

OPERATION INSTRUCTIONS and PARTS LIST for CONSTANT TENSION MANIFOLD

This instruction sheet and parts list covers operation and adjustment of the Constant Tension Manifold controls for FA Series winches. This sheet should be used in conjunction with the appropriate Parts, Operation and Maintenance Manual form.

Operators should familiarize themselves with these features, operation and other safety procedures provided in the Parts, Operation and Maintenance Manual form.

OPERATION

Description of Operation

Refer to Dwg. MHP1815 on page 2.

With auxiliary valve (744) in the **NORMAL** position, the winch control valve will provide normal winch operation. With auxiliary valve selector in the **TENSIONING** position, the winch will automatically haul-in wire rope to maintain tension.

The auxiliary valve provides a preset air pressure to the air motor and disc brake. This allows the brake to be released, and winch to over haul during **TENSIONING** operations. In this position the winch will maintain a constant tension on the wire rope.

The auxiliary valve comes set at zero from the factory . All adjustments must be made in the field. These adjustments can be changed at anytime to accommodate the current load. Refer to

“REGULATOR ADJUSTMENT” section for adjusting procedures.

Operation

Place auxiliary valve in **NORMAL** position and use winch control to position the end of load line at the load. Connect load line to the load and use winch control to remove all slack from the load line.

CAUTION

• **If there is slack in the load line when selector lever is placed into TENSION position, the rope will SNAP tight as winch automatically maintains tension.**

Actuate auxiliary valve to **TENSIONING** position. Winch will automatically Haul-In to maintain tension on load line.

REGULATOR ADJUSTMENT

The regulator and pressure gauge (777) are both accessible through the cover (736). The regulator is factory-set at 0 psig (0 Bar/ 0 kPa) and adjusted once in is placed in service. The regulator is adjusted to maintain tension on the load line, at the site. If this setting is not adequate (i.e. wire rope tension not maintained at desired setting), increase or decrease regulator pressure.

Regulator Adjusting

Refer to Dwg. MHP1815 on page 2.

For units that have been used, twist the knob on the regulator (777) counterclockwise 3 - 4 turns. This will lower the pressure setting. For units from the factory the setting will be at zero.

1. Attach a test load of the desired weight to load line or connect load line to a scale.

WARNING

• **Ensure that load line is connected to a load prior to activating auxiliary valve. Once activated the auxiliary valve will automatically (at full drum speed) take up all slack.**

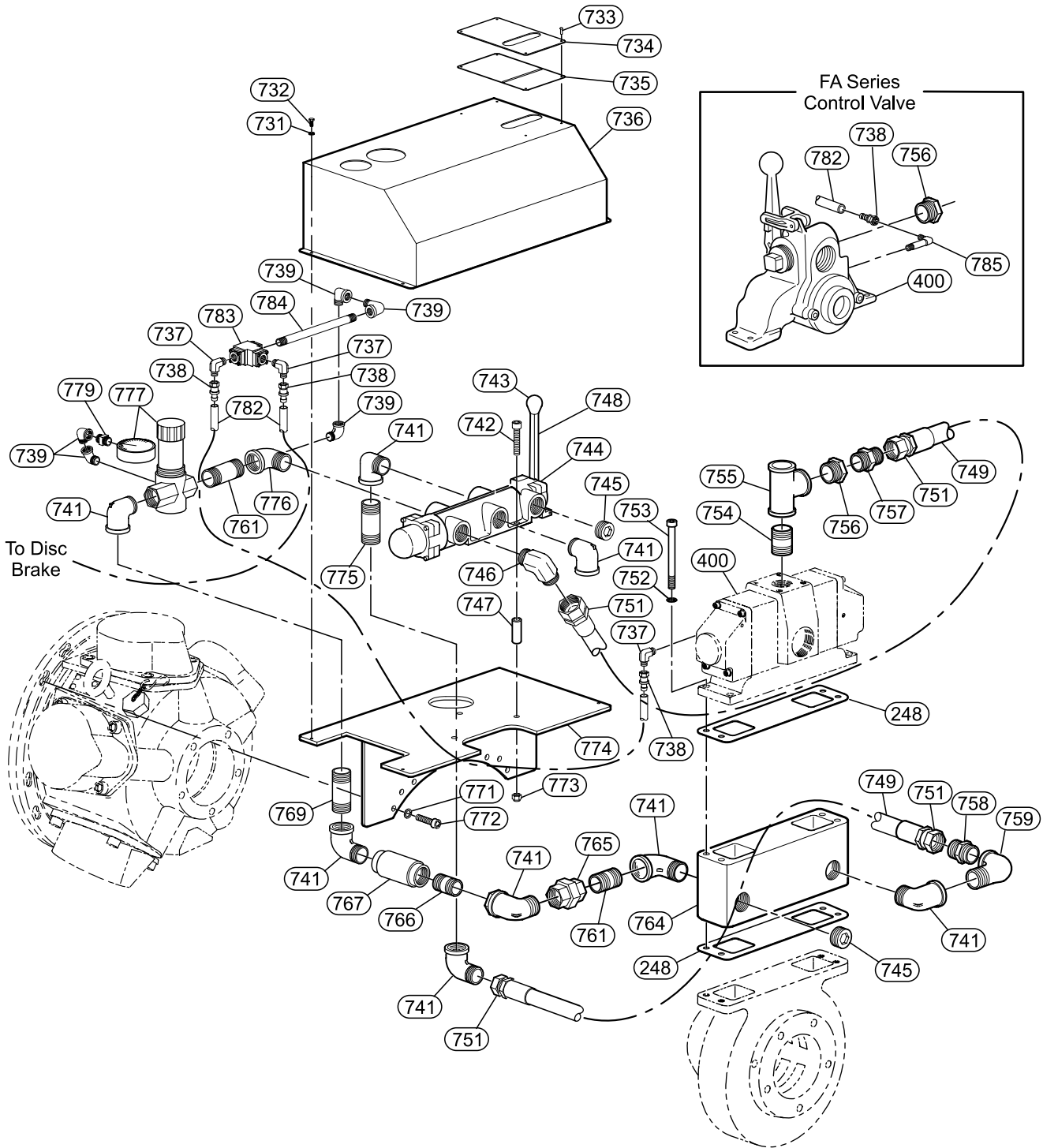
2. With winch control valve remove all slack out of load line. **Setting with test load.**

3. Actuate auxiliary valve to **TENSIONING** position. Load line should become taut. Slowly twist regulator knob clockwise until load begins to rise, back off 1/4 turn. Note pressure reading on gauge for future settings.

Setting with scale.

4. Actuate auxiliary valve to **TENSIONING** position. Load line should become taut. Slowly twist regulator knob clockwise until scale indicates desired tension. Note pressure reading on gauge for future settings.

TENSIONING MANIFOLD PARTS AND ASSEMBLY DRAWING



(Dwg. MHP1815)

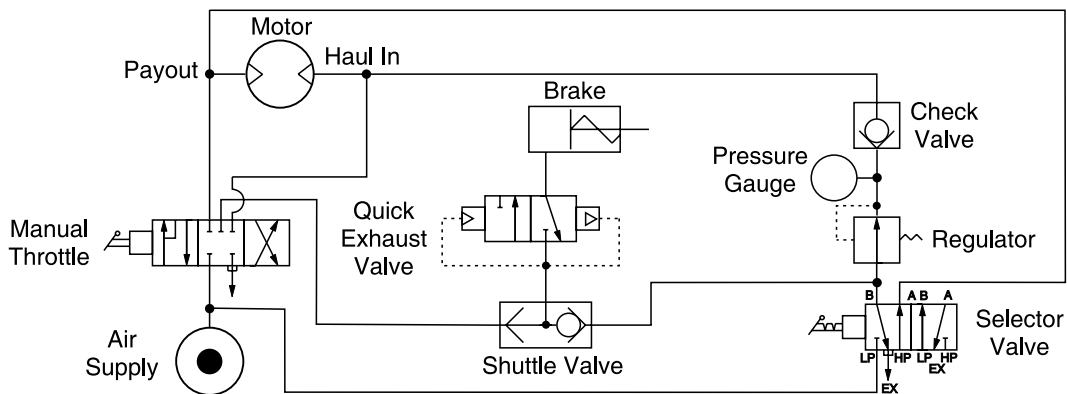
TENSIONING MANIFOLD PARTS LIST

ITEM NO.	DESCRIPTION OF PART	QTY TOTAL	PART NUMBER	ITEM NO.	DESCRIPTION OF PART	QTY TOTAL	PART NUMBER
248	Gasket	2	K5B-547	753	Capscrew	4	71328199
400	Control Valve (FA Series)	1	K5B-REMOTE	754	Fitting, Nipple	1	51034
	Control Valve (FA'A' Series)		24801	755	Fitting, Tee	1	51718
731	Washer	4	71320964	756	Fitting, Bushing (FA Series)	1	51705
732	Capscrew	4	71127054		Fitting, Bushing (FA'A' Series)		50934
733	Rivet	6	50915	758	Fitting, Nipple	2	71308258
734	Label, Tensioning Manifold	1	26217	759	Fitting, Elbow	1	50928
735	Gasket	1	26216	761	Fitting, Nipple	2	50933
736	Cover	1	26215	764	Manifold, Control Valve	1	25874
737	Fitting, Elbow (FA Series)	2	54869	765	Union	1	71328330
	Fitting, Elbow (FA'A' Series)	3		766	Fitting, Nipple	1	71328314
738	Fitting, Hose End	3	51029	767	Check Valve	1	71320915
739	Fitting, Elbow	5	52803	769	Fitting, Nipple	1	71328249
741	Fitting, Elbow	8	54243	771	Washer	4	71320956
742	Capscrew	3	71319073	772	Capscrew	4	71320949
743	Handle Ball	1	71138051	773	Nut	3	71069132
744	Valve	1	71316434	774	Bracket	1	26095
745	Plug	2	71069017	775	Fitting, Nipple	1	71320907
746	Fitting, Elbow	1	51001	776	Fitting, Elbow	1	26057
747	Spacer	3	14998-8B	777	Regulator and Gauge*	1	71325047
748	Handle	1	26149	779	Fitting, Connector	1	54943
749	Hose	As Req'd.	51003-**	782	Hose	As Req'd.	50923-**
751	Fitting, Hose End	4	51002	783	Shuttle Valve	1	50277
752	Washer	4	51581	784	Fitting, Tube Extension	1	71325591
				785	Fitting, Elbow	1	71149975

* Items not sold separately

** Order in even foot increments, i.e. 51003-02 = 2 feet (0.6 metres)

CONSTANT TENSION AIR SCHEMATIC



(Dwg. MHP1854)

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