



 **MANITOU**

260TJ - 280TJ



Telescopic Boom 260 TJ - 280 TJ

**Experience and Innovation at the
service of the operator**

- Accessibility
- Rough Terrain Ability
- Performance
- Simplicity



260 - 280 TJ (Telescopic Jib)

260 TJ+

(with Jib only)

Working height: 26.00m

Outreach : 19.45m



280 TJ

(with telescopic jib)

Working height: 28.00m

Outreach : 21.45m



TECHNICAL CHARACTERISTICS

	260TJ	280TJ
Working height:	26 m	27,78 m
platform height:	24 m	25,78 m
Outreach:	19,45 m	21,45 m
SWL	400 kg (Plein abaque)	350 kg / 240 kg (Double abaque)
Occupancy	3	3/2
Basket dimensions	2,30 x 0,90 m	
Overall width	2,42 m	
Overall length	10,81 m	11,25 m
Overall length (folded for transport)	7,90 m	8,05 m
Height	2,32 m	2,57 m
Height (folded for transport)	2,85 m	2,85 m
Engine	Kubota V2403 - 45 cv Euro III A (35,8 kW - 45 CV)	
Gradeability	36,50%	36,50%
Wheels	20" SOLIDEAL	
Weight	16400 kg	16600 kg



ACCESSIBILITY

• Boom architecture

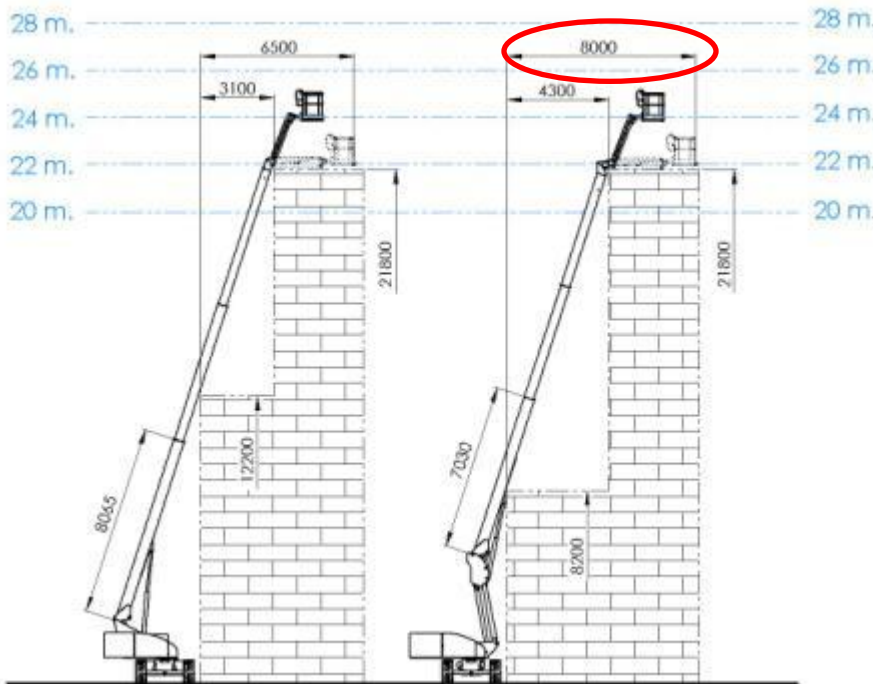
- ✓ Allow to have more reach working close to a building
- ✓ Quicker elevation time
- ✓ More compact machine
- ✓ The load center of the machine being closer to front, less counterweight is needed (700kg less than HA28TJ+ et S85)



- ❖ BEST WORKING ZONE
- ❖ MORE PRODUCTIVITY

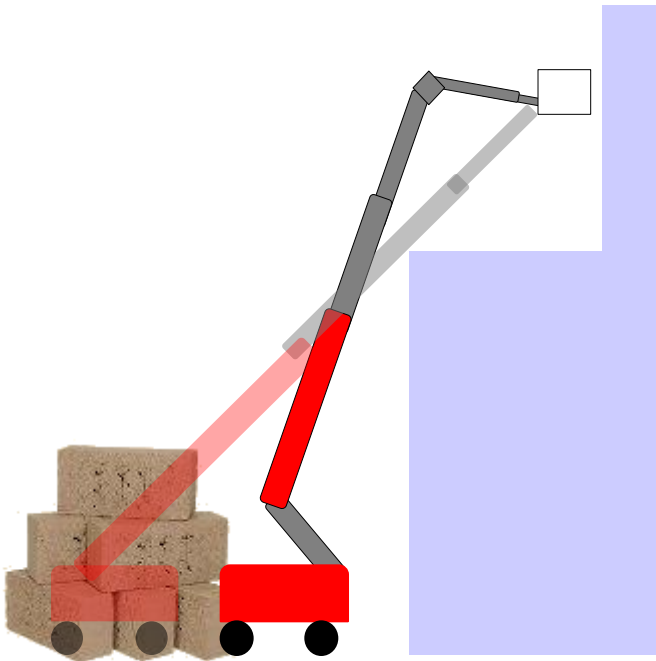
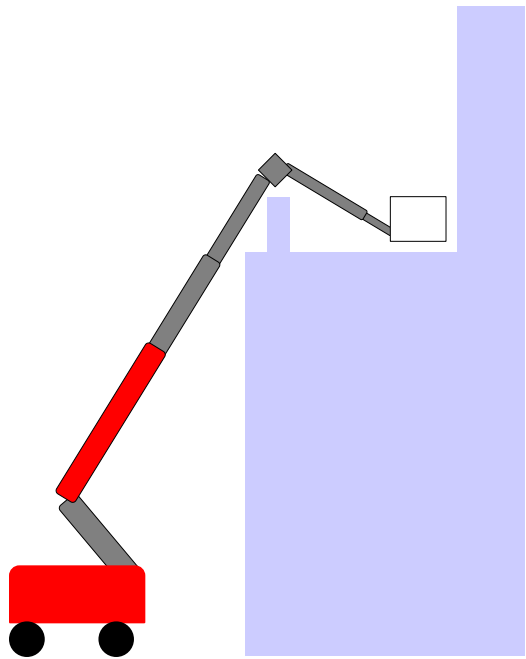


- ❖ BETTER ROUGH TERRAIN ABILITY
- ❖ EASY TO TRANSPORT



ACCESSIBILITY

- Telescopic Jib for 280TJ



❖ POSSIBILITY TO WORK IN NEGATIVE

❖ POSSIBILITY TO ACCESS PLACES NOT REACH WITH NORMAL TELESCOPIC BOOMS



❖ WORK CLOSER TO A BUILDING IN CONGESTED BUILDING SITES

COMPACTNESS

- A much smaller overall length than competition



- ❖ EASY TO TRANSPORT
- ❖ EASY TO MANŒUVRE

- Remote truck loading folding (Only in April 2012)



- ❖ TRUCK LOADING SAFER
- ❖ LESS LOADING TIME

COMPACTNESS

- 4 wheel Drive (the only one)



✓ Front wheel steer: « rabbit » speed



✓ 4 wheel steer: two « turtle » speeds

Arms longitudinal: average speed

Reduction of speed when the arm is laterally positioned



❖ BEST MANOEUVRABILITY IN CONGESTED AREA

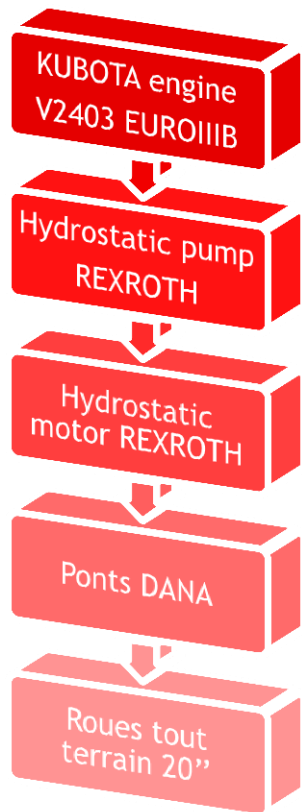


✓ Crab steer: allow to come close to building site

ROUGH TERRAIN ABILITY

We take what's made the success of ATJ

=>Transmission identical to ATJs, same known components



- ✓ Same engine as 200ATJ
- ✓ Management of engine REVS depending on hydraulic demand



- ❖ LESS CONSUMPTION
- ❖ LESS NOISE
- ❖ OPTIMIZATION OF ENGINE POWER (No Euro IIIB)

- ✓ Variable piston pump (56cc) :
+25% compare to 200ATJ

- ✓ Fixed capacity motor (125cc) :
+15% compare to 200ATJ

- ✓ 2 axles
- ✓ Limited slip on front axle
- ✓ Differential lock on back axle
- ✓ Ground clearance = TBA
- ✓ Oscillating axle



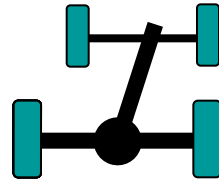
- ❖ IDENTICAL PERFORMANCE AS ATJs

- ✓ Rough terrain wheels

ROUGH TERRAIN ABILITY

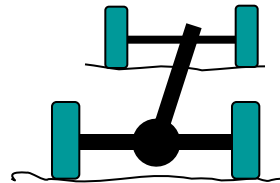
- RIGID CHASSIS

Rough Terrain, transport mode

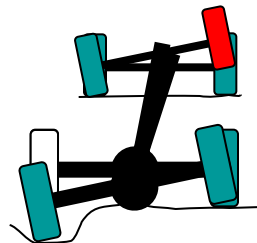


3 or 4 wheels can be in contact

Rough Terrain, working mode



The machine has to be stopped on a flat ground in order to have a good stability during the lifting operations.

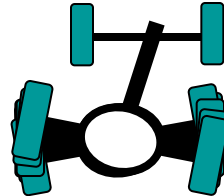


On unlevelled ground according to the position of the center of gravity the machine could be not stable enough or fall down.

ROUGH TERRAIN ABILITY

- OSCILLATING AXLE

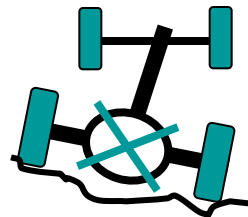
Rough Terrain, transport mode



When driving the free axle is moving accordingly to the ground levels.

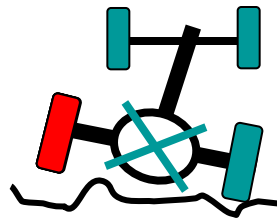
The 4 wheels are in contact on the ground

Rough Terrain, working mode



Machine stopped, when lifting movements starts (working mode) the axle is blocked and gives rigidity to the chassis.

The 4 wheels are still in contact on the ground



When driving in working mode on unlevelled ground

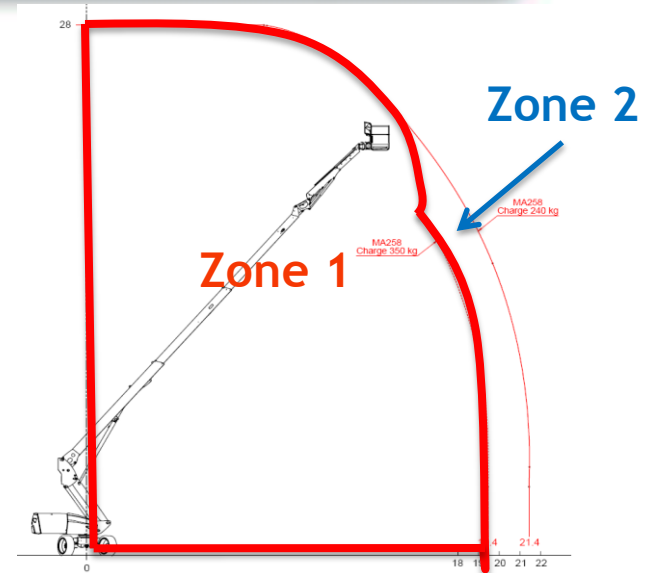
The axle is still blocked and one of the wheels will not be anymore in contact on the ground

PERFORMANCE - CAPACITY

Double load chart (280TJ)

- ✓ Double SWL 350kg / 240kg including 3 persons
- ✓ No need to choose manually the load capacity before using the machine (on HA28TJ+, the selection between 230Kg/2 pers. and 350Kg/3pers. is done manually)

- ❖ BETTER PRODUCTIVITY
- ❖ TRANSPARENCE AND SECURITY FOR USERS



- 1 ● LED is orange:
 - Load inside the basket is $>240\text{kg}$
 - Zone 2 is a No Go zone
- LED is flashing orange:
 - The operator is in zone 2
- 2 ● LED is red:
 - Load is over the max. SWL
 - $>240\text{kg}$ if operator is in zone 2
 - $>350\text{kg}$ if operator is in zone 1

PERFORMANCE - CAPACITY

High Capacity (260TJ+)

- ✓ High capacity overall the load chart
- ✓ Identical decals as ATJ

LARGE BASKET (2.30mx0.90m)

- ✓ Identical basket as 160ATJ+ (2 lateral entries and 1 frontal entry)



- ❖ MORE STORING SPACE
- ❖ MORE PRODUCTIVITY AND CONFORT

PERFORMANCE - MOVEMENTS

An electronic management of the engine rpm allow to optimize the pressure and flow needed for single or simultaneous movements

✓ Faster single movements

✓ 4 simultaneous movements:

Boom up/down

Boom in/out

Turret rotation

Jib up/down

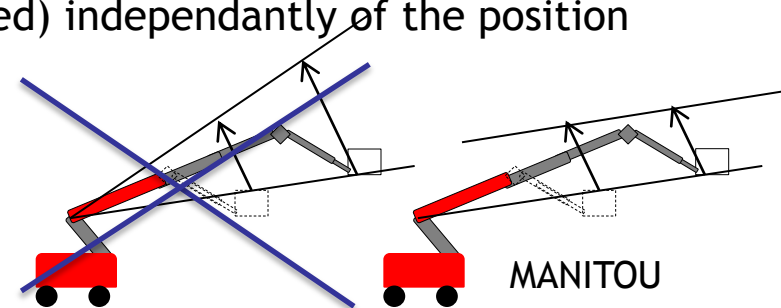
✓ Allow a basket speed (and then operator speed) independantly of the position of it (**MANITOU patent**)

Boom fully in raising speed: 40s

Boom fully out raising speed: 70s

Turret rotation (1/4) with boom fully in: 30s

Turret rotation (1/4) with boom fully out: 50s



❖ SMOOTHNESS OF MOVEMENTS, COMFORT AND SECURITY FOR OPERATORS

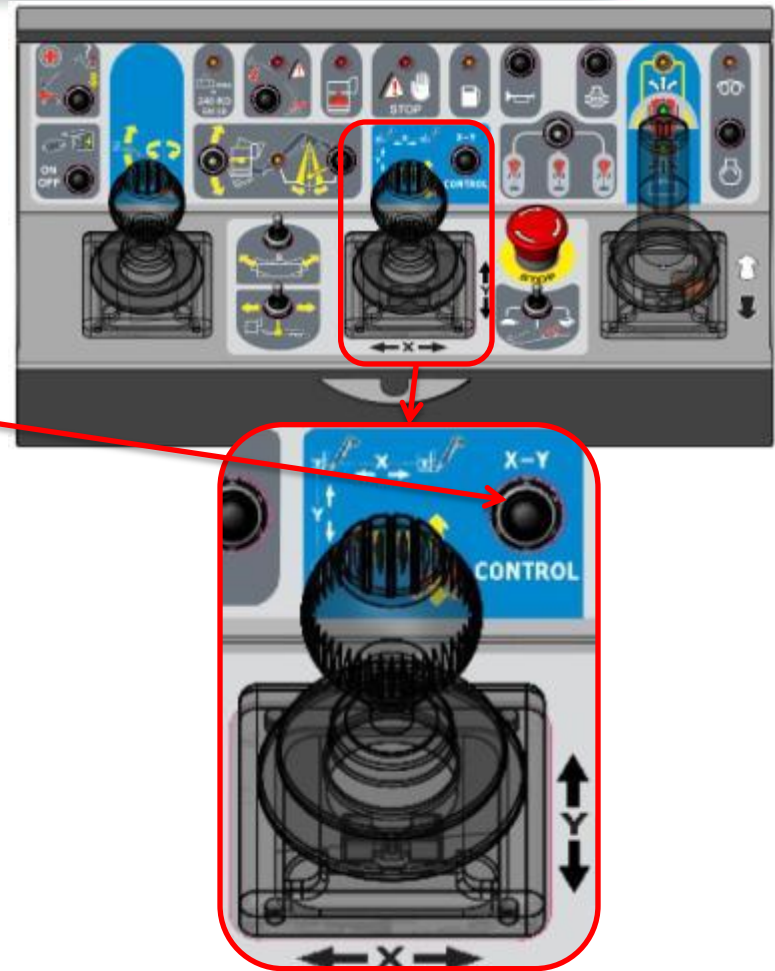
PERFORMANCE - MOVEMENTS

XY MOVEMENTS

✓ The electronic management of the movements allow to combine boom up/down and boom out/in to have horizontal and vertical movements in space by pushing « X-Y CONTROL » push button

✓ Ideal for jobs along vertical or horizontal wall / face of building

✓ 2 angle sensors along the boom but the management of the boom length is done with magnetic contacts along the boom
(MANITOU Patent)

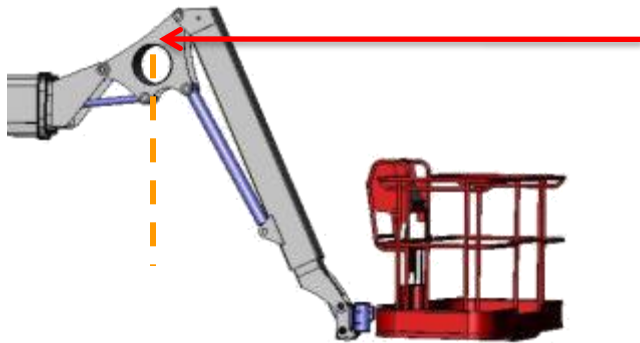


❖ INCREASE OF PRODUCTIVITY

PERFORMANCE - MOVEMENTS

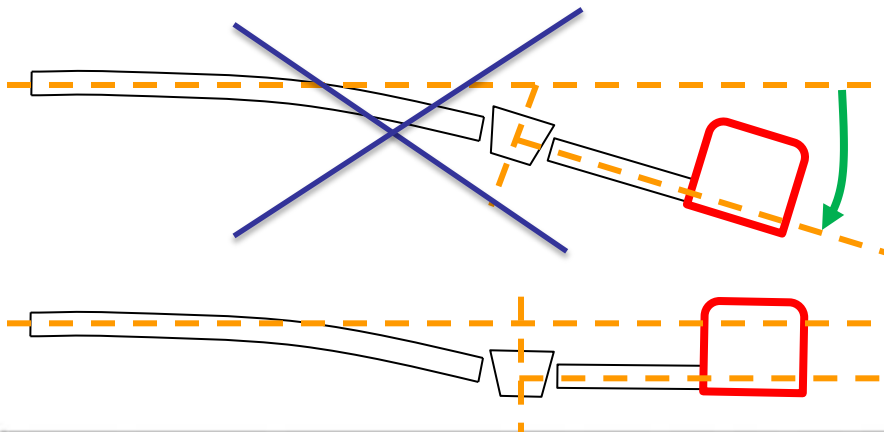
Electronic compensation

✓The jib is electronically compensated



- The connection part should always keep its perpendicularity with the ground
- An electronic system correct possible defaults
- In case of a drift, a RESET of compensation is necessary (see next slide procedure)
- The compensation is not operational during machine driving

✓The basket is hydraulically compensated




- ❖ ELECTRONIC COMPENSATION AVOID THE JIB TO FOLLOW FLEXION OF THE BOOM
- ❖ SAFETY FEELING

PERFORMANCE - MOVEMENTS

RESET of electronic compensation



If a drift of compensation happens (or after a truck loading folding)

- 1**  LED flicked orange and a beep inform the operator
 - Levelling of basket is not possible
 - A RESET of Jib compensation is necessary
- 2** An action on RESET button is necessary until LED 1 stop flicking
- 3** The levelling of basket is now possible



SIMPLICITY

Top and ground control box easy to use*

- ✓ Identical components as ATJs « HYDEQUIP »
- ✓ Same logic and symbols as ATJ



❖ QUICK UNDERSTANDING, QUICK OPERATION

* Note that the control panels are identical to 26A TJ+ and 280 TJ, some functions are not available on 260TJ+
certaines fonctions ne seront pas disponibles sur 260TJ+ (ie: telescope of jib out...)

SIMPLICITY

« REVERSE DRIVING »

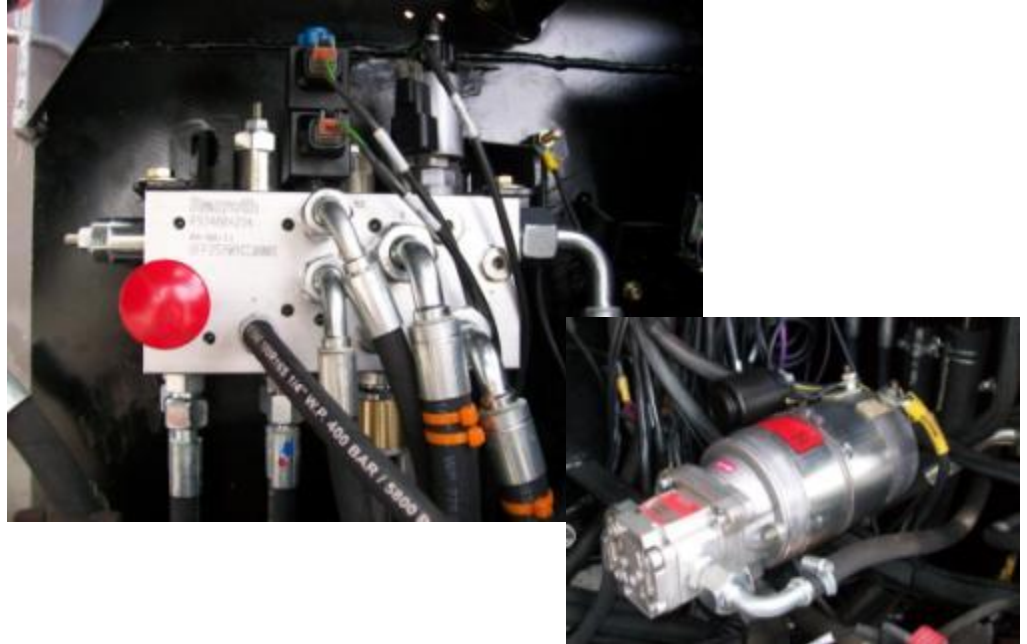


- ✓ When the turret is more than 90° with the chassi, LED 1 light up Red
- ✓ The acceleration ramp increase to inform the operator that the boom is in the « normal » direction indicated by the joystick

 ❖ SAFETY FOR OPERATOR

SIMPLICITY

EMERGENCY PROCEDURE



- ✓ Use of electric pump and action on the valve bank directly
- ✓ Most of our competitors use the buttons of ground control box (what to do if it is faulty???)



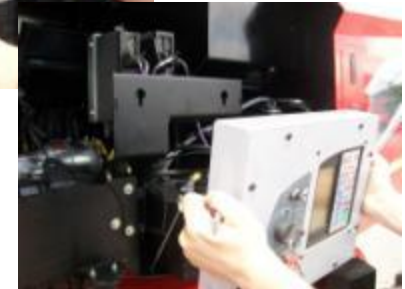
SIMPLICITY

MAINTENANCE

- ✓ Swing out engine for a better accessibility to components
- ✓ Hydraulic components easy accessible
- ✓ Same suppliers as ATJ
 - KUBOTA Engine
 - REXROTH pump
 - DANA axles
 - HYDEQUIP
 - DANFOSS valve blocks....

« CAN-BUS » TROUBLE SHOOTING

- ✓ HYDEQUIP
- ✓ Improvement of the trouble shooting to guide the technicians through default origins



- ❖ SIMPLIFICATION OF TECHNICIAN LIFE
- ❖ REDUCTION OF TROUBLE SHOOTING AND DOWN TIME

SIMPLICITY

IN HOUSE OPTIONS

✓ Possibility with user code to add/remove options such as:

- Beep all movements
- automatic re-alignment of wheels
- rental horameter
- levelling of basket ON/OFF
- Usage repaort of the machine (rental usage)
- ...

