KEENAN
an Alltech company

KEENAN bale handler

Operator’s manual supplement

All models

Revision A01 March 2022 EN

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Contents KEENAN bale handler operator's manual supplement

The bale handler operator's manual presents information on maintenance, specification and spare parts to maintain and safely operate the bale handler attachment on KEENAN MechFiber diet feeders.

Part I – Service and maintenance bale handler attachment

1 Introduction

1.1 Purpose of this manual

This manual has been designed to present the general information you need to operate and maintain the KEENAN bale handler attachment. Further information on general service and maintenance for the KEENAN diet feeders are in the general and model-specific operator manuals, which should also be referred to before operating or maintaining the machine.

> ⚠ **WARNING:**
> **Prior to carrying out any maintenance on the machine, always ensure the tractor engine is stopped and disconnect the P.T.O. and hydraulic hoses from the tractor. Observe safety precautions at all times when working on the machine. Read Section 4 in the general machine information manual on "Safety" before attempting to work on the machine.**

1.2 Maintenance checklist

Monthly	
Bale handler:	1. Grease each tine pivot point and check the tines for looseness. Excessive lateral movement is a sign of worn tine bushes. 2. Check tine buffers for cracks, splits or degradation. 3. Check the condition of the hydraulic hoses. 4. Check the condition of the creel kicker mechanism and rubber wheel. 5. Check the tine-to-top knife clearance is at the recommended 235 mm +/- 10 mm.

Table 1: Maintenance checklist

1.3 Maintenance for bale handler models

There is a grease point fitted at the pivot point of each bale handler tine on the auger chamber side of the machine. The grease point is fitted to the head of each M24 tine bolt. The following maintenance points should be checked monthly:

1. Apply grease to each of the tine bolt grease points individually.
2. The M24 tine bolt lock nuts should be checked for tightness; they should be tight enough to prevent the tine from having any side movement but allow it to fall under its own weight when let drop.

3. The rubber buffer should also be checked for wear or signs of damage that may affect its shock absorption. The optimum tine-to-top knife gap is **235 mm ± 10 mm** (see figure 2) but may vary depending on the application and design of the tine fitted. Please consult your local service partner for settings.

4. Check that the operation of the creel, both up and down, is smooth and unobstructed.

5. Check that the creel rubber is in place, undamaged and lowering and raising with the creel.

   Note: *The creel rubber is fitted to prevent material from sitting on the top knife of the machine, preventing a build-up of material from getting under the creel and damaging it as it is lowered. To prevent damage to this rubber, do not drop material on it from a height when loading material onto bale handler arms.*

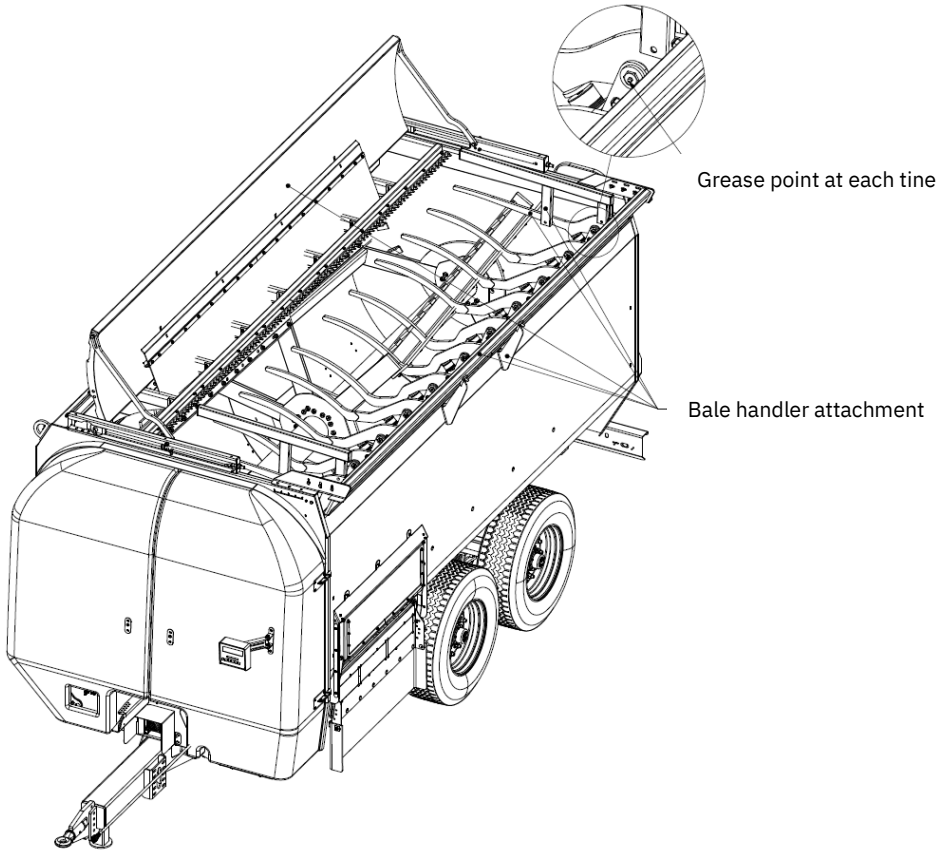

Figure 1: Bale handler grease points

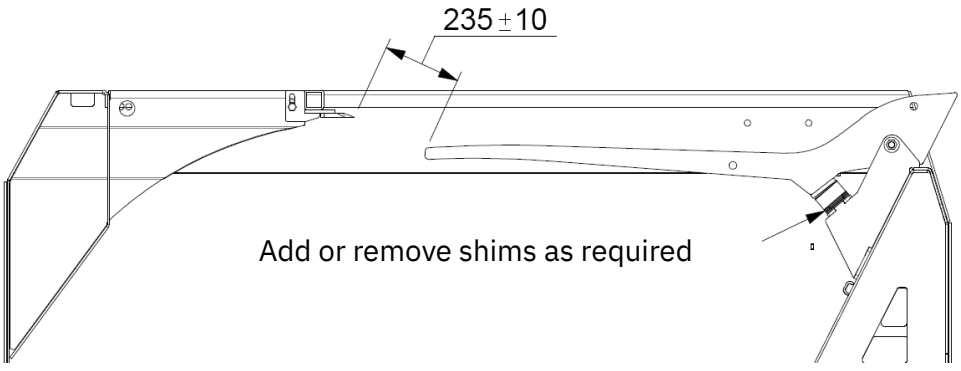

Figure 2: Bale handler tine-to-top knife setting

2 Operating KEENAN MechFiber models with bale handler

2.1 Loading and mixing

Load ingredients in the sequence recommended by your InTouch physical nutritionist, or as suggested in Section 2.2

For bale handler models, wait until the bale has been taken in entirely before adding further bales. As a general rule, the material should tumble freely when mixing. If not, the machine is overloaded and will not achieve the desired mix quality. Mixing is carried out by a centrally mounted rotor fitted with six angled paddles revolving at 6–8 RPM. Each paddle imparts a shearing action, sweeping the feed ingredients onto the strategically placed knives to produce a consistent and thorough mix with all types of materials, including baled silage, hay or straw, roots and liquids.

Do not load a complete 6x4 round bale onto the machine as it may potentially be unstable, possibly falling off and causing injury. These should be first broken up and then loaded onto the machine in sections. Alternatively, the bale may be held in place by the loader until sufficiently chopped down, one-third to halfway, to allow it safely complete chopping on the top of the machine. If in doubt, consult your local KEENAN representative for the recommended safe operation of the machine to suit your particular application.

CAUTION:
For bale handler models, do not load a complete 6x4 round bale or more than one 5x4 or 4x4 round bale onto the machine at any one time. Overloading the machine may seriously affect the safe operation and life of the machine and invalidate the warranty.

Note: The unique tumbling action of the machine is what carries out the mixing. If the machine is overloaded or loaded in an incorrect order, or insufficient time is allowed for proper chopping, this tumbling action will not take place correctly. In addition to reducing mix quality, it increases the horsepower requirements and reduces the life of the machine.

CAUTION:
Overloading will seriously affect machine performance and life and will invalidate your warranty.

Figure 3: Correct loading side

2.2 Operating the KEENAN MechFiber diet feeder with bale handler

LOADING THE KEENAN MECHFIBER DIET FEEDER WITH BALE HANDLER

GENERAL

• Park on level ground.
• Ensure the variable feed control door (VFC) is closed.
• **Do not start PTO when VFC-door is open.**

LOADING AND MIXING SEQUENCE

• Set paddles running at 6–8 RPM for **all** bale types. ***Note:*** *When chopping straw, higher revolutions can be used.*
• Load round bales to the centre of the unit, with the flat end towards the top knife.
• Allow a minimum of 2 minutes for the previous bale to chop down before adding another.

CAUTION: Do not load more than one bale at a time.

• Stop PTO before moving to feed-out area.
• Mixing time will depend on chop length required.

Below is a guide to the correct loading order. Consult your local InTouch centre or nutritionist for best loading order for your ingredients.

Order	Feed ingredients	Paddle RPM	Tractor engine speed
1st	Straw, hay	All at 6–8 RPM	1,400–1,600 RPM
2nd	Water, liquid feeds		
3rd	Minerals, concentrates, protein meals, pulps, cereal grains		
4th	Grass silage		
5th	Maize silage		

Table 2: Loading the KEENAN MechFiber diet feeder with bale handler

2.3 Specific instructions for bale handler models

Figure 4

1. The creel should be raised before loading bales.

2. Round bales should always be loaded in the centre of the machine to allow for the maximum agitation of the paddles.

3. The bale should be gently lowered in the centre of the machine onto the tines. The bale handler will then begin its cutting action, with the tines/rings working in conjunction with the top knife, body blades and six paddles to evenly chop the bale material in a timely manner. The bale should be chopped evenly throughout this process, which will keep large lumps of the bale from entering the mixer at any time. This will result in a better mix quality and more even chopping action.

4. After the bale has been fully chopped and enters the machine, the next bale can be added to the mix in the same manner.

5. The standard chopping times for different materials of round 4x4 (120 cm) bales are as follows:

Bale:	Time:
Straw	6–8 minutes (140 kg)
Hay	4–6 minutes (300 kg)
Wet silage (up to 20% DM)	2–4 minutes (700 kg
Dry silage (20–30% DM)	4–5 minutes (500 kg)
Very dry silage (over 35%)	4–6 minutes (400 kg)

Table 3: Bale intake times

Note: Heavy bales must be loaded gently onto the bale handler, not dropped from a height, as doing so can result in damage.

6. These times are dependent on the bale being loaded in the correct position and on using the correct loading method, as described above. These times may vary slightly depending on the tightness of the bale and the behaviour of the bale as it is chopped.

7. When loading large square bales, load the bales so the sections lie across the tines, as this will prevent the sections from falling through the gap in the tines (see diagram to the right: sections of large square bale loaded perpendicular to the tines). The easiest way to do this is to load the bale in two halves on the loader (one half on each side of the bucket, if wide enough) and flick the sections out onto the tines. By doing so, the sections will remain on the tines and rings longer and get a better chop against the top knife. If loaded incorrectly, the sections will fall through the tines and will not get chopped, putting additional stress on the chopping mechanism.

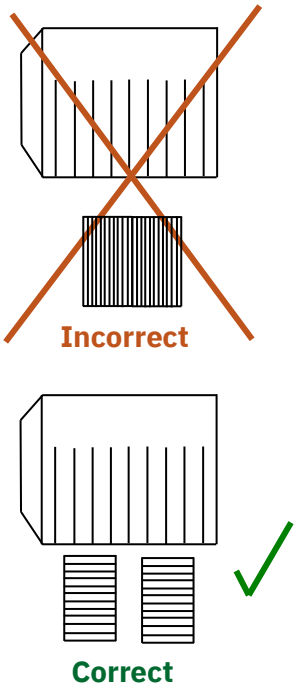

Figure 5

8. To successfully operate the bale handler, the bale should remain on top of the tines long enough to allow the pre-chopping to take place against the serrated top knife. This will ensure that further chopping within the mixing chamber is reduced, and though it may take longer for the bale to be taken in, during this time, the material that has already been cut from the bale will be processed within the chamber.

3 Troubleshooting

3.1 Bale handler troubleshooting

ITEM	PROBLEM	SOLUTION
1	Bale goes in too quickly	If the bale goes into the machine too quickly, it may place an unnecessary load on the tractor and driveline, as well as slowing overall mixing time as the body blades are not as efficient at chopping long fibrous material as the top knife. Check tine buffers and tine-to-top knife gap.
2	Blockage at top knife	On bale handler models, check tine height settings. Ensure all feed materials are free from foreign objects before loading them into the machine. In the unlikely event of a large blockage occurring that prevents the machine from restarting using the tractor, it may be necessary to enter the mixing chamber to manually clear the blockage. Refer to the safety section of the main manual before attempting to enter the mixing chamber.

Table 4: Bale handler troubleshooting

Part II – Parts list

Figure 6: Bale handler general parts

Reference	Description
1	T-bar
2	Creel
3	Tine
4	Load bumper
5	Tine bracket

Table 5: Bale handler general parts list

List of abbreviations used:

P/N:	Part number	OD:	Outer diameter
Qty. and #:	Quantity	N/:	Not applicable
ID:	Inner diameter	c/w:	Complete with

4 Bale handler parts

4.1 Series I bale handler

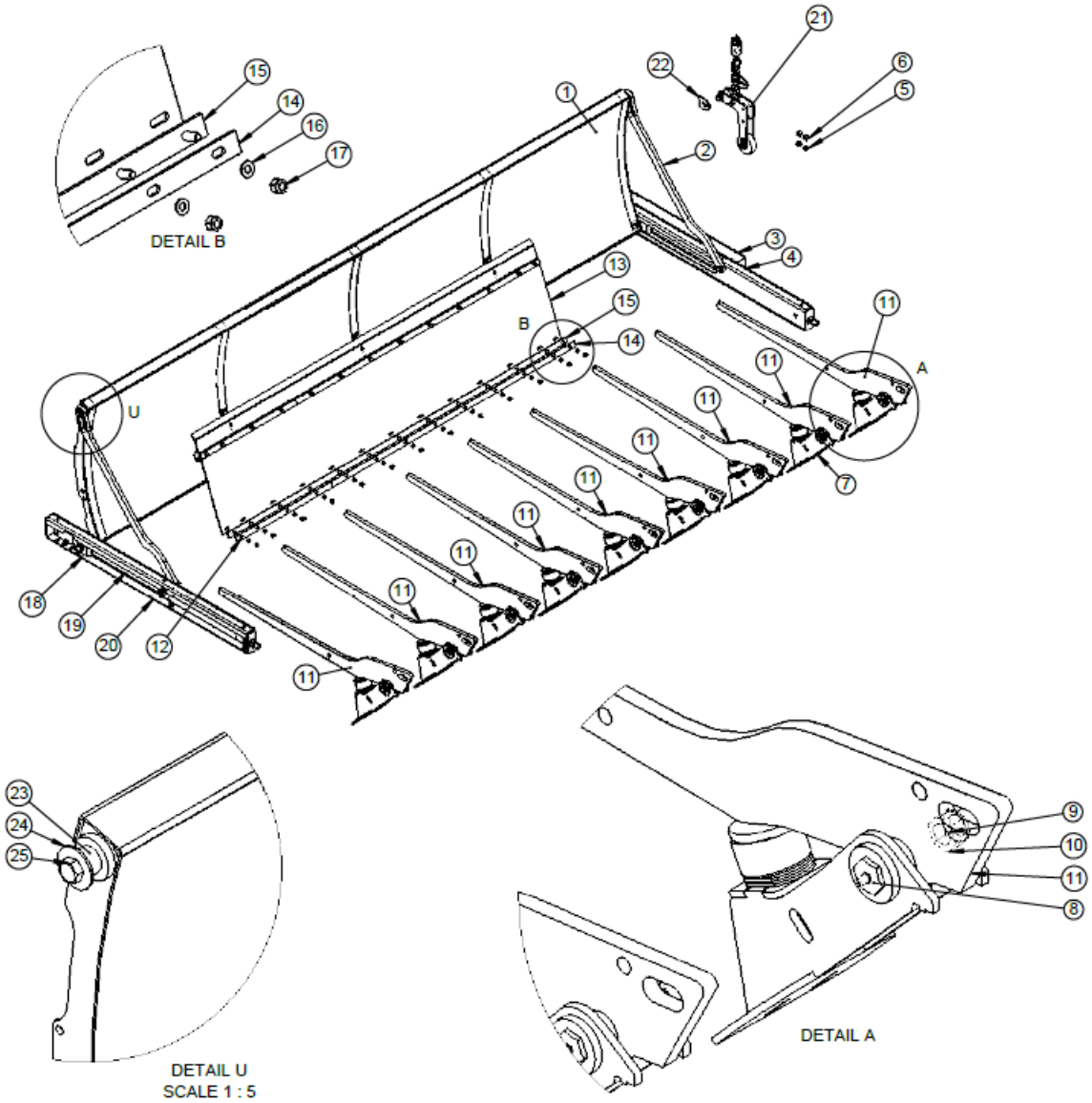

Figure 6: Series I bale handler complete assembly

Model	MF270		MF300		MF320		MF345		MF350		MF365		MF370		MF380		MF400		Parts
Item	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	Description:
1	FP100-045-0002	1	FP160-045-0177	1	FP160-045-0177	1	FP160-045-0177	1	FP160-045-0177	1	FP200-045-0223	1	FP200-045-0223	1	FP200-045-0223	1	FP200-045-0223	1	Bale handler creel curved plate
2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	Bale handler creel guide arm
3	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	Creel end cover plate
4	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	Bale handler end creel assembly (rear)
5	700733	2	700733	2	700733	2	700733	2	700733	2	700733	2	700733	2	700733	2	700733	2	M20 washer
6	700305	2	700305	2	700305	2	700305	2	700305	2	700305	2	700305	2	700305	2	700305	2	M20 locknut
7	FP140-045-0096	8	FP140-045-0096	9	FP140-045-0096	9	FP200-045-0143	9	FP200-045-0143	9	FP200-045-0143	11	FP200-045-0143	11	FP200-045-0143	11	FP200-045-0143	11	Bale handler tine bracket
8	FP140-045-0111	8	FP140-045-0111	9	FP140-045-0111	9	FP140-045-0111	9	FP140-045-0111	9	FP140-045-0111	11	FP140-045-0111	11	FP140-045-0111	11	FP140-045-0111	11	M24 x 150 mm bolt with grease fitting (701127) fitted
9	700318	8	700318	9	700318	9	700318	9	700318	9	700318	11	700318	11	700318	11	700318	11	M24 locknut
10	700316	8	700316	9	700316	9	700316	9	700316	9	700316	11	700316	11	700316	11	700316	11	M24 washer
11	FP140-045-0113	8	FP140-045-0113	9	FP140-045-0113	9	FP200-045-0154	9	FP200-045-0154	9	FP200-045-0154	11	FP200-045-0154	11	FP200-045-0154	11	FP200-045-0154	11	Straight tine
12	FP140-045-0004	1	FP140-045-0004	1	FP140-045-0004	1	FP140-045-0004	2	FP140-045-0004	2									Retainer strip, 5 mm, for rubber apron (675 mm long)
13	FP140-045-0003	1	FP140-045-0003	1	FP140-045-0003	1	FP140-045-0003	1	FP140-045-0003	1	FP200-045-0003	1	FP200-045-0003	1	FP200-045-0003	1	FP200-045-0003	1	Rubber apron
14	FP200-045-0004	1	FP200-045-0004	1	FP200-045-0004	1	FP200-045-0004	2	FP200-045-0004	2	FP200-045-0004	4	FP200-045-0004	4	FP200-045-0004	4	FP200-045-0004	4	Retainer strip, 5 mm, for rubber apron (1725 mm long)
15	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP200-045-0005	1	FP200-045-0005	1	FP200-045-0005	1	FP200-045-0005	1	Apron rail and stud assembly
16	700729	13	700729	13	700729	13	700729	13	700729	13	700729	13	700729	13	700729	13	700729	13	M10 washer
17	700241	13	700241	13	700241	13	700241	13	700241	13	700241	13	700241	13	700241	13	700241	13	M10 locknut
18	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	Bale handler nylon guidewheel
19	704040	2	704040	2	704040	2	704040	2	704040	2	704040	2	704040	2	704040	2	704040	2	End creel ram assembly
20	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	Bale handler end creel assembly (front)

Item	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	Description:
21	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	Creel kicker
22	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	Creel kicker mounting bracket
23	706857	2	706857	2	706857	2	706857	2	706857	2	706857	2	706857	2	706857	2	706857	2	Creel guide arm bush
24	702342	2	702342	2	702342	2	702342	2	702342	2	702342	2	702342	2	702342	2	702342	2	Creel guide arm retaining washer
25	700269	2	700269	2	700269	2	700269	2	700269	2	700269	2	700269	2	700269	2	700269	2	M16 x 110 bolt

Table 6: Series 1 bale handler complete parts list

4.2 Series III bale handler

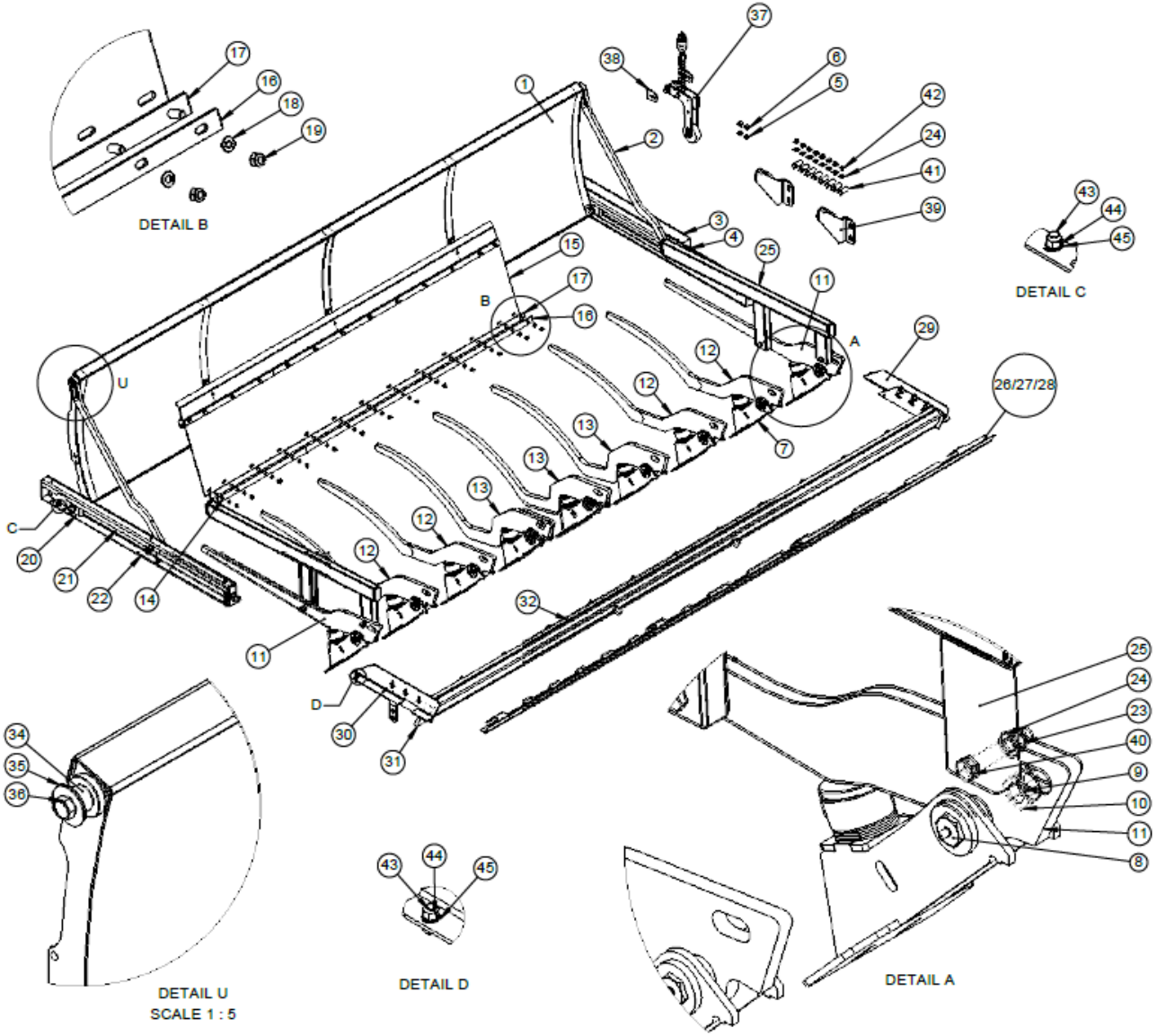

Figure 8: Series III bale handler complete assembly.

Model	MF270		MF300		MF320		MF345		MF350		MF365		MF370		MF380		MF400		Parts
Item	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	Description:
1	FP100-045-0002	1	FP160-045-0177	1	FP160-045-0177	1	FP160-045-0177	1	FP160-045-0177	1	FP200-045-0223	1	FP200-045-0223	1	FP200-045-0223	1	FP200-045-0223	1	Bale handler creel curved plate
2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	FP200-045-0234	2	bale handler Creel Guide Arm
3	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	FP160-045-0088	1	Creel end cover plate
4	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	FP160-045-0003	1	bale handler end creel assembly (rear)
5	700733	2	700733	2	700733	2	700733	2	700733	2	700733	2	700733	2	700733	2	700733	2	M20 washer
6	700305	2	700305	2	700305	2	700305	2	700305	2	700305	2	700305	2	700305	2	700305	2	M20 locknut
7	FP140-045-0096	8	FP140-045-0096	9	FP140-045-0096	9	FP200-045-0143	9	FP200-045-0143	9	FP200-045-0143	11	FP200-045-0143	11	FP200-045-0143	11	FP200-045-0143	11	Bale handler tine bracket
8	FP140-045-0111	8	FP140-045-0111	9	FP140-045-0111	9	FP140-045-0111	9	FP140-045-0111	9	FP140-045-0111	11	FP140-045-0111	11	FP140-045-0111	11	FP140-045-0111	11	M24 x 150 mm bolt with grease fitting (701127) fitted
9	700318	8	700318	9	700318	9	700318	9	700318	9	700318	11	700318	11	700318	11	700318	11	M24 locknut
10	700316	8	700316	9	700316	9	700316	9	700316	9	700316	11	700316	11	700316	11	700316	11	M24 washer
11	FP140-045-0098	2	FP140-045-0098	2	FP140-045-0098	2	FP200-045-0156	2	FP200-045-0156	2	FP200-045-0156	2	FP200-045-0156	2	FP200-045-0156	2	FP200-045-0156	2	Straight tine
12	FP140-045-0118	4	FP140-045-0118	4	FP140-045-0118	4	FP200-045-0158	4	FP200-045-0158	4	FP200-045-0158	6	FP200-045-0158	6	FP200-045-0158	6	FP200-045-0158	6	Dropped tine
13	FP140-045-0115	3	FP140-045-0115	3	FP140-045-0115	3	FP200-045-0162	3	FP200-045-0162	3	FP200-045-0162	3	FP200-045-0162	3	FP200-045-0162	3	FP200-045-0162	3	Extra dropped tine
14	FP140-045-0004	1	FP140-045-0004	1	FP140-045-0004	1	FP140-045-0004	2	FP140-045-0004	2									Retainer strip, 5 mm, for rubber apron (675 mm long)
15	FP140-045-0003	1	FP140-045-0003	1	FP140-045-0003	1	FP140-045-0003	1	FP140-045-0003	1	FP200-045-0003	1	FP200-045-0003	1	FP200-045-0003	1	FP200-045-0003	1	Rubber apron
16	FP200-045-0004	1	FP200-045-0004	1	FP200-045-0004	1	FP200-045-0004	2	FP200-045-0004	2	FP200-045-0004	4	FP200-045-0004	4	FP200-045-0004	4	FP200-045-0004	4	Retainer strip, 5 mm, for rubber apron (1725 mm long)
17	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	FP140-045-0005	1	Apron rail and stud assembly
18	700729	13	700729	13	700729	13	700729	13	700729	13	700729	13	700729	13	700729	13	700729	13	M10 washer
19	700241	13	700241	13	700241	13	700241	13	700241	13	700241	13	700241	13	700241	13	700241	13	M10 locknut
20	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	FP280-045-010	2	Bale handler nylon guide wheel

Item	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	P/N:	#	Description:
21	704040	2	704040	2	704040	2	704040	2	704040	2	704040	2	704040	2	704040	2	704040	2	End creel ram assembly
22	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	FP160-045-0002	1	Bale handler end creel assembly (front)
23	700283	2	700283	2	700283	2	700283	2	700283	2	700283	2	700283	2	700283	2	700283	2	M16 locknut
24	700732	8	700732	8	700732	8	700732	8	700732	8	700732	8	700732	8	700732	8	700732	8	M16 washer
25	EF1045-65	2	EF1045-65	2	EF1045-65	2	EF1745-65	2	EF1745-65	2	EF1745-65	2	EF1745-65	2	EF1745-65	2	EF1745-65	2	T- bar
26	FP100-006-0082	1	FP300-006-0092	1	FP300-006-0092	1	FP160-006-0140	1	FP160-006-0140	1									Load bumper rubber seat plate
27											FP200-006-0144	1	FP200-006-0144	1	FP200-006-0144	1	FP200-006-0144	1	Load bumper rubber front seat plate
28											FP200-006-0145	1	FP200-006-0145	1	FP200-006-0145	1	FP200-006-0145	1	Load bumper rubber rear seat plate
29	FP140-050-0001	1	FP300-050-0003	1	FP140-050-0001	1	FP100-050-002	1	FP100-050-002	1	FP100-050-002	1	FP100-050-002	1	FP280-050-0001	1	FP280-050-0001	1	Load bumper bracket front
30	FP100-050-0001	1	FP300-050-0004	1	FP100-050-0001	1	FP100-050-001	1	FP100-050-001	1	FP100-050-001	1	FP100-050-001	1	FP280-050-0002	1	FP280-050-0002	1	Load bumper bracket rear
31	FP100-050-006	1	FP300-050-0002	1	FP140-050-006	1	FP140-050-006	1	FP140-050-006	1	FP200-050-006	1	FP200-050-006	1	FP200-050-006	1	FP200-050-006	1	Load bumper frame
32	FP100-050-0009	1	FP140-050-0008	1	FP140-050-0008	1	FP160-050-0003	1	FP160-050-0003	1	FP200-050-0008	1	FP200-050-0008	1	FP200-050-0008	1	FP200-050-0008	1	Load bumper rubber
33	FP100-050-005	1	FP140-050-005	1	FP140-050-005	1	FP140-050-005	1	FP140-050-005	1	FP200-050-005	1	FP200-050-005	1	FP200-050-005	1	FP200-050-005	1	Load bumper rubber retainer
34	706857	2	706857	2	706857	2	706857	2	706857	2	706857	2	706857	2	706857	2	706857	2	Creel guide arm bush
35	702342	2	702342	2	702342	2	702342	2	702342	2	702342	2	702342	2	702342	2	702342	2	Creel guide arm retaining washer
36	700269	2	700269	2	700269	2	700269	2	700269	2	700269	2	700269	2	700269	2	700269	2	M16 x 110 bolt
37	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	FP160-045-0180	1	Creel kicker
38	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	FP160-045-0094	2	Creel kicker mounting bracket
39	FP140-006-0065	2	FP300-006-0093	2	FP140-006-0065	2	FP160-006-0139	2	FP160-006-0139	2	FP160-006-0139	2	FP160-006-0139	2	FP280-006-0198	2	FP280-006-0198	2	Load bumper brace plate
40	700281	2	700281	2	700281	2	700281	2	700281	2	700281	2	700281	2	700281	2	700281	2	M16 x 90 bolt
41	700275	8	700275	8	700275	8	700275	8	700275	8	700275	8	700275	8	700275	8	700275	8	M16 x 50 bolt
42	700739	8	700739	8	700739	8	700739	8	700739	8	700739	8	700739	8	700739	8	700739	8	M16 spring washer
43	700247	4	700247	4	700247	4	700247	4	700247	4	700247	4	700247	4	700247	4	700247	4	M12 x 30 bolt
44	700266	4	700266	4	700266	4	700266	4	700266	4	700266	4	700266	4	700266	4	700266	4	M12 locknut
45	700730	8	700730	8	700730	8	700730	8	700730	8	700730	8	700730	8	700730	8	700730	8	M12 flat washer

Table 7: Series III bale handler complete parts list

4.3 Series I and III bale handler tine and tine bracket assemblies

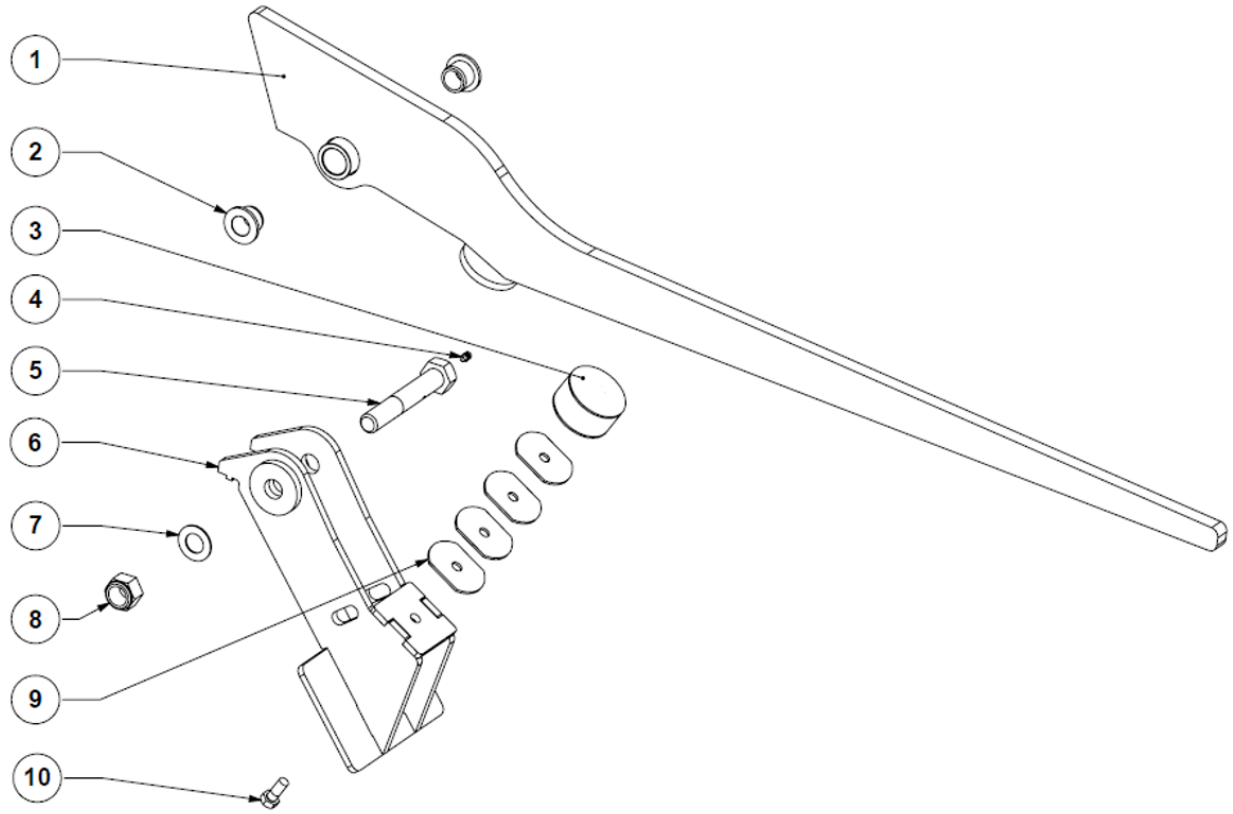

Figure 9: Tine complete assembly

Item:	P/N:		Qty:	Description:
	MF270/300/320	MF345/350/365/370/380/400		
1	See bale handler parts list for specific tine reference	See bale handler parts list for specific tine reference	9/11	Bale handler tine assembly
2	705947	705947	18/22	Delrin bush
3	706876	706876	9/11	Rubber buffer 75 mm OD
4	701129	701129	9/11	1/8 bsp grease point
5	FP140-045-0111	FP140-045-0111	9/11	M24 x 150 mm modified bolt
6	FP140-045-0096	FP200-045-0143	9/11	Bale handler tine bracket
7	700316	700316	9/11	M24 flat washer
8	700318	700318	9/11	M24 locknut
9	FP140-045-0019	FP140-045-0019	9/11	Spacer plate 3 mm
10*	700247	700247	9/11	M12 x 30 mm bolt

Table 8: Tine assembly complete parts list

4.4 Series I and III bale handler creel kicker assembly

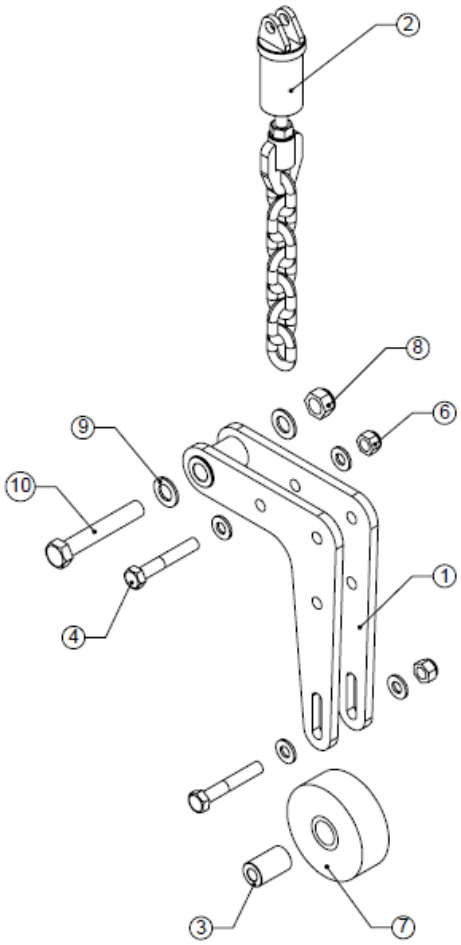

Figure 10: Creel kicker complete assembly

Item:	P/N:	Qty:	Description:
1	FP160-045-0071	1	Bale handler creel kicker arm assembly 1
2	FP160-045-0136	1	Bale handler creel kicker spring kit
3	FP100-006-0021	1	Feed-out tray mechanical adjuster roller pivot bush
4	700262	2	M12 x 75 bolt
5	700730	4	M12 washer
6	700266	2	M12 locknut
7	706859	1	Rubber guide wheel
8	700283	1	M16 locknut
9	700732	2	M16 washer
10	700268	1	M16 x 100 mm bolt

Table 9: Creel kicker complete parts list

4.5 Series I and III bale handler kicker plate assembly

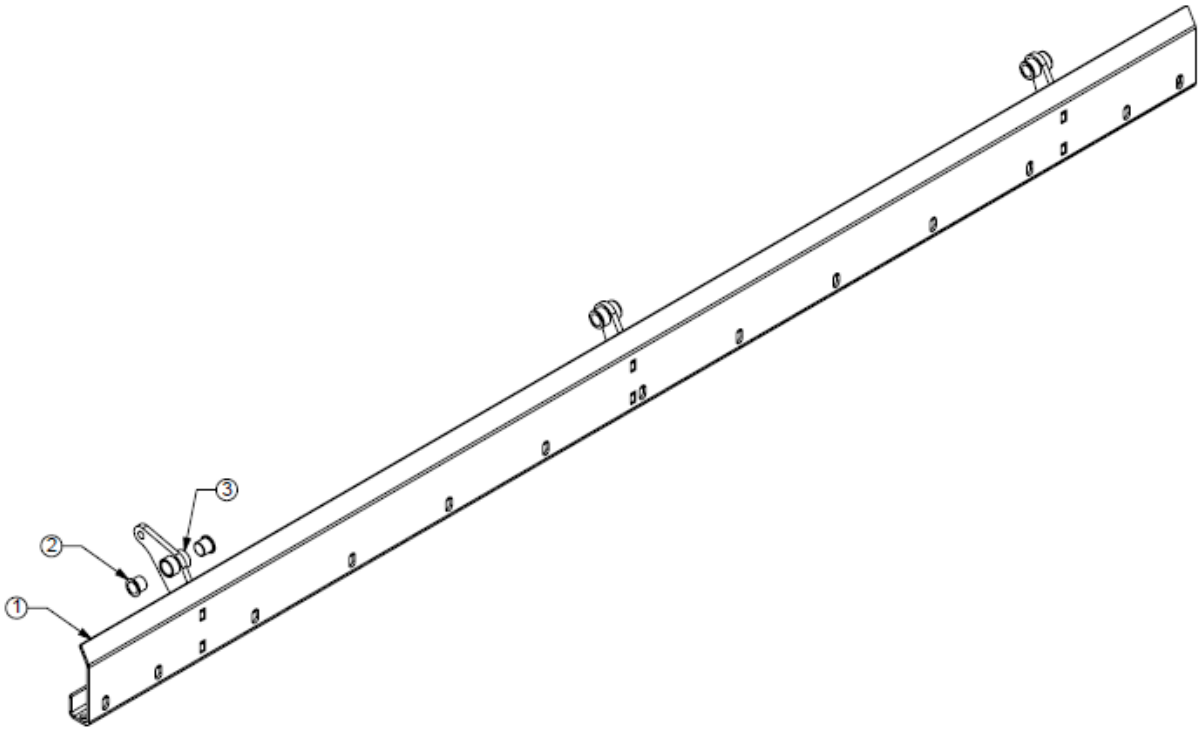

Figure 11: Creel kicker plate assembly

Item:	P/N:		Qty:	Description:
	MF300/320/345/350	MF365/370/380/400		
1	FP160-045-0179	FP200-045-0224	1	Creel kicker plate
2	706806	706806	6/8	Igus bush
3	706807	706807	3/4	Steel bush

Table 10: Creel kicker plate parts list

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