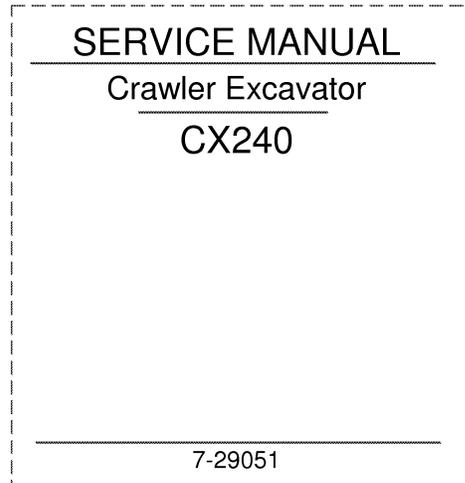


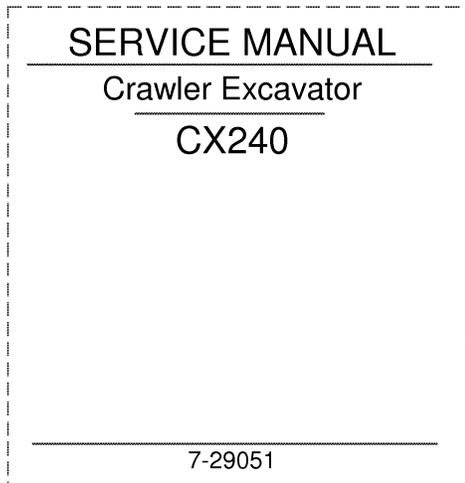
1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4



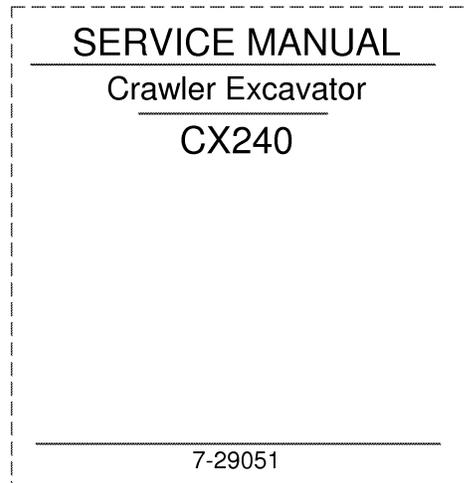
1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4



1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4



1. Trim along dashed line.
2. Slide into pocket on Binder Spine.

TYPE 1-4

CX240 Crawler Excavators

Product: 2004 Case CX240 Crawler Excavator Service Manual 7-29051R0
 Full Download: <https://www.arepairmanual.com/downloads/2004-case-cx240-crawler-excavator-service-manual-7-29051r0/>

Table of Contents

DIVISION/SECTION	SECTION N°	REFERENCE N°
1 GENERAL INFORMATION		
Safety, general information and standard torque data	1001	7-28590
General specifications and special torque setting	1002	7-28671
Numerical value conversion table	1003	9-35540
2 ENGINE		
Removal and installation of the engine	2000	██████████
Radiator and oil-cooler	2001	██████████
Engine specifications	*	
Disassembly and assembly of the engine	*	
3 FUEL SYSTEM		
Fuel tank	3001	7-27970GB
Fuel engine system	*	
4 ELECTRICAL SYSTEM		
Electrical system, electrical and electronic troubleshooting	4001	7-28361
Inspection and maintenance of batteries and connecting a booster battery ...	4002	7-27921GB
5 UNDERCARRIAGE		
Removal and installation of tracks	5001	7-27750GB
Rollers	5003	7-27770GB
Sprocket	5004	7-27781GB
Idler wheel and tension shock absorber	5005	7-27801GB
6 DRIVE TRAIN		
Drive motor and final drive transmission removal and installation	6001	7-27841GB
Drive motor and final drive transmission disassembly and assembly	6002	7-28090GB
Swing reduction gear, removal and installation	6003	██████████
Swing reduction gear, disassembly and assembly	6004	7-28390GB
7 UNDERCARRIAGE HYDRAULICS		
8 UPPERSTRUCTURE HYDRAULICS		
Depressurising and decontaminating the hydraulic system, use of the vacuum pump and bleeding the components	8000	7-27951GB
Specifications, troubleshooting, checks and hydraulic pressure settings	8001	7-28551
Hydraulic reservoir removal and installation	8002	7-27990GB
Main and pilot pumps, removal and installation	8003	██████████
Main hydraulic control valve, removal and installation	8004	7-27890GB
Attachment cylinders, removal and installation	8005	7-27791GB
Hydraulic swivel, removal and installation	8006	7-27811GB
Pilot blocs, removal and installation	8007	9-35590
Swing motor, removal and installation	8008	██████████
Disassembly and assembly of the free swing valve	8009	9-35530
Main hydraulic pump, disassembly and assembly	8010	██████████
Main hydraulic control valve, disassembly and assembly	8011	██████████
Attachment cylinders, disassembly and assembly	8012	9-35500
Hand control levers, disassembly and assembly	8013	7-28110GB
Foot control levers, disassembly and assembly	8014	7-28210GB
Six-solenoid valves, disassembly and assembly	8015	7-27910GB
Caution valve, disassembly and assembly	8016	7-27940GB
Safety valve	8017	7-29630GB
Hydraulic swivel, disassembly and assembly	8018	7-28080GB
Swing motor, disassembly and assembly	8019	7-29760GB
Hydraulic functions	8020	7-28610

Sample of manual. Download All 507 pages at:

<https://www.arepairmanual.com/downloads/2004-case-cx240-crawler-excavator-service-manual-7-29051r0/>

Reprinted

Copyright © 2004 Case France

Printed in U.S.A

February 2004

9 UPPERSTRUCTURE

Upperstructure, turntable and counterweight.....	9002	7-27981GB
Boom, dipper and bucket.....	9003	7-27961GB
Seat and seat belt.....	9004	7-28120GB
Cab and cab equipment.....	9005	██████████
Air conditioner troubleshooting and system checks.....	9006	9-88730GB
Air conditioning unit disassembly and assembly.....	9007	██████████
Air conditioning servicing.....	9008	██████████
Air conditioning components.....	9009	██████████
Large format hydraulic and electrical schematics.....	Pocket	7-28530

* *Consult the Engine Service Manual*

██████████ *Sections to be distributed at a later date*

NOTE: CASE Company reserves the right to make changes in the specification and design of the machine without prior notice and without incurring any obligation to modify units previously sold.

The description of the models shown in this manual has been made in accordance with the technical specifications known as of the date of design of this document.

Section

1001

SAFETY, GENERAL INFORMATION AND STANDARD TORQUE DATA

TABLE OF CONTENTS

GENERAL INFORMATION	3
SAFETY	4
STANDARD TORQUE DATA FOR CAP SCREWS AND NUTS.....	6

GENERAL INFORMATION

Cleaning

Clean all metal parts except bearings, in a suitable cleaning solvent or by steam cleaning. Do not use caustic soda for steam cleaning. After cleaning, dry and put oil on all parts. Clean oil passages with compressed air. Clean bearings in a suitable cleaning solvent, dry the bearings completely and put oil on the bearings.

Inspection

Check all parts when the parts are disassembled. Replace all parts that have wear or damage. Small scoring or grooves can be removed with a hone or crocus cloth. Complete a visual inspection for indications of wear, pitting and the replacement of parts necessary to prevent early failures.

Bearings

Check bearings for easy action. If bearings have a loose fit or rough action replace the bearing. Wash bearings with a suitable cleaning solvent and permit to air dry. **DO NOT DRY BEARINGS WITH COMPRESSED AIR.**

Needle Bearings

Before you press needle bearings in a bore always remove any metal protrusions in the bore or edge of the bore. Before you press bearings into position put petroleum jelly on the inside and outside diameter of the bearings.

Gears

Check all gears for wear and damage. Replace gears that have wear or damage.

Oil Seals, O-rings and Gaskets

Always install new oil seals, O-rings and gaskets. Put petroleum jelly on seals and O-rings.

Shafts

Check all shafts that have wear or damage. Check the bearing and oil seal surfaces of the shafts for damage.

Service Parts

Always install genuine Case service parts. When ordering refer to the Parts Catalog for the correct part number of the genuine Case replacement items. Failures due to the use of other than genuine Link-Belt replacement parts are not covered by warranty.

Lubrication

Only use the oils and lubricants specified in the Operator's or Service Manuals. Failures due to the use of non-specified oils and lubricants are not covered by warranty.

SAFETY



This symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED. The message that follows the symbol contains important information about safety. Carefully read the message. Make sure you fully understand the causes of possible injury or death.

To prevent injury always follow the Warning, Caution and Danger notes in this section and throughout the manual.

Place a "Do not operate" tag on the starter switch key before carrying out any service or repair work on the machine.



WARNING: Read the operator's manual to familiarize yourself with the correct control functions.



WARNING: Operate the machine and equipment controls from the seat position only. Any other method could result in serious injury.



WARNING: This is a one man machine, no riders allowed.



WARNING: Before starting engine, study Operator's Manual safety messages. Read all safety signs on machine. Clear the area of other persons. Learn and practice safe use of controls before operating.

It is your responsibility to understand and follow manufacturers instructions on machine operation, service and to observe pertinent laws and regulations. Operator's and Service Manuals may be obtained from your Case dealer.



WARNING: If you wear clothing that is too loose or do not use the correct safety equipment for your job, you can be injured. Always wear clothing that will not catch on objects. Extra safety equipment that can be required includes hard hat, safety shoes, ear protection, eye or face protection, heavy gloves and reflector clothing.



WARNING: When working in the area of the fan belt with the engine running, avoid loose clothing if possible, and use extreme caution.



WARNING: When doing checks and tests on the equipment hydraulics, follow the procedures as they are written. **DO NOT** change the procedure.



WARNING: When putting the hydraulic cylinders on this machine through the necessary cycles to check operation or to remove air from a circuit, make sure all people are out of the way.



WARNING: Use insulated gloves or mittens when working with hot parts.



WARNING: Lower all attachments to the ground or use stands to safely support the attachments before you do any maintenance or service.



WARNING: Pin sized and smaller streams of hydraulic oil under pressure can penetrate the skin and result in serious infection. If hydraulic oil under pressure does penetrate the skin, seek medical treatment immediately. Maintain all hoses and tubes in good condition. Make sure all connections are tight. Make a replacement of any tube or hose that is damaged or thought to be damaged. **DO NOT** use your hand to check for leaks, use a piece of cardboard or wood.



WARNING: When removing hardened pins such as a pivot pin, or a hardened shaft, use a soft head (brass or bronze) hammer or use a driver made from brass or bronze and a steel head hammer.



WARNING: When using a hammer to remove and install pivot pins or separate parts using compressed air or using a grinder, wear eye protection that completely encloses the eyes (approved goggles or other approved eye protectors).



WARNING: Use suitable floor (service) jacks or chain hoist to raise wheels or tracks off the floor. Always block machine in place with suitable safety stands.



WARNING: When servicing or repairing the machine, keep the shop floor and operator's compartment and steps free of oil, water, grease, tools, etc. Use an oil absorbing material and/or shop cloths as required. Use safe practices at all times.



WARNING: Some components of this machine are very heavy. Use suitable lifting equipment or additional help as instructed in this Service Manual.



WARNING: Engine exhaust fumes can cause death. If it is necessary to start the engine in a closed place, remove the exhaust fumes from the area with an exhaust pipe extension. Open the doors and get outside air into the area.

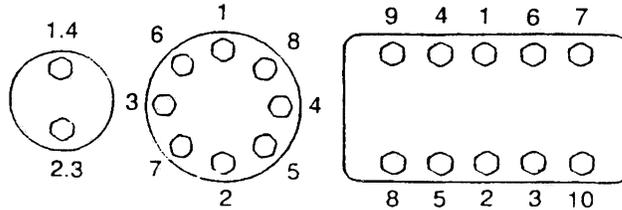


WARNING: When the battery electrolyte is frozen, the battery can explode if (1), you try to charge the battery, or (2), you try to jump start and run the engine. To prevent the battery electrolyte from freezing, try to keep the battery at full charge. If you do not follow these instructions, you or others in the area can be injured.

STANDARD TORQUE DATA FOR CAP SCREWS AND NUTS

Tightening of Cap Screws and Nuts

Tighten alternately so that tightening torque can be applied evenly. The numbers in the figure below indicate the order of tightening.



JS00481A

Cap screws which have had Loctite used (white residue remains after removal) should be cleaned with light oil or suitable cleaning solvent and dried. Apply 2-3 drops of Loctite to the thread portion of the cap screw and then tighten.

Torque Table

Tighten cap screws and nuts according to the table below if there are no other special instructions.

Cap Screw Name Size (Size)		M6	M8	M10	M12	M14	M16	M18	M20	
Cap Screw	Spanner	[mm]	10	13	17	19	22	24	27	30
		[in.]	0.39	0.51	0.67	0.75	0.87	0.95	1.06	1.18
	Tightening torque	[Nm]	6.9	19.6	39.2	58.8	98.1	157.2	196.0	274.0
		[lb-ft]	5.1	14.5	29.0	43.4	72.5	116.0	144.6	202.4
Socket Head Cap Screw	Spanner	[mm]	5	6	8	10	12	14	14	17
		[in.]	0.20	0.24	0.32	0.39	0.47	0.55	0.55	0.67
	Tightening torque	[Nm]	8.8	21.6	42.1	78.4	117.6	176.4	245.0	343.0
		[lb-ft]	6.5	15.9	31.1	57.8	86.8	130.1	180.8	253.1

Section 1002

1002

GENERAL SPECIFICATIONS AND SPECIAL TORQUE SETTINGS

TABLE OF CONTENTS

TYPE, SERIAL NUMBER AND YEAR OF MANUFACTURE OF THE MACHINE	3
Machine	3
Engine	3
Component Serial Numbers	3
FLUIDS AND LUBRICANTS	4
Hydraulic Fluid 4	
Transmission Component Oil 4	
Grease 4	
Engine Oil.....	5
Oil Viscosity/Oil Range.....	5
Fuel 6	
Anti-freeze/Anti-corrosion 6	
Environment 6	
Components Made From Plastic or Resin 6	
GENERAL SPECIFICATIONS	7
Engine	7
Capacities	7
Electrical system	7
Hydraulic system	8
Cylinder	8
Control valve	9
Swing	9
Travel	9
Undercarriage	9
Attachment.....	9
Weight of components	10
DIMENSIONS AND LIMIT OF WEAR AND TEAR OF THE TRACKS SET	11
Toothed wheel.....	11
Idler wheel.....	12
Upper roller	13
Lower roller	14
Track	15
DIMENSIONS AND LIMIT OF WEAR AND TEAR OF THE MOBILE JOINTS OF THE ATTACHMENT.....	16
1. Boom foot/Undercarriage	16
2. Boom cylinder foot/Undercarriage.....	17
3. Boom cylinder head/Boom.....	17
4. Dipper cylinder foot/Boom.....	18
5. Boom/Dipper	18
6. Dipper cylinder head/Dipper.....	18
7. Bucket cylinder foot/Dipper	19
8. Connecting rod/Dipper	19
9. Compensator/Bucket.....	19
10. Connecting rod/Compensator/Bucket cylinder head.....	20
11. Dipper/Bucket.....	20
SPECIAL TORQUE SETTINGS	21
MACHINE OVERALL DIMENSIONS.....	24



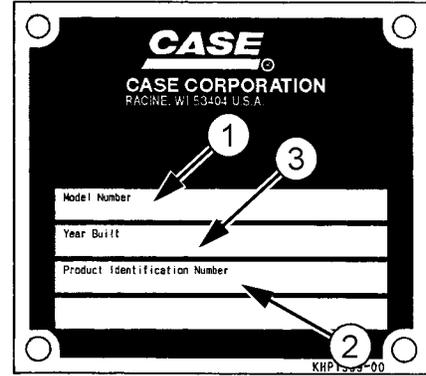
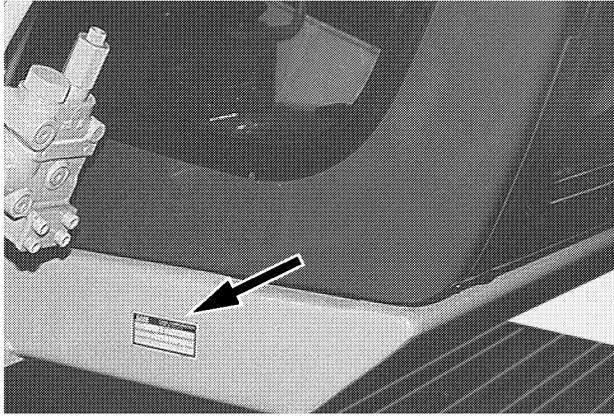
WARNING: *This symbol is used in this manual to indicate important safety messages. Whenever you see this symbol, carefully read the message that follows, as there is a risk of serious injury.*

TYPE, SERIAL NUMBER AND YEAR OF MANUFACTURE OF THE MACHINE

When placing a parts order or making a request for information or assistance, always give your CASE Dealer the type and serial number of the machine concerned.

Enter the required information on the lines below: Type, serial number, year of manufacture of the machine and the serial numbers of hydraulic and mechanical components.

Machine



CS00M518

- (1) Type
- (2) Serial number
- (3) Year of manufacture

Engine

Make and type

Serial number

Component Serial Numbers

Hydraulic pump.....

Swing reduction gear.....

Travel reduction gears.....

Travel control valve.....

Attachment control valve

Swing control valve.....

INGREDIENTS

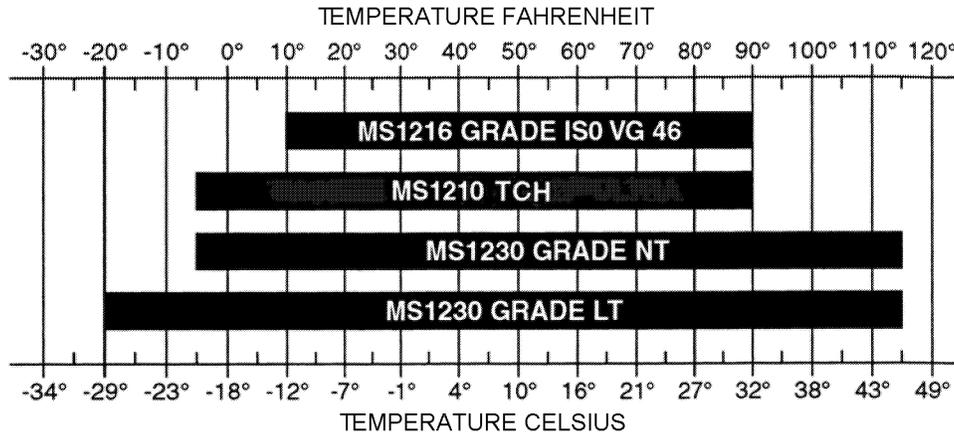
The ingredients must correspond to specific characteristics for every usage.



WARNING: You must respect the operating conditions for the different ingredients.

Hydraulic fluid chart

NOTE: Use only hydraulic oils meeting Case specifications or equivalent AW (anti-wear) hydraulic oils.



CS02M502

NOTE: Case specification MS1210 TCH Fluid is used in place of ISO VG 32 (-5° to + 65° F) and ISO VG 46 (+10° to + 90° F).

NOTE: Case specifications MS1230 Grade NT or Grade LT is used in place of ISO VG 32 (-5° to + 65°F), ISO VG 46 (+10° to + 90°F), ISO VG 100 (+30° to +115°F) and MS1210 TCH

Transmission assembly oil

Extreme pressure oil used for transmission assemblies in housing.

Extreme pressure oil TYPE API GL5 GRADE 80W90 and ISO VG 150

Greases

The type of grease to be used depends on the ambient temperature.

Hot and temperate climates

-4°F to + 140°F (-20°C to +60°C)

Extreme pressure EP NLGI grade 2 grease with molybdenum disulfide.

Cold climates

-40°F to +68°F (-40°C to +20°C)

Extreme pressure EP NLGI grade 0 grease.

Engine Oil

CASE engine oil No. 1 is recommended for your engine. This oil ensures correct lubrication of your engine in all working conditions.

If CASE No. 1 Multiperformance or Performance engine oil is not available, use oil corresponding to category API/CG/CF.

NOTE: Do not put any Performance Additive or other additive in the sump. Oil change intervals shown in this manual are based on tests carried out on CASE lubricants.

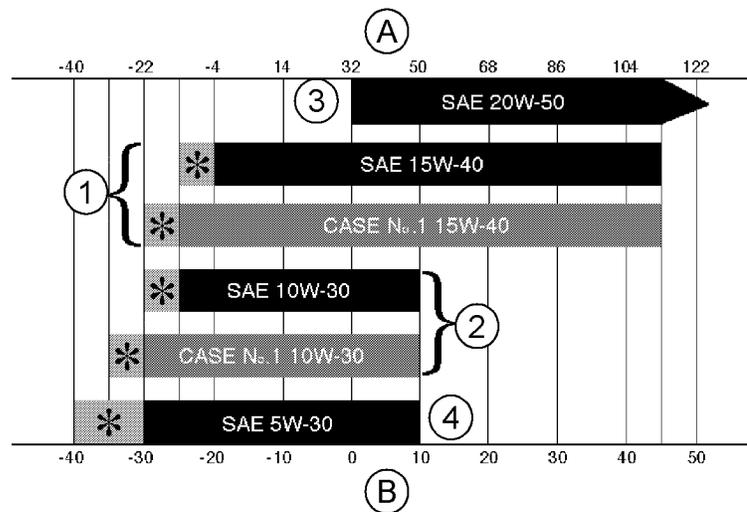


RD97F136



RD97F100

Oil Viscosity/Oil Range



(A) FAHRENHEIT TEMPERATURE

(B) CELSIUS TEMPERATURE

(1) ALL-SEASONS

(*) SHOWS THAT AN ENGINE OIL HEATER OR ENGINE COOLANT SOLUTION HEATER MUST BE USED.

(2) WINTER

(3) TROPICAL

(4) ARCTIC

CS98M561

Fuel

Use fuel that is to ASTM (American Society for Testing and Materials) D975 standard.

Use Grade No. 2 fuel. The use of other types of fuel can result in a loss of power and may cause high fuel consumption.

In cold weather, the use of a mixture of fuels No. 1 and No. 2 is temporarily permitted. Consult your fuel supplier.

If the temperature falls below the fuel cloud point (point at which wax begins to form) the wax crystals will cause power loss or will prevent the engine from starting.

IMPORTANT: *In cold weather, fill the fuel tank at the end of the day's work, in order to prevent the formation of condensation.*

Fuel Storage

Long storage can lead to the accumulation of impurities and condensation in the fuel. Engine trouble can often be traced to the presence of water in the fuel.

The storage tank must be placed outside and the temperature of the fuel should be kept as low as possible. Drain off water and impurities regularly.

Anti-freeze/Anti-corrosion

Use anti-freeze in all seasons to protect the cooling system from corrosion and all risk of freezing.

In environments with a temperature higher than -33°F, use a mixture of 50% ethylene-glycol based anti-freeze.

For areas where the temperature is below -33°F, it is advisable to use a blend of 40% water and 60% anti-freeze.

Environment

Before carrying out any servicing operation on this machine and before disposing of used fluids or lubricants, always think of the environment. Never throw fluid or oil on the ground and never keep them in leaking receptacles.

Consult your local ecological recycling center to obtain information on the appropriate means of disposing these substances.

Components Made From Plastic or Resin

When cleaning plastic parts, the console, the instrument panel, the gauges, etc., do not use petrol (gasoline), paraffin (kerosene), paint solvents, etc. Use only water, soap and a soft cloth.

The use of petrol (gasoline), paraffin (kerosene), paint solvents, etc, will cause discoloration, cracking or deformation of these components.

GENERAL SPECIFICATIONS

CX210

CX240

Engine

Model.....	CASE 6TAA-590
Cooling system.....	Water
Configuration.....	6 cylinder in line
Air take.....	Turbo charged/After cooled
After cooler.....	Air to air
Governor type.....	Electronic
Cold start type.....	Grid heater
Bore and stroke.....	4.02x4.72 in
Cubic capacity.....	359 cu in 396 cu in
Rated engine speed.....	1950 rpm 2150 rpm
HP (Net Gross).....	153 (114 kW) 162 (121 kW)
Maximum torque.....	392 lb-ft at 1600 rpm 415 lb-ft at 1800 rpm

Capacities

Engine oil capacity.....	6.3 gal
Engine cooling system.....	7.1 gal
Fuel tank.....	90 gal
Hydraulic fluid reservoir capacity.....	32 gal
Total hydraulic system capacity.....	54 gal..... 59 gal
Travel reduction gear housing capacity.....	1.24 gal
Swing drive housing capacity.....	1.18 gal 1.58 gal
Idler wheel capacity.....	11 cu in
Upper roller capacity.....	3 to 3.5 cu in
Lower roller capacity.....	12.81 cu in 15.25 cu in

NOTE: *These capacities are only provided in an indicative manner. To check fluid levels, always use the oil dipstick, sight glasses or the filler cap.*

Electrical system

Type of system.....	24 volts negative earth
Alternator amperage.....	40 A
Battery	
Number of batteries required.....	2
Voltage of each battery.....	12 volts
Capacity.....	140 Ah
Reserve.....	160 min
Cold starting capacity at -17°C.....	800 A
Load for load checking.....	400 A
Starter motor	
Voltage.....	24 volts
Power.....	4.5 kW
Voltage regulator.....	integrated, not adjustable

Hydraulic system

Main hydraulic pump

Double, axial piston, variable flow pump.

Max flow	2x53.1 gpm	2x56 gpm
Displacement.....	6.2 cu in.....	5.9 cu in

Hydraulic pilot pump

Fixed flow pump.

Max flow	5.3 gpm	5.8 gpm
Displacement.....	0.6 cu in	

Pressure settings

Pilot circuit secondary relief valve	565±15 psi	
Main relief valve (standard)	4975±45 psi	
Main relief valve (higher pressure - 2-stage relief)	5410±45 psi	
Relief valves (boom, dipper and bucket)	5685±70 psi	
Relief valves (swing).....	4047±60 psi.....	4192±60 psi
Relief valves (travel)	5120±70 psi	
Safety valve (boom and dipper).....	5685±70 psi	

Cylinder

Boom cylinder

Barrel diameter	4.7 in	4.9 in
Rod diameter	3.3 in	3.5 in
Stroke	49.4 in	50.6 in

Dipper cylinder

Barrel diameter	5.3 in	5.7 in
Rod diameter	3.7 in	4.1 in
Stroke	58 in.....	64.1 in

Bucket cylinder

Barrel diameter	4.5 in	5.1 in
Rod diameter	3.1 in	3.5 in
Stroke	39.8 in	42.2 in

Leaks on the cylinder - attachment lowering (without load)

Boom cylinders (rod retracting)	≤ 0.2 in/5 min
Dipper cylinder (rod extending)	≤ 0.2 in/5 min
Bucket cylinder (rod extending)	≤ 0.28 in/5 min
Full (at the end of the attachment)	≤ 7.87 in/10 min

Cylinder speeds (in mode S)

Boom raising (open bucket on the floor).....	3.5±0.6 sec.	3.7±0.6 sec.
Boom lowering (open bucket).....	2.9±0.6 sec.	3±0.6 sec.
Dipper extension.....	2.7±0.6 sec.	3±0.6 sec.
Dipper retraction	3.7±0.6 sec.	4.2±0.6 sec.
Bucket opening	2.3±0.6 sec.	2.8±0.6 sec.
Bucket closing	4±0.6 sec.	5±0.6 sec.

Control valve

Five section control valve for dipper, boom acceleration, swing, option and RH travel.

Four section control valve for dipper acceleration, bucket, boom and LH travel.

Load holding valve for boom and dipper.

CX210

CX240

Swing

Fixed flow, axial piston motor.

Automatic disc brake.

Upperstructure swing speed	12 rpm	10.4 rpm
Displacement	9.21 cu in	8.9 cu in
Work output	40.9 gpm	48 gpm
Reduction ratio	16.757	22.097
Braking torque	≥ 545 lb-ft	≥ 594 lb-ft
Minimum brake pressure		420 psi
Acceptable hydraulic motor leakage	xx gpm	xx gpm

Travel

Two-speed, axial piston motor.

Automatic disc brake.

Slow speed	2.05 mph	2.11 mph
Fast speed		3.42 mph
Incline that can be overcome		70% (35°)
Tractive force	41 230 lbs	43 010 lbs
Displacement	9.9/5.8 cu in	10.3/6.1 cu in
Work output	53 gpm	56 gpm
Reduction ratio		43.246
Braking torque (including reducer)		15 415 lb-ft
Number of turns at the sprockets (10 turns)		
Mode "S", fast speed	14.2±0.6 sec.	13±0.6 sec.
Mode "S", slow speed	23.4±0.7 sec.	21.4±0.7 sec.
Permitted deviation in travel over a distance of 20 m		
Mode "H", full speed		39.4 in
Acceptable hydraulic motor leakage	xx l/min	xx l/min

Undercarriage

One-piece undercarriage with welded components.

Lubricated rollers and idler wheels.

Grease type track tension.

Ground pressure

with 23.6 in track pads	6.24 psi	7.15 psi
with 27.6 in track pads	5.51 psi	6.12 psi
with 31.5 in track pads	4.64 psi	5.36 psi

Track tension

11 to 11.8 in

Attachment

Break-out force	28 533 lbf	35 432 lbf
Penetration force		
7 ft 10 in dipper	25 853 lbf	
9 ft 10 in dipper	21 424 lbf	
8 ft 2 in dipper		31 477 lbf
10 ft 2 in dipper		26 174 lbf

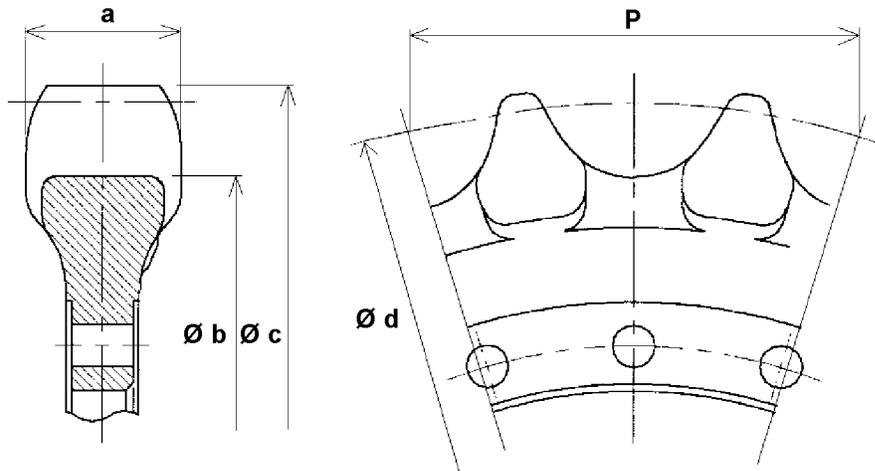
Weight of components

Engine	1128 lbs	
Hydraulic pump.....	346 lbs	
Attachment control valve	439 lbs	
Swing motor/reduction gear assembly	492 lbs	761 lbs
Travel motor/reduction gear assembly	679 lbs	
Boom cylinder.....	373 lbs	423 lbs
Dipper cylinder.....	567 lbs	721 lbs
Bucket cylinder	333 lbs	428 lbs
Counterweight	8818 lbs	11 243 lbs
Cab	560 lbs	
Turnable bearing	580 lbs	858 lbs
Upperstructure attachment.....	19 114 lbs	22 685 lbs
Hydraulic swivel.....	69 lbs	
Undercarriage attachment.....	14 485 lbs	16 777 lbs
Machine without attachment.....	34 017 lbs	39 926 lbs
Attachment	8113 lbs	10 185 lbs
Boom attachment	4652 lbs	5776 lbs
Dipper attachment	2046 lbs	2623 lbs
Radiator and cooler set	167 lbs	185 lbs
Fuel tank.....	192 lbs	
Hydraulic tank.....	280 lbs	
Idler wheel	181 lbs	201 lbs
Upper roller	38 lbs	
Lower roller.....	80 lbs	88 lbs
Shock absorber	278 lbs	313 lbs
Track 600 mm.....	2784 lbs	3009 lbs
Track 700 mm.....	3241 lbs	3311 lbs
Track 800 mm.....	3525 lbs	3600 lbs

DIMENSIONS AND LIMIT OF WEAR AND TEAR OF THE TRACKS SET

Toothed wheel

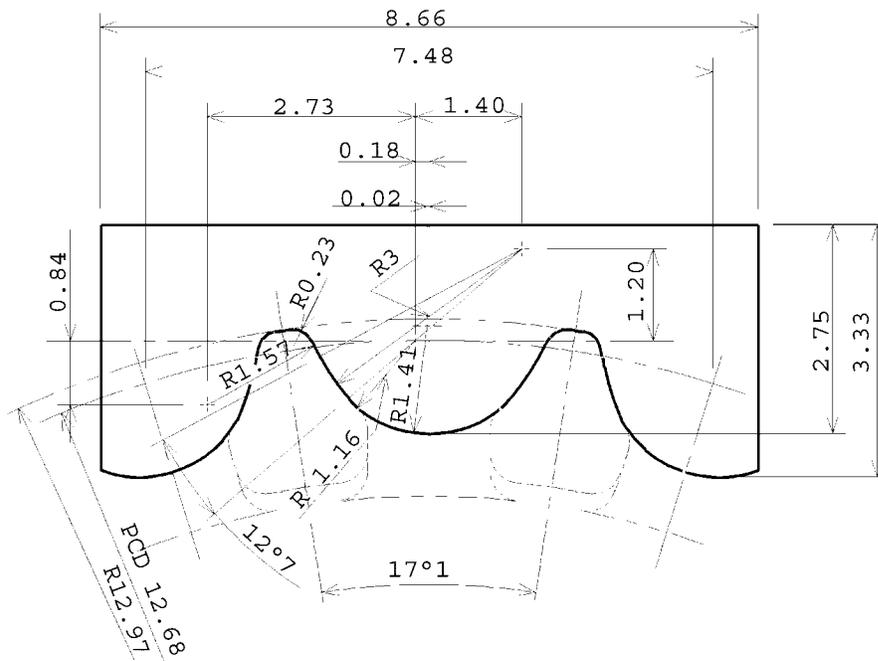
Dimensions



CS01B512

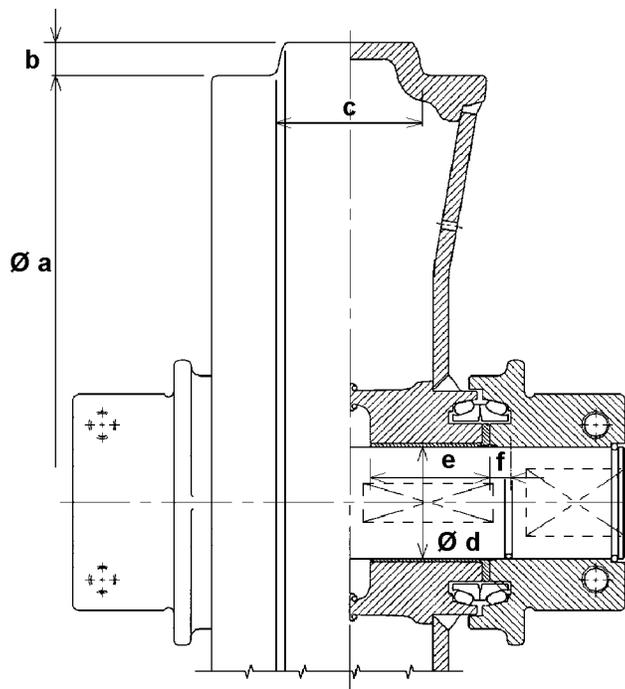
Marking		Dimension (in)
a	Standard	2.6
	Limit	2.36
Ø b	Standard	22.93
	Limit	22.7
Ø c	Standard	25.94
	Limit	25.71
Ø d	Standard	25.38
	Limit	---
P	Standard	7.48
	Limit	---

Gauge



Idler wheel

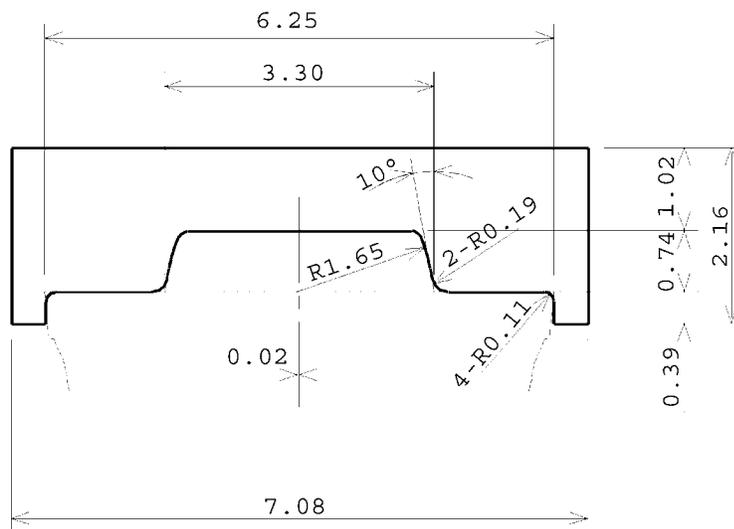
Dimensions



Marking		Dimension (in)	
		CX210	CX240
$\varnothing a$	Standard	19.45	19.45
	Limit	19.29	19.29
b	Standard	0.75	0.75
	Limit	---	---
c	Standard	3.31	3.31
	Limit	3.15	3.15
$\varnothing d$ (pin)	Standard	2.56	2.76
	Limit	2.54	2.74
$\varnothing d$ (ring)	Standard	2.56	2.76
	Limit	2.59	2.79
e	Standard	2.72	2.91
	Limit	2.7	2.9
f	Standard	0.49	0.63
	Limit	0.47	0.61

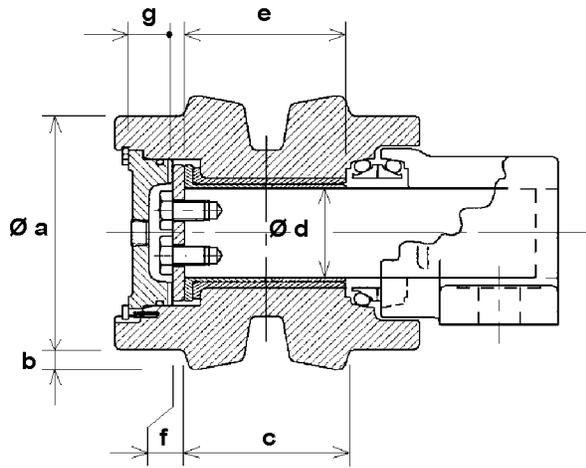
CS01B514

Gauge



Upper roller

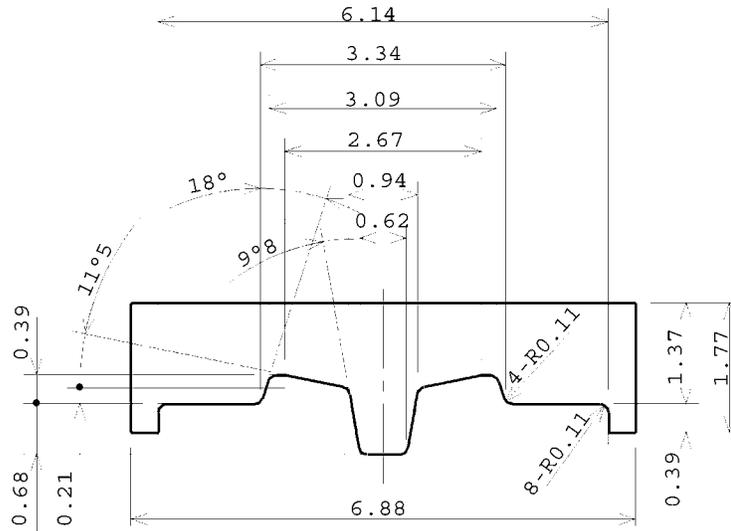
Dimensions



Marking		Dimension (in)
Ø a	Standard	4.72
	Limit	4.41
b	Standard	0.39
	Limit	---
c	Standard	3.35
	Limit	3.11
Ø d (pin)	Standard	1.81
	Limit	1.79
Ø d (ring)	Standard	1.81
	Limit	1.84
e	Standard	3.27
	Limit	3.25
f	Standard	0.22
	Limit	0.2
g	Standard	0.89
	Limit	0.87

CS01B516

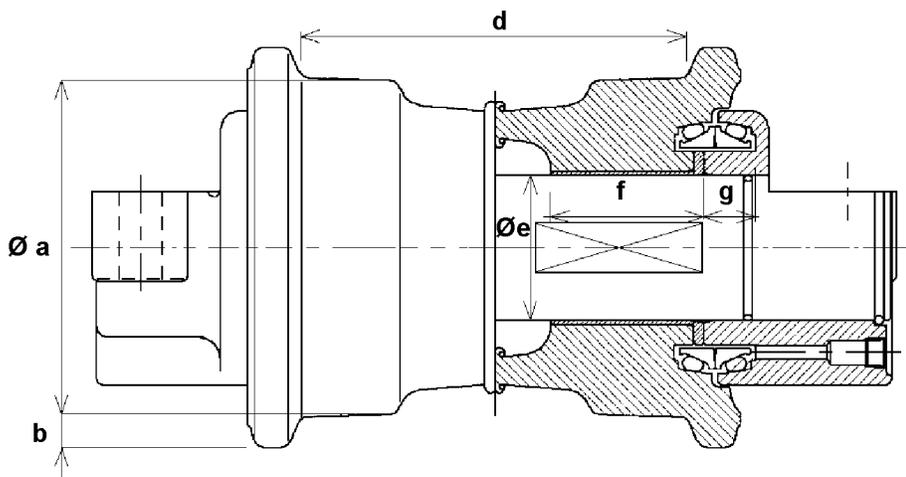
Gauge



CS01G579

Lower roller

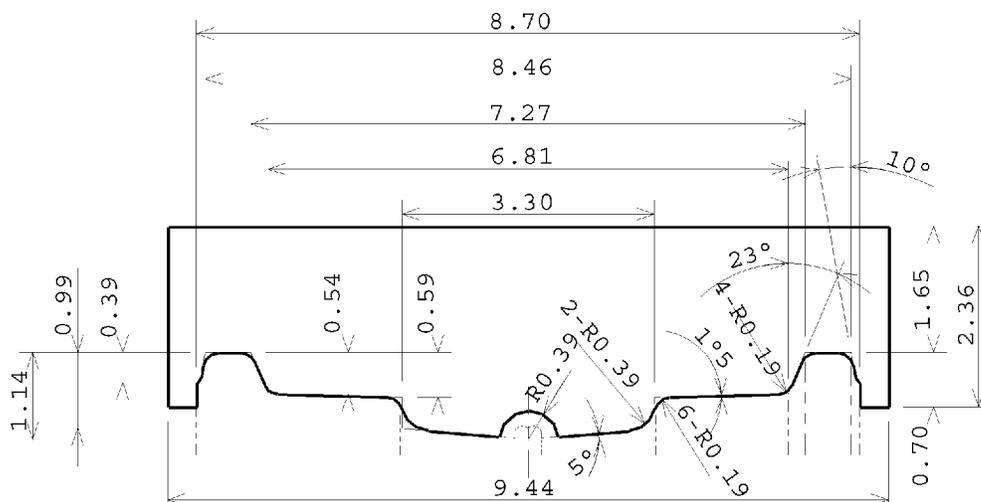
Dimensions



CS01B518

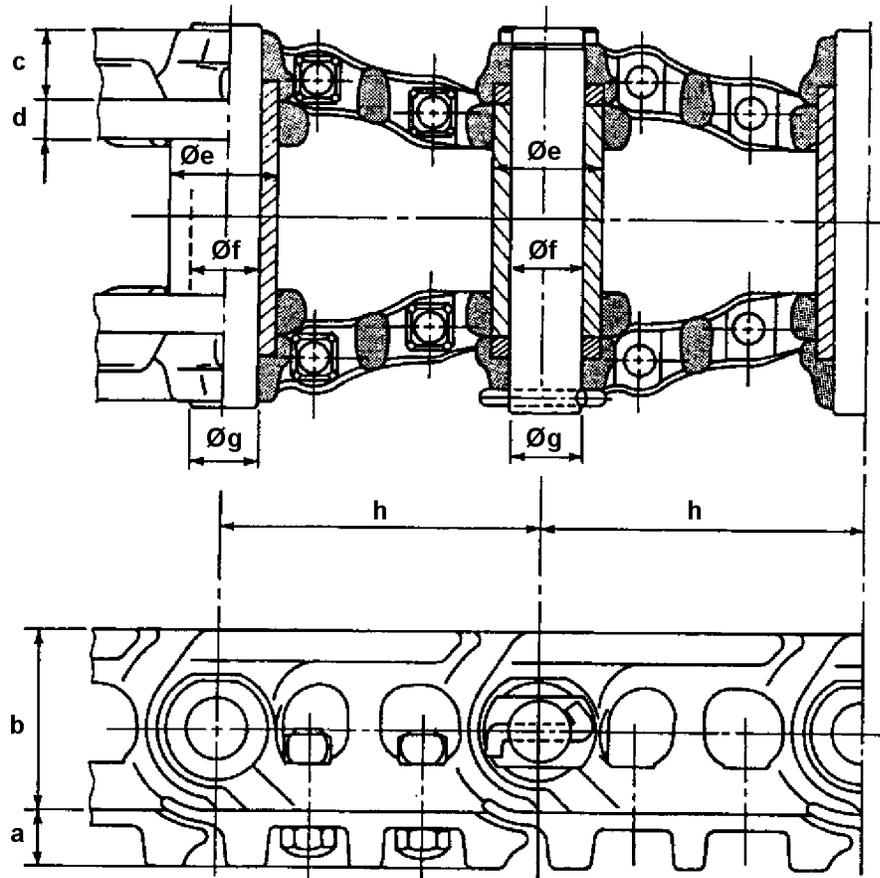
Marking		Dimension (in)		Marking		Dimension (in)	
		CX210	CX240			CX210	CX240
Ø a	Standard	5.9	6.3	Ø e (ring)	Standard	2.56	2.76
	Limit	5.59	5.98		Limit	2.59	2.79
b	Standard	0.59	0.59	f	Standard	2.72	2.91
	Limit	---	---		Limit	2.7	2.9
d	Standard	6.81	6.81	g	Standard	0.92	0.82
	Limit	7.05	7.05		Limit	0.9	0.81
Ø e (pin)	Standard	2.56	2.76				
	Limit	2.54	2.74				

Gauge



CS01G580

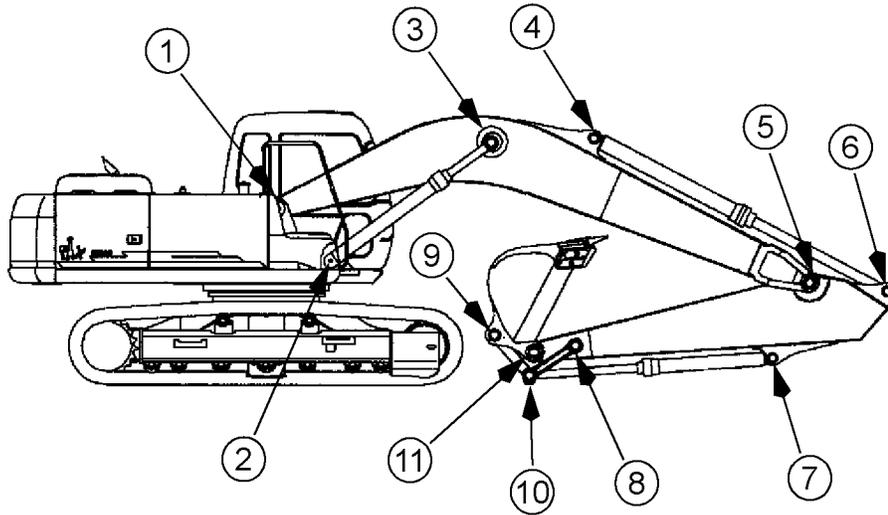
Track



CS01B520

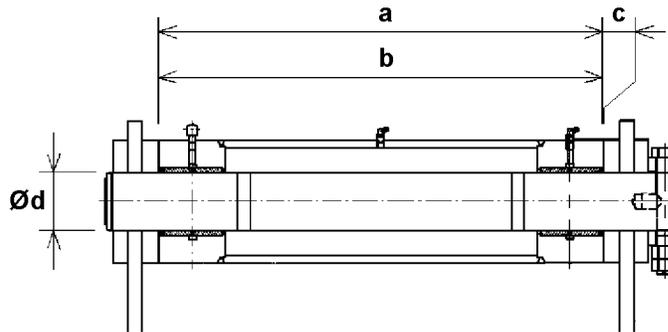
Marking		Dimension (in)		Marking		Dimension (in)	
		CX210	CX240			CX210	CX240
a	Standard	1.36	1.42	Ø e (ring)	Standard	2.31	2.31
	Limit	0.85	0.9		Limit	2.26	2.26
b	Standard	4.17	4.17	Ø f (ring)	Standard	1.47	1.47
	Limit	3.98	3.98		Limit	1.51	1.51
c	Standard	1.49	1.49	Ø g (pin)	Standard	1.43	1.43
	Limit	1.42	1.42		Limit	1.4	1.4
d	Standard	0.78	0.78	h	Standard	7.48	7.48
	Limit	0.63	0.63		Limit	7.68	7.68

DIMENSIONS AND LIMIT OF WEAR AND TEAR OF THE MOBILE JOINTS OF THE ATTACHMENT



CS01B521

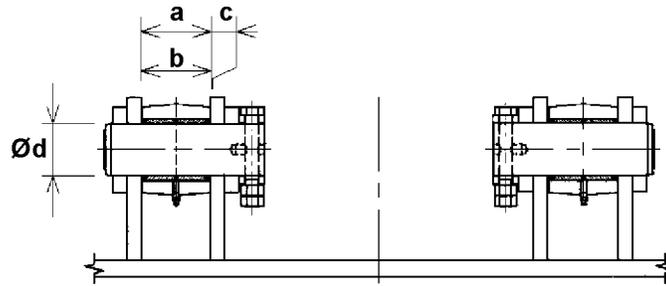
1. Boom foot/Undercarriage



CS01B522

Marking	Dimension (in)		
		CX210	CX240
a	Standard	26.85	27.4
	Limit	27.24	27.79
b	Standard	26.83	27.38
	Limit	26.75	27.3
c (a - b)	Standard	0.02 to 0.12	0.02 to 0.12
	Limit	Shims	Shims
Ø d (pin)	Standard	3.54	3.94
	Limit	3.5	3.9
Ø d (ring)	Standard	3.54	3.94
	Limit	3.6	4

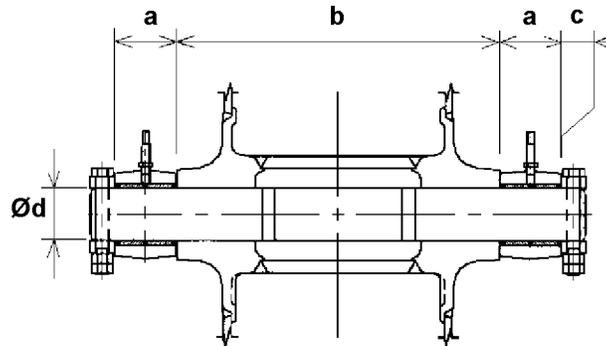
2. Boom cylinder foot/Undercarriage



CS01B523

Marking		Dimension (in)	
		CX210	CX240
a	Standard	4.17	4.29
	Limit	4.41	4.53
b	Standard	4.13	4.25
	Limit	4.05	4.17
c (play)	Standard	0.04 to 0.1	0.04 to 0.1
	Limit	Shims	Shims
Ø d (pin)	Standard	3.15	3.9
	Limit	3.11	3.5
Ø d (ring)	Standard	3.15	3.9
	Limit	3.21	3.6

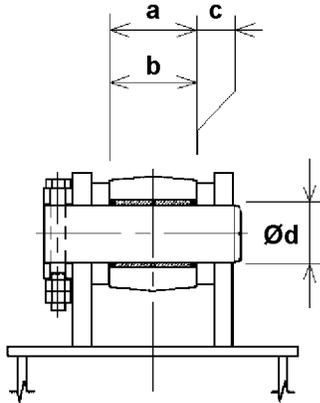
3. Boom cylinder head/Boom



CS01B524

Marking		Dimension (in)	
		CX210	CX240
a	Standard	3.94	4.25
	Limit	3.86	4.17
b	Standard	20.67	20.79
	Limit	20.16	20.55
c (play)	Standard	0.04 to 0.1	0.04 to 0.1
	Limit	Shims	Shims
Ø d (pin)	Standard	3.35	3.54
	Limit	3.31	3.5
Ø d (ring)	Standard	3.35	3.54
	Limit	3.4	3.6

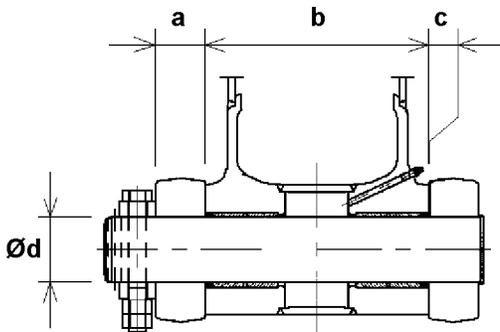
4. Dipper cylinder foot/Boom



CS01B525

Marking		Dimension (in)	
		CX210	CX240
a	Standard	4.76	4.76
	Limit	5	5
b	Standard	4.72	4.72
	Limit	4.65	4.65
c (a - b)	Standard	0.02 to 0.08	0.02 to 0.08
	Limit	Shims	Shims
Ø d (pin)	Standard	3.15	3.54
	Limit	3.11	3.5
Ø d (ring)	Standard	3.15	3.54
	Limit	3.21	3.6

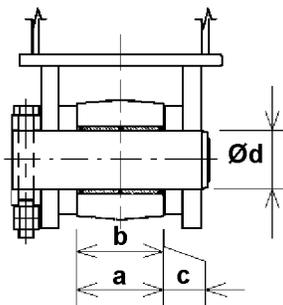
5. Boom/Dipper



CS01B526

Marking		Dimension (in)	
		CX210	CX240
a	Standard	12.2	12.99
	Limit	12.34	13.13
b	Standard	12.18	12.97
	Limit	12.11	12.89
c (play)	Standard	0.02 to 0.04	0.02 to 0.04
	Limit	Shims	Shims
Ø d (pin)	Standard	3.54	3.94
	Limit	3.5	3.9
Ø d (dipper)	Standard	3.54	3.94
	Limit	3.6	4
Ø d (boom)	Standard	3.54	3.94
	Limit	3.6	4

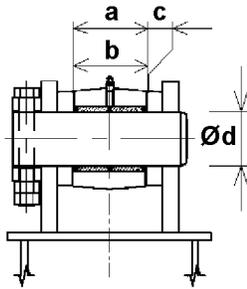
6. Dipper cylinder head/Dipper



CS01B527

Marking		Dimension (in)	
		CX210	CX240
a	Standard	4.76	4.76
	Limit	5	5
b	Standard	4.72	4.72
	Limit	4.64	4.64
c (a - b)	Standard	0.02 to 0.12	0.02 to 0.12
	Limit	Shims	Shims
Ø d (pin)	Standard	3.15	3.54
	Limit	3.11	3.5
Ø d (ring)	Standard	3.15	3.54
	Limit	3.21	3.6

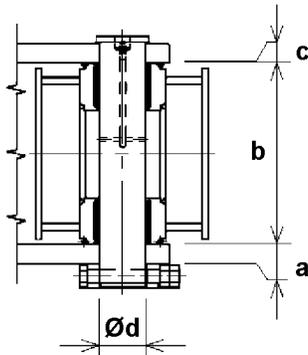
7. Bucket cylinder foot/Dipper



CS01B528

Marking		Dimension (in)	
		CX210	CX240
a	Standard	3.98	4.57
	Limit	4.21	4.8
b	Standard	3.94	4.13
	Limit	3.86	4.05
c (a - b)	Standard	0.02 to 0.12	0.02 to 0.12
	Limit	Shims	Shims
Ø d (pin)	Standard	2.95	3.15
	Limit	2.91	3.11
Ø d (ring)	Standard	2.95	3.15
	Limit	3.01	3.21

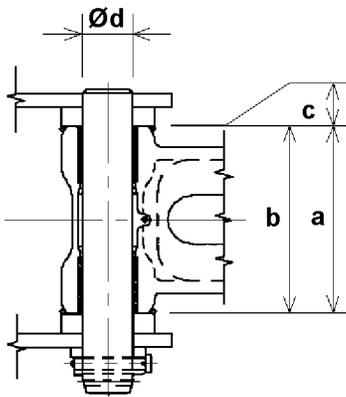
8. Connecting rod/Dipper



CS01B529

Marking		Dimension (in)	
		CX210	CX240
a	Standard	1.26	1.57
	Limit	1.18	1.5
b	Standard	11.65	12.44
	Limit	11.57	12.36
c (play)	Standard	0.04 to 0.06	0.04 to 0.06
	Limit	Shims	Shims
Ø d (pin)	Standard	2.95	3.15
	Limit	2.91	3.11
Ø d (ring)	Standard	2.95	3.15
	Limit	3.01	3.21

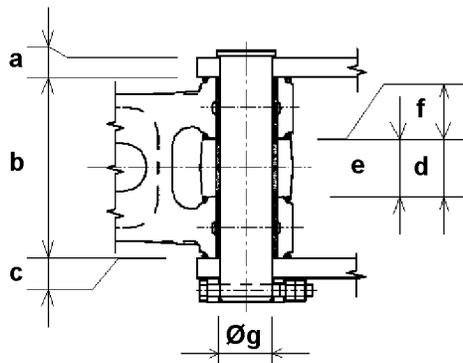
9. Compensator/Bucket



CS01B530

Marking		Dimension (in)	
		CX210	CX240
a	Standard	12.09	12.48
	Limit	12.32	12.71
b	Standard	12.05	12.44
	Limit	11.97	12.36
c (play)	Standard	0.04 to 0.14	0.04 to 0.14
	Limit	Shims	Shims
Ø d (pin)	Standard	3.15	3.54
	Limit	3.11	3.5
Ø d (ring)	Standard	3.15	3.54
	Limit	3.21	3.6

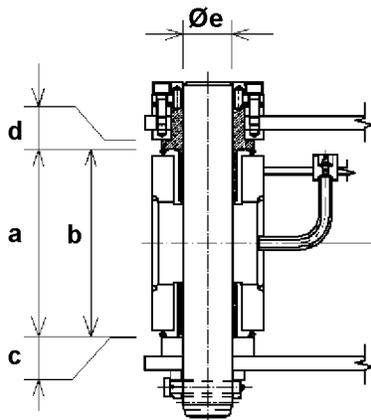
10. Connecting rod/Compensator/Bucket cylinder head



CS01B531

Marking		Dimension (in)	
		CX210	CX240
a	Standard	1.26	1.57
	Limit	1.18	1.5
b	Standard	11.65	12.44
	Limit	11.57	12.36
c (play)	Standard	0.04 to 0.06	0.04 to 0.06
	Limit	Shims	Shims
d	Standard	3.78	4.17
	Limit	3.86	4.25
e	Standard	3.74	4.13
	Limit	3.66	4.05
f (d - e)	Standard	0.01 to 0.08	0.01 to 0.08
	Limit	Shims	Shims
Ø g (pin)	Standard	3.15	3.54
	Limit	3.11	3.5
Ø g (compensator)	Standard	3.15	3.54
	Limit	3.21	3.6
Ø g (cylinder)	Standard	3.15	3.54
	Limit	3.21	3.6

11. Dipper/Bucket



CS01B532

Marking		Dimension (in)	
		CX210	CX240
a	Standard	12.09	12.83
	Limit	12.32	13.07
b	Standard	12.05	12.79
	Limit	11.97	12.71
c (a - b)	Standard	0.04 to 0.14	0.04 to 0.14
	Limit	Shims	Shims
d	Standard	0.63	0.63
	Limit	0.31	0.31
Ø e (pin)	Standard	3.15	3.54
	Limit	3.11	3.5
Ø e (dipper)	Standard	3.15	3.54
	Limit	3.21	3.6
Ø e (bucket)	Standard	3.15	3.54
	Limit	3.21	3.6

SPECIAL TORQUE SETTINGS

N	Component	Screw (Ø)	Key (mm)	Torque setting (lb-ft)
1 *	Travel motor/reduction gear assembly	M16	24	197-230
2 *	Sprocket	M16	24	197-230
3 *	Idler wheel	M16	24	197-230
4 *	Upper roller	M20	30	384-448
5 *	Lower roller	M18	27	274-318
6	Chain guide	M18	27	280-327
7	Track pad	M20	30	221 + 120°
8	Counterweight	M27	41	780-911
		M30	46	983-1142
9	Turntable (undercarriage)	M20	30	345-402
		M24	36	578-673
10	Turntable (upperstructure)	M20	30	345-402
		M24	36	578-673
11 *	Swing motor/reduction gear assembly	M20	30	384-448
		M24	36	578-673
12 *	Engine	M16	24	195-231
13 *	Engine support	M10	17	47-54
14	Radiator	M16	24	108-130
15 *	Hydraulic pump	M10	17	47-54
		M20		271-366
16 *	Hydraulic reservoir	M16	24	171-203
17 *	Fuel tank	M16	24	171-203
18 *	Control valve	M16	24	195-231
19 *	Hydraulic swivel	M12	19	80-94
20	Cab	M16	24	57-59
21	Battery	M10	17	15-21

NOTE: Use Loctite 262 or an equivalent on retaining screws of components marked with an asterisk (*).