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1978 Triumph Bonneville Buyer's Guide

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IRONHEAD

1978 T140V Bonneville

Factory-Correct Restoration Guide

KEY FACTS AT A GLANCE

- **Model year covered:** 1978 only (T140V Bonneville). The year of the parallel-port head and Amal MkII carbs. This guide does not cover the 1977 or 1979 T140 except where differences are explicitly noted.
- **Engine:** 744 cc air-cooled OHV parallel twin; 76.0 mm x 82.0 mm bore x stroke; PARALLEL-PORT cylinder head — NEW for 1978 (Hagerty).
- **Fuel system:** Twin Amal MkII carburetors — NEW for 1978 (Hagerty).
- **Ignition:** Battery-and-coil breaker-point ignition. (Electronic ignition becomes standard around 1979 — a 1978 with electronic ignition has been converted.)
- **Electrics:** 12-volt; turn indicators standard.
- **Transmission:** 5-speed constant-mesh; LEFT-side shift. Chain primary; wet multi-plate clutch; chain final drive.
- **Frame:** Oil-bearing frame.
- **Brakes:** Front disc; 10-inch rear disc with underslung caliper.
- **Wheels/tires:** Wire-spoked wheels; 3.25 x 19 front, 3.50 x 18 rear (period fitment).
- **Frame/engine serials:** Alpha-numeric: month letter + model-year code + sequential. Model-year code for 1978 is X (Lowbrow Customs). Documented example: T140V EX04235 (Bonhams).
- **Compression:** 8.6:1 (Hagerty).
- **Power:** Period figures put output on par with the 1977 bike (~49 hp class); no separately verified 1978 factory power figure was found in the sources checked.
- **Production context:** Last year before the T140E/T140D split of 1979.

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This is a single-year guide. It covers the 1978 Triumph T140V Bonneville only. Other model years are discussed solely to mark differences — for a different year, use that year's IronHead guide.

1. Manufacturer history: Triumph

Triumph began as a bicycle and motorcycle maker in Coventry, England, founded by the German immigrant Siegfried Bettmann in the 1880s; the company built its first motorcycle in 1902. Through the 1920s Triumph was one of Britain's major motorcycle manufacturers, and in 1936 the arrival of designer Edward Turner changed the company's trajectory permanently: his 1937/38 Speed Twin — a 500 cc parallel twin — created the template (light, narrow, good-looking twin with real performance) that the whole British industry, and then the Japanese, would chase for the next forty years.

Bombing forced the move from Coventry to a new factory at Meriden in 1942, and in 1951 Triumph was sold to the BSA group. The 1950s and 1960s were the boom years: the 650 twins (Thunderbird, Tiger, Bonneville) sold in huge numbers, overwhelmingly to the United States — more than 65 percent of Bonneville production went to America, a figure Hagerty's marque history repeats across its model summaries. The American market's appetite for the big parallel twin is the reason the Bonneville exists in the form it does: tuned for US tastes, styled for US showrooms, and sold through legendary importers like Johnson Motors (JoMo) on the West Coast and the Triumph Corporation (TriCor) in the East.

The 1970s brought the collapse. Mismanagement, labor strife, and Japanese competition pushed BSA/Triumph to the brink; the 1973 creation of Norton Villiers Triumph (NVT) was followed by an 18-month workers' sit-in at Meriden (Hagerty), after which the factory continued as the Meriden Workers' Co-operative — owner-workers building essentially the same motorcycles with almost no development money. Production limped on until 1983, when the Meriden works closed and the rest of Triumph's motorcycle production ended with it. Businessman John Bloor bought the name and assets the same year; his new Hinckley company would eventually relaunch the Bonneville in 2001, but the Meriden-built line this guide covers died in 1983.

For the restorer, that history explains the parts landscape: enormous US sales mean used parts and pattern parts are plentiful for the popular years; the co-operative years (1975-1983) mean running changes, mixed fittings, and documentation gaps that demand verification against the factory parts books rather than memory.

2. Model history: the Bonneville

The Bonneville began in 1959 as the T120: a 650 cc pre-unit parallel twin, essentially a twin-carburettor Tiger 110, named for the land-speed records Johnny Allen set on the Bonneville Salt Flats in 1956 aboard a Triumph-powered streamliner. It was an instant hit in America, and for the next two decades the Bonneville was Triumph's flagship — the bike the company was known by.

Three mechanical generations matter for the restorer. The **pre-unit T120** (1959-1962) has a separate gearbox. The **unit 650** (1963-1972, covered by factory workshop manual 99-0883/0889 for 1963-1970) combines engine and gearbox in one crankcase casting — the engine most people picture when they hear "Bonneville." The **750 T140** (1973-1983) is a bored-and-developed descendant of the oil-in-frame 650, covered by the T140 factory repair manual. Within those generations, the year-to-year changes — carburetors, brakes, frames, electrics, shift side, paint — are exactly what this guide series isolates, one year at a time.

Two production facts anchor every guide in this series. First, Hagerty's marque history records that by the time the last 649 cc T120 was sold in 1972, production had reached **250,000 units** — the Bonneville was a mass-market machine, not an exotic. Second, the same source puts total T140 production at roughly **60,000 units** across 1973-1983. And more than 65 percent of all Bonneville production was sold in the United States, which is why US-specification details (US-only paint names, US-market fittings, the T120R designation for the US road model) dominate the restoration record.

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Designation	Years	What changed that matters
T120 Bonneville	1959-1962	650 cc pre-unit twin. Named for the 1956 Bonneville Salt Flats land-speed records.
T120 Bonneville (unit)	1963-1970	Unit construction (engine and gearbox in one casting) from 1963. 12-volt electrics from 1964. Amal Concentric carbs and 8-inch twin-leading-shoe front brake from 1968.
T120R/T120V (oil-in-frame)	1971-1972	Oil carried in the frame instead of a separate tank. 54 bhp @ 6,750 rpm. Five-speed option for 1972. Last of the 649 cc line: ~250,000 T120s built in total (Hagerty).
T140V Bonneville	1973-1978	750 twin (724 cc at launch, 744 cc shortly after). Five-speed, right-side shift to 1975, left-side shift and rear disc from 1976.
T140J Silver Jubilee	1977	Limited edition: 1,000 UK + 1,000 US machines (Bonhams).
T140E / T140D	1979-1980	E for emissions: parallel-port head, Amal MkII carbs, Lucas Rita electronic ignition. D Special: factory custom by Tom Higham.
T140ES Electro	1980-1983	Electric start alongside the kick starter.
T140LE Royal Wedding	1981	Limited edition for the Charles and Diana wedding; published build totals conflict (see Section 10).
T140AV	1981-1983	Anti-vibration rubber-mounted police/touring model.
T140 TSS / TSX	1982-1983	Eight-valve Weslake-derived head on the TSS (~60 bhp per Hagerty).
End of line	1983	Meriden closes. ~60,000 T140s built in total (Hagerty).

3. What makes the 1978 T140V Bonneville unique

The 1978 T140V is the breathing year — the year Triumph gave the 750 the parallel-port cylinder head and the Amal MkII carburetors (Hagerty), the last major induction change before electronic ignition arrived. For the restorer, 1978 is defined by that head-and-carburetor combination: the parts are year-specific, and neither the earlier Concentric/splayed-port setup nor the later electronic-ignition setup belongs on a 1978.

1978-only details:

- **Parallel-port head + Amal MkII.** Hagerty records both as 1978

introductions. The head and the carburetors are a matched set — verify the port arrangement and the carburetor model together. MkI Concentrics on a 1978 are earlier parts; the head must be the parallel-port type.

- **Points ignition still.** Electronic ignition becomes standard around

1979 (Hagerty). A 1978 with electronic ignition is converted — fine as an upgrade, not factory-correct.

- **8.6:1 compression** (Hagerty).
- **Model-year code X** (Lowbrow Customs); documented example T140V

EX04235 (Bonhams).

- **Last of the single-model line.** For 1979 the range splits into the

T140E (emissions) and the T140D Special — 1978 is the final year of the one-Bonneville range.

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1978 buyer cautions:

- **Head/carburetor matching.** The parallel-port head with MkII carbs is the 1978 identity. Mismatched combinations (MkII carbs on an early head, or Concentrics on the parallel-port head) signal mixed-year assembly.
- **No verified 1978 palette** was found in the sources checked — verify colors against the parts book and period brochures; do not trust secondhand lists.
- **Rear-disc grunge** (Hagerty) and **top-end wear** (Hagerty's 50-mph smoke test) apply as for all late-70s T140s.

4. Decoding your 1978 Bonneville

Alpha-numeric: **month letter + model-year code + sequential**, with **X as the 1978 model-year code** (Lowbrow Customs). Documented example: **T140V EX04235** (Bonhams). Engine number: left crankcase below the barrel. Frame number: steering head. Match expected. Verify code tables against Lowbrow's guide — published tables vary.

5. Engine — technical restoration data

The table below is the 1978 T140V Bonneville's technical core. Every figure is sourced; where no verified factory figure was found in the sources checked, the table says so explicitly rather than printing a plausible number. Use the factory workshop manual for your exact model as the final authority.

Specification	Detail
Engine	744 cc air-cooled OHV parallel twin; PARALLEL-PORT head (NEW for 1978)
Bore x stroke	76.0 mm x 82.0 mm
Compression ratio	8.6:1 (Hagerty)
Carburetion	Twin Amal MkII (NEW for 1978)
Ignition	Battery-and-coil, breaker points (electronic ~1979, NOT 1978)
Power	No separately verified 1978 factory figure found — period output on par with the 1977 bike (~49 hp class)
Gearbox	5-speed constant-mesh; LEFT-side shift
Clutch / primary	Wet multi-plate clutch; chain primary drive
Final drive	Chain
Frame	Oil-bearing frame
Front suspension	Telescopic fork
Rear suspension	Twin shock absorbers
Front brake	Disc (single)
Rear brake	10-inch disc, underslung caliper
Wheels	Wire-spoked, steel rims
Tires (period)	3.25 x 19 front, 3.50 x 18 rear

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Specification	Detail
Electrics	12-volt; turn indicators standard
Fuel capacity	Not printed: verify against the factory parts book for the year.

6. Transmission, clutch and primary drive

The 1978 runs a 5-speed constant-mesh; LEFT-side shift. Wet multi-plate clutch; chain primary drive. Final drive is by Chain. Rebuild practice is standard unit-twin work: inspect gear dogs and slots for rounding, replace bearings and seals as a set, check clutch-plate flatness and basket notching, and set the primary-chain tension and clutch adjustment to the factory manual before judging gearbox behavior.

7. Frame, suspension, wheels and brakes

Frame: Oil-bearing frame. Front suspension: Telescopic fork. Rear: Twin shock absorbers. Brakes: Disc (single) front, 10-inch disc, underslung caliper rear. Wheels: Wire-spoked, steel rims. Wheel and brake originality is checked as a set — hub, brake plate or caliper, and fork fitment must all agree with the year's specification in Section 3.

8. Electrics, ignition and instruments

Ignition: Battery-and-coil, breaker points (electronic ~1979, NOT 1978). Carburetion: Twin Amal MkII (NEW for 1978). Electrics: 12-volt; turn indicators standard. Fit a new wiring harness — original insulation is finished — rebuild or replace the switches, fit the correct battery, and test the charging system under load. Set timing to the factory manual before attempting any carburetion tuning.

9. Paint, trim and finishes

No factory-verified 1978 color palette was found in the sources checked for this guide. Verify against the factory parts book and period brochures; treat survivor colors as single-bike evidence. This guide prints no 1978 palette rather than a dubious one.

10. Production and rarity

No published model-year split found. Bounded by the X-code alpha-numeric allocation. Total T140 production 1973-1983: ~60,000 (Hagerty).

11. Corrosion and wear areas to inspect

Check every one of these before committing to the restoration — they are the places 1978 Bonnevilles hide their expensive surprises.

- **Rear disc (underslung):** road-grunge inspection (Hagerty).
- **Frame interior:** oil-bearing frame — flush and verify clean.
- **Amal MkII bodies:** check for worn slides and damaged threads; bodies are year-specific.
- **Chrome:** rechroming expected.
- **Exhaust:** inside-out rot.
- **Tank interior:** borescope before paint.
- **Top-end wear:** check valve guides (Hagerty's 50-mph smoke test).

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12. Restoration sequence

Work in an order that never forces you to undo finished work. The sequence below is the standard professional order for a unit-twin Triumph; the notes flag where the 1978 T140V Bonneville needs special attention.

1. **Document everything first.** Photograph the complete bike from all sides,

then every assembly before you touch a fastener. Record the frame and engine numbers (see Section 4) and check them against the year ranges before spending money — a mis-described year is the most expensive restoration mistake.

2. **Assess, don't strip.** Inventory what's original, what's period-correct,

what's wrong-year, and what's missing. On a 1978, pay particular attention to verifying the parallel-port head / MkII carburetor set as a matched pair.

3. **Engine and gearbox out; frame inspection.** Check the frame for crash

damage, cracks at the steering head and swingarm pivot, and previous repairs. Oil-in-frame: flush and verify internally.

4. **Engine rebuild.** Split only as far as needed. Measure everything:

bore, crank journals, cam bushings, valve guides. Rebores on these barrels are routine, but match pistons to the measured clearance, not to the catalogue's optimism. Replace the sludge-trap plug's staking on the crank — a loose sludge trap destroys cranks.

5. **Gearbox and clutch.** Inspect dogs and slots for rounding, replace

bearings and seals as a set, check clutch-plate flatness and basket notching.

6. **Cycle parts.** Rebuild forks with new seals and correct oil; rebuild

shocks or replace with correct-pattern units. Wheel rebuilds: new spokes and nipples, rims trued — chrome rims that are pitted will not take a lasting polish.

7. **Brakes.** Front and rear discs: full hydraulic rebuilds both ends; underslung rear caliper needs grunge inspection.
   Rebuild hydraulics completely on disc models:

seals, hoses (replace, don't reuse), master-cylinder bore inspection.

8. **Electrics.** New wiring harness (the original insulation is done),

rebuilt or replaced switches, correct battery, charging-system test under load. 12-volt with indicators: new harness, rebuilt switches, charging test under load. Points ignition is correct for 1978.

9. **Paint and plating.** Paint last among the major jobs, after all

trial-fitting is done. No verified 1978 palette found — do not paint until the scheme is verified in the parts book or a period brochure.

10. **Final assembly and shakedown.** Torque to the factory manual's figures

(see Section 13), set timing and carburation to the book, then run a disciplined shakedown: heat cycles, re-torque the head, re-check tappets, change the oil early.

13. Torque values and service data

Torque figures are **not printed here from memory**. Triumph revised fastener specifications across the run, and a wrong figure on a cylinder-head stud or a brake caliper is how threads and castings get destroyed. Use the factory workshop manual for your exact model:

- **1963-1970 650 twins:** Triumph factory workshop manual 99-0883/0889

(unit-construction 650 cc models, 1963-1970), which keys running changes to engine-number breakpoints.

- **1971-1972 oil-in-frame 650s:** the factory manual covering the

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