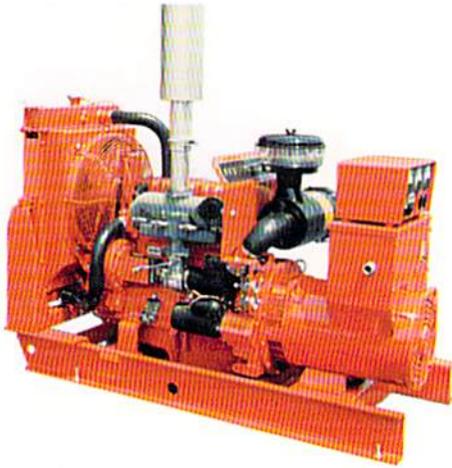


ARROW NATATOR

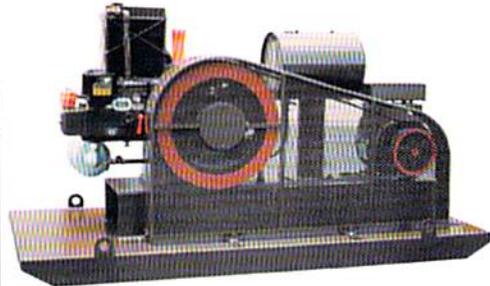
DEPENDABLE VR ENGINE DRIVEN NATURAL GAS GENERATOR SETS



	Prime Power Ratings			Standby Power Ratings		
	Model VRG	1800RPM kW Rating	1500RPM kW Rating	Model	1800RPM kW Rating	1500RPM kW Rating
Cooling						
Water Connection	330	45	38	330	49	41
	220	29	24	220	32	26
Radiator	330	43	36	330	48	39
	220	28	23	220	30	25
	330TA	60	50	330TA	65	54

PRINCIPAL ENGINE DATA MODEL VRG220	PRINCIPAL ENGINE DATA MODEL VRG330-330TA
4 cycle, 4 cylinder, in-line Bore and stroke - 3.875" x 4.665" (98 x 118 mm) Displacement - 220 cubic inch (3.6 liters) Lube oil system , capacity - 7.0 quarts (6.6 liters), including filter Jacket water system , capacity - 7.0 quarts (6.6 liters), engine only Dry weight - engine only approximately 835 lbs.(378 Kg) Dry weight - complete Genset approximately 1485 lbs. (675 Kg) Rotation - counterclockwise when facing flywheel	4 cycle, 6 cylinder, in-line Bore and stroke - 3.875" x 4.665" (98 x 118 mm) Displacement - 330 cubic inch (5.4 liters) Lube oil system , capacity - 8.5 quarts (8.0 liters), including filter Jacket water system , capacity - 8.25 quarts (7.8 liters), engine only Dry weight - engine only approximately 1000 lbs.(453 Kg) (1200 lbs.)TA Dry weight - complete Genset approximately 1800 lbs. (815 Kg) (2000 lbs.)TA Rotation - counterclockwise when facing flywheel

ARROW SPECIALTY CO. Single Cylinder Belt Drive Continuous Duty Generators

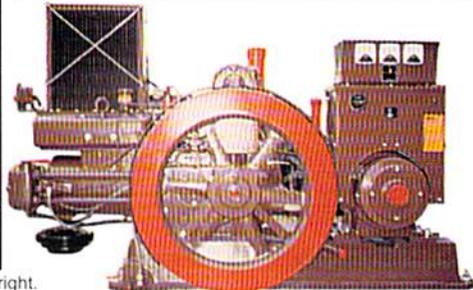


OILFIELD CONCRETE FILLED SKID

	C-46	C-66	C-96	C-106
	4 CYCLE 1 CYLINDER HORIZONTAL	4 CYCLE 1 CYLINDER HORIZONTAL	4 CYCLE 1 CYLINDER HORIZONTAL	4 CYCLE 1 CYLINDER HORIZONTAL
Bore and Stroke	5 X 6 1/4 (127 X 159 mm)	5 3/4 X 7 1/2 (146 X 190.5 mm)	7 X 8 1/2 (178 X 216 mm)	7 1/2 X 8 1/2 (190.5 X 216 mm)
Displace- ment	122.7 cubic inches (2.0 liters)	195 cubic inches (3.3 liters)	327 cubic inches (5.5 liters)	376 cubic inches (6.4 liters)
Lube Oil System, Capacity	8.0 quarts (7.57 liters) including filter	8.0 quarts (11.5 liters) including filter	12.0 quarts (11.35 liters) including filter	12.0 quarts (11.35 liters) including filter
Jacket Water System, Capacity	12 quarts (11.5 liters) engine only	16 quarts (15 liters) engine only	20 quarts (18.92 liters) engine only	20 quarts (18.92 liters) engine only
Dry Weight Engine Only	1360 lbs. (617 Kg.) approximately	1640 lbs. (744 Kg.) approximately	2580 lbs. (1170 Kg.) approximately	2690 lbs. (1220 Kg.) approximately
Dry Weight	Complete Genset with oilfield skid approximately 6200 lbs (2812 Kg.)*	Complete Genset with oilfield skid approximately 6480 lbs (2939 Kg.)*	Complete Genset with oilfield skid approximately 7300 lbs (3306 Kg.)*	Complete Genset with oilfield skid approximately 7400 lbs (3356 Kg.)*
Rotation	clockwise when facing flywheel	clockwise when facing flywheel	clockwise when facing flywheel	clockwise when facing flywheel

Prime Power Ratings			
Cooling	Model	1800RPM* kW Rating	1500RPM* kW Rating
Radiator	C-46	6	6
Thermo	C-66	7.5	7.5
Siphon	C-96	15	15
	C-106	25	25

* Generator RPM



INDUSTRIAL CAST IRON SUBBASE

* includes 2466 lbs. (1118 Kg.) concrete in skid/also available on one piece Cast Iron Skid shown lower right.



MULTI CYLINDER ARROW VR ENGINES - A WORLD OF QUALITY

Spark Ignited Features:

- Most popular Ignition Systems available
- Capable of operating on most Spark Ignited fuels
- Gasoline carburetion or demand regulator for gaseous fuel
- Over 40 years history of operating on natural and well head gas
- Aftercooling featured on VRG330TA

Other Outstanding Features:

- Vertical in-line adjustable fan bracket
- 4 groove crankshaft pulley; 2 groove fan; 1 groove water pump; 4th groove auxiliary
- Flywheel - SAE No 3 w/ring gear and SAE No 3 housing
- Lifting eyes - front and rear
- Full Pressure lube oil system with full flow oil filter
- Exhaust manifold with top or rear outlets
- 10% regulated speed by mechanical governor - other governor options available
- Heavy-duty, deep skirted crankcases
- Forged steel, dynamically balanced and counterweighted crankshafts with hardened journals
- Forged steel connecting rods
- 5 main bearings on VRG220; and 7 main bearings on VRG330 models
- Replaceable precision main and rod bearings
- Overhead valve cylinder heads with replaceable guides and seats

Options: Consult factory for your requirements.

BRAKE HORSEPOWER DEDUCTIONS FOR ALTITUDE AND TEMPERATURE

Altitude: NA engines - Deduct 3% for each 1000' (305m) above 1500' (457m) (continuous duty), or above 500' (152m) (intermittent duty).
 VRG330TA - Deduct 3% per 1000' (305m) above 3000' (914) (continuous duty), 3% for each 1000' (305m) above 1500' (457m) (intermittent duty).

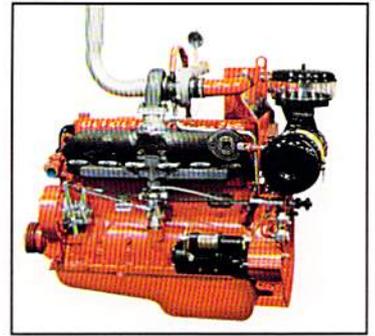
Temperature: Deduct 1% for every 10°F. (6°C.) above 100°F (38°C.) (continuous duty), or above 85°F. (intermittent duty).
 VRG330TA - Deduct 1% per 10°F. (5.5°C) above 100°F. (38°C) (continuous duty), 1% per 10°F. (5.5°C) above 85°F. (29°C). (intermittent duty).

Intermittent Rating (I): The highest load and speed that can be applied under specific conditions of varying load and/or speed.

Continuous Rating (C): The load and speed that can be applied without interruption except for normal maintenance.

All ratings corrected to 500' (152 m) altitude, 29.38" (746 mm) Hg. and temperature of 85° F. (29° C.).

Natural gas ratings are based on use of 900 BTU (33.5 J/cm³) LHV gas. HD-5 propane ratings are based on use of 2335 BTU (87 J/cm³) LHV fuel.



VRG330TA ENGINE



VRG220 ENGINE

POWER RATINGS

I=INTERMITTENT

C=CONTINUOUS

	MODEL	PEAK INTERMITTENT TORQUE @ RPM FT.LB. N·M	BRAKE HORSEPOWER AT SPEEDS INDICATED (S.A.E.)																									
			900		1000		1200		1400		1600		1800		2000		2200											
			I	C	I	C	I	C	I	C	I	C	I	C	I	C												
ENGINE UNITS	Spark Ignited																											
	VRG176, Natural Gas							31	34			37			39		40	41**										
	VRG220, Natural Gas	148 @ 1600	201 @1600	19	17	24	22	31	28	39	35	45	41	50	45	55	50	59	53									
	VRG220,HD-5 Propane	191 @ 1400	259 @1400	29	26	33	30	43	39	51	46	56	51	61	55	66	60	71	64									
	VRG220, Gasoline	179 @ 1600	239 @1600	25	21	30	25	39	34	48	41	54	49	61	55	68	62	73	67									
	VRG330, Natural Gas	220 @ 1600	298 @1600	29	26	36	33	47	42	58	52	67	60	75	68	82	74	89	80									
	VRG330, HD-5 Propane	285 @ 1400	386 @1400	43	39	50	45	64	58	76	69	85	76	92	83	99	89	106	96									
VRG330, Gasoline	268 @ 1400	360 @1400	35	30	44	37	60	50	75	65	85	75	95	85	105	95	110	100										
	VRG330TA Natural Gas																50	47	68	63	89	82	97	92	106	100	110*	118*
	* For Intermittent use only																											
	** For technical details of this engine, use VRG176 Engine Specification Sheet.																											

Actual Horsepower may vary depending upon engine configuration.

