

GPO Lubricator

Automatic Continuous/Intermittent, 70152



Operation

The 70152 Lubricator consists of a motor-driven gear pump with separate continuous and intermittent discharges provided. Discharge flow for the continuous outlet can be adjusted by turning the bypass valve counter-clockwise to reduce the flow or by closing the valve to increase the oil flow. The pump outlet time settings are controlled and monitored by electrical controls within an enclosure with full adjustments provided.

This Lubricator had been designed as a replacement for P/N 20305-2.

Technical Data

Single Phase Motor	Motor	1/20 hp 50/60 Hz CONTINUOUS DUTY, T.E.F.C.
	Voltage	115 VAC
	Frequency	60/50 Hz
	Speed	1370/1670 rpm 50/60 Hz
	Amp Draw	0.84 / 0.70 for 50/60Hz
	Maximum Ambient Temperature	104°F (40°C)
	Outlet Connections (2)	1/4" O.D. Tubing
Pump	Discharge	132cc (110 cc/50Hz) per minute
	Bypass Regulation (Continuous Branch)	Flow Bypass
	Relief Valve	130 psi
	Inlet Filter	125 Micron
	Outlet Line Filter (2)	25 Micron
	Reservoir	4 Liter
	Level Switch	Single Contact N/O (reversible)
	Pressure Switch	SPST N/O Opens @ 9+/-1 psi on falling pressure Closes @ 11+1-2psi on rising pressure
	Solenoid	3/2 Valve 115VAC

Discharge Adjustment

The GPO Lubricator is preset with a closed bypass valve for a maximum discharge of 132cc per minute. With lubricator at normal operating temperature on machine, desired discharge volume is obtained by adjusting the continuous bypass valve to pre-calculated pressure on system pressure gauge.

System & Limitations

Use Type C control units. Viscosity range is 100 to 10,000 SSU at operating temperature. See *Bijur Engineering Manual* for system limitations.



70152 Lubricator

ATTENTION

Use clean oil only of the type and viscosity recommended by machine manufacturer.

ATTENTION

Replace filters annually.
(2 external, 1 internal)

Notes:
P.N. 70152 Replaced P.N.
20305-2

See page 6 for settings
comparison

BIJUR DELIMON INTERNATIONAL

(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

WWW.BIJURDELIMON.COM

2250 Perimeter Park Dr., Suite 120
Morrisville, NC 27560

35942 • R1 09/15

Startup Instructions

1. Fill reservoir with oil.
2. Start machine and see that oil flows at all bearings.

Maintenance

Check oil level daily and refill reservoir when required. Replace filter group annually.

Filter Replacement

An inlet filter provides primary protection of the lubricating system. The filters should be inspected every six months. If not clean, replace. To replace pump filter, remove four reservoir screws and lift pump assembly plate from reservoir, replace suction filter with new assembly. To replace external in-line filter, unscrew filter housing, remove and replace filter element.

Motor Replacement

1. Disconnect the electrical supply from the motor, disconnect system tubing and remove lubricator unit from the oil reservoir by opening the 4x M5 screws that are holding the downspout to the pump top plate.
2. Turn the lubricator unit upside down and remove the filter inlet connector rod / filter from the pump by turning the hex of the filter carefully in a counter-clockwise direction. Also remove the inlet gear pump adaptor and O ring that connect the inlet filter rod to the gear pump.
3. Remove the two M4 SHC screws holding the gear pump to the downspout and remove the gear pump. Remove the three #8-32 socket cap screws holding the downspout and lift the downspout clear from the motor / adaptor plate.
4. Carefully pull the motor driveshaft / motor coupling from the motor shaft.
5. Replace the motor and carefully re-assemble the motor driveshaft / motor coupling onto the new motor shaft. The motor coupling must be equally spaced between the motor driveshaft and the motor shaft.
6. Re- assemble the downspout onto the motor by carefully lining up the three holes and inserting and tightening the three #8-32 socket cap screws.
7. Re-assemble the gear pump to the downspout, ensuring that the shaft of the gear pump meshes with the motor driveshaft. Place the inlet gear pump adaptor and O ring onto the gear pump and then insert the two M4 SHC screws to hold in place.
8. Re-assemble the filter inlet connector rod / filter into the gear pump adaptor.

BIJUR DELIMON INTERNATIONAL

(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

WWW.BIJURDELIMON.COM

2250 Perimeter Park Dr., Suite 120
Morrisville, NC 27560

How to Order

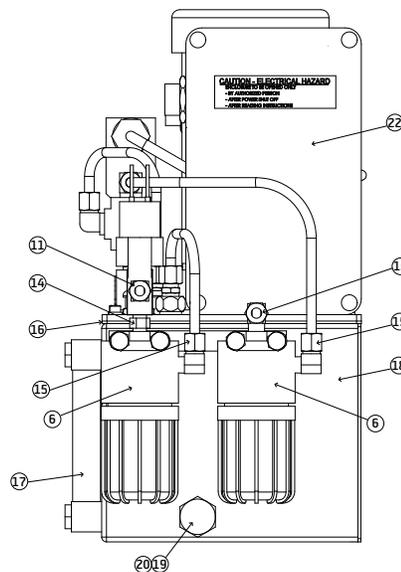
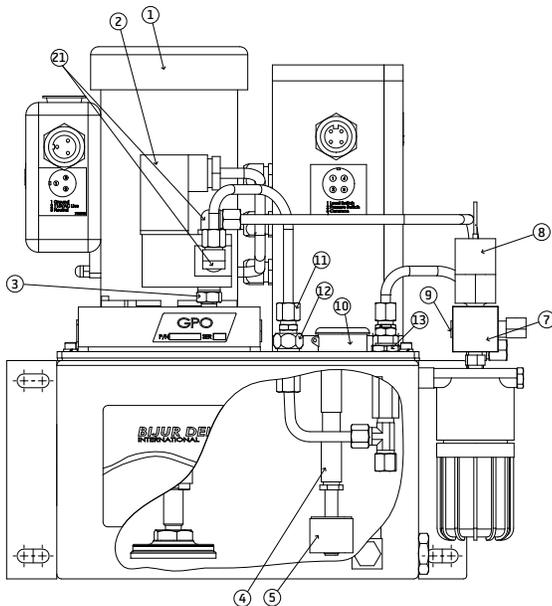
Name	Motor	Part #
GPO Lubricator	Single Phase	70152

When ordering, specify name, motor, reservoir capacity and part number, e.g. GPO Lubricator, single phase, Part #70152.

Service Parts 70152

Item	Description	Part #
1	Pump & Motor assembly*	29163-2
2	Solenoid valve 115VAC	20311-9
3	Adapter 1/4" x 1/8" NPT	B9593
4	Rod extension	B9637
5	Level switch, N.O.	B9640
6	Pressure filter**	19848
7	Junction 4 way	B7684
8	Pressure switch 1/8NPTF	26410
9	Plug 1/8NPT	HP603
10	Filler cap	HF705C
11	Adapter 1/4" tube x 1/8NPT	B6534
12	Adapter straight	B7659

Item	Description	Part #
13	Bypass valve	B9102
14	Check valve 2 lb.	B5880
15	Adapter 90° 1/4" tube x 1/8NPT	B6536
16	Gasket - reservoir	20306
17	Sight gauge	19312-2
18	Reservoir	24856-1
19	O-ring seal	H0413
20	Drain plug	B9602
21	1/4NPT elbow	B6535
22	Electrical enclosure assembly	70335
*	See page 4 for pump & motor parts	
**	Replacement filter element only	B6890



BIJUR DELIMON INTERNATIONAL

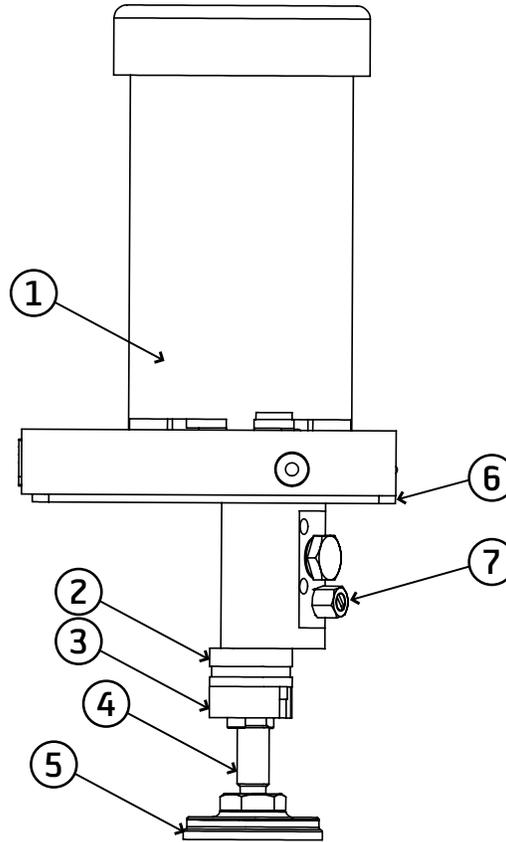
(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

WWW.BIJURDELIMON.COM

2250 Perimeter Park Dr., Suite 120
Morrisville, NC 27560

Service Parts 29163-2

Item	Description	Part #
1	Motor	70348
2	Gear pump	25937-1
3	Pump inlet adapter	60715
4	Connector rod	B8482
5	Filter assembly	B5909
6	Gasket	B6903-1
7	Relief valve 130 psi	B6898



Pump & Motor assembly 29163-2

BIJUR DELIMON INTERNATIONAL

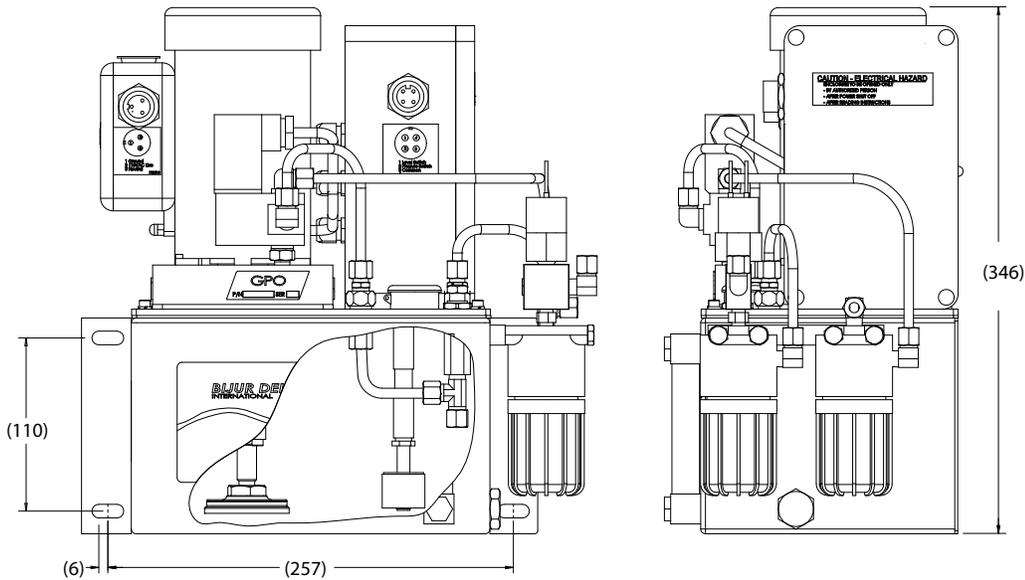
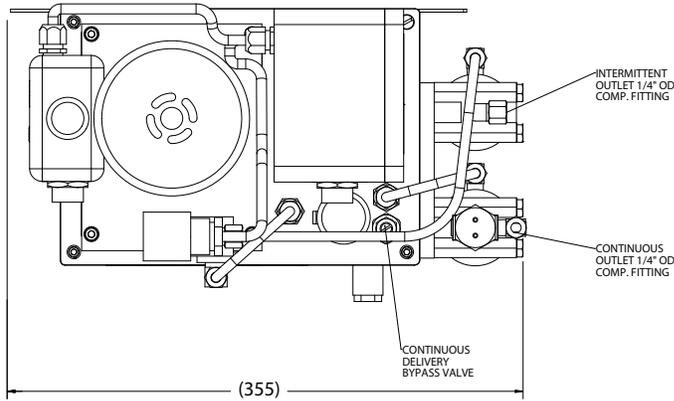
(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

WWW.BIJURDELIMON.COM

2250 Perimeter Park Dr., Suite 120
Morrisville, NC 27560

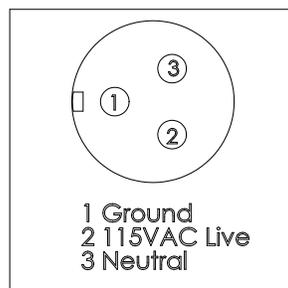
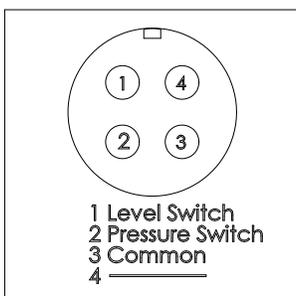
**Dimensional Schematic
70152**

Measurements shown in millimeters.



**Level Switch & Pressure Switch
4 pin connector**

**Motor
3 pin connector**



BIJUR DELIMON INTERNATIONAL

(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

WWW.BIJURDELIMON.COM

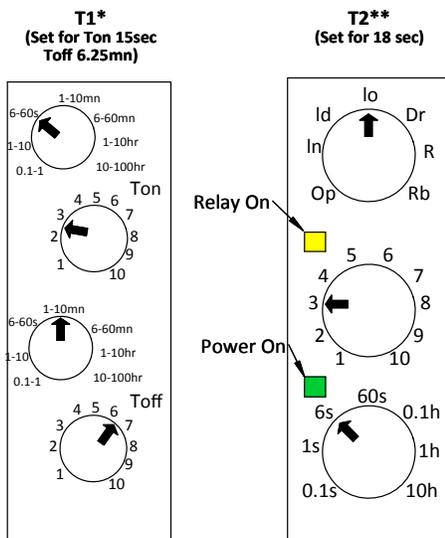
2250 Perimeter Park Dr., Suite 120
Morrisville, NC 27560

20305-2 Vs. 70152 Timer Settings

The 70152 pump replaces the 20305-2.
See chart for pump settings comparison.

INTERMITTENT DELIVERY CORRELATION

20305-2 Pump Settings			Timer Settings of 70152 Pump		
Cam Setting	Cycle Time	Cycle Discharge	T1		T2
			Ton	Toff	
8	6.25 min	32 cc	15 sec*	6.25 min*	18 sec**
7	6.25 min	21 cc	10 sec	6.25 min	13 sec
6	6.25 min	14 cc	6.5 sec	6.25 min	10 sec
5	6.25 min	10 cc	4.5 sec	6.25 min	8 sec
4	25 min	21 cc	10 sec	25 min	13 sec
3	25 min	14 cc	6.5 sec	25 min	10 sec
2	25 min	11 cc	5 sec	25 min	8 sec
1	25 min	8 cc	3.5 sec	25 min	6 sec



Settings Example:

If a customer that previously had the 20305-2 pump with a cam setting of 2, the cycle time would be 25 minutes with a discharge of 11cc per cycle.

To achieve the same delivery on the 70152 pump the customer would need to set the T1 timer settings to Ton = 5 seconds and Toff = 25 minutes.

Delivery Adjustments

To adjust the settings of the timers inside the electrical enclosure, first ensure that power to the pump is turned off. Remove the four screws that hold the enclosure cover onto the enclosure.

Timer T1

- To set the intermittent outlet on-time, adjust the Ton settings. Example: for an intermittent time of 15 seconds, set the top Ton dial setting to 6-60s and the bottom Ton dial setting to 3.
- To set the continuous outlet on-time, adjust the Toff settings. Example: for a continuous time of 6.25 minutes, set the top Toff dial setting to 1-10mn and the bottom Toff dial setting a quarter of the way between 6 and 7 on the dial.

Timer T2

- The T2 timer setting is the off-delay setting which keeps the pressure switch signal closed during the switch over to the intermittent on-time period from the continuous outlet. This setting needs to be longer than the Ton setting on timer T1. Example: for an off-delay of 3 seconds, set the top dial of T2 to I₀, the middle dial to 3 and the bottom dial to 6s. This gives an off-delay time of 18 seconds which with a Ton time setting on timer T1 of 15 seconds gives a 3 second delay.

Ensure the enclosure cover is re-attached to the enclosure before restoring power the pump.

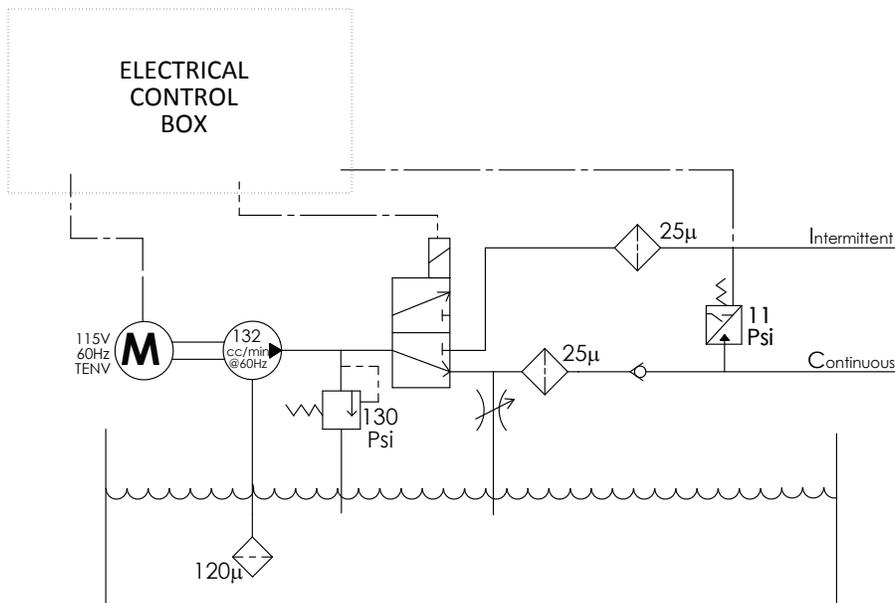
BIJUR DELIMON INTERNATIONAL

(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

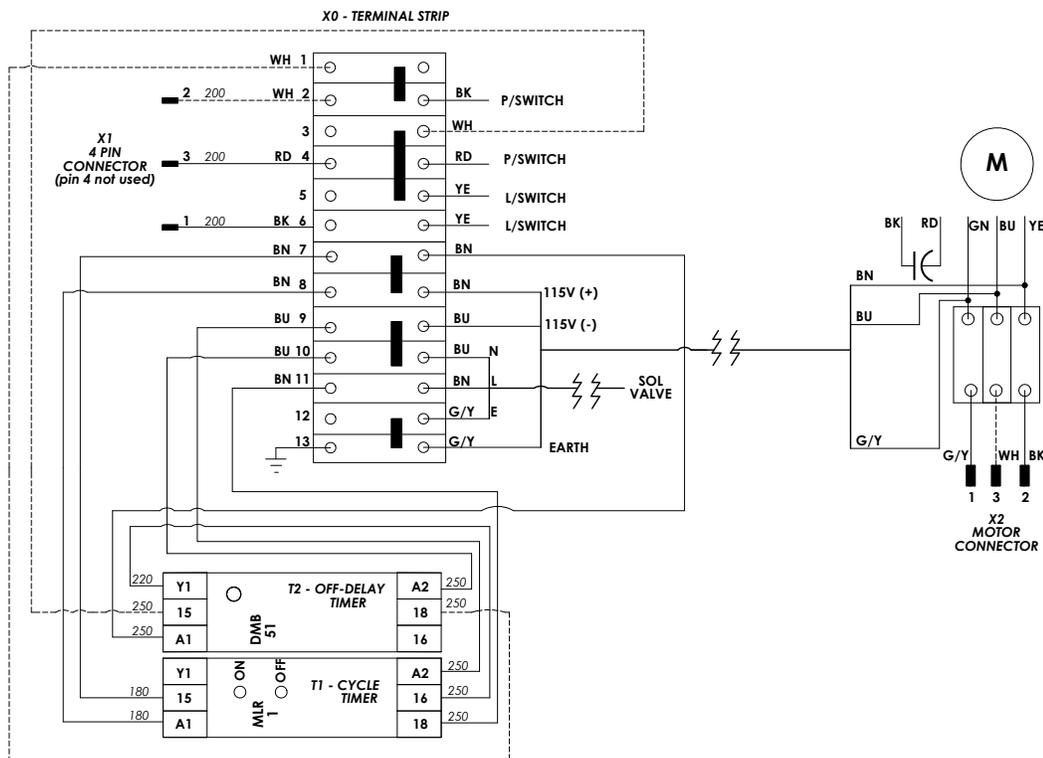
WWW.BIJURDELIMON.COM

2250 Perimeter Park Dr., Suite 120
Morrisville, NC 27560

70152 Lubrication Diagram



70152 Wiring Diagram



BIJUR DELIMON INTERNATIONAL

(919) 465 4448 LOCAL
(800) 631 0168 TOLL-FREE
(919) 465 0516 FAX

WWW.BIJURDELIMON.COM

2250 Perimeter Park Dr., Suite 120
Morrisville, NC 27560