Sphere Reconditioning
Tools For Sphere Removal
Pipe Flaring Tools
Hydraulic Pipe And Fittings
Pressure Test Kits
Brake Valves
Height Correctors
Suspension Cylinders
Regulators
Priority Valve
Hydraulic Pumps
Brake Calipers
CX Power Steering
BX Front Suspension
Flow Distributor Valve (F.D.V.)
Power Steering Pinion Valve
The BX/XM And Xantia Steering
DS/SM Steering
DS Engine Mounts & Return Pipe Repair Kit
XM Firmness Regulator & XM Electro Valve
Suspension Arms
Ball Joints And Gaiters
ZX Steering Pumps & Gas Struts
Rolls Royce Girling Accumulator
Audi Accumulator/Regulator
Jaguar/BMW Brake Accumulator
Most of our overhauled parts are available on an exchange basis. If you require the overhauled part before returning the old part to us, a deposit will be charged. Deposits are subject to VAT. Provided the part has suffered normal wear, deposits will be refunded in full, together with the VAT. If the item has suffered abnormal wear (e.g. has been damaged in an accident), or is abnormally corroded, it may not be suitable for reconditioning, in which case deposits cannot be refunded.

Spheres have a "life" - please see the sphere section for deposit refunds on these items.

Prompt return of exchange parts will ensure a prompt refund.

**ALL OUR OVERHAULED PARTS CARRY A 2 YEAR UNLIMITED MILEAGE GUARANTEE.**

Pleiades, in addition to supplying overhauled and new parts for all aspects of the "hydraulic" Citroën, run a free advisory service. If you are not sure what is wrong with your Citroën, you are welcome to ring or bring your car to us for a free hydraulic check.

We provide a fitting service (by appointment only). We also service and repair Citroën vehicles in our workshop.

In addition to our complete range of Citroën hydraulic components, we also overhaul Rolls Royce, BMW, Audi, Mercedes and Jaguar spheres/gas springs.

citroen parts, citroen hydraulics specialists, suspension sphere, maserati hydraulics, liquid hydraulic mineral, rolls royce hydraulics, citroen servicing,
Symptoms of suspension sphere failure is a deterioration of the ride. This is a gradual process and is sometimes not noticed until the spheres are completely "flat" and internally damaged, rendering them useless for reconditioning. For these reasons we advise that all front spheres are reconditioned every 3 years (36,000 miles) and the rear spheres every 4 years (48,000 miles). This not only ensures that your suspension is perfect, just as Citroën designed it, but is also cheaper for you, in the long term, as your spheres will stand an excellent chance of being suitable for reconditioning.

Accumulator spheres are no less important than the suspension spheres, even though you cannot feel when they are down in pressure. Amongst other functions, the accumulator spheres provide a safety back-up to the braking system. These spheres should be reconditioned at 2 or 3 year intervals, depending on model of car.

DS spheres are completely overhauled, fitted with new diaphragms as part of the overhaul process.

All dampers are checked for serviceability.

New "O" rings are supplied with the reconditioned spheres. Further supplies are available.
TOOLS FOR SPHERE REMOVAL

Our band wrench has been specifically designed to remove all spheres (except split type).
The chain wrench can be used on all spheres, but is particularly useful in the removal of CX safari rear, DS and SM spheres.

LHM is the hydraulic fluid that is commonly used in all post 1966 hydraulic Citroëns.
Pleiades Synthetic Hydraulic Fluid can be used in pre 1966 Citroen DS, where the original hydraulic fluid was LHS2.
Hydraflush is a special fluid developed by Pleiades and is used for cleaning dirty or contaminated LHM hydraulic systems.

Pleiades is a UK leading dealer of Citroën parts, suspension sphere, Rolls Royce hydraulics, Maserati hydraulics, Citroën servicing, Citroën spares. Pleiades is a UK leading dealer of Citroën parts, suspension sphere, Rolls Royce hydraulics, Maserati hydraulics, Citroën spares, Citroën hydraulics specialists, liquid hydraulic mineral, Citroën.
PIPE FLARING TOOLS

Two types of Flaring Tool are available

1/TYPe A
2/TYPe D

The type "A" tool is a single size tool and is available in either 3.5 or 4.5mm it is small enough to be used easily on the vehicle for flaring new ends on old pipes and can be used in the vice.

The type "D" tool is used vice mounted, and is a single action tool, die and punch sets are available in 3.5mm, 4.5mm, and 6.35mm for Citroën pipes.

Die and punch sets are available in D.I.N. and S.A.E. as used in Peugeot, Renault, Ford etc.
Pipe bending tools are available. Pipe flare nut spanners are available in sizes 8/10mm and 9/11mm.

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HYDRAULIC PIPE AND FITTINGS

Our 3.5mm, 4.5mm and 6.35mm pipe is cupro-nickel (90/10) for malleability, strength and corrosion resistance. It is made to British Standard specification - BS 2871 Part 2. We can supply any length you require.

If you inform us of the length, we will make up any pipe for you.

Some pipes (especially BX) are available made up and off the shelf.

The sizes relate to the outside diameter of the pipe.

THESE PIPES CARRY A VEHICLE LIFE GUARANTEE

The fittings and couplings are nickel plated to resist corrosion. 3.5mm and 4.5mm male fittings have a 10mm hexagon head for improved efficiency. Female couplings are useful if only a part of a pipe is being replaced and a join is required.

"T" pieces in 3.5mm and 4.5mm are available.

Pipe seals are available in all 3 sizes and in both material types - for LHM or brake fluid/HS2.

New Citroën flexible hoses are available. Please see price list.

Plastic and rubber return pipes are available on request.
The emergency kit is an essential breakdown aid. With it, you will be able to effect a fast and safe roadside repair of a burst hydraulic pipe. The kit comprises of a Type A flaring tool, 2 metres of high pressure hydraulic pipe, 6 fittings, 6 seals, 2 couplings, 2 metres off plastic return pipe, 4 collars and 1 regulator return pipe repair kit.

Please specify pipe size and hydraulic fluid type, when ordering. A list of the required standard tools accompanies the kit.

Parts for these kits are available as separate items.
This pressure kit is an essential tool for fault diagnosis. It is used for checking the pressures at various points on the vehicle. No professional workshop should be without one.
Symptoms of brake valve failure can be recognised as (A) External leakage (B) Car sinks rapidly at back.

Please state model and year of car when ordering.

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Height corrector failure can be similar to that of low suspension sphere pressure. The car is very slow to react to changes in suspension. Height correctors are guaranteed against leakage, but cannot be guaranteed against slow operation due to dirty fluid. Therefore we recommend the fluid is changed at the same time as the height correctors are changed and kept clean by regular fluid changes.
Suspension cylinder failure can be recognised by (A) External Leakage (B) Car sinks rapidly in the affected area. Suspension cylinders are not always suitable for reconditioning due to excessive corrosion.
Pressure regulators and priority valves are available for all models.

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Hydraulic pumps are available for all Citroën models.

Symptoms of failure can be:

a) Fluid leakage
b) Noisy operation
c) Slow raising of the car even with high revs
d) Pump casing overheats
e) Intermittent heavy steering (on BX/XM)

**IMPORTANT INFORMATION**

The "V" belt used on a 5 cylinder pump needs to be very tight to prevent belt slippage.

The Multi "V" belt used on a Xantia pump does not need to be too tight, overtightening can/will cause leakage and/or serious internal damage to the pump.

**N.B. to comply with our warranty terms, the main accumulator sphere must be changed**
Overhauled calipers are available for the rear of the BX, CX, GS, XM and Xantia.

Overhauled front calipers are available for BX models. These are stainless steel sleeved which make them far superior to the original parts.

Other calipers i.e. DS front can be overhauled on request.

Brake pads, pad fitting kits, discs and handbrake cables are also available.
Symptoms of failure of the CX control unit can be indicated by one or more of the following:

- Asymmetric heavy steering i.e. in R.H.D. models heavy to left and normal to right
- Lack of stiffening of the steering with increasing road speed
- Fluid leakage

Failure of the CX power steering rack can be usually indicated by:

- Fluid leakage
Excessive pinion play

Both of these will result in MOT failure. The rack will wear quickly if used with a faulty control unit. Gaiters are available for the steering rack.

Failure of the steering governor can be indicated by:

- "Twitchy steering"
- Lack of stiffening of the steering with increasing road speed
BX Front Struts are available as inserts.

Common failure is:
- Struts sticking - Jerky to rise (groaning noise)
- Struts leaking - Blowing off return pipes and sinking at the front of the car

Strut Return Pipes and Clips are available separately if required.

Clic pliers are available for fitting purposes.
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FLOW DISTRIBUTOR VALVE (F.D.V.)

The F.D.V. is fitted to BX models with power steering, XM's and early type Xantia's. The purpose of the F.D.V. is to divert fluid to the steering at the required flow rate and pressure whilst ensuring fluid priority to the brakes and suspension.

Failure can be difficult to diagnose except for obvious leaks. Heavy steering at all times can be due to F.D.V. problems, if in doubt it is always best to send in the suspect F.D.V. for testing.

POWER STEERING PINION VALVE

Common failure of the pinion valve is:

- External leakage
- Stiff steering in one direction only
- When badly worn, steering can become stiff in both directions

TIP!!

Pinion valve leakage can be caused by blocked return pipes, when fitting a replacement pinion, it is advisable to blow the return lines through to clear any obstructions.
THE BX/XM AND XANTIA STEERING

The BX/XM and Xantia power rack is available in 3 separate parts or as a complete unit i.e.

- Rack housing with ball joints and gaiters
- As above with a pinion fitted
- Complete rack to include pinion and ram

Rams, pinion valves, ball joints, track rod ends and gaiters are all available as separate items if required.
BX Manual Steering Racks are also available.

N.B. all pictures show BX parts, XM and Xantia parts are very similar in looks but are **not** the same part.
DS/SW STEERING

DS Power Steering Racks are available in either LHM or LHS2 and to fit left or right hand drive. When ordering please state type of fluid and left or right hand drive.

Rack Gaiter Sets are also available DS/SW steering racks.

SM Steering Racks are available.
DS or SM track rod failure can be caused by excessive play in the ball joint, resulting in loose steering in extreme cases and MOT failure.

DS centrifugal regulator failure can be indicated by:

- Fluid leakage
- Noisy operation
- Clutch will not engage
DS clutch re-engagement control failure can be indicated by external leakage.

The 'Brain' of the DS Semi-Auto Gear Change is the Hydraulic Gear Selector. These may be available in LHM or LHS2.

Failure may be indicated by:
- Fluid leakage
- Noisy operation
- Failure to select 1 or more gears

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DS ENGINE MOUNTS

DS engine rubber mountings damp out the vibrations of the engine to the car body. Failure of the rubber can be indicated by the increased vibration in the car which is engine speed related.

Our engine mounting rubbers are made from a material which has a better life expectancy and shock absorbing properties than that of Citroën originals, greatly improving passenger comfort.

Due to a relatively short life of the original rubbers, all DS's will benefit from new rubbers.

Rubbers only or ready assembled units are available.

RETURN PIPE REPAIR KIT

This part will not fit BX/XM with power steering.
XM FIRMNESS REGULATOR

Firmness Regulators are fitted to the front and back of the XM and certain models of the Xantia, they carry the Suspension Accumulators.

XM ELECTRO VALVE

Failure of the electro valve may be indicated by a hissing sound coming from the valve and the front of the car sinking soon after the engine has stopped.
Rear Suspension Arm failure is a common fault on CX/BX/XM and Xantia. An indication of failure is a lean of the back wheel(s). This causes wear to the inside of the rear tyre.

A Pleiades reconditioned arm is totally rebuilt with new bearings and seals, and is oil filled to prevent wear.
To compliment our range of hydraulic parts, various ball joints and gaiters are available for Citroën steering and suspension applications.
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In addition to our range of overhauled Citroën parts we are also able to overhaul Rolls Royce, Maserati, BMW, Jaguar, Audi and Mercedes hydraulic components. Phone for further details.

ROLLS ROYCE GIRLING ACCUMULATOR

AUDI ACCUMULATOR/REGULATOR
JAGUAR/BMW BRAKE ACCUMULATOR
Pleiades is an English based company specialising in the overhaul of hydraulic components fitted to all models of Citroën cars, from the very first "DS" to the very latest "Xantia". Pleiades has been in business since 1980, in 1998 we opened a branch in Australia, "Pleiades Automotive Hydraulics".

All of our overhauled components are fully stripped, cleaned and inspected, any wearing parts are replaced as part of the overhaul process, the unit is then rebuilt and tested for noise, correct operation and pressures, correct flow rates and leaks. The unit is then sealed and painted ready for fitting.

All of our overhauled hydraulic components carry a 2 year guarantee.