Reliant Scimitar GTE

How to keep your Essex V6-engined tourer in perfect condition

With Kim Henson

DIFFICULTY RATING

TIME (HRS) 4

MONEY (£) 75

Model evolution

The GT-bodied Scimitar SE4 was launched in 1964, powered initially by a 2.6-litre straight six from the Ford Zephyr/Zodiac but gaining an Essex V6 in 1966 (in 3.0-litre form, with a 2.5 offered later as an option). The GTE SE5 appeared in 1968 with a hatchback and revised suspension. The longer and wider SE6 followed in 1975. The SE6A had revised brakes and suspension. The SE6B of 1980 featured Ford's 2.8-litre Cologne V6, as did the convertible SE8 and the Middlebridge cars built from 1988 to 1990.

What's it like to work on?

All Scimitars feature a straightforward front-engined rear-wheel drive layout, a GRP body with a separate chassis and uncomplicated Ford mechanical parts. They're simple to work on in almost every respect, with decent access to most mechanical components. There's handy access from within the front wing voids to some parts, including the oil filter, exhaust manifolds and steering column joints.

This applies to...

This guide focuses on Essex-powered SE5 and SE6 models, though many aspects apply to the SE4 and Cologne-powered cars. There are some mechanical differences between early and late models, specifically the braking system (Girling became Lockheed), automatic transmission (a Ford unit initially, then two types of Borg-Warner) and axle design. Use this guide in conjunction with a manual with data that applies to your specific model. Reliant's own manuals are particularly good.

Parts and support

Ford mechanicals mean that most parts are readily available at very reasonable prices. Numerous clubs and web forums provide information and enthusiastic support.

Thanks to Scimitar enthusiasts Mark Wade, Helene Adams and John Weaver. John Copleston of Phoenix Classic Cars (01202 622808, **phoenix-classics.co.uk**).

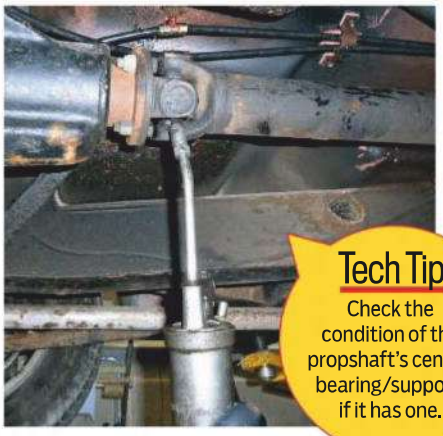
Tech Tip
Regrease the wheel bearings every 12,000 miles.

1 Front suspension

Check the wishbone bushes for deterioration and play. Inspect their mountings on the chassis and their surroundings for rust. Ensure the boot of the upper balljoint is watertight. Check the upper and lower bushes of the coil-over strut, inspect the spring for damage and the shock absorber for leaks. Make sure the anti-roll bar links and bushes are in good condition.

2 Wheel bearings and hubs

Support the car with the front wheels hanging. Spin each front wheel and listen/feel for rough bearings. Rock the wheel vertically to check for play in the wheel bearings. Adjust, if necessary, until play is just detectable. Use a lever to move the wheel up and down, while an assistant looks/feels for play in the lower trunnion and upper balljoint of the hub assembly.



Tech Tip
Check the condition of the propshaft's central bearing/support, if it has one.

3 Grease points

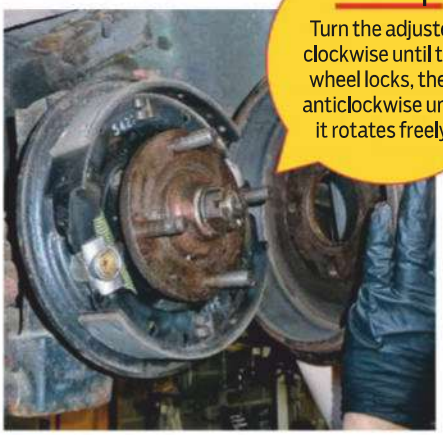
Sparingly apply grease to the balljoints and trunnions if nipples are fitted. Check for play in the splined joint and universal joints of the propshaft and apply grease if they're fitted with nipples. Grease the nipples on the handbrake cable, too.

4 Steering

Make sure the steering rack and trackrod end gaiters are in good condition. Check the steering column support and its universal joints for play. Rock each front wheel horizontally and look/feel for play in the steering rack and the trackrod ends.

5 Rear suspension

Check the Watt's linkage, trailing arm and shock absorber bushes for deterioration and play. Check the springs for rust and damage and the shock absorbers for leaks. Sparingly apply grease to the rear hubs: there's one nipple per side.



Tech Tip
Turn the adjuster clockwise until the wheel locks, then anticlockwise until it rotates freely.

6 Brake hydraulics

Check all brake pipes for rust, damage and insecurity. Check all flexible hoses for deterioration and damage. Inspect the master cylinder for leaks. Ensure the servo functions and its vacuum hose is in good order. Replace the brake fluid every two years.

7 Front disc brakes

Check the pads for wear and deterioration. If they're worn unevenly, find the cause. Inspect the brake discs for wear, scoring, pitting and damage. Make sure the calipers are firmly attached, the pistons move freely and their dust boots are intact.

8 Rear drum brakes

Turn the square adjuster on the backplate anticlockwise. Remove the drum securing screws and drum. Check the cylinder for leaks and make sure its piston moves freely. Clean the drums and shoes with brake cleaner and inspect for wear.

Kim says

'Service every 3000 miles or annually, whichever comes first. Variations relating to specific parts are identified in the steps.'

Valve clearances

Remove the air filter housing, rocker covers and spark plugs. Valve 1 is the forwardmost valve in the right-hand (driver's side) bank; valve 7 is the forwardmost valve in the left-hand bank. Adjust the valves in the right column when the valves in the left column are fully open.

Fully open	Adjust
1 (ex) 6 (in)	7 (in) 10 (ex)
8 (ex) 11 (in)	4 (in) 5 (ex)
2 (in) 3 (ex)	9 (in)12 (ex)
7 (in) 10 (ex)	1 (ex) 6 (in)
4 (in) 5 (ex)	8 (ex) 11 (in)
9 (in) 12 (ex)	2 (in) 3 (ex)

Carburettor

Check the throttle cable and lubricate moving parts. Check the operation of the automatic choke and accelerator pump. Adjust the mixture screw with the engine warm to find the 'sweet spot' where the engine runs fastest and smoothest. Set the idle screw to 800rpm afterwards.

Air filter

Clean the housing and replace the filter element every 12,000 miles or if it's visibly dirty.

Fuel system

Check/clean the fuel pump filter and inline filter (if one is fitted). Make sure all rubber hoses are in good condition and safely routed.

Fan belt

Check the condition and tension. Deflection should be about ½in (13mm) under firm finger pressure halfway between the top pulley and alternator. Pivot the alternator to adjust.

Oil and filter

Drain the oil with the engine warm. If the sump plug washer's looking tired, fit a new one. Replace the spin-on oil filter, lightly oiling its rubber seal first.

Ignition system

Clean the inspect the distributor cap, rotor arm and HT leads. Clean the points, if necessary, and set the gap. Replace every 6000 miles. Apply two drops of engine oil to the distributor's felt wick. Check the operation of the mechanical and vacuum advance. Check/adjust the ignition timing.

Spark plugs

Clean with a brass wire brush and set the gap every 6000 miles. Replace every 12,000. Apply a dab of copper grease to the threads.

Power steering

If your Scimitar has power steering, check the condition and tension of the belt. Check the fluid level and look for evidence of leaks.

Servicing Data

Engine oil
SE5 – 9.5 pints (5.4 litres); SE6 9.9 pints (5.6 litres). Good quality 20w50.

Auto gearbox fluid
Ford C3 – 13.2 pints (7.5 litres); Borg-Warner – 11.2 pints (6.4 litres).

Manual gearbox oil
SAE 80 gear oil. Capacities vary: check your manual.

Cooling system
SE5 – 20.0 pints (11.4 litres); SE6 – 17.0 pints (9.7 litres). Ethylene glycol (blue) antifreeze mix.

Final drive oil
Early cars – 2.1 pints (1.1 litres); later car – 3.5 pints (2.0 litres). SAE 90 gear oil.

Power steering fluid
Ford 'Type F' ATF.

Points gap
0.025in (0.64mm).

Valve clearances
Inlet: 0.012in (0.30mm). Exhaust: 0.020in (0.50mm). Set cold.

Spark plugs
Gap: 0.023in (0.60mm). Motorcraft AGR22 or equivalent.

Ignition timing
Static settings: SE5 – 10° BTDC; SE6 – 14° BTDC.

Firing order
1-4-2-5-3-6.-

Tyre pressures
24psi front and rear for standard 185 R14 tyres.

9 Handbrake

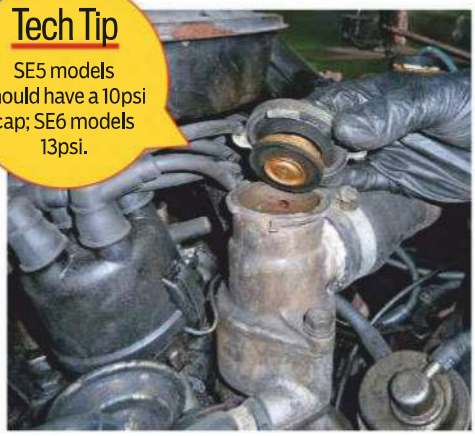
Clean and lubricate all pivots and moving parts of the mechanism. Adjust if lever travel is excessive. Early cars have twin adjusters at the cable ends (tighten them evenly). Later cars have a single adjuster at the base of the lever, accessed from underneath the car.

10 Axle

Look for signs of leaks from the pinion oil seal (and elsewhere). Remove the oil filler plug with the car level and make sure it's filled to the base of the aperture. Top it up if necessary. Drain and replace the oil every 12,000 miles, ideally with the axle still warm after a run.

Tech Tip

SE5 models should have a 10psi cap; SE6 models 13psi.



11 Cooling system

Check the radiator, cap, hoses and heater for deterioration and signs of leaks. Drain the coolant, reverse-flush the system and refill every two years. Test the thermostat at the same time. Later cars have an electric fan: make sure it turns on and off correctly.

12 Chassis and body

Look out for cracks and crazing in the GRP body, particularly around the chassis mounts. Check all parts of the chassis for rust, paying particular attention to the front sections, suspension mounts, outriggers and the tubes in front of the rear wheels. Rustproof regularly.

Tech Tip

Examine the engine and gearbox mounts. Renew if softened or perished.

13 Gearbox

Automatic: Check the fluid level using the dipstick towards the rear of the engine bay. Procedures differ between models, so consult your manual. Replace the fluid periodically. Remove the sump to drain and replace with a new gasket. **Manual:** Make sure it's filled with oil to the base of the filler plug aperture (left-hand side on early gearboxes; right-hand side on later ones). Replace the oil with the gearbox warm every 12,000 miles. Hydraulic clutch: check for leaks. Cable clutch: check cable adjustment.

QUICK CHECKS

14 Wheels and tyres

Check the wheels for damage and the tyres for gashes, cracks, bulges and excessive tread wear. Investigate if wear is uneven.

15 Electrics

Clean the battery terminals and clamps. Look for loose, dirty or corroded connections and damaged or deteriorating cable insulation. Thanks to the GRP body, good earths are paramount.

16 Fuel system

Ensure the tank's rust-free and securely mounted. Check all underbody pipework for deterioration and insecurity. Check the fuel gauge sender's wiring: its under-car location makes it vulnerable to the elements.

17 Exhaust

Check for leaks and corrosion. Make sure all the mounts are in good condition.

18 Interior

Test all switches, lamps and instruments. Renew worn clutch and brake pedal rubbers. Check that the seat belts are in good condition and operate correctly.

19 Wipers

Make sure the wiper blades are in good condition. Sparingly lubricate the spindles with oil.

20 Hinges & catches

Sparingly lubricate all hinges and catches with oil or aerosol grease. Wipe off excess. ■