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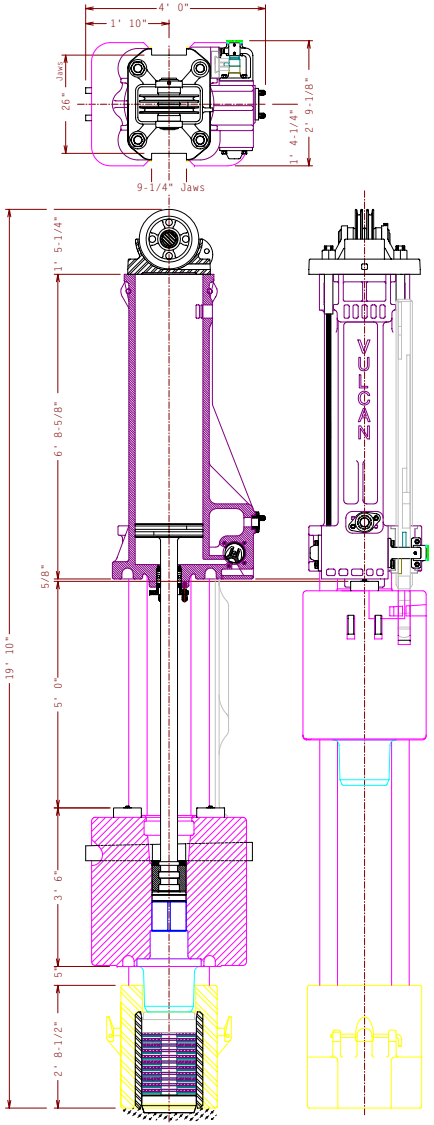

Specifications (English Units)

Operating Data	
Rated Striking Energy, ft-lbs	62,500
Blows per Minute, Normal Stroke, No Set	36
Normal Stroke, Inches	60
Rated Operating Pressure at Hammer, psi	75
Steam Consumption, lbs/hr	3,264
Required Boiler Horsepower	150
Air Consumption (Adiabatic), cfm	967
Required Air Compressor Size, cfm	1000
Dimensional Data	
Bore, inches	18
Net Area of Piston, sq. in.	238.6
Length of Hammer (overall), in.	238
Distance Across Female Jaws, in.	26
Width of Female Jaws, in.	9.25
Largest Outside Diameter of Pile, in.	24
Size of Hose, in.	2.5
Weight Data	
Weight of Striking Parts, lbs.	12,500
Net Weight of Hammer, lbs.	23,500

Specifications (SI Units)

Operating Data	
Rated Striking Energy, kJ	84.7
Blows per Minute, Normal Stroke, No Set	36
Normal Stroke, mm	1524
Rated Operating Pressure at Hammer, kPa	517
Steam Consumption, kg/hr	1,481
Air Consumption (Adiabatic), m^3/min	27.4
Required Air Compressor Size, m^3/min	28.3
Dimensional Data	
Bore, mm	457
Net Area of Piston, cm^2	1539.4
Length of Hammer (overall), m	6045
Distance Across Female Jaws, mm	660
Width of Female Jaws, mm	235
Largest Outside Diameter of Pile, mm	610
Size of Hose, mm	64
Mass Data	
Mass of Striking Parts, kg	5,670
Net Mass of Hammer, kg	10,659

Additional Assembly Drawings:
Ram Repair -- D-35041
Steam Chest Bushing Assembly -- C-35240
Sheave Assembly -- C-35242
Trip Shifting Assembly -- D-35363
Packing Gland Assembly -- A-35364

Rev.	Description	Date	By	Apr'vd.

Drawn D C Warrington — Date 12 14 94
Checked — Date
Approved — Date
Material
Part Number 35370 — Pattern Number
Rough Weight — Finished Weight

Standard Tolerances (Unless Otherwise Specified)
Surfaces: Square, parallel, concentric, & straight within 0.04% Full length of surface
Decimal Dimensions:Machined to +-.005" or .1mm, 125 rms finish
Fractional Dimensions:No machining required, 500 rms finish
Sand Cast Surfaces +-1/8" or 3mm
All others +-1/64" or .4mm
Angles:Within +-0 Deg. 30 min., Reference if otherwise dimensioned
Corners:Minimum Radius .0625" or 1.5mm, Standard 1/8" or 3mm
All sharp corners to be broken

Vulcan Iron Works Inc.

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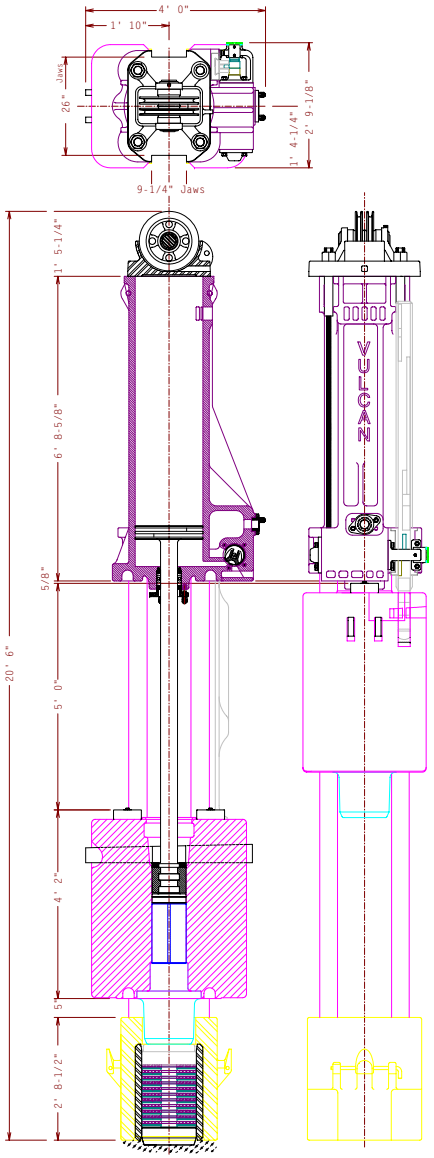
D-35370 — Rev.

Name 513 Hammer -- General Assembly



Specifications (English Units)	515
Operating Data	
Rated Striking Energy, ft-lbs	75,000
Blows per Minute, Normal Stroke, No Set	36
Normal Stroke, inches	60
Rated Operating Pressure at Hammer, psi	90
Steam Consumption, lbs/hr	3,795
Required Boiler Horsepower	150
Air Consumption (Adiabatic), cfm	1077
Required Air Compressor Size, cfm	1100
Dimensional Data	
Bore, inches	18
Net Area of Piston, sq. in.	238.6
Length of Hammer (overall), in.	246
Distance Across Female Jaws, in.	26
Width of Female Jaws, in.	9.25
Largest Outside Diameter of Pile, in.	24
Size of Hose, in.	2.5
Weight Data	
Weight of Striking Parts, lbs.	15,000
Net Weight of Hammer, lbs.	26,100
Specifications (SI Units)	515
Operating Data	
Rated Striking Energy, kJ	101.7
Blows per Minute, Normal Stroke, No Set	36
Normal Stroke, mm	1524
Rated Operating Pressure at Hammer, kPa	621
Steam Consumption, kg/hr	1,721
Air Consumption (Adiabatic), m /min	30.5
Required Air Compressor Size, m /min	31.1
Dimensional Data	
Bore, mm	457
Net Area of Piston, cm	1539.4
Lenght of Hammer (overall),m	6248
Distance Across Female Jaws, mm	660
Width of Female Jaws, mm	235
Largest Outside Diameter of Pile, mm	610
Size of Hose, mm	64
Mass Data	
Mass of Striking Parts, kg	6,804
Net Mass of Hammer, kg	11,839

Additional Assembly Drawings:
Ram Repair -- D-35041
Steam Chest Bushing Assembly -- C-35240
Sheave Assembly -- C-35242
Trip Shifting Assembly -- D-35363
Packing Gland Assembly -- A-35364

Rev.	Description	Date	By	Apr'vd.

Drawn D C Warrington — Date 12 16 94
Checked — Date
Approved — Date
Material
Part Number 35371 — Pattern Number
Rough Weight — Finished Weight

Standard Tolerances (Unless Otherwise Specified)
Surfaces: Square, parallel, concentric, & straight within 0.04%
Full length of surface
Decimal Dimensions:Machined to +-.005" or .1mm, 125 rms finish
Fractional Dimensions:No machining required, 500 rms finish
Sand Cast Surfaces +-1/8" or 3mm
All others +-1/64" or .4mm
Angles:Within +-0 Deg. 30 min., Reference if otherwise dimensioned
Corners:Minimum Radius .0625" or 1.5mm, Standard 1/8" or 3mm
All sharp corners to be broken

Vulcan Iron Works Inc.

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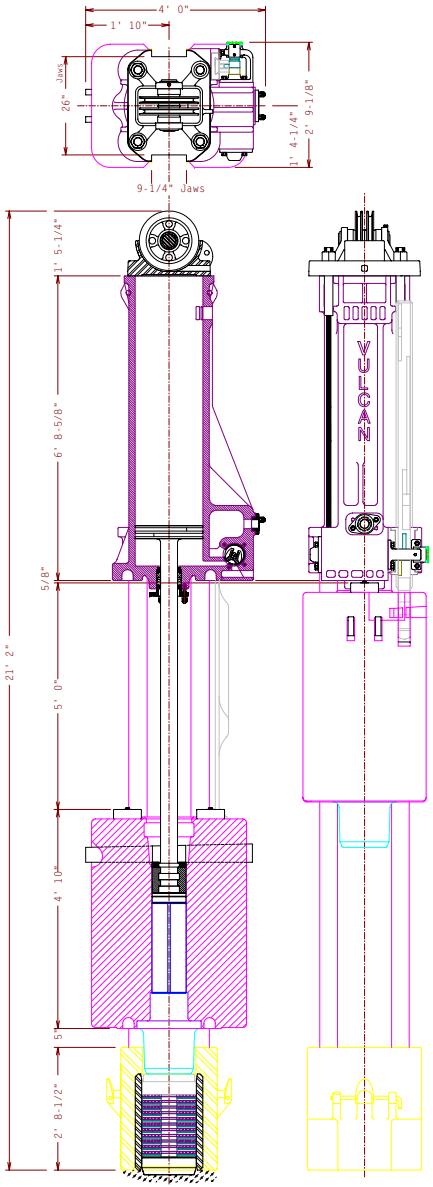
D-35371 — Rev.

Name 515 Hammer -- General Assembly



Specifications (English Units)	517
Operating Data	
Rated Striking Energy, ft-lbs	87,500
Blows per Minute, Normal Stroke, No Set	36
Normal Stroke, Inches	60
Rated Operating Pressure at Hammer, psi	105
Steam Consumption, lbs/hr	4,295
Required Boiler Horsepower	150
Air Consumption (Adiabatic), cfm	1184
Required Air Compressor Size, cfm	1200
Dimensional Data	
Bore, inches	18
Net Area of Piston, sq. in.	238.6
Length of Hammer (overall), in.	254
Distance Across Female Jaws, in.	26
Width of Female Jaws, in.	9.25
Largest Outside Diameter of Pile, in.	24
Size of Hose, in.	2.5
Weight Data	
Weight of Striking Parts, lbs.	17,500
Net Weight of Hammer, lbs.	28,700
Specifications (SI Units)	517
Operating Data	
Rated Striking Energy, kJ	118.6
Blows per Minute, Normal Stroke, No Set	36
Normal Stroke, mm	1524
Rated Operating Pressure at Hammer, kPa	724
Steam Consumption, kg/hr	1,948
Air Consumption (Adiabatic), m /min	33.5
Required Air Compressor Size, m /min	34.0
Dimensional Data	
Bore, mm	457
Net Area of Piston, cm	1539.4
Lenght of Hammer (overall),m	6452
Distance Across Female Jaws, mm	660
Width of Female Jaws, mm	235
Largest Outside Diameter of Pile, mm	610
Size of Hose, mm	64
Mass Data	
Mass of Striking Parts, kg	7,938
Net Mass of Hammer, kg	13,018

Additional Assembly Drawings:
Ram Repair -- D-35041
Steam Chest Bushing Assembly -- C-35240
Sheave Assembly -- C-35242
Trip Shifting Assembly -- D-35363
Packing Gland Assembly -- A-35364

Rev.	Description	Date	By	Apr'vd.

Drawn D C Warrington — Date 12 16 94
Checked — Date
Approved — Date
Material
Part Number 35372 — Pattern Number
Rough Weight — Finished Weight

Standard Tolerances (Unless Otherwise Specified)
Surfaces: Square, parallel, concentric, & straight within 0.04%
Full length of surface
Decimal Dimensions:Machined to +-.005" or .1mm, 125 rms finish
Fractional Dimensions:No machining required, 500 rms finish
Sand Cast Surfaces +-1/8" or 3mm
All others +-1/64" or .4mm
Angles:Within +-0 Deg. 30 min., Reference if otherwise dimensioned
Corners:Minimum Radius .0625" or 1.5mm, Standard 1/8" or 3mm
All sharp corners to be broken

Vulcan Iron Works Inc.

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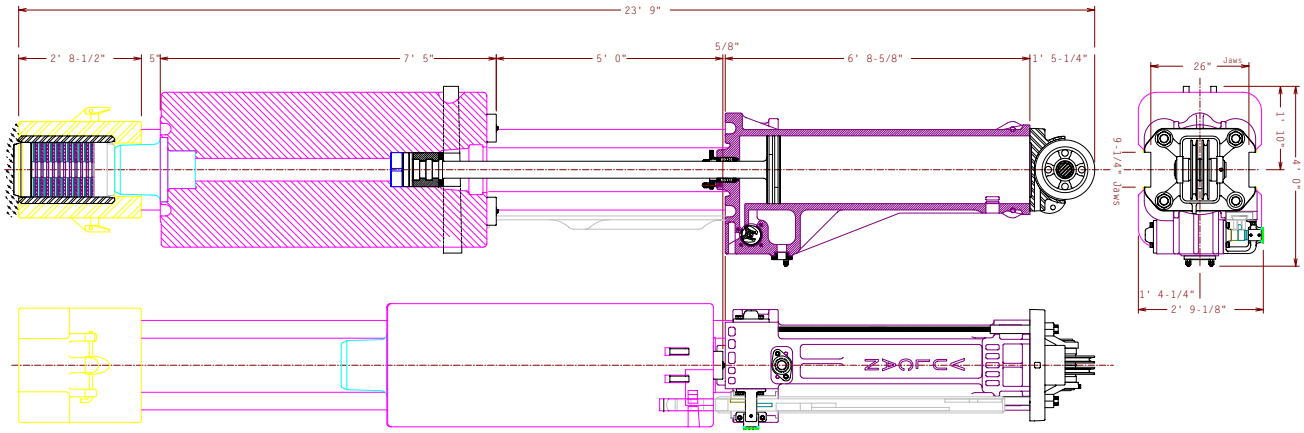
D-35372 — Rev.

Name 517 Hammer -- General Assembly



Specifications (English Units)	525
Operating Data	
Rated Striking Energy, ft-lbs	125,000
Blows per Minute, Normal Stroke, No Set	36
Normal Stroke, inches	60
Rated Operating Pressure at Hammer, psi	150
Steam Consumption, lbs/hr	5,940
Required Boiler Horsepower	200
Air Consumption (Adiabatic), cfm	1484
Required Air Compressor Size, cfm	1500
Dimensional Data	
Bore, inches	18
Net Area of Piston, sq. in.	238.6
Length of Hammer (overall), in.	285
Distance Across Female Jaws, in.	26
Width of Female Jaws, in.	9.25
Largest Outside Diameter of Pile, in.	24
Size of Hose, in.	2.5
Weight Data	
Weight of Striking Parts, lbs.	25,000
Net Weight of Hammer, lbs.	36,600
Specifications (SI Units)	525
Operating Data	
Rated Striking Energy, kJ	169.5
Blows per Minute, Normal Stroke, No Set	36
Normal Stroke, mm	1524
Rated Operating Pressure at Hammer, kPa	1034
Steam Consumption, kg/hr	2,694
Air Consumption (Adiabatic), m /min	42.0
Required Air Compressor Size, m /min	42.5
Dimensional Data	
Bore, mm	457
Net Area of Piston, cm	1539.4
Lenght of Hammer (overall),m	7239
Distance Across Female Jaws, mm	660
Width of Female Jaws, mm	235
Largest Outside Diameter of Pile, mm	610
Size of Hose, mm	64
Mass Data	
Mass of Striking Parts, kg	11,340
Net Mass of Hammer, kg	16,601

Additional Assembly Drawings:
Ram Repair -- D-35041
Steam Chest Bushing Assembly -- C-35240
Sheave Assembly -- C-35242
Trip Shifting Assembly -- D-35363
Packing Gland Assembly -- A-35364

Rev.	Description	Date	By	Apr'vd.

Drawn D C Warrington — Date 12 16 94
Checked — Date
Approved — Date
Material
Part Number 35373 — Pattern Number
Rough Weight — Finished Weight

Standard Tolerances (Unless Otherwise Specified)
Surfaces: Square, parallel, concentric, & straight within 0.04%
Full length of surface
Decimal Dimensions:Machined to +-.005" or .1mm, 125 rms finish
Fractional Dimensions:No machining required, 500 rms finish
Sand Cast Surfaces +-1/8" or 3mm
All others +-1/64" or .4mm
Angles:Within +-0 Deg. 30 min., Reference if otherwise dimensioned
Corners:Minimum Radius .0625" or 1.5mm, Standard 1/8" or 3mm
All sharp corners to be broken

Vulcan Iron Works Inc.

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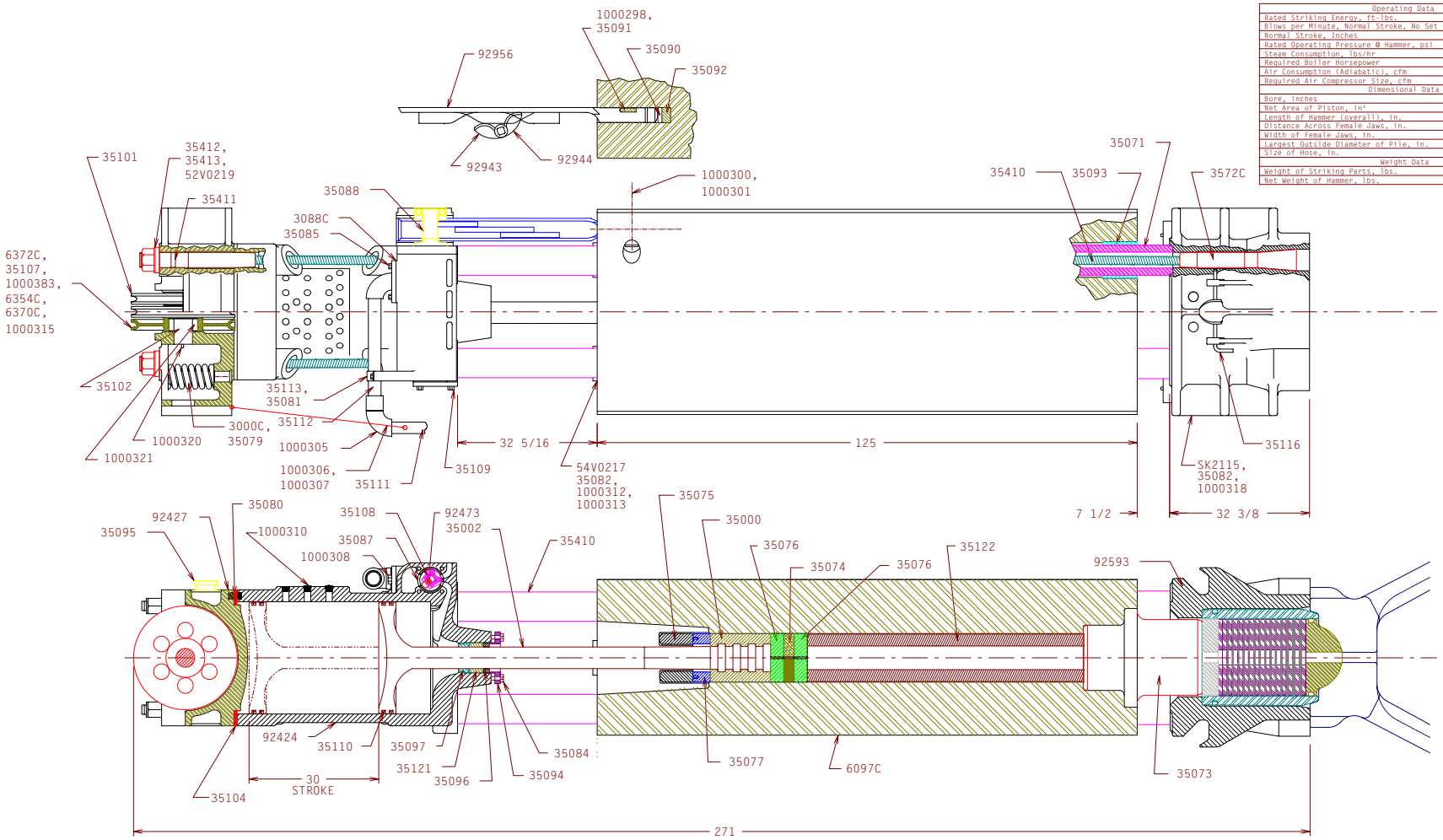
D-35373 — Rev.

Name 525 Hammer -- General Assembly

Rev.	Description	Date	By	Apr'vd.	Rev.	Description	Date	By	Apr'vd.	Rev.	Description	Date	By	Apr'vd.	Rev.	Description	Date	By	Apr'vd.	Rev.	Description	Date	By	Apr'vd.

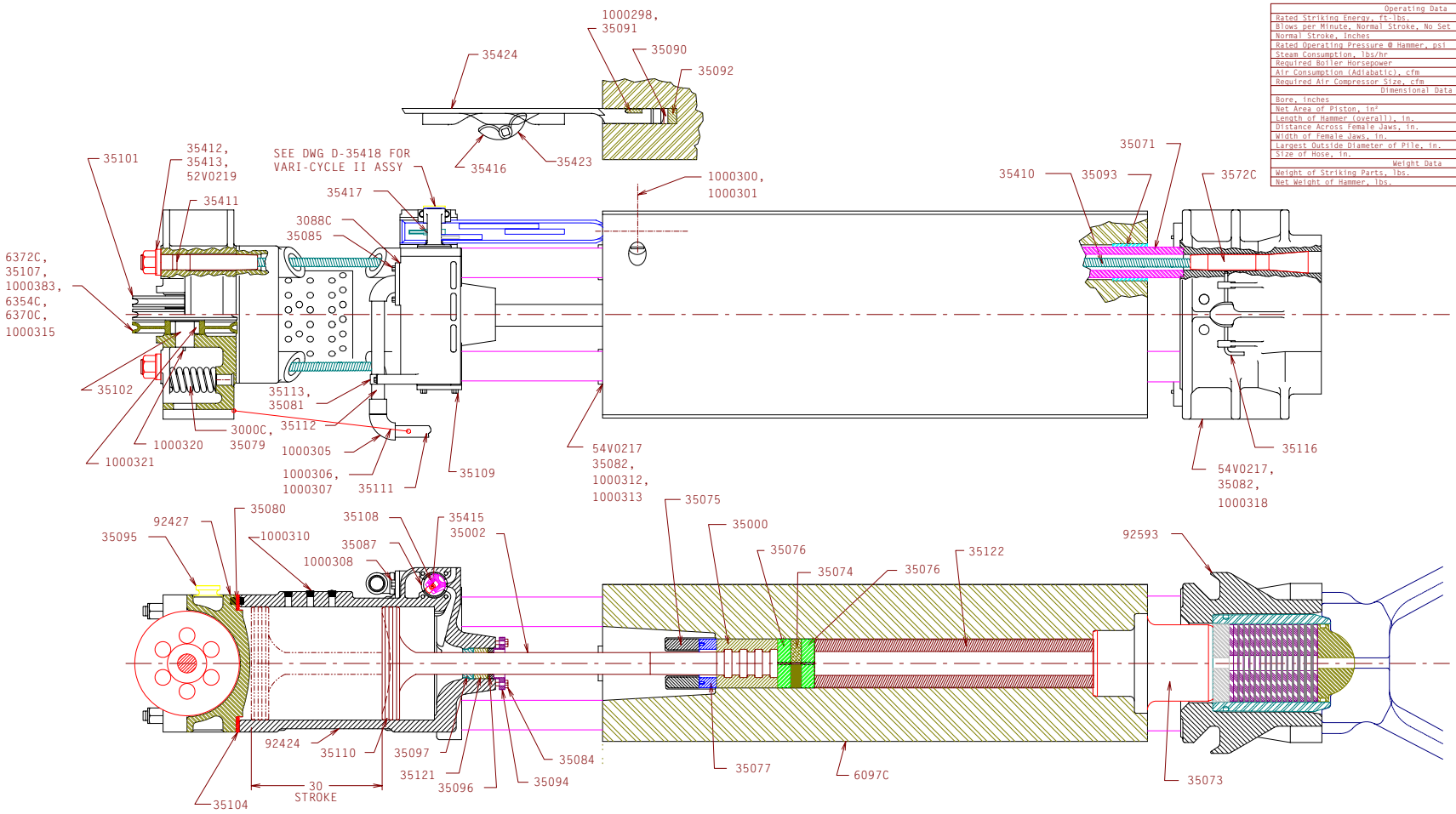
Operating Data	
Rated Striking Energy, ft-lbs.	150,000
Blows per Minute, Normal Stroke, No Set	60
Normal Stroke, Inches	30
Rated Operating Pressure @ Hammer, psi	165
Steam Consumption, lbs/hr	15,000
Required Boiler Horsepower	300
Air Consumption (Adiabatic), cfm	3796
Required Air Compressor Size, cfm	4000
Dimensional Data	
Bore, Inches	26
Net Area of Piston, in²	511.3
Length of Hammer (overall), in.	271
Distance Across Female Jaws, in.	43⅜
Width of Female Jaws, in.	10⅝
Largest Outside Diameter of Pile, in.	36
Size of Hose, in.	3
Weight Data	
Weight of Striking Parts, lbs.	60,000
Net Weight of Hammer, lbs.	85,000



P/N 6257C	Drawn RLS	Date 7-20-95	NOTICE:This drawing discloses confidential ideas and information that are the property of VULCAN IRON WORKS INC., and a special confidential disclosure is made hereon under an implied and continuing pledge of good faith and secrecy that disclosure and use of the trade secrets shall not be made without the prior written authorization of VULCAN IRON WORKS INC., P.O. Box 5402, Chattanooga, TN, 37406.	Vulcan Iron Works Inc. Chattanooga, TN	Pattern #	Rough Wt.	D-35414	Rev.
	Chk'd			Material	Fin. Wt.	Name General Assembly 60X W/MANUAL VARI-CYCLE	
	Ap'vd						

Rev.	Description	Date	By	Apr'vd.	Rev.	Description	Date	By	Apr'vd.	Rev.	Description	Date	By	Apr'vd.	Rev.	Description	Date	By	Apr'vd.	Rev.	Description	Date	By	Apr'vd.

Operating Data	
Rated Striking Energy, ft-lbs.	150,000
Blows per Minute, Normal Stroke, No Set	60
Normal Stroke, Inches	30
Rated Operating Pressure @ Hammer, psi	165
Steam Consumption, lbs/hr	15,000
Required Boiler Horsepower	300
Air Consumption (Adiabatic), cfm	3796
Required Air Compressor Size, cfm	4000
Dimensional Data	
Bore, Inches	26
Net Area of Piston, in²	511.3
Length of Hammer (overall), in.	271
Distance Across Female Jaws, in.	43⅜
Width of Female Jaws, in.	10⅝
Largest Outside Diameter of Pile, in.	36
Size of Hose, in.	3
Weight Data	
Weight of Striking Parts, lbs.	60,000
Net Weight of Hammer, lbs.	85,000



P/N 6257C	Drawn RLS/RDC	Date 7-20-95	NOTICE:This drawing discloses confidential ideas and information that are the property of VULCAN IRON WORKS INC., and a special confidential disclosure is made hereon under an implied and continuing pledge of good faith and secrecy that disclosure and use of the trade secrets shall not be made without the prior written authorization of VULCAN IRON WORKS INC., P.O. Box 5402, Chattanooga, TN, 37406.	Vulcan Iron Works Inc. Chattanooga, TN	Pattern #	Rough Wt.	D-35414V	Rev.
	Chk'd			Material	Fin. Wt.	Name General Assembly 60X W/AUTOMATIC VARI-CYCLE II	
	Ap'vd						