

	821F	621F	721F	921F	1021F	1121F
<b>PRODUCTIVITY (50 meter distance cycle)</b>						
Considering density 1.8 t/m <sup>3</sup> , fill factor 100%, 52 cycles/hour and each hour includes a 5-minute break	-	-	-	-	230 m <sup>3</sup> /h or 410 t/h	260 m <sup>3</sup> /h or 460 t/h
<b>ENGINE</b>						
FPT engine	N67	N67	N67	N67	-	-
Cylinders	6	6	6	6	-	-
Displacement (l)	6.7	6.7	6.7	6.7	-	-
Air intake	Turbocharger with air-to-air cooling.	Turbocharger with air-to-air cooling.	Turbocharger with air-to-air cooling.	Turbocharger with air-to-air cooling.	-	-
Injection	Common Rail Multiple Injection.	Common Rail Multiple Injection	Common Rail Multiple Injection.	Common Rail Multiple Injection.	-	-
-	<b>Emission level</b>	Tier 3		Tier 3	Tier 3	Tier 3
-	-	<b>Emission level</b>	Tier 3		Tier 3	Tier 3
Tier 3	-	-	<b>Max. power (kW)</b>	172	128	145

190	-	-	<b>Max. power (hp)</b>	230	172	195
255	-	-	<b>(@rpm)</b>	1800	1800 (SAE J1349)	1800
1800	1800	-	-	<b>Max. torque (N.m)</b>	1184	730
950	1300	-	-	<b>(@rpm)</b>	1300	1600
1300	1300	-	-	<b>Max power (SAE J1995 / ISO 14396)</b>	-	-
-	-	239 kW / 320 hp @1800 rpm	259kW / 347 hp @1800 rpm	<b>Maximum torque (SAE J1995)</b>	-	-
-	-	1479 Nm @1100 rpm	1604 Nm @1100 rpm			

<b>TRANSMISSION</b>						
<b>Forward 1 (km/h)</b>	7	7	8	7	-	-
<b>Forward 2 (km/h)</b>	12	13	13	12	-	-
<b>Forward 3 (km/h)</b>	23	24	25	23	-	-
<b>Forward 4 (km/h)</b>	37	39	37	36	-	-
<b>Reverse 1 (km/h)</b>	7	7	8	7	-	-

<b>Reverse 2 (km/h)</b>	13	14	13	13	-	-
<b>Reverse 3 (km/h)</b>	27	25	26	25	-	-
<b>forward speeds</b>	-	-	-	-	-	7-12-18-38 Km/h
<b>reverse speeds</b>	-	-	-	-	-	7-13-26 Km/h

**AXLES AND DIFFERENTIAL**

<b>Rear axle total oscillation</b>	24°	24°	24°	24°	26°	26°
<b>A-Choice by ZF</b>	Heavy duty axles with open differentials and automatic. 100% lock system on the front differential. 100% tractive effort always, no wheel slip, less tire wear.	Heavy duty axles with open differentials and automatic. 100% lock system on the front differential. 100% tractive effort always, no wheel slip, less tire wear.	Heavy duty axles with open differentials and automatic. 100% lock system on the front differential. 100% tractive effort always, no wheel slip, less tire wear.	Heavy duty axles with open differentials and automatic. 100% lock system on the front differential. 100% tractive effort always, no wheel slip, less tire wear.	-	-
<b>B-Choice by ZF</b>	Standard axles with limited slip differentials front and rear 73% tractive effort on slippery ground.	Standard axles with limited slip differentials front and rear 73% tractive effort on slippery ground.	Standard axles with limited slip differentials front and rear 73% tractive effort on slippery ground.	Standard axles with limited slip differentials front and rear 73% tractive effort on slippery ground.	-	-

<p><b>For outstanding traction with 50% longer maintenance intervals and 30% less tire wear: Cooled ZF Heavy Duty axles with front auto-lock differential 100%Front</b></p>	-	-	-	-	ZF type MT-L3105-II	ZF type MT-L3115-II
Heavy Duty + (ZF type MT-L3115-II)	Heavy Duty (ZF type MT-L3115-II)	<p><b>For outstanding traction with 50% longer maintenance intervals and 30% less tire wear: Cooled ZF Heavy Duty axles with front auto-lock differential 100% Rear</b></p>	-	-	-	-
ZF type MT-L3105-II	ZF type MT-L3105-II	Heavy Duty (ZF type MT-L3115-II)	Heavy Duty (ZF type MT-L3115-II)	<p><b>For outstanding traction with 50% longer maintenance intervals and 30% less tire wear: Cooled ZF axles with both Open Differentials Front</b></p>	-	-
				<p><b>For outstanding traction with</b></p>		

-	-	ZF type MT-L3105-II	Heavy Duty (ZF type MT-L3115-II)	<b>50% longer maintenance intervals and 30% less tire wear: Cooled ZF axles with both Open Differentials Rear</b>	-	-
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-	-	ZF type MT-L3105-II	Heavy Duty (ZF type MT-L3115-II)			
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**TYRES**

<b>Tyres</b>	23.5R25	20.5R25	20.5R25	23.5R25	26.5R25	26.5R25
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**BRAKES**

<b>Service brake</b>	Maintenance free, self-adjusting wet 4-wheel disc brakes	Maintenance free, self-adjusting wet 4-wheel disc brakes	Maintenance free, self-adjusting wet 4-wheel disc brakes	Maintenance free, self-adjusting wet 4-wheel disc brakes.	Maintenance free, self-adjusting wet 4-wheel disc brakes	Maintenance free, self-adjusting wet 4-wheel disc brakes
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<b>Brake disc area (m<sup>2</sup>/hub)</b>	0.39	0.39	0.39	0.47	-	-
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<b>Area</b>	-	82 cm <sup>2</sup>	-	82 cm <sup>2</sup>	-	82 cm <sup>2</sup>
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-	0.74 m <sup>2</sup> /hub (L3115-II axle) or 0.54 m <sup>2</sup> /hub (L3105-II axle)	0.74 m <sup>2</sup> /hub (L3115-II axle) or 0.54 m <sup>2</sup> /hub (L3105-II axle)	82 cm <sup>2</sup>	0.74 m <sup>2</sup> /hub	<b>Area</b>	-
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82 cm <sup>2</sup>	-	82 cm <sup>2</sup>	-	82 cm <sup>2</sup>	-	0.74 m <sup>2</sup> /hub (L3115-II axle) or 0.54 m <sup>2</sup> /hub
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(L3105-II)

0.74 m <sup>2</sup> /hub (L3115-II axle) or 0.54 m <sup>2</sup> /hub (L3105-II axle)	82 cm <sup>2</sup>	0.74 m <sup>2</sup> /hub	<b>Parking brake</b>	With the negative brake all four wheels are automatically stopped when the engine is stopped.	With the negative brake all four wheels are automatically stopped when the engine is stopped.	With the negative brake all four wheels are automatically stopped when the engine is stopped.
With the negative brake all four wheels are automatically stopped when the engine is stopped.	Disc brake on transmission activated from the cab cluster	Disc brake on transmission activated from the cab cluster	<b>Disc brake area (cm<sup>2</sup>)</b>	82	58	82
82	-	-	<b>Area</b>	-	-	-
	-	-	82 cm <sup>2</sup>	82 cm <sup>2</sup>		

## HYDRAULICS

<b>Valves</b>	Rexroth Closed- center, Load sensing hydraulic. Main valve with 3 sections.	Rexroth Closed- center, Load sensing hydraulic. Main valve with 3 sections.	Rexroth Closed- center, Load sensing hydraulic. Main valve with 3 sections.	Rexroth Closed- center, Load sensing hydraulic. Main valve with 3 sections.	Rexroth Closed- center, load sensing hydraulic system Main valve with 3 sections	Rexroth Closed- center, load sensing hydraulic system Main valve with 3 sections
<b>Steering</b>	The steering orbitrol hydraulically is actuated with priority valve.	The steering orbitrol hydraulically is actuated with priority valve.	The steering orbitrol hydraulically is actuated with priority valve.	The steering orbitrol hydraulically is actuated with priority valve.	The steering orbitrol hydraulically is actuated with priority valve	The steering orbitrol hydraulically is actuated with priority valve
	Bucket Return-to-dig,		Bucket Return-to-dig,		Bucket Return-to-dig, Boom	Bucket Return-to-dig, Boom

<b>Automatic functions</b>	Boom Return-to-travel, Boom Auto-lift.	Bucket Return-to-dig, Boom Return-to-travel, Boom Auto-lift.	Boom Return-to-travel, Boom Auto-lift.	Bucket Return-to-dig, Boom Return-to-travel, Boom Auto-lift.	Return-to-travel, Boom Auto-lift (to adjustable height)	Return-to-travel, Boom Auto-lift (to adjustable height)
<b>Control type</b>	Pilot control with single joystick or two levers.	Pilot control with single joystick or two levers.	Pilot control with single joystick or two levers.	Pilot control with single joystick or two levers.	Pilot control with single joystick or two levers	Pilot control with single joystick or two levers
<b>Type of pump</b>	Tandem Variable displacement pump (240 l/min @2000 rpm)	Tandem Variable displacement pump (171 l/min @2000 rpm)	Tandem Variable displacement pump (206 l/min @2000 rpm)	Tandem Variable displacement pump (282 l/min @2000 rpm)	Tandem Variable displacement pump (352 l/min @2000 rpm)	Tandem Variable displacement pump (380 l/min @2000 rpm)

Tandem Variable displacement pump (380 l/min @2000 rpm)

## AUXILIARY HYDRAULIC CIRCUIT

<b>Max flow (l/min)</b>	260	162	260	260	-	-
<b>Max pressure (bar)</b>	224	227	224	224	-	-

## SERVICE CAPACITIES

<b>Fuel tank (l)</b>	288	248	246	288	459 usable liters	459 usable liters
<b>AdBlue tank (l)</b>	41.3	41.3	41.3	41.3	-	-
<b>Cooling system (l)</b>	30	26.8	28	30	57 liters	57 liters
<b>Engine oil (l)</b>	13	13	13	13	26 liters	26 liters

<b>Hydraulic oil tank (l)</b>	91	91	91	91	134 litres, total system: 250 liters	134 litres, total system: 250 liters
<b>Total hydraulic system oil (l)</b>	180	148	180	200	-	-
<b>Front and Rear Axles (l)</b>	40+40	22+22	35+35	42+40	-	-
<b>Axles (including cooling circuit)</b>	-	-	-	-	68 liters	68 liters
<b>Transmission oil (l)</b>	34	27	34	34	45 liters	45 liters

## CAB PROTECTION AND CONTROLS

<b>Protection against falling objects (FOPS)</b>	ISO EN3449	ISO EN3449	ISO EN3449	ISO EN3449	ISO EN3449	ISO EN3449
<b>Protection against roll over (ROPS)</b>	ISO EN13510	ISO EN13510	ISO EN13510	ISO EN13510	ISO EN13510	ISO EN13510

## NOISE AND VIBRATION

<b>Sound pressure level at operator's station</b>	-	-	-	-	Lpa = 79 dB (A) in compliance with standard ISO 6396:2008	Lpa = 79 dB (A) in compliance with standard ISO 6396:2008
<b>Guaranteed Sound power</b>	-	-	-	-	Lwa = 108 dB (A) according to European	Lwa = 108 dB (A) according to European



level					Directive 2000/14/EC	Directive 2000/14/EC
<b>In the cab - LpA (dB)</b>	72	70	72	72	-	-
<b>Outside - LwA (dB)</b>	107	104	105	107	-	-
<b>Vibrations</b>	Operator 's seat meets the criteria of ISO 7096:2000. The vibrations transmitted do not exceed 0.5 m/s <sup>2</sup>	Operator 's seat meets the criteria of ISO 7096:2000. The vibrations transmitted do not exceed 0.5 m/s <sup>2</sup>	Operator 's seat meets the criteria of ISO 7096:2000. The vibrations transmitted do not exceed 0.5 m/s <sup>2</sup>	Operator 's seat meets the criteria of ISO 7096:2000. The vibrations transmitted do not exceed 0.5 m/s <sup>2</sup>	air-cushioned seat MSG 95A/732 Operator's seat meets the criteria of ISO 7096:2000 representing vertical vibration input under severe but typical operating conditions	air-cushioned seat MSG 95A/732 Operator's seat meets the criteria of ISO 7096:2000 representing vertical vibration input under severe but typical operating conditions.
<b>ELECTRICAL SYSTEM</b>						
<b>Alternator (A)</b>	65	65	65	65	65A	65A