SAC **Springfield Auto Care** EXAMPLE SHOP
service@springfield-auto-care.example

2020 Ford F-150 at 78,000 mi

1FTEX1CB3LKD34567

MODEL / CHASSIS	ENGINE	MILEAGE	DRIVETRAIN
F-150 · F-150 XL SuperCab 3.3 V6 6-speed automatic	Ford 3.3L Ti-VCT V6 (Duratec, port and direct injection)	78,000 mi	RWD
BUILD MONTH	**REPORT DATE**	**MODE**	**PREPARED FOR**
Not entered (door jamb)	October 28, 2026	Shop	Sample Owner

VIN check: check digit valid; model-year code 'L' = 2020, matches the year entered. The VIN doesn't record the build month. Sample report: synthetic VIN.

1 · SUMMARY

What this car needs, in order

Each item compares this car's mileage with when owners and shops report the part failing. It is not an inspection: our technician decides what the car actually needs.

0
jobs recommended now

0
to plan in the next 30,000 miles · plus 2 factory maintenance items

2
to watch or check at each service

Safety recalls NHTSA lists for this model year (3 of 8)

- **20V-467** · Electrical system · starter assembly: A wrong nut on the starter positive cable can overheat and arc, a fire risk. Dealers replace the nut.
- **19V-805** · Electrical system · 12v/24v/48v battery · cables: The positive battery cable fastener can loosen, which can cut instrument displays and braking or steering assist, or stall the engine. Dealers clean and re-torque the joint.
- **19V-633** · Seats · front assembly · recliner: On trucks with manual seat recliners, the recliner may be missing a pawl and the seat back may not hold in a crash. Dealers inspect and replace the seat structure if needed.

A model-year list, not a VIN check. The full report lists the others. Repairs are free at a Ford dealer if open. Check this VIN at nhtsa.gov/recalls.

Step 0 · Free: run the VIN at nhtsa.gov/recalls and ask a Ford dealer for a campaign printout. Read the build month (MM/YY) on the driver's door-jamb label.

Recommended now at the next service

Good news: nothing on the 3.3L Ti-VCT V6 watch list is due at this mileage. Worth a fresh look at about 88,000 mi.

Next 12 months up to about 90,500 mi

Nothing scheduled here.

Within the next 30,000 miles up to 108,000 mi

Nothing else enters its reported range in this window.

Watch inspect at each service, fix on condition, or optional

Shallow valve seats: cylinder heads replaced (March 2020 builds) **Ask us for a quote**

Any mileage (2020 F-150 and Police Interceptor 3.3L built March 11–19, 2020 (program 20B21)) · Ask for this check at every service

Port-injection fuel line refitted wrongly after repairs (stall, P0087) **Ask us for a quote**

Any mileage (2017–2021 Ford 3.3L, 3.5L EcoBoost and 5.0L engines after injector or engine repairs (Ford special service message 50089)) · Ask for this check at every service

Recommended now

No repairs due now

Springfield Auto Care prices (example)

Planned through 108,000 mi

$378

Now + next 12 months + next 30,000 miles, with the factory maintenance on this report if the records don’t show it done. Excludes “watch” and optional items.

Prices are Springfield Auto Care's estimates for typical parts and labor. They don't include tax, shop supplies or disposal fees, and may change after inspection or if part prices change. Not a written repair estimate: Springfield Auto Care confirms the price and gets your OK before any work.

Bundled jobs are priced together because the labor overlaps. Routine service (oil, brakes, tires) isn't included; factory fluid and spark plug intervals are listed below.

FACTORY MAINTENANCE

Scheduled maintenance from 78,000 mi to 108,000 mi

The maker's normal schedule for this car. Service history isn't known here, so an item is shown at its next interval mark; skip it if the records show it was done.

ITEM	INTERVAL	THIS CAR	OUR PRICE
Spark plugs Replace spark plugs every 100,000 mi (2023 manual: every 60,000 mi on trucks with the Pro Power Onboard bed generator).	every 100,000 mi	**Due at 100,000 mi** [M6][M7]	**$249**
Engine coolant First change at 10 years or 200,000 mi, then every 5 years or 100,000 mi.	first at 200,000 mi, then every 100,000 mi or 5 years	Next at 200,000 mi [M6][M7]	—
Automatic transmission fluid Change automatic transmission fluid (and filter where fitted) every 150,000 mi.	every 150,000 mi	Next at 150,000 mi [M6][M7]	—
Brake fluid Replace brake fluid every 3 years regardless of mileage.	every 3 years	**By time: check the records** [M6][M7]	**$129**

M1. 2011 Ford F-150 Owner's Guide, Scheduled Maintenance (manualsdir.com copy) SHOP/RETAILER
https://www.manualsdir.com/manuals/602142/ford-2011-f-150-v2.html?page=434

M2. 2013 Ford F-150 Owner's Manual, Scheduled Maintenance (manualsdir.com copy) SHOP/RETAILER
https://www.manualsdir.com/manuals/602060/ford-2013-f-150-v3.html?page=422

M3. 2016 Ford F-150 Owner's Manual (Scheduled Maintenance) OFFICIAL
https://www.fordservicecontent.com/Ford_Content/Catalog/owner_information/2016-F150-Owner-Manual-version-3_om_EN-US_02_2017.pdf

M4. 2018 Ford F-150 Owner's Manual (Scheduled Maintenance) OFFICIAL
https://www.fordservicecontent.com/Ford_Content/Catalog/owner_information/2018-Ford-F-150-Owners-Manual-version-5_om_EN-US_09_2018.pdf

M5. 2019 Ford F-150 Owner's Manual (Scheduled Maintenance) OFFICIAL
https://www.fordservicecontent.com/Ford_Content/Catalog/owner_information/2019-Ford-F-150-Owners-Manual-version-1_om-EN-US_09_2018.pdf

M6. 2020 Ford F-150 Owner's Manual (Scheduled Maintenance) OFFICIAL
https://www.fordservicecontent.com/Ford_Content/Catalog/owner_information/2020-Ford-F-150-Owners-Manual-version3_om_EN-US_04_2020.pdf

M7. 2023 Ford F-150 Owner's Manual (Scheduled Maintenance) OFFICIAL
https://www.fordservicecontent.com/Ford_Content/Catalog/owner_information/2023_Ford_F-150_Owners_Manual_version_1_om_EN-US.pdf

M8. 2020 Ford Explorer Owner's Manual (Scheduled Maintenance) OFFICIAL
https://www.fordservicecontent.com/Ford_Content/Catalog/owner_information/2020-Ford-Explorer-Gas-Hev-Owners-Manual-version-3_om_EN-US_03_2020.pdf

M9. 2024 Ford Explorer Owner's Manual (Scheduled Maintenance) OFFICIAL
https://www.fordservicecontent.com/Ford_Content/Catalog/owner_information/2024_Ford_Explorer_Owners_Manual_version_1_om_EN-US.pdf

WHERE 78K SITS FOR EACH WEAK POINT

#	WEAK POINT	REPORTED RANGE	THIS CAR
1	Emissions recall 25E10: PCM software update (2018–2020 F-150)	2018–2020 F-150 3.3L built Jan 2017 to Oct 2020 (Ford emissions recall 25E10) OFFICIAL	Not listed for MY2020: confirm by VIN
2	Shallow valve seats: cylinder heads replaced (March 2020 builds)	2020 F-150 and Police Interceptor 3.3L built March 11–19, 2020 (program 20B21) OFFICIAL	Any mileage
3	Port-injection fuel line refitted wrongly after repairs (stall, P0087)	2017–2021 Ford 3.3L, 3.5L EcoBoost and 5.0L engines after injector or engine repairs (Ford special service message 50089) OFFICIAL	Any mileage

Colors compare mileage with reported failures, not the car's condition. Red: past the range. Amber: inside or approaching. Green: below, or not listed for a recall.

2 · RECALLS AND BULLETINS

Recalls to check for this 2020 Ford F-150

Safety recall repairs are free at Ford dealers. Nothing here can tell whether a recall is open or already done on this VIN; only the official VIN lookup or a dealer can.

Official VIN check (2 minutes)

1. Go to nhtsa.gov/recalls and enter 1FTEX1CB3LKD34567.
2. Note every recall shown as “Recall incomplete” and keep a screenshot.
3. Ask a Ford dealer for a campaign printout; it also lists completed campaigns.

3.3L TI-VCT V6 RECALLS WE TRACK

NHTSA lists no engine-specific recall campaign for the 3.3L Ti-VCT V6 as of 2026-10-28. Recalls on the rest of the car are in the model-year list below.

EVERY RECALL NHTSA LISTS FOR THE 2020 FORD F-150 (8)

RECALL	COMPONENT	WHAT CAN HAPPEN (NHTSA, SHORTENED)
20V-467	Electrical system · starter assembly	A wrong nut on the starter positive cable can overheat and arc, a fire risk. Dealers replace the nut. Details
19V-805	Electrical system · 12v/24v/48v battery · cables	The positive battery cable fastener can loosen, which can cut instrument displays and braking or steering assist, or stall the engine. Dealers clean and re-torque the joint. Details
19V-633	Seats · front assembly · recliner	On trucks with manual seat recliners, the recliner may be missing a pawl and the seat back may not hold in a crash. Dealers inspect and replace the seat structure if needed. Details
25V-442	Back over prevention · software	A software error can leave the rearview camera image blank, or leave it on screen after reversing. Dealers update the camera software. Details
24V-852	Equipment · other · labels	The air bag warning label may be missing from the dashboard. Ford mails owners a new label. Details
22V-250	Visibility · windshield wiper/washer · linkages	The windshield wiper arms can break and the wipers stop working, which reduces visibility. Dealers replace both front wiper arms. Details
20V-575	Back over prevention · sensing system · camera	A poor electrical connection can make the rearview camera image blank or distorted. Dealers replace the camera. Details
19V-903	Tires · bead	The 17-inch spare tire may have been damaged when it was mounted, so it can lose air quickly or come off the wheel. The repair is free at a Ford dealer. Details

Source: NHTSA recalls API, fetched 2026-10-28 and combined across NHTSA model names: F-150. Safety categories (air bags, fire, brakes, stalling, roll-away and loss of control) are listed first; listings whose NHTSA text names another engine, or an aftermarket part, go last. OFFICIAL

Left out of this list (F-150): 20V-197 (shift cable on 10-speed automatics) is left out: the 2020 F-150 3.3L used the 6-speed automatic. 20V-097 and 26V-373 (high-series LED headlamps) are left out of this XL sample, which has halogen lamps. A VIN check would show any recall that applies.

SERVICE ACTIONS, BULLETINS AND WARRANTY PROGRAMS

CAMPAIGN	WHAT IT SAYS	THIS CAR
Emissions Recall 25E10: PCM reprogramming (2018–2020 F-150 3.3L)	Ford is reprogramming the PCM on certain 2018–2020 F-150 trucks with the 3.3L because the emissions controls may not control tailpipe emissions well over time. Free; software for all affected trucks released in 2026. California and Massachusetts require it before registration renewal. OFFICIAL [2]	Open on 2018–2020 F-150 3.3L: check by VIN
Customer Satisfaction Program 20B21: cylinder head replacement (March 2020 builds)	F-150 and Police Interceptor Utility 3.3L engines built in mid-March 2020 may have shallow pressed valve seats, causing rough idle and misfire. Dealers replaced the cylinder heads; the program ended June 4, 2021. OFFICIAL [4]	Program ended; check service history on 2020 trucks

4 · THE 3 WEAK POINTS

Each weak point, one card each

Every figure carries its source. Retailer part numbers are shown only when the retailer lists them for this chassis (P552). Left out because they apply to other models, years, engine sizes or body codes: Connecting rod bearing failure and block breach (police Explorers recalled); Lean code P0171 from PCM software (2021–2023 F-150); Rear axle mounting bolt can break (Explorer recalls); 10R80 hybrid transmission harsh or delayed shifts (Explorer Hybrid).

1 Emissions recall 25E10: PCM software update (2018–2020 F-150)

Not listed for MY2020: confirm by VIN

Severity: Medium: leaks and wear · 0 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reported window: 2018–2020 F-150 3.3L built Jan 2017 to Oct 2020 (Ford emissions recall 25E10). Range: 2018–2020 F-150 3.3L built Jan 2017 to Oct 2020 (Ford emissions recall 25E10) OFFICIAL [2]

WHAT FAILS OFFICIAL [2]

Ford found that the emissions control strategy on these trucks does not account for certain in-use conditions and may not control tailpipe emissions well over time. Dealers reprogram the powertrain control module (PCM). Software for all affected trucks was released in July 2026.

SYMPTOMS

- Usually none; the truck may run normally

IF IT'S LEFT TOO LONG

An open emissions recall can block registration renewal in California and Massachusetts.

IS IT WORTH DOING EARLY? OUR ESTIMATE

Check the VIN for open recall 25E10 and have the PCM updated at a Ford dealer.

ESTIMATED REPAIR COST

Free under the emissions recall	**Free if covered** OFFICIAL [2] published independent-shop range
No published price	**No published price** reported range for the bill after a failure

PARTS FOR P552

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Emissions recall 25E10 done?

2 Shallow valve seats: cylinder heads replaced (March 2020 builds)

Any mileage

Severity: High: overheating, stalls, limp mode or a big bill · 1 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2020 F-150 and Police Interceptor 3.3L built March 11–19, 2020 (program 20B21)), so mileage doesn't say much here. Range: 2020 F-150 and Police Interceptor 3.3L built March 11–19, 2020 (program 20B21) OFFICIAL [4]

WHAT FAILS OFFICIAL [4]

Some 2020 3.3L engines built in mid-March 2020 have shallow pressed valve seats in the cylinder heads, which can cause a rough idle, misfires with reduced power and a check-engine light. Ford replaced the heads under program 20B21, which ended June 4, 2021.

SYMPTOMS

- Rough idle
- Misfire and reduced power
- Check-engine or wrench light

IF IT'S LEFT TOO LONG

A dropped or sunken valve seat can damage the engine.

IS IT WORTH DOING EARLY? OUR ESTIMATE

On a 2020 truck, check the service history for 20B21; diagnose any misfire before it gets worse.

ESTIMATED REPAIR COST

No published price	**Our price is in the plan above** ask us for a written quote
No published price	**No published price** reported range for the bill after a failure

PARTS FOR P552

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Program 20B21 heads fitted?
- Any misfire codes?

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3 Port-injection fuel line refitted wrongly after repairs (stall, P0087)

Any mileage

Severity: Medium: leaks and wear · 0 mentions in counted NHTSA complaints

COMPUTED FROM NHTSA DATA

Reports cover a wide mileage span (2017–2021 Ford 3.3L, 3.5L EcoBoost and 5.0L engines after injector or engine repairs (Ford special service message 50089)), so mileage doesn't say much here. Range: 2017–2021 Ford 3.3L, 3.5L EcoBoost and 5.0L engines after injector or engine repairs (Ford special service message 50089) OFFICIAL [7]

WHAT FAILS OFFICIAL [7]

The 3.3L has both direct and port injection. Ford warns that if the line from the high-pressure pump to the port-injection rail is not installed correctly after a repair such as injector replacement, the engine can stall or lose power with low rail pressure and codes P0087 or P008A.

SYMPTOMS

- Stalling or lack of power after a fuel or engine repair
- Check-engine light with P0087 or P008A

IF IT'S LEFT TOO LONG

Low fuel pressure can leave the truck stranded.

IS IT WORTH DOING EARLY? OUR ESTIMATE

After any injector or engine work, confirm the fuel line was fitted per the Ford procedure.

ESTIMATED REPAIR COST

No published price	**Our price is in the plan above** ask us for a written quote
No published price	**No published price** reported range for the bill after a failure

PARTS FOR P552

- Ask your parts supplier for the OE part number for this VIN.

QUESTIONS TO ASK US

- Injectors or engine replaced? Who did the work?

5 · ALSO REPORTED, NOT RANKED

Other themes in 3.3L Ti-VCT V6 owner complaints

Every NHTSA complaint theme with 10 or more counted reports is either a weak point above or explained here.

THEME	COMPLAINTS	WHY IT ISN'T A WEAK POINT

How this report is built

Inputs. VIN, model year, model, mileage and build month (if entered). Model and engine are checked with NHTSA's vPIC decoder.

Mileage positions. Below: more than 10,000 miles before the reported range. Approaching: within 10,000. Inside: in the range, or past the start of an open-ended range. Past: beyond the top of the range. These bands are our rules, not an industry standard.

The plan. Critical items inside or past their range go first; high-severity items follow, and jobs that share labor are bundled. At most three jobs land in “Recommended now”. Leaks that are cheap to watch are fixed on condition; inspections are asked for at each service.

Costs. Published independent-shop ranges from shop quotes, retailer prices and owner reports. Shop prices come from the issuing shop. The worst-case cost of every item failing is not shown: it isn't an expected cost.

Labels. OFFICIAL NHTSA/Ford documents · SHOP/RETAILER parts prices and shop articles · FORUM/BLOG owner forums and blogs · COMPUTED FROM NHTSA DATA our analysis of NHTSA data · OUR ESTIMATE ours.

NHTSA complaint data. Pulled Oct 28, 2026 from NHTSA's complaints API for F-150 complaints (all cab names, 2018–2023) that name the 3.3L or a V6 and no other engine; all Explorer HEV complaints; Explorer and Police Interceptor complaints that name the 3.3L or hybrid. Very few owners name this engine, so the pool is small (about 26 complaints) and mostly Explorer hybrids; the counts are a floor, not a rate: 26 complaints. Some of these nameplates were sold with other engines too; for those we left out complaints whose text names another engine or a hybrid, so a few complaints about other engines can remain. Themes are keyword matches on the complaint text.
COMPUTED FROM NHTSA DATA

THEME	COMPLAINTS	IN THIS REPORT
Rear axle bolt / driveshaft	3	Other years or engine sizes
Fuel pump	2	—
Lean code P0171	1	Other years or engine sizes
Misfire / cylinder head	1	Item 2
Hybrid transmission	1	Other years or engine sizes
Engine failure / rod bearing	0	Other years or engine sizes

Limits: complaints are self-reported and not adjusted for cars sold; keyword matching over- and under-counts; owners rarely file safety complaints about oil seeps, so leaks look rarer than they are.

SOURCES

1. NHTSA owner complaints for 2018–2023 F-150 (complaints naming the 3.3L or V6 only), 2020–2023 Explorer HEV, and 2020–2023 Explorer and Police Interceptor complaints naming the 3.3L or hybrid, pulled Oct 28, 2026 OFFICIAL
https://www.nhtsa.gov/report-a-safety-problem#complaints

2. Ford Emissions Recall 25E10 Supplement #1: certain 2018–2020 F-150 with 3.3L engines and 2016–2019 Explorer, Taurus and Flex with 3.5L engines, PCM reprogramming (2026-07-02), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2026/MC-11035464-0001.pdf

3. NHTSA recall 24V-598 (Ford 24S52), Part 573 report: 2020–2022 Explorer Police Interceptor Utility with 3.3L hybrid and gas engines, engine failure and under-hood fire risk (Aug 9, 2024), checked Oct 28, 2026 OFFICIAL
https://static.nhtsa.gov/odi/rcl/2024/RCLRPT-24V598-3756.PDF

4. Ford Customer Satisfaction Program 20B21 Supplement #1: certain 2020 Transit 3.5L and F-150 / Police Interceptor Utility 3.3L, cylinder head replacement (2020-09-17), filed with NHTSA OFFICIAL
https://static.nhtsa.gov/odi/tsbs/2020/MC-10180375-0001.pdf

5. Ford bulletin SSM 51509: Some 2021–2023 F-150 with a 3.3L engine may show a MIL with DTC P0171 due to PCM software (2023-03-24), filed with NHTSA OFFICIAL
https://www.nhtsa.gov/?nhtsaId=10233919

6. NHTSA recall records 23V-199, 23V-675 and 25V-166: 2020–2022 Explorer rear axle horizontal mounting bolt may fracture and disconnect the driveshaft, checked Oct 28, 2026 OFFICIAL
https://www.nhtsa.gov/recalls?nhtsaId=23V675000

7. Ford bulletin SSM 50089: Some 2017–2021 vehicles with 3.3L, 3.5L EcoBoost or 5.0L engines may stall, lack power or set P0087/P008A after a repair that removed the fuel line to the port injection rail (2021-09-06), filed with NHTSA OFFICIAL
https://www.nhtsa.gov/?nhtsaId=10201579

8. Ford bulletin 21-2434: 2020–2022 Explorer/Aviator/Police Interceptor Utility and 2021 F-150 with the 10R80 MHT: harsh or delayed engagement and/or shifts (2021-12-24), filed with NHTSA OFFICIAL
https://www.nhtsa.gov/?nhtsaId=10205717

9. Ford bulletin 23-2030: 2020–2022 Aviator/Explorer/Police Interceptor and 2021–2022 F-150 with the 10R80 MHT: 8th gear start after a stop and/or no movement in reverse (2023-01-30), filed with NHTSA OFFICIAL
https://www.nhtsa.gov/?nhtsaId=10230780

This report contains no affiliate links; retailer prices are quoted as price sources only. Found an error? Email hello@repairahead.com.

PLEASE READ

Important

Based on public records and published repair costs. Not a diagnosis or a guarantee. Your technician's inspection decides what your car needs. Confirm recalls with a dealer using your VIN.

Informational only. This report is not a mechanical inspection, a diagnosis, or professional, legal or financial advice. It was issued by Springfield Auto Care using RepairAhead data; the inspection findings and prices are the shop's.

Reported ranges and estimates, not predictions

Failure mileages are reported ranges compiled from public owner complaints, manufacturer bulletins, recalls and repair-shop reports. Costs are estimates. Parts can fail earlier, later or not at all, and other problems can occur. Statistics from owner complaints describe past reports to NHTSA; NHTSA has not reviewed or endorsed this analysis.

Safety issues go to a dealer

If you notice overheating, a burning or fuel smell, smoke, a brake-assist problem, stalling or loss of power, pull over when it's safe and contact a Ford dealer or qualified shop. Safety recall repairs are free at Ford dealers. Confirm recalls for this VIN at nhtsa.gov/recalls.

No warranty

Provided “as is”, without warranties of any kind, under the Terms of Use at repairahead.com/terms.

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