

BRITISH RAILWAYS WESTERN REGION

RAIL TRAVELLING CRANE DIAGRAMS

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PLANT ENGINEERS OFFICE
C.M.&E.E.S DEPT.
SWINDON

MARCH 1974

RAIL TRAVELLING CRANES.

AXLE WEIGHTS ARE SHOWN FOR CRANE IN FULL WORKING ORDER.

1 WEIGHT ON AXLE WITH JIB SUSPENDED.

2 WEIGHT ON AXLE WITH JIB RESTING AND CRANE IN TRAIN ORDER.

FACING PAGE GIVES A COPY OF THE LOAD PLATE AND/OR CAUTION PLATE AS ATTACHED TO THE CRANE.

75 TON STEAM CRANE

CAUTION

TO BE SHUNTED WITH CARE. MINIMUM RADIUS TO BE NEGOTIATED : 5 CHAINS.

BEFORE LIFTING JIB FROM MATCH TRUCK, SPRING STOPS MUST BE SCREWED DOWN HAND TIGHT ON TO SPRINGS AND NOT MOVED FROM THIS POSITION UNDER ANY CIRCUMSTANCES. THE JIB CAN THEN BE RAISED FROM THE MATCH TRUCK AND TAIL LOCKING SCREWS RELEASED.

IF CRANE IS STANDING ON CURVE, TAIL LOCKS MUST BE RELEASED FIRST, SUPERSTRUCTURE SLEWED INTO LINE WITH JIB, AND JIB RAISED FROM MATCH TRUCK. TRAVEL CLUTCH IN CRANE CAB MUST BE ENGAGED AND BOTH HANDWHEELS ON CRANE CARRIAGE ROTATED TO THE "IN" POSITION.

BEFORE TRAVELLING IN TRAIN, RELIEVING BOGIES MUST BE ATTACHED TO CRANE, JIB LOWERED ONTO MATCH TRUCK AND TAIL LOCKING SCREWS ENGAGED, SLEWING SUPERSTRUCTURE IF NECESSARY, SPRING STOPS MUST BE SCREWED UP CLEAR OF SPRINGS AND TRAVEL GEAR DISENGAGED.

WHEN WORKING ON BLOCKED DUTIES OUTRIGGERS MUST BE PULLED OUT TO MAXIMUM POSITION AND JACKS TIGHTENED. CORNER JACKS MUST ALSO BE TIGHTENED, BUT CARE MUST BE TAKEN NOT TO PULL ANY JACKS DOWN EXCESSIVELY. ANY ADJUSTMENT MADE AFTER LIFTING SHOULD ONLY BE TO TAKE UP ANY CONSOLIDATION OF THE GROUND.

TO ENSURE COMPLETE CONTROL OF LOAD BEING LIFTED, MAIN HOIST - AUXILIARY HOIST CLUTCH MUST NOT BE DISENGAGED WHILE LOAD IS SUSPENDED FROM THE RESPECTIVE HOOK.

TAKE WEIGHT OF LIFTING BEAM IS 2 TONS 4 CWT AND CAN ONLY BE HANDLED BY CRANE AT A RADIUS IN EXCESS OF 35'-0" (MAIN HOOK) IF JIB IS DIRECTLY DOWN TRACK.

RADIUS	MAIN HOIST	
	HT. OF LIFT	OVERALL CRANE HT.
40' 0"	32' 0"	45' 0"
35' 0"	36' 9"	49' 10"
30' 0"	39' 6"	53' 3"
25' 0"	41' 9"	56' 0"
20' 0"	43' 6"	58' 0"
18' 0"	43' 9"	58' 9"
AUXILIARY HOOK		
43' 6"	34' 0"	45' 9"
20' 8"	49' 7"	58' 9"

MAXIMUM SPEED 60 M.P.H.

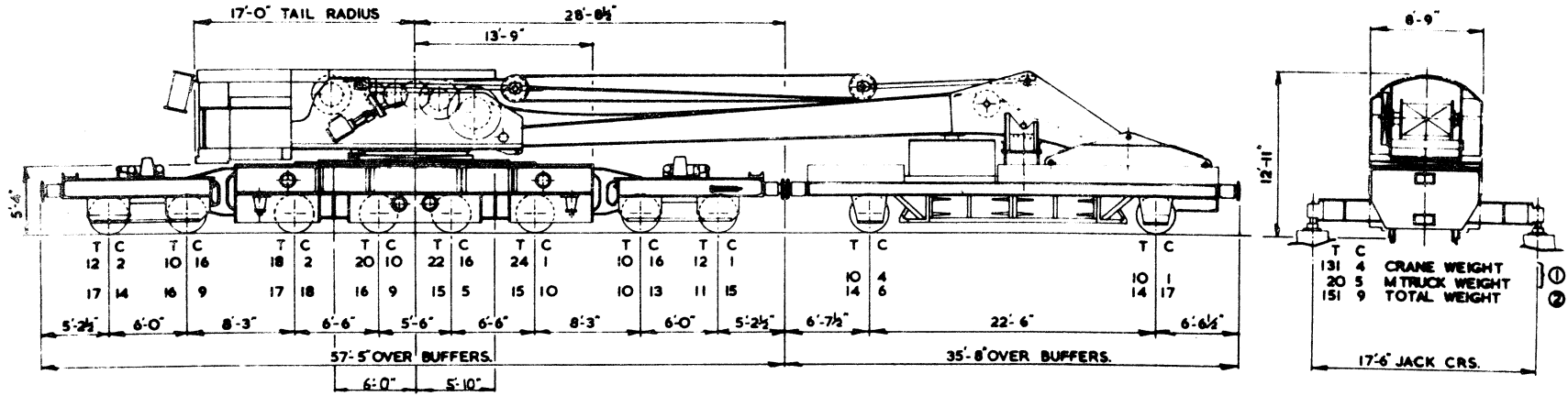
TRAIN BRAKE.

Vacuum fitted.
 4 axles braked on crane
 2 " " match truck.
 Crane Brake Pressure 46.9 tons
 Match Truck Pressure 19.69 tons

LOAD PLATE

THIS CRANE IS REGISTERED TO LIFT AND SLEW WITH EXTENSION GIRDERS FULLY OUT AND CARRIAGE CORNER JACKS DOWN.

MAIN HOIST		
RADIUS	LEVEL TRACK	2 nd SUPERELEVATION
18' 0"	75 TONS	NOT TO BE USED
20' 0"	65 TONS	64.25 TONS
25' 0"	40 TONS	39.75 TONS
30' 0"	30 TONS	29.50 TONS
35' 0"	20 TONS	19.75 TONS
40' 0"	15 TONS	14.75 TONS
AUXILIARY HOIST		
43' 6"	12 TONS	11.75 TONS
FOR MOVING SLOWLY THIS CRANE IS REGISTERED TO LIFT AND SLEW		
AUXILIARY HOIST		
20' 8"	12.00 TONS	NOT TO BE USED
22' 9"	10.00 TONS	9.50 TONS
27' 10"	6.50 TONS	6.00 TONS
33' 0"	4.00 TONS	3.75 TONS
38' 3"	2.25 TONS	2.00 TONS
43' 6"	1.00 TONS	0.75 TONS
MAIN HOIST		
18' 0"	14 TONS	NOT TO BE USED
WHEN STANDING ON A SUPERELEVATED TRACK, THE CRANE MUST NOT WORK LADEN OR UNLADEN AT LESS THAN THE FOLLOWING RADII:-		
2 nd SUPERELEVATION	MAIN HOIST	NOT LESS THAN 20'-0" RADIUS
2 nd SUPERELEVATION	AUX HOIST	NOT LESS THAN 22'-9" RADIUS
THE RADIUS FOR ALL SUPERELEVATION DUTIES IS MEASURED WITH THE JIB AT RIGHT ANGLES TO THE CARRIAGE AND POINTING TOWARDS THE LOW SIDE OF THE TRACK.		



MAXIMUM SPEED IN TRAIN 60M.P.H.
R.A.7

CRANE No. 141 142.

COWANS SHELDON

75 TON STEAM TRAVELLING CRANE

CAUTION

TO BE SHUNTED WITH CARE.

SPRING RELIEVING SCREWS TO BE SET BEFORE JIB IS LIFTED OFF MATCH WAGON AND RELIEVING BOGIES RELEASED WHEN STATIONARY WITH EXTENSION GLIDERS FULLY OUT AND CLIPS SECURED TO RAILS THIS CRANE IS REGISTERED TO LIFT AND SLEW:-

45 TONS at 20 ft. RADIUS
 25 " " 30 ft. "
 16 " " 40 ft. "

FOR MOVING SLOWLY WITH LOADS THIS CRANE IS REGISTERED TO LIFT AND SLEW:-

15 TONS at 20 ft. RADIUS
 8 " " 30 ft. "
 4.5 " " 40 ft. "

TAIL JACKS TO BE ADJUSTED BEFORE JIB IS LOWERED ON MATCH WAGON.

SPRING RELIEVING SCREWS MUST NOT BE SCREWED FREE UNLESS JIB IS ON MATCH WAGON AND RELIEVING BOGIES ADJUSTED.

THESE INSTRUCTIONS ARE FOR WORKING ON 'A' LEVEL ROAD.

MINIMUM CURVE - 5 CHAINS.

RADIUS	HT. OF LIFT	OVERALL CRANE HT.
40' 0"	22' 0"	35' 0"
30' 0"	32' 6"	44' 3"
20' 0"	38' 0"	48' 6"

TRAIL PIPE
 Vacuum through pipe only.

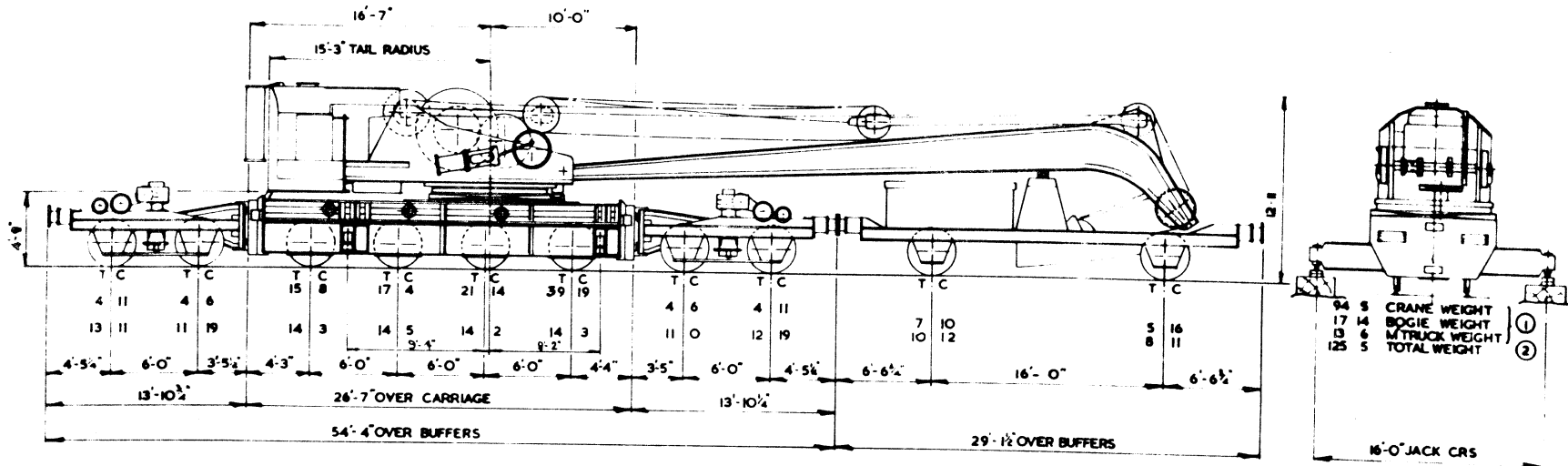
FOR WORKING ON SUPERELEVATED TRACK THIS CRANE IS REGISTERED TO LIFT AND SLEW UNDER FREE ON RAIL CONDITIONS:-

SUPERELEVATION	RADIUS				
	22' 0"	24' 0"	26' 0"	30' 0"	40' 0"
1 IN.	12.75 T	11.4 T	10.1 T	7.7 T	4.45 T
2 "	12.4 T	11.0 T	9.7 T	7.35 T	4.1 T
3 "		10.6 T	9.45 T	7.1 T	4.3 T
4 "			9.2 T	6.85 T	4.2 T

FOR WORKING ON SUPERELEVATED TRACK UNDER BEADED CONDITIONS THIS CRANE IS REGISTERED TO LIFT AND SLEW:-

SUPERELEVATION	RADIUS				
	22' 0"	24' 0"	26' 0"	30' 0"	40' 0"
1 IN	39.0 T	35.0 T	31.0 T	24.5 T	15.6 T
2 "	38.0 T	34.5 T	30.0 T	24.0 T	15.25 T
3 "		34.0 T	29.5 T	23.5 T	15.1 T
4 "			29.0 T	23.5 T	15.0 T

THE RADIUS FOR ALL SUPERELEVATED DUTIES IS MEASURED WITH JIB ON LOW SIDE OF TRACK. DUE TO BEING TAIL HEAVY THE CRANE MUST NOT WORK LOADED OR UNLOADED WITH THE JIB AT LESS THAN THE MINIMUM RADIUS SHOWN.



MAXIMUM SPEED IN TRAIN 45 M.R.H
R.A.5.

CRANE No 16 18 19 151

RANSOMES & RAPIER.

45 TON STEAM TRAVELLING CRANE.

33 TON STEAM CRANE

CAUTION
TO BE MOVED WITH CARE

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE, THE SPRING BLOCKS MUST BE REMOVED, JIB LOWERED ON TO MATCH TRUCK AND SECURED BY CHAINS, BALANCE WEIGHT REMOVED AND PLACED IN MATCH TRUCK.
 4 EXTENSION GIRDERS MAY REMAIN IN POSITION. SPRING BLOCKS MUST BE PLACED IN POSITION BEFORE LIFTING.
 FOR MOVING SLOWLY WITH LOADS, WITHOUT BALANCE WEIGHT IN POSITION, THE CRANE IS REGISTERED TO LIFT:-

10½ TONS AT 20 FEET RADIUS
 7½ " " 25 " "
 5½ " " 30 " "
 4 " " 35 " "
 2½ " " 40 " "

FOR MOVING SLOWLY WITH LOADS WITH BALANCE WEIGHT IN POSITION, THE CRANE IS REGISTERED TO LIFT:-

14 " " 20 " "
 10 " " 25 " "
 7½ " " 30 " "
 6 " " 35 " "
 4½ " " 40 " "

WHEN STATIONARY WITHOUT BALANCE WEIGHT IN POSITION, BUT WITH EXTENSION GIRDERS FULLY OUT AND CLIPS SECURED TO RAILS THE CRANE IS REGISTERED TO LIFT:-

33 TONS AT 20 FEET RADIUS
 25 " " 25 " "
 19½ " " 30 " "
 15 " " 35 " "
 12 " " 40 " "

WHEN STATIONARY WITH BALANCE WEIGHT IN POSITION, EXTENSION GIRDERS FULLY OUT AND CLIPS SECURED TO RAILS THE CRANE IS REGISTERED TO LIFT:-

36 TONS AT 20 FEET RADIUS
 32 " " 25 " "
 25 " " 30 " "
 20 " " 35 " "
 16 " " 40 " "

THESE INSTRUCTIONS ARE FOR LIFTING ON A LEVEL ROAD.

TRAIN BRAKE.
 Vacuum through pipe only.

RADIUS	HT. OF LIFT.	OVERALL CRANE HT.
40' 0"	22' 6"	34' 0"
35' 0"	28' 9"	39' 3"
30' 0"	33' 0"	42' 9"
25' 0"	36' 3"	44' 9"
20' 0"	38' 3"	46' 6"

MINIMUM CURVE - 4 CHAIN

MAXIMUM SPEED 45 M.P.H.

CAUTION

TO BE SHUNTED WITH CARE

MINIMUM RADIUS TO BE NEGOTIATED - 5 CHAINS BEFORE TRAVELLING IN TRAIN JIB TO BE LOWERED ON TO MATCHTRUCK, THEN TAIL LOCKING SCREWS TO BE ENGAGED, THE SUPER BEING SLEWED IF NECESSARY. TRAVEL GEAR TO BE DISENGAGED AND SPRING JACKING SCREWS TO BE RIGHT UP CLEAR OF THE SPRINGS. BEFORE LIFTING THE SPRING JACKING SCREWS TO BE SCREWED DOWN ON TO CRANE SPRINGS, THE JIB TO BE RAISED FROM MATCHTRUCK AND TAIL LOCKS RELEASED. IF CRANE IS STANDING ON A CURVE TAIL LOCKS TO BE RELEASED FIRST, AND SUPER. SLEWED UNTIL IT IS IN LINE WITH JIB BEFORE THE JIB IS RAISED. TO ENGAGED TRAVEL GEAR. TRAVEL CLUTCH IN CRANE CAB TO BE ENGAGED AND THEN BOTH HAND WHEELS ON CRANE CARRIAGE TO BE ROTATED TO THE IN POSITION. LOADS EXCEEDING 10 TONS ARE NOT TO BE HOISTED IN FAST GEAR AND ARE NOT TO BE LIFTED BY THE SHACKLE THROUGH THE RAMSHORN HOOK.

S.W.L. OF HAULING WINCH 6 TONS

RADIUS	HT. OF LIFT.	OVERALL CRANE HT.
40' 0"	24' 6"	36' 9"
35' 0"	29' 0"	42' 0"
30' 0"	33' 6"	45' 9"
25' 0"	36' 3"	48' 6"
20' 0"	38' 3"	50' 9"
16' 0"	39' 6"	52' 0"

MAXIMUM SPEED 60 M.P.H.

Train Brake.

Vacuum fitted on Crane & Match wagon
Carriage Braked on 3 axles.
 Brake pressure 24.4 tons.
Match wagon Braked on 2 axles.
 Brake pressure 13.6 tons.

LOAD PLATE

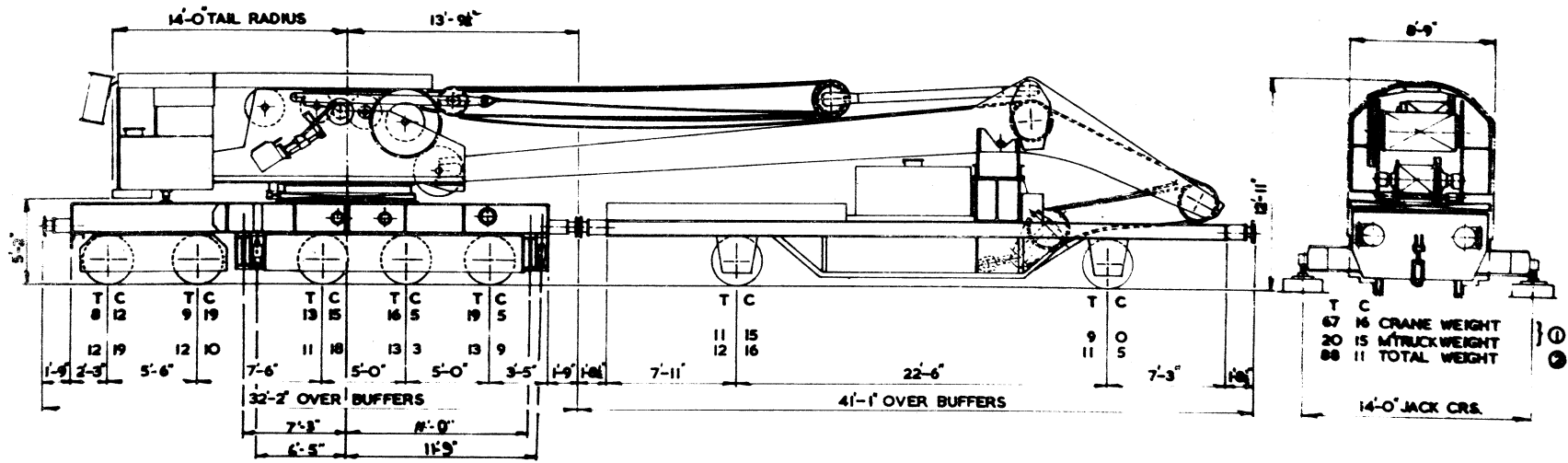
THIS CRANE IS REGISTERED TO LIFT AND SLEW WITH EXTENSION GIRDERS FULLY OUT

RADIUS	LEVEL TRACK	2" SUPERELEVATION	4" SUPERELEVATION
16' 0"	30 T.	NOT TO BE USED	NOT TO BE USED
20' 0"	25 T.	24 T.	NOT TO BE USED
25' 0"	17.5 T.	17 T.	16 T.
30' 0"	13 T.	12.75T.	12 T.
35' 0"	10 T.	9.75T.	9.5 T.
40' 0"	8 T.	8 T.	7.5 T.

FOR MOVING SLOWLY THIS CRANE IS REGISTERED TO LIFT AND SLEW

RADIUS	LEVEL TRACK	2" SUPERELEVATION	4" SUPERELEVATION
16' 0"	10 T.	NOT TO BE USED	NOT TO BE USED
30' 0"	7 T.	6.5 T.	NOT TO BE USED
25' 0"	5 T.	4.75T.	4.25T.
30' 0"	3.25T.	3 T.	2.75T.
35' 0"	2.25T.	2 T.	1.75T.
40' 0"	1.5 T.	1.5 T.	1.25T.

WHEN STANDING ON A SUPERELEVATED TRACK THE CRANE MUST NOT WORK EITHER LADEN OR UNLADEN AT A RADIUS LESS THAN 20' 0" FOR 2" SUPERELEVATION AND 25' 0" FOR 4" SUPERELEVATION. THE RADIUS FOR ALL SUPERELEVATION DUTIES IS MEASURED WITH THE JIB ON THE LOW SIDE OF THE TRACK.



MAXIMUM SPEED IN TRAIN 60 M.P.H.
R.A.S.

CRANE No 139

COWANS SHELDON

30 TON STEAM TRAVELLING CRANE

CAUTION

TO BE SHUNTED WITH CARE.

BEFORE TRAVELLING IN TRAIN THE JIB MUST BE LOWERED ON TO MATCH TRUCK JIB FOOT PINS REMOVED, HOSE CHAINS SECURED AND TAIL LOCKS SCREWED UP TIGHT TO ENSURE SUPERSTRUCTURE IS BEARING ON ROLLER PATH AT FRONT OF CRANE WHEN STANDING ON CURVE, CAB TO BE SLEWED AFTER JIB FOOT PINS REMOVED SO THAT THE TAIL MAY BE LOCKED AS ABOVE.

MINIMUM RADIUS TO BE NEGOTIATED: 3 CHAINS.

FOR WORKING ON LEVEL TRACK.

THIS CRANE IS REGISTERED TO LIFT AND SLEW WHEN BLOCKED.

15 tons at	18 feet radius
12½ "	20 " "
10 " "	24 " "
8½ "	28 " "
7½ "	30 " "
6 " "	32 " "
4½ "	35 " "

FOR MOVING SLOWLY ON LEVEL TRACK THIS CRANE IS REGISTERED TO LIFT AND SLEW.

15 tons at	15 feet radius.
9½ " "	20 " "
7 " "	24'6" "
5 " "	30 feet "
3 " "	35 " "

WHEN WORKING WITH SINGLE PART HOPE MAXIMUM LOAD NOT TO EXCEED 3 TONS.

WITH JIB REMOVED, CRANE MUST NOT BE SLEWED AT RIGHT ANGLES TO TRACK, UNLESS BIRDERS ARE CUT AND PROPPED.

FOR WORKING ON SUPERELEVATED TRACK THIS CRANE IS REGISTERED TO LIFT AND SLEW ON RAIL CONDITIONS:-

FORWARD SUPER- ELEVATION	FREE ON RAIL.			BLOCKED.				
	24'6"	30° 0"	35'0"	24'0"	28'0"	30'0"	32'0"	35'0"
Inches.	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.
1	6.13	4.15	2.18	9.13	8.4	7.4	5.16	4.7
2	6.9	4.13	2.16	9.9	8.1	7.2	5.15	4.6
3	6.6	4.10	2.15	9.6	7.19	7.0	5.13	4.5
4	6.3	4.8	2.13	9.2	7.15	6.17	5.11	4.4
5	5.19	4.5	2.12	9.0	7.14	6.16	5.10	4.3
6	5.15	4.2	2.10	8.15	7.10	6.13	5.7	4.0

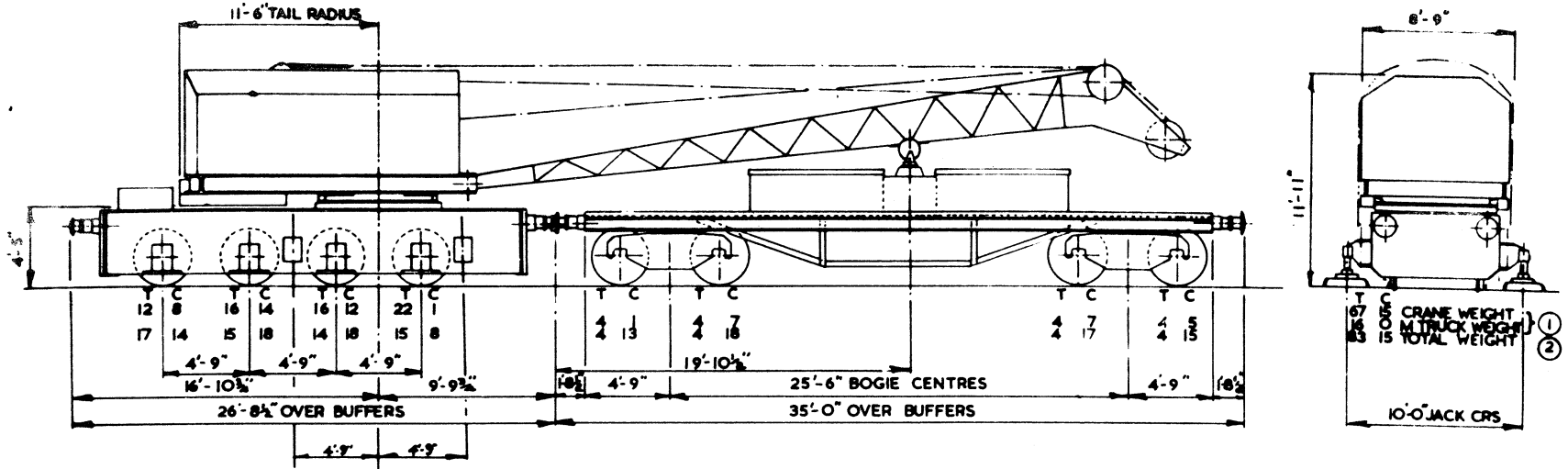
RADII GIVEN ARE THOSE SHOWN BY CRANE GRAVITY RADIUS INDICATOR.

RADIUS.	HEIGHT OF LIFT.	OVERALL CRANE HEIGHT
15'0"	35'11"	44'9"
18'0"	35'2"	43'9"
20'0"	34'4"	43'0"
24'0"	32'5"	41'0"
24'6"	32'2"	40'9"
28'0"	30'1"	38'6"
30'0"	28'7"	37'0"
32'0"	27'2"	35'3"
35'0"	23'10"	31'9"

Maximum speed 45 m.p.h.

TRAIN BRAKE.

Vacuum Through Pipe
only.



CRANE No 352/3/4/5/6

MAXIMUM SPEED IN TRAIN 45 M.P.H.
B.A.7

BOOTH.

15 TON DIESEL HYDRAULIC CRANE

15 TON STEAM CRANE**CAUTION**

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE THE SPRING STOPS MUST BE UNBLOCKED, THE JIB LOWERED ON MATCH TRUCK AND JIB AND TAIL SECURED BY NOSE AND TAIL CHAINS. THE SPRING STOPS MUST BE BLOCKED BEFORE LIFTING. FOR MOVING SLOWLY WITH LOADS THIS CRANE IS REGISTERED TO LIFT:-

5½ TONS AT 20 FEET RADIUS
3 " " 30 " "

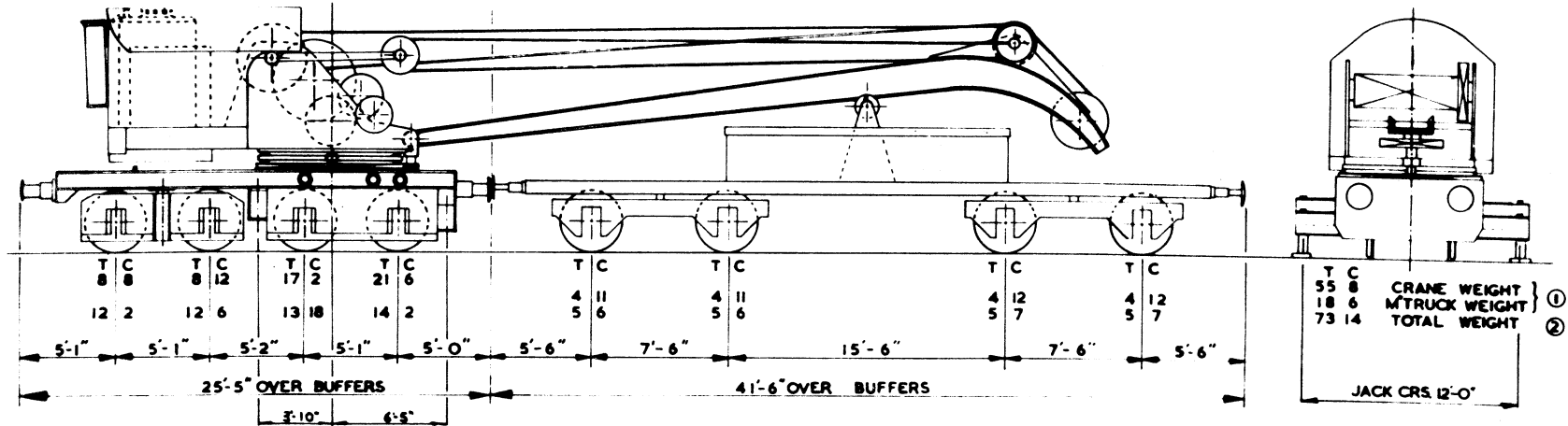
WHEN STATIONARY WITH EXTENSION GIRDERS FULLY OUT AND RAIL CLIPS SECURED TO RAILS THIS CRANE IS REGISTERED TO LIFT:-

15 TONS AT 20 FEET RADIUS
10 " " 25 " "
6 " " 30 " "

THESE INSTRUCTIONS ARE FOR LIFTING ON A LEVEL ROAD.

RADIUS	HT. OF LIFT	OVERALL CRANE HT.
30' 0"	25' 4"	34' 3"
25' 0"	28' 6"	38' 0"
20' 0"	31' 9"	40' 4"

MINIMUM CURVE - 4 CHAIN
MAXIMUM SPEED 25 M.P.H.



MAXIMUM SPEED IN TRAIN 25.M.P.H.
R.A.4.

CRANE No 15

SMITH, RODLEY

15 TON STEAM TRAVELLING CRANE

CAUTION.

TO BE SHUNTED WITH CARE.

NOTE: ALL RADII MEASURED FROM THE CENTRE OF THE TRACK TO CENTRE OF THE LOADED HOOK WITH THE JIB AT RIGHT ANGLES TO THE TRACK.

WARNING: WHEN THE CRANE IS WORKING ON SUPER-ELEVATED TRACK THE CAPACITY OF EACH RADIUS MUST NOT BE EXCEEDED.

S.W.L. WITH SINGLE ROPE UP TO 5 TONS
WITH SNATCH BLOCK OVER 5 TONS.

THIS CRANE IS REGISTERED TO LIFT & SLEW WHEN BLOCKED

15 TONS		at	18 feet RADIUS.	
10.6 "	"		21 "	"
9.1 "	"		24 "	"
7.85 "	"		27 "	"
6.6 "	"		30 "	"
5.35 "	"		33 "	"
4.5 "	"		35 "	"

FOR MOVING SLOWLY ON LEVEL TRACK THIS CRANE IS REGISTERED TO LIFT AND SLEW

15 TONS		AT	16 feet RADII.	
12 "	"		18 "	"
9.6 "	"		21 "	"
7.95 "	"		24 "	"
6.4 "	"		27 "	"
5.0 "	"		30 "	"
3.65 "	"		33 "	"
3.0 "	"		35 "	"
2.35 "	"		39 "	"
2.0 "	"		42 "	"

FOR WORKING ON SUPER-ELEVATED TRACK THIS CRANE IS REGISTERED TO LIFT AND SLEW ON RAIL CONDITIONS:-

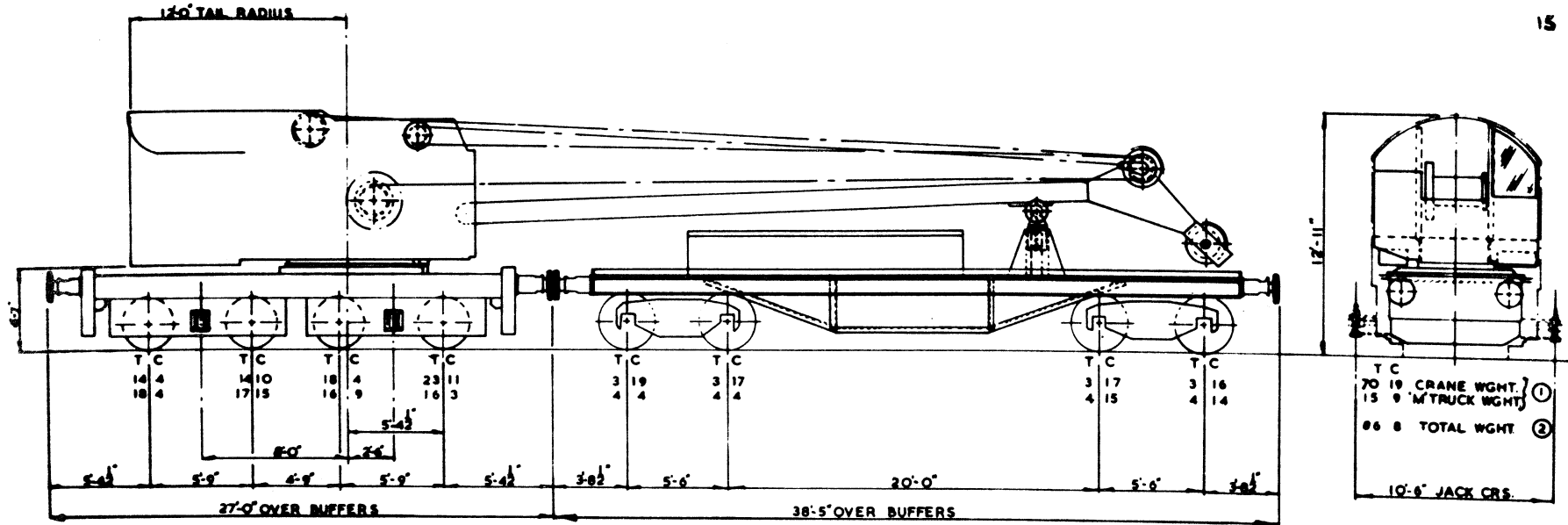
FORWARD SUPER- ELEVATED INCHES.	FREE ON RAILS.				BLOCKED.			
	16'0" T C	22' 0" T C	28'0" T C	35'0" T C	18'0" T C	22'0" T C	28'0" T C	35'0" T C
1	13.15	8.10	5.15	3.0	13.15	9.0	6.15	4.0
2	12.10	7.15	5.5	3.0	12.10	8.5	6.0	3.15
3	11.5	7.2	4.16	3.0	11.5	7.5	5.10	3.5
4	10.0	6.0	4.10	3.0	10.0	6.10	5.0	3.0

RADIUS	HT. OF LIFT.	OVERALL CRANE HT.
16.0"	35.9"	47'2"
18'0"	35'7"	46'8"
22'0"	34'6"	45'0"
28'0"	30'2"	41'7"
35'0"	25'0"	37'0"
42'0"	15'5"	29'4"

HEIGHTS GIVEN ARE
WHEN 3 PARTS OF
ROPE ARE USED.

TRAIN BRAKE.

Air Brake only.
Vacuum through pipe on Crane
& Match truck.



MINIMUM TRACK - S CHAIN CURVE

CRANE No 362

TAYLOR & HUBBARD

15 TON DIESEL ELECTRIC CRANE

199000/26
CCM 17.12.71

12 TON DIESEL CRANE.CAUTION.

to be shunted with care.

Note: All radii shown are true measurements from centre line of king post to crane hook and must be maintained by trimming the jib when allowing superstructure.

For working on superelevated track this crane is registered to lift and also under free on rail conditions.

Super Elevation.	16'0"	20'0"	24'0"	28'0"	32'0"	36'0"	39'6"
2"	6.75T	4.75T.	3.50T	2.75T.	2.00T.	1.50T.	1.25T
4"	5.50T	3.75T.	2.75T.	2.25T.	1.50T	1.25T	1.00T
6"	4.25T	3.00T	2.25T	1.75T	1.25T	1.00T.	0.75T

For working on superelevated track this crane is registered to lift and also under blocked conditions.

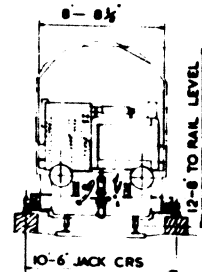
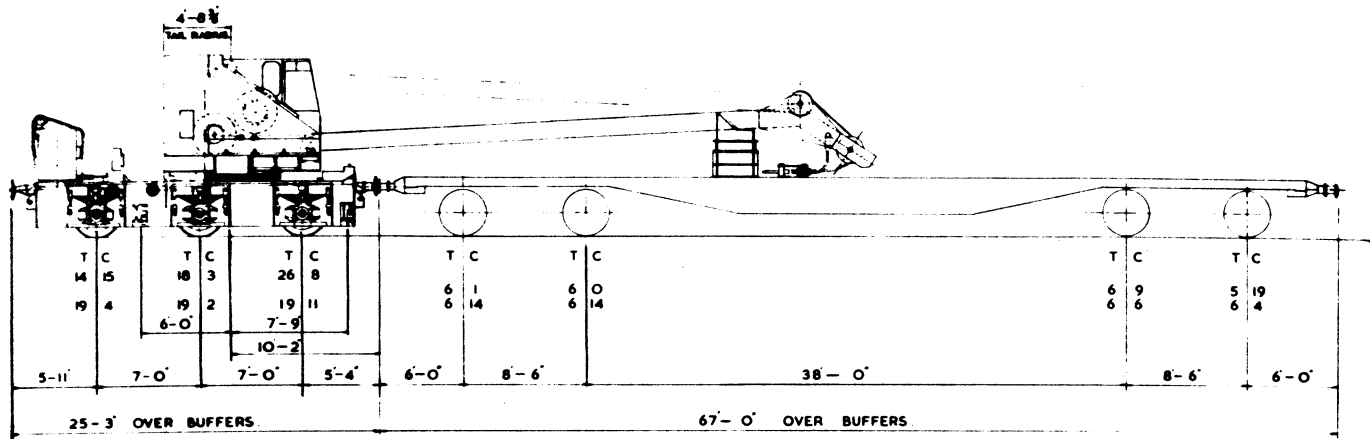
Super Elevation.	16'0"	20'0"	24'0"	28'0"	32'0"	36'0"	39'6"
2"	10.00T.	6.75T.	5.00T	3.75T	3.00T	2.25T	1.50T
4"	8'00T	5.50T	4.00T	3.00T	2.25T	1.75T	1.25T
6"	6.00T	4.25T	3.25T	2.50T	1.75T	1.25T	1.00T

Crane on level track
Load not to exceed :

<u>Radius</u>	<u>Fully Propped</u>	<u>Free on Rail</u>
12'0"	12.00 Tons	12.00 Tons
16'0"	12.00 "	8.25 "
20'0"	8.00 "	5.75 "
24'0"	6.00 "	4.25 "
28'0"	4.50 "	3.25 "
32'0"	3.50 "	2.50 "
36'0"	2.75 "	2.00 "
39'6"	2.00 "	1.50 "

Brake isolating cock on Crane carriage to be set to closed before running in train and set to open before operating crane.

TRAIN BRAKE
Air brake only.
Vacuum through pipe only.



T	C	
59	6	CRANE WEIGHT
24	9	TRUCK WEIGHT
83	15	TOTAL WEIGHT

MAX SPEED IN TRAIN — 65 M.P.H

MIN TRACK — 4 CHAIN CURVE.

CRANE No 363
COWANS SHELTON

12 TON DIESEL ELECTRIC CRANE

10 TON DIESEL CRANE

CAUTION

TO BE SHUNTED WITH CARE

BEFORE TRAVELLING IN TRAIN THE JIB MUST BE LOWERED ONTO MATCH TRUCK, JIB FOOT PINS REMOVED, NOSE CHAINS SECURED AND TAIL LOCKS SCREWED UP TIGHT TO ENSURE SUPERSTRUCTURE IS BEARING ON ROLLER PATH AT FRONT OF CRANE.

WHEN STANDING ON CURVE, CAB TO BE SLEWED AFTER JIB FOOT PINS REMOVED, SO THAT THE TAIL MAY BE LOCKED AS ABOVE.

MINIMUM RADIUS TO BE NEGOTIATED : 3 CHAINS

FOR WORKING ON LEVEL TRACK:

THIS CRANE IS REGISTERED TO LIFT AND SLEW WHEN BLOCKED:

10 TONS AT 20 FEET RADIUS

8½	"	"	28	"	"
7	"	"	30	"	"
5½	"	"	32	"	"
3½	"	"	35	"	"

WHEN MOVING SLOWLY THIS CRANE IS REGISTERED TO LIFT AND SLEW:

10	"	"	17	"	"
7½	"	"	20	"	"
5	"	"	25	"	"
3½	"	"	30	"	"
2½	"	"	35	"	"

WHEN WORKING WITH SINGLE ROPE MAXIMUM LOAD NOT TO EXCEED 2½ TONS

MAGNET WORKING

WHEN WORKING WITH A SINGLE MAGNET ON HOOK, MAXIMUM LOAD TO BE LIFTED BY MAGNET NOT TO EXCEED 1 TON

WHEN WORKING WITH A MAGNET ON EACH END OF SPREADER BEAM, MAXIMUM LOAD TO BE LIFTED BY MAGNETS NOT TO EXCEED 2 TONS DISTRIBUTED.

WHEN WORKING WITH SPREADER BEAM RADIUS MUST NOT EXCEED

1. 20 FT. WHEN WORKING FREE ON RAIL
2. 30 FT. WHEN WORKING BLOCKED

FOR WORKING ON SUPERELEVATED TRACK THIS CRANE IS REGISTERED TO LIFT AND SLEW UNDER FREE ON RAIL CONDITIONS.

FORWARD SUPERELEVATION	17'	20'	25'	30'	35'	
1"	9.5 T.	7.25 T.	4.75 T.	3.25 T.	2.25 T.	
2"	9.25 T.	7.0 T.	4.5 T.	3.25 T.	2.25 T.	
3"	9.0 T.	6.75 T.	4.5 T.	3.0 T.	2.25 T.	
4"	8.75 T.	6.5 T.	4.25 T.	3.0 T.	2.25 T.	
5"	8.5 T.	6.5 T.	4.25 T.	3.0 T.	2.0 T.	
6"	8.0 T.	6.25 T.	4.0 T.	2.75 T.	2.0 T.	

FOR WORKING ON SUPERELEVATED TRACK UNDER BLOCKED CONDITIONS THIS CRANE IS REGISTERED TO LIFT AND SLEW.

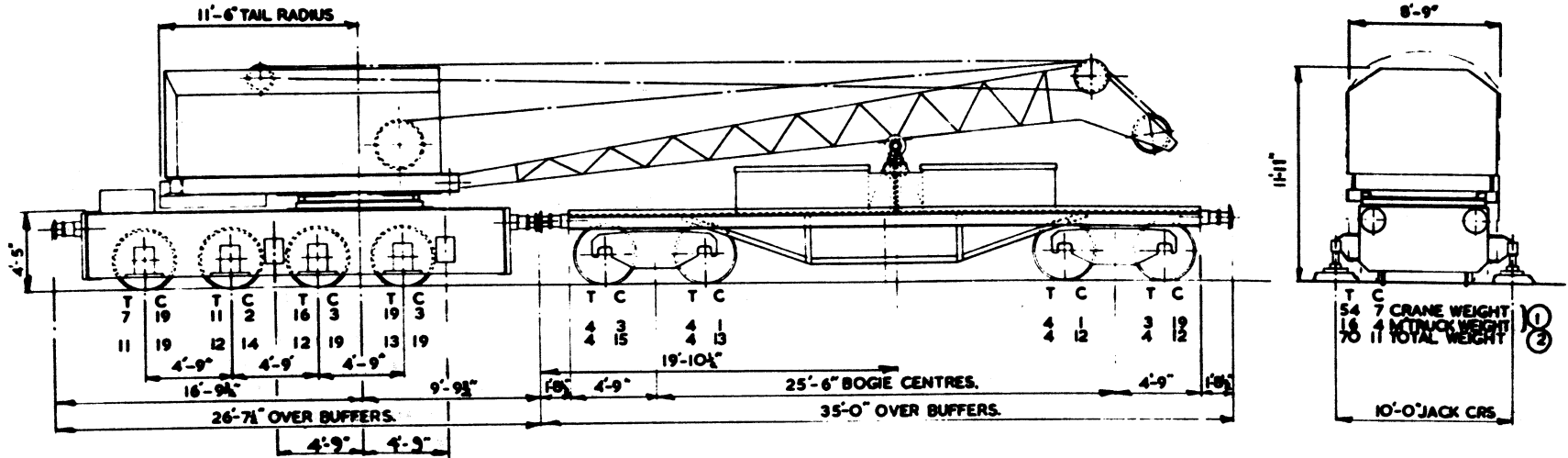
FORWARD SUPERELEVATION	20'	28'	30'	32'	35'	
1"	9.75 T.	8.25 T.	6.75 T.	5.25 T.	3.25 T.	
2"	9.5 T.	8.0 T.	6.75 T.	5.25 T.	3.25 T.	
3"	9.5 T.	8.0 T.	6.5 T.	5.0 T.	3.25 T.	
4"	9.25 T.	7.75 T.	6.5 T.	5.0 T.	3.25 T.	
5"	9.0 T.	7.75 T.	6.25 T.	5.0 T.	3.0 T.	
6"	8.75 T.	7.5 T.	6.25 T.	4.75 T.	3.0 T.	

RADII GIVEN ARE RADII SHOWN BY CRANE GRAVITY RADIUS INDICATOR.

RADIUS	HT. OF LIFT.	OVERALL CRANE HT.
35' 0"	24' 0"	31' 3"
32' 0"	27' 4"	34' 6"
30' 0"	29' 6"	36' 3"
28' 0"	31' 0"	37' 9"
25' 0"	32' 6"	39' 9"
20' 0"	35' 0"	42' 6"
17' 0"	36' 0"	43' 6"

MAXIMUM SPEED 45 M.P.H.

TRAIN BRAKE.
Vacuum through Pipe only.



MAXIMUM SPEED IN TRAIN 45 M.P.H.
R.A. 4.

CRANE No 347/879 350/1

BOOTH

10 TON DIESEL HYDRAULIC CRANE

10-TON STEEL CRANE**CAUTION**

TO BE OBSERVED WITH CARE. BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON MAIN LINE, SPRING STOPS MUST BE SCREWED UP, JIB LOWERED ON MATCH TRACK AND TAIL LOCK PUT IN. SPRING STOPS MUST BE SCREWED DOWN BEFORE LIFTING.

WHEN STATIONARY WITH EXTENSION GIRDERS FULLY OUT THIS CRANE IS REGISTERED TO LIFT AND SLEW WITH :-

10 TONS	at	18 FEET	RADIUS	ON	DOUBLE	FALL	OF	ROPE
7 "	"	22 "	"	"	"	"	"	"
5 "	"	27 "	"	"	SINGLE	"	"	"
4 "	"	32 "	"	"	"	"	"	"
3.5 "	"	35 "	"	"	"	"	"	"

MOVING SLOWLY WITH LOADS THIS CRANE IS REGISTERED TO LIFT AND SLEW WITH :-

10 TONS	at	15 FEET	RADIUS	ON	DOUBLE	FALL	OF	ROPE
7.5 "	"	18 "	"	"	"	"	"	"
5 "	"	24 "	"	"	SINGLE	"	"	"
3.5 "	"	30 "	"	"	"	"	"	"
2.5 "	"	35 "	"	"	"	"	"	"

THESE INSTRUCTIONS ARE FOR WORKING ON LEVEL ROAD.

RADIUS	HT. OF LIFT	OVERALL CRANE HT.
35' 0"	23' 3"	30' 0"
32' 0"	26' 9"	33' 6"
30' 0"	28' 6"	35' 6"
24' 0"	33' 0"	39' 6"
22' 0"	32' 6"	40' 3"
18' 0"	34' 0"	42' 1"
15' 0"	35' 9"	43' 6"

DUTIES FREE ON RAIL AT 2° ELEVATION

RADIUS	SAFE WORKING LOAD
18' 0"	7. 1 TONS
24' 0"	4. 7 TONS
30' 0"	3. 3 TONS
35' 0"	2. 2 TONS

DUTIES CRANE SECURED AT 2° ELEVATION

RADIUS	SAFE WORKING LOAD
18' 0"	9. 5 TONS
22' 0"	6. 7 TONS
27' 0"	4. 7 TONS
32' 0"	3. 6 TONS
35' 0"	2.05 TONS

DUTIES FREE ON RAIL AT 3° ELEVATION

RADIUS	SAFE WORKING LOAD
24' 0"	4. 4 TONS
30' 0"	3. 0 TONS
35' 0"	2. 0 TONS

DUTIES CRANE SECURED AT 3° ELEVATION

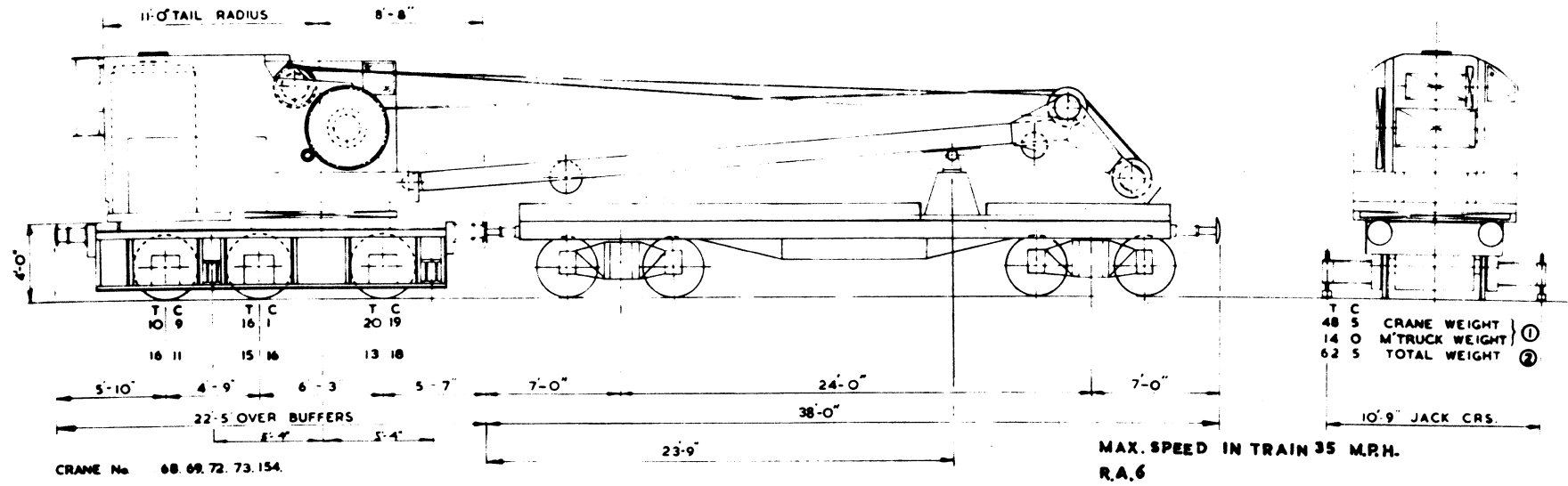
RADIUS	SAFE WORKING LOAD
22' 0"	6. 6 TONS
27' 0"	4. 7 TONS
32' 0"	3. 3 TONS
35' 0"	2.55 TONS

DUTIES FREE ON RAIL AT 4° ELEVATION

RADIUS	SAFE WORKING LOAD
24' 0"	4.05 TONS
30' 0"	2. 7 TONS
35' 0"	1.75 TONS

DUTIES CRANE SECURED AT 4° ELEVATION

RADIUS	SAFE WORKING LOAD
27' 0"	4.35 TONS
32' 0"	3.05 TONS
35' 0"	2.03 TONS



TAYLOR HUBBARD.

10 TON STEAM TRAVELLING CRANE.

6 TON STEAM CRANEINSTRUCTION PLATE

FOR MOVING SLOWLY ON A LEVEL ROAD, THIS CRANE IS REGISTERED TO LIFT WITH SINGLE ROPE:-

3 TONS AT 15' 0" RADIUS
 2½ " " 20' 0" "
 2 " " 25' 0" "
 1½ " " 30' 0" "

CRANE SECURED, EXTENSION GIRDERS FULLY OUT, AND DOUBLE ROPE:-

6 TONS AT 15' 0" RADIUS
 5 " " 20' 0" "
 4 " " 25' 0" "
 3 " " 30' 0" "

CAUTION

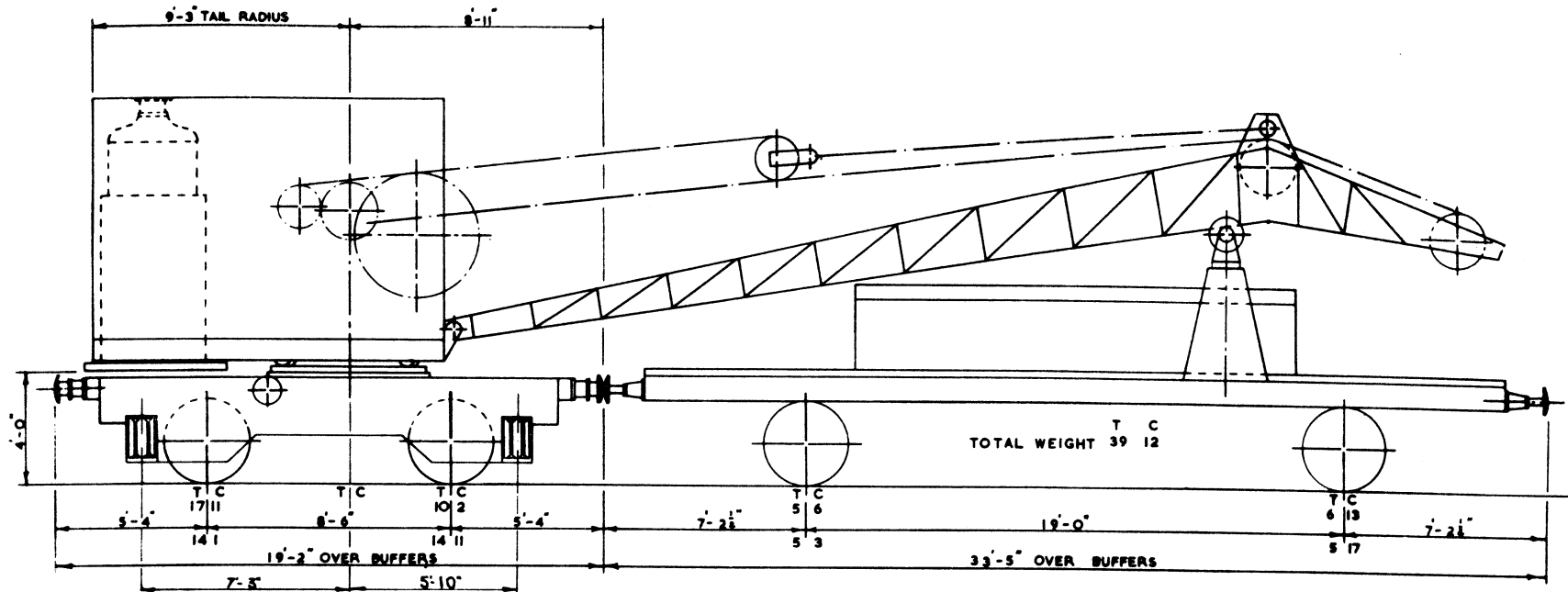
- TO BE SHUNTED WITH CARE -

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE, THE SPRING STOPS MUST BE SCREWED UP AND THE JIB LOWERED ON THE MATCHTRUCK AND SECURED BY THE JIB HEAD CHAINS.

THE SPRING STOPS MUST BE SCREWED DOWN BEFORE LIFTING.

RADIUS	HT. OF LIFT		OVERALL CRANE HT.
	DOUBLE CHAIN	SINGLE CHAIN	
30' 0"	22' 4"	26' 4"	32' 0"
25' 0"	27' 0"	30' 5"	36' 2"
20' 0"	30' 0"	33' 9"	39' 2"
15' 0"	32' 3"	35' 6"	40' 9"

MAXIMUM SPEED 40 M.P.H.



CRANE No. 29

SMITHS RODLEY

JACK CENTRES 9'-5 1/2"

6 TON STEAM TRAVELLING CRANE

5 TON DIESEL CRANE

CAUTION

TO BE SHUNTED WITH CARE

MINIMUM RADIUS CURVE TO BE NEGOTIATED - 3 CHAINS
BEFORE TRAVELLING IN TRAIN THE SPRING STOPS ARE TO BE FREED, THE JIB LOWERED ON TO THE MATCH TRUCK NOSE CHAINS SECURED, JIB FOOT LOCKING PINS REMOVED AND TAIL LOCKS SCREWED TIGHT AND LOCKED. WHEREVER POSSIBLE TAIL LOCKS TO BE SCREWED UP TIGHT BEFORE JIB IS FINALLY LOWERED ON TO MATCH TRUCK, SO AS TO ENSURE SUPERSTRUCTURE IS BEARING ON ROLLER PATH AT FRONT OF CRANE AFTER JIB IS LOWERED.

THE TRAVELLING GEAR IS TO BE DISENGAGED BY ROTATING BOTH HANDWHEELS TO THE "OUT" POSITION AND LOCKED AND THE SLEW FOOT BRAKE APPLIED AND LOCKED ON.

TO ENGAGE TRAVELLING GEAR BOTH HANDWHEELS TO BE ROTATED TO THE "IN" POSITION AND LOCKED THE ONE AT MATCH TRUCK END OF CRANE TO BE ENGAGED FIRST.

BEFORE LIFTING, THE SPRING STOPS ARE TO BE SCREWED DOWN AND THE JIB FOOT LOCKING PINS INSERTED FOR WORKING ON LEVEL TRACK.

THIS CRANE IS REGISTERED TO LIFT AND SLEW WITH EXTENSION GIRDERS FULLY OUT:-

5 TONS 0 CWTs.	AT 20' 0" RADIUS
3 " 0 "	" 27' 6" "
2 " 0 "	" 35' 0" "
1 " 5 "	" 40' 0" "

FOR MOVING SLOWLY THIS CRANE IS REGISTERED TO LIFT AND SLEW:-

5 TONS 0 CWTs.	AT 17' 0" RADIUS
3 " 0 "	" 23' 0" "
2 " 10 "	" 26' 0" "
1 " 5 "	" 35' 0" "

WHEN WORKING WITH SINGLE PART ROPE THE MAXIMUM LOAD MUST NOT EXCEED 2 TON 10 CWTs.

MAXIMUM SPEED 40 M.P.H.

FOR MOVING SLOWLY THIS CRANE IS REGISTERED TO LIFT AND SLEW.

RADIUS ON LOW SIDE	SUPERELEVATION		
	2"	4"	6"
23' 0"	2 TONS 15 CWTs	2 TONS 10 CWTs	2 TONS 5 CWTs
26' 0"	2 " 7 "	2 " 5 "	2 " 0 "
35' 0"	1 " 5 "	1 " 5 "	1 " 4 "

THIS CRANE IS REGISTERED TO LIFT AND SLEW WITH EXTENSION GIRDERS FULLY OUT.

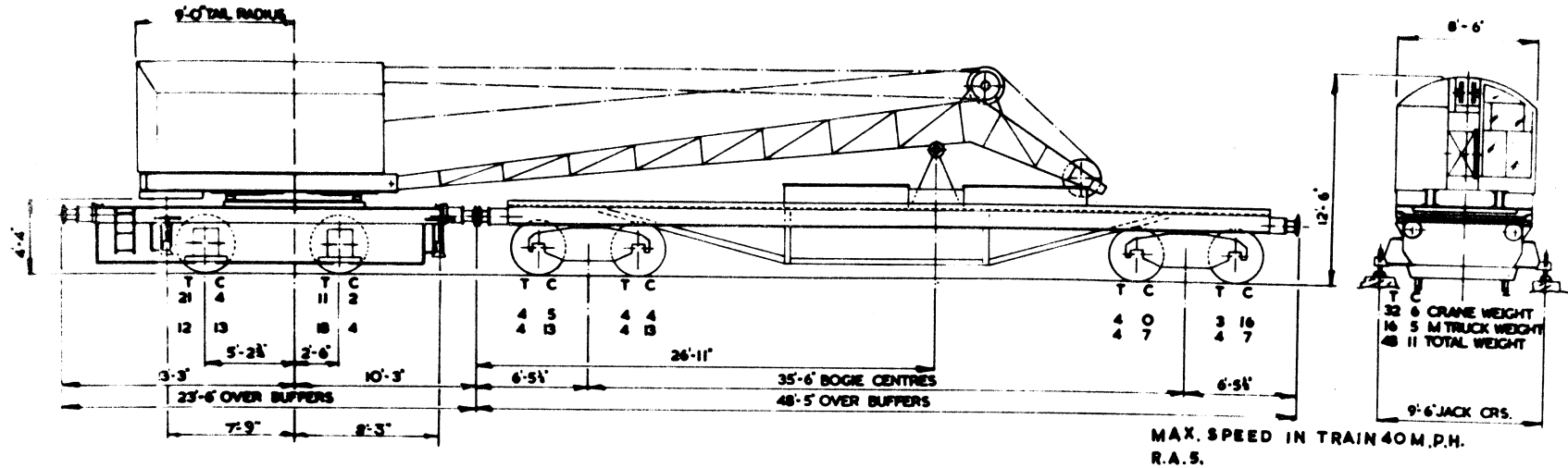
23' 0"	4 TONS 0 CWTs	4 TONS 0 CWTs	4 TONS 0 CWTs
27' 6"	3 " 0 "	3 " 0 "	3 " 0 "
35' 0"	2 " 0 "	2 " 0 "	2 " 0 "
40' 0"	1 " 5 "	1 " 5 "	1 " 5 "

WHEN STANDING ON A SUPERELEVATED TRACK THE CRANE MUST NOT WORK LADEN OR UNLADEN AT A RADIUS LESS THAN 23' 0".

RADIUS	HT. OF LIFT.	OVERALL CRANE HT.
ROPE USED DOUBLE		
17' 0"	35' 2"	45' 3"
20' 0"	34' 5"	44' 3"
23' 0"	33' 3"	42' 9"
27' 6"	31' 1"	40' 3"
ROPE USED SINGLE		
26' 0"	29' 7"	41' 3"
35' 0"	23' 11"	34' 3"
40' 0"	18' 4"	29' 3"

TRAIN BRAKE.

Vacuum through pipe
only.



CRANE No 357/B/9

SMITH

5 TON DIESEL ELECTRIC CRANE

6½ TON HAND CRANE**CAUTION**

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE THE SPRING STOPS MUST BE SCREWED UP AND THE JIB LOWERED ON TO THE JIB REST. THE SPRING STOPS MUST BE SCREWED DOWN BEFORE LIFTING. FOR MOVING SLOWLY WITH LOADS THIS CRANE IS REGISTERED TO LIFT:-

2 TONS AT 24' 0" RADIUS
 3 " " 22' 0" "
 4 " " 20' 0" "
 6 " " 15' 0" "
 6½ " " 14' 0" "
 6½ " " 11' 0" "

THESE INSTRUCTIONS ARE FOR WORKING ON LEVEL GROUND.

RADIUS	HT. OF LIFT.	OVERALL CRANE HT.
24' 0"	10' 10"	16' 6"
22' 0"	14' 3"	19' 6"
20' 0"	16' 10"	20' 6"
15' 0"	20' 9"	24' 6"
14' 0"	21' 6"	25' 3"
11' 0"	22' 7"	26' 6"

10 TON HAND CRANE**CAUTION**

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE THE SPRING STOPS MUST BE SCREWED UP AND THE JIB LOWERED ON TO THE JIB REST. THE SPRING STOPS MUST BE SCREWED DOWN BEFORE LIFTING. FOR MOVING WITH LOADS, THIS CRANE IS REGISTERED TO LIFT:-

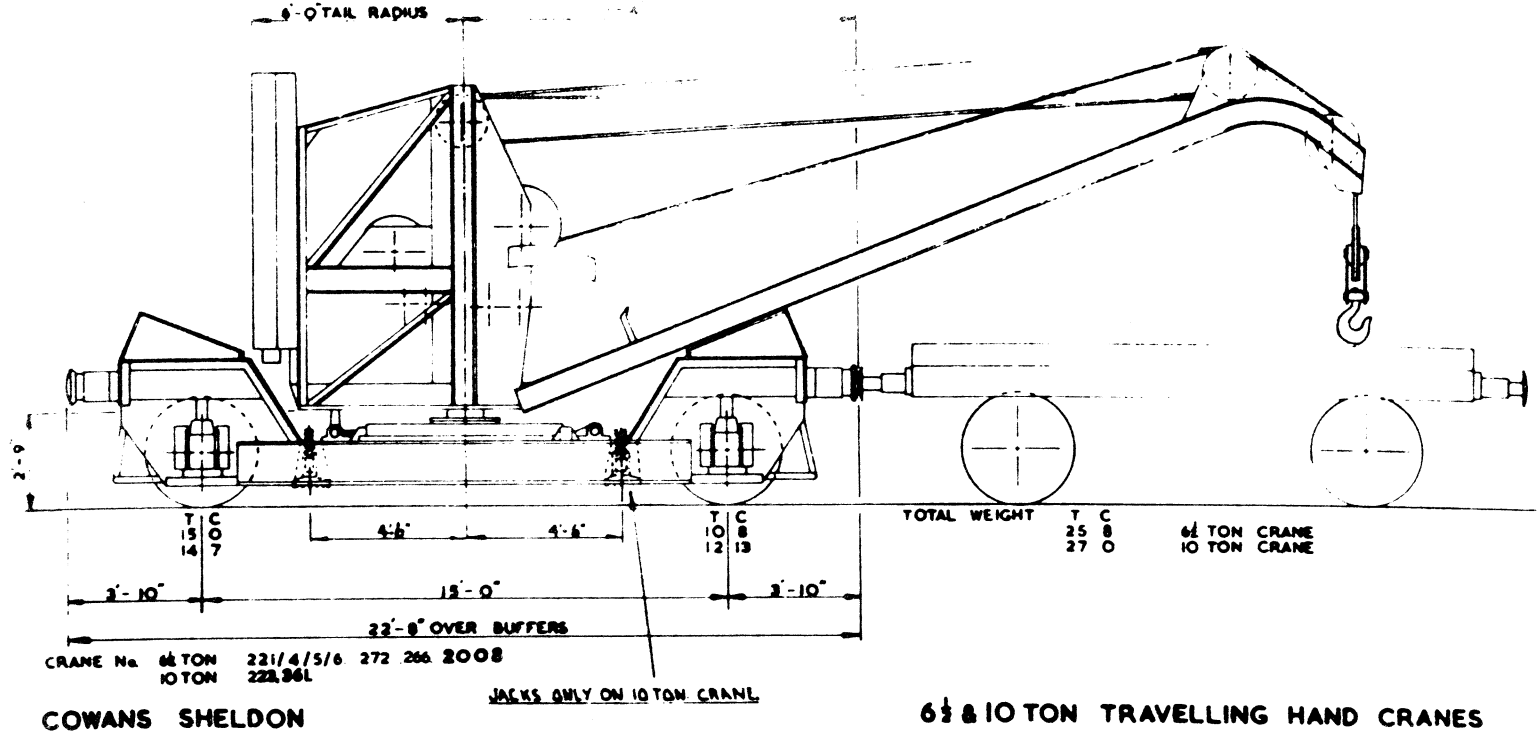
2 TONS 0 CWT. AT 24 FEET RADIUS
 3 " 0 " " 22 " "
 3 " 10 " " 20 " "
 5 " 0 " " 15 " "
 6 " 10 " " 13 " "

WHEN STATIONARY, PROPPED AND WITH RAIL CLIPS SECURED TO RAIL THIS CRANE IS REGISTERED TO LIFT:-

3 " 5 " " 24 " "
 4 " 0 " " 22 " "
 5 " 0 " " 20 " "
 7 " 10 " " 15 " "
 10 " 0 " " 13 " "

THESE INSTRUCTIONS ARE FOR WORKING ON LEVEL GROUND.

RADIUS	HT. OF LIFT	OVERALL CRANE HT.
24' 0"	9' 10"	16' 9"
22' 0"	13' 10"	19' 3"
20' 0"	16' 2"	21' 3"
15' 0"	20' 4"	25' 0"
13' 0"	21' 6"	26' 3"



CAUTION

- TO BE SHUNTED WITH CARE -

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE, THE SPRING STOPS MUST BE SCREWED UP, THE JIB LOWERED & SECURED BY THE LOCKING SHAFT AND TIE ROD PINS PUT IN. THE SPRING STOPS MUST BE SCREWED DOWN BEFORE LIFTING. FOR MOVING SLOWLY WITH LOADS, THIS CRANE IS REGISTERED TO LIFT:-

3 TONS AT 16 FEET RADIUS
 2 " " 19 " "
 1½ " " 21 " "

WHEN STATIONARY WITH EXTENSION GIRDERS FULLY OUT, THIS CRANE IS REGISTERED TO LIFT :-

6 TONS AT 16 FEET RADIUS
 4 " " 19 " "
 3 " " 21 " "

THESE INSTRUCTIONS ARE FOR WORKING ON A LEVEL ROAD.

DOUBLE CHAIN MUST BE USED FOR ALL LOADS ABOVE 3 TONS.

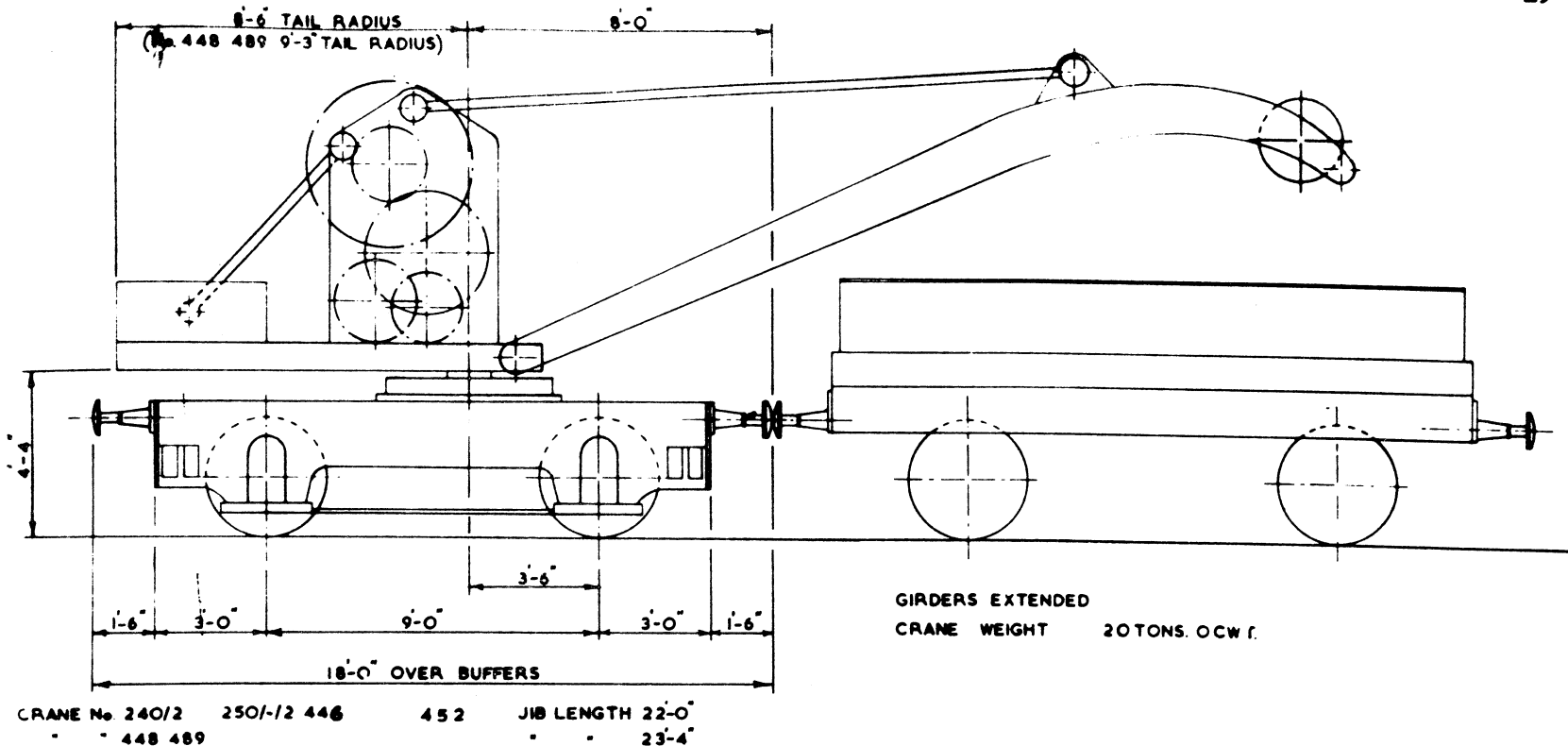
ADDITIONAL PLATE

WHEN STATIONARY AND SECURED WITH RAIL CLIPS THIS CRANE IS REGISTERED TO LIFT :-

4 TONS AT 16 FEET RADIUS
 3 " " 19 " "
 2½ " " 21 " "

THESE INSTRUCTIONS ARE FOR WORKING ON A LEVEL ROAD.

RADIUS	HT. OF LIFT		OVERALL CRANE HT.	JIB LENGTH
	DOUBLE CHAIN	SINGLE CHAIN		
21' 0"	18' 2"	18' 6"	20' 3"	23' 4"
19' 0"	18' 3"	21' 0"	22' 6"	
16' 0"	20' 5"	23' 0"	25' 0"	
21' 0"		11' 6"	15' 9"	22' 0"
19' 0"	13' 6"	16' 0"	19' 0"	
16' 0"	16' 6"	19' 0"	22' 6"	



G.W.P.

6 TON TRAVELLING HAND CRANE

CAUTION

- TO BE SHUNTED WITH CARE -

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE THE SPRING STOPS MUST BE SCREWED UP, THE JIB SECURED BY THE LOCKING SHAFT AND THE TIE ROD PUT IN. THE SPRING STOPS MUST BE SCREWED DOWN BEFORE LIFTING. FOR MOVING SLOWLY WITH LOADS, THIS CRANE IS REGISTERED TO LIFT:-

3 TONS AT 15 FEET RADIUS
 2 " " 18 " "
 1½ " " 21 " "

WHEN STATIONARY WITH EXTENSION GIRDERS FULLY OUT, THIS CRANE IS REGISTERED TO LIFT :-

6 TONS AT 15 FEET RADIUS
 4 " " 18 " "
 3 " " 21 " "

THESE INSTRUCTIONS ARE FOR WORKING ON A LEVEL ROAD. DOUBLE CHAIN MUST BE USED FOR ALL LOADS ABOVE 3 TONS.

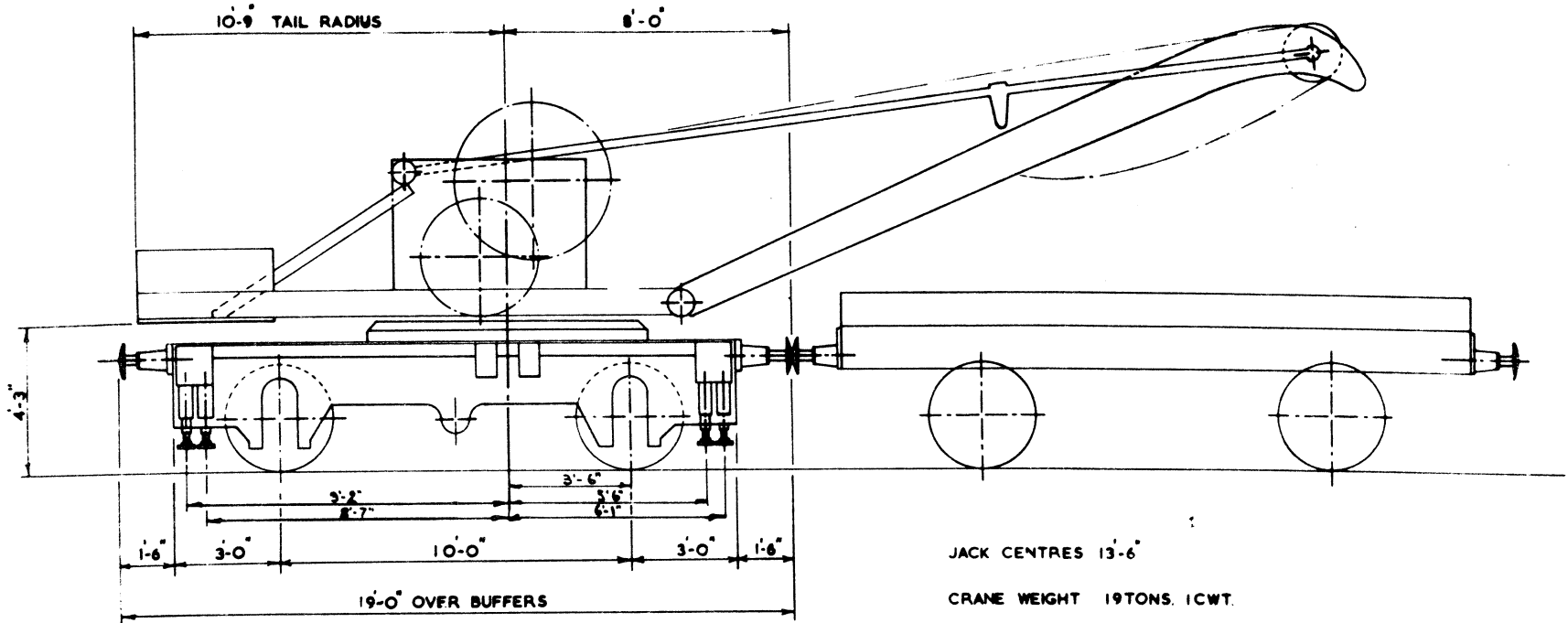
ADDITIONAL PLATE

WHEN STATIONARY AND SECURED WITH RAIL CLIPS, THIS CRANE IS REGISTERED TO LIFT:-

4 TONS AT 15 FEET RADIUS
 3 " " 18 " "
 2½ " " 21 " "

THESE INSTRUCTIONS ARE FOR WORKING ON A LEVEL ROAD.

RADIUS	HT. OF LIFT		OVERALL CRANE HT.
	DOUBLE CHAIN	SINGLE CHAIN	
21' 0"	-	12' 6"	16' 0"
18' 0"	13' 9"	16' 6"	20' 0"
15' 0"	16' 6"	19' 0"	22' 8"



CRANE No 236/7 438 440
G.W.R.

6 TON TRAVELLING HAND CRANE

3 TON HAND CRANE**CAUTION**

- TO BE SHUNTED WITH CARE -

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE, THE SPRING STOPS MUST BE SCREWED UP, THE JIB LOWERED, SECURED BY THE LOCKING SHAFT AND THE TIE ROD PINS PUT IN. THE SPRING STOPS MUST BE SCREWED DOWN BEFORE LIFTING. FOR MOVING SLOWLY WITH LOADS, THIS CRANE IS REGISTERED TO LIFT:-

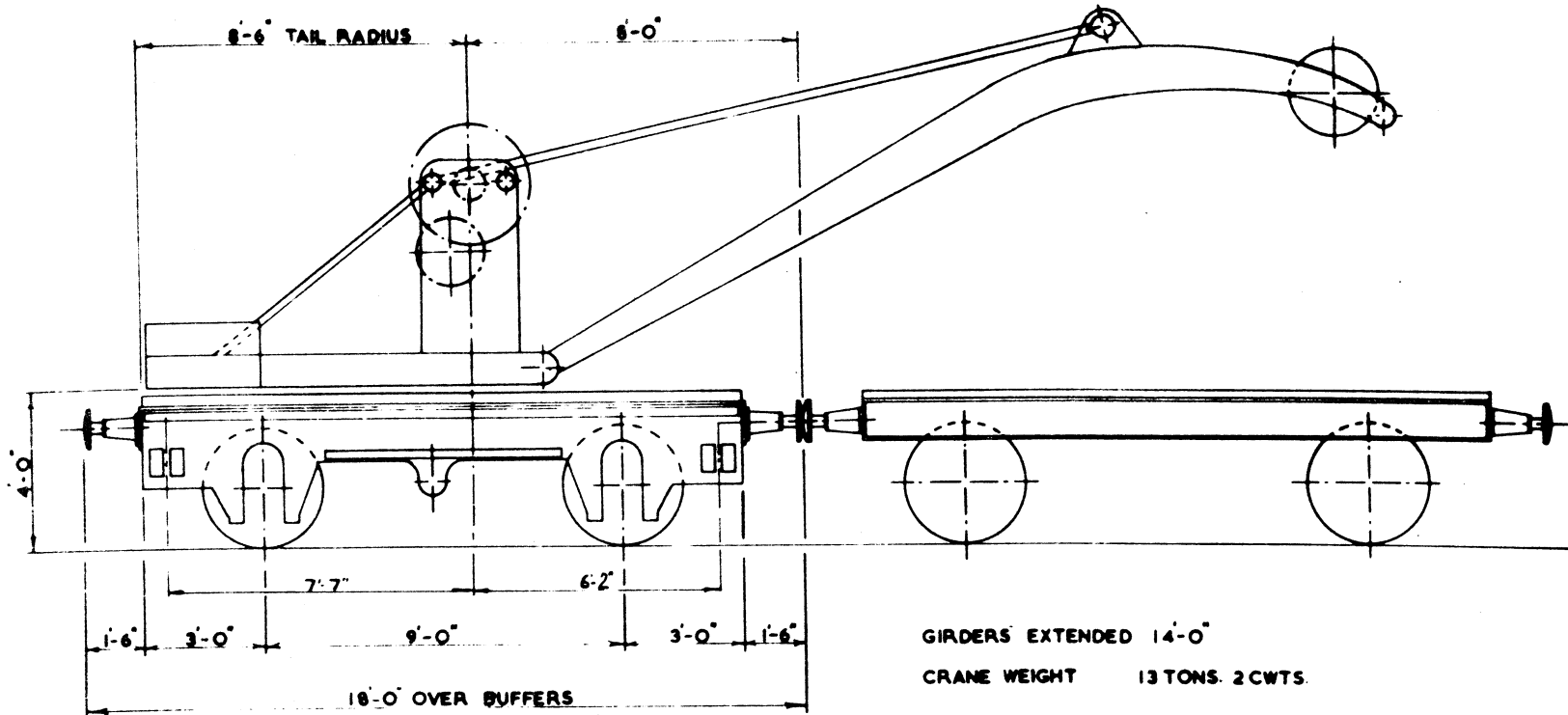
1½ TONS AT 15' 0" RADIUS
 1½ " " 18' 0" "
 1½ " " 21' 0" "

WHEN STATIONARY WITH EXTENSION GIRDERS FULLY OUT,
 THIS CRANE IS REGISTERED TO LIFT:-

3 TONS AT 15' 0" RADIUS
 2½ " " 18' 0" "
 1½ " " 21' 0" "

THESE INSTRUCTIONS ARE FOR WORKING ON A LEVEL ROAD.

RADIUS	HT. OF LIFT	OVERALL CRANE HT.
21' 0"	12' 10"	16' 4"
18' 0"	17' 1"	20' 6"
15'	19' 10"	23' 0"



CRANE No. 264. 537 541

G.W.R.

3 TON TRAVELLING HAND CRANE

2½ TON HAND CRANE**CAUTION**

- TO BE SHUNTED WITH CARE -

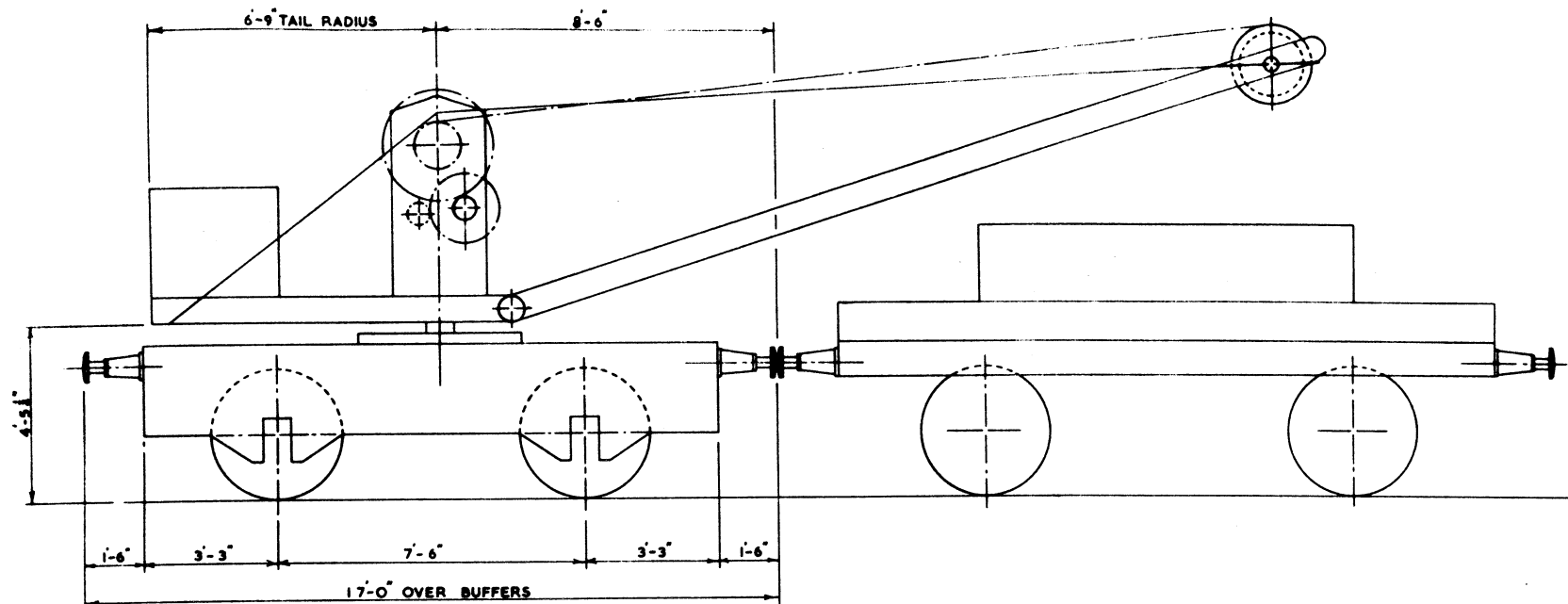
THIS CRANE IS REGISTERED TO LIFT, WHEN THE SPRING STOPS ARE SCREWED DOWN:-

2½ TONS AT 15' 0" RADIUS

THIS INSTRUCTION IS FOR THE CRANE WORKING ON A LEVEL ROAD BEFORE THIS CRANE IS ALLOWED TO TRAVEL IN TRAIN, THE SPRING STOPS MUST BE SCREWED UP AND REVOLVING SUPER-STRUCTURE SECURED BY TAIL LOCKS.

"WINDING" HANDLES TO BE REMOVED WHEN LOWERING LOAD ON BRAKE".

RADIUS	HT. OF LIFT	OVERALL HT.
15' 0"	19' 3"	23' 0"



CRANE No. 550

COWANS & SHELDON.

2 1/2 TON TRAVELLING HAND CRANE

1½ TON HAND CRANE**CAUTION**

- TO BE SHUNTED WITH CARE -

BEFORE THIS CRANE IS ALLOWED TO TRAVEL ON THE MAIN LINE, THE SPRING BLOCKS MUST BE TAKEN OUT, THE JIB LOWERED, SECURED BY THE LOCKING SHAFT, AND THE TIE ROD PINS PUT IN. THE SPRING BLOCKS MUST BE PUT IN BEFORE LIFTING.

FOR MOVING SLOWLY WITH LOADS, THIS CRANE IS REGISTERED TO LIFT:-

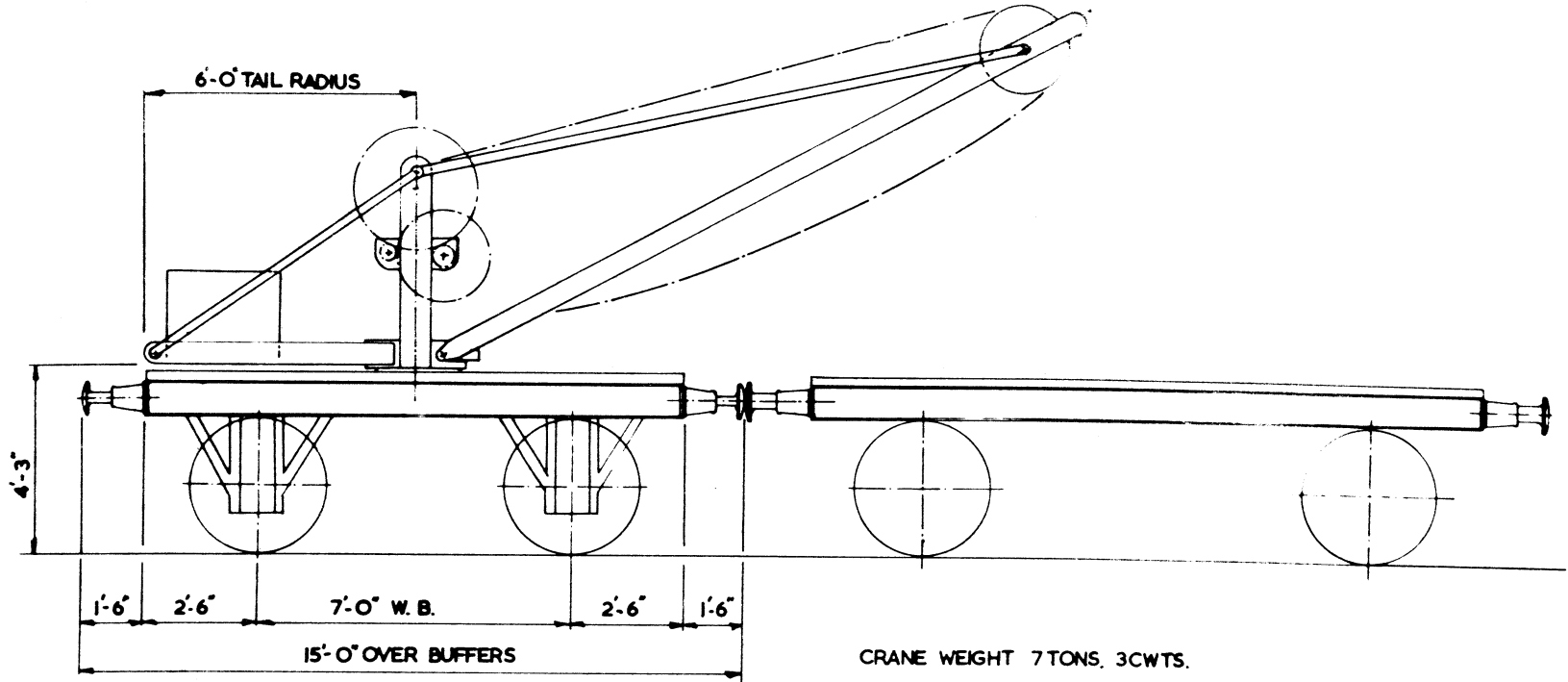
15 CWTs AT 12' 0" RADIUS

WHEN STATIONARY, WITH CLIPS SECURED TO RAILS, THIS CRANE IS REGISTERED TO LIFT:-

30 CWTs AT 12' 0" RADIUS

THESE INSTRUCTIONS ARE FOR WORKING ON LEVEL ROAD.

RADIUS	HT. OF LIFT	OVERALL CRANE HT.
12' 0"	13' 9"	17' 6"



CRANE No. 340. 602/3/-/8/11.
G.W.R.

1 1/2 TON TRAVELLING HAND CRANE