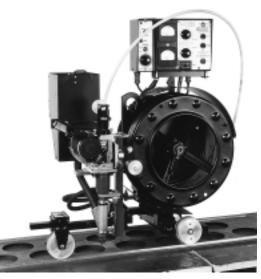
# **LT-7 Tractor**

# Submerged Arc DC Wire Feeder

The LT-7 Tractor is a self-propelled mechanized wire feeder, designed for the submerged arc process with track system capabilities. It is self-guiding and easy to operate – only one operator is usually required. It is designed to be used with a variety of Lincoln DC constant voltage and constant current power sources. The rugged, lightweight unit permits quick movement to the next joint. Its compact size fits through small openings and confined spaces. Butt and fillet welds can be made on heavy plate or steel as light as 12 gauge (2.5mm). The LT-7 Tractor is ideal for the following applications: ship and barge building, storage tank erection, bridge deck installation, beam, girder or column fabrication, and long seams on heavy weldments.



Track Model Shown

#### Description



Input 115 VAC

# **Required Options**

Control Cable, Weld Power Cable, Contact Nozzle Assembly

## **Recommended General Options**

Wire Feeder Control Cable Extensions, Adapter Cable, Linc-Fill™ Attachments, Horizontal Fillet and Lap Adapter Kit, Flat Fillet Adapter Kit, Butt Seam Guide Kit, Track Conversion Kit, Tiny Twinarc<sup>®</sup> Adapter Kit, Track Section, Flux Screen, Magnetic Flux Screen Separator, Concentric Flux Cone Assembly

## **Recommended Power Sources**

CV-655, DC-600, DC-655, DC-1000, DC-1500

#### Order

K227-1	LT-7 Standard Model
K395-1	LT-7 Track Model

TECHNICAL SPECIFICATIONS							
Product Name	Product Number	Input Power	Rated Output Current/Duty Cycle	Wire Feed Speed Range ipm (m/min)	Wire Size Range Solid in. (mm)	Dimensions H x W x D in. (mm)	Net Weight Ibs. (kg)
LT-7 Standard	K227-1	115 VAC 50/60 Hz	600A/100% 1100A/100% (with	100 - 400 (2.5 - 10.2)	3/32 - 3/16" (2.4 - 4.8)	27.5 x 33 x 14 (698 x 838 x 356)	120 (54)
LT-7 Track	K395-1		water cooling)				130 (59)



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# Processes

#### Submerged Arc

# Advantage Lincoln

- LT-7 Tractor feeds 3/32 to 3/16" (2.4 to 4.8 mm) solid wires, from 100 400 inches per minute (2.5 10.2 m/min) wire feed speed.
- Calibrated tractor drive adjusts travel speeds from 6 to 70 inches per minute (0.12 to 1.8 m/min).
- Vertical head lift adjuster for adjusting electrical stickout from 1/2 in. to 5 in. (12.7 to 127.0 mm).
- Weld angle is up to 50° from vertical on either side; drag angle is up to 30° from vertical.
- Control box is conveniently located on the tractor (can be mounted either left or right), eliminating the need to return to the power source for routine procedure changes.
- Exceptional tracking control and self-steering in most applications leave the operator free for quality control, joint cleaning and flux handling.
- Welds butts, horizontal fillet and lap joints to the left or right side of the tractor frame for convenience.
- Close mechanical alignment between wire and joint maximizes weld quality with no fixturing costs.
- Three-year warranty on parts and labor.

#### PERFORMANCE

- Solid-state control system precisely regulates procedures for reliable starting and economical welding.
- Automatic compensation for input voltage and tractor loading variations.
- Function lights built into the solid-state printed circuit boards aid troubleshooting to minimize down time.

#### **FEATURES**

- Quick, easy installation of optional guides for different joints.
- Reel holds 60 lb. (27.2 kg) solid wire coils.
- Flux hopper capacity of 15 lbs. (6.8 kg). Includes a manual flux flow rate control valve and can be mounted at four locations to the left or right.
- QUALITY AND RELIABILITY
- Three-year warranty on parts and labor.
- Manufactured under a quality system certified to ISO 9001 requirements.

- Cross seam adjuster speeds setup and lets operator track irregular joints while welding. Adjustment range is 3-1/8 in. (79 mm) with clamp and 2-1/2 in. (63 mm) with handwheel.
- To perform a curved weld, the minimum diameter can be as small as 10 ft. (3.0m) for an inside weld and 13 ft. (3.9m) for an outside weld.
- To perform an inside circumferential weld, the minimum inside diameter that can be welded is approximately 5 ft. (1.5m).
- Continuous Vertical Adjustment: 1-1/2" (38 mm) handweel variation for ESO (electrical stickout).
- Travel clutch operates from either side of the tractor.
- Rugged and durable design recognized throughout the industry for its long life and years of trouble-free wire feeding.

#### **REQUIRED OPTIONS**

CONTROL CABLES			
Description	Order No.		
Wire Feeder Control Cable	K1822-25 - 25 ft. (7.6m)		
Wire Feeder Control Cable Extensions	K1797-25 - 25 ft. (7.6m) K1797-50 - 50 ft. (15.2m)		
Adapter Cable for Control Cable to Terminal Strip Power Sources	К1798		

WELD POWER CABLES		
Order No.	Description	
K1842-10	Lug to Lug, 3/0, 600A, 60% duty cycle, 10 ft. (3.0m)	
K1842-35 K1842-60	Lug to Lug, 3/0, 600A, 60% duty cycle, 35 ft. (10.6m) Lug to Lug, 3/0, 600A, 60% duty cycle, 60 ft. (18.2m)	
K1842-110	Lug to Lug, 4/0, 600A, 60% duty cycle, 110 ft. (33.5m)	

CONTACT NOZZLE ASSEMBLIES		
Description/Diameter Wire	Order No.	
Submerged Arc: 3/32" (2.4 mm) 1/8" (3.2 mm) 5/32" (4.0 mm) 3/16" (4.8 mm)	K231-3/32 K231-1/8 K231-5/32 K231-3/16	
Positive: 3/32 - 1/8" (2.4 - 3.2 mm) 3/32 - 3/16" (2.4 - 4.8 mm)	K148A K148B	
Linc-Fill™ Attachments for Positive Contact Nozzle Asbly Extension for K148 3/32" (2.4 mm) 1/8" (3.2 mm) 5/32" (4.0 mm)	K149-3/32 K149-1/8 K149-5/32	



#### **GENERAL OPTIONS**

#### Horizontal Fillet and Lap Adapter Kit

Includes a rear guide wheel, head tension spring and front guide wheel assembly on an adjustable arm which rides in the joint to maintain alignment and electrode angle. Kit includes separate front guide wheel assemblies for fillet and lap joints. Welds to the left or right of the tractor's center line. **Order K232** 



#### Tiny Twinarc Adapter Kit

Converts the LT-7 standard model to Tiny Twinarc using 5/64" (2.0 mm) electrode. These kits may also be used for horizontal fillets with the addition of the K232 Adapter Kit.

Order K277-1 for Butt Seams Order K277-2 for Flat Fillets

#### Track Section

Each provides 70 in. (1.8m) of travel. To be used with the K395-1, LT-7 Track Model. **Order K396** 

Flux Screen

For submerged arc welding. Removes large particles from reused flux. Includes air-driven vibrator. Order K310



Includes front and rear guide wheels for operating the tractor in 30° or 45° flat fillet joints. Order K229

Flat Fillet Adapter Kit



K396

Magnetic Flux Screen Separator For submerged arc welding. Removes foreign magnetic particles from reused flux. Order K58



Track Conversion Kit Converts the LT-7 standard model for track guidance. Shown with K396 track section. Order K400



#### **Concentric Flux Cone Assembly**

For use with the K148B, Positive Contact Nozzle Assembly. Gives concentric flux coverage around the electrode. **Order K285** 



LT-7 TRACTOR ORDER FORM					
PRODUCT DESCRIPTION	ORDER NUMBER	QUANTITY	PRICE		
LT-7 STANDARD MODEL	K227-1				
LT-7 TRACK MODEL	K395-1				
REQUIRED OPTIONS					
Control Cable	See Page 2				
Weld Power Cable	See Page 2				
Contact Nozzle Assembly	See Page 2				
RECOMMENDED GENERAL OPTIONS					
Wire Feeder Control Cable Extensions	See Page 2				
Adapter Cable	See Page 2				
Linc-Fill™ Attachments	See Page 2				
Horizontal Fillet and Lap Adapter Kit	K232				
Flat Fillet Adapter Kit	K229				
Butt Seam Guide Kit	K230				
Track Conversion Kit	K400				
Tiny Twinarc Adapter Kit, for Butt Seams	K277-1				
Tiny Twinarc Adapter Kit, for Flat Fillets	K277-2				
Track Section	K396				
Flux Screen	K310				
Magnetic Flux Screen Separator	K58				
Concentric Flux Cone Assembly	K285				
RECOMMENDED POWER SOURCES					
CV-655	see publication E4.40				
DC-600	see publication E5.40				
DC-655	see publication E5.46				
DC-1000	see publication E5.50				
DC-1500	see publication E5.60				
	TOTAL:				

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