

# QUICK START GUIDE

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TS53 Drum Mower

# IMPORTANT

# READ

# BEFORE

# FIRST USE

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## TS53 Drum Mower

**Note:** The TS53 drum mower is also known as Bellon F135. This is the original manufacturer's designation of the model number, while TS53 is the model for the unit branded as Ibex.

### STARTUP ESSENTIALS

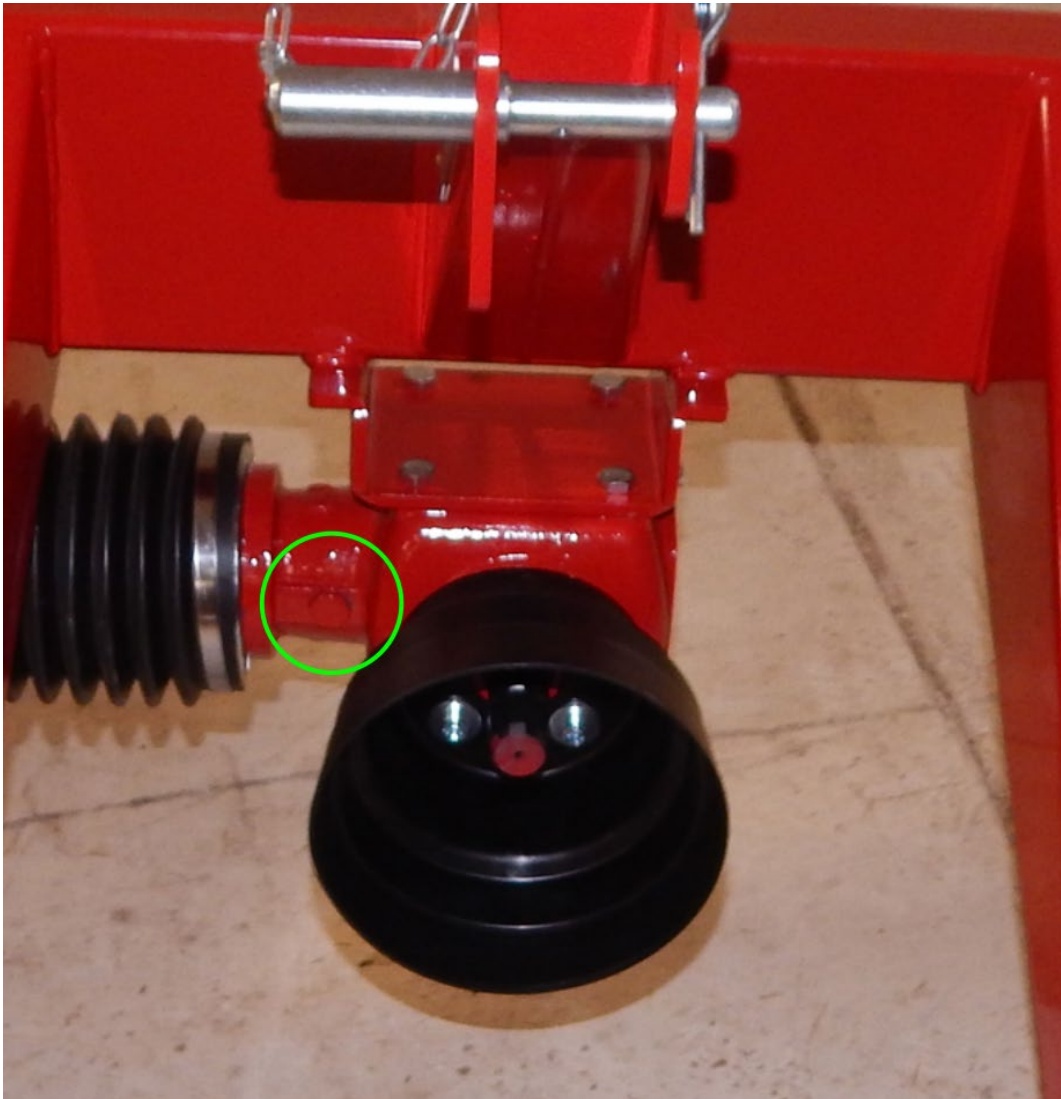
- **DO NOT TRY TO HOVER THE DRUMS ABOVE THE GROUND WHILE MOWING.** The drums are meant to sit completely on the ground except while in transport mode.
- **DO NOT** allow the lower discs to scalp the ground when mowing. To avoid this, do the following:
  - Ensure that the skid discs are either parallel to the ground or raised slightly **up in the front**. This can be achieved by extending the tractor's top link.
  - Raise the 3 point hitch until the lift arm is **above level**, at an angle sloping slightly downward toward the drum unit. This will ensure that the arm does not contact the drum unit and force it downward into the ground.
  - Failing to heed these warnings **may cause damage** to the machine.
- **DO** run the mower at 540 PTO RPM, starting at idle speed and gradually increasing the throttle. Running the mower at too slow of an RPM will make cutting less efficient and stress the machine and the tractor.
- **DO NOT** turn on an electric PTO with the throttle at high speed, which will apply extreme torque to the PTO shaft. Damage to the shaft or drive components may occur. If the engine stalls when turning on the

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PTO, just turn the tractor back on and try again until the drums get up to speed.

- **DO** replace blades regularly to ensure a sharp cut.
- The machine is shipped with oil in the gearboxes. **Double-check the oil level and top off before each use if needed.** To check the oil on the drum unit gearbox, remove the plug with the dip stick. On level ground, the dip stick should have oil on the tip, up to a maximum of 22mm (around  $\frac{3}{4}$  inch). To check the oil in the 3 point hitch gearbox, use the fill level plug shown in Figure 1 below.



*Figure 1 - Oil level plug on 3 point hitch gearbox*

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- There is no drain plug for the drum unit gear chamber. An oil suction pump is recommended to remove oil when changing it in the beginning of each season. The pump can also be used to ensure that all spent oil has been removed from the 90 degree gearbox that is attached to the 3 point hitch frame.
- To replace the blades, first loosen or remove the corresponding retaining bolt on the upper disc of the drum. Then use the blade change tool (see Figure 2, item F) or a pry bar to pry down on the retaining spring that holds the blade. Prying down on the spring allows the blade to be removed and replaced.

**OIL:** Gear oil that is 90 weight (80w90 is common in stores). Must have “EP” designation, for “extreme pressure”.

## ASSEMBLY TIPS

- Use Figure 2 as a guide to the items in the hardware box.
- Before you do anything else, begin assembling the drum unit frame and curtain. The curtain is much more difficult (or impossible) to install if done later. Keep in mind that the curtain installs along with the frame. **Do not fully assemble the frame before attaching the curtain.** Attach the inner wing of the frame first and slide the curtain over it. Then move toward the outside, inserting the cross-connecting tubes before installing the outer wing. The connecting tubes that go in front and back insert **into the curtain** on the edges. Be sure to wrap the elastic ropes underneath around the frame and secure them to the hooks.
- To facilitate assembly of the three main components, you can attach the 3 point hitch frame to the tractor and set the drum unit on the

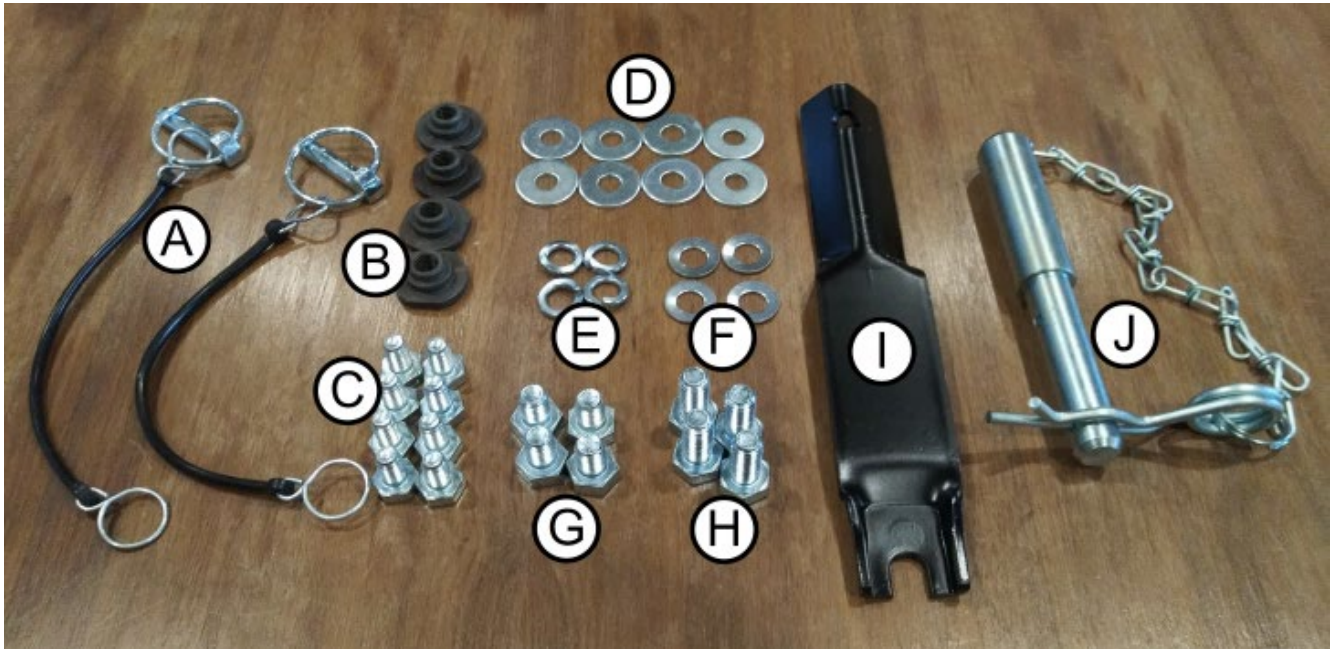
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ground to the right and rear of the tractor. Attach the lift arm to the 3 point hitch frame first, then to the drum unit.

- **Note:** When doing this you will find that the joint pin diameter is sized at a very close tolerance, and it may be difficult to insert. Try adjusting the angle to line it up better before using brute force to drive the pin through. Use plenty of grease and, of course, patience!
- Some assembly pictures in the owner's manual provided by the manufacturer are outdated. Don't let that confuse you – work with the parts that you have on hand and use Figure 2 as a guide.
- The crank lever for the safety release (shown in Figure 3) is sometimes installed upside down to facilitate freight shipping. It should be removed and reinstalled the correct way as shown in the picture. The mower in the picture is in mowing position. In mowing position, crank the handle until there is pressure on the yellow nylon bushing. This sets the safety release in place.
- As with any new implement, the shaft that attaches to the tractor may need to be cut to length. Consult the included Ibex Equipment PTO Shaft Cutting Guide.
- The 90° gearbox can easily be installed upside down by accident, because it has holes on top and bottom. Refer to Figures 4 & 5 for the correct orientation. The protruding part of the gearbox faces the drum unit. The metal cover and clamp are attached to the protruding face. The shaft with the flexible bellows cover installs over the metal cover and is set in place using the clamp.
- Mount the support stand to the rear of the 90 degree gearbox as shown in Figure 6.

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*Figure 2 - Hardware identification*

- A. Retaining clips for 3 point hitch pins
- B. Spare blade holders (4x)
- C. Bolts for securing PTO covers (8x)
- D. Washers for securing PTO covers (8x)
- E. Lock washers for gearbox bolts (4x)
- F. Spare spring lock washers for blade bolt (4x)
- G. Spare blade bolts (4x)
- H. Bolts for securing gearbox (4x)
- I. Blade change tool
- J. Top link pin

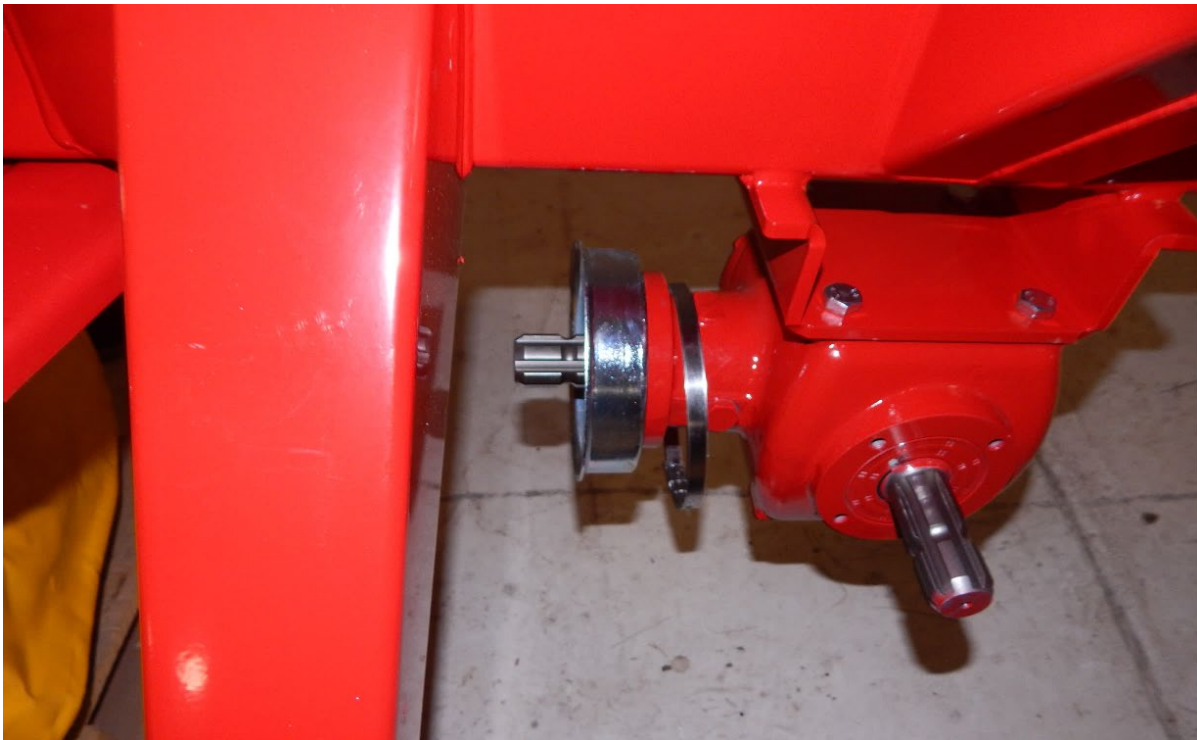


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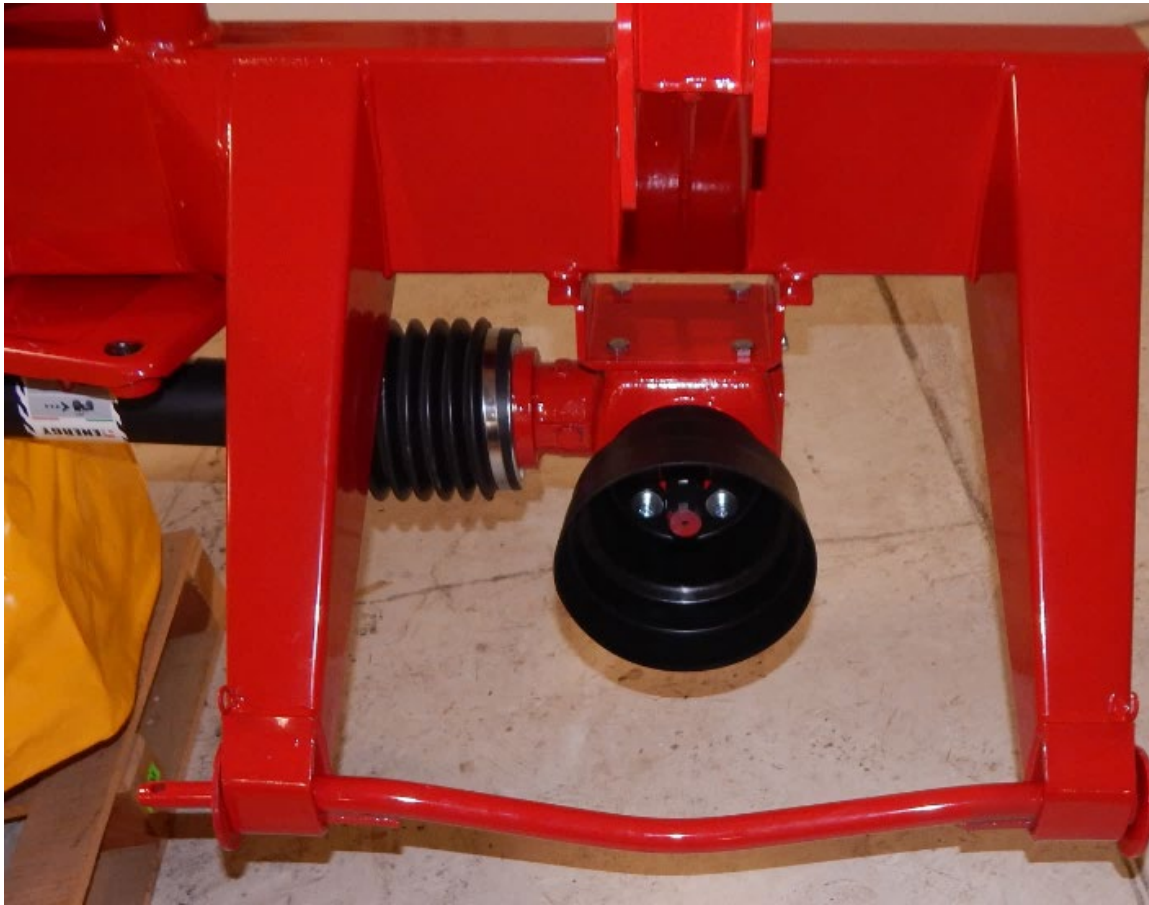
*Figure 3 - Safety release lever installation*



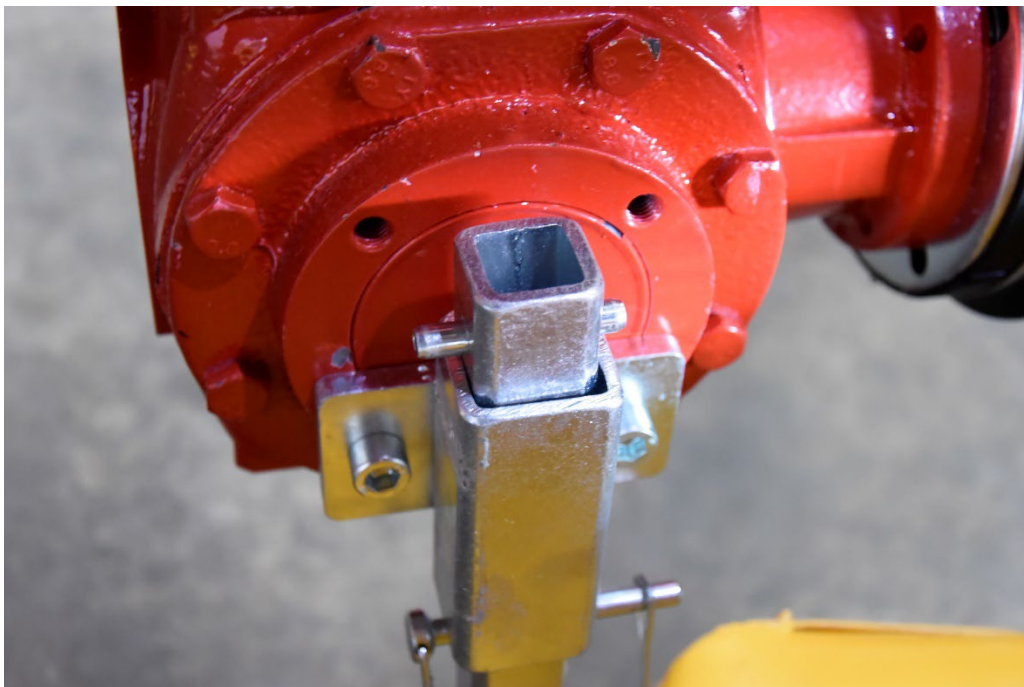
*Figure 4 - Gearbox orientation*

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*Figure 5 - Gearbox installation - final result*



*Figure 6 - Installation of stand on 90 degree gearbox*