

BROOKS HIRE

“Better Being With Brooks”



HYDREMA 922G 4x4 WATER CART



 **1300 BROOKS** (1300 276 657)
 sales@brookshire.com.au
 www.brookshire.com.au

BROOKS HIRE

Powerful dump trucks with maximum traction.

The 922G Series is the obvious choice for earthmoving in soft terrain and areas demanding very low ground pressure.

With maximum traction, better grip and record low ground pressure, the 922G Series are made for earthmoving in soft and muddy terrains.

Developed for sensitive and rough terrain

The Hydrema 922G Series are articulated dump trucks in the 18 & 20 tonnes class, developed for sensitive and rough terrain. The combination of the markets lowest unladen weight, its unique articulated pivot joint, bogie axles with high pendulum angle and the highest power to weight ratio on the market, give the dump trucks unrivalled terrain manoeuvrability.

Stable driving performance

The Hydrema 922G Series offers excellent driving capabilities at all speeds and on all surfaces, due to the oscillated and hydraulic stabilised pivot joint.

The combination of the rigid front axle with electronically controlled suspension and level control that align the machine in an optimal position, and the heavy-duty bogie rear axles, provide the operator with a high level of stability and comfort, especially during the tipping process.

Due to the design, all six wheels are in constant contact with the surface, which means low ground pressure as the weight is equally distributed.

More power and better fuel economy

In rough terrain, engine power and torque make all the difference. Equipped with the EGR-free 6-cylinder Cummins B6.7 Stage-V engine and an intelligent 6-gear ZF Soft-Shift transmission, the performance of the 922G Series is better than any previous 20 tonnes dump truck from Hydrema.

The intelligent transmission effectively translates the engine's 314 hp and 1288 Nm of torque into the maximum tractive effort. Moreover, the advanced transmission shifting system guarantees a smooth gear shift, that prevents the wheels from slipping and continues to provide maximum torque and traction.

At the same time, the improved fuel economy and longer maintenance intervals between the changing of Fuel & Oil filters, contribute to a reduced cost of operation and lower Total Cost of Ownership.

Smooth operator

Providing our operators with the best and most comfortable working conditions, where they can sit back and enjoy their work, has always been our goal.



 **1300 BROOKS** (1300 276 657)
 sales@brookshire.com.au
 www.brookshire.com.au

BROOKS HIRE



Upgraded retarder system

With an upgraded and more powerful retarder system, the Hydraulic System now consists of 5 independent hydraulic pumps, to ensure that all the functions of the 922G Series operate independently and with the least amount of energy loss.

The powerful retarder system is a combination of engine brake and hydraulic retarder. It is operated via the "Retarder Joystick" in the right armrest and will significantly relieve the service brake when travelling downhill.

With the 922G Series, Hydrema also introduce a new Brake-care system. If the brakes overheat, the operator receives a warning in the dashboard to react upon, accompanied by an acoustic alarm.

Short tipping cycles

As time is scarce, we have focused on making the tipping process as fast as possible. The 5-pump hydraulic system ensures that steering and tipping never feel "sluggish". The separate pumps provide independent control of steering and tipping functions, so the vehicle can be positioned while initiating tipping.

The two powerful tipping cylinders underneath the dump truck body is well protected and has a short stroke length, which enables the body to be raised quickly and provide faster unloading.

The electric-servo controls enable new features for Smooth tipping, which provides a soft start and stop when raising and lowering the body. Along with expanded functionality, the 'auto-body-return' system now includes auto-raising of the body. The automatic tipping throttle will increase

the engine speed when the tipping function is activated to raise the body faster.

To improve safety in the tipping process, the hoist assistance, which is an inclination indicator in the dashboard, provides the operator with an alarm if it's unsafe to tip.

Payload measuring system

To increase efficiency and prevent underload/overload of the 922G Series, Hydrema has developed a payload measuring system. When activated, the system calculates the payload via pressure sensors and angle of the vehicle, where the calculated payload then is shown to the operator in the dashboard.



ADVANTAGES

Very low ground pressure

Highest power-to-weight ratio on the market.

Lowest unladen weight on the market

Extremely user-friendly and simple to use. High safety and operator comfort.

High quality. Solid design. Built to last. Rental friendly.



 **1300 BROOKS** (1300 276 657)
 sales@brookshire.com.au
 www.brookshire.com.au

BROOKS HIRE

CAB COMFORT:

Great work space with an excellent view.

Supreme operating environment. Air-suspended seat and integrated multi-joystick, keeps the operator productivity up all day long.

The spacious cab has two doors, with lighting for safe entry in all light conditions, great visibility and an easy-to-clean interior. For maximum safety, the cab is ROPS/FOPS approved with heavy-duty viscous mounts to reduce vibrations.

All functions have the best ergonomic positions, so the operator feels comfortably

seated at all times. The multi-joystick control is installed, as an integrated part of the right armrest in the new standard Air-suspended seat, with ventilation and longitudinal dampening, and the armrests and steering wheel are multi-adjustable.

The computer-controlled instrument display with data storage, and a powerful heat-

ing and cooling system, a storage box, and connections for 12V & 24V plugs are standard equipment in the cabin.

The joystick operates the main dump truck functions, such as tipping, gear selection, forward/reverse and differential lock, providing easy control at your fingertips.



 **1300 BROOKS** (1300 276 657)
 sales@brookshire.com.au
 www.brookshire.com.au

BROOKS HIRE

SERVICE & MAINTENANCE:

Service access made easy.

Maximize the uptime with easy access, quick servicing and online monitoring through Hydrema Telematics.

Service access

When conducting service and maintenance checks, accessing the engine and various filters are made easy with the electronic opening of the bonnet, with a simple push on a button inside the cab.

The large bonnet opening allows full and safe access to all service points, placed so daily service checks can be carried out quickly.

By conducting daily and correct maintenance, you ensure a long service life and avoid unnecessary breakdowns. Moreover, the optional automatic lubrication kit helps your machine take care of its greasing requirement.

The dump trucks can be equipped with the Hydrema Telematics tracking system. Hydrema Telematics is a data collection tool which collects information from the machine via sensors and electronics.

Users can individually log in to the online portal and gain access to the downloaded data from the engine, transmission and other key components along with real-time reports of the working hours and the location of the machine.

By analysing the collected data, the owner or operator can optimise both the operational and financial control of the machine.

The Hydrema Telematics system can help diagnose problems, display alarm codes, and other vital data from the machine via the online portal, so the Hydrema service-team can diagnose faults rapidly and precisely.



Rental friendly

Developed and designed for everyday use in all kind of conditions and with the added new operator-friendly features, the 922G Series is exceptionally suited for rental.



 **1300 BROOKS** (1300 276 657)
 sales@brookshire.com.au
 www.brookshire.com.au

BROOKS HIRE

TECHNICAL DATA:

Designed and built to last.

Chassis

Articulated chassis with pendulum bar and double hydraulic stabilizers in the center pivot. Gives a high degree of stability both when driving and dumping. Fabricated in high tensile steel in order to obtain the highest possible strength and the lowest possible unladen weight. Oscillation: +/- 12°.

Axles

Front: Rigid axle with electronically controlled suspension and level control. Individual level control on each side aligns the machine in optimal position. The front axle has a differential lock with 75% locking action. **Rear:** Heavy Duty boogie axle with reduction gear in the hubs. Simple and maintenance-free design. Large pendulum angle.

Engine

Cummins B6.7 liter 6 cyl. Stage-V engine with DOC, DPF and SCR catalyst with Ad-Blue additive. 24-valve common rail turbo-diesel with intercooler and electronic variable turbocharger (used for engine brake). Max. Power: 231 kW/314 HP at 2000 rpm. Max. Torque: 1288 Nm at 1500 rpm.

Fuel

Diesel: 300 l. fuel tank.
Ad Blue: 31 l. tank.
Both integrated in the front chassis.

Brakes / Retarder

Full dual-circuit brake system with oil immersed disc brakes on all 6 wheels. Fail-Safe parking brake on the front axle. Maintenance-free brakes. Manually operated retarder which is a combination of engine brake and hydraulic retarder. Max. Retarder Power: 300 kW/405 hp.

Hydraulic system

Consists of 5 hydraulic pumps: **Pump 1:** 31 l/min constant flow pump for brakes, stabilizer, differential lock and suspension. **Pump 2:** 185 l/min variable pump for articulated steering. **Pump 3:** 195 l/min constant flow pump for tipping function and retarder. **Pump 4:** 195 l/min constant flow pump for additional retarder power. **Pump 5:** 64 l/min variable flow pump for emergency steering.

Transmission

ZF ERGOPOWER 6WG-210 aut. Transmission with 6 forward and 3 reverse gears. The transmission is equipped with 100% lockup in all gears and manual activated differential lock between the front and rear. Automatic or manual gearshift. Max speed: Forward: 50 km/h - Reverse: 31 km/h. Max. tractive effort: 223 KN

Dumptruck body

Body in high tensile Hardox 450 steel without side ribs. The double action tipping cylinders are located under the body for maximum protection. Option: exhaust heated body and hydraulic activated tail gate. Tipping time: Up 7,5 sec. / Down 5,5 sec. Tipping angle: 70°.

Cab

Spacious ROPS/FOPS approved cab with viscous mounts and excellent view. Air suspended seat with ventilation and longitudinal damping. Adjustable steering wheel and multi-joystick control. Aut. tipping and lowering function of the body.

Steering

Servo activated hydrostatic steering. Separate variable pump for steering function. Max. steering angle: +/- 38°.

Electrical system

Standard 24V system with 70 Amp. alternator. Batteries: 2x 12V, 100Ah.

Sound level

LpA: 73 dB(A) (in cab)
LwA: 106 dB(A) (outside cab)

Safety

Additional safety is provided via: **Hoist assistance** indicating unsafe tipping
Rear-view camera
Brake wear indicator shows if the brakes are overheating.



STANDARD FEATURES

- **Cummins QSB 6.7L Low Emission Electronic Controlled Engine.**
 - Gross Power 231 kW (314 Hp).
 - Gross Torque 1288 Nm (950 Ft/Lb).
 - Common rail injection system.
 - Variable turbocharged with air to air intercooler.
 - Tier 5 with AdBlue.
- **Transmission / Driveline.**
 - Fully automatic transmission, with 6 forward & 3 reverse speeds.
 - Full time four wheel drive.
 - Limited slip front differential.
- **Suspension.**
 - Front axle suspension, electronically controlled with hydro pneumatic cylinders.
- **Braking system**
 - Dual circuit enclosed wet disc brakes on all wheels.
 - Hydraulic release spring applied failsafe park brake on front axle wet disc brakes.
- **Cab**
 - ROPS, FOPS cab, centrally located on rubber mountings, with 74dbA internal noise levels.
 - Pressurised with integrated air conditioning & heating.
 - Fully adjustable air suspension operator's seat.
 - Radio CD player.
- **Frame**
 - Hydraulic stabilisers positioned on rear frame
 - 24° oscillation, frame oscillation.
- **Hydraulics / Tank**
 - Five hydraulic pumps, separate for brakes, steering, working systems & emergency steering.
 - 16,000 litre tank capacity, with 800 L/M pump.
 - Three independently controlled rear sprays.
 - Remote controlled cannon.
 - One 1" washdown hose.

ADDITIONAL EQUIPMENT INCLUDED

- Rotating beacon
- One 9kg fire extinguisher
- 35% Northwest window tint
- UHF radio
- Seat cover
- Wheel chocks
- Reverse light
- **Front rims x 2 (suited 20.5R25 tyres) for every second machine purchased**
- Lockable battery & starter isolator
- One 1.5kg fire extinguisher
- Auto lube system
- Emergency stops x 3
- Set of operator, part & service manuals
- 650/65R25 front & 775/65R29 rear tyres
- Beacon on rear of tank
- **Rear rims x 2 (suited 26.5R25 tyres) for every second machine purchased**



STANDARD EQUIPMENT

Machine:

Stage V Cummins engine
ZF transmission
NAF front axle
ZF rear axle
Suspended front axle with automatic levelling
Exhaust brake & hydraulic retarder
Front axle: Limited slip differential lock - 75%
Differential lock between front and rear axle
Pivot with double hydraulic stabilizer
Maintenance-free service and parking brake
Bonnet with electric opening
Weight transfer between front and rear wheels

Operation:

All driving controls on ergonomic joystick
Rear view system with monitor in cab
Holding brake (under 1 km/h)
Potentiometer in B-post for engine revs adjustment

Cabin:

Visko-elastic cab suspension
Computer-controlled instrument panel
Two doors with easy access
Non-slip steps for cab access and egress
Wheel button
Automatic driving lights
8 Megabeam working lights on cab
12V and 24V plug box + 5V USB in cab
Wiper with interval control - front / rear
Parasol on cab - front
Handlamp
Red lighting effect inside cab (for night use)
Automatic air-conditioning
2 x rotating beacon
Radio with CD and MP3
Two wide angle mirrors with heating and adjustment
Two side mirrors with heating and adjustment
Air suspended seat with heating and ventilation
Cruise control
Acoustic reversing alarm
4 x halogen driving lights
4 x LED working lights on rear chassis

Hydraulics:

Consists of 5 hydraulic pumps:

Pump 1: 31 l/ min constant flow pump for brakes stabilizer, differential lock and suspension.

Pump 2: 189 l/min variable pump for articulated steering.

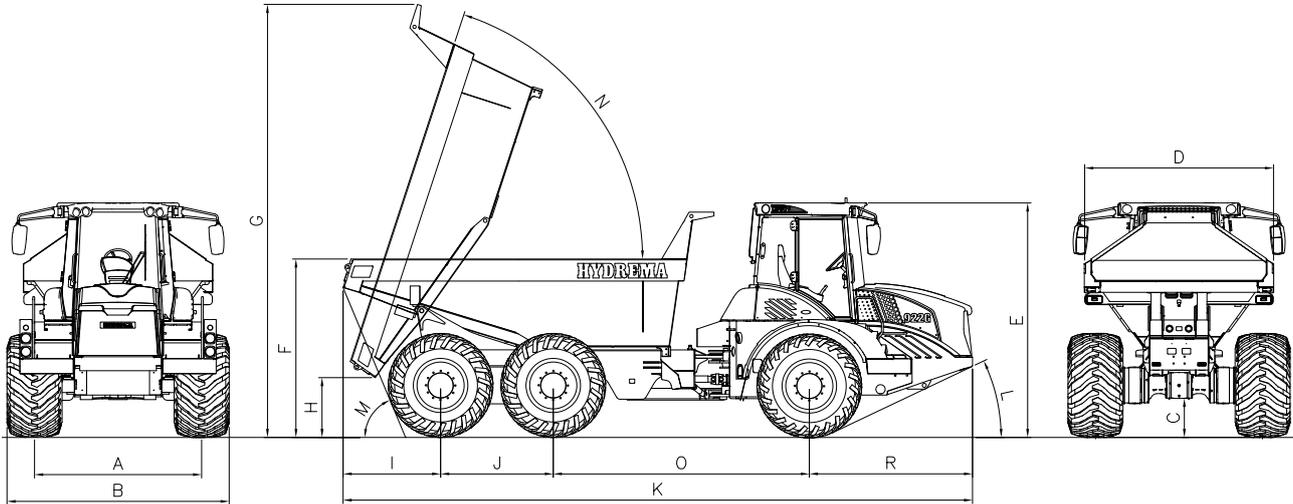
Pump 3: 195 l/min constant flow pump for water pump function and retarder.

Pump 4: 195 l/min constant flow pump for additional retarder power.

Pump 5: 64 l/min variable flow pump for emergency steering



Dimensions.



		922G			922G(HM)			922G 2.55			920G		
		STD.	MC SWB*	MC LWB**	STD.	MC SWB*	MC LWB**	STD.	MC SWB*	MC LWB**	STD.	MC SWB*	MC LWB**
Tires		600/60x30.5			800/45-30.5			20.5-R25 EM			920/45xR25		
Total weight	kg	35900	35500	35700	36350	35950	36150	36600	36200	36400	34500	33950	34150
Unladen weight	kg	15900	13500	13700	16350	13950	14150	16600	14200	14400	16500	13950	14150
Load capacity	kg	20000	22000	22000	20000	22000	22000	20000	22000	22000	18000	20000	20000
B. Total width	mm	2930	2930	2930	3180	3180	3180	2550	2550	2550	3334	3334	3334
C. Clearance	mm	480	480	480	480	480	480	480	480	480	440	440	440
D. Dump truck body width	mm	2750	-	-	2750	-	-	2550	-	-	2750	-	-
E. Total height	mm	3490	3490	3490	3490	3490	3490	3490	3490	3490	3440	3440	3440
Transport height	mm	3440	3440	3440	3440	3440	3440	3440	3440	3440	3400	3400	3400
F. Loading height	mm	2690	-	-	2610	-	-	2690	-	-	2640	-	-
G. Height with raised body	mm	6340	-	-	6340	-	-	6340	-	-	6300	-	-
H. Tipping clearance	mm	820	-	-	820	-	-	820	-	-	820	-	-
I. Overhang, rear	mm	1415	1244	762	1415	1244	762	1415	1244	762	1415	1244	762
J. Wheel base, bogie	mm	1636	1636	1636	1636	1636	1636	1636	1636	1636	1636	1636	1636
K. Length	mm	9170	8995	10175	9170	8995	10175	9170	8995	10175	9170	8995	10175
L. Approach angle, front	°	26	26	26	26	26	26	26	26	26	25	25	25
M. Approach angle, rear	°	68	-	-	68	-	-	68	-	-	68	-	-
N. Tipping angle	°	70	-	-	70	-	-	70	-	-	70	-	-
O. Wheel base	mm	3720	3720	5370	3720	3720	5370	3720	3720	5370	3720	3720	5370
R. Overhang, front	mm	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400	2400
Body capacity, levelled	m ³	9,2	-	-	9,2	-	-	9,2	-	-	9,2	-	-
Body capacity, heaped	m ³	12	-	-	12	-	-	12	-	-	12	-	-
Tipping time, raise	sec.	7,5	-	-	7,5	-	-	7,5	-	-	7,5	-	-
Tipping time, lower	sec.	5,5	-	-	5,5	-	-	5,5	-	-	5,5	-	-
Turning radius, outer	m	8,37	8,37	11,07	8,49	8,49	11,19	8,18	8,18	10,88	8,57	8,57	11,27
Ground pressure (loaded)	kPa	131	131	131	98	98	98	146	146	146	85	85	85

