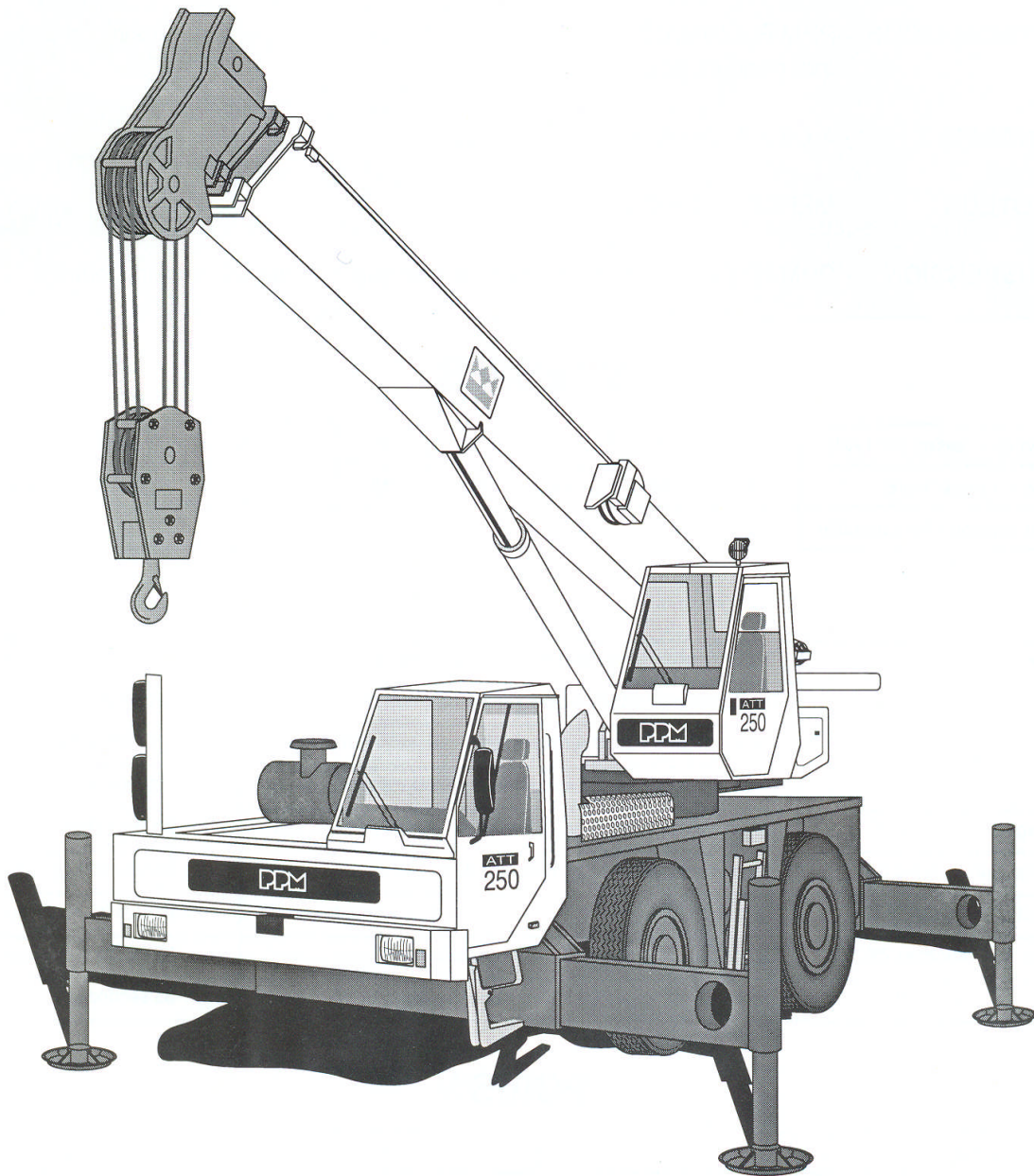




TEREX CRANES



ATT 250



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MAIN TECHNICAL CHARACTERISTICS

- **TYPE** - 2-axle all terrain crane
- **TONNAGE** - 20 tonnes over 360° (CE) - 22 tonnes over 360° (85%)
- **BOOM** - Length: 22 metres
- **HEIGHT** - 23.40 metres under hook
- 38.80 metres under hook on double-folding lattice extension (15 metres)
- **HYDRAULICS** - PPM FLOWMATIC: 2nd generation load sensing distribution with independent slewing circuit
- **CHASSIS** - 4 x 4 x 4 from both cabs
- **ENGINE** - MERCEDES 160 HP turbo
- **SUSPENSION** - PPM HYDROSTABLE: self levelling hydropneumatic suspension with controlled damping

GEARS

Gear ratios (Forward/Reverse)	1	2	3	4	5	6	1	2	3
Road speed (kph)	8	12	18	29	43	71	8	18	43
Gradeability	59 %						59 %		

Lifting	Main winch: maximum linepull (1st layer/4th layer)	4.1 / 3.3 tonnes
	Main winch: maximum single line speed	120 m/mn
	Auxiliary winch: maximum linepull (1st layer/4th layer)	4.1 / 3.3 tonnes
	Auxiliary winch: maximum single line speed	120 m/mn
Derricking	Time to move from -4° to 80°	30 seconds
Telescoping	Time to extend from 8.60 metres to 22 metres	36 seconds
Slewing	Speed of movement	0 to 1.8 tr/mn
Outriggers	Time to extend horizontal beams	25 seconds
	Time to extend vertical jacks	35 seconds

WEIGHT

Axle	1	2	Total Weight
Weight	10.05 t	10.3 t	20.35 t

with 20-tonne hookblock, spare wheel, tires 1400 x 25 and counterweight 1,6 t.

CARRIER AND POWERTRAIN

- **CONSTRUCTION** - PPM design. Machine welded carrier frame made from high-tensile steel.
- **OUTRIGGER OPERATION**
 - Outriggers controlled from each side of the carrier and from the upper cab
 - Horizontal beams extended independently
 - Maximum ground clearance of the wheels : 160 mm
 - Stabilizer pads permanently in position. Stowed by sliding under the outrigger jack.
- **ENGINE**
 - Mercedes OM 366 A, 6-cylinder in line turbo diesel. Water cooled. 160 HP (118 KW) at 2,400 rpm. Maximum torque : 540 N/m at 1,300 - 1,700 rpm.
 - 5.9 litre capacity. Complies with EC anti-pollution directives (91/542). Fuel tank capacity: 200 litres.
- **TRANSMISSION**
 - Torque converter and powershift gearbox with 6 forward and 3 reverse gears.
 - Automatic lock-up on all gears.
- **AXLES**
 - 2 drive/steer axles with planetary hub reduction. Differential lock on each axle.
 - Differential lock from both cabs.
 - 4-wheel drive from both cabs.
- **SUSPENSION**
 - PPM HYDROSTABLE hydropneumatic suspension :
 - Shock absorption controlled via integrated valves.
 - Hydraulic anti-rolling stabilizes the crane in bends, around corners ...
 - Crane maintains its level permanently and mechanically without driver intervention.
 - In travelling configuration, crane height can be reduced in order to go under certain obstacles.
 - Suspension can be locked hydraulically from both cabs for load handling on wheels. Locking is carried out axle by axle from the upper cab.
- **STEERING**
 - Rear-wheel steer from the lower cab.
 - All-wheel steer and crab steer from both cabs.
 - Power-assisted steering by double steering circuit complying with EC directives.
 - Hydrostatic steering from the upper cab.
- **BRAKING**
 - Foot brake : pneumatic drum brakes on both axles.
 - Emergency brake: spring-loaded on the front axle.
 - Parking brake on front axle.
 - All comply with EC directives.
- **TYRES**
 - Four 14.00 R 25 tyres
- **CAB**
 - Single-seater cab equipped with all the components necessary to allow comfortable and safe travelling. Tinted windows. Cataphoresis treated cab to prevent rusting. Access by rigid steps which fold away in rough terrain.
- **ELECTRIC CIRCUITS**
 - 24 volts. 2 batteries (12 V/160 Ah), maintenance free. Circuit-breaker protected.
 - Printed circuits in the driving cab and the upperstructure cab improve wiring reliability.
 - Cables have marked wires protected by thermoplastic sheaths: can be easily accessed and dismantled.
 - EC approved lighting.
- **PNEUMATIC CIRCUITS**
 - 225 cc compressor with air scrubber to purify and dry the compressed air.

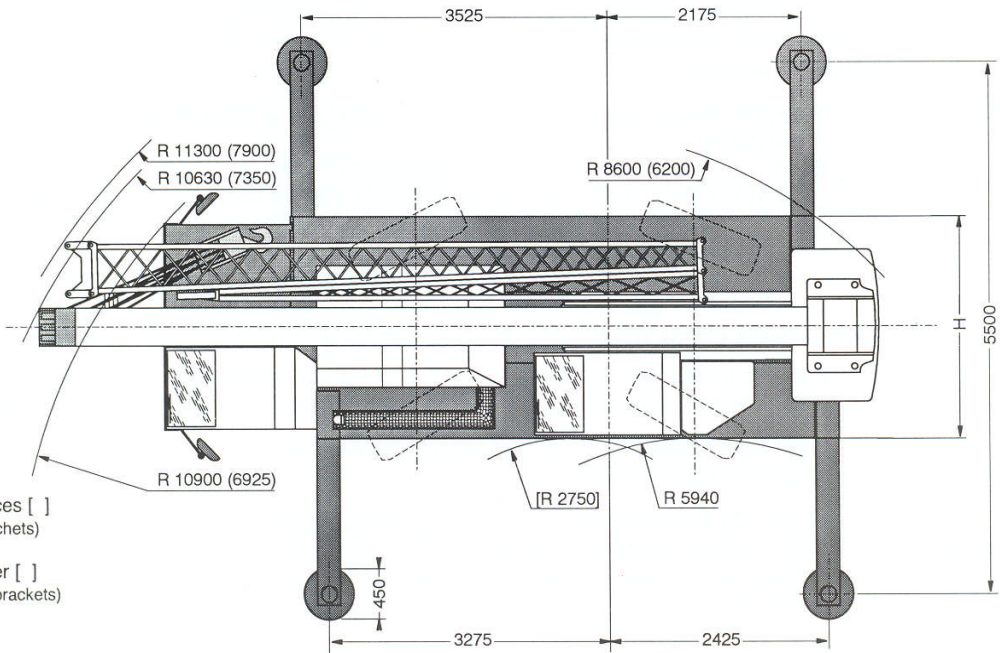
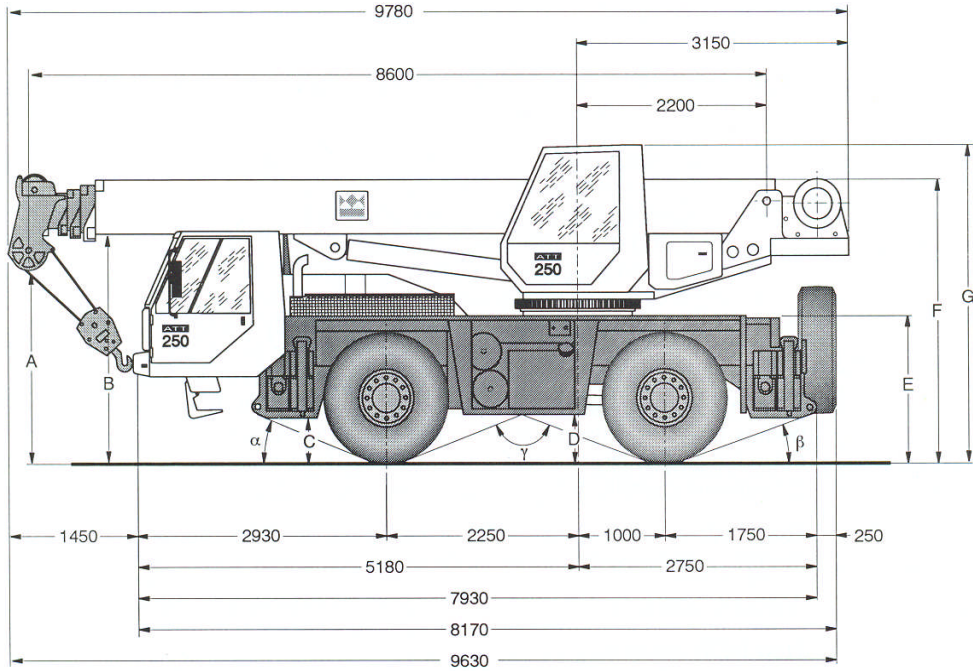
UPPERSTRUCTURE

- **CONSTRUCTION** - PPM design. Machine welded frame made from high-tensile steel. Ball bearing slewing ring with external gear teeth.
- **HYDRAULICS**
 - The FLOWMATIC system guarantees:
 - All movements are simultaneous, even when the engine is idling.
 - All movements are independent of each other.
 - The speed of all movements is independent from the weight of the load.
 - Precise and progressive start of all movements.
 - Speed of movements proportional to the joystick angle.
 - All crane movements executed as ordered by the crane operator, even if the total flow requested is greater than that which the pump can provide: in this case, the speed of each movement remains proportional to the demand.
 - 1 main pump with variable displacement, 1 pump with fixed displacement for slewing: pumps driven by thermal engine. 2nd generation Load Sensing regulation. Proportional valve block. 200 litre reservoir. 10 μ filtering. Hydraulic oil cooler.
 - 2 hydraulic joysticks with automatic return to neutral.
- **WINCH** - Axial piston motor. Integrated planetary reducer. Cable diameter 15 mm, length 150 metres, resistance 21,000 kilos. 20-tonne hookblock standard.
- **DERRICKING** - 1 double acting ram. Speed of descent controlled by safety valve.
- **SLEWING**
 - New PPM-designed slewing mechanism:
 - Free rotation of the upperstructure with dynamic foot braking.
 - Precise and progressive start of movements.
 - Movements more gradual when the engine is idling.
 - Hydraulic vane motor with planetary reducer. Dynamic hydraulic disc brake integrated in the reducer.
- **TELESCOPING**
 - 3-section telescoping boom: full power telescope gives total and continuous synchronization.
 - Boom sections designed and manufactured by PPM:
 - Made of 4 machine welded high-tensile steel plates into one continuous piece.
 - Resistance/weight ratio optimized by rectangular section and by the use of different thicknesses of steel plate.
 - Boom guided by slide pads. Lateral slide pads can be adjusted from outside the boom.
 - 1 double-acting cylinder with synchronization of the third section by cables.
- **CAB** - Panoramic cab with full visibility and equipped with all the controls for travelling and operating the crane in comfort and safety. Tinted windows. Cataphoresis treated cab.
- **STOWING**
 - Front right stowage box for hookblocks and sleepers.
 - Rear stowage box for slings.
- **SECURITY DEVICES**
 - LMI (Load Moment Indicator). Alphanumeric LCD readout.
 - Safety valves on telescoping, derricking and stabilizers.
 - Anti two-block device, lower stroke block limiter. Pressure limiters on all hydraulic functions.

OPTIONS

- Lattice extension: 8 metres, can be folded and stored along the right hand side of the boom. Offset angles: 0°, 15°, 30°.
- Double-folding extension: 8 metres + 7 metres. Offset angles: 0°, 15°, 30°.
- 10-tonne hookblock (3 lines) and single line hook.
- Rooster sheave for single line work.
- Tyres: 16.00 R 25, 17.5 R 25.
- Spare wheel.
- Auxiliary winch: cable diameter 15 mm, length 150 m.
- Electrical retarder (TELMA).
- Other optional equipment on request.

ATT 250



* 4 roues directrices []
(chiffres entre crochets)

* Four-wheel steer []
(figures between brackets)

	A	B	C	D	E	F	G	G ^(*)	H	α	β	γ
14.00 R 25	2134	2485	420	475	1570	3080	3450	3370	2500	20°	20°	140°
16.00 R 25	2184	2535	470	525	1620	3130	3500	3420	2650	22°	21°	136°

(*) Machine abaissée de 80 mm - (*) Machine in lowered position



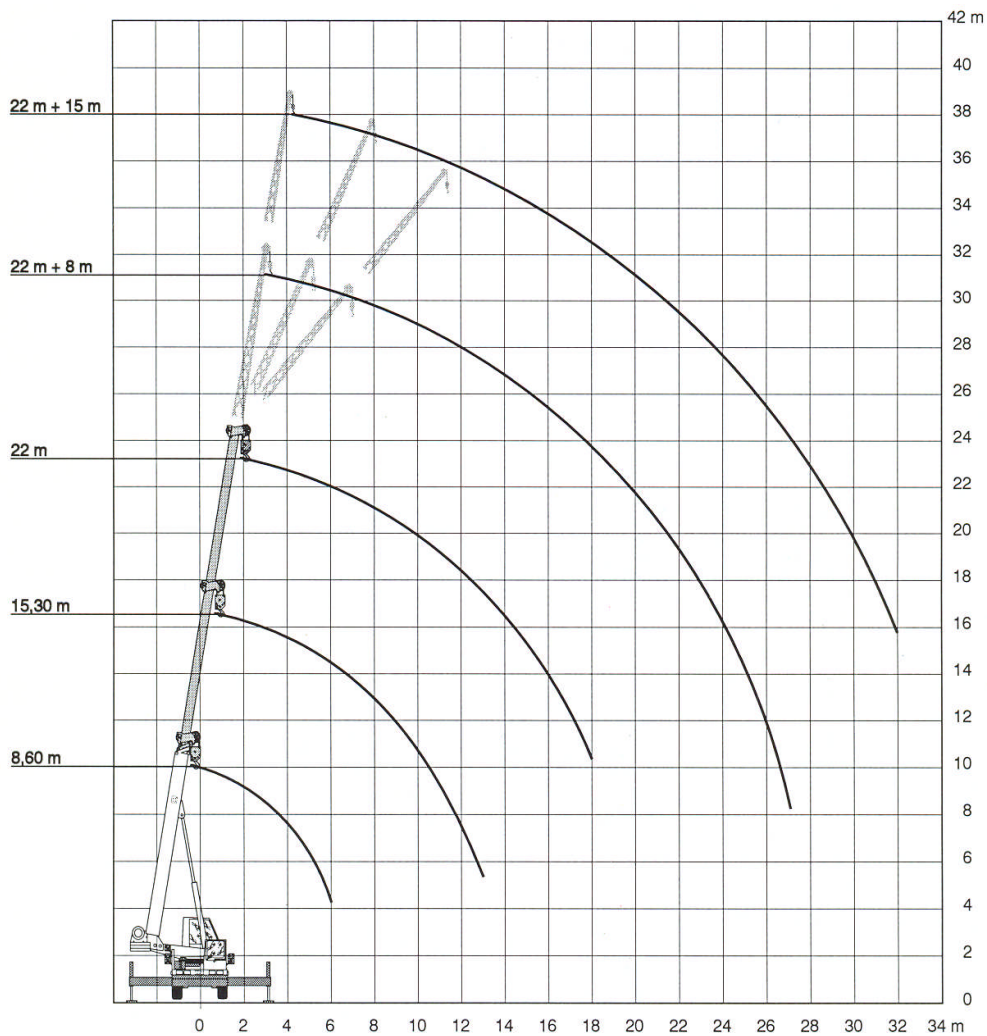
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71304 Montceau-les-Mines Cedex - FRANCE
Tél. (33) 03 85 67 38 00 - Fax (33) 03 85 67 39 35

ATT 250 / 1 - SODOITECH 03 85 55 00 61 - 03/99 - Les photos peuvent montrer des équipements optionnels - Nous nous réservons le droit de modifier les spécifications données sans préavis.

ATT 250



Charges, hauteurs et portées
Lifting capacities, heights and radius
Traglasten / Hubhöhen
Cargas, alturas y alcances



TEREX CRANES

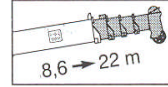
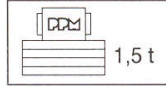
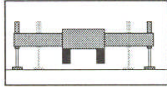




Flèche principale - Main boom Hauptausleger - Pluma principal

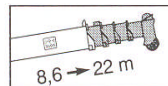
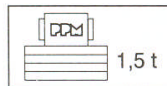
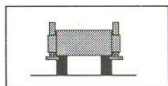
FLECHE ENTIEREMENT TELESCOPIQUE DE 8,60 m A 22 m - FULLY TELESCOPIIC BOOM FROM 8.60 m TO 22 m

VOLL HYDRAULISCHER AUSLEGER VON 8,60 m BIS 22 m - PLUMA TELESCOPICA DE 8,60 M A 22 M



m	FLECHE ENTIEREMENT TELESCOPIQUE DE 8,6 m A 22 m - FULLY TELESCOPIIC BOOM FROM 8.60 m TO 22 m VOLL HYDRAULISCHER AUSLEGER VON 8,6 m BIS 22 m - PLUMA TELESCOPICA DE 8,6 M A 22 M					m
	8,60 m	11,94 m	15,30 m	18,64 m	22,00 m	
2,70	20,00					2,70
3	20,00	15,00	13,70	12,20		3
3,50	20,00	15,00	13,70	11,35	10,15	3,50
4	17,30	15,00	13,65	10,60	9,50	4
4,50	15,15	15,00	12,80	9,95	8,90	4,50
5	13,45	13,45	12,10	9,20	8,25	5
6	10,60	10,70	10,80	8,10	7,10	6
7		8,05	8,10	7,15	6,30	7
8		6,35	6,40	6,45	5,60	8
9		5,15	5,20	5,25	5,10	9
10			4,30	4,35	4,45	10
11			3,60	3,65	3,75	11
12			3,10	3,15	3,20	12
13			2,65	2,70	2,75	13
14				2,30	2,35	14
15				2,00	2,10	15
16				1,75	1,80	16
17					1,60	17
18					1,40	18
19					1,25	19

Contrepoids / Counterweight / Gegengewicht / Contrapeso : 1,5 T.



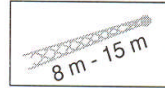
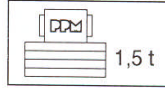
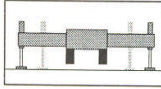
m	0°			360°			m
	8,60 m	11,94 m	15,30 m	8,60 m	11,94 m	15,30 m	
3	8,60	8,45	8,45	5,10	5,05	5,00	3
3,50	7,65	7,60	7,50	4,30	4,25	4,20	3,50
4	6,80	6,75	6,70	3,70	3,60	3,55	4
4,50	6,10	6,10	6,05	3,15	3,10	3,05	4,50
5	5,25	5,50	5,45	2,75	2,70	2,60	5
6	3,75	3,95	4,15	2,05	2,00	1,95	6
7		2,95	3,10		1,50	1,45	7
8		2,30	2,45		1,10	1,05	8
9		1,80	1,90		0,80	0,75	9
10			1,45			0,50	10
11			1,15				11
12			0,90				12
13			0,65				13

Contrepoids / Counterweight / Gegengewicht / Contrapeso : 1,5 T.



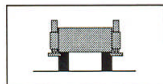
Extension 8 m / 15 m - 8 m / 15 m extension Verlängerung 8 m / 15 m - plumin 8 m / 15 m

Stabilisateurs en extension totale - Outriggers fully extended
Abstützungen voll ausgefahren - Estabilizadores extendidos

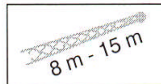


m	EXTENSION 8 M / 15 M - 8 M / 15 M EXTENSION VERLÄNGERUNG 8 M / 15 M - PLUMIN 8 M / 15 M							m
	18,65 m + 8 m	22 m + 8 m			22 m + 15 m			
	0°	0°	15°	30°	0°	15°	30°	
4	5,75							4
4,5	5,50							4,5
5	5,20							5
6	4,75	4,95						6
7	4,40	4,50						7
8	4,05	4,10	3,35		2,15			8
9	3,70	3,70	3,20	2,65	2,10			9
10	3,40	3,40	3,05	2,55	2,05			10
11	3,15	3,15	2,85	2,50	1,95			11
12	2,90	2,95	2,65	2,45	1,85	1,45		12
13	2,70	2,70	2,50	2,35	1,80	1,40		13
14	2,55	2,55	2,35	2,25	1,70	1,35		14
15	2,35	2,30	2,25	2,15	1,60	1,30	1,10	15
16	2,10	2,10	2,10	2,05	1,55	1,30	1,10	16
17	1,85	1,85	1,90	1,95	1,50	1,25	1,05	17
18	1,65	1,65	1,75	1,75	1,45	1,20	1,05	18
19	1,45	1,45	1,55	1,60	1,40	1,15	1,00	19
20	1,30	1,30	1,40	1,45	1,35	1,15	1,00	20
21	1,15	1,10	1,25	1,30	1,30	1,10	1,00	21
22	1,00	1,00	1,05	1,10	1,15	1,05	0,95	22
23	0,85	0,85	0,90	0,95	1,10	1,05	0,95	23
24	0,75	0,75	0,80	0,85	0,95	1,00	0,90	24
25		0,60	0,65	0,65	0,80	0,90	0,90	25
26		0,55	0,55	0,55	0,70	0,80	0,90	26
27		0,45	0,45	0,45	0,60	0,70	0,80	27
28					0,55	0,65	0,70	28
29					0,50	0,55	0,60	29
30					0,40	0,50	0,55	30
31					0,35	0,40	0,45	31
32						0,35	0,35	32

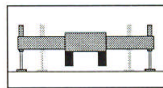
Counterweights / Counterweight / Gegengewicht / Contrapeso : 1,5 T.



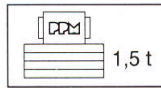
Charges sur pneus sur arrière
Free on wheels over the rear
Reifen über Hinterachse
Sobre neumaticos



Extension 8 m - 15 m
8 m - 15 m extension
Verlängerung 8 m - 15 m
pluminde 8 m - 15 m



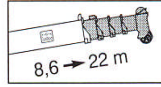
Stabilisateurs en extension totale
Outriggers fully extended
Abstützungen voll ausgefahren
Estabilizadores extendidos



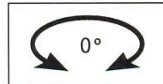
Contrepoids
Maximum
Gegengewicht
Contrapeso



Rotation sur 360°
Over 360° slewing
Schwenkbereich 360°
Giro sobre 360°



Flèche télescopique de 8,60 m à 22 m
Telescopic boom from 8,60 m to 22 m
Hydraulischer Ausleger von 8,60 m bis 22 m
Pluma telescópica de 8,60 m a 22 m



Sur l'arrière
Over rear
Nach hinten
Hacia atras



Charges conformes à la réglementation CE (voir notes)
The rated loads are in accordance with CE chart (see notes)
Traglasten entsprechend E.G. Bestimmungen (sehettinweise)
Cargas conformes a las directivas CE

NOTES

1 - Les charges indiquées sont les maximales couvertes par la garantie du constructeur. Elles sont données en tonnes métriques. Le poids des crochets et des accessoires de levage est à déduire des charges indiquées.

Déduction des charges :

● Utilisation de la flèche principale avec l'extension déployée : déduire 750 kg (extension 8 m), 1650 kg (extension 15 m).

● Moufle et crochet (voir tableau).

2 - Les charges (CE) indiquées respectent pour la résistance les normes FEM 5004 et DIN 15018P3 et pour la stabilité les normes ISO 4305 et DIN 15019B2.

3 - PPM se réserve le droit si nécessaire de modifier le matériel par rapport aux renseignements donnés ici à titre indicatif. Pour l'exploitation plus précise de la grue, se reporter dans tous les cas aux manuel de conduite et de tableaux de charges.

NOTES

1 - The tabulated loads are the maximum values covered by the manufacturer's guarantee. They are given in metric tonnes and include the weight of hook blocks and other hoisting equipment.

Deductions from rated loads :

● Use of main boom with extension erected : deduct 750 kg (8 m extension), 1650 kg (15 m extension).

● Hook blocks (see specification chart).

2 - The (CE) rated loads are in accordance with FEM 5004 and DIN 15018P3 for resistance and with ISO 4305 and DIN 15019B2 for stability.

3 - PPM reserves the right to modify the above specifications which are given as a guide only (figures in accordance with metric system).

HINWEISE

1 - Die angegebenen Tragkräfte sind die maximalen Tragkräfte, die durch die Garantie des Herstellers abgedeckt werden. Sie sind in metrischen Tonnen angegeben. Das Gewicht der Haken, Hakenflaschen und des Hubzubehörs ist von diesen angegebenen Tragkräften abzuziehen.

Tragkraftabzüge :

● Bei Arbeiten mit dem Hauptausleger bei angebauten Verlängerungen : abzügen 750 kg (verlängerung 8 m), 1650 kg (verlängerung 15 m).

● Hakenflasche und Haken (siehe Tabelle).

3 - Die CE-Lastwerte unterhalb der ins Diagramm eingezeichneten Linien entsprechen für den Bereich der Bauteilfestigkeit den Normen FEM 5004 und DIN 15018P3 und für den Standfestigkeitsbereich den Normen ISO 4305 und DIN 15019B2.

- PPM behält sich das Recht vor, falls erforderlich die Maschinen in Bezug auf die hier zu Ihrer Orientierung gegebenen Angaben zu ändern.

NOTAS

1 - Las cargas indicadas son las maximales cubiertas por la garantía del constructor. Están indicadas en Toneladas métricas. Los pesos de los motones, ganchos, eslingas, etc. deben reducirse de las cargas indicadas :

● Uso de la pluma principal con plumin montado efectuar una reducción de 750 kg (plumin8 m), 1650 kg (plumin15 m).

● Reducción de pesos de motones y ganchos (segun la table).

2 - Las cargas (CE) indicadas están referidas a las normas FEM 5004 y DIN 15018P3 para la resistencia y a la normas ISO 4305 y DIN 15019B2 para la estabilidad.

3 - PPM se reserva el derecho de modificar los dados aquí indicados a título orientativo. Referar se a los catalogos especificos de la grua para óperar.

ORGANES DE LEVAGE / HOOK BLOCKS AND HOOKS DIE LASTAUFNAHMEMITTEL			
Forces de levage Lifting capacities Traglast	Poulies Pulleys Rollen	Brins Parts of line Stränge	Poids Weight Gewicht
20 t	4	6	255 kg
10 t	1	3	140 kg
5 t	—	1	90 kg

 **TEREX CRANES**



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