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OWNER'S MANUAL

STARTING SERIAL #:
L113-335001

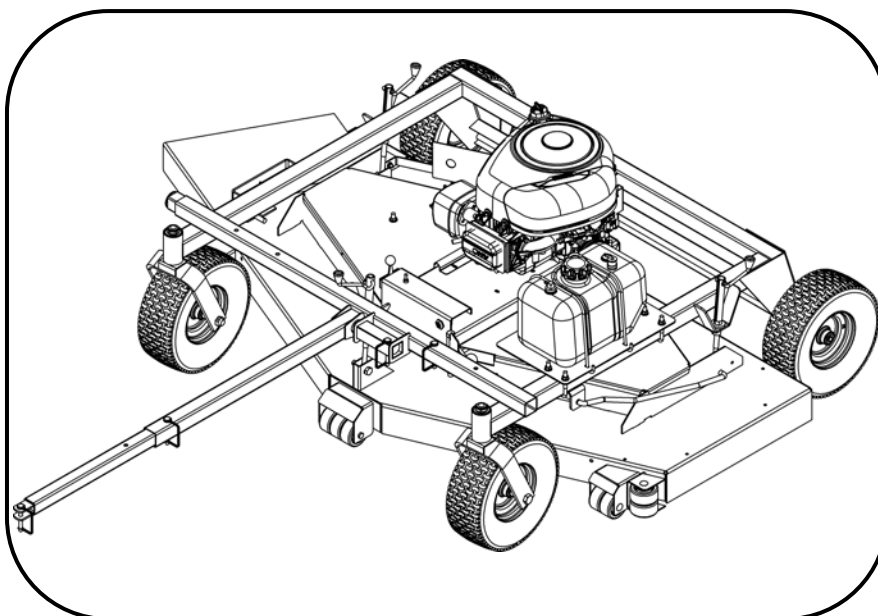
MODEL NO.

**FC1966BS
FC1966BS-CA
FC1966BSXP**



IMPORTANT

Read and follow all
Safety Precautions
and Instructions
before operating this
equipment.



SWISHER[®]

66" FINISH CUT TRAIL MOWER

**Assembly
Operation
Service and Adjustment
Repair Parts**

1602 CORPORATE DRIVE, WARRENSBURG MISSOURI 64093
PHONE 660-747-8183 FAX 660-747-8650

Made In The
USA

LIMITED WARRANTY

The manufacturer's warranty to the original consumer purchaser is: This product is free from defects in materials and workmanship for a period of one (1) year from the date of purchase by the original consumer purchaser. We will repair or replace, at our discretion, parts found to be defective due to materials or workmanship. This warranty is subject to the following limitations and exclusions:

- | | |
|--------------------|---|
| 1) Engine Warranty | All engines utilized on our products has a separate warranty extended to them by the individual engine manufacturer. Any engine service difficulty is the responsibility of the engine manufacturer and in no way is Swisher or its agents responsible for the engine warranty. The Briggs & Stratton Engine Service Hot Line is 1-800-233-3723. |
| 2) Commercial Use | This product is not intended for commercial use and carries no commercial warranty. |
| 3) Limitations | This warranty applies only to products, which have been properly assembled, adjusted, and operated in accordance with the instructions contained within this manual. This warranty does not apply to any product of Swisher that has been subject to alteration, misuse, abuse, improper assembly or installation, shipping damage, or to normal wear of the product. |
| 4) Exclusions | Excluded from this warranty are normal wear, normal adjustments, and normal maintenance. |

In the event you have a claim under this warranty, you must return the product to an authorized service dealer. All transportation charges, damage, or loss incurred during transportation of parts submitted for replacement or repair under this warranty shall be borne by the purchaser. Should you have any questions concerning this warranty, please contact us toll-free at 1-800-222-8183. The model number, serial number, date of purchase, and the name of the authorized Swisher dealer from whom you purchased the mower will be needed before any warranty claim can be processed.

THIS WARRANTY DOES NOT APPLY TO ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES AND ANY IMPLIED WARRANTIES ARE LIMITED TO THE SAME TIME PERIODS STATED HEREIN FOR ALL EXPRESSED WARRANTIES. Some states do not allow the limitation of consequential damages or limitations on how long an implied warranty may last, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights, which vary from state-to-state. This is a limited warranty as defined by the Magnuson-Moss Act of 1975.

SAFETY PRECAUTIONS



This Safety Alert Symbol indicates important messages in this manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury.

Read this manual completely. This machine can amputate hands, feet, and throw objects. Failure to observe the following safety instructions could result in serious injury or death.

- Read the manual. Learn to operate this machine safely.
- Always disconnect the spark plug wire and place the wire where it cannot contact the spark plug, to prevent accidental starting the engine when setting up, transporting, adjusting or making repairs.
- Keep all shields and guards in place.
- Understand the speed, steering and stability of this machine. Know the positions and operations of all controls before you operate this machine. Check all of the controls in a safe area before starting to work with this machine.
- Allow only responsible adults who are familiar with these instructions to operate this machine. Never allow children to operate this machine.
- Clear the area of objects such as rocks, toys, wire, etc. that can be picked up and thrown by the blade.
- Be sure the area is clear of other people before mowing. Be aware of the mower discharge direction and do not point at anyone. Stop the machine if anyone enters the mowing area. Children are often attracted to the machine and the mowing activity. ***Never assume that children will remain where you last saw them.*** Keep children under the watchful care of another responsible adult.
- **No riders!**
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
- Do not mow in reverse. Always look down and behind before and while backing.
- Turn off the blades when not mowing. Before leaving the machine, turn off the blades and stop the engine.
- Watch for traffic when operating near or crossing roadways.
- Do not operate the mower if it has been dropped or damaged in any manner or if the mower vibrates excessively. Excessive vibration is an indication of damage. Repair mower as necessary.
- Dress properly. Do not operate the mower when barefoot or wearing open sandals. Wear only solid shoes with good traction when mowing.
- Do not operate the machine while under the influence of alcohol or drugs.
- Operate self-propelled machines up and down slopes. There is significant risk of overturns when operating across slopes. Operate walk-behind machines across slopes. There is a significant risk of slipping under a walk-behind machine when operating up and down slopes. Do not operate on slopes greater than 15 degrees.
- Never tamper with safety devices. Check their proper operation regularly.
- Stop and inspect the equipment if you strike an object. Repair, if necessary, before restarting.
- Never make adjustments or repairs with the engine running.
- Mower blades are sharp and can cut. Wrap the blades or wear gloves, and use extra caution when servicing them.



SAFETY DECALS

Replace decals immediately if damaged. Order by part number from Swisher



OD45- Warning Decal



OD11- No step Decal



OD55- Triangle Danger Decal



OD43- Flying Debris Decal



OD33- Speed Decal



OD29- Danger Decal

REQUIRED ASSEMBLY

FRONT WHEEL CASTER ASSEMBLY

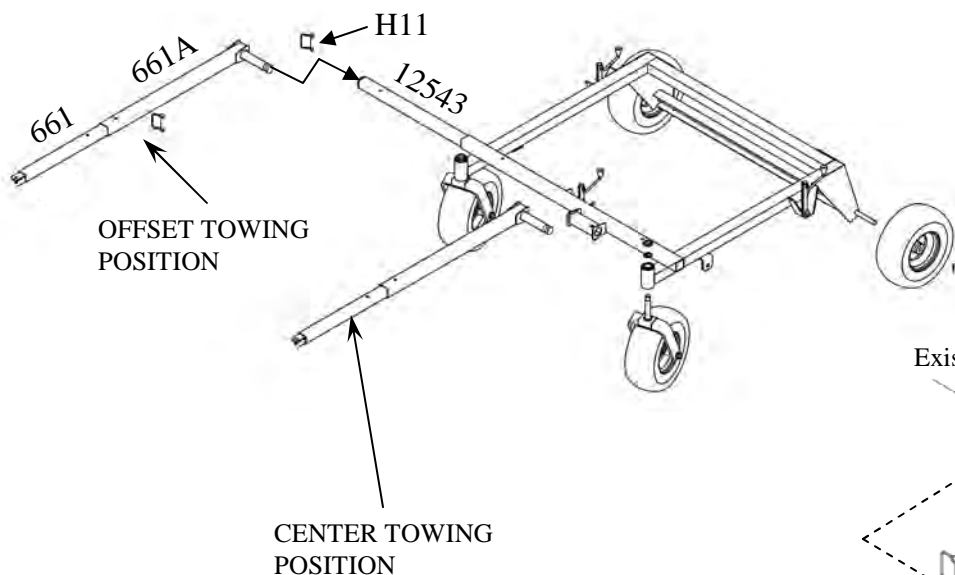
1. Remove single nut and washers from caster shaft.
2. Place one washer on the shaft of the caster/wheel sub-assembly.
3. Slide same shaft through the bearing/frame with wheel towards the ground.
4. Place the other washer on the shaft; it should be resting on the top bearing.
5. Thread nyloc jam nut onto shaft.
6. Tighten nut snugly, making sure shaft threads enter the nyloc of the nut.
Over-tightening this nut will bind caster.
7. Repeat process for other front side.

REAR WHEEL ASSEMBLY

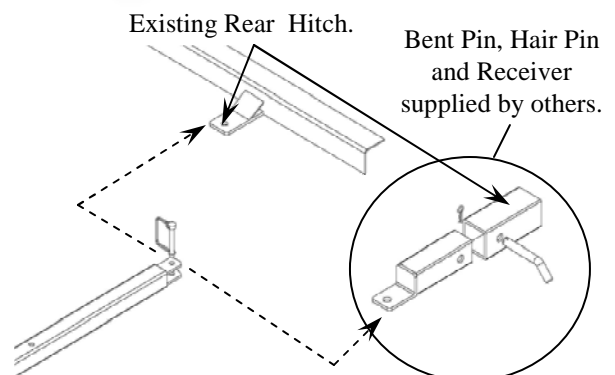
1. Remove cotter pin from axle.
2. Slide washer (NB149) if necessary and wheel (valve stem out) onto axle and replace cotter pin.
3. Bend cotter pin so it will not fall out.
4. Repeat process for other wheel.

OFFSET & CENTER TOW HITCH BAR ASSEMBLY

1. Lay out parts according to the diagram.
2. Insert part 661A into part 12543 and pin with the hitch pin (H11).
3. Insert part 661 into part 661A. Choose from the 3 holes to set the desired hitch length.
Pin with a hitch pin.
4. Part 12543 slides into the front tube of the frame. Choose from the 5 holes to arrange desired offset. Pin with a hitch pin (H11).
5. Eliminate step 3 for hitching from the center bracket. Only one method can be used at a time.



ATV or Utility Vehicle Attachment Instructions



OPERATING YOUR TRAIL MOWER



The operation of any mower can produce foreign objects to be thrown into the eyes, resulting in severe eye damage. Always wear certified safety glasses or wide-vision safety goggles over spectacles before starting any cutting machine and while operating such a machine.



The operation of any cutter produces sound waves that are damaging to the human ear. Ear protection is recommended.



CAUTION!

Tragic accidents can occur if the operator is not alert to the presence of children. Children are often attracted to the machine and the mowing activity. ***Never assume that children will remain where you last saw them.***

INTENDED USE

This Trail Mower is designed to produce a quality finish cut on lawns, golf courses, etc. It is **not** designed to clear brush or cut saplings. Your Trail Mower should be towed behind an ATV, a golf cart, lawn tractor, or similar approved vehicle. It is not meant for speeds exceeding 5 mph.

ATTACHING TRAILMOWER TO TOW VEHICLE

- Place mower behind vehicle and back vehicle up to desired attaching position.
- When offsetting Trail Mower do so to side opposite the discharge of the tow vehicle.
- Attach tow hitch (661) to the swivel hitch with hitch pin (H11). Make certain hitch pin goes completely through each piece and is clipped to prevent accidental separation.
- Attach red safety tether (H9C) to both the towing vehicle and to the TrailMower toggle switch (685SP), located on the throttle housing (6013). Its purpose is to manually stop mower engine or to stop mower engine in case the two machines become separated. (See Motor Base Detail #20).
- **It is extremely important the safety tether is secured properly to both the toggle switch and the towing vehicle.**

STARTING THE ENGINE

See engine manufacturer's instructions for the type and amount of oil and fuel used. Trail Mowers with electric start engines will need a battery (sold separately). Swisher recommends using a standard "U1" lawn & garden battery.

IMPORTANT: This engine is not equipped with a spark arrester muffler. It is a violation of California Public Resource Code Section 4442 to use or operate the engine on any forest-covered, brush-covered, or grass-covered land. Other states or federal areas may have similar laws.

- Engine must be level to accurately check and fill oil. Do not overfill.
- Make sure the tow vehicle parking brake is set, mower is level, and blades are disengaged.
- Check spark plug wire, oil, and fuel.
- Check all electrical connections (See Schematics).
- Make sure toggle switch is turned “ON” and the red tether is properly attached.
- Set engine idle to “CHOKE” position.
- With feet clear of mower deck, turn key switch to the “START” position and release when engine begins to run.
- Set engine idle at desired RPM.

BREAKING IN YOUR MOWER

- Set vehicle parking brake or chock wheels to prevent accidental rolling.
- Start engine properly.
- Slowly, engage blade control.
- In a safe environment, i.e. no children, allow blades to rotate and engine to idle for 5 minutes. This breaks in the belts and the engine.
- Stop mower properly.



CAUTION!

SHUT OFF MOWER ENGINE AND REMOVE SPARK PLUG WIRE FROM SPARK PLUG BEFORE MAKING ANY ADJUSTMENTS TO THE MOWER.

MOWER HEIGHT ADJUSTMENT

- Adjust while mower is **not** running.
- The cutting range is approximately 1.5” to 4.5”. The height has been measured from the ground to the blade tip without the engine running.
- Rotate height adjust crank handles (H7N) in a clockwise direction to lift the mower deck. A counter-clockwise direction is used to lower the mower deck.
- Make sure the height adjustment is the same at side crank handles. For best results, see “SUGGESTED PRACTICE” section. Graduated scales are for reference only, not the actual cutter height.
- Place crank handle in a retracted position to maintain height adjustment.

STARTING TO MOW

- Adjust the cutting height.
- Double check vehicle to mower attachment.
- Start mower engine properly.
- Slowly, activate the blade engage lever by rotating it forward and left until the lever locks into place.
- Carefully mount tow vehicle and start mowing slowly.

STOPPING THE MOWING SESSION

- Pull safety tether to shut toggle switch “OFF”. If the engine fails to stop or if the safety tether has become inoperable, then use Alternative Stopping Method.

ALTERNATIVE STOPPING METHOD

- Bring vehicle to complete stop, shut off engine, and set parking brake.
- Disengage blade engage lever (6008).
- Manually shut toggle and key switches to their “OFF” positions.
- Always remember to remove keys to avoid irresponsible usage.

TRANSPORTING MOWER

- Stop mower properly.
- Place mower deck in its highest position.
- If transporting without the use of a tow vehicle, remove spark plug wire and place where it cannot contact the spark plug.

SUGGESTED MOWING PRACTICES

- Operate mower engine at full throttle to assure the best cutting performance and maximum material discharge.
- Allow wet grass to dry. Clumps of wet grass will collect under the mowing deck.
- Mowing should be started with tow vehicle in low gear and increased only as safe mowing conditions permit. This speed should not exceed 5 mph.
- The average lawn should be cut to approximately 2.5” during the cool season and to over 3” during the hot months.
- For a healthier lawn and better aesthetics, your lawn should be mowed often and after moderate growth.
- When cutting high or dense grass areas go slowly. Some areas may need to be mowed twice. The second cut should be at 90 degrees to the first, if possible.
- **Mowing thick or high grass.** Raise rear height crank handles to .5”-.75” above the other two handles.
- **Creating a manicured lawn.** Lower rear height crank handle to .25”-.5” below front of deck. This allows grass blades to be cut twice. It also continually cuts clippings to produce a mulching effect.

GENERAL TROUBLE SHOOTING

- The mower is not cutting level.
 - Level deck, making sure the side crank-handles are equal.
 - Check air pressure of all tires; make sure they are equal and to manufacturers specifications.
 - Examine blades for damage, while mower engine is not running.
- The engine will not start.
 - Disengage blades, turn toggle switch to “ON” position, check battery and all other electrical connections, and inspect spark plug and wire.
 - Check for fuel in the engine.
- Engine runs poorly.
 - See engine manual.
 - Check throttle adjuster.
 - Replace fuel, clean fuel filter and fuel line.



IF PROBLEMS PERSIST HAVE A QUALIFIED MECHANIC SERVICE THE MOWER. NEVER ATTEMPT TO MAKE AN ADJUSTMENT THAT YOU ARE NOT SURE IS CORRECT. DOING SO CAN CAUSE OTHER PROBLEMS.

MOWER MAINTENANCE

GENERAL RECOMMENDATIONS

The warranty on this Trail Mower does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain unit as instructed in this manual. Some adjustments will need to be made periodically to maintain your unit properly. All adjustments in this manual should be checked at least once each season.

BEFORE EACH USE

- Check engine oil level on a level surface. Check twice to insure an accurate reading.
- Check condition of air filter; clean and replace as necessary.
- Check blade operation; keep blades in good condition.
- Check for loose fasteners and tighten them as needed.

AFTER EACH USE

- Keep blades sharp.
- Remove fresh grass clippings with garden hose.
- Grass clippings can harden to the underside should be scraped out with a putty knife.
- Keep fluids at proper levels.
- Cover unit to prevent rain or other debris buildup. Definitely cover the engine.

BEFORE AND/OR AFTER EACH SEASON

- Replace the spark plug.
- Clean or replace the air filter.
- A new spark plug and clean air filter assure proper air-fuel mixture and help your engine run better and last longer.
- Check blades and belts for wear. Replace as necessary.

STORAGE RECOMMENDATIONS

⚠ CAUTION! Do not store engine indoors or other poorly ventilated area. Keep engine away from gas appliances where fumes could contact open flame, pilot lights, or sparks.

If engine is to be stored for 30 or more days, prepare unit as follows:

- ⚠**
- Drain fuel outside into an approved container.
 - Start engine properly and run until unit is out of fuel.
 - Let engine cool.
 - Remove remaining gasoline from carburetor and fuel tank to prevent gum deposits from forming within the engine. Gum deposits can cause malfunction in the engine.
 - Store mower with blades disengaged to prevent belts from being permanently stretched.

BLADE CARE AND SERVICE

For best results blades must be kept sharp. The blades can be sharpened with a few strokes of a file or grinding wheel. Do not attempt to sharpen blades while they are on the mower. ***Disconnect spark plug wire before servicing unit.***

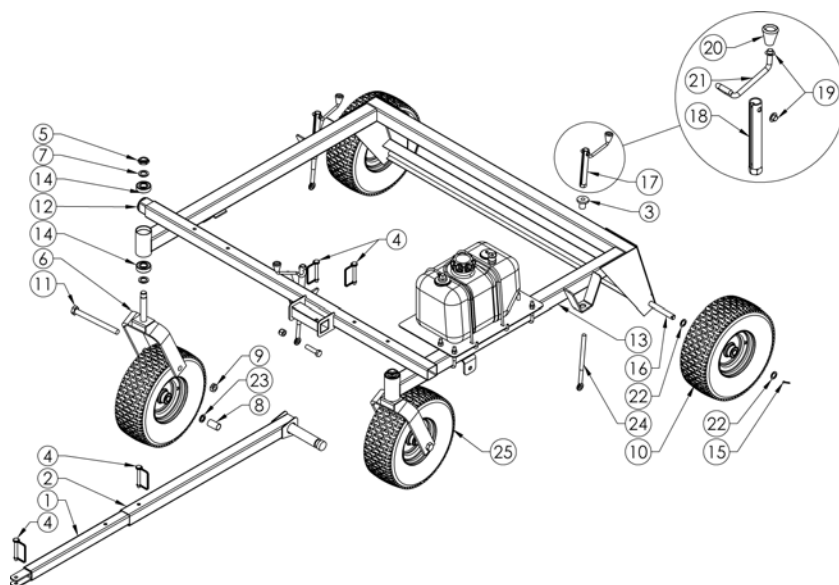
Important: Replace blades that have been damaged or deeply nicked.

Important: Check blade and spindle hardware on a regular basis to make sure nuts are tight.

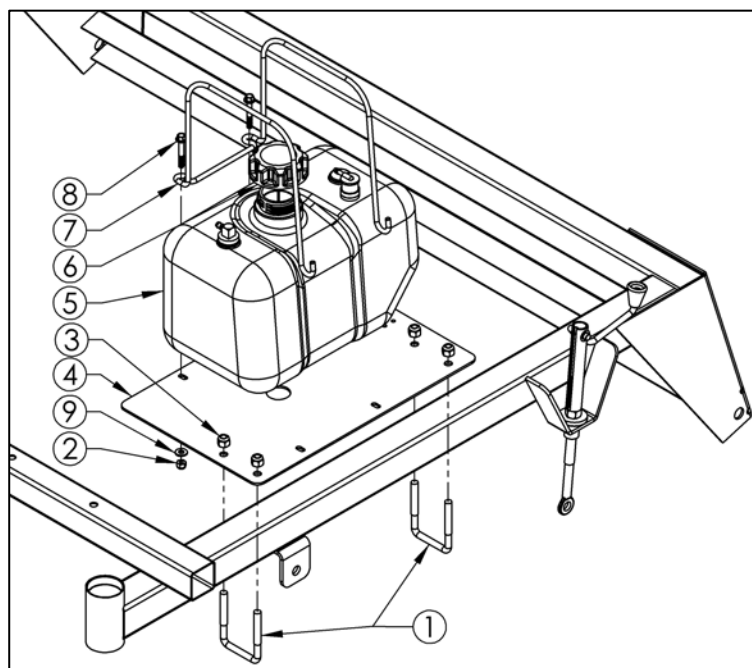


Only a qualified mechanic should be used for any adjustments, disassembly or other kind of repairs.

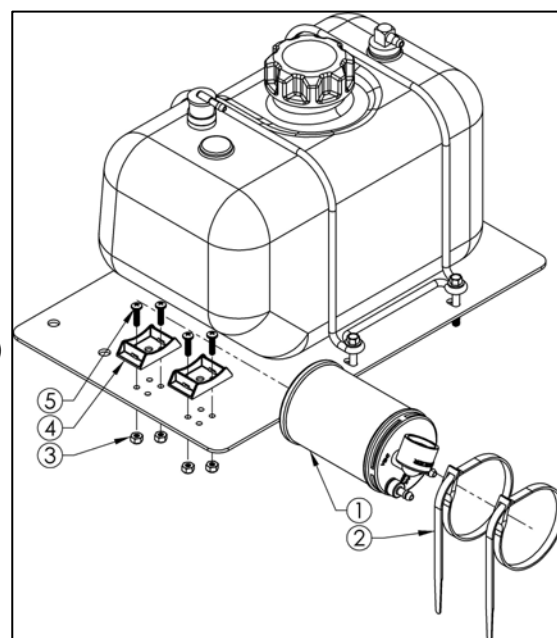
FRAME DETAIL



Item #	Description	Part #
1	Tongue Hitch	661*
2	Solid Stock Hitch	661A*
3	Bushing	10579
4	Safety Hitch Pin	H11
5	3/4 - 16 Nyloc Nut	NB122
6	Caster Fork	665*
7	Washer	NB195
8	Wheel Spacer	663L
9	5/8 - 11 2 Way Lock Nut	NB595
10	Wheel/Tire/Bearing	F4157WK
11	5/8 - 11 X 7 Bolt	NB624
12	Extension Hitch	12543*
13	Frame	12513*
14	Bearing	B98
15	Cotter Pin	NB126
16	Rear Axle	12526
17	Height Adjustment Handle	H7N
18	Height Adjustment Tube Weldment	10059
19	5/16 PAL Nut	NB276
20	Plastic Knob	H7K
21	Crank Arm	ES214
22	5/8 ID X 1 OD 14 Ga Washer	NB149
23	5/8 ID X 1 OD 10 Ga Washer	NB178
24	Eye Bolt	10038
25	Caster/Wheel Assembly	18430
NOT SHOWN	Height Indicator Decal	OD41



Item #	Description	Part #
1	Ubolt - SQ 3/8-16 X 2.437 X 3	12447
2	Nut - Nyloc, 1/4-20 ZY	NB180
3	Nut - Nyloc 3/8-16 ZY	NB182
4	Mount - For EPA/CARB Gas Tank	18331*
5	Fuel Tank - 2.5 Gallon, Carb	18214
6	Cap - Thread Vented, 2.5 Gal. Tank	18134
7	Bracket - Fuel Tank	18225
8	Bolt - Serr Flange 1/4-20 X 1 3/4	18236
9	Washer - SAE Flat 1/4	NB274



Only included on "CA" Models (California Compliant)

Item #	Description	Part #
1	Carbon Canister - 2.50 Gallon, 3/16 Line	18224
2	Cable Tie - Carbon Canister	18219
3	Nut - 10-24 Nylon Lock	024900
4	Bracket - Carbon Canister, ZT	17127
5	Screw - 10-24 X 3/4 Phil Truss Head ZP	024203

MOWER DECK DETAIL

See Detail

Description	Part #
Belt Cover	12523*
Grass Chute	9902*

BELT IDLER

BELT IDLER DETAIL

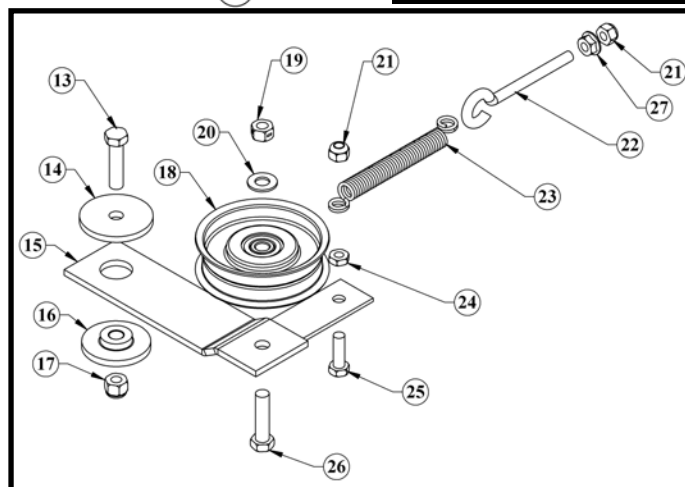


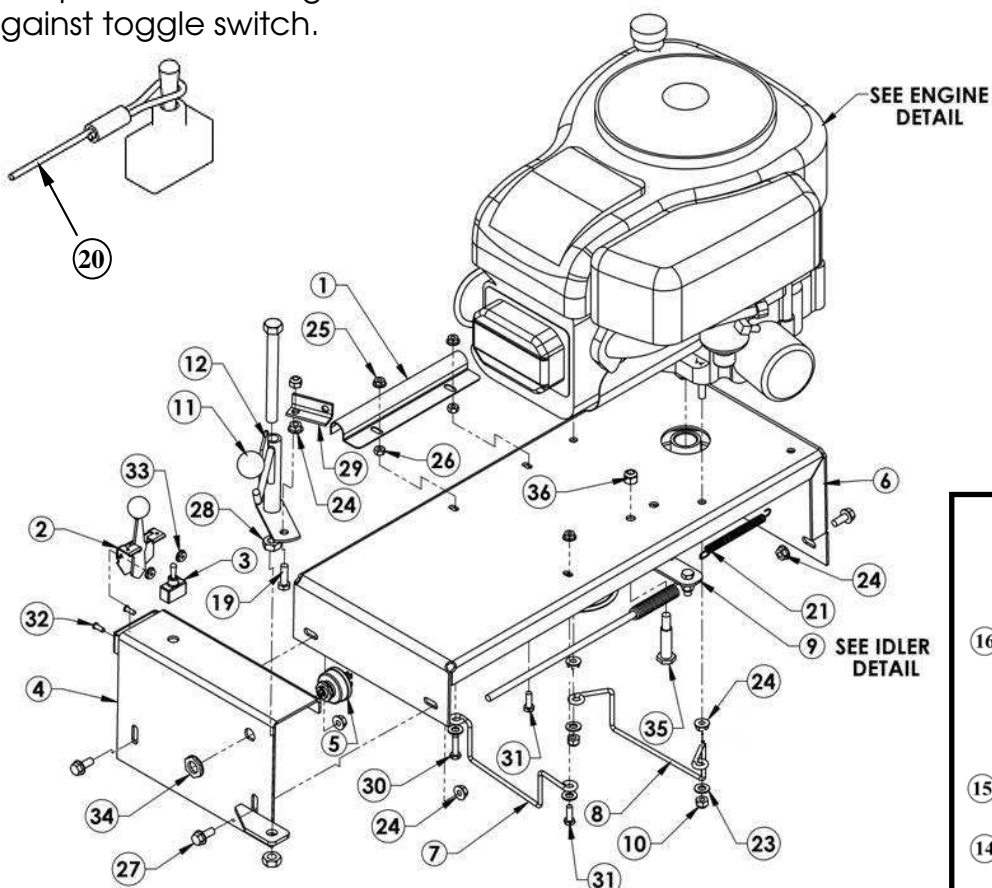
Diagram illustrating the BA50 crane mechanism. The diagram shows a side view of the crane structure with two main components labeled:

- 1252T (130 inch)**: Points to the main crane arm.
- BA50 (50 inch)**: Points to the crane base or support structure.

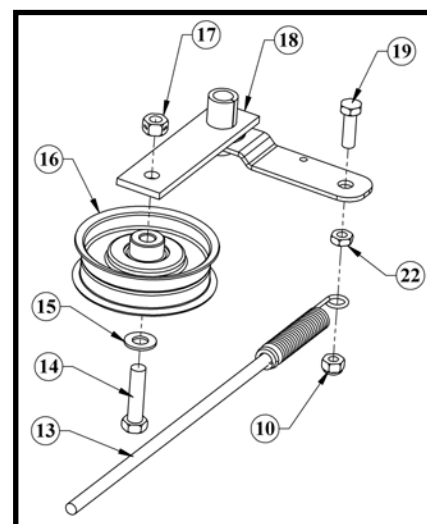
*USE PAINT CODE: GT=GRAY TK=BLACK

Slide plastic tube snug
against toggle switch.

MOTOR BASE DETAIL



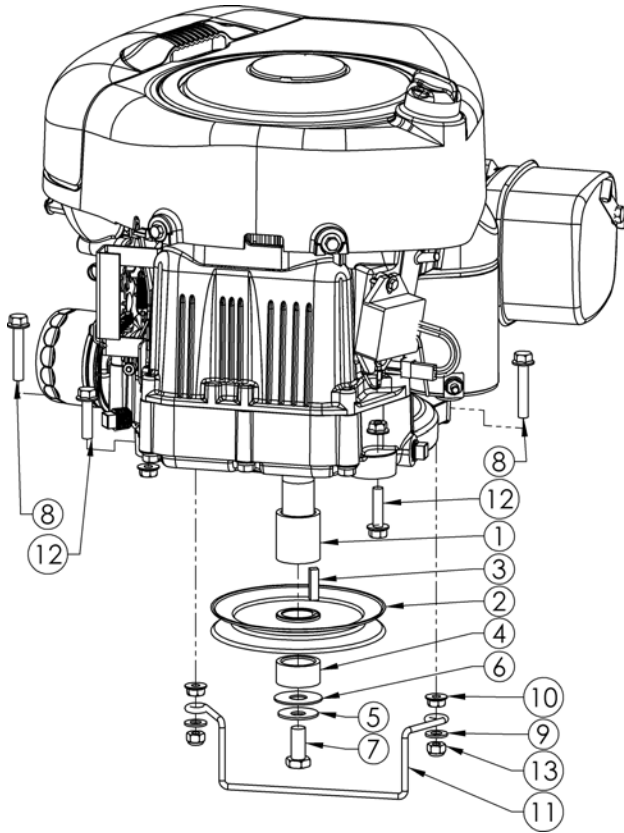
IDLER DETAIL



Item No.	Description	Part #
1	Heat Shield	6052*
2	Throttle	686N
3	Toggle Switch	685SP
4	Control Console	10737*
5	Ignition Switch	3623
6	Motorbase	12521*
7	Belt Guide	14869
8	Belt Guide	6000
9	Top Idler Assembly	10735
10	5/16 - 18 Nyloc Nut	NB181
11	Plastic Knob	B19BLACK
12	Engage Lever	10727*
13	Engage Rod Assembly	4422/10636YZ
14	3/8 - 16 X 1 1/2 Bolt	NB107
15	Washer	NB272
16	Idler Pulley	B527
17	3/8 - 16 2 Way Lock Nut	NB280
18	Top Idler Weldment	6009*
19	5/16 - 18 X 1 Bolt	NB501
20	Safety Tether	H9C
21	Return Spring	BRS6
22	Nut - Jam 5/16-18 ZY	NB173
23	Washer - SAE 5/16 ZY	NB275
24	Nut - Serrated Flange 5/16-18 ZY	NB170
25	Nut - Flange, 1/4-20	NB524
26	Nut - HX 1/4-20 ZY	NB139
27	Bolt - Serr Flng, 5/16-18 X 3/4	NB596
28	Nut - Jam Lock, 1/2-13 2-Way	NB121

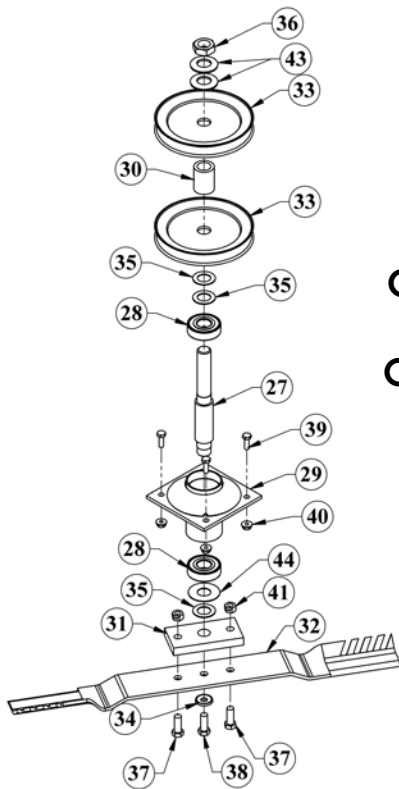
29	Pivot - Engage	4578*
30	Bolt - HCC 1/4-20 X 1 GR5 ZY	NB102
31	Bolt - 1/4-20 X 3/4 GR5 ZY	NB250
32	Screw - Phil Truss 8-32 X 1/2 ZY	NB197
33	Nut - Kep 8-32 ZY	NB201
34	Nut - Key Switch	9087
35	Bolt - Shoulder, 1/2 X 1-9/16	NB220
36	Nut - Nyloc 3/8-16 ZY	NB182
PARTS NOT SHOWN		
	Washer Kev Switch	9088
	Throttle Knob	686K
	10 Amp Fuse	AS069
	WIRING HARNESS [BRIGGS]	WH60B2
	U1 BATTERY (NOT INCLUDED)	NA
	BATTERY CABLE- RED	BCSR
	BATTERY CABLE- BLACK	BCLB
	SOLENOID	1002004
	BATTERY STRAP	BHOLD
	KEYS	KSK
	BATTERY CABLE BOOTS	BCBT

ENGINE DETAIL*

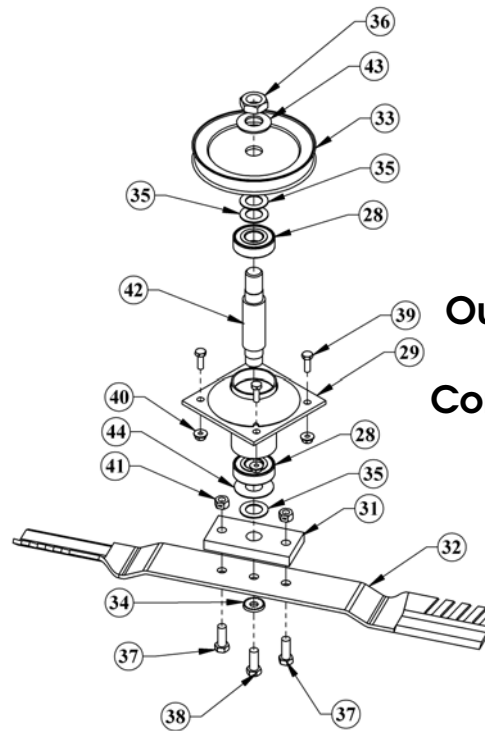


Item #	Description	Part #
1	UPPER SPACER	689L
2	5-1/2" ENGINE PULLEY	688
3	1/4" X 1" KEY STOCK	9031
4	LOWER SPACER	689S
5	3/8 BELLEVILLE WASHER	699
6	FLAT WASHER	TR150W
7	3/8-24 X 1BOLT [BRIGGS]	NB452N
	7/16-20 X 1 BLOT [TECUMSEH]	NB238N
8	5/16-18 X 1-3/4 BOLT	NB515
9	5/16 USS WASHER	NB275
10	5/16-18 Flge NUT	NB170
11	BELT GUIDE	6000
12	5/16-18 X 1 1/4 FLG.BOLT	NB253
13	5/16-18 NYLOCK NUT	NB181
NOT SHOWN	Valve - Oil Drain	16000

*Engine shown is for reference only



Center Blade Driver Configuration



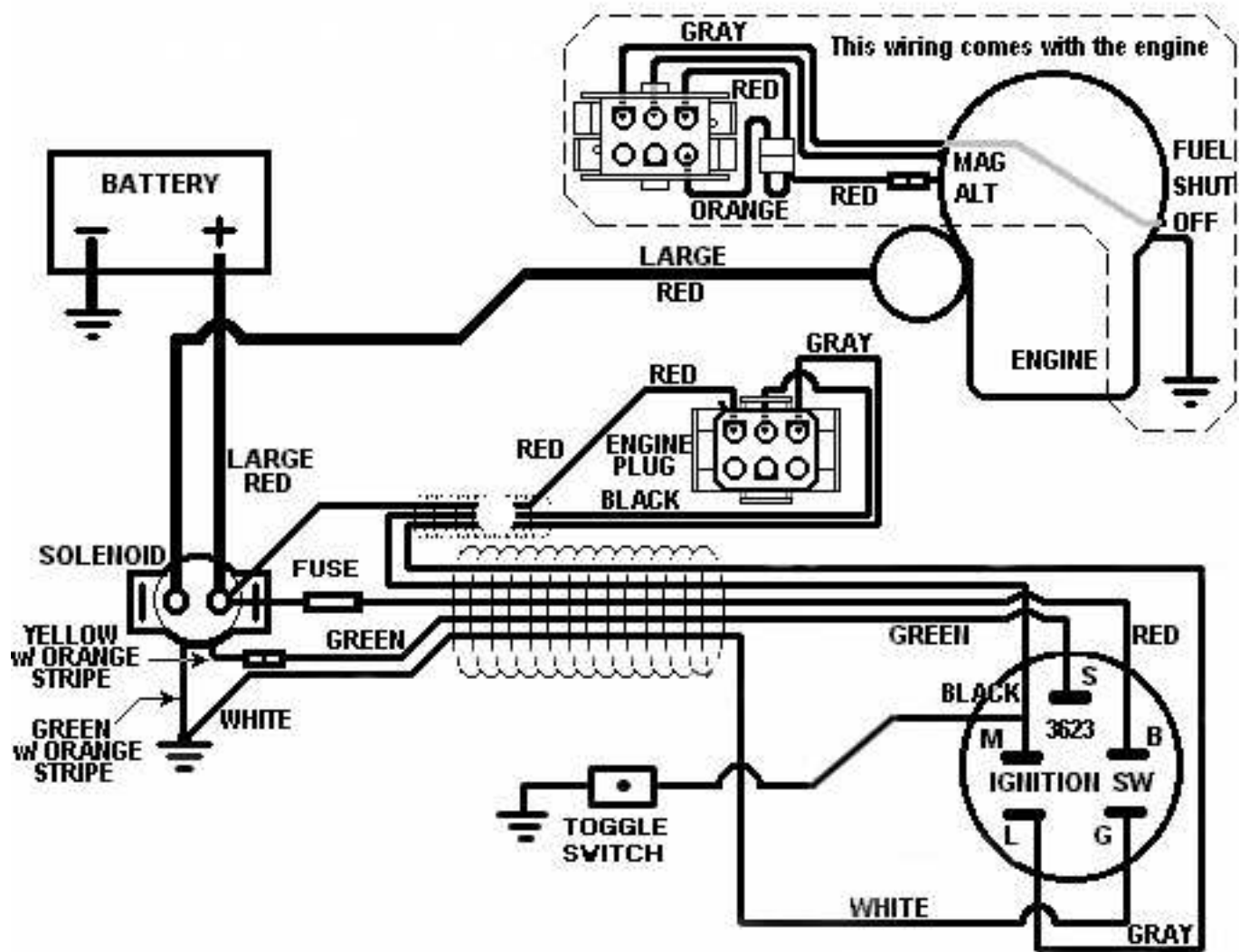
Outer Blade Driver Configuration

Item #	Description	Part #
27	Center Shaft	9075
28	Blade Bearing	B98
29	Bearing Housing	10539*
30	Pulley Spacer	6065PM
31	Blade Mount Plate	9008
32	22 1/2 "Blade	12509
33	Blade Pulley- 5.5"	6114
34	SP Washer BelM. PLN .413 X .945 X .118	NB607
35	3/4 ID X 1 1/4 OD 18 GA Washer	NB179
36	3/4-16 Jam Nut	NB175
37	3/8-24 X 1 1/4 HCC GR5 ZP	NB238
38	3/8-24 X 1 Engine Bolt Locktite	NB238N
39	1/4-20 X 3/4" Serr Flange Bolt	NB690
40	1/4-20 Serr.Flange Nut	NB524
41	3/8-24 2-Way Lock Nut	NB216
42	L&R Shaft	9077
43	Belleville Washer	AS155
44	Flat Washer	B98W

When ordering replacement parts

*USE PAINT CODE: GT=GRAY TK=BLACK

WIRING SCHEMATICS



NOTES:

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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OWNER'S MANUAL

MODEL NO.

**FC1966BS
FC1966BS-CA
FC1966BSXP**



IMPORTANT

Read and follow all
Safety Precautions
and Instructions
before operating this
equipment.

66" FINISH CUT TRAIL MOWER

HOW TO ORDER REPAIR PARTS:

Each mower has its own model number. Each engine has its own model number. The model number for the mower will be found on the right hand side of the frame at the wheel bracket. The model number for the engine will be found on the top of the blower fan housing.

All mower parts listed herein may be ordered directly from Swisher or your nearest Swisher dealer.

All engine parts may be ordered from the nearest dealer of the engine supplied with your mower.

Color cannot be guaranteed on service parts.

WHEN ORDERING PARTS, PLEASE HAVE THE
FOLLOWING INFORMATION AVAILABLE:

- * PRODUCT - FC66 TRAIL MOWER
- * SERIAL NUMBER - _____
- * MODEL NUMBER - _____
- * ENGINE MODEL NUMBER - _____
- TYPE - _____
- * PART NUMBER
- * PART DESCRIPTION

TELEPHONE - 1-800-222-8183

FAX - 1-660-747-8650

SWISHER

1602 CORPORATE DRIVE
WARRENSBURG, MO 64093



CHANGING YOUR LANDSCAPE SINCE 1945