BENATI 2000 WHEEL LOADER/ BACKHOE

SERVICE SPECIFICATIONS

BRAKE SYSTEM
ELECTRICAL SYSTEM
HYDRAULIC SYSTEM

75128587

AVOID ACCIDENTS

Most accidents, whether they occur in industry, on the farm, at home or on the highway, are caused by the failure of some individuals to follow simple and fundamental safety rules or precautions. For this reason MOST ACCIDENTS CAN BE PREVENTED by recognizing the real cause and doing something about it before the accident occurs. Regardless of the care used in the design and construction of any type of equipment there are conditions that cannot be completely safeguarded against without interfering with reasonable accessibility and efficient operation.
Carefully read instructions, cautions and safety warning quoted in the "**SAFETY RULES**" section.
A careful operator is the best insurance against an accident.
The complete observance of one simple rule would prevent many thousand serious injuries each year.
The rule is:
Never attempt to clean, oil or adjust a machine while it is in motion.

WARNING

On machines having hydraulically, or mechanically, controlled equipment be certain the equipment is lowered to the ground before servicing, adjusting and/or repairing. If it is necessary to have the controlled equipment partially or fully raised to gain access to certain items, be sure the equipment is suitably supported by means of proper devices other than those used for controlling the equipment.

CALIFORNIA
Proposition 65 Warning
Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

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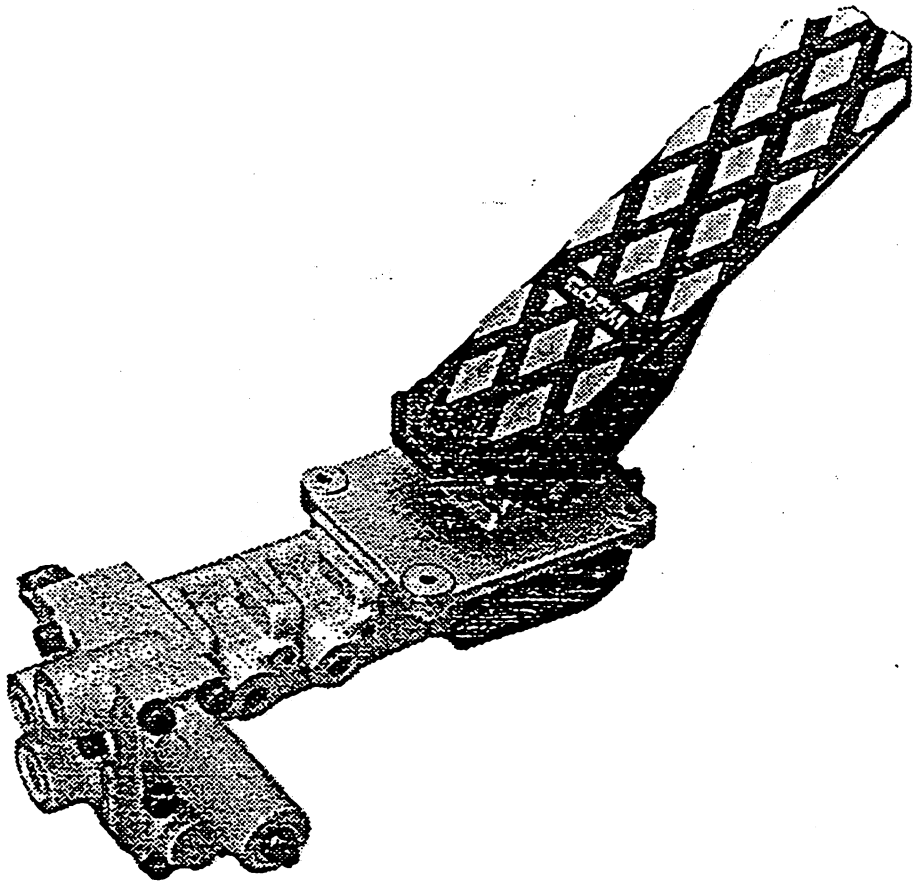
SAFIM

SAFIM S6
BRAKE SYSTEM



- A single, compact unit
- Positive, progressive braking
- For any vehicle type or size
- No need for special hydraulic circuit, powered by vehicle's existing circuit
- Pressure differentials between brakes
- For use with both negative and positive brakes
- Suitable for mixed circuits with positive and negative brakes together
- Direct control of hydraulic or mechanical brakes
- Available in horizontal or vertical versions
- A minimum of hydraulic connections
- Accumulator charging valve for load sensing circuits
- Modular assembly
- Easy to adjust
- Maintenance free

SAFIM
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SAFIM S6 BRAKE SYSTEM

The new Safim S6 Brake System is a compact assembly with all brake components grouped together in a single, modular, easy-to-adjust unit
Modular components mean that customers can select the unit configuration which best meets their particular needs. Safe, dependable braking in all circumstances is thus assured.

The S6 is available in horizontal and vertical versions. Both versions share the same modular design characteristics and operating principles.

The S6 is a major innovation in brake systems in that it only requires a small number of connections and only uses a small amount of power from the vehicle's existing hydraulic circuit; the remaining power is thus available for other equipment. This innovation is made possible by the charging valve which automatically controls the flow of oil to the hydraulic accumulators.

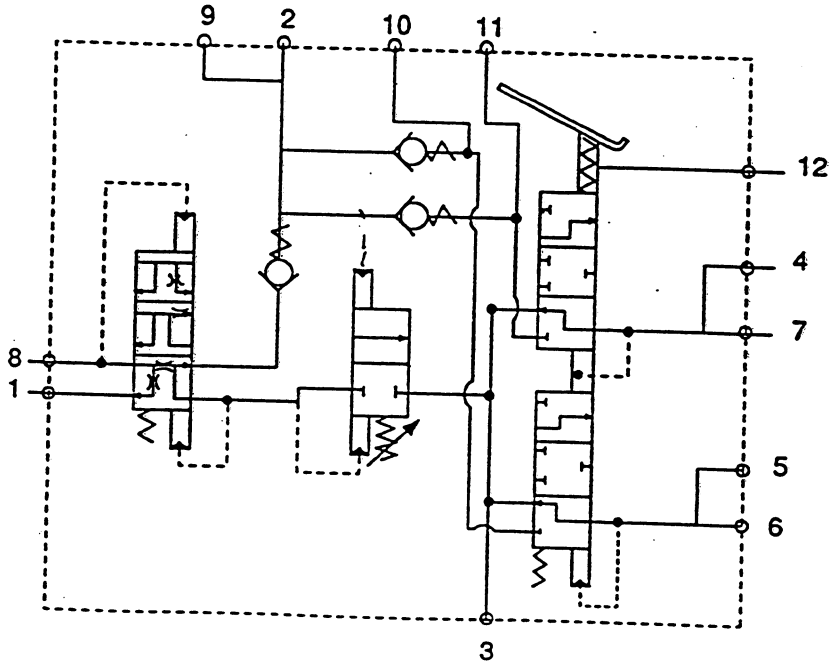
The S6 is suitable for mounting on medium to large vehicles with between 1 and 4 braking circuits.

The brake system can be fitted to loading shovels, dumpers, fork-lift trucks, lorry-mounted cranes, cement mixers, excavators, compressors, rig winches .....
The system is designed for the direct control of mechanical or hydraulic brakes both positive and negative (pressure differentials of 1:2 and 1:4) to provide safe, responsive and progressive braking at all times.

The S6 increases braking power while reducing pedal pressure. Brake pressure is adjusted on the modules connected to the brake circuit.

SAFIM supplies S6 units ready-adjusted to customer specifications. Further adjustment can be easily carried by the customer if so desired.

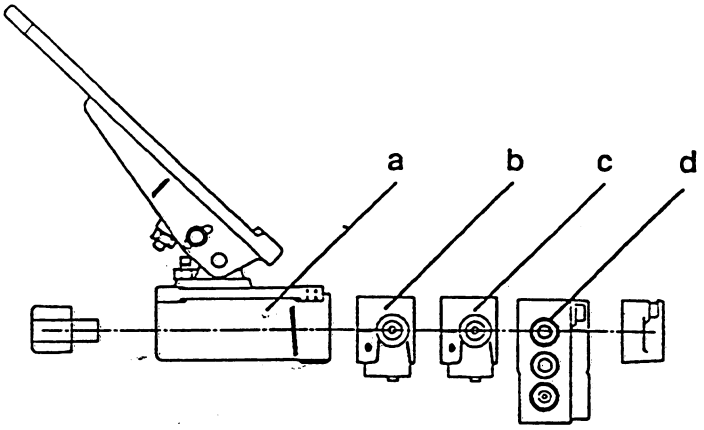
Fitting the S6 is simple, the unit is virtually maintenance free and SAFIM customer service is ever present.



1. Feed to services
2. Connector for stabilising accumulator and parking brake accumulator
3. Discharge to hydraulic oil tank
4. Pressure switch, disengage transmission
5. Pressure switch, stop lights
6. Feed to front and rear axles
7. Feed to front and rear axles
8. Pump feed
9. Pressure switch, low pressure warning indicator, etc.
10. Accumulator
11. Accumulator
12. Drain

SAFIM S6
BRAKE SYSTEM

DESCRIPTION



The SAFIM S6 Brake System is made up of the following modular components:

a. Pedal/support unit
b. 1st brake module
c. 2nd and 3rd brake modules
d. Accumulator charging valve

These components make up a single, compact unit for controlling the braking of medium to large vehicles with 1 to 4 independent brake circuits.

Pedal/Support unit

The pedal/support unit carries all the other S6 modules and is fixed to the cab floor of the vehicle. Pedal angle is adjustable for driver comfort. Maximum braking pressure is adjusted on the pedal stop under the pedal.

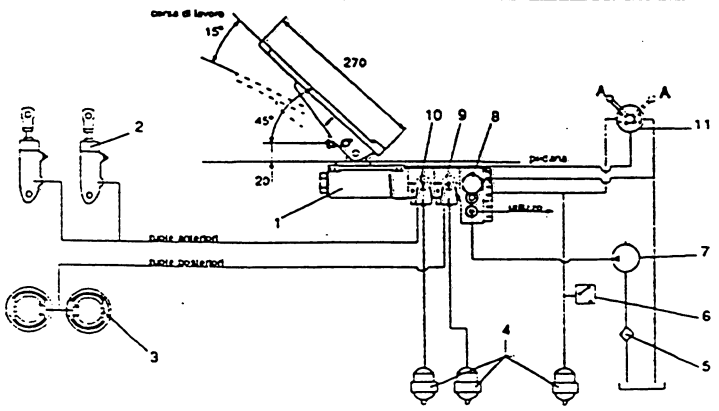
Brake modules

These modules control braking pressure. Each module is connected to a valve and an accumulator. The accumulators are high pressure vessels with a special membrane in the middle; the membrane separates the charging gas from the hydraulic oil and regulates pressure changes between gas and oil.
Modules have three threaded connectors: two M14 x 1.5 for brakes and accumulators; one M10 x 1 for the stop light pressure switch.
Modules have longitudinal passages connecting them hydraulically with the accumulator charging circuit and the system discharge.

Accumulator charging valve

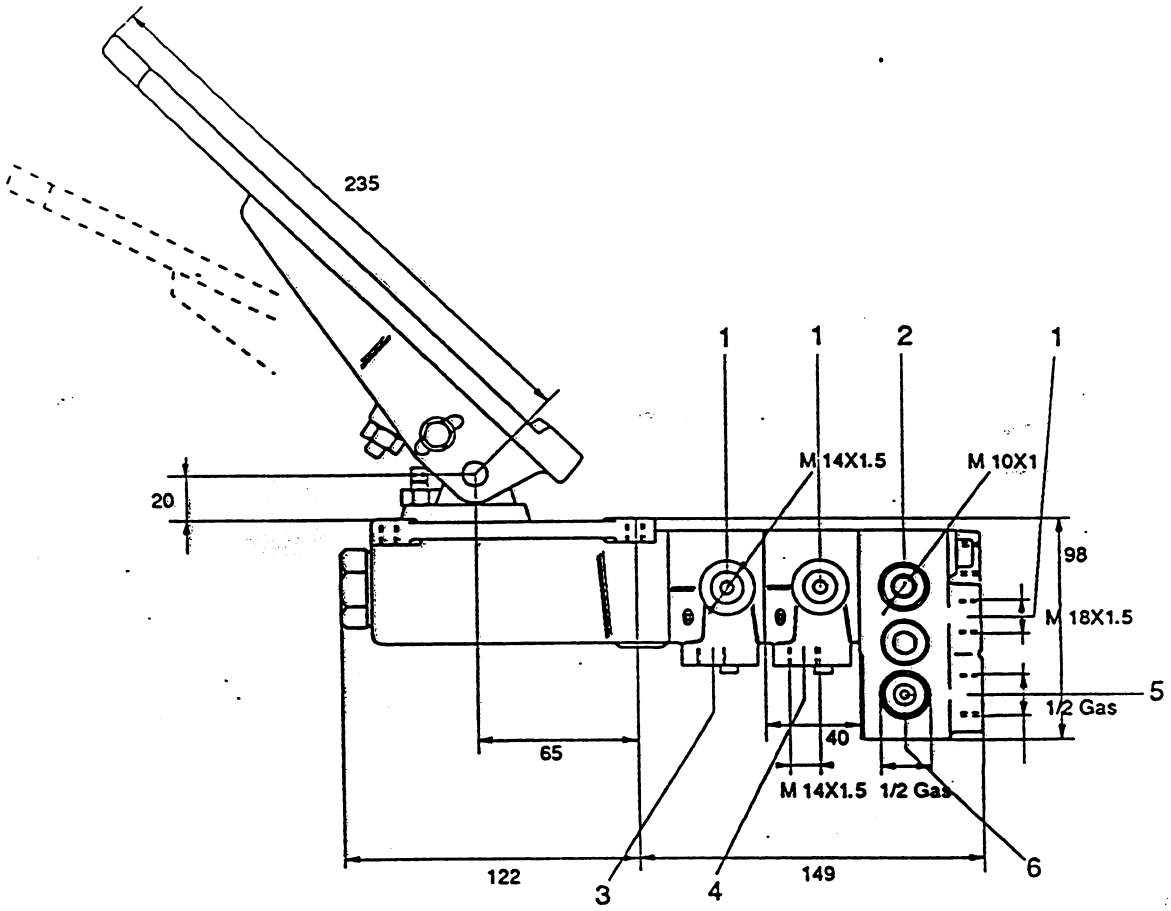
This valve regulates the charging of the accumulators within the pressure range set by the vehicle maker (see vehicle instruction manual).
Accumulator charging pressure is adjusted by turning the adjuster screw on the end of the charging valve; the adjuster screw is protected by a cap nut.

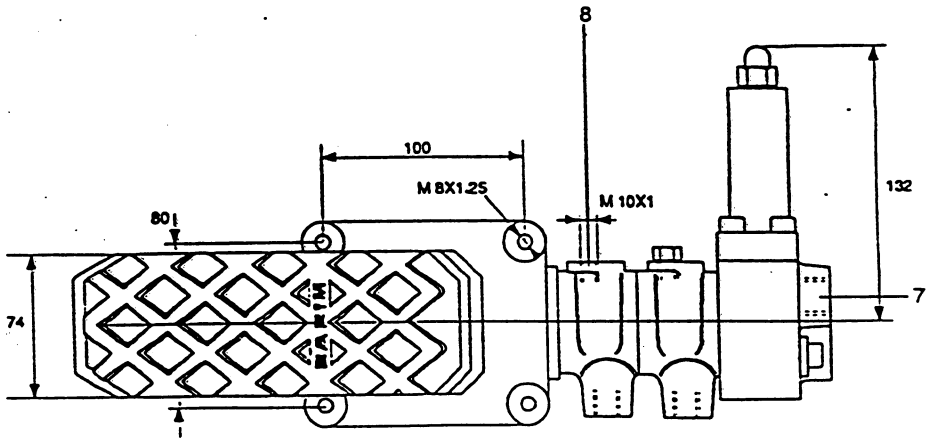
The accumulator charging valve can be connected in series with other services. The valve priority charges the accumulators at 6.5 l/min. ± 10%.



1. S6 pedal/support unit with pressure adjuster
2.-3. Slave cylinders, disc and drum brakes
4. Accumulators
5. Oil filter
6. Pressure switch
7. Pump
8. Accumulator charging valve
9. Brake module, 2nd circuit
10. Brake module, 1st circuit
11. Handbrake valve.

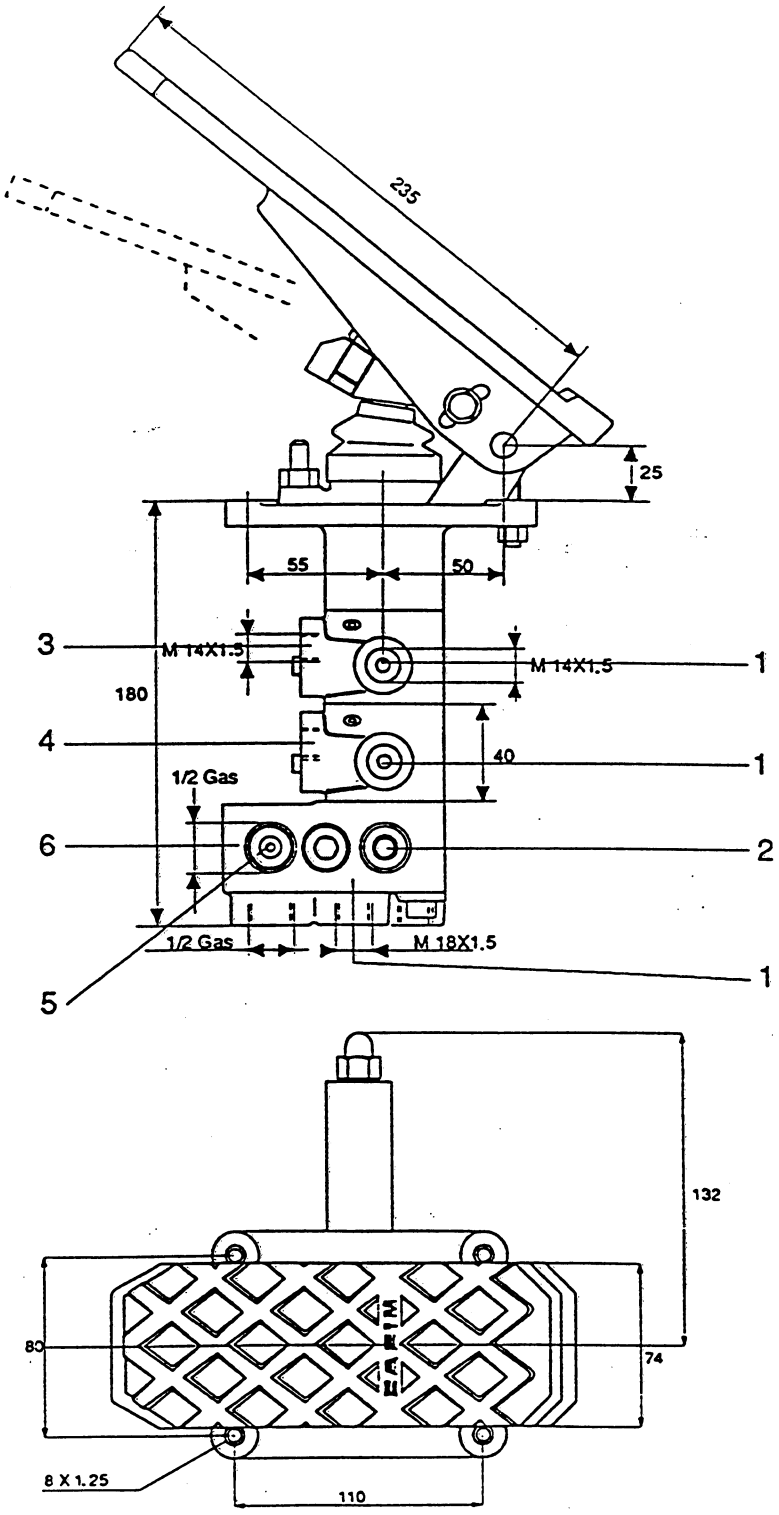
S6 - HORIZONTAL VERSION





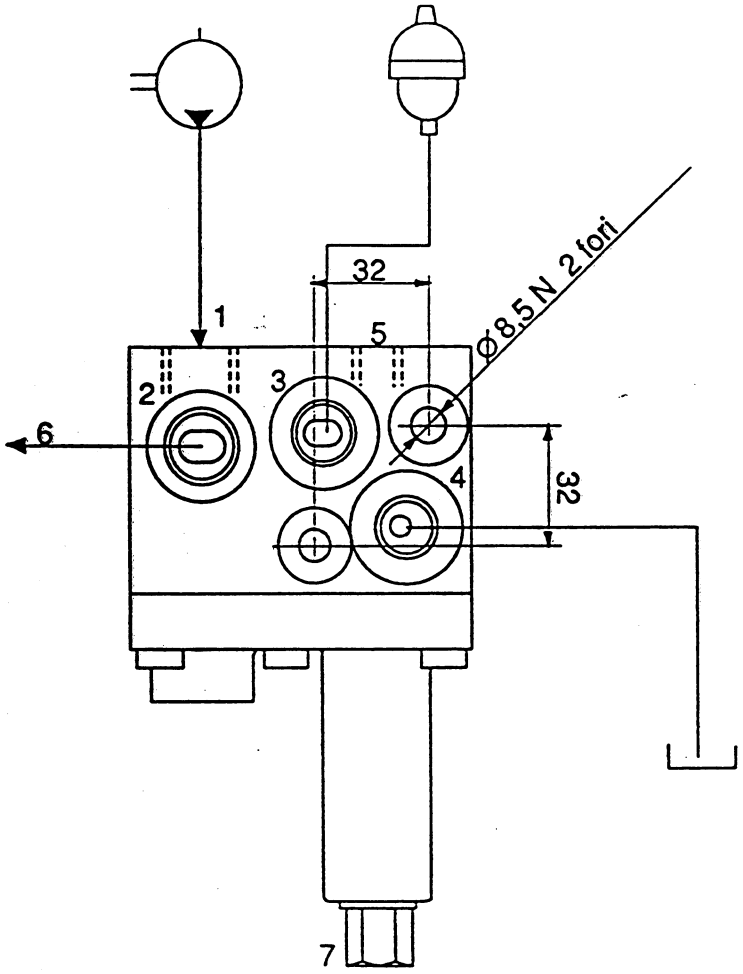
1. Connection, accumulator
2. Connection, pressure switches
3. Connection, 1st brake circuit
4. Connection, 2nd brake circuit
5. Connection, other circuits ör discharge
6. Connection, pump
7. Discharge
8. Connection, stop light pressure switch
8. Connection, disengage transmission pressure switch

S6 - VERTICAL VERSION



1. Connection, accumulator
2. Connection, pressure switches
3. Connection, 1st brake circuit
4. Connection, 2nd brake circuit
5. Connection, other circuits or discharge
6. Connection, pump

S6 - ACCUMULATOR CHARGING VALVE



1. Feed at 50 l/min.
2. Service
3. Connection, accumulator
4. Discharge
5. Accumulator pressure control switch
6. Service
7. Accumulator pressure adjuster