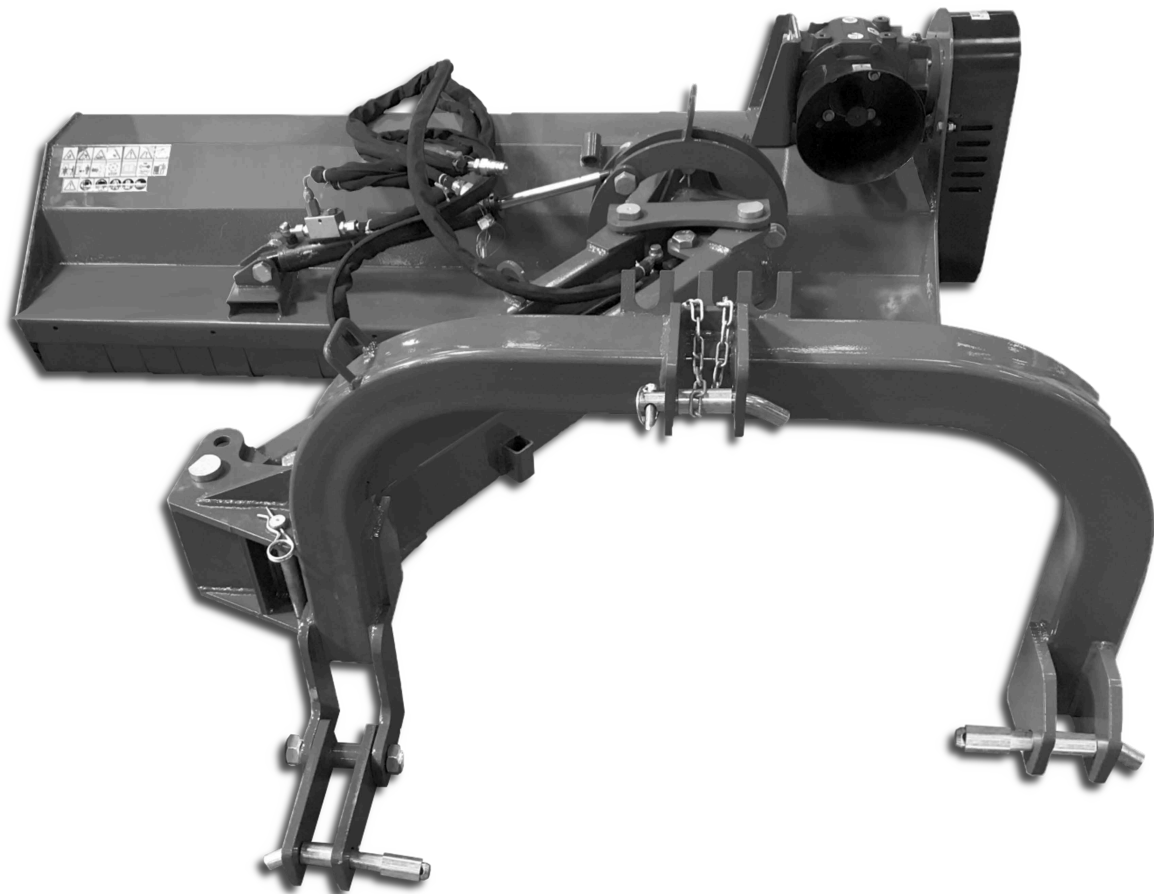




## Slope Flail Mowers

### BCRL & BCRM



## Operator's Manual

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**TO THE DEALER:**

Assembly and proper installation of this product is the responsibility of the Tar River dealer. Read manual instructions and safety rules. Make sure all items on the Dealer's Pre-Delivery and Delivery Check Lists in the Owner's/Operator's Manual are completed before releasing equipment to the owner.

**TO THE OWNER:**

Read this manual before operating your Tar River equipment. The information presented will prepare you to do a better and safer job. Keep this manual handy for ready reference. Require all operators to read this manual carefully and become acquainted with all the adjustment and operating procedures before attempting to operate. Replacement manuals can be obtained from your selling dealer. The equipment you have purchased has been carefully engineered and manufactured to provide dependable and satisfactory use. Like all mechanical products, it will require cleaning and upkeep. Lubricate the unit as specified. Observe all safety information in this manual and safety decals on the equipment. For service, your authorized Tar River dealer has trained mechanics, genuine Tar River service parts, and the necessary tools and equipment to handle all your needs. Use only genuine Tar River service parts. Substitute parts will void the warranty and may not meet standards required for safe and satisfactory operation.

Record your implement model and serial number in the space provide below. Your dealer will need this information to give you prompt, efficient service.

**Model Number:** \_\_\_\_\_

**Serial Number:** \_\_\_\_\_

**Date Purchased:** \_\_\_\_\_

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## Introduction

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Thank you for purchasing your Ditchbank Flail Mower. The Tar River hydraulic offset pivoting ditch bank flail mower is the ideal machine to maintain ditches or embankments around your property. Hook up to the standard 3 point like a normal flail mower that is pulled directly behind the tractor, but when in the full operating position, it will mow up to 90°, down to 50°. All models come standard with heavy hammer knives and a perfectly balanced rotor for a smooth operation.

## Technical Specifications

- Cat. 1 & 2 hitch
- Power coat paint
- Heavy cast hammer knives
- 3 & 4 belt configurations
- Adjustable height control rear roller

	<b>BCRL-135</b>	<b>BCRL-155</b>	<b>BCRM-175</b>
Working width	53"	61"	69"
Cutting angle	90° up & 30° down	90° up & 30° down	90° up & 50° down
Minimum HP	30 HP	35 HP	45 HP
Weight	664 lbs.	697 lbs.	1002 lbs.

## Important Safety Information

---

### Safety

It is important that you read the entire manual and to become familiar with this product before you begin using it. This product is designed for certain applications only. The manufacturer cannot be responsible for issues arising from modification. We strongly recommend this product not be modified and /or used for any application other than that for which it is designed. If you have any questions relative to a particular application, DO NOT use the product until you have first contacted us to determine if it can or should be performed on the product.

Read and understand this manual and all safety signs before operating and maintaining . Review the safety instructions and precautions annually.

### Safety Signal Words

**TAKE NOTE!** This safety alert symbol found though out this manual is used to call you attention to instructions involving you personal safety and the safety of others. Failure to follow these instructions can result in injury or death.



**This symbol means:  
Attention!  
Become alert!  
Your safety is involved!**

Note the use of the signal words, **DANGER, WARNING and CAUTION** with the safety messages. The appropriate signal word for each has been selected using the following guidelines:



**DANGER:** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.



**WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



**CAUTION:** Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

## Important Safety Information

---

### General Safety Guidelines

Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. Designers and manufacturers build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or for you, follow them.

Replace any **DANGER, WARNING, CAUTION** or instruction safety decal that is not readable or is missing. Location of such decals are indicated in this manual. Do not attempt to operate this equipment under the influence of drugs or alcohol.

Review the safety instructions with all users annually.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm machinery and trained in this equipment's operations. **Do not allow persons to operate or assemble this unit until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.**

To prevent injury of death, use a tractor equipped with a Roll Over Protection System (ROPS). Do not paint over, remove or deface any signs or warning decals on your equipment. Observe all safety signs and practice the instructions on them.

Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question - **Don't try it!**



### Safety Decal Care

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replaced parts that displayed a safety sign should also display the current safety sign
- Do not paint over, remove, or deface any safety signs or warning signs on your equipment.
- Observe all safety signs and practice the instruction on them.
- Safety signs are available from your Distributor or Dealer Parts Department or the factory.

## Important Safety Information

### How to install Safety Signs:

- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.





## Important Safety Information

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### Before Operation

- Carefully study and understand this manual.
- Do not wear loose-fitting clothing, which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- Assure that all tires are inflated evenly.
- Give the unit a visual inspection for any loose bolts, worn parts or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included with this manual.
- Be sure that there are no tools lying on or in the equipment.
- Do not use the unit until you are sure that the area is clear, especially of children and animals.
- Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with its operation before using.
- Use a tractor equipped with a Roll Over Protection System (ROPS) and fasten your seat belt prior to starting engine.
- The manufacturer does not recommend usage of tractor with ROPS removed.
- Move tractor wheels to the widest recommended settings to increase stability.
- Securely attach to towing unit. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach safety chain.
- Do not allow anyone to stand between the tongue or hitch and the towing vehicle when backing up to the equipment.
- Do not use the unit until you are sure that the area is clear, especially of children and animals.

## Important Safety Information

---



### During Operation

- Children should not be allowed on the machine.
- Clear the area of small children and bystanders before moving the machine.
- If using a towing unit, securely attach feeder by using a hardened 3/4" pin, a metal retainer, and safety chains if required. Shift towing unit to a lower gear before going down steep downgrades, thus using the engine as a retarding force. Keep towing vehicle in gear at all times. Slow down for corners and rough terrain.
- Make sure you are in compliance with all local and state regulations regarding transporting equipment on public roads and highways. Lights and slow moving signs must be clean and visible by overtaking or oncoming traffic when machine is transported.
- Beware of bystanders, **particularly children!** Always look around to make sure that it is safe to start the engine of the towing vehicle or move the unit. This is particularly important with higher noise levels and quiet cabs, as you may not hear people shouting.
- **NO PASSENGERS ALLOWED!** Do not carry passengers anywhere on, or in, the tractor or equipment, except as required for operation.
- Keep hands and clothing clear of moving parts.
- Do not clean, lubricate or adjust your equipment while it is moving.
- When halting operation, even periodically, set the tractor or towing vehicle brakes, disengage the PTO, shut off the engine and **remove the ignition key.**
- Be especially observant of the operating area and terrain. Watch for holes, rocks or hidden hazards. Always inspect the area prior to operation.
- **DO NOT** operate near the edge of drop-offs or banks.
- **DO NOT** operate on steep slopes as overturns may result.
- Operate up and down (not across) intermediate slopes. Avoid sudden starts and stops.

## Important Safety Information

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### Highway and Transport Operations

- Adopt safe driving practices.
- Keep the brake pedals latched together at all times. **Never use independent braking with machine in tow as loss of control and/or upset of unit can result.**
- Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed at a minimum.
- Reduce speed prior to turns to avoid the risk of overturning.
- Avoid sudden uphill turns on steep slopes.
- Always keep the tractor or towing vehicle in gear to provide engine braking when going downhill. Do not coast.
- Do not drink and drive!
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Use approved accessory lighting, flags and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport. Various safety lights and devices are available from your dealer.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway and marking requirements.
- When driving the tractor and equipment on the road or highway under 40 kph (20 mph) at night or during the day, use the amber warning lights and a slow moving vehicle (SMV) identification emblem.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated at lower than the gross weight at which you are operating.
- Watch for obstructions overhead and to the side while transporting.
- Always operate in a position to provide maximum visibility at all times. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.
- Pick the most level route when transporting across fields. Avoid the edges of ditches or gullies and steep hillsides.
- Be extra careful when working in inclines.

## Important Safety Information

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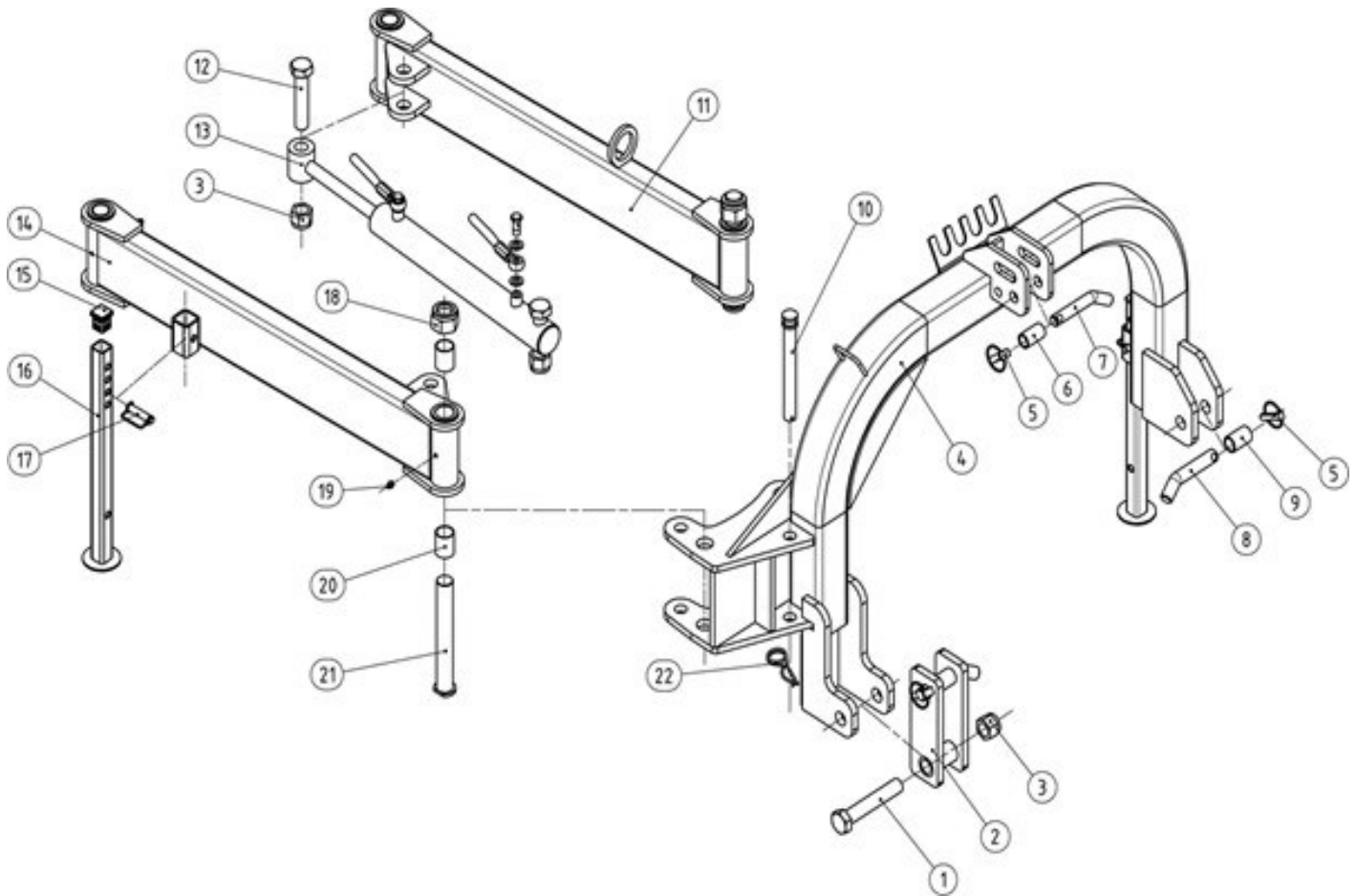


### Highway and Transport Operations

- Maneuver the tractor or towing vehicle at safe speeds.
- Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
- Avoid loose fill, rocks and holes, they can be dangerous for equipment operation or movement.
- Allow for unit length when making turns,
- Operate the towing vehicle from the operator's seat only.
- Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside of unit.
- Never leave running equipment attachments unattended.
- As a precaution, always recheck the hardware on equipment following every 100 hours of operation. Correct all problems. Follow the maintenance safety procedures.

## Assembly

- Carefully remove all parts from the crate.
- Assemble the pivot arm on the mower frame.
- Assemble the pivot arms to the “A Frame”.
- Assemble hydraulic hoses and cylinder.
- Attach front and rear protection bars.



## Assembly

### Attachment to the tractor

Carefully read this instruction manual and the manuals of the tractor to ensure all safety precautions are taken. All mowers are built to be attached to any tractor equipped with a three-point lift of the correct category and with suitable ball ends.

Before attaching the equipment to the tractor, make sure that the ground is smooth and flat and that no one is standing between the tractor and the mower. Slowly move the tractor towards the mower by aligning the tractor lift arms with the two mower coupling side pins. Turn the engine off and pull the brake.

Connect the tractor top link to the third upper point by removing the pin located between the two plates, inserting the top link, and securing it by means of the pin.

Adjust the top link so that the upper part of the frame is parallel to the ground. Block all the linking parts by means of the sway chains or arms.

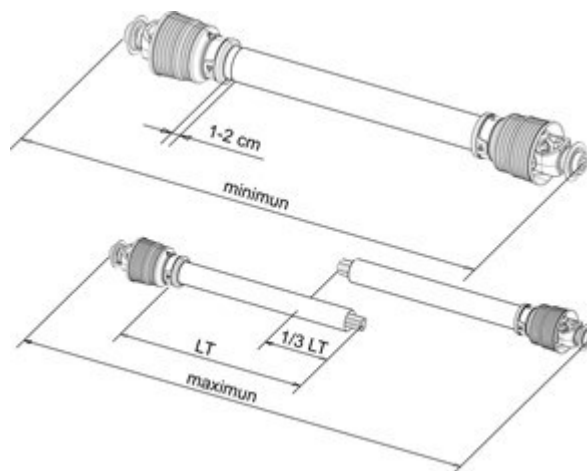
- Connect hydraulic quick couplings to the tractor
- Remove locking pivot pin
- Remove locking angling pin
- Adjust hydraulic flow control

Before installing the PTO shaft, make sure that the RPM rating and the direction of rotation match those of the tractor. Carefully read the PTO shaft and tractor instructions.

Furthermore, accurately read the instructions of the manufacturer of the PTO shaft and the tractor. Before starting any activity, make sure the guards are installed on the power take off of the tractor and PTO shaft. Make sure that they cover the PTO shaft throughout its length.

### Shortening a PTO driveline

1. With the implement attached to the tractor's 3-point hitch, and the PTO driveline not installed, separate the PTO driveline. Attach the implement end to the implement and the other end to the tractor PTO input shaft.
2. Raise the implement by using the tractor hydraulic 3-point hitch to its maximum height.
3. Hold the half shafts next to each other and mark them so each end is approximately 1/2" from hitting the end of the telescopic profiles.
4. Shorten the inner and outer guard tubes equally.
5. Shorten the inner and outer profiles by the same length as the guard tubes. Using a rattle file, round off all sharp edges and burrs. Grease the telescopic profile generously before reassembling.



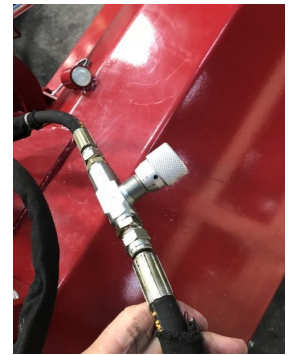
**When fully extended, the pipes must overlap by at least 1/3 of the length of the pipes (LT).  
When retracted, the min. acceptable clearance is 1-2 cm (3/8"-3/4").**

## Operating Instructions

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- Check oil level in the center gearbox.
- Check oil level in the drive tube.
- Check belt tension.
- Check rotor bearings on both sides.
- Check the PTO length (See PTO section).

### Pivot pin locking position



### Cutting height adjustment

The cutting height of the equipment depends on the position of the rear roller. Both sides are set at the same height.

To adjust the cutting height on the flail mowers, loosen the pivot bolt (do not remove) and reposition the bolts holding the roller to the desired height.



## Operating Instructions

---

### Belt tension adjustment

It is necessary to adjust the belt tension as the belts stretch. Correct belt tensioning ensures that the machine works properly.

To adjust the belts tension:

- Remove the belt shield.
- Loosen (do not remove hardware holding the gearbox support in place).
- Tighten belts by turning the nut on the belt adjustment plate.
- Retighten the gearbox support hardware.



**Remove belt shield**



**Adjustment nut**



## Operating Instructions

---

### Maintenance

Maintenance is crucial for the working life and efficiency of any agricultural equipment. If the equipment is properly maintained and operated, a long working life and operator safety are assured.

The maintenance intervals indicated in this manual are provided as a reference and are related to normal working conditions. Changes may occur depending on the type of activities, environmental dust, seasonal factors, etc.

#### Before beginning:

Check oil level in the center gearbox and the drive tube. Grease rotor bearings.

#### After 8 hours:

Check oil level in the center gearbox.  
Check hardware for tightness.

#### After 30 hours:

Check hardware for tightness.  
Check belt tension and wear.



**Center Gearbox**



**Drive Tube**



**Left Rotor Bearing**



**Right Rotor Bearing**

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Torque Specifications for Common Bolt Sizes															
Inches		Bolt Head Identification						Metric		Bolt Head Identification					
Bolt size (inches)	Thread pitch	Grade 2		Grade 5		Grade 8		Bolt size (metric)	Thread pitch	Class 5.8		Class 8.8		Class 10.9	
		N.m	ft-lb	N.m	ft-lb	N.m	ft-lb			N.m	ft-lb	N.m	ft-lb	N.m	ft-lb
1/4"	20	7	5	11	8	16	12	M5	0.08	4	3	6	4	9	7
1/4"	28	8	6	13	10	19	14	M6	1	6	4	10	7	15	11
5/16"	18	15	11	24	17	33	25	M8	1.25	16	12	25	18	36	27
5/16"	24	17	13	26	19	37	27	M8	1	17	13	26	19	38	28
3/8"	16	27	20	42	31	59	44	M10	1.5	31	23	48	35	71	52
3/8"	24	31	23	47	35	67	49	M10	1.25	33	24	51	38	75	55
7/16"	14	43	32	67	49	95	70	M10	1	35	26	53	39	78	58
7/16"	20	48	36	75	55	106	78	M12	1.75	54	40	84	62	123	91
1/2"	13	66	48	102	75	144	106	M12	1.5	56	41	87	64	128	94
1/2"	20	75	55	115	85	163	120	M12	1.25	59	44	90	66	133	98
9/16"	12	95	70	147	109	208	154	M14	2	84	62	133	98	195	144
9/16"	18	106	79	164	121	232	171	M14	1.5	94	69	142	105	209	154
5/8"	11	132	97	203	150	287	212	M16	2	131	97	206	152	302	223
5/8"	18	149	110	230	170	325	240	M16	1.5	141	104	218	161	320	236
3/4"	10	233	172	361	266	509	376	M18	2.5	181	133	295	218	421	310
3/4"	16	261	192	403	297	569	420	M18	2	196	145	311	229	443	327
7/8"	9	226	167	582	430	822	606	M18	1.5	203	150	327	241	465	343
7/8"	14	249	184	642	473	906	668	M20	2.5	256	189	415	306	592	437
1"	8	339	250	873	644	1232	909	M20	1.5	288	212	454	335	646	476
1"	12	371	273	955	704	1348	995	M22	2.5	344	254	567	418	807	595
1-1/8"	7	480	354	1077	794	1746	1288	M22	1.5	381	281	613	452	873	644
1-1/8"	12	539	397	1208	891	1958	1445	M24	3	444	327	714	526	1017	750
1-1/4"	7	677	500	1519	1120	2463	1817	M24	2	488	360	769	567	1095	808
1-1/4"	12	750	553	1682	1241	2728	2012	M27	3	656	484	1050	774	1496	1103
1-3/8"	6	888	655	1992	1469	3230	2382	M27	2	719	530	1119	825	1594	1176
1-3/8"	12	1011	746	2268	1673	3677	2712	M30	3.5	906	668	1420	1047	2033	1499
1-1/2"	6	1179	869	2643	1949	4286	3161	M30	2	1000	738	1600	1180	2250	1659
1-1/2"	12	1326	978	2974	2194	4823	3557	M36	4	1534	1131	2482	1830	3535	2607

**Notes:**

This chart is an approximate estimate of torque values.

Always tighten hardware to these values unless a different torque value or tightening procedure is listed for a specific application.

Fasteners must always be replaced with the same grade as specified in the manual.

Always use the proper tool for tightening hardware: SAE for SAE hardware and Metric for Metric hardware.

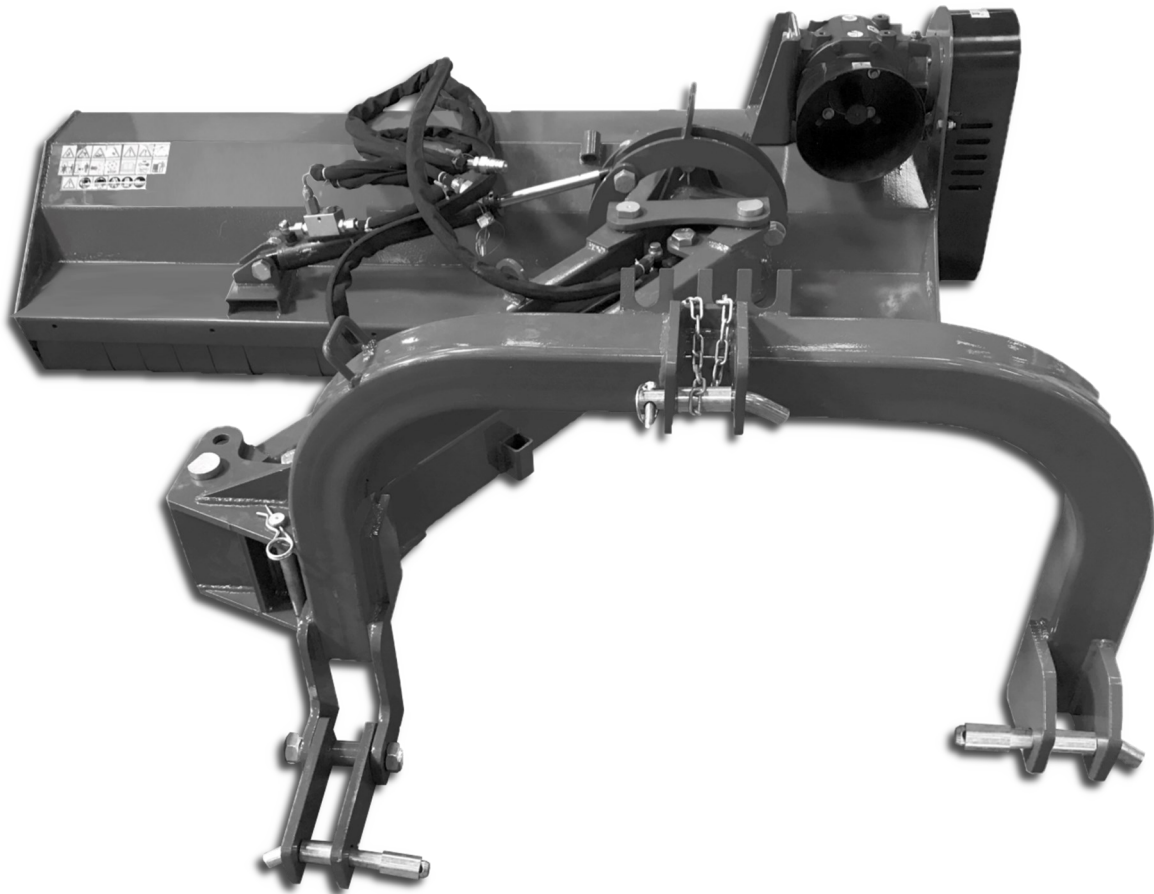
Make sure that fastener threads are clean and that you properly start thread engagement.

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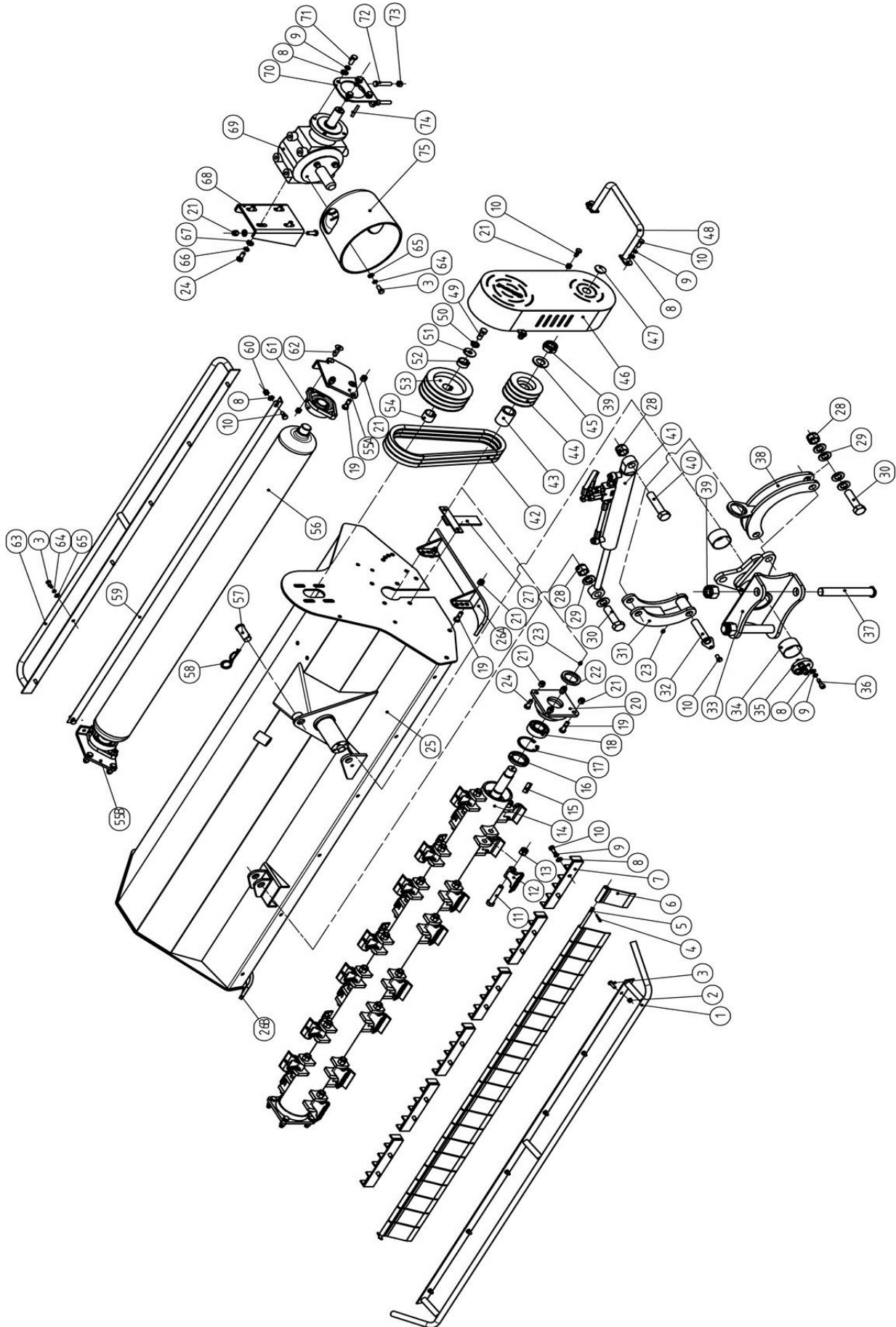
## Slope Flail Mowers

### BCRL & BCRM



## Parts Manual

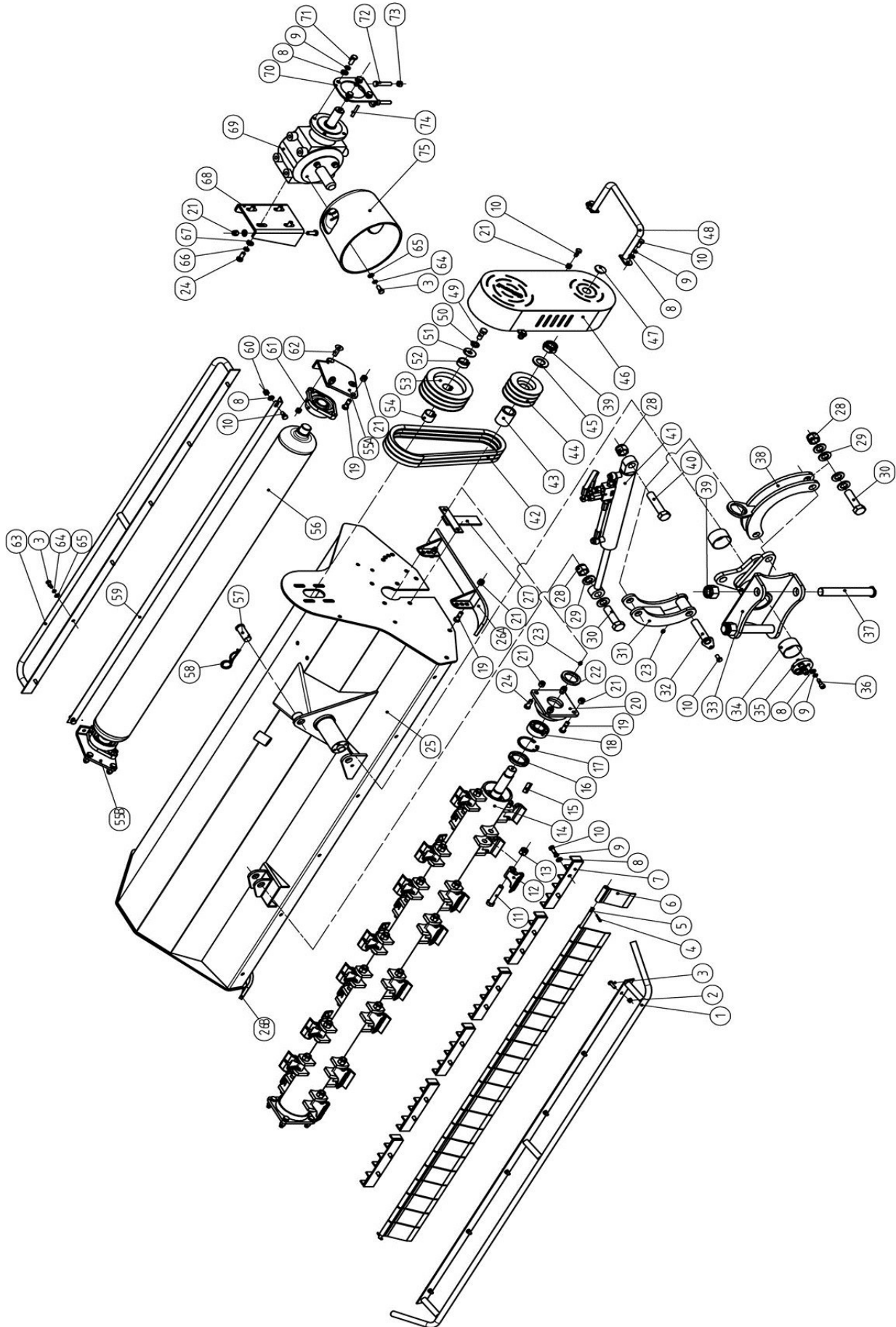
# BCRM Assembly



## BCRM Assembly

Item	Part #	Description	Qty.
1	EGC116-135	Front safety bar for EFGC135	1
	EGC116-155	Front safety bar for EFGC155	1
	EGC116-175	Front safety bar for EFGC175	1
2	LNLM08125	Self-locking nut- M8 x 1.25	6
3	BM0812525	Bolt- M8 x 1.25 x 25 (full thread)	6
4	CP4x25	Cotter pin- M4 x 25	2
5	EGC113-135	Protection Plate Shaft for EFGC135	1
	EGC113-155	Protection Plate Shaft for EFGC155	1
	EGC113-175	Protection Plate Shaft for EFGC175	1
6	BCM106A	Protection plate- M72 x 2	N
	BCM106B	Protection plate with gap- M72 x 2	N
	BCM106C	Protection plate- M51 X 2	N
	BCM106D	Protection plate- M43 X 2	N
7	BCM107	Counter knife	6
8	FW10	Flat washer- M10	24
9	LW10	Lock washer- M10	22
10	BM101525	Bolt- M10 x 1.5 x 25	19
11	BM162085	Bolt- M16 x 2.0 x 85	28
12	BCM112	800gr forging (Galv) hammer	28
13	SLNM162	Self-locking nut- M16 x 2.0	28
14	EGC126-135	Rotor shaft- EFGC135	1
	EGC126-155	Rotor shaft- EFGC155	1
	EGC126-175	Rotor shaft- EFGC175	1
15	KM100830	Key- M10 x 0.8 x 30	1
16	OS507208	Oil Seal- M50 x 72 x 8	2
17	SRI-72	Snap Ring- Internal- M72	2
18	B2207	Bearing- 2207	2
19	BM1217540	Bolt- M12 x 1.75 x 40 (Full thread)	14
20	BCM120	Rotor Bearing Seat	2
21	SLNM12175	Self-locking nut- M12 x 1.75	24
22	OS506808	Oil seal- M50 x 68 x 8	1
23	GN081S	Grease nipple- M8 x 1.0 Straight	4
24	BM1217530	Bolt- M12 x 1.75 x 30 (Full thread)	8
25	BCM225-135	Mower body- BCRM135	1
	BCM225-155	Mower body- BCRM155	1

# BCRM Assembly

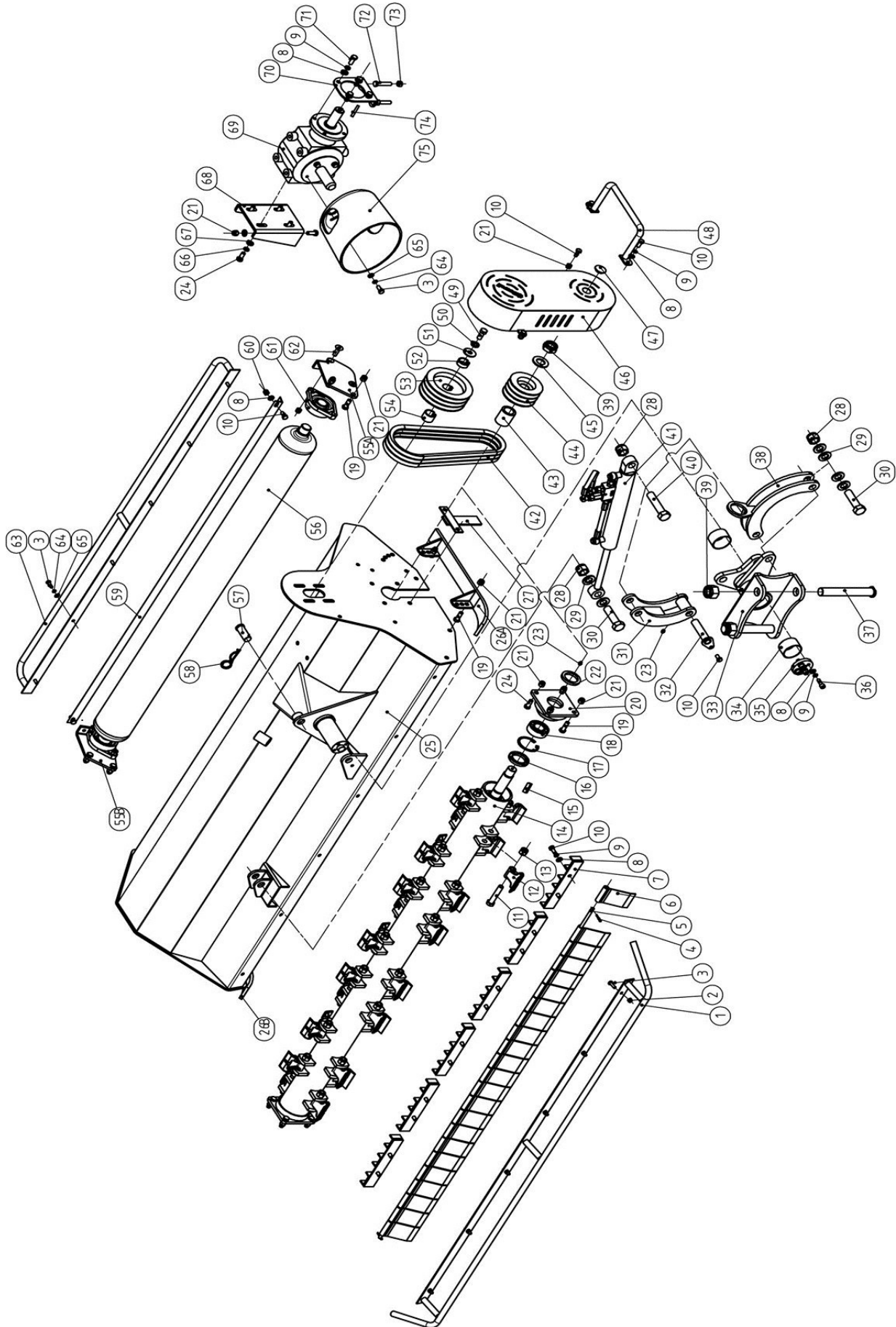




## BCRM Assembly

Item	Part #	Description	Qty.
25	BCM225-175	Mower body- BCRM175	1
26	BCM126	Skid- Left /Right	1
27	BCM127	T plate	1
28	LNМ243	Self-locking nut- M24 x 3.0	3
29	FW24	Flat washer- M24	6
30	BM243090	Bolt- M24 x 3.0 x 90	2
31	BCM131	Rotating frame 2	1
32	BCM132	Rotating pivot	1
33	BCM132	Rotating frame 1	1
34	B636840	Sleeve bearing- M63 x 68 x 40	2
35	BCM135	Locking plate	1
36	ABM101525	Allen Socket Head Bolt- M10 x 1.5 x 25	4
37	BCM137	Pin for the arm	2
38	BCM138	Rotating frame 3	1
39	LNМ3035	Self-locking nut- M30 x 3.5	3
40	BM2430110	Bolt- M24 x 3.0 x 110	1
41	BCM301	Turning Cylinder	1
42	BCM142	Belt- BX 17x1030	3
43	BCM143	Spacer	1
44	BCM144-4G	Lower pulley (4 groove)	1
	BCM144-3G	Lower pulley (3 groove)	1
45	FW30	Flat washer- M30	1
46	BCM146	Belt cover	1
47	BCM147-35	Rubber cover- M35	1
48	BCM148	Belt cover protection bar	1
49	BM142035	Bolt- M14 x 2.035	1
50	LW14	Lock washer- M14	1
51	LFW14	Large flat washer- M14	1
52	BCM152	Bushing # 2	1
53	BCM153-3G	BCRM135/155 upper pulley (3 groove)	1
	BCM153-4G	BCRM175 upper pulley (4 groove)	1
54	BCM154	Bushing # 1	1
55	BCM155	Roller bearing bracket- Left /Right	1
56	BCM156-135	Roller- BCRM135	1
	BCM156-155	Roller- BCRM155	1
	BCM156-175	Roller- BCRM175	1
57	SFTPN12	Safety pin- M12	1

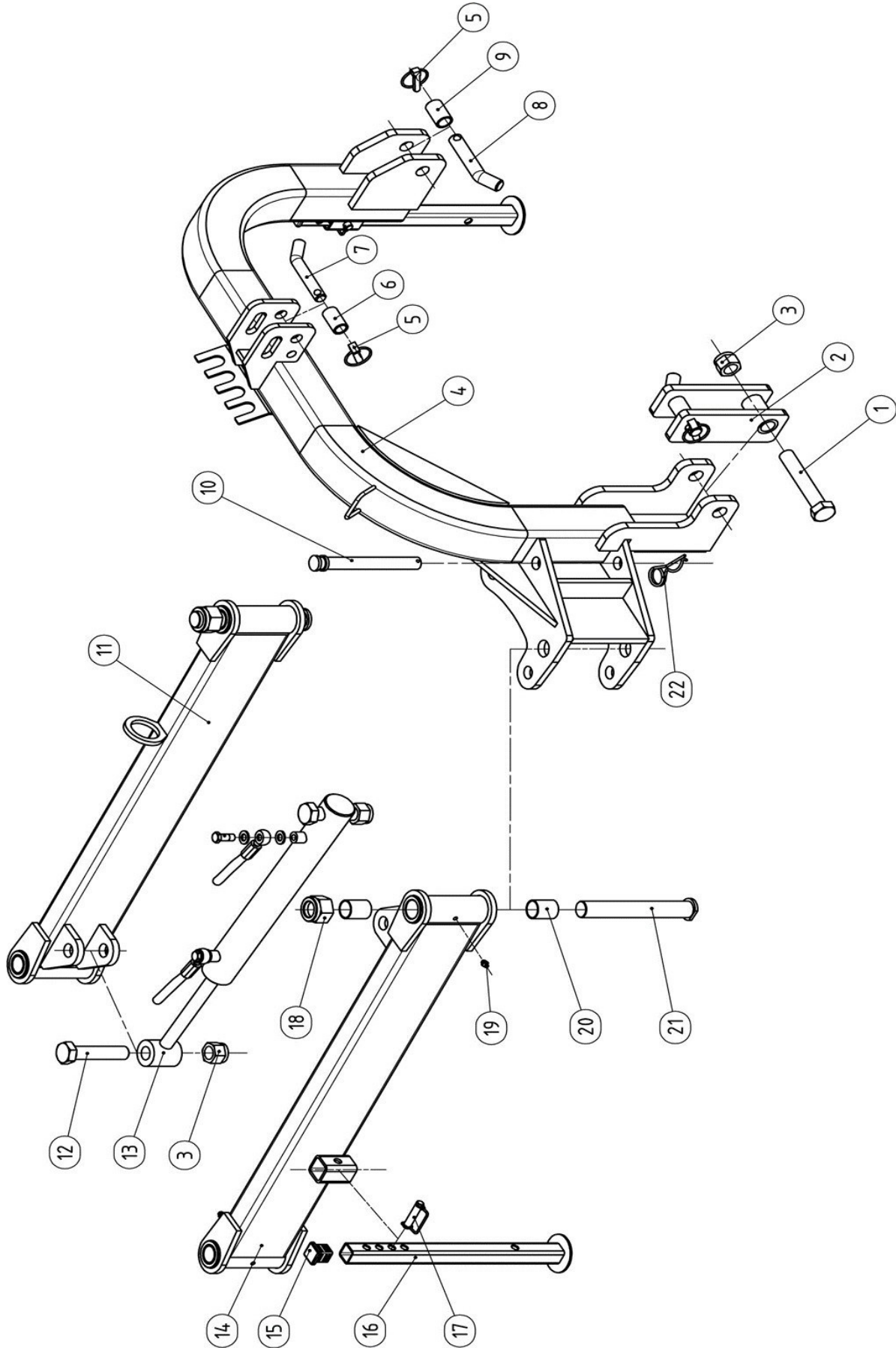
# BCRM Assembly



## BCRM Assembly

Item	Part #	Description	Qty.
58	HDPNRC4	R-Clip- M4	1
59	EGC163-135	Scraper- EFGC135	1
	EGC163-155	Scraper- EFGC155	1
	EGC163-175	Scraper- EFGC175	1
60	LNLM1015	Self-locking nut- M10	2
61	UCFL207	Bearing with housing- UCFLU207	2
62	SSM1217540	Socket Screw- M12x40	4
63	EGC164-135	Safety bar- Rear EFGC135	1
	EGC164-155	Safety bar- Rear EFGC155	1
	EGC164-175	Safety bar- Rear EFGC175	1
64	LW08	Lock washer- M8	10
65	FW08	Flat washer- M8	10
66	LW12	Lock washer- M12	6
67	FW12	Flat washer- M12	6
68	BCM168	Gear box bracket	1
69	BCM169	BCRM/EFGC gear box	1
70	BCM170	Adjusting plate	1
71	BM121530	Bolt- M10 x 1.5 x 30 (Full thread)	4
72	BM1212550	Bolt- M12 x 1.25 x 50 (Full thread)	2
73	NM12125	Nut- M12 x 1.25	2
74	KM100865	Key- M10 x 8 x 65 for gear box	1
75	BCM175	PTO cover	1

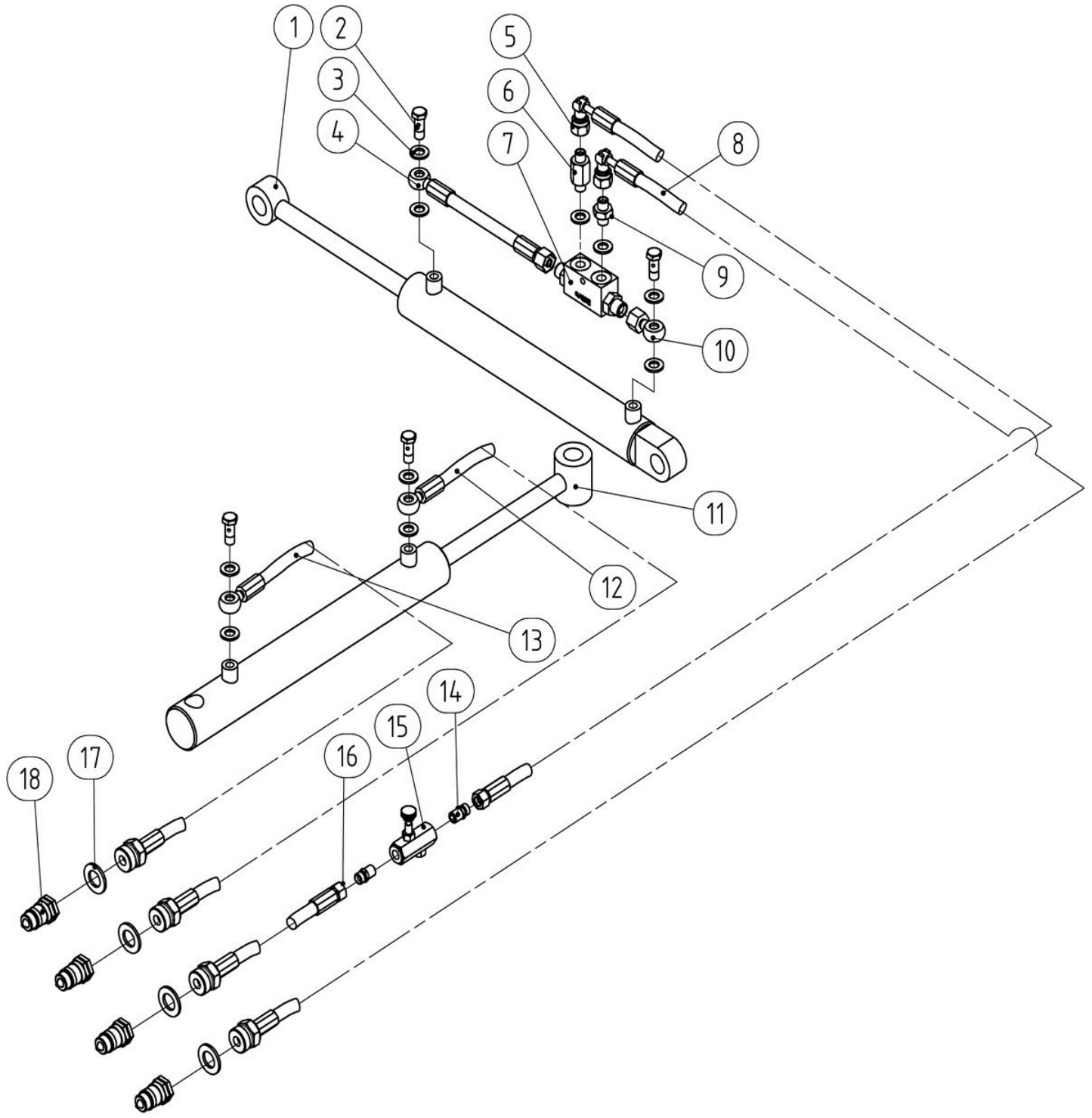
# BCRM Hitch



## BCRM Hitch

Item	Part #	Description	Qty.
1	BM2430140	Bolt- M24 x 3.0 x 140	1
2	BCM202	Small extra hitch	1
3	LN243	Self-locking nut- M24	3
4	BCM204	3-point hitch	1
5	LYNPN10	Lynch pin- M10	3
6	BCM206	Bushing for upper hitch- (Cat 2)	1
7	BCM207	Upper hitch pin	1
8	BCM208	Lower hitch pin	2
9	BCM209	Cat 2 Bushing for lower hitch	2
10	BCM210	Pin for Swing Arm	1
11	BCM211	Arm # 1	1
12	BM2430110	Bolt- M24 x 3.0 x 110	2
13	BCM213	Swing Arm Cylinder	1
14	BCM214	Arm # 2	1
15	BCM215	Square plug	2
16	BCM216	Stand	2
17	SFTPN12	Safety Pin- M12	2
18	LN3035	Self-locking nut- M30 x 3.5	4
19	GN081S	Grease Nipple- M8x1	4
20	B343040	Sleeve bearing- M34 x 30 x 40	8
21	BCM137	Pin	2
22	HDPNRC4	Heavy Duty R-Clip- M4	1

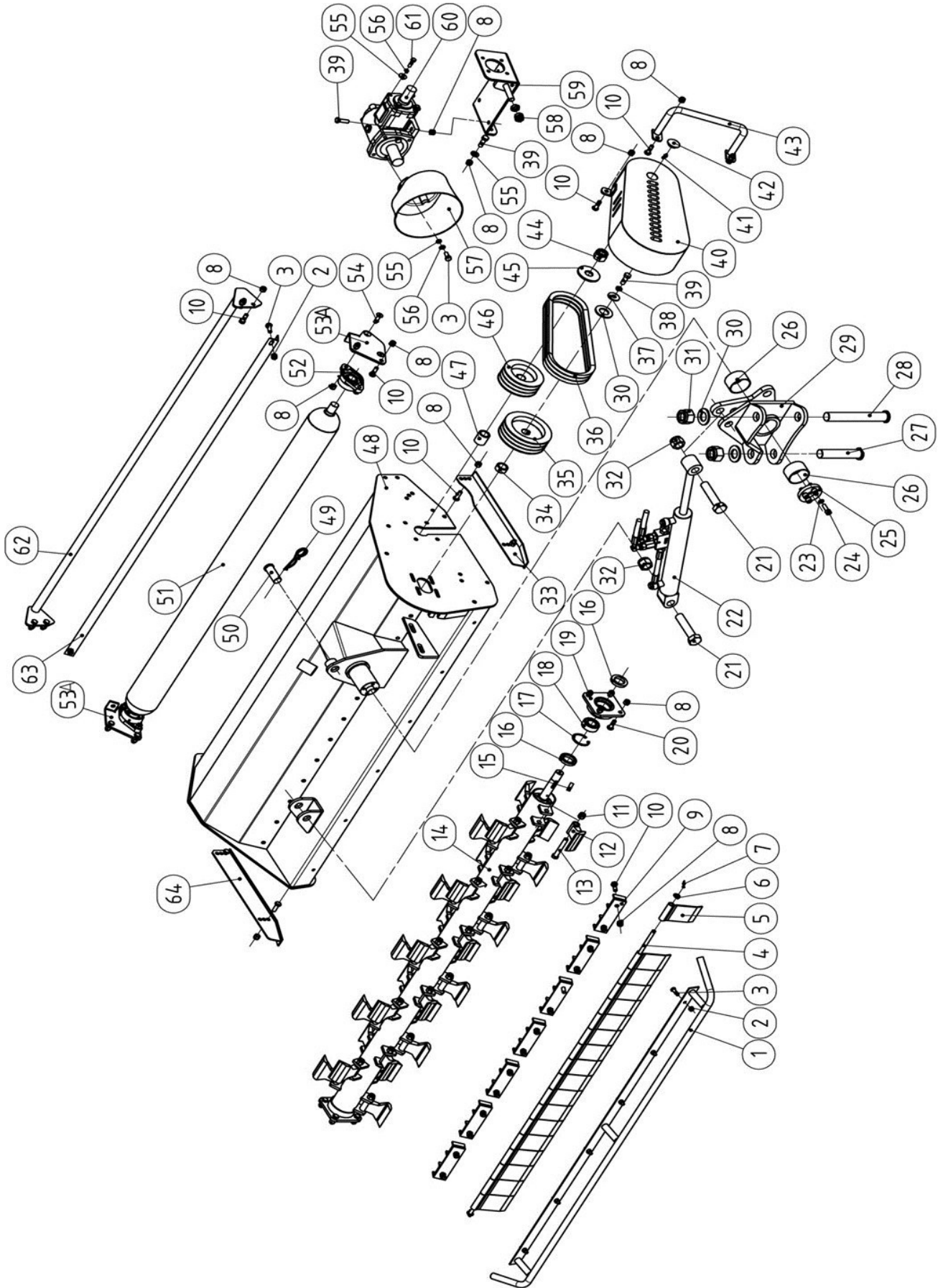
# BCRM Hydraulics



## BCRM Hydraulics

Item	Part #	Description	Qty.
1	BCM301	Turning cylinder	1
2	BANJOBM1212530	Bolt- M12 x 1.25 x 30	4
3	CW12	Compression washer- M12	8
4	BCM304	Short hydraulic hose on safety valve	1
5	BCM305	Hydraulic hose # 1- Turning cylinder	1
6	BCM306	Connection adapter # 1- Safety valve	1
7	BCM307	Safety valve	1
8	BCM308	Hydraulic hose # 2 on turning cylinder	1
9	BCM309	Connection adapter # 2- Safety valve	1
10	BCM310	Connection adapter # 3- Safety valve	1
11	BCM311	Swing cylinder	1
12	BCM312	Hydraulic hose # 1 for swing cylinder	1
13	BCM313	Hydraulic hose # 2 for swing cylinder	1
14	BCM314	Adapter on Flow Speed Valve	2
15	BCM315	Flow speed valve	1
16	BCM316	Hydraulic Hose # 3 on turning cylinder	1
17	CW1/2	Compression Washer M1/2	4
18	BCM318	Quick Release Coupling M1/2	4

# BCRL Assembly

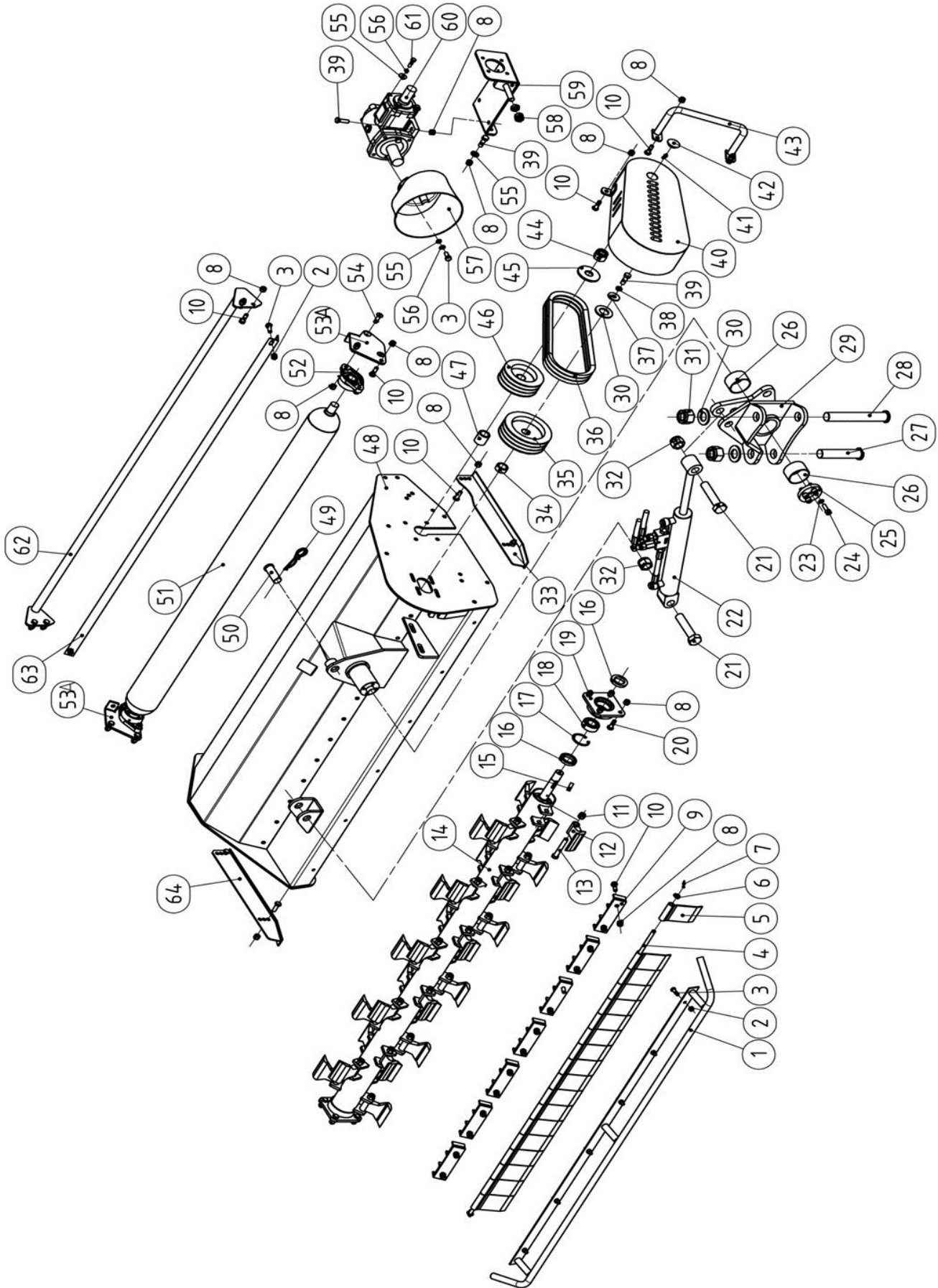




## BCRL Assembly

Item	Part #	Description	Qty.
1	EM116-095	Front safety bar for EF095	1
	EM116-115	Front safety bar for EF115	1
	EM116-135	Front safety bar for EF135	1
	EM116-155	Front safety bar for EF155	1
	EM116-175	Front safety bar for EF175	1
2	LNLM08125	Self-locking nut- M8	6
3	BM0812525	Bolt- M8 x 1.25 x 25 (Full thread)	10
4	EM118-95	Protection plate shaft for EF95	1
	EM118-115	Protection plate shaft for EF115	1
	EM118-135	Protection plate shaft for EF135	1
	EM118-155	Protection plate shaft for EF155	1
	EM118-175	Protection plate shaft for EF175	1
5	BCM106A	Protection plate- M72 x 2	20
	BCM106B	Protection plate with gap- M72 x 2	20
	BCM106C	Protection plate- M51 x 2	20
	BCM106D	Protection plate- M43 x 2	20
6	FW10	Flat washer- M10	2
7	CP4x25	Cotter pin- M4 x 25	2
8	LNLM1015	Self-locking nut- M10	41
9	BCL109	Counter knife	6
10	BM101530	Bolt- M10 x 1.5 x 30 (Full thread)	28
11	LNLM12175	Self-locking nut- M12 x 1.75	24
12	BCL112	400gr Forging hammer- (Galv)	24
13	BM1217580	Bolt- M12 x 1.75 x 80	24
14	BCL114-115	Rotor shaft- BCRL115	1
	BCL114-135	Rotor shaft- BCRL135	1
	BCL114-155	Rotor shaft- BCRL155	1
15	KW0828	Woodruff key- M8 x 28	1
16	OS355208	Oil seal- M35 x 52 x 8	4
17	SRI-52	Snap ring- Internal- M52	2
18	B2205	Bearing- 2205	2
19	BCL119	Rotor bearing seat	2
20	BM0812535	Bolt- M8 x 1.25 x 35	8

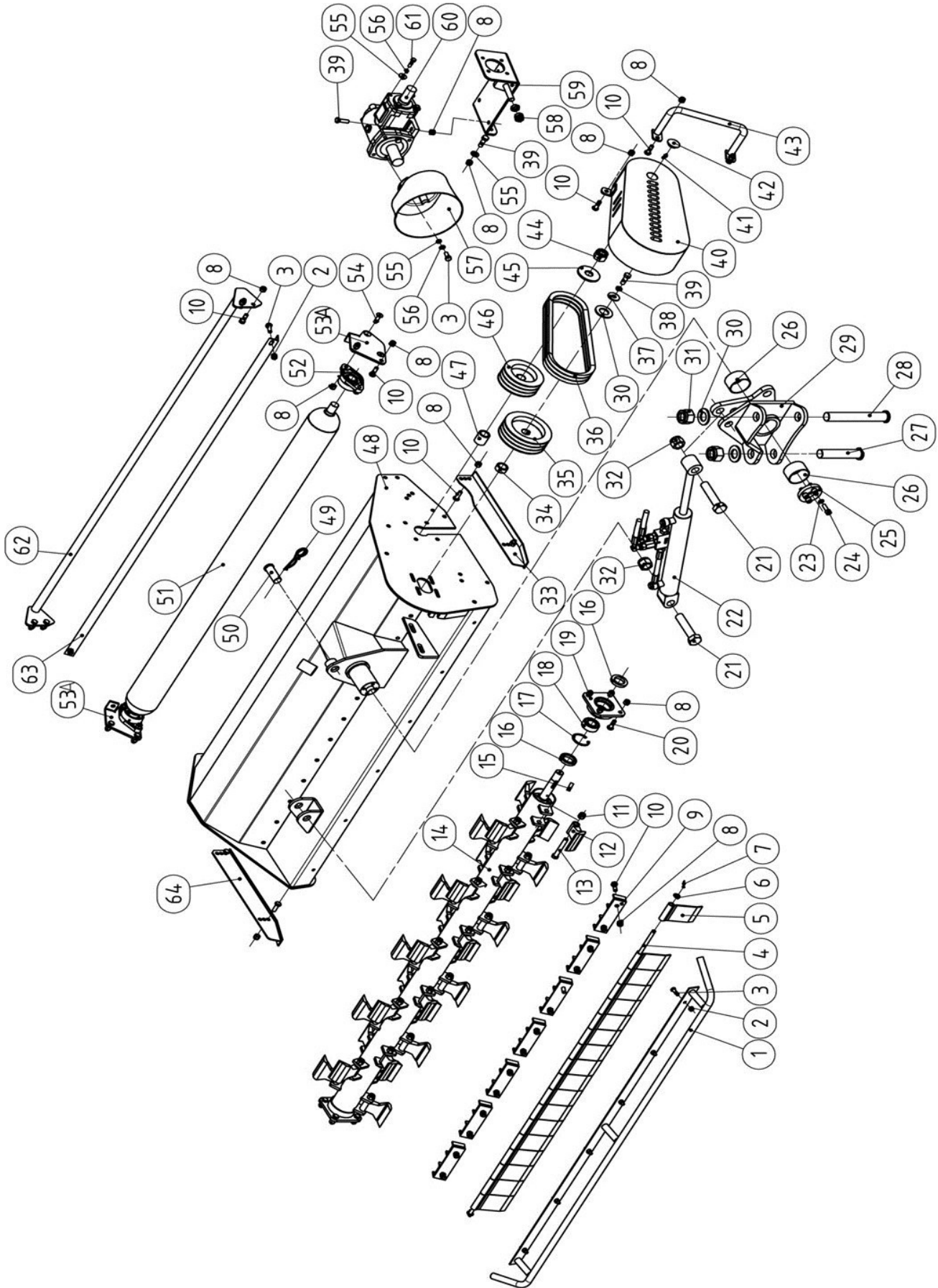
# BCRL Assembly



## BCRL Assembly

Item	Part #	Description	Qty.
21	BM1620110	Bolt- M16 x 2.0 x 110 (Full thread)	2
22	BCR301	Turning Cylinder	1
23	LW10	Lock Washer- M10	4
24	ABM101535	Allen Head Bolt- M10 x1.5 x 35	8
25	BCR125	Locking Board	1
26	B636840	Sleeve Bearing- M63 x 68 x 40	2
27	BCM137	Pin	1
28	BCR128	Pin for the arm	1
29	BCR129	3-Point hitch	1
30	FW30	Flat washer- M30	3
31	LNM303	Self-locking nut- M30 x 3.0	2
32	LNM1620	Self-locking nut- M16 x 2.0	2
33	BCR133	Skid- left	1
34	BCR134	Bushing	1
35	BCR135-2G	Pulley- Upper (2 Groove) for BCRL115/135	1
	BCR135-3G	Pulley- Upper (3 Groove) for BCRL155	1
36	BCR136	Belt- BX 17x965	3
37	FW12	Flat washer- M12	1
38	LW12	Lock washer- M12	1
39	BM1217535	Bolt- M12x35 (Full thread)	3
40	BCR140	Belt cover	1
41	GN081S	Grease nipple- M8 x 1.0 (Straight)	2
42	BCR142	Rubber cover- M30	1
43	BCR143	Shield Protection Bar	1
44	LNM243	Self-locking nut- M24 x 3.0	1
45	FW24	Flat washer- M24	1
46	BCR146-2G	Pulley- Lower (2 groove) for EF95/115/135	1
	BCR146-3G	Pulley- Lower (3 groove) for EF155/175	1
47	BCR147	Bushing	1
48	BCR148-115	Mower body- BCRL115	1
	BCR148-135	Mower body- BCRL135	1
	BCR148-155	Mower body- BCRL155	1
49	HDPNRC4	Heavy Duty R-Clip- M4	1
50	SFTPN12	Safety pin- M12	1

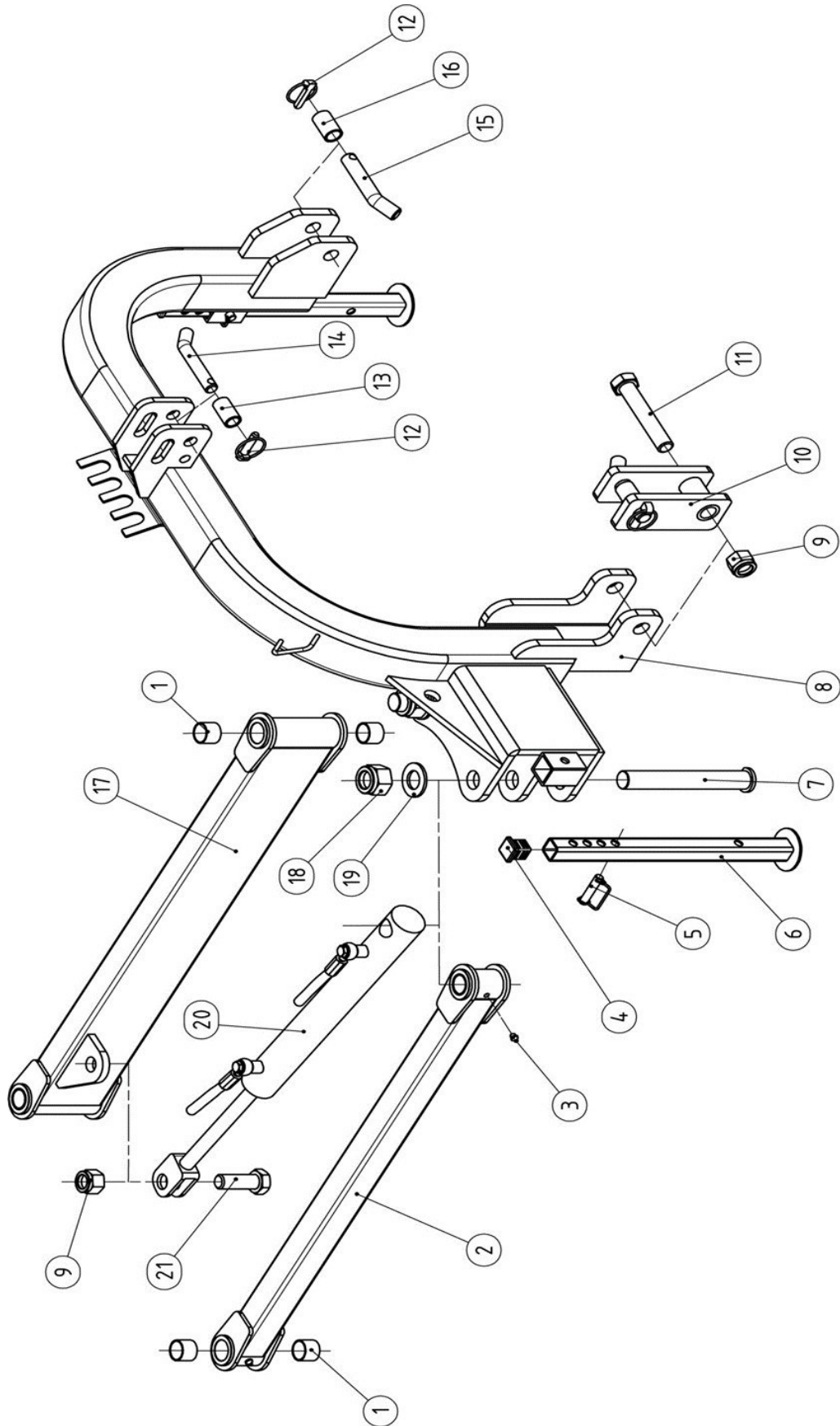
# BCRL Assembly



## BCRL Assembly

Item	Part #	Description	Qty.
51	BCL151-115	Roller- BCRL115	1
	BCL151-135	Roller- BCRL135	1
	BCL151-155	Roller- BCRL155	1
52	UCFL205	UCFLU205- Mounted bearing w/housing	2
53A	BCL153L	Left Bracket- For roller	1
53B	BCL153R	Right Bracket- For roller	1
54	SSM101535	Socket Screw- M10 x 1.5 x 35	4
55	FW08	Flat washer- M8	8
56	LW08	Lock washer- M8	6
57	BCL157	EF mower PTO cover	1
58	NM1620	Nut- M16 x 2.0 (Thin)	3
59	BCL159	Gearbox Bracket	1
60	BCL160	EF Gearbox	1
61	BM0812535	Bolt- M8x35	4
62	BCL162-115	Rear safety bracket- BCRL115	1
	BCL162-135	Rear safety bracket- BCRL135	1
	BCL162-155	Rear safety bracket- BCRL155	1
63	BCL163-115	Scraper- BCRL115	1
	BCL163-135	Scraper- BCRL135	1
	BCL163-155	Scraper- BCRL155	1
64	BCL164	Skid- Right	1

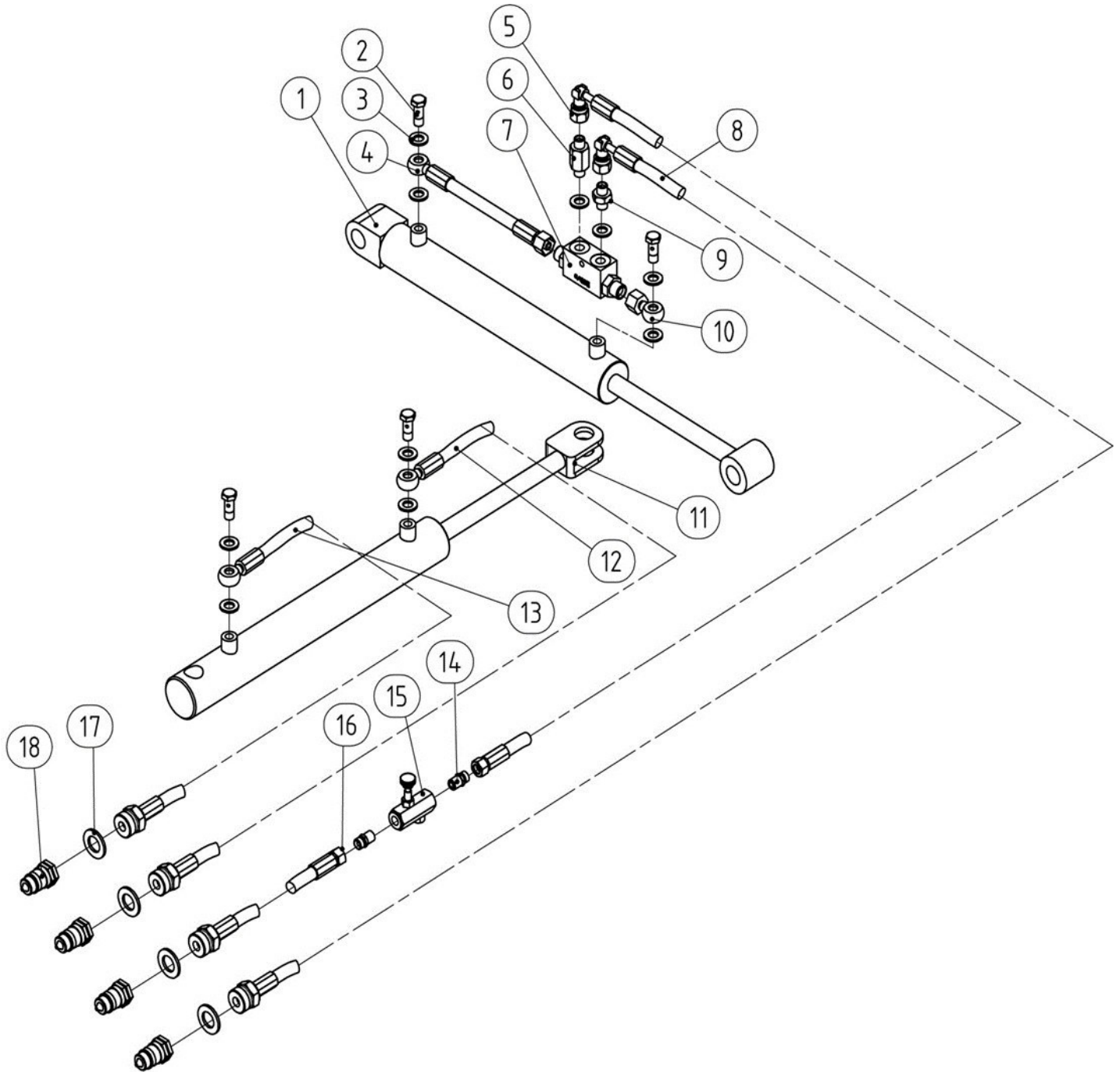
# BCRL Hitch



## BCRL Hitch

Item	Part #	Description	Qty.
1	B343025	Sleeve Bearing- M34 x 30 x 25	8
2	BCL202	Swing Arm # 2	1
3	GN081S	Grease Nipple- M8 x 1 (Straight)	4
4	BCL204	Stand Plug	2
5	BCL205	Pin- M12	2
6	BCL206	Stand	2
7	BCL207	Pin for the arm	2
8	BCL208	BCRL Hitch	1
9	LNLM243	Self-locking Nut- M24 x 3.0	2
10	BCL210	Extra Hitch Bracket	1
11	BM2430140	Bolt- M24 x 3.0 x 140	1
12	LYNPN10	Lynch Pin- M10	3
13	BCL213	Bushing- (Cat 2) for Upper Hitch Connection	1
14	BCL214	Hitch Pin- Upper	1
15	BCL215	Hitch Pin- Lower	2
16	BCL216	Bushings (Cat 2) for Lower Hitch Connections	2
17	BCL217	Swing Arm # 1	1
18	LNLM3035	Self-locking nut- M30 x 3.5	2
19	FW30	Flat Washer- M30	2
20	BCR311	Swing Cylinder- BCRL	1
21	BM243065	Bolt- M24 x 3.0 x 65 (Full thread)	1

# BCRL Hydraulics

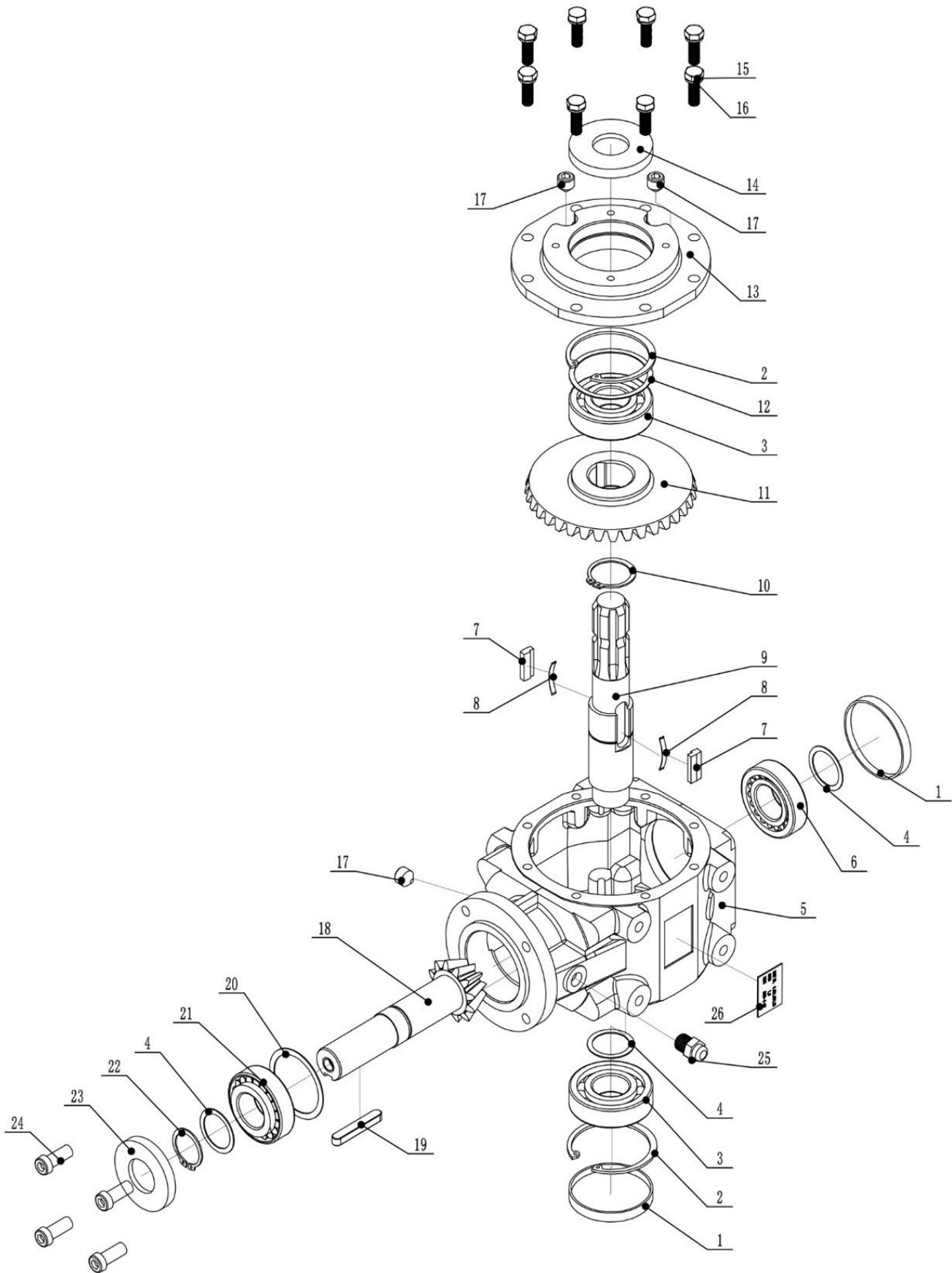




## BCRL Hydraulics

Item	Part #	Description	Qty.
1	BCR301	Turning cylinder	1
2	BANJOBM1212530	Bolt- M12 x 1.25 x 30	4
3	CW12	Compression washer- M12	8
4	BCR304	Short hydraulic hose on safety valve	1
5	BCR305	Hydraulic hose # 1- Turning cylinder	1
6	BCR306	Connection adapter # 1- Safety valve	1
7	BCR308	Safety valve	1
8	BCR307	Hydraulic hose # 2 on turning cylinder	1
9	BCR309	Connection adapter # 2- Safety valve	1
10	BCR310	Connection adapter # 3- Safety valve	1
11	BCR311	Swing cylinder	1
12	BCR312	Hydraulic hose # 1 for swing cylinder	1
13	BCR313	Hydraulic hose # 2 for swing cylinder	1
14	BCR314	Adapter on Flow Speed Valve	2
15	BCR315	Flow speed valve	1
16	BCR316	Hydraulic Hose # 3 on turning cylinder	1
17	CW1/2	Compression Washer M1/2	4
18	BCM318	Quick Release Coupling M1/2	4

# BCRL & BCRM Gearbox



## BCRL & BCRM Gearbox

Item	Part #	Description	Qty.
1	BCRM-001	End cap 80x10	2
2	BCRM-002	Snap ring 80x2.5	2
3	BCRM-003	Bearing 35x80x21	2
4	BCRM-004	Shim 35.5x72x24.25	-
5	BCRM-005	Housing	1
6	BCRM-006	Bearing 32207 35x72x24.25	1
7	BCRM-007	Key	2
8	BCRM-008	Spring plate	2
9	BCRM-009	Input	1
10	BCRM-010	Snap ring 42x1.5	1
11	BCRM-011	Bevel gear	1
12	BCRM-012	Shim 70x79.8x0.3-1.0	-
13	BCRM-013	Input cap	1
14	BCRM-014	Oil seal 35x80x10	8
15	BCRM-015	M10 bolt	8
16	BCRM-016	M10 Spring washer M10	8
17	BCRM-017	Nut 3/8-18 NPT	3
18	BCRM-018	Output pinion gear	1
19	BRCM-019	Key 10x8x65	1
20	BCRM-020	Shim 62x71.9x0.3-1.0	-
21	BCRM-021	Bearing 30207 35x72x18.25	1
22	BCRM-022	Snap ring 35x2.5	1
23	BCRM-023	Oil seal 35x72x10	1
24	BCRM-024	M12 bolt M12x30	4
25	BCRM-025	Breather plug 3/8-18 NPT	1
26	BCRM-026	Serial plate	1

## Warranty

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### LIMITED WARRANTY

Tar River Equipment warrants to the original purchaser of any new piece of machinery from Tar River Equipment, purchased from an authorized Tar River Equipment dealer, that the equipment be free from defects in material and workmanship for a period of one (1) year for non-commercial, state, and municipalities' use, ninety (90) days for commercial use from date of retail sale. Warranty for rental purposes is thirty (30) days. The obligation of Tar River Equipment to the purchaser under this warranty is limited to the repair or replacement of defective parts.

Replacement or repair parts installed in the equipment covered by this limited warranty are warranted for ninety (90) days from the date of purchase of such part or to the expiration of the applicable new equipment warranty period, whichever occurs later. Warranted parts shall be provided at no cost to the user at an authorized Tar River Equipment dealer during regular working hours. Tar River Equipment reserves the right to inspect any equipment or parts, which are claimed to have been defective in material or workmanship.

This limited warranty does not apply to and excludes wear items such as shear pins, tires, tubes knives, blades or other wear items. Oil or grease is not covered by this warranty.

All obligations of Tar River Equipment under this limited warranty shall be terminated if:

Proper service is not performed on the machine.

The machine is modified or altered in any way.

The machine is being used or has been used for purposes other than those for which the machine was intended.

### DISCLAIMER OF IMPLIED WARRANTIES & CONSEQUENTIAL DAMAGES

Tar River Equipment obligation under this limited warranty, to the extent allowed by law, is in lieu of all warranties, implied or expressed, including implied warranties of merchantability and fitness for a particular purpose and any liability for incidental and consequential damages with respect to the sale or use of the items warranted. Such incidental and consequential damages shall include but not be limited to: transportation charges other than normal freight charges; cost of installation other than cost approved by Tar River Equipment; duty; taxes; charges for normal service or adjustment; loss of crops or any other loss of income; rental of substitute equipment, expenses due to loss, damage, detention or delay in the delivery.

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