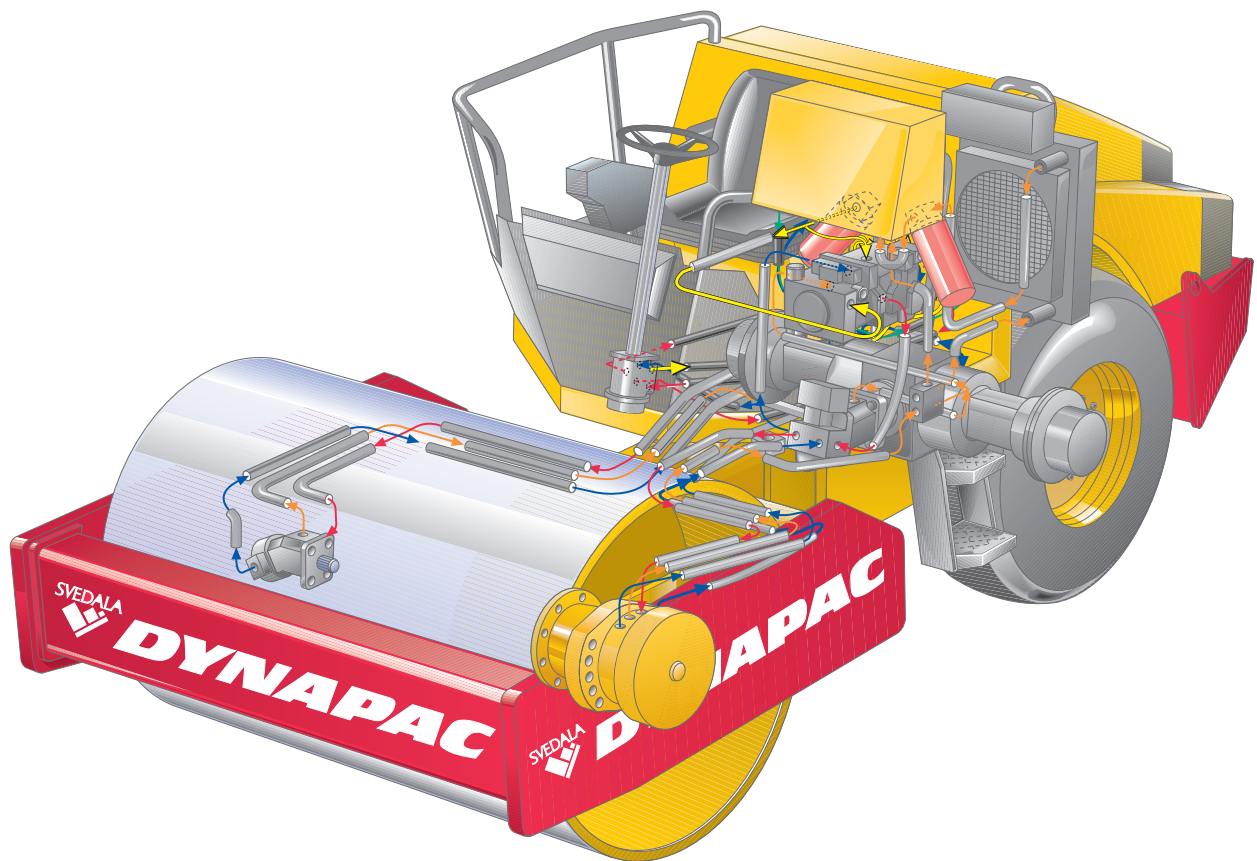


## Workshop Instructions CA 152

### Hydraulic Circuit Diagrams W1521EN1, 97-09-01

These instructions apply from:  
CA 152(Std) PIN (S/N) \*64120153\*  
CA 152D PIN (S/N) \*64220153\*  
CA 152PD PIN (S/N) \*64320153\*



*These Workshop Instructions for the CA 152 Vibratory Rollers show the hydraulic components, hosing and hydraulic circuit diagrams for the four different systems; traction, vibration, steering and brakes.*

*The opening and working pressures of the various systems are also stated (however the working pressures may vary depending of working conditions), together with simple definitions of the hydraulic symbols.*

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WARNING



**WARNING - Personal safety may be involved.**

## PRESSURE SETTINGS

WARNING



**DO NOT CHANGE ANY PRESSURE SETTING IN THE HYDRAULIC SYSTEMS. TO AVOID PERSONAL INJURIES, ALL PRESSURE SETTINGS MUST FOLLOW DYNAPAC SPECIFICATION. ALL ADJUSTMENTS MUST BE CARRIED OUT BY QUALIFIED PERSONNEL ONLY.**

Pressure settings, new components, all values  $\pm 10\%$  at operating temperature and higher than 1500 rpm:

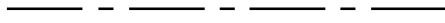









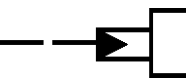

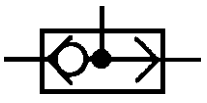


<b>Traction System</b>	<p><b>Charge relief</b> with forward &amp; reverse lever in neutral ..... 2.0 MPa with forward &amp; reverse lever in stroke ..... 1.9 MPa</p> <p><b>Forward &amp; reverse relief</b> (above charge pressure) ..... 38 MPa</p> <p><b>Normal working pressure</b> (depending on rolling resistance) ..... 8-18 MPa</p>
<b>Vibration system</b>	<p><b>Charge Pressure</b>.....2.0 MPa</p> <p><b>Relief pressure</b> (to be measured during the first second after vibration is switched on) ..... 30 MPa</p> <p><b>Normal working pressure</b> (depending on working condition) ..... 16-25 MPa</p>
<b>Steering system</b>	<p><b>Relief pressure</b> (to be measured in the excess end stroke) ..... 18 MPa</p> <p><b>Normal working pressure</b> (depending on working condition) ..... 5-8 MPa</p>
<b>Brake system</b>	<p><b>Release pressure</b> (fully released) ..... 1.5 MPa</p>

Hydraulic tank volume: 50 litre.




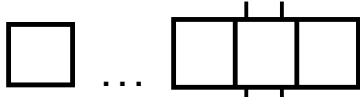

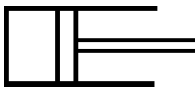

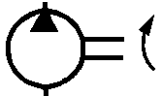
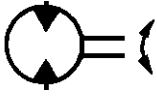
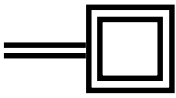



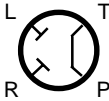
### Conversion values

Convert from	into	Multiply by
MPa	bar	10
MPa	psi	145.04
litre	gal (U.S.)	0.264

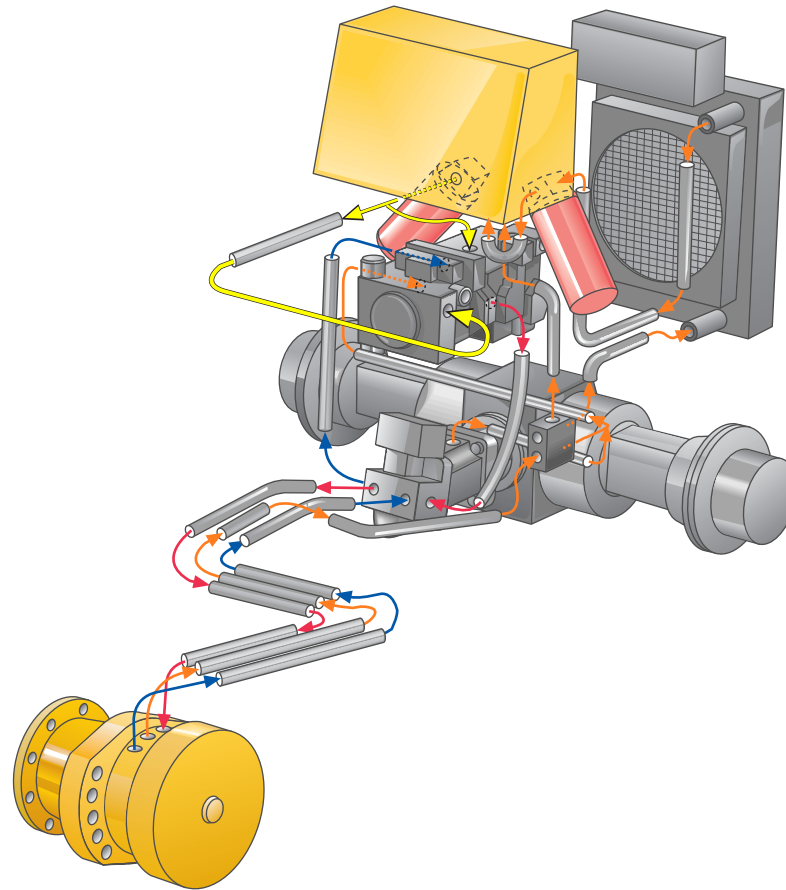
## GRAPHIC SYMBOLS FOR FLUID POWER DIAGRAM

	Enclosure for functions or comp. assembled in one unit
	Line connection
	Restriction
	Flexible pipe, hose
	Regulation, variability
	Rotating shaft
	General control symbol
	Manual control: Lever
	Mechanical control: Spring
	Electrical control: Solenoid, one winding
	Pressure control: Indirect, pilot actuated
	Non-return valve
	Shuttle valve
	Plugged take-off
	Filter or strainer

## GRAPHIC SYMBOLS FOR FLUID POWER DIAGRAM, contd.

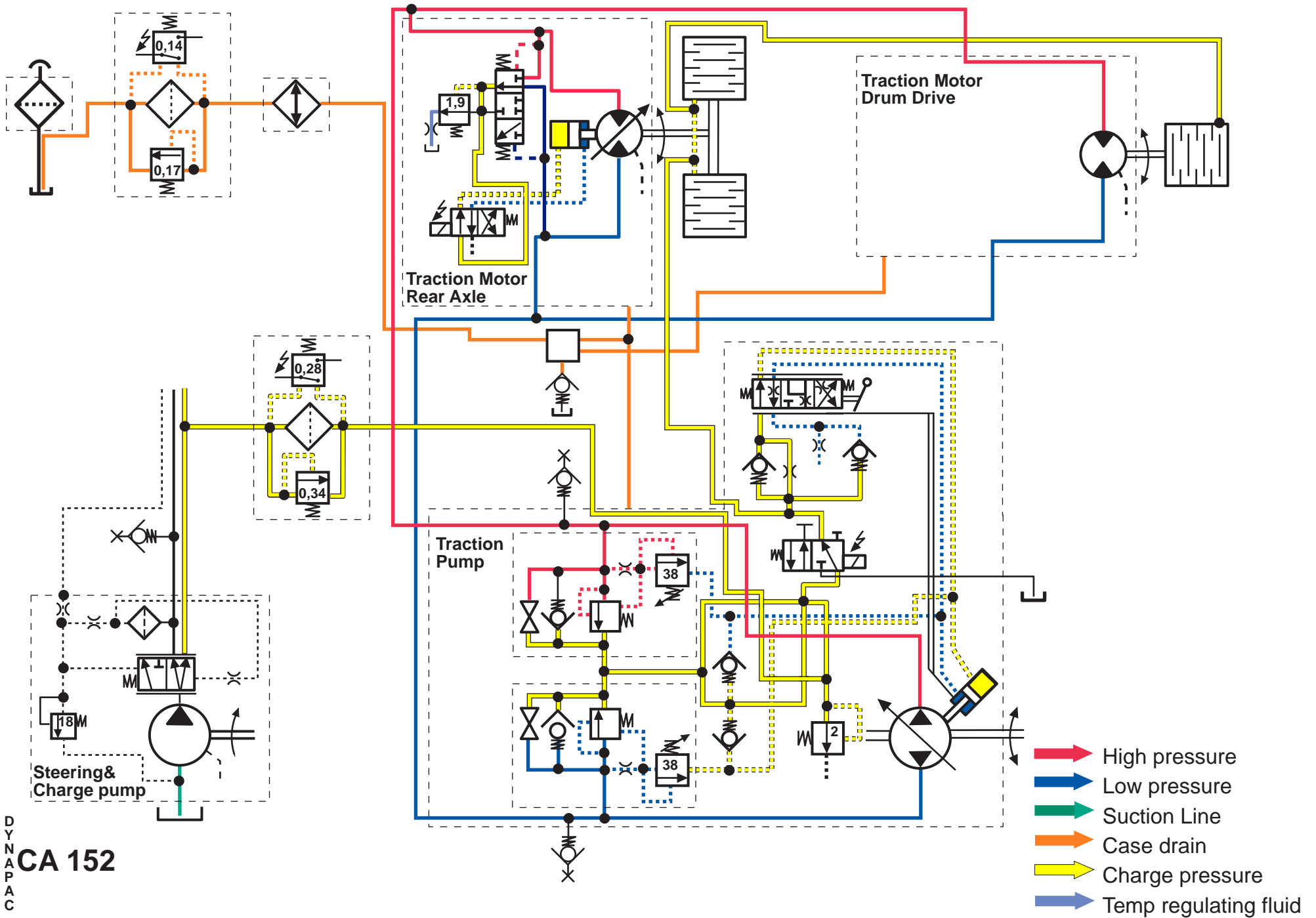
	Cooler
	Pressure switch
	Shut-off, cock
	Valves
	Flow paths
	Cylinder
	Reservoir: Open to atmosphere
	Hydraulic pump
	Hydraulic motor
	Cumbustion engine
	Transmission
	Brake and gearbox
	Steering wheel
	Steering valve

# TRACTION SYSTEM Forward drive

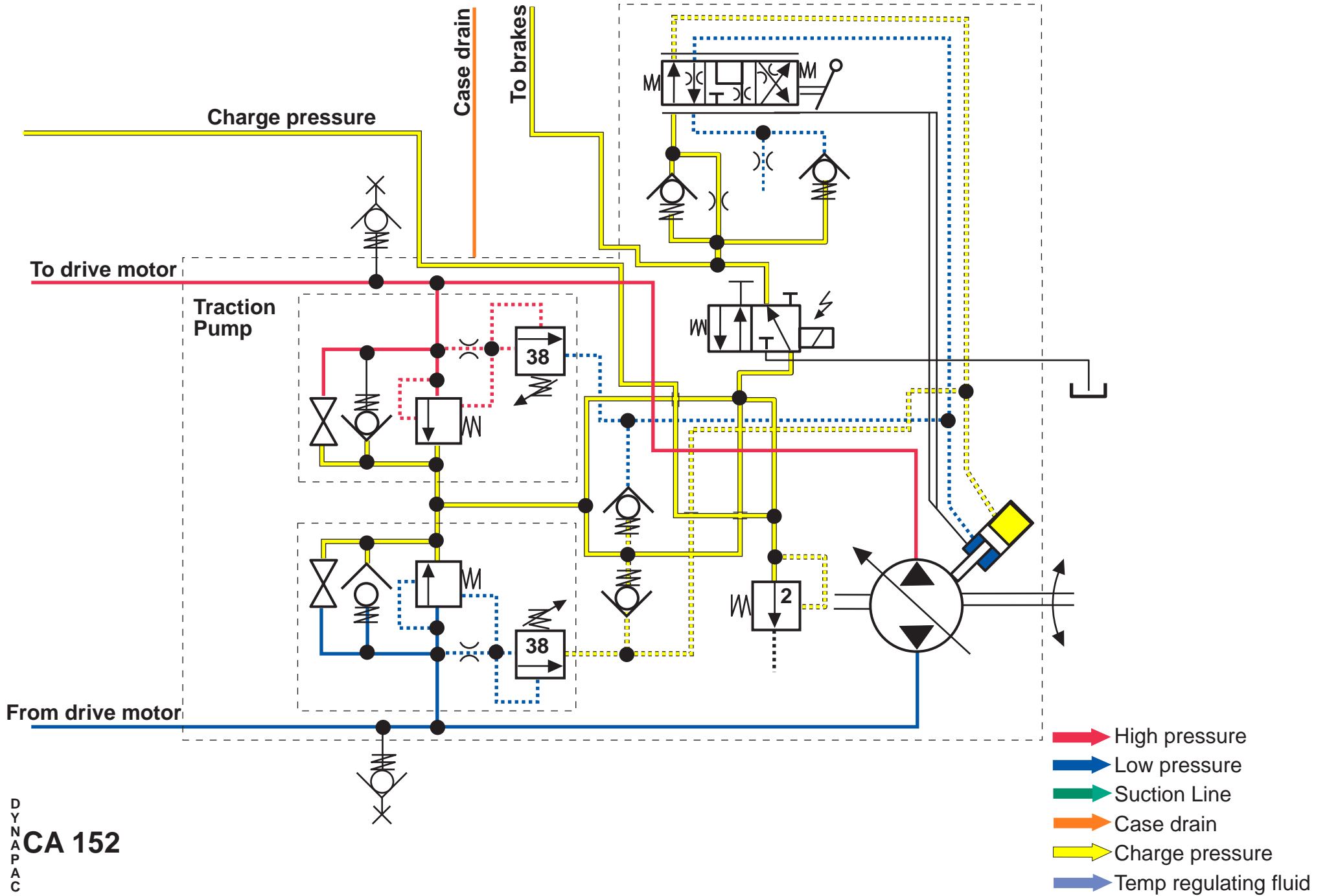


- High pressure
- Low pressure
- Suction Line
- Case drain
- Charge pressure
- Temp regulating fluid

# TRACTION SYSTEM Forward drive

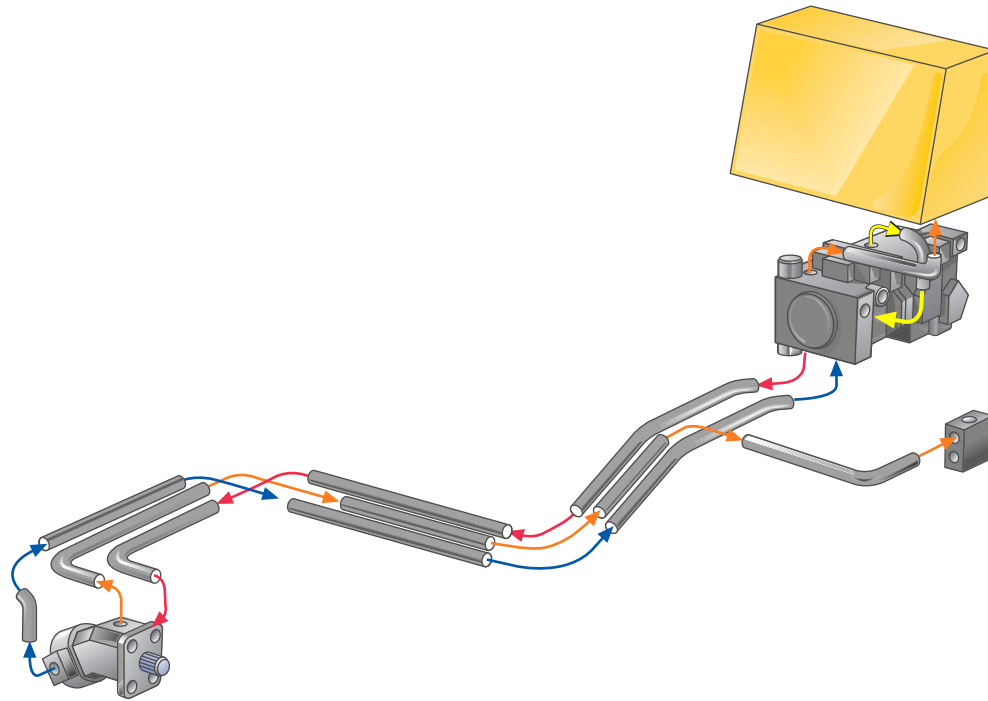


# TRACTION PUMP



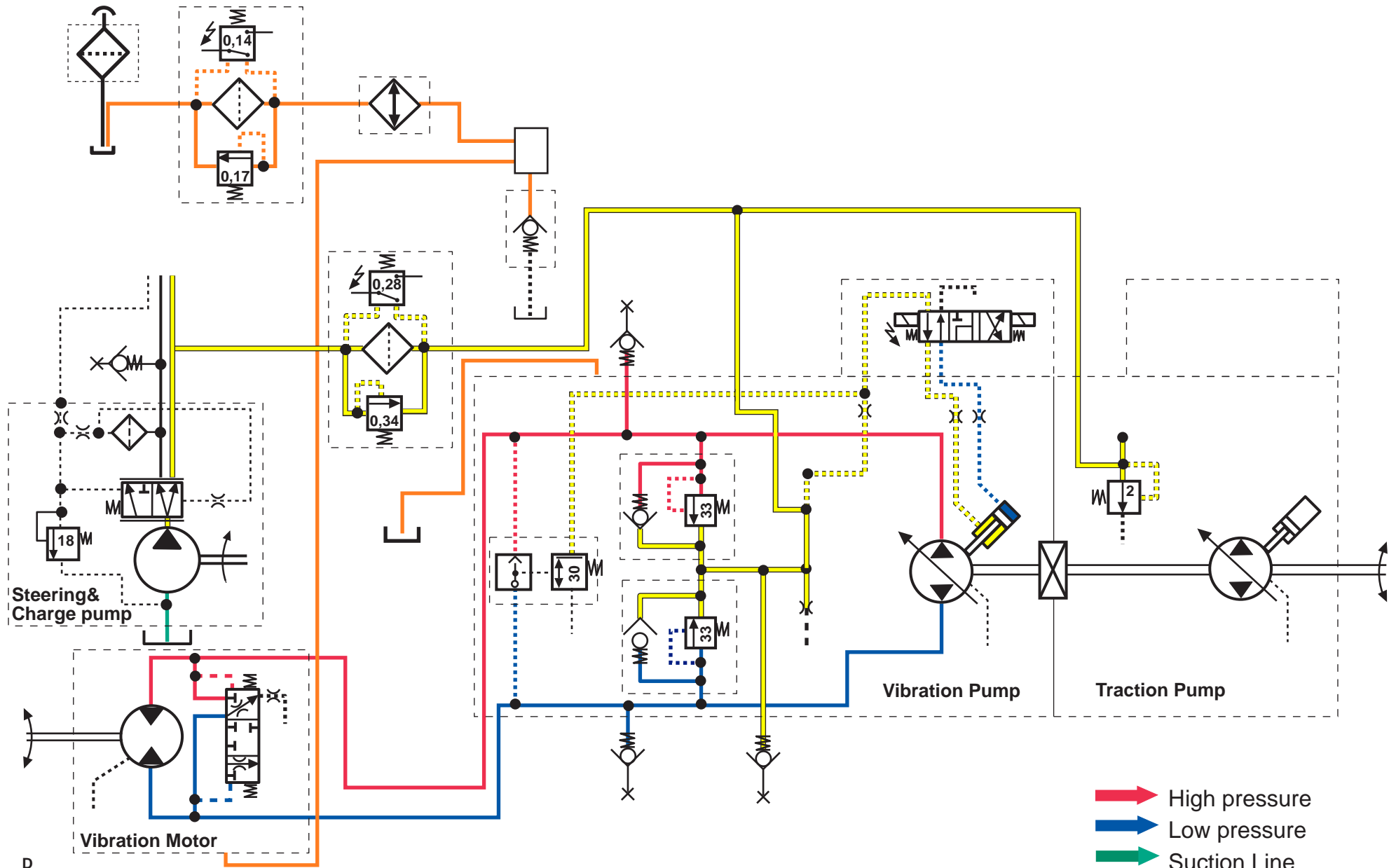


# VIBRATION SYSTEM High amplitud



- High pressure
- Low pressure
- Suction Line
- Case drain
- Charge pressure
- Temp regulating fluid

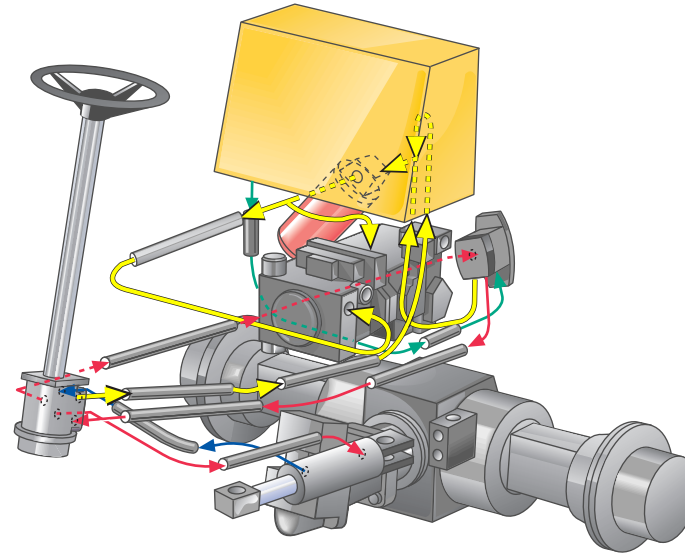
# VIBRATION SYSTEM Vibration on



- ➔ High pressure
- ➔ Low pressure
- ➔ Suction Line
- ➔ Case drain
- ➔ Charge pressure
- ➔ Temp regulating fluid

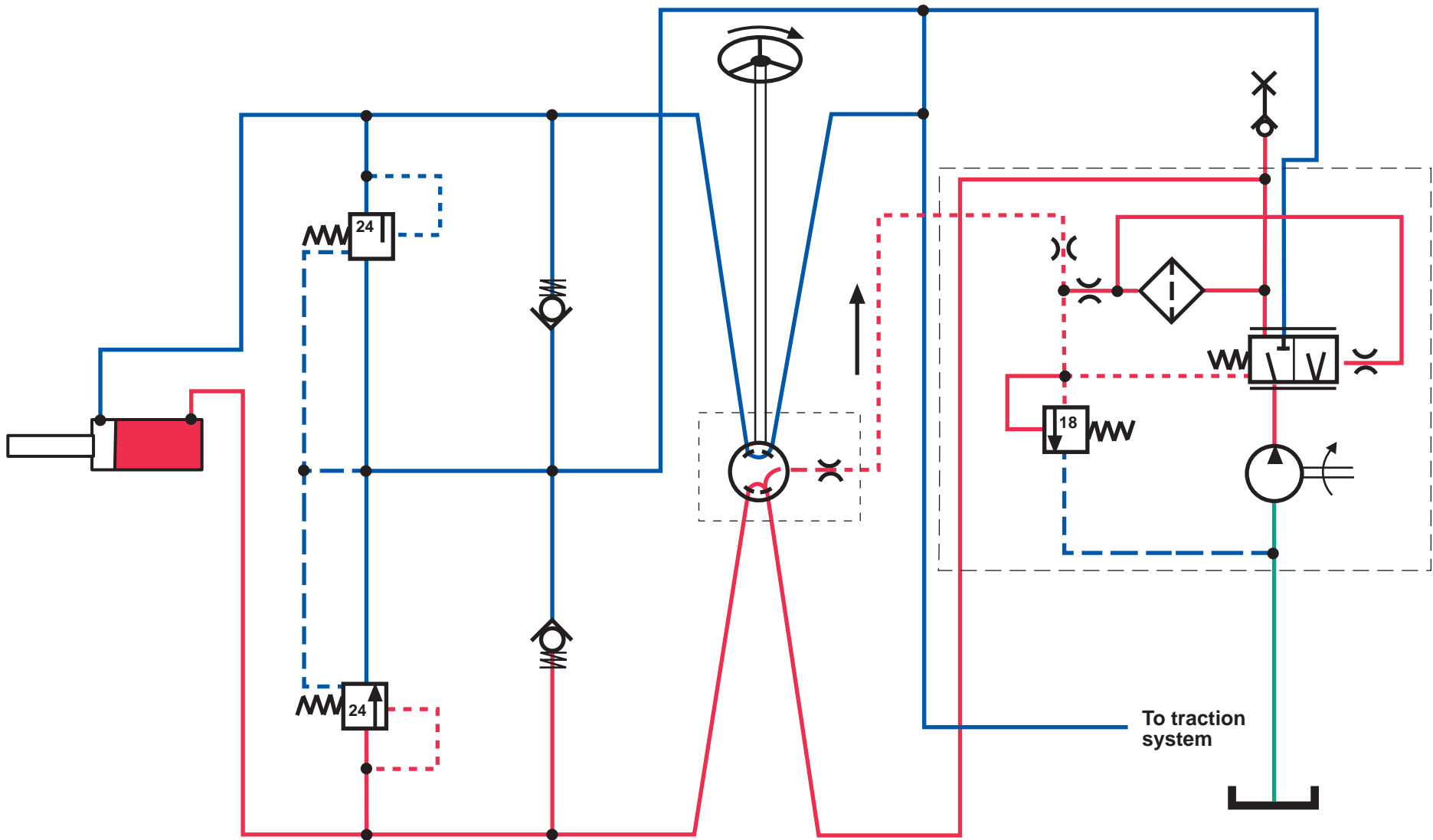
D  
Y  
N  
A  
P  
A  
C  
  
**CA 152**

# STEERING SYSTEM Left



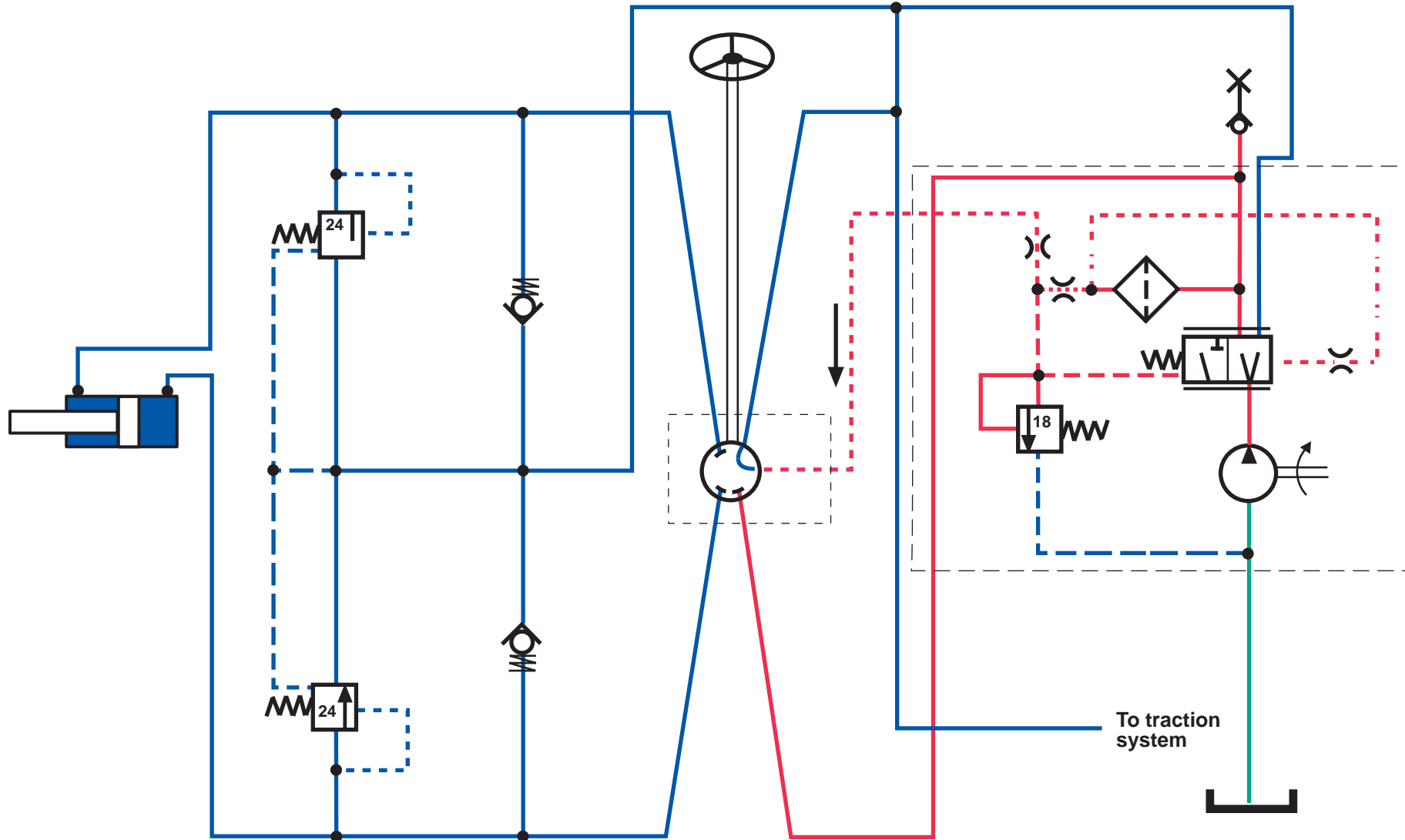
- High pressure
- Low pressure
- Suction Line
- Case drain
- Charge pressure
- Temp regulating fluid
- Steering signal

# STEERING SYSTEM Right turn



- █ High pressure
- █ Low pressure
- █ Suction Line
- ▬▬▬ Steering signal

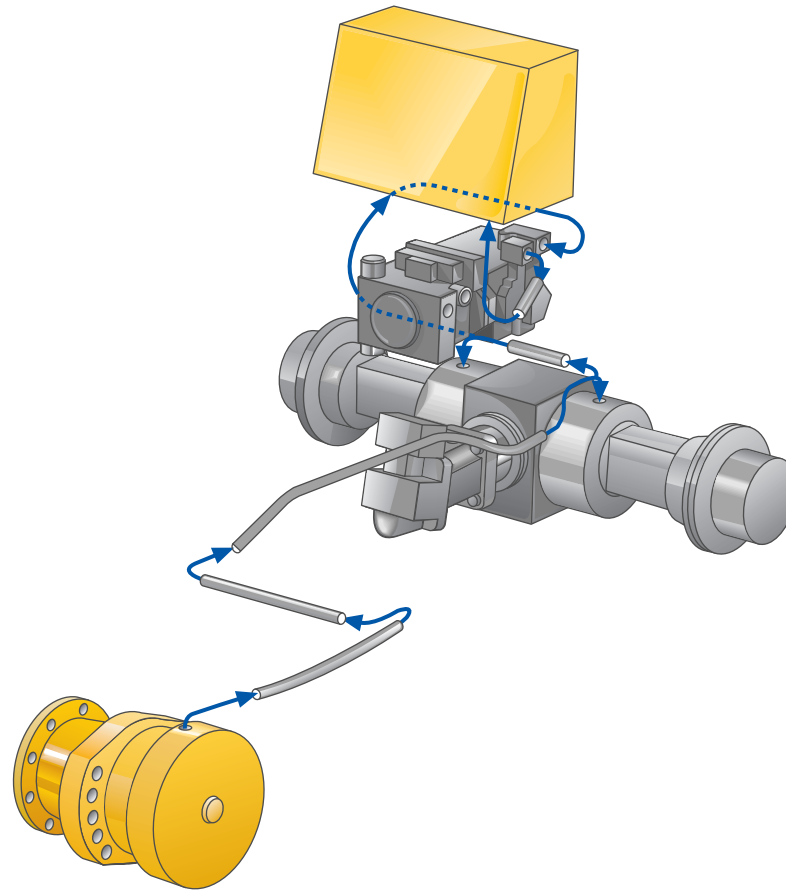
# STEERING SYSTEM Straight forward



To traction system

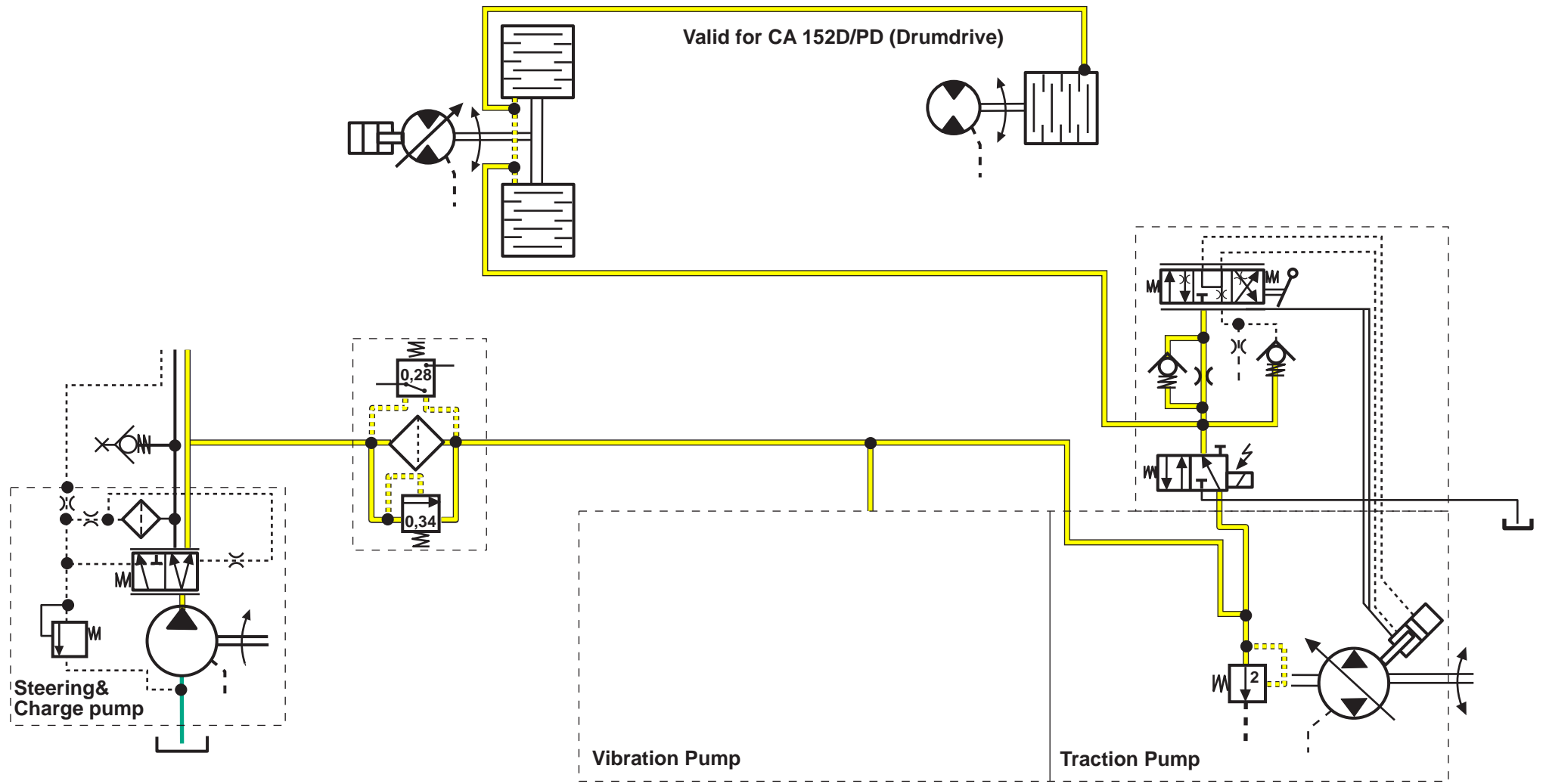
- High pressure
- Low pressure
- Suction Line
- - - Steering signal

# BRAKE SYSTEM



- High pressure
- Low pressure
- Suction Line
- Case drain
- Charge pressure

# BRAKE SYSTEM Brake released



- ➔ High pressure
- ➔ Low pressure
- ➔ Suction Line
- ➔ Case drain
- ➔ Charge pressure