OPERATION AND MAINTENANCE MANUAL

PGB24-4 POSITIVE PRESSURE VENTILATOR

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This manual covers the description, operation and maintenance of your Gasoline powered Positive Pressure Ventilator.

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1. SPECIFICATIONS

24" POSITIVE PRESSURE VENTILATOR
with Honda 5.5 hp 4 cycle gasoline engine

INCLUDING OPTIONS DESIGNATED BY THE PURCHASER

INTENT: It is the intent of these specifications to provide for the purchase of a 24" Positive Pressure Ventilating Fan equipped with a Honda engine that will discharge no less than 19,555 cfm when tested to AMCA Standard 240. Fans that fail to meet these specifications will not be considered.

SIZE: The fan shall come equipped with a blade having a nominal diameter of 24 inches. The overall design shall be suitable for use under a variety of emergency conditions and shall be delivered according to the specifications as set forth herein.

DIMENSIONS: With the handle in the down position the dimensions of the fan, including frame, wheels and shroud, shall not exceed 31" high x 28-1/2" wide x 21-1/2" deep. Weight shall not exceed 95 pounds dry weight.

ENGINE: The fan shall be powered by an unmodified Honda 4 cycle overhead valve engine. It shall come equipped with a ball bearing PTO and generate 5.5 horsepower at 3600 rpm. A transistorized ignition system shall be supplied. Carburetor shall be of the gravity float type. Fuel tank capacity shall be .95 US gallons (3.6 liters). Oil capacity shall be .53 US quarts (0.6 liters). The engine shall be mounted on a steel mount fabricated for the purpose that shall be welded to the sides of the frame. The engine shall be fully warranted by Honda for a period of 1 year from the date of purchase. The fan manufacturer shall certify that the engine can be serviced at any Authorized Honda repair facility. The design of the fan shall be such that under full load it shall not exceed the rpm as recommended by Honda, and that the usual and customary operation of the fan under emergency conditions shall not function in any way contrary to the engine manufacturer's recommendations such as would subject it to undue wear or damage.

BLADE: A 24" diameter multi-wing blade design incorporating a cast aluminum hub complete with fiberglass reinforced polypropylene arms shall be supplied. The arms shall be easily removed for replacement if necessary.

FRAME: A continuously welded frame assembly shall surround the entire engine and fan across the back and around each side. The frame shall curve forward providing a stable mounting base under the fan. All welds are to be ground smooth. A three point mounting system shall be employed under the bottom frame members utilizing rubber shock absorbers. The frame shall be constructed of no less than 1" x 16 gauge steel tubing providing protection from excessive damage during handling and use under emergency conditions. A telescoping "T" handle shall be provided in the rear center of the horizontal frame members. The handle shall slide easily inside the 1" tubing. The Fire Fighter Friendly "T" handle handgrips shall be large enough so that the machine can be easily gripped and moved while wearing heavy duty work gloves. A push button locking mechanism shall be provided to retain the handle in the up or down position. The side frame cross members shall permit easy access for lifting and transporting the machine. A shovel or "D" type handle shall not be considered as meeting these specifications.

VENTURI: A steel shroud shall be mounted at the front of the fan, completely surrounding the fan blade. The shroud shall act as a venturi and direct the flow of air from the fan. Two cadmium plated OSHA approved finger guards shall be installed, one on the intake and one on the discharge side of the fan blade. The guards shall be securely fastened to the shroud in such a manner that vibration will not cause them to come loose.

WHEELS, TIRES & AXLE: The fan shall be equipped with wheel assemblies having two 8" pneumatic tires to provide smooth and easy maneuverability. Each tire shall be supplied with an inner tube and fill valve and shall be mounted on steel wheels having ball hubs. These wheel assemblies shall then be mounted on a ½" diameter full width stainless steel axle for stability, low maintenance and long life. Designs that do not include a full width axle shall not be considered as meeting these specifications. The wheels shall be located inside the frame to prevent accidental damage or wheel misalignment when in use. Special tools shall not be required to remove or repair the wheels, tires or axles. With the handle in the down position the wheels shall not touch the ground when operating on a level plane.

TILT MECHANISM: In order to insure that the fan will provide the maximum performance and coverage, a sliding tilt mechanism permitting a minimum of a 40° arc shall be provided and to allow for locking the tilt in any position within the range. The design shall incorporate a mechanism that tilts only the motor, fan blade and shroud while keeping the frame stationary. This will insure that the proper setback will be maintained during operation. An easily accessible friction lock with a knurled knob shall be provided to secure the tilt mechanism. Ratchet or foot operated mechanisms shall not be deemed to meet these specifications.

FINISH: The complete frame assembly as well as the shroud shall be finished in smooth red powder coated enamel paint. The engine shall retain the original Honda finish. The blades shall not have any finish applied.

OPTION 1*: If so designated as a part of these specifications the Honda Oil Alert feature shall be provided with the engine.

OPTION 2*: If so designated by these specifications a digital tachometer/hour meter shall be supplied and installed. It shall be mounted in a convenient place on the frame and be easily read.

OPTION 3*: If so designated by these specifications a 10' long x 1-1/2" diameter high temperature (400° F.) exhaust extension hose shall be supplied. The hose shall come equipped with a stainless steel strain relief. There shall also be a stainless steel collar provided that can be mounted to the Honda exhaust and shall have a push button lock for easy attachment or removal of the hose assembly. The discharge end of the hose shall have a cuff molded on that will allow a second 10' length of hose to be added. NOTE: A maximum of (2) 20' lengths of hose are permitted without affecting the performance of the engine.

OPTION 4*: If so designated by these specifications a second 10' x 1-1/2" diameter high temperature (400° F.) exhaust extension hose shall be supplied with a cuff molded on to the intake end to accommodate the discharge end of another piece of similar hose, permitting quick and secure attachment of the two pieces together.

*The purchaser must specify which options, if any, are to be included in this specification.

2. SAFETY PRECAUTIONS

- Do not modify the ventilator in any way
- Ventilators shall be operated only by trained personnel
- Never operate the ventilator without proper safety guards in place
- Do not tilt ventilator beyond angle provided by tilt mechanism
- Do not operate ventilator on unsteady or unstable surfaces
- Wear appropriate safety protection
- Do not wear loose clothing
- Remove any objects, prior to start up, that may be sucked through ventilator
- Caution – engine exhaust gases are poisonous – never operate in confined areas
- Do not operate in explosive environments
- Do not use the ventilator for other than its intended purposes

3. RECEIPT & PREPARATION FOR OPERATION

- Tighten all fasteners and inspect for possible damage caused in shipping
- Fill oil reservoir with recommended oil to levels indicated in Honda Engines Owner Manual
- Fill gasoline tank with unleaded fuel as per Honda Owners Manual recommendations
- Inspect guards to ensure operators safety
- Remove any loose objects that may be drawn into ventilator

4. OPERATION

Refer to Honda Engines Owners Manual with respect to the following:

- Check oil levels
- Check air filter
- Check and refuel as required
- Familiarize yourself with Engine control features and locations

Some PPVs are equipped with an Oil Alert system to prevent engine damage as a result of low oil levels. The Oil Alert System is designed to automatically shut the engine off to avoid engine damage. Care must be taken to avoid automatic shut off when operating PPVs on an incline.

Refer to Honda Engine Owners Manual for correct start up and shut off procedures.

5. MAINTENANCE

- Maintenance should be performed by trained personnel
- Prior to any maintenance ensure that the ventilator has come to a complete stop then remove spark plug wire as a safety precaution

General Maintenance

- PPV impeller must be clean and free from any material build up to ensure smooth vibration free operation
- Inspect guards to ensure they are undamaged and securely installed
- Inspect and tighten all nuts, bolts and fasteners
- Rotate blade to ensure it will not contact any part of PPV.

For Honda Engine Maintenance please refer to Honda Engine Owners Manual.

6. PARTS LIST

NO.	DESCRIPTION	QUANTITY	NO.	DESCRIPTION	QUANTITY
PGB24-4H	Metric 24" Positive	1	1P107	24" Back Guard	1
			1P139	Handle for PGB/PEB 21 & 24	1
			1P146	Axle for PGB & PEB 21, 24	1
			1P150	Main Frame	1
			1P191	Blower Spinning & Motor	1
			1P201	5.5HP Gasoline Engine	1
			1P401	24" Multi-Wing Prop	1
			1P510	Spring Clips	2
			1P514	M8 X 1.25 Rivnut	4
			1P520	Anti-vibration mounts	4
			1P521	Finishing Plug	2
			1P522	Nylon Knob for PGB	1
			1P523	Adjustment Slide Bar	1
			1P800	Positive Pressure Tire	2
			1PM106	PGB/PEB-24 Metric Front	1
			1PM502	12-1.75 X 35 Socket Cap	2
			1PM503	12-1.75Z 10 Locks Nut	2
			1PM507	8-1.25ZCL10 Locks Nut	6
			2H2208	1/4" (6MM) Lock Washer	8
			2H2209	1/4" (6MM) Flat Washer	8
			2H3308	5/16" (8MM) Lock Washer	9
			2H3309	5/16" (8MM) Flat Washer	27
			2H3333	5/16" X 2" Square Head	1
			2H3395	5/16"-24 (8MM) X 1" Hex	4
			2H4500	7/16" (11MM) Flat Washer	4
			2H6050	1/8" (3.2MM) Cottor Pin	2
			2HM2212	6MM-1.0 X 20 Hex Head Bolt	8
			2HM3311	8MM-1.25 X 20 Hex Head	2
			2HM3315	8MM-1.25 X 45 Hex Head	4
			2N115	Made in Canada – Large	1
			2N125	Built By, Checked By	1
			2N167	Fantraxx Logo Round	1
			2N177	Fantraxx General Name	1
			CT#PGB	PGB Carton	1
			PUGX3/4	G-Bushing 3/4"	1

7. WARRANTY AND LIMITATION OF LIABILITY

If the product sold hereunder are defective at the time of delivery in material or workmanship and written notice is given to Seller within one year after shipment, Seller, at its option will repair or replace the products, give Buyer an equitable credit, or refund the purchase price for such products determined by Seller to be defective, provided that the products shall not been altered or repaired after shipment to Buyer by anyone except Sellers authorized employees. *SELLER'S TOTAL RESPONSIBILITY SHALL NOT EXCEED THE SALES PRICE OF THE DEFECTIVE PRODUCTS. TRANSPORTATION TO RETURN DEFECTIVE PRODUCTS IS TO BE PREPAID*. If Buyer fails to give such notice within one year after shipment, any claims for breach of warranty by Seller shall be barred. Products manufactured by others but furnished by Seller are limited to original manufacturer's warranty. Leader Fan Industries Limited assumes no liability for resultant damages, labour and service charges of any kind arising from the use of its products. On equipment furnished by Leader Fan Industries Limited but manufactured by others, such as motors, the warranty will be honored by the manufacturer hereof.