



SERVICE MANUAL

TRUCKS

L 385

Export Service Department

AKTIEBOLAGET

VOLVO

GÖTEBORG . SWEDEN

FAULT TRACING

CAUSE	REMEDY
FAULT	
THE TRUCK SWINGS FROM ONE SIDE TO THE OTHER (WANDERS)	
Faulty caster.	Check and adjust caster.
Excessively large or excessively small clearance in steering mechanism.	Adjust steering mechanism.
Drag link ball joints worn or chafing.	Check ball joints and replace worn parts. Lubricate them.
Faulty toe-in.	Check and adjust toe-in. See under heading "Wheel Alignment".
Air pressure in tires too low.	Check air pressure.
TRUCK "PULLS" TO ONE SIDE	
Too low or uneven air pressure in tires.	Check air pressure in tires (see Part 8).
Front springs are "tired" or have different heights.	Remove and check springs (see Part 9).
One of the wheel bearings is too tight.	Remove the wheel. Check the bearings. Replace the damaged bearing and adjust it in accordance with the instructions under "Replacing the Front Wheel Bearings".
Faulty tracking.	Carry out control measurements on the frame and correct if necessary (see Part 9).
Dragging brakes.	Adjust the brakes (see Part 7).
Faulty camber.	Check camber and adjust.
HEAVY OR STIFF STEERING	
The king pins are chafing or a ball bearing is damaged.	Remove the wheels. Examine and lubricate. If necessary replace the bushings, the king pin and the ball bearing.
Unsuitable oil or not enough oil in the steering mechanism.	Check the oil level. See the specifications for the type of oil to be used.

Steering mechanism too tightly adjusted.

Ball joints on drag link or tie rod not sufficiently lubricated.

Excessive caster.

Air pressure in tires too low.

Faulty toe-in.

Make correct adjustments to steering mechanism.

Lubricate ball joints.

Check and adjust if required. See "Wheel Alignment".

Check air pressure in tires.

Adjust toe-in.

SHIMMY

Wheels throw or out of balance.

One of the brake drums out-of-round.

Air pressure in tires too low.

Damaged drag link.

Loose or worn front wheel bearings.

Balance and align the wheels or replace them (see Part 8).

See Part 7.

Check air pressure (see Part 8).

Replace damaged drag link.

Remove wheel and hub. Examine bearing races. If one of the component parts is damaged, the complete bearing should be replaced.

Excessive caster.

Check and adjust caster.

Faulty toe-in.

Adjust toe-in.

STEERING SHOCK OR KICK-BACK

Excessive clearance in steering mechanism.

Wrong type of oil or not enough oil in the steering mechanism.

Loose front wheel bearings.

Looseness in drag link ball joints.

Pitman arm faultily fitted.

Unbalanced or wobbling wheel.

Adjust clearance. See "Assembling Steering Mechanism".

Check, flush out the steering mechanism, add oil in accordance with specifications.

Adjust front wheel bearings.

Replace loose ball joints.

Adjust fitting of Pitman arm. See "Fitting the Steering Mechanism".

Remove wheels and check for balance and run-out. (See Part 8).

TOOLS

The following tools are required when carrying out repair work on the front axle and steering gear.

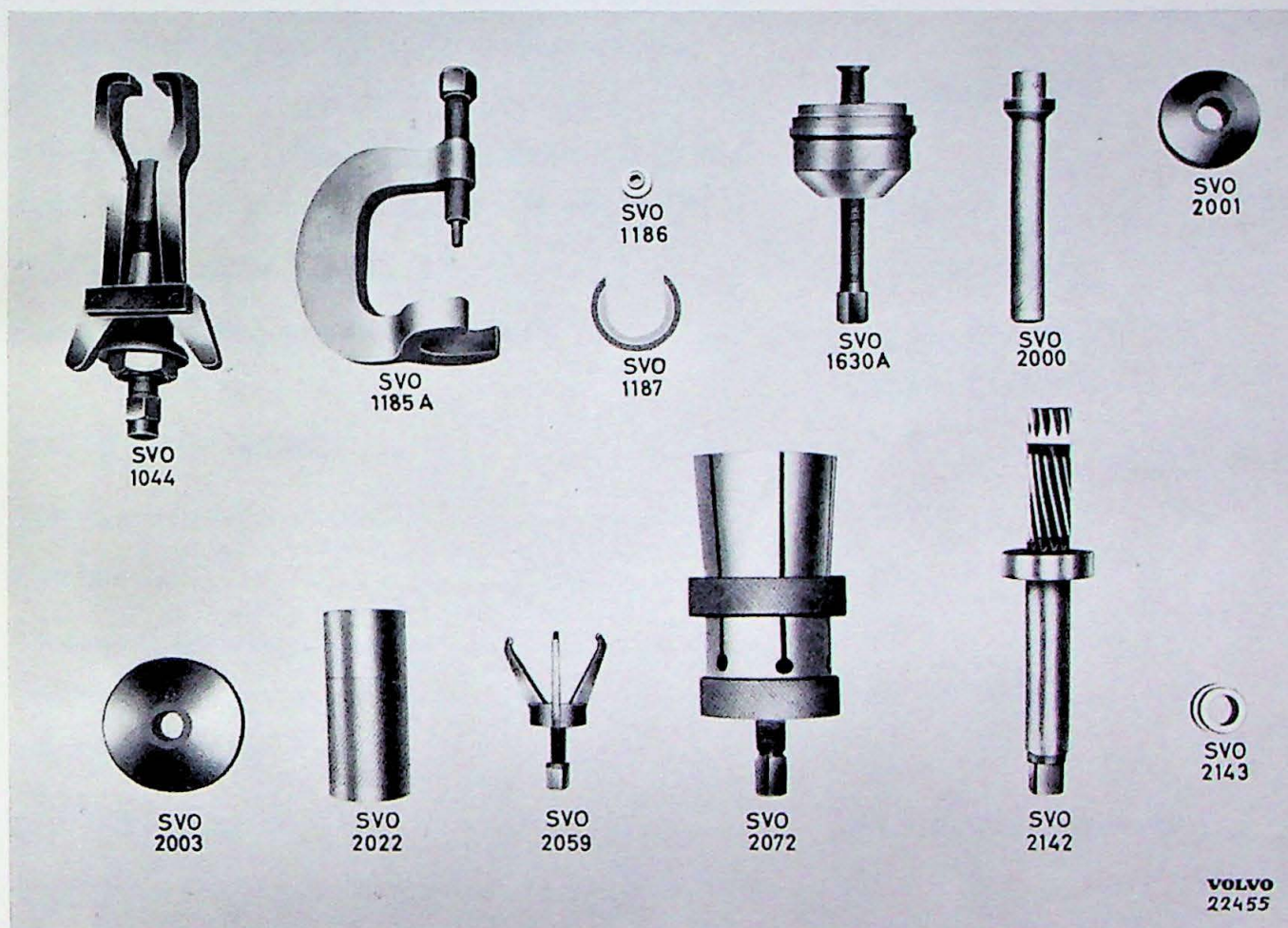


Fig. 6—33.

SVO 1044 Puller for Pitman arm.

SVO 1185A Puller for steering wheel.

SVO 1186 Auxiliary tool.

SVO 1187 Clamp.

SVO 1630A Puller for wheel hub.

SVO 2000 Standard handle.

SVO 2001 Tool for fitting of outer race, outer wheel bearing. Also fits outer race, roller bearing, king pin.

SVO 2003 Tool for fitting outer race, inner wheel bearing.

SVO 2022 Socket for fitting inner race, inner wheel bearing.

SVO 2059 Puller for roller bearing, king pin.

SVO 2072 Puller for inner race, inner wheel bearing.

SVO 2142 Reamer for steering knuckles.

SVO 2143 Tool for fitting and removing of king pin bushing.

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SPECIFICATIONS

FRONT AXLE

The spring pads should be on the same level within (measured over 300 mm = 12")	3 mm (0.120")
The center lines for the king pins should be at right angles to the spring pads within (measured over 300 mm = 12")	± 1.5 mm (0.060")
The center lines for the king pins should be on the same level within (measured over 300 mm = 12") .	3 mm (0.120")
King pin diameter in bushing	42 mm (2.21/32")
Shims for king pin bearings, thickness	0.10 mm (0.004") 0.35 mm (0.014")

WHEEL ALIGNMENT

Caster	2.25°
Camber	1.5°
King pin inclination inwards	7.5°
Toe-in	3 mm (0.120")

STEERING GEAR

Steering mechanism, make and type	Ross cam and twin-lever
Number of turns of steering wheel from lock to lock	5.5
Ratio, center position	19.5:1
Ratio, lock positions.....	23.4:1
Overall ratio between steering wheel and road wheels, center position	26.2:1
Overall ratio between steering wheel and road wheels, lock positions	33.0:1
Shims for steering column bearing, thickness	0.051 mm (0.002") 0.076 mm (0.003") 0.254 mm (0.010")
Lubricant	Transmission oil
Lubricant viscosity	SAE 90
Oil capacity	approx. 1.3/4 liters (3.3/4 U.S. pint.)