

# SERVICE ENGINEERS REPORT

Customer:			
Date of visit:	4/12/18 - 6/12/18		
		Harry Branchine	

### **Engineers Comments**

Visited site to inspect and evaluate the customer's MP125 extruder line.

The machine was last run in 1992.

#### Barrel 30D

The barrel was opened for inspection of the liners and shafts, the hydraulics function correctly.

Liner 1

Feed, 2.5D good condition

Liner 2.

Inter, 5.0D good condition

Liner 3.

Inter, 5.0D good condition

Liner 4.

Inter, 5.0D good condition

Liner 5.

Inter 5.0D good condition

Liner 6.

Inter 2.5D good condition

Liner 7.

XLT Discharge 5D good condition.

Feed and return lines were removed and compressed air fed into circulation blocks. All blocks were found to have good flow.

Pipework is in good condition with all solenoids present.

All control thermocouples and melt thermocouples are in place but could not be tested due to condition of electrics.

All the heaters are in place but could not be tested due to the condition of electrics.

The barrel is in very good overall condition.

#### **Shafts**

All elements are in good condition with very little visible wear.

See configuration below.

Customer has numerous spare elements and 2 sets of new shafts

See inventory below.

Position on shaft	Туре	Length	Pitch
1	THFS	1D	
2	FS	0.75D	1.5
3	FS	0.75D	1.5
4	FS	0.75D	1.5
5	FS	0.75D	1.5
6	FS	1.5D	1
7	FS	1.5D	1
8	FS	1.5D	1
9	FS	1D	1
10	FS	1D	1
11	FS	1D	1
12	Р	@30	
13	Р	@30	
14	Р	@30	
15	Р	@30	
16	Р	@60	
17	Р	@60	
18	Р	@60	
19	Р	@60	
20	Р	@60	
21	Р	@60	
22	Р	@60	
23	Р	@60	
24	OP		
25	FS	0.75D	1.5D
26	FS	1.5D	1D
27	FS	1.5D	1D
28	FS	1D	1D
29	FS	1D	1D
30	FS	1.5D	1D
31	FS	1.5D	1D
32	FS	1.5D	1D
33	FST	1.5D	1D
34	XLT	118MM	
35	XLT	155MM	
36	XLT	155MM	
37	XLTD	155MM	

### Spares held by customer,

Feed Screw 1D 1D 18 off
Feed Screw 1.5D 1D 14 off
Feed Screw 0.75D 1.5D 6 off
Feed Screw D/4 1.5D 4 off
Tight Helix Feed Screw 1D 5 off
Feed Screw – XLT transition 1.5D 1D 5 off
Orifice plugs D/4 4 off
Paddles D/4 69 off
XLT FS 117mm 3 off
XLT FS 156.25mm 6 off
XLTD FS 156.25mm 3 off
End pins 2 off
Set of shafts 2 off

#### **Gearbox**

The motor coupling and the shaft couplings were disconnected from the gearbox.

No excessive backlash, end float or radial movement is present in the input or output shafts.

Timing is ok.

There are no visible oil leaks.

The top inspection covers were removed in order to gain access to the gears, these appear to be in goo condition. See photo's below.



The torque limiter coupling has no identity plate of setting stamp but appears to be in good condition.

The lubrication pump motor is missing and could not be located.



### **Drive Motor**

The drive motor blower is missing and could not be located. This has enabled dirt to enter the motor but no damage to commutator is evident.



## **Electrical panels**

The extruder electrics/electronics have been badly vandalized and as far as I can see very little can be salvaged and a new panel would be needed in order to run the extruder and feeders.

The original panel controlled 8 feeders and all ancillary equipment and ran on Siemens S5 see below photos.





# **Ancillary Equipment**

The customer has some associated pieces of equipment including the following.

- Shaker
- Packing machine
- Vent port stuffer
- Hydraulic power pack (to run the strand pelletizer and belt)
- Water pump
- Strand pelletizer HSG 600
- Hydraulic conveyor belt
- Various conveyors
- Hopper
- KTron Loss in weight feeder LWF 3
- KTron weight belt feeder WF 300
- KTron Vibrator K-V3-15OF
- KTron Feeder S500

I did not see any side feeders during my visit. None of the above could be tested.

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Actions	Rea	mred

The customer is looking to either commission the machine at their factory or sell it on as a working line.

The configuration of the line would be dependent upon the process.

The customer may need some process advice.

Mechanically the extruder appears to be in very good condition.

The basic requirements would be for a panel and wiring to control the extruder, main feeder, side feeders, and pelletizer. The customer would need to advise of any additional requirements.

The blower motor needs to be found/replaced

The lubrication pump motor needs to be found/replaced.

Should the customer decide to sell the extruder on and contract ourselves to complete the works I think it would be wise to have the extruder delivered to Xtrutech for commissioning before carrying on to the final site.

### Parts used or required

Date (dd/mm/yy)	Travel / Start Time	Travel / Finish Time	Work / Start Time	Work / Finish Time	Total hours
04/12/18	03.30	15.30			14
05/12/18	08.00	18.00	08.15	17.45	12
06/12/18	08.00	19.30	8.15	10.30	13.5

Signed Engineer	Signed Customer
Print Name	Print Name
Date	Date