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Subject: Mustang Dark Horse R Brake System Information:

Front Caliper Information – General Operation

The recommended working temperature for the caliper is < 210°C (390°F). If the caliper is run at or above 210°C (390°F) the seals can overheat and no longer guarantee the correct performance (sealing, roll back, fluid absorption).

When the caliper temperature reaches or exceeds 210°C (390°F) the seals need to be replaced regardless of mileage.

Caliper temperature stickers are an excellent way to monitor the working temperature of the caliper. It is important to note that the temperature sticker will be influenced by radiant temperature, so it is critical to monitor the sticker and change it often.

To maintain optimum performance in the caliper we suggest servicing the caliper every 5000km to 6000km (3106 to 3728 miles). It is important to note that the calipers should be inspected after each event, especially if they are running at the higher of the temperature parameters. The caliper should also be serviced prior to any endurance event to ensure the proper performance.

The following items may be serviced depending on their condition.

- Pistons
- Seals
- Piston inserts
- Pad abutments
- Pad abutment screws
- Bleed screws

The components above may not need to be changed; however, it is always important to check them.

We also recommend using temperature paint (in addition to telemetry) on the rotors. This can be a useful tool in brake setup or analysis.

Three paint colors are used:

- Green - turns white at 806F, 430C
- Orange - turns to yellow/white at 1040F, 560C
- Red - turns white at 1130F, 610C

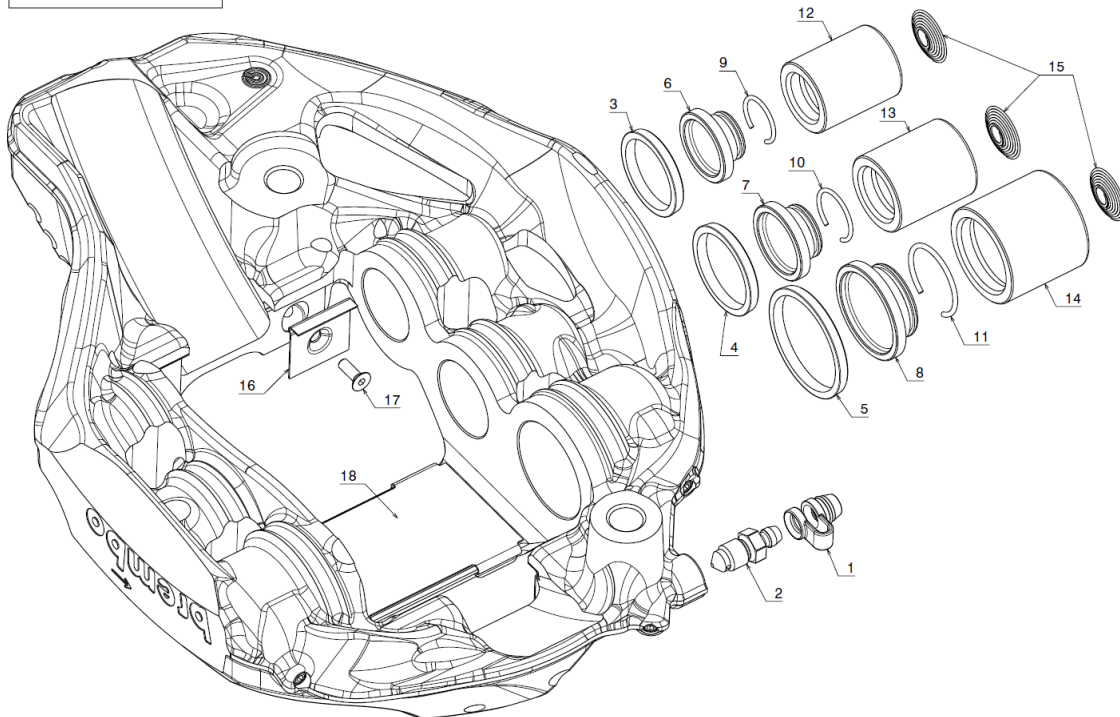
The paint will change to white after being exposed to these temperatures for a period of 30 seconds or longer.

Front Caliper – Exploded View:

FL Caliper Part Number – XB8GK51

FR Caliper Part Number – XB8GK52

XB8.GK.51-52



Item	Description	Part Number	Qty
1	Bleed Screw Cap	05150220	1
2	Bleed Screw	05281213	1
3	30mm Pressure Seal	05722441	2
4	34mm Pressure Seal	05722443	2
5	38mm Pressure Seal	05722445	2
6	30mm Radiator	20852723	2
7	34mm Radiator	20852725	2
8	38mm Radiator	20852727	2
9	Circlip for 30mm	05209131	2
10	Circlip for 34mm	05209133	2
11	Circlip for 38mm	05209135	2
12	30mm Piston	20590973	2
13	34mm Piston	20590975	2
14	38mm Piston	20590977	2
15	Knockback Spring	X934108	6
16	Abutment Plate	20B33192	4
17	Abutment Plate Screw	A1804J066	4
18	Bridge Plate	20B33193	1

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Front Disc Assembly – Exploded View:

Please note that the ring, bell, and screws are common on both sides of the vehicle. The discs are directional. The torque spec for the screws is etched on the disc mounting ring (2) and is 7Nm (62inch-lbs.). The screws have dry thread-lock pre-applied. All front discs will come pre-bedded with the RB340 compound.



Item	Description	Part Number	Qty.
1	Screw	05582916	42 (21 per disc)
2	Ring	05A46739	2 (1 per disc)
3	FL Disc	759B97936	1
3	FR Disc	759B97946	1
4	Bell	16B71452	2 (1 per disc)

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Front Pad Information:

Front pad compound is known as RB340 or BRP34. Full part number = BRP34-1980WA.29B. All front pads will come pre-bedded.

TECHNICAL COMPOUND CHARACTERISTIC

RB - 340

FEATURES

- STOPPING POWER ●●●●●●●●

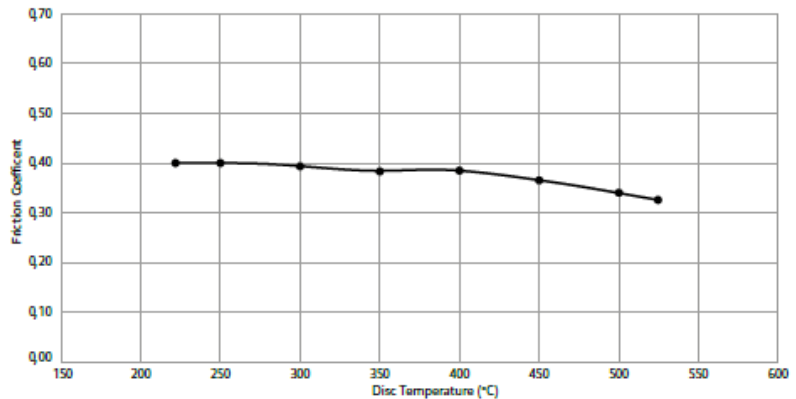
- DISC WEAR ●●●●●●●●

- DISC USAGE TEMPERATURE ●●●●●●●●

- MODULATION ●●●●●●●●

- BITE ●●●●●●●●

FRICITION VS TEMPERATURE

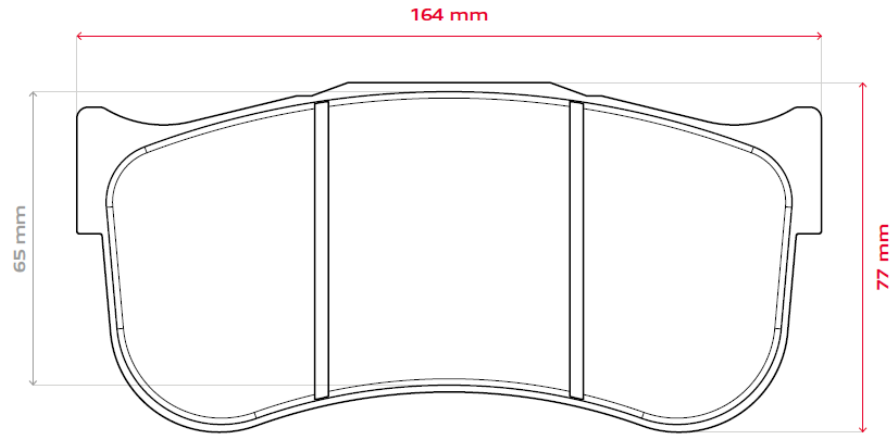


MAIN CHARACTERISTICS

BEDDING	Bit longer bedding procedure
MODULATION	Good level of modulation of use. Good torque control
PERFORMANCE	Medium initial bite
AVERAGE FRICTION	High average friction level
FADING RESISTANCE	High fading resistance against market competitor
WEAR RATE (DISC AND PAD)	Low wear rate obtained with innovative technical solutions (ceramic base)
HEAT CONDUCTIVITY	Low heat conductivity
SURFACE PROTECTION	Nickel plated coating which is more resistant to higher temperature range seen in racing conditions
POSITION	Used both on front and rear axle
PEDAL FEELING	Stiff and consistent pedal in any condition (stable performance)

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PAD DRAWING



PAD SHAPE	B28				
PAD SURFACE	83cm ²	PAD THICKNESS	25mm, 29mm, 30mm	PAD ANNULUS	65mm



Please note that backing plate pad batch code will change accordingly as well as the last two digits of the Brembo internal pad P/N.

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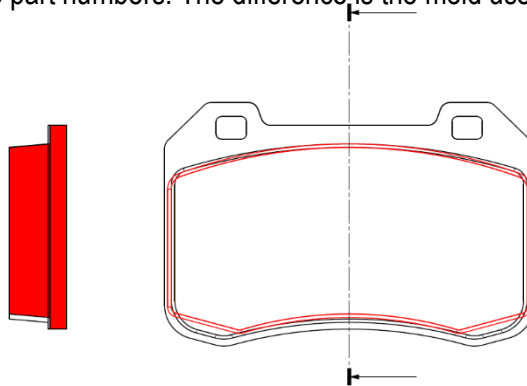
Rear Pad Information:

Rear pad is specifically designed for the DHR. It has a digressive torque curve with precise modulation and good release.

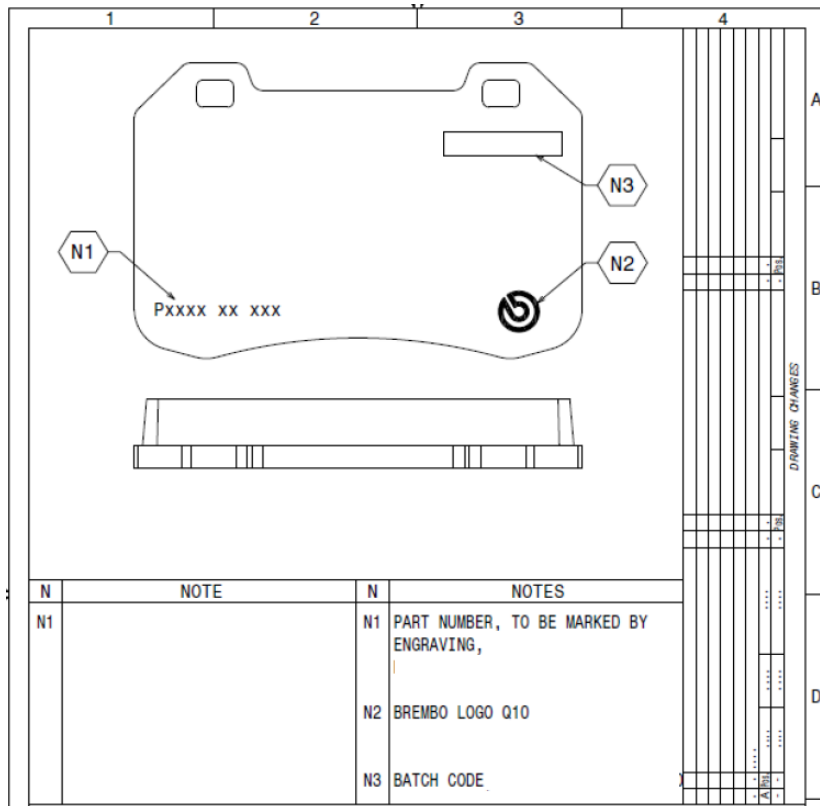
There will be two part numbers released. We will have a “prototype” part number which will be installed in the first 50 cars and then we will switch to the “production pad”.

The pad compound is the same between the two part numbers. The difference is the mold used for the friction material on the backing plate.

- Prototype Pad Part # = 90.7552
- Production Pad Part # = P1309.17.F01



Rear Pad Backing Plate Information:



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Front Caliper Mounting Bracket and Hardware:

The torque specification for mounting the bracket to the vehicle is 110Nm (81 ft.lbs.)
The torque specification for mounting the caliper to bracket is 92Nm (67.8 ft. lbs.).



Item	Description	Part Number	Qty.
1	Nut	MS-7	4 (2 per bracket)
2	Washer	WS-7	4 (2 per bracket)
3	Stud	80080C	4 (2 per bracket)
4	Bracket	20B71805	2 (1 per corner)
*5	Revised Stud	05B72709	4 (2 per bracket)
*6	Revised Bracket	20B71805-A	2 (1 per corner)

***Revised stud, pictured above (right). Updated with hex head and 5mm more of thread to fit the 5mm additional thread depth for the revised bracket (20B71805-A).**

***Revised stud (05B72709) should not be used with the first edition bracket (20B71805) unless the revised stud is shortened in length by 5mm. The first edition stud (80080C) can be used with the new bracket (20B71805-A).**

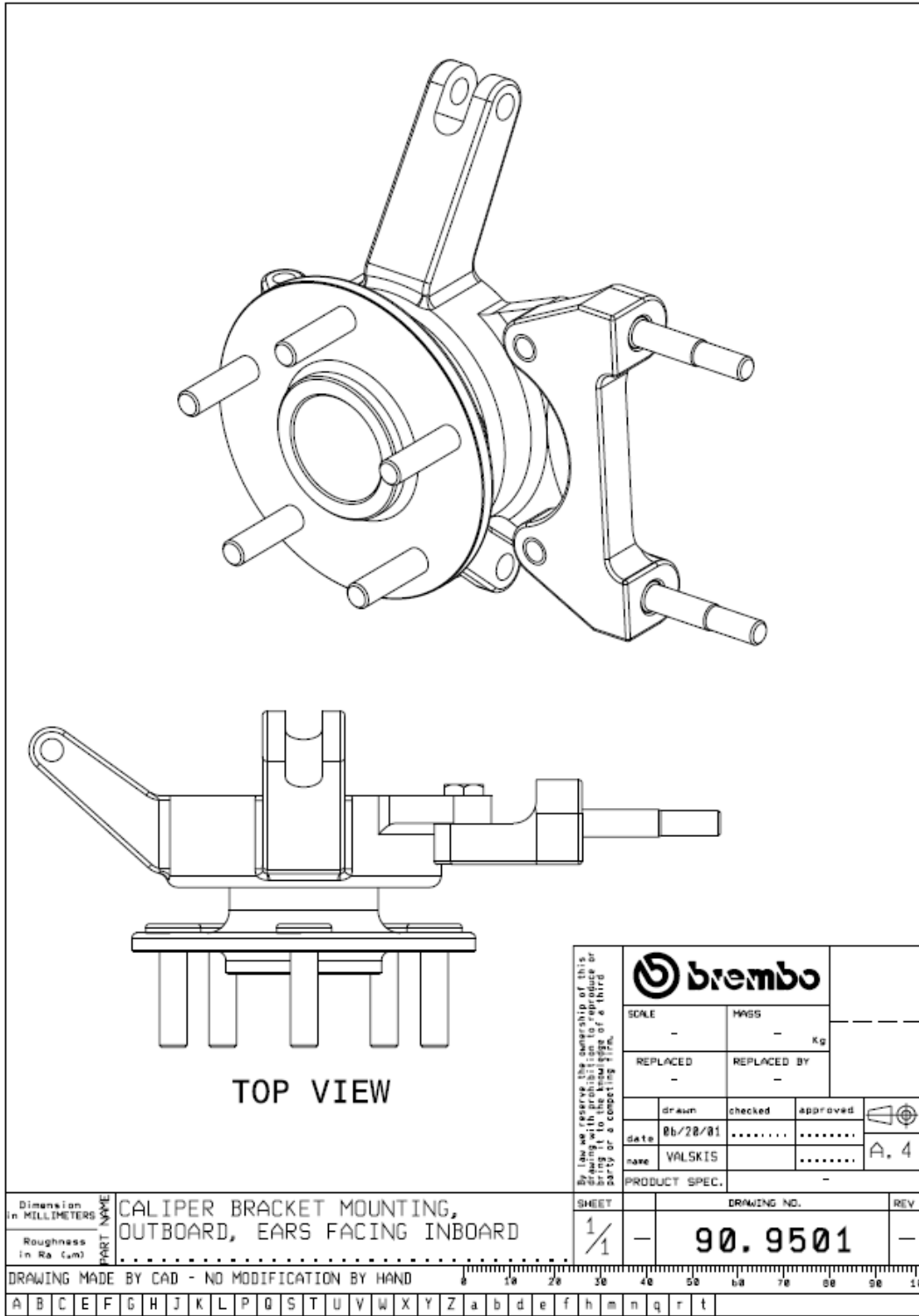
***Revised bracket is updated with 5mm of additional thread depth.**



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Front Caliper Mounting Bracket Diagram:



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Brake Fluid – Brembo HTC 64T:

Part Number – 04816420

COMPATIBILITY:

Compatible with all Brembo Racing Brake Systems.

**For best performance, HTC64T should be the only brake fluid in the hydraulic system and the old brake fluid should be completely flushed out.*

BENEFITS:

Brembo HTC 64T can handle high temperatures without loss of pedal feel (independently proven low compressibility).

Has been specifically formulated to provide the highest performance and consistency under all racing conditions.

Has an extremely high dry boiling point

The higher viscosity of this fluid delivers a “stiffer” pedal and provides stable performance under extreme temperatures (critical in professional motorsports)

- Size: 500ml
- Boiling Point Wet: Not Available
- Boiling Point Dry: 335 C / 635 F
- DOT Rating: Not Applicable (Not for street use)



NOTES:

Do not use in brake or clutch systems containing magnesium parts.

**Proper inspection of the brake fluid color and condition is very critical after each race weekend.*

**Wet boiling points are not critical in a motorsports environment when the brake fluid is bled and changed very frequently due to the high demands on the brake fluid.*