



# PLANTER FRAME WEIGHT DISTRIBUTION KITS

- ✓ REDUCE COMPACTION
- ✓ IMPROVE ROW UNIT RIDE QUALITY
- ✓ LOW COST, EASY INSTALLATION

MODEL YEAR 2023

INFO MANUAL

# JOHN DEERE - FRONT FOLD PLANTERS

# 1770NT / 1775NT

## 12R30 - 16R30



### KIT SPECIFICATIONS

|                                     | 12R30 | 16R30 |
|-------------------------------------|-------|-------|
| CYLINDER BORE (IN)                  | 3     | 3     |
| CYLINDER STROKE (IN)                | 10    | 10    |
| CYLINDER MOMENT ARM (IN)            | 13    | 13    |
| WHEEL MOMENT ARM (IN)               | 60    | 105   |
| CYLINDER FORCE/PRESSURE (LBS/PSI)   | 7.06  | 7.06  |
| DISTRIBUTED LOAD/PRESSURE (LBS/PSI) | 1.56  | 0.89  |
| SYSTEM EFFICIENCY (%)               | 22.1  | 12.7  |

### SYSTEM PERFORMANCE

|                         | 12R30 |       |       |       | 16R30 |       |       |       |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|                         | 600   | 800   | 1000  | 1200  | 600   | 800   | 1000  | 1200  |
| PRESSURE (PSI)          | 600   | 800   | 1000  | 1200  | 600   | 800   | 1000  | 1200  |
| CYLINDER FORCE (LBS)    | 4,241 | 5,655 | 7,068 | 8,482 | 4,241 | 5,655 | 7,068 | 8,482 |
| TRANSFER PER WING (LBS) | 938   | 1,250 | 1,563 | 1,875 | 537   | 716   | 895   | 1,074 |
| TOTAL TRANSFER (LBS)    | 1,875 | 2,500 | 3,125 | 3,750 | 1,074 | 1,433 | 1,791 | 2,149 |



| PART #     | CONFIGURATION | MODEL YEARS | SERIAL BREAK    | KIT TYPE        | INSTALL TIME |
|------------|---------------|-------------|-----------------|-----------------|--------------|
| 158-930301 | 12R30         | 2003 - 2023 | 700XXX - 800XXX | MANUAL/SETPOINT | 12 HOURS     |
| 158-935301 | 12R30         | 2003 - 2023 | 700XXX - 800XXX | ISOBUS/SETPOINT | 13 HOURS     |
| 158-930303 | 16R30         | 2003 - 2023 | 700XXX - 800XXX | MANUAL/SETPOINT | 12 HOURS     |
| 158-935303 | 16R30         | 2003 - 2023 | 700XXX - 800XXX | ISOBUS/SETPOINT | 13 HOURS     |

# FAQS



**QUESTIONS?** Feel free to contact us!

**How much oil does the system require?**

In fairly level terrain, the system requires fairly small amounts of oil flow (1-3 gpm). In more rolling terrain, it may be slightly higher. Oil is only required by the system when the wing flexes down and the cylinder extends. So even in rolling terrain, the system is only using oil in half the range of motion of the wings (downward).

**Does the system require its own SCV?**

In order to maintain system pressure during both lowered and raised plant positions, the system needs to be connected to an SCV that remains in constant or power beyond. If there is already a planter circuit used in that capacity, then the FWD system can be plumbed in parallel with those functions, not requiring a dedicated SCV. This is normally the case for over 95% of machines, as most are running hydraulic drives, hydraulic row unit down force, or hydraulic power generation.

**Can the manual/setpoint be upgraded to ISOBus/setpoint later on?**

Converting the manual/setpoint system over to the ISOBus system can be done very easily. It only requires a cartridge swap on the valve block and the adding of a controller and electrical harnessing. The cost to upgrade the system to ISOBus down the road is the same as the upfront option.

**Can these kits be installed on the farm?**

Our kits are designed and manufactured to allow for an easy installation on the farm or dealership. All components that can be pre-welded are done at our facility and we also blast and powder coat the cylinder lugs. We mask the edges where final welds attach the lugs to the toolbar. This leaves less welding and painting to be performed during final installation.

**Does the system stay on when the planter is raised?**

We prefer to tie the hydraulic system to a circuit that remains in constant flow. This way the system stays energized whether the planter is in lowered or raised plant position. The machine encounters its worst center compaction when raised, so we find it is most beneficial for the system to remain on all the time the machine is in plant mode.

**What equipment is required for installation?**

Most kits contain plates from ½" up to 1" thickness, so at least a 50 amp MIG welder running a minimum of .035" wire is recommended.

**Does LDM perform installations?**

LDM does have a mobile crew that can perform on-site installations at an extra charge. Since we are based in central Iowa, installs farther than surrounding states can become prohibitively expensive due to travel costs.

On new DB machines built at the John Deere Paton facility we can perform "after-factory" installation at our shop before the planter is delivered to the dealership. See page 9 for details.

**What happens when the planter is folded?**

When the planter is taken out of plant mode, the on/off solenoid on our valve deactivates. This cuts off the pressure supply to the block and also opens the regulated pressure circuit to the tractor return line. This essentially depressurizes the cylinders and allows them to float. So for any folding or transport functions, the machine does not have to fight any residual pressure against the cylinders.

**What benefit is the ISOBus system?**

The ISOBus system allows for pressure changes to be made on the fly from the cab. It also uses an interface that provides additional information such as system pressures and calculated cylinder forces and transfer loads.

**How do the kits ship?**

We offer free shipping on all kits. Because of weight and size limits, we use LTL freight deliveries.

**Will the planter still maintain its full range of flex?**

Our design process fully takes into account the wings original range of motion. The downforce cylinder is located with its extend and retract positions properly calculated, allowing for full wing flex to be retained.



## CONTACT US

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