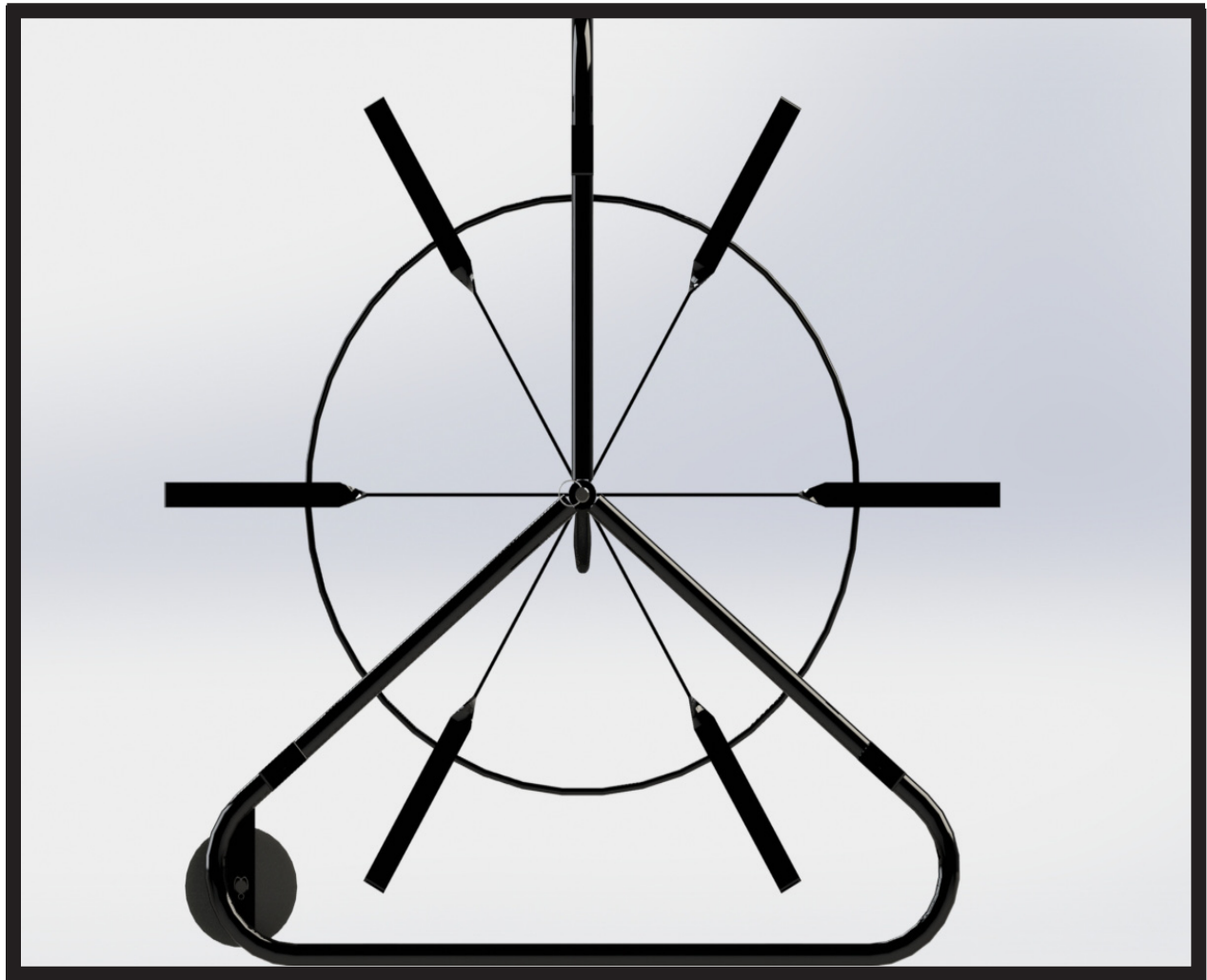


OPERATING AND MAINTENANCE INSTRUCTIONS

DUCT ROD UNITS

INCLUDES INSTRUCTIONS FOR MINI, MIDI AND MAXI DUCT RODDERS



T.A. Pelsue Company
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Phone: 800-525-8460
Fax: 303-934-5581

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1.0 GENERAL

1.01 This manual covers the description, operation, and maintenance of the T.A. Pelsue Company 46000, 48000 and 49000 series Duct Rod Units. This includes the Mini, Midi, and Maxi models.

1.02 The Duct Rod Units are designed to be lightweight, portable, single user duct rodding systems.

1.03 The duct rod material consists of 80% fiberglass and 20% resin covered by a yellow propylene jacket. See Figure 1 below.

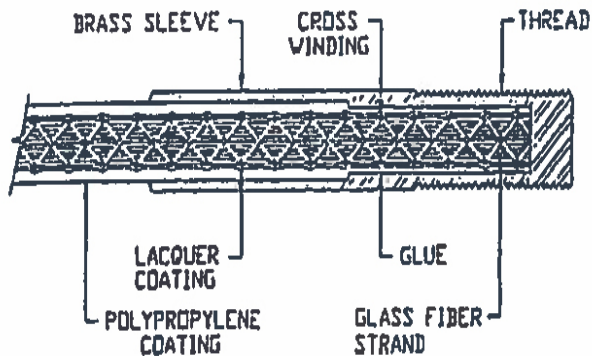


Figure 1: Duct rod composition

2.0 DESCRIPTION

2.01 The 46000 series Duct Rod Unit is a vertical configuration, and the 48000 and 49000 units are vertical/horizontal configurations. All series units consist of a welded steel base and spool, and a friction brake for payout control.

2.02 When loaded with duct rod, each system includes 1 fixed end fitting for attachment to the spool, and 1 swivel end fitting at the free end for attachment to accessories.

2.03 Marked and unmarked duct rod are available for 48000 and 49000 series units. Marked duct rod can be marked every foot or meter.

3.0 PRECAUTIONS

3.01 Always keep loose clothing clear of spool when rotating.

3.02 Always use heavy work gloves.

3.03 Do not put undue torsional stress or twist on the rod.

4.0 OPERATING PROCEDURES

PAYOUT

4.01 Align duct rod spool parallel to the duct run.

4.02 Rotate spool until duct rod swivel end fitting is at the top of the spool.

4.03 Grasp swivel end fitting and pull slightly, then feed into duct.

NOTE

IT IS RECOMMENDED THAT A ROLLER GUIDE, PART NO. 46006 OR 49006, BE USED ON RUNS GREATER THAN 200 FEET.

CAUTION

ALWAYS USE A ROLLER GUIDE, PART NO. 46006 OR 49006, WHEN RODDING CONCRETE DUCT.

PULLING IN LINE

4.04 Detach roller guide if one was used, and attach pulling eye and shackle.

4.05 Attach Line to be pulled.

4.06 Manually grasp duct rod and put it back onto the spool.

CAUTION

DO NOT UTILIZE THE SPOOL FOR PULLING.

5.0 MAINTENANCE

5.01 Periodically check the duct rod for exposed fiberglass. Worn sections may be repaired utilizing In-Line Repair Kit, Part No. 46, 48, 49002. Worn ends may be repaired using End Repair Kit, Part No. 46, 48, 49001.

FOR PARTS AND SERVICE CONTACT:

T.A. PELSUE COMPANY
2500 SOUTH TEJON STREET
ENGLEWOOD, COLORADO 80110
PHONE: 800-525-8460
FAX: 303-934-5581

5.02 Repair Kit Instructions for Mini-Duct, and Unmarked Midi and Maxi-Duct Rod:

- A.** Cut rod off square beyond any damaged section.
- B.** Remove jacketing 7/8" for Mini-Duct, and 1-1/4" for Midi and Maxi-Duct from end of rod. Cut around jacket; remove jacket.
- C.** Roughen rod core surface by sanding until glaze is removed, then tap excess dust off as shown in Figure 2.

DO NOT TOUCH ROUGHENED PORTION

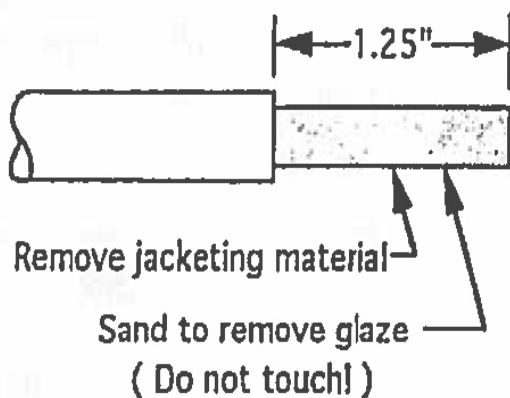


Figure 2: Duct rod repair, jacket removal

- D.** On a clean surface mix epoxy, following instructions on packet.
- E.** Insert approximately 1/2 of the mixture into each end of the repair line fitting (only one-half is required if it is an end repair).
- F.** Rotate fitting onto the rod to distribute the adhesive and work out the air bubbles. See Figure 3.

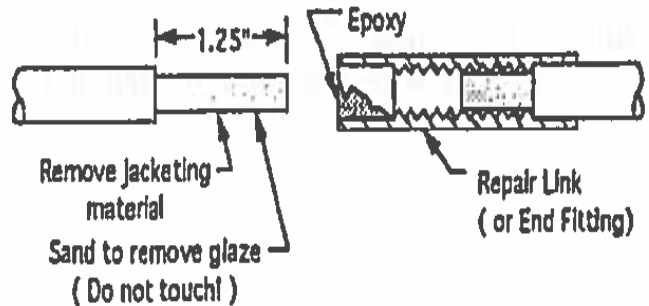


Figure 3: Duct rod repair, Repair Link connection

- G.** Allow this repair to set undisturbed for 24 hours at a temperature no less than 70degF.

5.03 Repair Kit Instructions for Marked Midi and Maxi-Duct Rod:

- A.** Fit two ends of broken rod as close to the original shape as possible.
- B.** Make a mark at the break so that the mark shows at both ends.
- C.** Separate the rod and cut off 30" from each end (or 50cm for metric marked rod).
- D.** If the break is within 30" of the duct rod end fitting, remove the pulling eye and measure 60" back from the tip of the end fitting, mark and cut the rod.
- E.** Following instruction steps B through G for for unmarked Midi and Maxi-Duct Rod repair.

6.0 SPECIFICATIONS

<u>Model</u>	Mini Duct Rodder Series 46000	Midi Duct Rodder Series 48000	Maxi Duct Rodder Series 49000
<u>Material</u>	Welded Steel Construction	Welded Steel Construction	Welded Steel Construction
<u>Height</u>	24.50" or 622 mm	36.75" or 933 mm	48.75" or 1238 mm
<u>Width</u>	19.50" or 495 mm	30.00" or 762 mm	44" or 1117 mm
<u>Depth</u>	11.50" or 292 mm	16.00" or 406 mm	20.00" or 508 mm
<u>Weight</u>	8 lbs or 3.63 kg	29 lbs or 13.15 kg	49 lbs or 22.22 kg
<u>Duct Rod Overall Diameter</u>	1/4" or 6.35 mm	3/8" or 9.53 mm	7/16" or 11.11 mm
<u>Duct Rod Core Diameter</u>	.190" or 4.76 mm	.25" or 6.35 mm	.375" or 9.53 mm
<u>Duct Rod Weight</u>	4.5 lbs / 100 ft	7.31 lbs / 100 ft	11.13 lbs / 100 ft
<u>Duct Rod Bend Radius</u>	12" - 18" or 304 mm - 457 mm	18" - 24" or 457 mm - 607 mm	24" - 30" or 609 mm - 762 mm
<u>Fitting and Accessory Thread Type</u>	1/4 x 20	3/8 x 16	3/8x 16
<u>Available Duct Rod Lengths (ft)</u>	100, 200, 300, 400	200, 400, 600, 800, 1000	400, 600, 800, 1000, 1200
<u>Conduit Diameter (in)</u>	1" - 2"	2" - 3"	3" or larger

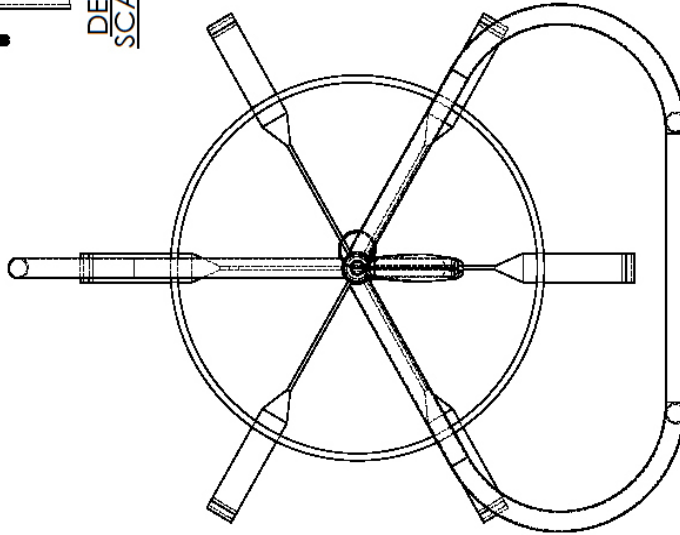
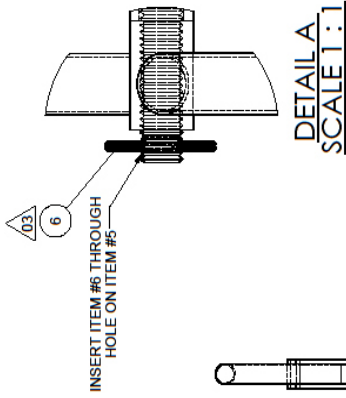
Figure 4: Specifications table

7.0 PARTS LIST**MINI DUCT RODDER SERIES 46000**

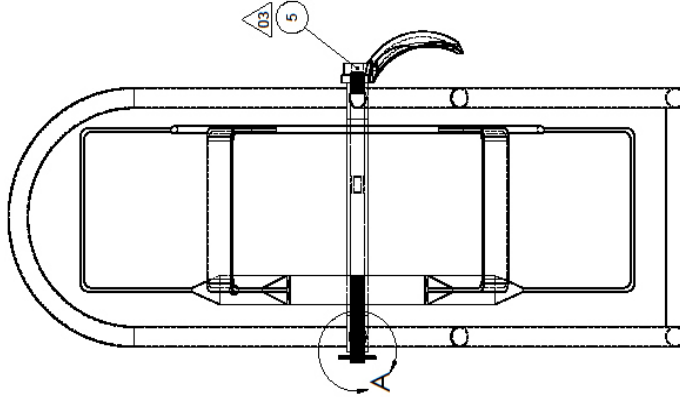
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106899-002	WELDMENT - FRAME	1	3
106900-002	SPOOL WELDMENT	1	4
125420-010	CRANK HANDLE	1	5
44T-008800	RING - KEY	1	6
PARTS BELOW NOT SHOWN IN ASSEMBLY			
106686-000	DUCT ROD - 1/4"	100 - 400	7
100006-000	EPOXY W/ STICK	2	8
46004A	SOLID END FITTING	1	9
46004	SWIVEL END FITTING	1	10
46001	END REPAIR KIT	AS REQ.	11
46002	INLINE REPAIR KIT	AS REQ.	12
46003	PULLING EYE	AS REQ.	13
46005	UNION COUPLING	AS REQ.	14
46006	ROLLER GUIDE	AS REQ.	15
46007	SHACKLE	AS REQ.	16
46017	REPAIR LINK	AS REQ.	17

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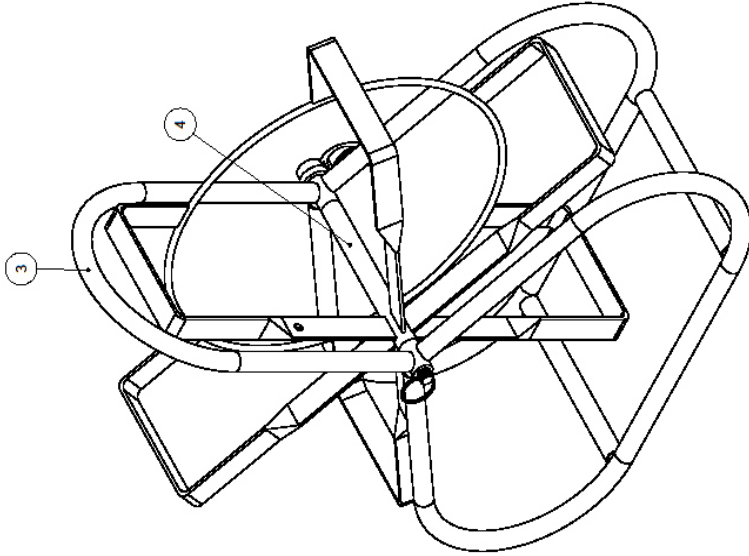
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ZONE	REV.	DESCRIPTION	DATE
	00	ISSUED FOR FABRICATION	11-17-93
	01	UPDATED TO NEW DESIGN	04-07-94
	02	MODELED IN SOLIDWORKS. ADDED HOLES FOR ROLL PIN. ADDED NEW PART #108999-002	05-30-08
	03	UPDATED TO NEW DESIGN. REPLACED BY 125420-010, REMOVED #100644-002, ADDED #441-008800	02-07-11
ALL			CHAU



SIDE VIEW



FRONT VIEW



ISOMETRIC VIEW

QTY.	PART OR IDENTIFYING NO.	NOMENCLATURE OR DESCRIPTION	MATERIAL SPECIFICATION	ITEM NO.
1	441-008800	RING - KEY, 1-1/4" DIA. HEAT TREATED, PLATED	PURCHASED	6
1	125420-010	WELDMENT - CRANK HANDLE, 1/2"-13 UNC THREAD W/ IRON HANDLE	MFD. REF. DWG #125420T	5
1	108900-002	WELDMENT - SPOOL, MINI DUCT RODDER, PAINTED	MFD. REF. DWG #108900	4
1	108999-002	WELDMENT - FRAME, MINI DUCT RODDER, PAINTED	MFD. REF. DWG #108999	3

PARTS LIST	
VALUES SHOWN IN PARENT BRACKETS ARE DECIMALS UNLESS NOTED OTHERWISE. DO NOT SCALE DRAWING.	
TREATMENT	N/A
FINISH	N/A
PART NUMBER	112542-001
DATE	11-17-93
APPROVALS	CHAU
DESIGNER	CHAU
CHECKED & SEALED	DUKE
DATE	02-08-11
SCALE	1:3
SIZE	11/2x42
REV.	03
OF	1

CONTRACTOR	
MAH HOLE SUPPORT	2500 SOUTH TEJON STREET
	ENGLEWOOD, COLORADO 80110 USA
TITLE	STAND & SPOOL ASSEMBLY
DATE	MINI DUCT RODDER
FOR	FOR 1/4" DIAMETER ROD

C:\Mahhole Support Drawings - Mahhole Support\112542-001.DWG

MIDI DUCT RODDER SERIES 48000

PART #	DESCRIPTION	QTY.	ITEM #
112362	ASSEMBLY DRAWING		1
112359-002	WELDMENT - FRAME	1	3
112360-002	SPOOL WELDMENT	1	4
105787-001	WHEEL - 6" DIAMETER	2	5
112364-001	AXLE - 11.250" LONG	1	6
100012-001	COTTER PIN	4	7
100050-015	WASHER - FLAT, 5/8"	2	8
124658-014	CRANK HANDLE	1	9
100050-017	WASHER - FLAT, 3/4"	1	10
44T-008800	RING - KEY	1	11

PARTS BELOW NOT SHOWN IN ASSEMBLY

106261-000	DUCT ROD - 0.354" OD	200 - 1000	12
100006-000	EPOXY W/ STICK	2	13
48004A	SOLID END FITTING	1	14
48004	SWIVEL END FITTING	1	15
48001	END REPAIR KIT	AS REQ.	16
48002	INLINE REPAIR KIT	AS REQ.	17
49003	PULLING EYE	AS REQ.	18
49005	UNION COUPLING	AS REQ.	19
49006	ROLLER GUIDE	AS REQ.	20
49007	SHACKLE	AS REQ.	21
48017	REPAIR LINK	AS REQ.	22

MAXI DUCT RODDER SERIES 49000

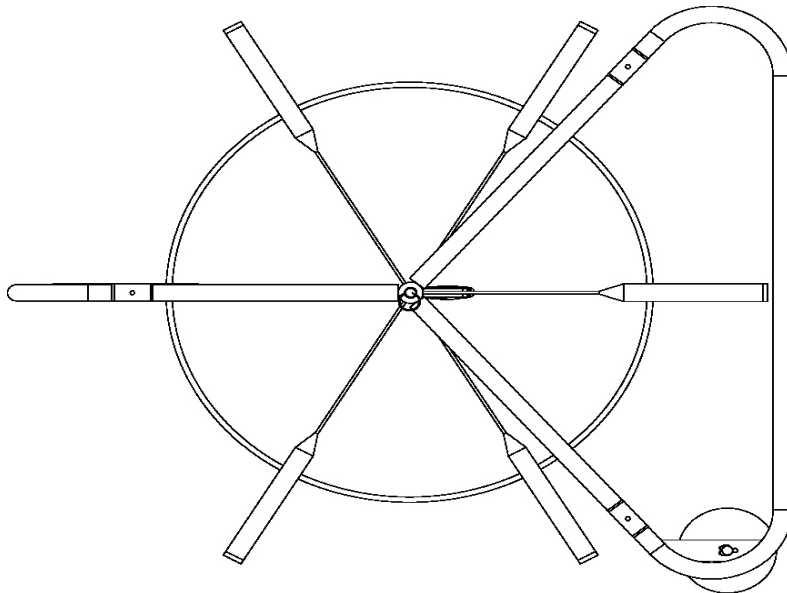
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112343-002	WELDMENT - FRAME	1	3
112344-002	SPOOL WELDMENT	1	4
112358-001	AXLE - 15 1/8" LONG	1	5
105787-001	WHEEL - 6" DIAMETER	2	6
100050-015	WASHER - FLAT, 5/8"	2	7
100012-001	COTTER PIN	4	8
124658-020	CRANK HANDLE	1	9
100050-017	WASHER - FLAT, 3/4"	1	10
44T-008800	RING - KEY	1	11

PARTS BELOW NOT SHOWN IN ASSEMBLY

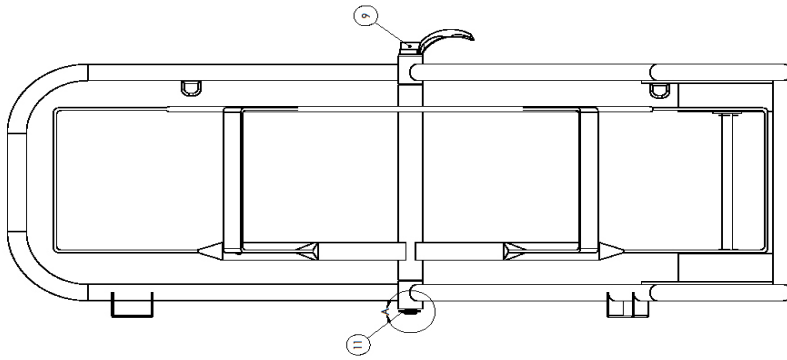
100058-000	DUCT ROD, 7/16" OD	400 - 1200	12
100006-000	EPOXY W/ STICK	2	13
49004A	SOLID END FITTING	1	14
49004	SWIVEL END FITTING	1	15
49001	END REPAIR KIT	AS REQ.	16
49002	INLINE REPAIR KIT	AS REQ.	17
49003	PULLING EYE	AS REQ.	18
49005	UNION COUPLING	AS REQ.	19
49006	ROLLER GUIDE	AS REQ.	20
49007	SHACKLE	AS REQ.	21
49017	REPAIR LINK	AS REQ.	22

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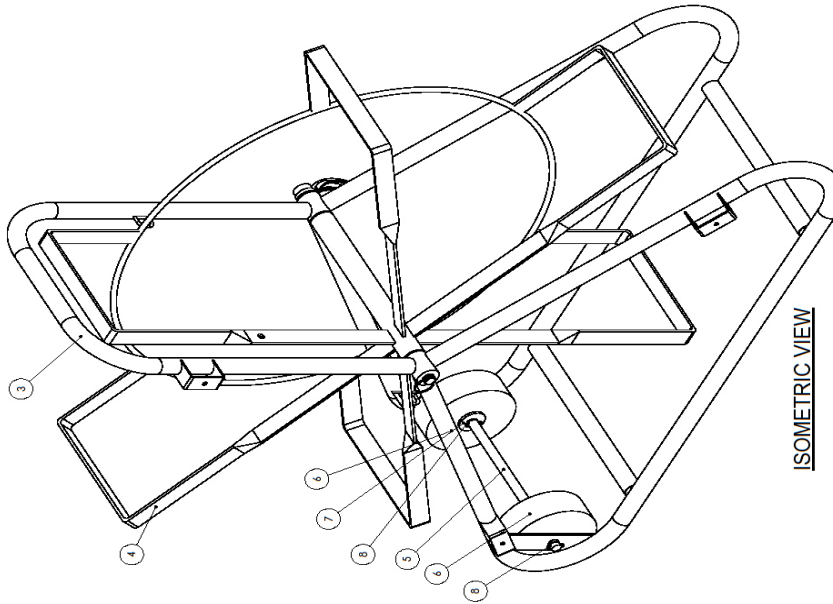
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01		REVISED TO NEW DESIGN	04-27-94	
02		UPDATED TO NEW DESIGN	07-25-94	
03		MODELED IN SOLIDWORKS, ADDED ROLL PIN AND WASHERS, MODIFIED 110698-002, 10026-114 WAS 08-03-98	08-03-98	A, CHAU
04		UPDATED ITEM #'S, REMOVED 100652-001, 112896-001, 100648-114, 101497-006, 100026-006, 100186-001, 100025-001, 100024-001, 100023-001, 124868-002, ADDED 447-006800, 100020-017	12-23-09	CHAU
ALL				



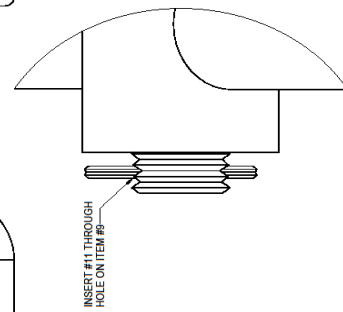
SIDE VIEW



FRONT VIEW



ISOMETRIC VIEW



DETAIL A
SCALE 2:1

QTY.	PART OR IDENTIFYING NO.	DESCRIPTION	MATERIAL SPECIFICATION	ITEM NO.
1	447-006800	RING - KEY, 1.5110 DIA, HEAT TREATED, PLATED	PURCHASED	11
1	100020-017	WASHER - FLAT, .50" TYPE A, N, PLATED	PURCHASED	10
1	124868-002	WELDMENT - GRANK HANDLE, .50" X 1.0" UNC W/ IRON HANDLE, 20" LG	MFG. SEE DWG #106817	9
4	100012-001	COTTER PIN - .08" X 1.12" - HAMMERLOCK	PURCHASED	8
1	100020-015	WASHER - FLAT, .50" TYPE USA, A, W, PLATED	PURCHASED	7
2	07879-001	WHEEL - 10 DIA, 2" WIDE, .50" BORE, W/ ROLLER BEARING	PURCHASED	6
1	100020-016	WASHER - FLAT, .50" TYPE USA, A, W, PLATED	PURCHASED	5
1	112344-002	WELDMENT - SPOCK, MAIN DUCT RODDER, PAINTED	MFG. SEE DWG #112344	4
1	112343-002	WELDMENT - FRAME, MAIN DUCT RODDER, PAINTED	MFG. SEE DWG #112343	3

PARTS LIST	
UNLESS OTHERWISE SPECIFIED	2000 SOUTH TULSA STREET
ALL DIMENSIONS ARE IN INCHES	ENGLEWOOD COLORADO 80110 USA
ALL DIMENSIONS ARE TO CENTER UNLESS NOTED OTHERWISE	
DO NOT SCALE DRAWING	
DATE	12-14-93
APPROVALS	
DESIGNER	CHAU
CHECKED	CHAU
DATE	01-30-10
SCALE	1:1
REV.	04

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