

DuroMax XP18HPX

DuroMax XP18HPX 439cc Dual Fuel Engine User Manual

Model: XP18HPX

1. INTRODUCTION

This manual provides comprehensive instructions for the safe operation, maintenance, and troubleshooting of your DuroMax XP18HPX 439cc Dual Fuel Engine. This powerful 4-stroke OHV engine is designed for various heavy-duty applications, offering the flexibility of running on either gasoline or propane. Please read this manual thoroughly before operating the engine to ensure proper use and to prevent injury or damage.

The DuroMax XP18HPX features a 439cc engine displacement, a 1-inch shaft, and convenient starting options including both electric key start and an E-Z pull recoil starter. It is equipped with a 1.4-gallon fuel tank for gasoline and includes a propane hookup for extended runtimes and fuel versatility. This engine is EPA and CARB approved.

2. SAFETY INFORMATION

WARNING: Failure to follow these safety instructions could result in serious injury or death.

- **Carbon Monoxide Hazard:** Engine exhaust contains carbon monoxide, a colorless, odorless, poisonous gas. Operate the engine only in well-ventilated outdoor areas. Never operate indoors or in enclosed spaces.
- **Fire Hazard:** Gasoline and propane are highly flammable. Store fuel in approved containers away from ignition sources. Refuel in a well-ventilated area with the engine off and cooled. Do not smoke while refueling.
- **Hot Surfaces:** The engine and muffler become very hot during operation and remain hot for some time after shutdown. Avoid contact to prevent burns.
- **Moving Parts:** Keep hands, feet, hair, and clothing away from moving parts such as the flywheel and shaft to prevent entanglement.
- **Electrical Shock:** Ensure all electrical connections are secure and insulated. Do not operate the engine in wet conditions.
- **Eye Protection:** Always wear appropriate eye protection when operating or servicing the engine.
- **Children and Pets:** Keep children and pets away from the engine during operation and while it is cooling down.

3. COMPONENTS OVERVIEW

Familiarize yourself with the key components of your DuroMax XP18HPX engine.



Image 3.1: Overview of the DuroMax XP18HPX 439cc Dual Fuel Engine. This image displays the main body of the engine, highlighting its blue and black components, including the air filter housing and fuel tank.



Image 3.2: Close-up of the electric key start mechanism on the DuroMax XP18HPX engine. This shows the ignition switch and circuit breaker, essential for electric starting.

- **Air Filter:** Protects the engine from dust and debris.
- **Fuel Tank (Gasoline):** Holds up to 1.4 gallons of gasoline.
- **Propane Inlet:** Connection point for propane fuel supply.
- **Recoil Starter:** Manual pull-start mechanism.
- **Electric Start Key Switch:** For convenient electric starting.
- **Choke Lever:** Used for starting a cold engine.
- **Fuel Shut-off Valve:** Controls gasoline flow to the carburetor.
- **Oil Fill Cap/Dipstick:** For adding and checking engine oil.
- **Spark Plug:** Ignites the fuel-air mixture.
- **Muffler:** Reduces engine noise and directs exhaust gases.

4. SETUP

4.1 Unpacking and Inspection

Carefully remove the engine from its packaging. Inspect for any shipping damage. Report any damage to your dealer immediately.

4.2 Adding Engine Oil

The engine is shipped without oil. Operating without sufficient oil will cause severe engine damage and void the warranty.

1. Place the engine on a level surface.
2. Remove the oil fill cap/dipstick.
3. Add 10W-30 engine oil (approximately 1.1 quarts) until the oil level reaches the upper limit on the dipstick.
Do not overfill.
4. Securely replace the oil fill cap/dipstick.

4.3 Connecting the Battery (for Electric Start)

If using the electric start feature, connect a 12V battery (not included) to the engine's battery terminals. Ensure correct polarity: positive (+) to positive, negative (-) to negative.

4.4 Fueling the Engine

The XP18HPX is a dual fuel engine, capable of running on gasoline or propane.



**RUNS ON GASOLINE
OR PROPANE**

Image 4.1: The DuroMax XP18HPX engine positioned next to a propane tank, illustrating its dual fuel capability. This setup allows the engine to operate on either gasoline or propane.

4.4.1 Gasoline Operation

1. Ensure the engine is off and cooled.
2. Open the fuel tank cap.
3. Fill the tank with fresh, unleaded gasoline (minimum 87 octane). Do not overfill; leave space for fuel expansion.
4. Securely replace the fuel tank cap.

4.4.2 Propane Operation



Image 4.2: A propane hose with a regulator, indicating its use for connecting the DuroMax XP18HPX engine to an external propane tank. The propane tank is not included with the engine.

1. Connect the provided propane hose and regulator to a standard propane tank.
2. Connect the other end of the hose to the engine's propane inlet.
3. Ensure all connections are tight to prevent leaks.

5. OPERATING INSTRUCTIONS

5.1 Pre-Start Checks

- Check engine oil level.
- Ensure adequate fuel (gasoline or propane) is available.
- Verify all connections are secure.
- Ensure the engine is on a level surface.

5.2 Starting the Engine

5.2.1 Starting with Gasoline (Recoil or Electric)

1. Turn the fuel shut-off valve to the 'ON' position.
2. Move the choke lever to the 'CHOKE' position (for cold starts).
3. Set the engine switch to 'ON'.
4. **For Recoil Start:** Pull the recoil starter handle slowly until resistance is felt, then pull quickly and firmly. Repeat until the engine starts.
5. **For Electric Start:** Insert the key into the ignition switch and turn it to the 'START' position. Release the key once the engine starts.
6. Once the engine starts, gradually move the choke lever to the 'RUN' position as the engine warms up.

5.2.2 Starting with Propane (Recoil or Electric)

1. Ensure the gasoline fuel shut-off valve is in the 'OFF' position.
2. Open the valve on the propane tank.
3. Move the choke lever to the 'CHOKE' position (for cold starts).
4. Set the engine switch to 'ON'.
5. **For Recoil Start:** Pull the recoil starter handle slowly until resistance is felt, then pull quickly and firmly. Repeat until the engine starts.
6. **For Electric Start:** Insert the key into the ignition switch and turn it to the 'START' position. Release the key once the engine starts.
7. Once the engine starts, gradually move the choke lever to the 'RUN' position as the engine warms up.

5.3 Stopping the Engine

1. If running on gasoline, turn the fuel shut-off valve to the 'OFF' position and allow the engine to run until it runs out of fuel. This helps prevent carburetor issues.
2. If running on propane, close the valve on the propane tank.
3. Turn the engine switch to the 'OFF' position.

6. MAINTENANCE

Regular maintenance is crucial for the longevity and optimal performance of your engine. Always perform maintenance with the engine off and cooled.

6.1 Maintenance Schedule

Service Item	Every Use	Every 25 Hrs / Monthly	Every 100 Hrs / Annually
Check Engine Oil Level	✓		
Clean Air Filter		✓	
Change Engine Oil			✓
Inspect Spark Plug			✓

Service Item	Every Use	Every 25 Hrs / Monthly	Every 100 Hrs / Annually
Inspect Fuel Lines			✓

6.2 Oil Change Procedure

1. Run the engine for a few minutes to warm the oil, then shut it off.
2. Place a suitable container under the oil drain plug.
3. Remove the oil fill cap/dipstick and the oil drain plug.
4. Allow the oil to drain completely.
5. Replace the oil drain plug and tighten it securely.
6. Refill with recommended oil (10W-30) to the upper limit on the dipstick.
7. Replace the oil fill cap/dipstick.

6.3 Air Filter Maintenance

The air cleaner is a dual, semi-dry, oil bath type. Clean or replace the air filter element regularly, especially in dusty conditions.

1. Remove the air filter cover.
2. Remove the foam and paper elements.
3. Wash the foam element in warm, soapy water, rinse, and allow to air dry completely. Lightly oil the foam element with engine oil and squeeze out excess.
4. Clean the paper element by tapping it gently or using compressed air from the inside out. Do not wash. Replace if heavily soiled or damaged.
5. Reassemble the air filter components and cover.

7. TROUBLESHOOTING

This section provides solutions for common issues you might encounter with your DuroMax XP18HPX engine.

Problem	Possible Cause	Solution
Engine will not start	No fuel (gasoline or propane)	Add fuel, open fuel valve/propane tank valve.
	Engine switch OFF	Turn engine switch to ON.
	Choke in wrong position	Adjust choke for cold or warm start.
	Low engine oil	Add engine oil to correct level.
	Spark plug fouled or faulty	Clean or replace spark plug.
Engine runs rough	Stale or incorrect fuel	Drain fuel and refill with fresh, correct fuel.
	Dirty air filter	Clean or replace air filter.
	Spark plug gap incorrect	Adjust spark plug gap.
Electric start not working	Dead or weak battery	Charge or replace battery.

Problem	Possible Cause	Solution
	Loose battery connections	Tighten battery terminals.

If problems persist after attempting these solutions, please contact DuroMax customer support.

8. SPECIFICATIONS

Detailed technical specifications for the DuroMax XP18HPX engine.



Image 8.1: Graphic illustrating key features and specifications of the DuroMax XP18HPX engine, including displacement, shaft size, and fuel tank capacity.

Specification	Value
Engine Type	4-Stroke OHV Forced-Air
Displacement	439cc
Bore x Stroke	92mm x 66mm
Max Torque	38.5 N·m @ 2500 rpm
Shaft Size	1" Diameter, 2.84" Long, 1/4" Keyway
Fuel Type	Gasoline (87+ Octane), Liquefied Petroleum Gas (Propane)
Gasoline Fuel Tank Capacity	1.4 Gallons
Oil Type	10W-30
Starting System	Electric Key Start, E-Z Pull Recoil Start
Air Cleaner	Dual, semi-dry, oil bath
Product Dimensions (L x W x H)	19.29 x 13.98 x 18.11 inches
Item Weight	74.3 pounds
Emissions Compliance	EPA and CARB Approved

9. WARRANTY AND SUPPORT

DuroMax products are backed by a manufacturer's warranty. For specific warranty details, registration, or technical support, please refer to the warranty card included with your product or visit the official DuroMax website. When contacting support, please have your model number (XP18HPX) and serial number available. For further assistance, you may visit the [DuroMax Store on Amazon](#) or their official website.

© 2023 DuroMax Power Equipment. All rights reserved.

Related Documents - XP18HPX

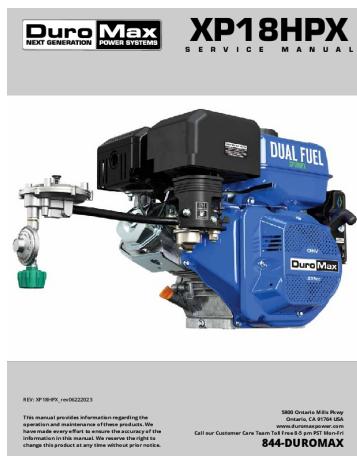
	<p>DuroMax XP10000HX Quick Start Guide: Assembly and Operation</p> <p>A comprehensive quick start guide for the DuroMax XP10000HX portable generator, detailing assembly steps and procedures for starting the unit using either propane or gasoline.</p>
	<p>DuroMax XP13000EH Generator Quick Start Guide</p> <p>This guide provides essential steps for starting and operating the DuroMax XP13000EH Dual Fuel Generator using gasoline or propane. It includes component identification, package contents, and customer service information.</p>
	<p>DuroMax XP16000IHT User Manual: Reliable Tri-Fuel Portable Generator</p> <p>This user manual for the DuroMax XP16000IHT Tri-Fuel portable generator provides comprehensive guidance on setup, operation, safety procedures, and maintenance. Learn to use your generator reliably for home backup, job sites, and outdoor adventures with features like the CO Alert system. Visit duromaxpower.com for more information.</p>
	<p>DuroMax XP13000HXT Tri-Fuel Portable Generator User Manual</p> <p>User manual for the DuroMax XP13000HXT portable generator. Learn about safe operation, setup, maintenance, and troubleshooting for this tri-fuel (gasoline, propane, natural gas) power solution.</p>
	<p>DuroMax XP12000EH Generator User Manual: Operation, Setup & Maintenance Guide</p> <p>Comprehensive user manual for the DuroMax XP12000EH Dual Fuel Generator. Learn about safe setup, operation, maintenance, troubleshooting, and warranty for reliable portable power.</p>



[DuroMax XP12000EH Dual Fuel Generator User Manual: Operation, Safety, and Maintenance](#)

Comprehensive user manual for the DuroMax XP12000EH Dual Fuel Portable Generator. Provides detailed guidance on setup, operation, safety procedures, maintenance, troubleshooting, and warranty information for reliable power generation.

Documents - DuroMax – XP18HPX

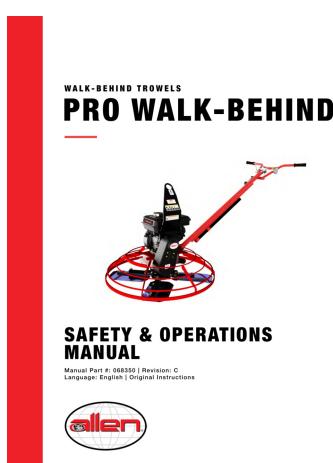


[\[pdf\] User Manual](#)

Service Manual439cc 1 Shaft Recoil Electric Start Horizontal Dual Fuel Engine DuroMax Power EquipmentXP18HPX servicemanual rev06222023 WEBcdn shopify s files 0613 1168 0689 XP18HPX WEB |||

XP18HPX SERVICE MANUAL REV: XP18HPX_rev06222023 This manual provides information regarding the operation and maintenance of these products. We have made every effort to ensure the accuracy of the information in this manual. We reserve the right to change this product at any time without prior notice...

lang:en score:32 filesize: 5.02 M page_count: 50 document date: 2023-06-22

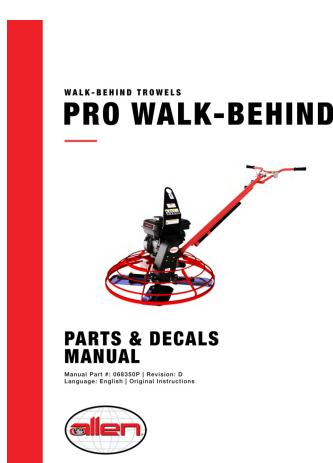


[\[pdf\] User Manual Instructions Parts List Specifications](#)

WALK BEHIND TROWELS PRO436DF Operation Manual068350 Dual fuel Walkbehind Safety and Operations Manual Rev Ccdn shopify s files 1 0551 8396 6382 068350 C v 1740419473 |||

WALK-BEHIND TROWELS PRO WALK-BEHIND SAFETY OPERATIONS MANUAL
Manual Part #: 068350 Revision: C L Gravity 068350 Page 9 SECTION 1
SAFETY Engine Specifications - Duromax DuroMax **XP18HPX** Engine Information
Engine Type:

lang:en score:31 filesize: 2.44 M page_count: 46 document date: 2024-05-10

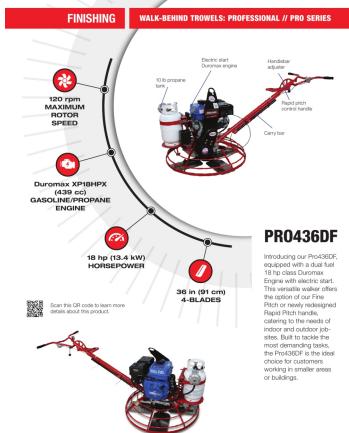


[\[pdf\] User Manual Instructions Parts List Specifications](#)

WALK BEHIND TROWELS PRO436DF Parts Manual068350P Dual fuel Walkbehind Decals Manual Rev Dcdn shopify s files 1 0551 8396 6382 068350P D v 1740419474 |||

WALK-BEHIND TROWELS PRO WALK-BEHIND PARTS DECALS MANUAL
Manual Part #: 068350P Revision: D Langu ... WELDMENT, CLAMP MOUNT BAR
BRACKET, PROPANE MOUNT 436 W/ DUROMAX PLATE, BATTERY BOX MOUNT
ENGINE, **XP18HPX** DUROMAX DF BOX, BATTERY 12V F/ 436DF 078354
CHARGER, 12V, NOT SHOWN ASSEMBLY, CLUTCH 1 ...

lang:en score:25 filesize: 3.08 M page_count: 30 document date: 2024-02-15



[pdf] Specifications Dimension Guide

WALK BEHIND TROWELS PRO436DF Spec SheetAEC SpecSheet SalesSheet Pro436DFcdn shopify s files 1 0551 8396 6382 AEC Pro436DF v 1740419473 |||

FINISHING WALK-BEHIND TROWELS: PROFESSIONAL // PRO SERIES 120 rpm MAXIMUM ROTOR SPEED 10 lb propane tank Electric start Duromax engine Handlebar adjuster Rapid pitch control handle Carry bar Duromax **XP18HPX 439 cc GASOLINE/PROPANE ENGINE 18 hp 13.4 kW HORSEPOWER Scan this QR code to learn...**

lang:en score:24 filesize: 1.13 M page_count: 2 document date: 2024-12-16



[pdf] User Manual

2054690 Man1 media tractorsupply is content TractorSupplyCompany tsc product 2 05 46 90 |||

XP18HPX USER MANUAL REV: XP18HPX_rev04082022 This manual provides information regarding the operation and maintenance of these products. We have made every effort to ensure the accuracy of the information in this manual. We reserve the right to change this product at any time without prior notice. ...

lang:en score:23 filesize: 2.13 M page_count: 70 document date: 2022-07-11



[pdf] User Manual Catalog

XP18HPXbf0a7469 640d 48cb b950 4f96f84a5cc0images thdstatic catalog Images bf bf0a7469

4f96f84a5cc0 |||

XP18HPX USER MANUAL REV: XP18HPX_rev04082022 This manual provides information regarding the operation and maintenance of these products. We have made every effort to ensure the accuracy of the information in this manual. We reserve the right to change this product at any time without prior notice. ...

lang:en score:23 filesize: 2.13 M page_count: 70 document date: 2022-07-11

