

Drive train and performance

	Volvo TAD871 VE ZF 3WG191 (185 kW)		Volvo TAD572 VE ZF 3WG171 (160 kW)	
	Volvo TAD871VE (Turbo-Intercooler)		Volvo TAD572VE (Turbo-Intercooler)	
ENGINE				
Manufacturer's type designation	Volvo TAD871VE (Turbo-Intercooler)		Volvo TAD572VE (Turbo-Intercooler)	
Fuel, type of engine	Diesel, 4-stroke		Diesel, 4-stroke	
Rating ISO 3046 / at revs	185/252 / 2200		160/218 / 2300	
Peak torque ISO 3046 / at revs	1160 / 1200		910 / 1200	
Number of cylinders / displacement	6 / 7700		4 / 5100	
Fuel consumption, normal driving	8-10		7-9	
AdBlue consumption, normal driving	3-5		3-5	
Emission standard	Stage IV / Tier 4 final		Stage IV / Tier 4 final	
GEARBOX & MISC				
Manufacturer's type designation	ZF 3WG191		ZF 3WG171	
Clutch, type	Torque converter		Torque converter	
Gearbox, type	Hydrodynamic Powershift		Hydrodynamic Powershift	
Numbers of gears, forward / reverse	3 / 3		3 / 3	
Alternator, type / power	AC / 3640		AC / 3080	
Starting battery, voltage / capacity	2x12 / 150		2x12 / 150	
Driving axle, manufacturer / type	Kessler D81 / Differential and hub reduction		Kessler D81 / Differential and hub reduction	

		DCG													
		90-6	100-6	120-6	127-6	140-6	150-6	100-12	120-12	150-12	160-6	160-9	160-12	180-6	
PERFORMANCE, VOLVO TAD871 VE	Lifting speed	Unloaded (m/s)	-	-	-	-	-	-	0,40	0,40	0,40	0,40	0,40	0,40	-
		At rated load (m/s)	-	-	-	-	-	-	0,35	0,35	0,35	0,35	0,35	0,35	-
	Lowering speed	Unloaded (m/s)	-	-	-	-	-	-	0,30	0,30	0,30	0,30	0,30	0,30	-
		At rated load (m/s)	-	-	-	-	-	-	0,40	0,40	0,40	0,40	0,40	0,40	-
	Travelling speed, F/R	Unloaded (km/h)	-	-	-	-	-	-	30	30	30	30	30	30	-
		At rated load (km/h)	-	-	-	-	-	-	29	29	29	29	29	29	-
	Gradeability, max.	Unloaded (%)	-	-	-	-	-	-	105	83	111	91	82	-	
		At rated load (%)	-	-	-	-	-	-	50	41	44	41	40	-	
	Gradeability, at 2 km/h	Unloaded (%)	-	-	-	-	-	-	84	69	88	75	69	-	
		At rated load (%)	-	-	-	-	-	-	43	36	38	36	35	-	
	Drawbar pull	Max. (kN)	-	-	-	-	-	-	140	140	140	140	140	-	
	Noise level, inside	LpAZ*, EGO cabin (dB(A))	-	-	-	-	-	-	71	71	71	71	71	-	
		LpAZ*, EGO cabin OHG (dB(A))	-	-	-	-	-	-	83	83	83	83	83	-	
	Noise level, outside	LWA** (dB(A))	-	-	-	-	-	-	107	107	107	107	107	-	

* LpAZ according to EN12053 ** LWA according to 2000/14/EC

		DCG													
		90-6	100-6	120-6	127-6	140-6	150-6	100-12	120-12	150-12	160-6	160-9	160-12	180-6	
PERFORMANCE, VOLVO TAD572 VE	Lifting speed	Unloaded (m/s)	0,50	0,50	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	
		At rated load (m/s)	0,45	0,45	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	
	Lowering speed	Unloaded (m/s)	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	
		At rated load (m/s)	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	
	Travelling speed, F/R	Unloaded (km/h)	29	29	29	29	29	29	29	29	29	29	29	29	
		At rated load (km/h)	28	28	27	28	28	28	28	27	27	27	27	27	
	Gradeability, max.	Unloaded (%)	>120	>120	>120	114	111	82	91	83	68	86	73	68	71
		At rated load (%)	63	59	52	47	44	39	49	43	36	38	36	35	33
	Gradeability, at 2 km/h	Unloaded (%)	103	98	91	82	81	63	69	64	54	66	58	54	56
		At rated load (%)	50	47	42	39	37	32	40	35	30	32	30	29	28
	Drawbar pull	Max. (kN)	127	127	127	123	123	123	123	123	123	123	123	123	
	Noise level, inside	LpAZ*, EGO cabin (dB(A))	71	71	71	71	71	71	71	71	71	71	71	71	
		LpAZ*, EGO cabin OHG (dB(A))	83	83	83	83	83	83	83	83	83	83	83	83	
	Noise level, outside	LWA** (dB(A))	108	108	108	108	108	108	108	108	108	108	108	108	

* LpAZ according to EN12053 ** LWA according to 2000/14/EC

	Cummins QSB6,7 ZF 3WG171 (168 kW)		Cummins QSB6,7* ZF 3WG161 (129 kW)	
	Cummins QSB6,7 (Turbo-Intercooler)		Cummins QSB6,7 (Turbo-Intercooler)	
ENGINE				
Manufacturer's type designation	Cummins QSB6,7 (Turbo-Intercooler)		Cummins QSB6,7 (Turbo-Intercooler)	
Fuel, type of engine	Diesel, 4-stroke		Diesel, 4-stroke	
Rating ISO 3046 / at revs	168/228 / 2200		129/176 / 2200	
Peak torque ISO 3046 / at revs	949 / 1500		800 / 1400	
Number of cylinders / displacement	6 / 6702		6 / 6702	
Fuel consumption, normal driving	7-9		7-9	
AdBlue consumption, normal driving	3-5		3-5 / N/A	
Emission standard	Stage IV / Tier 4 final		Stage IV & IIIA	
GEARBOX & MISC				
Manufacturer's type designation	ZF 3WG171		ZF 3WG161	
Clutch, type	Torque converter		Torque converter	
Gearbox, type	Hydrodynamic Powershift		Hydrodynamic Powershift	
Numbers of gears, forward / reverse	3 / 3		3 / 3	
Alternator, type / power	AC / 1960		AC / 1680	
Starting battery, voltage / capacity	2x12 / 150		2x12 / 150	
Driving axle, manufacturer / type	Kessler D81 / Differential and hub reduction		Kessler D81 / Differential and hub reduction	

		DCG													
		90-6	100-6	120-6	127-6	140-6	150-6	100-12	120-12	150-12	160-6	160-9	160-12	180-6	
PERFORMANCE, CUMMINS QSB6,7	Lifting speed	Unloaded (m/s)	-	0,50	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	
		At rated load (m/s)	-	0,45	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	
	Lowering speed	Unloaded (m/s)	-	0,30	0,30	0,30	0,30	0,30	0,30	0,30	0,30	0,30	0,30	0,30	
		At rated load (m/s)	-	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	
	Travelling speed, F/R	Unloaded (km/h)	-	29	29	30	30	30	30	30	30	30	30	30	
		At rated load (km/h)	-	27	27	28	28	27	28	28	27	27	27	27	
	Gradeability, max.	Unloaded (%)	-	>120	>120	118	115	84	94	85	70	89	75	69	73
		At rated load (%)	-	60	53	48	45	39	50	44	36	39	36	35	34
	Gradeability, at 2 km/h	Unloaded (%)	-	88	82	75	73	58	64	59	50	61	53	50	52
		At rated load (%)	-	44	39	36	34	30	37	33	28	30	28	27	26
	Drawbar pull	Max. (kN)	-	129	129	125	125	125	125	125	125	125	125	125	
	Noise level, inside	LpAZ*, EGO cabin (dB(A))	-	71	71	71	71	71	71	71	71	71	71	71	
		LpAZ*, EGO cabin OHG (dB(A))	-	83	83	83	83	83	83	83	83	83	83	83	
	Noise level, outside	LWA** (dB(A))	-	108	108	108	108	108	108	108	108	108	108	108	

* LpAZ according to EN12053 ** LWA according to 2000/14/EC

		DCG													
		90-6	100-6	120-6	127-6	140-6	150-6	100-12	120-12	150-12	160-6	160-9	160-12	180-6	
PERFORMANCE, CUMMINS QSB6,7*	Lifting speed	Unloaded (m/s)	0,50	0,50	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	
		At rated load (m/s)	0,45	0,45	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	0,35	
	Lowering speed	Unloaded (m/s)	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	
		At rated load (m/s)	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	0,40	
	Travelling speed, F/R	Unloaded (km/h)	29	29	29	29	29	29	29	29	29	29	29	29	
		At rated load (km/h)	28	28	27	28	28	28	28	27	27	27	27	27	
	Gradeability, max.	Unloaded (%)	>120	>120	>120	107	104	78	87	79	65	82	70	65	68
		At rated load (%)	-	57	50	45	43	37	47	41	34	37	34	33	32
	Gradeability, at 2 km/h	Unloaded (%)	-	97	91	79	78	61	67	62	52	64	56	52	54
		At rated load (%)	-	47	41	37	35	31	39	34	29	30	29	28	27
	Drawbar pull	Max. (kN)	109	109	109	104	104	104	104	104	104	104	104	104	
	Noise level, inside	LpAZ*, EGO cabin (dB(A))	73	73	73	73	73	73	73	73	73	73	73	73	
		LpAZ*, EGO cabin OHG (dB(A))	85	85	85	85	85	85	85	85	85	85	85	85	
	Noise level, outside	LWA** (dB(A))	108	108	108	108	108	108	108	108	108	108	108	108	

* LpAZ according to EN12053 ** LWA according to 2000/14/EC

Lifting equipment

Here is how the DCG90-180 helps drivers optimise lifting efficiency and save fuel – at the same time. To begin with, its new electric and hydraulic systems mean quicker response, high lifting speed and increased control. Meanwhile, new load sensing hydraulic pumps improve fuel efficiency. Operating together, this combination improves productivity and saves fuel – every lift.

As lifting equipment plays a vital role in the performance of any forklift, it is important yours match your individual requirements and applications. For instance, careful consideration should be made to factors such as lift height, clearance, free lift, carriage flexibility, etc. in order to optimise operations.

Kalmar offer you a complete range of standard and custom lifting equipment – carriage, fork shaft, forks, levelling, etc – and options to suit your specific lifting and cargo handling requirements.



DUPLEX STANDARD, CLEAR VIEW

Lift height H4	Mast height		Free lift H2	Mast height		Free lift H2
	H3 min	H5 max		H3 min	H5 max	
	DCG90-140*			DCG100-180**		
3000	3015	4515	–	3195	4695	–
3250	3140	4765	–	3320	4945	–
3500	3265	5015	–	3445	5195	–
3750	3390	5265	–	3570	5445	–
4000	3515	5515	–	3695	5695	–
4500	3765	6015	–	3945	6195	–
5000	4015	6515	–	4195	6695	–
5500	4265	7015	–	4445	7195	–
6000	4515	7515	–	4695	7695	–
6500	4765	8015	–	4945	8195	–
7000	5015	8515	–	5195	8695	–

DUPLEX FULL FREE LIFT, CLEAR VIEW

Lift height H4	Mast height		Free lift H2	Mast height		Free lift H2
	H3 min	H5 max		H3 min	H5 max	
	DCG90-140*			DCG100-180**		
3000	3015	4515	1500	3195	4695	1500
3250	3140	4765	1625	3320	4945	1625
3500	3265	5015	1750	3445	5195	1750
3750	3390	5265	1875	3570	5445	1875
4000	3515	5515	2000	3695	5695	2000
4500	3765	6015	2250	3945	6195	2250
5000	4015	6515	2500	4195	6695	2500
5500	4265	7015	2750	4445	7195	2750
6000	4515	7515	3000	4695	7695	3000
6500	4765	8015	3250	4945	8195	3250
7000	5015	8515	3500	5195	8695	3500

TRIPLEX FFL, CW

Lift height H4	Mast height		Free lift H2	Mast height		Free lift H2
	H3 min	H5 max		H3 min	H5 max	
	DCG90-140*			DCG100-180**		
4500	2950	5950	1500	3130	6190	1500
5000	3117	6450	1667	3297	6690	1667
5500	3283	6950	1833	3463	7190	1833
6000	3450	7450	2000	3630	7690	2000
6500	3617	7950	2167	3797	8190	2167
7000	3783	8450	2333	3963	8690	2333

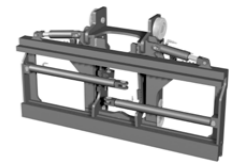
+25 mm on H3 and H5 on the DCG140
 * DCG90-140-6
 ** DCG150-180-6, DCG160-9, DCG100-160-12



Duplex standard, free visibility



Fixed for manually moveable forks



Centre levelling



Fork positioning and sideshift



Sideshift



Duplex full free lift, free visibility



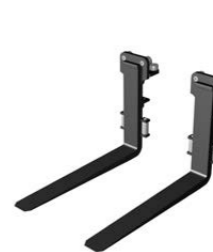
Forks for manual adjustment



Fork shaft system with separate carriers for each fork



Triplex full free lift, free visibility



Roller fittings for hydraulic adjustment



Hydraulic levelling

