

Mercedes-Benz



MB trac 1100 MB trac 1300

The big agricultural tractors from Mercedes-Benz

Engine output
81 kW (110 DIN HP)
or 92 kW (125 DIN HP)



The perfect agricultural tractor concept from Mercedes-Benz: MB trac 1100 and MB trac 1300.

The MB trac 1100 and MB trac 1300 are the logical development of the idea behind the MB trac models 65/70 and 800; together, they form a complete series of agricultural tractors.

The heavy MB trac models with engine outputs of 81 kW (110 DIN HP) and 92 kW (125 DIN HP) are powerful traction and drive units with all-wheel drive on 4 equal-sized wheels. But the MB trac 1100 and 1300 carry conviction not only because of their powerful engines but because of their perfect technical concept which makes them superior to any conventional agricultural tractors. This superior concept includes:

- Real all-wheel drive by four equal-sized wheels and axes of equal strength.
- Ideal weight distribution (60% front and 40% rear).
- Front and rear implement attachment areas, each with power lift and a f.o. connection, mounting space to carry containers for bulk fertilizer, seed, spray mixtures, and also implements.
- Good, comfortable safety cab with efficient heating and ventilation facilities and excellent view to all implement attachment areas.
- Converting the tractor into a two-way unit offers further possibilities of application.
- All main components are taken from Mercedes-Benz large-scale standard production which is known for quality all over the world.
- With the MB trac 1100 and the MB trac 1300 you invest in the safety offered by a famous name: Mercedes-Benz.

Side wings and seat can be adjusted in several ways.

Comfortable driver's seat can be adjusted in several ways.

Easy access from both sides.

Removable doors.

Rear implement mounting area with frame for carrying implements.

Rear PTO (front optional) can be engaged under load using an automatic clutch control.

Standard power lift system with three-point linkage category 2 or 3 with "force lift" lifting power 6,000 N (5,700 kg). Lower control can be performed via hydraulic control devices at an optional extra.

Multi-range box with a maximum of 20.00 gears. Optional extra: high-speed gear.



The MB Trac concept is the
most powerful way of converting engine
output into tractive power.

Heavy-duty vertical clutch
gear system with 15 gears
for efficient work and fuel sav-
ing by shifting to the correct
gear.

Hydraulic power steering

Single wheel drive with
the engine

Hydraulic 100-hp power
PTO can be used without re-
versing. (Optional
reversing gear and control)



Hydraulic connections front
and rear

All-wheel drive on 4 com-
pact axles. Trac 1300 can be
used in any weight category
from 10,000 to 40,000 lbs.

Axle drive with planetary
gear sets allows for more
flexible steering directions
during turn arcs

Steering is done on all four
wheels. Controlled by means
of a steering wheel with an
all-terrain wheel.

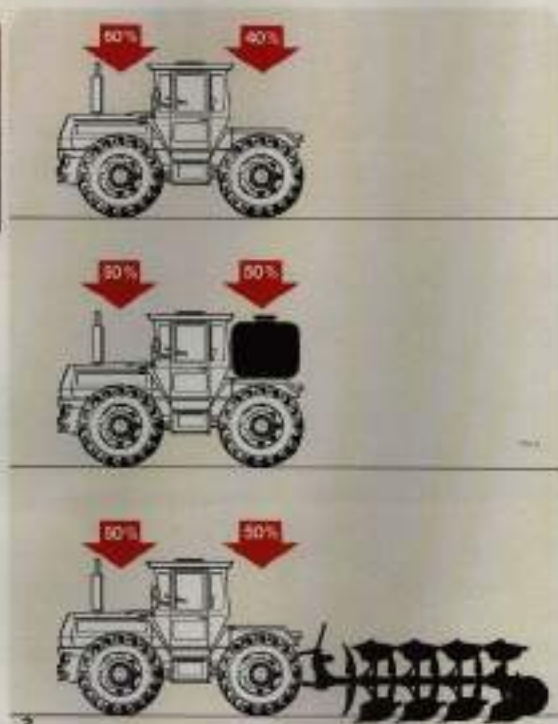
Front wheel drive can be
engaged and disengaged
while driving

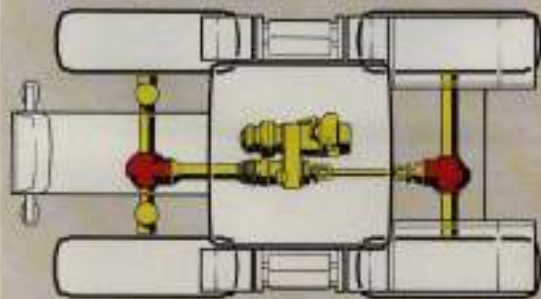
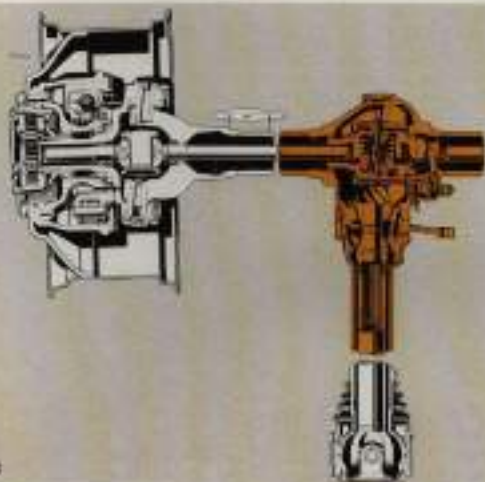
The MB trac concept is the best way of converting engine output into tractive power.

The MB trac concept represents the ideal form of an all-wheel drive agricultural tractor. Even on the most difficult terrain the four equal-sized wheels, equal-strength axles, differential locks on the front and rear axle make for optimum conversion of engine output into tractive power. Since the front and rear axles cover identical distances, there is no front axle slip. This means the front axle does not have any lead, and therefore does not grab or slip.

The front axle drive can be engaged and disengaged while driving. The differential locks on both axles can be locked while the vehicle is traveling. There is no torque limit on the front axle drive. The optional hub drive wheels are equipped with drum brakes. The large wheels allow exceptional high ground clearance. Under static conditions, 65% of the gross vehicle weight is on the front axle and 35% on the rear axle. 80% of attachments mounted on the

rear frame, the overall weight distribution is as follows: 50% on the front axle, 50% on the rear axle. Pulling implements attached at the rear (ploughs, for example) results in a dynamic shifting of axle loads and thus in the load weight distribution of 52% to 48%. Identical wheel tracks and tyre width on the front and rear axles ensure the best possible grip on the ground, thus causing as little damage as possible to the soil.





1. The axle's axianet design ensures and transmits the main driving force to the tire.
2. Weight distribution among both axles improves load distribution.
3. Steer through the axle drive with differential lock.
4. All wheel drive and differential lock in both axles can be engaged and disengaged while driving.
5. Low steady high ground clearance helps in rough work.

A comfortable place to work in - the safety cab.

The roomy, OECQ-tested safety cab offers plenty of space for the driver and, if necessary, for a co-driver. It is an integral unit, positioned in the area of least vibration. The cab is mounted on four special vibration dampers to increase comfort. Excellent insulation results in an unusually low noise level. Wide, step-aid steps allow easy access to the cab through generously dimensioned doors.

The comfortable driver's seat, which is fitted with hydraulic shock absorbers and can be adjusted in several ways, affords an excellent view of the implements.

Fatigue-free seating ensures full concentration on the job for many hours at a time. All controls are clearly arranged and easy to reach. The large windscreen, the big crank windows in both doors and the sliding window in the rear wall of the cab permit an unobstructed view of all implement mounting areas. The

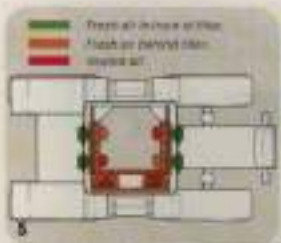
heating and ventilation system with filtered fresh air intake raises the pressure inside the cab slightly so that hardly any dust can penetrate. The air distribution can be controlled to suit individual requirements by several eyelid vents front and rear.

As an optional extra, the system can be extended, i.e. air conditioning can be fitted.

The standard power steering with two steering cylinders, separate oil pump, and separate oil reservoir reduces

steering effort to a minimum. Even if engine power is used to the full, vibrations are hardly noticeable, since they are not transmitted to the cab due to the fact that the engine and transmission are mounted as separate units. The cab is suspended in three points and can be tilted sideways. The M8 has 1100 and 1300 hrs after all the comfort and safety for which Mercedes-Benz commercial vehicles are renowned.





- 1 Easy access, non-slip steps
- 2 Good view maximizing due to narrow windows
- 3 Two-row seating seat
- 4 Comfortable wide seat
- 5 Effective hooded and ventilated
- 6 Adjustable control panel
- 7 Spring-mounted axle
- 8 Crashes into the rear
- 9 Drum brakes with steel fenders

Powerful diesel engines of proven design from Mercedes-Benz.

Mercedes-Benz diesel engines have proved their value all over the world under the most varied climatic conditions. Proven design, safety, and high power are the main characteristics of the water-cooled, 6-cylinder direct injection diesel engines from Mercedes-Benz. The great Xerox more than 100,000 OM 302 engines — the heart of the big MB tractor models — are built every year. The MB tractor 1100 is powered by the OM 352. Output: 81 kW (110 DIN-HP).

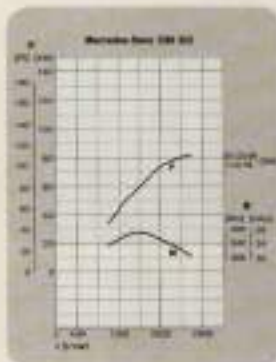
The maximum torque of 362 Nm or 27 mkg is obtained at 1000/min. The OM 352 A, which is basically the same engine but comes in turbo-charged form here, is used for the MB tractor 1300. Output: 50 kW (125 DIN-HP). Torque: 308 Nm or 40 mkg at 1600/min.

The engines are fitted with vibration dampers, mounted in three points and connected to the transmission by means of a drive shaft.

Engine vibrations are therefore hardly noticeable.

Engine maintenance has been greatly simplified in that all maintenance jobs can be done from one side (oil side), whereas all electrical equipment is on the other side.

Intake air cleaning is by a wipe-dry air filter with integral prefilter.



Fully synchronized transmission with job-matched gear steps.

The newly developed fully synchronized transmission consists of 8 main gears plus 8 working gears. The version up to 35 km/h thus has 14 speeds in all. A high-speed gear up to 38 km/h is also available. As an option, this transmission can be complemented by a rear-positioid planetary drive with 8 crawler gears.

All gears can also be used in reverse at the same speeds by simply shifting a lever. Typical forward/reverse jobs

(e.g. front loader work) are thus made much easier. This transmission offers the proper speed for all practical applications.



Speeds

50 kW 1100
with 16 x 30 tires

Gear	Main gear km/h	Working gear km/h	Crawler gear km/h
I	1.0	0.9	0.9
II	1.5	1.4	1.4
III	2.2	2.0	2.0
IV	3.3	3.0	3.0
V	5.0	4.5	4.5
VI	7.5	6.7	6.7
VII	11.0	10.0	10.0
VIII	16.5	15.0	15.0
IX	24.0	22.0	22.0
X	35.0	32.0	32.0

60 kW 1200
with 16 x 30 tires

Gear	Main gear km/h	Working gear km/h	Crawler gear km/h
I	1.0	0.9	0.9
II	1.5	1.4	1.4
III	2.2	2.0	2.0
IV	3.3	3.0	3.0
V	5.0	4.5	4.5
VI	7.5	6.7	6.7
VII	11.0	10.0	10.0
VIII	16.5	15.0	15.0
IX	24.0	22.0	22.0
X	38.0	35.0	35.0

*Optional extra

1 The low gear is continuously utilized from the start of forward, large areas can be covered without interruption.

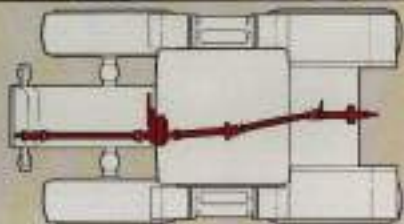
2 The high-speed gear, which is an option extra, allows new wheel tracking in turning areas or when transporting loads.

3 The high speeds (optional extra) with 14-16 gears allow the right speed for all agricultural applications. The crawler gear can be used at all operational sites.

Front and rear p.t.o.'s - serving full engine power.

The rear p.t.o. - front p.t.o. is an option - can be engaged and disengaged under load and fulfills all practical requirements.

The standard speeds of 540 or 1000/min are selected by means of a lever. The p.t.o.'s can be used singly or together. P.t.o. power is taken from a transfer box which is mounted directly on the engine. This results in extremely high efficiency. The double clutch in front of the transmission permits the power flow to the p.t.o.'s and the chassis to be completely independent. The p.t.o. clutch is controlled via a pneumatic metering valve, so that light and heavy p.t.o. driven implements can be put into operation without jerks and without unnecessary stress. P.t.o.'s come with all current profiles which avoid difficulties in selecting existing implements.



1. PTO shafts are available in two versions for the high and low speed.

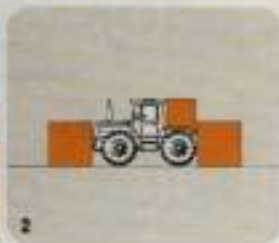
2. Both shafts in front and rear PTO can be adjusted from 540 to 1000/min. They can be engaged and disengaged under load and separated easily in operation.

Efficient hydraulic system - no problems even with heavy implements.

Hdraulic pumps for 45 or 60 ltr/min are available. The working pressure is 250 bar, permitting fast and efficient operation of the power lift or mounted implements (e.g. front loader, semi-mounted or 2-yrms half-turn ploughs, tipping trailers). With a permissible bleed of 30 litres out of a total oil capacity of 50 litres, even the heaviest units can be operated while the tractor is in motion without additional reservoirs being required. A maximum of three additional double-

acting control units with plug connectors front and rear are available to operate implements mounted in any of the three attachment areas. Standard front and rear return lines are also available. The standard three-point linkage, cat. II or cat. III, has a lifting power of 40,000 N (4,000 kg) or with stronger hydraulic cylinder, 60,000 N (6,000 kg). Besides the standard power lift with the "Sensorex" mechanical wheel pressure loader a lower link controlled hydraulic

system with traction response control, positional control and speed control is available. A front power lift with lateral control and a lifting power of 14,000 N (1,400 kg) or 20,000 N (2,000 kg), with 2 lift arms, can be supplied as an optional extra.



Item 1: Lift to the loader using control valve with dual wheel stop components are available to operate implements in the three attachment areas.

Item 4: Optional rear Category III, with a front power lift with a lifting power of 14,000 Nm (1,400 kg) or with 20,000 Nm (2,000 kg), a counterweight power lift with "Sensorex" mechanical wheel pressure loader is a standard feature. A lower link controlled hydraulic shaft control system is available as an optional extra.

