#### **<u>3 OPERATING CONTROLS AND INSTRUMENTS</u>**



- 1. Hazard warning lights switch, 2. Steering wheel, 2a. Switch located under steering wheel,
- 3. Dash board , 4. Warning lights blocks, 5. Electrical tachospeedometer
- 6. Panel for electrical equipment installation, 7. Air recirculating shutters, 8. Windshield wiper switch, 9. Cab ventilating and heating systems switch, 10. Rear work lights switch
- 11. Front work lights switch, 12. Switch of "road-train" sign lights , 13. Cab dome light switch
- 14. Tachospeedometer programming unit (5), 15. Control lever of hydraulic system right rear outlets
- 16. Control lever of hydraulic system right side outlets, 17. Control lever of hydraulic system left rear outlets., 18. Instruments and starter switch, 19. Blind plug, 20. Blind plug. Battery disconnect switch for tractor BELARUS-1221B.2, 21. Gas pedal, 22. Right brake pedal
- Left brake pedal, 24. Steering column tilt control, 25. Engine stop lever (when engine completed with double-lever fuel pump "Motorpal" (Czechia) or JSC «YAZDA» (Russia), 26. Clutch pedal, 27. Windshield washer switch, 28. Lights switch, 29. Conditioner switch and refrigerating output adjustment (if conditioner is installed), 30. Switch of air consumption adjustment (if the conditioner is installed)



- Range Shift Lever, 32. PTO control lever, 33.
  FDA and rear axle differential lock control unit, 35.
- Fuel delivery control lever
  - Position control lever
- 36. Draft control lever, 37. Stop of position control lever, 38. Battery disconnect switch
- 39. PTO shift lever (independent
  - synchronous), 40. Ranges shift lever, 41. Parking brake lever

#### Starter and instruments switch (1)

The switch (3) has 4 positions:

- 0 "Off";
- I "Instruments, control lamps unit, radio equipment power supply "On"
- II "Starter "On" (non-fixed position);
- III «Radio power supply when the engine is stopped»



**Important:** Before operating tractor for the first time, study all of the controls and instrument locations and their functions.

#### 3.2.1 TACHOSPEEDOMETER AP70.3813



Рис. 1. Tachospeedometer (P1):

- 1. Engine crankshaft rotational speed scale, rpm.
- 2. PTO II rotational speed scale -1000 rpm.
- 3. PTO I rotational speed scale -540 rpm.
- 4. PTO rotational speed display (LED).
- 5. Engine running hours indication, h.
- 6. Tractor speed indication, km/h.
- 7. Display of engine running hours and tractor speed (LCD)
- 8. Pointer indicator of the engine crankshaft speed

#### 3.3. TACHOSPEEDOMETER CONTROL BOARD

The control board is installed in the instruments dashboard and serves for programming the tachospeedometer to the specific model of the Belarus tractor.



1. Button for setting the tachospeedometer to the programming mode and selecting the programming parameter on the tachospeedometer display

2. Button for selecting the value of the coded parameter shown on the display.

#### 3.4. COMBINED INDICATOR КД 8083



1 – Engine rotational speed indicator (pointer indicator).

 $2-\mathsf{PTO}$  1000 rotational speed scale (opposite to the respective value of the PTO rotational speed).

3 - PTO 540 rotational speed scale (opposite to the respective value of the PTO rotational speed).

4 - Five-digit indicator.

5 - LED's lighting up in the mode of programming the coefficients "K", "R" and "Z" (opposite to the respective LED).

6 – LED's lighting up in the mode of display of the motion speed "km/h" and total engine running time "h" (opposite to the respective LED).

7 – Alarm of the overvoltage in the tractor on-board power system (red) operates, if the voltage exceeds 18.5 V.

## 3.5 INTEGRATED INDICATOR AP80.3813 AND COMBINED INDICATING UNIT KD8105 (MOUNTED ON THE TRACTORS WITH THE INSTRUMENT DASHBOARD 826-3805010)

The integrated indicator (hereinafter referred to as II) and the integrated indicator programming console (hereinafter referred to as PC) show information about operating parameters of tractor systems and assemblies and deliver to the operator data on malfunctions or failures of a system. The ID includes indicators and pilot lights as shown in Figure below:



- 1 speed indicator (pointer indicator);
- 2 engine speed indicator (pointer indicator);
- 3 PTO speed indicator (light indicator);
- 3.1, 3.5 PTO speed scale segments (yellow);
- 3.2, 3.3, 3.4 PTO speed scale segments (green);
- 4.1, 4.2 PTO speed scale range signaling devices (yellow);
- 5 headlight upper beam indicator pilot lamp (blue);
- 6 trailer turn indicator pilot lamp (green);
- 7 tractor turn indicator pilot lamp (green);
- 8 parking brake pilot lamp (red);
- 9 electric system high voltage pilot lamp (red);
- 10 low coolant level pilot lamp (yellow);
- 11 multifunctional indicator;

#### 3.6. MULTIFUNCTION INDICATOR (11)



1. Digital designation of the position of the gearbox control level (digits from 0 to 6) or lettering of the reduction gear switch (letters L, M, H, N);

2. Current numerical value of one of the parameters of the tractor systems.

Tractor system parameters:

<b>`4</b> 88888	Total astronomic time of running the engine in hours
	The counter accumulates the information on the total engine running time and saves it on switching off the power supply.
	The reading range is from 0 to 99999 hours of the engine running.
the second se	PTO rotational speed
485	In this mode, the PTO rotational speed is displayed in the digital form depending on the signal from the PTO rotational speed sensor.
	Volume of the fuel remaining (if the frequency fuel volume sensor FFVS is provided). In this mode, the current volume of fuel in the tank (in litres) is displayed.
1	

**NOTE.** To switch over between the indication modes "Total astronomic time of running the engine", "PTO rotational speed", "Volume of the fuel remaining" and fault messages, press the "Mode" (Режим) button of the control panel.



#### **3.7 INSTRUMENT BOARD**



The instrument board includes six gauges (11,12,13,14,15,16) with signal lamps (11a, 12a, 13a, 14a, 15a, 16a).

#### The gauge of oil pressure in the transmission hydraulic system (11).

The scale of oil pressure gauge has three zones:

- working — from 800 to 1500 kPa (green color);

- emergency (two) — from 0 to 800 kPa and from 1500 to 1800 kPa (red color).

ATTENTION! Working zone is scale section from 900 to 100kPa (9...10kgs/cm2). It is forbidden to operate the tractor when oil in transmission is under 900 kPa (9 kgs/cm2).

(11a) – signal lamp of emergency oil pressure in transmission hydraulic system – is not used.

#### Gauge to indicate air pressure in the pneumatic system (12).

2The scale of the gauge has three zones:

- working - from 500 to 800 kPa;

- emergency (two) — from 0 to 500 kPa and from 800 to 1000 kPa (red color). A signal lamp (12a) (red color) is built in the gauge scale which lights up when the pressure in the pneumatic system drops below 500 kPa.

#### Voltage gauge – (13)

The voltage gauge 5) indicates accumulator batteries voltage with the engine stopped when the key of starter and instruments switch is set in position "I". With the engine running the voltage gauge indicates voltage on generator terminals. A pilot lamp (13a) of red color is built in the scale of voltage gauge. It is used only with 24V starting system. It indicates the process of the additional battery charge with 24V it checks the workability of the voltage converter.

Gauge to indicate fuel volume in the tank with signal lamp of reserve fuel volume in the tank - (14a)

The scale of the gauge has the divisions "0-1/4-1/2-3/4-1". Do not let the tank become empty (the gauge pointer is in the zone of orange color)!

Gauge of engine coolant temperature (15) with emergency temperature lamp (15a) Reads data from the engine control unit (ECU). The gauge scale has three zones:

- working - from 70 to 100 °C (green color);

- emergency (two)- from 70 to 100 °C and from 100 to 120 °C (red color);

An emergency temperature lamp (15a) operates in two modes:

a) lights up and operates in a flashing mode with coolant values from 109  $\pm$ 0,5 up to and including 112 $\pm$ 0,5 °C.

b) glows in a continuous mode with coolant temperature values from 113±0,5 °C and higher.

Oil pressure gauge in the engine lubricating system (16) with build in signal lamp of emergency oil pressure drop (16a) (red color). Reads data from the engine control unit (ECU). The gauge scale has three zones:

- working - from 100 to 500 kPa (green color);



#### Front windscreen washer switch (1)

Pressing the button (1) windscreen washer the switches on.

Three-position light switch (2)

The button (2) has three positions:

- 1 "OFF";
- 2 "Dashboard lighting, clearance lights and number plate light ON";
- 3 "All control lamps units including the front headlights ON".

#### Fault signalling switch (3)

Pressing the button (3) switches the fault signalling on. There is a control lamp inside the button, which blinks simultaneously with the flashing light signalling.

#### Steering-Wheel-Mounted (Multifunction) switch (4)

It ensures the switching-on of the turn indicators, toggling the beam of the road headlights (lower/upper beam), upper beam warning and horn beep.

#### Turn indicator

Turning the lever (4) of the steering-wheel-mounted switch forward or backwards switches on the right or left turning indicator, respectively.

#### Horn beep

Pressing the switch lever end the beep switches on.

#### Upper/lower beam

When the road headlights are switched on pushing the lever switches on the "upper beam" and pulling the same lever switches on the "lower beam".

Pulling the lever further from the "lower beam" position up to the stop switches on the upper beam (non-fixed position). Releasing the lever puts it back in the "lower beam" position.



#### Front windscreen wiper switch (1)

Pressing the button (1) switches on front windscreen wiper.

#### Cab heater and fan switch (2)

Pressing the button (2) switches on the cab air ventilation.

The switch has 3 positions:

- 1 "OFF" (the upper part of the button is sunk to the maximum);
- 2 "Low air supply mode ON";
- 3 "High air supply mode ON".

#### Rear working lights switch (3)

Pressing the button (3) switches the rear working lights and the roof backlight lamp.

#### Front working lights switch (4)

Pressing the button (4) switches on the front working lights and the button backlight lamp.

#### "Road-train" sign lighting switch (5)

On pressing the button (5), the three orange lights on the roof forepart are switched on and the button is backlit.

#### Conditioner(clima utit) control



On the conditioner control unit there are switches  $(1) \mu$  (2).

- 1 Airflow adjustment switch;
- 2 Conditioner switch off and refrigerating capacity adjustment.

#### 3.8. CHECK INDICATORS OF THE DASHBOARD (DASHBOARD 80-3805010-Д1)



1 and 14 – Buttons for testing the serviceability of the control lamps unit. On pressing the button, all the lamps shall be lit.; 2 – Air filter blocking. The control lamp (orange) lights up when the maximum allowed level of filter blocking is exceeded and it needs cleaning; 3 – Reserved; 4 – Engine start lamp: This orange control lamp lights up on turning the starter switch key to position II to indicate that the starting system functions properly. If the lamp blinks at the frequency of 1.5 Hz, the gearbox control lever is not in neutral position or the engine starting locking switch circuit is out of order. If the lamp blinks at the frequency of 3.0 Hz, there is a failure in the alternator phase winding circuit. Eliminate the fault and restart.; 5 – Starting aid lamp (orange); 6 – HPS emergency oil pressure. The lamp (red) lights up when oil pressure in HPS feeding system is below the allowable level; 7 – Reserved; 8 – Upper beam indicator: Blue control lamp lights up when switching on the upper beam of the front headlights; 9 – Rear axle differential locking control lamp. The lamp (green) is on when switching automatic differential locking (ADL); 10 – Reserved; 11 – Tractor turn indicator (green); 12 – Trailer turn indicator (green); 13 – Parking brake indicator (red).

#### 3.10 CONTROL LAMPS OF THE DASHBOARD (DASHBOARD 826-3805010)

1 – Reserved indicator (green); 2 – Reserved indicator (green); 3 – Reserved indicator (red); 4 – HPS emergency oil pressure. The lamp (red) lights up when oil pressure in HPS feeding system is below the allowable level; 5 – Air filter blocking (orange). The control lamp lights up when the maximum allowed level of filter blocking is exceeded and it needs cleaning; 6 – Reserved indicator (blue); 7 – Rear axle differential locking control lamp (green). The lamp (green) is on when switching automatic differential locking; 8 – Starting aid lamp (orange); 9 – Reserved indicator (red); 10 – Reserved (red).



#### 3.11 ELECTRIC EQUIPMENT CONNECTOR COMPONENTS

A combined multipin socket is designed for connecting the trailer electrical equipment or electrical equipment of trailed agricultural implement and service lamp. It is installed on the cab's rear support. A plug of the wire bundle of the hitched machines and a plug of service lamp are connected to the socket.

Socket connection terminal marking:

- Turn indicator, left;
- Horn;
- "Ground";
- Turn indicator, right;
- Right clearance light;
- Stop light;
- Left clearance light;
- Service lamp connection.

#### 3.12 GEARBOX CONTROL (16F+8R)



The gearbox is controlled by two levers: a lever of ranges shifting (1) and a lever of gears shifting (2).

Select the required ranges and gears in accordance with the shifting patterns I and II as shown on the figure below.

**IMPORTANT!** In order to shift the gear correctly smoothly, without jerks, move the gear shifting lever (2) in accordance with the pattern (see the figure above) and keep it pressed until the gear is switched.



#### 3.13 GEARBOX CONTROL (24F+12R) (IF INSTALLED)

#### Gears shifting lever (2)

The shifting pattern is shown in the figure on the right (pattern I).

"On" button (2a) of gearbox reducer low gear (L).

On" button (2B) of gearbox reducer high gear (H).

#### Ranges shifting lever (1)

The shifting pattern is shown in the figure on the right (pattern II).

- A two low ranges of forward motion;
- B two high ranges of forward motion;
- R two ranges of reverse motion;
- H -high pass of gearing;
- L low pass of gearing.



#### 3.14 CONTROL OF THE REAR AXLE DIFFERENTIAL LOCK

The rear axle differential lock is controlled by the button (2), located on the dashboard near FDA control button.

Three position button (2) has the following positions:

"Automatic locking" — on pressing the upper part of the button (fixed position);

"Differential lock is switched off — middle position (fixed);

"Forced blocking" — on pressing the lower part of the button (unfixed). When the button is released it automatically switches to the middle position ("Differential lock is switched off").

On switching on the differential lock alarm lamp (3) lights up, which goes off when the differential lock switches on automatically and when the button (4) is put in the middle position.

Important! Engage the forced differential lock only shortly to overcome road obstacles and carry out the field and transportation works.

Warning: Do not use the differential lock at the speeds exceeding 10 km/h and when turning the tractor. Otherwise the tractor control becomes difficult, power transmission is quickly worn out, the safety is endangered.

Electrical schematic of FDA and rear axle differential lock control system is given in the section "Appendix".



#### 3.15 FDA DRIVE CONTROL

FDA drive is controlled by the button (2), located on the board above the right control unit. The button (2) has three fixed positions:

"FDA is automatically "on" — on pressing the upper part of the button;

"FDA is "off" — middle position of the button;

"Forced FDA engagement" — on pressing the lower part of the button.

On engaging FDA drive the alarm lamp (1) lights up. The lamp goes out on putting the button (2) in the middle position and in the moment of switching off the drive in the automatic mode.

#### Attention!

1. Operating on the roads with hard surface switch off the FDA (middle position of the button (2) in order to prevent tyres and drive parts from increased wear.

2. Use the forced FDA engaging mode shortly only to overcome obstacles and when operating on reverse,

3. It is categorically forbidden to operate in the mode of forced FDA engagement when the speed is over 15 km/h.

4. It is categorically forbidden to use FDA in the mode of automatic engagement by the reverse motion.



Electrical schematic of FDA and rear axle differential lock control system is given in the section "Appendix".

**Note:** A braking relay is installed in the electrical line of FDA drive control, it ensures automatic switching on of FDA when pressing synchronized pedals of tractor brakes.

#### 3.16 SWITCHING ON REAR PTO SHAFT

The lever (1) has 2 positions:

- "PTO is engaged" extreme upper position,
- "PTO is disengaged" extreme lower position.

#### Independent and synchronous PTO drives

The lever (2) has three positions:

- "Independent drive is engaged" extreme right position;
- "Synchronous drive is engaged extreme left position;
- "Disengaged" middle position.

Engage the synchronous PTO drive only at low gears on minimum engine idle speed doing the following:

- Start the engine and set the minimum idle speed;
- Press home the clutch pedal and engage I or II gear;
- Release the clutch pedal slowly and simultaneously turn the lever (2) in the extreme left position.

#### Speed switch of independent PTO drive

Independent drive lever (1) has two positions:

- I 540 rpm extreme, contraclockwise;
- II 1000 rpm extreme clockwise.

To set a required PTO speed release the bolt (2), turn the lever (1) and tighten the bolt (2).



**Important!** Use the PTO synchronous drive only at low gears at tractor motion speed not higher than 8 km/h. Otherwise tractor power train may get seriously damaged.



#### Hydraulic lift linkage control

The hydraulic lift linkage is controlled using two control levers (1) and (2), located on the right control board inside the cab.

The draft control lever (2) is the nearest to the operator's seat and has the following positions:

- Extreme forward maximum depth of ploughing ("9").
- Extreme rearward minimum depth of ploughing ("0"). Full range of the lever's positions is denoted with number from "0" to "10".



The position control lever (1) has following positions:

- Extreme rearward ("1") transport position of rear lift device.
- Extreme forward ("9") minimum height of the implement above the ground.

The maximum lifting height of the implement using the lever (1) is eliminated by adjustable stop (3).

**Note:** The mixed control is carried out by means of the limitation of the tillage depth using the lever (1) during draft control operations.

#### 3.18 HYDRAULIC SYSTEM PUMP CONTROL

The control lever has two positions:

- "The pump is engaged" upper position;
- "The pump is disengaged" lower position.



**Important!** Disengage the pump at cold start or maintenance. Engage the pump at the engine minimum idle speed only.

#### 3.19 GEARBOX OIL PUMP CONTROL

The gearbox oil pump control lever (1) can have two fixed positions:

- I "Pump drive from engine" (normal operating position) the lever (1) is turned counterclockwise (when looking at GB from the left tractor side) relative to the axis (3) until the lower edge of the lever slot stops and is fixed by the bolt.
- II non-working position.

**Important!** Set the lever (1) in the position II when there is a necessity to remove and to mount the assembled GB pump drive (4) and then fix the lever (1) in the position I again.

#### 3.20 HYDRAULIC SYSTEM DISTRIBUTOR CONTROL

Each of the three remote levers (1, 2, 3), controls the remote cylinders and has four positions:

- "Neutral" low middle (fixed);
- "Lift" low (non-fixed); after releasing the lever returns to "neutral";
- "Positive lowering" upper middle (non-fixed) between the "float" and "neutral". After releasing the lever returns to «Neutral";
- "Float" upper (fixed)

30





#### 3.21 CHANGING OF STEERING WHEEL POSITION

To adjust the height of the steering wheel, proceed as follows:

- Remove the cover (2);
- Unscrew the clamp (1) for 3...5 turns;
- Set the steering wheel in the required position;
- Tighten the clamp (1) manually and fix the cover (2) back.

Note: Steering wheel height adjustment range is 100 mm.

The steering column can tilt to four different positions from  $25^{\circ}$  to  $40^{\circ}$  relative to horizontal line in increments of  $5^{\circ}$ ). In order to tilt the steering column, pull the handle (3) on.





#### 3.22 "BELARUS" 80-6800010/80B-6800000 seat

The 80-6800010 seat is distinguished from the 80B-6800000 seat by the mounting seat and a possibility to complete the 80-6800010 seat with elbows and a safety belt.

**Important!** Before operating the tractor Adjust the seat to the most comfortable position. All adjustments should be made while sitting in the seat.

The seat is considered correctly adjusted according to the weight if it moves on the half of its travel under the operator's weight (suspension travel is 100mm).

#### Seat adjustments:

#### According to the driver's weight from 50 till 120 kg.

Seat adjustments are carried out by the lever (1). To adjust the seat to larger weight move the lever pawl (1) to the position "A" and tight the springs using to-and-fro motion.

To adjust the seat to the smaller weight move the lever pawl to the position "B" and release the springs using to-and-fro motion.

## Back inclination adjustment within the range from 15° to 20° (for the seat 80-6800010).

Carried out by the flywheel (2). To increase the angle of the back inclination turn the flywheel clockwise, to reduce it turn the flywheel contraclockwise.

## Back inclination adjustment within the range from 5° to 25°Р (for the seat 80Б-6800000)

Carried out by the lever (2). Lift the lever upwards to the stop, move the back and release the lever. The back will be fixed in the given position.

## Longitudinal seat adjustment within the range of 160 mm.

Carried out by the lever (3). To move the seat forward/backward pull the lever upwards, move the seat and release the lever. The seat is automatically fixed in the necessary position.

Height adjustment within the range of 60 mm. The seat has three height positions "lower", "middle" and "upper". To move the seat from the "lower" position to the "middle" one or from the "middle" position to the "upper" one smoothly lift the seat upwards to the clickwork (the indicator click sounds). To move seat from the "upper" position to the "lower" one move the seat sharply upwards to the stop and move down.

**Note:** It is not possible to move the seat from the "middle" position to the "lower" position.



80B-6800000



# 3.23 "REVERSE POSITION" (FOR THE TRACTOR WITH THE REVERSE CONTROL PANEL "BELARUS-1221B.2").

To set the seat to the reverse position it is necessary to turn the clamps " $\Gamma$ " off and move them out of the panel brackets edges " $\mu$ ", lift the lever "E" and turn the seat half-way (180°). Sharply lift and pull it the seat upwards. Set the screws " $\mathcal{K}$ " into the slots of the panel brackets " $\mu$ ", put the screw «3» on in the brackets to the stop and fasten the clamps " $\mu$ " with the turning torque 44 ... 56 Nm.



![](_page_18_Figure_3.jpeg)

### **3.24 THE SEAT GRAMMER MSG85/721** (IF INSTALLED)

**Important!** Prior to beginning the operation of the tractor, adjust the seat to the position being the most convenient for you. Perform all the adjustments while sitting on the seat.

#### Seat adjustments:

According to the driver's weight within the range from 50 to 130 kg with the mass indication every 10 kg. Carried out by the lever (1). To adjust the seat to the bigger weight turn the handle clockwise, to adjust seat to the lower weight turn the handle contraclockwise.

![](_page_18_Picture_8.jpeg)

#### Adjustment of back inclination from -10° до 35°.

Carried out by the lever (2). Lift the lever upwards to the stop, move the back and release the lever. The back is fixed in the necessary position.

#### Longitudinal seat adjustment within the range of 150 mm.

Carried out by the lever (3). To move the seat forward/backward pull the lever upwards, move the seat and release the lever. The seat is automatically fixed in the necessary position.

**Height adjustment within the range of 60 mm.** The seat has three height positions "lower", "middle" and "upper". To move the seat from the "lower" position to the "middle" one or from the "middle" position to the "upper" one smoothly lift the seat upwards to the clickwork (the indicator click sounds). To move seat from the "upper" position to the "lower" one move the seat sharply upwards to the stop and move down.

**Note:** It is not possible to move the seat from the "middle" position to the "lower" position.

#### 3.25 CAB HEATER CONTROL

To put the cab heater into operation, proceed as follows:

1. Open the cock (1) from the left-hand side of the engine over fine fuel filter. Turn the cock handle counterclockwise against the stop. Make sure the coolant circulates in heater system slightly turning off the drain plug (4) from the right-hand side of the cab. Tighten the drain plug.

Turn on the heater fan using the switch (3), located on the upper panel of cab roof.

3. By opening or closing recirculation shutters (2) you can control the amount of fresh air coming into the cab from the outside. Adjust the airflow direction through controlled channels.

Note: If you want to warm-up air in the cab quickly, open the recirculation shutters fully and switch the heater fan to high speed using switch (3).

Drain plugs (4) from the left-hand side and from the right-hand side of the cab are provided for system emptying filled with water in the frost season. To avoid ice plugs, aerate the system with compressed air, but before it close water dump valves from water radiator and engine cylinder block and replace the radiator cap.

Note: For vent mode of the system in the warm season the cock (1) has to be closed.

![](_page_19_Figure_8.jpeg)

![](_page_19_Figure_9.jpeg)

![](_page_19_Picture_10.jpeg)

#### 3.26 PNEUMATIC SYSTEM COMPRESSOR CONTROL

The handle of compressor control has two positions:

- "Compressor ON" when turning the handle so that the arrow on the arm is directed backwards to tractor motion;
- "Compressor OFF" when turning the handle so that the arrow is directed forward to tractor OFF motion.

![](_page_20_Picture_4.jpeg)

#### **Reversible Control Station BELARUS -1221B.2)**

Tractors are equipped with the reversible control station to broaden the possibilities of unitizing with the forward-mounted agricultural machines.

The components of the reversible control station are as follows:

- additional rear-located steering column with metering pump;
- double foot controls of the engine throttle, clutch and service brakes;
- mechanism of seat reversal;
- additional horn button and the engine emergency modes indicators.

#### ATTENTION!

1.Tractor reverse control station intends only for the field operations at the reverse running.

2. When running at the reverse mode, lock the standard service brake.

3.Never drive the tractor at the reverse mode over the general-purpose roads, during operations, not connected with agriculture, and by lift-on/lift-off of the tractor.

#### 3.27 REVERSIBLE STATION CONTROLS

The additional reverse controls are located at the rear side of the cab as shown in the figure below:

- 1 the clutch is disengaged when pressing the pedal. Clutch engagement takes place by pedal release.
- 2 –steering wheel of tractor turning (it is taken from the steering column of forward motion (9)).
- 3 –brakes pedal. Both tractor brakes and pneumatic drive of trailer brakes are engaged by depressing the pedal.
- 4 -foot throttle. Fuel feeding is increased by pressing the foot throttle.
- 5 horn button.
- 6 –fuel delivery control lever. Extreme rearward position (on reverse) corresponds to full fuel delivery, extreme forward position corresponds to engine stopping.
- 7 –gearbox ranges selecting lever (see pattern I).
- 8 -transmission speed control lever (see pattern II).
- 9 -steering column of forward motion.

![](_page_21_Picture_11.jpeg)

![](_page_21_Figure_12.jpeg)

To adjust the tractor for reverse

operation, proceed as follows:

• lock the standard brake pedals;

• transfer the steering wheel to the additional steering column. For that purpose turn off the handwheel of the steering wheel fixation, transfer the steering wheel and fix it at the required height;

- turn the revolving seat for reverse operations;
- set the HPS switch cock to the "reverse" position.