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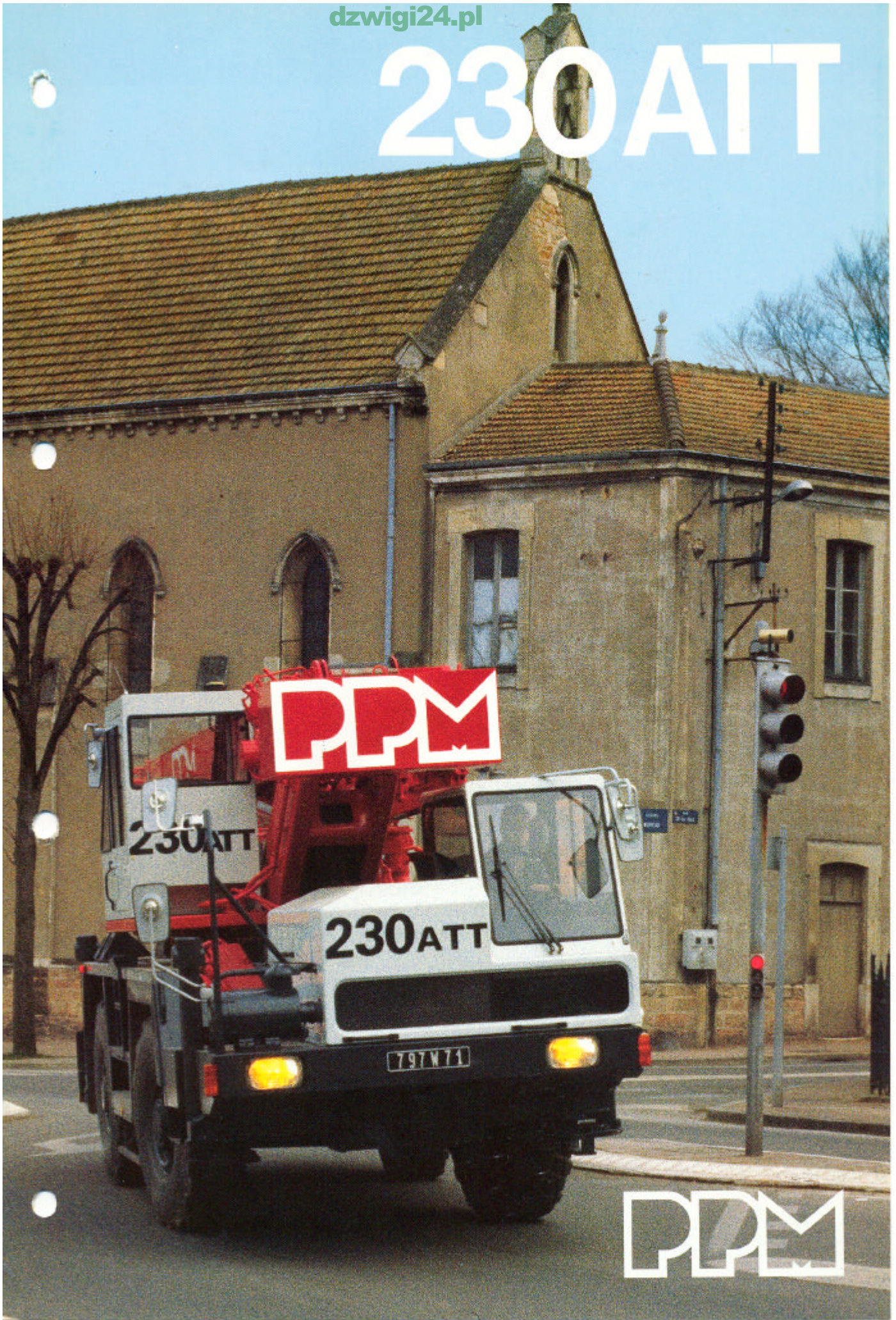
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- *Capacité maximum à 3 m/360° :*
- *Maximum capacity at 3 m/360° :*
- *Maximale Hubkraft bei 3 m/360° :*
- *Capacidad maxima a 3 m/360° :*

Tonnes Métriques		US Tons
18	20	22
75 %	85 %	85 %

CARACTÉRISTIQUES PRINCIPALES

- 2 cabines : route et chantier.
- Hauteur maxi sous flèche : 37,50 m.
- Flèche à synchronisation automatique de 8,60 m à 22 m en continu.
- Capacité de télescopage 15 T en rentrée et en sortie.
- Flèche à angle de relevage négatif : - 3°.
- Circuit hydraulique à 2 plages de vitesse et simultanéité des mouvements.
- Pompe principale débrabotable.
- Vitesse de déplacement : 75 km/h.
- Transmission : 4 x 4 x 4 sur chantier ; 4 x 2 x 2 sur route.
- 4 modes de direction chantier.
- Suspensions AV et AR par ressorts à lames et amortisseurs hydrauliques blocables.
- Stabilisateurs indépendants à 2 centres de commande (cabine grue + châssis) et à grande course de calage (600 mm).

MAIN CHARACTERISTICS

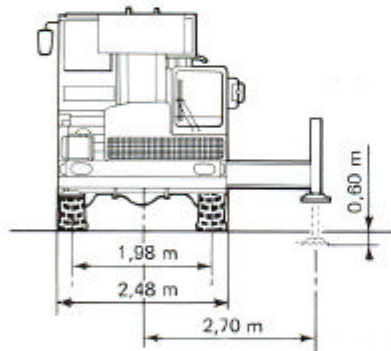
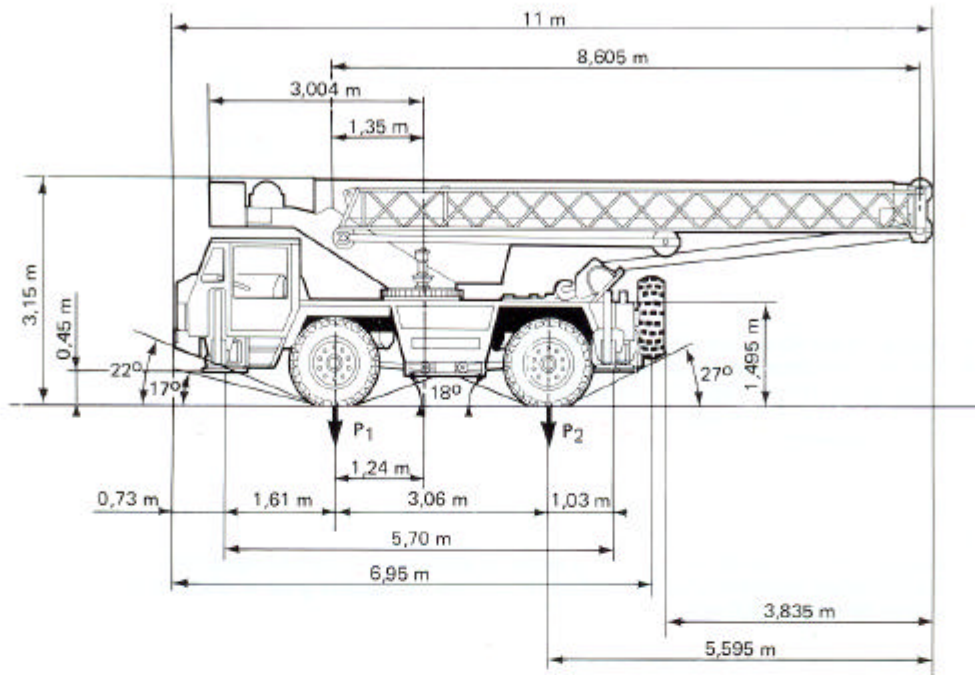
- 2 cabs : road and crane.
- Maximum tip height of jib : 27.50 m.
- Fully synchronized and powered boom from 8.60 m up to 22 m.
- Boom telescoping capacity : 15 T in and out.
- Negative boom angle : - 3°.
- 2 speed hydraulic circuit. Simultaneous motions.
- Main pump power take off.
- Driving speed : 75 km/h.
- Standard 4 x 4 x 4 chassis on site, 4 x 2 x 2 on road.
- 4 ways steering on site.
- Full suspension with leaf springs and lockable hydraulic shock absorbers.
- Independent outriggers with 2 control centers crane (cab and chassis) - Long vertical stroke (600 mm).

ALLGEMEINE DATEN

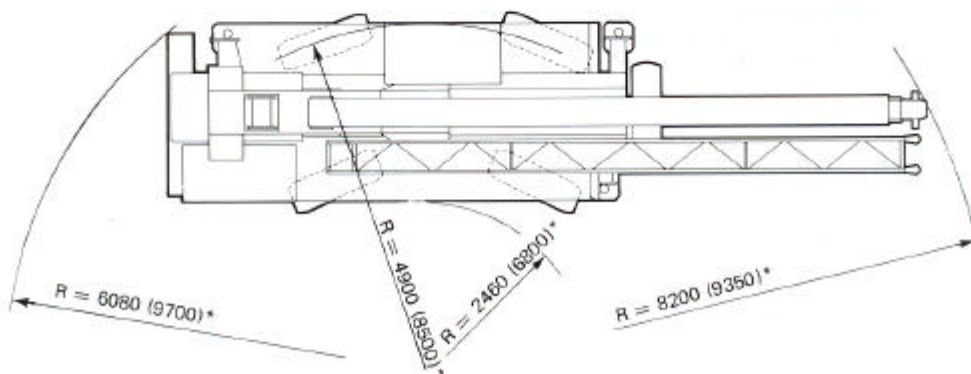
- 2 Fahrerhäuser : Strasse un Gelände.
- Max. Rollenhöhe : 37.50 m unter Gitterspitze.
- Ausleger stufenlos synchron hydraulisch teleskopierbar von 8.60 m bis 22 m.
- Teleskopierung unter Last : 15 T ein und aus.
- Negativer Wippwinkel : - 3°.
- Hydraulische Kreislauf mit 2 Geschwindigkeiten und gleichzeitigem Bewegungsablauf.
- Hauptpumpe abschaltbar.
- Fahrgeschwindigkeit : 75 km/h.
- Unterwagen serienmässig : 4 x 4 x 4 im Gelände, 4 x 2 x 2 auf der Strasse.
- Vier Lenkarten im Gelände.
- Vorder - und Hinterachse gefedert mit blockierbaren hydraulischen Stossdämpfern.
- Unabhängige Abstützungen mit Betätigung im Kranfahrerhaus und am Unterwagen. Grosser Niveaueausgleich (600 mm).

CARACTERISTICAS PRINCIPALES

- 2 cabinas : carretera y grúa.
- Altura Máxima bajo plumín : 37,50 m.
- Pluma sincronizada automáticamente de 8,60 m a 22 m en continuo.
- Capacidad de telescopado : 15 T en entrada y salida.
- Pluma con ángulo de elevación negativo : - 3°.
- Circuito hidráulico con 2 gamas de velocidades y sincronización de movimientos.
- Bomba principal desconectable.
- Chasis estandar 4 x 4 x 4 en obra y 4 x 2 x 2 en carretera.
- 4 modos de dirección en obra.
- Velocidad de desplazamiento : 75 km/h.
- Suspensión con amortiguadores hidráulicos sobre las 4 ruedas.
- Estabilizadores independientes - 2 centros de mandos - Recorrido vertical de 600 mm.



Poids / Weight / Gewicht / Peso			
Machine de base Basic machine Maquina de base Grundgerät	17,65 t	Toutes options All options Todas opciones Zusatzrüstung	18,8 t
P ₁ : 8 t	P ₂ : 9,65 t	P ₁ : 7,5 t	P ₂ : 11,1 t



* Avec 2 Roues directrices - 2 wheels steer.
Con 2 ruedas directrices - 2 Lenkräder.

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ALL TERRAIN CRANE

UPPERSTRUCTURE

Boom and telescoping

- 3 section standard boom consisting of a basic boom (8.60 m) and 2 hydraulically powered sections (22 m).
- **Optional** : lattice extension (8.30 m) folded along the basic section - 4.70 m fly-jib stowable under extension.
- Maximum tip heights :
 - under main boom : 24.50 m.
 - under lattice extension : 33 m.
 - under fly-jib : 37.5 m.
- 4-pulleys boom head.
- Sections are longitudinally guided by bearing mounted rollers, which are life time greased.
- Single, double acting telescoping cylinder - No hoses inside the boom
 - Automatic synchronisation through a positive mechanical system with a single lever control.
- Any rated load can be telescoped within the load chart (up to 15 T).
- Maximum speed : 44 sec.

Derricking system

- Single, double acting ram - Negative boom angle for easy reeving and servicing of boom head - Boom angles : max : 78°, min : - 3°.
- Speed from - 3° to 78° : 16 sec. mini.

Hoist System

- PPM type winch with high pressure hydraulic motor and single reduction gear. Grooved drum and cable press device as standard. Safe braking system : spring applied, hydraulically released, multi-plate disc type.
 - Maximum line pull (1st layer) : 3.3 tonnes.
 - Cable length = 120 m - Diameter : 12 mm.
 - 2 speed ranges : 0-75 and 0-150 m/min.
 - Motor : 35 cc - Reducor : r = 1/25,5.
 - Drum : Ø 280 mm.

Slewing

- By hydraulic motor through reduction gear and electro-magnetic brake release. Cross roller slewing ring with external gear teeth mounted and bolted on machined surface.
- Slewing speed : 3 rpm.

Upperstructure cab

- Allround vision type with removable front windshield, electric windscreen wiper and washer, cab light, working light, adjustable and hydraulically damped seat, independent cab heater, electric horn.

Cab controls and instrumentation

- Driving controls : gearshift for 3 forward and 3 reverse speed. Front control panel with warning lights for the engine, air pressure, braking lights.
- Steering through steering wheel for front axle and separated control for rear axle.
- Crane controls through 4 levers and 2 interconnected pedals for independent or simultaneous operation of crane functions.

CARRIER AND TRANSMISSION

Chassis

All welded single unit monocoque construction. Made from high strength steel plates with integrated boxes. Standard mudguards provide easy approach for servicing. Non slip protection. Hook points. Tool boxes.

Cab

All-round vision with single seat, left hand drive, adjustable and hydraulically damped driver's seat. Heater defroster, windscreen wiper and washer, sun screen. Complete cab instrumentation with tachometer, warning lights for air pressure, oil pressure, suspension lock, safe driving and engine controls. Hour meter, oil level gauge, hand accelerator.

Outriggers

Independent type. Four horizontal beams and four vertical jacks, turned upside down, with fixed rods protected by sleeves and fitted with bolt-on lock valves. 650 mm stroke. Incorporated pads 400 x 400. Controls operated from cab and chassis. Partial extension facility.

Engine

TURBO DEUTZ BF6L913 - 160 hp DIN (118 kW) at 2 500 rpm - Air cooled, fuel tank : 200 l with level gauge.

NOTE : P.P.M. reserves the right to modify the above specifications which are given as a guide only. (figures in accordance with metric system).

Transmission

ZF powershift gear box. Six Forward speeds, 3 reserve. Lock-up of torque converter. Two (4 x 2) or four (4 x 4) wheel drive selection from cab carrier.

Axles

Double reduction steering drive axles. Planet type reduction in the hubs.

Suspension

- Front and rear : Leaf springs and hydraulic shock absorbers, lockable in any position from the cab for free on wheels duties.

Tyres

- Standard : 1600 x 20.

Steering

- Travel cab : Power assisted mechanical steering.
- Crane cab : hydrostatic with steering wheel for rear axle, hydraulic with electropneumatic control by independent lever located under the steering wheel for the front axle. Pneumatic control for independency or combination of front and rear axle steering with the steering wheel.

Braking

- Service brakes, foot operated in the two cabs : double circuit on front and rear axles.
- Parking brakes, lever control in the two cabs : spring action on rear wheels with pneumatic release.

CIRCUITS

Hydraulic

- One main POCRAIN high pressure pump (3 x 44 l).
- One Auxiliary pump for steering and slewing.
- Separated selector blocks for combined or individual crane motions.
- Oil tank capacity : 180 l with filters and level gauge.

Electric

24 Volts - Specific wiring for chassis and upperstructure with separate and pre-wired modules as connect boxes and instrument panels - Multi-core cables with plug-in connections and simple identification with number guide marks - Fuses grouped in 2 locations (cab and chassis) - Complete road and working lights.

Pneumatic circuit

- Air regulator, anti-freeze device, automatic purifier.
- Four air tanks : 2 x 30 l for front wheel brakes.
30 l for rear wheel brakes.
10 l for general purposes.

SAFETY DEVICES

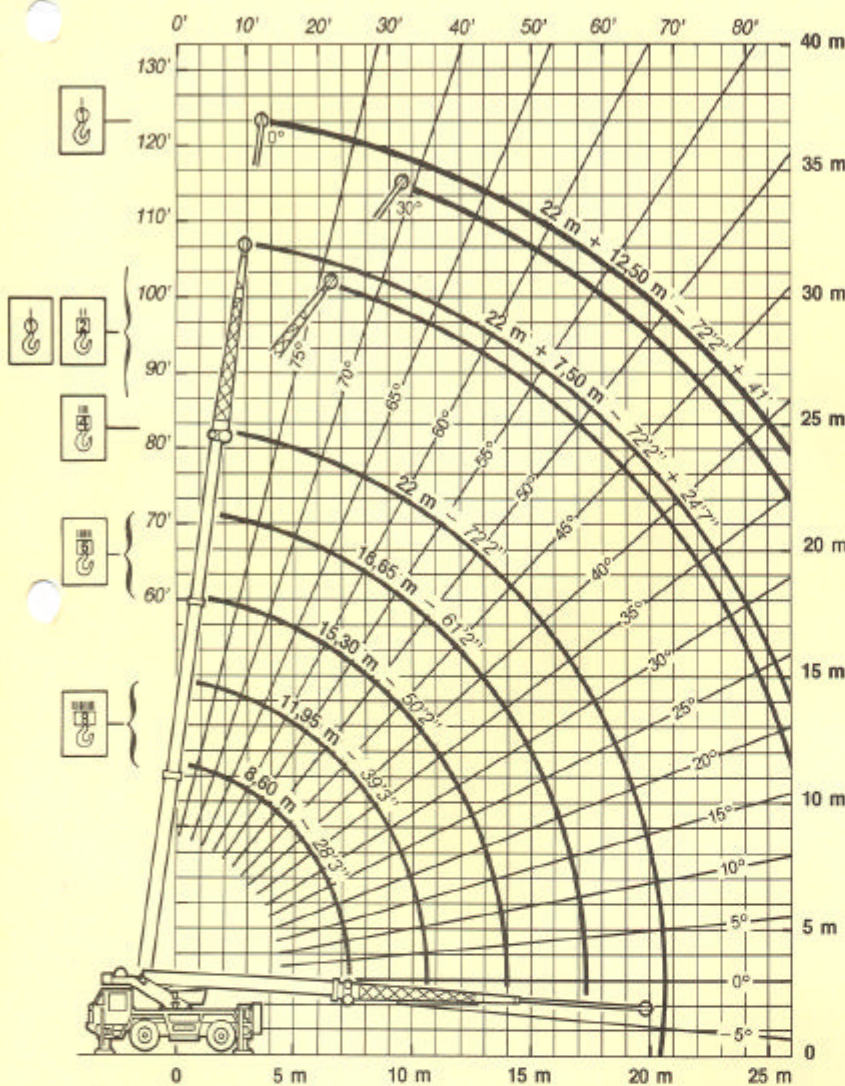
- Safety lock valves bolted to all load bearing cylinders (derrick, telescope, outriggers).
- Speed limiter on all load lowering motions (hoist, derrick, telescope).
- Pressure limiters on all hydraulic functions.
- Block to block limit switch.
- Indication of boom length and angle.
- Mechanical locking of the upperstructure for road travel, power operated from the driver's cab.
- All functions come automatically to a stop when the control levers are released.
- Controls of all motions of the cab that is not occupied are automatically locked.

OPTIONAL


- Safe load indicator with motion cut.
- Three dead turn switch.
- Tachograph.
- Soundproofing.
- Climatic equipment.
- Special adaptations on customer's requirements. Spare wheel.

18 TONNES MÉTRIQUES
18 METRIC TONS

TONNES MÉTRIQUES / METRIC TONS

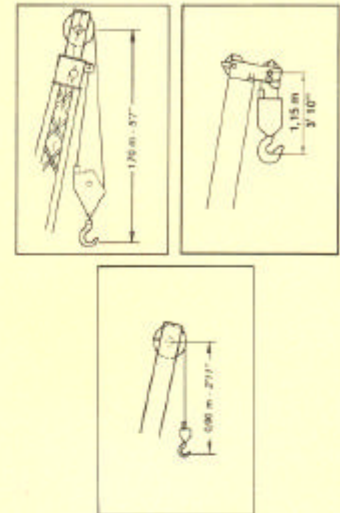


- Hauteurs, portées et longueurs en mètres et en feet à vide.
- Heights, radius and lengths in meters with unladen boom.

	Poids en kgs Weight in kgs
4 poulies/4 pulleys	192
1 poulie/1 pulley	130
Crochet simple Single fall block	40

TREUIL / WINCH	
EFFORT PRATIQUE MAXI AUTORISÉ EN TONNES AU BRIN MAXIMUM PERMISSIBLE LINE PULL IN METRIC TONS	
DERNIERE COUCHE / LAST LAYER	2,50
1 ^{re} COUCHE / 1st LAYER	3,10

NOTA : P.P.M. se réserve le droit si nécessaire de modifier le matériel par rapport aux renseignements donnés ici à titre indicatif.
NOTE : P.P.M. reserves the right to modify the above specifications which are given as a guide only.



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 sont à déduire des charges indiquées (voir note 5).
- 2 - Les charges indiquées au-dessus du trait gras sont fonction de la résistance de certains organes. Les charges en-dessous du trait gras sont fonction de la stabilité de la grue. Elles ne dépassent en aucun cas 75 % de la charge maximale que peut admettre la grue.
- 3 - **Extension** : en cas d'utilisation avec une flèche non télescopée intégralement ce n'est pas la portée qui détermine la capacité de levage, mais l'angle d'inclinaison de la flèche. Les charges indiquées dans le tableau sont donc valables pour un angle donné quelle que soit la longueur de flèche.
- 4 - **Charges sur pneus** : opérer sur sol horizontal et dur avec pression des pneumatiques correcte et suspension bloquée. Pour le roulage en charge, opérer à la plus petite vitesse sélectionnable, flèche courte sur l'arrière dans l'axe et charge élinguée au plus près du châssis.
- 5 - **Déductions de charges** :
 - Utilisation de la flèche principale avec l'extension déployée : déduire 1160 kgs.
 - Mouffes et crochets (voir tableau).

NOTES


- 1 - The tabulated loads are the maximum values covered by the manufacturer's guarantee. They are given in metric tons and include the weight of hook block and other hoisting equipment (see note 5 for deductions).
- 2 - Loads above the bold horizontal line are based on structural strength. Loads below the bold line are based on machine stability. The rated loads never exceed 75 % of maximum lifting capacity.
- 3 - **Extension** : when the boom used is not fully telescoped it is boom angle and not working radius which governs the lifting capacity. The tabulated loads, therefore, are applicable to a given angle whatever the boom length.
- 4 - **Free-on-wheels** : operate on a firm and level surface with tyres inflated to the recommended pressure and front suspension locked. For pick and carry operation use the shortest boom centered over rear the chassis with the load slung close to the chassis at the lowest available speed.
- 5 - **Deductions from rated loads** :
 - Use of main boom with extension erected. Deduct 1160 kgs.
 - Hook blocks (see specification chart).




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Services commerciaux :
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TONNES METRIQUES / METRIC TONS

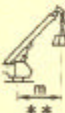
* CHARGES SUR STABILISATEURS EN EXTENSION TOTALE SUR 360°
* ON OUTRIGGERS FULLY EXTENDED - OVER 360°

	FLECHE PRINCIPALE MAIN BOOM									
	ROUGE * RED		BLANC * WHITE		VERT * GREEN		JAUNE * YELLOW		NOIR * BLACK	
	8,60 m		11,95 m		15,30 m		18,65 m		22,00 m	
	∠°	⊗	∠°	⊗	∠°	⊗	∠°	⊗	∠°	⊗
3	61,50	18,00	70,50	15,00	76,00	11,60	78,50	9,80	80,50	7,85
3,50	58,50	14,80	68,50	13,85	74,00	10,50	77,00	9,15	79,50	7,40
4	55,00	12,80	66,00	12,50	72,00	9,60	75,50	8,50	78,50	7,00
4,50	50,00	11,25	64,00	11,20	70,00	8,85	74,00	7,95	77,50	6,40
5	45,00	10,00	61,00	9,95	68,50	8,15	72,50	7,40	76,00	5,85
6	33,00	8,15	56,00	8,10	64,00	7,05	69,00	6,45	74,00	5,30
7	17,00	5,55	50,00	6,75	59,00	6,25	66,00	5,65	71,00	4,85
8			42,00	5,60	54,00	5,55	62,50	5,00	68,00	4,40
9			35,50	4,50	48,50	4,85	59,00	4,50	65,00	4,05
10			26,00	3,75	43,00	3,85	55,00	3,85	62,00	3,65
11					37,00	2,95	51,00	3,10	59,00	3,25
12					30,00	2,50	47,00	2,65	55,50	2,75
13					21,00	2,15	42,50	2,25	52,00	2,40
14							37,00	1,95	48,00	2,10
15							31,00	1,70	44,00	1,80
16							23,50	1,45	40,00	1,55
17							12,00	1,30	36,00	1,40
18									31,50	1,20
19									26,00	1,10
20									17,50	0,95
21										
22										
23										
24										
25										
26										


	FLECHE 22 m + EXTENSION 7,50 m 22 m BOOM + 7,50 m EXTENSION				FLECHE 22 m + EXTENSION 12,50 m 22 m BOOM + 12,50 m EXTENSION				
	0°		30°		0°		30°		
	29,50 m		29,50 m		34,50 m		34,50 m		
	∠°	⊗	∠°	⊗	∠°	⊗	∠°	⊗	
									3
									3,50
									4
									4,50
									5
	81,00	4,80							6
	80,00	4,70			81,50	2,50			7
	78,50	4,40			80,00	2,50			8
	77,00	4,10			78,50	2,50			9
	75,50	3,80	81,00	2,80	77,50	2,50			10
	73,00	3,60	80,00	2,75	76,00	2,50			11
	71,00	3,35	78,50	2,65	74,50	2,35			12
	68,50	3,00	76,50	2,60	73,00	2,25			13
	65,50	2,55	74,50	2,55	71,50	2,15	81,00	1,50	14
	63,00	2,15	72,00	2,40	70,00	2,10	80,00	1,50	15
	60,00	1,80	69,50	2,10	68,00	2,00	79,00	1,45	16
	57,00	1,50	66,50	1,75	66,50	1,90	77,50	1,40	17
	54,00	1,25	63,00	1,50	64,50	1,60	75,50	1,40	18
	51,00	1,00	59,50	1,30	62,50	1,35	73,00	1,40	19
	48,00	0,80	55,50	1,10	60,50	1,15	71,00	1,35	20
	45,00	0,65	51,50	0,90	58,50	1,00	68,00	1,30	21
	42,00	0,50	47,00	0,75	56,50	0,80	65,50	1,10	22
	39,00	0,40	42,00	0,65	54,00	0,65	62,50	0,95	23
			37,00	0,55	51,50	0,55	59,50	0,80	24
			31,50	0,45	49,00	0,45	56,00	0,65	25
					46,50	0,40	53,00	0,55	26
							49,50	0,45	

▲ SUR PNEUS (suspension AV et AR bloquées)
FREE ON WHEELS (suspension locked)

SUR 360°
OVER 360°

	FLECHE / BOOM			
	ROUGE * RED		VERT * GREEN	
	8,60 m		15,30 m	
	∠°	⊗	∠°	⊗
3	62,00	4,85	76,50	5,00
3,50	59,00	4,05	74,50	4,25
4	56,00	3,45	72,50	3,65
4,50	52,50	2,90	71,00	3,15
5	48,00	2,35	69,00	2,65
6	37,00	1,60	64,50	1,90
7	22,00	1,05	60,00	1,40
8			56,00	1,00
9			51,00	0,85
10			45,50	0,40

SUR L'ARRIERE DANS L'AXE
OVER REAR

	FLECHE / BOOM			
	ROUGE * RED		VERT * GREEN	
	8,60 m		15,30 m	
	∠°	⊗	∠°	⊗
4,50	50,00	7,10	70,50	7,30
5	45,00	6,00	68,50	6,50
6	34,00	7,30	64,00	4,75
7	17,00	3,10	60,00	3,65
8			55,00	2,85
9			50,00	2,30
10			44,50	1,80
11			38,00	1,45
12			31,50	1,20
13			23,50	0,95

- * Avec roues décollées et sur sol horizontal et dur
- ** Portées et angles sous charge
- Couleur de repérage des longueurs sur la flèche
- ▲ Charges variables pour pneus standard et options

- * On firm and level ground and wheels, raised clear of the ground
- ** Radius and angles with laden boom
- Boom length indicating colours
- ▲ Capacities for standard and optional tyres