

 Spare parts list	Valve Series	Coordinate ID
	RMU270	

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Spare parts list

Valve Series

Coordinate ID

RMU270

Typical valve build specification

Valve specification number

Date printed

AA00	SAE	BN00	Main Relief Valve	BN04	Check Valve	AA20	Control Valve
	RMU274 02900735		TBDU200-3000 02902263		MBU01 02900648		Plug SAE-8 02701842
P1	Shipping Plug Push	T1	Shipping Plug Push		Open center		
P2	Plug SAE-12 02058344	T2	Plug SAE-12 02058344				

		1	2	3	4		
BH	Spool	112AA1 03515207	112AA1 03515207	112AA1 03515207	112AA1 03515207		
CE	A-side Relief cavity	P204 6900002245	P204 6900002245	P204 6900002245	P204 6900002245		
CP	B-side Relief cavity	P204 6900002245	P204 6900002245	P204 6900002245	P204 6900002245		
DB	Spool Control A-port side	9 03486475	9 03486475	9 03486475	9 03486475		
DM	Spool Control B-port side	M19 03501927	M19 03501927	M19 03501927	M19 03501927		
DY	Work Port A-side	Shipping Plug Push	Shipping Plug Push	Shipping Plug Push	Shipping Plug Push		
EJ	Work Port B-side	Shipping Plug Push	Shipping Plug Push	Shipping Plug Push	Shipping Plug Push		

TA	Tag Fields	P/N 12345678	MOD RMU274	P 3000	DATE	T 290
AD	Additional Assembly Procedures	Specification N/A				
TE	Test Procedures	Specification MHD-700073				
PA	Packaging Procedures	Specification MHD-700065				

Indicates
service item

HANDLES

P/N

MOD

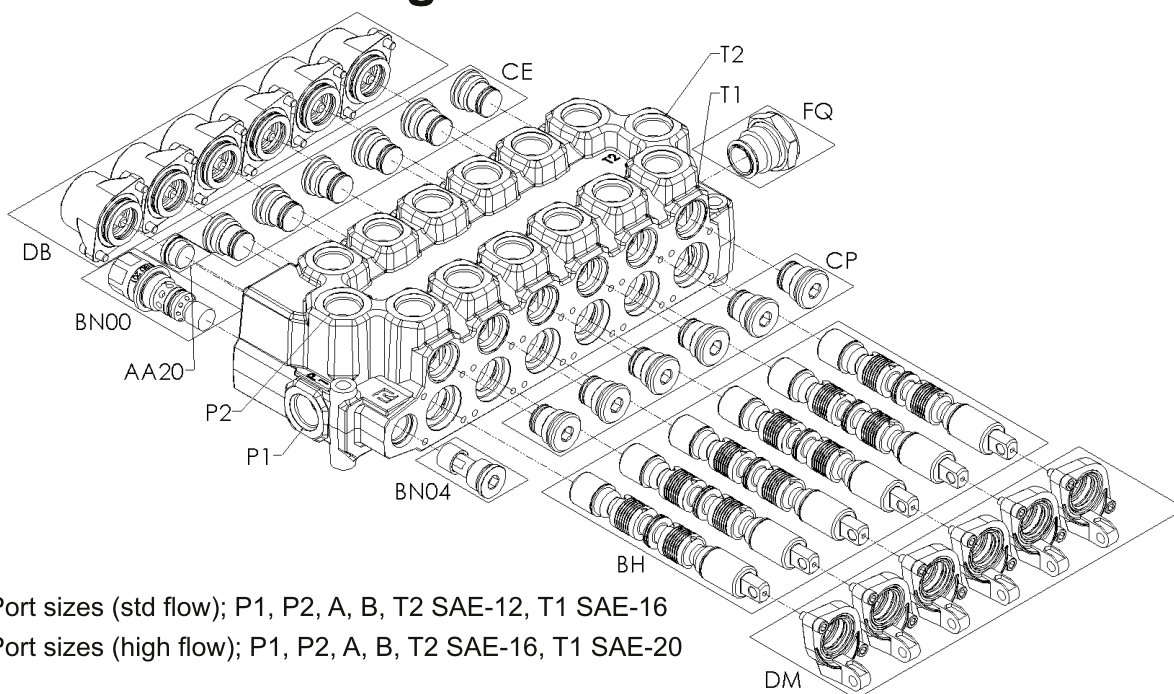
QTY

Revisions

Rev.	Date	ECN No.

 Spare parts list	Valve Series	Coordinate ID
	RMU270	AA00

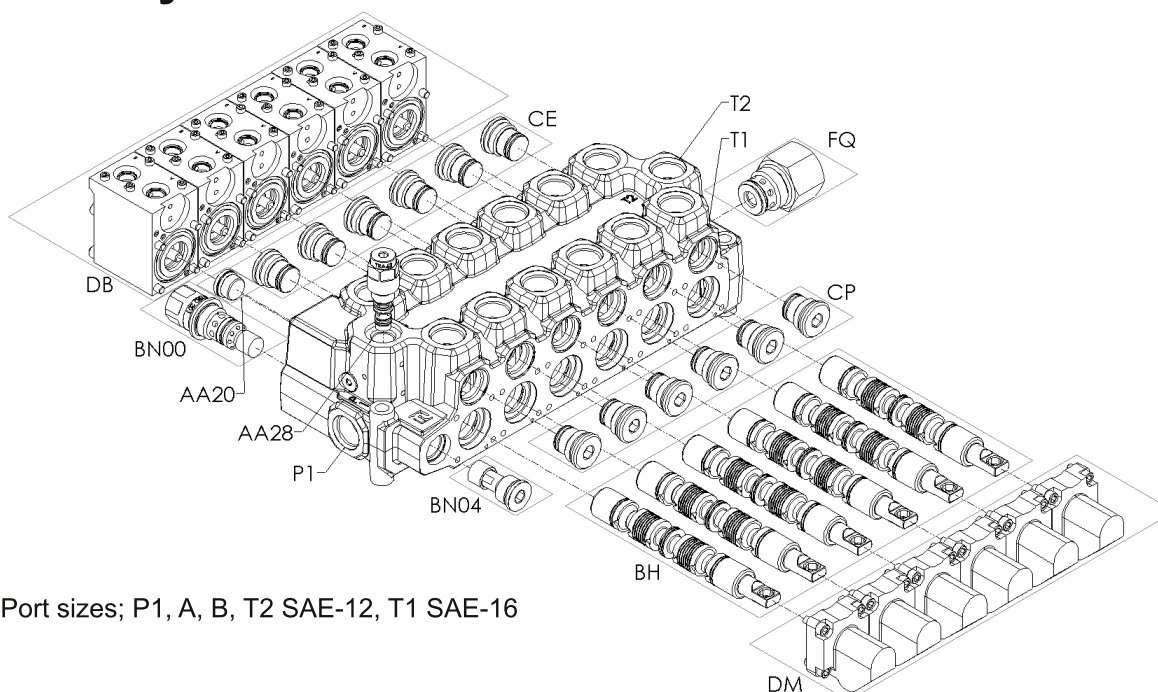
Standard Flow / High Flow



*Port sizes (std flow); P1, P2, A, B, T2 SAE-12, T1 SAE-16

*Port sizes (high flow); P1, P2, A, B, T2 SAE-16, T1 SAE-20

Electro-hydraulic



*Port sizes; P1, A, B, T2 SAE-12, T1 SAE-16



Spare parts list

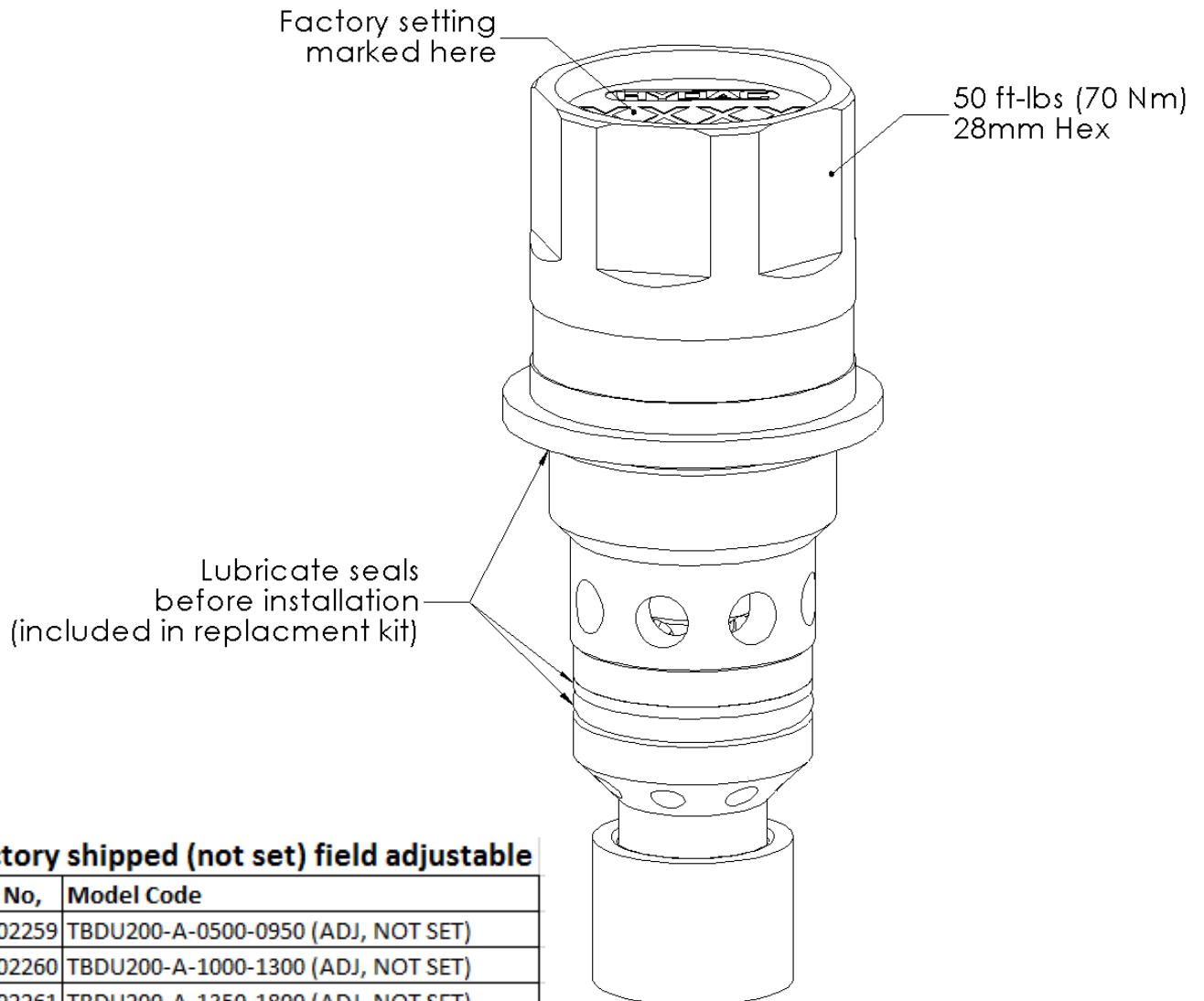
Valve Series

Coordinate ID

RMU270

BN00

TBDU200



Factory shipped (not set) field adjustable

Part No.	Model Code
2902259	TBDU200-A-0500-0950 (ADJ, NOT SET)
2902260	TBDU200-A-1000-1300 (ADJ, NOT SET)
2902261	TBDU200-A-1350-1800 (ADJ, NOT SET)
2902262	TBDU200-A-1850-2250 (ADJ, NOT SET)
2902263	TBDU200-A-2300-3050 (ADJ, NOT SET)
2902264	TBDU200-A-3100-3900 (ADJ, NOT SET)

*Order relief valve by model code: **TBDU200-S-XXXX**

where XXXX is the desired pressure setting from 0500 to 3200 PSI, set in 50 PSI increments.

-See table above to determine full adjustability range of factory set valve.

Part No

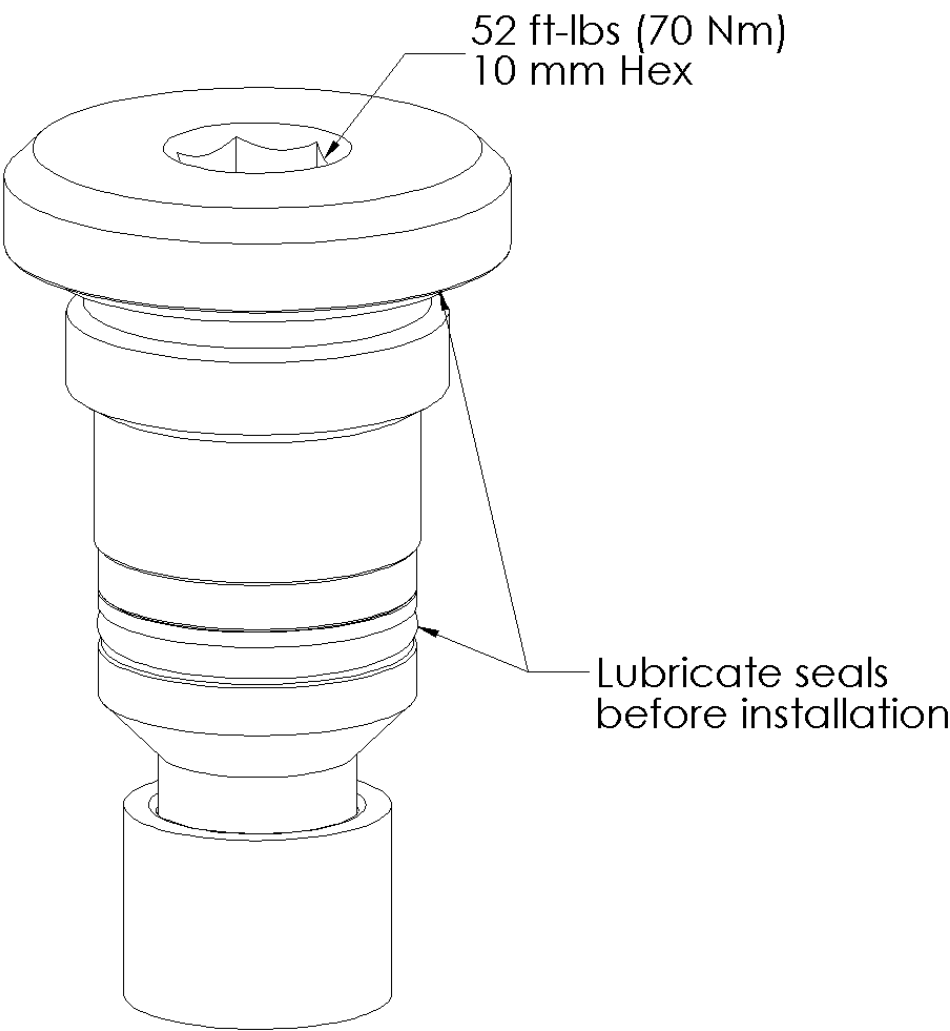
XXXXXXXXXX

Description

Replacement seal kit for TBU200

 Spare parts list	Valve Series	Coordinate ID
	RMU270	BN00

MPU203



Part No	Description
2902357	Plug replacing TBDU200
XXXXXXX	Replacement seal kit for TBDU200/MPU203



Spare parts list

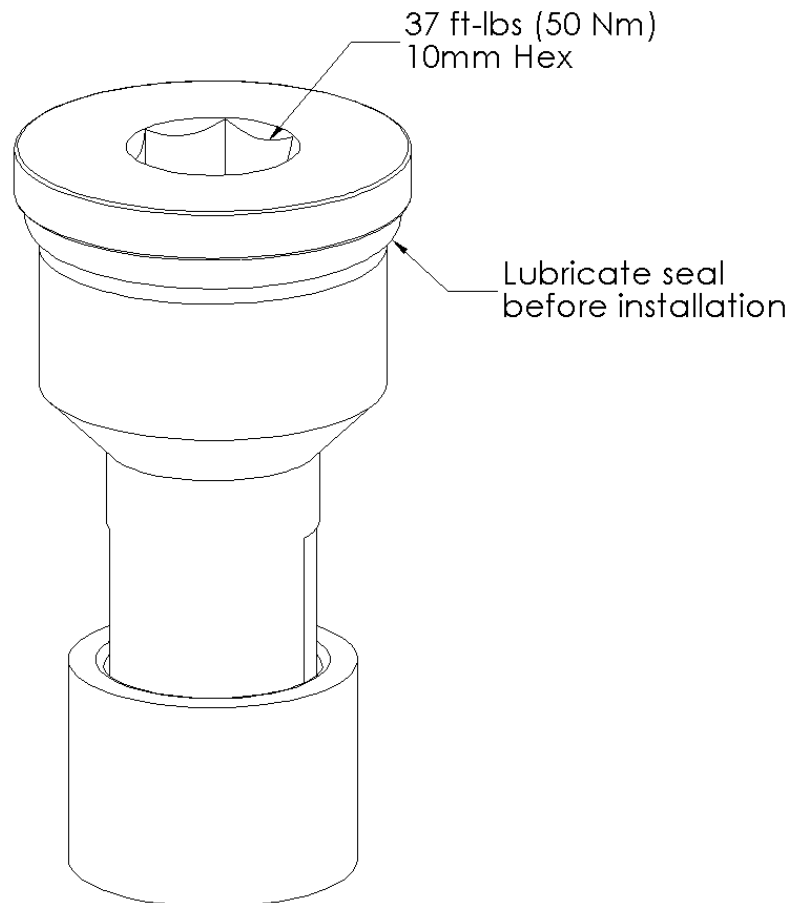
Valve Series

Coordinate ID

RMU270

BN04

MBU01



Part No

2900648

Description

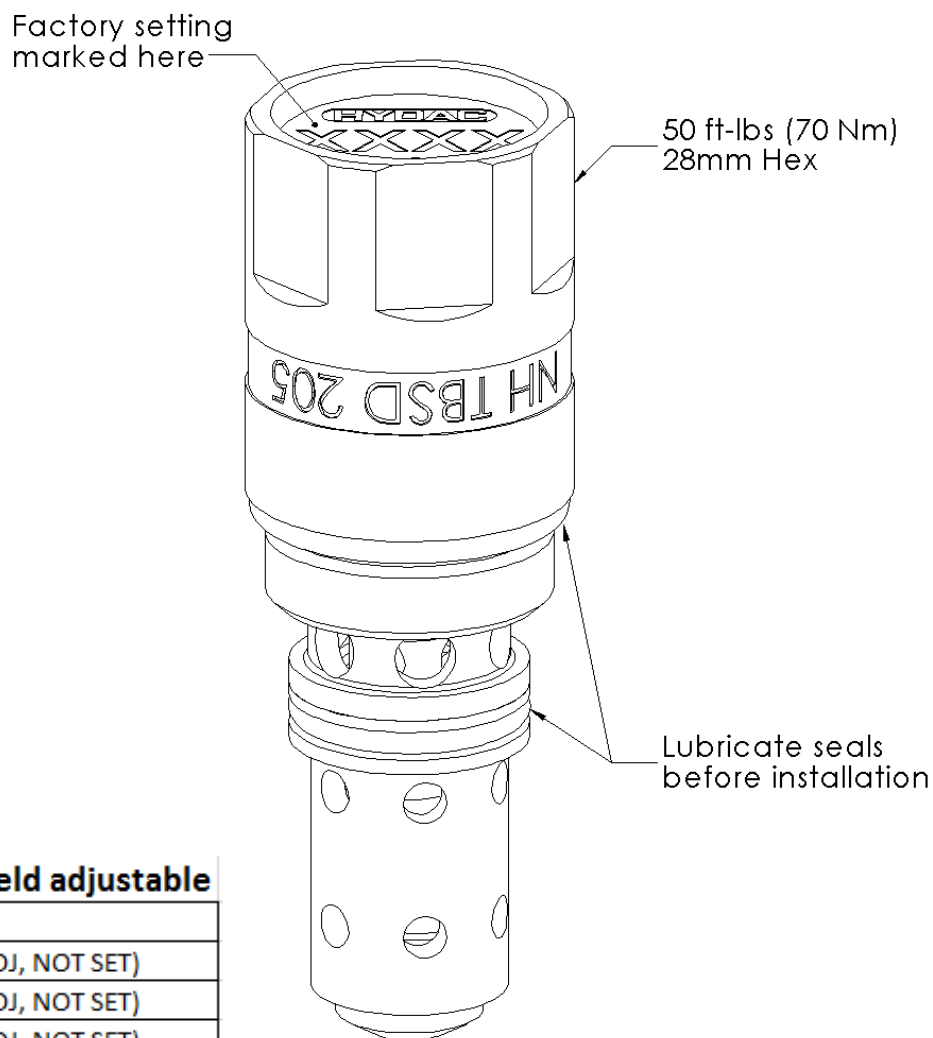
Check valve

XXXXXXX

Replacement seal for MBU01

 Spare parts list	Valve Series	Coordinate ID
	RMU270	CE,CP

TBSD205



Factory shipped (not set) field adjustable

Part No,	Model Code
2900169	TBSD205-A-0500-0950 (ADJ, NOT SET)
2900170	TBSD205-A-1000-1300 (ADJ, NOT SET)
2900171	TBSD205-A-1350-1800 (ADJ, NOT SET)
2900172	TBSD205-A-1850-2250 (ADJ, NOT SET)
2900173	TBSD205-A-2300-3050 (ADJ, NOT SET)
2900174	TBSD205-A-3100-3900 (ADJ, NOT SET)

*Order relief valve by model code: **TBSD205-S-XXXX**

where XXXX is the desired pressure setting from 0500 to 3200 PSI, set in 50 PSI increments.

-See table above to determine full adjustability range of factory set valve.

Part No

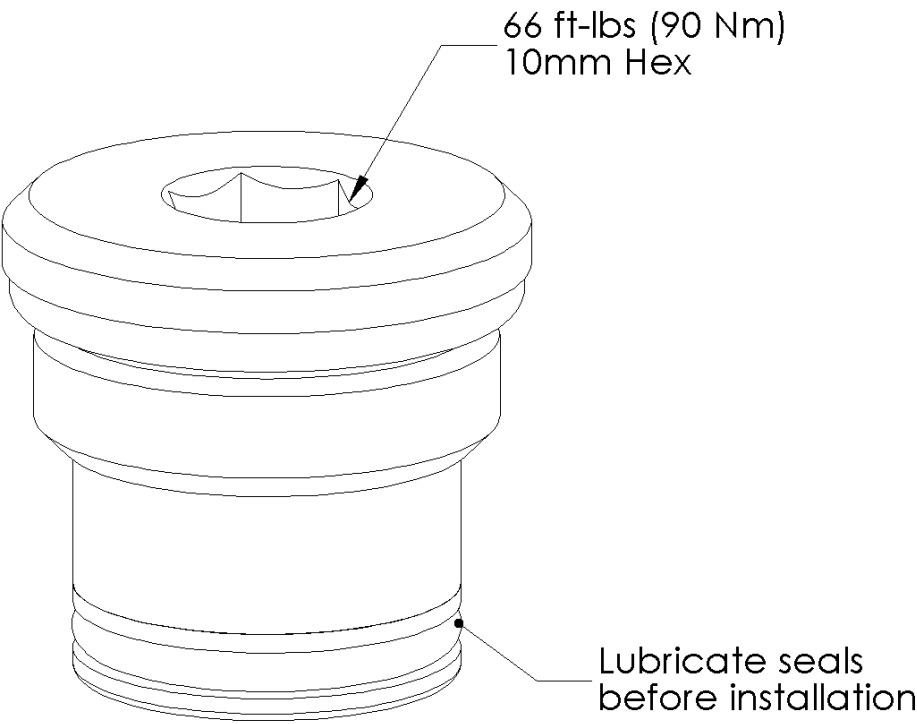
2902005

Description

Replacement seal kit for TBSD205/P204

 Spare parts list	Valve Series	Coordinate ID
	RMU270	CE,CP

P204



Part No	Description
6900002233	Plug replacing TBSD205
xxxxxxx	Replacement seal kit for TBSD205/P204



Spare parts list

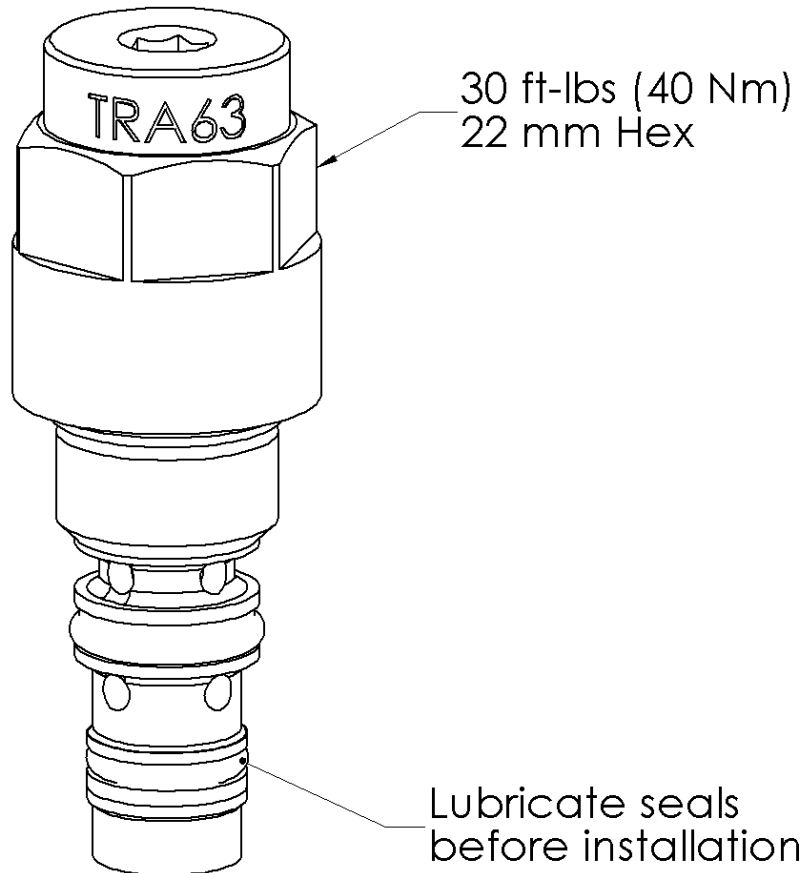
Valve Series

Coordinate ID

RMU270

AA28

TRA63



Part No

6900000064

2901893

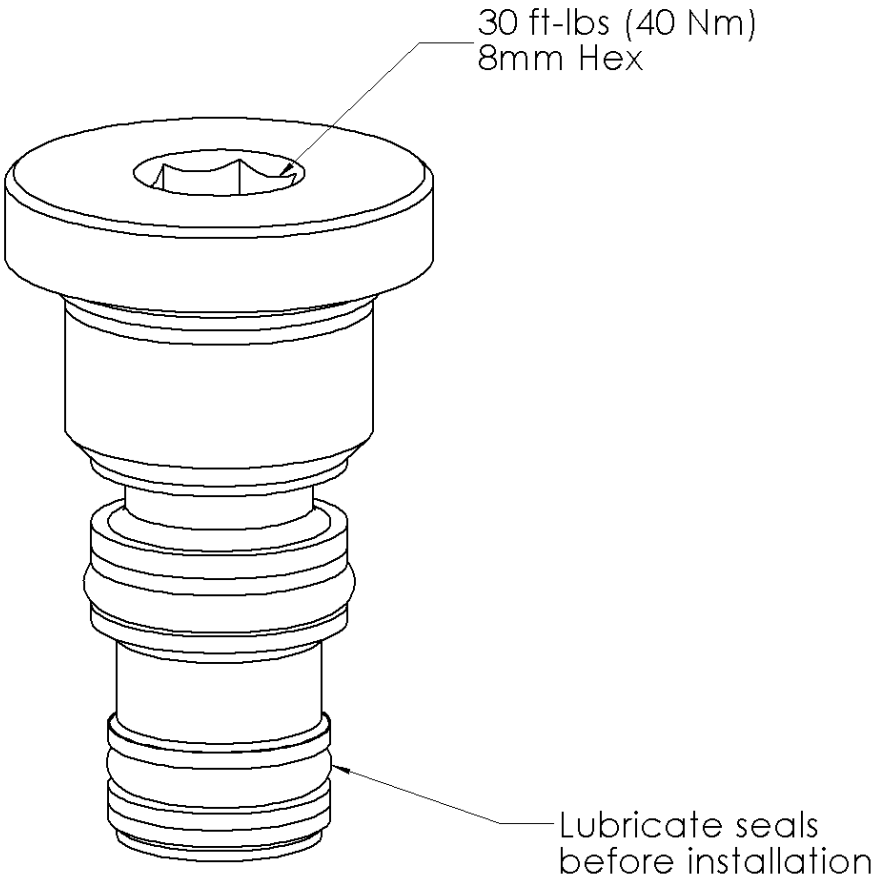
Description

Pressure reducing valve, pilot pressure 350 psi

Replacement seal kit for TRA63/P63

 Spare parts list	Valve Series	Coordinate ID
	RMU270	AA28

P63



Part No

3522640

2901893

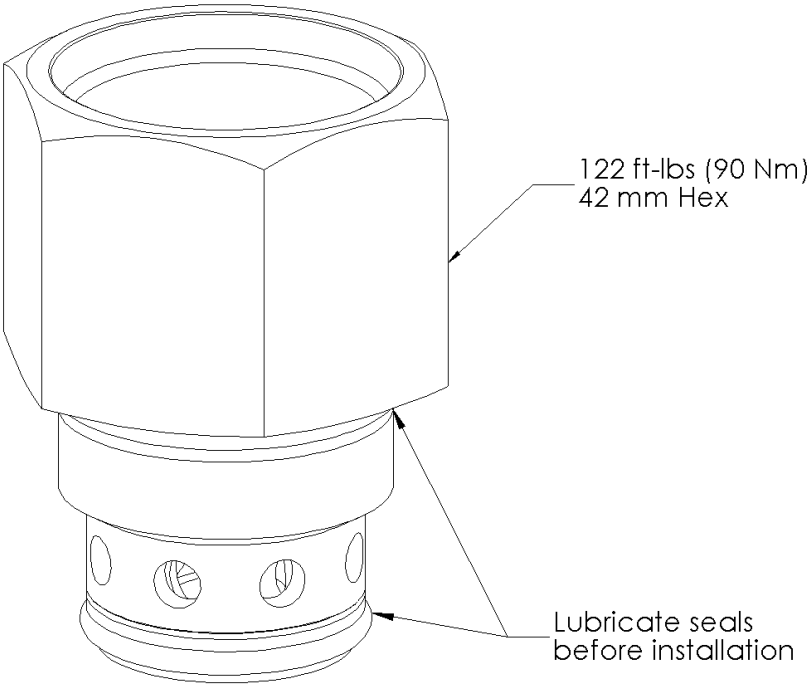
Description

Plug replacing pressure reducing valve, use for externally piloted valves.

Replacement seal kit for TRA63/P63

 Spare parts list	Valve Series	Coordinate ID
	RMU270	FQ

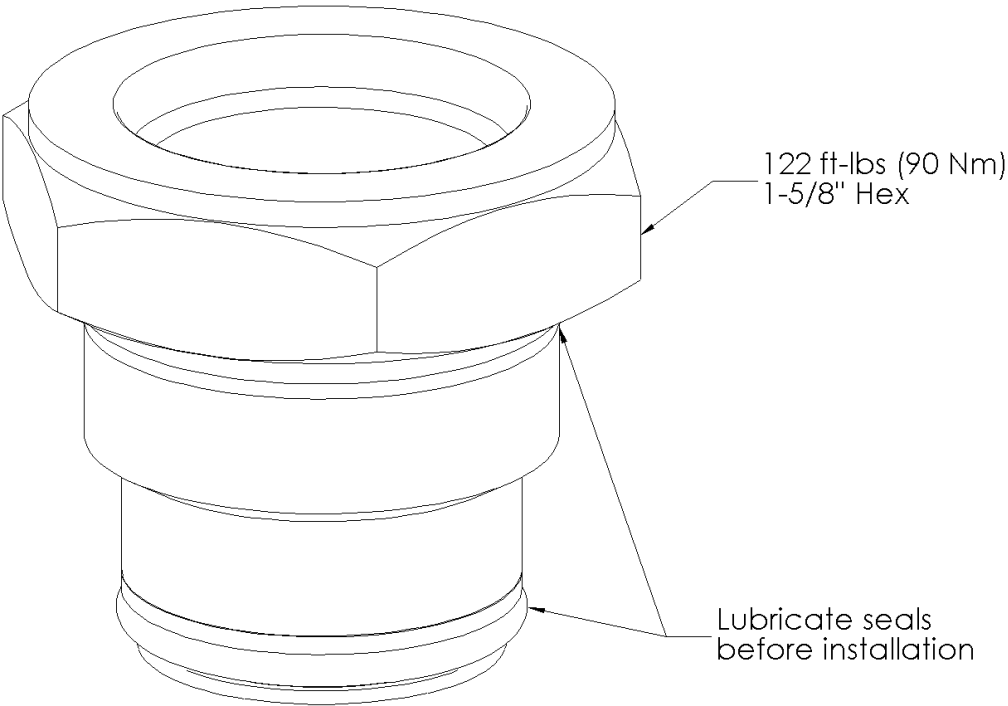
CKEH



Part No	Description
2900650	Pilot pressure valve, for electro-hydraulically operated valve.
xxxxxxxx	Replacement seal kit for CKEH/SU25

 Spare parts list	Valve Series	Coordinate ID
	RMU270	FQ

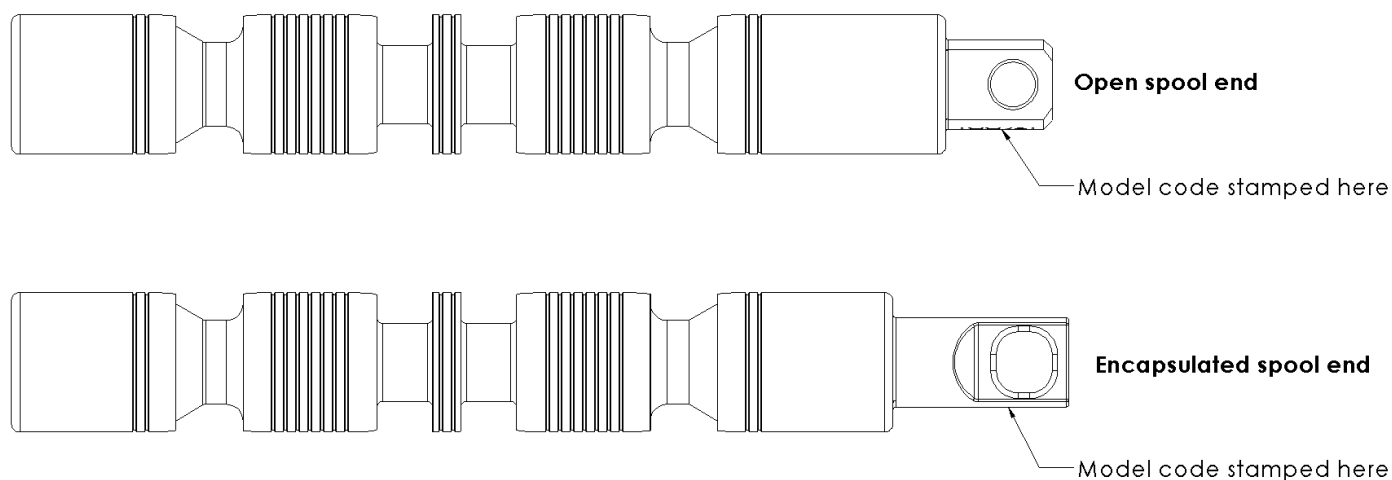
SU25



Part No	Description
2095308	High pressure carryover nipple; power beyond.
xxxxxxxxx	Replacement seal kit for CKEH/SU25

 Spare parts list	Valve Series	Coordinate ID
	RMU270	BH

Spools



Model Code	Part No	Description
107AA1	6900001878	Spool, 3-positional double acting. Nom. pump flow 70 l/min, flow range 50-90 l/min. Open spool end. Symmetrical
X0027	2902142	Spool, 3-positional double acting. Nom. pump flow 70 l/min, flow range 50-90 l/min. Encapsulated spool end. Symmetrical
112AA1	3515207	Spool, 3-positional double acting. Nom. pump flow 120 l/min, flow range 110-130 l/min. Open spool end. Symmetrical
X0025	2900968	Spool, 3-positional double acting. Nom. pump flow 120 l/min, flow range 110-130 l/min. Encapsulated spool end. Symmetrical
X0012	2900755	Spool, 3-positional double acting. For flows above 130 l/min. Encapsulated spool end. Symmetrical
207AA1	6900001877	Spool, single acting P-A. Nom. pump flow 70 l/min, flow range 50-90 l/min. Open spool end.
312AA1	3515210	Spool, 4-positional double acting with float. Nominal flow range 50-110 l/min. Open spool end.
407AA1	2094945	Spool, 3-positional motor. Nom. pump flow 70 l/min, flow range 50-90 l/min. Open spool end. Symmetrical
X0026	2902127	Spool, 3-positional motor. Nom. pump flow 70 l/min, flow range 50-90 l/min. Encapsulated spool end. Symmetrical
412AA1	3589648	Spool, 3-positional motor. Nom. pump flow 120 l/min, flow range 110-130 l/min. Open spool end. Symmetrical
X0024	2900967	Spool, 3-positional motor. Nom. pump flow 120 l/min, flow range 110-130 l/min. Encapsulated spool end. Symmetrical
X0001	2900340	Spool, 3-positional motor. For flows above 130 l/min. Encapsulated spool end. Symmetrical



Spare parts list

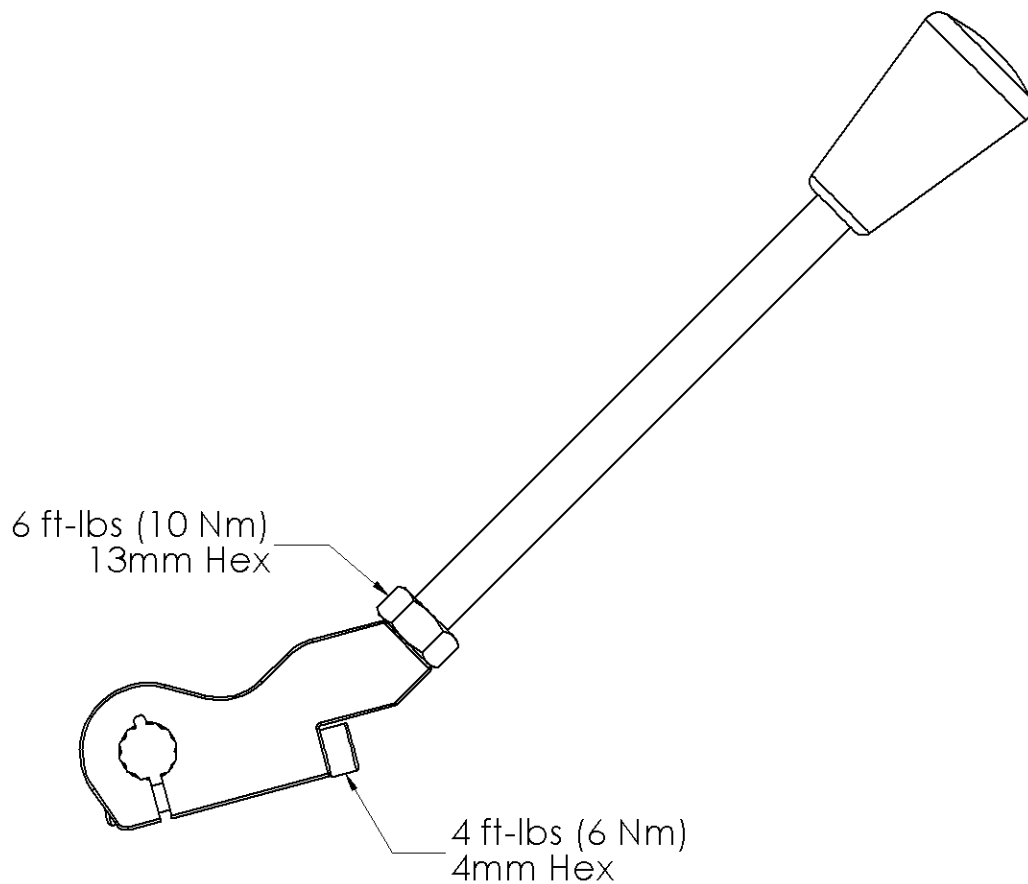
Valve Series

Coordinate ID

RMU270

LEVER

MSK190



Part No

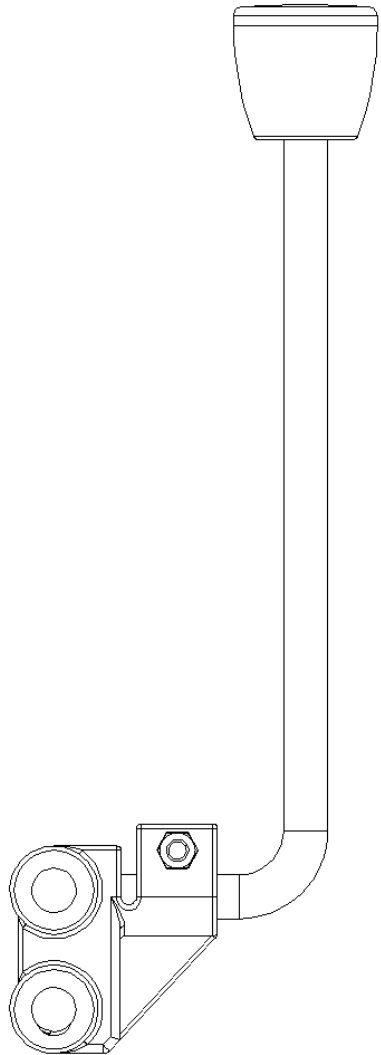
3550295

Description

Complete hand lever for hexagon shaft on MU03 and MHU03 spool controls.

 Spare parts list	Valve Series	Coordinate ID
	RMU270	LEVER

M200V



Part No

2094463

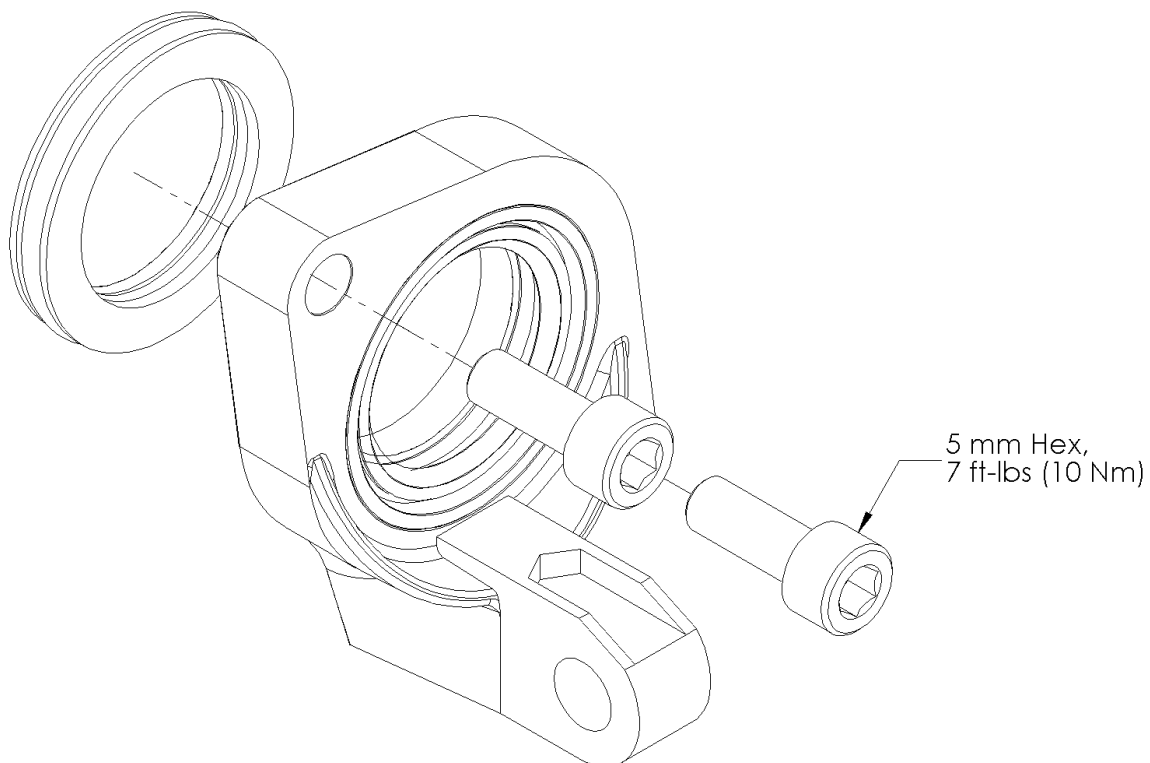
Description

Complete hand lever for open spool end on M19 spool control.

 Spare parts list	Valve Series	Coordinate ID
	RMU270	DM

M19

*Hand lever sold separately



Part No

3501927

2095334

Description

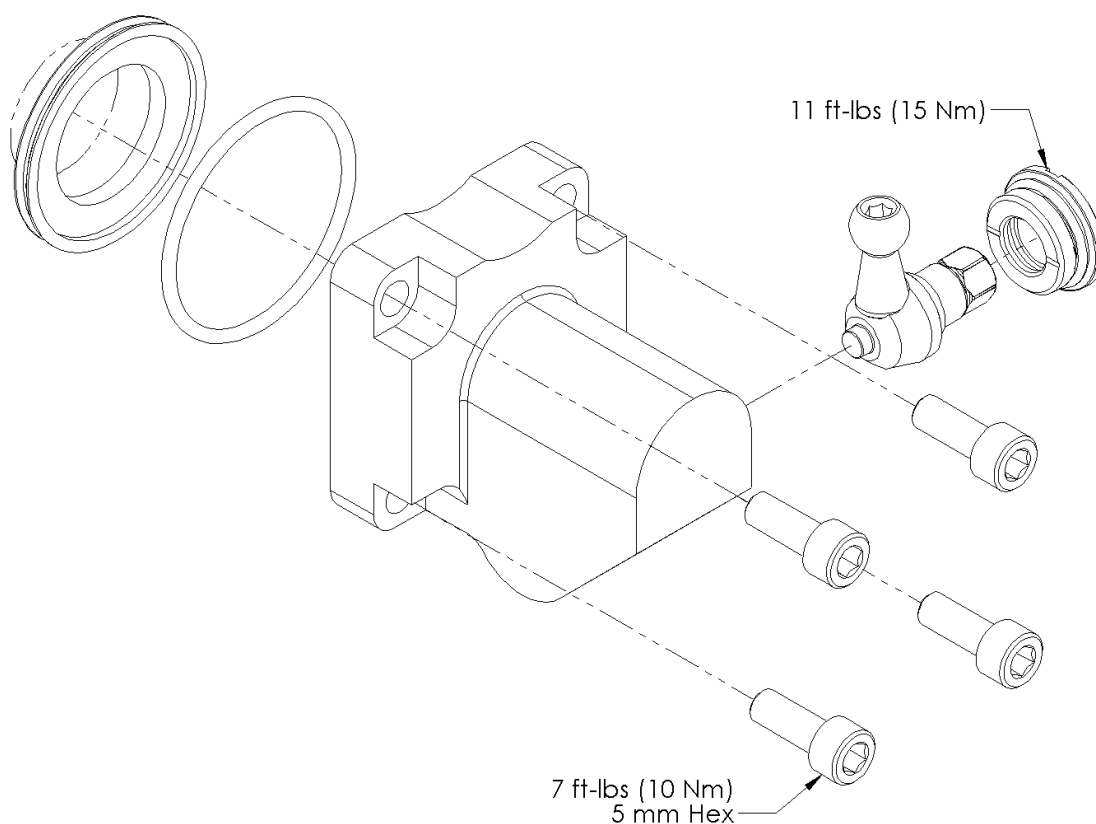
Bracket for 3-positional spool control, open spool end

Replacement spool seal for M19

 Spare parts list	Valve Series	Coordinate ID
	RMU270	DM

MU03

*Hand lever sold separately



Part No

2901569

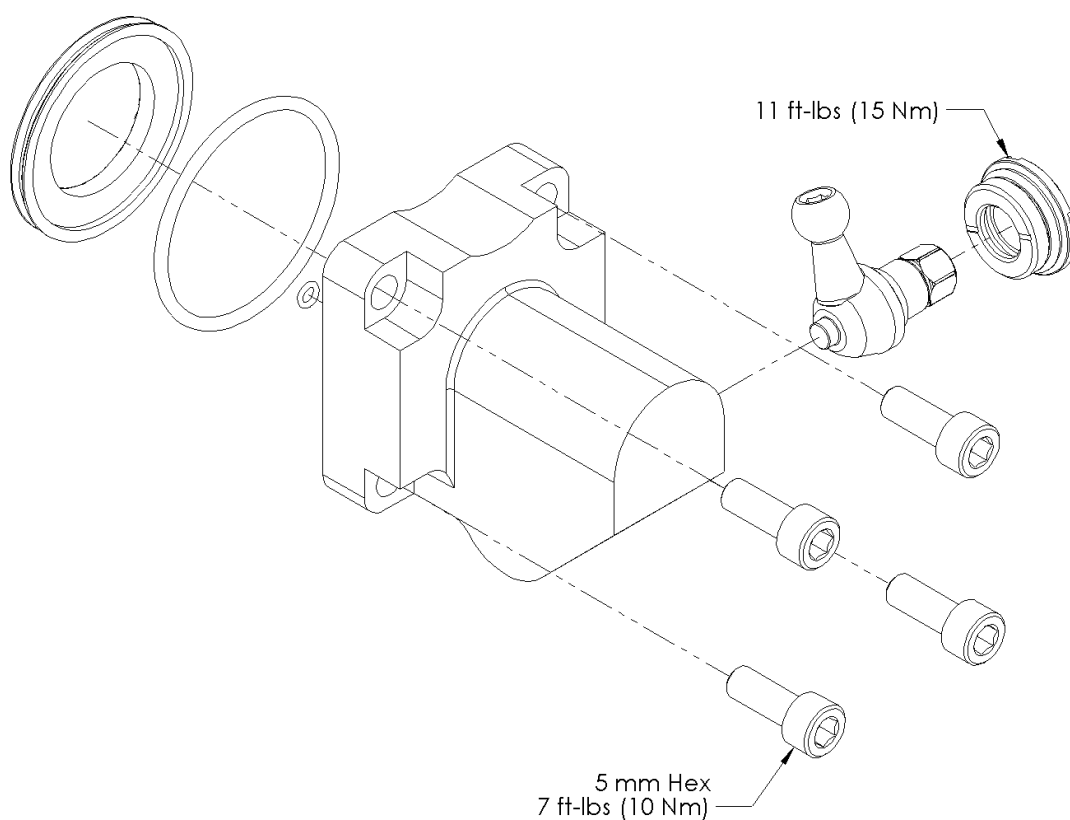
Description

Manual control for 3-positional spools, encapsulated spool end.

HYDAC Spare parts list	Valve Series	Coordinate ID
	RMU270	DM

MHU03

*Hand lever sold separately



Part No

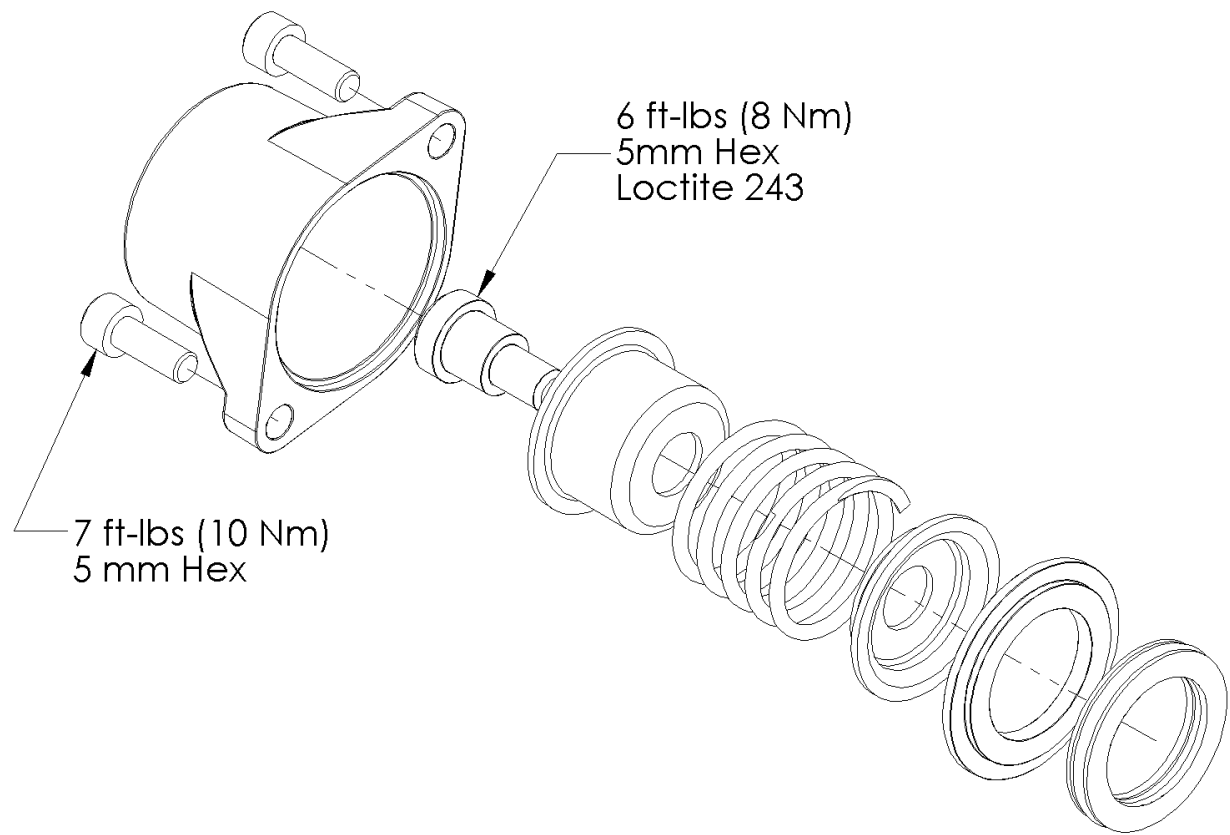
2900986

Description

Electro-hydraulic control for 3-positional spools with manual override, encapsulated spool end.

 Spare parts list	Valve Series	Coordinate ID
	RMU270	DB

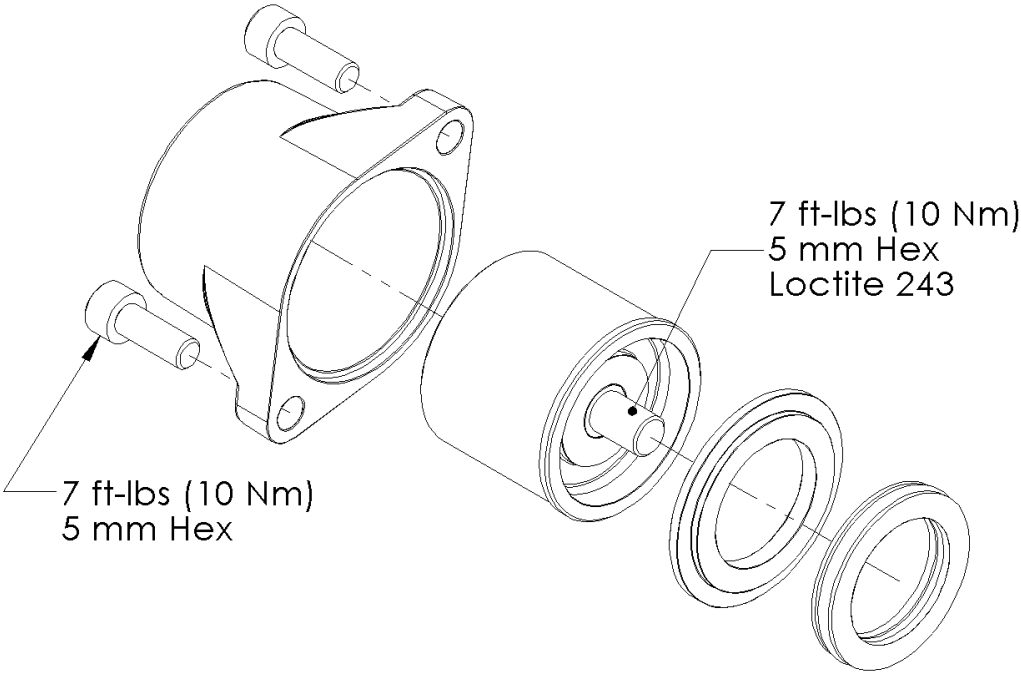
9, 9C



Part No	Description
3586475	Spool control, manual, spring centered, 3-pos.
2900050	Spool control, manual, spring centered, 3-pos; stronger spring.
2093554	Replacement spool seal for 9, 9C

 Spare parts list	Valve Series	Coordinate ID
	RMU270	DB

10



Part No	Description
3586475	Spool control, manual, detented in pos I, II, III.
2093554	Replacement spool seal for 10



Spare parts list

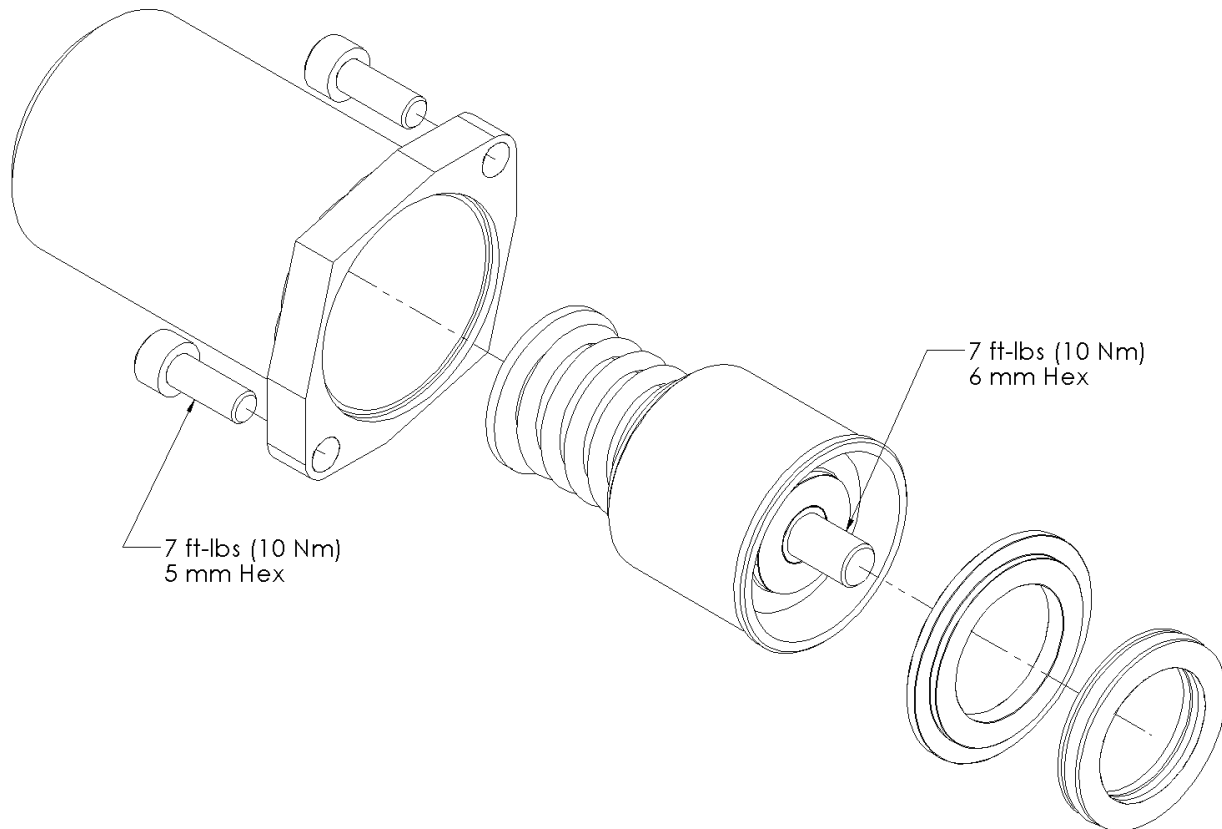
Valve Series

Coordinate ID

RMU270

DB

11, 13, 14



Part No

2094944

3482327

2515227

2093554

Description

Spool control, manual, spring centered, detented in pos IV (float).

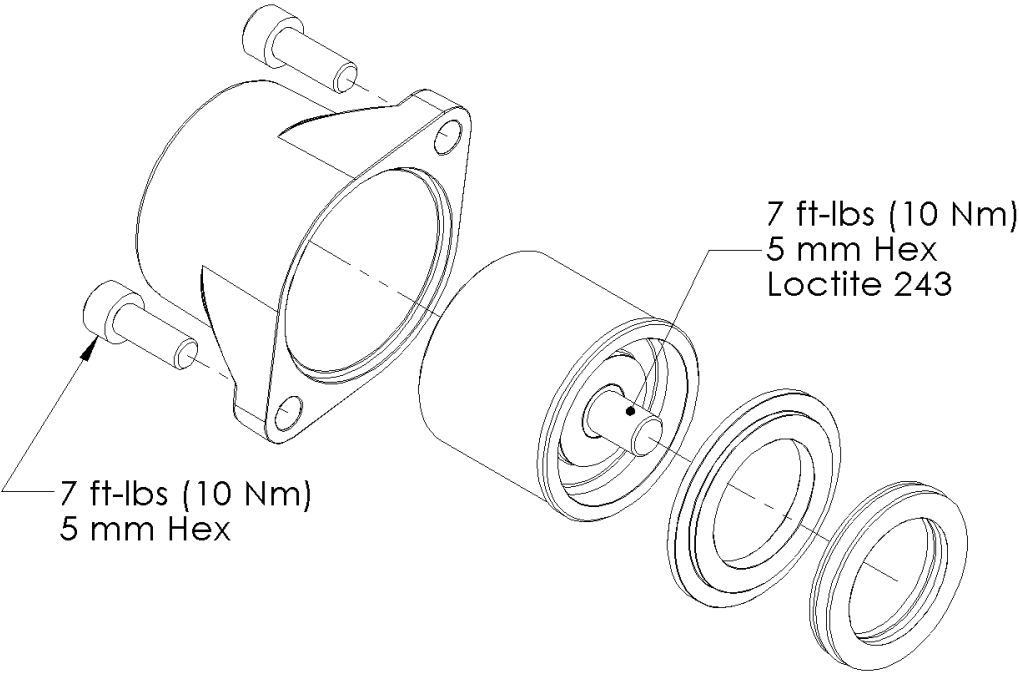
Spool control, manual, spring centered, detented in pos II.

Spool control, manual, spring centered, detented in pos III.

Replacement spool seal for 11, 13, 14

 Spare parts list	Valve Series	Coordinate ID
	RMU270	DB

21



Part No	Description
2900756	Spool control, manual, detented in pos I, II.
2093554	Replacement spool seal for 10



Spare parts list

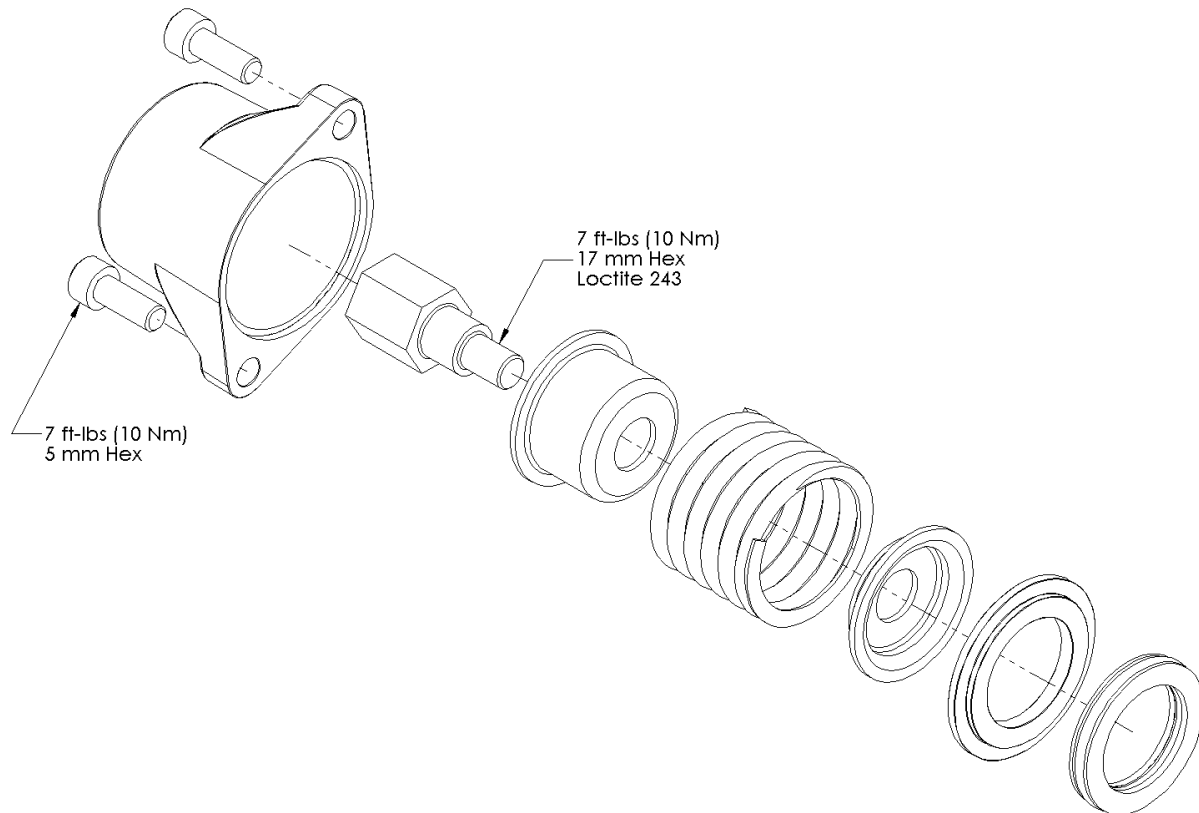
Valve Series

Coordinate ID

RMU270

DB

91



Part No

2902159

2093554

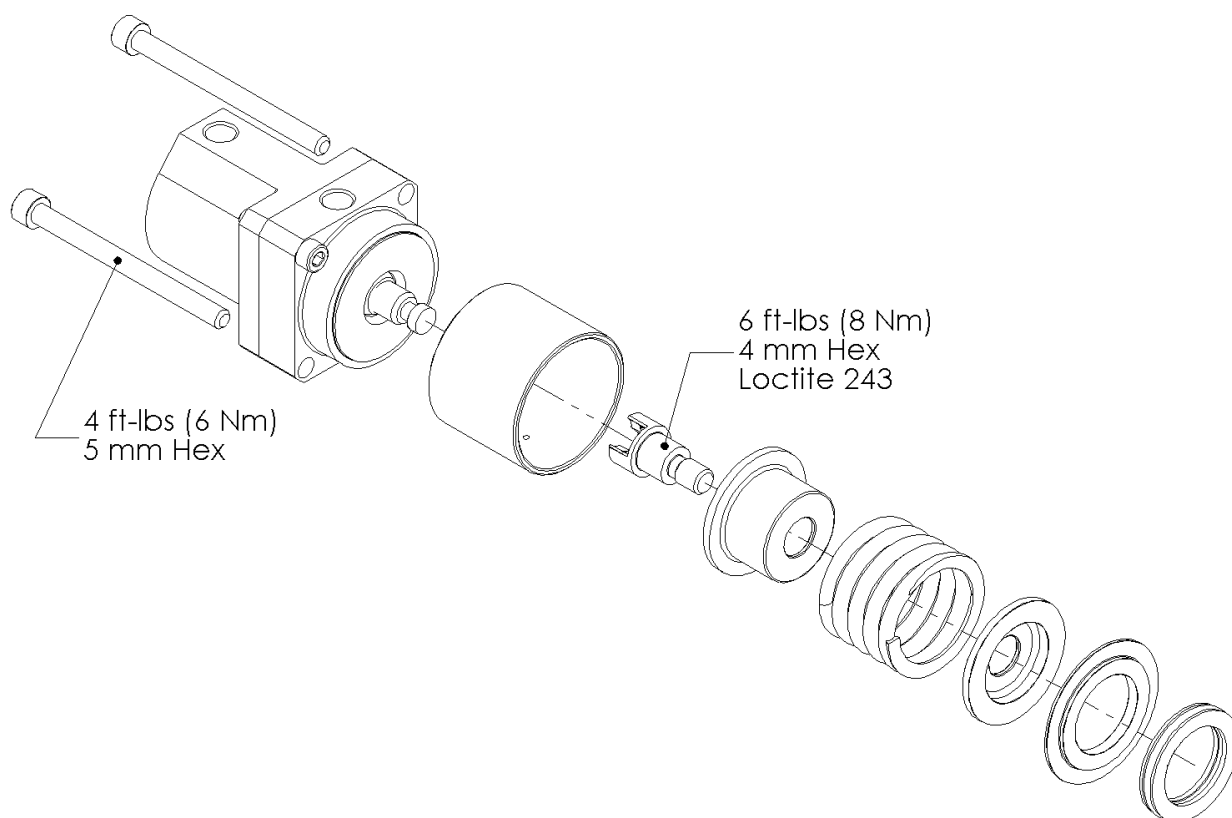
Description

Spool control, manual, spring return from pos II to I.

Replacement spool seal for 91

 Spare parts list	Valve Series	Coordinate ID
	RMU270	DB

PMK2



Part No

2902159

2093554

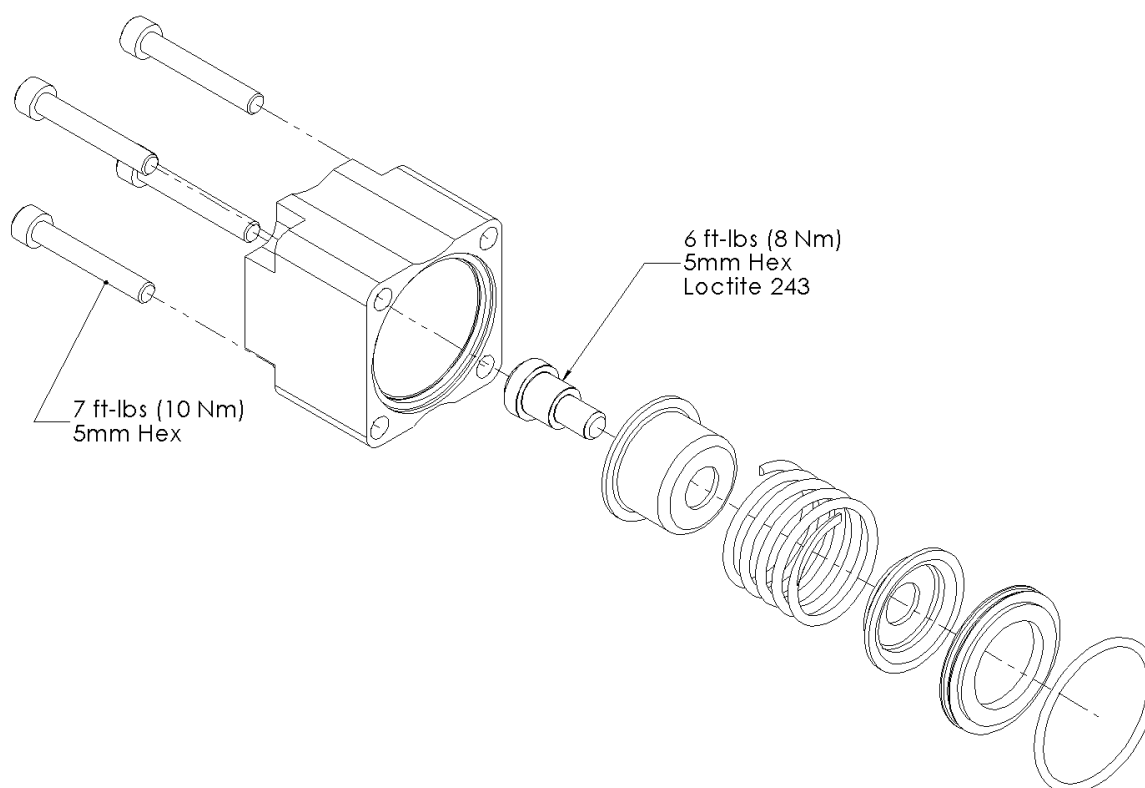
Description

Spool control, pneumatic, spring centered, 3-pos.

Replacement spool seal for PMK2

 Spare parts list	Valve Series	Coordinate ID
	RMU270	DB

9UE



Part No
2902256

Description
Spool control, manual, spring centered, 3-pos.



Spare parts list

Valve Series

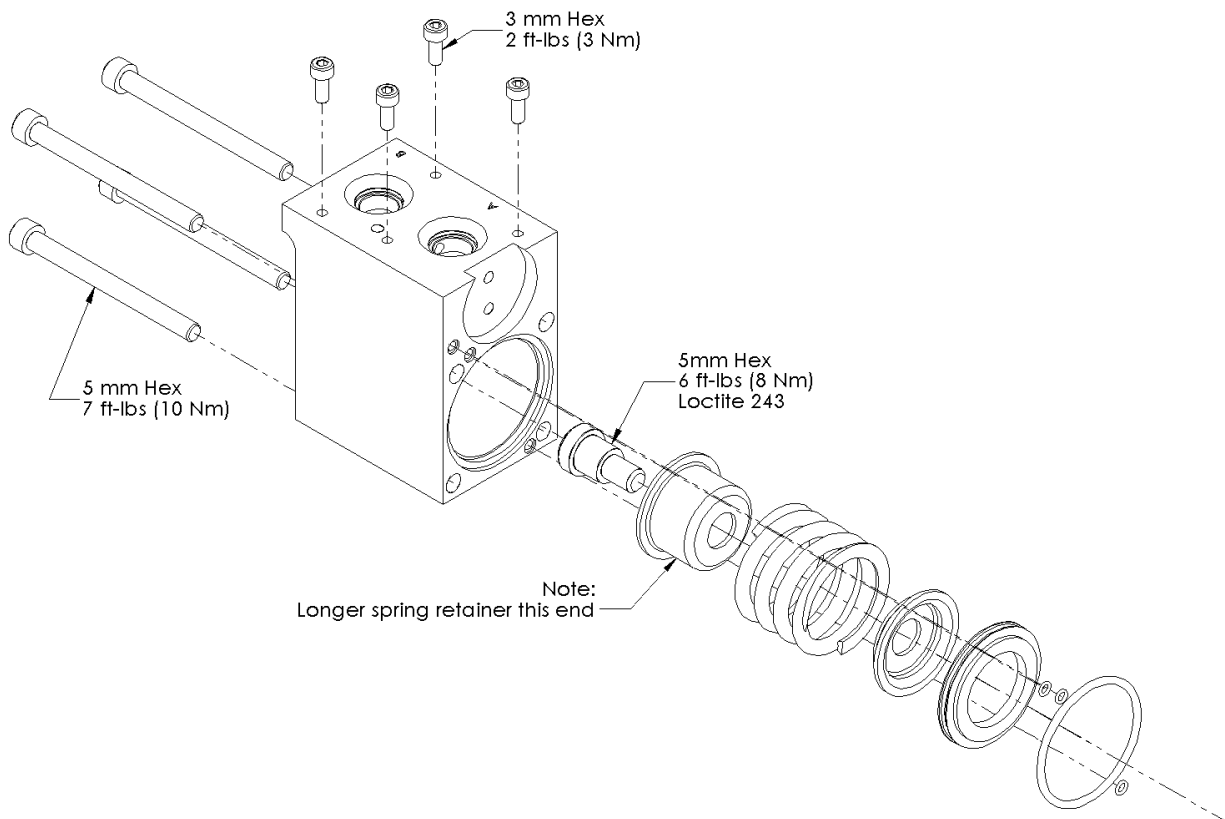
Coordinate ID

RMU270

DB

EHSU

*Solenoids sold separately



Part No

2900985

Description

Spool control, electro-hydraulic proportional, for 3-position spool; solenoids not included.

XXXXXXX

Replacement seal kit for EHSU

Part No

Description

2900563

Replacement solenoid 12VDC, deutsch connector*

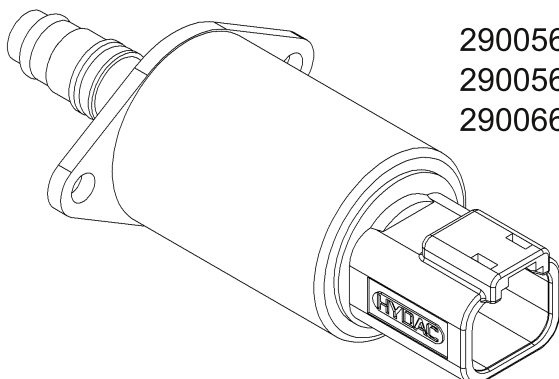
2900564

Replacement solenoid 24VDC, deutsch connector*

2900661

Replacement seal kit for solenoids

*includes mounting screws





Spare parts list

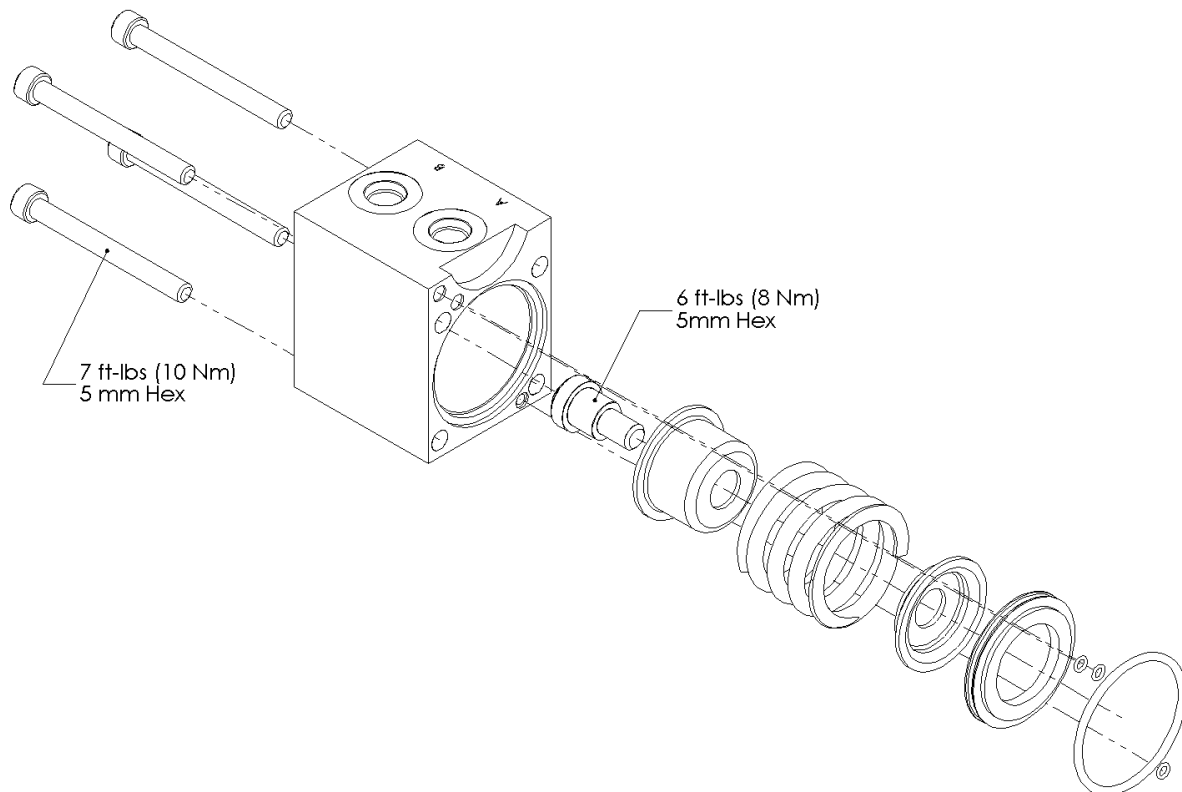
Valve Series

Coordinate ID

RMU270

DB

HPU01



Part No

2902228

XXXXXX

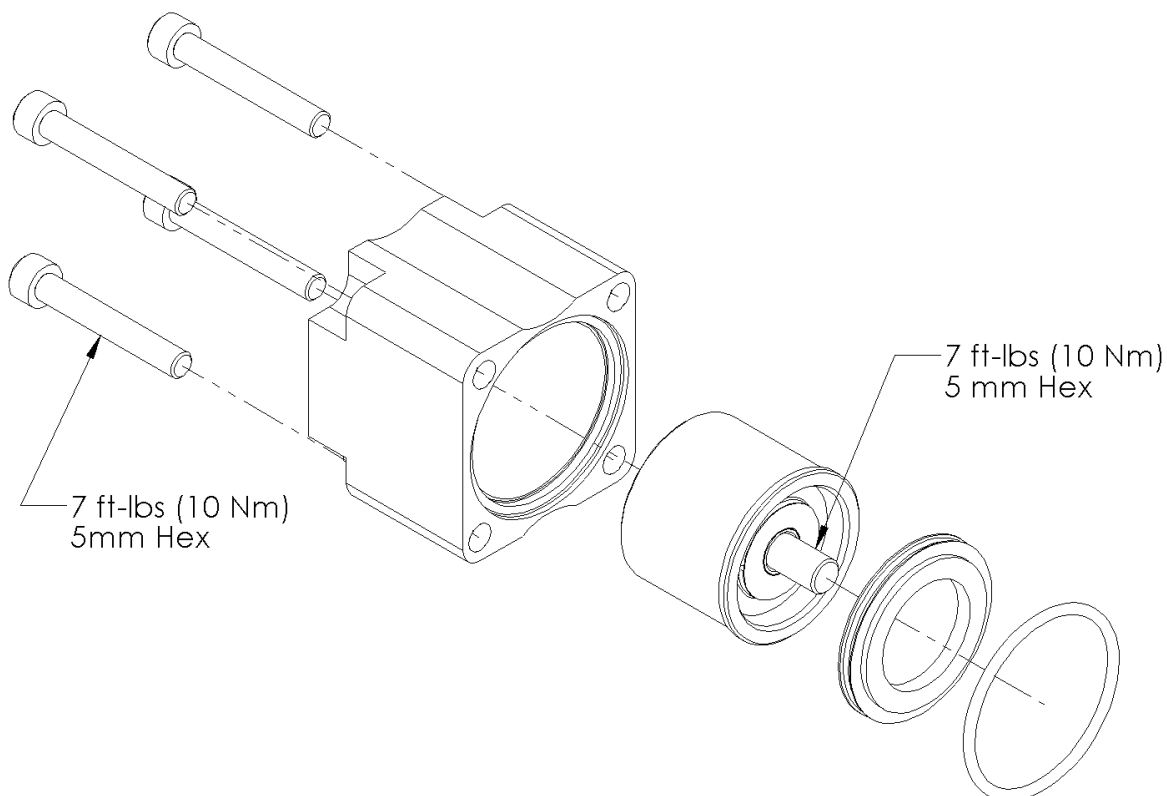
Description

Spool control, hydraulic proportional, for 3-position spool.

Replacement seal kit for HPU01

 Spare parts list	Valve Series	Coordinate ID
	RMU270	DB

FR1



Part No
2902228

Description
Spool control, frictional detent, for 3-position spool.

 Spare parts list	Valve Series	Coordinate ID
	RMU270	

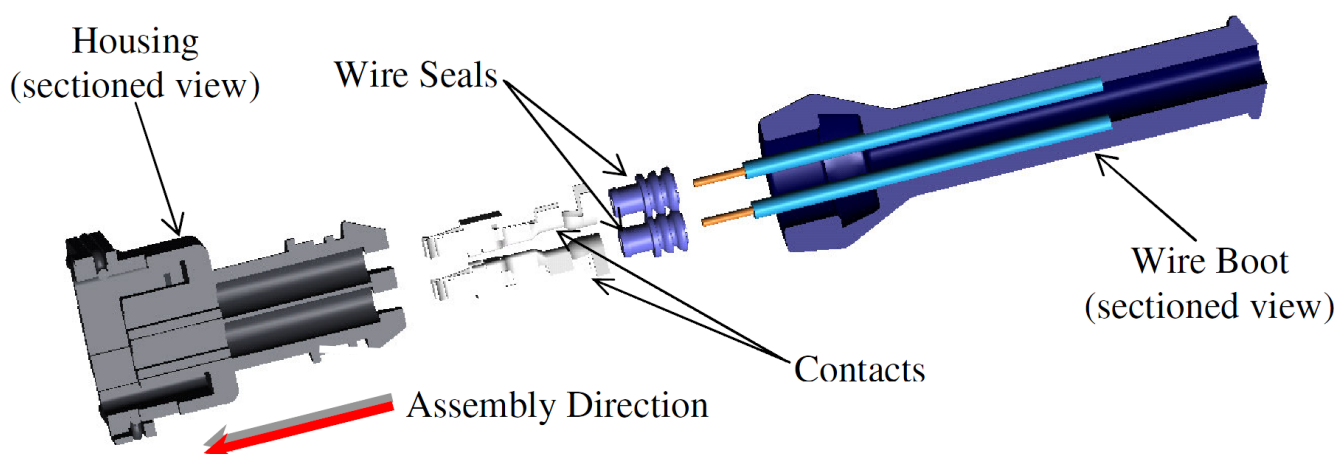
Solenoid Connectors

Part No
2095209

Kit includes:
x1 pc Housing
x2 pc Contacts
x2 pc Wire seals
x1 pc Wire boot

Description

Replacement connector kit for AMP Junior Timer style solenoids, use 16 AWG TFFN wire
*see MHD-700003 for full assembly instructions

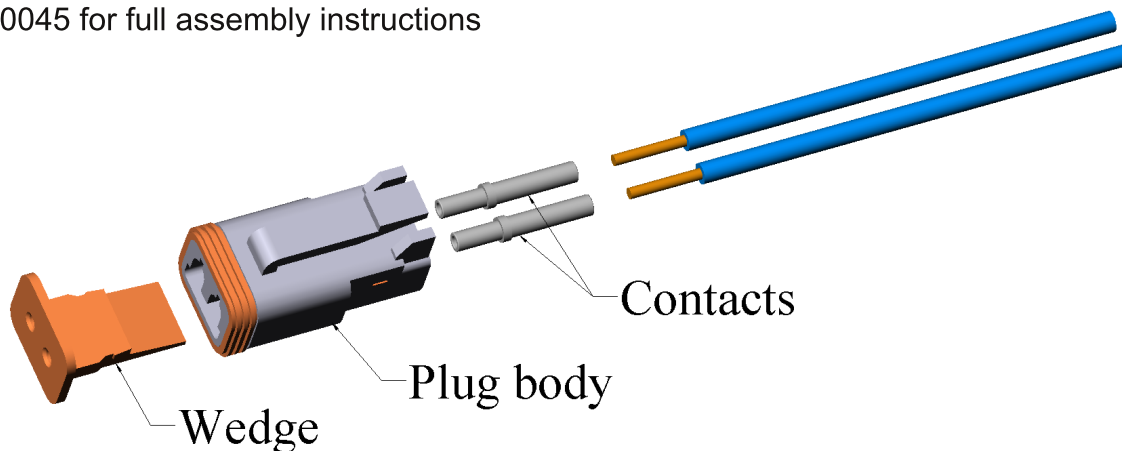


Part No
2900883

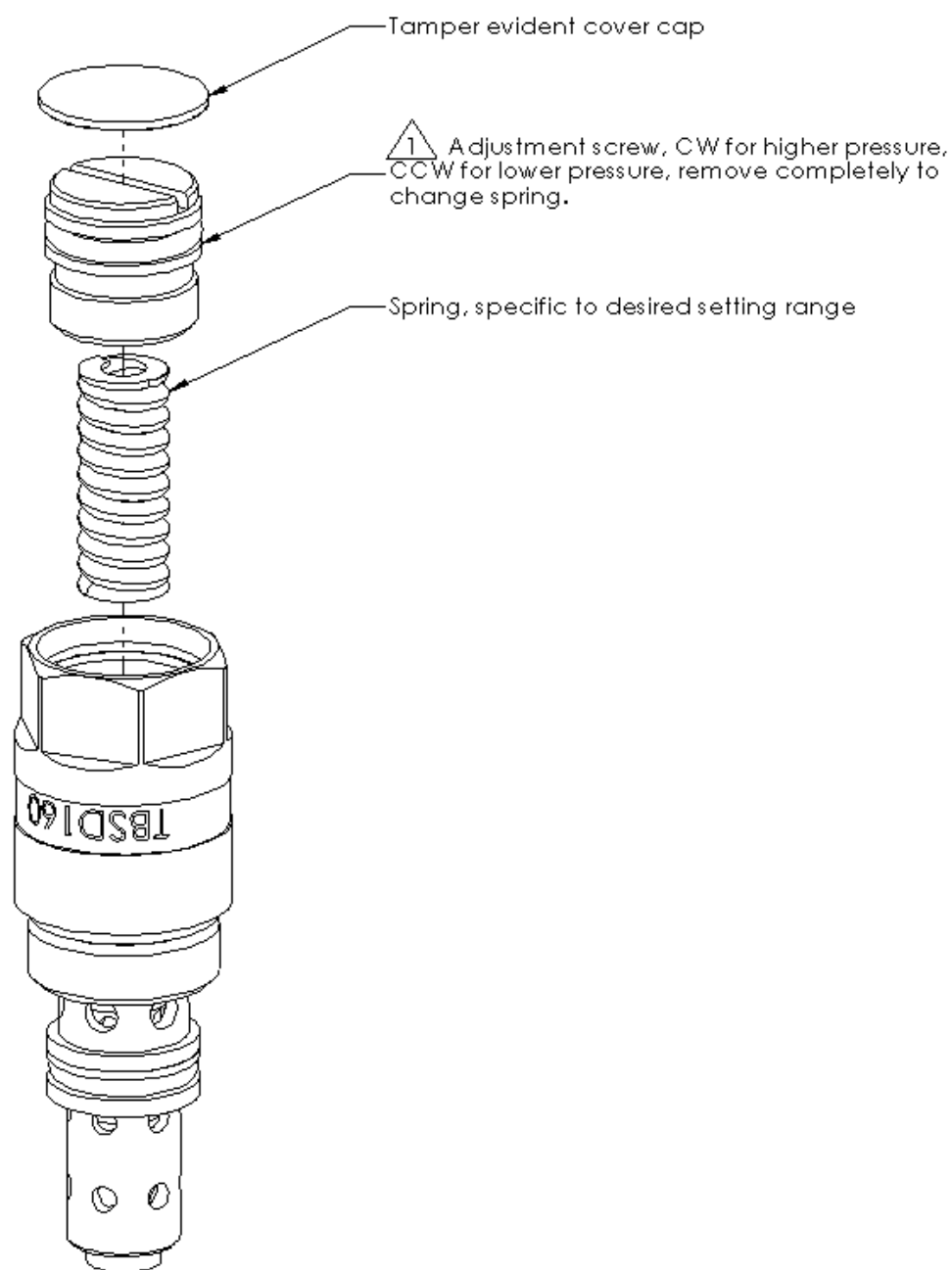
Kit includes:
x1 pc Plug body
x1 pc Wedge
x2 pc Contacts

Description

Replacement connector kit for Deutsch DT06 style solenoids, use 16 AWG TFFN wire
*see MHD-700045 for full assembly instructions



Relief Valve Field Service Guide



1 Use extreme caution when lowering pressure, there is no hard stop for adjustment screw and can be removed completely while valve is pressurized. This will result in the adjustment screw being ejected from relief valve body at high velocity. Never attempt to set pressure lower than recommended range of installed spring.

 Spare parts list	Valve Series	Coordinate ID
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General Troubleshooting Guide

<i>No Flow to the Valve</i>	
Possible Causes	Remedy
Pump suction side not receiving fluid	Replace dirty filters, clean clogged inlet line, clean or replace reservoir breather vent; fill reservoir to proper level
Pump motor not operating	Repair or replace
Pump drive motor turning in wrong direction	Reverse rotation
Directional control set in wrong position	Check position of manually operated controls; check electrical circuit on solenoid operated controls; repair or replace pilot pressure pump
Entire flow passing over relief valve or unloading valve active	Adjust or correct
Damaged Pump	Repair or replace
Improperly assembled pump or plumbing	Verify plumbing, repair, or replace

<i>Incorrect Flow to the Valve</i>	
Possible Causes	Remedy
Flow control set too low or too high	Adjust
Relief or unloading valve set too low or too high	Adjust
External leak in system	Tighten leaking connections
RPM of pump drive motor incorrect	Replace with correct unit
Worn pump, valve, motor, cylinder or other component	Repair or replace

<i>Low or No Pressure through Valve</i>	
Possible Causes	Remedy
No Power	Check electrical supply to motor, check fuses and breakers, check wire connections, check PLC outputs & Solenoids, reset Emergency stop switches
Incorrect voltage or no voltage to the valve	Verify valve voltage supply required and correct
No or Low Hydraulic Fluid in Reservoir	Check level and add as required
Pump or motor shaft is stripped or broken	Repair or replace
Pressure Relief Valve stuck open	Repair and replace
Pump Outlet flow bypassing directly to tank	Check for faulty valving or circuit error, ruptured lines, or large leaks
Low valve pilot pressure	Check pilot supply pressure, clean, or replace pilot control valve as necessary

 Spare parts list	Valve Series	Coordinate ID
	RMU270	

General Troubleshooting Guide

Low Pressure Output

Possible Causes	Remedy
Pressure relief path exists	Replace dirty filters, clean clogged inlet line, clean or replace reservoir breather vent; fill reservoir to proper level, tighten leaking connections
Pressure reducing valve set too low or damaged	Adjust or replace
Damaged pump, motor or cylinder	Repair or replace

Erratic Pressure Output

Possible Causes	Remedy
Worn Pump, motor, or cylinder	Repair or replace
Contamination in fluid	Replace dirty filters and system fluid
Air in fluid	Replace dirty filters and system fluid
Worn Relief Valve	Repair or replace

External Leakage between Valve Sections

Possible Causes	Remedy
Worn, missing, or blown O-ring	Replace with new O-ring, see service literature for section seal kits
Tie Rods not tight enough	Torque to HYDAC specifications
Valve mounting surface not level	Relevel mounting plate or shim as needed

External Leakage at spool ends

Possible Causes	Remedy
Missing, worn, or damaged spool seals	Replace spool seals, see HYDAC valve series service literature
Excessive pressure in return line	Correct over pressure situation in the hydraulic system

 Spare parts list	Valve Series	Coordinate ID
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General Troubleshooting Guide

Erratic Behavior during valve shift, not centering or not shifting on electrical operators

Possible Causes	Remedy
Fluctuations in return line on internally drained electrical operators	Convert to external drain
Dirt, chip, or burrs are holding valve partially open	Clear blockage, check for damaged components, replace as needed
Pilot control valves are worn or damaged	Repair or replace
Orifice is blocked	Clear blockage
Incorrect or worn out centering spring	Replace
Centering spring operator misaligned causing spring to bind	Disassemble, correct
Over tightened Tie rods	Check and torque to specification
Possible Causes	Remedy
Worn spool or bore	Replace body and spool
Worn, stuck, or damaged load check	Replace

Recommended Valve Maintenance

Action	Frequency
Visual inspection for external leakage	Weekly
Visual inspection of valve for damage parts, handles, or electrical connectors	Weekly
Inspect for loose screws, pilot valve, spool operators, etc.	Monthly