X	
Dozer blade with cylinder protection		X
Special paintwork		X

## Uppercarriage

Engine cover flap with gas spring, lockable	X	
Lockable tool room	X	
Handrails, anti-slip coverings	X	
Tool set	X	
Maintenance-free parking brake Swing mechanism	X	
Maintenance-free HD batteries	X	
Sound insulation	X	
Tunnel version attachment kit consisting of:		
Additional circle pivot bearing	X	
Hydraulic hammer attachment kit	X	
Switching shield support	X	
Cover display	X	
Electric refueling pump		X
Positioning swivel brake		X
Reversing warning device for R 912 and R 934 B	X	
Protective plate on tank		
R 900 HDS		X
R912		X
R 934 B	X	
Special paintwork		X
Advanced tooling		X

## Hydraulics

Electronic limit load control in Full and partial load range	X	
Continuous performance adjustment	X	
Shut-off valve between hydraulic tank and pumps	X	
Print truncation	X	
Minimum stroke control	X	
Pressure test connections for hydraulics	X	
Additional control circuits	X	
Filled with environmentally friendly oils		X

## engine

	Default option	
Direct injection	X	
exhaust gas turbocharger alternator 35 or 55 A	X	
Air filter with pre-separator, main and Security element	X	
Main circuit breaker for electrical system	X	
Automatic idle		
R 900 HDS		X
R912		X
R 934 B	X	
Cold start system		X
Particulate filter		X

## Driver's cab

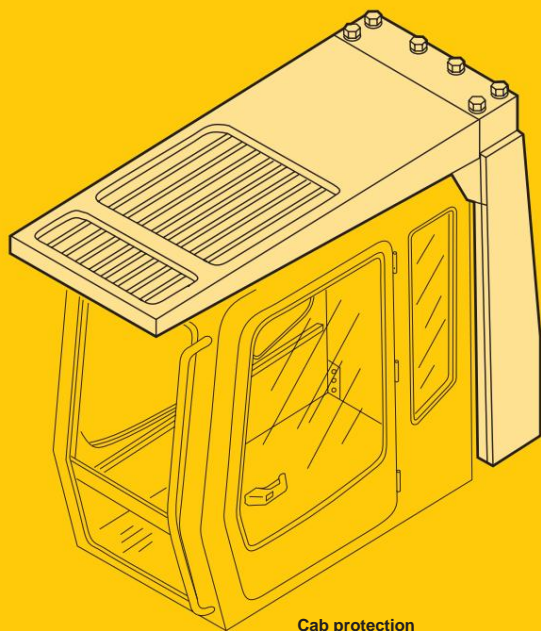
Cabin in tunnel use	X	
Stone chip protection with front and Side protection for R 900		X
6-way adjustable seat	X	
Driver's seat independent or together adjustable with consoles	X	
Insertable hand levers for accelerator pedals	X	
Cigarette lighter and ashtray	X	
Control and warning lights	X	
Digital display for oil temperature, Engine speed and oil pressure	X	
Operating hours display	X	
Uppercarriage protection		
R 900 HDS	-	-
R912		X
R 934 B	X	
Rear headlight with stone chip protection		
R 900 HDS		X
R912		X
R 934 B		X
Additional headlights		X
Electronic immobilizer		X

## equipment

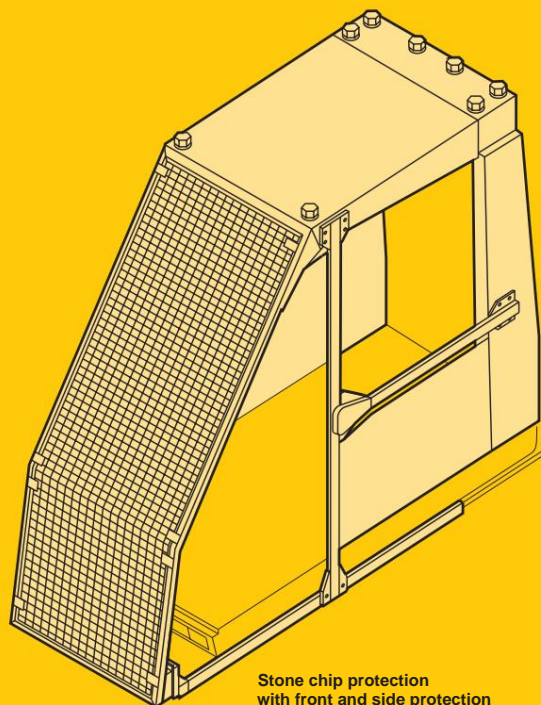
Cylinder end position cushioning	X	
Sealed bearings	X	
Combined lubrication points	X	
SAE flange connections in all High pressure pipes	X	
Work lights	X	
Pipe burst protection		X
Mechanical quick-change adapter		X
Quick change bucket		X
Hose quick couplings		X
Additional special and special grave vessels		X
overload warning device		X

# Standard and optional equipment Hydraulic excavator

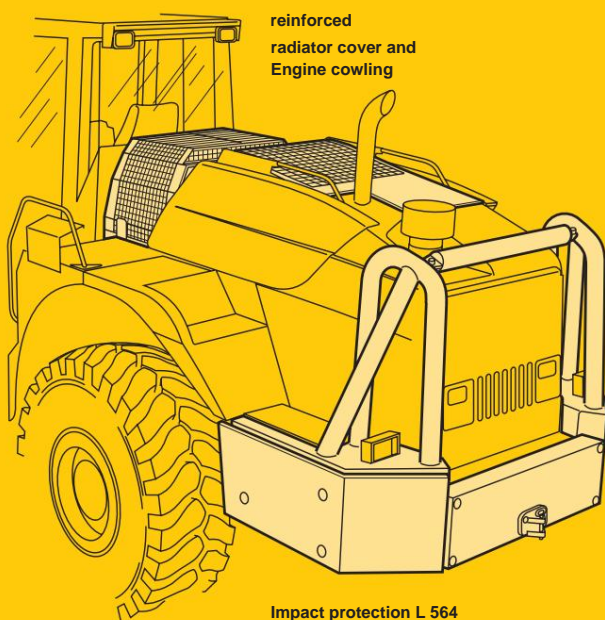
## Safety devices



Cab protection

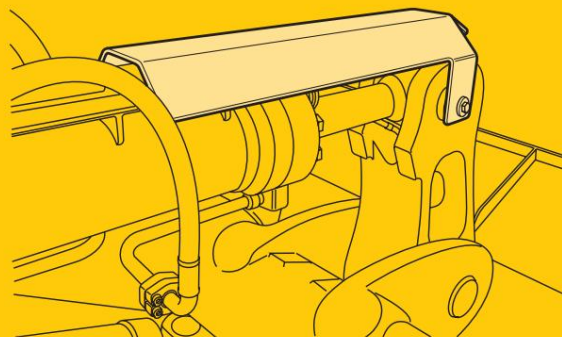


Stone chip protection with front and side protection

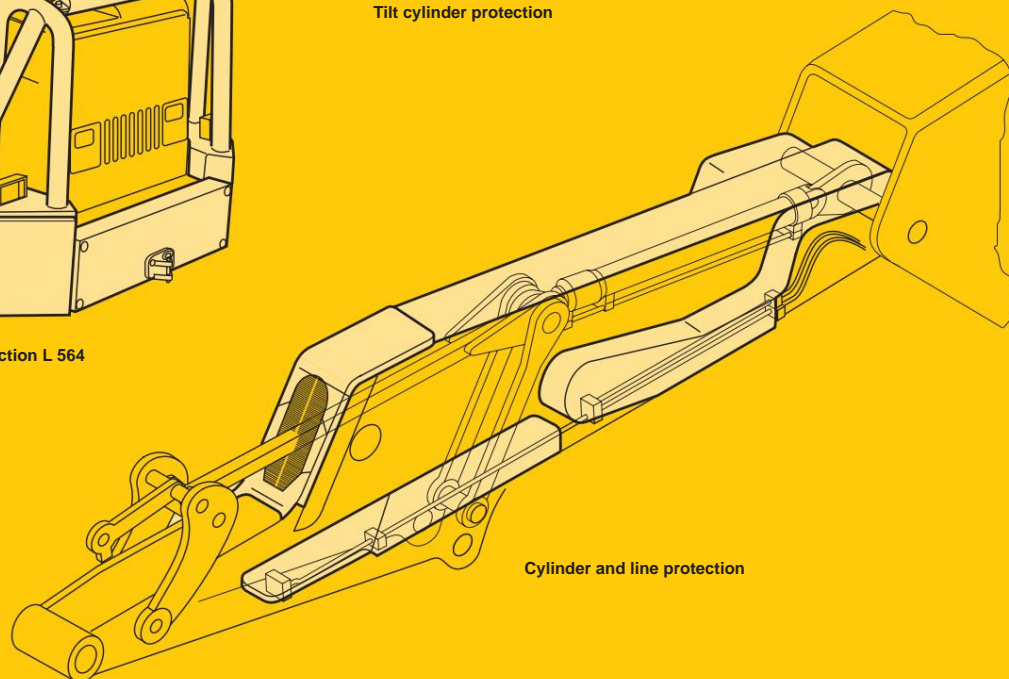


reinforced radiator cover and Engine cowling

Impact protection L 564



Tilt cylinder protection



Cylinder and line protection