

FOREST BIOMASS EQUIPMENT DIRECTORY

According to Research and Markets' "Forestry Equipment Market Report: Trends, Forecast and Competitive Analysis", one of many such reports, the future of the global forestry equipment market looks "promising" with opportunities in felling, extracting, and on-site equipment. The report estimates that the forestry equipment market will be worth an US\$10.5 billion by 2024 with a CAGR of 4.9 percent from 2019 to 2024.

Major drivers for this market are economic growth and increasing demand for wood for use in both construction and infrastructure activities. Emerging trends, which have a direct impact on the market dynamics include introduction of TimberMatic navigation and integration of mobile technology in forestry equipment.

The report forecasts that felling equipment will remain the largest segment and it is also expected to witness the highest growth over the forecast period due to increase use of cut-to-length harvesting methods relative to tree-length and whole-tree systems. Interesting it notes that Asia-Pacific (APAC) will remain the largest regional market expected to witness highest growth over the forecast period due to growth in building and construction activities and increasing demand for wood in home furnishing applications.

FOREST BIOMASS EQUIPMENT CATEGORIES

A. Terrain machines (i.e. self propelled operator/remote)

- A1. Harvesters
- A2. Skidders
- A3. Forwarders
- A4. Harwarders (combined harvester & forwarder)
- A5. Skyliners
- A6. Chip-harvesters
- A7. Residue-harvesters & bundlers
- A8. Mulchers & mowers
- A9. Forestry tractors & ATV's
- A10. Other

B. Stand-alone machinery with operator/remote

- B1. Chippers, shredders & grinders (incl. whole tree & tub-grinders)
- B2. De-barkers & delimiters
- B3. Chip-trucks
- B4. Firewood processors
- B5. Other

C. Attachments (e.g. for tractor/excavator/truck carrier)

- C1. Harvesting heads (incl. accumulating)
- C2. Stump extractors & grinders
- C3. Log-splitters
- C4. Slash rakes
- C5. Cranes
- C6. Logging trailers
- C7. Winches
- C8. Other

D. Ancillaries & services

- D1. Mapping & measurement incl. moisture
- D2. Residue wrap & covering
- D3. Planning software
- D4. Other

AUSTRIA		
Epsilon Kran GmbH	C5, C8	www.palfingerepsilon.com
Eschlböck Maschinenfabrik GmbH	B3, B5	www.eschlböeck.at
Komptech GmbH	B1	www.komptech.com
Konrad Forsttechnik	A1, A10, C5, C8	www.forsttechnik.at
Landtechnik Urch GmbH	B1, B5	www.mus-max.at
Lasco Heuthechnik GmbH	C3, C5, C6	www.lasco.at
Neuson Forest GmbH	A1, B1	www.neuson-forest.com
POSCH Gesellschaft	C3	www.posch.com
Westtech Maschinenbau GmbH	C1, C3	www.westtech.at
BELGIUM		
CSB bvba	B1	www.csb-wastesolutions.be
CANADA		
Anderson Group Inc	A7, C6, C8	www.grpanderson.com
Halco Software Systems Ltd.	D3	www.halcosoftware.com
InterWrap Inc	D2	www.interwrap.com
Liebherr-Canada Ltée	A8, A10, C5, C10	www.liebherr.com
Tigercat Industries Inc	A1-2-3, C1, C10	www.tigercat.com
DENMARK		
Fransgård Maskinfabrik A/S	C5, C7, C8	www.fransgard.dk
NHS Maskinfabrik A/S	A6, A10, C5, C8	www.nhs-flishugger.dk
ParkLand Maskinfabrik A/S	B1, C8	www.parkland.dk
ESTONIA		
AS Fors MW	C5, C8	www.forsmw.com
FINLAND		
AFM-Forest Ltd	C1, C2	www.afm-forest.fi
Biojack	C1, C2	www.biojack.fi
BMH Technology Oy	B1, B5	www.bmh.fi
Fixteri Oy	A10, D2	www.fixteri.fi
John Deere Forestry Oy	A1, A2, A3, C1	www.johndeere.com
Junkkari OY	A6, C5, C6	www.junkkari.fi
Kesla Oyj	C1, C3, C5, C8	www.kesla.com
LHM Hakkuri Oy	B1	www.lmhakkuri.com
Logset Ab	A1, A3, C1, D3	www.logset.com
Moisio Forest Oy	C1	www.moisioforest.com
Nisula Forest OY	A1, C1, C8	www.nisulaforest.com
Pentin Paja Oy	C1, C8	www.naarva.fi
Ponsse Plc	A1-3-4, C1-5-6	www.ponsse.com
Sampo-Rosenlew Oy	A1, A10, C8	www.sampo-rosenlew.fi
Tana Oy	B1	www.tana.fi
Walki Group	D2, D4	www.walki.com
Valtra	A9, C8	www.valtra.com
GERMANY		
Albach Maschinenbau GmbH & Co. KG	A6	www.albach-maschinenbau.de
Arjes GmbH	B1	www.arjes.de
Doppstadt Calbe GmbH	B1, C8	www.doppstadt.com
Hammel Recyclingtechnik GmbH	B1	www.hammel.de
Heizomat Gerätebau-Energiesysteme	B1	www.heizomat.de
HSM Hohenloher Spezial-Maschinenbau	A1, A3, A4, A10	www.hsm-forstmaschinen.de
Hägele GmbH	C8	www.cleanfix.org
Jenz GmbH Maschinen- und Fahrzeugbau	A6, B1, B2	www.jenz.de
Willibald GmbH	B1	www.willibald-gmbh.de
IRELAND		
EDGE Innovation at Work	B1, B5	www.edgeinnovate.com
Treemetrics Limited	D1, D3	www.treemetrics.com
ITALY		
Caravaggi S.r.l.	C2 Mini, C8	www.caravaggi.com
Greifenberg Tele	C5, C7, C8	www.greifenberg.it
Holzmatic engineering Srl	B1, B2	www.holzmatic.com
Pezzolato Costruzioni Meccaniche S.p.A.	A6, B1-3-4, C3	www.pezzolato.it
Pinosa srl	B4, B5	www.pinosa.net
Prinoth AG	A1, A8, C2, C8	www.prinoth.com

BRUKS SIWERTELL DELIVERS FIRST MOBILE CHIPPER TO ASIA



A Bruks 1006 ST chipper mounted on a Ponsse Buffalo forwarder making short work of fuelwood at a biomass terminal in Sweden.

Last Autumn, Bruks, part of the Bruks Siwertell Group delivered its first chipper to Asia. A Bruks 806.2 ST mobile chipper was supplied to the Korean Forestry Cooperative, a forest-owner association in South Korea for the high-capacity production of fuel chips, suitable for bioenergy. It is being deployed in the country's north-west region.

According to **John-Erik Eriksson, Senior Engineering**



Consultant for Bruks Siwertell and advisor on the project, the delivery was dependent on a lot of elements working together. For instance, the conditions in the forest had to be right for extracting timber as a biofuel and there had to be a road network capable of transporting the large, heavy machinery.

– The evaluation showed that the machines, which were initially of interest to the cooper-

ative, would not fit local conditions. Instead, a wood chipper, with its own engine and mounted on a Volvo truck with a crane, was considered the ideal solution for these circumstances. We also needed to ensure that the customer had sufficient training to handle the operation and ongoing maintenance of the machine's relatively complex electrical and hydraulic systems, which make them so effective, said John-Erik Eriksson.

Prior to the wood chipper's delivery, Bruks Siwertell arranged for representatives from the Korean Forestry Cooperative to receive specialist training at its site in Arbrå, Sweden.

– It is in no one's interest to sell equipment that is not able to perform to the best of its capabilities, for whatever reason. It was an intensive training course over several days on driving the machinery and also practical exercises in maintenance and care, as there is no technical expertise in the region. Spare parts packages were included from the outset of the order and if needed, Bruks Siwertell will work closely with a local service company for more complex issues should they arise in the future, said John-Erik Eriksson.

During the visit, the Korean Forestry Cooperative not only focused on the machine, but also on the wider potential of the biomass market for the country.

– Decades of war devastated the country's forests and meant that they have grown back unmanaged, which is not the most efficient for timber production. Owners now want to be able to sell their current forests for biomass to get some value from it, which then enables them to plant new forests that can be cared for in a different way, explained John-Erik Eriksson.

The Bruks 806.2 ST mobile chipper is able to efficiently and reliably process treetops, branches and logs up to a diameter of 50 cm for softwood and 40 cm for hardwood.

B1109/6474/AS

LATVIA		
Formiko Hydraulics	C8	www.formiko.lv
K.T.S	B4, C5, C6, C7	www.kts.nu
LITHUANIA		
ARGO Containers	C8	www.argocontainers.lt
NETHERLANDS		
CBI Europe BV	B1-2-4, C2-3-4	www.cbi-eu.com
Europe Forestry V.O.F	B1, B3	www.europeforestry.com
Europe Recycling Equipment BV	B1	www.europe-rec.com
Hencon Forestry B.V.	A4, A6, B1, B5	www.henconforestry.nl
NORWAY		
Vepak AS	B4, C8	www.vepak.no
SPAIN		
Ventura Máquinas Forestales S.L.	A8, A9, C7, C8	www.venturamaq.com
SWEDEN		
AB Alstor	A3 Mini	www.alstor.se
Bracke Forest AB	C1, C8	www.brackeforest.com
Bruks Siwertell Group AB	A6, B1, B3	www.bruks-siwertell.com
Eco Log Sweden AB	A1-3-4, C1-5-6	www.eco-log.se
Esri Sverige AB	D1	www.esri.se
Gremo AB	A1, A3, C1, C6	www.gremo.com
Haglöf Sweden	D1, D4	www.haglofcg.com
Hypro AB	A1, A2, A3	www.hypro.se
Katam Technologies AB	D1, D3	www.katam.se
Komatsu Forest AS	A1, A3, A10, C1	www.komatsuforest.com
Log Max	C1, C8	www.logmax.com
Malwa International AB	A1, A3	www.malwa.se
Olofsfors AB	C8,	www.olofsfors.se
OP Erjo	B3, B5	www.operjo.se
Rottne Industri AB	A1, A3	www.rottnet.com
Sp Maskiner AB	C1	www.spmaskiner.se
Trejon AB	C1, C2, C5, C6	www.trejon.se
Weimer skogsteknik AB	C6, C8	www.weimer.se
Vimek i Vindeln AB	A2, A3, A4	www.vimek.se
SWITZERLAND		
Stark Maschinenbau	B1	www.stark-maschinenbau.ch
Swiss Tracked Forwarder GmbH	A1, A3, A4	www.stf-gmbh.ch
UK		
Clark Tracks Ltd	C8	www.clarktracks.com
GreenMech Ltd	B1 Mini	www.greenmech.co.uk
JCB	A8, A9, A10	www.jcb.com
USA		
Bandit Industries, Inc	A8, B1, C2	www.banditchippers.com
Barko Hydraulics, LLC	A1-3-9-10, B1	www.barko.com
Caterpillar Forest Products	A1-2-3-9-10, C6-8	www.cat.com/forestry
Diamond Z	B1	www.diamondz.com
Duratech Industries	B1, C8	www.duratechindustries.net
Fecon Inc	A1-6-8, C2-8	www.fecon.com
Morbark, Inc.	A6-8-10, B1-2-5	www.morbark.com
Peterson Pacific Corp.	B1, C8	www.petersoncorp.com
Precision Husky Corp.	B1, B2, B5, C8	www.precisionhusky.com
Rotochopper, Inc	B1, B5	www.rototchopper.com
Terex Environmental Equipment	B1, B5	www.terex.com
Universal Refiner Corporation	B1	www.universalrefiner.com
Vermeer Manufacturing Company	B1, B5	www.vermeer.com