

कार्यालय परिवहन आयुक्त, उत्तराखण्ड,
कुल्हान, सहस्त्रधारा रोड़, देहरादून।

संख्या- 2002/TR/23-3(1)/सी0एन0जी0किट/2021

02/08/21
दिनांक जून, 2021

आदेश

केन्द्रीय मोटरयान नियमावली, 1989 के नियम 115 बी में in use वाहनों में सी0एन0जी0 किट लगाये जाने की व्यवस्था की गयी है। इस सम्बन्ध में कार्यालय ज्ञाप संख्या-3460/टी0आर0/5/CNGKIT/2019-2020 दिनांक 04-11-2019 के द्वारा सी0एन0जी0 किट के रिट्रोफिटमेंट हेतु अनुमोदन की प्रक्रिया निर्धारित की गयी है, जिसके अन्तर्गत M/s Motozen Fuel System द्वारा केन्द्रीय मोटरयान नियमावली 1989 के नियम 126 में वर्णित टेस्टिंग एजेंसी ICAT, Manesar द्वारा नार्म्स के अनुरूप होने के प्रमाण संख्या- CAMA-0076 Dated 31st March, 2017, CAMA-0076 E01 Dated 17th July, 2018 CAMA-0076 L01 Dated 07th April, 2017, CAMA-0076 L04 Dated 26th March, 2018, CAMA-0076 L05 Dated 01st May, 2018 & CAMA-0076R01 Dated 24th June 2020 प्राप्त कर लिये गये है। उक्त प्रमाण पत्र के आधार पर M/s Motozen Fuel System द्वारा निर्मित CNG KIT Identification -MFS OBD II (Engine cm³ Range-898.5 to 1497.5) को in use पेट्रोल चालित वाहन मॉडल Honda Brio (1198cc) में रिट्रोफिटमेंट कर प्रस्तुत की गयी, जिसका संयुक्त निरीक्षण सहायक परिवहन आयुक्त एवं सम्भागीय निरीक्षण (प्राविधिक) देहरादून द्वारा किया गया। उक्त सी0एन0जी किट एवं सिलेण्डर/वाल्व का संक्षिप्त विवरण निम्नानुसार है:-

1. Detail of Kit Manufacturer/ Supplier/ Installer- M/s Motozen Fuel Systems
Dahiya Greens, Sec-17-18 Dividing Road, Opp. Green Park, Gurgaon
MFS OBD II
2. CNG Kit Identification no- MFS OBD II
3. CNG Cylinder (DOE Approved/Endorsed):

Name of Manufacturer	M/s Everest kanto cylinder ltd.	M/s Rama Cylinder Pvt. Ltd.	M/s Sahuwala High Pressure Cylinder Pvt. Ltd.	M/s EuroIndia Cylinder Ltd.	M/s Jay Fe Cylinder Ltd.	M/s Lizer Technologies Ltd
Identification no	EKC	RAMA/RBE43002	SHPCL/ECON	EJCL	JFC	LTL
Type	Steel Cylinder	Steel Cylinder	Steel Cylinder	Steel Cylinder	Steel Cylinder	Steel Cylinder
Max test Pressure (kg/cm ²)/MPa	360 kg/cm ²	340 kg/cm ²	340 kg/cm ²	340 kg/cm ²	340 kg/cm ²	340 kg/cm ²
Working Pressure (KG/cm ²)/MPa	200 kg/cm ²	204 kg/cm ²	204 kg/cm ²	204kg/cm ²	204kg/cm ²	204 kg/cm ²
Cylinder Capacity (water Equivalent)	60 ltr (Dia 356mm) 50, 55, 60 65 ltr (Dia 316mm) 55, 65, 70 ltr (Dia 356mm) 50,55,60,65 ltr(Dia 323mm)	50, 55, 60, 65,70 ltr (Dia 356mm) 50, 55, 60, 65 ltr (Dia 317mm)	50, 55, 60, 65,70 ltr (Dia 356mm) 50, 55, 60, 65 ltr (Dia 316 mm)	57, 60, 65,70 ltr (Dia 356mm) 50, 55, 60, 65 ltr (Dia 316mm)	50, 55, 60, 65,70 ltr (Dia 356mm) 50, 55, 60, 65 ltr (Dia 317 mm)	50, 55, 60, 65,70 ltr (Dia 356mm) 50, 55, 60, 65 ltr (Dia 317 mm)
Approval Reference from DOE	G3(42)523/ Dt:06-02-2006	G3(42)553/I DT-11-11-2010 G3(42)515/VI Dt- 20-05-2011	G3(42)544/III DT-06-05-2011 G3(42)544/I Dt- 24-12-2008	G.3 (42)572/I Dt-14-10-2011	G.3(42) 557/I Dt-22/12/2009	G.3(42)536/I Dt-10-12-2008

4. Cylinder Valve (DOE approved/endorsed):

Name of manufacturer	M/s OMB Saleri Spa Italy	M/s Minda Emer Technologies Ltd.	M/s Batra Associate Ltd.	M/s H.M Plastic	M/s Kamnath Engineers	M/s Kamnath Engineers
Model name/Identification no	Alfa	ME-CVM-001	Batra	HMP	Kamnath, CNG A	Kamnath, CNG
Type	Manual shut off	Manual shut off	Manual shut off	Manual shut off	Manual shut off	Manual shut off
Working pressure (KG/Cm ²)	210	200	200	200	204	204
Max Test pressure (kg/cm ²)	330	300	300	306	306	306
Approval reference form DOE	G-3(4)166 Dt 03/05/2009	G-3(4)230 Dt 05/07/2016	G-3(4)87 Dt 23/11/2011	G-3(4)225 Dt 15/04/2014	G-3(4)240 Dt 12/07/2019	G-3(4)240 Dt 08/10/2018

5. ICAT, Manesar द्वारा प्रदत्त Layout plan Approval certificate no- CAMA-0076 Dated 31st March, 2017, CAMA-0076 L01 Dated 07th April, 2017, CAMA-0076 L04 Dated 26th March, 2018, CAMA-0076 L05 Dated 01st May, 2018 में उक्त सी0एन0जी0 किट एवं सलेन्डर/वाल्ब को निम्न मॉडल वाहन पर लगाये जाने के उल्लेख किया गया है:-

Sl. No.	Approved Vehicle Model	Engine CC	ICAT Certificate No.	Vintage of Vehicles
1	Honda Brio	1198	CAMA-0076 Dated 31 March 2017	01 st April 2013 till the validity of Bharat Stage IV Norms
2	Chevrolet Beat	1199		
3	Chevrolet Enjoy	1399		
4	Chevrolet Sail (Hatch back)	1199		
5	Chevrolet Sail (Sedan)	1199		
6	Chevrolet Spark	995		
7	Datsun Go	1198		
8	Datsun Go Plus	1198		
9	Fiat Avventura	1368		
10	Fiat Linea	1368		
11	Fiat Punto Evo 1.2	1172		
12	Fiat Punto EVO 1.4	1368		
13	Ford Ecosport	999		
14	Ford Figo	1196		
15	Ford Figo Aspire	1196		
16	Honda Amaze	1198		
17	Honda City	1497		
18	Honda Jazz	1198		
19	Honda Mobilio	1497		
20	Hyundai i20 Elite	1197		
21	Hyundai Grand i10	1197		
22	Hyundai Eon Kappa Magna	998		
23	Hyundai i10 1.1	1086		
24	Hyundai i10 1.2	1197		
25	Hyundai I-20 Active	1197		
26	Hyundai i-20 Magna	1197		
27	Hyundai Verna Fluidic 1.4	1396		
28	Hyundai xcent	1197		
29	Hyundai Santro	1086		
30	Hyundai Santro Xing	1086		
31	Mahindra KUV 100	1198		

32	Mahindra Verito	1390	CAMA-0076 L01 Dated 07 April 2017	01st April 2013 till the validity of Bharat Stage IV Norms		
33	Maruti AStar	998				
34	Maruti Alto K10	998				
35	Maruti Baleno	1197				
36	Maruti Celerio	998				
37	Maruti Ciaz	1373				
38	Maruti EECO (5 Seater)	1196				
39	Maruti EECO(7Seater)	1196				
40	Maruti EECO Cargo	1196				
41	Maruti Ertiga	1373				
42	Maruti Ritz	1197				
43	Maruti Swift	1197				
44	Maruti Swift Dzire	1197				
45	Maruti Wagon R	998				
46	Maruti Wagon R Stingray	998				
47	Maruti Zen Estilo	998				
48	Maruti Gypsy	1298				
49	Maruti Ignis	1197				
50	Nissan Micra	1198				
51	Nissan Micra Active	1198				
52	Renault Kwid	999				
53	Renault Pulse	1198				
54	Skoda Fabia	1198				
55	Skoda Octavia	1395				
56	Skoda Rapid 1.2	1198				
57	Tata Bolt	1193				
58	Tata indigo ecs	1193				
59	Tata Manza	1368				
60	Tata Tiago	1199				
61	Tata Indica Vista	1172				
62	Tata Indica Xeta	1193				
63	Tata Zest	1193				
64	Tata Zica	1199				
65	Toyota Etios	1496				
66	Toyota Etios Cross G	1197				
67	Toyota Etios Cross V	1496				
68	Toyota Etios Liva	1197				
69	Volkswagen Cross Polo	1198				
70	Volkswagen Ameo	1198				
71	Volkswagen Jetta	1390				
72	Volkswagen Polo	1198				
73	Volkswagen Vento	1197				
74	Maruti Dzire	1197			CAMA-0076L04 Dated 26th March, 2018	01st April 2013 till the validity of Bharat Stage IV Norms
75	Maruti Tour S Petrol	1197				
76	Honda WR-V	1199				
77	Honda BRV	1497				
78	Datsun Redi Go	999				
79	Hyundai Xcent Prime	1197				
80	Tata Tigor	1199				
81	Maruti Dzire Tour	1197				
82	Maruti Swift Dzire Tour	1197				

83	Maruti Celerio X	998	CAMA-0076 L05 Dated 01 st May, 2018	01 st April 2013 till the validity of Bharat Stage IV Norms
84	Maruti Celerio Tour H1	998		
85	Maruti Celerio Tour H2	998		
86	Maruti EECO Tour V 5 Seater	1196		
87	Maruti EECO Tour V7 Seater	1196		
88	Tata Nexon	1198		
89	Toyota Etios Platinum	1496		

अतः उक्त सीएनजी किट/सिलेंडर/वाल्व को प्रोटोटाइप एजेन्सी द्वारा अनुमोदित विशिष्टताओं के अनुसार उपरोक्त 89 मॉडल वाहनों पर रिट्रोफिटमेंट निम्नलिखित प्रतिबन्धों एवं शर्तों के अधीन किये जाने की अनुमति प्रदान की जाती है:-

1. किट रिट्रोफिटमेंट के साथ वाहन में लगाये जाने वाले ऑटो सीएनजी टैंक एवं मल्टीफंक्शन वाल्व के सुरक्षित होने के सम्बन्ध में सीसीओई के प्रमाण-पत्र की प्रति विक्रय के समय क्रेता को उपलब्ध करायी जाएगी, जिसे क्रेता द्वारा पंजीयन अधिकारी के समक्ष प्रस्तुत किया जाएगा।
2. वाहन में किट रिट्रोफिटमेंट किट निर्माता की अधिकृत कार्यशाला अथवा वाहन विनिर्माता द्वारा ही लगायी जायगी। इस प्रकार की कार्यशालाओं को जीएसटी प्रमाण-पत्र उपलब्ध कराना अनिवार्य होगा।
3. किट के स्पेसिफिकेशन अथवा ले आउट में किसी प्रकार का परिवर्तन हाने पर इसकी सूचना सम्बन्धित प्रोटोटाइप एजेन्सी को तत्काल देनी होगी और पुनः टाइप एप्रूवल प्राप्त कर प्रस्तुत करना होगा।
4. किट के सम्बन्ध में सुरक्षा प्राविधान केन्द्रीय मोटरयान नियमावली, 1989 के नियम 115ख के बिन्दु (ड) के एनेक्जर IX एआईएस024 और एआईएस028 (आरईवी-1) में समय-समय पर यथा संशोधित -विनिर्धारित सुरक्षा सम्बन्धी अपेक्षाओं का अनुपालन किया जायेगा।
5. प्रत्येक किट स्थापित करने वाला (kit installer) यह सुनिश्चित करेगा कि लगायी जाने वाली किट सुरक्षित है तथा लगाये गये फ्यूल टैंक एवं मल्टीफंक्शन वाल्व के सम्बन्ध में सीसीओई प्रमाण-पत्र प्राप्त कर लिया गया है।
6. ऑटो सीएनजी टैंक वाहन में स्थायी रूप से स्थापित किया जायेगा।
7. ऑटो सीएनजी टैंक निर्माता के स्पेसिफिकेशन के अनुरूप ही लगाया जायेगा।
8. प्रोटोटाइप एजेन्सी से अनुमोदित किट का वाहन में रिट्रोफिटमेंट के पश्चात् विनिर्माता द्वारा वाहन स्वामी को सर्विस मैनुअल आर्वातक निरीक्षण और अनुरक्षण की निर्देशिका, सर्विस, मरम्मत अनुरक्षण हेतु पर्याप्त बुनियादी संरचना प्रदान की जायेगी।
9. किट निर्माता द्वारा किट उद्योगकर्ताओं का समुचित प्रशिक्षण देने की व्यवस्था की जायेगी।
10. किट निर्माता द्वारा केन्द्रीय मोटरयान नियमावली, 1989 के नियम 115ख के बिन्दु (च) के एनेक्जर X के उपबन्धों का अनुपालन सुनिश्चित किया जायेगा।

11. किट निर्माता द्वारा सीएनजी किट के रिट्रोफिटमेंट के समय मोटरयान अधिनियम, 1988 केन्द्रीय मोटरयान नियमावली, 1989 एवं उत्तराखण्ड मोटरयान नियमावली, 2011 की व्यवस्थाओं का अनुपालन करना होगा।
12. किट निर्माता द्वारा मोटर वाहन में विधिमान्य तरीके से किट रिट्रोफिटमेंट न किये जाने और या विधि की व्यवस्थाओं का अनुपालन सुनिश्चित न करने की दशा में अनुमोदन रद्द कर दिया जायेगा।
13. मोटर वाहनों में किट रिट्रोफिटमेंट के सम्बन्ध में किट निर्माता द्वारा परिवहन विभाग के सक्षम अधिकारी द्वारा अपेक्षित सूचनाओं को निर्धारित समय के भीतर उपलब्ध कराना होगा। साथ ही इस विषय में परिवहन आयुक्त द्वारा समय-समय पर जारी आदेशों का अनुपालन सुनिश्चित किया जाएगा।
14. किट निर्माताओं द्वारा अनुमोदन प्राप्त किट ही वाहनों में फिट की जाएगी और ऐसी किट का विवरण सम्बन्धित पंजीयन अधिकारी द्वारा पंजीयन प्रमाण पत्र में प्रविष्ट किया जाएगा।

संलग्न:- प्रोटोटाईप प्रमाण पत्र की प्रति।



(डा० अनीता चमोला)
सहायक परिवहन आयुक्त,
उत्तराखण्ड।

संख्या-2002/TR/CNG/2021 तददिनांकित।

प्रतिलिपि:- निम्नलिखित को अनुपालनार्थ हेतु प्रेषित।

- 1-समस्त सभागीय/सहायक सभागीय परिवहन अधिकारी, उत्तराखण्ड।
- 2-समस्त सभागीय निरीक्षक (प्राविधिक) उत्तराखण्ड।
- 3-सम्बन्धित पत्रावली।
- 4- M/s Motozen Fuel Systems Dahiya Greens, Sec-17-18 Dividing Road, Opp. Green Park, Gurgaon-122007



(डा० अनीता चमोला)
सहायक परिवहन आयुक्त,
उत्तराखण्ड।





INTERNATIONAL CENTRE FOR AUTOMOTIVE TECHNOLOGY

[A Division of NATRIP Implementation Society (NATIS), Govt. of India]

C A M A 0076 R01

Date : 24th June 2020

EXTENSION OF VALIDITY

Cert	Brief	Dwg	Total
01	06	02	09 pgs

1. This is in continuation to certificate referred below, issued to CNG Kit manufacturer in respect of retrofitment on the model specified therein.

Reference TA Certificate	CNG Kit Manufacturer
Refer Annexure "A"	M/s. Motozen Fuel Systems. Dahiya Greens, Sec-17-18 Dividing Road, Opp.Green Park, Gurgaon – 122 007

2. All conditions and compliance requirement, in respect retrofitment of CNG Kit, given in the certificate referred below, remain unchanged. Brief & CNG Kit Specification No.MOTOZEN –BRIO-CNG-2020-001-R01 dt. 10.02.2020 of the in-Use vehicle model, as decalred by the CNG Kit installer, are additionally enclosed with this certificate.

MPSI, "In-Use" Base Model	Year of Manufacture	Engine cm ³	Engine CC Range
Honda Brio	May 2013	1198	898.5 to 1497.5

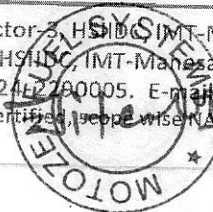
ANNEXURE A

Sr. No.	Reference of TA/ Extension/ Layout & Revalidation Certificate	Validity of Certificate			
		Earlier		Revalidated	
		From	To	From	To
1	C A M A 0076	31.03.2017	30.03.2020	31.03.2020	30.03.2023
2	C A M A 0076 L01	07.04.2017			
3	C A M A 0076 E01	17.07.2018			
4	C A M A 0076 L04	26.03.2018			
5	C A M A 0076 L05	01.05.2018			

Compliance of Mass Emission Standards & Validity : (Ref. 115B(1) A.(II) Clause (iv), as per GSR 84(E) dt. 09.02.2009

The CNG Converted "In-Use" base model meets the Bharat Stage-IV norms,manufactured/ registered from from 01st April 2013 till the validity of Bharat Stage IV norms, subject to specific approval for layout plan by ICAT, for retrofitment of CNG Kit in each vehicle model.

Emission Test report	CT0PP0772 Dt. 23.06.2020 (Rama Cylinder- Honda Cat Con – NGK Spark Plug, Pressure Regulator : SR09)	
ICAT Ref No.	2019-2571; IOCS No. 84560	
AUTHORISED SIGNATORY		Please turn over for Disclaimer
 ICAT PRASHANT VIJAY DEPUTY GENERAL MANAGER		 ICAT DINESH TYAGI DIRECTOR



Innovation • Service • Excellence

Motozen Fuel Systems

Dahiya Greens, Sec.-17-18 Dividing Road, Opp. Green Park, Gurgaon-122007 (Haryana) INDIA

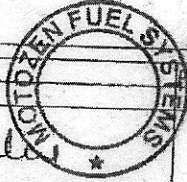
E-mail : motozencng@gmail.com

MOTOZEN-BRIO-CNG-2020-001-R01

ANNEXURE - I
TECHNICAL SPECIFICATION OF CNG CONVERSION KIT

1 of 4

1 Details of CNG Kit Manufacturer / Kit Supplier / Installer		M/s. Motozen Fuel Systems					
a. Name of Manufacturer		Dahiya Greens, Sec-17-18 Dividing Road, Opp. Green Park, Gurgaon - 122007.					
b. Address		07982349621 (Mob)					
c. Telephone No.		Mr. Jitendra Kholl					
d. Fax No.							
e. Contact Person							
2 CNG Kit Identification		MFS OBD II					
a. Identification No.		Nil					
b. Variants if any							
3 CNG Cylinder (DOE approved / endorsed)		M/s. Everest tanks Cylinder limited	M/s. Rama Cylinders Pvt. Ltd.	M/s. Sahwala High Pressure Cylinder(P) Ltd.	M/s. Euro India Cylinders Limited	M/s. Jay Fe Cylinders Ltd.	M/s. Lizer Technologies Ltd.
a. Name of Manufacturer		EKC	RAMA / RBE 43002	SHPCL / ECON	ECL	JFC	LTL
b. Model Name & Identification No. / Sr.No.		Steel Cylinder	Steel Cylinder	Steel Cylinder	Steel Cylinder	Steel Cylinder	Steel Cylinder
c. Type		204	204	204	204	204	204
d. Working Pressure (kg/cm2)		300	340	340	340	340	340
e. Max. Test Pressure (kg/cm2)		50ltrs Dia.356 mm (Dwg. No. 54740004/0)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.366 mm (Dwg. No. R-SC-356-200-7.4 Rev.2)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg. No. SHPCL417302-01)	57ltrs,60ltrs,66ltrs,70ltrs Dia.356 mm (Dwg. No. EICL-356-7.5-34C/rev4)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg. No. EICL-356-7.5-34C/rev4)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg. No. LTLK/AV/115)
f. Cylinder capacity (water equivalent) in Liters		50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.317 mm (Dwg.No.54740003/0)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.317 mm (Dwg. No. R-K-SC-317-200-6.5)	50ltrs,55ltrs,60ltrs,65ltrs Dia.316 mm (Dwg. No. SHPCL413302-1)	50ltrs,55ltrs,60ltrs,65ltrs Dia.316 mm (Dwg. No. EICL-316-7.0-31C/rev4)	50ltrs,55ltrs,60ltrs,65ltrs Dia.317 mm (Dwg. No. JFC-317-200-7.0-A)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.317 mm (Dwg. No. LTLK/AV/115/03)
g. Variants if any		50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg.No.54740005/0)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg.No.54740005/0)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg.No.54740005/0)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg.No.54740005/0)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg.No.54740005/0)	50ltrs,55ltrs,60ltrs,65ltrs,70ltrs Dia.356 mm (Dwg.No.54740005/0)
h. No. of Cylinders		One	One	One	One	One	One
i. Approval references from DOE		G.3(42)523 dated 05.02.2008 G.3(42)523 dated 05.02.2008 G.3(42)523 dated 05.02.2008 G.3(42)523 dated 05.02.2008	G.3(42)515/1 dated 20.05.2011 G.3(42)534 dated 11.11.2010 Batch Certificate : GGS51752020/1443 dtd. 01.03.2020	G.3(42)544/1 dated 26.12.2008 G.3(42)544/1 dated 05.05.2011	G.3(42)572/1 dated 14.10.2011	G.3(42)572/1 dated 14.10.2011	G.3(42)567/1 dated 22.12.2008 G.3(42)567/1 dated 10.12.2008 G.3(42)567/1 dated 10.12.2008 G.3(42)567/1 dated 10.12.2008
4 Cylinder Valve(s) (DOE approved / endorsed)		M/s. OMB Saleri Spa, Italy	M/s. Minda Emer Technologies Ltd.	M/s. Batra Associate Ltd.	M/s. H.M. Plastic	M/s. Kannath Engineers	M/s. Kannath Engineers
a. Name of the Manufacturer		Alfa	ME-CVM-001	Batra	HMP	Kannath, CNG A	Kannath, CNG
b. Model name / Identification No.		Manual Shut Off	Manual Shut Off	Manual Shut Off	Manual Shut Off	Manual Shut Off	Manual Shut Off
c. Type		210	200	200	200	204	204
d. Working Pressure (kg/cm2)		330	300	300	300	306	306
e. Max. Test Pressure (kg/cm2)		As per drawing 695_Alfa New, CCOE Approval No. G.3(4)186 dtd. 03.08.2009	As per drawing A/D-A-6237, CCOE Approval No. G.3(40)230 dtd. 05.07.2016	As per drawing BV/CNG/1/030, CCOE Approval No. G.3(40)87 dtd. 23.11.2011	As per drawing HMP/CNG/CV/00, CCOE Approval No. G.3(40)225 dtd. 15.04.2014	As per drawing KE/CNG/A/00, CCOE Approval No. G.3(40)240 dtd. 12.07.2019	As per drawing KE/CNG/A/00, CCOE Approval No. G.3(40)240 dtd. 08.10.2018
f. Approval Reference from DOE							
5 CNG Solenoid Valve		Part of Regulator					
a. Name of manufacturer							
b. Model Name & Identification No.							
c. Type							
d. Max. Test Pressure, (kg/cm ²)							
e. Working Pressure, (kg/cm ²)							
Test Agency		Manufacturer/Supplier	Occurent No.				
M/s. National Centre for Automotive Technology		M/s. Motozen Fuel Systems	MOTOZEN-BRIO-CNG-2020-001-R01				
Signature		Signature					
Name Prashant Vijay		Name Mr. Jitender Kholl					
Designation Certification Business Development		Designation Technical Head					
Date		Date 10/02/2020					
						Sheet No.	1 OF 8




Motozen Fuel Systems

Dahiya Greens, Sec.-17-18 Dividing Road, Opp. Green Park, Gurgaon-122007 (Haryana) INDIA
 E-mail : motozencng@gmail.com

MOTOZEN-BRIO-CNG-2020-001-R01

2 of 4

6 Petrol Solenoid Valve		Not applicable (Since the vehicle has fuel injection system. injection cut off relay is used to cut off petrol supply to injector)			
7 Refilling Valve		M/s. Emer, S.r.l., Italy	M/s. OMB Sakeri S.p.A.	M/s. H.M. Plastic, Rajkot	M/s. Karmath
a. Name of manufacturer					
b. Model Name & Identification No.	DGM41037GM	C1-CL.0	HMP	KEXON	
c. Type	NZS	NZS	NZS	NZS	
d. Max. Test Pressure, (kg/cm ²)	200	200	200	200	
e. Working Pressure, (kg/cm ²)	300	300	300	300	
8 Pressure Regulator		M/s. Mijo Auto Gas Pvt. Ltd.			
a. Name of Manufacturer	SR09	TAC No : CF2841 (Trademark : AUTOMOTO)			
b. Model Name & Identification No.	CNG Electronic Reducer				
c. Type	200				
d. Inlet Pressure, (kg/cm ²)	2 - 4				
e. Outlet Pressure, (kg/cm ²)	Two				
f. No. of Stages					
9 CNG Filter		Inbuilt with CNG Pressure Regulator			
a. Name of Manufacturer					
b. Model Name & Identification No.					
c. Type					
d. Inlet Pressure, (kg/cm ²)					
e. Outlet Pressure, (kg/cm ²)					
10 Oil Pump / Lubrication System, if any		NA			
11 High Pressure Tubing		M/s. Autotronics Impex Pvt. Ltd.	M/s. Jiaxing E-xon Power Technology Ltd.	M/s. Emer S.P.A., Italy	M/s. Livon Gas Equipments
a. Name of manufacturer	ST-01	HP 01	EMER	LIVON GAS LGE-HPP-01	
b. Model Name & Identification No.	Steel Tube	Steel Tube	Steel Tube	Steel Tube	
c. Type	700	700	700	700	
d. Max. Test Pressure (kg/cm ²)	200	200	200	200	
e. Working Pressure (kg/cm ²)	6 / 4	6 / 4	6 / 4	6 / 4	
f. Outer Diameter / Inner Diameter (mm)	PVC Coating	PVC Coating	PVC Coating	PVC Coating	
g. Protection Quality (material used)	CT1BM 5148 dtd. 23.05.2017	CT0BM 5009 dtd. 18.01.2017	CT1LL 0124 dtd. 03.02.2016	CT0BO 5065 dtd. 27.03.2019	
h. Report No.	M/s. Superseal Flexible Hose Limited	M/s. Polyhose India(Rubber) Pvt. Ltd.	M/s. Polyhose India(Rubber) Pvt. Ltd.		
a. Name of Manufacturer	Superseal 1/2"	Polyhose FUEL / CNG HOSE I.D. 1/2"	Polyhose FUEL / CNG HOSE I.D. 3/16"		
b. Model Name & Identification No.	Low Pressure Hose with braided	Low Pressure Hose with braided	Low Pressure Hose with braided		
c. Type	48.95	48.95	48.95		
d. Max. Test Pressure (kg/cm ²)	2.04	2.04	2.04		
e. Working Pressure (kg/cm ²)	19.80 / 12.50	19.4 / 12.7	11.10 / 4.95		
f. Outer Diameter / Inner Diameter (mm)					
g. Protection Quality (material used)	SHL239/2014-2015/9850/500 dtd. 05.03.2015	CT1CK1974 dtd. 09.07.2015	CT2BL5008 dtd. 06.09.2016		
h. Report No.			Document No. MOTOZEN-BRIO-CNG-2020-001-R01		
Test Agency		Manufacturer/Supplier			
Signature		Signature			
Name		Name			
Designation		Designation			
Date		Date			
Prashant Vijay		Mr. Jitender Kholl		Sheet No. 2 OF 8	
PGM Certification Business Unit		Technical Head			
		10/02/2020			



Motozen Fuel Systems

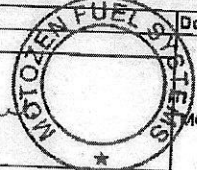
Dahiya Greens, Sec.-17-18 Dividing Road, Opp. Green Park, Gurgaon-122007 (Haryana) INDIA
E-mail : motozencng@gmail.com

MOTOZEN-BRIO-CNG-2020-001-R01

13 Gas - Injector		3 of 4	
a. Name of Manufacturer	M/s. Jiaxing E-XON Power Technology Co. LTD		
b. Model Name & Identification No.	HR04		
c. Venturi Size, mm	-		
d. Ratio of Mixing	-		
e. Ref. Drawing	-		
f. Report No.	CT0BN5027 dtd. 05.02.2018		
14 ON / OFF SWITCH			
a. Name of Manufacturer	M/s. A.E.B. S.p.A., Italy		
b. Model Name & Identification No.	119 B		
c. Type	Push Button / 2 Position		
15 Ignition System			
a. Name of Manufacturer	OE Fitted		
b. Type of Ignition System	Electronic		
c. Spark Plug Make	NGK BKR6E 11		
d. Spark Plug Gap, mm	1.0 ± 0.05 mm		
15A Wiring Harness (for CNG System)			
a. Name of Manufacturer	M/s. A.E.B. S.p.A.		
b. Model Name / Identification No.	612971000		
c. Report No.	CT0CI 0793 dated. 15.05.2013		
16 INTERFACING UNIT (for closed loop engines) (Petrol)			
a. Name of Manufacturer	M/s. Bosch		
b. Model name / Identification No.	V1		
INTERFACING UNIT (for closed loop engines) (CNG)			
a. Name of Manufacturer	M/s. A.E.B. S.p.A., Italy		
b. Model name / Identification No.	MP32		
c. Type	Injection Type		
17 Ignition Timing Advancer			
a. Name of Manufacturer	NA		
b. Type	NA		
c. Timing on CNG mode	NA		
d. Timing on baseline fuel	NA		
18 Brief description of the system including layout for cylinder & pipe installation			
Enclosed Sheet No. 7 OF 8			
19 Catalytic Converter Make & Model			
a. Name of Manufacturer	M/s. Honda Car (OE Fitted)		
b. Model Name / Identification No.	Primary : LC Secondary : LH		
c. Type	NA		
d. Total charge of precious metal, gm/veh	NA		
e. Relative Concentration	NA		
f. Substrate	NA		
20 Refilling Valve interlocking switch			
a. Name of Manufacturer	M/s. SUNGHO	Dongnan Electronics Co., Ltd.	M/s. Crus
b. Identification No.	SUNGHO	Dongnan	KE3A
d. Type	Micro Switch with side actuated	Micro Switch with side actuated	Micro Switch with side actuated



Test Agency	Manufacturer/Supplier	Document No.
Signature Prashant Vijay	M/s. Motozen Fuel Systems Signature Jitender Kholi	MOTOZEN-BRIO-CNG-2020-001-R01
Name Certification Business Unit	Name Mr. Jitender Kholi	
Designation	Designation Technical Head	
Date	Date 10/02/2020	Sheet No. 3 OF 8



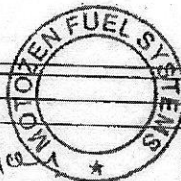
Motozen Fuel Systems

Dahiya Greens, Sec.-17-18 Dividing Road, Opp. Green Park, Gurgaon-122007 (Haryana) INDIA

E-mail : motozencng@gmail.com

MOTOZEN-BRIO-CNG-2020-001-R01

21 Current Limiting Device (Fuse)		4 of 4			
a. Name of Manufacturer	M/s. Protecron Electromech (P) Ltd.				
b. Identification No.	15A				
c. Voltage / Current rating	12V / 7.5A				
d. Type	Glass Fuse				
e. Report No.	SHL/239/2015-2016/6379/2953 dtd. 30.12.2015				
22 Pressure Indicator		M/s. Human CNG Part Company Limited	M/s. A.E.B. S.p.A.	M/s. Angel Auto Gas	M/s. Green Globe CNG
a. Name of the Manufacturer					
b. Identification No.		CNGauge - MT206E / CNG201C / CNG201E / LS201E / CNG206C-TA	AEB608	MT18	GG01
c. Type		Manometer	Manometer	Manometer	Manometer
23 Service shut off valve					
a. Name of the Manufacturer	NA				
b. Identification No.	NA				
c. Type	NA				
24 Compartment / Sub-compartment / Gas tight housing					
a. Name of the Manufacturer	NA				
b. Identification No.	NA				
c. Type	NA				
25 Conduit		M/s. Schlammer Technology India Private Limited.	M/s. Schlammer Technology India Private Limited.		
a. Name of Manufacturer					
b. Identification No.		VDH / 3036	VDH / 2939		
c. Inner & Outer Diameter		30 mm / 36 mm	29 mm / 39 mm		
d. Type		PVC	PVC		
e. Report No.		SHL/239/2014-2015/9044/392 dtd.20.02.2015	SHL/239/2014-2015/9044/391 dtd.20.02.2015		
26 Details of Seat / Upholstery / roof and side lining					
a. Name of Manufacturer	NA				
b. Model name / Identification No.	NA				
c. Type	NA				
27 Details of non-moisture retaining hard rubber / equivalent material padding / lining provided for inner side of the cylinder mounting band(s)					
a. Name of Manufacturer	M/s. Livon Gas Equipments				
b. Identification	LPG/CNG Pad				
c. Type	EPDM				
d. Report No.	AML/2010-03/7398/938 dtd. 30.03.2010				
28 Battery cut off switch (if applicable)					
a. Name of Manufacturer	NA				
b. Identification No.	NA				
c. Type	NA				
29 Any Other Information					
Canister					
a. Manufacturer Name	NA				
b. Model name / Identification No.	NA				
Lambda Sensor					
a. Manufacturer Name	M/s. Bosch				
b. Model name / Identification No.	RE2 - E010				
c. Type	Pre-Heated				
Idle RPM	800 +/- 100				
Test Agency	Manufacturer/Supplier		Document No.		
Signature	M/s. Motozen Fuel Systems		MOTOZEN-BRIO-CNG-2020-001-R01		
Name	Signature				
Prashant Vijay	Jitender Kholl				
Designation	Name				
Export Certification Business Unit	Mr. Jitender Kholl				
Date	Designation				
	Technical Head				
	Date				
	10/02/2020		Sheet No. 4 OF 8		



Motozen Fuel Systems

Dahiya Greens, Sec.-17-18 Dividing Road, Opp. Green Park, Gurgaon-122007 (Haryana) INDIA

E-mail : motozencng@gmail.com

ANNEXURE - II
TECHNICAL SPECIFICATION OF VEHICLES

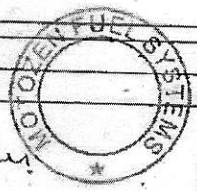
MOTOZEN-BRIO-CNG-2020-001-R01

1 of 2

1	Manufacturer's Name & Address	Honda Cars India Ltd. Plot No. A-1, Sector 40/ 41, Greater Noida Industrial Development Area, Distt. Gautam Budh Nagar U.P. 201 306
2	Vehicle Data Model Type Year and Month of Manufacture Engine No. Chassis No. Variants	Honda Brio S MT Passanger Car May - 2013 L12B33001755 MAKDD174EDN200450
3	Engine Type Bore x Stroke, mm No. of Cylinders Displacement Max Engine Output Max Torque Air Cleaner Oil Filter Fuel Filter Capacity of Cooling System Oil Sump Capacity Weight of Engine (Complete) Radiator Frontal Area (Core Area)	4 Cylinder Gasoline, SOHC I-VTEC 73 x 71.8 4 1198 cc Petrol 65 kw @ 6000 rpm 109 Nm @ 4500 rpm Paper Type Paper Paper Type NA NA NA NA
4	Clutch Type Outside Diameter	Single, Dry, Diaphragm NA
5	Gear Box Model Type No. of Gears Gear Ratio 1 st 2 nd 3 rd 4 th 5 th Reverse Ratio	Tunnel mounted, Gear Shift Manual 5 Forward, 1 Reverse 3.461 1.869 1.171 0.853 0.727 3.307 4.294



Test Agency	Manufacturer/Supplier	Document No.
Signature International Centre for Automotive Technology	M/s. Motozen Fuel Systems Signature Jitender Khali	MOTOZEN-BRIO-CNG-2020-001-R01
Name Prashant Vijay	Name Mr. Jitender Khali	
Designation Certification Business Unit	Designation Technical Head	
Date	Date 10/02/2020	
		Sheet No. 5 of 8


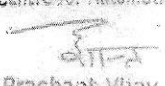



Motozen Fuel Systems

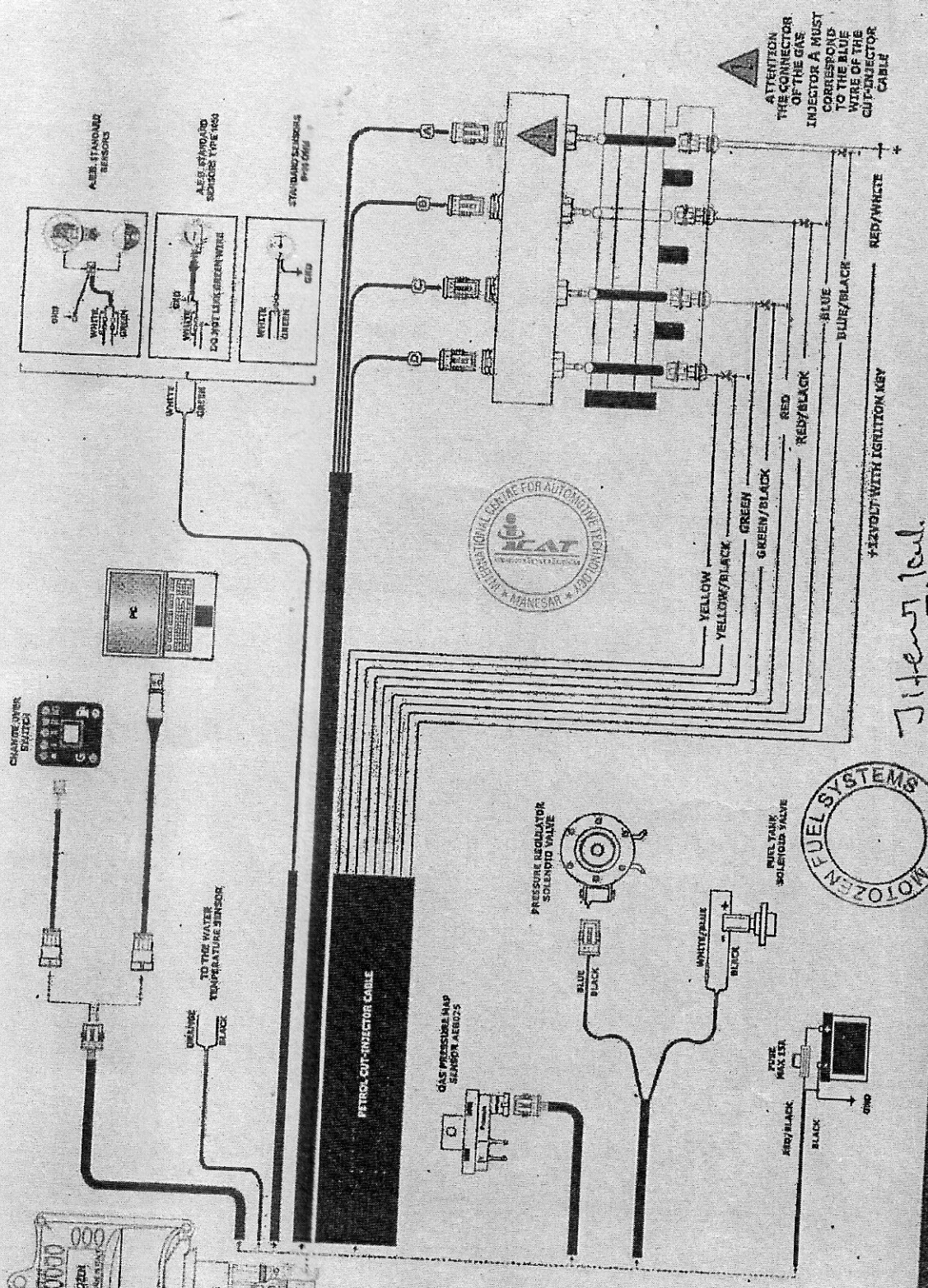
Dahiya Greens, Sec.-17-18 Dividing Road, Opp. Green Park, Gurgaon-122007 (Haryana) INDIA
E-mail : motozencng@gmail.com

MOTOZEN-BRIO-CNG-2020-001-R01

2 of 2

6	Steering Steering Wheel Diameter Ratio	NA NA	
7	Frame Long Member Size, mm Number of Cross Members	NA NA	
8	Shock Absorber	Front Independent McPherson	Rear Torsion Beam
9	Brake Service Brake Total Braking Area Parking Brake Wheels and Tyres	Front Ventilated Disc NA Leading - Trailing Drum Brake Wheel : 14 Inch Tyre: 175 / 65 R 14 MAKE : MRF	Rear Drum NA
10	Electrical System System Voltage Battery Alternator (Max. output) Type Wiper Motor	12V 44 AH NA NA Electrical	
11	Fuel Tank	35 litrs	
12	Dimensions Wheel Base, mm Overall Width, mm Overall Length, mm Front Track, mm Rear Track, mm Min. Ground Clearance, mm Cargo Box Dimensions Load Body Platform Area	2345 1680 3610 1480 1465 165 NA NA	
13	Weights Maximum GVW Maximum Permissible FAW Maximum Permissible RAW KERB weight with 90% fuel (With spare wheel, tools, etc.) Maximum Gradeability in 1 st Gear	1350 kg NA NA 1010 kg NA	
14	Seating Capacity	5 (Five)	
Test Agency		Manufacturer/Supplier	Document No.
Signature Centre for Automotive Technology  Prashant Vijay		M/s. Motozen Fuel Systems Signature 	MOTOZEN-BRIO-CNG-2020-001-R01
Name Certification Business Unit		Name Mr. Jitender Kholi	Sheet No. 6 of 8
Designation		Designation Technical Head	
Date		Date 10/02/2020	



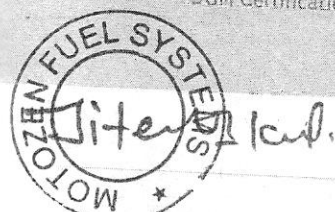


Page No. ECF 6 Date : 10.02.2019

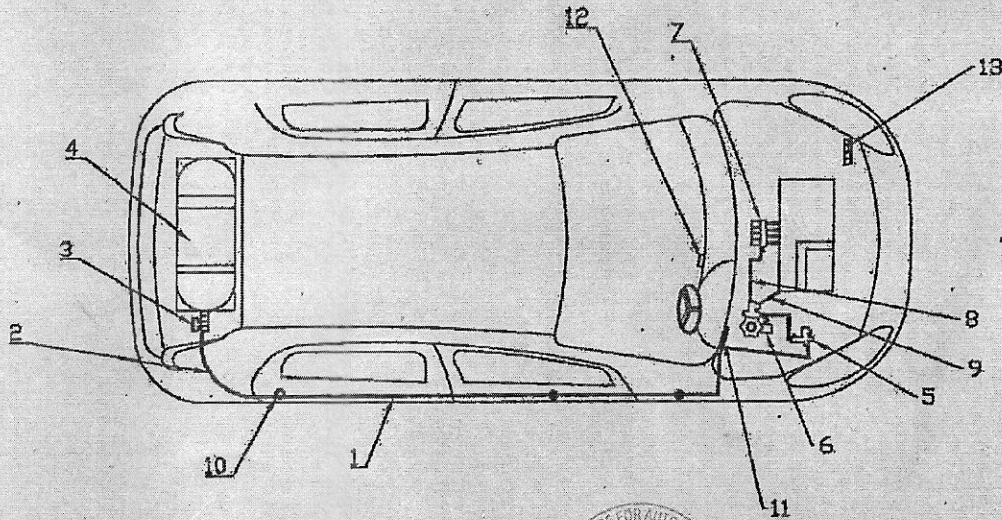
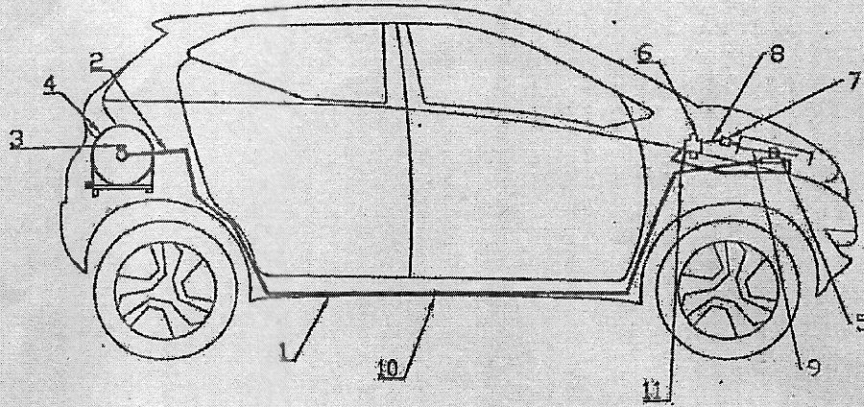
Jiten J. Lal

International Centre for Automotive Technology

Prashant Vijay
DGM Certification Business Unit



LAYOUT PLAN OF CNG CONVERSION KIT FOR HONDA BRIO 1198CC



1	HIGH PRESSURE STEEL PIPE	6	REGULATOR	11	COMPLIANCE PLATE
2	INLET PIPE	7	INJECTOR RAIL	12	CHARGE OVER SWITCH
3	CNG CYLINDER VALVE	8	LOW PRESSURE HOSE	13	ECU
4	CNG CYLINDER	9	COOLANT HOSE		
5	REFILLING VALVE	10	CNG CLAMP/SCREW		



International Centre for Automotive Technology

Prashant Vijay
DGM Certification Business Unit

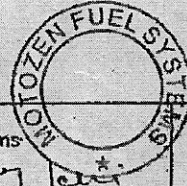
Date : 10.02.2020

Test Agency
ICAT

Manufacture / Signature
M/s. Motozen Fuel Systems

Signature: *Jitender Kholl*
Name : Mr. Jitender Kholl
Designation : Technical Head

SHEET NO.
7 OF 8



"विद्यया ऽ मृतमश्नुते"
 "EXLOSIVES" Nalpa
 0712-2510248
 2510577
 सर्वप्रथम संदेश के सभी
 पत्रादि "बुद्ध विस्फोटक निगम" के
 पदनाम से भेले जाएं तबके अधिकारी
 तक ही भेजे।
 All communications intended
 for this Office should be addressed
 to the Chief Controller of
 Explosives, and NOT to him by
 name.



भारत सरकार
 GOVERNMENT OF INDIA
 पेट्रोलियम तथा विस्फोटक सुरक्षा संगठन
Petroleum and Explosives Safety Organisation
 (पूर्वजाम विस्फोटक विभाग)
 (Formerly Department of Explosives)
 "ए" ब्लॉक, पंचसिला बिल्डिंग, केन्द्रीय कार्यालय परिसर,
 सीपी-सी बिल्डिंग, साम्प्र-440 008 (पट्टा.)
 Seemay Hills, Nigpur, 440006

No G 3(4)16
 Dated 03/06/2009

To

M/s OMB Sileri SpA,
 Via Rose di Sotto 38/C,
 25128 (Brescia BS), Italy.

Subj: Approval of Manual CNG Cylinder Valve with built-in excess flow valve - Model Alf
 manufactured by you conforming to ECE-R-110 with W.P. 210 bar, T.P. 330 Bar. and with
 certification of Luxcontrol S.A., Luxembourg.

Dear Sirs,

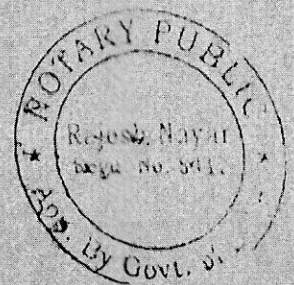
This has reference to M/s. Greenfuel Energy Solutions Pvt. Ltd., New Delhi's letter
 GFESPL/CCOE/AKS/09, dated 12/05/2009 and your letter dated 12/05/2009

In continuation to this office letter of even No. dated 31/05/2007 & 19/06/2007, the approval is
 extended to cover new handle design as per drawing No. 695 Alfa New. A copy of the same is returned
 herewith duly approved.

Yours faithfully,
 (D.K. Gupta)

Controller of Explosives
 for Chief Controller of Explosives

Copy to M/s. Green Fuel Energy Solutions Pvt. Ltd., Padma Centre, F-78, Okhla Industrial Area, Phase
 I, New Delhi-110 020 with reference to their letter referred to above



for Chief Controller of Explosives