

13061

Leonard ACC

4RPTH  $\frac{1}{65}$ " AH

# FUEL SYSTEM

## Supply Line Size

If the fuel filters are remotely mounted, include the length of line from the transfer pump to the filters and from the filters to the injection pump inlet in the supply line length.

- Line length under 10 feet: 3/8" O.D. steel or 5/16" I.D. hose
- Line length over 10 feet: 1/2" O.D. steel or 7/16" I.D. hose

## Supply Fuel Requirements

On John Deere engines, special attention is needed to assure the supply fuel system does not introduce air to the injection pump. The injection pump is sensitive to air in the fuel and if this condition persists during the normal operation of the pump, fuel system damage can occur. Also, if an electronic lift pump is used and the inlet restrictions are too high, the lift pump has sufficient capacity to cause injection pump damage. The inlet restriction value is listed on the Performance Curve and specifies the allowable limits. If the information is not listed on the Performance Curve, use the table below.

ENGINE MODEL	INJECTION PUMP	MAXIMUM FUEL INLET RESTRICTION* (at engine fast idle w/ new prefilter)	MAXIMUM FUEL INLET RESTRICTION* (at engine fast idle w/ "plugged" prefilter) **
4024 / 5030	Unit Pump	30 kPa gauge	40 kPa gauge
4045 / 6068	Stanadyn DE10	30 kPa gauge	40 kPa gauge
6068	Bosch VP44	30 kPa gauge	40 kPa gauge
4045 / 6068	Denso HPCR	30 kPa gauge	40 kPa gauge
6081	Denso HPCR	30 kPa gauge, 95 kPa max inlet pressure	40 kPa gauge, 65 kPa max inlet pressure

Note: For specific values, please refer to the Engine Performance Curve.

\* Inlet restriction values are measured at the inlet to the electronic fuel transfer pump (or primary filter in engines that do not use electronic fuel transfer pump).

\*\* Indications of plugged fuel filter include engine loss of power, 5-psi drop across the filter element, or when the vacuum limits are hit.

# FUEL SYSTEM

## Return Line Size

Fuel return line sizes listed below provide a guideline. The actual Return Restriction pressure must not exceed the allowable limit specified in the Performance Curve.

- Line length under 10 feet: 1/4" O.D. steel or 3/16" I.D. hose
- Line length over 10 feet: 5/16" O.D. steel or 1/4" I.D. hose

## Return Fuel Requirements

On John Deere engines, the injection pump uses fuel to keep the injection pump cool and lubricated. Because of this design requirement, the return line needs to be sized properly for adequate fuel return from the injection pump, the nozzle return, and the constant air vent system. The fuel return restriction value is listed on the Performance Curve and specifies the allowable limits. If the information is not listed on the Performance Curve, use the table below.

ENGINE MODEL	INJECTION PUMP	MAXIMUM FUEL RETURN RESTRICTION at return connection point of the engine
4024 / 5030	Unit Pump	20 kPa
4045 / 6068	Stanadyne DE10	20 kPa
6068	Bosch VP44	80 kPa
4045 / 6068	Denso HPCR	20 kPa
6081	Denso HPCR	60 kPa

Note: For specific values, please refer to the Engine Performance Curve.

# Advanced Farm Equipment, LLC

Customer LEONARD BY W/O# 039938 # 13061

Item	Checked	Notes
Battery Cables	<input checked="" type="checkbox"/>	N.H.
Control Cables	<input checked="" type="checkbox"/>	N.H.
Cover Wiring	<input checked="" type="checkbox"/>	C.S.
Decals	<input checked="" type="checkbox"/>	N.H.
Serial Number Plates	<input checked="" type="checkbox"/>	N.H.
Slow Moving Vehicle Sign	<input checked="" type="checkbox"/>	K
Service Kit	<input checked="" type="checkbox"/>	N.H.
Tool Box	<input checked="" type="checkbox"/>	N.H.
Digger Blades Per Spec	<input checked="" type="checkbox"/>	K
Coultter Blades Per Spec	<input checked="" type="checkbox"/>	K
Set Screws Tight	<input checked="" type="checkbox"/>	N.H.
AFE Table	<input checked="" type="checkbox"/>	N.H.
Vine Belt Dist	<input type="checkbox"/>	N/A
Cross Dist	<input checked="" type="checkbox"/>	K
Bearings	<input checked="" type="checkbox"/>	K
Tires	<input checked="" type="checkbox"/>	P.F.
Touch Up Paint	<input type="checkbox"/>	
Chain & Sprockets To Spec	<input checked="" type="checkbox"/>	K.C.M
Radiator Hoses	<input checked="" type="checkbox"/>	N.H.
Heater Hoses	<input checked="" type="checkbox"/>	N.H.
Engine Oil	<input checked="" type="checkbox"/>	Don't see
Radiator Fluid	<input checked="" type="checkbox"/>	
Anti-Corrosive	<input checked="" type="checkbox"/>	J.D.
Half Water	<input checked="" type="checkbox"/>	J.D.
Half Anti-Freeze	<input checked="" type="checkbox"/>	J.D.
Exhaust System	<input checked="" type="checkbox"/>	J.D.
Air Intake System	<input checked="" type="checkbox"/>	J.D.
Reversing Fan Option	<input checked="" type="checkbox"/>	J.D.
Hydraulics		
Needle Valves	<input checked="" type="checkbox"/>	N.H.
Check Valves	<input checked="" type="checkbox"/>	N.H.
Flow Control Handles	<input checked="" type="checkbox"/>	N.H.
Hydraulic Oil	<input checked="" type="checkbox"/>	N.H.
Charge Pumps	<input checked="" type="checkbox"/>	N.H.
Proper Motor Rotation	<input checked="" type="checkbox"/>	N.H.
Plugs In Pumps	<input checked="" type="checkbox"/>	N.H.
Plugs In Manifolds	<input checked="" type="checkbox"/>	N.H.
	<input type="checkbox"/>	

## Notes / Comments:

Has Heavy Duty Rear A.H. Bearings  
 Shake cylinder has an 1/8 spacer inside of it

# Advanced Farm Equipment, LLC

Customer

W/O#

S#

Section	Initials	Section	Initials
Plastic	N.H.	Conveyors	N.H.
Airhead	N.H.	Airhead	N.H.
Sorting Table	N.H.	Sorting Table	N.H.
Trash Chute	N.H.	Trash Chute	N.H.
Stone Conveyor	N.H.	Stone Conveyor	N.H.
Bin	N.H.	Bin	N.H.
Beltng		Airhead	N.H.
Door	N.H.	Door	N.H.
Sides	N.H.	Sides	N.H.
Pillow	N.H.	Pillow	N.H.
Diaphragm	N.H.	Diaphragm	N.H.
Cross Conv		Cross Conv	N.H.
Stone Conv		Stone Conv	N.H.
Rear Axle	N.H.	Rear Axle	N.H.
Star Rolls	N.H.	Star Rolls	N.H.
Distributor	N.H.	Distributor	N.H.
Vine Belt Shield	N.H.	Vine Belt Shield	N.H.
Bin	N.H.	Bin	N.H.
Oil Tank		Oil Tank	N.H.
Breathers	N.H.	Breathers	N.H.
Sight Guage	N.H.	Sight Guage	N.H.
Plumbed Per Specs	N.H.	Plumbed Per Specs	N.H.
In Tank Filters	N.H.	In Tank Filters	N.H.
Section	Initials	Section	Initials
Rollers		Digger Bed	N.H.
Primary	N.H.	Primary	N.H.
Secondary	N.H.	Secondary	N.H.
Cross Conv	N.H.	Cross Conv	N.H.
Side Convs	N.H.	Side Convs	N.H.
Stone Conv	N.H.	Stone Conv	N.H.
Sorting Conv or Bin Fill	N.H.	Sorting Conv or Bin Fill	N.H.
Bulk Loader	N.H.	Bulk Loader	N.H.
Stone Conveyor	N.H.	Stone Conveyor	N.H.
Sprockets		Primary	N.H.
Primary	N.H.	Secondary	N.H.
Secondary	N.H.	Cross Conv	N.H.
Cross Conv	N.H.	Lower Side Conv	N.H.
Upper Side Conv	N.H.	Upper Side Conv	N.H.
Sorting Conv or Bin Fill	N.H.	Sorting Conv or Bin Fill	N.H.
Bulk Loader	N.H.	Bulk Loader	N.H.
Stone Conv	N.H.	Stone Conv	N.H.
Gear Boxes		Engine 15W	N.H.
Engine 15W	N.H.	Airhead 15W	N.H.
Airhead 15W	N.H.	Chain Drive 90W	N.H.
Grease All Bearings	N.H.	Grease All Bearings	N.H.
& Wear Plates	N.H.	& Wear Plates	N.H.
Durst Gear Box W/Syntec Oil	N.H.	Durst Gear Box W/Syntec Oil	N.H.
Breathers	N.H.	Breathers	N.H.