

BARTELL

CONCRETE EQUIPMENT

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OWNER'S MANUAL

WALK-BEHIND POWER TROWELS

B436
B436E
B436SD
B446
B446 Mega T



ORIGINAL
LANGUAGE

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**ORIGINAL LANGUAGE OPERATING INSTRUCTIONS FOR
 BARTELL WALK-BEHIND POWER TROWELS**

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WALK BEHIND POWER TROWEL INSTRUCTION MANUAL

SAFETY PRECAUTIONS	
	<p> DANGER</p> <p>EXPLOSION HAZARD Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes.</p>
	<p>WARNING</p> <p>BURN HAZARD Never come into contact with the engine or muffler when engine is operating or shortly after it is turned off. Serious burns may occur.</p>
	<p> CAUTION</p> <p>ROTATING HAZARD Never place hands or feet inside safety guard rings. Serious injury will result from contact with rotating blades.</p>
	<p> CAUTION</p> <p>MOVING PARTS Before starting the machine ensure that all guards and safety devices are in place and functioning properly.</p>
	<p> ATTENTION</p> <p>READ OWNERS MANUAL Read and understand operator's manual before using this machine. Failure to follow operating instructions could result in serious injury or death.</p>

WALK BEHIND POWER TROWEL INSTRUCTION MANUAL

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QUALITY ASSURANCE / MACHINE BREAK IN

The Bartell Walk-Behind Power Trowel is the product of extensive engineering development designed to give long life and unmatched performance. The Walk-Behind Power Trowels are shipped partially assemble, and only require filling with fuel and a brief check of lubricant levels in preparation for operation.

You can help ensure that your Power Trowel will perform at top levels by observing a simple routing on first use. Consider that your new Power Trowel is like a new car. Just as you would break in a new car to the road or any new machine to the job, you should start gradually and build up to full use. Learn what your machine can do and how it will respond. Refer to the engine manufacturer's manual for run-in times. Full throttle and control may be used after this time period, as allowed by material. This will serve to further break in the machine on your specific application, as well as provide you with additional practice using the machine.

We thank you for the confidence you have placed in us by purchasing a Bartell Walk-Behind Power Trowel and wish you many years of satisfied use.



WALK BEHIND POWER TROWEL INSTRUCTION MANUAL

WALK-BEHIND POWER TROWEL WARRANTY

- All products sold by Bartell Morrison Inc. and Bartell Morrison (USA) LLC (the “Company”) are warranted against defects in materials and/or workmanship; excluding normal wear on wearing components and components covered by a separate original manufacturers warranty, for a period of 36 months from the date of sale to the original end user purchaser provided that certain conditions have been met.

Conditions:

1. The equipment serial number has been registered with the Company or its approved dealers, distributors, representatives or agents.
2. The equipment has been operated in an appropriate manner by qualified individuals.
3. The equipment has been properly maintained as per the instructions included in the Owner’s Manual.
4. All claims for warranty must be filed on proper forms and include the serial number of the equipment along with proof of purchase.

Any evidence of failure to meet these conditions may result in a denial of the warranty claim.

- Consideration of warranty claims will be at the sole discretion of the Company, or its authorized dealers, distributors, representatives or agents.
- The Company may, at its discretion, request that the equipment to be considered for warranty be returned at the owner’s expense to an authorized repair facility for inspection.
- Under this warranty we may, at our discretion, repair or replace a part or the whole of the defective component or equipment.
- Our Warranty coverage is limited to the cost to repair or replace the defective portion of the equipment and a reasonable (as determined by the Company) amount of labour to conduct the repair or replacement. Under no circumstances shall the Company be liable for any additional or exceptional costs beyond the cost to repair or replace the defective portion of the equipment. The Company shall not be held accountable for; costs associated with travel to inspect or repair defective equipment, costs for transporting defective equipment to or from an authorized repair facility, costs incurred to repair or replace the defective equipment at any facility other than one authorized by the Company or ancillary damage caused by or as a result of the defective equipment.
- Under no circumstances shall equipment be returned to the Company or its authorized dealers, distributors, representatives or agents without the approval of the Company as evidenced by a Returned Goods Number. To obtain a Returned Goods Number contact the factory or your authorized dealer, distributor, representative or agent.
- This warranty is for the sole benefit of the original end user purchaser and is not transferable to any other company or person.



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Routine Service Intervals		Each use	After 1.5 months or 50 hrs	Each 3 months or 100 hrs	Each 6 months or 200 hrs	Each 9 months or 300 hrs	Each 12 months or 400 hrs
General Inspection:							
Guards	Check		o	o	o	o	o
Warning stickers	Check		o	o	o	o	o
Test run:	Check operation		o	o	o	o	o
Controls:							
Dead-man switch operation	Check	o	o	o	o	o	o
Pitch control	Check	o	o	o	o	o	o
	Lubricate		o	o	o	o	o
Engine:							
Engine oil	Check Level	o	o	o	o	o	o
	Change		o		o		o
Engine oil filter	Replace				o		o
Oil cooler	Clean			o	o	o	o
Cooling Fins	Clean		o	o	o	o	o
Air cleaner	Check - clean	o	o	o	o	o	o
	Replace						o
Air Intake Line	Check				o		
	Replace						2 yrs
Drive Belt	Check tightness				o		o
	Replace						500 hrs
Valve clearance	Check-adjust				o		o
Fuel filter	Check & Clean			o	o	o	o
	Replace				o		o
Fuel Tank	Clean						500 hrs
Engine wiring	Check						o

Routine Service Intervals

Due to the nature and environment of use, Walk-Behind Power Trowels could be exposed to severe operating conditions. Some general maintenance guidelines will extend the useful life of your trowel.

- The initial service for your power trowel should be performed after 25 hours of use, at which time your mechanic (or authorized repair shop) should complete all of the recommended checks in the schedule above. The chart on page 6 (six) is handy for keeping a record of the maintenance performed and the parts used for servicing your trowel.
- Regular service according to the schedule above will prolong the life of the Walk-Behind Power Trowel and prevent expensive repairs.
- Keeping your Walk-Behind Power Trowel clean and free from debris is the single most important regular maintenance operation, over and above the checks in the service schedule above, that can be performed. After each use your Walk-Behind Power Trowel should be cleaned to remove any dust and debris from the undercarriage and surrounding components. Use of a power washer will make clean up quick and easy, especially if a non-stick coating was applied prior to use.
- In the Service Schedule above, items that should be checked, replaced or adjusted are indicated by “o” in the appropriate column. Not all Walk-Behind Power Trowel models include the same features and options and as such not all service operations may have to be performed. For ease of recording place a checkmark (✓) through the “o” when the item is complete. If an item is not required or not completed place an “x” through the “o” in the box.
- All Walk-Behind Power Trowels have governed engine speed of 3600 rpm. See engine manufacturer’s manual for exact specifications. Care should be used when making any adjustments to the Walk-Behind Power Trowel not to change the governed speed.
- Failure to have your Walk-Behind Power Trowel regularly serviced and properly maintained in accordance with the manufacturer’s instructions will lead to premature failure and void the warranty.

WALK-BEHIND TROWEL INSTRUCTION MANUAL

SAFETY PRECAUTIONS

- Always keep unauthorized, inexperienced, untrained people away from this machine.
- Rotating and moving parts will cause injury if contacted. Make sure guards are in place. Keep hands and feet away from moving parts.
- Fuel the machine only when the engine is stopped, using all necessary safety precautions.
- The engine must always be stopped before attempting any repair or adjustments. Ignition switch should be off.
- Be careful not to come in contact with the muffler when the engine is hot, serious burns may result!

DANGER:

Never operate the machine in an explosive atmosphere, near combustible materials or where ventilation does not clear exhaust fumes. Repair fuel leaks immediately. Refer to your engine owner's manual for more safety instructions.

ASSEMBLY INSTRUCTIONS

Your new Bartell Walk-Behind Power Trowel has been shipped to you partially assembled. Filling the fuel tank and a brief check of lubricant levels in preparation for operation is required. To complete the assembly the following instructions will be helpful.

1. **TROWELS** – Attach trowel blades with screws and lock washers supplied. See (A) and (B) Fig. 1. Be careful that adjusting screw (C) does not protrude below arm when attaching blades. This could cause the machine to jump and promote excessive wear in operation.
2. **STABILIZER RING** – (if supplied) Install using screws, bushings and lock washers supplied. See Fig. 1 (D)
3. **HANDLE** - See the following Setup Procedure for installing the handle.

IMPORTANT:

Before running machine with belt installed, ensure that engine idles properly and that the safety-switch shuts off the engine.

WALK-BEHIND TROWEL INSTRUCTION MANUAL

SETUP PROCEDURE

Fig. 1



Step 1: Trowel shown with handle separate. (Fig. 1)

Fig. 2



Step 2: Lay handle on ring to prepare for assembly. (Fig. 2 and 3)

Fig. 3



Fig. 4



Step 3: Install pitch control cable to yoke and install locknut loosely (Fig. 4). If needed, turn pitch control knob counter-clockwise until the stop screw is at the lowest position (Fig. 5).

Fig. 5



Fig. 6



Step 4: Lift and install handle to position using the supplied four sets of lockwashers and nuts. Do not torque greater than 18ft-lb. At the yoke; tighten the locknut for pitch control cable (Fig. 6). If the cable is too loose or tight, the pitch control range position can be moved by changing the position of the stop screw (Fig. 5). The factory default is the middle position. Turn the pitch control knob completely clockwise and check for maximum pitch possible. This is possible when the clearance between the yoke and underside of the gearbox is enough to pass a business card through.

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Step 5: Unwrap throttle control and engine safety shut-off wires to prepare for their assembly. (Fig. 7 and 8)



Step 6: Remove air filter cover and air filter. (Fig. 9)

Step 7: Check for free moving engine throttle control lever and loosen pivot nut if necessary (Fig. 10)



Step 8: Push handle throttle lever all the way forward for idle position (Fig. 11). If necessary, the tension screw can be adjusted for smooth operation while holding throttle position.

Step 9: Install the throttle control wire into the throttle control lever. (Fig. 12)

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Step 10: Secure the wire to the cable clamp while pushing with slight pressure forward. (Fig. 13)



Step 11: Check operation of throttle control lever. (Fig. 11 and 14)



Step 12: Reinstall air filter and cover (Fig. 15)



Step 13: Route engine safety shut-off wire around engine and install. There are two types that may be available with the machines. (Fig. 16 and 17)



Step 14: Wrap and secure engine safety shut-off wire. (Fig. 18)

Step 15: Refer to Owner's Manual before operating the trowel.

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OPERATION (Floating)

When the slab has set sufficiently firm that the operator's footprint leaves a very slight depression on the surface of the slab, it is ready for the floating operation.

Under normal operating conditions the machine should cover as much as 1000 sq. ft. in about 15 minutes. It is recommended that a slight tension on the trowel control cable, (but *not* a definite tilt), during the floating operation will cause the machine to operate much smoother. After the floated slab has set sufficiently, it is ready for the finishing operation.

CAUTION:

Do not let the machine stand in one spot on the soft cement. Lift from the slab when the floating operation is complete.

OPERATION (Finishing)

When starting the finishing operation, never set the trowels up over 1/4" pitch. This is important. Guiding the machine on the slab is very simple, a slight upward lift of the handle causes the machine to travel to the left. Holding the handle in the neutral position, will slowly cause the machine to spin in one spot. Slight downward pressure on the handle causes the machine to travel to the right. Best results are obtained by covering approximately 4" on each turn. In other words, let the machine move right or left, backwards or forwards, approximately 4" with each revolution of the trowels. To fill a hole or cut down a hump, move the unit back and forth over the problem area.

After the first pass over the slab, the waiting time between operations is determined in the same manner as if you were hand troweling. To repeat; the entire application and action of the troweling machine in regard to getting on the slab, and the correct pitch of the trowels, is determined in the same manner as would be used by a cement finisher when troweling by hand.

STARTING PROCEDURE: *WARM CLIMATE

Open fuel valve on gas tank. Set throttle lever to "Fast" idle position, set choke to closed position, start engine. Open choke slightly to prevent flooding. Move to "Open" or "Run" position when engine is warm, increase throttle to maximum operation position (3600 rpm).

STARTING PROCEDURE: *COLD CLIMATE

Follow same procedure as above but allow longer warm-up period – 3 to 5 minutes. In cold weather, oil is much heavier to move and requires more time to work its way into the moving parts. If maximum power is not attained, allow further warm-up time. Fill fuel tank with clean gasoline, use safety approved gas containers. **DO NOT MIX OIL WITH GASOLINE – USE UNLEADED GAS ONLY.**

STOPPING PROCEDURE

1. Throttle engine down.
2. Turn off stop switch.

LUBRICATION

1. ENGINE OIL

The long life and successful operation of any piece of machinery is dependent on frequent and thorough lubrication.

Before using the trowel, always check your engine for oil. Use proper engine oil as recommended in the engine manufacturer's manual. Fill crankcase to levels as recommended.

ENGINE OIL SPECIFICATIONS

Season Temperature	Grade of Engine Oil
All Season	SAE 10W-30

2. SPIDER PLATE

There are 4 (four) grease fittings on the spider plate, each must be greased daily. **THE SPIDER PLATE MUST BE GREASED EVERY TIME MACHINE IS USED.**

3. GEARBOX

Check the oil level sight plugs on both gearboxes daily to ensure the oil is half way on the site glass. Top up with Agma 8 compounded gear oil only. Gearbox capacity 16 oz. to 19 oz. (473ml. To 562ml.) Example: Esso/Exxon Cyclesstic TK680.

4. TO CHANGE GEARBOX OIL

Place a pan beneath the drain plug to catch the oil. Remove the drain plug and the filler plug from the gearbox. After the oil has drained completely, replace the drain plug and tighten. Fill the gearbox through the filler plug with 16 oz. to 19 oz. (473ml. To 562ml.) of Agma 8 compounded gear oil. Replace the filler plug and tighten.

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STORAGE

The following steps should be taken to prepare your Walk-Behind Power Trowel for extended storage.

1. Close fuel shut off valve.
2. Siphon excess gasoline from tank.
3. Start engine until it stops from lack of fuel. This will use up all the fuel in the carburetor and prevent formation of deposits due to evaporation of fuel.
4. Remove spark plug and pour 2 oz. of SAE-30 or SAE-40 motor oil into the cylinder. Slowly crank the engine 2 or 3 times to distribute the oil throughout the cylinder. This will help prevent rust during storage. Replace spark plug.
5. Store the unit in an upright position in a cool, dry, well ventilated area.

MAINTENANCE

Maintaining your Walk-Behind Power Trowel will insure long life to the machine and its components.

AIR CLEANER - Keep air filter clean at all times. Wash away dust and debris using a non-oil based cleaning solvent. Let the filter dry before re-installing.

LUBRICATION - Check engine oil regularly. Use proper engine oil as recommended. See previous chart. Fill crankcase to levels as recommended in manufacture's engine manual.

SPARK PLUG - Check and clean spark plugs regularly. A fouled, dirty or carboned spark plug causes hard starting and poor engine performance. Set spark plug gap to recommended clearance. Refer to engine manual.

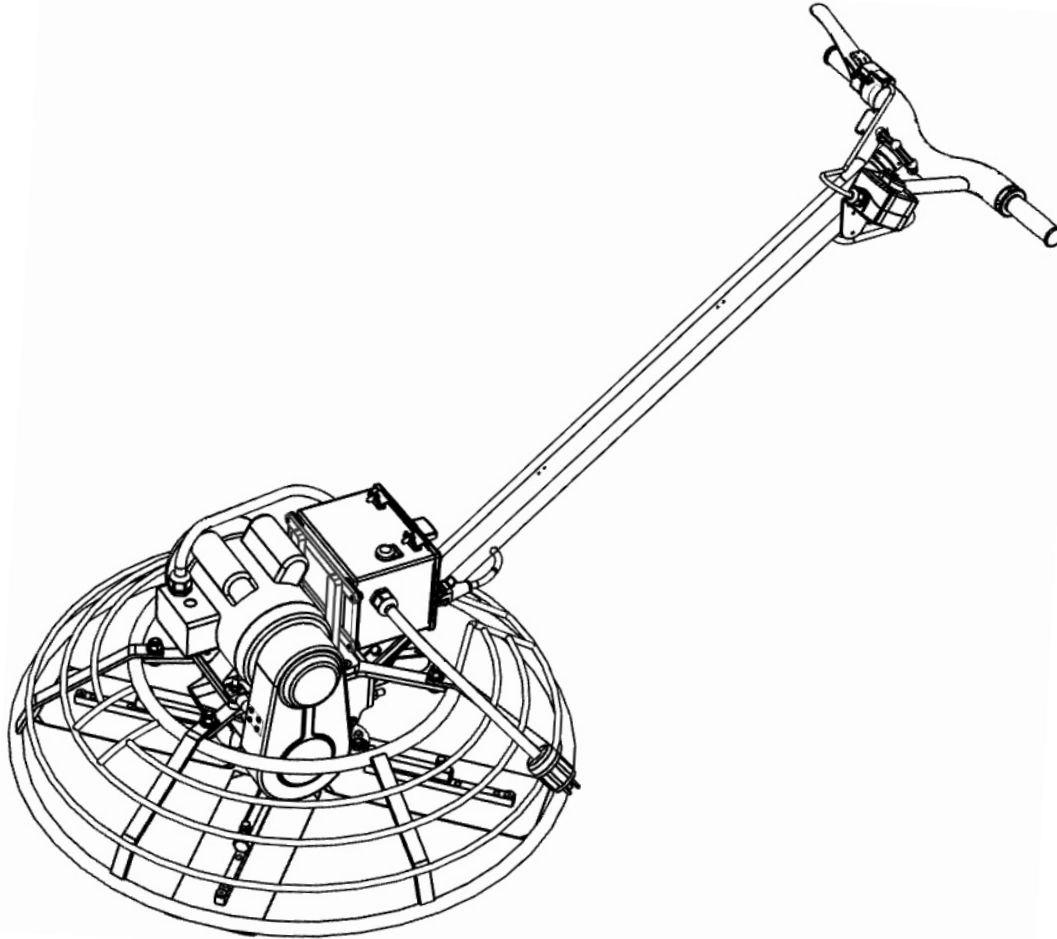
BELT - Remove and check condition, and replace if necessary. If belt is damaged, repair cause before replacing with a new belt.

CHART FOR MINIMUM WIRE SIZE OF EXTENSION CORD

Nameplate AMPS	CORD LENGTH			
	25'	50'	100'	150'
0-6	18 AWG	16 AWG	16 AWG	14 AWG
6-10	18 AWG	16 AWG	14 AWG	12 AWG
10-12	16 AWG	16 AWG	14 AWG	12 AWG
12-16	14 AWG	12 AWG	(NOT RECOMMENDED)	

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ELECTRIC POWER TROWEL OPERATION



The electric models of Bartell Power Trowels require appropriate power sources, connections, extension cords, and surge protection. Bartell Morrison Inc. is not responsible for damage to person or property due to improper use or setup of an Electric Power Trowel. Select your power supply and other provisions based on the specific type of trowel being operated.

While the Electric Power Trowel has internal surge protection to protect the motor, electronics, and operator from internal power surges, the power supply should be equipped with an appropriate breaker to protect the equipment and personnel on the job site from potential harm from a damaged power supply cord.

The following safety precautions should always be observed when operating Bartell Electric Power Trowels, in addition to the stated precautions for regular power trowels:

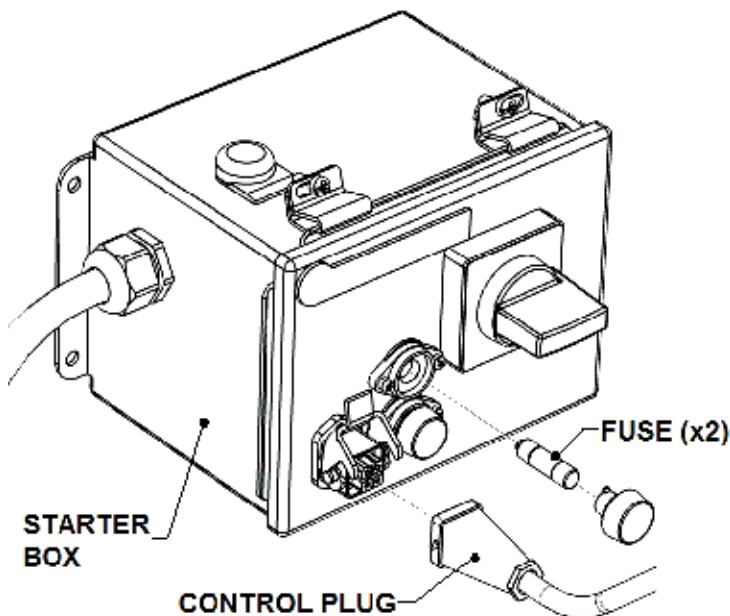
- The operator is responsible for the protection of the electrical power supply cord. Do not let the cord come into contact with the trowel blades under any circumstances. If the cord does touch the blades, immediately power down the trowel, unplug the electrical supply, and inspect the cord for damage. Cords with damaged insulation should be replaced immediately.
- If the trowel blades stick or jam a surge will be created, tripping the external breaker. Avoid starting the trowel after sitting on green concrete for extended periods without first breaking the bond or applying some water to the surface for lubrication. Avoid hitting obstacles with the blades as this can cause physical damage to the blades, transmission, or trip the breaker.

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- While the trowel should be cleaned daily, and the electronic components are splash-resistant, avoid spraying water or other liquids directly on the motor, starter box, or handle controls, as this can damage the electronics. Never immerse the trowel in water. If water intrusion into the electronics is suspected, have the trowel inspected by an authorized BMI representative before operating.
- Do not attempt to disable the electric safety switch on the right handle of the trowel.
- Do not pull the trowel by the safety switch housing.
- Always unplug the trowel for storage or transportation.

SETTING UP THE ELECTRIC POWER TROWEL



The Bartell Electric Power Trowel ships without the handle attached. When installing the handle, ensure that the control plug at the lower end of the handle is plugged into the receptacle at the lower left of the motor starter box and retained with the clip.

The box is protected with two (2) timed fuses. If your trowel will not start, and the breakers at the line and starter box are ok, then you may need to replace the fuses.

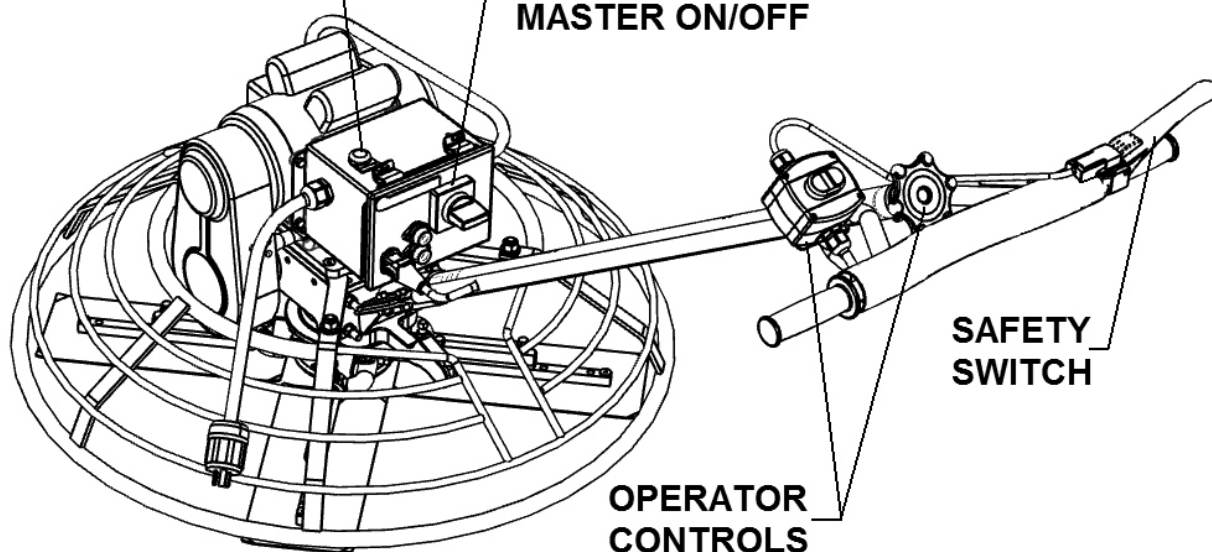
STARTING THE ELECTRIC POWER TROWEL

LINE POWER
INDICATOR LIGHT

MOTOR STARTER:
MASTER ON/OFF

SAFETY
SWITCH

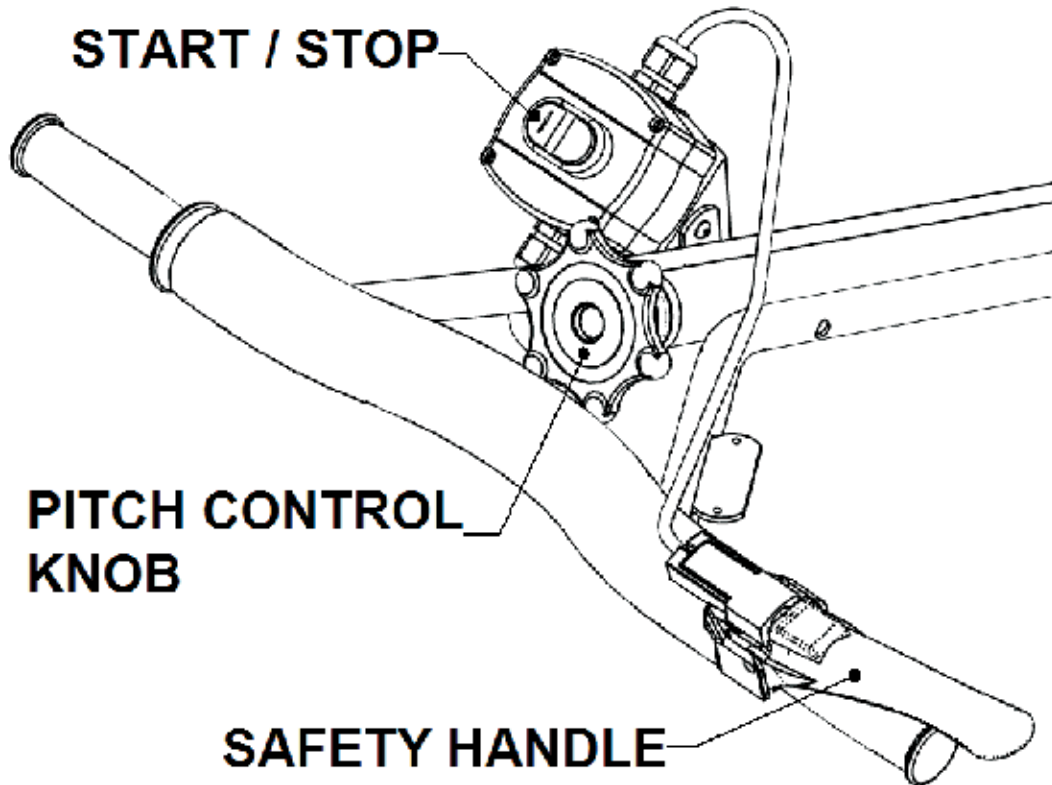
OPERATOR
CONTROLS



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1. Plug the trowel into the electrical supply. If the line power is on, the green power indicator lamp on the top of the trowel will glow.
2. Turn the master starter switch clockwise to the ON (vertical) position. If it will not stay in the ON position, then turn it fully counterclockwise to the OFF position and try again. The internal breaker of the starter box will not let the master switch be turned on until it has been reset by turning it off.

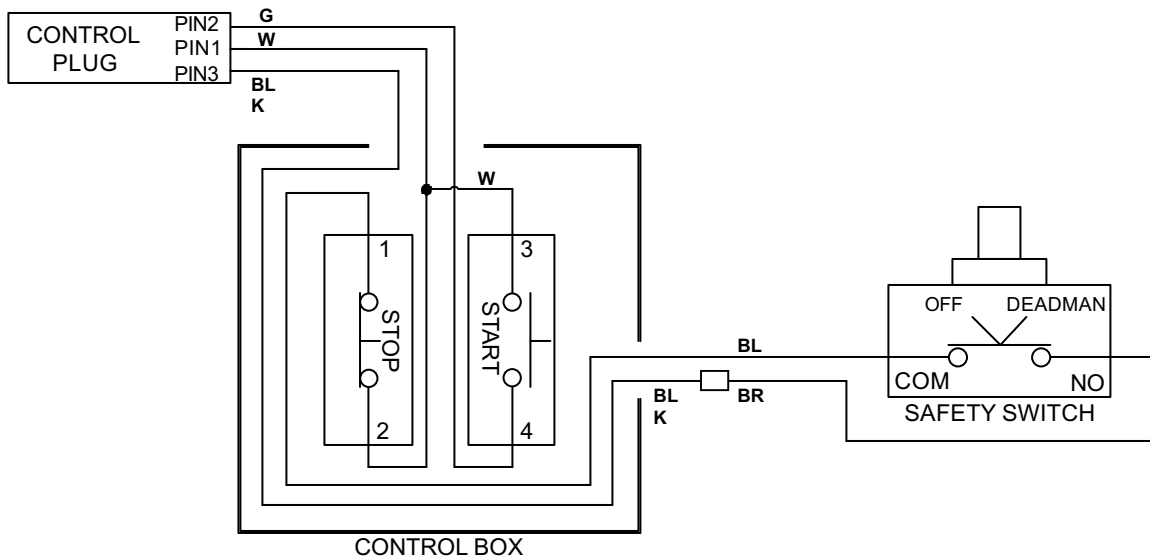
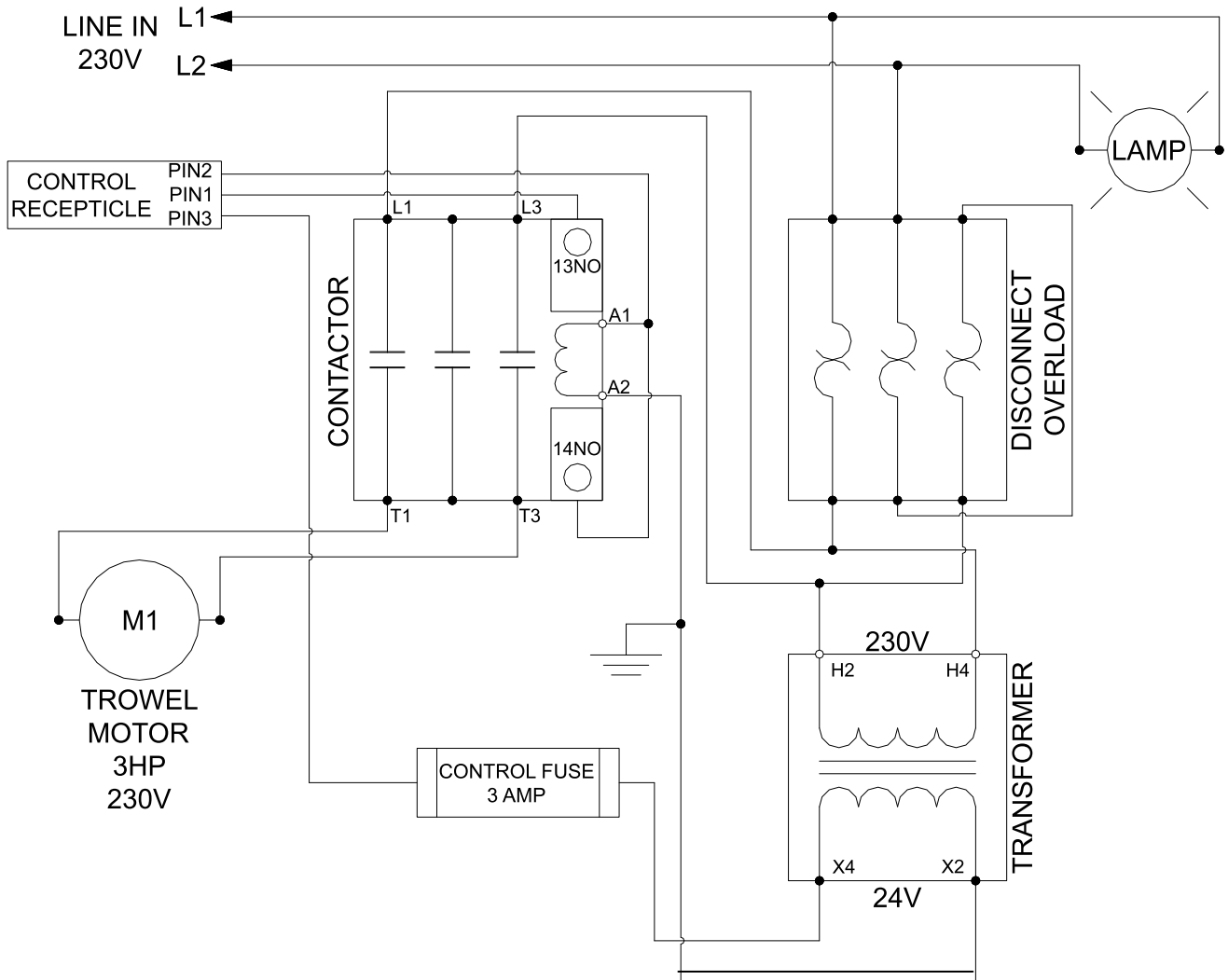


3. With the master switch ON, stand at the operator position behind the handle. The motor will not start until the safety handle is fully depressed, and it will immediately stop if the safety handle is released. Squeeze the safety handle with your right hand until it is fully depressed, and hold this for the duration of operation.
4. Brace your hip against the shield pad on the handle for better control. Bartell Electric Power Trowels operate at a constant speed which is achieved immediately after startup, so there will be some kick. With your left hand, press the green start button. The trowel will immediately begin to turn.

NOTE: If the trowel appears to hesitate or the motor strains for more than 3 seconds, release the safety handle and inspect the blades for any obstructions or bonding to the concrete. Clear the obstacle and try again.

5. To stop the trowel, simply release the safety handle or press the red stop button. Do not release the handles until the blades have stopped rotating. If leaving the trowel for any extended period, turn the master switch to the OFF position.

ELECTRIC POWER TROWEL WIRING DIAGRAM:



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TROWEL ARM ADJUSTMENT FIXTURE

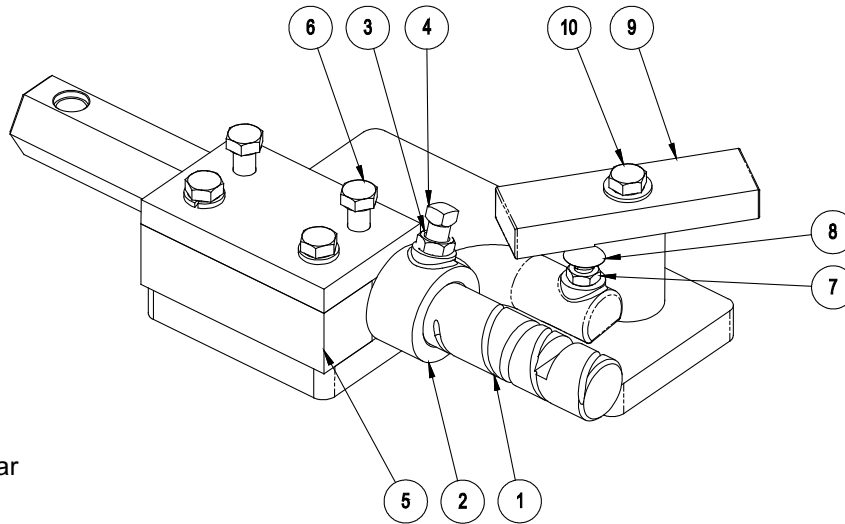


Figure 5a.

PART #20801

Ex: Unit 36" (B436)

- 1) 10810A – Trowel arm
- 2) 10817A – Lift lever
- 3) 10808 – Jam nut
- 4) 10809 – Set screw
- 5) 10824 – Block top
- 6) 10507 – Bolt
- 7) 10808 – Jam nut
- 8) 10807 – Carriage bolt
- 9) 10832 – Adjustment bar
- 10) 10507 – Bolt

The trowel arm adjustment fixture (20801) is reversible. By rotating the arm clamping fixture and the ring bolt, both left hand and right hand trowel arms may be adjusted. Before attempting adjustment, determine whether the trowel arm is right handed or left handed. When adjusting left hand trowel arms use the side of the fixture marked "L". When adjusting right hand trowels arms use the opposite side. The adjustment bar will be set on "36" for the Walk-behind trowel arm.

ADJUSTMENT PROCEDURE

1. Remove all trowel arm assemblies (1 & 2 arm and attached lift lever) from suspected maladjusted spider plate.
2. Remove lift lever (2) from trowel arm (1) by first loosening jam nut (3) then square head screw (4). If upon inspection (method left to discretion of serviceman) any trowel arm (1) is found to be in a bent condition, it must either be brought back to its original straight condition (method left to the serviceman's discretion) or replaced with new part.
3. Replace lift levers (2) on new or straightened arms (1) by reversing procedure as described above.

NOTE: IT IS IMPORTANT THAT WHEN TIGHTENING SQUARE HEAD NUT (4), IT SEATS ITSELF SECURELY INTO DIMPLE MACHINED IN ARM.

4. Place trowel arm assembly (1 and 2) in fixture (5) with lift lever (2) butting up against fixture. Clamp in place with bolts (6).
5. Loosen locknut (7) and screw carriage bolt (8) down to full depth allowable. This will provide for ample clearance to swing precision ground adjustment bar (9) over head of carriage bolt.

6. Adjust carriage bolt (8) upwards until contact is made with adjustment bar (9); holding carriage bolt in position with one wrench, tighten locknut (7) to secure in position with second wrench.

NOTE: IT IS VITALLY IMPORTANT TO ENSURE THAT ONCE THE CARRIAGE BOLT IS ADJUSTED TO THE CORRECT HEIGHT, IT DOES NOT MOVE BEFORE, OR DURING THE TIGHTENING OF LOCKNUT.

7. This same procedure is to be followed with ALL arms from spider plate assembly, and will ensure correct and exact adjustment.

TROWEL ARM ADJUSTMENT SCREW

The trowel arm adjustment screw is to be used for field adjustment of blade level, in the event of a damaged trowel arm, to enable completion of the job. At the end of the job repairs should be made to eliminate the damage. When assembling trowel blades to trowel arms, the adjustment screw should NEVER protrude below the under-side surface of a trowel arm.

If the adjustment screw is not flush with the underside of the trowel arm, then this will cause the power trowel to bounce and vibrate especially at high speed. This will also cause the trowel blades to leave an uneven finish to the concrete due to the blades not being level to one another.

Make certain that the adjusting screw is held firmly in place while tightening the bolt which secures the blade to the trowel arm.

TROUBLESHOOTING

WON'T START

- Throttle fully open
- Hand lever wire broken
- No gas
- Dirty gas
- Gas filter plugged
- Gas line plugged
- Hole in gas line
- Gas supply valve turned off
- Dead-man safety switch
- Safety switch wire or connectors not making good contact
- Other engine problems (Refer to engine manual)

STARTS BUT NO HIGH SPEED

- Engine problems
- Throttle cable broken or seized
- Throttle lever and connectors loose or out of adjustment
- Clutch shoes worn

STARTS AT HIGH SPEED, WON'T SLOW DOWN

- Same as above

ENGINE WON'T STOP

- Safety switch, wire or connectors not making good contact

ENGINE STARTS BUT WON'T TURN TROWELS AT ANY SPEED

- Clutch seized
- No weights or broken clutch
- Wrong belt
- Broken or missing key
 - Clutch
 - Pulley
 - Worm gear (countershaft)
 - Main gear
 - Spider plate
- Gearbox seized

TROWELS TURN, ENGINE AT IDLE

- Idle too fast
- Belt too tight
- Clutch seized
- Pulley out of alignment

TROWELS BLADES WEARING UNEVENLY

- Spider plate seized
- Arms bent
- Adjusting screws (carriage bolts) incorrectly set

MACHINE JUMPS ON FLOOR

- Concrete hardened on bottom of spider plate
- Trowels unevenly worn
- Spider plate seized
- Spider plate loose
- Trowel arms bent
- Adjusting screws (carriage bolts) incorrectly set use spider plate adjustment jig (pg,13)
- Mainshaft bent

PITCH CONTROLS WILL NOT OPERATE BLADES

- Cable broken or out of adjustment
- Slot screw missing (under-side of handle)
- Spider plate seized
- Pressure plate and/or yoke arm broken or badly worn
- Hand crank adjuster malfunctioning

BELT WEARING RAPIDLY

- Belt adjusted improperly
- Pulley out of alignment
- Wrong belt/defective belt
- Clutch sticking
- Gearbox seizing

OIL LEAKS

- a) Top of gearbox
 - Engine leaks
 - Relief valve broken
 - Too much oil in gearbox
 - Set screw missing in cover
- b) Between end cap and gearbox (recoil side)
 - "O" ring damaged
 - End cap not tight
- c) At mainshaft or countershaft
 - Relief valve seized
 - Shaft and/or seal worn

TROWEL BLADES WILL NOT TURN

- Yoke arm broken
- Key sheared

SPIDER PLATE HARD TO GREASE

- Fittings plugged
- Cement in grease grooves of arms
- Grease fittings too tight

SPECIFICATIONS

WALK-BEHIND TROWEL

Model	Path	Power Source (gas option)	Float Blade Size	Finish Trowel Size	Combination Blade Size	Float Pan	Operating Weight
B430	36" (90cm)	Honda GX160 Honda GX270	10" x 14" (25 x 36cm)	6" x 14" (15 x 36cm)	8" x 14" (20 x 36cm)	36 1/2" (93 cm)	Up to 185 lb. (75 kg)
B436	36" (90cm)	3hp, 230V, 1 Phase Electric Motor	10" x 14" (25 x 36cm)	6" x 14" (15 x 36cm)	8" x 14" (20 x 36cm)	38 1/2" (98 cm)	Up to 165 lb. (75 kg)
B446	46" (120cm)	Honda GX160 Honda GX270 Honda GX340 Honda GX390	10" x 18" (25 x 46cm)	6" x 18" (15 x 46cm)	8 x 18" (20 x 46cm)	48 1/2" (123 cm)	Up to 240 lb. (109 kg)
B446 Mega T	46" (120cm)	Honda GX340	10" x 18" (25 x 46cm)	6" x 18" (15 x 46cm)	8" x 18" (20 x 46cm)	48 1/2" (123 cm)	Up to 285 lb. (129 kg)

Walk Behind Trowel (GASOLINE)	
Blade Speed (RPM)	130-160 / 25-180 (Mega T)
Engine Speed (RPM)	3600
Clutch Type	Centrifugal / CVT (Mega T)
Variable Speed	Yes
Gearbox Oil	Agma 8 compounded gear oil
Gearbox Oil Capacity	16 oz. (473 ml), 19 oz. (562 ml)
Engine Fuel	Gasoline – Unleaded
Engine Oil Alert	Yes
Cooling	Air
Starting	Recoil Starter - Manual
Dead-man Safety Switch	Yes
Fuel Capacity (approximately)	3 Gal. (12.5 L)
Running Time (approximately)	2 ½ hours
Number of Blades	4
Engine Acoustic Power Lwa (dB)	97-103
Engine Acoustic Pressure Lpa (Db)	82-86
Level of Vibration	1.1-1.5
Vibration value on the handle	7.0 aw
Options	Easypitch Lever Hoist Hook Folding Handle

- Power rating conforming to DIN 6270 & ISO 3048/1 Std.
- RPM results may vary by engine option.

WALK BEHIND POWER TROWEL INSTRUCTION MANUAL

Technical Characteristics:
 Caractéristiques techniques:
 Technisch gegevens:
 Características Técnicas:
 Características Técnicas:
 Qualitàs di tecnico:

Model Modèle Type Modelo Modelo Modello	MachineSerial Number Numéro de Série machine Serienummer machine Máquina número de série Numero de serie da maquina Numero di seria la macchina	Engine Serial Number Numéro de Série moteur Serienummer motor Motor número de série Numero de serie do motor Numero di seria la motore	Weight Masse Gewicht Masa Massa Massa
B436 Walk Behind Power Trowel			Lbs (kg) 125 (56.8)

Noise Level Puissance acoustique Geluidniveau Nivel Sonoro Nivel del Ruido Potenza Acustica	Pressure level Pression acoustique Geluidsdrunkniveau Nivel Acustico Pressão Acústica Pressione Acustica	Vibration level Niveau de vibration Vibratieniveau Nivel de Vibracion Nivel de Vibração Livello di Vibrazione
Lwa (dB)	Lpa (Db)	a _{hv} (m/s ²)
98	99	1.5

The Technical Construction file is maintained at:

Les fiches techniques de construction sont gardées à:
 Het technische constructie document wordt bewaard te:
 El archivo técnico de construcción se mantiene en:
 O arquivo técnico de construção é mantido no (a):
 L'originale dossier tecnico di costruzione è conservato presso:

The authorized representative is:

Le représentant autorisé est:
 Gemachtigd vertegenwoordiger is:
 La representación autorizada es:
 O representante autorizado é:
 Il rappresentate autorizzato:

Signature of Authorized Person:

Signature de la personne autorisée:
 Handtekening van gemachtigd persoon:
 Firma de la persona autorizada:
 Assinatura de pessoa autorizada:
 Firma della persona autorizzata:

Typed name of Authorized Person:

Nom dactyographié de la personne autorisée:
 Getypte naam van gemachtigd persoon:
 Nombre de la persona autorizada:
 Nome datilografado da pessoa autorizada:
 Nome della persona autorizzata:

Title of Authorized Person:

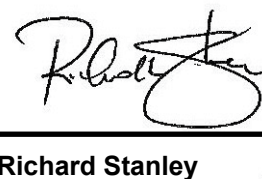
Titre de la personne autorisée:
 Functie van gemachtigd persoon:
 Cargo de la persona autorizada:
 Título da pessoa autorizada:
 Posizione della persona autorizzata:

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Richard Stanley

V.P. Operations

03.06.2013

Mississauga, Ontario, Canada

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 200 COMMERCE DRIVE, FREEHOLD, NEW JERSEY, USA, 07728, 732-566-6400 FAX 732-566-5444**

PARTS BOOK

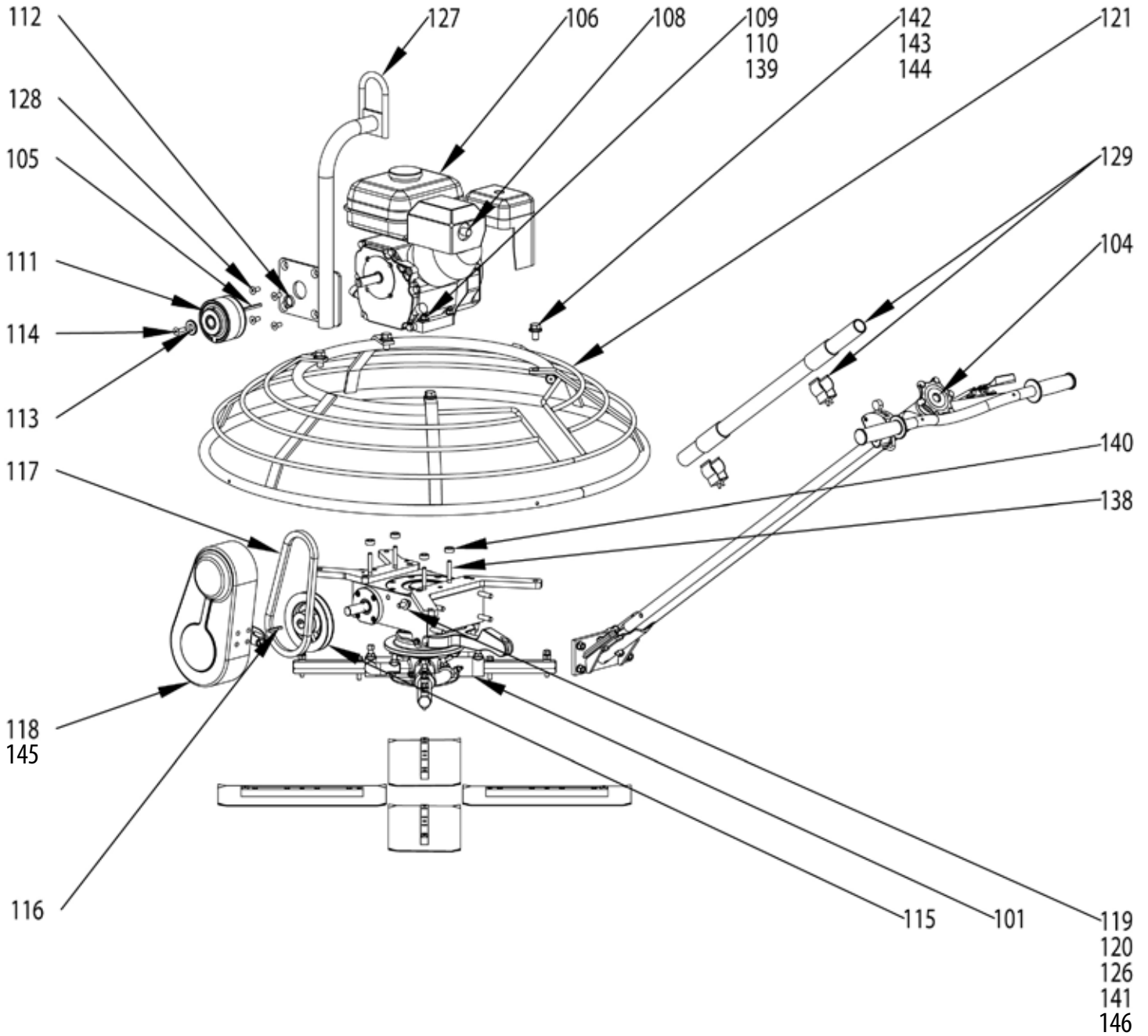
WALK-BEHIND TROWELS

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PARTS LIST 1 WALK-BEHIND TROWELS

GENERAL ASSEMBLY - B436, B436SD



PARTS LIST 1

WALK-BEHIND TROWELS

GENERAL ASSEMBLY - B436, B436SD

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
101	N/A	BASE UNIT (SEE PARTS LIST 2)	1	6/8/2004
104	20610	HANDLE ASSEMBLY, FINE PITCH (SEE PARTS LIST 3)	1	6/8/2004
	20772	HANDLE ASSEMBLY, QUICKPITCH		6/8/2004
	20612	HANDLE ASSEMBLY, EUROPEAN SPEC.		12/12/2012
	20507	HANDLE ASSEMBLY, ELECTRIC		11/15/2007
	20545	HANDLE ASSEMBLY, AIR		11/15/2007
105	10206 (GX160)	SQUARE KEY 3/16" x 1 7/8"LG	1	8/16/2007
	11003(GX270)	SQUARE KEY, 1/4" x 2"LG		
106	ENGINE	ENGINE	1	6/8/2004
108	11112	MUFFLER DEFLECTOR	1	8/21/2007
109	10402 (GX160)	WASHER, LOCK, 5/16"	4	6/8/2004
	10902 (GX270)	WASHER, LOCK, 3/8"		
110	10915 (GX160)	HEX NUT, 5/16"-18UNC, GRADE 5	4	6/8/2004
	10901 (GX270)	HEX NUT, 3/8"-16UNC, GRADE 5		
111	21027 (GX160)	CLUTCH, 3/4" BORE (SEE PARTS LIST 5)	1	6/8/2004
	21029 (GX270)	CLUTCH, 1" BORE		
112	11254 (GX160)	CLUTCH SPACER	1	6/8/2004
	N/A (GX270)			
113	30042 (GX160)	CLUTCH RETAINER	1	8/16/2007
	N/A (GX270)			
114	10742 (GX160)	SCREW, FLAT HEAD, 5/16"-24UNF X 1-1/2"	1	10/9/2012
	N/A (GX270)			
115	10739 (GX160)	SHEAVE	1	10/9/2012
	14285 (GX270)			8/16/2007
116	10208	SQUARE KEY, 3/16" x 1 1/2" LG	1	8/16/2007
117	10756 (GX160)	BELT, BX25	1	10/9/2012
	11047 (GX270)	BELT, B28		8/16/2007
118	21067	BELT GUARD	1	10/9/2012
119	10902	WASHER, LOCK, 3/8"	1	6/8/2004
120	10901	HEX NUT, 3/8"-16UNC	1	6/8/2004
121	20447	GUARD RING	1	6/8/2004
126	11029	STUD, 3/8"-16UNC x 3/4"LG	1	8/16/2007

PARTS LIST 1

WALK-BEHIND TROWELS

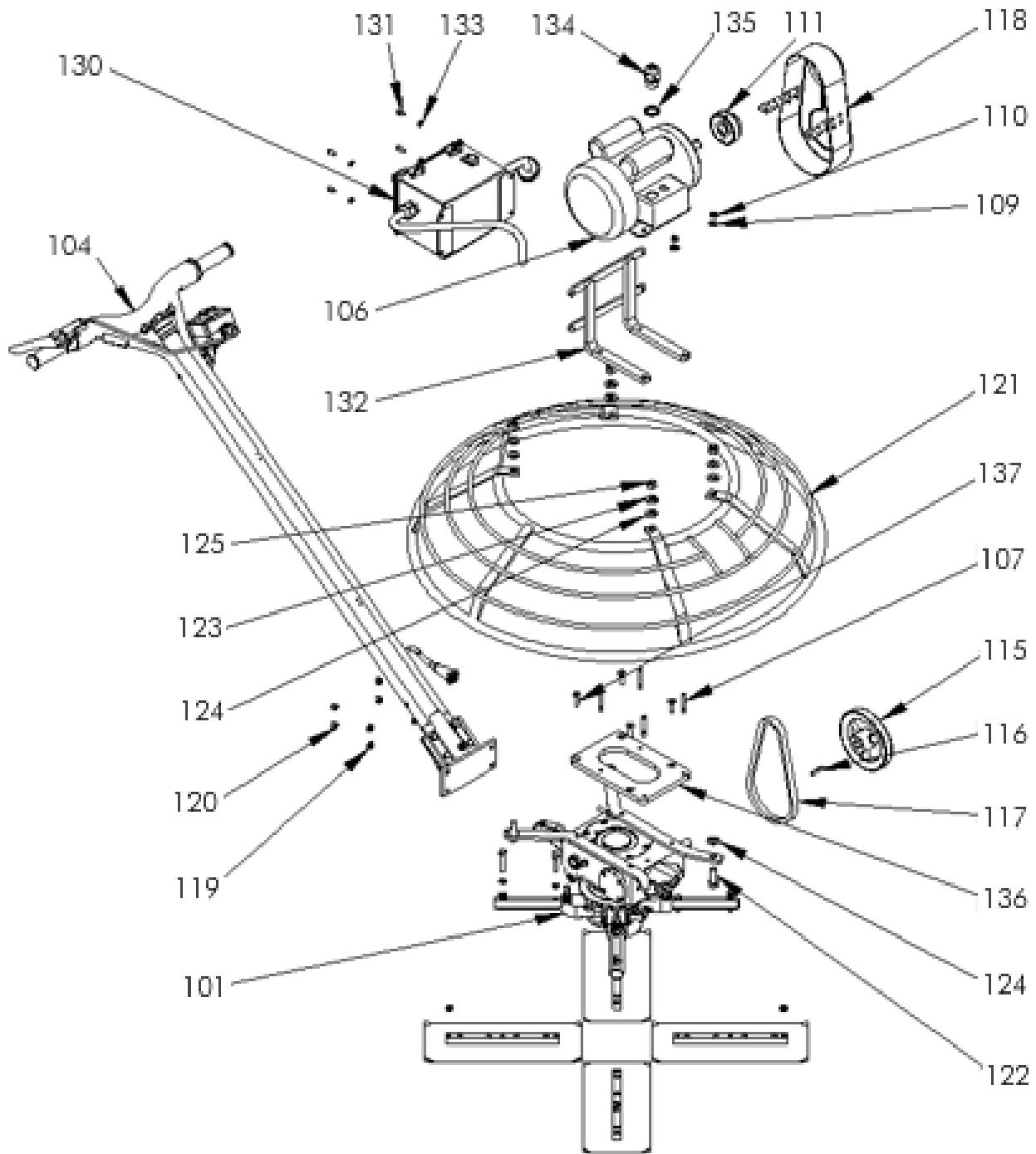
GENERAL ASSEMBLY - B436, B436SD Continued

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
127	20189 (GX160) 20171 (GX270)	HOIST HOOK (optional)	1	6/8/2004
128	30041	FHSCS, 5/16"-24UNF x 3/4"LG (optional)	4	6/8/2004
129	20512	CARRY BAR ASSEMBLY (optional)	1	6/8/2004
138	14653 (GX160) 14650 (GX270)	STUD, ENGINE MOUNT	4	1/16/2013 4/15/2011
139	10919 (GX160) 10905 (GX270)	WASHER, FLAT, 5/16" WASHER, FLAT, 3/8"	2	4/15/2011 4/15/2011
140	10104 (GX270)	SPACER, 5/16"	4	4/15/2011
141	10919	WASHER, FLAT, 5/16"	2	4/15/2011
142	13781	HHCS, 1/2-13UNC x 1" LG	4	4/15/2011
143	10009	WASHER, LOCK, 1/2"	4	4/15/2011
144	50026	WASHER, FLAT, 1/2"	4	4/15/2011
145	10409	HHCS, 5/16-18 x 1/2" LG	1	4/15/2011
146	11052	HEX HEAD JAM NUT 3/8-16 UNC	1	4/15/2011
147	11796	OIL DRAIN HOSE - GX160, EX17 (NOT SHOWN)	1	4/15/2011
	11800	OIL DRAIN HOSE - GX270, 340, 390 (NOT SHOWN)	1	4/15/2011

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PARTS LIST 1 WALK-BEHIND TROWELS

GENERAL ASSEMBLY: ELECTRIC- B436, B436SD



PARTS LIST 1

WALK-BEHIND TROWELS

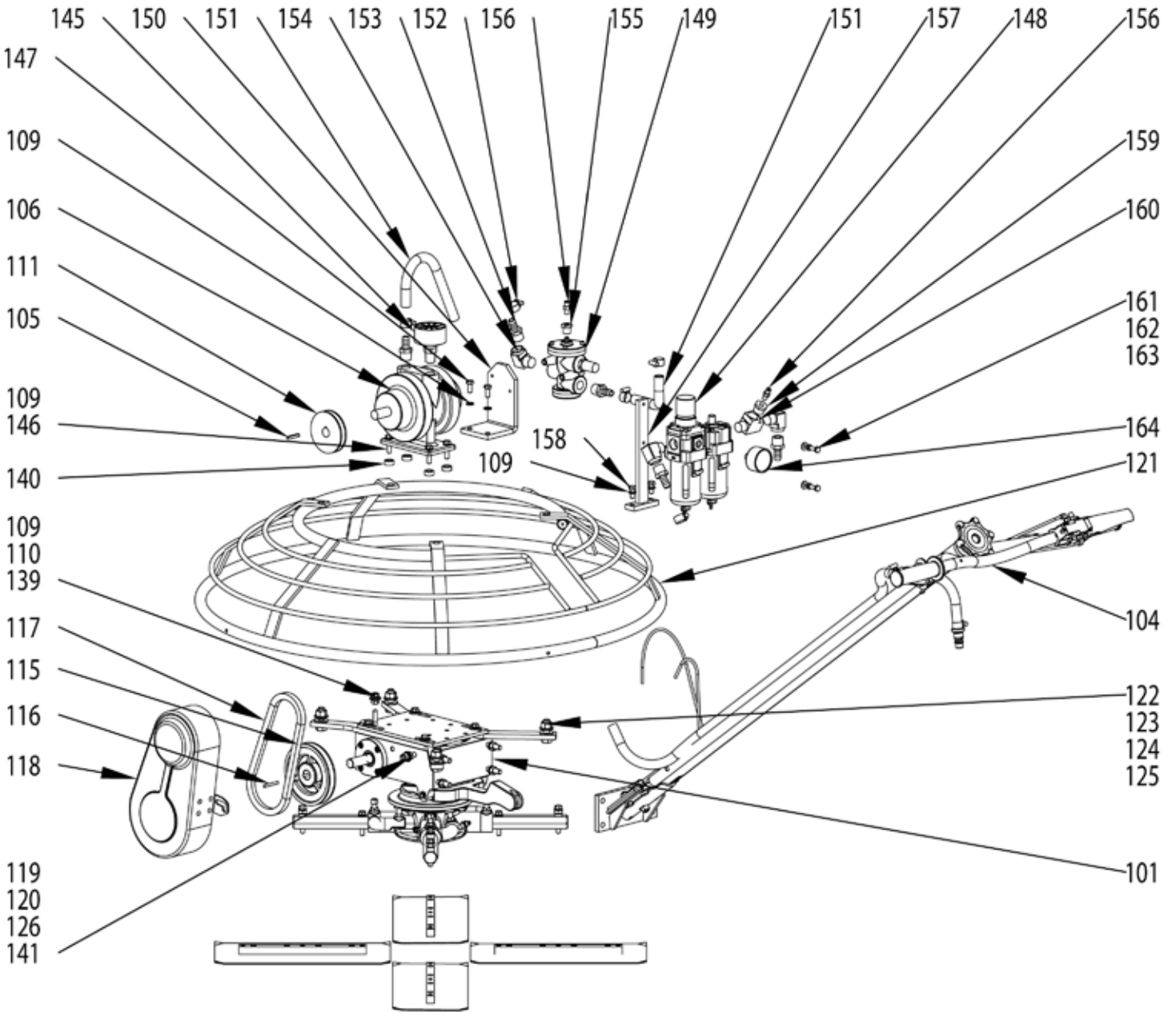
GENERAL ASSEMBLY: ELECTRIC - B436, B436SD

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
101	N/A	BASE UNIT	1	6/8/2004
104	20507	HANDLE ASSEMBLY	1	8/21/2007
106	50559	ELECTRIC MOTOR, 3HP, 230V, 1 PH	4	8/21/2007
107	14278	STUD, MOTOR MOUNT	1	6/8/2004
109	11614	WASHER, LOCK, M8	1	8/21/2007
110	11615	HEX NUT, M8-1.25	1	6/8/2004
111	21084	CLUTCH (WITH KEY)	4	6/8/2004
115	14285	SHEAVE	1	8/21/2007
116	13597	SQUARE KEY, 3/16"	4	6/8/2004
117	11300	BELT, 4L250	4	6/8/2004
118	21064	BELT GUARD	1	6/8/2004
119	10902	WASHER, LOCK, 3/8"	1	6/8/2004
120	10901	HEX NUT, JAM, 3/8"-16UNC	1	8/16/2007
121	20447	GUARD RING	1	8/16/2007
122	30019	HHCS, 1/2"-13UNC x 1 1/2"LG	1	8/16/2007
123	50026	WASHER, FLAT, 1/2"	1	6/8/2004
124	11296	WASHER, RUBBER, 5/8"	1	8/16/2007
125	10547	NUT, NYLOCK, 1/2"-13UNC	1	8/16/2007
130	51080	STARTER ASSEMBLY, 3 HP, 230V, 1PH	1	6/8/2004
131	30031	HHCS, 1/4"-20UNC x 3/4"LG	1	6/8/2004
132	50151	BRACKET, MOTOR & STARTER	1	6/8/2004
133	10521	WASHER, LOCK, 1/4"	4	8/16/2007
134	50636	STRAIN RELIEF	4	6/8/2004
135	50637	LOCK NUT, STRAIN RELIEF	8	6/8/2004
136	11741	MOTOR MOUNT PLATE	4	6/8/2004
137	50529	FHSCS, 5/16"-18UNC x 1 1/4"LG	1	8/16/2007
999	51085	FUSE, TIME DELAY, 3/10 AMP (not shown)	1	6/8/2004

PARTS LIST 1

WALK-BEHIND TROWELS

GENERAL ASSEMBLY: AIR - B436, B436SD



PARTS LIST 1

WALK-BEHIND TROWELS

GENERAL ASSEMBLY: AIR - B436, B436SD

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
101	N/A	BASE UNIT	1	---
104	20545	HANDLE ASSEMBLY	1	---
105	50309	KEY, 3/16" SQ x 1-1/4" LG	1	---
106	50381	GAST 8 AIR MOTOR ASSEMBLY	1	---
109	10402	WASHER, LOCK, 5/16"	21	---
110	10915	HEX NUT, 5/16"-18UNC, GRADE 5	4	---
111	50379	SHEAVE, DRIVING	1	---
115	14270	SHEAVE, DRIVEN	1	---
116	10208	KEY, 3/16" SQ x 1-1/2" LG	1	---
117	11007	BELT, A24/4L260	1	---
118	21066	BELT GUARD	1	---
119	10902	WASHER, LOCK, 3/8"	1	---
120	10901	HEX NUT, JAM, 3/8"-16UNC	1	---
121	20447	GUARD RING	1	---
122	10955	HHCS, M12-1.75 x 40MM LG	4	---
123	50026	WASHER, FLAT, 1/2"	4	---
124	11296	WASHER, RUBBER, 5/8"	8	---
125	10956	NUT, NYLOCK, M12-1.75	4	---
126	11029	STUD, 3/8"-16UNC x 1-3/4"LG	1	---
129	20512	CARRY BAR ASSEMBLY (optional)	1	---
139	10919	WASHER, FLAT, 5/16"	1	---
145	50380	MUFFLER	1	---
146	10407	HHCS, 5/16-18UNC x 1-1/4" LG	4	---
147	30142	HHCS, 5/16-18UNC x 3/4" LG	2	---
148	50494	AIR REGULATOR	1	---
149	10598	3 WAY VALVE	1	---
150	50645	VALVE BRACKET	1	---
151	50180	MOTOR HOSE 6"	2	---
152	50161	HOSE CLAMP 1/2"	6	---
153	50163	1/2" HOSE FITTING	5	---
154	50174	1/2" ELBOW	2	---
155	50751	BUSHING, 1/4"MPT x 1/8"FPT	1	---
156	10571	1/8-27 NPT STR.FITTING	2	---
157	50493	REGULATOR BRACKET	1	---
158	30142	HHCS, 5/16-18UNC x 3/4" LG	2	---

PARTS LIST 1

WALK-BEHIND TROWELS

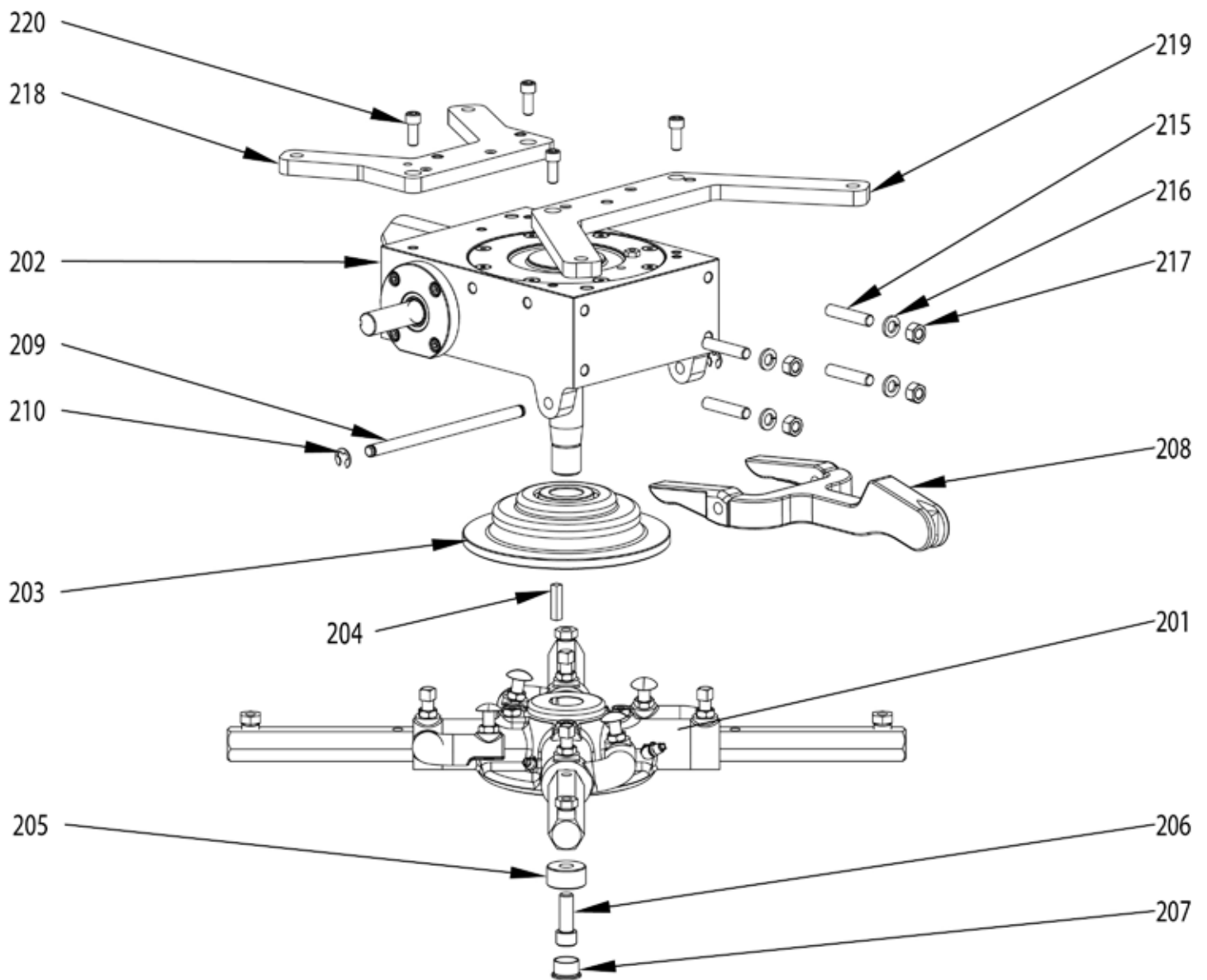
GENERAL ASSEMBLY: AIR - B436, B436SD

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
159	50752	BUSHING, 1/2"MPT x 1/8"FPT	1	---
160	50753	STREET TEE, 1/2"	1	---
161	10963	HHCS, 1/4-20UNC x 3/4" LG	2	---
162	11043	WASHER, FLAT, 1/4"	2	---
163	10521	LOCKWASHER, 1/4"	2	---
164	50176	GAUGE	1	---

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PARTS LIST 2 WALK-BEHIND TROWELS

BASE UNIT ASSEMBLY: B436, B436E, B436SD



PARTS LIST 2

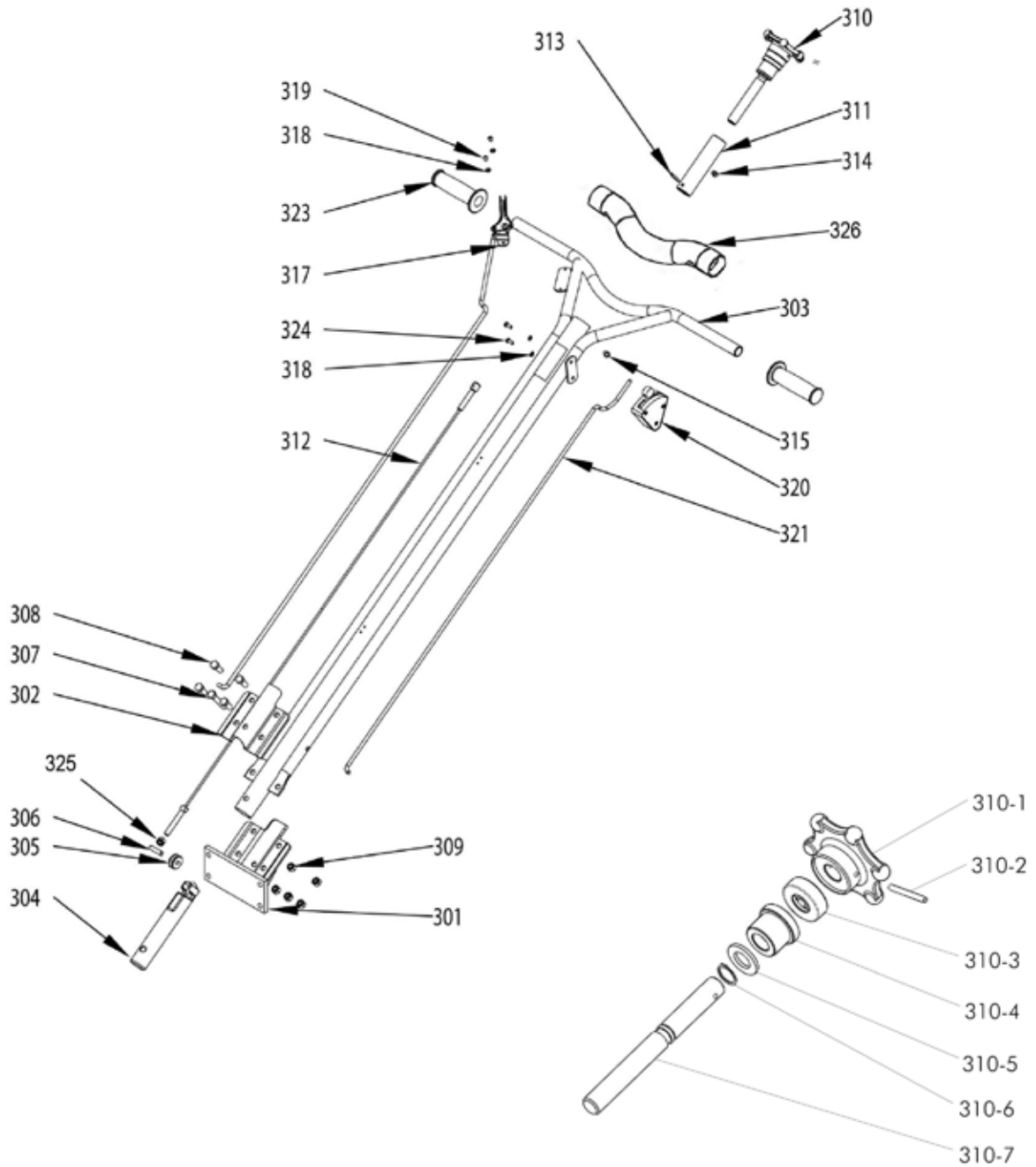
WALK-BEHIND TROWELS

BASE UNIT ASSEMBLY: B436, B436E, B436SD

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
201	20810	SPIDER PLATE ASSEMBLY (SEE PARTS LIST 5)	1	5/1/2004
202	20921 20943	GEARBOX ASSEMBLY, B436, B436E (SEE PARTS LIST 4) GEARBOX ASSEMBLY, B436SD	1	4/7/1998 4/7/1998
203	20627	PRESSURE PLATE ASSEMBLY (SEE PARTS LIST 5)	1	1/1/1997
204	10608	KEY, 1/4"SQ x 1-5/32"LG	1	1/1/1997
205	10814	SPIDER PLATE RETAINER	1	1/1/1997
206	10812	SHCS, 7/16"-14UNC x 1 1/4"LG	1	1/1/1997
207	10823	CAP PLUG EC-12	1	1/1/1997
208	10312	YOKE ARM	1	3/1/2004
209	10923	YOKE PIN	1	1/1/1997
210	10922	RETAINING RING, E TYPE, 3/8" DIA	2	1/1/1997
215	11339	STUD, 3/8"-16 x 1-1/2"LG	4	1/1/1997
216	10902	WASHER, LOCK, 3/8" DIA, MEDIUM	4	1/1/1997
217	10901	HEX NUT, 3/8"-16UNC	4	1/1/1997
218	15344	MOUNTING RAIL, FRONT	1	5/15/2011
219	15345	MOUNTING RAIL, REAR	1	5/15/2011
220	10357	SHCS, 5/16-18x3/4" LG	4	5/15/2011

PARTS LIST 3 WALK-BEHIND TROWELS

HANDLE ASSEMBLY - 20610 FINE PITCH



PARTS LIST 3

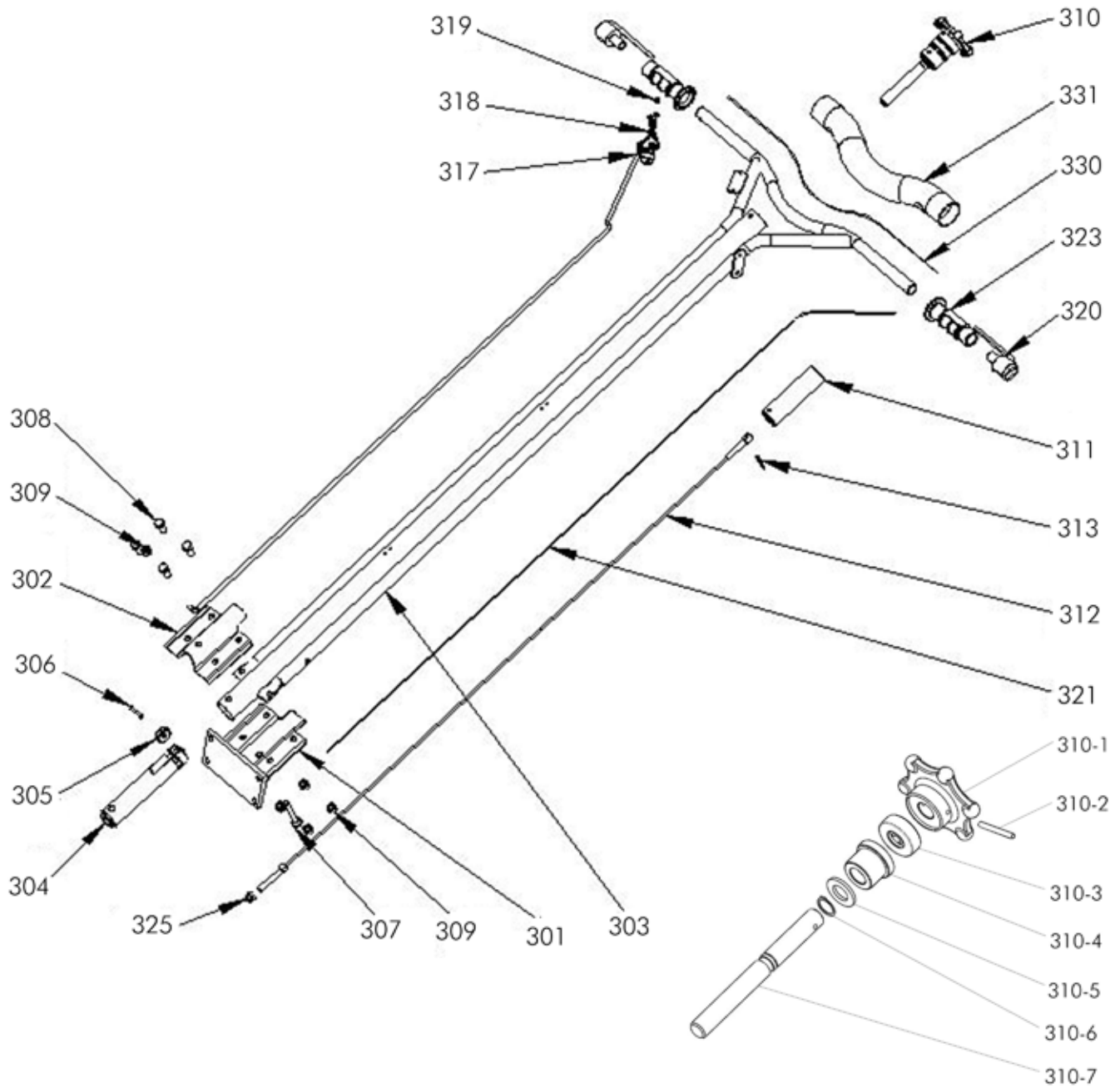
WALK-BEHIND TROWELS

HANDLE ASSEMBLY - 20610

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
301	20517	HANDLE BRACKET	1	9/27/2007
302	10518	HANDLE CLAMP	1	9/27/2007
303	21703	HANDLE TUBE	1	9/27/2007
304	21704	SUPPORT BLOCK	1	9/27/2007
305	21705	PULLEY	1	9/27/2007
306	21706	DOWEL PIN	1	9/27/2007
307	13350	HHCS M10-1.5 x 60MM LG	1	9/27/2007
308	10889	HHCS M10-1.5 x 30MM LG	4	9/27/2007
309	11802	LOCKNUT, M10-1.5, NYLOCK	5	9/27/2007
310	21714	HAND KNOB ASSEMBLY	1	9/27/2007
310-1	21707	HAND KNOB	1	9/27/2007
310-2	21708	SPRING PIN	1	9/27/2007
310-3	21709	THRUST BEARING	1	9/27/2007
310-4	21710	BUSHING	1	9/27/2007
310-5	21711	WASHER	1	9/27/2007
310-6	21712	RETAINING RING	1	9/27/2007
310-7	21713	SCREW SHAFT	1	9/27/2007
311	21715	SLIDE BUSHING	1	9/27/2007
312	21716	PITCH CONTROL CABLE	1	9/27/2007
313	21724	PIN	1	9/27/2007
314	21725	SHCS M6-1.0 x 6MM LG	1	9/27/2007
315	21726	RHMS M6-1.0 x 12MM LG	1	9/27/2007
317	10508	THROTTLE CABLE ASSEMBLY C/W LEVER	1	9/27/2007
318	10703	WASHER LOCK, #10 INTERNAL STAR	4	9/27/2007
319	21728	RHMS M5-0.8 x 8MM LG	2	9/27/2007
320	21729	SAFETY SWITCH ASSEMBLY	1	9/27/2007
321	20702	WIRE ASSEMBLY	1	9/27/2007
323	21717	HANDLE GRIP (PAIR)	1	9/27/2007
324	10711	HHCS M5-0.8 x 12MM LG	2	9/27/2007
325	10317	LOCKNUT, 3/18"-16, NYLOCK	1	9/27/2007
326	21807	CROSSBAR PAD	1	9/27/2007

PARTS LIST 3 WALK-BEHIND TROWELS

HANDLE ASSEMBLY - 20612 EUROPEAN SPEC.



PARTS LIST 3

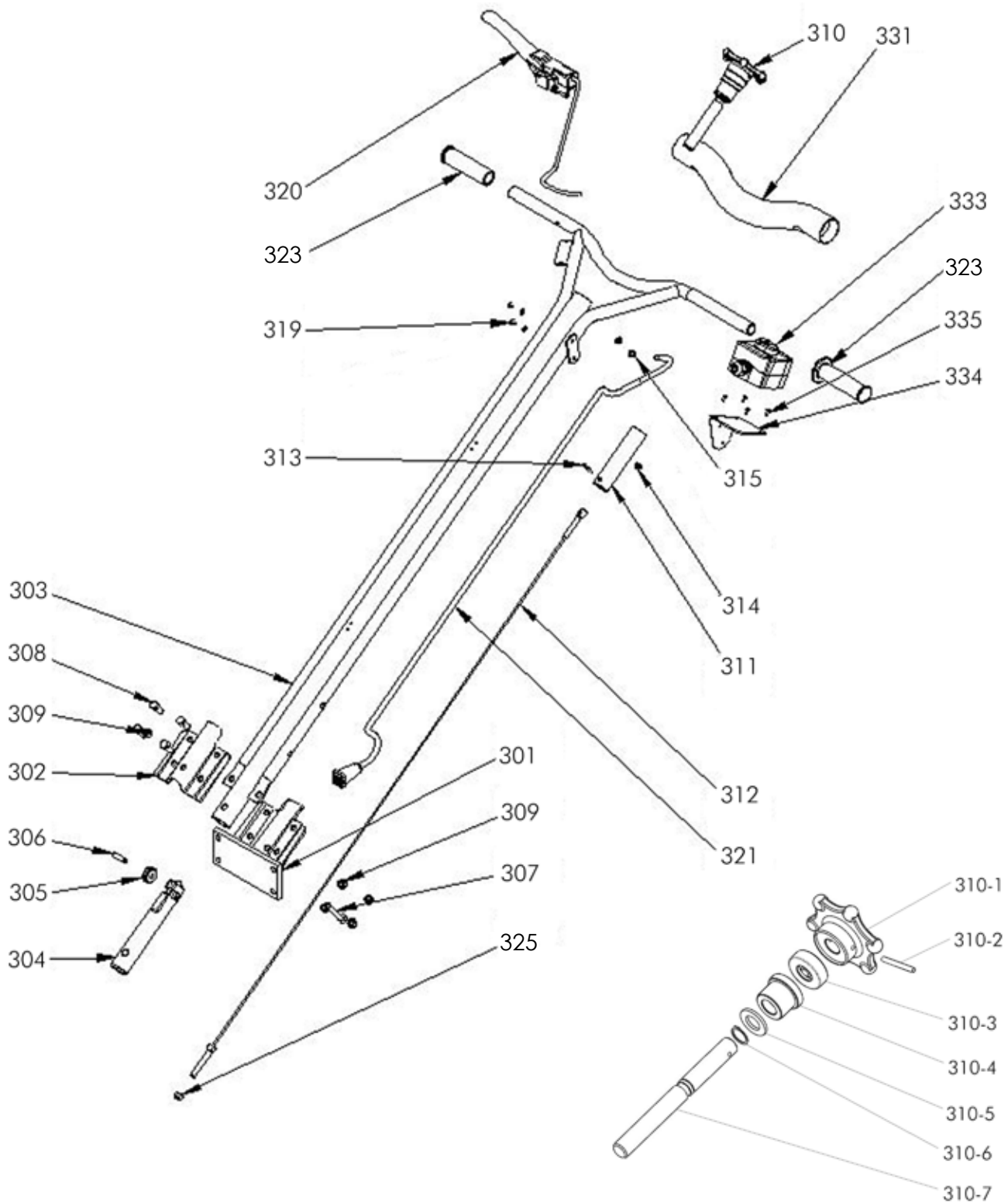
WALK-BEHIND TROWELS

HANDLE ASSEMBLY - 20612 EUROPEAN SPEC.

ITEM NO.	PART NO.	DESCRIPTION	QTY.	
301	20518	HANDLE BRACKET	1	1/17/2008
302	10505	HANDLE CLAMP	1	1/17/2008
303	21718	HANDLE TUBE	1	1/17/2008
304	21719	SUPPORT BLOCK	1	1/17/2008
305	21705	PULLEY	1	1/17/2008
306	21706	DOWEL PIN	1	1/17/2008
307	20539	FHCS, M10-1.5 x 70MM	1	1/17/2008
308	13348	HHCS, M10-1.5 x 25MM	4	1/17/2008
309	11802	LOCK NUT, M10-1.5, NYLOCK	5	1/17/2008
310	21720	HAND KNOB ASSEMBLY	1	1/17/2008
310-1	21707	HAND KNOB	1	1/17/2008
310-2	21708	SPRING PIN	1	1/17/2008
310-3	21709	THRUST BEARING	1	1/17/2008
310-4	21731	BUSHING	1	1/17/2008
310-5	21711	WASHER	1	1/17/2008
310-6	21712	RETAINING RING	1	1/17/2008
310-7	21713	SCREW SHAFT	1	1/17/2008
311	21722	SLIDE BUSHING	1	1/17/2008
312	20723	PITCH CONTROL CABLE	1	1/17/2008
313	21724	SPRING PIN	1	1/17/2008
317	10895	THROTTLE CABLE ASSEMBLY C/W LEVER	1	1/17/2008
318	10703	WASHER, LOCK, #10 DIA, INTERNAL STAR	2	1/17/2008
319	21728	RHMS, #10-24UNCX 1/4"LG	2	1/17/2008
320	11852	SAFETY SWITCH	2	1/17/2008
321	20702	WIRE ASSEMBLY, 93" EURO	1	1/17/2008
323	21717	HANDLE GRIP (PAIR)	1	1/17/2008
325	10317	NYLOCK NUT, 3/8"-16UNC	1	1/17/2008
330	21727	WIRE ASSEMBLY, 27" EURO	1	1/17/2008
331	21721	HANDLE SHIELD PAD	1	1/17/2008

PARTS LIST 3 WALK-BEHIND TROWELS

HANDLE ASSEMBLY - 20507 ELECTRIC



PARTS LIST 3

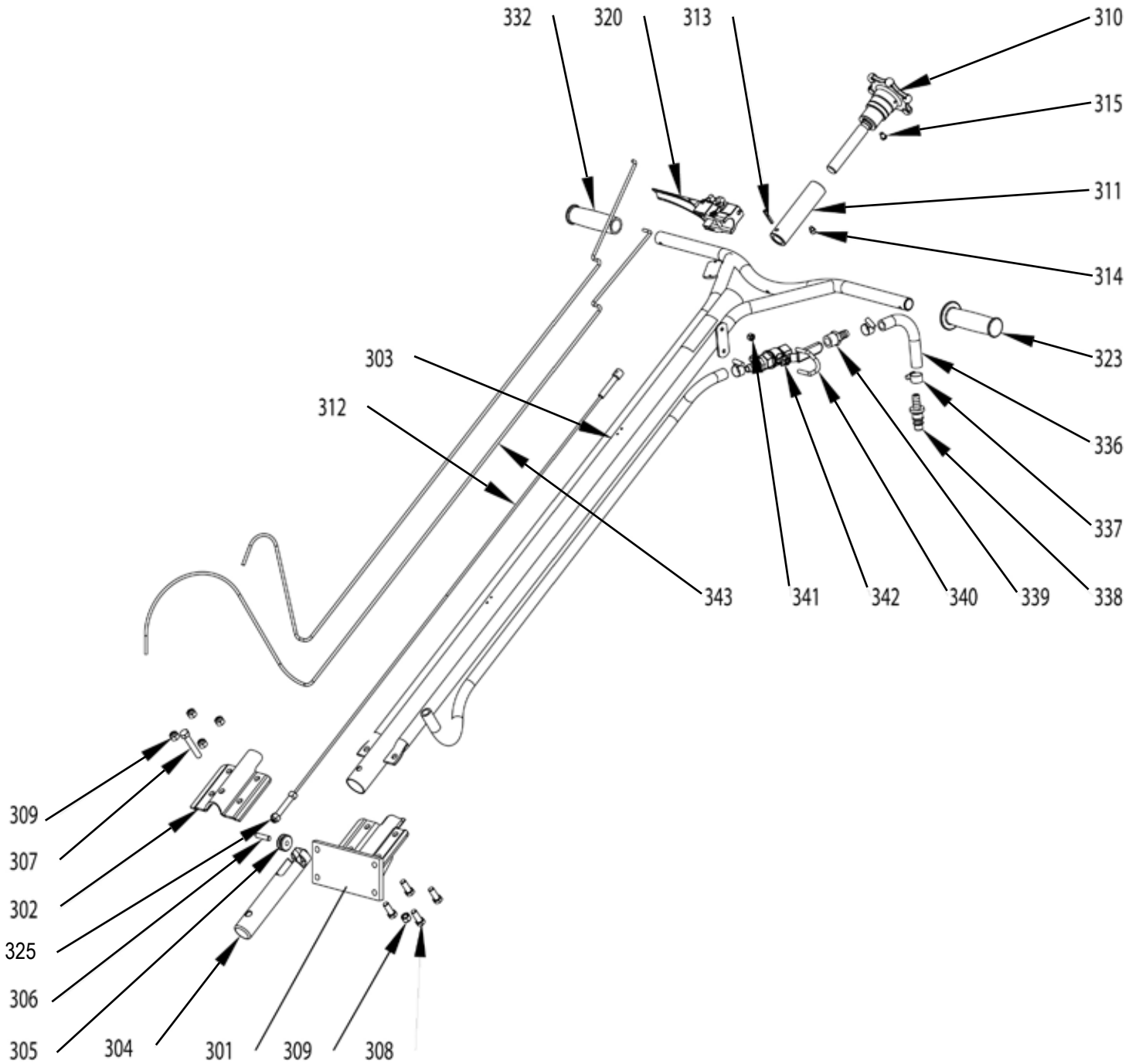
WALK-BEHIND TROWELS

HANDLE ASSEMBLY - 20507 ELECTRIC

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
301	20517	HANDLE BRACKET	1	1/15/2007
302	10518	HANDLE CLAMP	1	1/15/2007
303	21703	HANDLE TUBE	1	1/15/2007
304	21704	SUPPORT BLOCK	1	1/15/2007
305	21705	PULLEY	1	1/15/2007
306	21706	DOWEL PIN	1	1/15/2007
307	13350	HHCS, 3/8"-16UNC x 2-1/4"LG	2	1/15/2007
308	10889	HHCS, 3/8"UNC x 1"LG	4	1/15/2007
309	11802	LOCKNUT, M10-1.5, NYLOCK	5	1/15/2007
310	21714	HANDLE KNOB ASSEMBLY	1	1/15/2007
310-1	21707	HANDLE KNOB	1	1/15/2007
310-2	21708	SPRING PIN	1	1/15/2007
310-3	21709	THRUST BEARING	1	1/15/2007
310-4	21710	BUSHING	1	1/15/2007
310-5	21711	WASHER	1	1/15/2007
310-6	21712	RETAINING RING	1	1/15/2007
310-7	21713	SCREW SHAFT	1	1/15/2007
311	21715	SLIDE BUSHING	1	1/15/2007
312	21716	PITCH CONTROL CABLE	1	1/15/2007
313	21724	SPRING PIN	1	1/15/2007
314	21725	SHCS, 1/4"-20UNC x 1/4"LG	1	04/30/2008
315	21726	RHMS, 1/4"-20UNC x 1/4"LG, SLOTTED	1	1/15/2007
319	21728	RHMS, #10-24UNC x 1/4"LG, SLOTTED	2	1/15/2007
320	11850	SAFETY SWITCH ASSEMBLY	1	1/15/2007
321	50638	WIRE ASSEMBLY W/PLUG	1	1/15/2007
323	21717	HANDLE GRIP (PAIR)	1	4/30//2008
325	10317	LOCK NUT, 3/8"-16UNC, NYLOCK	1	1/15/2007
331	21807	HANDLE SHIELD PAD	1	1/15/2007
333	50097	SWITCH ASSEMBLY, ON/OFF PUSH BUTTON	1	1/15/2007
334	20594	MOUNTING BRACKET	1	1/15/2007
335	50149	RHMS, #6-32UNC x 3/8"LG, CROSS	4	1/15/2007

PARTS LIST 3 WALK-BEHIND TROWELS

HANDLE ASSEMBLY - 20545 AIR



PARTS LIST 3

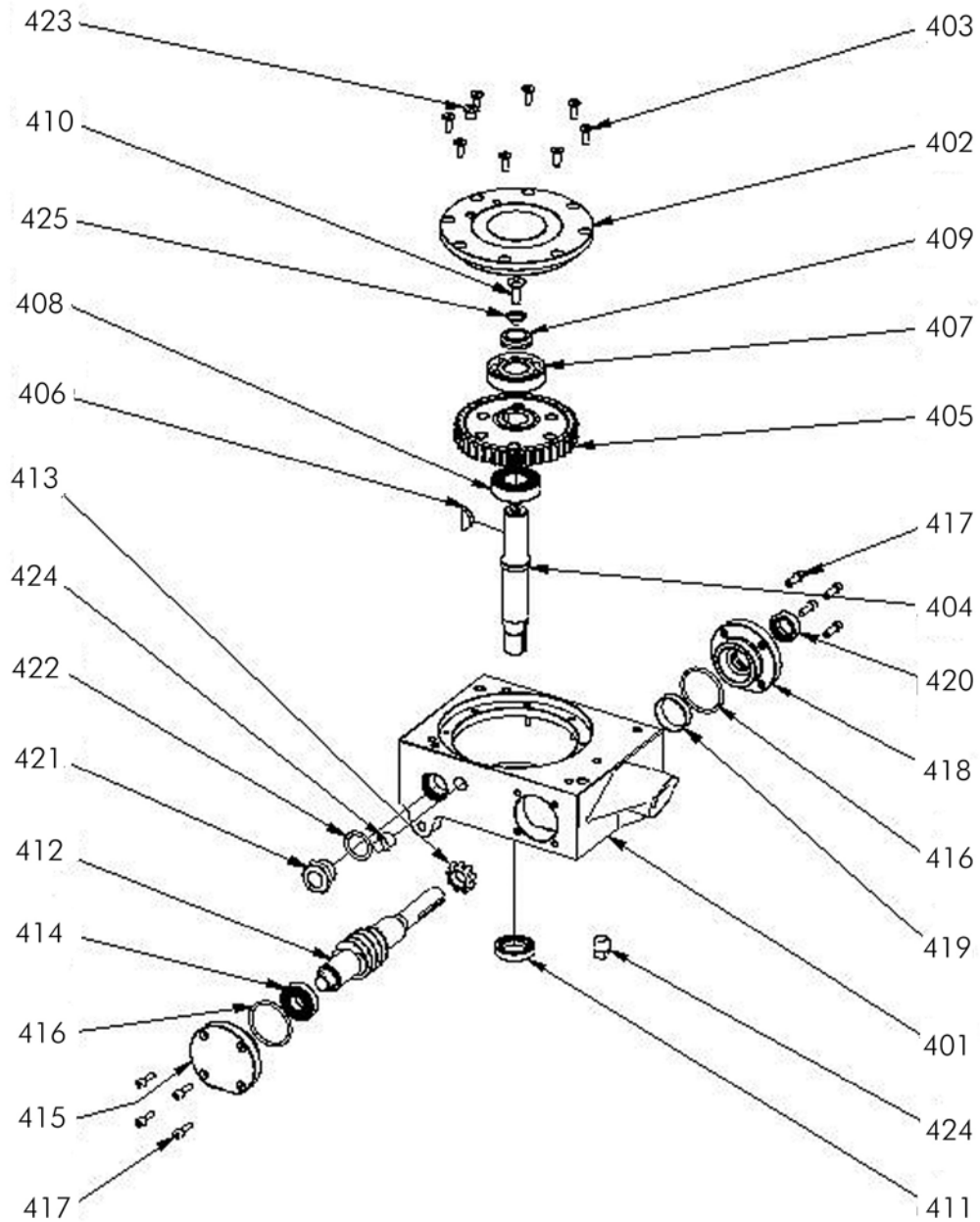
WALK-BEHIND TROWELS

HANDLE ASSEMBLY - 20545 AIR

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
301	21701	HANDLE BRACKET	1	---
302	21702	HANDLE CLAMP	1	---
303	21703	HANDLE TUBE	1	---
304	21704	SUPPORT BLOCK	1	---
305	21705	PULLEY	1	---
306	21706	DOWEL PIN	1	---
307	13350	HHCS, M10-1.5 x 60MM LG	1	---
308	10889	HHCS, M10-1.5 x 30MM LG	4	---
309	11802	LOCKNUT, M10-1.5, NYLOCK	5	---
310	21714	HAND KNOB ASSEMBLY	1	---
310-1	21707	HAND KNOB	1	---
310-2	21708	SPRING PIN	1	---
310-3	21709	THRUST BEARING	1	---
310-4	21710	BUSHING	1	---
310-5	21711	WASHER	1	---
310-6	21712	RETAINING RING	1	---
310-7	21713	SCREW SHAFT	1	---
311	21715	SLIDE BUSHING	1	---
312	21716	PITCH CONTROL CABLE	1	---
313	21724	SPRING PIN	1	---
314	21725	SHCS, M6-1 x 6MM	1	---
315	21726	RHMS, M5-0.8 x 8MM	1	---
320	50646	SAFETY SWITCH ASSEMBLY	1	---
323	21717	HANDLE GRIP (PAIR)	1	---
325	10317	LOCKNUT, 3/18"-16, NYLOCK	1	---
332	10669	HANDLE GRIP	1	---
336	00729	AIR HOSE, 1/2"	FT	---
337	50161	HOSE CLAMP, 1/2"	3	---
338	50160	1/2" QUICK COUPLING	1	---
339	50163	1/2" HOSE FITTING	2	---
340	50165	VALVE CLAMP	1	---
341	30141	LOCKNUT, 1/4"-20UNC	2	---
342	50164	1/2" BALL VALVE	1	---
343	00408	5/32" POLY TUBING	FT	---

PARTS LIST 4 WALK-BEHIND TROWELS

GEARBOX ASSEMBLY - 20921, 20943



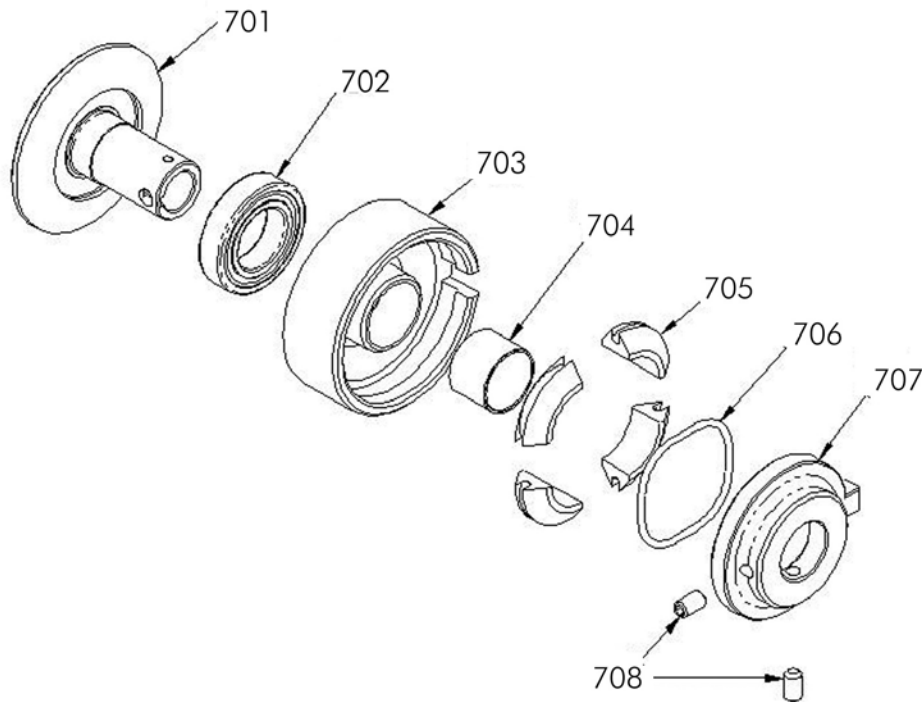
PARTS LIST 4

WALK-BEHIND TROWELS

GEARBOX ASSEMBLY - 20921, 20943 (SLOW DRIVE - EPOXY)

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
401	10921	GEAR HOUSING	1	5/1/2004
402	10917	GEARBOX COVER	1	1/1/1997
403	10916	FHSCS, 1/4-20 x 3/4" LG	8	1/1/1997
404	10618	MAIN SHAFT	1	3/1/2004
405	10616 10634	MAIN GEAR MAIN GEAR, SLOW DRIVE (20943)	1	1/1/1997
406	10615	KEY, WOODRUFF	1	1/1/1997
407	10614	TAPER BEARING, 4T-30305	1	3/1/2004
408	10617	BEARING, 6205	1	1/1/1997
409	10613	PRESSURE WASHER	2	1/1/1997
410	10601	FHSCS, 3/8-16 x 1"LG	8	1/1/1997
411	10677	OIL SEAL, 1 1/16"ID x 1 5/8" OD x 5/16"THK EPDM	1	1/1/1997
412	10279 20248	COUNTERSHAFT COUNTERSHAFT, SLOW DRIVE (20943)	1	1/1/1997
413	10220	BEARING CONE, 4T-6075	1	9/16/2003
414	10224	BEARING, 6203	1	9/16/2003
415	10226	END CAP	1	9/19/2003
416	10227	O-RING, #224, NITRILE	2	1/1/1997
417	10213	SHCS, 1/4-20 x 3/4"LG, ZINC PLATED	8	1/1/1997
418	10217	FLANGE	1	1/1/1997
419	10219	BEARING CUP, 4T-6157	1	1/1/1997
420	10678	OIL SEAL, 3/4"ID x 1-1/4"OD x 3/8"THK, EPDM	1	1/1/1997
421	10930	SIGHT PLUG	1	1/1/1997
422	10931	O-RING, #213, EPDM	1	1/1/1997
423	10909	RELIEF VALVE	1	1/1/1997
424	10911	PIPE PLUG, 3/8 NPT	2	1/1/1997
425	10637	WASHER, LOCK, 3/8"DIA	1	2/7/2006

PARTS LIST 5 WALK-BEHIND TROWELS



CLUTCH ASSEMBLY - 21027 (3/4" Shaft)

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
701	11484	SPINDLE	1	8/21/2007
702	11044	BEARING	1	8/21/2007
703	21046	DRUM W/BUSHING	1	8/21/2007
704	11012	BUSHING	1	8/21/2007
705	11014	WEIGHT (SHOE)	4	8/21/2007
706	10759	SPRING	1	8/21/2007
707	11015	FACE PLATE	1	8/21/2007
708	50117	SET SCREW	2	8/21/2007

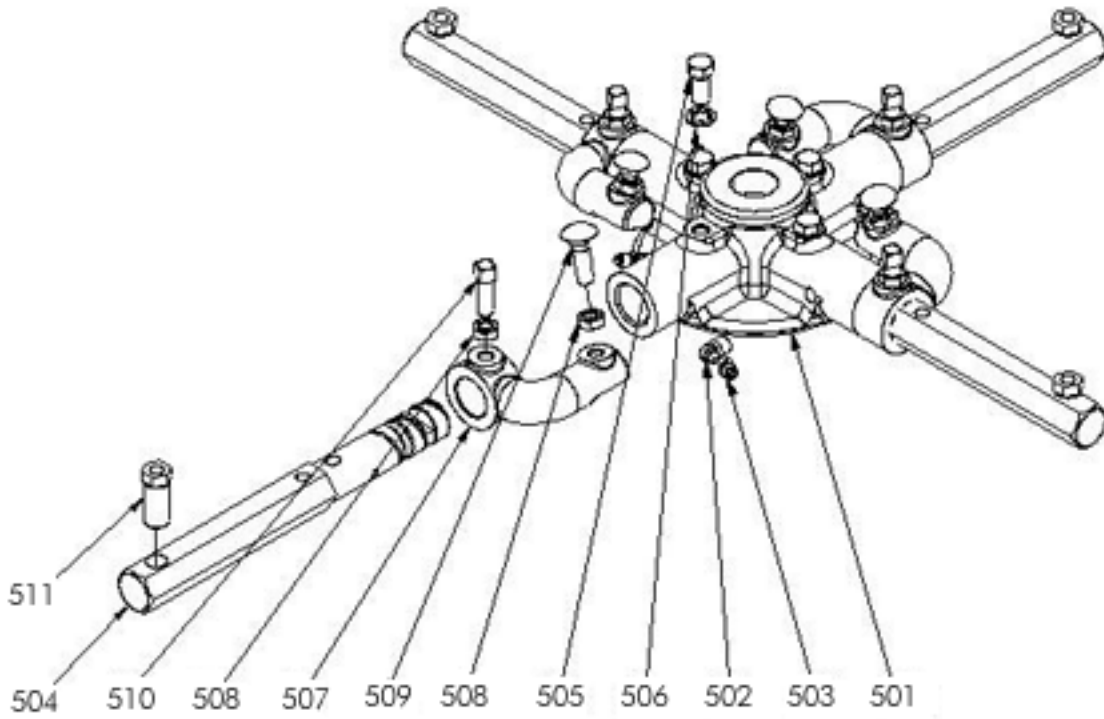
CLUTCH ASSEMBLY - 21029 (1" Shaft)

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
701	11045	SPINDLE	1	8/21/2007
702	11044	BEARING	1	8/21/2007
703	21046	DRUM W/BUSHING	1	8/21/2007
704	11012	BUSHING	1	8/21/2007
705	11014	WEIGHT (SHOE)	4	8/21/2007
706	10759	SPRING	1	8/21/2007
707	11015	FACE PLATE	1	8/21/2007
708	50117	SET SCREW	2	8/21/2007

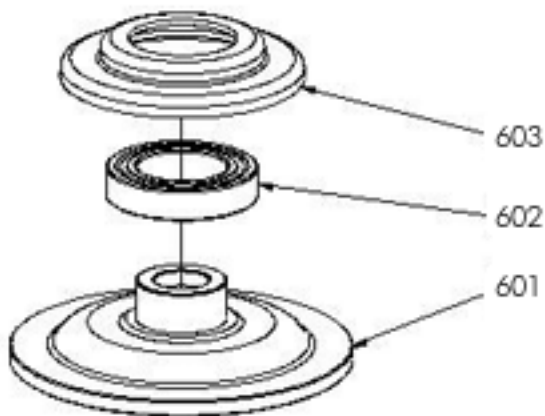
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PARTS LIST 6 WALK-BEHIND TROWELS

SPIDER PLATE ASSEMBLY



PRESSURE PLATE ASSEMBLY



PARTS LIST 6

WALK-BEHIND TROWELS

SPIDER PLATE ASSEMBLY - 20810

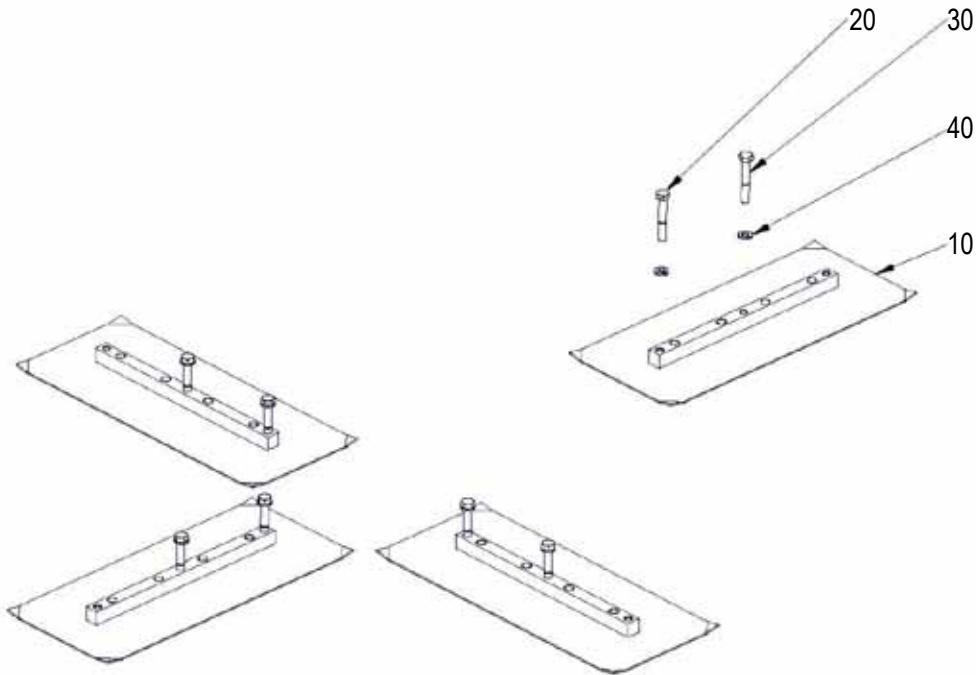
ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
501	10810	GREASE SPIDER PLATE	1	1/1/1997
502	10801	GREASE FITTING, 1/8NPT x 65	4	1/1/1997
503	10822	CAP PLUG, GREASE NIPPLE, RED	4	1/1/1997
504	10411	TROWEL ARM	4	9/5/2000
505	10806	HHCS, 3/8-16 x 7/8"LG	4	1/1/1997
506	10805	LOCK WASHER, 3/8" DIA	4	1/1/1997
507	10817	LIFT LEVER	4	9/12/2000
508	10808	JAM NUT, 3/8-16	8	1/1/1997
509	10807	CARRIAGE BOLT, 3/8-16 x 1-1/4"LG	4	1/1/1997
510	10809	SHSS, 3/8-16 x 1"LG, CUP PT.	4	1/1/1997
511	10404	ADJUSTING SCREW, 1-1/4"LG	4	1/1/1997

PRESSURE PLATE ASSEMBLY - 20627

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
601	10660	PRESSURE PLATE	1	1/1/1997
602	10664	THRUST BEARING P/P	1	1/1/1997
603	10668	PRESSURE PLATE CAP	1	12/6/2002

PARTS LIST 7 WALK-BEHIND TROWELS

BLADE KIT ASSEMBLY



B436 FINISH BLADES, IMPERIAL

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
10	20414	TROWEL BLADE, IMPERIAL, FINISH, 6" X 14"	4	8/20/2007
	20479	8" X 14" COMBO BLADE	4	8/20/2007
	20415	10" X 14" FLOAT BLADE (clip-on)	4	8/20/2007
20	10401	HEX HD. CAP SCREW, 5/16"-18UNC X 1-1/2"	4	8/20/2007
30	10403	HEX HD. CAP SCREW, 5/16"-18UNC X 2"	4	8/20/2007
40	10402	LOCK WASHER, 5/16"	8	8/20/2007

B436 FINISH BLADES, METRIC

ITEM NO.	PART NO.	DESCRIPTION	QTY.	REMARK
10	20457	TROWEL BLADE, METRIC, FINISH, 6" X 14"	4	8/20/2007
	20415	10" X 14" FLOAT BLADE (clip-on)	4	8/20/2007
	20483	8" X 14" METRIC BLADE	4	8/20/2007
20	10452	HEX HD. CAP SCREW, M8-1.25 X 40MM	4	8/20/2007
30	10453	HEX HD. CAP SCREW, M8-1.25 X 50MM	4	8/20/2007
40	10402	LOCK WASHER, 5/16"	8	8/20/2007

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