

# P85 IRRIGATION POWER UNITS

## SPECIFICATIONS

### Engine Type

4 cylinder, 2 valve, turbo-charged  
(with rotary injection pump)

### Engine Displacement

4.5 liters (272 cu. in.)

### Nominal Power Developed

91 hp (68 kW) @ 2200 rpm

### Warranty

2 year/2,000 hour  
(whichever occurs first)

### Engine Certification

The P85 irrigation power unit meets  
Tier III EPA, CARB & EU Emissions  
Standards



## FEATURES/BENEFITS

Case IH Irrigation Power Units are O.E.M. designed, tested and manufactured, and offer a combination of quality, value, availability and warranty that few can match. The P85 features a balanced engine for smooth operation.

All irrigation power units are designed and tested to give you unparalleled fuel efficiency and dependability, and are factory tested before shipment to insure optimum quality and performance.

Case IH Irrigation Power Units also feature a side mounted, rodent proof control panel that can be easily removed and remounted to meet your specific requirements.

- Coolant Temperature Shutdown (Safety Shutdown Standard)
- Coolant Level Shutdown
- Low Oil Pressure Shutdown

The P85 irrigation power unit features the following optional equipment:

- Steel battery cables
- Steel battery trays
- Side engine mounted oil fills
- Oil level shutdown
- Hood Completion Kits
- Double sheave front crankshaft pulley

All optional equipment is available from the factory or installed by your Case IH dealer.

All units come with a 2 year/2,000 hour warranty, which ever occurs first.

The P85 irrigation power unit meets Tier III EPA, CARB & EU Emissions Standards.

All units are painted with a factory proven dry-coat paint finish to protect against fading and damage from the outside elements.

Your Case IH dealer can help you maintain your irrigation power unit through regular oil changes and by performing the required maintenance checks. You can also order Original Equipment Manufacturer (O.E.M.) repair parts for your irrigation power unit from your Case IH dealer.

Case IH Irrigation Power Units offer O.E.M. quality that's better than the competition. Case IH Irrigation Power Units are produced in a manufacturing setting that uses strict processes, consistent use of components and stringent quality controls.

Control panel features a full gauge package including:

- Coolant Temperature Gauge
- Engine Oil Pressure Gauge
- Voltmeter
- Tachometer
- Hourmeter
- Key Switch

## CONTINUOUS HORSEPOWER RATINGS

DESCRIPTION	2200 RPM	2000 RPM	1800 RPM
Rated Gross Power	99 hp (74 kW)	99 hp (74 kW)	95 hp (71 kW)
Rated Torque	237 lb./ft. (321 Nm)	258 lb./ft. (350 Nm)	227 lb./ft. (375 Nm)
Fuel Consumption BSFC	0.387 lb./hp-hr. (235 g/kW-hr.)	0.368 lb./hp-hr. (223 g/kW-hr.)	0.364 lb./hp-hr. (221 g/kW-hr.)
Net Power (less optional equip.)	91 hp (68 kW)	95 hp (71 kW)	94 hp (70 kW)
Fuel Consumption (assuming fuel density of 835 kg/m <sup>3</sup> )	5.5 gal./hr. (20.8 L/hr.)	5.20 gal./hr. (19.7 L/hr.)	4.96 gal./hr. (18.8 L/hr.)
Peak Torque	317 ft.-lbs. (430 Nm) @ 1250 rpm	317 ft.-lbs. (430 Nm) @ 1250 rpm	317 ft.-lbs. (430 Nm) @ 1250 rpm
Altitude Capability without Derating	6,550 ft. (2000 m)	6,550 ft. (2000 m)	6,550 ft. (2000 m)

Optional low oil level shutdown.



Standard rodent-proof instrument panel.



Double sheave front crankshaft pulley is optional.



## P85 SPECIFICATIONS

<b>Engine Model</b>	F4GE9404F*J6910
<b>Engine Type</b>	4 cylinder, 2 valve, turbo-charged (with rotary injection pump)
<b>Engine Displacement</b>	272 cu. in. (4.5 liters)
<b>Bore and Stroke</b>	4.09 x 5.02 in. (104 x 132 mm)
<b>Compression Ratio</b>	17.5 +/- 0.5:1
<b>Engine Configuration</b>	4 cylinder, in-line, four-stroke cycle (firing order 1,3,4,2)
<b>Description</b>	Turbo-charged, compression ignition, air-to-air cooled, direct injection from Robert Bosch rotary pump with balancer
<b>Governor Breakaway</b>	2200 rpm +/- 25 rpm
<b>Governor Regulation</b>	8% +/- 1%
<b>High Idle Speed</b>	2400 +/- 50 rpm
<b>Low Idle Speed</b>	850 rpm +/- 50 rpm
<b>Nominal Power Developed</b>	91 hp (68 kW) @ 2200 rpm
<b>Nominal Max Torque</b>	317 ft.-lbs. (430 Nm) @ 1250 rpm
<b>Altitude Capacity</b>	6,550 ft. (2000 m)
<b>Engine Certification</b>	Tier III, US EPA heavy-duty non-road emissions, EU heavy-duty non-road emissions and California Air Resources Board (CARB)

## ADDITIONAL INFORMATION

STANDARD EQUIPMENT	WEIGHTS	OPTIONAL EQUIPMENT
<b>Air Cleaner:</b> two stage	<b>With PTO</b>	<b>Low Oil Level Shutdown</b>
<b>Air Cleaner Restriction Indicator</b>	– with hood . . . . . 1,428 lbs. (647.7 kg)	<b>PTO – 10 in. Single Over Center</b>
<b>Alternator:</b> 14 volt, 90 amp	– without hood . . . . . 1,384 lbs. (627.8 kg)	<b>Double Sheave Front Crankshaft Pulley</b>
<b>Battery Tray</b> (shipped loose with unit)	<b>Without PTO</b>	<b>Long Hood</b>
<b>Belt Guards</b>	– with hood . . . . . 1,358 lbs. (616.0 kg)	<b>Steel Battery Tray</b>
<b>Curved Exhaust Pipe</b>	– without hood . . . . . 1,314 lbs. (596.0 kg)	<b>Steel Battery Cables</b>
<b>Engine Lifting Brackets</b>		
<b>Engine Sub Base</b>		
<b>Instrument Panel:</b>	<b>DIMENSIONS</b>	
– Oil Pressure Gauge with Low Pressure Shutdown	<b>Height to Top of Hood:</b> 48.16 in. (1223.3 mm)	
– Coolant Temperature Gauge with High Temperature Shutdown	<b>Overall Height:</b> 63.42 in. (1610.9 mm)	
– Hourmeter	<b>Height to PTO Shaft:</b> 15.91 in. (404.1 mm)	
– Voltmeter	<b>Skid Width:</b> 32.09 in. (815.0 mm)	
– Key Switch	<b>Overall Width:</b> 45.53 in. (1156.5 mm)	
– Emergency Stop Button	<b>Skid Length:</b> 50.34 in. (1278.5 mm)	
– Tachometer	<b>Overall Length:</b> 63.9 in. (1623.1 mm)	
<b>Latching Front Cover</b>	<b>Diameter of PTO Shaft:</b> 2.25 in. (57.2 mm)	
<b>Low Coolant Level Shutdown</b>		
<b>Radiator Shroud</b>		
<b>Radiator with Deaeration Tank</b>		
<b>Starter:</b> 12 volt		
<b>Vernier, Self-Locking Speed Control Cable</b>		



## P85 ALLOWABLE SIDE-PULL LOADS – FOR STANDARD POWER TAKE OFFS

The following general information should be used for determining the actual applied load:

$$L = \frac{126,000 \times \text{HP}}{N \times D} \times F$$

**Where:**

L = Actual applied load (lbs.)

N = Shaft speed (rev./min.)

D = Pitch dia. of sheave, etc.

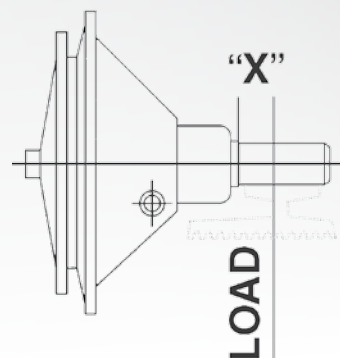
F = Load factor

1.0 For chain or gear drive

2.5 For all v-belt drives

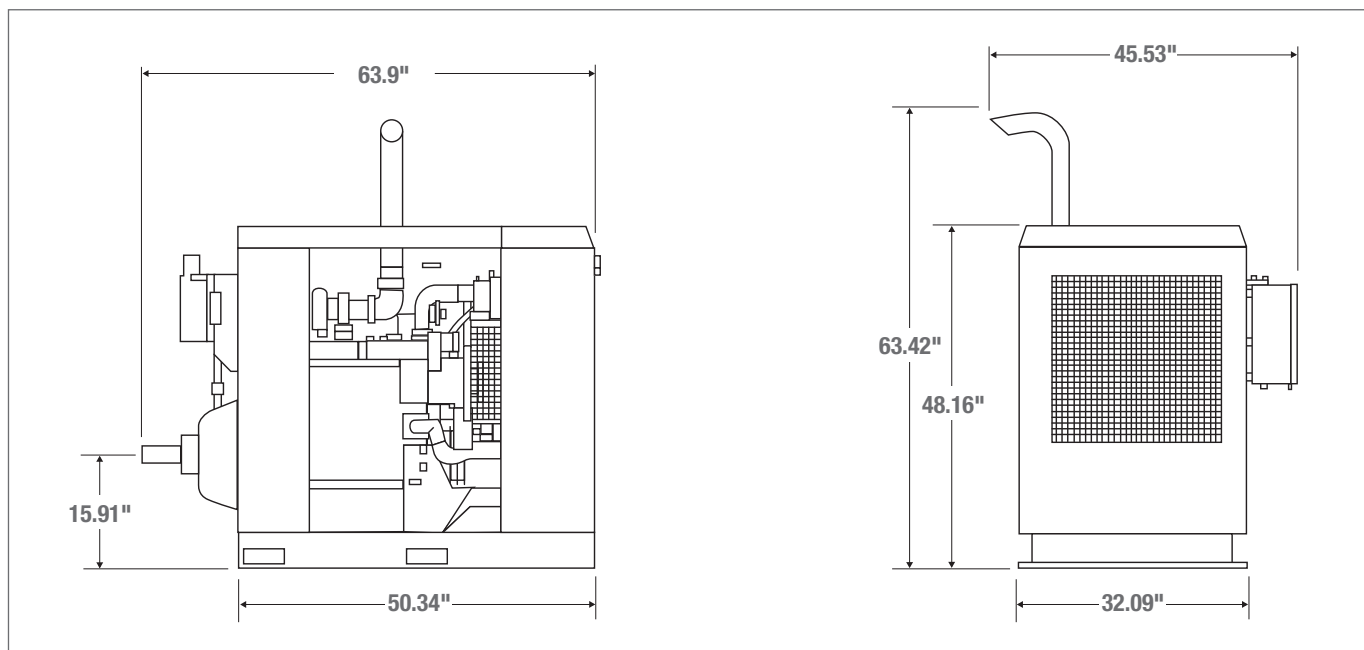
3.5 For flat bed

NOTE: Reciprocating compressors and other severe shock drives, multiply the above factors by 2.1



"X" Distance Inches (See Sketch)

PTO	RPM	1	2	3	4	5
C110HP X8249 C111HP	1000	2740	2190	1730	1430	1216
	1500	2420	2190	1730	1430	1216
	2000	2230	2070	1730	1430	1216
	2600	2050	1910	1730	1430	1216



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