

# MF 162 Operator Instruction Book



Baler Models Applicable:

For Baler models:  
162F S and 162F SL

## Serial numbers applicable:

For Balers from 1st production.  
Manufactured from 2003 onwards.

## Contents

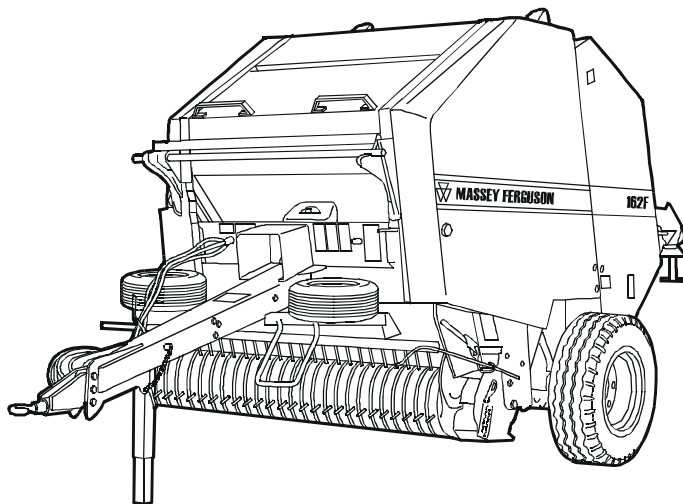
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# Introduction and Warranty



## Cardan shaft and PTO

- Keep to the instructions of the cardan shaft operation manual.
- The tractor power take-off has to rotate at the speed expected for the machine.
- Use only a cardan shaft of the type supplied with the machine.
- The cardan shaft must be manufactured in compliance with EN1152 standards and provided with CE certificate.
- The cardan shaft must be supplied with guards.
- Make sure not to damage the cardan shaft guard during transport or working cycle.
- All guards must be in good conditions.
- The safety joint must be installed on the side of the baler. The homocinetic joint must be installed on the tractor side.
- The safety joint, supplied with cam disengagement, must be assembled on the baler side; the constant-velocity universal joint must be assembled on the tractor side.
- Always make sure that the cardan shaft is properly fitted and fastened.
- In order to prevent crawling, assemble the cardan shaft supplied with the machine between the tractor PTO and the machine gear box, making sure that the length does not exceed the min. distance between the machine and the tractor. Should the cardan shaft be shortened, cut both pipes and the relevant guards, removing burrs and greasing ends.
- The shaft length must ensure a sufficient overlap of the telescopic shafts; the tractor must be perfectly aligned with the machine and keep a minimum overlap of half length of the telescopic shafts.
- Make sure that all rotating parts connected to the PTO shaft are properly protected.
- To avoid guard rotation, hook chains.
- Before engaging the PTO, make sure that the selected tractor PTO speed and the rotation direction match with the baler rotation and speed values.



**CAUTION: Before engaging the PTO, make sure that nobody stands in the baler working area or in dangerous areas.**

- Never engage the PTO with the engine stopped.
- Make sure that nobody approaches the cardan shaft during running.
- Disengage the PTO before sharp curves or when it is not necessary.
- Should running parts rotate after the PTO has been disengaged, keep far from rotating parts.
- Before any operation, make sure that the machine and the tractor engine are stopped and remove the ignition key.
- Before cleaning, greasing or adjusting the machine or the PTO, disengage the latter, stop the engine and remove the ignition key.
- The cardan shaft, once disconnected from the tractor, must be placed on the support at the drawbar end.

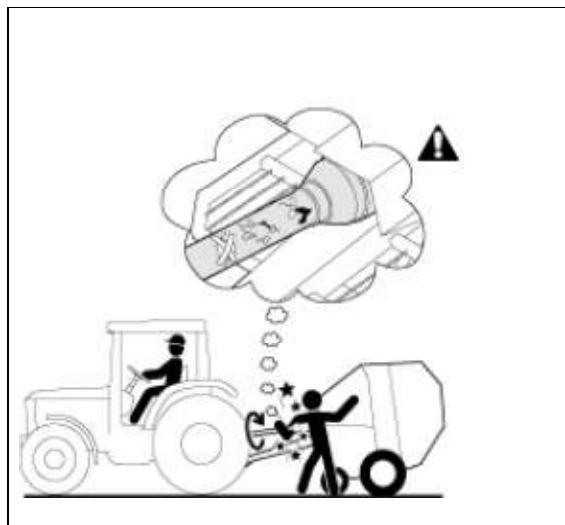


Fig. 10



## Admissible Gradients

Ground conditions and tractor type can reduce the baler stability; furthermore, the bale can unpredictably and dangerously change the baler-tractor unit performance.



**CAUTION:** *The operator should know the working ground conditions and must operate in safety conditions, giving the greatest attention.*

▲ Furthermore, the operator should have acquired the experience necessary to suit the working conditions.

## Safety Devices

The devices fitted on the baler must always be in perfect working order and correctly installed.

### A - PTO shaft safety bolt

In some models, such device is assembled on the PTO shaft on the round baler side. In case of overload, the screw shears, thus stopping the transmission. Use the following bolts: M8 x 60 DIN 931 R=80 Kg/mm<sup>2</sup> (8.8) (use the inner hole).

### B - Safety bolt

It will protect the pick-up against overloads or when the tines hit the ground.

M6 x 25 DIN 933 R=80 kg/mm<sup>2</sup> (8.8)

### C - Throttle valves on the tail gate jacks

The gate opening hydraulic system is equipped with throttle valves in order to avoid its fast lowering.



**WARNING:** *Never tamper with throttle valves.*

### D - Pick-up throttle valve

The hydraulic lifting system of the pick-up is supplied with a throttle valve preventing a fast upstroke and a cut-off cock.

### E - Safety catches

Fit safety catches on both hydraulic jacks whenever servicing or adjusting the machine with open tail gate.

### F - Wheel wedges

Must be used to avoid dangerous machine motions when the latter is released from the tractor.

### G - Pick-up chain

Must be used during road circulation and whenever servicing or adjusting under the pick-up.

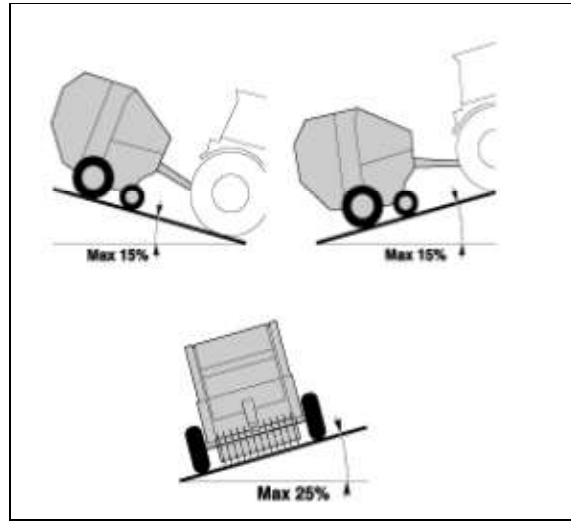


Fig. 14

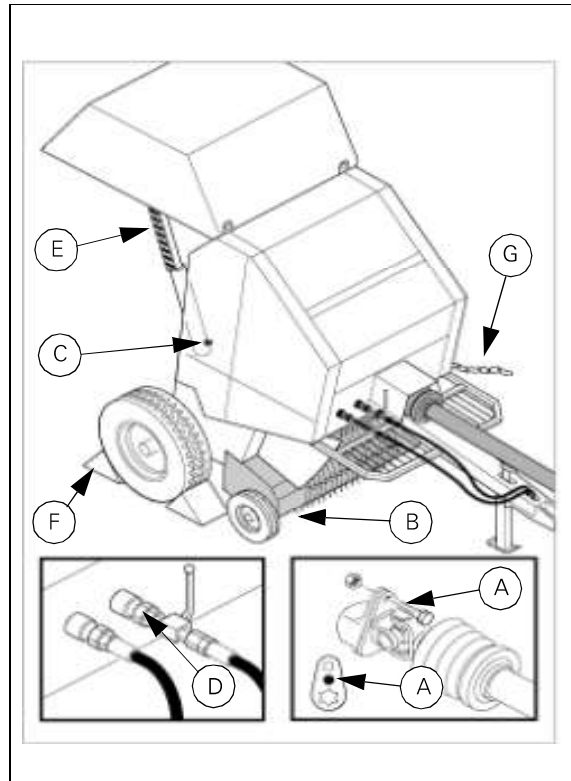


Fig. 15



## Tying Control Unit - Instructions for Use

### Control unit description, (Fig. 32)

- A - "Twine binding/net wrapping" selector switch.
- B - "Automatic/manual" binding selector switch.
- C - Twine binding start switch.
- D - Net wrapping start switch.
- S1- Picking up start pilot light.
- S2- Red pilot light for baler stop due to tying in progress.
- T - Bale counter

### *"Twine tying/Net wrapping" selection*

Should your machine be equipped with both binders, the type of tying requested should be selected before the picking up.

For this purpose the control unit is equipped with a switch A to select the type of tying.

### *"Automatic/manual" tying selection*

The control unit is equipped with a switch B to select manual or automatic tying. Keep to the following indications very carefully.

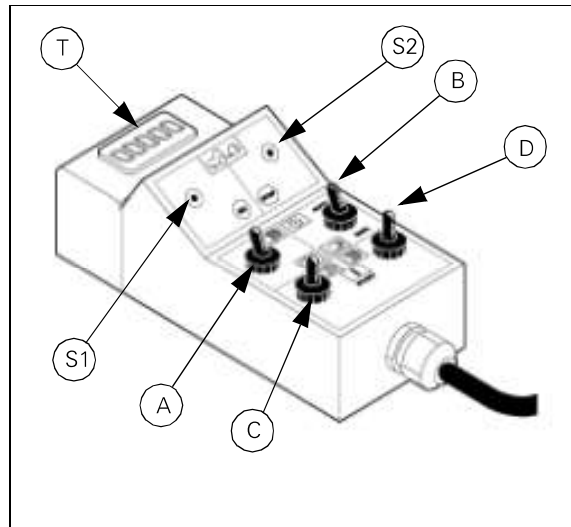


Fig. 32



## Adjusting end of stroke blocks and shock absorbers

End of stroke blocks A (Fig. 53) for net binder knives, prevent blades from damaging the rubber roller if rubber shock absorbers are worn-out.

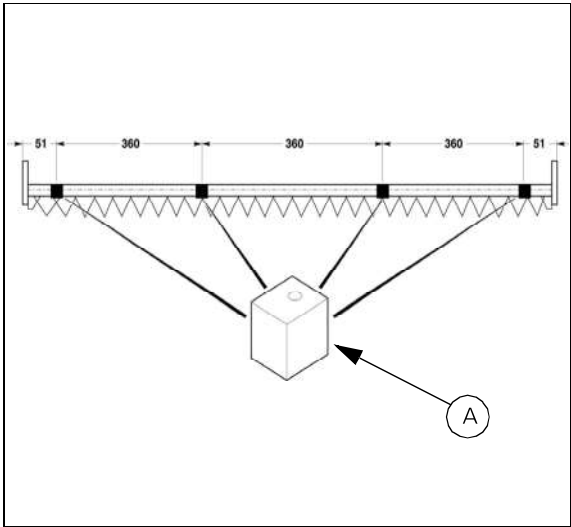


Fig. 53

Position the four blocks A, (Fig. 54) with the eccentric hole under the blades through screws B, as shown in the figure; when blocks are against angle bar C, blades D must have a distance of 3 mm approx. from rubber roller R1.

Then fit shock absorbers E, adjusting them; when shock absorbers are against iron roller R2, the distance between blade edge D and rubber roller R1 must be of 5-6 mm approx.

A greater distance causes an irregular cut.

If the net starts to wrap around the binder rollers, clean them and sprinkle some powder.

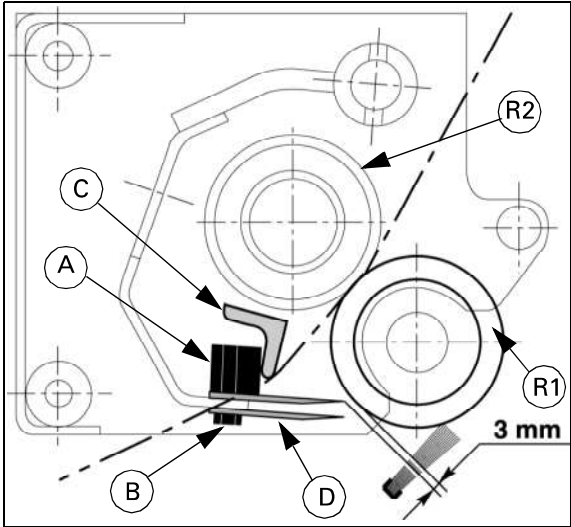


Fig. 54

Periodically clean the brush P, (Fig. 55). Assemble it as to have a light contact with a rubber roller R1 as indicated.

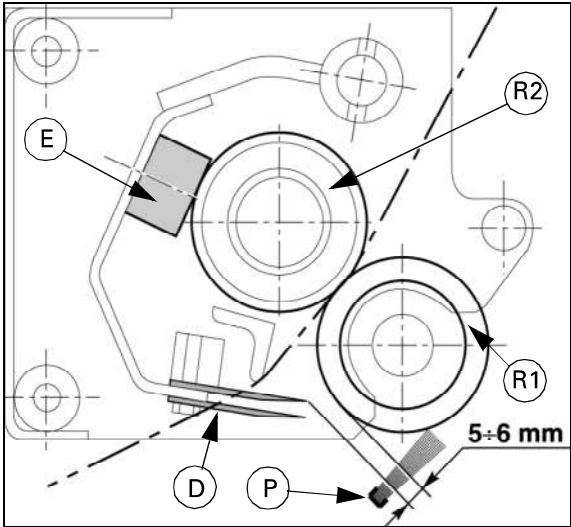


Fig. 55

# Maintenance & Adjustments



## Routine Maintenance

Part	Check	Hours
Gear box	<ul style="list-style-type: none"> <li>● Check oil level</li> <li>● Oil change</li> </ul>	Yearly Every 100 hours
PTO Shaft	<ul style="list-style-type: none"> <li>● Check guards</li> <li>● Lubrication</li> </ul>	Daily
Transmission	<ul style="list-style-type: none"> <li>● Check chain tightening</li> <li>● Check pinions</li> <li>● Check safety bolts</li> <li>● Check belt lubrication</li> </ul>	Every 20 hours Every 50 hours Every 50 hours Every 8 hours
Twine binder	<ul style="list-style-type: none"> <li>● Check knives</li> <li>● Check the electric system</li> <li>● Clean</li> </ul>	Every 100 hours Yearly Every 20 hours
Net binder	<ul style="list-style-type: none"> <li>● Check blades</li> <li>● Clean the brush and the rollers</li> </ul>	Yearly Frequently
Centralised automatic lubrication	<ul style="list-style-type: none"> <li>● Top up tank with oil</li> <li>● Check pump, filter and other parts</li> </ul>	Every 8 hours Every 8 hours
Hydraulic system	<ul style="list-style-type: none"> <li>● Check parts of the hydraulic lifting system of tail gate</li> <li>● Check pick-up operating controls</li> <li>● Check leaks</li> </ul>	
Pick - up	<ul style="list-style-type: none"> <li>● Check pick-up float motion</li> <li>● Check pick-up teeth and stripper plates</li> <li>● Check safety bolt</li> </ul>	Every 20 hours Every 8 hours Every 50 hours
Tyres	<ul style="list-style-type: none"> <li>● Check conditions and pressure of wheels and pick-up jacking wheels</li> <li>● Check the hubs and the tightening torque of the wheel bolts</li> </ul>	Every 8 hours Every 50 hours
Belts	<ul style="list-style-type: none"> <li>● Check the joints</li> <li>● Check belts</li> <li>● Check and clean any possible product remnant on the roller</li> </ul>	Every 8 hours Every 8 hours Frequently
Rollers	<ul style="list-style-type: none"> <li>● Check scrapers on belt rollers and remove product if any</li> <li>● Check bearings</li> <li>● Check fastening screw torque</li> </ul>	Frequently Yearly Yearly
Lighting system	<ul style="list-style-type: none"> <li>● Check operation</li> <li>● Check lamps</li> </ul>	Every 8 hours Every 8 hours
Machine	Clean Check tightening torque of bolts of main parts, such as: <ul style="list-style-type: none"> <li>● Towing eyebolt</li> <li>● Drawbar</li> <li>● Gear box</li> <li>● Rollers</li> <li>● Twine binder</li> <li>● Net binder</li> <li>● Tyres</li> <li>● Axle</li> <li>● Side connecting crossbars</li> </ul>	Frequently  Every 50 hours Yearly Yearly Yearly Yearly Yearly Every 20 hours Yearly Yearly

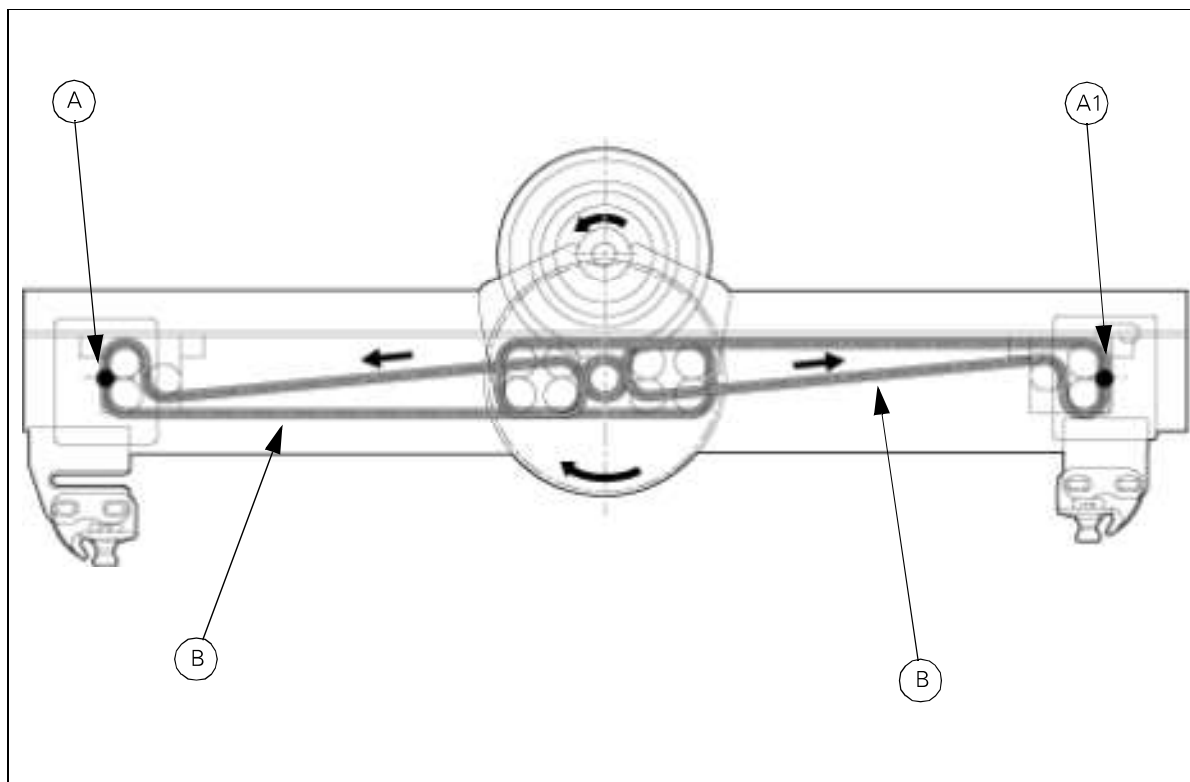


Fig. 96

## Binder control - adjustments

**IMPORTANT:** Adjustments described in this paragraph are performed during testing, when the machine comes out of the assembly line. They are however necessary when replacing parts or removing the twine tying unit.

### Slide holding chain path and stroke

Fig. 96 shows slide holding chain B stroke; the right phase of driving rollers A and A1 is shown in the figure.

Check slide driving chain tightening.

To adjust chain tightening properly, place a load of 5 kg in the middle of the chain stroke, obtaining a 15 mm deflection.

The resulting torque on the pulley shaft is almost absent.

Slide driving chains B can be adjusted through adjuster R, (Fig. 97) both on the right and left side.

**IMPORTANT:** An excessive B chain tightening produces an excessive effort on the pulley; therefore the wire might slide on the pulley race, thus failing to start the binder. Therefore, give the greatest attention when adjusting chain tightening.

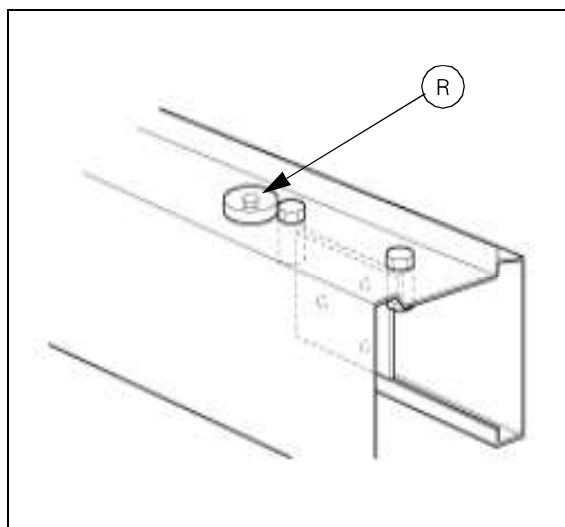


Fig. 97

# Maintenance & Adjustments

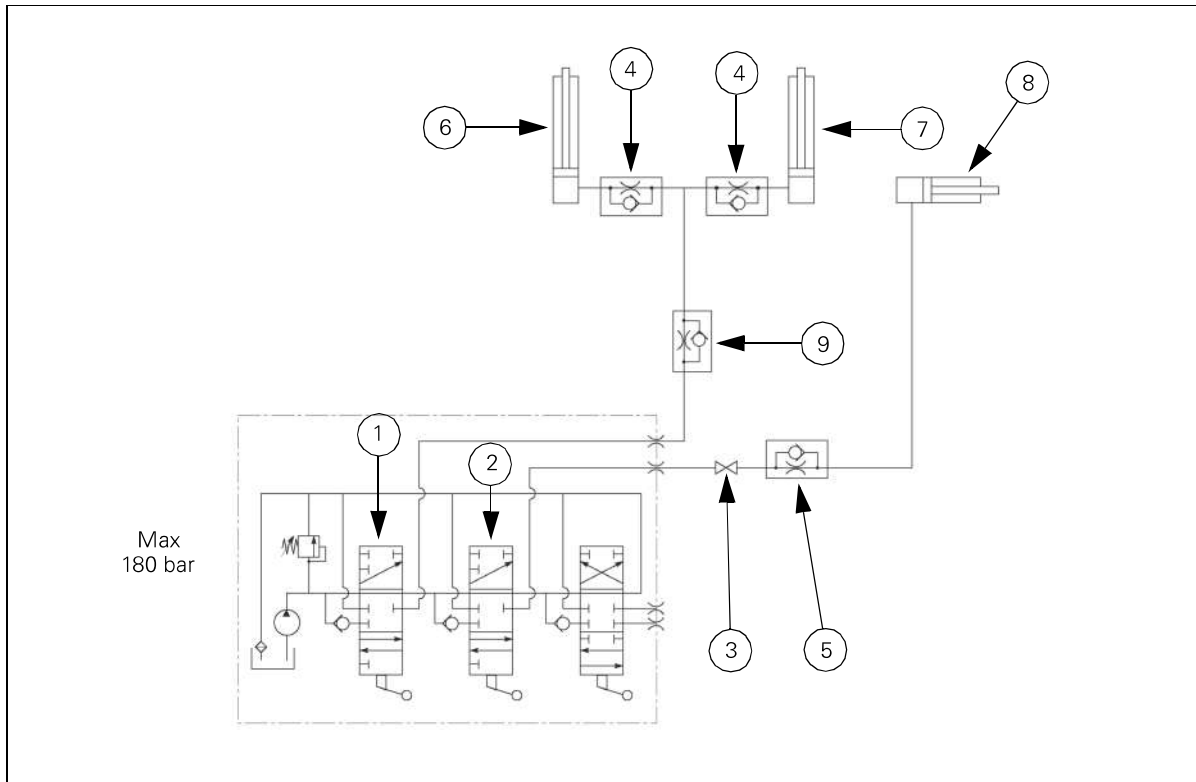


Fig. 109

## Hydraulic Diagram

	Description
1	Single-action distributor of the tractor
2	Single-action distributor of the tractor
3	Cock for pick-up locking (1/4"G)
4	Fixed and unidirectional throttling valve
5	Fixed and unidirectional throttling valve
6	Gate operation jack (right side)
7	Gate operation jack (left side)
8	Pick-up operation jack
9	Unidirectional fixed throttling valve

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