

TIMBERPRO

A Komatsu forestry brand

TN230D
swing machine



Net horsepower

197 HP (147 kW) @ 2,050 rpm

Operating weight

73,500 lbs. (33,400 kg)

Photo may include optional equipment

Specifications

Engine

Model	Komatsu SAA6D170E-3*	
Type	Water-cooled, 4-cycle, direct injection	
Aspiration	Komatsu variable geometry, turbo-charged, after-cooled, cooled Exhaust Gas Recirculation (EGR)	
No. of cylinders	6	
Bore	4.21 in	107 mm
Stroke	4.88 in	124 mm
Piston displacement	408 in ³	6.69 L
Engine power		
SAE J1995	Gross 213 HP (159 kW) @ 2,050 rpm	
ISO 9249/SAE J1349	Net 197 HP (147 kW) @ 2,050 rpm	
Fan drive type for radiator cooling	Mechanical	
Governor	All-speed control, electronic	

* U.S. EPA Tier 4 Final emission certified.

Hydraulic system

Type: Hydra Mind (hydraulic mechanical intelligence system), closed-center system with load sensing valves and pressure-compensated valves

Number of selectable working modes	6		
Main pump			
Type	Variable displacement piston type		
Pumps	Boom, arm, swing and travel circuits		
Maximum flow	125.5 gpm	475 L/min	
Supply for control circuit	Self-reducing valve		
Hydraulic motors			
Travel	2 x axial piston motors with parking brake		
Swing	1 x axial piston motor with swing holding brake		
Relief valve setting			
Implement circuits	38.0 MPa	5,511 psi	387 kg/cm ²
Travel circuit	38.0 MPa	5,511 psi	387 kg/cm ²
Swing circuit	28.4 MPa	4,119 psi	289 kg/cm ²
Pilot circuit	3.3 MPa	478 psi	33 kg/cm ²
Hydraulic cylinders	<i>(bore x stroke x rod diameter)</i>		
Boom (2)	5.3" x 52.6" x 3.7" (135 mm x 1,335 mm x 95 mm)		
Arm (1)	5.3" x 64.4" x 3.9" (140 mm x 1,635 mm x 100 mm)		

Drives and brakes

Steering control	Two levers with pedals	
Drive method	Hydrostatic	
Maximum drawbar pull	210 kN, 21,618 kgf, 47,659 lbf	
Gradeability	35 deg	
Maximum travel speed		
High	3.47 mph (5.6 km/h)	
Mid (auto-shift)	2.29 mph (3.7 km/h)	
Low (auto-shift)	1.80 mph (2.9 km/h)	
Service brake	Hydraulic lock	
Parking brake	Mechanical disc brake	

Swing system

Drive method	Hydrostatic
Swing reduction	Planetary gear
Swing circle lubrication	Grease-bathed
Service brake	Hydraulic lock
Holding brake/swing lock	Mechanical disc brake
Swing speed	11.7 rpm
Swing torque	58,334 ft.-lbs. (8,065 kg-m)

Undercarriage

Center frame	X-frame
Track frame	Box-section
Seal of track	Sealed track
Track adjuster	Hydraulic
Number of shoes (each side)	51
Number of carrier rollers (each side)	2
Number of track rollers (each side)	10

Coolant (refilling) and lubricant capacity

Fuel tank	105.7 gal (400 L)
Coolant	9.4 gal (35.5 L)
Engine	6.1 gal (23.1 L)
Final drive (each side)	1.3 gal (5 L)
Swing drive	1.9 gal (7.2 L)
Hydraulic tank	34.9 gal (132 L)
Hydraulic system	66.8 gal (253 L)
DEF tank	6.1 gal (23.1 L)

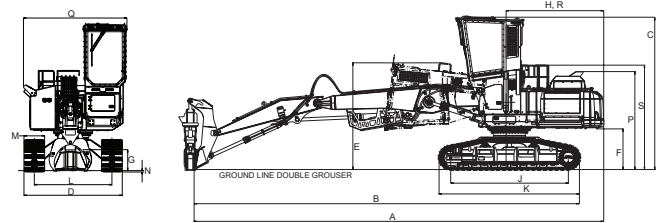
Operating weight

Operating rate includes cab with 48" riser (1,219 mm) riser, 28" (700 mm) double grouser shoes, forestry boom 20.2' (6,155 mm), forestry arm 11' 5" (3,500 mm), variable pitch reversing fan, heavy counterweight (7,000 kg), rated capacity of lubricants, coolant, operator and standard equipment (no head).

Operating weight	73,500 lbs. (33,400 kg)
Ground pressure	8.1 psi (0.57 kg/cm ²)

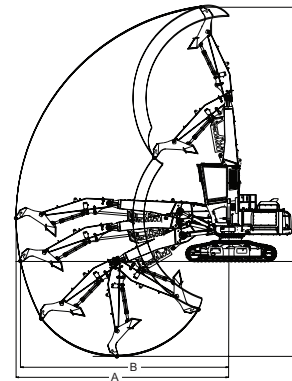
Dimensions

A	Overall length	44'	13,406 mm
B	Length on ground (transport)	41' 6"	12,654 mm
C	Overall height (to top of cab)	16' 4"	4,978 mm
D	Overall width (without removable step)	10' 11"	3,327 mm
E	Overall height for transport (riser tilt position – grouser height included)	11' 5"	3,484 mm
F	Ground clearance (revo frame)	4' 6"	1,362 mm
G	Ground clearance (track frame)	2' 4"	714 mm
H	Tail swing radius	10' 3"	3,120 mm
J	Track length on ground	12' 7"	3,845 mm
K	Track length	15' 5"	4,680 mm
L	Track gauge	8' 7"	2,627 mm
M	Shoe width	2' 4"	700 mm
N	Grouser height	0' 1"	35 mm
	Shoe plate thickness	0' 0.5"	13 mm
P	Machine height (top of engine hood)	10' 6"	3,198 mm
Q	Machine cab width	11' 6"	3,501 mm
R	Distance, swing center to rear end	10' 1"	3,091 mm
S	Machine cab height (top of handrail)	11' 5"	3,410 mm



Working range

A	Maximum reach	36'	11,000 mm
B	Maximum reach (at ground level)	35' 5"	10,781 mm
C	Maximum depth	16'	4,871 mm
D	Maximum height	42' 7"	12,992 mm



Lifting capacity with lifting mode

- A: Reach from swing center Cf: Rating over front
 B: Bucket hook height Cs: Rating over side
 C: Lifting capacity

Conditions:

- Rated loads do not exceed 87% of hydraulic lift capacity or 75% of tipping load
- Lifting mode: On

* load is limited by hydraulic capacity rather than tipping. Ratings are based on SAE standard No. J1097

Unit: kg lbs.

B	10' 3.0 m		15' 4.6 m		20' 6.1 m		25' 7.6 m		30' 9.1 m		35' 10.7 m		MAX	MAX	
	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs	Cf	Cs		Cf	Cs
40' 12.2 m													14.5' 4.43 m	* 21,712 * 9,849	* 21,712 * 9,849
35' 10.7 m			* 16,736 * 7,591	* 16,736 * 7,591	* 15,437 * 7,002	* 15,437 * 7,002							22.8' 6.95 m	* 15,389 * 6,981	* 15,389 * 6,981
30' 9.1 m					* 14,107 * 6,399	* 14,107 * 6,399	* 13,372 * 6,066	* 13,372 * 6,066					27.9' 8.5 m	* 13,304 * 6,035	* 11,287 5,120
25' 7.6 m					* 14,053 * 6,374	* 14,053 * 6,374	* 13,050 * 5,919	* 13,050 * 5,919	* 12,291 * 5,575	* 10,185 * 4,620			31.3' 9.56 m	* 12,188 * 5,528	* 9,233 4,188
20' 6.1 m			* 16,808 * 7,624	* 16,808 * 7,624	* 14,938 * 6,776	* 14,938 * 6,776	* 13,441 * 6,097	* 13,441 * 6,097	* 12,246 * 5,555	* 10,258 * 4,653			33.7' 10.28 m	* 11,456 * 5,196	* 8,095 3,672
15' 4.6 m					* 16,594 * 7,527	* 16,594 * 7,527	* 14,283 * 6,479	* 13,768 6,245	* 12,574 * 5,703	* 10,104 4,583	* 11,010 * 4,994	* 7,564 3,431	35.2' 10.74 m	* 10,897 * 4,943	* 7,449 3,379
10' 3 m					* 18,645 * 8,457	* 18,645 * 8,457	* 15,313 * 6,946	* 13,238 6,005	* 13,011 * 5,901	* 9,842 4,464	* 10,995 * 4,987	* 7,523 3,412	36.0' 10.97 m	* 10,399 * 4,717	* 7,131 3,235
5' 1.5 m					* 20,445 * 9,274	* 17,729 8,042	* 16,188 * 7,343	* 12,682 5,753	* 13,310 * 6,037	* 9,556 4,335	* 10,733 * 4,868	* 7,430 3,370	36.0' 10.98 m	* 9,875 * 4,479	* 7,076 3,210
0' 0 m					* 21,313 * 9,667	* 16,902 7,667	* 16,526 * 7,496	* 12,226 5,546	* 13,179 * 5,978	* 9,323 4,229	* 9,730 * 4,413	* 7,385 3,350	35.4' 10.78 m	* 9,234 * 4,188	* 7,280 3,302
-5' -1.5 m			* 28,305 * 12,839	* 25,101 11,386	* 20,796 * 9,433	* 16,442 7,458	* 15,945 * 7,232	* 11,958 5,424	* 12,217 * 5,541	* 9,213 4,179			34.0' 10.35 m	* 8,347 * 3,786	* 7,790 3,533
-10' -3 m	* 22,562 * 10,234	* 22,562 * 10,234	* 24,813 * 11,255	* 24,813 11,255	* 18,572 * 8,424	* 16,353 7,418	* 13,797 * 6,341	* 11,928 5,411	* 9,569 * 4,340	* 9,311 4,223			31.6' 9.63 m	* 7,200 * 3,266	* 7,200 3,266
-15' -4.6 m			* 18,701 * 8,482	* 18,701 8,482	* 14,088 * 6,390	* 14,088 * 6,390							24.7' 7.52 m	* 9,941 * 4,509	* 9,941 * 4,509

Equipment

Engine and related components

Engine, Komatsu SAA6D107E-3, Tier 4 Final	•
Gross HP (J1995): 213 HP (159 kW)	•
Net HP (J1349): 197 HP (147 kW)	•
Komatsu Diesel Particulate Filter (KDPF)	•
Selective catalytic reduction (SCR)	•
After-cooled, turbocharged direct injection	•
Air cleaner, double element	•
Fuel pre-filter, 10 microns	•

Cooling system

Radiator/oil cooler (8.5 fins per inch)	•
Variable pitch, automatic reversing fan	•

Electrical system

Alternator (24 V/90 A)	•
Large capacity batteries (2x12 V)	•
Starter motor (24 V/5.5 kW x1)	•
Working lights: 12 LED lights (13 tree deflector guard)	•
Engine shutdown secondary switch	•
Battery disconnect switch	•
24 V-12 V converter, 30 A	•

Undercarriage

High/wide forestry undercarriage	•
Heavy-duty revolving frame	•
28" (700 mm) double grouser shoes	•
Track rollers, heavy-duty, 10/side	•
Carrier rollers (2), track type/side	•
Heavy-duty recoil spring	•
Heavy-duty tow hooks	•
Track guard full-length ski-type	•

Guards and covers

Dustproof net for radiator and oil cooler	•
Heavy-duty forestry guards	•
Heavy-duty doors, .24" (6mm) thick	•
Heavy-duty under guard, .24" (6mm) thick	•
Corner post/front guard	•
Tree guard and toolbox protector	○
Pump/engine partition cover	•
Forestry debris screens	•
Grip strut walkways	•
Boom cylinder guard	•
Brush deflector guard	•

Operator environment

Komatsu forestry cab with 48" fixed riser	•
1.25" (32mm) polycarbonate front window	•
ROPS/OPS/TOPS/FOPS/WCB/Oregon OSHA certified	•
Automatic HVAC	•
Monitor panel, LCD, high-resolution color	•
Equipment management monitoring system (EMMS)	•
Seat, high back, air suspension, heated/cooled	•
Radio with Bluetooth	•
Adjustable arm rests	•
Top, front, rear and side sunshades	○
Cup holder	•
3" lap belt	•

Work equipment

Forestry boom 20.2' (6,155 mm)	•
Forestry arm 11' 5" (3,500 mm)	•
Truck loading-specific piping package	•
Case drain filter, high pressure filtration	•
Boom and arm holding valve	•

Hydraulic controls

Axial piston swing motor (1)	•
Axial piston travel motors (2)	•
Variable capacity piston pumps (2)	•
Closed center load sensing (CCLS) pumps	•
Hydraulic pump high-pressure discharge filters	•
PC240-class swing bearing and swing machinery	•
Engine/hydraulic overheat prevention system	•

Drive and brake system

PC240-class final drives	•
3-speed travel with auto shift	•

Other equipment

Komtrax level 5.0 monitoring system	•
Rearview monitoring camera	•
Electronically fold-down service platforms (2)	•
Tie-off points for service	•
4-point operator's harness	○

Standard equipment	•
Optional equipment	○

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