

Simba M4

Hydraulic production drill rig for long-hole mining and medium-to-large holes ranging from 51 to 178 mm in diameter



Compact and powerful long-hole drilling solution

The sturdy Simba M4 is a long-hole production drill rig for medium to large-drift mining. It accommodates a range of drill bits, rock drills and in-the-hole hammers to adapt to your specific needs. The rig operator enjoys excellent maneuverability when tramming thanks to the compact design. When you seek a hard-working, high-precision solution for long-hole drilling, rely on the powerful Simba M4.

+ Main benefits

Easy setup and excellent mobility thanks to the drilling unit which is mounted on a sliding table arm

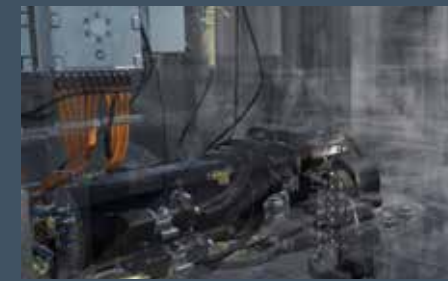
Optimized performance, hole quality and drill steel economy with a wide range of top hammers and in-the-hole hammers to best suit your operation

Precise and productive thanks to our acclaimed Rig Control System (RCS), tele-remote control option and smart automated single/multi-hole drilling functions

The bit changer increases efficiency and keeps the operator at a safe distance from the drilling zone



+ Battery driveline benefits



The 150 kW electric drive train of the Simba M4 Battery emits 80% less heat during tramming than its diesel-driven counterpart's 120 kW diesel engine.



The complete drive train and battery are based on commercial, well-tested components that enable high performance and efficiency.



Automatic battery management and the industry's safest battery solution make it ideal for optimal production in demanding underground work environments.

The cabin is ROPS and FOPS certified for a safe, ergonomic operating environment

The reverse camera enhances visibility and safety while transporting the drill rig

Option: Tripod mounted camera can be used to increase the operator visibility during drilling, the camera kit, includes a 7.5" display and a control panel for controlling the camera functions from the cabin.

Fast and accurate rock drilling

Simba M4 models are built for fast on-site positioning and accurate hole placement. Intelligent functions on these high-performance rigs boost efficiency and productivity while making the operator's job safer and easier.



+ Safety

The Simba M4 is designed with safety in mind. The rig operator sits in a ROPS and FOPS certified cabin which offers excellent visibility and comfort. Barrier sensors protect the operator and other workers from rotating parts during automatic drilling.



+ Automation

Boost your productivity by equipping your Simba M4 with smart automated functions such as ABC Regular or ABC Total. Your Simba M4 can then effectively continue to drill unattended throughout personnel breaks and shift changes. With the tele-remote control function, the rig operator can safely and comfortably command the rig from a distance.



+ Epiroc Rig Control System

We introduced the first version of our computerized drill rig control system in 1998 to take the market by storm. Throughout the years, the Rig Control System (RCS) has been further advanced and refined to include increasingly sophisticated functions informed by practical work experience and an on-going dialogue with clients. More than 3 000 RCS-equipped rigs are currently in operation world wide. At Epiroc, we continue to drive innovative development in the mining and tunneling industry.



A comprehensive service offering

Even the best equipment needs to be serviced regularly to make sure it sustains peak performance. An Epiroc service solution offers peace of mind, maximizing availability and performance throughout the lifetime of your equipment. We focus on safety, productivity and reliability.

By combining genuine parts and an Epiroc service from our certified technicians, we safeguard your productivity – wherever you are.

Technical specifications

● = Standard ○ = Option
A = Simba M4 B = Simba M4-ITH C = Simba with battery driveline

Drilling system	A	B	C
COP 1838*	○		○
COP 1838MUX*, COP 1838HUX*	○		○
COP 2550UX*	○		○
COP 3060MUX	○		○
COP 44 to COP 64		○	
COP 35			
Dry drilling system	○		○
Collar Pipe Inserter (CPI)	○		○
Thread lubrication kit	○	○	○
Bit changer, only with MUX/HUX/UX	○		○
Water mist flushing, external water and air supply (hydraulic oil cooled by water cooler)	○	●	○
Water mist flushing, external water and air supply (hydraulic oil cooled by air fan)	○	○	○
Hole blowing kit	○		○
Rock drill lubrication warning kit	●		●

Boom/drilling unit	A	B	C
Automatic lubrication for drilling and positioning unit	○	○	○
Central lubrication for drilling and positioning unit	●	●	●
Rod Handling System, RHS 17 (17*1 rods) mechanized drilling up to 32 m	○		○
Rod Handling System, RHS 27 (27*1 rods) mechanized drilling up to 51 m	○	○	○
Rod Handling System, RHS 35 (35*1 rods) mechanized drilling up to 63 m		○	
Turning table ±20	○	○	○
Adaptable to 4', 5' and 6' rods	●		●
Adaptable to 5' and 6' rods		●	
2 rear and 2 front stinger	●	●	●

Feed	A	B	C
BMH 200-Series 3 143 mm, 3 448 mm, 3 753 mm	○		○
BMH 200-Series (extractor) 3 348 mm, 3 653 mm, 3958 mm*	○		○
BMH 200-Series 3 316 mm, 3 621 mm, 3 926 mm**		○	
* +55 mm for COP 2550 UX, +240 mm for COP 4050 MUX			
** +138 mm for hammer guide			

Air system	A	B	C
Air flow guard	●	●	●
Compressor: Epiroc GAR 5	●		●
Compressor: Epiroc GAR 30	○		○
Compressor: Double GAR 30 +air receiver	○		○
Compressor: On-board booster, 25 bar/380 L/s		○	
External air supply connection for hole blowing	●		●
HECL lubrication system with electric filling pump		●	

Water system	A	B	C
Minimum water inlet pressure 2 bar	●	●	●
Hydraulic water booster pump. Capacity at 15 bar 250 L/min	●		●
Water injection pump. Capacity 50 L/min	○	●	○
Water hose reel including hose*	○	○	○

* Not applicable when booster compressor is installed on ITH drill rigs

Hydraulic system	A	B	C
Low oil level indicator and shut-down	●	●	●
Smart oil leakage shut-down system	●	●	●
Oil temperature gauge on oil tank, electronically supervised	●	●	●
Hydraulic oil thermostat	●	●	●
Water/oil cooler in stainless steel	●	●	●
Oil filter indicator	●	●	●
Filtration 16 µm	●	●	●
Mineral hydraulic oil	●	●	●
Electrical oil filling pump	●	●	●
Heater kit for hydraulic oil tank, diesel engine and electric motors	○	○	○
Biodegradable hydraulic oil	○	○	○
Nr-Cr plated piston rods (limited selection on request)	○	○	○

Control system	A	B	C
Kidney filter	○	○	○
Epiroc Rig Control System (RCS)	●	●	●
Advanced Boom Control (ABC) Regular	○	○	○
Advanced Boom Control (ABC) Total	○	○	○
Breakthrough automatic stop	○	○	○
Underground manager pro	○	○	○
Drill plan handling	○	○	○
Drill plan handling with raise view	○	○	○
Full drilling data handling	○	○	○
Measure While Drilling (MWD)	○	○	○
Void detection	○		○
Remote cradle control/Remote feed control	○	○	○
Rig Remote Access (RRA)	○	○	○
Mobile tele remote/Multi tele remote	○	○	○
Remote operating kit	●	●	●
Additional panel	○	○	○
Remote controlled camera on tripod with monitor in cabin	○	○	○
Total station navigation	○	○	○
Certiq professional	○	○	○

Cabin (optional)	A	B	C
ROPS and FOPS approved cabin	●	●	●
Mounting height -140 mm	○	○	○
Cabin lift/tilt system, 375 mm/15°	○	○	○
Swingable seat for drilling and tramming	○	○	○
Front window 22 mm (P8B safety classified)	○	○	○
Reversing camera with monitor	○	○	○
12 V outlet	●	●	●
Joystick-controlled spotlights left and/or right (70 W)	○	○	○
FOPS-approved grizzly bar for front window	○	○	○
Low-designed cabin, for seated operator cabin height 2 735 mm	○	○	○
Media player	○	○	○
Air condition	●	●	●
Heating function for air conditioning (water transferred)	○	○	○
Electrical heater, 1.2 kW, 230 V AC (CE)	○	○	○
Electrical heater, 10 kW, 700 V DC (CE)			○
Cabin body made of stainless steel	○	○	○

Technical specifications

Carrier	A	B	C
Deutz TCD 2013 L04 2 V stage III A tier 3 (120 kW)	<input type="radio"/>	<input type="radio"/>	
Deutz TCD 4.1 L04 stage IV/tier 4 F (115 kW)	<input type="radio"/>	<input type="radio"/>	
Deutz TCD 2012 L06 2 V stage III A tier 3 (155 kW)	<input type="radio"/>	<input type="radio"/>	
Deutz TCD 6.1 L06 stage IV/tier 4 F**	<input type="radio"/>	<input type="radio"/>	
Traction motor 150 kW			<input checked="" type="radio"/>
Front axel DANA Spicer 123/90	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rear axel DANA Spicer 123/90 ±8° oscillation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Articulated steering ±41° steering angle	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Four-wheel drive	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Hose/cable guiding at water/cable reel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Automatic differential lock on front axle, limited slip	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Tires 12xR24	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Rig alignment laser	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Front and rear jacks	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Fuel tank, volume 110 l	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Central grease point	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Fire suppression system ANSUL (manual or automatic)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fire suppression system FORREX (manual or automatic)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hot climate tramming kit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rig washing kit*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manual lubrication kit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Boot washing kit*	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

* Not applicable when equipped with dry drilling system.
** Maximum ambient temperature 25°.

Electrical system	A	B	C
Total installed drilling power 118 kW (main motors 2x55 kW)*	<input checked="" type="radio"/>		<input checked="" type="radio"/>
Total installed drilling power 63 kW (main motor 1x55 kW)		<input checked="" type="radio"/>	<input type="radio"/>
Total installed drilling power 158 kW (main motor 1x95 kW, equipped with booster compressor)		<input type="radio"/>	<input type="radio"/>
Total installed drilling power 158 kW (main motors 2x75 kW) **	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electric system 24 V	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Batteries 2x125 Ah	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
700 V Battery 280 Ah			<input checked="" type="radio"/>
Voltage 400-1 000 V 50/60 Hz	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Starting method star/delta (400-690 V)	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Soft start of main electrical motors (not for 1000 V)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Electronic overload protection for electric motors	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Digial voltmeter/amperege meter in electric cabinet	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Electric outlet for accessories, 16 A (CE)/32 A (CE)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extra transformer 15 kVA	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transformer for charging 100 kW			<input checked="" type="radio"/>
PC4 or PC5 plug/socket	<input type="radio"/>	<input type="radio"/>	
Phase sequence and earth fault indicator	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Battery charger	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Dual controls for cable reel	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Limit switch for cable reel with signal lamp and brake connection	<input checked="" type="radio"/>	<input checked="" type="radio"/>	
Stainless steel electrical enclosure	<input type="radio"/>	<input type="radio"/>	
Tramming lights 8x22 LED, 24 V DC	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Working lights 4x150 LED, 24 V DC	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Extra working lights, 2x35 W HID, 24 V (on tripod)	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Illuminated stairs for platform LED	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>

* Depending on selected rock drill.
** Only with COP 4050 or double GAR 30 compressors or when DCT installed.

Protective roof	A	B	C
FOPS approved	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Swingable seat for drilling and tramming	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Stainless steel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Joystick-controlled spotlights left and/or right (70 W)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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Drifter rods/pipes

Rock drill	Rod/Pipe	Guide tubes	Hole diameter (mm)
COP 1838*	R32 Speedrod	TDS 45	51-64
COP 1838+MUX	T38 Speedrod	TDS 54/TDS 64	64-76
COP1838+HUX	T45 Speedrod	TDS 64/TDS 76	76-89
	TDS 45	N/A	48-76
	TDS 54	N/A	64-89
	TDS 64	N/A	70-89
COP 2550UX	T51	TDS 76	89-115
	TDS 64	N/A	76-115
	TDS 76	N/A	89-102
	TDS 76	N/A	89-115 (ST58 shank adapter)
COP 3060	TDS 76	N/A	89-102
	TDS 87	N/A	102-115
COP 35	TAC 76/89	N/A	88-105
COP 44	TAC 76/89	N/A	110-125
COP 54	TAC 89 (TDS102)	N/A	134-152
COP 64	TAC 89 (TDS102)	N/A	156-178

Recommended cable size and length

Voltage	Type	Dimension (mm²)	Diameter (mm)	Length (m)	Length ITH (m)
380-400 V	Buflex	3x185+3G35	56	80	65
440-500 V	Buflex	3x150+3G25	52	120	70
550 V	Buflex	3x120+3G25	46	120	95
660-690 V	Buflex	3x95+3G16	45	150	125
1 000 V	Buflex	3x50+3G10	33	200	200

Recommendations are given for surrounding temperature of 40 °C and up to a height of 2 000 m. Cable dimension for battery version depends on charging cycle.

Noise and vibration

Operator sound pressure level in canopy, drilling, free field (ISO 11201)	106±6 dB(A) re 20 u Pa
Operator sound pressure level in cabin, drilling, free field (ISO 11201)	75±3 dB(A) re 20 u Pa
Operator sound pressure level working close to machine, drilling, free field	106±6 dB(A) re 20 uPa
Sound power level (ISO 3744), drilling, free field	126±6 dB(A) re 1 pW
Peak C-weighted instantaneous sound pressure level (EN16228)	Less than 130 dB
Vibration levels seated, drilling (ISO 2631-1)	0.07±0.07 m/s²
Vibration levels standing, drilling (ISO 2631-1)	0.07±0.07 m/s²

Recommended drift size

Feed	Rod	Minimum (HxW)
BMH 214/234	1 220	3 600x3 600 mm
BMH 215/235	1 525	3 900x3 900 mm
BMH 216/236	1 830	4 200x4 200 mm

Dimensions

Measurement	Simba M4	Simba M4-ITH	Simba M4 Battery
Width	2 400 mm	2 400 mm	N/A
Height with cabin	3 100 mm	3 100 mm	N/A
Length, tramming	10 300/10 800 mm	10 300/10 800 mm	N/A
Height roof up/down	3 000/2 300 mm	3 000/2 300 mm	N/A
Ground clearance	265 mm	265 mm	N/A
Turning radius outer/inner	7 400/4 300 mm	7 400/4 300 mm	N/A

Gross weight (depending on configuration)

Rig type	Total	Boom side	Engine side
Simba M4, Simba M4-ITH, Simba with battery driveline	24 000 kg	15 500 kg	8 500 kg

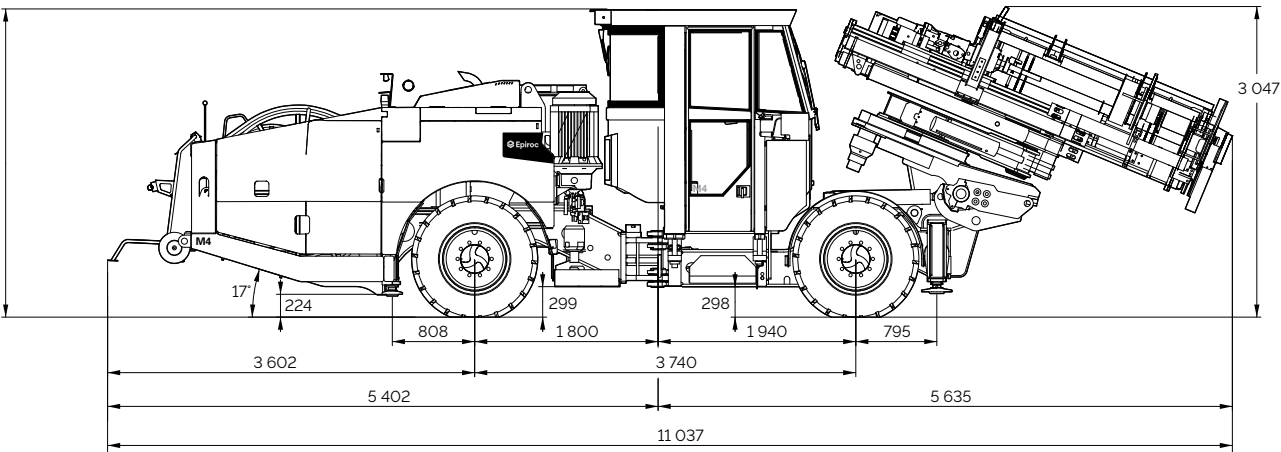
Tramming speed

On flat ground (rolling resistance 0.05)	>15 km/h
On incline 1:8	>5 km/h

* Electric driveline >12 km/h

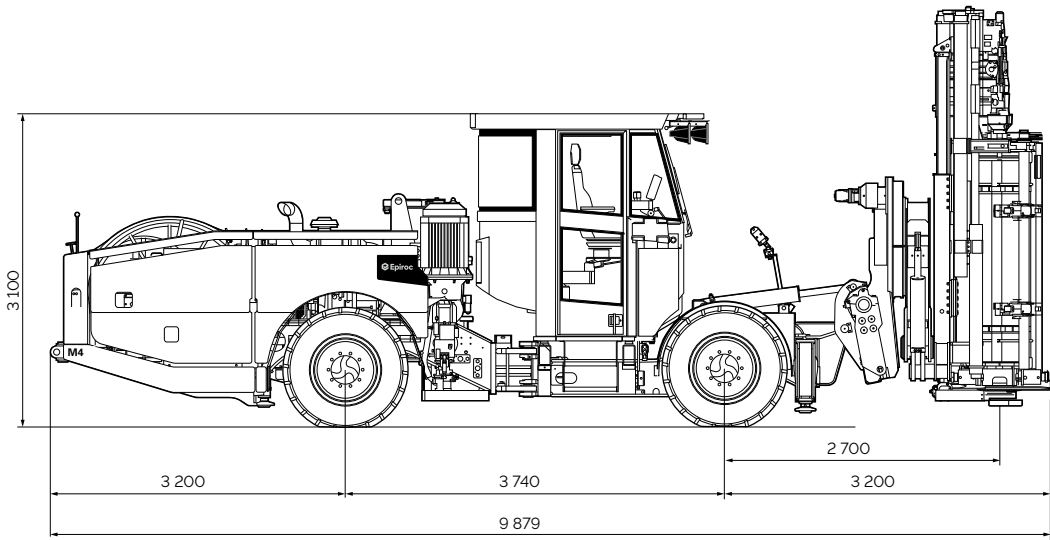
Technical specifications

Dimensions in millimeters

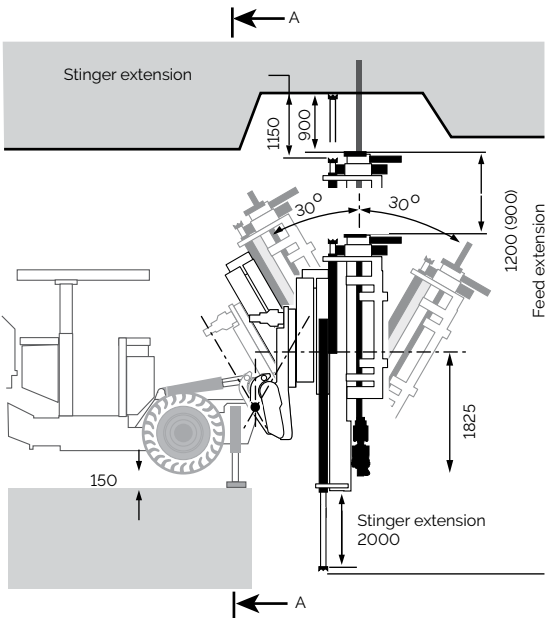
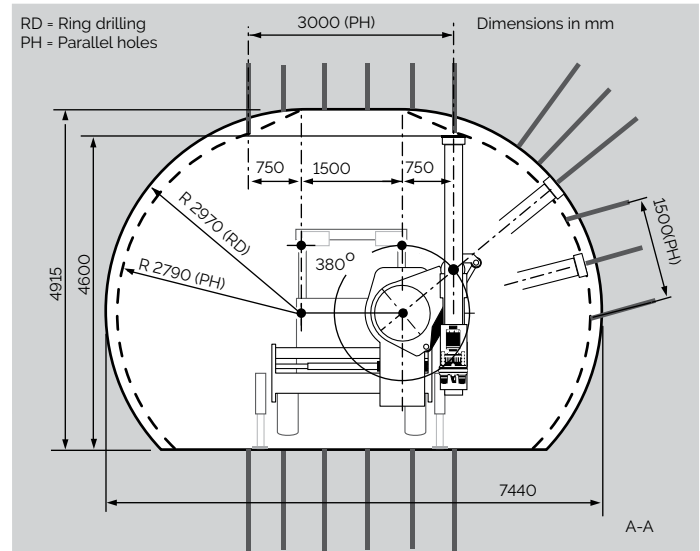


Simba M4/Simba M4-ITH.

3 023 (std cab with cab attachment height = 200)	(2 733 for low cab)
(2 883 for std cab with cab attachment height - 60)	(2 961 for highest protection roof)
(3 273 for std cab with cab attachment height = 450)	(2 261 for lowest protection roof)
(3 423 for std cab with cab attachment height = 600)	



Simba M4-ITH, equipped with booster compressor.



Coverage area.



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Performance unites us, innovation inspires us, and commitment drives us to keep moving forward. Count on Epiroc to deliver the solutions you need to succeed today and the technology to lead tomorrow.
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