AGRICULTURAL MECHANIZATION DEVELOPMENT PROGRAM

Institute of Agricultural Engineering
College of Engineering and Agro-Industrial Technology
University of the Philippines Los Baños
College, Laguna, Philippines

UPLB TWO DRUM CORN SHELLER

For more information, contact:

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FEATURES:

- Constructed from locally available materials
- Non-crushing type (shelled cobs are kept whole)
- Versatile (can shell corn for seed purposes)
- Suitable for all sizes of corn ears

SPECIFICATIONS:

Type:
- Shelling Unit: Helical two-drum with cylindrical presser
- Separator: Oscillating sieve
- Cleaner: Aspirating blower

Shelling capacity: 0.8 to 1.0 ton/hr (at 18-24% kernel MC wet basis)
Shelling efficiency: 99% or higher

Dimensions:
- Length 1200 mm
- Width 1150 mm
- Height 1255 m

Weight: 152 kg (without engine)
Power source: 6-7 Hp gasoline or diesel engine
Labor requirement: Two to four persons

METHOD OF OPERATION:

Prepare the sheller and the corn ears to be shelled. Orient the sheller in a way that the exit direction of the aspirator goes along with the wind direction if shelling is to be done outdoors. Place the collecting receptacles below the kernel discharge outlet. Start the engine and engage into the sheller with the use of the clutch. Load the corn ears into the hopper and open the flap to allow the corn ears to enter the shelling assembly. Corn ears are reloaded into the hopper when half of the capacity has been shelled. Continue shelling until all the corn ears are shelled. After shelling disengage the engine from the sheller and stop the engine. Collect and bag all shelled kernels and dispose off the cobs.