

**1-6 metre  
Multicut flailhead  
belt drive**

**Operation & Spares manual**

# IMPORTANT

## VERIFICATION OF WARRANTY REGISTRATION



### DEALER WARRANTY INFORMATION & REGISTRATION VERIFICATION

It is imperative that the selling dealer registers this machine with McConnel Limited before delivery to the end user – failure to do so may affect the validity of the machine warranty.

To register machines go to the McConnel Limited web site at [www.mcconnel.com](http://www.mcconnel.com), log onto 'Dealer Inside' and select the 'Machine Registration button' which can be found in the Service Section of the site. Confirm to the customer that the machine has been registered in the section below.

Should you experience any problems registering a machine in this manner please contact the McConnel Service Department on 01584 875848.

#### Registration Verification

Dealer Name: .....
Dealer Address: .....
Customer Name: .....
Date of Warranty Registration: ...../...../..... Dealer Signature: .....

#### NOTE TO CUSTOMER / OWNER

*Please ensure that the above section above has been completed and signed by the selling dealer to verify that your machine has been registered with McConnel Limited.*

**IMPORTANT:** During the initial 'bedding in' period of a new machine it is the customer's responsibility to regularly inspect all nuts, bolts and hose connections for tightness and re-tighten if required. New hydraulic connections occasionally weep small amounts of oil as the seals and joints settle in – where this occurs it can be cured by re-tightening the connection – *refer to torque settings chart below*. The tasks stated above should be performed on an hourly basis during the first day of work and at least daily thereafter as part of the machines general maintenance procedure.

#### TORQUE SETTINGS FOR HYDRAULIC FITTINGS

HYDRAULIC HOSE ENDS		
BSP	Setting	Metric
1/4"	18 Nm	19 mm
3/8"	31 Nm	22 mm
1/2"	49 Nm	27 mm
5/8"	60 Nm	30 mm
3/4"	80 Nm	32 mm
1"	125 Nm	41 mm
1.1/4"	190 Nm	50 mm
1.1/2"	250 Nm	55 mm
2"	420 Nm	70 mm

PORT ADAPTORS WITH BONDED SEALS		
BSP	Setting	Metric
1/4"	34 Nm	19 mm
3/8"	47 Nm	22 mm
1/2"	102 Nm	27 mm
5/8"	122 Nm	30 mm
3/4"	149 Nm	32 mm
1"	203 Nm	41 mm
1.1/4"	305 Nm	50 mm
1.1/2"	305 Nm	55 mm
2"	400 Nm	70 mm



# WARRANTY POLICY

## WARRANTY REGISTRATION

All machines must be registered, by the selling dealer with McConnel Ltd, before delivery to the end user. On receipt of the goods it is the buyer's responsibility to check that the Verification of Warranty Registration in the Operator's Manual has been completed by the selling dealer.

### 1. LIMITED WARRANTIES

1.01. *All mounted machines supplied by McConnel Ltd are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 12 months, unless a different period is specified.*

*All Self Propelled Machines supplied by McConnel Ltd are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 12 months or 1500 hours. Engine warranty will be specific to the Manufacturer of that unit.*

1.02. *All spare parts supplied by McConnel Ltd and purchased by the end user are warranted to be free from defects in material and workmanship from the date of sale to the original purchaser for a period of 6 months. All parts warranty claims must be supported by a copy of the failed part invoice to the end user. We cannot consider claims for which sales invoices are not available.*

1.03. *The warranty offered by McConnel Ltd is limited to the making good by repair or replacement for the purchaser any part or parts found, upon examination at its factory, to be defective under normal use and service due to defects in material or workmanship. Returned parts must be complete and unexamined. Pack the component(s) carefully so that any transit damage is avoided. All ports on hydraulic items should be drained of oil and securely plugged to prevent seepage and foreign body ingress. Certain other components, electrical items for example, may require particular care when packing to avoid damage in transit.*

1.04. *This warranty does not extend to any product from which McConnel Ltd's serial number plate has been removed or altered.*

1.05. *The warranty policy is valid for machines registered in line with the terms and conditions detailed and on the basis that the machines do not extend a period of 24 months or greater since their original purchase date, that is the original invoice date from McConnel Limited.*

*Machines that are held in stock for more than 24 months cannot be registered for warranty.*

1.06. *This warranty does not apply to any part of the goods, which has been subjected to improper or abnormal use, negligence, alteration, modification, fitment of non-genuine parts, accident damage, or damage resulting from contact with overhead power lines, damage caused by foreign objects (e.g. stones, iron, material other than vegetation), failure due to lack of maintenance, use of incorrect oil or lubricants, contamination of the oil, or which has served its normal life. This warranty does not apply to any expendable items such as blades, belts, clutch linings, filter elements, flails, flap kits, skids, soil engaging parts, shields, guards, wear pads, pneumatic tyres or tracks.*

1.07. *Temporary repairs and consequential loss - i.e. oil, downtime and associated parts are specifically excluded from the warranty.*

1.08. *Warranty on hoses is limited to 12 months and does not include hoses which have suffered external damage. Only complete hoses may be returned under warranty, any which have been cut or repaired will be rejected.*

1.09. *Machines must be repaired immediately a problem arises. Continued use of the machine after a problem has occurred can result in further component failures, for which McConnel Ltd cannot be held liable, and may have safety implications.*

1.10. *If in exceptional circumstances a non McConnel Ltd part is used to effect a repair, warranty reimbursement will be at no more than McConnel Ltd's standard dealer cost for the genuine part.*

- 1.11. *Except as provided herein, no employee, agent, dealer or other person is authorised to give any warranties of any nature on behalf of McConnell Ltd.*
- 1.12. *For machine warranty periods in excess of 12 months the following additional exclusions shall apply:*
  - 1.12.1. *Hoses, exposed pipes and hydraulic tank breathers.*
  - 1.12.2. *Filters.*
  - 1.12.3. *Rubber mountings.*
  - 1.12.4. *External electric wiring.*
  - 1.12.5. *Bearings and seals*
  - 1.12.6. *External Cables, Linkages*
  - 1.12.7. *Loose/Corroded Connections, Light Units, LED's*
  - 1.12.8. *Comfort items such as Operator Seat, Ventilation, Audio Equipment*
- 1.13. *All service work, particularly filter changes, must be carried out in accordance with the manufacturer's service schedule. Failure to comply will invalidate the warranty. In the event of a claim, proof of the service work being carried out may be required.*
- 1.14. *Repeat or additional repairs resulting from incorrect diagnosis or poor quality previous repair work are excluded from warranty.*

***NB Warranty cover will be invalid if any non-genuine parts have been fitted or used. Use of non-genuine parts may seriously affect the machine's performance and safety. McConnell Ltd cannot be held responsible for any failures or safety implications that arise due to the use of non-genuine parts.***

## **2. REMEDIES AND PROCEDURES**

- 2.01. *The warranty is not effective unless the Selling Dealer registers the machine, via the McConnell web site and confirms the registration to the purchaser by completing the confirmation form in the operator's manual.*
- 2.02. *Any fault must be reported to an authorised McConnell Ltd dealer as soon as it occurs. Continued use of a machine, after a fault has occurred, can result in further component failure for which McConnell Ltd cannot be held liable.*
- 2.03. *Repairs should be undertaken within two days of the failure. Claims submitted for repairs undertaken more than 2 weeks after a failure has occurred, or 2 days after the parts were supplied will be rejected, unless the delay has been authorised by McConnell Ltd. Please note that failure by the customer to release the machine for repair will not be accepted as a reason for delay in repair or submitting warranty claims.*
- 2.04. *All claims must be submitted, by an authorised McConnell Ltd Service Dealer, within 30 days of the date of repair.*
- 2.05. *Following examination of the claim and parts, McConnell Ltd will pay, at their discretion, for any valid claim the invoiced cost of any parts supplied by McConnell Ltd and appropriate labour and mileage allowances if applicable.*
- 2.06. *The submission of a claim is not a guarantee of payment.*
- 2.07. *Any decision reached by McConnell Ltd. is final.*

## **3. LIMITATION OF LIABILITY**

- 3.01. *McConnell Ltd disclaims any express (except as set forth herein) and implied warranties with respect to the goods including, but not limited to, merchantability and fitness for a particular purpose.*
- 3.02. *McConnell Ltd makes no warranty as to the design, capability, capacity or suitability for use of the goods.*
- 3.03. *Except as provided herein, McConnell Ltd shall have no liability or responsibility to the purchaser or any other person or entity with respect to any liability, loss, or damage caused or alleged to be caused directly or indirectly by the goods including, but not limited to, any indirect, special, consequential, or incidental damages resulting from the use or operation of the goods or any breach of this warranty. Notwithstanding the above limitations and warranties, the manufacturer's liability hereunder for damages incurred by the purchaser or others shall not exceed the price of the goods.*
- 3.04. *No action arising out of any claimed breach of this warranty or transactions under this warranty may be brought more than one (1) year after the cause of the action has occurred.*

#### **4. MISCELLANEOUS**

- 4.01. McConnel Ltd may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.*
- 4.02. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.*
- 4.03. Applicable law may provide rights and benefits to the purchaser in addition to those provided herein.*

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*McConnel Limited*



# DECLARATION OF CONFORMITY

*Conforming to EU Machinery Directive 2006/42/EC*

We,

**McCONNEL LIMITED**, Temeside Works, Ludlow, Shropshire SY8 1JL, UK

*Hereby declare that:*

The Product; *Hydraulic Arm Mounted Flailhead*

Product Code; *BD12, BD16, F110, F112, F115, F012, F016*

Serial No. & Date ..... Type .....

Manufactured in; *United Kingdom*

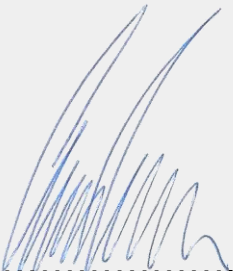
Complies with the required provisions of the Machinery Directive 2006/42/EC  
The machinery directive is supported by the following harmonized standards;

- BS EN ISO 12100 (2010) Safety of machinery – General principles for design – Risk assessment and risk reduction.
- BS EN 349 (1993) + A1 (2008) Safety of machinery - Minimum distances to avoid the entrapment with human body parts.
- BS EN ISO 14120 (2015) Safety of machinery - Guards general requirements for the design and construction of fixed and movable guards.
- BS EN 4413 (2010) Hydraulic fluid power. Safety requirements for systems and their components.

McCONNEL LIMITED operates an ISO 9001:2008 quality management system, certificate number: FM25970.

This system is continually assessed by the;

British Standards Institution (BSI), Beech House, Milton Keynes, MK14 6ES, UK  
BSI is accredited by UK Accreditation Service, accreditation number: UKAS 003.  
The EC declaration only applies if the machine stated above is used in accordance with the operating instructions.

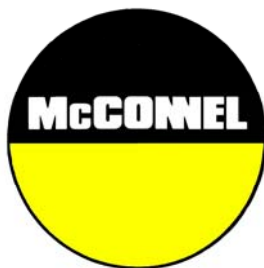
Signed  ..... *Responsible Person*  
*CHRISTIAN DAVIES on behalf of McCONNEL LIMITED*

Status: *General Manager*

Date: *January 2018*







*For Safety and Performance...*

## **ALWAYS READ THE BOOK FIRST**

# **McCONEL LIMITED**

**Temeside Works  
Ludlow  
Shropshire  
England**

**Telephone: +44 (0)1584 873131  
www.mcconel.com**

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### **- NOISE STATEMENT -**

The equivalent daily personal noise exposure from this machine measured at the operators' ear is within the range 78 – 85 dB, these figures apply to a normal distribution of use where the noise fluctuates between zero and maximum. The figures assume that the machine is fitted to a tractor with a 'quiet' cab with the windows closed in a generally open environment. We recommend that the windows are kept closed. With the cab rear window open the equivalent daily personal noise exposure will increase to a figure within the range 82 – 88 dB. At an equivalent daily noise exposure level of 85 – 90 dB ear protection is recommended and must always be used if any window is left open.



Operating, servicing and maintaining this equipment can expose you to chemicals including gasoline, diesel fuel, lubricants, petroleum products, engine exhaust, carbon monoxide, and phthalates, which are known to the State of California to cause cancer and birth defects or other reproductive harm. To minimize exposure, avoid breathing exhaust, do not idle the engine except as necessary, service your vehicle in a well-ventilated area and wear gloves or wash your hands frequently when servicing your vehicle. Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). This website, operated by California's Office of Environmental Health Hazard Assessment, provides information about these chemicals and how individuals may be exposed to them.

# GENERAL INFORMATION

Read this manual before fitting or operating the machine. If in doubt contact your dealer or the McConnell Service Department for assistance.

Use only McConnell spare parts on McConnell equipment and machines. Refer to the parts section before ordering spares.

## DEFINITION

The following definitions apply throughout this manual:

### WARNING

An operating procedure, technique etc., which can result in personal injury or loss of life if not observed carefully.

### CAUTION

An operating procedure, technique etc., which can result in the damage of either machine or equipment if not observed carefully.

**NOTE** An operating procedure, technique etc., which is considered essential to emphasise.

## LEFT AND RIGHT-HAND

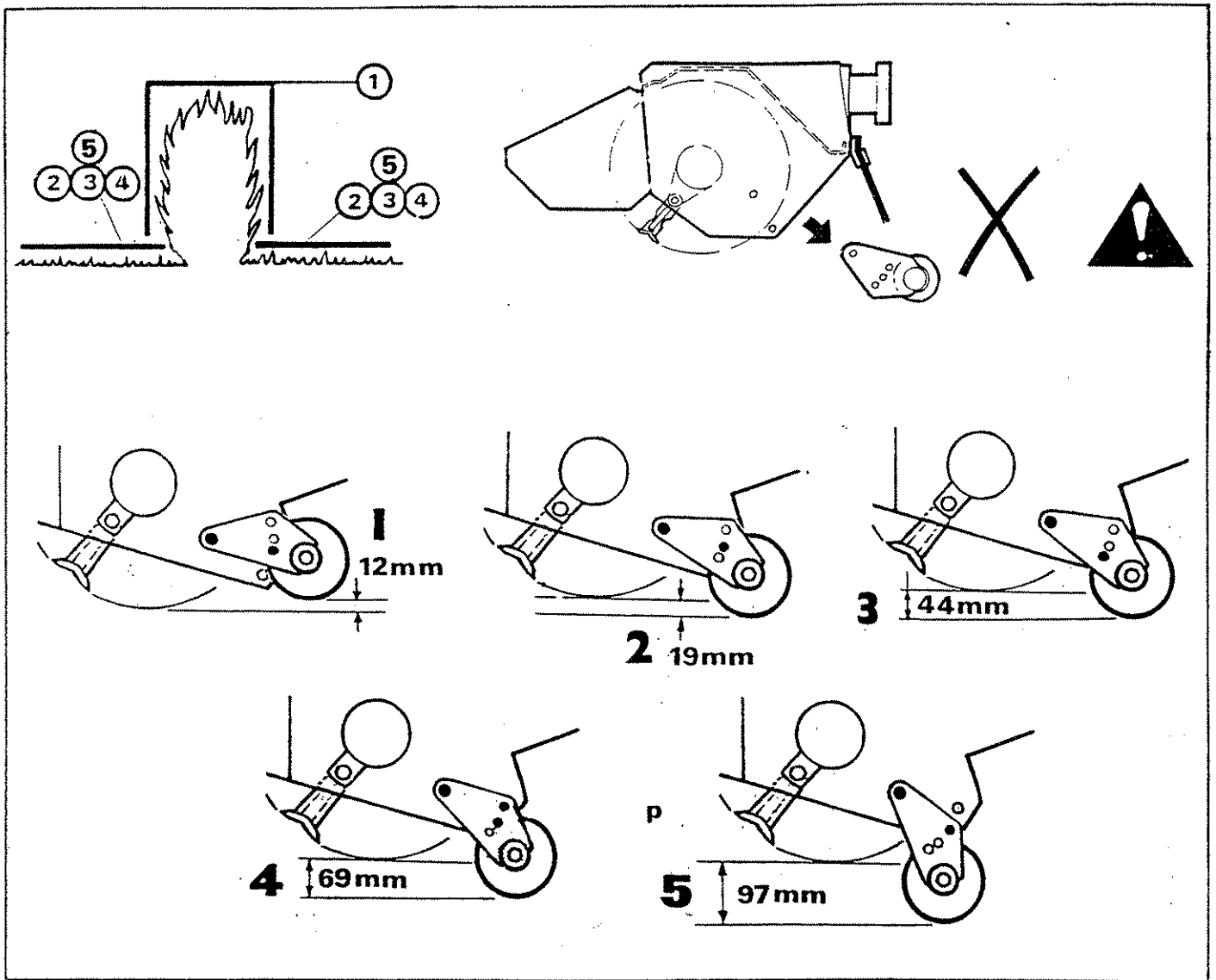
This term is applicable to the machine when fitted to the tractor and viewed from the rear. This also applies to tractor references.

Record the serial number of your machine on this page and always quote this number when ordering spares. Whenever information concerning the machine is requested remember to also state the type of tractor to which it is fitted.

MACHINE SERIAL NUMBER	INSTALLATION DATE

MODEL DETAILS
DEALERS NAME
DEALERS TELEPHONE NUMBER

# ROLLER POSITION

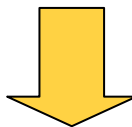




## McConnel Generic Parts Manual

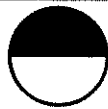
*Generic parts manuals should be used as a general guide to the components used on the machine; to ensure accurate parts information for a specific machine please refer to the 'Interactive Parts Database' on our website which identifies the exact components used on the machine when it was manufactured based on the machine's unique serial number.*

*Direct access can be gained using the web address or QR code below.*  
<http://www.mcconnel.com/support/product-support/interactive-parts-database/>

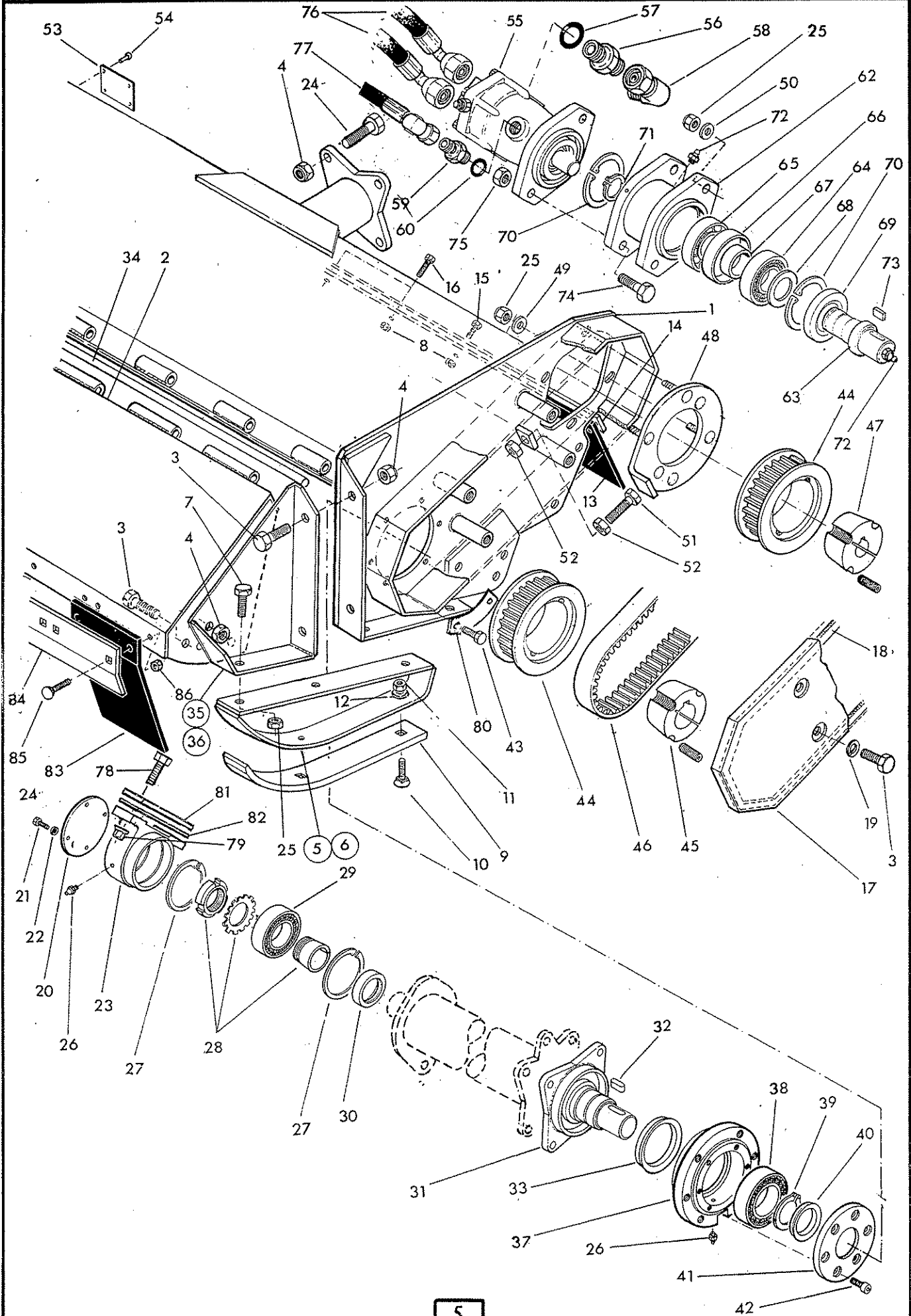


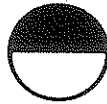
*Design improvements may have altered some of the parts listed in this manual; latest parts will always be supplied if they are interchangeable with earlier ones.*

# FLAIL HEAD CASING



# McCORMICK



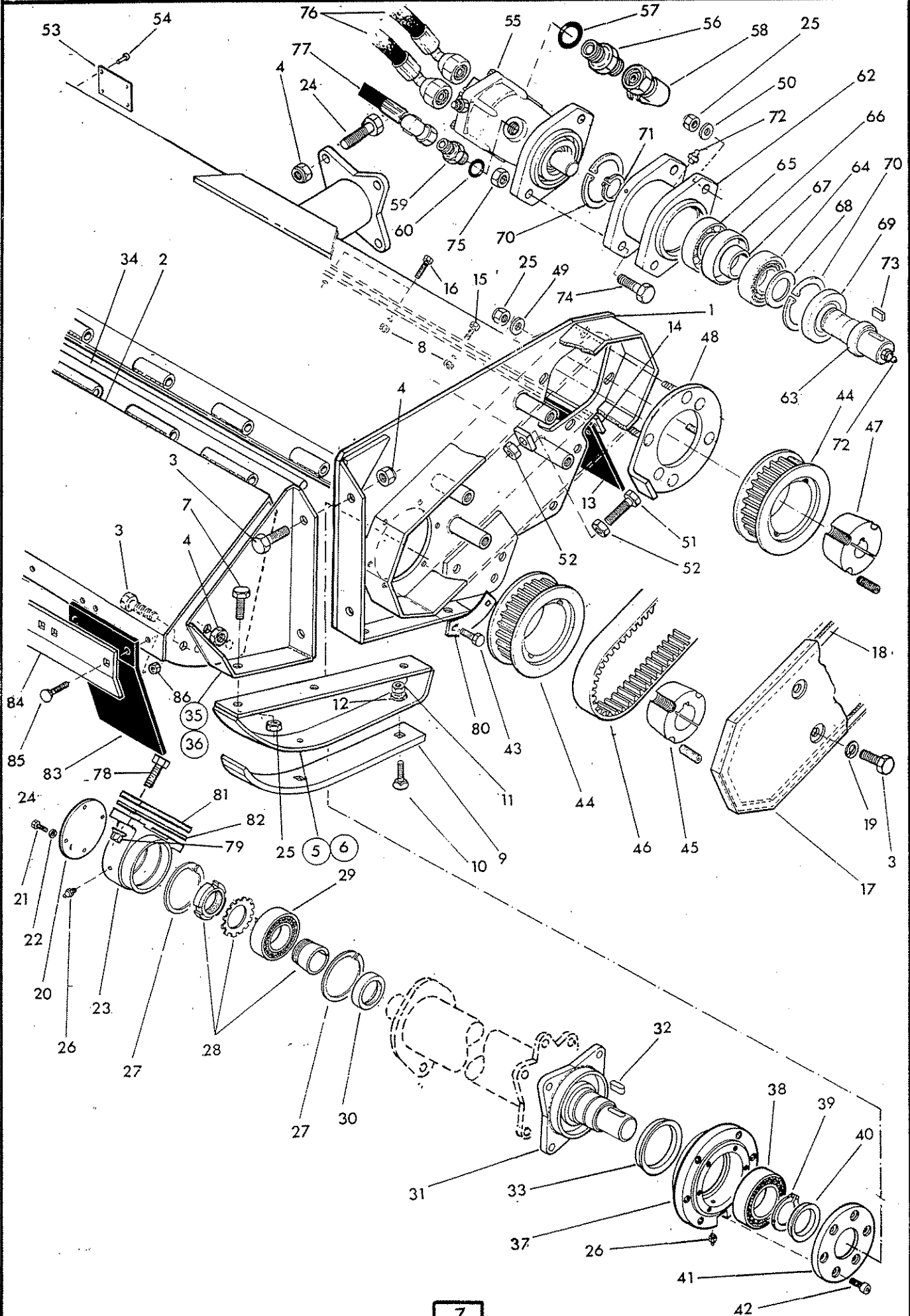
**McCORMICK**

REF	PART NO	QTY	DESCRIPTION
			<b>1.6m BELT DRIVE FLAIL HEAD</b>
			<b>CASING</b>
1	72 90 410		Hood L hand
	72 90 397	1	Hood R hand
2	72 90 403	1	Front hood
3	03 11 106	10	Setscrew
4	01 41 006	12	Self locking nut
5	72 90 389	1	Skid - R hand - not illus.
6	72 90 390	1	Skid - L hand
7	03 11 085	6	Setscrew
8	91 43 005	15	Self locking nut
9	72 90 391	2	Wear skid
10	60 12 034	6	Tine bolt
11	01 42 004	6	Self lock nut
12	01 00 104	6	Plain washer
13	72 90 405	1	Rear flap
14	72 90 406	1	Clamp strip
15	93 13 065	9	Setscrew
16	93 13 075	3	Setscrew
17	72 90 343	1	Belt cover
18	72 90 052	1	Seal strip
19	01 00 206	4	Spring washer
20	72 90 042	1	Bearing cover - free end
21	93 13 033	4	Setscrew
22	91 00 203	4	Spring washer
23	72 90 322	1	Bearing housing
24	02 11 186	6	Bolt
25	01 41 005	6	Self lock nut
26	09 01 121	2	Greaser
27	72 90 056	2	Internal circlip
28	06 00 097	1	Adaptor sleeve assembly
29	06 00 096	1	Bearing - free end
30	72 90 013	1	Bearing adaptor
31	72 90 323	1	Drive hub
32	72 90 017	1	Key
33	72 90 048	1	Seal
34	72 90 065	1	Hood pivot rod
35	72 90 388	1	Hood bracket L hand
36	72 90 387	1	Hood bracket R hand - not illus.
37	72 90 321	1	Bearing housing - drive end
38	06 00 095	1	Bearing - drive end
39	04 01 255	1	External circlip
40	72 90 049	1	Seal
41	72 90 023	1	Bearing retainer
42	93 43 034	6	Capscrew
43	93 13 045	6	Setscrew

FLAIL HEAD CASING - continued



McCONEL





REF	PART NO	QTY	DESCRIPTION
<b>1.6m BELT DRIVE FLAIL HEAD CASING - continued</b>			

44	72 90 047	2	Drive sprocket
45	72 90 016	1	Taper lock drive bush
46	72 90 046	1	Belt
47	72 90 016	1	Taper lock drive bush
48	72 90 432	1	Motor mounting plate L hand
	72 90 433	1	Motor mounting plate R hand
49	72 90 436	4	Special washer
50	01 00 005	2	Plain washer
51	93 13 117	1	Belt adjuster screw
52	91 13 007	2	Nut
53	13 35 246	1	Serial number plate
54	71 03 230	4	Pop rivet
55	83 01 290	1	Hydraulic motor
56	85 81 256	2	Adaptor
57	86 00 916	2	'O'ring
58	85 81 212	2	Elbow
59	85 81 327	1	Adaptor
60	86 00 908	1	'O' ring
61	72 90 376	1	Bearing support assy. compri:
62	72 90 377	1	Housing
63	72 90 378	1	Shaft
64	06 00 098	1	Roller bearing
65	06 03 640	1	Ball bearing
66	72 90 057	1	Spacer - outer
67	72 90 058	1	Spacer - inner
68	72 90 059	1	Collar
69	86 29 199	1	Seal
70	04 11 280	2	Circlip internal
71	04 01 240	1	Circlip external
72	09 01 121	2	Greaser
73	72 90 017	1	Key
74	92 00 017	2	Bolt
75	91 00 022	2	Self locking nut
76	85 01 238	2	Hose 1" BSP x 36" long
77	85 01 164	1	Hose 5/8 BSP x 42" long
78	92 00 023	2	Special bolt
79	91 00 024	2	Special nut
80	72 90 073	3	Tab washer
81	72 90 425	as	Shim
82	72 90 424	reqd	Shim

**72 90 411**

**FRONT FLAP KIT**

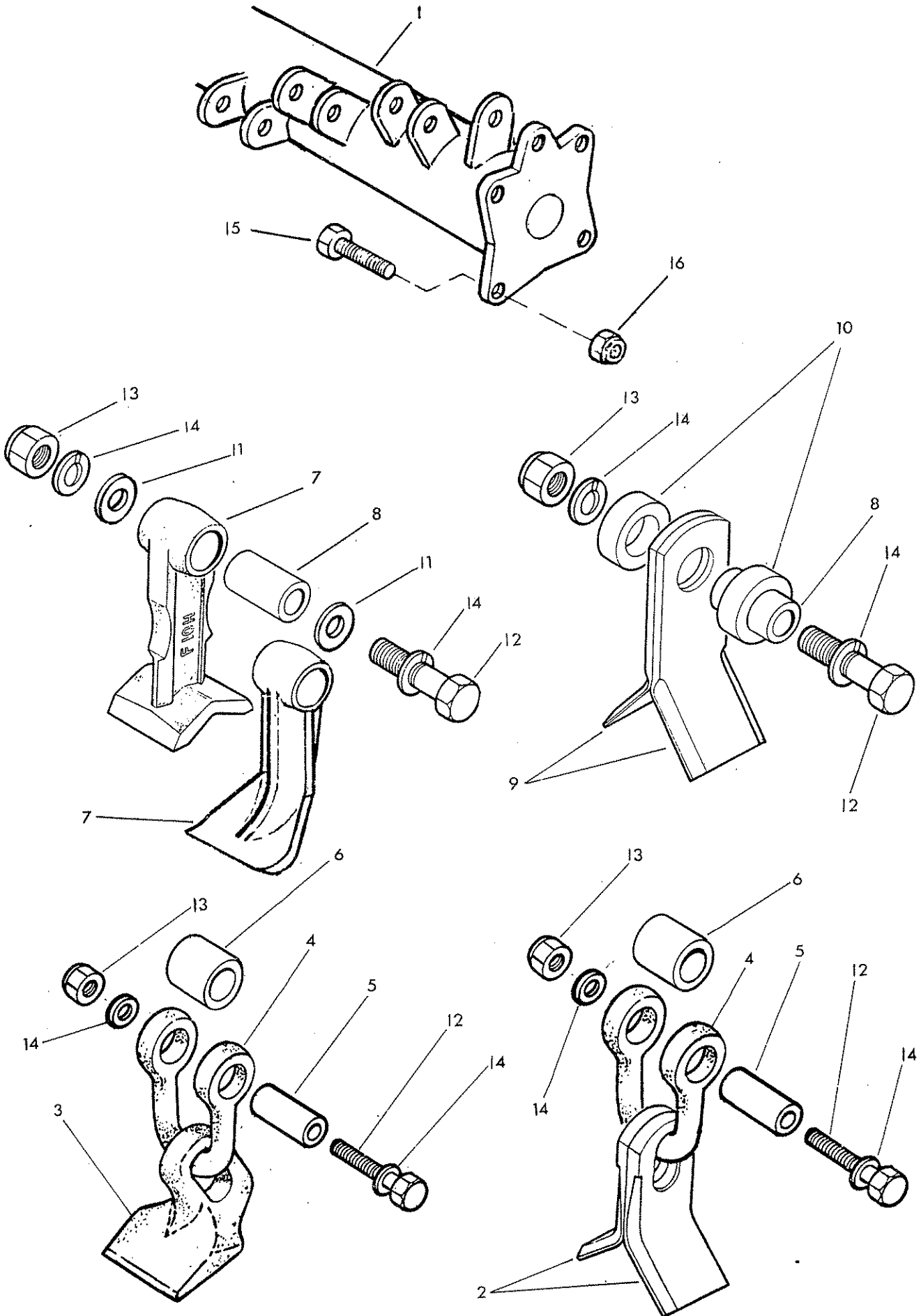
83	72 90 066	10	Front flap
84	72 90 404	1	Clamp strip
85	92 93 054	20	Dome headed coach bolt
86	91 43 005	20	Self locking nut

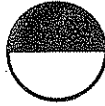


ROTOR & FLAIL OPTIONS

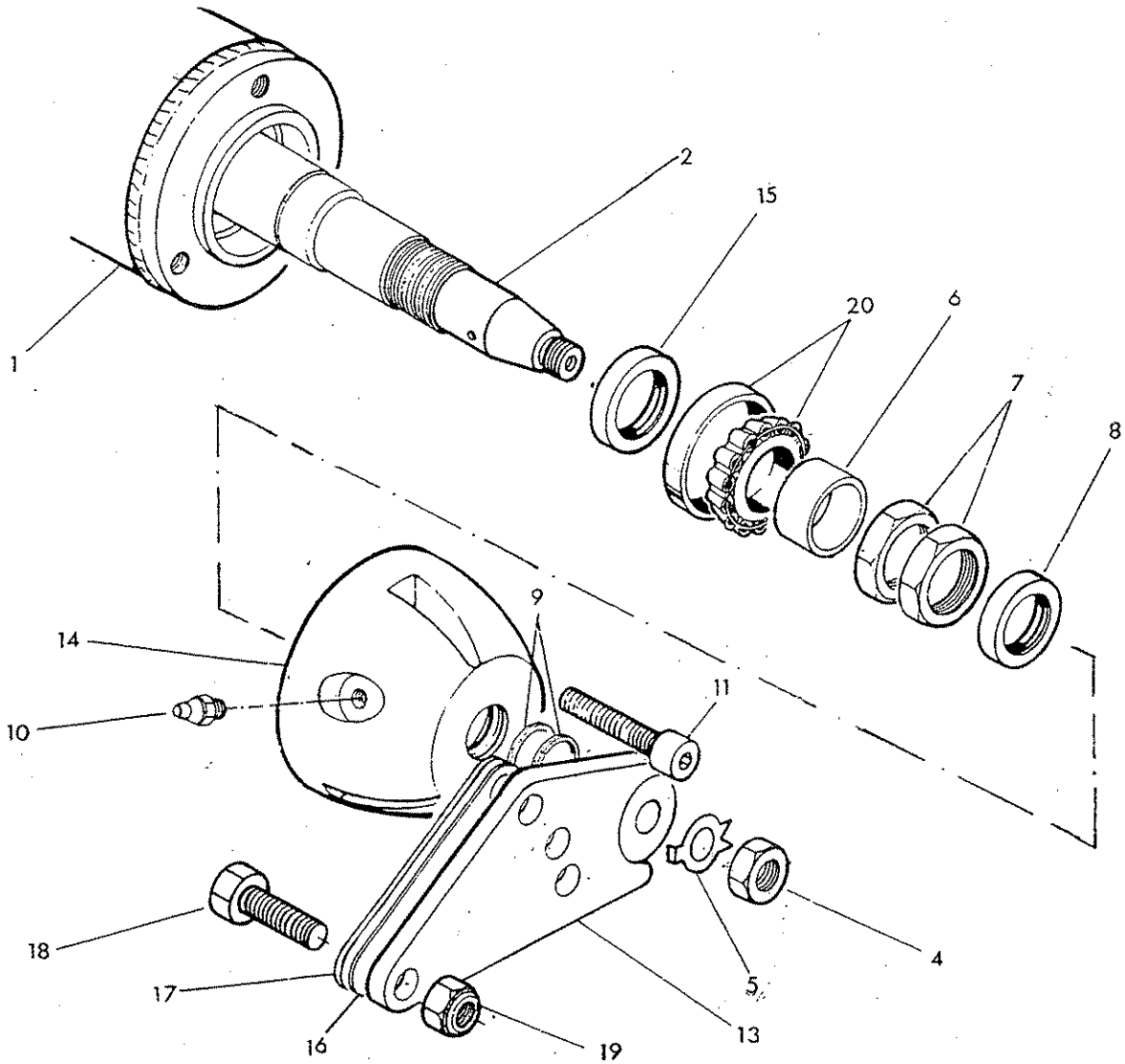


**MCCORMICK**

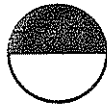




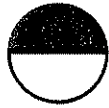
Ref	Part No	Qty	Description
<b>ROTOR AND FLAILS</b>			
1	73 90 269	1	Rotor
2	73 90 004	72	Flail
3	71 90 462	36	Flail
4	73 90 001	36	Shackle
5	73 90 003	36	Spacer
6	73 90 012	36	Spacer sleeve
7	41391-01	36	Flail
	73 90 276	36	Flail - alternative single edged
8	73 14 223	36	Pivot boss
9	71 90 315	72	Flail
10	71 90 010	72	Spacer
11	73 90 005	72	Spacer
12	73 90 006	36	Special bolt
13	01 41 006	36	Self locking nut
14	01 00 206	72	Spring washer
15	03 11 146	4	Setscrew
16	01 41 006	4	Self locking nut



REF	PART NO.	QTY	DESCRIPTION
<b>42241.27</b>			<b>ROLLER ASSEMBLY</b>
1	42241.02	1	Roller
	42242.16	1	Axle assembly incl.
2	42244.02	1	Axle
3	91 13 008	1	Plain nut R.Hand -not illus.
4	91 00 026	1	Plain nut L.Hand
5	71 90 023	2	Tab washer
6	42245.01	2	Spacer
7	42244.01	4	Locknut
8	86 29 125	2	Seal
9	04 12 120	4	Spirolox ring
10	09 01 121	2	Greaser
11	93 43 075	6	Capscrew
12	42246.02	1	Roller bracket R.Hand -not ullus
13	42246.01	1	Roller bracket L.Hand
14	42243.01	2	End cap
15	86 29 213	2	Seal
16	42257.01	as reqd	Shim
17	42257.02	as reqd	Shim
18	91 13 097	4	Setscrew
19	91 43 007	4	Self locking nut
20	06 00 105	2	Taper roller bearing



**McCONNELL**



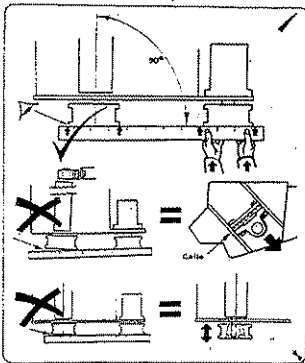
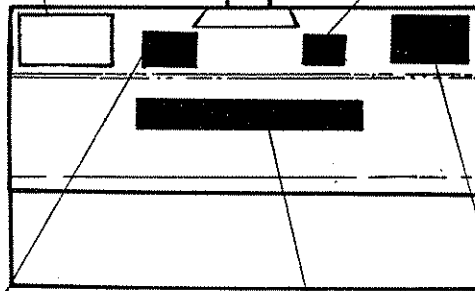
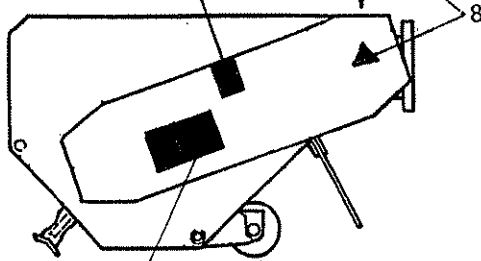
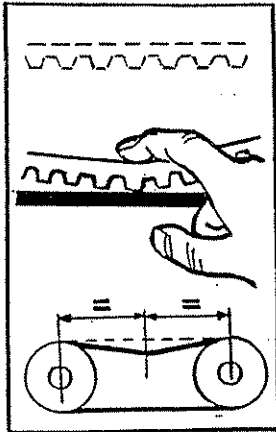
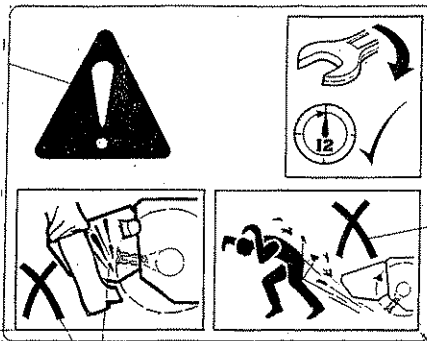
# McCONNEL



### FLAIL PARTS INFORMATION

McConnel Flail Mowers use dynamically balanced and mated system components for Cutter Shafts (Rotors), Knives (Flails), Knife Hangers (Shackles), Bolts, Bushes, Rollers, Drivetrain Components, Bearings Belts and Belt Pulleys. McConnel parts are made and tested to meet close-tolerance specifications of balance, quality and consistency that assure long, trouble-free service. "Will-Fit" parts do not ordinarily meet McConnel Standards and could reduce Mower performance, void warranties, and present an increase in the safety hazard potential.

**DON'T GAMBLE!**  
USE GENUINE McCONNEL SERVICE PARTS  
See your McConnel dealer



# McCONNEL

**⚠ DANGER**

CUTTING BLADES

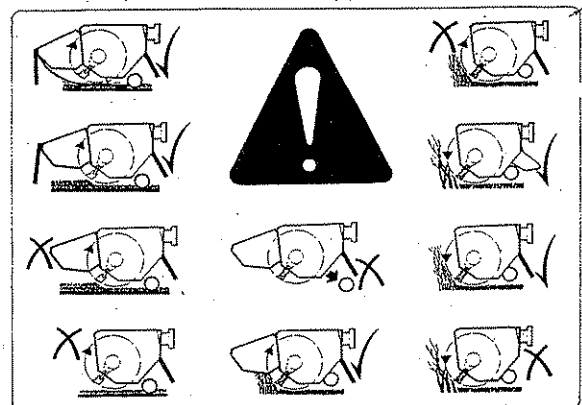
THROWN OBJECTS

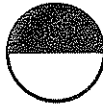


**KEEP AWAY - ROTATING BLADES**

SERIOUS INJURY OR DEATH CAN RESULT  
FROM THROWN OBJECTS OR BLADE CONTACT

- STOP MOWING IF PERSONS ARE NOT CLEAR OF THROWN OBJECTS
- DO NOT STAND ON OR NEAR MACHINE WHEN IN OPERATION
- DO NOT OPERATE WITH DEFLECTORS OR GUARDS REMOVED





Ref	Part No.	Qty	Description
			STICKERS
1	12 90 255	1	McConnel
2	12 90 462	1	Flail head instructions
3	12 90 341	1	Flail head guarding
4	0075 6485	1	Rotating blade warning
5	12 90 392	1	Use McConnel spares
6	12 90 478	1	Belt pulley alignment
7	12 90 065	1	Belt tension
8	09.810.01	2	Grease point





McConnel Limited, Temeside Works, Ludlow, Shropshire SY8 1JL. England.  
Telephone: 01584 873131. Facsimile: 01584 876463. [www.mcconnel.com](http://www.mcconnel.com)