

DIECI



HERCULES

100.10 | 120.10 | 190.10 | 210.10 | 230.10



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PERFORMANCE					
Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
Maximum capacity	10000 kg (22046 lb)	12000 kg (26455 lb)	19000 kg (41888 lb)	21000 kg (46297 lb)	23000 kg (50706 lb)
Maximum lifting height	9.5 m (31.2 ft)	9.5 m (31.2 ft)	10.2 m (33.5 ft)	10.2 m (33.5 ft)	10.15 m (33.3 ft)
Maximum horizontal extension	5.15 m (16.9 ft)	5.1 m (16.7 ft)	5.15 m (16.9 ft)	5.15 m (16.9 ft)	5.11 m (16.8 ft)
Fork swiveling angle	144°	144°	120°	120°	113°
Pull-out force	9700 daN (21806 lbf)	9700 daN (21806 lbf)	16200 daN (36419 lbf)	18900 daN (42489 lbf)	18900 daN (42489 lbf)
Towing force	11000 daN (24729 lbf)	11000 daN (24729 lbf)	19500 daN (43838 lbf)	19500 daN (43838 lbf)	19500 daN (43838 lbf)
Unladen weight	16000 kg (35274 lb)	16800 kg (37038 lb)	24500 kg (54013 lb)	27500 kg (60627 lb)	29000 kg (63934 lb)
Maximum climb angle	36 %	36 %	36.5 %	36.5 %	35 %
Max speed (referred to wheels with maximum permitted diameter)	35 km/h (21.7 mph)	35 km/h (21.7 mph)	23 km/h (14.3 mph)	23 km/h (14.3 mph)	22 km/h (13.7 mph)
BOOM					
Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
Getting off the basket	13.2 s	15.2 s	20.5 s	23.5 s	24.1 s
Lifting	16.5 s	19 s	20 s	25.2 s	28.6 s
Extension	13.2 s	13.2 s	20.1 s	20.1 s	20.1 s
Retraction	8.3 s	8.3 s	9.8 s	9.8 s	9.8 s
Forward swiveling	5.3 s	5.3 s	5.6 s	8.1 s	15.3 s
Reverse swiveling	4 s	4 s	4.3 s	5.3 s	10.5 s

ENGINE					
Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
Brand	FPT	FPT	FPT	FPT	FPT
Nominal power	104 kW (139 HP)	104 kW (139 HP)	129 kW (173 HP)	129 kW (173 HP)	129 kW (173 HP)
@rpm	2200 rpm	2200 rpm	2200 rpm	2200 rpm	2200 rpm
Peak power	107 kW (143 HP)	107 kW (143 HP)	135 kW (181 HP)	135 kW (181 HP)	135 kW (181 HP)
@rpm	2000 rpm	2000 rpm	2000 rpm	2000 rpm	2000 rpm
Operation	4-stroke	4-stroke	4-stroke	4-stroke	4-stroke
Injection	Electronic, Common Rail	Electronic, Common Rail	Electronic, Common Rail	Electronic, Common Rail	Electronic, Common Rail
Number and arrangement of cylinders	4, Vertical in line	4, Vertical in line	6, Vertical in line	6, Vertical in line	6, Vertical in line
Displacement	4485 cm³ (274 in³)	4485 cm³ (274 in³)	6728 cm³ (411 in³)	6728 cm³ (411 in³)	6728 cm³ (411 in³)
Consumption	211 g/kWh (347.10 lb/Hp h)	211 g/kWh (347.10 lb/Hp h)	215.15 g/kWh (353.92 lb/Hp h)	215.15 g/kWh (353.92 lb/Hp h)	215.15 g/kWh (353.92 lb/Hp h)
@rpm	2000 rpm	2000 rpm	2000 rpm	2000 rpm	2000 rpm
Emission standards	Stage IIIA/Tier 3	Stage IIIA/Tier 3	Stage IIIA/Tier 3	Stage IIIA/Tier 3	Stage IIIA/Tier 3
Cooling system	Liquid	Liquid	Liquid	Liquid	Liquid
Intake	Turbo compressor 16 valve	Turbo compressor 16 valve	Turbo compressor	Turbo compressor	Turbo compressor
Air filter	Air pre-heating and air self-cleaning pre-filter	Air pre-heating and air self-cleaning pre-filter	Air pre-heating and air self-cleaning pre-filter	Air pre-heating and air self-cleaning pre-filter	Air pre-heating and air self-cleaning pre-filter

TRANSMISSION					
Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
Transmission type	Hydrostatic with variable displacement pump	Hydrostatic with variable displacement pump	Hydrostatic with variable displacement pump	Hydrostatic with variable displacement pump	Hydrostatic with variable displacement pump
Hydraulic motor	Hydrostatic with continuous automatic adjustment	Hydrostatic with continuous automatic adjustment	Hydrostatic with continuous automatic adjustment	Hydrostatic with continuous automatic adjustment	Hydrostatic with continuous automatic adjustment
Reversal	Electro-Hydraulic	Electro-Hydraulic	Electro-Hydraulic	Electro-Hydraulic	Electro-Hydraulic
Inching	With hydraulic pedal for controlled forward movement	With hydraulic pedal for controlled forward movement	With hydraulic pedal for controlled forward movement	With hydraulic pedal for controlled forward movement	With hydraulic pedal for controlled forward movement
Gearbox	Servo-controlled 2-speed	Servo-controlled 2-speed	Servo-controlled 2-speed	Servo-controlled 2-speed	Servo-controlled 2-speed

DIFFERENTIAL AXLES					
Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
Type of axles	2 steering, with 4 epicycloidal reduction gears	2 steering, with 4 epicycloidal reduction gears	2 steering, with 4 epicycloidal reduction gears	2 steering, with 4 epicycloidal reduction gears	2 steering, with 4 epicycloidal reduction gears
Type of steering	4 wheels / transversal / 2 wheels	4 wheels / transversal / 2 wheels	4 wheels / transversal / 2 wheels	4 wheels / transversal / 2 wheels	4 wheels / transversal / 2 wheels
Front axle	With transverse leveling device (8° + 8°) with control in the cab and 45% self-locking differential	With transverse leveling device (8° + 8°) with control in the cab and 45% self-locking differential	With transverse leveling device (8° + 8°) with control in the cab	With transverse leveling device (8° + 8°) with control in the cab	With transverse leveling device (6° + 6°) with control in the cab
Rear axle	Swinging	Swinging	Swinging	Swinging	Swinging
Service braking	Oil bath with servo brake on front and rear axle with double hydraulic system	Oil bath with servo brake on front and rear axle with double hydraulic system	Oil bath with servo brake on front and rear axle with double hydraulic system	Oil bath with servo brake on front and rear axle with double hydraulic system	Oil bath with servo brake on front and rear axle with double hydraulic system
Parking braking	Negative actuation with electrical control	Negative actuation with electrical control	Negative actuation with electrical control	Negative actuation with electrical control	Negative actuation with electrical control

HYDRAULIC SYSTEM

Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
Hydraulic pump type	“Load Sensing” variable flow pump for boom movements. Gear pump for power steering drive and for the cooling fan	“Load Sensing” variable flow pump for boom movements. Gear pump for power steering drive and for the cooling fan	“Load Sensing” variable flow pump for boom movements. And power steering. Gear pump for cooling fan operation	“Load Sensing” variable flow pump for boom movements. And power steering. Gear pump for cooling fan operation	“Load Sensing” variable flow pump for boom movements. And power steering. Gear pump for cooling fan operation
Hydraulic pump capacity	160 l/min (42.3 gal/min)	160 l/min (42.3 gal/min)	170 l/min (44.9 gal/min)	170 l/min (44.9 gal/min)	170 l/min (44.9 gal/min)
Max. operating pressure	30 MPa (4351 psi)	30 MPa (4351 psi)	35 MPa (5076 psi)	35 MPa (5076 psi)	35 MPa (5076 psi)
Distributor control	Proportional 4in1 Joystick	Proportional 4in1 Joystick	Proportional 4in1 Joystick	Proportional 4in1 Joystick	Proportional 4in1 Joystick
Distributor type	“Flow Sharing” servo controlled hydraulic	“Flow Sharing” servo controlled hydraulic	“Flow Sharing” servo controlled hydraulic	“Flow Sharing” servo controlled hydraulic	“Flow Sharing” servo controlled hydraulic

FILLING

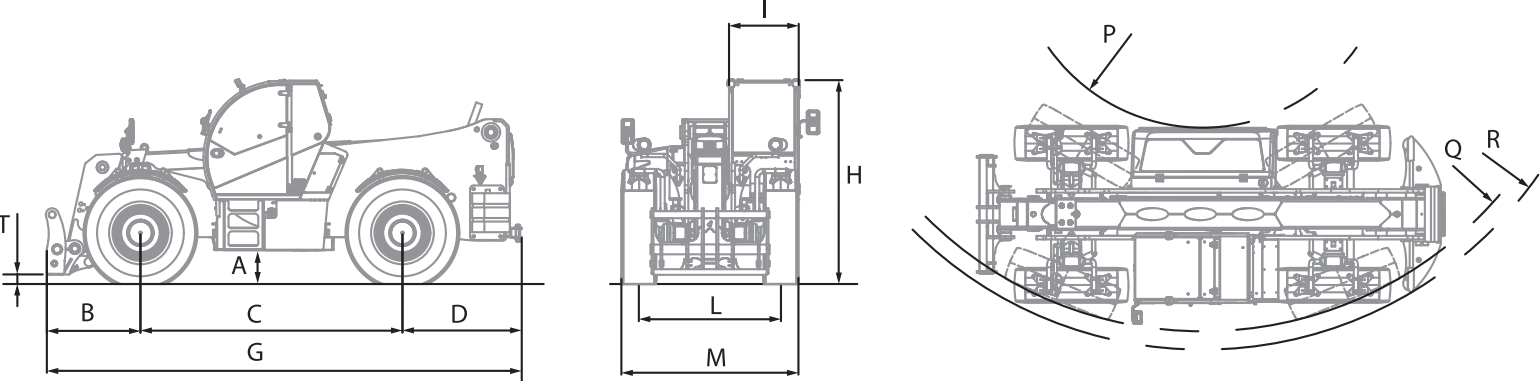
Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
Hydraulic system (total)	246 l (64.99 gal)	246 l (64.99 gal)	246 l (64.99 gal)	246 l (64.99 gal)	246 l (64.99 gal)
Diesel tank	207 l (54.68 gal)	207 l (54.68 gal)	207 l (54.68 gal)	207 l (54.68 gal)	207 l (54.68 gal)
AdBlue tank	-	-	-	30 l (7.93 gal)	30 l (7.93 gal)

TYRES

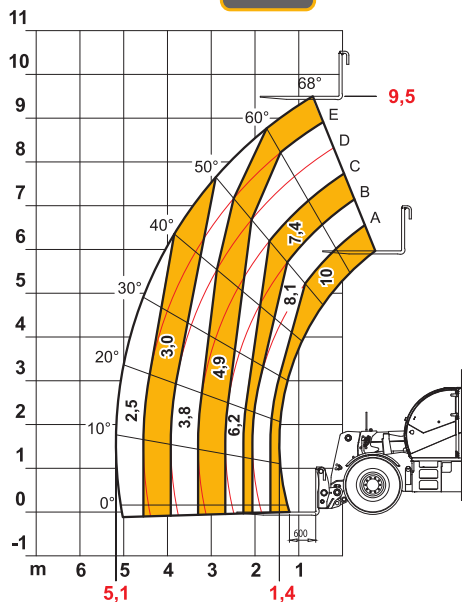
Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
Standard tires	17.5x25"	17.5x25"	20.5R25"	23.5R25"	26.5R25"

DIMENSIONS

Vehicle model	HERCULES 100.10	Hercules 120.10	Hercules 190.10	Hercules 210.10	Hercules 230.10
A	490 mm (19.3 in)	490 mm (19.3 in)	530 mm (20.9 in)	530 mm (20.9 in)	470 mm (18.5 in)
B	1270 mm (50.0 in)	1270 mm (50.0 in)	1320 mm (52.0 in)	1320 mm (52.0 in)	1320 mm (52.0 in)
C	3300 mm (129.9 in)	3300 mm (129.9 in)	3850 mm (151.6 in)	3850 mm (151.6 in)	3850 mm (151.6 in)
D	1480 mm (58.3 in)	1480 mm (58.3 in)	1630 mm (64.2 in)	1630 mm (64.2 in)	1630 mm (64.2 in)
G	6050 mm (238.2 in)	6050 mm (238.2 in)	6800 mm (267.7 in)	6800 mm (267.7 in)	6800 mm (267.7 in)
H	2890 mm (113.8 in)	2890 mm (113.8 in)	2930 mm (115.4 in)	2930 mm (115.4 in)	2980 mm (117.3 in)
I	980 mm (38.6 in)	980 mm (38.6 in)	980 mm (38.6 in)	980 mm (38.6 in)	980 mm (38.6 in)
L	1975 mm (77.8 in)	1975 mm (77.8 in)	2015 mm (79.3 in)	2045 mm (80.5 in)	2180 mm (85.8 in)
M	2420 mm (95.3 in)	2420 mm (95.3 in)	2600 mm (102.4 in)	2700 mm (106.3 in)	2880 mm (113.4 in)
P	1480 mm (58.3 in)	1480 mm (58.3 in)	3530 mm (139.0 in)	3530 mm (139.0 in)	3530 mm (139.0 in)
Q	4350 mm (171.3 in)	4350 mm (171.3 in)	6500 mm (255.9 in)	6500 mm (255.9 in)	6530 mm (257.1 in)
R	4580 mm (180.3 in)	4580 mm (180.3 in)	6500 mm (255.9 in)	6500 mm (255.9 in)	6750 mm (265.7 in)
T	134 mm (5.3 in)	134 mm (5.3 in)	181 mm (7.1 in)	181 mm (7.1 in)	181 mm (7.1 in)



MAX 10,0 t



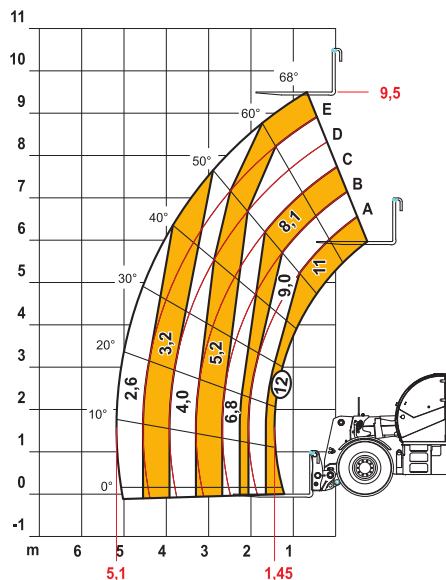
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EN1459

100.10

MAX 12,0 t



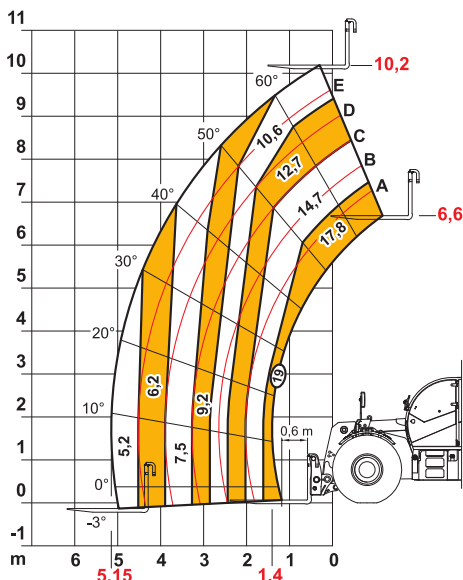
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EN1459

120.10

MAX 19,0 t



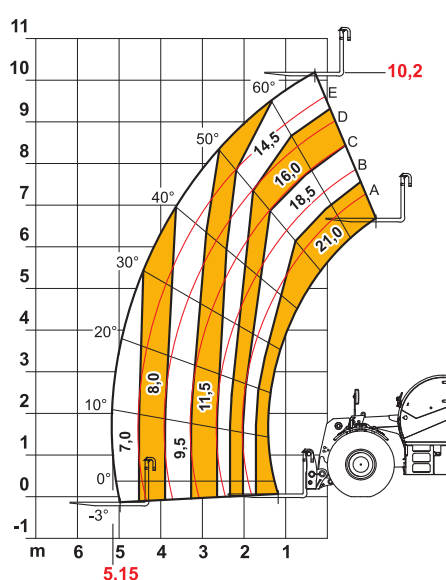
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EN1459

190.10

MAX 21,0 t



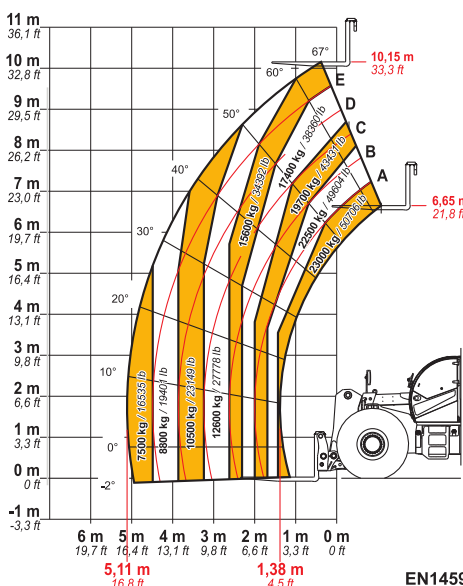
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EN1459

210.10

MAX
23000 kg / 50706 lb



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EN1459 Annex-B

230.10

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