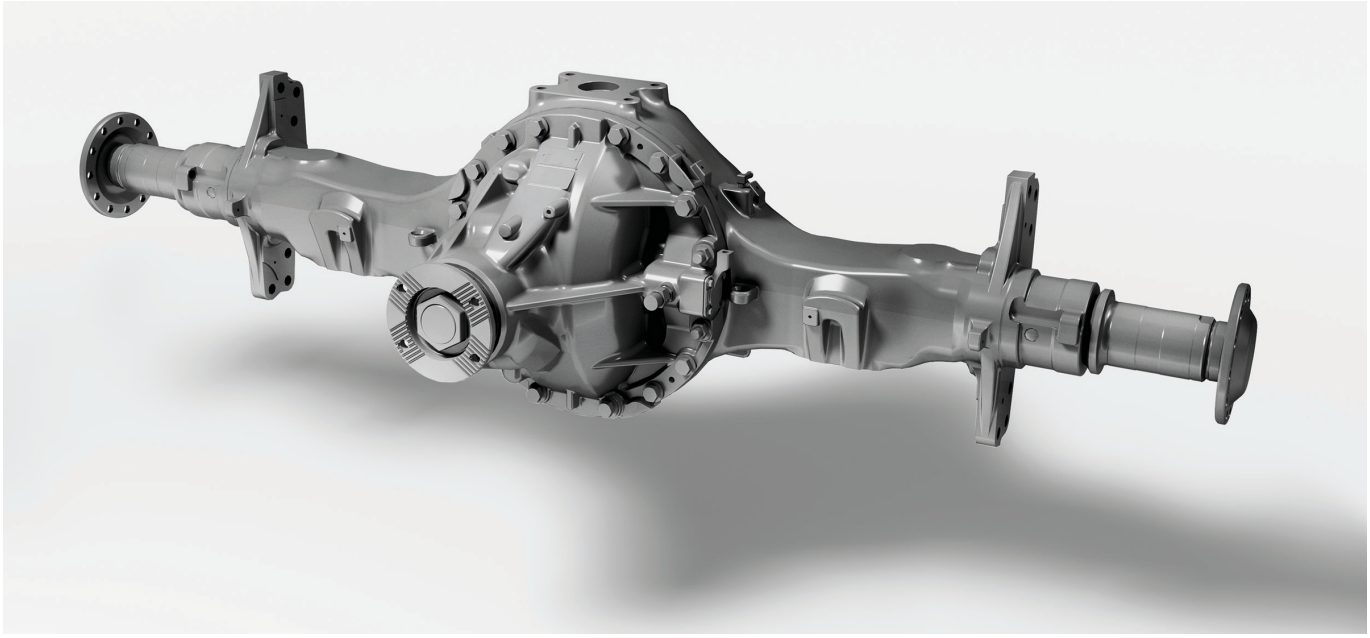
FACT SHEET

REAR AXLE

RSS1344F Rear single reduction solo axle - axle load 13 tonnes, GCW 44 tonnes



The illustration shows RSS1344F in stripped-down version without disc brakes.

The RSS1344F is a solo axle with hypoid single reduction designed for an engine torque of 2800 Nm. The maximum axle weight and gross combination weight are 13 and 44 tonnes respectively.

The rear axle is intended for high-speed transport on good roads. It has a strong and compact design, low weight, low friction losses and well-suited gear ratio alternatives, all contributing to best fuel economy. The rear axle casing is made of nodular iron and the axle has ample ground clearance.

In a single reduction rear axle, rotational speed is reduced in one single step in the final drive, which makes great demands on its components. Therefore, the RSS1344F has a hypoid final drive, which means that the pinion's centre line is offset in relation to the centre of the crown wheel. This design makes it possible for more teeth to mesh simultaneously, resulting in a strong, quiet, and very reliable final drive. The crown wheel is manufactured in various sizes depending on the ratio.

The RSS1344F is fitted with a differential lock to improve traction when the road surface is slippery. The differential lock can be operated conveniently and reliably with a switch on the instrument panel, which enhances driver comfort and efficiency.

UPTIME

- Maintenance-free unit bearings for increased service life.

PRODUCTIVITY

- A reliable differential lock offers high vehicle availability.

DRIVER APPEAL

- Single reduction hypoid gear with robustly dimensioned gears, shafts, and bearings for great strength and quiet operation.

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FACT SHEET

REAR AXLE

RSS1344F Rear single reduction solo axle - axle load 13 tonnes, GCW 44 tonnes

Sturdy hypoid gear for top reliability

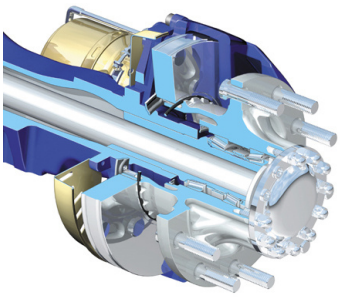
The RSS1344F has a single reduction gear of hypoid type where the entire drive ratio step-down takes place between the pinion and the crown wheel. Both the crown wheel and pinion are subjected to considerable force and are therefore of sturdy dimensions. They are made of special steel which is case-hardened to provide an extra-hard and durable surface, at the same time as the core itself is tough yet elastic so as to be able to absorb shock loads.

The pinion journalling is of the “pinion pack” type, which means that the pinion is journalled with two closely fitted conical roller bearings in front of the pinion gear. These bearings absorb the axial forces and also help to absorb some of the radial forces. Behind the pinion drive, there is a cylindrical roller bearing which helps to absorb radial forces. The differential housing with its crown wheel is journalled with two conical roller bearings, one on either side of the differential. Crown wheel and differential housing halves are welded together with laser technology which results in a good stiffness in the whole construction.

Unit bearings provide increased service life and easier service

The wheel bearings are designed as maintenance-free unit bearings. The bearing installation consists of conical roller bearings, which are permanently lubricated from the factory and equipped with efficient seals.

The wheel hub with bearings is fitted and removed as a unit, which facilitates the work. It is not necessary to adjust bearing play.

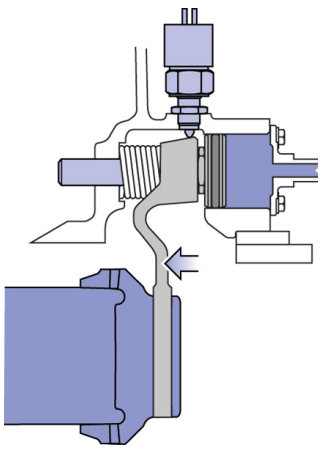


Functionally reliable differential lock ensures high availability

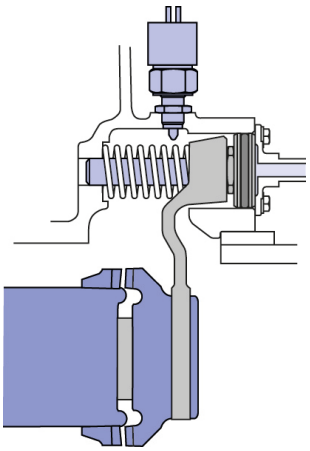
The differential lock provides good traction on slippery surfaces. It is robustly dimensioned to withstand maximum stresses and loads.

The differential lock is of the “curvic coupling” type, consisting of a splined clutch of hardened steel that locks one of the drive shafts with the differential housing.

The differential lock can be engaged easily with the aid of a switch on the dashboard. This switch activates a solenoid valve that supplies compressed air to an operating cylinder in the final drive. A lamp lights up on the dashboard to indicate that the differential lock is engaged.



Differential lock engaged.



Differential lock disengaged.

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FACT SHEET

REAR AXLE

RSS1344F Rear single reduction solo axle - axle load 13 tonnes, GCW 44 tonnes

SPECIFICATION

Designation	RSS1344F
Type	Single reduction, hypoid
Weight, incl. drive shafts, hubs, and drum brakes	approx. 730 kg
Weight, incl. drive shafts, hubs, and disc brakes	approx. 665 kg
Weight, incl. drive shafts, hubs, and oil	approx. 555 kg
Crown wheel, diameter	458 (3.36), 433 (2.31) mm
Wheel shaft, diameter	55.5 mm
Pinion offset	20 mm
Max. engine torque	2800 Nm
Max. axle load	13000 kg
Max. combined vehicle weight	44000 kg
Oil change volume	11.0 l

Gear ratios FH/FM

2.06:1
2.17:1
2.31:1
2.47:1
2.64:1
2.85:1
3.08:1
3.36:1

Volvo retains the right to modify design and specifications without prior notification.