

VL-WC52R

Value Leader

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.

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RUGGED LABOR SAVING EQUIPMENT SINCE 1995 83371 Melton Rd, Creswell OR 97426

Value Leader



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1. INTRODUCTON

CONGRATULATIONS! You have just purchased the best, safest, and most compact chipper available.

If you have too much material to run through the small shredders, and not enough for the larger chippers, the chipper is the right machine for the job. Safety features include a feed roll that makes it difficult to get your fingers or hands caught in the blades of the chipper, and a low chute profile that makes feeding easy because you don't have to lift the limes so high to feed them into the feed roll.

We have compiled this owner's manual to help you understand and appreciate your chipper. By taking a few minutes to read this manual and understand the maintenance instructions, you will do a better job with the chipper, and the chipper will do a better job for you. Read the manual, from the features through the parts list, before operation the chipper.

2. SETUP INSTRUCTIONS

Your chipper does need to the setup prior to installation. It arrives in a metal cage that can be dismantled in minutes.

The infeed chute and stand are shipped with the unit and are in the bottom of the metal cage. Put the stand together. Place the chipper on the stand and bolt on the two mount brackets. See drawings near the back of the manual- check the table of contents for actual pages.

A small box containing the two (2) chipper hitch assemblies and mounting bolts is located at the bottom. The chute can enclose (see retrofit instructions regarding use of shorter bolts with lock washer and flat washer).

Always turn the head over by hand before applying power, to ensure that nothing is in the head. If the chip deflector or any of the guards have been removed for shipping, be sure to replace them.

The PTO drive line is also shipped with the unit and is also located in the bottom of the metal cage.

Keep the chipper as close to the tractor as possible. the PTO shaft needs to be sized for your tractor – see the specific section in the manual for this procedure.

Make sure that the shaft will not bottom out in the shortest position.

Keep the PTO shaft straight and within 15 degrees of level when operation the unit.

Do not allow the chipper to be operated without the chip deflector properly in place. This will allow the fly wheel and blades to be exposed. The Chips also cannot be controlled like this.

3. DRIVELINE SAFETY TIPS

Agriculture is recognized as one of the most hazardous of occupations—today's farmer spends long hours near increasingly complex and powerful machinery.

To avoid accidents, everyone from the company's supplier and the company who manufactures and assembles the machinery, to the dealers and ultimately the actual user, must keep lines of agricultural implements. Also refer to our catalogs, general safety literature. And the standards published by the American society of Agricultural Engineers.

4. DERIVELINE SPECIFICATIONS

The first step towards a safe application is to specify and test the driveline to operate properly under expected field conditions.

1. Specify and test the proper size joints and telescoping members based upon the power required by the implement, speed of rotation, joint angles, shock loads, and expected life. More information may be found in all driveline manufactures' catalogs.
2. Adjust and test the hitch geometry to prevent the driveline from:
 - Extending beyond the recommended maximum length.
 - Bottoming out
 - Reaching a position that allows joints to lock.
 - Exceeding the maximum allowable angle for constant velocity (CV) joints.

Information concerning these parameters may be found in all driveline manufacturers' catalogs.

Specify and test telescoping parts to allow the lowest possible thrust loads, considering the expected working conditions.

3. Specify and test torque limiters to control excessive shock loads.
4. Where necessary, specify and test overrunning clutches to prevent inertial loads from overpowering the tractor.
5. Provide a means to support the driveline on the implement when it is disconnected from the tractor, to prevent damage during storage or transportation.

5. HAZARD REDUCTION:

The second step in specifying a safe driveline application is to strive to eliminate as many hazards as possible.

- 1, On drivelines with torque limiting or overrunning devices, check that the device is positioned on the end

of the driveline by the implement.

2. For implement connections which require bolts or set screws, select supply hardware which minimizes protrusions.
3. For tractor PTO shaft connections, specify a safety type yoke (twist or slide collar) to minimize protrusions.
4. Provide a proper clearance zone for the operation of the driveline, to avoid damaging the shielding components.

Some common areas of interference are:

- Three-point linkage
- Extended or eye loop hitch pins
- Hydraulic hoses

6. GUARDING

For hazards which cannot be eliminated effectively, guarding must be provided whenever feasible.

The PTO master shield, integral driveline shield, and implement input connection shield should provide an interactive guarding system.

1. Provide instructions by labels or manuals. The implement should be used only with the tractor's PTO master shield in place.
2. Specify and test a driveline shield with end cones which will overlap, but not interfere with the PTO master shield or implement input connection shield.
3. Provide an implement input connection shield to interact with the integral driveline shield to provide guarding of the shaft coupling and any torque limiting device installed on the driveline.
4. Check that all routine maintenance of the driveline can be done without the removal of the shields.

7. WARNING AND INSTRUCTIONS:

Provide warnings and instructions for hazards associated with the machine. Provide instructions for proper maintenance and repair.

1. Provide labels on the unit to advise the user of proper hitch dimensions and maximum safe operating speed.
2. Check that proper danger labels are supplied with the driveline (replacements are available from your driveline supplier).
3. Provide easy-to-understand instructions for proper driveline operation, maintenance, and repair in the operator's manual.
4. Advise against the use of PTO adapters which may defeat the purpose of the tractor's master shield and adversely affect the performance of the driveline.
5. Advise the user of locations of genuine original equipment spare parts.
6. Further information about driveline specifications and safety may be obtained from your driveline supplier and the following ASME standards and Engineering Practices:
7. S203- Rear power, Take Off for Agriculture tractors

S205- Power Take Off Definitions and Technology for Agricultural Tractors.
S207- Operating Requirements for Tractors and Power Take-Off Driven Implement
S318- Safety for Agriculture Equipment
S311- Implement Power Take-Off driver-line specifications
S333- Agricultural Tractor Auxiliary Power Take off Drives
S350- Safety Alert Symbol for Agricultural Equipment
S441- Safety Signs
S493- Guarding for Agricultural Equipment
EP363- Technical Publications for Agricultural Equipment
Other standards may apply for these types of implements.

All driveline manufacturers strive to produce a safe product. The driveline, like most other components, must be used properly, including the use of proper tractor master shields and implement input connection shields.

Please contact us if you have any questions about your driveline application.

8. SAFETY INSTRUCTIONS

Do not attempt to operate the chipper until you have read and understood the owner's manual.

If you need another manual, contact the factory or the dealer where you purchased the unit. We will furnish an extra manual at no charge.

Always keep the guards and chip deflector installed properly while operation the chipper.

Keep the decals in place and in good repair. The factory or your dealer will furnish new decals upon request.

Never leave the chipper running unattended.

Do not attempt alterations, repairs or adjustments while the chipper head is turning. Always disconnect the PTO and stop the motor, then put the keys in your pocket.

Keep hands, feet and other extremities out of and away from the hopper.

Point the discharge chute away from doorways, sidewalks, or any areas where your view is obstructed. The chute should be pointed downwind when possible or the fines will blow into your eyes and down your neck. This is not very comfortable.

Keep everyone, especially children, way from the area of operation. Anyone who has not read this manual and received instructions from a qualified person should not be in the area.

9. WEAR PROTECTIVE GEAR.

EYES - Wrap - around safety glasses or goggles

EARS - Ear plugs

HANDS - Leather gloves

FEET - Steel toed boots

LEGS - Heavy Pants

ARMS - Long sleeved shirt

No loose clothing should be worn around the chipper. Children as well as adults could easily lose a finger. If someone or something turns the flywheel over when the blades are being checked or the cutter bar is being adjusted. The flywheel has enough residual energy to easily remove fingers.

10. MACHINE CHECKLIST

CAUTION: Turn the chipper head over by hand before applying power to make sure that the head is clear, all the bolts are clear, and the knives clear the case and cutter bar.

Make sure that:

1. The feed roll driveshaft and pivots are properly lubricated.
2. The feed roll clutch is properly lubricated and the clutch releases when the handle is pushed toward the chute.
3. The PTO shaft doesn't come apart or bottom out during the normal lifting range.

Check the chip pile to see if the blades need to be serviced. Long slivers in the chip pile are one of the best indications of dull blades.

11. MACHINE OPERATION

This Chipper uses a roller wheel and knife system. The blades must be sharp to operate properly. Dirt, rocks, nails, or other foreign material will shorten blade life.

Before operating the chipper review the machine checklist. After turning the chipper by hand and making sure there are no obstructions in the head, start the tractor and raise the chipper until the PTO shaft is within 15 degrees of straight.

Start the chipper slowly with the PTO engaged and release the PTO clutch slowly. Gradually increase speed until the tractor PTO speed is 540 RPM.

The material will feed into the head more easily if you start the pieces with the large end first.

The feed roll will fold branches as they are pulled into the hopper. Occasionally, a limb fork may have to be cut to feed properly.

If the material stops feeding, sometimes a little push on the long end of the limb will help.

If the material stops the feed roller, release the feed roll clutch by pushing it toward the chute. Hold the clutch in the disengaged mode and pull the material out the hopper. Release the feed roller clutch and the feed roller will turn again.

Remember to cut only clean material, or blade life will be shortened.

Do not move the unit while the flywheel is turning.

Block the wheels and set the brake while running the head.

Watch the discharge chute while operating the unit and if the chips stop flowing stop feeding material into the unit by moving the feed roller clutch handle toward the chute and pulling the material from the hopper.

Most of the time this will be enough to clear the chips out of the unit. If the unit slows down noticeably, first shut off the PTO power, then the tractor.

Unplug the head by turning it backwards by hand with the discharge chute and top section of the wrapper off.

Remove the chips from the top of the head. If this fails, remove the clean-out door, located on the lower part of the front side-plate of the chipper below the main shaft. Then work the chips out the case.

Replace the clean-out door after all the chips are removed, be sure to use both the lock washers and flat washers.

Turn the head by hand after assembly to be sure it turns freely. Be sure to replace the chip deflector.

Do not operate the unit without the deflector in place.

Before starting the chipper, be sure that all the material is out the head and out of the feed roll.

All the material in the chute must be gone or the unit could jam on a small piece of material. This can usually be cleared by tuning the unit backwards by hand.

To replace the blades, take the PTO shaft out of gear. Shut off the tractor and keep the keys in your pocket. The blades on most models are replaced or turned by removing the inspection plate on the side opposite the chute.

Unhook the feed roll springs, block the feed roll to maximum position, and, with an Allen wrench on the chute side and a socket on the other, remove the bolts.

Be careful not drop any parts inside.

Remove the blade, clean the blade pocket, and turn or sharpen the blade. Replace.

Torque the bolts to 50 foot-pounds in all holes so the bolts are straight through the flywheel.

A small screwdriver or ice pick works well to clean pockets for the Allen wrench.

Replace the inspection plate and reattach the springs.

Turn over by hand before applying power. The cutter bar should be adjusted to .010 to .030 from the blades by loosening the bolts in the bottom of the chute in the slotted holes and moving the bar on the slots.

Bolts are to be torqued to 35 foot-pounds.

The cutter bar can be reversed and/or resharpened.

Dull blades cause many problems, such as:

Seeming lack of power, plugging of the discharge chute, rough cutting with more vibration than usual, feed roll shaft broken, main bearing working loose and the flywheel or blades hitting the case or bed knife, feed roll kicking out of gear, and not feeding.

To properly sharpen the blades, sharpen them at an angle of 35 degree.

Area B cannot be rounded, or the blades will not pull the material into the head.

The best way to tell if the blades need sharpening is to watch the chips coming out of the chip discharge.

If they are long and stringy, the blades need to be service. Sometimes the blades feel sharp to the fingers but may be worn or rounded.

12. LUBRICATION FREQUENCIES AND LOCATIONS

PTO shaft –2 zerks on universals once a day with multipurpose grease.

Slip Joint – lubricate with multi- purpose grease

Feed roll pivot – 2 zerks on underside of chute end.

Multi- purpose grease every 4 to 8 hours of operation. If dust or fine particles make pivot bind, unhook feed roll springs, use cleaning solvent on pivot while moving up and down, wipe off, lubricate slides, and replace springs.

Feed roll drive-shaft- zerk on feed roller driveshaft. Lubricates both the slide and both universal joints. Add multi-propose grease until grease shows at both universals every 4 to 8 hours of operation, particularly before each use. Occasionally remove and thoroughly clean this assembly.

Feed roller clutch – while feed roll shaft is off, lubricate the feed roll clutch inside and outside with multi-purpose grease.

Gear box – check separate sheet for gear box lubrication.

13. PREVENTIVE MAINTENANCE

Check all bolts, set- screws and fasteners after running four hours, and once per day thereafter.

Check for loose belts, broken pulleys, loose springs, dry slides, and proper lubrication of both feed roll driveline and feed roller clutch.

The main drive belts on the chipper need to be tight. To tighten these belts, first loosen the four bottom nuts that hold the jackshaft bearing. Loosen them about three turns, then move the nuts on the top of the bearings down and equal amount. Keep the jack-shaft parallel with the main shaft. Torque the bottom nuts 80-foot pounds.

The belts of the main drive on the PTO chipper should be checked every eight hours of operation.

Look for cracks, looseness, or other signs of deterioration.

The feed roll drive belt can be adjusted by first loosening the four bolts that hold the worm gear box to the base, then moving the gear box away from the chute and re-torques the bolts to 40-foot pounds.

All decals and safety instructions should be kept clean and legible. It is the operator’s responsibility to replace the decals as needed; they will be mailed at no charge.

14. TROUBLE SHOOTING

PROBLEM: Head slows but tractor does not

Possible causes

Main drive belts are slipping

Blades dull

Solution

tighten

sharpen/ reverse

PROBLEM: Feed roll clutch kicking in and out of gear excessively

Possible causes

Blades dull

Material jammed in chute

solution

sharpen/ reverse

release feed

roll clutch and
remove material
by pulling cut
of chute, trim forks,
and feed into chute.

PROBLEM: Not chipping clean or chip deflector plugging

Possible Causes

Blades dull
Cutter bar rounded
Cutter bar not adjusted properly
Chipper head turning too slowly

Solution

sharpen / reverse
sharpen / reverse
adjust to tolerance level.
check to PTO speed at 540 RPM

PROBLEM: unit won't feed

Possible causes

Feed roll slides dirty or dry
Fork in material too wide
Feed roll gear box belt loose
Feed roll tension springs stretched

Solution

clean & lubricate
remove and trim
tighten
replace

15. SPECIFICATIONS

We have designed and manufactured the chipper as possible. We have used off- the shelf bearings, belts, and pulleys. We have manufactured a few items that were not readily available. The off-the shelf items are balance of the parts are available from the dealer, distributor, or factory.

We have used grade 8 bolts on the models for the models for the flywheel, blades, and cutter bars. All other bolts are grade 2 or 5 as needed.

16. DRIVELINE FITTING ADJUSTMENTS

PTO driveline data on model 4 and 6 tool barn PTO driven chippers and chipper mulchers with speed –up kit options.

This data is for drive-line fitting adjustment, which is required prior to initial startup and installation of chippers.

Prior to startup, the PTO that is supplied with your chipper must be properly sized to insure proper operation. If this is not done, damage to the chipper, PTO, and tractor PTO driveline will occur.

These calculations are based on the following assumptions:

1. The PTO driveline used is the one supplied with your chipper with a size 2 PTO shaft spline for a type 1 spline on this tractor PTO.
2. The driveline has an active length range of 24.5" to 21.5" and that 2-1/4" of contact area on the tractor PTO spline and 1-3/8" of contact area on the chipper spline shaft are utilized.
3. The two shaft ends are horizontal with one another.

The following steps should be taken to ensure the proper fitting of the PTO driveline (provided with your chipper) with your tractor PTO drive.

1. Attach the chipper to your tractor three-point connections.
2. Raise the chipper to a position where its driveshaft is level with the tractor PTO driveshaft. this horizontal position is recommended for operation of the chipper.
3. A maximum of 15 degrees of offset from the horizontal position between the two shaft ends is allowable for proper operation of the unit by the PTO drive-line manufacturer. However, drive-line calculations are based on a level, horizontal position.

With the two drive shafts level with one another, measure the distance between the ends of the two shafts. (The chipper and the tractor PTO shaft ends).

This distance between the two shaft ends is the measured shaft end distance, or "MSED".

The PTO driveline is capable of handling a MSED between 18.76" to 21.76", allowing for at least 1/3 of shaft overlap as recommended by the driveline manufacturer.

4. If the MSED is longer than 21.76" a longer driveline is needed and should be ordered.
5. If the MSED is shorter than 18.76" a shorter driveline is needed and should be ordered.
6. Most drivelines must be adjusted to fit by cutting off equal amounts of the ends of the shaft tube and the guard tube of the PTO diver-line.
7. Consult the driveline manufacture data enclosed with your driveline for proper assembly and disassembly. Lubrication and operation prior to startup, and during operation.

REMEMBER:

Contact with the driveline while in use can result in serious injury or death.

Any portion of the driveline not shielded must be guarded by an interactive guarding system.

The manufacturer of the equipment is responsible for providing guards. Any replacement guard must be one which is specified by that manufacturer. Do not remove any of the plastic safety covers on the driveline and ensure that caution is used around this driveline no one should be in the driveline area when it is operating.

Another driveline data base is as follows – these calculations are based on the following assumptions:

1. The driveline has an active length range of 31.06 to 25.13"
2. That 2-1/4" of contact area on the tractor PTO spline and 1-3/8" of contact area on the shipper spline shaft are utilized.
3. The two shaft ends are horizontal with one another.

The following steps should be taken to ensure the proper fitting of the PTO driveline provided with your chipper to your tractor PTO drive.

1. Attach the chipper to your tractor's three-point connection and raise the chipper to a position where its driveshaft is level with the tractor PTO driveshaft.

The recommended position of the chipper during operation is in this horizontal position.

A maximum of 15 degrees of offset from the horizontal position between the two shaft ends is allowable for proper operation of the unit.

Driveline calculations have been based on a level or horizontal position.

2. With the two driveshafts level with one another. Measure the distance between the ends of the two

shafts. (The chipper and the tractor PTO shaft ends)

this distance between the two shaft ends is the measured shaft end distance or "msed".

3. The PTO driveline is capable of handling a MSED between 27.24" to 20.31" allowing for at least 1/3 of shaft overlap.
4. If the MSED is longer than 27.24" a longer driveline is needed and should be ordered.
5. If the MSED is shorter than 20.31" but longer than 17.31," the PTO driveshaft must be fitted. Fit the driveshaft by cutting off equal amounts of the ends of the shaft tube and the guard tube of the PTO driveline.

The amount out of each end of the shaft tube and the guard tube is the difference between 20.31" and the MSED for your unit.

No more than 3' of shaft tube and guard tube be removed, or the contact area is not sufficient for proper and safe operation of the driveshaft.

EXAMPLE:

If the MSED is 17.31", cut off 3" from the ends of the shaft tube and the guard tube of the driveline (20.31" minus 17.31" = 3" of cut off distance).

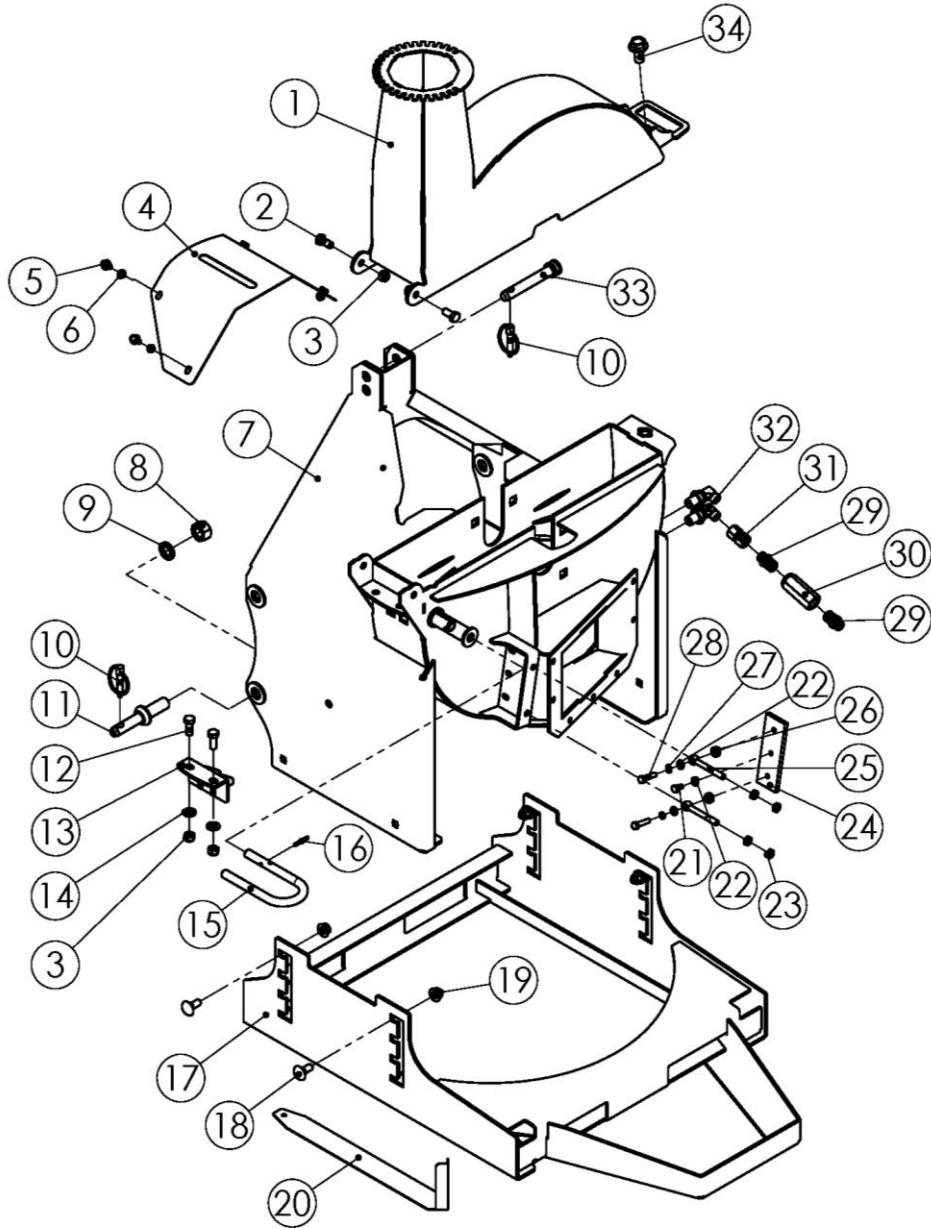
Cut off the same amount from the shaft tube plastic safety cover and the guard tube safety cover to ensure proper assembly and fit of the driveline.

6. If the MSED is shorter than 17.31" a shorter driveline is needed and should be ordered.
7. Consult the manual enclosed with your driveline for proper assembly, disassembly, lubrication, and operation- prior to startup and during operation.

REMEMBER:

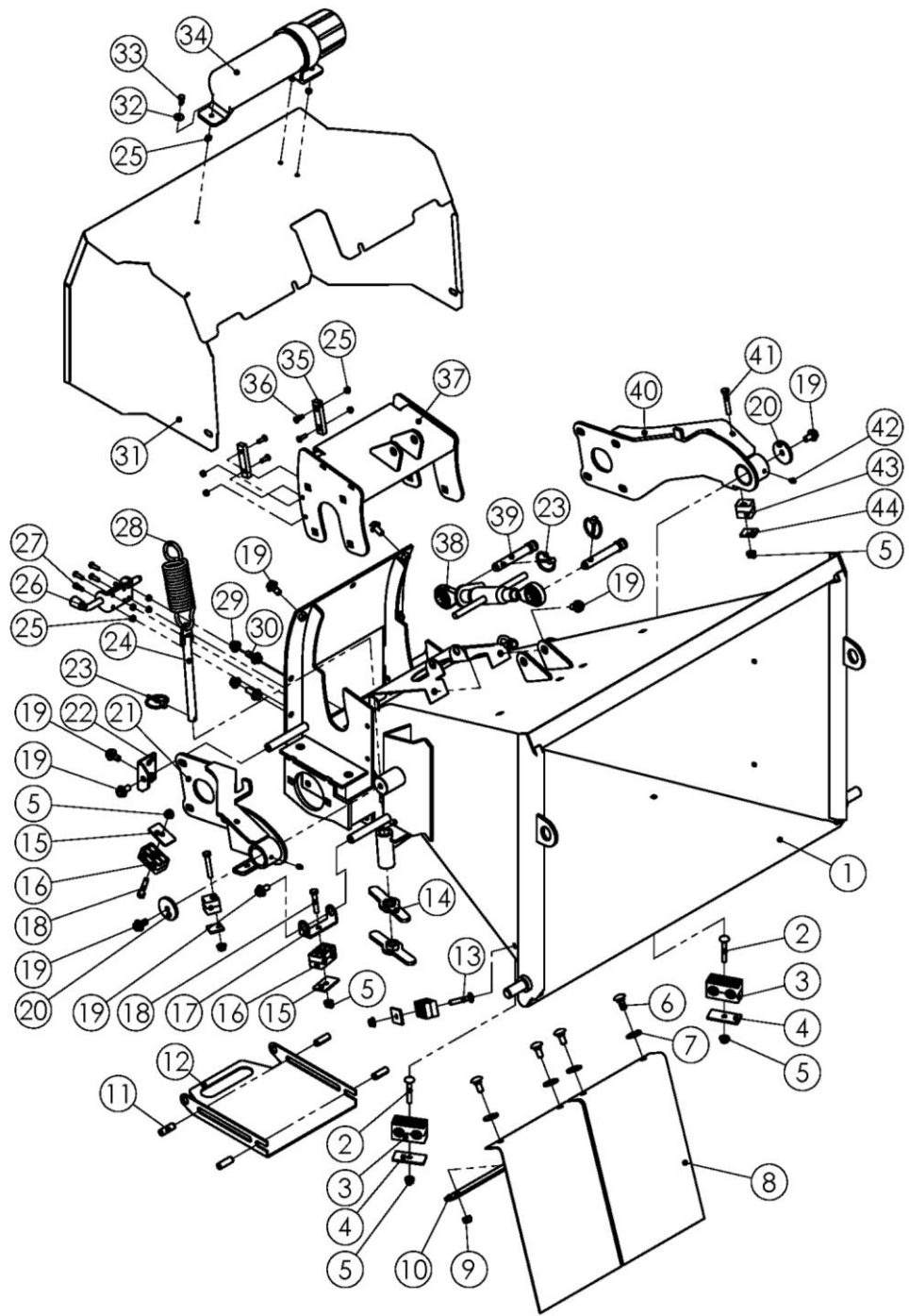
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Any portion of the driveline not shielded must be guarded by an interactive guarding system, the manufacturer of the equipment is responsible for providing guards. And replacement guard must be one which is specified by manufacturer.



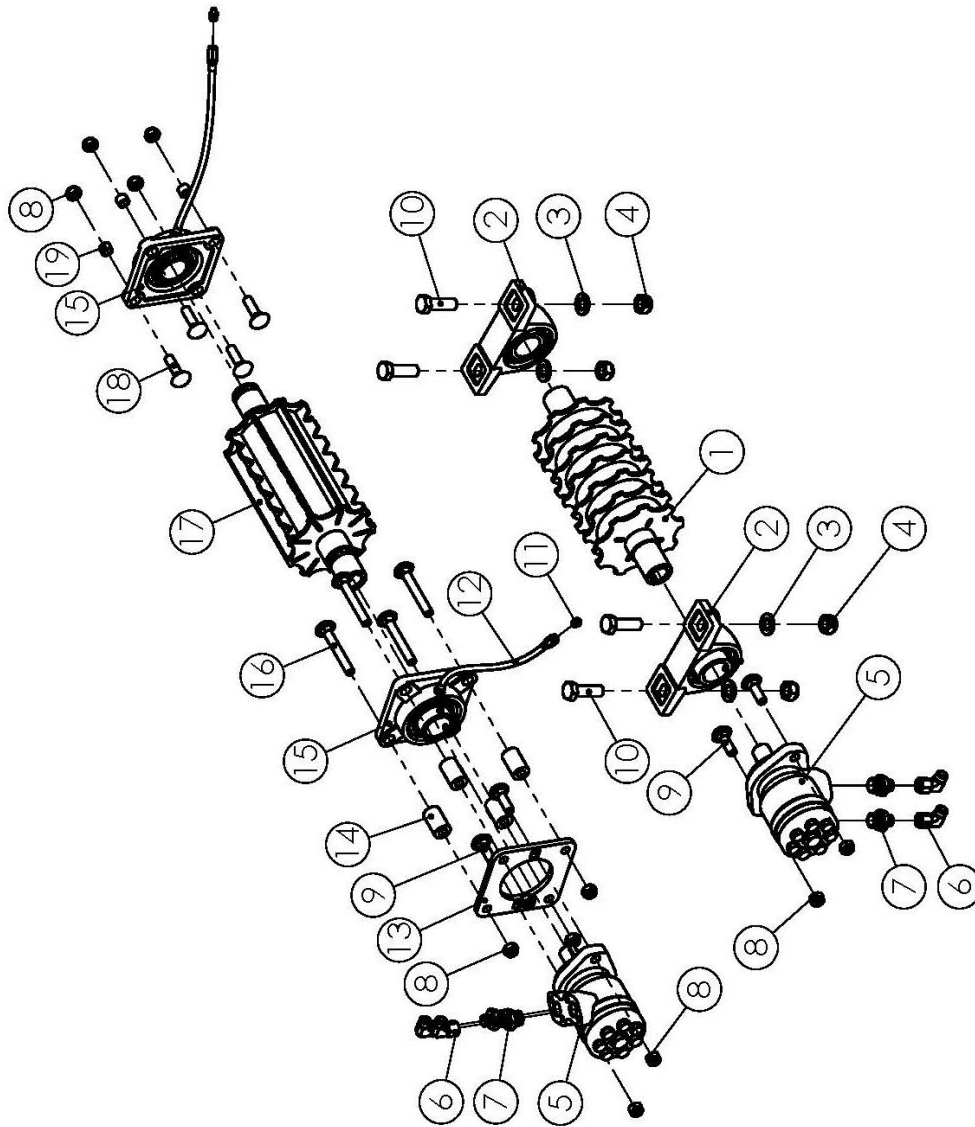
No.	SYS No.	Parts No.	Name and specification	QTY
1	808940036	WC52R-0014	Flywheel upper housing	1
2	501011125	GB5783-M12X25	bolt	2
3	503010763	DIN985-M12	Lock nut	4
4	708940145	WC52R-0103	cover	1
5	501012479	GB5789-M8X16	bolt	4
6	503010761	DIN985-M8	locknut	4
7	809380001	WC52R-0012A	Flywheel lower housing	1
8	503010052	GB6170-M22	nut	2
9	506030042	GB93-22	Spring washer	2

10	700080010	200. 56. 011	Combined pins	3
11	708940144	WC52R-0102	Upper rod pin shaft	2
12	501011126	GB5783-M12X30	bolt	2
13	808940092	WC52R-0019	bracket	1
14	506010057	GB97. 1-12	Plain washer	2
15	708940147	WC52R-0105	Lock pin	1
16	508011517	GB879. 1-5X35	pin	1
17	808940004	WC52R-0011	Base	1
18	501040599	GB794-B-M12X30	bolt	4
19	503010225	GB6177. 1-M12	nut	4
20	708940168	WC52R-0199	Adjustable blades	1
21	501011098	GB5783-M8X16	bolt	1
22	506010055	GB97. 1-8	Plain washer	3
23	503010099	GB6172. 1-M10	nut	4
24	704090049	WCX5-0102	Stationary blade	1
25	501060032	GB798-M10X80	bolt	2
26	708940148	WC52R-0108	Washer	2
27	506030035	GB93-8	Spring washer	2
28	501011102	GB5783-M8X35	bolt	2
29	706590295	1CT-18-08	Screw thread	2
30	708940183	CIT-04	One way valve	1
31	708940003	3C-18W	Transition joints M18X1.5	1
32	708940182	6C9-18LN	Joints	2
33	708940143	WC52R-0101	Lower rod pin shaft	1
34	501012537	GB5789-M16X35	Bolt	1



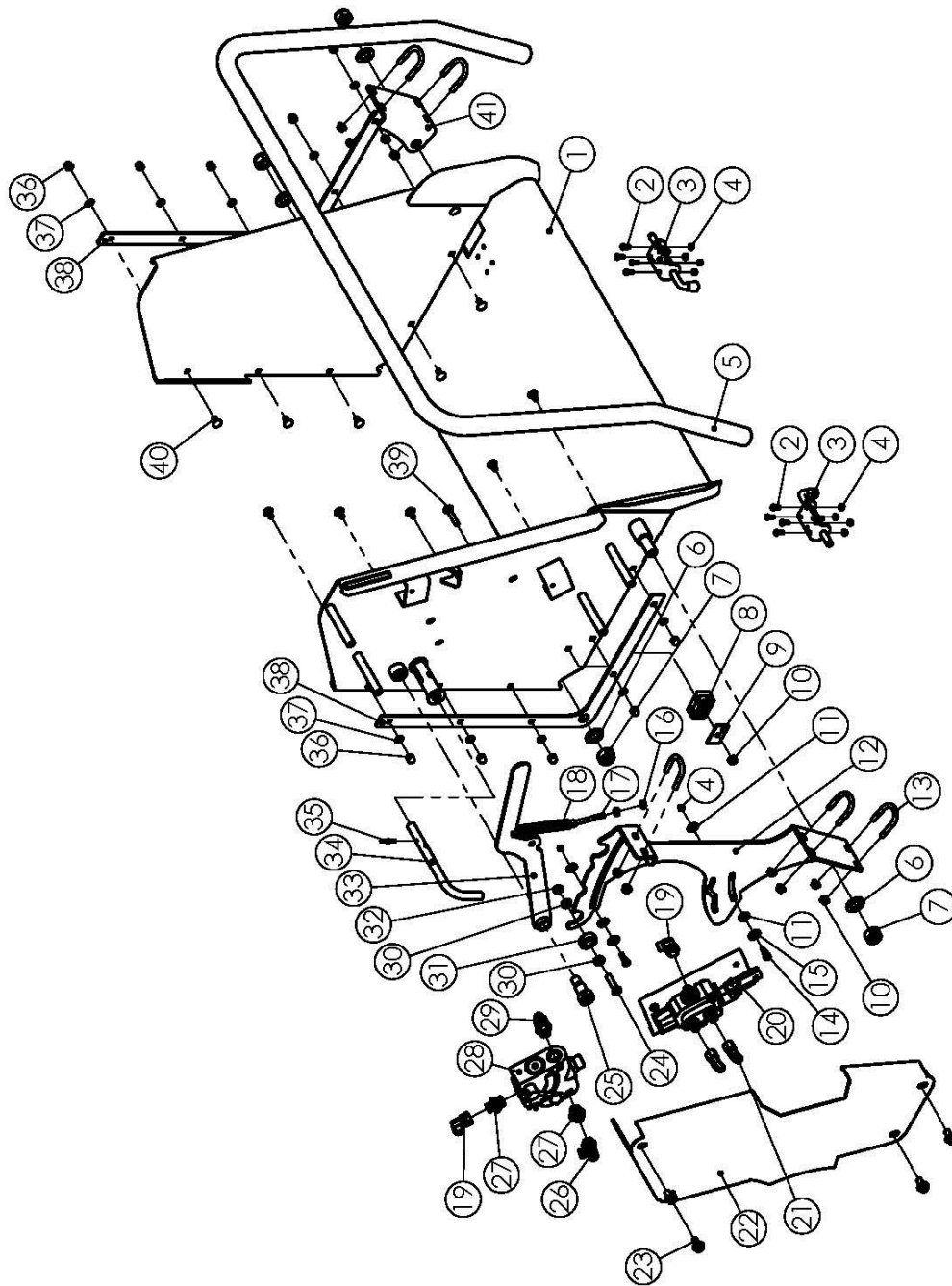
No.	SYS No.	Parts No.	Name & Specification	QTY
1	809380011	WC52R-0017A	Feed bucket	1
2	501040171	GB794-B-M8X55	bolt	2
3	704660021	QHTTPG-320	Pipe clamp	2

4	704660020	QHTT-G3	cover	2
5	503010223	GB6177. 1-M8	nut	7
6	501040502	GB12-M10X25	bolt	4
7	506010036	GB96. 1-10	Larger washer	4
8	704090052	WCX5-0107	plate	2
9	503010762	DIN985-M10	locknut	4
10	708940199	WC52R-0139	Pressure strip	1
11	508011621	GB879. 1-12X35	pin	4
12	708940151	WC52R-0114	plate	1
13	501040169	GB794-B-M8X45	bolt	1
14	808940130	WC52R-0029	nutM16	4
15	708940186	QHTT-G2	cover	3
16	708940187	QHHTPG-217	Pipe clamp	3
17	708940155	WC52R-0119	plate	1
18	501011104	GB5783-M8X45	bolt	2
19	501012492	GB5789-M10X20	bolt	11
20	708940156	WC52R-0122	Retaining ring	2
21	808940119	WC52R-0026	Left arm	1
22	808940132	WC52R-0031	plate	1
23	704750007	1LTF-550-G11503	Combined pins	4
24	808940127	WC52R-0028	Adjusting rod	2
25	503010759	DIN985-M6	nut	11
26	708060048	GK-182	pin	1
27	505011648	GB70. 2-M6X20	screw	4
28	708940194	WC52R-0121	Tension spring	2
29	503010816	GB6177. 1-M10-10 级	nut	7
30	501012493	GB5789-M10X25	bolt	7
31	809380024	WC52R-0035A	Motor cover	1
32	506010034	GB96. 1-6	Larger washer	3
33	501011088	GB5783-M6X16	bolt	3
34	702410043	BH-6. 07. 092	Manuel bag	1
35	708940154	WC52R-0117	sleeve	2
36	505011710	GB70. 3-M6X20	bolt	4
37	809380022	WC52R-0025A	Roller braket	1
38	708940171	WC52R-0032	Adjusting rod	1
39	708940157	WC52R-0123	Adjusting rod pin shaft	2
40	808940123	WC52R-0027	Right arm	1
41	501011105	GB5783-M8X50	bolt	2
42	509010007	GB1152-M6	Oil cup	2
43	708940185	QHHTLPG-008	Pipe clamp	2
44	708940184	QHHTL-G0	Cover	2



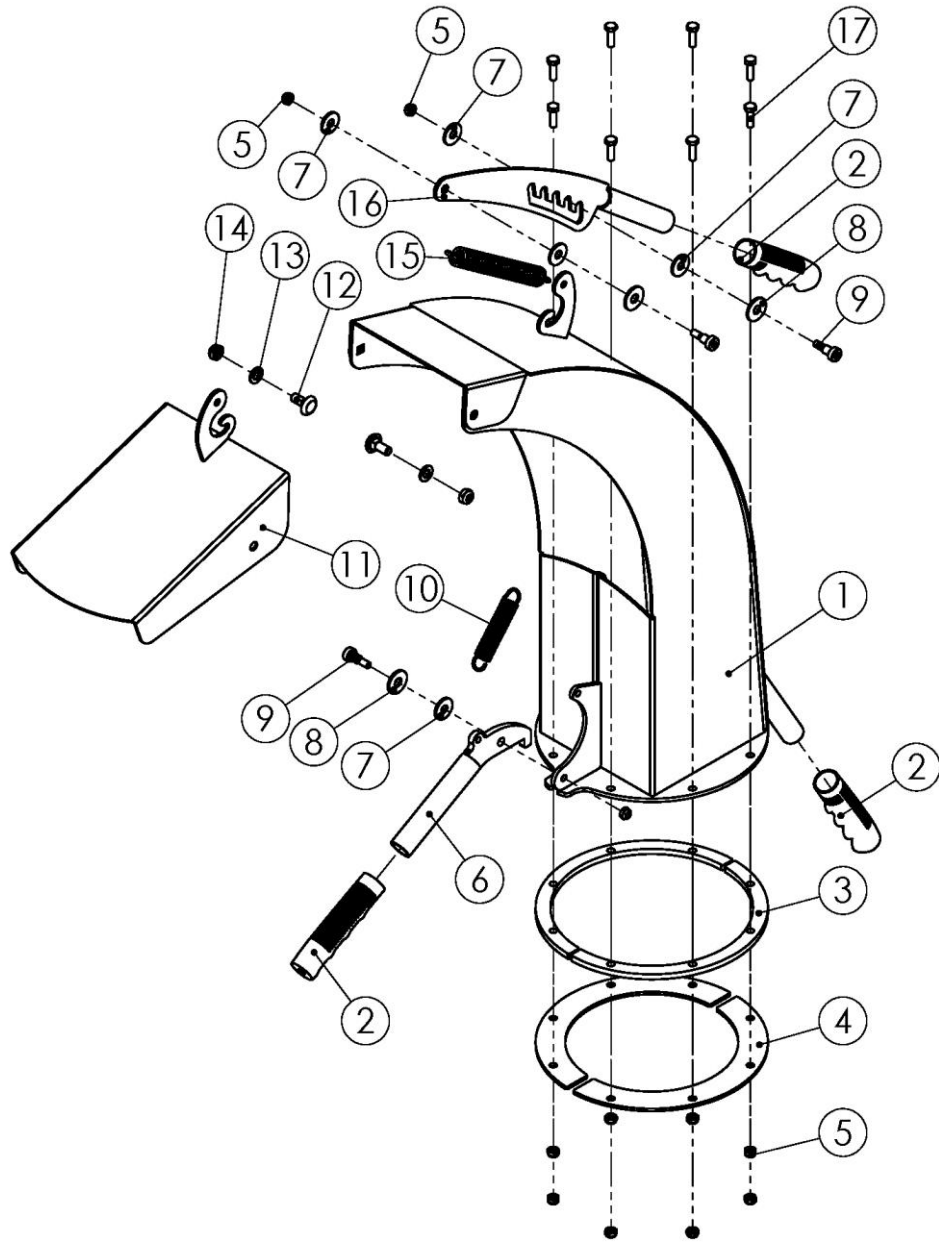
No.	SYS No.	Parts No.	Name& Specification	QTY
1	808940101	WC52R-0023	Lower roller	1
2	511040038	UCP208	bearing	2
3	506010059	GB97. 1-16	Plain washer	4
4	503010765	DIN985-M16	nut	4
5	708940179	155200A6310AAAAA	Hydraulic motor	2
6	708940001	2C9-16W	Elbow M16X1.5	4
7	704080304	1CG-16-08	oil joint	4
8	503010763	DIN985-M12	nut	12
9	501040602	GB794-B-M12X40	bolt	4
10	501011160	GB5783-M16X50	bolt	4
11	509010009	GB1152-M10X1	Oil cup	2

12	708940178	WC52R-0089	Guide pipe	1
13	708940152	WC52R-0115	Bearing plate	1
14	708940153	WC52R-0116	bushing	4
15	511040045	UCF208 (R1/8)	bearingUCF208(R1/8)	2
16	501040193	GB794-B-M12X90	bolt	4
17	808940107	WC52R-0024	Upper roller	1
18	501040186	GB794-B-M12X45	bolt	4
19	708940160	WC52R-0126	bushing	4



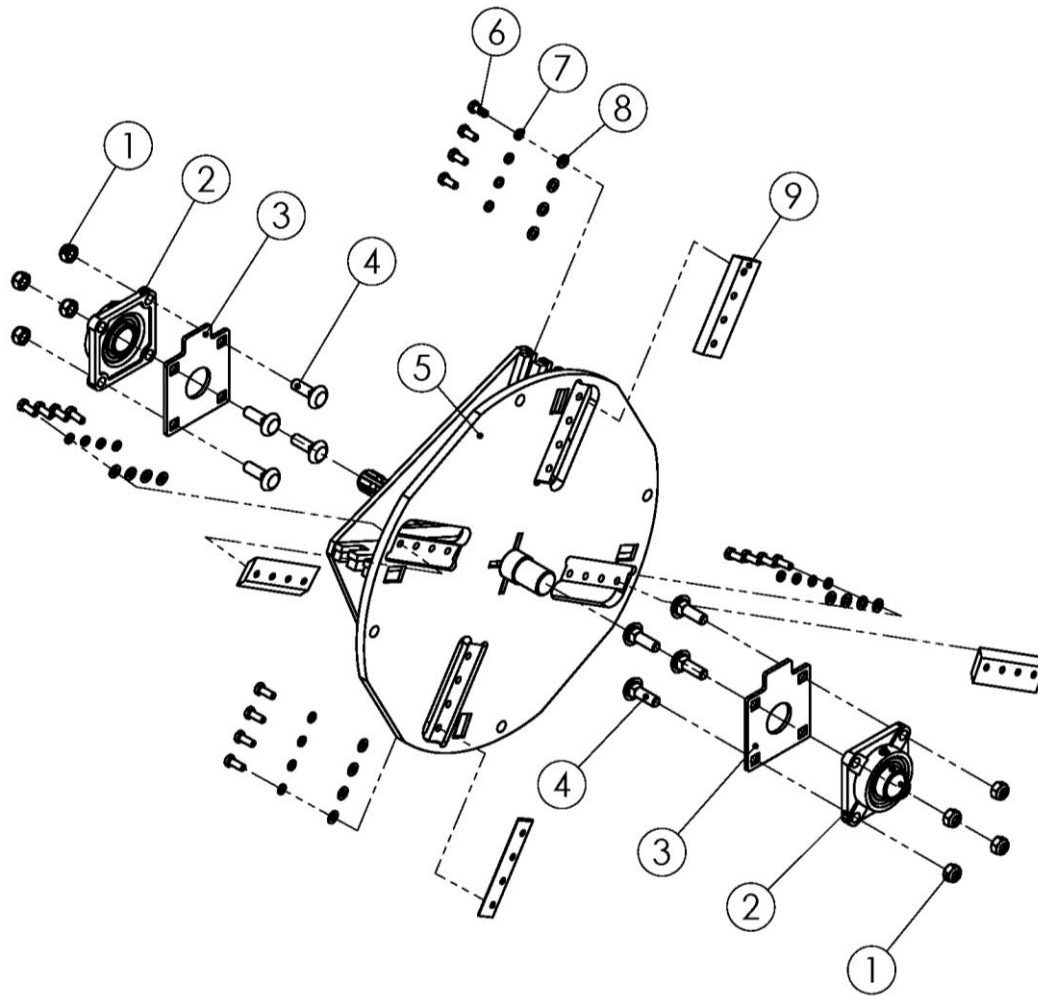
No.	SYS No.	Parts No.	Name& Specification	QTY
1	808940078	WC52R-0018	Folding bucket	1
2	505011647	GB70. 2-M6X16	screw	8
3	708060048	GK-182	pin	2
4	503010759	DIN985-M6	nut	10
5	708940166	WC52R-0136	Control rod	1
6	506010061	GB97. 1-20	Plain washer	4
7	503010767	DIN985-M20	nut	4

8	708940187	QHTPG-217	Pipe clamp	1
9	708940186	QH TT-G2	cover	1
10	503010223	GB6177. 1-M8	nut	11
11	708940161	WC52R-0129	Nylon washer 8	4
12	708940165	WC52R-0135	plate	1
13	708940164	WC52R-0134	U bolt M8	5
14	501084912	ISO7379-8X12-M6	bolt8X12-M6	2
15	506010035	GB96. 1-8	Larger plain washer	2
16	503010045	GB6170-M8	nut	2
17	501060024	GB798-M8X70	bolt	1
18	708940193	WC52R-0113	Tension spring	1
19	708940002	2C9-18W	Elbow M18X1.5	2
20	808940206	WC52R-0010A	Single Valve assembly	1
21	708940001	2C9-16W	Elbow M16X1.5	2
22	708940163	WC52R-0133	Valve cover	1
23	501012492	GB5789-M10X20	bolt	4
24	501011115	GB5783-M10X40	bolt	1
25	501084913	ISO7379-20X25-M16	Bolt20X25-M16	1
26	700870026	CC-18W	plug	1
27	705190067	1CB-18-08WD	Joint M18X1.5-G1/2X14	3
28	708940169	LKF-60-1/2NPT	Valve	1
29	708940181	2BC-06-18WD/W	joint	1
30	708940162	WC52R-0131	sleeve	2
31	511021658	GB276-6202-2Z	Beaing-2Z	1
32	503010762	DIN985-M10	locknut	1
33	808940134	WC52R-0033	handle	1
34	708940158	WC52R-0124	pin	1
35	508011517	GB879. 1-5X35	pin	1
36	503020124	GB923-M8	nut	10
37	506010055	GB97. 1-8	Plain washer	10
38	708940159	WC52R-0125	plate	2
39	501040169	GB794-B-M8X45	bolt	1
40	501040601	GB794-B-M8X16	bolt	10
41	708940167	WC52R-0137	plate	1

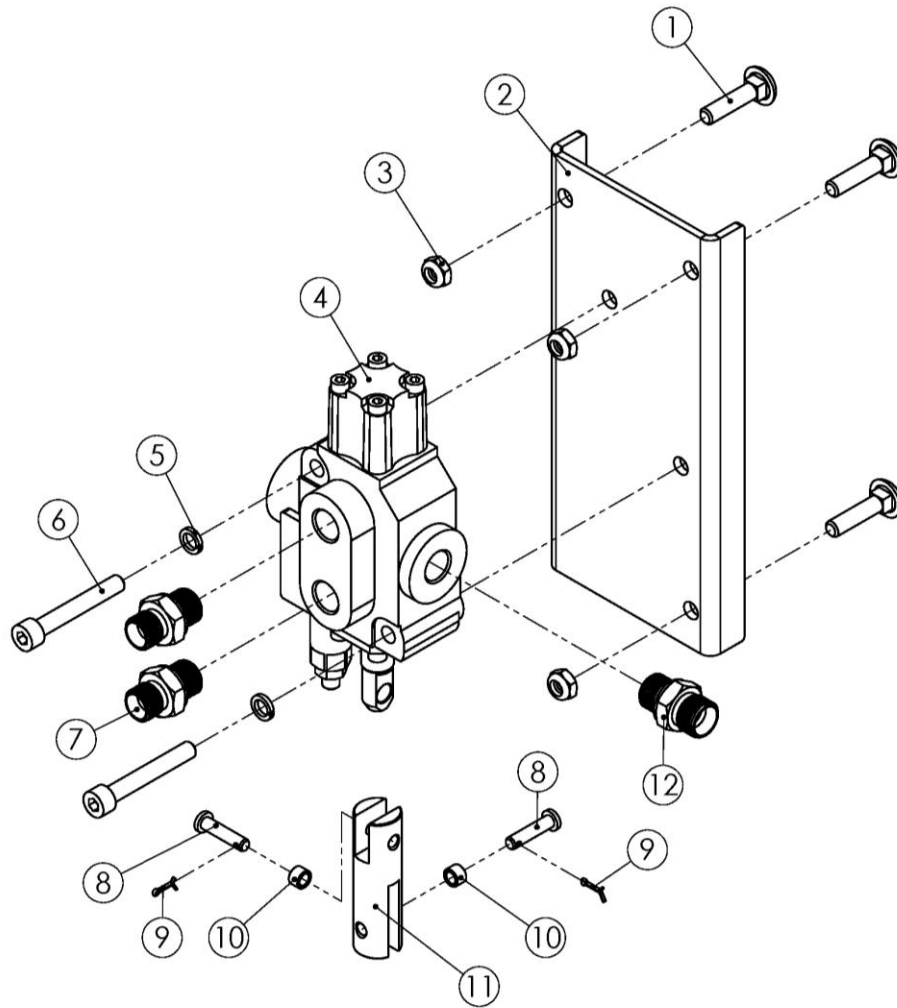


No.	SYS No.	Parts No.	Name& Specification	QTY
1	808940044	WC52R-0015	Discharge bucket	1
2	704070455	S26. 01. 103	Handle cover	3
3	708940150	WC52R-0111	baffle	2
4	708940149	WC52R-0109	plate	2
5	503010759	DIN985-M6	Lock nut	11
6	808940095	WC52R-0021	handle	1
7	708940161	WC52R-0129	Nylon washer 8	5
8	506010035	GB96. 1-8	Larger plain washer	3
9	501084914	ISO7379-8X10-M6	Bolt 8X10-M6	3
10	708940192	WC52R-0112	Tension spring	1
11	808940053	WC52R-0016	Protective cover weldment	1

12	501040600	GB794-B-M8X20	bolt	2
13	506010055	GB97. 1-8	Plain washer	2
14	503010761	DIN985-M8	locknut	2
15	708940193	WC52R-0113	Tension spring	1
16	808940098	WC52R-0022	plate	1
17	501011089	GB5783-M6X20	bolt	8

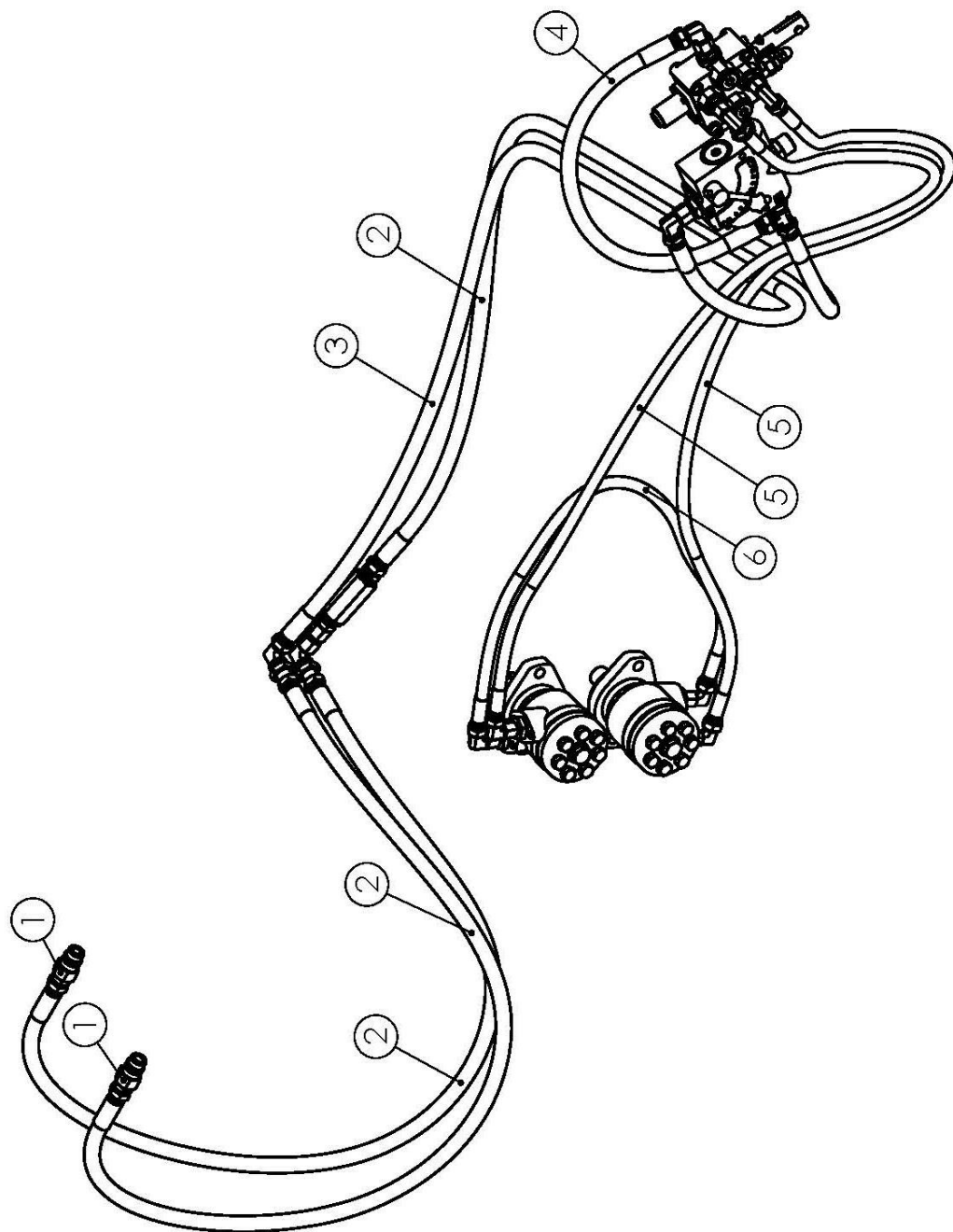


No.	SYS No.	Parts No.	Name & Specification	QTY
1	503010765	DIN985-M16	Lock nut	8
2	511040045	UCF208 (R1/8)	bearing	2
3	708940146	WC52R-0104	plate	2
4	501040603	GB794-B-M16X50	bolt	8
5	809380005	WC52R-0013A	Flywheel weldment	1
6	501011112	GB5783-M10X25	bolt	16
7	506030036	GB93-10	Spring washer	16
8	506010056	GB97. 1-10	Plain washer	16
9	704090048	WCX5-0101	Moving blade	4



No.	SYS No.	Parts No.	Name& Specification	QTY
1	501040167	GB794-B-M8X35	bolt	3
2	808940201	WC52R-0034A	Valve seat	1
3	503010761	DIN985-M8	Lock nut	3
4	708940200	MB-21S-3010001G3M1	Single valve	1
5	506030035	GB93-8	Spring washer	2
6	505011422	GB70. 1-M8X55	screw	2
7	702990148	1CB-16-06WD	Joint M16X1.5	2
8	508040424	GB882-B-6X26	Pin shaft	2
9	508050042	GB91-2X10	Cotter pin	2
10	708940188	WC52R-1002	roller	2
11	708940197	WC52R-1003	Pull rod	1
12	700250036	1CB-18-06WD	Joint M18X1.5	1

油管



No.	SYS No.	Parts No.	Name& Specification	QTY
1	703820055	QUICK-COUPLING-G1/2-G	Quick jointG1/2	2
2	809380029	WC52R-0083A	Return oil pipe	3
3	809380028	WC52R-0082A	Oil supply pipe	1
4	708940175	WC52R-0084	Valve oil return pipe	1
5	809380030	WC52R-0085A	Pipe from valve to motor	2

6	708940177	WC52R-0086	Inner motor oil pipe	1
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Value-Leader Brand 1 Year 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 1 Year from the date the product is purchased or shipped, whichever is later. Commercial use 180 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, tiups, 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.

PERMISSABLE BY APPLICABLE LAW, BETSTCO HEREBY DISCLAIMS ALL WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, ANY IMPLIED WARRANTIES WITH RESPECT TO THE PRODUCT PURCHASED, WITHOUT LIMITING THE GENERALITY OF THE FOREGOING, BETSTCO HEREBY EXPRESSLY DISCLAIMS ALL LIABILITY FOR PRODUCT DEFECT OR FAILURE, CLAIMS THAT ARE DUE TO NORMAL WEAR, PRODUCT MISUSE, ABUSE, PRODUCT MODIFICATION, IMPROPER PRODUCT SELECTION, NON-COMPLIANCE WITH ANY CODES, OR MISAPPROPRIATION. BETSTCO MAKES NO WARRANTIES TO THOSE DEFINED AS "CONSUMERS" IN THE MAGNUSON-MOSS WARRANTY FEDERAL TRADE COMMISION IMPROVEMENTS ACT. THE FOREGOING EXCLUSION OF IMPLIED WARRANTIES DO NOT APPLY TO THE EXTENT PROHIBITED BY LAW. PLEASE REFER TO YOUR LOCAL LAWS FOR ANY SUCH PROHIBITIONS.

THERE SHALL BE NO LIABILITY FOR PRODUCT LIABILITY OR LIABILITY ON THE PART OF BETSTCO FOR ANY GENERAL SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE SALE OR USE OF ANY PRODUCTS SOLD BY BETSTCO OR AN AGENT THEREOF, BETSTCO MAKES NO WARRANTIES, EXPRESS OR IMPLIED, (INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS OF THE PRODUCTS FOR ANY PURPOSE) WITH RESPECT TO THE PRODUCTS COVERED BY THIS AGREEMENT EXCEPT AS IN THIS PARAGRAPH OTHERWISE EXPRESSLY PROVIDED.

THIS IS THE SOLE AND ONLY WARRANTY OF VALUE-LEADER PRODUCTS, NO OTHER WARRANTY IS APPLICABLE, EITHE EXPRESSED OR IMPLIED, IN FACT BY LAW.

This warranty shall not be interpreted to render Betstco, or any authorized agent liable for injury or damages of any kind or nature, direct, consequential, or contingent, to a person or property.

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: _____ MODEL# _____ PURCHASE DATE: ____/____/____

PURCHASED FROM: _____ GIFT INV# ORDER# _____

OWNER NAME: _____ SERIAL # _____

OWNER ADDRESS: _____

CITY: _____ COUNTY: _____ ST: _____ ZIP: _____

PHONE: _____ EMAIL: _____

ACCEPTANCE OF RESPONSIBILITY:

I (PURCHASER) HAVE READ OPERATORS MANUAL AND LIMITED WARRANTY OR SOMEONE HAS READ/AND EXPLAINED ALL INSTRUCTIONS TO ME. I UNDERSTAND THIS WARRANTY DOES NOT COVER ANY LABOR AND THAT ALL DISPUTES WILL BE SETTLED BY BINDING ARBITRATION. BINDING ARBITRATION IS CONDUCTED BY THE BETTER BUSINESS BUREAU (BBB) LOCATED AT 4004 SW KRUSE WAY PLACE ST 375 LAKE OSWEGO OR 97035 OR THE CURRENT BBB LOCATION CLOSEST TO BETSTCO. I ACKNOWLEDGE MY LIMITED WARRANTY IS VOID IF ANY ATTEMPT TO REPAIR OR REPLACE DEFECTIVE PARTS HAS BEEN MADE BY UNAUTHORIZED PERSONNEL. I ACKNOWLEDGE RECEIPT OF MY OPERATORS MANUAL AND HAVE READ THE SAFE OPERATION SECTION. I ACKNOWLEDGE UNDERSTANDING MAINTENANCE AND SAFE OPERATION REQUIREMENTS, ITEM SPECIFICATIONS, OPERATION, CONTROLS AND STORAGE REQUIREMENTS. **I UNDERSTAND THAT IS ALONE AM RESPONSIBLE FOR PROPER MAINTENANCE, CARE AND SAFE OPERATION OF THIS VALUE-LEADER ITEM**

I (PURCHASER) AGREE THAT PERSONS NOT FAMILIAR WITH THE OPERATION OF THIS ITEM SHOULD NOT BE ALLOWED TO USE IT. CHILDREN ESPECIALLY SHOULD NOT OPERATE OR BE NEAR POWER PRODUCTS WHEN IN USE. ANYONE OPERATING VALUE-LEADER PRODUCTS SHOULD HAVE READ OPERATIONS MANUALS AND SAFETY MANUALS.

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 SIGNED WARRANTY REGISTRATION. IT IS THE RESPONSIBILITY OF THE PURCHASER TO ASSURE THAT REGISTRATION DOCUMENT IS RECEIVED BY BETSTCO.

**1 YEAR EXTENDED WARRANTY & REGISTRATION
VALUE LEADER IMPLEMENTS
BRANDED PRODUCTS
1 YEAR EXTENDED WARRANTY**

1 Year Extended Warranty amends to original Recorded Warranty Registration the time period of described coverage. Extended Warranty does not apply to consumable and Expendable Item as described in Product Warranty Registration.

This amendment does not affect any other part of recorded Warranty Registration or policy.

No one is authorized to alter, modify, or enlarge this Amendment to original recorded Warranty Registration

**EXTENDED REGISTRATION & PAYMENT MUST BE RECEIVED
WITHIN 30 DAYS OF PURCHASE DATE**

EXTENDED WARRANTY REGISTRATION

PRODUCT & MODEL # _____

SERIAL # _____

OWNER NAME : _____

BETSTCO INVOICE # _____

ACCEPTANCE OF RESPONSIBILITY:

I (PURCHASER) HAVE READ AND UNDERSTAND THE EXTENDED WARRANTY OR SOMEONE HAS READ AND EXPLAINED ALL THE ABOVE TO ME. I UNDERSTAND THIS EXTENDED WARRANTY DOES NOT COVER ANY LABOR. I HAVE FILED MY ORIGINAL WARRANTY REGISTRATION AND FULLY UNDERSTAND MY REQUIREMENTS. ***I UNDERSTAND THAT I ALONE AM RESPONSIBLE FOR PROPER MAINTENANCE, CARE AND SAFE OPERATION OF THIS TRACTOR IMPLEMENT.***

OWNERS SIGNATURE: x _____ **DATE:** ____/____/____

YOU MUST SIGN THIS WARRANTY AND MAIL OR FAX A COPY TO BETSTCO, 83371 MELTON RD, 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.

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PARTS REQUEST FORM

Phone: 541-895-3083

Email: cservice@betstco.com

Name: _____

Model Number: _____

Address _____

Serial Number: _____

City State Zip: _____

Purchased From: _____

Phone: _____

Purchase Date: _____

Email: _____

Item #	Description	QTY	Price	Amount

Comments: