DX31, DX34

Tractors

SERVICE MANUAL

87535061

CASE IH AGRICULTURE

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DX31, DX34
REPAIR MANUAL
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The following pages are the collation of the contents pages from each section and chapter of the DX31, DX34 Repair manual. Complete Repair part # 87535061.

The sections used through out all Case IH product Repair manuals may not be used for each product. Each Repair manual will be made up of one or several books. Each book will be labeled as to which sections are in the overall Repair manual and which sections are in each book.

The sections listed above are the sections utilized for the DX31, DX34 Tractors.

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SECTION 00 - GENERAL INFORMATION

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Chapter 1 - General Information

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Chapter 1 - Engine Systems

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LIQUID BALLAST (OPTIONAL)

It is a common practice to add weight to the tractor by filling the rear tires with liquid. A calcium chloride ($CaCl_2$) and water solution is recommended due to its low freezing point and greater density (weight per gallon) than pure water.

Never exceed the total recommended weight for the tractor. Because special equipment is required to fill the tires, consult your Case IH Dealer.

Tires should never be filled beyond 75%. At 75% full, the liquid will come to the valve stem when the valve stem is at its highest point at the top of the wheel.

TIRE PRESSURE

Tire pressure must be considered when adding weights, implements, or attachments to the tractor or damage to the tractor may occur.

The chart below outlines tire inflation pressures.

FRONT TIRE INFLATION PRESSURES		
Tire Type	**Tire Size**	**Inflation Pressure**
Agricultural: FWD	7-14, 4PR, R1	0.6-1.8 bar (8-26 PSI)
Turf: FWD	27 x 10.50-15, 4PR, R3 25/10.50LL x 15 - 6PR, R3	0.6-15 bar (8-22 PSI) 0.6 bar (8 PSI)
Industrial (R4)	25 x 8.50-14, 6PR, R4	0.6-2.2 bar (8-32 PSI)
REAR TIRE INFLATION PRESSURES		
Agricultural	11.2-24, 4PR, R1	0.8-1.2 bar (12-18 PSI)
Turf	41 x 14-20, 4PR, R3 41/18LL x 16.1, 6 PR, R3	0.8-1.0 bar (12-14 PSI) 0.4 bar (6 PSI)
Industrial (R4)	15-19.50, 6PR, R4	0.8-1.4 bar (12-20 PSI)

NOTE: *Do not underinflate or overinflate tires. Do not exceed maximum inflation pressure listed.*

REAR TIRE LIQUID

Ballast Weights (Per Tire) 600 g/5 lbs. Gal Solution/CaCl2

Tire Type	Tire Size	Approximate Added Weight
Agricultural	11.2 x 24, 4PR, R1	115 Kg (253 lbs.)
Turf	41 x 14-20, 4PR, R3 41/18LL x 16.1, 6PR, R3	157 Kg (347 lbs.) NA
Industrial (R4)	19.50 x 15, 6PR, R4	152 Kg (334 lbs.)

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TROUBLESHOOTING PTO INDICATOR LIGHT CIRCUIT		
CONDITION	**POSSIBLE CAUSE**	**REMEDY**
Inoperative PTO indicator light	Blown 7.5-amp Fuse (Fuse #1)	Check fuse and replace as necessary
	Blown 10-amp Fuse (Fuse #2)	Check fuse and replace as necessary
	Blown Bulb	Inspect the bulb and replace as necessary
	Improper Ground Circuit	Check hazard light circuit connections and circuit grounds and repair as necessary
	Defective Main PTO Safety Switch	Test the switch and replace as necessary
	Defective Mid PTO Safety Switch	Test the switch and replace as necessary
	Defective PTO Safety Interlock Relay	Test relay and replace as necessary
	Defective PTO Safety Start Relay	Test relay and replace as necessary

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STARTER MOTOR TROUBLESHOOTING

PINION SHAFT FAILS TO ADVANCE:

FAULT LOCATION	POSSIBLE CAUSE	CORRECTION
Wiring	Open circuit, battery, and switch terminal connections	Repair or replace
	Open circuit, fuse	Replace fuse
Key switch	No contact	Repair or replace
Starter motor	Sleeve bearing burnt out	Repair or replace
	Lever broken	Replace
Solenoid	Plunger movement defective or coil open or shorted	Repair or replace

PINION MOTOR ROTATES BUT NO ROTATION TRANSMITTED TO ENGINE:

FAULT LOCATION	POSSIBLE CAUSE	CORRECTION
Starting motor	Clutch defective	Replace
	Orbital gear or planetary gears damaged	Replace

MOTOR ROTATES BEFORE PINION MESHES WITH RING GEAR:

FAULT LOCATION	POSSIBLE CAUSE	CORRECTION
Starter motor	Shift lever damaged	Replace
	Slip ring defective	Replace
	Pinion teeth worn	Replace
	Pinion push out position defective	Adjust
Engine	Ring gear worn	Replace
Solenoid	Solenoid defective	Replace

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