

OPERATING INSTRUCTIONS

使用说明书



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一： 结构及工作原理

2CM 系列土豆种植机，是一种集种植，施肥，扶垄于一体的心事重之际，与》

18KW 的四轮拖拉机配套作业，其结构紧凑，性能可靠，操作方便，维护保养简单。

2CM series Potato Planting Machine is a new type of planting machine, which integrates the function of planting fertilizing and covering in cooperation with four wheel tractor whose power is stronger than 18kw. This machine is convenient operation and maintaining.

一、结构及工作原理

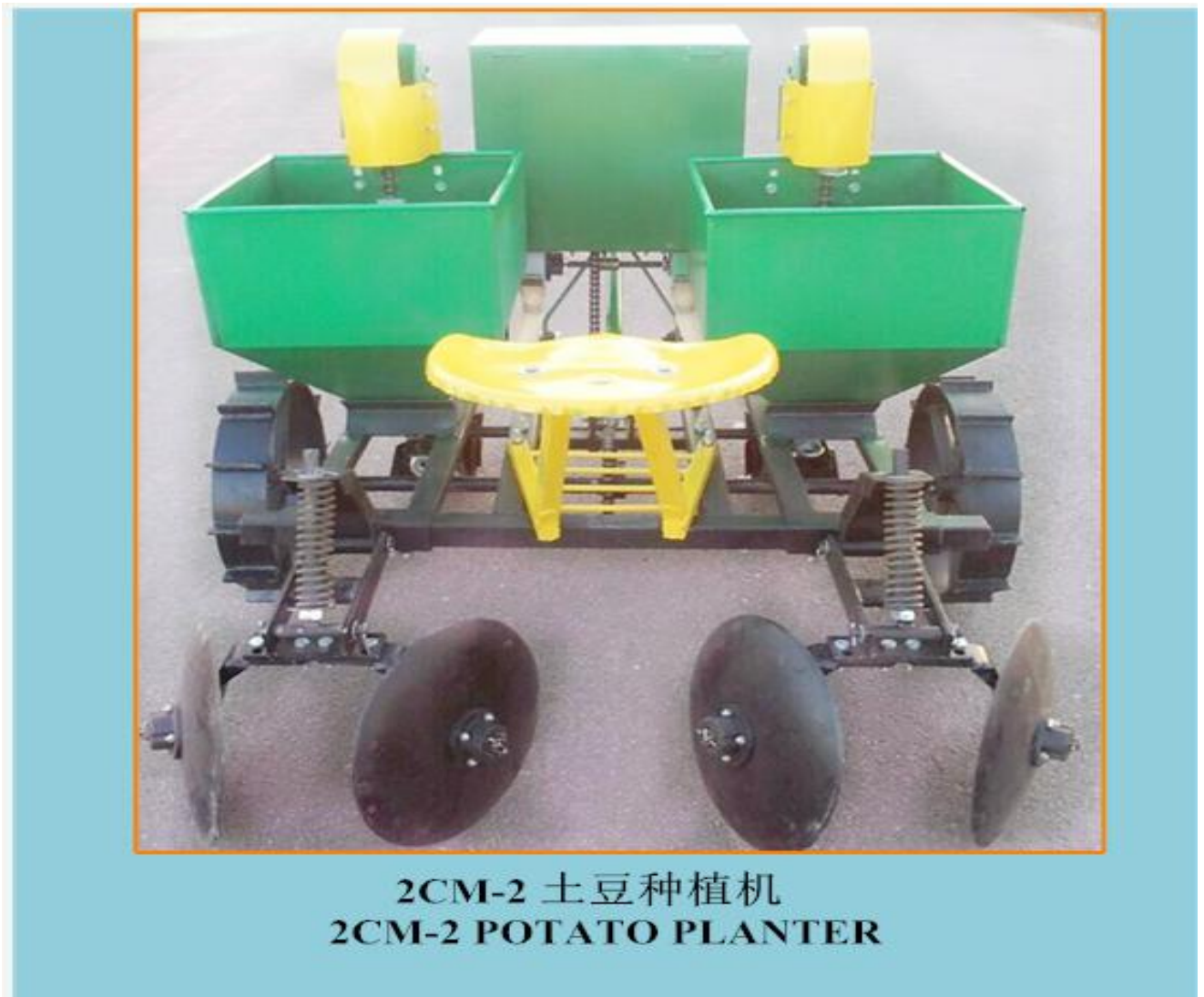
1、Structure and working theory

该机器主要由地轮、机架、汗沟器、排种器、种箱、肥箱、扶垄等部件组成。整机由拖拉机的液压悬挂装置挂接在拖拉机的后端。作业时拖拉机牵引机器前进，由机器上的地轮通过变速完成排种，同时排肥装置也将适量的肥料排放在沟里。由覆土器把土覆平，从而完成整套作业程序。

This machine is composed of such components as land wheel, rack, ditcher seed metering device seed box fertilizer box, covering the seed and so on. The whole machine is connected to the rear of tractor by its three point linkage. During processing of operation, the planting machine is pulled forward by the tractor, and seed metering is finished by the speed changing of fertilizer into the furrow and the earth-filling device levels the land. Therefore, the whole set of working procedure is finished.



2CM-4 土豆种植机
2CM-4POTATO PLANTER



2CM-2 土豆种植机
2CM-2 POTATO PLANTER

二、适用范围

3 Scope of application

适用于耕后较平整，无砂石，无碍物地块的土豆种植作业

Applied to potato planting in relatively flat field after ploughing,also without sand and stone or obstacles

切成块状的马铃薯质量应为 45-50 克每块，马铃薯种薯直径在 30-50 毫米，建议种子最好播种 5 天前切好，晾干或用草木涂拌，使其去掉一部分切口水分，防止黏连

Potatoes should be cut into piece with weight between 45 to 50 gram of each ,diameter should be between 30 to 50 mm. We suggest that the potato seeds should be cut five days before planting.Sundry them or mix them with plant ashes,in order to get rid of incision water and hence avoid sticking together.

化肥应使用固体颗粒肥料，如果话费板结成块，必须破碎后方可使用

Solid granulated fertilizer should be used. If *fertilizer* lumps together *break* them before using.

三、机器与拖拉机的挂接

4. Connection between planting machine and the tractor

如图所示，拖拉机的上拉杆和下牵引杆分别用上悬挂轴 1 和下悬挂轴 2 与马铃薯种植机链接，然后用弹簧销 3 将上下悬挂轴 123 锁定

As illustrated in the diagram the pulling bar and drawing bar of the tractor **are joined with potato planting machine** respectively by upper suspension shaft and lowe suspension shaft and fix upper and lower suspension shaft with spring pin.



四：调整与使用

Adjustment and usage

Phenomenon of breakdown	Cause	Elimination method
Fertilizing box gets stuck	The tractor doesn't move or the machine descend too fast so that some mud enters the furrow opener	Descend the machine slowly
	When backing,the agricultural tools are not lifted	Avoid backing when the agricultural tools are not lifted
	Fertilizer lumps together	Filling into the fertilizing box after breaking them.
The opening depth of furrow is not the same	the heights of of two openers are different	Put the planting machine on the flat ground. Loosen the depth adjustment bolts,and tighten them after adjusting them to the same height

五：维护保养

Maintenance

1. 每工作一个班次，加注两次润滑油，并检查各部位是否正常，发现异常及时处理
2. Fill the lubricating oil twice after the machine works one time, and check if each component is working well, repair immediately when a problem is discovered
3. 每班工作前。赢检车各转动部件是否灵活，紧固件是否牢固
4. Each time before working check if the rotatable components works flexible and if the fixed components are firmly fixed
5. 应不定时检查排种链的松紧情况（链条松时要上调上联轮轴），以防链条过松，使排钟勺和种子卡在护种盒内
6. Check the irregularly the tightness of seed-metering chains (if they are loosen, tighten the sprocket shaft) ,so as to avoid seed metering spoon and seeds getting stuck in the seed production box.
7. 播种季节过后，应将机器上的泥土擦净，加润滑油，并加盖存放
8. After the planting season rub off the mud on the machine ,fill in lubrication oil and store machine with cover
9. 长期不使用时，应将机器放在通风干燥的室内，妥善保管，排肥箱肥料应清理干净
10. If the machine will not be used for a long time ,put it in a dry room with good ventilation and take good care of it .also clean the fertilizer inside the fertilizing box.

六：常见故障及排除方法

Common problems and elimination methods

故障现象	原因	排除方法
	拖拉机未行走货机具降落快，只是开沟器顿土造成堵塞	清楚堵塞 缓慢降落机具
	农机具未提升倒车造成开沟器拥堵	避免机具未提升倒车
	肥料结块	粉碎后加入肥料箱
开沟深浅不一致	两开沟器调整高度不一致	把播种机放在平地上，松开调整深浅螺栓，调平后把螺栓紧固

七、安全规则

6. Safety rules

1、一般安全规则 1. ordinary safety rules

^严格按照规定信号开车、停车，只有发出信号后才能开动拖拉机。

Drive and stop strictly according to regulated signals Start the tractor only after the signal is sent.

A拖拉机驾驶员必须有有效的驾驶执照。

The driver of tractor must have the valid driving license.

^注油、加种（肥）、清理杂物、调整等必须停车后方可进行。

Only after the tractor is stopped, the gas filing, seed filling, fertilizer filling and sundries cleaning and seeding qty adjustment can be conducted.

^严禁机器运转时进行维修或调整操作。

Never repair or adjust while the planting machine is working.

A严禁播种机升起后，在播种机下面进行检查维修》

Never examine and repair under the planting machine after it is lifted.

^行驶中严禁高速行驶或机器上站人，否则损坏拖拉机升降液压装置

While driving never drive at a high speed and no people should stand on the machine Otherwise the hydraulic lifting device will be damaged.

^升降时请勿靠近。

Stay far away while ascending and descending.

A播种时严禁倒车或使地轮倒转。

Never back or make land wheel reverse while planting.

播种作业的地块坡度应小于12度，运输过程中进路坡度应小于20度。

The slop angle of planting field should be no more than twelve degrees and the slope angle during transportation should be no more than twenty degrees.