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John Deere 6 & 7 Series

Operation and Adjustment: i-paddock Typhoon Feed Drum

(Right and left refer to as facing forwards)

The **i-paddock Typhoon** for John Deere fronts has been tailor designed specifically to maximise performance in these fronts. The cluster of i-paddock's patented Paddle Flights, combined with the aggressive long throw finger pattern and the reduced barrel diameter, maximises smooth flow and minimises the dead zone coming off the side mats into the feed drum on these fronts.

Retractable finger timing

Adjust the finger timing by rotating the original timing lever at the right-hand end of the adaptor, as per the John Deere instructions. NOTE: It is important to fine tune the finger timing with small incremental adjustments until you find the optimum timing to suit the crop conditions.

The recommended initial position for the retractable fingers on the i-paddock Typhoon is for the fingers to reach maximum extension around 45 degrees forward from top dead center (about 2 O'clock when looking from the RH side of the machine), allowing them to be fully retracted by the time they are coming up the back side of the rotation, which minimizes the chance of catching crop and creating repeats over the drum.

If you experience repeating around the drum, this is generally improved by advancing the finger timing. This is done by rotating the timing lever anti-clockwise. Feeding issues are most commonly a result of excessively retarded finger timing.

 **Built, tried and tested in the real world by real farmers**

Light and droughted crops

In very short and light crops it may be an advantage to retard the finger timing (i.e., rotate the timing lever clockwise) to maximize the length of the fingers at the bottom of the stroke.

Canola and bulky/fluffy crops

Advancing the finger timing (i.e., rotating the timing lever anti-clockwise) may be useful in crops that sit up very high in the front. Modifications to the top cross auger, including adding rubber paddles in the center, can also assist in pushing high or fluffy crop down for collection by the i-paddock Typhoon feed drum.

1 INSTALLING I-PADDOCK TYPHOON FOR JD 6&7 SERIES FRONTS

1.1 INSTALLATION OF THE TYPHOON FEED DRUM

Removing the Original Feed Drum

The following instructions are to act as a guide for the removal of the original feed drum. Refer to the JD manual for further detail.

Disconnect the front from the harvester and place it on the trailer. Secure the existing feed drum using a ratchet strap on the idle side as shown in Figure 1 below.



Figure 1: Securing the feed drum with a ratchet strap.

Items 29, 27, 26, 25 and 2 (highlighted in yellow in Figure 2 below) will need to be removed. These will be reinstalled after installing the Typhoon.

The scraper plates (if fitted) highlighted in orange below will also need to be removed. These will not be reused with the Typhoon.

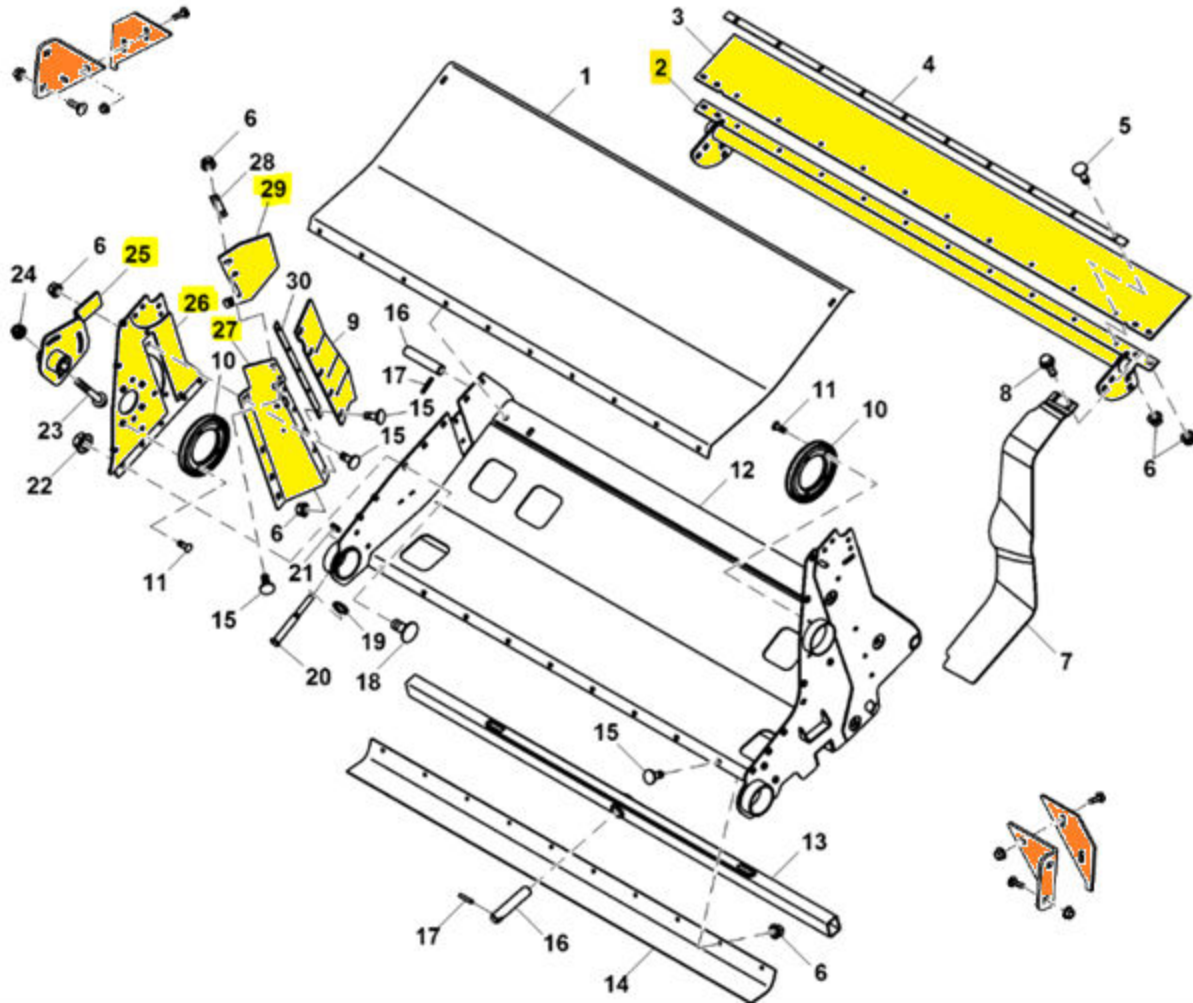


Figure 2: Items to remove on the JD header front.

Starting with items 29 and 27, remove the following bracket that is secured by the bolts shown in red (left image) of Figure 3 below. Note the bolts behind the rubber guards as well. The removal of this bracket also requires the removal of the bolts shown in red of the right image of Figure 3 (the bracket is removed in this image).



Figure 3: Location of bolts securing bracket (left). Bolts on top of header front (bracket is removed) (right).

Item 26 can now be disassembled by removing the bolts securing the bracket on the idle side as shown in Figure 4. Also remove the bolt that secures the idle shaft from moving axially (item 25).

Note: You may need to use a penetrating lubricant to facilitate the removal of item 25 off the shaft (right image - Figure 4).

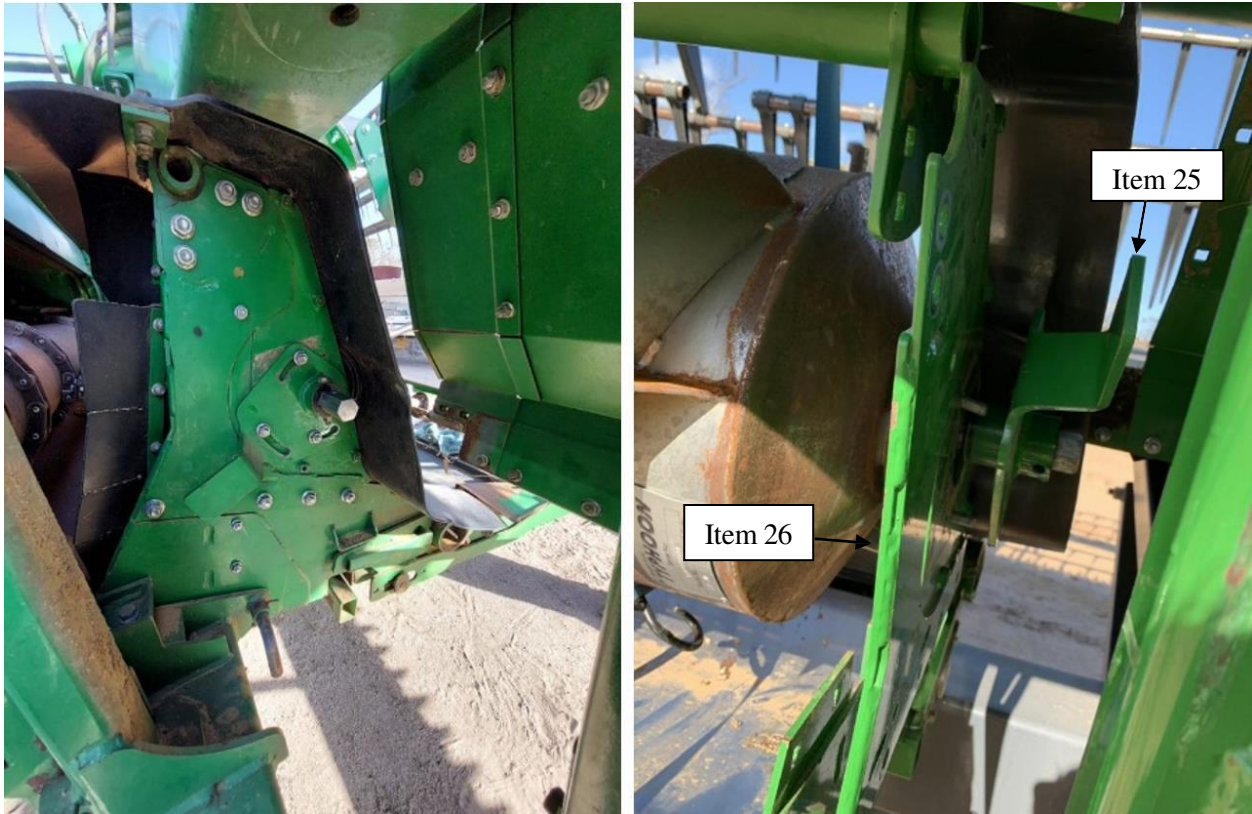


Figure 4: Removal of brackets securing the idle side.

Item 2 can now be removed by removing the four bolts securing the top cover on the drive side (left image – Figure 5). This cover (right image – Figure 5) should now be able to come off.



Figure 5: Removal of bolts securing top cover on drive side (left). Top cover removed (right).

The drive stub shaft will now need to be detached from the feed drum as there is not enough clearance to remove the feed drum with the drive stub shaft still attached.

Before detaching the drive stub shaft, ensure there is adequate clearance between the drum and the Draper belt as highlighted in the left image of Figure 6 below. If required the Draper belt can be moved back by turning the bolt located in the right image of Figure 6.

For **6 Series** fronts, the amount of clearance required is around 100mm. For **7 Series** fronts, around 70mm.



Figure 6: Clearance between the drum and Draper belt (left). Bolt (shown in red) used to move the Draper belt (right).

To remove the drive stub shaft, first remove the drive end inspection hatch cover.

For **7 Series** models, remove the flanged bolt as shown in Figure 7 below (left image).

For **6 Series** models, remove the two socket head Allen screws as shown in the right image of Figure 7.

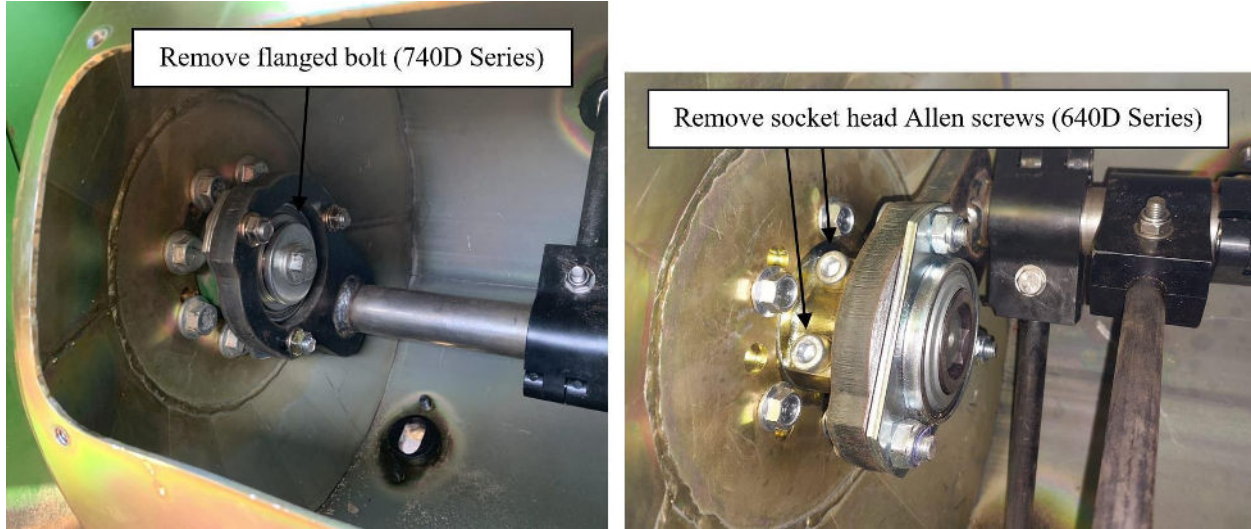


Figure 7: Drive shaft secured to the bearing for 740D series (left), for 640D series (right).

The feed drum should now be able to slide off the drive shaft. To facilitate removal, use can be made of wooden beams to lever and maneuver the drum shell as shown in Figure 8. Beware that the drum weighs approximately 80-90kg, hence at least two people are required to remove the drum manually. Otherwise, use a forklift or similar.



Figure 8: Using wooden beams to lever and maneuver the drum shell.

The drive stub shaft may be difficult to remove from the gearbox due to compacted dust buildup on the splines. There are no retainers on this shaft but working a penetrating lubricant into the splines and gently tapping the shaft back and forth should allow it to be removed without excessive axial load on the gearbox.

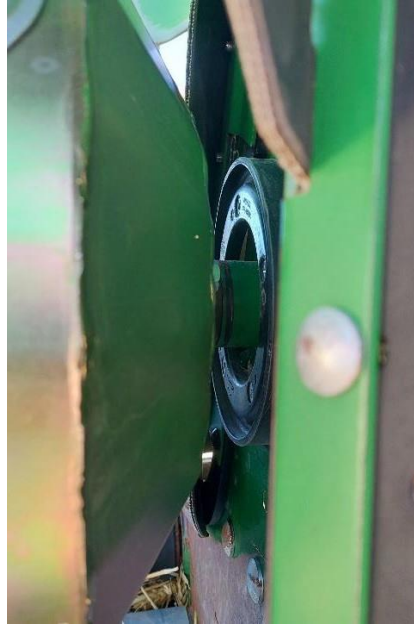


Figure 10: Drive stub shaft.

Installation of the i-paddock Typhoon Feed Drum

The new i-paddock Typhoon is supplied preassembled with a full set of fingers and drive stub shaft. The drive stub shaft however will need to be temporarily detached to fit the Typhoon into the machine.

By the reverse of the removal steps, install the new i-paddock Typhoon, by first hoisting the idle end with a hatchet strap as shown in Figure 1 earlier.



The original idle side cast shroud is not required to be refit to the Typhoon as shown above.

IMPORTANT: Once installed, make sure the internal crankshaft is orientated towards the cutter bar, as shown below. The fingers should be fully extended near the forward horizontal position when the John Deere timing adjustment lever is in mid-range. This is critical for correct performance of the feed drum.

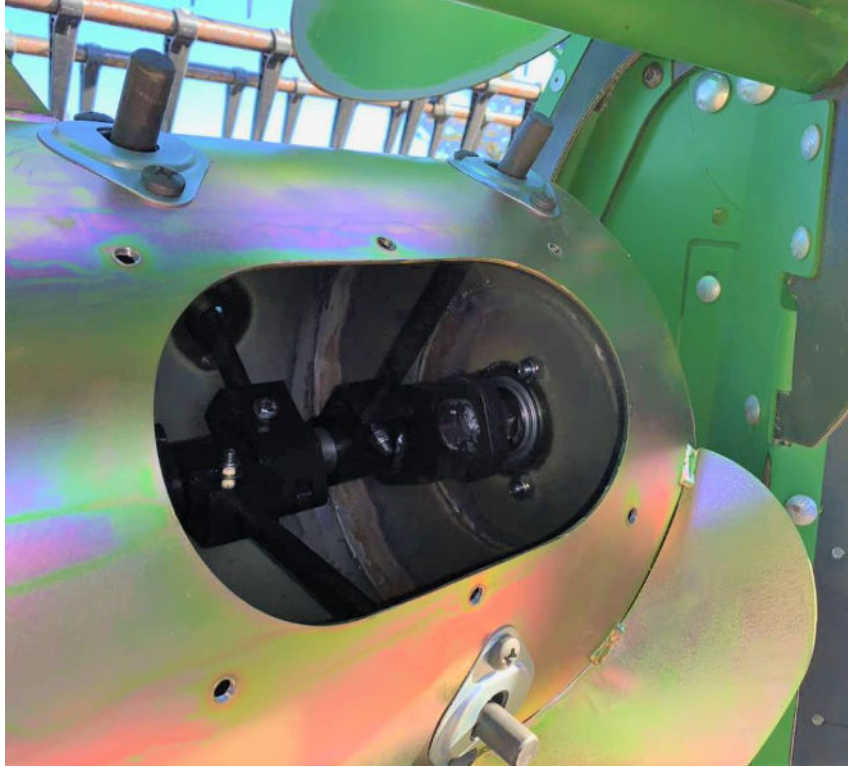


Figure 11: Internal crankshaft orientated towards the cutter bar.

Once installed and the inspection cover plates are assembled (Figure 13 below), make sure to move the Draper mats back to their original position as highlighted earlier (refer Figure 6).

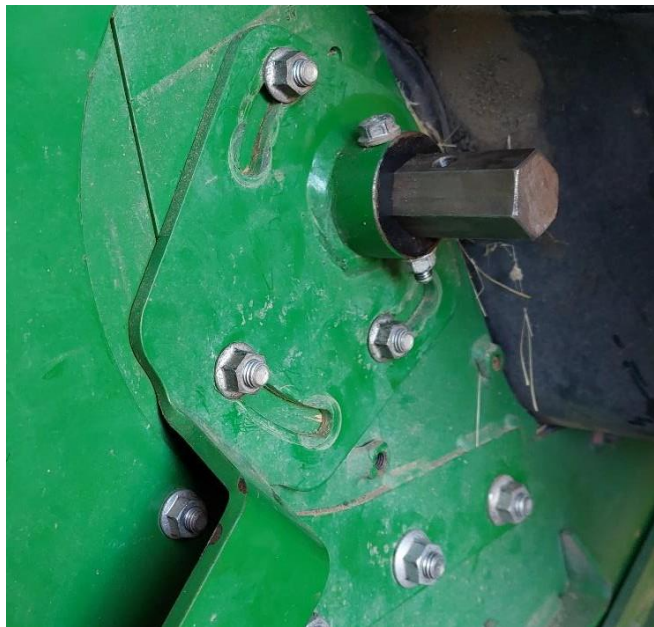


Figure 12: Default timing adjuster plate position.



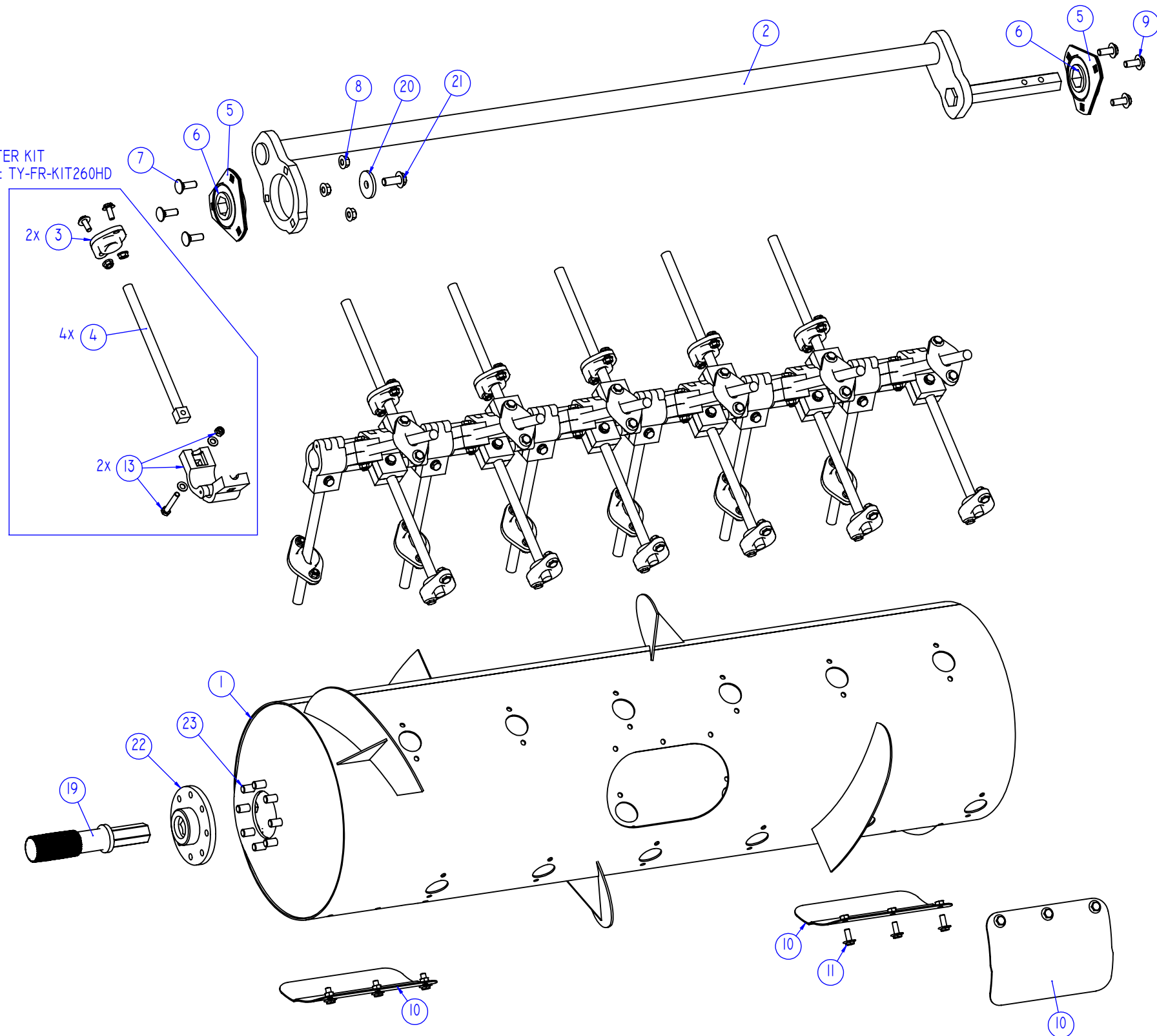
Figure 13: Fully installed new i-paddock Typhoon.

IMPORTANT: RISK OF FIRE OR DAMAGE: Check that all moving parts have sufficient clearance when rotating to avoid any contact. Rotate the drum manually prior to startup to confirm that there are no points of contact.

It is recommended to run the Typhoon for 2-5 minutes at full operating speed and checking the temperatures of the fingers thereafter for any excessive points by hand or using a temperature gun.

DIMENSIONS IN MILLIMETRES
DO NOT SCALE

FINGER STARTER KIT
PART NUMBER: TY-FR-KIT260HD



ITEM NO.	QTY	PARTNO	DESCRIPTION / MATERIAL
1	1	TY-JD67-DS	DRUM SHELL, JD
2	1	TY-JD-ICS	INTERNAL CRANK SHAFT - JD
3	24	TY-FG-KIT2	FINGER GUIDE KIT, HD
4	24	TY-FR-260	FINGER ROD, 260MM
5	2		PFD 72 PRESSED BEARING HOUSING (PAIR)
6	2	-	HEX BEARING 28.58MM 207KRRB12
7	3	B-M10-030-CH	CUP HEAD BOLT M10 x 30MM
8	3	B-NM10-WIZ	NUT - HEX SERRATED FLANGE M10
9	3	B-M10-025-FL-G88	HEX FLANGE BOLT - M10 x 25MM G8.8 ZP
10	3	TY-JD-IHC2	JD INSPECTION HATCH COVER
11	9	B-M08-020-FL-G88	HEX FLANGE BOLT - M8 x 20MM G8.8 ZP
13	24	TY-FH-KITHD	FINGER HOLDER ASM, HD
19	1	TY-JD-DSS	DRIVE STUB SHAFT
20	1	TY-JD-DSSW	JD DRIVE STUB SHAFT WASHER
21	1	B-M12-030-FL-G88	HEX FLANGE BOLT - M12 x 30MM G8.8 ZP
22	1	TY-JD-DMH7	DRIVE MOUNT HUB 740D
23	8	B-M12-025-FL-G88	HEX FLANGE BOLT - M12 x 25MM G8.8 ZP

REV.	DRAWING REVISION	DATE	BY	CHKD
A	ITEMS 22 & 23 ADDED	11/09/2024	SBJ	SBJ

DRAWING NOTES:

TOLERANCES IF NOT SPECIFIED (COARSE SERIES)						
LINEAR:	NOMINAL DIMENSION					
OVER	30	120	400	1000	6000	
TO	±0.5	±0.8	±1.2	±2.0	±3.0	±5.0
TOL.	±0.5	±0.8	±1.2	±2.0	±3.0	±5.0
ANGULAR:	FORMED: ±1° OTHER: ±0.5°					

i-paddock
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DRN BY: SBJ
CHKD BY: MF

DRN DATE: 16/07/2021
CHKD DATE: 16/07/2021

TITLE		PART NO		WEIGHT(KG)	
IPM TYPHOON KIT, JD		TY-JD67		73.17	
DRAWING NO		REVISION			
TY-JD67-INS		A			