



URSUS



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AGRICULTURAL TRACTORS AND MACHINERY



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Warsaw, April 2013r.

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/ URSUS 15014



- / 6- cyl. SISU EURO IIIB engine
- / ZF transmission,
- / 40x40 gearbox with power shuttle,
power shift and creeper
- / Carraro front axle
- / EHR hydraulic lift
- / lift capacity of 7000 kg
- / comprehensive equipment
- / air conditioning

Technical data**/ URSUS 15014**

ENGINE [brand and model]	SISU 66AWI EURO IIIB
Engine type	turbocharged with intercooler
Power [ISO 14396] kW/HP at rev./min.	111 / 148- 2200
Max. torque, Nm at rev./min.	580 / 1500
Capacity [cm ³] / number of cylinders	6600 / 6
Air filter	two-stage, dry type with contamination sender
Fuel tank capacity, l	180
TRANSMISSION	
Clutch	multiplate, wet type
Gearbox	ZF, 40 x40, with power shuttle, power shift and creeper
Rear axle	ZF, with mechanical differential lock and planetary hubs
Front axle	Carraro with electro-hydraulic differential lock and planetary hubs
Maximum speed, km/h	40
POWER TAKE-OFF (PTO)	
Type	IPTO, 540/540ECO/1000/1000ECO, engaged hydraulically
PTO / engine speed, rev./min.	540/2200-1190, 1000/2200-ECO/1600
HYDRAULIC LIFT SYSTEM	
Functions	EHR (draft and position control)
Pump capacity, l/min	120
Nominal pressure, MPa	20
Lift capacity, kg	7000
External hydraulics spool valves	four [8 quick-couplings]
Three-point linkage system	cat. 3
STEERING SYSTEM	hydrostatic
BRAKING SYSTEM	
Service brake	wet, disc type, hydraulically actuated
Parking brake	mechanical, hand actuated
WHEELS AND TREADS	
Front/rear wheels	480 / 70R28 / 580/70R3
Front/rear treads, mm	1860 / 1770 std.
HITCHES [std.]	upper hitch, Piton-fix, drawbar and front hitch
CABIN	comfortable, two- door
Basic equipment	heating and air conditioning, front and rear worklamps
DIMENSIONS	
Length / width / height/, mm	4720 / 2440 / 2900
Ground clearance, mm	400
Weight without ballast weights, kg	6900
Front / rear ballast weights, kg	to requirements
STANDARD EQUIPMENT	trailer air braking system
OPTIONS	-

URSUS 11034



- ▄ PERKINS EURO IIIB engine
- ▄ Carraro transmission
- ▄ **24x24 gearbox** with synchroshuttle
- ▄ Carraro front axle
- ▄ lift capacity of 4500 kg
- ▄ ergonomic cabin
- ▄ Scharmüller hitch

URSUS 11024

- ▄ PERKINS EURO IIIA engine
- ▄ Ursus - Hema transmission
- ▄ Carraro front axle
- ▄ lift capacity of 4400 kg
- ▄ ergonomic cabin



Technical data**/ URSUS 11034****/ URSUS 11024**

ENGINE [brand and model]	PERKINS 854E EURO IIIB	PERKINS 1104D EURO IIIA
Engine type	turbocharged	
Power [ISO 14396] kW/HP at rev./min.	83 / 113 - 2200	81 / 110 - 2200
Max. torque, Nm at rev./min.	450 / 1600	416 - 1400
Capacity [cm ³] / number of cylinders	3400 / 4	4400 / 4
Air filter	two-stage, dry type with contamination sender	
Fuel tank capacity, l	180	
TRANSMISSION	Carraro	Ursus - Hema
Clutch	two-disc, dry type with independent PTO clutch control	single-disc, dry type
Gearbox	24x24, with synchroshuttle	12 x 4, synchronized
Rear axle	with hydraulic differential lock and planetary hubs	with mechanic diff. lock and planetary hubs
Front axle	Carraro with electro-hydraulic differential lock and planetary hubs	
Maximum speed, km/h	40	
POWER TAKE-OFF [PTO]		
Type	IPTO 540 / 540 ECO	IPTO 540 / 1000 engaged hydraulically
PTO / engine speed, rev./min.	540 / 1893, 1000 / 1900	
HYDRAULIC LIFT SYSTEM		
Functions	EHR (draft and position control)	draft, position and response control
Pump capacity, l/min	62	
Nominal pressure, MPa	19	18
Lift capacity, kg	4500	4400
External hydraulics spool valves	three [six quick-couplings]	two [four quick-couplings]
Three-point linkage system	cat. 2	
STEERING SYSTEM	hydrostatic	
BRAKING SYSTEM		
Service brake	wet, disc type, hydraulically actuated	
Parking brake	mechanical, hand actuated	
WHEELS AND TREADS		
Front/rear wheels	420/70 R24; 520/70 R34	380/70 R24, 480/70 R34
Front/rear treads, mm	1630 - 1970 / 1620 - 2325	
HITCHES	upper hitch, Piton-fix, drawbar & front hitch	upper hitch, drawbar and front hitch
CABIN	comfortable, two- door	
Basic equipment	heating, front and rear worklamps	
DIMENSIONS		
Length / width / height / mm	4000 / 2200 / 2750	
Ground clearance, mm	380	
Weight without ballast weights, kg	4100	
Front ballast weights, kg	260 std / -	
STANDARD EQUIPMENT	trailer air braking system	
OPTIONS	front 3- point hitch, front PTO, AC, front ballast weights - 180kg, rear ballast weights - 200kg	front 3- point hitch, front PTO, 8 hydraulic quick- couplings, AC, front ballast weights - 180kg, rear ballast weights - 200kg

/ URSUS 10014T

- / Deutz EURO IIIB engine**
- / 32x32 gearbox**
- / with power shuttle and power shift**
- / lift capacity of 4300 kg**
- / ergonomic cabin**



available for sale soon

Technical data**URSUS 10014T** [available for sale soon]

ENGINE [brand and model]	Deutz TCD 3.6 L4 Euro IIIB
Engine type	turbocharged with intercooler
Power [ISO 14396] kW/HP at rev./min.	77 / 105 - 2200
Max. torque, Nm at rev./min.	440 - 1600
Capacity [cm ³] / number of cylinders	3600 / 4
Air filter	two-stage, dry type
Fuel tank capacity, l	125
TRANSMISSION	
Clutch	multiplate, wet type
Gearbox	32x32, with power shuttle and power shift
Rear axle	with electro-hydraulic differential lock and planetary hubs
Front axle	with conic hubs
Maximum speed, km/h	40
POWER TAKE-OFF [PTO]	
Type	IPTO, engaged hydraulically
PTO / engine speed, rev./min.	540 / 750 / 1000
HYDRAULIC LIFT SYSTEM	
Functions	EHR [draft and position control]
Pump capacity, l/min	60
Nominal pressure, MPa	19
Lift capacity, kg	4300
External hydraulics spool valves	three [six quick-couplings]
THREE-POINT LINKAGE SYSTEM	cat. 2
STEERING SYSTEM	hydrostatic
BRAKING SYSTEM	
Service brake	disc type, hydraulically actuated
Parking brake	mechanical, hand actuated
WHEELS AND TREADS	
Front/rear wheels	380/70 R24, 480/70 R34
Front/rear treads, mm	1750-2060 / 1536-2260
HITCHES	upper hitch, Piton-Fix, drawbar and front hitch
CABIN	safe, comfortable
Basic equipment	heating, AC
DIMENSIONS	
Length / width / height, mm	4500 / 2141 / 2718
Ground clearance, mm	400
Weight without ballast weights, kg	3980
Front ballast weights, kg	320
STANDARD EQUIPMENT	trailer air braking system
OPTIONS	rear ballast weights-320kg, automatic upper hitch, front three - point linkage system, beacon lamp, 1104D-44T EURO IIIIA PERKINS engine

/ URSUS 10014H, 9014H, 8014H

- / PERKINS EURO IIIA engine
- / Ursus - Hema transmission
- / 12x12 gearbox with synchroshuttle
- / **lift capacity of 4200**
- / Scharmüller hitch
- / comprehensive equipment
- / air conditioning



Technical data**/ URSUS 10014H****/ URSUS 9014H****/ URSUS 8014H****ENGINE [brand and model]**

PERKINS 1104D EURO IIIA

Engine type

turbocharged with intercooler

turbocharged

Power [ISO 14396] kW/HP at rev./min.

74,9 / 102 - 2200

68 /92 -2200

60,5/82-2200

Max. torque, Nm at rev./min.

405- 1400

393 - 1400

345-1400

Capacity [cm] / number of cylinders

4400/4

Air filter

two-stage, dry type

Fuel tank capacity, l

115

TRANSMISSION**Clutch**

two-disc dry type with independent PTO clutch control

Gearbox

12 x 12 with synchroshuttle

Rear axle

with electro-hydraulic control of differential lock and planetary hubs

Front axle

with automatic differential lock and planetary hubs

Maximum speed, km/h

40

POWER TAKE-OFF [PTO]**Type**

independent with hand operated PTO clutch

PTO / engine speed, rev./min.

540 / 1890, 1000 / 2074

HYDRAULIC LIFT SYSTEM**Functions**

draft, position, response control and Auto-Lift

Pump capacity, l/min

55

Nominal pressure, MPa

21

Lift capacity, kg

4200

External hydraulics spool valves

two [four quick-couplings]

Three-point linkage system

cat. 2

STEERING SYSTEM

hydrostatyczny

BRAKING SYSTEM**Service brake**

wet, disc type, hydraulically actuated

Parking brake

mechanical, hand actuated

WHEELS AND TREADS**Front/rear wheels**

340/85 R24 / 420/85 R34

Front/rear treads, mm

1515 - 1715 / 1508 - 1708

HITCHES

upper hitch, Piton-fix, drawbar and front hitch

CABIN

comfortable, two-door

Basic equipment

heating, AC, window in the roof, front and rear work lamps in the roof, assistant's seat,

front and rear wipers and sprayers

DIMENSIONS**Length / width/ height, mm**

4220 / 2175 / 2760

Ground clearance, mm

430

Weight without ballast weights, kg

4300

Front ballast weight, kg

8 x 40

STANDARD EQUIPMENT

trailer air braking system [single- and double line], pumping set, radio CD/Mp3

OPTIONS

front/rear wheels: 380/70 R24 ; 480/70 R34,

rear ballast weights 4 x 80kg

URSUS 5044

orchard tractor

- ▄ PERKINS EURO IIIA engine
- ▄ 4WD Carraro transmission
- ▄ 12 x 12 gearbox with synchroshuttle
- ▄ lift capacity of 1300 kg
- ▄ **4- post cabin** for excellent visibility
- ▄ front ballast weights



Comprehensive list of options:

- ▄ trailer air braking system
- ▄ upper hitch + Piton-fix + drawbar
- ▄ air conditioning
- ▄ front mounted quick-couplings [4]
- ▄ beacon light

Technical data**/ URSUS 5044**

ENGINE [brand and model]	PERKINS 1103D EURO IIIA
Engine type	naturally aspirated
Power [ISO 14396] kW/HP at rev/min.	36,9 / 50 - 2200
Max. torque, Nm at rev./min.	196 -1400
Capacity [cm ³] / number of cylinders	3300 / 3
Air filter	two-stage, dry type with contamination sender
Fuel tank capacity, l	50
TRANSMISSION	
Clutch	two-disc dry type with independent PTO clutch control
Gearbox	Carraro, 12 x 12 with synchshuttle
Rear axle	with mechanical differential lock and planetary hubs
Front axle	with planetary hubs
Maximum speed, km/h	30
POWER TAKE-OFF [PTO]	
Type	IPTO 540/1000
PTO / engine speed, rev/min.	540 / 2069, 1000 / 2052
HYDRAULIC LIFT SYSTEM	
Functions	draft and position control
Pump capacity, l/min	39
Nominal pressure, MPa	18
Lift capacity, kg	1300
External hydraulics spool valves	two [four quick-couplings]
Three-point linkage system	cat. 1
STEERING SYSTEM	hydrostatic
BRAKING SYSTEM	
Service brake	wet, disc type, mechanically actuated
Parking brake	mechanical, hand actuated
WHEELS AND TREADS	
Front/rear wheels	7,5R16 / 320/85R28
Front/rear treads, mm	1110 / 1045 ;1250 / 1320
HITCHES	drawbar and front hitch
CABIN	4- post, comfortable, two-door type
Basic equipment	heating, front/rear worklamps, front and rear wipers and sprayers
DIMENSIONS	
Length / width / height, mm	3700 / 1300-1640 / 2350
Ground clearance, mm	330
Weight without ballast weights, kg	2420
Ballast weights, front/rear, kg	90 / -
STANDARD EQUIPMENT	
OPTIONS	trailer air braking system, upper hitch + Piton-fix + drawbar, air conditioning, front mounted quick-couplings [4], beacon light, front three-point linkage system

URSUS 5314

URSUS 5312



LOW SPECIFICATION URSUS TRACTORS

- URSUS engine**
- 8x2 gearbox with epicyclic reduction unit**
- lift capacity of 2500kg**



Technical data**/ URSUS 5312 [2WD]****/ URSUS 5314 [4WD]**

ENGINE [make & model]	URSUS 4390	
Engine type	diesel, naturally aspirated, direct injection, water cooled	
Power, kW / HP at rpm	52.5/71 at 2200	
Torque, Nm at rpm	261 at 1300 -1500	
Swept volume, cm ³ / no. of cylinders	3865 / 4	
Air filter	two-stage dry type	
Fuel tank capacity, L	75	
TRANSMISSION		
Clutch	dry, single disc	
Gearbox	8F + 2R with epicyclic reduction unit	
Rear axle	with mechanic differential lock and planetary hubs	
Front axle	three section type	with planetary hubs
Max. speed km/h	30	
POWER TAKE-OFF		
Type	iPTO, engaged hydraulically	
PTO speed at engine speed, rpm	540 / 1893, 1000 / 1900	
Shaft diameter, mm / No. of splines	35/6	
HYDRAULIC LIFT SYSTEM		
Function	draft, position and response control	
Hydraulic pump oil flow, l/min	22	
Nominal pressure, MPa	20	
Hydraulic lift capacity, kg	2500	
External hydraulics spool valves [std.]	single [2 quick couplings]	
Three-point linkage	Cat. 2	
STEERING SYSTEM	hydrostatic	
Service brake	wet, disc type, mechanically operated together or independently	
Parking brake	mechanical, hand actuated	
WHEELS & TREADS		
Front / rear wheels	7,5 - 16 / 16,9-34	12,4/11-24 / 16,9-34
Front / rear treads, mm	1500-1820 / 1515-2200	
HITCHES	swinging drawbar	
2-POST ROPS + SUNROOF	standard	
Equipment	rear worklamp, beacon warning light	
DIMENSIONS & WEIGHTS		
Length / Width / Height, mm	3893 / 1829 / 2640	3903 / 1829 / 2655
Wheelbase, mm	2290	2300
Ground clearance, mm	380	395
Weight without ballast weights, kg	2815	3115
Ballast weights, front - rear [opt.], kg	270 / -	280 / -
OPTIONS	standard safety cab, rear weights, 12F + 4R gearbox	





FRONT LOADERS

- ✓ easy loading and unloading of various materials
- ✓ fast and easy exchange of tools
- ✓ very useful in farm works
- ✓ **easy coupling and uncoupling of the loader**

Technical data

Nominal loading capacity, kg
Maximum loading capacity, kg
Lifting height, [A] m
Height of unloading, [B] m
Digging depth, [C] cm
Crowd, [D]°
Dump, [E]°
Crowd, [F]°
Dump, [G]°
Suitable tractor horsepower, HP

Floating function of control valves

Control valves used in TUR loaders have, as a standard the "FLOATING" function which is extremely useful while working in a contact with the ground (gathering up with the bucket, snow plough operation, etc.). On an uneven ground the "floating" function **protects the loader's** tools from damage.

Control valves with the sensor line

Tractors which have piston pumps with the variable oil delivery (CCLS system) are fitted with control valves equipped with the sensor line especially adapted to the tractor's hydraulics. If the sensor line signalizes the demand for oil, then the pump supplies oil equivalently to the needs of the loader. The innovative solution has two advantages: it allows to use quick- couplings of external hydraulics for other applications and significantly **reduces the energy** needed to drive the hydraulic pump [fuel].

In-line oil supply

The possibility of connecting the oil supply directly to the main oil gallery in new types of tractors provides the following advantages:

- increased comfort through faster and smoother movements of the loader,
- longer life of the oil pump,
- use of quick- couplings of external hydraulics for other applications without disconnecting the oil supply to the loader's control valve.



TUR2	TUR2A	TUR4M	TUR4F	TUR4	TUR6	TUR6A	TUR8
500	500	500	800	1200	1650	1650	1650
1000	1000	1000	1300	1500	2150	2150	2150
2,8	2,8	2,7	3	3,3	3,3	3,6	3,9
2,4	2,4	2,1	2,5	2,8	2,8	3,1	3,4
16	16	16	18	16	16	16	16
50	50	60	50	50	50	50	50
45	45	44	44	44	55	55	55
40	40	45	45	45	28	28	28
55	55	52	96	96	95	95	95
35-60	35-60	35-60	35-60	35-60	45-85	70-160	115-180



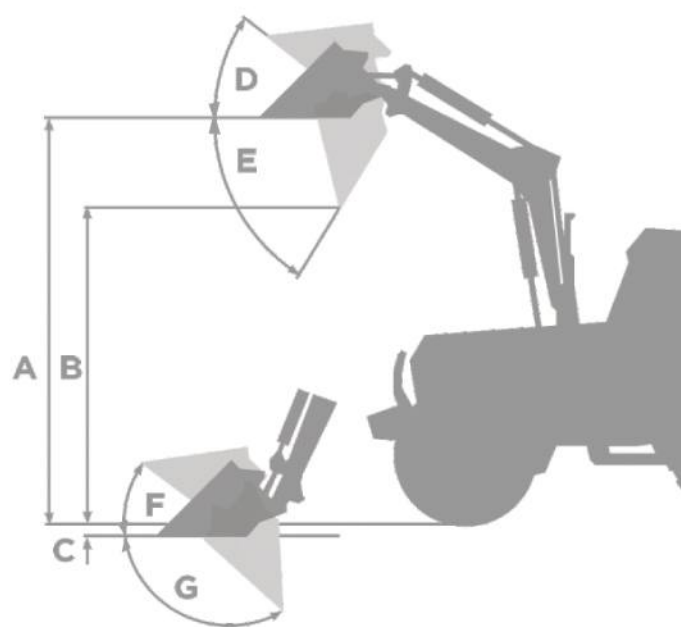
Shock absorbing system

It reduces the risk of damage during the transportation of sensitive materials, increases comfort and protects the front suspension of the tractor against overloading.



Joystick

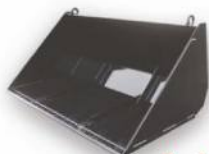
The electro-hydraulic set is operated by means of joystick installed in the most convenient and ergonomic place of the cab.



FRONT LOADER TOOLS

TUR 2, 2A, 4, 4M,
4F, 6, 6A, 8

	TUR2	TUR2A	TUR4/4F/4M	TUR6/6A	TUR8
Loose material bucket "I" 0.30 m ³ , width 1.1, 90 kg	✓	✓	✗	✗	✗
Loose material bucket "A" 0.46 m ³ , width 1.2 m, 175 kg	✗	✗	✓	✓	✓
Loose material bucket "A" 0.57 m ³ , width 1.5 m, 215 kg	✗	✗	✓	✓	✓
Loose material bucket "A" 0.69 m ³ , width 1.8 m, 260 kg	✗	✗	✓	✓	✓
Loose material bucket "A" 0.76 m ³ , width 2.0 m, 300 kg	✗	✗	✓	✓	✓
Loose material bucket "A" 0.83 m ³ , width 2.2 m, 320 kg	✗	✗	✗	✓	✓
Loose material bucket "A" 0.91 m ³ , width 2.4 m, 345 kg	✗	✗	✗	✓	✓
Grain bucket "F" 1.1 m ³ , width 1.8 m, 370 kg	✗	✗	✓	✓	✓
Grain bucket "F" 1.22 m ³ , width 2.0 m, 410 kg	✗	✗	✓	✓	✓
Grain bucket "F" 1.34 m ³ , width 2.2 m, 450 kg	✗	✗	✗	✓	✓
Grain bucket "F" 1.45 m ³ , width 2.4 m, 490 kg	✗	✗	✗	✓	✓
Potato bucket "P", 0.48 m ³ , width 1.1 m, 150 kg	✗	✓	✗	✗	✓
Potato bucket "P", 0.79 m ³ , width 1.8 m, 245 kg	✗	✗	✓	✓	✓
Potato bucket "P", 0.88 m ³ , width 2.0 m, 280 kg	✗	✗	✓	✓	✓
Potato bucket "P", 0.96 m ³ , width 2.2 m, 300 kg	✗	✗	✗	✓	✓
Loose material bucket "D" 1.94 m ³ , width 2.2 m, 580 kg	✗	✗	✗	✓	✓
Loose material bucket "D" 2.11 m ³ , width 2.4 m, 620 kg	✗	✗	✗	✓	✓
Loose material bucket "D" 1.45 m ³ , width 2.2 m, 540 kg	✗	✗	✗	✓	✓
Loose material bucket "D" 1.58 m ³ , width 2.4 m, 570 kg	✗	✗	✓	✓	✓
Loose material bucket "D" 2.06 m ³ , width 2.4 m, 940 kg	✗	✗	✗	✓	✓
Loose material bucket "D" 0.88 m ³ , width 2.0 m, 615 kg	✗	✗	✓	✓	✓
Loose material bucket "D" 0.97 m ³ , width 2.2 m, 60 kg	✗	✗	✓	✓	✓
Loose material bucket "A" 1.06 m ³ , width 2.4 m, 690 kg	✗	✗	✗	✓	✓
Earth bucket with teeth "H" 0.88 m ³ , width 2.0 m, 630 kg	✗	✗	✓	✓	✓
Earth bucket with teeth "H" 0.97 m ³ , width 2.2 m, 675 kg	✗	✗	✗	✓	✓
Earth bucket with teeth "H" 1.06 m ³ , width 2.4 m, 705 kg	✗	✗	✗	✓	✓
Loose material bucket "G" 0.95 m ³ , width 2.2 m, 465 kg	✗	✗	✗	✓	✓
Loose material bucket "L" 0.24 m ³ , width 1.5 m, 115 kg	✗	✓	✗	✗	✗
Bucket „K“ 2,0m 0,56 m ³	✗	✗	✓	✓	✓
Bucket „K“ 2,0m 0,56 m ³	✗	✗	✓	✓	✓
Bucket „LKP“ 1,8 m	✗	✗	✓	✓	✓
Bucket „O“ 2,0m 1,98 m ³	✗	✗	✗	✓	✓
Bucket „W“ 1,8m 1,2m ³	✗	✗	✗	✓	✓
Bucket „W“ 2,0m 1,35m ³	✗	✗	✗	✓	✓



Bucket E



Bucket LKP



Bucket H



Bucket D



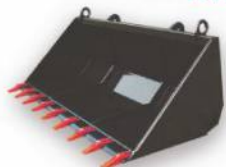
Bucket A



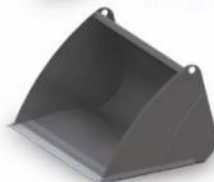
Bucket F



Bucket P



Bucket G



Bucket O



Bucket K



Bucket W

buckets for loaders

	TUR2	TUR2A	TUR4/4F/4M	TUR6/6A	TUR8
"Krokodyl"- type silage grab, 1-cylinder, 1.1 m	✗	✓	✗	✗	✗
"Krokodyl"- type silage grab, 1-cylinder, 1.4 m, 250 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab, 1-cylinder, 1.6 m, 290 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab, 2-cylinder, 1.6 m, 320 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab, 2-cylinder, 1.8 m, 350 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab, 2-cylinder, 2.0 m, 370 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab, 2-cylinder, 2.2 m, 410 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab, 2-cylinder, 2.4 m, 450 kg	✗	✗	✗	✓	✓
"Krokodyl"- type silage grab with bucket, 1.4 m, 1-cylinder 330 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab with bucket, 1.6 m, 1-cylinder 360 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab with bucket, 1.6 m, 2-cylinder 390 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab with bucket, 1.8 m, 2-cylinder 430 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab with bucket, 2.0 m, 2-cylinder 450 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab with bucket, 2.2 m, 2-cylinder 480 kg	✗	✗	✓	✓	✓
"Krokodyl"- type silage grab with bucket, 2.4 m, 2-cylinder 520 kg	✗	✗	✗	✓	✓
Grab for foil - wrapped silage bales, 1.0 m – 1.4 m, 170 kg	✗	✗	✓	✓	✓
Grab for foil - wrapped silage bales, 0.9 m – 1.8 m, 240 kg	✗	✗	✓	✓	✓

	TUR2	TUR2A	TUR4/4F/4M	TUR6/6A	TUR8
Adjustable pallet fork, 1600 kg, 145 kg	✗	✗	✓	✓	✓
Fork for manure and straw bales, width 1.1 m, 125 kg	✓	✓	✗	✗	✗
Fork for manure and straw bales, width 1.4 m, 140 kg	✗	✗	✓	✓	✓
Fork for manure and straw bales, width 1.6 m, 150 kg	✗	✗	✓	✓	✓
Fork for manure and straw bales, width 1.8 m, 160 kg	✗	✗	✓	✓	✓
Fork for manure and straw bales, width 2.0 m, 170 kg	✗	✗	✓	✓	✓
Fork for manure and straw bales, width 2.2 m, 180 kg	✗	✗	✗	✓	✓
Fork for manure and straw bales, width 2.4 m, 190 kg	✗	✗	✗	✓	✓
Tine for straw bales	✓	✓	✗	✗	✗
Tine for manure - new "Z"-type	✗	✗	✓	✓	✓
Tine for manure – TUR2, TUR2A	✓	✓	✗	✗	✗
Big-bag lifter	✗	✗	✓	✓	✓
Square bale fork	✗	✗	✓	✓	✓
Arm-mounted snow plough, 130 kg / 310 kg	✓	✓	✓	✓	✓

	TUR2	TUR2A	TUR4/4F/4M	TUR6/6A	TUR8
Multi-coupler	✗	✗	✓	✓	✓
Pallet forks WP16-U 1600 kg	✗	✗	✓	✓	✓
Fork for wood WP16-CH 1600 kg	✗	✗	✓	✓	✓



Big grab for silage bales



Small grab for silage bales



„Krokodyl” - type silage grab with bucket



„Krokodyl” - type silage grab



Manure and straw bales fork



Square bale fork



Pallet fork



Snow plough



Pallet fork



Fork for bale



Big Bag carrier

grabs, forks, snow plough

TABLES OF FRONT LOADER SELECTION

TUR 2,2A, 4, 4M, 4F, 6, 6A, 8

TUR 2/2A

MASSEY FERGUSON	235, 255, 2812, 3512
URSUS	C-330, C-360, C-360 3P, C-355
POWER TRACK	E-450, E-450 (nowy przód, wspomaganie)
ESCORT	E-335
WŁADYMIREC	T-25, T-30

TUR 4

URSUS	4512, 4514, 5312, 5314, 6012, 6014, 5714, 5024 (j), 6024 (j)
ZETOR	5945, 6245, 7011, 7045, 7211, 7245, 7711, 7745, 5211, 5245 (j) 3320, 3340, 4320, 4340, 5320, 5321 Super, 5340, 5341 Super, 6320, 6340, 7320, 7340, 7341 6421, 6441, 7421, 7441, 8421, 8441 Proxima, 7245, Proxima 85 Plus
SAME	ROLLER 55 W (j), 70 W (j), Dorado 66 Classic (j) ROLLER 50 DT, 60 DT, 70 DT (j)
LAMBORGHINI	LAMPO 50 DT, LAMPO 60 DT, LAMPO 70 DT(j) LAMPO 70 W, 55W, R2.66 Target (j), CRONO (j) R2.56 (j), R2.76 Target (j), R2. 86 Target (j)
DEUTZ FAHR	Agroplus 77 DT (j), 87 DT (j), 87 ITV DT (j) Agroplus 70 (j), 80 (j), 67 (j), 60 (j)
LANDINI	REX 70 DT (j), REX 85 F (j)
NEW HOLLAND	TD 60 D (j), TD 70 D (j), 7056 Bis *** (j), 7056 *** (j), TL 80 (j), 5556 Bis *** (j), TD 5010 (j), TD 5020 TIER III (EURO III) (j)
FARMTRAC	70 (j), 70 4 WD, 665 (j), 80 (j), 675 DT (j). 670 DT
JOHN DEERE****	5310, 5410 (j), 5515 (j)
POL-MOT	FOTON 824 (j), FOTON 904 (j)
CASE	JX 60 (j), JX 70 (j), 65C Quantum (j) JX 60 (j), JX 70 TIER III (EURO III) (j)
URSUS	8014 H (j)
KUBOTA	M6040 (j), M7040 HS (j)

TUR 4F

SONALIKA	DI 60 (j)
FARMTRAC	555DT (j), 545DT (j)
KUBOTA	ME 5700 (j)
POL- MOT	FOTON 604 (j), 704 (j)

TUR 4M

DONG FENG	DF 504 (j)
NEW HOLLAND	TT 65 (j)

TUR 6

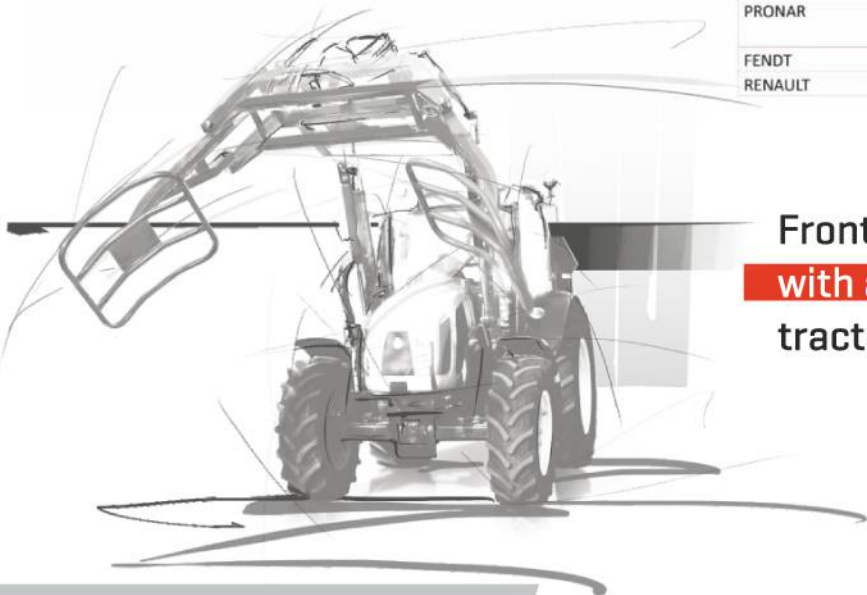
URSUS	7524, 5524, C-385, C-385A, 902, 904, 914, 932 (j), 934 (j), 1012, 1014, 1032 (j), 1034 (j), 1132(j), 1134 (j), 1044 (j)
ZETOR	8045, 8145, 8011, 8245, 9540 (j), 10540 (j), 8540 (j)
BIALORUS	920, 820
PRONAR MTZ	80, 80A, 82A, 82 TS (j), 82 TSA (j), 82 SA (j), BX 205
NEW HOLLAND	TD 80 D (j), TD 85 D (j), TD 90 D (j), TD 95 D (j), TD 95 D (j) Plus, TL 90, TL 100, TL 90 A, TL 100A, T 5060 (j) , T 5050 (j), T 5030 (j), TD 5050 (j), TD 5040 (j), 80-66 S ***, TD 5030 TIER III (EURO III) (j), T 4050 DE LUXE
LAMBORGHINI	GRAND PRIX 70 (j), 80(j), 90 (j), 95 (j), LS 774-80 (j), GRAND PRIX 95 TARGET (j), PREMIUM 950 (j), PREMIUM 1050 (j) R4.95 DT, R4.110 DT (j)*
SAME	SILVER 100.4 (j), SILVER R4.110 (i), EXPLORER 90 (j), LASER 90 (j)
KUBOTA	ME 9000 (j), 8200 (j), M9540 (j)
LANDINI	GHIBLI DT 100 (j), MYTHOS DT 90 (j), DT 100 (j)
JOHN DEERE ****	6010 (j), 6210 (j), 6310 (j), 6410 (j), 6100, 6200, 6300, 6400, 6120 5070M, 5080M, 5090M, 5100M, 5620, 5720, 5820, 6120, 6220, 6230 Basic, 6420, 5080R, 5090R, 5100R, 6320, 6420, 3400
CASE	CS 94 (j), JX 100 U (j), JX 80 (j), JX 1100U, JX 1070U, JX 1080U, JX1090U, JXU 105, JXU 75, JXU 85, JXU 95, JX 95 (j), JX 90, JX 80 TIER III (EURO III) (j), JX 85 C Quantum (j)
MC CORMICK	CX 90 (j), CX 100 (j)
FARMER	8244 C2 (j)
DEUTZ FAHR	AGROTRON 100 (j), AGROTRON K 100 (j), K420, AGROPLUS 100 (j) AGROPLUS 95, DX 4.30 , DX 4.7
VALTRA	A95 - 4 (j), A85 (j), A92
FORD	7740
MASSEY FERGUSON	375, 390, 3065 S
URSUS	9014 H,
FARMTRAC	685 DT

TUR 6A

MASSEY FERGUSON	3080 (j), 3060, 4455, 3115
NEW HOLLAND	TS 110 A (j), TS 100 A (j), T6010 Plus (j), T6010 Delta (j) T6020 Plus (j), T6020 Delta (j), T6020 Elite
CASE	110 Maxxum, 120 Maxxum, 130 Maxxum CS95 PRO, CS85 PRO, CS105 PRO
JOHN DEERE ****	5620, 5720, 5820, 6120, 6220, 6320, 6420 (j)
PRONAR MTZ	1025 (j), 1025 A II (j),
FENDT	310 LSA FARMER (j)
LAMBORGHINI	R3 EVO 85 DT, 100 DT
DEUTZ FAHR	AGROFARM 85, 95 DT, 100 DT (j), 410, 420 DT, 430 DT
SAME	EXPLORER R3 85, 100 (j)
URSUS	10014 H, 11024
VALTRA	N82, N92,
RENAULT	355X Ceres
CLAAS	Axos 320
ZETOR	9641 Forterra (j), 10641 Forterra (j), 11441, Forterra (j) 9641, 10541, 10641

TUR 8

URSUS	1201, 1204, 1212, 1214, 1222, 1224, 1232 (j), 1614 1634 (j) nowa maska **, 1234, 1434 (j), 1634 (j), 1734 (j)
ZETOR	16245, 11741 Forterra (j), 12045, 12111, 12145, 12245
NEW HOLLAND	85-60 (j), TM 120, TM 125 (j), TM 130 (j), TM 135 (j), TM 140 (j), TM 155 (j), TM 165 (j), 110-90 (j), TS 115 A DELTA (j), TS 135 A PLUS (j), T6050 Plus (j), T6050 RC (j), T6070, T6070 Plus, T6030 Delta *
CASE	115 Maxxum, 125 X Line Maxxum (j), MXU 135 Pro, 140 Maxxum (j), CS 150 (j) 5130 (j)
FORTSCHRITT	ZT 323 A/M, ZT 303 A/M ***
JOHN DEERE ****	3650 (j), 3050 (j), 6610 (j), 6710 (j), 6810 (j), 6910 (j), 6600, 6700, 6800 (j), 6520 (j), 6620 (j), 6720 (j), 6820 (j), 6920, 3140
LANDINI	LEGEND DT 105 (j), DT 130 (j), DT 145 (j), LEGEND DT 120 (j)
SAME	LASER 150, SILVER 130, SILVER 100.5, 100.6, 105
LAMBORGHINI	PREMIUM 1060 (j), R4.105 (j), PREMIUM 1300 (j), R5.115 (j), R5.130 (j), R6.110 (j)
MASSEY FERGUSON	6290 (j), 3115, 5465 (j)
VALTRA	N 91 (j), N 101(j), N 111(j), 6200 (j), 6400, T 140 - 4 (j), T 140 - 4 (j) *
DEUTZ FAHR	AGROTRON K 110, AGROTRON 105 MK3 (j),
PRONAR	118 (j), AGROTRON 130, DX 90 1221 A II (j), 1221 A (j), 1221 A (j) TUZ
FENDT	311 LSA FARMER, 312 LSA FARMER (j), 612
RENAULT	610 ARES (j)

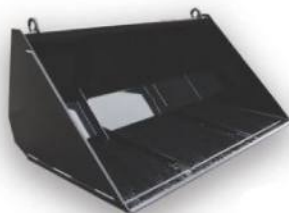


Front Loaders TUR can be fitted
with all types of agricultural
tractors

TELESCOPIC AND FRAME LOADER TOOLS



Bucked D



Bucked E



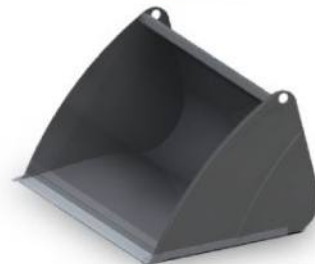
Bucked F



Bucked J



Bucked G



Bucked D



Grab for bales



Bucked H



Bucked O

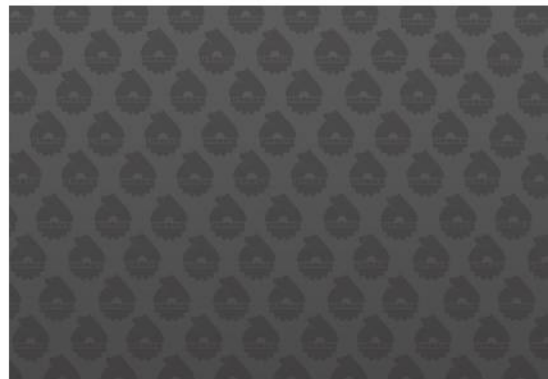
Tools for telescopic and frame loaders up to 3.5 t of loading capacity

GRAB FOR BALES	size [m]	weight [kg]	
Grab for foil wrapped bales	0,9 - 1,8	240	

BUCKETS WITH ROUND BOTTOM FOR LOADERS	size [m]	weight [kg]	capacity [m ³]
Bucket "J"	2,4	940	2,06
Bucket "H"	2,0	615	0,88
Bucket "H"	2,2	660	0,97
Bucket "H"	2,4	690	1,06

GRABS FOR LOADERS	size [m]	weight [kg]	capacity [m ³]
"Krokodyl"-type grab, 2 cylinders	1,8	500	1,35
"Krokodyl"-type grab, 2 cylinders	2,0	560	1,50
"Krokodyl"-type grab, 2 cylinders	2,2	610	1,65
"Krokodyl"-type grab, 2 cylinders	2,4	670	1,80
"Krokodyl"-type grab with bucket, 2 cylinders	1,8	530	1,44
"Krokodyl"-type grab with bucket, 2 cylinders	2,0	610	1,60
"Krokodyl"-type grab with bucket, 2 cylinders	2,2	690	1,76
"Krokodyl"-type grab with bucket, 2 cylinders	2,4	770	1,92
"Krokodyl"-type grab with scrap bucket, 2 cylinders	1,8	830	1,62
"Krokodyl"-type grab with scrap bucket, 2 cylinders	2,1	950	1,89

BUCKETS WITH STRAIGHT BOTTOM FOR LOADERS	size [m]	weight [kg]	capacity [m ³]
Bucket "D"	1.8	500	1.58
Bucket "D"	2.0	540	1.76
Bucket "D"	2.2	580	1.93
Bucket "D"	2.4	650	2.11
Bucket "E"	1.8	500	1.18
Bucket "E"	2.0	520	1.32
Bucket "E"	2.2	540	1.45
Bucket "E"	2.4	560	1.58
Bucket "F"	1.8	830	1.62
Bucket "F"	2.1	950	1.89
Bucket "G"	1.8	335	0.77
Bucket "G"	2.0	380	0.86
Bucket "G"	2.2	425	0.94
Bucket "G"	2.4	465	1.03



"Krokodyl" - type grab



"Krokodyl" -
type grab with bucket

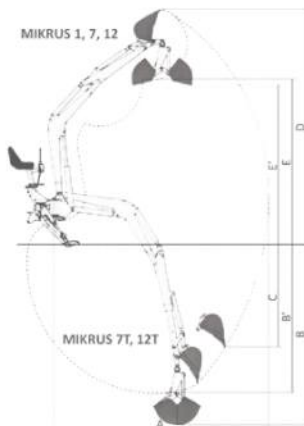


"Krokodyl" - type grab
with scrap bucket

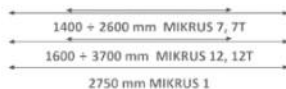
MIKRUS

- safe and easy operation
- robust and reliable design
- wide spectrum of options
- easily exchangeable tools
- hydraulic supports enabling stable positioning on uneven ground

	1	7	7T	12	12T
Maximum digging reach [A], mm	3835	4100	4580	4600	5235
Maximum digging depth with grab [B/B1], mm	1800	3050/2350	3590/2890	3550/2850	4200/3550
Maximum vertical digging depth [C], mm	1500	1700	2150	1900	2600
Maximum digging depth [D], mm	4175	4455	4720	4950	5320
Maximum unloading height [E/E1], mm	2750	3225/2870	3510/3250	3590/3240	3959/3610
Turning angle	180°				
Bucket cutting force, kg	1300	1960		2800	
Arm cutting force, kg	800	1120	1180-870	1670	1790-1050
Maximum lift capacity, kg	350	600	630-450	765	780-550
Working pressure, bar	160				
Oil pump output at 430-450 rpm of PTO, l/min	23	min. 34		min. 45	
Weight with standard bucket, kg	350	690	740	850	920
Min. tractor horsepower, kW/HP	22/30	30/40		44/60	



Hydraulically lowered supports with a span change mechanism



MIKRUS-series of back-hoe loaders are mounted on a three-point linkage of a tractor. They are intended for various loading and unloading operations, transport of loose and volumetric materials, as well as for carrying out various earthworks on farms.

Since there are many types of this machine and various tools, the machine can be fitted with the needed tool easily.



back-hoe loaders

MIKRUS 1, 7, 7T, 12, 12T

/ T-214 CYKLOP

Type of loader	grab type
Minimum tractor horsepower, kW/HP	35/48
Pump efficiency at 430/450, PTO rpm l/min	40
Pressure in hydraulic system, MPa	10
Supports	mechanical lowering with track of 2300 mm in the working position
Maximum lifting capacity:	
- at the end of boom [with the bucket weight], N[kg]	4900 [500]
Bucket weight, kg	150
Bucket capacity, dm ³	
- loose materials	240
- manure	370
Turning angle of boom in the horizontal plane	270°
Maximum lifting height with bucket for loose materials, mm	4000
Maximum reach with bucket for loose materials, mm	4750
Minimum reach with bucket for loose materials, mm	2430
Maximum lowering depth with bucket for loose materials, mm	1260
Overall dimensions:	
- height [with boom lowered], mm	2210
- length [with boom in horizontal position], mm	7500
- width, mm	2333
Loader weight [with empty counterweight tank], kg	1690
Counterweight weight, kg	750
Driving speed, km/h	up to 15

/ T-214 CYKLOP

- / reliable
- / safe and easy in operation

/ SNOW PLOUGH

see page 46



Cyklop grab type loader is intended for loading and unloading materials like sand, gravel, mineral fertilizers, lime and manure. Buckets for loose materials and manure are standard equipment.



/ trailed grab type loader

Z-554 RAKE

- / removable finger arms**
- / 4 - wheel tandem suspension**
- / high output and low tractor power demand**
- / three-point jointed rack**
- / flexible swath apron**
- / reliable and durable gearbox**

Number of working rotors	1
Number of rotor arms	9
Number of raking fingers on each arm	4
Working width, m	3.5
Overall dimensions in working position:	
total length x maximal width x height, m	3,3 x 3,6 x 1,3
Overall dimensions in transport position:	
total length x maximal width x height, m	2,5 x 1,5 x 2
Weight, kg	400
Height adjustment	yes
PTO speed, rpm	540
Min. tractor horsepower, kW/HP	15 / 20

The rake is designed for raking **freshly mown**, semi-dry and dry grass and other green fodder (lucerne, clover, cereals mixed with leguminous plants) into lengthwise windrows, prepared for gathering with the use of swath pickers, balers or forage harvesters.

The Z-554 rotary rake can be used on soft land (**arable land, meadows**), on flat land as well as on even hilly ground up to 12% of slope.



Z-543

Z-594

Dimensions:

length x width x height, mm	3535 x 2450 x 2100	3815 x 2450 x 2200
Weight, kg	2090	2770
Transport speed, km/h	20	
Bale dimensions, mm	1200 x 1200	
Weight of straw bale, kg	100 - 170	
Weight of hay bale, kg	150 - 270	
Weight of green fodder bale, kg	300 - 1000	
Output: num. of bales per hour.	20 - 35	
PTO speed, rpm	540	
Min. tractor horsepower, kW/HP	35 / 48	60 / 82
Wheel track, mm	2100	
Tire size	400/60 15,5 14PR	
Load on tractor hitch, kN/kg	3,7 [380]	4,3 [450]
Pick-up working width, mm	1900	
Options	net wrapping mechanism, central chain, lubrication system	-

jointed telescopic shaft

ROUND BALERS

- proven and simple design
- high efficiency and degree of compaction
- uniformly cut material [Z-594]
- production of high quality silage
- failure-free operation in the harsh conditions

The Z-543 and Z-594 round balers are intended for baling straw material [up to 25% moisture] from 1900 mm wide windrows and dry off green fodder [up to 40-60% moisture] intended for hay silage. The material is rolled into bales of 1200 mm diameter. Unlike Z-543 baler, the Z-594 model has a rotor with cutting system [14-knives], ensuring uniform ensilage and better digestion quality of the feed. Bales made by Z-543 baler are bound with string as standard; optionally they can be bound with a net. Z-594 baler is provided with a net binding system only. Both balers are equipped with acoustic and light indicators signaling filling up of a chamber. The round balers are fully suited for road transport.



chainslats round balers

for straw materials and green fodder



rollers and chainslats round balers

for green fodder and straw materials

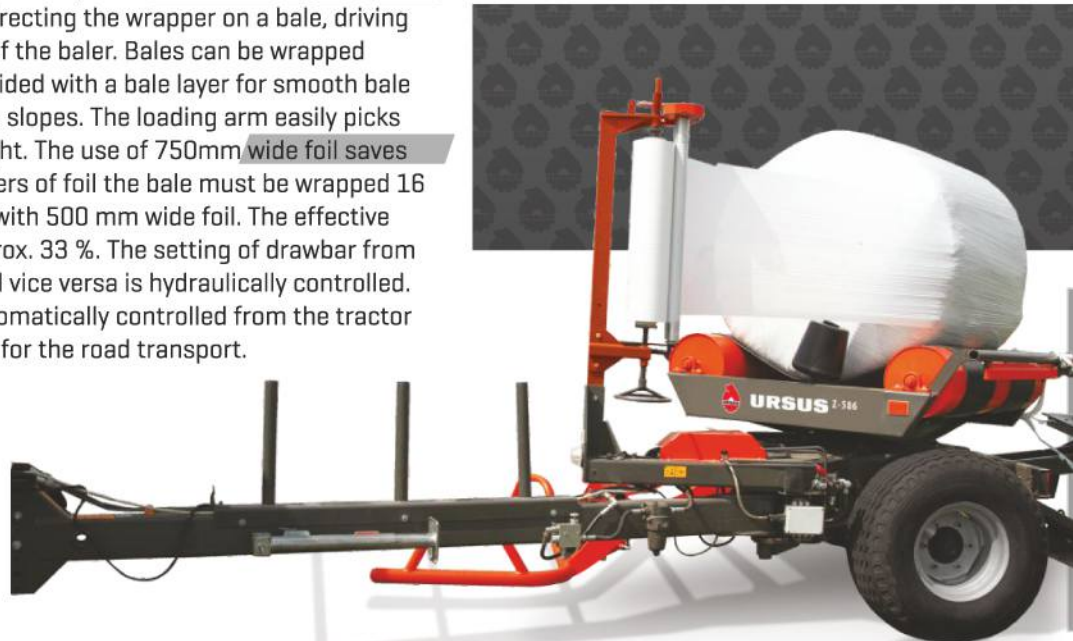
Technical data

Z-586 BALE WRAPPING MACHINE

- / front bale loading system**
- / bale wrapping while driving**
- / the wrapper follows the round baler**
- / 750mm wide foil saves the wrapping time**
- / bale layer mounted as a standard solution**

The Z-586 bale wrapper is a modern, trailed machine which helps to use the work time to the very maximum by using a front bale loading system while following the baler. The machine operator is not wasting time on maneuvering the whole set, directing the wrapper on a bale, driving perpendicularly to the direction of the baler. Bales can be wrapped on the move. The wrapper is provided with a bale layer for smooth bale discharge, allowing to operate on slopes. The loading arm easily picks up bales of up to 1000 kg of weight. The use of 750mm wide foil saves the wrapping time; to apply 4 layers of foil the bale must be wrapped 16 times only and not 24 times like with 500 mm wide foil. The effective wrapping time is reduced by approx. 33 %. The setting of drawbar from working to transport position and vice versa is hydraulically controlled. All the wrapper functions are automatically controlled from the tractor cabin. The wrapper is fully suited for the road transport.

Wrapping machine drive	hydraulic motor
Min. tractor horsepower, kW/HP	35 / 48
Diameter of wrapped bales, mm	up to 1500
Max. bale width, mm	1200
Max. bale weight, kg	1000
Overall dimensions:	
length x width x height, mm	4300 x 2200 x 1430
Weight, kg	1200
Foil width, mm	500, 750
Wrapping counter	electronic
Tyre size	11.5/80- 15,3
Option	400/60-15,5 tyres


Max. bale weight - 1000kg

Weight, kg	620	Max. height of ensilage heap, cm	140
Length, mm	1700	Block volume, m. ³	0,8
Working width, mm	1930	Max. weight of block, kg	1000
Height, mm	1750	Machine weight, kg	410
Min, tractor horsepower, kW/KM	15-20/20-27	Length/width/height, m	1,22/1,52/0,90

H920 BALE UNWINDING MACHINE

- hydraulic loading
- uniform discharge along the feeding passage
- accelerates the process of feeding

T385/1 SILAGE BLOCKCUTTER

- the ability to store silage blocks on the feeding passage even for a few days
- simultaneous feeding of several types of silage
- the possibility of individual dispensing of the feed both in quantity and kind

Round bale unwinding machine is intended for unwinding bales of straw and hay, as well as silage bales wrapped in foil, directly in the feeding passage or other places appropriated for the purpose.

The machine is of mounted type. It has a hydraulically controlled loading arm for easy loading of a bale on to the machine. The bale is discharged on to a slat conveyor. Correctly selected speed guarantees uniform unloading along the whole length of the feeding passage. The machine needs one operator only. The use of H-920 round bale unwinding machines in modern breeding farms considerably accelerates and facilitates the feeding process.

T385 series silage blockcutters are intended for cutting any type of silage blocks from heap silos and transporting the blocks into cowsheds.

The machines are mounted directly on the tractor three point hitch or on a front loader and the external hydraulic system should be equipped with two quick-couplings.



max. height of ensilage heap-140 cm

T-127 SELF-LOADING BALE TRAILER

- / proven and durable design**
- / loading and unloading control from the tractor cab**

Load capacity, kg	3600, 8 bales
Weight, kg	2620
Minimum tractor horsepower, kW/HP	50/68
Loading area, m ²	12,4
Overall dimensions:	
length x width x height, mm	6355 x 2550 x 2985
Internal dimensions of the load carrying body:	
length x width, mm	5100 x 2435
Bale dimensions:	
- diameter, mm	1200-1750
- length, mm	1200
Maximum bale weight, kg	1200
Tyre size	400/60-15.5 14PR
Unloading	backwards by 91°
Travelling speed, km/h	25
Load on the tractor hitch, kN [kg]	13,15 [1340]

The T-127 bale trailer is intended for loading, transporting and unloading [stacking] bales of hay and straw. The operation of the machine is fully automatic. The tractor operator controls the machine by means of control unit located in the cab. The bale trailer is intended for use with tractors having external hydraulics pump capacity of at least 35 l/min and equipped with lower transport hitch.



loading capacity - 8 bales

Load capacity, t	7	Number of working rotors,	1
Weight, kg	1890	Number of knives	6
Overall dimensions with folded lades:		Working width, m..	1,8
length x width x height, mm	8980 X 2440 x 1900	Total width, m..	1,93
Overall dimensions with unfolded lades:		Height adjustment	Yes
length x width x height, mm	8980 X 3090 X 1900	PTO speed, rpm	540
Wheel track, mm	1825	Min. tractor power kW/HP	45/61
Wheelbase, mm	4455		
Height of platform above the ground, mm	1060		
Loading area, m ²	15,3		
Travelling speed, km/h	25		
Tire size	400/60-15,5 14 PR		
Min. tractor horsepower, kW/HP	35/48		

T-665 PLATFORM

- with folded side lades [22 bales of straw arranged into two rows]
- with unfolded side lades [33 bales of straw arranged into three rows] for off-highway use only.

KROZ/1 MOWER-SHREDDER

- movable knives, retreating in contact with hard objects;
- skids allowing to adjust the height of cutting in 4 positions



It has a compact and durable design. Above all, it is intended for transporting straw bales: with the folded side lades – 22 straw bales in two rows, with unfolded side lades – 33 straw bales in three rows – only beyond public roads.

The mower-shredder is intended for mowing and shredding wastelands, mowing uneaten grass on pastures, maintaining interrows in orchards, shredding post-harvest residuals, initial preparation of soil for crops and other similar jobs. The mower-shredder is three-point hitch mounted and it is powered by 540 rpm PTO.

loading capacity, 7t

working width - 1,8 m

/ MANURE SPREADERS

- / perfect for small and medium farms
- / vertical adapter considerably reduces the number of runs
- / excellent **shredding of spread material**

Type of axle
Load capacity, t
Loading capacity with/without extensions, m ³
Loading area, m ²
Adapter
Spreading width, m
Type of floor conveyor
Tyre size
Wheel track, mm
Braking system
Overall dimensions:
length x width x height, mm
Internal dimensions of body:
length x width x height, mm
Spreader/ adapter weight, kg
Travel speed, km/h
Min. tractor horsepower, kW/HP
Load on tractor hitch, kN/kg
Options



The N-218 and N-228 spreaders are intended to spreading manure, peat and compost. After removing the adapter and installing the rear side they can also be used to transport agricultural produce. They cooperate with tractors equipped with lower transport hitch. They are produced in version with horizontal two-drum adapter. The N-218 spreader is also available with vertical four-drum adapter. This version is marked "P". Floor conveyor drive of both machines is mechanical and in case of N-218 it can also be hydraulic. Spreaders N-218 and N-228 are fully adapted to the transport on public roads - they have pneumatic braking and lighting system.

single	rigid tandem
4,5	6
4/-	4,68/ 7,56
6,67	7,8
horizontal, two-drum, paddle type	
2, 2	
two-chain with mechanical drive	four-chain with mechanical drive
400/60-1 5,5 14 PR	
1500	
pneumatic, double-line	
5640 x 2055 x 2770	5850x2310x3070
3890 x 1740 x 600	3890 x 1990 x [600 + 400 extension sides]
1560/125	2000/130
	25
35 / 48	45 / 60
9,4 [960]	12 [1230]
horizontal, two-drum worm-type adapter,	hydraulically controlled end gate, vertical, four-drum, worm-type adapter with a spreading width of 5.5 + 6 m. [N-218P], hydraulically driven floor conveyor, horizontal, two-drum worm-type adapter, 1000 mm extension sides
hydraulic brakes	



horizontal, two - drum adapter



vertical, four - drum adapter

MANURE SPREADERS

- / light and reliable design
- / considerably increased service life of wooden sides and floor
- / good shredding of spread material
- / speed of fed material controlled from tractor's cab
- / **quiet operation - eco-friendly**

Load capacity, t
Weight with adapter, kg
Adapter weight, kg
Loading area, m ²
Capacity, m ³
Type of conveyor
Adapter
Spreading width, m
Internal dimensions of body: length x width x height, mm
Overall dimensions: length x width x height, mm
Load on tractor hitch, kN/kg
Wheel track, mm
Tyre size
Braking system
Speed, km/h
Min. tractor horsepower kW/HP
Options:

The N-266 and N-270 manure spreaders are intended for spreading manure, peat and compost. After removing the adapter they can also be used for transport of green forage and agricultural produce. They are designed to be combined with tractors, equipped with the lower transport hitch. They are equipped with a vertical four-drum adapter and a hydraulically driven floor conveyor. Their **innovative wooden design of the sides and floor** is almost twice durable as compared to the metal body. Wooden elements are protected in a natural way by the action of organic compounds contained in manure. The next advantage of using wood is their **quiet operation** positively affecting the environment and work comfort. Spreaders are also much lighter than their metal competitors of the same capacity and therefore they affect positively the tractor fuel consumption. The application of wide tyres considerably improves their driveability. The N-266 and N-270 spreaders are fully adapted to road transport. They have pneumatic braking, lighting system and the adapter cover.

/ N-266

/ N-270

8		14
3300		6300
590		780
7.1		12.4
9.2		15.5
four-chain with hydraulic drive vertical, four-drum, worm type 5-6		
3850x1990x1200		5800x2140x1250
6050x2380x2750 12,7 [1300]		8050x2480x3420 29,4 [3000]
1600		
50/50 R17(option 400/60 15,5 14PR)		19,5 R22,5 [option 600/50 R22,5]
pneumatic, double- line acting on all wheels		
30		40
66/90		110 / 150
hydraulic brakes		



loading capacity of 8 t

loading capacity of 14 t

MANURE SPREADING

- / high efficiency and spreading width
- good shredding** of spread material
- / rate of feed controlled from tractor's cab
- / good traction properties in various terrain conditions

Type of axle	rigid tandem
Load capacity, t	13
Capacity, m ³	12,4
Loading area, m ²	9,9
Adapter	vertical, four-drum, worm-type
Spreading width, m	5,5-6
Type of floor conveyor	four-chain with hydraulic drive
Tyre size	385/65x22,5 15PR
Wheel track, mm	1800
Braking system	pneumatic, double-line, acting on all wheels
Overall dimensions:	
length x width x height, mm	7170 x 2325 x 3100
Internal dimensions of body: length x width x height, mm	4950 x 2005 x 1250
Spreader/adapter weight, kg	4490/740
Driving speed, km/h	25
Min. tractor horsepower, kW/HP	96/130
Load on tractor hitch, kN [kg]	23,35 [2370]
Options:	tyres 500/45x22,5 hydraulic brakes

The N-229, N265 and 265A spreaders are intended for spreading manure, peat and compost. The N-265/A is a meadow-type of the N-265 spreader on a single axle. After removing the adapter they can also be used for transport of green forage and agricultural produce. They are designed to be combined with tractor equipped with a lower transport hitch. They have a vertical, four-drum worm type adapter (N-229) and vertical, two-drum worm adapter (N-265). If requested, N-265 spreaders can be equipped with a disc adapter with a horizontal two-drum worm-type feeding unit. The floor conveyors drives are hydraulic. The N229 and N265 spreaders are fully adapted to road transport. They are equipped with a pneumatic braking and lighting system. The advantage of the N-265 spreader in a version with one axle is that it can be driven more easily on marshy areas. It is also more stable on uneven areas owing to large diameter and wide wheels.



loading capacity of 13 t

rigid tandem

single

10

13,8

8,4

vertical, two-drum worm-type

8-9

four-chain with hydraulic drive

19,0/45xR17

23,1 - R26

1720

2250

pneumatic, double-line, acting on all wheels

8100x2380x2900

8100x2850x3000

5600x1520x1410

5600x1520x1410

4000/570

30

81/110

74/100

25,5 [2600]

27,0 [2750]

disc-type adapter

hydraulic brakes

The disc adapter with a horizontal two-drum worm-type feeding unit for spreading manure, sludge, compost and peat within a width of 8-16 m



loading capacity of 10 t



loading capacity of 10 t

N-072 MINERAL FERTILISER SPREADER

- / modular design**
- / corrosion-resistant material**
- / very good uniformity of spreading**
- / hydraulic control of metering ports**
- / jack as option**

Hopper capacity / with hopper extension, l	750/1300
Tractor PTO speed, rpm	540
Spreading width, m	10-24
Metering ports control	hydraulic
Number of spreading discs	2
Number of vanes on the disc	2
Spreading dose, kg/ha	50-800
Driving speed, km/h	25
Working speed, km/h	6-12
Length, m	1,2
Width, m	2,0
Height, m	1,0
Spreader weight / with extension	250/285
Min. tractor power without extension, kW/HP	45/62
Min. tractor power with extension, kW/HP	60/82



The N-072 two-disc spreader is intended for spreading fertilisers. Its module-type design makes its maintenance and servicing very easy. The hopper capacity enables to load fertiliser from 500 kg or 1000 kg big-bags [1300 l hopper with extension]. This allows fertiliser to be rationally used on large and small farms. The most exposed to corrosion parts and points of the fertiliser are made of **rust-resistant material**, i.e. the part of the hopper close to the mixer [where fertiliser moves intensively], spreading discs, spreading vanes and connecting bolts, nuts etc. The use of many plastic elements at the junction of painted elements protects the coating against losing tightness and rust. The highly resistant coating formed by chemically resistant two-element paint also provides a **long life**. Dosing slots located within the vicinity of spreading disc axes and the optimal speed of discs ensure a very good uniformity of spreading and protect fertiliser granules against damage. The precise spreading dose is set by means of adjustable cover plate and appropriately shaped dosing slot. The adjustment of spreading width is performed by changing the angle of vanes with respect to the spreading disc.

T-542 SLURRY TANKER

- self-supporting design
- large inspection manhole
- large tank diameter
- three gate-valves as a standard
- large hose diameter

Tank capacity, l	8000	10000 tandem	10000 single axle
Tank type		steel, galvanised	
Tank sheet metal thickness, mm		5	
Bottom diameter, mm		1600	
Tank filling level indicator		3 inspection holes	
Siphon valve protecting the compressor from medium suction		yes	
Tank placed on the welded frame		yes	
Fixtures with the diameter of 6" – 3 stub pipes:		yes	
1 on the left with the mechanical gate-valve		yes	
1 on the right with the mechanical gate-valve		yes	
1 at the back with the hydraulically operated gate-valve		yes	
Manhole		with a diameter of 800 mm in the rear bottom	
Safety valves		pressure and vacuum relieve valves	
Battioni Pagani Pompe S.p.A compressor.	MEC650MLF	MEC900MLF	
Axle type	rigid	sprung	rigid
Road wheel track, mm		2000	
Load on tractor hitch, kN/kg	13,7[1400]	24,5[2500]	24,5[2500]
Min. tractor horsepower, kW/HP	60/82	66/90	
Driving speed, km/h	30	40	30

The slurry tankers are intended for emptying tanks with manure, transporting them and pouring the manure out at sites indicated for this purpose.

There is a possibility of using tankers for irrigation, [non-potable] water transport, yard cleaning, and at construction sites. The

self-supporting frame significantly increases the strength of tankers. Three connections ensure safe and ergonomic operation of the tanker. As a standard, the tankers are provided with 3 stub pipes: two lateral pipes– on the left and on the right, with mounted brass gate- valves opened manually and one rear stub pipe– with the mounted brazen gate- valve opened hydraulically and the spilling spoon. The vacuum pumps manufactured by Battioni Pagani give a guarantee of durability and reliability. **The anti-corrosion protection** allows the operation for many years. The tank made of sheet metal with a thickness of 5 mm is hot- dip galvanised inside and outside. The valves providing

protection against over- pressure and under- pressure make the barrel resistant to damage caused by exceeding the nominal pressure. The three inspection holes enable the full tank filling control. Bulkhead walls have been applied inside [2 for the 10000 l tanker and 1 for 8000 l tanker], protecting the liquids from overflowing, especially during the sudden braking process, as well as while travelling on an uneven surface with the tank not filled completely. This makes that negative phenomenon of drum swinging and unnecessary loads on tractor hitch are reduced or even eliminated.



capacity of up to 10 000 l

/ TRAILERS

- / light reliable design
- / spring suspended system
- / speed of up to 40 km/h
- / possibility of coupling additional double-axle trailer
- / **central opening and closing of sides**
- / width to fit two europalettes [T-610/A1 and T-670/A1]

Load capacity, t
Trailer weight, kg
Min. tractor horsepower, kW/HP
Platform area, m ²
Capacity of the main load-carrying body, m ³
Capacity of the body with extension sides, m ³
Overall dimensions without extension sides: length x width x height, mm
Internal dimensions of the load-carrying body: length x width x height, mm
Tire size
Braking system
Unloading system
Body type
Driving speed, km/h
Standard equipment
Options



The T-610, T-610/A1 and T-670/A1 and T-675 double-axle agricultural trailers are intended for transporting agricultural produce. Sideboards and backside with centrally controlled opening/closing system ensure quick unloading. Adjustable gate in the backside makes it possible to control the flow of loose materials. The trailers are characterised by high leak-proofness, which enables the transport of loose materials, e.g. rape, etc. The loading box of T-610/A1, T-670/A1, T-675 and T675/A1 trailers is 2,41 m. allowing them to be successfully used for transport of euro-pallets. The trailers are provided with the rear hitch and couplings for attaching the second trailer. Upon request, they can be provided with a frame and canvas. The trailers are fully adapted to use on public roads with the speed of 40 km/h. Their solid design guarantees failure-free operation for many years.

/ double - axle, dropside trailers

/ T-610

/ T-610/A1

/ T-670 /A1

/ T-675/A1

6	8	10	13
2350	2760	3600	5000
35/48	35/48	35/48	50/68
8,46	9,64	10,67	12,30
4,25	4,82	6,40	9,8
8,46	9,64	12,81	17,2
6040X 2300 X 2070	5930 X 2290X 2190	6550 X 2550 X 2540	7150 X 2550 X 2880
4000 x 2120 x [500+500] 11.5/80-15,3 12 PR	4000 x 2410 x [500+500] 14/65 -16 PR 14	4430 x 2410 x [800+400] 385/65 R 22,5	5100 X 2410 X [800+600] 385/65 R22,5
pneumatic, double-line			
three-sided			
dropside			
40			
canvas with mounting frame			spare wheel bracket, balcony
400/60 -15.5 14 PR spare wheel with bracket, 800 mm open-work extension sides for bulk materials			spare wheel
hydraulic brakes			
			800+400 side extensions for 12t load capacity



/ loading capacity of up to 13,5 t

TRAILERS

- / functional design**
- / light, robust and safe**
- / improves traction properties of a tractor**

Load capacity, t	3,5
Trailer weight, kg	1230
Min. tractor horsepower, kW/HP	35/48
Platform area, m ²	6,39
Capacity of the main load-carrying body, m ³	3,2
Capacity of the body with extension sides, m ³	5,1
Overall dimensions without extension sides:	
length x width x height, mm	4480 x 2235 x 1445
Internal dimensions of the load-carrying body:	
length x width x height, mm	3110x2055x500
Height with extension sides, mm	800
Tire size	11,5/80-15,3 12PR
Braking system	pneumatic, double-line
Unloading	three-sided tipping
Body type	dropside
Driving speed, km/h	25
Load on tractor hitch, kN/kg	[kg] 7,2 [740]
Standard equipment	300 mm extension sides
Options	400/60 -15,5 12 PR tyres hydraulic brakes

The T-040 single-axle agricultural trailer is intended for transporting agricultural produce. It was designed to be combined with the tractor's lower transport hitch. A low positioned floor of the load carrying body enables non-mechanized loading and unloading. Adjustable chute in the backside allows a controlled flow of loose materials. The T-040 trailer has three-sided unloading. A single-axle suspension system guarantees good traction properties of a set in different ground conditions. The trailer is fully suited to road transport. It is equipped with the pneumatic braking and lighting systems.



3,5 t dropside trailer

Load capacity, t	7	10
Trailer weight, kg	2095	2657
Min. tractor horsepower, kW/HP	50/68	70/95
Platform area, m ²	7,86	10,20
Capacity of the body with ext. sides, m ³	7,86	12,30
Overall dimensions with extension sides:		
length x width x height, mm	5185 x 2300 x 2020	5860 x 2500 x 2210
Internat dim. of the load-carrying body:		
length x width x height, mm	3705 x 2110 x [500 + 500]	4410 x 2320 x [600 + 600]
Height with extension sides, mm	1000	1200
Tire size	11,5/80-15,3 10 PR	400/60-15,5 14 PR
Braking system	pneumatic, double-line	
Unloading	three-sided	
Driving speed, km/h	25	
Load on tractor hitch, kN/kg	14,7 [1500]	17,24 [1760]
Option	400/60 x 15,5 14PR tires	—
	hydraulic brakes, spare wheel	

- / functional design
- / light, durable and safe
- / excellent traction characteristics of a set
- / central opening and closing of sides

The T-042 and T-080/2 single-axle agricultural trailers are intended for transporting agricultural produce. They were designed to be combined with tractors equipped with a lower transport hitch.

A low positioned floor of the load carrying body enables non-mechanized loading and unloading. The adjustable gate in the backside makes it possible to control the flow of loose material. The trailers have three-sided unloading.

A single-axle tandem-type suspension system significantly improves traction characteristics of a tractor.

The trailers are fully suited to road transport. There are equipped with the pneumatic braking and lighting systems.



7 t dropside trailer



10 t dropside trailer

/ SINGLE-AXLE TRAILERS

- / robust design
- / load capacity from 7 to 13 tons
- / tandem suspension system ensuring good traction characteristics of a set
- / easy maneuvering of the whole set

Load capacity, t
Trailer weight, kg
Min. tractor horsepower, kW/HP
Platform area, m ²
Capacity of the body with side extensions, m ³
Overall dimensions without extension sides:
length x width x height, mm
Internal dimensions of the load-carrying body:
length x width x height, mm
Height with side extensions, mm
Tire size
Braking system
Unloading
Body type
Driving speed, km/h
Load on tractor hitch, kN[kg]
Standard equipment
Options

The T-041, T-083 single-axle trailers with backwards unloading system are intended for transporting agricultural produce. They were designed to be combined with tractors equipped with a lower transport hitch. Adjustable chute in the tail gate allows a controlled flow of loose materials. The monocoque body design ensures good tightness. The tandem suspension system significantly improves traction properties of a tractor. The trailers are fully suited to road transport. There are equipped with the pneumatic braking and lighting systems.

T-041

T-083

7	10
2080	2430
50 / 70	70 / 95
8,36	9,90
9,2	10,86
5200 x 2410 x 2170	5910 x 2435 x 2200
3800 x 2200 x [700+400]	4510 x 2200 x [700+400]
1100	1100
11,5/80x15,3 12PR	400/60 x 15,5 14PR
pneumatic, double-line backwards monocoque	
25	
14,46 [1470]	17,6 [1780]
400 mm extension sides	
400/60 x 15,5 14PR	—
spare wheel, hydraulic brakes	



7 t monocoque trailer



10 t monocoque trailer

SNOW PLOUGH (5- position)

- joystick controlled
- rubber shares- flexible and durable at low temperatures**
- safe overcoming of road obstacles by tilting shares on springs

Working width, mm	2545	2860
Driving speed during snow removal, km/h	20	
Mouldboard width, mm	2540	2860
Mouldboard height, mm	980	1000
Mouldboard steering angle, °	30	
Mouldboard clearance during transport, mm	300	
Plow weight, kg	490	540
Number of segments of the blade	2 pieces	
Plow lifting	front 3-point hitch	
Mouldboard turning	hydraulic	
Required tractor power	80-150 HP	



PDZ 24 i PDZ 28 diagram

A characteristic feature of the structure are movable mouldboards with variable geometry, enabling smooth setting the plow through hydraulic actuators (within $\pm 30^\circ$), depending on the nature of the work.

Properly shaped mouldboards and rubber share prevent the snow throwing onto the window of the vehicle and ensure the safety of the driver.

The rubber shares are flexible and durable at low temperatures.

Springs suspended tipping shares provide trouble-free and secure overcoming obstacles on the road.

2.8 PDZ snow plough with working width of 2.5 m is also available.

working width 2,5 - 2,8 m



Additional equipment to fit the plow is required:

1. Front 3-point hitch [2t]
2. Joystic controlled electro-hydraulic valve

Load capacity, t	8,3	Load capacity, t	10	12
Trailer weight, kg	2250	Trailer weight, kg	2620	4130
Min. tractor horsepower, kW/HP	50/68	Min. tractor horsepower, kW/HP	70 / 95	110 / 150
Tipping angle [backwards]	51°	Platform area, m ²	8,77	10,8
Overall dimensions with closed type container:		Capacity of the main body, m ³	5,26	7,06
length x width x height, mm	6250x2420x2740	Overall dim. without ext. sides:		
Overall dimensions with open type container:		length x width x height, mm	5,3x2,5x0,65	5,78x2,5x0,85
length x width x height, mm	6150x2420x1980	Internal dim. of the body:		
Closed type container capacity, m ³	16	length x width x height, mm	3,74x2,35x0,6	4,2x2,4x0,7
Open type container capacity, m ³	9,7	Tire size	400/60-15,5	505/50
Tire size	400/65-15,5 14PR	Braking system	pneumatic, double-line	
Driving speed, km/h	25	Unloading	backwards	
Load on tractor hitch with closed type container, kN[kg]	10 [1019]	Body type	monocoque	
Braking system	pneumatic, double-line	Driving speed, km/h	25	40
Options:		Load on tractor hitch, kN[kg]	18,0 [1770]	29,5 [2900]
			exst.1000mm	exst.800mm

hydraulic brakes



The T-145 chassis is designed for self-loading, transporting and unloading of closed and open top containers. The chassis is designed to be combined with tractors equipped with lower transport hitch. The single-axle tandem suspension guarantees good traction properties. The trailers are fully suited to road transport.



T - 145 MULTIPURPOSE SELF-LOADING CHASSIS FOR CONTAINERS

loading / unloading controlled from tractor cabin

T-041/K i T-623

CONSTRUCTION TRAILERS

- robust design
- suitable for high point pressures [HARDOX 400 metal sheet]
- suspension system ensuring excellent traction characteristics of a set

MIKRUS see page 24

TUR see page 16



The T-041K and T-623 single-axle trailers with backwards unloading system are designed for transporting objects exerting large point pressure on the floor of the carrying body, like stones, boulders, caterpillar vehicles, as well as loose and bulky materials. They are designed to be combined with tractors equipped with a lower transport hitch. The single-axle tandem suspension guarantees good traction characteristics of a set. Monocoque body design ensures good tightness.

7 t monocoque trailer

10 t monocoque trailer

CULTIVATING AND SOWING AGGREGATES

The aggregate is built of:

- / tractor wheels track scrapers
- / \varnothing 300 front roller
- / copying and pressing wheels
- / drag
- / 2-beam cultivator
- / \varnothing 400 rear roller [string or ring type]
- / hitch for seed drill
- / seed drill wheel supports

In cultivating version additionally with:

- / scraper
- / \varnothing 300 preparing roller

**Compact two-beam
cultivating and sowing
aggregate**



Type of machine	mounted
Working width, m	3,0
Working depth, cm	up to 12
Working speed, km/h	up to 10
Effective output at 8 km/h, ha/h	up to 2,4
Tractor horsepower:	
- cultivating and sowing aggregate, HP	60-100
- cultivating and sowing aggregate with sower, HP	100-120
- cultivating-type aggregate, HP	80-100
Hitch for seed drill	mounted on frame
Front roller	string type
Roller diameter, mm	\varnothing 300
Cultivator tines	light spring type
Number of tine rows	2
Drag	1-segment with teeth
Rear roller	string or ring type
Roller diameter, mm	\varnothing 400
Preparing roller, mm	string
Roller diameter, mm	\varnothing 300
Scraper	2-row
Copying wheels	2
Tractor wheels track scrapers	spring type
Overall dimensions:	
Width in working position, mm	3000
Length of long aggregate, mm	2585
Height of aggregate, mm	1250
Weight, kg:	
Cultivating and sowing aggregate (front roller, drag, two-row cultivator, string roller)	approx. 600
Cultivating and sowing aggregate (as above with hitch for seed drill)	approx. 720
Aggregate in cultivating version (front roller, drag, two-row cultivator, rear string roller, scraper, preparing roller)	approx. 775

Type of machine	mounted
Working width, m.	3
Working depth, cm	up to 12
Working speed, km/h	up to 10
Effective output at 8 km/h, ha/h	up to 2.4
Tractor horse power:	
- cultivating and sowing aggregate	60-100 HP
- cultivating and sowing aggregate with sower	100-120 HP
- cultivating-type aggregate	80-100 HP
Hitch for sowing machine	mounted on frame
Front roller	string type
Roller diameter, mm	∅ 300
Cultivator tines	spring type
Number of tines rows	3
Preparing roller	string or ring type
Roller diameter, mm	∅ 400
Rear roller	string type
Roller diameter, mm	∅ 300
Scraper	2-row
Copying wheels	2
Tractor wheels track scrapers	spring type
Overall dimensions, mm:	
Width in working position	3000
Length of aggregate in cultivating version	2585
Height of aggregate	1250
Weight, kg:	
Cultivating and sowing aggregate [front roller, three-row cultivator, rear roller] approx.	580
Cultivating and sowing aggregate [as above with hitch for sower] approx.	700
Aggregate in cultivating version [front roller, three-beam cultivator, rear string roller, scraper, preparing roller] approx.	750

The aggregate is built of:

- ▄ tractor wheels track scrapers
- ▄ ∅ 300 front roller
- ▄ copying and pressing wheels
- ▄ 3-beam cultivator
- ▄ ∅ 400 rear roller (string or ring type)
- ▄ hitch for seed drill
- ▄ seed drill wheel supports

Compact three-beam cultivating and sowing aggregate













In cultivating version additionally with:

- ▄ preparing roller ∅ 300
- ▄ scraper

FIELD SUSPENDED SPRAYERS

Standard equipment:

-  galvanised frame and beam,
-  Italian main polyethylene tank, resistant to UV, radiation and variable weather conditions
-  clean water tank for rinsing the system after the finished operation,
-  clean water tank for washing hands,
-  ZETA or RO membrane-piston pump,
-  dilution system at the intake of the main tank,
-  manually operated Polish valve [Ls412 only] or Italian valve
-  field beams: 12 or 15 m, unfolded manually in "X",
-  mechanical stabilization system, single trapezoid,
-  single-nozzle hydraulic mixer.

Main tank capacity, l
Beam width, m
Pump type, l/min
Tank type
Beam unfolding
Beam stabilization type
Beam lifting range, m
Liquid system
Head type
Control valve type
Min. horsepower , kW/HP

The L-series sprayers are intended for small and medium farms. They are typically equipped with UDOR pumps, a system for dilution of chemicals with water located at the tank inlet, Italian 3- or 5-section ARAG control valves (depending on the size of the beam) and polyethylene 3-body italian tanks. Optionally, the sprayers can be provided with constant pressure control valves operated manually or electrically and hydraulically lifted beam. Upon request, they can be provided with ARAG computer.

/ LTBS STRAW BRIQUETTE LINE

Biomass is the oldest and the most commonly used source of renewable energy. It includes both household and organic waste as well as waste from farm production e.g. straw. Straw is used for the production of briquettes pellets as power plant fuel and is a good source of electric energy generated in the process of co-firing with coal. **Biomass is produced by Bioenergia Invest- [www.bioenergiainvest.pl]** subsidiary of Ursus S.A.



	400		600		800		1000
	12				15		
	ZETA85				R013		
			three-body, polyethylene, Italian manual [option: hydraulic] mechanical, single trapezoid				
			0,5-1,7		0,5-2,1		
PCV hoses	PCV pipes		PCV hoses or pipes		PCV pipes		
	three-position		single- or three-position		three-position		
single-position							
polish manual		ARAG italian manual		polish or italian manual		ARAG italian electrical	
	44/60		59/80				



capacity of 400 - 1000 l



LTBS STRAW BRIQUETTING LINE

The LTBS Straw Briquetting Line consists of a crushing and a briquetting assemblies, which are built from a number of machines and devices. The working capacity of the whole straw briquetting line ranges from 1.2 to 1.6 t/h for gray uncontaminated straw without foreign bodies, with moisture level of 12 to 14%, and from 1 to 1.6 t/h for uncontaminated straw without foreign bodies, with moisture level of 10 to 16%. The working capacity includes time lost due to technical and operational reasons. The best results are obtained when briquetting gray rape straw which is fed in the form of medium compressed big square bale. The total installed power of all assemblies of the LTBS line amounts to approximately 250 kW; the power demand is 175 kW.



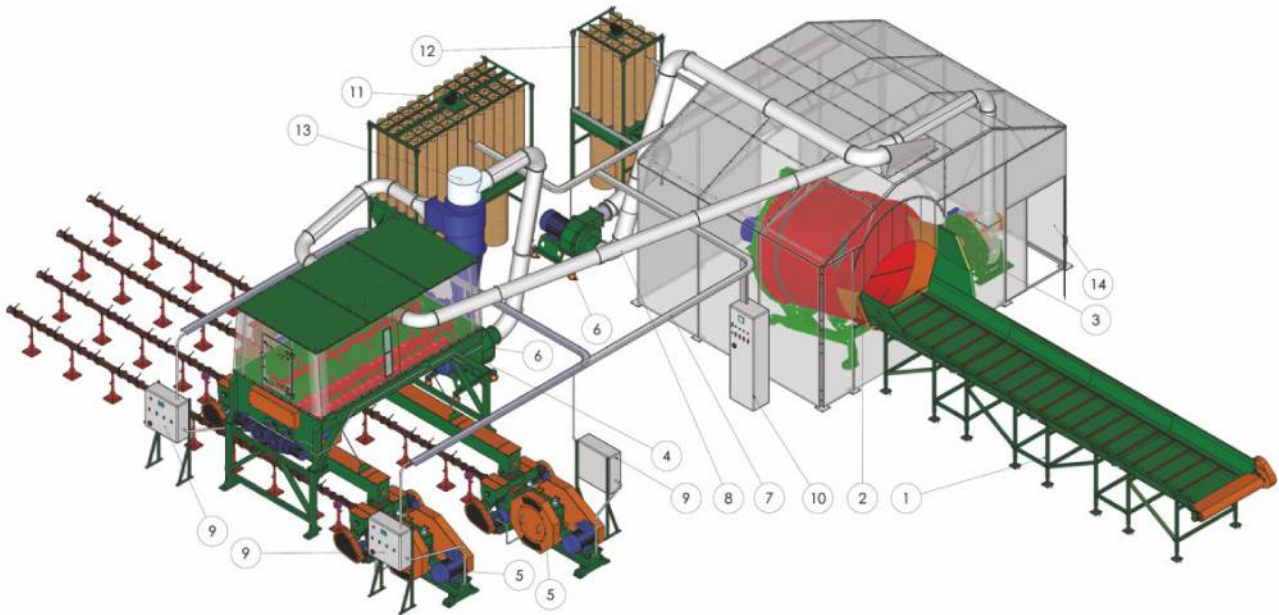
BM-60 BRIQUETTE MACHINE



BIOMASS PRODUCTION - TECHNOLOGICAL LINE (LTBS)

- | | | | |
|---------------------------------|---------|----------------------------------|---------|
| 1. Feeding table | - 1 pc. | 8. Pneumatic system | - 1 pc. |
| 2. Straw bale shredder | - 1 pc. | 9. Briquette machine control box | - 4 pcs |
| 3. Grinder | - 1 pc. | 10. Line control box | - 1 pc. |
| 4. Storage tank | - 1 pc. | 11. Bag filter | - 1 pc. |
| 5. Mechanical briquette machine | - 4 pcs | 12. Bag filter | - 1 pc. |
| 6. Fan | - 2 pcs | 13. Cyclone cleaner | - 1 pc. |
| 7. Electrical system | - 1 pc. | 14. Shredder housing | - 1 pc. |

LTBS DIAGRAM



PELLET MANUFACTURING ON RING TYPE PELLETING MACHINE



Die	ring TYPE
Number of rollers	4
Bearing lubrication	central
Head rotations, rpm	40
Main transmission power, kW	45
Rake power, kW	1.1
Weight, kg	2460
Length, mm	~2230
Width, mm	~1580
Height, mm	~1458

GROO PELLETING MACHINE

PRINCIPLE OF OPERATION

The manufacturing process of pellet with the use of the ring type pelleter consists in pushing the previously shredded biomass through the appropriately formed moulding sleeves by means of pins placed on rollers. The movement of the rollers is forced out by the rotation of the main shaft and meshing of the roller pin with the sleeve which is immovably secured in the die. The pelleter is charged from the top. Owing to the centrifugal force which results from the rotary movement of the head, the biomass is distributed around the perimeter of the die, and accordingly into the sleeves.

PELLETER CAPACITY

The pelleter's capacity ranges between 400 and 700 kg/h and depends on:

- the type of the input material [the highest efficiency is reached with gray rape straw and wheat straw without impurities, e.g. sand, stones and metals],
- humidity of the input material which should range between 14 and 22 % ,
- length of chaff after shredding which should be of about 12 mm

CHARACTERISTICS

The ring type pelleter is featured by:

- the ring die with replaceable working sleeves,
- the roller head with replaceable pins,
- the central roller bearing lubrication system,
- high-grade materials used for production of working parts, which decrease the operating costs,
- the possibility of operation in the automatic and manual mode

The pelleter integrated with the complete production line is an ideal solution for medium and small companies as well as individual investors willing to process a biomass. Granulated product with a diameter of about 22 mm is treated by professional energetics as pellet.

100% POLISH AGRO POWER

URSUS

ENERGETIC



URSUS RALLY TEAM



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