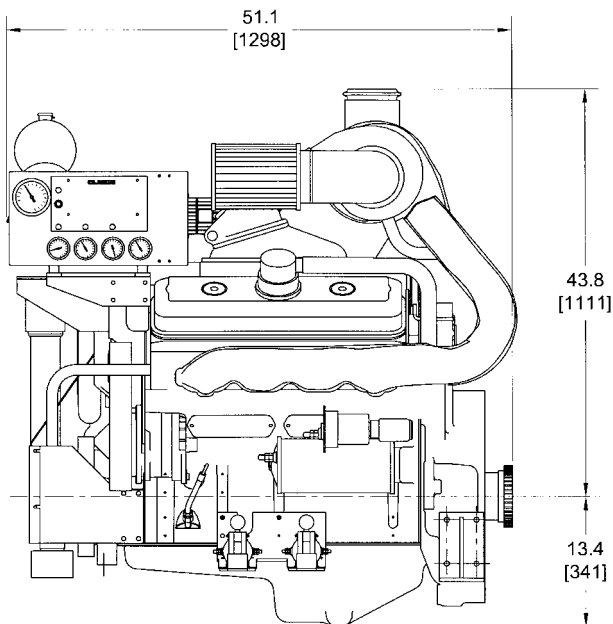


# CLARKE FIRE PUMP DRIVERS



DDFP-08FA  
OVERALL WIDTH  
41.0 [1042]

## MODELS

DDFP-08FH  
DDFP-08FA  
DDFP-12FH

### APPROVED RATINGS BHP/kw FM-UL-ULC\*

MODEL	SPEED (RPM)			
	1470	1760	2100	2350
DDFP-08FA	420 313	509 380	552 412	570 425
DDFP-08FH	468 349	575 429	669 499	708 528
DDFP-12FH	686 511	830 619	940 700	1000 745

## ENGINE EQUIPMENT

- Air Cleaner** — (S) Direct Mounted, Washable, For Indoor Service Only
- Alternator** — (S) 24V-DC, 40 Ampere, with Belt Guard
- Exhaust Protection** — (S) Blankets On Manifolds & Turbo Charger
- Exhaust Flex Connection** — (O) SS Flex, 150# Flange
- Flywheel Housing** — (S) SAE #1
- Flywheel Power Take Off** — (S) Engine Half Falk Coupling — 08FA/08FH 1090T10; 12FH 1100T10
- Fuel Connections** — (S) Fire Resistant Flexible Supply & Return Lines
- Fuel Filters** — (S) Primary & Secondary
- Engine Heater** —  
(S) 230 V-AC, (O) 115 V-AC, 2500 W (8 Cyl.);  
(S) 230 V-AC, (O) 460 V-AC, 4000 W (12 Cyl.)
- Governor** — (S) Constant Speed Mechanical
- Heat Exchanger** — (S) Tube & Shell Type, Rated 60 PSI w/NPTF Connections
- Instrument Panel** — (S) English & Metric, Tachometer, Hourmeter, Water Temperature, Oil Pressure, Two (2) Voltmeters
- Junction Box** — (S) Integral With Instrument Panel For DC Wiring Interconnection To Engine Controller
- Lube Oil Cooler** — (S) Engine Water Cooled, Plate Type
- Lube Oil Filter** — (S) Full Flow w/By-Pass Valve
- Lube Oil Pump** — (S) Gear Driven, Gear Type
- Manual Start Controls** — (S) Per NFPA-20 On Instrument Panel With Control Position Warning Light
- Raw Water Solenoid Operation** — (S) Automatic From Engine Controller & From Energizing Local Control
- Run-Stop Control** — (S) On Instrument Panel With Control Panel Position Warning Light
- Overspeed Control** — (S) Electronic w/Reset & Test On Instrument Panel
- Starter** — (S) One 24V DC Motor
- Throttle Control** — (S) Adjustable Speed Control Tamper Proof
- Water Pump** — (S) Gear Driven, Centrifugal Type

(S) – Standard Equipment

(O) – Optional Equipment



LISTED  
513Y



meets  
NFPA-20  
Requirements



approved  
1333



listed  
C448A

## SPECIFICATIONS

Item	DDFP Model		
	08FA	08FH	12FH
DDC Engine Series	V-92	V-92	V-92
No. Cylinders	8	8	12
Aspiration	TSJWA	TSJWA	TSJWA
Rotation**	Clockwise (CW)		
Displacement – cu. in. (l)*	736 (12.1)	736 (12.1)	1104 (18.1)
Net Wt. – lbs. (kg)	2560 (1161)	2605 (1181)	4690 (2127)
Bore & Stroke – in. (mm)	4.84 x 5.00 (123 x 127)		
Compression Ratio	17:1	15:1	15:1
Installation Drawing	D-433	D-433	D-445

DDC - DETROIT DIESEL CORP.  
 TSJWA - TURBOCHARGED, SUPERCHARGED  
 AND AFTERCOOLED (JACKET WATER)

\*V-92 UNITS ARE 2 STROKE CYCLE  
 \*\*VIEW FROM HEAT EXCHANGER/FRONT OF ENGINE

\*Engines are rated at standard SAE conditions of 29.61 in. (7521 mm) Hg barometer and 77°F (25°C) inlet air temperature [approximates 300 ft. (91.4 m) above sea level] by the testing laboratory (see SAE Standard J 1349).

A deduction of 3 percent from engine horsepower rating at standard SAE conditions shall be made for diesel engines for each 1000 ft. (305 m) altitude above 300 ft. (91.4 m).

A deduction of 1 percent from engine horsepower rating as corrected to standard SAE conditions shall be made for diesel engines for every 10°F (5.6°C) above 77°F (25°C) ambient temperature.

Note: Engines certified at any speed between 1470 & 2600. See details on reverse side for linear BHP interpolation.

### CERTIFIED POWER AT ANY SPEED

Although specific FM-UL Certified BHP ratings are shown at four (4) specific speeds, these Clarke engines can be applied to fire pumps at any intermediate speed between 1470 to 2350 RPM. To determine the applicable intermediate certified power, make a linear interpolation of the Clarke FM-UL certified power curve. Contact Clarke or your Pump OEM representative to obtain details.

# CLARKE

*www.clarkefire.com*

*Fire Protection Products*

#### CLARKE USA

3133 E. Kemper Rd.  
 Cincinnati, Ohio 45241  
 United States of America  
 P 513-771-2200  
 F 513-771-0726

#### CLARKE UK

Grange Works, Lomond Rd.  
 Coatbridge, ML5-2NN  
 United Kingdom  
 P 44-1236-429946  
 F 44-1236-427274



**CAUTION**  
 ALL PLUMBING MUST BE SUPPORTED AND/OR ISOLATED SO THAT NO WEIGHT OR STRESS IS APPLIED TO ANY ENGINE COMPONENT

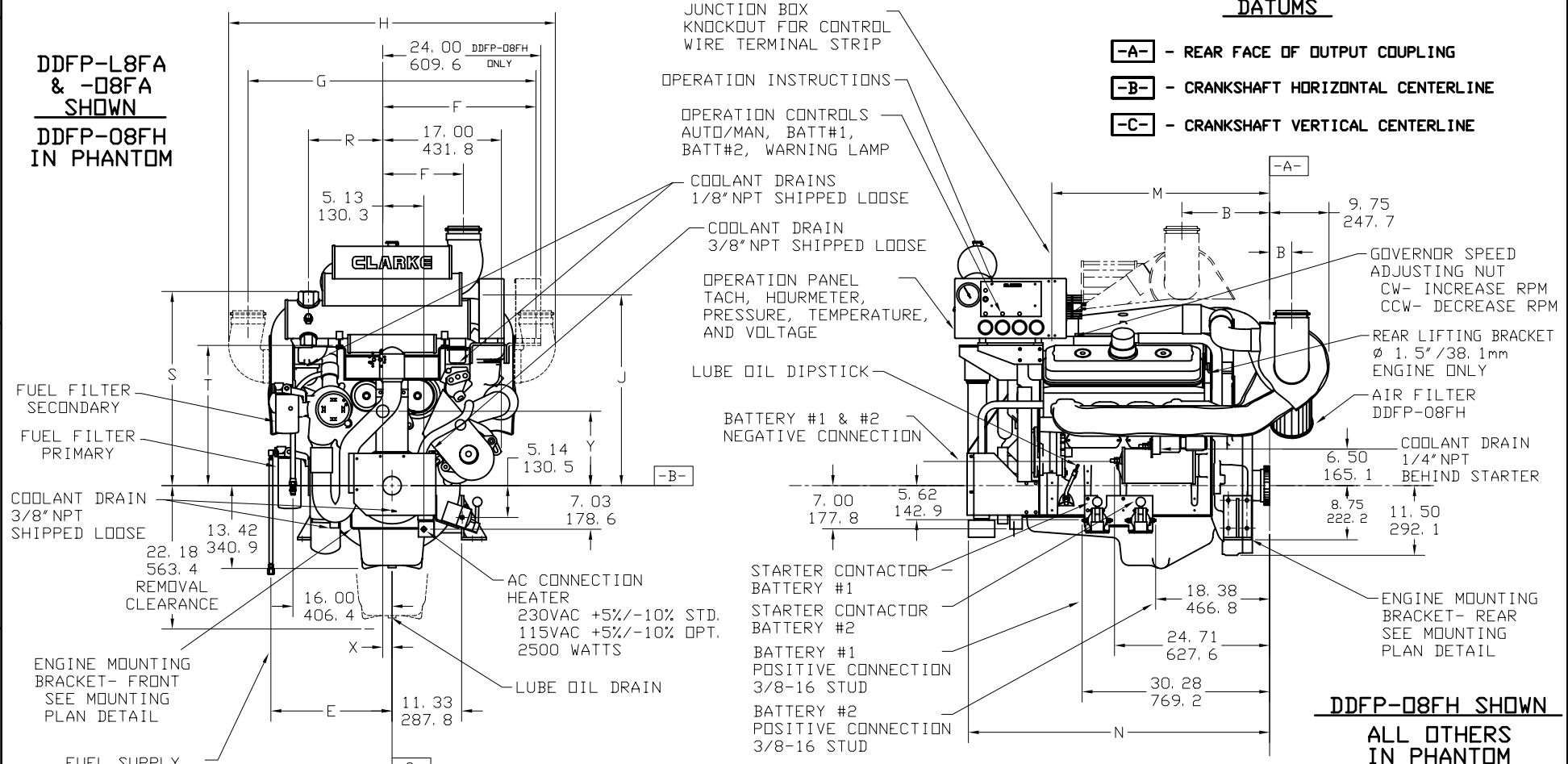
**ATTENTION**  
 REFER TO THE SPECIFIC MODEL 'INSTALLATION AND OPERATION DATA' FOR INSTALLATION GUIDELINES

**REDUCED DRAWING**

DO NOT SCALE UNKNOWN DIMENSIONS

MODEL	B	E	F	G	H	J	M	N	R	S	T	X	Y
DDFP-L6FA		18.67								28.74			11.12
DDFP-T6FA		474.2								730.0			282.5
DDFP-D6FA	11.75 298.5		11.56 293.6	-0-	41.02 1041.9	43.75 1111.3	29.06 738.1	42.52 1080.0	15.50 393.7	29.81 757.2	25.85 656.6	-0.06 -1.5	11.35
DDFP-D6FH		288.3											
DDFP-L8FA		19.55											11.12
DDFP-D8FA		496.6											282.5
DDFP-D8FH	3.55 90.2	19.13 485.9	23.25 590.6	46.50 1181.1	52.75 1339.9	28.25 717.6						-0.05 -1.3	12.26 311.4
												0.34 8.64	9.56 242.8

DDFP-L8FA & -D8FA SHOWN  
 DDFP-D8FH IN PHANTOM



**DATUMS**

- A-** - REAR FACE OF OUTPUT COUPLING
- B-** - CRANKSHAFT HORIZONTAL CENTERLINE
- C-** - CRANKSHAFT VERTICAL CENTERLINE

**DRAWING SUBJECT TO CHANGE WITHOUT NOTICE**

SYM	REVISION	DRWN	APVD	DATE
D	3/8NPTF-1/2 FUEL RETURN CONNECTION WAS 3/8NPTF-3/8, 3/4NPTF-3/4 FUEL SUPPLY CONNECTION WAS 3/8NPTF-1/2, 1 1/2\" NPT	DMP	JTW	01NDV93
E	RAW WATER INLET WAS 2\" NPT, ADDED MODEL -D6FH			
F	RELOCATED FUEL FILTERS, CORRECTED DIMS 'E', 'L', & 'V'	DMP	JTW	12SEP94
G	MODELS -L6FA, -T6FA WERE -L6VT, -T6VT	DMP	JTW	22NDV94
H	REVISED J.W. HEATER AND ADDED NEW INSTRUMENT PANEL	DMP	DMP	28DEC95
J	REVISED TO NEW FORMAT WITH NO OTHER CHANGES	SEN	JTW	25JUN97
J	DIM. 'A' ON PG. 2 WAS 298.5mm IN ERROR	SK	KJK	18APR01

DWN	JMILLER
DATE	26JUL90
ENGR	JTWHITNEY
CHK	
INSP	N
SERIES CODE	BP

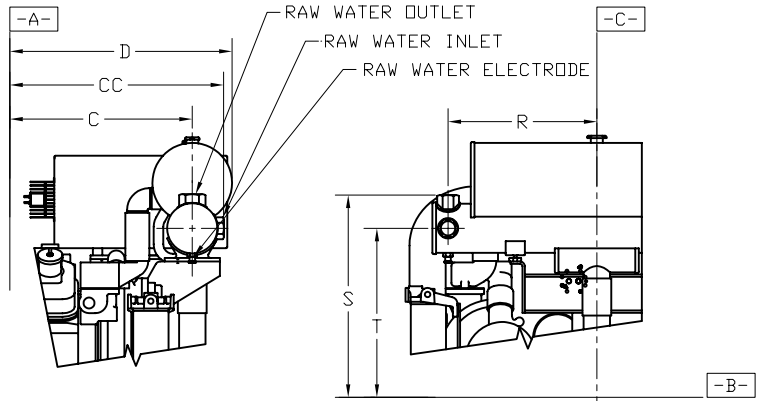
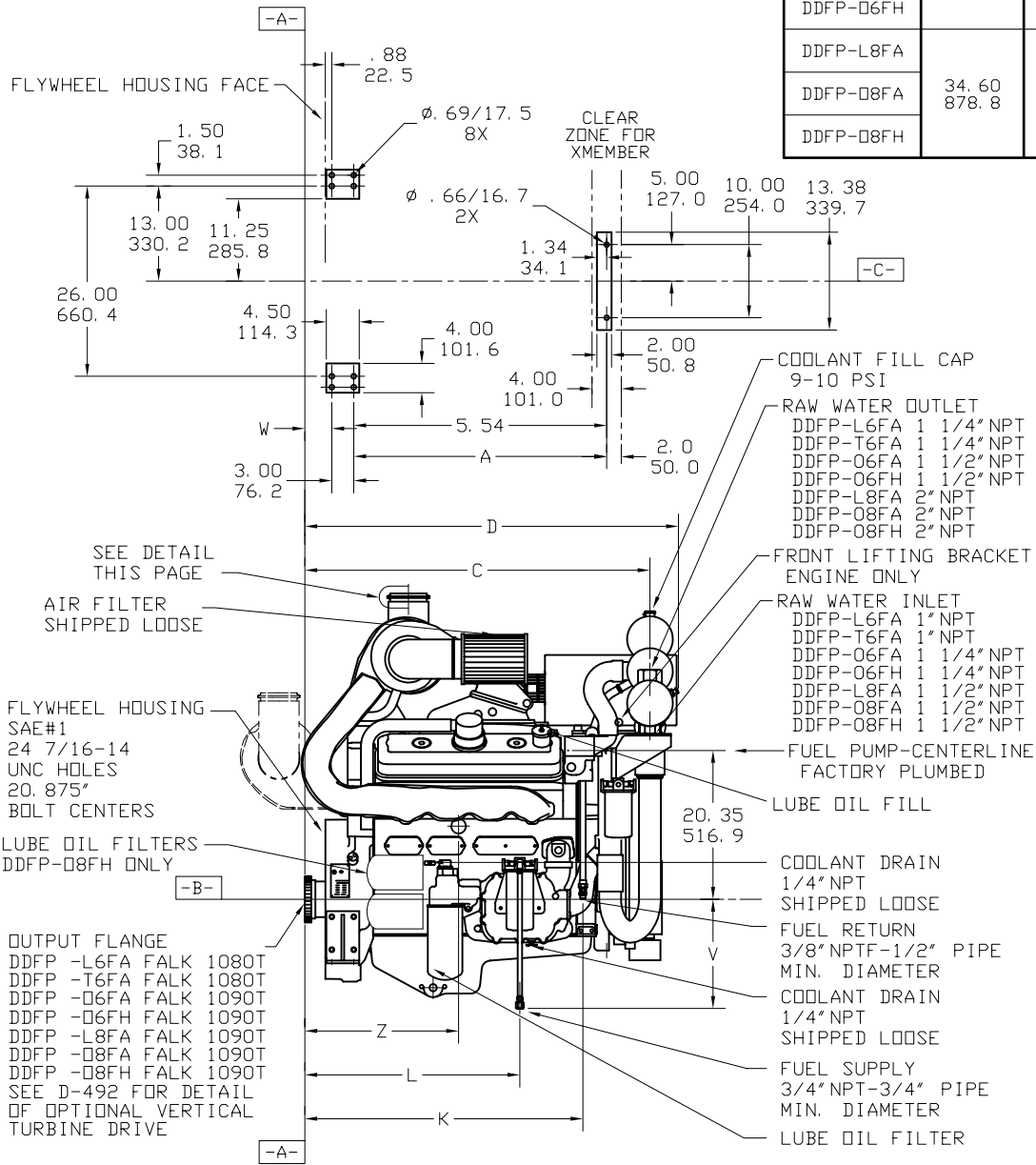
**CLARKE**  
 DETROIT DIESEL-ALLISON  
 3133 EAST KEMPER ROAD, CINCINNATI, OHIO 45241

INSTALLATION DRAWING,  
 FIRE PUMP ENGINE-  
 DDFP-L6FA, -T6FA, -D6FA, -D6FH,  
 -L8FA, -D8FA, & -D8FH

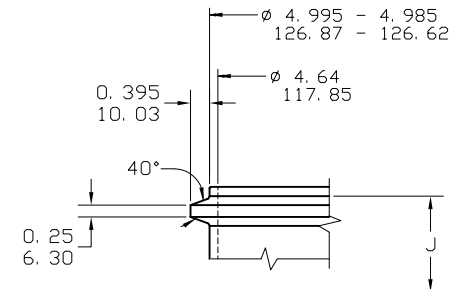
SIZE: **R** PART NO: **D-433** REV: **J**

SCALE: 3/16 UNITS: IN THRU ANGLE PROJ. SHEET OF 1 2

MODEL	D-433									
	A	C	CC	D	K	L	V	W	Z	
DDFP-L6FA	28.84 732.5	41.08 1043.4	43.75 1111.3	45.23 1148.8	31.91 810.5	26.51 673.4	14.93 379.2	3.31 84.1	19.85 504.2	
DDFP-T6FA		41.45 1052.8	44.75 1136.7	45.60 1158.2	32.28 819.9	23.65 600.7			20.31 515.9	
DDFP-O6FA		34.60 878.8	47.20 1198.9	-0-	51.10 1297.8	38.03 965.8			29.40 746.8	3.68 93.6
DDFP-O6FH	22.37 568.2									
DDFP-L8FA	34.60 878.8	47.20 1198.9	-0-	51.10 1297.8	38.03 965.8	29.40 746.8	15.77 400.6	3.68 93.6	24.03 610.5	
DDFP-O8FA									22.37 568.2	
DDFP-O8FH									22.37 568.2	



**DDFP-L6FA, -T6FA, -O6FA, -O6FH  
RAW WATER CONNECTIONS**



**TURBO EXHAUST OUTLET DETAIL  
ALL MODELS 2X SCALE**

**DRAWING SUBJECT TO CHANGE WITHOUT NOTICE**

**DDFP-L8FA & -O8FA SHOWN  
DDFP-O8FH IN PHANTOM**

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NAME <b>INSTALLATION DRAWING, FIRE PUMP ENGINE-</b> DDFP-L6FA, -T6FA, -O6FA, -O6FH, -L8FA, -O8FA, & -O8FH		SIZE R PART NO. <b>D-433</b>	REV J
USAGE: 8	INSP: N SERIES CODE: BP	SCALE: 3/16 UNITS: IN THIRD ANGLE PROJ.	SHEET 2 OF 2

REV J D-433

ENGINE M/N	STANDARD BASE OPTION		ENGINE INSTALLATION SMB	DIMENSIONS											CONTROLLER BASE OPTION		DIMENSION	
	ASSM NO	WGT. LB/KG		A	B	C	D	E	F	G	H	J	K	L	M	ASSM NO		WGT. LB/KG
DDFP-03DN DDFP-13DT DDFP-13DT DDFP-13DT	C11289	96.20 43.84	D-436	17.50 444.50	4.25 107.25	-0-	28.91 597.91	19.63 346.20	27.25 692.15	28.91 734.31	3.00 76.20	14.65 372.11	29.30 744.26	---	6 PLC'S	C11803	194.81 454.817	59.91 1321.71
DDFP-16FA DDFP-16FA	C11290	243.1 110.70	D-433	18.75 476.25	2.67 67.64	15.69 398.53	31.98 797.05	17.25 438.15	24.50 625.30	37.38 949.45	3.00 76.20	18.50 469.90	37.00 939.80	---	8 PLC'S	C11806	341.71 867.847	68.39 1526.85
DDFP-06FA DDFP-06FA	C11290	243.1 110.70	D-433	18.75 476.25	2.64 67.06	15.69 398.53	31.98 797.05	17.25 438.15	24.50 625.30	37.38 949.45	3.00 76.20	18.50 469.90	37.00 939.80	---	8 PLC'S	C11808	341.71 867.847	68.39 1526.85
DDFP-16FA DDFP-16FA DDFP-06FH	C11291	292.3 132.99	D-433	18.75 476.25	2.64 67.06	18.57 471.68	37.14 943.36	17.25 438.15	24.50 625.30	43.14 1096.76	3.00 76.20	18.50 469.90	37.00 939.80	---	8 PLC'S	C11809	360.91 9167.11	74.14 1663.16
DDFP-16FT DDFP-16FT	C11292	292.0 132.49	D-443	18.75 476.25	3.63 92.20	-0-	34.00 871.80	17.25 438.15	24.50 625.30	39.02 995.11	3.00 76.20	18.50 469.90	37.00 939.80	18.00 457.20	10 PLC'S	C11333	398.61 902.49	90.02 2006.91

