problem 3					
drum diameter	250.0 mm	centre-to-hi	inge distance	100 0	mm
lining limits			ting force		
lining width	_		of friction	0.320	
			ails 2 leads		
	-to-brake actuating		.00 1.00		
	ce's moment arm abo	_			mm
	ce's inclination		0.0 60.0		deg
	2's axis relative on shoe lining	to 1	-60.0		deg
	oution to, and tota		3.9 542.7 L.5 159.1	230.6	kPa Nm
	shoes and of brak			1.337	1/11/1
	drum bearing reac			2.323	kN
	_				
problem 4					
drum diameter			nge distance		
lining limits lining width		brake actuat		8.604	kN
rining widdi	75.00 IIII	1 lea	of friction ds 2 trails	0.240	
ratio of shoe-	to-brake actuating		00 1.00		
	e's moment arm abou				mm
	e's inclination		0.0		deg
inclination of	2's axis relative	to 1	0.0		deg
	on shoe lining	1000			kPa
	ution to, and total			1322.9	Nm
	shoes and of brake drum bearing react		0.810		1.57
since imige and	cutum bearing reach	LIONS 14.9	6.094	18.276	KIN
problem 5					
problem 5 drum diameter	20.0 in	centre-to-hi	nge distance	12.4	in
drum diameter lining limits	6.0 136.0 deg	brake actuat	ing force	12.4 0.400	
drum diameter		brake actuat coefficient	ing force of friction		
drum diameter lining limits lining width	6.0 136.0 deg 1.67 in	brake actuat coefficient 1 tra	ing force of friction ils 2 leads	0.400	
drum diameter lining limits lining width ratio of shoe-	6.0 136.0 deg 1.67 in to-brake actuating	brake actuat coefficient 1 tra forces 4.	ing force of friction ils 2 leads 00 4.12	0.400	kip
drum diameter lining limits lining width  ratio of shoe- actuating forc	6.0 136.0 deg 1.67 in to-brake actuating e's moment arm abou	brake actuat coefficient 1 tra forces 4. ut hinge 28	ing force of friction ils 2 leads 00 4.12 .0 22.8	0.400	kip in
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc	6.0 136.0 deg 1.67 in to-brake actuating e's moment arm abou e's inclination	brake actuat coefficient 1 tra forces 4. ut hinge 28	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0	0.400	kip in deg
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm abou e's inclination 2's axis relative	brake actuat coefficient 1 tra forces 4. ut hinge 28	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0	0.400	kip in deg deg
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc inclination of mean pressure shoe's contrib	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total	brake actuat coefficient 1 tra forces 4. ut hinge 28 76 to 1 150 1 torque 1417	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2	0.400	kip in deg
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc inclination of mean pressure shoe's contrib sensitivity of	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm abou e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake	brake actuat coefficient 1 tra forces 4. ut hinge 28 76 to 1 150 1 torque 1417 2 1.3	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807	0.400 0.300 2146.4 1.142	in deg deg psi lbf.ft
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc inclination of mean pressure shoe's contrib sensitivity of	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total	brake actuat coefficient 1 tra forces 4. ut hinge 28 76 to 1 150 1 torque 1417 2 1.3	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3	0.400 0.300	in deg deg psi lbf.ft
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc inclination of mean pressure shoe's contrib sensitivity of shoe hinge and	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm abou e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake	brake actuat coefficient 1 tra forces 4. ut hinge 28 76 to 1 150 1 torque 1417 2 1.3	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807	0.400 0.300 2146.4 1.142	in deg deg psi lbf.ft
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc inclination of mean pressure shoe's contrib sensitivity of shoe hinge and	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react	brake actuat coefficient 1 tra forces 4. ut hinge 28 76 to 1 150 1 torque 1417 2 1.3 cions 6.5	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807 42 4.131	0.400 0.300 2146.4 1.142 2.509	in deg deg psi lbf.ft kip
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc inclination of mean pressure shoe's contrib sensitivity of shoe hinge and	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react	brake actuat coefficient 1 tra forces 4. ut hinge 28 76 to 1 150 1 torque 1417 2 1.3 cions 6.5	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807 42 4.131	0.400 0.300 2146.4 1.142 2.509	in deg deg psi lbf.ft kip
drum diameter lining limits lining width  ratio of shoe- actuating forc actuating forc inclination of mean pressure shoe's contrib sensitivity of shoe hinge and  problem 6 drum diameter	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm abou e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg	brake actuat coefficient 1 tra forces 4. ut hinge 28 76 to 1 150 1 torque 1417 2 1.3 cions 6.5	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807 42 4.131  mge distance ing force	0.400 0.300 2146.4 1.142 2.509 12.4 0.405	in deg deg psi lbf.ft kip
drum diameter lining limits lining width  ratio of shoe- actuating force actuating force inclination of mean pressure shoe's contrib sensitivity of shoe hinge and  problem 6 drum diameter lining limits lining width	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg 1.70 in	brake actuat coefficient 1 tra forces 4. at hinge 28 76 to 1 150 1 torque 1417 2 1.3 cions 6.5  centre-to-hi brake actuat coefficient 1 lea	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807 42 4.131  mge distance ing force	0.400 0.300 2146.4 1.142 2.509	in deg deg psi lbf.ft kip
drum diameter lining limits lining width  ratio of shoe- actuating force actuating force actuating force inclination of mean pressure shoe's contrib sensitivity of shoe hinge and  problem 6 drum diameter lining limits lining width  ratio of shoe-	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg 1.70 in  to-brake actuating	brake actuat coefficient 1 tra forces 4. at hinge 28 76 to 1 150 torque 1417 1.3 tions 6.5 centre-to-hich brake actuat coefficient 1 lea forces 4.	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807 42 4.131  ange distance ing force of friction ds 2 trails 00 4.12	0.400 0.300 2146.4 1.142 2.509 12.4 0.405	in deg deg psi lbf.ft kip
drum diameter lining limits lining width  ratio of shoe- actuating force actuating force inclination of mean pressure shoe's contrib sensitivity of shoe hinge and  problem 6 drum diameter lining limits lining width  ratio of shoe- actuating force	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg 1.70 in  to-brake actuating e's moment arm about	brake actuat coefficient 1 tra forces 4. at hinge 28 76 to 1 150 1 torque 1417 2 1.3 cions 6.5  centre-to-hi brake actuat coefficient 1 lea forces 4. at hinge 28	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807 42 4.131  ange distance ing force of friction ds 2 trails 00 4.12 .0 22.8	0.400 0.300 2146.4 1.142 2.509 12.4 0.405	in deg deg psi lbf.ft kip in kip
drum diameter lining limits lining width  ratio of shoe-actuating force actuating force inclination of mean pressure shoe's contribusensitivity of shoe hinge and problem 6 drum diameter lining limits lining width  ratio of shoe-actuating force actuating	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg 1.70 in  to-brake actuating e's moment arm about e's inclination	brake actuat coefficient 1 tra forces 4. at hinge 28 76 to 1 150 1 torque 1417 2 1.3 cions 6.5  centre-to-hi brake actuat coefficient 1 lea forces 4. at hinge 28 76	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 .28.0 .0 77.2 .1 729.3 15 0.807 42 4.131  Inge distance ing force of friction ds 2 trails 00 4.12 .0 22.8 .0 90.0	0.400 0.300 2146.4 1.142 2.509 12.4 0.405	in deg deg psi lbf.ft kip in kip in deg
drum diameter lining limits lining width  ratio of shoe-actuating force actuating force inclination of mean pressure shoe's contribusensitivity of shoe hinge and problem 6 drum diameter lining limits lining width  ratio of shoe-actuating force actuating force inclination of	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm abou e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg 1.70 in  to-brake actuating e's moment arm abou e's inclination 2's axis relative	brake actuat coefficient 1 tra forces 4. at hinge 28 76 to 1 150 1 torque 1417 e 1.3 cions 6.5  centre-to-hi brake actuat coefficient 1 lea forces 4. at hinge 28 76 to 1	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 .28.0 .0 77.2 .1 729.3 15 0.807 42 4.131  ange distance ing force of friction ds 2 trails 00 4.12 .0 22.8 .0 90.0 .28.0	0.400 0.300 2146.4 1.142 2.509 12.4 0.405 0.300	in deg deg psi lbf.ft kip in kip in deg deg deg
drum diameter lining limits lining width  ratio of shoe- actuating force actuating force inclination of mean pressure shoe's contrib sensitivity of shoe hinge and  problem 6 drum diameter lining limits lining width  ratio of shoe- actuating force actuating force inclination of mean pressure	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg 1.70 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining	brake actuat coefficient 1 tra forces 4. at hinge 28 76 to 1 150 1 torque 1417 e 1.3 cions 6.5  centre-to-hi brake actuat coefficient 1 lea forces 4. at hinge 28 76 to 1 91	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 .28.0 .0 77.2 .1 729.3 15 0.807 42 4.131  ange distance ing force of friction ds 2 trails 00 4.12 .0 22.8 .0 90.0 .28.0 .3 124.8	0.400 0.300 2146.4 1.142 2.509 12.4 0.405 0.300	in deg deg psi lbf.ft kip in kip in deg deg psi
drum diameter lining limits lining width  ratio of shoe- actuating force actuating force inclination of mean pressure shoe's contrib sensitivity of shoe hinge and  problem 6 drum diameter lining limits lining width  ratio of shoe- actuating force actuating force inclination of mean pressure of shoe's contrib	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm abou e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg 1.70 in  to-brake actuating e's moment arm abou e's inclination 2's axis relative	brake actuat coefficient 1 tra forces 4. at hinge 28 76 to 1 150 1 torque 1417 e 1.3 cions 6.5  centre-to-hi brake actuat coefficient 1 lea forces 4. at hinge 28 76 to 1 91 torque 880	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 .28.0 .0 77.2 .1 729.3 .15 0.807 42 4.131	0.400 0.300 2146.4 1.142 2.509 12.4 0.405 0.300	in deg deg psi lbf.ft kip in kip in deg deg deg
drum diameter lining limits lining width  ratio of shoe-actuating force actuating force inclination of mean pressure shoe's contribusensitivity of shoe hinge and problem 6 drum diameter lining limits lining width  ratio of shoe-actuating force actuating force inclination of mean pressure shoe's contribusensitivity of shoe's contribusensitivity of	6.0 136.0 deg 1.67 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total shoes and of brake drum bearing react  20.0 in 6.0 136.0 deg 1.70 in  to-brake actuating e's moment arm about e's inclination 2's axis relative on shoe lining ution to, and total	brake actuat coefficient 1 tra forces 4. at hinge 28 76 to 1 150 1 torque 1417 1.3 tions 6.5  centre-to-hindrake actuat coefficient 1 lea forces 4. at hinge 28 76 to 1 91 torque 880 1.8	ing force of friction ils 2 leads 00 4.12 .0 22.8 .0 90.0 -28.0 .0 77.2 .1 729.3 15 0.807 42 4.131  ange distance ing force of friction ds 2 trails 00 4.12 .0 22.8 .0 90.0 -28.0 .3 124.8 .2 1203.1 07 1.315	0.400 0.300 2146.4 1.142 2.509 12.4 0.405 0.300	in deg deg psi lbf.ft kip in kip deg deg psi lbf.ft