CX800 Crawler Excavators
Table of Contents

* *Consult the Engine Service Manual*

[redacted] *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

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 Case 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.*

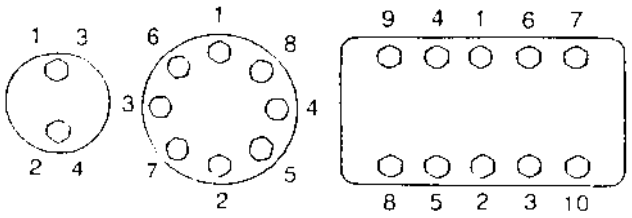
WARNING: *Engine exhaust fumes can cause death. If it is necessary to start the engine in a closed place, remove the exhaust fumes from the area with an exhaust pipe extension. Open the doors and get outside air into the area.*

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.



JS00481B

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	[in.]	0.39	0.51	0.67	0.75	0.87	0.95	1.06	1.18
		[mm]	10	13	17	19	22	24	27	30
	Tightening torque	[lb-ft]	5.1	11.6	23.9	43.4	72.5	116.0	144.6	202.4
		[Nm]	6.9	15.7	32.5	58.8	98.1	157.2	196.0	274.0
Socket Head Cap Screw	Spanner	[in.]	0.20	0.24	0.32	0.39	0.47	0.55	0.55	0.67
		[mm]	5	6	8	10	12	14	14	17
	Tightening torque	[lb-ft]	6.5	15.9	31.1	57.8	86.8	130.1	180.8	253.1
		[Nm]	8.8	21.6	42.1	78.4	117.6	176.4	245.0	343.0

Section

1002

SPECIFICATIONS
AND SPECIAL TORQUE SETTINGS

TABLE OF CONTENTS

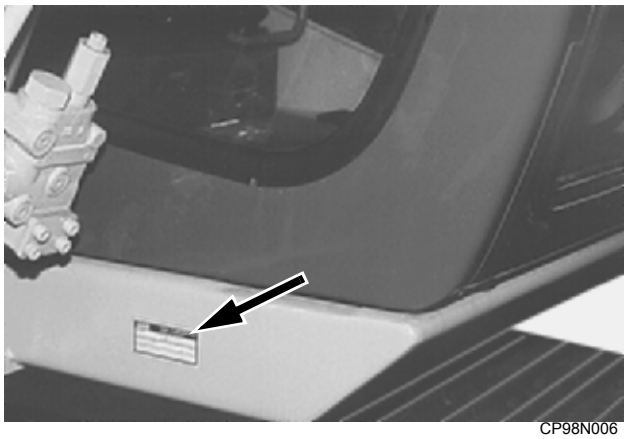
WARNING: *This symbol is used in this manual to indicate important safety messages. Whenever you see this symbol, carefully read the message which follows. Your safety depends on it.*

TYPE, SERIAL NUMBER AND YEAR OF MANUFACTURE OF THE MACHINE

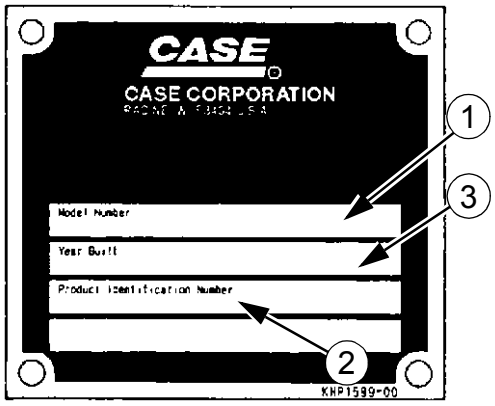
For all part orders, request for information or assistance, always specify the type and the serial number of the machine to your Case dealer.

Fill in the following lines with the required information: Type, serial number, year of manufacture of the machine and the serial numbers of the hydraulic and mechanical components.

Machine



CP98N006



CS00M518

(1) Type.....

(2) Serial number.....

(3) Year of manufacture.....

Engine

Make and type.....

Serial number.....

Serial numbers of the components

Hydraulic pump.....

Swing reduction gear.....

Travel reduction gears.....

Travel control valve.....

Attachment control valve.....

Swing control valve.....

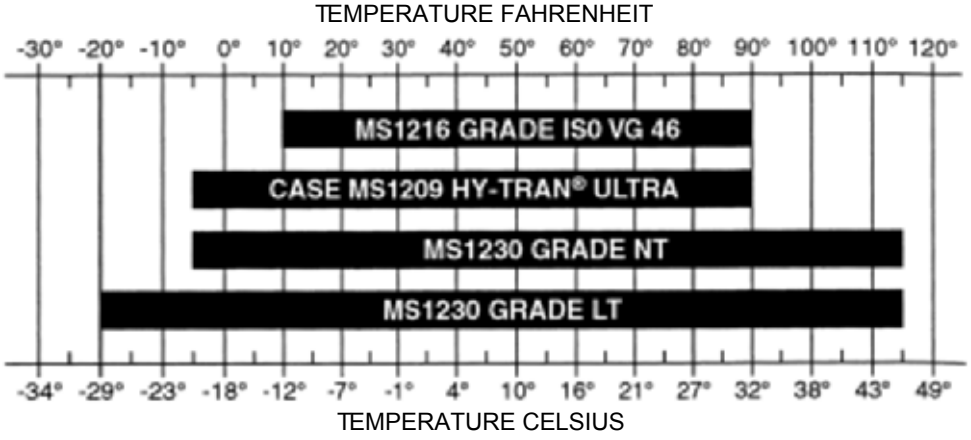
INGREDIENTS

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.*



CS02K507

NOTE: *Case specification MS1209 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

THE CASE No. 1 engine oil is recommended for your engine. T his oil ensures proper lub rication of yo ur engine for all operating conditions.

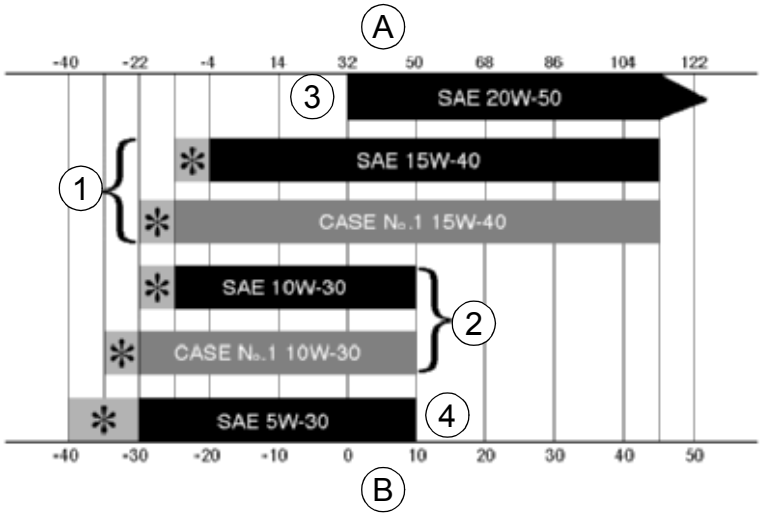
If you a re un able to p rocure th e CASE No. 1 Multiperformance or Performance engine oil, use the corresponding oil from the API/CG/CF category.

NOTE: *Do not put any Performance Additives or any other additives in the engine housing .The oil changing intervals are indicated in this manual based on tests carried out on CASE lubricants.*

RD97F136

RD97F100

Viscosity of oils/Operating range of oils



CS98M561

(A) FAHRENHEIT TEMPERATURE
(B) CELSIUS TEMPERATURE
(1) ALL-SEASONS
(2) WINTER
(3) TROPICAL
(4) ARCTIC
(*) SHOWS THAT AN ENGINE OIL HEATER OR ENGINE COOLANT SOLUTION HEATER MUST BE USED.

Fuel

The fuel to be used must comply with the D975 norm of the American Society for Testing and Materials (ASTM).

Use type N°2 fuel, use of other fuels can cause a loss of engine power and excessive fuel consumption.

In cold weather, it is provisionally accepted that a mixture of N°1 et N°2 fuels be used. Contact your fuel supplier.

If the temperature drops below the freezing point of the fuel (point where paraffin appears), paraffin crystals in the fuel will cause loss of engine power or starting trouble.

IMPORTANT: *In cold weather, fill up the reservoir with fuel after each workday, in order to avoid the formation of condensation.*

Storing fuel

Prolonged storage of fuel promotes the accumulation of foreign bodies or condensed moisture in the storage tank. Many engine failures are caused by the presence of water in fuel.

The storage tank must be placed outside and the fuel should be maintained at as low a temperature as possible. Drain the condensed moisture at regular intervals.

Antifreeze/anticorrosive

Use the antifreeze in all seasons to protect the coolant system from corrosion and to avoid any risk of freezing.

In environments with a temperature greater than -33°F (-36°C), use a 50 % mixture of antifreeze in an ethylene glycol base.

In environments with a temperature less than - 33°F (-36°C), it is recommended that you use a 40% water and 60% antifreeze mixture.

Environment

Before carrying out any maintenance operation on this machine and before throwing away the liquids or lubricants used, always think of the environment. Never throw oil or liquids on the ground and never put them in leaking containers.

Consult your local centre for ecological recycling for information on the appropriate method for disposing off these substances.

Plastic and resin parts

When cleaning plastic parts, the console, the instrument panel, the indicators etc... avoid using petrol, kerosene, paint solvents etc... Use only water, soap and a soft cloth.

The use of petrol, kerosene, paint solvents etc... causes discoloration, cracks or deformation of these parts.

SPECIFICATIONS

Engine

Make ..... Isuzu
Model BB-6WG1XQB

Type: Four stroke, water cooled with overhead valves, direct injection in-line cylinder (electrical control) with turbo-charger.
Number of cylinders 6
Bore and stroke ..... 5.7x6 in
Displacement ..... 957 cu in

Operating conditions
Idle ..... 900 rpm
Max speed ..... 1870 rpm
SAE net horse power ..... 450 HP
Max torque ..... 1410 lb ft to 1500 rpm

Capacities

Engine oil capacity ..... 12.4 gal
Engine cooling circuit ..... 26.4 gal
Capacity of only the radiator ..... 9.5 gal
Fuel reservoir ..... 237.7 gal
Hydraulic fluid reservoir capacity ..... 81.8 gal
Total hydraulic circuit capacity ..... 190.2 gal
Capacity of only the oil-cooler ..... 15.8 gal
Travel reduction gear housing capacity ..... 3.5 gal
Swing drive housing capacity ..... 3.5 gal

NOTE: *These capacities are given only for information purposes. To check the fluid levels, always use the oil gauge, visual gauges or the filler cap.*

Electrical system

Type of system ..... 24 volts earth negative
Alternator amperage ..... 90 amperes
Battery
- Number of batteries required 2
- Voltage of each battery ..... 12 volts
- Capacity ..... 200 Ah
- Backup ..... xx min

Starter
- Voltage ..... 24 volts
- Power ..... 7 kW

Voltage regulator ..... built-in, without adjustment

Hydraulic system

Main hydraulic pump

Variable flow double pump, with axial pistons.
Max flow ..... 2x135.7 gpm
Displacement ..... 2x16.9 cu in

Hydraulic pilot pump

Fixed flow pump
Max flow ..... 7.1 gpm
Displacement ..... 0.9 cu in

Pressure setting

Pilot circuit main relief ..... 638 psi
Main relief (standard) ..... 4554 psi
Main relief (boost) ..... 4974 psi
Secondary relief (boom, dipper and bucket) ..... 5264 psi
Secondary relief (swing) ..... 4046 psi
Secondary relief (travel) ..... 4975 psi
Safety valve (boom and dipper) ..... 5265 psi

Cylinder

Boom cylinder

Cylinder bore ..... 7.87 in
Rod diameter ..... 5.5 in
Stroke ..... 74.5 in

Dipper cylinder

Cylinder bore ..... 8.46 in
Rod diameter ..... 5.9 in
Stroke ..... 90.1 in

Bucket cylinder

Cylinder bore ..... 7.4 in
Rod diameter ..... 5.1 in
Stroke ..... 61 in

Control valve

Five-element control valve for dipper, boom acceleration, swing, option and right travel.
Four-element control valve for dipper acceleration, bucket, boom and left travel.
Load holding relief valve for boom and dipper.

Swing

Fixed flow engine with axial pistons.
Automatic disk brakes.

Upperstructure frame swing speed	7.6 rpm
Swing torque	55845 lbf
Tail swing	13 ft 4 in
Displacement	12.8 cu in
Work load	66 gpm
Braking torque	856 to 1109 lb ft
Minimum brake release pressure	333 psi
Permissible motor leakage	1.32 gpm

Travel

Two-speed motor with axial pistons.
Automatic disk brakes.

Low speed	1.8 mph
High speed	2.7 mph
Surmountable ramp	70% (35°)
Tractive effort	122390 lbf
Displacement	20.5/13.9 cu in
Work load	132 gpm
Reduction ratio	91.974
Braking torque (reduction gear excluded)	680 lb ft
Permissible motor leakage	3.43 gpm

Undercarriage

Monobloc frame with fabricated elements.
Lubricated rollers and idler wheels.
Grease track tension.

Ground pressure	
with 29.5 in track pads	14 psi

Attachment

Digging force	84218 lbf
Thrust force	
9 ft 9 in dipper	74760 lbf
12 ft 0 in dipper	64852 lbf
14 ft 7 in dipper	55620 lbf
18 ft 5 in dipper	47062 lbf

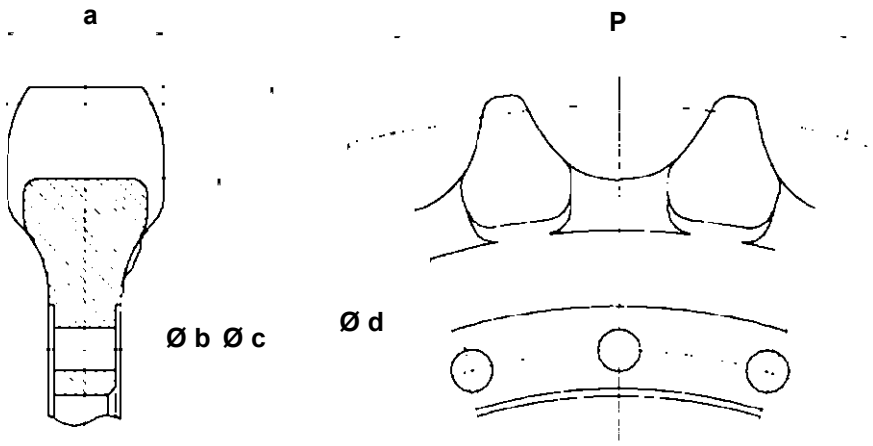
Weight of components

Engine	2756 lbs
Hydraulic pump	661 lbs
Attachment control valve	948 lbs
Swing motor and reduction gear assembly	1810 lbs
Travel motor and reduction gear assembly	2866 lbs
Boom cylinder	1576 lbs
Dipper cylinder	2260 lbs
Bucket cylinder	1323 lbs
Counterweight	27558 lbs
Cab	560 lbs
Turntable	2954 lbs
Upperstructure assembly	52911 lbs
Hydraulic swivel	225 lbs
Frame assembly	28880 lbs
Machine without attachment	140667 lbs
Attachment	33201 lbs
Boom assembly	17196 lbs
Dipper assembly	9480 lbs
Radiator and oil-cooler assembly	1146 lbs
Fuel reservoir	1029 lbs
Hydraulic reservoir	932 lbs
Idler wheel	1471 lbs
Upper roller	166 lbs
Lower roller	397 lbs
Tension damper	1517 lbs
29.5 in track (25)	5015 lbs
35.4 in track (25)	5697 lbs
43.3 in track (25)	6554 lbs

DIMENSIONS AND WEAR LIMIT OF THE TRACK-LAYER ASSEMBLY

Sprocket

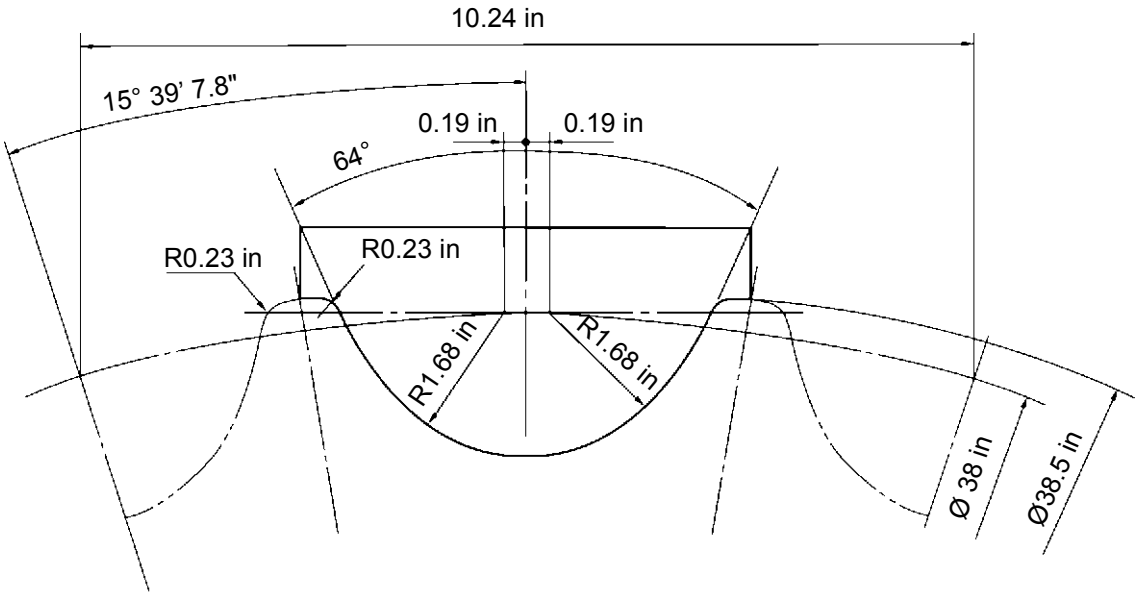
Dimensions



CS01B512

Mark		Dimension (in)
a	Standard	
	Limit	
Ø b	Standard	
	Limit	
Ø c	Standard	38.5
	Limit	
Ø d	Standard	38
	Limit	
P	Standard	10.24
	Limit	

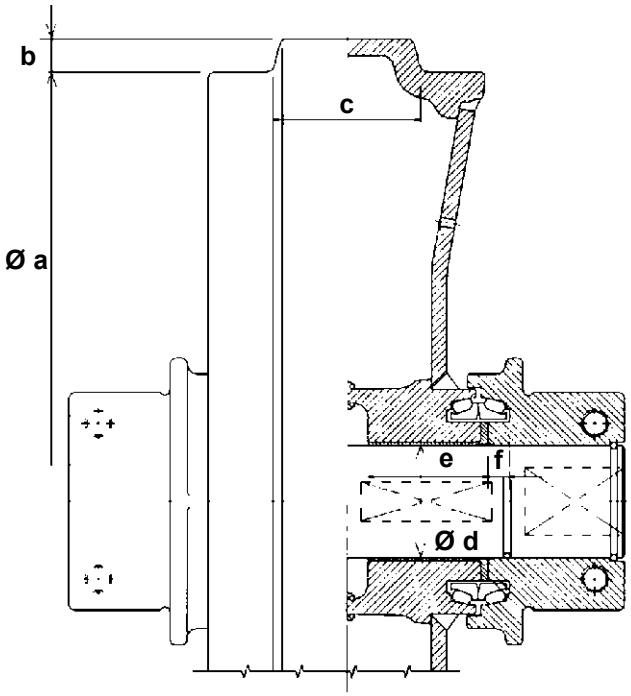
Gauge



CI01M506

Idler wheel

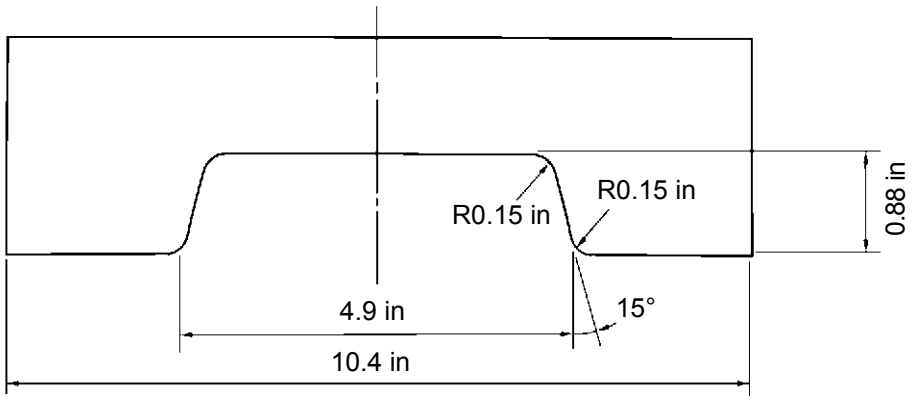
Dimensions



CS01B514

Mark		Dimension (in)
Ø a	Standard	32.6
	Limit	
b	Standard	0.88
	Limit	
c	Standard	4.9
	Limit	
Ø d (shaft)	Standard	
	Limit	
Ød (ring)	Standard	
	Limit	
e	Standard	
	Limit	
f	Standard	
	Limit	

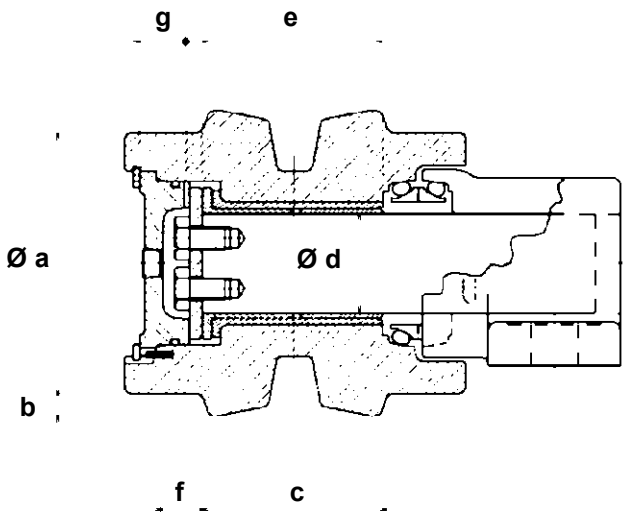
Gauge



CI01M507

Upper roller

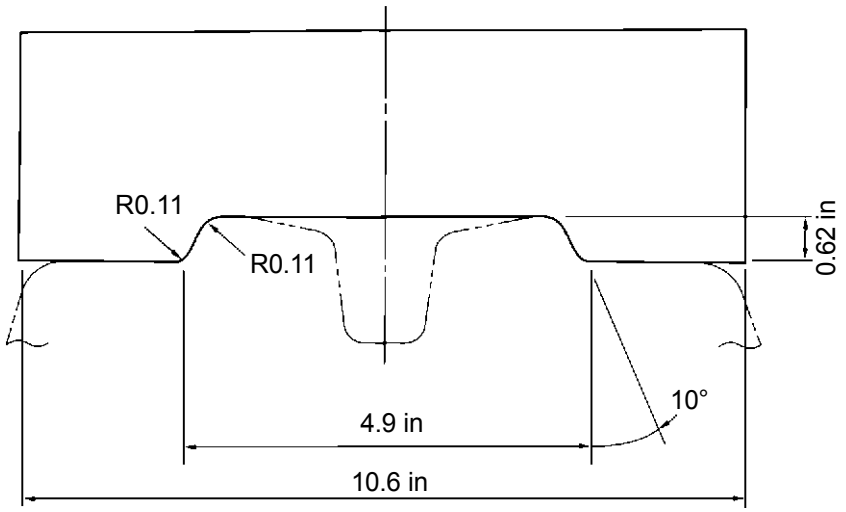
Dimensions



CS01B516

Mark		Dimension (in)
Ø a	Standard	8.58
	Limit	
b	Standard	0.62
	Limit	
c	Standard	4.9
	Limit	
Ø d (shaft)	Standard	
	Limit	
Ød (ring)	Standard	
	Limit	
e	Standard	
	Limit	
f	Standard	
	Limit	
g	Standard	
	Limit	

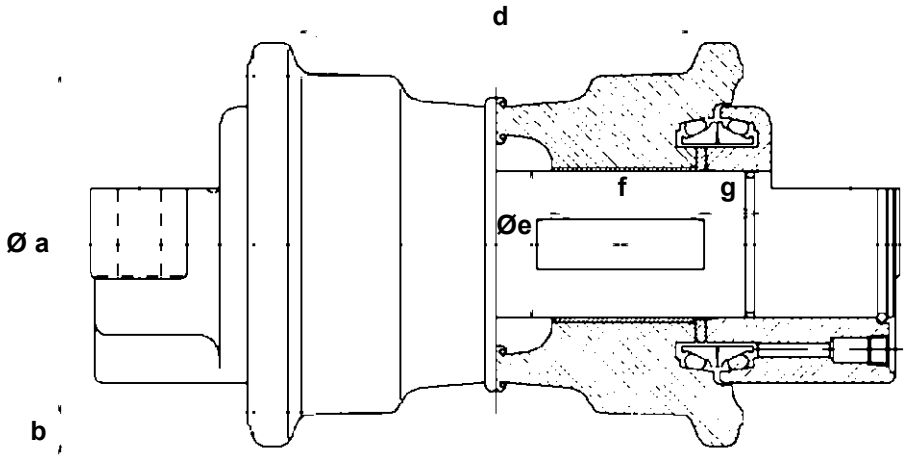
Gauge



CI01M508

Lower roller

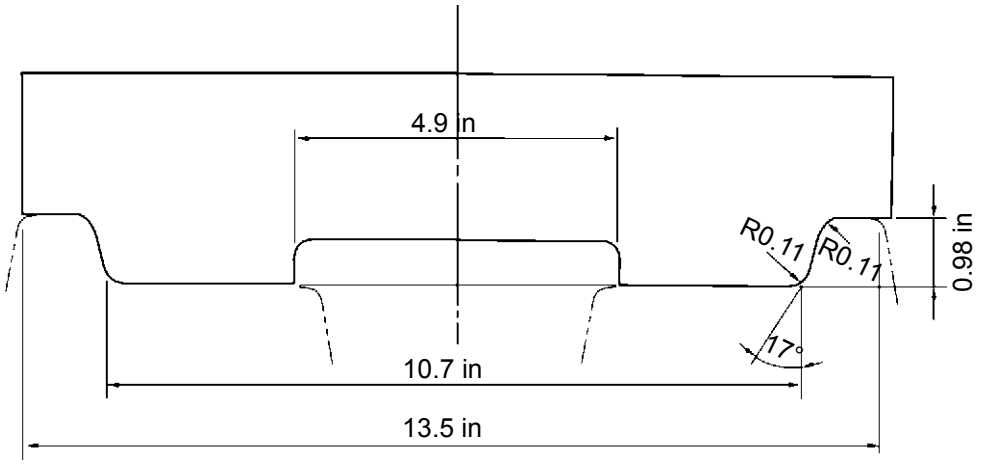
Dimensions



CS01B518

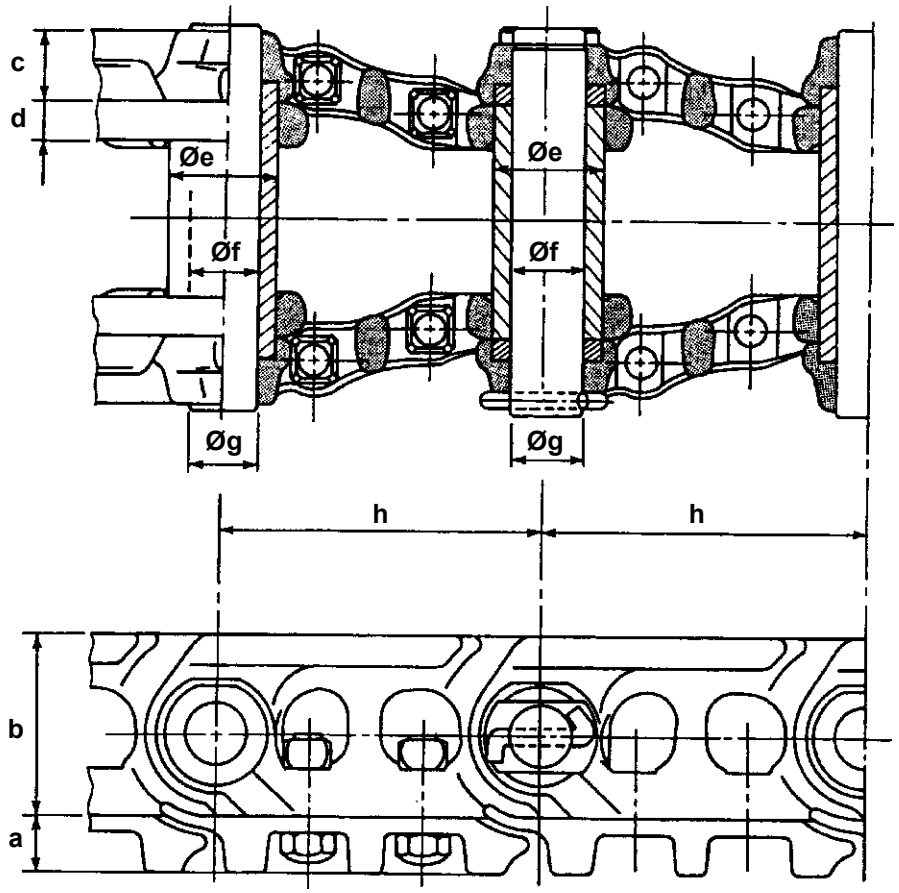
Mark		Dimension (in)	Mark		Dimension (in)
Ø a	Standard	10.6	Ø e (ring)	Standard	
	Limit			Limit	
b	Standard	0.98	f	Standard	
	Limit			Limit	
d	Standard	10.7	g	Standard	
	Limit			Limit	
Ø e (shaft)	Standard				
	Limit				

Gauge



CI01M509

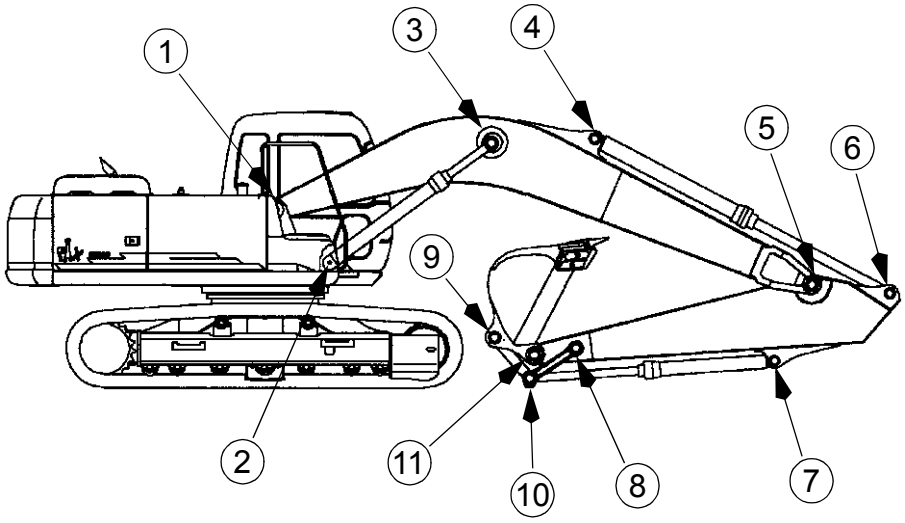
Track



CS01B520

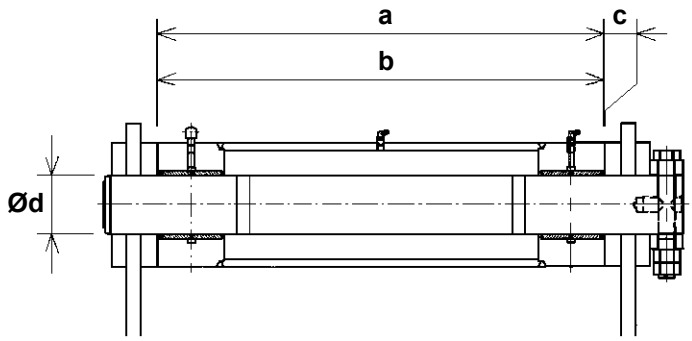
Mark		Dimension (in)	Mark		Dimension (in)
a	Standard		Ø e (ring)	Standard	
	Limit			Limit	
b	Standard		Ø f (ring)	Standard	
	Limit			Limit	
c	Standard		Ø g (shaft)	Standard	
	Limit			Limit	
d	Standard		h	Standard	
	Limit			Limit	

DIMENSIONS AND WEAR LIMITS OF ATTACHMENT MOBILE JOINTS



CS01B521

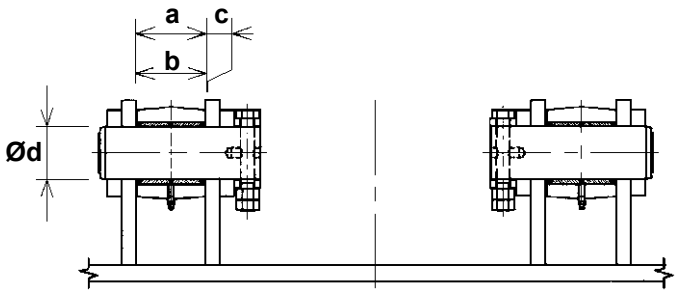
1. Boom foot/Frame



CS01B522

Mark		Dimension (in)
a	Standard	43.7
	Limit	
b	Standard	43.6
	Limit	
c (a - b)	Standard	0.04
	Limit	
Ø d (shaft)	Standard	5.9
	Limit	
Ød (ring)	Standard	
	Limit	

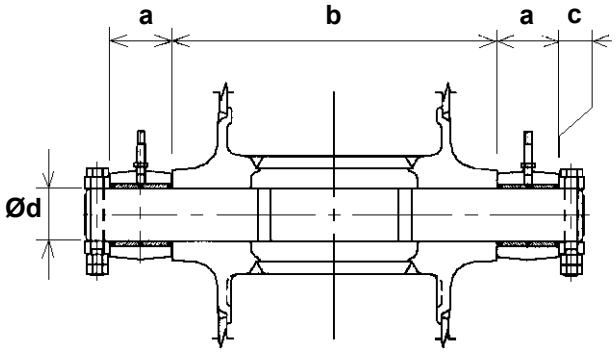
2. Boom cylinder foot/Frame



CS01B523

Mark		Dimension (in)
a	Standard	6.6
	Limit	
b	Standard	6.5
	Limit	
c (play)	Standard	0.04
	Limit	
Ø d (shaft)	Standard	5.1
	Limit	
Ød (ring)	Standard	
	Limit	

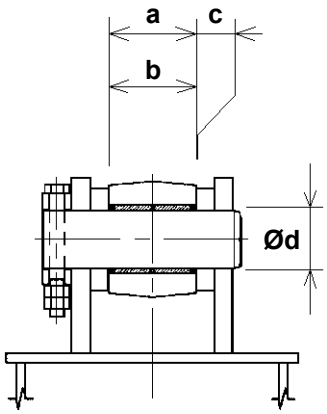
3. Boom cylinder head/Boom



CS01B524

Mark		Dimension (in)
a	Standard	6.1
	Limit	
b	Standard	
	Limit	
c (play)	Standard	
	Limit	
Ø d (shaft)	Standard	5.11
	Limit	
Ød (ring)	Standard	
	Limit	

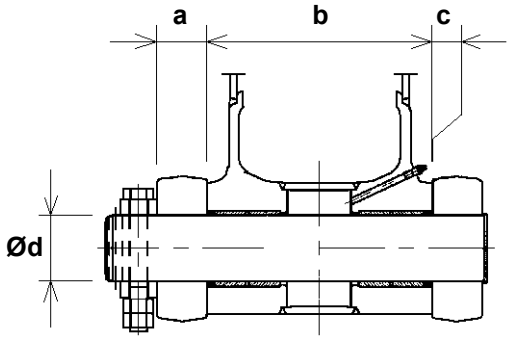
4. Dipper cylinder foot/Boom



CS01B525

Mark		Dimension (in)
a	Standard	6.6
	Limit	
b	Standard	6.5
	Limit	
c (a - b)	Standard	0.04
	Limit	
Ø d (shaft)	Standard	5.1
	Limit	
Ød (ring)	Standard	
	Limit	

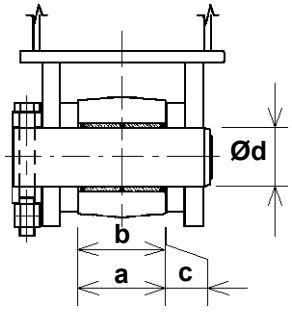
5. Boom/Dipper



CS01B526

Mark		Dimension (in)
a	Standard	5.2
	Limit	
b	Standard	21.8
	Limit	
c (play)	Standard	
	Limit	
Ø d (shaft)	Standard	5.5
	Limit	
Ø d (dipper)	Standard	
	Limit	
Ø d (boom)	Standard	
	Limit	

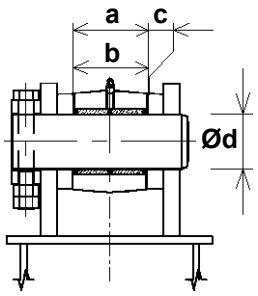
6. Dipper cylinder head/Dipper



CS01B527

Mark		Dimension (in)
a	Standard	6.6
	Limit	
b	Standard	6.5
	Limit	
c (a - b)	Standard	0.04
	Limit	
Ø d (shaft)	Standard	5.1
	Limit	
Ød (ring)	Standard	
	Limit	

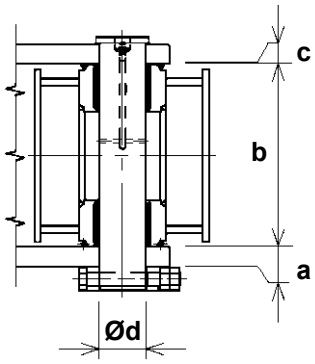
7. Bucket cylinder foot/Dipper



CS01B528

Mark		Dimension (in)
a	Standard	6.6
	Limit	
b	Standard	6.5
	Limit	
c (a - b)	Standard	0.04
	Limit	
Ø d (shaft)	Standard	5.1
	Limit	
Ød (ring)	Standard	
	Limit	

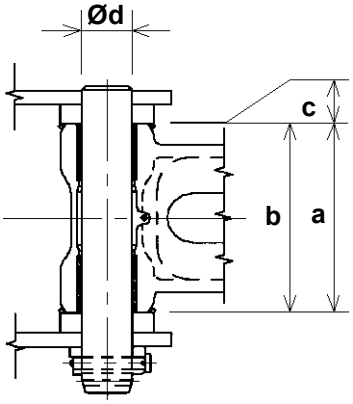
8. Connecting rod/Dipper



CS01B529

Mark		Dimension (in)
a	Standard	4.09
	Limit	
b	Standard	22.6
	Limit	
c (play)	Standard	0.47
	Limit	
Ø d (shaft)	Standard	5.11
	Limit	
Ød (ring)	Standard	
	Limit	

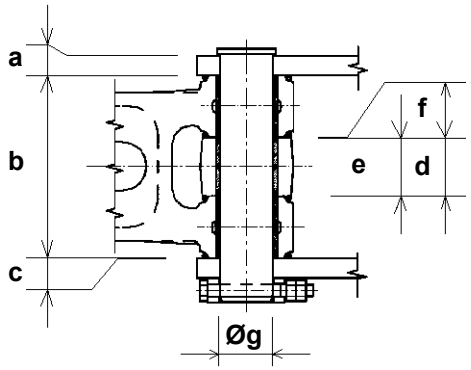
9. Compensator/Bucket



CS01B530

Mark		Dimension (in)
a	Standard	19.7
	Limit	
b	Standard	19.6
	Limit	
c (play)	Standard	0.04
	Limit	
Ø d (shaft)	Standard	5.5
	Limit	
Ød (ring)	Standard	
	Limit	

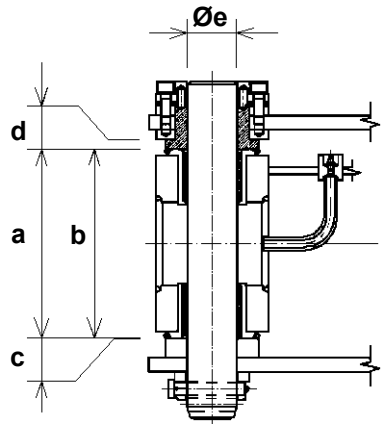
10. Connecting rod/Compensator/Bucket cylinder head



CS01B531

Mark		Dimension (in)
a	Standard	3.2
	Limit	
b	Standard	19.6
	Limit	
c (play)	Standard	0.7
	Limit	
d	Standard	6.5
	Limit	
e	Standard	6.5
	Limit	
f (d - e)	Standard	0.04
	Limit	
Ø g (shaft)	Standard	4.7
	Limit	
Ø g (compensator)	Standard	
	Limit	
Ø g (cylinder)	Standard	
	Limit	

11. Dipper/Bucket



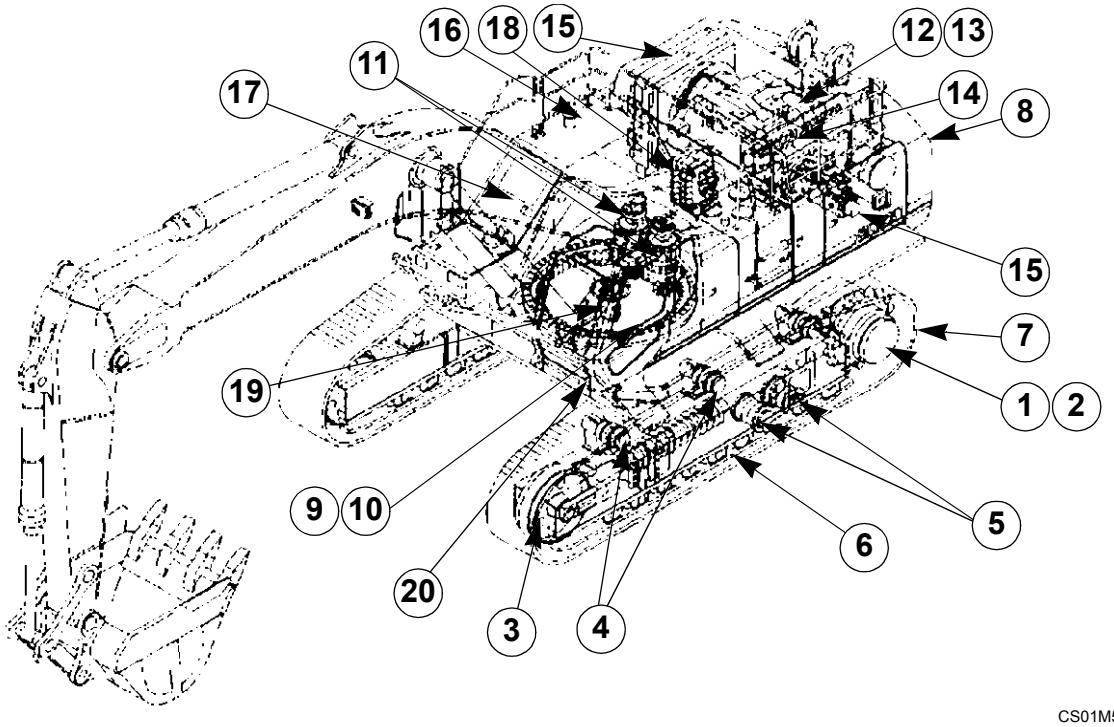
CS01B532

Mark		Dimension (in)
a	Standard	22.6
	Limit	
b	Standard	21.8
	Limit	
c (a - b)	Standard	
	Limit	
d	Standard	0.78
	Limit	
Ø e (shaft)	Standard	5.11
	Limit	
Ø e (dipper)	Standard	
	Limit	
Ø e (bucket)	Standard	
	Limit	

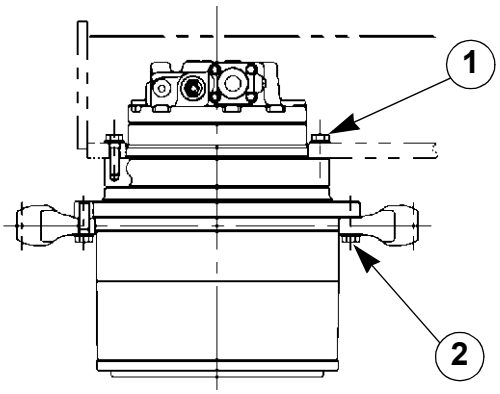
SPECIAL TORQUE SETTINGS

No.	Component	Screw (Ø)	Wrench (mm)	Torque setting (lb-ft)
1 *	Travel motor and reduction gear assembly	M27	41	964 - 1125
2 *	Sprocket	M27	41	964 - 1125
3 *	Idler wheel	-	-	-
4 *	Upper roller	M20	30	384 - 448
5 *	Lower roller	M27	41	964 - 1125
6 *	Chain guide	M27	41	964 - 1125
7	Track pad	M26	30	1171 - 1378
8	Counterweight	M42	65	1664
9*	Turntable (frame)	M30	46	1328 - 1549
10*	Turntable (upperstructure)	M30	46	1328 - 1549
11 *	Swing motor and reduction gear assembly	M24	36	664 -774
12 *	Engine	M24	36	665 - 774
13 *	Engine bracket	M14	22	127- 149
14	Radiator	M20	30	383 - 448
15 *	Hydraulic pump	M12	19	80 - 94
16 *	Hydraulic reservoir	M20	30	347 - 419
17 *	Fuel reservoir	M20	30	347 - 419
18 *	Control valve	M20	30	253
19 *	Hydraulic swivel	M16	24	197 - 230
20	Cab	M16	24	57 - 59
21	Battery	M10	17	15 - 21
22	Frame	M36	55	1881 - 2170

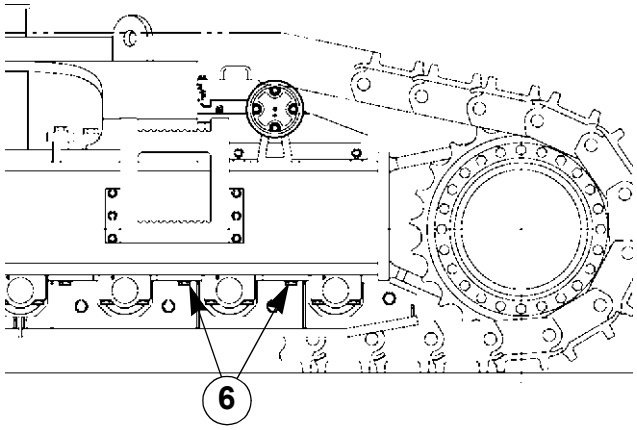
NOTE: *Use Loctite 262 or an equivalent on retaining screws of those components marked with an asterisk (*).*



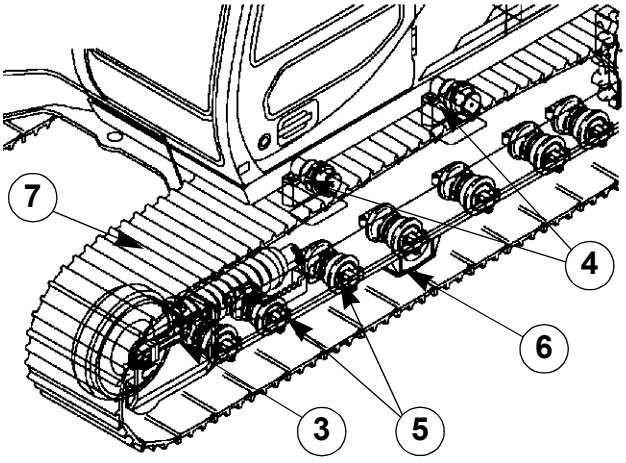
CS01M511



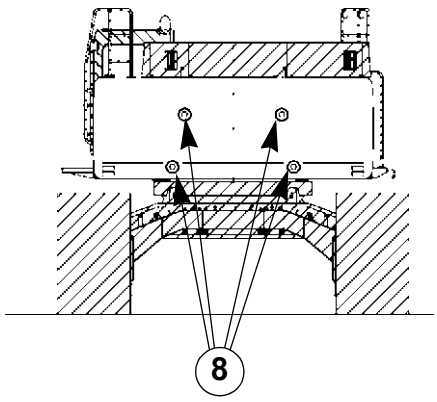
CS00E508



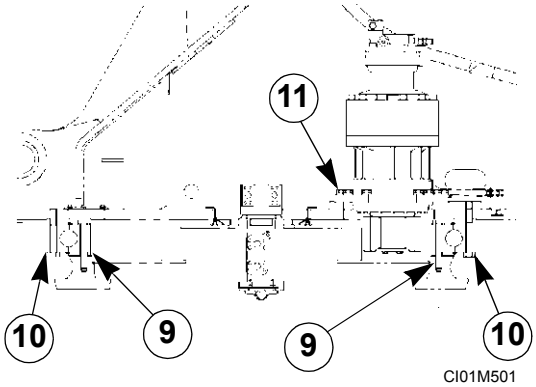
CS01M510



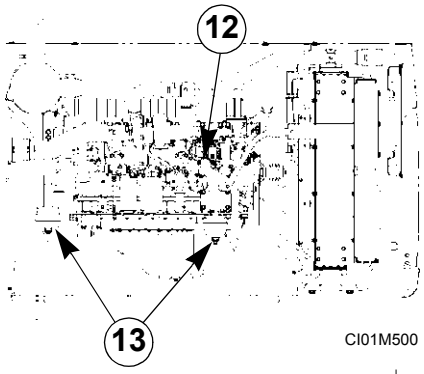
CS00E510



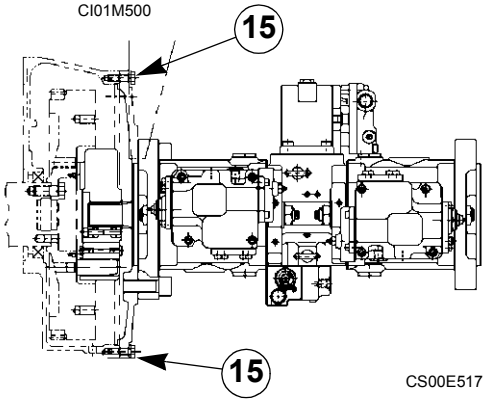
CI01M504



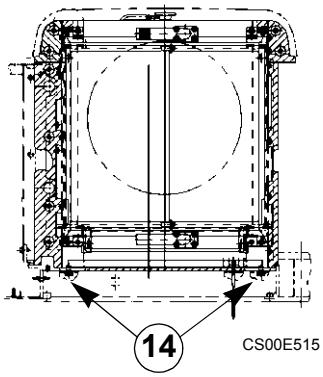
CI01M501



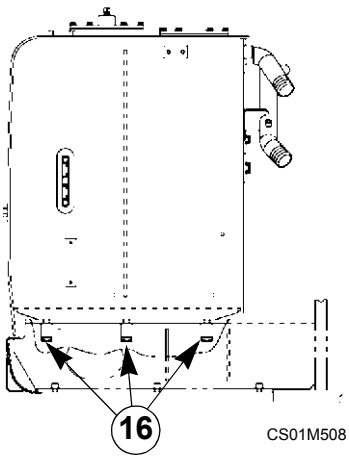
CI01M500



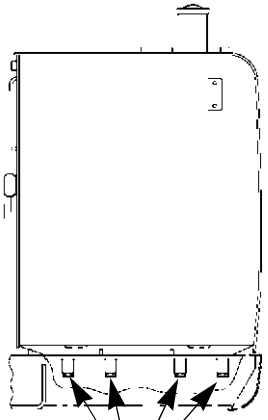
CS00E517



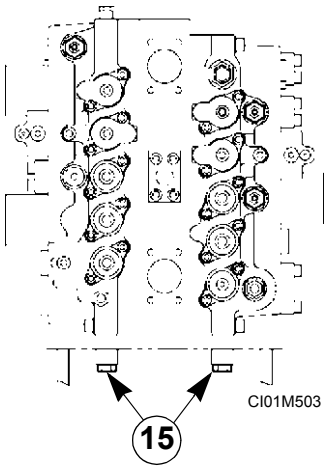
CS00E515



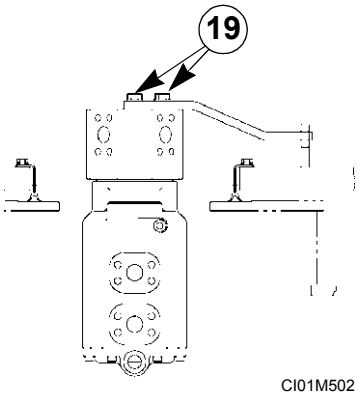
CS01M508



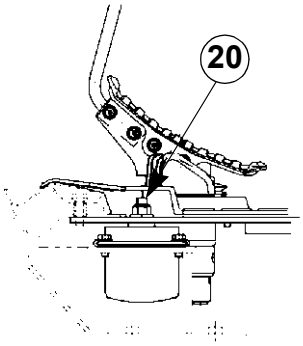
CS01M509



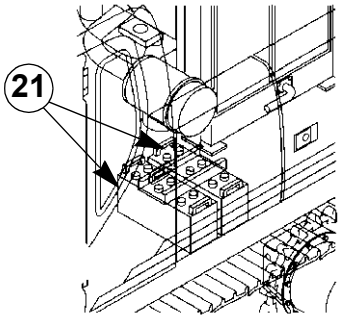
CI01M503



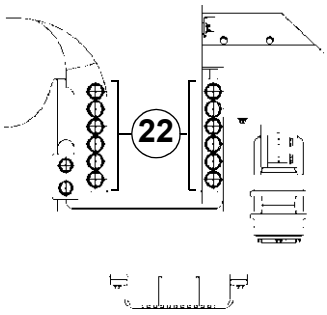
CI01M502



CS00E523



CS00E525



CI01M505

Suggest:

If the above button click is invalid.

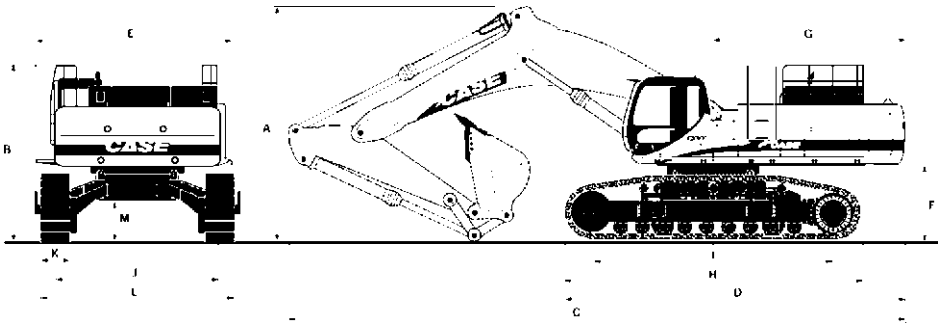
Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

MACHINE OVERALL DIMENSIONS



CS01M512

Boom	23 ft 9 in	27 ft 6 in		
Dippers	**9 ft 9 in**	**12 ft 0 in**	**14 ft 7 in**	**18 ft 5 in**
A.....	16 ft 7 in	15 ft 9 in	16 ft 5 in	16 ft 4 in
B.....	12 ft 5 in	12 ft 5 in	12 ft 5 in	12 ft 4 in
C.....	42 ft 8 in	46 ft 5 in	46 ft 3 in	46 ft 2 in
D.....	23 ft 10 in	23 ft 10 in	23 ft 10 in	23 ft 8 in
E.....	13 ft 7 in	13 ft 7 in	13 ft 7 in	13 ft 5 in
F.....	5 ft 3 in	5 ft 3 in	5 ft 3 in	5 ft 2 in
G.....	13 ft 4 in	13 ft 4 in	13 ft 4 in	13 ft 4 in
H.....	20 ft 10 in	20 ft 10 in	20 ft 10 in	20 ft 8 in
I.....	16 ft 8 in	16 ft 8 in	16 ft 8 in	16 ft 6
J*.....	11 ft 4 in	11 ft 4 in	11 ft 4 in	11 ft 3 in
J**.....	9 ft 3 in	9 ft 3 in	9 ft 3 in	9 ft 3 in
K (standard track pads).....	2 ft 5 in	2 ft 5 in	2 ft 5 in	2 ft 5 in
L* (with 25.5 in track pads).....	13 ft 9 in	13 ft 9 in	13 ft 9 in	13 ft 9 in
L (with 29.5 in track pads)**.....	11 ft 9 in	11 ft 9 in	11 ft 9 in	11 ft 9 in
L* (with 35.4 in track pads).....	14 ft 3 in	14 ft 3 in	14 ft 3 in	14 ft 3 in
L (with 35.4 in track pads)**.....	12 ft 3 in	12 ft 3 in	12 ft 3 in	12 ft 3 in
L* (with 43.3 in track pads).....	14 ft 11 in	14 ft 11 in	14 ft 11 in	14 ft 11 in
L (with 43.3 in track pads)**.....	12 ft 11 in	12 ft 11 in	12 ft 11 in	12 ft 11 in
M.....	2 ft 11 in	2 ft 11 in	2 ft 11 in	2 ft 11 in

NOTE: ** (working position); ** (transport position).*