



Annotation:

This operation bulletin contains information on amendments to BELARUS tractor operation manuals due to introduction of the rear PTO 90-4202010 with a modified mechanism of band brake tightening.

Content of changes:

Section 3.5 “Rear power takeoff shaft” (page 122) shall be amended as follows:

3.5 Rear power takeoff shaft

3.5.1 General information

The rear PTO has a double-speed continuous and a ground-speed drive.

The continuous drive is delivered from the clutch bearing disk through one out of two pairs of rear PTO drive gears 23 or 24 (figure 3.2.5), located on the clutch housing, a PTO drive shaft in the gearbox, clutch 1 (figure 3.5.1) switching the drive to crown gear shaft 2 of the planetary reduction gear group of PTO.

The ground-speed drive is implemented by means of switching clutch 1, connecting crown gear shaft 2 of the PTO planetary reduction gear group to the gear of the gearbox.

The PTO planetary gear group is located on the rear axle housing and consists of crown gear 19, mounted on shaft 2, cover 15 with in-built carrier 3 and three satellite gears 5, mounted on center axles 4, shaft 20, unmovable axle 18 and sun gear 6 connected by means of splines to brake drum 7, which forms an activation band brake together with brake band 9. Carrier 3 is a solid unit with the brake drum and form the deactivation band brake together with brake band 8. Carrier 3 is linked to shaft 20 by means of splined connection.

PTO changeable shaft ends 23 with eight or six splines (540 rpm), or twenty one splines (1000 rpm) are mounted into the splined inner bore of shaft 20 and secured with plate 21 and six bolts 22.

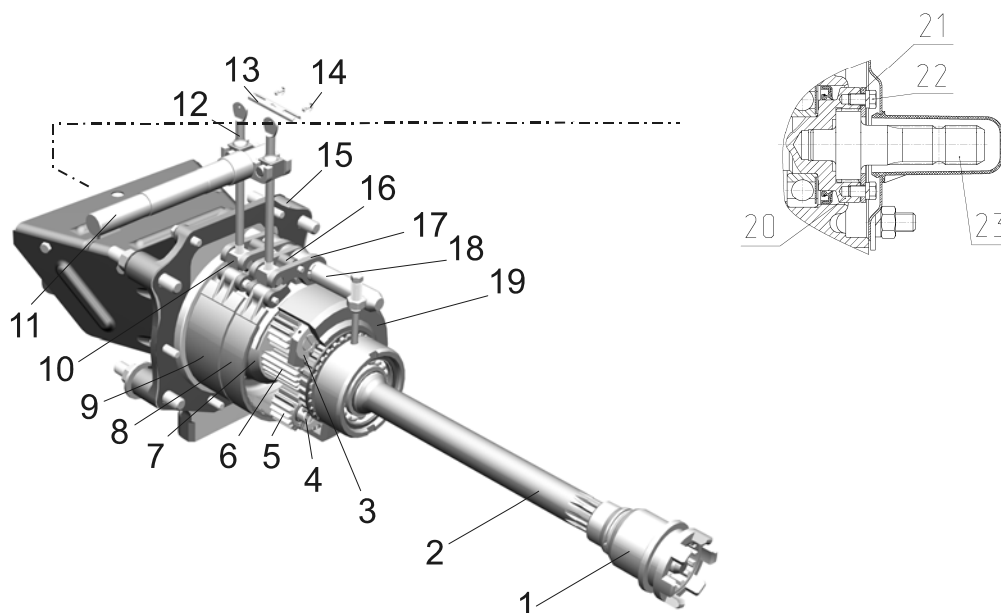
Inside the rear axle housing control shaft 11 is located which is connected to levers 17 by means of two screws 12.

PTO is activated when brake band 9 is tightened and brake band 8 is released. In this case activation brake drum 7 and related sun gear 6 are stopped. Rotation is transferred from sun gear 19 through satellite gears 5 running over stopped sun gear 6 to carrier 3 and shaft 20 with PTO changeable shaft end 23.

PTO is deactivated when brake band 8 is tightened and brake band 9 is released.

In this case shaft 20 is stopped.

In section 3.5 “Rear power takeoff shaft” at page 123 figure 3.5.1 shall be changed as follows



1 – switching clutch; 2 - crown gear shaft; 3 – carrier; 4 – satellite gear axle; 5 – satellite gear; 6 – sun gear; 7 – brake drum; 8; 9 – brake band; 10 - pin; 11 – control shaft; 12 – screw; 13 - stopper; 14 – cotter pin; 15 – cover; 16 - strainer; 17 - lever; 18 – center pin; 19 – crown gear; 20 – PTO shaft; 21 – plate; 22 – shaft end securing bolt; 23 – shaft end.

Figure 3.5.1 – Planetary reduction gear group of rear PTO

Section 3.5.2 **Adjustment of clearance in PTO band brakes** (pages 122-123) shall be amended as follows:

3.5.2 Adjustment of clearance in PTO band brakes

ATTENTION: CLEARANCE IN PTO BAND BRAKES SHALL ONLY BE ADJUSTED BY DEALERS IN A SPECIALIZED SERVICE SHOP!

Clearance in PTO band brakes shall be adjusted if PTO is skidding.

PTO control mechanism shall be adjusted in the following sequence:

- set lever 4 (figure 3.5.2) into neutral position by matching the orifice in the lever with the orifice in the rear axle housing and lock with a process-oriented bolt M10x60 by screwing it into the orifice in the rear axle housing;
- remove the rear axle hatch cover having undone five bolts to get access to screws 12 (figure 3.5.1);
- unlock and remove detent 13;
- do screws 12 in one by one with a torque of 8 to 10 Nm, then undo each screw by half a turn and do them in so as to locate the screw heads in parallel to the longitudinal axis of the tractor (to be able to mount detent 13);
- remove process-oriented bolt M10x60;
- do bolt 5 in (figure 3.5.2) holding to dimension A and secure bolt 5 with a locknut;
- the angular travel of lever 4 under the influence of spring 2 to both sides from the neutral position shall make 7 to 10°;
- mount detent 13 and cotter pins 14 (3.2x18) on screws 12 (figure 3.5.1).

Subsection 3.5.3 **Outer adjustment of PTO band brakes** (page 124) shall be deleted.