# XD XG 15 - 18 - 20
# Technical Data

# XD XG 15 - 18 - 20 Technical Data

VDI 2198

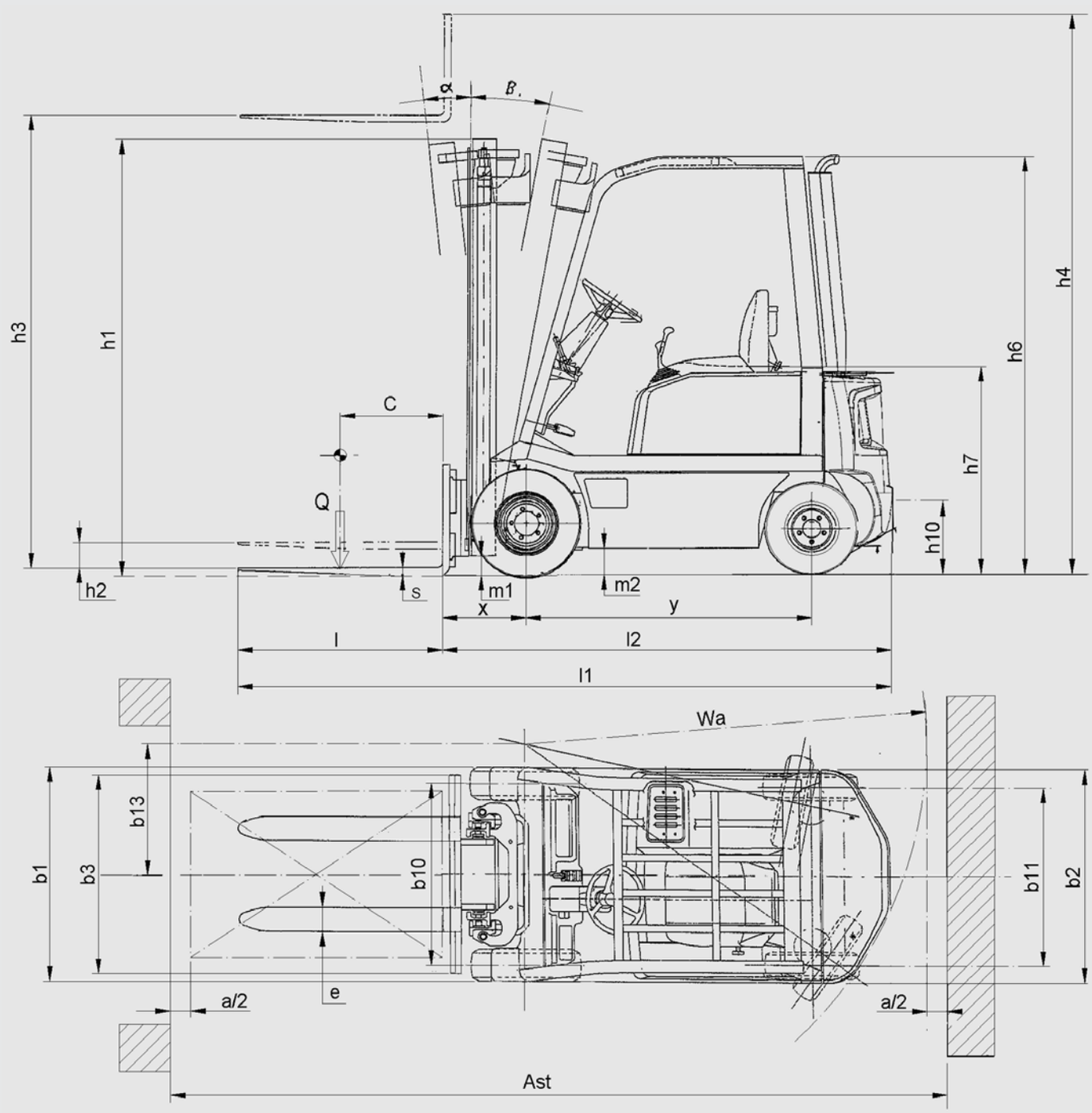
| | | | | | | |
|---|---|---|---|---|---|---|
| Specification | 1.1 | Manufacturer | | OM | OM | |
| | 1.2 | Model designation | | XD 15 | XD 18 | |
| | 1.3 | Type of drive: Electric - Diesel - Petrol - GPL - Network Power (Electric) | | Diesel | Diesel | |
| | 1.4 | Operation Type: Hand - Stand-on - Driver seated | | Driver seated | Driver seated | |
| | 1.5 | Load Capacity | Q (t) | 1,5 [0)] | 1,8 [0)] | |
| | 1.6 | Load Barycenter Distance | c (mm) | 500 | 500 | |
| | 1.8 | Axle centre to fork face | x (mm) | 395 [1)] | 400 [1)] | |
| | 1.9 | Wheel Base | y (mm) | 1400 | 1400 | |
| Weights | 2.1 | Service Weight | kg | 2610 | 2870 | |
| | 2.2 | Axle Weight with Rated Load front / rear | kg | 3600 / 480 | 4100 / 510 | |
| | 2.3 | Axle Weight without load front / rear | kg | 1140 / 1440 | 1140 / 1670 | |
| Wheels and | 3.1 | Tyres: SE = Superelastic PN = Pneus | | SE / SE [2)] | SE / SE [2)] | |
| Tyres | 3.2 | Front Tyres Size | | 6.00-9 | 21 x 8 - 9 | |
| | 3.3 | Rear Tyres Size | | 5.00-8 | 18 x 7 - 8 | |
| | 3.5 | Tyres: Number of Front / Rear Tyres (x = drive) | | 2 (4) x 2 | 2 (4) x 2 | |
| | 3.6 | Front Track Width | b10 (mm) | 900-1090 (twin) | 950-1090 (twin) | |
| | 3.7 | Rear track Width | b11 (mm) | 890 | 890 | |
| Dimensions and | 4.1 | Mast lift, forward / backward | Grad | 3°/ 9° [3)] | 3°/ 9° [3)] | |
| Overall Sizes | 4.2 | Mast Minimum Overall Height | h1 (mm) | 2210 | 2210 | |
| | 4.3 | Free Lift | h2 (mm) | 150 | 150 | |
| | 4.4 | Lift Height | h3 (mm) | 3330 | 3330 | |
| | 4.5 | Mast Maximum Overall Height | h4 (mm) | 3905 [8)] | 3973 [8)] | |
| | 4.7 | Overhead Guard Height | h6 (mm) | 2095 [4)] | 2095 [4)] | |
| | 4.8 | Seat Height | h7 (mm) | 1030 [5)] | 1030 [5)] | |
| | 4.12 | Drawbar Height | h10 (mm) | - | - | |
| | 4.19 | Overall Length | l1 (mm) | 3180 | 3235 | |
| | 4.20 | Overall Length Including Fork Arms | l2 (mm) | 1795 [9)] | 1800 [9)] | |
| | 4.21 | Overall Width | b1/b2 (mm) | 1060-1450 (twin) | 1150-1450 (twin) | |
| | 4.22 | Fork Arms Dimensions | s/e/l (mm) | 40x80x1000 | 45x100x1000 | |
| | 4.23 | Fork Carriage in Compliance with DIN 15173 Class / Form A, B | | 2-A | 2-A | |
| | 4.24 | Fork Carriage Width | b3 (mm) | 1040 [10)] | 1040 [10)] | |
| | 4.31 | Mast Ground Clearance (with load) | m1 (mm) | 95 | 95 | |
| | 4.32 | Chassis Ground Clearance (with load) [middle of the chassis] | m2 (mm) | 130 | 130 | |
| | 4.33 | Aisle Width with Pallet 1000x1200 and Fork Arms Pitch 1200 | Ast (mm) | 3582 [11)] | 3632 [11)] | |
| | 4.34 | Aisle Width with Pallet 800x1200 and Fork Arms Pitch 800 | Ast (mm) | 3782 [11)] | 3832 [11)] | |
| | 4.35 | Turning Radius | Wa (mm) | 1965 | 2010 | |
| | 4.36 | Turning Point Minimum Distance from the Truck Center Line | b13 (mm) | - | - | |
| Performance | 5.1 | Drive Speed with / without load | km/h | 18,5 / 19 | 18,5 / 19 | |
| | 5.2 | Lifting speed with / without load | m/s | 0,66 / 0,68 | 0,66 / 0,68 | |
| | 5.3 | Lowering speed with / without load | m/s | 0,47 / 0,41 | 0,48 / 0,41 | |
| | 5.5 | Drawbar Pull Tractive Effort (at 2 km/h) with / without load | N | 11340/8040 [6)] | 11300/7990 [6)] | |
| | 5.7 | Gradeability (at 2 km/h ) with / without load | % | 28 /28 [7)] (> 50 M.I.) [12)] | 25/25 [7)] (48 M.I.) [12)] | |
| | 5.9 | Acceleration Time (15 m) with / without load | s | 4,6 / 4,2 | 4,6 / 4,2 | |
| | 5.10 | Service Brake | | Mechanical/hydraulic | Mechanical/hydraulic | |
| Engine | 7.1 | Engine Manufacturer / Engine Type | | LOMBARDINI LDW 2204/B4 | LOMBARDINI LDW 2204/B4 | |
| | 7.2 | Engine Power | kW | 32 | 32 | |
| | 7.3 | Rated Number of Revolutions | min -1 | 2500 | 2500 | |
| | 7.4 | Cylinder Number / Displacement | cm 3 | 4/2199 | 4/2199 | |
| | 7.5 | Fuel Consumption in compliance with VD-Cycle | l/h | 2,7 | 2,85 | |
| Others | 8.1 | Drive Control Type | | Hydrodynamic Transm. | Hydrodynamic Transm. | |
| | 8.2 | Service Pressure for Attachments | bar | 170 | 200 | |
| | 8.3 | Oil Flow rate for Attachments (max. available) | l/min | 40 | 40 | |
| | 8.4 | Noise at Operator's Ear | dB (A) | 81 | 81 | |
| | 8.5 | Drawbar, model/Type DIN | | - | - | |

The values presented are to be taken as indicative and not binding; they refer to the standard equipment

0) The effective capacities are a function of the position of the centre of gravity of the load, the type of lift, the lifting height, the tyres and any fittings
1) XD/XG 15: TX GAL 415 mm; XD/XG 18: TX GAL 420 mm; XD/XG 20: TX GAL 432 mm; XD/XG 15-18-20 con S.L.I. +17 mm SX, DX, TX
2) XD/XG 15-18-20 for alternative tyres see table
3) XD/XG 15-18-20 SX, DX ≥ 4000 mm, 3° / 6°, TX 3° / 6°
4) XD/XG 15-18-20 1980 mm optional

| | | | | |
|---|---|---|---|---|
| OM | OM | OM | OM | 1.1 |
| XD 20 | XG 15 | XG 18 | XG 20 | 1.2 |
| Diesel | G.P.L. | G.P.L. | G.P.L. | 1.3 |
| Driver seated | Driver seated | Driver seated | Driver seated | 1.4 |
| 2,0 [0)] | 1,5 [0)] | 1,8 [0)] | 2,0 [0)] | 1.5 |
| 500 | 500 | 500 | 500 | 1.6 |
| 410 [1)] | 395 [1)] | 400 [1)] | 410 [1)] | 1.8 |
| 1400 | 1400 | 1400 | 1400 | 1.9 |
| 3125 | 2750 | 3020 | 3170 | 2.1 |
| 4500 / 630 | 3600 / 480 | 4100 / 510 | 4500 / 630 | 2.2 |
| 1200 / 1930 | 1140 / 1440 | 1140 / 1670 | 1200 / 1930 | 2.3 |
| SE / SE [2)] | SE / SE [2)] | SE / SE [2)] | SE / SE [2)] | 3.1 |
| 21 x 8 - 9 | 6.00-9 [13)] | 21 x 8 -9 | 21 x 8 -9 | 3.2 |
| 18 x 7 - 8 | 5.00-8 | 18 x 7 - 8 | 18 x 7 - 8 | 3.3 |
| 2 (4) x 2 | 2 (4) x 2 | 2 (4) x 2 | 2 (4) x 2 | 3.5 |
| 950-1090 (twin) | 900-1090 (twin) [15)] | 950-1090 (twin) | 950-1090 (twin) | 3.6 |
| 890 | 890 | 890 | 890 | 3.7 |
| 3°/ 9° [3)] | 3°/9° [3)] | 3°/9° [3)] | 3°/9° [3)] | 4.1 |
| 2260 | 2210 | 2210 | 2260 | 4.2 |
| 150 | 150 | 150 | 150 | 4.3 |
| 3350 | 3330 | 3330 | 3350 | 4.4 |
| 4046 | 3905 [8)] | 3973 [8)] | 4046 | 4.5 |
| 2095 [4)] | 2095 [4)] | 2095 [4)] | 2095 [4)] | 4.7 |
| 1030 [5)] | 1030 [5)] | 1030 [5)] | 1030 [5)] | 4.8 |
| - | - | - | - | 4.12 |
| 3295 | 3180 | 3235 | 3295 | 4.19 |
| 1810 [9)] | 1795 [9)] | 1800 [9)] | 1810 [9)] | 4.20 |
| 1150-1450 (twin) | 1060-1450 (twin) [14)] | 1150-1450 (twin) | 1150-1450 (twin) | 4.21 |
| 45x100x1000 | 40x80x1000 | 45x100x1000 | 45x100x1000 | 4.22 |
| 2-A | 2-A | 2-A | 2-A | 4.23 |
| 1040 [10)] | 1040 [10)] | 1040 [10)] | 1040 [10)] | 4.24 |
| 95 | 95 | 95 | 95 | 4.31 |
| 130 | 130 | 130 | 130 | 4.32 |
| 3730 | 3582 [11)] | 3632 [11)] | 3665 [1)] | 4.33 |
| 3930 | 3795 [1)] | 3845 [1)] | 3730 | 4.34 |
| 2112 | 1965 | 2010 | 2112 | 4.35 |
| - | - | - | - | 4.36 |
| 18,5 / 19 | 18.5/19 | 18.5/19 | 18.5/19 | 5.1 |
| 0,67/0,69 | 0,62/0,64 | 0,62/0,64 | 0,62/0,64 | 5.2 |
| 0,42 / 0,36 | 0,47 / 0,41 | 0,48 / 0,41 | 0,42 / 0,36 | 5.3 |
| 11160/8270 [6)] | 11850/8275 [6)] | 12450/8200 [6)] | 12610/8075 [6)] | 5.5 |
| 22/24 [7)] (45,5 M.I.) [12)] | 28,5/31 [7)] (> 40 M.I.V) [12)] | 26/28 [7)] (> 40 M.I.V) [12)] | 25/26 [7)] (> 40 M.I.V) [12)] | 5.7 |
| 4,8 / 4,3 | 4,7 / 4,3 | 4,7 / 4,3 | 4,8 / 4,3 | 5.9 |
| Mechanical/hydraulic | Mechanical/hydraulic | Mechanical/hydraulic | Mechanical/hydraulic | 5.10 |
| LOMBARDINI LDW 2204/B4 | PSI-GM/3.0 L | PSI-GM/3.0 L | PSI-GM/3.0 L | 7.1 |
| 32 | 37 | 37 | 37 | 7.2 |
| 2500 | 2300 | 2300 | 2300 | 7.3 |
| 4/2199 | 4/2967 | 4/2967 | 4/2967 | 7.4 |
| 3,1 | 6,9 | 7,1 | 7,5 | 7.5 |
| Hydrodynamic Transm. | Hydrodynamic Transm. | Hydrodynamic Transm. | Hydrodynamic Transm. | 8.1 |
| 185 | 165 | 190 | 180 | 8.2 |
| 45 | 40 | 40 | 45 | 8.3 |
| 81 | 80 | 80 | 80 | 8.4 |
| - | - | - | - | 8.5 |

5) 990 mm optional with optional in note 4)
6) Taction limit forward travelling with f=0,9
7) Taction limit forward travelling with f=0,9;
maximum gradeability brake complying with ISO 6292
8) 6 Rollers fork plate: 3973 mm
9) It change as note 1); I2= x+y
10)With lateral side shift 980 mm
11)Without lateral side shift - 17 mm
12)Theorical data


α
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b1
b3
b13
b10
b11
b2
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a/2
a/2
Ast

## LIFT MAST SPECIFICATIONS

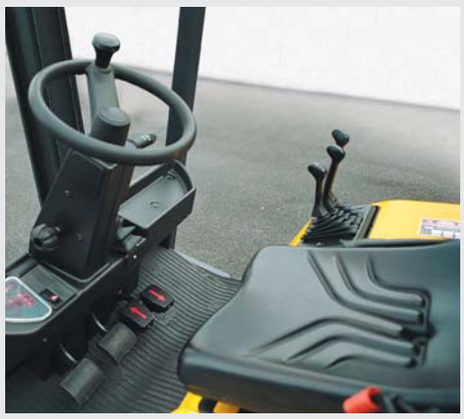
| | | | | Simplex | | | | | Duplex GAL | | | | Triplex GAL | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XD/XG 15 | Lift Height | $h_3$ | mm | 3330 | 3630 | 4030 | 4530 | 5030 | 2975 | 3275 | 3575 | 3975 | 4470 | 4770 | 5220 | 5770 | 6370 | 6970 |
| | Minimum Overall Height | $h_1$ | mm | 2210 | 2360 | 2560 | 2810 | 3060 | 1960 | 2110 | 2260 | 2460 | 2010 | 2110 | 2260 | 2510 | 2710 | 2910 |
| | Maximum Overall Height | $h_4$ | mm | 3905 | 4205 | 4605 | 5105 | 5605 | 3550 | 3850 | 4150 | 4550 | 5045 | 5345 | 5795 | 6345 | 6945 | 7545 |
| | Free Lift | $h_2$ | mm | 150 | 150 | 150 | 150 | 150 | 1405 | 1555 | 1705 | 1905 | 1455 | 1555 | 1705 | 1955 | 2155 | 2355 |
| XD/XG 18 | Lift Height | $h_3$ | mm | 3330 | 3630 | 4030 | 4530 | 5030 | 2975 | 3275 | 3575 | 3975 | 4470 | 4770 | 5220 | 5770 | 6370 | 6970 |
| | Minimum Overall Height | $h_1$ | mm | 2210 | 2360 | 2560 | 2810 | 3060 | 2010 | 2160 | 2310 | 2510 | 2060 | 2160 | 2310 | 2560 | 2760 | 2960 |
| | Maximum Overall Height | $h_4$ | mm | 3973 | 4273 | 4673 | 5173 | 5673 | 3643 | 3943 | 4243 | 4643 | 5138 | 5438 | 5888 | 6438 | 7038 | 7638 |
| | Free Lift | $h_2$ | mm | 150 | 150 | 150 | 150 | 150 | 1362 | 1512 | 1662 | 1862 | 1412 | 1512 | 1662 | 1912 | 2112 | 2312 |
| XD/XG 20 | Lift Height | $h_3$ | mm | 3350 | 3650 | 4050 | 4550 | 5050 | 2970 | 3270 | 3570 | 3970 | 4465 | 4765 | 5215 | 5665 | 6265 | 6865 |
| | Minimum Overall Height | $h_1$ | mm | 2260 | 2410 | 2610 | 2860 | 3110 | 2010 | 2160 | 2310 | 2510 | 2060 | 2160 | 2310 | 2460 | 2660 | 2860 |
| | Maximum Overall Height | $h_4$ | mm | 4046 | 4346 | 4746 | 5246 | 5746 | 3646 | 3946 | 4246 | 4646 | 5156 | 5456 | 5906 | 6356 | 6956 | 7556 |
| | Free Lift | $h_2$ | mm | 150 | 150 | 150 | 150 | 150 | 1445 | 1595 | 1745 | 1945 | 1495 | 1595 | 1745 | 1895 | 2095 | 2295 |

## WHEELS

| Type | Superelastiche (SE) | | Pneumatiche (PN) | |
|---|---|---|---|---|
| | Front | Rear | Front | Rear |
| XD/XG 15 | 6.00-9 | 5.00-8 | 6.00 - 9/12 p.r. | 5.00 - 8/8 p.r. |
| | 6.00-9 (twin) | 5.00-8 | 6.00 - 9/12 p.r. (twin) | 5.00 - 8/8 p.r. |
| | 21 x 8 - 9 * | 18 x 7 - 8* | - | - |
| XD/XG 18 | 21 x 8 - 9 | 18 x 7 - 8 | 21x8 - 9/16 p.r. | 18x7 - 8/16 p.r. |
| | 6.00-9 (twin) | 18 x 7 - 8 | 6.00 - 9/12 p.r. (twin) | 18x7 - 8/16 p.r. |
| XD/XG 20 | 21 x 8 - 9 | 18 x 7 - 8 | 21x8 - 9/16 p.r. | 18x7 - 8/16 p.r. |
| | 6.00 - 9 (twin) | 18 x 7 -8 | 6.00 - 9/12 p.r. (twin) | 18x7 - 8/16 p.r. |

Mandatory for XG 15 with wheels superelastic and TX mast

# XD XG 15 - 18 - 20



The most advanced F.E.M. (Finite Elements Method) calculation methods have resulted in a new, optimized **chassis** with increased torsional strength.

The **operator cab** is completely suspended. The F.S.C. – **Full Suspended Cab** reduces vibrations to a minimum, and together with the acoustic insulation system, reduces noise levels. The MSG12 seat, the hydraulic levers, located next to the operator, and the foot pedals are arranged in automotive layout. The excellent visibility all contributes to a comfortable, ergonomic working posture for the operator. Steering is instinctive, reducing fatigue, and ultimately leading to improved performance.

The **hydraulic steering** and customized **steering wheel** with proportional diameter make steering light and accurate, requiring less than 0.5 kg of effort.

The new **Lombardini Diesel engine** and the **LPG GM engine** provide optimum amount of power and torque with lower emissions. Meeting the Stage II requirements of Directive 97/68/CE, the engines have been designed specifically for use on forklift trucks, and as such, require less maintenance and less fuel.

The new **transmission** equipped with a supermodulated distributor provides the right amount of power to the wheels. The power-assisted braking guarantees fail-safe braking in all working conditions and requires minimal effort. The hydrodynamic transmission with torque converter is ideal for loading and unloading and transportation over long distances.
The inching system allows the truck to manoeuvre and approach with lifting at top speed, thus providing a high degree of flexibility and versatility in different working conditions.

The optimized profiles of the **mast** and the new fork carriage assembly allow for excellent visibility and a high residual load capacity. Simplex, duplex and triplex masts with heights up to 6980 mm are available. The rear axle with a sandwich structure facilitates wider steering angles and a smaller turning radii enabling the truck to work in narrower aisles.

**Options:** low overhead guard for container entry, fabric and heated seat, work lights, rotating beacon, road lighting, audible reverse alarm, 4-way hydraulic valve, spark arrester, exhaust purifyer, oil bath air filter, catalyzers, 6 roller carraige, integral side shift, rear view mirror, mesh overhead guard, load restrainer, pneumatic tyres, alternative fork lengths. Wide range of alternative lift heights simplex, duplex and triplex masts.

**Technical data are given as an indication.**
**OM Carrelli Elevatori reserves the right to modify them without notice.**

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