

CERTIFICAT / CERTIFICATE N° 31.20.221

délivré pour la gamme de moteurs pour systèmes sprinkleurs
delivered for the range of sprinkler system engines

Marque commerciale / Brand name : BULL MACHINE

Gamme / Range : LHFP-APD

Nombre de modèle(s) / Number of model(s) : 7

Liste des modèles couverts / List of covered model(s) :

Modèles / Models	Vitesse et puissance maxi de la courbe (Tr/min - kW) / maximum speed and maximum power of the curve (rpm - kW)	Vitesse maxi d'utilisation / maximal use speed	N° de la courbe / curve n°
LHFP-APD-4L3	42kW@3000	3060	03/11/2021 rev. A
LHFP-APD-4L4	76kW@3000	3060	03/11/2021 rev. A
LHFP-APD-4L4T	89kW@2350	2400	25/06/2020 rev. A
LHFP-APD-6L6T	107kW@2350	2400	06/05/2020 rev. A
LHFP-APD-6L7T	129kW@2350	2400	06/05/2020 rev. A
LHFP-APD-6L9T	272kW@2350	2400	18/08/2023 rev. A
LHFP-APD-6L11T2	332kW@2000	2100	24/03/2020 rev. A

Commercialisée par / Marketed by : ENERGY MECHANICAL BUILDING

Adresse / Adress : Parc d'activité de GEMENOS - 230 avenue du Garlaban - 13420 GEMENOS - FRANCE

Siret N° 332 276 245 00047

Droit d'usage de la marque CNPP Certified attribué conformément à la procédure A221 (Octobre 2019)
CNPP Certified right of use granted in accordance with the A221 procedure (october 2019)

Ce certificat est complété par une annexe composée de 7 pages
This certificate is completed by the 7 attached pages.

Il annule et remplace tout certificat antérieur.
This cancels and replaces all the previous certificate.

Sa validité peut être vérifiée sur : / Its validity can be verified at : www.cnpp.com

Date de prise d'effet / Date of establishment : 08/11/2023
Date de fin de validité / Date of end of validity : 26/03/2026

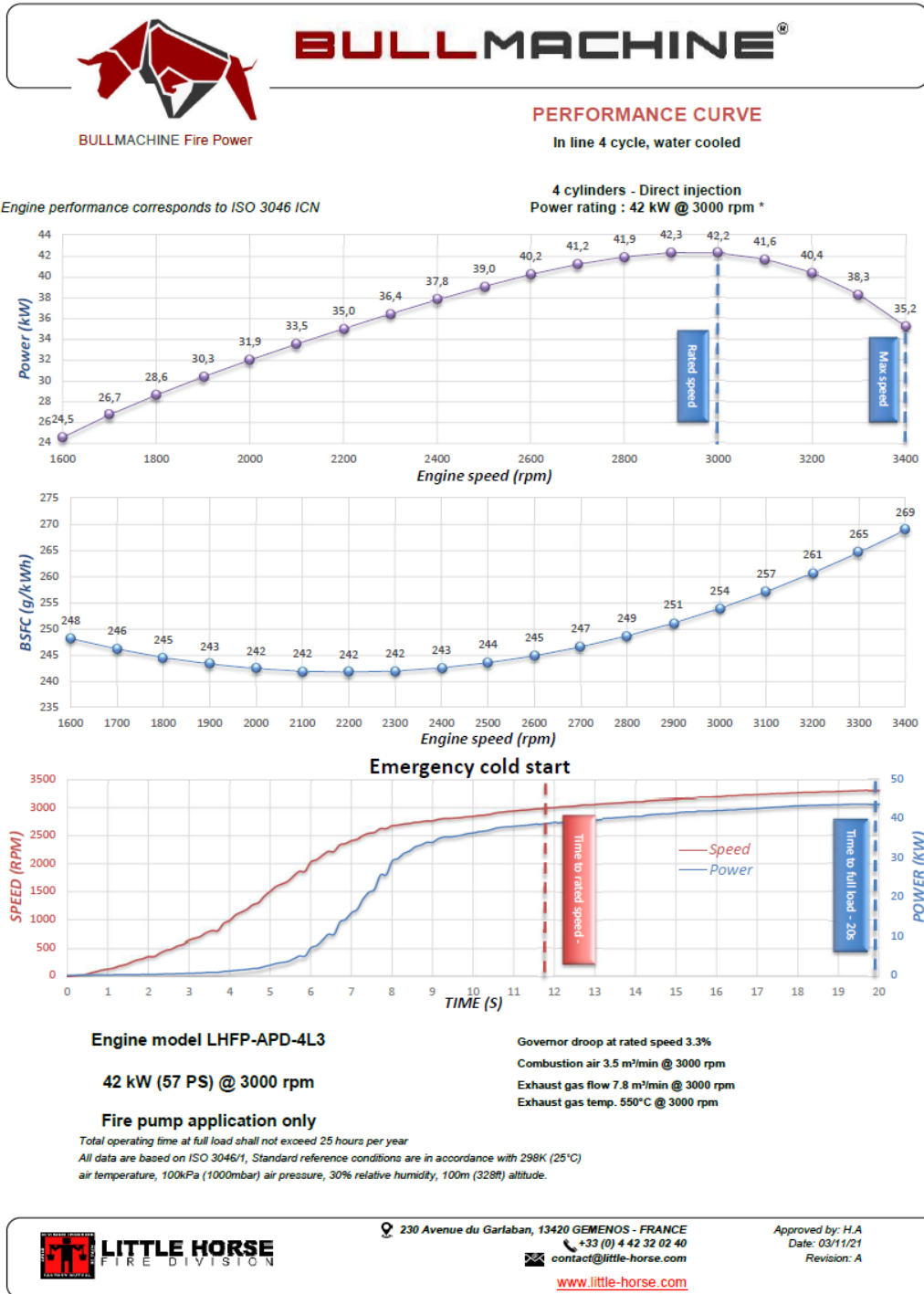


Christophe BODIN
Directeur CNPP Cert. / CNPP Cert. Manager
JFR

Moteurs pour systèmes sprinkleurs / Sprinkler system engines

Annexe au certificat n°31.20.221 délivré pour la gamme LHFP-APD sous la marque
BULL MACHINE

Appendix to the certificate n°31.20.221 delivered for the range **LHFP-APD** under the brand
BULL MACHINE



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BULL MACHINE



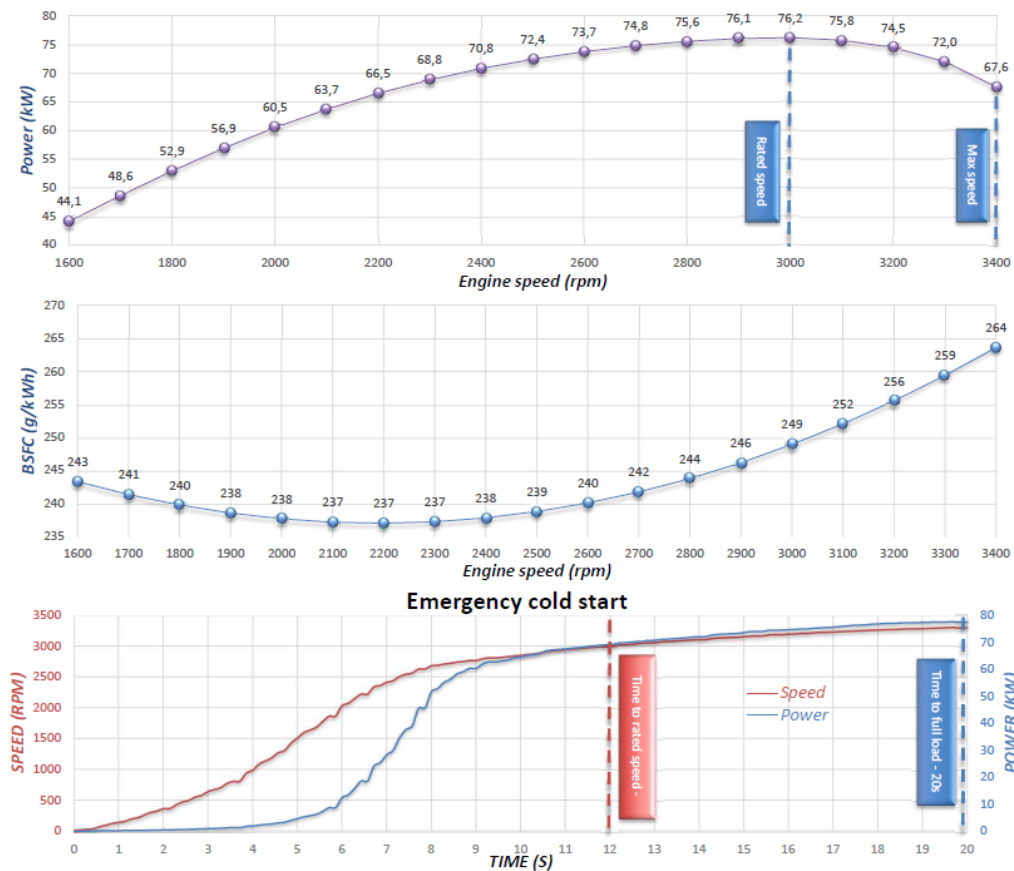
BULLMACHINE Fire Power

PERFORMANCE CURVE

In line 4 cycle, water cooled

* Engine performance corresponds to ISO 3046 ICN

4 cylinders - Direct injection
 Power rating : 76 kW @ 3000 rpm *



Engine model LHFP-APD-4L4

76 kW (103 PS) @ 3000 rpm

Fire pump application only

Total operating time at full load shall not exceed 25 hours per year

All data are based on ISO 3046/1, Standard reference conditions are in accordance with 298K (25°C)

air temperature, 100kPa (1000mbar) air pressure, 30% relative humidity, 100m (328ft) altitude.

Governor droop at rated speed 3.2%

Combustion air 5.7 m³/min @ 3000 rpm

Exhaust gas flow 12.9 m³/min @ 3000 rpm

Exhaust gas temp. 580°C @ 3000 rpm



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Approved by: H.A

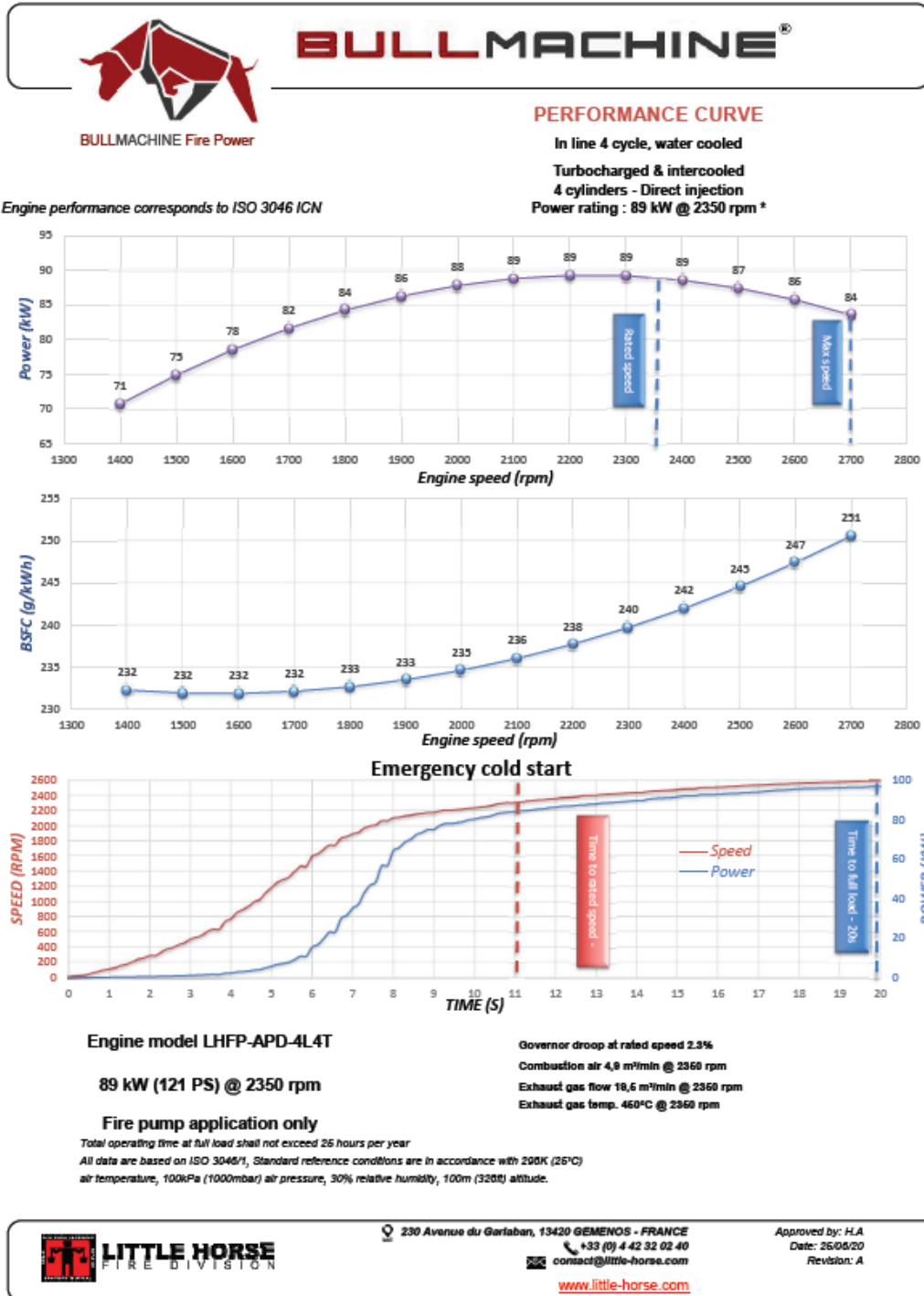
Date: 03/11/21

Revision: A

Annexe 2/7 au certificat CNPP Certified : / Appendix 2/7 of the CNPP Certified certificate : n°31.20.221 du/of 08/11/2023

Moteurs pour systèmes sprinkleurs / Sprinkler system engines

Annexe au certificat n°31.20.221 délivré pour la gamme LHFP-APD sous la marque
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BULL MACHINE

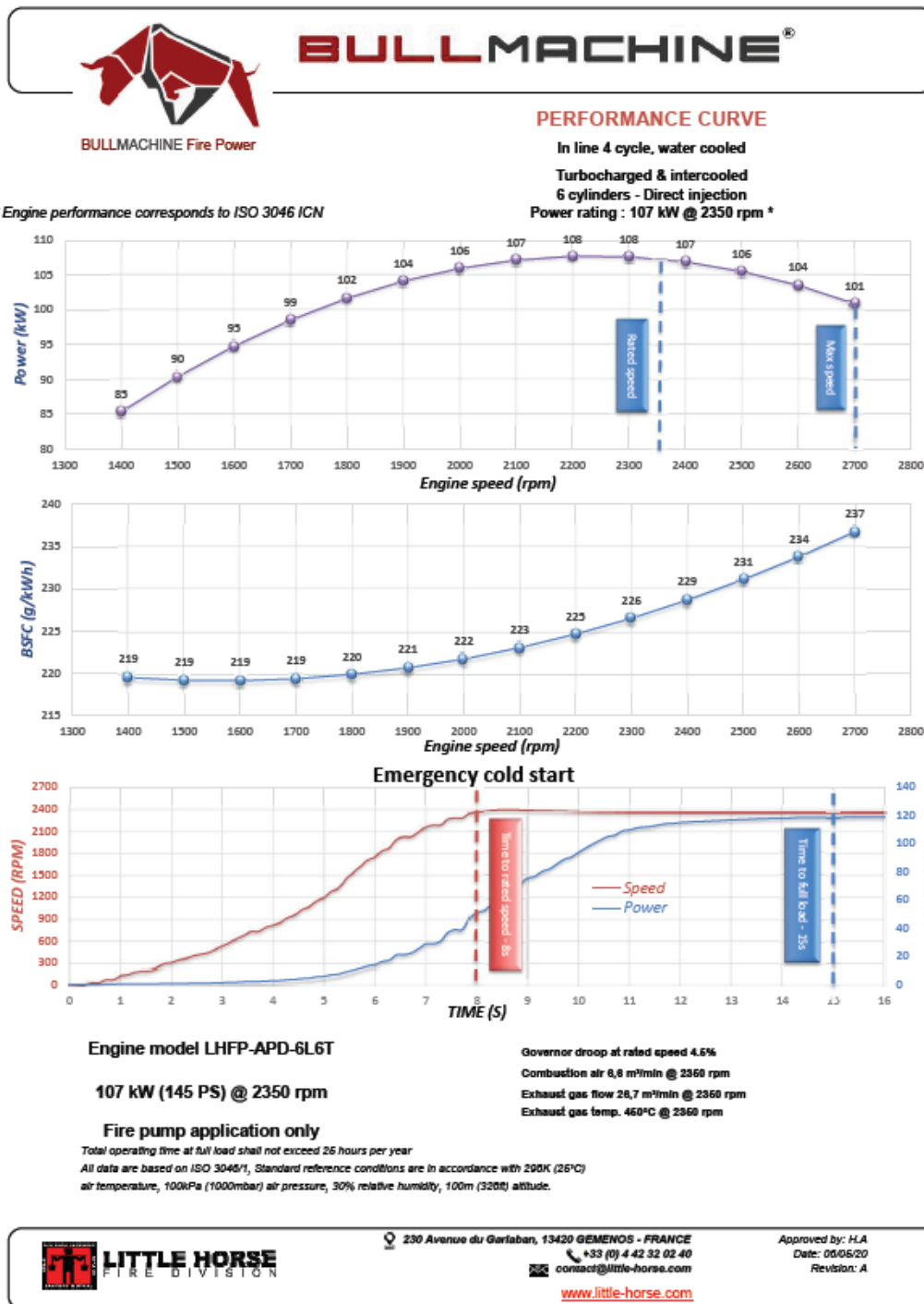


Annexe 3/7 au certificat CNPP Certified : / Appendix 3/7 of the CNPP Certified certificate : n°31.20.221 du/of 08/11/2023

Moteurs pour systèmes sprinkleurs / Sprinkler system engines

Annexe au certificat n°31.20.221 délivré pour la gamme LHFP-APD sous la marque
BULL MACHINE

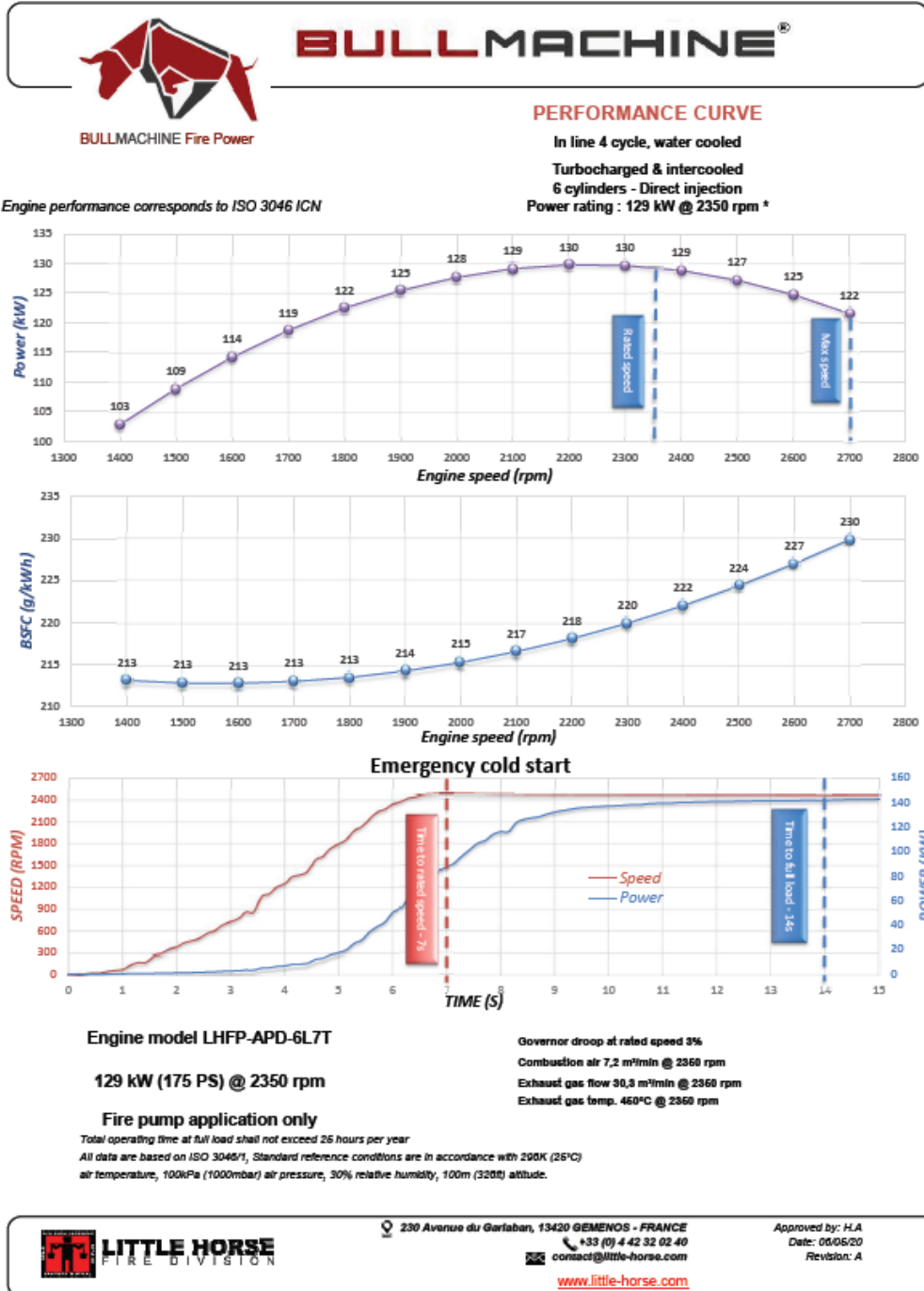
Appendix to the certificate n°31.20.221 delivered for the range **LHFP-APD** under the brand
BULL MACHINE



Annexe 4/7 au certificat CNPP Certified : / Appendix 4/7 of the CNPP Certified certificate : n°31.20.221 du/of 08/11/2023

Moteurs pour systèmes sprinkleurs / Sprinkler system engines

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Annexe 5/7 au certificat CNPP Certified : / Appendix 5/7 of the CNPP Certified certificate : n°31.20.221 du/of 08/11/2023

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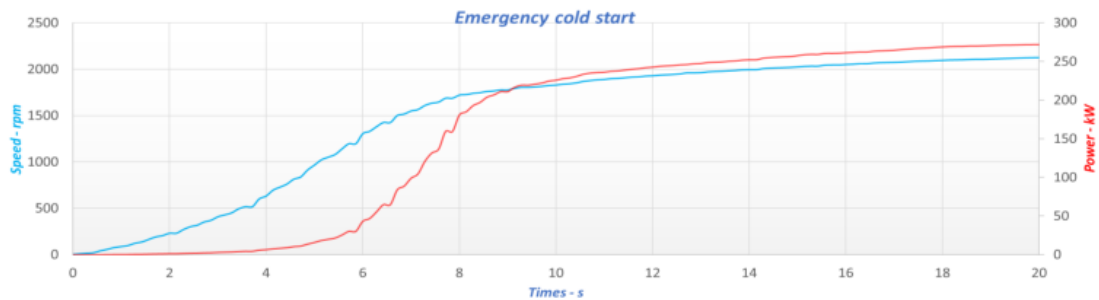
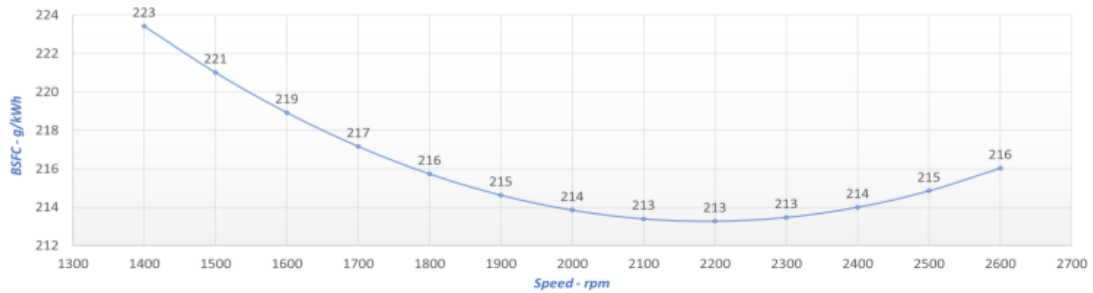
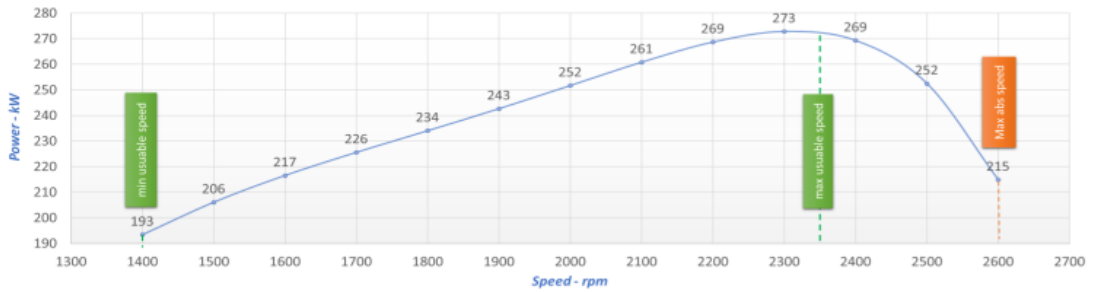


BULLMACHINE Fire Power

PERFORMANCE CURVE

In line 4 cycle, with Heat Exchanger
 and Charge Air Cooler
 6 cylinders - Direct injection
 Power rating : 272 kW @ 2350rpm

* Engine performance corresponds to ISO 3046 ICN



Engine model LHFP-APD-6L9T

272 kW (364 BHP) @ 2350 rpm

Fire pump application only

Total operating time at full load shall not exceed 25 hours per year

All data are based on ISO 3046/1, Standard reference conditions are in accordance with 298K (25 C)
 air temperature, 100kPa (1000mbar) air pressure, 30% relative humidity, 100m (328ft) altitude.

Governor droop at rated speed 4.3%

Combustion air 16,6 m³/min @ 2350 rpm

Exhaust gas flow 41,3 m³/min @ 2350 rpm

Exhaust gas temp. 530°C @ 2350 rpm



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Approved by: H.A

Date: 18/08/23

Revision: A

Annexe 6/7 au certificat CNPP Certified : / Appendix 6/7 of the CNPP Certified certificate : n°31.20.221 du/of 08/11/2023

Moteurs pour systèmes sprinkleurs / Sprinkler system engines

Annexe au certificat n°31.20.221 délivré pour la gamme LHFP-APD sous la marque
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Appendix to the certificate n°31.20.221 delivered for the range **LHFP-APD** under the brand
BULL MACHINE

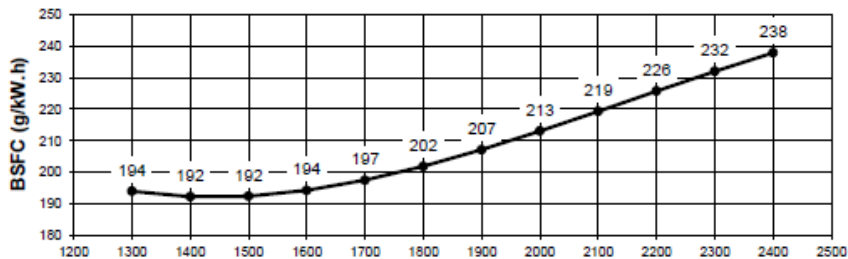
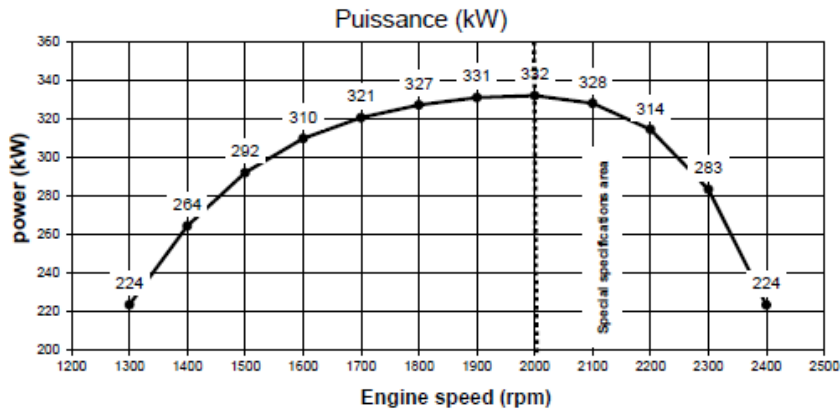


BULLMACHINE Fire Power

PERFORMANCE CURVE

In line 4 cycle, water cooled
Turbocharged & intercooled
6 cylinders - Direct injection
Power rating : 332 kW
Speed rating : 2000 rpm

*** The engine performance corresponds to ISO 3046 ICN



Engine model LHFP-APD-6L11T2

332 kW (451 PS) / 2.000 rpm

Fire pump application only

Total operating time at full load shall not exceed 25 hours per year

All data are based on ISO 3046/1, Standard reference conditions are in accordance with 208K (25°C) air temperature, 100kPa (1000mbar) air pressure, 30% relative humidity, 100m (328ft) altitude.

Fresh water forced circulation type

Thermostat wax-pallet type opening 71°C full open 85°C

Water pump capacity : 320 l/min (84,5 gal/min)

Exhaust gas flow 68,3 m³/min @ 2000 rpm

Exhaust gas temp. 443°C @ 2000 rpm

Approved by: H.A

Date: 24/03/20

Revision: A

Head factory : 230 Avenue du Gariaban - 13420 Gèmenos - France .TEL : 33-4-42-320-240, FAX : 33-4-42-322-337
Office : 20 Avenue du Pic de Bernaigue - 13420 Gèmenos - France

www.bull-machine.com

Annexe 7/7 au certificat CNPP Certified : / Appendix 7/7 of the CNPP Certified certificate : n°31.20.221 du/of 08/11/2023