



**M-K POWER PRODUCTS CORP.**

3500 Laird Road, Unit 2  
Mississauga, Ontario  
L5L 5Y4

800 263-5011  
www.M-K.com

## ZPP TA 6120 NG

6 Cylinder Inline | Turbo-Charged |  
After Cooled | 12L - Natural Gas



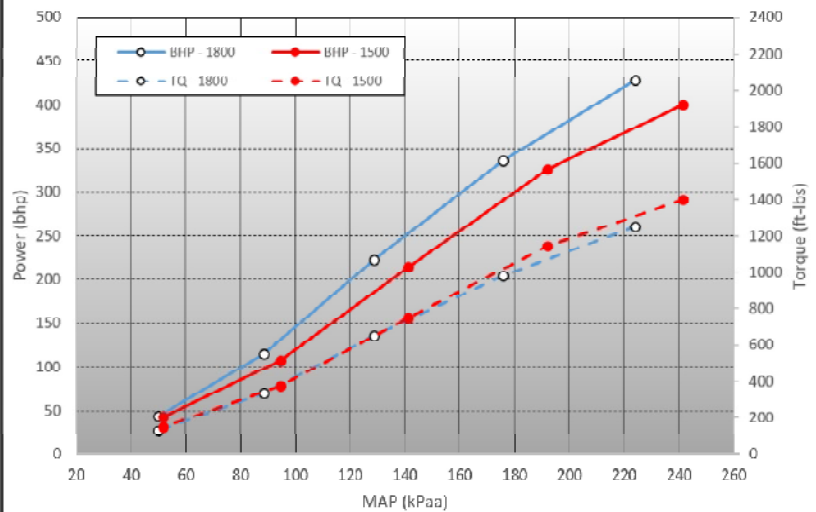
### Specifications

|                              |                               |
|------------------------------|-------------------------------|
| # of Cylinders               | 6 Inline                      |
| Operation                    | 4-stroke                      |
| Ignition                     | Spark-Ignited                 |
| # of Valves                  | 4/cylinder                    |
| Firing Order                 | 1-5-3-6-2-4                   |
| Bore x Stroke                | 128X 153mm<br>5.04 X 6.02 in" |
| Displacement                 | 11.8L                         |
| Compression Ratio            | 11.1 : 1                      |
| Max cylinder firing pressure | 190 bar<br>2828 PSI           |
| Piston Speed @ 1800 rpm      | 1807 fpm                      |
| Oil Capacity                 | 45 L / 11.9 gals              |
| Electrical System            | 24 Volt                       |

### Features

|   |  |
|---|--|
| ☆ | Overhead Camshaft with Roller Rocker                   |
| ☆ | High Strength Cylinder Block with Bed Plate Bottom End |
| ☆ | Full Built-in Engine Protection                        |
| ☆ | Rear gear-train and PTOs                               |
| ☆ | SAE #1 Housing/ 14" Flywheel                           |
| ☆ | Replaceable Wet Cylinder Liners                        |

Zenith 12L Performance - Pipeline NG



Power Unit Ratings

|          | Standby (BHP) | Prime (BHP) | Continuous (BHP) |
|----------|---------------|-------------|------------------|
| 1800 rpm | 429           | 378         | 356              |
| 1500 rpm | 400           | 356         | 328              |

Electrical Generation Ratings

|       | Standby (kWe) | Prime (kWe) | Continuous (kWe) |
|-------|---------------|-------------|------------------|
| 60 Hz | 300           | 265         | 250              |
| 50 Hz | 280           | 250         | 230              |

\*Performance is NET including losses from auxiliaries (alternator, fan, water pump)

\* Electrical kW is calculated using 94% generator efficiency

\*NG is pipeline grade gas

\*LPG is Commercial grade





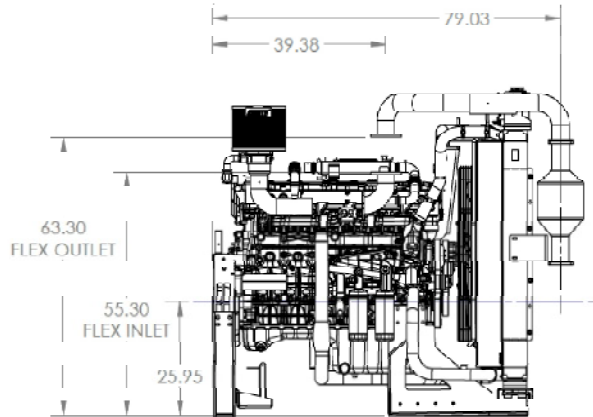
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**Fuel System Features**

- ☆ Natural Gas, LPG, or Dual Fuel
- ☆ Air-valve Mixer based fueling
- ☆ Electronic, closed-loop control
- ☆ EPA certified to pipeline quality fuels
- ☆ Electronic Throttle body
- ☆ Inline catalyst provided with engine



\*All data is corrected per SAE J1349

\*Generator Efficiency of 94%

Pipeline NG (1800 rpm)

| Load | Speed | kWe   | Obs HP | Obs TQ (ft-lbs) | BMEP (psi) | MAP (kPa) | Mass Air Flow (lb/hr) | Mass Fuel Flow (lb/hr) | BSFC NG (lb/hp/hr) | BSFC (BTU/hp/hr) | EGT Post-Turbine (°F) |
|------|-------|-------|--------|-----------------|------------|-----------|-----------------------|------------------------|--------------------|------------------|-----------------------|
| 100% | 1800  | 314.6 | 429    | 1251            | 274        | 224.0     | 2380                  | 146.2                  | 0.326              | 6,675            | 1161                  |
| 75%  | 1800  | 235.5 | 336    | 980             | 205        | 176.0     | 1840                  | 113.1                  | 0.337              | 6,898            | 1181                  |
| 50%  | 1800  | 156.0 | 223    | 649             | 136        | 128.8     | 1320                  | 81.1                   | 0.364              | 7,465            | 1199                  |
| 25%  | 1800  | 80.7  | 115    | 336             | 70.3       | 88.5      | 870                   | 53.4                   | 0.464              | 9,505            | 1216                  |
| 10%  | 1800  | 30.7  | 44     | 128             | 26.7       | 50.0      | 565                   | 34.6                   | 0.790              | 16,189           | 1252                  |

Pipeline NG (1500 rpm)

| Load | Speed | kWe   | Obs HP | Obs TQ (ft-lbs) | BMEP (psi) | MAP (kPa) | Mass Air Flow (lb/hr) | Mass Fuel Flow (lb/hr) | BSFC NG (lb/hp/hr) | BSFC (BTU/hp/hr) | EGT Post-Turbine (°F) |
|------|-------|-------|--------|-----------------|------------|-----------|-----------------------|------------------------|--------------------|------------------|-----------------------|
| 100% | 1500  | 302.5 | 400    | 1401            | 316        | 241.5     | 2180                  | 134.0                  | 0.310              | 6,360            | 1171                  |
| 75%  | 1500  | 228.8 | 326    | 1143            | 239        | 192.0     | 1690                  | 103.9                  | 0.318              | 6,520            | 1171                  |
| 50%  | 1500  | 150.3 | 214    | 751             | 157        | 141.4     | 1190                  | 73.1                   | 0.341              | 6,985            | 1176                  |
| 25%  | 1500  | 75.4  | 108    | 377             | 78.8       | 94.8      | 765                   | 47.0                   | 0.437              | 8,943            | 1195                  |
| 10%  | 1500  | 30.1  | 43     | 150             | 31.5       | 51.9      | 495                   | 30.3                   | 0.706              | 14,466           | 1212                  |