

# The versatile municipal experts



# **REFORM Boki**

Agile. Flexible. Compact. For year-round use.

# **REFORM Boki**

# The universal municipal vehicle for year-round use





The REFORM Boki was developed for tasks in the municipal sector and is characterised by its versatile range of applications. The wide Boki product range meets the most diverse requirements and combines compact dimensions, high agility, best payload and powerful engines.





# Focus on the customer

Boki municipal vehicles can be configured to meet highly specific requirements. Choose from a large number of vehicle widths, wheelbases, engines and drive variants to configure the right vehicle for any application – always with a focus on the following features:

- Versatile
- Safe
- Comfortable
- User-friendly
- **■** Economical
- **■** Environmentally friendly







# Versatile thanks to 4 attachment points

The chassis of the Boki has been specially designed to easily accommodate interchangeable bodies and attachments. 4 attachment points make it a universal and compact municipal vehicle for all seasons.

1 Front attachment

For attaching snow ploughs, snow blowers, mower decks, irrigation systems, spreading mulchers, weed brushes and many other devices. The front linkage can be optionally equipped with an A-frame linkage, a coupling plate or a fixed mounting plate. Flat-sealing hydraulic couplings allow attachments to be changed quickly.

2 Platform frame

The platform frame serves as a mounting point for loading cranes, which can be mounted either directly behind the cab or at the rear.

3 Tipper bridge or ball mounts

For attaching 3-side tippers, grass and leaf suction containers, skips, hook lift devices, water tanks, vacuum sweepers and many other devices.

4 Rear attachment

For mounting 3-point attachments. Trailer hitches, linkages, rear ballasts, spreader attachments or rear cranes can be mounted here.







# VERSATILE SAFE

#### Maximum safety in daily use

The cab of the BOKI municipal vehicles is a steel structure equipped with special highstrength profiles. The cab therefore meets the highest safety standards and is tested for occupant protection.



# Logical operation and comfort

The user-friendly operation and comfortable workplace of the Boki municipal vehicles ensure fatigue-free working over many hours.

Logical operating concept

The ergonomic arrangement of the controls creates perfect working conditions and enables fatigue-free working in a wide range of applications. The logical grouping of the Boki shift elements is helpful and offers a high level of operating convenience especially in case of frequent driver changes.

Comfortable cab

The Boki cab offers comfortable seats, pleasant air conditioning and an excellent all-around view. A particularly low noise level and great freedom of movement ensure relaxed working even during long periods of use. The low entrance into the Boki makes it much easier to get in and out.

Clearly structured displays & indicators

The well-organised cockpit with a centrally located information panel shows the driver all important information and data at a glance. Side mounting provides a perfect view of all necessary vehicle information and the front attachments. Clearly separated indicator lights and displays continuously provide the driver with essential information.



#### Optimum all-round view

The large and generous windscreen of the Boki allows the best possible view of the front attachment. The sliding windows in the driver and passenger doors can be opened wide. Additional windows are provided in the lower part of the door.

At the rear of the cab, the Boki features a large window for a good view to the rear. Optionally, the Boki can be equipped with a rear camera that keeps an eye on everything important on a generously sized monitor.





# USER-FRIENDLY COMFORTABLE

#### Flexible seats and vehicle widths

Even in the narrow 130 cm cab version of the Boki, two full seats are provided for the driver and passenger. There is a choice of different seats. On request, the wider 170 cm cab version can be equipped with 3 seats. This version comes with a passenger bench with adjustable head restraints instead of a passenger seat. A cab with a width of 140 cm is also available.



# Economical. Powerful. Boki.

When it comes to economic efficiency, the Boki scores with economical engines and easy maintenance access to the most important vehicle components. This allows service work to be carried out quickly and cost-effectively.

Powerful and economical engines

The flexible and extremely efficient 4-cylinder engines of the Boki models utilise very high torque over a wide speed range and excel with enormous engine power and good torque increase. At the same time, the engines are characterised by maximum efficiency and comply with the latest exhaust emission standard. The engine is positioned behind the cab and therefore optimally protected against external influences such as dirt or corrosion.

Easy maintenance

A major contribution to the cost-effectiveness of Boki municipal vehicles is their ease of maintenance. All service doors are easy to open, allowing the necessary service work to be carried out quickly and cost-effectively. The standard tilting cab allows easy access to the engine compartment.

Generous fuel tank

The Boki municipal vehicles are equipped with a generously sized fuel tank of up to 90 litres. So nothing stands in the way of an efficient working day. Next to the fuel tank is an AdBlue tank with a capacity of up to 25 litres, depending on the engine manufacturer.



# ECONOMICAL ENVIRONMENTALLY FRIENDLY



#### State-of-the-art exhaust gas treatment

The requirements for exhaust gas treatment are specified by the legislation in the different countries and are becoming continuously more stringent. REFORM complies with all legal regulations throughout its product range and constantly provides its customers with the latest technology for engines and exhaust gas treatment.

Boki municipal vehicles are equipped with self regenerating particulate filters. The closed loop diesel particulate filter system reduces particulate matter by over 98%. In addition to the self regenerating particulate filter, an oxidation catalytic converter is also installed to protect the environment. With the additional SCR (Selective Catalytic Reduction) technology and the AdBlue additive, the engines meet the strict regulations of the current exhaust emission standard.

The automatic regeneration of the diesel particulate filter and the maintenance free SCR system keep maintenance of the exhaust gas treatment system to a minimum. The entire exhaust system, including the diesel particulate filter and SCR system, is installed well protected on the passenger side. On request, the exhaust pipe can be installed upwards on some models.



#### The best technology for daily municipal work

# Technical highlights at a glance

Thanks to its compact design, the REFORM Boki is ideal for the wide range of tasks in municipal use. With the extensive product range and customisable models, the REFORM Boki leaves nothing to be desired. The vehicles are precisely tailored to the demands of municipal applications and offer many technical highlights.

#### Chassis

- Robust, torsion-resistant frame made of seamless steel tubes
- Modular design allows for customisation of the vehicle
- Rigid axles with parabolic wide-gap springs
- Stabilisers and shock absorbers
- Axle locking
- Different wheelbases from 2,050 mm to 3,100 mm
- 2 axles
- 3 axles with steerable lift axle
- Rear wheel drive
- Four wheel drive
- Differential locks
- Four wheel steering





- Rear wheel drive with selectable four wheel drive (1152 B, 1152 T)
- Permanent four wheel drive (1252 B, 1352 B, 1352 T)
- Self locking differential locks
- Mechanical locks optional, 100% lock activatable
- 4 steering modes: front/rear/four wheel/crab optional

#### Mechanical drive

- 5-speed manual gearbox
- Mechanical reduction gearbox
- Maximum speed 90 kph
- Creep speed 0.6 16.5 kph

The mechanical models of the Boki 1152 series are equipped with a 5-speed manual gearbox as standard. They are designed as high-speed vehicles and can reach a maximum speed of up to 90 kph.

The mechanical 5-speed manual gearbox is equipped with an additional mechanical gear reduction as standard. Activation of gear reduction makes it possible to reduce the maximum speed for all gears. This speed range is suitable in working mode for driving on difficult, uneven terrain and steep slopes, for driving over steps in the terrain or when the use of an attachment requires the lowest possible driving speed.

#### Hydrostatic drive

- Stepless drive
- Electro hydraulic reduction of 50%
- Mechanical reduction with2-speed transfer gearbox optional
- Maximum speed up to 62 kph

Powerful axial piston variable pumps and axial piston variable motors ensure continuous, powerful drive.

With basic equipment, the hydrostatic drive comes with a mechanical transfer gearbox and can operate in 2 speed ranges.

Electro hydraulic speed reduction by approx.

50% limits the driving speed to approx. 25 kph.

An additional, optional mechanical reduction gives the hydrostatic drive 4 speed ranges.





#### The best technology for daily municipal work

# Technical highlights at a glance

#### **Engines**

The 114 hp performance class uses a powerful 4-cylinder turbo-diesel common-rail engine from VM Motori. Powerful diesel engines from FPT in the performance class from 150 to 175 hp ensure maximum efficiency and master any task effortlessly. Both engine types meet the latest Euro VI emission level.

The engine is located behind the cab in all Boki municipal vehicles.

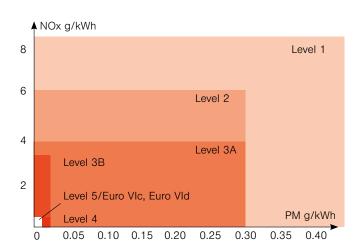
During development, care was taken to ensure that the components are optimally protected against external influences such as dirt or corrosion. In addition, the two radiators for the engine and hydraulics are located at a higher position, away from the primary dirt area, and well protected against possible damage from e.g. high kerbs or other low obstacles.





#### Boki engine technology:

- Powerful 4-cylinder engines from VM or FPT
- Euro VI emission level, 114 to 175 hp power
- Self regenerating diesel particulate filter (DPF)
- SCR catalytic converter with AdBlue additive
- Engine located behind the cab, optimally protected
- Radiator position on the side, optimally protected



#### Axles and suspension

Rigid axles are fitted on all Boki municipal vehicles as standard. Depending on the model and tyres, the maximum axle load is up to 3,800 kg on the front and rear axles. Suspension is provided by parabolic wide-gap springs with stabilisers and shock absorbers.

For applications with a heavy front attachment, an axle lock can be fitted on request.



#### Hydraulics and interfaces

Depending on the model, different hydraulic options are available for the Boki:

- 1-circuit and 2-circuit gear pump hydraulics, each with 57 I/min and max. 200 bar
- Load-sensing hydraulics with 2 circuits, each with max. 80 l/min, and a total delivery rate of 105 l/min at max. 250 bar
- Load-sensing hydraulics with 2 circuits, each with max. 80 l/min, and a total delivery rate of 135 l/min at max. 300 bar
- High-performance hydraulic system with a capacity of 189 I/min at 300 bar

#### Hydraulic system control

All hydraulic functions are conveniently controlled with a joystick. An extensive range of upgrade accessories for the individual hydraulic equipment versions with standard flat-sealing hydraulic couplings is also available, such as additional hydraulic valves with lines at front and rear, multi-couplers, weight compensation options and bio hydraulic oil.





### Customer references

#### Municipal depot, Eggenfelden, Germany

**Depot manager Thomas Schreiner** 

Vehicle: Boki HY 1352 B, 129 kW engine,

2.90 m wheelbase with Maytec deposit tipper system

Reason: Ideal vehicle for inner-city use, compact and

Applications: Winter service, green area maintenance, road and path construction, general transport enormously flexible, as it can be quickly and easily converted to cover a wide range of activities.

Positive experiences: Very reliable vehicle and good service support from the dealer and factory, very convincing overall concept and, due to the compact sizes of the vehicle, little space required when changing the individual attachments.

#### Municipal depot, Schladming, Austria **Foreman Andreas Lassacher**

Vehicles: Boki HY 1252 with high-performance hydraulics and four wheel steering, a total of 3 Boki vehicles in use

Applications: Winter service, green area maintenance (mowing, irrigation), maintenance of walking trails, general transport

Reason: The deciding factors were the performance, comfort and ease of operation of the vehicle. Robustness and service accessibility were also important factors in the decision to purchase the Boki.

Positive experiences: Usable everywhere and very agile. The high performance of the Boki is particularly evident when used with a snow blower.



#### Spa park nursery, Bad Reichenhall, Germany **Operations manager Christian Braun**

Vehicle: Boki HY 1352 B, 129 kW engine, 2.70 m wheelbase with deposit tipper system

Applications: All types of transport (bulk goods, plants, facility furniture, and work equipment), winter service (spreader set up on a separate plate in winter)

Reason: Workmanship and overall concept were convincing - very competent, customer focused and solution oriented implementation of application specific customer requests.

Positive experiences: Large cab and very good driving comfort even over long distances, extreme agility thanks to four wheel steering but still very high thrust. Another positive feature is the permanent four wheel drive. Very good visibility of the vehicle's surroundings thanks to the large rear window in the cab and unobstructed view to the rear. Safety relevant, as there is no dependence on a camera system with a very limited field of view.



### Customer references

#### **Wastewater association, Grimmen, Germany**

**Sewer network foreman Marcus Neitzel** 

Vehicle: Boki HY 1152 T

**Applications:** The vehicle is operated with two interchangeable bodies. One of the structures consists of a tilting platform with a crane from HMF to handle small-scale disposal or transport of bulk materials. In addition, pumps can be lifted out of shafts and wells



and lowered again with a winch during maintenance work. The second body is a suction/flush combination from Reinex and is used for cleaning pumping stations and manhole structures.

Reason: The vehicle was chosen for its flexibility and agility.

Positive experiences: The versatility of the Boki allows us to optimally master the different areas of application.

#### Municipal depot, Simbach am Inn, Germany **Depot manager Gerhard Eichinger**

Vehicle: Boki HY 1252, 84 kW engine, 2.05 m wheelbase

**Applications:** Mowing-vacuuming

(Boki mowing/vacuum system), winter service

Reason: In 2020, the fourth Boki in succession was purchased, as they are very reliable and powerful vehicles. The high-quality attachments, such as the factory-fitted



large turbine wheel and high quality cutting blades.



Positive experiences: Particularly spacious and clearly laid out cab, very comfortable for the driver even during long use, very maintenance friendly and easily accessible arrangement of components. This minimises downtime and therefore maximises availability. Low time and cost expenditure for the depot's own service team.

#### Municipality of Mödling, Austria Fleet manager Karl Klugmayer

Vehicles: 2 Boki HY 1252 B in use

Applications: Winter service, green area maintenance (mowing, watering), pruning of trees and bushes

Reason: Compact medium size, sturdy axles,

driving comfort, ease of use, agility



Positive experiences: A very professional vehicle with good operating convenience. The high reliability and the diverse range of tasks in which the Boki is used are also convincing.

### The REFORM Boki models

REFORM Boki municipal vehicles can be configured to meet very specific requirements. Choose from a wide range of vehicle widths, wheelbases, engines and drive variants to configure the right vehicle for your needs. Data sheets for the respective models with all detailed information and technical data are available from your REFORM municipal technology contact and as a download at www.reform.at.

### Boki 1152 (B)

#### Universal use in all seasons

The Boki 1152, with its 1.40 m external width, is a true all-rounder for year-round use with extensive equipment. The 1.70 m wide B version even comfortably accommodates up to three occupants. Mature, tried and tested technology gives the user almost unlimited work options. With a maximum speed of up to 90 kph, the Boki 1152 is economical to run.



#### Boki 1152 T

#### Maximum payload with full agility

The Boki 1152 T with a gross vehicle weight of 7.5 t and a width of only 1.70 m is truly superior. With an additional liftable and steerable third axle, the Boki 1152 T is as agile as its 2-axle relatives. With a payload of up to four tonnes, a powerful 150 hp engine and a maximum speed of up to 90 kph, there are practically no limits to what you can do.





#### **Engine**

Euro VI emission level, diesel particulate filter (DPF), SCR catalytic converter/Ad Blue



#### Chassis

Activatable four wheel drive, front steering. Standard tyres 225/75 R16. On T-model: Simultaneous 3rd axle, standard tyres 285/65 R16



#### Drive

5-speed fully synchronised reduction gearbox 90 kph



#### Hydraulic system

57 to 105 l/min up to 300 bar 2-circuit hydraulics Load sensing

#### Boki HY 1252 (B)

#### The solution for demanding applications

Versatility redefined. Always on the right side with the hydrostatically driven Boki HY 1252 (B). With sophisticated high performance components, it offers municipalities, service providers and road maintenance companies unlimited possibilities. The Boki HY 1252 is available in a very narrow version with 1.30 m, but also with 1.70 m. The permanent four wheel drive and up to four steering modes deliver efficient power distribution.



### Boki HY 1352 (B)

#### The powerful top-of-the-range tool carrier

The Boki HY 1352 (B) gives you high performance with top-of-the-range standard equipment. The clever features and the extensive application options make this a compact and agile vehicle that is reliable, efficient and exceptionally powerful. The Boki HY 1352 feature a high payload, a high performance 150 or 175 hp diesel engine and a powerful hydrostatic four wheel drive.



#### Boki HY 1352 T

#### Maximum payload and efficiency

The Boki HY 1352 T with a gross vehicle weight of 7.49 t (optionally 8.25 t) and a width of only 1.70 m impresses with a powerful engine with 150 or 175 hp and a comfortable, continuously variable hydrostatic drive. Thanks to the liftable and steerable third axle, the Boki 1352 T is just as agile as the two-axle models. The full utilisation of the available payload through the 3-axle chassis is unrivalled.





#### **Engine**

Euro VI emission level
Diesel particulate
filter (DPF)
SCR catalytic
converter/AdBlue



#### Chassis

Four wheel drive, front steering four 4-wheel steering on req. standard tyres 225/75 R16 On T-model: Standard tyres 285/65 R16



#### **Drive**

Hydrostatic drive ECO-Drive Permanent four wheel drive with self locking differential 40/45/50/60 or 62 kph



#### Hydraulic system

57 to 176 l/min up to 300 bar 1-circuit or 2-circuit hydraulic system Load sensing hydraulics High-performance hydraulics

# Technical data and dimensions





Boki	1152	1152	1152 B	1152 B	1252	1252			
Dimensions (mm)									
Wheelbase	2,400	2,900	2,400	2,900	2,050	2,300			
Length	4,060	4,360	4,060	4,560	3,710	3,960			
Width	1,400	1,400	1,700	1,700	1,300	1,300			
Height from	2,160	2,160	2,160	2,160	2,160	2,160			
Gross vehicle weight (kg)									
5,000	✓	✓	✓	✓	✓	✓			
6,000	0	0	0	0	0	0			
6,500	0	0	0	0	0	0			
7,500	-	-	-	-	-	-			
Speed (kph)									
40	-	-	-	-	✓	✓			
50	-	-	-	-	0	0			
60	-	-	-	-	0	0			
62	-	-	-	-	-	-			
90	✓	✓	✓	✓	-	-			
Engine									
VM 84 kW/114 hp	-	-	-	-	✓	✓			
FPT 110 kW/150 hp	✓	✓	✓	✓	-	-			
FPT 129 kW/175 hp	-	-	-	-	-	-			
Emission standard	Euro VId	Euro VId	Euro VId	Euro VId	Euro VIc level 5	Euro VIc level 5			
Drive									
Speed change gearbox	✓	✓	✓	✓	-	-			
Hydrostat 300 Nm	-	-	-	-	✓	✓			
Hydrostat 500 Nm	-	-	-	-	-	-			
Four wheel steering	0	0	0	0	0	0			
Trailing arm steering	-	-	-	-	-	-			

# Tyres for all uses

















205/75 R16 C Road Winter

225/75 R16 C Road Year-round

225/75 R16 C Road Winter

LT 265/75 R16 All terrain Year-round

285/65 R16 C Road Year-round

285/65 R16 C Road Winter

315/55 R16 MPT Terrain

LT 315/75 R16 All terrain Year-round

340/55 R16 Agricultural tread

For more information on the tyre options and detailed technical data sheets, please contact your REFORM municipal technology contact or visit www.reform.at

1352	1352	1352 B	1352 B	1352 B	1152 T	1352 T
						)
2,400	2,700	2,400	2,700	2,900	2,400	2,400
4,060	4,360	4,060	4,360	4,560	5,070	5,070
1,400	1,400	1,700	1,700	1,700	1,700	1,700
2,160	2,160	2,160	2,160	2,160	2,190	2,190
✓	✓	✓	✓	✓	-	-
0	О	0	О	О	-	-
0	О	0	О	О	-	-
-	-	-	-	-	✓	✓
-	-	-	-	-	-	-
✓	✓	✓	✓	✓	-	✓
0	0	0	0	0	-	0
0	О	0	0	О	-	0
-	-	-	-	-	✓	-
-	-	-	-	-	-	-
✓	✓	✓	✓	✓	✓	✓
0	0	0	0	0	0	0
Euro VId						
-	-	-	-	-	✓	-
-	-	-	-	-	-	-
✓	✓	✓	✓	✓	-	✓
0	0	0	0	0	-	-
-	-	-	-	-	✓	✓

# **REFORM. Teamwork Technology.**



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