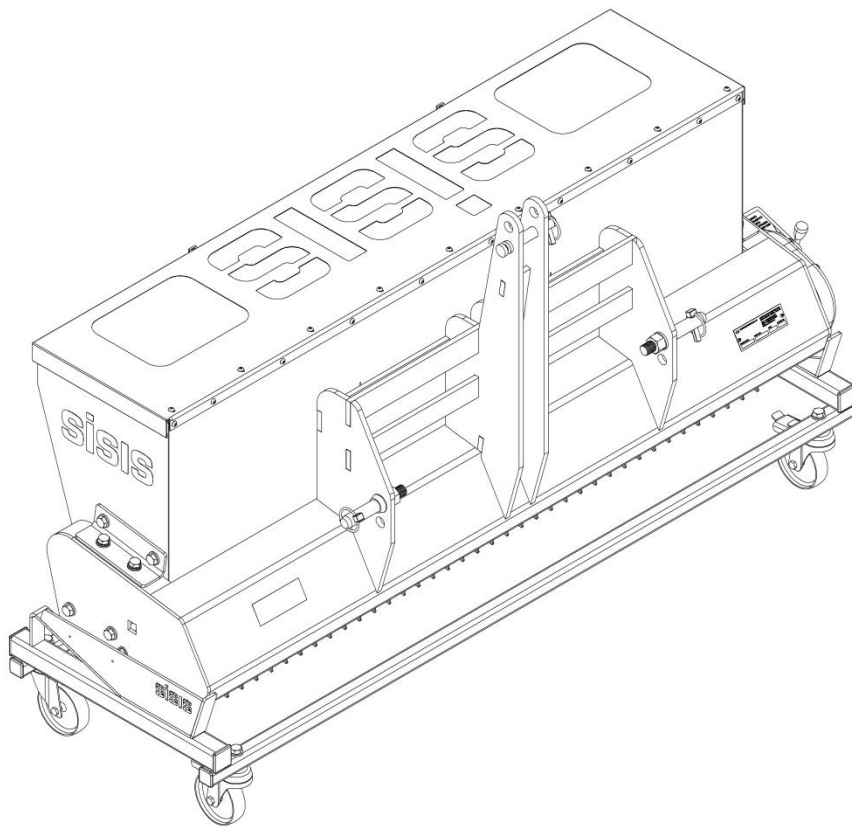


sisis[®]

VARISEEDER 1300

INSTRUCTION MANUAL



Variseeder 1300 CN Code: 84323011

Manufacturer:- Howardson Ltd, Howardson Works, Kirk Langley, Derby, DE6 4NJ. UK

Owner of Technical Document:- Mr I.D. Howard, Howardson Ltd, Howardson Works Kirk Langley, Derby, DE6 4NJ, UK

I the under signed Declare that these machines:-

Tested at:- Howardson Works test site September 2011

Complies with the applicable requirements of:-
- Machine Directive 2006/42/EC

Managing Director



Ian Howard

SERIAL NUMBERS



NOTE:-

MAKE A NOTE OF THE SERIAL NUMBER OF YOUR MACHINE AND ALWAYS QUOTE IT IN ANY COMMUNICATION WITH PERSONNEL AT DENNIS.

MACHINE SERIAL NUMBER

INTRODUCTION

The reliability and quality of performance of the **SISIS VARISEEDER 1300** depends upon some simple care maintenance carried out regularly. This manual has been prepared to allow the user to carry out all such work.

It is advisable to read the instructions carefully. Proper care and attention will enable the machine to give a continuous, satisfactory, and reliable service. Failure to carry out regular lubrication and maintenance as outlined in this manual may render any guarantee or warranty invalid.

In the case of any difficulty, or if further information or advice is required, our Service Department is always at your call. In the interests of speed and accuracy of information please quote the serial numbers of the machine and engine when making enquiries.

For the machine, this is to be found on a plate attached to the side frame. The engine number is stamped on either the crank case or the gear casing facing towards the front of the machine. We suggest you write the numbers on the front page of this book.

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TECHNICAL DATA

MODEL	VARISEEDER 1300
WIDTH (mm)	1560
LENGTH (mm)	600
HEIGHT (mm)	800
HOPPER CAPACITY (m ²)	0.14
WEIGHT (Kg)	162
WORKING WIDTH (mm)	1300
SEED SPACING	3.5cm – 5cm
COVERAGE RATES (m ² /hr)	8450
RECOMMENDED TRACTOR	10kw – 14hp

IMPORTANT SAFETY INTRODUCTIONS



CAUTION:-

READ THE INSTRUCTIONS. We want you to obtain the best performances from this machine. If you have any difficulty in carrying out the following instructions please contact your local SISIS dealer.

NEVER

- Carry out adjustments whilst the machine is running.
- Allow any unauthorised person to handle machines in any way at any time.

ALWAYS

- Read the operating instructions carefully and understand the controls before commencing work.
- Before starting work always visually check machine for damage or wear to parts.
- Look behind before starting to reverse and watch out for children or pedestrians.
- Switch off the power before making adjustments or repairs and never lift or carry a machine whilst any parts are moving.

SEEDING RATE GUIDES

PERENNIAL RYE GRASS			FESCUE			BENT SEED (FINE REEL ONLY)		
	Gms/m ²	Oz/yd ²		Gms/m ²	Oz/yd ²		Gms/m ²	Oz/yd ²
A	30	0.88	A	18	0.52	A	7.8	0.22
B	20	0.58	B	12.8	0.37	B	5.0	0.14
C	8.8	0.25	C	6.2	0.18	C	2.0	0.05
D	5	0.14	D	3	0.08	D	1.0	0.02

All seed rates are approximate. Seed grain size and ground conditions will affect the rate of application. Accurate seed rates can be obtained by on site calibration. The above rates were obtained using Rigby Taylor Seed mixtures.

GOLF COURSE/FINE TURF SEED MIXTURES

	Sowing Rate > more than	Cutting Height < less than	
Browntop Bent / Fescue	> 35 Gms/m ²	< 5mm	
Browntop Bent / Fescue	> 35 Gms/m ²	< 4mm	<8mm
Browntop Bent / Fescue	> 35 Gms/m ²	< 5mm	
Browntop Bent	6-12 Gms/m ²	< 4mm	<8mm
Perennial Ryegrass	25-35Gms/m ²	< 5mm	
Browntop Bents	6-12 Gms/m ²	< 4mm	<8mm
Creeping Bent	4-6 Gms/m ²	< 3.5mm	<8mm
Creeping & Browntop Bent	4-6 Gms/m ²	< 4mm	<8mm
P. Ryegrass / Fescue / Bents	30 Gms/m ²	< 4mm	<8mm
P. Ryegrass / Fescue / Bents	30 Gms/m ²	< 7mm	
Fescues / Browntop Bent	20 Gms/m ²	< 4mm	
Fescues / Browntop Bent	30 Gms/m ²	< 10mm	
Fescues / Bent / S.S.M	30 Gms/m ²	< 12mm	
Fescues / Bent	30-35 Gms/m ²	< 12mm	
P. Ryegrass / Fescue / Bent	25-35 Gms/m ²	< 15mm	

CRICKET MIXTURES

	Sowing Rate > more than	Cutting Height < less than
P. Ryegrass / Fescue / Bents	30 Gms/m ²	5-35 mm
Perennial Ryegrass	25-35 Gms/m ²	< 5mm
P. Ryegrass / Fescues	35 Gms/m ²	< 10mm
P. Ryegrass / Fescue / Bents	30 Gms/m ²	< 7mm

SPORTSFIELD MIXTURES

	Sowing Rate > more than	Cutting Height < less than
P. Ryegrass	35 Gms/m ²	< 25mm
P. Ryegrass / Fescues	35 Gms/m ²	< 25mm
P. Ryegrass / Fescues	35 Gms/m ²	< 30mm
P. Ryegrass	35 Gms/m ²	< 25mm

DESIGN

The SISIS VariSeeder is designed for use on: golf greens, tees and approaches, soccer goal mouths and centres, tennis base lines, cricket run-ups and ends. Etc.

The VariSeeder has a working width of 1300mm.

The studded roller, specially manufactured and spiralled to SISIS design creates thousands of little “seed troughs” to receive the grass seed which is metered simultaneously. The framework has provision for additional weights if required for extra depth in hard conditions.

PRINCIPLE

The VariSeeder tine shaft is driven by the forward motion of the machine when the studded roller is in contact with the ground.

The tine shaft in turn drives the seeder shaft at a given rate through the variable speed gearbox.

STORAGE

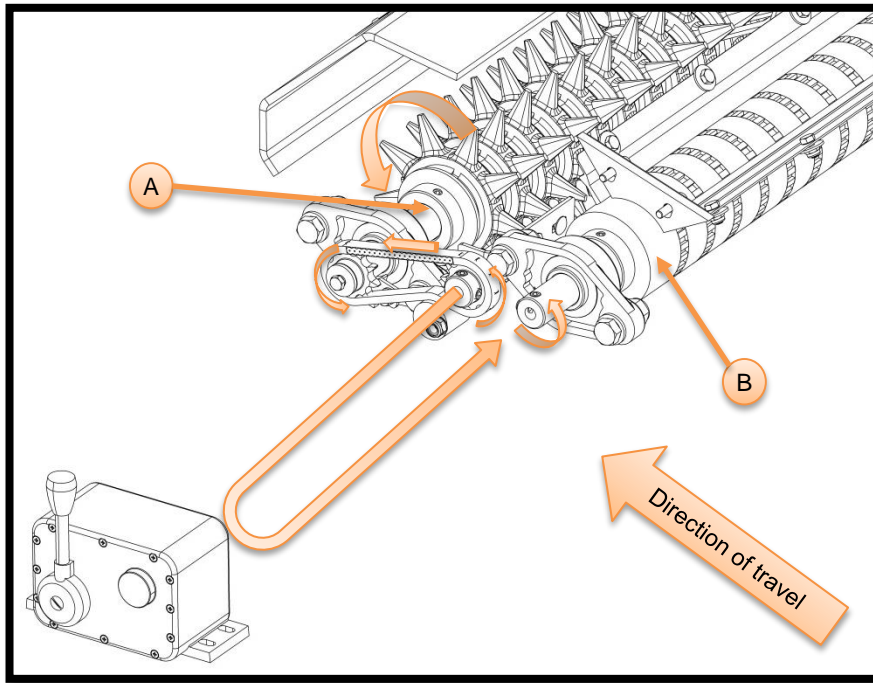
Always remove seed from hopper before storage. Always keep seed dry and free from vermin.

Do not place items on the hopper lid as damage may occur.

Always store the VariSeeder on the trolley to prevent damage to the tine wheels.

SEED DISTRIBUTION

Seed distribution is achieved through a variable speed gearbox. The ground driven tine wheel shaft (A) forms the input to the gearbox. This causes the seeder shaft (B) on the gearbox output to rotate at the desired rate.

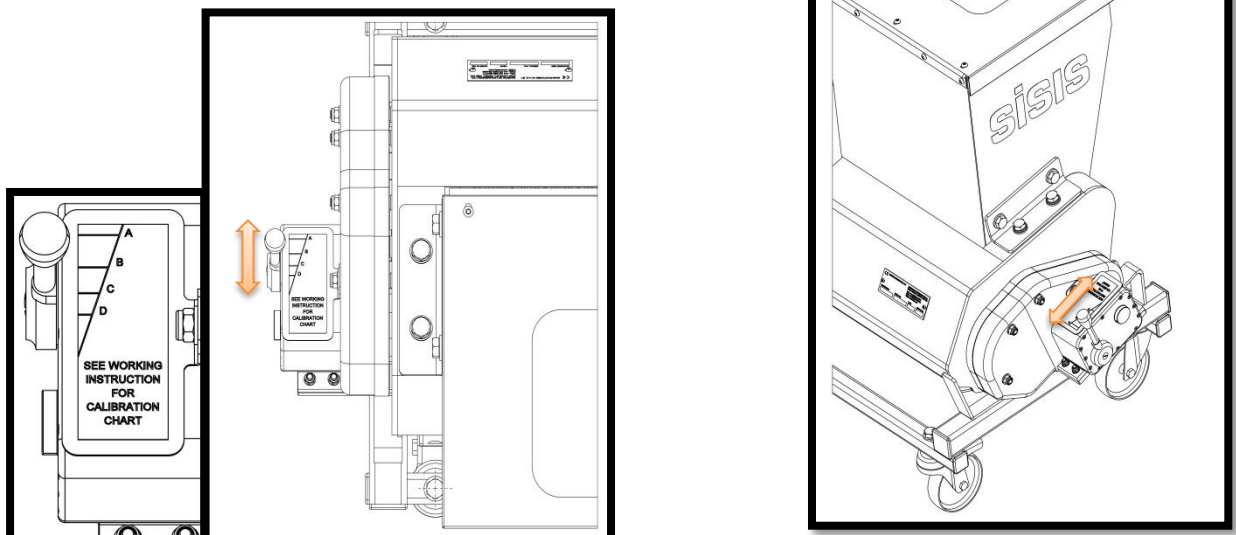


SEEDING RATES

To alter the seed rate, unlock the control lever on the gear box by turning the red knob as indicated on the top of the control lever. Move the lever to the correct position and lock the lever firmly.

The seed rates are given in this guide (see previous page)

Different lower rates can be achieved by moving the lever from 'A' towards 'B', 'C' & 'D' marks. A releases the highest rate of seeds and D releases the least amount of seed.



For lower seed rates, seeder gears can be changed (See P3.02), Remove the seeder shaft by removing 2 bearings on either end of the shaft, spacers and seeder wheels can then be taken off and replaced. Reverse procedure to reattach seeder reel.

CONNECTION TO THE TRACTOR

Connect the VariSeeder to the 3 point link arms, ensuring that stabilisers are fitted. Adjust the top link so that the frame is parallel to the ground,

Extra weight may be required to assist penetration in hard conditions. Maximum weight 81 kilos.

Always fit weights when the machine is attached to the tractor, to maintain machine stability.

Always remove weights before disconnecting machine from tractor. Additional tractor weights are available from SISIS. Part Number F33150 Maximum 6 off. 13.5 kilos each (30lbs).

MAINTENANCE AND LUBRICATION

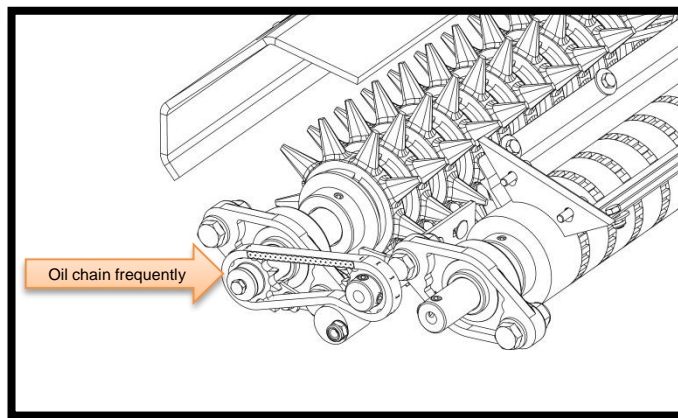
Oil chain frequently and ensure cleanliness of the chain and within the guard.

Ensure hopper brushes and end plates are adjusted to prevent seed spillage.

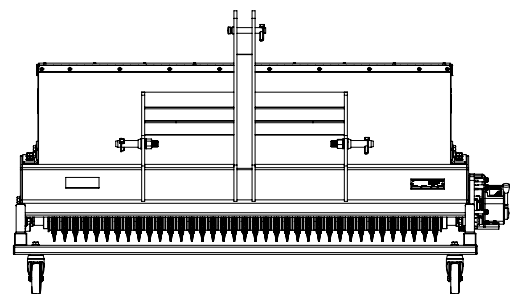
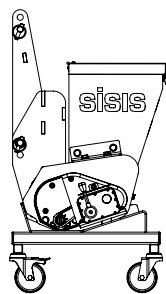
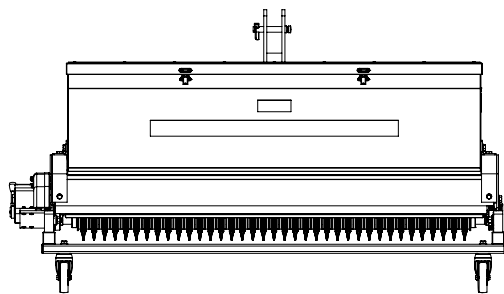
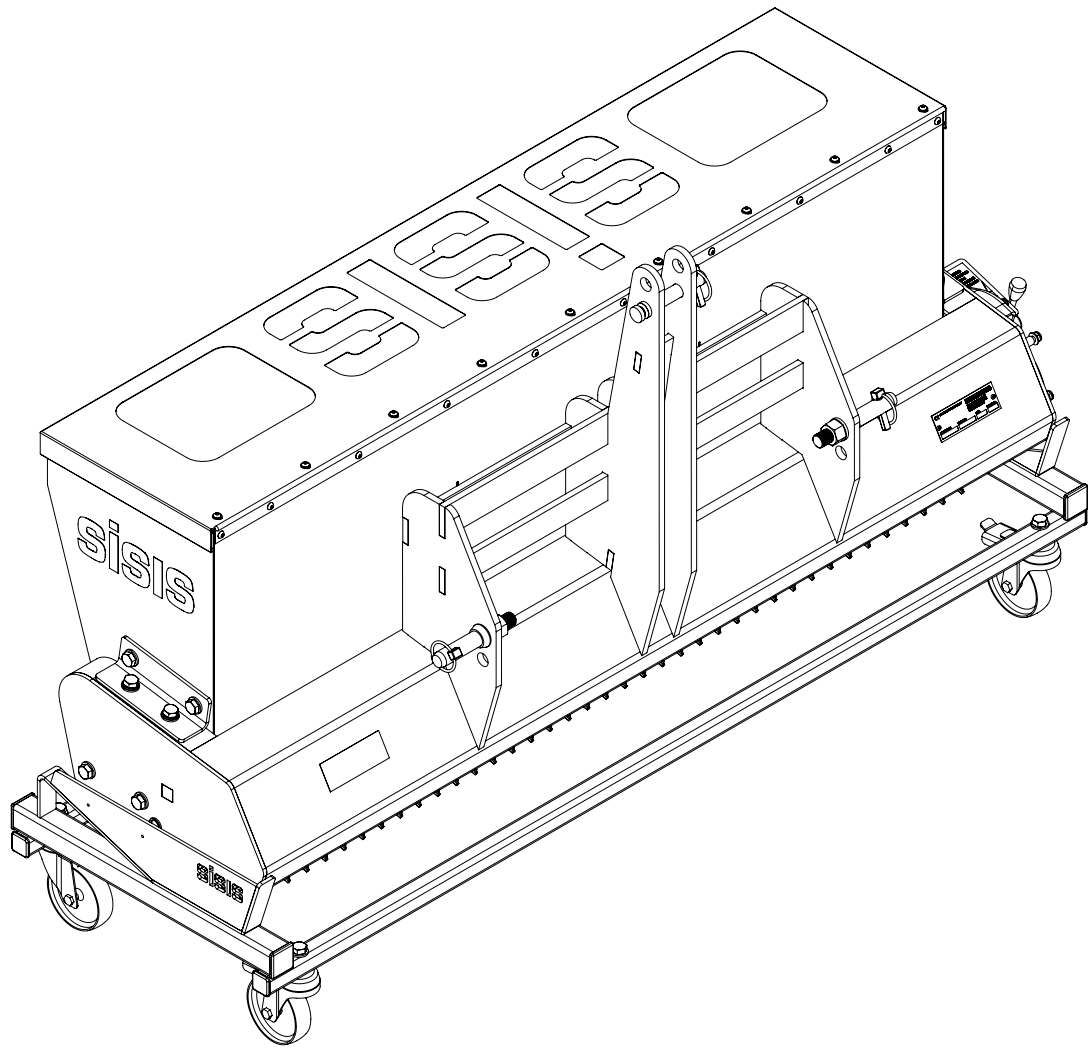
Do not adjust end plates tightly to the seeder shafts as damage may occur to the gearbox. The gearbox is fitted with an overload device to reduce the advent of damage.

If the seeder roller fails to turn when in work investigate and release the restriction.

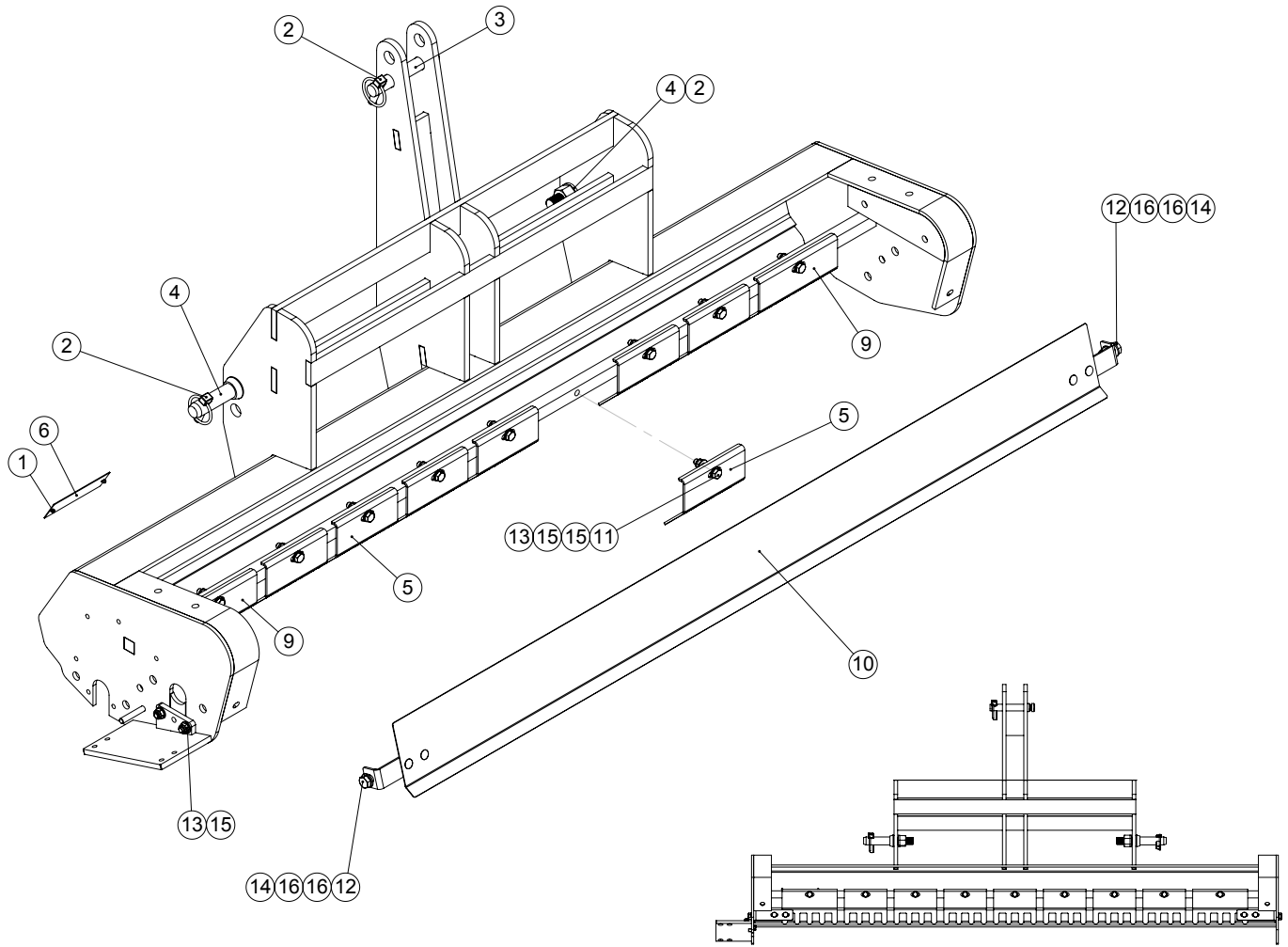
Scrapers may need adjustment to prevent contact with the tine wheels.



VARISEEDER 1300 - PARTS BOOK



MAIN FRAME

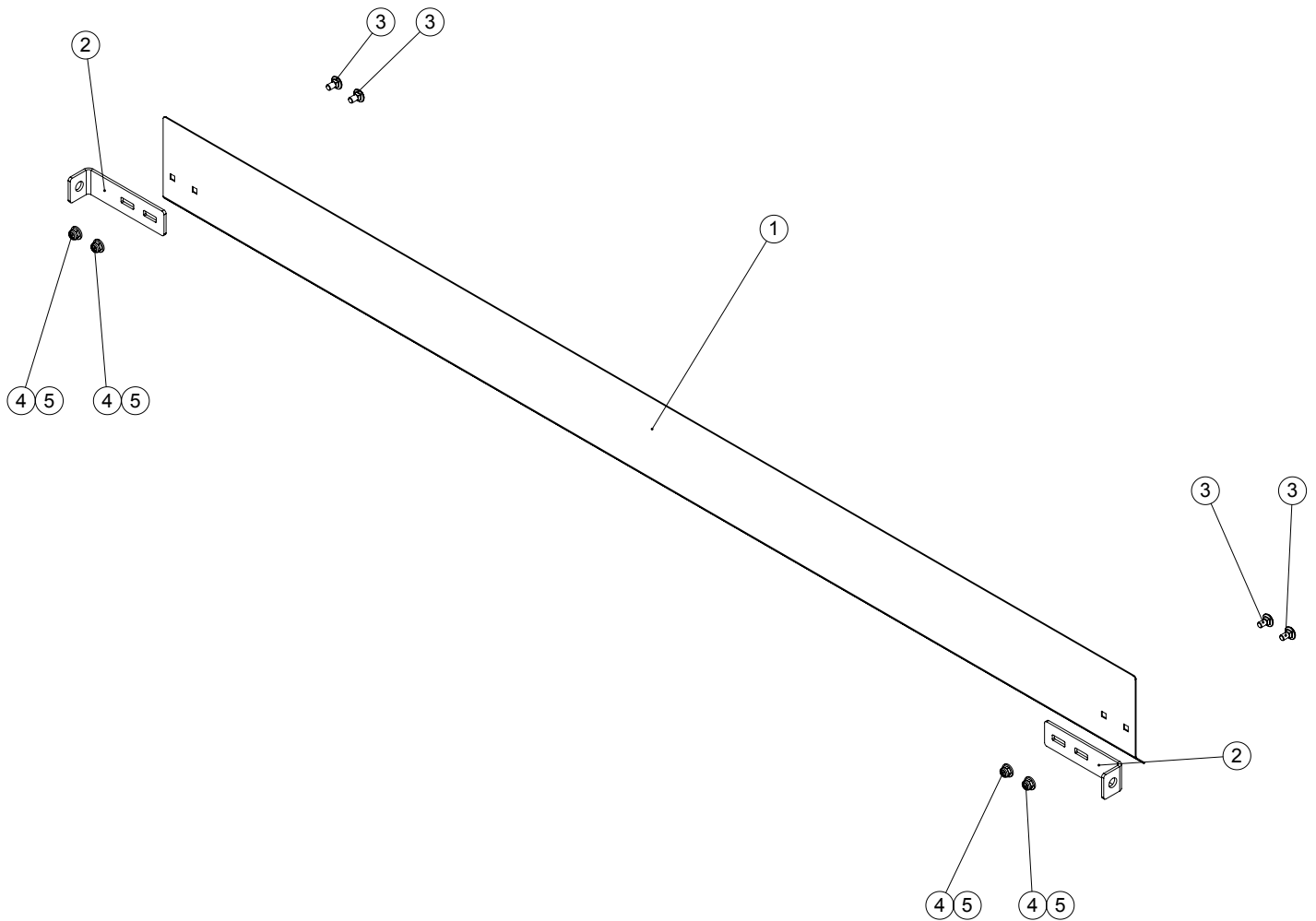


NOTE: SOME PARTS OMITTED FOR CLARITY

ITEM NO.	PART NUMBER	DESCRIPTION	FRAME/QTY.
1	D1871_REV1	RIVET 3.2 X 6	2
2	D8326_REV1	PIN LINCH 7/16"	3
3	D8617_REV1	TOP LINK PIN 3/4"	1
4	F20327_REV0	IMPLEMENT MOUNTING PIN	2
5	F33745_REV2	TINE SCRAPER	7
6	F36000_REV2	SERIAL NO PLATE (SISIS)	1
7	F36800_REV7	MAIN FRAME	1
8	F36805_REV2	GEARBOX MOUNT	1
9	F36808_REV2	TINE SCRAPER	2
10	F36816_REV99 **	SEEDER DEFLECTOR ASSY	1
11	SP01027_REV0	HEX SET SCREW M8 X 40	9
12	SP01035_REV0	HEX SET SCREW M10 X 25	2
13	SP02006_REV0	NUT M8 NYLOC (T)	11
14	SP02008_REV0	NUT M10 NYLOC (T)	2
15	SP03008_REV0	WASHER M8 FORM A	20
16	SP03011_REV0	WASHER M10 FORM A	4

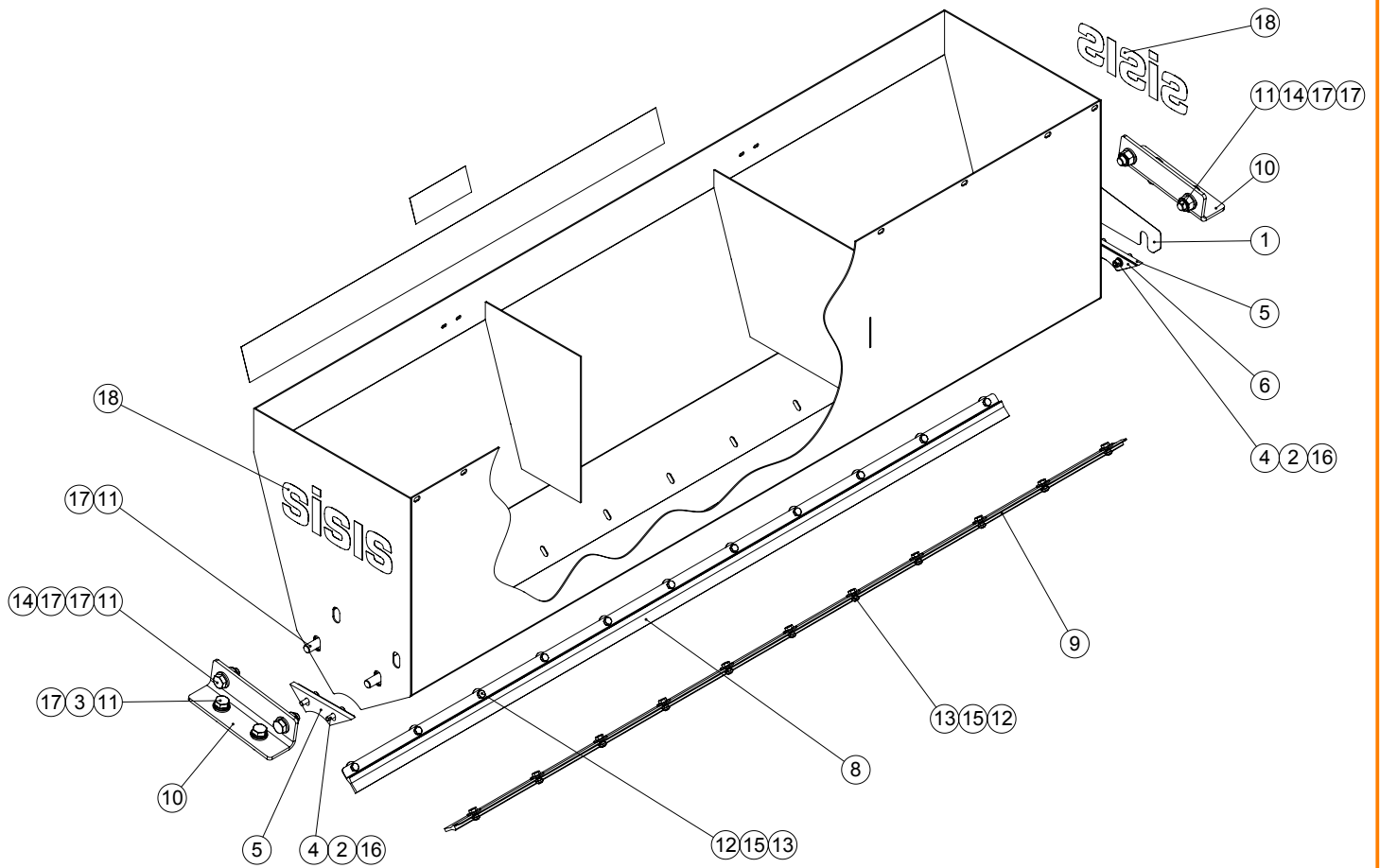
** CONTINUED ON P1.02

SEEDER DEFLECTOR ASSEMBLY - F36816



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	403101_REV0	SEED DEFLECTOR PLATE	1
2	403102_REV0	SEEDER DEFLECTOR BRACKET	2
3	SP01007_REV0	COACH BOLT M6	4
4	SP02004_REV0	NUT M6 NYLOC	4
5	SP03014_REV0	WASHER M6 FORM C	4

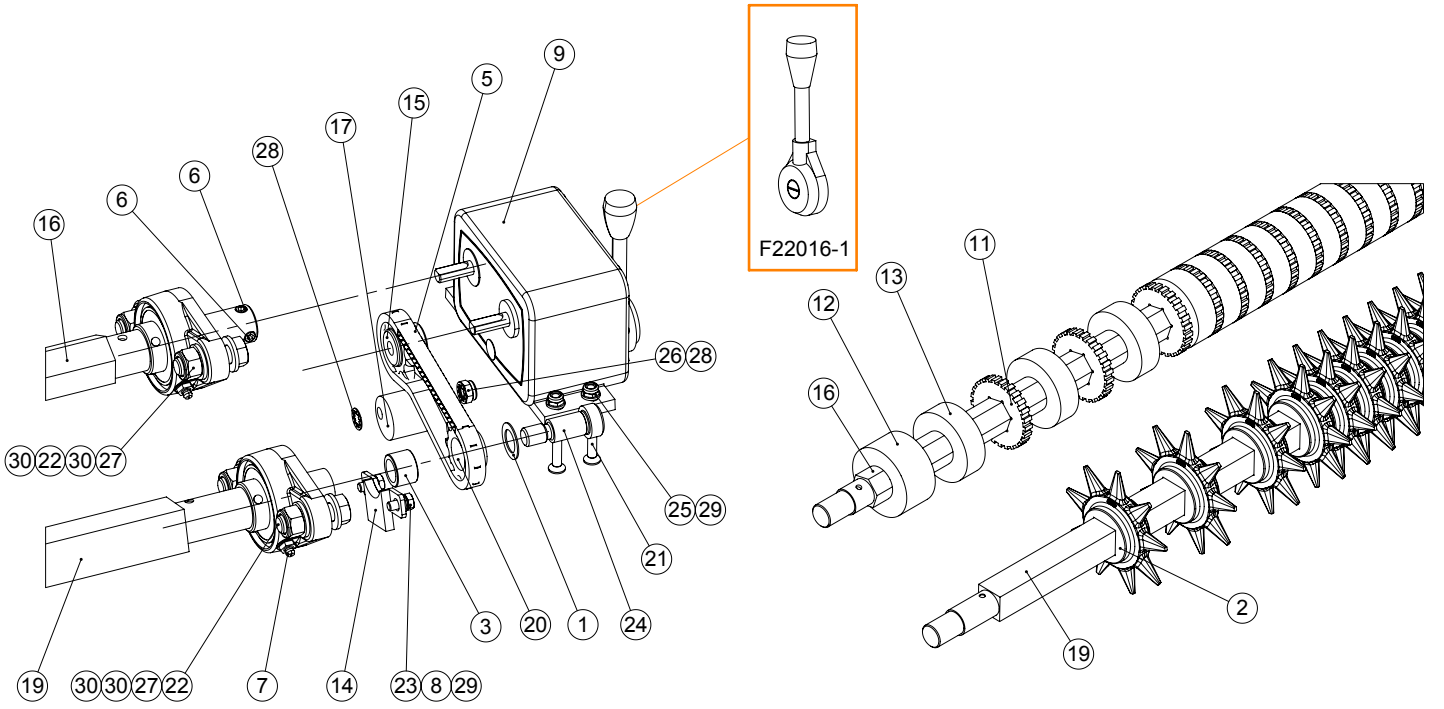
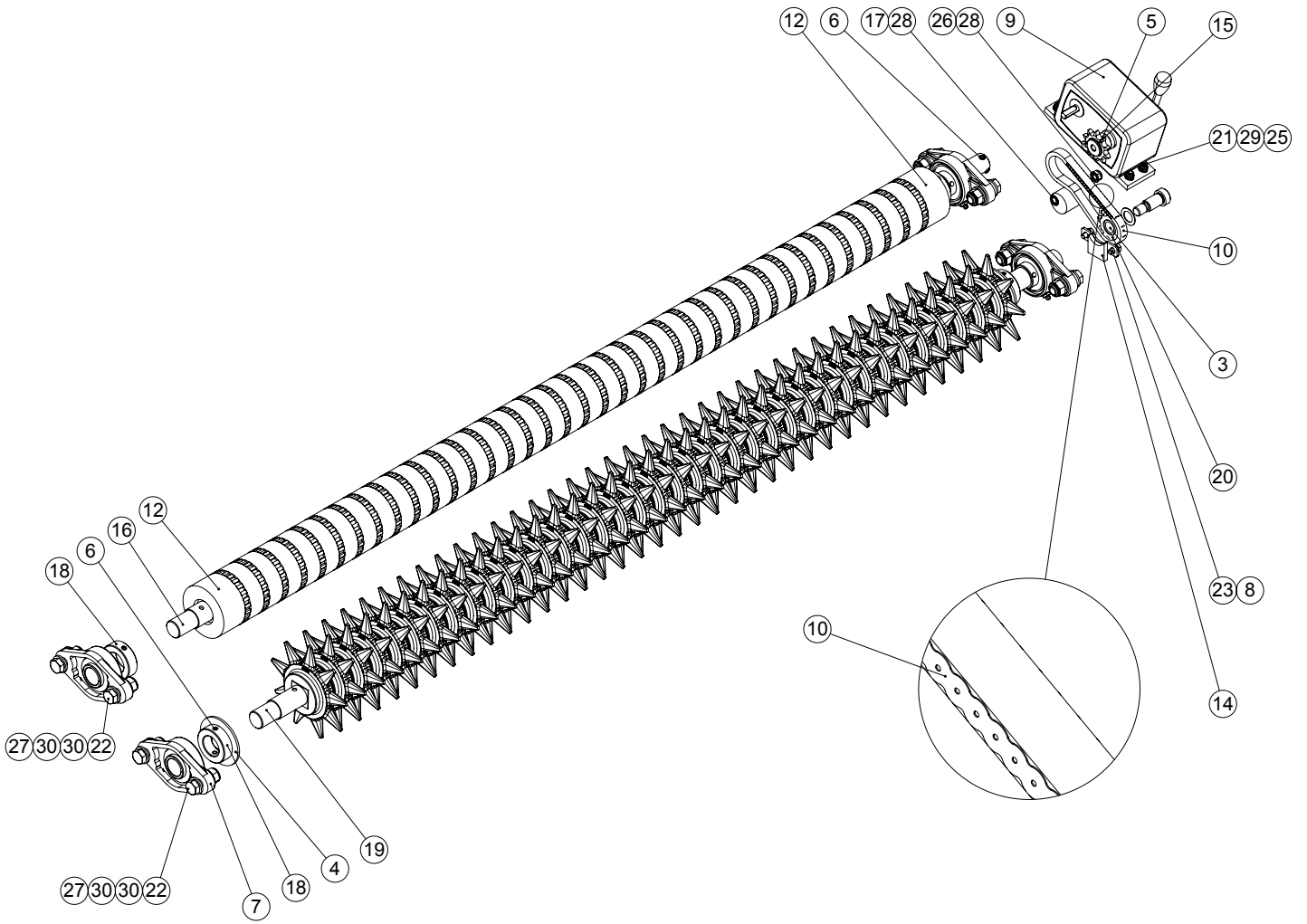
HOPPER



NOTE: PARTS CUT AWAY FOR CLARITY

ITEM NO.	PART NUMBER	DESCRIPTION	HOPPER/QTY.
1	403186_REV0	SHIM VARISEEDER	1
2	E1-1061_REV0	WASHER M6 SPRING	4
3	E1-1065_REV0	SPRING WASHER M12 SQUARE SECTION	8
4	E1-1669_REV0	CAP HEAD M6 X 25	4
5	F33741_REV2	RUBBER SIDE SEAL	2
6	F35905_REV2	CLAMP PLATE	2
7	F36801_REV8	HOPPER	1
8	F36802_REV2	BRUSH STRIP (INSIDE)	1
9	F36803_REV2	BRUSH STRIP (OUTSIDE)	1
10	F37193_REV3	ANGLE BRACKET	2
11	SP01065_REV0	HEX SET SCREW M12 X 30	12
12	SP01088_REV1	HEX SET SCREW M6 X 12	22
13	SP02004_REV0	NUT M6 NYLOC	22
14	SP02010_REV0	NUT M12 NYLOC (T)	4
15	SP03007_REV0	WASHER M6 X 20	22
16	SP03010_REV0	WASHER M6 FORM A	4
17	SP03012_REV0	WASHER M12 FORM A	16
18	SP18007_REV0	DECAL SISIS BLACK	2
19	D4112_REV1	DECAL	1
20	F36818_REV1	VARISEEDER DECAL	1

DRIVE SYSTEM



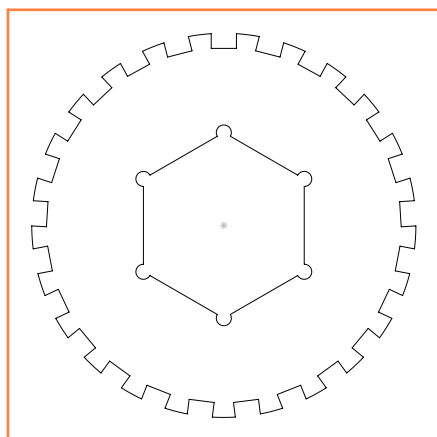
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DRIVE SYSTEM

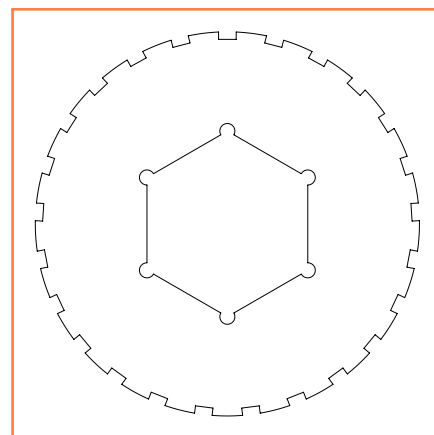
ITEM NO.	PART NUMBER	DESCRIPTION	DRIVE/QTY.
1	403368_REV0	SPACER 16 X 25 X 0.9	1
2	C153_REV1	TINE WHEEL	37
3	D3210_REV1	ROLLER CLUTCH BEARING	1
4	D7373_REV1	SQUARE BORE WASHER	2
5	D8068_REV0	GRUB SCREW M6 X 6	2
6	D8153_REV1	GRUB SCREW M8 X 10	10
7	D8298_REV1	BEARING UCFT205-25	4
8	E1-1061_REV0	WASHER M6 SPRING	2
9	F22016_REV1	GEARBOX	1
10	F22031_REV1	CHAIN	1
11	F31291_REV1 **	SEEDER GEAR	37
12	F31293_REV1	SPACER	2
13	F33803_REV1	SPACER	36
14	F36806_REV1	SHAFT COVER	1
15	F36812_REV1	DRIVEN SPROCKET	1
16	F36815_REV2	SEEDER SHAFT	1
17	F36817_REV1	TENSIONER BLOCK	1
18	F36850_REV1	LOCKING COLLAR	4
19	F37190_REV4	TINE WHEEL SHAFT	1
20	F37192_REV1	SPROCKET 08B1 10T	1
21	SP01056_REV0	CSK CAP HEAD M6 X 25	4
22	SP01078_REV0	HEX SET SCREW M12 X 40	8
23	SP01088_REV1	HEX SET SCREW M6 X 12	2
24	SP01160_REV0	SHOULDER BOLT 5/8" X 1" 1/2" UNC	1
25	SP02004_REV0	NUT M6 NYLOC	4
26	SP02006_REV0	NUT M8 NYLOC (T)	1
27	SP02010_REV0	NUT M12 NYLOC (T)	8
28	SP03004_REV0	WASHER M8 TOOTHED	2
29	SP03010_REV0	WASHER M6 FORM A	6
30	SP03012_REV0	WASHER M12 FORM A	16

** DEPENDENT ON MODEL TYPE (SEE BELOW):

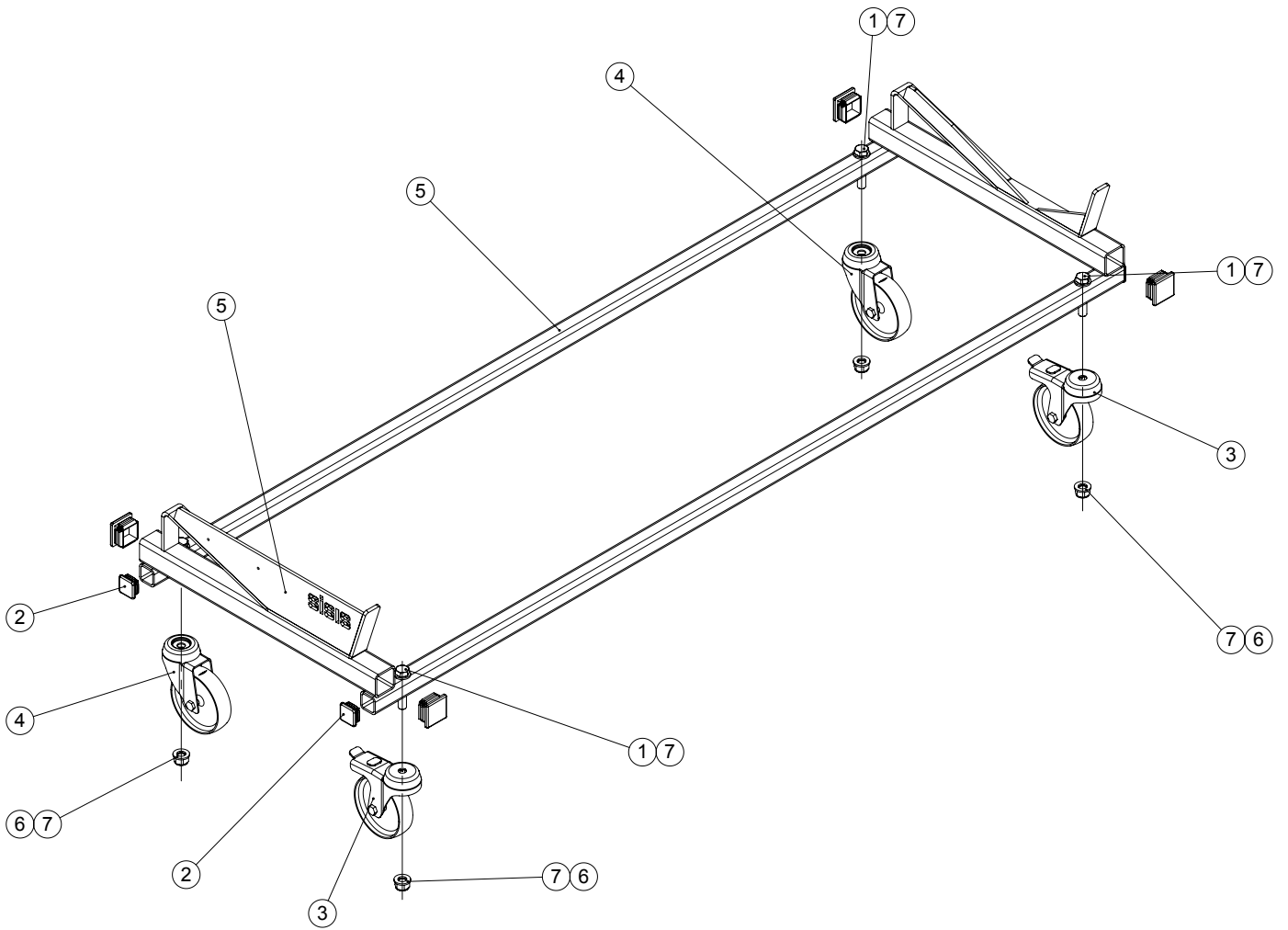
SEEDER GEAR STANDARD
PART: F31291
MODEL: FS1056



SEEDER GEAR FINE
PART: F31875
MODEL: FS1059

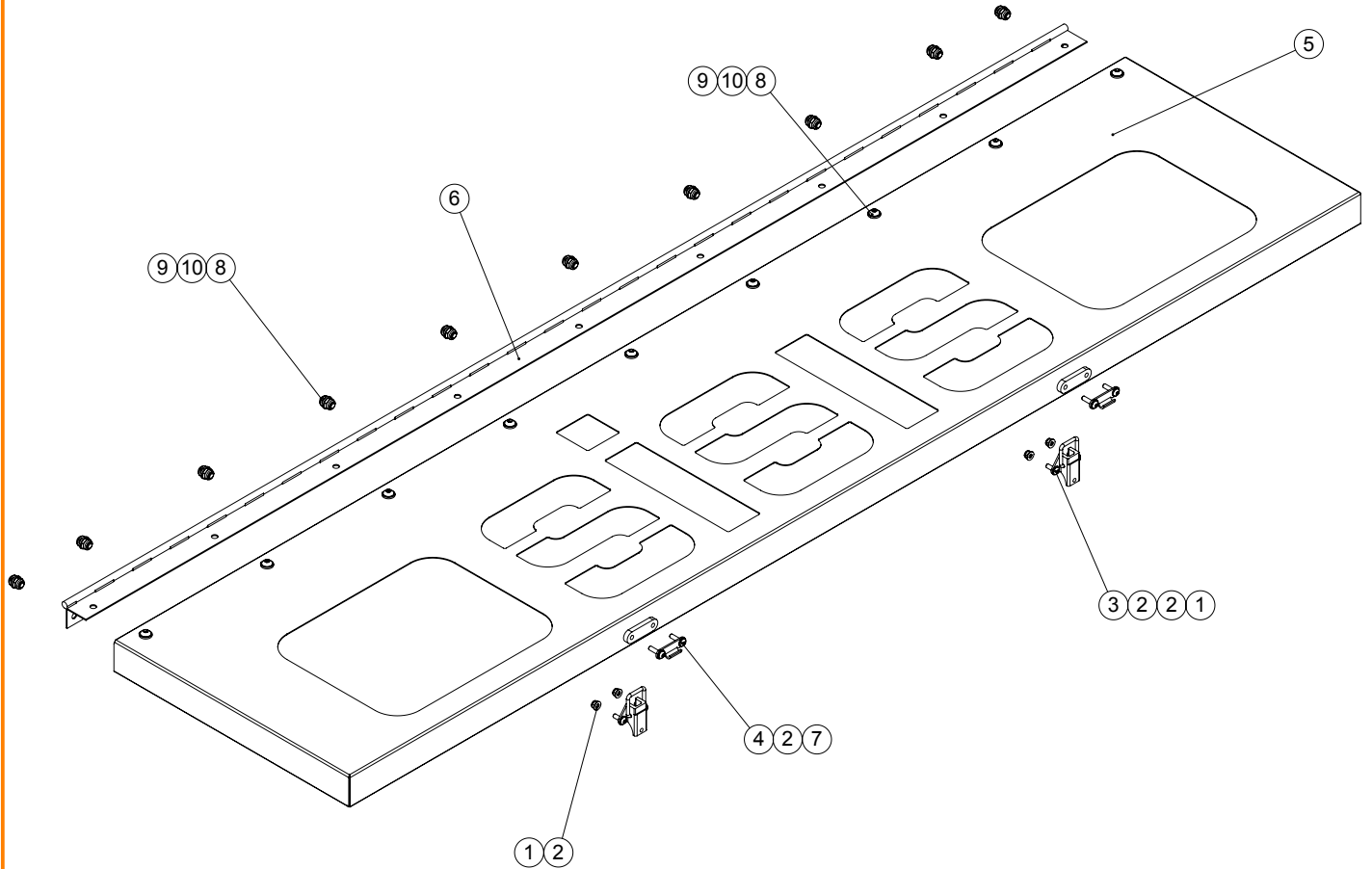


TROLLEY



ITEM NO.	PART NUMBER	DESCRIPTION	TROLLEY/TROLLY/QTY.
1	E1-1161_REV0	HEX SET SCREW M12 X 60	4
2	F21656_REV1	TUBE INSERT 30X30	4
3	F25007_REV0	CASTOR 100 DIA BRAKED	2
4	F25056_REV0	CASTOR 100 DIA	2
5	F37624_REV1	VARISEEDER STAND	1
6	SP02010_REV0	NUT M12 NYLOC (T)	4
7	SP03012_REV0	WASHER M12 FORM A	8
8	D8955_REV1	INSERT 40MM SQUARED	4

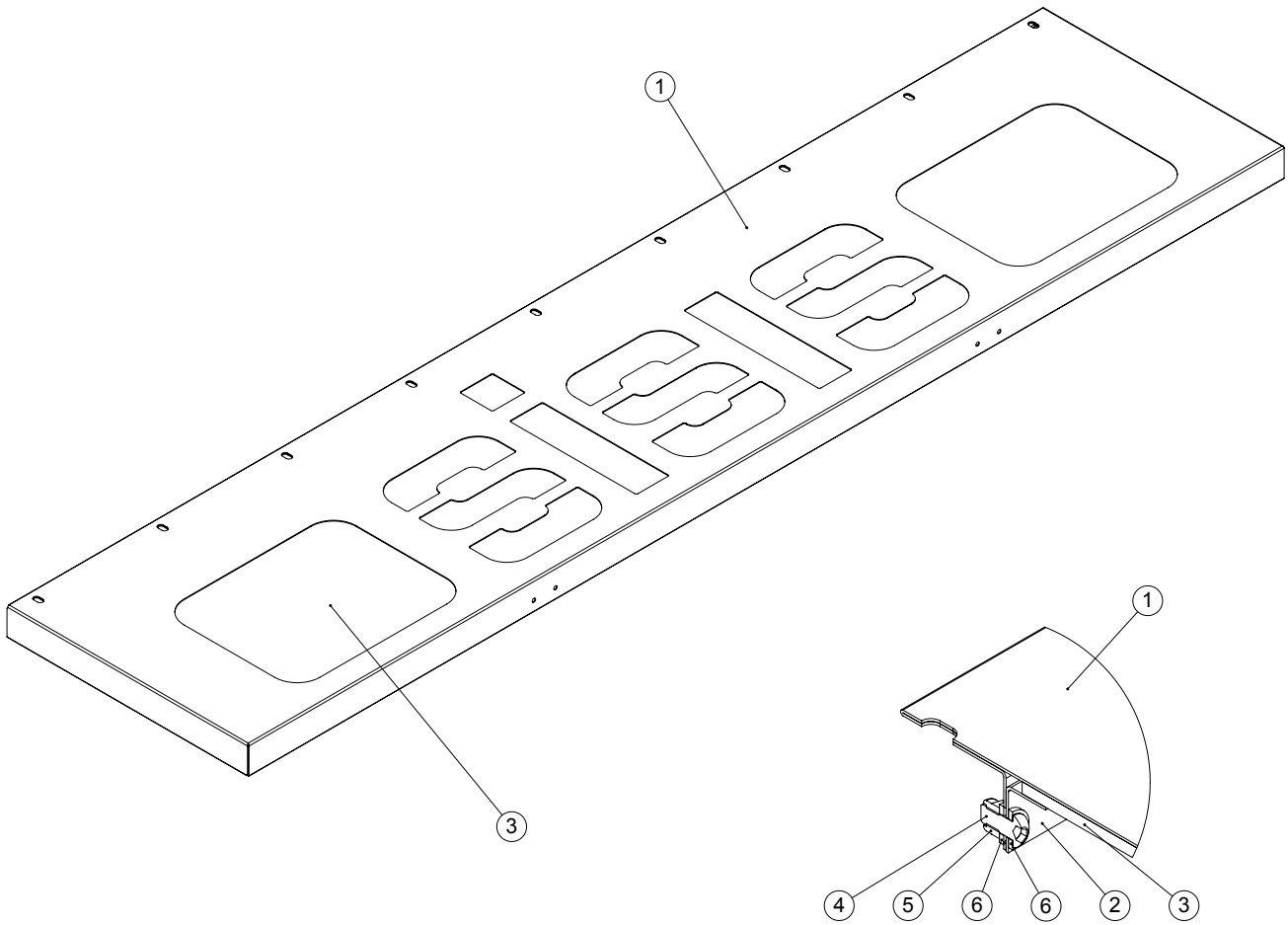
HOPPER LID



ITEM NO.	PART NUMBER	DESCRIPTION	LID/QTY.
1	F20431_REV1	NUT M4 NYLOC	8
2	F20803_REV1	WASHER M4 FORM A	16
3	F22096_REV1	BUTTON HEAD M4 X 12	4
4	F22097_REV1	BUTTON HEAD M4 X 16	4
5	F36804_REV1**	LID ASSY	1
6	F36809_REV1	HINGE DRILLING	1
7	F36935_REV2	PACKING STRIP	2
8	SP01016_REV0	BUTTON HEAD M6 X 12	19
9	SP02004_REV0	NUT M6 NYLOC	19
10	SP03010_REV0	WASHER M6 FORM A	19
11	F22094_REV1	LATCH	2
12	F22095_REV1	STRIKE	2

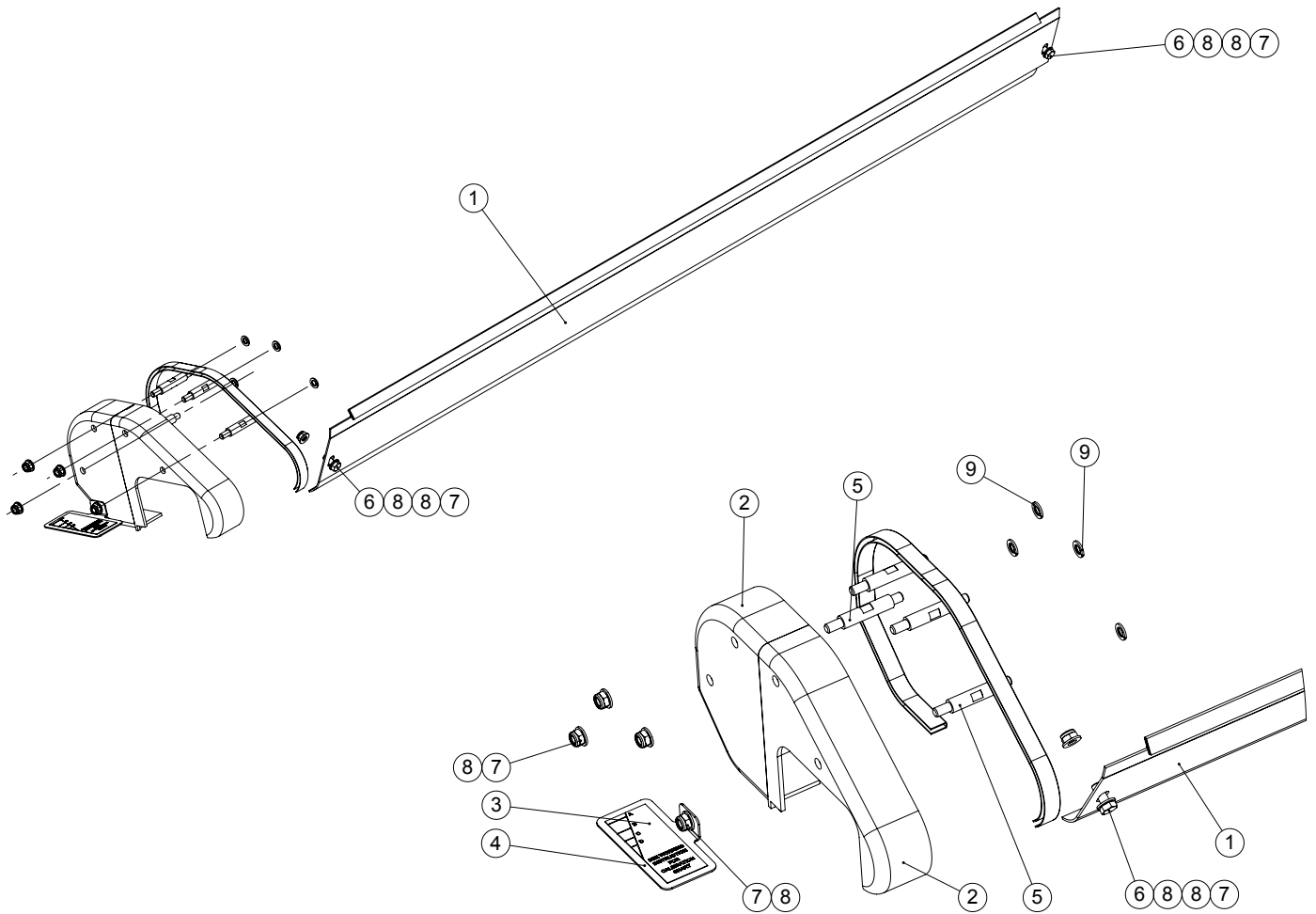
** SEE 5.02 FOR SUB ASSEMBLY DETAIL

HOPPER LID ASSEMBLY - F36804



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	403215_REV1	LID FRAME VARISEEDER	1
2	403216_REV0	LID FRAME BRACKET	1
3	403217_REV0	LID POLYCARBONATE	1
4	SP01016_REV0	BUTTON HEAD M6 X 12	7
5	SP02004_REV0	NUT M6 NYLOC	8
6	SP03010_REV0	WASHER M6 FORM A	14

GUARDS



ITEM NO.	PART NUMBER	DESCRIPTION	GUARDS/QTY.
1	F36807_REV2	REAR GUARD	1
2	F36810_REV1	DRIVE GUARD ASSY	1
3	F36959_REV2	DECAL CALABRATION	1
4	F37020_REV3	LABEL PLATE	1
5	F37044_REV4	GUARD STUDS	4
6	SP01009_REV0	HEX SET SCREW M8 X 20	2
7	SP02006_REV0	NUT M8 NYLOC (T)	6
8	SP03008_REV0	WASHER M8 FORM A	8
9	SP03029_REV0	WASHER M8 SPRING LOCK	4
10	D3171B_REV1	U'STRIP RUBBER	1
11	D3171A_REV1	U'STRIP RUBBER	1

DECALS (NOT SHOWN)

ITEM NO.	PART NUMBER	DESCRIPTION	DECALS/QTY.
1	SP18007_REV0	DECAL SISIS BLACK	2
2	D4112_REV1	DECAL	2
3	F36818_REV1	VARISEEDER DECAL	1



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