

Signed by: MASTAL

## ATT 350



|  | A | B | C | D | E | F | G | G | $H$ | $\alpha$ | $\beta$ | $\gamma$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 14.00 R 25 | 2000 | 2480 | 420 | 475 | 1570 | 3080 | 3450 | 3370 | 2500 | $20^{\circ}$ | $20^{\circ}$ | $144^{\circ}$ |
| 16.00 R 25 | 2050 | 2530 | 470 | 525 | 1620 | 3130 | 3500 | 3420 | 2650 | $22^{\circ}$ | $21^{\circ}$ | $140^{\circ}$ |

(4) Machino abaisscio do 80 mm - (') Machine in loworsed position

## ATT 350

## MAIN TECHNICAL CHARACTERISTICS

- TYPE - 2-axle all terrain crane
- TONNAGE - 30 tonnes over $360^{\circ}$ (C $(\in)-33$ tonnes over $360^{\circ}$ ( $85 \%$ )
- BOOM - Length: 30.4 metres
- HEIGHT $\quad 31.60$ metres under hook
- 47 metres under hook on double-folding lattice extension ( 15 metres)
- HYDRAULICS
- CHASSIS
$-4 \times 4 \times 4$ from both cabs
- ENGINE - MERCEDES 236 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 | 14 | 19 | 33 | 42 | 73 | 8 | 19 | 42 |
| Gradeability |  | $63 \%$ |  |  |  |  |  |  |  |


| Lifting | Main winch: maximum linepull (1st layer/4th layer) | $4.1 / 3.3$ tonnes |
| :--- | :--- | :--- |
|  | Main winch: maximum single line speed | $120 \mathrm{~m} / \mathrm{mn}$ |
|  | Auxiliary winch: maximum linepull (1st layer/4th layer) | $4.1 / 3.3$ tonnes |
|  | Auxiliary winch: maximum single line speed | $120 \mathrm{~m} / \mathrm{mn}$ |
| Derricking | Time to move from $-4^{\circ}$ to $80^{\circ}$ | 36 seconds |
| Telescoping | Time to extend from 9.4 metres to 30.4 metres | 55 seconds |
| Slewing | Speed of movement | 0 to 1.8 tr/mn |
| Outriggers | Time to extend horizontal beams | 25 seconds |

## WEIGHT

| Axle | 1 | 2 | Total Weight |
| :---: | :---: | :---: | :---: |
| Weight $^{(1)}$ | 12 t | 12 t | 24 t |
| Weight $^{\text {P }}$ | 13 t | 13 t | 26 t |

[^0](2) with 20 -tome hookblock, spare wheel, 15 -metres lattice extension and 10 -tonne hookblock, 4 -tonne counterwelght:

## CARRIER AND POWERTRAIN

| - CONSTRUCTION | - PPM design. Machine welded carrier frame from high-tensile steel. |
| :--- | :--- |
| $\bullet$ | OUTRIGGER OPERATION | - Outriggers controlled from each side of the carrier and from the upper cab

- ENGINE - Mercedes OM 366 LA, 6-cylinder in line turbo diesel with intercooler. Water cooled $236 \mathrm{HP}(174 \mathrm{KW})$ at $2,500 \mathrm{rpm}$. Maximum torque: $750 \mathrm{~N} / \mathrm{m}$ at $1,550 \mathrm{rpm} .5 .96$ litre capacity. Complies with EC anti-pollution directives (91/542). Fuel tank capacity: 300 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.
- 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 ceitain 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
- BRAKING


## - TYRES

- CAB
- 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.
- 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.
- Four 14.00 R 25 tyres.
- 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.
-24 volts. 2 batteries ( $12 \mathrm{~V} / 160 \mathrm{Ah}$ ), 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.


## UPPERSTRUCTURE

- CONSTRUCTION
- HYDRAULICS
- WINCH
- DERRICKING
- SLEWING
- TELESCOPING
- CAB
- STOWING
- SECURITY DEVICES
- PPM design. Machine welded frame made from high-tensile steel. Ball bearing slewing ring with external gear teeth.
- 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. 300 litre reservoir. $10 \mu$ filtering. Hydraulic oil cooler.
- 2 hydraulic joysticks with automatic return to neutral.
- Axial piston motor. Integrated planetary reducer. Cable diameter 15 mm , length 150 metres, resistance 21.000 kilos, 20-tonne hookblock standard.
- 1 double acting ram. Speed of descent controlled by safety valve.
- 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 yane motor with planetary reducer. Dynamic hydraulic disc brake integrated in the reducen.
-4-section telescoping boom: full power telecope gives total and continuous synchronization.
- Boom 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 double-extension cylinder with synchronization of the fourth section by chains.
- Panoramic cab with full visibility and equipped with all the controls for travelling and crane operation in comfort and safety. Tinted windows. Cataphoresis treated cab.
- Front right stowage box for hookblocks and sleepers.
- Rear stowage box for slings.
- 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

O Lattice extension: 8 metres, can be folded and stored along the right hand side of the boom. Offset angles: $0^{\circ}, 15^{\circ}, 30^{\circ}$.
O Double-folding lattice extension: 8 metres +7 metres. Offset angles: $0^{\circ}, 15^{\circ}, 30^{\circ}$.
10-tonne hookblock ( 3 lines), 30 -tonne ( 9 lines) and single line hook.
O Rooster sheave for single line work.
Tyres: 16.00 R 25, 17.5 R 25.
O Spare wheel.
Auxiliary winch: cable diameter 15 mm , length 150 m .
O Electrical retarder (TELMA).
O Counterweight removal system.
O Other optional equipment on request.


[^0]:    (1) with 10 -tonne hookblock, spare wheel, 3.2 -fonne counterweight and $1400 \times 25$ tires

