

SNOW BLOWER SB SERIES



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.machineriedb.com

819-350-5543 M-F 8-30am-5pm
1776 161 Rd, St Valere

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 other purpose. Children must not operate the machine under any circumstance.

Modification: Do not modify equipment in any way. This may impair the operation and overall 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 any which 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 familiarize 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.

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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.

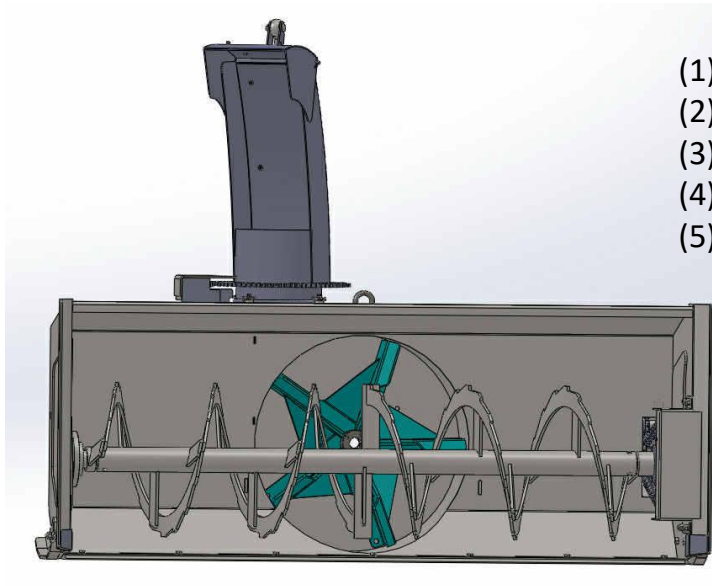
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1. Application and Feature

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	SB150	SB180	SB210	
Suited to Engine HP	25-40hp	40-60hp	60-80hp	
Cutting Width	62 inches	72 inches	86 inches	
Cutting Height	28 inches	28 inches	28 inches	
# of Fan Blades	5	5	5	
Fan Diameter	24 inches	24 inches	24 inches	
Aug Diameter	14 inches	14 inches	14 inches	
Ice Auger	Yes	Yes	Yes	
Fan Depth	8"	8"	8"	
Weight	540 lbs	560 lbs	620 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. Perform 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

Perform 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 treads 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. Enough fuel in the tank.
- b. Enough Coolant in the radiator.
- c. Lubricants in oil pan is up to operational level.
- d. Enough 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 device control levers are in neutral position.

Checks after starting engine:

- a. Reading on all gauges are normal.
- b. Leakage in any of the systems.
- 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. Ensure 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:

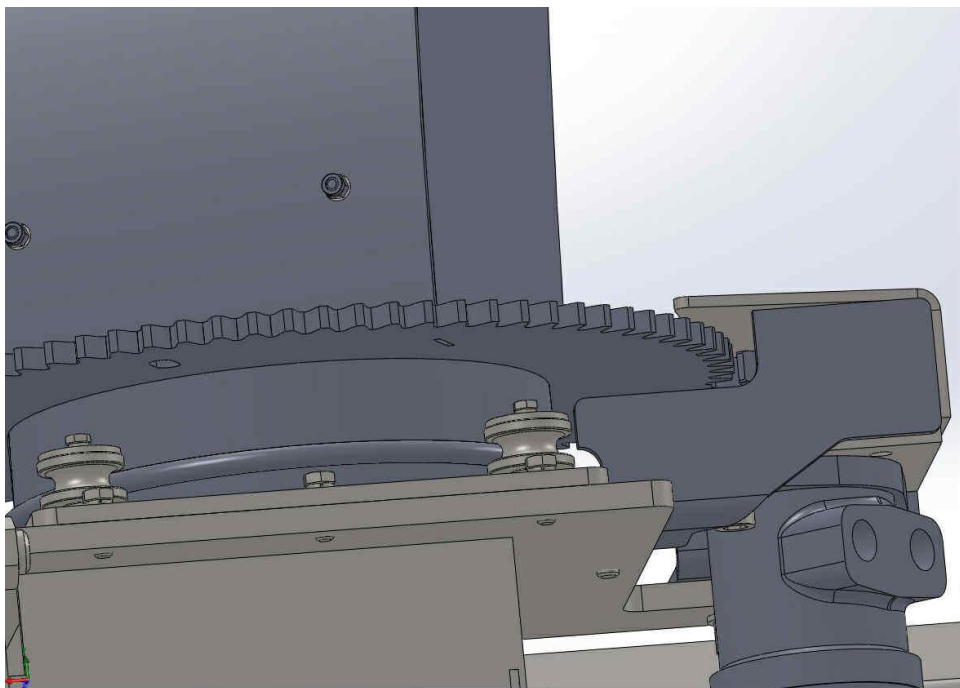
Before parking put gearshift lever into neutral position, and run the engine in slow speed for 3-5 min. Pull hand brake to “brake” position. Turn the central power switch off if you are parking it for a long time.

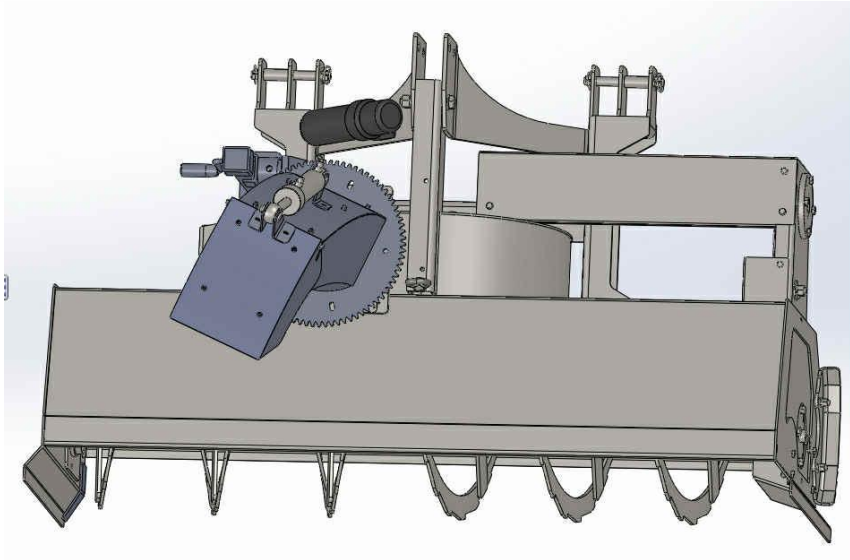
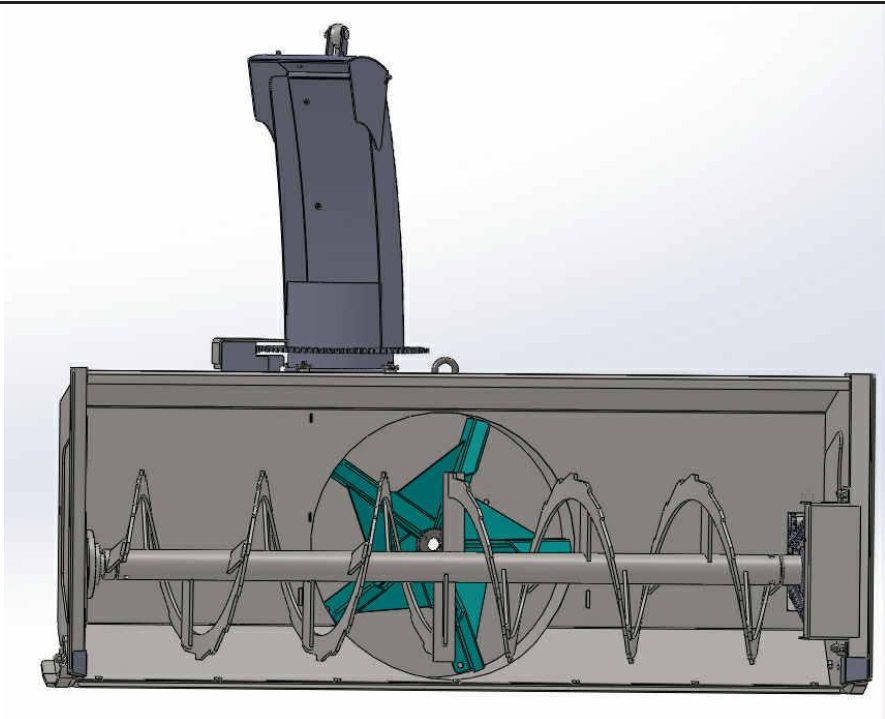
5. Technical Maintenance

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.

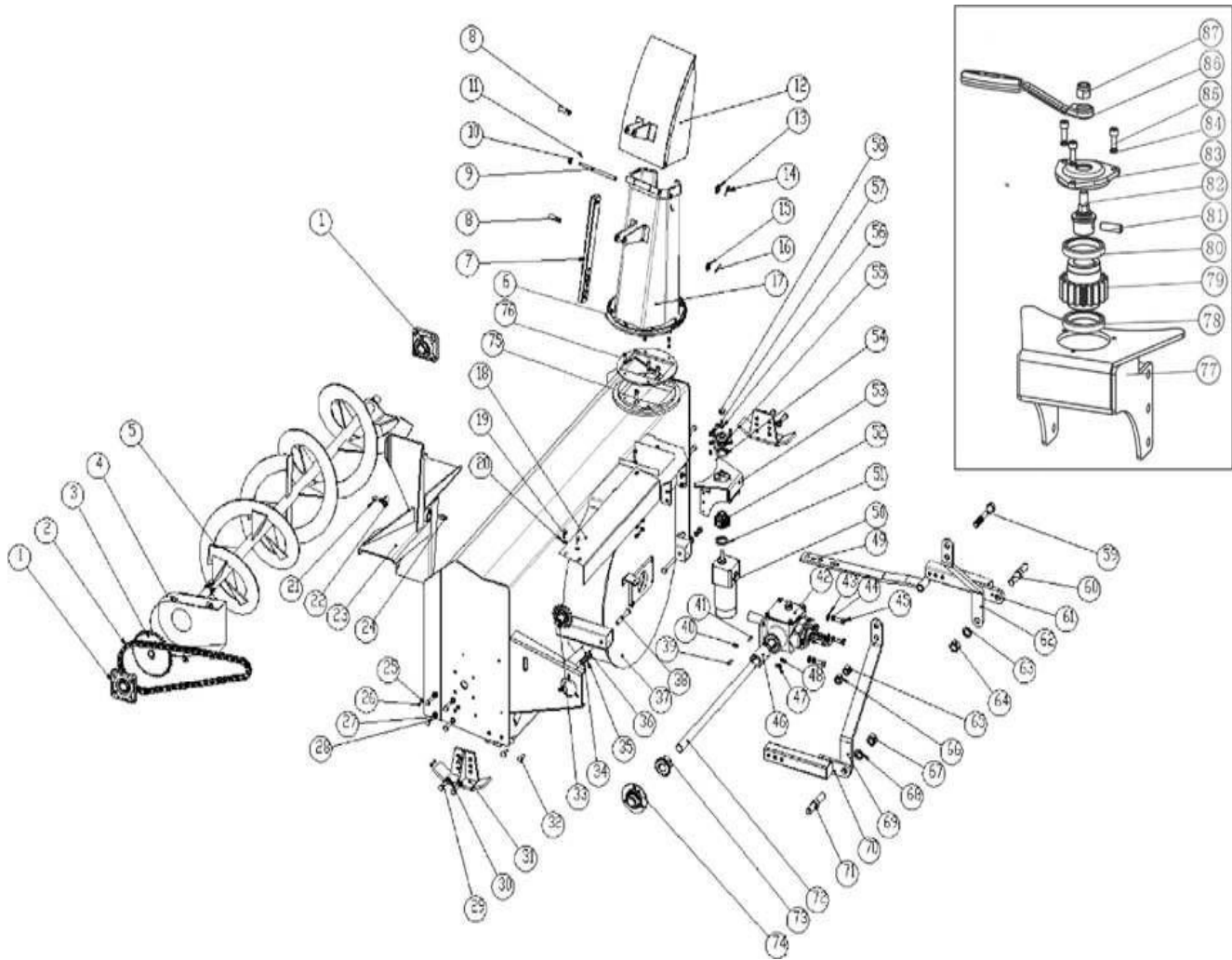
When storing the Blower for long periods of time, make sure to have it in a arid area . This will prevent it from rusting.





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 Welding	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 Welding	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	Top Cap	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	Top Cap	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-M10	Nut M10	1

Trouble Shooting

<i>PROBLEM</i>	<i>SOLUTION</i>
<p>Slow or no operation of lift arms</p> <ol style="list-style-type: none"> 1) Oil leakage in pipelines 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 style="list-style-type: none"> 1) Check and repair 2) Repair or replace the Pump 3) Adjust the system pressure to required valve 4) Clean the filter or replace the oil hoses 5) Repair or replace the valve
<p>Empty suction of oil or foam in oil</p> <ol style="list-style-type: none"> 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 style="list-style-type: none"> 1) Fill oil to required level 2) Clean the Filter 3) Repair or replace the Pump 4) Repair or replace the damaged parts 5) Replace with new oil
<p>Over heating Oil</p> <ol style="list-style-type: none"> 1) Long working hours with full load 2) High system pressure 3) Oil level is low 4) Damaged oil Pump 5) Blocked lines 	<ol style="list-style-type: none"> 1) Stop for Cooling 2) Adjust to required pressure 3) Fill oil to required level 4) Repair or replace the Pump 5) Repair, clean, or replace lines

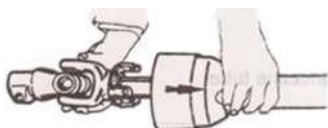
PTO Shaft Resizing

Safety: 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 work, 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 damaged 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 length exceeds the one measured here then the driveline 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



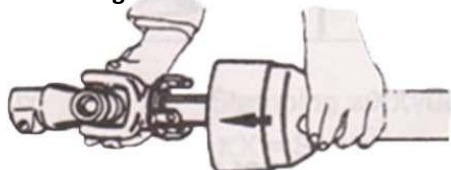
4. Shorten the equally long guard tubes to the same length as the driveline tubes



5. Grease the internal driveline tube



6. Fit the guard on the shaft



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

