

GRASS SEED BOX



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1. General information

1.1. Introduction

Kongskilde congratulates you on successful purchasing of the stubble crop seeder.

We are convinced that You can expect good results with economic return from seeder's operation.

Before using the seed drill read these operator's manual to understand and to get acquainted with construction, operation, service and maintenance of the machine.

For reliable operation of machine use it in accordance with operating instructions included in this manual, keep the machine clean and properly maintained and serviced, and repair all the faults as soon possible.

1.2. Specification

Type of machine	FS 2030	FS 2040
Working width	3,00 m(2,5m)	4,00 m
Height	1,40 m	1,40 m
Hopper capacity	117 l	168 l
Weight	60 kg	80 kg
Number of coulter	23	32
Row spacing	13 cm(10,8cm)	12,5 cm
System of sowing	Slide wheel	Slide wheel
Transmission	Chain transmission	Chain transmission

1.3. Application of seeder

The stubble crop seeder is designed for mounting on the skimming cultivator DELTA of 3 m and 4 m working width.

Stubble crop sowing requires the special care, since the seeds may aggregate influencing seed application rate which may differ from the required one, especially when the seeder bounces over the rough field surface.

Because of that, fill up the hopper immediately prior to sowing.

During sowing mixtures of seed more frequent mixing of hopper content is recommended

The gear box of seeder has three operating ranges.

The lowest operating range to obtain the required seed rate should be selected from the chart.

It assures the largest possible distance between hopper and feed roller.

1.4. Safety precautions

The following safety precautions must be observed:

Make sure, to keep safe distance of 4 m around the machine is 4 m, and there are no people before commencing work.

It is strictly forbidden to stand or sit on the machine while it is moving.

Chains, toothed wheels, rotating axles must be shielded for the sake of safety.

All safety guards must be correctly mounted when machine is working.

The agitator axle inside the hopper is not shielded.

Mixing of seed material during make work is forbidden.

The rotating axle of agitator can cause serious injuries to your hands and fingers.

Before starting work ensure that all safety guards are correctly mounted.

Clean and service your seeder only when machine is not working.

Check tightness of all screws and nuts after 25 hours of operation.

Lubricate all grease nipples before each operational season.

Kongskilde is no liable for any unauthorized implement changes.

Kongskilde can be undertake responsible for faulty machines only.

Producer will not be held responsible for machine operated in unsuitable conditions or used for other application.

2. Assembling

2.1. Post delivery inspection

After purchasing of machine check the conformity of all received machine elements with your order and they are in good technical condition. Possible complains should be directed to salesman immediately.

Complains connected with transportation damages should be directed to transporting firm. Other problems connected with sale and post-delivery inspection conditions should be directed to address
Kongskilde

Point 1

Mount the brackets (Fig.2A) on the arm of roller. Mount two brackets on the left side of roller using screws M16x120 (B). Mount one bracket on the right side of roller using screws M16x110 (B)



Fig. 2A

Point 2

Mount the supporting beam, keeping the dimension from right side

L=250 mm for model 3 m.
L=335 mm for model 4 m.

Note that, inner reinforcement of beam must be mounted on the left hand side side of drive. The side of reinforcement beam can be recognized by the flange weld (D). The fixing yoke M12 (C) must be used for fastening.

Fig. 2B



Fig. 2C





Fig. 2D



Fig. 2E

Point 3

Install the hopper holder. Axle of hopper should be aligned with the axle of seeder (Fig. 2D).

Attach elements in appropriate places by yoke M12 (A). Insert the bolts M10x25 (A) with special nuts (B) into the top hole of brackets (Fig.2E). Distance between screw and bracket should be 3 mm to 5 mm.

Fig. 2F



Point 4

Install seeder between the brackets, hanging them on the special nuts. Put bolts M10x25 (C) into the below holes.

After assembling of seeder retighten all bolts and nuts.

In the midpoint of beam in model 4 m, the support should be installed (Fig.2F) to the frame by yoke M10 (A).

Insert the bushes between the elements of hopper and bracket, connect them by bolts M8x50 (C).

Point 5

Install the landwheel support using yoke M12 (B) on the left hand side of beam (Fig.2G).



Fig. 2G

Point 6

The landwheel arm (A) is mounted to the support (Fig.2H) by bolts M10x30 (B).

It is necessary to use bolt M10x50 for fastening the locking pawl.

Insert the top bush of the shock absorber into the channel section and tighten by bolt M12x70 (A).



Fig. 2H



Fig. 2I



Fig. 2J

Point 7

Connect the wheel arm output shaft with the gear box input shaft by two transmission cassettes. Mount the cassette so the input shaft of the gear box should be worked as slowly as possible. The first cassette is mounted so that wheel '14' (Fig.2J) is connected with the output shaft of the landwheel arm. Second cassette should be mounted so the wheel '25' is on the seeder. Connect both cassettes (Fig.2K) with the countershaft (A).

Check position of all elements after their connecting, they should be parallel to the direction of travel. If different, correct position of elements.



Fig. 2K

Point 8

In order to increase rigidity of driving system, mount the backstay (A).

Backstay (Fig.2M) is mounted to the landwheel support by bolts M12x35 at one side and to the holder which is fixed by yoke M16 (B) to the arm at other side.

When proper position of elements is reached, tighten them.



Fig. 2L



Fig. 2M



Fig. 2N

Point 9

Use the supports to mount the grain tube holders (Fig.2N), fixed to the frame by yokes M10 (A). Connect the holder and support by bolts M8x20 (B).

Two support (C) are mounted on models 3 m and three on models 4 m

Point 10

The grain tubes are mounted in retainers and then inserted through the beam hole. The grain tube retainers are mounted to the seeder by rubber strap.

Sequence of grain tubes:

Models 3 m (Fig.2O)

42-1,4-20,23

44-2,22

45-3,21

Models 4 m (Fig.2P.Fig.2R)

42-1,2,4-9,11-22,24-29,31,32

44-3,30

46-10,23



3. Setting up the seeder

3.1. Test drilling

Move the calibration lever on the scale according to settings given in the calibration chart, e.g. for 20 kg of rye grass per ha, setting of lever on the scale is 25 (Fig.3B).

Chain wheels should be set in HIGH position (Fig.3C).

Correct seed rate should be adjust during the test drilling.

Fill up half hopper and check that seed reaches all feed rollers.

Move the calibration lever several times back and forth, check that feed rollers works correctly and are filled with seeds.

Lift the landwheel to transport position (Fig.3D), rotate it several times to ensure that seed comes out of all feed rollers.

Turn the landwheel for a 1/20 ha :

69 rev. for a 3 m. model (F2030)

51,5 rev. for a 4 m. model (F2040)

Collect the seed during this under the outlets.

SCALE-SETTING	Rye grass			Fescue grass			Clover		
	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
15	3,5	6,4	11,8	2,8	5,1	9,4	12,6		
20	4,7	8,6	15,7	3,8	6,9	12,6	16,9		
25	5,8	10,7	19,6	4,6	8,6	15,7	20,8		
30	7,0	12,8	23,5	5,6	10,2	18,8			

Fig. 3A

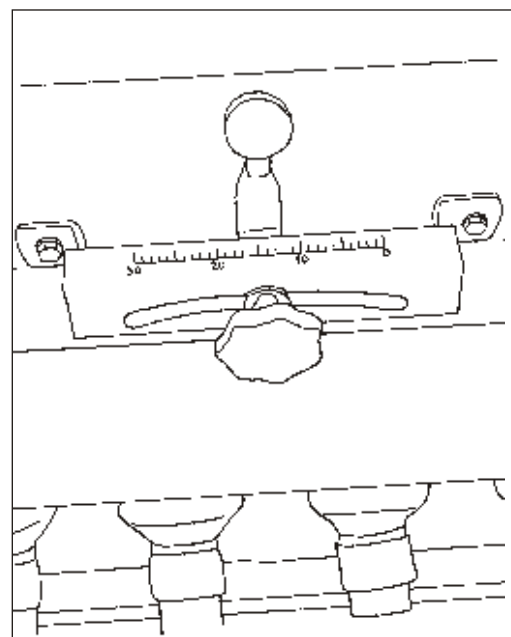


Fig. 3B

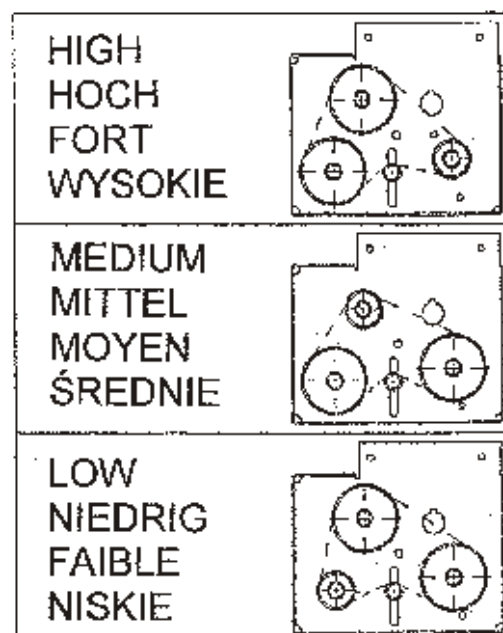


Fig. 3C



Fig. 3D

Weigh the seed collected during test drilling.
 Multiply the total weigh by 20 to obtain the seed rate in kg/ha.
 If the result obtained is inconsistent with setting, readjust the calibration lever.
 Repeat the test drilling after each setting.
 Fill the seed hopper just before commencing the machine operation.
 In order to remove the seed left in the hopper, place the polyethylene sheet under the grain tubes, turn the landwheel in accordance with direction of seeder travel, remove the seed residuals to outlets by flat brush until the hopper is completely empty.

For seed box 2,5m should be use different seed table (Fig.3E).

Turn the landwheel for a 1/20 ha :

69 rev. for a 2,5 m. model (F2030)

SCALE-SETTING	Rye grass			Fescue grass			Clover		
	LOW	MID	HIGH	LOW	MID	HIGH	LOW	MID	HIGH
15	4,2	7,7	14,2	3,4	6,1	11,3	15,1		
20	5,6	10,3	18,8	4,6	8,3	15,1	20,3		
25	7,0	12,8	23,5	5,6	10,3	18,8	25,0		
30	8,4	15,4	28,2	6,7	12,2	22,6			

Fig. 3E

