

# PRODUCER



# JOANNA 5 berry harvesters

JOANNA 5 CLASSIC JOANNA 5 PREMIUM

#### FOR PROFESSIONALS



FRUIT HARVEST & CARE TECHNIQUE

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WEREMCZUK FMR is the worldwide leader in producing machines for fruit growing and harvesting: currant and berry harvesters, sour cherry harvesters, raspberry harvesters; other machines like pruning machines, root shredders, multi-function machines for orchards and plantations and tunnel sprayers.

Since the company has 40 years of experience in supporting Polish and worldwide fruits and vegetables farming business, we are confident that our offer is just for you. Quality, reliability and innovative solutions are the main goals set for our well-coordinated and professional team, creating machines under the WREMCZUK brand. Everything we do, we do in the best way we can, which is why we have been able to gain the trust of thousands of Customers from all over the world.



Now, more than 3 000 of Joanna harvesters are working very well on plantations in Poland and other countries of European Union (German, Denmark, Finland, Hungary, Bulgaria, Lithuania, Latvia, Estonia, Austria), Luxemburg, USA, Canada, Ukraine, Belarus even South Africa Russia. and more.

JOANNA-5 CLASSIC is the newest model of JOANNA machines. It guarantees effective picking different berry fruits with high performance and high harvesting accuracy. JOANNA-5 has solid and durable construction. Modular design of harvesters allows for a very precise fit to customer's needs.





JOANNA-5 PREMIUM – it is an ideal solution for picking fruits from young and small bushes as well as from very heigh bushes with long stems. Covers and seal system eliminates fruit losses.

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## PRECISE HARVESTING



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The JOANNA harvesters are characterized by solid construction using the highest quality components. The effect of these two features is the reliability and trouble-free operation of machines for many years in various working conditions. The harvester's frame is made of steel profiles with a large diagonal, thanks to which it is adapted to difficult terrain conditions and large load capacities. The machine enables loading onto the rear platform of two large 500kg boxes without additional trolleys and trailed platforms.

The standard equipment of the harvester is adjusted to the collection of various fruits and their varieties. Optional equipment available additionally allows you to adjust the machine to the needs of plantations or the requirements of the harvester operator - definitely increasing the comfort of his work. In case of collections in a pallet box, Weremczuk FMR team will help the customer to choose such an option that he can independently steer harvest from the cabin.





The JOANNA harvester was the first harvester equipped with a single-head harvesting system. During over 40 years of experience, we have modified and developed a single head harvesting system. This harvesting system ensures the same efficiency and accuracy of harvesting as two heads, moreover, it allows to protect better the plantation against unnecessary damage. It can arise during the operation of the second shaking head. lt was demonstrated bv research conducted together with the Institute of Horticulture in Poland. Until recently, other manufacturers based their offer only on doublesolutions due the insufficient head to technological development of their products.

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#### FUNCTIONALITY



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All JOANNA harvesters are based on a **shaking unit with one shaker equipped with a special, patented** (Patent No. 219881, competition does not have patents) **head** that has **6 independent levels of amplitude.** Amplitude control allows us to adjust the harvest strength to each type of berry fruit. In addition, maintenance-free toothed belts are used in the head to drive the head elements (instead of toothed wheels used in other combines), it ensures quiet and trouble-free operation.

Our harvesters have a vibration frequency regulation (easy-to-use knob). Thanks to these two adjustment options, the JOANNA harvesters can adapt to the most demanding plantations and shrub varieties. Such great adjustment possibilities are only found on Joanna harvesters.





JOANNA 5 CLASSIC JOANNA 5 PREMIUM Joanna harvesters can be operated by one person (i.e. a tractor operator). The following machine elements provide such functionality:

- a. The chute plate allows to fruits chute to the center of the pallet box, which ensures even, full filling of the container without additional intervention by the third person in moving the fruit, unlike the machines of competing companies
- b. The harvester design allows to pick up fruit into two big 500 kg boxes placed one behind the other. Fruit can be fallen into one or the other box without changing places of boxes (In competitive combines if you want to change the box it must be changed in places. It requires a lot of time and an additional person). In case of collecting by one person, it is required to buy the "rotary pipe". It is the option for filling two big boxes with fruit without the need to change their position on the platform. **No.1 for berry bushes**





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c. The Joanna harvesters **do not require additional transport attachments on wheels** (carts) to collect into the big 500 kg boxes. In addition, our solution provides greater safety of unloading them by the rigid mounting of rollers on the harvester's platform. Furthermore, in order to change a set from standard boxes to big 500 kg boxes or vice versa, only a few operations have to be done requiring one hour of work maximum.

In standard JOANNA harvesters are equipped with an **independent hydraulic system with an oil cooler** with an electric engine and a fan to drive working elements. We have many customers all over the world. Their experience shows that the collections take place in various atmospheric conditions, independent of us. **The Joanna line harvesters are adapted to all working conditions - they never overheat,** they never require a break from work. Due to joining these solutions, harvesting can take place throughout the entire day.





Weremczuk FMR company, due to different customer requirements for the harvest of its own plantation, proposes **two types of "shaking elements".** Some people prefer steel shaking rods because of the speed of harvesting. Customers who have the most delicate shrubs buy modular rods made of special plastic.

All shaking elements are safe for bushes and fruits.

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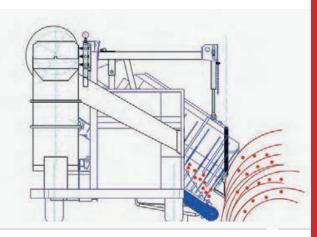


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Joanna harvesters are equipped with a complete set of covers made of stainless steel. The use of stainless steel in Joanna machines guarantees their durability and keeps the machine clean for many years. Let us remember that crops reaching up to 2.5 meters in height during harvesting have a huge impact on covers and machine collecting components. Therefore, tarpaulins and plastic covers used by competitors do not provide suitable strength and reliability to work for many years.

The hydraulic regulation of working height of the working unit (i.e.: shaker head, cross conveyor, and covers around the head) in Joanna harvesters is available due to the **hydraulic adjustment of the unit from the tractor** (1 pair of hydraulic outlets from the tractor). Moreover, the working unit of the Joanna harvesters, unlike the competition, is suspended loosely which ensures **full adaptation** of the harvesting unit to the bush rootstalk. Due to these two options, the harvester does not allow the fruit to escape outside the transverse conveyor. Thus, we avoid crop losses.





Harvesting with machines of berry bushes under 35 centimeters high (regardless of the machine brand) can cause damage to plants - disrupting their following growth or increasing the risk of disease. Out of concern for good yields to our customers, Weremczuk FMR recommends a mechanical harvest of bushes from 35 centimeters and above. Therefore, marketing advertisements of competing producers with the possibility of harvesting from 20 centimeters may expose customers to serious losses in crops.

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#### INNOVATIVE



The proof of the reliability and quality of Weremczuk FMR machines is the **long-term use of harvesters by our customers.** It's easy to check that our harvesters are practically non-existent on the used machinery market. It is caused by solid harvesters' construction, their quality, and customers' attachment to machines. In addition, the market value of JOANNA used machines is high, even after 10 years of use.



# FRUIT HARVEST & CARE TECHNIQUE

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The Joanna line harvesters have an innovative system of harvesting young shrubs. In case of harvesting fruit from low-fruiting young shoots, you can find the solutions use only one line of the bush pressure below the first shaking disc. The lower position of the shaking disc, the more the pipe transporting the young branch over the main transporter sets the branch vertically. It causes that half of the crop is falling down to the ground. The JOANNA harvester solutions for harvesting the youngest bushes are different. The harvesters have two pipes tilting the branch over the transporter. One pipe is close and the other is far. That solution eliminates falling down of fruit to the ground. In addition, JOANNA harvesters have a wideopen skid of the main transporter. Thanks to it the fruit that is on the youngest shoots just above the ground will be harvested and will not fall down to the ground during shaking.





JOANNA 5 CLASSIC JOANNA 5 PREMIUM The harvester has an innovative and patentpending design of row divider that is not used in any other berry harvester. The divider position can be easily adjusted to harvest any height above 35 cm heights and any row width. This solution allows also to harvest fruit from young shrubs in the second year of fruiting.

# SERVICE



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As opposed to competitive companies, JOANNA harvesters have the option of installing **distance wheels on the pick-up lifter and the gutter**. It protects the agro nonwoven fabric under the bushes and the irrigation system against their damage.

Service Team of WEREMCZUK FMR arrives at the Customer and assists with the first start of the machine during the harvesting season. This option is available free on order of two machines (also for two differend customers in one area / 250 km distance between).

It means that the **Customer can be trained on his own plantation. The training is conducted by the expert from the Service Department.** It concerns the machine service and harvesting. The training usually lasts about 3-4 hours. The Customer learns the harvester and finds out how to maintain it in good condition. If you have two or more clients, please set up related training dates.









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# Harvester hydraulic functions

1. Hydraulic steering wheels



2. Hydraulic leveling of the working platform



#### 3. Electrovalves (for two, tree or four hydraulic functions)

Steering of the harvester hydraulic functions' ex.: hydraulic draw bar adjustment, wheels turning or platform leveling is possible from the tractor cabin with a joystick control.

A very useful function, makes a harvester's operator work easier and allows for fast reaction and change of parameters is needed.





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# Fruit harvest – shaking unit

1. Active module for young bushes, without a divided shaking disc



2. Inclined shaker grate cooperating with the inclined position of the shaker



3. Special element for lifter (bringing the lifter`s beak closer to the row) recommended for haskap and gooseberries



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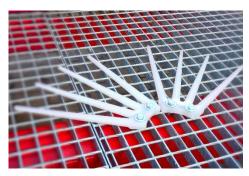
# FRUIT HARVEST & CARE TECHNIQUE

#### Fruit harvest – shaking unit

- 4. Metal, divided shaker disc
- 5. Metal shaking finger



- 6. 4-finger segment made of technical plastic
- 7. Set of 4-finger segments made of technical plastic for the entire shaker



8. Harvesting on foil / non-woven fabric





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## Fruit harvest – shaking unit

9. Steered exhaust air cover



**10.** Complete equipment for high haskap, with divided steel shaking discs (additional shaking with fingers - 5 pcs, special element for lifter, steered exhaust air cover)

#### Fruit collection - working platform

1. Rollers for unloading one big box



2. Rollers for unloading two big boxes (one behind the other)



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#### Fruit collection - working platform

3. Rotary pipe for filling



4. Sequential grate for small boxes (alternatively to the two-level grate)



5. Rear barrier of the working platform



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#### Fruit collection - working platform

- 6. Folding, screw-on side platform (width 60cm)
- 7. Non-folding, screw-on side platform (width 30 cm)



- 8. Rear platform permanently tightened checker plate (width 60 cm)
- 9. Rear barrier of the additional rear platform



- 10. Sorting and chute conveyor with position regulation
- 11. Sorting and chute conveyor without position regulation



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# Comfort of work

1. Working platform roof (dismountable)





2. Rotating light mast with 1 LED lamp



3. Signal "harvester-tractor"



4. Rear platform camera with monitor



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#### Driving on the roads

- 1. Set of road lights with white and red warning signs
- 2. White and red warning signs without lights



3. Warning triangle for slow-moving vehicles



4. Special transport tow bar for three-point hitch



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#### **Connection to the tractor**

1. Standard PTO shaft



2. Short PTO shaft for three-point linkage



3. Hitch on the three-point linkage with a pump



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- Distance between rows min. 3,5 m
- Bushes height max. 2,2 m. for JOANNA-5 CLASSIC 3,0 m. for JOANNA-5 PREMIUM)
- Recommended turning area 8 m
- Recommended fruits bushes grown in a dense row

If parameters of your orchard are different, please contact us. We will help you to choose a suitable solution.



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# ROAD AND OCEAN FREIGHT SHIPMENT



The harvester construction and enable the machine road and sea transport.

- Transport length: 5340 mm JOANNA-5 CLASSIC
  6485 mm JOANNA-5 PREMIUM
- Transport width: 2250 mm
- Transport height: 2200 mm
- Weight: 1500 kg JOANNA-5 CLASSIC 2150 kg JOANNA-5 PREMIUM







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# WEREMCZUK AGROMACHINES

# FRUIT HARVEST & CARE TECHNIQUE

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#### EQUIPMENT AND FEATURES INCLUDED IN MACHINE STANDARD PRICE

Lp.	Name of option	Joanna 5 Classic WEREMCZUK FMR	Joanna 5 Premium WEREMCZUK FMR	Other competitors
1	Minimum number of people needed for harvest including tractor driver	1	1	2
2	Fully patented (Patent no. 219881) adjustable shaking unit (6 amplitudes for different fruits and varieties). Full control over force applied to harvest.	YES	YES	NO
3	MULTI-FRUIT function with integrated passive attachment for low-fruiting shrubs and conical row divider	YES	YES	NO
4	Control over frequency of shaking unit (additionally to the standard amplitude adjustments).	YES	YES	NO
5	Discs shaker disassembled and adjusted along the shaker shaft	YES	YES	YES
6	Hydraulic drawbar for the tractor's lower hitch, with smooth tilt adjustment, with adjustable hitch height	YES	YES	YES
7	Oil cooler with electric engine (old version harvesters use frame to cool down oil, however to efficient work without need of stops and pauses every machine need suitable cooling system.	YES	YES	NO
8	Adjustable speed cleaning ventilator (new technology to prevent clogging of the fan when working in humid conditions and exceptionally powerful cleaning due to positioning of fan exactly above conveyor)	YES	YES	NO
9	Independent hydraulic system for working drives	YES	YES	YES
10	Solid, durable frame - possible to collect in small boxes and up to 2 big boxes 500kg each on machine platform. Customer don't	YES	YES	NO
11	Long conveyor enabling fruit pouring to the center of a 500kg box	YES	YES	NO
	Horizontal conveyor 130 cm	YES	NO	YES
	Horizontal conveyor 200 cm	NO	YES	NO
	Output (ha/h) - 0,15-0,20	YES	YES	YES
	Output (ha/h) - 0,20-0,25	YES	YES	NO
16	Output (ha/h) - 0,25-0,35	NO	YES	NO
17	Accuracy of harvest up to 98%	YES	YES	YES
18	Maximum height of bush - 240 cm	YES	YES	YES
19	Maximum height of bush - 280 cm	NO	YES	NO
20	HP needed for machine - 40	YES	NO	YES
21	HP needed for machine - 60	NO	YES	NO
22	Conveyors speed regulation	YES	YES	YES
23	Work platform with a load capacity up to 1150 kg	YES	YES	NO
24	Independent conveyors speed adjustment	YES	YES	YES
25	Brush seals of transporters covers	YES	YES	NO
26	Stainless steel lower grate under the shaker unit – recommended for gooseberry with slender branches	YES	YES	NO
27	Chute funnel for collecting fruit into small boxes	YES	YES	NO
28	Stainless steel covers around shaking unit - durable, clean and safe for workers. Using solid materials is most crucial in case of harvesting older orchards when branches become more ligneous.	YES	YES	NO
29	Equipment for equal fruit spreading on long conveyor. This option prevent from fruits from fall back on longitude conveyor	YES	YES	NO

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