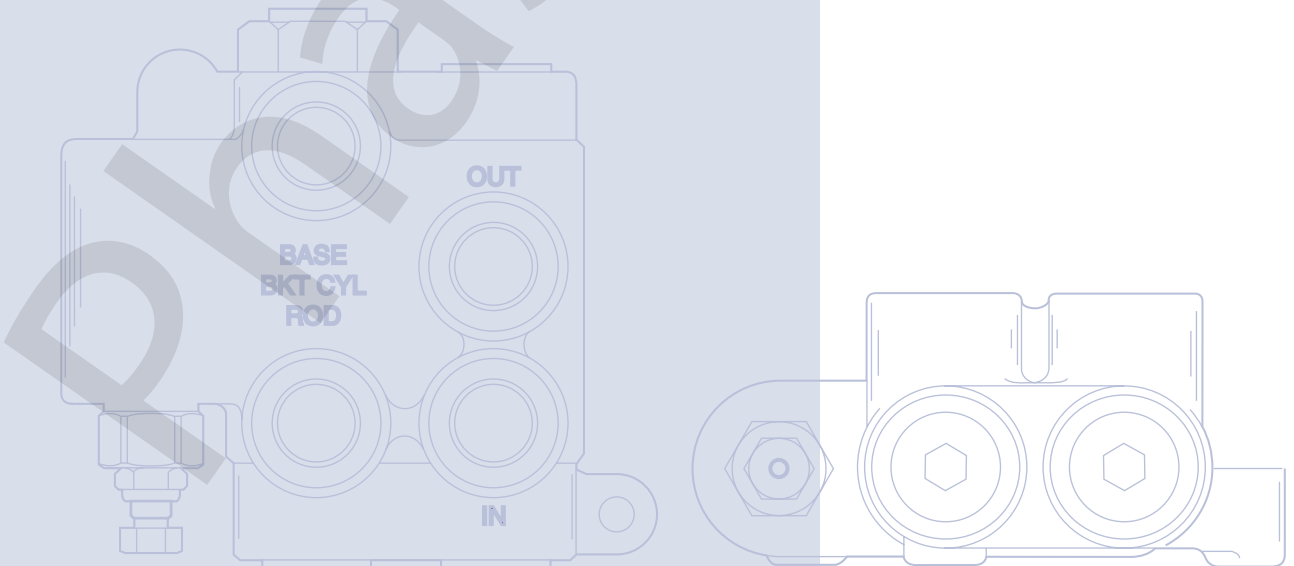




Directional Control
Valve
Model 1480

Technical
Information



HISTORY OF REVISIONS

Table of Revisions

Date	Page	Changed	Rev.
May 2008	-	first edition	AA

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Phased Out

OVERVIEW

Model 1480 valve is a bucket-leveling control valve. It is designed to work in tandem with other Sauer-Danfoss directional control valves on loader applications. As the bucket is raised the 1480 regulates the flow to the bucket cylinder to keep the bucket level. This minimizes spillage due to rotation of the bucket as the load is raised.

DESIGN**High performance**

- Maximum pressure 205 bar [3000 psi]
- Flow rating 76 l/min [20 US gal/min]
- Tank line maximum pressure 70 bar [1000 psi]
- Cast iron body
- Chrome plated spools select-fit to body

Latest technology

- Customer-driven using quality function deployment (QFD) and design for manufacturability (DFM) techniques
- Computer-modeled castings to optimize performance
- Compact package size minimizes installation space requirements

Reliability

- Designed to rigorous standards
- Proven in both laboratory and field
- Manufactured to rigid quality standards
- Long service life

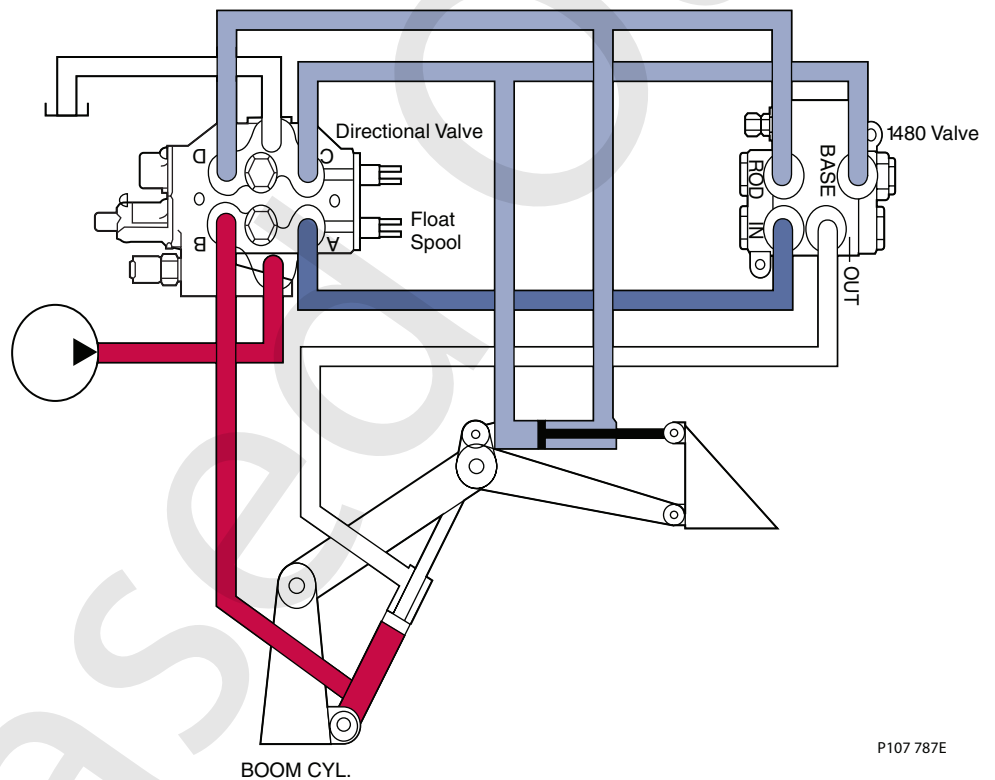
TYPICAL APPLICATIONS

- Loaders
- Skid-steer loaders
- Loader attachments

SYSTEM DIAGRAM

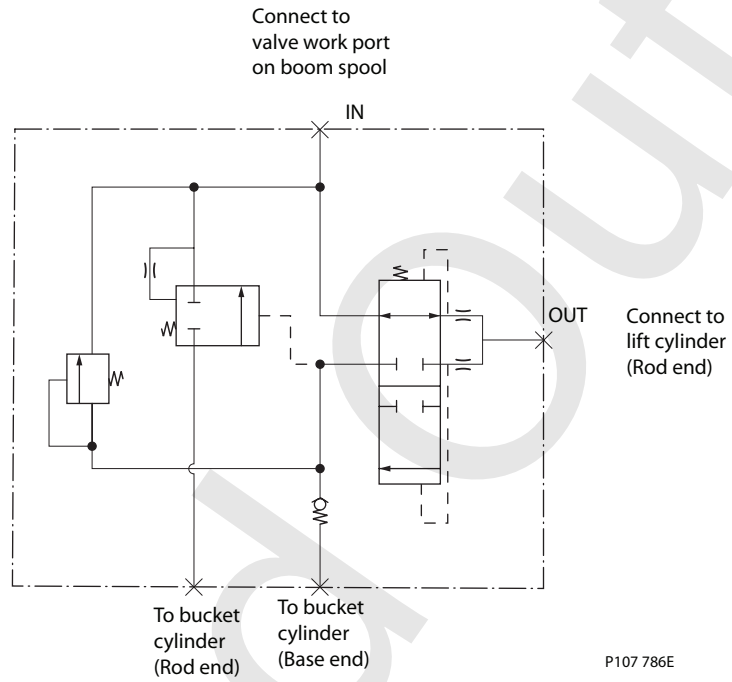
As the bucket is raised, the 1480 valve receives fluid from the rod end of the lift cylinder. This fluid is divided to divert the correct volume of oil to the base end of the bucket cylinder. Simultaneously, a metering valve incorporated into the 1480 vents oil from rod end port of the bucket cylinder, keeping the bucket level. Internal orifices are sized to match each machine's cylinder sizes and geometry.

Pictorial circuit diagram



P107 787E

DIAGRAM



SPECIFICATIONS

Maximum pressure	205 bar [3000 psi]
Maximum tank line pressure	70 bar [1000 psi]
Maximum oil flow	76 l/min [20 US gal/min]
Maximum port leakage at 69 bar [1000 psi] and 21 cSt [102 SUS]	20 cm ³ [1.22 in ³]
Minimum oil temperature	-29°C [-20° F]
Maximum oil temperature	82°C [180°F]
Ambient temperature range	-29°C to 60°C [-20°F to 140°F]
Minimum viscosity	6 cSt [45 SUS]
Maximum viscosity	440 cSt [2000 SUS]
Filtration (maximum contamination) per ISO 4406	19/16

Phased

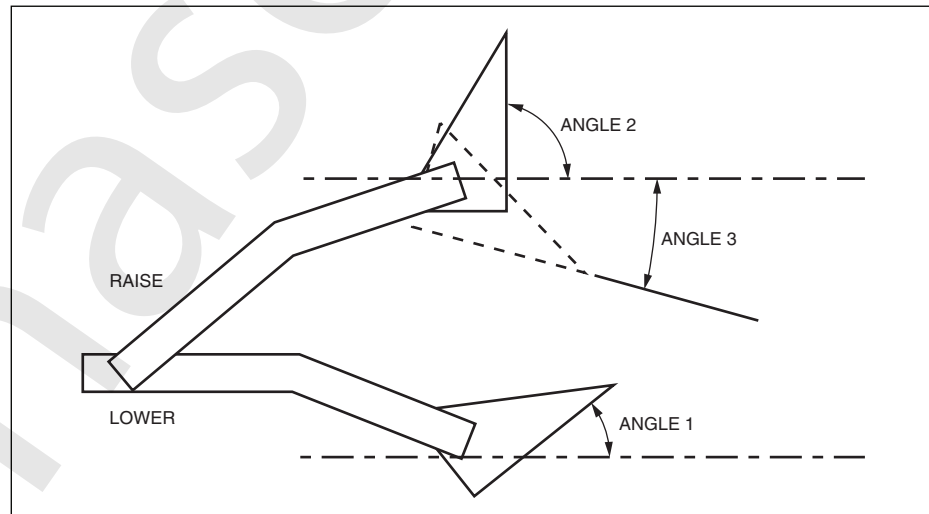
ORIFICE OPTIONS

When ordering, provide your Sauer-Danfoss representative with the information below.

Orifice sizing information

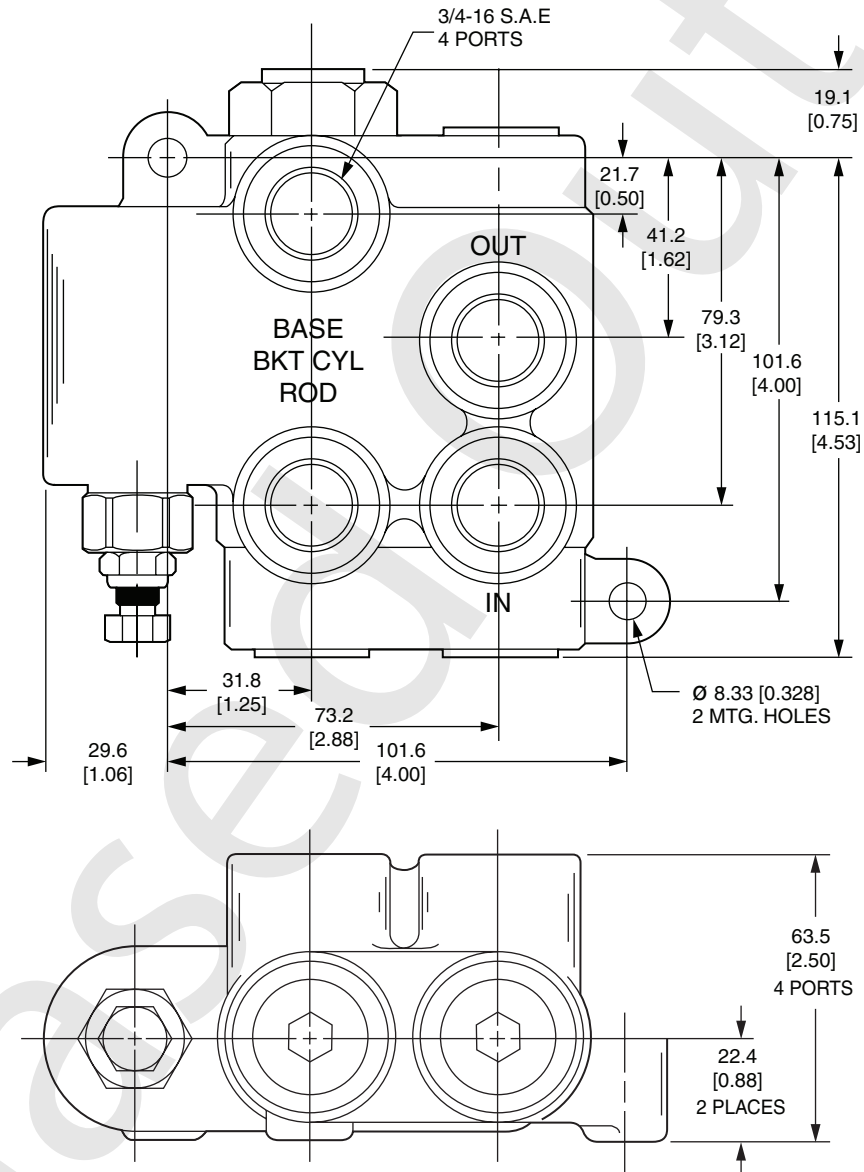
Input	Figure	Units
Maximum system flow		gpm
Maximum bucket rollback at ground (measured from horizontal)	Angle 1	degrees
Maximum bucket rollback at fully raised (measured from horizontal)	Angle 2	degrees
Maximum dump angle at fully raised (measured from horizontal)	Angle 3	degrees
Lift cylinder piston diameter		inches
Lift cylinder rod diameter		inches
Lift cylinder stroke		inches
Number of lift cylinders		cylinders
Bucket cylinder piston diameter		inches
Bucket cylinder rod diameter		inches
Bucket cylinder stroke		inches
Number of bucket cylinders		cylinders

Bucket geometry



P107 794E

DIMENSIONS AND PORTS



Dimensions mm [inches]

P107 793E

Phased Out

Phased Out

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Local address:

Sauer-Danfoss (US) Company
 2800 East 13th Street
 Ames, IA 50010, USA
 Phone: +1 515 239-6000
 Fax: +1 515 239-6618

Sauer-Danfoss GmbH & Co. OHG
 Postfach 2460, D-24531 Neumünster
 Krokamp 35, D-24539 Neumünster, Germany
 Phone: +49 4321 871-0
 Fax: +49 4321 871 122

Sauer-Danfoss ApS
 DK-6430 Nordborg, Denmark
 Phone: +45 7488 4444
 Fax: +45 7488 4400

Sauer-Danfoss-Daikin LTD
 Sannomiya Grand Bldg. 8F
 2-2-21 Isogami-dori, Chuo-ku
 Kobe, Hyogo 651-0086, Japan
 Phone: +81 78 231 5001
 Fax: +81 78 231 5004