



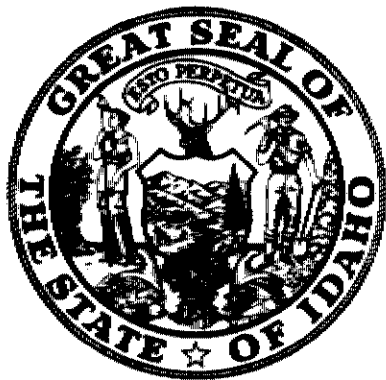
**CERTIFICATE OF INCORPORATION
OF**

MINE SYSTEMS DESIGN, INC.

I, PETE T. CENARRUSA, Secretary of State of the State of Idaho, hereby certify that duplicate originals of Articles of Incorporation for the incorporation of the above named corporation, duly signed pursuant to the provisions of the Idaho Business Corporation Act, have been received in this office and are found to conform to law.

ACCORDINGLY and by virtue of the authority vested in me by law, I issue this Certificate of Incorporation and attach hereto a duplicate original of the Articles of Incorporation.

Dated: August 3, 1987



Pete T. Cenarrusa

SECRETARY OF STATE

by: *Sandra Matthews*

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ARTICLES OF INCORPORATION
OF
MINE SYSTEMS DESIGN, INC.

The undersigned, acting as incorporator of a corporation under the Idaho Business Corporation Act, adopts the following Articles of Incorporation for such corporation:

FIRST: The name of this corporation is, and shall be MINE SYSTEMS DESIGN, INC.

SECOND: The period of its duration is perpetual.

THIRD: This corporation is formed under the Idaho Business Corporation Act to engage in the general business of offering engineering services and designing, developing, manufacturing, selling, marketing and distributing industrial machinery, equipment, production and supplies and in all other business lawful under said Act necessary or convenient to such endeavors in pursuit of which it shall have each and every power, without limitation, granted by such Act.

FOURTH: The capital stock of this corporation shall be Two Hundred Thousand Dollars (\$200,000.00) divided into Two Million (2,000,000) shares having a par value of Ten Cents (10¢) each.

(a) The capital stock of this corporation shall be common stock, which will be fully paid when issued and nonassessable.

(b) No preemptive or conversion rights shall exist.

FIFTH: The address of the registered office of this corporation is HC-01 Box 246, Kellogg, Idaho, and Fred W. Brackebusch is its registered agent at such office.

SIXTH: The name and address of the incorporator is:

Fred W. Brackebusch
HC-01 Box 246
Kellogg, Idaho 83837

SEVENTH: The number of directors of the corporation shall be three (3) to seven (7) as may be determined by resolution of the directors.

The number of directors constituting the initial board of directors is three (3), and the names and addresses of the persons who are to serve as directors until the first annual meeting of shareholders or until their successors are elected and shall qualify are:

Fred W. Brackebusch
HC-01 Box 246
Kellogg, Idaho 83837

Wallace E. Crandall
Box 618
Osburn, Idaho 83849

Don N. Ferguson
Box 52
Silverton, Idaho 83867

EIGHTH: The Board of Directors shall have the power to adopt, alter, amend, or repeal the By-Laws of the corporation.

NINTH: A director or officer of the corporation shall not, in the absence of actual fraud, be disqualified by his office from dealing or contracting with the corporation, either as vendor, purchaser, or otherwise; and in the absence of actual fraud no

transaction or contract of the corporation shall be void or voidable by reason of the fact that any director or officer, or firm of which any director or officer is a member, or any other corporation of which any director or officer is a shareholder, officer or director, is in anyway interested in such transaction or contract; provided, that such transaction or contract is, or shall be authorized, ratified or approved (1) by a vote of a majority of a quorum of the Board of Directors, or of the Executive Committee, if any, counting for the purpose of determining the existence of such majority or quorum, any Director, when present, who is so interested, or who is a member of a firm so interested; or (2) at a stockholders meeting by a vote of a majority of the outstanding shares of stock of the corporation represented at such meeting and then entitled to vote, or by writing or writings signed by a majority of such holders of stock which shall have the same force and effect as though such corporation, ratification or approval were made by the stockholders; and no director or officer shall be liable to account to the corporation for any profits realized by him through any such transaction or contract of the corporation authorized, ratified or approved, as aforesaid, by reason of the fact that he may be, or any firm of which he is a member, or any corporation of which he is a shareholder, officer or director, was interested in such transaction. Nothing in this paragraph contained shall create any liability in the events above mentioned, or prevent the authorization, ratification or approval of such contracts or transactions in any other manner permitted by law, or

invalidate or made voidable any contract or transaction which would be valid without reference to the provisions of this paragraph.

IN WITNESS WHEREOF, I have hereunto set my hand in quadruplicate this 20th day of July, 1987.

Fred W. Brackebusch
Fred W. Brackebusch

STATE OF IDAHO)
) ss
County of Shoshone)

I, Piatt Hull, a notary public, do hereby certify that on this 20th day of July, 1987 personally appeared before me FRED W. BRACKEBUSCH, who being by me first duly sworn, severally declared that he is the person who signed the foregoing document as incorporator, and that the statements therein contained are true.

Piatt Hull
Notary Public in and for the State
of Idaho, Residing at: Wallace
My Commission Expires: 12/15/90