

**TECHNICAL
BRIEF**

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SPECIFICATION
QUICKCHANGE® TRANSFER AND TRANSPORT MACHINE
BTM 200

Barrier Systems Inc.'s BTM 200 is a self-propelled machine designed to transfer (move laterally from lane to lane) continuous lengths of Quickchange® Moveable Concrete Barrier (MCB) at speeds of up to 8 km/h, or to pick up sections of the MCB and transport them (move them down the roadway) to a new operations site.

PHYSICAL DATA

DIMENSIONS

Working length: 15.1 meters	Shipping length: 12.5 meters
width: 4.42 meters	width: 2.6 meters
(3.66 meter transfer)	
height: 3.43 –4.14 meters	height: 3.12 meters
Wheelbase: 9.27 meters	
Weight:	19,300 Kilograms
Weight (while transferring barrier)	28,350 Kilograms
Turning Circle (front steer only)	45.7 meter diameter
Turning Circle (both ends steer)	22.8 meter diameter

POWER PLANT

MAIN ENGINE

Diesel (nominal 112 kW)
6 cylinder turbocharged diesel
Dry type air cleaner
Oil, fuel filters
Integral safety shutdown on high coolant temperature and/or low oil pressure and/or low hydraulic level and/or high hydraulic temperature

BACKUP ENGINE

Gas (6 kW)
Electric start

ELECTRICAL

12 volt DC negative ground
105 ampere alternator

DRIVE SYSTEM

Closed-loop hydrostatic transmission
2 wheel drive
0.6 –8.0 km/h working range
32 km/h top speed in high range
Integral pressure override

AUXILIARY HYDRAULIC SYSTEM

Pressure compensated piston pump
Rated at 72 liters per minute
Set at 172 bar
Operates: Leg cylinders, side shift cylinders, steering cylinders

STEERING SYSTEM

Full power steering each end
Utilizes auxiliary hydraulic pump
Energy efficient closed center system

BRAKES

Spring applied, hydraulic released
On two wheels
Fail safe design
Parking / Emergency
Operable from either operator station

TIRES

14.00-20 24 ply rating such as:
Michelin G20XPR22-LRM
Goodyear Hard Rock Lug Xtra Wall Carrier
or equivalent
8.3 bar

LIGHTING

Head / tail lights / turn signals each end
Backup lights / alarm each end
Flashing beacon and spotlight each end
Interior / clearance lights
Exterior (work) clearance lights

SERVICE CAPACITIES

Engine Oil (w/filter)	17 liters
Fuel Tank	208 liters
Cooling System (antifreeze to 0°F)	23 liters
Hydraulic Reservoir	227 liters
Planetaries	1.5 liters

TOW FITTINGS

One on each end - unit can be towed from either end.

TRANSFER SYSTEM (moves barrier laterally from lane to lane)

1. Infeed (pickup) section - engages barrier and lifts from road
2. Infeed transfer (turn) section - moves barrier through radius to diagonal path
3. Middle transfer section - transports barrier across roadway
4. Outfeed transfer (turn) section - realigns barrier to path parallel to original position.
5. Outfeed (pickup) section - lowers unit to pavement and releases barrier segments

CAPSTAN SYSTEM

Hydraulically powered system controls movement of barrier during transfer
Mounted on the middle transfer section with controls at each end.

LATERAL MOVEMENT

The transfer system is attached to a hydraulically adjustable transfer frame set in steel ways. Transfer widths can be made from 1.2 to 5.5 meters. Transfers can be made at speeds of up to 8 km/h.

VERTICAL MOVEMENT

Hydraulics in the wheel column allow the entire BTM to be adjusted vertically. Barrier can be lifted up to 38 centimeters above the road bed allowing them to be placed on or taken off a raised curb or median. The BTM was not designed to pick up or set units at minus elevations (below road bed).

TRANSPORT SYSTEM (moves sections of barrier down the roadway)

The BTM 200 was designed to:

1. Carry 15 segments (approximately 15 meters) at one time.
2. Attain maximum speed when fully loaded of 8 km/h and unloaded of 32 km/h.
3. Pickup sections of barrier from road bed to a minimum height of 38 centimeters (optional).

STANDARD EQUIPMENT

Standard equipment includes all of the preceding (unless otherwise noted) and:
Operator station each end with seats, seat belts, controls
Front steering guide
Rear laydown guide wheel
Pickup sections (2)
Turn sections (2)
Emergency tow bar

OPTIONAL FEATURES

Canopy
4 wheel drive
Intercom
Additional filtration

For further information on the BTM 200, or to discuss your specific needs, please call or write Barrier Systems Inc.