Service Manual

8080

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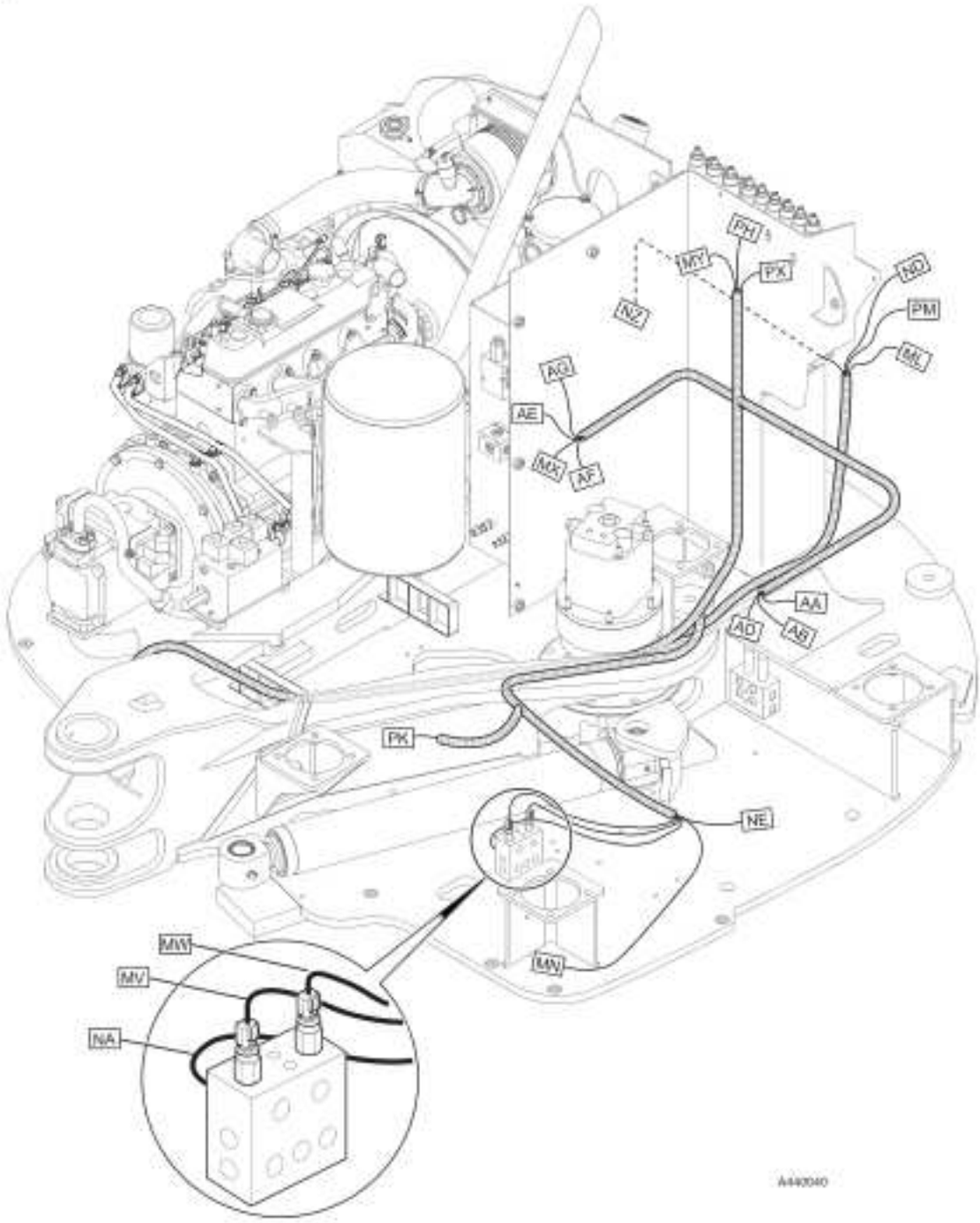
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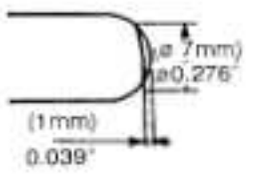
Slewpan Harness Connector Locations - left side



Refer to schematic diagram on page 35-1 to identify components connected to the harness.

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Maintenance Specification

Maintenance Item	Standard	Note
Leakage Amount	Replace if the leakage exceeds 1.0 litre/min (0.22 gal/min) with the handle in the neutral position or 2.0 litre/min (0.44 gal/min) during operation.	Condition: Primary pressure 29 bar (30 kgf/cm^2 426.5 lbf/in^2). Oil viscosity 23 cSt.
Spool	Replace when the sliding contact faces are worn more than 0.01 mm (0.0004 in) or more than the non-sliding contact faces.	The conditions are approximately the same as for the leakage above.
Push rods **11/12**	 JS02060 Replace if the tip is worn more than 1 mm (0.039 in).	
Loose movement in the operating controls.	Replace the parts if the wear in the pin and joint lead to loose movement of more than 2 mm (0.079 in).	
Actuation stability.	Investigate if abnormal noises, jerky operation or drops in primary pressure are experienced during operation. Replace the valve if the problem cannot be solved.	

Note: Ensure that 'O'-rings and other seals are renewed during reassembly. If the screw **5** is loosened, always replace the Seal washer **3**.

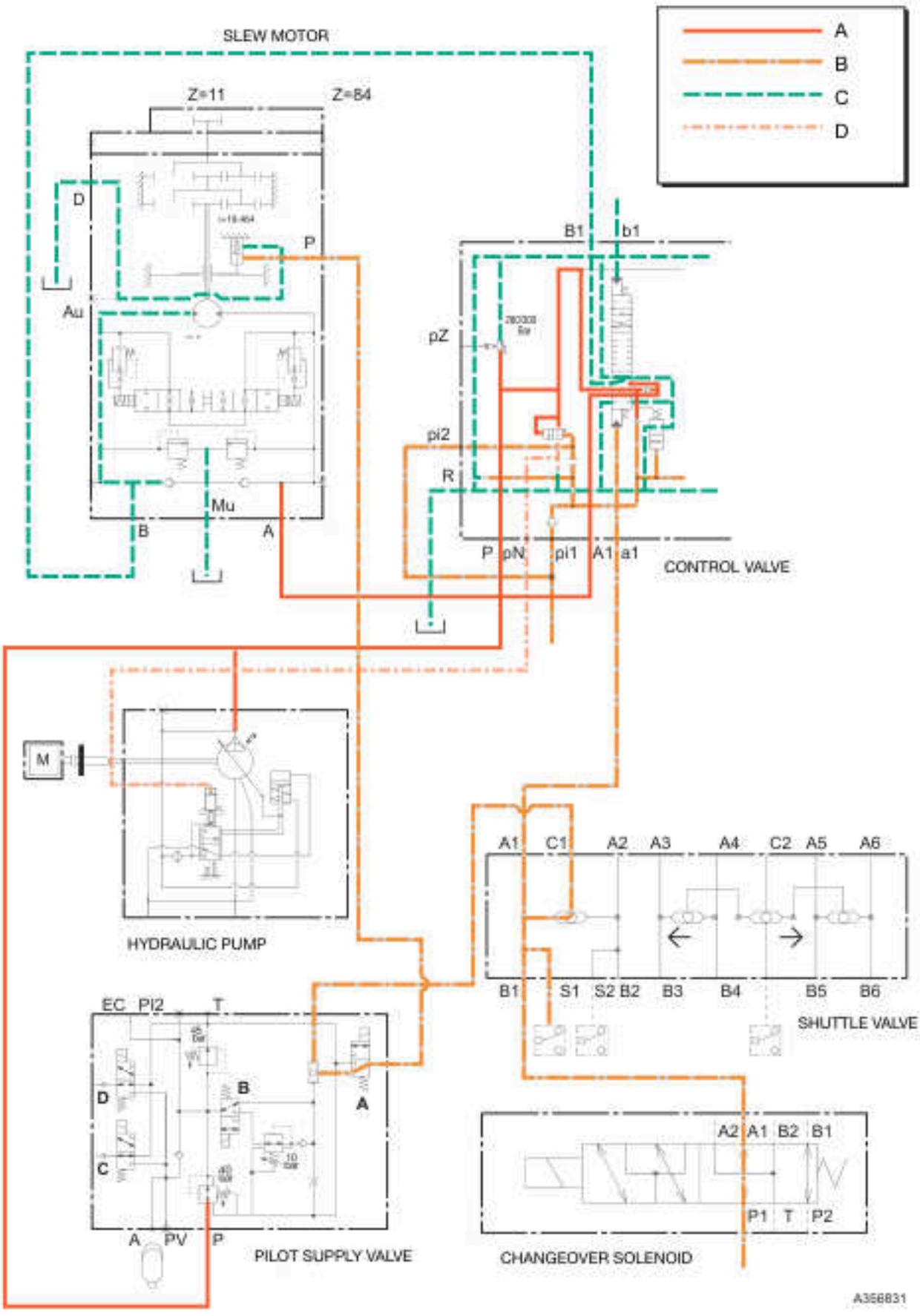
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Fault Finding

Symptom	Possible cause	Remedy
1 Motor does not start - no oil pressure present.	a Low relief valve set pressure.	Set correct pressure.
	b Pump failure.	Check operation of services other than travel. Repair pump if necessary.
	c Direction switching valve failure.	Check spool for damage. Repair if necessary.
2 Motor does not start - oil pressure present.	a Brake valve failure	If spool or valve is thermally seized, repair or renew.
	b Hydraulic motor failure.	Check hydraulic oil and renew if necessary.
	c Gear teeth are broken.	Dismantle reduction gear and renew broken parts.
	d Overloaded.	Remove load.
3 Oil leakage from mating surfaces.	a Mating surface is scratched.	Lap surfaces using wet stone or emery paper.
	b Bolts loose.	Tighten bolts and recheck.
4 Oil leakage from case.	a Plug is loose.	Tighten plug.
	b Cracks caused by stone, etc.	Dismantle reduction gear and renew damaged parts.
5 Oil leakage from floating seal.	a Sliding surface is worn.	Dismantle reduction gear and renew damaged parts.
	b Seepage past 'O'-ring.	Dismantle reduction gear and renew damaged parts.
6 Oil leakage from hydraulic motor.	a Mounting bolts loose.	Retighten bolt(s).
	b 'O'-ring is damaged.	Renew 'O'-ring.
	c Seal surface is scratched.	Lap surface using wet stone or emery paper.
7 Slips down on slope.	a Poor motor efficiency.	Renew traction motor.
	b Excessive leakage inside brake valve.	Renew brake valve and/or rear flange.
	c Parking brake spring broken.	Renew spring.
	d Parking brake friction plate worn.	Renew friction plate and/or other plate.

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Slew Operation



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System Diagnosis

Normally Functioning A/C System

Gauge Readings:
Low Side Gauge - Normal.
High Side Gauge - Normal.

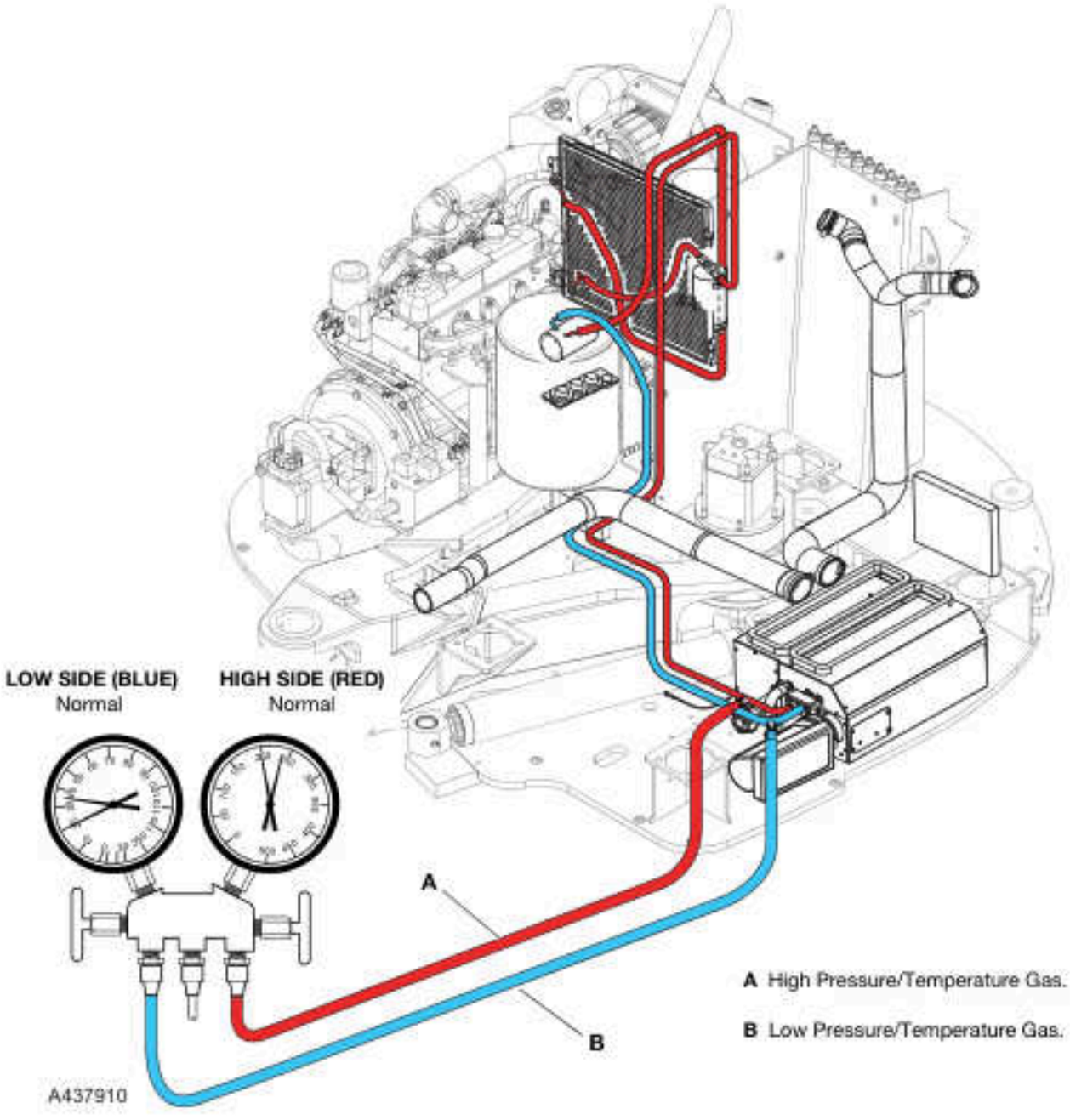
Other symptoms:
Sight Glass - Clear.
Discharge Air - Cold.

Normal gauge readings will depend on system components and ambient conditions, make sure that the valves are closed and the readings are stable and that the system has a full charge.

The pressures on the manifold at 25 °C, with the engine at 1500 rev/min, the blower on maximum and the thermostat set to maximum, should be approximately:

LOW SIDE - 2.0 bar (2.0 kgf/cm²)(29 lbf/in²)
HIGH SIDE - 14.8 bar (15.1 kgf/cm²)(215 lbf/in²)

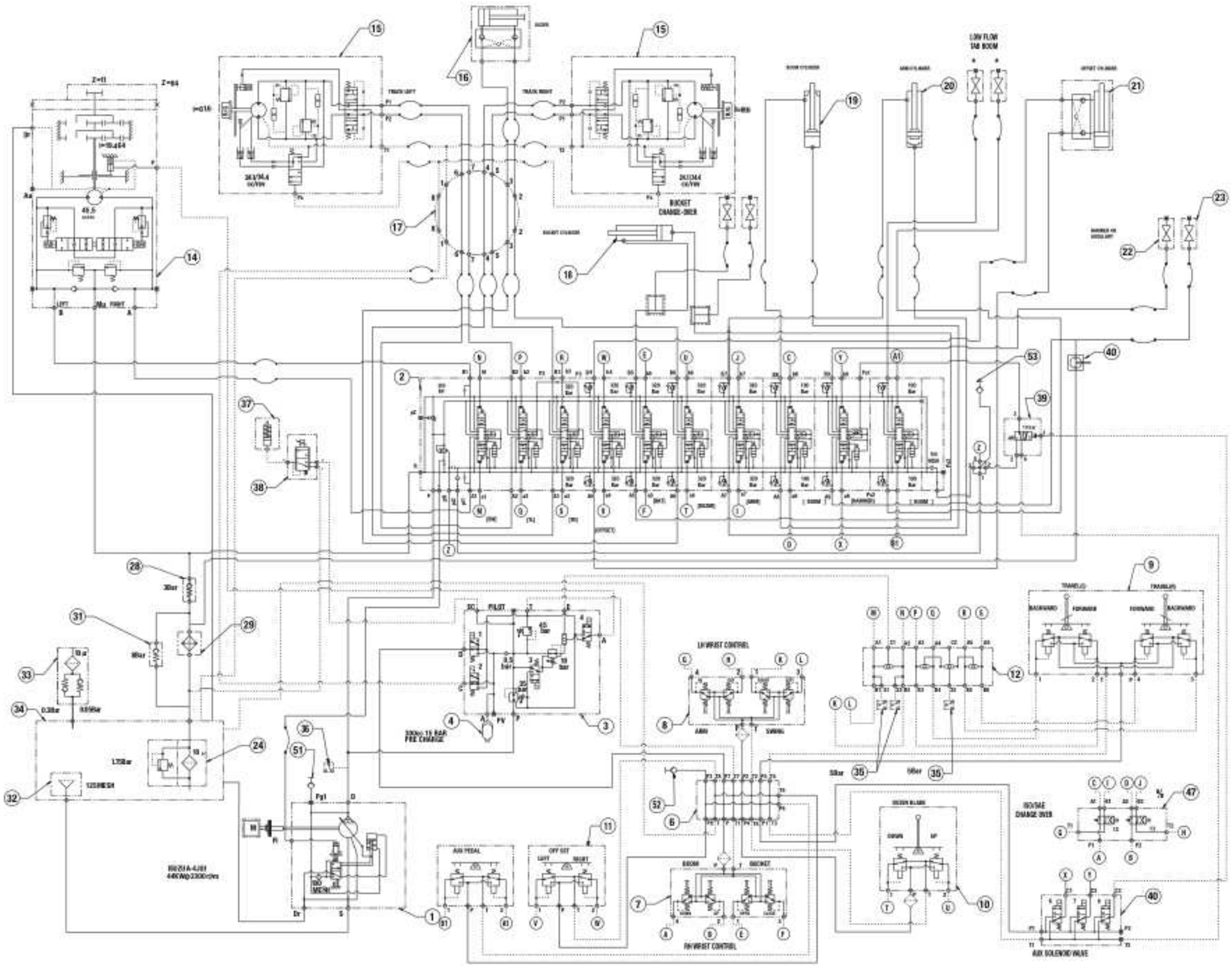
Typically, the high pressure is 6 - 8 times the low pressure.



A High Pressure/Temperature Gas.

B Low Pressure/Temperature Gas.

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