Service Manual

WLS 432ZX

Service Manual - WLS 432ZX

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Publication No.
550/43477/1



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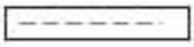
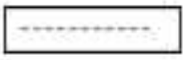
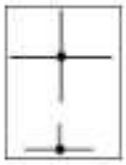
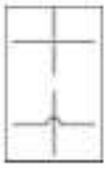
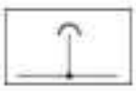
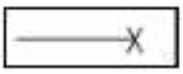
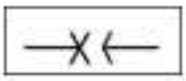
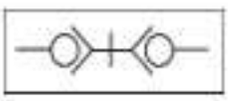
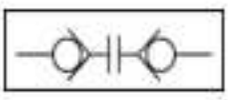
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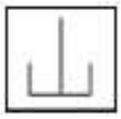
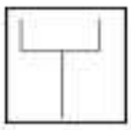
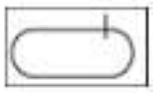
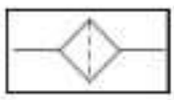
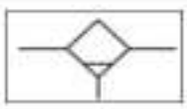
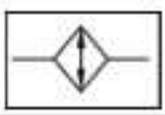
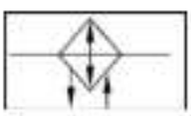
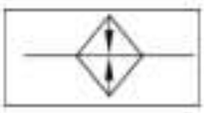
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Table 5. Energy Transmissions and Conditioning

	Working line, return or feed
	Pilot control
	Drain lines
	Flexible pipe
	Line junction
	Crossing lines
	Air bleed
	Line plugged, also pressure test point
	Line plugged with take off line
	Quick release couplings - connected
	Quick release couplings - disconnected

	Reservoir - return line above fluid level
	Reservoir - return line below fluid level
	Header tank
	Pressure sealed tank
	Accumulator
	Filter or strainer
	Water trap
	Cooler - with no indication of coolant flow
	Cooler - indicating direction of coolant flow
	Heater

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Transmission

Technical Data

(ZF 4WG - 160 Powershift Transmission)

Table 2.

Pump Flow @ 2000 r.p.m.	80 l (17.6 UK gal, 21 US gal) 105 l
System pressure	16+2 bar (232+29lb/in 2)
Torque converter	
input pressure (max)	9 bar (130 lb/in 2) 9
-output pressure (max)	3.5 bar (51 lb/in 2)
output temperature (max)	
-continuous	100°C (212 ° F)
-short duration	120°C (248°F)
Inductive transmitters	(engine, turbine, central geartrain)
Resistance @ 20°C (68°F)	1050 ±105 ohms
Temperature range	-40°C (-40°F) - 150°C (302°F)
Torque limit - securing bolts 30Nm (22lbf ft, 3 kgf m) 30Nm (22lbf ft, 3 kgf m)	
Speed sensor output	-40°C (-40°F) - 150°C (302°F)
Temperature range	
Working range	2Hz - 5kHz
	24V
Proportional valves in control valve	
Resistance @ 20°C (68°F)	19 ±1.9 ohms
Current (mA)	100 - 500
Pressure range	0.8 - 8.3 bar (11.6 - 120lb/in 2)
Stall data	
Engine idle	780 ±20 r.p.m.
Engine max no-load	2340±20 r.p.m.
Transmission	2200 r.p.m.
Hydraulic	2330 r.p.m
Combined - transmission/hydraulic	2180 r.p.m.

⇨ *Fig 135. (🗋 F-44)*

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Propshafts

Removing and Replacing

When Removing

Before removing propshafts always mark both companion flanges and also mark the sliding joints prior to removal ⇨ *Fig 136. (F-55)*.

When Replacing

Upon reassembly, after lubricating sliding joints with JCB P

Grease, align the shafts against identification marks previously made or, in the case of a shaft being renewed, use the manufacturer's alignment markings.

Apply JCB Lock and Seal to threads of all flange bolts.

Retaining straps **B** stretch with use, therefore these straps must always be replaced with new ones.

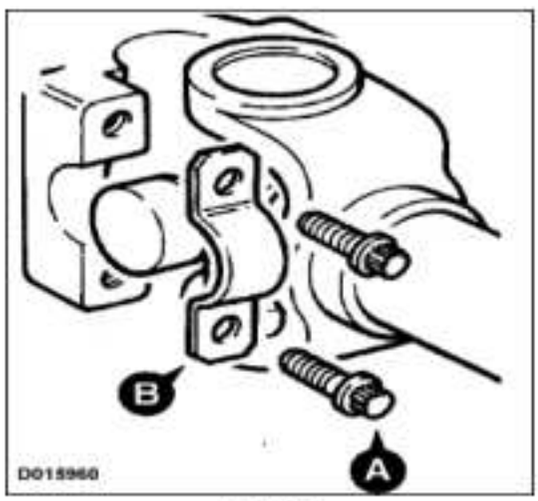


Fig 136.

The propshafts must have both ends exactly on the same plane as shown at X. The yokes must not be at right angles as at **Y** or at an intermediate angle as at Z ⇨ *Fig 137. (F-55)*.

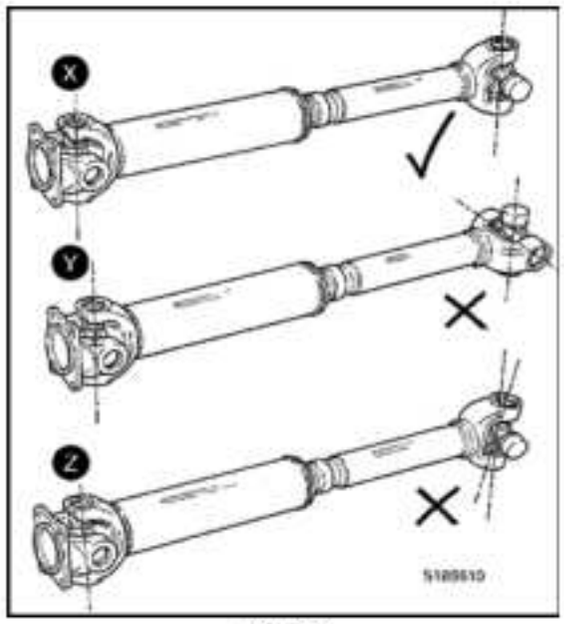


Fig 137.

Torque Settings

Item	Nm	kgf m	lbf ft
A	75 - 85	7.7 - 8.7	55 - 63

Note: *The rear propshaft is secured at the gearbox end by flange bolts and nuts. These should be tightened to a torque of 118 Nm (12 kgf m, 87 lbf ft).*

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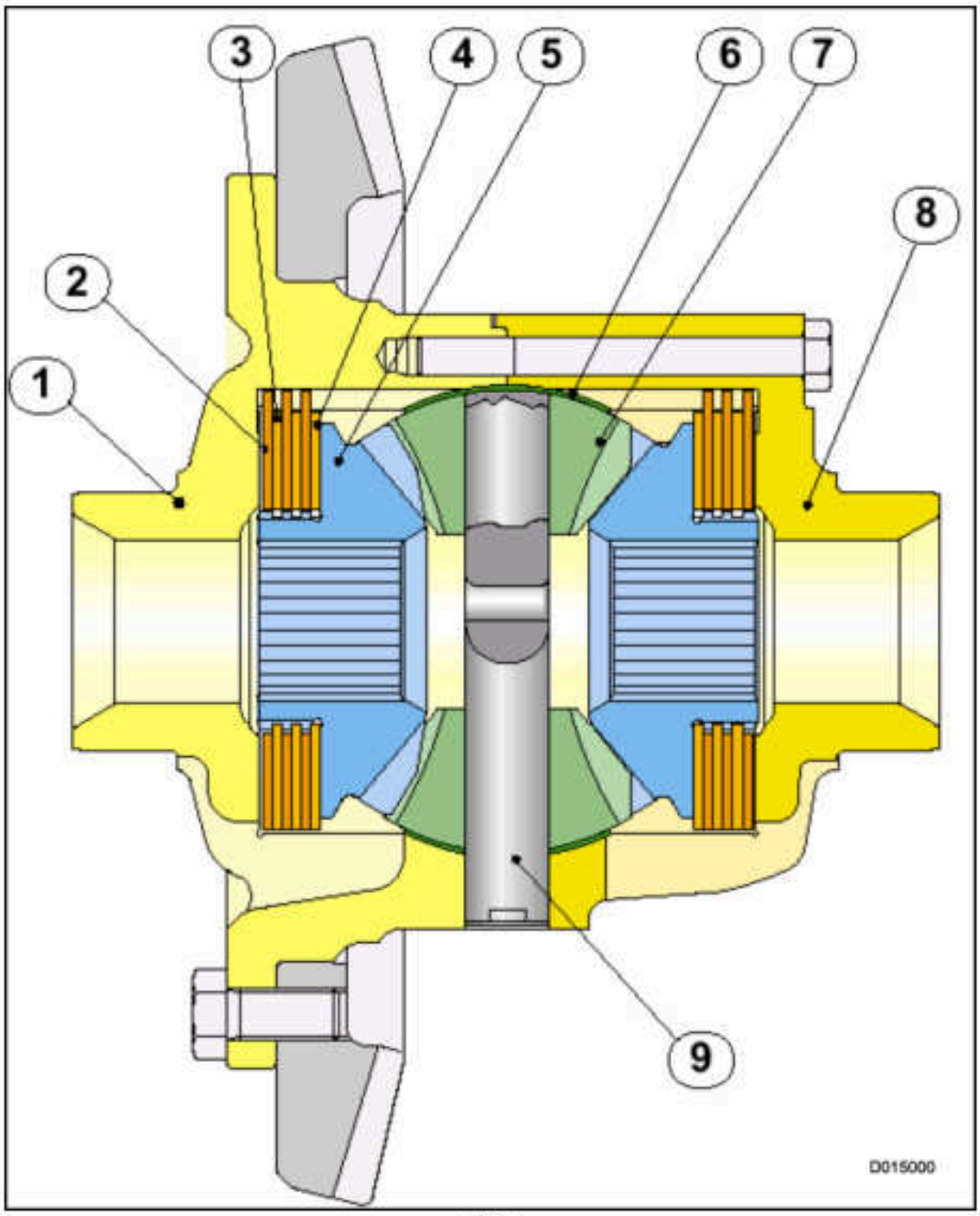


Fig 122.

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10-30	1/21 -3	2-31/2	21/2-4
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50-70	2 -3	2-5	31/2-51/2

Pump Pressure Testing

⚠ WARNING

A raised body might drop suddenly and cause serious injury. Before working under a raised body, install the body safety strut.

7-1-1-7

⚠ WARNING

Make sure the articulation lock is in the transport position before you transport the machine. The articulation lock must also be in the transport position if you are carrying out daily checks or doing any maintenance work in the articulation danger zone.

If the articulation lock is not in the transport position you could be crushed between the two parts of the chassis.

4-3-5-7

PRESSURE TESTING

Main Relief Valve

Connect a 0-400 bar (0-6000 lbf/in2) pressure gauge to snap connector A to the pump outlet ⇨ *Fig 40. (E-20)*.

Run engine at maximum speed, fully raise the lift arms and hold while checking the maximum gauge reading which should equal the M.R.V. pressure shown in Technical Data.

If necessary, adjust the pressure setting as follows.

1 Open the cover of the relief, there will be an Allen screw.

2 Turn clockwise to increase the pressure setting and anti-clockwise to decrease the pressure setting. Please see technical data.

3 Use a 0-600 bar ⇨ *Fig 41. (E-20)* pressure gauge to check the pressure.



Fig 40.

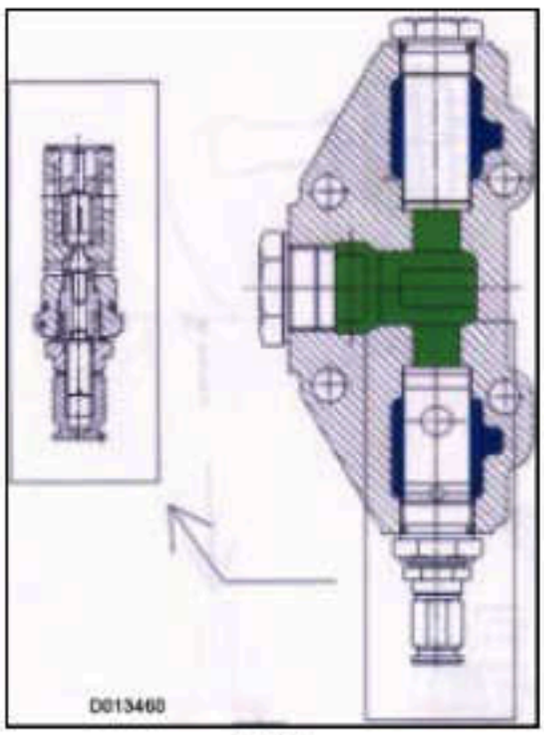


Fig 41.

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