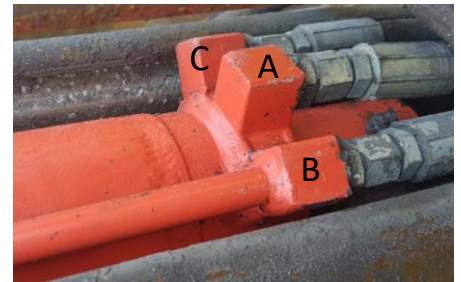
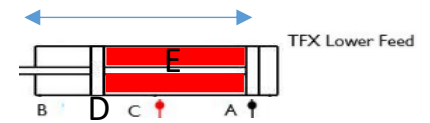


WORK INSTRUCTION

DOCUMENT	TFX SYSTEM TESTING (UPDATED)
MACHINE/ GROUP	Sandvik 422/421/321
DOCUMENT AUTHOR	Gavin Cunningham
DOCUMENT No.	MTU10218
DATE	01.08.2025



Background

The TFX system allows the lower feed to be set to a shorter alternate length as required. To achieve this, the travelling piston (D) is moved by increasing or decreasing the oil volume in area E, via port C.

If oil leaks from this area, through seal or valve bypass, or external/hose/fitting leakage, the set length will change or creep.

The new test method simplifies testing, by allowing a full system test to be completed at the carrier with only 1 hose removed and capped.

The test better replicates the operational sequence where creeping of the set length occurs. The test confirms cylinder integrity, as well as ruling out a leakage from the C hose or bypass through Y460 poppet valve.

If the length will not set – confirm hose connections between Y460 to C port, and Y461 to A port, and that coil resistance is 30 ohms +/-5 ohms

Tooling Required

- 1 x 9/16 JIC plug
- 1 x 19mm spanner
- Mark up paint.
- 1' deep socket (if valves require change out)

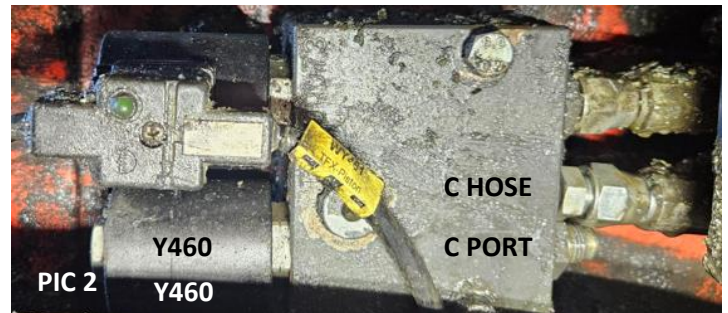
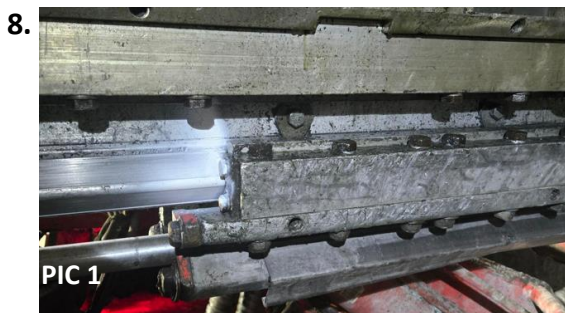
Related parts

Item	Qty	Part Number	Part Name	Description
1	1	MT551 881 44	DIRECTIONAL CONTROL VALVE v9	Y460_24VDC - VALVE ASS COMPLETE
2	1	MT881 272 89	DIRECTIONAL CONTROL VALVE v4	Y461_24VDC VALVE ASS COMPLETE
3	1	MT882 535 19	SOLENOID v4	24VDC
4	1	MT9106 1458 156	DOUBLE DIN PLUG	M12 DUAL DIN CONNECTION
5	1	MT1221 0000 050	5000mm SIGNAL CABLE	FREE END



Use site specific isolation and PPE when testing.

1. **Set the split to an 'IN BETWEEN' length** of approx.5m of open split, as per screen instructions on 422 or manual setting procedure on 421. Check that reverse split feed is limited to the new mid length.
2. **With the feed level and forward, remove and plug the hose to Y460** at the TFX valve (PIC 2).
3. **Leave the valve open to atmosphere.** Try not to let oil drain from the hose while plugging.
4. **Tilt the feed upward 20 or 30 Deg,** this decreases the slide friction/weight and allows creep to occur more readily should piston bypass occur.
5. **Engage reverse feed then paint mark the position of the TFX** at the rear profile rail slide holder. PIC 1.
6. **Hold reverse feed for 5 min** and check for, (both coils should be off (Y460 NC Y461 NO)
 - Oil leaking from the feed or loom, this could indicate a leak from the C hose or connections which will cause the fixed length to change.
 - Oil leaking from Y460 outlet, this is a poppet valve and should have zero leakage. Y461 is not relevant.
 - Movement backward of the TFX. +/-10mm max over 5min. Cylinder piston bypassing.
7. **Should no faults be found,** move the feed from full reverse to full forward multiple times and check that the TFX is still limited to the set (marked) position, damage to the mid section of the TFX barrel will not show a fault in the static pressure test. +/-10mm



422 Boom 1 shown. Boom 2 is the top hose if hosed as per factory
Ensure plugged hose lines up with Y460 coil

