GROUP 3E
Production Cars
Recognition Document

Recognition N°
3-19-007

Updated 29/07/2020

GROUP 3E RECOGNITION DOCUMENT

Homologation valid as from **01-01-2019**

A) Vehicle seen from 3/4 front

B) Vehicle seen from 3/4 rear

1. GENERAL

101. Manufacturer **FORD**

102. Commercial name(s) - Model and type **MUSTANG FM**

103. Engine capacity **4951** cm³ **Corrected engine capacity** **618.87** x **8** = **4951** cm³

104. Type of car construction a) Type

☐ separate chassis	☒ monocoque

b) Material of chassis / bodyshell **STEEL**

106. Number of seats **5**

2. DIMENSIONS, WEIGHT

201. Minimum Weight **1599** kg

202. Overall length **4784** mm +/- 1 %

203. Maximum overall width **1916**mm +/- 1 % Where measured **REAR AXLE CENTRELINE**

204. Width of bodywork

a) At front axle **1597**mm +/- 1 %

b) At rear axle **1658**mm +/- 1 %

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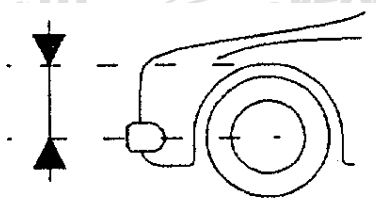
205. Minimum height centre hub / Wheel arch opening



a) Front **376**mm b) Rear **357**mm

206. Wheelbase **2720**mm +/- 1%

207. Maximum track

a) Front **1657**mm b) Rear **1698**mm

209. Overhang

a) Front **1132**mm +/- 1 % b) Rear **932**mm +/- 1 %

3. ENGINE *(In case of rotary engine, see Art. 335 on additional form)*

301. Location and position of the engine **FRONT**

302. Number of mounts **2**

C) Right hand view of dismounted engine

D) Left hand of dismounted engine

E) Engine in its compartment

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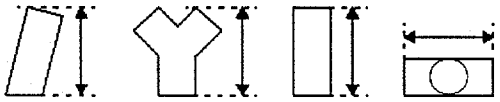
304. Supercharging ☐ yes ☒ no *(In case of supercharging, see Art. 334 on additional form)*

Type and number of compressors **Normally Aspirated**

305. Number and layout of cylinders **V8**



☐ ☒ ☐ ☐

312. Cylinder block material **ALLUMINIUM**

306. Type of cooling **WATER**

307. Cylinder capacity a) Single cylinder/Chamber **618.61** cm^3 b) Total **4948.9** cm^3

308. Total minimum volume of a combustion chamber **675.6** cm^3 (Chamber + swept volume ABC)

309. Minimum volume of a combustion chamber in the cylinder head **57** cm^3 (Chamber ATC)

310. Maximum compression ratio (in relation with the unit) **12:1**: 1

311. Minimum height of the cylinder block **227** mm

313. Sleeves a) ☒ yes ☐ no b) **CAST IRON** c) ☐ wet ☒ dry

314. Bore **92.9** +0/- 0.1 mm

315. Maximum bore allowed _____ mm

316. Stroke **92.7** +0/- 0.1 mm

317. Piston

a) Material **ALUMINIUM**

b) Number of rings **3**

c) Minimum weight **360** g g

d) Distance from gudgeon pin centre line to highest point of piston crown **29.87** +/- 0.1 mm

e) Distance (+/-) between the top of the piston ATC and the gasket plane of the cylinder block **0** +/- 0.15 mm

f) Piston crown relief/dome volume **2** +/- 0.5 cm^3 (Show dome as negative)

AA) Piston

318. Connecting rod a) Material **STEEL** b) Big end type **2 PIECE BEARING**

c) Interior diameter of the big end (without shell bearings) **56.88** mm +0.1/- 0 mm

d) Length between the axes **150.67** +/- 0.1 mm e) Minimum weight **610** g g

E1) Connecting rod seen from 3/4 (with marking)

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319. Crankshaft a) Type of manufacture **SINGLE** (Single or multi piece)

b) Material c) ☐ cast ☒ forged d) Number of bearings

e) Type of bearings **2 PIECE** f) Diameter of bearings **67.58** mm +0/- 0.25 mm

g) Bearing caps material **STEEL** h) Minimum weight of bare crankshaft **2500** g +/- 400.0g

i) Diameter of crank pins **50.4** mm +0/- 0.25 mm

320. Flywheel

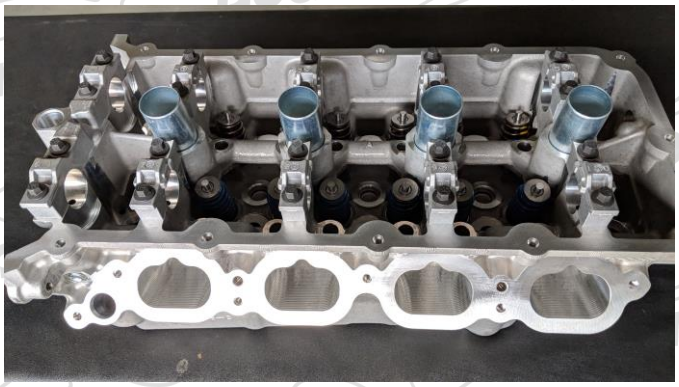
a) Material **STEEL**

b) Minimum weight with starter ring **1010** g

321. Cylinderhead a) Number **2** b) Material **ALUMINIUM**

c) Minimum height **N/A** mmd) Where measured **N/A**

F) Bare cylinderhead



G) Combustion chamber

323. Fuel feed by carburettor a) Number of carburettors **NILL**

b) Type **N/A** c) Make and model

d) Number venturis per carburettor _____

e) Maximum diameter of the carburettor throttle ports _____ mm

f) Diameter of the venturi at the narrowest point _____ +/- 0.25 mm

324. Fuel feed by injection : a) Make b) Model

c) Type of fuel measurement : ☐ **mechanical** ☒ **electronic** ☐ **hydraulic**

d) Dimensions of intake duct at the throttle or slide location **89 +/- 0.25 mm**

e) Number of effective fuel outlets **8**

f) Position of injectors

f1) ☒ **Manifold** ☐ **Cylinderhead**

g) Sensors of injection system

ENGINE TEMP, MAP ,CAM POSITION (4) CRANK POSITION (1) THROTTLE POSITION DRIVER(2) AIR TEMP, LAMBDA(2), FUEL PRES., THROTTLE POSITION ENGINE (2)

h) Actuators of injection system

THROTTLE STEPPER, INJECTORS(8)

325. Camshaft a) Number **4** b) Location **DOHC**

c) Drive system **VCT-CHAINS** d) Number of bearings per shaft **NIL**

e) Diameter of bearings _____ mm f) Type of valve operation **ROCKER**

327. Intake

a) Material of manifold **PLASTIC**

b) Number of manifold elements **8** c) Number of valves per cylinder **2**

d) Maximum diameter of the valve **38** mm e) Diameter of the valve stem in guide **6** +0/-0.2 mm

f) Valve length **119** +/- 1.5 mm g) Type of valve springs **COIL**

h) Number of springs per valve **1**

k) External diameter of the springs _____ +/- 0.2 mm l) Number of spring coils _____

m) Diameter of spring wire _____ +/- 0.1 mm n) Max.free length of the springs _____ mm

328. Exhaust

a) Material of manifold **STEEL**

b) Number of manifold elements **8** c) Internal dimensions of manifold exit _____ mm

d) Number of valves per cylinder **2** e) Maximum diameter of the valve **32** mm

f) Diameter of the valve stem in guide **6** +0/-0.2 mm g) Valve length **108** +/- 1.5 mm

h) Type of valve springs **COIL**

i) Number of springs per valve **1**

l) External diameter of the springs _____ +/- 0.2 mm m) Number of spring coils _____

n) Diameter of spring wire _____ +/- 0.1 mm o) Max. free length of the springs _____ mm

p) Diameter of exhaust pipe between manifold and first silencer **44MM** mm +/- 5%

I) Intake manifold J) Exhaust manifold

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BB) Complete exhaust system removed from vehicle (not including manifold)

330. Ignition system

a) Type **COIL ON PLUG** b) Number of plugs per cylinder **1**

c) Number of distributors **NIL** d) Number of coils **8**

331 Cooling system Capacity **15LT** l

332. Cooling fan a) Number **2** b) Diameter of the fan **400** mm

c) Material of the fan **PLASTIC** d) Number of blades ____

e) Type of drive **DC ENGINE** f) Automatic cut in ☒ yes ☐ no

333. Lubrication system a) Type **WET SUMP** b) Number of oil pumps **1**

c) Total capacity **9** L

d) Oil cooler(s) ☒ Yes ☐ no Number **2**

e) Location of the cooler(s) **BEFORE RADIATOR** f) Type of the cooler(s) **AIR / WATER - OIL**

4. FUEL CIRCUIT

401. Fuel tank

a) Number **1**

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b) Location **BOOT**
d) Total capacity **61** L
e) Filler hole locations **LH REAR QUARTER PANEL**

402. Fuel pump(s) a) ☒ Electrical ☐ Mechanical b) Number **1**

c) Make and type **PREMIER** d) Location **COLLECTOR POT - BOOT**

5. ELECTRICAL EQUIPMENT

502. Generator a) Number **1** b) Type **DYNAMO**

c) Drive system **BELT** d) Nominal power **180** Amp

503. Retractable headlights a) ☐ yes ☒ no b) Control system _____

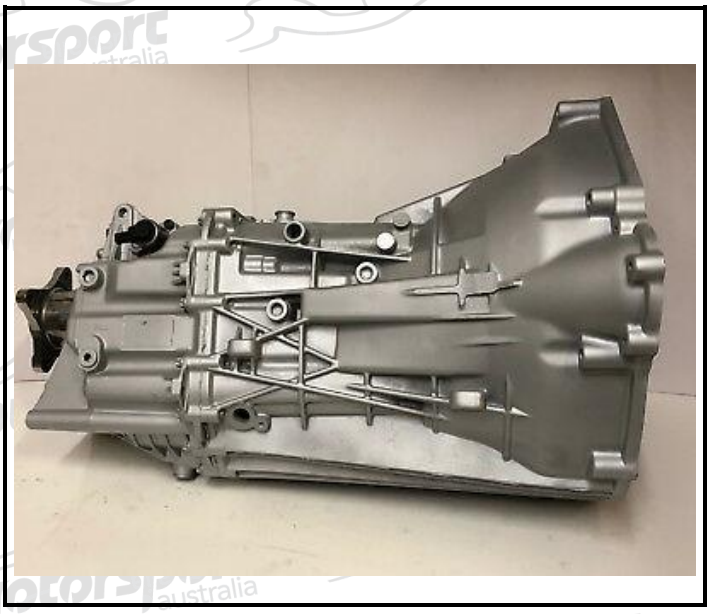
6. POWER TRAIN

601. Driven wheels front ☐ yes ☒ no rear ☒ yes ☐ no

602. Clutch a) Type **SINGLE PLATE - FRICTION**

CC) Clutch

S) Gearbox casing and clutch bell housing



b) Control system **HYDRAULIC**

c) Number of plates **SINGLE** d) Diameter of the plate(s) **265**+/- 2 mm

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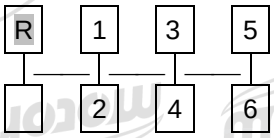
603. Gearbox a) Location **CENTRAL** b) Make **GETRAG**

c) Type and location of control **STICK - CABIN**

e) Ratios

	Number of teeth	Ratio	Constant Mesh	Synchro
1		3.66		YES
2		2.43		YES
3		1.69		YES
4		1.32		YES
5		1	YES	
6		.65		YES
R		4		NIL
Constant		1		

f) Gear change gate



g) Type of lubrication

h) Oil cooler ☒ yes ☐ no Type **OIL TO AIR**

604. Transfer box / Centre differential a) Ratios _____ b) Number of teeth _____

c) Control system of transfer box _____ d) Type of central differential _____

e) Torque distribution e1) Front _____ % Rear _____ % e2) Number of teeth _____

f) Type of central differential limitation _____

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605. Final drive	Front		Rear	
a) Type of final drive	N/A		CWP	
b) Ratio	N/A		3.73.1	
c) Number of teeth	N/A		———	
d) Type of differential limitation	N/A		RAMP AND PLATE LSD	
e) Type of lubrication	N/A		WET	
f) Oil cooler	☒ yes	☐ no	☒ yes	☐ no
g) Cooler Type			OIL TO AIR	

606. Shafts

a)	Type of longitudinal shafts	HOLLOW
b)	Material of longitudinal shafts	STEEL
c)	Type of transversal half-shafts	SOLID
d)	Material of transversal half-shafts	STEEL

XII) KINEMATIC TRAIN (4 wheel drive)

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7. SUSPENSION

	Front	Rear
701. General		
a) Type of suspension	**MACPHERSON STRUT**	**DOUBLE A-ARM**
702. Helical springs	☒ yes ☐ no	☒ yes ☐ no
a) Material	Steel	steel
703. Leaf springs	☐ yes ☒ no	☐ yes ☒ no
a) Material of main leaf		
Material of 2nd leaf		
Material of 3rd leaf		
Material of 4th leaf		
Material of 5th leaf		
Material of auxiliary leaf		
704. Torsion bars	☐ yes ☐ no	☐ yes ☐ no
a) Material		

705. Other type of suspension *See description on additional form*

706. Stabiliser	Front	Rear
a) Effective length	**1600** mm +/- 1%	**1500** mm +/- 1%
b) Effective diameter	**35** mm	**20** mm
c) Material	**STEEL**	**STEEL**

XI) Drawing or photo of front stabiliser

XI) Drawing or photo of rear stabiliser

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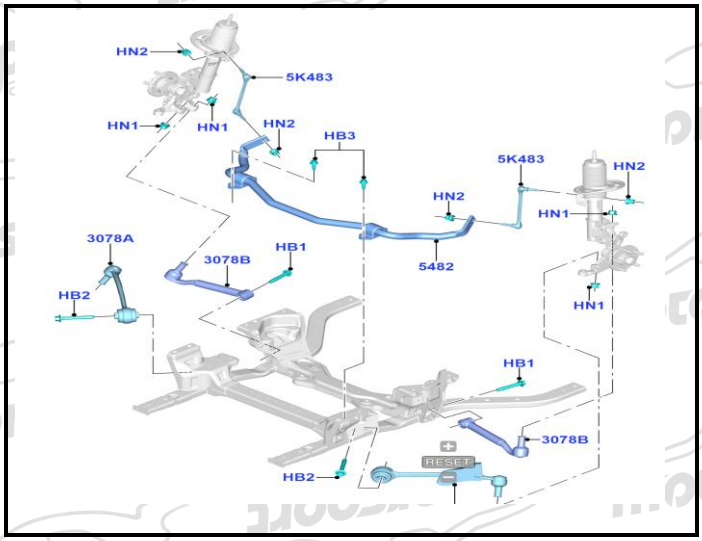
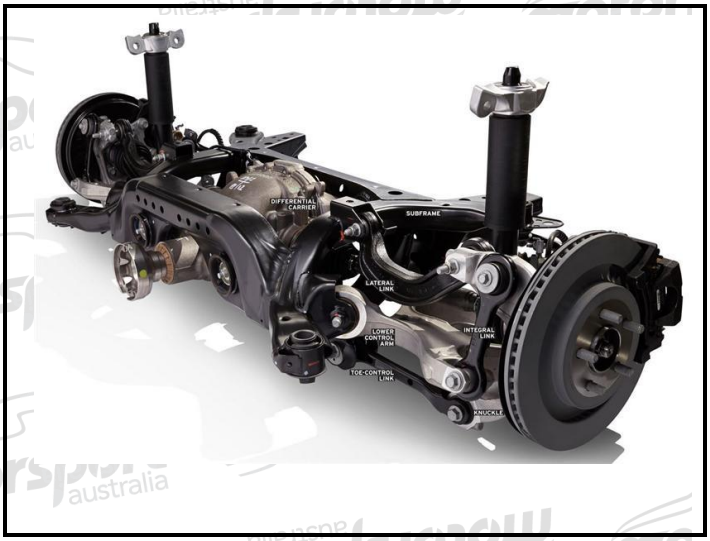
707. Suspension Dampers	Front	Rear
a) Number per wheel	1	1
b) Type	HYDRAULIC - TELESCOPIC	HYDRAULIC -TELESCOPIC
c) Principle of operation	HYDRAULIC	HYDRAULIC

T) Complete dismounted front axle



U) Complete dismounted rear axle



8. WHEELS

801. Wheels

	Front	Rear
a) Diameter	19"	19"
	or	or
	_____ mm	_____ mm
b) Width	9"	9.5"
	or	or
	_____ mm	_____ mm

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803. Brakes

a) Braking system: **SERVO HYDRAULIC**

b) Number of master cylinders: **1**

b1) Bores _____ mm / _____ mm

c) Servo-brakes: ☒ yes ☐ no

c1) Make and type: **FORD**

d) Braking regulator: ☒ yes ☐ no

d1) Location: **FRONT BULKHEAD**

D2) Active: ☐ yes ☐ no

	Front	Rear
e) Number of cylinders per wheel	**6**	**2**
e1) Bore/s	_____ mm x _____ mm	_____ mm x _____ mm
f) Drum brakes		
f1) Internal diameter	_____ +/- 1.5 mm	_____ +/- 1.5 mm
f2) Number of linings per wheel	_____	_____
f3) Developed length of linings	_____ +/- 1.5 mm	_____ +/- 1.5 mm
f4) Width of linings	_____ +/- 1 mm	_____ +/- 1 mm
g) Disc brakes		
g1) Number of pads per wheel	**2**	**2**
g2) Number of calipers per wheel	**1**	**1**
g3) Caliper material	**Alluminium**	**Alluminium**
g4) Thickness of new disc	**34** +/- 1 mm	**25** +/- 1 mm
g5) External diameter of the disc	**380** +/- 1.5 mm	**330** +/- 1.5 mm
g6) External diameter of pads' rubbing surface	**380** +/- 1.5 mm	**330** +/- 1.5 mm
g7) Internal diameter of pads' rubbing surface	**256** +/- 1.5 mm	**222** +/- 1.5 mm
g8) Overall length of the pads	**170** +/- 1.5 mm	**132** +/- 1.5 mm
g9) Ventilated discs	☒ yes ☐ no	☒ yes ☐ no

h) Parking brake

h1) Control system: **LEVER**

h2) Location of lever: **CABIN**

h3) On which wheels: ☐ Front ☒ Rear

804. Steering

	Front	Rear
a) Type	**RACK AND PINION**	**NIL**
b) Servo-assistance	☒ yes ☐ no	☐ yes ☐ no
Type of Assistance	**ELECTRO MECHANICAL**	_____

9. BODYWORK

901. Interior

a) Ventilation: ☒ yes ☐ no

b) Heating: ☐ yes ☒ no

c) Air Conditioning: ☐ yes ☒ no

f) Optional sun roof: ☐ yes ☒ no

f1) Type _____

f2) Control system _____

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	Front	Rear
g) Opening system for side windows	**ELECTRICAL**	**FIXED**

X) Dashboard

Y) Sunroof

n/a

902. Exterior

a) Number of doors **2**

b) Tailgate ☐ yes ☒ no

	Front	Rear
c) Door material	**STEEL**	**N/A**

d) Front bonnet material **STEEL**

e) Rear bootlid / tailgate material **STEEL**

f) Bodywork material **STEEL / ALLUMINIUM**

h) Rear window material **GLASS**

i) Rear quarter window material **POLYCARBONATE**

	Front	Rear
k) Side window material	**GLASS**	**GLASS**
l) Material of bumper	**PLASTIC**	**PLASTIC**
n) Exterior Rear wiper	☐ yes	☒ no

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XIII) NON METALLIC PARTS OF THE BODY

Number	Part	Material
various	Front Bumper bar cover	Plastic
various	Rear bumper bar cover	Plastic

Drawing / photo required

COMPLEMENTARY INFORMATION