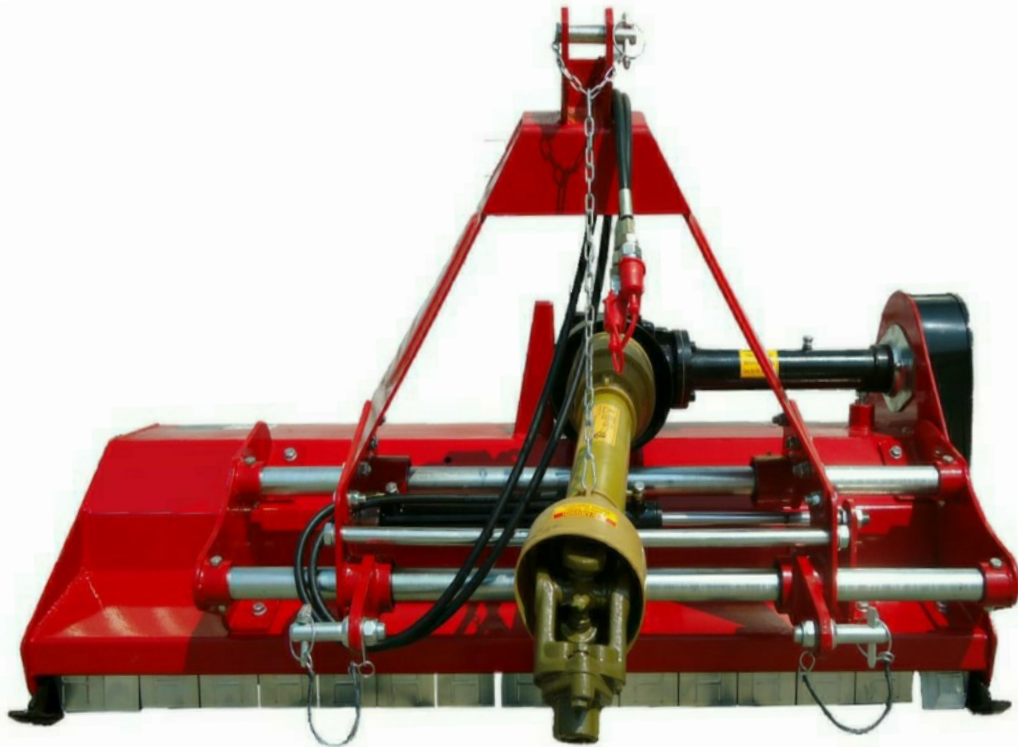


FLAIL MOWER EFGCH



FHM
FARMER-HELPER
MACHINERY COMPANY



Save This Manual for Future Reference

OPERATION & PARTS MANUAL

Please read these instructions carefully before using!

You must fill with oil before operating!

Uses Approximately 3 quarts 80-90 gear lube

GREASE ALL FITTINGS BEFORE OPERATING!

www.Betstco.com

Toll Free: 877-876-7895, E-mail: sales@betstco.com

83371 Melton Rd, Creswell OR 97426

BETSTCO



Rugged Labor Saving Equipment Since 1995

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1. INTRODUCTION

Before using your flail mower, read and understand this operation manual and the accompanying maintenance instructions. It contains important information which will help you observe proper safety precautions, get the most work from your flail mower and help prolong the life of your flail mower.

2. SETUP and ASSEMBLY INSTRUCTIONS

Your flail mower will arrive in a metal shipping frame. This frame can be dismantled to allow access to all parts of your mower.

See torque value chart at end of manual for all specific bolts being used.

Remove parts box, PTO driveline, side cover shield, hydraulic side shift control frame, and then mower from crate. See picture and verify parts, see picture at end of manual.

Attach storage stand and PTO shield as shown in picture at end of manual.

Attach hydraulic offset control frame as shown in picture at end of manual. Metal plates go on the underside of mower deck frame. Hint-Do not tighten nuts & bolts until all have been loosely assembled in their proper location.

Attach upper 3pt bracket as shown in picture at end of manual. Hint-Do not tighten nuts & bolts until all have been loosely assembled in their proper location. Tighten from top-down.

Attach 3Pt. lift pins as shown in picture at end of manual.

Lube grease points on mower and driveline (4 total points, use lithium base general purpose grease) see picture at end of manual

Before attaching side cover, check all axle bolts and pulley screws for tightness (see picture at end of manual). Verify belt deflection is $\frac{1}{4}$ " to $\frac{1}{2}$ " Attach side safety cover. 1 connecting bolt (see picture at end of manual).

Fill gear box with 80-90 gear oil (Approx. 1 Qt.) Fill to full plug level in gear box to the left side of PTO shaft. See picture at end of manual for more info.

Attach hydraulic lines to a source for actuating a hydraulic cylinder. Completely read the rest of manual before attaching PTO driveline and operating the mower.

Before Operation check all bolts, nuts, and zerks for tightness. Verify the tightness of all blade retaining bolts and nuts. Check all blades for free swinging action.

3. PTO DRIVESHAFT SAFETY TIPS

Your flail mower is shipped with a PTO driveshaft.

Always ensure that the PTO shaft is no more than 15 degrees of horizontal when operating.

-The following steps are recommended for safe operation of the driveshaft under field conditions.

-Test hitch angle to prevent the driveshaft 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.

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

-Specify and test torque limiters to control excessive shock.

-Where necessary, specify and test overrun clutches to prevent inertial loads from overpowering the tractor.

-Provide a means to support the drive shaft when it is disconnected from the tractor, to prevent damage during storage or transportation.

-Provided drive shaft is of shear design using a grade 5 bolt, if replacing this bolt do not use higher grade as this may cause damage to the PTO driveshaft, Implement, or your tractor.

-On drive shafts with torque-limiting or overrun devices, be sure to connect the device on the end of the drive shaft nearest the chipper.

-Provide a proper clearance zone for the operation of the driveshaft, to avoid damage to the shielding components.

-It is not recommended to use PTO adaptors which may defeat the purpose of the tractor's master shield and/or adversely affect the performance of the driveshaft.

4. PROTECTIVE GUARDS AND SHIELDS

Do not allow the flail mower to be operated without the side cover or fender deflector's properly in place.

PTO driveshaft should consist of a PTO master shield, integral driveshaft shield, and a mower input connection shield.

1. Follow all flail mower and tractor instruction labels and manuals. The flail mower should be used only with the tractor's PTO master shield in place.
2. Specify and test an integral driveshaft shield with end cones which will overlap, but not interfere with the PTO master shield or flail mower input connection shield.
3. A flail mower input connection shield should be used in addition to the integral driveshaft shield, in order to guard the shaft coupling and any torque limiting device installed on the driveshaft.
4. Check that all routine maintenance of the driveshaft can be done without removal of the shields.

5. SAFETY INSTRUCTIONS

Do not attempt to operate the flail mower until you have read and understood this manual. Always keep guards and flail mower shields properly installed while operating the flail mower.

Keep the decals in place and verify they are understandable. New labels can be ordered from Betst Power Equipment upon request. If your flail mower is repainted, be sure the labels and decals remain visible.

Never leave the flail mower running unattended.

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

Only use tractor of specified HP for your model flail mower as defined in the specifications.

Keep hands, feet and other extremities out of and away from the blade rotor area. When checking blades, EXERCISE EXTREME CAUTION! If accidentally rotated, the blade rotor can contain enough residual energy to cause serious injury.

Never allow anyone to stand beside or behind mower while operating. *Keep everyone, especially children and animals, away from the operation area.*

Anyone who has not read and understood this manual should not be in the area.

6. OPERATOR PROTECTIVE GEAR

The following protective clothing and gear is recommended when using your flail mower.

EYES	--	Wraparound 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 FLAIL MOWER

7. OPERATION CHECKLIST

CAUTION: Look under flail mower before operating to be sure the blade area is clear.

Make sure that:

- You have completed all steps of the assembly instructions
- The PTO shaft doesn't come apart or bottom out during the normal lifting range.
- There is no person around mower.
- Remove Tractor Drawbar

During and after operation, check the grass clippings or mulched limbs for size and quality of cut. It may be necessary to adjust the cutting height. See adjusting cutting height.

8. Flail Mower Connection and Operation

Remember that if flail mower blades are blunted they will not cut properly. Dirt, rocks, nails, or other foreign material will shorten blade life.

Always review the manual before operating the flail mower.

Operate mower in a safe well known area with the rear pointed away from doorways, sidewalks, or any areas where your view is obstructed or people may approach.

Only use 540 RPM PTO Selection, any other use will void the warranty and may cause severe damage to the gear box or mower.

Connecting to Tractor

Make sure there are no obstructions under the flail mower

Align lower link arms of tractor to hitch clevises on mower, Insert lower hitch pins into lower ball swivels and attach hitch pins.

Attach tractor top link to upper floating hitch on mower with pin supplied. Secure with lock pin.

Slide driveline end with shear system over the tractor's splined PTO shaft and secure it with locking device of driveline

Slide driveline end with twist system over the mower's splined PTO shaft and secure it with locking device of driveline.

Driveline should now be moved back and forth to ensure that it is secure on the PTO shaft of the tractor and mower gearbox.

When raising the mower to the transport position, be sure that driveline does not contact tractor or mower. Adjust and set the tractor's 3-point hitch lift height so that the driveline does not contact mower deck in the fully raised position.

When moving over paved or rock road way be sure mower is lifted off the surface.

To Begin Mowing

Clear the area to be mowed of objects and debris that might be picked up and thrown by the mower blades.

Grass is best cut when dry. Mowing wet grass can cause plugging resulting in grass clumps behind the mower.

Grass should be cut frequently as smaller clippings deteriorate faster.

If cutting extremely tall grass, it is best to raise the cutting height and mow the area, then lower the cutting height and mow a second time at the desired height.

To begin cutting, observe all safety guidelines in the manual.

Always check Gear Oil Level before mowing.

At low engine rpm's you may experience jerking in the mower, increase the engine rpm until there is no jerking.

Most cutting is preformed with the 3pt lift system in the float position.

If the blades are touching the surface while in float position, either adjust cutting height or raise mower with 3pt lift into fixed height position. See cutting height adjustment.

At first begin mowing at a slow forward speed. Mower knives will cut better at a faster blades speed and slower travel speed.

After mowing 50 feet, stop and check to see that the mower is adjusted properly for the cutting conditions.

Do Not make sharp turns or attempt to back up while the mower is on the ground.

Do Not engage PTO with mower fully raised off the ground.

Normal mowing speed will be between 2-5 mph and you will need to maintain tractor PTO speed to produce a clean cut so select a tractor gear and range that will maintain this combination. The quality of cut or degree of debris pulverization will be better at lower ground speeds and cutting denser ground cover or heavier brush may create the need to slow down. Remember to look back often.

7. CUTTING HEIGHT ADJUSTMENT

The flail mower cutting height depends upon the height of roller, height of adjustable skids, and length of top center link. See pictures at end of manual.

On uneven terrain the roller and skids should both be touching the surface of cutting area.

On even terrain the roller only needs to be touching the cutting surface.

On rough and rocky terrain it is recommend that you cut high with all parts of the mower 3" above the ground. To achieve lowest cutting height in this type of terrain, raise roller and skids so mower can be operated with 3 pt in fixed position, remember change in elevation may require you to adjust cutting height to ensure blades do not make contact with the surface.

To adjust height of roller or skids, remove bolts and nuts that affix them, lift or lower both sides in equal measurements, replace bolts and re-tighten. See picture at end of manual.

The top center link can also be used to adjust cutting height and aggressiveness of blades. In level grass areas the top link should be adjust so the mower sits on a slightly lifted horizontal plane. In dense or rough terrain the mower should sit in a slightly higher horizontal plane.

8. BLADE REPLACEMENT

The best way to tell if the blades need replacing is to watch the results of your mowing.

Dull blades cause many problems, including:

- Loss of cutting power
- Jamming or Plugging
- Rough cutting with more vibration than usual
- Rowing left in cut

To remove the blades, take the PTO shaft out of gear. Shut off the tractor and keep the keys in your pocket.

The blades are accessed underneath the mower.

Prop up mower with suitable device to hold the weight of the mower.

Inspect and remove/replace dull or missing blades.

9. BELT TENSION ADJUSTMENT

To adjust belt tension, take the PTO shaft out of gear. Shut off the tractor and keep the keys in your pocket.

The belts are accessed behind black side cover.

Prop up mower with suitable device to hold the weight of the mower.

Check the deflection of belts, should be between $\frac{1}{4}$ " and $\frac{1}{2}$ "

To adjust tension, loosen bolts and nuts as shown in picture at end of manual.

Then using support move gearbox and shaft horizontally to adjust tension, then adjust support bolt and lock nut to the adjusted height, see picture at end of manual.

Tighten all bolts and nuts that were loosed to adjust the tension.

10. LUBRICATION FREQUENCIES AND LOCATIONS

PTO SHAFT – 2 zerks on universal once a day with lithium based multipurpose grease.

ROTOR DRIVESHAFT – There is a zerk on each end of rotor shaft. Add multipurpose grease before each use. (2-3 Pumps)

GEAR BOX – Check level each time before operating, drain/fill as needed.

HYDRAULIC OFFSET ROD – Apply lithium grease to sliding shafts.

11. PREVENTIVE MAINTNANCE

Check all bolts & nuts after initial 4 hours of operation, and once per day thereafter before beginning operation.

Check belt tension 4 hours after initial operation, and every 24 hours of operation thereafter before beginning operation.

12.TROUBLESHOOTING

PROBLEM: *Belt Slipping*

<u>Possible Causes</u>	<u>Solution</u>
Rotor Shaft Area Clogged	Unplug and clean mower deck.
Pulley Sheaves Clogged/Dirty	Remove shield and clean sheaves
Belt Tension insufficient	Check and adjust belt tension
Travelling to fast	Reduce Travel Speed
Belt Worn	Replace Belt
Blades Dull	
Deck too flat	Reverse/Replace

PROBLEM: *Patches of Uncut Grass*

<u>Possible Causes</u>	<u>Solution</u>
Low Throttle	Increase Engine RPM
Travelling to fast	Reduce Travel Speed
Blades Dull	Reverse/Replace

PROBLEM: *Excessive Vibration*

<u>Possible Causes</u>	<u>Solution</u>
Missing Blades	Replace missing blades
Worn Drive Belt	Replace worn belt
Pulley Miss-Aligned/Damaged	Re-Align/Replace
Debris in Belt Area	Remove cover and clean area
PTO Driveline Bent	Replace Bent/Broken Parts
Engine Speed	Increase Engine Speed

PROBLEM: *Gear Box Noisy*

<u>Possible Causes</u>	<u>Solution</u>
Low Oil Level	Check and Fill with Oil

PROBLEM: *Knives Scalping Grass*

<u>Possible Causes</u>	<u>Solution</u>
Incorrect Cutting Height	Adjust Cutting height
Mowing Pattern	Change Mowing Pattern
Turning to Quickly	Reduce Speed during turns

PROBLEM: *Uneven Cut*

<u>Possible Causes</u>	<u>Solution</u>
Missing/Dull Blades	Remove/Replace Blades
Travelling to Fast	Reduce Travel Speed
Mower Not Level	Adjust 3Pt Linkage

PROBLEM: *Tractor Loaded Down by Mower*







<u>Possible Causes</u>	<u>Solution</u>
Low Engine Speed	Increase Engine Throttle
Travelling to Fast	Reduce Travel Speed
Blade Area Clogged	Clean Blade Area

13. PARTS AND FASTENERS

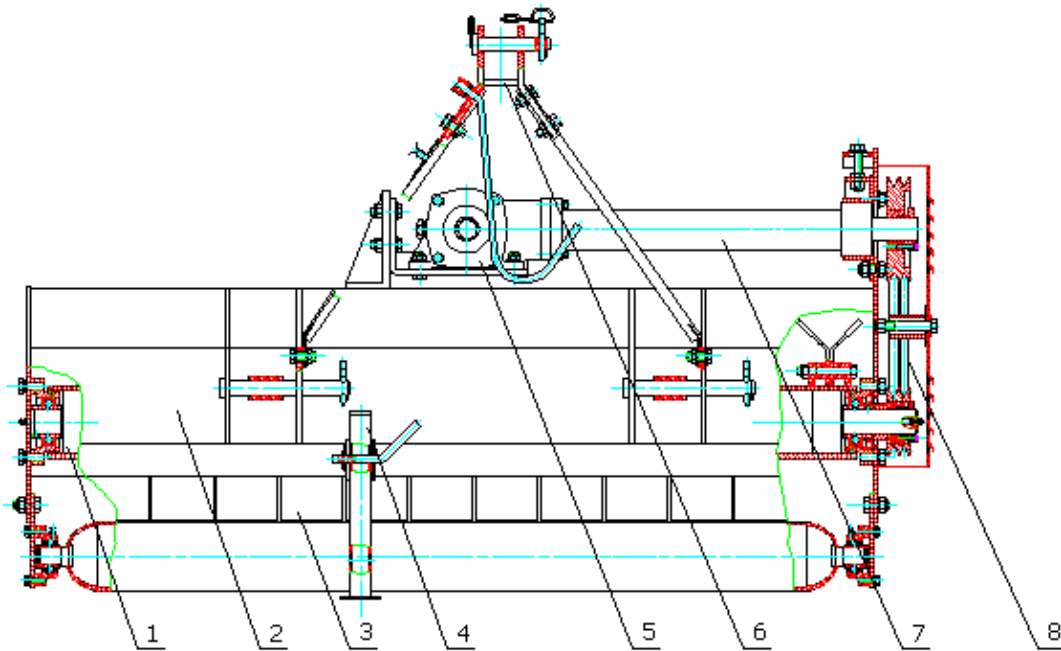
Your flail mower is designed for ease of maintenance. Replacement parts are available from Betst Power Equipment at 1-877-876-7895 or Support@Betstco.com Check the parts list for specification.

See Parts Diagrams at end of manual

Torque Values Chart

	Bolt Head Identification							Bolt Head Identification					
	 Grade 2		 Grade 5		 Grade 8			 Class 5.8		 Class 8.8		 Class 10.9	
in-tpi ¹	N · m	ft-lb ³	N · m	ft-lb	N · m	ft-lb	mm x pitch	N · m	ft-lb	N · m	ft-lb	N · m	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1 1/4" - 12	750	555	1680	1240	2730	2010	¹ in-tpi = nominal thread diameter in inches-threads per in. ² N · m = newton-meters ³ ft-lb= foot pounds ⁴ mm x pitch = nominal thread diameter in millimeters x thread pitch						
1 3/8" - 6	890	655	1990	1470	3230	2380							
1 3/8" - 12	1010	745	2270	1670	3680	2710							
1 1/2" - 6	1180	870	2640	1950	4290	3160							
1 1/2" - 12	1330	980	2970	2190	4820	3560							

1. Blade axle
2. Mower Housing
3. Combined Safety Fender
4. Support Leg
5. Gearbox Assembly
6. 3Pt Bracket
7. Transmission shaft
8. Pulleys and Belts





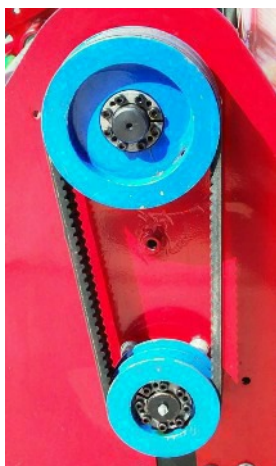
Parts Box Includes the following show in picture, you may receive extra parts that are not shown in the picture.



Attach Hydraulic Offset Frame, 3Pt Bracket, Storage Stand, and PTO Shield shown in picture



Lubrication Point on Lower Axle and Pulley Detail Picture





Fill Gear Box until oil comes out
plug on left side of PTO shaft



Next Fill Tube from Gear
Box to Belt Cover

Or



Grease Bearing at end of
Tube.

Bearings can take a lot of
Grease.



Roller and Skid Height Adjustment



Belt Tension Adjusting Points

Value Leader EFGCH Series Flail Mowers Specifications

SPEC	VL EFGCH 125	VL EFGCH 155	VL EFGCH175	VL EFGCH 195/200
Working Width	48"	60"	68"	77"
Overall Width 54"	54"	67"	75"	83"
Min. HP Req.	22 HP	25 HP	30 HP	35 HP
Hitch	Cat I	Cat I	Cat I	Cat I
Gear Box Rating	65 HP	65 HP	65 HP	65 HP
Cutting Offset	R 8" to L 8"	R 25" to R 9"	R 30" to 14R	R 30" to 14R
Hydraulic Side Movement	16"	16"	16"	16"
Standard Hammer Blades	20 Hammers	24 Hammers	28 Hammers	32 Hammers
Optional "Y" Rock Blades	40 Blades	48 Blades	56 Blades	64 Blades
Housing	Reinforced 8 Gauge	Reinforced 8 Gauge	Reinforced 8 Gauge	Reinforced 8 Gauge
SidePlate Thickness	1/4"	1/4"	1/4"	1/4"
Roller Dia.	4"	4"	4"	4"
Rotor Shaft Dia	4 1/2"	4 1/2"	4 1/2"	4 1/2"
Blade Swing	14"	14"	14"	14"
No. of Belts	2	3	3	3
3-pt Conn Width	19 3/4" - 27 1/2"	19 3/4" - 27 1/2"	19 3/4" - 27 1/2"	19 3/4" - 27 1/2"
PTO Driveline Type	Series 5 6-Spline w/ Shear Bolt	Series 5 6-Spline w/ Shear Bolt	Series 5 6-Spline w/ Shear Bolt	Series 5 6-Spline w/ Shear Bolt
Warranty	2 Year	2 Year	2 Year	2 Year
Weight	631 lbs	752 lbs	812 lbs	968 lbs
Crated Weight	661 lbs	782 lbs	842 lbs	1014 lbs

* If tractor is gear transmission this is PTO horsepower. If tractors transmission is hydro this is engine horsepower.

** This is maximum right side offset, can be 4.25" less

SafetyLabels

Your Flail Mower comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.

1. Keep all safety labels clean and legible.
2. Replace all damaged or missing labels. To order new labels contact Betst Products.
3. Some new equipment installed during repair requires safety labels to be affixed to the Replaced component assembly
4. Refer to this section for proper label placement.
To install new labels:
 - A. Clean the area where the label is to be placed.
 - B. Spray soapy water on the surface where the label is to be placed.
 - C. Peel backing from label. Press firmly onto the surface.
 - D. Squeeze out air bubbles with the edge of a credit card.

A



B



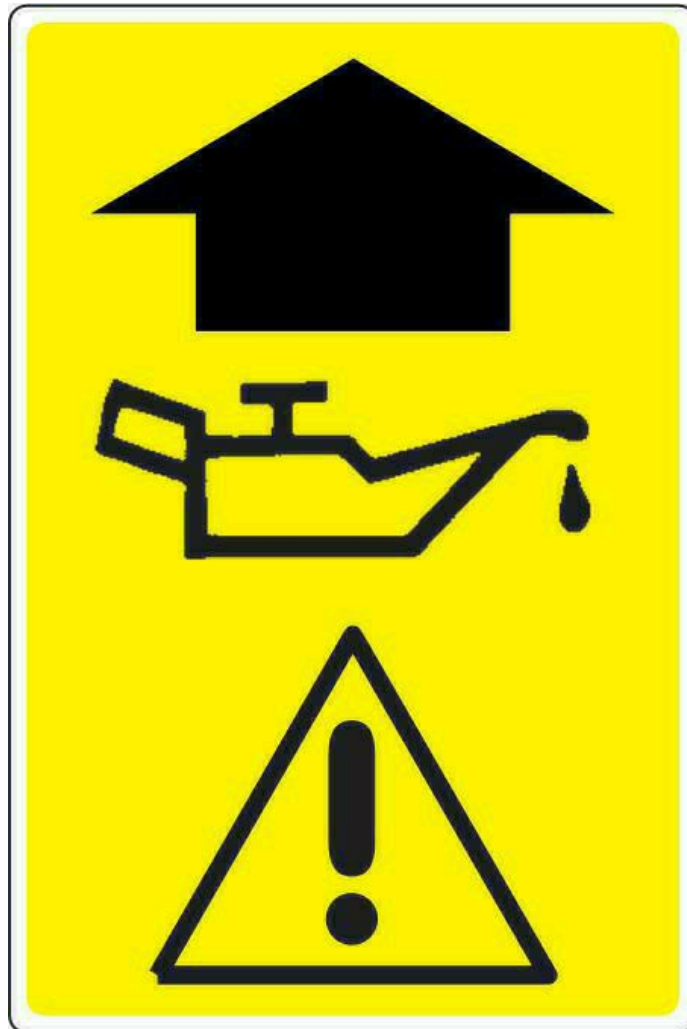
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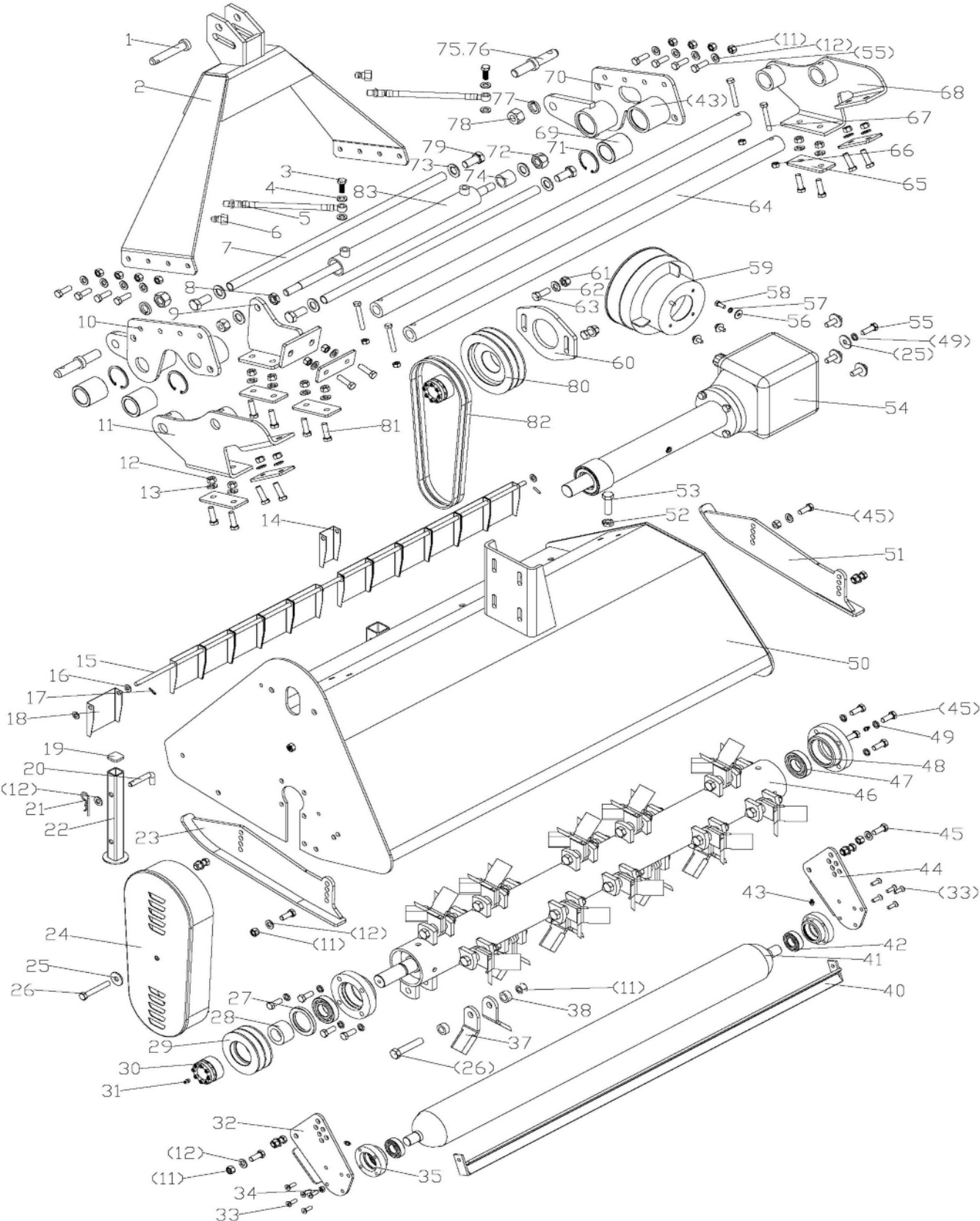
D



E



Farmer -Helper EFGCH Flail Mower Assembly



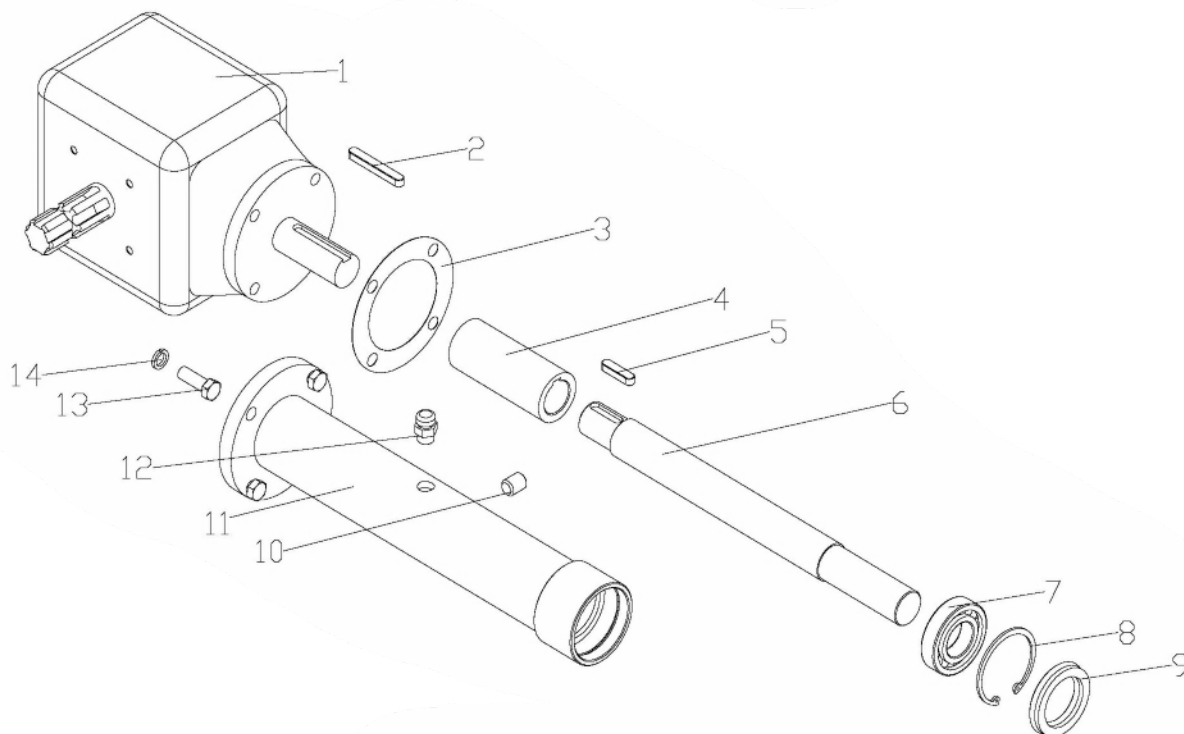
EFGCH Flail Mower Parts List

REF	PART NUMBER	DESCRIPTION	名称	QTY
1	EFGC125.123	Pin shaft	上拉杆销	1
2	EFGCH125.017	Hanging weldment	悬挂板焊合件	1
3	GB3451/M12X1.25X30	Bolt M12X1.25X30	铰接螺栓 M12X1.25X30	2
4	GB3451-86/12	Washer 12	铜垫圈 12	4
5	EFGCH125.012	Oil pipe	油管	2
6	EFGCH125.013	Quick connector R1/2"	快换接头 R1/2"	2
7	EFGCH125.106	Supporting tube	撑管	2
8	GB6173-86/M18X1.5	Nut M18x1.5	薄螺母 M18X1.5	1
9	EFGCH125.014	Cylinder seat	油缸座焊合件	1
10	EFGCH125.016	Slippage bracket(R)	右滑动挂板焊合件	1
11	EFGCH125.015	Connecting bracket(R)	右连接架焊合件	1
12	GB6184-86/M12	Locking nut M12	防松螺母 M12	50 (EFGCH125)
				46 (EFGCH105)
				54 (EFGCH145)
				54 (EFGCH155)
				58 (EFGCH165)
				58 (EFGCH175)
13	GB97.1-85/12	Plain washer 12	垫圈 12	53
14	EFGC125.114	Fender	挡板	1
15	EFGC125.104	Shaft for fender	挡板挂杆	1
16	GB97.1-85/10	Plain washer 10	垫圈 10	17 (EFGCH125)
				15 (EFGCH105)
				19 (EFGCH145)
				20 (EFGCH155)
				21 (EFGCH165)
				22 (EFGCH175)
17	GB879-86/4X22	Elastic cylindrical pin 4x22	弹性圆柱销 4X22	2
18	EFGC125.113	Fender	宽挡板	12 (EFGCH125)
				10 (EFGCH105)
				14 (EFGCH145)
				15 (EFGCH155)
				16 (EFGCH165)
				17 (EFGCH175)
19	EFGC125.112	Cover	端盖	1
20	1G135.00.107	Bent pin	支撑脚插销	1
21	EFGC125.110	R pin	R 销 3.2	1
22	EFGC125.111	Supporting frame	支撑脚	1

23	EFGC125. 014	Base plate (L)	左底座焊合件	1
24	EFGC125. 012	Belt cover	皮带轮防护罩	1
25	GB96-85/12	Plain washer 12	加大垫圈 12	5
26	GB5782-86/M12X1. 5X80	Bolt M12×1.5x80	螺栓 M12X1. 5X80	21 (EFGCH125)
				17 (EFGCH105)
				25 (EFGCH145)
				25 (EFGCH155)
				29 (EFGCH165)
				29 (EFGCH175)
27	GB13871-94/55X80X8	Oil seal FB55X80X8	油封 FB55X80X8	1
28	EFGC125. 116	Oil-sealing sleeve	油封套	1
29	EFGC125. 117	Small belt ptiley	小皮带轮	1
30	JB/T7934Z3/35X60	Swellable sleeve	涨套 REACH 04 型 35X60	2
31	GB1152-89/M8X1	Oil cup M8X1	油嘴 M8X1	2
32	EFGC125. 105	Supporting for roller (R)	右滚筒支撑板	1
33	GB2673-86/M8X25	Hex.head bolt M8X25	内六角花形沉头螺钉 M8X25	10
34	GB6184-86/M8	Locking nut M8	防松螺母 M8	2
35	EFGC125. 107	Bearing	法兰轴承座	2
37	EFGC125. 122	Blade	刀	40 (EFGCH125)
				32 (EFGCH105)
				48 (EFGCH145)
				48 (EFGCH155)
				56 (EFGCH165)
				56 (EFGCH175)
38	EFGC125. 119	Sleeve	刀座隔套	40 (EFGCH125)
				32 (EFGCH105)
				48 (EFGCH145)
				48 (EFGCH155)
				56 (EFGCH165)
				56 (EFGCH175)
40	EFGC125. 016	Mud shield	刮泥板焊合件	1
41	EFGC125. 017	Roller weldment	滚筒焊合件	1
42	UC205	Flange UC205	轴承 UC205	2
43	GB1152-89/M6	Oil cup M6	油嘴 M6	6
44	EFGC125. 106	Supporting for roller (L)	左滚筒支撑板	1
45	GB5783-86/M12X30	Bolt M12x30	螺栓 M12X30	23
46	EFGC125. 018	Blade axle weldment	刀轴焊合件	1
47	UC207-Z	Flange UC207-Z	轴承 UC207-Z	2

48	EFGC125. 115	Bearing	刀轴轴承座	2
49	GB93-87/12	Spring washer 12	垫圈 12	12
50	EFGC125. 011	The cover weldment	机罩焊合件	1
51	EFGC125. 015	Base plate (R)	右底座焊合件	1
52	GB6173-86/M16x1. 5	Nut M16x1.5	螺母 M16x1. 5	1
53	GB5786-86/M16X1. 5X50	Bolt M16X1.5X50	螺栓 M16X1. 5X50	1
54	EFGC125. 019	Gearbox assembly	传动箱总成	1
55	GB5783-86/M12X35	Bolt M12x35	螺栓 M12X35	12
56	GB96-85/8	Plain washer 8	加大垫圈 8	4
57	GB93-87/8	Spring washer 8	垫圈 8	4
58	GB5783-86/M8X20	Bolt M8x20	螺栓 M8X20	4
59	FM150. 120	Guard shade	传动轴罩	1
60	EFGC125. 120	Tension plate	张紧板	1
61	GB6184-86/M14	Locking nut M14	防松螺母 M14	2
62	GB97. 1-85/14	Plain washer 14	垫圈 14	2
63	GB5783-86/M14X35	Bolt M14x35	螺栓 M14X35	2
64	EFGCH125. 108	Guide rail	导轨	2
65	EFGC125. 103	Splint	夹板	7
66	GB6184-86/M10	Locking nut M10	防松螺母 M10	4
67	GB5782-86/M10X70	Bolt M10x70	螺栓 M10X70	4
68	EFGCH125. 019	Connecting bracket(L)	左连接架焊合件	1
69	EFGCH125. 107	Nylon bush	尼龙套	4
70	EFGCH125. 018	Slippage bracket(L)	左滑动挂板焊合件	1
71	GB893. 1-86/60	Circlip 60	挡圈 60	4
72	GB6184-86/M18X1. 5	Locking nut M18X1. 5	锁紧螺母 M18X1. 5	2
73	GB97. 1-85/18	Plain washer 18	垫圈 18	6
74	EFGCH125. 101	Sleeve	隔套	1
75	EFGCH125. 102	Lockpin	锁销	2
76	EFGCH125. 103	Pin for lifting	下悬挂销	2
77	GB97. 1-85/22	Plain washer 22	垫圈 22	2
78	GB6184-86/M22X1. 5	Locking nut M22X1. 5	锁紧螺母 M22X1. 5	2
79	GB5783-86/M18X40	Bolt M18X40	螺栓 M18X40	4
80	EFGC125. 121	Big belt ptiley	大皮带轮	1
81	GB5783-86/M12X40	Bolt M12×40	螺栓 M12X40	14
82	GB/T1154-97/A965	Strap SPB991	齿形 V 带 SPB991	2 (EFGCH105-125)
				3 (EFGCH145-165)
				4 (EFGCH175)
83	EFGCH125. 011	Slippage cylinder	滑移油缸	1

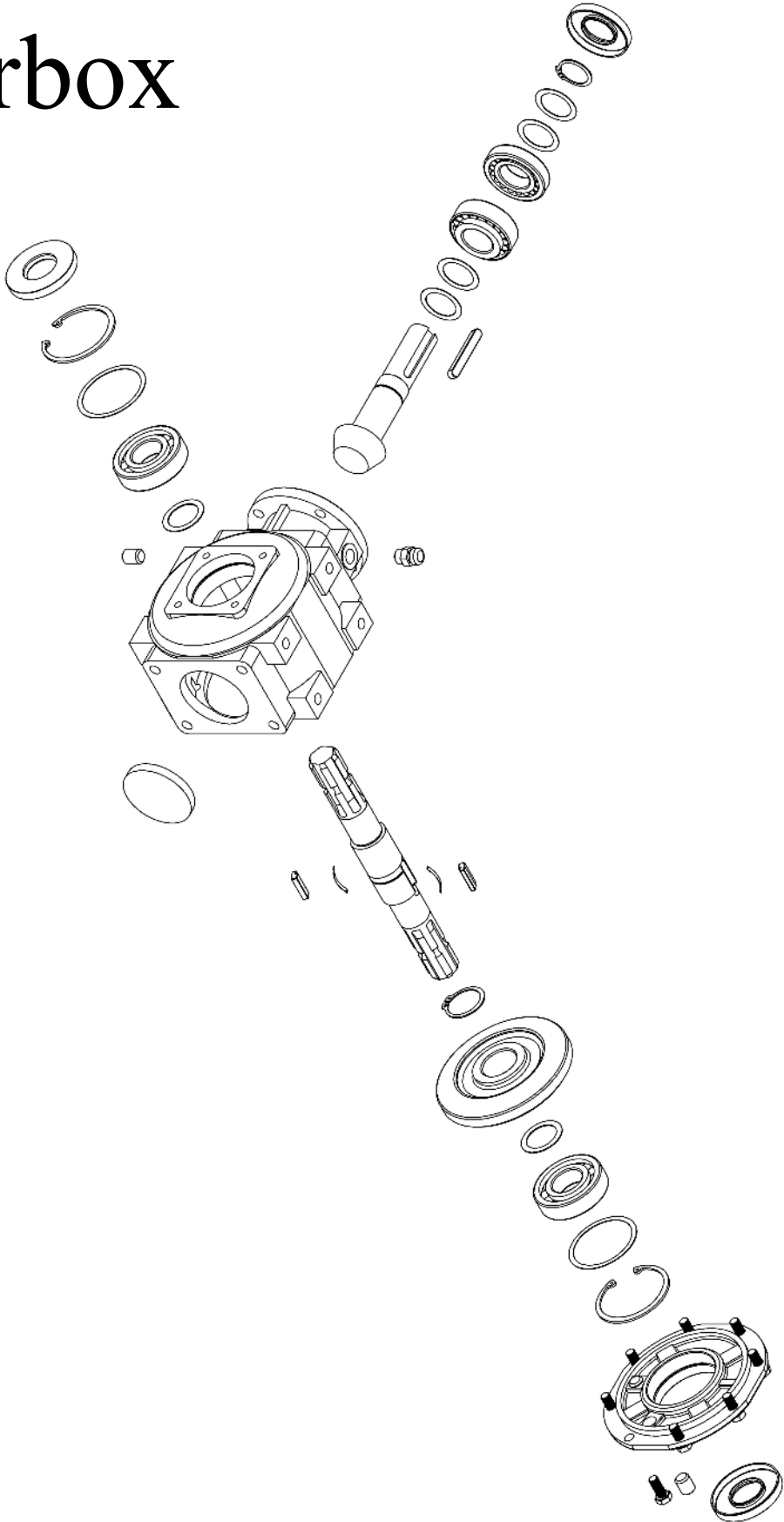
Gearbox Assembly

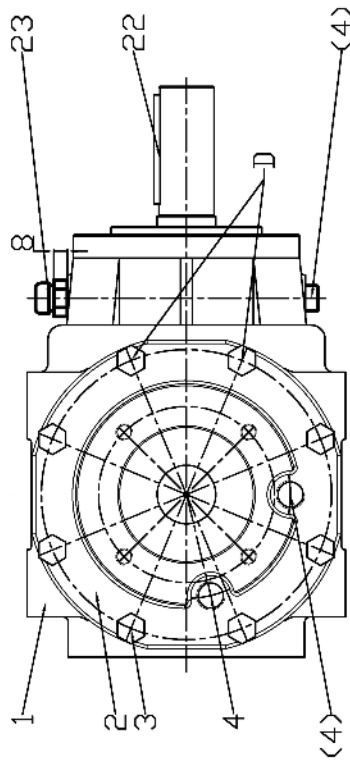


Gearbox Parts List

REF	PART NUMBER	DESCRIPTION	名称	QTY
1	XH50. 300Z. 02	Gearbox assembly	齿轮箱总成	1
2	GB1096-79/A10X70	Key A10X70	键 A10X70	1
3	EFGC125. 166	Paper gasket	纸垫	1
4	EFGC125. 167	Connected sleeve	连接套	1
5	GB1096-79/A10X40	Key A10X40	键 A10X40	1
6	EFGC125. 168	Shaft	轴	1
7	GB/T276-94/6207	Bearing 6207	轴承 6207	1
8	GB893. 1-86/72	Circlip 72	挡圈 72	1
9	GB13871-94/35X72X10	Oil seal 35×72×10	油封 FB35X72X10	1
10	ZBT 32001. 3-87	Retainer	内六角锥形螺塞 ZG3/8"-19	1
11	EFGC125. 020	Shaft tube weldment	轴管焊合件	1
12		Bolt of plug screw M16X1. 5	通气螺塞 M16X1. 5	1
13	GB5783-86/M12X35	Bolt M12X35	螺栓 M12X35	4
14	GB93-87/12	Spring washer 12	垫圈 12	12

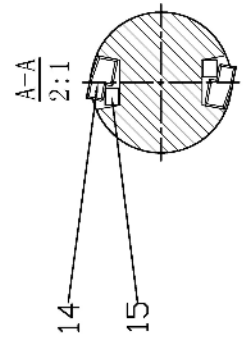
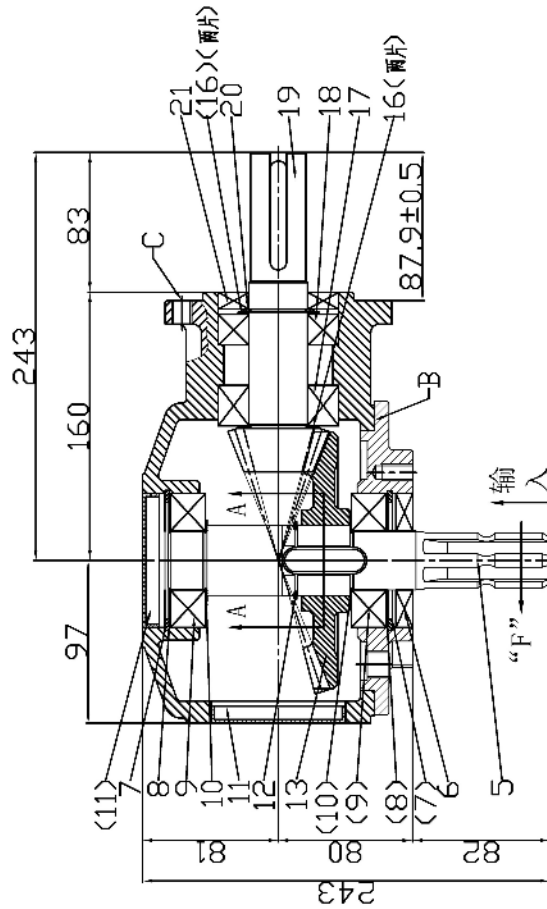
Gearbox





装配要求

- 1、齿轮侧隙0.13-0.35mm;
- 2、输出轴轴承预紧力矩(未装油封)1-4Kgcm;
- 3、输入轴轴承回隙0-0.2mm;
- 4、装箱盖时(位置B),螺栓(代号3)所需力矩5-6.4KgM;
- 5、在法兰盘(位置C)上上螺钉,无须拧紧;
- 6、装箱盖时,要使用硅脂密封胶(位置B);
- 7、装配完,向壳体内喷防锈油“Nucleoil 10”然后拧紧螺栓;
- 8、上螺栓时,要使用硅脂密封胶(位置D);
- 9、箭头“F”表示轴工作状态时的转向,俾齿轮在“F”反方向可以自由转动;
- 10、全数检测输出轴外伸尺寸(87.9±0.5)如图。



序号	代号	名称	数量	备注
23	EFGC125.169	螺栓ZG3/8"-19	1	备用,无图
22	GB1096-2003	键10X65	1	
21	GB9877.1-88	油封35X72X10	1	
20	GB894.1-89	衬压挡圈35	1	
19	T550.300Z.01.111	从动齿轮	1	
18	GB297-94	轴承30207	1	
17	GB297-94	轴承32207	1	
16	T550.300Z.01.110	小垫片0.7	4	
15	T550.300Z.01.109	垫片	2	
14	T550.300Z.01.108	键	2	
13	T550.300Z.01.107	主动齿轮	1	
12	GB894.1-89	衬压挡圈42	1	
11	T550.300Z.01.106	密封胶80X10	2	
10	T550.300Z.01.105	小垫片1	2	
9	GB276-94	轴承6307	2	
8	T550.300Z.01.104	大垫片0.7	2	
7	GB893.1-89	孔用挡圈80	2	
6	GB9877.1-88	油封35X80X10	1	
5	T550.300Z.02.103	输入轴	1	
4	ZBT 320013-87	衬套螺栓ZG3/8"-19	3	
3	GB5783-2000	蝶垫M10X25	8	8.8级
2	T550.300Z.01.102	箱盖	1	
1	T550.300Z.01.101	壳体	1	

216	196-225
214	121-147
212	77.5-90.1
210	48.1-55.8
208	23.6-27.4
规格 请见(公图)	

8.8级蝶垫扭矩表



FHM
FARMER-HELPER
MACHINERY COMPANY

Parts Request Form

Fax to 541-895-2756 or E-mail
 cservice@betstproducts.com

Name: _____

Address: _____

City State Zip: _____

Phone: _____

E-mail: _____

Model Number: _____
Serial Number: _____
Purchased From: _____
Purchase Date: _____

Item No.	Description	Qty	Price	Amount

Comments:

Farmer Helper Machinery Brand

LIMITED WARRANTY

FARMER HELPER MACHINERY CO. LTD. warrants to original Purchaser that FARMER HELPER MACHINERY CO. LTD. products are free from major defects in material under normal use and service for a period of Two (2) Years 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 (Examples: 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.

FARMER HELPER MACHINERY CO. LTD.'s obligation under this warranty is to repair or replace defective product. upon determination by; Betstco, 83371 Melton Rd. N., Creswell OR 97426 that Warranty Claim is Valid. Product shall be returned upon request of Betstco.

Transportation charges to be prepaid by buyer. **Gasoline or diesel engines used to powered**

FARMER HELPER MACHINERY CO. LTD. products are covered by the warranty of the appropriate engine manufacture and Purchaser must look to the engine manufacture for all issues relating to engine operation.

Farmer-Helper Machinery nor Betstco assumes any responsibility for labor.

PERMISSIBLE BY APPLICABLE LAW, FARMER HELPER MACHINERY CO. LTD. 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, FARMER HELPER MACHINERY CO. LTD. 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. FARMER HELPER MACHINERY CO. LTD.. MAKES NO WARRANTIES TO THOSE DEFINED AS "CONSUMERS" IN THE MAGNUSON-MOSS WARRANTY-FEDERAL TRADE COMMISSION IMPROVEMENTS ACT. THE FOREGOING EXCLUSIONS 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 FARMER HELPER MACHINERY CO. LTD. PRODUCTS. NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESSED OR IMPLIED, IN FACT OR 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 person or property.

The sole and only remedy in regard to any defective products 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.

Farmer-Helper Machinery reserves the right to make improvements in design or changes in specifications at any time, without incurring any obligations to owners of units previously sold.

No one is authorized to alter, modify, or enlarge this warranty nor the exclusions, limitations, and

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

FARMER HELPER MACHINERY REGISTRATION

Item _____ Model # _____ Purchase Date ____ / ____ / ____
Purchased From: _____ Gift Inv#/Order# _____
Owner Name: _____ Serial # (if Applicable) _____
Owner Address: _____
City: _____ County: _____ ST: _____ Zip Code: _____
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 Ste 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 I 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 FARMER-HELPER PRODUCTS SHOULD HAVE READ OPERATIONS MANUALS AND SAFETY MANUALS.

Owners Signature: x _____ **Date:** ____ / ____ / ____

You must sign this warranty and mail or fax copy to Betstco, 83371 Melton Rd N.#3, Creswell OR 97426. If you prefer you may complete your registration on line. This warranty is not effective unless the Purchaser completes Registration and Warranty Form within 30 days of purchase or ship date whichever is later.

Fax to 1-541-895-2756

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.

Betstco 541-895-308

Cservice@betstproducts.com

2 YEAR EXTENDED WARRANTY & REGISTRATION

Farmer Helper Machinery Branded Products

2 YEAR EXTENDED WARRANTY

2 Year Extended Warranty amends to original Recorded Manufacturers Warranty Registration the time period of described coverage. Extended Warranty does not apply to Consumable and Expendable Items as described in Product Warranty Registration.

This Amendment does not affect any other part of recorded Warranty Registration or Policy. This Warranty Extension is the soul responsibility of Betstco.

No one is authorized to alter, modify, or enlarge this addition to the original manufacturers 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.**

I (purchaser) also understand that persons not familiar with the operation of this equipment should not be allowed to use it. Children especially should not operate or be near equipment. ANYONE OPERATING EQUIPMENT SHOULD HAVE READ ALL EQUIPMENT OPERATIONS MANUALS AND SAFETY MANUALS..

Owners Signature: x _____

Date: _____

You must sign this extended warranty and email to cservice@betstproducts.com or Fax to 1-541-895-2756 or mail copy to Betstco, 83371 Melton Rd N.#3, Creswell OR 97426. This extended warranty is not effective unless the Purchaser faxes or mails this Registration Form within 30 days of purchase. NOTE: The manufacturer may refuse warranty of any kind unless Betstco receives a completed, legible and signed extended warranty registration. It is the responsibility of the purchaser to assure that this registration document is received by Betstco.

To Make Payment for Extended Warranty Call: 1-877-876-7895