

# IMS Razor Tooth<sup>™</sup> Weedmaster<sup>™</sup> (patent pending) Cutterhead



The new patent pending IMS Razor Tooth Weedmaster Cutterhead bolts directly to the IMS Model 5012 LP Versi-Dredge in place of the standard cutterhead. The change from the dredge cutterhead to the Razor Tooth Weedmaster Cutterhead takes around 45 minutes. This allows the customer to remove aquatic weeds without the purchase of expensive weed removal systems (which start around \$200,000 USD) or the use of environmentally toxic chemicals. The Weedmaster has been designed to work in several types of aquatic plants including: floating vegetation such as hyacinths, submerged vegetation such as milfoil and hydrilla, and emergent / rooted vegetation such as cattails and reeds. The newly designed Razor Tooth Weedmaster Cutterhead with razor sharp reinforced serrated cutting teeth can cut through 9 ft (2.7m). tall reeds and even digest complex aquatic vegetation root systems to prevent re-growth.



The Razor Tooth Weedmaster unit mounts directly to the pump inlet door. It measures 9 ft (2.7m) wide and consists of a steel shroud and cutterbar with dual direct drive motors driving the cutter. The cutterbar is constructed of heavy wall tubing with reinforced double edged razor teeth designed exclusively by IMS. The shroud contains two rows of static cutter blades that clean the main cutterbar as it rotates.

Most weed harvesters cut the weeds down to a max depth of 6 ft. (1.8m) and store them in a hopper which must be periodically emptied on shore. This requires unloading barges or pier / shore conveyors which increase labor and diesel fuel costs. The Weedmaster is much more efficient because it chops the weeds into 3-5 inch (76-127mm) pieces and pumps them to the shore, up to 1km away, using the dredge pump.

**Diameter:** Drum only: 14 in. (356 mm)  
With teeth: 21 in. (533 mm)

**Length:** 106 in. (2,692mm)

Replaceable hardened steel, serrated knife edged teeth on drum and both stationary bars on the shroud.

**Drive:** Recessed dual hydraulic motor.

**Speed (variable):** 0 – 230 RPM  
@ 2,500psi

**Torque:** 15,100 in.-lbs. (1,706 N-m)  
@ 2,500psi

**Cutter Tip Force:** 1,440 lbs. (6,405 N)



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# IMS 5012 LP Dual Function DREDGER / HARVESTER (Weedmaster) vs. Competition



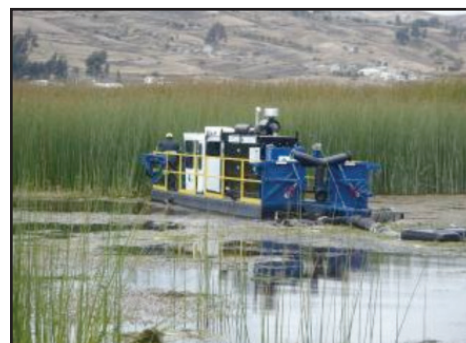
	IMS 5012 LP Dredger / Harvester (Weedmaster)	Multi-Function Amphibious Dredge	Conveyor Harvesters
Hydraulic Dredge Function	YES	YES	NO
Can Cut Vegetation down to 22 ft. (6.7m)	YES	YES (depending on make / model)	NO
Can Cut Vegetation into 3 in. (76mm) pieces	YES	NO	NO
Able to Pump Vegetation 1km	YES	NO	NO
Requires Dump Barge or Transport Barge	NO	YES	YES
Requires Work Boat for Barge	NO	YES	YES
Requires Shore Unloading Excavator for Barge (or shore conveyor)	NO	YES	YES
Total Diesel Engines for Operation	Dredge = 1	Dredge + Barge + Work Boat + Excavator = 4	Dredge + Barge + Work Boat + Excavator or Shore Conveyor = 4

Yellow = Good

## ESTIMATED VEGETATION REMOVAL:

The Weedmaster cutterhead will operate differently in every application. Unlike dredging sand or mud there is no uniformity in cutting vegetation. There are different densities, different stem circumferences, and depending on the season different fiber strengths. All of these factors must be taken into consideration when using the Weedmaster cutterhead.

IMS has put together the following estimates based on customer feedback from the field. These estimates are conservative and are for extremely dense vegetation. IMS estimates that you will achieve between 1-2.5 acres of production per day (more with floating vegetation like water hyacinths).



This is what 9 ft. (2.7m) tall reeds look like after being cut with an IMS Razor Tooth Weedmaster and pumped up to 1km away through a pipeline. The 3 in. (76mm) vegetation pieces 100% environmentally friendly and can be used as mulch, fertilizer, or used to create bio-fuel.

Floating Vegetation (Hyacinths):	Dense Rooted Vegetation (Grasses, Cattails, Reeds, etc.):
<b>Equipment Utilized:</b>	<b>Equipment Utilized:</b>
IMS 5012 LP Versi-Dredge	IMS 5012 LP Versi-Dredge
IMS Weedmaster Cutterhead	IMS Weedmaster Cutterhead
IMS Weed Rake Feeder Attachment	IMS Winglet Impeller
IMS Winglet Impeller	
Duration: 1 hours time	Duration: 1 hours time
Surface Area Cleared: 202.5 m <sup>2</sup> /hr.	Surface Area Cleared: 50-100 m <sup>2</sup> /hr. depending on stalk thickness, root mass, and depth at which the vegetation sits in the mud.
Height of Vegetation: 0.3 meters	Height of Vegetation: 1m – 3m

