

Single and Double Head Powered Screed

Screed King



CONTENTS

Scope of This Manual	5
Unpacking and Inspection	5
Safety	5
Terminology and Symbols	5
General Safety	6
Operating Safety	6
Storage Safety	6
Refueling Safety	6
Noise Emissions and Vibrations	7
Transport	7
Introduction	8
Assembly	9
Handle Assembly	9
Throttle Assembly	11
Adjustments	12
Weight Adjustment	12
Throttle Cable Adjustment	13
Attaching the Screed Bar	14
Pre-Operation Checks	15
Check the General Condition of the Engine	15
Fuel Level Check	15
Oil Level Check	16
Air Cleaner Check	16
Operation	18
Operator Position	18
Starting the Engine	18
Screeding the Concrete	18
Turning off the Engine	18
Maintenance	19

Screed Board 19
Engine 19
Serial Number Locations. 19
Storage. 20
Troubleshooting 20
Specifications 21
Parts. 22

Power Head #1 Model _____
Power Head # 1 Serial Number _____
Power Head #2 Model _____
Power Head # 2 Serial Number _____
Screed Bar Model _____
Screed Bar Serial Number _____
Date Purchased _____



WARNING: This product can expose you to chemicals including lead, which are known to the State of California to cause cancer, and Chromium, which are known to the State of California to cause birth defects and/or other reproductive harm. For more information go to www.P65Warnings.ca.gov

SCOPE OF THIS MANUAL

This manual takes you step-by-step through your working day and alerts you to all good safety practices that should be adhered to while operating the screed.

NOTE: Screed bars 18 ft and longer require two power units. For 16 ft screed bars, a second power unit is optional.

Read this manual carefully before attempting any installation or operation. Keep the manual accessible for future reference.

UNPACKING AND INSPECTION

Upon opening the shipping container, visually inspect the product and applicable accessories for any physical damage such as scratches, loose or broken parts, or any other sign of damage that may have occurred during shipment.

NOTE: If damage is found, request an inspection by the carrier's agent within 48 hours of delivery and file a claim with the carrier. A claim for equipment damage in transit is the sole responsibility of the purchaser.

SAFETY

Terminology and Symbols



Indicates a hazardous situation, which, if not avoided, will result in death or serious personal injury.



Indicates a hazardous situation, which, if not avoided, could result in death or serious personal injury.



Indicates a hazardous situation, which, if not avoided, could result in minor or moderate personal injury or damage to property.

Make sure that everyone operating this equipment is familiar with the recommended operating and maintenance procedures and follows all of the safety precautions.

- Screed owners must give operating instructions to operators or employees before allowing them to operate the machine, and at least annually thereafter.
- The most important safety device on this equipment is a safe operator. It is the operator's responsibility to read and understand all safety and operating instructions in this manual, and to follow them. All accidents can be avoided.
- A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. Untrained operators expose themselves and bystanders to possible serious injury or death.
- Do not modify the equipment in any way. Unauthorized modification may impair the function and/or safety and could affect the life of the equipment.

General Safety

- Only trained competent persons should operate the screed. An untrained operator is not qualified to operate the machine.
- Have a first aid kit available, and know how to use it.
- Have a fire extinguisher available, and know how to use it.
- Wear appropriate protective gear. This list includes but is not limited to:
 - ◊ A hard hat
 - ◊ Protective boots with slip-resistant soles
 - ◊ Protective goggles
 - ◊ Heavy gloves
 - ◊ Hearing protection
- Stop engine, disconnect spark plug wire and wait for all moving parts to stop before servicing, adjusting, repairing or cleaning.
- Wear appropriate hearing protection when operating for long periods of time.
- Review safety related items with all personnel annually.

Operating Safety

- Read and understand the operators manual and all safety signs before operating, servicing, adjusting or cleaning the screed.
- Clear the area of all bystanders before starting.
- Keep hands, feet, hair and clothing away from moving parts.
- Stay away from hot engine components during operation.
- Do not run the screed in an explosive atmosphere, a poorly ventilated or enclosed area.
- Do not smoke when refueling the gas engine.

Storage Safety

- Store the unit in an area away from human activity.
- Do not permit children to play around the stored screed.

Refueling Safety

- Handle the fuel with care. It is highly flammable.
- This is a four cycle engine, use non-mixed gasoline of no less than 87 octane.
- Allow the engine to cool for 5 minutes before refueling. Clean up spilled fuel before restarting the engine.
- Do not refuel the machine while smoking or when near open flame or sparks.
- Always use an approved fuel container.
- Fill the fuel tank outdoors.
- Prevent fires by keeping the machine clean of accumulated trash, grease and debris.

Noise Emissions and Vibrations

1. Declared noise emission values:

Sound Pressure level (K=3dB(A)): 89.5 db (A)

Sound Power level (K=3dB(A)): 99.4 dB (A)

2. Declared vibrator vibration emissions:

Left Handle: 2.31 m/s²

Right Handle: 2.38 m/s²

Uncertainty K: 1.50 m/s²

NOTE: The declared vibration total value has been measured in accordance with a standard test method and may be used for comparing one tool with another. The declared vibration total value may also be used in a primary assessment of exposure.

WARNING

THE VIBRATION EMISSION DURING ACTUAL USE OF THE POWER TOOL CAN DIFFER FROM THE DECLARED TOTAL VALUE DEPENDING ON THE WAYS IN WHICH THE TOOL IS USED.

EXCESSIVE USE CAN CAUSE HAND-ARM VIBRATION SYNDROME. A DISORDER RESULTING FROM PROLONGED EXPOSURE TO VIBRATION, SPECIFICALLY TO THE HANDS AND FOREARMS WHILE USING VIBRATION TOOLS. SYMPTOMS INCLUDE NUMBNESS, TINGLING AND LOSS OF NERVE SENSITIVITY.

Transport

If the engine has been running, allow it to cool for at least 15 minutes before loading the unit on a transport vehicle. A hot engine and exhaust system can burn you and can ignite some materials.

INTRODUCTION

The Screed King power screed reduces labor hours by allowing users to screed with up to a 16 ft board with one user. The unique magnesium power bar produces a high frequency vibration that eliminates the honeycomb effect and speeds finishing time.

A key features is its versatile, user-friendly design that allows users to easily adjust the unit so that screeding is more comfortable. Hand vibration is reduced because of a unique cross beam handle bar design that absorbs vibration before it reaches the user. Multiple length boards can be removed with no tools required. Boards are available in multiple lengths; 5, 6, 8, 10, 12, 14, and 16 ft. The Magflo board is made of lightweight magnesium to avoid any reaction with the concrete. Completely sealed, the Magflo board is not suspect to concrete or water becoming entrapped into the board. Maintenance is near zero with no flex shafts to lubricate and the board is super smooth for easy cleaning. The Screed King power screed is designed and manufactured to meet the needs of a discriminating buyer for the efficient finishing of concrete.

NOTE: The directions left, right, front and rear as mentioned throughout this manual, are as seen from behind the machine, standing between the handles.

ASSEMBLY

The tools required for assembly are:

- (1) 7/16 in. (11 mm) open or box end wrench
- (1) 11/16 in. (17 mm) open or box end wrench
- (1) #2 Flathead screwdriver
- (1) Slip joint pliers



Figure 1: Required tools

Handle Assembly

1. Remove the handles from their shipping position by removing the two top 7/16 in. (11 mm) nuts, the quick release levers and the top handle cap.

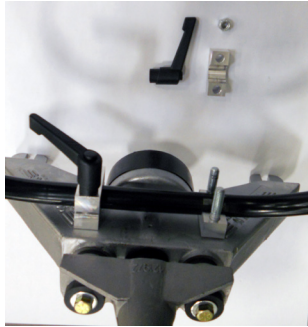


Figure 2: Handle plate positioning

2. Insert the bottom of the handles into the back of the handle plate and replace the top handle cap over the handle.
3. Thread on the two top 7/16 in. (11 mm) nuts.
4. Install the quick release levers on the top of each bracket. Placing the black hand levers in the lower position will result in handlebar movement.
5. With the lever in the open position, thread it through the cap, handle plate and quick release nut. Continue threading until tight.
6. When hand-tight, place the handles at the appropriate height and close the lever.

7. Add the upper handle sections to the lower handle section.

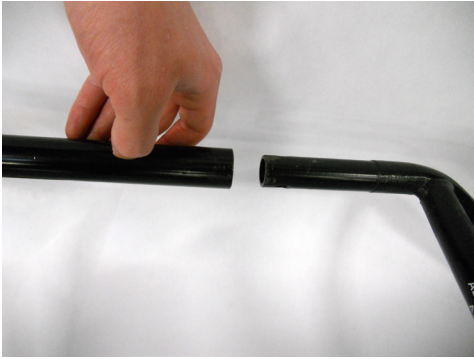


Figure 3: Upper handle insertion

8. Secure the upper handle with the two supplied 5/16 in. (7 mm) fasteners.



Figure 4: Fastening upper handle

Throttle Assembly

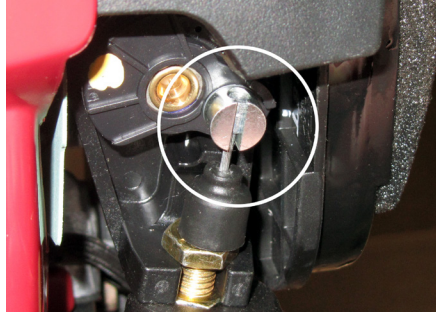


Figure 5: Throttle assembly location

1. Place the throttle lever on the left handle just below the hand grip.
2. Position the lever so it clears the handle guard in all positions.
3. Place the lever ring clamp around the handle bar and tighten with a flathead screwdriver and adjustable pliers.
4. Use the zip ties provided to keep the throttle cable tight to the handle bars.
5. Check to make sure the cable stop for the throttle adjustment cable is fully seated into the throttle adjustment linkage on the carburetor. Make sure the metal cable stop is completely inside the throttle adjustment linkage, as shown below.

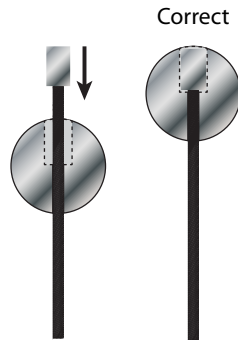


Figure 6: Throttle assembly detail

- a. If the cable stop is not fully seated, loosen the throttle control adjustment screw and grab the end of the adjustment cable with the slip joint pliers.
6. Pull gently on the cable until the cable stop is completely within the throttle adjustment linkage.

7. With the throttle lever pushed to the far right, hold the throttle adjustment cable so there is no slack and then tighten the throttle control adjustment screw to clamp the cable in place.

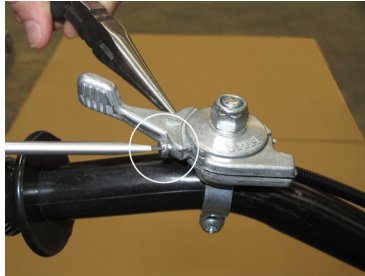


Figure 7: Throttle assembly connection

ADJUSTMENTS

Weight Adjustment

The eccentric weight on the power head is factory set to its maximum force. This setting settles concrete with a 2...8 in. (50...203 mm) slump. The weight needs to be adjusted only when the screed is going to be used on unusually high slump concrete.

To change the force of vibration, adjust the position of the eccentric weight as follows:

1. Using a 1/4 in. (6 mm) Allen key, loosen the set screw on the thicker weight.
2. While holding the thick weight stationary with the Allen key, turn the thin weight by hand to the required position.

Turning the thin weight set screw clockwise decreases the force to zero when the flat edge of the thin weight is parallel to the flat edge of the thick weight.

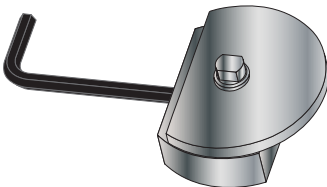


Figure 8: Least vibration

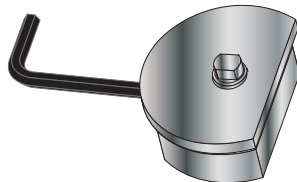


Figure 9: Maximum vibration (factory setting)

Turning the thin weight counter clockwise increases the force of vibration until the flat edge of the thin weight is flush with the opposite edge of the thick weight.

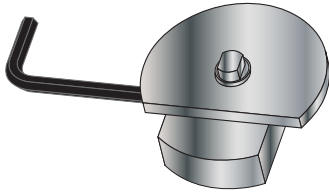


Figure 10: 3/4 vibration

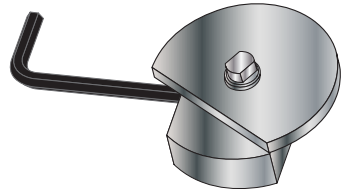


Figure 11: 1/2 vibration

Throttle Cable Adjustment

The throttle cable comes pre-assembled for your convenience. Over time you may notice that it takes more clicks on the throttle to reach the optimum RPM level than when you first ran the screed. This is normal as the throttle cable stretches over time.



Figure 12: Throttle cable adjustment

To adjust your throttle cable to compensate for this stretching:

1. Locate the barrel adjuster where the cable runs into the underside of the engine.
2. Turn the barrel adjuster counterclockwise with an 8 mm wrench.
3. Tighten the locknut to hold it in the desired position.

Attaching the Screed Bar

NOTE: To install two power units on screeds 16 ft and longer, just repeat the installation instructions twice.

1. Locate the threaded studs on the screed bar and loosen the locking handles.
2. Slide the power head of the screed over the threaded studs.
3. Fasten the power head to the bar using the locking handles and washers provided, as shown below. The washer and lock-washer should contact the silver handles when installing the power unit.

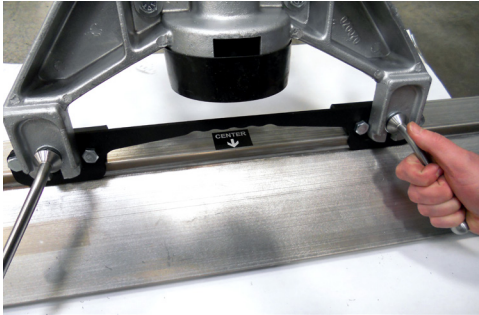


Figure 13: Attaching the screed bar

4. Make sure to fully tighten the bolts so they do not come loose during use.

PRE-OPERATION CHECKS

For your safety, and to maximize the service life of your equipment, it is very important to take a few moments before you operate the engine to check its condition. Be sure to take care of any problem you find, or have your servicing dealer correct it, before you operate the engine.

WARNING

IMPROPERLY MAINTAINING THIS ENGINE, OR FAILURE TO CORRECT A PROBLEM BEFORE OPERATION, CAN CAUSE A MALFUNCTION IN WHICH YOU CAN BE SERIOUSLY HURT OR KILLED.

ALWAYS PERFORM A PRE-OPERATION INSPECTION BEFORE EACH OPERATION, AND CORRECT ANY PROBLEM.

Before beginning your pre-operation checks, be sure the engine is level and the engine switch is in the OFF position.

Check the General Condition of the Engine

1. Look around and underneath the engine for signs of oil or gasoline leaks.
2. Remove any excessive dirt or debris, especially around the muffler and recoil starter.
3. Look for signs of damage.
4. Check that all shields and covers are in place, and all nuts, bolts, and screws are tightened.

Fuel Level Check

1. Check the fuel level by looking through the translucent fuel tank.
2. If the fuel level is low, refuel in a well-ventilated area with the engine stopped. If the engine has been running, allow it to cool.

To refuel, remove the fuel filler cap and fill the tank with gasoline to the bottom of the filler neck. Refuel carefully to avoid spilling fuel. Do not overfill. There should be no fuel in the filler neck. After refueling, tighten the fuel filler cap securely.

Never refuel the engine inside a building where gasoline fumes may reach flames or sparks. Keep gasoline away from appliance pilot lights, barbecues, electric appliances, power tools, etc.

Spilled fuel is not only a fire hazard, it causes environmental damage. Wipe up spills immediately.

Oil Level Check

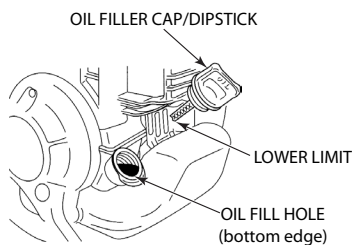


Figure 14: Oil filler hole location

Maintain the engine oil at the correct level. High or low oil levels cause permanent damage to the engine requiring replacement. To check the oil level:

1. Place the screed board on a flat level surface to perform an oil level check.
2. Carefully unscrew the oil filler cap/dipstick and wipe it clean.
3. Insert and remove the oil filler cap/dipstick without screwing it into the oil reservoir neck, to check the oil level shown on the dipstick.
4. If the oil level is near or below the lower limit mark on the dipstick, fill the reservoir to the bottom edge of the oil fill hole with the recommended oil. See the Honda engine owners manual for more information.
5. To avoid overfilling or underfilling, make sure the engine is in a level position when adding oil.
6. Reinstall the oil filler cap/dipstick and tighten securely.

IMPORTANT

Running the engine with a low oil level can cause engine damage. This type of damage is not covered by the warranty.

Air Cleaner Check

1. Press the latch tab on the top of the air cleaner cover, and remove the cover.
2. Inspect the filter element. Clean or replace dirty filter elements. Always replace damaged filter elements.
3. Reinstall the filter element and air cleaner cover.

CAUTION

OPERATING THE ENGINE WITHOUT AN AIR FILTER ELEMENT, OR WITH A DAMAGED AIR FILTER ELEMENT, WILL ALLOW DIRT TO ENTER THE ENGINE, CAUSING RAPID ENGINE WEAR. THIS TYPE OF DAMAGE IS NOT COVERED BY THE DISTRIBUTOR'S LIMITED WARRANTY.

Clean the Air Filter

1. Clean the filter element in warm soapy water, rinse, and allow to dry thoroughly. Or clean in nonflammable solvent and allow to dry.
2. Dip the filter element in clean engine oil, then squeeze out all excess oil. The engine will smoke when started if too much oil is left in the foam.
3. Wipe dirt from the air cleaner body and cover, using a moist rag. Be careful to prevent dirt from entering the carburetor.
4. Reinstall the filter element and air cleaner cover securely.

OPERATION

Operator Position

Stand behind the unit. This position gives you access to the engine controls and the handles.

Starting the Engine

1. Choke Lever
 - a. To start a cold engine, move the choke lever to the CLOSED position.
 - b. To restart a warm engine, leave the choke lever in the OPEN position.
2. Press the priming bulb repeatedly until fuel can be seen in the clear-plastic fuel-return tube.
3. Turn the engine switch to the ON position.
4. Pull the starter grip lightly until you feel resistance, then pull briskly. Return the starter grip gently.

IMPORTANT

Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter

5. If the choke lever was moved to the CLOSED position to start the engine, gradually move it to the OPEN position as the engine warms up

Screeding the Concrete

1. Hold the handles of the unit.
2. Make sure the left and right sides of the screed board are making contact with the surface of the concrete.
3. Slowly pull the Screed King while stepping back. The back edge of the screed board should push away any excess concrete.

NOTE: Make sure that the concrete is fairly level before screeding it. You may need a second person to rake the concrete before you screed it.

Turning off the Engine

To stop the engine under normal conditions, use the following procedure.

1. Move the throttle lever to the MIN position.
2. Turn the engine switch on the equipment to the OFF position.

NOTE: To stop the engine in an emergency, simply turn the engine switch on the equipment to the OFF position.

MAINTENANCE

Screed Board

The board is completely sealed, so there is no need to worry about entrapped water. To clean the board of concrete, simply rinse it off with water.

Engine

Please consult the engine user manual for maintenance schedule and instructions.

Serial Number Locations

Always give your dealer, distributor or factory the serial numbers for your screed bar and power head when ordering parts or requesting service or other information.

The board serial number is stamped above the *CENTER* sticker.

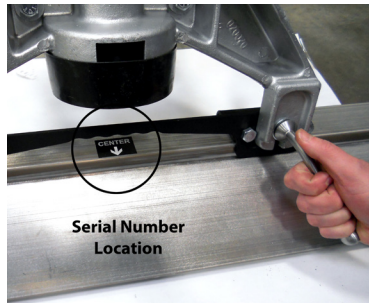


Figure 15: Screed bar serial number location

The power head serial number is stamped in the casting as shown below. Record both serial numbers on the inside of the front cover in the space provided.



Figure 16: Power unit serial number location

Storage

Please see engine user manual for instructions on storage for the engine.

TROUBLESHOOTING

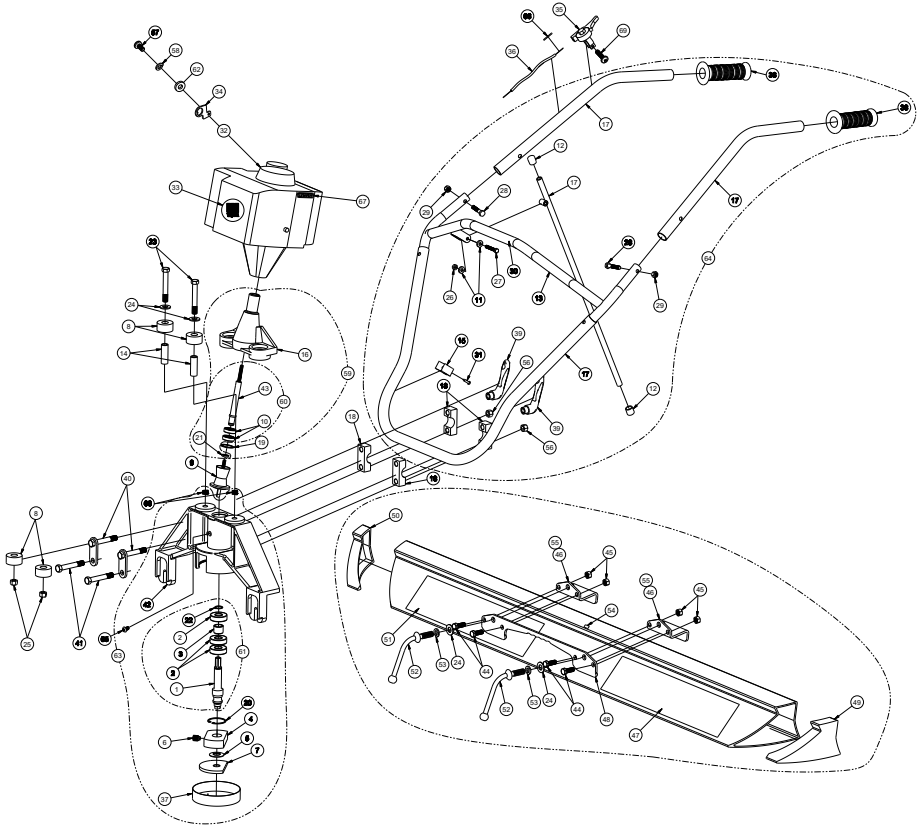
Engine Will Not Start	Possible Cause	Correction
Check control positions	Choke open	Move lever to CLOSED position unless the engine is warm
	Engine switch OFF (on the equipment)	Turn engine switch to ON position
Check fuel	Out of fuel	Refuel
	Bad fuel; engine stored without treating or draining gasoline, or refueled with bad gasoline	Drain fuel tank and carburetor, refuel with fresh gasoline
Remove and inspect spark plug	Spark plug faulty, fouled, or improperly gapped	Gap or replace spark plug
	Spark plug wet with fuel (flooded engine)	Allow the spark plug to dry. After drying, install the spark plug and start the engine
Take engine to an authorized Honda servicing dealer, or refer to shop manual	Fuel filter restricted, carburetor malfunction, ignition malfunction, valves stuck, etc.	Replace or repair faulty components as necessary

Engine Lacks Power	Possible Cause	Correction
Check air filter	filter element restricted	Clean or replace filter element
Check Fuel	Bad fuel; engine stored without treating or draining gasoline, or refueled with bad gasoline	Drain fuel tank and carburetor, refuel with fresh gasoline
Take engine to an authorized Honda servicing dealer, or refer to shop manual	Fuel filter restricted, carburetor malfunction, ignition malfunction, valves stuck, etc.	Replace or repair faulty components as necessary

SPECIFICATIONS

Engine	GX35 Mini 4-Stroke	
Starting Mechanism	Recoil	
Maximum Power Output	1.5 HP @ 7000 RPM	
Handle Design	Vibration reducing, quick adjusting	
Fuel Capacity	0.17 U.S. gallon (0.644 liter)	
Oil Capacity	3.4 ounce U.S. liquid (0.1 liter)	
Sound Pressure	87...90 dB(A) @ 5500 RPM	
Vibration (m/sec²)	7.4 m/sec @ 5500 RPM in 4 in. (101.6 mm) slump concrete	
Power Head Weight	Single powerhead alone	27 lb (12.25 kg)
	Dual powerhead alone	54 lb (24.25 kg)
Screed Bar Weight	4 ft (1.22 m) screed bar	8 lb (3.63 kg)
	5 ft (1.52 m) screed bar	10 lb (4.54 kg)
	6 ft (1.83 m) screed bar	12 lb (5.44 kg)
	8 ft (2.44 m) screed bar	15 lb (6.80 kg)
	10 ft (3.05 m) screed bar	19 lb (8.62 kg)
	12 ft (3.66 m) screed bar	22 lb (9.98 kg)
	14 ft (4.27 m) screed bar	26 lb (11.79 kg)
	16 ft (4.88 m) screed bar	29 lb (13.15 kg)
	16 ft (4.88 m) screed bar (double power unit)	31 lb (14.10 kg)
	18 ft (5.49 m) screed bar (double power unit)	33 lb (14.97 kg)
20 ft (6.1 m) screed bar (double power unit)	37 lb (16.78 kg)	

PARTS



Item	Part#	Description	QTY
1	WS420120	Driveshaft, Lower (Puckshaft)	1
2	WS110111	Bearing, Ball, 6203-2RS	3
3	WS420110	Spacer, Bearing, Screenshot	1
4	WS420130	Weight, Eccentric - Top	1
6	WS148520	Set Screw, 1/2 UNC x 5/8 H.D. PNT	1
7	WS420140	Weight, Eccentric - Bottom	1
8	WS420200	Bushing, Rubber 80 duro, Isolator	4
9	WS420040	Coupler, Rubber Shaft (R2)	1
10	W095514	Bearing, Ball; 1.125OD; .500 Bore; DBL	2
11	WS174432	Washer, Nylon 1/4 ID x 1/2 OD x .065	2
12	WS247009	Cap, Rubber 1/2 in.	2
14	WS420201	Sleeve, Bushing, Isolator	1
15	WS420075	Kickstand Clip	1
16	WS421972	Powerhead, Upper	1
18	WS421960	Clamp, Half 1 in.	4
19	WS138095	Retaining Ring, Internal 1-1/8 in.	1

Item	Part#	Description	QTY
21	WS138097	Retaining Ring, External 1/2 in.	1
22	WS138098	Retaining Ring, External .669 in.	1
23	WS226502	Bolt, 7/16-14 × 3.00	2
24	WS174993	Washer, 7/16 in. NOM PL	4
27	WS225765	Bolt, 1/4 × 1-1/2 GR 8	1
28	WS226000	Bolt, 5/16 × 1-1/2 GR 2	2
32	WS202251	Engine, GX35 Honda	1
35	WS220152	Throttle Lever	1
36	WS220185	Throttle Cable	1
37	WS421968	Cap, 4.5 in. ID - Vented	1
38	WS421969	Grip, Handle - 1 in. Rubber	2
39	WS421989	Lever, 7/16 Female Adjustable	2
40	WS421986	W.A. Plate, Bolster	2
41	WS226505	Bolt, 7/16-14 × 2.75	2
42	WS421992	Assembly, Casting w/Sleeve	1
43	WS420091	Shaft, Drive (Honda) (R2)	1
45	WS227814	Nut, Hex Lock 3/8 UNC	4
46	WS422002	W.A. Bracket, Screed Mount	2
48	WS421998	Bracket, Cleat	1
49	WS421951	Caps, SK Bar End W/LIP LHS	1
50	WS421952	Caps, SK Bar End W/LIP RHS	1
52	WS421987	Bolt; Lever, Male	2
53	WS176550	Washer, 7/16 Lock	2
55	WS422007	Rubber Backing; Screed Bracket	2
59	WS421938	Top Casting Complete; GX35	1
60	WS421937	Top Casting Shaft Assy Kit; GX35	1
61	WS420026	Eccentric Shaft Assy Kit; GX35	1
63	WS421939	Bottom Casting Complete; GX35	1
64	WS621521	Handle Bar Kit	1
—	WS420100	Sleeve, Stl-Bearing	
—	WS226210	Bolt, Hex Head; 3/8 UNC × 1 in.	
—	WS621520	Screed Board Mounting Kit	



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