

### 6.3.5: Chamber full sensor

This sensor is a proximity sensor. (testing ref: 6.4.2).

The Sensor sees the chamber door closed and as the chamber becomes full of crop it forces the door open and away from the sensor. This signal is received by the control box. It starts with a series of beeps and after 3 seconds a continuous beep and commits to netting. It has to see the door open signal for three seconds for this to happen.

When the Tail gate is shut after ejecting the netted bale this sensor sees the door as closed and the control box will then show the new bale count.



Fig. 5

### 6.3.6: Net cut sensor

The net cut sensor is a standard reed sensor (testing ref: section 6.4.1).

When the net knife is tripped to cut the net the magnet (A) moves to this sensor (B) to give the signal to the control box. Without this a new bale count will not show when the chamber door is closed.

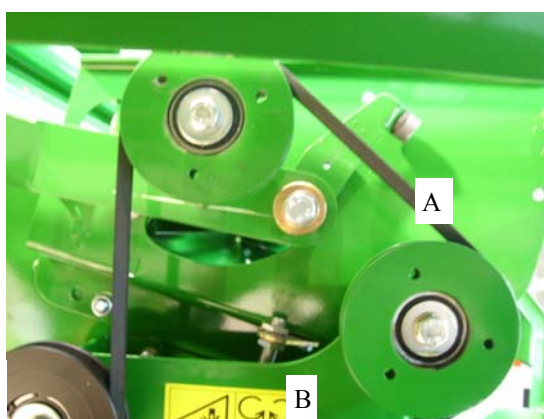


Fig. 6

### 6.3.7: Chopper knives sensor

The chopper knives sensor is located on the drop floor (A) of the machine and will show an arrow on the control box when the knives are in the up position (Chopping). It is a standard reed sensor (see testing section 6.4.1) and the magnet is located on the knife arm actuator.



Fig. 7

## 6.4: Sensor testing

### 6.4.1: Reed sensor testing



#### Function

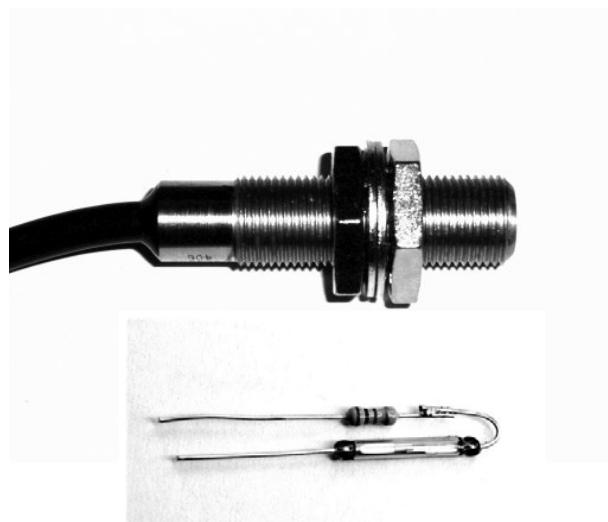
The chopping knives on and net cut sensors are 12 mm stainless steel reed sensors. These sensors contain a glass reed switch in series with a 100 Ohm resistor. The switch closes when a magnet is placed near its front face, 25 mm approx. For best range the magnets are usually mounted with stainless steel bolts – non magnetic.

#### Testing

Connect a multimeter set on the Ohms 'Ω' range to the sensor. The meter should show a very high reading or open circuit, placing a magnet close to the sensor should reduce the resistance to approximately 100 Ohms.

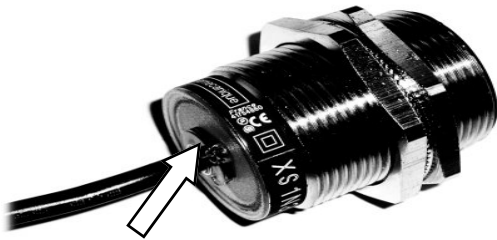


These sensors can be monitored from within the Input/Output test menu.

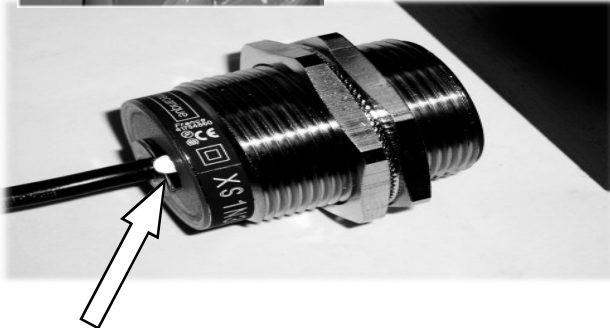
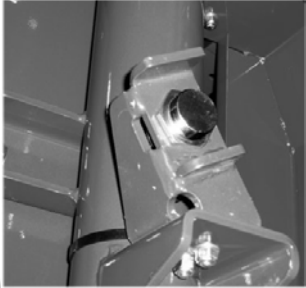


**Note: All sensors must be handled with care, the glass reed switch inside is easily damaged, do not subject to mechanical shocks or over tighten.**

## 6.4.2: Proximity sensor testing



No metal = Indicator OFF



Metal = Indicator ON

### Function

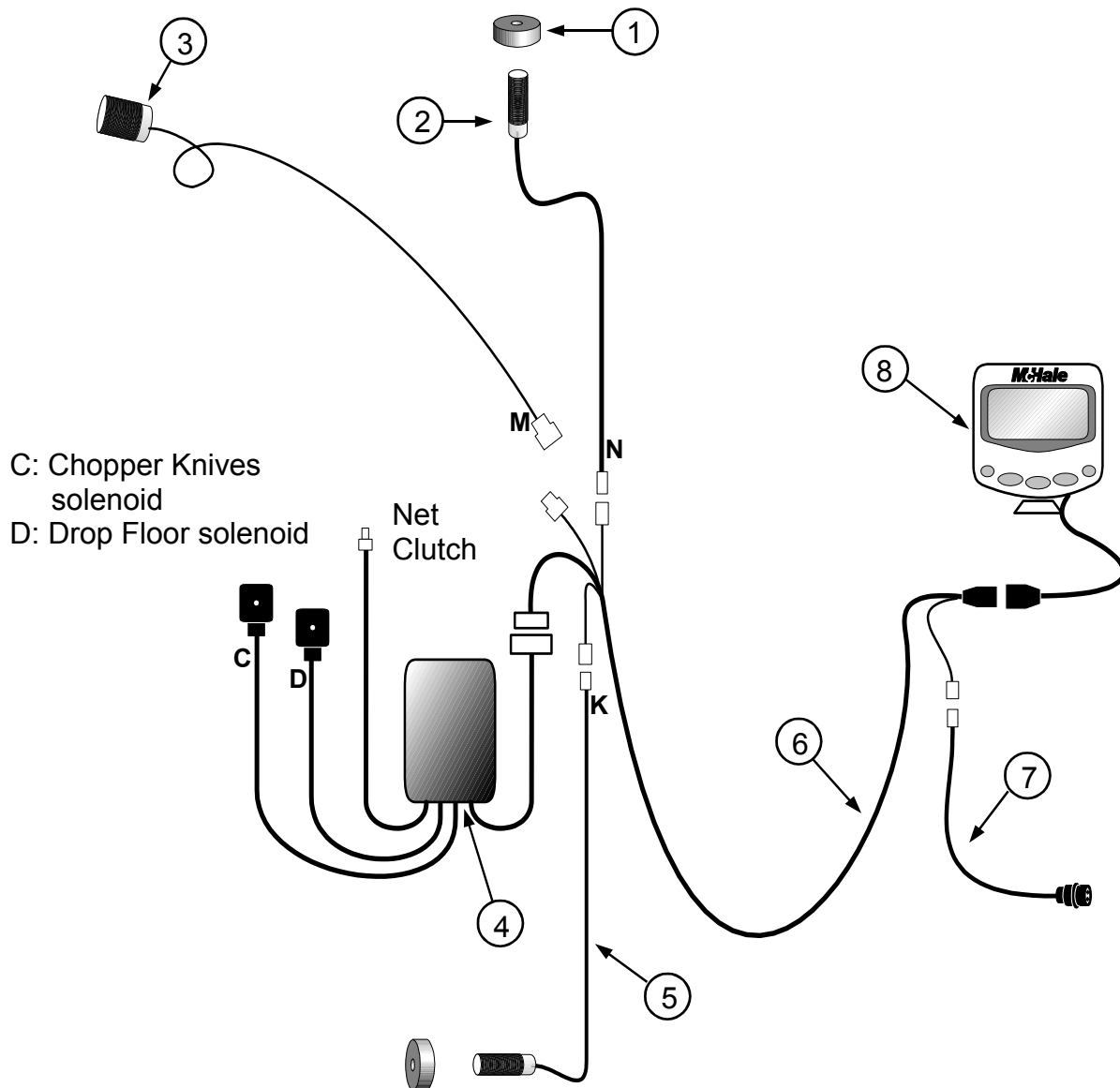
The Chamber full sensor is a 30 mm NPN inductive proximity sensor. It is connected to a 12 Volt supply and its output transistor switches on when metal is within 20 mm of its front face.

Sensor connections,  
blue—ground,  
brown —12 Volt,  
black — output signal,  
NPN transistor connects to ground  
when metal detected.

### Testing

Placing metal in front of the sensor should switch on the output transistor and light the yellow indicator on the rear of the sensor.

### 6.5.1: Electrical control



Item	Part Code	Description	Notes	Qty
1	CEL00059	MAGNET		1
2	CEL00262	NET SENSOR F550	[A]	1
3	CEL00616	SENSOR PROXIMITY 18MM NPN		1
4	CEL00257	RELAY UNIT F550		1
5	CEL00261	KNIFE SENSOR F550	[A]	1
6	CEL00256	LOOM MAIN F550		1
7	CEL00064	EURO LEAD		1
8	CEL00255	CONTORL WIZARD F550		1

[A] THIS IS A STANDARD McHale REED SENSOR. IT IS INTERCHANGEABLE WITH OTHER STANDARD SENSORS AND ONLY DIFFERS IN CABLE LENGTH AND ARMOURING. UNIVERSAL SENSOR CEL00215 MAY BE USED IN PLACE OF THIS PART.