

4.5 ONTOLOGY DESIGN DOCUMENT (ODD)

We employed our tool in this activity to design the ontology automatically. Following snapshots show the working of our tool in the designing process:

Figure 23(a): Employment of our tool for design of Ontology of Bikes

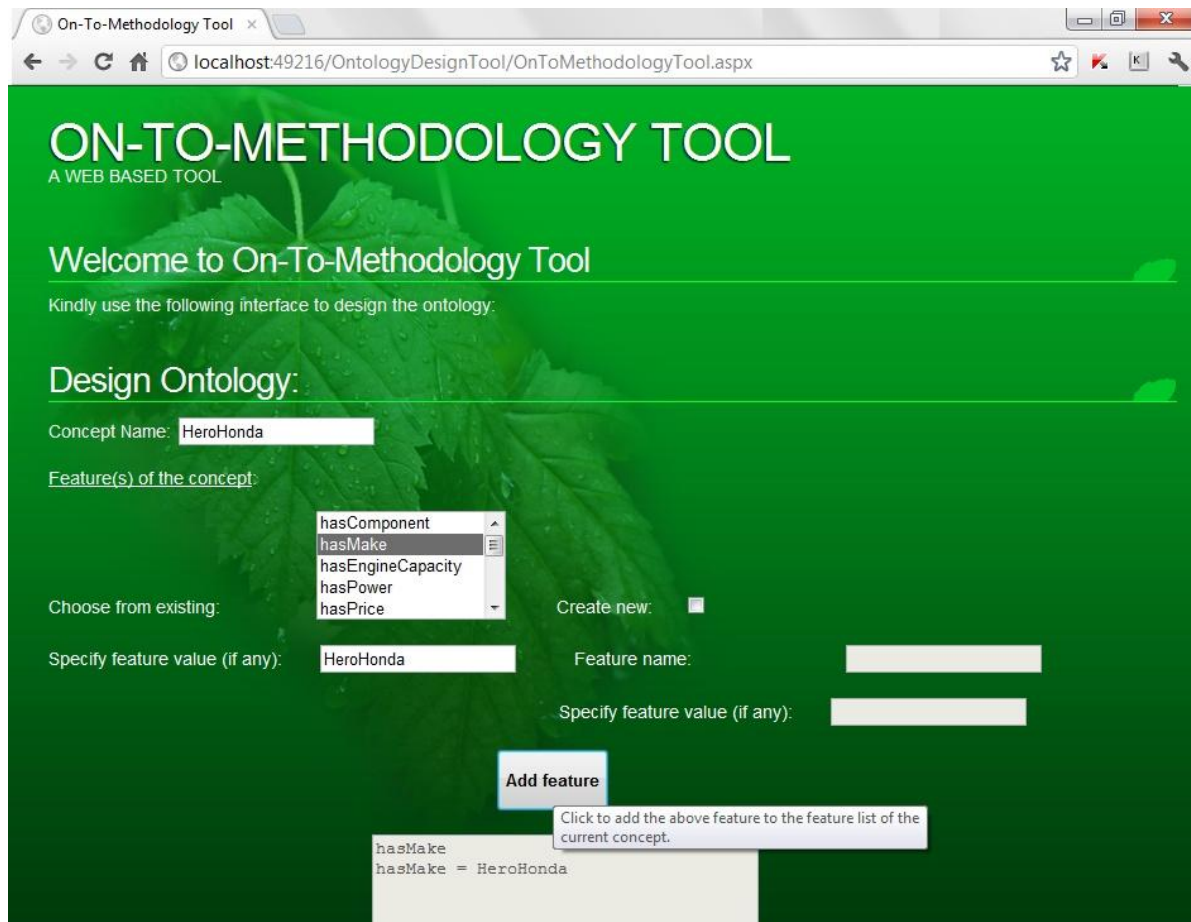
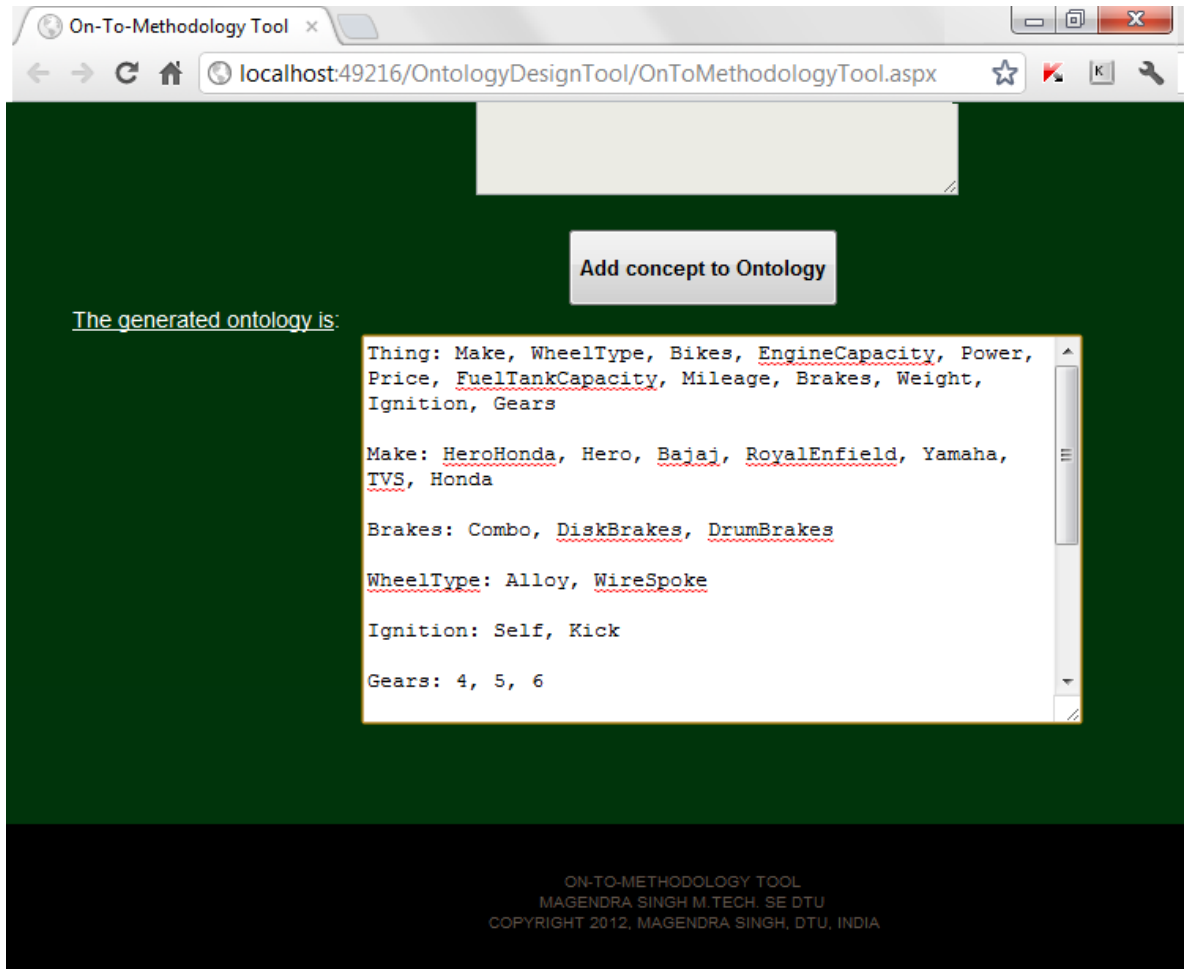


Figure 23(b): Employment of our tool for design of Ontology of Bikes



The following is Ontology Design Document for the Ontology of Bikes. *Appendix-B* illustrates the step-by-step (manual) procedure to derive the Ontology Design Document.

Table 4 : Final Location map

CONCEPT ADDRESS	CONCEPT FEATURE
Thing (0, 1)	X
Bikes (1, 1)	f ⁺ 1 • f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12
Make (1, 2)	f ⁺ 2
EngineCapacity (1, 3)	f ⁺ 3
Power (1, 4)	f ⁺ 4
Price (1, 5)	f ⁺ 5
FuelTankCapacity (1, 6)	f ⁺ 6
Mileage (1, 7)	f ⁺ 7

Brakes (1, 8)	f ⁺ 8
Weight (1, 9)	f ⁺ 9
WheelType (1, 10)	f ⁺ 10
Ignition (1,11)	f ⁺ 11
Gears (1 ,12)	f ⁺ 12
NamedBikes (2, 1)	f ⁺ 1 • f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12
HeroHonda (2, 2)	f ⁺ 2 • f ⁺ 13
Hero (2, 3)	f ⁺ 2 • f ⁺ 14
Bajaj (2, 4)	f ⁺ 2 • f ⁺ 15
RoyalEnfield (2, 5)	f ⁺ 2 • f ⁺ 16
Yamaha (2, 6)	f ⁺ 2 • f ⁺ 17
TVS (2, 7)	f ⁺ 2 • f ⁺ 18
Honda (2, 8)	f ⁺ 2 • f ⁺ 19
HeroHondaBikes (3, 1)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13
HeroBikes (3, 2)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 14
BajajBikes (3, 3)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15
RoyalEnfieldBikes (3, 4)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 16
YamahaBikes (3, 5)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 17
TVSBikes (3, 6)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 18
HondaBikes (3, 7)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 19
Combo (2, 9)	f ⁺ 8 • f ⁺ 20
DiskBrakes (2, 10)	f ⁺ 8 • f ⁺ 21
DrumBrakes (2, 11)	f ⁺ 8 • f ⁺ 22
Alloy (2, 12)	f ⁺ 10 • f ⁺ 23
WireSpoke (2, 13)	f ⁺ 10 • f ⁺ 24
Self (2, 14)	f ⁺ 11 • f ⁺ 25
Kick (2, 15)	f ⁺ 11 • f ⁺ 26
6 (2, 16)	f ⁺ 12 • f ⁺ 27
5 (2, 17)	f ⁺ 12 • f ⁺ 28
4 (2, 18)	f ⁺ 12 • f ⁺ 29
Karizma(Normal)Model (4, 1)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
Karizma(ZMR)Model (4, 2)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 21 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
Splendor(Plus)Model (4, 3)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 22 • f ⁺ 24 • f ⁺ 26 • f ⁺ 29
Splendor(NXG)Model (4, 4)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 23 • f ⁺ 23 • f ⁺ 26 • f ⁺ 29
Splendor(Super)Model (4, 5)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 22 • f ⁺ 23 • f ⁺ 25 • f ⁺ 29
Splendor(Pro)Model (4, 6)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 22 • f ⁺ 23 • f ⁺ 25 • f ⁺ 29
PassionProModel (4, 7)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 29
CD-DawnModel (4, 8)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 22 • f ⁺ 24 • f ⁺ 26 • f ⁺ 29
CD-DeluxeModel (4, 9)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 22 • f ⁺ 23 • f ⁺ 26 • f ⁺ 29

Glamour(Normal)Model (4, 10)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 29
Glamour(PGMFi)Model (4, 11)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 29
AchieverModel (4, 12)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
CBZXtremeModel (4, 13)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
HunkModel (4, 14)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 13 • f ⁺ 21 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
ImpulseModel (4, 15)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 14 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
CT100Model (4, 16)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 22 • f ⁺ 24 • f ⁺ 26 • f ⁺ 29
Pulsar135LSModel (4, 17)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
Pulsar150DTS-iModel (4, 18)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
Pulsar180DTS-iModel (4, 19)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
Pulsar220DTS-iModel (4, 20)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 21 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
Avenger220DTS-iModel (4, 21)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
Discover135Model (4, 22)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 29
Discover125Model (4, 23)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 22 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
Discover100Model (4, 24)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 22 • f ⁺ 23 • f ⁺ 25 • f ⁺ 29
Platina100Model (4, 25)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 22 • f ⁺ 23 • f ⁺ 26 • f ⁺ 29
Duke200Model (4, 26)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 15 • f ⁺ 21 • f ⁺ 23 • f ⁺ 25 • f ⁺ 27
BulletElectraTwinspark Model (4, 27)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 16 • f ⁺ 20 • f ⁺ 24 • f ⁺ 25 • f ⁺ 28
Bullet 350 Twinspark Model (4, 28)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 16 • f ⁺ 20 • f ⁺ 24 • f ⁺ 25 • f ⁺ 28
Bullet Electra EFI Model (4, 29)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 16 • f ⁺ 20 • f ⁺ 24 • f ⁺ 25 • f ⁺ 28
Bullet Electra Deluxe Model (4, 30)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 16 • f ⁺ 20 • f ⁺ 24 • f ⁺ 25 • f ⁺ 28
Royal Enfield Classic 500 Model (4, 31)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 16 • f ⁺ 20 • f ⁺ 24 • f ⁺ 25 • f ⁺ 28
Royal Enfield Classic 350	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺

Model (4, 32)	16 • f ⁺ 20 • f ⁺ 24 • f ⁺ 25 • f ⁺ 28
Thunderbird Twinspace Model (4, 33)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 16 • f ⁺ 20 • f ⁺ 24 • f ⁺ 25 • f ⁺ 28
R15Model (4, 34)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 17 • f ⁺ 21 • f ⁺ 23 • f ⁺ 25 • f ⁺ 27
FZModel (4, 35)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 17 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28
VictorModel (4, 36)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 18 • f ⁺ 22 • f ⁺ 24 • f ⁺ 26 • f ⁺ 29
CBRModel (4, 37)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 19 • f ⁺ 21 • f ⁺ 23 • f ⁺ 25 • f ⁺ 27
ShineModel (4, 38)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 19 • f ⁺ 22 • f ⁺ 23 • f ⁺ 25 • f ⁺ 29
UnicornModel (4, 39)	f ⁺ 2 • f ⁺ 3 • f ⁺ 4 • f ⁺ 5 • f ⁺ 6 • f ⁺ 7 • f ⁺ 8 • f ⁺ 9 • f ⁺ 10 • f ⁺ 11 • f ⁺ 12 • f ⁺ 19 • f ⁺ 20 • f ⁺ 23 • f ⁺ 25 • f ⁺ 28