# **SNOW BLOWER CX SERIES**



est.1995



## **OPERATION & PARTS MANUAL**

Please read these instructions before using. Always grease all fittings and be sure to always check and fill with oil before operating! Retain this manual for future use.



www. Betstco.com 541-895-3083 M-F 7am-4pm PST

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## **General Safety Information**

Ensure all potential operators read this manual thoroughly before using the machine

Safety: Ensure tractor and machine is stopped & keys out of ignition before set-up/maintenance

Safety: Failure to follow good safety standards could result in severe injury or even death

**Misuse**: This machine is designed for use with compact tractors, and should be used only for the indicated purpose. We does not take responsibility if the machine is used for any otne purpose. Children must not operate the machine under any circumstance.

**Modification**: Do not modify equipment in any way. This may impair the operation and overal safety of the machine.

Tractor requirements: Use only with compact tractors within power range specified.

**Misuse transport**: Do not use machinery to transport personnel or livestock.

**Condition**: For the safety of personnel and optimum performance of the machine, you should check the condition of the machine and the tractor before starting. Before use check all nuts and bolts are tight.

**Spatial awareness**: Always check the operating area is safe before starting machinery.

**Operator clothing**: The operator should not wear loose clothing while operating machinery.

**Safety wear**: Always use appropriate ear protection when running a tractor and machinery Ensure you are wearing protective gloves when servicing and using machinery.

**Bystander safety**: Ensure bystanders keep away from the machine when it is in use. Do not touch moving parts when the machine is at work.

**Public places**: When traveling on the road/public places, always keep the PTO turned off **Maintenance**: Always keep the machine maintained and in a good state. Where necessary repair or replace any defective parts. Do not modify the machine.

**Sharp objects**: Pay attention to the sharp/pointed parts while servicing the machine.

**Safety guards**: All protective parts should be in good condition before operating machinery. **Safety signs/stickers**: Keep all safety signs clean and legible. Replace anywhich are missing or illegible. If a component with safety sign/(s) is replaced, make sure new safety sign/(s) are attached in the same locations.

**Operating speeds**: Machinery and PTO should be operated at the recommended speed at all times.

**Safety awareness**: Good safety requires that you familiarise yourself with various safety signs, the type of warning and the area, or particular function related to that area.

**Alertness**: Never consume alcohol or drugs these can hinder alertness/coordination. Consult your doctor about using this machine while taking prescription medications.

WARNING! WE SHIP ALL OUR MACHINES DRY. THIS IS A SAFTEY PRECAUTION AND ALSO PREVENTS OIL OR GAS FROM LEAKING DURING TRANSPORTATION.

General Safety Information (continued)

# WARNING! WE SHIP ALL OUR MACHINES DRY. THIS IS A SAFTEY PRECAUTION AND ALSO PREVENTS OIL OR GAS FROM LEAKING DURING TRANSPORTATION.

## **Machinery Pre-Use Checks**

On receipt of your new machine and again within the first 4 hours of use, or the 'shake in' period as we like to call it, we always recommend checking over the machine.

- Check all bolts, Nuts and Screws are tight on the unit.
- Tighten/Check any bolts and nuts securing blades.
- If your machine has belts, check the tension and adjust if required.
- Apply grease to grease points if necessary.
- Check gear oil level. Do not overfill

#### **Tractor Pre-Use Checks**

- Check that the machine is properly attached to the tractor. Ensure that secure pins are used on the linkage mounting pins.
- Be sure to add extra weights to the front of the tractor or add wheel weights if required.
- Check that the tractor PTO shaft turns freely and that the machines PTO drive shaft can extend easily. Grease the PTO drive shaft using the grease points.
- The chain on the PTO shaft should be checked and in a good condition. The universal joints installed should be in a good state with proper protective parts.
- Before installing the PTO shaft, the tractor and machine should be stopped and remove the key.
  - Install and secure all safety guards, doors and covers before starting
- Bystanders should leave the immediate area before connecting the drive from the tractor.

## **Running/Operating Checks**

• Always keep the PTO output from the tractor at 540 RPM when running machinery.

## **Post-Use Regular Checks**

- Check blades, belts and wearing parts. Be sure they are not damaged and blades swing freely in their mount. Repair or replace as required.
- Clean machinery and check for/clear any entangled material which may have got stuck around any rotating parts.

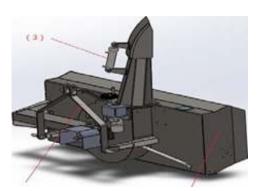
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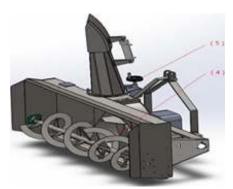
## 1. Application and Feature

Snow Blower have proven their productivity and reliability for different consumer: farmers, home owners, contractors, and business owners etc. It is one of the easiest and most affordable snow Blowers you'll ever use. It works great on concrete, gravel, driveways or grass surfaces. The manufacturing process combines state-of-the art technology, carefully selected raw materials and experienced engineers to ensure that the Blower are reliable and productive.

## 2. Technical Data



- (1) Linkage Assembly
- (2) Blower Assembly
- (3) Guide Cover Adjuster
- (4) Auger
- (5) Adjusting Handle



Specifications	CX130	CX160	CX180	CX210
Suited to Engine HP	20-40hp	40-60hp	60-80hp	80-100hp
Cutting Width	51 inches	62 inches	70 inches	82 inches
Cutting Height	23 inches	23 inches	23 inches	23 inches
# of Fan Blades	4	4	4	4
Fan Diameter	20 inches	20 inches	20 inches	20 inches
Aug Diameter	14 inches	14 inches	14 inches	14 inches
Impeller Drive	Gearbox Reduction	Gearbox Reduction	Gearbox Reduction	Gearbox Reduction
Sled Plate	Standard	Standard	Standard	Standard
Weight	502 lbs	534 lbs	560 lbs	617 lbs

## 3. Operations

The driver should be firstly acquainted with the specification, structure, operation methods and technical maintenance in order to guarantee safe driving and operation. The Blower mainly have three job to do:

## 1) Lowering

Lower the Blower to the surface of the snow.

## 2) Blower

Just drive and let the Auger do the work.

Look at the Figures 1 and 2 (pictured previously), number 4 is the Auger. The arrow marks out the rotating direction. Number 5 is the Adjusting Handle. Rotating this bar can adjust the blowing angle.

## 3) Raising

Lift the blower up to a level suitable for transportation.

## 4. Caution and Inspecting

## 1) Notes for Operation

- a. The Operator should thoroughly read this manual. Operator should be trained to understand traffic regulations, and basic operation of Blower. There should be no more than one driver in the cab.
- b. Use recommended hydraulic oil.
- c. Preform regular maintenance on machine.
- d. After starting, let the engine run for 5-10 min. till the gauge readings are all normal, then push down the hand brake and begin driving.
- e. The Temperature of the engine coolant should not be over 100 °C (212 °F). If the temperature exceed this stop operation immediately for cool down.

## 2) Roving Check

Preform the following before every work day.

- a. Check for any damage, wear, or loose parts on machine. Repair or replace when necessary.
- b. Remove dirt and debris around engine, battery, and radiator.
- c. Check for oil or water leakage in the engine, and repair damaged parts.
- d. Inspect whether there is leakage in the gearbox, driving axles, and connectors and replace when necessary.

- e. Check whether there is leakage in the brake lines.
- f. Check whether the tires are damaged or worn. Also check if the assembling bolts are loose.
- g. Check whether the handrails treadles are damaged, or bolts are loose.
- h. Check if gauges and electrical parts are damaged, or if bolts and couplings are loose.

## 3) Checks and Maintenance before and after work

### **Checks before starting Engine:**

- a. Sufficient amount of fuel in the tank.
- b. Enough Coolant in the radiator.
- c. Lubricant in oil pan is up to operational level.
- d. Sufficient amount of hydraulic and brake oil.
- e. Tire pressure is at normal level.
- f. Whether rim bolts and drive shaft are loose.
- g. High-Low speed control levers and devise control levers are in neutral position.

#### **Checks after starting engine:**

- a. Reading on all gauges are normal.
- b. Leakage in any of the system.
- c. Each switch, lamp, gauge, and horn are in working order.
- d. Abnormal noise from the engine or transmission.
- e. Each lever or handle is in working order.
- f. Insure the Steering Wheel is not loose.
- g. Brakes are operational.
- h. Tractor and Blower are in working condition.

#### Maintenance after work:

- a. Check fuel level in diesel tank.
- b. Check if oil level in Oil Pan is normal.
- c. Check whether there is overheating in the transmission system and driving parts.
- d. Check for loose bolts on rims and driving shaft.
- e. Check for wear on tires, and tire pressure is at normal.
- f. Grease all rotating parts.

## 4) Driving

#### Starting:

- a. Put gearshift control lever into neutral position.
- b. Pull handbrake into "brake" position.
- c. Start tractor engine.

### **Traveling:**

- a. After starting, run the engine for 5 min. and check that all gauges are reading normal.
- b. Lift Blower into carry position.
- c. Release hand brake.
- d. Put high-low lever and gearshift lever into operating position. Push down throttle pedal to travel the machine.

#### Parking:

Before parking put gearshift lever into neutral position, and run the engine in slow speed for 3-5 min. Pull hand brake to "brake" position. Turn the central power switch off if you are parking it for a long time.

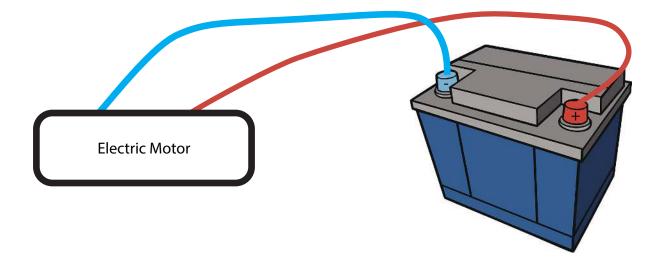
#### 5. Technical Maintenance

In order to guarantee your Blower remains in full operating capacity and prevent early wear, periodic maintenance is necessary.

- 1) After assembly grease all lubrication points.
- 2) Make sure all bolts are tightened.
- 3) Check whether there is sufficient amount of fuel in the tank. Check for any leaks in the systems.
- 4) After working the blade should be facing the ground, as to insure the safety of the operator.

When storing the Blower for long periods of time, make sure to have it in a arid area . This will prevent it from rusting.

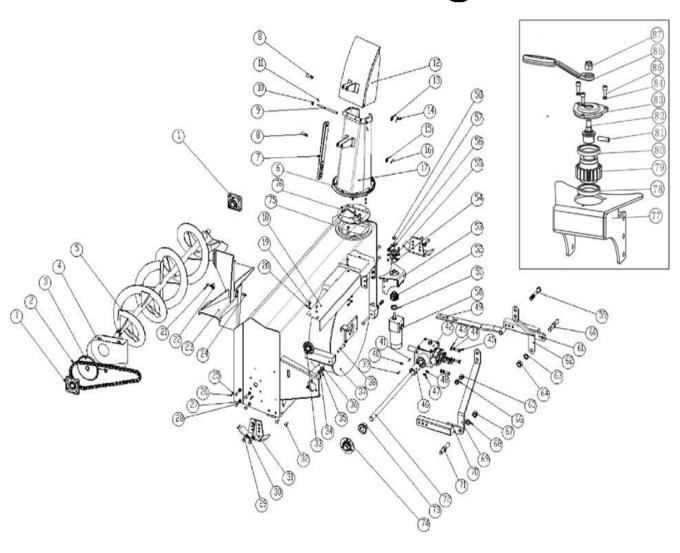
## Connecting Electric Motor



Wire harness plugs into electric motor, then run wire harness to battery and connect positive + (red) and negitive - (blue) wires to the battery

# **SNOW BLOWER**

# **Parts Catalogue**



Code	Part Number	Part Name&Descriptions	Quantity
1	GB/T 7810-1995-UCFU206	Bearing UCFU206	2
2	GB1243.1-1983	Chain IOA-I X 86	1
3	CX160U.2-109	35 Teeth Sprocket	1
4	CX160U.2.08	Chain Guard Welding	1
5	CX160U.2.02	Auger Welding	1
6	CX180U.2.07.001-101B	Chain Ring	1
7	CX160UA.2.07A-101	Adjusting Lever	1
8	GBT 882-2008	Pin	2
9	CX160UA.2.07-103	Guide Cover Shaft	1
10	GB/T97.1-2002-10	Washer 10	1
11	GB/T91-2000-3.2x20	Pin	1
12	CX160UA.2.07A.003	Guide Cover Wedling	1
13	GB/T97.1-2002-14	Washer 14	1
14	GB/T91-2000-4x28	Pin	1
15	GB/T97.1-2002-14	Washer 14	1
16	GB/T91-2000-4x28	Pin	1
17	CX160UA.2.07A.001	Guide Chute Wedling	1
18	CX160U.2-110	Middle Shaft Cover	1
19	GB/T5783-2000-M8x25	Bolt M8x25	3
20	GB/T97.1-2002-8	Washer8	3

Code	Part Number	Part Name Descriptions	Quantity
21	GB/T5783-2000-MIOx25	Bolt MIOx25	1
22	CX160U.2-111	Base Plate	1
23	CX160U.2.05	Fan Welding	1
24	GB/T1096-1979-A8x40	Key8x40	1
25	GB/T97.1-2002-6	Washer6	8
26	GB/T5783-2000-M6x20	Bolt M6x20	8
27	GB/T97.1-2002-10	Washer10	8
28	GB/T5783-2000-MIOx40	Bolt MIOx40	8
29	GB/T5783-2000-M12x40	Bolt M12x40	4
30	GB/T97.1-2002	Washer12	4
31	CX160U.2.09A	Sledge Welding	2
32	GB/T12-1988-MIOx30	step Bolt MIOx30	1
33	CX160U.2.04	Chain Tensioning sprocket	1
34	GB/T6170-2000-M12	Nut M12	1
35	GB/T93-1987-12	Washer 12	1
36	GB/T97.1-2002	Washer12	1
37	CX160V.2.01	Frame Welding Assembly	1
38	GB/T5783-2000-M12x90	Bolt M12x90	2
39	GB/T1096-1979-A8x32	Key8x32	1
40	GB/T 84-1988	Bolt M8x16	1

Code	Part Number	Part Name Descriptions	Quantity
41	GB/T1096-1979-A8x32	Key8x32	1
42	CX160U.2.03A	Gearbox	1
43	GB/T97.1-2002	Washer12	4
44	GB/T93-1987-12	Washer 12	4
45	GB/T5783-2000-M12x35	Bolt M12x35	4
46	CX160U.2-101	Sleeve	1
47	GB/T6170-2000-M8	Nut M8	1
48	GB/T 84-1988	Bolt M8x16	1
49	CX160.1.05	Upper Linkage Welding	1
50	SPC120GU-12 (Optional)	Electric Motor	1
51	GB/T 276-2013	Deep groove ball bearing [60000]61808	1
52	CX160V.2.06-102	Driving Gear	1
53	CX160V.2.06.001	Bracket Welding	1
54	GB/T 276-2013	Deep groove ball bearing [60000]61808	1
55	CX160V.2.06-101	Тор Сар	1
56	GB/T93-1987-6	Washer 6	3
57	GB/T70.1-2000-M6x15	Bolt M6x15	3
58	CX160V.2.06-107	Blanking Cap	1

Code	Part Number	Part Name Descriptions	Quantity
61	CX160UZ.1.01	Lower Linkage Welding	1
62	CX160UZ.1-101	Diagonal Draw Bar	1
63	GB/T93-1987-24	Washer 24	1
64	GB/T6170-2000-M24	Nut M24	1
65	GB/T6170-2000-M20	Nut M20	1
66	GB/T6170-2000-M20	Nut M20	1
67	GB/T6170-2000-M24	Nut M24	1
68	GB/T93-1987-24	Washer 24	1
69	CX160UZ.1-101	Diagonal Draw Bar	1
70	CX160UZ.1.01	Lower Linkage Welding	1
71	CX160UZ.1-102	Lower Pin	1
72	CX160UZ.2-107	Middle Shaft	1
73	CX160UZ.2-108	Drive Sprocket	1
74	GB/T 3882-1995	Outer Spherical Ball Bearing UE 206	1
75	CX160UX.2-105	Chute Base	1
76	CX160U.2.07-102	Chute Limit Plate	1
77	CX160V.2.06.001	Bracket Welding	1
78	GB/T 276-2013	Deep groove ball bearing [60000]61808	1
79	CX160v.2.06-102	Driving Gear	1

Code	Part Number	Part Name Descriptions	Quantity
80	GB/T 276-2013	Deep groove ball bearing [60000]61808	1
81	GB/T91-2000	Pin	1
82	CX160V.2.08-101	Rotating Shaft Welding	1
83	CX160V.2.06-101	Тор Сар	1
84	GB/T93-1987-6	Washer 6	3
85	GB/T70.1-2000-M6x15	Bolt M6x15	3
86	CX160v.2.08-102	Ratchet Handle	1
87	GB/T6170-2000-MIO	Nut M10	1

## **Trouble Shooting**

PROBLEM	SOLUTION
Slow or no operation of lift arms  1) Oil leakage in pipe lines 2) Severe inner leakage of the Pump 3) Improper adjustment of Pump 4) Air enters into oil hoses, working pump, or oil filter is blocked 5) Over large fitting clearance of working valves	<ol> <li>Check and repair</li> <li>Repair or replace the Pump</li> <li>Adjust the system pressure to required valve</li> <li>Clean the filter or replace the oil hoses</li> <li>Repair or replace the valve</li> </ol>
Empty suction of oil or foam in oil  1) Low oil level 2) Filter is blocked 3) Damaged oil pump 4) Air leakage of oil hoses or damaged seals in Pump 5) Bad or deteriorated oil	<ol> <li>Fill oil to required level</li> <li>Clean the Filter</li> <li>Repair or replace the Pump</li> <li>Repair or replace the damaged parts</li> <li>Replace with new oil</li> </ol>
Over heating Oil  1) Long over working time with full load  2) High system pressure  3) Oil level is low  4) Damaged oil Pump  5) Blocked lines	<ol> <li>Stop for Cooling</li> <li>Adjust to required pressure</li> <li>Fill oil to required level</li> <li>Repair or replace the Pump</li> <li>Repair, clean, or replace lines</li> </ol>



Parts@betstproducts.com

Name:		Model Number:			
Address		Serial Number:			
City State	Zip:	Purchased From: Purchase Date:			
Phone:					
Email:					
Item #	Description		QTY	Price	Amount
Comme	nts:				

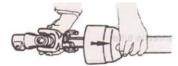
## **PTO Shaft Resizing**

**Saftey**: Ensure tractor & machine is stopped and keys are out of the ignition before carrying out any work. If you are not confident in carrying out the wor, consult your local supplier or mechanic.

Most PTO driven implements are supplied with a standard size PTO shaft. As all tractors vary, this often means cutting it down to size. Always replace worn or damage PTO shafts.

Attach the machine to the tractor without the PTO shaft, raise the linkage so the PTO shaft is level/horizontal. Measure the length between tractor PTO and the machine's shaft. If the compressed (closed) PTO shaft lenth exceeds the one measured here then the deriveline will need to be cut.

1. PTO length adjustment, First remove shaft shielding



2. Shorten the driveline tubes to proper equal lengths



3. Tidy edges of the drive tube with a file and clean all fillings from the tubes



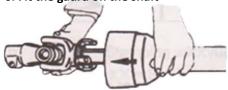
4. Shorten the equally long guard tubes to the same length as the driveline tubes



5. Grease the internal driveline tube



6. Fit the gaurd on the shaft



7. Make sure that the length allows for at least 6 inches of overlap



## Value-Leader Brand 90 Day Warranty

Unless otherwise stated on purchase invoice, Betstco warrants to original Purchaser that Value-Leader products are free from major defects in material under normal use and service for a period of 90 Days from the date the product is purchased or shipped, whichever is later. Commercial use 90 days. Use at address that is not yours, is considered commercial use. Consumable, Expendable, Wear Items (Rubber plastic parts, hydraulic hoses, belts, tires, cables, blades, tines, wedges, teeth, tips, chains, pins, brushes, filters, etc) and cracked hydraulic pumps, bent or broken cylinder rods are not covered under this warranty. Warranty does not cover items that have been modified, damaged by abuse or usage not in accordance with design or maintenance.

Betstco obligation under this warranty is to repair or replace defective upon approval by; Betstco, 83371 Melton Rd, Creswell OR 97426 that Warranty Claim is valid. Product shall be returned upon request of Betstco. Transportation charges to be prepaid by user.

Gasoline or diesel engines used to powered Value-Leader products are covered by the warranty of the appropriate engine manufacturean Purchaser must look to the engine manufacture for all issues relating to engine operation.

## Betstco assumes no responsibility for outside labor.

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The sole and only remedy in regard to any defective product shall be the repair or replacement thereof as herein provided, Betstco, agent(s) of Betstco shall not be liable for any consequential, special, incidental or punitive damages resulting from or caused by any such defects

Betstco reserves the rights to make improvements in design or changes in specifacations at any time, without incurring any obligations to owners of the units previously sold.

WARRANTY VOID IF REGISTRATION IS NOT RECEIVED OR RECORDED ONLINE WITHIN 30 DAYS OF PURCHASE DATE OR SHIP DATE, WHICHEVER IS LATER.



## est.1995

ITEM <u>:</u>	MODEL#	PURCH	ASE DATE:	
PURCHASED FROM:		GIFT II	NV# ORDER#_	
OWNER NAME:		SERIAL	.#	
OWNER ADDRESS:				
CITY:		COUNTY:	ST:	ZIP:
PHONE:		EMAIL:		
ACCEPTANCE OF RESPON	_			
I (PURCHASER) HAVE REA				
READ/AND EXPLAINED AL				
COVER ANY LABOR AND				
ING ARBITRATION IS CON			, ,	
SW KRUSE WAY PLACE ST				
EST TO BETSTCO. I ACKNO				
OR REPLACE DEFECTIVE P				
EDGE RECEIPT OF MY OP				
ACKNOWLEDGE UNDERS				•
SPECIFACATIONS, OPERAT IS ALONE AM RESPONSIE	•			
VALUE-LEADER ITEM	SLE FOR PROPER IVI	IAINTENANCE, CAI	KE AND SAFE C	PERAHUNUF ITIS
I (PURCHASER) AGREE TH	AT PERSONS NOT F	-AMILIAR WITH TH	F OPERATION (	OF THIS ITEM
SHOULD NOT BE ALLOWE				
NEAR POWER PRODUCTS				_
SHOULD HAVE READ OPE				
OWNERS SIGNATURE: x			DATE:	/ /

YOU MUST SIGN THIS WARRANTY AND MAIL OR FAX A COPY TO BETSTCO, 83371 MELTON RD N. #3, CRESWELL OR. IF YOU PREFER YOU MAY COMPLETE YOUR REGISTRATION ONLINE AT WWW.VALUE-LEADER.COM. THIS WARRANTY IS NOT EFFECTIVE UNLESS PURCHASER COMPLETE REGISTRATION AND WARRANTY FOR WITHIN 30 DAYS OF PURCHASE OR SHIP DATE WHICHEVER IS LATER.

NOTE: WE MAY REFUSE WARRANTY OF ANY KIND UNLESS BETSTCO, RECEIVES A COMPLETED, LEGIBLE AND SIGHNED WARRANTY REGISTRATION. IT IS THE RESPONSIBILITY OF THE PURCHASER TO ASSURE THAT REGISTRATION DOCUMENT IS RECIEVED BY BETSTCO.